SMITHSONIAN ASTROPHYSICAL OBSERVATORY

Celescope Catalog of Ultraviolet Stellar Observations

5068 Objects Measured by the Smithsonian Experiment Aboard the Orbiting Astronomical Observatory (OAO–2)

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Preface

This volume represents another step in man's long journey to the stars. It is the first catalog of the heavens as they appear in ultraviolet light—a catalog that would have been impossible 15 years ago, for the data contained here were gathered by a satellite in space above the restricting limits of the earth's atmosphere.

This Catalog is based on more than 8000 ultraviolet television pictures taken by the special Uvicon cameras of Project Celescope, the Smithsonian Astrophysical Observatory's experiment aboard the extraordinarily successful Orbiting Astronomical Observatory (OAO–2) launched by the National Aeronautics and Space Administration on December 7, 1968. During 16 months of routine operation, Celescope observed approximately 10 percent of the entire sky, including 20 percent of the region near the Milky Way, where the majority of ultraviolet stars are found. The final Catalog created from this mass of raw data lists, for each of 5068 stars, the ultraviolet magnitude, as well as the position, spectral type, and other astrophysical information, including cross references to ground-based literature.

The evolution of Project Celescope from its initial conception in the early years of the Space Age to the launching in 1968 and the subsequent publication of this Catalog is long and arduous. The original plan for Celescope was formally proposed to the National Academy of Sciences in 1958, even before the establishment of NASA. The concept called for an ultraviolet-sensitive television tube to be used in conjunction with an optical system operating in the very far ultraviolet. The telescope would be mounted in a relatively simple satellite, and its pictures would be telemetered to ground-based astronomers. Even with the simplicity of the original idea, Celescope still required several advances in state-of-the-art technology, such as the development of an image tube sensitive from the near ultraviolet to the lithium fluoride transmission limit at 1050 Å.

In addition, the project demanded high-quality ultraviolet filters for this wavelength and the nearer regions of the ultraviolet, advanced guidance and control systems only then becoming available for rockets, the creation of short-term memory units so that the telemetered data could be read out conveniently at ground stations, and elaborate data-processing techniques for assimilating the vast numbers of data gathered by this satellite.

The unusual requirements at the start of the project only increased with time. The growth of the Celescope Project from one to four telescopes and the increasing need for more refined techniques throughout all phases created a demand for engineering innovation far beyond the scope of the original concept. For example, as ultraviolet stellar observations from rocket-borne telescopes were analyzed, it became clear that the hot stars were generally an order of magnitude less luminous in the very far ultraviolet than had been anticipated from earlier theory. This meant that the tube manufacturer had to increase image sensitivity so that the final system would (and did!) match early expectations regarding the

number of stars observable. At the same time, the increased number of camera tubes required for both testing and operation necessitated a complete change in the method of tube production. All these technical changes and developments were matched by rapid administrative and operational changes in NASA, reflecting in part the great public interest and the support of the national space program.

The Smithsonian's concept of a single telescope and simple spacecraft evolved into the Orbiting Astronomical Observatory program—a series of increasingly sophisticated platforms for space astronomy. Thus, when Celescope finally rocketed above the atmosphere on December 7, 1968, it was aboard the largest, heaviest, and most highly instrumented unmanned spacecraft launched until that time.

Of course, the end results of this often frustrating, sometimes heartbreaking, and always challenging adventure make it all—even the frustrations—seem worthwhile. The combined Smithsonian Celescope Project and Wisconsin Experiment Package on OAO–2, and the Princeton Experiment on board OAO–3, have created a new field: ultraviolet astronomy. The *Celescope Catalog of Ultraviolet Stellar Observations* is destined to be a valuable tool for future research in this field, both from space and from the ground. Naturally, the Catalog will be used as a finding source for objects of especial interest to observers. Already, Celescope data have helped identify a group of stars in the constellation Orion that are anomalously bright in the ultraviolet; and ground-based observations of these same stars have both confirmed the space observations and helped revise old estimates of stellar temperatures.

The data contained in these pages will be particularly useful to theoreticians constructing models of the hot, rapidly evolving stars that seem to emit most of their light in the ultraviolet band of the spectrum. A companion volume, *Blanketed Model Atmospheres for Early-Type Stars*, presents, in both tabular and graphical form, theoretical flux distributions as well as visual and ultraviolet magnitudes for stars of given effective temperature and surface gravity. These theoretical models are the most realistic ever produced, incorporating the statistical effects of over one million spectral lines. The calculated magnitudes can be used in a number of ways to interpret the Celescope Catalog data and to determine the physical properties of observed stars.

The *Celescope Catalog of Ultraviolet Stellar Observations* is helping to open a new window on the universe.

FRED L. WHIPPLE
Director
Smithsonian Astrophysical Observatory

Cambridge, Massachusetts
October 4, 1972

Contents

Introduction

This Catalog contains the observational results obtained by the Celescope Experiment during the first 16 months of operation of NASA's Orbiting Astronomical Observatory (OAO–2). It lists the results of the stellar observations, along with selected ground-based information obtained from the available literature. Lunar observations (Ahmad and Deutschman, 1972), as well as other analyses of the data, are being published as separate papers.

These data are available in two forms:

A. Magnetic tapes and the necessary utility programs for reading and printing the contents of the tapes: These are available from the National Space Sciences Data Center, Code 601, National Aeronautics and Space Administration, Goddard Space Flight Center, Greenbelt, Maryland 20771. The data should be requested by the designation "68–110A–01 (Smithsonian OAO Data)."

B. This Catalog, transcribed from the magnetic-tape catalog: It is available from the Government Printing Office.

The magnetic-tape version contains not only the compiled results as printed here but also the results of the individual observations from which these averaged data were compiled.

The Instrumentation

Since detailed descriptions of the OAO and Celescope instrumentation are available elsewhere (e.g., Davis *et al.*, 1972), we include here only information directly relevant to the user of this Catalog.

The Orbiting Astronomical Observatory (OAO–2) containing the Celescope Experiment was launched December 7, 1968, into a nearly circular orbit, 800 km above the earth's surface, with a 35° inclination. The Observatory (Fig. 1) is octagonal in shape (2 m across, 3 m high) and weighs 2000 kg. The OAO allows us to point the Celescope photometers in the desired direction to an accuracy of 1 arcmin with a stability of 15 arcsec. The Celescope Experiment by the Smithsonian Astrophysical Observatory (SAO) and the Wisconsin Experiment Package by the University of Wisconsin make up this Observatory.

Celescope consists of two major integrated units: the Optical Package and the Bay E–4 electronic module assembly. The Celescope Optical Package contains four 12-inch Schwarzschild telescopes, each of which images a star field onto the ultraviolet-sensitive photocathode of a television image tube (Uvicon). Figure 1 shows how these telescopes and the electronic system are mounted. The field of view of each photometer is determined by the active area of the image-tube photocathodes and the area of the target scanned by the readout beam. The projected angular area is $2\overset{\circ}{.}8 \times 2\overset{\circ}{.}8$. Each field is optically split into two areas of different spectral sensitivity by mounting two different semicircular filters in front of each Uvicon. Further spectral selectivity is achieved by using two types of Uvicons, each with a different photocathode material. The resulting spectral responses are shown in Figure 2 and summarized in Table 1. The video signal developed by the readout of these tubes is amplified and supplied to an electronic data-processing system (Bay E–4 module assembly), which encodes the television pictures into a digital pulse train that indicates signal amplitude as a function of television line and element number for each of the four cameras. These digitized television pictures are transmitted via the OAO communications system to a receiving station in NASA's Satellite Tracking and Data Acquisition Network and eventually sent on magnetic tapes to SAO in Cambridge, Massachusetts.

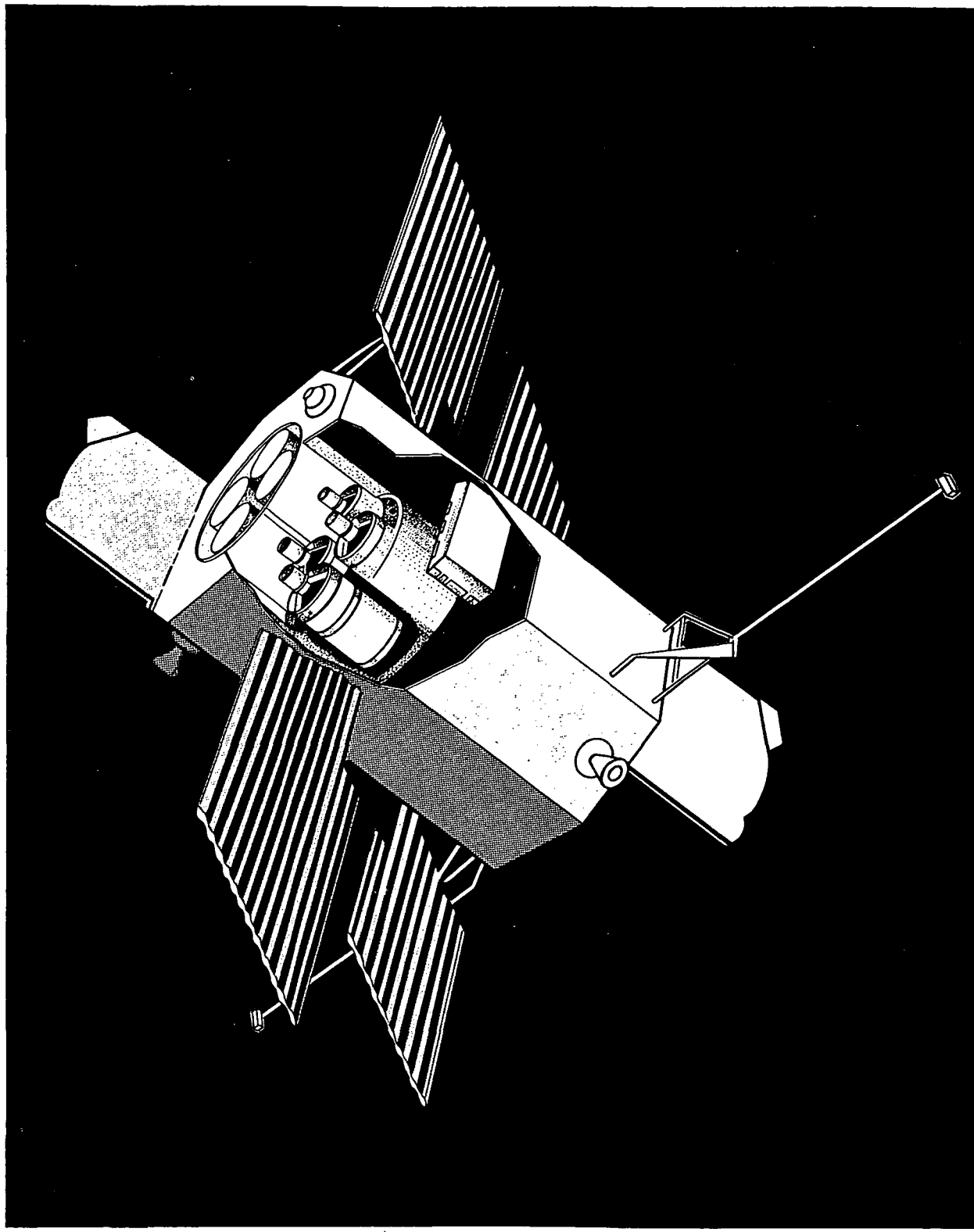

FIGURE 1. OAO spacecraft with cutaway showing the Celescope Experiment.

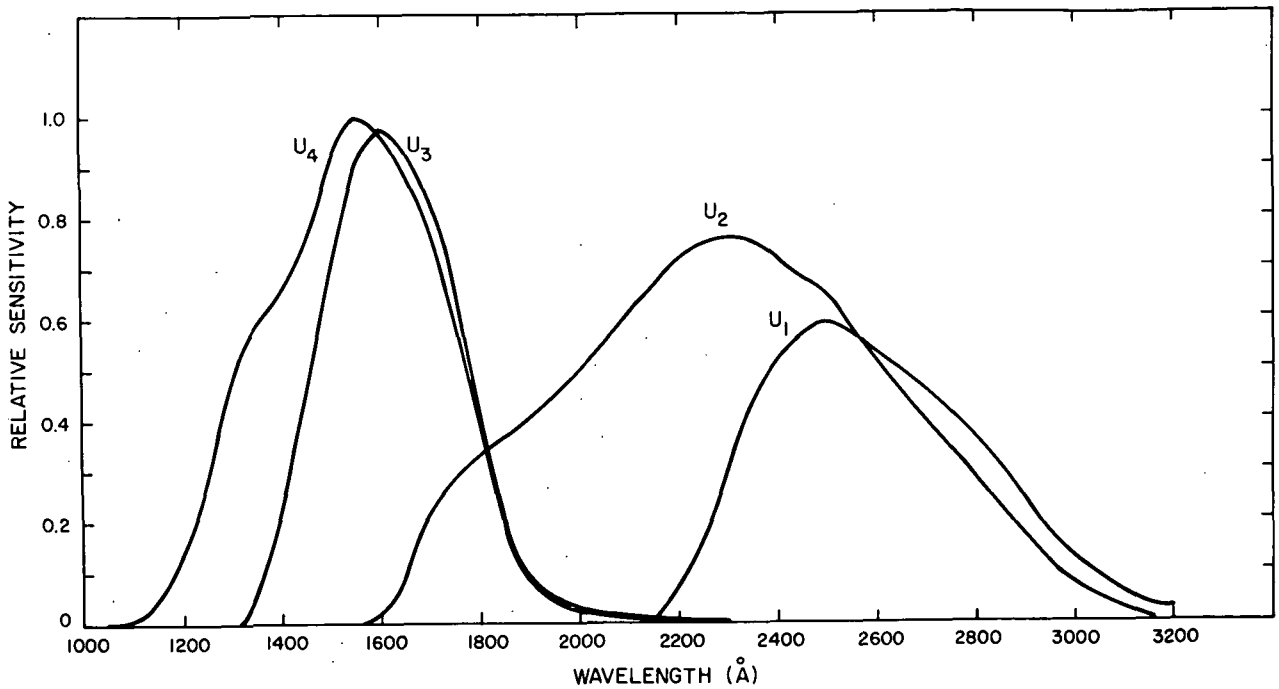

FIGURE 2. Relative spectral response of the filters.

TABLE 1. *Relative sensitivity of the filters for each wavelength.**

Wavelength (Å)	Relative sensitivity			
	U1	*U2*	*U3*	*U4*
1050				1.455 -3
1100				1.018 -2
1150				5.081 -2
1200				1.463 -1
1250				2.779 -1
1300				4.765 -1
1350			6.879 -2	5.925 -1
1400			2.328 -1	6.555 -1
1450			4.565 -1	7.644 -1
1500			6.951 -1	9.151 -1
1550		8.979 -4	9.177 -1	1.000
1600		1.670 -2	9.760 -1	9.646 -1
1650		9.984 -2	9.390 -1	8.848 -1
1700		2.188 -1	8.327 -1	7.566 -1
1750		2.806 -1	6.535 -1	5.769 -1
1800		3.313 -1	4.053 -1	3.753 -1
1850		3.719 -1	1.941 -1	1.924 -1
1900		4.103 -1	8.114 -2	8.306 -2
1950		4.497 -1	5.051 -2	4.453 -2
2000		4.956 -1	3.329 -2	2.817 -2
2050		5.571 -1	2.201 -2	1.853 -2
2100		6.170 -1	1.451 -2	1.261 -2

Wavelength (Å)	Relative sensitivity			
	U1	*U2*	*U3*	*U4*
2150	1.649 -2	6.608 -1	9.328 -3	7.968 -3
2200	6.748 -2	7.191 -1	5.878 -3	5.122 -3
2250	1.792 -1	7.452 -1	3.441 -3	2.788 -3
2300	3.028 -1	7.592 -1	1.610 -3	1.428 -3
2350	4.305 -1	7.509 -1		
2400	5.161 -1	7.165 -1		
2450	5.675 -1	6.769 -1		
2500	5.946 -1	6.472 -1		
2550	5.633 -1	5.789 -1		
2600	5.300 -1	5.227 -1		
2650	4.973 -1	4.690 -1		
2700	4.538 -1	4.106 -1		
2750	4.095 -1	3.615 -1		
2800	3.650 -1	3.194 -1		
2850	3.046 -1	2.563 -1		
2900	2.378 -1	1.928 -1		
2950	1.763 -1	1.329 -1		
3000	1.300 -1	9.145 -2		
3050	9.255 -2	6.222 -2		
3100	6.394 -2	4.085 -2		
3150	3.887 -2	2.335 -2		
3200	2.772 -2			

*The negative integers indicate the power of 10.

The Data-Processing System

Each frame of data that arrives at SAO is first checked for quality and then sent through the automatic data-processing system. That system is divided into four basic sections: In the first, a program separates the star from the background signals in the frame and computes each star's frame coordinates and amplitude. The second section uses the final calibration data to calculate the observed magnitude for each star in the picture. The third identifies the stars in a frame or frames by matching them with a positional catalog of early-type stars prepared before launch. The last section adds further information, such as *UBV* magnitudes from the Naval Observatory *Photoelectric Catalogue* (Blanco *et al.*, 1968), and checks the internal consistency of the data. These sections are described below.

In the first section, we assume that the stars are relatively sharp spikes on a smooth background and that any group of intensity points significantly above the background represents a star. The program (Deutschman, 1970) computes a "significance level" for each filter half of the frame, first by using a least-squares technique to fit the background equation $I.B. = A + Bk^4 + Ck^2 + Dk + Ek^2l + Fkl + Gkl^2 + Hl + Il^2 + Jl^4$ to every fifth intensity point k on every fifth line l and then by adding 2.5 times the standard deviation of the fit to the background equation at each raster point. All intensities greater than or equal to the significance level are signal; all others are background noise. Then all contiguous points greater than or equal to the significance level are grouped into objects. Finally, the program calculates the center of intensity of the star, subtracts the calculated background from the individual points, and adds the results. On the basis of the shape of the object and the density of points in it, the program then decides whether it is a star, an object that may be either a star or noise, or merely noise.

Some objects contain more than 4000 points or are large and amorphous with $n < (\Delta k \Delta l)/c$, where n is the number of points in the object, Δk and Δl are the maximum vertical and horizontal dimensions of the object, and c is an empirical constant ($=3$). These are flagged as questionable and require manual review. Any object that has less than four contiguous points in one of the configurations

```
xx    xx     x
xx     xx   xxx
             x
```

or a rotational permutation of these is classified as noise and automatically rejected. Objects that have a net intensity less than 25 in camera 1, 22 in camera 3, or 19 in camera 4 are also classified as noise. (Camera 2 was damaged before orbit number 400 and provided no data for this Catalog.)

The second section of the data-processing system calculates observed magnitudes by using the calibration parameters for each camera/filter combination, the frame position and intensity calculated by the first section, and pertinent satellite data (e.g., temperature and exposure time). The calibration model is described elsewhere (Deutschman, 1972a) and will not be discussed further here. The actual calibration parameters are described in this and other reports.

The third section matches the stars observed by Celescope with known catalog stars, using a configuration-matching program to compute the right ascensions and declinations of the stars. A number of contiguous pictures may be matched at the same time to improve reliability. Using this program, we were able to identify automatically about 60 percent of our observations. Visual matching of the BD, CD, or CPD charts with plots of our observations allowed us to identify the remaining objects.

We reconstructed the television image as a picture and produced a small plot to the scale of the Durchmusterung charts—which is the same as that of the Bečvář Atlases (Bečvář, 1962)—to facilitate this matching step. Figure 3 (not to scale) shows these plots and pictures of one Celescope data frame. The large-scale plot was used to identify the objects by the numbers assigned them by our signal-processing program. The results of the computer program were in most cases verified by our manual procedure of overlaying these plots on the appropriate Durchmusterung charts, with additional reference to the Bečvář Atlases where necessary.

The final stage of our system adds further ground-based data and checks our data for internal consistency. All the Celescope magnitudes of a star

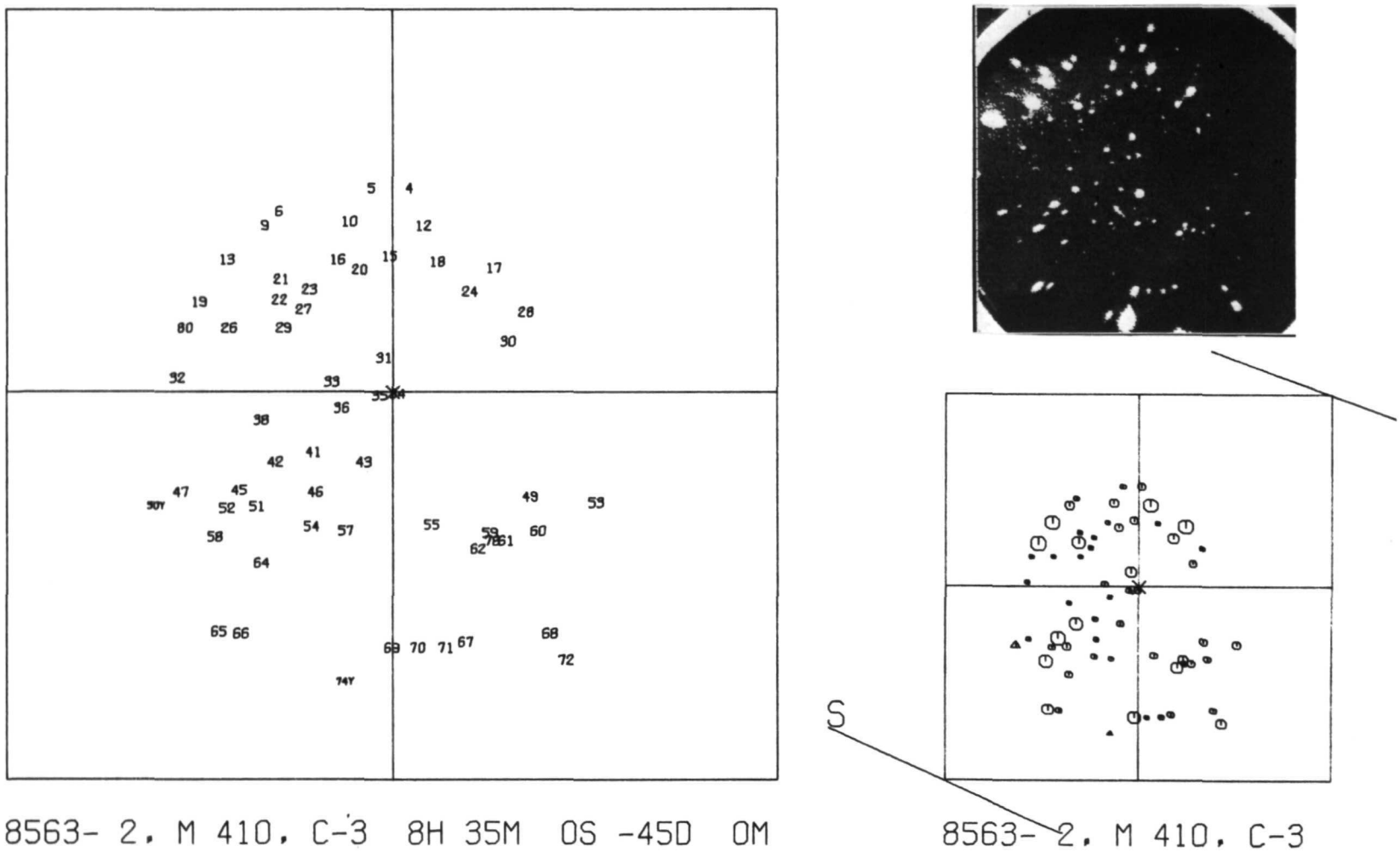

FIGURE 3. A sample identification plot and picture.

were compared, and any large discrepancies were manually checked. Configurations of stars were checked for consistency, and all manually separated stars were reexamined. Finally, the individual observations were compiled in the *Celescope Catalog of Ultraviolet Stellar Observations.*

Experiment Calibration

Extensive prelaunch calibration procedures determined the basic transfer function of the experiment. These procedures are fully documented by Davis (1968) and Green (1970). In brief, a calibrated artificial star field established the positional sensitivity of the Uvicons. The filters were calibrated separately, and the results were mathematically combined with the gains of the amplifiers in Bay E-4 into the total system calibration. The experiment was then routinely monitored with nearly monochromatic calibration lamps to detect any changes before launch.

Before we launched the experiment, we realized the need for in-orbit calibration and planned to take data for it. The least we could expect was a decay in sensitivity with time; but because of the 2 years between the component calibration and the launch, we also made plans to check the positional calibration in orbit. After the first month of operational checkout, we began systematically to gather data for this task. The data gathered and their use are described by Deutschman (1972b); only the time-decay analysis of the experiment will be repeated here.

The time decay of the system would be most easily determined if the same stars were observed at the same positions on the target at regular intervals. Because of sun, power, and thermal constraints, this was impossible with our experiment, but we did observe a number of standard star fields as often as practical. Three star fields were used as primary calibration areas; one of the three fields was observed at least once during every operating period.

We determined the time-decay history of each camera/filter combination by requiring that each star have a unique magnitude at time zero. Its magnitude calculated from data at any later time will increase if the system decays. (Magnitudes are defined as -2.5 log (power); hence, lower power signals have larger magnitudes.) We therefore assumed that

$$M(t=0)=M(t_1)-\sum_1^n A_n t_1^n,$$

where $\sum A_n t_1^n$ is the camera sensitivity function in magnitudes. Because the corrected magnitude for each star is required to be invariant, observations at times t_1 and t_2 give the following:

$$M(t=0)=M(t_1)-\sum_1^n A_n t_1^n=M(t_2)-\sum_1^n A_n t_2^n,$$

and hence,

$$M(t_1)-M(t_2)=\sum_1^n A_n(t_1^n-t_2^n).$$

When solved with a least-squares technique for all pairs of stars, this set of equations defines the coefficients A in the decay equation for the system.

The standard calibration-area data and all chance repeats greater than 20 orbits apart were used in these fits. Other data were not used, because they reflect area sensitivity changes and isolated frame shifts rather than time decays.

Figure 4 shows the resulting curves for the three cameras that we used for acquiring scientific data. The amount of correction in magnitudes is plotted versus the orbit number. The orbit numbers are discontinuous because we shared experiment time with the University of Wisconsin.

We defined the zero point for the Celescope ultraviolet magnitude system by specifying the values of *U*1, *U*2, and *U*3 to be assigned as the mean observed Celescope magnitudes for one star selected specifically for this purpose. The relationship between *U*3 and *U*4 was based on our prelaunch calibration of the Celescope Experiment against laboratory standards. We were unable to use the prelaunch calibration data to establish the relationships between the other Celescope colors, or between the Celescope magnitude system and absolute physical units, because the sensitivity of each camera changed rapidly during the first 700 orbits.

We chose CD$-44°$ 4704 and assigned the following magnitudes to it:

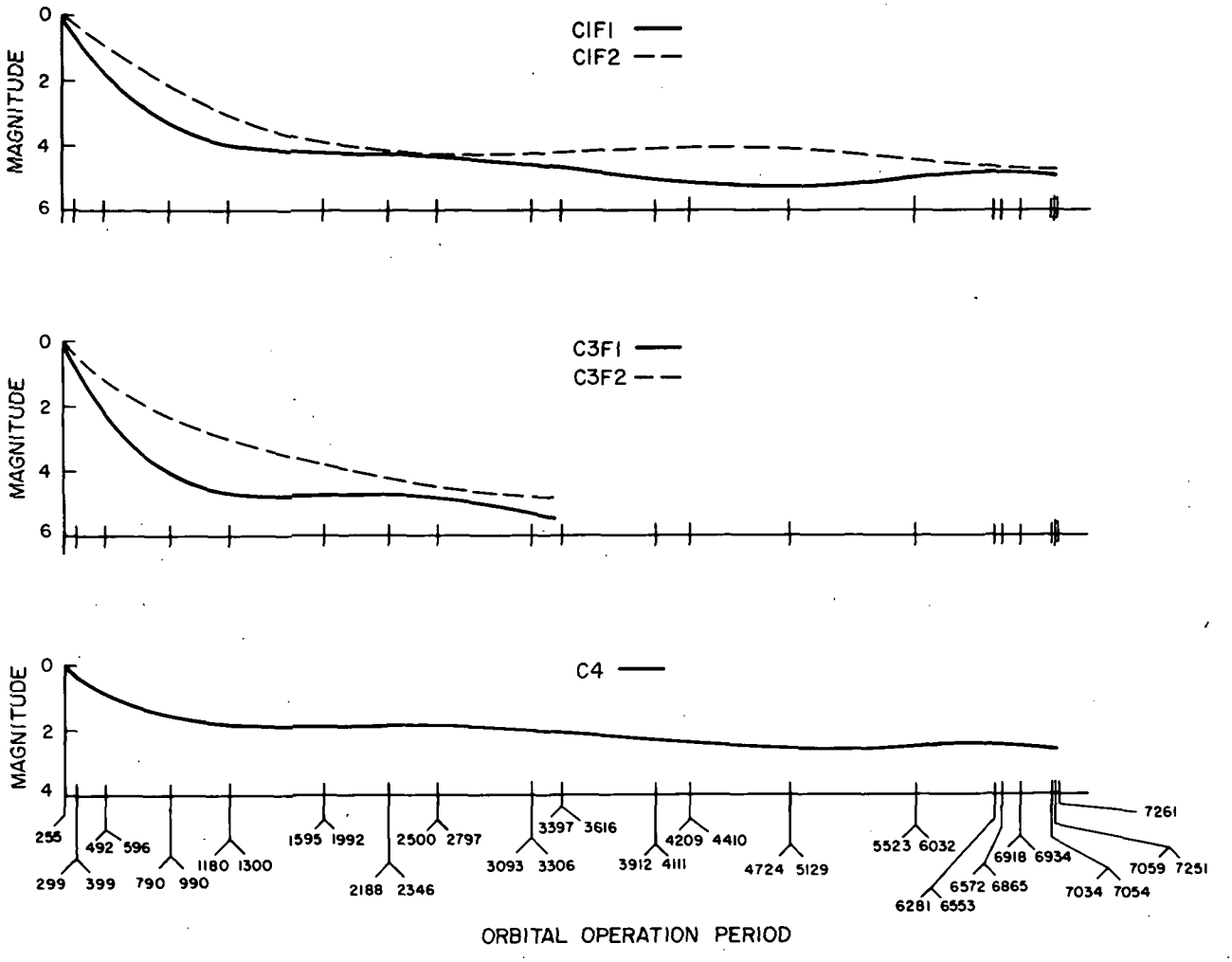

FIGURE 4. Relative sensitivity of the cameras vs. orbital operation period.

$U1 = 9.44$
$U2 = 9.19$
$U3 = 9.56$.

This star was selected since it had been observed repeatedly by Celescope from orbits 400 to 6233 and also by the Wisconsin OAO experiment. The magnitudes assigned were originally determined by comparing preliminary Celescope data for several slightly reddened stars of luminosity classes III, IV, and V with theoretical values based on the Smithsonian grid of model atmospheres and preliminary Celescope reddening parameters. Our later decision to use a single star as a calibration standard eliminated the problem of reproducing and intercomparing our standard with those of other observers.

Statistical Summary

The *Celescope Catalog of Ultraviolet Stellar Observations* has been compiled from 13,646 observations of 5068 stars. Their areal distribution in equatorial and galactic coordinates is illustrated in Figures 5 and 6. Ultraviolet magnitudes in the $U1$ passband are available for 17 percent of the stars, in the $U2$ passband for 60 percent, in the $U3$ passband for 66 percent, and in the $U4$ passband for 6 percent. Figure 7 shows the distribution in magnitude for each of the magnitude types. The root-mean-square

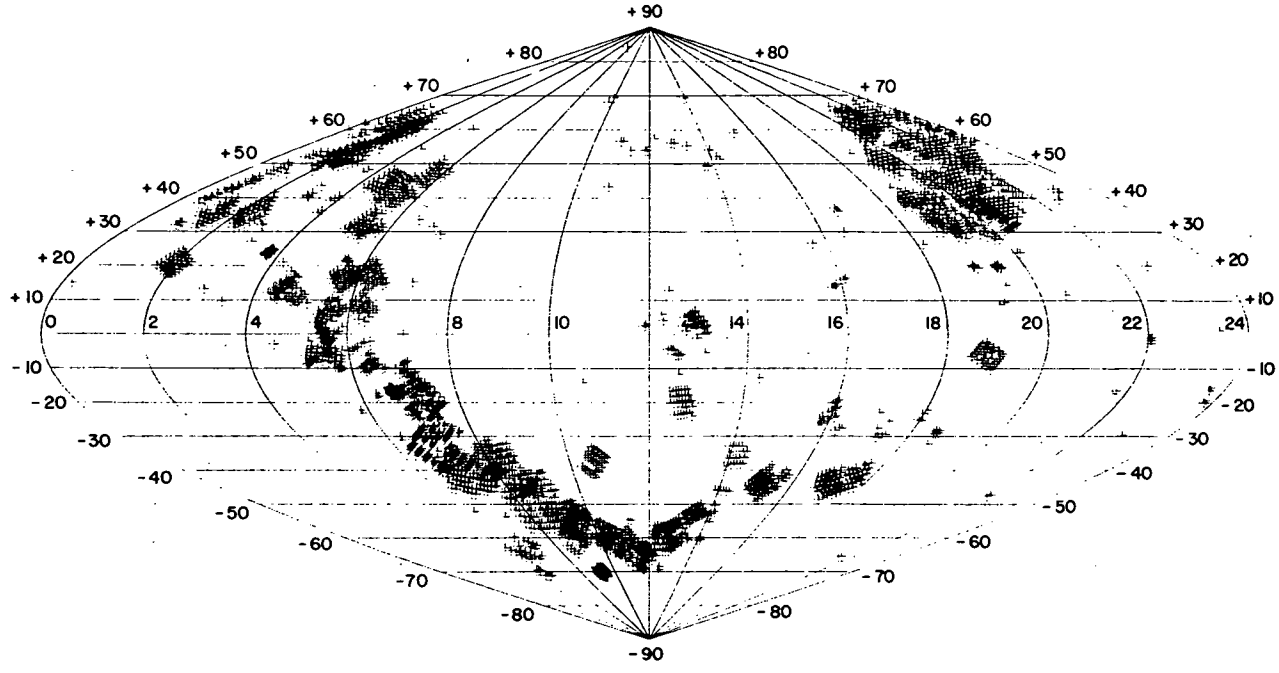

FIGURE 5. Plot in right ascension and declination of the exposures taken by Celescope.

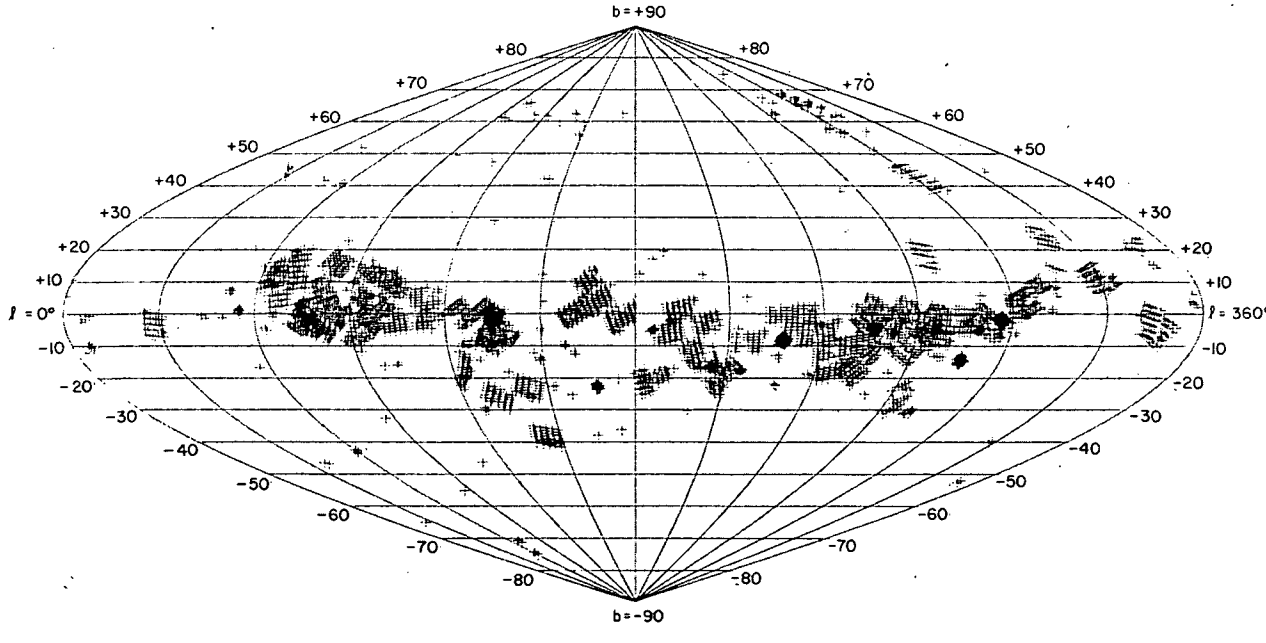

FIGURE 6. Plot in galactic coordinates of the exposures taken by Celescope.

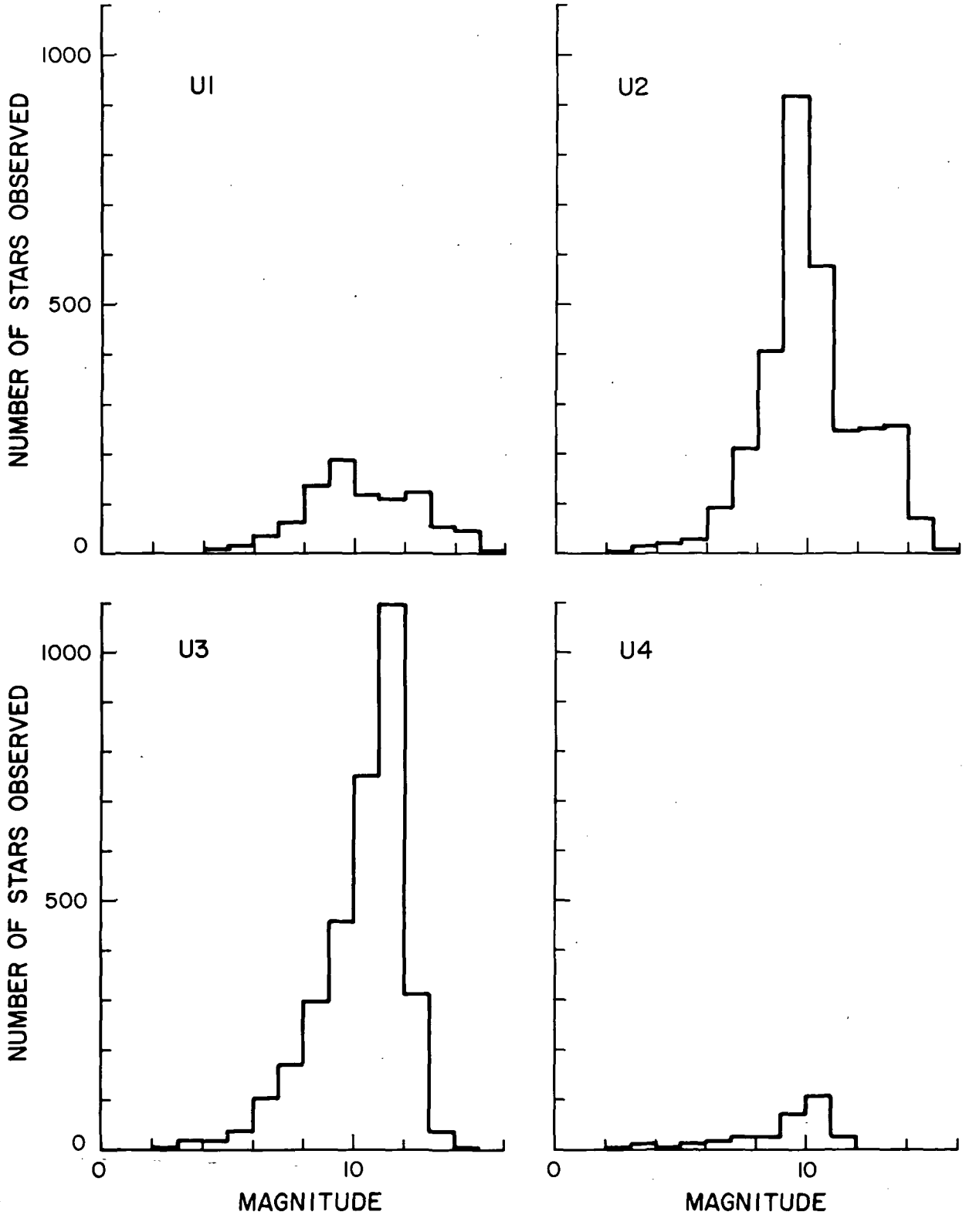

FIGURE 7. Distribution of Celescope magnitudes in each filter.

difference for all observations in each filter is as follows:

Filter	*RMS difference*
*U*1	0.24
*U*2	0.19
*U*3	0.20
*U*4	0.26

Figure 8 shows the number of stars in each visual magnitude range. Visual magnitude as used here means V, m_v, or m_{pg} and is intended to show the general magnitude distribution of Celescope observations. The V magnitudes on the UBV system are available for 36 percent of the stars, $B-V$ colors for 37 percent, $U-B$ colors for 27 percent, and $(U-B)_c$ colors for 6 percent of the stars. Spectral classifications in the MK system are given for 32 percent of the stars, and non-MK spectra for 62 percent. Figure 9 shows the number of Celescope observations in each spectral class, while Figure 10 displays the number of stars in each luminosity class. Of the observed stars, 1.4 percent are known to be variable in the visual; 56 percent of these variables are eclipsing binaries. Three percent of our observed stars are suspected variables. Nine percent of the stars are known binaries, and 8 percent are within 3 arcmin of other identified stars that may contribute some of the observed ultraviolet light. Finally, 0.3 percent of the stars have been classified as Wolf-Rayet stars, 1.5 percent as Ap stars, and 0.4 percent as Am stars.

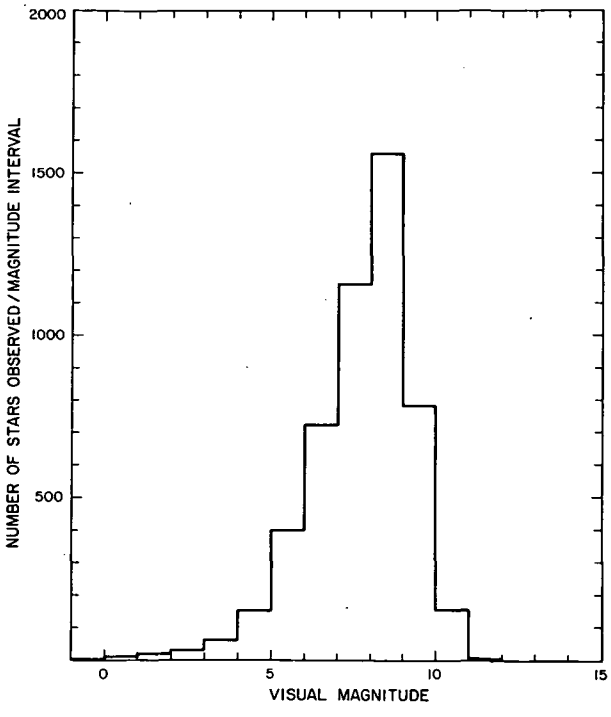

FIGURE 8. Distribution in visual magnitude of stars observed by Celescope.

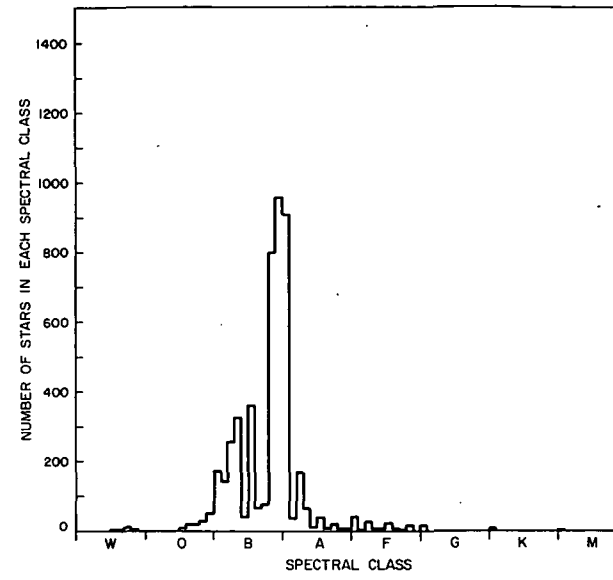

FIGURE 9. Distribution of stars by spectral class.

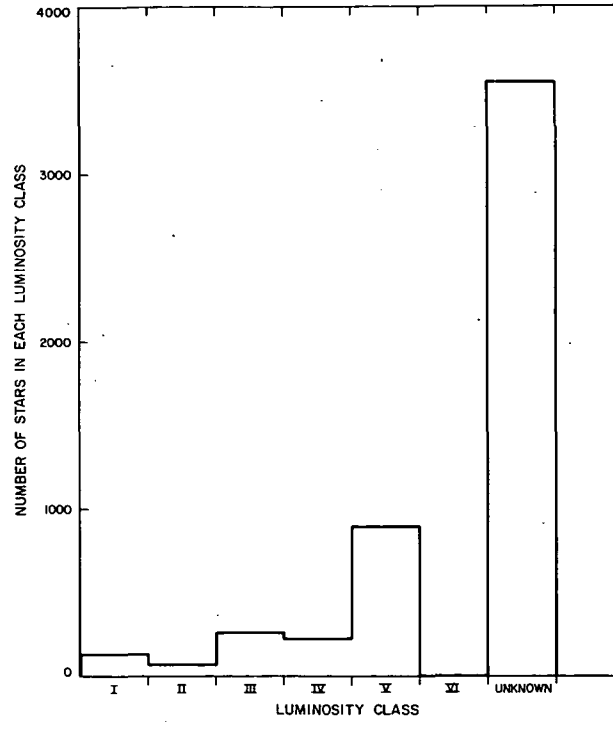

FIGURE 10. Distribution of stars by luminosity.

Dramatis Personae

The general scientific planning that became the basis for Project Celescope originated in a series of meetings of the scientific staffs of the Smithsonian Astrophysical Observatory and Harvard College Observatory in February 1958. Following these meetings, a committee consisting of Dr. R. J. Davis, Dr. K. G. Henize, Dr. R. E. McCrosky, Dr. G. F. Schilling, and Dr. C. A. Whitney made more detailed plans and wrote a proposal that eventually became the basis for the NASA grants and contracts that supported Project Celescope. Dr. F. L. Whipple and and Dr. Davis were SAO's delegates to NASA's Working Group on Orbiting Astronomical Observatories, which developed the relative roles of spacecraft and experiments in the OAO. Celescope became an official project of SAO in 1959. The name was suggested by Dr. D. H. Menzel in 1960 as the winning entry in an informal contest for naming the project; the name implies that the Smithsonian experiment is one of the first truly *Celestial telescopes*.

Since the beginning, Dr. Whipple has been Principal Investigator and Dr. Davis has been Co-investigator and Project Scientist. From 1959 to 1961, engineering and administration were coordinated by Mr. F. R. Nitchie, Jr., Engineer-Administrator. In 1962, the title of this position was changed to Project Manager. Mr. G. K. Megerian served as Project Manager in 1962; Dr. C. A. Lundquist, as Acting Project Manager in 1963; Mr. J. J. Burke, as Project Manager in 1964–1968; Mr. J. J. Ainley, 1968–1970; Mr. R. T. Ayer, 1970–present. While Acting Project Manager, Dr. Lundquist was assisted for several months each by project administrators: Mr. L. McGrath, Mr. H. Rosenthal, and Mr. E. Kohn.

For the first few years, the major effort in Celescope was devoted to engineering. From 1959–1964, our engineering staff consisted of Dr. M. D. Grossi, Electronics Engineer; Mr. S. Sydor, Optical Specialist; and Mr. J. M. Franklin, Mechanical Specialist. From 1959–1962, Mr. H. Cobb served as Mechanical Engineer. From 1964–1972, Dr. Y. Nozawa was Electronics Engineer, and special engineering needs have been covered by Mr. T. E. Hoffman and others from SAO's Engineering Department. In 1966, the post of Project Engineer was filled by Dr. Nozawa. A critical activity of the engineering section from 1965–1969 was field engineering during subsystem and system testing, launch preparation, and orbital operations. Dr. Nozawa was SAO's field engineer during that time.

Members of the SAO Field Engineering Team, which performed engineering tests, system acceptance tests, and launch preparation, were as follows: Mr. J. Peters (Manager, 1967–1968), Mr. J. Munier (Assistant Manager, 1964–1965), Mr. B. A. McLean (Supervisor from EMR, 1964), Mr. J. W. Kennedy (Supervisor from EMR, 1965), Mr. D. R. Nelson (Supervisor from EMR, 1967–1968), Mr. J. Brown (Member from EMR, 1964–1965), Mr. J. Faso (Member from EMR, 1964–1965), Mr. G. Komen (Member from EMR, 1964–1965), and others who became members of the Orbital Operation Group. The successful completion of acceptance tests and launch preparation of the Celescope Experiment is heavily credited to the leadership, cooperation, and creativity of Mr. J. Peters, Mr. D. Nelson, and Mr. L. Koschmeder from the Test and Evaluation Division of Goddard Space Flight Center, and Mr. R. A. White from the OAO project office.

During 1968, 1969, and 1970, the major effort in Celescope was orbital operations; Dr. W. A. Deutschman was in charge of that activity. The success of the Celescope mission during orbital operations was in large measure the result of the efforts by him and his team in planning, computer programing, controlling, and reviewing the operating requirements and procedures. Special recognition is due Mr. J. Thorp and Mr. J. Latimer for representing Celescope as Field Managers during this round-the-clock operation; Mr. J. Block, as EMR Field Manager; and Mr. T. Omara and Mr. D. Moyer of Grumman Aircraft Corp., who acted as Project Operations Controllers for the OAO satellite.

During the summer and fall of 1970, a data-processing-improvement group consisting of Dr. C. Lundquist, Dr. R. Davis, Dr. W. Deutschman, Dr. E. Avrett, Dr. E. Gaposchkin, Dr. S. Ross, Dr. E. Young, Dr. C. Payne-Gaposchkin, Dr. Y. Nozawa, Mrs. K. Haramundanis, Mr. R. Ayer, Mr. J. Thorp, and Mr. R. Loeser met every week to discuss the best way to use the calibration data. Many other individuals in the Observatory also contributed to this effort.

Since 1969, a major effort in Celescope has been data reduction, of which Mrs. K. L. Haramundanis

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has been in charge. Her data-reduction section was responsible not only for handling the vast amount of data involved in analyzing over 8000 Celescope pictures but also for keeping track of the source, location, and status of the individual data items.

During the entire life of the project, computer programing support has been important. From 1959–1963, Mr. G. Szabo was in charge of that activity. Since then, the programing effort has been headed by Mrs. M. Havelock (1963–1964), Mrs. B. (Feit) Nair (1964–1965), Mr. P. Conklin (1965), Mr. J. D. de Clercq Zubli (1966–1970), Mr. R. Loeser (1970), and Mrs. L. Kirschner (1966–present).

Since 1970, Dr. Deutschman has been Deputy Project Scientist, in charge of coordinating the activities of the various sections in Celescope. He has overall responsibility for Celescope data processing.

From 1959–1969, Celescope maintained a spectrophotometric standards laboratory for calibrating the optical and spectrophotometric characteristics of Celescope's optical elements, calibration lamps, and Uvicons. From 1959–1960, Dr. A. V. Baez headed this laboratory; from 1960–1962, Dr. O. P. Rustgi. In 1963, and other times on a temporary basis, Mr. C. Miles was in charge.

In 1964, scientific activities of the laboratory were supervised by Dr. J. Marsh and Dr. I. Simon under subcontract to A. D. Little, Inc. From 1965–1969, Mr. H. O'Brien was manager of the spectrophotometric standards laboratory; he had been one of the laboratory assistants during 1963–1964. In 1966, under subcontract again, A. D. Little, Inc., furnished the services of Dr. P. von Thüna for scientific supervision of the activity required for recalibrating the primary laboratory standards against a black thermocouple standard. During the entire lifetime of the laboratory, 1959–1969, Mr. P. J. Hofmann performed competently as a physical-science aide.

During the 14 years that project Celescope has operated, the above Project Staff has been ably supported by a number of devoted employees, as follows:

Physical-Science Aides: Mrs. G. Wald, Dr. E. Godfredsen, Mr. F. Ahern, Mrs. A. Renshaw, Mr. J. Gallagher, Miss M. Drugan, Mr. J. Black, Mr. I. A. Ahmad, Mrs. E. Green, Dr. S. Strom, Dr. D. Cunnold, Mr. E. Gerard, Dr. D. J. Malaise, and Dr. N. Raghavan.

Programers: Miss V. Kan, Mr. R. Taylor, Mr. M. Patenaude, Mr. P. Collins, Mrs. D. Hills, Mrs. O. Johonnot, Mr. G. Bullock, and Mr. B. Welch.

Assisting Engineers: Mr. E. Arazi, Mr. S. Asano, Mr. W. Ng, Mr. A. Goldstein, Mr. W. Grim, and Mr. S. Shell.

Laboratory Technicians: Mr. R. Beckett, Mr. F. Licata, Mr. M. Kalish, Mr. T. Lee, Mr. P. Griffiths, Mr. A. Bardos, Mr. D. Frost, Mr. E. A. Monash, and Mr. J. Munier.

Data-Analyst Clerks: Mr. P. Sylvester, Mr. G. Westgate, Mrs. L. Cannell, Mr. R. Jarvis, Mr. R. van der Ley, Mr. W. Persons, Miss A. Ballard, Miss C. Jones, Mr. A. Kallai, Miss A. Brownlee, Mrs. S. Yeh, Mrs. Z. Gallagher, Mr. R. Palleschi, Mr. C. Sprangers, Mr. J. Orman, and Mr. A. Girnius.

Astronomers: Prof. C. Payne-Gaposchkin and Mrs. K. (Hebb) O'Neill.

Administrative Assistants: Mr. J. Taylor and Mr. E. Shenton.

Orbital Operations, SAO: Mr. J. Thorp (Field Manager), Mr. J. Latimer, Mr. J. Luce, Mr. L. Greenhouse, Mr. T. Cram, Mr. A. Oakes, and Mr. W. Munn; EMR: Mr. J. Block, Mr. L. O'Connor, Mr. O. Brown, Mr. P. Scoles, Mr. C. Sloan, Mr. K. Leilich, and Mr. T. Dennison.

Secretaries: Mrs. H. M. Beattie, Mrs. B. Hicks, Mrs. P. (Kluge) McMullen, Mrs. P. Januszkiewicz, Mrs. M. deJoie, Mrs. A. Green, Mrs. B. Millar, Mrs. M. V. Flaherty, Mrs. C. Williams, Miss E. Shipe, and Mrs. L. (Poireir) Jordan.

Assistance from other departments: Mr. M. N. Malec (Contracts), Dr. E. M. Gaposchkin (Satellite Geodesy), Mr. C. Tillinghast (Administration), Mr. L. Campbell (Administration), Mr. G. Woron (Contracts), Miss E. Collins (Ed. & Pub.), Mr. E. N. Hayes (Ed. & Pub.), Mrs. A. Omundsen (Ed. & Pub.), Mrs. C. Wong (Ed. & Pub.), Mr. C. Hanson (Ed. & Pub.), Mr. J. Cornell (Ed. & Pub.), and Mr. R. Martin (Computations Center).

Scientific advice and interpretation were provided by many other members of the Observatory staff, including the following: Dr. E. H. Avrett, Dr. J. G. Baker, Dr. D. F. Carbon, Dr. N. P. Carleton, Dr. G. G. Fazio, Dr. F. A. Franklin, Dr. O. J. Gingerich, Dr. P. W. Hodge, Dr. W. Kalkofen, Mr. R. L. Kurucz, Dr. D. W. Latham, Dr. R. W. Noyes, Dr. E. Peytremann, Dr. W. W. Salisbury, and Dr. R. E. Schild.

In addition to the above employees of the Smithsonian Astrophysical Observatory, we wish to acknowledge the support of many staff members at the Smithsonian Institution in Washington, D.C. Especially important were the support and encouragement given by Dr. Leonard Carmichael, Secretary of the Smithsonian Institution until 1964, and by Dr. S. Dillon Ripley, Secretary since that time. Mr. James Bradley, Assistant Secretary, helped in a number of ways, especially in negotiating contracts between the Smithsonian Institution and EMR, Westinghouse, and the National Aeronautics and Space Administration.

Almost all the detailed design, fabrication, and testing of the Celescope hardware were performed by subcontractors. Among the most important were the EMR Telemetry Division of Weston Instruments, Inc. (formerly known as Electro-Mechanical Research, Inc.); the Research Laboratories of the Westinghouse Electric Corp.; the Harshaw Chemical Co.; Astro-Data, Inc.; and A. D. Little, Inc. EMR was prime contractor to SAO for the payload and ground-support systems; they had important subcontracts with Westinghouse, Harshaw, and the Ferson Optical Co. Westinghouse was responsible to SAO for development and fabrication of the Uvicon camera tubes; later that responsibility was changed to become a subcontract through EMR, and in 1965 the effort was transferred from the Research Laboratories to the Tube Division. The raw materials for all the barium fluoride and lithium fluoride optical elements used in the Celescope payload were provided by the Harshaw Chemical Company—some directly under contract to SAO, some under subcontract to EMR, and some under subcontract to Westinghouse. The Ferson Optical Co. fabricated the Schwarzschild telescopes and the Corning and Suprasil filters. They had an important subcontract with Saffran Engineering Company for manufacture of the titanium structural components of these telescopes. Astro-Data designed and fabricated the data-handling equipment that Celescope used to record selected television pictures at Goddard Space Flight Center and to reformat those pictures for analysis on the CDC 6400 computer at SAO. In addition to the spectrophotometric assistance described above, A. D. Little, Inc., performed a number of special engineering analyses for Celescope, including thermal and vibration analyses.

Key subcontractor personnel involved in the Celescope effort were Mr. S. D. Bass, Project Manager for Celescope at EMR; Mr. B. J. Tucker, Project Engineer for Celescope at EMR; Dr. J. P. Magnin, first as head of the Advanced Development Department at EMR, later as General Manager of the Telemetry Division, and finally as President of EMR; Dr. G. Goetze, Mr. R. Schneeberger, Mr. A. E. Anderson, Mr. D. D. Doughty, and Mr. H. Alting-Mees of Westinghouse; Mr. F. Ferson and Dr. A. Schatzel of Ferson.

The Orbiting Astronomical Observatory Project was operated by the Goddard Space Flight Center of the National Aeronautics and Space Administration. The most important single factor contributing to the success of the OAO and its experiments was the support provided by GSFC. The OAO Program Office provided the money for the Celescope Project at SAO, the spacecraft, the test facilities, and the guidance necessary for SAO to produce a reliable experiment. The Data and Analysis Branch transformed the raw data received from the tracking stations into magnetic tapes that could be processed by SAO's CDC 6400 computer. The Tracking and Data Acquisition Branch provided the logistic support required for communicating with the OAO and with the Celescope experiment. Key personnel included Mr. R. Ziemer, Project Manager of the OAO Project, 1961–1965; Mr. J. Purcell, Project Manager since 1965; Mr. R. Stroup, Experiment Systems Manager; Mr. J. J. Ainley, Assistant Experiment Systems Manager; Mr. R. White, SAO Experiment Coordinator; Mr. W. White, Experiment Systems Manager since 1967; Mr. D. Parker, Data-Processing Engineer; Dr. J. E. Kupperian, Project Scientist for OAO; Mr. S. Osler, Mission Operations Manager; Mr. T. Omara of Grumman Aircraft Corp., Project Operations Controller; Mr. D. Moyer of GAC, Project Operations Controller; Mr. E. Light of GAC, and the other members of the Grumman Operations Crew; Mr. L. Koschmeder, Experiment Test Manager; Mr. J. Stucker, Experiment Coordinator; and Mr. S. Socia, SCPS Manager.

The Celescope Project was supported by Contract NAS 5–1535 from the National Aeronautics and Space Administration, and we appreciate both their monetary and their technical support.

The OAO Program Office at NASA Headquarters provided financial, administrative, policy, and scientific support to Goddard Space Flight Center,

without which the OAO Project could not have occurred. Especially helpful in supporting the OAO and Project Celescope were Dr. N. G. Roman, Head of Astronomy; Mr. C. D. Ashworth; and Mr. E. Ott.

Explanation of the Catalog Columns

The contents of the Catalog are printed in a two-page format. The first, or left-hand, pages include the primary data, identification, position, *UBV*, and ultraviolet magnitudes. The second, or right-hand, pages contain the known peculiarities, remarks about the object, including the DM numbers of stars that may be merged with it, and a list of references used to compile the ground-based data on the star. The following gives a detailed explanation of each column in the Catalog. The number following a catalog name refers to its number in the Reference List.

LEFT-HAND PAGES

Column Heading	*Contents*
–	Sequence number from 1–90 to permit identification of the star on the right-hand page.
HD	Henry Draper Catalogue number (922) or Henry Draper Extension number (A23, A24).
DM	Durchmusterung number: B BD, Bonner Durchmusterung (898) C CD, or CoD, Cordoba Durchmusterung (899) P CPD, Cape Photographic Durchmusterung (900). The Henry Draper Catalogue convention was used in the selection of the DM number for a star.
R. A. (1950)DEC	Positions. The position is taken from the *SAO Star Catalog* if the first reference number is 897. The position is the DM position precessed to 1950.0 if the star was not in the SAO catalog and if one of the DM catalogs (898, 899, 900) is the first reference number. The position is the average of all positions given by the references after they were precessed to 1950.0 if neither the SAO nor the DM positions are available. If the star was not identified with a known object, the position was determined from the Celescope data and has an accuracy of about 1 arcmin. If the "star" is the merged image of two stars and is merged in all observations, then the more probable star is used. Average positions are used to distinguish among unique combinations if the images are merged differently on different frames.
V	The photoelectric *V* magnitude of the *UBV* system, when available; otherwise, in order of preference, m_v, m_{pv}, m_{pg}. To distinguish among these possibilities, the magnitude given may be followed by $M(m_v)$, $P(m_{pv})$, or $G(m_{pg})$. If, when these data were compiled, different sources agreed to within $0^m.10$, the arithmetic mean is given. If the star has any type of magnitudes listed in the Naval Observatory Catalogue (reference A19 is always the first or second entry in the reference list), then that datum is used in preference to any other. Magnitudes given to one decimal place required a consistency of $\pm 0^m.5$ in the source material. Magnitudes given to two decimal places required a consistency of $\pm 0^m.05$ from those sources reporting the magnitude to two decimal places.
B–V	The photoelectric *B–V* color of the *UBV* system; otherwise, the magnitude m_{pg} (followed by a *G*) if available. The same conventions used in the *V* column with regard to accuracy and the use of reference A19 apply.

Column Heading	*Contents*
U–B	The photoelectric *U–B* color of the *UBV* system, when available; otherwise, in order of preference, *U–V* followed by a *V* or $(U-B)_c$ followed by a *C*. The same conventions for accuracy and use of A19 apply as in the *V* column.
S–L	Spectrum and luminosity. If different sources agreed to within ±2 subclasses, the arithmetic mean was taken; otherwise, a decision was made on which spectrum to use. Intermediate spectral subclasses and luminosities have been truncated, and luminosities decimalized; i.e., a star of spectral type B0.5II–III is listed as B02. *Peculiarity flag.* One of the following symbols may follow the spectrum and luminosity, indicating that the right-hand page contains information affecting the spectrum: *s* A spectral peculiarity exists *p* A photometric peculiarity exists *c* A comment exists * More than one of the above exists.
*U*1	*U*1 magnitude, the weighted mean of the Celescope observational results in the *U*1 color band (2100 to 3200Å). Celescope magnitudes are based on spectral irradiance in MKS units: $U_n=-2.5 \log I$, where I is the spectral irradiance from the observed star at the effective wavelength of the color band, in units of watts per square meter per meter of wavelength. The *U*1 magnitude is derived from the formula $$U1=\frac{\sum [1/(1+w_i)]\ U1_i}{\sum [1/(1+w_i)]},$$ where $U1_i$ is the ith observation of the *U*1 magnitude, and w_i is the weighting factor, equal to zero except: $w=3$ if the object could not be separated from a neighboring object by our standard computer program and was separated manually, or if the object was within 15 arcmin of the line through the center of the field separating the two different optical filters, which were rigidly mounted in front of each television camera. $w=6$ if the object was both manually split and near the filter split line. $w=\infty$ if the object was within 5 arcmin of the filter split line, or if the object was in a part of the picture having a bright background, or if the object touched the edge of the picture.
*SD*1	The root-mean-square (RMS) deviation of the observations used to compute *U*1, based on the formula $$SD1=\left\{\frac{\sum [1/(1+w_i)]\ (U1_i-U1)^2}{\sum [1/(1+w_i)]}\right\}^{1/2}.$$ If *U*1 is based on a single observation, the standard deviation is blank.
*U*2	*U*2 magnitude, the weighted mean of the Celescope observational results in the *U*2 color band (1550 to 3200 Å), calculated the same way as *U*1.
*SD*2	The RMS deviation of *U*2, computed in the same way as *SD*1.
*U*3	*U*3 magnitude, the weighted mean of the Celescope observational results in the *U*3 color band (1350 to 2150 Å), calculated the same way as *U*1.
*SD*3	The RMS deviation of *U*3, computed in the same way as *SD*1.
*U*4	*U*4 magnitude, the weighted mean of the Celescope observational results in the *U*4 color band (1050 to 2150 Å), calculated the same way as *U*1. Very few *U*4 magnitudes are given, because of interference from the bright Lyman-alpha background of the geocorona.

Column Heading	*Contents*
*SD*4	The RMS deviation of *U*4, computed in the same way as *SD*1.
*WT*1	The composite weight of the observations of the object in filter 1, calculated with the equation $WT1 = \sum [1/(1 + w_i)]$, where w_i is as defined in the *U*1 column.
*WT*2	The composite weight of the observations of the object in filter 2, calculated in the same manner as *WT*1.
*WT*3	The composite weight of the observations of the object in filter 3, calculated in the same manner as *WT*1.
*WT*4	The composite weight of the observations of the object in filter 4, calculated in the same manner as *WT*1.
NS	The *NGC*, *IC*, 3*C* number or other designation for the object. Association names also appear in these columns.
R.A. (2000)DEC	The star's right ascension and declination precessed to epoch 2000.

RIGHT-HAND PAGES

Column Heading	*Contents*
	Sequence number (the same number as on the matching left-hand page).
OBJ	Codes referring to the general type of object, primarily to nonstellar objects. More than one of the following letters may apply, and the printed order is not significant: *D* Diffuse emission nebula *G* Galactic cluster *O* Object surrounded by or associated with nebulosity *R* Radio source.
PHOT	One-letter codes designating known photometric properties of the star, and a number code designating variability. More than one of the following letters or numbers may apply, and the order is not significant: *B* Visual binary *H* High-velocity star *M* Multiple star *P* Polarization data available *S* Standard on MK or *UBV* system *U* Observed in the ultraviolet below 3000Å 0 Suspected variable 2 Eclipsing variable 3 Early-type irregular variable (type Ia of Kukarkin *et al.*, 1971) 4 Variable star of unspecified type 5 Beta Canis Majoris variable 6 Alpha Canum Venaticorum variable 9 Peculiar variable 10 Classical Cepheid variable 12 Irregular variable other than type Ia of Kukarkin *et al.* (1971) 14 RR Lyrae variable 16 Nova-like variable 22 RV Tauri variable.
S-PEC	One-column codes referring to the spectral characteristics of the star. One or more of the following may apply; their printed order is not significant: *A* Peculiar A-type star *B* Spectroscopic binary

Column Heading *Contents*

C Composite spectrum
D Interstellar *D* lines of sodium
E Any type of emission
G Magnetic field
H Interstellar *H* and *K* lines of calcium II
M Metallic-line star
N Nebulous lines
P Peculiar spectrum
R Measured axial rotation
S Sharp lines
Y Shell spectrum
4 Interstellar 4430 Å absorption band.

REMARKS

Comments about a star when applicable. Occasionally, more than one star has been included in the mean ultraviolet magnitude reported. Such cases are described as fully as possible. A primary identification has been assigned to the observations, given in the HD and/or DM columns, and the ground-based data for that star only have been reported. Normally, DM numbers in the Remarks column are from the same catalog as the primary identification. Additional stars in the observed image are given in the Remarks, e.g., W/P–45 3137 indicates a secondary component of the observation having a CPD number of −45 3137. Ground-based data are not reported for secondary components, except for the spectral classifications for components of known binaries. Where more information than could be reported in the S–PEC column was deemed important, it has been included here. In addition to identifications of secondaries, spectral classes for binaries, and variable-star names, the following abbreviations are used:

SB Spectroscopic binary
EB Eclipsing binary
CS Composite spectrum
PREC. Preceding in right ascension
FOLL. Following in right ascension.

REFERENCES

The identification numbers of the references used in compiling the ground-based astrophysical information about the star. They are arranged in numerical and then alphabetical order, except for the following: The *SAO Star Catalog* reference number (897) is always first if it appears. If 897 is absent, the reference number of the DM catalog (898, BD; 899, CD; 900, CPD) will be first if it is given. The second reference is the Naval Observatory *Photoelectric Catalogue* (A19) if it appears.

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1969–1971. *General Catalogue of Variable Stars.* Academy of Sciences, USSR, Moscow, 3 vols.

The Data

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	240479	B+59 2819	0 0 9 +59 41.0	9.4 M	9.5 G		A0 c			14.63							1.0				0 2 43 +59 57.7
2		B+56 3135	0 0 16 +56 52.5	9.4 M						12.87							1.0				0 2 50 +57 9.2
3		B+60 2661	0 0 36 +61 13.6	9.5 M						13.97							1.0				0 3 11 +61 30.3
4	240483	B+59 2821	0 0 41 +59 40.9	9.1 M	9.72G		B9			14.03							1.0				0 3 16 +59 57.6
5	225094	B+62 2356	0 0 51 +63 21.8	6.24	0.32	−0.54	B31			9.98							1.0				0 3 26 +63 38.5
6	225146	B+60 2663	0 1 22 +60 49.5	8.59	0.4	−0.64	B01*	12.45		12.61	.30					1.0	2.0				0 3 57 +61 6.2
7		B+60 2664	0 1 26 +60 35.6	9.3 M				14.01		13.83	.06					1.0	2.0				0 4 1 +60 52.3
8	240489	B+59 2824	0 1 40 +59 52.6	8.7 M	8.70G		B0			11.63							1.0				0 4 15 +60 9.3
9	225289	B+60 2667	0 2 30 +61 2.1	5.79	−0.09	−0.33	B63s	10.13	.27	8.42		9.06				3.0	1.0	.3			0 5 6 +61 18.8
10		B+62 2362	0 2 48 +63 30.7	9.74	0.20		B83			13.37							1.0				0 5 24 +63 47.4
11		B+60 2668	0 3 26 +60 35.9	8.96	0.45	−0.48	B13p	13.44		13.09	.19					1.0	2.0				0 6 2 +60 52.6
12	108	B+62 2363	0 3 27 +63 24.1	7.4	0.16	−0.79	O8 *			9.70							1.0				0 6 3 +63 40.8
13	134	B+62 2364	0 3 39 +63 6.7	8.79	0.20		A65			13.53							1.0				0 6 16 +63 23.4
14	236301	B+58 2700	0 4 0 +58 36.8	9.0 M			A5			14.11							1.0				0 6 36 +58 53.5
15	163	B+62 2367	0 4 0 +62 56.8	8.50	0.34		F23			13.63							1.0				0 6 37 +63 13.5
16		B+59 2829	0 4 10 +60 20.6	9.84	0.40	−0.65	B04*	14.07		13.76						1.0	1.0				0 6 46 +60 37.3
17	236307	B+59 1	0 4 57 +60 27.9	9.0 M	9.79G		A0	14.43								1.0					0 7 34 +60 44.6
18		B+62 1	0 4 58 +62 47.6	10.34	0.34	−0.63	B24*			13.98							1.0				0 7 35 +63 4.3
19		B+62 3	0 5 8 +63 4.8	8.7 M	8.5 G		A5			13.81							1.0				0 7 45 +63 21.5
20	236309	B+58 1	0 5 36 +58 56.3	9.2 M	9.67G		B9			14.19							1.0				0 8 13 +59 13.0
21	371	B+62 5	0 5 55 +62 55.6	6.41	1.02	0.71	G22			13.83							1.0				0 8 33 +63 12.3
22		B+61 6	0 6 8 +62 15.3	9.2 M	9.4 G		A2			14.34							1.0				0 8 46 +62 32.0
23		B+62 6	0 6 8 +63 7.9	9.5 M						14.01							1.0				0 8 46 +63 24.6
24	432	B+58 3	0 6 30 +58 52.4	2.27	0.34	0.10	F24*	9.65		9.76		11.39				1.0	1.0	1.0			0 9 7 +59 9.1
25	236314	B+58 5	0 6 32 +59 21.2	9.2 M	9.8 G		A2					13.59						1.0			0 9 10 +59 37.9
26	470	B+57 9	0 6 46 +58 23.3	7.9 M	8.14G		B9	12.18				11.15				1.0		1.0			0 9 24 +58 40.0
27	508	B+61 9	0 7 7 +62 18.5	8.25	0.33		A94			14.12							1.0				0 9 45 +62 35.2
28	236323	B+58 9	0 7 23 +59 23.5	8.93	0.17		A0			13.51							.3				0 10 1 +59 40.2
29		B+57 12	0 7 25 +58 30.5	9.3 M			A0			13.90							.3				0 10 3 +58 47.2
30	594	B+57 18	0 7 59 +58 28.2	8.3 M	7.9 G		B5 c	11.70		9.85		9.88				1.0	.3	1.0			0 10 37 +58 44.9
31		B+62 11	0 8 8 +62 53.7	9.42	0.27		B54			13.49							1.0				0 10 47 +63 10.4
32		B+59 6	0 8 14 +60 11.1	9.57	0.18		B95			13.64							1.0				0 10 53 +60 27.8
33		B+62 15	0 8 58 +63 9.9	9.22	0.15		A11			14.06							1.0				0 11 38 +63 26.6
34		B+62 19	0 9 24 +62 32.2	9.73	0.25		B05			13.85							1.0				0 12 4 +62 48.9
35	236340	B+59 13	0 10 29 +59 56.4	9.0 M	9.42G		B8			13.14							1.0				0 13 9 +60 13.1
36	962	B+59 16	0 11 26 +60 26.5	7.70	0.67		F25	14.18		13.60						1.0	1.0				0 14 6 +60 43.2
37		B+61 17	0 11 43 +62 23.0	9.78	0.16		B64			13.03	.09						2.0				0 14 24 +62 39.7
38	1026	B+62 29	0 12 8 +62 33.8	7.42M			A0 c			11.54							1.0				0 14 49 +62 50.5
39	1142	B+60 16	0 13 14 +60 43.4	6.45	0.79		G05	14.40		14.05						1.0	1.0				0 15 55 +61 .1
40		B+60 19	0 13 56 +60 37.4	9.3 M			B8			14.12							1.0				0 16 38 +60 54.1
41	1287	B+62 40	0 14 36 +62 32.9	8.54	0.08		A0			12.68							1.0				0 17 19 +62 49.6
42	236371	B+58 26	0 15 46 +59 27.9	9.1 M	9.39G		B9			14.07							1.0				0 18 28 +59 44.6
43	1479	B+58 28	0 16 31 +59 26.5	7.80	0.33		F0 p			13.42							1.0				0 19 14 +59 43.2
44		B+61 36	0 16 39 +62 26.5	9.3 M						13.78							1.0				0 19 23 +62 43.1
45		B+61 37	0 16 57 +61 32.3	9.5 M						14.25							1.0				0 19 41 +61 48.9
46	1544	B+61 38	0 17 22 +61 47.3	8.11	0.17	−0.76	B03*			10.50							1.0				0 20 6 +62 3.9
47		B+61 39	0 17 33 +62 11.2	8.52	0.30	−0.75	B04*			10.77							.3				0 20 17 +62 27.8
48		B+61 40	0 17 41 +62 7.1	9.55	0.47	−0.51	B21*			13.71							.3				0 20 25 +62 23.7
49		B+61 41	0 17 43 +62 22.3	9.4 M						13.89							1.0				0 20 27 +62 38.9
50	236382	B+59 36	0 17 47 +60 .5	8.6 M	8.9 G		B0	14.86								1.0					0 20 30 +60 17.1
51		B+61 46	0 18 16 +62 10.4	9.5 M						14.06							.3				0 21 1 +62 27.0
52	1697	B+60 37	0 18 56 +61 24.9	7.25	0.49		F8			13.64							1.0				0 21 41 +61 41.5
53		B+60 39	0 19 9 +61 28.4	9.1 M	9.2 G		O95p			12.01							1.0				0 21 54 +61 45.0
54		B+60 40	0 19 16 +61 14.7	9.0 M	9.8 G		K2			14.14							1.0				0 22 1 +61 31.3
55	1743	B+61 48	0 19 18 +61 54.5	8.7 M	8.3 G		B03*			10.53							.3				0 22 3 +62 11.1
56		B+60 42	0 19 36 +61 22.8	9.1 M						13.75							1.0				0 22 21 +61 39.4
57	1810	B+61 50	0 20 8 +61 57.9	8.4 M			B34*			9.88							.3				0 22 54 +62 14.5
58	236390	B+59 42	0 20 14 +60 16.6	9.2 M	9.78G		B8	14.58								1.0					0 22 59 +60 33.2
59		B+61 53	0 20 34 +61 36.4	9.5 M						14.23							1.0				0 23 20 +61 53.0
60		B+61 56	0 20 59 +62 2.1	9.5 M			c			13.31							.3				0 23 45 +62 18.7
61		B+61 59	0 21 5 +61 39.7	9.4 M						13.25							1.0				0 23 51 +61 56.3
62		B+61 60	0 21 13 +62 3.5	9.2 M						13.93							.3				0 23 59 +62 20.1
63	2011	B+61 69	0 22 1 +61 33.3	5.40	0.00	−0.17	B85			8.89		8.39					.3	1.0			0 24 47 +61 49.9
64		B+60 56	0 24 48 +61 6.7	9.33	0.47		F8			14.01							1.0				0 27 36 +61 23.3
65	2654	B+61 101	0 27 52 +62 4.7	7.39	−0.02		B25*			9.63		8.60					1.0	1.0			0 30 42 +62 21.3
66	2905	B+62 102	0 30 8 +62 39.4	4.16	0.1	−0.80	B11*	8.05				6.99				1.0		1.0			0 33 0 +62 55.9
67	2974	B+59 76	0 30 44 +60 16.4	7.91	0.00		B9					11.01						1.0			0 33 34 +60 32.9
68	3249	B+62 116	0 33 29 +62 56.8	8.49	0.11		A0					11.84						1.0			0 36 23 +63 13.3
69	3431	B+39 138	0 34 44 +40 3.5	6.84M			A0			10.24		11.50					1.0	1.0			0 37 27 +40 20.0
70	3827	B+38 91	0 38 29 +39 19.8	8.0 M	7.7 G		B03			8.76		8.87					1.0	1.0			0 41 12 +39 36.2
71	3892	B+38 94	0 39 8 +38 37.3	8.0 M	7.6 G		B8			10.00		11.02					1.0	1.0			0 41 51 +38 53.7
72	4142	B+47 181	0 41 39 +47 35.4	5.7	−0.12	−0.56	B55*					10.31						1.0			0 44 26 +47 51.8
73	4335	B+44 160	0 43 24 +44 35.3	6.02	−0.05	−0.27	B9 *			8.61	.17	9.16					2.0	1.0			0 46 11 +44 51.7
74	4460	B+47 201	0 44 31 +47 32.0	8.8 M	8.0 G		B15					9.31						1.0			0 47 19 +47 48.4
75		B+38 114	0 45 40 +39 7.8	9.3 M				7.93								1.0					0 48 25 +39 24.1
76	4727	B+40 171	0 47 3 +40 48.4	4.5	−0.15	−0.57	B55*	9.30		6.41						1.0	1.0				0 49 49 +41 4.7
77	4778	B+44 176	0 47 30 +44 43.8	6.14	0.02	−0.04	A0 *			9.51	.29	11.33	.08				2.0	1.3			0 50 18 +45 .1
78	4810	B+63 101	0 48 8 +64 3.2	8.39	0.14		A2			10.06		9.80	.24				1.0	3.0			0 51 11 +64 19.5
79	4902	B+40 177	0 48 44 +40 57.6	7.5 M	7.2 G		A0			9.56	.12						2.0				0 51 30 +41 13.9
80	4950	B+46 183	0 49 13 +47 19.4	8.2 M	8.6 G		A0					11.67						1.0			0 52 3 +47 35.7
81	4985	B+45 223	0 49 35 +45 32.0	8.5 M	8.2 G		A0			9.95							1.0				0 52 24 +45 48.3
82	5334	B+46 201	0 52 53 +47 7.5	8.2 M	8.6 G		A0					11.83						1.0			0 55 44 +47 23.7
83	5344	B+46 202	0 53 0 +46 36.3	7.6 M	7.9 G		A0					10.95	.12					2.0			0 55 50 +46 52.5
84	5326	B+65 110	0 53 5 +66 8.5	8.4 M	8.1 G		A0					11.25						1.0			0 56 15 +66 24.7
85	5550	B+65 115	0 55 20 +66 4.9	5.87M	−0.02	−0.14	A03			9.25		8.99					1.0	1.0			0 58 31 +66 21.1
86	5638	B+46 215	0 55 52 +46 46.0	6.75M			A0			8.53		8.45	.35				1.0	3.0			0 58 43 +47 2.2
87	5717	B+46 220	0 56 36 +46 34.3	8.3 M	8.3 G		B9					11.79						1.0			0 59 27 +46 50.5
88	5764	B+47 272	0 57 7 +47 45.0	7.0 M			B8			8.66	.23	9.16					2.0	1.0			0 59 59 +48 1.2
89	5789	B+43 193	0 57 13 +44 26.7	6.04M	−0.01	−0.05	B95*			8.88	.16	9.45					3.0	1.0			1 0 3 +44 42.9
90	5882	B+50 198	0 58 2 +50 36.6	7.5 M	7.41G		B25s			9.35							1.0				1 0 57 +50 52.7

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1				W/ 59 2819 FOLL.	897 A20 A23
2					898
3					898
4					897 A23
5					897 A19 884 922
6		P	PHDR		897 A19 002 012 013 015 339 350 922 A07 A42 A48 A76
7					898
8					897 A23
9			A		897 A19 005 397 884 901 922 A48
10					897 A19 A20
11		P			898 A19 002 005 012 015 A42
12		P	PEYHR		897 A19 002 005 012 013 015 336 339 342 350 651 713 883 922 A07
13					897 A19 005 922
14					897 A23
15					897 A19 005 922
16		P	PEN		898 A19 342 A42
17					897 A20 A23
18		P	PE		898 A19 002 337 754 A42
19					897 A20
20					897 A23
21					897 A19 922 A42
22					897 A20
23					898
24		SP	BR		897 A19 009 010 367 377 392 534 765 766 785 884 901 921 922 A42 A48
25					897 A23
26					897 922
27					897 A19 922
28					897 A19 A23
29					898 A20
30				W/ 57 19, 22	897 922
31					897 A19 005 A20 A42 A48
32					898 A19 005 A20
33					897 A19 A20 A37
34					897 A19 A20
35					897 A23
36					897 A19 922
37					897 A19 005 A20
38				W/ 62 29 FOLL.	897 922
39					897 A19 005 015 922 A42
40					898 A20
41					897 A19 005 922
42					897 A23
43		BO			898 A19 922 969
44					898
45					898
46		P	NH4		897 A19 002 012 013 015 339 474 922 A07 A42 A63
47		P	E		897 A19 002 012 013 015 342 A20 A42 A48
48		P	PE		897 A19 002 A20 A48
49					898
50					897 A23
51					898
52					897 A19 922
53		P			897 002 012 015 A20 A42
54					897 A20
55		P	HR		897 002 012 013 339 350 419 922 A07 A42 A63
56					898
57		P	NH4		897 002 012 013 339 419 474 922 A07 A42
58					897 A23
59					898
60				W/ 61 55, 57	898
61					898
62					898
63					897 A19 397 884 901 922 A48
64					897 A19 A20
65		P	4		897 A19 002 013 419 474 922 A07 A48
66		USOP	E4		897 A19 002 009 010 012 013 342 419 785 816 884 895 901 922 962 969 A42 A43
67					897 A19 922 A07
68					897 A19 922
69					897 922
70					897 922 A48 A63
71					897 922
72		PH	N		897 A19 002 013 567 785 882 884 901 922 A42 A48 A59
73		P	AB		897 A19 397 785 884 901 922 A48
74					897 922 A48 A63
75					898
76		USP	S		897 A19 002 009 010 013 367 765 766 785 882 884 901 921 922 A42 A48 A19 A61 A66
77		O	PAG		897 A19 025 026 262 753 884 901 922 948 969 A42 A48
78					897 A19 922
79					897 922 A07
80					897 922
81					897 922
82					897 922
83					897 922
84					897 922
85					897 A19 884 901 922 A48
86					897 922
87					897 922
88					897 922 A07
89		B	N	W/HD 5788,SB, + A15	897 A19 699 884 901 922 A48
90			N		897 922 A63

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1		B+45 253	0 58 27 +45 58.7	8.9 M	9.6 G					11.85		1.0		1 1 19 +46 14.8
2	6018	B+48 322	0 59 13 +49 12.0	8.5 M	8.3 G		A0			11.52		1.0		1 2 7 +49 28.1
3	6084	B+51 216	0 59 58 +51 31.8	6.8 M			B5 *			9.12		1.0		1 2 54 +51 47.9
4	6201	B+43 206	1 0 50 +43 47.9	8.7 M	8.4 G		F5		9.76 .22	9.93		2.0 1.0		1 3 41 +44 4.0
5	6226	B+46 245	1 1 0 +47 22.5	6.7 M			B24*		9.05			1.0		1 3 53 +47 38.6
6	6249	B+57 188	1 1 22 +57 42.8	8.0 M	7.51G		B9			11.22		1.0		1 4 24 +57 58.9
7	6300	B+50 212	1 1 51 +50 44.5	6.52	−0.09	−0.58	B35p		8.68	8.08		1.0 1.0		1 4 47 +51 .6
8	6343	B+65 129	1 2 38 +65 42.2	7.25	0.16	−0.24	B7 *			10.55		1.0		1 5 53 +65 58.2
9	6417	B+56 191	1 3 1 +57 29.3	7.1 M			B33p			9.48		1.0		1 6 4 +57 45.3
10	6564	B+48 337	1 4 18 +49 17.3	6.73M			A0		9.05			1.0		1 7 14 +49 33.3
11	6688	B+44 240	1 5 18 +44 31.8	7.7 M	7.3 G		B8		9.80			1.0		1 8 11 +44 47.8
12	6676	B+57 200	1 5 29 +57 59.8	5.77	−0.0	−0.26	B8 p		8.72	8.11		1.0 1.0		1 8 34 +58 15.8
13	6756	B+45 283	1 6 3 +45 40.6	8.1 M	7.7 G		B8			10.94		1.0		1 8 57 +45 56.6
14	6948	B+55 255	1 7 55 +56 30.5	7.4 M	7.08G		B9			10.17		1.0		1 10 59 +56 46.4
15	6960	B+63 149	1 8 10 +63 56.3	5.5	−0.06	−0.13	B95p		8.38	8.48		1.0 1.0		1 11 25 +64 12.2
16	7019	B+36 201	1 8 21 +37 27.5	5.75M	−0.10	−0.40	B73		8.88	8.55		1.0 1.0		1 11 10 +37 43.4
17	6972	B+64 127	1 8 25 +64 45.2	5.50	−0.10	−0.29	B8 c		8.24	8.35		1.0 1.0		1 11 42 +65 1.1
18	7083	B+63 156	1 9 15 +64 21.4	8.02	0.06		A0			11.07		1.0		1 12 31 +64 37.3
19	7157	B+60 186	1 9 58 +61 26.5	6.64	−0.00	−0.30	B95p		9.59 .01	8.84		2.0 1.0		1 13 10 +61 42.4
20	7254	B+33 187	1 10 28 +33 50.0	6.59M			B8			9.72		1.0		1 13 16 +34 5.9
21	7252	B+60 188	1 10 53 +60 37.1	7.13	0.07	−0.74	B15*			9.31		1.0		1 14 4 +60 53.0
22	7480	B+62 229	1 12 59 +62 31.3	8.8 M	9.0 G		A0			11.66		1.0		1 16 14 +62 47.1
23	7636	B+56 240	1 14 18 +57 22.1	6.61	0.14	−0.69	B25*		9.49	9.49		1.0 1.0		1 17 26 +57 37.9
24	8005	B+51 285	1 17 22 +51 34.3	7.54M			B8			11.04		1.0		1 20 24 +51 50.0
25	8027	B+50 260	1 17 38 +51 20.0	7.17M			B9			9.91		1.0		1 20 40 +51 35.7
26	8013	B+60 209	1 17 38 +60 41.2	7.53	−0.02		B8			10.58		1.0		1 20 52 +60 56.9
27	8053	B+53 281	1 17 59 +54 22.0	7.2 M	7.17G		B8		9.95			1.0		1 21 5 +54 37.7
28	8538	B+59 248	1 22 31 +59 58.6	2.68	0.13	0.1	A55p			8.95		1.0		1 25 46 +60 14.2
29	8908	B+36 259	1 25 33 +36 48.7	7.8 M	7.3 G		B9			9.95		1.0		1 28 25 +37 4.2
30	8965	B+59 260	1 26 34 +59 59.6	7.28	0.02	−0.82	B05p		9.09	9.14		1.0 1.0		1 29 51 +60 15.1
31	9177	B+38 275	1 28 8 +39 14.2	7.5 M	7.2 G		B9		9.88			1.0		1 31 3 +39 29.6
32	9298	B+34 265	1 29 16 +34 32.6	6.35	−0.1	−0.4	B65		9.05	8.64 .05		1.0 2.0		1 32 7 +34 48.0
33	9531	B+36 277	1 31 23 +36 58.9	5.69M	−0.06	−0.30	B85		8.77	8.74		1.0 1.0		1 34 17 +37 14.2
34	9604	B+52 382	1 32 15 +53 5.4	6.80M			B8			9.46		1.0		1 35 24 +53 20.7
35	9723	B+53 339	1 33 17 +54 26.5	7.15M			A0			10.94		1.0		1 36 28 +54 41.8
36	9878	B+61 304	1 34 47 +62 5.9	6.72	−0.04		B75			9.25 .57		2.0		1 38 13 +62 21.1
37	10088	B+21 224	1 36 12 +21 39.9	7.9 M	7.81G		A0 s	8.01				1.0		1 38 57 +21 55.1
38	10074	B+35 314	1 36 14 +36 17.4	7.1 M			A0			10.97		1.0		1 39 8 +36 32.6
39	10109	B+53 362	1 37 0 +54 11.6	7.8 M			B8			10.65 .03		2.0		1 40 12 +54 26.8
40	10390	B+34 297	1 39 10 +34 59.6	5.40	−0.08	−0.2	B95		8.45			1.0		1 42 4 +35 14.7
41	232506	B+51 373	1 39 14 +52 8.2	9.0 M	9.21G		A0			11.33 .24		2.0		1 42 24 +52 23.3
42	10404	B+47 483	1 39 31 +48 9.9	8.0 M	7.6 G		B8			10.58		1.0		1 42 37 +48 25.0
43	10362	B+60 312	1 39 32 +61 10.2	6.34	0.01	−0.46	B51p			9.94		1.0		1 42 58 +61 25.3
44	10475	B+54 364	1 40 17 +54 57.3	8.8 M	8.75G		B8			11.41		1.0		1 43 32 +55 12.4
45	10516	B+49 444	1 40 31 +50 26.3	4.06	−0.04	−0.93	B13*	8.28	6.48			1.0 1.0		1 43 40 +50 41.4
46	10546	B+48 518	1 40 45 +49 24.3	7.6 M	7.6 G		B9			10.76		1.0		1 43 52 +49 39.4
47	10577	B+47 491	1 41 8 +47 57.6	7.4 M	7.6 G		B9			10.07		1.0		1 44 14 +48 12.7
48	232524	B+54 373	1 42 55 +54 30.6	8.8 M	8.92G		B2			10.21		1.0		1 46 10 +54 45.6
49	10852	B+53 386	1 44 28 +53 45.3	7.6 M	7.23G		B9		9.67	9.87		1.0		1 47 43 +54 .2
50	10872	B+53 388	1 44 48 +53 38.5	8.3 M	8.19G		A0			10.90		1.0		1 48 2 +53 53.4
51	10942	B+53 391	1 45 35 +53 31.8	9.0 M	8.99G		A0			11.63		1.0		1 48 50 +53 46.7
52	232536	B+53 392	1 45 54 +53 55.1	9.4 M	9.9 G		F0			11.58		1.0		1 49 9 +54 10.0
53	232538	B+53 395	1 46 24 +53 40.0	8.7 M	8.9 G		B5 c		10.18	9.53		1.0		1 49 39 +53 54.9
54	11223	B+49 476	1 48 23 +49 37.4	8.0 M	7.7 G		B9			11.85		1.0		1 51 33 +49 52.2
55	11222	B+51 418	1 48 23 +51 33.2	8.1 M	8.01G		A0			11.22		1.0		1 51 36 +51 48.0
56	11241	B+54 396	1 48 41 +54 54.1	5.52	−0.18	−0.84	B25p	9.01	7.09 .13			1.0 3.0		1 51 59 +55 8.9
57	11291	B+50 379	1 48 58 +50 32.8	5.62M	−0.06	−0.30	B9 *		8.42 .14	8.64 .36		2.0 2.0		1 52 9 +50 47.6
58	11335	B+50 381	1 49 38 +51 13.7	6.18M			A25			11.42		1.0		1 52 51 +51 28.5
59	11415	B+62 320	1 50 46 +63 25.5	3.37	−0.16	−0.60	B34*	7.46	6.05	6.33		1.0 1.0 1.0		1 54 23 +63 40.2
60	11502	B+18 243	1 50 47 +19 3.1	3.88	−0.03	−0.1	*		7.56	7.31		1.0 1.0		1 53 32 +19 17.8
61	11636	B+20 306	1 51 52 +20 33.9	2.6	0.13	0.1	A55*	9.00	7.43 .20	8.76 .06		1.0 2.0 2.0		1 54 38 +20 48.6
62	11606	B+58 331	1 52 16 +59 1.7	7.02	0.06	−0.86	B25*			8.82 .13		2.0		1 55 43 +59 16.4
63	11860	B+58 341	1 54 49 +59 23.0	6.66	0.06		A05			11.06		1.0		1 58 18 +59 37.6
64	11857	B+60 398	1 54 59 +61 27.3	6.01	−0.04	−0.41	B65p		8.97 .14	8.69		2.0 1.0		1 58 33 +61 41.9
65	11946	B+63 265	1 55 55 +64 22.8	5.27	0.00	−0.05	A05*		9.15	9.31		1.0 1.0		1 59 38 +64 37.3
66	12243	B+59 385	1 58 34 +60 3.2	7.95	0.08		B75			10.95		1.0		2 2 6 +60 17.7
67	12302	B+58 356	1 59 5 +59 26.9	8.0	0.26	−0.48	B15*			11.49		1.0		2 2 36 +59 41.3
68	12323	B+54 441	1 59 7 +55 23.0	8.90	−0.1	−0.93	O95p			10.58 .09		2.0		2 2 30 +55 37.4
69	12279	B+64 282	1 59 7 +64 39.7	5.87M			A05*			10.05		1.0		2 2 52 +64 54.1
70	12301	B+63 274	1 59 17 +64 9.0	5.58	0.38	−0.27	B81*			10.68 .10		2.0		2 3 1 +64 23.4
71	12342	B+56 409	1 59 20 +57 4.2	8.68	0.07		B74			11.72		1.0		2 2 46 +57 18.6
72	12365	B+60 423	1 59 38 +60 27.8	7.49	0.06		B73			10.87 .02		2.0		2 3 12 +60 42.2
73	12534	B+41 395	2 0 49 +42 5.5	5.08M			B95*			8.02		1.0		2 3 54 +42 19.9
74	12518	B+51 483	2 0 56 +51 43.7	6.54M			B8		9.36			1.0		2 4 13 +51 58.1
75	12530	B+56 416	2 1 15 +56 50.9	8.70	0.20		A35*			11.36		1.0		2 4 41 +57 5.3
76	12509	B+63 281	2 1 17 +64 8.8	7.09	0.35	−0.54	B13p			10.81		1.0		2 5 2 +64 23.1
77	236940	B+55 489	2 1 24 +56 1.4	9.0 M	9.7 G		B1 s			11.91		1.0		2 4 49 +56 15.7
78	12709	B+56 424	2 2 49 +57 4.1	7.94	0.09		B43			10.86 .01		2.0		2 6 16 +57 18.4
79	12740	B+48 600	2 2 58 +48 55.1	8.0 M	7.8 G		B15p		9.99			1.0		2 6 11 +49 9.4
80	12727	B+56 425	2 3 2 +56 48.5	9.0	0.08	−0.72	B23*			11.33		1.0		2 6 29 +57 2.8
81	12869	B+21 279	2 3 46 +22 24.7	5.03	0.12	0.13	A s		9.43			1.0		2 6 34 +22 39.0
82	12860	B+33 362	2 3 53 +33 59.4	8.9 M	9.2 G		A0			10.75		1.0		2 6 50 +34 13.7
83	12856	B+56 429	2 4 26 +56 52.1	8.54	0.23	−0.77	B0 *			11.60		1.0		2 7 53 +57 6.3
84	12882	B+64 295	2 4 57 +64 48.0	7.50	0.38	−0.53	B61*			11.12		1.0		2 8 46 +65 2.2
85	12928	B+58 379	2 4 59 +58 37.7	7.81	0.20		B72			11.00		1.0		2 8 30 +58 51.9
86	13041	B+37 486	2 5 28 +37 37.4	4.8	0.12	0.14	A45		9.59			1.0		2 8 29 +37 51.6
87	12993	B+57 498	2 5 33 +57 41.7	9.0	0.19	−0.80	O93*			11.09 .02		2.0		2 9 3 +57 55.9
88	12994	B+56 431	2 5 34 +56 48.0	8.43	0.03		B75			10.98 .10		2.3		2 9 2 +57 2.2
89	13051	B+56 432	2 5 58 +56 45.3	8.7	0.13	−0.72	B14*			11.18 .25		3.3		2 9 26 +56 59.5
90	13161	B+34 381	2 6 34 +34 45.1	3.00	0.15	0.1	A53*		7.56 .00	9.68 .39		2.0 2.0		2 9 32 +34 59.3

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897
2					897 922
3		P	4		897 002 013 474 922
4					897 922
5		P	PA		897 002 013 753 922 A48
6					897 922
7		P			897 A19 002 013 360 396 884 901 922 A42 A48 A59
8		P	E		897 A19 002 013 260 342 419 922 A07
9		P			897 002 013 419 922 A07 A48
10					897 922
11					897 922
12		U			897 A19 397 829 884 901 922 A66
13					897 922
14					897 922
15		0			897 A19 397 781 884 901 922 969 A48
16					897 A19 884 922 A42
17				RU CAS, NON VAR.	897 A19 397 781 884 901 922 969 A37
18					897 A19 922
19		BP			897 A19 002 013 397 829 884 901 922 A48
20					897 922
21		P		W/ 60 189, 190	897 A19 002 012 013 419 922 A07 A42 A48
22					897 922
23		P	EN4		897 A19 002 013 014 260 342 419 474 922 A07 A48 A63
24					897 922
25					897 922
26					897 A19 829 922
27					897 922
28		US2P			897 A19 009 010 377 785 856 884 901 921 922 969 A42 A48
29					897 922
30		P			897 A19 002 012 013 419 922 A07 A42
31					897 922
32					897 A19 397 782 884 901 922 A42
33					897 A19 884 922 A42 A48
34					897 922
35					897 922
36					897 A19 922 A42 A48 A42 A48
37			PA		897 753 922
38					897 922
39					897 922
40					897 A19 397 781 782 884 901 922 A42
41					897 A23
42					897 922
43		P			897 A19 002 397 419 430 884 901 922 A42 A48 A42 A48
44					897 922
45		U3P	PENYB	PHI PER	897 A19 002 013 212 260 342 360 396 682 785 883 884 892 895 901 921 922 963 969
46					897 922
47					897 922
48					897 014 A23
49					897 922
50					897 922
51					897 922
52					897 A23
53				W/ 53 394	897 014 A23
54					897 922
55					897 922
56		UP			897 A19 002 013 014 360 396 419 785 884 892 901 922 A42 A43 A48 A59
57		P	A		897 A19 397 785 884 901 922 A48
58					897 884 901 922 A48
59		UOP	PS		897 A19 002 009 013 360 367 396 419 488 504 785 882 883 884 892 901 921 922 969
60		B	PA	W/HD 11503,B95 + A(SI)	897 A19 699 753 781 782 783 884 901 921 922 948 A42 A48
61		SOP	P		897 A19 007 008 009 010 367 392 689 781 783 785 793 881 884 921 953 969 A42 A48
62		P	EN4		897 A19 002 013 014 260 342 419 474 531 922 A07 A48
63					897 A19 815 922 A42
64		P			897 A19 922 A48
65		BP	N		897 A19 781 785 884 901 922 937 A48
66					897 A19 815 922 A42 A48
67		P	PEY4		897 A19 001 002 012 013 014 015 260 342 419 474 922 A07 A42 A48
68		P			897 A19 001 002 012 014 015 336 922 A42
69		P	B		897 392 785 884 901 922 937 A48
70		P	PD		897 A19 001 002 012 013 014 339 368 531 765 766 785 884 901 922 962 A42 A48
71					897 A19 922 A42
72					897 A19 815 922 A42 A48
73		B	P	W/HD 12533,SB, + K33	897 A19 699 884 901 921 922 A48 A67
74					897 922
75		B		W/ 56 417	897 A19 815 922 A42
76		P			897 A19 001 002 012 014 015 368 419 922 A07 A42 A63
77			EN		897 014 341 A23
78					897 A19 419 815 922 A07 A42 A48
79		P			897 002 013 922 A48 A63
80		P	4		897 A19 001 002 012 014 015 368 474 815 922 A42
81			AMB		897 A19 291 753 781 782 884 901 922 A42 A48
82					897 922
83		P	PEN		897 A19 001 002 012 013 014 015 260 342 390 922 A42 A48
84		P	EN		897 A19 001 002 012 013 014 260 342 922 A42 A63
85					897 A19 815 922 A42
86					897 A19 392 781 782 884 901 921 922 A42 A48
87		SP		W/ 57 499, 501	897 A19 001 002 010 012 014 015 336 368 922 A07 A42 A48
88					897 A19 815 922 A42 A48
89		SP	EN		897 A19 001 002 010 012 013 014 015 260 342 390 815 922 A07 A42 A48
90		SP	B		897 A19 008 009 010 367 392 731 781 783 785 884 901 921 922 A42 A48

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	13138	B + 41 412	2 6 35 + 41 46.3	8.2 M	7.5 G		B9					11.60						1.0			2 9 40 + 42 .5
2	13209	B + 52 528	2 7 17 + 52 58.8	8.1 M	8.09G		A0					11.88						1.0			2 10 38 + 53 12.9
3	13247	B + 32 390	2 7 19 + 33 7.8	7.70M			A0					10.72						1.0			2 10 16 + 33 21.9
4	13294	B + 38 425	2 7 50 + 38 48.3	5.1 M	−0.02	−0.08	B95*			8.95	.04						2.0				2 10 53 + 39 2.4
5	13267	B + 56 438	2 7 59 + 57 24.6	6.4	0.32	−0.43	B51*					10.65						1.0			2 11 29 + 57 38.7
6	13268	B + 55 534	2 8 3 + 55 55.4	8.18	0.13	−0.83	O85*					10.68	.20					3.0			2 11 30 + 56 9.5
7	13331	B + 56 443	2 8 37 + 57 4.7	9.0 M	8.6 G		B83					11.07						.3			2 12 6 + 57 18.8
8		B + 53 471	2 8 48 + 54 24.5	9.5 M	9.8 G		B5					11.77						1.0			2 12 12 + 54 38.6
9	13452	B + 53 474	2 9 48 + 53 59.1	8.1 M			A0					11.10						1.0			2 13 12 + 54 13.1
10	13544	B + 53 480	2 10 28 + 53 40.9	8.88	−0.01	−0.82	B04					10.47						1.0			2 13 51 + 53 54.9
11	232618	B + 52 542	2 10 31 + 52 53.4	9.0 M	9.0 G		B2					11.04						1.0			2 13 53 + 53 7.4
12	13561	B + 55 547	2 10 43 + 56 16.0	8.83	0.09	−0.77	B15*					10.77						1.0			2 14 12 + 56 30.0
13	13621	B + 54 494	2 11 7 + 55 5.1	8.10	0.06	−0.78	B14p					10.16	.04					3.0			2 14 33 + 55 19.1
14	13633	B + 57 522	2 11 24 + 58 15.5	7.83	0.17		B63p					11.70	.11					2.0			2 14 57 + 58 29.5
15	13661	B + 53 486	2 11 28 + 54 17.9	8.6 M	7.7 G		B24s			9.78		10.11					1.0	1.0			2 14 53 + 54 31.9
16	13669	B + 55 552	2 11 35 + 55 33.6	7.90	0.35	−0.41	B25s					11.35	.22					2.0			2 15 2 + 55 47.6
17	13717	B + 54 500	2 12 0 + 55 21.8	8.01M	7.9 G		A03					11.65						1.0			2 15 27 + 55 35.7
18	13716	B + 57 525	2 12 7 + 57 31.9	8.25	0.31	−0.59	B03*					11.48						1.0			2 15 39 + 57 45.8
19	13745	B + 55 554	2 12 18 + 55 45.9	7.9	0.17	−0.78	B03*			9.72		11.01	.08				1.0	2.0			2 15 46 + 55 59.8
20	13757	B + 60 456	2 12 38 + 60 29.3	8.4 M	8.61G		B95					11.67						1.0			2 16 17 + 60 43.2
21	13869	B + 32 409	2 12 58 + 33 7.6	5.28	−0.01	−0.03	B95s			8.64	.06	8.80					3.0	1.0			2 15 56 + 33 21.5
22	13832	B + 54 505	2 13 5 + 55 11.7	10.2 M			B9					11.95						1.0			2 16 32 + 55 25.6
23	13866	B + 56 475	2 13 18 + 56 29.3	7.5	0.19	−0.64	B21*					9.85	.20					1.3			2 16 48 + 56 43.2
24	13867	B + 49 614	2 13 19 + 49 35.3	7.9 M	7.2 G		B55s					10.27						1.0			2 16 36 + 49 49.2
25	13854	B + 56 471	2 13 21 + 56 49.4	6.5	0.28	−0.65	B11*			9.62	.16	9.46	.13				2.0	1.3			2 16 52 + 57 3.3
26		B + 56 473	2 13 27 + 56 53.9	9.07	0.24	−0.63	B12p					11.28						.3			2 16 58 + 57 7.8
27	13890	B + 56 478	2 13 38 + 56 32.3	8.5	0.19	−0.64	B13*					11.54	.26					1.3			2 17 8 + 56 46.2
28	13900	B + 56 479	2 13 45 + 56 40.0	9.18	0.17	−0.66	B14p					11.63						1.0			2 17 16 + 56 53.9
29	13970	B + 55 564	2 14 16 + 56 24.6	8.29	0.14		B25*					11.21	.22					2.0			2 17 46 + 56 38.4
30	13969	B + 56 485	2 14 19 + 56 51.6	8.85	0.30	−0.60	B14*					10.86	.08					2.0			2 17 50 + 57 5.4
31	14055	B + 33 397	2 14 20 + 33 37.0	4.01	0.03	0.02	A05p			7.96	.06	8.19					3.0	1.0			2 17 19 + 33 50.9
32	14014	B + 55 567	2 14 30 + 56 .1	8.75	0.14	−0.66	B05p					11.67						1.0			2 17 59 + 56 13.9
33	14053	B + 56 498	2 14 52 + 56 46.8	8.42	0.25	−0.62	B12*					11.29	.16					2.0			2 18 23 + 57 .6
34	14052	B + 56 500	2 14 56 + 56 58.7	8.18	0.30	−0.59	B11*					10.95						.3			2 18 28 + 57 12.5
35	14191	B + 19 340	2 15 20 + 19 40.3	5.60	0.02	0.04	A15s			9.11		9.70					1.0	1.0			2 18 7 + 19 54.1
36	14134	B + 56 522	2 15 33 + 56 54.3	6.6	0.5	−0.37	B31*					9.81	.16					2.3			2 19 5 + 57 8.1
37		B + 56 541	2 16 10 + 56 29.2	9.5 M								11.90						1.0			2 19 41 + 56 43.0
38	14220	B + 51 548	2 16 15 + 52 19.9	7.0 M			B25*			9.74		9.42	.18				1.0	1.3			2 19 38 + 52 33.7
39	14171	B + 63 320	2 16 21 + 64 6.5	6.47M			A0 s					10.10						1.0			2 20 13 + 64 20.3
40	14331	B + 55 590	2 17 22 + 55 35.8	8.44	0.17	−0.76	B03p					11.35						1.0			2 20 52 + 55 49.5
41	14392	B + 49 640	2 17 39 + 49 55.4	5.57	−0.13	−0.38	B85*					8.55						1.0			2 20 58 + 50 9.1
42	14436	B + 50 530	2 18 8 + 51 3.7	8.2 M			A0	8.25								1.0					2 21 29 + 51 17.4
43	14434	B + 56 567	2 18 20 + 56 40.6	8.50	0.16	−0.79	O6 p					10.61	.28					2.0			2 21 52 + 56 54.3
44	14443	B + 56 570	2 18 28 + 56 55.0	8.05	0.34	−0.55	B21*					9.78	.05					3.0			2 22 1 + 57 8.7
45	14489	B + 55 598	2 18 51 + 55 37.1	5.18	0.36	−0.11	A21*					11.38						1.0			2 22 21 + 55 50.8
46	14520	B + 56 588	2 19 11 + 56 51.6	9.2	0.33	−0.54	B22*					11.49	.09					2.0			2 22 44 + 57 5.2
47	14605	B + 55 605	2 20 3 + 56 21.1	9.34	0.27	−0.75	B15s					11.48						1.0			2 23 35 + 56 34.7
48		B + 48 658	2 20 5 + 48 48.3	8.4 M	8.1 G		B2 c					9.96						1.0			2 23 23 + 49 1.9
49	14684	B + 50 541	2 20 28 + 50 40.6	8.5 M	8.47G		A0					11.11	.13					2.0			2 23 49 + 50 54.2
50	14632	B + 62 388	2 20 28 + 62 49.0	7.5 M	7.7 G		A05					11.29						1.0			2 24 18 + 63 2.6
51	14827	B + 54 539	2 21 43 + 55 1.7	7.51M			B9					10.77						1.0			2 25 13 + 55 15.2
52	14818	B + 55 612	2 21 43 + 56 23.1	6.3	0.3	−0.62	B21*					10.33	.13					4.0			2 25 16 + 56 36.6
53		B + 37 548	2 21 44 + 37 33.9	8.9 M	9.3 G							11.19						1.0			2 24 48 + 37 47.4
54	14795	B + 59 484	2 21 45 + 59 46.8	7.52M			B65	6.37				10.25	.04			1.0		2.0			2 25 26 + 60 .3
55		B + 55 613	2 21 48 + 55 58.3	9.5 M								11.45						1.0			2 25 20 + 56 11.8
56	14817	B + 60 472	2 21 54 + 61 19.5	7.01	0.21	−0.15	B95p					11.21	.14					3.0			2 25 40 + 61 33.0
57	14893	B + 36 478	2 22 12 + 36 53.6	7.4 M	7.2 G		B9					10.64						1.0			2 25 15 + 37 7.1
58	14871	B + 55 616	2 22 26 + 55 52.7	8.1 M	7.7 G		B65*					10.73	.08					2.0			2 25 58 + 56 6.2
59	15137	B + 51 579	2 24 34 + 52 19.6	8.0 M	7.6 G		O95			9.80	.04	10.42					2.0	1.0			2 27 59 + 52 33.0
60	15124	B + 56 630	2 24 35 + 57 3.1	8.2 M	8.09G		B53s					11.53	.05					2.0			2 28 10 + 57 16.5
61	15253	B + 54 557	2 25 53 + 55 18.8	6.52M			A23*					11.02						1.0			2 29 25 + 55 32.2
62		B + 60 493	2 27 4 + 60 57.4	8.44	0.79	−0.30	B01*					10.96						1.0			2 30 51 + 61 10.7
63	15450	B + 56 642	2 27 44 + 56 40.6	8.84	0.34	−0.64	B13s					11.66						1.0			2 31 20 + 56 53.9
64	15593	B + 49 683	2 28 46 + 49 59.8	7.1 M	7.7 G		A0					11.18						1.0			2 32 8 + 50 13.0
65	15558	B + 60 502	2 28 54 + 61 14.1	7.83	0.52	−0.56	O6 *					11.44						1.0			2 32 42 + 61 27.3
66	15642	B + 54 569	2 29 24 + 55 6.5	8.53	0.08	−0.84	B03p					10.80	.10					2.0			2 32 57 + 55 19.7
67	15640	B + 59 505	2 29 29 + 59 46.8	7.5 M	7.58G		B95					11.60						1.0			2 33 13 + 60 0.0
68	15863	B + 49 696	2 31 17 + 49 50.8	6.86M			B9					10.42						1.0			2 34 40 + 50 3.9
69	16012	B + 57 599	2 32 56 + 57 30.2	8.7 M	8.32G		B93c					11.43	.28					2.0			2 36 35 + 57 43.2
70	16025	B + 57 600	2 33 6 + 57 54.2	8.8 M	8.95G		B95					11.26	.08					2.0			2 36 47 + 58 7.2
71	232684	B + 51 602	2 34 33 + 51 28.5	9.5 M	9.4 G		B8			9.70							1.0				2 38 0 + 51 41.5
72	16218	B + 61 444	2 35 3 + 62 22.6	6.80M			B9			9.58	.05						2.0				2 38 58 + 62 35.5
73	16718	B + 58 508	2 39 24 + 58 40.6	7.2 M	7.65G		A13					11.61						1.0			2 43 9 + 58 53.3
74	16727	B + 54 598	2 39 27 + 54 53.6	5.65M	−0.13	−0.49	B65p			8.65		8.03					1.0	1.0			2 43 2 + 55 6.3
75	17022	B + 49 761	2 42 15 + 49 59.6	8.7 M	8.9 G		F8					11.58						1.0			2 45 41 + 50 12.2
76	17359	B + 48 762	2 45 25 + 48 58.6	7.40M			B9					10.88						1.0			2 48 50 + 49 11.1
77	17743	B + 52 640	2 49 18 + 52 47.6	6.40M	0.07	−0.28	B83p			9.44							1.0				2 52 52 + 52 59.9
78	17879	B + 52 641	2 50 42 + 52 33.6	3.09M			A5 *			9.75							1.0				2 54 16 + 52 45.8
79	18296	B + 31 509	2 54 15 + 31 44.1	5.10	−0.01	−0.24	A0 s			8.19	.23						2.0				2 57 17 + 31 56.1
80	18537	B + 51 665	2 57 18 + 52 9.3	5.28	−0.05	−0.45	B74*			8.00	.04						2.0				3 0 52 + 52 21.2
81	19057	B + 40 663	3 2 4 + 40 55.6	7.5 M	7.4 G		A0					11.90	.12					4.0			3 5 19 + 41 7.2
82	19356	B + 40 673	3 4 54 + 40 45.9	2.15	−0.06	−0.44V	B85*	7.42	.01	4.95	.12			6.25		3.0	9.0		1.0		3 8 10 + 40 57.4
83	19445	B + 25 495	3 5 29 + 26 9.1	8.0	0.47	−0.24	F76s			12.58							1.0				3 8 27 + 26 20.5
84	19600	B + 27 480	3 7 9 + 27 37.9	6.42	0.00	0.0	A05	9.99		9.80						1.0	1.0				3 10 8 + 27 49.3
85	19832	B + 26 523	3 9 15 + 27 4.2	5.67	−0.09		A0 *	8.82		8.39						1.0	1.0				3 12 14 + 27 15.4
86	22192	B + 47 857	3 32 56 + 48 1.7	4.2	−0.06	−0.6	B53*			6.64	.02	7.45		7.00	.05		2.0	1.0	2.0		3 36 30 + 48 11.6
87	22928	B + 47 876	3 39 21 + 47 37.8	3.02	−0.1	−0.5	B53*			5.29	.09			5.61	.04		2.0		1.3		3 42 55 + 47 47.3
88	23155	B + 24 537	3 40 44 + 24 55.4	7.51	0.15	0.10	A2			11.59							1.0				3 43 43 + 25 4.8
89	23156	B + 23 495	3 40 45 + 24 13.1	8.23	0.25	0.14	A75			12.18							1.0				3 43 44 + 24 22.5
90	23194	B + 24 540	3 41 1 + 24 24.0	8.06	0.20	0.1	A55	12.74		12.27						1.0	1.0				3 44 0 + 24 33.4

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 922
2					897 922
3					897 922
4		B		W/HD 13295	897 A19 699 782 884 901 922
5		SBP	P4		897 A19 002 010 012 013 014 015 390 474 531 765 766 815 884 901 922 962 A42 A48
6		P	N		897 A19 001 002 012 013 014 015 336 368 922 A42
7					897 922 A07 A48
8					898 014 A20
9					897 922 A07
10					897 A19 001 002 012 014 015 368 922 A42
11					897 014 A23
12		P	P		897 A19 001 002 012 014 015 419 922 A07 A42 A48
13		P			897 A19 001 002 012 014 015 390 922 A42 A48 A63
14		B			897 A19 815 922 A42 A48
15			EN		897 014 342 419 922 A07 A48
16			EN		897 A19 260 337 922 A48
17					897 014 922 A07 A42 A48
18		P		W/ 57 527	897 A19 001 002 012 013 014 015 368 419 815 922 A07 A42 A48 A63
19		SP	NH4		897 A19 001 002 010 012 013 014 015 339 390 474 883 922 A07 A42 A48 A63
20					897 922 A42 A48
21			N		897 A19 781 782 884 901 922 A42 A48
22					898 922
23		P	PH4R	W/ 56 469	897 A19 001 002 012 013 015 339 390 419 474 922 962 A07 A42 A48 A63
24			E		897 341 922 A07 A42
25		SP	PEHDR	W/ 56 470	897 A19 002 010 012 013 015 260 339 342 350 390 474 651 883 884 922 A42 A48 A59
26		SP			897 A19 002 010 012 015 390 A20 A42 A48
27		P	PE4		897 A19 001 002 012 015 341 390 474 922 A42 A48
28		P			897 A19 001 002 012 015 390 864 922 A42 A48
29		P	N		897 A19 002 013 014 419 922 A07 A42 A48
30		P	4		897 A19 001 002 012 013 015 390 474 864 922 A07 A42 A48
31		UP			897 A19 089 782 783 785 884 901 921 922 A42 A48 A61
32		P			897 A19 001 002 012 014 015 368 922 A42
33		P	4	W/ 56 497	897 A19 001 002 012 015 390 474 922 A07 A42
34		P	4	W/ 56 502	897 A19 001 015 390 474 864 922 A07 A42 A48
35			B		897 A19 782 884 901 922 A42 A48
36		SP	HD4	W/ 56 530	897 A19 001 002 010 012 015 260 339 390 419 474 504 864 922 A42 A48
37					898
38		P	S		897 002 013 419 922 A07 A48
39			PA		897 884 901 922 937 A48
40		P			897 A19 001 002 012 014 015 390 922 A42
41		P	PA		897 A19 619 753 782 785 884 901 922 A48
42					897 922
43		P			897 A19 001 002 012 013 336 390 419 846 883 922 A07 A42 A48 A76
44		S	4	W/ 56 572, 574	897 A19 010 015 390 474 864 922 A42 A48 A57 A63
45		BP	PD4		897 A19 001 002 012 013 014 339 368 392 781 816 884 901 922 A42 A48
46		SP	4		897 A19 001 002 010 012 015 390 474 864 922 A42 A48
47			PE		898 A19 922 A42 A48
48				W/ 48 661	897 A21
49					897 922
50					897 922 A42 A48
51					897 922
52		SP	EYHD		897 A19 001 002 010 012 014 260 339 342 390 419 511 651 884 895 921 A42 A48 A59
53					897
54					897 922 A42 A48
55					898
56		B			897 A19 922 A42 A48
57					897 922
58		222P		DM PER	897 002 922 969 A07 A48
59					897 012 014 922 A42 A63
60			N		897 419 922 A07 A48
61		B	PY		897 884 901 922 937 A48
62		P	4		897 A19 001 002 012 014 015 368 474 A20 A42 A48
63			PE		897 A19 922 A42 A48
64					897 922
65	O	P	R		897 A19 002 012 013 014 015 211 336 339 350 368 419 883 922 A07
66		P			897 A19 001 002 012 013 014 015 390 883 922 A07 A42 A48 A63
67					897 922 A42 A48
68					897 922
69				W/ 57 595	897 922 A48
70					897 922 A48
71					897 A23
72	O				897 922
73					897 922 A48
74		P			897 A19 002 397 884 901 922 937 A48
75					897 922
76					897 922
77		B			897 A19 397 884 901 922 A48
78		B0		W/HD17878,SB,CS, + G53	897 884 901 921 922 969 A42
79			PSAG		897 A19 021 025 026 262 701 753 781 782 884 901 922 948 A42 A48
80		BP		W/HD 18538, + A1(N)	897 A19 002 013 369 884 901 922 937 A42 A48 A59
81					897 922
82		UB2P		BETA PER, EB,SB, + G + F	897 002 318 324 377 488 533 593 601 781 783 785 814 884 901 921 922 969 A43 A49
83			P		897 A19 922 A16 A42 A48
84					897 A19 782 884 901 922 A42 A48
85		6	PNA	SX ARI	897 576 590 710 753 782 884 901 922 948 969 A07 A42 A48
86		P	PENY4R		897 A19 002 013 020 036 170 260 342 369 419 474 785 883 884 921 922 963 A42 A48
87		USOP	N4		897 A19 010 013 367 369 377 419 474 488 765 766 785 883 884 895 901 922 969
88					897 A19 290 922 A07
89					897 A19 290 922 A07 A42
90					897 A19 142 922 A07 A42

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	23246	B + 23 504	3 41 27 + 24 14.3	8.17	0.27	0.09	A85	12.60								1.0					3 44 26 + 24 23.7
2	23288	B + 23 505	3 41 50 + 24 8.0	5.45	−0.04	−0.33	B74*			7.74	.23	8.49	.54	8.67	.30		11.5	3.0	7.5		3 44 49 + 24 17.4
3	23219	B + 47 881	3 41 53 + 47 30.3	7.8 M			B9							10.32					1.0		3 45 27 + 47 39.7
4	23289	B + 22 537	3 41 54 + 23 6.8	8.95	0.39	0.01	F35			13.75							1.0				3 44 51 + 23 16.2
5	23302	B + 23 507	3 41 54 + 23 57.5	3.70	−0.11	−0.41	B63*	8.37	.15	6.06	.26	6.44	.26	6.51	.40	4.0	22.0	3.3	7.3		3 44 52 + 24 6.9
6	23324	B + 24 546	3 42 10 + 24 41.0	5.65	−0.07	−0.36	B85p	8.62		7.89	.29	8.72	.26	8.62	.16	1.0	4.0	7.0	3.0		3 45 9 + 24 50.4
7	23338	B + 24 547	3 42 14 + 24 18.7	4.30	−0.11	−0.46	B65p	8.44	.28	6.56	.24	7.27	.30	7.16	.45	2.0	19.0	12.2	6.5		3 45 13 + 24 28.1
8	23361	B + 23 510	3 42 28 + 23 52.8	8.04	0.21	0.18	A35			12.36							.3				3 45 26 + 24 2.1
9	23402	B + 22 544	3 42 43 + 22 32.4	7.81	0.19	0.15	A0			11.55							1.0				3 45 40 + 22 41.7
10	23410	B + 22 545	3 42 51 + 22 59.5	6.85	0.04	0.01	A0 p	10.59	.15	10.10		11.02	.15	11.37		4.0	1.0	4.0	1.0		3 45 48 + 23 8.8
11	23408	B + 23 516	3 42 51 + 24 12.8	3.9	−0.07	−0.40	B73*	8.44	.34	6.48	.24	6.88	.28	7.02	.49	2.0	19.0	13.0	5.5		3 45 50 + 24 22.1
12	23409	B + 23 517	3 42 53 + 23 53.1	7.85	0.20	0.16	A25	12.66								1.0					3 45 51 + 24 2.4
13	23432	B + 24 553	3 42 55 + 24 24.0	5.76	−0.04	−0.23	B85p					8.54	.08					1.3			3 45 54 + 24 33.3
14	23430	B + 24 554	3 42 59 + 25 14.7	8.02	0.22	0.12	A0			12.45							1.0				3 45 59 + 25 24.0
15	23432	B + 24 553	3 43 0 + 24 23.2	5.76	−0.04	−0.23	B85*			7.81	.17	8.97	.24	8.76	.36		5.0	8.3	5.8		3 45 59 + 24 32.5
16	23479	B + 23 520	3 43 17 + 24 2.1	7.96	0.32	0.07	A35p	11.91		11.96	.31					1.0	2.0				3 46 16 + 24 11.4
17	23480	B + 23 522	3 43 21 + 23 47.6	4.18	−0.06	−0.42	B64*	8.72	.66	6.62	.31	6.94	.34	7.05	.31	3.0	23.0	6.3	2.8		3 46 19 + 23 56.9
18	23489	B + 23 523	3 43 29 + 24 6.1	7.34	0.10	0.12	A25	10.93		10.71						1.0	.3				3 46 28 + 24 15.4
19	23568	B + 24 562	3 44 0 + 24 22.0	6.81	0.02	−0.07	B95p	10.33		9.74	.29			10.76	.55	1.0	4.0		2.0		3 46 59 + 24 31.2
20	23567	B + 24 563	3 44 4 + 24 40.0	8.28	0.36	0.12	A95p	12.62		13.13	.16					1.0	3.0				3 47 3 + 24 49.2
21	23585	B + 23 528	3 44 6 + 23 50.5	8.37	0.30	0.08	A95	11.47								1.0					3 47 4 + 23 59.7
22	23609	B + 23 535	3 44 19 + 23 34.4	8.0 M			F5			13.05							.3				3 47 17 + 23 43.6
23	23632	B + 23 537	3 44 23 + 23 39.0	6.99	0.03	0.05	A15	10.60				11.28				1.0		.3			3 47 21 + 23 48.2
24	23628	B + 24 566	3 44 25 + 24 26.1	7.65	0.21	0.12	A45	11.64	.05	11.77	.26					2.0	1.5				3 47 24 + 24 35.3
25	23610	B + 22 556	3 44 26 + 22 46.1	8.13	0.25	0.13	A0			12.51	.44						2.0				3 47 23 + 22 55.3
26	23631	B + 23 538	3 44 26 + 23 45.7	7.26	0.05	0.04	A25	10.30		10.87		11.78		10.52		1.0	.3	1.0	1.0		3 47 24 + 23 54.9
27	23628	B + 24 566	3 44 26 + 24 28.3	7.65	0.21	0.12	A45c			11.16							1.0				3 47 25 + 24 37.5
28	23627	B + 24 567	3 44 26 + 24 30.5	8.42M	8.42G		A0	12.20	.08	12.49	.22					2.0	1.5				3 47 25 + 24 39.7
29	23643	B + 23 539	3 44 29 + 23 31.5	7.77	0.15	0.12	A35			11.26							.3				3 47 27 + 23 40.7
30	23630	B + 23 541	3 44 30 + 23 57.1	2.82	−0.08	−0.4	B73*	7.67	.22	5.67	.33	6.08	.22	5.87	.37	8.0	20.7	16.0	13.5		3 47 28 + 24 6.3
31	23642	B + 23 540	3 44 31 + 24 8.1	6.81	0.06	0.02	A05s	9.95		9.86	.23					.3	1.8				3 47 30 + 24 17.3
32	23664	B + 24 568	3 44 47 + 25 14.0	8.30	0.26	0.14	A2			13.19							1.0				3 47 47 + 25 23.2
33	23733	B + 23 549	3 45 15 + 24 10.0	8.27	0.36	0.11	A95			12.77	.17						2.3				3 48 14 + 24 19.2
34	23753	B + 22 563	3 45 23 + 23 16.1	5.44	−0.07	−0.32	B85p	8.55		8.04	.34	8.38	.32	9.18	.23	1.0	9.0	3.0	14.2		3 48 21 + 23 25.3
35	23763	B + 23 553	3 45 31 + 24 11.6	6.94	0.12	0.09	A15	10.60		10.35	.08					1.0	2.3				3 48 30 + 24 20.8
36	23791	B + 22 565	3 45 46 + 23 6.5	8.37	0.29	0.13	A85			12.96							1.0				3 48 44 + 23 15.6
37	23823	B + 22 566	3 45 58 + 22 38.8	8.4 M	7.91G		B9	10.98	.10	10.60	.28	11.32	.10			2.0	2.0	3.0			3 48 55 + 22 47.9
38	23822	B + 23 556	3 45 58 + 23 42.4	6.57M			F0			11.53	.06						.5				3 48 56 + 23 51.5
39	23863	B + 23 559	3 46 6 + 23 43.3	8.12	0.22	0.10	A75c			10.53							.3				3 49 4 + 23 52.4
40	23850	B + 23 557	3 46 11 + 23 54.1	3.6	−0.08	−0.4	B83p	7.84	.24	6.28	.16	6.93	.16	6.96	.57	2.0	14.0	6.0	2.0		3 49 10 + 24 3.2
41	23850	B + 23 557	3 46 11 + 23 56.7	3.6	−0.08	−0.4	B83*	8.36		6.25	.21	6.02		6.21	.39	1.0	1.5	1.0	5.0		3 49 10 + 24 5.8
42	23862	B + 23 558	3 46 12 + 23 59.1	5.1	−0.08	−0.28	B8 *			7.21	.22	8.23	.14	8.12	.49		10.0	4.8	2.0		3 49 11 + 24 8.2
43	23852	B + 22 569	3 46 14 + 22 27.5	7.72	0.18	0.12	A0			11.48							1.0				3 49 11 + 22 36.6
44	23863	B + 23 559	3 46 14 + 23 44.1	8.12	0.22	0.10	A75	11.52		12.01	.06					1.0	.5				3 49 12 + 23 53.2
45	23873	B + 23 561	3 46 23 + 24 13.8	6.60	−0.03	−0.12	A05*	9.80		9.11	.10	10.43	.05	11.57		1.0	5.3	3.0	.3		3 49 22 + 24 22.9
46	23886	B + 23 562	3 46 27 + 24 5.8	7.97	0.18	0.13	A35	11.78		11.61	.15					1.0	.8				3 49 26 + 24 14.9
47	23913	B + 22 572	3 46 41 + 22 23.0	7.00	0.03	−0.02	B9	10.78	.05	10.14	.00	10.97	.03			2.0	2.0	2.0			3 49 38 + 22 32.1
48	23924	B + 22 573	3 46 43 + 23 11.4	8.10	0.22	0.13	A75			12.27							1.0				3 49 41 + 23 20.5
49	23923	B + 23 563	3 46 45 + 23 33.7	6.16	−0.05	−0.19	B95p	9.38		9.06	.06	10.02	.23	9.93	.20	1.0	2.3	3.0	10.0		3 49 43 + 23 42.8
50	23949	B + 23 565	3 46 56 + 24 4.0	9.17	0.17	0.14	A0	11.52		12.78	.27					1.0	3.0				3 49 55 + 24 13.1
51	23948	B + 23 567	3 46 57 + 24 11.9	7.54	0.08	0.08	A0	11.30		10.84	.18					1.0	3.3				3 49 56 + 24 21.0
52	23950	B + 21 535	3 46 58 + 22 5.6	6.07	−0.02	−0.32	B83			9.26		9.09	.18	10.14			1.0	2.0	1.0		3 49 55 + 22 14.7
53	23964	B + 23 569	3 47 0 + 23 41.9	6.74	0.06	−0.06	B95	10.05		9.68	.04	10.86	.52	11.31		1.0	2.3	2.0	1.0		3 49 58 + 23 51.0
54	23985	B + 25 624	3 47 18 + 25 25.8	5.25	0.23	0.08	A35p			9.06		11.40					1.0	1.0			3 50 18 + 25 34.8
55	24013	B + 24 578	3 47 29 + 24 20.7	7.42	0.13	0.12	A2	11.46	.44	11.25	.18					2.0	3.0				3 50 28 + 24 29.7
56	24076	B + 23 570	3 47 54 + 23 48.7	6.93	0.09	0.03	A25	10.29	.46	10.10	.06			11.86		2.0	2.0		1.0		3 50 53 + 23 57.7
57	24118	B + 24 583	3 48 25 + 25 .8	6.86M			A1 s	11.81		11.45						1.0	1.0				3 51 25 + 25 9.8
58	24640	B + 34 768	3 53 15 + 34 56.2	5.5	−0.03	−0.75	B25p					7.38	.08					6.0			3 56 29 + 35 4.9
59	24760	B + 39 895	3 54 29 + 39 52.0	2.9	−0.2	−1.0	B15*	6.75		4.77	.23			3.31	.12	1.0	6.0		1.5		3 57 51 + 40 .6
60	24912	B + 35 775	3 55 43 + 35 38.9	4.0	0.0	−0.92	O7 *	8.65	.02	5.75	.10	6.12		5.87	.13	2.0	3.0	1.0	1.5		3 58 58 + 35 47.4
61	26737	B + 22 657	4 11 32 + 22 19.6	7.06	0.42	0.01	F55			12.83	.03						2.0				4 14 30 + 22 27.1
62	26802	B + 21 610	4 12 15 + 21 58.4	8.7 M	8.86G		A2			12.52	.00						2.0				4 15 13 + 22 5.9
63	27004	B + 43 935	4 14 30 + 43 33.8	7.72M			B9					11.82						1.0			4 18 1 + 43 41.1
64	27026	B + 41 844	4 14 40 + 42 1.2	6.10M	−0.08	−0.30	B85			8.89							1.0				4 18 8 + 42 8.5
65	27025	B + 44 901	4 14 46 + 44 33.8	8.2 M	8.0 G		B9					11.92						1.0			4 18 19 + 44 41.1
66	27176	B + 21 618	4 15 25 + 21 27.5	5.65	0.28	0.08	A85			10.05	.07						2.0				4 18 22 + 21 34.8
67	27249	B + 20 731	4 16 4 + 21 10.8	8.2 M	8.5 G		F5			13.14							1.0				4 19 1 + 21 18.0
68	27295	B + 20 733	4 16 29 + 21 1.4	5.35	−0.1	−0.27	B95*			8.00	.03						2.0				4 19 26 + 21 8.6
69	27459	B + 14 682	4 17 46 + 14 58.6	5.26	0.22	0.10	F05	10.28	.19	9.56						2.0	1.0				4 20 36 + 15 5.7
70	27396	B + 46 872	4 17 56 + 46 22.9	4.85	−0.02	−0.53	B63p	8.62		7.43		6.60				1.0	1.0	1.0			4 21 33 + 46 30.0
71	27561	B + 14 687	4 18 45 + 14 17.5	6.61	0.40	0.00	F55	11.17		11.93						1.0	1.0				4 21 34 + 14 24.5
72	27628	B + 13 668	4 19 14 + 13 57.6	5.72	0.31	0.12	F0 s	10.71		11.05	.16					1.0	2.0				4 22 3 + 14 4.6
73	27691	B + 14 690	4 19 54 + 14 56.4	6.99	0.56	0.09	F84p			13.21							1.0				4 22 44 + 15 3.4
74	27650	B + 42 946	4 20 7 + 42 18.8	5.96M	0.00	−0.16	A02p			9.24	.12						2.0				4 23 36 + 42 25.7
75	27795	B + 45 931	4 21 52 + 46 1.8	7.2 M	7.2 G		B15*					11.16						1.0			4 25 29 + 46 8.6
76	27924	B + 9 571	4 21 57 + 9 56.0	8.0 M			A0			11.13							1.0				4 24 41 + 10 2.8
77	27846	B + 45 933	4 22 13 + 46 7.2	8.0 M	7.8 G		B15					11.65						1.0			4 25 50 + 46 14.0
78	27991	B + 15 621	4 22 46 + 15 49.7	6.46	0.49	0.02	F5 p	11.44		12.15						1.0	1.0				4 25 37 + 15 56.5
79	28034	B + 15 624	4 23 15 + 15 24.7	7.49	0.54	0.08	G0			13.22							1.0				4 26 6 + 15 31.4
80	28052	B + 15 625	4 23 30 + 15 30.4	4.49	0.25	0.14	F05p	8.85		9.55	.03					1.0	2.0				4 26 21 + 15 37.1
81	28083	B + 43 977	4 24 23 + 43 13.2	7.7 M	7.4 G		A0					10.81						1.0			4 27 54 + 43 19.9
82	28217	B + 10 577	4 24 43 + 11 6.1	5.84	0.05	−0.33	B73p	9.17		8.99						1.0	1.0				4 27 29 + 11 12.8
83	28205	B + 15 627	4 24 45 + 15 28.7	7.42	0.53	0.05	F85			13.24							1.0				4 27 36 + 15 35.3
84	28283	B + 9 584	4 25 18 + 9 57.7	7.44M	7.44G		A0			11.82							1.0				4 28 2 + 10 4.3
85	28307	B + 15 631	4 25 43 + 15 51.2	3.85	0.95	0.7	K03p	11.74		11.69	.40					1.0	.5				4 28 34 + 15 57.8
86	28319	B + 15 632	4 25 48 + 15 45.7	3.41	0.18	0.2	A73*	8.96	.18	7.92	.28					2.0	1.3				4 28 39 + 15 52.3
87	28319	B + 15 632	4 25 51 + 15 48.5	3.41	0.18	0.2	A73*			8.77							1.0				4 28 42 + 15 55.1
88	28355	B + 12 598	4 26 2 + 12 56.3	5.02	0.22	0.12	A75s	9.70	.16	9.66	.13					3.3	3.0				4 28 50 + 13 2.9
89	28363	B + 15 633	4 26 8 + 16 3.0	6.59	0.53	0.06	F75p	12.71		12.05						1.0	1.0				4 28 59 + 16 9.6
90	28406	B + 17 732	4 26 37 + 17 45.3	6.91	0.45	−0.02	F8			12.13							1.0				4 29 30 + 17 51.8

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 A19 290 922 A07 A42
2		S	N		897 A19 002 007 010 013 020 290 367 392 883 884 901 922 A42 A48
3					897 922
4					897 A19 922 A42
5		SP	PEN4		897 A19 002 007 010 013 020 260 290 342 392 474 783 785 882 883 921 A42 A48 A59
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74		UB			897 A19 397 884 901 922 937 A48 A66
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89		8			897 A19 379 922 A48
90					897 A19 379 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	28436	B+17 735	4 26 55 +17 34.2	8.1 M			B75			11.58							1.0				4 29 48 +17 40.7
2	28485	B+15 636	4 27 17 +15 31.8	5.58	0.32	0.10	F05*	10.88	.20	10.62	.15					3.0	2.0				4 30 8 +15 38.3
3	28556	B+13 690	4 27 48 +13 37.0	5.41	0.26	0.10	F15	10.35	.19	10.38	.14	13.03	.16			6.0	3.0	2.0			4 30 37 +13 43.4
4	28546	B+15 639	4 27 48 +15 35.1	5.48	0.26	0.10	A7 *	10.49	.16	10.71	.37	13.15				4.0	4.0	1.0			4 30 39 +15 41.5
5		B+44 967	4 28 3 +44 49.9	9.0 M	9.2 G							11.99						1.0			4 31 38 +44 56.3
6	28608	B+10 588	4 28 11 +10 38.7	7.04	0.47	0.00	F75			12.61							1.0				4 30 56 +10 45.1
7	28607	B+14 712	4 28 21 +14 35.0	8.1 M			F5			13.53							1.0				4 31 11 +14 41.4
8	28622	B+15 643	4 28 30 +15 42.6	8.3 M			F2			12.74							1.0				4 31 21 +15 49.0
9	28596	B+44 971	4 28 57 +44 47.8	7.82M			A0					11.43						1.0			4 32 32 +44 54.1
10	28677	B+15 645	4 29 0 +15 44.8	6.02	0.34	0.04	F45s	11.36		11.70	.75					1.0	2.3				4 31 51 +15 51.2
11	28843	B– 3 809	4 30 7 – 3 18.8	5.80	–0.13	–0.54	B93p	8.57		8.08		8.10				1.0	1.0	.3			4 32 37 – 3 12.5
12	28879	B+16 621	4 30 46 +16 13.2	6.51M			F0	10.15		11.12						1.0	1.0				4 33 38 +16 19.4
13	28911	B+12 608	4 30 58 +13 8.9	6.62	0.43	–0.01	F2	12.12		11.94	.19					1.0	3.0				4 33 46 +13 15.1
14	28910	B+14 720	4 31 0 +14 44.5	4.65	0.25	0.09	F05s	9.71	.25	9.44	.34	12.50				7.0	8.0	1.0			4 33 50 +14 50.7
15	28922	B+10 595	4 31 1 +10 24.8	7.86M	7.86G		A0			11.52							1.0				4 33 46 +10 31.0
16	29023	B+18 652	4 31 58 +18 18.7	7.6 M	7.6 G		A0	11.05		11.61						1.0	1.0				4 34 52 +18 24.9
17	29082	B– 2 942	4 32 4 – 2 11.1	8.2 M	8.2 G		A0	11.15		11.41						1.0	1.0				4 34 35 – 2 4.9
18	29140	B+ 9 607	4 32 54 +10 3.6	4.21	0.19	0.1	A3 *			8.62							1.0				4 35 39 +10 9.7
19	29139	B+16 629	4 33 3 +16 24.6	0.9	1.53	1.9	K53p	11.59		12.53	.08					1.0	2.0				4 35 55 +16 30.7
20	29226	B– 2 952	4 33 31 – 2 19.9	8.1 M	8.1 G		B9	10.00		9.96						1.0	1.0				4 36 2 – 2 13.8
21	29227	B– 3 830	4 33 32 – 3 42.8	6.32	–0.11	–0.41	B73p	8.80		8.48		8.18				1.0	1.0	.3			4 36 2 – 3 36.7
22	29207	B+11 632	4 33 33 +11 18.7	6.79M			A0			11.50		12.69					1.0	1.0			4 36 19 +11 24.8
23	29181	B+18 658	4 33 33 +18 33.9	7.8 M	7.9 G		A2			12.69							1.0				4 36 28 +18 40.0
24		B– 3 832	4 33 45 – 3 38.2	8.3 M			B9			11.83							1.0				4 36 15 – 3 32.1
25	29225	B+15 656	4 33 49 +15 46.1	6.65	0.43	0.01	F8	11.37		12.09						1.0	1.0				4 36 40 +15 52.1
26	29180	B+44 997	4 34 13 +44 35.8	8.2 M	8.0 G		B25					11.20	.22					2.0			4 37 48 +44 41.8
27	29286	B+10 598	4 34 23 +10 44.5	7.62M	7.62G		A0			11.81							1.0				4 37 9 +10 50.5
28	29391	B– 2 963	4 35 5 – 2 34.3	5.21	0.29	0.01	F05	9.86		9.98						1.0	1.0				4 37 36 – 2 28.3
29	29375	B+15 661	4 35 17 +15 56.1	5.79	0.31	0.06	A85	10.65		10.63	.14					1.0	4.0				4 38 9 +16 2.0
30	29388	B+12 618	4 35 22 +12 24.7	4.27	0.13	0.12	A55s	9.16	.31	8.99	.16	10.75	.59			3.0	2.0	2.0			4 38 9 +12 30.6
31	29479	B+15 665	4 36 18 +15 42.2	5.07	0.14	0.2	A7 s	9.67	.19	9.33	.21					2.0	2.5				4 39 9 +15 48.1
32	29497	B+12 620	4 36 21 +12 54.4	7.26M			F5			12.31	.02						2.0				4 39 9 +13 .3
33	29488	B+15 666	4 36 25 +15 49.2	4.68	0.16	0.13	A55s	9.74	.47	9.18	.14					3.0	2.5				4 39 16 +15 55.1
34	29487	B+43 1036	4 37 2 +44 0.0	7.32M			B85					11.00						1.0			4 40 36 +44 5.8
35	29589	B+11 639	4 37 16 +12 6.1	5.38M	–0.12	–0.50	B74	8.20	.17	7.34	.56	7.51	.52			3.0	2.0	2.0			4 40 3 +12 11.9
36	29526	B+48 1128	4 37 40 +48 12.4	5.64M			A05					8.93	.13					4.0			4 41 24 +48 18.1
37	29786	B+15 669	4 39 18 +15 52.6	7.6 M			F2			13.00							1.0				4 42 10 +15 58.3
38	29722	B+43 1043	4 39 21 +43 16.3	5.29	0.01	0.02	A15	9.02		8.77	.00	9.31	.44			1.0	2.0	3.0			4 42 54 +43 21.9
39	29819	B+ 9 628	4 39 31 + 9 32.4	6.85M			F2			11.96							1.0				4 42 15 + 9 38.1
40	29833	B+42 1033	4 40 32 +42 19.6	7.40M			B9					11.29	.05					2.0			4 44 3 +42 25.2
41	29866	B+40 1032	4 40 45 +40 41.7	6.06	0.09	–0.29	B84*			9.75							1.0				4 44 13 +40 47.2
42	30034	B+10 621	4 41 39 +11 3.3	5.40	0.25	0.08	F05	10.32		10.17						1.0	1.0				4 44 25 +11 8.8
43	30210	B+11 646	4 43 15 +11 37.0	5.37	0.20	0.2	A7 s	9.78		9.85						1.0	1.0				4 46 2 +11 42.4
44	30152	B+41 956	4 43 33 +41 13.0	7.02M			A0			10.36							1.0				4 47 2 +41 18.3
45	30209	B+42 1050	4 43 59 +42 13.9	8.5 M	8.3 G		B9					10.16	.04					2.0			4 47 30 +42 19.2
46	30342	B+ 9 651	4 44 22 + 9 57.8	7.32M			A2	11.65		11.26	.16					1.0	4.0				4 47 7 +10 3.1
47	30392	B+ 9 655	4 44 46 +10 4.9	8.27M			A0			12.60	.24						3.0				4 47 31 +10 10.2
48	276914	B+40 1054	4 44 59 +40 37.0	9.1 M			B5			10.22							1.0				4 48 27 +40 42.3
49	30492	B+10 641	4 45 49 +10 51.5	8.7 M			A0			13.96							1.0				4 48 35 +10 56.7
50	30409	B+43 1075	4 45 51 +44 9.2	8.4 M	8.4 G		B95			11.47		11.39					1.0	1.0			4 49 26 +44 14.4
51		B+46 924	4 46 25 +46 48.9	8.8 M	9.5 G							11.46						1.0			4 50 6 +46 54.0
52	30677	B+ 8 775	4 47 21 + 8 19.4	7.8 M	7.67G		B05*	9.32	.40			9.38				2.0		1.0			4 50 4 + 8 24.5
53	30687	B+10 651	4 47 24 +10 31.2	8.5 M			F2			13.37							1.0				4 50 10 +10 36.3
54	30739	B+ 8 777	4 47 53 + 8 49.0	4.35	0.01	–0.0	A05*	8.42		6.69		8.63				1.0	1.0	1.0			4 50 37 + 8 54.1
55	30650	B+43 1096	4 47 58 +43 29.7	7.5	–0.03	–0.41	B75*	10.38		9.83		10.59				1.0	1.0	1.0			4 51 32 +43 34.7
56	30810	B+10 654	4 48 26 +10 59.1	6.77	0.52	0.05	F65p			12.71							1.0				4 51 12 +11 4.1
57	30870	B+ 9 668	4 48 58 + 9 53.5	6.10	0.08	–0.45	B45*	9.35		8.93	.04	9.65				1.0	1.3	1.0			4 51 43 + 9 58.5
58	30869	B+13 728	4 49 1 +13 34.3	6.27	0.50	0.06	F65p			11.97							1.0				4 51 50 +13 39.3
59	30913	B+ 9 669	4 49 12 + 9 47.4	6.82M	7.16G		F2			11.99	.10						1.3				4 51 57 + 9 52.4
60	30823	B+42 1081	4 49 16 +42 30.2	5.72	0.11		A23			10.06							1.0				4 52 48 +42 35.2
61	30989	B+12 667	4 49 53 +12 18.2	7.4 M			B8	11.12	.13			11.65	.09			2.0		2.0			4 52 41 +12 23.1
62	31107	B+ 9 675	4 50 43 + 9 24.6	8.9 M			F2			13.53							1.0				4 53 27 + 9 29.5
63	31069	B+43 1116	4 51 16 +43 58.9	6.06	–0.01	–0.1	B95			9.17		8.99					1.0	1.0			4 54 51 +44 3.7
64	31254	B+11 672	4 51 54 +11 56.8	7.36M			A0	11.18	.31	11.28		11.53				2.0	1.0	1.0			4 54 41 +12 1.6
65	31269	B+11 674	4 51 58 +11 50.9	7.98M			A0			11.80		12.69					1.0	1.0			4 54 45 +11 55.7
66	31283	B+11 675	4 52 0 +11 20.8	5.19	0.13		A35	9.66	.11	9.33		11.55				2.0	1.0	1.0			4 54 47 +11 25.6
67	31295	B+ 9 683	4 52 8 +10 4.4	4.7	0.08	0.09	A05*	8.65	.23	8.60	.18	9.74				4.0	4.0	1.0			4 54 53 +10 9.2
68	31306	B+ 8 799	4 52 13 + 8 31.2	6.77M			A0			10.50		12.71					1.0	1.0			4 54 56 + 8 36.0
69	31195	B+44 1052	4 52 17 +44 57.3	7.87	0.03	–0.22	B75			10.37		10.79					1.0	1.0			4 55 55 +45 2.0
70	31205	B+47 1074	4 52 31 +47 21.7	8.6 M	8.6 G		A0					11.56						1.0			4 56 14 +47 26.4
71	31265	B+47 1076	4 52 59 +47 15.7	8.5 M	8.4 G		B9					11.78						1.0			4 56 42 +47 20.4
72	31374	B+13 737	4 53 3 +13 33.1	8.1 M			B9			11.21							1.0				4 55 52 +13 37.8
73	31314	B+39 1109	4 53 4 +40 5.5	8.0 M	7.73G		B5					10.56						1.0			4 56 32 +40 10.2
74	31400	B+11 680	4 53 17 +11 9.9	8.6 M	8.7 G		A2			12.74							1.0				4 56 3 +11 14.6
75	31326	B+47 1077	4 53 20 +47 48.1	7.8 M	7.8 G		A0					10.91						1.0			4 57 4 +47 52.8
76	31422	B+ 8 803	4 53 25 + 9 3.5	9.1 M			A2			11.96	.00	13.03					2.0	1.0			4 56 9 + 9 8.2
77	31489	B+ 8 811	4 54 0 + 8 44.7	7.4 M			A2	11.94		11.82	.17					1.0	2.0				4 56 44 + 8 49.3
78	287324	B+ 9 693	4 54 25 + 9 58.6	9.3 M			G0	11.75								1.0					4 57 10 +10 3.2
79	31554	B+10 676	4 54 27 +10 44.0	8.3 M			A0			13.47	.00						2.0				4 57 13 +10 48.6
80	31641	B+ 8 814	4 55 10 + 8 39.7	8.6 M			A5			12.79	.15						2.0				4 57 53 + 8 44.3
81	31564	B+41 1022	4 55 23 +41 21.7	8.8 M			B9					10.85						1.0			4 58 53 +41 26.2
82	31617	B+43 1147	4 55 47 +43 14.9	7.4	0.00	–0.77	B24*			9.31		9.06	.22				1.0	3.0			4 59 21 +43 19.4
83	31766	B+ 8 820	4 56 9 + 8 54.0	8.2 M			A0			11.77	.36						2.0				4 58 53 + 8 58.5
84	31918	B+10 685	4 57 16 +10 19.0	8.12M			A3			12.82							1.0				5 0 1 +10 23.4
85	31844	B+45 1023	4 57 39 +45 22.4	7.7 M	7.5 G		B9					10.99						1.0			5 1 18 +45 26.8
86	31981	B+12 697	4 57 41 +12 30.1	8.4 M			A0			11.69	.31						1.3				5 0 29 +12 34.5
87	277246	B+41 1031	4 57 41 +41 11.3	8.6 M	8.81G		B3 *					11.41						1.0			5 1 11 +41 15.7
88	32005	B+12 699	4 57 54 +12 31.9	8.3 M			A0			12.08	.29						1.3				5 0 42 +12 36.3
89	32021	B+10 688	4 57 57 +10 50.5	6.60M			B9	10.25	.07	10.00	.09	11.32				2.0	2.0	1.0			5 0 43 +10 54.9
90	31894	B+43 1164	4 58 0 +43 21.8	8.42	0.05		B24					10.03						1.0			5 1 35 +43 26.1

	OBJ	PHOT	S–PEC	REMARKS	REFERENCES
1					897 922 A48
2		BP	N	SB	897 A19 379 785 884 901 922 A42
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4		P	AM		897 A19 379 392 753 781 785 884 901 922 A42 A48
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67		U	PA		897 A19 753 781 782 884 901 921 922 A26 A42 A48
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82		P	S4		897 A19 001 002 013 233 419 474 922 A07 A42
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87		P	EN		897 002 013 233 342 A24
88					897 922
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90					897 A19 922 A42 A63

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	32036	B+31 845	4 58 32 +31 42.4	7.50M			B9					11.22						1.0			5 1 46 +31 46.7
2	32069	B+40 1142	4 58 59 +41 .3	3.75	1.3	0.25	B *			8.89		8.03	.05				1.0	2.0			5 2 29 +41 4.6
3	32202	B+11 702	4 59 1 +11 18.2	6.94M			B8	11.56		10.23	.02	11.51				1.0	2.0	1.0			5 1 48 +11 22.5
4	32091	B+42 1141	4 59 7 +42 26.0	9.10	−0.03		B33					10.54						.3			5 2 40 +42 30.3
5	32143	B+42 1142	4 59 24 +42 29.9	7.43	−0.06		B25			8.92		8.54					1.0	.3			5 2 57 +42 34.1
6	277339	B+42 1147	4 59 51 +42 21.1	9.4 M			B8 c					11.33						1.0			5 3 24 +42 25.3
7	32234	B+39 1152	4 59 59 +40 .4	8.0 M	7.9 G		B8					10.26						1.0			5 3 27 +40 4.6
8	32348	B+11 704	5 0 14 +11 59.3	7.06M			F2			11.93	.04						2.0				5 3 1 +12 3.5
9	32366	B+9 713	5 0 18 +9 18.7	8.0 M			A0 c	9.93								1.0					5 3 2 +9 22.9
10	32282	B+40 1154	5 0 25 +40 36.8	8.4 M	7.9 G		B8					10.90	.06					2.0			5 3 54 +40 41.0
11	32391	B+9 718	5 0 31 +9 57.6	8.6 M			A2			11.91	.08	13.02					2.0	1.0			5 3 16 +10 1.8
12	32420	B+8 840	5 0 45 +8 57.5	8.8 M	8.8 G		A0			13.59							1.0				5 3 29 +9 1.7
13	32330	B+41 1046	5 0 48 +41 32.0	8.84	0.04		B24					11.00						1.0			5 4 19 +41 36.1
14	32328	B+43 1177	5 0 57 +43 39.5	7.60	−0.08		B85			10.02							1.0				5 4 32 +43 43.6
15	32377	B+39 1157	5 1 10 +39 54.1	8.4 M	7.96G		B8					11.21						1.0			5 4 38 +39 58.2
16	32446	B+44 1088	5 1 47 +44 59.4	8.24	0.20		B53*					11.32						1.0			5 5 25 +45 3.5
17	32343	B+58 804	5 1 47 +58 54.3	5.22	−0.09	−0.73	B25*	8.25	.03	7.29	.12	6.64	.08			2.0	2.0	2.0			5 6 8 +58 58.3
18	32562	B+12 719	5 1 50 +12 37.8	8.5 M			A0	11.50		11.74						1.0	1.0				5 4 38 +12 41.9
19	32660	B+8 852	5 2 29 +8 52.5	7.39M			B9	10.51		9.82		10.73				1.0	1.0	1.0			5 5 13 +8 56.6
20	32717	B+8 854	5 2 51 +8 24.1	8.3 M	8.3 G		A0			11.59							1.0				5 5 34 +8 28.1
21	32633	B+33 953	5 2 51 +33 51.1	7.08	−0.06	−0.40	B9 s			9.96		10.13					1.0	1.0			5 6 8 +33 55.1
22	32630	B+41 1058	5 3 0 +41 10.1	3.17	−0.18	−0.67	B35*	6.23	.01			4.80	.08			2.0		2.0			5 6 30 +41 14.1
23	32753	B+7 796	5 3 3 +8 6.9	8.5 M	8.5 G		B9			11.75							1.0				5 5 46 +8 10.9
24	32672	B+38 1020	5 3 9 +38 27.4	7.7 M	7.8 G		B15p			10.23							1.0				5 6 34 +38 31.4
25	32853	B+10 712	5 3 46 +10 34.7	8.6 M			B9			11.35	.10	12.30					2.0	1.0			5 6 32 +10 38.7
26	32908	B+11 716	5 4 10 +11 45.9	8.6 M			A2			11.79							1.0				5 6 57 +11 49.8
27		B+45 1044	5 4 12 +45 40.8	9.4 M								11.80						1.0			5 7 52 +45 44.7
28	33069	B−8 1035	5 5 3 −8 43.1	6.88M			B8 p			8.91							1.0				5 7 27 −8 39.2
29	33054	B+8 866	5 5 9 +8 26.1	5.34	0.33	0.09	F23*	10.54		10.66						1.0	1.0				5 7 52 +8 30.0
30	33004	B+30 796	5 5 16 +30 23.1	8.8 M	8.8 G		A0					11.80						1.0			5 8 28 +30 26.9
31	32961	B+41 1075	5 5 19 +41 40.6	8.7 M	8.6 G		B9					10.20						1.0			5 8 51 +41 44.4
32	32989	B+39 1191	5 5 27 +39 25.5	7.6 M	8.0 G		B24					10.12						1.0			5 8 54 +39 29.3
33	33224	B−8 1037	5 5 56 −8 43.7	5.76	−0.05	−0.35	B85p			7.78							1.0				5 8 20 −8 39.9
34	33061	B+38 1040	5 6 2 +38 57.2	8.9 M	8.5 G		B8					11.99						1.0			5 9 28 +39 1.0
35	33256	B−4 1056	5 6 15 −4 31.2	5.12	0.44	−0.1	F55p			11.14							1.0				5 8 44 −4 27.4
36	33088	B+39 1192	5 6 15 +39 31.4	8.0 M	9.3 G		*					10.47						1.0			5 9 42 +39 35.2
37	33254	B+9 743	5 6 34 +9 46.0	5.43	0.24	0.2	A9 s	10.21		10.29						1.0	1.0				5 9 19 +9 49.8
38	33316	B−6 1094	5 6 42 −6 30.1	8.5 M			B9			10.34		11.03					1.0	1.0			5 9 8 −6 26.3
39	33328	B−8 1040	5 6 45 −8 49.0	4.27	−0.20	−0.90	B24*	7.28		6.02		5.58				1.0	1.0	.3			5 9 9 −8 45.2
40	277667	B+41 1094	5 7 7 +41 8.2	8.8 M	9.4 G		B3					10.96						1.0			5 10 38 +41 11.9
41	33370	B−5 1172	5 7 11 −5 36.9	8.8 M			A0			12.26							1.0				5 9 38 −5 33.2
42	33338	B+9 747	5 7 15 +9 24.9	8.5 M	8.5 G		A0			12.41							1.0				5 9 59 +9 28.6
43	33232	B+40 1196	5 7 18 +40 56.5	8.16	0.05	−0.44	B25*					10.81						1.0			5 10 48 +41 .2
44	33368	B+9 751	5 7 23 +9 54.0	7.7 M	7.7 G		A0	10.56		10.21						1.0	1.0				5 10 8 +9 57.7
45	277714	B+38 1051	5 7 52 +39 4.3	9.1 M			B3					11.54						1.0			5 11 19 +39 7.9
46	33297	B+46 972	5 7 59 +46 52.9	8.0 M			A0					11.30						1.0			5 11 42 +46 56.5
47	33547	B−5 1178	5 8 20 −5 13.8	8.5 M			B9			10.75	.01						2.0				5 10 48 −5 10.2
48	33590	B−5 1179	5 8 37 −5 39.7	9.0 M			B9			11.67							1.0				5 11 4 −5 36.1
49	33610	B−6 1104	5 8 42 −6 5.0	8.3 M			A0			11.41	.25	12.83					3.0	1.0			5 11 9 −6 1.4
50	33462	B+39 1205	5 8 46 +40 2.5	6.83M			B8			9.86							1.0				5 12 15 +40 6.1
51	33569	B+34 963	5 9 26 +34 45.9	8.2 M	8.8 G		B8					11.26						1.0			5 12 45 +34 49.4
52	33542	B+44 1128	5 9 30 +44 30.5	7.26M			B8			9.82							1.0				5 13 8 +44 34.0
53	33690	B+8 886	5 9 34 +9 3.9	8.2 M	8.2 G		B9			12.21							1.0				5 12 18 +9 7.4
54	33604	B+40 1213	5 9 44 +40 8.1	7.3	0.04	−0.68	B25*			9.53							1.0				5 13 13 +40 11.6
55	33671	B+35 1012	5 10 11 +35 35.7	7.9 M	7.9 G		A0					11.47						.3			5 13 31 +35 39.2
56	33688	B+35 1014	5 10 15 +35 38.6	8.4 M	8.3 G		A					11.14						.3			5 13 36 +35 42.1
57	33704	B+36 1047	5 10 26 +36 58.5	6.78M			A0					10.09						1.0			5 13 49 +37 2.0
58		B−8 1057	5 10 34 −8 7.4	8.0 M			A0			11.21							1.0				5 12 58 −8 3.9
59	33749	B+36 1049	5 10 40 +36 51.5	8.0 M	7.7 G		B8					10.09						1.0			5 14 3 +36 54.9
60	33902	B−5 1191	5 10 52 −5 1.9	9.40M			A0			12.52	.55						2.0				5 13 20 −4 58.4
61	33918	B−4 1073	5 11 0 −4 42.6	8.0 M			A0			12.06	.42						3.0				5 13 28 −4 39.1
62	33948	B−8 1059	5 11 9 −8 12.3	6.36	−0.14	−0.53	B55p	8.05	.39	7.59	.20	8.09	.02			2.0	2.0	1.3			5 13 33 −8 8.9
63	33928	B−3 1042	5 11 9 −3 40.8	7.6 M	7.6 G		B8 p	9.47								1.0					5 13 38 −3 37.4
64	33994	B−6 1112	5 11 22 −6 48.3	8.0 M			B8	9.63	.06	9.23	.49	9.40		9.92	.26	2.0	4.0	1.0	2.0		5 13 48 −6 44.9
65	33853	B+46 985	5 11 47 +46 21.0	8.0 M	7.5 G		B9					9.89	.11					2.0			5 15 29 +46 24.4
66		B−7 1009	5 12 4 −7 20.3	8.5 M			A0			10.86	.20	11.92					2.3	1.0			5 14 29 −7 16.9
67	34085	B−8 1063	5 12 8 −8 15.5	0.2	−0.0	−0.7	B81*	4.62	.58	2.74	.59	4.11	.00			3.0	2.0	1.3			5 14 32 −8 12.1
68	33959	B+32 922	5 12 9 +32 37.9	5.02	0.20	0.13	A95*			9.63							1.0				5 15 25 +32 41.2
69	280661	B+37 1110	5 12 29 +37 34.6	9.2 M			B5					11.86						1.0			5 15 53 +37 37.9
70	34009	B+36 1060	5 12 30 +36 39.7	8.9 M	9.1 G		B9					11.62						1.0			5 15 52 +36 43.0
71	34164	B−5 1204	5 12 37 −5 18.5	9.0 M			A0			12.12							1.0				5 15 5 −5 15.2
72	33988	B+46 989	5 12 45 +46 21.7	6.88	0.25	−0.74	B2 *					8.56	.06					2.0			5 16 27 +46 25.0
73	34062	B+31 905	5 12 53 +31 45.5	8.3 M	8.9 G		B9					11.79						1.0			5 16 7 +31 48.8
74	34029	B+45 1077	5 12 59 +45 57.0	0.08	0.80	0.43	*	9.19				11.69	.09			1.0		2.0			5 16 40 +46 .3
75	34078	B+34 980	5 13 0 +34 15.4	6.	0.3	−0.72	O95*			9.06		6.79	.12				1.0	2.0			5 16 18 +34 18.7
76	34280	B−3 1051	5 13 45 −3 32.3	8.6 M	8.6 G		B9			11.35							1.0				5 16 15 −3 29.0
77	34342	B−5 1208	5 14 6 −5 6.9	8.8 M	8.9 G		A2			12.25	.20						2.0				5 16 34 −5 3.7
78	242211	B+32 937	5 14 16 +33 4.3	8.6 M	8.8 G		B3					10.77						1.0			5 17 32 +33 7.5
79	34257	B+33 995	5 14 18 +33 32.4	8.2 M	8.1 G		B8 s					10.62						1.0			5 17 35 +33 35.6
80	34417	B−7 1024	5 14 31 −6 59.4	8.0 M	8.0 G		A0			10.89	.06			11.77			2.0		1.0		5 16 57 −6 56.2
81	34302	B+37 1127	5 14 46 +37 35.8	8.0 M	7.8 G		B8 s					11.76						1.0			5 18 10 +37 39.0
82	34333	B+36 1073	5 14 59 +36 34.8	7.6 M	7.6 G		*					9.37						1.0			5 18 21 +36 37.9
83	34364	B+33 1002	5 15 1 +33 42.9	6.13	−0.06	−0.19	*					8.77	.13					1.3			5 18 18 +33 46.0
84	34481	B−4 1090	5 15 8 −4 46.9	8.85M	8.85G		A0			12.12							1.0				5 17 36 −4 43.7
85	34299	B+47 1126	5 15 9 +47 11.7	8.1 M	8.2 G		A0					11.05						1.0			5 18 54 +47 14.8
86	34503	B−7 1028	5 15 11 −6 53.8	3.58	−0.11	−0.48	B53p	6.69	.25	6.33	.06					3.0	2.0				5 17 37 −6 50.6
87	280777	B+37 1130	5 15 11 +37 42.2	9.0 M	9.3 G		B3					11.12						1.0			5 18 35 +37 45.3
88	34382	B+33 1003	5 15 15 +33 6.8	8.2 M	8.1 G		B9					11.18						1.0			5 18 31 +33 9.9
89	34425	B+36 1078	5 15 35 +36 8.7	7.8 M	8.0 G		B5					10.46	.28					2.0			5 18 57 +36 11.8
90	34426	B+35 1044	5 15 36 +35 48.7	8.99	0.07	−0.55	B8					11.29	.16					2.0			5 18 57 +35 51.8

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 922
2		2P		W/32068,ZT AUR,SB, + K	897 058 244 452 742 785 884 901 921 922 969 A42 A67
3					897 922
4					897 A19 922 A42
5					897 A19 815 922
6				W/ 42 1146	898 A24
7					897 922
8					897 922
9				W/ 9 716	897 922
10					897 922
11					897 922
12					897 922
13					897 A19 922 A42
14					897 A19 005 815 922 A42 A48
15					897 233 922
16		P	4		897 A19 002 013 474 922 A42
17		UP	PE		897 A19 002 013 260 342 419 488 883 884 901 922 932 A42 A43 A48 A59
18					897 922
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20					897 922
21			PAG		897 A19 025 026 262 701 753 922 948 A42
22		USOP	4		897 A19 002 009 010 013 367 377 396 419 504 816 883 884 892 895 901 922 932 969
23					897 922
24		P			897 002 013 419 922 A07 A48 A63
25					897 922
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28		O			897 922 969
29		B	PAM		897 A19 415 753 835 884 901 922 986 A42
30					897 922
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32					897 922 A63
33		UB			897 A19 397 840 884 901 922 A26 A48
34					897 922 A07
35		S			897 A19 007 392 415 835 884 901 922
36		2		TT AUR, B4 + B4	897 419 922 969 A07
37			AMG		897 A19 026 262 379 392 753 781 838 884 901 922 948 A42 A48
38					897 922
39		UOP	N		897 A19 008 013 158 212 765 766 783 901 921 922 969 A26 A42 A47 A48 A59
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67		USBP	PE	SB	897 A19 002 007 009 010 012 013 341 689 756 765 766 793 895 921 962 A00 A26 A47
68		B		W/32 922 PREC,SB, + F4	897 A19 392 781 782 884 901 922 A42 A48
69					898 A24
70					897 922
71					897 922
72		P	EN		897 A19 013 260 342 419 922
73					897 922
74		BOP		SB,G83 + F	897 A19 225 338 377 392 785 802 884 901 921 922 969 A42
75		B22PH	PSR	W/ 34 979, AE AUR	897 002 012 013 211 277 339 350 419 510 596 785 884 901 922 969 A07 A42 A58 A59
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79			E		897 341 922
80					897 922
81			E		897 337 922
82		2P		EO AUR, B3 + B8	897 002 013 419 922 969 A07
83		2P		AR AUR, SB,B95 + B95	897 A19 227 397 785 884 901 922 965 969 A42 A48
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86		USBP			897 A19 002 007 013 158 756 765 766 783 793 883 884 901 921 922 A26 A42 A43 A48
87					897 A24
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90					897 A19 922 925

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	34452	B+33 1008	5 15 42 +33 41.8	5.4	−0.2	−0.6	A0 *	8.65				7.72				1.0		.3			5 18 59 +33 44.9
2	34479	B+30 852	5 15 44 +30 19.0	9.1 M	9.7 G		A					11.80						1.0			5 18 56 +30 22.1
3	34477	B+34 994	5 15 56 +34 50.4	7.8 M	7.3 G		B8			10.26							1.0				5 19 15 +34 53.5
4	280978	B+34 997	5 15 57 +34 11.5	9.0 M	9.4 G		B5					11.37						1.0			5 19 15 +34 14.6
5	34466	B+40 1247	5 16 0 +40 59.6	8.5 M	8.7 G		A0					10.86						1.0			5 19 31 +41 2.7
6	34499	B+33 1010	5 16 6 +33 56.1	6.48M			A75p					10.97						1.0			5 19 24 +33 59.2
7	34509	B+30 854	5 16 8 +30 57.3	8.8 M	9.2 G		A0					11.61						1.0			5 19 21 +31 .4
8	34639	B− 9 1119	5 16 23 − 9 5.8	9.2 M	9.2 G		B9			12.32							1.0				5 18 46 − 9 2.7
9	34686	B− 5 1219	5 16 39 − 5 .6	8.55M	8.55G		A0			12.19	.34						2.0				5 19 7 − 4 57.5
10	34557	B+40 1253	5 16 44 +41 2.2	5.42M			A15			9.34		10.43					1.0	1.0			5 20 15 +41 5.2
11	34576	B+36 1086	5 16 49 +36 37.5	7.4 M	7.3 G		B25*					8.71						1.0			5 20 12 +36 40.5
12	34736	B− 7 1036	5 16 56 − 7 23.9	8.0 M			B9	10.56		10.18	.15	11.12				1.0	2.0	1.0			5 19 21 − 7 20.9
13	34734	B− 4 1102	5 17 2 − 4 23.5	8.6 M	8.6 G		A0			12.57							1.0				5 19 31 − 4 20.5
14	277860	B+42 1250	5 17 2 +42 15.8	9.1 M	9.2 G		B9 c					11.68						1.0			5 20 35 +42 18.8
15	34626	B+36 1090	5 17 10 +36 35.0	8.2 M	7.8 G		B15*					9.96						1.0			5 20 32 +36 38.0
16	34774	B− 5 1221	5 17 14 − 4 55.6	7.35M	7.35G		A0			11.37							1.0				5 19 42 − 4 52.6
17	34656	B+37 1146	5 17 19 +37 23.3	6.79	0.02	−0.90	O7I*					8.39						1.0			5 20 43 +37 26.3
18	34613	B+43 1250	5 17 20 +43 21.8	8.4 M	8.1 G		B9					11.34						1.0			5 20 56 +43 24.8
19	34625	B+40 1255	5 17 24 +40 50.1	7.9 M	7.3 G		B9			10.00		10.62					1.0	1.0			5 20 55 +40 53.1
20	34814	B− 7 1042	5 17 26 − 7 10.9	8.8 M			A0			11.79		12.84					1.0	1.0			5 19 51 − 7 7.9
21	34813	B− 7 1041	5 17 26 − 6 58.9	8.8 M			A0			11.76		12.66					1.0	1.0			5 19 52 − 6 55.9
22	34635	B+42 1253	5 17 30 +42 27.3	7.5 M	7.8 G		B9					10.98						1.0			5 21 4 +42 30.3
23	280897	B+36 1094	5 17 31 +36 39.8	9.5 M			B5					11.72						.3			5 20 54 +36 42.8
24	34827	B− 5 1223	5 17 35 − 5 15.5	7.09M			B9	10.24	.36	10.07	.21	11.05		10.49		3.0	3.0	1.0	1.0		5 20 3 − 5 12.5
25	34835	B− 6 1141	5 17 41 − 5 53.7	8.6 M			B8	11.10		10.65						1.0	1.0				5 20 8 − 5 50.7
26	34861	B− 7 1043	5 17 47 − 7 9.2	8.8 M			A0			11.93		12.89					1.0	1.0			5 20 12 − 7 6.2
27	34761	B+32 952	5 17 57 +32 31.8	8.2 M	8.5 G		B8					11.52	.05					2.0			5 21 13 +32 34.7
28	34880	B− 5 1225	5 17 59 − 5 25.0	6.38	−0.03	−0.37	B83p	9.02	.41	8.97	.46	9.06				2.0	2.0	.3			5 20 26 − 5 22.0
29	34892	B− 8 1092	5 18 0 − 8 4.7	8.0 M	8.3 G		F2 p			12.02							1.0				5 20 24 − 8 1.7
30	34890	B− 5 1226	5 18 2 − 5 51.7	9.2 M			A0			11.72							1.0				5 20 29 − 5 48.7
31	34790	B+29 869	5 18 2 +29 31.3	5.72	0.06	0.13	A25			9.02							1.0				5 21 13 +29 34.2
32	34889	B− 5 1227	5 18 5 − 5 20.2	9.2 M			B9			11.20	.05	11.69					2.0	.3			5 20 33 − 5 17.3
33	34760	B+33 1017	5 18 5 +33 20.2	8.7 M	8.9 G		B8					10.29	.01					2.0			5 21 22 +33 23.1
34	34759	B+41 1162	5 18 16 +41 45.4	5.22	−0.15	−0.58	B55p	9.16		7.62						1.0	1.0				5 21 48 +41 48.3
35	34959	B+ 3 857	5 18 41 + 3 57.8	6.50	−0.11	−0.52	B55*			9.00	.21	9.54					2.0	1.0			5 21 19 + 4 .7
36	34925	B+33 1020	5 19 0 +33 45.1	9.0 M			B3					10.34	.03					2.0			5 22 18 +33 48.0
37	242908	B+33 1023	5 19 11 +33 28.0	9.04	0.28	−0.72	O5 p					11.53						1.0			5 22 28 +33 30.8
38	34921	B+37 1160	5 19 11 +37 37.7	7.5	0.2	−0.85	B04*			10.60							1.0				5 22 35 +37 40.5
39	278056	B+40 1267	5 19 15 +40 54.6	8.5 M	8.1 G		B9					10.48						1.0			5 22 46 +40 57.4
40	34904	B+40 1268	5 19 17 +40 56.8	5.51M			A35c			9.88							1.0				5 22 48 +40 59.6
41	34904	B+40 1268	5 19 17 +40 58.9	5.51M			A35					11.03						1.0			5 22 48 +41 1.7
42	35079	B− 3 1075	5 19 28 − 3 .7	7.06	−0.03	−0.54	B35p			9.21				10.21	.17		1.0		2.0		5 21 58 − 2 57.9
43	242935	B+33 1026	5 19 29 +33 22.1	9.43	0.20	−0.73	O8 p					10.81	.47					2.0			5 22 46 +33 24.9
44	34920	B+45 1108	5 19 29 +45 35.7	8.9 M	8.7 G		A0					11.58						1.0			5 23 10 +45 38.5
45	35034	B+29 876	5 19 49 +29 41.0	7.5 M	8.30G		B9					10.58	.36					2.0			5 23 0 +29 43.8
46	34986	B+35 1083	5 19 49 +35 39.7	8.5 M	8.8 G		B8					10.56						1.0			5 23 10 +35 42.5
47	35033	B+31 948	5 19 52 +31 6.7	8.5 M	9.2 G		A0					11.50						1.0			5 23 5 +31 9.5
48	35134	B+ 2 936	5 20 9 + 2 45.0	7.3 M			A0			10.25		11.66					1.0	1.0			5 22 46 + 2 47.8
49	35178	B− 7 1054	5 20 10 − 7 38.4	8.0 M	8.0 G		A0			12.15							1.0				5 22 35 − 7 35.6
50	35149	B+ 3 871	5 20 12 + 3 29.9	5.00	−0.15	−0.86	B15*	6.73	.73	7.02	.33	5.96				2.0	2.0	1.0			5 22 50 + 3 32.7
51	35076	B+28 788	5 20 13 +28 53.5	6.38M	−0.0	−0.19	B95			9.16	.12						2.0				5 23 23 +28 56.3
52	35225	B− 8 1103	5 20 28 − 8 8.0	9.0 M	9.0 G		A0			12.54							1.0				5 22 52 − 8 5.2
53	35192	B+ 0 1035	5 20 31 + 1 .6	6.97M	6.97G		A0			10.56		11.39					1.0	1.0			5 23 6 + 1 3.4
54	35223	B− 6 1158	5 20 32 − 6 45.8	8.7 M			A2			12.37							1.0				5 22 58 − 6 43.0
55	35203	B+ 0 1036	5 20 35 + 1 5.6	7.97	−0.09	−0.50	B65			10.81		11.11					1.0	1.0			5 23 10 + 1 8.4
56	35261	B− 8 1105	5 20 40 − 8 9.1	8.5 M			A0 c	10.57	.42	10.15						2.0	1.0				5 23 4 − 8 6.3
57	35108	B+38 1144	5 20 42 +38 31.4	8.7 M	8.5 G		B5					10.78						1.0			5 24 8 +38 34.1
58	35132	B+32 966	5 20 45 +32 34.8	8.2 M	8.3 G		B9					10.84						1.0			5 24 1 +32 37.5
59	35281	B− 8 1107	5 20 55 − 8 27.7	5.98	−0.03	−0.36	B83p	8.71				8.31				1.0		1.0			5 23 19 − 8 25.0
60	35120	B+41 1181	5 20 58 +41 46.9	8.1 M	7.7 G		B5					10.22						1.0			5 24 31 +41 49.6
61	35298	B+ 1 996	5 21 14 + 2 2.2	7.88	−0.14	−0.59	B95s			9.88		10.52	.11	9.54			1.0	2.0	1.0		5 23 50 + 2 4.9
62	35215	B+30 873	5 21 16 +30 8.8	9.40	0.08	−0.66	B15*					11.09						1.0			5 24 28 +30 11.5
63	35353	B− 8 1109	5 21 20 − 8 20.1	8.6 M	8.6 G		A0			11.81							1.0				5 23 44 − 8 17.4
64	35239	B+31 955	5 21 25 +31 5.9	5.94	0.04	−0.1	B93			9.57		9.41	.03				1.0	2.0			5 24 38 +31 8.6
65	35349	B+17 923	5 21 56 +17 9.2	7.9 M			B5 s			9.85							1.0				5 24 50 +17 11.9
66	35411	B− 2 1235	5 21 58 − 2 26.5	3.35	−0.19	−0.93	B05*							5.47					1.0		5 24 29 − 2 23.8
67	35407	B− 2 947	5 22 0 + 2 18.5	6.31	−0.16	−0.62	B55*	9.39		8.06	.37	7.77	.84	7.99	.86	1.0	3.0	2.0	2.0		5 24 36 + 2 21.2
68	278176	B+42 1280	5 22 1 +42 20.6	9.2 M			B8					11.77	.00					2.0			5 25 35 +42 23.2
69	35347	B+29 886	5 22 7 +29 34.3	8.91	0.2	−0.74	B15*					10.83						1.0			5 25 18 +29 36.9
70	35328	B+30 882	5 22 7 +30 7.4	8.5 M	0 9.09G		B8					10.38						1.0			5 25 19 +30 10.0
71	35439	B+ 1 1005	5 22 9 + 1 48.1	4.94	−0.21	−0.91	B15*	7.39		6.44		5.96		5.60	.79	1.0	1.0	1.0	.5		5 24 45 + 1 50.8
72	35378	B+30 885	5 22 23 +30 39.3	9.0 M	8.6 G		A0					10.28	.08					2.0			5 25 36 +30 41.9
73	35345	B+35 1095	5 22 24 +35 36.2	8.39	0.21	−0.74	B15*					10.98						1.0			5 25 45 +35 38.8
74	35502	B− 2 1241	5 22 31 − 2 51.6	7.35	−0.03	−0.54	B55p			9.71				9.61			1.0		1.0		5 25 1 − 2 49.0
75	35501	B+ 1 1009	5 22 35 + 1 52.8	7.42	−0.06	−0.40	B85s			9.67	.16	11.09		9.54			2.0	1.0	.3		5 25 11 + 1 55.4
76		B+19 921	5 22 38 +19 32.0	9.5 M								10.62						1.0			5 25 35 +19 34.6
77	35497	B+28 795	5 23 8 +28 34.0	1.65	−0.13	−0.49	B73*			5.34							1.0				5 26 18 +28 36.6
78	35533	B+15 814	5 23 10 +15 37.7	7.5 M			A0			9.88							1.0				5 26 2 +15 40.3
79	35532	B+16 775	5 23 12 +16 39.4	6.24	−0.08	−0.64	B25*			8.35	.36						5.0				5 26 5 +16 42.0
80	35588	B+ 0 1056	5 23 13 + 0 28.7	6.14	−0.18	−0.7	B35*	8.75		7.74		7.35	.18			.3	1.0	2.0			5 25 47 + 0 31.3
81	35659	B− 7 1075	5 23 34 − 7 .3	8.5 M			A3			12.08							1.0				5 26 0 − 6 57.7
82	35640	B− 5 1247	5 23 35 − 5 33.7	6.23	−0.07	−0.21	B95	8.24		8.93				9.30		1.0	1.0		.3		5 26 2 − 5 31.1
83	35557	B+30 897	5 23 43 +30 14.9	9.0 M	9.38G		A2					11.29						1.0			5 26 55 +30 17.4
84	35546	B+34 1041	5 23 43 +34 43.6	8.4 M	8.5 G		B8					10.54	.17					2.0			5 27 2 +34 46.1
85	35657	B+ 0 1063	5 23 48 + 0 45.4	8.2 M			B9					11.56						1.0			5 26 23 + 0 47.9
86	35673	B+ 2 961	5 23 54 + 2 53.6	6.50	0.00	−0.23	B95			9.38	.12	10.08	.14				4.0	2.0			5 26 31 + 2 56.1
87	35600	B+30 898	5 23 56 +30 10.0	5.71	0.2	−0.18	B91*					9.71	.17					2.0			5 27 8 +30 12.5
88	35544	B+43 1272	5 24 3 +43 19.6	6.75M			A0			9.88		10.14	.10				1.0	2.0			5 27 39 +43 22.1
89	35715	B+ 2 962	5 24 13 + 3 3.2	4.6	−0.22	−0.92	B24*	7.41	.18	6.24	.48	5.19	.44			4.0	3.0	6.0			5 26 50 + 3 5.7
90	35671	B+17 928	5 24 15 +17 55.3	5.40	−0.10	−0.54	B55p			7.74		6.39					1.0	1.0			5 27 10 +17 57.8

	OBJ	PHOT	S–PEC	REMARKS	REFERENCES
1		0	PAG		897 A19 026 576 701 753 781 782 884 901 922 948 969 A42 A48
2					897 922
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37		SP			898 A19 001 010 015 A23 A42
38		P	PENH		897 A19 001 002 012 013 015 260 339 342 419 922 A07 A42
39					897 A21 A24
40				W/ 40 1267	897 392 884 901 922 A48
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42		U			897 A19 922 A17 A26 A42
43		P			898 A19 001 002 012 015 336 A23 A42
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59		UB			897 A19 158 835 884 901 922 A26 A48
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61			R		897 A19 404 678 922 A17 A42 A48
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64					897 A19 397 782 884 901 922 A42 A48
65			N		897 419 922 A07
66		U2P		ETA ORI, SB	897 002 013 020 045 259 367 377 488 517 765 766 785 883 895 934 969 A42 A47 A48
67		UP	N		897 A19 002 013 259 678 840 884 901 922 A26 A42 A48 A59
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69		P	PEN		897 A19 001 002 012 015 341 922 A42
70					897 922
71		UOP	PEN4R		897 A19 002 012 013 020 036 158 260 342 377 474 488 771 785 884 901 921 922 969
72					897 922
73		P	PE		897 A19 002 012 013 260 342 922 A42
74		U			897 A19 922 A17 A26 A42
75			R		897 A19 404 922 A17 A42
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77		USP	PA		897 A19 009 010 367 377 397 689 753 782 783 785 882 884 895 901 921 922 932 953
78					897 922 A07
79		UP	N		897 002 013 419 884 901 922 A26 A48 A59
80		UOP	N		897 A19 002 013 020 259 835 884 901 922 969 A26 A42 A48 A59
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82					897 A19 259 397 835 884 901 922 A42 A48
83					897 922
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86					897 A19 404 922 A42
87		USP	4		897 A19 002 007 013 785 884 901 922 A42 A48 A66
88					897 922
89		UBOP	R	SB	897 A19 002 013 020 036 158 212 259 377 488 783 884 901 921 922 969 A26 A43 A47
90		UBP			897 A19 002 013 360 396 419 884 901 922 A26 A42 A48 A59

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	35621	B+31 973	5 24 15 +31 21.5	9.65	0.13	−0.44	B6 s					11.35						1.0			5 27 29 +31 24.0
2	35730	B+ 3 901	5 24 16 + 3 34.4	7.20	−0.15	−0.69	B54*			8.67	.26	8.25	.14				2.0	6.0			5 26 54 + 3 36.9
3	35619	B+34 1046	5 24 17 +34 42.9	8.6	0.24	−0.70	O7 *					10.87	.04					.5			5 27 36 +34 45.4
4	243722		5 24 22 +32 41.7	9.3 G			B8					11.43						1.0			5 27 38 +32 44.2
5	35633	B+34 1049	5 24 24 +34 29.5	8.04	0.32	−0.66	B04*					10.83						.3			5 27 43 +34 32.0
6	35762	B+ 3 903	5 24 30 + 3 48.8	6.74	−0.18	−0.73	B25*	8.86	.59	8.24	.32	7.50	.20			3.0	2.0	6.0			5 27 8 + 3 51.3
7	35652	B+34 1051	5 24 33 +34 44.5	8.3 M	8.5 G		B35s					10.42	.10					.5			5 27 53 +34 47.0
8	35670	B+33 1052	5 24 34 +33 26.2	8.7 M	9.0 G		B8					9.99						1.0			5 27 51 +33 28.7
9	35708	B+21 847	5 24 38 +21 53.8	4.86	−0.15	−0.75	B35*	9.28	.03							2.0					5 27 38 +21 56.3
10		B+34 1054	5 24 48 +34 23.0	8.89	0.18	−0.65	B04					10.02						.3			5 28 7 +34 25.4
11	35770	B+15 826	5 24 53 +15 50.0	5.49	0.01	−0.05	B95			9.02							1.0				5 27 45 +15 52.4
12	35834	B+ 0 1078	5 25 2 + 1 4.0	7.67	−0.05	−0.37	B85s					10.34						1.0			5 27 37 + 1 6.4
13	35882	B− 1 901	5 25 13 − 1 51.2	7.8	−0.06	−0.48	B85p			9.91				10.47			1.0		1.0		5 27 45 − 1 48.8
14	35881	B+ 0 1082	5 25 19 + 1 3.9	7.77	−0.09	−0.50	B85s			10.83		10.06					1.0	.3			5 27 54 + 1 6.3
15		B+34 1058	5 25 20 +34 37.7	8.78	0.26	−0.73	O8 *					11.05						1.0			5 28 39 +34 40.1
16		B+34 1059	5 25 23 +34 58.4	9.22	0.19	−0.76	B04p					11.08	.08					2.0			5 28 43 +35 .8
17	35912	B+ 1 1021	5 25 26 + 1 15.5	6.36	−0.18	−0.74	B25*	7.60	.42	7.82		7.32				2.0	1.0	1.0			5 28 1 + 1 17.9
18	35910	B+ 3 910	5 25 29 + 3 29.7	7.58	−0.10	−0.55	B65p			8.97		9.38	.24				1.0	6.0			5 28 7 + 3 32.1
19	35971	B− 0 960	5 25 52 − 0 1.2	6.67	−0.06	−0.24	B9			9.62	.07			10.26			2.0		1.0		5 28 26 + 0 1.2
20	35945	B+16 786	5 25 57 +16 23.2	7.9 M			B9			9.96							1.0				5 28 50 +16 25.6
21	36013	B+ 1 1026	5 26 10 + 1 36.3	6.89	−0.14	−0.65	B25*			8.22	.03	8.25	.50				2.0	2.0			5 28 46 + 1 38.7
22	36012	B+ 2 974	5 26 12 + 2 7.5	7.24	−0.10	−0.65	B55*			9.36	.16	9.79					2.0	1.0			5 28 48 + 2 9.9
23	35921	B+35 1137	5 26 22 +35 20.2	6.81	0.20	−0.78	O93*					9.71						1.0			5 29 43 +35 22.5
24	35985	B+18 862	5 26 24 +18 19.6	6.58M			A2					11.46						1.0			5 29 20 +18 21.9
25	36058	B− 3 1115	5 26 27 − 3 20.8	6.38	−0.02	−0.1	A05*			9.68							1.0				5 28 57 − 3 18.5
26	36120	B− 5 1269	5 26 42 − 5 49.8	7.96	−0.03	−0.36	B8			10.59				11.01	.24		1.0		1.3		5 29 9 − 5 47.5
27	36133	B+ 3 928	5 26 56 + 3 6.6	6.94	−0.09	−0.60	B25*					8.12	.27					5.0			5 29 33 + 3 8.9
28	36115	B+ 5 934	5 26 57 + 5 11.3	8.01M			B8			11.19		11.15					1.0	1.0			5 29 37 + 5 13.6
29	36151	B− 7 1092	5 27 0 − 7 18.0	6.71	−0.13	−0.57	B55p	8.47		8.31				8.33		1.0	1.0		.3		5 29 25 − 7 15.7
30	36113	B+20 969	5 27 17 +20 30.8	6.8 M			B8 p					9.83	.14					3.0			5 30 15 +20 33.1
31	36166	B+ 1 1032	5 27 19 + 1 45.1	5.77	−0.20	−0.84	B25*	8.13	.21	7.17	.34	6.36				2.0	2.0	1.0			5 29 55 + 1 47.4
32	36165	B+ 1 1033	5 27 20 + 2 4.4	9.2 M	9.2 G		B75			11.26		10.31	.59				1.0	4.0			5 29 56 + 2 6.7
33	36219	B− 1 918	5 27 33 − 1 47.2	7.6	−0.06	−0.35	B9							10.72	.32				4.0		5 30 5 − 1 44.9
34	36162	B+15 837	5 27 34 +15 19.4	5.76	0.14	0.14	A35			9.72							1.0				5 30 26 +15 21.7
35	36285	B− 7 1099	5 27 56 − 7 28.3	6.32	−0.19	−0.8	B25*	7.23		6.94				6.62		1.0	1.0		1.0		5 30 21 − 7 26.1
36	36267	B+ 5 939	5 28 6 + 5 54.7	4.20	−0.14	−0.54	B54*	7.45		7.25		5.81				1.0	1.0	1.0			5 30 47 + 5 56.9
37	36263	B+10 800	5 28 6 +10 13.1	7.27M			B9			10.05		10.20		10.00			1.0	1.0	1.0		5 30 52 +10 15.3
38		B+34 1075	5 28 7 +34 23.1	9.1 M								11.67						1.0			5 31 26 +34 25.3
39	36264	B+10 801	5 28 8 +10 7.6	7.14M			A0					10.74		10.93				1.0	1.0		5 30 53 +10 9.8
40	36310	B+ 4 953	5 28 19 + 4 37.9	8.3 M			B65			10.47	.03	10.82					2.0	1.0			5 30 58 + 4 40.1
41	36157	B+47 1168	5 28 25 +47 9.4	7.8 M	7.7 G		B9					11.51						1.0			5 32 10 +47 11.6
42	36212	B+34 1077	5 28 26 +34 50.7	7.77	0.24	−0.52	B32*					11.17						1.0			5 31 46 +34 52.9
43	36351	B+ 3 948	5 28 37 + 3 15.3	5.44	−0.19	−0.83	B15*	8.54	.32	6.70						2.0	1.0				5 31 14 + 3 17.5
44	36393	B− 2 1278	5 28 49 − 2 1.1	8.48	−0.10	−0.49	B8							11.01	.34				3.0		5 31 20 − 1 58.9
45	36280	B+34 1079	5 28 51 +34 54.3	8.85	0.10	−0.77	B04*					10.67						1.0			5 32 11 +34 56.4
46	36392	B+ 1 1045	5 28 54 + 1 39.2	7.56	−0.14	−0.67	B35p			9.50		9.48	.17	9.22	.30		1.0	2.0	2.0		5 31 30 + 1 41.4
47	36430	B− 6 1207	5 28 55 − 6 44.7	6.22	−0.17	−0.7	B25*	8.67	.34	6.99	.20	7.98		7.72	.31	2.0	13.0	1.0	3.0		5 31 21 − 6 42.5
48	36376	B+ 9 860	5 28 57 + 9 11.4	7.8 M	7.7 G		B8 s			10.29							1.0				5 31 41 + 9 13.6
49	36245	B+44 1227	5 28 57 +44 19.5	7.9 M	7.7 G		B8					10.84						1.0			5 32 35 +44 21.6
50	36429	B+ 2 986	5 29 4 + 2 47.8	7.56	−0.13	−0.64	B55p					8.99	.47					2.0			5 31 41 + 2 50.0
51	36291	B+42 1323	5 29 13 +42 55.7	8.7 M	8.4 G		B9					11.56						1.0			5 32 48 +42 57.8
52	36487	B− 7 1103	5 29 16 − 7 5.1	7.81	−0.11	−0.54	B55			9.78				10.21	.12		1.0		9.3		5 31 41 − 7 3.0
53	36242	B+51 1083	5 29 17 +51 26.1	8.0 M	7.99G		B9					10.92						1.0			5 33 14 +51 28.2
54	36408	B+16 794	5 29 20 +17 1.4	5.42M	−0.04	−0.24	*			8.52		8.56					1.0	1.0			5 32 14 +17 3.5
55	36486	B− 0 983	5 29 27 − 0 20.1	2.20	−0.21	−1.06	O92*	4.82	.30	3.69	.30	3.34	.18	2.80	.14	18.0	18.0	14.0	12.5		5 32 0 − 0 18.0
56	36471	B+ 5 951	5 29 27 + 6 .7	9.0 M			B9					11.93						1.0			5 32 8 + 6 2.8
57	36371	B+32 1024	5 29 28 +32 9.4	4.76	0.3	−0.44	B51*					8.79						1.0			5 32 43 +32 11.5
58	36512	B− 7 1106	5 29 31 − 7 20.2	4.6	−0.26	−1.1	B05p	6.34	.02	5.43	.12	4.77		4.70	.20	2.0	17.0	1.0	16.3		5 31 56 − 7 18.1
59	36541	B− 6 1209	5 29 41 − 6 44.6	7.69	−0.08	−0.45	B65	10.99						10.71	.15	1.0			9.3		5 32 7 − 6 42.5
60	36526	B− 1 933	5 29 41 − 1 38.1	8.31	−0.11	−0.60	B9 s							10.32	.05				.5		5 32 13 − 1 36.0
61	36425	B+31 1003	5 29 45 +31 50.2	7.32	0.05		A2			10.40							1.0				5 33 0 +31 52.3
62	36560	B− 6 1212	5 29 53 − 6 25.6	8.28	−0.09	−0.41	A0							10.65	.17				6.0		5 32 19 − 6 23.5
63	36404	B+41 1218	5 29 55 +42 4.5	6.51	−0.01	−0.26	B8			9.46		9.27					1.0	1.0			5 33 29 +42 6.6
64	36453	B+32 1027	5 30 0 +32 15.3	6.56	0.00		B9					9.30						1.0			5 33 16 +32 17.4
65	36423	B+38 1204	5 30 0 +38 45.0	8.5 M	8.6 G		A0					11.35						1.0			5 33 27 +38 47.1
66	36591	B− 1 935	5 30 9 − 1 37.6	5.3	−0.2	−0.9	B15*	6.82	.01	6.10	.19	5.80	.13	5.87	.37	2.0	25.0	3.0	13.0		5 32 41 − 1 35.5
67	36629	B− 4 1164	5 30 29 − 4 36.0	7.65	0.02	−0.66	B25*			9.68	.22	9.92	.15	9.98	.11		2.0	2.0	12.0		5 32 57 − 4 33.9
68	36627	B+ 3 958	5 30 32 + 3 5.8	7.56	−0.11	−0.54	B65*			9.60		9.81					1.0	1.0			5 33 9 + 3 7.8
69	36468	B+43 1301	5 30 32 +43 54.3	7.18M			B9					10.73						1.0			5 34 10 +43 56.3
70	36646	B− 1 939	5 30 36 − 1 45.1	6.5	−0.10	−0.6	B35p	8.61	.09	7.83	.27	9.01	.10	8.67	.26	2.0	16.0	3.0	11.3		5 33 8 − 1 43.1
71	36576	B+18 877	5 30 36 +18 30.4	5.72	−0.01	−0.75	B24*			7.72		7.10	.08				1.0	2.0			5 33 32 +18 32.4
72	36589	B+20 989	5 30 40 +20 26.4	6.06	−0.07	−0.39	B65p			8.52	.15	9.10	.36				4.0	13.0			5 33 38 +20 28.4
73	36545	B+33 1083	5 30 40 +33 22.8	8.3 M	8.4 G		A0					10.88						1.0			5 33 57 +33 24.8
74	36668	B+ 0 1113	5 30 52 + 0 35.3	8.06	−0.11	−0.45	B65s					10.80						1.0			5 33 26 + 0 37.3
75	36695	B− 1 943	5 30 59 − 1 11.4	5.34	−0.18	−1.09V	B15*	6.76		6.21	.22	6.74	.22	6.33	.52	1.0	15.0	2.0	6.0		5 33 31 − 1 9.4
76	36741	B+ 1 1058	5 31 22 + 1 22.5	6.58	−0.20	−0.77	B25*	8.46		8.57	.01	7.97	.33	6.66		1.0	2.0	1.3	1.0		5 33 57 + 1 24.5
77	36781	B− 1 948	5 31 29 − 1 47.2	8.52	0.02	−0.41	B65							10.89					1.0		5 34 1 − 1 45.2
78	36760	B− 0 996	5 31 29 − 0 30.6	7.63	−0.10	−0.43	B75			9.36	.03			10.39	.24		2.0		8.3		5 34 2 − 0 28.6
79	36665	B+27 798	5 31 30 +28 1.1	8.01	0.39	−0.68	B1 s					11.09						1.0			5 34 39 +28 3.1
80	36779	B− 1 949	5 31 31 − 1 4.1	6.23	−0.18	−0.81	B35p	7.58		6.98	.31	8.05	.13	7.81	.40	1.0	12.0	3.3	2.0		5 34 3 − 1 2.1
81	36777	B+ 3 964	5 31 39 + 3 44.1	5.35	0.05	0.06	A15	10.16		9.27		9.79	.22			1.0	1.0	3.3			5 34 17 + 3 46.1
82	36776	B+ 4 975	5 31 41 + 4 47.5	8.8 M			B8			10.70		11.21	.05				1.0	2.0			5 34 20 + 4 49.5
83	36827	B− 2 1296	5 31 44 − 2 54.9	6.69	−0.17	−0.74	B5 p			7.52	.09	8.10		8.89	.15		8.0	1.0	18.2		5 34 14 − 2 52.9
84	36826	B− 2 1297	5 31 47 − 2 25.1	8.22	0.00	−0.51	B55s			11.22				11.99			1.0		1.0		5 34 18 − 2 23.1
85	36810	B+ 1 1059	5 31 51 + 1 19.7	8.8 M			B9					11.97						.3			5 34 26 + 1 21.7
86	36680	B+41 1226	5 31 54 +41 30.5	8.6 M	8.7 G		A0					11.91						1.0			5 35 26 +41 32.4
87	36843	B− 4 1167	5 31 56 − 4 50.2	6.80	0.18	0.11	A3 p							10.12					1.0		5 34 24 − 4 48.2
88	36842	B− 4 1168	5 31 58 − 4 24.2	8.09	−0.11	−0.51	B75*			10.12	.14			10.72	.35		2.0		.5		5 34 27 − 4 22.3
89	36824	B+ 5 958	5 32 3 + 5 37.7	6.69	−0.15	−0.72	B35p			7.60		7.44					1.0	1.0			5 34 43 + 5 39.6
90	36662	B+45 1144	5 32 3 +45 27.7	8.2 M	8.2 G		B8			10.53		12.00					1.0	1.0			5 35 44 +45 29.6

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1			EN		897 A19 260 341 922
2		U	PR		897 A19 020 036 678 922 A07 A17 A26 A42 A48
3		SP	H		897 A19 001 002 010 012 013 015 336 339 922 A42
4					A23
5		P	H4R		897 A19 001 002 012 013 015 339 350 474 922 A42 A48
6		UP	R	W/ 3 905	897 A19 013 020 036 259 678 922 A17 A26 A42
7			EN		897 922 A48
8					897 922
9		UBP	S4		897 A19 002 013 360 396 419 816 884 901 921 922 932 A42 A43 A48 A59
10					897 A48
11					897 A19 782 884 901 922 A42 A48
12			R		897 A19 404 678 922 A17 A42
13		U			897 A19 922 A17 A26
14			R		897 A19 404 678 922 A17 A42 A48
15		P	N		897 A19 001 002 012 015 336 A42
16		P			897 A19 001 002 A42
17		UP	SY4R		897 A19 002 013 020 036 259 474 840 884 901 922 A26 A42 A48 A59
18		U			897 A19 259 678 922 A07 A17 A26 A42
19					897 A19 922
20					897 922
21		U	NR		897 A19 020 036 259 678 836 922 A07 A17 A26 A42 A63
22		U	EN		897 A19 260 337 678 922 A07 A17 A26 A54
23		P	HR		897 A19 001 002 012 013 015 336 339 350 419 883 922 A42 A48 A58 A76
24					897 922
25		B	N		897 A19 397 835 884 901 922 A48
26					897 A19 922 A17
27		UP	R		897 A19 002 003 020 036 922 A07 A17 A26 A42 A48
28					897 922
29		UP			897 A19 002 013 259 922 A17 A26 A42
30		P			897 002 013 922
31		UP	R		897 A19 002 013 020 036 259 839 884 901 922 A26 A42 A43 A48 A59
32					898 922 A48
33					897 A19 922
34					897 A19 392 782 884 901 922 A42 A48
35		UP	R		897 A19 002 013 020 036 259 835 884 901 922 A26 A42 A48 A59
36		UBP	N		897 A19 002 013 020 158 360 396 783 785 884 901 921 972 932 A26 A42 A43 A47 A48
37					897 922
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39					897 922
40					897 922 A48
41					897 922
42		P	4		897 A19 001 002 012 015 474 922 A42 A63
43		UBP	R		897 A19 002 013 020 036 835 884 901 922 A26 A42 A43 A48 A59
44					897 A19 922
45		P	N		897 A19 001 002 012 013 015 922 A42
46		U			897 A19 020 259 678 922 A07 A17 A26 A42
47		UP	SR		897 A19 002 013 020 036 259 840 884 901 922 A26 A42 A48 A59
48			E		897 337 922
49					897 922
50		U			897 A19 259 678 922 A17 A26 A42
51					897 922
52					897 A19 922 A17 A42
53					897 922
54		B		B75+B85	897 A19 397 699 782 884 901 922 A42 A48
55		US2P	4R	W/-0 982,DELT ORI,SB	897 002 007 012 022 158 350 785 793 816 882 895 921 932 934 969 A26 A43 A66
56					897 922
57		P	B4		897 A19 002 012 013 367 419 512 531 785 816 882 883 884 901 921 962 A42 A48 A59
58		USP			897 A19 002 009 010 012 013 158 765 766 783 793 881 883 884 895 901 921 922 A43
59					897 A19 922 A17 A42 A48
60			A		897 A19 922 A41 A54
61					897 A19 005 922 A07
62					897 A19 922 A17
63					897 A19 397 884 901 922
64					897 A19 005 922
65					897 922
66		USBOP	SR		897 A19 002 009 010 012 013 020 089 158 259 756 884 901 921 922 969 A26 A42 A48
67		OP	R		897 A19 002 036 340 922 969 A07 A17 A42
68		U	R		897 A19 259 404 678 922 A17 A26 A42
69					897 922 A07
70		UBP			897 A19 002 013 756 840 884 901 922 A26 A42 A48 A54 A55 A59
71		UP	PEN4		897 002 013 342 419 474 785 816 884 901 922 A26 A42 A48 A59
72		O			897 A19 397 782 884 901 922 969 A42
73					897 922
74			P		897 A19 678 922 A48
75		U2P	NR	VV ORI, SB	897 002 012 013 020 036 259 377 756 884 901 921 922 969 A26 A42 A48 A54 A55 A59
76		UP	R		897 A19 002 013 020 036 259 840 884 901 922 A17 A26 A42 A48 A59
77					897 A19 922 A17 A54
78					897 A19 922 A54
79			EN		897 A19 260 341 922
80		UBP			897 A19 002 013 020 259 756 835 884 901 922 A26 A42 A48 A54 A59
81					897 A19 338 392 781 835 884 901 922 A48
82					897 922
83		U			897 A19 922 A07 A26
84			N		897 A19 922 A41 A54
85					897 678 922
86					897 922
87		O			897 A19 922 969
88		U	R		897 A19 404 756 922 A17 A26 A48 A54
89		UP			897 A19 002 013 020 259 922 A17 A26 A42
90					897 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	36865	B– 4 1171	5 32 4 – 4 31.2	7.40	–0.07	–0.43	B85s			9.62	.06	9.95		10.39	.10		2.0	1.0	10.2		5 34 32 – 4 29.3
2	36822	B+ 9 877	5 32 4 + 9 27.4	4.41	–0.2	–1.0	B04*	6.98	.44	5.79	.38	4.95	.09			4.0	2.0	2.0			5 34 49 + 9 29.3
3	36820	B+15 861	5 32 12 +15 36.4	7.6 M			B9			10.28		10.49					1.0	1.0			5 35 4 +15 38.3
4	36883	B– 4 1172	5 32 15 – 4 25.5	7.22	–0.08	–0.47	B74			9.13	.17	9.65	.04	9.43			1.3	1.3	.3		5 34 44 – 4 23.6
5	36883	B– 4 1172	5 32 23 – 4 24.4	7.22	–0.08	–0.47	B74c			9.84	.72	9.75					2.0	1.0			5 34 52 – 4 22.5
6	36898	B– 0 1005	5 32 23 – 0 9.3	7.1	–0.07	–0.43	B5 p			9.51	.26			9.85	.29		3.0		5.0		5 34 56 – 0 7.4
7	36861	B+ 9 879	5 32 23 + 9 54.1	3.39	–0.19	–1.0	*	6.08	.41	5.19	.35	4.31				2.0	2.0	1.0			5 35 8 + 9 56.0
8	36916	B– 4 1173	5 32 25 – 4 8.5	6.73	–0.10	–0.58	B83p			9.53		9.34		9.57			1.0	1.0	1.0		5 34 54 – 4 6.6
9	36915	B– 0 1006	5 32 27 – 0 50.8	8.01	–0.01	–0.34	B95p							11.26					.3		5 35 0 – 0 48.9
10	36895	B+ 9 881	5 32 28 + 9 34.9	6.74	–0.20	–0.71	B25			7.80	.00	8.86					2.0	1.0			5 35 13 + 9 36.8
11	36881	B+10 818	5 32 28 +10 12.5	5.59	0.12	–0.07	B83p			9.60	.33	10.55					2.0	1.0			5 35 14 +10 14.4
12	245203	B+ 9 882	5 32 29 + 9 39.9	8.3 M	–0.17	–0.63	B8			8.99	.05	10.27					2.0	1.0			5 35 14 + 9 41.8
13	36936	B– 4 1176	5 32 30 – 4 23.2	7.52	–0.11	–0.58	B55c					9.61	.04	8.98				1.3	.3		5 34 59 – 4 21.3
14	36894	B+ 9 883	5 32 32 + 9 44.8	7.7 M	–0.16	–0.68	B9			9.25	.02	10.24					2.0	1.0			5 35 17 + 9 46.7
15	36960	B– 6 1234	5 32 36 – 6 2.0	△4.78	–0.25	–1.0	B05*	6.91	.70	5.12	.14	5.30		4.18		4.3	4.8	.3	.3		5 35 3 – 6 .1
16	36935	B– 0 1007	5 32 36 – 0 18.1	7.51	–0.13	–0.55	B75p			9.44	.29			10.31	.06		3.0		2.0		5 35 9 – 0 16.2
17	36958	B– 4 1179	5 32 37 – 4 45.8	7.32	–0.10	–0.72V	B35*	8.74		8.44	.15	9.40	.31	9.45	.44	1.0	1.3	2.8	1.8		5 35 5 – 4 43.9
18	36981	B– 5 1311	5 32 38 – 5 14.2	7.81	–0.11	–0.59	B55*			9.44	.13						2.3				5 35 6 – 5 12.3
19	36954	B– 0 1009	5 32 40 – 0 46.0	6.9	–0.10	–0.65	B35p			8.09	.36	8.91	.28	9.14	.20		9.0	14.0	19.5		5 35 13 – 0 44.1
20	36879	B+21 899	5 32 41 +21 22.3	7.57	0.20	–0.80	O6 *			10.16	.21	10.44	.18				4.0	5.0			5 35 41 +21 24.2
21	36960	B– 6 1234	5 32 42 – 6 3.0	4.78	–0.25	–1.0	B05*	5.30		4.92	.09	4.88	.26			1.0	.5	1.3			5 35 9 – 6 1.1
22	36772	B+45 1145	5 32 42 +45 38.4	8.3 M	8.3 G		B9					11.61						1.0			5 36 24 +45 40.3
23	37000	B– 6 1237	5 32 44 – 5 57.5	7.49	–0.13	–0.67	B55p			7.63	.25						.5				5 35 11 – 5 55.6
24	37018	B– 4 1185	5 32 46 – 4 49.0	4.59	–0.2	–0.93	B23*							4.07					.3		5 35 14 – 4 47.1
25	37043	B– 6 1241	5 32 47 – 5 59.4	2.76	–0.2	–1.1	O93*	5.46		3.98	.07			3.04	.70	1.0	3.3		1.0		5 35 14 – 5 57.5
26	36999	B– 5 1314	5 32 47 – 5 51.5	8.48	–0.09	–0.45	B9 *	10.69								.3					5 35 14 – 5 49.6
27	37025	B– 6 1240	5 32 49 – 6 3.9	7.17	–0.12	–0.63	B5	9.22	.06	7.90						1.3	.3				5 35 16 – 6 2.0
28	37022	B– 5 1315	5 32 49 – 5 25.3	5.13	0.02	–0.95	O6 *	6.25		4.04	.30	3.33	.18	2.93	.06	1.0	16.0	6.3	2.5		5 35 16 – 5 23.4
29	36979	B+ 4 979	5 32 51 + 4 48.6	8.9 M			A0					12.12						1.0			5 35 30 + 4 50.5
30	37017	B– 4 1183	5 32 53 – 4 31.5	6.55	–0.14	–0.77	B25*	9.13		7.69		8.36	.33			1.0	.3	2.3			5 35 21 – 4 29.6
31	37016	B– 4 1184	5 32 54 – 4 27.4	6.23	–0.15	–0.68	B35*	9.05		8.09		7.77	.21			1.0	.3	2.3			5 35 22 – 4 25.5
32	37018	B– 4 1185	5 32 55 – 4 52.2	4.59	–0.2	–0.93	B23*	6.55	.34	5.37	.19	4.69	.16	4.60	.59	4.0	17.2	2.8	4.0		5 35 23 – 4 50.3
33	37015	B+ 0 1128	5 32 56 + 0 27.9	8.33	–0.05	–0.22	A0					11.63						1.0			5 35 30 + 0 29.8
34	37043	B– 6 1241	5 32 59 – 5 56.5	2.76	–0.2	–1.1	O93*	5.38	.52	4.20	.34	3.95	.30	3.44	.02	17.2	6.0	4.5	.5		5 35 26 – 5 54.6
35	37040	B– 4 1186	5 33 2 – 4 23.7	6.30	–0.15	–0.7	B25*	9.30		7.64	.36	8.04	.38			1.0	.5	2.3			5 35 31 – 4 21.8
36	37061	B– 5 1325	5 33 4 – 5 17.9	6.80	0.27	–0.39V	B05*	7.82		7.51	.19	7.55	.36			1.0	6.8	4.3			5 35 32 – 5 16.0
37	37055	B– 3 1146	5 33 6 – 3 17.0	6.40	–0.13	–0.6	B35*			7.42	.06	8.34	.35	8.79	.21		8.0	6.3	17.0		5 35 36 – 3 15.1
38	37054	B+ 0 1129	5 33 9 + 0 42.1	9.0 M			A0					12.02						1.0			5 35 43 + 0 44.0
39	37076	B– 1 965	5 33 15 – 1 1.1	8.1	–0.08	–0.41	B85c			10.02	.05						3.0				5 35 47 – 0 59.2
40	245310	B+21 901	5 33 23 +21 9.4	8.87	0.28	–0.67	B15*					12.12						1.0			5 36 22 +21 11.2
41	37115	B– 5 1330	5 33 26 – 5 38.9	7.1	–0.1	–0.57	B65*			8.38		9.32		8.16	.24		.3	1.0	.5		5 35 53 – 5 37.1
42	37112	B– 0 1017	5 33 31 – 0 48.6	8.02	–0.08	–0.50	B75			9.73				10.34	.19		1.0		8.0		5 36 4 – 0 46.8
43	36993	B+27 811	5 33 31 +27 52.9	8.5 M	8.65G		B8					10.86						1.0			5 36 40 +27 54.7
44	37131	B– 6 1247	5 33 33 – 6 18.3	8.32	–0.02	–0.44	B9	11.21				11.98				1.0		1.0			5 35 59 – 6 16.5
45	37129	B– 4 1190	5 33 38 – 4 27.4	7.13	–0.14	–0.73	B25*			8.59	.15	8.88	.40				2.0	5.0			5 36 6 – 4 25.6
46	37128	B– 1 969	5 33 40 – 1 13.9	1.7	–0.19	–1.04	B01*	4.53	.20	3.69	.26	3.09	.33	2.84	.23	27.0	24.0	35.2	13.0		5 36 12 – 1 12.1
47	37151	B– 7 1131	5 33 41 – 7 25.6	7.40	–0.08	–0.40	B85			9.66				10.32			1.0		1.0		5 36 6 – 7 23.8
48	37149	B– 1 971	5 33 46 – 1 39.9	8.03	–0.10	–0.50	B75			9.59				10.71			1.0		1.0		5 36 18 – 1 38.1
49	37150	B– 5 1334	5 33 48 – 5 40.7	6.5	–0.2	–0.81	B35p			7.38	.07	8.26	.26	8.29	.52		9.0	13.5	8.0		5 36 15 – 5 38.9
50	37173	B– 2 1311	5 33 59 – 2 .8	7.86	–0.06	–0.55	B65p			9.94							1.0				5 36 30 – 1 59.0
51	37210	B– 6 1254	5 34 5 – 6 29.0	8.10	–0.07	–0.41	B94s	10.92				12.19				1.0		1.0			5 36 31 – 6 27.2
52	37209	B– 6 1255	5 34 9 – 6 5.7	5.70	–0.24	–0.91	B15*	7.49	.53	6.86	.33	7.09	.31	6.91	.78	2.0	18.0	18.2	18.2		5 36 36 – 6 3.9
53	37234	B+ 4 989	5 34 34 + 4 44.4	8.2 M			B9			10.52							1.0				5 37 13 + 4 46.2
54	245545	B+23 973	5 34 34 +23 6.6	7.9 M	9.7 G		B8 *			10.06	.22						2.0				5 37 36 +23 8.3
55	37232	B+ 8 1016	5 34 35 + 8 55.4	6.10	–0.18	–0.84	B25*	9.51	.57	7.96	.34					2.0	3.0				5 37 19 + 8 57.1
56	37202	B+21 908	5 34 39 +21 6.8	3.0	–0.17	–0.7	B24*	6.01	.41	5.41	.54	4.18		3.29		9.0	7.0	1.0	1.0		5 37 38 +21 8.5
57	37272	B– 1 979	5 34 43 – 1 41.8	7.91	–0.11	–0.56	B55p			9.55		9.67	.25	10.36	.16		1.0	3.0	4.0		5 37 15 – 1 40.1
58	37169	B+37 1262	5 34 51 +37 43.0	7.3 M	7.5 G		B9 c			10.20							1.0				5 38 16 +37 44.7
59	37303	B– 6 1262	5 35 1 – 5 58.0	6.03	–0.2	–0.9	B15*	7.69	.38	7.19	.13	7.53	.22	7.56	.49	2.0	11.0	17.0	16.0		5 37 28 – 5 56.3
60	37321	B– 1 982	5 35 3 – 1 27.0	7.10	–0.08	–0.55	B35p			8.66		9.49	.23	9.78	.28		1.0	11.0	18.0		5 37 35 – 1 25.3
61	37334	B– 5 1342	5 35 9 – 4 57.8	7.19	–0.17	–0.77	B15p			8.47	.13	9.18	.16	9.58	.18		2.0	4.0	10.7		5 37 37 – 4 56.1
62	37332	B– 0 1031	5 35 13 – 0 48.4	7.60	–0.13	–0.60	B55p			9.35	.05	9.31		9.90	.23		2.0	1.0	4.3		5 37 46 – 0 46.7
63	37330	B+ 0 1138	5 35 19 + 0 56.4	7.4	–0.1	–0.56	B65*							9.48					1.0		5 37 54 + 0 58.1
64	37320	B+ 7 953	5 35 19 + 7 30.8	5.87	–0.07	–0.38	B8	9.51	.45	8.63	.25	7.97				3.0	2.0	1.0			5 38 1 + 7 32.5
65	37357	B– 6 1264	5 35 21 – 6 44.2	8.85	0.12	0.01	B8					11.59						.3			5 37 47 – 6 42.5
66	37373	B– 6 1267	5 35 25 – 6 45.0	8.30	–0.09	–0.41	B8					11.62						1.0			5 37 51 – 6 43.3
67	37356	B– 4 1196	5 35 25 – 4 50.5	6.19	–0.04	–0.72	B25*			7.90	.15	8.20	.42	7.15			3.0	9.0	.3		5 37 53 – 4 48.8
68	37269	B+30 963	5 35 25 +30 27.9	5.43	0.41	0.26	*			9.55							1.0				5 38 38 +30 29.6
69	37370	B– 0 1034	5 35 33 – 0 12.2	6.93	0.01	–0.34	B65*			9.55		9.73	.12	10.10	.04		1.0	5.0	2.0		5 38 6 – 0 10.5
70	37267	B+37 1270	5 35 33 +37 42.7	8.2 M	8.1 G		A0					11.42						1.0			5 38 58 +37 44.4
71	37266	B+37 1271	5 35 39 +37 57.0	7.3 M	7.5 G		B9					10.17						.3			5 39 5 +37 58.6
72	37397	B– 1 987	5 35 41 – 1 11.8	6.84	–0.16	–0.74	B35*			7.88	.48	8.75	.28	8.78	.28		13.0	17.0	23.0		5 38 13 – 1 10.1
73	37290	B+38 1239	5 35 48 +38 31.3	8.4 M	8.4 G		B8 c					10.10						1.0			5 39 15 +38 32.9
74	245823	B+18 904	5 35 52 +18 37.6	9.1 M	9.6 G		B8					11.71						1.0			5 38 48 +18 39.2
75	37444	B– 5 1347	5 35 59 – 5 4.3	7.64	0.33	0.17	A2 p			12.51							1.0				5 38 27 – 5 2.6
76	37455	B– 5 1348	5 36 3 – 5 9.1	9.56	0.16	0.07	A p			12.57							1.0				5 38 31 – 5 7.4
77	37367	B+29 947	5 36 7 +29 11.3	5.95	0.16	–0.51	B25*			9.27		8.28					1.0	1.0			5 39 18 +29 12.9
78	37470	B– 6 1274	5 36 8 – 6 11.5	8.22	0.06	–0.27	B9 s	11.37				11.88	.25			1.0		.5			5 38 34 – 6 9.9
79	37366	B+30 968	5 36 11 +30 51.8	7.58	0.09		O95p			9.81	.10	9.15					2.0	1.0			5 39 24 +30 53.4
80	37339	B+37 1275	5 36 11 +37 57.7	6.89M			B9			9.90	.10						2.0				5 39 37 +37 59.3
81	37481	B– 6 1275	5 36 12 – 6 36.1	5.95	–0.23	–0.91	B15*	8.01	.28			6.96	.10			3.0		3.0			5 38 38 – 6 34.5
82	37468	B– 2 1326	5 36 14 – 2 37.6	3.65	–0.24	–1.04	*	5.59	.61	4.88	.18	3.77	.22	3.77	.13	2.0	13.2	2.0	8.5		5 38 45 – 2 36.0
83	37339	B+37 1275	5 36 20 +37 56.8	6.89M			B9 c					8.87						.3			5 39 46 +37 58.4
84	269828	P– 69 409	5 36 21 – 69 13.4	13.6 G			O c							9.47					1.0		5 36 0 – 69 11.7
85	37439	B+21 918	5 36 27 +21 44.2	6.30	0.06	0.10	A25			9.82	.09						2.0				5 39 27 +21 45.8
86	37507	B– 7 1142	5 36 28 – 7 14.4	4.80	0.14	0.11	A44p	9.87		8.77						1.0	1.0				5 38 53 – 7 12.8
87	37525	B– 2 1328	5 36 31 – 2 40.6	8.08	–0.09	–0.60	B55			9.18							.3				5 39 2 – 2 39.0
88	37365	B+39 1373	5 36 31 +39 51.4	8.0 M	8.3 G		A2 s					11.62						1.0			5 40 0 +39 53.0
89	37490	B+ 4 1002	5 36 33 + 4 5.7	4.5	–0.1	–0.8	B33*	8.10	.36	7.22	.03	5.96	.11			3.0	2.0	2.0			5 39 11 + 4 7.3
90	37526	B– 5 1351	5 36 35 – 5 13.3	7.61	–0.12	–0.56	B35p			9.22	.14			10.55	.14		3.0		5.0		5 39 3 – 5 11.7

	OBJ	PHOT	S–PEC	REMARKS	REFERENCES
1			R		897 A19 404 922 A17 A48 A54
2	0	USP	SB4		897 A19 002 007 008 012 013 212 377 474 510 785 839 840 883 884 901 922 A07 A47
3					897 922
4					897 A19 922 A17 A48 A54
5				W/ −4 1176,1178	897 A19 922 A17 A48 A54
6		U			897 A19 922 A17 A26
7	0	USM0P	E4R	W/HD 36862,08+0E5	897 A19 002 007 012 013 022 158 350 474 488 510 699 783 884 895 901 921 922 969
8		U			897 A19 922 A17 A26 A48
9		U			897 A19 922 A26 A48 A55
10	0				897 A19 211 836 922 A07 A42 A54 A63
11		B0			897 A19 397 782 884 901 922 969 A42
12					897 A19 A23
13				W/ −4 1178	897 A19 922 A17 A54
14	0				897 A19 211 922
15		BP	PSR	W/ −6 1233, +B15	897 A19 002 012 013 020 036 158 259 629 699 756 884 921 922 A42 A48
16		U			897 A19 922 A26 A41 A54
17		12P		KX ORI	897 002 259 340 922 969 975 A07 A17 A42 A54
18		0	R		897 A19 036 314 922 969 A54
19		P			897 A19 002 013 922 A07 A17 A42 A48 A54 A55
20		SP	H4		897 A19 001 002 010 012 013 015 336 339 474 922 A42 A58
21		BP	PSR	W/ −6 1233,1240, +B15	897 A19 002 012 013 020 036 158 259 629 699 756 884 921 922 A42 A48
22					897 922
23		0			897 A19 259 922 969 A17 A42
24		UB0P	SR	W/ −4 1179,1188	897 A19 002 012 013 036 158 211 212 377 756 764 783 785 884 901 921 922 969 A47
25		USBP	ES	W/ −6 1233,1234,SB	897 A19 002 007 009 010 012 013 158 336 377 699 765 766 785 884 921 934 A42 A43
26		0		W/ −5 1312	897 A19 922 969 A17
27					897 A19 922 A07 A17
28	0	UBP	P4R	W/37020,21,23,24,SB	897 A19 002 012 013 314 336 340 350 377 474 629 699 756 764 816 883 895 921 922
29					897 922
30		UP	R		897 A19 002 012 013 036 756 884 901 922 A26 A42 A48 A54
31		BP	S4R		897 A19 002 013 756 839 884 901 922 A42 A48 A54
32		UB0P	SR	W/ −4 1188	897 A19 002 012 013 036 158 211 212 377 756 764 783 785 884 901 921 922 969 A47
33					897 A19 678 922
34		USBP	ES	SB	897 A19 002 007 009 010 012 013 158 336 377 699 765 766 785 884 921 934 A42 A43
35		BP	R		897 A19 002 013 036 840 884 901 922 A48 A54
36		12		NU ORI	897 922 969 A07 A17 A42 A54
37		UB0P		W/ −3 1148	897 A19 002 013 756 835 884 901 922 969 A26 A42 A48 A59
38					897 678 922
39				W/ −1 966	897 A19 922 A54
40		P	PEN		897 A19 001 002 012 015 341 A23 A42
41		0	EN		898 A19 260 314 342 922 A07 969 A42
42					897 A19 922 A48 A54 A55
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45		UP	PR		897 A19 002 013 036 922 A07 A17 A26 A42
46	D	USP	E4		897 A19 002 007 009 158 341 377 689 785 793 856 883 895 921 932 975 A42 A43 A48
47					897 A19 922 A42
48					897 A19 922 A48 A54 A55
49		U0P			897 A19 002 013 314 756 835 884 901 922 969 A26 A42 A48 A59
50		U			897 A19 922 A26 A41 A54
51			P		897 A19 922 A48
52		UB0P	SR		897 A19 002 013 036 259 756 839 884 901 922 969 A26 A42 A48 A59
53					897 922
54			EN	W/ 23 974	897 341 A23
55		UP	R		897 A19 002 013 036 840 884 901 922 A26 A42 A48 A59
56		U0P	PENYBR		897 A19 002 013 036 260 342 360 367 396 419 529 771 883 884 921 922 932 963 969
57		U			897 A19 922 A26 A41 A54
58				W/ 37 1263	897 922
59		U0P	NR		897 A19 002 012 013 036 158 756 835 884 901 922 969 A26 A42 A48 A59
60		U			897 A19 922 A17 A41 A42 A26 A48 A55
61		0P			897 A19 002 013 756 922 A07 969 A48
62		U			897 A19 922 A26 A41 A48 A54 A55
63		U	EN	W/ 0 1140	897 A19 342 922 A17 A26 A42
64					897 A19 397 839 884 901 922
65					897 A19 922 A17
66					897 A19 922 A17
67		U0P	SR		897 A19 002 013 036 756 835 884 901 922 969 A42 A43 A48 A54 A59
68		M0		G53+A3+F05	897 A19 782 884 901 922 969 A42 A48
69		UB		W/ −0 1035	898 A19 922 A26 A54
70					897 922
71					897 922
72		UP	N		897 A19 002 013 756 922 A26 A42 A48 A54 A55
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74					898 A23
75		0			897 A19 922 969
76		0			897 A19 922 969
77		UP	S		897 A19 002 013 360 396 419 884 901 922 932 A42 A43 A48
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79		P			897 A19 002 005 013 419 922 A07 A63
80					897 922
81		UP	R		897 A19 002 013 036 259 756 839 884 901 922 A26 A42 A48 A59
82		USMP		W/ −2 1327,1328,095	897 A19 002 012 013 367 377 488 510 756 765 766 785 882 883 901 921 A42 A47 A48
83				W/ 37 1277	897 922
84				W/ −69 413,415	900 A23
85					897 A19 392 782 884 901 922 A42 A48
86		S			897 A19 007 158 781 884 901 921 922 A48
87					897 A19 922 A41 A54
88			E		897 337 922
89		U0P	PENR		897 A19 002 012 013 036 158 260 342 504 785 884 901 921 969 A26 A42 A43 A47 A48
90		U			897 A19 259 922 A17 A26 A42

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	37437	B+31 1043	5 36 48 +31 52.4	8.03	0.04		B85					11.15						1.0			5 40 3 +31 54.0
2	37591	B+ 4 1003	5 37 6 + 4 24.5	7.9 M			B9			10.42							1.0				5 39 45 + 4 26.1
3	37635	B– 9 1197	5 37 8 – 9 44.0	6.48	–0.11	–0.46	B75p					9.60						1.0			5 39 30 – 9 42.4
4	37559	B+19 1004	5 37 12 +19 39.3	7.8 M			B9					11.44						1.0			5 40 9 +19 40.9
5	37606	B+ 1 1088	5 37 14 + 1 27.9	6.90	–0.07	–0.34	B85			9.30							1.0				5 39 49 + 1 29.5
6	37621	B+ 9 920	5 37 22 + 9 27.5	8.57M	8.57G		A0			11.98		12.11					1.0	1.0			5 40 7 + 9 29.0
7	37519	B+31 1048	5 37 22 +31 20.0	6.0	0.03	–0.2	B75p			9.19		9.00					1.0	1.0			5 40 36 +31 21.5
8	37641	B– 2 1333	5 37 25 – 1 57.2	7.55	–0.06	–0.38	B75			9.43	.23	9.41	.12				2.0	3.0			5 39 56 – 1 55.6
9	246047	B+32 1062	5 37 25 +32 4.9	8.91	0.14		B35					11.70						1.0			5 40 40 +32 6.4
10	37642	B– 3 1167	5 37 26 – 3 21.4	8.06	–0.13	–0.62	B9			9.69							1.0				5 39 56 – 3 19.8
11	246070	B+31 1050	5 37 30 +31 51.4	9.23	0.17		B33					11.74						1.0			5 40 45 +31 52.9
12	37674	B– 1 1001	5 37 42 – 1 29.3	7.67	–0.08	–0.6	B35*			9.13		9.19		9.92	.19		1.0	1.0	6.0		5 40 14 – 1 27.8
13	269881	P–68 403	5 37 44 –68 45.4	8.8 M	9.7 G		F5 c							9.61	.11				2.3		5 37 27 –68 43.8
14	37699	B– 2 1336	5 37 49 – 2 27.7	7.62	–0.13	–0.69	B5 c			9.32	.34	9.74	.12	9.74			2.0	2.0	1.0		5 40 20 – 2 26.2
15	37687	B– 3 1168	5 37 50 – 3 27.1	7.05	0.03	–0.44	B8			9.67		9.31	.19				1.0	2.0			5 40 20 – 3 25.6
16	37650	B+17 977	5 37 54 +17 10.3	8.8 M			A					11.88						1.0			5 40 48 +17 11.8
17	37700	B– 4 1210	5 37 57 – 4 26.8	7.96	–0.09	–0.48	B55			10.56							1.0				5 40 25 – 4 25.3
18	37614	B+38 1250	5 38 5 +38 9.8	8.20	0.13	–0.63	*					10.85						1.0			5 41 31 +38 11.3
19	37639	B+31 1056	5 38 6 +31 9.7	7.44	–0.01		A05					11.05						1.0			5 41 20 +31 11.2
20	37744	B– 2 1337	5 38 7 – 2 51.0	6.21	–0.22	–0.90	B15*	7.86	.45	7.25	.12	6.92	.41	7.35	.28	2.0	8.0	2.0	10.0		5 40 37 – 2 49.5
21	37646	B+29 953	5 38 10 +29 27.8	6.42	–0.10	–0.39	B84*					8.83					1.0				5 41 21 +29 29.3
22	37742	B– 2 1338	5 38 14 – 1 58.0	1.75	–0.21	–1.06	*	4.51	.21	3.54	.26	3.12	.19	2.70	.12	25.0	11.0	22.0	5.0		5 40 45 – 1 56.5
23	37756	B– 1 1004	5 38 18 – 1 9.2	4.93	–0.22	–0.8	B33*	7.14	.29	6.06	.17	5.97	.30	4.67	.26	3.0	2.0	12.0	3.0		5 40 50 – 1 7.7
24	37776	B– 1 1005	5 38 24 – 1 31.9	6.98	–0.14	–0.86	B25p					7.77	.21	8.82	.27	8.70	.29	7.0	13.0	6.5	5 40 56 – 1 30.4
25	37711	B+16 841	5 38 24 +16 30.6	4.84	–0.13	–0.63	B34p	8.55		6.99		5.72				1.0	1.0	1.0			5 41 17 +16 32.1
26	37808	B–10 1258	5 38 25 –10 26.0	6.45	–0.16	–0.53	B9 *			9.15		9.78					1.0	1.0			5 40 46 –10 24.5
27	37846	B– 8 1197	5 38 36 – 8 4.7	7.60M	7.60G		A0			12.06							1.0				5 41 0 – 8 3.2
28	37740	B+19 1019	5 38 38 +19 11.8	8.2 M			A0					11.47						1.0			5 41 35 +19 13.2
29	37807	B– 3 1171	5 38 39 – 3 39.4	7.90	–0.10	–0.64	B2			9.34							1.0				5 41 8 – 3 37.9
30	37786	B+ 9 925	5 38 41 + 9 10.5	7.38M	7.33G		B8 c	10.05		9.38	.50	9.38	.04			1.0	2.0	2.0			5 41 25 + 9 12.0
31	37657	B+42 1376	5 38 44 +43 2.2	7.10	0.12	–0.72	B35*			10.01		9.72					1.0	1.0			5 42 20 +43 3.6
32	37771	B+19 1023	5 38 47 +19 20.0	8.2 M			A0					11.21						1.0			5 41 44 +19 21.4
33	37772	B+16 842	5 38 48 +16 12.6	7.9 M			A0					11.25						1.0			5 41 41 +16 14.0
34	37889	B– 7 1151	5 38 57 – 6 57.5	7.67	–0.12	–0.70	B25	9.82	.31	9.17		9.47	.33			3.0	1.0	1.5			5 41 23 – 6 56.1
35	37903	B– 2 1345	5 39 7 – 2 17.0	7.82	0.10	–0.62	B25p			9.70		9.64		9.96	.07		1.0	1.0	2.0		5 41 38 – 2 15.6
36	37958	B+ 2 1040	5 39 41 + 2 20.7	6.61M	6.56G		B8 p					10.13						1.0			5 42 17 + 2 22.1
37	37841	B+41 1257	5 39 45 +41 6.0	7.5 M	7.1 G		B8			10.20		10.09	.07				1.0	2.0			5 43 17 +41 7.3
38	38023	B– 8 1199	5 39 57 – 8 9.4	8.8 M	8.8 G		B9			13.00							1.0				5 42 21 – 8 8.0
39	37940	B+18 923	5 39 57 +18 57.5	6.68M			B9			9.86		9.51					1.0	1.0			5 42 54 +18 58.9
40	38089	B– 6 1293	5 40 28 – 6 49.2	5.97	0.44	–0.05	F65*			11.38	.09						2.0				5 42 54 – 6 47.9
41	38037	B+16 850	5 40 36 +16 40.6	8.6 M			A0					11.45						1.0			5 43 30 +16 41.9
42	38120	B– 5 1370	5 40 44 – 5 1.1	9.10	0.04	–0.06	A0			11.77							1.0				5 43 12 – 4 59.8
43	38098	B+ 5 1001	5 40 44 + 5 20.2	7.7 M			B8			9.87	.07	10.53	.19				2.0	2.0			5 43 24 + 5 21.5
44	38017	B+30 992	5 40 52 +30 54.8	8.08	0.2	–0.47	B55*					11.50	.07					2.0			5 44 6 +30 56.1
45	38064	B+18 934	5 40 53 +18 37.6	9.0 M			A0					11.82						1.0			5 43 49 +18 38.9
46	38108	B+ 6 1005	5 40 55 + 6 52.0	7.18M	7.13G		B8			9.75		10.58					1.0	1.0			5 43 37 + 6 53.3
47	38184	B– 7 1158	5 41 8 – 7 18.8	9.9 M	9.1 G		A0			12.35							1.0				5 43 33 – 7 17.5
48	38185	B– 9 1213	5 41 16 – 8 57.5	7.37M	7.35G		B9	9.56		9.29	.19	9.68		9.72	.42	1.0	3.0	1.0	2.0		5 43 39 – 8 56.2
49	38154	B+ 6 1007	5 41 18 + 6 53.7	7.9 M	7.9 G		B9			10.38							1.0				5 44 0 + 6 55.0
50	38133	B+18 938	5 41 20 +18 48.8	7.5 M			A0					11.49						1.0			5 44 16 +18 50.1
51	38116	B+28 868	5 41 27 +28 59.8	7.89	0.19		B5 s			9.93							1.0				5 44 38 +29 1.0
52	38239	B– 6 1297	5 41 37 – 6 45.2	9.22	0.06	0.01	A0			12.72							1.0				5 44 3 – 6 44.0
53	38192	B+20 1073	5 41 48 +20 31.2	8.0 M	7.63G		B9					10.35						1.0			5 44 47 +20 32.4
54	38201	B+18 946	5 41 57 +18 43.1	8.9 M			A0					11.44						1.0			5 44 53 +18 44.3
55	38219	B+16 855	5 42 0 +16 4.0	6.81M			A0					10.66	.06					2.0			5 44 53 +16 5.2
56	38104	B+49 1398	5 42 1 +49 48.4	5.43	0.03	0.1	A0 s			9.17		10.04					1.0	1.0			5 45 54 +49 49.6
57	38292	B– 4 1231	5 42 3 – 4 43.0	7.20M			A0			11.36							1.0				5 44 31 – 4 41.8
58	38312	B– 6 1302	5 42 7 – 6 53.1	6.67M			A2			11.37	.02						2.0				5 44 33 – 6 51.9
59	247061	B+31 1079	5 42 14 +31 11.5	8.8 M	9.2 G		B9					10.91	.03					2.0			5 45 28 +31 12.7
60	38291	B+ 6 1012	5 42 19 + 6 19.8	7.23M			B8			9.69	.19	9.78					2.0	1.0			5 45 0 + 6 21.0
61	38188	B+44 1278	5 42 32 +44 45.9	7.8 M	8.0 G		B9					11.53						1.0			5 46 12 +44 47.0
62	38179	B+47 1193	5 42 37 +47 53.0	6.74M			B9					11.68						1.0			5 46 24 +47 54.1
63	38350	B+ 6 1014	5 42 44 + 6 16.7	7.38M	7.44G		A2			11.70	.56						2.0				5 45 25 + 6 17.9
64	38258	B+47 1194	5 43 5 +47 26.9	7.5 M	7.3 G		B8					11.36						1.0			5 46 51 +47 28.0
65	38478	B+15 926	5 43 53 +15 48.3	5.89	–0.06	–0.45	B73s			8.55		8.26					1.0	1.0			5 46 46 +15 49.4
66	38441	B+31 1091	5 43 59 +31 38.6	7.5 M	7.8 G		A0					11.61						1.0			5 47 14 +31 39.6
67	38623	B+ 8 1072	5 44 39 + 8 31.9	8.1 M	8.1 G		A0			10.59							1.0				5 47 23 + 8 32.9
68	38650	B+ 4 1038	5 44 51 + 4 5.0	7.54M			B9			10.82	.02	11.44					2.0	1.0			5 47 29 + 4 6.0
69	38622	B+13 979	5 44 53 +13 53.0	5.27	–0.16	–0.68	B25*	8.27								1.0					5 47 43 +13 54.0
70	38672	B+12 902	5 45 14 +12 24.1	6.57M			B8 p			9.26	.08						2.0				5 48 2 +12 25.1
71	38671	B+17 1011	5 45 17 +17 28.8	8.6 M			A0					11.49						1.0			5 48 12 +17 29.8
72	38710	B+ 6 1027	5 45 19 + 6 26.3	5.26	0.24	0.15	*			10.29	.26						4.0				5 48 0 + 6 27.3
73	38755	B– 6 1313	5 45 21 – 6 27.1	7.68	–0.11	–0.52	B65	9.93	.10	9.23		10.51				2.0	1.0	1.0			5 47 47 – 6 26.1
74	38771	B– 9 1235	5 45 23 – 9 41.2	2.06	–0.18	–1.0	B01*	4.85	.28	3.76	.32	3.40	.35	3.07	.06	15.0	13.0	14.0	2.8		5 47 45 – 9 40.2
75	38670	B+20 1105	5 45 23 +20 51.2	6.07	–0.08	–0.4	B75*					7.97						1.0			5 48 22 +20 52.2
76	270086	P–69 520	5 45 32 –69 .5	10.28	0.24		A11			7.36							1.0			LMC	5 45 12 –68 59.4
77	38709	B+17 1013	5 45 34 +17 25.1	7.7 M			B9					11.65						1.0			5 48 29 +17 26.0
78	38800	B– 6 1314	5 45 40 – 6 8.7	8.6 M	8.6 G		B8			11.45							1.0				5 48 6 – 6 7.7
79	247770	B+31 1104	5 45 43 +31 31.0	8.7 M	9.5 G		A					12.00						1.0			5 48 58 +31 31.9
80	38824	B– 8 1219	5 45 47 – 8 24.0	7.12M			B9	9.43		9.30	.36	9.58	.12	10.11		1.0	2.0	2.0	1.0		5 48 11 – 8 23.1
81	38798	B+ 4 1046	5 45 49 + 4 41.3	7.15M	7.15G		A0			11.01		11.31					1.0	1.0			5 48 28 + 4 42.2
82	38797	B+11 945	5 45 59 +11 58.9	6.90M			B8			9.25							1.0				5 48 47 +11 59.8
83	38868	B– 5 1406	5 46 9 – 5 50.7	8.6 M	8.6 G		A0			11.89	.11						2.0				5 48 36 – 5 49.8
84	38856	B+ 0 1184	5 46 11 + 0 42.6	7.20M			B8 p			8.94	.18	9.76					2.0	1.0			5 48 45 + 0 43.5
85	38796	B+21 1003	5 46 13 +21 7.3	7.2 M	7.05G		B9					10.93						1.0			5 49 12 +21 8.2
86	247967	B+20 1116	5 46 23 +20 34.2	8.9 M	8.6 G		F					10.95						1.0			5 49 22 +20 35.1
87	247912	B+30 1022	5 46 25 +30 8.6	9.4 M	9.66G		B3					11.73						1.0			5 49 37 +30 9.5
88	38730	B+45 1181	5 46 26 +45 4.7	8.5 M	7.9 G		A0					11.98						1.0			5 50 7 +45 5.6
89	38900	B+ 4 1048	5 46 29 + 4 11.9	7.9 M	7.9 G		B9					11.33						1.0			5 49 8 + 4 12.8
90	38777	B+39 1421	5 46 34 +39 33.7	8.0 M			A0					11.72						1.0			5 50 3 +39 34.6

	OBJ	PHOT	S–PEC	REMARKS	REFERENCES
1					897 A19 005 922
2					897 922
3		UP			897 A19 002 013 840 884 901 922 A26 A48 A59
4					897 922
5					897 A19 259 922 A42
6					897 922
7		U			897 A19 397 782 884 901 922 A42 A66
8					897 A19 922 A54
9					897 A19 005 A23
10					897 A19 922 A17
11					897 A19 005 A23
12		U	N	W/ −1 999	897 A19 922 A07 A26 A41 A54
13				W/ −68 399	897 A23
14				W/ −2 1335	897 A19 922 A07
15					897 A19 922
16					897 922
17					897 A19 259 404 922 A17 A42
18		P	4	W/HD 37615,B23 + G	897 A19 001 002 012 015 474 922 A42
19					897 A19 005 922
20		UP	R		897 A19 002 013 036 259 835 884 901 922 A26 A42 A48 A59
21		B	N	W/ 29 954,SB, + A0	897 A19 005 629 884 922 A07 A48
22		USBOP	EN4	W/HD 37743,091 + B3	897 A19 012 013 158 336 341 377 689 785 793 816 883 895 934 962 969 A26 A43 A48
23		UOP	ENBR	W/ −1 1006	897 A19 002 013 036 158 212 259 756 783 884 901 922 969 A26 A42 A48 A59
24	O	U			897 A19 412 922 A07 A26 A42
25		UBP			897 A19 002 013 360 396 419 884 901 921 922 932 A26 A42 A43 A48 A59
26		U	P	W/ −10 1255	897 A19 397 884 901 922 A26 A48 A73
27					897 922
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29					897 A19 922 A17
30				W/ 9 926	897 922
31		P	EN		897 A19 002 013 260 342 419 922 A07 A48
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33					897 922
34					897 A19 922 A42
35	O	U			897 A19 412 922 A07 A17 A26 A42
36		U			897 488 922
37					897 922
38					897 922
39					897 922
40		B		SB	897 A19 840 884 901 922 A48
41					897 922
42					897 A19 922 A17
43					897 922
44		P	4		897 A19 001 002 005 012 015 474 922 A42
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52					897 A19 922 A17
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54					897 922
55					897 922
56			PAG		897 A19 026 338 753 782 884 901 922 948 A42 A48
57					897 922
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59					897 A23
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61					897 922 A07
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63					897 922
64					897 922 A07
65			P		897 A19 397 782 884 901 922 A42
66					897 922
67					897 922
68					897 922
69		UP	S		897 A19 002 013 360 396 419 884 901 922 A26 A42 A48 A59
70		P			897 002 013 922
71					897 922
72		B		SB,A5(N) + F0	897 A19 392 781 839 884 901 922 A48
73					897 A19 259 922 A42
74		USOP	ER		897 A19 007 009 010 013 158 350 488 785 793 882 883 895 934 962 969 A26 A43 A60
75		B		W/ 20 1106,SB	897 A19 397 782 884 901 922 A42 A48
76					011 389 A23 A42
77					897 922
78					897 922
79					897 A23
80					897 922
81					897 922
82					897 922
83					897 922
84		U			897 922 A26
85					897 922
86					897 A23
87					897 A23
88					897 922
89					897 922
90					897 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	38899	B+12 912	5 46 44 +12 38.2	4.89	−0.07	−0.2	B94p		7.97			1.0		5 49 33 +12 39.1
2	39000	B− 0 1095	5 47 0 − 0 41.8	7.9 M			A0		9.87 .16			2.0		5 49 33 − 0 40.9
3	38909	B+31 1115	5 47 15 +31 3.1	8.16	0.01	−0.62	B32p			10.21		1.0		5 50 29 +31 3.9
4	39018	B+17 1029	5 47 37 +18 .8	8.5 M	7.5 G		B9 s		10.22 .18	10.20 .02		2.0 2.0		5 50 32 +18 1.6
5	39082	B+ 4 1054	5 47 44 + 4 56.6	7.50M	7.48G		B9		11.22			1.0		5 50 23 + 4 57.4
6	39190	C−23 3135	5 47 48 −22 59.1	5.87	0.05	1.53C	A2	10.11	9.85			1.0 1.0		5 49 53 −22 58.3
7	39098	B+14 1047	5 47 58 +14 25.8	6.61M			B9			8.95 .23		2.0		5 50 49 +14 26.6
8	39161	B− 5 1419	5 48 1 − 4 59.4	8.80M	8.80G		A0		13.19			1.0		5 50 29 − 4 58.6
9	39136	B+32 1111	5 48 39 +32 13.7	8.80	0.09	−0.45	B33*			11.60		1.0		5 51 55 +32 14.4
10	39227	B+19 1106	5 48 55 +19 30.6	7.12M			B9			9.92 .15		2.0		5 51 52 +19 31.3
11	39291	B− 7 1187	5 48 57 − 7 31.8	5.34	−0.20	−0.8	B25*	8.13	7.10			1.0 1.0		5 51 22 − 7 31.1
12	39348	B− 7 1190	5 49 19 − 7 55.9	8.4 M			A0		11.94 .55	12.64		2.0 1.0		5 51 43 − 7 55.2
13	39286	B+19 1110	5 49 26 +19 51.4	5.92M	0.51	−0.03	B95s			10.02 .17		2.0		5 52 24 +19 52.1
14	39376	B− 7 1192	5 49 32 − 7 19.3	8.0 M			B9	10.91	9.75			1.0 1.0		5 51 57 − 7 18.6
15	39317	B+14 1060	5 49 32 +14 9.6	5.55	−0.05	−0.07	B9 *		9.07	9.28		1.0 1.0		5 52 22 +14 10.3
16	39421	B− 9 1255	5 49 45 − 9 3.2	5.95	0.10	0.07	A25s	9.72	10.05 .10			1.0 2.0		5 52 8 − 9 2.5
17	39419	B− 6 1337	5 49 48 − 6 51.5	9.1 M			B9		11.96			1.0		5 52 14 − 6 50.8
18	39439	B− 7 1194	5 49 56 − 7 23.2	8.8 M			A0		11.49			1.0		5 52 21 − 7 22.6
19	248742	B+16 898	5 50 2 +16 12.8	9.4 M	9.6 G		B8			11.79		1.0		5 52 55 +16 13.4
20	39394	B+18 998	5 50 18 +18 57.7	8.5 M			B9			11.29		1.0		5 53 15 +18 58.3
21	39493	B+14 1067	5 50 46 +14 25.4	8.7 M			A0			11.97		1.0		5 53 37 +14 26.0
22	39508	B+16 904	5 50 54 +16 8.7	8.2 M			B3 s		10.01 .17	9.61		2.0 1.0		5 53 47 +16 9.3
23	39477	B+30 1045	5 51 3 +30 29.1	7.5 M			B5 *			11.27		1.0		5 54 16 +30 29.6
24	39614	B− 6 1343	5 51 5 − 6 25.0	9.1 M			B9		12.10			.3		5 53 31 − 6 24.4
25	39414	B+45 1194	5 51 7 +45 20.1	8.8 M	8.4 G		A0			11.18		1.0		5 54 48 +45 20.6
26	39717	B−22 1256	5 51 15 −22 22.9	8.5 M			B9		10.97			1.0		5 53 21 −22 22.3
27	39647	B− 5 1434	5 51 15 − 5 42.8	6.80M			B9	9.77	10.31	11.42		1.0 1.0 1.0		5 53 42 − 5 42.3
28	39716	B− 6 1347	5 51 38 − 6 45.7	8.7 M			B5	10.55	10.09	11.14		1.0 1.0 1.0		5 54 4 − 6 45.2
29	39683	B+ 8 1107	5 51 45 + 8 2.8	7.7 M			B9		10.07			1.0		5 54 28 + 8 3.3
30	39661	B+15 976	5 51 45 +15 30.0	8.2 M			B9			11.46		1.0		5 54 37 +15 30.5
31	39680	B+13 1026	5 51 55 +13 50.8	7.99	0.02	−0.96	O6 *		9.32	9.05		1.0 1.0		5 54 45 +13 51.3
32	39777	B− 4 1281	5 52 6 − 4 4.3	6.55	−0.19	−0.81	B25*		7.71			1.0		5 54 35 − 4 3.8
33		B+47 1213	5 52 8 +47 18.3	9.43	−0.03	−0.68				11.26		1.0		5 55 54 +47 18.7
34	39773	B+ 5 1044	5 52 15 + 5 51.2	6.73M	6.71G		B9		9.17	9.95		1.0 1.0		5 54 55 + 5 51.7
35	39712	B+30 1055	5 52 23 +30 42.2	8.38	0.11	−0.56	B24*			10.96		1.0		5 55 36 +30 42.6
36	39852	B− 9 1262	5 52 31 − 9 11.3	8.0 M	8.0 G		A0		11.51			1.0		5 54 54 − 9 10.8
37	39927	B− 4 1291	5 53 2 − 4 48.8	6.27	0.06	0.06	A23c		8.79			1.0		5 55 30 − 4 48.4
38	39867	B+19 1136	5 53 7 +19 22.2	8.1 M			B9			10.25 .12		1.3		5 56 4 +19 22.6
39	40011	B− 3 1238	5 53 38 − 3 48.7	8.6 M	8.6 G		B8		11.93			1.0		5 56 7 − 3 48.3
40	249447	B+18 1027	5 53 52 +18 56.1	8.8 M	9.6 G		A0			12.00		1.0		5 56 49 +18 56.4
41	40005	B+16 926	5 53 57 +16 21.0	6.91M			B25p		8.84 .28	8.13 .05		3.0 2.0		5 56 50 +16 21.3
42	40039	B+19 1145	5 54 11 +19 12.7	7.9 M			B9			10.65		1.0		5 57 8 +19 13.0
43	249670	B+14 1089	5 54 48 +14 55.8	8.6 M	9.0 G		A2 c			11.65		1.0		5 57 39 +14 56.1
44	40037	B+40 1469	5 54 48 +40 47.0	7.9 M	7.7 G		A2			12.06		1.0		5 58 19 +40 47.3
45	40131	B+46 1074	5 55 35 +46 54.9	8.0 M	7.9 G		A0			10.99		1.0		5 59 20 +46 55.1
46	40316	B+16 940	5 55 46 +16 35.7	7.0 M			B9		9.94	11.16		1.0 1.0		5 58 40 +16 35.9
47	40160	B+46 1075	5 55 49 +46 31.9	7.2 M			B5 p			8.90		1.0		5 59 33 +46 32.1
48	40367	B+18 1043	5 56 12 +18 48.6	8.9 M			A0			11.04		1.0		5 59 8 +18 48.8
49	40424	B+19 1160	5 56 32 +19 46.6	8.4 M			B9			11.56		1.0		5 59 30 +19 46.7
50	40534	B− 4 1316	5 56 46 − 4 21.7	9.0 M	8.6 G		A0		12.16			1.0		5 59 15 − 4 21.6
51	40394	B+47 1227	5 57 11 +47 54.1	5.68M			B9 s		9.31			1.0		6 0 59 +47 54.2
52	40531	B+19 1165	5 57 12 +19 59.4	7.9 M			B8		9.83	9.75		1.0 1.0		6 0 10 +19 59.5
53	40681	B+16 964	5 58 12 +16 59.5	7.9 M			B9			11.07 .10		3.0		6 1 6 +16 59.5
54	40803	B+ 7 1095	5 58 50 + 7 35.9	8.3 M			F5			12.15		1.0		6 1 33 + 7 35.9
55	40626	B+49 1441	5 58 55 +49 54.4	5.95M			B9 4			9.32		1.0		6 2 48 +49 54.3
56	40862	B+14 1115	5 59 22 +14 53.0	8.6 M			B8			10.28		1.0		6 2 13 +14 52.9
57	40932	B+ 9 1064	5 59 38 + 9 38.9	4.12	0.15	0.1	A25*	9.82	8.92	11.57		1.0 1.0 1.0		6 2 23 + 9 38.8
58	40963	B+ 7 1099	5 59 53 + 7 42.0	8.1 M			B8		10.25 .34	10.56 .09		2.0 2.0		6 2 36 + 7 41.9
59	41040	B+19 1186	6 0 30 +19 41.6	5.14	−0.11	−0.42	B83p	9.36	7.98	6.52		1.0 1.0 1.0		6 3 28 +19 41.5
60	41121	B+ 8 1161	6 0 44 + 8 34.9	8.9 M			B8		10.63 .20	11.39		2.0 1.0		6 3 28 + 8 34.7
61	40978	B+46 1091	6 0 54 +46 35.3	7.26	−0.06	−0.70	B35*			8.97		1.0		6 4 38 +46 35.1
62	41117	B+20 1233	6 0 57 +20 8.5	4.62	0.28	−0.69	B21*		8.94 .25	7.58		2.0 1.0		6 3 55 +20 8.3
63	41164	B+14 1129	6 1 1 +14 58.0	8.2 M			B9			10.21		1.0		6 3 52 +14 57.8
64	41285	B+16 989	6 1 57 +16 39.8	7.5 M			B5 *		8.85	9.24 .24		1.0 3.0		6 4 51 +16 39.6
65	41345	B+ 9 1081	6 2 11 + 9 35.4	8.6 M			A0 c			11.73		1.0		6 4 56 + 9 35.1
66	41378	B+ 8 1176	6 2 22 + 8 57.8	8.4 M	8.4 G		A0		10.64			1.0		6 5 6 + 8 57.5
67	41501	B+ 5 1089	6 3 12 + 5 44.6	8.3 M			B9		10.12	10.61		1.0 1.0		6 5 52 + 5 44.3
68	41606	B− 4 1356	6 3 33 − 4 33.5	9.0 M			B9			11.47 .19		2.0		6 6 1 − 4 33.8
69	41580	B+10 1004	6 3 42 +10 45.4	7.3 M			A0		10.04			1.0		6 6 28 +10 45.0
70	41603	B+ 7 1131	6 3 54 + 7 30.6	8.3 M			B9		11.23	12.06		1.0 1.0		6 6 36 + 7 30.2
71	41692	B− 4 1362	6 4 10 − 4 11.2	5.37	−0.14	−0.53	B54p		7.63	6.86 .14		1.0 2.0		6 6 39 − 4 11.6
72	41756	B− 3 1297	6 4 26 − 3 20.1	6.92	−0.13	1.31C	B5 p		8.59	8.71		1.0 1.0		6 6 56 − 3 20.5
73	41690	B+21 1120	6 4 38 +21 52.8	7.72	0.21	−0.61	B15p			10.86		1.0		6 7 38 +21 52.4
74	41754	B+ 9 1094	6 4 39 + 9 12.0	7.9 M			B8		9.67 .02	10.01		2.0 1.0		6 7 23 + 9 11.6
75	41791	B+ 8 1193	6 4 44 + 8 16.7	7.9 M			B9		10.57			1.0		6 7 27 + 8 16.3
76	41793	B+ 6 1125	6 4 45 + 6 26.6	8.5 M			A0			12.38		1.0		6 7 26 + 6 26.2
77	41895	B− 3 1302	6 5 5 − 3 35.7	8.3 M			B9			11.88		1.0		6 7 34 − 3 36.2
78	41998	B+ 9 1107	6 5 53 + 9 38.6	8.2 M			B8		10.72			1.0		6 8 38 + 9 38.1
79	42050	B− 5 1515	6 5 59 − 5 19.9	8.5 M			B4		9.61	9.54 .04		1.0 2.0		6 8 26 − 5 20.4
80	42015	B+ 7 1148	6 6 2 + 7 13.8	8.5 M			A0			12.34		1.0		6 8 44 + 7 13.3
81	42035	B+ 8 1202	6 6 3 + 8 40.7	6.54	−0.06	−0.18	B95*		9.40 .23	10.23 .33		5.0 2.0		6 8 47 + 8 40.2
82	42525	P−66 493	6 6 6 −66 2.0	5.70	−0.03	−0.07	B9		9.00 .06			2.0		6 6 9 −66 2.4
83	252409	B+20 1281	6 6 24 +20 53.6	9.2 M	9.6 G		B8 c			11.34		1.0		6 9 23 +20 53.0
84	42088	B+20 1284	6 6 41 +20 29.9	7.55	0.06	−0.89	O6 *		9.65	8.43		1.0 1.0		6 9 40 +20 29.3
85	42204	B− 3 1308	6 6 50 − 3 47.1	8.45	−0.11	1.29C	B5		10.44	9.81		1.0 1.0		6 9 19 − 3 47.7
86	42180	B+14 1170	6 7 2 +14 51.8	7.29M			B9		9.64			1.0		6 9 53 +14 51.2
87	42179	B+15 1084	6 7 4 +15 20.4	8.9 M			A0			12.09		1.0		6 9 56 +15 19.8
88	42178	B+16 1021	6 7 8 +16 46.0	9.2 M			A0			11.76		1.0		6 10 2 +16 45.4
89	42235	B+ 9 1112	6 7 12 + 9 28.7	7.7 M			A0		10.04	10.22		1.0 1.0		6 9 57 + 9 28.1
90	42254	B+ 7 1155	6 7 22 + 7 38.3	8.2 M			B9		10.33			1.0		6 10 5 + 7 37.7

	OBJ	PHOT	S–PEC	REMARKS	REFERENCES
1		USP			897 A19 007 009 010 397 781 782 785 793 884 901 921 922 A42 A48 A66
2					897 922
3		P			897 A19 001 002 012 015 922 A42
4			E		897 337 922
5					897 922
6					897 A19 158 842 884 901 922
7					897 922
8					897 922
9		P	4		897 A19 001 002 012 015 474 922 A42
10					897 922
11		UP	R		897 A19 002 013 036 158 835 884 901 922 A26 A42 A48 A59
12					897 922
13			C		897 A19 782 884 901 922 A48
14					897 922
15		U	PA		897 A19 397 753 782 884 901 922 A42 A48 A66
16			N		897 A19 839 884 901 922 A48
17					897 922
18					897 922
19					898 A23
20					897 922
21					897 922
22			N		897 419 922 A07
23		P	N		897 002 013 419 922 A07
24					898 922
25					897 922
26					897 922
27					897 922
28					897 922 A07
29					897 922
30					897 922
31		BP	PE		897 A19 001 002 012 015 260 336 337 419 922 A07 A42 A63
32		UP	R		897 A19 002 013 036 839 884 901 922 A26 A42 A48 A59
33					897 925
34					897 922
35		P	4		897 A19 001 002 012 015 474 922 A42
36					897 922
37				W/ −4 1288	897 A19 839 884 901 922 A48
38					897 922
39					897 922
40					897 A23
41		P			897 002 013 419 922 A48
42					897 922
43				W/ 14 1090	897 A23
44					897 922
45					897 922
46					897 922
47		P			897 002 013 922 A07
48					897 922
49					897 922
50					897 922
51			A		897 884 901 922 A48
52					897 922
53					897 922
54					897 922
55					897 884 901 922 A48
56					897 922
57		BO	AM	SB	897 A19 379 753 781 783 839 884 901 921 922 969 A42 A48
58					897 922
59		0			897 A19 397 781 782 884 901 922 969 A42
60					897 922
61			E	W/ 46 1090A	897 A19 922 A48
62		SOP	PE4R		897 A19 002 009 010 012 260 342 350 419 474 511 785 816 883 895 962 969 A42 A59
63					897 922
64		P	N		897 002 013 419 922 A07
65				W/ 9 1080	897 922
66					897 922
67					897 922
68					897 922
69					897 922
70					897 922
71		UBP			897 A19 002 013 840 841 884 901 922 A26 A42 A48
72		P			897 A19 002 013 836 922
73		P			897 A19 001 002 012 013 015 419 922 A07 A42 A63
74					897 922
75					897 922
76					897 922
77					897 922
78					897 922
79					897 922 A07
80					897 922
81		U		W/ 8 1201	897 A19 397 839 884 901 922 A26 A48
82					897 A19 158 884 901 922
83				W/ 20 1282	898 A23
84		SP	HR		897 A19 001 002 010 012 013 015 336 339 350 419 922 A07 A42 A58 A76
85					897 A19 836 922 A07
86					897 234 922 A07
87					897 922
88					897 922
89					897 922
90					897 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	252742	B+15 1088	6 7 25 +15 48.3	8.8 M	9.2 G		B8					11.50						1.0			6 10 18 +15 47.7
2	42127	B+48 1352	6 7 47 +48 43.5	6.09M			A25*					10.81						1.0			6 11 37 +48 42.8
3	42333	B+20 1296	6 8 0 +20 35.0	9.26	0.09		B9 4					11.95						1.0			6 10 59 +20 34.3
4	42401	B+12 1049	6 8 11 +12 .4	7.50	−0.03	1.27C	B25p			9.72	.21	10.45					2.0	1.0			6 10 59 +11 59.7
5	252904	B+18 1115	6 8 11 +18 11.7	8.84	−0.06		B95					11.13						1.0			6 11 7 +18 11.0
6	42400	B+20 1302	6 8 24 +20 55.0	6.82	0.18	−0.45	B52*					10.44						1.0			6 11 23 +20 54.3
7	42477	B+13 1151	6 8 38 +13 39.1	5.87	0.00	0.04	B95			10.19							1.0				6 11 28 +13 38.4
8	42476	B+17 1154	6 8 44 +17 23.4	7.12	0.04		A04					10.93						1.0			6 11 39 +17 22.7
9	42563	B− 3 1330	6 8 48 − 3 24.3	8.9 M			B9					11.50						1.0			6 11 18 − 3 25.0
10	42572	B+ 8 1224	6 9 3 + 8 47.9	8.8 M	8.8 G		B9					11.86						1.0			6 11 47 + 8 47.1
11	42531	B+17 1158	6 9 4 +17 46.8	8.17	−0.01		B95					11.12	.09					2.0			6 11 59 +17 46.0
12	42509	B+19 1253	6 9 4 +19 48.2	5.68	−0.07	−0.1	B95			8.72		8.95					1.0	1.0			6 12 2 +19 47.4
13	42560	B+14 1187	6 9 6 +14 13.3	4.47	−0.18	−0.66	B35*			6.78							1.0				6 11 57 +14 12.5
14	42545	B+16 1035	6 9 10 +16 8.6	4.94	−0.2	−0.59	B55*	9.15	.09	7.39		6.20	.26			2.0	1.0	1.3			6 12 3 +16 7.8
15	42657	B− 4 1393	6 9 15 − 4 39.2	6.17	−0.08	−0.38	B9 *			8.88		8.31					1.0	1.0			6 11 43 − 4 40.0
16	42597	B+ 7 1178	6 9 16 + 7 24.3	6.91M			B15p			8.86	.52	9.48					3.0	1.0			6 11 58 + 7 23.5
17	42655	B+10 1044	6 9 30 +10 20.8	7.43M			B25p			9.49		9.55					1.0	1.0			6 12 16 +10 20.0
18	42771	B+ 9 1134	6 10 11 + 9 3.0	8.1 M	8.1 G		B9 p			10.18	.15	10.83					3.0	1.0			6 12 55 + 9 2.2
19	42770	B+10 1048	6 10 14 +10 18.1	6.57M			B9			9.55	.10	9.53					2.0	1.0			6 13 0 +10 17.3
20	42758	B+19 1259	6 10 14 +19 1.4	7.38	−0.09		B83			9.84		9.82					1.0	1.0			6 13 11 +19 .5
21	42845	B+ 3 1164	6 10 26 + 3 31.4	7.5 M	7.5 G		B8 p			9.57		10.11					1.0	1.0			6 13 4 + 3 30.5
22	42784	B+18 1129	6 10 37 +18 41.7	6.20M	−0.08	−0.43	B85			9.01	.32	8.49					2.0	1.0			6 13 33 +18 40.8
23	42860	B+ 9 1141	6 10 45 + 9 38.6	7.67M	7.62G		B8 p			9.42							1.0				6 13 30 + 9 37.7
24	42908	B+ 8 1238	6 10 58 + 8 43.7	8.18	0.04	−0.56	B25s			10.82	.26	11.10					3.0	1.0			6 13 42 + 8 42.8
25	42959	B− 2 1515	6 11 5 − 2 14.3	7.9 M			B8					10.79						1.0			6 13 36 − 2 15.2
26	42896	B+20 1322	6 11 8 +20 11.1	8.59	−0.07	−0.86	B15*			9.85							1.0				6 14 6 +20 10.2
27	42782	B+48 1361	6 11 20 +48 51.0	8.1 M	7.3 G		B5					8.49						1.0			6 15 10 +48 50.0
28	43047	B+ 3 1170	6 11 34 + 3 55.1	7.7 M	7.7 G		B9 p			9.87		10.63					1.0	1.0			6 14 12 + 3 54.2
29	42999	B+11 1075	6 11 39 +11 49.8	8.1 M	7.98G		B9			10.57							1.0				6 14 27 +11 48.9
30	42997	B+17 1183	6 11 42 +17 26.5	8.39	−0.08		B73c					9.94						1.0			6 14 37 +17 25.5
31	43157	B− 4 1421	6 12 8 − 4 33.1	5.82	−0.18	−0.64	B55p			7.63		6.84					1.0	1.0			6 14 36 − 4 34.1
32	43098	B+11 1080	6 12 8 +11 40.1	8.1 M			B8 p			9.98							1.0				6 14 55 +11 39.1
33	43112	B+13 1173	6 12 18 +13 52.1	5.91	−0.2	−0.96	B15*	8.45		7.22	.07	6.57				1.0	2.0	1.0			6 15 8 +13 51.1
34	43190	B+ 3 1177	6 12 21 + 3 48.8	8.4 M	8.4 G		B9			10.33		11.17					1.0	1.0			6 14 59 + 3 47.8
35	43213	B+ 3 1178	6 12 28 + 3 53.8	8.5 M	8.5 G		B9			10.39							1.0				6 15 6 + 3 52.8
36	43251	B− 8 1361	6 12 31 − 8 47.3	7.5 M			B8			9.46		9.36					1.0	1.0			6 14 54 − 8 48.3
37	43153	B+16 1060	6 12 32 +16 9.6	5.30	−0.15	−0.46	B75			7.58		6.85	.44				1.0	2.0			6 15 25 +16 8.6
38	43248	B− 4 1426	6 12 39 − 4 36.2	8.8 M			B9					9.81						1.0			6 15 7 − 4 37.2
39	43264	B+ 7 1207	6 12 53 + 7 40.2	7.7 M			B9			10.43							1.0				6 15 36 + 7 39.2
40	43247	B+12 1081	6 12 56 +12 34.1	5.33	−0.02	−0.13	B92p			9.16	.09						3.0				6 15 44 +12 33.1
41	43285	B+ 6 1172	6 12 59 + 6 5.0	6.05	−0.12	−0.5	B65*	9.47	.69	8.03	.16	7.44				2.0	2.0	1.0			6 15 40 + 6 4.0
42	43300	B+ 8 1250	6 13 2 + 8 28.5	7.8 M	7.8 G		B9			11.04							1.0				6 15 46 + 8 27.5
43	43362	B− 8 1368	6 13 3 − 9 1.1	6.09	−0.09	−0.32	B93p			8.68		8.19					1.0	1.0			6 15 26 − 9 2.1
44	43284	B+ 6 1173	6 13 3 + 6 34.2	8.4 M			A0			10.53							1.0				6 15 44 + 6 33.2
45	43410	B− 3 1359	6 13 24 − 3 42.4	9.3 M			A0					11.58						1.0			6 15 53 − 3 43.5
46	43406	B+ 5 1156	6 13 34 + 5 7.9	7.06M			B9			9.97							1.0				6 16 14 + 5 6.8
47	43386	B+12 1084	6 13 38 +12 17.3	5.03	0.42	−0.02	F54p			10.61							1.0				6 16 26 +12 16.2
48	254428	B+13 1182	6 14 3 +13 31.2	9.1 M	9.4 G		B0					11.91						1.0			6 16 53 +13 30.1
49	43511	B+ 6 1180	6 14 11 + 6 .9	8.9 M			A0			10.91							1.0				6 16 52 + 5 59.8
50	43496	B+15 1139	6 14 14 +15 52.2	7.18M			B82			9.65		9.64					1.0	1.0			6 17 7 +15 51.1
51	43526	B+ 7 1216	6 14 16 + 7 4.3	6.56	−0.1	−0.51	B8 p			8.60							1.0				6 16 58 + 7 3.2
52	43527	B+ 7 1217	6 14 21 + 6 58.6	8.6 M			B9			10.36							1.0				6 17 3 + 6 57.5
53	43525	B+ 9 1173	6 14 21 + 9 57.7	5.40	0.10	0.08	A25*			9.40	.08	11.69					2.0	1.0			6 17 6 + 9 56.6
54	43583	B+14 1233	6 14 43 +14 4.7	6.56	−0.0	−0.1	B95					9.68						1.0			6 17 33 +14 3.5
55	43607	B+19 1291	6 14 54 +19 28.6	7.48	−0.07		A05			10.34							1.0				6 17 51 +19 27.4
56	43649	B+13 1187	6 15 6 +13 3.1	8.4 M			A35					11.98						1.0			6 17 55 +13 1.9
57	43683	B+14 1235	6 15 15 +14 24.2	6.15	0.05	0.11	A25p			10.21		11.05	.04				1.0	2.0			6 18 6 +14 23.0
58	44247	P−66 507	6 15 37 −66 16.4	7.34M			B9			9.58	.00						2.0				6 15 39 −66 17.5
59	43841	B+11 1110	6 16 3 +11 11.2	7.5 M	7.5 G		A0			10.58							1.0				6 18 50 +11 9.9
60	43819	B+17 1203	6 16 7 +17 20.8	6.15	−0.08	−0.3	B94s			9.51	.09	9.61					2.0	1.0			6 19 1 +17 19.5
61	43873	B+12 1105	6 16 17 +12 46.1	7.5 M			B8 c			8.85		8.75					1.0	.3			6 19 6 +12 44.8
62	43912	B+ 6 1193	6 16 23 + 6 7.0	8.5 M			A0			10.77		11.51					1.0	1.0			6 19 4 + 6 5.7
63	44037	B− 8 1386	6 16 44 − 8 33.9	6.21	−0.04	−0.15	B95			9.47		9.08					1.0	1.0			6 19 8 − 8 35.2
64	43984	B+11 1118	6 16 55 +11 1.8	8.3 M	8.3 G		B8			10.30							1.0				6 19 42 +11 .5
65	44052	B+ 4 1207	6 17 8 + 4 39.7	8.3 M	8.3 G		B8			10.65							1.0				6 19 47 + 4 38.4
66	44182	B−17 1446	6 17 28 −17 30.2	7.25M			B8 c							10.02					1.0		6 19 41 −17 31.6
67	44577	P−63 541	6 17 33 −64 .6	7.27M			B9			9.53							1.0				6 17 50 −64 1.9
68	44109	B+ 7 1243	6 17 34 + 7 44.5	6.69M			B9			9.18		10.36					1.0	1.0			6 20 17 + 7 43.1
69	44323	C−34 2795	6 17 53 −34 22.4	5.77	−0.09	1.37C	B9 s			8.24							1.0				6 19 41 −34 23.8
70	44173	B+11 1128	6 18 5 +11 46.8	6.43M	6.31G		B44*			9.11							1.0				6 20 53 +11 45.4
71	44172	B+14 1254	6 18 10 +14 43.7	7.29M			B65p			9.30		9.34					1.0	1.0			6 21 1 +14 42.3
72	44171	B+21 1203	6 18 15 +21 9.4	7.14M			B8					9.28						.3			6 21 14 +21 8.0
73	44235	B+ 9 1200	6 18 19 + 9 47.2	8.5 M			B8 p			9.46	.15	9.67	.09				3.0	2.0			6 21 4 + 9 45.8
74	44193	B+21 1204	6 18 23 +21 13.4	7.7 M			A0					11.05						.3			6 21 22 +21 12.0
75	44402	C−30 3038	6 18 24 −30 2.4	3.02	−0.2	−0.7	B35*	6.28				4.80				1.0		1.0			6 20 19 −30 3.8
76	44321	B− 6 1507	6 18 32 − 6 40.1	8.1 M			B9			9.85							1.0				6 20 58 − 6 41.5
77	44506	C−34 2806	6 18 48 −34 7.2	5.51	−0.20	1.16C	B25*	8.69	.25	6.95	.21	6.85	.16			3.0	3.0	3.0			6 20 37 −34 8.6
78	44458	B−11 1460	6 19 5 −11 44.9	5.64	−0.02	−0.85	B15*			8.10		7.03					1.0	1.0			6 21 25 −11 46.4
79	44351	B+14 1258	6 19 8 +14 20.0	8.80M	8.61G		B3 s					10.87						1.0			6 21 59 +14 18.5
80	44373	B+11 1138	6 19 11 +10 59.8	8.2 M	8.2 G		B8			9.92							1.0				6 21 58 +10 58.3
81	44482	B− 9 1431	6 19 21 − 9 39.5	7.3 M			A0			9.59	.02	9.39	.00				2.0	2.0			6 21 43 − 9 41.0
82	44547	B− 8 1404	6 19 34 − 8 12.3	8.2 M			A0					11.02						1.0			6 21 58 − 8 13.8
83	44498	B+ 8 1296	6 19 39 + 8 21.2	8.83	−0.08	−0.59	B25p					10.90						1.0			6 22 22 + 8 19.7
84	44496	B+17 1224	6 19 55 +17 36.0	6.77M			A0			10.58		11.10	.01				1.0	2.0			6 22 50 +17 34.4
85	44586	B+ 5 1214	6 20 5 + 5 9.1	8.5 M			B9					12.16						1.0			6 22 45 + 5 7.5
86	44602	B+ 4 1229	6 20 7 + 4 14.2	6.89M			A3			10.45							1.0				6 22 46 + 4 12.6
87	44657	B− 7 1399	6 20 11 − 7 36.0	8.4 M			A0					10.91						1.0			6 22 36 − 7 37.6
88	44584	B+16 1118	6 20 16 +16 32.5	8.3 M	7.82G		B9					10.84						1.0			6 23 9 +16 30.9
89	44585	B+15 1173	6 20 17 +15 52.1	8.1 M	8.03G		B75					10.97						1.0			6 23 10 +15 50.5
90	44743	B−17 1467	6 20 30 −17 55.8	1.98	−0.23	−1.0	B12*	5.20		3.98	.07					1.0	2.0				6 22 42 −17 57.4

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 A23
2		B		W/HD 42126	897 884 901 922 A48
3					897 815 922
4		U			897 A19 419 836 922 A07 A26 A63
5					897 815 A23 A42 A48
6		P	S4R		897 A19 001 002 012 013 015 350 474 922 A42
7					897 A19 392 782 884 901 922 A42 A48
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12					897 A19 397 782 884 901 922 A42 A48
13		UP	NR		897 A19 002 003 013 360 396 419 783 884 901 921 922 A26 A42 A48 A59
14		UP	N		897 A19 002 003 360 396 419 488 783 884 901 921 922 A42 A43 A48 A59
15		B	A		897 A19 397 840 841 884 901 922 A48
16		UP			897 002 013 419 922 A26 A48
17		P			897 002 013 419 922 A07 A48
18		U			897 922 A26
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23		U			897 922 A26
24			E		897 A19 260 341 419 922 A07 A48
25					897 922
26		P	N		897 A19 001 002 012 015 419 815 922 A42 A48
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28		U			897 922 A26
29					897 234 922
30				W/ 17 1184	898 815 922 A42 A48
31		B			897 A19 835 884 901 922 A48
32		U			897 922 A26
33		USBOP	S		897 A19 002 009 010 012 013 234 419 884 901 922 969 A26 A42 A48 A59
34					897 922
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36					897 922
37					897 A19 397 781 782 884 901 922 A42 A48
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39					897 922
40		U			897 A19 397 781 782 884 901 922 A26 A42 A48
41		UP	EN		897 A19 002 013 260 342 419 835 884 901 922 A26 A42 A48
42					897 922
43		B			897 A19 397 839 884 901 922 A48
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47		B			897 A19 392 415 884 901 922 A42 A48
48					898 A07 A23
49					897 922
50					897 922 A07 A42
51		U			897 A19 397 840 884 901 922 A26
52					897 922
53		UB	N		897 A19 392 840 884 901 922 A26 A48
54					897 A19 234 397 782 884 901 922 A42 A48
55					897 815 922 A42 A48
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57		B			897 A19 782 884 901 922 A42 A48
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60			PA		897 A19 397 753 782 884 901 922 A48 A42
61				W/ 12 1103	897 922
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66				W/– 17 1447	897 922
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68					897 922
69			N		897 A19 158 884 901 922
70		UP	N		897 002 013 419 884 901 922 A26 A48
71		UP			897 002 013 419 922 A07 A26 A42 A48
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73		U			897 922 A26
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75		U	B		897 A19 158 922 A27 A42 A43 A48 A60 A61
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77		UO	N		897 A19 012 158 508 884 901 922 969 A07 A27 A42 A48 A61
78		BP	PEN		897 A19 002 012 013 260 342 884 901 922 A42 A48 A68
79			PE		897 337 489 922
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83		P			897 A19 001 002 922 A42
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86					897 922
87					897 922
88					897 489 922
89					897 489 922 A42 A48
90		USP	P4R	BETA CMA	897 A19 002 008 022 089 158 171 203 488 530 758 783 785 793 921 969 A42 A48 A60

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	44701	B– 3 1413	6 20 32 – 3 15.0	6.6 M	6.40G		*			8.32							1.0				6 23 2 – 3 16.6
2	44720	B– 3 1414	6 20 36 – 3 29.4	7.8 M			B8			9.21							1.0				6 23 6 – 3 31.0
3	44712	B+11 1151	6 20 50 +10 57.6	7.7 M	7.7 G		A0			10.68							1.0				6 23 37 +10 56.0
4	44769	B+ 4 1236	6 21 7 + 4 37.2	4.29	0.20	0.10	*	9.62		9.17		11.62				1.0	1.0	1.0			6 23 46 + 4 35.6
5	45057	P–53 1070	6 21 15 –53 18.5	6.86	–0.14	1.28C	B53					8.93						1.0			6 22 19 –53 20.1
6	256577	B+ 8 1314	6 21 17 + 8 19.7	9.48	0.13	–0.75	B24*					12.57						1.0			6 24 0 + 8 18.1
7	44782	B+ 9 1223	6 21 17 + 9 12.0	8.0 M			B9			9.59							1.0				6 24 1 + 9 10.4
8	44783	B+ 8 1316	6 21 18 + 8 54.8	6.25	–0.08	–0.30	B85*	9.69	.31	9.06	.06	9.51				2.0	2.0	1.0			6 24 2 + 8 53.2
9	44768	B+15 1181	6 21 19 +15 52.7	8.0 M			A03					11.23						1.0			6 24 12 +15 51.0
10	44979	C–34 2833	6 21 26 –34 58.2	6.58M			B9			9.35	.04	9.19					2.0	1.0			6 23 13 –34 59.8
11	44908	B– 2 1591	6 21 42 – 2 56.6	9.2 M			A0					11.22						1.0			6 24 12 – 2 58.3
12	44870	B+ 5 1227	6 21 43 + 5 21.1	8.6 M			A0 c			11.64		12.12	.18				1.0	2.0			6 24 23 + 5 19.4
13	256699	B+ 9 1225	6 21 43 + 8 59.4	9.4 M	10.2 G		B5					12.70						1.0			6 24 27 + 8 57.7
14	44907	B+ 4 1240	6 21 54 + 4 12.9	8.2 M			B9			9.77		10.51					1.0	1.0			6 24 33 + 4 11.2
15	45098	C–36 2869	6 22 2 –36 59.2	6.95M			B8			9.38	.38						2.0				6 23 46 –37 .9
16	44948	B– 1 1231	6 22 2 – 1 23.4	6.56M			B8 p					8.88						1.0			6 24 34 – 1 25.1
17	44904	B+17 1235	6 22 12 +17 1.4	6.82M			B9			9.79	.02	9.55					2.0	1.0			6 25 6 +16 59.7
18	45029	B– 7 1413	6 22 26 – 7 34.4	8.8 M			B8					12.06						1.0			6 24 51 – 7 36.1
19	45348	P–52 914	6 22 50 –52 40.1	–0.72	0.16	0.04	F01p	7.57				8.49				1.0		1.0			6 23 56 –52 41.8
20	45136	B+ 4 1251	6 23 15 + 4 33.2	8.0 M			A0			11.17		12.19					1.0	1.0			6 25 54 + 4 31.4
21	45151	B+ 4 1252	6 23 19 + 4 27.1	7.9 M			B8			9.78	.10	10.07					2.0	1.0			6 25 58 + 4 25.3
22	45239	B– 7 1422	6 23 34 – 7 51.9	6.40	0.15	0.11	A45					11.99						1.0			6 25 58 – 7 53.7
23	45166	B+ 8 1332	6 23 37 + 8 .7	9.88	–0.07	–0.76	*			11.48		11.53	.28				1.0	2.0			6 26 20 + 7 58.9
24	45260	B– 9 1458	6 23 44 – 9 22.0	9.0 M			B3 s					10.99	.17					2.0			6 26 7 – 9 23.8
25	45382	C–29 3090	6 23 45 –29 40.4	6.72M			A0					10.07						1.0			6 25 41 –29 42.2
26	45180	B+15 1197	6 23 46 +15 33.2	6.71M			B9S			10.00		9.97					1.0	1.0			6 26 38 +15 31.4
27	45284	B– 7 1424	6 23 48 – 7 19.9	8.0 M			B8			9.23		9.10					1.0	1.0			6 26 13 – 7 21.7
28	45439	C–35 2894	6 23 56 –35 40.0	7.92M	7.58G		B9					11.36						1.0			6 25 42 –35 41.8
29	45321	B– 4 1510	6 24 6 – 4 34.0	6.14	–0.14	–0.61	B25p			7.58		6.55					1.0	1.0			6 26 34 – 4 35.8
30	45320	B– 1 1242	6 24 8 – 1 28.6	5.86	0.08	0.08	A73s					10.46						1.0			6 26 40 – 1 30.4
31		B+ 8 1337	6 24 12 + 8 8.0	9.3 M								12.59						1.0			6 26 55 + 8 6.1
32	45380	B– 7 1429	6 24 20 – 7 28.8	6.26	–0.04	–0.09	A05p			9.33		9.46					1.0	1.0			6 26 45 – 7 30.7
33	45314	B+14 1296	6 24 24 +14 55.2	6.63	0.16	–0.88	O9 *			9.11	.09	8.14					2.0	1.0			6 27 15 +14 53.3
34	45796	P–63 572	6 24 37 –63 47.9	6.25	–0.14	1.32C	B65	9.09	.32	8.51	.08					2.0	4.0				6 24 56 –63 49.7
35	45378	B+ 7 1293	6 24 39 + 6 57.9	8.6 M			A0 c			11.00							1.0				6 27 21 + 6 56.0
36	257779	B+ 7 1298	6 25 11 + 7 9.7	8.5 M	9.2 G		B8					12.07						1.0			6 27 53 + 7 7.8
37	45515	B– 2 1617	6 25 15 – 2 37.6	8.2 M			B8					10.66						1.0			6 27 46 – 2 39.5
38	45516	B– 4 1522	6 25 20 – 4 47.5	8.5 M			B9			9.96							.3				6 27 48 – 4 49.4
39	45532	B– 5 1644	6 25 23 – 5 7.4	8.5 M			A0			10.40		10.68					1.0	1.0			6 27 51 – 5 9.3
40	45546	B– 4 1526	6 25 25 – 4 45.6	5.05	–0.18	–0.75	B25*					6.04						.3			6 27 53 – 4 47.5
41	45547	B– 6 1560	6 25 26 – 6 15.6	8.5 M			B9					11.39						1.0			6 27 52 – 6 17.5
42	45546	B– 4 1526	6 25 29 – 4 43.8	5.05	–0.18	–0.75	B25*	8.08								1.0					6 27 57 – 4 45.7
43	45530	B+ 5 1249	6 25 34 + 5 18.3	7.22M			A1 s			10.55							1.0				6 28 14 + 5 16.3
44	45585	B– 6 1564	6 25 39 – 6 53.6	8.80	0.08	1.38C	B5 s					10.83	.04					1.3			6 28 5 – 6 55.6
45	45583	B– 4 1530	6 25 43 – 4 52.0	8.4 M			B8					10.63						.3			6 28 11 – 4 54.0
46	45659	B– 6 1568	6 26 0 – 6 30.9	8.3 M			B8					10.78						1.0			6 28 26 – 6 32.9
47	45813	C–32 3066	6 26 19 –32 32.8	4.47	–0.18	–0.60	B45	7.14		6.68		5.92				1.0	1.0	1.0			6 28 10 –32 34.8
48	45725	B– 6 1574	6 26 23 – 7 0.0	3.75	–0.16	–0.73	B35*	7.09	.01	6.71		4.42	.52			2.0	1.0	1.3			6 28 48 – 7 2.0
49	45728	B– 8 1443	6 26 24 – 8 26.8	8.5 M			B9					11.12						1.0			6 28 48 – 8 28.8
50	45764	B–11 1500	6 26 36 –11 13.8	7.8 M			B8					9.61						1.0			6 28 56 –11 15.8
51	45871	C–32 3072	6 26 48 –32 20.3	5.76	–0.16	1.23C	B45*			7.42		7.26					1.0	1.0			6 28 40 –32 22.3
52	45789	B+ 7 1314	6 27 14 + 7 8.8	7.09	–0.13	1.25C	B25	10.49		8.51	.00	8.35	.27			1.0	2.0	3.0			6 29 56 + 7 6.7
53	45827	B+ 9 1259	6 27 21 + 9 3.9	6.56	0.14	–0.07	A0 *			10.69							1.0				6 30 5 + 9 1.8
54	45953	B– 6 1585	6 27 52 – 6 23.7	8.2 M			B9					10.92						1.0			6 30 18 – 6 25.8
55	45910	B+ 5 1267	6 27 52 + 5 54.1	6.76	0.33	–0.7	B23*			10.18	.02	10.20					2.0	.3			6 30 32 + 5 52.0
56	45975	B– 4 1546	6 27 59 – 4 39.7	8.3 M			B9					9.89	.13					2.0			6 30 27 – 4 41.8
57	45930	B+ 7 1321	6 28 1 + 7 27.3	8.6 M			A0					12.66						1.0			6 30 43 + 7 25.2
58	46095	C–31 3357	6 28 7 –31 8.4	7.35M			A0			10.09							1.0				6 30 1 –31 10.5
59	45972	B+ 5 1271	6 28 12 + 5 50.0	8.5 M			A0			10.64		11.67					1.0	.3			6 30 52 + 5 47.9
60	46210	C–46 2456	6 28 19 –46 35.1	9.1 M	8.9 G		B8 s					11.28						1.0			6 29 43 –46 37.2
61	46060	B– 9 1498	6 28 27 – 9 37.1	8.7 M			B8					11.09						1.0			6 30 49 – 9 39.3
62	46057	B+ 4 1290	6 28 38 + 4 39.6	8.8 M	8.8 G		A03			11.10							1.0				6 31 17 + 4 37.4
63	46056	B+ 4 1291	6 28 42 + 4 52.2	8.17	0.18	–0.75	O8S*			10.42							1.0				6 31 21 + 4 50.0
64	46106	B+ 5 1279	6 28 59 + 5 3.8	7.92	0.14	–0.75	B05*			10.39		10.29					.3	.3			6 31 38 + 5 1.6
65	46105	B+ 5 1280	6 28 59 + 5 48.4	6.83M			A1 s			10.18	.04	10.80					2.0	1.0			6 31 39 + 5 46.2
66	46288	C–40 2508	6 29 3 –40 24.7	6.72M			B8			8.33							1.0				6 30 40 –40 26.9
67	46165	B– 5 1666	6 29 9 – 5 19.9	8.0 M			B9					9.80						1.0			6 31 36 – 5 22.1
68	46149	B+ 5 1282	6 29 13 + 5 4.2	7.6	0.17	–0.79	O8S*			10.29	.40	10.07					.5	.3			6 31 52 + 5 2.0
69	46150	B+ 5 1283	6 29 16 + 4 58.8	6.8	0.13	–0.83	O6 *	9.67		8.69	.13	8.01				1.0	.5	.3			6 31 55 + 4 56.6
70	46121	B+15 1229	6 29 16 +15 9.3	8.1 M			A0					10.90						1.0			6 32 8 +15 7.1
71	259135	B+ 4 1299	6 29 22 + 4 53.7	8.57	0.18	–0.70	B15*			10.41		10.24					.3	.3			6 32 1 + 4 51.5
72	46179	B+ 6 1278	6 29 26 + 6 4.4	6.67M			B9S					9.88	.28					2.0			6 32 7 + 6 2.2
73	46223	B+ 4 1302	6 29 30 + 4 51.6	7.3	0.22	–0.77	O5			9.81		9.95					.3	.3			6 32 9 + 4 49.4
74	46202	B+ 5 1286	6 29 31 + 5 .2	8.19	0.18	–0.75	O9S*			10.09							.3				6 32 10 + 4 58.0
75	46162	B+17 1287	6 29 36 +17 41.1	8.5 M			A0					11.16						1.0			6 32 31 +17 38.8
76	46462	C–37 2882	6 30 2 –37 8.1	7.46M			B9			9.51		10.05					1.0	1.0			6 31 45 –37 10.3
77	46300	B+ 7 1337	6 30 12 + 7 22.3	4.5	0.01	–0.2	A01*	9.67		8.64	.40					1.0	2.0				6 32 54 + 7 20.0
78	46264	B+17 1291	6 30 12 +16 59.2	7.64	0.00	1.28C	B5					10.12						1.0			6 33 6 +16 56.9
79	46340	B– 5 1680	6 30 13 – 5 18.2	7.9 M			B8					11.65						1.0			6 32 40 – 5 20.5
80	46339	B– 4 1558	6 30 13 – 4 24.7	8.9 M			B3 s					10.53						1.0			6 32 42 – 4 27.0
81	46426	B– 8 1469	6 30 36 – 8 55.5	7.3 M			A0					11.47						1.0			6 32 59 – 8 57.8
82	46547	C–31 3407	6 30 45 –31 59.6	5.68	–0.18	1.18C	B24*			7.09		6.76					1.0	1.0			6 32 37 –32 1.9
83	259597	B+ 8 1388	6 30 49 + 8 22.5	8.57	0.14	–0.72	B05*			10.65							1.0				6 33 32 + 8 20.2
84	46469	B+ 5 1300	6 31 9 + 5 31.2	8.5 M	8.5 G		B25					11.77						1.0			6 33 49 + 5 28.8
85	46483	B+16 1193	6 31 28 +16 41.2	8.7 M			A0					10.94						1.0			6 34 21 +16 38.8
86	46557	B+ 6 1288	6 31 41 + 6 44.1	8.1 M			A25			10.86							1.0				6 34 22 + 6 41.7
87	46616	B– 4 1569	6 31 50 – 4 51.6	7.4 M			B8					8.68						1.0			6 34 18 – 4 54.0
88	46646	B– 5 1689	6 31 51 – 5 17.3	8.3 M			B8					10.04						1.0			6 34 19 – 5 19.7
89	46593	B+16 1202	6 32 3 +16 48.3	7.5 M			B9					9.43						1.0			6 34 57 +16 45.9
90	46642	B+ 7 1357	6 32 4 + 7 36.8	6.44	–0.02	–0.03	A05*			9.90	.26						4.0				6 34 46 + 7 34.4

	OBJ	PHOT	S–PEC	REMARKS	REFERENCES
1		2P	N	IM MON, B5 + B8	897 002 013 419 922 969
2					897 922
3					897 922
4		B		W/ 4 1237,A54 + F4	897 A19 008 158 392 699 781 783 884 901 921 922 A42 A48
5					897 A19 158 922 A42
6		P	PE		897 A19 001 002 341 A07 A23 A42
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8			N	W/ 8 1313	897 A19 840 884 901 922 A48
9					897 922 A42 A48
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19		U			897 A19 008 022 508 530 781 783 851 858 884 901 922 927 932
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22					897 A19 158 392 835 841 884 901 922 A48
23		0P	PE	WN7 + B	898 A19 001 002 012 013 015 922 969 A07 A42
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29		UP			897 A19 002 013 419 840 842 884 901 922 A48 A59 A66
30			P		897 A19 508 838 884 901 922 A42 A48
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34					897 A19 158 884 922 A27 A48
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40		P		W/ −4 1522	897 A19 002 013 158 419 884 901 921 922 A42 A48 A59
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42		P		W/ −4 1528	897 A19 002 013 158 419 884 901 921 922 A42 A48 A59
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44			N		897 A19 419 836 922 A07
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47					897 A19 158 884 901 921 922 A27 A48
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	46738	B– 8 1480	6 32 17 – 8 34.1	8.9 M			B4					11.19						1.0			6 34 41 – 8 36.5
2	46936	C–32 3168	6 32 44 –32 40.5	5.61	–0.09	1.38C	B85					8.30						1.0			6 34 35 –32 42.9
3	46764	B+17 1307	6 32 57 +17 14.5	7.8 M			A0					10.97						1.0			6 35 51 +17 12.0
4	46997	C–32 3171	6 33 4 –32 15.9	7.99M	7.45G		B8					10.01						1.0			6 34 56 –32 18.4
5	46996	C–31 3438	6 33 5 –31 48.2	8.24M	7.91G		B9					11.54						1.0			6 34 58 –31 50.7
6	47061	C–31 3451	6 33 34 –31 33.0	7.98M	7.46G		B8			9.41	.07	9.21					2.0	1.0			6 35 27 –31 35.5
7	47011	B–15 1448	6 33 36 –16 3.6	7.4 M			B9							10.83					1.0		6 35 51 –16 6.1
8	47144	C–36 3009	6 33 40 –36 44.3	5.59	–0.12	1.31C	B9 *			7.84		7.95					1.0	1.0			6 35 24 –36 46.8
9	46966	B+ 6 1303	6 33 45 + 6 7.5	6.86	–0.04	–0.93	O8 *	9.87		8.48	.05	7.72	.06			1.0	3.0	2.0			6 36 26 + 6 5.0
10	260537	B+ 7 1369	6 33 50 + 7 45.2	8.8 M	8.8 G		B5			11.06							1.0				6 36 33 + 7 42.6
11	47088	B+ 6 1308	6 34 30 + 6 6.2	8.3 M			B13			8.90							.3				6 37 11 + 6 3.6
12	47107	B+ 5 1329	6 34 34 + 5 51.0	7.7 M			B11			9.59	.21	9.81	.22				3.0	2.0			6 37 14 + 5 48.4
13	47129	B+ 6 1309	6 34 43 + 6 10.7	6.06	0.05	–0.89	O8 *	9.07		8.23						1.0	.3				6 37 24 + 6 8.1
14	47246	B–16 1542	6 34 47 –16 18.8	8.0 M			B9							10.53					1.0		6 37 1 –16 21.4
15	47105	B+16 1223	6 34 49 +16 26.6	1.93	–0.00	0.0	A04p	7.69	.21			6.19	.02			2.0		2.0			6 37 42 +16 24.0
16	47278	B– 8 1496	6 35 8 – 8 11.5	7.15M			B9					10.28						1.0			6 37 32 – 8 14.1
17	47299	B– 8 1498	6 35 12 – 8 36.8	8.4 M			B25p					10.31						1.0			6 37 36 – 8 39.4
18	47300	B– 9 1549	6 35 14 – 9 21.2	8.7 M			B9					10.96						1.0			6 37 37 – 9 23.8
19	47500	C–36 3031	6 35 30 –36 56.8	5.71	–0.11	1.28C	B9 p			8.06	.23						2.0				6 37 14 –36 59.4
20	47292	B+ 7 1382	6 35 30 + 7 11.6	7.30M			B8 p			10.55							1.0				6 38 12 + 7 8.9
21	47386	B– 9 1553	6 35 35 – 9 13.5	8.2 M			B8					11.23						1.0			6 37 58 – 9 16.2
22	47601	C–43 2570	6 35 49 –43 24.4	6.86	–0.17	–0.63	B53					8.42						1.0			6 37 20 –43 27.1
23	47600	C–38 2793	6 35 59 –38 35.0	7.94M	7.55G		B8			9.42	.08	10.01					2.0	1.0			6 37 40 –38 37.7
24	47417	B+ 7 1386	6 36 6 + 6 56.8	6.97	0.01	–0.86	B04p	9.36		8.85	.06					1.0	2.0				6 38 48 + 6 54.1
25	47416	B+ 8 1425	6 36 8 + 8 1.0	8.1 M			A0			10.35							1.0				6 38 51 + 7 58.3
26	47671	C–44 2804	6 36 14 –44 27.1	7.68	–0.02	0.01	A0					11.06						1.0			6 37 43 –44 29.8
27	47670	C–43 2576	6 36 14 –43 9.1	3.17	–0.11	–0.38	B83p	7.84	.03			6.49	.14			2.0		2.0			6 37 46 –43 11.8
28	47561	B–16 1554	6 36 22 –16 49.7	6.00	0.03	1.52C	A15s							10.42	.01				2.0		6 38 36 –16 52.4
29	47561	B–16 1554	6 36 33 –16 47.8	6.00	0.03	1.52C	A15*							10.67					1.0		6 38 47 –16 50.5
30	47640	B–16 1558	6 36 44 –16 45.8	9.0 M			A0							10.42					1.0		6 38 58 –16 48.5
31	47805	C–37 2970	6 36 57 –37 57.0	6.98M			A2			9.58	.29						2.0				6 38 39 –37 59.7
32	47692	B–16 1560	6 37 5 –16 36.4	8.5 M			A2							10.31					1.0		6 39 19 –16 39.2
33	47923	C–43 2587	6 37 18 –43 46.7	7.56	–0.05	–0.06	A0					11.05						1.0			6 38 48 –43 49.5
34	47999	C–37 2979	6 37 45 –37 35.1	8.93M	8.57G		B8			10.15							1.0				6 39 28 –37 37.9
35	47756	B+ 6 1338	6 37 51 + 6 25.1	6.50	–0.14	–0.5	B95p			8.78	.02						2.0				6 40 32 + 6 22.3
36	47898	B– 8 1515	6 38 8 – 8 53.4	8.7 M			B9 c					11.63						.3			6 40 31 – 8 56.3
37	48150	C–43 2596	6 38 15 –43 21.3	7.40	–0.14	–0.63	B8			9.00		8.67					1.0	1.0			6 39 46 –43 24.1
38	48060	B– 7 1524	6 38 46 – 7 56.7	8.8 M			B9 *					9.31						1.0			6 41 10 – 7 59.6
39	48165	C–28 3278	6 38 49 –28 48.3	8.0 M			A0					10.37						1.0			6 40 46 –28 51.2
40	48261	C–30 3412	6 39 13 –30 35.8	7.08M			B9			9.66		10.32	.02				1.0	2.0			6 41 8 –30 38.7
41	48159	B– 7 1530	6 39 15 – 7 55.6	9.5 M			B9					11.26						1.0			6 41 39 – 7 58.5
42	48383	C–40 2625	6 39 36 –40 18.J	6.11	–0.14	1.28C	B35*			7.90	.03	7.70					2.0	1.0			6 41 14 –40 21.0
43	48559	P–59 686	6 39 38 –59 4.5	9.13M			B8			9.22		10.67					1.0	1.0			6 40 22 –59 7.4
44	48237	B– 9 1602	6 39 44 – 9 49.8	8.9 M			A0					11.76						1.0			6 42 6 – 9 52.8
45	48287	B–15 1478	6 39 45 –15 57.5	6.84M			B9					10.08	.18	10.04	.19			3.0	4.3		6 42 0 –16 .5
46	48311	B– 9 1606	6 40 10 – 9 31.0	8.7 M			A0					11.91						1.0			6 42 33 – 9 34.0
47	48503	C–39 2777	6 40 15 –39 44.3	7.74M	7.40G		A0			10.05	.21	10.35					2.0	1.0			6 41 54 –39 47.3
48	48485	C–31 3583	6 40 26 –31 37.0	7.82M	7.46G		B9			9.93							1.0				6 42 19 –31 40.0
49	48630	C–36 3097	6 40 56 –36 34.8	7.90M	7.64G		A0					11.34						1.0			6 42 41 –36 37.8
50	48629	C–29 3388	6 41 9 –29 11.2	7.12M			A0					11.25						1.0			6 43 6 –29 14.3
51	48725	C–37 3022	6 41 19 –37 19.1	8.12M	7.63G		B9					10.26						1.0			6 43 3 –37 22.2
52	48872	B–18 1534	6 42 33 –18 59.6	7.16M	7.16G		A0			9.72				10.84			1.0		1.0		6 44 44 –19 2.8
53	48917	C–30 3484	6 42 34 –31 1.1	5.40	–0.18	1.17C	B23*					6.00						1.0			6 44 28 –31 4.3
54	48915	B–16 1591	6 42 57 –16 38.8	–1.5	0.0	–0.0	A15*	4.82	.17	3.48	.30	3.87	.49	3.58	.44	25.0	28.0	16.5	14.5		6 45 11 –16 42.0
55	49028	C–30 3495	6 43 7 –30 32.0	6.52	–0.13	1.30C	B84p			8.27		8.61					1.0	1.0			6 45 2 –30 35.2
56	49053	C–34 3083	6 43 10 –35 4.1	8.1 M	7.75G		A0					11.44						1.0			6 44 58 –35 7.3
57	49029	C–31 3634	6 43 14 –31 36.1	7.25M			A0			10.01							1.0				6 45 7 –31 39.3
58	48999	B–17 1611	6 43 27 –17 7.4	6.78M			B9					9.23	.15	9.58	.35			5.0	11.5		6 45 40 –17 10.6
59	49131	C–30 3505	6 43 36 –30 53.8	5.79	–0.20	1.16C	B35p			7.21							1.0				6 45 30 –30 57.0
60	49234	C–46 2656	6 43 42 –46 53.0	7.2 M	7.3 G		B8			9.48							1.0				6 45 6 –46 56.2
61	49048	B–14 1573	6 43 43 –14 44.5	5.31	0.06	1.52C	A25					10.64						1.0			6 45 59 –14 47.7
62	49234	C–46 2656	6 43 46 –46 50.5	7.2 M	7.3 G		B8 c					7.53						1.0			6 45 10 –46 53.7
63	49260	C–47 2561	6 43 48 –47 10.1	7.21	–0.17	–0.73	B35s			8.72	.14	8.32					2.0	1.0			6 45 11 –47 13.3
64	49259	C–46 2657	6 43 50 –46 48.0	7.43M			B8			9.29	.25						2.0				6 45 14 –46 51.2
65	49089	B–15 1504	6 43 52 –15 32.2	8.7 M			B9					10.48		10.37				1.0	1.0		6 46 7 –15 35.5
66	49123	B– 8 1549	6 44 8 – 8 51.8	6.79M			B9					10.43						1.0			6 46 31 – 8 55.1
67	49147	B– 9 1644	6 44 17 –10 3.1	5.65	–0.05	–0.10	A04					7.96						1.0			6 46 39 –10 6.4
68	49233	B–22 1527	6 44 20 –23 5.7	8.7 M			B5			9.65							1.0				6 46 26 –23 9.0
69	49319	C–39 2831	6 44 24 –39 29.1	6.60	–0.13	1.28C	B8			8.62	.05	8.43	.25				3.0	3.0			6 46 4 –39 32.4
70	49336	C–37 3065	6 44 29 –37 43.2	6.21	–0.14	1.24C	B35s					8.06	.12					2.0			6 46 12 –37 46.5
71	49229	B–14 1584	6 44 34 –14 22.3	5.28	–0.03	–0.26	B8 *					8.67		9.30	.03			1.0	2.0		6 46 51 –14 25.6
72	49315	B–15 1511	6 44 59 –16 .7	7.82	–0.08	1.28C	B5					9.42	.11	9.89	.29			7.0	6.0		6 47 14 –16 4.0
73	49415	B–17 1626	6 45 23 –17 27.1	6.94M			B9					10.30	.10	10.47	.15			4.0	2.0		6 47 36 –17 30.5
74	49591	C–37 3080	6 45 39 –37 52.4	5.25	–0.09	1.40C	B94p			7.81		7.80	.17				1.0	4.0			6 47 22 –37 55.8
75	49548	B–15 1519	6 46 7 –15 16.2	8.3 M			B8							10.64					1.0		6 48 23 –15 19.6
76	49798	C–44 2920	6 46 35 –44 15.6	8.29	–0.24	–1.18	O5és			8.64							1.0				6 48 5 –44 19.0
77	49662	B–14 1599	6 46 42 –15 5.2	5.38	–0.10	1.32C	B65*			7.48	.33	7.41	.25	7.72	.25		5.0	2.0	6.0		6 48 58 –15 8.7
78	49833	C–34 3120	6 47 1 –34 52.7	6.89M			B9					10.66						1.0			6 48 49 –34 56.2
79	49942	C–43 2709	6 47 12 –43 44.6	7.32	–0.11	–0.36	B8 c			9.44		9.63					1.0	1.0			6 48 43 –43 48.1
80	49812	B–14 1601	6 47 24 –14 59.2	8.4 M			B9							10.58	.07				2.0		6 49 40 –15 2.7
81	49846	B–21 1609	6 47 27 –21 7.4	8.7 M			B8					10.72						1.0			6 49 35 –21 10.9
82	49891	C–23 4438	6 47 39 –24 1.0	6.19	0.06	1.53C	A1 p			9.98							1.0				6 49 44 –24 4.5
83	50241	P–61 720	6 47 41 –61 53.2	3.3	0.22	0.1	A5S			8.69		11.14					1.0	1.0			6 48 12 –61 56.7
84	50080	C–46 2696	6 47 49 –46 39.1	7.30M			B9			9.92							1.0				6 49 13 –46 42.6
85	49955	B–17 1645	6 48 3 –17 14.0	6.54M			A2					10.80		10.60				1.0	1.0		6 50 16 –17 17.6
86	50126	C–45 2768	6 48 4 –45 30.5	7.10	–0.03	–0.07	B8					10.47	.12					2.0			6 49 31 –45 34.0
87	49978	B–15 1533	6 48 9 –15 58.3	8.6 M			B9			9.91							1.0				6 50 24 –16 1.9
88	50096	C–33 3278	6 48 21 –33 49.6	7.26M			A0			10.20							1.0				6 50 11 –33 53.2
89	50123	C–31 3717	6 48 30 –31 38.8	5.63M			B9 *			8.70	.28	8.50	.00				2.0	2.0			6 50 23 –31 42.4
90	50070	B–17 1649	6 48 35 –17 14.6	8.8 M			B9					11.08						1.0			6 50 48 –17 18.2

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 419 922 A07
2					897 A19 158 884 901 922 A42
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	50072	B–20 1602	6 48 36 –20 46.6	7.4 M			B8 c					7.73						1.0			6 50 45 –20 50.2
2	50154	C–24 4507	6 48 54 –24 20.3	8.9 M			B5			9.95							1.0				6 50 58 –24 23.9
3		B–15 1543	6 49 22 –15 46.2	9.0 M			F0 c	7.73								1.0					6 51 37 –15 49.8
4	50303	B–17 1654	6 49 43 –17 11.1	8.4 M			B9					10.82						1.0			6 51 56 –17 14.8
5	50446	C–40 2734	6 49 48 –40 29.3	7.30M			B9					10.49	.20					3.0			6 51 26 –40 33.0
6	50472	C–38 2970	6 49 56 –38 9.2	7.95M			B8			10.08	.19	10.03	.10				2.0	3.0			6 51 38 –38 12.9
7	50545	C–38 2973	6 50 22 –38 34.3	8.64M	8.23G		B8					10.32	.06					3.0			6 52 4 –38 38.0
8	50463	B–16 1638	6 50 31 –16 9.0	7.13	–0.10	1.26C	B3 p			9.32	.10	8.87	.35	9.38	.16		2.0	2.0	2.0		6 52 46 –16 12.7
9	50491	B–21 1630	6 50 32 –21 7.3	7.5 M			B8			9.05		9.28					1.0	1.0			6 52 40 –21 11.0
10	50535	B–22 1574	6 50 42 –22 59.1	8.1 M			B9			9.62							1.0				6 52 48 –23 2.8
11	50562	B–21 1633	6 50 51 –21 46.4	8.5 M			B3 s					10.68						1.0			6 52 59 –21 50.2
12	50646	C–24 4551	6 51 9 –24 6.3	7.68M			B3			9.08							.3				6 53 13 –24 10.1
13	50646	C–24 4551	6 51 10 –24 5.7	7.68M			B3 c			8.50							1.0				6 53 14 –24 9.5
14	50860	C–43 2756	6 51 16 –43 54.8	6.45	–0.11	–0.37	B9 p					8.92	.15					2.0			6 52 47 –43 58.6
15	50801	B–18 1596	6 51 50 –18 30.1	8.7 M			B9					11.34						1.0			6 54 2 –18 33.9
16	50853	C–24 4565	6 51 51 –24 28.5	6.22	0.02	1.50C	A0			9.60	.11						2.0				6 53 55 –24 32.3
17	50850	B–18 1598	6 51 57 –18 13.4	9.1 M			B8 s					10.96						1.0			6 54 9 –18 17.2
18	50896	C–23 4553	6 52 8 –23 51.9	6.91	–0.30	–0.8	WN5*			8.01							1.0				6 54 13 –23 55.7
19	50939	B–22 1588	6 52 16 –22 59.0	8.7 M			B8			10.61		10.22	.07				1.0	2.0			6 54 22 –23 2.9
20	50938	B–17 1673	6 52 23 –17 51.2	8.2 M			B8 s			9.09		9.09	.50				1.0	2.0			6 54 36 –17 55.1
21	51042	C–34 3182	6 52 25 –34 9.5	7.08M			A0			10.25							1.0				6 54 14 –34 13.4
22	51014	C–31 3781	6 52 27 –31 44.2	6.83M			A0			8.74		9.14					1.0	1.0			6 54 20 –31 48.1
23	51013	C–24 4578	6 52 37 –24 11.5	8.6 M			B8			9.83							1.0				6 54 41 –24 15.4
24	51038	C–24 4580	6 52 39 –24 51.6	8.7 M			B5			10.14							1.0				6 54 42 –24 55.5
25	51036	C–24 4579	6 52 40 –24 15.1	8.4 M			B5			9.70							1.0				6 54 44 –24 19.0
26	51057	C–23 4575	6 52 51 –23 32.8	10.9 M	9.2 G		B8					11.82						1.0			6 54 56 –23 36.7
27	51085	B–17 1679	6 53 2 –17 9.0	7.8 M			B9			10.24		10.18					1.0	1.0			6 55 16 –17 12.9
28	51110	B–21 1650	6 53 4 –21 48.4	8.9 M			B9			10.09							1.0				6 55 12 –21 52.3
29	51555	P–59 718	6 53 12 –59 49.0	8.20M			B9			10.19		11.25					1.0	1.0			6 53 54 –59 52.9
30	51155	C–23 4585	6 53 13 –23 27.8	9.4 M			B8					10.87						1.0			6 55 18 –23 31.7
31	51289	C–37 3163	6 53 20 –37 26.1	8.28M	7.80G		B8			10.05							1.0				6 55 4 –37 30.0
32	51200	B–21 1655	6 53 25 –21 58.3	7.10M			B34			8.28		7.57	.02				1.0	1.3			6 55 32 –22 2.2
33	51285	C–24 4604	6 53 39 –24 36.8	8.2 M	8.5 G		B3 s			9.44	.09						2.0				6 55 43 –24 40.7
34	51283	B–22 1602	6 53 41 –22 52.5	5.28	–0.19	1.18C	B33p					6.47	.43					2.0			6 55 47 –22 56.5
35	51309	B–16 1661	6 53 54 –16 59.3	4.4	–0.07	–0.7	B32p	7.75		7.17		6.29				1.0	1.0	1.0			6 56 8 –17 3.3
36	51411	C–31 3808	6 54 1 –31 43.4	6.42M			B8 p			8.07							1.0				6 55 54 –31 47.4
37	51340	B–21 1658	6 54 9 –21 27.1	9.0 M			B5					10.48						1.0			6 56 17 –21 31.1
38	51607	C–38 3028	6 54 36 –38 32.6	7.44M			A0					11.24	.05					2.0			6 56 18 –38 36.6
39	51605	C–37 3176	6 54 37 –37 27.3	8.11M			A0			10.32		10.64					1.0	1.0			6 56 21 –37 31.3
40	51481	B–16 1669	6 54 42 –17 .7	9.0 M			B9					10.64						1.0			6 56 56 –17 4.7
41	51477	B– 8 1639	6 54 45 – 8 28.5	8.3 M			B35					10.05						1.0			6 57 9 – 8 32.5
42	51549	B–20 1634	6 54 47 –21 2.1	8.1 M			B5			9.50		9.27					1.0	1.0			6 56 56 –21 6.1
43	51575	C–24 4634	6 54 50 –24 26.8	9.1 M			A0					10.82						1.0			6 56 54 –24 30.8
44	51572	B–17 1699	6 54 56 –17 29.6	8.2 M			B9					11.12						1.0			6 57 9 –17 33.6
45		B–14 1659	6 54 57 –14 39.3	9.0 M			A0					11.55						1.0			6 57 14 –14 43.3
46	51630	B–22 1616	6 55 7 –22 8.1	6.59	–0.19	–0.81	B8			8.23	.23	7.46	.04				3.0	2.0			6 57 14 –22 12.2
47	51826	C–36 3252	6 55 27 –36 49.1	7.56	–0.05	1.32C	B54					9.61						1.0			6 57 12 –36 53.2
48	51823	C–27 3460	6 55 43 –27 28.2	6.22	–0.15	1.26C	B25							8.17					1.0		6 57 43 –27 32.3
49	51789	B–14 1665	6 55 48 –14 25.6	9.1 M			A0					11.78						1.0			6 58 5 –14 29.7
50	51819	B–20 1645	6 55 52 –20 54.0	9.2 M			B9					11.19						1.0			6 58 1 –20 58.1
51	51854	B–22 1623	6 55 56 –22 48.5	9.2 M			B4 s			9.96		9.42	.02				1.0	2.0			6 58 2 –22 52.6
52	52024	C–43 2824	6 56 0 –43 43.2	7.06M			B9					10.16						1.0			6 57 32 –43 47.3
53	51925	C–26 3646	6 56 7 –27 5.8	6.35	–0.20	1.21C	B35p			7.58				7.92			1.0		1.0		6 58 7 –27 9.9
54	51876	B–15 1581	6 56 9 –15 59.2	7.8 M			B9			9.63		9.52	.07				1.0	2.0			6 58 24 –16 3.3
55	51898	B–20 1650	6 56 13 –20 27.6	8.9 M			B5 s					9.90						1.0			6 58 22 –20 31.7
56	51985	C–23 4677	6 56 30 –23 13.7	9.3 M			B9					12.09						1.0			6 58 36 –23 17.8
57	51986	C–23 4678	6 56 31 –23 48.7	6.58M			A0			10.25		10.90					1.0	1.0			6 58 36 –23 52.9
58	51984	B–22 1627	6 56 32 –22 28.0	9.4 M			B9					10.73						1.0			6 58 39 –22 32.2
59	52018	C–25 3864	6 56 33 –25 20.7	5.58	–0.17	–0.69	B35p			6.28							1.0				6 58 36 –25 24.9
60	52196	C–45 2843	6 56 34 –46 1.6	6.82	–0.06	–0.22	A0			9.39	.02	9.86	.07				2.0	2.0			6 58 0 –46 5.7
61	52092	C–33 3389	6 56 35 –34 2.6	5.05	–0.17	1.25C	B35p	8.20				6.48				1.0		1.0			6 58 25 –34 6.7
62	51981	B–17 1709	6 56 35 –17 33.8	8.4 M			B9					10.84						1.0			6 58 48 –17 38.0
63	51939	B–10 1793	6 56 35 –10 9.6	8.6 M			B9					10.40						.3			6 58 57 –10 13.8
64	52089	C–28 3666	6 56 40 –28 54.2	1.50	–0.21	–0.92	B22*	4.48	.14	3.89		3.65	.20	2.82		3.0	1.0	3.0	.3		6 58 38 –28 58.4
65	52140	C–30 3757	6 56 49 –30 55.7	6.42	–0.14	1.26C	B6 p					7.72	.13	8.28	.12			2.0	3.0		6 58 44 –30 59.9
66	52115	B–20 1657	6 56 58 –20 43.3	8.6 M			B8					10.60						1.0			6 59 7 –20 47.5
67	52138	C–26 3670	6 56 59 –26 24.3	7.28M			B8							9.07					1.0		6 59 0 –26 28.5
68	52165	B–21 1685	6 57 6 –21 18.6	9.0 M			A0			10.07		10.11					1.0	1.0			6 59 14 –21 22.8
69		C–23 4692	6 57 7 –23 25.4	9.5 M								11.91						1.0			6 59 13 –23 29.6
70	52112	B– 9 1775	6 57 12 – 9 25.9	9.2 M			B5					9.95						1.0			6 59 35 – 9 30.1
71	52362	C–45 2850	6 57 14 –45 41.9	6.21	0.00	–0.06	A0			9.35		9.91					1.0	1.0			6 58 41 –45 46.1
72	52273	B–21 1689	6 57 31 –21 32.0	6.25	–0.15	–0.79	B8			8.30	.29	7.30					2.0	1.0			6 59 39 –21 36.2
73	52470	C–46 2811	6 57 36 –46 57.2	7.35M			B9					10.52						1.0			6 59 0 –47 1.4
74	52242	B–14 1675	6 57 36 –14 57.1	7.9 M			F2					10.53						1.0			6 59 52 –15 1.3
75	52467	C–42 2870	6 57 45 –42 10.0	8.5 M	8.0 G		B8					10.19	.10					2.0			6 59 20 –42 14.2
76	52356	C–28 3689	6 57 46 –28 19.7	6.92M			B33							9.08					1.0		6 59 45 –28 23.9
77	52350	B–22 1642	6 57 56 –22 38.9	8.7 M			A0					10.49						1.0			7 0 3 –22 43.2
78	52349	B–21 1693	6 57 57 –21 44.3	9.2 M			B9					11.04						1.0			7 0 5 –21 48.6
79	52348	B–19 1644	6 57 58 –20 5.3	6.10	–0.15	–0.63	B8			7.85		7.40					1.0	1.0			7 0 8 –20 9.6
80	52391	C–23 4717	6 57 59 –23 48.9	8.9 M			A0					11.76						1.0			7 0 4 –23 53.2
81	52347	B–15 1597	6 58 7 –15 11.3	8.06M			A0					10.02						1.0			7 0 23 –15 15.6
82	52437	B–21 1695	6 58 12 –22 2.9	6.51	–0.17	1.18C	B45*			7.92	.15	7.34	.19				2.0	2.0			7 0 19 –22 7.2
83	52463	C–27 3504	6 58 13 –27 43.7	8.5 M			B2							10.14					1.0		7 0 13 –27 48.0
84	52382	B– 8 1667	6 58 16 – 9 7.9	6.48	0.22	–0.78	B11p			9.79		8.81					1.0	1.0			7 0 39 – 9 12.2
85	52384	B– 9 1784	6 58 21 – 9 33.9	9.0 M			B9					11.17						1.0			7 0 44 – 9 38.2
86	52484	B–19 1648	6 58 26 –19 50.7	8.9 M			B8					10.45						1.0			7 0 36 –19 55.0
87	52620	C–39 3002	6 58 27 –39 45.0	8.24M	7.85G		B9					11.19	.02					2.0			7 0 7 –39 49.3
88	52511	C–23 4732	6 58 31 –23 47.4	10.0 M	8.6 G		B8					10.78	.53					2.0			7 0 36 –23 51.7
89	52597	C–25 3907	6 58 45 –26 1.3	8.02M	7.7 G		B8 s			9.82							1.0				7 0 47 –26 5.6
90	52596	C–25 3906	6 58 45 –25 34.3	7.5 M			B3			8.75	.16						2.0				7 0 48 –25 38.6

	OBJ	PHOT	S–PEC	REMARKS	REFERENCES
1				W/–20 1603	897 922
2					897 922
3				W/–15 1542	897
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13				W/–23 4532	897 922
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17			PEN		897 341 922
18		2	P	EZ CMA, SB	897 A19 006 884 901 922 969 A18 A27 A42 A48 A68
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59		B			897 A19 158 419 884 901 922 A27 A48
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61		U			897 A19 158 488 884 901 922 A27 A43 A48
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	52567	C – 23 4741	6 58 46 – 23 31.0	9.3 M			B8			11.05		1.0		7 0 52 – 23 35.3
2	52594	C – 23 4742	6 58 48 – 23 37.7	9.4 M			B8			11.68		1.0		7 0 53 – 23 42.0
3	52670	C – 25 3911	6 59 3 – 25 8.6	5.62	– 0.18	1.24C	B25s		7.25			1.0		7 1 6 – 25 12.9
4	52643	B – 20 1675	6 59 6 – 20 30.0	9.1 M			B9			11.07		1.0		7 1 15 – 20 34.3
5	52731	C – 27 3532	6 59 12 – 27 36.9	8.5 M			B3				9.77		1.0	7 1 12 – 27 41.2
6		B – 22 1661	6 59 23 – 22 29.4	9.3 M			B5			11.76		1.0		7 1 30 – 22 33.8
7	52724	B – 17 1731	6 59 24 – 18 3.5	9.1 M			A0			11.46		1.0		7 1 37 – 18 7.9
8	52899	C – 40 2843	6 59 28 – 40 43.4	7.08M			A0		10.05	10.60		1.0 1.0		7 1 6 – 40 47.7
9	52721	B – 11 1747	6 59 29 – 11 13.7	6.59	0.06	– 0.78	B25*		8.91			1.0		7 1 50 – 11 18.1
10	52812	C – 27 3540	6 59 33 – 27 9.0	6.66M	7.3 G		B35p				8.62		1.0	7 1 34 – 27 13.4
11	53191	P – 60 742	6 59 39 – 60 47.5	7.90M			B8			9.79		1.0		7 0 17 – 60 51.8
12	52849	C – 23 4766	6 59 42 – 23 23.2	8.3 M			B8			9.23	9.00 .53	1.0 2.0		7 1 48 – 23 27.6
13	52993	C – 35 3282	7 0 0 – 35 28.5	6.62M			B9			8.31		1.0		7 1 48 – 35 32.9
14	52892	B – 14 1690	7 0 1 – 14 18.8	8.4 M			B9				11.43	1.0		7 2 18 – 14 23.2
15	53071	C – 40 2856	7 0 9 – 40 49.4	7.90	– 0.14	– 0.71	B25		8.18		8.35	1.0 1.0		7 1 47 – 40 53.8
16	*52970*	*B – 21 1710*	*7 0 17 – 21 39.7*	*8.6 M*			*A2*				*10.78*	*1.0*		*7 2 25 – 21 44.1*
17	52968	B – 12 1750	7 0 22 – 13 6.9	8.0 M			B9		9.79			1.0		7 2 41 – 13 11.3
18	52986	B – 17 1743	7 0 28 – 17 30.5	7.9 M			B9			10.74		1.0		7 2 41 – 17 34.9
19		B – 16 1721	7 0 29 – 16 26.8	9.3 M						11.50		1.0		7 2 44 – 16 31.2
20	52984	B – 12 1752	7 0 29 – 13 1.3	7.7 M			A0		9.85			1.0		7 2 48 – 13 5.7
21	53063	B – 20 1689	7 0 40 – 20 15.0	9.0 M			B9			11.41		1.0		7 2 50 – 20 19.4
22	53253	C – 43 2882	7 0 43 – 43 19.8	6.42	– 0.04	– 0.08	A0		9.51			1.0		7 2 16 – 43 24.2
23	53252	C – 42 2915	7 0 46 – 42 33.5	7.09M			B8		8.93	8.59 .30		1.0 2.0		7 2 20 – 42 37.9
24	53035	B – 10 1834	7 0 47 – 11 7.5	8.1 M			B3		9.74			1.0		7 3 8 – 11 12.0
25	53123	C – 24 4761	7 0 50 – 24 30.6	6.96M			A0			10.55		1.0		7 2 54 – 24 35.1
26	53122	B – 20 1691	7 0 55 – 20 40.7	8.4 M			B9			10.72		1.0		7 3 4 – 20 45.2
27	53138	C – 23 4797	7 0 56 – 23 45.5	3.0	– 0.1	– 0.82	B31*	6.74 .15	6.24	5.92 .21		3.0 1.0 3.0		7 3 1 – 23 50.0
28	53179	B – 11 1760	7 1 23 – 11 28.6	9.1 M	8.8 G		B0 *		9.96			1.0		7 3 44 – 11 33.1
29	53442	C – 45 2896	7 1 25 – 45 40.6	8.5 M	8.0 G		A0			11.79		1.0		7 2 53 – 45 45.1
30	53269	B – 20 1695	7 1 26 – 21 2.8	9.1 M			B9			11.53		1.0		7 3 35 – 21 7.3
31	53244	B – 15 1625	7 1 30 – 15 33.5	4.10	– 0.12	– 0.47	B82p	8.39 .02		6.20 .11		2.0 2.0		7 3 46 – 15 38.0
32	53403	C – 34 3298	7 1 35 – 34 40.8	8.35M	7.92G		A0			11.30		1.0		7 3 24 – 34 45.3
33	53240	B – 9 1818	7 1 35 – 10 2.9	6.44	– 0.08	– 0.30	B8		9.40 .17	9.17		2.0 1.0		7 3 57 – 10 7.4
34	53344	C – 24 4785	7 1 39 – 25 .5	7.01M			B35		8.11	8.01		1.0 1.0		7 3 43 – 25 5.0
35	53342	C – 24 4786	7 1 40 – 24 14.1	8.4 M			B9			11.17		1.0		7 3 45 – 24 18.6
36	53303	B – 12 1763	7 1 43 – 12 12.8	8.3 M			B9		9.52 .03			2.0		7 4 3 – 12 17.3
37	53373	C – 25 3976	7 1 45 – 25 34.7	8.1 M			B5		9.24			1.0		7 3 48 – 25 39.2
38	53371	B – 21 1726	7 1 53 – 21 41.9	8.8 M			B8			11.04		1.0		7 4 1 – 21 46.4
39	53340	B – 15 1629	7 1 56 – 15 15.1	8.4 M			B4			9.89 .02		2.0		7 4 12 – 15 19.6
40	53367	B – 10 1848	7 2 4 – 10 22.7	6.97	0.43	– 0.58	B04*			9.80		1.0	2177	7 4 26 – 10 27.3
41	53433	B – 21 1727	7 2 5 – 21 11.4	7.9 M			A0			10.28		1.0		7 4 14 – 21 15.9
42	53428	B – 8 1729	7 2 16 – 8 46.2	8.35	0.31	– 0.56	B21p			11.76		1.0		7 4 40 – 8 50.8
43	53487	B – 17 1760	7 2 18 – 17 19.9	8.6 M			B8			11.09		1.0		7 4 32 – 17 24.5
44	53456	B – 11 1770	7 2 18 – 11 26.9	7.22	0.00	1.22C	B05p		9.14			1.0		7 4 39 – 11 31.5
45	53602	C – 30 3870	7 2 25 – 30 41.9	7.91M	7.50G		B9		9.90			1.0		7 4 20 – 30 46.5
46	53704	C – 42 2929	7 2 28 – 42 15.7	5.20	0.21	1.62C	A2 s		10.00			1.0		7 4 3 – 42 20.3
47	53676	C – 31 3994	7 2 42 – 31 55.9	7.91M	7.51G		B8 c			11.02		1.0		7 4 36 – 32 .5
48		B – 10 1852	7 2 43 – 11 4.9	9.4 M						11.12		.3		7 5 4 – 11 9.5
49	53595	B – 10 1856	7 2 51 – 11 1.7	9.2 M			B8			11.03		.3		7 5 12 – 11 6.3
50	53623	B – 12 1771	7 2 57 – 12 15.0	8.0 M			B9		9.19			1.0		7 5 17 – 12 19.6
51	53622	B – 11 1778	7 2 58 – 11 12.1	9.7 M			B9			11.46		1.0		7 5 19 – 11 16.7
52	53668	B – 16 1749	7 3 1 – 16 26.6	8.6 M			B9			10.54		1.0		7 5 16 – 16 31.2
53	53649	B – 8 1733	7 3 2 – 8 56.0	9.12	0.25	– 0.66	B03p			11.36		1.0		7 5 26 – 9 .6
54	53728	C – 24 4820	7 3 3 – 25 1.4	8.4 M			B8			10.04		1.0		7 5 7 – 25 6.0
55	53695	B – 19 1681	7 3 5 – 19 46.6	9.0 M			B9			10.94		1.0		7 5 16 – 19 51.2
56	53667	B – 8 1734	7 3 11 – 8 39.1	7.75	0.24	– 0.71	B03*			10.44		1.0		7 5 35 – 8 43.7
57	53725	B – 20 1711	7 3 16 – 20 19.9	9.0 M			A0			11.68		1.0		7 5 26 – 20 24.5
58	53691	B – 10 1859	7 3 17 – 11 4.8	9.1 M			B8			10.67		1.0		7 5 38 – 11 9.4
59	53756	B – 12 1777	7 3 23 – 12 44.1	7.32	– 0.08	– 0.78	B24p		9.09 .11			2.0		7 5 42 – 12 48.7
60	53754	B – 8 1737	7 3 27 – 8 43.8	8.15	0.21	– 0.66	B12*			10.99		1.0		7 5 51 – 8 48.4
61	53755	B – 10 1862	7 3 28 – 10 35.0	6.48	– 0.05	– 0.89	B05p		8.30	7.80		1.0 1.0		7 5 50 – 10 39.6
62		B – 10 1866	7 3 34 – 10 42.9	9.5 M						11.90		1.0		7 5 55 – 10 47.6
63	53983	C – 38 3149	7 3 41 – 38 9.4	7.32M			A0			11.74		1.0		7 5 24 – 38 14.0
64	53914	C – 27 3620	7 3 41 – 27 13.1	8.4 M			B8		10.05			1.0		7 5 42 – 27 17.8
65		B – 9 1840	7 3 42 – 9 22.8	9.3 M						10.61 .23		2.0		7 6 5 – 9 27.5
66	53859	B – 16 1761	7 3 45 – 16 25.7	8.9 M			B8			10.49		1.0		7 6 0 – 16 30.4
67	53858	B – 15 1643	7 3 45 – 15 58.8	9.4 M			A c			10.91		1.0		7 6 0 – 16 3.5
68	53823	B – 9 1842	7 3 47 – 9 12.2	8.60	– 0.04	1.40C	B8			11.18		1.0		7 6 10 – 9 16.9
69	53857	B – 12 1781	7 3 48 – 12 52.2	8.5 M			B5 *		10.28			1.0		7 6 7 – 12 56.9
70	53824	B – 9 1844	7 3 50 – 10 5.3	8.4 M			B9		9.91	10.15		1.0 1.0		7 6 12 – 10 10.0
71	54031	C – 30 3907	7 4 5 – 30 34.7	6.34	– 0.14	1.28C	B34s		7.92			1.0		7 6 1 – 30 39.4
72	53931	B – 11 1788	7 4 10 – 11 27.6	8.7 M			B9			11.53		1.0		7 6 31 – 11 32.3
73	53975	B – 12 1788	7 4 16 – 12 18.9	6.4	– 0.09	– 1.0	O8 *		7.64			1.0		7 6 36 – 12 23.6
74	53974	B – 11 1790	7 4 20 – 11 12.9	5.38	0.05	– 0.86	B04*		8.05 .05			.5		7 6 41 – 11 17.6
75	54208	C – 42 2959	7 4 22 – 42 15.0	7.10M			B9			10.43		1.0		7 5 57 – 42 19.7
76	53974	B – 11 1790	7 4 28 – 11 13.9	5.38	0.05	– 0.86	B04*			6.77 .42		2.0		7 6 49 – 11 18.6
77		B – 11 1792	7 4 29 – 11 47.8	9.8 M						12.19		1.0		7 6 49 – 11 52.5
78	54233	C – 41 2799	7 4 33 – 41 23.9	10.3 M	10.2 G		A2			11.68		1.0		7 6 10 – 41 28.6
79	54025	B – 11 1793	7 4 35 – 11 14.9	8.4 M			B4		9.56			.3		7 6 56 – 11 19.6
80	54232	C – 37 3313	7 4 36 – 37 37.9	7.25M			A0 c		9.94 .23	10.39		3.0 1.0		7 6 20 – 37 42.6
81	54088	B – 16 1769	7 4 40 – 16 40.1	9.1 M			A0			11.35		1.0		7 6 54 – 16 44.8
82	54224	C – 26 3880	7 4 58 – 26 34.7	6.60	– 0.18	1.23C	B15			8.58		1.0		7 7 0 – 26 39.4
83	54104	B – 9 1853	7 4 58 – 9 30.2	8.1 M			B4			11.08 .13		2.0		7 7 21 – 9 35.0
84	54197	B – 13 1828	7 5 6 – 13 58.4	7.8 M			B8		9.58 .12			2.0		7 7 24 – 14 3.2
85	54309	C – 23 4908	7 5 17 – 23 45.7	5.83	– 0.14	1.16C	B25s			7.58		1.0		7 7 22 – 23 50.5
86	54284	B – 12 1798	7 5 26 – 12 12.5	9.0 M			A0			11.60		1.0		7 7 46 – 12 17.3
87	54475	C – 40 2930	7 5 29 – 40 48.8	5.80	– 0.18	1.24C	B9		7.15	7.34		1.0 1.0		7 7 7 – 40 53.6
88	54306	B – 11 1801	7 5 33 – 11 50.0	9.2 M			B5		10.66	10.46 .09		1.0 2.0		7 7 53 – 11 54.8
89	54413	C – 28 3879	7 5 34 – 28 11.0	8.6 M			B8 c		9.38			1.0		7 7 33 – 28 15.8
90	54501	C – 34 3355	7 5 47 – 34 32.7	9.9 M	9.1 G		B9			11.09		1.0		7 7 37 – 34 37.5

	OBJ	PHOT	S–PEC	REMARKS	REFERENCES
1					899 922
2					899 922
3			B		897 A19 419 842 884 901 922 A27 A48
4					897 922
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22					897 A19 158 884 901 922
23					897 922
24					897 419 922 A07
25					897 922
26					897 922
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28		16P	PE	Z CMA	897 002 013 342 922 969
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31		U			897 A19 007 158 782 783 884 901 921 922 932 A42 A43 A48 A51
32					897 922
33					897 A19 158 397 835 884 901 922
34					897 922 A48
35					897 922
36					897 922
37					897 922
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39					897 419 922 A07
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42		P			897 A19 001 002 012 013 015 922 A42
43					897 922
44		P			897 A19 002 013 419 836 922 A07 A48
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46			M		897 A19 781 884 901 922 A42
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52					897 922
53		P			897 A19 001 002 012 015 922 A42
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59		P			897 A19 001 002 012 015 419 922 A07 A42
60		P	4		897 A19 001 002 012 015 419 474 922 A07 A42
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71			B		897 419 508 884 901 922 A27 A42 A48 A73
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74		UBP	N		897 A19 002 012 013 015 158 419 488 884 901 922 A42 A43 A48
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76		UBP	N	W/– 11 1793	897 A19 002 012 013 015 158 419 488 884 901 922 A42 A43 A48
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79					897 419 922 A07
80				W/– 37 3309	897 922
81					897 922
82					897 884 901 922 A27 A42 A48 A68
83					897 419 922 A07
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85			PEN		897 342 508 884 901 922 A27 A42 A48 A68
86					897 922
87					897 A19 884 901 922
88					897 419 922 A07
89				W/– 28 3875	897 922
90					899 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	54360	B–10 1884	7 5 50 –10 29.5	9.0 M			A0			11.58		.3		7 8 12 –10 34.3
2	54439	B–11 1812	7 6 3 –11 46.3	7.71	0.04	–0.77	B23*			9.38 .06		2.0		7 8 23 –11 51.1
3	54555	C–28 3888	7 6 4 –28 29.8	8.2 M			B8		9.80			1.0		7 8 3 –28 34.6
4	54551	C–23 4932	7 6 9 –23 21.1	8.6 M			B5			10.32		1.0		7 8 15 –23 25.9
5		B–12 1807	7 6 11 –12 28.9	9.8 M			c			11.44		1.0		7 8 30 –12 33.7
6	54493	B–12 1809	7 6 13 –12 48.3	7.6 M			B23		9.17			1.0		7 8 32 –12 53.1
7	54602	B–18 1701	7 6 32 –18 11.4	8.6 M			B9			10.80		1.0		7 8 45 –18 16.3
8	54574	B–11 1816	7 6 33 –11 25.2	8.7 M			B8			10.44		1.0		7 8 54 –11 30.1
9	54669	C–23 4949	7 6 44 –23 57.8	6.64	–0.18	1.20C	B35			7.51		1.0		7 8 49 –24 2.7
10	54662	B–10 1892	7 6 58 –10 15.9	6.21	0.03	–0.90	O6 *			7.53		1.0		7 9 20 –10 20.8
11	54664	B–10 1894	7 7 0 –10 34.5	8.7 M			B9			11.18		1.0		7 9 22 –10 39.4
12	54771	C–27 3683	7 7 1 –28 4.7	8.4 M			B8		9.36 .07			2.0		7 9 1 –28 9.6
13	54893	C–39 3105	7 7 10 –39 34.5	4.82	–0.19	–0.68	B35		6.62			1.0		7 8 51 –39 39.4
14	54816	C–27 3687	7 7 15 –27 16.9	8.7 M			B9 c		9.76			1.0		7 9 16 –27 21.8
15	54765	B–16 1801	7 7 16 –16 51.3	9.0 M			A0			11.40		1.0		7 9 30 –16 56.2
16	54740	B–10 1897	7 7 17 –10 57.4	8.9 M			B8			10.79 .12		2.0		7 9 38 –11 2.3
17	54764	B–16 1802	7 7 18 –16 9.2	6.02	0.06	–0.77	B12p		8.56			1.0		7 9 33 –16 14.1
18	54814	B–18 1705	7 7 23 –19 2.0	7.5 M			B8		9.62	9.86 .26		1.0 2.0		7 9 35 –19 6.9
19	54784	B– 8 1768	7 7 25 – 9 5.7	8.9 M			B8			11.42		1.0		7 9 48 – 9 10.6
20	55000	C–45 2960	7 7 29 –45 15.0	6.94M			B8		9.48	9.45		1.0 1.0		7 8 58 –45 19.9
21		B– 9 1875	7 7 32 – 9 13.6	9.1 M						11.33		1.0		7 9 55 – 9 18.5
22	54913	C–28 3925	7 7 34 –28 21.8	8.5 M			B8		9.41			1.0		7 9 33 –28 26.7
23	54912	C–25 4120	7 7 39 –25 8.9	5.71	–0.16	1.21C	B24		7.04 .16			2.0		7 9 43 –25 13.8
24	54979	C–35 3374	7 7 41 –35 12.3	8.6 M	8.23G		A0			11.57		1.0		7 9 30 –35 17.2
25	54884	B–17 1811	7 7 45 –17 48.0	9.1 M			B9			11.80		1.0		7 9 58 –17 52.9
26	54879	B–11 1822	7 7 48 –11 43.2	7.66	0.00	–0.86	O95			9.37		1.0		7 10 8 –11 48.2
27	54858	B– 9 1880	7 7 48 – 9 15.2	8.4 M	8.4 G		A0 *			10.44		1.0		7 10 11 – 9 20.2
28	54935	B–19 1720	7 7 49 –19 30.2	7.5 M			B5			9.72		1.0		7 10 0 –19 35.1
29	54911	B–15 1681	7 7 53 –15 36.1	7.32	–0.08	–0.82	B22p		8.85			1.0		7 10 9 –15 41.1
30	55019	C–28 3939	7 8 2 –28 39.9	6.95M			B43		8.85			1.0		7 10 1 –28 44.9
31	54929	B– 7 1783	7 8 8 – 7 47.3	7.6 M			B9			11.01		1.0		7 10 33 – 7 52.3
32	55040	C–24 4958	7 8 22 –24 15.8	8.7 M			A0			11.75		1.0		7 10 27 –24 20.8
33	54995	B– 9 1887	7 8 24 – 9 15.2	7.6 M			B8		9.72	8.80 .04		1.0 1.3		7 10 47 – 9 20.2
34	55014	B–11 1826	7 8 25 –11 29.5	7.75	–0.06	1.35C	B8			10.07 .23		2.0		7 10 46 –11 34.5
35	55013	B– 9 1890	7 8 32 – 9 22.1	8.8 M			A0			11.32		.3		7 10 55 – 9 27.1
36	55173	C–30 4030	7 8 36 –30 34.6	7.3 M			B3		8.96	8.72		1.0 1.0		7 10 32 –30 39.6
37	55121	B–12 1825	7 8 48 –12 26.3	8.8 M			B8 c			10.53		1.0		7 11 8 –12 31.3
38	55118	B–10 1906	7 8 53 –10 27.5	7.88	–0.04	1.38C	B8			10.39		1.0		7 11 15 –10 32.5
39	55117	B– 9 1895	7 8 54 – 9 13.0	8.8 M			B9			11.08		1.0		7 11 17 – 9 18.0
40	55214	C–25 4156	7 8 56 –25 50.4	8.5 M			A0		9.62			1.0		7 10 59 –25 55.4
41	55134	B– 7 1792	7 8 57 – 8 5.9	9.1 M			B8			10.50		1.0		7 11 22 – 8 10.9
42	55135	B–10 1908	7 8 59 –10 20.7	7.30	–0.05	–0.60	B6 *			8.45		1.0		7 11 21 –10 25.7
43	55211	B–12 1832	7 9 9 –12 59.2	8.2 M			A0			10.65 .03		2.0		7 11 28 –13 4.2
44	55213	B–17 1828	7 9 11 –17 14.8	6.67M			B9		9.61	8.64		1.0 1.0		7 11 25 –17 19.8
45	55397	C–34 3400	7 9 27 –34 18.3	7.89M	7.43G		B8		9.82	9.76		1.0 1.0		7 11 17 –34 23.3
46	55344	B–20 1767	7 9 32 –20 47.9	5.83	–0.04	1.45C	A05		9.07	9.43 .41		1.0 2.0		7 11 41 –20 53.0
47	55449	C–39 3137	7 9 33 –39 11.1	7.97M	7.52G		B9		10.23			1.0		7 11 15 –39 16.2
48	55474	C–38 3233	7 9 41 –39 1.1	6.82M			A2		10.04			1.0		7 11 23 –39 6.2
49	55395	B–19 1742	7 9 42 –19 48.7	8.2 M			B9			11.03		1.0		7 11 53 –19 53.8
50	55340	B– 9 1901	7 9 47 – 9 51.0	9.0 M			A0			11.64		1.0		7 12 10 – 9 56.1
51	55369	B–11 1837	7 9 53 –11 58.1	8.9 M			B9			11.53		1.0		7 12 13 –12 3.2
52	55444	B–19 1746	7 10 0 –19 11.1	8.7 M			B9			11.49		1.0		7 12 11 –19 16.2
53		C–27 3748	7 10 2 –27 38.0	9.1 M			B5		10.17			1.0		7 12 2 –27 43.1
54	55417	B– 7 1802	7 10 3 – 8 7.6	8.02	–0.04	–0.40	A0			10.60		1.0		7 12 28 – 8 12.7
55	55419	B– 9 1903	7 10 4 –10 4.2	8.8 M			B9			10.84		1.0		7 12 26 –10 9.3
56	55523	C–27 3749	7 10 5 –27 15.0	6.68M			B33		8.87 .00			2.0		7 12 6 –27 20.1
57	55522	C–25 4191	7 10 9 –25 51.5	5.90	–0.17	1.22C	B25		7.72 .15	7.84		2.0 1.0		7 12 12 –25 56.6
58	55442	B–11 1842	7 10 10 –12 5.8	9.3 M			B3			10.75		1.0		7 12 30 –12 10.9
59	55439	B– 9 1905	7 10 12 – 9 45.6	8.47	0.11	–0.57	B3 s			10.73		1.0		7 12 35 – 9 50.7
60	55566	C–27 3754	7 10 15 –27 46.7	8.8 M			B9		10.31			1.0		7 12 15 –27 51.8
61	55517	B–11 1845	7 10 26 –11 59.5	8.41	–0.03	–0.37	B9			10.79		1.0		7 12 46 –12 4.6
62	55538	B–15 1695	7 10 29 –15 25.0	8.1 M			B23s		9.73	9.30		1.0 1.0		7 12 45 –15 30.1
63	55719	C–40 2987	7 10 36 –40 24.8	5.30	0.06	0.08	A3 s		9.15			1.0		7 12 15 –40 29.9
64	55561	B–12 1842	7 10 36 –12 17.6	8.1	–0.12	1.27C	B8 p			9.90		1.0		7 12 56 –12 22.7
65	55718	C–36 3421	7 10 39 –36 27.5	5.96	–0.15	1.26C	B35p	9.66	8.17 .18			1.0 2.0		7 12 26 –36 32.6
66	55562	B–12 1843	7 10 39 –12 31.2	8.8 M			B8			10.78		1.0		7 12 58 –12 36.3
67	55636	B–16 1832	7 10 50 –16 33.9	8.8 M			B9			11.30 .10		3.0		7 13 5 –16 39.1
68	55692	B–20 1782	7 11 0 –20 29.7	8.1 M			B3 s			9.90 .12		2.0		7 13 10 –20 34.9
69	55892	C–46 2977	7 11 8 –46 40.5	4.48	0.33	–0.04	F05		10.07			1.0		7 12 34 –46 45.7
70	55687	B–10 1926	7 11 12 –10 24.2	9.3 M			B8			10.66		1.0		7 13 34 –10 29.4
71	55817	C–30 4123	7 11 17 –30 52.8	7.78M	7.24G		B9		9.80	9.66		1.0 .3		7 13 13 –30 58.0
72	55759	B–17 1855	7 11 18 –17 40.7	8.6 M			A0			11.10		1.0		7 13 31 –17 45.9
73	55754	B– 9 1912	7 11 33 – 9 22.1	7.9 M			B9			9.75		1.0		7 13 56 – 9 27.3
74	55857	C–27 3789	7 11 35 –27 16.2	6.11	–0.26	1.12C	B34	8.21	6.77			1.0 1.0		7 13 36 –27 21.4
75		C–30 4133	7 11 37 –30 53.8	8.7 M	8.2 G					10.79		.3		7 13 33 –30 59.0
76	56022	C–44 3223	7 11 44 –45 5.7	4.88	–0.02	–0.06	A0 *		8.50	8.67		1.0 1.0		7 13 14 –45 10.9
77	55854	B–12 1860	7 11 52 –12 43.4	8.1 M			B8			10.25		1.0		7 14 11 –12 48.6
78	55831	B– 7 1821	7 11 53 – 7 25.9	8.44	–0.08	1.28C	B8			10.53		1.0		7 14 18 – 7 31.1
79	55830	B– 7 1822	7 11 56 – 7 17.3	8.8 M			A0			11.55		1.0		7 14 21 – 7 22.5
80	55985	C–30 4146	7 12 1 –30 15.2	6.32	–0.18	1.20C	B24s			7.32		1.0		7 13 58 –30 20.4
81	55885	B–15 1712	7 12 3 –15 18.3	9.4 M	8.9 G		B55*			11.47		.3		7 14 19 –15 23.5
82	55879	B–10 1933	7 12 6 –10 13.7	6.00	–0.18	1.12C	B04*			6.42		1.0		7 14 28 –10 18.9
83	55933	B–18 1743	7 12 8 –18 20.9	8.5 M			B8			8.93		1.0		7 14 21 –18 26.1
84	56014	C–26 4057	7 12 13 –26 15.9	4.5	–0.1	–0.85V	*	7.34		6.71		1.0 1.0		7 14 15 –26 21.1
85	56044	C–27 3806	7 12 17 –28 4.9	8.0 M			B8		9.26 .18			2.0		7 14 17 –28 10.1
86	55956	B–15 1718	7 12 17 –15 23.6	8.8 M			B9			10.93 .13		1.3		7 14 33 –15 28.9
87	56013	B–19 1767	7 12 21 –19 54.2	7.29M			B25s		8.80	8.50		1.0 1.0		7 14 32 –19 59.5
88	56066	C–24 5064	7 12 29 –24 51.0	9.0 M			B8			11.28		1.0		7 14 33 –24 56.3
89	56067	C–25 4256	7 12 30 –25 12.9	7.8 M			B8			11.21		1.0		7 14 34 –25 18.2
90	56006	B– 7 1829	7 12 34 – 7 35.5	8.3 M			B8			9.80		1.0		7 14 59 – 7 40.8

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 922
2		P	N		897 A19 001 002 012 015 922
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80			B		897 419 884 901 922 A27 A48 A68
81		P	EN		898 002 013 341 419 922 A07
82		UP	SR	W/ – 10 1933,1935	897 A19 002 012 013 015 350 419 883 884 901 922 A42 A48 A66 A76
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87			N		897 419 922 A07 A48
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	56094	C – 23 5137	7 12 36 – 23 24.1	7.62M			B3			8.48		1.0		7 14 42 – 23 29.4
2	56093	B – 20 1804	7 12 39 – 20 56.0	8.2 M			B8			11.36		1.0		7 14 48 – 21 1.3
3	56039	B – 11 1858	7 12 39 – 11 46.9	8.27	– 0.08	1.33C	B8			10.39		1.0		7 14 59 – 11 52.2
4	56139	C – 26 4073	7 12 47 – 26 41.1	3.82	– 0.14	– 0.88V	B34*	7.19	5.69	5.88		1.0 1.0 1.0		7 14 49 – 26 46.4
5	56111	B – 14 1789	7 12 48 – 14 44.8	10.0 M			A0			11.71		1.0		7 15 5 – 14 50.1
6	56211	C – 28 4057	7 12 56 – 28 52.6	7.7 M			B33s		8.60	8.52		1.0 1.0		7 14 55 – 28 57.9
7	56237	C – 35 3446	7 12 57 – 35 9.6	8.72M	8.39G		B8			12.10		1.0		7 14 46 – 35 14.9
8	56284	C – 37 3411	7 13 1 – 37 9.4	7.14M			B8 c		8.37	7.94		1.0 1.0		7 14 47 – 37 14.7
9	56378	C – 40 3020	7 13 12 – 41 4.8	7.37M			B8		9.97			1.0		7 14 50 – 41 10.1
10	56183	B – 13 1902	7 13 13 – 13 28.6	8.6 M			B8		10.27			1.0		7 15 31 – 13 33.9
11	56208	B – 14 1793	7 13 18 – 14 58.3	9.3 M			B9			11.80		1.0		7 15 35 – 15 3.6
12	56455	C – 46 3000	7 13 20 – 46 45.7	5.70	– 0.11	1.32C	A0 s		8.45	8.20		1.0 1.0		7 14 46 – 46 51.0
13	56281	C – 25 4281	7 13 21 – 25 50.2	8.5 M			B9			11.26		1.0		7 15 24 – 25 55.5
14	56376	C – 36 3464	7 13 24 – 36 8.2	7.42M	6.94G		B9		9.24			1.0		7 15 11 – 36 13.5
15	56279	B – 19 1780	7 13 24 – 20 2.4	8.3 M			B9			10.59		1.0		7 15 34 – 20 7.7
16	56342	C – 30 4184	7 13 25 – 30 35.9	5.34	– 0.18	1.24C	B35p			10.37		1.0		7 15 21 – 30 41.2
17	56373	C – 26 4090	7 13 37 – 26 46.1	8.7 M			B9			11.60		1.0		7 15 39 – 26 51.4
18	56273	B – 12 1872	7 13 38 – 12 27.2	8.3 M			B9		9.98			1.0		7 15 58 – 12 32.6
19	56310	B – 15 1732	7 13 41 – 16 8.8	6.79M			B25		8.35	6.80		1.0 1.0		7 15 56 – 16 14.2
20	56341	C – 23 5173	7 13 42 – 23 39.1	6.26M			A0		9.24			1.0		7 15 48 – 23 44.5
21	56531	C – 41 2915	7 13 47 – 42 0.0	6.99M			A0		9.69			1.0		7 15 24 – 42 5.3
22	56474	C – 35 3464	7 13 50 – 35 36.6	8.72M	8.37G		B9			11.56		1.0		7 15 38 – 35 42.0
23	56430	B – 17 1884	7 13 59 – 17 12.4	8.0 M			B8			10.63 .19		2.0		7 16 13 – 17 17.8
24	56405	B – 15 1734	7 13 59 – 15 29.7	5.44	0.08	1.56C	A3s		9.46	10.29 .08		1.0 2.0		7 16 15 – 15 35.1
25	56557	C – 35 3466	7 14 4 – 35 43.5	8.89M	8.41G		B9			11.62		1.0		7 15 52 – 35 48.9
26	56472	C – 26 4102	7 14 4 – 26 44.0	8.2 M			B9			11.24		1.0		7 16 6 – 26 49.4
27	56501	B – 13 1913	7 14 24 – 13 21.9	8.3 M			B8		9.84			1.0		7 16 43 – 13 27.3
28	56579	C – 23 5190	7 14 30 – 23 44.2	8.1 M			B5		8.66	9.17		1.0 1.0		7 16 36 – 23 49.6
29	56733	C – 38 3288	7 14 48 – 38 13.7	5.78	– 0.13	1.28C	B5+		7.60	7.08		1.0 1.0		7 16 32 – 38 19.1
30	56597	B – 13 1919	7 14 49 – 13 54.0	8.0 M			B8			9.73		1.0		7 17 7 – 13 59.4
31		C – 26 4122	7 14 52 – 27 4.0	9.3 M			B5			11.62		1.0		7 16 53 – 27 9.4
32	56779	C – 36 3485	7 15 3 – 36 30.1	5.02	– 0.18	– 0.68	B25s		6.70 .14	6.79		2.0 1.0		7 16 50 – 36 35.5
33	56694	C – 24 5125	7 15 5 – 24 15.7	8.4 M			B5		9.10	10.06		1.0 1.0		7 17 10 – 24 21.1
34	56752	C – 32 3847	7 15 8 – 32 57.3	7.89M	7.46G		B9			11.48		1.0		7 17 1 – 33 2.7
35	56727	B – 18 1767	7 15 15 – 18 37.6	8.9 M			B5 s			11.19		1.0		7 17 27 – 18 43.1
36	56856	C – 36 3487	7 15 19 – 37 1.4	8.1 M			B9 c		8.74	8.63		1.0 .3		7 17 5 – 37 6.9
37	56808	C – 24 5139	7 15 32 – 24 43.5	8.8 M			B8		9.09	9.31		1.0 1.0		7 17 37 – 24 49.0
38	56806	B – 18 1769	7 15 35 – 18 43.5	9.3 M			B5 *			11.41		1.0		7 17 47 – 18 49.0
39	56932	C – 36 3494	7 15 41 – 36 53.7	8.07M	7.51G		B8			10.60		.3		7 17 27 – 36 59.2
40	56978	C – 38 3301	7 15 43 – 38 56.0	7.05M			B8		9.83	9.26 .08		1.0 2.0		7 17 26 – 39 1.5
41	56848	B – 22 1795	7 15 43 – 23 6.0	8.8 M			B9 c		9.48	9.71		1.0 1.0		7 17 50 – 23 11.5
42	56876	C – 26 4140	7 15 46 – 26 42.4	6.42	– 0.15	1.28C	B5Ss			8.34		1.0		7 17 48 – 26 47.9
43	56956	C – 36 3495	7 15 47 – 37 7.1	8.38M	8.00G		B8			10.99		.3		7 17 33 – 37 12.6
44	56899	C – 27 3879	7 15 48 – 27 30.3	9.0 M			A0			11.78		1.0		7 17 49 – 27 35.8
45	57034	C – 36 3502	7 16 4 – 37 4.1	8.22M	7.71G		B8			10.94		.3		7 17 50 – 37 9.6
46	56995	C – 24 5165	7 16 19 – 24 45.0	10.2 M	8.6 G		B8			9.02		.3		7 18 24 – 24 50.5
47	57010	B – 18 1777	7 16 29 – 18 53.3	9.1 M			B9			11.10		1.0		7 18 41 – 18 58.8
48	57197	C – 43 3093	7 16 31 – 43 53.7	5.82	– 0.11	1.32C	B9		8.18			1.0		7 18 4 – 43 59.2
49	57029	B – 19 1807	7 16 31 – 20 2.3	8.7 M			B9 c		10.02			1.0		7 18 42 – 20 7.8
50	57150	C – 36 3512	7 16 32 – 36 38.5	4.7	– 0.1	– 0.77	B35*	7.49				.3		7 18 19 – 36 44.0
51	57060	C – 24 5173	7 16 35 – 24 28.0	4.95	– 0.15	– 1.15V	O7 *		6.64			.3		7 18 40 – 24 33.5
52	57122	C – 32 3873	7 16 38 – 32 15.3	6.80M			B9		9.39	10.22		1.0 1.0		7 18 32 – 32 20.8
53	57061	C – 24 5176	7 16 38 – 24 51.7	4.4	– 0.15	– 1.0	O9.3*	7.08	5.89 .06	5.65		1.0 1.3 .3		7 18 42 – 24 57.3
54	57060	C – 24 5173	7 16 38 – 24 31.2	4.95	– 0.15	– 1.15V	O7 *			5.92		1.0		7 18 43 – 24 36.8
55	57091	C – 24 5178	7 16 41 – 24 34.1	10.2 M	8.3 G		A0		8.97			.3		7 18 46 – 24 39.7
56	57150	C – 36 3512	7 16 42 – 36 38.8	4.7	– 0.1	– 0.77	B35*		5.50	5.79		1.0 1.0		7 18 29 – 36 44.3
57		C – 26 4162	7 16 45 – 26 51.5	8.6 M			B5			10.91		1.0		7 18 47 – 26 57.1
58	57089	B – 19 1812	7 16 47 – 19 22.7	8.6 M			B8			11.08		1.0		7 18 58 – 19 28.3
59	57146	C – 26 4164	7 16 49 – 26 29.6	5.27	0.96	0.66	G02s			11.67		1.0		7 18 51 – 26 35.2
60	57240	C – 38 3309	7 16 51 – 39 7.1	5.24	0.03	1.53C	A2		8.97	9.29		1.0 1.0		7 18 33 – 39 12.7
61	57219	C – 36 3519	7 16 51 – 36 39.0	5.10	– 0.17	– 0.65	B35	8.09 .10				.5		7 18 38 – 36 44.6
62	57220	C – 36 3521	7 16 52 – 37 8.0	8.45M	7.85G		B5			10.40		1.0		7 18 38 – 37 13.6
63	57139	B – 17 1917	7 17 4 – 17 25.9	6.60M			B8		9.32			1.0		7 19 18 – 17 31.5
64	57193	C – 25 4354	7 17 6 – 25 28.4	7.8 M			B5			8.42		1.0		7 19 10 – 25 34.0
65	57192	C – 24 5188	7 17 8 – 24 51.8	7.30M			B3.3		8.42 .04	8.22		1.3 .3		7 19 12 – 24 57.4
66	57301	C – 34 3517	7 17 17 – 35 5.5	7.82M	7.54G		B9			11.26		1.0		7 19 6 – 35 11.1
67	57189	B – 15 1766	7 17 18 – 15 47.6	8.2 M			A0		10.60	10.39		1.0 1.0		7 19 34 – 15 53.2
68	57187	B – 11 1889	7 17 22 – 12 7.5	8.9 M			B9			11.84		1.0		7 19 42 – 12 13.1
69	57331	C – 35 3510	7 17 25 – 36 4.4	8.24M	7.75G		B9			10.77 .19		2.0		7 19 13 – 36 10.0
70	57281	C – 23 5277	7 17 32 – 23 55.8	9.3 M			B9			10.41		.3		7 19 38 – 24 1.4
71	57280	B – 19 1818	7 17 36 – 19 52.9	8.5 M	8.2 G		B9			11.55		1.0		7 19 47 – 19 58.5
72	57326	C – 26 4186	7 17 38 – 26 28.6	8.9 M			A0			10.62		1.0		7 19 40 – 26 34.2
73	57411	C – 37 3470	7 17 42 – 37 24.8	7.82M	7.44G		B8			10.89		1.0		7 19 27 – 37 30.4
74	57325	C – 23 5285	7 17 46 – 23 58.4	9.0 M			A0			10.07		.3		7 19 52 – 24 4.0
75	57462	C – 38 3322	7 17 51 – 38 29.6	9.88M	9.45G		B9			12.13 .03		2.0		7 19 35 – 38 35.2
76	57393	C – 23 5296	7 18 0 – 23 59.5	9.09	– 0.01	– 0.77	B *			10.96		.3		7 20 6 – 24 5.1
77	57392	B – 22 1817	7 18 3 – 22 47.8	9.1 M			B8		10.13	11.47		1.0 1.0		7 20 10 – 22 53.5
78	57480	B – 20 1865	7 18 25 – 20 23.8	9.5 M	8.9 G		A0			11.84		1.0		7 20 35 – 20 29.5
79	57573	B – 22 1823	7 18 46 – 22 45.4	6.60	– 0.16	1.26C	B3.5s		8.41 .06	8.48		2.0 1.0		7 20 53 – 22 51.1
80	57619	C – 33 3717	7 18 47 – 34 4.5	9.18M	8.89G		B9			11.41		1.0		7 20 38 – 34 10.2
81	57519	B – 12 1909	7 18 49 – 12 11.5	8.2 M			B8			10.45		1.0		7 21 9 – 12 17.2
82	57618	C – 29 4260	7 18 52 – 29 46.1	7.8 M			B5		9.57			1.0		7 20 50 – 29 51.8
83	57593	C – 26 4223	7 18 53 – 26 52.1	5.99	– 0.17	1.23C	B3.5p			7.41		1.0		7 20 55 – 26 57.8
84	57616	C – 25 4399	7 19 0 – 26 1.2	8.8 M			B9			10.75		1.0		7 21 3 – 26 6.9
85	57613	B – 20 1874	7 19 5 – 20 40.5	9.1 M			B8			11.06		1.0		7 21 15 – 20 46.2
86		B – 20 1875	7 19 7 – 20 12.7	9.2 M						11.95		1.0		7 21 17 – 20 18.4
87	57755	B – 19 1841	7 19 36 – 20 6.2	9.2 M	8.8 G		A			10.99		1.0		7 21 47 – 20 12.0
88	57821	B – 18 1806	7 20 1 – 18 55.2	4.96	– 0.04	– 0.4	B8		8.14			1.0		7 22 13 – 19 1.0
89	57819	B – 15 1786	7 20 9 – 15 28.4	8.8 M			B9			10.97 .10		2.0		7 22 25 – 15 34.2
90	57994	C – 36 3557	7 20 15 – 36 25.3	8.29M	7.92G		B8			10.59		1.0		7 22 2 – 36 31.1

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 922
2					898 922
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51		U2P	ER	UW CMA, SB	897 002 012 013 350 419 604 833 883 884 901 921 922 969 A27 A42 A43 A48 A58
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53		USBOP	R	SB	897 A19 002 010 012 013 022 336 350 419 488 783 841 882 884 901 921 922 969
54		U2P	ER	W/ – 24 5178,UW CMA,SB	897 002 012 013 350 419 604 833 883 884 901 921 922 969 A27 A42 A43 A48 A58
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1		B–20 1890	7 20 18 –20 45.1	9.2 M								11.10						1.0			7 22 28 –20 50.9
2		B–20 1891	7 20 27 –20 49.0	9.2 M								11.56						.3			7 22 37 –20 54.8
3	57906	B–12 1925	7 20 30 –12 41.2	9.3 M			B9					11.85						1.0			7 22 49 –12 47.0
4	58063	C–31 4430	7 20 41 –31 56.9	6.64M			B55					7.92						.3			7 22 36 –32 2.7
5		B–20 1896	7 20 43 –20 47.0	9.4 M								11.20						.3			7 22 53 –20 52.8
6	58036	C–26 4271	7 20 46 –26 16.0	8.5 M			A0			9.66							1.0				7 22 49 –26 21.8
7	58155	C–31 4437	7 21 6 –31 49.6	5.42	–0.15	1.22C	B45s	8.42				7.11				1.0		.3			7 23 1 –31 55.5
8	58055	B–12 1933	7 21 6 –12 34.1	9.0 M			B8 s					11.10						1.0			7 23 26 –12 40.0
9	58238	C–44 3369	7 21 7 –44 31.2	7.9 M	7.8 G		B8			9.61							1.0				7 22 39 –44 37.0
10	58127	B–13 1981	7 21 20 –14 .1	7.58	0.03	–0.41	B5 s			9.92							1.0				7 23 38 –14 6.0
11	58216	C–31 4445	7 21 21 –31 56.9	8.31M	7.80G		B8					10.58						.3			7 23 16 –32 2.8
12	58235	C–36 3575	7 21 24 –36 43.3	8.51M	8.17G		B9					10.60						1.0			7 23 11 –36 49.2
13	58260	C–36 3578	7 21 32 –36 14.5	6.74	–0.14	1.23C	B33s			7.64		7.82					1.0	1.0			7 23 20 –36 20.4
14	58286	C–31 4454	7 21 37 –32 6.2	5.38	–0.19	1.22C	B25	8.48				7.09				1.0		.3			7 23 31 –32 12.1
15	58285	C–31 4453	7 21 39 –31 12.1	7.96M	7.60G		B9					10.72						1.0			7 23 35 –31 18.0
16	58325	C–29 4322	7 21 57 –30 7.1	6.59	–0.20	1.20C	B35			7.88							1.0				7 23 54 –30 13.0
17	58350	C–29 4328	7 22 7 –29 12.3	2.4	–0.07	–0.73	B51*	6.46	.23	5.99		5.80				2.0	1.0	1.0			7 24 6 –29 18.2
18	58398	C–31 4469	7 22 9 –32 3.6	8.40M	8.02G		B8					11.49						.3			7 24 3 –32 9.5
19	58377	C–28 4286	7 22 9 –28 43.8	6.60M			B54					8.66	.25					2.0			7 24 8 –28 49.7
20	58420	C–35 3569	7 22 10 –35 44.4	6.30	–0.15	1.30C	B8 p			7.95		7.87					1.0	1.0			7 23 59 –35 50.3
21	58346	B–22 1855	7 22 10 –22 48.8	6.20	–0.08	–0.41	B9			8.81		8.83					1.0	1.0			7 24 17 –22 54.7
22	58397	C–31 4471	7 22 12 –31 55.7	8.75M	8.40G		B9					11.92						1.0			7 24 7 –32 1.6
23	58343	B–15 1810	7 22 24 –16 6.1	5.33	–0.05	–0.60	B35*	8.89		7.85	.05	6.63				1.0	2.0	1.0			7 24 40 –16 12.1
24	58441	C–26 4315	7 22 34 –26 34.8	8.4 M			A0			9.28							1.0				7 24 36 –26 40.8
25	58534	C–31 4481	7 22 46 –31 41.0	8.00M			A0 c					9.69						1.0			7 24 41 –31 47.0
26	58462	B–14 1887	7 22 50 –14 47.0	6.59M			A0			10.01		11.17					1.0	1.0			7 25 7 –14 53.0
27	58512	C–24 5350	7 22 54 –24 19.6	8.5 M			B5			9.30							1.0				7 24 59 –24 25.6
28	58510	B–20 1919	7 22 58 –21 4.5	6.80	0.12	1.22C	B11*					8.33	.06					2.0			7 25 8 –21 10.5
29	58509	B–20 1920	7 23 2 –20 55.4	8.5 M			B4 s					8.61						1.0			7 25 12 –21 1.4
30	58630	C–27 4051	7 23 16 –28 5.2	7.8 M			B8			9.57	.05	9.53					2.0	1.0			7 25 16 –28 11.2
31	58612	C–24 5366	7 23 21 –25 7.1	5.77	–0.11	–0.41	B73			8.54							1.0				7 25 25 –25 13.1
32	58702	C–31 4500	7 23 30 –32 8.1	9.5 M	8.3 G		B8					11.33						1.0			7 25 24 –32 14.1
33	58671	B–22 1864	7 23 38 –22 45.6	9.12	–0.02	1.31C	B8					11.40	.27					3.0			7 25 45 –22 51.6
34	58647	B–13 2008	7 23 38 –14 4.7	6.76M			B9					9.89						1.0			7 25 56 –14 10.7
35	58700	B–22 1865	7 23 42 –22 14.5	9.4 M			B9					11.44						1.0			7 25 50 –22 20.5
36	58767	C–32 3999	7 23 43 –32 24.5	8.66M	8.25G		A0					11.34						1.0			7 25 37 –32 30.5
37	58766	C–31 4506	7 23 48 –31 38.3	6.30	–0.18	1.22C	B25					7.85						1.0			7 25 43 –31 44.3
38	58720	B–14 1894	7 23 53 –14 59.2	9.20	0.22		B21					11.92						1.0			7 26 10 –15 5.3
39	58722	B–17 1971	7 23 54 –18 1.2	8.2 M			B8 c			9.78							1.0				7 26 7 –18 7.3
40	58738	B–21 1936	7 24 1 –22 7.0	8.64	–0.06	1.28C	B8					10.81	.30					2.0			7 26 9 –22 13.1
41	58890	C–37 3569	7 24 6 –38 2.9	8.54M	8.28G		B8					11.63						1.0			7 25 51 –38 9.0
42	58823	C–25 4518	7 24 8 –26 8.1	8.6 M			B8			9.81							1.0				7 26 11 –26 14.2
43	58791	B–12 1969	7 24 17 –13 5.3	6.77M			B9					9.96						1.0			7 26 36 –13 11.4
44	58902	B–13 2018	7 24 48 –13 16.9	10.0 M			B					11.80						1.0			7 27 7 –13 23.0
45	59026	C–33 3813	7 24 51 –34 2.3	5.90	–0.17	1.24C	B24s	8.97		6.85		7.06				1.0	1.0	1.0			7 26 43 –34 8.4
46	58978	B–22 1874	7 24 52 –22 59.0	5.6	–0.11	–0.94	B04*	8.36	.13	7.46		6.55	.35			3.0	1.0	3.0			7 26 59 –23 5.1
47	59197	C–41 3077	7 25 21 –41 31.6	7.9 M	7.8 G		B8					10.99	.18					3.0			7 27 0 –41 37.7
48	59074	B–18 1846	7 25 21 –18 23.4	7.4 M			A0 c			9.05							1.0				7 27 34 –18 29.6
49	59138	C–26 4389	7 25 32 –26 55.3	8.6 M			B8			9.87							1.0				7 27 34 –27 1.5
50	59136	B–22 1878	7 25 35 –22 45.4	5.98	–0.12	–0.48	B8					8.33	.18					3.0			7 27 43 –22 51.6
51	59094	B–15 1837	7 25 35 –15 59.5	8.44	0.15	–0.70	B25*					10.76						1.0			7 27 51 –16 5.7
52	59162	B–21 1949	7 25 44 –21 46.6	8.8	–0.08	1.36C	B8 p					10.85						1.0			7 27 53 –21 52.8
53	59215	C–28 4378	7 25 49 –28 16.1	6.80M			B65			8.77		9.27					1.0	1.0			7 27 49 –28 22.3
54	59256	C–28 4383	7 26 0 –29 3.2	5.54	–0.07	–0.15	B9 s			8.57		9.38	.19				1.0	2.0			7 27 59 –29 9.4
55	59213	B–15 1843	7 26 4 –15 52.6	9.5 M			B9					11.66						1.0			7 28 20 –15 58.8
56	59212	B–12 1988	7 26 7 –12 51.2	8.4 M			A0					11.25						1.0			7 28 26 –12 57.4
57	59281	C–27 4108	7 26 11 –27 17.8	8.2 M			B5 s			10.12	.33						2.0				7 28 13 –27 24.0
58	59446	C–47 3072	7 26 16 –47 18.7	7.58	–0.08	–0.35	B75					10.97						1.0			7 27 42 –47 24.9
59	59346	C–26 4415	7 26 25 –27 7.5	9.0 M			B8 c			9.80							1.0				7 28 27 –27 13.7
60	59319	B–21 1955	7 26 28 –21 51.6	8.8 M	8.7 G		B8 s					10.06						1.0			7 28 37 –21 57.8
61	59364	C–26 4419	7 26 34 –26 22.9	8.7 M			B9					11.80						1.0			7 28 37 –26 29.1
62	59466	C–37 3601	7 26 37 –37 42.4	6.57	0.06	0.04	A0					10.67						1.0			7 28 23 –37 48.6
63	59530	C–43 3250	7 26 44 –43 51.6	7.8 M	7.2 G		B9			10.04							1.0				7 28 18 –43 57.8
64	59390	B–22 1889	7 26 47 –23 2.8	8.1 M			B9					10.44	.31					2.0			7 28 54 –23 9.0
65		B–13 2040	7 26 49 –13 39.9	8.8 M			B3 s					10.37						1.0			7 29 8 –13 46.2
66		B–13 2043	7 27 1 –13 54.4	9.8 M								11.75						1.0			7 29 19 –14 .7
67	59527	C–34 3634	7 27 6 –34 48.9	6.84M			B8			8.67	.38	8.71	.13				2.0	2.0			7 28 56 –34 55.2
68	59440	B–16 1973	7 27 7 –16 52.3	8.4 M			B8					11.17						1.0			7 29 22 –16 58.6
69	59525	C–23 5565	7 27 17 –23 49.1	9.0 M			A0					10.74						1.0			7 29 23 –23 55.4
70	59497	B–21 1962	7 27 19 –21 45.2	8.4 M			B3 *					7.82						1.0			7 29 28 –21 51.5
71	59635	C–38 3400	7 27 22 –38 42.5	5.42	–0.17	1.27C	B34			7.17		7.05					1.0	1.0			7 29 6 –38 48.8
72		B–13 2052	7 27 36 –14 3.0	8.4 M			B3					10.23						1.0			7 29 54 –14 9.3
73	59543	B–13 2051	7 27 36 –13 53.0	6.9 M			B25p					8.43						1.0			7 29 54 –13 59.3
74	59647	B–14 1932	7 28 1 –14 53.5	8.2 M			B8					10.04						1.0			7 30 18 –14 59.8
75	59674	B–18 1867	7 28 5 –18 19.6	8.6 M			B9					10.41						1.0			7 30 18 –18 25.9
76	59701	B–22 1902	7 28 9 –23 10.9	8.7 M			A0					11.22						1.0			7 30 16 –23 17.2
77	59868	C–44 3467	7 28 16 –44 48.4	7.91M			B5			10.32		10.33					1.0	1.0			7 29 48 –44 54.7
78	59869	C–46 3196	7 28 17 –46 35.0	7.36M			A0					10.61						1.0			7 29 45 –46 41.3
79	59700	B–17 2006	7 28 19 –17 13.0	8.6 M			B9					11.88						1.0			7 30 33 –17 19.4
80	59752	B–15 1869	7 28 32 –15 19.3	9.1 M			B9					11.84						1.0			7 30 49 –15 25.7
81	59773	B–21 1979	7 28 36 –21 42.2	8.2 M			B3 s					9.21						1.0			7 30 45 –21 48.6
82	59768	B–14 1939	7 28 37 –15 7.1	9.0 M			A0					11.91						1.0			7 30 54 –15 13.5
83	59814	C–23 5603	7 28 41 –23 25.1	8.7 M			B8					9.51						1.0			7 30 48 –23 31.5
84	59864	C–33 3879	7 28 42 –33 59.1	7.44M	7.3 G		B01p					8.83	.28					3.0			7 30 34 –34 5.5
85	59841	C–24 5514	7 28 51 –24 33.7	8.18	–0.15	–0.51	B8					10.55						1.0			7 30 56 –24 40.1
86	59913	C–34 3655	7 28 52 –34 51.5	8.69M	8.39G		B8					11.72						1.0			7 30 43 –34 57.9
87	59857	B–15 1875	7 29 1 –15 11.5	8.3 M			A0					11.90						1.0			7 31 18 –15 17.9
88	59934	B–16 1995	7 29 23 –17 5.4	8.6 M			B5			9.91		9.45					1.0	1.0			7 31 38 –17 11.8
89		C–25 4640	7 29 24 –25 47.6	9.5 M								12.31						1.0			7 31 28 –25 54.0
90	59986	B–16 1999	7 29 31 –16 53.2	9.3 M			O95					11.39						1.0			7 31 46 –16 59.6

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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	60014	B – 21 1988	7 29 36 – 21 53.0	8.7 M			B8			9.61		1.0		7 31 45 – 21 59.4
2	60098	C – 35 3650	7 29 37 – 36 2.8	6.68	– 0.12	1.28C	B53s		8.46	8.35		1.0 1.0		7 31 26 – 36 9.2
3	60057	C – 26 4492	7 29 38 – 26 47.6	8.5 M			B9		10.27	11.12		1.0 1.0		7 31 40 – 26 54.0
4	60007	B – 15 1882	7 29 40 – 15 18.0	9.3 M			A0			11.39		1.0		7 31 57 – 15 24.4
5	60049	B – 13 2076	7 29 53 – 14 1.5	8.8 M			B8			11.41		1.0		7 32 11 – 14 8.0
6	60168	C – 35 3652	7 29 54 – 35 46.8	6.63	– 0.08	1.38C	A0		8.82	8.50		1.0 1.0		7 31 43 – 35 53.2
7	60196	C – 28 4485	7 30 12 – 28 37.6	8.97	0.02	– 0.86	B03p			11.21		1.0		7 32 12 – 28 44.1
8	60195	C – 27 4194	7 30 12 – 27 48.2	8.3 M			B9 c		9.99			1.0		7 32 13 – 27 54.7
9	60312	C – 35 3659	7 30 33 – 35 51.2	6.33	– 0.10	1.36C	B9 p		8.50 .16	8.13		2.0 1.0		7 32 22 – 35 57.7
10	60283	C – 27 4206	7 30 37 – 27 37.8	9.3 M			A0			12.40		1.0		7 32 38 – 27 44.3
11	60431	C – 46 3219	7 30 40 – 46 50.1	8.8 M	8.2 G		B3			11.56		1.0		7 32 8 – 46 56.6
12	60429	C – 39 3388	7 30 52 – 39 53.6	8.35	– 0.06	– 0.72	B33		9.77			1.0		7 32 34 – 40 .1
13	60369	C – 28 4502	7 31 1 – 28 13.0	7.9 M			B3		9.81	10.02		1.0 1.0		7 33 2 – 28 19.5
14	60325	B – 14 1966	7 31 4 – 14 13.8	6.21	– 0.04	– 0.71	B15p			7.62		1.0		7 33 22 – 14 20.3
15	60415	B – 14 1971	7 31 30 – 14 24.9	4.99	1.42	0.31	*			9.95		1.0		7 33 48 – 14 31.5
16	60559	C – 39 3398	7 31 31 – 39 57.0	6.25	– 0.13	– 0.47	B8 s		8.62			1.0		7 33 13 – 40 3.6
17	60498	C – 33 3915	7 31 32 – 33 17.4	7.12M			B45			8.05		1.0		7 33 25 – 33 24.0
18	60479	C – 27 4229	7 31 33 – 27 52.1	8.41	0.34	– 0.66	B02p			12.33		1.0		7 33 34 – 27 58.7
19	60606	C – 36 3715	7 32 2 – 36 13.7	5.55	– 0.06	1.22C	B35*	8.58	7.53 .45	7.44		1.0 2.0 1.0		7 33 51 – 36 20.3
20	60553	B – 19 1950	7 32 2 – 20 1.7	6.81M			B25		8.73			1.0		7 34 13 – 20 8.3
21	60668	C – 37 3680	7 32 15 – 37 12.6	7.80M	7.48G		B8			9.94		1.0		7 34 2 – 37 19.2
22	60629	C – 25 4719	7 32 25 – 26 .4	6.64	0.0	1.49C	A0			10.69		1.0		7 34 29 – 26 7.0
23	60624	B – 13 2104	7 32 36 – 14 3.1	7.9 M			B9			10.16		1.0		7 34 54 – 14 9.7
24	60794	C – 46 3242	7 32 38 – 46 32.0	8.9 M	8.4 G		B5			10.68		1.0		7 34 7 – 46 38.6
25	60929	C – 44 3549	7 33 17 – 44 11.1	6.88M			A0			10.01 .11		2.0		7 34 51 – 44 17.8
26	60782	B – 14 1987	7 33 19 – 14 33.5	8.9 M			A0			11.62		1.0		7 35 37 – 14 40.2
27	60863	C – 28 4566	7 33 22 – 28 15.5	4.63	– 0.11	– 0.4	B8	8.66	7.56	7.04 .34		1.0 1.0 2.0		7 35 23 – 28 22.2
28	60861	C – 25 4750	7 33 29 – 26 2.5	7.74M			B9			11.15		1.0		7 35 33 – 26 9.2
29	60856	B – 14 1994	7 33 39 – 14 35.9	7.98			B9			10.25		1.0		7 35 57 – 14 42.6
30	60855	B – 14 1999	7 33 46 – 14 22.8	5.7	– 0.1	– 0.73	B24*			6.73		.3		7 36 4 – 14 29.5
31	61077	C – 46 3263	7 33 48 – 46 28.0	7.5 M	7.9 G		A0			11.36		1.0		7 35 17 – 46 34.7
32	61008	C – 35 3710	7 33 48 – 36 3.1	7.65M			B8			9.65		1.0		7 35 37 – 36 9.8
33	60945	B – 16 2041	7 34 2 – 17 4.8	8.9 M			B9			11.55		1.0		7 36 17 – 17 11.5
34	61087	C – 37 3709	7 34 9 – 37 20.0	7.26	– 0.08	1.42C	B9			10.14		1.0		7 35 56 – 37 26.7
35	60969	B – 14 2016	7 34 10 – 14 29.0	7.01	– 0.08	– 0.44	B9			8.58		.3		7 36 28 – 14 35.7
36	60998	B – 14 2021	7 34 18 – 14 22.3	6.39			B9 c			7.16		.3		7 36 36 – 14 29.1
37	61068	B – 19 1967	7 34 29 – 19 35.4	5.71	– 0.17	1.16C	B22p		7.19			1.0		7 36 41 – 19 42.2
38	61045	B – 14 2029	7 34 29 – 14 26.9	8.02	– 0.12	– 0.44	A0			9.94		.3		7 36 47 – 14 33.7
39	61193	C – 41 3191	7 34 36 – 41 58.2	8.13M			B3		9.17	9.50 .22		1.0 2.0		7 36 15 – 42 5.0
40	61209	C – 27 4310	7 35 3 – 27 18.5	7.13	0.32	– 0.20	B7		9.87	10.46 .00		1.0 2.0		7 37 5 – 27 25.3
41	61333	C – 44 3579	7 35 5 – 44 52.5	7.19	– 0.13	1.27C	B35		8.82	8.46		1.0 1.0		7 36 38 – 44 59.3
42	61207	B – 15 1941	7 35 17 – 15 34.1	7.9 M			B5			9.55 .03		2.0		7 37 34 – 15 40.9
43	61330	C – 34 3755	7 35 31 – 34 51.3	4.52	– 0.09	– 0.30	B85*			7.00		1.0		7 37 22 – 34 58.1
44	61351	C – 27 4324	7 35 43 – 27 10.1	8.52	– 0.08	– 0.30	B7			11.41		1.0		7 37 45 – 27 16.9
45	61492	C – 26 4701	7 36 28 – 26 28.9	8.8 M			B9			10.35		1.0		7 38 31 – 26 35.8
46	61512	C – 26 4703	7 36 36 – 26 12.1	7.5 M			B9			9.49		1.0		7 38 40 – 26 19.0
47	61623	C – 39 3463	7 36 41 – 39 52.6	6.58	– 0.05	– 0.16	A0		9.40 .03	9.71		2.0 1.0		7 38 24 – 39 59.5
48	61555	C – 26 4707	7 36 46 – 26 41.2	3.81	– 0.17	– 0.55	*	6.97		6.00		1.0 .3		7 38 49 – 26 48.1
49	61554	B – 18 1946	7 36 54 – 18 33.8	6.72	– 0.10	– 0.51	B65s			8.70		1.0		7 39 7 – 18 40.7
50	61641	C – 36 3773	7 36 55 – 36 22.9	5.79	– 0.17	1.23C	B24		7.99			1.0		7 38 44 – 36 29.8
51		C – 43 3424	7 37 1 – 43 26.1	9.0 M	9.0 G					11.04		1.0		7 38 37 – 43 33.0
52	61590	B – 17 2078	7 37 8 – 18 7.9	9.1 M			B9			11.70		1.0		7 39 22 – 18 14.8
53	61672	C – 26 4722	7 37 24 – 26 44.8	6.50	– 0.16	– 0.49	B8 c			7.93		.3		7 39 27 – 26 51.8
54	61831	C – 38 3531	7 37 42 – 38 11.5	4.84	– 0.20	– 0.64	B25s		6.53			.3		7 39 28 – 38 18.5
55	61966	P – 52 1242	7 37 48 – 53 9.5	6.05	– 0.12	– 0.40	A0 s		8.19			1.0		7 39 0 – 53 16.5
56	61878	C – 37 3767	7 37 58 – 38 1.4	5.73	– 0.13	1.31C	B55*		7.64			1.0		7 39 44 – 38 8.4
57	61899	C – 37 3768	7 38 2 – 38 8.7	5.75	– 0.07	1.28C	B25s		7.78			.3		7 39 48 – 38 15.7
58	61946	C – 42 3396	7 38 5 – 43 9.8	7.34M			A0		9.56	9.60		1.0 1.0		7 39 42 – 43 16.8
59	61926	C – 38 3538	7 38 7 – 38 25.9	7.97	– 0.06	1.33C	B8		9.71			1.0		7 39 52 – 38 32.9
60	61925	C – 37 3770	7 38 11 – 37 27.8	5.99	– 0.04	– 0.45	B34s		8.33 .12	8.90 .37		2.0 2.0		7 39 58 – 37 34.8
61	61944	C – 29 4751	7 38 28 – 29 57.7	6.92	0.00	– 0.06	B85c		8.66			1.0		7 40 27 – 30 4.7
62	61987	C – 27 4393	7 38 42 – 27 49.7	6.55M	– 0.18	– 0.71	B8		8.63 .22	8.75 .18		2.0 2.0		7 40 44 – 27 56.7
63	62032	C – 29 4767	7 38 53 – 29 53.6	8.3 M			B9 c		10.06			1.0		7 40 52 – 30 .6
64	61957	B – 16 2081	7 38 55 – 17 1.6	8.2 M			B8			9.95		1.0		7 41 10 – 17 8.7
65	62212	C – 42 3413	7 39 21 – 43 4.0	7.46M			B9		9.89 .12	9.59		2.0 1.0		7 40 58 – 43 11.1
66	62227	C – 38 3558	7 39 30 – 39 7.1	7.73	– 0.05	1.43C	B9			10.88		1.0		7 41 14 – 39 14.2
67	62226	C – 38 3556	7 39 30 – 38 24.9	5.41	– 0.16	1.29C	B55		7.47			1.0		7 41 16 – 38 32.0
68	62191	C – 26 4779	7 39 37 – 27 6.9	7.9 M			B8 c			10.60 .09		2.0		7 41 40 – 27 14.0
69	62278	C – 40 3322	7 39 41 – 41 2.8	7.3 M	7.3 G		B9		9.54			1.0		7 41 22 – 41 9.9
70	62318	C – 44 3655	7 39 48 – 44 30.8	6.40	0.00	1.40C	B9		9.46			1.0		7 41 22 – 44 37.9
71	62317	C – 43 3471	7 39 49 – 43 31.0	7.26M			A0		10.34			1.0		7 41 25 – 43 38.1
72	62376	C – 38 3564	7 40 12 – 38 24.6	6.54	– 0.09	1.35C	B75c		8.69			1.0		7 41 58 – 38 31.7
73	62312	C – 26 4806	7 40 16 – 27 3.9	8.4 M	7.3 G		B8 c			10.81		1.0		7 42 19 – 27 11.0
74	62359	C – 29 4812	7 40 21 – 30 7.3	8.15M	7.64G		B9 c		8.47			1.0		7 42 20 – 30 14.4
75	62358	C – 27 4429	7 40 24 – 27 36.6	7.6 M			B9			10.49 .32		2.0		7 42 26 – 27 43.8
76	62414	C – 35 3796	7 40 32 – 36 1.8	8.2 M	7.78G		A0		10.60	10.12		1.0 1.0		7 42 22 – 36 9.0
77	62447	C – 36 3820	7 40 45 – 36 15.3	7.60M	7.26G		B8		9.61	9.22		1.0 1.0		7 42 34 – 36 22.5
78	62503	C – 38 3575	7 40 46 – 39 4.9	7.26	– 0.08	1.42C	B9		9.82	10.02		1.0 1.0		7 42 31 – 39 12.1
79	62445	C – 28 4750	7 40 53 – 28 38.6	8.6 M			B9			11.71		1.0		7 42 54 – 28 45.8
80	62541	C – 40 3348	7 40 57 – 40 30.4	8.9 M	8.4 G		B8			10.86		1.0		7 42 39 – 40 37.6
81	62560	C – 42 3445	7 41 4 – 42 26.8	7.3 M	7.4 G		B8		9.18			1.0		7 42 42 – 42 34.0
82	62578	C – 35 3809	7 41 22 – 35 55.8	5.58	– 0.14	1.29C	B8 s		7.64	7.17		1.0 1.0		7 43 12 – 36 3.0
83	62642	C – 37 3815	7 41 44 – 37 37.8	7.59	0.01	0.02	A0			11.02		1.0		7 43 31 – 37 45.0
84	62659	C – 36 3832	7 41 48 – 36 58.1	8.50M	8.20G		B8			11.18		1.0		7 43 36 – 37 5.3
85	62623	C – 28 4774	7 41 48 – 28 50.1	3.96	0.18	– 0.1	A21s		9.00	10.45		1.0 1.0		7 43 48 – 28 57.3
86	62712	C – 37 3820	7 41 56 – 38 4.9	6.41	– 0.15	– 0.48	B95s			8.45 .36		2.0		7 43 42 – 38 12.1
87	62640	C – 28 4777	7 41 57 – 28 18.6	8.5 M			B9			10.25		1.0		7 43 58 – 28 25.9
88	62738	C – 41 3320	7 42 3 – 41 15.9	8.6 M	8.7 G		B8		10.23	10.71		1.0 1.0		7 43 44 – 41 23.1
89	62752	C – 39 3531	7 42 3 – 39 45.2	8.65M			B9			11.67		1.0		7 43 46 – 39 52.5
90	62753	C – 40 3379	7 42 5 – 40 11.3	6.60	– 0.10	– 0.84	B25s		7.94 .13	7.59		2.0 1.0		7 43 48 – 40 18.6

	OBJ	PHOT	S–PEC	REMARKS	REFERENCES
1					897 922
2			P		897 A19 158 419 884 901 922 A27 A42 A48
3					897 922
4					898 922
5					897 922
6					897 A19 884 901 922
7		P			897 A19 001 002 922 A42
8				W/ – 27 4195	897 922
9		B			897 A19 884 901 922
10					899 922
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12					897 922 A48
13					897 922
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16			PA		897 A19 158 884 901 922 A27 A48
17					897 922 A48
18		P			897 A19 001 002 922 A42
19		0	PENBH		897 A19 158 342 419 884 901 922 969 A27 A42 A48
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21					897 922
22					897 A19 158 884 901 922
23					897 922
24					897 922
25					897 922
26					897 922
27					897 A19 158 397 781 841 884 901 921 922 A38
28					897 922
29					897 A19 922
30		BP	EN		897 A19 002 012 013 260 341 584 884 901 922 A42 A48
31					897 922
32					897 922
33					897 922
34					897 A19 922
35					897 A19 922
36				W/ – 14 2025	897 A19 922
37		U			897 008 012 419 488 884 901 922 A42 A43 A48 A68
38					897 A19 922
39					897 922
40					897 922 A38
41					897 A19 158 922 A42
42					897 419 922 A07
43		B		SB	897 A19 008 158 508 781 884 901 921 922 A42
44					897 922 A38
45					897 922
46					897 922
47					897 A19 158 884 901 922
48		B	N	W/HD 61556,B8 + B3	897 A19 158 419 699 884 901 921 922 A27 A48
49			N		897 A19 397 884 901 922 A48 A72
50					897 A19 158 419 884 901 922 A27 A48
51					897
52					897 922
53				W/ – 26 4723	897 A19 884 901 922 A68
54			N		897 A19 158 419 884 901 921 922 A27 A48
55			A		897 A19 158 884 901 922
56		B	N		897 A19 884 901 922 A27 A48
57			N		897 A19 158 419 884 901 922 A27 A48
58					897 922
59					897 A19 922
60			N		897 A19 158 419 884 901 922 A27 A42 A48
61				W/ – 29 4752	897 922 A48 A38
62					897 A19 397 884 901 922
63				W/ – 29 4784	897 922
64					897 922
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66					897 A19 922
67					897 A19 419 842 884 901 922 A27 A48
68				W/ – 26 4784	897 922
69					897 922
70					897 884 901 922 A68
71					897 922
72				W/ – 38 3569	897 A19 884 901 922 A27 A48
73				W/ – 26 4784	897 922
74				W/ – 29 4813	897 922
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78					897 A19 922
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80					897 922
81					899 922
82			N		897 A19 884 901 922
83					899 A19 922
84					897 922
85			PEG		897 A19 026 158 341 508 781 783 884 901 921 922 A27 A38 A42 A48 A67
86			P		897 A19 884 901 922 A27 A48 A73
87					897 922
88					897 922
89					897 922
90			EN		897 A19 342 793 922 A42 A48

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	62737	C – 37 3826	7 42 5 – 37 36.0	8.06	– 0.03	– 0.52	B8					10.87	.65					2.0			7 43 52 – 37 43.3
2	62803	C – 38 3598	7 42 17 – 38 41.8	7.38	– 0.06	1.43C	B9			9.80		10.50	.09				1.0	2.0			7 44 2 – 38 49.1
3	62781	C – 35 3825	7 42 20 – 35 56.6	5.80	0.32	1.60C	F25			10.99							1.0				7 44 10 – 36 3.9
4		B – 19 2040	7 42 31 – 19 35.1	9.4 M								12.14						1.0			7 44 43 – 19 42.4
5	62875	C – 37 3837	7 42 40 – 37 32.5	8.29	– 0.03	– 0.27	B8					11.11						1.0			7 44 27 – 37 39.8
6	62893	C – 37 3841	7 42 47 – 37 49.3	5.87	– 0.12	– 0.36	B75*	8.55				8.83	.41			1.0		1.3			7 44 34 – 37 56.6
7	62938	C – 37 3847	7 42 58 – 37 55.9	7.59	– 0.02	1.48C	A0					10.56						1.0			7 44 45 – 38 3.2
8	62961	C – 38 3611	7 43 1 – 38 53.7	8.10	0.04	1.52C	A2					11.93						1.0			7 44 46 – 39 1.0
9	63006	C – 40 3410	7 43 14 – 40 20.5	8.5 M	8.2 G		B5					11.00						1.0			7 44 57 – 40 27.8
10	63052	C – 45 3427	7 43 15 – 45 50.9	9.2 M	8.5 G		A0					11.05						1.0			7 44 47 – 45 58.2
11	62991	C – 37 3861	7 43 18 – 37 45.9	6.51	– 0.11	– 0.62	B53s	9.00				8.90	.35			1.0		1.3			7 45 5 – 37 53.2
12	63080	C – 39 3565	7 43 37 – 39 13.4	7.18	– 0.03	1.45C	A0			10.13		10.52					1.0	1.0			7 45 22 – 39 20.8
13	63177	P – 52 1273	7 43 39 – 52 50.0	8.46M			B5			9.73							1.0				7 44 53 – 52 57.3
14	63079	C – 37 3868	7 43 40 – 37 28.4	7.0	– 0.07	– 0.10	A0	9.19				9.83	.54			1.0		3.0			7 45 28 – 37 35.8
15	63118	C – 43 3534	7 43 42 – 43 37.8	6.02	– 0.08	– 0.41	B64			9.04	.44	8.74					3.0	1.0			7 45 18 – 43 45.2
16	63153	C – 44 3709	7 43 51 – 44 45.6	7.37M			A0					11.73						1.0			7 45 25 – 44 53.0
17	63175	C – 44 3710	7 44 1 – 44 15.1	9.1 M	8.5 G		A0					11.01	.11					2.0			7 45 36 – 44 22.5
18	63150	C – 36 3865	7 44 6 – 36 22.5	8.4 M	8.7 G		O s			11.43							1.0				7 45 55 – 36 29.9
19	63215	C – 37 3886	7 44 23 – 37 48.6	5.9	– 0.11	– 0.47	B75c	9.04	.37			7.79	.37			2.0		2.3			7 46 10 – 37 56.0
20	63343	C – 45 3444	7 44 47 – 46 2.2	7.9 M	7.4 G		B5					9.43						1.0			7 46 18 – 46 9.6
21	63308	C – 39 3587	7 44 50 – 39 56.2	6.56	– 0.13	1.24C	B35	8.43		8.21		7.71				1.0	1.0	1.0			7 46 33 – 40 3.6
22	63270	B – 19 2062	7 45 7 – 19 48.5	8.6 M			A0					10.76						1.0			7 47 19 – 19 56.0
23	63401	C – 39 3595	7 45 21 – 39 12.4	6.31	– 0.17	1.30C	B9			8.19		8.11					1.0	1.0			7 47 6 – 39 19.9
24	63425	C – 41 3384	7 45 26 – 41 22.7	6.93	– 0.18	1.15C	B1			7.79							1.0				7 47 7 – 41 30.2
25	63467	C – 43 3569	7 45 34 – 43 16.2	7.5 M	7.2 G		B8 c			9.85	.05	9.35					2.0	1.0			7 47 11 – 43 23.7
26	63358	B – 19 2066	7 45 34 – 19 51.6	8.6 M			B8					9.39						1.0			7 47 46 – 19 59.1
27	63531	C – 49 3062	7 45 36 – 50 3.6	7.07	0.04	1.29C	B55s			9.19							1.0				7 46 58 – 50 11.1
28	63357	B – 19 2067	7 45 36 – 19 26.2	9.0 M			A0					10.30						1.0			7 47 49 – 19 33.7
29	63465	C – 38 3650	7 45 39 – 38 23.2	5.08	– 0.11	1.24C	B23p					6.47	.12					1.3			7 47 25 – 38 30.7
30	63563	P – 52 1278	7 45 40 – 52 13.3	7.10M			B9			8.99							1.0				7 46 56 – 52 20.8
31	63488	C – 37 3914	7 45 49 – 37 53.1	8.28	0.07	1.40C	B8					11.17						1.0			7 47 36 – 38 .6
32	63578	C – 46 3435	7 46 1 – 46 29.0	5.2	– 0.14	– 0.85	B15p			8.54							1.0				7 47 32 – 46 36.5
33	63579	C – 46 3437	7 46 5 – 46 53.3	7.14M			B8			9.33							1.0				7 47 35 – 47 .8
34	63666	P – 53 1432	7 46 10 – 53 12.5	7.62M			B9					10.46						1.0			7 47 24 – 53 20.0
35	63577	C – 39 3621	7 46 12 – 39 45.4	8.64M	8.10G		B9					10.97						1.0			7 47 56 – 39 52.9
36	63604	C – 41 3405	7 46 18 – 41 28.9	8.3 M	8.3 G		B8			10.00		10.99					1.0	1.0			7 47 59 – 41 36.4
37	63602	C – 37 3922	7 46 23 – 37 33.1	8.34	0.02	1.39C	A0					11.27						1.0			7 48 11 – 37 40.6
38	63641	C – 42 3541	7 46 31 – 42 22.9	8.2 M	7.7 G		A0					10.74	.16					2.0			7 48 10 – 42 30.4
39	63787	C – 45 3471	7 47 2 – 45 20.3	7.90M			B8					10.24						1.0			7 48 35 – 45 27.9
40	63806	C – 42 3557	7 47 14 – 43 11.1	7.11	– 0.14	1.25C	B33			8.84	.25	8.66	.11				2.0	2.0			7 48 52 – 43 18.7
41	63786	C – 34 3970	7 47 23 – 35 7.0	5.94	– 0.07	1.44C	A0					9.32						1.0			7 49 15 – 35 14.6
42	63868	C – 40 3512	7 47 32 – 40 34.5	6.50	– 0.15	1.24C	B55			8.70		7.69					1.0	1.0			7 49 15 – 40 42.1
43	63949	C – 46 3460	7 47 42 – 46 43.9	5.84	– 0.15	1.18C	B14p			7.86							1.0				7 49 12 – 46 51.5
44	63922	C – 46 3458	7 47 43 – 46 14.8	4.10	– 0.19	– 1.01	B13p			6.10							1.0				7 49 14 – 46 22.4
45	63884	C – 42 3566	7 47 43 – 42 33.2	9.0 M	8.2 G		B9					11.15						1.0			7 49 22 – 42 40.8
46	63967	C – 39 3663	7 48 1 – 39 36.3	8.5 M			A2 c					10.74	.07					2.0			7 49 45 – 39 43.9
47	63988	C – 40 3527	7 48 10 – 40 47.2	7.1 M	6.8 G		B8					9.77						1.0			7 49 52 – 40 54.8
48	64013	C – 41 3437	7 48 17 – 42 1.1	8.19M			B9					10.55						1.0			7 49 57 – 42 8.8
49	64028	C – 35 3935	7 48 36 – 36 6.8	7.05M			B9 c					9.26						1.0			7 50 26 – 36 14.5
50	64086	C – 32 4472	7 48 52 – 32 52.1	8.94M	8.53G		B9			11.68		12.00					1.0	1.0			7 50 47 – 32 59.8
51	64138	C – 39 3689	7 48 58 – 39 35.9	8.8 M			B8					10.77	.23					2.0			7 50 42 – 39 43.6
52	64202	C – 47 3353	7 49 4 – 48 9.6	8.4 M	7.5 G		B5					10.14						1.0			7 50 31 – 48 17.3
53	64102	C – 34 4003	7 49 4 – 34 13.2	8.50M	8.2 G		B9			10.77		11.15					1.0	1.0			7 50 57 – 34 20.9
54	64249	C – 48 3244	7 49 14 – 48 24.9	7.92M			A0					10.93						1.0			7 50 41 – 48 32.6
55	64287	C – 42 3601	7 49 42 – 42 58.0	6.31	– 0.18	– 0.75	B24					7.80						1.0			7 51 20 – 43 5.7
56	64318	C – 46 3491	7 49 44 – 47 5.2	6.54	– 0.12	1.25C	B33					7.99						1.0			7 51 14 – 47 12.9
57	64301	C – 31 5165	7 50 0 – 31 30.4	7.72	– 0.10	– 0.41	B8			10.17							1.0				7 51 57 – 31 38.2
58	64365	C – 42 3610	7 50 1 – 42 45.5	6.04	– 0.19	1.18C	B24					7.65						1.0			7 51 40 – 42 53.3
59	64379	C – 34 4036	7 50 24 – 34 34.7	5.02	0.45	– 0.06	F55p			11.44	.13						2.0				7 52 17 – 34 42.5
60	64440	C – 40 3579	7 50 30 – 40 26.8	3.71	1.03	0.8	G53					10.79	.07					3.0			7 52 13 – 40 34.6
61	64458	C – 41 3486	7 50 34 – 42 11.6	7.92M			B8 c			9.43		9.64					1.0	1.0			7 52 14 – 42 19.4
62	64526	C – 48 3264	7 50 37 – 48 44.3	8.3 M	8.3 G		B9					11.25						1.0			7 52 3 – 48 52.1
63	64578	C – 48 3270	7 50 51 – 48 33.3	9.0 M	8.5 G		B9					11.12						1.0			7 52 18 – 48 41.1
64	64503	C – 38 3769	7 50 52 – 38 43.9	4.48	– 0.20	– 0.68	B34*	7.34		6.35	.17	5.85		6.54	.20	1.0	5.0	1.0	4.0		7 52 38 – 38 51.7
65	64577	C – 47 3384	7 50 57 – 47 15.7	8.6 M	8.1 G		A0					10.76						1.0			7 52 27 – 47 23.5
66	64722	P – 54 1420	7 51 18 – 54 14.2	5.69	– 0.16	1.17C	B23					6.14						1.0			7 52 30 – 54 22.0
67	64717	C – 50 3022	7 51 28 – 50 23.4	7.10	0.03	1.28C	B35					8.72						1.0			7 52 50 – 50 31.3
68	64761	P – 52 1315	7 51 35 – 52 50.4	7.38M	7.1 G		B9					10.76	.01					1.3			7 52 51 – 52 58.3
69	64716	C – 44 3823	7 51 37 – 45 5.3	8.1 M	8.0 G		A0					10.71						1.0			7 53 11 – 45 13.2
70	64740	C – 49 3137	7 51 39 – 49 28.9	4.62	– 0.23	– 0.92	B23	7.66	.46			6.37	.23			2.0		3.0			7 53 4 – 49 36.8
71	64760	C – 47 3396	7 51 50 – 47 58.3	4.23	– 0.15	– 0.99	B21p	6.98		6.07	.20	5.84				1.0	2.0	1.0			7 53 18 – 48 6.2
72	64777	C – 33 4283	7 52 11 – 33 53.4	7.39M	7.05G		A0			10.07	.41	10.45					2.0	1.0			7 54 5 – 34 1.3
73	64825	C – 40 3608	7 52 15 – 40 51.1	8.9 M	8.3 G		A0					11.83						1.0			7 53 58 – 40 59.0
74	64882	C – 48 3292	7 52 19 – 48 39.8	9.1 M	8.3 G		B8					10.99						1.0			7 53 46 – 48 47.7
75	64802	C – 35 4002	7 52 20 – 35 44.7	5.49	– 0.20	1.22C	B25	7.63				6.43				1.0		1.0			7 54 11 – 35 52.6
76	64908	C – 50 3030	7 52 21 – 50 47.0	8.5 M	8.0 G		B9					11.32	.01					2.0			7 53 42 – 50 54.9
77	64827	C – 41 3520	7 52 21 – 41 34.3	6.89M			B9					9.87	.30	10.25				2.0	1.0		7 54 2 – 41 42.2
78	64905	C – 44 3838	7 52 35 – 45 9.7	8.1 M	8.0 G		B9					11.24						1.0			7 54 9 – 45 17.6
79	64901	C – 40 3618	7 52 39 – 40 43.5	8.6 M	8.3 G		A0					11.50						1.0			7 54 22 – 40 51.4
80	64898	C – 31 5226	7 52 53 – 31 24.1	7.17M	7.4 G		B8			9.22							1.0				7 54 51 – 31 32.1
81	65038	C – 49 3165	7 53 1 – 50 2.3	7.48	– 0.13	1.25C	B55					9.06						1.0			7 54 24 – 50 10.3
82	64996	C – 40 3626	7 53 2 – 40 54.2	9.6 M			B9					11.80						1.0			7 54 45 – 41 2.2
83	65058	C – 49 3167	7 53 4 – 49 33.2	8.9 M	8.4 G		B8					11.24						1.0			7 54 29 – 49 41.2
84	65074	C – 45 3558	7 53 17 – 45 31.9	7.30M			A0					9.39						1.0			7 54 51 – 45 39.9
85	65113	C – 49 3175	7 53 27 – 49 33.1	8.5 M	8.3 G		B9					11.21						.3			7 54 52 – 49 41.1
86	65189	P – 52 1333	7 53 43 – 52 27.0	6.37	– 0.01	1.38C	B9					9.40	.19					2.0			7 55 0 – 52 35.0
87	65147	C – 38 3829	7 53 56 – 38 12.2	7.96M	7.72G		B8					11.01						1.0			7 55 43 – 38 20.2
88	65162	C – 35 4030	7 54 8 – 35 46.8	8.21M	8.07G		B8					11.00						1.0			7 55 59 – 35 54.8
89	65211	C – 43 3737	7 54 9 – 43 42.7	6.02	– 0.12	1.32C	B65*					8.03	.45					2.0			7 55 47 – 43 50.7
90	65270	C – 45 3574	7 54 17 – 45 50.8	6.70M			B5					8.16						1.0			7 55 50 – 45 58.8

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	65362	C–48 3318	7 54 38 –48 52.0	9.0 M	8.5 G		A0					11.14						1.0			7 56 4 –49 .1
2	65360	C–46 3588	7 54 39 –47 10.9	8.65M			A0					11.01						1.0			7 56 9 –47 19.0
3	65315	C–40 3655	7 54 41 –40 36.1	6.78	–0.19	1.22C	B25s			7.96		8.14	.28	8.60	.19		1.0	4.0	8.0		7 56 24 –40 44.2
4	65378	C–32 4612	7 55 13 –33 6.9	7.38M	6.93G		B9	9.68	.20	8.91	.18	8.87				2.0	2.0	1.0			7 57 8 –33 15.0
5	65492	C–47 3442	7 55 17 –47 20.0	8.67M			A0					10.32						1.0			7 56 47 –47 28.1
6	65440	C–40 3673	7 55 17 –41 3.7	8.0 M	8.0 G		B8					9.72		10.09	.03			1.0	2.0		7 57 0 –41 11.8
7	65460	C–43 3758	7 55 19 –43 21.9	5.37	–0.18	1.22C	B25s					7.27	.28					1.3			7 56 57 –43 30.0
8	65441	C–41 3565	7 55 19 –41 30.4	7.9 M	8.1 G		A0					11.80						1.0			7 57 1 –41 38.5
9	65575	P–52 1343	7 55 30 –52 50.8	3.46	–0.20	–0.64	B24	6.88	.00			5.67	.50			2.0		2.0			7 56 46 –52 58.9
10	65598	C–47 3457	7 55 51 –47 45.3	6.21	–0.10	1.32C	B55*			8.36	.28						4.0				7 57 20 –47 53.4
11	65622	C–45 3603	7 55 55 –46 11.5	7.07	–0.12	1.30C	B55s					8.63						1.0			7 57 28 –46 19.6
12	65620	C–43 3776	7 56 4 –43 21.8	9.2 M	7.6 G		B9 c					10.32	.35					1.3			7 57 42 –43 30.0
13	65658	C–46 3616	7 56 6 –46 27.4	7.42M			B5					8.37						1.0			7 57 38 –46 35.6
14	65656	C–41 3583	7 56 13 –41 30.3	7.9 M	7.3 G		B5					9.29	.03	9.40				2.0	1.0		7 57 55 –41 38.5
15	65615	C–37 4102	7 56 16 –37 26.6	7.64M	7.11G		B8			9.65		9.86					1.0	1.0			7 58 5 –37 34.8
16	65683	C–39 3839	7 56 27 –39 28.6	8.08M	7.77G		A0							9.25					1.0		7 58 13 –39 36.8
17	65852	P–57 1358	7 56 40 –57 20.6	7.16M			A0					10.28						1.0			7 57 43 –57 28.8
18	65818	C–48 3349	7 56 48 –49 6.5	4.10M	–0.18		*	7.32	.46			6.23	.36			3.0		1.3			7 58 14 –49 14.7
19	65817	C–47 3472	7 57 0 –47 15.3	8.2 M	8.0 G		B9					10.49						1.0			7 58 31 –47 23.5
20	65905	C–47 3480	7 57 20 –47 32.7	7.03M			B8			9.59	.33						2.0				7 58 50 –47 40.9
21	65848	C–39 3858	7 57 21 –39 17.0	7.6 M			A0							9.81	.22				5.0		7 59 7 –39 25.2
22	65930	C–48 3361	7 57 32 –48 14.3	6.84	–0.13	1.24C	B25			8.35	.09						2.0				7 59 0 –48 22.5
23		C–48 3363	7 57 36 –49 2.5	8.5 M	8.3 G							10.73						.3			7 59 3 –49 10.7
24	65888	C–36 4076	7 57 41 –37 9.9	7.35M			B8			9.25		9.49					1.0	1.0			7 59 31 –37 18.2
25	66005	C–49 3243	7 57 48 –49 50.4	6.43M			B24*					7.39						1.0			7 59 13 –49 58.7
26	66027	C–51 2791	7 57 49 –51 19.7	7.25M			B9					9.77						1.0			7 59 10 –51 28.0
27	66079	C–46 3655	7 58 15 –47 9.9	6.73M			B9			8.96	.22						2.0				7 59 46 –47 18.2
28	66059	C–33 4411	7 58 34 –33 59.1	7.56M	7.26G		A0			11.70							1.0				8 0 28 –34 7.4
29	66210	C–48 3384	7 58 48 –48 50.6	6.02	0.04	1.52C	A25			9.85	.44	10.41					2.0	.3			8 0 15 –48 58.9
30	66255	C–48 3388	7 59 1 –48 44.0	6.12	–0.11	1.28C	A0 *			8.07	.25	8.83	.06				2.0	1.3			8 0 29 –48 52.3
31	66230	C–34 4213	7 59 17 –34 31.1	8.14M	7.91G		B5			10.72							1.0				8 1 11 –34 39.5
32	66311	C–41 3648	7 59 27 –41 37.2	8.5 M	8.2 G		B9 s					10.30						1.0			8 1 9 –41 45.6
33	66441	P–53 1505	7 59 36 –54 .7	5.87	–0.13	1.29C	B8			7.58							1.0				8 0 50 –54 9.1
34	66293	C–35 4112	7 59 37 –35 14.4	7.60M	7.15G		B9			10.29		10.99					1.0	1.0			8 1 30 –35 22.8
35	66309	C–35 4114	7 59 44 –35 39.0	7.84	–0.04	–0.12	B8			11.19							1.0				8 1 36 –35 47.4
36	66358	C–36 4116	7 59 48 –37 8.6	5.95	0.14	1.57C	A2			10.56							1.0				8 1 38 –37 17.0
37	66383	C–32 4738	7 59 58 –33 9.6	8.28M	8.03G		B9			10.93		11.95					1.0	1.0			8 1 54 –33 18.0
38	66463	C–48 3403	7 59 59 –48 46.4	9.0 M	8.2 G		B9			10.02							1.0				8 1 27 –48 54.8
39	66403	C–34 4233	8 0 5 –35 9.8	8.52M	8.00G		B5			10.60		11.06					1.0	1.0			8 1 58 –35 18.2
40	66522	C–50 3111	8 0 12 –50 27.9	7.39M			B3			9.54							1.0				8 1 36 –50 36.3
41	66607	P–55 1419	8 0 22 –55 18.9	6.28	–0.14	1.27C	B8			8.09							1.0				8 1 32 –55 27.3
42	66500	C–36 4125	8 0 34 –36 41.8	7.92M	7.53G		B9			10.86		11.57					1.0	1.0			8 2 25 –36 50.2
43	66749	P–55 1424	8 0 57 –55 27.8	7.47M			A0			9.83							.3				8 2 7 –55 36.2
44	66582	C–32 4763	8 0 57 –33 .7	7.36M	6.98G		B3	9.66		9.37	.27	9.22				1.0	2.0	1.0			8 2 53 –33 9.2
45	66624	C–40 3776	8 1 2 –41 10.1	5.46	–0.10	1.32C	B9 *					8.57	.20	8.53	.01			8.0	2.3		8 2 45 –41 18.6
46	66768	P–55 1425	8 1 5 –55 24.0	6.82M			A0			8.48							.3				8 2 15 –55 32.5
47	66700	C–31 5452	8 1 32 –31 32.8	8.2 M	8.0 G		B8 s			10.61							1.0				8 3 30 –31 41.3
48	66811	C–39 3939	8 1 50 –39 51.7	2.3	–0.28	–1.1	O5 *	5.56	.25	3.68	.12	3.89	.32	3.12	.37	15.0	14.0	14.2	14.5		8 3 36 –40 .2
49	66810	C–35 4153	8 1 58 –35 22.2	8.44M	8.06G		B9			10.95		11.92					1.0	1.0			8 3 51 –35 30.7
50	67269	C–45 3741	8 3 35 –45 15.8	8.2 M	8.2 G		A c			12.05							1.0				8 5 11 –45 24.4
51	67341	C–46 3764	8 3 48 –46 50.1	6.18	–0.16	1.23C	B55s			8.06							1.0				8 5 21 –46 58.7
52	67243	C–33 4525	8 3 49 –33 25.5	6.01	0.91	1.83C	G5 p			11.64		12.22					1.0	1.0			8 5 45 –33 34.2
53	67295	C–35 4193	8 3 58 –35 50.2	8.18M	7.88G		B5			10.77		11.12	.19				1.0	2.0			8 5 50 –35 58.9
54	67385	C–44 4032	8 4 7 –45 1.6	6.94M			B5			9.17							1.0				8 5 43 –45 10.3
55	67334	C–34 4323	8 4 9 –34 36.6	8.19M	7.71G		B8			11.14	.38						2.0				8 6 3 –34 45.3
56		C–45 3762	8 4 19 –45 27.6	9.6 M	9.1 G					12.50							1.0				8 5 54 –45 36.3
57	67460	C–45 3765	8 4 31 –45 15.0	8.70M			A0			12.99							1.0				8 6 7 –45 23.7
58	67621	C–48 3480	8 5 12 –48 21.1	6.34	–0.21	1.20C	B33			7.58							1.0				8 6 41 –48 29.8
59	67609	C–44 4054	8 5 14 –44 54.3	9.8 M	9.1 G		A0			12.59							1.0				8 6 51 –45 3.0
60	67653	C–32 4880	8 5 50 –32 56.7	8.88M	8.60G		A2					12.41	.08					2.0			8 7 47 –33 5.5
61	67760	C–44 4068	8 5 57 –45 .1	8.5 M	7.4 G		A0	12.05	.27	10.41						2.0	1.0				8 7 34 –45 8.9
62	67678	C–31 5565	8 5 58 –31 57.4	9.1 M	8.9 G		A0			11.70							1.0				8 7 56 –32 6.2
63	67758	C–41 3784	8 6 1 –41 39.9	7.1 M	7.1 G		B3					9.44	.03					2.0			8 7 44 –41 48.7
64	67735	C–33 4582	8 6 4 –33 52.4	7.95M	7.69G		A0			11.98							1.0				8 7 59 –34 1.2
65	67778	C–32 4890	8 6 18 –33 11.6	7.53M	7.18G		B8			10.39		11.30	.02				1.0	2.0			8 8 14 –33 20.4
66	67777	C–32 4892	8 6 20 –32 58.9	9.3 M	8.6 G		A0			11.10		12.27					1.0	1.0			8 8 17 –33 7.7
67	67865	C–45 3799	8 6 22 –45 23.8	9.6 M	9.0 G		A0			12.63							1.0				8 7 58 –45 32.6
68	67954	P–54 1517	8 6 28 –54 40.7	8.50M			B5					10.49						1.0			8 7 41 –54 49.5
69	67891	C–44 4079	8 6 29 –45 11.3	10.5 M	9.9 G		A0			13.24							1.0				8 8 5 –45 20.1
70	67890	C–44 4078	8 6 29 –44 54.7	8.9 M	7.7 G		B9	11.70		10.28						1.0	1.0				8 8 6 –45 3.5
71	67951	C–45 3807	8 6 48 –45 38.9	9.6 M	8.4 G		B8	12.16		11.17						1.0	1.0				8 8 23 –45 47.7
72	67888	C–37 4288	8 6 48 –37 32.1	6.40	–0.05	1.30C	B53s	9.84		9.18	.05	8.56		9.28	.07	1.0	2.0	1.0	4.0		8 8 38 –37 40.9
73	67949	C–43 3977	8 6 52 –44 6.9	9.2 M	8.8 G		B9	11.73	.43							.5					8 8 31 –44 15.7
74	67982	C–44 4089	8 6 54 –44 59.2	10.9 M	9.3 G		B9			12.11							1.0				8 8 31 –45 8.0
75	67981	C–43 3978	8 6 57 –44 12.0	8.6 M	7.8 G		B9	12.51		10.79						.3	.3				8 8 35 –44 20.8
76	68007	C–45 3809	8 6 58 –46 6.8	9.1 M	8.5 G		B9	12.16								1.0					8 8 33 –46 15.6
77	67924	C–32 4905	8 6 59 –33 5.9	7.73M	7.34G		B5			10.11	.30	10.43	.11				4.0	2.0			8 8 56 –33 14.7
78	68006	C–44 4093	8 7 6 –44 17.2	9.2 M	8.0 G		B8	12.11	.55	11.23						.5	.3				8 8 44 –44 26.0
79	68034	C–45 3811	8 7 7 –45 15.0	8.5 M	9.5 G		A0	12.31		11.65						1.0	1.0				8 8 43 –45 23.8
80		C–44 4095	8 7 13 –44 35.6	8.0 M	7.5 G					13.33							1.0				8 8 51 –44 44.5
81		C–45 3815	8 7 18 –45 18.9	10. M						12.97							1.0				8 8 54 –45 27.8
82	68030	C–37 4297	8 7 21 –37 39.0	8.28M	7.93G		B5			10.68							1.0				8 9 11 –37 47.9
83	68185	C–44 4104	8 7 50 –44 26.1	10.2 M	9.6 G		A0			13.47							1.0				8 9 28 –44 35.0
84	68218	C–45 3826	8 7 52 –45 41.4	10.9 M	9.6 G		B9			13.28							1.0				8 9 28 –45 50.3
85	68217	C–43 3998	8 7 57 –43 58.5	5.20	–0.20	1.22C	B24	8.02	.07	6.53						2.0	1.0				8 9 36 –44 7.4
86	68273	C–46 3847	8 7 59 –47 11.3	1.8	–0.3	–0.92	*	5.72	.34							3.0					8 9 31 –47 20.2
87	68324	C–47 3653	8 8 12 –47 47.3	5.24	–0.22	1.15C	B35s	7.83	.22	6.97		6.64				3.0	1.0	1.0			8 9 43 –47 56.2
88	68322	C–43 4002	8 8 23 –44 11.8	8.9 M	7.5 G		B8	11.44	.22							2.0					8 10 2 –44 20.7
89	68266	C–32 4930	8 8 23 –32 53.8	8.36M	7.88G		B9			10.05							1.0				8 10 20 –33 2.7
90	68395	C–47 3657	8 8 30 –47 40.2	8.09M			B5			8.67		10.57					.3	1.0			8 10 1 –47 49.1

	OBJ	PHOT	S–PEC	REMARKS	REFERENCES
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29					897 A19 158 884 901 922 A48
30			PA	W/ – 48 3381,3385	897 A19 753 884 901 922 A42
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35					897 922 A38
36					897 A19 158 884 901 922
37					897 922
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40					897 922
41					897 884 901 922 A73
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45		B	PA		897 884 901 922 A73
46					897 922
47			E		897 342 922
48		US	ESR		897 A19 007 008 012 022 158 336 350 419 530 783 793 895 921 927 932 A27 A43 A58
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86		UBO	P	W/ – 46 3846,WC7 + 07	897 A19 006 008 158 419 488 530 783 793 822 884 901 921 922 932 969 A42 A43 A46
87			EN		897 419 884 901 922 A27 A42 A48 A73
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90					897 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	68300	C – 36 4279	8 8 30 – 37 1.9	8.58M	8.10G		B5		10.31			1.0		8 10 21 – 37 10.8
2	68369	C – 44 4116	8 8 34 – 44 44.7	10.0 M	9.4 G		A0		13.16			1.0		8 10 12 – 44 53.6
3	68394	C – 45 3842	8 8 35 – 45 38.1	11.5 M	9.9 G		B8		12.97			1.0		8 10 11 – 45 47.0
4	68417	C – 44 4118	8 8 44 – 44 28.0	10.5 M	9.0 G		B8	12.26 .00	11.52 .03			2.0 2.0		8 10 22 – 44 36.9
5	68451	C – 48 3552	8 8 47 – 48 53.2	7.33	–0.14	1.26C	B23c		8.87	8.80		1.0 .3		8 10 16 – 49 2.1
6	68364	C – 32 4939	8 8 50 – 32 27.3	8.16M	7.95G		A0		11.90			1.0		8 10 48 – 32 36.3
7	68478	C – 48 3556	8 8 52 – 49 5.3	6.47	–0.15	1.25C	B3 c		7.82	7.12		1.0 .3		8 10 20 – 49 14.2
8	68477	C – 47 3664	8 8 53 – 47 55.0	8.9 M	8.2 G		B9		10.76			1.0		8 10 24 – 48 4.0
9	68476	C – 45 3849	8 8 57 – 45 51.3	9.6 M	8.1 G		B9	11.70	11.22			1.0 1.0		8 10 32 – 46 .3
10	68474	C – 38 4155	8 9 9 – 38 55.7	7.46M	7.06G		B74		9.76	10.93		1.0 1.0		8 10 57 – 39 4.7
11	68450	C – 36 4291	8 9 11 – 37 8.6	6.44	–0.02	–0.84	B02p	9.45	8.38 .09			1.0 2.0		8 11 2 – 37 17.6
12	68539	C – 43 4015	8 9 21 – 44 10.1	9.6 M	9.1 G		A2		12.92 .16			1.3		8 11 0 – 44 19.1
13	68554	C – 45 3857	8 9 23 – 45 42.1	9.0 M	8.1 G		B9	11.23	10.79			1.0 1.0		8 10 59 – 45 51.1
14	68633	C – 50 3193	8 9 29 – 51 2.5	7.9 M	8.4 G		B5			11.24		1.0		8 10 53 – 51 11.5
15	68511	C – 37 4341	8 9 29 – 37 18.7	8.76M	8.40G		B8		10.16			1.0		8 11 20 – 37 27.7
16	68608	C – 48 3574	8 9 31 – 49 8.1	7.89	–0.11	1.30C	B53		9.89	10.19		1.0 .3		8 10 59 – 49 17.1
17	68657	C – 48 3576	8 9 41 – 48 18.7	5.83	–0.16	1.28C	B35	8.60	7.62 .00	7.31		1.0 2.0 1.0		8 11 11 – 48 27.7
18	68552	C – 31 5661	8 9 44 – 32 .2	9.11M	9.05G		B3		10.81			1.0		8 11 42 – 32 9.2
19	68571	C – 36 4308	8 9 45 – 37 3.8	9.38M	8.86G		B8		10.74			1.0		8 11 36 – 37 12.8
20	68572	C – 37 4352	8 9 47 – 37 13.8	8.24M	8.00G		B5		9.44 .13			2.0		8 11 38 – 37 22.8
21		C – 44 4142	8 9 54 – 44 27.9	10. M					13.52			1.0		8 11 32 – 44 36.9
22	68697	C – 45 3872	8 9 58 – 46 5.0	8.30M			A0				9.50	1.0		8 11 33 – 46 14.0
23	68678	C – 38 4164	8 10 4 – 38 49.0	8.46M	8.14G		A0		11.14			1.0		8 11 52 – 38 58.0
24	68695	C – 43 4022	8 10 5 – 43 56.2	10.2 M	9.6 G		A0		13.20			1.0		8 11 44 – 44 5.2
25	68718	C – 43 4023	8 10 8 – 44 5.4	9.1 M	8.2 G		A0	12.29 .39	11.19			2.0 1.0		8 11 47 – 44 14.4
26	68737	C – 44 4148	8 10 12 – 44 45.5	10.0 M	9.2 G		B9	11.97 .24	11.57 .20			2.0 2.0		8 11 50 – 44 54.5
27	68765	C – 49 3403	8 10 13 – 49 55.1	7.3 M	7.2 G		B9		10.25	10.07		1.0 1.0		8 11 40 – 50 4.1
28	68717	C – 43 4025	8 10 15 – 43 37.8	9.6 M	9.6 G		B9		13.22			1.0		8 11 55 – 43 46.8
29	68693	C – 37 4368	8 10 18 – 37 30.3	9.9 M	9.2 G		A c		11.34			1.0		8 12 8 – 37 39.3
30	68786	C – 45 3880	8 10 29 – 45 14.1	10.2 M	9.3 G		A0	13.51	13.30 .04			1.0 2.0		8 12 6 – 45 23.2
31	68761	C – 36 4322	8 10 36 – 36 50.3	6.66M	7.0 G		B03p	9.76	8.03 .16			1.0 2.0		8 12 27 – 36 59.4
32	68805	C – 43 4034	8 10 38 – 43 49.7	9.8 M	9.1 G		B8	12.31	11.28			1.0 1.0		8 12 18 – 43 58.8
33	68895	C – 45 3892	8 10 56 – 46 6.8	6.02	–0.12	–0.54	B55p		8.22	7.57		1.0 1.0		8 12 31 – 46 15.9
34	68893	C – 45 3890	8 10 56 – 45 16.2	10.5 M	9.3 G		B9	12.65	12.63 .33			1.0 2.0		8 12 33 – 45 25.3
35		C – 36 4329	8 10 56 – 36 53.9	8.60M	8.18G		A2		10.97			1.0		8 12 47 – 37 3.0
36	68843	C – 35 4336	8 10 58 – 36 4.6	7.62	–0.13	–0.62	B3		9.53 .19	10.26		2.0 1.0		8 12 51 – 36 13.7
37	68921	C – 45 3891	8 10 59 – 45 25.7	9.8 M	8.7 G		A0	12.24	13.24			1.0 1.0		8 12 36 – 45 34.8
38	69026	P – 54 1545	8 11 8 – 55 12.1	8.45M	8.26G		B5			10.39		1.0		8 12 21 – 55 21.2
39	68920	C – 44 4163	8 11 8 – 44 32.7	10.2 M	9.6 G		B9		12.95 .10			2.0		8 12 46 – 44 41.8
40	68945	C – 43 4044	8 11 9 – 43 36.4	10.0 M	9.4 G		A2		13.27			1.0		8 12 49 – 43 45.5
41	68886	C – 31 5709	8 11 16 – 32 .2	7.62	–0.12	–0.60	B4	9.14	9.15 .18			1.0 3.0		8 13 15 – 32 9.3
42	68913	C – 32 4990	8 11 22 – 32 49.0	8.6 M	8.3 G		A0		11.25	12.75		1.0 1.0		8 13 19 – 32 58.1
43	68944	C – 35 4344	8 11 25 – 36 11.4	7.33	–0.14	–0.58	B8 c		8.13	7.34		.3 .3		8 13 18 – 36 20.5
44	68943	P – 35 2049	8 11 25 – 35 53.2	8.3 G			A0			12.20		1.0		8 13 18 – 36 2.3
45	68982	C – 38 4187	8 11 33 – 38 17.2	7.52	0.10	1.32C	B35		9.96 .13	9.90		2.0 1.0		8 13 22 – 38 26.3
46	68980	C – 35 4349	8 11 36 – 35 44.9	4.8	–0.12	–0.97	B3 *	6.88	6.54 .34	6.06		1.0 2.0 1.0		8 13 29 – 35 54.0
47	68981	C – 36 4348	8 11 39 – 36 15.3	8.26M	7.84G		B8		9.82			.3		8 13 32 – 36 24.4
48	69144	C – 46 3929	8 12 2 – 46 50.4	5.12	–0.15	1.26C	B24	8.03 .30	7.06	6.82 .20		2.0 1.0 3.0		8 13 36 – 46 59.5
49	69081	C – 35 4358	8 12 6 – 36 10.2	5.08	–0.20	–0.85	B14*	7.26	6.71	6.39		1.0 1.0 .3		8 13 59 – 36 19.4
50	69168	C – 46 3931	8 12 8 – 46 27.2	6.50M	7.0 G		B44*	8.84		6.68		1.0 1.0		8 13 43 – 46 36.4
51	69168	C – 46 3931	8 12 11 – 46 25.6	6.50M	7.0 G		B44s		8.13	7.54 .07		1.0 2.0		8 13 46 – 46 34.8
52	69106	C – 36 4359	8 12 12 – 36 48.0	7.14	–0.09	–0.92	B02p	10.41	8.51			1.0 1.0		8 14 4 – 36 57.2
53	69080	C – 31 5742	8 12 12 – 31 59.3	6.05	–0.17	–0.71	B35*	7.90	7.72 .19			1.0 2.0		8 14 11 – 32 8.5
54	69105	C – 36 4358	8 12 13 – 36 16.4	7.70M	7.32G		B8		9.88			1.0		8 14 6 – 36 25.6
55	69167	C – 43 4061	8 12 16 – 43 45.4	9.8 M	9.3 G		A0		12.20			1.0		8 13 56 – 43 54.6
56		C – 43 4062	8 12 20 – 43 19.8	9.9 M			c		12.67			.3		8 14 1 – 43 29.0
57	69213	C – 44 4192	8 12 26 – 44 25.4	6.6 M	6.4 G		F0 *	10.97 .15	10.91 .04			2.0 2.0		8 14 5 – 44 34.6
58		C – 32 5014	8 12 28 – 33 9.0	9.3 M					12.49			1.0		8 14 25 – 33 18.2
59	69237	C – 43 4069	8 12 37 – 43 18.5	10.5 M	10.2 G		A		13.08			.3		8 14 18 – 43 27.7
60	69282	C – 48 3620	8 12 40 – 49 4.9	8.17M			A0			10.29		1.0		8 14 9 – 49 14.1
61	69253	C – 40 4014	8 12 44 – 40 40.4	6.57	0.13	–0.57	B45		8.51	8.60 .19		1.0 2.0		8 14 30 – 40 49.6
62	69302	C – 45 3914	8 12 47 – 45 40.9	5.80	–0.13	1.22C	B24p		7.42	6.99		1.0 1.0		8 14 23 – 45 50.1
63	69207	C – 30 5910	8 12 48 – 30 45.9	9.02M	8.77G		B8			11.72		1.0		8 14 48 – 30 55.1
64	69252	C – 37 4442	8 12 54 – 37 45.9	8.09M			B9		9.59 .07			2.0		8 14 44 – 37 55.1
65	69249	C – 30 5917	8 13 0 – 30 15.9	8.02M	7.73G		A0			11.46		1.0		8 15 1 – 30 25.1
66	69358	C – 45 3917	8 13 4 – 45 53.7	10.2 M	9.0 G		B3		11.44	12.37		1.0 1.0		8 14 40 – 46 2.9
67	69344	C – 43 4081	8 13 4 – 43 47.2	10.5 M	9.6 G		A0		13.04			1.0		8 14 44 – 43 56.4
68	69359	C – 46 3946	8 13 5 – 46 43.3	9.8 M	9.0 G		B8		10.88			1.0		8 14 39 – 46 52.5
69	69356	C – 43 4084	8 13 13 – 43 20.6	9.6 M	9.3 G		B9		12.20			.3		8 14 54 – 43 29.8
70	69404	C – 46 3951	8 13 16 – 46 19.9	6.43	–0.15	1.20C	B35s	8.89	8.06	7.05 .21		1.0 1.0 2.0		8 14 51 – 46 29.1
71	69380	C – 43 4088	8 13 19 – 44 2.9	9.9 M			A2		13.21 .13			1.3		8 14 59 – 44 12.1
72	69376	C – 31 5773	8 13 32 – 31 49.5	8.06	–0.06	–0.49	B7		10.10 .20	10.36 .25		3.0 3.0		8 15 31 – 31 58.7
73	69448	C – 43 4092	8 13 35 – 43 21.9	9.0 M	8.5 G		A5		12.86			.3		8 15 16 – 43 31.1
74	69402	C – 36 4389	8 13 37 – 37 13.1	7.24M			B8		9.10 .16			3.0		8 15 28 – 37 22.4
75	69424	C – 30 5943	8 13 45 – 30 39.4	8.63M	8.27G		B5		10.09	9.92		1.0 1.0		8 15 46 – 30 48.7
76		C – 43 4100	8 13 56 – 43 31.3	9.8 M					12.27			1.0		8 15 37 – 43 40.6
77	69624	C – 48 3638	8 14 0 – 48 53.7	8.35M			A0			11.53		1.0		8 15 30 – 49 3.0
78	69567	C – 43 4104	8 14 3 – 44 10.1	9.1 M	8.5 G		B8	11.76	11.58	11.28		1.0 .3 1.0		8 15 43 – 44 19.4
79	69653	C – 49 3456	8 14 10 – 49 50.3	7.77M			B8		9.90	10.23		1.0 1.0		8 15 38 – 49 59.6
80	69650	C – 45 3942	8 14 17 – 46 9.5	6.76M			A2	11.52 .04	10.44	12.77		2.0 1.0 1.0		8 15 53 – 46 18.8
81	69648	C – 43 4113	8 14 23 – 44 10.1	8.2 M	7.8 G		B2	10.96 .20		10.72		.5 1.0		8 16 3 – 44 19.4
82	69677	C – 45 3943	8 14 24 – 46 1.8	11.5 M	10.1 G		A0		12.95			1.0		8 16 0 – 46 11.1
83	69730	C – 48 3647	8 14 32 – 49 1.8	8.30M			B9			11.52		1.0		8 16 2 – 49 11.1
84	69646	C – 39 4162	8 14 32 – 39 41.6	8.67M	8.40G		B8 c			10.13		1.0		8 16 19 – 39 50.9
85	69620	C – 35 4413	8 14 32 – 36 2.8	6.92M	6.9 G		B65			9.36		1.0		8 16 25 – 36 12.1
86	69670	C – 33 4771	8 14 43 – 33 59.4	8.62M	8.92G		A5			11.93		1.0		8 16 39 – 34 8.7
87	69891	P – 56 1569	8 14 58 – 57 6.9	8.00M			B8		9.78	10.18		1.0 1.0		8 16 6 – 57 16.2
88	69841	C – 49 3470	8 15 9 – 49 44.4	8.5 M	7.7 G		B5			11.16		1.0		8 16 37 – 49 53.7
89	69780	C – 43 4125	8 15 9 – 43 16.6	9.2 M	8.8 G		A3		13.33			1.0		8 16 50 – 43 25.9
90	69887	P – 52 1425	8 15 10 – 52 36.3	7.08M			B8			9.16		1.0		8 16 31 – 52 45.6

	OBJ	PHOT	S–PEC	REMARKS	REFERENCES
1					897 922
2					899 922
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5				W/ – 48 3548,3554	897 A19 158 419 487 922 A48
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	69760	C – 34 4573	8 15 10 – 34 20.5	7.65M	7.39G		A0		10.34	11.91		1.0 1.0		8 17 6 – 34 29.8
2	69822	C – 45 3957	8 15 14 – 45 51.4	10.0 M	8.8 G		B9	12.62	12.02 .08			1.0 2.0		8 16 50 – 46 .7
3	69913	P – 52 1427	8 15 17 – 53 3.5	8.30M	8.1 G		B9			12.36		1.0		8 16 37 – 53 12.8
4	69818	C – 32 5087	8 15 30 – 32 42.8	6.96M			A2		10.61	11.55 .23		1.0 3.0		8 17 28 – 32 52.2
5	69883	C – 44 4254	8 15 32 – 44 30.7	9.0 M	8.2 G		A0			11.11		1.0		8 17 11 – 44 40.1
6	69882	C – 42 4090	8 15 34 – 42 21.9	7.15	0.4	– 0.51	B13	10.16				1.0		8 17 17 – 42 31.3
7	69992	P – 53 1604	8 15 39 – 53 32.8	7.73M			A0			12.09		1.0		8 16 58 – 53 42.2
8	69934	C – 47 3765	8 15 39 – 47 30.6	8.3 M	7.7 G		B9		10.35 .01	11.41		2.0 1.0		8 17 12 – 47 40.0
9	69933	C – 45 3962	8 15 41 – 46 8.0	10.2 M	9.4 G		A0	12.45	11.94			1.0 1.0		8 17 17 – 46 17.4
10	69952	C – 46 4007	8 15 42 – 46 44.2	7.8 M	7.6 G		A0	10.37	10.01 .21	11.41		1.0 3.0 1.0		8 17 17 – 46 53.6
11	69931	C – 44 4255	8 15 44 – 45 1.9	9.0 M	8.8 G		F5		13.96			1.0		8 17 22 – 45 11.3
12	69953	C – 46 4008	8 15 45 – 46 51.4	10.0 M	9.2 G		B9	13.20				1.0		8 17 19 – 47 .8
13	69973	C – 47 3771	8 15 47 – 47 45.8	6.91	– 0.15	1.29C	B55s		8.61 .11	8.46 .10		2.0 2.0		8 17 20 – 47 55.2
14	69932	C – 45 3963	8 15 47 – 45 32.1	10.2 M	9.6 G		B9		12.47			1.0		8 17 24 – 45 41.5
15	69930	C – 43 4136	8 15 49 – 43 27.8	9.1 M	8.4 G		B3	11.62		10.83		1.0 1.0		8 17 30 – 43 37.2
16	69972	C – 46 4010	8 15 52 – 46 24.0	10.0 M	9.3 G		B9	13.11	12.37			1.0 1.0		8 17 27 – 46 33.4
17	69881	C – 30 6001	8 15 53 – 30 18.0	8.72M	8.28G		B9			10.82		1.0		8 17 54 – 30 27.4
18	69951	C – 41 3957	8 15 55 – 41 33.1	9.3 M	8.7 G		A0 *	12.18	12.46			1.0 1.0		8 17 40 – 41 42.5
19	69927	C – 31 5844	8 16 6 – 31 58.9	9.0 M	8.6 G		B8			10.84 .17		3.0		8 18 5 – 32 8.3
20	69970	C – 36 4441	8 16 10 – 36 44.2	9.3 M	9.0 G		A0			12.06		1.0		8 18 2 – 36 53.6
21	70024	C – 41 3965	8 16 19 – 41 57.2	8.9 M	8.8 G		B8	12.24	11.94			1.0 1.0		8 18 3 – 42 6.6
22		C – 44 4263	8 16 23 – 45 8.6	9.2 M					13.39			.3		8 18 1 – 45 18.0
23		C – 44 4265	8 16 25 – 45 9.9	9.9 M	9.6 G				12.89 .18			2.3		8 18 3 – 45 19.3
24		C – 34 4600	8 16 25 – 34 46.7	8.9 M						11.31		1.0		8 18 20 – 34 56.1
25	70084	C – 46 4025	8 16 27 – 46 56.1	7.3 M	7.1 G		B5	9.04	8.79 .20	8.82 .12		.3 3.0 4.0		8 18 1 – 47 5.5
26		C – 45 3974	8 16 36 – 45 29.2	10.2 M	9.8 G		A0 c	12.69 .23	11.98 .37	12.94 .01		3.0 3.0 2.0		8 18 13 – 45 38.6
27	70059	C – 35 4460	8 16 37 – 35 21.7	8.46M	8.22G		A0			11.47		1.0		8 18 31 – 35 31.1
28	70124	C – 45 3982	8 16 40 – 45 54.2	10.0 M	9.3 G		A2		13.25			1.0		8 18 17 – 46 3.6
29	70060	C – 36 4449	8 16 41 – 36 30.2	4.44	0.23	0.08	A55			11.32		1.0		8 18 34 – 36 39.6
30	70123	C – 45 3981	8 16 42 – 45 39.2	10.5 M	9.9 G		A0		13.14			1.0		8 18 19 – 45 48.6
31	70142	C – 46 4032	8 16 45 – 46 58.6	8.8 M	7.8 G		F2	13.14				.3		8 18 19 – 47 8.0
32	70141	C – 45 3983	8 16 50 – 45 51.1	10.2 M	9.6 G		A3		13.07			1.0		8 18 27 – 46 .5
33	70120	C – 40 4084	8 16 50 – 40 14.5	8.36	– 0.09	– 0.48	B8			10.05		1.0		8 18 37 – 40 23.9
34	70159	C – 40 4089	8 17 2 – 40 53.4	8.7 M	9.1 G		A2		13.05			1.0		8 18 48 – 41 2.9
35	70173	C – 44 4278	8 17 6 – 44 30.0	10.5 M	9.6 G		A0		13.59			1.0		8 18 45 – 44 39.5
36	70172	C – 41 3978	8 17 7 – 41 43.0	10.3 M	9.2 G		A0		12.48			1.0		8 18 51 – 41 52.5
37	70157	C – 38 4294	8 17 8 – 38 55.3	6.85M			A0		9.92			1.0		8 18 57 – 39 4.8
38		C – 35 4471	8 17 10 – 35 59.3	9.17	0.32	– 0.67				11.12		1.0		8 19 4 – 36 8.8
39	70156	C – 32 5133	8 17 11 – 32 56.9	8.03M	7.61G		B5			10.38 .09		2.0		8 19 9 – 33 6.4
40	70198	C – 44 4281	8 17 12 – 44 25.4	10.5 M	9.6 G		A0		13.33			1.0		8 18 52 – 44 34.9
41	70219	C – 45 3991	8 17 14 – 45 44.6	9.2 M	9.2 G		B8	12.63 .06	12.43 .44			2.0 3.0		8 18 51 – 45 54.1
42	70218	C – 44 4282	8 17 15 – 44 52.7	8.02M			A0	11.56 .29	10.68 .28	11.91 .15		4.0 3.0 2.0		8 18 54 – 45 2.2
43	70217	C – 41 3981	8 17 17 – 41 49.4	9.5 M	8.5 G		B9	11.63	11.44			1.0 1.0		8 19 1 – 41 58.9
44	70192	C – 35 4474	8 17 20 – 35 45.0	9.9 M	9.0 G		A0			11.36		1.0		8 19 14 – 35 54.5
45	70190	C – 32 5138	8 17 23 – 32 52.0	8.76M	8.42G		A2			11.48		1.0		8 19 21 – 33 1.5
46	70251	C – 46 4040	8 17 24 – 47 3.2	7.37M			B8		9.31 .06	9.70 .18		2.0 2.0		8 18 58 – 47 12.7
47	70309	C – 47 3799	8 17 33 – 48 2.4	6.44	– 0.15		B35	9.12 .47	7.80 .17	7.63 .07		2.0 3.0 2.0		8 19 5 – 48 11.9
48	70235	C – 34 4627	8 17 34 – 34 25.9	6.42	– 0.08	1.34C	B9		9.51	9.16		1.0 1.0		8 19 30 – 34 35.4
49	70234	C – 31 5883	8 17 38 – 31 39.9	8.84M	8.59G		B8			11.91		1.0		8 19 38 – 31 49.4
50	70213	C – 29 5957	8 17 39 – 30 1.5	8.64M	8.15G		B5			9.84		1.0		8 19 41 – 30 11.0
51		C – 31 5884	8 17 40 – 31 56.1	9.4 M						11.59		.3		8 19 39 – 32 5.6
52	70307	C – 41 3990	8 17 45 – 41 51.0	8.9 M	8.4 G		B9	11.33	11.15			1.0 1.0		8 19 29 – 42 .5
53	70308	C – 41 3989	8 17 46 – 42 13.2	9.3 M	8.3 G		A0	12.50	12.40			1.0 1.0		8 19 30 – 42 22.7
54	70288	C – 34 4632	8 17 50 – 35 9.5	8.22M	7.92G		A0			11.31		1.0		8 19 45 – 35 19.0
55	70368	C – 46 4045	8 18 1 – 46 16.9	8.53	0.41	1.61C	F25		13.54			1.0		8 19 37 – 46 26.4
56	70306	C – 36 4479	8 18 1 – 37 2.7	8.52M			B8			11.14 .01		2.0		8 19 53 – 37 12.2
57	70327	C – 36 4481	8 18 5 – 36 27.2	7.54	0.08	0.00	A0			11.26		1.0		8 19 58 – 36 36.7
58		C – 46 4047	8 18 8 – 46 18.9	10. M					12.92			1.0		8 19 44 – 46 28.4
59	70366	C – 41 3995	8 18 10 – 41 38.0	9.7 M	9.4 G		A0		13.02			1.0		8 19 55 – 41 47.5
60		C – 45 4009	8 18 13 – 46 10.7	10. M					13.03			1.0		8 19 49 – 46 20.2
61	70451	C – 47 3821	8 18 24 – 47 31.3	8.4 M	7.9 G		B9 c		9.09 .14	10.04		2.0 1.0		8 19 58 – 47 40.8
62		C – 44 4303	8 18 29 – 44 42.3	9.8 M					13.78 .06			2.0		8 20 8 – 44 51.8
63	70465	C – 47 3825	8 18 30 – 48 13.7	9.0 M	8.4 G		B9			12.03		1.0		8 20 2 – 48 23.2
64	70449	C – 45 4014	8 18 31 – 46 6.8	9.8 M	9.0 G		A0		12.50			1.0		8 20 7 – 46 16.3
65		C – 46 4061	8 18 35 – 46 15.3	9.8 M					13.31			1.0		8 20 11 – 46 24.8
66	70448	C – 43 4187	8 18 35 – 43 43.5	9.1 G			B9 *			13.65		1.0		8 20 16 – 43 53.0
67		C – 34 4650	8 18 36 – 34 20.9	9.0 M						10.99		1.0		8 20 32 – 34 30.5
68		C – 44 4305	8 18 39 – 45 .6	10. M						13.97		1.0		8 20 18 – 45 10.1
69		C – 44 4304	8 18 41 – 44 20.5	9.8 M					12.88 .06	13.39		2.0 1.0		8 20 21 – 44 30.1
70	70507	C – 46 4064	8 18 48 – 46 50.0	8.3 M	7.8 G		B9			11.30		1.0		8 20 23 – 46 59.6
71	70446	C – 33 4879	8 18 48 – 33 56.0	9.3 M	8.9 G		B9			11.26		1.0		8 20 45 – 34 5.6
72		C – 45 4017	8 18 51 – 45 19.9	10. M					12.62			1.0		8 20 29 – 45 29.5
73	70605	P – 56 1595	8 18 52 – 56 41.9	8.31M			B9			10.75		1.0		8 20 2 – 56 51.4
74	70619	P – 57 1483	8 18 53 – 57 30.6	8.3 M	8.9 G		A c			11.47		1.0		8 20 0 – 57 40.1
75	70505	C – 41 4014	8 18 53 – 41 16.1	9.5 M	9.7 G		B9		12.74			1.0		8 20 38 – 41 25.7
76	70506	C – 43 4192	8 18 54 – 44 5.7	7.08M			A0	9.72 .16	9.45 .25	8.89 .13		3.0 3.0 2.0		8 20 34 – 44 15.3
77		C – 45 4018	8 18 56 – 45 28.7	10. M					12.98			1.0		8 20 34 – 45 38.3
78		C – 45 4020	8 18 59 – 45 43.9	10. M					13.40			1.0		8 20 36 – 45 53.5
79	70531	C – 40 4120	8 19 4 – 40 54.7	7.5 M	7.7 G		A3	12.41	12.10			1.0 1.0		8 20 50 – 41 4.3
80		C – 44 4314	8 19 9 – 44 14.3	9.9 M					12.48			1.0		8 20 49 – 44 23.9
81		C – 33 4889	8 19 10 – 33 54.6	9.3 M						10.38		1.0		8 21 7 – 34 4.2
82	70530	C – 34 4668	8 19 12 – 34 44.1	7.98M	7.62G		B9			11.52		1.0		8 21 8 – 34 53.7
83		C – 43 4197	8 19 18 – 44 13.9	9.5 M					13.27			1.0		8 20 58 – 44 23.5
84	70557	C – 36 4511	8 19 24 – 36 40.9	9.10	0.00	– 0.35	B9 s			11.14		1.0		8 21 17 – 36 50.5
85	70615	C – 45 4033	8 19 26 – 45 52.3	9.8 M	8.9 G		A0	12.16 .03	12.06 .41			2.0 2.0		8 21 3 – 46 1.9
86		C – 44 4320	8 19 26 – 44 30.3	9.8 M				12.45	12.28			.3 .3		8 21 6 – 44 39.9
87	70556	C – 36 4513	8 19 28 – 36 19.5	5.19	– 0.20	1.19C	B24p		6.70	6.50		1.0 1.0		8 21 21 – 36 29.1
88	70643	C – 46 4076	8 19 30 – 46 50.4	9.0 M	8.1 G		B9			11.49		1.0		8 21 5 – 47 0.0
89	70682	C – 44 4325	8 19 46 – 44 49.8	7.89M			A0	10.54 .11	9.37 .25	9.91 .59		3.3 3.3 5.0		8 21 25 – 44 59.4
90	70683	C – 44 4326	8 19 47 – 44 59.8	10.2 M	9.3 G		A0	12.87 .08	12.50 .34			2.0 4.0		8 21 26 – 45 9.4

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 922
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	70639	C–31 5949	8 19 52 –31 53.0	8.68M	8.21G		B8					9.83	.06					2.0			8 21 52 –32 2.6
2	70682	C–44 4325	8 19 54 –44 50.2	7.89M			A0 c			8.09							1.0				8 21 33 –44 59.8
3	70700	C–44 4328	8 19 55 –44 22.7	10.0 M	9.0 G		A0	12.33	.11	11.76	.26	12.43				2.0	3.0	1.0			8 21 35 –44 32.3
4	70699	C–40 4140	8 19 55 –41 2.1	8.6 M	8.3 G		A0	11.95		11.33						1.0	1.0				8 21 41 –41 11.7
5		C–45 4044	8 19 57 –45 44.0	9.8 M	9.9 G			13.12		13.15						1.0	1.0				8 21 34 –45 53.6
6	70746	C–48 3723	8 19 59 –48 44.4	9.0 M	8.3 G		A0 c					10.99						1.0			8 21 30 –48 54.0
7	70716	C–43 4207	8 20 0 –44 4.0	9.2 M	8.7 G		A0	12.86		12.33	.01					1.0	2.0				8 21 41 –44 13.6
8	70839	P–57 1490	8 20 5 –57 48.8	6.	–0.08	–0.82	B15					7.70						1.0			8 21 12 –57 58.4
9	70696	C–32 5204	8 20 6 –33 11.7	8.41	–0.09	–0.48	B9					10.15						1.0			8 22 4 –33 21.3
10	70766	C–47 3855	8 20 10 –47 28.3	9.4 M	8.6 G		B9			10.15							1.0				8 21 44 –47 37.9
11		C–44 4333	8 20 11 –45 9.2	10. M						12.02							1.0				8 21 50 –45 18.8
12	70744	C–40 4147	8 20 14 –40 24.1	8.9 M	8.9 G		A0					11.79						1.0			8 22 1 –40 33.7
13		C–45 4048	8 20 16 –45 21.9	9.9 M						13.49							1.0				8 21 54 –45 31.5
14	70764	C–40 4151	8 20 22 –40 49.9	7.1 M	7.5 G		F5			12.46							1.0				8 22 8 –40 59.6
15	70743	C–38 4361	8 20 22 –38 22.2	8.5 M			B8					9.72						1.0			8 22 12 –38 31.9
16	70797	C–39 4263	8 20 38 –40 4.6	8.77M	8.42G		B9					10.61						1.0			8 22 26 –40 14.3
17	70851	C–47 3860	8 20 39 –47 37.3	7.70M			A0			10.02	.11	11.42					2.0	1.0			8 22 13 –47 47.0
18	70775	C–31 5975	8 20 43 –31 32.3	8.91M	8.45G		B8					8.77						.3			8 22 43 –31 42.0
19	70850	C–45 4054	8 20 44 –45 38.3	8.8 M	8.5 G		B9	11.27	.01	10.57	.18	10.83	.04			2.0	2.0	2.0			8 22 22 –45 48.0
20		C–44 4342	8 20 44 –45 1.6	10.0 M						13.57	.34						2.0				8 22 23 –45 11.3
21	70816	C–37 4619	8 20 45 –37 38.6	9.05M	8.75G		B9					11.55						1.0			8 22 37 –37 48.3
22	70796	C–31 5976	8 20 45 –31 26.8	7.02M			B8					9.87						.3			8 22 45 –31 36.5
23	70872	C–43 4223	8 20 55 –44 1.5	8.4 M	7.5 G		A0	11.80	.13	10.67	.05	11.52				3.0	2.0	1.0			8 22 36 –44 11.2
24	70873	C–44 4345	8 20 56 –44 34.5	9.6 M	9.1 G		F0			13.99							1.0				8 22 36 –44 44.2
25	70892	C–44 4346	8 20 58 –44 42.2	7.1 M	7.8 G		F0	11.86	.24	11.68	.23					3.0	3.0				8 22 38 –44 51.9
26	70837	C–31 5979	8 20 58 –31 16.7	8.5 M			B9					11.21						1.0			8 22 58 –31 26.4
27	70930	C–48 3734	8 20 59 –48 19.7	4.82	–0.16	–0.84	B15p	8.02	.12	5.82		5.69				2.0	1.0	1.0			8 22 31 –48 29.4
28	70951	C–48 3736	8 21 5 –48 53.4	7.82M			A0					10.08						1.0			8 22 36 –49 3.1
29	70868	C–33 4932	8 21 5 –33 40.8	8.6 M	8.4 G		A					11.02	.06					2.0			8 23 2 –33 50.5
30	70867	C–32 5226	8 21 7 –32 58.6	9.53	–0.07	–0.57	B6					11.02						1.0			8 23 5 –33 8.3
31	70950	C–47 3873	8 21 8 –48 2.9	8.02M			B8 c			9.66	.16	10.54					2.0	.3			8 22 41 –48 12.6
32		C–44 4352	8 21 8 –45 7.8	10. M				12.17		12.56						1.0	1.0				8 22 47 –45 17.5
33	70912	C–40 4173	8 21 9 –40 37.3	10.1 M	9.4 G		A0			11.92							1.0				8 22 56 –40 47.0
34	70891	C–37 4633	8 21 13 –38 5.0	8.74M	8.58G		B8					11.20						1.0			8 23 4 –38 14.7
35	70948	C–42 4178	8 21 14 –43 4.0	7.12M			B8	9.99				8.60				1.0		1.0			8 22 57 –43 13.7
36		C–43 4226	8 21 16 –44 13.8	10. M						13.21							1.0				8 22 57 –44 23.5
37	70947	C–39 4274	8 21 21 –40 13.2	7.4 M	7.3 G		B8	10.13				8.98				1.0		1.0			8 23 9 –40 22.9
38	70976	C–42 4184	8 21 29 –42 49.5	8.6 M	8.5 G		A0			11.55							1.0				8 23 12 –42 59.2
39		C–45 4072	8 21 32 –45 25.3	9.7 M	9.8 G			12.87		13.04						.3	1.0				8 23 10 –45 35.0
40		C–44 4357	8 21 40 –44 48.2	7.78M			B5	10.55	.23	9.42	.19	9.65	.66			4.0	4.0	4.0			8 23 20 –44 57.9
41	71020	C–43 4230	8 21 41 –44 14.3	9.6 M	9.1 G		A0			13.54							1.0				8 23 22 –44 24.0
42	71019	C–42 4187	8 21 42 –42 38.7	8.26M			B8	10.63		9.96		10.41				1.0	1.0	1.0			8 23 25 –42 48.4
43	71016	C–40 4184	8 21 44 –40 52.5	9.9 M			A3 s			13.17							1.0				8 23 31 –41 2.2
44	70999	C–38 4389	8 21 47 –38 17.3	8.16M	7.70G		B8					9.56						1.0			8 23 38 –38 27.0
45	71041	C–43 4234	8 21 48 –44 4.9	9.4 M	8.8 G		A0	12.75		12.44	.06					1.0	2.0				8 23 29 –44 14.6
46	71060	C–45 4075	8 21 50 –45 27.0	7.44M			A0	11.46	.22	11.76	.30					2.3	2.0				8 23 28 –45 36.7
47	71059	C–43 4235	8 21 56 –43 34.4	10.0 M	9.3 G		B8			13.15							1.0				8 23 38 –43 44.1
48	71015	C–32 5245	8 22 0 –32 44.1	7.14	–0.14	–0.73	B33					8.32						1.0			8 23 59 –32 53.9
49	71057	C–36 4578	8 22 7 –36 33.2	7.50M	7.04G		B9			9.24	.15						2.0				8 24 0 –36 43.0
50	71123	C–42 4198	8 22 10 –42 23.5	8.29	–0.04	–0.28	B8S	12.40		11.71	.91	12.23				1.0	2.0	1.0			8 23 54 –42 33.3
51	71162	C–44 4372	8 22 23 –44 20.6	10.2 M	9.3 G		A5			13.58							1.0				8 24 4 –44 30.4
52	71161	C–43 4244	8 22 26 –43 32.4	10.2 M	9.6 G		A0			13.37							1.0				8 24 8 –43 42.2
53		C–44 4375	8 22 27 –44 54.2	9.8 M				13.63								1.0					8 24 6 –45 4.0
54	71238	C–49 3528	8 22 32 –49 16.0	8.5 M	8.7 G		B9					11.17						1.0			8 24 3 –49 25.8
55		C–44 4379	8 22 37 –44 57.3	9.7 M			c			12.49							1.0				8 24 16 –45 7.1
56		C–44 4380	8 22 39 –44 55.7	9.9 M				12.84		12.80	.42					1.0	2.0				8 24 18 –45 5.5
57	71237	C–46 4128	8 22 41 –46 49.4	10.0 M	9.4 G		B9			11.93		12.93					1.0	1.0			8 24 17 –46 59.2
58	71218	C–44 4381	8 22 43 –44 15.2	9.8 M	9.1 G		B9			12.58	.13						2.0				8 24 24 –44 25.0
59	71216	C–40 4212	8 22 48 –40 35.0	7.1 M	7.2 G		B65	9.61		8.90	.15	8.55				1.0	3.0	1.0			8 24 35 –40 44.8
60		C–43 4252	8 23 4 –43 51.9	9.8 M						13.67							1.0				8 24 46 –44 1.7
61	71317	C–49 3534	8 23 9 –50 9.0	8.9 M	8.5 G		A0					11.69						1.0			8 24 38 –50 18.8
62	71302	C–42 4219	8 23 13 –42 36.4	5.98	–0.18	–0.6	B35*	8.80	.02	8.04	.19	7.60				2.0	2.3	1.0			8 24 57 –42 46.2
63	71303	C–43 4258	8 23 14 –43 57.3	9.6 M	9.1 G		A2			13.60							1.0				8 24 55 –44 7.1
64	71304	C–43 4259	8 23 15 –44 8.2	8.6 M	8.4 G		O9.2	12.03		12.37	.02					1.0	2.0				8 24 56 –44 18.0
65	71336	C–42 4221	8 23 24 –43 12.1	8.0 M	7.5 G		B3	10.33	.38	10.14						2.0	1.0				8 25 7 –43 21.9
66	71384	C–42 4226	8 23 40 –42 30.0	9.33	0.03	–0.07	A1			12.46	.23						1.3				8 25 24 –42 39.8
67	71362	C–39 4315	8 23 40 –39 57.9	9.24M	8.91G		B9					11.13						1.0			8 25 28 –40 7.8
68	71401	C–46 4147	8 23 41 –46 48.9	9.7 M			B9			12.40	.25						2.0				8 25 17 –46 58.7
69		C–46 4150	8 23 46 –46 20.3	10. M						14.29							1.0				8 25 23 –46 30.2
70		C–46 4151	8 23 51 –46 23.6	10. M						13.70	.01						1.3				8 25 28 –46 33.5
71	71444	C–46 4152	8 23 54 –46 28.2	9.0 M	8.2 G		A0	11.78	.28	10.38	.12	10.78	.26			2.0	2.3	3.0			8 25 31 –46 38.1
72		C–43 4273	8 23 55 –43 46.6	9.9 M						13.37							1.0				8 25 37 –43 56.5
73	71441	C–41 4118	8 24 3 –41 47.0	10.3 M	9.4 G		A			12.93							1.0				8 25 48 –41 56.9
74	71459	C–41 4119	8 24 7 –41 59.3	5.46	–0.15	–0.56	B35p	8.29	.26	8.11	.01					.5	.5				8 25 52 –42 9.2
75	71439	C–39 4327	8 24 10 –39 43.6	8.35M	7.97G		B9					9.81						1.0			8 25 59 –39 53.5
76	71470	C–43 4276	8 24 17 –43 51.4	8.9 M	7.7 G		B8	11.47	.12	10.50	.07					2.0	2.0				8 25 59 –44 1.3
77	71459	C–41 4119	8 24 19 –41 58.9	5.46	–0.15	–0.56	B35*			7.48	.16	7.12					2.0	1.0			8 26 4 –42 8.8
78	71634	P–57 1513	8 24 23 –57 58.1	6.90M			B63					9.07						1.0			8 25 30 –58 8.0
79	71508	C–42 4241	8 24 25 –42 41.9	10.0 M	9.8 G		B8	12.55		12.38						1.0	1.0				8 26 9 –42 51.8
80	71487	C–38 4462	8 24 27 –38 53.7	6.68M			A0 *			9.60		8.91	.07				1.0	2.0			8 26 17 –39 3.6
81	71486	C–38 4463	8 24 27 –38 46.3	8.39	–0.03	–0.55	B8					10.31	.00					2.0			8 26 17 –38 56.2
82	71528	C–41 4127	8 24 31 –41 58.4	7.86	0.01	–0.66	B25	10.73	.34	9.33	.05					.5	.5				8 26 16 –42 8.3
83		C–43 4281	8 24 32 –43 23.1	10. M						13.58							1.0				8 26 15 –43 33.0
84	71506	C–34 4814	8 24 35 –34 28.9	8.89M	8.51G		A0 c					11.17						1.0			8 26 32 –34 38.8
85	71545	C–42 4244	8 24 36 –42 27.9	10.5 M	9.7 G		A0			13.27	.12						2.0				8 26 20 –42 37.8
86	71544	C–40 4248	8 24 38 –41 1.4	8.02M			B9					11.12						1.0			8 26 25 –41 11.3
87	71609	C–42 4251	8 24 55 –43 14.6	7.7 M	7.7 G		B05	10.95	.42	11.01	.38					2.0	1.3				8 26 38 –43 24.5
88	71607	C–42 4250	8 24 56 –42 21.5	7.21	0.14	0.12	A2	12.03	.03	11.14	.04					2.0	2.0				8 26 41 –42 31.4
89	71627	C–42 4253	8 24 57 –42 42.4	9.8 M	9.3 G		B8	11.98		11.73		12.36				1.0	1.0	1.0			8 26 41 –42 52.3
90	71653	C–46 4171	8 25 3 –46 45.5	10.5 M	9.6 G		A0			12.73	.17						2.0				8 26 39 –46 55.4

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 922
2				W/ – 44 4321	897 922
3					897 922
4					897 922
5					897
6				W/ – 48 3719	897 922
7					897 922
8					897 884 901 922 A27 A31 A42 A48 A73
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11					899
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81					897 922 A74
82					897 922 A74
83					899
84				W/ – 34 4813	897 922
85					899 922
86					897 922
87					897 922 A48
88					897 922 A74
89					897 922
90					899 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	71695	C – 49 3553	8 25 5 – 49 19.9	7.2 M			A0			10.02	.25	9.52					2.0	1.0			8 26 36 – 49 29.8
2	71606	C – 39 4343	8 25 5 – 39 14.8	8.28M	7.92G		B9					10.93						1.0			8 26 55 – 39 24.7
3	71652	C – 45 4140	8 25 6 – 45 36.1	9.6 M	9.2 G		A0			12.14	.27	13.14					3.0	1.0			8 26 45 – 45 46.0
4	71694	C – 47 3955	8 25 10 – 47 16.4	9.6 M	8.7 G		B9	12.21		11.70		11.52				1.0	1.0	1.0			8 26 45 – 47 26.3
5	71693	C – 43 4296	8 25 16 – 43 41.8	9.6 M	9.0 G		B8			11.55							1.0				8 26 58 – 43 51.7
6	71649	C – 36 4649	8 25 18 – 36 29.3	8.93M	8.68G		B3					11.33						1.0			8 27 12 – 36 39.2
7	71743	C – 46 4178	8 25 28 – 46 20.6	10.0 M	9.3 G		B9			12.12	.22						3.0				8 27 5 – 46 30.6
8	71742	C – 41 4145	8 25 33 – 41 33.6	8.3 M	8.9 G		A3			12.88							1.0				8 27 19 – 41 43.6
9	71788	C – 47 3963	8 25 40 – 47 38.2	8.5 M	8.2 G		B9	11.29								.3					8 27 15 – 47 48.2
10	71717	C – 36 4654	8 25 42 – 36 30.5	9.1 M	9.7 G		A0					11.42						1.0			8 27 36 – 36 40.5
11		C – 45 4144	8 25 47 – 45 58.3	10.0 M	10.3 G					12.89	.38						2.0				8 27 25 – 46 8.3
12	71786	C – 41 4149	8 25 50 – 41 58.9	10.3 M	9.4 G		B9			12.08	.09	13.15					2.0	1.0			8 27 35 – 42 8.9
13	71823	C – 47 3967	8 25 53 – 47 33.7	8.9 M	8.4 G		B5	10.97				10.88				.3		1.0			8 27 28 – 47 43.7
14	71875	C – 49 3567	8 26 2 – 49 35.3	9.4 M	9.2 G		B9					10.59						1.0			8 27 33 – 49 45.3
15		C – 41 4154	8 26 2 – 41 30.1	9.7 M						13.58							.3				8 27 48 – 41 40.1
16		C – 42 4273	8 26 3 – 42 48.6	9.9 M	10.3 G					13.50							1.0				8 27 47 – 42 58.6
17	71801	C – 34 4842	8 26 3 – 34 56.8	5.74	– 0.16	– 0.67	B35p					7.18	.02					2.0			8 27 59 – 35 6.8
18		C – 46 4190	8 26 8 – 46 56.1	9.9 M						13.44							1.0				8 27 44 – 47 6.1
19		C – 42 4277	8 26 11 – 42 32.0	9.9 M						13.06							1.0				8 27 55 – 42 42.0
20	71874	C – 47 3973	8 26 12 – 47 30.5	8.5 M	8.2 G		B9	10.92				10.67				.3		1.0			8 27 47 – 47 40.5
21	71857	C – 40 4277	8 26 14 – 41 4.7	7.77M			A0	11.20		10.55		11.92				1.0	1.0	1.0			8 28 1 – 41 14.7
22	71858	C – 41 4162	8 26 15 – 41 30.4	9.0 M	10.2 G		A0			12.15							.3				8 28 1 – 41 40.4
23	71934	C – 49 3572	8 26 21 – 49 56.0	8.2 M	7.5 G		B8			10.13	.07	9.38					2.0	1.0			8 27 51 – 50 6.0
24	71896	C – 41 4166	8 26 26 – 41 40.1	8.9 M	9.0 G		B9	12.32	.17	11.65	.13	12.76				2.0	2.0	1.0			8 28 12 – 41 50.1
25	71917	C – 46 4198	8 26 27 – 46 39.0	10.0 M	9.3 G		A2			13.15							1.0				8 28 4 – 46 49.0
26		C – 45 4157	8 26 33 – 46 1.2	10. M						12.57	.30						4.0				8 28 11 – 46 11.2
27	71913	C – 34 4858	8 26 46 – 34 33.9	7.68	– 0.11	– 0.82	B5					8.65						1.0			8 28 43 – 34 43.9
28	71984	C – 46 4205	8 26 48 – 46 47.3	8.4 M	7.9 G		B9	10.84		10.09	.23	10.62	.09			1.0	2.0	2.0			8 28 25 – 46 57.3
29	71967	C – 40 4285	8 26 50 – 41 .4	7.70M			A0	11.58		10.52		11.60	.50			1.0	1.0	2.0			8 28 37 – 41 10.4
30	71998	C – 41 4175	8 27 1 – 41 22.0	8.6 M	8.3 G		B9			11.46		12.44	.42				1.0	2.0			8 28 48 – 41 32.0
31		C – 45 4166	8 27 3 – 45 29.2	9.8 M						13.07	.21						3.0				8 28 42 – 45 39.2
32	72014	C – 42 4290	8 27 7 – 42 25.2	6.21	– 0.05	1.14C	B35s	8.43	.57	7.95	.14	7.13				2.0	2.0	1.0			8 28 52 – 42 35.3
33	72034	C – 45 4167	8 27 9 – 45 34.1	9.8 M	9.2 G		B9	12.68		12.02	.11					1.0	3.0				8 28 48 – 45 44.1
34	72067	C – 43 4337	8 27 26 – 43 59.6	5.81	– 0.16	– 0.66	B35*	9.90		7.53						1.0	1.0				8 29 8 – 44 9.7
35	72089	C – 45 4173	8 27 27 – 45 23.4	7.7 M	7.5 G		B9	10.81	.12	9.69	.14	10.43	.40			6.0	3.8	5.3			8 29 6 – 45 33.5
36	72108	C – 47 4004	8 27 30 – 47 45.7	5.32	– 0.14	1.20C	B23*			6.93							1.0				8 29 5 – 47 55.8
37	72065	C – 40 4297	8 27 31 – 40 58.3	9.9 M	9.1 G		A0	12.32		10.57		11.74	.48			1.0	1.0	2.0			8 29 18 – 41 8.4
38	72088	C – 44 4459	8 27 32 – 44 43.0	10.5 M	8.9 G		B9	12.44	.19	10.99	.25	11.68				3.0	1.3	.3			8 29 13 – 44 53.1
39	72128	C – 45 4176	8 27 39 – 45 17.8	9.2 M	9.1 G		A0	12.28	.20	11.33	.33	12.34	.03			3.0	2.5	2.0			8 29 19 – 45 27.9
40	72067	C – 43 4337	8 27 40 – 43 57.8	5.81	– 0.16	– 0.66	B35*			7.17							1.0				8 29 22 – 44 7.9
41	72140	C – 46 4221	8 27 44 – 46 43.5	10.2 M	9.3 G		B8	12.71	.31	12.08						2.0	1.0				8 29 21 – 46 53.6
42	72127	C – 44 4462	8 27 46 – 44 33.4	5.02	– 0.18	1.18C	B35*	7.75	.59	6.83	.16	7.45				4.0	1.3	.3			8 29 27 – 44 43.5
43	72180	C – 47 4012	8 27 50 – 47 38.1	9.8 M	9.0 G		A0	12.42		12.84						1.0	1.0				8 29 25 – 47 48.2
44	72139	C – 41 4189	8 27 50 – 41 21.4	8.00M	8.2 G		B9	12.11	.39	11.13		11.93	.38			2.0	1.0	2.0			8 29 37 – 41 31.5
45	72162	C – 45 4177	8 27 52 – 45 23.1	9.84M	9.6 G		A0			12.69	.13						.5				8 29 32 – 45 33.2
46	72179	C – 43 4343	8 27 55 – 43 55.9	8.14	– 0.12	– 0.54	B5			9.62							1.0				8 29 37 – 44 6.0
47	72159	C – 41 4193	8 27 58 – 41 37.3	9.0 M	9.1 G		B9			11.80	.30						1.3				8 29 44 – 41 47.4
48	72177	C – 41 4194	8 28 5 – 41 45.1	9.2 M	9.9 G		B9 *	11.17	.05	10.95	.30	10.73	.51			2.0	1.3	2.0			8 29 51 – 41 55.2
49	72232	C – 45 4183	8 28 8 – 46 9.8	5.99	– 0.15	1.29C	B74	9.15	.40	7.88	.28	7.65	.29			4.0	5.3	4.0			8 29 46 – 46 19.9
50	72230	C – 44 4469	8 28 10 – 44 34.5	9.0 M	8.5 G		A0	12.62								1.0					8 29 51 – 44 44.6
51		C – 46 4232	8 28 16 – 47 5.1	9.9 M	9.8 G					13.49							1.0				8 29 52 – 47 15.2
52	72250	C – 41 4201	8 28 19 – 41 28.2	9.9 M	9.9 G		B8			11.95	.25	12.27	.56				2.0	2.0			8 30 6 – 41 38.3
53	72271	C – 43 4350	8 28 25 – 44 7.5	9.6 M	9.1 G		B8	12.26		11.21						1.0	1.0				8 30 7 – 44 17.6
54		C – 46 4236	8 28 29 – 46 21.0	9.9 M						12.85							1.0				8 30 7 – 46 31.1
55	72249	C – 36 4713	8 28 30 – 36 33.1	9.16M			B9			9.99		9.56					1.0	1.0			8 30 24 – 36 43.2
56	72404	P – 56 1674	8 28 39 – 57 6.9	9.12M	8.89G		B9					11.07						1.0			8 29 50 – 57 17.0
57	72319	C – 42 4323	8 28 40 – 42 28.6	9.1 M	8.5 G		A0	11.90		11.54						1.0	1.0				8 30 25 – 42 38.7
58	72285	C – 36 4718	8 28 40 – 36 24.3	8.22M	7.81G		B9					10.58						1.0			8 30 34 – 36 34.4
59	72318	C – 40 4328	8 28 46 – 40 20.6	7.15M			B9					9.52	.05					3.0			8 30 34 – 40 30.7
60	72351	C – 46 4244	8 28 48 – 46 50.6	10.5 M	9.3 G		A0	13.77		13.28						1.0	1.0				8 30 25 – 47 .7
61		C – 45 4194	8 28 48 – 46 8.6	9.7 M	10.1 G			12.38		12.61	.26					1.0	1.3				8 30 26 – 46 18.7
62	72315	C – 32 5389	8 28 57 – 33 6.6	8.54M	8.12G		B8			10.40							1.0				8 30 56 – 33 16.8
63	72350	C – 44 4477	8 28 58 – 44 34.1	6.30	– 0.04	– 0.5	B54*	10.25	.45	9.08	.47	8.86	.08			6.0	5.5	1.3			8 30 39 – 44 44.3
64	72387	C – 45 4195	8 29 4 – 45 42.4	10.2 M	9.4 G		A0			12.61	.17						2.3				8 30 43 – 45 52.6
65	72402	C – 44 4485	8 29 14 – 44 26.7	8.77	0.02	– 0.02	A0	12.99	.15	12.03	.10	12.55				2.0	3.0	.3			8 30 56 – 44 36.9
66	72401	C – 41 4214	8 29 16 – 42 .2	9.3 M	9.7 G		B8			11.96							1.0				8 31 2 – 42 10.4
67	72436	C – 38 4566	8 29 26 – 38 53.6	6.3	– 0.14	1.29C	B55*					7.45						.3			8 31 17 – 39 3.8
68	72439	C – 41 4219	8 29 27 – 41 52.8	9.3 M	9.2 G		A0			12.79							1.0				8 31 13 – 42 3.0
69	72453	C – 44 4489	8 29 31 – 44 19.7	9.23	– 0.05	– 0.37	B75	12.65	.02	11.49	.13	12.01				2.0	3.0	.3			8 31 13 – 44 29.9
70	72485	C – 47 4048	8 29 35 – 47 41.8	6.38	– 0.16	1.26C	B25			8.23							1.0				8 31 10 – 47 52.0
71	72451	C – 34 4929	8 29 40 – 35 1.6	8.83	– 0.07	– 0.41	B9					10.69						1.0			8 31 36 – 35 11.8
72	72483	C – 45 4207	8 29 43 – 45 20.8	9.4 M	9.2 G		A0 c	11.84	.01	11.58	.28	11.97	.21			2.0	5.0	4.0			8 31 23 – 45 31.0
73	72539	C – 48 3865	8 29 49 – 48 34.7	7.9 M	7.9 G		A0					10.80						1.0			8 31 23 – 48 44.9
74	72499	C – 43 4368	8 29 50 – 43 33.8	10.2 M	9.4 G		A0			13.61							1.0				8 31 33 – 43 44.0
75	72436	C – 38 4566	8 29 50 – 38 53.7	6.3	– 0.14	1.29C	B55*			8.40	.05						2.0				8 31 41 – 39 3.9
76	72537	C – 45 4215	8 29 57 – 45 36.9	8.14M			B8	10.17	.33	8.92	.31	9.06	.43			8.0	8.3	6.0			8 31 36 – 45 47.1
77	72515	C – 43 4371	8 29 57 – 44 14.8	8.8 M	8.4 G		B8	12.29	.22	11.75	.11	12.16				2.0	3.0	.3			8 31 39 – 44 25.0
78		C – 31 6208	8 29 59 – 31 25.4	9.7 M			c					12.11						1.0			8 32 0 – 31 35.6
79	72535	C – 41 4225	8 30 1 – 41 51.8	7.7 M	8.1 G		B5	10.58		10.23		10.00				1.0	1.0	1.0			8 31 47 – 42 2.0
80	72480	C – 31 6209	8 30 2 – 31 32.4	7.79M			B5					9.96						1.0			8 32 3 – 31 42.6
81	72555	C – 46 4267	8 30 3 – 47 4.2	6.79	– 0.14	– 0.72	B45					8.17	.11					3.0			8 31 40 – 47 14.4
82	72554	C – 45 4219	8 30 6 – 45 57.4	8.5 M	8.1 G		B03	11.31	.16	11.69	.15	12.55				2.0	2.0	1.0			8 31 45 – 46 7.6
83	72514	C – 38 4581	8 30 6 – 38 53.8	7.24M			B9					10.15						.3			8 31 57 – 39 4.0
84	72576	C – 43 4374	8 30 8 – 43 39.1	8.4 M	8.3 G		B9	13.62		11.95		13.33				1.0	1.0	1.0			8 31 51 – 43 49.3
85	72551	C – 35 4745	8 30 14 – 35 56.1	9.5 M	9.5 G		B9					11.71						1.0			8 32 9 – 36 6.3
86		C – 44 4504	8 30 15 – 44 58.8	10. M						12.96							1.0				8 31 56 – 45 9.0
87	72573	C – 39 4452	8 30 19 – 39 47.0	7.14M			A0					10.08						1.0			8 32 9 – 39 57.2
88	72611	C – 41 4232	8 30 30 – 41 39.7	7.1 M	7.4 G		A0	10.46		9.81	.09	10.59				1.0	2.0	1.0			8 32 17 – 41 49.9
89		C – 46 4276	8 30 31 – 46 22.7	10. M						13.88						.	1.0				8 32 9 – 46 32.9
90	72648	C – 43 4382	8 30 36 – 43 45.6	7.9 M	7.5 G		B3	11.10	.32	10.54	.33	10.58	.23			3.0	2.0	2.0			8 32 19 – 43 55.9

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
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90					897 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	72676	C – 45 4227	8 30 41 – 45 51.6	8.6 M	8.4 G		F5	13.62		13.62						1.0	1.0				8 32 20 – 46 1.9
2	72675	C – 45 4228	8 30 44 – 45 36.9	8.6 M	8.5 G		A3	12.23	.08	12.37	.13					2.0	1.3				8 32 24 – 45 47.2
3	72754	C – 49 3621	8 30 51 – 49 25.8	7.0 M			B s			10.17		9.87	.01				1.0	2.0			8 32 23 – 49 36.1
4	72733	C – 43 4390	8 30 59 – 43 52.4	9.0 M	7.8 G		B9	12.24	.00	11.00		11.88	.02			2.0	1.0	2.0			8 32 42 – 44 2.7
5	72732	C – 42 4365	8 31 0 – 43 3.8	8.6 M	8.3 G		A0			11.91							1.0				8 32 44 – 43 14.1
6	72731	C – 41 4240	8 31 1 – 41 42.5	8.9 M	9.4 G		B9			11.83							1.0				8 32 48 – 41 52.8
7	72751	C – 45 4232	8 31 9 – 45 28.0	9.1 M	9.0 G		A0	11.75	.07	11.44	.27	12.27	.19			2.0	3.0	2.0			8 32 49 – 45 38.3
8	72773	C – 44 4512	8 31 13 – 45 10.4	9.2 M	8.7 G		A0	12.31		12.25	.06					1.0	2.0				8 32 54 – 45 20.7
9	72772	C – 43 4393	8 31 14 – 43 15.3	8.3 M	8.5 G		F5			13.73							1.0				8 32 58 – 43 25.6
10		C – 43 4394	8 31 15 – 43 19.4	10. M						13.25							1.0				8 32 59 – 43 29.7
11	72789	C – 43 4396	8 31 16 – 44 3.9	9.8 M	9.3 G		A0			12.96							1.0				8 32 59 – 44 14.2
12	72858	P – 54 1683	8 31 17 – 54 57.1	7.21M			B9			9.89							1.0				8 32 35 – 55 7.4
13		C – 44 4514	8 31 18 – 44 57.7	9.7 M						12.96							.3				8 32 59 – 45 8.0
14	72798	C – 45 4236	8 31 22 – 45 34.9	6.45	– 0.14	1.26C	B53p	9.72	.24	8.43	.25	8.57	.21			8.0	8.3	3.0			8 33 2 – 45 45.2
15	72600	C – 36 4763	8 31 26 – 36 29.4	7.65	– 0.04	– 0.58	B35			9.60		9.63	.24				1.0	2.0			8 33 21 – 36 39.7
16	72771	C – 34 4969	8 31 27 – 34 28.6	7.70M			B5			9.57							1.0				8 33 24 – 34 38.9
17		C – 44 4518	8 31 28 – 45 .8	9.52	0.28		B3	12.61		12.80	.06					1.0	1.3				8 33 9 – 45 11.1
18	72787	C – 37 4850	8 31 28 – 38 12.0	6.48	– 0.19	1.24C	B35p			8.07							1.0				8 33 20 – 38 22.3
19	72836	C – 42 4375	8 31 38 – 42 54.4	9.4 M	9.0 G		B8			12.53							1.0				8 33 23 – 43 4.7
20	72832	C – 38 4610	8 31 47 – 38 40.6	5.95	– 0.15	1.28C	B8 p			8.24		8.35					1.0	1.0			8 33 38 – 38 50.9
21		C – 43 4408	8 31 48 – 43 39.2	10. M						13.82							1.0				8 33 31 – 43 49.5
22	72976	P – 55 1606	8 31 51 – 56 13.5	7.23M			A0			10.07							1.0				8 33 6 – 56 23.8
23	72875	C – 42 4379	8 31 51 – 42 51.0	9.8 M	8.8 G		A0			12.02		13.15					1.0	1.0			8 33 36 – 43 1.3
24	72939	C – 47 4087	8 31 57 – 47 43.3	9.6 M	8.9 G		B5			10.99		12.84					1.0	1.0			8 33 33 – 47 53.6
25		C – 43 4411	8 31 57 – 43 33.2	10. M						13.34							1.0				8 33 41 – 43 43.5
26	72918	C – 43 4410	8 31 57 – 43 16.6	9.6 M	9.0 G		B9			11.28		12.73					1.0	1.0			8 33 41 – 43 26.9
27	72919	C – 44 4529	8 32 1 – 44 46.4	8.2 M	7.5 G		B9 c	11.47	.17	10.24	.36	11.06				2.0	4.0	.3			8 33 42 – 44 56.7
28	72959	C – 44 4535	8 32 10 – 45 13.6	10.2 M	9.0 G		A0 c	12.74		12.73	.08					1.0	2.0				8 33 51 – 45 23.9
29		C – 44 4534	8 32 11 – 44 19.2	10. M						12.46							.3				8 33 53 – 44 29.5
30	72997	C – 44 4539	8 32 26 – 44 22.3	7.6 M	7.0 G		B5	10.16	.29	9.02	.32					3.3	5.0				8 34 8 – 44 32.7
31	72973	C – 36 4777	8 32 29 – 36 31.3	8.22	– 0.08	– 0.34	A0					10.42						1.0			8 34 24 – 36 41.7
32	73010	C – 45 4255	8 32 31 – 45 27.8	7.50M			B8	10.39	.45	9.27	.30	9.80	.25			6.0	11.0	2.3			8 34 11 – 45 38.2
33	73009	C – 44 4540	8 32 31 – 44 37.8	9.8 M	9.1 G		B9	12.09		11.24	.10					1.0	3.0				8 34 13 – 44 48.2
34	73042	C – 43 4417	8 32 37 – 43 50.4	8.8 M	9.0 G		B9			11.62							1.0				8 34 20 – 44 .8
35		C – 44 4543	8 32 45 – 44 50.9	10. M	9.4 G		c			13.14	.16						2.0				8 34 26 – 45 1.3
36	73105	P – 52 1532	8 32 46 – 52 53.9	6.88M			B5			8.41							1.0				8 34 10 – 53 4.3
37		C – 43 4419	8 32 46 – 44 .9	9.6 M	9.2 G					12.61							1.0				8 34 29 – 44 11.3
38	73059	C – 44 4544	8 32 48 – 44 20.0	9.6 M	8.8 G		B9	12.22								.3					8 34 30 – 44 30.4
39	73055	C – 40 4408	8 32 52 – 41 3.7	8.6 M	7.9 G		B8					10.61						1.0			8 34 40 – 41 14.1
40	73090	C – 44 4548	8 32 53 – 44 20.7	8.2 M	7.6 G		B9 c	11.35		9.79	.30					.3	3.8				8 34 35 – 44 31.1
41	73076	C – 44 4547	8 32 53 – 44 15.9	8.7 M	8.6 G		B9	11.85		10.87	.01					1.0	1.8				8 34 35 – 44 26.3
42		C – 43 4424	8 32 56 – 44 7.9	9.4 M	9.1 G					12.48							1.0				8 34 39 – 44 18.3
43	73090	C – 44 4548	8 32 58 – 44 21.3	8.2 M	7.6 G		B9	11.22								.3					8 34 40 – 44 31.7
44	73127	C – 50 3407	8 33 0 – 50 55.2	6.57	– 0.16	1.22C	B55s			8.53		7.86	.01				1.0	2.0			8 34 29 – 51 5.6
45	73141	C – 49 3643	8 33 4 – 49 28.6	8.3 M	8.3 G		A0					10.39	.11					2.0			8 34 36 – 49 39.0
46	73125	C – 45 4271	8 33 14 – 45 18.2	10.0 M	9.3 G		A0	12.58		12.26	.09					1.0	2.0				8 34 55 – 45 28.6
47	73153	C – 44 4555	8 33 26 – 45 3.3	9.1 M	8.6 G		A0	12.15		11.88	.11					1.0	4.0				8 35 7 – 45 13.7
48		C – 44 4553	8 33 27 – 44 16.7	10. M						13.10							.3				8 35 10 – 44 27.1
49	73186	C – 43 4437	8 33 34 – 44 7.4	9.8 M	8.9 G		B9	12.08		11.25	.00					1.0	2.0				8 35 17 – 44 17.8
50	73222	C – 49 3655	8 33 36 – 49 41.6	9.4 M	9.7 G		B0					11.00	.10					2.0			8 35 8 – 49 52.0
51	73220	C – 47 4112	8 33 39 – 47 47.2	8.6 M	8.2 G		F8			12.75							1.0				8 35 15 – 47 57.6
52	73219	C – 47 4114	8 33 44 – 47 41.3	10.9 M	9.6 G		A2			13.13							1.0				8 35 20 – 47 51.7
53	73287	P – 53 1760	8 33 49 – 54 1.9	7.07	– 0.11	– 0.46	B75			9.25	.28	9.72	.00				2.0	2.0			8 35 10 – 54 12.3
54	73218	C – 42 4418	8 33 51 – 42 23.2	7.47	0.44	0.00	F4			12.77							1.0				8 35 37 – 42 33.6
55	73216	C – 37 4906	8 34 1 – 38 7.4	8.56M	8.04G		B9					10.99						1.0			8 35 54 – 38 17.9
56	73390	P – 57 1590	8 34 6 – 58 3.1	5.25	– 0.15	– 0.62	B35*			7.18							1.0				8 35 16 – 58 13.5
57	73304	C – 46 4344	8 34 13 – 46 57.1	10.0 M	9.0 G		A3			13.61							1.0				8 35 51 – 47 7.6
58	73305	C – 47 4119	8 34 15 – 47 40.3	9.4 M	8.5 G		A0			10.79		12.93					.3	1.0			8 35 51 – 47 50.8
59	73241	C – 30 6540	8 34 15 – 31 9.8	7.36M			B8			9.77							1.0				8 36 17 – 31 20.3
60	73303	C – 43 4458	8 34 19 – 44 13.3	9.1 M	8.7 G		B9	11.92		11.21	.28					1.0	3.0				8 36 2 – 44 23.8
61	73340	C – 50 3417	8 34 22 – 50 47.7	5.79	– 0.14	1.28C	B9 s			8.33		8.29	.03				1.0	2.0			8 35 52 – 50 58.2
62	73326	C – 46 4349	8 34 23 – 46 19.6	7.46M			B5	9.33	.11	8.73	.35	8.57	.20			2.0	4.3	7.0			8 36 2 – 46 30.1
63		C – 46 4352	8 34 28 – 46 36.3	9.9 M						12.92	.31	13.76					2.0	1.0			8 36 6 – 46 46.8
64	73368	C – 46 4354	8 34 32 – 46 58.5	11.5 M	9.6 G		A3			13.58	.31						2.0				8 36 10 – 47 9.0
65	73404	C – 46 4360	8 34 47 – 47 7.8	9.40	0.07		A0			11.91	.22						1.3				8 36 24 – 47 18.3
66	73421	C – 47 4132	8 34 49 – 47 24.4	9.19	0.30		A2			13.40							1.0				8 36 26 – 47 34.9
67	73420	C – 43 4467	8 34 54 – 43 54.3	9.6 M	8.3 G		B3	11.78		11.17	.06					1.0	2.0				8 36 37 – 44 4.8
68	73461	C – 47 4135	8 35 4 – 47 19.5	7.36	0.32		A5 p			11.57							1.0				8 36 41 – 47 30.0
69	73478	C – 47 4136	8 35 7 – 47 49.4	7.40M			B8	10.21		9.57		9.10				1.0	1.0	1.0			8 36 43 – 47 59.9
70	73477	C – 45 4303	8 35 11 – 46 8.9	8.48	0.53	0.01	G0			13.59							.3				8 36 50 – 46 19.4
71		C – 46 4366	8 35 15 – 46 33.5	9.9 M			c			13.22							1.0				8 36 54 – 46 44.0
72		C – 45 4304	8 35 15 – 45 20.8	9.10	0.19	– 0.64	B23s			11.51							1.0				8 36 56 – 45 31.3
73		C – 44 4596	8 35 18 – 45 6.9	9.0 M	9.0 G					11.66							1.0				8 36 59 – 45 17.4
74		C – 46 4369	8 35 22 – 47 3.9	9.6 M						13.84							.3				8 37 0 – 47 14.4
75	73742	P – 64 919	8 35 24 – 64 38.4	8.4 G			A0					11.65						1.0			8 36 8 – 64 48.9
76	73781	P – 64 920	8 35 35 – 64 29.0	8.1 M			A0					10.80						1.0			8 36 19 – 64 39.5
77	73589	C – 46 4375	8 35 37 – 47 1.4	8.84	0.04		B8	11.62	.29	11.53	.34	11.56	.37			2.0	1.3	5.0			8 37 15 – 47 11.9
78	73568	C – 44 4602	8 35 38 – 45 1.9	8.33	0.31	– 0.62	B03			11.27							1.0				8 37 20 – 45 12.4
79		C – 46 4376	8 35 39 – 46 36.6	10. M			c			13.48	.08						2.0				8 37 18 – 46 47.1
80		C – 45 4313	8 35 40 – 45 56.6	10.53	0.11	1.28C	B33s			12.83	.38						2.3				8 37 20 – 46 7.1
81	73567	C – 41 4322	8 35 41 – 42 10.8	8.6 M	8.7 G		B8	12.07		11.05		12.06				1.0	1.0	1.0			8 37 28 – 42 21.3
82	73634	C – 42 4451	8 35 53 – 42 48.8	4.13	0.10	0.12	A92	9.69		9.41	.09	11.73				1.0	2.0	1.0			8 37 39 – 42 59.4
83	73658	C – 45 4322	8 36 0 – 46 6.4	6.86	0.03	– 0.69	B4	9.46	.34	9.13	.23	9.15	.26			6.0	10.2	8.0			8 37 40 – 46 17.0
84	73834	P – 63 1012	8 36 3 – 63 27.1	8.10	– 0.02	– 0.71	B3 s			9.63		10.35	.14				1.0	2.0			8 36 53 – 63 37.6
85		C – 42 4456	8 36 11 – 42 36.2	10. M						13.30							1.0				8 37 57 – 42 46.8
86		C – 45 4325	8 36 12 – 45 41.2	10. M						13.40							1.0				8 37 52 – 45 51.8
87	73653	C – 37 4949	8 36 12 – 37 50.0	6.91M			B8					7.89	.10					2.0			8 38 5 – 38 .6
88	73699	C – 39 4603	8 36 19 – 39 54.3	7.71M			B5			10.07							1.0				8 38 9 – 40 4.9
89	73738	C – 44 4627	8 36 28 – 45 9.7	8.5 M	7.8 G		B9 c			10.36	.31						2.0				8 38 10 – 45 20.3
90	73774	C – 43 4500	8 36 37 – 44 7.3	9.6 M	9.3 G		B9			12.07							1.0				8 38 20 – 44 17.9

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	73953	P – 62 1060	8 36 44	– 62 21.0	9.0 M	8.70G		B8				11.02						1.0			8 37 39 – 62 31.6
2	73813	C – 46 4395	8 36 46	– 46 36.0	7.77	– 0.01	– 0.51	B8		9.92	.27	9.05	.27	9.41	.17		4.0	7.0	5.3		8 38 25 – 46 46.6
3	73849	C – 50 3447	8 36 48	– 50 19.9	8.7 M	8.1 G		B5						10.45					1.0		8 38 19 – 50 30.5
4		C – 46 4397	8 36 50	– 47 14.3	10. M							13.32						1.0			8 38 28 – 47 24.9
5		C – 46 4398	8 36 50	– 46 59.4	9.0 M	9.5 G				12.35		12.15	.19			1.0	2.0				8 38 28 – 47 10.0
6	73831	C – 45 4338	8 36 54	– 45 45.1	8.2 M	7.6 G		B8		10.65	.37	10.14	.15	10.72	.29		5.0	6.3	7.0		8 38 35 – 45 55.7
7	73811	C – 42 4469	8 36 54	– 42 16.2	8.24	0.02	– 0.23	B9		11.27		10.81		12.66			1.0	1.0	1.0		8 38 41 – 42 26.8
8	73810	C – 41 4337	8 36 55	– 41 24.2	8.9 M	8.4 G		B9						11.66					1.0		8 38 43 – 41 34.8
9	73830	C – 45 4339	8 36 57	– 45 37.3	8.2 M	7.8 G		A2				12.25						1.0			8 38 38 – 45 47.9
10		C – 46 4405	8 37 13	– 47 12.0	10. M							13.53						1.0			8 38 51 – 47 22.6
11	73903	C – 45 4348	8 37 19	– 46 3.0	8.96	0.23	1.31C	B15c		10.80	.44	10.03	.28	10.90	.16		5.0	6.8	7.0		8 38 59 – 46 13.6
12	73882	C – 39 4631	8 37 19	– 40 14.5	7.19	0.40	1.33C	O8S						10.81					1.0		8 39 9 – 40 25.1
13	73952	P – 52 1565	8 37 20	– 52 54.8	6.46	– 0.10	– 0.35	B95p				8.77						1.0			8 38 45 – 53 5.4
14		C – 45 4354	8 37 26	– 45 47.2	9.8 M	9.5 G						12.88						1.0			8 39 7 – 45 57.8
15		C – 45 4357	8 37 28	– 45 38.3	9.7 M							13.60						1.0			8 39 9 – 45 48.9
16	73966	C – 51 3133	8 37 31	– 51 24.3	9.2 M	9.2 G		A0						12.20					1.0		8 39 0 – 51 34.9
17		C – 46 4408	8 37 38	– 46 43.8	9.8 M							12.50						1.0			8 39 17 – 46 54.4
18		C – 46 4409	8 37 39	– 46 20.2	9.8 M	9.4 G				12.29	.00	12.32	.36				2.0	5.0			8 39 19 – 46 30.9
19	73986	C – 42 4487	8 37 50	– 42 18.6	8.38	– 0.05	– 0.19	B9				10.68		11.68				1.0	1.0		8 39 37 – 42 29.3
20		C – 45 4365	8 37 52	– 46 7.0	9.8 M			c		12.50	.12	12.40	.16				2.0	3.3			8 39 32 – 46 17.7
21	74071	P – 53 1796	8 37 59	– 53 15.7	5.5	– 0.16	– 0.6	B65s				7.31		8.02				1.0	1.0		8 39 24 – 53 26.4
22	74042	C – 44 4659	8 38 6	– 44 35.3	9.6 M	8.4 G		A0 c				11.73						1.0			8 39 49 – 44 46.0
23	74069	C – 44 4661	8 38 13	– 44 57.5	9.8 M	9.3 G		A				12.64						.3			8 39 55 – 45 8.2
24	74106	C 45 4380	8 38 29	– 45 26.3	8.8 M	8.3 G		B9		12.39	.32	11.40	.23	12.26	.49		3.0	6.0	2.0		8 40 10 – 45 37.0
25	74067	C – 39 4653	8 38 29	– 40 5.1	5.19	– 0.01	1.48C	B95p				8.58	.05	8.96				2.0	1.0		8 40 19 – 40 15.8
26	74107	C – 47 4194	8 38 30	– 47 34.2	10.2 M	8.7 G		A0		12.94							1.0				8 40 7 – 47 44.9
27	74146	P 52 1579	8 38 32	– 52 52.6	5.2	– 0.15	– 0.59	B55*				7.30	.06					1.3			8 39 58 – 53 3.3
28	74169	P – 52 1581	8 38 34	– 53 5.0	7.25	– 0.0	0.1	A0 s				10.20		11.31				1.0	1.0		8 39 59 – 53 15.7
29		C – 45 4384	8 38 34	– 45 34.2	9.9 M					13.33		13.24	.00				1.0	2.0			8 40 15 – 45 44.9
30	74168	C – 51 3141	8 38 40	– 51 45.8	7.50	– 0.12	– 0.48	B9 s				9.57	.06	9.57				3.0	1.0		8 40 8 – 51 56.5
31	74129	C – 45 4389	8 38 40	– 45 56.7	9.2 M	9.0 G		A		11.63	.06	11.41	.41	12.20	.29		2.0	4.3	2.0		8 40 20 – 46 7.4
32	74115	C – 40 4505	8 38 43	– 40 53.5	7.9 M	7.8 G		B9						11.67					1.0		8 40 32 – 41 4.2
33	74195	P – 52 1583	8 38 45	– 52 49.1	3.6	– 0.18	– 0.7	B33*		7.20							1.0				8 40 11 – 52 59.8
34	74146	P – 52 1579	8 38 48	– 52 51.4	5.2	– 0.15	– 0.59	B55*				6.58						.3			8 40 14 – 53 2.1
35	74196	P – 52 1584	8 38 52	– 52 50.2	5.6	– 0.14	– 0.52	B84s				7.50						1.0			8 40 18 – 53 .9
36	74195	P – 52 1583	8 38 52	– 52 47.4	3.6	– 0.18	– 0.7	B33*		7.86				5.18			1.0		1.0		8 40 18 – 52 58.1
37	74195	P – 52 1583	8 38 52	– 52 44.6	3.6	– 0.18	– 0.7	B33p				5.44	.40					2.3			8 40 18 – 52 55.3
38	74236	P – 59 1078	8 38 53	– 59 22.1	6.83M			B9				9.54		9.51				1.0	1.0		8 40 0 – 59 32.8
39	74405	P – 69 946	8 38 55	– 70 12.5	5.19	0.01	– 0.03	A0 p						9.12					1.0		8 39 5 – 70 23.2
40		C – 46 4437	8 38 57	– 47 3.4	9.5 M	10.1 G				12.78							1.0				8 40 35 – 47 14.1
41	74180	C – 46 4438	8 38 58	– 46 28.2	3.9	0.7	0.3	F21*		10.68	.19	11.41	.26				2.0	2.3			8 40 38 – 46 38.9
42	74194	C – 44 4683	8 39 5	– 44 52.8	7.54	0.23	– 0.78	O9 s		10.41	.40	10.25	.22	11.11	.21		3.3	5.3	3.0		8 40 48 – 45 3.5
43	74209	C – 44 4684	8 39 8	– 44 34.2	9.6 M	9.0 G		A0		13.19		12.73	.13				1.0	2.0			8 40 51 – 44 44.9
44		C – 45 4393	8 39 10	– 45 19.6	9.3 M	9.1 G		c		12.01	.50	11.32	.12	11.95	.39		3.0	4.3	4.0		8 40 52 – 45 30.3
45		C – 45 4394	8 39 11	– 45 55.0	10.16	0.21	1.28C	B25s		12.57		12.23	.23				1.0	1.3			8 40 52 – 46 5.7
46	74234	C – 47 4210	8 39 17	– 48 2.8	6.94	– 0.17	– 0.8	B25s						8.43					1.0		8 40 54 – 48 13.5
47	74275	P – 52 1587	8 39 22	– 52 37.4	7.30	– 0.01	0.1	A05				10.30	.23	9.68				2.0	.3		8 40 48 – 52 48.1
48	74251	C 47 4214	8 39 25	– 47 53.3	7.76	– 0.11	– 0.57	B5						10.28					1.0		8 41 2 – 48 4.0
49	74249	C – 46 4445	8 39 29	– 46 26.5	9.8 M			A0		13.24		13.16					1.0	.3			8 41 9 – 46 37.3
50	74273	C – 48 4020	8 39 30	– 48 44.6	5.90	– 0.22	1.15C	B25s						7.05	.05				2.0		8 41 5 – 48 55.4
51	74375	P – 59 1080	8 39 31	– 59 34.9	4.32	– 0.12	– 0.80	B13*						9.60					1.0		8 40 37 – 59 45.6
52		C – 44 4691	8 39 31	– 45 5.9	8.48	0.40	– 0.50	B22		12.16	.07	12.39	.19				2.0	2.3			8 41 13 – 45 16.7
53	74272	C – 46 4448	8 39 35	– 47 8.3	4.76	0.12	0.11	A52		10.14		9.73	.16				1.0	2.0			8 41 13 – 47 19.1
54		C – 45 4401	8 39 35	– 45 34.5	9.1 M	8.7 G				11.76	.53	11.35	.21	12.10	.27		3.0	5.0	2.3		8 41 16 – 45 45.3
55	74290	C – 47 4217	8 39 38	– 47 23.7	8.30M			B8		11.44		12.47		11.86			1.0	1.0	1.0		8 41 16 – 47 34.5
56	74319	C – 44 4698	8 39 52	– 44 48.7	6.63M			B9		9.11	.35	8.70	.22	8.42	.06		6.3	7.3	2.0		8 41 35 – 44 59.5
57		C – 45 4409	8 39 53	– 45 35.4	10. M					13.30							1.0				8 41 34 – 45 46.2
58		C – 44 4700	8 40 1	– 44 44.0	10. M	9.6 G		c		13.39							1.0				8 41 44 – 44 54.8
59		C – 45 4415	8 40 7	– 45 22.3	9.0 M	9.5 G				14.01		13.71					1.0	1.0			8 41 49 – 45 33.1
60	74300	C – 31 6433	8 40 11	– 32 3.1	7.07M			B9						10.48					1.0		8 42 13 – 32 13.9
61		P – 45 2856	8 40 15	– 45 56.0	9.4 G							12.71						1.0			8 41 56 – 46 6.8
62	74371	C – 44 4704	8 40 15	– 45 13.8	5.2	0.2	– 0.5	B51p		9.44	.38	9.19	.20	9.56	.27		8.0	5.5	4.0		8 41 57 – 45 24.6
63	74355	C – 40 4528	8 40 18	– 40 31.5	8.6 M	7.7 G		B8						10.54					1.0		8 42 8 – 40 42.3
64	74401	C – 47 4241	8 40 22	– 47 29.1	9.1 M	9.1 G		B8						11.62					1.0		8 42 0 – 47 39.9
65		C – 46 4465	8 40 25	– 46 18.2	9.7 M					13.66							1.0				8 42 5 – 46 29.0
66	74436	C – 47 4246	8 40 31	– 48 3.9	8.24	– 0.07	– 0.60	B8						9.83					.3		8 42 8 – 48 14.7
67		C – 45 4425	8 40 38	– 45 32.8	9.7 M	9.2 G				12.18	.05	12.10	.11				2.0	3.3			8 42 20 – 45 43.6
68	74455	C – 47 4251	8 40 39	– 47 55.1	5.51	– 0.19	– 0.88	B35*						6.45					.3		8 42 16 – 48 5.9
69	74454	C – 46 4474	8 40 43	– 46 24.0	8.02M			B9		10.91	.04	10.62	.18	11.73	.44		2.0	4.0	3.0		8 42 23 – 46 34.8
70	74516	P – 52 1601	8 40 44	– 52 47.3	7.40	0.00	– 0.0	A15						10.97					.3		8 42 10 – 52 58.1
71	74536	P 52 1603	8 40 47	– 53 11.4	7.97	0.02	– 0.5	B75				9.83		10.77				1.0	1.0		8 42 12 – 53 22.2
72		C – 45 4428	8 40 50	– 45 35.5	10. M					13.87		12.82	.63				1.0	2.0			8 42 32 – 45 46.3
73	74560	P – 52 1607	8 40 59	– 52 56.0	4.9	– 0.18	– 0.66	B44*		8.85		6.50		6.97			1.0	1.0	.3		8 42 25 – 53 6.8
74	74475	C – 35 4976	8 41 0	– 35 45.8	6.41	0.02	1.51C	A1						10.32					1.0		8 42 57 – 35 56.6
75	74528	C – 45 4435	8 41 2	– 45 22.5	8.44	0.16	1.30C	B25*		11.66	.35	11.10	.18	11.59	.43		3.0	6.0	2.0		8 42 44 – 45 33.3
76		C – 44 4719	8 41 7	– 44 46.6	10. M	10.2 G				12.51		12.40					1.0	1.0		2659	8 42 50 – 44 57.4
77	74558	C – 46 4483	8 41 8	– 46 37.7	6.94	0.26	1.54C	A73		11.13	.20	11.62	.13				2.0	3.0			8 42 48 – 46 48.5
78	74557	C – 43 4571	8 41 13	– 43 47.0	9.0 M	8.5 G		A3				12.94						1.0			8 42 58 – 43 57.9
79	74681	P – 59 1088	8 41 22	– 59 20.8	8.0 M			A0						11.48					1.0		8 42 30 – 59 31.6
80	74620	C – 47 4276	8 41 29	– 47 30.4	9.4 M	8.3 G		B9						10.67					1.0		8 43 7 – 47 41.3
81	74575	C – 32 5651	8 41 35	– 33 .3	3.69	– 0.19	– 0.88	B22p		6.92	.02			5.18	.49		2.0		2.0		8 43 36 – 33 11.2
82		C 46 4490	8 41 38	– 46 16.1	10.00	0.06	– 0.57	B25		12.23		12.37	.09				1.0	2.0			8 43 18 – 46 27.0
83	74650	C – 47 4282	8 41 39	– 47 37.5	7.49M			B9						10.94					1.0		8 43 17 – 47 48.4
84	74662	C – 47 4283	8 41 42	– 48 9.8	9.6 M	8.0 G		B8						10.55					1.0		8 43 19 – 48 20.7
85	74649	C 45 4449	8 41 44	– 46 8.2	9.1 M	8.6 G		A0		11.68	.15	11.59	.40	11.58			2.0	3.0	1.0		8 43 25 – 46 19.1
86		C – 45 4448	8 41 45	– 45 26.8	10. M	10. G				13.78							1.0				8 43 27 – 45 37.7
87		C – 45 4452	8 41 51	– 45 44.4	9.0 M					13.12		13.45					1.0	1.0			8 43 32 – 45 55.3
88	74677	C – 45 4455	8 41 55	– 45 55.2	8.62	0.22	1.31C	B13		11.54	.23	11.31	.29				1.3	2.0			8 43 36 – 46 6.1
89		C – 45 4456	8 41 56	– 46 11.8	10.0 M					13.41		13.34					1.0	1.0			8 43 37 – 46 22.7
90		C – 45 4457	8 42 0	– 45 21.8	9.0 M	9.0 G				11.66		11.59	.20	11.60			1.0	4.0	1.0		8 43 42 – 45 32.7

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 922
2		M		W/-46 4400	897 A19 158 922 A74
3					897 922
4					899
5					897
6					897 922
7					897 922 A74
8					897 922
9					897 922
10					899
11				W/-45 4351,4352	897 A19 016 158 922 A42
12		P	N		897 A19 002 012 013 158 419 922 A42 A48
13		B			897 A19 884 901 922 A27 A32 A48
14					897
15					899
16					899 922
17					899
18					897
19					897 922 A74
20				W/-45 4368	899
21			N		897 A19 158 281 562 884 901 922 A27 A32 A42 A48
22				W/-44 4662	897 922
23					897 922
24					897 922
25		B			897 A19 781 841 884 901 922 A42
26					897 922
27		B		SB	897 A19 281 352 419 562 783 842 884 901 922 A27 A32 A42 A48
28			M		897 A19 922 A32 A42 A48 A63
29					899
30			P		897 922 A32 A48
31					897 922
32					897 922
33		UO		W/-52 1579,1584	897 A19 158 419 488 783 793 884 901 922 969 A27 A32 A42 A43 A48
34		B		W/-52 1584,SB	897 A19 281 352 419 562 783 842 884 901 922 A27 A32 A42 A48
35			S		897 A19 281 419 562 884 901 922 972 A27 A32 A42 A48
36		UO		W/-52 1584	897 A19 158 419 488 783 793 884 901 922 969 A27 A32 A42 A43 A48
37		UO			897 A19 158 419 488 783 793 884 901 922 969 A27 A32 A42 A43 A48
38					897 922
39		B			897 A19 158 781 884 901 922
40		B		W/-46 4432	897
41		B	P		897 A19 620 783 793 884 901 921 922 A42
42			H		897 A19 158 922 A42
43					897 922
44				W/-45 4392	897
45			EN		899 A19 158 308 341 A07 A42
46			H		897 A19 158 419 922 A42
47					897 A19 922 A32 A42 A48 A63
48					897 A19 922
49					899 922
50			N		897 A19 158 419 884 901 922 A27 A42 A48
51		UB		SB	897 A19 158 419 488 508 783 884 901 922 A27 A42 A43 A48
52					897 A19 016 158 A07
53					897 A19 158 781 884 901 921 922
54					897
55					897 922
56					897 922
57					899
58				W/-44 4701	899
59					897
60					897 922
61					900
62		S			897 A19 007 158 419 620 793 884 901 922 A27 A42 A48
63					897 922
64					897 922
65					899
66					897 A19 922
67					897
68	G	B	N	IC 2395	897 A19 158 419 884 901 922 A27 A31 A42 A48
69					897 922
70					897 A19 281 922 A32 A42 A48 A63
71					897 A19 281 562 922 A32 A42 A48
72					899
73		B		W/-52 1605, + A(P)	897 A19 158 281 353 419 562 783 884 901 922 A27 A31 A32 A42 A48 A63
74					897 A19 158 884 901 922
75			N	W/-45 4441	897 A19 016 158 922 A42
76	G				899 900
77					897 A19 158 505 922 A42
78					897 922
79					897 922
80					897 922
81		UP			897 A19 002 008 013 158 419 488 783 793 884 901 921 922 A27 A42 A43 A48
82					899 A19 016 158
83					897 922
84					897 922
85					897 922
86					899 900
87					899
88					897 A19 016 158 922 A42
89					899
90					897

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1		C–45 4458	8 42 2 –45 46.2	9.0 M						13.66							1.0				8 43 43 –45 57.1
2	74693	C–43 4581	8 42 4 –43 18.2	9.6 M	9.0 G		A2			13.26							1.0				8 43 50 –43 29.1
3	74676	C–40 4555	8 42 5 –41 4.0	9.9 M	9.2 G		B9					11.79						1.0			8 43 54 –41 14.9
4	74753	C–49 3761	8 42 6 –49 38.5	5.15	–0.21	–1.02	B05*	7.77				6.52				1.0		.3			8 43 40 –49 49.4
5	74711	C–46 4504	8 42 7 –46 37.0	7.10	0.08	–0.74	B3	9.45		9.88	.05	10.11	.12			1.0	2.0	3.0			8 43 47 –46 47.9
6		C–44 4743	8 42 7 –44 55.3	9.9 M						13.57							1.0				8 43 50 –45 6.2
7		C–45 4463	8 42 10 –45 44.9	9.6 M	9.0 G		c	10.93		11.63						1.0	1.0				8 43 52 –45 55.8
8		C–43 4584	8 42 14 –44 .5	9.7 M						13.43							1.0				8 43 59 –44 11.4
9		C–45 4463	8 42 17 –45 43.6	9.6 M	9.0 G					11.29	.04						2.0				8 43 59 –45 54.5
10	74773	C–46 4512	8 42 30 –46 56.0	7.8 M	6.9 G		B5			8.89		9.06	.41				1.0	3.0			8 44 9 –47 6.9
11		C–45 4467	8 42 30 –45 17.9	9.9 M	9.6 G					13.77							1.0				8 44 12 –45 28.8
12	74922	P–59 1092	8 42 45 –59 24.3	8.29M	8.0 G		A0					11.21						1.0			8 43 53 –59 35.2
13		C–45 4476	8 42 50 –45 30.1	9.8 M				13.13		13.48	.14					1.0	2.0				8 44 32 –45 41.0
14	74804	C–40 4569	8 42 51 –41 5.7	7.1 M	7.3 G		B55					9.01						1.0			8 44 40 –41 16.6
15	74869	C–47 4312	8 43 5 –47 46.9	11.5 M	9.6 G		B9			12.35	.34						2.0				8 44 43 –47 57.9
16		C–45 4482	8 43 5 –45 48.1	10.0 M			WN8s	12.89		13.14						1.0	.3				8 44 47 –45 59.1
17		C–44 4772	8 43 8 –44 42.5	10. M				12.93		13.13						1.0	1.0				8 44 52 –44 53.5
18	74868	C–44 4771	8 43 8 –44 21.7	6.57	0.57	1.70C	G34	12.31	.05	12.95	.27					2.0	1.3				8 44 52 –44 32.7
19		C–45 4486	8 43 11 –45 28.7	9.8 M				13.71								1.0					8 44 53 –45 39.7
20	74867	C–41 4455	8 43 13 –41 20.0	9.5 M	8.5 G		B9					11.06						.3			8 45 2 –41 31.0
21	74956	P–54 1788	8 43 19 –54 31.5	1.95	0.04	0.0	A05p	7.18				6.73				1.0		1.0			8 44 42 –54 42.5
22		C–44 4775	8 43 20 –44 23.9	9.9 M	9.5 G					13.46	.28						1.3				8 45 4 –44 34.9
23	74883	C–40 4582	8 43 21 –41 14.7	8.9 M	8.5 G		B9					11.30						.3			8 45 10 –41 25.7
24		C–45 4494	8 43 24 –45 58.1	10.0 M			B s			12.43							1.0				8 45 5 –46 9.1
25	74920	C–45 4496	8 43 29 –45 51.3	7.53	0.03	–0.93	B3	9.21		9.58	.30	9.24	.13			1.0	2.3	.5			8 45 11 –46 2.3
26	74936	C–45 4498	8 43 32 –45 43.4	8.26	0.22	–0.53	B8	12.82		13.51	.19	12.26				1.0	2.0	1.0			8 45 14 –45 54.4
27	74920	C–45 4496	8 43 34 –45 49.0	7.53	0.03	–0.93	B3 c					8.55						1.0			8 45 16 –46 0.0
28	74969	C–48 4077	8 43 36 –49 10.4	8.4 M	8.0 G		B9					10.61						1.0			8 45 11 –49 21.4
29	74936	C–45 4498	8 43 36 –45 43.7	8.26	0.22	–0.53	B8 c	11.12		11.99	.18					1.0	1.3				8 45 18 –45 54.7
30	74966	C–36 4998	8 43 52 –36 33.6	7.44M	7.00G		B8					8.90						1.0			8 45 48 –36 44.6
31		C–47 4325	8 43 53 –47 19.3	10. M	9.6 G					13.48							1.0				8 45 32 –47 30.3
32	75086	P–58 1202	8 43 54 –58 32.5	6.21	–0.10	1.32C	B8 p			8.70							1.0				8 45 5 –58 43.5
33	74979	C–40 4593	8 43 57 –40 25.9	7.50M			B8			9.10		8.42	.18				1.0	3.0			8 45 48 –40 36.9
34		C–45 4509	8 43 58 –45 34.8	9.9 M	9.2 G			11.82		12.53						1.0	1.0				8 45 40 –45 45.8
35	75028	C–47 4329	8 44 2 –47 44.8	8.5 M	7.9 G		A0	12.59		11.05	.36					1.0	2.0				8 45 40 –47 55.8
36	75009	C–43 4611	8 44 3 –44 3.9	7.0 M	6.6 G		B9	10.39	.26	9.30	.21	9.17	.22			2.0	4.0	3.0			8 45 48 –44 14.9
37	75105	P–52 1640	8 44 16 –52 47.3	7.70	–0.09	–0.48	B85s			9.79		9.90	.28				1.0	2.0			8 45 43 –52 58.3
38	75064	C–47 4332	8 44 16 –47 23.6	9.6 M	8.6 G		B9			11.66							.3				8 45 55 –47 34.6
39	75062	C–43 4615	8 44 18 –43 34.1	8.0 M	7.4 G		B9	11.34	.05	10.41		11.02	.33			2.0	1.0	2.0			8 46 4 –43 45.1
40	75063	C–45 4517	8 44 20 –45 51.5	3.90	0.00	–0.03	A03	8.40		8.55	.41	8.61	.35			1.0	2.0	1.5			8 46 2 –46 2.5
41	75061	C–43 4617	8 44 20 –43 16.7	9.8 M	9.0 G		A0			13.37							1.0				8 46 6 –43 27.7
42	75082	C–41 4479	8 44 26 –41 51.1	7.9 M	8.0 G		B8 c					11.53						1.0			8 46 15 –42 2.1
43	75103	C–46 4557	8 44 30 –47 12.7	8.4 M	7.8 G		F2			12.76							1.0				8 46 9 –47 23.7
44	75083	C–42 4605	8 44 30 –42 34.5	8.69	–0.08	–0.31	B9					11.10						.3			8 46 17 –42 45.5
45	75060	C–39 4765	8 44 30 –40 12.7	7.8 M	7.5 G		B9 c					10.05	.17					3.0			8 46 21 –40 23.7
46	75081	C–40 4602	8 44 34 –40 56.5	6.20	–0.05	1.40C	A0			9.14		9.10	.03				1.0	2.0			8 46 24 –41 7.5
47	75129	C–47 4337	8 44 40 –47 22.0	6.78M			B8	11.54	.33	10.26		11.76				2.0	.3	1.0			8 46 19 –47 33.0
48		C–44 4805	8 44 42 –44 43.1	9.5 M	9.5 G					13.05	.05						3.0				8 46 26 –44 54.1
49	75126	C–42 4610	8 44 45 –42 22.9	7.08	–0.13	–0.51	B9			9.14		8.93	.08				1.0	2.0			8 46 33 –42 33.9
50	75127	C–42 4611	8 44 47 –42 36.4	8.67	–0.06	–0.34	B9					10.99						.3			8 46 34 –42 47.4
51	75149	C–45 4526	8 44 48 –45 43.7	5.5	0.2	–0.61	B31s	9.12		9.48	.07	9.51	.21			1.0	2.0	2.3			8 46 30 –45 54.7
52	75112	C–34 5243	8 44 50 –34 26.3	6.36	–0.15	–0.56	B45					7.94	.22					2.0			8 46 49 –34 37.4
53	75113	C–34 5244	8 44 51 –35 11.1	10.1 M	10.1 G		G5					11.66						1.0			8 46 49 –35 22.2
54	75125	C–39 4773	8 44 52 –39 43.4	6.94M			B9					9.62	.10					2.0			8 46 44 –39 54.5
55	75148	C–43 4624	8 44 53 –43 47.1	9.0 M	7.9 G		A2	12.35		12.32	.13					1.0	2.0				8 46 38 –43 58.2
56	75200	C–47 4341	8 45 0 –48 9.3	9.1 M	8.7 G		G0			12.57							1.0				8 46 38 –48 20.4
57	75212	C–48 4097	8 45 6 –48 34.9	8.42	–0.08	–0.29	A0	11.53		10.58						1.0	1.0				8 46 43 –48 46.0
58	75211	C–43 4635	8 45 16 –43 53.4	7.50	0.41	–0.65	B5	11.49		10.83		11.14	.21			1.0	.3	1.3			8 47 1 –44 4.5
59	75243	C–47 4348	8 45 21 –47 38.7	9.6 M	8.7 G		A0	11.90		10.74						1.0	.3				8 47 0 –47 49.8
60	75241	C–44 4818	8 45 22 –44 53.4	6.59	–0.13	–0.54	B53			9.05		8.10					1.0	1.0			8 47 6 –45 4.5
61	75295	P–53 1888	8 45 23 –54 .8	8.27M	8.1 G		A0					11.86						1.0			8 46 48 –54 11.9
62	75259	C–49 3812	8 45 23 –49 58.4	9.2 M	9.2 G		B9					10.99						1.0			8 46 57 –50 9.5
63	75311	P–56 1865	8 45 25 –56 35.1	4.49	–0.18	–0.71	B25*			6.43							1.0				8 46 43 –56 46.2
64	75293	C–47 4358	8 45 26 –47 38.6	9.4 M	9.1 G		B9 c			10.38							.3				8 47 5 –47 49.7
65	75240	C–42 4621	8 45 30 –42 25.0	8.8 M	7.8 G		A0			9.91		10.88					1.0	1.0			8 47 18 –42 36.1
66		C–46 4578	8 45 31 –46 50.0	10. M						12.95							1.0				8 47 11 –47 1.1
67		C–47 4353	8 45 34 –47 32.5	10. M	9.6 G					13.27							.3				8 47 13 –47 43.6
68	75258	C–41 4502	8 45 38 –42 16.1	7.19	–0.12	–0.56	B9 c			8.65		8.50	.02				1.0	1.3			8 47 26 –42 27.2
69	75293	C–47 4358	8 45 39 –47 40.0	9.4 M	9.1 G		B9	12.70		12.23		11.72				1.0	.3	1.0			8 47 18 –47 51.1
70	75275	C–43 4643	8 45 39 –43 52.9	9.1 M	8.6 G		B3	11.15	.36	10.41	.08	10.75	.35			1.3	.5	1.3			8 47 24 –44 4.0
71		C–46 4580	8 45 40 –46 43.5	10. M						12.23	.30	13.20					2.0	1.0			8 47 20 –46 54.6
72	75309	C–45 4547	8 45 47 –46 16.0	7.84	0.02	–0.85	B2	10.44	.10	9.34	.28	10.02	.12			2.0	2.0	1.5			8 47 28 –46 27.1
73	75272	C–38 4879	8 45 47 –38 48.4	6.56M			B9 c					8.12						1.0			8 47 40 –38 59.5
74	75310	C–46 4587	8 45 49 –46 29.3	10.2 M	8.9 G		A0			11.50	.31	12.82	.19				2.0	2.0			8 47 30 –46 40.4
75	75349	C–46 4590	8 45 57 –47 1.3	9.2 M	8.9 G		B9	12.42		10.74		11.76	.57			1.0	1.0	3.0			8 47 37 –47 12.4
76	75324	C–41 4510	8 45 59 –42 5.3	7.12	–0.13	–0.52	B9 c			9.07	.28	8.60	.22				2.0	3.0			8 47 47 –42 16.4
77	75348	C–43 4649	8 46 3 –44 2.8	8.7 M	9.0 G		A3			13.63	.19						2.0				8 47 48 –44 13.9
78		C–47 4364	8 46 17 –47 30.6	9.6 M	9.5 G					12.16	.35						2.0				8 47 56 –47 41.7
79	75387	C–41 4516	8 46 21 –42 16.7	6.42	–0.19	–0.75	B8			7.76		7.33					1.0	.3			8 48 9 –42 27.8
80	75398	C–43 4658	8 46 24 –43 45.0	9.4 M	8.4 G		A0	11.65		11.73	.23					1.0	2.0				8 48 10 –43 56.1
81	75466	P–52 1675	8 46 32 –52 39.9	6.28	–0.11	–0.32	B85			8.87		8.45	.23				1.0	2.0			8 48 0 –52 51.0
82	75387	C–41 4516	8 46 32 –42 14.8	6.42	–0.19	–0.75	B8 c					6.96						1.0			8 48 20 –42 25.9
83	75502	P–53 1904	8 46 39 –53 24.4	8.68M	8.46G		B9					11.47						1.0			8 48 5 –53 35.5
84	75465	C–46 4605	8 46 40 –46 43.5	9.00	0.22	1.30C	B35s			12.02	.26	12.83	.03				1.3	2.0			8 48 21 –46 54.6
85		C–46 4607	8 46 42 –47 2.6	10. M						13.43							1.0				8 48 22 –47 13.7
86	75446	C–41 4523	8 46 42 –42 12.9	7.38	–0.13	–0.58	B9			9.16		8.89					1.0	.3			8 48 30 –42 24.1
87	75478	C–47 4377	8 46 50 –47 21.1	8.9 M	8.1 G		F0			12.95	.22						2.0				8 48 29 –47 32.3
88		C–45 4571	8 46 50 –45 47.1	9.5 M						12.66							1.0				8 48 32 –45 58.3
89	75476	C–39 4824	8 47 0 –40 6.3	8.02M	7.62G		B8					9.82						1.0			8 48 52 –40 17.5
90		C–45 4572	8 47 1 –45 50.1	9.9 M						12.30							1.0				8 48 43 –46 1.3

	OBJ	PHOT	S–PEC	REMARKS	REFERENCES
1					899
2					897 922
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	HD	DM	R.A. (1950)	DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000)	DEC
1	75534	C–47 4381	8 47 6	–47 34.6	7.84	0.37	–0.58	B5	11.52		11.11		12.01				1.0	1.0	1.0			8 48 45	–47 45.8
2	75611	P–54 1834	8 47 7	–55 15.8	7.56M			A0					10.29						1.0			8 48 29	–55 27.0
3		C–46 4615	8 47 10	–47 6.4	9.4 M	9.1 G			12.58		11.79	.02	12.25				1.0	1.3	1.0			8 48 50	–47 17.6
4		C–49 3845	8 47 13	–49 28.6	10.0 M								10.73						1.0			8 48 48	–49 39.8
5	75549	C–43 4668	8 47 17	–43 34.5	7.31	–0.13	–0.57	B35	9.71	.05	9.06	.13	8.65	.19			2.0	3.0	2.0			8 49 3	–43 45.7
6		C–46 4619	8 47 18	–47 2.1	10. M						12.45	.23						1.3				8 48 58	–47 13.3
7	75661	P–53 1914	8 47 29	–54 5.2	9.1 M	8.89G		B3					10.81						1.0			8 48 54	–54 16.4
8	75610	C–47 4388	8 47 29	–47 29.3	10.0 M	9.3 G		A0			12.87							1.0				8 49 8	–47 40.5
9	75587	C–45 4581	8 47 32	–45 27.1	8.8 M	8.7 G		F0			12.33	.19						2.0				8 49 15	–45 38.3
10	75660	P–52 1684	8 47 34	–52 55.0	8.19M	8.0 G		A0					11.31						1.0			8 49 2	–53 6.2
11	75608	C–42 4676	8 47 34	–43 11.0	7.55M			B8	10.33		9.36	.02	9.03	.29			1.0	2.0	2.0			8 49 21	–43 22.2
12	75609	C–46 4626	8 47 35	–46 21.9	9.1 M	8.5 G		F0			12.82							1.0				8 49 16	–46 33.1
13		C–46 4629	8 47 37	–46 58.5	9.9 M				13.11		12.39						1.0	1.0				8 49 17	–47 9.7
14	75631	C–42 4677	8 47 38	–42 49.1	9.2 M	8.2 G		A2	11.77		10.79						1.0	1.0				8 49 26	–43 .3
15		C–45 4586	8 47 39	–45 57.3	9.9 M	10.7 G		c			13.98							1.0				8 49 21	–46 8.5
16		C–46 4630	8 47 42	–46 43.2	10. M	9.8 G		c	12.69		12.17	.05	12.64	.09			1.0	2.0	2.0			8 49 23	–46 54.4
17	75607	C–41 4543	8 47 42	–41 22.6	9.3 M	8.5 G		B5					11.29						1.0			8 49 32	–41 33.8
18		C–47 4394	8 47 44	–47 52.2	9.9 M						13.58							1.0				8 49 23	–48 3.4
19	75658	C–47 4393	8 47 45	–47 18.1	8.10	0.21	–0.84	B3	11.28		10.39		10.82	.08			1.0	1.0	2.0			8 49 25	–47 29.3
20	75630	C–39 4838	8 47 47	–40 8.0	5.48	0.07	1.51C	A2					10.78						1.0			8 49 39	–40 19.2
21	75657	C–42 4684	8 47 52	–42 38.2	7.59M			B8	9.63		9.13		8.53	.14			1.0	1.0	3.0			8 49 40	–42 49.4
22		C–46 4636	8 47 53	–47 11.3	10. M						12.25	.24						1.3				8 49 33	–47 22.5
23		C–47 4401	8 47 55	–47 48.3	9.9 M						13.10							1.0				8 49 34	–47 59.5
24	75655	C–41 4549	8 47 58	–41 33.4	8.6 M	7.7 G		B8 c			9.49	.13	9.21	.11				2.0	2.0			8 49 48	–41 44.6
25		C–45 4592	8 47 59	–46 15.7	9.8 M				12.64		12.60	.09	13.37				1.0	3.0	1.0			8 49 41	–46 26.9
26	75710	C–44 4861	8 48 4	–45 7.3	4.92	0.04	1.48C	A2	9.85	.11	9.37		9.64	.12			2.0	.3	3.0			8 49 48	–45 18.5
27	75744	C–47 4411	8 48 16	–47 26.8	10.2 M	9.1 G		B8	12.25		11.34						1.0	.3				8 49 56	–47 38.0
28	75726	C–43 4680	8 48 16	–43 19.7	10.2 M	9.6 G		A0			12.64							1.0				8 50 3	–43 30.9
29	75710	C–44 4861	8 48 18	–45 9.8	4.92	0.04	1.48C	A2 c			9.10	.08						2.0				8 50 2	–45 21.0
30	75760	C–44 4873	8 48 25	–45 8.3	9.19M	9.4 G		A2			13.68							.3				8 50 9	–45 19.5
31		C–45 4605	8 48 28	–45 25.7	9.9 M	9.2 G		A			13.51							1.0				8 50 11	–45 36.9
32		C–45 4606	8 48 31	–45 20.1	8.93	0.38	–0.62	B05*	12.46		12.59	.28	13.32	.13			1.0	2.3	2.0			8 50 15	–45 31.3
33	75758	C–41 4559	8 48 31	–41 42.0	8.9 M	8.6 G		B8					10.77						1.0			8 50 21	–41 53.3
34	75759	C–41 4560	8 48 32	–41 54.1	5.98	–0.10	1.14C	O9.5c			7.36	.09	6.81	.00				2.0	2.0			8 50 21	–42 5.4
35	75757	C–41 4558	8 48 32	–41 32.0	8.9 M	8.8 G		B8					10.74	.07					2.0			8 50 22	–41 43.3
36		C–47 4417	8 48 40	–47 20.7	10. M						13.05							.3				8 50 20	–47 32.0
37	75823	C–48 4146	8 48 43	–48 23.5	8.9 M	9.0 G		F8			13.32							1.0				8 50 21	–48 34.8
38	75820	C–45 4613	8 48 44	–46 3.6	9.8 M	8.7 G		A0	12.28	.20	11.12	.04	12.04	.16			2.0	2.0	3.0			8 50 26	–46 14.9
39	75822	C–47 4421	8 48 46	–47 36.3	9.6 M	8.6 G		B8	11.19		10.61		11.30				1.0	1.0	1.0			8 50 25	–47 47.6
40		C–45 4615	8 48 51	–45 21.9	9.1 M	0.40	1.26C	B25*	12.63		12.45	.39	13.09	.02			1.0	2.3	2.0			8 50 35	–45 33.2
41	75821	C–46 4661	8 48 52	–46 20.5	5.09	–0.21	–0.98	B03p	7.82	.19	5.72		6.38	.44			3.0	.3	2.0			8 50 34	–46 31.8
42	75819	C–42 4708	8 48 55	–42 59.1	10.2 M	9.1 G		A2			12.68							1.0				8 50 43	–43 10.4
43		C–46 4664	8 48 57	–47 14.0	9.7 M						13.50							1.0				8 50 37	–47 25.3
44	75873	C–45 4625	8 49 6	–46 7.3	9.1 M	9.1 G		A2	12.90		12.99						1.0	.3				8 50 48	–46 18.6
45		C–45 4626	8 49 7	–46 11.1	10. M						13.03							.3				8 50 49	–46 22.4
46	75851	C–42 4711	8 49 9	–42 51.9	10.2 M	9.5 G		A0			13.16							1.0				8 50 57	–43 3.2
47	75850	C–41 4574	8 49 10	–41 45.6	9.3 M	8.7 G		B9					11.07						1.0			8 51 0	–41 56.9
48		C–45 4629	8 49 15	–45 50.9	10. M	9.8 G					13.75							1.0				8 50 58	–46 2.2
49		C–47 4429	8 49 16	–47 24.6	8.6 M						13.52							1.0				8 50 56	–47 35.9
50	75887	C–47 4432	8 49 19	–47 40.7	9.8 M	9.0 G		A0			12.24							1.0				8 50 58	–47 52.0
51	75871	C–41 4576	8 49 21	–41 28.4	8.6 M	8.8 G		B5			9.85		9.35					1.0	1.0			8 51 11	–41 39.7
52		C–45 4633	8 49 26	–45 25.0	10. M						13.40							.3				8 51 10	–45 36.3
53	75927	C–43 4700	8 49 29	–44 13.3	9.6 M	8.9 G		B9					13.40						.3			8 51 15	–44 24.6
54		C–45 4635	8 49 33	–45 29.3	8.97	0.40	1.32C	B03	12.96	.36	12.70	.33					1.3	1.8				8 51 16	–45 40.6
55	75926	C–42 4723	8 49 39	–42 19.0	6.54	0.04	1.52C	A2s			9.83		11.49					1.0	1.0			8 51 28	–42 30.3
56	75955	C–45 4641	8 49 42	–45 26.1	7.8 M	7.9 G		A0	11.90	.21	10.96	.39	12.00	.19			3.3	1.8	2.0			8 51 26	–45 37.4
57	75968	C–46 4683	8 49 51	–46 25.3	8.4 M	7.9 G		B8	11.43	.35	10.38	.20	10.62	.16			2.0	1.3	2.0			8 51 33	–46 36.6
58		C–47 4440	8 49 52	–47 28.2	10. M	10.2 G					13.45							1.0				8 51 32	–47 39.5
59	75991	C–47 4441	8 49 53	–47 23.0	8.98	0.13	–0.76	B05	11.17		10.76		11.19				1.0	1.0	1.0			8 51 33	–47 34.3
60		C–45 4650	8 50 1	–45 45.5	9.8 M	9.2 G					13.34	.10						2.0				8 51 44	–45 56.8
61		C–47 4444	8 50 4	–47 42.2	10. M						13.67							1.0				8 51 44	–47 53.5
62	76004	C–43 4711	8 50 4	–43 57.7	6.37	–0.15	–0.60	B35	8.26		8.76		7.51	.13			1.0	1.0	2.0			8 51 50	–44 9.0
63	75989	C–40 4685	8 50 4	–40 47.9	6.56M			B9			9.15							1.0				8 51 55	–40 59.2
64	76164	P–64 958	8 50 5	–64 52.1	8.1 M			B8					11.90						1.0			8 50 53	–65 3.4
65	76113	P–57 1759	8 50 20	–57 26.7	5.59	–0.12	1.33C	B8			8.21	.17						3.0				8 51 37	–57 38.0
66	76060	C–45 4653	8 50 20	–46 6.0	8.2 M	7.6 G		B8	10.99	.25	9.65	.37	10.38	.19			5.0	3.3	3.0			8 52 3	–46 17.3
67	76131	P–55 1815	8 50 24	–55 37.2	6.71M			B8			9.17							1.0				8 51 46	–55 48.5
68	76074	C–43 4718	8 50 34	–43 58.4	9.4 M	8.9 G		A0			12.06	.23						.5				8 52 20	–44 9.8
69	76187	P–52 1734	8 50 55	–53 8.2	8.13M	7.9 G		A0					11.80						1.0			8 52 23	–53 19.6
70	76137	C–46 4703	8 50 56	–46 49.6	10.2 M	9.3 G		A0	12.80		12.45	.30					1.0	2.0				8 52 37	–47 1.0
71		C–47 4459	8 50 59	–47 23.0	9.66	0.22	1.32C	B5.5			12.66							1.0				8 52 39	–47 34.4
72	76161	C–47 4460	8 51 0	–48 10.2	5.89	–0.16	–0.59	B6.5s					7.77						1.0			8 52 39	–48 21.6
73	76233	P–55 1820	8 51 1	–56 3.2	7.37M			B9			9.67	.24						2.0				8 52 22	–56 14.6
74		C–42 4750	8 51 1	–42 57.3	9.7 M						12.93							1.0				8 52 49	–43 8.7
75	76214	P–54 1890	8 51 2	–55 9.1	6.86M			A0			9.60							1.0				8 52 25	–55 20.5
76	76213	C–50 3637	8 51 6	–51 14.0	8.6 M	8.6 G		B9					11.25						1.0			8 52 39	–51 25.4
77	76183	C–43 4727	8 51 6	–44 5.8	8.41M			A0	12.84		12.42	.27					.3	2.0				8 52 52	–44 17.2
78	76186	C–46 4707	8 51 7	–47 12.3	6.79M			B9	10.36	.08	9.88	.06					2.0	2.0				8 52 48	–47 23.7
79	76184	C–44 4920	8 51 8	–45 14.7	9.34M	9.4 G		A0	12.79	.32	12.21	.31	13.02				3.0	4.3	1.0			8 52 52	–45 26.1
80	76230	C–51 3303	8 51 10	–51 56.4	6.38	0.00	1.46C	A0 p			9.47	.06	9.46	.07				2.0	2.0			8 52 41	–52 7.8
81	76200	C–46 4712	8 51 14	–47 1.8	9.7 M			A0			13.27	.03						2.0				8 52 55	–47 13.2
82	76211	C–44 4923	8 51 19	–45 11.0	9.54M	9.3 G		A0	12.92		12.78	.09					1.0	2.3				8 53 3	–45 22.4
83	76283	C–51 3308	8 51 29	–51 17.7	8.9 M	9.3 G		B9					10.92						1.0			8 53 2	–51 29.1
84	76256	C–43 4732	8 51 35	–43 33.8	9.4 M	8.2 G		B9	11.52	.26	11.19	.12	12.34				2.0	2.0	1.0			8 53 22	–43 45.2
85	76268	C–43 4735	8 51 36	–44 8.6	7.53M			A0	12.05	.31	11.25	.08	13.14	.18			3.0	1.5	2.0			8 53 22	–44 20.0
86	76346	P–56 1918	8 51 44	–56 27.6	6.02	–0.02	1.47C	B9			8.92							1.0				8 53 4	–56 39.0
87		C–43 4739	8 51 47	–44 11.3	9.0 M	8.8 G					12.77							.3				8 53 33	–44 22.7
88	76306	C–44 4931	8 51 48	–45 6.2	9.6 M	9.0 G		B9	12.03	.23	11.37	.19	12.32	.18			3.0	4.0	3.0			8 53 33	–45 17.6
89	76282	C–43 4740	8 51 49	–43 20.5	8.2 M	7.5 G		A0	11.55	.02	11.10		12.30				2.0	1.0	1.0			8 53 37	–43 31.9
90		C–44 4932	8 51 53	–45 9.5	9.7 M			c			13.75							1.0				8 53 37	–45 20.9

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 A19 922
2					897 922
3					897
4					899
5					897 A19 158 419 922 A42
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13					899
14					897 922
15				W/ – 45 4586 FOLL.	897
16				W/ – 46 4634	899 900
17					897 922
18					899
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26					897 A19 781 884 901 922
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29				W/ – 44 4873	897 A19 781 884 901 922
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90				W/ – 44 4936	899

	HD	DM	R.A. (1950)	DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000)	DEC
1	76325	C–48 4208	8 51 56	–48 52.8	8.9 M	8.9 G		A2	12.81		10.97		12.20				1.0	.3	1.0			8 53 34	–49 4.2
2	76324	C–46 4724	8 52 0	–46 18.5	10.5 M	9.3 G		A2			13.39							1.0				8 53 43	–46 29.9
3	76343	C–49 3930	8 52 4	–49 23.3	8.4 M	8.6 G		A0			12.79							1.0				8 53 41	–49 34.7
4		C–48 4214	8 52 5	–48 44.3	10. M						12.96							1.0				8 53 43	–48 55.7
5	76323	C–41 4616	8 52 6	–41 38.2	7.2 M	7.3 G		B9 c			9.10	.24	8.91					2.0	1.0			8 53 56	–41 49.6
6	76316	C–40 4712	8 52 7	–41 .2	8.9 M	9.2 G		B9					11.52						1.0			8 53 58	–41 11.6
7	76341	C–42 4762	8 52 11	–42 17.7	7.21M			B05s	10.46		10.05	.01					1.0	2.0				8 54 0	–42 29.1
8	76359	C–46 4732	8 52 16	–46 59.6	9.2 M	8.5 G		A0	11.50								1.0					8 53 57	–47 11.0
9		C–45 4685	8 52 25	–45 58.2	9.5 M				12.13		12.94	.05					1.0	2.0				8 54 8	–46 9.7
10	76441	C–51 3325	8 52 26	–52 16.9	7.59M	7.3 G		B8					9.32	.15					2.0			8 53 57	–52 28.4
11		C–48 4221	8 52 26	–48 40.7	9.3 M						13.08							.3				8 54 4	–48 52.2
12	76614	P–69 976	8 52 27	–69 38.4	7.56M			A0					11.81						1.0			8 52 49	–69 49.8
13	76442	P–52 1751	8 52 30	–52 25.7	8.29M	7.9 G		B8					9.82	.01					2.0			8 54 0	–52 37.2
14	76425	C–48 4222	8 52 31	–48 56.2	9.0 M	8.7 G		A0			11.34							.3				8 54 9	–49 7.7
15	76424	C–46 4735	8 52 32	–46 18.3	9.8 M	9.0 G		A0	12.04	.46	12.03	.23					2.0	2.0				8 54 15	–46 29.8
16	76459	P–52 1753	8 52 35	–52 42.7	9.7 M	9.31G		B8					11.54						1.0			8 54 5	–52 54.2
17	76458	C–51 3326	8 52 35	–51 30.5	7.79M			B9					11.02						1.0			8 54 7	–51 42.0
18		C–48 4223	8 52 35	–49 2.8	10. M						13.25							.3				8 54 12	–49 14.3
19	76538	P–59 1174	8 52 40	–60 9.8	5.77	–0.09	1.28C	B53			7.62		8.03					1.0	1.0			8 53 49	–60 21.3
20	76439	C–44 4939	8 52 40	–45 15.8	8.1 M	7.7 G		B9	10.81	.31	9.75	.03	10.17	.09			5.0	2.3	2.0			8 54 24	–45 27.3
21		C–48 4225	8 52 42	–48 44.2	9.5 M	10.1 G					12.04							.3				8 54 20	–48 55.7
22	76490	P–53 1975	8 52 44	–54 7.4	9.3 M	9.1 G		A0					11.64						1.0			8 54 10	–54 18.9
23		C–48 4230	8 52 49	–49 11.8	10. M						14.17							.3				8 54 26	–49 23.3
24		C–43 4757	8 52 51	–44 14.3	9.5 M	9.4 G					12.93	.03						2.0				8 54 37	–44 25.8
25	76516	C–43 4762	8 53 15	–43 38.4	8.3 M	8.0 G		A0	12.25	.44	11.45	.13	13.03				3.0	.5	1.0			8 55 2	–43 49.9
26	76534	C–42 4780	8 53 21	–43 16.5	7.9 M	7.5 G		B3	11.04	.33	10.55	.03	11.92				2.0	2.0	.3			8 55 9	–43 28.0
27	76567	C–45 4694	8 53 26	–46 10.1	7.8 M	7.5 G		A0	10.93	.33	11.21	.21					2.0	2.0				8 55 9	–46 21.6
28	76566	C–44 4951	8 53 34	–44 51.0	6.25	–0.17	–0.62	B35*	9.13	.50	7.99	.16	7.55	.09			4.0	2.0	2.0			8 55 19	–45 2.5
29	76554	C–40 4736	8 53 34	–40 53.2	7.8 M	8.5 G		B3					10.54						1.0			8 55 26	–41 4.7
30	76565	C–43 4764	8 53 36	–43 36.5	8.5 M	7.8 G		A0	12.42	.42	11.50	.21					3.0	.5				8 55 23	–43 48.0
31	76640	P–57 1790	8 53 38	–58 2.9	6.38	–0.11	1.31C	B53			8.35		9.03					1.0	1.0			8 54 54	–58 14.4
32	76588	C–45 4698	8 53 40	–45 28.7	9.1 M	8.7 G		A0			13.45							1.0				8 55 24	–45 40.2
33	76728	P–60 1243	8 53 55	–60 27.2	3.84	–0.10	–0.44	B84p					6.89						1.0			8 55 3	–60 38.7
34	76745	C–48 4249	8 54 30	–48 56.5	9.1 M	8.4 G		A0			11.17							1.0				8 56 8	–49 8.1
35	76725	C–44 4963	8 54 30	–45 12.3	8.8 M	8.6 G		B9	11.24		11.09	.18					1.0	3.0				8 56 15	–45 23.9
36	76777	C–47 4531	8 54 47	–47 44.4	9.1 M	9.0 G		A0			12.26							1.0				8 56 27	–47 56.0
37	76805	P–52 1788	8 54 49	–52 31.8	4.69	–0.13	–0.46	B55*			6.85	.21	6.94					4.0	.3			8 56 20	–52 43.4
38	76764	C–42 4802	8 54 50	–43 .5	9.6 M	9.4 G		B8	11.86		11.82						1.0	1.0				8 56 39	–43 12.1
39	76776	C–43 4782	8 54 51	–43 43.9	9.2 M	8.8 G		A5			13.14							1.0				8 56 38	–43 55.5
40	76775	C–41 4656	8 54 57	–42 4.0	9.0 M	8.9 G		A2			12.89							1.0				8 56 47	–42 15.6
41	76803	C–47 4532	8 55 2	–47 40.1	8.9 M	8.4 G		A0			12.62							1.0				8 56 43	–47 51.7
42	76802	C–41 4657	8 55 7	–41 57.6	8.3 M	8.6 G		F0			13.02							1.0				8 56 57	–42 9.2
43	76852	C–48 4265	8 55 18	–48 52.8	10.5 M	9.6 G		B			12.00							.3				8 56 56	–49 4.4
44	76838	C–42 4808	8 55 19	–43 3.8	7.31	0.00	1.26C	B35*	9.52		8.90						1.0	1.0				8 57 8	–43 15.4
45	76915	C–47 4543	8 55 40	–48 .7	8.9 M	8.8 G		A0			11.83		13.16					1.0	1.0			8 57 20	–48 12.3
46	76898	C–43 4794	8 55 41	–44 4.3	7.39	–0.15	1.27C	B55s	9.98	.21	8.85	.33	9.13				3.0	2.0	1.0			8 57 28	–44 15.9
47	76955	P–52 1806	8 55 42	–52 30.5	8.17M	7.8 G		B5 c			9.66		9.13					1.0	.3			8 57 13	–52 42.1
48	77002	P–58 1301	8 55 45	–59 2.1	4.80	–0.17	–0.75	B34c	8.81		7.08		6.89				1.0	1.0	1.0			8 56 58	–59 13.7
49	76968	C–50 3710	8 55 54	–50 33.3	7.08	0.2	–0.76	B02p					9.09						1.0			8 57 29	–50 44.9
50	76954	C–42 4822	8 56 3	–42 19.9	8.2 M	7.7 G		B9	10.42		9.88						1.0	1.0				8 57 53	–42 31.6
51	76967	C–42 4824	8 56 5	–42 57.6	9.6 M	9.2 G		B8	11.33		11.20						1.0	1.0				8 57 54	–43 9.3
52		C–42 4825	8 56 8	–42 41.0	10. M						12.92							1.0				8 57 57	–42 52.7
53		C–47 4551	8 56 13	–47 32.6	8.5 M	9.0 G		O7			13.59							1.0				8 57 54	–47 44.3
54	76998	C–44 4991	8 56 14	–44 40.5	9.8 M	9.0 G		A0	11.83		11.92						1.0	1.0				8 58 0	–44 52.2
55	77029	C–48 4285	8 56 23	–48 36.4	11.5 M	9.9 G		A2			13.64							1.0				8 58 2	–48 48.1
56		C–47 4556	8 56 30	–47 20.7	10. M						14.01							1.0				8 58 12	–47 32.4
57		C–43 4813	8 56 44	–43 34.8	9.2 M						13.15							1.0				8 58 32	–43 46.5
58	77145	P–56 1948	8 56 50	–57 8.5	8.54M	8.37G		B9					11.71						1.0			8 58 9	–57 20.2
59	77115	C–46 4808	8 56 58	–46 33.9	9.6 M	9.0 G		A0			11.63	.33						.5				8 58 41	–46 45.6
60		C–43 4816	8 56 59	–44 3.1	9.0 M	9.7 G					14.26							1.0				8 58 46	–44 14.8
61		P–53 2018	8 57 3	–53 45.6	9.4 M	9.6 G			7.94								1.0					8 58 31	–53 57.3
62	77185	P–58 1319	8 57 4	–59 0.0	7.91M			B9					10.28						1.0			8 58 18	–59 11.7
63		C–46 4809	8 57 8	–46 38.4	9.8 M	9.6 G					13.71	.28						.5				8 58 51	–46 50.1
64	77114	C–43 4819	8 57 9	–43 25.7	9.2 M	8.7 G		A0			12.32							1.0				8 58 57	–43 37.4
65	77140	C–46 4810	8 57 10	–47 2.4	5.16	0.26	0.17	F03*	10.47		9.60	.41	13.00				1.0	2.0	1.0			8 58 52	–47 14.1
66	77244	P–59 1207	8 57 22	–59 32.6	7.75M	7.2 G		B8					9.89	.24					2.0			8 58 34	–59 44.3
67	77166	C–42 4853	8 57 32	–42 24.4	9.8 M	8.9 G		B9					11.84						1.0			8 59 22	–42 36.1
68		C–46 4817	8 57 33	–46 52.0	9.8 M	9.4 G					12.02							1.0				8 59 16	–47 3.7
69	77493	P–67 1018	8 58 20	–67 56.6	6.85M			B9 c			9.40				9.76			1.0		1.0		8 58 56	–68 8.3
70		C–46 4821	8 58 30	–46 29.4	8.5 M	9.0 G					11.61	.04						2.0				9 0 14	–46 41.2
71	77320	C–42 4875	8 58 33	–42 58.6	6.08	–0.18	–0.79	B35s					7.69						.3			9 0 22	–43 10.4
72	77343	C–43 4839	8 58 38	–43 43.2	9.0 M	8.7 G		A2			13.39							1.0				9 0 26	–43 55.0
73	77400	C–46 4826	8 58 43	–47 3.6	9.2 M	8.7 G		A0			11.91							1.0				9 0 26	–47 15.4
74	77420	C–43 4848	8 58 58	–43 39.6	9.0 M	8.3 G		A3			13.43							1.0				9 0 46	–43 51.4
75	77433	C–45 4772	8 59 1	–45 41.9	8.3 M	8.6 G		A3			11.96	.43						2.0				9 0 46	–45 53.7
76	77464	C–51 3420	8 59 4	–51 21.5	6.71	–0.18		*			8.45							1.0				9 0 38	–51 33.3
77		C–45 4773	8 59 6	–45 38.1	9.4 M						13.54							1.0				9 0 51	–45 49.9
78	299823	P–53 2048	8 59 8	–54 15.6	9.7 G			A2					11.96						1.0			9 0 36	–54 27.4
79	77453	C–45 4774	8 59 9	–45 26.1	8.3 M	8.2 G		A3			12.32	.18						2.0				9 0 55	–45 37.9
80	77490	P–53 2050	8 59 13	–54 10.0	8.07M			B9					11.38						1.0			9 0 41	–54 21.8
81	77525	P–56 1968	8 59 14	–56 54.7	8.67M	8.30G		B5					10.52						1.0			9 0 35	–57 6.5
82	77475	C–41 4720	8 59 29	–41 40.0	5.54	–0.15	1.29C	B55			7.30		6.99	.33				1.0	2.0			9 1 21	–41 51.8
83	77566	C–49 4057	8 59 53	–49 22.9	7.73M			B8			9.31		8.86					1.0	1.0			9 1 32	–49 34.7
84	77595	C–49 4060	9 0 4	–50 3.1	8.6 M	8.5 G		B8					10.95						1.0			9 1 41	–50 15.0
85	77655	P–55 1900	9 0 5	–55 27.1	9.1 M	8.7 G		A0					11.57						1.0			9 1 30	–55 39.0
86	77653	C–51 3430	9 0 11	–51 59.5	5.22	–0.13	1.32C	B9 *			7.85	.20						2.0				9 1 44	–52 11.4
87		C–45 4787	9 0 19	–46 7.3	9.9 M						13.58							1.0				9 2 4	–46 19.2
88	77651	C–45 4788	9 0 23	–46 15.6	9.1 M	8.7 G		A0			12.76							1.0				9 2 7	–46 27.5
89	77652	C–46 4850	9 0 26	–46 44.0	10.0 M	9.6 G		A2			13.21							1.0				9 2 10	–46 55.9
90	77669	C–43 4873	9 0 38	–43 46.3	8.5 M	7.7 G		B9	11.69		10.60		11.73				1.0	1.0	1.0			9 2 27	–43 58.2

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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	77684	C–42 4906	9 0 45 –42 30.5	7.23M			A0	10.83		10.52		11.31	.50			1.0	1.0	2.0			9 2 36 –42 42.4
2	77795	P–54 1982	9 0 58 –54 49.9	7.80M			A0					11.36						1.0			9 2 25 –55 1.8
3	77741	C–45 4798	9 0 58 –45 58.5	9.8 M	9.4 G		A0			12.35	.25						2.0				9 2 43 –46 10.4
4	77740	C–44 5064	9 0 59 –44 26.7	8.5 M	8.3 G		A0	12.30		11.43						1.0	1.0				9 2 47 –44 38.6
5	77739	C–43 4877	9 1 1 –44 2.8	8.4 M	7.7 G		A0	11.07	.20			11.06				2.0		1.0			9 2 49 –44 14.7
6	77793	C–50 3782	9 1 7 –50 37.6	8.4 M	8.6 G		A0					11.56						1.0			9 2 43 –50 49.5
7	77754	C–42 4913	9 1 10 –42 41.1	9.6 M	8.3 G		A0	12.52		11.87		13.17				1.0	1.0	1.0			9 3 0 –42 53.0
8	77812	C–44 5072	9 1 21 –45 10.5	9.39M	8.6 G		A0			12.42							1.0				9 3 7 –45 22.4
9	77884	P–54 1987	9 1 25 –55 13.8	8.80M	8.58G		A0					11.58						1.0			9 2 51 –55 25.7
10	77907	P–53 2072	9 1 35 –53 21.1	6.40	–0.10	1.34C	B9			8.74		9.09	.14				1.0	3.0			9 3 6 –53 33.0
11	77849	C–43 4885	9 1 36 –43 51.5	9.4 M	8.8 G		A0			12.08							1.0				9 3 25 –44 3.4
12	78025	C–50 3798	9 2 22 –51 15.0	8.0 M	9.2 G		A0					11.15						1.0			9 3 57 –51 27.0
13	78080	C–42 4941	9 2 55 –43 4.0	9.0 M	9.4 G		A0			12.51							1.0				9 4 45 –43 16.0
14	78190	P–55 1924	9 3 9 –56 8.5	6.7 M			B9			9.17	.15	8.80					2.0	1.0			9 4 33 –56 20.5
15	78205	C–51 3478	9 3 19 –51 46.5	8.5 M	8.6 G		B9					10.82	.12					2.0			9 4 54 –51 58.5
16	78229	P–52 1914	9 3 23 –52 53.5	8.67M	8.39G		A0					11.42						1.0			9 4 55 –53 5.5
17	78291	P–52 1916	9 3 42 –53 .7	8.60M	8.49G		B5					10.78						1.0			9 5 14 –53 12.7
18	78327	P–55 1937	9 3 52 –55 50.1	8.87M	8.51G		B9					10.30						1.0			9 5 17 –56 2.1
19	78290	C–49 4111	9 3 52 –50 5.2	7.40M			B8					8.76	.26					2.0			9 5 30 –50 17.2
20	78265	C–44 5115	9 3 52 –44 57.6	8.5 M	8.1 G		A0			12.47							1.0				9 5 39 –45 9.7
21	78406	P–55 1945	9 4 19 –55 32.3	9.2 M	8.8 G		A0					10.88						1.0			9 5 45 –55 44.4
22	78405	P–52 1924	9 4 24 –52 36.0	8.35M	8.1 G		B8					10.19	.24					2.0			9 5 57 –52 48.1
23	78507	P–61 1174	9 4 32 –61 54.1	8.24M	7.9 G		B8							10.19	.27				2.0		9 5 39 –62 6.2
24	78444	P–54 2019	9 4 38 –54 42.2	8.93M	8.51G		A0					11.50						1.0			9 6 6 –54 54.3
25	78506	P–52 1932	9 4 56 –53 3.9	8.42M	8.18G		B9					10.39						1.0			9 6 28 –53 16.0
26	78530	P–53 2122	9 5 1 –53 53.3	8.67M	8.31G		A0					10.35	.22					2.0			9 6 31 –54 5.4
27	78568	P–58 1386	9 5 6 –59 .3	7.67M			B9					10.78						1.0			9 6 23 –59 12.4
28	78548	P–55 1957	9 5 8 –55 36.1	6.10	–0.16	1.24C	B55s			8.20	.18	8.27	.68				4.0	2.0			9 6 34 –55 48.2
29	78764	P–70 861	9 5 15 –70 20.2	4.70	–0.16	–0.80	B25s	9.27		6.72	.14	6.88	.24	6.84	.25	1.0	22.0	17.0	9.3		9 5 39 –70 32.3
30	78763	P–69 1009	9 5 22 –69 22.4	8.36M			B9					10.76	.25	10.63	.29			18.0	8.0		9 5 53 –69 34.5
31	78690	P–59 1272	9 5 38 –60 3.6	7.36M			B9					10.04						1.0			9 6 52 –60 15.7
32	78725	P–62 1168	9 5 41 –62 38.9	7.28M			B9					10.30	.18	9.82				4.0	1.0		9 6 45 –62 51.0
33	78616	C–44 5150	9 5 54 –44 25.8	6.78	–0.02	–0.75	B1 p	9.80								1.0					9 7 43 –44 38.0
34	79041	P–68 896	9 7 3 –68 33.1	7.54M			B5			9.71	.15			10.32	.54		6.0		2.5		9 7 40 –68 45.3
35	78909	P–53 2158	9 7 5 –53 55.0	9.4 M	9.07G		B8					11.60						1.0			9 8 36 –54 7.2
36	78931	P–53 2162	9 7 10 –54 10.0	7.48M			B8			9.14		9.08					1.0	1.0			9 8 40 –54 22.2
37	79072	C–48 4479	9 8 25 –49 5.1	7.25M			B8					8.79						1.0			9 10 6 –49 17.4
38	79141	P–54 2071	9 8 33 –54 29.6	9.2 M	8.7 G		A0					11.11						1.0			9 10 3 –54 41.9
39	79206	P–52 2017	9 9 8 –52 50.4	7.76M	7.4 G		B9			9.51		9.69					1.0	1.0			9 10 42 –53 2.7
40	302105	P–57 1908	9 9 14 –57 19.5	9.8 M	9.29G		B					11.11	.08					3.0			9 10 37 –57 31.8
41		C–51 3565	9 9 14 –52 12.2	9.5 M	9.1 G		A0					11.30						1.0			9 10 49 –52 24.5
42	79278	C–51 3575	9 9 33 –51 54.4	8.54M			B8					9.56	.06					2.0			9 11 9 –52 6.7
43	79351	P–58 1419	9 9 39 –58 45.7	3.4	–0.20	–0.68	B34p	7.49				6.07				1.0		.3			9 10 58 –58 58.0
44	79368	P–57 1912	9 9 47 –58 7.6	8.69M	8.29G		B9					10.10						1.0			9 11 8 –58 19.9
45	79275	C–46 4987	9 9 47 –46 22.7	5.78	–0.22	–0.82	B24			7.26							1.0				9 11 33 –46 35.0
46	79367	P–53 2203	9 10 1 –53 54.2	8.87M	8.54G		B9					10.19	.11					.5			9 11 33 –54 6.6
47	79332	C–44 5228	9 10 4 –45 1.7	8.0 M	7.9 G		B8			9.83							1.0				9 11 53 –45 14.1
48	79387	P–53 2205	9 10 6 –53 49.9	6.74M			B9			9.81		9.16					1.0	.3			9 11 38 –54 2.3
49	79447	P–61 1201	9 10 9 –62 6.7	4.0	–0.19	–0.66	B34*	8.09	.22	5.96	.13	6.24	.31	6.37		4.0	4.0	5.0	.3		9 11 17 –62 19.0
50	79420	P–57 1913	9 10 9 –57 24.8	7.33M			B9					9.52	.32					3.0			9 11 32 –57 37.2
51	79421	P–57 1914	9 10 11 –57 45.7	6.64M			B3			8.64		8.53	.07				1.0	2.0			9 11 33 –57 58.1
52	79387	P–53 2205	9 10 13 –53 49.8	6.74M			B9 c					7.97						1.0			9 11 45 –54 2.2
53	79387	P–53 2205	9 10 18 –53 47.6	6.74M			B9 c					9.02						.3			9 11 50 –54 0.0
54	79475	P–58 1422	9 10 28 –58 28.9	8.66M	8.45G		B9					11.22						1.0			9 11 48 –58 41.3
55	79446	P–53 2209	9 10 31 –53 45.4	7.97M			B9			9.96		9.22					1.0	.3			9 12 3 –53 57.8
56	79476	P–58 1423	9 10 32 –58 35.3	8.28M	8.0 G		A0					10.21	.02					1.3			9 11 52 –58 47.7
57	79416	C–43 5041	9 10 40 –43 24.4	5.56	–0.12	–0.45	B85p			7.99							1.0				9 12 31 –43 36.8
58	79629	P–68 904	9 10 45 –69 2.9	7.3 M			F2 c							10.79					1.0		9 11 21 –69 15.3
59	79513	P–53 2217	9 10 56 –53 29.6	9.4 M	9.0 G		A					10.96	.04					2.0			9 12 29 –53 42.0
60	79655	P–62 1192	9 11 16 –62 42.6	8.43M	8.1 G		A0					10.88	.12					5.0			9 12 23 –62 55.0
61	79625	P–52 2074	9 11 35 –53 17.9	7.41M			A0			9.66		10.17	.03				1.0	2.0			9 13 9 –53 30.3
62	79699	P–60 1353	9 11 37 –60 42.6	6.53M			A0			9.13							1.0				9 12 51 –60 55.0
63	79624	C–51 3614	9 11 42 –51 58.5	8.39M			B9					10.28						1.0			9 13 18 –52 10.9
64	79670	P–53 2227	9 11 46 –53 46.6	7.53M			B9					9.66	.13					2.0			9 13 19 –53 59.0
65	79621	C–46 5010	9 11 49 –47 7.9	5.91	–0.05	–0.09	B9			9.12							1.0				9 13 34 –47 20.3
66	79694	C–43 5068	9 12 17 –43 56.3	5.84	–0.14	–0.47	B64p			7.91							1.0				9 14 8 –44 8.8
67	79777	P–54 2108	9 12 19 –54 31.3	9.4 M	9.2 G		A0					11.82						1.0			9 13 50 –54 43.8
68	79778	P–55 2028	9 12 22 –55 19.9	8.41M	8.36G		B0					10.44						1.0			9 13 51 –55 32.4
69	79735	C–42 5086	9 12 32 –43 1.2	5.24	–0.15	–0.55	B55*			7.30	.02						2.0				9 14 24 –43 13.7
70	79864	P–60 1366	9 12 39 –61 4.3	7.39M			B8 c			9.68							1.0				9 13 52 –61 16.8
71	80007	P–69 1023	9 12 40 –69 30.7	1.68	0.00	0.02	A03p	8.55	.29	6.25	.23	7.07	.33	7.50	.50	16.0	36.3	35.2	22.2		9 13 14 –69 43.2
72	79950	P–61 1212	9 13 0 –61 54.3	9.5 M	9.3 G		A0					12.16						1.0			9 14 10 –62 6.8
73	79829	C–39 5314	9 13 4 –40 3.9	8.68M	8.22G		A0					11.43						1.0			9 15 0 –40 16.4
74	79946	P–55 2037	9 13 18 –55 25.9	7.16	–0.12		B8			8.73	.31	9.24	.32				4.0	4.0			9 14 47 –55 38.4
75	80160	P–71 802	9 13 19 –71 24.7	7.2 M	7.2 G		A0					10.98						1.0			9 13 40 –71 37.2
76	79983	P–56 2060	9 13 24 –57 1.0	9.6 M	9.20G		B9 c					11.69	.00					2.0			9 14 49 –57 13.5
77	79900	C–45 4982	9 13 26 –45 20.8	6.24	–0.08	–0.26	A0 p			9.87							1.0				9 15 15 –45 33.3
78	79982	P–52 2126	9 13 33 –53 6.7	7.86M	7.51G		A0					10.87						1.0			9 15 8 –53 19.2
79	80094	P–57 1949	9 13 55 –58 10.8	6.01	–0.11	–0.44	B74			8.38	.13	8.59					2.0	1.0			9 15 17 –58 23.3
80	80214	P–67 1053	9 13 59 –68 4.6	8.0 M	8.2 G		B9 c							10.87					1.0		9 14 42 –68 17.1
81	80215	P–68 911	9 14 2 –68 56.8	9.1 M	9.1 G		A0							11.19					1.0		9 14 40 –69 9.3
82	80092	P–54 2130	9 14 3 –54 45.4	8.8 M	8.5 G		A c					11.35	.18					2.0			9 15 34 –54 57.9
83	80125	P–54 2133	9 14 16 –54 18.9	8.97M	8.53G		A0					10.80	.18					2.0			9 15 48 –54 31.5
84	80325	P–62 1209	9 15 3 –62 40.2	9.53	–0.12	–0.79	B8					10.93	.13					6.0			9 16 11 –62 52.8
85	80268	P–54 2146	9 15 8 –54 26.8	8.04M	7.7 G		B9					10.96	.24					2.0			9 16 40 –54 39.4
86	80205	C–44 5319	9 15 8 –44 48.1	6.73	–0.01	0.01	A0			9.92		10.32					1.0	1.0			9 16 58 –45 .7
87	80282	C–50 3979	9 15 21 –51 13.7	7.85M			A0			9.69							1.0				9 17 0 –51 26.3
88	80489	P–69 1030	9 15 32 –69 26.0	8.7 M			A0					11.72	.08	10.94	.10			3.0	2.3		9 16 8 –69 38.6
89	80404	P–58 1465	9 15 45 –59 3.9	2.25	0.18	0.1	F01			8.42	.22	10.58					2.0	1.0			9 17 5 –59 16.5
90	80436	P–61 1224	9 15 46 –62 13.8	8.87M	8.58G		B9					10.95	.13					2.0			9 16 56 –62 26.4

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
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79					897 A19 158 884 901 922 A27 A31 A42 A48
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82				W/-54 2131	897 922
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86					897 A19 158 922
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88					897 922
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90					897 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	80459	P – 63 1114	9 15 50 – 63 33.9	7.85M			B9			9.87 .14		2.0		9 16 55 – 63 46.5
2	80380	C – 45 5025	9 16 5 – 45 24.9	7.25M	8.9 G		A0			8.22		1.0		9 17 54 – 45 37.6
3	80456	C – 50 4001	9 16 26 – 50 50.4	5.25	– 0.08	1.34C	B9 s		7.95 .13			2.0		9 18 6 – 51 3.1
4	80454	C – 45 5031	9 16 31 – 45 38.0	8.6 M	8.6 G		A0			11.32		1.0		9 18 20 – 45 50.7
5	80573	C – 49 4302	9 17 11 – 49 35.1	8.5 M	8.7 G		B9		9.85			1.0		9 18 54 – 49 47.8
6	80807	P – 69 1035	9 17 20 – 69 35.5	6.9 G			A0			11.37 .21	11.02 .55	14.0 4.0		9 17 56 – 69 48.2
7	80781	P – 54 2186	9 18 1 – 54 58.5	6.27	– 0.11	– 0.55	B74		8.29 .21	8.74 .15		2.0 2.0		9 19 33 – 55 11.2
8	80864	P – 62 1219	9 18 11 – 62 31.2	8.45M	8.22G		A0			11.88		1.0		9 19 21 – 62 43.9
9	80761	C – 46 5095	9 18 14 – 46 44.3	7.27	0.11	– 0.44	B8			9.12		1.0		9 20 2 – 46 57.1
10		C – 45 5058	9 18 21 – 45 19.2	10. M						11.15		1.0		9 20 11 – 45 32.0
11	299970	P – 54 2189	9 18 25 – 54 41.1	9.1 G			B			11.49		1.0		9 19 58 – 54 53.9
12	81038	P – 61 1241	9 19 19 – 61 46.8	6.91	– 0.11	1.26C	B55s		9.04 .12	8.75		4.0 1.0		9 20 32 – 61 59.6
13	81080	P – 60 1394	9 19 46 – 60 48.4	8.90M	8.55G		A0			11.95		1.0		9 21 3 – 61 1.2
14	81157	P – 54 2213	9 20 19 – 55 18.1	5.63	0.19	1.58C	A3 s			11.45		1.0		9 21 51 – 55 30.9
15	81188	P – 54 2219	9 20 34 – 54 47.8	2.49	– 0.20	– 0.74	B24*	6.71	4.85 .19	4.59 .06		1.0 4.0 2.0		9 22 7 – 55 .7
16	81172	C – 46 5134	9 20 41 – 46 38.0	8.8 M	8.2 G		B9 c			10.04		1.0		9 22 29 – 46 50.9
17	81202	C – 49 4352	9 20 46 – 50 1.2	7.9 M	7.7 G		B9		9.76	10.21		1.0 1.0		9 22 29 – 50 14.1
18	81293	P – 58 1501	9 20 57 – 58 31.2	8.39M	8.04G		B8			11.18		1.0		9 22 21 – 58 44.1
19	81371	P – 58 1507	9 21 22 – 58 20.7	8.68M	8.42G		B9			11.37		1.0		9 22 46 – 58 33.6
20	81451	P – 52 2296	9 22 7 – 53 3.3	8.3 M	8.6 G		F5			11.65		1.0		9 23 44 – 53 16.2
21	81518	C – 51 3771	9 22 37 – 51 27.0	9.0 M	9.3 G		A0			11.94		1.0		9 24 18 – 51 40.0
22	81654	P – 58 1513	9 23 15 – 58 28.4	8.13M	7.79G		B3			10.15		1.0		9 24 40 – 58 41.4
23	81638	P – 52 2330	9 23 19 – 53 11.7	9.5 M	9.28G		B8			11.26		1.0		9 24 56 – 53 24.7
24	81667	C – 51 3791	9 23 33 – 52 12.5	9.0 M	8.65G		A2			11.51		1.0		9 25 12 – 52 25.5
25	81770	P – 60 1422	9 23 42 – 61 7.8	8.73M	8.41G		B9			11.14		1.0		9 24 59 – 61 20.8
26	81769	P – 56 2154	9 23 59 – 57 8.7	8.14M	8.0 G		B8			10.74		1.0		9 25 28 – 57 21.7
27	81910	P – 69 1057	9 24 2 – 70 11.6	7.90M			B9 c			10.68 .22	10.38 .20	18.0 14.0		9 24 38 – 70 24.6
28	81804	P – 54 2280	9 24 12 – 55 4.2	9.0 M	8.71G		B8			11.33		1.0		9 25 46 – 55 17.2
29	81830	P – 61 1271	9 24 13 – 61 44.0	5.75	0.16	1.57C	A25*			11.57		1.0		9 25 28 – 61 57.0
30	81850	P – 55 2163	9 24 27 – 55 52.3	7.29	– 0.02		B8			10.29 .11		3.0		9 25 59 – 56 5.3
31	81848	P – 52 2360	9 24 40 – 53 9.7	5.10	– 0.12	1.32C	B65s		7.23	7.73		1.0 1.0		9 26 18 – 53 22.7
32	298448	P – 52 2362	9 24 45 – 52 45.5	9.5 M	9.1 G		B5			12.21		1.0		9 26 24 – 52 58.6
33	81847	C – 50 4147	9 24 45 – 50 57.4	8.69M			B8			11.04		1.0		9 26 27 – 51 10.5
34	81869	C – 51 3817	9 24 47 – 51 35.2	9.7 M	9.7 G		A0			11.54		1.0		9 26 28 – 51 48.3
35	81891	P – 54 2290	9 24 53 – 54 39.4	7.22M			B3			9.39 .15		3.0		9 26 28 – 54 52.5
36	81907	C – 51 3824	9 25 8 – 51 33.1	7.5 M	8.4 G		B9 c			10.25		1.0		9 26 49 – 51 46.2
37	81921	C – 48 4707	9 25 12 – 48 28.6	6.98M			B9		9.85	10.41		1.0 1.0		9 26 59 – 48 41.7
38	81948	C – 51 3830	9 25 22 – 52 14.9	8.81M	8.45G		B9			11.75		1.0		9 27 2 – 52 28.0
39	81990	P – 59 1394	9 25 24 – 59 21.7	6.58M			B9		9.12	9.02		1.0 1.0		9 26 47 – 59 34.8
40	81946	C – 48 4712	9 25 28 – 48 37.7	7.62M			B8		10.05	9.74		1.0 1.0		9 27 14 – 48 50.8
41	82003	P – 53 2433	9 25 44 – 53 45.0	8.50M	8.19G		B8			10.78		1.0		9 27 21 – 53 58.1
42	82102	P – 58 1530	9 26 7 – 58 42.9	8.3 M			B8			10.47		1.0		9 27 32 – 58 56.0
43	82111	P – 54 2321	9 26 23 – 55 7.0	7.90M	7.4 G		B5			9.83		1.0		9 27 57 – 55 20.1
44	82226	P – 57 2071	9 27 3 – 58 6.9	8.29M	7.92G		B8			11.44		1.0		9 28 30 – 58 20.1
45	82278	C – 51 3865	9 27 36 – 52 12.3	7.40M			B8		9.61	9.87 .19	9.65	1.0 4.0 1.0		9 29 17 – 52 25.5
46	82325	P – 54 2343	9 27 42 – 54 34.6	8.12M			B8			10.83		1.0		9 29 18 – 54 47.8
47	82419	C – 50 4204	9 28 23 – 51 17.8	5.44	– 0.10	– 0.39	B85		7.84	7.61	8.25	1.0 1.0 1.0		9 30 5 – 51 31.0
48	82466	P – 54 2363	9 28 37 – 54 43.1	8.62M	8.3 G		B8			10.83		1.0		9 30 13 – 54 56.3
49	82457	C – 51 3880	9 28 38 – 52 5.1	8.16M	7.9 G		B8		9.70	10.22 .16	9.64	1.0 3.0 1.0		9 30 19 – 52 18.3
50	82764	P – 56 2282	9 30 22 – 56 46.0	7.25M			B8		9.64			1.0		9 31 54 – 56 59.3
51	82737	P – 52 2475	9 30 25 – 53 19.2	7.86M	7.3 G		B8		9.75	10.02 .12		1.0 2.0		9 32 4 – 53 32.5
52	82834	P – 60 1455	9 30 43 – 61 .8	7.12M			A0			10.87 .09		2.0		9 32 3 – 61 14.1
53	82812	P – 52 2489	9 30 59 – 53 8.8	8.60M	8.1 G		B8			11.07		.3		9 32 39 – 53 22.1
54	298489	P – 52 2490	9 31 1 – 53 3.8	9.7 M	9.2 G		B5 c			11.90		.3		9 32 41 – 53 17.1
55	82811	C – 49 4485	9 31 2 – 49 46.9	8.0 M	8.1 G		B9		9.87	10.49		1.0 1.0		9 32 48 – 50 .2
56	83019	P – 69 1079	9 31 5 – 70 14.9	7.08M			B8		9.54 .17	9.98 .17	9.84 .26	4.0 19.0 15.0		9 31 46 – 70 28.2
57	82919	P – 56 2300	9 31 15 – 56 52.3	7.11	– 0.05	1.30C	B55p		9.81			1.0		9 32 47 – 57 5.6
58	83093	P – 71 847	9 31 24 – 72 14.8	7.73	– 0.03	– 0.74	B25			9.65 .37		2.0		9 31 51 – 72 28.1
59	82932	P – 52 2508	9 31 36 – 52 36.4	8.11M	7.8 G		A0			11.55		1.0		9 33 17 – 52 49.8
60	82933	P – 52 2512	9 31 37 – 53 13.9	8.90M	8.8 G		B8			11.33		1.0		9 33 17 – 53 27.3
61	82988	P – 57 2122	9 31 48 – 57 44.4	7.05M			B9		9.86	9.92		1.0 1.0		9 33 18 – 57 57.8
62	83002	P – 52 2520	9 31 56 – 53 7.3	9.2 M	8.71G		B8			11.41		1.0		9 33 36 – 53 20.7
63	82984	C – 48 4802	9 31 57 – 48 46.9	5.10	– 0.13	1.28C	B45*	8.69		7.24		1.0 1.0		9 33 45 – 49 .3
64	83032	P – 57 2126	9 32 2 – 58 9.8	8.05M	7.71G		B9			10.59		1.0		9 33 31 – 58 23.2
65	83043	P – 53 2571	9 32 15 – 53 24.7	8.5 M	8.36G		B05*		10.27	10.62 .25		1.0 1.3		9 33 55 – 53 38.1
66	83058	C – 50 4270	9 32 25 – 51 1.9	5.00	– 0.20	– 0.97	B3 *		6.10 .06		6.48	3.0 1.0		9 34 9 – 51 15.3
67	83183	P – 58 1576	9 33 0 – 59 .4	4.07	0.01	– 0.56	B52p		7.07	7.51		1.0 1.0		9 34 27 – 59 13.8
68	83153	C – 50 4276	9 33 4 – 50 20.3	8.4 M	8.2 G		B5			10.11		1.0		9 34 49 – 50 33.7
69	83337	P – 60 1466	9 33 51 – 60 32.1	8.73M			A0			11.77		1.0		9 35 14 – 60 45.5
70	83335	P – 53 2616	9 34 8 – 53 56.6	8.01M	7.5 G		B8		9.73	9.57		1.0 1.0		9 35 47 – 54 10.1
71	83322	P – 52 2590	9 34 8 – 52 53.0	8.98M	8.60G		B9			11.18		1.0		9 35 49 – 53 6.5
72	83358	C – 51 3977	9 34 22 – 51 31.2	8.5 M	8.3 G		A0			10.47 .03		2.0		9 36 6 – 51 44.7
73	83369	P – 52 2599	9 34 30 – 52 59.4	8.37M	7.9 G		B9			10.66 .10		2.0		9 36 11 – 53 12.9
74	83488	P – 60 1470	9 34 57 – 60 54.5	8.24M	8.2 G		B9			10.65		1.0		9 36 20 – 61 8.0
75	83475	P – 59 1428	9 34 57 – 59 45.7	9.8 G			B8 *			11.59		1.0		9 36 23 – 59 59.2
76	83446	C – 48 4836	9 35 2 – 49 7.8	4.34	0.17	0.11	A55p		8.85 .08	10.63		2.0 1.0		9 36 50 – 49 21.3
77	83445	C – 48 4837	9 35 6 – 48 32.8	8.9 M	8.1 G		A0			11.87		1.0		9 36 55 – 48 46.3
78	83463	C – 48 4841	9 35 15 – 48 28.3	9.0 M	8.8 G		B8			11.27		1.0		9 37 4 – 48 41.8
79	83520	P – 53 2646	9 35 32 – 53 26.6	5.44	0.15	1.59C	A2 p		9.68	11.19		1.0 1.0		9 37 13 – 53 40.1
80	83597	P – 53 2656	9 36 10 – 53 27.3	9.24	0.06	– 0.79	B05*			10.97		1.0		9 37 51 – 53 40.9
81	83642	P – 59 1436	9 36 13 – 60 9.4	9.9 M	9.6 G		A0			11.92		1.0		9 37 38 – 60 23.0
82	83625	P – 53 2664	9 36 23 – 53 59.6	7.0 M	6.7 G		A0 s		9.45			1.0		9 38 3 – 54 13.2
83	83655	P – 52 2645	9 36 31 – 52 28.0	7.99M	7.4 G		B8			10.12 .13		3.0		9 38 14 – 52 41.6
84	83742	P – 56 2393	9 36 54 – 57 18.3	7.0 M			A0			11.95		1.0		9 38 27 – 57 31.9
85	83719	C – 48 4872	9 37 9 – 48 50.1	7.85M			B9			11.58		1.0		9 38 58 – 49 3.7
86	83866	P – 57 2208	9 37 34 – 58 3.2	7.90M			B8			10.09		1.0		9 39 5 – 58 16.8
87	83865	P – 54 2554	9 37 48 – 54 31.6	6.82	– 0.14	1.29C	B55		8.40	8.92		1.0 1.0		9 39 27 – 54 45.2
88	83944	P – 60 1477	9 37 58 – 61 6.1	4.51	– 0.07	– 0.18	B95p		8.78	7.11		1.0 1.0		9 39 21 – 61 19.7
89	83881	P – 52 2669	9 37 59 – 53 1.8	7.55	– 0.11	1.30C	B85		9.40	9.74		1.0 1.0		9 39 41 – 53 15.4
90	83958	P – 56 2415	9 38 13 – 57 4.6	8.88M	8.55G		B9			11.94		1.0		9 39 47 – 57 18.2

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 922
2					897 922
3			B		897 A19 158 781 884 901 922
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87					897 A19 158 419 922 A39 A42
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89					897 A19 922 A42
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	84101	P–54 2579	9 39 17 –54 45.3	6.92	–0.10	–0.50	B8		9.32	9.17		1.0 1.0		9 40 56 –54 59.0
2	84228	P–54 2594	9 40 9 –54 59.1	5.99	–0.14	–0.54	B45		8.15	8.38		1.0 1.0		9 41 48 –55 12.8
3	84375	P–67 1111	9 40 40 –68 16.6	7.36M			B8				9.75	1.0		9 41 38 –68 30.3
4	84308	P–59 1453	9 40 44 –59 20.9	8.86M	8.43G		B8			11.47		1.0		9 42 13 –59 34.6
5	84361	P–57 2254	9 41 10 –57 52.6	8.36M	8.05G		B8			10.56		1.0		9 42 43 –58 6.4
6	84359	P–54 2618	9 41 16 –54 32.2	7.99M	7.5 G		B8			10.93		1.0		9 42 56 –54 46.0
7	298648	P–53 2775	9 41 31 –53 50.8	7.85M			A0			11.65		1.0		9 43 13 –54 4.6
8	84400	C–50 4420	9 41 41 –50 59.9	6.14	–0.11	1.31C	B8 p		8.50 .06	8.12 .07		2.0 2.0		9 43 28 –51 13.7
9	84464	P–59 1464	9 41 48 –59 48.0	7.50M	7.1 G		B8			9.66		1.0		9 43 17 –60 1.8
10	84462	P–56 2470	9 41 56 –56 43.4	7.97M			B8		9.68	9.85 .05		1.0 2.0		9 43 32 –56 57.2
11	84461	P–53 2788	9 42 0 –53 39.7	5.55	–0.04	–0.08	A05		8.68	9.35 .47		1.0 2.0		9 43 42 –53 53.5
12	84493	C–50 4432	9 42 16 –51 8.2	7.82M			B3		9.47 .04	9.03		2.0 1.0		9 44 3 –51 22.0
13	84523	P–53 2806	9 42 24 –53 30.9	8.05M	7.8 G		B3			10.47		1.0		9 44 7 –53 44.7
14	84552	C–47 5182	9 42 46 –48 19.1	6.88M			B8			8.56		1.0		9 44 37 –48 32.9
15	84656	P–55 2485	9 43 18 –55 47.2	8.24M	7.6 G		B8			10.59		1.0		9 44 56 –56 1.1
16	84688	P–53 2836	9 43 35 –54 1.0	7.25M			A2			11.38		1.0		9 45 17 –54 14.9
17	84730	P–53 2840	9 43 44 –54 4.1	8.77M	8.45G		B9			11.25		1.0		9 45 26 –54 18.0
18	84791	P–56 2498	9 44 3 –56 30.3	9.06M	8.72G		B8			11.42		1.0		9 45 40 –56 44.2
19	84809	P–56 2499	9 44 4 –56 57.3	6.46	–0.12	1.28C	B8 p			9.08 .24		2.0		9 45 40 –57 11.2
20	85012	P–69 1115	9 44 49 –69 53.2	7.35M			B8			10.31		1.0		9 45 41 –70 7.1
21	300330	P–56 2533	9 45 47 –56 31.8	7.74M			B9			10.63		1.0		9 47 25 –56 45.8
22	85083	P–57 2322	9 45 59 –57 57.3	8.4 M	7.9 G		B8 c		9.53	10.05		1.0 1.0		9 47 34 –58 11.3
23	85082	P–55 2536	9 46 4 –56 12.5	8.98M	8.64G		B8			11.35		1.0		9 47 43 –56 26.5
24	85341	C–51 4213	9 47 46 –51 53.6	8.0 M	7.5 G		B8		9.46			1.0		9 49 33 –52 7.6
25	85453	C–49 4734	9 48 32 –50 6.1	8.5 M	7.9 G		B9			11.50		1.0		9 50 22 –50 20.2
26	85496	P–57 2367	9 48 36 –57 58.9	8.08M	7.62G		B8			11.48		1.0		9 50 12 –58 13.0
27	85541	P–52 2872	9 49 0 –53 9.2	9.08M	9.25G		B5			11.78		1.0		9 50 45 –53 23.3
28	85740	P–53 2964	9 50 23 –54 2.9	8.50M	8.50G		B0			11.54		1.0		9 52 7 –54 17.0
29	85781	P–59 1517	9 50 31 –59 42.4	9.12M	8.69G		B8			11.03		1.0		9 52 3 –59 56.5
30	85777	C–51 4265	9 50 47 –51 28.7	7.65M			B5		9.50			1.0		9 52 36 –51 42.9
31	85809	P–53 2976	9 50 54 –54 5.0	9.4 M	9.35G		B3			11.86		1.0		9 52 38 –54 19.2
32	85871	P–54 2816	9 51 17 –55 8.2	6.47	–0.14	1.16C	B15s		8.15	8.44 .03		1.0 2.0		9 53 0 –55 22.4
33	85924	P–53 2994	9 51 42 –54 3.2	8.12M	8.0 G		B8			11.18		1.0		9 53 27 –54 17.4
34	85953	C–50 4622	9 52 0 –50 54.6	5.92	–0.16	1.23C	B23			7.69 .04		2.0		9 53 50 –51 8.8
35	86000	P–54 2842	9 52 14 –54 36.7	8.22M	7.9 G		B8			11.20		1.0		9 53 58 –54 50.9
36	86087	C–49 4801	9 53 1 –50 .4	5.71	–0.01	–0.01	A0			9.34		1.0		9 54 53 –50 14.6
37	86183	P–62 1356	9 53 8 –63 12.8	8.75M	8.43G		B9			11.27		1.0		9 54 32 –63 27.0
38	86112	C–50 4640	9 53 9 –50 34.9	9.0 M	9.0 G		A0			11.13		1.0		9 55 0 –50 49.1
39	86162	P–58 1697	9 53 13 –59 1.8	9.26M	8.85G		B5			10.99		1.0		9 54 48 –59 16.0
40	86214	P–59 1528	9 53 24 –59 35.5	9.5 M	9.05G		B5			11.22		1.0		9 54 58 –59 49.7
41	86289	P–58 1707	9 53 57 –58 30.2	7.61M			A0			10.42		1.0		9 55 34 –58 44.5
42	86319	P–58 1709	9 54 6 –58 52.1	7.10M			B8			10.01		1.0		9 55 42 –59 6.4
43	86353	P–53 3052	9 54 27 –53 22.9	6.84M			B8		9.12	9.32 .03		1.0 2.0		9 56 14 –53 37.2
44	86352	C–50 4662	9 54 31 –51 5.9	6.36	–0.18	1.20C	B24			7.69 .19		2.0		9 56 22 –51 20.2
45	86385	C–51 4334	9 54 49 –51 35.6	7.8 M	7.8 G		A0		9.90	9.87 .04		1.0 2.0		9 56 39 –51 49.9
46	86403	P–53 3068	9 54 51 –54 10.8	7.96	0.01	–0.01	B9			11.61		.3		9 56 37 –54 25.1
47	86440	P–53 3075	9 55 6 –54 19.7	3.54	–0.09	–0.63	B52*	8.11	6.44	7.22		1.0 1.0 .3		9 56 51 –54 34.0
48	86439	C–49 4831	9 55 20 –49 37.9	7.47M			B8			9.60		1.0		9 57 13 –49 52.2
49	86466	P–52 2980	9 55 22 –52 24.0	6.11	–0.14	–0.61	B35		8.18	8.38 .04		1.0 1.3		9 57 11 –52 38.3
50	86557	P–62 1370	9 55 31 –63 8.9	7.99M			B9 s			10.24		1.0		9 56 56 –63 23.2
51	300336	P–54 2928	9 55 53 –54 26.3	8.7 M	9.6 G		A7			11.95		1.0		9 57 39 –54 40.6
52	86601	P–52 2996	9 56 12 –52 39.2	8.11M	7.8 G		B8			11.85 .03		2.0		9 58 1 –52 53.6
53	86633	P–55 2725	9 56 17 –55 55.9	8.94M	8.55G		B8			11.15		1.0		9 58 0 –56 10.3
54	86675	P–61 1379	9 56 20 –61 41.6	7.34M			A0			10.44		1.0		9 57 50 –61 56.0
55	86658	P–61 1380	9 56 24 –61 26.5	9.3 M	8.89G		B9			11.64		1.0		9 57 55 –61 40.9
56	86771	P–58 1750	9 57 7 –58 31.2	9.62M	9.21G		B8			11.50		1.0		9 58 45 –58 45.6
57	87122	P–55 2794	9 59 28 –55 51.3	6.60M			B8		9.30	9.55		1.0 1.0		10 1 12 –56 5.8
58	87152	P–52 3087	9 59 51 –53 7.4	6.20	–0.14	–0.65	B25s			8.03		1.0		10 1 40 –53 21.9
59	87203	P–53 3193	10 0 4 –53 57.9	8.75M	8.54G		B3			11.07		1.0		10 1 52 –54 12.4
60	87221	P–54 3041	10 0 9 –54 45.7	7.86M			B8			10.89		1.0		10 1 56 –55 .2
61	87266	P–59 1683	10 0 15 –59 44.4	8.21	–0.11	–0.03	B9		9.45			1.0		10 1 52 –59 58.9
62	87295	P–52 3120	10 0 44 –52 54.4	7.75M	7.3 G		B3			9.88		1.0		10 2 34 –53 8.9
63	87406	P–60 1602	10 1 7 –61 3.8	8.31M	7.9 G		B3			10.11 .17		2.0		10 2 41 –61 18.3
64	87364	C–51 4436	10 1 19 –51 48.3	7.64M			A2 c			11.06		1.0		10 3 11 –52 2.8
65	87472	P–61 1435	10 1 32 –61 46.7	9.0 M	8.7 G		A0			12.01		1.0		10 3 4 –62 1.2
66	87543	P–61 1441	10 2 0 –61 39.8	6.13	–0.06	1.32C	B8 *		8.68	8.74 .08		1.0 2.0		10 3 33 –61 54.4
67	87543	P–61 1441	10 2 2 –61 38.5	6.13	–0.06	1.32C	B8 p			8.95		1.0		10 3 35 –61 53.1
68	87541	P–55 2861	10 2 16 –55 39.9	7.94M			B8			11.08		1.0		10 4 2 –55 54.5
69	87800	P–53 3290	10 4 8 –54 20.9	7.68M			B5			10.33		1.0		10 5 57 –54 35.5
70	87832	P–59 1855	10 4 10 –59 52.4	9.09M	8.71G		B9			12.17		1.0		10 5 48 –60 7.0
71	88115	P–62 1438	10 5 59 –62 24.5	8.38M	8.07G		B03			10.38		1.0		10 7 32 –62 39.2
72	88158	P–61 1479	10 6 22 –61 58.6	6.60M			B8 c		9.25	9.31		1.0 1.0		10 7 56 –62 13.3
73	88175	P–56 2892	10 6 35 –57 2.7	8.60M	8.23G		B8			10.97		1.0		10 8 20 –57 17.4
74	88292	P–57 2724	10 7 23 –57 47.7	7.60M			B8			10.49		1.0		10 9 7 –58 2.5
75	88343	P–60 1697	10 7 37 –60 50.4	9.9 M	9.3 G		A0			11.64		.3		10 9 14 –61 5.2
76	304959	P–60 1699	10 7 39 –60 58.5	9.5 G			A0 c			11.78		.3		10 9 16 –61 13.3
77	304936	P–59 1925	10 7 39 –59 46.3	9.5 G			B5 c			11.55 .01		2.0		10 9 19 –60 1.1
78	88321	P–52 3290	10 7 49 –52 37.8	8.16M	7.7 G		B8			10.46		1.0		10 9 42 –52 52.6
79	304958	P–60 1705	10 8 1 –60 55.6	9.2 G			B			11.46		.3		10 9 38 –61 10.4
80	88412	P–60 1708	10 8 10 –60 45.0	9.6 M	9.11G		B3			10.53 .01		1.3		10 9 48 –60 59.8
81	88483	P–56 2939	10 8 54 –56 41.4	9.38	–0.07	–0.43	A2			11.55		1.0		10 10 40 –56 56.2
82	88528	P–63 1319	10 8 55 –64 8.3	6.98M			A0		9.55	9.85		1.0 1.0		10 10 24 –64 23.1
83	88543	P–60 1723	10 9 9 –60 41.8	8.98M	8.72G		A0			11.61		1.0		10 10 47 –60 56.6
84	88542	P–58 1967	10 9 14 –58 54.4	7.57M	7.2 G		A0			11.61		1.0		10 10 56 –59 9.2
85	88646	P–55 3021	10 9 59 –55 44.9	8.60M	8.23G		B8			12.16		1.0		10 11 47 –55 59.7
86	88661	P–57 2781	10 10 2 –57 48.8	5.69	–0.09	1.16C	B24*		7.96	7.56		1.0 1.0		10 11 47 –58 3.6
87	88674	P–60 1738	10 10 4 –60 35.2	9.29M	8.90G		B9			11.67		1.0		10 11 43 –60 50.0
88	88695	P–60 1742	10 10 12 –61 17.7	7.00M			B8 c		9.15	9.43		1.0 1.0		10 11 49 –61 32.5
89	88733	P–59 1967	10 10 36 –59 41.8	8.82M	8.37G		B9 c		10.71	11.36		1.0 1.0		10 12 17 –59 56.7
90	88757	P–55 3048	10 10 54 –55 32.2	9.05M	8.70G		B8			12.12		1.0		10 12 43 –55 47.1

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89				W/–59 1968	897 922
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	88773	P–55 3053	10 11 0 –55 54.2	7.96M	7.7 G		B8			11.44		1.0		10 12 49 –56 9.1
2	305048	P–61 1513	10 11 19 –61 33.9	9.2 M	8.81G		B5			11.07 .19		2.0		10 12 56 –61 48.8
3	88825	P–59 1974	10 11 20 –59 40.2	6.09	–0.08	–0.49	B55s		8.47	8.71 .11		1.0 2.0		10 13 2 –59 55.1
4	88844	P–60 1765	10 11 24 –60 55.9	8.65M	8.17G		B8 c		9.60 .22	9.77 .21		3.0 2.0		10 13 3 –61 10.8
5	88863	P–56 2997	10 11 31 –57 13.7	9.12M	8.69G		B9			11.72		1.0		10 13 17 –57 28.6
6	88892	P–58 2010	10 11 37 –58 58.2	9.0 M	8.9 G		B8 *			11.48		1.0		10 13 20 –59 13.1
7	305015	P–60 1769	10 11 41 –60 30.7	9.5 M			B5			11.73		1.0		10 13 21 –60 45.6
8	88907	P–61 1517	10 11 43 –61 24.6	6.38	–0.11	–0.66	B35s		8.24	8.07		1.0 1.0		10 13 21 –61 39.5
9	88920	P–61 1519	10 11 46 –62 15.5	8.69M			B8			10.69		1.0		10 13 22 –62 30.4
10		P–57 2821	10 11 58 –57 28.3	8.4 M	8.3 G					11.41		1.0		10 13 44 –57 43.2
11	88934	P–59 1976	10 11 59 –60 .9	7.58M	7.3 G		A0 c		10.13	11.18 .01		1.0 2.0		10 13 40 –60 15.8
12	88945	P–54 3325	10 12 15 –54 44.7	7.56M			B3		9.07 .21			2.0		10 14 6 –54 59.6
13	89008	P–59 1983	10 12 37 –59 53.0	8.96M	9.01G		A3			11.89		1.0		10 14 19 –60 7.9
14	89048	P–61 1536	10 12 50 –62 12.4	9.6 M	9.21G		B9			11.51		1.0		10 14 27 –62 27.3
15	89104	P–54 3356	10 13 25 –54 43.5	6.16	–0.18	1.21C	B35		7.64 .21			3.0		10 15 16 –54 58.5
16	89105	P–55 3123	10 13 28 –55 26.4	8.08M			B9			10.87 .21		2.0		10 15 18 –55 41.4
17	89203	P–61 1553	10 13 55 –62 17.3	7.43M			B9			10.09		1.0		10 15 32 –62 32.3
18	89202	P–59 2003	10 14 1 –60 3.2	9.5 M	9.2 G		A0			11.67 .04		2.0		10 15 43 –60 18.2
19	89192	P–54 3382	10 14 6 –55 16.2	7.04M			A0			11.51		1.0		10 15 57 –55 31.2
20	89263	P–59 2008	10 14 20 –59 39.2	6.21	0.21	1.58C	A55*		10.35			1.0		10 16 3 –59 54.2
21	89275	P–63 1348	10 14 22 –63 30.9	8.40M	8.15G		A0			10.86		1.0		10 15 56 –63 45.9
22	89402	P–57 2929	10 15 41 –58 16.9	8.87M	8.48G		B8			11.88		1.0		10 17 27 –58 31.9
23	305080	P–59 2029	10 16 11 –60 1.3	9.9 M	9.5 G		A0			11.12		1.0		10 17 54 –60 16.3
24	89497	P–58 2069	10 16 13 –59 15.2	9.9 M	9.59G		B5			11.56		1.0		10 17 58 –59 30.2
25	302686	P–58 2074	10 16 25 –58 24.6	9.3 G			B3 c			11.89		1.0		10 18 11 –58 39.7
26	89539	P–55 3211	10 16 39 –55 57.6	9.0 M	8.6 G		A			11.17 .19		3.0		10 18 30 –56 12.7
27	89554	P–54 3443	10 16 46 –54 35.9	9.3 M	9.09G		B8			11.64		1.0		10 18 39 –54 51.0
28	307615	P–62 1520	10 17 5 –63 3.0	9.9 M	9.63G		B3			11.46		1.0		10 18 42 –63 18.1
29	89625	P–59 2044	10 17 14 –59 31.0	8.92M	8.75G		B8 c		10.30	10.73		1.0 1.0		10 18 59 –59 46.1
30	305096	P–60 1840	10 17 25 –60 28.4	9.4 G			B5			12.60		.3		10 19 8 –60 43.5
31	305098	P–60 1841	10 17 30 –60 33.8	9.0 G			B8			12.04		.3		10 19 13 –60 48.9
32	89715	P–64 1248	10 17 32 –64 25.5	5.66	0.05	0.05	A0 p			10.36		1.0		10 19 5 –64 40.6
33	89683	P–60 1842	10 17 33 –60 51.4	8.18M	7.7 G		B8		11.18	11.76		1.0 1.0		10 19 15 –61 6.5
34	299070	P–53 3632	10 17 38 –54 14.9	9.6 M	9.25G		B8			11.97		1.0		10 19 32 –54 30.0
35	305097	P–60 1843	10 17 50 –60 30.9	9.1 G			B8			12.30		.3		10 19 33 –60 46.0
36	305094	P–60 1845	10 17 55 –60 25.8	9.1 G			B8			11.85		.3		10 19 38 –60 40.9
37	89740	P–58 2095	10 17 55 –58 53.7	6.91	–0.13	–0.72	B35s		8.33	8.52 .15		1.0 2.0		10 19 41 –59 8.8
38	89677	C–39 6302	10 17 55 –39 27.0	7.28M	7.5 G		B9		10.27			1.0		10 20 5 –39 42.1
39	89820	P–58 2107	10 18 29 –59 17.8	9.00M	8.63G		A0		10.55	11.31		1.0 1.0		10 20 15 –59 32.9
40	89802	P–57 3008	10 18 30 –57 24.4	9.04M	8.68G		B9			11.72		1.0		10 20 19 –57 39.5
41	89876	P–62 1531	10 18 46 –63 5.1	7.95M	7.5 G		A0			10.36		1.0		10 20 23 –63 20.2
42	89844	P–56 3159	10 18 47 –56 55.1	7.79M			B8		9.40			1.0		10 20 37 –57 10.2
43	89890	P–55 3286	10 19 3 –55 47.4	4.50	–0.13	–0.57	B34*	9.47	6.85 .13	7.51 .20		1.0 2.0 4.0		10 20 55 –56 2.5
44	90019	P–56 3191	10 20 2 –57 14.8	10.0 G			B9			11.83		1.0		10 21 52 –57 30.0
45	307650	P–61 1603	10 20 7 –61 58.1	9.6 G			B0			11.56		1.0		10 21 48 –62 13.3
46	90075	P–59 2079	10 20 21 –59 56.0	8.90M	8.69G		B9			11.10		1.0		10 22 6 –60 11.2
47	90087	P–59 2080	10 20 35 –59 30.1	7.9 M			O95s		9.53	10.14		1.0 1.0		10 22 21 –59 45.3
48	90102	P–57 3088	10 20 47 –57 25.1	8.82M	8.59G		B5			11.29		1.0		10 22 37 –57 40.3
49	90139	P–61 1611	10 20 49 –62 6.0	8.68M	8.35G		A0			11.28		1.0		10 22 30 –62 21.2
50	90151	P–61 1612	10 20 56 –61 49.2	7.91M			A0			10.70		1.0		10 22 38 –62 4.4
51	90263	P–58 2157	10 21 47 –58 24.2	9.13M	8.78G		B9			11.54 .14		2.0		10 23 36 –58 39.4
52	307672	P–62 1557	10 21 51 –63 11.5	9.9 M	9.79G		B3			11.43		1.0		10 23 30 –63 26.7
53	90273	P–57 3125	10 21 54 –57 23.3	9.07	0.17	–0.83	O7			11.20		1.0		10 23 44 –57 38.5
54	90315	P–61 1626	10 22 6 –61 44.9	9.10M	8.87G		B3			11.47		1.0		10 23 48 –62 .1
55	90288	P–56 3250	10 22 6 –57 12.6	8.17	–0.15	–0.91	B35		9.60	9.46		1.0 1.0		10 23 57 –57 27.8
56	90398	P–60 1890	10 22 39 –61 17.9	7.85M			A0		10.53	10.45		1.0 1.0		10 24 23 –61 33.1
57	90434	P–56 3286	10 23 9 –56 49.9	8.28M	8.0 G		B9			10.99 .02		2.0		10 25 1 –57 5.2
58	90490	P–58 2182	10 23 27 –58 37.1	6.97M			B9		9.21 .11	9.32 .03		2.0 2.0		10 25 16 –58 52.4
59	90564	P–63 1403	10 23 49 –63 51.7	8.78M	8.66G		B9			11.51		1.0		10 25 27 –64 7.0
60	90551	P–55 3419	10 23 58 –56 22.0	8.74M	8.21G		B8			10.52 .10		2.0		10 25 51 –56 37.3
61	90579	P–60 1902	10 24 0 –60 34.7	8.12M	7.7 G		B9			12.07		1.0		10 25 46 –60 50.0
62	90600	P–59 2126	10 24 17 –60 7.4	9.6 M	9.57G		O8			12.59		1.0		10 26 4 –60 22.7
63	90599	P–57 3207	10 24 17 –58 21.8	9.4 G			B9			11.53		1.0		10 26 7 –58 37.1
64	90661	P–62 1577	10 24 33 –63 2.6	7.53M			A0			10.51 .05		2.0		10 26 14 –63 17.9
65	90707	P–57 3237	10 25 8 –57 25.2	8.78	0.27	–0.52	B1			11.97		.3		10 27 0 –57 40.5
66	90772	P–57 3256	10 25 32 –57 23.0	4.7	0.5	0.0	F01*			10.40		1.0		10 27 24 –57 38.3
67	90802	P–60 1911	10 25 41 –60 27.0	9.5 M	9.22G		B9			11.82		1.0		10 27 28 –60 42.3
68	90853	P–58 2227	10 26 2 –58 29.0	3.81	0.31	0.21	F02p		10.13			1.0		10 27 52 –58 44.3
69	90872	P–56 3386	10 26 10 –56 56.5	6.85	–0.15	–0.53	B9		8.83 .17	9.08		2.0 1.0		10 28 3 –57 11.8
70	90901	P–57 3287	10 26 23 –57 49.9	10.3 G			B9			11.97		1.0		10 28 15 –58 5.3
71	302839	P–57 3288	10 26 24 –57 26.2	9.2 G			B5			11.60		1.0		10 28 16 –57 41.6
72	90966	P–62 1595	10 26 36 –62 54.5	6.72M			B3 s			8.22 .37		3.0		10 28 18 –63 9.9
73	90987	P–57 3308	10 26 58 –57 30.6	10.0 G			B8			11.18		1.0		10 28 50 –57 46.0
74	91027	P–61 1677	10 27 5 –62 19.7	8.76M			A0 c			10.04 .03	9.77 .10	2.0 2.0		10 28 49 –62 35.1
75	91041	P–59 2160	10 27 12 –59 50.6	8.14M	7.7 G		A0		9.77 .08			2.0		10 29 1 –60 6.0
76	91218	P–61 1694	10 28 27 –62 14.0	8.89M			A2			11.75		1.0		10 30 11 –62 29.4
77	91198	P–58 2263	10 28 28 –58 45.8	8.98M	8.66G		B8			11.48		1.0		10 30 19 –59 1.2
78	91188	P–56 3448	10 28 28 –56 49.2	6.92M			B8		8.55 .14	9.45		2.0 1.0		10 30 22 –57 4.6
79	91269	P–60 1944	10 28 47 –61 4.8	7.51M	7.1 G		B9 c		9.71 .19	9.71 .12	9.39 .08	3.0 3.0 1.3		10 30 34 –61 20.2
80	305295	P–59 2186	10 29 3 –59 55.1	9.2 G			B5			12.08		1.0		10 30 52 –60 10.5
81	91239	C–41 5923	10 29 3 –41 58.3	7.42M	7.7 G		B9		10.42			1.0		10 31 14 –42 13.7
82	91295	P–58 2268	10 29 11 –58 27.0	8.67M			A0		10.21	10.64		1.0 1.0		10 31 3 –58 42.4
83	91342	P–60 1949	10 29 20 –61 19.1	8.34M	8.01G		B9 c		10.16	10.14 .38		1.0 .5		10 31 7 –61 34.5
84	91465	P–61 1704	10 30 14 –61 25.7	3.31	–0.10	–0.71	B55*	7.27 .44	5.24 .54	4.41 .02	5.09 .25	6.0 4.0 1.3 .5		10 32 1 –61 41.2
85	91477	P–57 3397	10 30 28 –58 17.3	7.97M			B8		9.39 .04	9.05		1.3 .3		10 32 21 –58 32.8
86	302965	P–57 3400	10 30 34 –58 7.0	9.4 G			A0			11.80		1.0		10 32 27 –58 22.5
87	91533	P–58 2285	10 30 55 –58 24.5	5.99	0.32	1.44C	A21s			11.80		1.0		10 32 48 –58 40.0
88	91599	P–61 1707	10 31 8 –61 38.7	9.6 M	9.49G		B9			11.37 .18		1.3		10 32 55 –61 54.2
89	91598	P–60 1967	10 31 9 –61 16.4	9.3 M	8.87G		B3			10.96		.3		10 32 57 –61 31.9
90	91610	P–61 1708	10 31 14 –61 43.1	9.8 M	9.8 G		B9			11.58 .15		1.3		10 33 1 –61 58.6

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 922
2					897 A24
3			EN		897 A19 158 419 884 901 922 A27 A42 A48 A69
4				W/-60 1768	897 922
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6		2		W/-58 2011,DO CAR	897 922 969
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68		S0			897 A19 007 008 158 508 783 884 901 922 969 A42 A48
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73					900 922
74				W/-61 1676,1678	897 922
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76					897 922
77					897 922
78					897 922
79				W/-60 1945	897 922
80					900 A24
81					897 922
82					897 922
83				W/-60 1948	897 922
84		U3	PEN	PP CAR	897 A19 008 342 419 488 508 783 884 901 922 932 969 A27 A42 A43 A48
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86					900 A24
87			P		897 A19 158 884 901 922
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89					897 922
90					900 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	302978	P–57 3422	10 31 17	–58 13.2	9.0 M	8.4 G		B5				10.30						.3			10 33 10	–58 28.7
2	91572	P–57 3423	10 31 19	–57 54.7	8.20	0.03	–0.91	O7				10.14						.3			10 33 13	–58 10.2
3	91593	P–54 3797	10 31 19	–55 7.3	6.65M			A0 c				11.26						1.0			10 33 17	–55 22.8
4	91619	P–57 3431	10 31 26	–57 55.3	6.2	0.4	–0.4	B51c				9.52						1.0			10 33 20	–58 10.8
5	91619	P–57 3431	10 31 32	–57 55.9	6.2	0.4	–0.4	B51				10.20						.3			10 33 26	–58 11.4
6	91651	P–59 2214	10 31 40	–59 52.2	8.86	–0.01	–0.92	O95s		10.39	.22	11.01					2.0	1.0			10 33 31	–60 7.7
7	91698	P–64 1339	10 31 49	–65 6.6	8.02	0.01	1.31C	B8 c				10.16						1.0			10 33 29	–65 22.1
8	91645	C–36 6485	10 32 2	–37 7.7	7.04M	7.0 G		B9		10.59		11.55					1.0	1.0			10 34 17	–37 23.2
9	91778	P–60 1989	10 32 35	–60 40.4	9.4 M	9.4 G		B9				11.67						1.0			10 34 25	–60 55.9
10	91826	P–59 2235	10 32 51	–60 .8	8.15M	7.7 G		B2		9.60							.3				10 34 42	–60 16.3
11	91824	P–57 3463	10 32 52	–57 53.8	8.15	–0.05		O7 p		9.30		8.67					1.0	.3			10 34 46	–58 9.3
12	91826	P–59 2235	10 32 55	–59 58.2	8.15M	7.7 G		B2 c				8.34						1.0			10 34 46	–60 13.7
13	91837	P–59 2239	10 32 58	–59 55.7	8.58M	8.15G		B0		9.38	.13						1.3				10 34 49	–60 11.2
14	91969	P–57 3508	10 33 55	–57 57.9	6.51	0.01	1.16C	B01*	9.74	.17		7.20				2.0		.3		3293	10 35 50	–58 13.5
15	91919	C–32 7472	10 34 1	–32 34.3	8.65M	8.58G		A3		13.07							1.0				10 36 19	–32 49.9
16	92027	P–61 1734	10 34 10	–61 36.3	8.60M	8.31G		B5				10.58	.03					2.0			10 35 59	–61 51.9
17	91965	C–32 7479	10 34 18	–33 .8	7.17M	7.1 G		A0	10.89			10.98	.39			1.0	3.0				10 36 36	–33 16.4
18	92025	P–59 2292	10 34 19	–59 55.3	8.15M			B3		9.04		8.56					1.0	1.0			10 36 11	–60 10.9
19	92060	P–57 3545	10 34 28	–57 41.0	8.7 M	8.57G		B2 p				11.44	.11					.5			10 36 23	–57 56.6
20	92061	P–58 2372	10 34 30	–58 41.5	9.0 M	8.9 G		B5				10.97						1.0			10 36 24	–58 57.1
21	92072	P–58 2380	10 34 39	–58 55.8	7.29M			B5 c		8.29	.02	8.95					2.0	.3			10 36 33	–59 11.4
22	92105	P–58 2388	10 34 48	–59 2.9	8.67M	8.68G		A2 c				11.25						1.0			10 36 41	–59 18.5
23	92174	P–58 2404	10 35 22	–58 58.8	9.0 G			B9 *				11.33						.3			10 37 16	–59 14.4
24	92136	C–35 6590	10 35 25	–35 27.6	7.04M			B9		10.95	.25	11.57					3.0	1.0			10 37 42	–35 43.2
25	92206	P–57 3584	10 35 27	–58 21.8	7.68M			O7 p		9.07	.25	8.99					2.0	1.0			10 37 22	–58 37.4
26	92190	P–58 2406	10 35 28	–58 55.2	8.61M	8.22G		B9				11.23						.3			10 37 22	–59 10.8
27		C–33 7117	10 35 28	–33 26.4	9.5 M				13.14			13.04				1.0	1.0				10 37 46	–33 42.0
28	92207	P–58 2411	10 35 32	–58 28.4	5.5	0.5	–0.2	A01*		10.29							1.0				10 37 27	–58 44.0
29	303103	P–58 2424	10 35 51	–58 42.1	9.0 G			A0 c				11.68						1.0			10 37 45	–58 57.7
30	92273	P–58 2431	10 36 4	–59 8.6	9.1 M	9.1 G		A0				11.10						1.0			10 37 58	–59 24.2
31	92291	P–60 2077	10 36 6	–61 .9	9.19M			B5				10.33		10.67	.42		1.0	2.0			10 37 57	–61 16.5
32	92287	P–56 3588	10 36 6	–56 59.8	5.90	–0.15	–0.63	B33s				8.33	.19	7.93			2.0	1.0			10 38 3	–57 15.4
33	92288	P–58 2434	10 36 10	–58 48.8	8.12M			B9	10.32					9.33		1.0		.3			10 38 4	–59 4.4
34	92385	P–64 1374	10 36 34	–64 46.9	6.74	–0.07	–0.30	B95				9.66		10.09	.28		1.0	3.0			10 38 17	–65 2.5
35	92383	P–57 3621	10 36 40	–57 46.9	9.36	0.06	–0.81	B05						11.34				1.0			10 38 36	–58 2.5
36	92399	P–58 2462	10 36 51	–59 .1	6.72M			A0 c				7.68		8.27			1.0	.3			10 38 45	–59 15.7
37	92406	P–58 2461	10 36 52	–58 27.9	9.1 M	8.9 G		A0						10.55				.3			10 38 47	–58 43.5
38	92399	P–58 2462	10 36 55	–58 58.6	6.72M			A0 c				7.65					1.0				10 38 49	–59 14.2
39	303175	P–57 3628	10 37 4	–58 21.5	8.8 G			B8						10.27				.3			10 38 59	–58 37.1
40	303182	P–58 2475	10 37 8	–58 33.3	9.1 M			B						10.97				1.0			10 39 3	–58 48.9
41	92478	P–64 1383	10 37 18	–64 42.8	7.56	0.05	0.00	A04							8.82				1.0		10 39 2	–64 58.4
42	92464	P–55 3682	10 37 24	–55 43.7	7.10	–0.10	1.28C	B55s				8.92					1.0				10 39 23	–55 59.4
43	92536	P–63 1542	10 37 37	–63 51.1	6.33	–0.07	–0.31	B84				8.73	.04	9.67	.54		3.0	3.0			10 39 23	–64 6.8
44	92505	P–60 2122	10 37 37	–60 43.5	7.00	–0.11	–0.65	B53c				8.51	.09	8.67	.03		3.0	2.0			10 39 29	–60 59.2
45	92504	P–56 3622	10 37 39	–57 12.0	8.42	–0.05	–0.95	O9						9.59				1.0			10 39 36	–57 27.7
46	92555	P–60 2125	10 37 49	–61 1.9	9.11M	8.94G		B8				9.97	.27	10.71	.49		2.0	2.0			10 39 41	–61 17.6
47	92552	P–55 3695	10 37 57	–56 1.0	8.16M	7.7 G		B8				9.47					1.0				10 39 56	–56 16.7
48	92585	P–56 3635	10 38 7	–56 38.8	9.16M	8.75G		B8						11.05				1.0			10 40 5	–56 54.5
49	92584	P–55 3701	10 38 9	–56 18.8	8.78M	8.49G		B0						10.51				1.0			10 40 8	–56 34.5
50		P–62 1702	10 38 16	–62 45.2	9.8 G										11.47				1.0		10 40 5	–63 .9
51	92607	P–59 2404	10 38 18	–59 32.5	8.30M	8.07G		B8				9.05	.07	8.94	.14		3.3	2.3			10 40 12	–59 48.2
52	92608	P–59 2409	10 38 20	–60 12.7	9.4 M	9.0 G		A c						12.03				1.0			10 40 13	–60 28.4
53	92664	P–64 1403	10 38 27	–64 50.3	5.51	–0.17	–0.57	B9 s				7.30	.32	8.20	.43		6.0	6.0			10 40 11	–65 6.0
54	92704	P–60 2150	10 38 56	–61 20.3	9.16M	8.81G		B05s						10.42				1.0			10 40 48	–61 36.0
55	92712	P–56 3657	10 39 7	–56 59.7	7.90M	7.6 G		B3						9.95				1.0			10 41 5	–57 15.4
56	92678	C–35 6656	10 39 13	–35 28.2	6.89M			A0				10.52	.06				2.0				10 41 30	–35 43.9
57	92725	P–58 2538	10 39 14	–58 59.2	8.58M			B8						10.87				1.0			10 41 10	–59 14.9
58	305469	P–59 2444	10 39 17	–60 11.5	9.4 M	8.8 G		B3						10.78				1.0			10 41 11	–60 27.2
59	92739	P–58 2540	10 39 17	–58 53.4	8.72M	8.52G		B8						10.84				1.0			10 41 13	–59 9.1
60	92741	P–59 2447	10 39 18	–59 42.7	7.23	–0.01	–0.84	B12				8.80		9.09	.16		1.0	1.3			10 41 12	–59 58.4
61	92783	P–63 1573	10 39 20	–64 12.8	6.73	–0.05	–0.22	B95s	8.54			8.89	.49	10.27	.06		1.0	4.3	1.3		10 41 6	–64 28.5
62	92743	P–60 2159	10 39 20	–60 24.5	9.4 M	9.13G		B8						11.92					1.0		10 41 13	–60 40.2
63	92740	P–59 2450	10 39 23	–59 24.9	6.41	0.08	–0.83	WN7*			•	8.03	.11	7.99	.24			3.3	2.3		10 41 18	–59 40.6
64	92757	P–55 3729	10 39 26	–55 48.4	6.97M			A0 c				10.00		10.04				1.0	1.0		10 41 26	–56 4.1
65	92809	P–58 2546	10 39 42	–58 30.6	9.08	0.22	–0.34	WC6						11.46					1.0		10 41 38	–58 46.3
66	92837	P–63 1583	10 39 48	–63 50.7	7.17	0.00	–0.08	B95							10.91					.3	10 41 35	–64 6.4
67	300978	P–56 3674	10 39 56	–56 27.2	9.0 G			B3						11.36					1.0		10 41 55	–56 42.9
68	92850	P–56 3676	10 40 2	–56 44.8	8.07	0.04	–0.86	B01						10.39					1.0		10 42 1	–57 .5
69	92804	C–32 7567	10 40 8	–33 23.6	7.7 M	7.8 G		F2				12.62						1.0			10 42 27	–33 39.3
70	92877	P–59 2478	10 40 13	–59 38.7	9.35M			B8				9.93	.17	10.41				.5	.3		10 42 8	–59 54.4
71	92845	C–32 7572	10 40 24	–32 27.2	5.63	0.00	1.47C	A0 p	10.21			9.71	.10	10.22			1.0	2.0	1.0		10 42 43	–32 42.9
72	92938	P–63 1589	10 40 27	–64 12.3	4.80	–0.14	–0.57	B35	8.72			6.48	.22	5.20			1.0	2.8	.3		10 42 14	–64 28.0
73	303296	P–58 2573	10 40 28	–58 53.7	8.8 G			B5						9.88					.3		10 42 24	–59 9.4
74	92936	P–56 3696	10 40 42	–56 36.9	7.15M			B2				9.24		9.22				1.0	1.0		10 42 41	–56 52.6
75	305348	P–59 2502	10 40 43	–59 37.7	8.5 M			A0 c						7.89					.3		10 42 38	–59 53.4
76	92964	P–58 2581	10 40 44	–58 57.2	5.4	0.3	1.27C	B31*						9.92					.3		10 42 40	–59 12.9
77	93030	P–63 1599	10 40 45	–64 9.5	2.76	–0.23	–1.02	B05*				3.73	.26	3.32	.02			2.3	1.3		10 42 32	–64 25.2
78	305348	P–59 2502	10 40 48	–59 38.5	8.5 M			A0 c				9.06	.47					.5			10 42 43	–59 54.2
79	93030	P–63 1599	10 40 54	–64 8.0	2.76	–0.23	–1.02	B05*	6.11	.34		4.41	.14	3.27			6.0	3.5	.3		10 42 41	–64 23.7
80	305348	P–59 2502	10 40 58	–59 36.9	8.5 M			A0 c						9.62					.3		10 42 53	–59 52.6
81	92946	C–31 8469	10 41 3	–31 52.5	7.10M	7.4 G		A0	11.89			9.80		11.52			1.0	1.0	1.0		10 43 23	–32 8.2
82	93030	P–63 1599	10 41 10	–64 7.9	2.76	–0.23	–1.02	B05s	6.15	.02							2.0				10 42 57	–64 23.6
83	93003	P–60 2199	10 41 10	–60 43.5	7.12	–0.02	–0.55	B35				9.47	.18	9.65	.08			3.0	2.0		10 43 4	–60 59.2
84	93010	P–60 2203	10 41 16	–60 54.4	6.5	0.00	–0.56	B33*				8.40	.05	8.51	.14			3.0	2.0		10 43 9	–61 10.1
85	93028	P–59 2521	10 41 22	–59 53.5	8.36	–0.06	–0.95	O91c				9.46						.3			10 43 17	–60 9.3
86	93025	P–56 3704	10 41 22	–57 14.9	9.5 M	9.4 G		B8						11.64					1.0		10 43 21	–57 30.7
87	305556	P–59 2538	10 41 49	–60 4.6	8.7 M	8.6 G		B5 c				10.51		10.71	.30			1.0	2.0		10 43 44	–60 20.4
88	93131	P–59 2548	10 41 57	–59 51.3	6.48	–0.05	–0.91	WN7*	9.64								1.0				10 43 52	–60 7.1
89	93113	P–57 3731	10 42 0	–57 25.3	8.6 M	8.8 G		B5						10.48					1.0		10 43 59	–57 41.1
90	93163	P–63 1619	10 42 3	–63 59.2	5.77	0.00	–0.55	B35				7.99	.23	8.80	.39	7.08	.27	5.5	1.3	.5	10 43 51	–64 15.0

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					900 A24
2					897 343 922 A42 A53 A76
3				W/ – 54 3795	897 922
4				W/ – 57 3423	897 A19 158 620 793 884 901 922 A27 A42 A48 A53
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6			P		900 012 922 A42 A53
7				W/ – 64 1342	897 A19 922
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28		P	PB4		897 A19 002 158 340 343 462 474 620 793 884 901 922 A42 A48
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36				W/ – 58 2471	897 922
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38				W/ – 58 2460,2471	897 922
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42			N		897 A19 158 419 922 A42
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44				W/ – 60 2117,2118	897 A19 158 343 922 A42 A53
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53			PA		897 A19 158 508 520 753 884 901 922 A27 A48
54			E		897 922 A48
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57					897 922
58					900 899 A24
59					897 922
60	O				897 A19 158 843 922 A42 A53
61			N		897 A19 158 508 520 922 A33 A42 A63
62					897 922
63		SOP	PN	W/HD303225	897 A19 002 006 007 158 340 884 901 922 961 A24 969 A18 A27 A42 A48
64				W/ – 55 3731	897 922
65					897 A19 006 922 961 A42
66					897 A19 158 508 520 922 A33
67					900 A24
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71		B			897 A19 158 884 901 922
72					897 A19 158 419 508 520 884 901 922 A27 A33 A42 A48
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75				W/ – 59 2478,2503,2513	897 A24
76	O	UO	PE		897 A19 158 342 419 462 620 793 843 884 901 922 969 A27 A42 A43 A48
77			P	W/ – 63 1589,1592	897 A19 008 158 343 419 508 520 783 884 901 922 972 A27 A33 A42 A48
78				W/ – 59 2503	897 A24
79			P	W/ – 63 1592	897 A19 008 158 343 419 508 520 783 884 901 922 972 A27 A33 A42 A48
80				W/ – 59 2503,2513	897 A24
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82			P		897 A19 008 158 343 419 508 520 783 884 901 922 972 A27 A33 A42 A48
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84			B	W/ – 60 2204	897 A19 158 419 922 A42 A53
85				W/ – 59 2522	897 843 922 A42 A53 A76
86					900 899 922
87				W/ – 59 2528	900 899 A24
88		P	P		897 A19 002 006 340 922 961 A18 A42
89					897 922
90					897 A19 158 419 508 520 884 922 A27 A31 A33 A42 A48 A63

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	93131	P – 59 2548	10 42 8 – 59 49.5	6.48	– 0.05	– 0.91	WN7'					4.97	.55					1.3			10 44 4 – 60 5.3
2	93194	P – 63 1623	10 42 18 – 63 41.9	4.82	– 0.14	– 0.62	B55s	8.20	.08	6.64	.19	7.06	.46	5.73	.36	2.0	6.0	2.3	3.3		10 44 7 – 63 57.7
3	93131	P – 59 2548	10 42 18 – 59 50.5	6.48	– 0.05	– 0.91	WN7'			6.46							.3				10 44 14 – 60 6.3
4	93130	P – 59 2556	10 42 18 – 59 37.0	8.06	0.22	– 0.77	Q63c			9.66							.3				10 44 14 – 59 52.8
5	93128	P – 58 2617	10 42 20 – 59 18.2	7.07M	8.5 G		'			6.96	.55	6.64	.59				.5	.5			10 44 16 – 59 34.0
6	93206	P – 59 2572	10 42 27 – 59 43.8	6.24	0.13	– 0.84	B01p	9.80								1.0					10 44 23 – 59 59.6
7	93208	P – 61 1842	10 42 28 – 61 48.4	8.8 M	8.6 G		B3			10.25							1.0				10 44 21 – 62 4.2
8	93206	P – 59 2572	10 42 30 – 59 42.6	6.24	0.13	– 0.84	B01'			7.16							.3				10 44 26 – 59 58.4
9	93249	P – 58 2659	10 42 47 – 59 5.6	7.87M	7.7 G		B6			9.82	.29	10.41					2.0	.3			10 44 44 – 59 21.4
10	93248	P – 56 3744	10 42 54 – 56 50.2	9.5 M	9.2 G		A0					12.11						1.0			10 44 54 – 57 6.0
11	93308	P – 59 2620	10 43 7 – 59 25.3				'			6.88	.63	6.31	.50				1.5	.5		3372	10 45 4 – 59 41.1
12	93341	P – 56 3759	10 43 24 – 56 43.6	9.6 M	9.49G		B9					11.69						1.0			10 45 24 – 56 59.4
13	93403	P 58 2680	10 43 47 – 59 8.7	7.28	0.21	– 0.76	O53'			10.03	.16	10.36					2.0	.3			10 45 44 – 59 24.5
14	93445	P – 60 2265	10 43 56 – 61 20.5	8.18M	8.0 G		B5			10.05							1.0				10 45 50 – 61 36.3
15	93483	P – 60 2268	10 44 16 – 61 .7	9.3 M	9.1 G		B3					12.45						1.0			10 46 11 – 61 16.5
16	93484	P – 61 1865	10 44 19 – 61 40.7	7.48M			B5			9.33		8.98					1.0	1.0			10 46 13 – 61 56.5
17		P – 65 1497	10 44 20 – 65 31.9	9.8 G								10.24						1.0			10 46 6 – 65 47.7
18	93502	P – 59 2671	10 44 21 – 60 20.4	6.25	0.03	0.03	A1 p			9.99		10.75					1.0	1.0			10 46 17 – 60 36.2
19	93540	P – 63 1646	10 44 28 – 64 15.1	5.34	– 0.10	– 0.46	B75s			7.28	.23	8.08	.64	7.13	.13		8.0	1.5	.5		10 46 17 – 64 30.9
20	93549	P – 63 1649	10 44 40 – 64 0.0	5.23	– 0.08	– 0.47	B74p	7.43		7.21	.29	7.30	.79	7.16		1.0	9.0	.5	.3		10 46 30 – 64 15.8
21	301024	P – 56 3795	10 44 40 – 56 24.2	9.5 G			B3					12.11						1.0			10 46 41 – 56 40.0
22	93607	P – 63 1655	10 44 51 – 64 3.6	4.85	– 0.15	– 0.64	B34c							4.69					.3		10 46 41 – 64 19.4
23	93563	P – 56 3800	10 44 56 – 56 29.6	5.25	– 0.08	1.34C	B8			7.73		7.75					1.0	1.0			10 46 57 – 56 45.4
24	93607	P – 63 1655	10 45 2 – 64 7.2	4.85	– 0.15	– 0.64	B34	8.46	.23	6.43	.42	5.85	.75	5.48		2.0	9.0	.5	.3		10 46 52 – 64 23.0
25	93596	P – 56 3805	10 45 3 – 57 16.9	8.92M	8.40G		B9					10.71						1.0			10 47 3 – 57 32.7
26	93545	C – 36 6685	10 45 9 – 37 15.6	7.94M	7.64G		B9			11.41	.20	12.10					2.0	1.0			10 47 26 – 37 31.4
27	93632	P – 59 2696	10 45 16 – 59 50.0	8.30M	8.5 G		O43			9.61		10.16					1.0	1.0			10 47 13 – 60 5.8
28	93619	P – 56 3810	10 45 18 – 57 3.7	7.23M			A0					9.86						1.0			10 47 19 – 57 19.5
29	93618	P – 56 3812	10 45 21 – 56 54.2	9.2 M	9.03G		B25s					11.85						1.0			10 47 22 – 57 10.0
30	93683	P – 59 2712	10 45 27 – 60 19.8	8.24M			B2 c			9.74		9.71					1.0	1.0			10 47 23 – 60 35.6
31	93684	P 65 1505	10 45 34 – 65 39.2	8.2 M	7.4 G		B3			10.34							1.0				10 47 21 – 65 55.0
32	93683	P – 59 2712	10 45 42 – 60 21.2	8.24M			B2					9.40						1.0			10 47 39 – 60 37.1
33	93695	P – 59 2713	10 45 47 – 59 36.7	6.47	– 0.13	– 0.62	B55p	9.71		9.17						1.0	.3				10 47 45 – 59 52.6
34	93714	P – 63 1670	10 45 50 – 64 17.0	6.54	0.02	– 0.60	B33			8.67	.19	8.93	.54	9.54	.28		2.0	2.0	1.5		10 47 40 – 64 32.9
35	93695	P – 59 2713	10 45 52 – 59 38.0	6.47	– 0.13	– 0.62	B55'					8.08						1.0			10 47 50 – 59 53.9
36	93738	P – 63 1672	10 46 3 – 63 59.9	6.46	0.01	– 0.16	A05			9.16	.07	10.14	.36	9.44	.12		2.0	2.0	1.5		10 47 53 – 64 15.8
37	93723	P – 58 2722	10 46 4 – 59 23.2	8.55	0.03	– 0.56	B44			10.75	.26						2.0				10 48 2 – 59 39.1
38	93737	P – 59 2720	10 46 8 – 59 39.3	6.00	0.28	1.37C	A01s			10.23							.3				10 48 6 – 59 55.2
39		B – 44 2022	10 46 26 – 44 7.3	9.2 M	10.3 G					11.60							1.0				10 49 20 + 43 51.4
40	93843	P – 59 2732	10 46 40 – 59 57.5	7.3	– 0.0	– 1.0	O53s			9.02	.07						2.0				10 48 38 – 60 13.4
41	93844	P – 60 2300	10 46 43 – 60 52.7	8.36M	8.25G		A0			11.93		11.88					1.0	1.0			10 48 39 – 61 8.6
42	93913	P 66 1423	10 46 58 – 67 2.4	7.5 M	8.0 G		B3			11.18		11.74					1.0	1.0			10 48 42 – 67 18.3
43	93898	P – 57 3838	10 47 11 – 57 42.3	8.13M	7.84G		B9					10.78	.04					2.0			10 49 12 – 57 58.2
44	93923	P – 59 2750	10 47 19 – 59 27.5	8.9 M	9.1 G		A0 c			10.63							1.0				10 49 18 – 59 43.4
45	93924	P – 61 1898	10 47 24 – 61 34.0	8.83M	8.57G		B5			10.47							1.0				10 49 19 – 61 49.9
46	93943	P 58 2755	10 47 25 – 59 3.5	5.84	0.01	– 0.06	A0 p			9.21	.05	9.68					2.0	1.0			10 49 24 – 59 19.4
47	93906	C – 35 6771	10 47 36 – 35 32.4	7.37M	7.12G		A0			11.42							1.0				10 49 55 – 35 48.3
48	93905	C – 33 7288	10 47 37 – 33 47.6	5.60	0.04	0.05	A0			9.54		10.52					1.0	1.0			10 49 57 – 34 3.5
49	94024	P – 57 3856	10 48 0 – 57 36.5	8.76M	8.67G		B2					10.81						1.0			10 50 1 – 57 52.4
50	94065	P 61 1905	10 48 13 – 61 32.4	9.1 M	8.5 G		B5			10.30							1.0				10 50 9 – 61 48.3
51	94097	P 61 1908	10 48 18 – 62 22.2	7.39M			B8							10.23					1.0		10 50 13 – 62 38.1
52	94144	P – 60 2317	10 48 43 – 61 .2	6.82	– 0.01		B5	9.57		9.30	.20	9.61				1.0	3.0	1.0			10 50 40 – 61 16.1
53	94173	P 59 2784	10 49 0 – 59 41.5	6.78	– 0.05		A0 p			9.50							1.0				10 50 59 – 59 57.4
54	305642	P – 60 2326	10 49 19 – 60 40.6	9.1 G			O8					12.34						1.0			10 51 17 – 60 56.5
55	94290	P 66 1434	10 49 34 – 66 33.0	7.7 M	7.7 G		B9			9.97							1.0				10 51 21 – 66 48.9
56	94258	P 57 3887	10 49 37 – 57 59.0	9.14M	8.68G		B8					10.67						1.0			10 51 39 – 58 14.9
57	94275	P 56 3927	10 49 44 – 57 .4	6.63M			A5 c					12.30						1.0			10 51 47 – 57 16.3
58	94289	P – 62 1787	10 49 46 – 62 38.4	7.94M			B9			10.08		10.77	.32	10.48			1.0	2.0	1.0		10 51 41 – 62 54.3
59	94303	P 57 3893	10 49 53 – 57 44.4	8.9 M	9.1 G		B9					11.35						1.0			10 51 55 – 58 .3
60	94346	P 60 2338	10 50 5 – 61 9.8	7.56M	7.2 G		B9			10.29	.03	11.56					2.0	1.0			10 52 2 – 61 25.8
61	94370	P – 58 2809	10 50 22 – 58 28.8	8.00M	7.83G		B3			10.14	.17	10.18	.12				2.0	2.3			10 52 23 – 58 44.8
62	94369	P 57 3909	10 50 23 – 57 59.2	7.37	0.25	0.37	B1Ip					11.10						1.0			10 52 25 – 58 15.2
63	94382	P 60 2345	10 50 25 – 60 44.6	9.5 M	9.35G		B5					12.01						1.0			10 52 23 – 61 .6
64	94367	P – 56 3947	10 50 28 – 56 58.5	5.26	0.2	– 0.51	A01s			9.02		10.34	.22				1.0	1.3			10 52 31 – 57 14.5
65	94366	C 34 7042	10 50 41 – 35 13.4	6.83M	6.7 G		B8	9.57		9.06		10.01				1.0	1.0	1.0			10 53 1 – 35 29.4
66	94393	P 56 3953	10 50 42 – 56 51.8	8.52M	8.2 G		B9					11.05						.3			10 52 45 – 57 7.8
67	94464	P 57 3929	10 51 12 – 57 35.0	8.9 M	9.2 G		F5					11.47						1.0			10 53 15 – 57 51.0
68	94493	P 60 2359	10 51 16 – 60 32.9	7.25	0.02	0.86	B01	10.32		9.19	.03	9.34				1.0	2.0	1.0			10 53 15 – 60 48.9
69	94491	P 58 2830	10 51 20 – 58 37.6	6.24	– 0.10	0.59	B55	10.09		8.38	.31	7.96	.19			1.0	3.0	1.3			10 53 22 – 58 53.6
70	94533	P 58 2844	10 51 39 – 58 30.8	8.98M	8.56G		B8			11.29		11.13	.23					1.0	1.3		10 53 41 – 58 46.8
71	94559	P 61 1951	10 51 44 – 61 23.9	7.81	0.01	0.65	B2			9.84		9.82					1.0	1.0			10 53 42 – 61 39.9
72	305720	P 60 2373	10 52 11 – 60 40.9	9.5 M	9.2 G		B8					12.08						1.0			10 54 10 – 60 56.9
73	94565	C 38 6818	10 52 17 – 38 29.3	6.97M	7.7 G		B9			9.58		10.66					1.0	1.0			10 54 35 – 38 45.3
74	94649	P 60 2378	10 52 22 – 60 29.8	8.44M	8.24G		B9					12.07						1.0			10 54 22 – 60 45.8
75	94910	P 59 2860	10 54 11 – 60 11.2	7.6 M	7.1 G		A2					11.03						1.0			10 56 12 – 60 27.2
76	94963	P 61 1975	10 54 36 – 61 26.5	7.36	0.09	0.82	O9			8.46	.38	8.42					4.0	1.0			10 56 35 – 61 42.5
77	95018	P 59 2873	10 55 .4 – 60 11.3	9.5 M	9.2 G		B8					12.73						1.0			10 57 5 – 60 27.4
78	305780	P 59 2879	10 55 19 – 60 19.3	9.9 M	9.2 G		B5					12.59						1.0			10 57 20 – 60 35.4
79	305778	P 59 2906	10 57 0 – 60 13.0	8.5 M	8.8 G		B5					12.52						1.0			10 59 2 – 60 29.1
80	95290	P 58 2907	10 57 2 – 58 54.0	7.67	0.09		A0			9.66							1.0				10 59 6 – 59 10.1
81	95324	P 60 2433	10 57 13 – 61 3.1	6.14	0.06	1.39C	B9 p			8.61	.01	8.82					2.0	1.0			10 59 14 – 61 19.2
82	95357	P 58 2916	10 57 28 – 59 21.6	8.97M	8.73G		B9			10.68		11.95					1.0	1.0			10 59 32 – 59 37.7
83	95414	P 59 2914	10 57 45 – 60 8.6	9.2 M	9.2 G		A0					11.83						1.0			10 59 48 – 60 24.7
84		P 59 2929	10 58 41 – 60 11.1	8.9 G								12.52						1.0			11 0 44 – 60 27.2
85	95538	P 56 4103	10 58 41 – 56 26.7	9.7 G	9.7 G		B8			10.69							1.0				11 0 48 – 56 42.8
86	95418	B – 57 1302	10 58 50 – 56 39.1	2.4	0.01	0.02	A15p	8.04	.17	6.35	.17					4.0	3.0				11 1 50 – 56 23.0
87	95616	P 59 2936	10 59 2 – 59 57.6	8.9 M	8.9 G		B8					12.02						1.0			11 1 6 – 60 13.7
88	95635	P – 60 2455	10 59 8 – 60 57.2	8.00M	7.9 G		B3					12.04						1.0			11 1 10 – 61 13.3
89	95707	P – 60 2460	10 59 37 – 61 17.6	7.67M			B81s					12.08						.3			11 1 39 – 61 33.7
90	305850	P 59 2955	10 59 48 – 59 44.6	9.1 M	8.6 G		B3					11.49						1.0			11 1 52 – 60 .7

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1		P	P	W/ 2521,22,72,80,90	897 A19 002 006 340 922 961 A18 A42
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3		P	P	W/ – 59 2590	897 A19 002 006 340 922 961 A18 A42
4				W/ – 59 2577	897 922 A42 A53 A76
5		M	E	W – 58 2618,31,61,06 + B	897 006 342 922 A42
6		OP			897 002 012 340 343 419 843 922 969 A42 A53 A76
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75		16	PE	W 59 2855,56,AG CAR	897 342 922 969
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81		B			897 A19 158 884 901 922
82					897 922
83					897 922
84					900
85					900 922
86		UOP			897 A19 338 377 392 781 785 884 901 921 922 969 A42 A43 A48 A61
87					900 922
88					897 922
89			P		897 922 A48
90					900 899 A24

C. 2

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	95786	P–65 1593	10 59 59 –65 44.5	7.7 M	7.7 G		B9		10.77			1.0		11 1 55 –66 .6
2	95826	P–59 2964	11 0 20 –60 14.8	8.52M	8.29G		B5		11.03 .32	10.45		2.0 1.0		11 2 24 –60 31.0
3	305906	P–60 2476	11 0 45 –60 57.7	9.6 M	9.8 G		B5			12.34		.3		11 2 48 –61 13.9
4	95972	P–61 2046	11 1 7 –61 30.0	8.95M			B25s		10.44	11.56		1.0 1.0		11 3 10 –61 46.2
5	96042	P–58 2992	11 1 35 –59 9.8	8.23	0.18	–0.78	O9.5s		11.03			1.0		11 3 41 –59 26.0
6	96060	P–59 2988	11 1 41 –60 18.6	8.70M	8.54G		B5			11.17		1.0		11 3 45 –60 34.8
7	96088	P–57 4174	11 1 53 –57 41.1	6.13	–0.17	–0.80	B33	9.05 .32	7.76 .12	7.02 .07		4.0 4.0 2.0		11 4 0 –57 57.3
8	96191	P–58 3019	11 2 32 –58 24.9	8.6 G			A		10.32			.3		11 4 39 –58 41.1
9	96226	P–57 4206	11 2 47 –58 16.9	8.23M	7.66G		B8		10.22 .25	11.01		2.0 1.0		11 4 54 –58 33.1
10	96287	P–63 1819	11 2 50 –64 20.7	6.7 M	6.7 G		B9		10.10			1.0		11 4 50 –64 36.9
11	96264	P–60 2505	11 2 51 –60 46.9	7.74M	7.3 G		B3		8.82 .19	8.77		3.0 1.0		11 4 56 –61 3.1
12	96248	P–59 3017	11 2 52 –59 35.3	6.55	0.16	–0.74	B11p		9.50	11.21		.3 1.0		11 4 58 –59 51.5
13	96263	P–59 3018	11 2 54 –60 13.8	8.68M	8.51G		B9 c		10.63 .06			2.0		11 4 59 –60 30.0
14	96261	P–59 3019	11 2 57 –59 26.6	7.78	0.14	–0.72	B11p		10.22			.3		11 5 3 –59 42.8
15	96286	P–59 3024	11 3 1 –59 41.2	8.39	0.06	–0.83	B3		10.96			1.0		11 5 7 –59 57.4
16	96308	P–60 2508	11 3 6 –60 54.4	9.0 M	8.6 G		B3		10.88 .22	11.43		2.0 1.0		11 5 10 –61 10.6
17	96430	P–57 4253	11 3 46 –58 23.5	8.5 M	8.3 G		A		10.14	11.30		.3 1.0		11 5 54 –58 39.7
18	96447	P–60 2517	11 3 56 –60 54.3	9.3 M	9.04G		B3		10.09	10.37		1.0 1.0		11 6 1 –61 10.5
19	96446	P–59 3038	11 3 59 –59 40.8	6.68	–0.16	–0.87	B25s	9.67	8.14 .36	8.02		1.0 2.0 1.0		11 6 5 –59 57.0
20	96474	P–58 3096	11 3 59 –58 58.3	8.09M	7.6 G		B8		10.00	11.01		1.0 1.0		11 6 6 –59 14.5
21	96492	P–60 2522	11 4 3 –60 47.0	8.61M	8.31G		B8			11.84		1.0		11 6 8 –61 3.2
22	96548	P–64 1629	11 4 18 –65 14.4	7.75M	8.2 G		WN8p		9.86			1.0		11 6 17 –65 30.6
23	96568	P–64 1630	11 4 24 –64 34.1	6.40	0.12	0.12	A2		10.59			1.0		11 6 24 –64 50.3
24	96564	P–58 3120	11 4 28 –58 28.4	7.90M	7.51G		A0		10.16			1.0		11 6 36 –58 44.6
25	96622	P–58 3140	11 4 53 –59 23.8	8.91	0.12	–0.86	O9.4			12.28		1.0		11 7 0 –59 40.0
26	96638	P–59 3052	11 4 58 –59 31.3	8.57	0.20	–0.84	O8 c			11.55		.3		11 7 5 –59 47.5
27	96670	P–59 3057	11 5 7 –59 36.1	7.51	0.04	–0.82	O8 p		9.80	10.86		1.0 .3		11 7 14 –59 52.3
28	96669	P–59 3059	11 5 12 –59 32.8	8.53	0.14	–0.78	B		11.55			1.0		11 7 19 –59 49.0
29	96715	P–59 3064	11 5 26 –59 41.6	8.26	0.07	–0.92	O4.5		10.67	11.25		1.0 1.0		11 7 33 –59 57.8
30	96716	P–60 2539	11 5 27 –61 6.6	8.41M	8.2 G		B5			10.76		1.0		11 7 32 –61 22.8
31	96728	P–55 4148	11 5 30 –56 23.4	8.25M	7.9 G		B9		10.52 .08			2.0		11 7 40 –56 39.6
32	96829	P–60 2546	11 6 0 –60 33.3	7.31	0.24	–0.65	B3.3		10.31			1.0		11 8 6 –60 49.6
33	96882	P–60 2553	11 6 17 –61 .8	9.0 M	8.75G		B0.3			11.05		.3		11 8 23 –61 17.1
34	96895	P–57 4335	11 6 21 –58 9.5	8.8 G			B		10.45			1.0		11 8 30 –58 25.8
35	96919	P–61 2075	11 6 29 –61 40.6	5.2	0.2	–0.45	B9.1s		9.29 .16	10.28 .24		3.0 2.0		11 8 34 –61 56.9
36	97175	P–69 1487	11 7 53 –70 5.8	8.5 M	8.0 G		B3		10.42			1.0		11 9 45 –70 22.1
37	97151	P–59 3100	11 7 54 –59 49.4	7.72	–0.11	–0.78	B2.5s		9.32 .13	10.13		2.0 1.0		11 10 2 –60 5.7
38	97152	P–60 2578	11 7 57 –60 42.5	8.05	0.04	–0.69	c		10.05			1.0		11 10 4 –60 58.8
39	97166	P–59 3102	11 7 58 –59 58.6	7.92	0.07	–0.88	O8		9.25 .25	9.73		2.0 1.0		11 10 6 –60 14.9
40	97165	P–58 3229	11 8 0 –59 12.8	8.72M	8.57G		B5 c			11.52		1.0		11 10 9 –59 29.1
41	97253	P–59 3116	11 8 34 –60 6.8	7.12	0.15	–0.82	O6 p		9.36	10.66		1.0 1.0		11 10 42 –60 23.1
42	97284	P–60 2598	11 8 44 –60 28.2	8.90M	8.81G		B3		10.84			1.0		11 10 52 –60 44.5
43	97271	P–57 4387	11 8 45 –58 11.0	6.87	–0.09	1.32C	B8		8.70 .37	8.56		3.0 1.0		11 10 55 –58 27.3
44	97368	P–58 3253	11 9 17 –59 4.5	8.51M	8.48G		B3			12.57		1.0		11 11 27 –59 20.8
45	97400	P–59 3164	11 9 31 –60 10.3	7.92M	7.7 G		B c		8.70	10.35		.3 1.0		11 11 40 –60 26.6
46	97398	P–59 3165	11 9 32 –60 2.3	7.2 M			B9		9.37	10.82		.3 1.0		11 11 41 –60 18.6
47	97396	P–58 3261	11 9 32 –59 7.2	8.21M	7.8 G		A0		11.92			1.0		11 11 42 –59 23.5
48	97434	P–60 2629	11 9 41 –60 25.6	8.09	0.16	–0.80	O8		10.23			1.0		11 11 49 –60 41.9
49	97450	P–56 4292	11 9 52 –56 53.6	8.80M	8.39G		B9		11.22	11.53		1.0 1.0		11 12 4 –57 9.9
50	97471	P–58 3268	11 9 57 –58 31.9	9.30	–0.01	–0.87	B0.5s		10.52			1.0		11 12 7 –58 48.2
51	97498	P–58 3279	11 10 8 –58 41.0	9.1 M	8.81G		B9		10.86			1.0		11 12 18 –58 57.3
52	97535	P–70 1338	11 10 13 –70 56.7	7.2 M	7.2 G		B9		10.44	9.92		1.0 1.0		11 12 5 –71 13.0
53	97533	P–57 4420	11 10 26 –58 22.3	8.28	0.03	–0.84	B1.5s		10.25			1.0		11 12 37 –58 38.6
54	97557	P–59 3193	11 10 34 –59 24.3	7.24	–0.01	–0.71	B5.3	10.29	9.89 .23	10.25 .10		1.0 2.3 1.3		11 12 44 –59 40.6
55	97617	P–66 1550	11 10 48 –66 49.8	8.1 M	8.1 G		B9		10.49	10.85		1.0 1.0		11 12 49 –67 6.1
56	97596	P–58 3293	11 10 49 –58 29.0	9.0 M	8.9 G		B5		10.61			1.0		11 13 0 –58 45.3
57	97580	P–56 4307	11 10 49 –56 45.8	8.86M	8.45G		B8			12.27		.3		11 13 1 –57 2.1
58	97597	P–58 3299	11 10 53 –58 37.7	8.82M	8.5 G		B5		9.51			.3		11 13 4 –58 54.0
59	97654	P–56 4317	11 11 18 –56 46.7	7.46M			A0			12.03		.3		11 13 30 –57 3.0
60	97670	P–58 3315	11 11 20 –59 20.8	5.73	–0.11	–0.72	B3.3s	8.80 .53	8.09 .52	7.75 .13		3.0 2.3 1.3		11 13 30 –59 37.1
61	97792	P–55 4230	11 12 6 –55 46.5	7.90M	7.6 G		B8		9.82 .22			2.0		11 14 20 –56 2.9
62	97805	P–57 4465	11 12 12 –57 31.7	7.88M	7.44G		A0		10.67 .29			3.0		11 14 24 –57 48.1
63	97851	P–65 1646	11 12 14 –65 37.1	8.52	0.18	–0.75	B3			11.71		1.0		11 14 18 –65 53.5
64	97848	P–58 3351	11 12 21 –58 45.1	8.70	–0.02	–0.92	O9.3p		9.90			1.0		11 14 32 –59 1.5
65	97913	P–58 3366	11 12 43 –58 54.1	8.80	0.08	–0.85	B1.5s		10.81 .22	11.79 .03		2.0 2.0		11 14 54 –59 10.5
66	97932	P–60 2727	11 12 49 –61 10.7	9.1 M	9.5 G		B5.3			12.24		1.0		11 14 58 –61 27.1
67	97927	P–57 4486	11 12 54 –57 59.2	7.74M			A0		10.43			1.0		11 15 6 –58 15.6
68	97966	P–58 3372	11 13 0 –59 8.6	8.80	0.10	–0.90	O7 p		10.62	11.49 .35		1.0 2.0		11 15 11 –59 25.0
69	97969	P–59 3259	11 13 4 –59 53.5	7.69	0.02	–0.81	B1.5s		9.65 .25	10.09 .24		2.0 2.0		11 15 15 –60 9.9
70	98025	P–56 4352	11 13 30 –57 5.0	6.60M			A2		10.51			1.0		11 15 43 –57 21.4
71	98212	P–66 1567	11 14 48 –66 39.0	9.0 M	9.0 G		B9			11.90		1.0		11 16 52 –66 55.4
72	98278	P–58 3424	11 15 15 –58 49.9	7.03M			A0		9.52 .12	10.80		2.0 1.0		11 17 28 –59 6.3
73	98310	P–57 4536	11 15 29 –57 43.1	9.51	–0.03	–0.81	B5		10.95			1.0		11 17 43 –57 59.5
74	98329	P–58 3431	11 15 35 –58 56.1	7.50M			B9		8.60 .19	9.67		2.0 1.0		11 17 48 –59 12.5
75	98436	P–60 2801	11 16 29 –60 53.0	9.0 M	8.83G		B5			11.97		1.0		11 18 40 –61 9.4
76	98584	P–57 4583	11 17 40 –57 52.8	7.74M			B8		9.93			1.0		11 19 54 –58 9.2
77	98596	P–58 3475	11 17 47 –58 54.8	7.55M			A0		10.52	11.68		1.0 1.0		11 20 1 –59 11.2
78	98659	P–66 1572	11 18 1 –66 46.6	7.9 M	7.9 G		B9			11.38		1.0		11 20 7 –67 3.0
79	98718	P–53 4498	11 18 43 –54 13.0	3.88	–0.16	–0.58	B5.5*		5.97			1.0		11 21 0 –54 29.4
80	98733	P–59 3376	11 18 44 –59 53.2	7.96	0.15	–0.72	B0.1p		11.24	11.87		1.0 1.0		11 20 57 –60 9.6
81	98927	P–60 2867	11 19 56 –60 46.5	9.2	0.10	–0.8	B1.5*			11.65		.3		11 22 9 –61 3.0
82	98911	P–60 2865	11 20 3 –60 27.4	9.0 M	8.61G		B3			11.34		1.0		11 22 17 –60 43.9
83	98955	P–58 3534	11 20 21 –58 40.7	8.78M	8.45G		B2		10.72	11.03		1.0 1.0		11 22 36 –58 57.2
84	99103	P–64 1657	11 21 11 –64 40.8	5.10	–0.08	–0.41	B5.2*			7.57		1.0		11 23 21 –64 57.3
85	99066	P–54 4508	11 21 15 –54 34.3	9.6 M	9.24G		B9			11.84		1.0		11 23 33 –54 50.8
86	99085	P–58 3557	11 21 17 –58 48.3	8.18M	7.8 G		A0		10.78			1.0		11 23 33 –59 4.8
87	99158	P–60 2891	11 21 41 –60 35.5	8.85M	8.49G		B8			11.43		1.0		11 23 55 –60 52.0
88	99415	P–57 4688	11 23 30 –57 52.0	9.05M	8.81G		B3			12.19		1.0		11 25 47 –58 8.5
89	99467	P–58 3605	11 23 45 –59 4.7	7.71M			A0			11.49		1.0		11 26 2 –59 21.2
90	99546	P–58 3620	11 24 20 –59 9.7	8.29	–0.04	–0.95	O8 *		9.82	10.50		1.0 1.0		11 26 37 –59 26.2

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					900 922
2					897 922
3					897 A24
4			E		897 922 A48
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	99555	P – 58 3622	11 24 21 – 59 22.6	8.86M	8.56G		B5					11.64						1.0			11 26 38 – 59 39.1
2	99734	P – 57 4716	11 25 33 – 58 24.3	7.94M			B9					9.47						1.0			11 27 51 – 58 40.8
3	99785	P – 65 1668	11 25 48 – 65 54.9	7.4 M	7.4 G		B9			10.27							1.0				11 28 0 – 66 11.4
4	99857	P – 65 1669	11 26 15 – 66 12.8	7.60	0.12	– 0.62	B01			9.95	.15						2.0				11 28 27 – 66 29.3
5	99944	P – 63 1900	11 26 57 – 63 35.1	9.0 M	8.9 G		B5							10.37					1.0		11 29 12 – 63 51.6
6	99953	P – 62 2039	11 27 0 – 63 16.7	6.4	0.32	– 0.63	B21*					10.71		10.60				1.0	1.0		11 29 15 – 63 33.2
7	100099	P – 63 1904	11 28 9 – 63 32.5	8.10	0.12	– 0.79	O94p					11.03		9.66				1.0	1.0		11 30 25 – 63 49.1
8	100199	P – 62 2075	11 28 50 – 62 40.2	8.10	0.00		B13*							10.11					1.0		11 31 7 – 62 56.8
9	100213	P – 65 1675	11 28 56 – 65 28.0	8.73M	8.7 G		B3 *			9.98							1.0				11 31 10 – 65 44.6
10	100263	P – 62 2081	11 29 23 – 63 8.9	9.6 M	9.54G		B8					11.25						1.0			11 31 40 – 63 25.5
11	100323	P – 63 1911	11 29 49 – 63 38.0	8.66M	8.37G		B8 c					10.25	.34	9.62				2.0	1.0		11 32 5 – 63 54.6
12	100444	P – 62 2094	11 30 36 – 63 22.2	8.40M	8.40G		B5					11.09		10.24				1.0	1.0		11 32 53 – 63 38.8
13	100516	P – 68 1524	11 31 5 – 68 33.8	8.9 M	8.5 G		B3					12.01						1.0			11 33 18 – 68 50.4
14	100546	P – 69 1557	11 31 14 – 69 55.1	6.66M	6.3 G		B9			9.61		10.75	.18				1.0	2.0			11 33 25 – 70 11.7
15	100530	P – 63 1919	11 31 16 – 63 37.2	9.8 M	9.48G		B8					11.36	.19					4.0			11 33 33 – 63 53.8
16	100638	P – 64 1677	11 31 56 – 65 8.0	7.13M	7.0 G		A0			10.11				10.34			1.0		1.0		11 34 13 – 65 24.6
17	100753	P – 67 1766	11 32 42 – 68 10.5	8.3 M	8.3 G		A0					12.37						1.0			11 34 56 – 68 27.1
18	100826	P – 60 3090	11 33 22 – 61 .7	6.70M			A01s			10.02	.07						2.0				11 35 42 – 61 17.3
19	100840	P – 60 3095	11 33 27 – 61 17.0	8.16M	7.9 G		B0	10.13	.10	7.47	.41					1.3	.5				11 35 47 – 61 33.6
20	100841	P – 62 2127	11 33 28 – 62 44.6	3.13	– 0.05	– 0.16	B93*	9.08		7.04	.24	7.28	.93	7.99	.56	1.0	45.0	2.0	3.0		11 35 47 – 63 1.2
21	100879	P – 62 2135	11 33 53 – 63 .4	9.77	0.00	– 0.73	B25					10.75		10.81				1.0	1.0		11 36 12 – 63 17.0
22	100915	P – 60 3136	11 33 57 – 61 11.4	8.6 G			B8 *			10.27							1.0				11 36 17 – 61 28.0
23	100929	P – 60 3140	11 34 2 – 60 46.5	5.81	– 0.09	– 0.62	B34	9.92	.16	8.06	.07					2.0	2.0				11 36 23 – 61 3.1
24	100943	P – 60 3155	11 34 8 – 61 23.3	7.14	0.11	– 0.61	B51	9.65		9.06						.3	.3				11 36 28 – 61 39.9
25		P – 60 3157	11 34 11 – 61 17.8	8.6 G			B			10.84							1.0				11 36 31 – 61 34.4
26	101008	P – 62 2142	11 34 37 – 63 7.3	9.14	– 0.02	– 0.88	B13					10.04		10.15				.3	1.0		11 36 57 – 63 23.9
27	101070	P – 62 2147	11 35 3 – 62 52.4	8.93	0.01	– 0.86	B23							9.79					.3		11 37 23 – 63 9.0
28	101085	P – 62 2150	11 35 8 – 63 24.4	8.36	0.25	– 0.21	B75					11.56	.07					3.0			11 37 28 – 63 41.0
29	101105	P – 60 3195	11 35 11 – 61 12.5	7.14	0.01	– 0.60	B25*			9.44	.05						2.0				11 37 32 – 61 29.1
30	101119	P – 60 3201	11 35 16 – 60 42.4	7.44M			B9			10.37							1.0				11 37 37 – 60 59.0
31	101146	P – 61 2460	11 35 27 – 62 11.5	8.12M			B5					10.39		11.46	.00			1.0	2.0		11 37 48 – 62 28.1
32	101131	P – 62 2154	11 35 28 – 63 2.8	7.1	0.04	– 0.88	O7 *					8.49	.24					13.0		1.0	11 37 48 – 63 19.4
33	101131	P – 62 2154	11 35 44 – 63 4.3	7.1	0.04	– 0.88	O7 *					8.42	.22	7.53		8.43	.22	4.0	.3	2.0	11 38 4 – 63 20.9
34	101174	P – 64 1682	11 35 45 – 65 22.7	7.23M	7.1 G		B8					10.24		10.18		10.30	.24	1.0	1.0	2.0	11 38 4 – 65 39.3
35	101189	P – 61 2463	11 35 46 – 61 33.0	5.14	– 0.02	– 0.17	B94s	9.10		8.57	.13					1.0	5.0				11 38 7 – 61 49.6
36	101190	P – 62 2163	11 35 50 – 62 55.2	7.32	0.06	– 0.83	O6 *			9.03	.14	8.80		10.29			14.0	.3	1.0		11 38 10 – 63 11.8
37	101205	P – 62 2168	11 36 0 – 63 5.8	6.48	0.07	– 0.82	O7 *			8.14	.16			10.28			19.7		1.0		11 38 20 – 63 22.4
38	308775	P – 61 2468	11 36 2 – 62 24.8	9.4 G			B8					12.02						1.0			11 38 23 – 62 41.4
39	101131	P – 62 2154	11 36 3 – 63 5.9	7.1	0.04	– 0.88	O7 *							6.88	.09				1.3		11 38 23 – 63 22.5
40	101298	P – 62 2186	11 36 42 – 63 9.1	8.07	0.09	– 0.82	O8			9.67	.12	10.02		10.06			8.0	.3	.3		11 39 3 – 63 25.7
41	101334	P – 65 1698	11 36 48 – 65 43.8	9.9 M	9.9 G		A0			8.35							1.0				11 39 7 – 66 .4
42	101330	P – 61 2478	11 36 48 – 62 8.7	7.41M	7.8 G		A0			9.66		10.73	.17				1.0	2.0			11 39 9 – 62 25.3
43	308810	P – 62 2188	11 36 49 – 63 2.2	9.5 M	9.35G		B5					11.41						.3			11 39 10 – 63 18.8
44	101333	P – 62 2190	11 36 52 – 63 14.6	8.96	0.10	– 0.75	B01					10.76	.22	10.66				1.3	.3		11 39 13 – 63 31.2
45	101332	P – 62 2191	11 36 55 – 62 39.4	7.63	0.07	– 0.79	B02c			10.88		10.85	.28	10.26	.35		1.0	3.0	3.0		11 39 16 – 62 56.0
46	101378	P – 61 2487	11 37 8 – 62 21.8	9.1 M	9.2 G		B3					11.88						1.0			11 39 29 – 62 38.4
47	101380	P – 64 1685	11 37 10 – 65 7.2	5.16	0.80	0.36	*			10.26				10.90			1.0		1.0		11 39 30 – 65 23.8
48	101436	P – 62 2206	11 37 29 – 63 12.1	7.7 M	7.5 G		B3 c			9.08	.16	9.18	.11	9.65	.41		12.0	1.8	4.8		11 39 50 – 63 28.7
49	101545	P – 61 2508	11 38 15 – 62 17.5	6.38	0.01	– 0.87	*			8.45	.22	8.78	.19	9.11	.09		33.0	2.0	3.0		11 40 37 – 62 34.1
50	308935	P – 62 2226	11 38 50 – 63 6.7	10.0 M	9.2 G		B0 c					11.15	.25					7.0			11 41 12 – 63 23.3
51	101724	P – 63 1944	11 39 33 – 63 31.1	8.03	0.01	– 0.41	B8					10.94	.21	10.61	.15			13.0	7.0		11 41 55 – 63 47.7
52	101795	P – 62 2237	11 40 3 – 62 51.9	7.53M			B8			9.51	.07	10.64	.46	10.25	.43		10.0	3.0	3.0		11 42 26 – 63 8.5
53	101794	P – 61 2541	11 40 4 – 62 11.9	8.66	0.06	– 0.74	B15			10.76		10.80	.23				.3	1.3			11 42 27 – 62 28.5
54	101826	P – 60 3274	11 40 23 – 61 13.7	8.74M	8.47G		B8			10.67							1.0				11 42 47 – 61 30.3
55	101838	P – 61 2550	11 40 26 – 62 17.3	8.40	0.02	– 0.82	B13s			10.58	.06	11.07	.42	10.80	.11		2.0	2.3	2.0		11 42 49 – 62 33.9
56	101837	P – 61 2551	11 40 26 – 62 9.2	8.5	– 0.01		B3 *			10.29	.19	11.11	.51	10.85	.06		1.3	1.5	1.3		11 42 49 – 62 25.8
57	101839	P – 63 1947	11 40 27 – 63 48.4	8.41M			B5					10.84	.21	10.53	.24			19.0	10.0		11 42 50 – 64 5.0
58	101914	P – 65 1704	11 40 57 – 65 58.9	8.2 M	8.2 G		B9			8.28		12.74					1.0	1.0			11 43 19 – 66 15.6
59	101947	P – 61 2559	11 41 7 – 62 12.7	5.1	0.79	0.3	G01s			10.23							.3				11 43 31 – 62 29.4
60	101965	P – 62 2249	11 41 18 – 62 57.4	8.62M	8.31G		B9					11.32	.32	10.60	.55			5.3	3.0		11 43 42 – 63 14.1
61	101964	P – 61 2560	11 41 20 – 62 14.6	8.36	– 0.01	– 0.85	B03c			8.92	.51						6.0				11 43 44 – 62 31.3
62	101964	P – 61 2560	11 41 26 – 62 15.5	8.36	– 0.01	– 0.85	B03c			9.42	.21	9.12	.66				8.5	.5			11 43 50 – 62 32.2
63	101964	P – 61 2560	11 41 28 – 62 15.2	8.36	– 0.01	– 0.85	B03c							9.23					1.0		11 43 52 – 62 31.9
64	101995	P – 62 2250	11 41 29 – 62 36.0	6.07	0.07	1.54C	A0			10.09	.08			11.28			3.0		1.0		11 43 53 – 62 52.7
65	101964	P – 61 2560	11 41 35 – 62 16.0	8.36	– 0.01	– 0.85	B03c					8.19		9.41	.08			.3	1.3		11 43 59 – 62 32.7
66	102153	P – 62 2264	11 42 41 – 63 15.8	8.80M	8.45G		B5 c					10.19	.14	10.10	.35			25.0	11.0		11 45 5 – 63 32.5
67	102249	P – 66 1640	11 43 14 – 66 27.1	3.6	0.16	0.1	A55p	8.90		8.45	.19	11.20				1.0	2.0	1.0			11 45 37 – 66 43.8
68	102248	P 60 3314	11 43 19 – 61 10.1	8.03M	7.7 G		B5 c			10.11							1.0				11 45 44 – 61 26.8
69	102351	P – 62 2286	11 44 3 – 62 52.0	9.6 M	9.6 G		B8					11.83						1.0			11 46 28 – 63 8.7
70	102352	P – 63 1963	11 44 4 – 63 47.0	10.0 G			B c					11.58	.08	10.85	.12			5.0	2.0		11 46 29 – 64 3.7
71	102368	P – 61 2611	11 44 10 – 61 48.1	7.98M			B2			9.44	.12	9.77					8.0	1.0			11 46 36 – 62 4.8
72	102370	P – 64 1706	11 44 12 – 64 29.3	7.05M			B8					10.41	.21	10.28	.42			13.0	9.0		11 46 37 – 64 46.0
73	102400	P – 61 2616	11 44 23 – 62 4.0	9.1 M	9.0 G		B5					11.89						1.0			11 46 49 – 62 20.7
74	102399	P – 60 3330	11 44 26 – 60 45.8	8.26M			B8					10.17	.29				2.0				11 46 52 – 61 2.5
75	102475	P – 61 2622	11 44 52 – 62 9.5	8.50	– 0.03	– 0.88	B02			9.98	.29	10.72	.09	10.48	.02		3.0	2.0	2.0		11 47 18 – 62 26.2
76	102476	P – 62 2294	11 44 55 – 63 1.4	8.75M	8.71G		A0					11.86	.14					3.0			11 47 21 – 63 18.1
77	309037	P – 62 2295	11 44 56 – 63 9.1	9.5 M	9.0 G		B5					11.40	.26	10.89	.13			13.0	2.0		11 47 22 – 63 25.8
78	102505	P – 69 1588	11 44 58 – 70 8.2	8.8 M	8.7 G		B5					11.76						1.0			11 47 20 – 70 24.9
79	309049	P – 63 1975	11 45 30 – 63 42.1	9.5 G			A							11.46					1.0		11 47 56 – 63 58.8
80	102567	P – 61 2636	11 45 34 – 61 55.7	9.2	0.2	– 0.82	B15s					12.12						1.0			11 48 0 – 62 12.4
81	102742	P – 63 1986	11 47 3 – 64 20.7	9.79	0.15	– 0.62	B9					11.71						1.0			11 49 29 – 64 37.4
82	102776	P – 63 1988	11 47 14 – 63 30.6	4.31	– 0.16	– 0.61	B35s	8.77	.39	6.55	.25	7.11	.31	6.72	.50	10.0	44.0	39.5	33.2		11 49 41 – 63 47.3
83		P – 62 2337	11 47 44 – 63 22.5	9.6 G			*					11.79						1.0			11 50 11 – 63 39.2
84	102924	P – 62 2347	11 48 12 – 62 55.7	9.5 M	9.5 G		B8					11.78	.12					3.0			11 50 40 – 63 12.4
85	102923	P – 61 2681	11 48 12 – 62 16.4	8.56M	8.30G		B8			9.83		11.45					1.0	1.0			11 50 40 – 62 33.1
86	102940	P – 62 2350	11 48 18 – 63 22.3	8.81M	8.94G		A5					11.84						1.0			11 50 45 – 63 39.0
87	102997	P – 61 2691	11 48 45 – 61 34.1	6.5	0.31	– 0.56	B51*			9.82		10.31					1.0	1.0			11 51 13 – 61 50.8
88	103007	P – 61 2696	11 48 50 – 61 43.0	9.2 M	9.2 G		B8					11.94						1.0			11 51 18 – 61 59.7
89	103066	P – 63 2003	11 49 21 – 64 19.1	7.42M			B8	9.96		9.77	.11	9.88	.24	9.82	.27	1.0	5.0	29.0	9.3		11 51 49 – 64 35.8
90	103079	P – 64 1724	11 49 24 – 64 55.7	4.89	– 0.12	– 0.52	B44p	9.64				7.15	.22			1.0		32.0			11 51 52 – 65 12.4

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 922
2					897 922
3					900 922
4					897 012 419 922 A42 A53
5					897 922
6		P	4	W/ – 62 2032	897 A19 002 012 158 340 343 419 474 600 922 A42 A48 A53
7	O	P			897 A19 002 012 340 764 922 A42 A53
8		P	P4		897 A19 002 012 016 340 474 922 A42 A53
9		2		TU MUS	897 922 969
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22		2		BF CEN	897 241 922 969
23					897 A19 158 419 508 884 901 922 A27 A31 A42 A48 A50
24					897 A19 012 343 600 922 A42 A48 A53
25					897
26					897 A19 922 A39 A42 A53
27					897 A19 922 A39
28					897 922 A39
29		B	N		897 A19 158 922 A42 A53
30					897 922
31					897 922
32			NH	W/ – 62 2151	897 A19 158 343 419 922 A42 A53
33			NH	W/ – 62 2151,2164,2168	897 A19 158 343 419 922 A42 A53
34					897 922
35			PA		897 A19 158 781 884 901 922 A42 A53
36			N	W/ – 62 2171	897 A19 922 A39 A42 A53
37		0	N	W/ – 62 2164	897 A19 490 922 969 A42 A53
38					900 A24
39			NH	W/ – 62 2164,2168,2186	897 A19 158 343 419 922 A42 A53
40					897 A19 922
41					900 922
42					897 922
43					897 A24
44					897 A19 922 A39
45				W/ – 62 2192	897 343 922 A42 A53
46					900 922
47		B0		W/HD101379,SB,G0 + A0	897 A19 158 884 901 922 969
48				W/ – 62 2205	897 922
49		B		093 + B01	897 A19 343 922 A42
50				W/ – 62 2231	900 A24
51					897 922 A39
52					897 922
53					900 A19 016 922 A42 A53
54					897 922
55			4		897 A19 016 158 474 922 A42 A53
56		2		V346 CEN	900 016 922 969
57					897 922
58					897 922
59			P		897 A19 158 462 620 793 832 884 901 922 A42
60					897 922
61				W/ – 61 2559,2571	897 016 419 922 A42 A53
62				W/ – 61 2571	897 016 419 922 A42 A53
63				W/ – 61 2559,2571,2576	897 016 419 922 A42 A53
64					897 A19 884 901 922
65				W/ – 61 2571,2576	897 016 419 922 A42 A53
66				W/ – 62 2267	897 922
67		B			897 A19 008 158 508 781 783 884 901 922 A42
68				W/ – 60 3315	897 922
69					900 922
70				W/ – 63 1961	900 922
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75					897 A19 016 922 A42 A53
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78					900 922
79					900 A24
80			EN		897 A19 016 419 922 A42 A53
81					900 922 A41
82			EN		897 A19 158 342 419 508 783 884 901 922 A27 A31 A42 A48 A53
83		2		V350 CEN	900 969
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85					897 922
86					897 922
87		P	4	W/ – 61 2695	897 A19 002 012 016 340 343 419 474 600 922 A42 A48 A53
88					900 922
89					897 922
90		B			897 A19 158 256 508 783 884 901 922 A27 A31 A42 A48 A50 A53

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	103146	P–60 3454	11 50 0 –61 14.8	8.32	0.02	–0.73	B13*					11.05						1.0			11 52 29 –61 31.5
2	309145	P–63 2015	11 50 1 –63 38.0	9.4 G			B8					11.76	.25					2.0			11 52 29 –63 54.7
3	103169	P–62 2374	11 50 6 –62 30.1	9.9 M	9.59G		B8					11.57						1.0			11 52 35 –62 46.8
4	103182	P–61 2729	11 50 10 –61 57.4	7.42M			B8			9.62	.20	10.26	.32				7.0	2.0			11 52 39 –62 14.1
5	103224	P–63 2021	11 50 31 –64 8.4	9.5 M	9.0 G		A0					11.43	.11					2.0			11 53 0 –64 25.1
6	103270	P–64 1729	11 50 52 –65 7.6	7.43M	7.4 G		B8					9.91	.20					12.0			11 53 21 –65 24.3
7	103287	B+54 1475	11 51 13 +53 58.4	2.43	0.00	0.02	A05*	8.51	.21	6.55	.23	6.21	.10			3.0	3.0	2.0			11 53 50 +53 41.7
8	103338	P–64 1731	11 51 15 –65 .7	7.85M			B5					9.88	.47					2.0			11 53 44 –65 17.4
9	103348	P–62 2399	11 51 23 –63 15.0	9.8 G			B9					11.64	.16					4.0			11 53 52 –63 31.7
10	103401	P–62 2403	11 51 34 –63 16.6	9.8 G			B9 c					11.49		11.10				1.0	1.0		11 54 3 –63 33.3
11		B+ 1 2626	11 51 35 + 1 14.9	9.3 M						10.41							1.0				11 54 9 + 0 58.2
12	103401	P–62 2403	11 51 44 –63 18.3	9.8 G			B9					11.74	.29					7.0			11 54 14 –63 35.0
13	103457	P–63 2031	11 52 3 –63 25.3	7.86M	7.6 G		A0			10.38		11.36	.15	10.89	.23		1.0	9.3	1.5		11 54 33 –63 42.0
14	103516	P–62 2408	11 52 30 –63 0.0	5.90	0.20	1.40C	A2Is			10.34		11.57	.17	11.52			1.0	3.0	1.0		11 55 0 –63 16.7
15	103574	P–63 2036	11 52 51 –63 25.5	8.12M	7.8 G		B8			10.40	.39	10.48	.24	10.38	.22		2.0	25.7	14.5		11 55 21 –63 42.2
16	309323	P–62 2433	11 53 27 –62 36.3	10.0 G			B8					11.95						.3			11 55 58 –62 53.0
17	103653	P–62 2436	11 53 33 –62 39.4	10.11	0.07	–0.02	B9S					11.77	.27					2.3			11 56 4 –62 56.1
18	309317	P–62 2437	11 53 35 –62 30.8	9.2 G			B3					11.28	.17					2.0			11 56 6 –62 47.5
19	103714	P–63 2046	11 53 59 –63 30.8	8.33M	8.14G		B9 c			10.94		11.04	.28	10.65	.04		1.0	15.0	3.0		11 56 30 –63 47.5
20	103764	P–61 2814	11 54 22 –62 20.0	8.6 M	9.2 G		B5					11.21	.11					4.3			11 56 53 –62 36.7
21	103779	P–62 2455	11 54 26 –62 58.2	7.23	–0.01	–0.89	B01*	9.63		9.11	.17	9.33	.26	9.52	.18	1.0	10.0	24.0	16.0		11 56 57 –63 14.9
22	103884	P–61 2829	11 55 8 –62 10.2	5.56	–0.16	–0.67	B35p	8.35	.91	7.24	.15	8.07	.20	7.49		2.0	10.0	3.0	1.0		11 57 40 –62 26.9
23	104035	P–63 2073	11 56 16 –64 3.7	5.60	0.18	–0.14	A2Is							10.91	.19				2.0		11 58 48 –64 20.4
24	104047	P–62 2476	11 56 19 –62 41.8	8.91M	8.74G		B5			10.53		11.10	.24	10.77	.23		1.0	4.0	2.0		11 58 51 –62 58.5
25	104062	P–61 2852	11 56 26 –61 53.6	8.99M	8.67G		B8					11.11						1.0			11 58 58 –62 10.3
26		P–63 2083	11 56 46 –63 49.2	9.5 G										11.30					1.0		11 59 18 –64 5.9
27	104181	B+ 4 2556	11 57 23 + 3 56.0	5.35	–0.00	0.00	A15	10.64		8.49						1.0	1.0				11 59 57 + 3 39.3
28	104285	P–62 2512	11 57 53 –62 57.3	9.2 M	9.2 G		B8 c					11.32	.24	10.71				6.0	1.0		12 0 26 –63 14.0
29	309379	P–63 2091	11 58 1 –63 43.7	9.5 G			A3							10.64					1.0		12 0 34 –64 .4
30	104332	P–63 2096	11 58 13 –63 34.2	8.50M	8.26G		B8			10.19	.35	10.39	.31	10.09	.21		2.0	11.0	5.3		12 0 46 –63 50.9
31	104388	P–63 2098	11 58 38 –63 58.2	8.98M	8.82G		B9							10.57					1.0		12 1 12 –64 14.9
32	104422	P–63 2100	11 58 46 –63 48.2	9.04M	8.90G		B5					10.81		10.25	.19			1.0	4.0		12 1 20 –64 4.9
33	104432	P–61 2888	11 58 50 –62 19.9	8.52M	8.34G		A0					11.57						1.0			12 1 24 –62 36.6
34	104465	P–62 2526	11 59 3 –63 17.1	9.1 M	8.89G		B8					10.82	.36	10.35	.30			7.0	6.0		12 1 37 –63 33.8
35	309456	P–62 2527	11 59 13 –62 38.7	9.4 G			B8			10.22							1.0				12 1 47 –62 55.4
36	104522	P–63 2105	11 59 36 –63 28.4	9.6 M	9.5 G		A0							11.05					1.0		12 2 10 –63 45.1
37	104553	P–61 2906	11 59 50 –62 8.1	7.54M			B5					9.70	.07					4.0			12 2 24 –62 24.8
38	104567	P–62 2537	11 59 56 –62 47.5	8.57M	8.42G		B5			10.44		10.86	.20	11.01	.05		1.0	3.3	2.0		12 2 30 –63 4.2
39	104600	P–68 1604	12 0 3 –68 54.8	5.88	–0.08	–0.27	B8					8.65						1.0			12 2 38 –69 11.5
40	104631	P–61 2914	12 0 22 –61 53.8	6.75	0.08	–0.78	B12*			9.53		9.72	.04				1.0	2.0			12 2 57 –62 10.5
41	104649	P–61 2915	12 0 24 –62 23.6	8.17M	7.9 G		B5							10.13					.3		12 2 59 –62 40.3
42	104671	P–62 2543	12 0 28 –63 2.1	4.32	0.28	0.01	A5 *			9.36	.12						5.0				12 3 3 –63 18.8
43	104705	P–62 2549	12 0 32 –62 24.3	7.79	7.6 G	–0.92	B03*			8.55		9.12	.20	9.81			1.0	9.0	1.0		12 3 7 –62 41.0
44	309462	P–62 2546	12 0 37 –62 46.5	9.3 G			B5					11.84						.3			12 3 12 –63 3.2
45	104683	P–63 2115	12 0 39 –64 4.4	8.50M			B3			9.96		10.12	.15				1.0	6.0			12 3 14 –64 21.1
46	104705	P–62 2549	12 0 49 –62 25.1	7.79	7.6 G	–0.92	B03p			9.24				9.94			1.0		.3		12 3 24 –62 41.8
47	104777	P–62 2558	12 1 21 –62 46.2	9.2 G			B8					11.35	.04					1.3			12 3 56 –63 2.9
48	104810	P–63 2124	12 1 30 –64 15.6	7.2 M	7.2 G		B8			10.27		10.81	.41				1.0	2.0			12 4 5 –64 32.3
49	104841	P–62 2561	12 1 44 –62 53.2	4.72	–0.08	–0.61	B34p	8.16	.44	6.75	.21	7.21	.44	7.29	.25	2.0	13.0	11.0	10.0		12 4 19 –63 9.9
50	105055	P–62 2575	12 3 9 –63 13.6	9.4 G			B8 *							11.66					1.0		12 5 45 –63 30.3
51	105071	P–64 1791	12 3 17 –65 16.1	6.32	0.22	–0.50	B8			10.69							1.0				12 5 54 –65 32.8
52	105178	P–63 2143	12 4 3 –63 39.7	9.0 M	8.9 G		A0					12.47						1.0			12 6 40 –63 56.4
53	105211	P–63 2145	12 4 15 –64 20.1	4.14	0.35	0.00	F03*			9.35	.00						2.0				12 6 52 –64 36.8
54	105299	P–62 2582	12 4 50 –63 17.4	10.0 G			B5					11.93						1.0			12 7 27 –63 34.1
55	105545	P–65 1799	12 6 38 –65 49.8	7.8 M	7.6 G		A0			10.37							1.0				12 9 17 –66 6.5
56	105563	P–63 2160	12 6 45 –63 32.5	6.97M	8.3 G		B3 c					10.90	.00	9.89				2.0	1.0		12 9 23 –63 49.2
57	105627	P–61 2987	12 7 6 –62 18.2	8.13M	8.0 G		O9S							9.95					1.0		12 9 44 –62 34.9
58	105650	P–63 2162	12 7 11 –63 38.2	8.32M	8.1 G		B2			10.50		10.45	.24				1.0	2.0			12 9 50 –63 54.9
59	105675	P–63 2166	12 7 23 –63 43.1	8.32M	9.2 G		B					12.03						1.0			12 10 2 –63 59.8
60		P–62 2604	12 7 44 –63 19.9	9.7 M	9.75G		B5					12.57						1.0			12 10 23 –63 36.6
61	105753	P–63 2172	12 7 52 –63 49.1	9.6 M	9.4 G		B							10.67					1.0		12 10 31 –64 5.8
62	105892	P–63 2178	12 8 42 –63 41.4	8.20M	8.16G		B3							10.34					1.0		12 11 22 –63 58.1
63	105958	P–62 2616	12 9 7 –63 5.7	9.0 M	9.1 G		B8					12.10						1.0			12 11 47 –63 22.4
64	106068	P–62 2624	12 9 42 –62 40.4	5.92	0.30	1.35C	B91*							10.42					1.0		12 12 22 –62 57.1
65	106308	P–57 5338	12 11 18 –57 40.0	8.04M	7.84G		A0					12.33						1.0			12 13 57 –57 56.7
66	106309	P–58 4174	12 11 22 –59 7.1	7.87M	7.6 G		B3					9.80						1.0			12 14 2 –59 23.8
67	106343	P–63 2203	12 11 35 –64 7.8	6.2	0.1	–0.83	B21p			8.89		9.29	.16				1.0	5.0			12 14 16 –64 24.5
68	106393	P–66 1723	12 11 57 –67 22.6	8.6 M	8.5 G		B5			10.64		11.14					1.0	1.0			12 14 40 –67 39.3
69	106460	P–63 2207	12 12 15 –64 10.9	8.45M	8.14G		B8 p					11.42						1.0			12 14 57 –64 27.6
70	106490	P–58 4189	12 12 29 –58 28.2	2.8	–0.24	–0.89	B24p	6.80	.15	4.49	.32	3.93				2.0	4.0	1.0			12 15 9 –58 44.9
71	106591	B+57 1363	12 12 58 +57 18.6	3.3	0.08	0.07	A35p	8.90	.01	7.02	.05					2.0	2.0				12 15 25 +57 1.9
72	106602	P–57 5365	12 13 7 –58 8.3	9.77M	9.64G		B9					12.25						1.0			12 15 47 –58 25.0
73	106616	P–64 1835	12 13 19 –64 54.9	8.2 M	8.2 G		B8			9.74		10.98					1.0	1.0			12 16 2 –65 11.6
74	106637	P–64 1837	12 13 24 –65 23.4	8.34M	8.0 G		B8			10.25	.09	11.07					2.0	1.0			12 16 7 –65 40.1
75	106635	P–63 2217	12 13 25 –64 10.6	7.79M	7.6 G		B8			9.93	.16	10.21					2.0	1.0			12 16 8 –64 27.3
76	106708	P–62 2659	12 13 49 –63 15.2	8.19M	8.02G		B8					10.61						1.0			12 16 31 –63 31.9
77	106730	P–63 2219	12 13 53 –64 14.2	8.34M			B0 s			10.87							1.0				12 16 36 –64 30.9
78	106793	P–55 4964	12 14 19 –56 7.7	9.8 M	9.57G		B9					12.10						1.0			12 16 59 –56 24.4
79	106797	P–64 1844	12 14 23 –65 24.9	6.05	0.03	–0.05	A0			9.16		10.28					1.0	1.0			12 17 7 –65 41.6
80	106871	P–57 5375	12 14 56 –57 53.2	8.7 M	8.9 G		B04*					11.22	.50					2.0			12 17 37 –58 9.9
81	106943	P–60 3890	12 15 24 –61 11.5	7.50	–0.02		B9							9.53					1.0		12 18 7 –61 28.2
82	106983	P–63 2235	12 15 43 –63 43.5	4.1	–0.18	–0.70	B35p	7.56	.16	5.37	.81	5.75	.63	7.08		2.0	2.0	2.0	1.0		12 18 27 –64 .2
83	107250	P–56 5169	12 17 24 –56 26.4	7.99M	7.5 G		B9					11.15	.11					2.0			12 20 6 –56 43.0
84	107301	P–65 1842	12 17 42 –65 33.9	6.20	–0.04	–0.14	B9 s					10.33						1.0			12 20 28 –65 50.5
85	107395	P–61 3095	12 18 19 –61 46.0	8.93M	8.81G		B8					11.36		10.58				1.0	1.0		12 21 3 –62 2.6
86	107424	P–56 5184	12 18 29 –56 29.8	7.90M	7.3 G		A0			9.97		10.89	.08				1.0	3.0			12 21 11 –56 46.4
87	107461	P–56 5189	12 18 42 –57 16.6	8.92M	8.58G		B8					11.82						1.0			12 21 25 –57 33.2
88	107546	P–57 5420	12 19 14 –58 8.3	8.61M	8.34G		B8			10.87		12.28					1.0	1.0			12 21 57 –58 24.9
89	107593	P–64 1879	12 19 32 –65 19.9	7.94M	7.8 G		B8					10.61						1.0			12 22 19 –65 36.5
90	107652	P–61 3112	12 19 51 –61 56.3	8.36M	8.09G		B9					11.29						1.0			12 22 36 –62 12.9

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1		2		VZ CEN	897 419 922 969 A42 A53
2					900 A24
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14			P		897 A19 922 A27 A42 A48
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39					897 A19 922
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82		B			897 A19 158 256 419 508 783 793 884 901 922 A27 A31 A42 A48
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	107696	P – 56 5202	12 20 6 – 57 23.9	5.38	– 0.10	– 0.42	B85s	9.20		7.62	.15	7.89	.39			1.0	2.0	3.0			12 22 49 – 57 40.5
2	108002	P – 64 1898	12 22 8 – 64 56.1	6.93	0.13		B11s					10.28						1.0			12 24 56 – 65 12.7
3	108073	P – 68 1650	12 22 38 – 69 12.0	7.98M			B8							9.99					1.0		12 25 30 – 69 28.6
4	108118	P – 56 5225	12 22 55 – 57 3.4	8.25M	8.03G		A0					12.38						1.0			12 25 40 – 57 20.0
5	108237	P – 57 5474	12 23 44 – 57 49.9	8.45M	8.20G		B8					11.31						1.0			12 26 29 – 58 6.5
6	108248	P – 62 2745	12 23 48 – 62 49.3	0.79	– 0.25	– 0.96	B14·	4.72	.33	2.91	.09			2.03		2.0	2.0		1.0		12 26 36 – 63 5.9
7	108353	P – 60 3998	12 24 29 – 60 30.2	8.33	0.05		B5 p					11.59						.3			12 27 16 – 60 46.8
8	108374	P – 55 5063	12 24 32 – 55 27.5	7.08M			B9					10.33						1.0			12 27 17 – 55 44.1
9	108376	P – 57 5487	12 24 36 – 57 44.2	8.95M	8.75G		B5					12.07						1.0			12 27 22 – 58 .8
10	108406	P – 55 5067	12 24 46 – 55 32.8	8.84M	8.54G		A0					11.34						1.0			12 27 31 – 55 49.4
11		P – 59 4245	12 25 46 – 59 48.3	9.4 G			c					11.75						1.0			12 28 33 – 60 4.9
12	108610	P – 61 3218	12 26 6 – 61 35.7	7.05M			B5					9.14		9.51				1.0	1.0		12 28 54 – 61 52.3
13	108608	P – 60 4037	12 26 8 – 60 39.2	9.08M	9.18G		B9					11.93						1.0			12 28 56 – 60 55.8
14	108639	P – 60 4047	12 26 21 – 60 31.7	7.80	0.07		B03s					9.84						1.0			12 29 9 – 60 48.3
15	108658	P – 56 5255	12 26 31 – 56 44.3	8.51M	8.17G		B8			9.91		11.63					1.0	1.0			12 29 17 – 57 .9
16	108767	B – 15 3482	12 27 16 – 16 14.2	2.94	– 0.0	– 0.1	B95·	7.43	.03	6.45	.05	6.60				2.0	2.0	1.0			12 29 52 – 16 30.8
17	108939	P – 60 4090	12 28 42 – 60 36.5	8.17M	7.9 G		B9					11.08						1.0			12 31 31 – 60 53.1
18	109024	P – 55 5117	12 29 15 – 56 .7	7.56M			B9			9.93	.21	11.01					2.0	1.0			12 32 2 – 56 17.3
19	109085	B – 15 3489	12 29 29 – 15 55.2	4.30	0.37	0.0	F04			10.10	.10						3.0				12 32 5 – 16 11.7
20	109091	P – 59 4296	12 29 41 – 59 37.2	7.90M	7.7 G		A0					10.93		10.03				1.0	1.0		12 32 30 – 59 53.7
21	109164	P – 60 4128	12 30 20 – 60 40.3	7.83	0.05		B5 p					10.12		9.74				1.0	1.0		12 33 10 – 60 56.8
22	109198	P – 57 5547	12 30 32 – 57 26.4	7.72M			A0					10.77	.08					2.0			12 33 20 – 57 42.9
23	109266	P – 61 3283	12 31 5 – 61 29.8	8.93M	8.76G		B9							10.49					1.0		12 33 56 – 61 46.3
24	109491	P 57 5574	12 32 39 – 57 40.3	8.91M	8.59G		B9					11.49						1.0			12 35 28 – 57 56.8
25	109505	P – 60 4170	12 32 54 – 61 17.9	8.04M	8.1 G		B3							10.28					1.0		12 35 46 – 61 34.4
26	109517	P – 61 3303	12 32 58 – 61 33.9	8.77M	8.59G		B9							10.48					1.0		12 35 50 – 61 50.4
27		P – 59 4330	12 33 0 – 60 14.8	9.7 M	9.4 G									10.78					1.0		12 35 51 – 60 31.3
28	109585	B – 19 3521	12 33 21 – 20 15.1	6.19	0.34	1.58C	F03s			11.30							1.0				12 35 58 – 20 31.6
29		P – 59 4334	12 33 31 – 59 34.9	10.7 M	10.2 G							11.81						1.0			12 36 22 – 59 51.4
30	109667	P – 58 4402	12 34 5 – 59 13.9	9.4 M	9.13G		B9					12.14						1.0			12 36 56 – 59 30.4
31	109724	P – 56 5346	12 34 27 – 56 30.8	8.74M	8.50G		B5					10.64	.15					2.0			12 37 16 – 56 47.3
32	109752	P – 57 5600	12 34 43 – 57 48.8	8.18M			A0					11.10						1.0			12 37 33 – 58 5.3
33	109777	P – 57 5602	12 35 1 – 57 35.4	8.00M			B9			9.52		10.83	.14				1.0	2.0			12 37 51 – 57 51.9
34	109808	P – 55 5161	12 35 18 – 55 39.4	6.96M			A2					12.00						1.0			12 38 7 – 55 55.9
35	109892	P – 68 1713	12 36 11 – 69 16.1	9.0 M			A0					11.25						1.0			12 39 14 – 69 32.6
36		B – 9 3530	12 36 58 – 9 53.9	9.5 M				11.07								1.0					12 39 34 – 10 10.4
37	110041	P – 69 1686	12 37 12 – 69 27.3	8.3 M			A0					11.10						1.0			12 40 16 – 69 43.8
38	110335	P – 59 4393	12 39 3 – 59 24.7	4.91	– 0.05	– 0.39	B74·			8.03		8.20		8.39	.02		1.0	.3	2.0		12 41 57 – 59 41.1
39	110385	B – 18 3442	12 39 12 – 19 29.1	6.03	0.40	1.59C	F25s			11.35							1.0				12 41 50 – 19 45.5
40	110360	P 59 4396	12 39 18 – 60 22.7	9.41M	9.0 G		O7 ·							10.37					1.0		12 42 13 – 60 39.1
41	110390	P – 60 4244	12 39 32 – 60 44.7	7.26M			A2					11.04						1.0			12 42 27 – 61 1.1
42	110432	P 62 2898	12 39 53 – 62 47.1	5.4	0.25	– 0.77	B1 ·					8.11	.12	8.46				2.0	1.0		12 42 50 – 63 3.5
43	110461	P – 55 5194	12 39 58 – 55 40.4	6.23M			B95					8.92	.08	9.21	.17			4.0	3.0		12 42 49 – 55 56.8
44	110506	P – 55 5197	12 40 18 – 55 54.1	5.98	– 0.08	1.38C	B95s					8.42	.09	8.43	.33			3.0	3.0		12 43 10 – 56 10.5
45	110659	P – 55 5201	12 41 21 – 55 57.5	8.12M			B8					10.35		11.11	.11			1.0	2.0		12 44 13 – 56 13.9
46	110698	P – 56 5410	12 41 42 – 57 .8	6.84M			A0					9.53		10.73				1.0	1.0		12 44 35 – 57 17.2
47	110798	P – 55 5208	12 42 18 – 56 3.3	8.82M	8.49G		B9							12.15					1.0		12 45 11 – 56 19.7
48	110902	B – 19 3560	12 42 55 – 19 52.3	7.47M	7.6 G		A0					10.79	.07					2.0			12 45 33 – 20 8.7
49	110879	P 67 2064	12 43 11 – 67 50.1	3.05	– 0.18	– 0.73	B35p							5.25	.15				2.0		12 46 17 – 68 6.5
50	110956	P – 55 5215	12 43 30 – 56 12.9	4.64	– 0.17	– 0.62	B34p	8.86	.90	6.67	.15	6.19	.54			4.0	3.0	3.0			12 46 23 – 56 29.3
51	111123	P – 59 4451	12 44 47 – 59 24.9	1.3	– 0.25	– 1.0	B03·	5.14	.25	3.36	.27	4.11	.49	3.16		2.0	3.0	2.0	1.0		12 47 43 – 59 41.3
52	111193	P – 59 4460	12 45 13 – 59 56.2	8.0 M	8.0 G		B0 p					10.63						1.0			12 48 10 – 60 12.6
53	111226	C 24 10540	12 45 14 – 24 34.8	6.43	– 0.05	– 0.46	B9	10.85		10.21		10.00				1.0	1.0	1.0			12 47 54 – 24 51.2
54	111363	P – 60 4306	12 46 29 – 60 25.6	9.05M	8.95G		B5	10.25				12.26				1.0		1.0			12 49 27 – 60 41.9
55	111505	P – 59 4485	12 47 29 – 60 23.5	9.1 M	9.00G		B5			10.72							1.0				12 50 28 – 60 39.8
56	111612	P – 58 4550	12 48 18 – 58 48.0	8.21M	7.9 G		B8			9.50		10.73					1.0	1.0			12 51 16 – 59 4.3
57	111687	P – 60 4329	12 48 48 – 60 48.4	9.27M			B8					12.44						1.0			12 51 48 – 61 4.7
58	111758	P – 56 5468	12 49 20 – 56 26.1	9.2 M	9.11G		B8					11.27						1.0			12 52 16 – 56 42.4
59	111904	P 59 4529	12 50 22 – 60 3.4	5.8	0.3	– 0.4	B91·			7.77		7.24	.42				1.0	3.0		4755	12 53 22 – 60 19.7
60	111952	P – 60 4346	12 50 48 – 60 28.0	9.6 M	9.39G		B35					11.57						1.0			12 53 48 – 60 44.3
61	112026	P – 60 4351	12 51 18 – 60 37.4	8.7 M	8.51G		B5			9.85		10.56	.41				1.0	3.0			12 54 19 – 60 53.7
62	112092	P 56 5487	12 51 38 – 56 54.4	4.03	– 0.19	– 0.80	B35·	8.13	.12	5.69	.18	5.73	.52			2.0	5.0	2.0			12 54 35 – 57 10.7
63	112078	P – 58 4584	12 51 40 – 58 52.5	4.63	– 0.16	– 0.6	B35s			6.28		6.75	.25				1.0	4.0			12 54 39 – 59 8.8
64	112185	B + 56 1627	12 51 50 + 56 13.9	1.79	– 0.03	0.02	A0 ·	8.24		6.26						1.0	1.0				12 54 1 + 55 57.6
65	112123	P – 61 3391	12 52 0 – 62 17.3	7.86M			A0					11.62						1.0			12 55 3 – 62 33.5
66	112181	P – 59 4580	12 52 31 – 60 22.8	8.79	0.11	1.22C	B15s					11.64						1.0			12 55 32 – 60 39.0
67	112244	P – 56 5498	12 52 59 – 56 33.9	5.42	0.04	– 0.84	O91·			7.25	.18	7.31	.32	7.13			5.0	2.3	.3		12 55 57 – 56 50.1
68	112364	P – 59 4600	12 53 59 – 59 28.3	7.74M			B11			9.84		10.35					1.0	1.0			12 57 0 – 59 44.5
69	112381	P – 53 5397	12 54 2 – 54 19.0	6.67M			A0 s			9.22	.13	11.18					2.0	1.0			12 56 58 – 54 35.2
70	112390	P – 56 5506	12 54 6 – 56 52.4	9.8 M	9.70G		B9					11.54	.19					1.3			12 57 4 – 57 8.6
71	112471	P – 60 4369	12 54 42 – 60 37.0	8.80M	8.78G		B3					12.06						1.0			12 57 45 – 60 53.2
72	112484	P – 57 5810	12 54 43 – 58 7.1	9.05	0.04	1.22C	B25					11.33						1.0			12 57 43 – 58 23.3
73	112485	P 60 4370	12 54 49 – 60 32.7	9.3 M	9.48G		B25					11.88						1.0			12 57 52 – 60 48.9
74	112491	P – 53 5402	12 54 51 – 53 50.5	9.7 M	9.50G		B3					12.19						1.0			12 57 47 – 54 6.7
75		P – 60 4371	12 54 56 – 60 43.7	9.3 M	9.34G		B8					12.33						1.0			12 57 59 – 60 59.9
76	112510	P – 54 5385	12 55 2 – 54 30.5	9.4 M	9.17G		B5					12.03						1.0			12 57 59 – 54 46.7
77	112532	P – 53 5405	12 55 14 – 53 54.9	7.50M			A0					12.14						1.0			12 58 10 – 54 11.1
78	112595	P – 53 5408	12 55 39 – 54 1.4	8.78M	8.51G		B8					11.58						1.0			12 58 35 – 54 17.6
79	112607	P – 62 2977	12 55 54 – 63 22.2	8.15M	8.03G		B9					11.81						1.0			12 59 1 – 63 38.4
80	112689	P – 54 5395	12 56 18 – 54 26.5	9.11M	8.87G		B8					12.18						1.0			12 59 15 – 54 42.7
81	112764	P – 55 5316	12 56 50 – 55 38.5	8.42M			B9 c					11.61						1.0			12 59 48 – 55 54.7
82	113139	B + 57 1408	12 58 35 + 56 38 1	4.9	0.36	0.0	F25p			9.72							1.0				13 0 43 + 56 22.0
83	113079	B + 5 2702	12 58 36 + 4 37.7	7.18M	7.32G		A5			11.28							1.0				13 1 8 + 4 21.6
84	113012	P – 59 4654	12 58 38 – 59 48.4	8.13	0.11	1.20C	B01			9.84							1.0				13 1 42 – 60 4.5
85	113016	P – 63 2485	12 58 46 – 64 21.5	8.5 M	9.4 G		B25·					11.38						1.0			13 1 56 – 64 37.6
86	113109	P – 56 5541	12 59 9 – 56 58.1	9.2 M	9.06G		B5					11.21	.06					2.0			13 2 10 – 57 14.2
87	113237	P – 55 5348	13 0 11 – 55 50.5	8.18M	7.8 G		B9					11.48						1.0			13 3 11 – 56 6.6
88	113457	P – 63 2515	13 1 51 – 64 10.4	6.84M			A0					10.68						1.0			13 5 3 – 64 26.5
89	113573	P – 56 5566	13 2 31 – 56 35.0	8.99M	8.68G		B5					11.15						1.0			13 5 33 – 56 51.1
90	113781	P – 56 5583	13 3 56 – 56 44.0	8.53M	8.22G		B5			9.14		10.16	.23				1.0	2.0			13 6 58 – 57 0.0

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1			P		897 A19 158 884 901 922 A27 A31 A42 A48
2			P		897 922 A48
3					897 922
4					897 922
5					897 922
6		UB		W/HD108249,SB, + B3(N)	897 A19 008 419 783 793 851 884 901 922 927 A27 A42 A43 A46
7		B			897 A19 158 922
8					897 922
9					897 922
10					897 922
11				W/ – 59 4246	900
12					897 922
13					897 922
14			P4		897 A19 012 158 474 922 A42
15					897 922
16		UBO	N	+ K2	897 A19 884 922 969 A42 A48 A49
17					897 922
18					897 922
19					897 A19 158 415 508 884 901 921 922 A42
20					897 922
21		B			897 A19 158 922
22					897 922
23					897 922
24					897 922
25					897 922
26					897 922
27					900 899
28			N		897 A19 842 884 901 922 A48 A48
29					900 899
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35					897 922
36					898
37					897 922
38		0	PE		897 A19 342 884 901 922 969 A27 A31 A42 A48
39			N		897 A19 158 884 901 922
40		P	4		897 002 012 016 340 474 922 A42
41					897 922
42		0P	PEN		897 A19 002 340 342 793 884 901 922 969 A27 A42 A48
43					897 884 901 922 A42
44			N		897 A19 158 884 901 922 A42
45					897 922
46					897 922
47					897 922
48					897 922
49		B			897 A19 158 419 783 793 884 901 922 A27 A31 A42 A48
50		B			897 A19 419 508 783 884 901 921 922 A27 A31 A42 A48
51		UB5		BETA CRU	897 A19 008 144 419 488 498 508 530 783 793 851 884 892 901 922 927 964 969 A42
52		P			897 002 340 922
53					897 A19 158 397 884 901 922
54					897 922
55					897 922
56					897 922
57					897 922
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59	G		PA	KAPPA CRU	897 A19 158 286 600 753 793 884 901 922 A27 A42 A48
60					897 922 A42
61					897 922
62		B		W HD112091	897 A19 419 508 783 793 884 901 921 922 A27 A31 A42 A48
63			N		897 A19 419 508 783 793 884 901 922 A27 A31 A42 A48
64		U6P	PARG	EPS UMA, ECL BIN	897 A19 026 338 391 488 576 753 781 785 857 884 901 921 922 933 948 969 A42 A43
65					897 922
66			N		897 A19 016 922 A42
67		B	E		897 A19 419 793 884 901 922 A27 A42 A48 A68
68					897 343 922 A42
69			PA		897 753 922 A42
70					897 922
71					897 922
72					897 A19 016 922 A42
73					897 922 A42
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76					897 922
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81				W – 55 5317	897 922
82		SBP			897 A19 009 010 392 765 766 785 884 901 921 922 A42 A48
83					897 922
84					897 A19 016 158 922 A42
85		2		RZ CEN	900 922 969 A42
86					897 922
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89					897 922
90					897 922

	HD	DM	R.A. (1950)	DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000)	DEC
1	113823	P – 59 4740	13 4 18	– 59 35.6	5.98	0.48	1.58C	B9 *	9.08								1.0					13 7 24	– 59 51.6
2	113888	P – 52 6189	13 4 31	– 53 24.0	8.72M	8.44G		B9					12.57						1.0			13 7 30	– 53 40.0
3	113902	P – 52 6194	13 4 39	– 53 11.6	5.70	– 0.07	– 0.27	B85			8.04	.11	8.10					2.0	1.0			13 7 38	– 53 27.6
4	113954	P – 56 5593	13 4 59	– 56 25.0	7.56M			A0					11.96						1.0			13 8 2	– 56 41.0
5	113953	P – 55 5389	13 4 59	– 56 7.1	7.28M			B9			9.67	.07	10.51					2.0	1.0			13 8 1	– 56 23.1
6	114026	P – 59 4769	13 5 37	– 60 4.3	8.34M	8.15G		B2			9.92							1.0				13 8 44	– 60 20.3
7		P – 63 2565	13 5 45	– 64 16.3	10.11	0.15	– 0.70						11.80						1.0			13 8 59	– 64 32.3
8	114168	P – 56 5609	13 6 41	– 56 30.1	8.66M	8.31G		B9					12.14						1.0			13 9 44	– 56 46.1
9	114263	P – 63 2585	13 7 29	– 64 15.6	8.45M	8.21G		B8					11.27						1.0			13 10 44	– 64 31.5
10	114365	C – 51 7329	13 7 59	– 52 18.1	6.06	– 0.10	1.36C	A0 s			8.50	.03	9.54					2.0	1.0			13 10 59	– 52 34.0
11	114391	P – 53 5500	13 8 5	– 53 54.0	8.71M	8.42G		B9			11.01		12.15	.25				1.0	2.0			13 11 6	– 54 9.9
12	114394	P – 58 4723	13 8 13	– 59 18.7	8.50M			B3					11.33						1.0			13 11 21	– 59 34.6
13	114441	P – 54 5472	13 8 27	– 55 5.5	8.14M	8.0 G		B14s			9.82		10.43					1.0	1.0			13 11 30	– 55 21.4
14	114513	P – 56 5628	13 8 58	– 56 41.5	8.03M			B9					11.81						1.0			13 12 3	– 56 57.4
15	114516	P – 63 2612	13 9 8	– 63 32.8	8.76M	8.67G		B8					11.28						1.0			13 12 23	– 63 48.7
16	114529	P – 59 4815	13 9 9	– 59 39.3	4.59	– 0.08	– 0.38	B85*	7.80				6.53				1.0		1.0			13 12 17	– 59 55.2
17	114737	P – 62 3079	13 10 30	– 63 19.3	8.2 M			B05c					10.53	.04					.5			13 13 45	– 63 35.2
18	114800	P – 62 3090	13 10 57	– 63 6.5	8.0 M	7.9 G		B15s					10.10						1.0			13 14 12	– 63 22.4
19	114886	P – 62 3096	13 11 29	– 63 19.0	6.87	0.12	1.22C	O95*					8.99	.05					.5			13 14 45	– 63 34.9
20	115071	P – 61 3544	13 12 50	– 62 19.2	8.01M	7.93G		B2			9.75	.31						2.0				13 16 4	– 62 35.0
21	115148	P – 60 4563	13 13 17	– 61 17.0	9.13M	8.98G		B9					12.23						1.0			13 16 30	– 61 32.8
22	115281	P – 59 4881	13 14 8	– 59 30.7	8.89M	8.62G		B9					12.22						1.0			13 17 19	– 59 46.5
23	115282	P – 60 4569	13 14 12	– 60 48.4	8.96	0.16	1.30C	B8					12.15						1.0			13 17 25	– 61 4.2
24	115455	P – 61 3575	13 15 20	– 62 13.7	7.99	0.22	– 0.77	O8			9.80		10.89					1.0	1.0			13 18 36	– 62 29.5
25		P – 59 4894	13 15 32	– 59 32.8	10.22	0.06	– 0.69						12.46						1.0			13 18 43	– 59 48.6
26	115529	C – 50 7660	13 15 34	– 51 1.4	6.18	0.01	1.46C	A05			9.52	.24	10.21					3.0	1.0			13 18 35	– 51 17.2
27	115533	P – 61 3586	13 15 46	– 61 37.8	9.8 M	10.3 G		B0					12.03						1.0			13 19 1	– 61 53.6
28	115598	P – 55 5486	13 16 5	– 56 1.0	8.77M	8.47G		B8			10.28		11.52					1.0	1.0			13 19 12	– 56 16.8
29		P – 59 4903	13 16 26	– 59 37.8	11. M	9.8 G							12.13						1.0			13 19 38	– 59 53.5
30	115652	P – 61 3600	13 16 35	– 61 42.4	8.03M	7.7 G		B9					11.48						.3			13 19 50	– 61 58.1
31	115704	P – 61 3608	13 16 57	– 61 44.6	8.2 M	8.24G		B0 p					12.32						.3			13 20 13	– 62 .3
32	115805	P – 59 4914	13 17 35	– 59 43.7	9.71	0.35	– 0.66	B15s					12.67						1.0			13 20 48	– 59 59.4
33	115823	P – 52 6405	13 17 35	– 52 29.1	5.48	– 0.14	– 0.53	B53	9.88		7.52	.04	7.10				1.0	2.0	1.0			13 20 38	– 52 44.8
34	115842	P – 55 5504	13 17 41	– 55 32.3	6.01	0.29	1.25C	B01					9.77						1.0			13 20 48	– 55 48.0
35	115915	C – 51 7453	13 18 8	– 51 24.6	7.54	– 0.03	1.35C	B9			9.92	.22	10.71					2.0	1.0			13 21 10	– 51 40.3
36	115990	P – 54 5559	13 18 42	– 55 9.3	8.03M	7.9 G		A0			10.19		11.41	.23				1.0	2.0			13 21 49	– 55 25.0
37	116003	P – 59 4926	13 18 54	– 59 55.4	6.99M			B5			8.60	.22	8.91	.31				3.0	2.0			13 22 8	– 60 11.1
38	116084	C – 51 7465	13 19 13	– 51 55.3	5.83	0.11	1.23C	B21			9.07	.15	8.89					3.0	1.0			13 22 16	– 52 11.0
39	116087	P – 60 4627	13 19 23	– 60 43.6	4.52	– 0.14	– 0.58	B55*	7.77		6.77		6.67				1.0	1.0	1.0			13 22 38	– 60 59.3
40	116168	P – 60 4630	13 19 55	– 60 53.7	9.25M	9.13G		B24					11.98						1.0			13 23 11	– 61 9.4
41	116359	P – 60 4645	13 21 16	– 61 3.6	9.7 M	9.90G		B5					11.85						1.0			13 24 33	– 61 19.2
42	116403	P – 60 4649	13 21 35	– 60 46.1	9.1 M	8.7 G		B3					12.03						.3			13 24 51	– 61 1.7
43	116438	P – 60 4651	13 21 43	– 60 42.7	8.16M	7.97G		B2					11.36						.3			13 24 59	– 60 58.3
44	116656	B + 55 1598	13 21 55	+ 55 11.2	2.27	0.02	– 0.01	*	8.06	.01	6.17	.03					2.0	2.0				13 23 55	+ 54 55.6
45	116507	P – 59 4971	13 22 7	– 59 31.3	8.3 M	7.8 G		B9 *					11.50	.12					2.0			13 25 21	– 59 46.9
46	116538	C – 51 7500	13 22 8	– 51 34.9	7.92	– 0.07	– 0.90	B24s			9.05							.3				13 25 12	– 51 50.5
47	116538	C – 51 7500	13 22 12	– 51 36.4	7.92	– 0.07	– 0.90	B24*			9.55		9.53					1.0	1.0			13 25 16	– 51 52.0
48	116560	C – 51 7504	13 22 17	– 51 37.8	7.12M			A2			9.78							.3				13 25 21	– 51 53.4
49	116842	B + 55 1603	13 23 13	+ 55 14.9	4.0	0.17	0.08	A55p			8.00	.00						2.0				13 25 12	+ 54 59.3
50	116875	P – 60 4687	13 24 43	– 60 48.2	7.60M			A0			9.65		10.52					1.0	1.0			13 28 1	– 61 3.7
51	117057	P – 58 4894	13 25 49	– 58 41.0	8.22M	7.8 G		B9			10.03							1.0				13 29 4	– 58 56.5
52	117150	C – 50 7812	13 26 21	– 50 54.4	5.05	0.07	0.07	A05			8.84	.10	10.17					2.0	1.0			13 29 26	– 51 9.9
53	117151	P – 55 5583	13 26 26	– 56 14.1	8.96M	8.69G		A0					11.87						1.0			13 29 37	– 56 29.6
54	117170	P – 53 5639	13 26 36	– 53 44.7	7.71M	7.4 G		B3 c			9.29		9.96					1.0	1.0			13 29 44	– 54 .2
55	117357	P – 61 3760	13 27 56	– 61 28.4	9.21M	9.8 G		B05s					11.94						1.0			13 31 17	– 61 43.8
56	117490	P – 60 4744	13 28 49	– 60 33.5	8.90M	8.72G		B2			10.28		11.11					1.0	1.0			13 32 8	– 60 48.9
57	117668	P – 60 4756	13 30 2	– 61 2.5	9.20M	9.11G		B3					11.98						1.0			13 33 23	– 61 17.9
58	118256	P – 52 6607	13 33 34	– 52 56.2	8.25M	7.8 G		A0					10.65						1.0			13 36 43	– 53 11.5
59	118450	C – 49 8074	13 35 3	– 50 5.7	6.64	– 0.08	1.30C	B8			8.61							1.0				13 38 9	– 50 20.9
60	118497	C – 50 7928	13 35 19	– 51 17.9	8.11	– 0.01	1.35C	B9					11.39						1.0			13 38 27	– 51 33.1
61	118571	P – 60 4836	13 35 53	– 60 43.8	8.81M	8.58G		B04			9.64							1.0				13 39 16	– 60 59.0
62	118697	P – 53 5712	13 36 34	– 53 53.7	7.48M			A0					11.00	.02					2.0			13 39 46	– 54 8.9
63	118716	P – 52 6655	13 36 42	– 53 12.8	2.3	– 0.24	– 0.93	B15p	6.28	.23	4.59		3.87	.15			4.3	1.0	2.3			13 39 53	– 53 28.0
64	118816	P – 53 5717	13 37 15	– 53 36.4	7.96M	7.6 G		B9					11.09	.07					2.0			13 40 27	– 53 51.6
65	118991	P – 53 5725	13 38 32	– 54 18.5	4.98	– 0.06	1.40C	B85p			7.78	.12	8.07	.06				3.0	2.0			13 41 45	– 54 33.6
66	119121	C – 51 7677	13 39 14	– 51 24.1	8.54	0.06	1.44C	B9					11.90						1.0			13 42 23	– 51 39.2
67	119884	C – 51 7732	13 43 59	– 52 1.2	7.03M			A0			9.48	.45	11.01	.08				4.0	3.0			13 47 11	– 52 16.2
68	120315	B + 50 2027	13 45 34	+ 49 33.7	1.9	– 0.19	– 0.68	B35*	6.07	.16	4.15	.03	3.56				3.0	2.0	1.0			13 47 33	+ 49 18.8
69	120640	C – 46 8909	13 48 41	– 46 39.1	5.75	– 0.16	– 0.77	B43			7.23				6.28			1.0		1.0		13 51 47	– 46 53.9
70	120642	P – 52 6787	13 48 49	– 52 33.8	5.14	– 0.06	1.36C	*	9.00	.50	7.66	.27	7.47				2.0	3.0	1.0			13 52 3	– 52 48.6
71	120908	P – 52 6805	13 50 27	– 53 7.6	5.9	0.02	– 0.43	B55			8.34	.32	8.78	.49				6.0	4.0			13 53 43	– 53 22.3
72	120958	C – 38 8883	13 50 29	– 38 48.7	7.6	– 0.11	– 0.77	B35s			9.17							1.0				13 53 28	– 39 3.4
73	120991	C – 46 8931	13 50 50	– 46 52.9	6.12	– 0.07	– 0.92	B23*			7.80				6.75			1.0		1.0		13 53 57	– 47 7.6
74	121190	C – 51 7832	13 51 58	– 51 54.9	5.66	– 0.08	– 0.31	B85s			8.20	.11						4.0				13 55 12	– 52 9.6
75	121336	P – 53 5805	13 53 2	– 53 53.3	6.12	0.08	1.54C	A2 p			9.20		11.03	.23				1.0	2.0			13 56 20	– 54 8.0
76	121483	C – 45 8822	13 53 41	– 46 8.5	6.95	– 0.13	– 0.69	B25s			8.61							1.0				13 56 48	– 46 23.1
77	121639	P – 52 6876	13 54 45	– 52 25.1	8.38M	8.1 G		B9					11.77						1.0			13 58 1	– 52 39.7
78	121790	C – 44 9010	13 55 35	– 44 33.6	3.86	– 0.21	– 0.79	B25p	6.93								1.0					13 58 41	– 44 48.2
79	122259	C – 38 8988	13 58 45	– 39 11.8	7.62M	7.45G		A2			11.72							1.0				14 1 46	– 39 26.3
80	122394	C – 35 9210	13 59 24	– 35 56.3	7.1 M			A0			9.93							1.0				14 2 22	– 36 10.7
81	122449	C – 46 9040	13 59 55	– 46 34.4	8.13	– 0.07	– 0.43	B53			10.47	.16						2.0				14 3 4	– 46 48.8
82	122511	C – 39 8653	14 0 10	– 39 27.8	8.17M	7.70G		B9			11.10		11.70					1.0	1.0			14 3 12	– 39 42.2
83	122479	C – 51 7921	14 0 14	– 51 49.2	7.37	– 0.08	– 0.64	B8			9.20	.08	9.28					2.0	1.0			14 3 31	– 52 3.6
84	122451	P – 59 5365	14 0 17	– 60 8.0	0.61	– 0.23	– 0.98	B12*	5.71		3.13	.23	2.54		2.01	.02	1.0	2.0	1.0	2.0		14 3 50	– 60 22.4
85	122925	P – 53 5871	14 2 51	– 53 58.1	8.11	– 0.03	– 0.40	B8					10.52						1.0			14 6 12	– 54 12.4
86	122987	P – 55 5876	14 3 15	– 55 56.8	10. M	10.0 G		A3			10.18							1.0				14 6 40	– 56 11.1
87	123148	P – 56 6156	14 4 13	– 56 39.2	8.09M			B9					11.13						1.0			14 7 40	– 56 53.4
88	123515	C – 50 8294	14 6 17	– 51 16.1	5.97	– 0.05	1.38C	B84*			8.12	.41	8.81					2.0	1.0			14 9 35	– 51 30.3
89		C – 35 9296	14 7 4	– 35 24.3	9.9 M				9.75								1.0					14 10 3	– 35 38.4
90	124082	P – 54 5925	14 9 34	– 55 5.9	9.30M	9.24G		B8	8.76								1.0					14 13 0	– 55 19.9

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1		B	N		897 A19 158 884 901 922
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37					897 922
38					897 419 884 901 922 A27 A48 A68
39		UB		W/HD116072	897 A19 419 783 884 892 901 922 A27 A31 A42 A43 A48
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87					897 922
88		B4	A		897 A19 158 352 884 901 922 A48 A51
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90					897 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	124148	P – 53 5912	14 9 54 – 53 25.9	5.48M	7.0 G		*					11.89						1.0			14 13 17 – 53 39.9
2	124195	P – 54 5933	14 10 15 – 54 23.5	6.23M	0.05		B9			8.60				9.74			1.0		1.0		14 13 40 – 54 37.5
3	124675	B + 52 1782	14 11 42 + 52 1.4	4.52	0.20	0.14	A74*			9.16		12.34					1.0	1.0			14 13 29 + 51 47.4
4	125104	P – 55 5976	14 15 40 – 55 39.1	7.33	0.10		B9			9.04				9.72			1.0		1.0		14 19 9 – 55 52.9
5	125238	C – 45 9084	14 16 11 – 45 49.7	3.55	– 0.19	– 0.71	B34p	7.11	.12	5.26	.23	4.67	.12			3.0	2.0	2.0			14 19 24 – 46 3.5
6	125283	C – 36 9268	14 16 22 – 36 46.4	5.93	0.08	1.54C	A25s			9.68	.29	11.00	.32				2.0	2.0			14 19 24 – 37 .2
7	125442	C – 44 9236	14 17 30 – 44 57.4	4.76	0.32	1.58C	A85			10.35							1.0				14 20 42 – 45 11.1
8	125473	C – 37 9336	14 17 30 – 37 39.4	4.04	– 0.03	– 0.11	A04p	9.03	.89	7.54	.05	7.30				3.0	2.0	1.0			14 20 33 – 37 53.1
9	125509	C – 34 9551	14 17 38 – 34 26.9	7.40M			B9			10.89		12.17					1.0	1.0			14 20 38 – 34 40.6
10	125745	C – 34 9570	14 19 19 – 34 33.6	5.56	– 0.09	1.32C	B8 s	9.15		8.05		8.50	.13			1.0	1.0	2.0			14 22 19 – 34 47.2
11	125823	C – 38 9329	14 19 57 – 39 17.1	4.41	– 0.19	– 0.73	B35p	7.68	.09							2.0					14 23 2 – 39 30.7
12	126194	C – 36 9338	14 21 57 – 37 13.2	6.64M			A2			10.26	.08						2.0				14 25 0 – 37 26.7
13	126341	C – 44 9322	14 22 55 – 44 59.8	4.55	– 0.16	– 0.78	B33*	8.71		5.25		5.18				1.0	1.0	1.0			14 26 8 – 45 13.3
14	126504	C – 45 9188	14 23 58 – 45 54.6	5.81	0.31	0.13	A3 *			9.95		10.38					1.0	1.0			14 27 13 – 46 8.0
15	129791	C – 44 9590	14 42 40 – 44 39.4	6.91	0.04	0.00	B9					10.78						1.0			14 45 57 – 44 52.0
16	130119	C – 45 9419	14 44 36 – 45 56.9	8.08	– 0.03	– 0.26	B9					11.77						1.0			14 47 56 – 46 9.4
17	130546	C – 45 9452	14 46 58 – 46 3.5	9.5 M	9.9 G		B9					12.24						1.0			14 50 18 – 46 15.9
18	130807	C – 43 9391	14 48 22 – 43 22.2	4.33	– 0.16	– 0.59	B63*	8.79		6.29		6.42				1.0	1.0	1.0			14 51 38 – 43 34.5
19	131168	C – 45 9492	14 50 2 – 45 39.1	6.97	0.00	1.25C	B35*			8.62		8.89					1.0	1.0			14 53 22 – 45 51.3
20	131637	C – 44 9723	14 53 5 – 44 30.2	6.76	0.04	0.08	A0			9.85							1.0				14 56 24 – 44 42.3
21	131657	C – 47 9543	14 53 7 – 47 40.7	5.63	– 0.04	– 0.26	B95*			8.12		8.50					1.0	1.0			14 56 31 – 47 52.8
22	132018	C – 46 9704	14 55 8 – 47 14.6	8.9 M			A					11.49						1.0			14 58 32 – 47 26.6
23	132058	C – 42 9853	14 55 15 – 42 56.0	2.67	– 0.22	– 0.85	B24*	6.24	.14	4.34		3.85	.59			3.0	1.0	3.0			14 58 32 – 43 8.0
24	132200	C – 41 9342	14 55 54 – 41 54.3	3.13	– 0.22	– 0.77	B25*	7.22		5.05	.14	4.76	.09			1.0	3.0	2.0			14 59 10 – 42 6.2
25	132302	C – 45 9567	14 56 32 – 46 2.9	7.17	– 0.02	1.48C	B9			9.70	.34	10.66					2.0	1.0			14 59 54 – 46 14.8
26	132478	C – 45 9583	14 57 31 – 45 50.3	8.83M			B8					11.62						1.0			15 0 53 – 46 2.2
27	132619	C – 41 9387	14 58 15 – 41 19.9	9.5 M	9.4 G		A0			10.59							1.0				15 1 30 – 41 31.7
28	132960	C – 40 9218	15 0 5 – 41 4.6	7.5 M	6.9 G		B2			8.35		9.11		9.52			1.0	1.0	1.0		15 3 20 – 41 16.3
29	133242	C – 46 9773	15 1 42 – 46 51.4	3.88	– 0.15	– 0.57	B54*	7.51	.23	6.09		5.43	.31			3.0	1.0	1.3			15 5 7 – 47 3.0
30		C – 40 9258	15 2 7 – 40 31.1	9.5 M				10.63								1.0					15 5 22 – 40 42.7
31	133716	C – 37 9948	15 3 55 – 37 45.2	7.22M			A2					11.24						1.0			15 7 6 – 37 56.7
32	133820	C – 43 9641	15 4 41 – 43 31.2	7.46M			A0					11.43	.11					2.0			15 8 1 – 43 42.7
33	133880	C – 40 9305	15 4 57 – 40 23.6	5.79	– 0.2	1.35C	B94s			8.56	.29	10.56					2.0	1.0			15 8 12 – 40 35.1
34	133937	C – 42 10050	15 5 20 – 42 40.6	5.8	– 0.13	– 0.47	B75s			7.74	.19	7.86		7.78			2.0	1.0	1.0		15 8 39 – 42 52.0
35	133955	C – 44 9889	15 5 28 – 45 5.3	4.05	– 0.18	– 0.67	B35*	8.47	.58	5.93		5.83				3.0	1.0	1.0			15 8 51 – 45 16.7
36	134119	C – 44 9901	15 6 20 – 44 22.3	8.63	0.02	1.34C	B8					11.76						1.0			15 9 42 – 44 33.7
37	134218	C – 40 9336	15 6 44 – 40 59.4	8.0 M	7.8 G		B9			9.80	.15	11.33	.25				3.0	2.0			15 10 0 – 41 10.8
38	134411	C – 39 9619	15 7 54 – 39 40.5	9.56	– 0.18	– 0.82	B25s			9.93							1.0				15 11 9 – 39 51.8
39	134481	C – 48 9704	15 8 27 – 48 33.0	3.69	– 0.03	– 0.13	*	8.30		7.05		6.37	.52			1.0	1.0	3.0			15 11 57 – 48 44.3
40		C – 48 9697	15 8 40 – 49 15.0	9.0 M								12.11						1.0			15 12 11 – 49 26.3
41	134557	C – 44 9928	15 8 41 – 44 49.5	7.98M			B9					11.71						1.0			15 12 4 – 45 .8
42	134687	C – 44 9932	15 9 27 – 44 18.8	4.81	– 0.2	– 0.66	B33*	8.69	.49	6.72	.43	6.05	.33			4.0	4.0	2.3			15 12 49 – 44 30.0
43		C – 38 10067	15 10 2 – 39 7.8	9.7 M				11.80								1.0					15 13 16 – 39 19.0
44	134874	C – 41 9635	15 10 22 – 41 18.4	8.0 M	7.5 G		B9			9.88	.01	11.85					2.0	1.0			15 13 39 – 41 29.6
45		C – 48 9755	15 11 51 – 48 45.9	10.0 M			c	9.46								1.0					15 15 22 – 48 57.0
46	135174	C – 43 9739	15 11 58 – 43 57.9	7.01M			B9 c			8.96	.10	9.88	.32				3.0	2.0			15 15 20 – 44 9.0
47	135346	C – 41 9682	15 12 46 – 41 18.4	5.20M	6.5 G		*			8.84	.16						2.0				15 15 16 4 – 41 29.4
48	135348	C – 43 9749	15 12 49 – 43 18.0	6.04	– 0.13	1.24C	B34			7.84	.21	7.90	.09				3.0	2.0			15 16 10 – 43 29.0
49	135415	C – 43 9755	15 13 6 – 43 46.0	8.5 M	7.6 G		B8			9.52		11.00					1.0	1.0			15 16 28 – 43 57.0
50	135454	C – 41 9693	15 13 18 – 42 11.2	6.98M			B9			9.81		10.77					1.0	1.0			15 16 37 – 42 22.2
51	135734	C 47 9860	15 15 3 – 47 41.6	4.26	– 0.08	– 0.36	B8 *	8.88	.38	7.07	.25	6.98				4.0	4.0	1.0			15 18 32 – 47 52.5
52	135876	C – 40 9496	15 15 39 – 40 36.4	5.58	– 0.10	1.32C	B95*			7.31							1.0				15 18 56 – 40 47.3
53		C – 43 9818	15 17 25 – 43 41.5	10.0 M			c			10.51							1.0				15 20 47 – 43 52.3
54	136298	C – 40 9538	15 18 5 – 40 28.1	3.21	– 0.22	– 0.87	B24p	7.70								1.0					15 21 22 – 40 38.9
55	136300	C – 44 10048	15 18 10 – 44 45.5	7.17M			B9			9.47	.11						2.0				15 21 34 – 44 56.2
56	136282	C – 48 9871	15 18 15 – 48 36.0	9.0 M	9.0 G		B9					11.88						1.0			15 21 47 – 48 46.7
57	136486	C – 43 9845	15 19 9 – 44 6.9	7.05M			A2			9.87		11.89					1.0	1.0			15 22 33 – 44 17.6
58	136504	C – 44 10066	15 19 17 – 44 30.7	3.36	– 0.17	– 0.72	B34*	7.46	.17	5.22	.12	5.12	.36			3.0	2.0	2.0			15 22 41 – 44 41.4
59	136807	C – 48 9912	15 21 4 – 48 24.3	7.65M			B9			10.23		12.05					1.0	1.0			15 24 36 – 48 34.9
60	136935	C – 43 9884	15 21 31 – 43 58.7	8.0 M	8.0 G		B8					11.68						1.0			15 24 55 – 44 9.3
61		C – 41 9859	15 21 55 – 42 11.0	9.6 M				9.05								1.0					15 25 16 – 42 21.5
62	137518	C – 44 10140	15 24 51 – 44 57.7	8.02M			B0					10.98						1.0			15 28 17 – 45 8.1
63	137620	C – 44 10143	15 25 19 – 44 43.2	7.59M			B9					11.36	.46					2.0			15 28 45 – 44 53.5
64	137919	C – 41 9965	15 27 0 – 41 44.9	7.1 M			A0			8.98							1.0				15 30 21 – 41 55.1
65	138191	C – 44 10190	15 28 47 – 44 53.9	6.98M			B8			9.38		11.16	.77				1.0	3.0			15 32 14 – 45 4.0
66	138564	C 38 10464	15 31 3 – 39 10.9	6.36	– 0.03	1.48C	B9							10.94					1.0		15 34 20 – 39 20.9
67	138565	C – 43 10012	15 31 9 – 43 17.6	8.2 M	8.0 G		B9					12.07						1.0			15 34 33 – 43 27.6
68	138583	C – 46 10176	15 31 27 – 46 38.0	8.5 M	8.6 G		B9					11.59	.30					2.0			15 34 57 – 46 48.0
69	138690	C – 40 9760	15 31 48 – 41 0.0	2.77	– 0.21	– 0.81	B25*					4.42						1.0			15 35 8 – 41 10.0
70	138769	C 44 10239	15 32 26 – 44 47.6	4.54	– 0.18	– 0.67	B54p	9.05	.02	6.60	.26					3.0	3.0				15 35 53 – 44 57.5
71	138860	C – 43 10040	15 33 1 – 43 50.7	7.51M			B9					10.97	.40					2.0			15 36 26 – 44 .6
72	139206	C – 45 10078	15 35 13 – 45 32.8	7.26M			B8			9.05	.42	9.69	.12				3.0	2.0			15 38 42 – 45 42.6
73	139233	C – 38 10532	15 35 15 – 38 59.9	6.58	– 0.07	1.42C	B95c							10.56					1.0		15 38 33 – 39 9.7
74	139431	C – 42 10636	15 36 22 – 42 36.3	7.60M			B3			9.39	.14	10.08	.02				3.0	2.0			15 39 46 – 42 46.0
75	139432	C – 43 10091	15 36 27 – 43 27.4	7.0 M	7.6 G		B5			10.13		11.43					1.0	1.0			15 39 52 – 43 37.1
76	139525	C 43 10101	15 36 58 – 44 7.6	7.23M			B8 c			9.87		10.39					1.0	1.0			15 40 25 – 44 17.3
77	139579	C – 42 10647	15 37 9 – 42 51.1	8.0 M	8.1 G		B8					11.81						1.0			15 40 33 – 43 .7
78	140436	B + 26 2722	15 40 38 + 26 27.2	3.8	0.0	– 0.05	A04*			7.19							1.0				15 42 44 + 26 17.7
79	140285	C – 41 10245	15 41 0 – 41 39.6	5.93	0.00	– 0.20	A0 p			8.78	.00						2.0				15 44 23 – 41 49.0
80	141166	C – 41 10325	15 45 51 – 41 38.4	7.58M			B9			9.96							1.0				15 49 14 – 41 47.5
81	141458	B + 13 3012	15 46 30 + 12 52.6	6.80M			A0	10.53		9.96						1.0	1.0				15 48 51 + 12 43.5
82	141637	C – 25 11131	15 47 58 – 25 36.0	4.6	– 0.05	– 0.73	B35*	8.90		6.43	.14	5.64				1.0	2.0	1.0			15 50 59 – 25 45.0
83	142096	B – 19 4249	15 50 26 – 20 1.1	5.01	– 0.02	0.58	B35*			7.66		6.87					1.0	1.0			15 53 20 – 20 10.0
84	142114	C – 24 12352	15 50 36 – 25 10.8	4.6	– 0.08	– 0.6	B35*	9.04	.09	6.39	.20	5.63				2.0	2.0	1.0			15 53 36 – 25 19.6
85	142184	C – 23 12569	15 50 57 – 23 49.8	5.41	– 0.05	0.62	B25*			7.08		7.69					1.0	1.0			15 53 56 – 23 58.6
86	142250	C – 26 11096	15 51 27 – 27 11.5	6.14	– 0.07	– 0.44	B75			8.06	.15	8.90					2.0	1.0			15 54 30 – 27 20.3
87	142301	C – 24 12365	15 51 39 – 25 5.8	5.9	– 0.07	– 0.59	B74s			7.81							1.0				15 54 39 – 25 14.6
88	142445	C – 25 11190	15 52 28 – 26 7.2	5.64	0.14	1.58C	A2			9.53							1.0				15 55 30 – 26 15.9
89	142860	B + 16 2849	15 54 8 + 15 49.4	3.8	0.48	– 0.0	F65*	9.07		9.40						1.0	1.0				15 56 25 + 15 40.8
90	142883	B – 20 4364	15 54 45 – 20 50.4	5.85	0.02	– 0.48	B35s			7.37		8.51	.13				1.0	2.0			15 57 40 – 20 59.0

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
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3		SB		W/HD174674, + SB, + F25	897 A19 009 010 699 884 901 921 922 A42 A48
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87			H		897 A19 102 353 397 600 884 901 922 A27 A31 A42 A48 A50 A68
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89		S	P		897 A19 009 010 392 765 766 767 793 881 884 901 921 922 A42 A48
90			H		897 A19 102 353 884 901 922 A27 A31 A42 A48 A50 A68

	HD	DM	R.A. (1950)	DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000)	DEC
1	142884	C – 23 12597	15 54 50	– 23 23.0	6.80	0.01	– 0.45	B9 s					10.20						1.0			15 57 48	– 23 31.6
2	143018	C – 25 11228	15 55 49	– 25 58.3	2.90	– 0.19	– 0.89	B15*	7.45								1.0					15 58 51	– 26 6.8
3	143275	B – 22 4068	15 57 22	– 22 28.9	2.3	– 0.11	– 0.91	B05*	6.84	.56	4.71	.47	3.77				2.0	2.0	1.0			16 0 20	– 22 37.3
4	143567	B – 21 4255	15 58 58	– 21 50.5	7.20	0.07	– 0.10	B9S					11.02						1.0			16 1 55	– 21 58.8
5	144217	B – 19 4307	16 2 32	– 19 40.2	2.63	– 0.07	– 0.87	*	7.25		4.50						1.0	1.0				16 5 27	– 19 48.3
6	144470	B – 20 4405	16 3 53	– 20 32.1	4.0	– 0.04	– 0.82	B15*	8.34						4.33		1.0			1.0		16 6 49	– 20 40.1
7	145122	B + 17 2967	16 6 31	+ 17 20.2	6.02	0.00	– 0.07	A05	9.50		9.73		10.75				1.0	1.0	1.0			16 8 46	+ 17 12.3
8	145483	C – 28 11962	16 9 10	– 28 17.3	5.67	0.01	– 0.20	B9S*					9.74						1.0			16 12 16	– 28 25.0
9	145482	C – 27 10841	16 9 13	– 27 47.9	4.58	– 0.16	– 0.7	B2Ss					6.46						1.0			16 12 18	– 27 55.6
10	145647	B + 17 2982	16 9 13	+ 16 47.6	6.05	0.03	0.0	A05	9.33		9.96		10.69				1.0	1.0	1.0			16 11 29	+ 16 39.9
11	146624	C – 28 12037	16 15 11	– 28 29.5	4.78	0.01	0.01	A05p					9.44						1.0			16 18 17	– 28 36.8
12	148688	C – 41 10695	16 28 13	– 41 42.6	5.3	0.3	– 0.75	B11*			9.06							1.0				16 31 42	– 41 49.0
13	149404	C – 42 11399	16 32 51	– 42 45.5	5.48	0.42	1.29C	O9Is			9.03	.14						2.0				16 36 22	– 42 51.6
14	149711	C – 43 10959	16 34 54	– 43 18.0	5.83	– 0.02	– 0.61	B33*			7.83							1.0				16 38 27	– 43 23.9
15	149779	C – 43 10964	16 35 20	– 44 3.5	7.67M			B3			9.76							1.0				16 38 54	– 44 9.4
16	150591	C – 40 10653	16 40 25	– 41 1.2	6.13	– 0.08	1.30C	B8 *			8.26	.15	7.73					3.0	1.0			16 43 53	– 41 6.8
17	150742	C – 40 10661	16 41 14	– 40 44.9	5.7	– 0.11	– 0.64	B25*			7.74	.14	6.98					2.0	1.0			16 44 42	– 40 50.4
18	151003	C – 41 10856	16 43 4	– 41 31.2	7.11	0.16	– 0.79	O9Ib			9.44	.19	10.00					2.0	1.0			16 46 34	– 41 36.6
19	151473	C – 43 11139	16 45 56	– 43 51.5	7.5 M	7.5 G		A0					11.52	.14					2.0			16 49 31	– 43 56.7
20	151515	C – 41 10925	16 46 17	– 41 55.0	7.16	0.17	– 0.69	B3Iab			9.33		10.15					1.0	1.0			16 49 48	– 42 .2
21	151564	C – 41 10930	16 46 31	– 41 32.1	8.00	0.13	– 0.68	O9Ib			10.87							1.0				16 50 1	– 41 37.2
22	151804	C – 41 10957	16 48 4	– 41 8.8	5.4	0.09	– 0.76	O8Is	9.00		7.55	.02	9.94				1.0	2.0	1.0			16 51 33	– 41 13.8
23	151932	C – 41 10972	16 48 48	– 41 46.3	6.48	0.3	– 0.66	WN7p			9.49		10.05					1.0	1.0			16 52 19	– 41 51.3
24	151965	C – 40 10841	16 48 59	– 40 38.4	6.33	– 0.13	*	B9 s			8.49	.03						2.0				16 52 27	– 40 43.4
25	152078	C – 45 11028	16 49 45	– 45 22.7	8.0 M	8.1 G		B8			11.09		11.82					1.0	1.0			16 53 23	– 45 27.6
26	152162	C – 45 11037	16 50 15	– 45 56.0	8.5 M	8.8 G		B8					11.83						1.0			16 53 55	– 46 .9
27	152149	C – 46 11090	16 50 16	– 46 50.2	8.0 M	7.5 G		B8 c			10.40							1.0				16 53 58	– 46 55.1
28	152217	C – 41 11019	16 50 24	– 41 10.4	8.46	0.17	– 0.72	B03c					10.23						1.0			16 53 54	– 41 15.3
29	152236	C – 42 11633	16 50 28	– 42 16.9	4.8	0.5	– 0.6	B11*			9.28							1.0				16 54 0	– 42 21.8
30	152218	C – 41 11022	16 50 29	– 41 38.0	7.64	0.21	– 0.76	B04s			9.85							1.0				16 53 59	– 41 42.9
31	152234	C – 41 11024	16 50 31	– 41 43.5	5.46	0.22	– 0.74	B01*			6.01	.35	6.24					1.3	1.0			16 54 2	– 41 48.4
32	152246	C – 40 10884	16 50 36	– 40 59.9	7.33	0.19	– 0.76	O9Ib			10.18		10.01					1.0	.3			16 54 5	– 41 4.8
33	152247	C – 41 11035	16 50 41	– 41 33.7	7.18	0.23	– 0.74	O9Ib			9.57							1.0				16 54 11	– 41 38.6
34	152268	C – 40 10891	16 50 47	– 40 54.2	8.13	0.14	– 0.75	B0Ib			10.64		10.70					1.0	.3			16 54 16	– 40 59.0
35	152292	C – 40 10896	16 50 54	– 40 56.9	8.54	0.14		B8					10.83						.3			16 54 23	– 41 1.7
36	152333	C – 41 11055	16 51 6	– 41 20.6	8.01	0.24	– 0.68	O9Ib					11.54						1.0			16 54 36	– 41 25.4
37	152405	C – 40 10918	16 51 27	– 40 26.7	7.21	0.11	– 0.78	O9Ib			9.90							1.0				16 54 55	– 40 31.5
38	152408	C – 40 10919	16 51 29	– 41 4.3	5.82	0.19	– 0.76	O8Ia*			8.33	.04	8.47					3.0	1.0			16 54 58	– 41 9.1
39	152424	C – 41 11068	16 51 32	– 42 .6	6.27	0.42	– 0.58	O9Ib			9.53							1.0				16 55 3	– 42 5.4
40	152491	C – 43 11233	16 52 1	– 43 14.2	6.8 M	7.2 G		A0			10.07		11.24					1.0	1.0			16 55 35	– 43 19.0
41	152540	C – 42 11668	16 52 20	– 42 59.5	8.3 M	8.1 G		B9					11.32						1.0			16 55 53	– 43 4.2
42	152541	C – 46 11115	16 52 32	– 46 46.2	8.0 M	7.0 G		B8			10.62,							1.0				16 56 14	– 46 50.9
43	152667	C – 40 10975	16 53 7	– 40 44.7	6.2	0.29	– 0.68	B01*					10.00						1.0			16 56 36	– 40 49.4
44		C – 40 10977	16 53 8	– 40 29.4	9.4 M	9.1 G							10.98						.3			16 56 36	– 40 34.1
45	152685	C – 40 10980	16 53 15	– 41 4.6	7.48	0.19	– 0.59	B2II			10.09		11.33					1.0	1.0			16 56 45	– 41 9.3
46	152723	C – 40 10986	16 53 26	– 40 26.1	7.2	0.14	– 0.82	O6 p			9.32	.02	9.64					2.0	.3			16 56 54	– 40 30.8
47	152742	C – 42 11692	16 53 31	– 42 52.3	8.5 M	8.2 G		B3Ss					11.33						1.0			16 57 4	– 42 57.0
48	152755	C – 40 10990	16 53 36	– 40 52.7	8.05	0.05		B5S			10.09							1.0				16 57 5	– 40 57.4
49	152853	C – 45 11098	16 54 28	– 45 54.4	7.94	0.11	– 0.70	B3			10.23							1.0				16 58 8	– 45 59.0
50	153106	C – 46 11147	16 55 59	– 46 24.5	7.75	– 0.03	– 0.76	B3			9.47							1.0				16 59 40	– 46 29.0
51	153199	C – 43 11304	16 56 23	– 43 8.8	8.0 M	8.2 G		B5					12.20						1.0			16 59 57	– 43 13.3
52	153980	C – 46 11200	17 1 19	– 46 54.2	7.48M			B9			10.42							1.0				17 5 2	– 46 58.3
53	154025	C – 45 11188	17 1 26	– 45 26.0	6.31	0.08	1.58C	A2			10.25	.18						3.0				17 5 5	– 45 30.1
54	154153	C – 43 11396	17 2 12	– 44 2.3	6.18	0.29	1.53C	A3			11.18							1.0				17 5 48	– 44 6.3
55	154293	B – 21 4505	17 2 30	– 22 .3	7.16M			B8			9.65		10.12					1.0	1.0			17 5 30	– 22 4.3
56	154247	C – 44 11436	17 2 48	– 44 30.3	8.4 M	8.2 G		B8					11.83						1.0			17 6 25	– 44 34.3
57	154410	C – 44 11450	17 3 44	– 44 22.6	7.06M			A0			10.71	.32	11.79					2.0	1.0			17 7 21	– 44 26.5
58	154485	C – 42 11852	17 4 10	– 42 41.3	8.0 M	7.7 G		B8			10.21		11.83					1.0	1.0			17 7 44	– 42 45.2
59	154744	C – 47 11276	17 5 46	– 47 11.9	8.0 M	7.8 G		B8			10.61							1.0				17 9 30	– 47 15.7
60	154811	C – 46 11250	17 6 9	– 46 58.1	7.06M			B2			10.52							1.0				17 9 52	– 47 1.9
61	154873	C – 46 11258	17 6 38	– 46 40.6	6.98M	7.0 G		B2 c			9.95							1.0				17 10 21	– 46 44.3
62	154899	C – 40 11205	17 6 40	– 40 59.4	8.5 M	7.6 G		A0					11.96						1.0			17 10 10	– 41 3.1
63	155031	C – 41 11331	17 7 31	– 41 22.7	7.74M			A0					12.81						1.0			17 11 2	– 41 26.4
64	155020	C – 46 11267	17 7 37	– 46 7.2	7.55M			B5			9.89							1.0				17 11 18	– 46 10.9
65	155032	C – 43 11473	17 7 37	– 44 2.2	9.3 M	9.2 G		B8					12.41						1.0			17 11 14	– 44 5.9
66	155203	C – 43 11485	17 8 34	– 43 10.5	3.33	0.41	0.07	F04s			9.40	.30						4.0				17 12 9	– 43 14.1
67	155352	C – 42 11933	17 9 27	– 42 34.5	8.5 M	8.4 G		B5					12.00						1.0			17 13 1	– 42 38.0
68	155389	C – 47 11340	17 9 48	– 47 15.6	7.05M			A0			10.07							1.0				17 13 32	– 47 19.1
69	155896	C – 42 11983	17 12 44	– 42 17.0	6.8 M	– 0.11		B5 *			9.17	.03	9.56	.29				2.0	2.0			17 16 17	– 42 20.3
70	155913	C – 42 11986	17 12 52	– 42 36.8	8.0 M	8.2 G		B0					12.66						1.0			17 16 26	– 42 40.1
71	155985	C – 44 11564	17 13 27	– 44 43.5	6.47	0.24	– 0.70	B01s			9.90		9.78	.55				1.0	2.0			17 17 6	– 44 46.7
72	156137	C – 45 11364	17 14 25	– 46 2.3	9.0 M	9.5 G		B8					12.40						1.0			17 18 7	– 46 5.5
73	156157	C – 43 11567	17 14 25	– 43 31.5	7.11M			B9			9.56		9.84					1.0	1.0			17 18 1	– 43 34.7
74	156234	C – 42 12012	17 14 52	– 42 55.8	8.0 M	7.5 G		B3 c					11.35						1.0			17 18 27	– 42 58.9
75	156234	C – 42 12012	17 14 56	– 42 55.0	8.0 M	7.5 G		B3 c					11.36						1.0			17 18 31	– 42 58.1
76	156293	C – 43 11572	17 15 11	– 44 4.7	5.76	– 0.05	– 0.13	B9 p			8.70		9.28					1.0	1.0			17 18 48	– 44 7.8
77	156292	C – 42 12018	17 15 11	– 42 50.4	8.0 M	7.4 G		B5					10.89	.36					2.0			17 18 45	– 42 53.5
78	156275	C – 48 11588	17 15 14	– 48 38.7	7.9 M	7.3 G		B9			10.94		11.95					1.0	1.0			17 19 2	– 48 41.8
79	156398	C – 44 11595	17 15 47	– 44 10.3	6.64	0.20	– 0.02	A0 p					12.05						1.0			17 19 24	– 44 13.4
80	156385	C – 45 11392	17 15 49	– 45 35.3	7.25M	7.5 G		WC7s			9.12	.09	8.74					2.0	1.0			17 19 30	– 45 38.4
81	156575	C – 45 11403	17 16 56	– 45 59.8	7.5 M	7.6 G		B1			10.48	.31	10.93					2.0	1.0			17 20 38	– 46 2.8
82	156662	C – 45 11411	17 17 24	– 45 56.0	8.0 M	7.9 G		B5			10.86		10.83					1.0	1.0			17 21 6	– 45 59.0
83	157042	C – 47 11484	17 19 31	– 47 25.3	5.24	– 0.13	– 0.81	B23*	8.27	.25	7.34		6.33	.20			2.0	1.0	2.0			17 23 16	– 47 28.1
84	157115	C – 45 11459	17 19 56	– 45 23.5	8.56M			B8					12.13						1.0			17 23 36	– 45 26.3
85	157243	C – 44 11669	17 20 35	– 44 7.0	5.11	– 0.06	– 0.39	B6Sp	8.81		7.96	.17	7.72	.33			1.0	3.0	2.0			17 24 13	– 44 9.7
86	157317	C – 46 11478	17 21 10	– 46 9.4	6.86M			B5			8.96	.26	9.44	.32	9.60			7.0	2.0	1.0		17 24 52	– 46 12.1
87	157519	C – 41 11599	17 22 5	– 41 56.1	8.0 M	7.7 G		A0					10.88						1.0			17 25 38	– 41 58.7
88	157573	C – 44 11716	17 22 34	– 44 30.7	9.10	– 0.01	– 0.43	B8					12.34						1.0			17 26 13	– 44 33.3
89	157624	C – 44 11725	17 22 53	– 44 35.2	7.87	– 0.05	– 0.55	B8			10.12		10.83					1.0	1.0			17 26 32	– 44 37.8
90	157661	C – 45 11531	17 23 10	– 45 48.0	5.28	– 0.07	– 0.33	B9 *	10.13		7.45	.35	7.99	.22			1.0	3.0	2.0			17 26 52	– 45 50.5

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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	157698	C – 47 11549	17 23 19 – 47 5.6	7.15	– 0.05	1.33C	B5S		9.27 .22	10.09		3.0 1.0		17 27 4 – 47 8.1
2	157711	C – 46 11513	17 23 21 – 46 33.3	8.5 M	8.6 G		B9		9.99	12.22		1.0 1.0		17 27 4 – 46 35.8
3	157846	C – 41 11645	17 24 4 – 41 16.2	8.07M			B5		10.60	11.20		1.0 1.0		17 27 36 – 41 18.7
4	157832	C – 46 11530	17 24 10 – 46 59.1	6.64	0.02	– 0.86	B2 s		8.45 .34	8.93	9.73	3.0 1.0 1.0		17 27 54 – 47 1.6
5	157955	C – 29 13563	17 24 26 – 29 41.0	6.00	0.00	1.48C	B9				10.26	1.0		17 27 37 – 29 43.5
6	158042	C – 43 11741	17 25 23 – 43 56.0	6.18	– 0.02	– 0.36	B9 p		8.91 .22	9.42 .31		3.0 2.0		17 29 0 – 43 58.4
7	158078	C – 46 11557	17 25 40 – 46 39.4	7.83M	7.3 G		B5		9.77 .39	10.57		4.0 1.0		17 29 24 – 46 41.8
8	158175	C – 44 11784	17 26 13 – 44 42.1	7.53	– 0.05	– 0.35	B8		10.55	12.10		1.0 1.0		17 29 52 – 44 44.4
9	158531	C – 40 11553	17 28 11 – 41 .2	7.46M	7.3 G		B9		10.18	11.35		1.0 1.0		17 31 42 – 41 2.4
10	158746	C – 44 11846	17 29 27 – 44 27.8	8.22	0.01	– 0.17	B8		10.13			1.0		17 33 6 – 44 29.9
11	158747	C – 45 11652	17 29 33 – 45 28.6	7.06M			B9		10.49	11.33		1.0 1.0		17 33 14 – 45 30.7
12	158799	C – 41 11742	17 29 36 – 41 8.3	5.86	0.05	1.38C	B9		9.25	9.73 .30		1.0 2.0		17 33 8 – 41 10.4
13	158888	C – 43 11821	17 30 14 – 44 2.5	7.89M			B8		9.66			1.0		17 33 52 – 44 4.5
14	158864	C – 45 11660	17 30 15 – 45 35.6	8.20	– 0.10	1.20C	B0		10.36 .17	11.07 .23		2.0 3.0		17 33 56 – 45 37.6
15	158906	C – 46 11632	17 30 20 – 46 34.0	7.83M			B8		9.03 .15	9.94 .28		4.0 3.0		17 34 4 – 46 36.0
16	158928	C – 44 11859	17 30 30 – 44 58.4	7.06M	7.5 G		B9		9.48			1.0		17 34 10 – 45 .4
17	159035	C – 40 11595	17 30 52 – 40 29.9	7.2 M	7.4 G		B8		9.68	11.27		1.0 1.0		17 34 22 – 40 31.9
18	159110	C – 41 11776	17 31 8 – 41 17.5	7.54M			B5			10.49 .25		2.0		17 34 40 – 41 19.5
19	159112	C – 44 11873	17 31 19 – 44 12.2	8.7 M	8.5 G		B5		10.35			1.0		17 34 57 – 44 14.2
20	159111	C – 42 12271	17 31 19 – 42 53.1	8.5 M	7.8 G		B9		10.61	11.31		1.0 1.0		17 34 54 – 42 55.1
21	159217	C – 46 11661	17 31 56 – 46 28.4	4.58	– 0.02	– 0.09	A0 s	9.05 .55	8.13 .23	9.06 .06		2.0 4.0 2.0		17 35 39 – 46 30.3
22	159489	C – 45 11712	17 33 33 – 45 7.7	8.3 M	8.2 G		B5		9.82	11.57		1.0 1.0		17 37 13 – 45 9.5
23	159532	C – 42 12312	17 33 43 – 42 58.1	1.86	0.40	0.2	F0Ip	9.86 .54	8.42 .41	12.09		2.0 3.0 1.0		17 37 18 – 42 59.9
24	159554	C – 46 11688	17 33 50 – 46 5.0	8.5 M	8.0 G		B8		9.90			1.0		17 37 33 – 46 6.8
25	159707	C – 42 12327	17 34 33 – 42 51.1	6.09	– 0.06	– 0.25	B8S		8.86 .12	9.52 .19		3.0 2.0		17 38 8 – 42 52.8
26	159807	C – 42 12334	17 35 2 – 42 42.3	7.47M			A0		10.12			1.0		17 38 37 – 42 44.0
27	159958	C – 43 11905	17 35 56 – 43 49.9	7.78M			B8		10.04 .08	10.93		2.0 1.0		17 39 33 – 43 51.5
28	159959	C – 45 11755	17 36 4 – 45 54.1	8.5 M	8.2 G		B8		9.88	11.52		1.0 1.0		17 39 46 – 45 55.7
29	160173	C – 44 11963	17 36 58 – 45 1.9	8.7 M	8.7 G		B8		10.22	12.17		1.0 1.0		17 40 38 – 45 3.4
30	160207	C – 44 11967	17 37 9 – 44 56.2	8.40	– 0.02	1.34C	B5		10.64 .44	11.64 .27		2.0 2.0		17 40 49 – 44 57.7
31	160263	C – 46 11747	17 37 31 – 46 53.8	5.78	– 0.01	– 0.06	A0		9.11 .10			2.0		17 41 16 – 46 55.3
32	160323	C – 41 11908	17 37 38 – 41 40.0	8.64M			B8		9.61	11.63		1.0 1.0		17 41 11 – 41 41.5
33	160578	C – 38 12137	17 39 2 – 39 .4	2.41	– 0.22	– 0.89	B24p	5.82 .07	4.52			2.0 1.0		17 42 30 – 39 1.8
34	160647	C – 40 11758	17 39 27 – 40 58.4	8.7 M	8.2 G		B9			12.36		1.0		17 42 58 – 40 59.8
35	160648	C – 46 11789	17 39 40 – 46 33.9	8.0 M	7.2 G		B8		10.20	11.13		1.0 1.0		17 43 24 – 46 35.2
36	160715	C – 45 11825	17 39 54 – 45 56.9	6.92	– 0.04	– 0.16	B9 p		9.47 .31	11.07		2.0 1.0		17 43 36 – 45 58.2
37	160797	C – 44 12008	17 40 23 – 44 36.8	9.0 M	8.0 G		B8		9.96	11.22		1.0 1.0		17 44 2 – 44 38.1
38	160876	C – 41 11965	17 40 39 – 41 38.4	8.2 M	7.6 G		B8		10.63	12.07		1.0 1.0		17 44 12 – 41 39.7
39	160878	C – 44 12018	17 40 55 – 44 11.3	9.0 M	8.5 G		B5		10.22 .31	11.59 .03		2.0 1.3		17 44 33 – 44 12.6
40	160917	C – 45 11850	17 41 1 – 46 1.3	6.86M			B9		9.41 .18	10.93		2.0 1.0		17 44 44 – 46 2.5
41	160928	C – 42 12431	17 41 7 – 42 42.5	5.88	0.16	1.56C	A2 p		9.69			1.0		17 44 42 – 42 43.7
42	160993	C – 45 11860	17 41 36 – 45 37.0	7.73	0.02	– 0.82	B11		9.77 .30	10.94		2.0 1.0		17 45 18 – 45 38.2
43	161088	C – 41 11992	17 41 55 – 41 13.0	9.3 M	8.7 G		B9		10.05			1.0		17 45 27 – 41 14.2
44	161312	C – 43 12014	17 43 21 – 43 28.5	8.0 M	7.6 G		B8		9.25			1.0		17 46 58 – 43 29.6
45	161378	C – 40 11828	17 43 39 – 40 51.6	7.76M			B9 c		9.76 .14	10.89		2.0 1.0		17 47 10 – 40 52.7
46	161531	C – 40 11845	17 44 26 – 40 58.0	9.5 M	9.0 G		B8 c		10.39			1.0		17 47 57 – 40 59.0
47	161596	C 40 11856	17 44 47 – 40 55.6	10.7 M	9.6 G		A0			11.84		1.0		17 48 18 – 40 56.6
48	161667	C – 39 11862	17 45 13 – 39 53.0	6.88M			B9		9.10	10.68		1.0 1.0		17 48 42 – 39 54.0
49	161705	C – 41 12056	17 45 28 – 41 41.9	8.5 M	8.3 G		B9			12.27		1.0		17 49 1 – 41 42.8
50	161841	C – 41 12074	17 46 14 – 41 25.6	8.2 M	7.5 G		B9	9.72	10.12	10.76		1.0 1.0 .3		17 49 46 – 41 26.5
51	161877	C 41 12077	17 46 26 – 41 21.9	8.5 M	7.9 G		B9		9.98	10.70		1.0 .3		17 49 58 – 41 22.8
52	161972	C – 46 11888	17 47 2 – 46 12.9	8.21M			B5		10.58	10.54		1.0 1.0		17 50 45 – 46 13.7
53	162291	C – 44 12143	17 48 50 – 44 22.3	8.90M			B9			12.26		1.0		17 52 29 – 44 23.0
54	162376	C – 40 11926	17 49 7 – 40 4.4	9.1 M	9.3 G		B8			11.64		1.0		17 52 37 – 40 5.1
55		C – 42 12593	17 50 35 – 42 42.5	9.4 M					10.70	11.24		1.0 1.0		17 54 10 – 42 43.1
56	162786	C – 42 12602	17 51 12 – 42 54.9	8.5 M	8.3 G		A2		9.83			1.0		17 54 48 – 42 55.4
57	163254	C – 41 12221	17 53 37 41 58.4	6.76	– 0.11	1.26C	B5Ss		8.47	8.86		1.0 1.0		17 57 11 – 41 58.7
58	163522	C – 42 12681	17 55 0 – 42 28.9	8.43	– 0.01	– 0.86	B11s		10.81	12.16		1.0 1.0		17 58 35 – 42 29.1
59	163800	B – 22 4474	17 55 56 – 22 30.8	7.02	0.30	– 0.88	O8		9.21			1.0		17 58 57 – 22 31.0
60	163811	C – 23 13721	17 56 6 – 23 18.8	8.3 M			B5 p		10.34			1.0		17 59 8 – 23 19.0
61	163813	C – 25 12526	17 56 10 – 25 49.0	8.1 M	7.4 G		B9		10.00			1.0		17 59 16 – 25 49.2
62	163892	B – 22 4478	17 56 25 – 22 27.9	7.44	0.09	– 0.79	O9Ap		9.34 .24	9.85		2.0 .3		17 59 26 – 22 28.1
63	163955	C – 23 13731	17 56 44 – 23 48.8	4.75	– 0.04	– 0.06	B9Ss		7.94	8.11		1.0 1.0		17 59 47 – 23 48.9
64	164002	B 22 4484	17 56 59 – 22 32.8	7.15M	– 0.13		B0Sp		8.68 .36	9.01		2.0 1.0		18 0 0 – 22 32.9
65	164146	C 24 13745	17 57 48 – 24 12.5	8.3 M	8.0 G		B5 p		9.47 .38	10.41		2.0 .3		18 0 52 – 24 12.5
66	164170	C – 22 12416	17 57 49 – 22 48.5	11.2 M	9.7 G		B9			12.68		1.0		18 0 51 – 22 48.5
67	164169	B – 22 4491	17 57 52 – 22 15.3	9.0 M			B8		10.41	11.72		1.0 1.0		18 0 53 – 22 15.3
68	164225	B – 22 4493	17 58 6 – 22 35.9	8.7 M			B8			12.05		1.0		18 1 7 – 22 35.9
69	164359	B – 22 4500	17 58 38 – 22 7.9	7.4 M			B0Ip	8.94	9.47	9.17		1.0 1.0 1.0		18 1 39 – 22 7.9
70	164384	C – 23 13789	17 58 43 – 23 10.7	8.27	– 0.03	– 0.78	B15		9.43			1.0		18 1 45 – 23 10.7
71	164385	C – 24 13765	17 58 47 – 24 9.4	8.7 M	7.7 G		B8		9.66 .27	10.71		2.0 .3		18 1 51 – 24 9.4
72	164402	B – 22 4503	17 58 53 – 22 46.9	5.8	0.1	1.15C	B0Ip	9.21	7.39 .29	6.91		1.0 2.0 1.0		18 1 55 – 22 46.9
73	164492	C – 23 13804	17 59 21 – 23 1.9	7.63	0.00	– 0.86	O73p	9.98	8.04 .22	7.50		1.0 2.0 1.0		18 2 23 – 23 1.8
74	164536	C 24 13783	17 59 35 – 24 15.4	7.11	– 0.03	– 0.92	B3		8.23	7.76		1.0 1.0		18 2 39 – 24 15.3
75	164581	B – 20 4952	17 59 38 – 20 44.3	6.85M			B15			9.30		1.0		18 2 37 – 20 44.2
76	164536	C – 24 13783	17 59 39 – 24 15.8	7.11	– 0.03	– 0.92	B3		7.94 .38	8.07		2.0 1.0		18 2 43 – 24 15.7
77	164637	B 22 4516	18 0 0 – 22 43.2	6.73	– 0.05	1.16C	B0Sp	9.63	8.24 .13	7.88		1.0 2.0 1.0		18 3 2 – 22 43.1
78	164704	B – 22 4520	18 0 17 – 22 53.2	7.6 M			B4 p		9.15 .28	9.53		2.0 1.0		18 3 19 – 22 53.1
79	164717	B – 22 4522	18 0 23 – 22 37.1	8.3 M			B3 p		9.52 .23	9.79		2.0 1.0		18 3 24 – 22 37.0
80	164739	C – 23 13832	18 0 36 – 23 8.4	8.32M			B9			12.33		1.0		18 3 38 – 23 8.2
81	164766	C – 23 13836	18 0 40 – 23 21.0	8.6 M			B9 c			11.83		1.0		18 3 42 – 23 20.8
82	164794	C – 24 13814	18 0 48 – 24 21.8	5.97	0.03	– 0.9	O6	10.08	6.59 .13	6.23 .24		.3 1.3 .5		18 3 52 – 24 21.6
83	164833	B – 22 4533	18 0 54 – 22 50.4	6.9 M			B0Ip		8.70 .32	8.83		2.0 1.0		18 3 56 – 22 50.2
84	164844	B – 22 4535	18 1 1 – 22 34.1	8.0 M			B15		9.44	7.08		.3 1.0		18 4 2 – 22 33.9
85	164883	B – 22 4541	18 1 11 – 22 30.3	7.28	0.01	– 0.83	B0Sc		8.30			.3		18 4 12 – 22 30.1
86	164865	C – 24 13826	18 1 12 – 24 11.4	7.62	0.84	0.06	B9I	10.46		10.71		.3 1.0		18 4 16 – 24 11.2
87	164906	C – 24 13832	18 1 22 – 24 23.4	7.46	0.21	– 0.90	B14		7.25 .02	7.08 .34		1.3 .5		18 4 26 – 24 23.2
88	164993	C – 23 13863	18 1 46 – 23 36.1	8.6 M			B8 s			12.21		1.0		18 4 49 – 23 35.9
89	165016	C – 24 13853	18 1 54 – 24 41.1	7.60M	7.2 G		B0Ip		8.83 .12	9.22 .01		2.0 2.0		18 4 58 – 24 40.9
90	165052	C 24 13864	18 2 6 – 24 24.2	6.87	0.08	– 0.84	O7		8.74 .14	8.24 .16		2.0 .5		18 5 10 – 24 23.9

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 A19 158 419 922 A42
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	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	165132	C–23 13881	18 2 26 –23 43.2	8.0 M			B3 *			9.81		9.96					1.0	1.0			18 5 29 –23 42.9
2	165223	B–22 4555	18 2 50 –22 12.6	8.7 M			B8					11.51						1.0			18 5 51 –22 12.3
3	165246	C–24 13880	18 3 1 –24 12.1	8.1 M	7.6 G		B9					9.68	.23					2.0			18 6 5 –24 11.8
4	165287	B–22 4557	18 3 5 –22 7.3	8.7 M			B5 p			11.21		11.61					1.0	1.0			18 6 6 –22 7.0
5	313792	B–21 4849	18 3 11 –21 41.3	10. M			B5 c					12.11						1.0			18 6 11 –21 41.0
6	165516	B–21 4855	18 4 11 –21 27.0	6.29	0.12	–0.78	B01*					8.81						1.0			18 7 11 –21 26.6
7	313810	B–22 4567	18 4 30 –22 6.3	9.0 M			B4 c			10.78		11.32					1.0	1.0			18 7 31 –22 5.9
8	165689	B–22 4576	18 5 8 –22 16.9	7.9 M			B5 p			9.89		10.51					1.0	1.0			18 8 9 –22 16.4
9	165812	B–22 4581	18 5 44 –22 10.2	7.9 M	7.89G		B5 *					10.06						1.0			18 8 45 –22 9.7
10	165814	C–25 12793	18 5 48 –25 28.9	6.6 M	0.00	1.32C	B8			8.99		10.29					1.0	1.0			18 8 53 –25 28.4
11	171034	C–33 13338	18 30 41 –33 3.3	5.28	–0.12	–0.71	B34c					7.24	.08					2.0			18 33 58 –33 1.0
12	171149	B– 6 4791	18 30 42 – 5 57.0	6.35	0.02	–0.04	A05s			9.66	.20	11.22	.40				4.0	3.0			18 33 22 – 5 54.7
13	171827	B+39 3463	18 33 24 +39 29.3	7.3 M	7.3 G		A0			10.16							1.0				18 35 3 +39 31.8
14	172068	B+41 3100	18 34 36 +41 14.1	6.86M			A0			10.92							1.0				18 36 12 +41 16.7
15	172044	B+33 3154	18 34 47 +33 25.5	5.42	–0.1	–0.50	B82p			7.02		7.92					1.0	1.0			18 36 37 +33 28.1
16	172167	B+38 3238	18 35 15 +38 44.2	0.0	–0.00	0.0	A05*	6.71	.25	4.56	.02	5.66	.23			7.0	2.0	.5			18 36 56 +38 46.8
17	172671	B+40 3446	18 37 56 +40 53.3	6.07M			B95s			8.95	.34	10.36	.04				3.0	1.3			18 39 33 +40 56.1
18	172535	C–32 14416	18 38 55 –32 25.0	7.76M	7.11G		B8			9.17	.02						2.0				18 42 10 –32 22.1
19	172958	B+31 3332	18 39 48 +31 34.1	6.46	0.17	–0.09	B85			9.06							1.0				18 41 41 +31 37.1
20	172977	B+33 3180	18 39 51 +34 3.0	7.7 M	7.6 G		B9			8.93	.09	10.26	.20				2.0	2.0			18 41 40 +34 6.0
21	173087	B+34 3285	18 40 20 +34 41.8	6.23	–0.11	–0.51	*			8.05	.35	8.89					2.0	1.0			18 42 8 +34 44.8
22	173169	B+36 3239	18 40 35 +36 30.1	7.19M			B9			10.15	.07						2.0				18 42 20 +36 33.1
23	173239	B+30 3279	18 41 7 +31 5.1	8.0 M	7.8 G		B9			10.18		11.25					1.0	1.0			18 43 1 +31 8.1
24	173198	B– 1 3553	18 41 37 – 1 36.4	8.1 M			B25p					12.11						1.0			18 44 12 – 1 33.3
25	173582	B+39 3509	18 42 41 +39 37.1	4.66	0.16	0.06	*			9.00	.22						.8				18 44 20 +39 40.3
26	173607	B+39 3510	18 42 43 +39 33.6	4.59	0.18	0.08	*			9.08	.21						.8				18 44 22 +39 36.8
27	173648	B+37 3222	18 43 3 +37 33.1	4.1	0.22	0.14	A5 *			9.08	.23						3.0				18 44 46 +37 36.3
28	173689	B+34 3302	18 43 16 +34 57.3	7.12M	7.10G		B9			9.86	.30						3.0				18 45 4 +35 .5
29	173673	B– 6 4893	18 44 5 – 6 44.7	7.9 M	7.9 G		B8			10.67							1.0				18 46 46 – 6 41.4
30	173744	B– 6 4897	18 44 28 – 5 57.2	7.05	0.10	0.12	A0					12.50						1.0			18 47 8 – 5 53.9
31	173936	B+41 3137	18 44 37 +41 23.2	5.92	–0.12	–0.41	B65p	9.62	.21	8.11	.13	10.93				2.0	2.0	1.0			18 46 13 +41 26.5
32	174179	B+31 3369	18 46 4 +31 42.0	6.05	–0.13	–0.67	B34*			7.75							1.0				18 47 57 +31 45.4
33	174260	B+36 3270	18 46 19 +37 1.0	7.1 M	7.1 G		B8			8.91							1.0				18 48 3 +37 4.4
34	174585	B+32 3227	18 47 54 +32 45.2	5.96	–0.22	–0.71	B34*			7.47		7.89	.04				1.0	2.0			18 49 46 +32 48.7
35	174602	B+32 3228	18 48 1 +32 29.5	5.24	0.08	0.13	A35p			8.87							1.0				18 49 53 +32 33.0
36	174638	B+33 3223	18 48 14 +33 18.2	3.43	–0.01	–0.57	B75*	8.38	.22	6.32	.26	6.75	.27	5.55		2.0	2.0	3.0	1.0		18 50 5 +33 21.8
37	174958	B+39 3553	18 49 46 +39 15.6	7.17M			A0			10.23	.63						2.0				18 51 26 +39 19.3
38	174959	B+36 3295	18 49 51 +36 28.7	6.08	–0.11	–0.49	B64*			8.44	.43						3.0				18 51 36 +36 32.4
39	174933	B+21 3582	18 50 8 +21 21.8	5.48	–0.08	–0.4	B93s					8.24						1.0			18 52 16 +21 25.5
40	175081	B+37 3262	18 50 18 +37 27.3	7.08M	6.91G		B4 *			9.49	.18	10.81					3.0	1.0			18 52 2 +37 31.0
41	175132	B+41 3167	18 50 31 +41 19.3	6.21M	–0.09	–0.32	B93s			9.13	.16	10.35					2.0	1.0			18 52 7 +41 23.0
42	175331	B+38 3336	18 51 32 +38 52.1	7.3 M	7.3 G		B9			9.57							1.0				18 53 13 +38 55.9
43	175426	B+36 3307	18 51 59 +36 54.5	5.5	–0.18	–0.68	B25*	9.84		7.44						1.0	1.0				18 53 44 +36 58.3
44	175468	B+19 3836	18 52 31 +19 46.7	7.50M			A0			10.33							1.0				18 54 41 +19 50.6
45	175634	B+33 3256	18 53 2 +33 55.0	7.66	–0.04	–0.31	B85*			9.53				11.19			1.0		1.0		18 54 52 +33 58.9
46	175701	B+32 3254	18 53 22 +32 20.1	7.7 M	7.3 G		A0			10.01		11.41	.17				1.0	2.0			18 55 14 +32 24.0
47	175785	B+30 3351	18 53 53 +30 14.8	7.31M	7.07G		A0			9.79							1.0				18 55 49 +30 18.8
48	175803	B+19 3848	18 54 8 +19 46.9	7.97M			B35p			9.91	.17	10.57					2.0	1.0			18 56 18 +19 50.9
49	176052	B+31 3412	18 55 10 +32 4.3	8.2 M	8.3 G		A					12.34						1.0			18 57 3 +32 8.3
50	176316	B+51 2463	18 55 49 +51 26.2	8.1 M	7.97G		A0					11.90						1.0			18 57 1 +51 30.3
51	176318	B+38 3373	18 56 19 +38 11.8	5.72	–0.17	–0.52	B65			7.79							1.0				18 58 2 +38 15.9
52	176158	B– 7 4798	18 56 31 – 6 54.7	7.3 M			B9			10.11		11.23					1.0	1.0			18 59 12 – 6 50.5
53	176254	B+20 4007	18 56 32 +20 33.2	6.72M			B24*			9.32	.16	9.49	.06				3.0	3.0			18 58 41 +20 37.4
54	176301	B+19 3858	18 56 35 +19 43.5	6.23	–0.04	–0.43	B65s			8.76	.12	9.08					5.0	1.0			18 58 45 +19 47.7
55	176437	B+32 3286	18 57 4 +32 37.2	3.25	–0.04	–0.09	B93*	9.03	.37	7.18	.23	7.10	.01			3.0	4.0	2.0			18 58 56 +32 41.4
56	176502	B+40 3544	18 57 8 +40 36.6	6.21	–0.16	–0.66	B44*	9.96	.07	8.13	.46	7.59	.09			2.0	2.0	2.0			18 58 46 +40 40.8
57	176562	B+41 3198	18 57 23 +41 11.7	8.8 M	8.8 G		B9					11.44						1.0			18 59 0 +41 15.9
58	176438	B+19 3865	18 57 26 +19 25.0	7.40M			B9			9.84	.03						3.0				18 59 37 +19 29.2
59	176582	B+39 3602	18 57 31 +39 8.8	6.40	–0.17	–0.71	B54p			7.98	.22	8.05					2.0	1.0			18 59 12 +39 13.0
60	176669	B+42 3212	18 57 53 +42 56.6	7.9 M	7.6 G		B8			10.40		10.99					1.0	1.0			18 59 26 +43 .8
61	176869	B+39 3606	18 58 54 +39 46.4	7.62M			B9			10.04	.39	11.46					2.0	1.0			19 0 34 +39 50.7
62	177003	B+50 2708	18 58 58 +50 27.7	5.38	–0.17	–0.76	B35p	8.66	.12	7.09	.41	6.61				2.0	2.0	1.0			19 0 13 +50 32.0
63	176803	B+19 3880	18 58 59 +20 5.1	7.25M			B8			10.12		11.25					1.0	1.0			19 1 9 +20 9.4
64	176819	B+20 4022	18 59 13 +20 45.7	6.68	0.02	–0.70	B24p			8.60		9.01	.42				1.0	3.0			19 1 22 +20 50.0
65	177061	B+41 3208	18 59 33 +41 20.5	7.8 M	8.0 G		A0			10.30							1.0				19 1 10 +41 24.8
66	177006	B+32 3299	18 59 37 +32 19.2	7.1 M	7.9 G		B5 p			9.09	.18	9.99					5.0	1.0			19 1 30 +32 23.6
67	177109	B+33 3295	18 59 57 +33 32.9	6.38	–0.12	–0.63	B44*			8.31	.29	8.70					3.0	1.0			19 1 48 +33 37.3
68	176984	B– 3 4460	19 0 16 – 3 46.4	5.41	0.00	–0.07	A15					10.11	.45					2.0			19 2 54 – 3 42.0
69	177593	B+33 3309	19 2 5 +34 4.5	7.12M	7.0 G		B5 *			9.20	.21	10.15					3.0	1.0			19 3 55 +34 9.0
70	177877	B+38 3424	19 3 7 +38 40.0	7.7 M			A0			10.66		11.59					1.0	1.0			19 4 49 +38 44.6
71	178002	B+36 3395	19 3 39 +36 51.8	8.4 M	8.0 G		A0			10.78							1.0				19 5 24 +36 56.4
72	178030	B+28 3186	19 3 54 +29 2.1	8.0 M	7.44G		A0			9.63							1.0				19 5 52 +29 6.8
73	178329	B+41 3232	19 4 40 +41 20.1	6.49	–0.16	–0.65	B35*	9.27		7.80						1.0	1.0				19 6 17 +41 24.8
74	178475	B+35 3485	19 5 31 +36 1.2	5.26	–0.11	–0.54	B74*	9.13	.08	7.67	.41	7.27				2.0	2.0	1.0			19 7 18 +36 6.0
75	178591	B+40 3596	19 5 41 +40 58.5	6.9 M			B5 p			9.49							1.0				19 7 19 +41 3.3
76		B+42 3250	19 6 3 +42 13.3	9.2 M								12.22						1.0			19 7 38 +42 18.1
77	178849	B+34 3437	19 6 56 +34 40.7	7.00	–0.12	–0.64	B35*			8.57	.06	8.62					2.0	1.0			19 8 45 +34 45.6
78	178912	B+33 3340	19 7 14 +33 9.4	8.3 M	7.9 G		B5 p			9.47	.03	10.16					2.0	1.0			19 9 6 +33 14.3
79	179095	B+50 2734	19 7 17 +50 16.9	6.79M			A0			9.12	.40	10.25	.22				3.0	3.0			19 8 34 +50 21.8
80	178947	B+30 3442	19 7 27 +30 29.1	6.68M			B9			9.36	.29	10.29	.13				4.0	2.0			19 9 23 +30 34.0
81	178991	B+29 3496	19 7 35 +29 16.6	8.3 M	7.94G		A0			9.93							1.0				19 9 33 +29 21.5
82	179394	B+42 3258	19 8 51 +42 31.1	7.38M			B8					10.80						1.0			19 10 26 +42 36.1
83	179281	B+31 3485	19 8 52 +31 14.3	8.0 M	7.9 G		B9			10.47		11.74	.01				1.0	2.0			19 10 47 +31 19.3
84	179395	B+41 3253	19 8 57 +41 56.3	7.13M			B9			10.53		11.99					1.0	1.0			19 10 33 +42 1.3
85	179506	B+41 3257	19 9 21 +41 41.5	7.8 M	7.9 G		B8			9.82	.34	11.25	.13				2.0	2.0			19 10 58 +41 46.5
86	179583	B+40 3620	19 9 43 +40 20.7	6.06M	6.12G		A35			9.62							1.0				19 11 22 +40 25.8
87	179527	B+31 3497	19 9 51 +31 11.9	5.93	–0.05	–0.3	B8 s			9.06	.33	9.68	.09				5.0	2.0			19 11 46 +31 17.0
88	179706	B+39 3676	19 10 9 +39 56.2	8.3 M	8.0 G		A0					11.59						1.0			19 11 49 +40 1.3
89	179708	B+32 3354	19 10 21 +32 10.1	7.6 M	7.3 G		A0					12.07	.15					2.0			19 12 15 +32 15.2
90	179709	B+30 3464	19 10 27 +30 15.7	7.61M			A0			10.14		11.48	.07				1.0	1.3			19 12 23 +30 20.8

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1		P	E		897 002 013 308 922
2					897 922
3					897 922
4		P			897 002 013 419 922 A07
5				W/ – 21 4850	898 A24
6		SP	4		897 A19 001 002 007 012 013 015 419 816 884 901 922 A27 A42 A31 A48 A68
7				W/CD – 2212582,12583	897 A24
8		P			897 002 013 419 922 A07
9		P		W/ – 22 4582	897 002 013 015 419 922 A07
10					897 884 901 922 A68
11				W/ – 3313341	897 508 884 901 922 A27 A31 A42 A48 A68
12			N		897 A19 884 901 922 A48
13					897 922
14					897 922
15		B0			897 A19 397 753 781 782 884 901 922 969 A42 A48
16		U5OP		VEGA	897 A19 008 009 124 172 187 367 689 781 782 783 785 884 895 901 922 933 969 A42
17			B		897 884 901 922 A48
18					897 922
19					897 A19 782 884 901 922 A42 A48
20					897 922
21		B		W/ 34 3286,B35 + B85	897 A19 002 013 629 699 884 901 922 A48 A59
22					897 922
23					897 922
24		Q			897 012 419 922 969 A07 A42
25		M		W/HD173583,A2 + A45	897 A19 699 884 901 922 A48
26		M0		W/HD173608 ,A3 + A5	897 A19 781 884 901 922 969 A48
27		SB0	PAM	W/ 37 3223, + F04	897 A19 009 010 291 392 629 753 781 884 901 921 922 948 969 A42 A48
28					897 922
29					897 922
30					897 A19 922
31		U			897 A19 397 884 901 922 A48 A66
32		P	PS4		897 002 013 474 884 901 922 A48 A59
33					897 922
34		B0P	4		897 A19 002 013 474 884 901 922 969 A48 A59
35		B			897 A19 392 781 782 884 901 922 A48
36		2P	PE	W/174639,BETA LYR,SB	897 002 013 046 047 188 193 204 285 342 440 460 676 699 718 884 901 921 922 969
37					897 922
38		P	S		897 002 013 884 901 922 A48 A59
39			A		897 A19 021 397 781 782 884 901 922 A42 A48
40		P	N		897 002 013 618 922 A07 A42
41			A		897 A19 397 884 901 922 A48
42					897 922
43		0P	B		897 002 013 618 744 884 901 922 969 A48 A59 A65
44					897 922
45		B		W/ 33 3257, + G52	897 A19 922
46					897 922
47					897 922 A07
48		P			897 002 013 419 922 A07 A42
49					897 922
50					897 922
51					897 A19 782 884 901 922 A42
52					897 922
53		P	S4		897 002 013 419 474 922 A48
54			N		897 A19 397 782 884 901 922 A42
55		S0	P		897 A19 009 010 169 765 766 781 782 783 884 901 921 922 969 A42 A48
56		UBP	S	+ SB, + A4	897 002 013 884 901 922 A07 A48 A59 A66
57					897 922
58					897 922
59		P			897 002 013 884 901 922 A48 A59
60					897 922 A07
61					897 922
62		P			897 A19 002 013 884 901 922 A42 A48 A59
63					897 922 A07
64		0P			897 002 013 419 884 901 922 969 A48 A59
65					897 922
66		P			897 002 013 922
67		BP	N4		897 002 013 474 884 901 922 A48 A59
68					897 A19 833 884 901 922 A48
69		P	N		897 002 013 922 A07
70					897 922
71					897 922
72					897 922
73		P	S4		897 002 013 474 884 901 922 A48 A59
74		P	N		897 A19 002 013 884 901 922 A42 A48 A59
75		P			897 002 013 922
76					898
77		P	S4		897 002 013 474 922 A48
78		P			897 002 013 922
79					897 922
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81					897 922
82					897 922
83					897 922
84					897 922
85					897 922
86					897 884 901 922 A48
87			PA		897 A19 753 782 884 901 922 A42 A48
88					897 922
89					897 922
90					897 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	179782	B + 35 3523	19 10 37 + 36 5.8	6.80M			A0		11.13	11.63		1.0 1.0		19 12 24 + 36 10.9
2	179909	B + 39 3682	19 11 1 + 39 24.7	8.5 M	8.1 G		A0			11.15		1.0		19 12 42 + 39 29.9
3	180163	B + 38 3490	19 12 3 + 39 3.5	4.36	−0.15	−0.65	B24'	8.22 .50	6.57 .22	6.83		2.0 2.0 1.0		19 13 45 + 39 8.7
4	180214	B + 33 3378	19 12 23 + 34 7.7	7.3 M	7.5 G		B9		9.74 .07	10.99		1.3 1.0		19 14 14 + 34 13.0
5	180501	B + 48 2858	19 13 5 + 48 37.9	7.22M			A0		9.87			1.0		19 14 27 + 48 43.2
6	180613	B + 30 3494	19 14 2 + 31 9.1	6.75M			B9		8.43 .44			2.0		19 15 57 + 31 14.5
7	180612	B + 31 3517	19 14 4 + 31 32.0	8.2 M	8.1 G		A0		10.20			1.0		19 15 59 + 31 37.4
8		B + 33 3395	19 14 50 + 33 18.6	8.9 M	9.8 G		c	9.34				1.0		19 16 42 + 33 24.0
9	180844	B + 32 3379	19 14 51 + 33 2.2	7.0 M			B5 p		8.86 .43	9.56 .62		4.0 2.0		19 16 43 + 33 7.6
10	181119	B + 30 3502	19 16 5 + 30 55.8	6.45	0.08	0.13	A35s		9.87			1.0		19 18 1 + 31 1.3
11	181163	B + 34 3490	19 16 9 + 34 40.4	8.2 M	8.0 G		A0		10.94			1.0		19 17 59 + 34 45.9
12	181226	B + 29 3550	19 16 30 + 29 51.9	8.0 M			A0		10.74			1.0		19 18 27 + 29 57.4
13	181409	B + 33 3409	19 17 11 + 33 17.8	6.59	−0.19	−0.91	B24'	8.62 .79	7.86 .11	7.72 .42		2.0 2.0 2.0		19 19 3 + 33 23.4
14	181521	B + 40 3665	19 17 18 + 40 16.0	6.70M	6.70G		A0		9.69 .13	11.33		2.0 1.0		19 18 58 + 40 21.6
15	181492	B + 31 3544	19 17 33 + 31 52.4	6.6 M			B35'		8.76 .30	9.45		3.0 1.0		19 19 27 + 31 58.0
16	181960	B + 54 2123	19 18 30 + 54 16.9	6.19M			A15		10.18	11.36		1.0 1.0		19 19 36 + 54 22.5
17	181750	B + 31 3550	19 18 31 + 32 .3	6.64M			B9		8.85 .27	9.42 .03		4.0 2.0		19 20 25 + 32 6.0
18	181828	B + 34 3503	19 18 43 + 35 5.5	6.28M	−0.11	−0.5	B73			9.53		.3		19 20 32 + 35 11.2
19	181829	B + 20 4114	19 19 8 + 20 52.0	8.1 M	7.10G		A0		9.66	10.41		1.0 1.0		19 21 18 + 20 57.7
20	182442	B + 39 3748	19 21 18 + 39 48.8	8.8 M	8.7 G		A0			12.41		1.0		19 22 59 + 39 54.7
21	182422	B + 19 4000	19 21 36 + 20 10.0	6.40	0.01		B85		9.63 .34	10.63 .12		4.0 3.0		19 23 47 + 20 15.9
22	182489	B + 18 4055	19 22 0 + 18 38.6	7.90	0.00		B85c			11.49		1.0		19 24 12 + 18 44.5
23	182691	B + 49 2994	19 22 5 + 50 10.4	6.28M	−0.08	−0.37	B93		8.60 .13	10.04		3.0 1.0		19 23 24 + 50 16.3
24	182754	B + 46 2681	19 22 37 + 46 20.4	7.3 M	7.5 G		A0		9.48			1.0		19 24 5 + 46 26.3
25	182737	B + 36 3543	19 22 44 + 37 5.3	7.8 M	7.6 G		A0			12.52		1.0		19 24 30 + 37 11.3
26	182761	B + 19 4009	19 23 12 + 20 10.3	6.30	−0.03		B95c		9.25 .18	10.14 .18		2.0 5.0		19 25 23 + 20 16.3
27	182760	B + 21 3775	19 23 18 + 21 11.4	8.6 M	8.23G		B8			11.64 .23		4.0		19 25 27 + 21 17.4
28	182919	B + 19 4015	19 24 2 + 19 59.8	5.6	−0.0	−0.06	A05s	8.65	8.68 .25	9.34 .22		1.0 6.0 4.0		19 26 13 + 20 5.9
29	182972	B + 19 4019	19 24 20 + 20 9.5	6.6	0.01		A15		9.73 .18	10.97 .16		4.0 4.0		19 26 31 + 20 15.6
30	183056	B + 36 3557	19 24 21 + 36 13.0	5.1	−0.11	−0.47	B8 s	9.67	7.52			1.0 1.0		19 26 9 + 36 19.1
31	183013	B + 21 3782	19 24 36 + 21 33.1	7.41	0.09		B24p			10.06 .29		3.0		19 26 45 + 21 39.2
32	183014	B + 20 4139	19 24 39 + 21 3.7	7.33	−0.01		B75		9.65 .27	10.38 .16		1.8 .5		19 26 49 + 21 9.8
33	234893	B + 50 2792	19 24 40 + 50 48.0	9.0 M	9.07G		B9			11.21		1.0		19 25 57 + 50 54.1
34	183058	B + 20 4142	19 24 44 + 21 2.0	7.14	0.14		B5 c		8.07	8.32 .27		1.0 2.3		19 26 54 + 21 8.1
35	183058	B + 20 4142	19 24 49 + 21 .3	7.14	0.14		B5 c		9.39 .18	9.27 .21		1.8 .5		19 26 59 + 21 6.4
36		B + 18 4082	19 24 59 + 18 36.8	9.5 M			c	9.91				1.0		19 27 12 + 18 42.9
37	183204	B + 39 3767	19 25 2 + 39 51.6	7.22M			A0		10.56			1.0		19 26 44 + 39 57.7
38	183184	B + 35 3623	19 25 4 + 35 48.3	7.5 M	7.5 G		A0		10.00			1.0		19 26 53 + 35 54.4
39	183161	B + 20 4146	19 25 10 + 20 34.0	8.05	0.30		B9			11.22 .25		3.0		19 27 20 + 20 40.1
40	350040	B + 19 4027	19 25 22 + 20 3.1	8.83	0.14		B85			12.34		1.0		19 27 33 + 20 9.3
41	183240	B + 30 3578	19 25 25 + 30 19.3	8.5 M	7.79G		A2		9.74			1.0		19 27 22 + 30 25.4
42	183261	B + 19 4028	19 25 43 + 20 8.7	6.90	−0.05		B32'		8.73 .11	8.80 .02		4.0 2.0		19 27 54 + 20 14.9
43	183362	B + 37 3465	19 25 51 + 37 50.3	6.39	−0.16	−0.74	B25'	9.27	8.01 .27	7.99		1.0 2.0 1.0		19 27 36 + 37 56.5
44	183363	B + 36 3566	19 25 53 + 36 25.6	8.0 M			A0		9.75 .29	11.31		2.0 1.0		19 27 41 + 36 31.8
45	183534	B + 52 2434	19 26 12 + 52 13.1	5.56M			A05			10.41 .08		2.0		19 27 25 + 52 19.3
46	183558	B + 47 2838	19 26 25 + 48 4.4	8.0 M	7.9 G		A5		9.44			1.0		19 27 49 + 48 10.6
47	183419	B + 18 4094	19 26 35 + 18 22.9	8.16	0.05		B64c		10.00			1.0		19 28 48 + 18 29.1
48		B + 32 3443	19 26 38 + 32 15.6	8.9 M	9.1 G			10.28				1.0		19 28 32 + 32 21.8
49	183535	B + 36 3572	19 26 51 + 36 40.5	8.4 M	8.1 G		B5		9.41 .14	10.51		3.0 1.0		19 28 38 + 36 46.7
50	183537	B + 19 4039	19 27 10 + 20 10.5	6.3	−0.09	−0.53	B55'	10.41	8.40 .11	8.72 .28		1.0 5.0 2.0		19 29 21 + 20 16.8
51	183614	B + 30 3589	19 27 11 + 30 11.6	8.3 M	7.74G		A0 s		9.97			1.0		19 29 8 + 30 17.9
52	183702	B + 35 3648	19 27 29 + 35 12.9	8.2 M	7.6 G		A0		9.81			1.0		19 29 19 + 35 19.2
53	184006	B + 51 2605	19 28 27 + 51 37.3	3.77	0.15	0.11	A55	9.72	8.12	10.39		1.0 1.0 1.0		19 29 42 + 51 43.6
54	183910	B + 31 3630	19 28 39 + 31 46.6	8.4 M	8.3 G		B9			12.41		1.0		19 30 34 + 31 53.0
55	183986	B + 35 3658	19 28 58 + 36 7.3	6.04M			B93p		8.88 .43	10.29		2.0 1.0		19 30 46 + 36 13.7
56	184057	B + 33 3487	19 29 23 + 33 21.8	6.63M			A2		10.45			1.0		19 31 16 + 33 28.2
57	184215	B + 48 2905	19 29 42 + 48 28.5	7.23M			B8		8.76 .33			2.0		19 31 6 + 48 34.9
58	184108	B + 20 4175	19 29 52 + 20 49.3	6.96	−0.02		B93c		10.17 .47	11.13		2.0 1.0		19 32 2 + 20 55.8
59	184171	B + 34 3590	19 29 55 + 34 20.7	4.73	−0.14	−0.67	B34'	9.00 .60	6.32 .41	6.20		3.0 3.0 1.0		19 31 46 + 34 27.1
60	184469	B + 39 3809	19 31 13 + 39 33.2	7.7 M	7.4 G		B9		9.46	11.09		1.0 1.0		19 32 56 + 39 39.7
61	184484	B + 33 3500	19 31 27 + 33 58.1	8.3 M	8.1 G		A0		10.01			1.0		19 33 19 + 34 4.7
62	184606	B + 19 4063	19 32 23 + 19 39.8	5.0	−0.1	−0.43	B75p	9.52 .08	7.40			2.0 1.0		19 34 35 + 19 46.4
63	184788	B + 41 3397	19 32 39 + 41 19.1	7.4 M	7.1 G		B9		10.09	11.00		1.0 1.0		19 34 19 + 41 25.7
64	184787	B + 41 3398	19 32 39 + 41 49.0	6.54M			A0		9.92			1.0		19 34 18 + 41 55.6
65	184760	B + 29 3651	19 32 52 + 29 21.1	5.32M	5.8 G				9.75			1.0		19 34 51 + 29 27.8
66	184875	B + 42 3386	19 33 3 + 42 18.1	5.35	0.05	0.09	A25		9.63			1.0		19 34 41 + 42 24.8
67	184905	B + 43 3290	19 33 9 + 43 50.1	6.61	−0.03	−0.23	A0 s			10.91		1.0		19 34 44 + 43 56.8
68	184940	B + 34 3620	19 33 30 + 34 34.6	6.98M			B8		8.95 .49	9.79		3.0 1.0		19 35 21 + 34 41.3
69	184927	B + 30 3645	19 33 35 + 31 9.9	7.4 M	7.4 G		B25'		8.86 .25	9.30		2.0 1.0		19 35 31 + 31 16.6
70	184941	B + 32 3486	19 33 38 + 32 15.9	8.2 M	8.2 G		B8		9.57 .15	10.55		3.0 1.0		19 35 33 + 32 22.6
71	185037	B + 36 3619	19 34 0 + 36 50.0	5.78M	−0.10	−0.4	B85s		8.40 .33	8.74		2.0 1.0		19 35 48 + 36 56.7
72	185015	B + 35 3700	19 34 1 + 35 37.3	8.8 M	8.9 G		A			11.02		1.0		19 35 51 + 35 44.0
73	185119	B + 33 3518	19 34 23 + 33 20.9	7.9 M	7.2 G		B8		9.14 .20	9.85		2.0 1.0		19 36 16 + 33 27.6
74	185173	B + 35 3705	19 34 32 + 35 33.9	8.2 M	7.8 G		A c		9.37			1.0		19 36 22 + 35 40.7
75	185224	B + 30 3658	19 34 54 + 30 12.7	7.9 M	7.28G		B9		9.64	10.49		1.0 1.0		19 36 52 + 30 19.5
76		B + 34 3631	19 34 56 + 35 7.8	10.16	−0.11	−0.88	B25p			11.69		1.0		19 36 47 + 35 14.6
77	185395	B + 49 3062	19 35 6 + 50 6.3	4.5	0.4	−0.03	F45'		9.81			1.0		19 36 26 + 50 13.1
78		B + 31 3685	19 35 7 + 31 56.6	8.5 M	8.5 G				10.56 .54	11.74		2.0 1.0		19 37 2 + 32 3.4
79	185268	B + 29 3670	19 35 10 + 29 13.2	6.40	−0.10	−0.51	B55'	8.74				1.0		19 37 9 + 29 20.0
80	185330	B + 38 3677	19 35 11 + 38 16.2	6.38	−0.14	−0.63	B33		8.27 .34	8.57 .00		3.0 2.0		19 36 56 + 38 23.0
81	185331	B + 30 3660	19 35 24 + 30 18.6	8.0 M	7.79G		A0			11.97		1.0		19 37 22 + 30 25.4
82	185780	B + 40 3824	19 37 26 + 40 30.7	7.47M	7.3 G		B03p		8.99 .46	9.88 .12		5.0 2.0		19 39 8 + 40 37.6
83	185755	B + 30 3677	19 37 31 + 30 17.5	7.11M			B9		9.84	10.60		1.0 1.0		19 39 29 + 30 24.5
84	185835	B + 43 3319	19 37 35 + 43 43.4	7.9 M	7.9 G		B8		10.36	11.45		1.0 1.0		19 39 10 + 43 50.4
85	185756	B + 29 3686	19 37 36 + 29 38.0	7.6 M			A0		9.61	10.88		1.0 1.0		19 39 35 + 29 45.0
86	185816	B + 37 3549	19 37 42 + 37 34.0	8.6 M	8.6 G		B9			12.50		1.0		19 39 29 + 37 41.0
87	185872	B + 42 3413	19 37 49 + 42 42.1	5.40	−0.08	−0.22	B8 s	8.90	8.27			1.0 1.0		19 39 26 + 42 49.1
88	185837	B + 33 3547	19 37 52 + 33 51.8	6.10	0.07	0.13	A25p		9.90 .17	12.02		2.0 1.0		19 39 45 + 33 58.8
89	185896	B + 31 3713	19 38 16 + 31 56.3	7.6 M	8.0 G		B9		9.93			1.0		19 40 12 + 32 3.3
90	185913	B + 34 3653	19 38 16 + 35 1.9	8.4 M	8.1 G		A0			11.19		1.0		19 40 7 + 35 8.9

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 922
2					897 922
3		UBOP	SR	W/ 38 3491,ETA LYR	897 A19 002 013 089 212 511 629 783 882 884 901 921 922 969 A42 A48 A59 A66
4					897 922
5					897 922
6					897 419 922
7					897 922
8				W/ 33 3396	897
9		P			897 002 013 419 922 A07
10			N		897 A19 782 884 901 922 A42 A48
11					897 922
12					897 922
13		P	4		897 002 013 419 474 884 901 922 A48 A59
14					897 922
15		P	4		897 002 013 419 474 922 A48
16					897 884 901 922 A48
17					897 922
18					897 A19 397 782 884 901 922 A42
19					897 922
20					897 922
21					897 A19 005 782 884 901 922 A42 A48
22				W/ 18 4056	897 A19 005 922 A42 A48
23					897 A19 884 901 922 A48
24					897 922
25					897 922
26				W/ 19 4008	897 A19 005 782 884 901 922 A42 A48
27					897 922
28			B		897 A19 005 782 815 884 901 922 A42 A48
29					897 A19 005 922 A42 A48
30			PSAB		897 A19 753 781 782 884 901 922 A42 A48
31		P			897 A19 002 005 013 922 A07 A48
32					897 A19 005 922 A42 A48
33					897 A23
34				W/ 20 4139,4141	897 A19 005 922
35				W/ 20 4141	897 A19 005 922
36				W/ 18 4081	898
37					897 377 922
38					897 922
39					897 A19 005 922
40					897 A19 005 A24 A42 A48
41					897 922
42		P	N		897 A19 002 005 013 419 922 A07 A42
43		P	EN4		897 A19 002 013 260 342 419 474 884 901 922 A48 A59
44					897 922 A07
45					897 884 901 922 A48
46					897 922
47				W/ 18 4092,4093	897 922 A42 A48
48					897
49					897 922
50		P	N		897 A19 002 005 013 419 884 901 922 A42 A48 A59
51			A		897 922 A44
52					897 922
53					897 A19 392 781 884 901 921 922 A42 A48
54					897 922
55			B		897 782 884 901 922 A42 A48
56					897 922
57					897 922
58				W/ 20 4176	897 A19 005 922 A42 A48
59		P	S		897 A19 002 013 419 504 884 901 921 922 A42 A48 A59
60					897 922
61					897 922
62			B		897 A19 005 397 782 884 901 921 922 A42
63					897 922
64					897 922
65			B	W/HD184759,F5 + A0	897 091 392 884 901 922
66					897 A19 392 781 884 901 922 A48
67			PAG		897 A19 025 026 262 753 922 948 A42
68					897 922 A07
69		P	P		897 002 013 922 A44 A48
70					897 922
71			EN		897 A19 341 397 782 884 901 922 A42 A48
72					897 922
73					897 922
74				W/ 35 3706	897 922
75					897 922
76		P			898 A19 001 002 A42
77		B	S		897 A19 338 392 884 901 921 922 A42
78					897
79		BP	N		897 A19 002 013 419 884 901 922 A48 A59
80					897 A19 397 782 884 901 922 A42
81					897 922
82		P			897 002 013 419 922 A07 A48
83					897 922 A07
84					897 922
85					897 922
86					897 922
87			B		897 A19 397 781 884 901 922
88		B			897 A19 392 782 884 901 922 A42 A48
89					897 922
90					897 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	186222	B+41 3451	19 39 36 +42 1.4	7.8 M	7.9 G		B9		9.77			1.0		19 41 15 +42 8.5
2	186200	B+38 3711	19 39 37 +38 20.4	7.5 M	7.3 G		B9		10.13 .24			2.0		19 41 23 +38 27.5
3	186254	B+40 3846	19 39 57 +40 31.5	8.7 M	8.6 G		A0			12.70		1.0		19 41 39 +40 38.6
4	186307	B+39 3878	19 40 15 +40 8.1	6.15M			A65p		9.79 .46			3.0		19 41 58 +40 15.2
5	186377	B+32 3531	19 40 49 +32 18.4	5.83M	0.19	0.21	A43		10.02			1.0		19 42 44 +32 25.6
6	186428	B+43 3331	19 40 50 +43 54.1	8.3 M	8.2 G		B9		10.28	11.80		1.0 1.0		19 42 25 +44 1.3
7	186410	B+39 3881	19 40 51 +39 54.4	7.8 M	7.7 G		A0		9.95 .00			2.0		19 42 34 +40 1.6
8	186439	B+34 3675	19 41 8 +34 18.1	8.0 M	7.8 G		A0		10.80 .42	12.56		2.0 1.0		19 43 0 +34 25.3
9	186454	B+35 3764	19 41 11 +35 20.4	8.0 M	7.9 G		A0 c			11.70 .17		2.0		19 43 2 +35 27.6
10	186465	B+40 3856	19 41 14 +40 36.1	6.72M			A0		9.61			1.0		19 42 56 +40 43.3
11	186441	B+29 3710	19 41 16 +30 6.7	7.3 M	7.07G		A0		10.01			1.0		19 43 15 +30 13.9
12	186505	B+39 3885	19 41 21 +39 52.6	6.94M			A5		10.06			1.0		19 43 4 +39 59.8
13	186618	B+46 2765	19 41 54 +47 7.5	7.6 M	7.7 G		B05*		8.86	8.55		1.0 1.0		19 43 23 +47 14.7
14	186568	B+33 3572	19 41 58 +34 2.5	6.05	−0.06	−0.30	B83p		7.73			1.0		19 43 51 +34 9.7
15	186605	B+37 3582	19 42 1 +38 12.1	6.97M			B8		8.79 .33			3.0		19 43 47 +38 19.3
16		B+40 3869	19 43 17 +40 19.8	9.5 M					10.97			1.0		19 45 0 +40 27.1
17	186777	B+31 3752	19 43 20 +31 18.1	7.37	−0.03	−0.39	B5 *		9.60	10.55		1.0 1.0		19 45 17 +31 25.4
18	186882	B+44 3234	19 43 25 +45 .5	2.87	−0.03	−0.09	A03p	8.59 .46	6.65	6.86		2.0 1.0 1.0		19 44 58 +45 7.8
19	186929	B+30 3729	19 44 2 +30 14.5	8.7 M	8.49G		A0		10.56			1.0		19 46 1 +30 21.9
20	186994	B+44 3236	19 44 4 +44 50.5	7.3 M	7.4 G		B03*		8.48 .13	9.40		2.0 1.0		19 45 38 +44 57.9
21	186978	B+40 3870	19 44 6 +40 25.9	7.8 M	7.3 G		B8		9.92	10.19		1.0 1.0		19 45 48 +40 33.3
22	186996	B+39 3905	19 44 11 +39 45.9	7.4 M	7.0 G		B9		9.34 .34	10.54		3.0 1.0		19 45 55 +39 53.3
23	186980	B+31 3765	19 44 20 +31 59.6	7.5	0.07	−0.84	O83*		9.13 .06	10.80		2.0 1.0		19 46 16 +32 7.0
24	187037	B+34 3706	19 44 35 +34 55.1	8.5 M	8.0 G		A3		9.92	11.02		1.0 1.0		19 46 27 +35 2.5
25	187074	B+29 3740	19 44 51 +29 24.7	8.4 M	7.87G		A0 s		9.87			1.0		19 46 51 +29 32.1
26	187139	B+43 3358	19 45 0 +43 38.3	8.3 M	8.3 G		B8		10.87			1.0		19 46 36 +43 45.7
27	187161	B+30 3739	19 45 19 +30 42.9	7.62	−0.09	−0.38	B9		9.37			1.0		19 47 17 +30 50.4
28	332701	B+29 3744	19 45 27 +29 19.5	8.8 M	8.68G		A s			12.08		1.0		19 47 27 +29 27.0
29	187192	B+30 3744	19 45 29 +30 53.1	8.2 M	8.2 G		A0 s		10.27	11.69		1.0 1.0		19 47 27 +31 .6
30	187255	B+27 3517	19 46 2 +27 34.7	7.55	−0.03		A0		9.63			1.0		19 48 4 +27 42.2
31	187279	B+31 3779	19 46 2 +31 22.8	6.65M			A0		9.98			1.0		19 47 59 +31 30.3
32	225849	B+35 3809	19 46 4 +35 14.4	8.8 M	8.5 G		B8			12.19		1.0		19 47 55 +35 21.9
33	332691	B+29 3748	19 46 5 +29 44.1	8.6 M	8.42G		B9 c		10.18			1.0		19 48 4 +29 51.6
34	187399	B+29 3754	19 46 42 +29 16.6	7.6 M	7. G		B71s		10.09	12.00		1.0 1.0		19 48 42 +29 24.2
35	187459	B+33 3602	19 46 56 +33 18.7	6.46	0.20	−0.74	B01*		9.26 .18			2.0		19 48 50 +33 26.3
36	187613	B+44 3261	19 47 25 +44 15.2	6.82M	8.1 P		B8 p		9.72 .68	11.08 .38		2.0 2.0		19 49 0 +44 22.8
37	187767	B+53 2303	19 47 51 +53 38.4	6.85M			B8		8.94			1.0		19 49 4 +53 46.0
38	187640	B+28 3493	19 47 53 +28 18.8	6.38	−0.1	−0.50	B33s		8.13			1.0		19 49 54 +28 26.4
39	187688	B+32 3589	19 48 8 +32 30.8	8.14	−0.01	−0.82	B8			11.08		1.0		19 50 4 +32 38.5
40	187711	B+29 3767	19 48 17 +29 53.4	8.5 M	8.48G		A2		10.39			1.0		19 50 16 +30 1.1
41	187750	B+30 3769	19 48 28 +30 38.3	7.9 M			A0		10.28 .22	12.01		2.0 1.0		19 50 26 +30 46.0
42	187879	B+40 3902	19 48 54 +40 28.3	5.68	−0.04	−0.78	B14*	9.09	8.21 .04	7.62		1.0 2.0 1.0		19 50 37 +40 36.0
43	187851	B+27 3534	19 49 2 +27 35.3	7.74	0.13	−0.63	B25*		9.82			1.0		19 51 5 +27 43.0
44	188036	B+31 3813	19 50 1 +31 28.4	7.6 M	7.6 G		A0		10.14	12.26		1.0 1.0		19 51 58 +31 36.2
45	188035	B+31 3814	19 50 3 +31 34.7	7.5 M	7.8 G		A0		10.12	12.09		1.0 1.0		19 52 0 +31 42.5
46	188209	B+46 2793	19 50 29 +46 53.9	5.62	−0.1	−0.96	O91s	8.68	7.18	6.91		1.0 1.0 1.0		19 51 59 +47 1.7
47	188252	B+47 2939	19 50 39 +47 48.1	5.68M	−0.04		B23p	9.17 .31	7.35 .14	6.89		2.0 2.0 .3		19 52 7 +47 55.9
48	188170	B+28 3513	19 50 49 +28 51.7	7.32	−0.07		A0		9.53 .34	10.47		2.0 1.0		19 52 50 +28 59.5
49	188360	B+47 2943	19 51 9 +47 58.5	7.7 M	8.0 G		A0		10.42			1.0		19 52 37 +48 6.3
50	188257	B+28 3515	19 51 17 +28 23.1	8.12	0.02		A3		9.93	11.88		1.0 1.0		19 53 19 +28 31.0
51	188439	B+47 2945	19 51 32 +47 40.6	6.30	−0.10	−0.86	B03*	9.48 .27	7.66 .00	7.59		2.0 2.0 .3		19 53 1 +47 48.5
52	333015	B+28 3518	19 51 47 +28 34.7	9.0 M	8.75G		A0			12.43		1.0		19 53 48 +28 42.6
53	188418	B+34 3778	19 51 54 +34 27.1	6.82M			A0		9.08 .36	9.68 .08		2.0 2.0		19 53 47 +34 35.0
54	226417	B+34 3781	19 52 8 +34 19.6	8.7 M	8.7 G		B9			12.47		1.0		19 54 1 +34 27.5
55	188665	B+57 2084	19 52 16 +57 23.5	5.12	−0.13	−0.55	B55p		7.19	7.15		1.0 1.0		19 53 17 +57 31.4
56	188503	B+30 3804	19 52 21 +30 34.3	7.8 M	8.1 G		B83			11.97 .12		2.0		19 54 20 +30 42.2
57	188793	B+59 2137	19 52 42 +59 34.6	6.01M			A25s		9.62	10.73		1.0 1.0		19 53 35 +59 42.5
58	188651	B+29 3802	19 53 7 +30 3.7	6.5	−0.1	−0.5	B55p			8.77		1.0		19 55 7 +30 11.7
59	188876	B+32 3634	19 54 12 +32 56.4	7.4 M	7.2 G		A0		8.99			1.0		19 56 8 +33 4.4
60	189037	B+52 2572	19 54 20 +52 18.3	4.91	0.13	0.06	A35p		9.44			1.0		19 55 38 +52 26.3
61	189013	B+46 2812	19 54 23 +46 57.4	6.84M			A2		10.01			1.0		19 55 54 +47 5.4
62	189065	B+48 2984	19 54 28 +49 3.7	8.2 M	8.1 G		B9		10.24	12.28		1.0 1.0		19 55 54 +49 11.7
63	188948	B+32 3637	19 54 32 +32 59.1	8.41	−0.02	−0.31	B9		10.06			1.0		19 56 28 +33 7.2
64	188992	B+32 3641	19 54 48 +32 39.3	8.3 M	8.3 G		A0		10.36			1.0		19 56 44 +32 47.4
65	189086	B+30 3820	19 55 9 +30 38.5	6.93	−0.02		A0		10.08	10.83		1.0 .3		19 57 8 +30 46.6
66	189107	B+30 3826	19 55 12 +30 43.3	8.4 M	7.5 G		B85		10.41	11.15		1.0 .3		19 57 11 +30 51.4
67	189160	B+43 3422	19 55 13 +44 8.2	7.9 M	8.1 G		A0 s		10.62			1.0		19 56 50 +44 16.3
68	189253	B+50 2930	19 55 23 +50 46.0	6.22M			A15		9.25			1.0		19 56 45 +50 54.1
69	189213	B+28 3546	19 55 53 +28 44.3	7.6 M	7.16G		A75		11.27			1.0		19 57 55 +28 52.5
70	189335	B+34 3813	19 56 20 +34 17.2	7.63	−0.05	−0.39	B9		10.02	10.51		1.0 1.0		19 58 14 +34 25.4
71	189316	B+28 3553	19 56 22 +28 51.1	8.1 M	7.47G		B95		9.93	11.92		1.0 1.0		19 58 23 +28 59.3
72	189395	B+30 3837	19 56 39 +30 50.8	5.49	−0.1	−0.2	B93			8.14		1.0		19 58 38 +30 59.0
73	189432	B+37 3703	19 56 46 +37 58.1	6.30	−0.08	−0.51	B54*		7.66	8.94 .08		1.0 2.0		19 58 34 +38 6.3
74	189474	B+35 3895	19 56 59 +35 21.6	6.78M			A0		9.84			1.0		19 58 51 +35 29.8
75	189529	B+33 3676	19 57 18 +33 55.2	8.94	−0.01	−0.35	B9			12.22		1.0		19 59 12 +34 3.4
76	189596	B+32 3658	19 57 40 +32 45.4	7.54	−0.11	−0.44	B9		9.67			1.0		19 59 36 +32 53.7
77	189684	B+45 3025	19 57 46 +45 38.1	5.90	0.18	0.18	A53		9.97			1.0		19 59 20 +45 46.4
78	333263	B+29 3836	19 57 50 +29 36.6	9.2 M			B75		10.99			1.0		19 59 51 +29 44.9
79	189775	B+51 2728	19 57 56 +51 55.1	6.14	−0.19	−0.66	B53*	9.00	8.59 .09	7.53		1.0 2.0 1.0		19 59 15 +52 3.4
80	189818	B+57 2106	19 58 0 +57 40.3	7.08M			B3 p		8.66 .30	8.39		4.0 1.0		19 59 2 +57 48.6
81	189687	B+36 3806	19 58 5 +36 54.3	5.20	−0.17	−0.68	B35*	9.20 .39	7.61	6.91 .05		3.0 1.0 3.0		19 59 55 +37 2.6
82	189690	B+29 3838	19 58 15 +29 46.9	7.26M			A05p		10.60	11.65		.3 1.0		20 0 15 +29 55.2
83	189706	B+29 3839	19 58 19 +29 41.0	7.5 M	7.55G		B95		10.23	11.13		1.0 1.0		20 0 19 +29 49.3
84	189778	B+34 3833	19 58 31 +34 19.5	8.4 M	8.0 G		A0			11.57		1.0		20 0 25 +34 27.8
85	189732	B+23 3868	19 58 35 +23 39.6	7.7 M	6.96G		B9			9.99		1.0		20 0 43 +23 47.9
86	189779	B+29 3844	19 58 37 +29 45.0	8.23	0.10	−0.63	B23p		11.00	11.64		.3 1.0		20 0 37 +29 53.3
87	189864	B+36 3816	19 58 54 +36 27.0	6.7	−0.06	−0.44	B9		8.51 .11	9.22 .35		2.0 2.0		20 0 45 +36 35.3
88	189917	B+43 3449	19 59 0 +44 4.2	10.3 M	10.4 G		A2			11.44		1.0		20 0 37 +44 12.5
89	189901	B+37 3723	19 59 10 +37 33.6	7.99	−0.02	−0.72	B5 c		9.60 .24	10.45 .11		2.0 3.0		20 0 59 +37 42.0
90	189982	B+37 3727	19 59 31 +37 50.7	7.78	−0.04		A0			11.14 .21		3.0		20 1 20 +37 59.1

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 922
2					897 922
3					897 922
4		B			897 884 901 922 A48
5					897 A19 392 782 884 901 922 A42 A48
6					897 922
7					897 922
8					897 922
9				W/ 35 3763	897 922
10					897 922
11					897 922
12					897 922
13		P	N		897 002 013 922 A48 A63
14		B			897 A19 782 884 901 922 A42 A48
15					897 922
16					898
17		P	S		897 A19 002 013 922 A07
18		SOP			897 A19 367 377 689 781 783 785 884 901 921 922 969 A42 A48
19					897 922
20		P	R		897 002 012 013 350 922 A42 A63
21					897 922
22					897 922
23		P	R		897 A19 001 002 012 013 015 336 350 419 922 A07 A42 A58 A76
24					897 922
25			A		897 922 A44
26					897 922
27					897 A19 922
28			A		897 A24 A44
29			A		897 922 A44
30					897 A19 922 A07
31					897 922
32					897 A23
33				W/HD332690	897 A21 A24
34			ENY		897 012 015 342 651 922 A07 A42
35			OP NCR		897 A19 001 002 012 013 015 350 419 531 884 901 922 969 A42 A48 A59
36			B		897 922 A07
37					897 922
38			B		897 A19 397 782 884 901 922 A42
39					897 A19 922
40					897 922
41					897 922
42			2P Y	V380 CYG, SB	897 002 012 013 212 419 723 884 901 922 969 A42 A48 A59
43			P N		897 A19 001 002 012 015 922 A42
44					897 922
45					897 922
46			PSR		897 A19 002 012 013 190 336 350 419 882 883 884 901 921 922 A42 A48 A58 A59 A76
47			SOP		897 001 002 005 013 212 419 884 901 922 969 A42 A48
48					897 A19 922
49					897 922
50					897 A19 922
51			5P PN	V819 CYG	897 A19 002 012 013 212 419 884 901 922 969 A42 A48 A59
52					897 A24
53					897 922
54					897 A23
55			UP		897 A19 002 013 884 901 922 A42 A43 A48 A59
56					897 922 A42 A48
57			B		897 884 901 922 A48
58			B		897 A19 397 782 884 901 922 A42 A48
59					897 922 A07
60			B		897 A19 699 781 884 901 921 922 A42 A48
61					897 922
62					897 922
63					897 A19 922
64					897 922
65					897 A19 922
66					897 922 A42 A48
67			A		897 753 922 A42
68					897 884 901 922 A48
69					897 922 A42 A48
70					897 A19 922
71					897 922 A42 A48
72					897 A19 397 781 782 884 901 922 922 A42
73			BP S		897 A19 002 013 884 901 922 A48 A59
74					897 922
75					898 A19 922
76					897 A19 922
77					897 A19 392 884 901 922 A48
78					898 A24 A42 A48
79			P N		897 002 013 884 901 922 A48 A59
80			P		897 002 013 922 A07
81			P EB		897 A19 002 013 260 341 419 884 901 922 A42 A48 A59
82			O		897 922 A07 969 A42 A48
83					897 922 A07 A42 A48
84					897 922
85					897 922
86			P		897 A19 001 002 012 015 419 922 A07 A42 A48
87					897 A19 922
88					898 922
89				W/ 37 3725	897 A19 922
90					897 A19 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	190025	B + 42 3562	19 59 33 + 42 54.3	7.29M	7.4 G		B5 '		8.95			1.0		20 1 13 + 43 2.7
2	189944	B + 24 3975	19 59 37 + 24 39.6	5.72M	−0.11	−0.5	B54			8.44		1.0		20 1 44 + 24 48.0
3	190046	B + 39 4007	19 59 43 + 40 9.6	7.6 M	7.8 G		A0			12.03		1.0		20 1 28 + 40 18.0
4	190088	B + 38 3869	19 59 58 + 38 35.7	8.4 M	7.7 G		A0		9.96	11.14		1.0 1.0		20 1 45 + 38 44.1
5	190114	B + 34 3847	20 0 9 + 35 11.5	7.45	−0.09		B85c		9.57 .09			2.0		20 2 2 + 35 19.9
6	190397	B + 57 2115	20 0 43 + 57 30.7	7.7 M	7.4 G		A0		9.42	10.28		1.0 1.0		20 1 46 + 57 39.1
7	227310	B + 37 3734	20 0 52 + 38 15.2	6.92	0.28		B24			12.69		1.0		20 2 40 + 38 23.7
8	190427	B + 45 3044	20 1 21 + 45 50.7	8.6 M	8.4 G		B03			11.54		1.0		20 2 55 + 45 59.2
9	190429	B + 35 3930	20 1 37 + 35 53.0	6.6	0.2	−0.80	O5 '		8.83	9.78 .00		1.0 2.0		20 3 29 + 36 1.5
10	190549	B + 37 3748	20 2 15 + 37 33.9	9.05	−0.06		B33		10.17	12.14		1.0 1.0		20 4 4 + 37 42.4
11	190570	B + 36 3848	20 2 16 + 37 2.4	8.4 M	8.1 G		B95			11.84		1.0		20 4 6 + 37 11.0
12	190675	B + 41 3599	20 2 44 + 42 3.3	7.9 M	7.9 G		B8			11.59		1.0		20 4 26 + 42 11.9
13	190864	B + 35 3949	20 3 47 + 35 27.8	7.40	0.20	−0.74	'		9.54 .18	10.60		3.0 .3		20 5 40 + 35 36.4
14	190944	B + 46 2846	20 3 52 + 46 31.7	8.5 M	8.7 G		B15'			12.28		1.0		20 5 25 + 46 40.3
15	190919	B + 35 3952	20 4 3 + 35 31.7	7.33	0.22	−0.64	B11'		9.96	10.94		1.0 .3		20 5 56 + 35 40.4
16	190918	B + 35 3953	20 4 5 + 35 38.6	6.79	0.15	−0.77	WN5'		8.87 .08	9.10		3.0 .3		20 5 58 + 35 47.3
17	190991	B + 39 4033	20 4 15 + 39 55.2	8.22	0.14	−0.78	B04'			12.19		1.0		20 6 1 + 40 3.9
18	191024	B + 38 3905	20 4 33 + 38 26.7	8.3 M	7.9 G		B92c			11.70		1.0		20 6 21 + 38 35.4
19	227696	B + 35 3964	20 4 42 + 35 35.8	8.29	0.21	−0.64	B03'			11.75		1.0		20 6 35 + 35 44.5
20	190993	B + 23 3896	20 4 44 + 23 28.1	5.07	−0.18	−0.69	B35p		6.77			1.0		20 6 53 + 23 36.8
21	191139	B + 35 3966	20 5 6 + 36 15.1	7.9	0.21	−0.68	B03'		10.19			1.0		20 6 58 + 36 23.8
22	227767	B + 35 3969	20 5 26 + 35 26.0	8.9	0.02	−0.77	B13'		10.22	10.87		1.0 .3		20 7 19 + 35 34.7
23	191201	B + 35 3970	20 5 31 + 35 34.3	7.3	0.13	−0.79	B03'		9.83	10.45 .09		1.0 1.3		20 7 24 + 35 43.1
24		B + 42 3594	20 5 36 + 42 52.1	8.7 M	9.2 G					12.41		1.0		20 7 17 + 43 .9
25	191243	B + 34 3881	20 5 46 + 34 16.6	6.1	0.16	−0.5	B51			10.31 .12		2.0		20 7 41 + 34 25.4
26	239326	B + 56 2353	20 5 47 + 57 13.7	8.8 M	8.86G		B3		10.21	11.91		1.0 1.0		20 6 52 + 57 22.4
27	191333	B + 43 3495	20 5 56 + 43 51.7	8.2 M	8.3 G		A0		9.94	11.76		1.0 1.0		20 7 35 + 44 .5
28	191291	B + 34 3882	20 6 2 + 34 57.5	8.12	−0.06	−0.43	B63		9.67	11.02		1.0 1.0		20 7 56 + 35 6.3
29	191423	B + 42 3599	20 6 25 + 42 27.6	8.03	0.16	−0.77	O95p			12.06		1.0		20 8 6 + 42 36.4
30	191396	B + 37 3783	20 6 30 + 37 59.0	8.13	0.25	−0.66	B02'		10.14 .21	11.09 .01		3.0 2.0		20 8 19 + 38 7.8
31	191609	B + 57 2144	20 6 42 + 57 39.2	7.04M			A0		9.86	11.79		1.0 1.0		20 7 46 + 57 48.0
32	191456	B + 36 3896	20 6 44 + 36 31.5	7.	0.1	−0.74	B03		9.53 .39	10.20 .30		2.0 3.3		20 8 35 + 36 40.3
33	191473	B + 36 3900	20 6 55 + 37 5.4	8.57	0.10		B04		11.30	12.07 .21		1.0 3.0		20 8 46 + 37 14.2
34	191495	B + 35 3987	20 7 0 + 35 21.9	8.3	0.08	−0.80	B05'		10.00	11.18		1.0 1.0		20 8 53 + 35 30.7
35	191529	B + 39 4054	20 7 2 + 39 39.1	7.26M			B8			9.96		1.0		20 8 48 + 39 47.9
36	191530	B + 33 3765	20 7 16 + 33 46.3	7.9	0.01	−0.35	B92			11.37		1.0		20 9 12 + 33 55.2
37	191566	B + 35 3994	20 7 21 + 35 20.2	7.39	0.16		B14'		9.66	10.64		1.0 1.0		20 9 14 + 35 29.1
38	191610	B + 36 3907	20 7 34 + 36 41.5	4.9	−0.2	−0.7	B35'	8.15 .08	7.12 .34	6.47 .16		3.0 3.0 2.0		20 9 25 + 36 50.4
39	191612	B + 35 3995	20 7 35 + 35 35.1	7.8	0.3	−0.7	B25'			11.37		1.0		20 9 28 + 35 44.0
40	191940	B + 61 1975	20 8 9 + 61 55.7	6.57M			A0			11.59 .03		2.0		20 8 56 + 62 4.6
41	191765	B + 35 4001	20 8 22 + 36 1.7	8.1	0.0	−0.5	WN6p		10.24	10.43		1.0 1.0		20 10 14 + 36 10.6
42	191872	B + 44 3368	20 8 32 + 44 52.1	7.57M			B8 p			11.14 .35		2.0		20 10 9 + 45 1.0
43	191812	B + 33 3778	20 8 39 + 33 29.1	7.76	0.06		B95c			11.06		1.0		20 10 35 + 33 38.0
44	191811	B + 33 3781	20 8 42 + 33 42.4	8.1 M	7.8 G		B95			10.32 .05		2.0		20 10 38 + 33 51.4
45	228101	B + 37 3804	20 8 46 + 37 18.6	8.44	0.07	−0.65	B15'			11.66 .28		2.0		20 10 36 + 37 27.6
46	191917	B + 35 4006	20 9 4 + 35 48.2	7.81	0.13	−0.68	B15'		9.95 .08	10.95		2.0 1.0		20 10 57 + 35 57.2
47	191977	B + 42 3624	20 9 12 + 42 56.9	7.7 M	7.6 G		B8			11.82		1.0		20 10 53 + 43 5.9
48		B + 35 4008	20 9 27 + 35 20.6	9.3 M	9.6 G		B3			11.84		1.0		20 11 21 + 35 29.6
49	192039	B + 41 3644	20 9 34 + 41 48.6	8.6 M	8.9 G		B04			12.49		1.0		20 11 17 + 41 57.6
50	192122	B + 40 4056	20 9 56 + 41 14.5	8.2 M	7.9 G		B8		9.61	10.35		1.0 1.0		20 11 40 + 41 23.5
51	192103	B + 35 4013	20 10 1 + 36 2.8	8.1	0.03	−0.4	WC7p		10.01 .01	10.85		2.0 1.0		20 11 54 + 36 11.8
52	192143	B + 39 4075	20 10 1 + 40 10.8	7.02M			B9		9.48 .20	10.31 .06		2.0 2.0		20 11 47 + 40 19.8
53	228263	B + 37 3819	20 10 12 + 37 29.9	9.43	0.16	−0.61	B15'			12.22		1.0		20 12 2 + 37 38.9
54	192163	B + 37 3821	20 10 17 + 38 12.2	7.51	−0.02	−0.4	WN6'		10.34			1.0		20 12 6 + 38 21.2
55	192276	B + 47 3045	20 10 32 + 47 35.2	6.55M	−0.12	−0.46	B8		9.04	10.18		1.0 1.0		20 12 4 + 47 44.3
56	192281	B + 39 4082	20 10 47 + 40 7.0	7.55	0.38	−0.61	O6 '			12.36		1.0		20 12 33 + 40 16.1
57	192513	B + 59 2195	20 11 7 + 59 59.9	7.9 M	7.74G		A0		9.90	11.83		1.0 1.0		20 12 3 + 60 9.0
58	192321	B + 33 3807	20 11 8 + 34 2.3	8.27	0.05		A25c			11.93		1.0		20 13 4 + 34 11.4
59	192381	B + 40 4060	20 11 11 + 40 34.2	8.1 M	7.9 G		A0			12.61		1.0		20 12 56 + 40 43.3
60	192445	B + 35 4026	20 11 40 + 36 10.6	7.2	−0.08	−0.76	B03'	9.72	9.02 .05	9.30		1.0 3.0 1.0		20 13 33 + 36 19.7
61	192496	B + 43 3528	20 11 44 + 43 39.5	7.7 M	7.7 G		A0			12.29		1.0		20 13 24 + 43 48.6
62	192514	B + 46 2881	20 11 44 + 46 39.8	4.83	0.10	0.15	A33p		9.36 .02	11.44		1.3 .3		20 13 18 + 46 48.9
63	192579	B + 46 2883	20 12 5 + 46 33.6	6.99	−0.14	−0.60	B55'		7.86	7.29		1.0 .3		20 13 39 + 46 42.7
64	192538	B + 36 3949	20 12 12 + 36 27.1	6.39	0.00	−0.02	A03c		9.79 .06	10.82 .01		2.0 2.0		20 14 4 + 36 36.3
65	192696	B + 56 2376	20 12 14 + 56 24.8	4.28	0.12	0.09	A34'		8.52			1.0		20 13 23 + 56 33.9
66	192517	B + 29 3948	20 12 17 + 30 1.5	6.94M			B05p			8.97 .08		2.0		20 14 18 + 30 10.7
67	192659	B + 41 3668	20 12 38 + 41 57.0	6.66	−0.03	−0.3	B8 p		8.79 .09	10.42		2.0 1.0		20 14 21 + 42 6.2
68	192641	B + 36 3956	20 12 39 + 36 30.5	7.92	0.27	−0.4	'			11.79		1.0		20 14 31 + 36 39.7
69	192639	B + 36 3958	20 12 39 + 37 12.0	7.12	0.34	−0.62	O8 '		10.36 .29	11.48		2.0 1.0		20 14 30 + 37 21.2
70	192640	B + 36 3955	20 12 40 + 36 39.1	4.9	0.2	0.0	A23s		8.74 .08	11.50		2.0 1.0		20 14 32 + 36 48.3
71	192782	B + 54 2313	20 12 56 + 54 35.5	8.7 M	8.64G		A2			12.05		1.0		20 14 11 + 54 44.7
72	192698	B + 30 3959	20 13 7 + 30 28.0	8.3 M	8.6 G		A0 s			11.52		1.0		20 15 8 + 30 37.2
73	192802	B + 47 3054	20 13 12 + 47 17.2	7.7 M	6.9 G		B9		9.58 .22	10.98		2.0 1.0		20 14 45 + 47 26.4
74	228553	B + 36 3964	20 13 18 + 37 6.8	8.78	0.05		B24			11.81		1.0		20 15 9 + 37 16.0
75	192786	B + 42 3651	20 13 19 + 42 44.3	7.8 M	8.0 G		B9			12.50		1.0		20 15 1 + 42 53.5
76	192803	B + 40 4077	20 13 23 + 41 8.7	7.6 M	7.7 G		A0			12.00		1.0		20 15 8 + 41 17.9
77	192866	B + 45 3113	20 13 40 + 45 35.2	6.90M			A3		9.28 .02			2.0		20 15 17 + 45 44.4
78	192805	B + 30 3966	20 13 41 + 30 35.3	8.8 M	8.3 G		A0			11.30 .14		2.0		20 15 42 + 30 44.6
79	192981	B + 59 2206	20 13 51 + 59 28.3	8.5 M	8.62G		A2		10.35	12.22		1.0 1.0		20 14 50 + 59 37.5
80	192910	B + 47 3059	20 13 55 + 47 33.6				'		9.34	10.85		1.0 1.0		20 15 28 + 47 42.9
81	192934	B + 38 3977	20 14 14 + 38 44.6	6.3	0.01	0.00	B95s		9.46 .13	10.76		4.0 1.0		20 16 3 + 38 53.9
82	192968	B + 40 4086	20 14 28 + 40 48.5	7.9 M	7.6 G		B15'		9.23	10.12		1.0 1.0		20 16 14 + 40 57.8
83	192987	B + 36 3978	20 14 36 + 36 54.1	6.45	−0.08	−0.42	B54'		8.65 .16	9.48 .11		3.0 3.0		20 16 28 + 37 3.4
84	192990	B + 35 4047	20 14 45 + 35 18.8	7.13	−0.03		B94c		9.81 .27	10.75 .03		2.0 2.0		20 16 39 + 35 28.1
85	193010	B + 31 4020	20 14 55 + 31 21.0	6.83M			A0			10.80		1.0		20 16 55 + 31 30.3
86	193034	B + 33 3837	20 15 0 + 33 59.1	7.8 M	7.6 G		B9		9.92	10.66		1.0 1.0		20 16 56 + 34 8.4
87	193063	B + 39 4113	20 15 1 + 39 32.5	8.2 M			B95		10.04 .24	11.57		2.0 1.0		20 16 49 + 39 41.8
88	193064	B + 35 4048	20 15 7 + 35 48.1	7.64	−0.03		A0		10.37 .53	11.93		3.0 1.0		20 17 1 + 35 57.4
89	193091	B + 42 3666	20 15 10 + 42 42.9	8.7 M	8.6 G		A			12.52		1.0		20 16 52 + 42 52.2
90	193159	B + 40 4093	20 15 26 + 40 26.1	7.22M			B8		9.89	11.53		1.0 1.0		20 17 12 + 40 35.5

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1		P	P		897 002 013 419 922 A07
2					897 A19 397 782 884 901 922 A42 A42
3					897 922
4					897 922
5				W/ 34 3850	897 A19 922 A42 A48
6					897 922
7					898 A19 A23 A42
8					897 922 A48
9		B	PER	W/ 35 3929	897 A19 012 015 350 419 713 A07 922 A42 A48 A58 A76
10					897 A19 922 A42
11					897 798 922 A07 A42
12					897 922
13		BP	E	W/ 35 3948.06 + B	897 A19 001 002 012 013 015 336 350 419 713 798 830 883 922 A07 A42 A58 A76
14		P	PEN		897 002 013 342 922 A48 A63
15		P	4	W/ 35 3951	897 A19 015 474 922 A42 A67 A63
16		MP	P4	W/ 35 3955,3956,3957	897 A19 002 012 419 922 A07 A42 A48
17		P	P		897 A19 001 002 012 015 922 A42
18				W/ 38 3907	897 798 922 A42
19		2P		V453 CYG	897 366 419 798 830 969 A07 A23 A42
20		UP			897 A19 002 013 419 884 892 901 922 A42 A43 A48 A59
21		P	4R		897 A19 002 012 013 015 350 474 798 830 922 A42 A63
22		P		W/ 35 3968	898 A19 002 013 798 830 A07 A23 A42
23		BP	4R		897 A19 002 012 013 015 350 419 474 798 922 A07 A42 A58
24					897
25					897 A19 012 015 089 397 782 884 901 922 A42
26					897 A23
27					897 922
28					897 A19 798 830 922 A42 A48
29		P			897 A19 001 002 012 015 336 922 A42 A63
30		P		W/ 37 3784	897 A19 001 002 012 015 798 922 A42 A63
31					897 922
32					897 A19 012 015 798 922 A42 A63
33					897 A19 012 798 922 A42 A63
34		P	R		897 A19 002 012 013 350 419 922 A42 A48 A63
35					897 922
36					897 A19 922 A42 A48
37		BP	PR	W/HD191567,CS	897 A19 001 002 012 350 419 798 922 A07 A42
38		P	PEN4	W/ 36 3909	897 A19 002 013 260 342 419 504 785 816 884 901 921 922 A42 A48 A59
39		P	R		897 A19 002 012 013 015 350 419 798 830 922 A07 A42
40					897 922
41		0			897 A19 006 652 754 830 922 936 961 969 A07 A42 A48
42		0			897 922 969
43				W/ 33 3780	897 922 A42 A48
44					897 419 922 A42 A48
45		P		W/ 37 3805	897 A19 001 015 798 A23 A42
46		P	R		897 A19 002 012 013 350 419 798 830 922 A07 A42 A63
47					897 922
48					898 419
49					897 922 A63
50					897 922
51		OP			897 A19 001 002 006 652 735 754 922 936 961 969 A42 A48
52					897 922
53		P	P		897 A19 001 002 012 015 749 798 A23 A42
54		0	E		897 A19 922 969 A42 A48
55					897 A19 397 884 901 922
56		P	ER	W/ 39 4081	897 A19 001 002 012 013 015 336 350 419 883 922 A07 A42 A58 A76
57					897 922
58				W/ 33 3809	897 A19 922 A42 A48
59					897 922
60		P	EN4		897 A19 002 013 260 342 419 474 798 922 A07 A42
61					897 922
62		BOP			897 A19 392 781 785 884 901 921 922 969 A42 A48
63		BO		W/ 46 2882, + K22 + B35	897 A19 922 969
64				W/ 36 3946,3947	897 A19 392 782 798 884 901 922 A42 A48
65		UP	B		897 A19 392 781 785 884 901 921 922 A42 A43 A48
66		P			897 002 013 419 922 A48
67		B			897 A19 397 884 901 922
68		OP	C	WC6 + BO	897 A19 002 006 023 652 754 922 936 961 969 A07 A42 A48
69		P	ER		897 A19 001 002 012 013 015 336 350 419 713 798 883 922 A07 A42 A58 A76
70			PA		897 A19 346 753 781 782 798 884 901 921 922 A42 A48
71					897 922
72			A		897 922 A44
73					897 922
74					897 A19 798 A23 A42
75					897 922
76					897 922
77					897 922
78					897 922
79					897 922
80		2		W;HD192909,OMIC2 CYG	897 A19 312 609 884 901 921 922 969
81			P		897 A19 782 798 884 901 922 A42 A48
82		P	EN		897 002 013 922 A48 A63
83		P	N	W/ 36 3976	897 A19 002 013 419 798 884 901 922 A42 A48 A59
84				W; 35 4045	897 A19 798 922 A42
85					897 922
86					897 922
87					897 922 A48
88					897 A19 922
89					897 922
90					897 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	193182	B+39 4115	20 15 37 +39 26.3	6.52	−0.09	−0.18	A01*		8.97 .14	9.68 .42		2.0 1.3		20 17 25 +39 35.7
2	193237	B+37 3871	20 15 57 +37 52.6	4.82	0.41	−0.58	B1 *		9.33 .18	9.80		4.0 1.0		20 17 47 +38 2.0
3	193238	B+32 3773	20 16 2 +33 2.1	8.0 M	7.8 G		B9			10.67 .41		2.0		20 18 0 +33 11.5
4	193322	B+40 4103	20 16 21 +40 34.5	5.83	0.11	−0.78	O8 *		8.54	8.70		1.0 1.0		20 18 7 +40 43.9
5	193369	B+36 3998	20 16 36 +36 50.5	5.56	0.07	0.03	A3S*		9.23 .42	10.74 .23		4.0 3.0		20 18 28 +36 59.9
6	193486	B+42 3685	20 17 8 +42 34.4	8.7 M	8.4 G		A			12.69		1.0		20 18 51 +42 43.9
7	193592	B+54 2329	20 17 11 +55 14.4	5.73	0.10	0.03	A2S*		9.50 .14	11.10 .06		2.0 2.0		20 18 25 +55 23.8
8	193536	B+45 3139	20 17 13 +46 9.9	6.46	−0.09	−0.66	B25p	9.99	7.97 .39	8.77 .17		1.0 4.0 2.0		20 18 49 +46 19.4
9	193553	B+29 3992	20 17 47 +29 34.1	6.64M			B8			9.30		1.0		20 19 49 +29 43.6
10	193612	B+37 3889	20 17 51 +37 33.8	8.64	−0.06		A03			12.38		1.0		20 19 42 +37 43.3
11	193621	B+36 4008	20 17 56 +36 58.4	6.6	−0.02		A04		10.01	11.29 .23		1.0 2.0		20 19 48 +37 7.9
12	193633	B+40 4121	20 17 59 +40 58.8	7.18	0.02		B9			11.73		1.0		20 19 45 +41 8.3
13	193722	B+46 2910	20 18 21 +46 40.7	6.18M	−0.06	−0.38	B9 s		9.19	10.63 .44		1.0 2.0		20 19 56 +46 50.2
14	193702	B+38 4021	20 18 26 +39 14.7	6.22	0.1	0.08	A25p		9.85			1.0		20 20 15 +39 24.2
15	193683	B+31 4042	20 18 31 +31 51.9	7.4 M	7.1 G		B3 *			9.91		1.0		20 20 30 +32 1.4
16	193736	B+34 3978	20 18 44 +35 5.6	8.5 M	7.9 G		B9		9.73 .29	10.65		2.0 1.0		20 20 39 +35 15.2
17	193793	B+43 3571	20 18 47 +43 41.7	6.88	0.4	−0.3	*			10.89		1.0		20 20 28 +43 51.3
18	193814	B+37 3897	20 18 58 +38 5.8	7.58	−0.06		B8S			11.25		1.0		20 20 49 +38 15.4
19	193838	B+42 3702	20 18 59 +42 24.7	8.6 M	8.3 G		A0 c		10.00			1.0		20 20 42 +42 34.3
20	193926	B+43 3576	20 19 32 +43 25.8	7.9 M	7.6 G		A0		10.45	12.09		1.0 1.0		20 21 14 +43 35.4
21	194175	B+60 2117	20 20 2 +60 53.0	8.5 M	8.5 G		A2			12.56		1.0		20 20 57 +61 2.6
22	194092	B+40 4137	20 20 19 +40 49.5	8.26	0.13	−0.73	B03p			11.38		1.0		20 22 5 +40 59.2
23	194096	B+34 3995	20 20 36 +34 49.8	6.84	0.04		A0		10.16			1.0		20 22 32 +34 59.5
24	194194	B+40 4139	20 20 58 +40 33.2	8.3 M	7.9 G		B23		9.88	10.84		1.0 1.0		20 22 45 +40 42.9
25	194206	B+38 4051	20 21 8 +39 3.0	6.73	−0.11		B8Sp			9.56		1.0		20 22 57 +39 12.7
26	194240	B+42 3718	20 21 8 +42 33.5	8.6 M	8.1 G		A		10.31	12.17		1.0 1.0		20 22 51 +42 43.2
27	194282	B+31 4061	20 21 41 +31 30.9	8.0 M	7.8 G		B9			11.13 .03		2.0		20 23 41 +31 40.6
28	194335	B+37 3916	20 21 52 +37 18.8	5.91	−0.21	−0.81	B25*	9.21	7.41 .45	7.06 .27		1.0 2.0 2.0		20 23 44 +37 28.5
29	194357	B+36 4051	20 21 55 +36 51.8	6.67M	6.8 G		B9 3			11.51 .12		2.0		20 23 48 +37 1.5
30	194423	B+46 2927	20 22 3 +46 21.9	8.8 M	8.5 G		B8		9.91 .08	11.47 .26		3.0 1.3		20 23 40 +46 31.6
31	194424	B+39 4166	20 22 14 +39 22.7	8.2 M	7.4 G		B94			11.86		1.0		20 24 3 +39 32.5
32	194467	B+37 3922	20 22 26 +37 24.8	8.02	−0.01		B95		10.85	12.06		1.0 1.0		20 24 18 +37 34.6
33	194480	B+38 4074	20 22 36 +38 48.1	8.3 M	7.8 G		A2			10.09		1.0		20 24 26 +38 57.9
34	194614	B+48 3117	20 23 3 +48 31.8	7.9 M	8.0 G		B8		9.83	11.04 .04		1.0 2.0		20 24 35 +48 41.6
35	194668	B+53 2397	20 23 12 +53 23.3	6.43M	0.01	−0.14	B93		9.81			1.0		20 24 33 +53 33.1
36	194786	B+59 2224	20 23 32 +60 7.4	8.4 M	8.51G		A0			12.68		1.0		20 24 31 +60 17.2
37	194670	B+39 4178	20 23 40 +39 37.8	7.1 M	7.2 G		B8S			10.63		1.0		20 25 29 +39 47.7
38	194861	B+59 2227	20 23 52 +60 11.4	8.0 M	8.02G		A0			12.36		1.0		20 24 51 +60 21.2
39	194882	B+59 2228	20 24 3 +59 26.2	6.43M			A3S*		10.07 .28	12.29		2.0 1.0		20 25 5 +59 36.1
40	194883	B+54 2348	20 24 15 +54 31.2	7.37	−0.04	−0.66	B25*		9.38 .19	10.32		2.0 1.0		20 25 33 +54 41.1
41	194789	B+39 4186	20 24 16 +40 14.2	6.66	−0.11		B8		8.55			1.0		20 26 4 +40 24.1
42	194840	B+36 4072	20 24 44 +36 25.4	8.4 M	8.2 G		A0			11.60 .29		2.0		20 26 38 +36 35.3
43	194885	B+39 4192	20 24 54 +39 19.8	7.09	−0.09		A0 c			9.90		1.0		20 26 43 +39 29.7
44	194908	B+39 4193	20 24 55 +40 10.9	7.8 M	7.2 G		B9		9.58			1.0		20 26 43 +40 20.8
45	194863	B+29 4038	20 24 56 +30 12.3	7.4 M	7.00G		A0		9.96			1.0		20 26 58 +30 22.2
46	195066	B+56 2421	20 25 11 +56 28.4	6.21	0.02	0.00	A14*		9.37			1.0		20 26 23 +56 38.3
47	195015	B+43 3609	20 25 25 +43 54.8	8.1 M	7.9 G		A0		9.86	11.82		1.0 1.0		20 27 7 +44 4.7
48	195033	B+42 3752	20 25 31 +42 58.9	7.2 M	7.4 G		B9		9.99			1.0		20 27 14 +43 8.9
49	195050	B+37 3941	20 25 43 +38 16.5	5.6	0.1	0.08	A3S		9.10	11.14 .30		1.0 2.0		20 27 34 +38 26.5
50	195089	B+41 3758	20 25 51 +41 52.1	7.32	−0.02		B24p		9.50	10.11		1.0 1.0		20 27 36 +42 2.1
51	195102	B+33 3914	20 26 6 +33 43.3	6.99	−0.04		B9		9.72 .12	10.85 .05		2.0 2.0		20 28 4 +33 53.3
52		B+37 3945	20 26 26 +38 11.4	9.53	0.77	−0.17	B02*			11.39 .10		2.0		20 28 17 +38 21.4
53	195228	B+47 3114	20 26 33 +48 4.9	8.1 M	8.3 G		A0			12.27		1.0		20 28 7 +48 14.9
54	195229	B+41 3765	20 26 44 +41 50.6	7.66	0.16	−0.71	B13p		9.86	11.15		1.0 1.0		20 28 30 +42 .6
55	195134	B+12 4348	20 26 47 +12 30.8	6.87M			B9			10.68		1.0		20 29 9 +12 40.8
56	195391	B+59 2240	20 26 58 +59 34.0	7.3 M	7.72G		A0			11.88		1.0		20 28 0 +59 44.0
57	195322	B+45 3191	20 27 9 +45 33.1	7.5 M	7.4 G		B9		9.80 .01			2.0		20 28 48 +45 43.1
58	195356	B+39 4210	20 27 34 +39 55.9	8.15	−0.03		A0			11.61		1.0		20 29 23 +40 6.0
59	195394	B+38 4114	20 27 43 +38 26.4	8.5 M	8.3 G		A0 c			11.59 .00		2.0		20 29 34 +38 36.5
60	195393	B+38 4116	20 27 43 +38 46.4	8.4 M	8.5 G		B8 c		10.37	11.26		1.0 1.0		20 29 34 +38 56.5
61	195406	B+37 3952	20 27 51 +37 57.4	8.3 M			B65p		9.60 .10	10.68 .06		2.0 3.0		20 29 43 +38 7.5
62	195325	B+10 4303	20 27 54 +10 43.6	5.92M	0.02	−0.1	A0 *		9.13			1.0		20 30 17 +10 53.7
63	195463	B+45 3195	20 28 5 +45 19.6	8.7 M	8.7 G		B5		9.82			1.0		20 29 45 +45 29.7
64	195478	B+44 3486	20 28 11 +44 19.1	8.1 M	7.8 G		B9			11.66		1.0		20 29 53 +44 29.2
65	195554	B+55 2411	20 28 12 +55 54.0	5.86M	−0.04	−0.25	B95*		8.91	9.38		1.0 1.0		20 29 27 +56 4.1
66	195464	B+37 3953	20 28 14 +37 26.7	8.7 M	8.4 G		A0			11.68		1.0		20 30 7 +37 36.8
67	195557	B+48 3141	20 28 31 +48 28.4	7.5 M	7.5 G		A0		10.94			1.0		20 30 4 +48 38.5
68	195556	B+48 3142	20 28 31 +48 47.0	4.95	−0.08	−0.63	B25p	9.20	7.83	7.23		1.0 1.0 1.0		20 30 4 +48 57.1
69	195508	B+37 3955	20 28 32 +37 19.4	8.6 M	8.7 G		A5			11.59		1.0		20 30 25 +37 29.5
70	195725	B+62 1821	20 28 45 +62 49.5	4.21	0.20	0.15	A64s		8.35			1.0		20 29 35 +62 59.6
71	195483	B+10 4307	20 28 50 +11 5.5	6.36M			B85*		9.26			1.0		20 31 13 +11 15.7
72	195629	B+39 4219	20 29 14 +40 15.4	7.1 M	7.2 G		B9		9.50	10.70 .17		1.0 2.0		20 31 3 +40 25.6
73	195689	B+39 4221	20 29 37 +39 46.1	7.54	0.05		A0			12.38		1.0		20 31 26 +39 56.3
74	195746	B+41 3789	20 29 48 +42 2.0	8.56	−0.03		A			12.23		1.0		20 31 34 +42 12.2
75	195788	B+44 3499	20 29 59 +45 .1	8.4 M	7.7 G		A0		10.04			1.0		20 31 40 +45 10.3
76	195852	B+55 2416	20 30 2 +55 35.9	8.3 M	8.12G		A0			11.85		1.0		20 31 18 +55 46.1
77	195789	B+36 4113	20 30 8 +37 12.4	8.5 M	7.9 G		B9		10.37	10.86		1.0 1.0		20 32 1 +37 22.6
78		B+47 3131	20 30 19 +48 10.0	8.6 M	8.8 G					11.87		1.0		20 31 53 +48 20.2
79	195917	B+55 2419	20 30 20 +56 11.1	7.9 M	7.28G		B9			11.44		1.0		20 31 34 +56 21.3
80	195810	B+10 4321	20 30 49 +11 7.9	4.03	−0.13	−0.48	B63p	8.50	6.59			1.0 1.0		20 33 12 +11 18.2
81	195965	B+47 3136	20 30 51 +48 2.7	6.98	−0.05	−0.90	B05p		8.64 .23	8.87 .09		2.0 4.0		20 32 26 +48 13.0
82	195918	B+38 4138	20 30 53 +39 6.0	8.2 M	8.0 G		B9			11.32 .16		3.0		20 32 44 +39 16.3
83	196017	B+53 2433	20 30 56 +53 59.1	7.48M			B9		9.84			1.0		20 32 17 +54 9.4
84	195907	B+31 4126	20 31 4 +31 29.1	7.82	0.03	−0.74	B15s		9.62	10.56		1.0 1.0		20 33 5 +31 39.4
85	195985	B+44 3503	20 31 6 +44 48.5	7.50M	7.4 G		B5 p		9.27	10.65		1.0 1.0		20 32 47 +44 58.8
86	195986	B+42 3778	20 31 8 +43 1.2	6.63	−0.12	−0.57	B43*		7.88 .22	8.46		2.0 1.0		20 32 52 +43 11.5
87	195990	B+39 4232	20 31 17 +39 41.7	8.3 M	7.8 G		A0			12.18 .06		2.0		20 33 7 +39 52.0
88	196006	B+32 3862	20 31 30 +32 44.2	7.08M	7.1 G		B25*			9.05 .18		2.0		20 33 30 +32 54.5
89	196094	B+34 4079	20 31 57 +35 4.7	4.6	1.59	0.8	*		9.48 .26	9.94		4.0 1.0		20 33 54 +35 15.0
90	196133	B+44 3505	20 31 58 +45 .2	6.70	0.04		A0 s		9.62			1.0		20 33 39 +45 10.5

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1		SP	PEY		897 A19 001 002 012 015 341 922 963 A42 A48
2		16P	PESY4	P CYG	897 001 002 012 013 015 407 474 759 882 883 884 895 921 922 968 969 A42 A48 A59
3					897 922
4		BP	P4		897 A19 002 012 013 015 336 419 816 882 883 884 901 921 922 A42 A48 A58 A59 A76
5			B	W/ 36 4001	897 A19 782 798 884 901 922 A42 A48
6					897 922
7		B	S	SB	897 A19 338 884 901 922 A48
8		0P			897 A19 002 013 419 884 901 922 969 A42 A48 A59
9					897 922
10					897 A19 798 922 A42 A48
11					897 A19 782 798 884 901 922 A42 A48
12					897 A19 922
13			A		897 A19 397 753 884 901 922 A48
14		B			897 A19 338 782 884 901 922 A42 A48
15		P	S		897 002 013 419 922 A07
16					897 922
17		BP	E	WC6 + O6	897 A19 002 006 012 015 023 419 652 654 922 936 961 A42
18					897 A19 798 922 A42 A48
19				W/ 42 3699,3700	897 922
20					897 922
21					897 922
22		P			897 A19 001 002 012 015 922 A42 A63
23					897 A19 922
24					897 012 015 922 A42 A63
25		BP			897 A19 001 002 012 015 798 922 A42
26					897 922
27					897 922
28		P	PENB		897 A19 002 013 260 342 377 419 798 884 901 922 A42 A48 A59
29					897 253 798 922 A42 A48
30					897 922
31					897 798 922 A42 A48
32					897 A19 798 922 A42 A48
33					897 922
34					897 922
35					897 A19 397 884 901 922 A48
36					897 922
37					897 798 922 A42
38					897 922
39		B		SB	897 884 901 922 A48
40		P	E4		897 A19 002 013 260 342 419 474 922 A07 A48
41					897 A19 922
42					897 922
43				W/ 38 4088	897 A19 922
44					897 922
45					897 922
46		B		W/ 56 2422,SB, + A25	897 A19 629 884 901 922 A48
47					897 922
48					897 922
49					897 A19 781 782 884 901 922 A42 A48
50		P			897 A19 013 419 922 A07 A48
51					897 A19 922
52			N	W/ 37 3944	898 A19 001 002 012 015 A42
53					897 922
54		P			897 A19 001 002 012 015 922 A63
55					897 922
56					897 922
57					897 922
58					897 A19 922
59				W/ 38 4113	897 922
60				W/ 38 4111	897 922
61		B			897 922 A48
62		B	PEAY		897 A19 268 337 782 884 901 922 963 A42 A48
63					897 922
64					897 922
65		B	EN		897 A19 341 397 884 901 922 A48
66					897 922
67					897 922
68		BP			897 A19 002 013 419 511 884 901 921 922 A42 A48 A59
69					897 922
70			AMB		897 A19 291 392 753 781 884 901 921 922 A42 A48
71		B		W/HD195482	897 884 901 922 A07 A48
72					897 922
73					897 A19 922
74					897 A19 922
75					897 922
76					897 922
77					897 922
78					897
79					897 922
80		U0P			897 A19 002 008 013 512 783 882 883 884 901 921 922 969 A42 A48 A59 A61 A66
81		P			897 A19 001 002 012 013 015 419 922 A42
82					897 922
83					897 922
84			E		897 A19 014 260 342 795 922 A48
85		P			897 002 013 419 922 A07
86		P	S		897 A19 002 013 884 901 922 A48 A59
87					897 922
88		P	S4		897 002 013 419 474 922 A07 A48
89		B		W/HD196093,B55 + K21	897 A19 091 884 901 921 922 A42
90			A		897 A19 753 922 A42

	HD	DM	R.A. (1950) DEC	V	B-V	U-B	S-L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	196120	B + 34 4081	20 32 4 + 34 30.4	6.62M			B8			8.61	.25	9.26	.08				2.0	2.0			20 34 1 + 34 40.7
2	196178	B + 46 2977	20 32 16 + 46 31.3	5.78	−0.16	−0.54	B9 s	9.94		7.89	.01	8.53	.19			1.0	2.0	2.0			20 33 54 + 46 41.6
3	196196	B + 45 3217	20 32 19 + 46 14.6	7.67	−0.04		B9			10.46		11.94					1.0	1.0			20 33 58 + 46 24.9
4	196407	B + 61 2028	20 32 59 + 61 34.2	6.90M			A0					11.87	.38					2.0			20 33 55 + 61 44.6
5	196305	B + 41 3814	20 33 9 + 41 32.7	7.6 M	7.3 G		B9			9.34		10.62					1.0	1.0			20 34 56 + 41 43.1
6	196421	B + 57 2219	20 33 23 + 57 45.3	8.2 M	7.79G		B24p			9.95							1.0				20 34 33 + 57 55.7
7	196566	B + 61 2031	20 34 12 + 61 51.4	8.5 M	8.8 G		B9					12.07						1.0			20 35 8 + 62 1.8
8	196522	B + 39 4252	20 34 46 + 40 18.3	8.02	−0.01		A0			9.99		11.13					1.0	1.0			20 36 35 + 40 28.8
9	196607	B + 30 4105	20 35 26 + 30 55.5	8.4 M	8.3 G		A0			10.49		11.22					1.0	1.0			20 37 28 + 31 6.0
10	196605	B + 31 4158	20 35 27 + 31 52.8	7.5 M	7.8 G		A0			10.10							1.0				20 37 28 + 32 3.3
11	196805	B + 61 2037	20 35 28 + 61 50.4	8.1 M	7.9 G		A0			10.02	.32	11.26	.19				2.0	2.0			20 36 24 + 62 .9
12	196606	B + 31 4159	20 35 30 + 31 23.8	6.22	−0.09	−0.40	B8 4			8.55		9.59					1.0	1.0			20 37 32 + 31 34.3
13	196687	B + 42 3803	20 35 37 + 42 48.9	7.3 M	7.1 G		B9			9.10		10.34					1.0	1.0			20 37 22 + 42 59.4
14	196808	B + 47 3153	20 36 15 + 47 46.1	8.7 M			A0					12.16						1.0			20 37 51 + 47 56.7
15	196809	B + 44 3524	20 36 22 + 44 24.9	8.6 M	8.5 G		A2					12.40						1.0			20 38 5 + 44 35.5
16	196832	B + 46 2993	20 36 27 + 46 42.6	8.2 M	7.8 G		B9			9.79		10.93					1.0	1.0			20 38 6 + 46 53.2
17	196833	B + 43 3672	20 36 32 + 44 9.4	6.69	−0.14		B8			8.70	.29	9.27	.22				2.0	3.0			20 38 15 + 44 20.0
18	197036	B + 45 3233	20 37 42 + 45 29.4	6.61	−0.07	−0.56	B35			8.56							1.0				20 39 23 + 45 40.1
19	197018	B + 40 4266	20 37 43 + 40 24.1	6.06	−0.2	−0.55	B8 p	9.23		8.24		7.94				1.0	1.0	1.0			20 39 33 + 40 34.8
20	197118	B + 46 3001	20 38 7 + 47 10.0	7.4 M	7.8 G		A0			10.06	.16	11.92					2.0	1.0			20 39 45 + 47 20.7
21	197161	B + 44 3538	20 38 33 + 44 35.6	8.4 M	7.9 G		A0					12.15						1.0			20 40 16 + 44 46.3
22	197119	B + 30 4134	20 38 34 + 31 10.8	8.3 M	8.1 G		A2			10.48							1.0				20 40 36 + 31 21.5
23	197204	B + 40 4276	20 39 4 + 41 1.4	7.02	−0.08		B9			9.47							1.0				20 40 53 + 41 12.1
24	197226	B + 38 4187	20 39 8 + 38 54.2	6.51	−0.1	−0.51	B64			8.76	.38	9.15	.03				5.0	2.0			20 41 0 + 39 4.9
25	197308	B + 54 2396	20 39 12 + 54 55.7	7.2 M	7.15G		A0			9.63	.22	10.45					2.0	1.0			20 40 32 + 55 6.4
26	197293	B + 35 4217	20 39 37 + 35 33.1	8.3 M	8.0 G		B9			9.98	.19	10.78					3.0	1.0			20 41 34 + 35 43.9
27	197345	B + 44 3541	20 39 44 + 45 6.1	1.3	0.09	−0.24	A21	8.11	.37	6.19		6.59				2.0	1.0	1.0			20 41 26 + 45 16.9
28	197374	B + 43 3687	20 39 52 + 43 39.2	8.3 M			B95s					12.45						1.0			20 41 37 + 43 50.0
29	197392	B + 41 3856	20 40 8 + 41 32.2	5.67	−0.11	−0.46	B8 s	10.12		7.92	.38	8.02	.12			1.0	4.0	2.0			20 41 56 + 41 43.0
30	197419	B + 34 4127	20 40 25 + 35 16.6	6.68	−0.16	−0.68	B25			8.10	.59	8.00	.35				5.0	2.0			20 42 22 + 35 27.4
31	197559	B + 42 3839	20 41 8 + 42 59.8	8.44	−0.04		A					12.01						1.0			20 42 54 + 43 10.6
32	197549	B + 33 4003	20 41 15 + 33 39.0	8.0 M	7.6 G		A0			9.80	.12						.5				20 43 15 + 33 49.9
33	197561	B + 33 4004	20 41 24 + 33 41.3	7.8 M	7.3 G		A0			9.57	.03						.5				20 43 24 + 33 52.2
34	197621	B + 44 3553	20 41 34 + 44 45.2	8.8 M	8.5 G		B95					11.74						1.0			20 43 17 + 44 56.1
35	197734	B + 60 2154	20 41 36 + 60 25.2	6.03M			A14			9.45	.04	11.85					2.0	1.0			20 42 40 + 60 36.1
36	197770	B + 56 2477	20 41 58 + 56 56.0	6.32	0.33	−0.48	B24					10.71						1.0			20 43 13 + 57 6.9
37	197679	B + 41 3868	20 42 1 + 41 39.6	7.7 M	8.4 G		A					12.32						1.0			20 43 49 + 41 50.5
38	197795	B + 54 2408	20 42 8 + 55 6.6	7.61M			B9			9.20	.03	10.39					2.0	1.0			20 43 29 + 55 17.5
39	197702	B + 31 4204	20 42 24 + 31 30.8	8.2 M	8.1 G		B15s					11.24						1.0			20 44 26 + 31 41.7
40	197911	B + 62 1854	20 42 28 + 63 1.7	7.7 M			B5 p					10.46						1.0			20 43 22 + 63 12.6
41	197961	B + 45 3258	20 43 40 + 46 10.3	6.73	−0.02		A14c			9.67	.22	11.86	.01				3.0	2.0			20 45 21 + 46 21.3
42		B + 35 4258	20 44 14 + 35 21.6	9.43	0.01	−0.74	B05					12.85						1.0			20 46 12 + 35 32.6
43	198056	B + 31 4217	20 44 45 + 32 14.1	7.2 M	7.1 G		B9			9.79	.16						2.0				20 46 47 + 32 25.2
44	198151	B + 45 3270	20 44 58 + 46 20.9	6.34	0.00		A35p			9.80	.27	11.61	.02				3.0	2.0			20 46 39 + 46 32.0
45	198108	B + 31 4220	20 45 6 + 31 59.2	7.7 M	7.6 G		A0 c			10.05	.03						2.0				20 47 8 + 32 10.3
46	235364	B + 54 2417	20 45 20 + 54 36.8	9.0 M	9.69G		A0					12.41						1.0			20 46 43 + 54 47.9
47	198195	B + 41 3884	20 45 22 + 42 13.5	7.06M			B93p			9.61	.27	10.88					2.0	1.0			20 47 10 + 42 24.6
48	198183	B + 35 4267	20 45 28 + 36 18.4	4.52	−0.12	−0.49	B55	8.21	.59	6.91		6.24				2.0	1.0	1.0			20 47 25 + 36 29.5
49	198378	B + 55 2468	20 46 11 + 55 23.1	7.71M			B9			10.09							1.0				20 47 32 + 55 34.2
50		B + 35 4272	20 46 38 + 35 43.5	9.0 M	9.0 G							12.03						1.0			20 48 36 + 35 54.7
51	198414	B + 44 3590	20 46 43 + 45 16.0	7.68	−0.11		B73p			9.68		10.65					1.0	1.0			20 48 26 + 45 27.2
52		B + 35 4277	20 46 49 + 35 54.1	9.2 M	9.0 G		B2					11.31						1.0			20 48 46 + 36 5.3
53	198424	B + 38 4239	20 47 7 + 38 40.7	7.50	−0.12	−0.42	A0			9.57	.22	10.77					2.0	1.0			20 49 1 + 38 51.9
54	198436	B + 39 4331	20 47 8 + 39 36.3	7.57	−0.03	−0.24	A0 p					11.49						1.0			20 49 0 + 39 47.5
55	198513	B + 51 2957	20 47 12 + 51 43.4	6.22M	−0.07	−0.57	B85			8.26	.01	9.01					2.0	1.0			20 48 42 + 51 54.6
56	198478	B + 45 3291	20 47 14 + 45 55.7	4.8	0.40	−0.46	B31			9.33	.15	10.20					2.0	1.0			20 48 56 + 46 6.9
57	198480	B + 42 3873	20 47 20 + 42 46.1	7.4 M	7.3 G		B8			9.85	.34	11.38	.08				3.0	2.0			20 49 8 + 42 57.3
58	198567	B + 35 4286	20 48 0 + 36 8.5	8.5 M	8.3 G		B8			9.66	.22	10.16					2.0	1.0			20 49 57 + 36 19.7
59	198625	B + 46 3067	20 48 13 + 46 28.4	6.34	−0.07	−0.58	B45	9.03		8.54	.22	8.51				1.0	2.0	1.0			20 49 54 + 46 39.6
60	198739	B + 61 2057	20 48 16 + 62 20.6	8.1 M	8.0 G		B8					11.63	.45					2.0			20 49 15 + 62 31.8
61	198639	B + 43 3739	20 48 18 + 43 52.2	5.05	0.20	0.12	A5			9.78	.28						4.0				20 50 4 + 44 3.4
62	198781	B + 63 1663	20 48 25 + 63 51.3	6.45	0.07	−0.77	B05			8.78							1.0				20 49 17 + 64 2.5
63	198690	B + 41 3909	20 48 51 + 42 11.6	7.2 M	7.1 G		B8					10.70						1.0			20 50 40 + 42 22.9
64	198793	B + 56 2495	20 48 59 + 56 36.6	7.01M			B8			9.26	.04	9.73	.12				2.0	2.0			20 50 17 + 56 47.9
65	198784	B + 37 4076	20 49 35 + 37 48.1	6.97M			B25p					10.65						1.0			20 51 30 + 37 59.4
66		B + 46 3076	20 49 38 + 46 26.1	9.1 M	9.4 G		A75c	9.89								1.0					20 51 20 + 46 37.4
67	198820	B + 32 3974	20 49 58 + 32 39.6	6.40	−0.12	−0.64	B33			8.56							1.0				20 52 0 + 32 50.9
68	198846	B + 34 4184	20 50 4 + 34 28.1	7.1 M	7.2 G					8 50							1.0				20 52 4 + 34 39.4
69	198915	B + 46 3081	20 50 15 + 46 32.7	7.50	−0.05		B45p			9.36	.07	10.66					2.0	1.0			20 51 57 + 46 44.0
70	199067	B + 54 2433	20 50 57 + 54 51.7	6.70M			A2			10.57		12.05					1.0	1.0			20 52 21 + 55 3.1
71	199136	B + 56 2504	20 51 23 + 56 23.7	7.1 M	7.17G		B8			9.27	.03	9.91	.05				2.0	3.0			20 52 43 + 56 35.1
72	199081	B + 43 3755	20 51 29 + 44 11.8	4.78	0.15	−0.58	B55	9.14	.57	7.24	.39					2.0	2.0				20 53 15 + 44 23.2
73	199099	B + 41 3922	20 51 37 + 42 13.2	6.68	0.05		A15			9.65							1.0				20 53 26 + 42 24.6
74	199122	B + 40 4346	20 51 48 + 40 51.5	7.4 M	7.5 G		A2			9.74	.09	10.93					2.0	1.0			20 53 39 + 41 2.9
75		B + 36 4308	20 52 8 + 36 50.0	9.4 M								12.29						1.0			20 54 5 + 37 1.4
76	199206	B + 44 3624	20 52 21 + 44 55.2	7.35	0.03		B82p			10.20		11.47					1.0	1.0			20 54 6 + 45 6.7
77	199218	B + 40 4354	20 52 30 + 40 30.7	6.70	0.07	−0.42	B6			9.12		9.98					1.0	1.0			20 54 22 + 40 42.2
78	199308	B + 55 2486	20 52 31 + 56 10.3	7.61M			B25p					10.69						1.0			20 53 52 + 56 21.8
79	199331	B + 56 2509	20 52 40 + 56 59.1	7.26M			A0					12.09						1.0			20 53 59 + 57 10.6
80	199234	B + 36 4314	20 52 45 + 36 52.9	7.24M			B9					11.37						1.0			20 54 42 + 37 4.4
81	199309	B + 47 3220	20 52 56 + 47 32.9	8.68	0.04		B74					12.61						1.0			20 54 36 + 47 44.4
82	199311	B + 45 3326	20 52 57 + 46 2.4	6.7	0.1	0.09	A25s			9.91							1.0				20 54 40 + 46 13.9
83	199312	B + 44 3628	20 53 0 + 44 56.7	8.1 M	7.8 G		B91			10.08		11.54					1.0	1.0			20 54 45 + 45 8.2
84	199355	B + 41 3932	20 53 28 + 42 19.3	6.89M			B5			8.75							1.0				20 55 17 + 42 30.8
85	199479	B + 43 3766	20 54 12 + 44 10.9	6.80	−0.04		B95			9.50	.06						2.0				20 55 59 + 44 22.5
86	199511	B + 42 3911	20 54 23 + 43 13.9	6.79M			B8			9.01	.12	9.33					3.0	1.0			20 56 11 + 43 25.5
87	199496	B + 35 4332	20 54 25 + 36 11.1	7.2 M	7.5 G		A0					11.65						1.0			20 56 23 + 36 22.7
88	199578	B + 50 3232	20 54 38 + 50 52.9	6.32M	−0.10	−0.51	B9			8 52							1.0				20 56 12 + 51 4.5
89		B + 35 4333	20 54 41 + 36 8.7	9.1 M			A2					12.23						1.0			20 56 39 + 36 20.3
90	199713	B + 65 1518	20 54 42 + 65 29.7	7.25M			B9					10.97	.19					2.0			20 55 29 + 65 41.3

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 922
2			PA		897 A19 397 753 884 901 922 A42 A48
3					897 A19 922
4					897 922
5					897 922
6		P			897 002 013 922 A63
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17					897 A19 922
18		P	N4		897 A19 002 013 419 474 884 901 922 A48 A59
19		B			897 A19 397 884 901 922
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24					897 A19 397 782 884 901 922 A42 A48
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26					897 922
27		SB0P	PE		897 A19 002 008 009 012 013 045 342 367 712 781 783 785 884 895 921 969 A42 A48
28			P		898 922 A42 A48
29			B		897 A19 397 884 901 922
30		3P	ES4	V568 CYG	897 002 013 260 337 419 474 756 884 901 922 969 A42 A48 A59
31					897 A19 922
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34					897 922 A42 A48
35					897 884 901 922 A48
36		P	SB4		897 A19 001 002 013 212 419 474 531 884 901 922 A42 A48 A59
37					897 922
38					897 922 A07
39			E		897 002 013 922 A48 A63
40		P			897 002 013 922
41				W, 45 3260	897 A19 922 A42 A48
42		P	N		898 A19 001 002 012 014 015 A42
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44		B			897 A19 922 A42 A48
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47		B			897 922 A07 A48
48		UBP	EN	SB	897 A19 002 013 342 512 783 785 883 884 901 921 922 A42 A48 A49 A59
49					897 922
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51		0			897 A19 922 969 A07 A42 A48
52					898 014 A21
53					897 A19 922
54		B			897 A19 922 A07
55		B	PN		897 A19 397 884 901 922 A48
56		0P	ER		897 A19 001 015 169 260 342 350 373 419 504 531 728 785 816 921 969 997 A42 A48
57					897 922 A07
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59					897 A19 002 013 419 884 901 922 A42 A48 A59
60					897 922
61		P	M		897 A19 392 781 785 884 901 922 A48
62		P	N		897 A19 001 002 012 013 884 901 922 A42 A48 A59
63					897 922 A07
64					897 922
65		P			897 002 013 419 922 A07 A48
66				W 46 3072,3075	897 A42 A48
67					897 A19 922 A42 A48 A59
68		24P	N	Y CYG, B04 + B04	897 002 012 013 127 248 366 419 883 901 922 965 969 A07 A42 A58
69		P			897 A19 785 922 A07 A42 A48
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72		0P	B4		897 A19 002 013 419 474 512 785 882 883 884 901 921 922 969 A42 A48 A59
73					897 A19 884 901 922 A48
74					897 922
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76		B			897 A19 922 A07 A42 A48
77		BP	EN4		897 A19 002 013 260 342 397 419 474 884 901 922
78		P			897 002 013 922 A48 A63
79					897 922
80					897 922 A07
81					897 A19 815 922 A42 A48
82			AM		897 A19 005 253 749 815 922 A42 A48
83					897 253 922 A42 A48
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88					897 A19 397 884 901 922
89					898 A21
90					897 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	199579	B+44 3639	20 54 49 +44 43.9	5.95	0.04	−0.85	O6 *		8.43 .34	10.63		2.0 1.0		20 56 35 +44 55.5
2	199661	B+56 2515	20 54 57 +56 41.7	6.23	−0.17	−0.69	B25*	9.50	8.39	7.46		1.0 1.0 1.0		20 56 17 +56 53.3
3	199629	B+40 4364	20 55 18 +40 58.4	3.93	0.02	0.00	A05*		7.37	8.99 .23		1.0 2.0		20 57 10 +41 10.0
4	199694	B+39 4382	20 55 41 +39 28.1	7.50M			B9		9.30 .44	11.60 .30		3.0 1.3		20 57 35 +39 39.7
5		B+48 3252	20 55 47 +48 41.9	9.4 M				8.70				1.0		20 57 26 +48 53.5
6		B+38 4298	20 56 4 +38 22.7	9.3 M				9.59				1.0		20 58 0 +38 34.4
7	199890	B+47 3240	20 56 34 +47 25.4	7.50	−0.09		B84		9.29			1.0		20 58 15 +47 37.1
8	199892	B+41 3949	20 56 40 +41 44.7	6.16	−0.07	−0.47	B73		8.33			1.0		20 58 31 +41 56.4
9	199955	B+49 3426	20 56 54 +50 16.0	5.61	−0.14	−0.52	B75*		7.91	7.97		1.0 1.0		20 58 30 +50 27.7
10	199987	B+35 4344	20 57 24 +36 14.0	8.0 M	7.9 G		B9		10.23	11.96		1.0 1.0		20 59 23 +36 25.7
11	200030	B+41 3956	20 57 34 +42 7.7	6.48	−0.08		B9		8.62 .28	9.81		3.0 1.0		20 59 24 +42 19.4
12	200120	B+46 3133	20 58 7 +47 19.5	4.9	−0.04	−0.92	B14*	8.31 .57	6.70 .15			2.0 2.0		20 59 49 +47 31.3
13	200177	B+48 3260	20 58 26 +48 29.0	7.33	−0.01		A0 *		10.00			1.0		21 0 6 +48 40.8
14	200269	B+46 3141	20 59 6 +46 22.9	7.26	−0.08		B63		9.26	9.28		1.0 1.0		21 0 50 +46 34.7
15	200311	B+43 3786	20 59 25 +43 31.5	7.9 M	7.4 G		B9 s			11.20		1.0		21 1 14 +43 43.3
16	200310	B+45 3364	20 59 26 +45 57.5	5.4	−0.2	−0.92	B15*	8.34 .13	7.03 .16	5.95		2.0 2.0 1.0		21 1 11 +46 9.3
17	200575	B+56 2523	21 0 33 +56 52.4	6.70M			B8		9.06	9.36		1.0 1.0		21 1 54 +57 4.3
18	200614	B+56 2524	21 0 46 +56 28.3	5.83M	−0.07	−0.35	B83p			8.86 .04		2.0		21 2 8 +56 40.2
19	200594	B+52 2854	21 0 51 +52 22.6	8.4 M	8.51G		A0			12.53		1.0		21 2 24 +52 34.5
20	200595	B+45 3374	21 1 3 +45 39.0	6.49	−0.15	−0.56	B8 *		8.32			1.0		21 2 48 +45 50.9
21	200616	B+37 4159	21 1 20 +37 57.2	8.5 M	7.9 G		A2		9.90 .02	10.80		2.0 1.0		21 3 17 +38 9.1
22	200722	B+44 3685	21 1 52 +45 10.1	8.0 M	7.9 G		A0		10.05			1.0		21 3 38 +45 22.1
23	200776	B+45 3384	21 2 9 +46 7.9	7.8	0.02	−0.82	B14*		9.46 .10	10.13		2.0 1.0		21 3 54 +46 19.9
24	200830	B+45 3387	21 2 34 +46 19.8	8.61	0.10		B			12.09		1.0		21 4 19 +46 31.8
25	200943	B+51 2991	21 3 1 +52 12.0	7.59	−0.06		A0 p		9.95 .06	11.39		2.0 1.0		21 4 34 +52 24.0
26	200927	B+48 3279	21 3 3 +48 49.7	8.05	0.13		B65			12.15		1.0		21 4 43 +49 1.7
27	201076	B+47 3284	21 4 1 +47 36.2	7.45	−0.05		A04		9.74			1.0		21 5 44 +47 48.3
28	201267	B+61 2092	21 4 26 +61 57.5	8.1 M			A0			12.12		1.0		21 5 32 +62 9.6
29	201306	B+44 3710	21 5 26 +44 28.3	7.7 M	7.1 G		B9		9.53			1.0		21 7 14 +44 40.4
30	201359	B+46 3191	21 5 39 +47 4.5	7.28	−0.05		B95c		10.67			1.0		21 7 23 +47 16.6
31	201431	B+51 2998	21 6 0 +51 22.9	7.36	−0.04		A0		9.98			1.0		21 7 36 +51 35.1
32	201504	B+43 3817	21 6 49 +43 37.5	8.2 M	7.6 G		A0			11.28		1.0		21 8 39 +43 49.7
33	201666	B+45 3427	21 7 47 +45 32.1	7.64	−0.02		B25p		9.37	10.28		1.0 1.0		21 9 34 +45 44.3
34	201638	B+34 4312	21 7 52 +35 17.3	8.7 M	8.7 G		B01s		9.65			1.0		21 9 53 +35 29.6
35	201759	B+55 2534	21 8 1 +55 29.3	7.5 M	8.02G		B9			12.36		1.0		21 9 28 +55 41.6
36	201733	B+44 3718	21 8 11 +45 17.9	6.65	−0.2	−0.61	B44*		8.36			1.0		21 9 59 +45 30.2
37	201733	B+44 3718	21 8 21 +45 19.6	6.65	−0.2	−0.61	B44*			7.64		1.0		21 10 9 +45 31.9
38	201795	B+38 4372	21 8 41 +38 45.4	7.7 M	7.5 G		B15p		9.00 .21	9.70		2.0 1.0		21 10 38 +38 57.7
39	201834	B+52 2880	21 8 43 +53 21.5	5.66M	−0.12	−0.46	B93s	9.89	8.30 .16	8.93 .46		1.0 2.0 3.0		21 10 16 +53 33.8
40	201836	B+47 3322	21 8 47 +47 29.2	6.05	0.3	−0.26	B55p		8.76			1.0		21 10 31 +47 41.5
41	201819	B+35 4426	21 9 3 +36 5.6	6.53	−0.14	−0.93	B15*	10.01	7.62 .15	8.06		1.0 2.0 1.0		21 11 4 +36 17.9
42	202030	B+65 1552	21 9 13 +65 28.9	7.75M			B9		10.87 .06	12.00 .18		2.0 2.0		21 10 7 +65 41.2
43	201910	B+40 4432	21 9 28 +40 58.8	7.30M			B55*		8.94	9.49		1.0 1.0		21 11 22 +41 11.1
44	201977	B+40 4437	21 10 0 +40 34.1	7.7 M	7.8 G		B8			9.90		1.0		21 11 55 +40 46.5
45	202107	B+57 2295	21 10 1 +57 24.9	7.6 M	8.09G		B8			11.40		1.0		21 11 24 +57 37.2
46	202084	B+53 2568	21 10 7 +53 32.4	6.90M			A0		9.89	11.80		1.0 1.0		21 11 40 +53 44.8
47		B+44 3734	21 10 14 +45 17.2	8.9 M	8.9 G					11.94		1.0		21 12 2 +45 29.6
48	202068	B+45 3442	21 10 19 +45 29.8	7.9 M	7.7 G		B8		9.62	10.61		1.0 1.0		21 12 7 +45 42.2
49		B+37 4221	21 10 21 +37 57.5	9.5 M				9.14				1.0		21 12 19 +38 9.9
50	202088	B+37 4222	21 10 31 +38 21.6	7.7 M	7.1 G		B9		8.97 .13	9.82		2.0 1.0		21 12 29 +38 34.0
51	202214	B+59 2334	21 10 32 +59 46.8	5.6	0.12	−0.76	B05p		8.10			1.0		21 11 48 +59 59.2
52	202124	B+43 3842	21 10 39 +44 19.5	7.80	0.22	−0.69	O91*		10.10			1.0		21 12 29 +44 31.9
53	202163	B+45 3448	21 10 49 +45 35.3	8.3 M	8.5 G		B8		10.13	10.74		1.0 1.0		21 12 37 +45 47.7
54	202184	B+34 4336	21 11 12 +35 17.0	8.0 M	7.3 G		B8		9.88			1.0		21 13 14 +35 29.4
55	202217	B+36 4468	21 11 17 +36 53.7	8.4 M	8.0 G		A0			11.69		1.0		21 13 17 +37 6.1
56	202237	B+39 4483	21 11 24 +40 15.0	8.6 M	8.8 G		B8			11.97		1.0		21 13 20 +40 27.4
57	202347	B+45 3456	21 11 53 +45 24.2	7.49	−0.11		B15p		9.02	9.06		1.0 1.0		21 13 41 +45 36.6
58	202349	B+37 4235	21 12 6 +37 34.4	7.37	−0.20	−0.95	B05p		8.15 .12	8.11		2.0 1.0		21 14 5 +37 46.9
59	202444	B+37 4240	21 12 48 +37 49.9	3.7	0.38	0.04	F04*	9.44	9.50 .31			1.0 2.0		21 14 47 +38 2.4
60	202569	B+36 4492	21 13 34 +37 2.6	7.8 M	7.7 G		B8		9.43	10.28		1.0 1.0		21 15 34 +37 15.1
61	202654	B+47 3348	21 13 52 +47 45.9	6.46	−0.16	−0.67	B44*		8.09			1.0		21 15 37 +47 58.4
62	202664	B+45 3476	21 14 9 +45 31.3	7.8 M	7.7 G		B9		10.20	11.13		1.0 1.0		21 15 58 +45 43.9
63	202850	B+38 4431	21 15 27 +39 11.1	4.23	0.11	−0.4	B91*		8.54 .21	9.39		3.0 1.0		21 17 25 +39 23.7
64	202923	B+53 2588	21 15 28 +53 47.2	6.12	0.06		A04	9.92	9.44 .12	11.44		1.0 3.0 1.0		21 17 2 +53 59.8
65	202904	B+34 4371	21 15 52 +34 41.2	4.5	−0.12	−0.81	B25*	9.20	6.60			1.0 1.0		21 17 55 +34 53.8
66	203026	B+56 2551	21 16 1 +56 33.1	7.3 M	7.32G		B9		10.06	10.75		1.0 1.0		21 17 28 +56 45.7
67	203064	B+43 3877	21 16 35 +43 44.1	4.98	−0.01	−0.98	O85*	9.49	6.97			1.0 1.0		21 18 27 +43 56.8
68	203029	B+35 4473	21 16 42 +36 23.5	8.4 M	8.3 G		A0		9.95 .03	11.39		2.0 1.0		21 18 43 +36 36.2
69	203112	B+39 4519	21 17 2 +39 32.3	6.64M			A0			10.77		1.0		21 19 0 +39 45.0
70	203156	B+37 4271	21 17 22 +38 1.5	5.75M			F2 *		10.32			1.0		21 19 22 +38 14.2
71	203280	B+61 2111	21 17 23 +62 22.4	2.4	0.23	0.10	A74p	8.94 .50	7.61 .32	9.97		2.0 2.0 1.0		21 18 33 +62 35.1
72	203245	B+48 3345	21 17 45 +49 17.9	5.77	−0.16	−0.49	B65*	9.68	7.68 .06	7.49		1.0 2.0 1.0		21 19 28 +49 30.6
73	203339	B+58 2249	21 17 53 +58 24.7	5.68M						10.92		1.0		21 19 16 +58 37.4
74	203374	B+61 2112	21 17 54 +61 38.8	6.69	0.31	−0.74	B04*		9.24 .17	10.01		2.0 1.0		21 19 7 +61 51.5
75	203379	B+52 2915	21 18 18 +53 6.6	7.7 M	8.06G		A0 c			12.06		1.0		21 19 54 +53 19.4
76	203467	B+64 1527	21 18 20 +64 39.6	5.2	−0.04	−0.60	B35*	9.64	7.56 .12			1.0 2.0		21 19 22 +64 52.3
77	203609	B+50 3317	21 19 58 +50 37.4	7.9 M	8.01G		A0			11.65		1.0		21 21 39 +50 50.2
78	203746	B+48 3360	21 20 45 +49 16.6	6.84	0.02		B9		9.83	11.90		1.0 1.0		21 22 29 +49 29.5
79	204001	B+51 3055	21 22 17 +51 26.5	6.88M			B9		8.84 .05	9.69		2.0 1.0		21 23 57 +51 39.4
80	203989	B+47 3394	21 22 18 +47 29.5	8.00	0.03		A0			12.36 .11		2.0		21 24 5 +47 42.4
81	204100	B+64 1536	21 22 22 +64 49.1	7.08M			B9 c		10.01 .14	10.47		1.3 1.0		21 23 25 +65 2.0
82	204130	B+64 1538	21 22 32 +64 42.7	8.0 M			A15p		9.78			.3		21 23 36 +64 55.6
83	204150	B+60 2233	21 22 55 +60 34.9	7.6 M	7.4 G		B25*		9.46			1.0		21 24 14 +60 47.9
84	204131	B+48 3376	21 23 10 +49 6.4	6.59	−0.04		A0 *		9.68			1.0		21 24 55 +49 19.4
85	204153	B+46 3305	21 23 29 +46 29.8	5.59	0.29		F0		10.17			1.0		21 25 18 +46 42.8
86	204374	B+48 3386	21 24 43 +49 3.8	8.4 M	8.1 G		A0		9.51			1.0		21 26 28 +49 16.9
87	204411	B+48 3390	21 25 5 +48 37.0	5.29	0.07	0.16	A3 *		9.48 .01			2.0		21 26 51 +48 50.1
88	204428	B+52 2939	21 25 6 +52 40.8	5.98M	−0.12	−0.47	B8	9.94	8.08 .08	8.50		1.0 2.0 1.0		21 26 45 +52 53.9
89		B+58 2265	21 25 18 +58 53.9	9.3 M					10.36			1.0		21 26 42 +59 7.0
90	204481	B+47 3412	21 25 34 +47 57.4	8.7 M	8.5 G		A0		9.68			1.0		21 27 21 +48 10.5

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1		P	B		897 A19 001 002 012 013 015 211 336 419 764 882 883 884 922 A42 A48 A58 A59 A76
2		P	4	W/ 56 2516	897 002 013 419 474 884 901 922 A48 A59
3		P	B		897 A19 781 785 884 901 921 922 A42 A48
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7					897 A19 922 A07 A42 A48
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9		B	N		897 A19 397 884 901 922 A48
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11					897 A19 922
12		B3P	PEN4	V832 CYG, SB	897 002 012 013 212 342 419 816 883 884 901 921 922 969 A42 A48 A59
13		B	PA		897 A19 753 922 A42
14					897 A19 922 A42 A48
15			P		897 753 922 A42
16		BP	EN4		897 A19 002 012 013 260 342 419 474 884 901 922 A42 A48 A59
17					897 922
18		B			897 A19 397 884 901 922 A48
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20		UB		SB	897 A19 884 901 922 A66
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22					897 922
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34			P		897 014 922 A42
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36		P	PE		897 A19 002 013 342 419 884 901 922 A48 A59
37		P	PE	W/ 44 3721	897 A19 002 013 342 419 884 901 922 A48 A59
38		P			897 002 012 013 922 A42 A63
39			PA		897 A19 397 884 894 901 922 A48
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59		BO	N		897 A19 884 901 921 922 969 A42 A48
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64					897 A19 884 901 922 A48
65		UBOP	PEN4	SB	897 A19 002 008 013 260 342 419 474 511 783 883 884 892 901 921 922 969 A43 A49
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68					897 922
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71		USBP			897 A19 009 010 367 377 392 781 785 856 884 901 921 922 A42 A48
72		P	B		897 A19 002 013 419 884 901 922 A42 A48 A59
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74		P	PEN		897 A19 002 012 013 212 260 342 419 922 A42 A48
75				W/ 52 2914	897 922
76		P	PEN		897 A19 002 013 260 342 419 884 901 922 A42 A48 A59
77					897 922
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80					897 A19 922
81				W/ 64 1535,1538,1539	897 922
82		B			897 922 A48
83		P	N		897 002 013 419 922 A07 A48
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86					897 922
87		O	PA		897 A19 392 753 781 884 901 922 969 A42 A48
88					897 A19 397 884 901 922
89					898
90					897 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	204497	B+47 3413	21 25 41 +47 35.1	7.52	0.03	0.05	A0					12.33	.06					2.0			21 27 29 +47 48.2
2	204536	B+45 3549	21 26 4 +46 20.6	6.9 M			B33p	9.81		8.70	.05	9.13				1.0	3.0	1.0			21 27 54 +46 33.7
3	204614	B+52 2945	21 26 21 +53 4.2	7.18M			A0			9.65	.28	11.83	.07				3.0	2.0			21 27 59 +53 17.3
4	204600	B+47 3418	21 26 27 +47 44.1	8.4 M	8.1 G		B9			10.09	.04	11.24	.16				3.0	4.0			21 28 15 +47 57.2
5	204673	B+49 3531	21 26 48 +50 13.7	7.22M	7.22G		A0			10.21	.23	12.27	.10				2.0	2.0			21 28 32 +50 26.8
6	204754	B+54 2544	21 27 18 +55 11.9	6.01M	0.14	−0.29	B83p			10.30		10.81					1.0	1.0			21 28 52 +55 25.1
7	204722	B+43 3941	21 27 21 +44 7.1	7.66	−0.02	−0.84	B25*					9.73						1.0			21 29 15 +44 20.3
8	204860	B+44 3840	21 28 9 +45 16.5	7.0 M			B5 *					9.71						1.0			21 30 1 +45 29.7
9	204964	B+59 2387	21 28 24 +60 9.5	7.5 M	7.42G		B3			10.10		11.39					1.0	1.0			21 29 46 +60 22.7
10	204965	B+52 2957	21 28 26 +52 43.5	6.06M			A13*					11.74						1.0			21 30 6 +52 56.7
11	204917	B+47 3432	21 28 31 +48 10.2	7.36M			A05			9.75		11.33					1.0	1.0			21 30 19 +48 23.4
12	204995	B+42 4121	21 29 8 +42 53.1	8.2 M	8.5 G		B9					11.24	.10					2.0			21 31 4 +43 6.4
13	205139	B+59 2395	21 29 37 +60 14.3	5.54	0.10	−0.75	B12*	9.29		8.35		7.98				1.0	1.0	1.0			21 30 59 +60 27.6
14	205060	B+42 4123	21 29 40 +42 28.8	7.22	0.01	−0.40	B6 *					10.57	.07					2.0			21 31 36 +42 42.1
15	205116	B+47 3449	21 29 54 +48 21.8	6.73M			B95			9.24							1.0				21 31 42 +48 35.1
16	205116	B+47 3449	21 30 5 +48 21.3	6.73M			B95c			8.72							1.0				21 31 53 +48 34.6
17	205172	B+47 3455	21 30 16 +48 20.7	8.1 M	8.0 G		A0			9.88							1.0				21 32 4 +48 34.0
18	205198	B+48 3411	21 30 27 +48 25.1	8.4 M	8.0 G		A					12.45						1.0			21 32 15 +48 38.4
19	205210	B+47 3457	21 30 29 +48 13.3	6.58M			B94			9.41		11.10					1.0	1.0			21 32 17 +48 26.6
20	205314	B+49 3553	21 31 10 +49 45.3	5.72M			B95s			8.79	.06	9.33					2.0	1.0			21 32 56 +49 58.6
21	205331	B+47 3468	21 31 21 +48 4.9	6.92M			B95			9.81							1.0				21 33 10 +48 18.2
22		B+39 4594	21 31 39 +39 43.1	8.8 M	8.9 G							11.51						1.0			21 33 39 +39 56.5
23	205496	B+45 3588	21 32 28 +45 46.3	8.7 M	8.0 G		B9			10.08							1.0				21 34 20 +45 59.7
24	205551	B+51 3091	21 32 44 +51 28.5	5.94M	0.02	−0.30	B93s			9.18	.11	9.64					4.0	1.0			21 34 27 +51 41.9
25	205600	B+46 3375	21 33 9 +46 52.0	8.2 M	7.7 G		A0			10.00							1.0				21 35 0 +47 5.4
26	205601	B+43 3975	21 33 13 +43 28.8	6.76	−0.12	−0.60	B65			8.77							1.0				21 35 9 +43 42.2
27	205686	B+61 2158	21 33 14 +62 5.0	8.3 M	8.6 G		B9					12.48						1.0			21 34 32 +62 18.4
28	235555	B+50 3375	21 34 5 +50 33.3	8.6 M	8.69G		B3					11.90						1.0			21 35 50 +50 46.8
29	205795	B+49 3562	21 34 23 +50 16.6	7.00M			A s			10.22	.06						2.0				21 36 9 +50 30.1
30	205778	B+48 3435	21 34 25 +48 26.6	8.3 M	8.9 G		A0 c					12.11						1.0			21 36 14 +48 40.1
31	205808	B+50 3377	21 34 27 +50 27.3	7.2 M	7.09G		B9			9.35	.15	10.03					3.0	1.0			21 36 13 +50 40.8
32	205835	B+39 4612	21 34 57 +40 11.3	5.0	0.18	0.10	A55			9.40							1.0				21 36 57 +40 24.8
33	205918	B+49 3568	21 35 14 +50 17.8	8.00M			A0 c			9.92							1.0				21 37 0 +50 31.3
34	205966	B+50 3382	21 35 32 +50 50.3	7.42M			M03	9.95								1.0					21 37 17 +51 3.8
35	205952	B+38 4558	21 35 47 +39 5.5	6.66M			B9					10.38						1.0			21 37 49 +39 19.0
36	206041	B+47 3505	21 36 10 +48 15.7	8.3 M	7.8 G		B8			9.53		11.26					1.0	1.0			21 38 0 +48 29.3
37	206165	B+61 2169	21 36 35 +61 51.4	4.74	0.29	−0.53	B2I*	9.14		8.45		9.58				1.0	1.0	1.0			21 37 55 +62 5.0
38	206183	B+56 2614	21 36 52 +56 44.8	7.40	0.14	−0.79	B05*			9.34	.23	10.35					2.0	1.0			21 38 26 +56 58.4
39	206197	B+39 4627	21 37 24 +40 24.6	8.1 M	7.7 G		A0					11.61						1.0			21 39 24 +40 38.2
40	206267	B+56 2617	21 37 24 +57 15.7	5.65	0.21	−0.73	O6 *			8.29	.19	8.00					2.0	1.0			21 38 57 +57 29.3
41	206259	B+51 3112	21 37 34 +52 8.1	7.54	0.05	−0.57	B33p			9.70	.52	10.96	.25				4.0	2.0			21 39 18 +52 21.7
42	206327	B+60 2276	21 37 38 +61 19.8	9.19	0.18	−0.56	B25p					12.20						1.0			21 39 0 +61 33.4
43	206280	B+43 4002	21 37 58 +44 12.3	6.72	−0.06	−0.21	B95c					10.39	.05					2.0			21 39 54 +44 25.9
44	206363	B+52 3005	21 38 7 +53 10.3	8.4 M	8.36G		A0					12.29						1.0			21 39 49 +53 23.9
45	206383	B+53 2680	21 38 20 +53 44.5	7.7 M			B5			9.76		11.45					1.0	1.0			21 40 1 +53 58.1
46	206365	B+49 3590	21 38 23 +49 27.3	7.16M			B9			9.81	.49	11.39	.11				4.0	3.0			21 40 11 +49 41.0
47	206461	B+40 4608	21 39 12 +41 3.1	8.4 M	8.0 G		A0					12.50						1.0			21 41 12 +41 16.8
48	206538	B+40 4611	21 39 33 +40 34.7	6.09	0.07	0.06	A15			9.67							1.0				21 41 34 +40 48.4
49	206672	B+50 3410	21 40 19 +50 57.7	4.66	−0.11	−0.69	B25*	8.60	.47	7.02	.23	6.69				2.0	2.0	1.0			21 42 5 +51 11.4
50	206644	B+40 4615	21 40 22 +40 50.9	5.7	0.1	−0.00	A05*			9.16		10.09	.08				1.0	2.0			21 42 23 +41 4.6
51	206696	B+50 3411	21 40 34 +50 37.7	7.2 M	7.04G		B9			9.70		10.52	.08				1.0	2.0			21 42 21 +50 51.4
52	206773	B+57 2374	21 40 50 +57 30.4	6.9	0.21	−0.81	B05*			8.99		9.44					1.0	1.0			21 42 24 +57 44.1
53	206763	B+52 3019	21 40 56 +53 1.3	7.4 M	7.97G		B8					12.18						1.0			21 42 39 +53 15.1
54	239745	B+56 2632	21 41 49 +56 47.6	8.6 M	8.90G		B3					12.60						1.0			21 43 25 +57 1.4
55	239748	B+57 2380	21 42 8 +58 .6	8.6 M	8.64G		B2					12.00						1.0			21 43 41 +58 14.4
56		B+53 2693	21 42 23 +53 29.0	9.2 M				9.98								1.0					21 44 6 +53 42.8
57	207017	B+62 1973	21 42 24 +62 32.5	8.59	0.22	−0.49	B15					12.03						1.0			21 43 45 +62 46.3
58	206954	B+48 3489	21 42 27 +49 2.3	7.9 M			A0			9.51	.07	10.41	.00				2.0	2.0			21 44 17 +49 16.1
59	207198	B+61 2193	21 43 31 +62 13.8	5.9	0.31	−0.64	O92*			9.31	.03	10.77	.12				2.0	3.0			21 44 53 +62 27.7
60	207232	B+50 3430	21 44 14 +50 26.6	7.02M			B8 s			9.67	.07	10.74	.06				2.0	3.0			21 46 2 +50 40.5
61	207308	B+61 2194	21 44 19 +62 4.6	7.49	0.24	−0.55	B15*					11.47						1.0			21 45 42 +62 18.5
62		B+54 2619	21 44 40 +55 20.5	9.4 M				9.37								1.0					21 46 20 +55 34.4
63	207330	B+48 3504	21 44 57 +49 4.7	4.23	−0.13	−0.71	B33*	8.61	.66	6.89	.25	6.40				2.0	3.0	1.0			21 46 48 +49 18.6
64	207538	B+59 2420	21 46 8 +59 28.1	7.3	0.32	−0.64	B05*					11.43						1.0			21 47 39 +59 42.1
65	207543	B+52 3040	21 46 26 +52 51.4	7.5 M	7.40G		A0			9.92							1.0				21 48 11 +53 5.4
66		B+47 3570	21 48 1 +47 46.4	9.4 M						10.21							1.0				21 49 55 +48 .4
67	207781	B+53 2716	21 48 15 +54 .4	7.6 M	8.28G		A0			11.09							1.0				21 49 59 +54 14.5
68	207793	B+52 3043	21 48 16 +52 27.8	6.60	0.38	−0.56	B03*					11.27						1.0			21 50 2 +52 41.9
69	207857	B+38 4621	21 49 1 +39 18.1	6.17	−0.1	−0.4	B83s			8.49							1.0				21 51 5 +39 32.2
70	207951	B+61 2208	21 49 14 +61 34.1	8.18	0.14	−0.57	B25p					11.79	.21					2.0			21 50 41 +61 48.2
71	208095	B+55 2639	21 50 19 +55 33.7	5.68	−0.12	−0.50	B75*	9.71		7.67	.11	8.01	.03			1.0	2.0	2.0			21 52 0 +55 47.8
72	208106	B+61 2209	21 50 20 +61 42.4	7.8 M	0.14	−0.54	B25s					11.05	.08					2.0			21 51 47 +61 56.5
73	208134	B+54 2640	21 50 48 +54 48.3	7.27M			B8			9.88							1.0				21 52 31 +55 2.5
74	208185	B+62 1992	21 50 57 +62 51.9	7.38	0.11	−0.53	B25					10.72						1.0			21 52 21 +63 6.0
75	208218	B+62 1994	21 51 10 +62 28.6	6.64	0.25	−0.55	B13*					11.59						1.0			21 52 35 +62 42.8
76	235648	B+50 3472	21 51 38 +51 16.0	8.6 M	8.93G		B3					12.35						1.0			21 53 27 +51 30.2
77	235652	B+50 3477	21 52 14 +51 23.9	8.7 M	8.97G		B5					12.45						1.0			21 54 3 +51 38.1
78	208392	B+61 2216	21 52 22 +62 22.7	6.	0.0	−0.8	B24*			8.83		10.24	.03				1.0	2.0			21 53 48 +62 36.9
79	208439	B+63 1784	21 52 31 +63 30.0	8.1 M			A0					12.10						1.0			21 53 54 +63 44.2
80	208513	B+44 3985	21 53 31 +44 42.6	7.7 M	7.4 G		A0					10.95						1.0			21 55 30 +44 56.9
81	208685	B+51 3194	21 54 46 +52 17.4	8.5 M	8.59G		A0					12.47						1.0			21 56 35 +52 31.7
82	208761	B+62 2006	21 54 49 +62 39.4	8.0 M	8.1 G		B3S	8.96		9.75		9.88				1.0	1.0	1.0			21 56 15 +62 53.7
83	208727	B+47 3618	21 55 7 +48 25.8	6.33M			B8S			8.60		9.16					1.0	1.0			21 57 2 +48 40.1
84	208786	B+47 3622	21 55 32 +47 48.0	8.2 M	8.1 G		A0			10.66		11.89					1.0	1.0			21 57 28 +48 2.3
85	208905	B+60 2320	21 55 46 +61 3.4	6.98	0.09	−0.73	B15*			8.99							1.0				21 57 17 +61 17.7
86	208835	B+46 3512	21 55 54 +46 37.5	7.39M	7.5 G		A0			9.71							1.0				21 57 51 +46 51.8
87	208878	B+42 4260	21 56 9 +43 0.0	7.4 M			B8			9.95							1.0				21 58 11 +43 14.4
88	208962	B+41 4333	21 56 52 +41 27.4	7.7 M	7.3 G		B9			10.22							1.0				21 58 55 +41 41.8
89		B+49 3705	21 56 53 +49 30.3	9.4 M						10.82							1.0				21 58 47 +49 44.7
90		B+47 3639	21 57 0 +47 44.6	8.9 M	8.8 G		*					11.93						1.0			21 58 56 +47 59.0

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 A19 922 925
2		P			897 002 013 419 922 A48
3					897 922
4					897 922
5					898 922
6		0			897 A19 397 884 901 922 969 A48
7		P	EN		897 A19 001 002 012 013 015 260 342 922 A07 A42 A63
8		P	N4		897 002 013 419 474 922 A07
9					897 419 922 A07
10			B	W/ 52 2953	897 884 901 922 A48
11					897 922 A42
12					897 922
13		P	SH4		897 A19 002 012 013 212 339 419 474 816 882 883 884 901 922 A42 A48 A59 A67
14		P	EN		897 A19 002 013 260 342 419 922 A07
15					897 922 A42
16				W/ 47 3455	897 922 A42
17					897 922
18					897 922
19					897 922 A42
20			B		897 884 901 922 A48
21					897 922 A42
22					897
23					897 922
24			E		897 A19 341 397 884 901 922 A48
25					897 922
26					897 A19 922
27					897 922
28					897 A23
29			A		897 894 922 A48
30				W/ 47 3489	897 922
31					897 922
32					897 A19 392 781 884 901 922 A48
33				W/ 49 3570	897 922
34					897 922 A42
35					897 922
36					897 922
37		P	P4		897 A19 002 009 012 013 419 765 766 816 882 883 884 895 921 922 962 A42 A48 A59
38		P	4		897 A19 001 002 012 013 015 474 922 A07 A42 A48
39					897 922
40		SBP	NR	W/ 56 2620,SB	897 A19 002 010 012 013 211 315 336 350 419 764 882 883 884 922 972 A42 A48 A49
41		P			897 A19 001 002 012 015 922 A42
42		P			897 002 419 922 A07 A48
43				W/ 43 3999	897 A19 922
44					897 922
45					897 922
46					897 922
47					897 922
48					897 A19 338 884 901 922 A48
49		UP	4		897 A19 002 013 419 474 488 504 884 901 921 922 A42 A43 A48 A59
50		UB		SB	897 A19 781 884 901 922 A48 A66
51					897 922
52		P	PENH4R		897 A19 001 002 012 013 015 260 339 342 350 419 474 922 A07 A42
53					897 922
54					897 A23
55					897 A23
56					898
57					897 922 A48
58					897 922
59		SP	SH4		897 A19 002 010 012 013 336 339 419 816 882 883 884 895 901 921 922 A42 A48 A59
60			EN		897 342 922
61		P	4		897 002 012 013 419 474 922 A07 A42 A48 A63
62					898
63		UP	B4		897 A19 002 012 013 419 474 504 785 816 882 883 884 892 901 921 922 A42 A43 A48
64		P	S		897 A19 002 012 013 419 882 883 922 A07 A42 A48 A58
65					897 922
66					898
67					897 922
68		OP	N4		897 A19 001 002 012 013 015 212 419 474 922 969 A42
69			PA		897 A19 397 564 782 884 901 922 A42 A48
70		P			897 002 013 922 A07 A48
71		B		W/ 55 2638,SB	897 A19 002 013 699 884 901 922 A07 A48 A59
72			PN		897 922 A07 A48 A63
73					897 922
74					897 883 922 A07 A42 A48 A63
75		P	S		897 A19 002 012 013 212 419 882 922 A42 A48
76					897 A23
77					897 A23
78		BP	EN	W/ 61 2217	897 A19 002 012 013 342 419 883 922 A07 A42 A48
79					897 922
80					897 922 A07
81					897 922
82					897 922 A48
83					897 884 901 922 A48
84					897 922
85		P	P		897 A19 001 002 012 013 015 419 922 A42 A48
86					897 922 A07
87					897 922 A07
88					897 922
89					898
90		2		MR CYG, A0 + F7	897 969 A07

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	209124	B + 56 2670	21 57 42 +57 25.1	6.47M			A03			9.72	.06	11.56					2.0	1.0			21 59 22 +57 39.5
2	209339	B + 61 2233	21 59 9 +62 14.8	6.66	0.03	−0.83	B04*					8.68	.09					2.0			22 0 39 +62 29.3
3	209454	B + 60 2329	21 59 53 +61 18.9	7.9 M	7.9 G		B15*			9.91							1.0				22 1 26 +61 33.4
4	209419	B + 52 3083	22 0 0 +52 38.4	5.78	−0.12	−0.52	B53p			7.51		8.37	.15				1.0	2.0			22 1 50 +52 52.9
5	209481	B + 57 2441	22 0 24 +57 45.5	5.6	0.06	−0.85	O95*	9.63	.06	7.27	.38	7.56	.35			2.0	4.0	2.0			22 2 5 +58 0.0
6	209469	B + 42 4280	22 0 41 +42 34.3	7.06M			B9			9.90							1.0				22 2 44 +42 48.8
7	209409	B − 2 5681	22 0 44 − 2 23.9	4.7	−0.08	−0.41	B85*	8.25		7.17	.05	7.63				1.0	2.0	1.0			22 3 19 − 2 9.4
8	209515	B + 43 4119	22 0 55 +44 24.5	5.55	−0.03	0.13	A0 *			9.18							1.0				22 2 56 +44 39.0
9	209691	B + 65 1712	22 1 29 +65 49.3	6.76M			B8			9.15							1.0				22 2 49 +66 3.8
10	209612	B + 48 3588	22 1 32 +49 25.4	7.36M			B9			9.18	.25	10.32	.10				3.0	3.0			22 3 27 +49 40.0
11	209636	B + 54 2677	22 1 33 +54 38.3	6.98M			B9			9.39		11.16		10.37			1.0	1.0	1.0		22 3 20 +54 52.9
12		B + 62 2023	22 2 2 +63 17.5	8.5 M	8.8 G		A0					12.31						1.0			22 3 30 +63 32.1
13	209744	B + 59 2456	22 2 16 +59 34.3	6.66	0.22	−0.58	B15*					9.67						1.0			22 3 54 +59 48.9
14	209975	B + 61 2246	22 3 36 +62 2.2	5.11	0.08	−0.83	O91*	9.58				6.99				1.0		1.0			22 5 8 +62 16.8
15	209932	B + 44 4041	22 3 49 +44 52.1	6.40M			B95s			9.61							1.0				22 5 50 +45 6.7
16	209961	B + 47 3692	22 3 53 +47 59.3	6.27	−0.06	−0.71	B25p			8.06	.19	7.81					2.0	1.0			22 5 51 +48 13.9
17	209993	B + 44 4044	22 4 11 +45 .3	6.16	0.11	0.17	A35			10.03							1.0				22 6 12 +45 14.9
18	210071	B + 55 2679	22 4 28 +56 5.9	6.38	−0.10	−0.45	B84s					10.04						1.0			22 6 14 +56 20.6
19	210100	B + 51 3248	22 4 46 +51 33.7	7.05M			B8			8.81		9.67					1.0	1.0			22 6 39 +51 48.4
20	209952	C − 47 14063	22 5 5 −47 12.2	1.74	−0.14	−0.46	B55p	6.93		4.46		4.32				1.0	1.0	1.0			22 8 13 −46 57.5
21	235729	B + 51 3253	22 5 37 +51 28.4	8.6 M	8.71G		B9					12.37						1.0			22 7 31 +51 43.1
22	210308	B + 48 3621	22 6 24 +48 58.3	8.1 M			A0					11.83						1.0			22 8 21 +49 13.0
23	210353	B + 47 3706	22 6 43 +47 41.3	6.83M			A0			9.41	.10	10.81					3.0	1.0			22 8 42 +47 56.0
24	210433	B + 58 2395	22 6 53 +59 2.9	7.2 M			A0 *			9.36		11.01					1.0	1.0			22 8 34 +59 17.6
25	210478	B + 60 2348	22 7 8 +60 46.6	7.33	0.07	−0.71	B15*			9.81							1.0				22 8 45 +61 1.3
26	210628	B + 55 2695	22 8 22 +55 50.2	6.92	0.08	−0.37	B65*					10.66	.20					2.0			22 10 10 +56 5.0
27	210645	B + 50 3596	22 8 36 +50 33.4	8.0 M	8.20G		A0					11.78						1.0			22 10 32 +50 48.2
28	210743	B + 63 1818	22 8 57 +64 5.7	8.1 M	8.4 G		A0					12.77						1.0			22 10 27 +64 20.5
29	210770	B + 64 1634	22 9 2 +65 16.7	7.55M			A0			10.20		12.18					1.0	1.0			22 10 28 +65 31.5
30	210697	B + 47 3722	22 9 6 +48 25.8	6.72M			B9			9.06	.13	9.56					2.0	1.0			22 11 5 +48 40.6
31	210715	B + 50 3602	22 9 13 +50 34.5	5.40	0.15	0.05	A45p			9.46	.20	12.02					2.0	1.0			22 11 9 +50 49.3
32	210808	B + 62 2045	22 9 27 +63 9.2	8.0 M			B5 *					10.44						1.0			22 10 59 +63 24.0
33	210809	B + 51 3281	22 9 45 +52 11.0	7.55	0.04	−0.88	O91*			9.75		10.36	.32				1.0	2.0			22 11 39 +52 25.8
34	210839	B + 58 2402	22 9 49 +59 10.0	5.0	0.25	−0.74	O6 *			8.52		8.23					1.0	1.0			22 11 31 +59 24.8
35	210820	B + 46 3612	22 10 1 +46 50.9	6.67M			A0			9.39							1.0				22 12 2 +47 5.7
36	211057	B + 54 2708	22 11 25 +55 3.9	7.58	0.09		B84					12.13						1.0			22 13 15 +55 18.8
37	211242	B + 62 2053	22 12 15 +62 54.8	6.10	−0.09	−0.44	B85s			8.80		9.05					1.0	1.0			22 13 49 +63 9.7
38	211243	B + 61 2267	22 12 21 +62 14.8	8.8 M	9.0 G		A2					12.41						1.0			22 13 57 +62 29.7
39	211336	B + 56 2741	22 13 11 +56 47.6	4.19	0.3	0.05	F04			9.05	.32	12.01					3.0	1.0			22 14 59 +57 2.5
40	211402	B + 58 2413	22 13 21 +58 51.9	7.1 M	7.30G		A2			9.96							1.0				22 15 5 +59 6.9
41	211430	B + 55 2709	22 13 39 +55 34.2	7.45	−0.05		B94			9.73		10.62	.18				1.0	2.0			22 15 29 +55 49.2
42	211694	B + 50 3651	22 15 41 +51 4.0	7.8 M	7.54G		B8			9.95		10.43					1.0	1.0			22 17 38 +51 19.0
43	211746	B + 65 1746	22 15 44 +65 52.7	7.00M			A0			10.90							1.0				22 17 12 +66 7.7
44	211880	B + 62 2061	22 16 51 +62 58.3	7.75	0.32	−0.60	B05p					10.84						1.0			22 18 28 +63 13.4
45	212028	B + 49 3821	22 18 14 +50 2.6	8.9 M			A0 c					11.77						1.0			22 20 13 +50 17.7
46	212043	B + 56 2755	22 18 16 +56 40.0	6.52	−0.05		B62p					9.03						1.0			22 20 6 +56 55.1
47	212044	B + 51 3341	22 18 25 +51 36.5	6.98	0.04	−0.90	B15*					9.71	.28					2.0			22 20 23 +51 51.6
48	212093	B + 54 2740	22 18 34 +55 25.9	8.20	−0.01		B75					11.80						1.0			22 20 26 +55 41.0
49	212183	B + 55 2729	22 19 12 +55 44.0	7.95	−0.03		B73p			9.90							1.0				22 21 4 +55 59.1
50	212454	B + 56 2765	22 21 9 +57 1.9	6.16	−0.13	−0.56	B8					8.75						1.0			22 23 0 +57 17.1
51	212495	B + 61 2291	22 21 19 +62 10.0	5.99M			B95			10.07							1.0				22 23 0 +62 25.2
52	235829	B + 51 3361	22 22 12 +51 51.0	8.9 M	9.11G		A0					12.52						1.0			22 24 11 +52 6.2
53	212666	B + 51 3369	22 22 54 +51 52.7	8.8 M	8.5 G		B8					11.11						1.0			22 24 53 +52 8.0
54	212676	B + 53 2870	22 22 55 +54 28.1	8.5 M	8.5 G		B9 c					11.51						1.0			22 24 50 +54 43.4
55	212791	B + 51 3372	22 23 43 +52 11.0	8.09	−0.03	−0.54	B3 s			10.07		10.66					1.0	1.0			22 25 42 +52 26.3
56	212986	B + 55 2750	22 25 5 +56 10.7	6.37M	−0.10	−0.48	B8			8.68		9.12					1.0	1.0			22 26 59 +56 26.0
57	213087	B + 64 1664	22 25 29 +64 52.6	5.46	0.37	−0.59	B11*					10.22						1.0			22 27 6 +65 7.9
58	213089	B + 50 3726	22 25 54 +51 19.2	7.46M			A0					11.73						1.0			22 27 54 +51 34.5
59	213159	B + 50 3730	22 26 24 +51 3.0	7.9 M	7.70G		B9			10.29		11.47					1.0	1.0			22 28 25 +51 18.4
60	213306	B + 57 2548	22 27 19 +58 9.5	4.34	0.88	1.52V	G11*			9.94		9.26					1.0	1.0			22 29 10 +58 24.9
61	213322	B + 53 2897	22 27 24 +53 59.4	6.6 M			B24p			9.09							1.0				22 29 22 +54 14.8
62	213558	B + 49 3875	22 29 14 +50 1.5	3.75	0.02	0.01	A25			7.31							.3				22 31 17 +50 16.9
63	213801	B + 38 4797	22 31 10 +39 19.0	8.16	−0.04	−0.34	B8	13.26	.04	11.23	.20	11.02	.05			2.0	1.5	3.0			22 33 23 +39 34.5
64		B + 39 4879	22 31 29 +39 29.7	9.3 M						15.14							1.0				22 33 42 +39 45.2
65	213918	B + 38 4801	22 31 54 +39 4.6	8.69	0.03	−0.53	B3	13.50	.07	11.31	.30	12.35	.02			2.0	1.5	3.0			22 34 7 +39 20.1
66	213976	B + 40 4854	22 32 18 +40 31.0	7.02	−0.11	−0.80	B15p	8.90	.16							2.3					22 34 30 +40 46.5
67		B + 38 4805	22 32 36 +38 56.0	9.3 M						14.45	.05						2.0				22 34 50 +39 11.5
68	214112	B + 38 4807	22 33 14 +39 19.6	8.00M	8.30G		F0	14.45								1.0					22 35 27 +39 35.1
69	214168	B + 38 4808	22 33 38 +39 22.1	5.28	−0.15	−0.87	*	10.64		7.12	.18					1.0	2.3				22 35 52 +39 37.7
70	214279	B + 55 2779	22 33 54 +55 48.7	6.24M			A35			9.95							1.0				22 35 52 +56 4.3
71	214283	B + 39 4894	22 34 9 +40 7.5	9.03	0.15	0.10	A2	14.09	.19	13.72						3.0	1.0				22 36 22 +40 23.1
72	214410	B + 53 2932	22 34 47 +54 9.8	7.6 M	7.30G		B9			9.75		10.76	.12				1.0	2.0			22 36 47 +54 25.4
73	214411	B + 50 3767	22 34 53 +50 51.1	8.0 M	7.95G		A0			10.28							1.0				22 36 57 +51 6.7
74	214433	B + 38 4816	22 35 12 +38 39.4	9.11	−0.07	−0.50	B7	13.52		12.17	.18	13.07	.14			1.0	3.0	3.0			22 37 26 +38 55.0
75	214432	B + 38 4817	22 35 14 +39 10.7	7.59	−0.11	−0.67	B35*	12.76	.35	10.16	.10	9.21	.04			2.0	3.0	2.0			22 37 28 +39 26.3
76		B + 40 4862	22 35 15 +40 44.7	9.65	0.06	−0.11	B8	14.32	.10	13.75	.22					3.0	2.0				22 37 28 +41 .3
77	214454	B + 50 3770	22 35 19 +51 17.2	4.63	0.25	0.11	A74s			9.48	.19						2.0				22 37 23 +51 32.8
78	214489	B + 38 4819	22 35 41 +38 41.3	7.5 M	8.1 G		F8			13.62	.05						2.3				22 37 55 +38 56.9
79	214524	B + 40 4866	22 35 56 +40 51.6	7.5 M	7.6 G		B8	10.86	.16	11.35	.11					3.0	2.0				22 38 9 +41 7.2
80	214586	B + 51 3433	22 36 18 +52 6.9	9.2 M			A2					12.70						1.0			22 38 21 +52 22.5
81	214680	B + 38 4826	22 37 1 +38 47.4	4.87	−0.2	−1.04	O95*	10.76	.07	6.51	.00	6.49	.03			2.0	1.3	3.0			22 39 16 +39 3.0
82	214712	B + 37 4651	22 37 18 +38 29.3	6.85M	7.13G		F0	12.93		12.56	.09					1.0	3.0				22 39 33 +38 45.0
83	214768	B + 38 4829	22 37 31 +38 56.0	8.0 M	8.7 G		G0			14.40	.11						2.0				22 39 46 +39 11.7
84		B + 37 4656	22 37 47 +38 22.4	8.7 M	9.3 G					13.75	.21						3.0				22 40 2 +38 38.1
85		B + 38 4834	22 37 57 +38 42.7	9.58	0.10	0.04	B9			13.61	.57						3.0				22 40 12 +38 58.4
86	214977	B + 40 4882	22 39 10 +40 46.6	8.9 M	9.4 G		A2	13.81	.23							3.0					22 41 24 +41 2.3
87	214993	B + 39 4912	22 39 14 +39 57.8	5.22	−0.13	−0.86	B23*	10.34	.09	8.87	.07					3.0	2.0				22 41 28 +40 13.5
88	215066	B + 53 2958	22 39 32 +54 7.5	7.7 M	7.77G		B9					11.36						1.0			22 41 34 +54 23.2
89	215148	B + 52 3271	22 40 15 +52 32.5	8.0 M	8.03G		B9					11.68						1.0			22 42 19 +52 48.2
90	215211	B + 38 4849	22 40 47 +38 30.4	8.66	−0.03	−0.44	B7	12.95	.02	11.66	.07	12.17	.10			1.3	3.0	3.0			22 43 3 +38 46.1

	OBJ	PHOT	S-PEC	REMARKS	REFERENCES
1					897 884 901 922 A48
2		BP	4		897 A19 002 012 013 212 419 474 882 883 884 901 922 A42 A48 A59
3		P	N		897 002 013 419 922 A07 A48
4		P			897 002 013 884 901 922 A48 A59
5		SP	NB4	W/ 57 2442	897 A19 002 010 012 013 336 419 724 785 816 882 883 884 901 922 997 A42 A48 A59
6					897 922 A07
7		OP	PEN		897 A19 002 013 342 508 765 766 783 884 901 921 922 969 A42 A48 A59
8		B	PA		897 A19 753 782 884 901 922 A42 A48
9					897 922
10					897 922
11					897 922 A07
12					897 A20
13		MP	N	+ A0 + A0 + A2	897 A19 002 013 419 922 A42 A48
14		BP		W/ 61 2247,2248	897 A19 002 012 013 336 419 765 766 882 883 884 901 921 922 962 A42 A48 A59 A67
15			B		897 884 901 922 A48
16		P			897 A19 002 013 419 756 884 901 922 A42 A48 A59
17					897 A19 392 884 901 922 A48
18			PA		897 A19 005 397 753 782 884 901 922 A42 A48
19					897 922
20		UBO			897 A19 158 505 783 793 851 884 901 921 922 927 969 A27 A42 A43 A48
21					897 A23
22					898 922
23					897 922
24		B		W/HD210432, + A0	897 922
25		P	4		897 A19 002 012 015 474 922 A07 A42
26		P	S		897 A19 001 002 005 013 419 922 A42
27					897 922
28					897 922
29					897 922
30					897 922
31		B			897 A19 392 781 884 901 922 A48
32		B	H		897 922
33		SP	R		897 A19 001 002 010 012 013 015 336 350 765 766 883 922 962 A07 A42 A48 A58 A76
34	D	USP	EH4R		897 A19 001 002 009 010 012 013 190 336 339 350 419 510 816 856 882 883 884 922
35					897 922
36					897 A19 005 815 922
37			B		897 A19 397 884 901 922 A48
38					897 922
39					897 A19 392 765 766 884 901 921 922 A42 A48
40					897 922
41					897 A19 005 922
42					897 922
43					897 922 A07
44	O	P			897 A19 001 002 012 015 211 922 A42
45				W/ 49 3823	898 922
46		P			897 A19 002 005 815 922 A42
47		OP	PEN		897 A19 001 002 012 013 015 260 342 419 922 969 A07 A42
48					897 A19 005 815 922
49		P			897 A19 002 005 815 922 A42
50					897 A19 005 397 884 901 922
51					897 884 901 922 A48
52					897 A23
53					897 430 922
54				W/ 53 2868	897 430 922
55			EN		897 A19 260 341 419 922 A07
56					897 A19 397 884 901 922
57		P	H4		897 A19 001 002 012 013 339 419 765 766 816 884 901 922 A42 A48 A59 A67
58					897 922
59					897 922
60		10P		W/ 57 2547,DELTA CEP	897 002 081 127 160 385 699 785 884 901 921 922 969 A42
61		P			897 002 013 419 922 A48
62					897 A19 169 884 901 921 922 A42 A48
63					897 A19 103 922
64					898
65					897 A19 103 922
66		P			897 A19 002 013 020 756 922 A07 A42
67					898
68					897 922
69		80P	PEN	W/HD214167,B15 + B25	897 A19 002 009 012 013 260 342 699 756 771 884 901 922 969 A42 A48 A59
70					897 392 884 901 922 A42
71					897 A19 922
72					897 922
73					897 922
74					897 A19 103 922
75		P	N		897 A19 002 013 020 103 756 922 A42 A63
76					897 A19 103
77			B		897 A19 392 781 884 901 921 922 A42 A48
78					897 922
79					897 922
80					897 922
81	O	SBP	PES4R		897 A19 002 009 012 013 020 169 336 510 516 756 785 816 883 884 895 921 922 A42
82					897 922
83					897 922
84					897
85					897 A19 103
86					897 922
87		SP	PS	DD LAC	897 A19 002 012 013 212 411 453 454 455 756 882 883 884 901 922 964 969 A42 A59
88					897 922
89					897 922
90					897 A19 922

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1	SD1	U2	SD2	U3	SD3	U4	SD4	WT1	WT2	WT3	WT4	NS	R.A. (2000) DEC
1	215321	B+64 1702	22 40 54 +65 25.1	8.2 M	7.9 G		A0					12.35						1.0			22 42 38 +65 40.8
2	215371	B+64 1704	22 41 19 +65 4.4	6.8 M			B15p			8.67		9.13					1.0	1.0			22 43 4 +65 20.1
3		B+39 4917	22 41 22 +40 7.4	9.94	0.10	0.05	A1			13.95	.10						2.0				22 43 37 +40 23.2
4		B+64 1705	22 41 44 +65 18.6	8.9 M	9.0 G		B5					12.34						1.0			22 43 29 +65 34.4
5		B+39 4923	22 43 0 +39 46.3	8.7 M	9.9 G					13.98	.30						2.0				22 45 15 +40 2.1
6	215647	B+39 4925	22 43 53 +40 3.7	8.4 M	9.1 G		A0	14.58	.23							3.0					22 46 8 +40 19.5
7	215757	B+54 2856	22 44 26 +54 36.5	6.78M			A0					11.36						1.0			22 46 29 +54 52.3
8	215837	B+52 3293	22 44 55 +53 29.6	8.2 M	8.29G		A0					11.65						1.0			22 47 0 +53 45.4
9	215848	B+53 2987	22 45 7 +54 29.3	7.5 M	7.81G		B8 c					11.18						1.0			22 47 11 +54 45.1
10	215868	B+56 2859	22 45 8 +57 19.9	8.5 M	8.16G		B9					11.02	.01					2.0			22 47 8 +57 35.7
11	215907	B+57 2612	22 45 24 +58 13.1	6.27M			B93c					11.30						1.0			22 47 23 +58 28.9
12	216014	B+64 1717	22 46 4 +64 47.9	6.8	0.31	−0.62	*			10.24		10.63					1.0	1.0			22 47 53 +65 3.8
13	216044	B+54 2865	22 46 39 +54 51.7	8.51	0.08	−0.82	B02*					11.59						1.0			22 48 43 +55 7.6
14	216057	B+53 2993	22 46 43 +54 9.0	6.04M	−0.07	−0.50	B8 *			8.24		8.51					1.0	1.0			22 48 48 +54 24.9
15	216189	B+54 2867	22 47 43 +54 34.9	7.2 M	7.39G		B8			9.39		10.18					1.0	1.0			22 49 48 +54 50.8
16	216227	B+65 1813	22 47 49 +66 17.3	7.2 M			B9			9.78		10.54	.16				1.0	2.0			22 49 36 +66 33.2
17	216328	B+53 3009	22 49 4 +53 39.3	8.3 M	8.48G		A0					12.14						1.0			22 51 10 +53 55.2
18	216369	B+40 4926	22 49 33 +41 2.8	6.84M			A0 c	11.76	.00			9.90	.01			2.0		2.0			22 51 49 +41 18.7
19		B+40 4927	22 49 35 +41 17.3	8.8 M	10.0 G					14.86							1.0				22 51 51 +41 33.2
20		B+40 4928	22 49 51 +40 34.9	9.1 M						14.36							.3				22 52 8 +40 50.8
21		B+40 4932	22 50 13 +41 6.5	9.0 M	9.6 G					12.86							.3				22 52 29 +41 22.5
22	216479	B+41 4626	22 50 26 +42 17.2	8.7 M	9.4 G		A0	14.52	.26							2.0					22 52 42 +42 33.2
23	216733	B+41 4634	22 52 28 +42 14.6	7.8 M	8.1 G		A2	14.48	.17	14.24						2.0	1.0				22 54 44 +42 30.6
24		B+40 4938	22 52 54 +40 59.7	9.3 M						14.30							1.0				22 55 11 +41 15.7
25	216852	B+42 4539	22 53 34 +42 55.9	8.5 M	8.7 G		A2	13.85	.03	13.20	.12					2.0	2.0				22 55 50 +43 11.9
26	216854	B+40 4942	22 53 39 +41 4.1	7.9 M	7.5 G		F5			13.67	.10						2.0				22 55 56 +41 20.1
27	216898	B+61 2370	22 53 44 +62 2.4	8.02	0.54	−0.48	O85*					12.55						1.0			22 55 42 +62 18.4
28	216912	B+57 2644	22 53 59 +57 55.7	6.96M			B91s			9.83							1.0				22 56 3 +58 11.7
29	216928	B+55 2850	22 54 5 +56 11.0	7.06M			B9					10.69						1.0			22 56 11 +56 27.0
30	216916	B+40 4949	22 54 6 +41 20.2	5.6	−0.12	−0.84	B24*	9.53		7.91	.18					1.0	2.0				22 56 23 +41 36.2
31	216915	B+42 4545	22 54 11 +42 44.7	8.2 M	8.7 G		A0	14.07	.01	13.00	.09					2.0	2.0				22 56 27 +43 .7
32	217035	B+62 2136	22 54 33 +62 36.1	7.75	0.46	−0.53	B05*					11.30						1.0			22 56 31 +62 52.1
33		B+39 4980	22 55 36 +40 24.5	9.2 M						13.92							1.0				22 57 54 +40 40.6
34	217297	B+62 2146	22 56 36 +63 26.3	7.41	0.32	−0.56	B15*					11.12						1.0			22 58 33 +63 42.4
35		B+42 4558	22 56 40 +42 31.1	9.1 M	10.2 G		A	14.54	.03	13.96	.10					2.0	2.0				22 58 57 +42 47.2
36	217312	B+62 2147	22 56 41 +62 48.5	7.40	0.39	−0.54	B04p					11.43						1.0			22 58 39 +63 4.6
37		B+41 4660	22 57 58 +42 7.0	9.4 M				14.15		13.30	.13					1.0	2.0				23 0 16 +42 23.1
38	217675	B+41 4664	22 59 37 +42 3.4	3.62	−0.09	−0.53	B6 *	9.33	.26	7.02	.01					2.0	2.0				23 1 55 +42 19.5
39	217752	B+40 4971	23 0 3 +40 48.2	8.8 M	9.5 G		A			13.60	.04						2.0				23 2 22 +41 4.4
40	217782	B+41 4665	23 0 18 +42 29.3	5.08	0.1	0.10	A25*	10.82	.09							2.0					23 2 36 +42 45.5
41	217812	B+40 4974	23 0 30 +40 55.8	8.4 M	8.8 G		A2	14.52	.05	13.48	.06	14.12	.08			2.0	2.0	2.0			23 2 49 +41 12.0
42	217833	B+54 2900	23 0 34 +54 58.0	6.38M	−0.08	−0.56	B8 s					9.34						1.0			23 2 43 +55 14.2
43		B+41 4671	23 2 11 +41 32.1	9.3 M						13.76	.07						2.0				23 4 30 +41 48.3
44	218342	B+62 2170	23 4 7 +62 56.6	7.4	0.41	−0.54	B04*					11.49						1.0			23 6 9 +63 12.8
45	218537	B+62 2171	23 5 45 +63 21.8	6.26	−0.02	−0.60	B35p			8.22		8.68					1.0	1.0			23 7 48 +63 38.1
46		B+58 2549	23 6 40 +58 51.4	10.31	0.72	−0.26	B03p			14.91							.3				23 8 48 +59 7.7
47		B+64 1760	23 6 48 +64 34.5	8.4 M	8.0 G		B8					11.69						1.0			23 8 50 +64 50.8
48	218723	B+64 1764	23 7 15 +64 56.4	6.6 M			B3 p			8.70		9.32					1.0	.3			23 9 16 +65 12.7
49	218753	B+58 2552	23 7 35 +59 3.7	5.75	0.33		A52*			10.56		11.89					1.0	1.0			23 9 44 +59 20.0
50	240208	B+58 2554	23 7 53 +58 55.8	9.4 M	9.91G		B8 *			13.63							1.0				23 10 2 +59 12.1
51		B+59 2659	23 8 27 +59 38.7	10.63	0.65	−0.28	B23p	14.52								1.0					23 10 35 +59 55.0
52	240214	B+59 2662	23 8 44 +59 52.0	9.0 M	9.49G		A0	14.15		13.81						1.0	1.0				23 10 52 +60 8.3
53	240216	B+59 2663	23 8 49 +59 41.8	9.1 M	9.5 G		A2	14.75								1.0					23 10 58 +59 58.1
54	219063	B+63 1949	23 9 58 +64 26.8	7.2 M			B5 p			9.48		9.82					1.0	1.0			23 12 2 +64 43.1
55	240223	B+57 2709	23 10 11 +58 29.7	9.3 M	9.66G		B8			13.79							1.0				23 12 21 +58 46.0
56	219126	B+64 1773	23 10 29 +64 31.7	7.27M			A0					11.63						1.0			23 12 33 +64 48.0
57		B+58 2562	23 11 4 +58 52.6	9.3 M						13.73							1.0				23 13 15 +59 8.9
58	219210	B+58 2563	23 11 16 +58 40.6	8.5 M	8.50G		A2			13.29							1.0				23 13 27 +58 56.9
59	219286	B+59 2673	23 11 48 +59 32.9	8.68	0.64	−0.39	B2 s	13.34		13.58						1.0	1.0				23 13 58 +59 49.2
60	240234	B+59 2677	23 12 24 +59 33.9	9.1 M	10.0 G		B0	13.35		13.98						1.0	1.0				23 14 35 +59 50.3
61		B+59 2681	23 12 56 +59 37.4	9.5 M				14.05		14.30						1.0	1.0				23 15 7 +59 53.8
62	219460	B+59 2683	23 13 2 +60 10.7	9.8	0.61	−0.28	*	14.09		13.90						1.0	1.0				23 15 12 +60 27.1
63	219523	B+63 1955	23 13 22 +63 59.6	7.1 M			B5 p			9.35		9.94					1.0	1.0			23 15 28 +64 16.0
64	219537	B+55 2929	23 13 38 +56 24.2	7.8 M	7.69G		A0					11.93						1.0			23 15 52 +56 40.6
65	219634	B+61 2413	23 14 17 +61 41.4	6.53	0.21		B8 s			9.49		9.94					1.0	1.0			23 16 26 +61 57.8
66	240245	B+59 2690	23 14 44 +59 40.6	9.24	0.09	0.02	B85	13.46		13.21						1.0	1.0				23 16 56 +59 57.0
67		B+59 2692	23 15 15 +59 58.7	9.83	0.36	−0.45	B72	14.02		13.81						1.0	1.0				23 17 27 +60 15.1
68	240248	B+59 2694	23 15 46 +60 23.0	8.8	0.07	0.10	B95c	13.83		13.13						1.0	1.0				23 17 57 +60 39.4
69	240252	B+59 2696	23 16 1 +59 52.8	9.59	0.60		A25	14.41								1.0					23 18 13 +60 9.2
70	219855	B+57 2719	23 16 15 +57 53.6	8.3 M	8.72G		B9 s			14.14							1.0				23 18 29 +58 10.0
71	240256	B+59 2699	23 16 47 +60 9.2	8.8	0.48	−0.25	B31	14.07		13.63						1.0	1.0				23 18 59 +60 25.6
72	220016	B+58 2577	23 17 36 +59 21.6	7.91	0.05		B35			11.84		10.67					1.0	1.0			23 19 49 +59 38.0
73	220057	B+60 2521	23 17 48 +60 52.6	6.9	0.03		B24*					9.50						.3			23 20 0 +61 9.0
74	220102	B+59 2701	23 18 8 +60 0.0	6.62	0.62		F25	14.11		13.93						1.0	1.0				23 20 21 +60 16.4
75	240264	B+59 2702	23 18 16 +60 10.1	9.76	0.25		B85	14.71								1.0					23 20 29 +60 26.5
76	220116	B+57 2724	23 18 19 +58 .2	8.69	0.59	−0.43	B05s			14.23							1.0				23 20 34 +58 16.6
77	240267	B+58 2581	23 18 55 +59 30.5	9.04	0.28		A55			13.87							1.0				23 21 9 +59 46.9
78	220208	B+63 1974	23 19 2 +64 28.0	7.17M			B9					10.59	.13					2.0			23 21 11 +64 44.4
79	240271	B+57 2728	23 19 15 +58 5.7	9.45	0.57		B93			14.35							1.0				23 21 30 +58 22.2
80	220314	B+63 1978	23 19 53 +64 14.7	7.6 M	7.7 G		A0					11.09						1.0			23 22 3 +64 31.2
81	220300	B+55 2946	23 19 54 +56 4.4	7.6 M	7.91G		B8 s					11.65						1.0			23 22 11 +56 20.9
82		B+59 2708	23 19 57 +60 9.1	9.87	0.09		B95	14.62		13.91						1.0	1.0				23 22 11 +60 25.6
83	240279	B+57 2734	23 21 9 +57 50.9	9.1 M	10.0 G		F0 c			13.99							1.0				23 23 25 +58 7.4
84	220562	B+56 2999	23 21 51 +57 15.6	6.8 M			B25*			9.95		10.65	.10				1.0	2.0			23 24 8 +57 32.1
85	240286	B+58 2588	23 22 0 +59 27.4	8.8 M	10.11G		B5 c			13.99							1.0				23 24 15 +59 43.9
86	240293	B+59 2715	23 22 29 +59 48.5	9.3	0.07		B95	14.80		13.62						1.0	1.0				23 24 44 +60 5.0
87	240294	B+59 2716	23 22 30 +59 55.2	9.80	0.10		B95	15.21								1.0					23 24 45 +60 11.7
88	220760	B+58 2591	23 23 33 +59 23.5	8.49	0.32		B95	13.99		13.71	.25					1.0	2.0				23 25 49 +59 40.0
89	220771	B+54 2972	23 23 42 +54 49.9	8.8 M	8.79G		A0			9.26							1.0				23 26 1 +55 6.4
90	220832	B+58 2593	23 24 9 +59 1.4	9.07	0.22		A45	13.97		13.83	.03					1.0	2.0				23 26 26 +59 17.9

	OBJ	PHOT	S–PEC	REMARKS	REFERENCES
1					897 922
2		P			897 002 419 922 A48
3					897 A19
4					897 A20
5					897
6					897 922
7					897 922
8					897 922
9				W/ 53 2986	897 922
10					897 922
11				W/ 57 2611	897 884 901 922 A48
12		2P	N	AH CEP, B35 + B0	897 001 002 012 013 015 366 419 922 969 A42
13		P	4		897 A19 001 002 012 013 015 474 922 A42 A63
14		U	EN		897 A19 342 397 884 901 922 A66
15					897 922
16					897 922
17					897 922
18				W/ 40 4924,4925	897 922
19					897
20					898
21					897
22					897 922
23					897 922
24					898
25					897 922
26					897 922
27		P		W/ 61 2369	897 A19 001 002 012 013 015 336 922 A30 A42 A48 A58 A63
28			4		897 474 922
29					897 922
30		B5P	S4	EN LAC	897 002 013 020 171 212 756 816 882 883 884 901 922 964 969 997 A42 A48 A59
31					897 922
32		BP	4		897 A19 001 002 012 013 015 474 922 A30 A42 A48 A63
33					898
34		P	4		897 A19 002 012 013 419 474 922 A07 A30 A42 A48
35					897
36		P			897 A19 001 002 012 015 922 A30 A42 A48
37					898
38		2P	PENY	OMIC AND	897 A19 002 013 682 883 884 901 921 922 963 969 A42
39					897 922
40		B	N	SB	897 A19 781 884 901 922 A48
41					897 922
42			P		897 A19 397 884 901 922 A48
43					898
44		P	4		897 A19 001 002 012 013 015 419 474 922 A07 A30 A42 A48
45		BP			897 A19 002 013 419 884 901 921 922 A30 A48 A59
46		P			898 A19 001 002 A42
47					897 A20
48		P			897 002 013 419 922
49		B		W/ 58 2553	897 A19 392 884 901 922 A42 A48
50		2		PV CAS	897 969 A23
51		P			898 001 002
52					897 A23
53					897 A23
54		P			897 002 013 419 922 A07
55					897 A23
56					897 922
57					898
58					897 922
59			E		897 A19 337 922
60					897 A23
61					898
62		P		WN5 + O	897 A19 001 002 006 922 936 961 A42 A48
63		P			897 002 013 419 922 A07
64					897 922
65			B		897 A19 884 901 922
66					897 A19 A23 A42 A48
67					898 A19 A48
68				W/ 59 2697	897 A19 A20 A23 A42 A48
69					897 A19 A23 A42 A48
70			P		897 753 922 A42
71					897 A19 A20 A23 A42 A48
72					897 A19 419 922 A42 A48
73		P	4		897 A19 002 013 419 474 922 A42 A48
74					897 A19 922 A42 A48
75					897 A19 A20 A23 A42 A48
76			PEN		897 A19 001 002 012 015 342 922 A42
77					897 A19 A23 A42 A48
78					897 922
79					897 A19 A23 A42
80					897 922
81			PE		897 337 922
82					898 A19 A42 A48
83				W/ 57 2733	897 A23
84		P	4		897 002 013 419 474 922 A48
85				W/ 58 2588 FOLL.	897 A20 A23
86					897 A19 A23 A42 A48
87					897 A19 A23 A48
88					897 A19 922 A42 A48
89					897 922
90					897 A19 922 A42 A48

	HD	DM	R.A. (1950) DEC	V	B–V	U–B	S–L	U1 SD1	U2 SD2	U3 SD3	U4 SD4	WT1 WT2 WT3 WT4	NS	R.A. (2000) DEC
1	220999	B+58 2595	23 25 37 +59 25.2	7.5	0.24		A73	13.52 .82	12.49			2.0 1.0		23 27 54 +59 41.7
2	240308	B+58 2598	23 26 46 +59 28.7	8.41	0.53	−0.07	B63	13.74	13.70			1.0 .3		23 29 4 +59 45.2
3	240312	B+58 2601	23 27 12 +59 19.7	8.22	0.46	−0.35	B25	12.85	12.80	12.15		1.0 1.0 1.0		23 29 30 +59 36.2
4	221253	B+57 2748	23 27 43 +58 16.4	4.9	−0.12	−0.64	B35*	8.72 .07	8.14	6.49 .19		2.0 1.0 2.0		23 30 2 +58 32.9
5	221334	B+61 2462	23 28 32 +62 .8	7.65	0.03		A0 c			11.08		1.0		23 30 49 +62 17.4
6	221411	B+56 3018	23 29 11 +57 11.5	8.5 M	8.68G		A0		13.27			1.0		23 31 31 +57 28.1
7	221568	B+57 2758	23 30 27 +57 37.8	7.6	0.2	−0.1	A0 *	13.30	12.13	13.33		1.0 1.0 1.0		23 32 47 +57 54.4
8	221692	B+56 3028	23 31 29 +56 56.7	8.6 M	8.4 G		B9 s		11.61			.3		23 33 50 +57 13.3
9		B+61 2474	23 31 45 +61 33.5	9.1 M	9.3 G		F5		14.18			.3		23 34 4 +61 50.1
10	221711	B+54 3006	23 31 47 +55 12.8	7.4 M	7.30G		B25*		9.55			1.0		23 34 9 +55 29.4
11	221741	B+60 2578	23 32 0 +61 9.7	8.87	0.15		A35		13.34			1.0		23 34 19 +61 26.3
12		B+60 2581	23 32 50 +61 7.4	10.60	0.64	−0.09	B35p		14.08			1.0		23 35 10 +61 24.0
13	221886	B+58 2617	23 33 9 +58 39.3	8.2	0.15		A22	13.28	13.18			1.0 1.0		23 35 30 +58 55.9
14		B+60 2584	23 33 22 +60 54.9	10.29	0.53	−0.58	B13*		14.36			1.0		23 35 42 +61 11.5
15		B+60 2587	23 33 48 +61 31.1	9.48	0.41		B55		14.18			1.0		23 36 8 +61 47.7
16	221990	B+61 2484	23 34 1 +62 9.2	8.07	0.06		A0		12.08			1.0		23 36 21 +62 25.8
17		B+60 2590	23 34 12 +60 56.6	9.69	0.17		B95		14.48			1.0		23 36 33 +61 13.2
18		B+60 2589	23 34 12 +61 26.8	9.3 M					13.91			1.0		23 36 32 +61 43.4
19		B+60 2593	23 34 44 +61 8.4	9.38	0.17		A25c		13.71			1.0		23 37 5 +61 25.0
20		B+60 2594	23 35 3 +61 30.3	9.5 M					14.97			1.0		23 37 24 +61 46.9
21		B+60 2597	23 36 25 +61 19.9	10.28	0.08		B9		14.13			1.0		23 38 47 +61 36.5
22	222351	B+61 2493	23 37 9 +62 9.6	8.7 M	9.0 G		F8	14.07				1.0		23 39 31 +62 26.2
23	222407	B+62 2268	23 37 31 +63 26.9	6.85	0.09		A2 p			12.62		1.0		23 39 52 +63 43.5
24		B+60 2600	23 37 56 +61 4.1	9.29	0.24	−0.35	B95		13.28			1.0		23 40 18 +61 20.7
25		B+62 2270	23 38 23 +62 40.4	9.4 M	9.2 G		F8 c	14.49				1.0		23 40 45 +62 57.0
26	222629	B+67 1557	23 39 34 +68 23.7	7.6 M	8.2 G		A0			12.37		1.0		23 41 53 +68 40.3
27	222640	B+62 2275	23 39 42 +62 40.7	8.7 M	8.9 G		A	14.00	13.47	13.74		1.0 1.0 1.0		23 42 5 +62 57.3
28	222647	B+60 2608	23 39 53 +61 12.8	8.83	0.04		B75	13.81	12.71	13.08		1.0 1.0 1.0		23 42 16 +61 29.4
29	222656	B+61 2500	23 39 53 +62 25.2	8.30	0.22		A3	13.52	13.12			1.0 1.0		23 42 16 +62 41.8
30	222661	B−15 6476	23 40 8 −14 49.3	4.5	−0.04	−0.11	B95*		7.15	7.52		1.0 1.0		23 42 43 −14 32.7
31	222761	B+62 2280	23 40 43 +62 40.3	8.8 M	8.8 G		A0	14.05	13.48			1.0 1.0		23 43 6 +62 56.9
32		B+61 2509	23 41 23 +61 53.2	8.42	0.46	−0.55	B11*	13.16	12.48			1.0 1.0		23 43 47 +62 9.9
33	222853	B+57 2792	23 41 34 +58 28.1	8.1 M	8.24G		A1 s		12.65	13.51		.3 1.0		23 43 59 +58 44.8
34	222885	B+57 2793	23 41 57 +58 29.3	7.8 M	8.49G		A0		13.01	13.70		.3 1.0		23 44 23 +58 46.0
35	222958	B+68 1393	23 42 36 +69 28.6	7.03M			B8			10.60		1.0		23 44 57 +69 45.3
36	222993	B+56 3080	23 42 58 +57 5.7	8.4 M	8.12G		B9	12.97				1.0		23 45 24 +57 22.4
37		B+63 2049	23 43 2 +63 53.4	9.5 M					14.05			1.0		23 45 26 +64 10.1
38		B+61 2515	23 43 17 +61 59.9	9.95	0.43	−0.51	B05p	14.21	14.02			1.0 1.0		23 45 42 +62 16.6
39		B+61 2517	23 43 32 +62 17.8	8.7 M	8.8 G		A0	14.51	13.89			1.0 1.0		23 45 57 +62 34.5
40	223044	B+61 2518	23 43 35 +61 42.8	8.5 M	8.6 G		A2 s	13.13	11.92			1.0 1.0		23 46 0 +61 59.5
41	223043	B+61 2519	23 43 36 +62 23.5	7.70	0.04		A0	12.59 .12	10.79	11.40		2.0 1.0 1.0		23 46 1 +62 40.2
42	223057	B+62 2294	23 43 36 +63 2.4	7.7 M	7.4 G		A0	13.76		13.13		1.0 1.0		23 46 1 +63 19.1
43	240394	B+58 2646	23 44 4 +58 44.1	8.6 M	8.78G		A0	14.43	13.64	13.48		1.0 1.0 1.0		23 46 30 +59 .8
44	223128	B+65 1943	23 44 13 +66 30.3	5.94	−0.04	−0.75	B24*		8.35	7.78		1.0 1.0		23 46 37 +66 47.0
45	223149	B+61 2523	23 44 25 +62 14.0	8.98	0.19		A3	14.61	14.04			1.0 1.0		23 46 51 +62 30.7
46	240397	B+57 2803	23 44 33 +58 6.1	8.9 M	9.35G		A0		13.46			1.0		23 47 0 +58 22.8
47	223200	B+59 2773	23 44 47 +60 2.2	8.5 M	8.7 G		B8		12.95			1.0		23 47 13 +60 18.9
48	223209	B+63 2054	23 45 0 +63 52.0	7.85	0.07		B9		11.27			1.0		23 47 25 +64 8.7
49		B+61 2526	23 45 15 +61 46.2	8.77	0.39	−0.50	B21p	13.66	12.63			1.0 1.0		23 47 41 +62 2.9
50	223258	B+62 2298	23 45 25 +62 41.1	8.46	0.23		A2	14.66	13.99			1.0 1.0		23 47 51 +62 57.8
51		B+61 2529	23 46 3 +61 42.6	8.65	0.53	−0.47	B11*	13.67	13.17			1.0 1.0		23 48 30 +61 59.3
52	240410	B+56 3093	23 46 7 +57 25.1	8.9 M	8.86G		B3		13.35			1.0		23 48 35 +57 41.8
53	223358	B+64 1861	23 46 13 +64 35.9	6.32M			A0 *		10.58 .62			2.0		23 48 39 +64 52.6
54	223369	B+61 2532	23 46 22 +62 18.7	8.72	0.23		A0	14.43	13.70			1.0 1.0		23 48 49 +62 35.4
55	223385	B+61 2533	23 46 23 +61 56.2	5.42	0.66	−0.02	A31*	12.28 .11	10.86	11.80		2.0 1.0 1.0		23 48 50 +62 12.9
56	223386	B+59 2777	23 46 26 +59 42.0	6.32	−0.0	−0.02	A05		9.64	10.88		1.0 1.0		23 48 53 +59 58.7
57	223421	B+58 2653	23 46 44 +58 41.1	6.37	0.40		F35	12.70				1.0		23 49 12 +58 57.8
58		B+61 2536	23 46 52 +61 41.1	9.4 M					13.41			1.0		23 49 19 +61 57.8
59	223501	B+61 2537	23 47 26 +61 56.2	7.79	0.05	−0.70	B3 s	12.04 .42	10.31	9.72		2.0 .3 1.0		23 49 53 +62 12.9
60		B+57 2817	23 47 46 +57 31.9	9.1 M	9.9 G		A0		14.81			1.0		23 50 14 +57 48.6
61	223579	B+61 2538	23 48 2 +61 54.3	8.99	0.15		A0	14.06	12.82	13.48		1.0 .3 1.0		23 50 30 +62 11.0
62	223607	B+61 2544	23 48 25 +62 15.7	8.8 M	8.9 G		A2	15.01	14.24			1.0 1.0		23 50 53 +62 32.4
63	223624	B+63 2064	23 48 32 +63 42.4	6.81	0.04		A15		10.49			1.0		23 50 59 +63 59.1
64	223640	B−19 6522	23 48 46 −19 11.2	5.16	−0.15	−0.43	A0 s		7.91 .17	8.34 .11		2.0 2.0		23 51 21 −18 54.5
65		B+61 2549	23 49 21 +62 20.4	10.12	0.32		B35			13.83		1.0		23 51 49 +62 37.1
66		B−21 6489	23 49 34 −20 42.5	9.8 M				10.68				1.0		23 52 9 −20 25.8
67	223767	B+61 2551	23 49 48 +61 36.0	7.24	0.60		A53		14.34			1.0		23 52 17 +61 52.7
68		B+61 2550	23 49 48 +61 50.4	9.29	0.31	−0.63	B04p	14.27	12.88 .31			1.0 2.0		23 52 17 +62 7.1
69	223785	B−19 6527	23 50 5 −18 50.4	6.81	0.09	0.05	A25s		10.35	12.22		1.0 1.0		23 52 39 −18 33.7
70		B+63 2069	23 50 19 +64 1.8	8.6 M	10.4 G				14.12			1.0		23 52 47 +64 18.5
71		B+61 2555	23 50 37 +61 40.9	9.5 M					14.09			.3		23 53 6 +61 57.6
72		B+61 2556	23 50 43 +61 41.6	9.5 M					12.55 .22			1.3		23 53 12 +61 58.3
73	223891	B+55 3038	23 50 48 +56 22.2	9.0 M	8.9 G		A0	13.83		13.81		.3 1.0		23 53 18 +56 38.9
74		B+61 2559	23 51 11 +62 9.1	9.72	0.29	−0.66	O95p			13.20		1.0		23 53 40 +62 25.8
75	223987	B+60 2637	23 51 43 +61 19.7	7.54	0.49	−0.49	B11*		12.34 .16			2.0		23 54 13 +61 36.4
76	224055	B+61 2562	23 52 12 +61 33.6	7.16	0.70	−0.22	B31*		12.98			.3		23 54 42 +61 50.3
77		B+61 2564	23 52 20 +61 51.7	9.5 M					14.26			1.0		23 54 50 +62 8.4
78	240445	B+55 3044	23 52 51 +56 12.7	8.9 M	9.16G		A0			14.09		.3		23 55 22 +56 29.4
79	240446	B+55 3045	23 52 55 +56 9.7	8.7 M	8.78G		B9	13.89		13.00		1.0 .3		23 55 26 +56 26.4
80	224151	B+56 3115	23 53 3 +57 8.0	6.00	0.22	−0.72	B02*		10.56			1.0		23 55 34 +57 24.7
81	224215	B+60 2640	23 53 32 +61 23.3	8.47	0.21		A24		13.35			1.0		23 56 3 +61 40.0
82	240450	B+59 2790	23 53 44 +60 .9	8.70	0.26		B9		14.20			1.0		23 56 15 +60 17.6
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84		B+61 2570	23 54 33 +62 13.0	9.50	0.09		B95			12.82		1.0		23 57 4 +62 29.7
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87		B+60 2648	23 54 54 +61 4.7	9.4 M					14.35			1.0		23 57 26 +61 21.4
88	240456	B+57 2831	23 55 0 +57 35.6	8.9 M	9.16G		A0		14.07			1.0		23 57 32 +57 52.3
89	224403	B+61 2573	23 55 1 +61 42.8	7.68	0.14		B83		11.71			1.0		23 57 33 +61 59.5
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1		B+63 2079	23 55 7	+64 4.2	9.4 M	9.4 G		B8			14.17							1.0				23 57 38	+64 20.9
2	224425	B+56 3119	23 55 15	+56 51.7	7.30	0.22	0.15	A25p			12.95							.3				23 57 47	+57 8.4
3	224424	B+58 2676	23 55 16	+59 26.5	8.09	0.73	−0.22	B11*			13.12							1.0				23 57 48	+59 43.2
4	224435	B+56 3120	23 55 21	+57 6.6	8:4 M			B9			12.20							1.0				23 57 53	+57 23.3
5		B+63 2080	23 55 40	+63 57.0	9.1 M	9.1 G		B8			14.01							1.0				23 58 12	+64 13.7
6	240464	B+59 2799	23 56 18	+59 59.2	9.59	0.31	−0.61	O95p			12.98							1.0				23 58 50	+60 15.9
7	224572	B+54 3082	23 56 28	+55 28.6	4.88	−0.08	−0.81	*	10.23				7.23				1.0		1.0			23 59 1	+55 45.3
8	224600	B+55 3064	23 56 33	+55 40.7	8.5 M	8.28G		B8	13.17				12.37				1.0		1.0			23 59 6	+55 57.4
9		B+63 2084	23 56 41	+63 32.5	9.16	0.31		B31			12.94							1.0				23 59 13	+63 49.2
10	224599	B+59 2801	23 56 42	+59 44.7	9.55	0.42	−0.53	B05*			13.19							.3				23 59 15	+60 1.4
11		B+62 2341	23 56 48	+62 54.4	9.11	0.19		B54			13.16							1.0				23 59 20	+63 11.1
12	224624	B+56 3127	23 56 55	+57 23.6	7.4 M	7.20G		A0			11.93							1.0				23 59 28	+57 40.3
13	240569	B+59 2802	23 57 3	+59 39.8	9.1 M	9.8 G		A7			14.48							1.0				23 59 36	+59 56.5
14		B+56 3128	23 57 7	+56 56.9	9.2 M						14.06							1.0				23 59 40	+57 13.6
15	240571	B+59 2804	23 57 14	+59 47.6	9.0 M	9.26G		A0			12.68							.3				23 59 47	+60 4.3
16	224739	B+57 2841	23 57 38	+57 35.6	8.4 M	8.66G		A0			13.99							1.0				0 0 11	+57 52.3
17	240573	B+59 2808	23 57 59	+60 7.8	9.4 M	10.13G		B8			13.78							1.0				0 0 32	+60 24.5
18		B+60 2652	23 58 8	+61 13.1	9.5 M						14.14							1.0				0 0 41	+61 29.8
19	224792	B+61 2580	23 58 8	+61 53.9	7.05	0.49		F65			13.54							1.0				0 0 41	+62 10.6
20		B+62 2345	23 58 41	+62 58.0	9.3 M			B5			13.22	.25						2.0				0 1 15	+63 14.7
21		B+62 2346	23 58 49	+63 13.2	9.49	0.43		B55			13.57	.28						2.0				0 1 23	+63 29.9
22	224869	B+59 2812	23 58 50	+60 4.6	8.4 M	8.5 G		A			11.40							1.0				0 1 24	+60 21.3
23	224893	B+60 2657	23 59 3	+60 56.7	5.57	0.39		F03			12.21							1.0				0 1 37	+61 13.4
24		B+60 2658	23 59 12	+60 42.7	9.00	0.24		A85	14.80		14.50						1.0	1.0				0 1 46	+60 59.4
25	224938	B+65 1985	23 59 24	+66 9.6	7.30M			B9					11.61						.3			0 1 58	+66 26.3
26	224939	B+62 2351	23 59 25	+63 4.8	8.60	0.10		B85			12.42	.14						2.0				0 1 59	+63 21.5
27		B+60 2659	23 59 26	+60 40.3	9.5 M				15.41								1.0					0 2 0	+60 57.0
28		B+58 2689	23 59 51	+59 26.9	9.2 M						14.40							1.0				0 2 25	+59 43.6

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893. BALAZS, B. 1965
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A20. BALZ, A. G. A., JR. 1956
485. BARBER, D. R. 1959
798. BARBIER, M. 1962
686. BARKHATOVA, K. A. 1957
870. BARNING, F. J. M. 1964
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723. BATTEN, A. H. 1962
726. BATTEN, A. H. 1961
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463. BAUM, W. A., AND SCHWARZSCHILD, M. 1955
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764. BECKER, W., AND FENKART, R. 1963
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069. BENNETT, A. S. 1961
827. BENNETT, A. S. 1963
844. BERGER, J., AND GREENSTEIN, J. L. 1963
749. BERTAUD, CH. 1960
753. BERTAUD, CH. 1959
256. BERTIAU, F. C. 1958
847. BERTOLA, F. 1964
278. BIDELMAN, W. 1960
282. BIDELMAN, W. P., AND SVOLOPOULOS, S. N. 1960
288. BIDELMAN, W. P. 1960
532. BIDELMAN, W. P., AND MCKELLAR, A. 1957
619. BIDELMAN, W. P., AND BOHM, K. H. 1955
935. BIDELMAN, W. P., AND VICTOR, R. C. 1966
A10. BIDELMAN, W. P., AND HUMPHREYS, R. M. 1968
996. BIGAY, J. H. 1964
440. BINNENDIJK, L. 1960
447. BINNENDIJK, L. 1959

465.	BINNENDIJK, L.	1955
219.	BLAAUW, A., HILTNER, W. A., AND JOHNSON, H. L.	1959
360.	BLAAUW, A.	1956
437.	BLAAUW, A., AND VAN HOOF, A.	1963
567.	BLAAUW, A.	1961
209.	BLANCO, V. M., AND WILLIAMS, A. D.	1959
A19.	BLANCO, V. M., DEMERS, S., DOUGLASS, G. G., AND FITZGERALD, M. P.	1968
055.	BLESS, R. C.	1962
142.	BLESS, R. C.	1960
A40.	BLESS, R., CODE, A. D., HOUCK, T. E., MCNALL, J. F., AND TAYLOR, D. J.	1968
507.	BLYTHE, J. H.	1957
850.	BOGGESS, A., III, AND BORGMAN, J.	1964
857.	BOGGESS, A., III	1964
A60.	BOGGESS, A., III, AND KONDO, Y.	1968
364.	BOHM-VITENSE, E., AND STRUVE, O.	1956
574.	BOHM-VITENSE, E.	1956
682.	BOIARCHUK, A. A.	1957
356.	BOK, B. J., AND BOK, P. F.	1962
279.	BOLTON, J. G., AND CLARK, B. G.	1960
939.	BOLTON, J. G., AND EKERS, J.	1966
928.	BOND, H. E., AND BIDELMAN, W. P.	1966
A44.	BOND, H. E.	1970
124.	BONSACK, W. K.	1961
140.	BONSACK, W. K.	1961
191.	BONSACK, W. K., AND GREENSTEIN, J. L.	1960
582.	BONSACK, W. K., AND GREENSTEIN, J. L.	1956
590.	BONSACK, W. K.	1958
864.	BORGMAN, J., AND BLAAUW, A.	1964
873.	BORGMAN, J.	1964
874.	BORGMAN, J.	1964
005.	BOUIGUE, R., BOULON, J., AND PEDOUSSAUT, A.	1961
815.	BOULON, J.	1963
917.	BOWYER, C. S.	1965
920.	BOWYER, S., BYRAM, E. T., CHUBB, T. A., AND FRIEDMAN, H.	1965
676.	BOYARCHUK, A. A.	1959
955.	BOYARCHUK, A. A., ESIPOV, V. F., AND MOROZ, V. I.	1966
959.	BOYARCHUK, A. A.	1967
992.	BOYARCHUK, A. A.	1966
520.	BRAES, L. L. E.	1962
185.	BRANDT, J. C.	1960
660.	BRAUDE, S. YA., MEN', A. V., ZHUK, I. N., AND BABENKOV, K. A.	1962
132.	BRETZ, M. C.	1961
954.	BRODSKAYA, E. S.	1966
154.	BROTEN, N. W., AND MEDD, W. J.	1960
469.	BROWN, R. HANBURY, AND HAZARD, C.	1961
484.	BROWN, R. HANBURY, AND HAZARD, C.	1959
496.	BROWN, R. HANBURY, PALMER, H. P., AND THOMPSON, A. R.	1955
017.	BURBIDGE, E. M., BURBIDGE, G. R., AND PRENDERGAST, K. H.	1962
033.	BURBIDGE, E. M., AND BURBIDGE, G. R.	1962
042.	BURBIDGE, E. M., AND BURBIDGE, G. R.	1962

063. BURBIDGE, E. M., BURBIDGE, G. R., AND PRENDERGAST, K. H. 1961
093. BURBIDGE, E. M., BURBIDGE, G. R., AND PRENDERGAST, K. H. 1961
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508. DE VAUCOULEURS, A. 1957
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112. DE VAUCOULEURS, G. 1961

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A04.	DE VAUCOULEURS, G., AND DE VAUCOULEURS, A.	1964
691.	DIBAI, E. A.	1960
958.	DIBAI, E. A.	1967
985.	DIBAI, E. A., AND ESIPOV, V. F.	1967
990.	DIBAI, E. A., AND SHAKHOVSKOI, N. M.	1967
943.	DICKENS, R. J.	1967
167.	DIETER, N. H.	1960
422.	DIETER, N. H.	1962
423.	DIETER, N. H.	1962
891.	DIVAN, L.	1965
675.	DOKUCHAEVA, O. D.	1959
680.	DOMBROVSKII, V. A.	1958
980.	DRAGOMIRETSKAYA, B. A.	1965
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331.	EBBIGHAUSEN, E. G., AND STRUVE, O.	1956
601.	EBBIGHAUSEN, E. G., AND STRUVE, O.	1959
731.	EBBIGHAUSEN, E. G.	1960
732.	EBBIGHAUSEN, E. G.	1960
733.	EBBIGHAUSEN, E. G., AND PETRIE, R. M.	1960
734.	EBBIGHAUSEN, E. G.	1960
066.	EDGE, D. O., SHAKESHAFT, J. R., MCADAM, W. B., ET AL.	1959
674.	EFIMOV, YU. S.	1959
580.	EGGEN, O. J.	1956
589.	EGGEN, O. J.	1956
781.	EGGEN. O. J.	1963
877.	EGGEN, O. J.	1965
A65.	EGGEN, O. J.	1972
690.	EGOROVA, T. M.	1963
929.	EKERS, R. D., AND BOLTON, J. G.	1965
194.	ELSMORE, B., RYLE, M., AND LESLIE, P. R. R.	1959
572.	ELSTE, G., JUGAKU, J., AND ALLER, L. H.	1956
702.	ELVIUS, A.	1962
482.	EVANS, D. S.	1959
487.	EVANS, D. S., MENZIES, A., AND STOY, R. H.	1959
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672. FRANTSMAN, YU. L. 1962
451. FRANZ, O. 1958
441. FREDRICK, L. W. 1960
061. FRIEBOES, H. O. 1962
982. FUENFSCHILLING, H. 1967
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A30. GARRISON, R. F. 1970
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029. MENON, T. K. 1962
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A43. NAVACH, C., AND BURKI, G. 1970
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A54. SCHILD, R. E., AND CHAFFEE, F. 1971
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813. SHOLOMITSKII, G. B. 1963
765. SINNERSTAD, U. 1961
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829. SJOGREN, U. 1963
610. SKY AND TELESCOPE 1963
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932. SMITH, A. M. 1967
933. SMITH, A. M. 1967
340. SMITH, E. VAN P. 1956

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A18. SMITH, L. F. 1968
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034. SPINRAD, H. 1962
117. SPINRAD, H. 1961
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981. SPITE, M. 1967
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A73. STOY, R. H. 1968
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086. STRUVE, O., AND ZEBERGS, V. 1961
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328. STRUVE, O., SAHADE, J., LYNDS, C. R., AND HUANG, S.-S. 1957
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387. STRUVE, O., AND ABHYANKAR, K. D. 1955
410. STRUVE, O., MCNAMARA, D. H., AND ZEBERGS, V. 1955
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533. STRUVE, O., AND SAHADE, J. 1957
544. STRUVE, O., SAHADE, J., AND HUANG, S.-S. 1957
573. STRUVE, O. 1956

591.	STRUVE, O., AND SAHADE, J.	1958
594.	STRUVE, O., SAHADE, J., HUANG, S.-S., AND ZEBERGS, V.	1958
599.	STRUVE, O.	1958
611.	STRUVE, O.	1963
716.	STRUVE, O., AND ZEBERGS, V.	1957
A61.	SUDBURY, G. C.	1971
080.	SVOLOPOULOS, S. N.	1961
445.	SVOLOPOULOS, S. N.	1960
565.	SVOLOPOULOS, S. N.	1963
999.	SVOLOPOULOS, S. N.	1966
A00.	SVOLOPOULOS, S. N.	1966
354.	THACKERAY, A. D.	1962
357.	THACKERAY, A. D., WESSELINK, A., AND HARDING, G. A.	1962
A11.	THACKERAY, A. D.	1968
166.	THE, P.-S.	1960
887.	THE, P.-S.	1965
626.	THOMSEN, I. L., ABT, H. A., AND KRON, G. E.	1955
899.	THOME, J. M., DIRECTOR	1892
804.	TIFFT, W. G.	1964
629.	TOLBERT, C. R.	1964
A03.	TOLBERT, C. R., PECKER, J. C., AND POTTASCH, S. R.	1967
048.	TRAVING, G.	1962
416.	TREANOR, P. J.	1963
653.	UDAL'TSOV, V. A.	1963
023.	UNDERHILL, A. B.	1962
190.	UNDERHILL, A. B.	1960
208.	UNDERHILL, A. B.	1959
725.	UNDERHILL, A. B.	1963
728.	UNDERHILL, A. B.	1961
730.	UNDERHILL, A. B.	1960
735.	UNDERHILL, A. B.	1959
737.	UNDERHILL, A. B.	1958
960.	UNDERHILL, A. B.	1966
961.	UNDERHILL, A. B.	1966
962.	UNDERHILL, A. B.	1966
963.	UNDERHILL, A. B.	1966
964.	UNDERHILL, A. B.	1966
968.	UNDERHILL, A. B.	1966
568.	VAN ALBADA, T. S.	1961
613.	VAN DE HULST, H. C., RAIMOND, E., AND VAN WOERDEN, H.	1957
457.	VAN DE KAMP, P., AND DAMKOEHLER, J. E.	1957
065.	VAN DEN BERGH, S.	1961
417.	VAN DEN BOS, W. H.	1962
704.	VAN DEN BOS, W. H.	1962
862.	VAN GENDEREN, A. M.	1964
863.	VAN GENDEREN, A. M.	1964
866.	VAN GENDEREN, A. M.	1964
913.	VAN GENDEREN, A. M.	1965
263.	VAN HOOF, A., AND BLAAUW, A.	1958
349.	VAN HOOF, A., BERTIAU, F., AND DEURINCK, R.	1956

438. VAN HOOF, A., BERTIAU, F. C., AND DEURINCK, R. 1963
541. VAN HOOF, A. 1957
607. VAN HOOF, A. 1959
757. VAN HOOF, A. 1962
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760. VAN HOOF, A. 1962
868. VAN HOOF, A., AND BLAAUW, A. 1964
518. VAN HOUTEN, C. J. 1961
461. VAN WIJK, U., ROGERSON, J. B., AND SKUMANICH, A. 1955
308. VELGHE, A. G. 1957
321. VELGHE, A. G. 1957
848. VERON, P. 1965
569. VOLDERS, L., AND HOGBOM, J. A. 1961
631. VOLDERS, L. 1959
068. VORONTSOV-VEL'YAMINOV, B. A. (WORONZOW-WELJAMINOW, B. A.) 1953
070. VORONTSOV-VEL'YAMINOV, B. A. (WORONZOW-WELJAMINOW, B. A.) 1953
663. VORONTSOV-VEL'YAMINOV, B. A. 1961
671. VORONTSOV-VEL'YAMINOV, B. A. 1961
697. VORONTSOV-VEL'YAMINOV, B. A. 1960
A21. VYSSOTSKY, A. N., AND BALZ, A. G. A. 1958
A52. WALBORN, N. R. 1971
A57. WALBORN, N. R. 1971
A63. WALBORN, N. R. 1971
A76. WALBORN, N. R. 1972
474. WALKER, G. A. H. 1963
087. WALKER, M. F. 1961
109. WALKER, M. F. 1961
115. WALKER, M. F. 1961
218. WALKER, M. F. 1959
295. WALKER, M. F. 1958
316. WALKER, M. F. 1957
371. WALKER, M. F. 1956
540. WALKER, M. F. 1957
577. WALKER, M. F. 1956
970. WALKER, M. F. 1966
049. WALLERSTEIN, G., STONE, Y. H., AND WILLIAMS, J. A. 1962
165. WALLERSTEIN, G. 1960
391. WALLERSTEIN, G. 1962
403. WALLERSTEIN, G., GREENSTEIN, J. L., PARKER, R., ET AL. 1963
538. WALLERSTEIN, G. 1957
564. WALLERSTEIN, G., AND HANNIBAL, D. 1963
597. WALLERSTEIN, G. 1958
606. WALLERSTEIN, G. 1959
768. WALLERSTEIN, G. 1962
769. WALLERSTEIN, G. 1962
824. WALLERSTEIN, G., AND HUNZIKER, W. 1964
852. WALLERSTEIN, G., AND WOLFF, S. C. 1965
859. WALRAVEN, J. H., TINBERGEN, J., AND WALRAVEN, TH. 1964
600. WALRAVEN, TH., AND WALRAVEN, J. H. 1960
639. WALRAVEN, TH. 1957

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554. WANNER, J. F. 1961
780. WAYMAN, P. A. 1962
A26. WEBER, S. V., HENRY, R. C., AND CARRUTHERS, G. R. 1971
522. WEHLAU, W. 1962
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799. WEHLAU, W., AND LEUNG, K.-C. 1964
312. WELLMAN, P. 1957
632. WENTZEL, D. G., AND VAN WOERDEN, H. 1959
355. WESSELINK, A. J. 1962
359. WESSELINK, A. J. 1962
497. WESSELINK, A. J. 1956
620. WESTERLUND, B. 1959
826. WESTERLUND, B. E. 1963
828. WESTERLUND, B. E. 1963
855. WESTERLUND, B. E., AND SMITH, L. F. 1964
936. WESTERLUND, B. E. 1966
471. WHITEOAK, J. B. 1963
486. WHITFIELD, G. R. 1960
853. WHITFORD, A. E. 1964
385. WHITNEY, C. 1955
114. WILDEY, R. L. 1961
803. WILDEY, R. L., AND MURRAY, B. C. 1964
621. WILLIAMS, A. D., AND STRUVE, O. 1955
881. WILLSTROP, R. J. 1965
237. WILSON, O. C., MUNCH, G., FLATHER, E. M., AND COFFEEN, M. F. 1959
528. WILSON, O. C., AND O'DELL, C. R. 1962
334. WILSON, O. C., AND WALKER, M. F. 1956
A07. WILSON, R. E. 1953
275. WILSON, R. W., AND BOLTON, J. G. 1960
421. WILSON, R. W. 1963
509. WILSON, R. 1956
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216. WOLTJER, L. 1959
616. WOLTJER, L. 1958
634. WOLTJER, L. 1956
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296. WOOD, D. B. 1958
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452. WOOD, F. B., AND BLITZSTEIN, W. 1957
646. WOOD, F. B., AND LEWIS, E. M. 1955
A34. WOODEN, W. H., II 1970
783. WOODS, M. L. 1955
575. WORLEY, C. E. 1956
587. WORLEY, C. E., AND EGGEN, O. J. 1956
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072. WYLLER, A. A. 1961
916. WYNDHAM, J. D. 1966
A62. YAMASHITA, K. 1968
073. YOSS, K. M. 1961
687. ZAKHARENKOV, V. F., KAIDANOVSKII, N. L., PARIISKII, YU. N., ET AL. 1963
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