GE Lighting

Spectrum

9200 Lamp Catalog

Around the world one brand stands alone— breaking the darkness with superior product innovation and customer service. Illuminating the far corners of the planet with the most recognized lighting brand in the industry. Pushing the leading edge of technology to bring good things to light. The brand is GE.

Welcome to the ever-expanding world of light

This 22nd edition of the GE Lighting 9200 Lamp catalog contains a comprehensive selection of lighting products designed to deliver the maximum return on your lighting investment. We're committed to providing the most complete range of products available— to meet the unique, ever changing needs of our customers around the world.

We've designed this catalog with our 104 year tradition of quality in mind. In that time we've built our business by helping you illuminate yours—in the most effective, cost efficient ways. We're confident this new edition of ***Spectrum*** *will help you find exactly what you need. Because being the world's lighting leader is more than our history, it is our mission.*

Welcome to the ever-expanding world of GE Lighting products.

GE Lighting

EPA does not endorse any product or service.

This 22nd edition of the GE Lighting 9200 Lamp catalog has been totally redesigned to help you more easily select the GE Lighting products that best meet your needs.

All ratings and data are subject to change without notice.
Technical drawings are not to scale.

Rely on the World leader

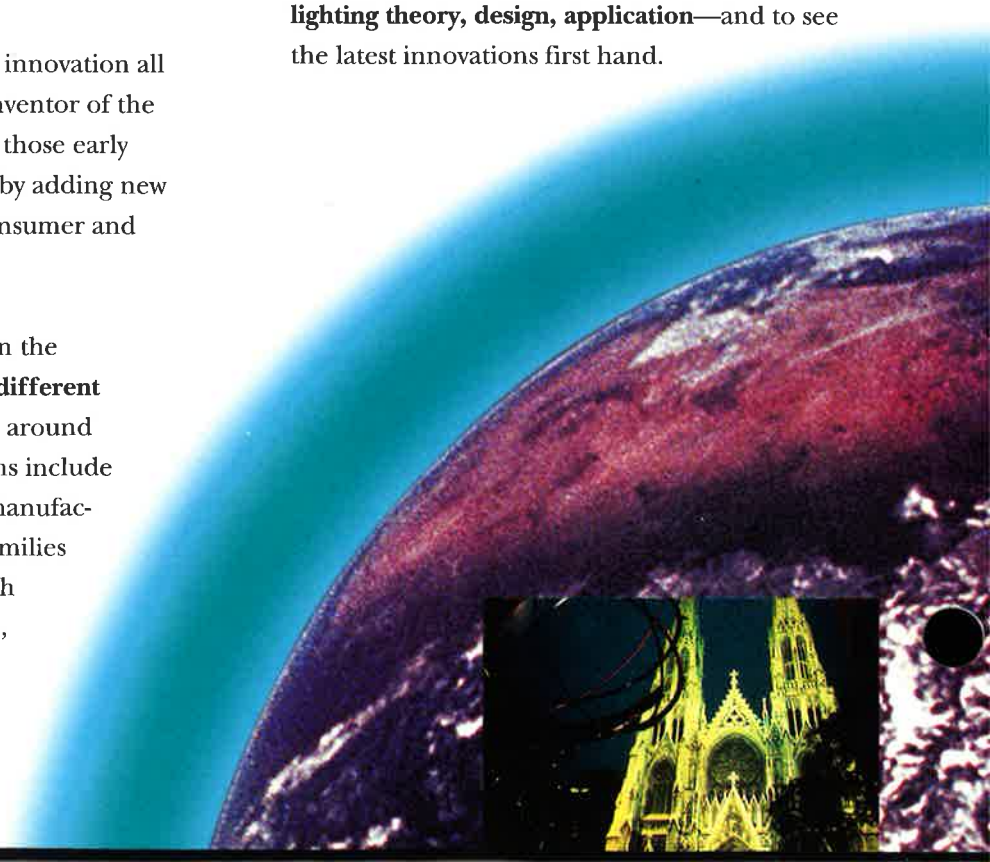
At GE Lighting, we trace our roots of innovation all the way back to Thomas Edison, the inventor of the world's first practical light bulb. Since those early days, our company has grown steadily by adding new products to keep up with changing consumer and industrial demands.

Today, GE Lighting is a world leader in the lamp business with more than **20,000 different products manufactured** and marketed around the globe. Our international operations include more than 40,000 employees and 62 manufacturing facilities world-wide. Product families include incandescent, fluorescent, high intensity discharge, photo, automotive, holiday and miniature lamps.

In addition, **GE Lighting markets products** such as wiring devices, refractory metals, rare gasses, chemicals, quartz and phosphors for the electronic, semiconductor, aerospace, computer and laser industries. And, our special alliance with Motorola Lighting enables customers to obtain world-class, **total-performance electronic lighting systems** from a single source that combines quality Motorola ballasts with quality GE lamps.

GE dedication to advanced design, sourcing and production delivers **maximum lighting value** to users. And our comprehensive marketing and distribution system ensures **timely service** no matter where our customers are located.

The GE Lighting Institute located at the GE Lighting World Headquarters in Cleveland, Ohio, is the world's first and foremost **lighting education center**. From around the world people visit to learn what's new in lighting. The Institute invites customers to explore **lighting theory, design, application**—and to see the latest innovations first hand.

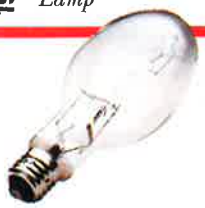


Building on the Edison legacy of innovative genius, GE engineers have consistently developed major product breakthroughs.

They include:

1939 *The Fluorescent Lamp*

1959 *The Halogen Lamp*



1965 *The High Pressure Sodium Lamp*

1964 *The Metal Halide Lamp*

1973 *Reduced Wattage Fluorescent Lamps*

1992 *The ConstantColor® Precise™ Lamp*
Revolutionized display lighting with long term performance without color change

1989 *Halogen IR™ Lamps*
The world's most efficient incandescent PAR lamp

1974 *The Elliptical Reflector Lamp*

1993 *Performance Biax®*
First compact fluorescent to provide same amount of light as 100 watt incandescent

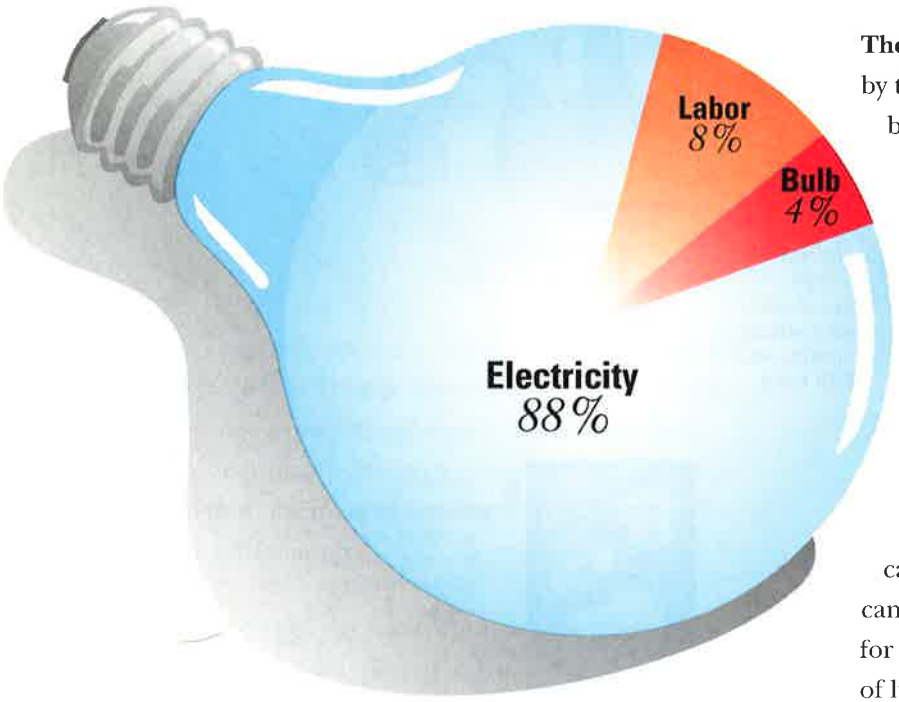
1994 *Genura™*
World's first practical one piece induction electrodeless lamp

The Right Lighting *for the* JOB

is more than a *good* IDEA . . .

Excelling in business today means being ever conscious of the bottom-line. We've built our international corporate and industrial clientele by creating products that save money as they light the way. It's a matter of energy efficiency and product performance, because providing optimum return on investment is what GE Lighting is all about.

When choosing the best lamps for your needs (in your office, manufacturing or retail facility) there are several basic points to consider:



The Cost of Light is determined primarily by the cost of the electricity used to power the bulb. In fact, ***80% to 88% of every dollar you spend on the cost of light is spent on electricity.*** Saving your organization money depends on investment in the most energy efficient lamps, since the purchase price of a bulb is only a small part of the total cost. For example, while the purchase price of a compact fluorescent may be higher than a standard incandescent, the **payback** in many applications can be **three months or less**. This **Spectrum** catalog contains many lamp choices that can reduce your cost of light. Refer to *page 13* for more detailed information on the cost of light.

Color of light makes a significant impact on your place of business, and it's more than creating "the right mood." Studies have proven that employee productivity and retail sales figures are directly affected by changes in lighting. See *pages 14 through 16* for more information about how to select the perfect color light for the maximum results at your facility.

It's a great **Investment.**

Quality of life is affected greatly by GE Lighting products.

The right lighting influences the *safety,*

security,

and *enjoyment* of millions.

Wherever light is needed GE lamps are there illuminating everything from the *ordinary,*

to the *extraordinary.*

Productivity at the work place can be positively impacted by effective lighting. Downtime, injury rates, and work absences, can all be affected by bright, clean, efficient light.

U.S. Federal Energy Legislation enacted in 1992 and phased in during 1994 and 1995 has greatly impacted the lighting industry. In an effort to conserve the nation's energy resources the legislation now prohibits the manufacture of many common wattage fluorescent and directional incandescent lamps in the USA. The products offered for sale through this catalog reflect these changes. A replacement guide is shown on *page 12.*

The world's lighting leader is here for you.

There's so much to consider when choosing a lighting supplier. Turn to a proven record of achievement and stability. Turn to the latest energy saving innovations. Turn through the pages of **Spectrum**, and you'll find that GE Lighting is here to help. Our 104 year-plus history of innovation, product leadership and customer service makes us the world's premiere supplier to turn to for lighting products.

Your GE representative is available to answer any questions you may have about the products in this guide.

New *light* Sources

Expand the range of effective lighting options

It's quality of light—and more. How much does it cost to operate the bulb? How long will the bulb last? What about environmental impact? Are there any governmental restrictions? There are so many questions about the rapidly changing world of lighting products. We're glad to offer a few answers to the most important ones here.

Today's quest for the best lighting solution is a matter of balancing economic, environmental, and product performance needs. The good news is: It can be done. The key is understanding what it is that makes each bulb different.

Four major developments to keep in mind are: the trend of **compactness**, the drive toward optimum **color**, improvements in **lamp efficacy and system efficiency**, and the potential for **optical control**. Within each major product family—incandescent, fluorescent, and high intensity discharge—new products are constantly being introduced. In fact, it has been estimated that within the next 10 years more than 80% of all lighting products will be different than they are today.

Comparing Light Sources

The performance of a lamp can be judged according to several different criteria including efficacy (energy efficiency), color rendering and color temperature.

Efficacy

Different lamp types have different abilities to convert electrical power into visible light. The quantity of light emitted (measured in lumens) is divided by the input power (watts) to determine the lamp's efficacy. This is expressed as lumens per watt or LPW and is a measure of energy efficiency.

Electricity can be converted to light in several ways, of which the most widely used are incandescence, fluorescence, and electrical discharge.

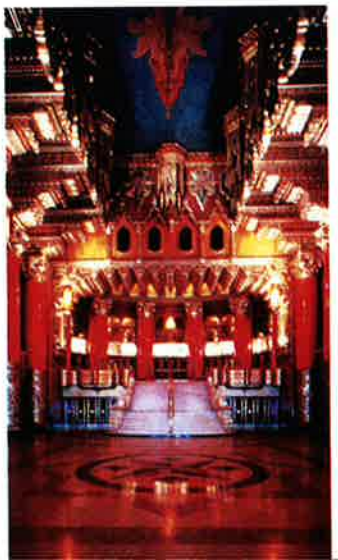
Varieties *of* Lamps

Color Rendering

Colors appear differently under various light sources. The color rendering index (CRI), a scale from 0–100, is a measure of a lamp's ability to render colors "naturally and normally." Generally, the higher the CRI, the better colors appear. Incandescent and daylight have a CRI of 100.

Incandescent Lamps

Incandescent lamps are the most familiar type of light source, with countless applications in homes, stores and other commercial settings. Light is produced by passing electric current through a thin wire filament, usually of tungsten. Their advantages include low initial cost, excellent color qualities, good optical control, and versatility.



Color Temperature

Light sources can create atmospheres which are warm or cool in appearance. Color temperature, expressed in Kelvins (K), is one way to describe this color tone. The higher the color temperature, the visually cooler or bluer the light appears.

Varieties of Lamps

Halogen Lamps

Halogen lamps also produce light by passing current through a thin wire filament, but the filaments operate at higher temperatures, increasing efficacy (LPW) by more than 20%. Color temperature is also higher, producing "whiter" light than standard incandescent lamps. Halogen lamps are available in a variety of shapes and sizes and can be found in a variety of lighting applications including accent and display lighting, car headlamps, and outdoor floodlighting.

Metal Halide Lamps

High pressure metal halide lamps are also very efficient (up to 115 lumens per watt), and produce a crisp, white light with good to very good color rendering properties. They provide good optical control and are used in high quality outdoor lighting installations like floodlighting and sports lighting applications, and in retail, lobbies and other commercial and public spaces. The newest members of the metal halide family are called ceramic metal halide (CMH). These exciting new designs provide halogen-like color appearance, high efficiency and superior color control qualities, expanding the use of metal halide to even more color critical areas in retail, commercial and even residential applications.

High Intensity Discharge Lamps

The discharge lamp relies on light emitted by a gas or vapor when excited by an electric current flowing through it. A ballast is needed to start the lamp and to regulate its operation. Discharge lamps have overwhelming energy efficiency advantages over incandescent sources where applicable.

High Pressure Sodium Lamps

High pressure sodium lamps are highly efficient—up to 140 lumens per watt—and produce a warm, golden color. Excellent for lighting large areas, they are often used in roadway lighting, floodlighting, offices, shopping malls, reception areas, parks, industrial and other commercial lighting applications. A deluxe version has improved color rendering for interior and exterior applications.

Mercury Lamps

Mercury lamps are the oldest members of the high intensity discharge family. Although not as energy efficient as metal halide and high pressure sodium lamps, they are still used in a variety of applications such as roadway lighting, security and landscape lighting and some interior applications where color quality is not critical.

Fluorescent Lamps

Fluorescent lamps are low-pressure mercury discharge lamps which are very energy efficient (up to 100 lumens per watt). Each requires a ballast to effectively start the lamp and regulate its operation. With fluorescent lamps, the amount and color of light emitted depends on the type of phosphor coating applied to the inside of the lamp.

The wide range of phosphors available makes it possible to produce many different color tones (color temperatures) and different levels of color quality (as defined on the color rendering index) to fit the needs of the specific application. Because of their relatively large surface areas, the light produced by fluorescent lamps is more diffuse and is far less directional than "point sources" like incandescent, halogen, and high intensity discharge lamps. All of these qualities make fluorescent lamps excellent for general lighting, wall-washing and task lighting in retail, office, industrial, and residential spaces.

Compact Fluorescent Lamps

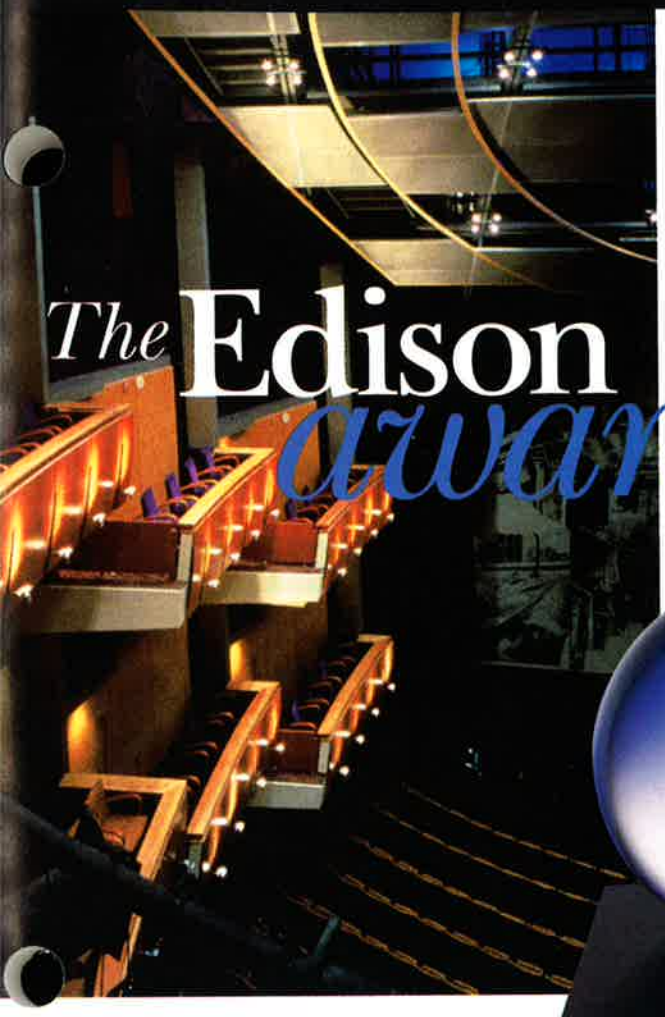
The GE Lighting line of compact fluorescent lamps represents a major breakthrough in fluorescent technology. Because of their smaller diameters and folded configurations, compact fluorescents can provide high light output in much smaller sizes than conventional linear fluorescent lamps. Available in a variety of plug-in (separate ballast required) and built-in ballast designs, compact fluorescent lamps have led to the design of new-generation light fixtures for a complete range of industrial and commercial applications, and provide energy-saving and longer life replacements for incandescent lamps. In fact, compact fluorescent lamps can provide the same lumens as an incandescent lamp at nearly one-fourth the watts.

Comparing Energy efficiency & life

The following chart shows how incandescent, halogen, fluorescent and high intensity discharge lamps compare in terms of energy efficiency and rated average life. Energy efficiency is measured in terms of efficacy or lumens per watt (LPW). Rated average life is the median value of life expectancy under normal operating conditions, that is when 50% of any large group of initially installed lamps are still expected to be operational. For both HID and fluorescent lamps, lamp life depends on the number of hours per start.

Typical Lamp Characteristics

Lamp Type	Typical LPW	Rated Ave. Life (in hrs.)
Incandescent	5-22	750-2,000
Halogen	12-36	2,000-5,000
Compact Fluorescent	27-80	9,000-10,000
Fluorescent	75-100	12,000-24,000+
Mercury	50-60	12,000-24,000+
Multi-Vapor® Metal Halide	80-115	10,000-20,000
Lucalox® High Pressure Sodium	90-140	10,000-24,000+



The Edison award

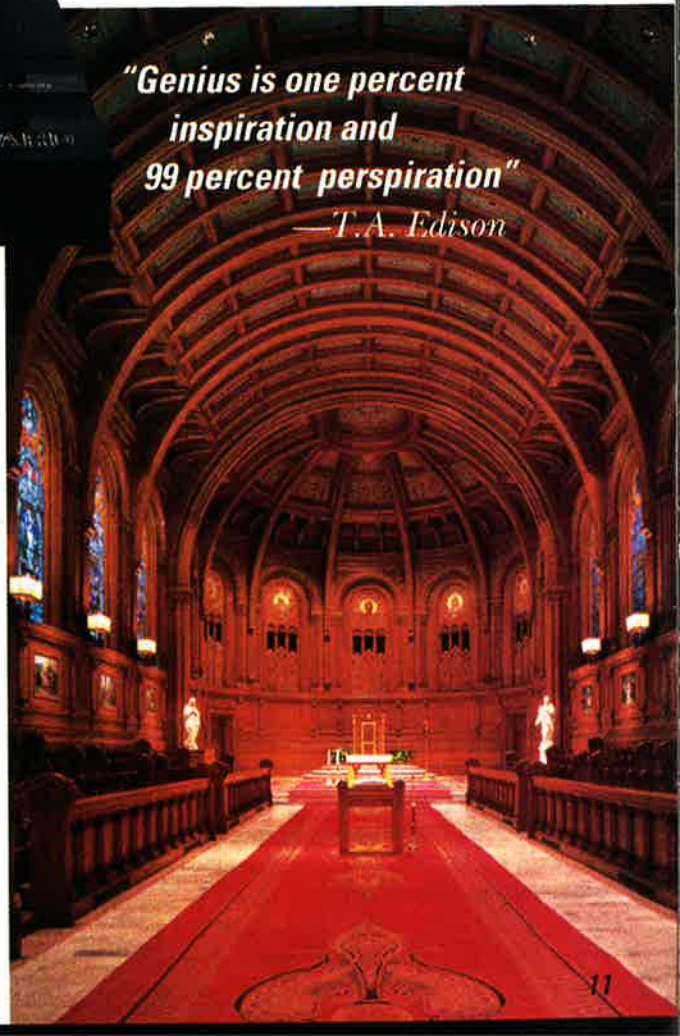
Thomas Edison changed the world when he invented the first practical electric lamp. Its development ushered in a new era of technological advancement which had never been seen before.

Today, the creative spirit Thomas Edison shared with the world lives on through the GE Lighting Edison Award. To recognize excellence in lighting design, this award is presented to lighting professionals who make significant use of GE Lamps in an outstanding lighting design during the previous calendar year.

It's our way of acknowledging the incredible efforts necessary to create world-class lighting design. Congratulations to all the inspired winners who advance the cause of creative excellence.

1994
E. Teal Brogden
Becky Bowen
The Ahmanson Theatre
Los Angeles, CA

"Genius is one percent inspiration and 99 percent perspiration"
—T.A. Edison



Past Winners

1992
Randy Burkett
Mark Hershman
Scott McMurtrie
"Terrors of the Deep"
Sea World ® of Florida
Orlando, FL

1991
Jerome Biedny, Jr.
Basilica of the Sacred Heart of Jesus
University of Notre Dame
South Bend, IN

1990
Rose De Alessi
Palace of the Fine Arts
San Francisco, CA

1989
Frank Florentine
"Beyond the Limit: Flight Enters The Computer Age"
National Air and Space Museum
Washington, DC

1988
Robert Friedman
BBDO Worldwide Corp. Hqs.
New York, NY

1987
Michael K. Souter
Ho-Chow Restaurant
Fremont, CA

1986
Frank Florentine
"Looking at Earth"
National Air and Space Museum
Washington, DC

1985
Janet Lennox Moyer
Franco Ferrini Shoe Boutique
Sacramento, CA

1984
Michael K. Souter
Highlands Inn
Carmel, CA

1983
Daniel Douglas
Corrigan's Jewelry
Dallas, TX

1993
Rose De Alessi
St. Patrick's Seminary Chapel
Menlo Park, CA

Federal Energy Legislation guide

Federal Energy Legislation has made common standard wattage and even some reduced wattage fluorescents and directional lamps obsolete.

In an effort to conserve the nation's energy resources, the Federal Government has prohibited the manufacture of many common wattage fluorescent and directional incandescent lamps for sale in the U.S.

In April 1994, certain 8-ft. fluorescent types became obsolete. In October 1995, common 4-ft. linear and U-tube fluorescents and R30, R40 and PAR38 incandescent bulbs were affected.

As soon as inventories of existing lamps are depleted, facilities will have to substitute with approved lamps *(see table at right).*

You can improve your lighting, while you save energy.A group relamping program is the most cost-effective way to enjoy energy savings.

By taking advantage of recent technological breakthroughs in lighting, you can gain substantial benefits... and bring your lighting up to the Federal standards:

☆ *Reduce your **overall lighting costs** while getting better lighting. Your electric bill could be reduced substantially.*

☆ *Improve the **appearance of your business** with deluxe color lighting that gives furnishings, decor and people a more attractive and appealing look.*

☆ ***Improve your light** levels for safety and productivity.*

A Quick Guide to the Federal Legislation:

FLUORESCENT REPLACEMENT OPTIONS

Common Fluorescent Types Affected	Top of the Line	Recommended for Most Applications	Acceptable Substitute
April 1994 Compliance Date	• Saves energy • Best lumen maintenance • Best color – 80+ CRI • Choice of specifiers	• Saves energy • Best lumen maintenance • Excellent color – 70+ CRI	• Saves energy • Less light in most cases • Good lumen maintenance
F96T12 CW, WW/SW/WWX/WWXWM/W, D/DWM	F96T12SPX41/WM [1] F96T12SPX30/WM [1] —	F96T12SP41/WM [1] F96T12SP30/WM [1] F96T12SP65/WM [1]	F96T12CW/RS/WM F96T12WW/RS/WM —
F96T12/HO CW/LW, WW/W, D	F96T12SPX41/HO/WM [1] F96T12SPX30/HO/WM [1] —	F96T12SP41/HO/WM [1] F96T12SP30/HO/WM [1] F96T12SP65/HO/WM [1]	F96T12CW/HO/WM &LW/WM F96T12WW/HO/WM —
October 1995 Compliance Date			
F40 CW, WW/SW/WWX/WWXWM, D/DWM, Shop Light	F40SPX41/RS/WM [1] F40SPX30/RS/WM [1] — F40KB	F40SP41/RS/WM [1] F40SP30/RS/WM [1] F40SP65/RS/WM [1] F40RES	F40/CW/RS/WM & EC F40/WW/RS/WM — F48/24W/UTSL
F40 U-TUBE **F40/U/6** CW, WW/WWX/W, D; **F40/U/3** CW/D, WW/WWX	— F40SPX30/U/6 [2] — — F40SPX30/U/3 [2]	F40SP41/U/6 [2] F40SP30/U/6 [2] F40SP65/U/6 [2] F40SP41/U/3 [2] F40SP30/U/3 [2]	F40CW/U/6/WM F40SCW/U/6 [2] F40WW/U/6/WM F40SWW/U/6 [2] — F40CW/U/3/WM F40SCW/U/3 [2] F40WW/U/3/WM F40SWW/U/3 [2]

INCANDESCENT REPLACEMENT OPTIONS

Common Incandescent Types Affected	Best Substitute	Very Good Substitute	Good Substitute	Acceptable Substitute
October 1995 Compliance Date	• High energy cost savings • HIR delivers 50% longer life than std. bulbs • Whiter light	• High energy cost savings • Halogen PLus delivers 25% longer life than std. bulbs • Whiter light with Halogen	• Equal or less watts • Equal life to std. • Good color • More efficient	• Equal or less watts • Life equal to std. • Good color • Typically used for deep recessed cans
R30 50R30, 75R30, 100R30	— 50PAR30L/H 75PAR30L/H	40R30/K 60R30/K —	45R30/WM 65R30/WM —	— 50ER30 75ER30
R40 75R40, 100R40, 150R40	50PAR/HIR 60PAR/HIR 60PAR/HIR	45PAR/H/PLUS 75PAR/H/PLUS 90PAR/H/PLUS	65R40/WM 90R40/WM 120R40/WM	— — 120ER40
PAR38 75PAR, 100PAR, 150PAR, 65PAR, 85PAR, 120PAR	50PAR/HIR 60PAR/HIR 60PAR/HIR 100PAR/HIR [3]	45PAR/H/PLUS 75PAR/H/PLUS 90PAR/H/PLUS	50PAR/H 100PAR/H 100PAR/H	— — —

[1] *Standard wattage SP/SPX lamps are also suitable substitutions*
[2] *Full wattage lamp*
[3] *For more light output*
[4] *Not available till 2nd quarter*

Cost *of* Light ...

The BIG *picture*

80% to 88% of every dollar you spend on the cost of light is spent on electricity.

Save your organization money by investing in the most cost-efficient, energy efficient lamps. It's all a matter of understanding the big picture. Fill out the savings chart below and see for yourself what a difference the right lamps can make.

There are five ways to calculate your savings:

Annual Savings
The total annual savings of lamps, labor and electricity.

Simple Payback
How soon your savings will payback your incremental lamp investment.

Energy Dollars Saved Over Lamp Life
The dollars saved in electricity cost over the life of the bulb.

Return On Investment
The rate of return on your incremental lamp investment.

Savings Over Lamp Life
The total savings of lamps, labor and electricity over the life of the lamp.

Calculate Your Estimated Savings*

Lighting System		*Present Lamp Used*	*Potential Replacement*
Lamp Type			
Lamp Life	A	hrs.	hrs.
Lamp Price	B	$	$
Lamp Wattage	C	watts	watts
Annual Operating Hours	D	hrs.	
Labor $ Per Relamp	E	$	
Average Electric Rate	F	$ kwh	
Total Number of Sockets	G		

Annual System Operating Costs			
Lamps	(B x D/A) G = H	$	$
Labor	(E x D/A) G = I	$	$
Electricity	(C x D x F x G)/1000 = J	$	$
Total	H+I+J = K	$	$

Estimated Savings from New Lamps		
Annual Savings	K1 – K2 = M	$
Simple Payback	(B2 – B1) x G/M = N	years
Return on Investment	$\frac{M}{G\,(B2-B1)} \times 100\% = O$	%
Energy $ Saved Over Lamp Life	(J1 – J2) x A2/D = P	$
Savings Over Lamp Life	M x A2/D = Q	$

* *Savings may vary depending on application, fixture and burning position. Stated wattages are approximate. Actual lamp wattage may vary depending on design and manufacturing tolerances.*

Selecting the Best Color Lamp

Better Color Rendering for Better Appearance

The color rendering of a light source describes that source's ability to accurately render the colors of perceived objects – people and things. As a general rule, the higher a light source's color rendering index (CRI or R_a) number, the better the lamp will make things appear.

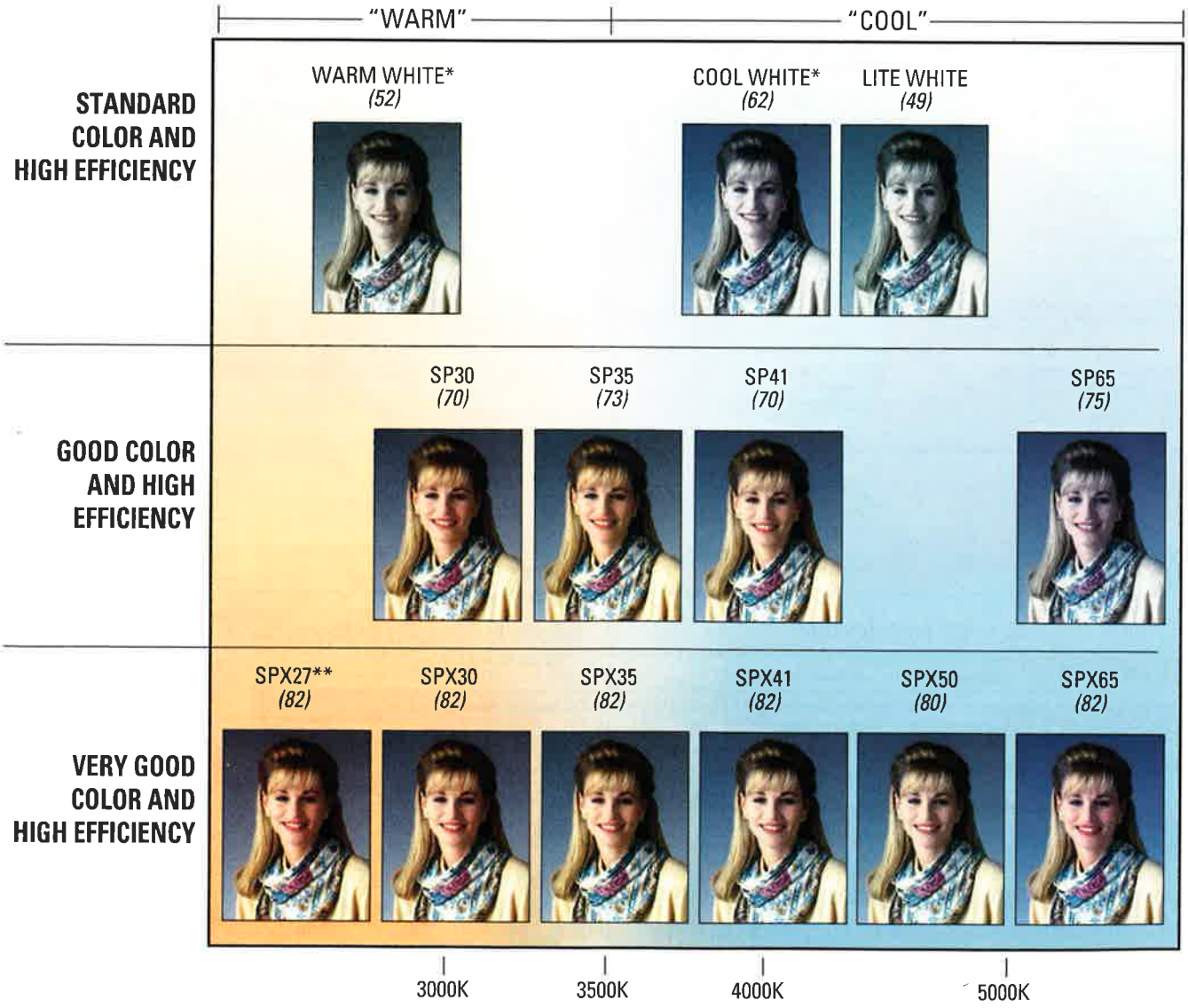
SP lamps have CRI's of 70+ making them better color-rendering light sources than older standard fluorescent lamps.

Your Choice – "Warm" or "Cool"

A second consideration in light-source selection is the degree of visual "coolness" or "warmth" of the light source.

- Lamps with chromaticity values of 4000 kelvins (K) and higher are considered visually "cool"
- Lamps with values between 3000K and 4000K are moderate in tone
- Lamps at 3000K and lower are described as "warm"
- GE SP30 and SPX30 lamps produce a warm appearance, slightly enhancing reds and yellows
- SP35 and SPX35 lamps produce a balanced tone, midway between warm and cool
- SP41 and SPX41 lamps are cooler in tone, slightly biased toward blues and greens

Describing Light-Source Color



The pictures are intended, within the limits of modern high-speed printing, to give a good indication of the differences between SP and SPX colors, at various chromaticities.

Note: Color Rendering (R_a) Index Values in ( ) for "F40" lamps.

** 4', 8' and U-tube lamps in these colors will be available only in Watt-Miser® energy-saving versions after October 31, 1995, due to new Federal Energy standards.*

*** Designed to match chromaticity of low-wattage incandescent lamps. Available in compact fluorescent lamp types.*

- SPX50 is a very cool, high color rendering light source, designed to simulate natural outdoor daylight at high efficiency
- SP65 and SPX65 colors also provide very cool light similar to the "north sky"and are considered an ideal substitute for Daylight color lamps

Great Color – Without Giving Up Light

Now, specially developed rare-earth phosphors provide what conventional phosphors cannot – both high efficiency and good color rendering.

Historically, good color rendering lamps, made with conventional phosphors, produced only 60% to 70% of the light of their standard counterparts.

Now, in SP and SPX lamps GE technology has produced color-enhancing fluorescent lamps that actually deliver more light than older standard lamp designs.

- SP lamps use a double coat of conventional and rare-earth phosphors for a moderately priced, good color rendering lamp
- SPX lamps use much more of the rare-earth phosphors for a premium-priced, very good color rendering lamp

Colors for Specific Applications

	WARM TONE	MODERATE TONE	COOL TONE
RETAIL STORES			
Department, Specialty	SP30, SPX30	SP35, SPX35	—
Discount, Mass Merchandiser	—	SP35, SPX35	SP41, SPX41
OFFICES			
General Offices	—	SP35	SP41
Private, Conference, Reception	SP30, SPX30	SP35, SPX35	—
HOSPITALS (all but color-critical areas*)	SP30, SPX30	SP35, SPX35	SP41, SPX41
LODGING & FOOD SERVICE			
Meeting Rooms, Offices	—	SP35	—
Living & Dining Areas	SP30, SPX30	SPX35	—
SCHOOLS, UNIVERSITIES	—	SP35	SP41
MUSEUMS, ART GALLERIES*	SPX30	SPX35	SPX50**
INDUSTRIAL*	SP30	SP35	SP41, SPX50**, SP65**, SPX65**

* Color-critical areas such as hospital nurseries, color matching booths and art restoration rooms should use Chroma-50 (C50). The higher efficiency SPX50 color may also be suitable.
** High efficiency daylight-simulating color

SP and SPX Lamps

IF YOU NEED:	Better color emphasis than cool white or warm white, plus higher light output...	Brighter, more vibrant colors than even the SP colors, plus the same high light output...
CHOOSE:	SP	SPX
IN A WARM TONE:	SP30 — Especially good for low light levels. Use where you want people and furnishings to look good.	SPX30 — Warm, but brings out high color contrast. Especially good for low light levels where colors must look very good – dining areas, exclusive stores, etc.
IN A MODERATE TONE*:	SP35 — A tone acceptable to nearly everyone. Good for nearly any application where you want people and furnishings to look good.	SPX35 — Moderate tone acceptable to nearly everyone. Brings out colors strongly. Especially good for all kinds of merchandising, and areas such as executive suites, conference rooms... Use wherever colors must look very good.
IN A COOL TONE:	SP41 — A tone similar to cool white, but better color. Especially good for higher light levels wherever people and furnishings must look good.	SPX41 — Cool tone and very good color. Renders all colors well, but emphasizes blues and greens. Use for offices, merchandising areas, and color-important industrial applications.
IN A VERY COOL TONE: (Daylight-simulating)	SP65 — A tone similar to Daylight lamps, but more efficient.	SPX50 and SPX65 — Provide a unique crisp clean look and blend well with outdoor daylight. Use for daylighted spaces, industrial clean rooms, special retailing and commercial areas. Renders all colors well, but emphasizes cool tones. May be too cool for some applications – especially at low light levels.

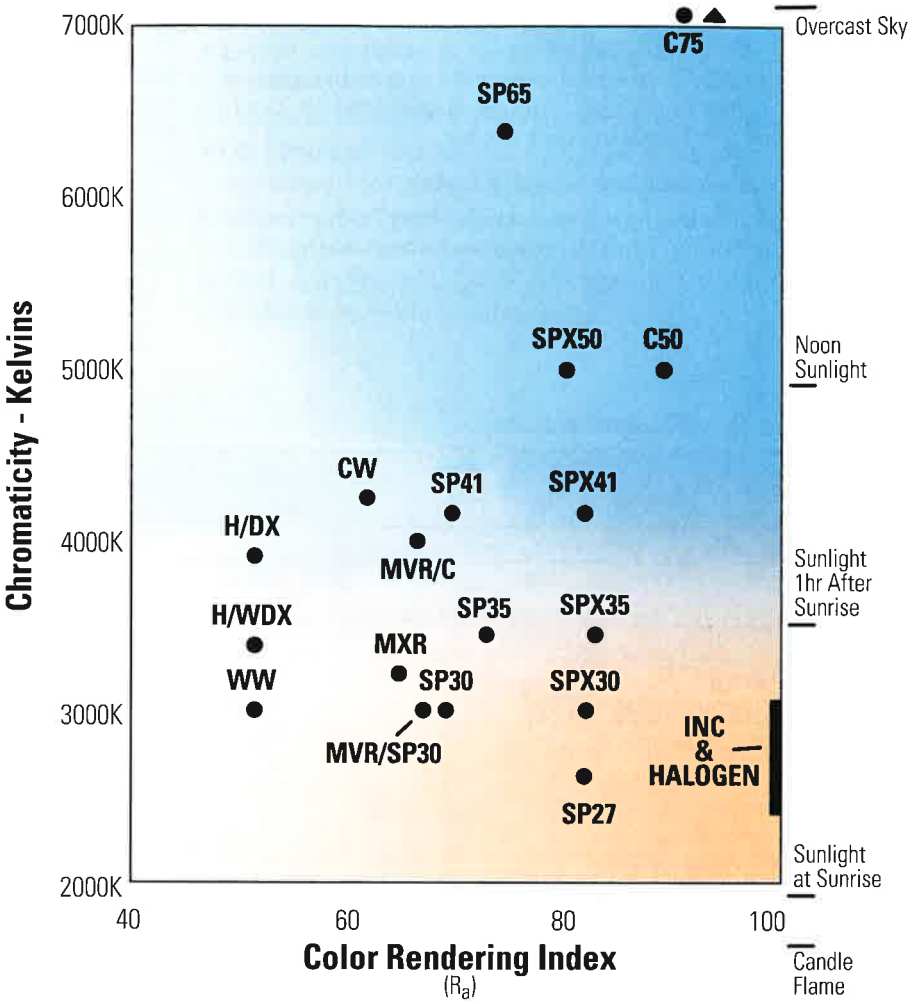
* The moderate color temperature of the SP35 and SPX35 is usually acceptable to both those who like warm and those who like cool environments. These colors are also useful for well-shielded lighting systems (wedge louvres, deep-cell parabolics) which tend to "cool off" the space visually.

Color Rendering and Chromaticity Data for Incandescent, Fluorescent and HID

The chart at right shows both dimensions of light source color — chromaticity and color rendering — for the most popular light sources. Designers often choose a chromaticity first to match the "atmosphere" appropriate for the application. Then a light source at that chromaticity is picked with the highest color rendering, and best performance and physical characteristics to meet the requirements of the installation.

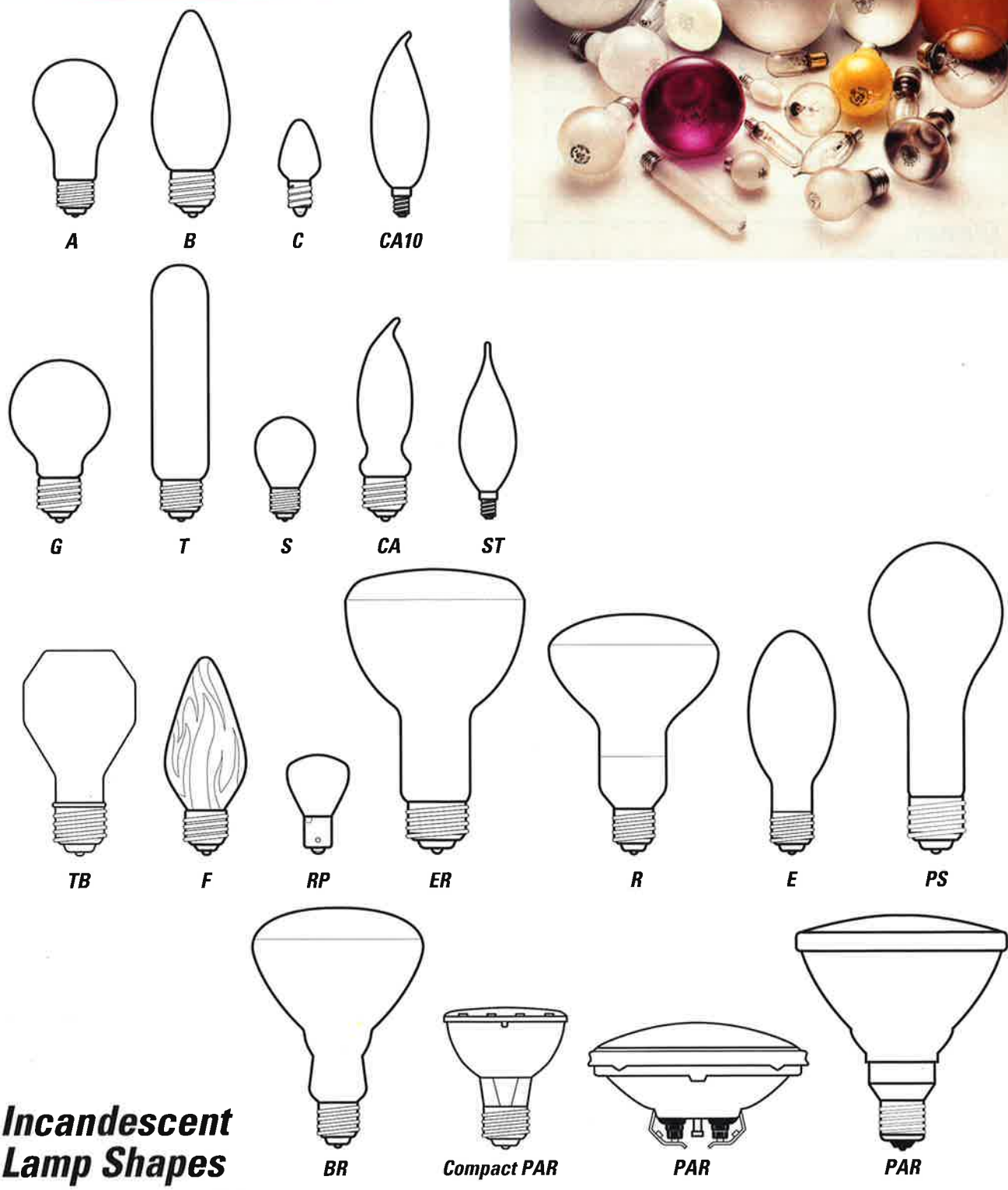
The designations are for these lamps:

SP30	Specification Series 3000K Fluorescent
SP35	Specification Series 3500K Fluorescent
SP41	Specification Series 4100K Fluorescent
SP65	Specification Series 6500K Fluorescent
SPX30	Deluxe Specification Series 3000K Fluorescent
SPX35	Deluxe Specification Series 3500K Fluorescent
SPX41	Deluxe Specification Series 4100K Fluorescent
SPX50	Deluxe Specification Series 5000K Fluorescent
CW	Cool White, Fluorescent
WW	Warm White, Fluorescent
C50	Chroma 50, Fluorescent
INC	Incandescent
H/DX	Mercury Deluxe
H/WDX	Mercury Warm Deluxe
MVR	Multi-Vapor
MVR/SP30	Multi-Vapor, Phosphor Coated
MXR	Halarc®
LU/DX	Deluxe Lucalox



Suggested color applications for HID lamps:

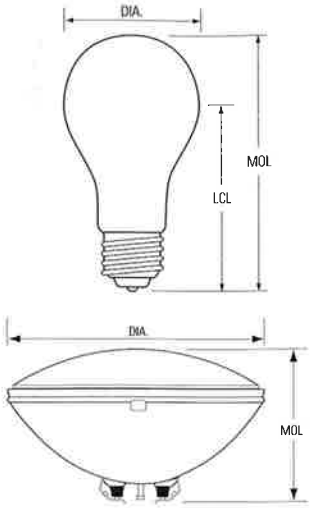
Clear Mercury	Landscape lighting, specialized floodlighting such as green copper roofs.
DX Mercury	Stores, public spaces — Multi-Vapor® however, are preferred.
WDX Mercury	Stores — Halarc® lamps, are preferred.
MV	Stores, public spaces, industrial, gymnasums, floodlighting signs & buildings, parking areas, sports.
MV/C	Same as MV — warmer color — diffuse coating reduces brightness.
MV/SP30	Same as MV — warmer than MV or MV/C — matches SP30 fluorescent.
Halarc	Stores, public spaces — warmer color. Similar in chromaticity to SP35 and SPX35 fluorescent.
LU	Street lighting, parking areas, industrial, floodlighting, security, CCTV.
LU/DX	Floodlighting, parking areas, indoor/ outdoor pedestrian malls, industrial, security, roadway.



Incandescent Lamp Shapes

(drawings not to scale)

Bulb Identification:



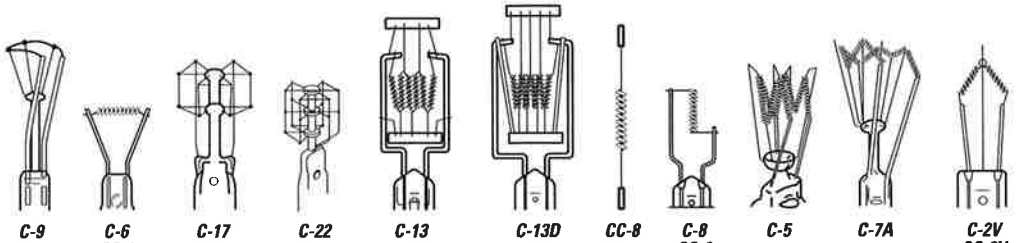
DIA. in. (mm):
Diameter of bulb at widest point.

MOL in. (mm):
Maximum Overall Length including base or pins.

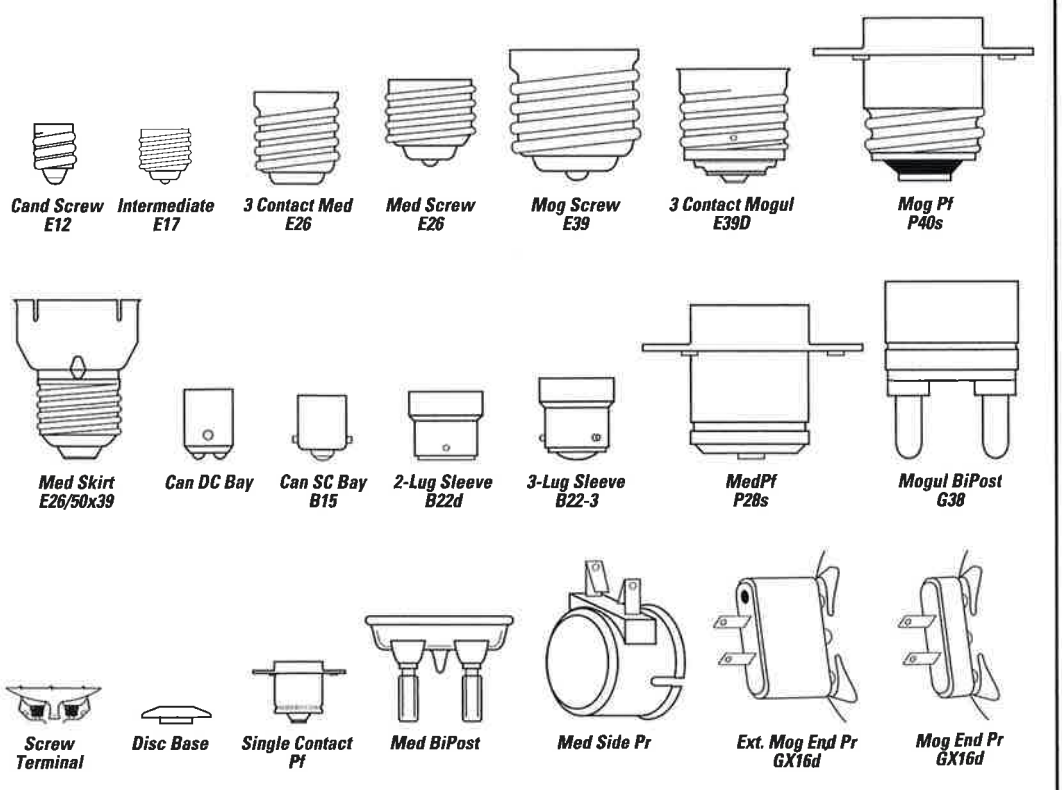
LCL in. (mm):
Distance between the center of the filament and the Light Center Length reference plane.

Note: Lamp drawings are not drawn to scale. Be sure to check size and dimension information when identifying each lamp.

Filament Identification:



Base Identification:



Introduction

GE Lighting's incandescent lamps trace their ancestry to the world's first practical electric bulb, invented by Thomas Alva Edison, founder of General Electric Company, in 1879.

More than a century of research and development later, the present range of GE incandescent lamps represents the state of the art of lamps for residential and commercial use, as well as special purpose lamps for decorative or display applications.

In an incandescent lamp, light is generated by heating the filament to incandescence. The hotter the filament, the more efficient it is in converting electricity to light. However, when the filament operates hotter, its life is shortened so the design of each lamp is a balance between efficiency and life. This is why lamps of equal wattage may have different lumen ratings and different life ratings.

Incandescent lamps of similar size are commonly available with different wattage ratings. The fixture wattage limit should not be exceeded.

Protection From Moisture

When **HRG** (Hard Glass) appears in the Lamp Designation or Description column, the outer bulbs are made of special thermal-shock-resistant glass. However, sometimes external protection of the lamps is also needed to eliminate the chance of bulb breakage due to contact with water during operation. Footnotes will indicate when external protection is needed. Where **HRG** is not shown, the bulb glass is such that the lamps require protection from exposure to mist or condensation as well as direct contact with water during operation.

Cov-R-Guard™ lamps and some **Saf-T-Gard**® lamps (lamps coated with Teflon®) need no such protection from water. (Teflon® is a registered trademark of DuPont.)

Rated Average Life

Values are based on a large number of representative lamps under controlled conditions. Individual lamps or groups of lamps may vary from the Rated Average Life shown. Rated Average Life is a median value of life expectancy – the total operating time at which under normal conditions 50% of any large group of initially installed lamps are expected to be still burning.

Bases

When Footnote 23 or **BB** (Brass Base) appears in the Lamp Designation or Description column, the lamp is supplied only with a brass base. If Brass Base (Footnote 23 or **BB**) does not appear, the lamp is supplied only with an aluminum base. Brass Bases are recommended for outdoor lighting applications.

Burning Position

Unless otherwise stated, the lamp can be burned in any position. Limitations on lamp operating position are shown in the Description column.

The following abbreviations are used:

BDTH (Burn lamp in Base Down To Horizontal Position)

BUTV (Burn lamp in Base Up To Vertical Position).

INCANDESCENT BRAND NAME CROSS-REFERENCE

GE	OSRAM/SYLVANIA	PHILIPS
Bug-Lite	Bug-Lite	Bug-A-Way
Cool Beam	Cool-Lux	Cool Beam
Cov-R-Guard™	Safeline	Silicone Coated
Saf-T-Gard®	—	—
Soft Pink	Soft Pink	Softone Pastels
Soft White Miser®	Energy Saver Soft White	Energy Saving
Extended Service	Excel-Line®	Extended Service
Gro & Sho™	Spot-GRO	Agro-Lite
Long Life Soft White	Double Life™ Soft White	Longer Life Soft White
Lumiline	Lumiline	Philinea
Party Bulb	—	—
Survivor™	—	Industrial Service
Watt-Miser®	Super Saver®	Econ-o-Watt
Watt-Miser® PAR	Super Saver Par®	Econ-o-Par
Watt-Miser® Plus	Super Saver Excel®	Extended Service

ATTENTION: *This brand-name cross-reference chart is provided only as a quick reference. Other lamp company brand listings may only represent a near equivalent, versus an identical match to GE brands. Individual lamp manufacturers' product offerings and performance specifications should be consulted. Lamp performance may be affected by environmental conditions, and/or auxiliary equipment.*

Energy Savings over Lamp Life with Watt-Miser® Bulbs

Standard Lamp	40-watt 1000 hr.	60-watt 1000 hr.	75-watt 750 hr.	100-watt 750 hr.	150-watt 750 hr.
Energy-Saving Replace-ment	Replace with 34-watt Watt-Miser 2000 hr.(1)	Replace with 52-watt Watt-Miser 1330 hr.(2)	Replace with 67-watt Watt-Miser 1000 hr.(3)	Replace with 90-watt Watt-Miser 1000 hr.(4)	Replace with 135-watt Watt-Miser 1000 hr.(5)
8¢ KWH Rate					
	$.96	$.85	$.64	$.80	$1.20

Footnotes

(1) 40-watt 1000 hr. 505 lumens compared to 34-watt 2000 hr. 380 lumens
(2) 60-watt 1000 hr. 865 lumens compared to 52-watt 1330 hr. 730 lumens
(3) 75-watt 750 hr. 1190 lumens compared to 67-watt 1000 hr. 1030 lumens
(4) 100-watt 750 hr. 1710 lumens compared to 90-watt 1000 hr. 1465 lumens
(5) 150-watt 750 hr. 2850 lumens compared to 135-watt 1000 hr. 2380 lumens

GE Watt-Miser® A-Line Bulbs

Replaces standard incandescent bulbs* for...

- 33% longer life
- 10-15% energy cost savings
- Available in 34-135 watts to replace 40-150 watt standard bulbs.
- For even longer life – 2500 hours – use Watt-Miser® Plus (WMP) bulbs.

* Some loss of light, depending on wattage selected, when replacing standard bulbs. See catalog listing for lumen ratings.

GE Survivor™ A-Line Bulbs

Built to last, even under many "rough" service conditions...

- Five filament support design protects against early burnouts caused by bumps, jars and vibration
- Longer life... lasts 3000 hours. 3-4 times longer than standard bulbs*
- Popular wattages available
- Economically priced
- Best A-line choice for general commercial/ industrial use

* Survivor bulbs provide a 300%-400% increase in life with 68%-75% of the light of ordinary bulbs.

GE Cov-R-Guard™ A-Line Bulbs

- Teflon®* coating is shatter and weather-resistant
- Resists breakage from heat and thermal shock that can occur from water, sleet, snow, molten solder, and weld spatter
- Wide choice of wattages and voltages
- Rough service version available for extra tough conditions

Uses:

Construction sites, loading docks, string lighting, elevators, trouble light, metal fabricating, food processing areas, farms.

* Teflon is a registered trademark of DuPont.

GE Krypton-Filled BR30 Reflector Bulbs

- Energy cost saving alternative to standard reflector (R) bulbs
- Meets Federal Energy Legislation Standards; most standard R bulbs are obsoleted by new energy legislation
- Delivers as much light on target as the Standard R bulbs they replace (Some lumen loss. See listing for lumen values)
- Easy replacement - same length and width as standard R bulbs
- 40- and 60-watt sizes available

Uses:

Down lighting, display lighting, accent lighting, wall washing.

Wherever standard reflector bulbs are used.

Headings in this catalog section:

The following glossary of terms and descriptions can help you when checking Incandescent lamp specifications and when ordering products. Within this product line, lamps are divided by wattage. Within wattage, lamps are listed alphabetically by bulb shape. To find your lamp, follow these simple steps:

NOTE: All Halogen PAR and A-line lamps from Section 2 (Halogen) are also listed in Section 1 (Incandescent).

When You Don't Know The Lamp Description:

1. Identify the lamp wattage.
2. Identify bulb shape by using table on page 1-1.
3. Measure bulb diameter using ruler in appendix section page 8-6 to determine width in eighths of an inch.
4. Identify base type using table on page 1-2.
5. Find your lamp in the table containing the bulb wattage, then match the shape, size and base, which are all listed alphabetically.

Approximate Beam Spread:
For reflector type lamps. The total angle of the directed beam (in degrees) to where the intensity of the beam falls to 50% of the maximum value.

CBCP (Center Beam Candlepower):
For reflector type lamps. Center Beam Candlepower is the intensity (candelas) at the center or maximum intensity of the beam.

Filament Design:
Filaments are designated by a letter combination in which C is a coiled wire filament, CC is a coiled wire that is itself wound into a larger coil, and SR is a straight ribbon filament. Numbers represent the type of filament-support arrangement.

Ⓔ = *Means this lamp meets Federal Minimum Efficiency Standards. To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.*

Life:
Hours:
Life (as defined by FTC lamp label rules) is rated average life (see notes 1-34).

Color Temperature-Kelvins (K):
"Warmth" or "Coolness" of the lamp, measured in Kelvins (K). The higher the temperature, the cooler the appearance of the light.

Bulb:
Bulb shape followed by its size (the maximum diameter of the bulb expressed in eighths of an inch).

Lamp Designation:
The lamp's identification code.

Energy Used Watts:
Energy Used (as defined by FTC lamp label rules). To find actual energy used (kWh) multiply power (watts shown) x time divided by 1000.

Volts:
Each lamp's voltage is listed.

LCL in. (mm):
Distance between the center of the filament and the Light Center Length reference plane, in inches and millimeters.

Product Code:
It is important to use this five-digit code when ordering to ensure that you receive the exact product you require.

Case Quantity:
Number of product units packed in a case.

Light Output-Lumens:
The lamp's rated output after the initial 2 hours of operation.

MOL in. (mm):
Maximum Overall Length in inches and millimeters.

Base:
The type of base.

Additional Informaton:
Typical application and/or other important information.

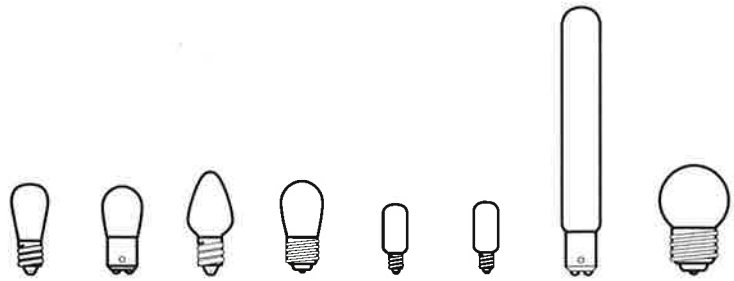
Bulb	Base	Product Code	Ⓔ	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
100 WATTS																		
A19	Med	41034		100A 48PK	120	144	Standard	1710	100	750	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		17933		100A	130	120	Inside Frost	1680	100	750	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
							Ratings at 120 volts.	1275	89	1950								
		39321		100A/CL 24PK	120	120	Crystal Clear	1730	100	750	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		41036		100A/W 48PK	120	144	Soft White	1690	100	750	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
100 WATTS																		
STANDARD HALOGEN PAR LAMPS																		
PAR38	Med Skirt	17951	Ⓔ	100PAR/H/SP	120	12	Spot (14,15,56,88,96)*	1400	100	2000	CC-8	5 5/16	(134.9)	-	-	2900	17000	11
		17986	Ⓔ	100PAR/FL/S/HAL 6PK	120	6	Flood (14,15,56,88,96)*	1400	100	2000	CC-8	5 5/16	(134.9)	-	-	2900	4800	27
		17947	Ⓔ	100PAR/H/FL	130	12	Flood (14,15,56,88,96)*	1400	100	2000	CC-8	5 5/16	(134.9)	-	-	2900	4800	27
							Ratings at 120 volts.	1100	88	4000								

100 PAR / H / FL

- 100 — *Identifies the lamp's wattage.*
- PAR — *Identifies the lamp's shape.*
- H — *Identifies as a halogen lamp.*
- FL — *Identifies as a flood lamp.*

***Yellow Highlight** indicates that this is a reduced wattage option for lamps normally used in this application. Be sure to check wattage, lumens and life to determine which lamp is best suited to your needs.*

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.
Ⓔ Means this lamp meets Federal Minimum Efficiency Standards. ( ) * All footnote references found at the end of this section. Reduced Wattage

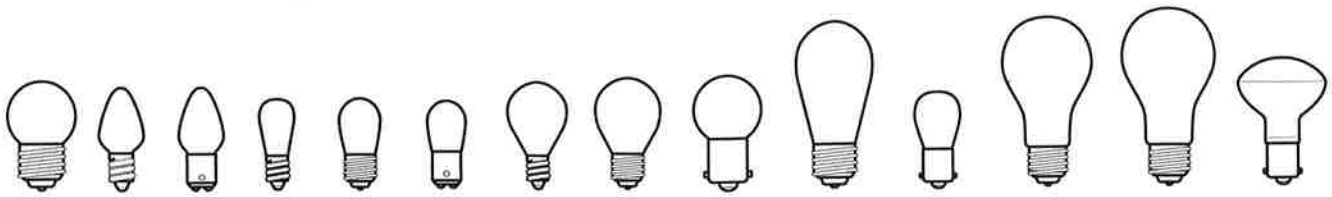


S6 Cand | S6 DC Bay | C7 Cand | S6 Inter | T4 Cand | T4.5 Cand | T6.5 DC Bay | S11 Med

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
3 WATTS																	
S6	Cand	11096	3S6/5 24PK	120	24	Clear-Indicator	11	3	3000	C-7A	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
		11098	3S6/5 24PK	130	24	Clear-Indicator	11	3	3000	C-7A	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
	DC Bay	35326	3S6/5DC 24PK	120	24	Clear-Indicator	11	3	3000	C-7A	1 13/16	(46.0)	1 7/16	(36.5)	-	-	-
4 WATTS																	
C7	Cand	43050	4C7 CD/2	120	240	Cool Burning™ Clear Night Light (9)*	16	4	3000	C-7A	2 1/8	(54.0)	-	-	-	-	-
		16001	4C7/W CD/2	120	240	White-Cool Burning™ Night Light (9)*	12	4	3000	C-7A	2 1/8	(54.0)	-	-	-	-	-
		21493	4C7/BL CD/2	120	240	Cool Burning™ Blue Night Light (9)*	-	4	3000	C-7A	2 1/8	(54.0)	-	-	-	-	-
		21491	4C7/PK CD/2	120	240	Cool Burning™ Pink Night Light (9)*	-	4	3000	C-7A	2 1/8	(54.0)	-	-	-	-	-
		20572	4C7/S CD/4	120	120	Standard Clear Night Light (44)*	19	4	2000	C-7A	2 1/8	(54.0)	-	-	-	-	-
		20573	4C7/W/S CD/4	120	120	Standard White Night Light (44)*	14	4	2000	C-7A	2 1/8	(54.0)	-	-	-	-	-
6 WATTS																	
S6	Cand	11316	6S6 24PK	12	24	Clear-Indicator	50	6	1500	C-2V	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
		11329	6S6	24	240	Clear-Indicator	50	6	1500	C-2V	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
	DC Bay	11620	6S6DC 24PK	24	24	Clear-Indicator	50	6	1500	C-2V	1 13/16	(46.0)	1 7/16	(36.5)	-	-	-
	Cand	11331	6S6 24PK	30	24	Clear-Train	50	6	1500	C-2V	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
		43397	6S6/BB	32	240	Clear-Train, BB (23)*	50	6	1500	C-2V	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
	DC Bay	11357	6S6DC 24PK	75	24	Clear-Indicator	45	6	1500	C-7A	1 13/16	(46.0)	1 7/16	(36.5)	-	-	-
	Cand	11485	6S6/R TRAY	120	24	Transparent Red-Indicator, 12-Lamp Tray	-	6	1500	C-7A	1 7/8	(47.6)	-	-	-	-	-
	Inter	11660	6S6/7 24PK	120	24	Clear-Indicator, 12-Lamp Tray	41	6	1500	C-7A	1 13/16	(46.0)	1 1/16	(27.0)	-	-	-
	Cand	11577	6S6/3	120	240	Clear-Signal Light (6)*	23	6	5000	C-7A	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
		11367	6S6 TRAY	120	240	Clear-Indicator, 12-Lamp Tray	41	6	1500	C-7A	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
		15820	6S6 CD/2	120	240	Clear-Indicator (9)*	41	6	1500	C-7A	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
		11369	6S6 TRAY	130	240	Clear-Indicator, 12-Lamp Tray	41	6	1500	C-7A	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
	DC Bay	11592	6S6DC TRAY	120	240	Clear-Indicator, 12-Lamp Tray	41	6	1500	C-7A	1 13/16	(46.0)	1 7/16	(36.5)	-	-	-
		11594	6S6DC TRAY	130	240	Clear-Indicator, 12-Lamp Tray	41	6	1500	C-7A	1 13/16	(46.0)	1 7/16	(36.5)	-	-	-
		11609	6S6DC 24PK	145	24	Clear-Indicator, 12-Lamp Tray	41	6	1500	C-7A	1 13/16	(46.0)	1 7/16	(36.5)	-	-	-
	Cand	11370	6S6	135	240	Clear-Indicator	41	6	1500	C-7A	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
		11372	6S6	145	240	Clear-Indicator	41	6	1500	C-7A	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
		11374	6S6	155	240	Clear-Indicator	41	6	1500	C-7A	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
T4	Cand	11758	6T4/3	125	100	Clear-Indicator, Coils in series, BB (23)*	42	6	450	2C-2F	1 7/16	(36.5)	1	(25.4)	-	-	-
T4 1/2	Cand	11762	6T4/1	120	100	Clear-Indicator	42	6	1500	C-7A	1 7/8	(47.6)	1 5/16	(33.3)	-	-	-
		11764	6T4/1	130	100	Clear-Indicator	42	6	1500	C-7A	1 7/8	(47.6)	1 5/16	(33.3)	-	-	-
7 WATTS																	
C7	Cand	11779	7C7 TRAY	120	240	Clear-Indicator, 12-Lamp Tray	46	7	3000	C-7A	2 1/8	(54.0)	-	-	-	-	-
		11792	7C7 TRAY	130	240	Clear-Indicator, 12-Lamp Tray	46	7	3000	C-7A	2 1/8	(54.0)	-	-	-	-	-
		11815	7C7/W TRAY	120	240	White-Indicator, 12-Lamp Tray	36	7	3000	C-7A	2 1/8	(54.0)	-	-	-	-	-
		11809	7C7/R TRAY	120	240	Red-Indicator, 12-Lamp Tray	-	7	3000	C-7A	2 1/8	(54.0)	-	-	-	-	-
7.4-7 1/2 WATTS																	
T6 1/2	DC Bay	43409	7.4T6 1/2 DC/F	10.5	60	Frost-Exit Sign	55	7	10000	C-8	5 1/2	(139.7)	-	-	-	-	-
S11	Med	41267	7 1/2 S/CW CARD	120	240	White	39	7.5	1400	C-9	2 1/4	(57.2)	-	-	-	-	-
		11921	7 1/2 S/CW TRAY	120	240	White-12-Lamp Tray	39	7.5	1400	C-9	2 1/4	(57.2)	-	-	-	-	-
		11922	7 1/2 S/CW TRAY	130	240	White-12-Lamp Tray	39	7.5	1400	C-9	2 1/4	(57.2)	-	-	-	-	-
		11847	7 1/2 S TRAY	120	240	Clear-12-Lamp Tray	53	7.5	1400	C-9	2 1/4	(57.2)	-	-	-	-	-
		11848	7 1/2 S TRAY	130	240	Clear-12-Lamp Tray	53	7.5	1400	C-9	2 1/4	(57.2)	-	-	-	-	-
		11867	7 1/2 S/CB TRAY	120	240	Blue-12-Lamp Tray	-	7.5	1400	C-9	2 1/4	(57.2)	-	-	-	-	-
		11880	7 1/2 S/CG TRAY	120	240	Green-12-Lamp Tray	-	7.5	1400	C-9	2 1/4	(57.2)	-	-	-	-	-

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.

© Means this lamp meets Federal Minimum Efficiency Standards. ( )* All footnote references found at the end of this section. Reduced Wattage



Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
7½ WATTS																	
S11	Med	11894	7½ S/CO TRAY	120	240	Orange-12-Lamp Tray	-	7.5	1400	C-9	2 1/4	(57.2)	-	-	-	-	-
		39227	7½ S/CR CARD	120	240	Red	-	7.5	1400	C-9	2 1/4	(57.2)	-	-	-	-	-
		11910	7½ S/CR TRAY	120	240	Red-12-Lamp Tray	-	7.5	1400	C-9	2 1/4	(57.2)	-	-	-	-	-
		11911	7½ S/CR TRAY	130	240	Red-12-Lamp Tray	-	7.5	1400	C-9	2 1/4	(57.2)	-	-	-	-	-
10 WATTS																	
C7	Cand	11975	10C7 TRAY	120	240	Clear-Indicator, 12-Lamp Tray (6)*	42	10	5000	C-7A	2 1/8	(54.0)	-	-	-	-	-
	DC Bay	11994	10C7DC TRAY	120	240	Clear-Indicator, 12-LampTray (6)*	40	10	5000	C-7A	2 1/8	(54.0)	-	-	-	-	-
S6	Cand	12041	10S6/10 24PK	230	24	Clear-Indicator	66	10	1500	C-7A	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
		12050	10S6/10 24PK	250	24	Clear-Indicator	66	10	1500	C-7A	1 7/8	(47.6)	1 3/8	(34.9)	-	-	-
	Inter	12107	10S6/13 24PK	250	24	Clear-Indicator	66	10	1500	C-7A	1 1/8	(28.6)	-	-	-	-	-
	DC Bay	12060	10S6/10DC 24PK	230	24	Clear-Indicator	66	10	1500	C-7A	1 14/16	(46.0)	1 7/8	(47.6)	-	-	-
S11	Cand	12249	10S11/79	120	120	Clear-Indicator	80	10	1500	C-7A	2 1/4	(57.2)	1 9/16	(39.7)	-	-	-
	Inter	12188	10S11N/F	120	120	Frost-Appliance	79	10	1500	C-7A	2 5/16	(58.7)	1 5/8	(41.3)	-	-	-
		12186	10S11N	120	120	Clear-Sign, BB (23)*	80	10	1500	C-7A	2 5/16	(58.7)	1 5/8	(41.3)	-	-	-
		12185	10S11N	130	120	Clear-Sign, BB (23)*	80	10	1500	C-7A	2 5/16	(58.7)	1 5/8	(41.3)	-	-	-
	Cand	22275	10S11C/CW	120	120	White external enamel coating, Lighted Cosmetic Mirror	-	10	1500	C-7A	2 1/4	(57.2)	-	-	-	-	-
	Inter	12233	10S11N/CW	130	120	White-Sign & Decorative, BB (23)*	64	10	1500	C-7A	2 5/16	(58.7)	-	-	-	-	-
	SC Bay	12154	10S11/5SC	120	120	Clear-Railway Signal Light (69)*	80	10	1500	C-7A	2 3/8	(60.3)	1 1/4	(31.8)	-	-	-
S14	Med	12342	10S14	120	120	Clear-Sign, BB (23)*	77	10	1500	C-9	3 1/2	(88.9)	2 1/2	(63.5)	-	-	-
		12411	10S14/IF	120	120	I.F.-Sign, BB (23)*	76	10	1500	C-9	3 1/2	(88.9)	2 1/2	(63.5)	-	-	-
		12455	10S14/CR	120	120	Red-Sign & Decorative, BB (23)*	-	10	1500	C-9	3 1/2	(88.9)	-	-	-	-	-
		12483	10S14/CY	120	120	Yellow-Sign & Decorative, BB (23)*	-	10	1500	C-9	3 1/2	(88.9)	-	-	-	-	-
11 WATTS																	
S11	Inter	18289	11S11/N	130	120	Clear-Sign, BB (23)*	74	11	5000	C-7A	2 5/16	(58.7)	1 5/8	(41.3)	-	-	-
S14	Med	12575	11S14	130	120	Clear-Sign, BB (23)*	77	11	3000	C-9	3 1/2	(88.9)	2 1/2	(63.5)	-	-	-
		12589	11S14/IF	130	120	I.F.-Sign, BB (23)*	76	11	3000	C-9	3 1/2	(88.9)	2 1/2	(63.5)	-	-	-
		12626	11S14/W	130	120	White-Sign, BB (23)*	-	11	3000	C-9	3 1/2	(88.9)	-	-	-	-	-
		12621	11S14/R	130	120	Red-Sign, BB (23)*	-	11	3000	C-9	3 1/2	(88.9)	-	-	-	-	-
		12632	11S14/Y	130	120	Yellow-Sign, BB (23)*	-	11	3000	C-9	3 1/2	(88.9)	-	-	-	-	-
		12639	11S14/TB	130	120	Transparent Blue-Sign, BB (23)*	-	11	3000	C-9	3 1/2	(88.9)	2 1/2	(63.5)	-	-	-
		12641	11S14/TG	130	120	Transparent Green-Sign, BB (23)*	-	11	3000	C-9	3 1/2	(88.9)	2 1/2	(63.5)	-	-	-
		12645	11S14/TR	130	120	Transparent Red-Sign, BB (23)*	-	11	3000	C-9	3 1/2	(88.9)	2 1/2	(63.5)	-	-	-
		12647	11S14/TY	130	120	Transparent Yellow-Sign, BB (23)*	-	11	3000	C-9	3 1/2	(88.9)	2 1/2	(63.5)	-	-	-
12-13 WATTS																	
S8	SC Bay	10690	12S8/93T CD2 6PK	12	240	Low Voltage, High Intensity (9,66,74)*	200	12	1000	C-2R	2	(50.8)	1 1/4	(31.8)	-	-	-
S11	SC Bay	12649	13/3½ S11/95	10	120	Clear-Railway Signal Light, Filament in multiple (70)*	180	13.5	1000	CC-6 C-12	2 3/8	(60.3)	1 1/4	(31.8)	-	-	-
15 WATTS																	
A15	Med	12658	15A15	130	120	Inside Frost	125	15	2500	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
		16215	15A15/CL/BB	130	120	Clear-Sign, BB (23)*	110	15	3000	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
		19317	15A/GR/CL/8	130	120	Clear-Long Life Sign, BB (23)*	90	15	8000	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
		41270	15A/W 24PK	120	120	Soft White	110	15	2500	C-9	3 1/2	(88.9)	-	-	-	-	-
A17	Med	12784	15A	34	120	I.F.-Train (53)*	115	15	1000	C-9	3 5/8	(92.1)	2 3/8	(60.3)	-	-	-
R14	SC Bay	33404	15R14SC/SP	12	120	Reflector Spot, Light-Inside Frost, BB (4,23)*	135	15	2000	CC-8	2 5/8	(66.7)	-	-	-	-	-

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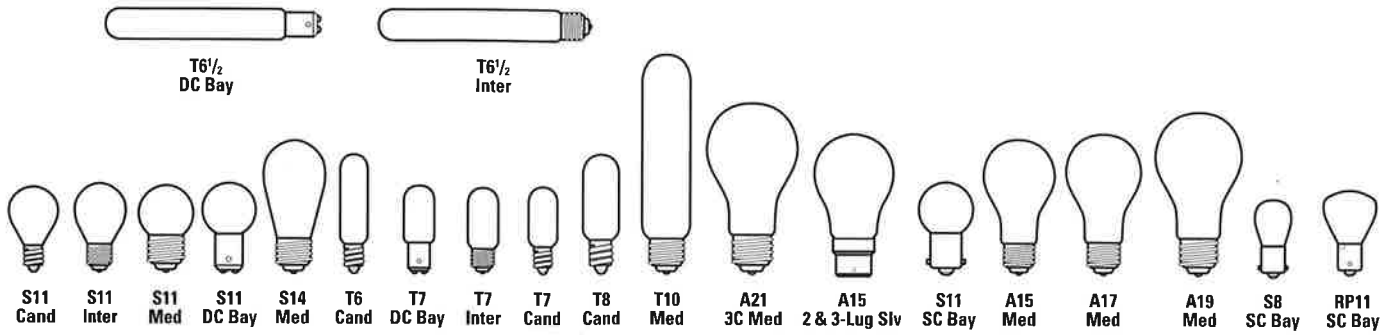

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
15 WATTS (cont'd)																	
S11	Cand	13236	15S11/14	120	120	Clear-Medical Spot	150	15	200	C-7A	2 1/4	(57.2)	1 3/8	(34.9)	-	-	-
		13210	15S11/13	120	120	Clear	137	15	750	C-7A	2 1/4	(57.2)	1 9/16	(39.7)	-	-	-
	Inter	13268	15S11/87	120	120	Clear-Optical, BB (23)*	120	15	750	C-7A	2 5/16	(58.7)	1 5/8	(41.3)	-	-	-
	Med	13291	15S11/102 TRAY	120	240	Clear-Refrigerator 12-LampTray	137	15	400	C-7A	2 1/4	(57.2)	-	-	-	-	-
	DC Bay	13188	15S11/3DC	75	120	Clear-Train	138	15	1000	C-9	2 3/8	(60.3)	1 1/4	(31.8)	-	-	-
S14	Med	32173	15S14/GR/CL	130	120	Clear-Sign. Group Replacement, BB (23)*	110	15	3000	C-9	3 1/2	(88.9)	2 1/2	(63.5)	-	-	-
		11137	15S14/GR/CL/8	130	120	Clear-Sign. Group Replacement, BB (23)*	90	15	8000	C-9	3 1/2	(88.9)	2 1/2	(63.5)	-	-	-
		42590	15S14/F/BB	34	120	Frost-Locomotive Cab (23)*	144	15	1000	C-9	3 1/2	(88.9)	2 1/2	(63.5)	-	-	-
T6	Cand	13390	15T6	120	60	Clear-Switchboard	107	15	2000	C-7A	3 1/16	(77.8)	-	-	-	-	-
		13402	15T6	145	60	Clear-Switchboard	102	15	2000	C-7A	3 1/16	(77.8)	-	-	-	-	-
		22114	15T6C CARD	145	120	Clear-Switchboard. Blister Card	102	15	2000	C-7A	3 1/16	(77.8)	-	-	-	-	-
T7	DC Bay	13453	15T7DC	120	120	Clear-Appliance (29,62)*	108	15	-	C-7A	2 1/4	(57.2)	1 5/16	(33.3)	-	-	-
		35154	15T7DC CARD	120	240	Clear-Appliance 12-Pack (29,62)*	108	15	-	C-7A	2 1/4	(57.2)	1 5/16	(33.3)	-	-	-
		13467	15T7DC/F	120	120	Frost-Appliance (29,62)*	106	15	-	C-7A	2 1/4	(57.2)	1 5/16	(33.3)	-	-	-
	Inter	35153	15T7N CARD	120	240	Clear-Appliance (29,62)*	108	15	-	C-7A	2 1/4	(57.2)	1 9/16	(39.7)	-	-	-
	Cand	13494	15T7C	120	120	Clear-Signal Light. Appliance (29,62)*	108	15	3000	C-7A	2 1/4	(57.2)	1 1/2	(38.1)	-	-	-
T8	Cand	13565	15T8C	120	60	Clear-Tubular	150	15	750	C-7A	3 1/16	(77.8)	-	-	-	-	-
T10	Med	34407	15T10 24PK	120	24	Clear-Aquarium	120	15	2500	C-8	5 5/8	(142.9)	-	-	-	-	-
15-135-150 WATTS																	
A21	3C Med	23068	15/150/SECURITY 12PK	120	60	Security 3-Way, Soft White (25,46)*	80 2280 2360	15 135 150	3000 1200 1200	C-2R CC-8	5 1/4	(133.4)	3 7/8	(98.4)	-	-	-
18 WATTS																	
A15	2-Lug Slv	13630	18A15/3	10	120	Clear-Railway Signal Light, 2-Lug Base (10)*	235	18	1500	CC-6	3 3/4	(95.3)	2 7/32	(56.4)	-	-	-
S11	SC Bay	13655	18S11/1SC	10	120	Clear-Railway Signal Light (70)*	250	18	2000	CC-6	2 3/8	(60.3)	1 1/4	(31.8)	-	-	-
A15	2-Lug Slv	13644	18/3.5A15/5	10	120	Clear-Railway Signal Light CC-6. Filament in multiple, 2-Lug Base (10)*	235	18	1500	CC-6	3 3/4	(95.3)	2 7/32	(56.4)	-	-	-
	3-Lug Slv	13647	18/3.5A15/7	10	120	CC-6, 3-Lug Base, Railway Signal (10)*	235	18	1500	CC-6	3 3/4	(95.3)	2 9/16	(55.6)	-	-	-
S11	SC Bay	13659	18/3½S11SC	10	120	Clear-Railway Signal Light. C-12 Filament in multiple (70)*	300	18	1000	CC-6	2 3/8	(60.3)	1 1/4	(31.8)	-	-	-
20-24 WATTS																	
T6 1/2	Inter	34272	20T6½/F	120	60	Frost-Exit Light (6)*	90	20	7000	C-8	5 1/2	(139.7)	-	-	-	-	-
	DC Bay	34241	20T6½DC/F	120	60	Frost-Exit Light (6)*	90	20	5000	C-8	5 5/16	(141.3)	-	-	-	-	-
S8	SC Bay	43064	21S8/1073 CD/2	12	240	Clear-12-Card Pack (9,74)*	326	21	1000	C-6	2	(50.8)	-	-	-	-	-
RP11	SC Bay	43065	24RP/1133 CD/2	6	240	Clear-12-Card Pack 32CP (9,74,97)*	390	24	200	C-2R	2 1/4	(57.2)	1 1/4	(31.8)	-	-	-
25 WATTS																	
A15	Med	44448	25A15/RFL	130	120	Reflector Sign-Light I.F., BB (23)*	150	25	3000	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
A17	Med	13744	25A17/RS	75	120	I.F.-Train. Rough Service (53)*	250	25	1000	C-9	3 5/8	(92.1)	2 1/2	(63.5)	-	-	-
A19	Med	35613	25A	130	120	Inside Frost	215	25	2500	CC-6	4 1/4	(108.0)	2 1/2	(63.5)	-	-	-
		41272	25A/W 24PK	120	120	Soft White	210	25	2500	CC-6	4 1/4	(108.0)	2 1/2	(63.5)	-	-	-
		13990	25A/CL	120	120	Clear-Decorative	215	25	2500	CC-6	4 1/4	(108.0)	2 1/2	(63.5)	-	-	-
		13992	25A/CL	130	120	Clear	215	25	2500	CC-6	4 1/4	(108.0)	2 1/2	(63.5)	-	-	-
		14737	25A/CVG	120	24	Inside Frost-COV-R-GUARD™, Teflon® Coated, BB (23,95,47)*	230	25	2500	C-9	4 1/4	(108.0)	2 1/2	(63.5)	-	-	-
		33486	25A/RS 24PK	120	24	I.F.-Rough Service (95)*	190	25	1000	C-17	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-

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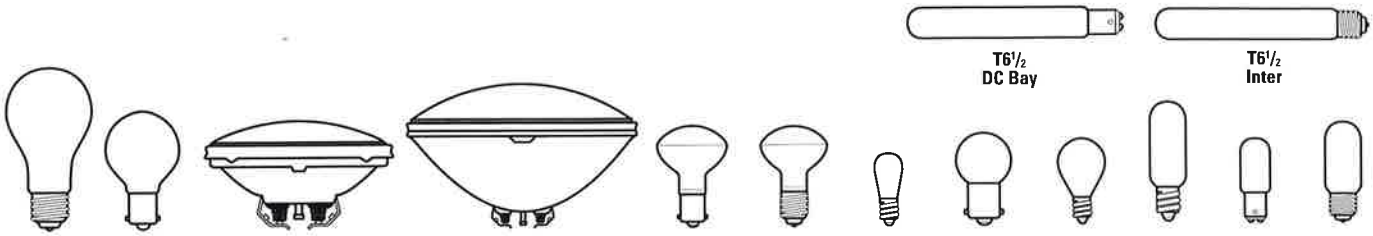

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
25 WATTS (con't)																	
		33488	25A/RS 24PK	130	24	I.F.-Rough Service (95)*	190	25	1000	C-17	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
		14293	25A19/GR/CL	130	120	Clear-Sign, Group Replacement, BB (23)*	190	25	3000	C-9	3 7/8	(98.4)	2 3/8	(60.3)	-	-	-
		19316	25A/GR/CL/8	130	120	Clear-Long Life Sign, BB (23)*	120	25	8000	C-9	3 7/8	(98.4)	2 3/8	(60.3)	-	-	-
		37577	25A/B 24PK	120	120	Blue, BB (23)*	-	25	2500	C-9	3 7/8	(98.4)	-	-	-	-	-
		37578	25A/G 24PK	120	120	Green, BB (23)*	-	25	2500	C-9	3 7/8	(98.4)	-	-	-	-	-
		14068	25A/O	120	120	Orange, BB (23)*	-	25	2500	C-9	3 7/8	(98.4)	-	-	-	-	-
		37579	25A/R 24PK	120	120	Red, BB (23)*	-	25	2500	C-9	3 7/8	(98.4)	-	-	-	-	-
		37793	25A/Y 24PK	120	120	Yellow, BB (23)*	-	25	2500	C-9	3 7/8	(98.4)	-	-	-	-	-
		49724	25A/TB 6PK	120	120	Transp. Blue-"Party Bulb"	-	25	2500	C-9	3 7/8	(98.4)	2 3/8	(60.3)	-	-	-
		49725	25A/TG 6PK	120	120	Transp. Green-"Party Bulb"	-	25	2500	C-9	3 7/8	(98.4)	2 3/8	(60.3)	-	-	-
		49727	25A/TR 6PK	120	120	Transp. Red-"Party Bulb"	-	25	2500	C-9	3 7/8	(98.4)	2 3/8	(60.3)	-	-	-
		49728	25A/TY 6PK	120	120	Transp. Yellow-"Party Bulb"	-	25	2500	C-9	3 7/8	(98.4)	2 3/8	(60.3)	-	-	-
		13769	25A	12	120	Inside Frost (53)*	378	25	1000	C-6	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
		13784	25A	34	120	I.F.-Train (53)*	390	25	1000	C-9	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
		13872	25A	230	120	Inside Frost (53)*	220	25	1000	C-17A	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
		13879	25A	250	120	Inside Frost (53)*	220	25	1000	C-17A	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
		13889	25A	300	120	Inside Frost (53)*	220	25	1000	C-17	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
G16½	SC Bay	14483	25G16½ SC	120	60	Clear-Railway Signal Light (69)*	220	25	1000	C-5	3	(76.2)	1 1/4	(31.8)	-	-	-
PAR36	Scrw Term	14553	25PAR36	5.5	12	Pin Spot-Filament Shield (15)*	130	25	1000	C-6	2 3/4	(69.8)	-	-	3000	19700	5
		14554	25PAR36/NSP	12	12	Narrow Spot-Filament Shield (15)*	150	25	2000	C-6	2 3/4	(69.8)	-	-	-	2600	9
		14555	25PAR36/WFL	12	12	Wide Flood-Filament Shield (15)*	150	25	2000	C-6	2 3/4	(69.8)	-	-	-	360	25x37
		14556	25PAR36/VWFL	12	12	Very Wide Flood-Filament Shield (15)*	150	25	2000	C-6	2 3/4	(69.8)	-	-	-	160	55
PAR46	Scrw Term	14562	25PAR46	5.5	12	Pin Spot-Filament Shield (15)*	140	25	1000	C-6	3 3/4	(95.3)	-	-	-	55000	5.5x4.5
R14	SC Bay	33405	25R14SC/SP	12	120	Reflector Spot, Light I.F., BB (4,23)*	230	25	2000	CC-8	2 5/8	(66.7)	-	-	-	-	-
		33091	25R14SC	28	120	Reflector Spot, Light I.F., BB (4,23)*	220	25	2000	CC-8	2 5/8	(66.7)	-	-	-	-	-
	Inter	39156	25R14N	120	120	Reflector-Light Inside Frost, BB (4,23)*	180	25	1500	CC-2V	2 9/16	(65.1)	-	-	-	-	-
		18230	25R14N	130	120	Reflector-Light Inside Frost, BB (4,23)*	180	25	1500	CC-2V	2 9/16	(65.1)	-	-	-	-	-
S6	Cand	14567	25S6 24PK	115	24	Clear-High Intensity Indicator	325	25	50	C-7A	1 7/8	(47.6)	1 1/16	(27.0)	-	-	-
S11	SC Bay	14575	25S11/4SC	10	120	Clear-Railway Signal Light (70)*	360	25	1000	CC-6	2 3/8	(60.3)	1 1/4	(31.8)	-	-	-
	Cand	14585	25S11/2C	120	120	Clear-Medical Spot	260	25	500	C-7A	2 1/4	(57.2)	1 7/16	(36.5)	-	-	-
		14594	25S11/5C	120	120	Reprographic-Frost, Printer	260	25	500	C-7A	2 1/4	(57.2)	1 9/16	(39.7)	-	-	-
T6½	DC Bay	14676	25T6½ DC	120	60	Clear-Appliance, Scale Illuminator	244	25	1000	C-8	5 9/16	(141.3)	-	-	-	-	-
		14678	25T6½ DC	130	60	Clear-Appliance, Scale Illuminator	244	25	1000	C-8	5 9/16	(141.3)	-	-	-	-	-
		14683	25T6½ DC/F	120	60	Frost-Appliance, Scale Illuminator	240	25	1000	C-8	5 9/16	(141.3)	-	-	-	-	-
		14685	25T6½ DC/F	130	60	Frost-Appliance, Scale Illuminator	240	25	1000	C-8	5 9/16	(141.3)	-	-	-	-	-
	Inter	14639	25T6½	120	60	Clear-Showcase	244	25	1000	C-8	5 1/2	(139.7)	-	-	-	-	-
		15821	25T6½ CARD	120	120	Clear-Showcase	244	25	1000	C-8	5 1/2	(139.7)	-	-	-	-	-
		14641	25T6½	130	60	Clear-Showcase	244	25	1000	C-8	5 1/2	(139.7)	-	-	-	-	-
		14666	25T6½/F	120	60	Frost-Showcase	240	25	1000	C-8	5 1/2	(139.7)	-	-	-	-	-
		14668	25T6½/F	130	60	Frost-Showcase	240	25	1000	C-8	5 1/2	(139.7)	-	-	-	-	-
	DC Bay	14687	25T6½ DC/F	230	60	Outside Frost, Scale Illuminator	240	25	1000	C-8	5 9/16	(141.3)	-	-	-	-	-
T8	Cand	14809	25T8C	120	60	Clear-Microwave	195	25	200	C-7A	2 5/8	(66.7)	1 1/2	(38.1)	-	-	-
	DC Bay	14741	25T8DC	120	60	Clear-Appliance	195	25	200	C-7A	2 5/8	(66.7)	1 5/16	(33.3)	-	-	-
		10689	25T8DC CARD 6PK	120	240	Clear-Appliance	195	25	200	C-7A	2 5/8	(66.7)	1 5/16	(33.3)	-	-	-
	Inter	14791	25T8N	120	60	Clear-Appliance	195	25	200	C-7A	2 5/8	(66.7)	1 9/16	(39.7)	-	-	-
		10692	25T8N CARD 6PK	120	240	Clear-Appliance	195	25	200	C-7A	2 5/8	(66.7)	1 9/16	(39.7)	-	-	-

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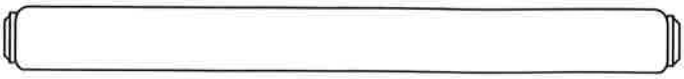
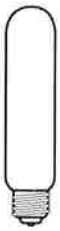

T8 Disc


T10 Med

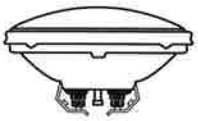

R20 Med


A15 Med


S11 DC Bay


A21 3C Med

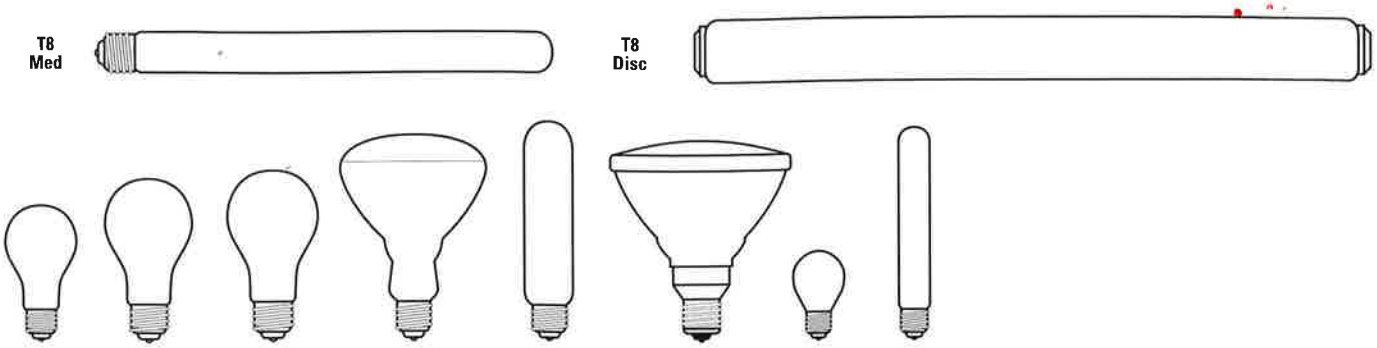

A19 Med


PAR36 Scrw Trm

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
25 WATTS (con't)																	
T10	Med	14880	25T10 24PK	120	192	Clear-Showcase	248	25	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		41313	25T10 CARD	120	120	Clear-Showcase, 12-Pack	248	25	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		14866	25T10	130	120	Clear-Showcase	248	25	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		14916	25T10/F 24PK	120	192	Frost-Showcase	244	25	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		13487	25T10/F CARD	120	120	Frost-Showcase	244	25	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		14909	25T10/F	130	120	Frost-Showcase	244	25	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		14886	25T10 24PK	250	192	Clear-Showcase (53)*	240	25	1000	C-17A	5 5/8	(142.9)	-	-	-	-	-
27 WATTS																	
MISER® LAMP																	
R20	Med	17812	27R20/MI 6PK	120	60	Miser®-Light I.F. Refl, Accent Lighting	210	27	2000	C-9	3 15/16	(100.0)	-	-	-	270	43
30 WATTS																	
A15	Med	14129	30A15	130	120	I.F. Changing Message Sign, BB (23)*	215	30	5000	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
		15291	30A15/CL	130	120	Clear Changing Message Sign, BB (23)*	215	30	5000	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
		19358	30A15/8	130	120	I.F. - Sign, BB (23)*	180	30	8000	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
R20	Med	15003	30R20	120	60	Reflector-Light I.F.	200	30	2000	C-9	3 15/16	(100.0)	-	-	-	-	-
		41930	30R20 6PK	120	60	Standard Reflector	200	30	2000	C-9	3 15/16	(100.0)	-	-	-	-	-
		15000	30R20	130	60	Reflector-Light I.F.	200	30	2000	C-9	3 15/16	(100.0)	-	-	-	-	-
		16213	30R20/6	130	60	Reflector-Light I.F. Flashing Message Sign, BB (23,76)*	150	30	6000	C-9	3 15/16	(100.0)	-	-	-	-	-
S11	DC Bay	15011	30S11DC	64	120	Clear-Train Marker, BDTH	350	30	500	C-7A	2 3/8	(60.3)	1 1/4	(31.8)	-	-	-
		15012	30S11DC	75	120	Clear-Train Marker Control, BDTH	350	30	500	C-7A	2 3/8	(60.3)	1 1/4	(31.8)	-	-	-
		17948	30S11DC/RS	75	120	Clear-Train	300	30	2000	C-9	2 3/8	(60.3)	1 1/4	(31.8)	-	-	-
T8	Disc	15029	L30	120	24	Clear-Lumiline	230	30	1500	C-8	17 3/4	(450.9)	-	-	-	-	-
		15071	L30/W	120	24	White-Lumiline	210	30	1500	C-8	17 3/4	(450.9)	-	-	-	-	-
30-70-100 WATTS																	
A21	3C Med	41273	30/100 12PK	120	60	Soft White, 3-Way (25,46)*	280	30	1500	C-2R	CC-85	1/4(133.4)	3 7/8	(98.4)	-	-	-
							1035	70	1200								
							1315	100	1200								
33 WATTS																	
A19	Med	42626	33A19/5	130	120	Clear-Changing Message Sign, Group Replacement, BB (23)*	270	33	3000	C-9	3 7/8	(98.4)	-	-	-	-	-
		21001	33A19/5/V	130	120	Clear-Changing Message Sign, Group Replacement, BB, Vacuum (23)*	270	33	3000	C-9	3 7/8	(98.4)	-	-	-	-	-
34 WATTS																	
WATT-MISER® AND WATT-MISER® PLUS LAMPS																	
A19	Med	12612	40A/34WM	120	120	Watt-Miser®-Diffuse Coating	380	34	2000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		12620	40A/34WM	130	120	Watt-Miser®-Diffuse Coating	365	34	2000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	270	30	5400								
		13010	40A/34WMP/99	120	120	Watt-Miser® Plus-Diffuse Coating, LongLife, BB (23)*	375	34	2500	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		13009	40A/34WMP/99	130	120	Watt-Miser®Plus-Diffuse Coating, LongLife, BB (23)*	360	34	2500	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	265	30	6800								
35 WATTS																	
HALOGEN PERFORMANCE PLUS™ PAR LAMPS																	
PAR36	Scrw Term	19873	35PAR36/H/VNSP5°	12	12	Very Narrow Spot (15)*	250	35	4000	C-6	2 3/4	(69.8)	-	-	3000	25000	5
		19876	35PAR36/H/NSP8°	12	12	Narrow Spot (15)*	250	35	4000	C-6	2 3/4	(69.8)	-	-	3000	19700	8
		19877	35PAR36/H/WFL30°	12	12	Wide Flood (15)*	250	35	4000	C-6	2 3/4	(69.8)	-	-	3000	900	30

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.

© Means this lamp meets Federal Minimum Efficiency Standards. ( ) * All footnote references found at the end of this section. Reduced Wattage



Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
40 WATTS																	
A15	Med	15199	40A15	120	120	Clear-Appliance and Oven Service, Vibration Resistant (2,9)*	435	40	1500	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
		15206	40A15 CARD	120	60	Clear-Appliance and Oven Service, Vibration Resistant (2,9)*	435	40	1500	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
		21188	40A15 CD/2	120	60	Clear-Appliance and Oven Service, Vibration Resistant (2,9)*	435	40	1500	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
		20451	40A15/CF CD/2	120	60	Clear-Ceiling Fan, Vibration Resistant (9)*	435	40	1500	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
		20452	40A15/W/CF CD/2	120	60	White-Ceiling Fan, Vibration Resistant (9)*	355	40	1500	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
A19	Med	13255	40A 48PK	120	144	Standard	505	40	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		34034	40A	130	120	Inside Frost	495	40	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	365	36	2600								
		12311	40A/CL 24PK	120	120	Crystal	470	40	1500	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		34125	40A/CL	130	120	Clear	470	40	1500	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	345	36	4000								
		13257	40A/W 48PK	120	144	Soft White	490	40	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		14728	40A/CVG 24PK	120	24	Inside Frost-COV-R-GUARD™, BB, Teflon® Coated (23,47,83,95)*	480	40	1500	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		15802	40A/S	120	120	Survivor™ LongLife, I.F., Vibration Resistant, BB (23)*	370	40	3000	C-9	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		15803	40A/S	130	120	Survivor™ LongLife, I.F., Vibration Resistant, BB (23)*	360	40	3000	C-9	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	265	36	8300								
A21	Med	15554	40A/TS	130	120	Clear-Traffic Signal, BDTH, BB (23)*	380	40	2000	C-9	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
BR30	Med	11860	40R30/FL/K 6PK	120	30	Krypton Reflector Flood	470	40	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
S11	Inter	35156	40S11N/1 CARD	120	240	Clear-12-Card Pack (14,99)*	440	40	500	C-9	2 5/16	(58.7)	1 5/8	(41.3)	-	-	-
		15734	40S11N/1/F	120	120	Frost (14,99)*	440	40	500	C-9	2 5/16	(58.7)	1 5/8	(41.3)	-	-	-
T6½	Inter	15740	40T6½/2	120	60	Clear-Refrigerator	420	40	750	C-8	5 1/2	(139.7)	-	-	-	-	-
		41312	40T6½/2 CARD	120	120	Clear-Refrigerator	420	40	750	C-8	5 1/2	(139.7)	-	-	-	-	-
		15742	40T6½/2F	120	60	Frost-Appliance	420	40	750	C-8	5 1/2	(139.7)	-	-	-	-	-
T8	Disc	15804	L40	120	24	Clear-Lumiline	325	40	1500	C-8	11 3/4	(298.5)	-	-	-	-	-
		15839	L40/W	120	12	White-Lumiline	295	40	1500	C-8	11 3/4	(298.5)	-	-	-	-	-
	Med	15754	40T8	120	24	Clear-Showcase	430	40	1000	C-23	11 3/4	(298.5)	-	-	-	-	-
		15784	40T8/F	120	24	Frost-Showcase	425	40	1000	C-23	11 3/4	(298.5)	-	-	-	-	-
T10	Med	15852	40T10	120	120	Clear-Showcase	420	40	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		15856	40T10 24PK	120	192	Clear-Showcase	420	40	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		13489	40T10 CARD	120	120	Clear-Showcase	420	40	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		15854	40T10	130	120	Clear-Showcase	420	40	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		15892	40T10/F	120	120	Frost-Showcase	415	40	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		15901	40T10/F 24PK	120	192	Frost-Showcase	415	40	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		41314	40T10/F CARD	120	120	Frost-Showcase	415	40	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		15894	40T10/F	130	120	Frost-Showcase	415	40	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
45 WATTS																	
HALOGEN PERFORMANCE PLUS™ PAR LAMPS																	
PAR38	Med Skirt	12235 ©	45PAR/FL/H/STG 6PK	120	6	Photocell Saf-T-Gard™ "Dawn to Dusk" (15,23,56,88,96)*	510	45	3000	CC-8	5 5/16	(134.9)	-	-	2750	1800	27
		16228 ©	45PAR/H/SP11°	120	12	Spot (23,56,88,96,15)*	510	45	2500	CC-8	5 5/16	(134.9)	-	-	2750	7000	11
		17470 ©	45PAR/SP/HAL 6PK	120	6	Spot (23,56,88,96,15)*	510	45	2500	CC-8	5 5/16	(134.9)	-	-	2750	8800	11

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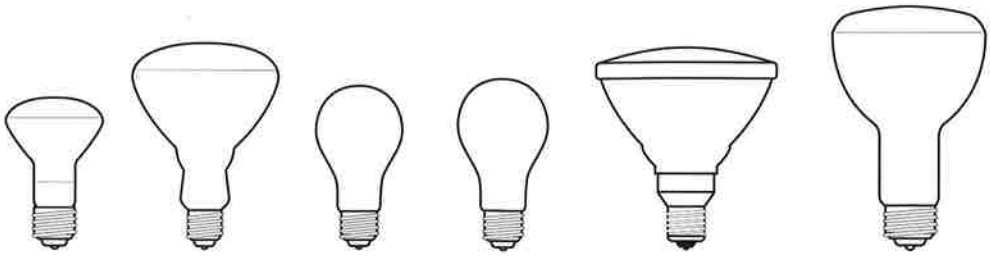

R20 Med | BR30 Med | A19 Med | A21 Med | PAR38 Med Skrt | ER30 Med

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
45 WATTS																	
HALOGEN PERFORMANCE PLUS™ PAR LAMPS																	
PAR38	Med Skirt	16229 ©	45PAR/H/SP11°	130	12	Spot (23,56,88,96,15)*	510	45	2500	CC-8	5 5/16	(134.9)	-	-	2750	7000	11
						Ratings at 120 volts.	385	40	4000								
		16230 ©	45PAR/H/FL25°	120	12	Flood (23,56,88,96,15)*	510	45	2500	CC-8	5 5/16	(134.9)	-	-	2750	1800	27
		17471 ©	45PAR/FL/HAL 6PK	120	6	Flood (23,56,88,96,15)*	510	45	2500	CC-8	5 5/16	(134.9)	-	-	2750	1800	27
		16231 ©	45PAR/H/FL25°	130	12	Flood (23,56,88,96,15)*	510	45	2500	CC-8	5 5/16	(134.9)	-	-	2750	1800	27
						Ratings at 120 volts.	385	40	4000								
45 WATTS																	
R20	Med	17808	45R20/MI 6PK	120	60	Miser®-Refl. Light I.F. (43)*	440	45	2000	C-9	3 5/16	(84.1)	-	-	-	530	43
BR30	Med	20330	45R/FL/MI/1 6PK	120	30	Miser®-Reflector Flood	485	45	2000	CC-6	5 3/8	(136.5)	-	-	-	300	-
50 WATTS																	
A19	Med	33495	50A/RS 24PK	120	24	I.F.-Rough Service (95)*	490	50	1000	C-17A	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
		33497	50A/RS 24PK	130	24	I.F.-Rough Service (95)*	480	50	1000	C-17A	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
						Ratings at 120 volts.	355	45	2600								
		16242	50A19/5	120	120	Clear - Rough Service, BB (23,95)*	480	50	1000	C-22	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
		33498	50A/VS 24PK	120	120	I.F.-Vibration Service	550	50	1000	C-9	3 7/8	(98.4)	2 1/2	(63.5)	-	-	-
		33500	50A/VS 24PK	130	120	I.F.-Vibration Service	540	50	1000	C-9	3 7/8	(98.4)	2 /2	(63.5)	-	-	-
						Ratings at 120 volts.	400	45	2600								
		14727	50A/RS/CVG 24PK	120	24	Inside Frost-COV-R-GUARD™ Rough Service, BB, Teflon® Coated (23,83,95,47)*	480	50	1000	C-17A	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
		16108	50A/RS	32	120	I.F.-Rough Service, Train (53,95)*	560	50	1000	C-9	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
		16201	50A19/RS	75	120	I.F.-Rough Service, Train (53,95)*	545	50	1000	C-9	3 7/8	(98.4)	2 1/2	(63.5)	-	-	-
		15995	50A	250	120	Inside Frost	490	50	1000	C-17A	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
		16147	50A/RS	250	120	I.F.-Rough Service (95)*	470	50	1000	C-22	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
		16317	50A19	300	120	Inside Frost	460	50	1000	C-17A	3 7/8	(98.4)	2 9/16	(65.1)	-	-	-
A21	Med	16366	50A21	12	120	Inside Frost (53)*	875	50	1000	C-6	4 7/8	(123.8)	3 7/16	(87.3)	-	-	-
		10686	50A21/RV 6PK	12	48	Recreational Vehicle and Marine - Inside Frost (53)*	875	50	1000	C-6	4 7/8	(123.8)	3 7/16	(87.3)	-	-	-
		13606	50A/AUTO CD	12	24	Recreational Vehicle and Marine - Inside Frost (53)*	875	50	1000	C-6	4 7/8	(123.8)	3 7/16	(87.3)	-	-	-
		16385	50A21	30	120	I.F.-Train (53)*	805	50	1000	C-9	4 7/8	(123.8)	3 7/16	(87.3)	-	-	-
		16390	50A21	34	120	I.F.-Train (53)*	805	50	1000	C-9	4 7/8	(123.8)	3 7/16	(87.3)	-	-	-
ER30	Med	44429	50ER30	120	24	ER-Elliptical Reflector, Light I.F. (4,35,56)*	525	50	2000	CC-6	6 1/4	(158.8)	-	-	-	690	-
		11823	50ER30	130	24	ER-Elliptical Reflector, Light I.F. (4,35,56)*	525	50	2000	CC-6	6 1/4	(158.8)	-	-	-	690	-
		47878	50ER30/PK	120	24	ER-Elliptical Reflector-Pink (4,35,56)*	480	50	2000	CC-6	6 1/4	(158.8)	-	-	-	-	-
STANDARD HALOGEN PAR LAMPS																	
PAR 38	Med Skirt	17925 ©	50PAR/H/FL	120	12	Flood (56,88,96)*	590	50	2000	CC-8	5 5/16	(134.9)	-	-	2750	2200	25
		17979 ©	50PAR/FL/S/HAL 6PK	120	6	Flood (56,88,96)*	590	50	2000	CC-8	5 5/16	(134.9)	-	-	2750	2200	25
		17926 ©	50PAR/H/FL	130	12	Flood (56,88,96)*	590	50	2000	CC-8	5 5/16	(134.9)	-	-	2750	2200	25
						Ratings at 120 volts.	450	46	4000								
		17980 ©	50PAR/SP/S/HAL 6PK	120	6	Spot (56,88,96)*	590	50	2000	CC-8	5 5/16	(134.9)	-	-	2750	9000	10
		17927 ©	50PAR/H/SP	120	12	Spot (56,88,96)*	590	50	2000	CC-8	5 5/16	(134.9)	-	-	2750	9000	10
		17928 ©	50PAR/H/SP	130	12	Spot	590	50	2000	CC-8	5 5/16	(134.9)	-	-	2750	9000	10
						Ratings at 120 volts.	450	46	4000								

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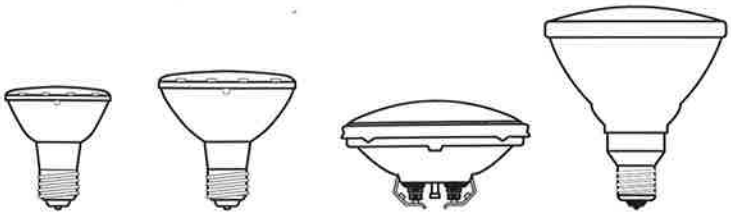

PAR20 Med NP | PAR30 Med NP | PAR36 Scrw Trm | PAR38 Med Skrt

50 WATTS (con't)

HALOGEN PERFORMANCE PLUS™ PAR LAMPS

Bulb Base	Product Code	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in. (mm)	LCL in. (mm)	Color Temp. K	CBCP	Appx. Beam Spread
PAR20 Med NP	17864	50PAR20/H/NSP8°	120	15	Narrow Spot (55,56,80,88,15)*	570	50	2000	CC-8	3 1/8 (79.4)	- -	2800	6000	8
	17866	50PAR20/H/NSP8°	130	15	Narrow Spot (55,56,80,88,15)*	570	50	2000	CC-8	3 1/8 (79.4)	- -	2800	6000	8
					Ratings at 120 volts.	498	46	4000						
	14927	50PAR20/SP/HAL 6PK	120	6	Spot (55,56,80,88,15)*	570	50	2000	CC-8	3 1/8 (79.4)	- -	2800	6000	10
	17867	50PAR20/H/NFL25°	120	15	Narrow Flood (55,80,88,15)*	570	50	2000	CC-8	3 1/8 (79.4)	- -	2800	1500	27
	17868	50PAR20/H/NFL25°	130	15	Narrow Flood (55,80,88,15)*	570	50	2000	CC-8	3 1/8 (79.4)	- -	2800	1500	27
					Ratings at 120 volts.	498	46	4000						
	14928	50PAR20/FL/HAL 6PK	120	6	Flood (55,56,80,88,15)*	570	50	2000	CC-8	3 1/8 (79.4)	- -	2800	1850	27
PAR30 Med NP	17869 ©	50PAR30/H/NSP8°	120	15	Narrow Spot (55,56,80,88,15)*	610	50	2000	CC-8	3 5/8 (92.1)	- -	2800	9200	8
	17870 ©	50PAR30/H/NSP8°	130	15	Narrow Spot (55,56,80,88,15)*	610	50	2000	CC-8	3 5/8 (92.1)	- -	2800	9200	8
					Ratings at 120 volts.	477	46	4000						
	17871 ©	50PAR30/H/NFL25°	120	15	Narrow Flood (55,56,80,88,15)*	610	50	2000	CC-8	3 5/8 (92.1)	- -	2800	2000	26
	17872 ©	50PAR30/H/NFL25°	130	15	Narrow Flood (55,56,80,88,15)*	610	50	2000	CC-8	3 5/8 (92.1)	- -	2800	2000	26
					Ratings at 120 volts.	477	46	4000						
	17873 ©	50PAR30/H/FL35°	120	15	Flood (55,56,80,88,15)*	610	50	2000	CC-8	3 5/8 (92.1)	- -	2800	1400	35
	17874 ©	50PAR30/H/FL35°	130	15	Flood (55,56,80,88,15)*	610	50	2000	CC-8	3 5/8 (92.1)	- -	2800	1400	35
					Ratings at 120 volts.	477	46	4000						
PAR36 Scrw Term	19878	50PAR36/H/VNSP5°	12	12	Very Narrow Spot (15)*	400	50	4000	C-6	2 3/4 (69.8)	- -	3050	40000	5
	19879	50PAR36/H/NSP8°	12	12	Narrow Spot (15)*	400	50	4000	C-6	2 3/4 (69.8)	- -	3050	11000	8
	19880	50PAR36/H/WFL30°	12	12	Wide Flood (15)*	400	50	4000	C-6	2 3/4 (69.8)	- -	3050	1300	30

HALOGEN PERFORMANCE PLUS™ LONG NECK PAR LAMPS

PAR30 Med NP	11113 ©	50PAR30L/H/12°	120	15	Spot (15,55)*	580	50	2000	CC-8	4 3/4 (120.7)	- -	2800	6000	12
	11117 ©	50PAR30L/H/12°	130	15	Spot (15,55)*	580	50	2000	CC-8	4 3/4 (120.7)	- -	2800	6000	12
					Ratings at 120 volts.	458	46	4000						
	14940 ©	50PAR30L/H/25° 6PK	120	24	Narrow Flood (15,55)*	580	50	2000	CC-8	4 3/4 (120.7)	- -	2800	1900	27
	11120 ©	50PAR30L/H/25°	130	15	Narrow Flood (15,55)*	580	50	2000	CC-8	4 3/4 (120.7)	- -	2800	1900	27
					Ratings at 120 volts.	430	46	4000						
	11116 ©	50PAR30L/H/40°	120	15	Flood (15,55)*	580	50	2000	CC-8	4 3/4 (120.7)	- -	2800	1000	40
	11123 ©	50PAR30L/H/40°	130	15	Flood (15,55)*	580	50	2000	CC-8	4 3/4 (120.7)	- -	2800	1000	40
					Ratings at 120 volts.	458	46	4000						
	14941 ©	50PAR30L/H/60° 6PK	120	6	Wide Flood (15,55)*	630	50	2000	CC-8	4 3/4 (120.7)	- -	2800	600	57
	11141 ©	50PAR30L/H/60°	130	15	Wide Flood (15,55)*	630	50	2000	CC-8	4 3/4 (120.7)	- -	2800	600	57
					Ratings at 120 volts.	458	46	4000						

HALOGEN-IR™ PAR LAMPS

PAR30 Med NP	19902 ©	50PAR30/HIR/NSP8°	120	15	Narrow Spot (15,55,56,80,88)*	770	50	3000	CC-8	3 5/8 (92.1)	- -	2810	17000	8
	21534 ©	50PAR30/HIR/NSP8°	130	15	Narrow Spot (15,55,56,80,88)*	770	50	3000	CC-8	3 5/8 (92.1)	- -	2810	17000	8
					Ratings at 120 volts.	570	46	6000						
	19901 ©	50PAR30/HIR/NFL25°	120	15	Narrow Flood (55,56,80,88,15)*	770	50	3000	CC-8	3 5/8 (92.1)	- -	2810	3000	26
	21533 ©	50PAR30/HIR/NFL25°	130	15	Narrow Flood (15,55,56,80,88)*	770	50	3000	CC-8	3 5/8 (92.1)	- -	2810	3000	26
					Ratings at 120 volts.	570	46	6000						
	19900 ©	50PAR30/HIR/FL35°	120	15	Flood (15,55,56,80,88)*	770	50	3000	CC-8	3 5/8 (92.1)	- -	2810	1600	37
	19903 ©	50PAR30/HIR/FL35°	130	15	Flood (15,55,56,80,88)*	770	50	3000	CC-8	3 5/8 (92.1)	- -	2810	1600	37
					Ratings at 120 volts.	570	46	6000						
PAR38 Med Skirt	12396 ©	50PAR/HIR/9°	120	12	Narrow Spot (15,23,56,80,88,96)*	850	50	3000	CC-8	5 5/16 (134.9)	- -	2810	14000	9
	12397 ©	50PAR/HIR/25°	120	12	Flood (15,23,56,80,88,96)*	850	50	3000	CC-8	5 5/16 (134.9)	- -	2810	3000	27

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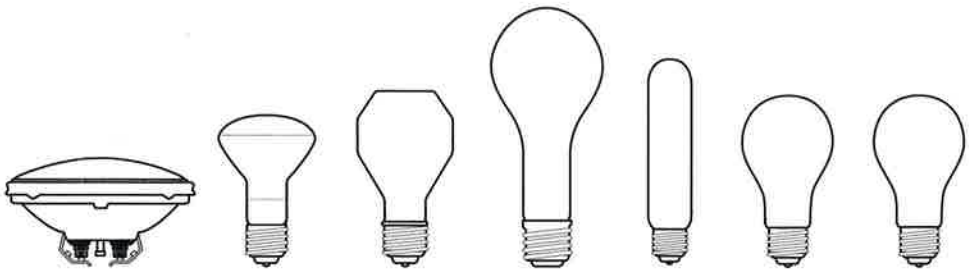

PAR36 Scrw Trm | R20 Med | TB19 Med | P25 3C Mog | T12 3C Med | A21 3C Med | A21 Med

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
50 WATTS (con't)																	
PAR36	Scrw Term	12892	50PAR36VNSP	12	12	Very Narrow Spot, Filament Shield (15)*	330	50	2000	C-6	2 3/4	(69.8)	-	-	-	19000	6
		16540	50PAR36NSP	12	12	Narrow Spot, Filament Shield (15)*	330	50	2000	C-6	2 3/4	(69.8)	-	-	-	11000	10
		16541	50PAR36WFL	12	12	Wide Flood, Filament Shield (15)*	330	50	2000	C-6	2 3/4	(69.8)	-	-	-	900	39x27
		11468	50PAR36WFL/4	12	12	Wide Flood, Filament Shield (15)*	300	50	4000	C-6	2 3/4	(69.8)	-	-	-	720	37x27
		16542	50PAR36VWFL	12	12	Very Wide Flood, Filament Shield (15)*	330	50	2000	C-6	2 3/4	(69.8)	-	-	-	240	55
R20	Med	16693	50R20	120	60	Reflector-Light I.F.	410	50	2000	C-9	3 15/16	(100.0)	-	-	-	510	-
		49679	50R20 6PK	120	60	Standard Reflector	410	50	2000	C-9	3 15/16	(100.0)	-	-	-	-	-
		16692	50R20	130	60	Reflector-Light I.F.	410	50	2000	C-9	3 15/16	(100.0)	-	-	-	510	-
		12667	50R20/6	130	60	Reflector-Light I.F.	400	50	6000	C-9	3 15/16		-	-	-	420	45
		16698	50R20/PK	120	60	Reflector-Pink	200	50	2000	C-9	3 15/16	(100.0)	-	-	-	-	-
		41625	50R20/PL 6PK	120	24	Reflector-Plant Light-Gro & Sho™ (4,56)*	-	50	2000	C-9	3 15/16	(100.0)	-	-	-	-	-
		23519	50R20/SW 6PK	120	24	Reflector-Soft White	380	50	2000	C-9	3 15/16	(100.0)	-	-	-	-	-
HALOGEN PERFORMANCE PLUS™ A-LINE LAMPS																	
TB19	Med	20647	50A/HAL 6PK	120	6	Frost, Brass Base (15,23,56,83,88)*	710	50	2000	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	2800	-	-
		16746	50TB/H	120	60	Frost, Brass Base (15,23,56,83,88)*	710	50	2000	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	2800	-	-
		16747	50TB/H	130	60	Frost, Brass Base (15,23,56,83,88)*	710	50	2000	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	2800	-	-
						Ratings at 120 volts.	540	46	4000								
50-50 WATTS																	
P25	3C Mog	16535	50/50P25/28	120	60	Clear-2-filament Marine Running Light, BB (1,23)*	400	50	750	C-5 C9	5 1/16	(128.6)	3 5/16	(84.1)	-	-	-
50-100-150 WATTS																	
T12	3C Med	16726	50/50T12	115	24	Clear-2-filament Marine Running Light, BB (23)*	400	50	750	C-5 C9	5 5/16	(134.9)	3	(76.2)	-	-	-
A21	3C Med	41280	50/150 12PK	120	60	Soft White, 3-Way (25,46)*	580	50	1500	CC-8 CC-8	5 1/4	(133.4)	3 7/8	(98.4)	-	-	-
							1640	100	1200								
							2220	150	1200								
		16142	50/150 TWIN/PK	120	24	Soft White, 3-Way, Twin Pack (25,46)*	580	50	1500	CC-8 CC-8	5 1/4	(133.4)	3 7/8	(98.4)	-	-	-
							1640	100	1200								
							2220	150	1200								
		20329	50/150/SPK 12PK	120	60	Soft Pink, 3-Way (1,25,46)*	560	50	1500	CC-8 CC-8	5 1/4	(133.4)	3 7/8	(98.4)	-	-	-
							1300	100	1200								
							1860	150	1200								
50-135-185 WATTS																	
A21	3C Med	12025	50/185/SW/MI 12PK	120	60	Soft White Miser®, 3-Way Miser® (1,25,46)*	580	50	1500	CC-8 CC-8	5 1/4	(133.4)	3 7/8	(98.4)	-	-	-
							2280	135	1200								
							2860	185	1200								
50-200-250 WATTS																	
A21	3C Med	19445	50/250/1 12PK	120	60	Soft White, 3-Way (1,25,46)*	580	50	1500	CC-8 CC-25	5 1/4	(133.4)	3 7/8	(98.4)	-	-	-
							3440	200	1200								
							4020	250	1200								

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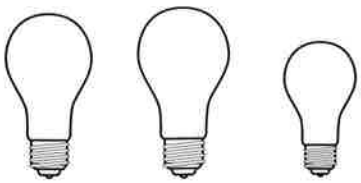

A19 Med | A21 Med | A15 Med

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
52 WATTS																	
WATT-MISER® AND WATT-MISER® PLUS LAMPS																	
A19	Med	12615	60A/52WM	120	120	Watt-Miser®-Diffuse Coating	730	52	1330	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		12623	60A/52WM	130	120	Watt-Miser®-Diffuse Coating	710	52	1330	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	530	46	3500								
		13554	60A/52WM/CL	120	120	Watt-Miser®-Clear	740	52	1330	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		13555	60A/52WM/CL	130	120	Watt-Miser®-Clear	720	52	1330	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	540	46	3500								
		13011	60A/52WMP/99	120	120	Watt-Miser® Plus, Diffuse Coating, LongLife, BB (23)*	670	52	2500	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		13012	60A/52WMP/99	130	120	Watt-Miser® Plus, Diffuse Coating, LongLife, BB (23)*	640	52	2500	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	480	46	6800								
54 WATTS																	
WATT-MISER® LAMPS																	
A21	Med	17960	60A21/54WM/TS	120	120	Watt-Miser®, Clear-Traffic Signal, Burn BDTH, BB, Krypton (23)*	530	54	8000	C-11V	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
		17961	60A21/54WM/TS	130	120	Watt-Miser®, Clear-Traffic Signal, Burn BDTH, BB, Krypton (23)*	530	54	8000	C-11V	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
55 WATTS																	
A19	Med	11904	55A/SW/MI 48PK	120	144	Soft White, Miser®	800	55	1000	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
60 WATTS																	
WATT-MISER® LAMPS																	
A21	Med	17968	69A21/60WM/TS	120	120	Watt-Miser®-Clear, Traffic Signal, Burn BDTH, BB (23)*	610	60	8000	C-11V	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
		17969	69A21/60WM/TS	130	120	Watt-Miser®-Clear, Traffic Signal, Burn BDTH, BB (23)*	610	60	8000	C-11V	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
A15	Med	17759	60A15/CF CD/2	120	60	Clear-Ceiling Fan and Appliance, Vibration Resistant (9)*	650	60	1500	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
		14029	60A15/W/CF CD2	120	60	White, Ceiling Fan, Vibration Resistant (9)*	650	60	1500	C-9	3 1/2	(88.9)	2 3/8	(60.3)	-	-	-
A19	Med	41026	60A 48PK	120	144	Standard	865	60	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		16783	60A	130	120	Inside Frost	850	60	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	640	53	2600								
		39322	60A/CL 24PK	120	120	Crystal Clear	870	60	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		41028	60A/W 48PK	120	144	Soft White	840	60	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		11947	60A/W/STG 24PK	120	24	Soft White-Saf-T-Gard™	812	60	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		41285	60A/W/LL 24PK	120	120	Soft White-LongLife	820	60	1500	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		22384	60A/GD	120	120	Light I.F.-Garage Door, Vibration Resistant	635	60	3000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		13609	60A/GD/AUTO CD	120	24	Light I.F.-Garage Door, Vibration Resistant, Carded	635	60	3000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	
		23097	60A/GD CARD	120	24	Light I.F.-Garage Door, Vibration Resistant, Carded	635	60	3000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		14414	60A/CVG 24PK	120	24	Inside Frost-COV-R-GUARD™, BB, Teflon® Coated (23,83,95,47)*	850	60	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		15805	60A/S	120	120	Survivor™ LongLife I.F., Vibration Resistant, BB (23)*	635	60	3000	C-9	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-

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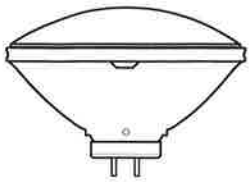
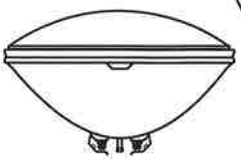
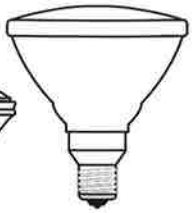
T8
Disc



PAR46
Mog End Pr



PAR46
Scrw Trm



PAR38
Med Skrt

BR30
Med

T10
Med

PAR38
Med Sid Pr

A19
Med

A21
Med

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
60 WATTS (con't)																	
A19	Med	15807	60A/S	130	120	Survivor™ LongLife I.F., Vibration Resistant, BB (23)*	625	60	3000	C-9	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	460	53	8300								
		16882	60A/D	120	120	I.F.-Daylight	390	60	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		20326	60A/SPK 24PK	120	120	Soft Pink (46)*	675	60	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		41284	60A/Y 24PK	120	120	Yellow Bug-Lite	550	60	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		16913	60A/SBIF	120	120	I.F.-Silvered Bowl	740	60	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		41624	60A/PL 6PK	120	24	Plant Light-Gro & Sho™, BB (4,23)*	630	60	1000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
A21	Med	16997	60A21/B	120	120	Blue (46)*	-	60	1000	C-9	4 7/8	(123.8)	-	-	-	-	-
		17009	60A21/G	120	120	Green (46)*	-	60	1000	C-9	4 7/8	(123.8)	-	-	-	-	-
		17027	60A21/R	120	120	Red (46)*	-	60	1000	C-9	4 7/8	(123.8)	-	-	-	-	-
		17122	60A21	230	120	Inside Frost	585	60	1000	C-17A	4 3/8	(111.1)	2 3/4	(69.9)	-	-	-
PAR46	Mog End Pr	17210	60PAR/1	38	12	Subway Car Headlight (72,15)*	650	60	800	CC-2V	4 3/8	(111.1)	-	-	-	-	-
	Scrw Term	17212	60PAR/2/R	38	12	Red Lens-Train Warning (71,15)*	-	60	800	CC-2V	3 3/4	(95.3)	-	-	-	-	-
HALOGEN-IR™ PAR LAMPS																	
PAR38	Med Skirt	18627 ©	60PAR/HIR/SP10°	120	12	Spot (23,56,88,96,15)*	1110	60	3000	CC-8	5 5/16	(134.9)	-	-	2875	16000	10
		11881 ©	60PAR/SP/HIR 6PK	120	6	Spot (15,23,56,88,96)*	1110	60	3000	CC-8	5 5/16	(134.9)	-	-	2875	16000	10
		18629 ©	60PAR/HIR/SP10°	130	12	Spot (15,23,56,88,96)*	1110	60	3000	CC-8	5 5/16	(134.9)	-	-	2875	16000	10
						Ratings at 120 volts.	840	54	6000								
		18626 ©	60PAR/HIR/FL30°	120	12	Flood (15,23,56,88,96)*	1110	60	3000	CC-8	5 5/16	(134.9)	-	-	2875	3600	28
		11878 ©	60PAR/FL/HIR 6PK	120	6	Flood (15,23,56,88,96)*	1110	60	3000	CC-8	5 5/16	(134.9)	-	-	2875	3600	28
		18628 ©	60PAR/HIR/FL30°	130	12	Flood (15,23,56,88,96)*	1110	60	3000	CC-8	5 5/16	(134.9)	-	-	2875	3600	28
						Ratings at 120 volts.	840	54	6000								
		10467 ©	60PAR/HIR/40°	120	12	Flood (15,23,56,88,96)*	1110	60	3000	CC-8	5 5/16	(134.9)	-	-	2875	2000	40
		20947 ©	60PAR/HIR/WFL	120	12	Wide Flood (23,56,88,96,15)*	1110	60	3000	CC-8	5 5/16	(134.9)	-	-	2875	1250	-
		20948 ©	60PAR/HIR/WFL	130	12	Wide Flood (23,56,88,96,15)*	1110	60	3000	CC-8	5 5/16	(134.9)	-	-	2875	1250	-
						Ratings at 120 volts.	840	54	6000								
KRYPTON-FILLED REFLECTOR LAMPS																	
BR30	Med	11861	60R30/FL/K 6PK	120	30	Krypton, Reflector Flood	775	60	2000	CC-6	5 3/8	(136.5)	-	-	-	510	-
		11862	60R30/SP/K 6PK	120	30	Krypton, Reflector Spot	775	60	2000	CC-6	5 3/8	(136.5)	-	-	-	1600	-
T8	Disc	17226	L60	120	24	Clear-Lumiline	480	60	1500	C-8	17 3/4	(450.9)	-	-	-	-	-
		17266	L60/W	120	12	White-Lumiline	450	60	1500	C-8	17 3/4	(450.9)	-	-	-	-	-
T10	Med	17292	60T10/64 24PK	120	192	Clear-Showcase, BDTH	745	60	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		10698	60T10-CD 6PK	120	120	Clear-Showcase, BDTH	740	60	1000	CC-8	5 5/8	(142.9)	-	-	-	-	-
		17287	60T10/F 24PK	120	192	Frost-Showcase, BDTH	745	60	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
		17804	60T10/F/CD	120	120	Frost-Showcase, BDTH	-	60	1000	C-8	5 5/8	(142.9)	-	-	-	-	-
65 WATTS																	
WATT-MISER® LAMPS																	
PAR38	Med Sid Pr	12847	75PAR/3SP/65WM	120	12	Watt-Miser®-Compact Spot (56,96,15)*	675	65	2000	CC-6	4 5/16	(109.5)	-	-	2675	5900	14
		12846	75PAR/3FL/65WM	120	12	Watt-Miser®-Compact Flood (56,96,15)*	675	65	2000	CC-6	4 5/16	(109.5)	-	-	2675	1750	30
BR30	Med	15711	75R30/SP/65WM	120	24	Watt-Miser®-Reflector Spot	770	65	2000	CC-6	5 3/8	(136.5)	-	-	-	1600	-
		14264	75R30/SP/65WM	130	24	Watt-Miser®, Reflector Spot	725	65	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
		15709	75R30/FL/65WM	120	24	Watt-Miser®-Reflector Flood	770	65	2000	CC-6	5 3/8	(136.5)	-	-	-	510	-
		14263	75R30/FL/65WM	130	24	Watt-Miser®, Reflector Flood	725	65	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
		20332	65R/SP/MI/1 6PK	120	30	Miser®-Reflector Spot	770	65	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
		20331	65R/FL/MI/1 6PK	120	30	Miser®-Reflector Flood	770	65	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-

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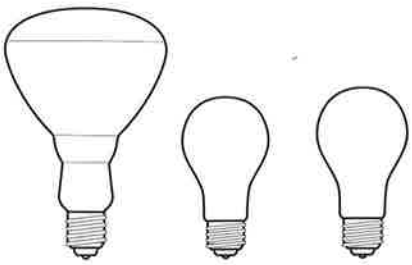

BR40 Med | A19 Med | A21 Med

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
65 WATTS (con't)																	
WATT-MISER® LAMPS																	
BR40	Med	14265	75R/FL/65WM	120	24	Watt-Miser®, Reflector Flood	730	65	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
		14266	75R/FL/65WM	130	24	Watt-Miser®, Reflector Flood	700	65	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
		14016	65R40/FL/MI 6PK	120	30	Miser®, Reflector Flood"	730	65	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
67 WATTS																	
WATT-MISER® AND WATT-MISER® PLUS LAMPS																	
A19	Med	12617	75A/67WM	120	120	Watt-Miser®-Diffuse Coating	1030	67	1000	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		12624	75A/67WM	130	120	Watt-Miser®-Diffuse Coating	1000	67	1000	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	755	60	2600								
		13013	75A/67WMP/99	120	120	Watt-Miser® Plus-Diffuse Coating, BB (23)*	940	67	2500	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		13018	75A/67WMP/99	130	120	Watt-Miser® Plus-Diffuse Coating, BB (23)*	910	67	2500	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	685	60	6800								
A21	Med	38551	67A21/TS	120	120	Clear-Traffic Signal, BDTH, BB (23)*	635	67	8000	C-9	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
		38552	67A21/TS	125	120	Clear-Traffic Signal, BDTH, BB (23)*	635	67	8000	C-9	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
		38553	67A21/TS	130	120	Clear-Traffic Signal, BDTH, BB (23)*	635	67	8000	C-9	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
69 WATTS																	
A21	Med	17323	69A21/TS	120	120	Clear-Traffic Signal, BDTH, BB (23)*	675	69	8000	C-9	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
		17324	69A21/TS	125	120	Clear-Traffic Signal, BDTH, BB (23)*	675	69	8000	C-9	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
		17325	69A21/TS	130	120	Clear-Traffic Signal, BDTH, BB (23)*	675	69	8000	C-9	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
		18207	69A21/TS/5	130	120	Traffic Signal-Clear, BDTH, BB (23)*	670	69	8000	C-9	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
70 WATTS																	
MISER® LAMPS																	
A19	Med	11905	70A/SW/MI 48PK	120	144	Soft White, Miser®	1125	70	750	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
75 WATTS																	
A19	Med	41030	75A 48PK	120	144	Standard	1190	75	750	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		17347	75A	130	120	Inside Frost	1170	75	750	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	885	67	1950								
		10428	75A/CL 24PK	120	120	Crystal Clear	1200	75	750	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		41032	75A/W 48PK	120	144	Soft White	1170	75	750	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		41287	75A/W/LL 24PK	120	120	Soft White-LongLife	1125	75	1125	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		15808	75A/S	120	120	Survivor™ LongLife I.F. Vibration Resistant, BB (23)*	825	75	3000	C-9	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		15812	75A/S	130	120	Survivor™ LongLife I.F. Vibration Resistant, BB (23)*	815	75	3000	C-9	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	615	67	8300								
		17468	75A/RX	120	120	Red-Exit Light, Enamel coated on clear glass (6)*	-	75	5000	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
A21	Med	14724	75A/RS/CVG 24PK	120	24	Inside Frost-COV-R-GUARD™ Rough Service, BB, Teflon® Coated (23,83,95,47)*	740	75	1000	C-17	5 1/4	(133.4)	-	-	-	-	-
		13611	75A/CVG/AUTO CD	-	24	Inside Frost-COV-R-GARD™ Rough Service, BB, Teflon® Coated (23,47,83,95)*	740	75	1000	C-17	5 1/4	(133.4)	-	-	-	-	-
		10696	75A/RT 6PK	120	48	Rough Service,"Ruff-n-Tuff", BB (23,95)*	-	75	1000	C-17	5 1/4	(133.4)	-	-	-	-	-

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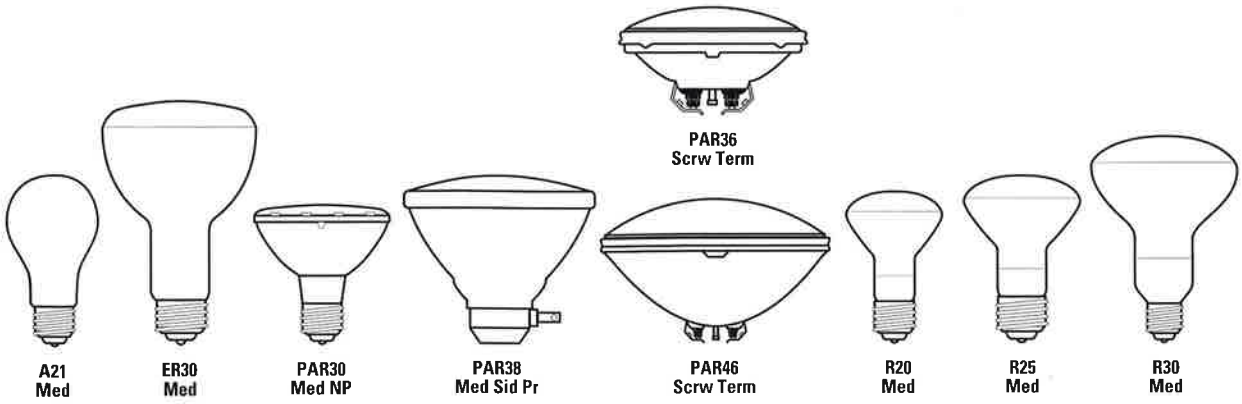

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
75 WATTS (con't)																	
A21	Med	18274	75A/RS 12PK	120	60	I.F. Rough Service (95)*	750	75	1000	C-17	5 1/4	(133.4)	3 13/16	(96.8)	-	-	-
		17527	75A/RS 60PK	130	60	I.F. Rough Service (95)*	740	75	1000	C-17	5 1/4	(133.4)	3 13/16	(96.8)	-	-	-
						Ratings at 120 volts.	560	67	2600								
		17482	75A21	12	120	Inside Frost (53)*	1500	75	1000	C-6	5 1/4	(133.4)	3 13/16	(96.8)	-	-	-
ER30	Med	37044	75ER30	120	24	ER-Elliptical Reflector, Light I.F. (4,35,56)*	850	75	2000	CC-6	6 1/4	(158.8)	-	-	-	1200	-
		42850	75ER30	130	24	ER-Elliptical Reflector, Light I.F. (4,35,56)*	850	75	2000	CC-6	6 1/4	(158.8)	-	-	-	1200	-
HALOGEN PERFORMANCE PLUS™ LAMPS																	
PAR30	Med NP	18055 ©	75PAR30/H/NSP9°	120	15	Narrow Spot (55,56,80,88,15)*	1030	75	2000	CC-8	3 5/8	(92.1)	-	-	2830	13000	9
		18056 ©	75PAR30/H/NSP9°	130	15	Narrow Spot (55,56,80,88,15)*	1030	75	2000	CC-8	3 5/8	(92.1)	-	-	2830	13000	9
						Ratings at 120 volts.	790	66	4000								
		18057 ©	75PAR30/H/NFL25°	120	15	Narrow Flood (55,56,80,88,15)*	1030	75	2000	CC-8	3 5/8	(92.1)	-	-	2830	3100	27
		18058 ©	75PAR30/H/NFL25°	130	15	Narrow Flood (55,56,80,88,15)*	1030	75	2000	CC-8	3 5/8	(92.1)	-	-	2830	3100	27
						Ratings at 120 volts.	790	66	4000								
		18059 ©	75PAR30/H/FL35°	120	15	Flood (55,56,80,88,15)*	1030	75	2000	CC-8	3 5/8	(92.1)	-	-	2830	2000	37
		18060 ©	75PAR30/H/FL35°	130	15	Flood (55,56,80,88,15)*	1030	75	2000	CC-8	3 5/8	(92.1)	-	-	2830	2000	37
						Ratings at 120 volts.	790	66	4000								
HALOGEN PERFORMANCE PLUS™ LONG NECK PAR LAMPS																	
PAR30	Med NP	11124 ©	75PAR30L/H/12°	120	15	Narrow Spot (15,55)*	940	75	2000	CC-8	4 3/4	(120.7)	-	-	2830	9000	12
		11129 ©	75PAR30L/H/12°	130	15	Narrow Spot (15,55)*	940	75	2000	CC-8	4 3/4	(120.7)	-	-	2830	9000	12
						Ratings at 120 volts.	751	66	4000								
		14943 ©	75PAR30L/H/25° 6PK	120	6	Flood (15,55)*	940	75	2000	CC-8	4 3/4	(120.7)	-	-	2830	3100	27
		11131 ©	75PAR30L/H/25°	130	15	Flood (15,55)*	940	75	2000	CC-8	4 3/4	(120.7)	-	-	2830	3100	27
						Ratings at 120 volts.	751	66	4000								
		16393 ©	75PAR30L/H/60° 6PK	120	6	Wide Flood (15,55)*	1050	75	2000	CC-8	4 3/4	(120.7)	-	-	2830	900	60
		11154 ©	75PAR30L/H/60°	130	15	Wide Flood (15,55)*	1050	75	2000	CC-8	4 3/4	(120.7)	-	-	2830	900	60
						Ratings at 120 volts.	751	66	4000								
PAR36	Scrw Term	33869	75PAR36/RS	75	12	PAR-Train Warning-Rough Service (15,23)*	740	75	500	CC-6	2 3/4	(69.8)	-	-	-	-	-
HALOGEN PERFORMANCE PLUS™ PAR LAMPS																	
PAR38	Med Skirt	21388 ©	75PAR/H/NSP9°	120	12	Narrow Spot (23,46,56,88,96,15)*	1030	75	2500	CC-8	5 5/16	(134.9)	-	-	2850	18000	9
		21387 ©	75PAR/H/NFL25°	120	12	Narrow Flood (23,46,56,88,96,15)*	1030	75	2500	CC-8	5 5/16	(134.9)	-	-	2850	4000	25
		21389 ©	75PAR/H/NFL25°	130	12	Narrow Flood (23,46,56,88,96,15)*	1030	75	2500	CC-8	5 5/16	(134.9)	-	-	2850	4000	25
						Ratings at 120 volts.	800	66	5000								
75 WATTS (con't)																	
PAR38	Med Skirt	17667	75PAR/FL	30	12	PAR-Train, Flood (53,23,15)*	975	75	1000	C-6	5 5/16	(134.9)	-	-	-	1800	60
		17670	75PAR/FL	36	12	PAR-Flood, Fishing Boat (53,23,15)*	975	75	1000	C-6	5 5/16	(134.9)	-	-	-	1800	60
	Med Sid Pr	17682	75PAR/3FL/MINE	120	12	Mine Flood (56,58,96,15)*	765	75	2000	CC-6	4 5/16	(109.5)	-	-	2725	1750	33
		17664	75PAR/3SP/MINE	120	12	Mine Spot (56,58,96,15)*	765	75	2000	CC-6	4 5/16	(109.5)	-	-	2725	-	-
PAR46	Scrw Term	17654	75PAR46	48	12	PAR-Mine Locomotive (71,15)*	850	75	800	CC-2V	3 3/4	(95.3)	-	-	-	-	-
	3 Prong	36473	75PAR46/TS	120	12	Traffic Signal (15)*	700	75	6000	CC-6	3 7/8	(98.4)	-	-	-	-	-
R20	Med	11320	75R20 6PK	120	60	Reflector Flood, I.F.	650	75	2000	C-9	3 15/16	(100.0)	-	-	-	-	-
R25	Med	22751	75R25 6PK	120	30	Reflector Flood, Inside Frost	750	75	2000	CC-6	4 3/8	(111.1)	-	-	-	-	-
R30	Med	14722	75R30/FL/CVG	120	24	Reflector Flood, COV-R-GUARD™, BB, Teflon® Coated (23,83,95,47)*	880	75	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
		20996	75R30/PL/1 6PK	120	30	Reflector Spot-Plant Gro & Sho™, BB (4,23,56)*	-	75	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
		23520	75R30/SW 6PK	120	30	Reflector-Soft White	-	75	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-

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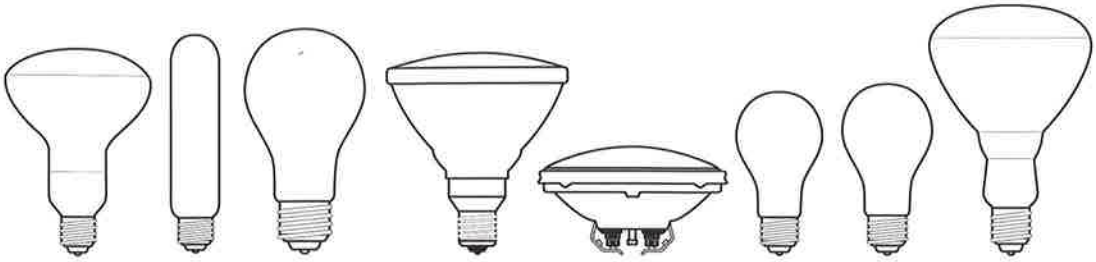

R30 Med | T10 Med | A23 3C Med | PAR38 Med Skrt | PAR36 Scrw Trm | A19 Med | A21 Med | BR40 Med

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
75 WATTS (con't)																	
R30	Med	38211	75R30/A	120	24	Reflector-Amber	-	75	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
		38212	75R30/B	120	24	Reflector-Blue	-	75	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
		38214	75R30/G	120	24	Reflector-Green	-	75	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
		38215	75R30/PK	120	24	Reflector-Pink	-	75	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
		38216	75R30/R	120	24	Reflector-Red	-	75	2000	CC-6	5 3/8	(136.5)	-	-	-	-	
		38217	75R30/Y	120	24	Reflector-Yellow	-	75	2000	CC-6	5 3/8	(136.5)	-	-	-	-	-
T10	Med	17754	75T10/45	120	24	Clear-Showcase	800	75	1000	C-23	11 7/8	(301.6)	-	-	-	-	-
		17749	75T10/1	120	24	Frost-Showcase	800	75	1000	C-23	11 7/8	(301.6)	-	-	-	-	-
80-170-250 WATTS																	
A23	3C Med	15846	80/250A/RL/SW 6PK	120	30	Soft White-Reader Light™	1000	80	1000	C-2R CC-8	5 3/4	(146.1)	4 5/16	(125.4)	-	-	-
						3-Way (1,25,46)*	2800	170	1000								
							3800	250	1000								
80 WATTS - E27 BASE - EXPORT LAMPS																	
PAR38	Skirted (E27)	18178	80PAR/FL/27	220/0	12	Clear Flood (15)*	750	80	2000	CC-6	5 1/2	(140.0)	-	-	2650	1500	35
		18179	80PAR/FL/27	240/0	12	Clear Flood (15)*	750	80	2000	CC-6	5 1/2	(140.0)	-	-	2650	1500	35
		18180	80PAR/SP/27	220/0	12	Clear Spot (15)*	750	80	2000	CC-6	5 1/2	(140.0)	-	-	2650	3300	20
		18181	80PAR/SP/27	240/0	12	Clear Spot (15)*	750	80	2000	CC-6	5 1/2	(140.0)	-	-	2650	3300	20
		18661	80PAR/FL/A/27	240/0	12	Silicone Amber Flood (15)*	-	80	2000	CC-6	5 1/2	(140.0)	-	-	-	-	-
		18650	80PAR/FL/B/27	240/0	12	Silicone Blue Flood (15)*	-	80	2000	CC-6	5 1/2	(140.0)	-	-	-	-	-
		18653	80PAR/FL/G/27	240/0	12	Silicone Green Flood (15)*	-	80	2000	CC-6	5 1/2	(140.0)	-	-	-	-	-
		18656	80PAR/FL/R/27	240/0	12	Silicone Red Flood (15)*	-	80	2000	CC-6	5 1/2	(140.0)	-	-	-	-	-
		18658	80PAR/FL/Y/27	240/0	12	Silicone Yellow Flood (15)*	-	80	2000	CC-6	5 1/2	(140.0)	-	-	-	-	-
85 WATTS																	
WATT-MISER® LAMPS																	
PAR38	Med Skirt	13463	100PAR/A/85WM 6PK	120	6	Miser® PAR-Silicone Amber (23,15)*	-	85	2000	CC-6	5 5/16	(134.9)	-	-	-	-	-
		13465	100PAR/B/85WM 6PK	120	6	Miser® PAR-Silicone Blue (23,15)*	-	85	2000	CC-6	5 5/16	(134.9)	-	-	-	-	-
		13474	100PAR/G/85WM 6PK	120	6	Miser® PAR-Silicone Green (23,15)*	-	85	2000	CC-6	5 5/16	(134.9)	-	-	-	-	-
		13472	100PAR/R/85WM 6PK	120	6	Miser® PAR-Silicone Red (23,15)*	-	85	2000	CC-6	5 5/16	(134.9)	-	-	-	-	-
		13473	100PAR/Y/85WM 6PK	120	6	Miser® PAR-Silicone Yellow (23,15)*	-	85	2000	CC-6	5 5/16	(134.9)	-	-	-	-	-
		20945	85PAR/FL/BG/ 6PK	120	6	PAR Flood-Yellow-Bug-Lite (23,15)*	-	85	2000	CC-6	5 5/16	(134.9)	-	-	-	-	-
PAR38	Med	12289 ©	85PA5/FL/H/STG/ 6PK	120	6	Photocell Saf-T-Gard™ Flood (15)*	1075	85	3000		5 5/16	(134.9)	-	-	-	-	-
PAR36	Scrw Term	39817	88PAR36/FL	75	12	Projector-Train Warning (15)*	810	88	1500	CC-6	2 3/4	(69.8)	-	-	-	-	-
90 WATTS																	
WATT-MISER® AND WATT-MISER® PLUS LAMPS																	
A19	Med	12618	100A/90WM	120	120	Watt-Miser®-Diffuse Coating	1465	90	1000	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		12625	100A/90WM	130	120	Watt-Miser®-Diffuse Coating	1440	90	1000	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	1095	80	2600								
		13019	100A/90WMP/99	120	120	Watt-Miser® Plus-Diffuse Coating, LongLife, BB (23)*	1285	90	2500	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		13023	100A/90WMP/99	130	120	Watt-Miser® Plus-Diffuse Coating, LongLife, BB (23)*	1260	90	2500	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	960	80	6800								
A21	Med	17972	100A21/90WM/TS	130	120	Watt-Miser®-Clear, Traffic Signal, Burn BDTH, BB, Krypton (23)*	1040	90	8000	C-11V	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
BR40	Med	14267	100R/FL/90WM	120	24	Watt-Miser,® Reflector Flood	1100	90	2000	CC-6	6 9/16	(166.7)	-	-	-	-	-
		14268	100R/FL/90WM	130	24	Watt-Miser®, Reflector Flood	1050	90	2000	CC-6	6 9/16	(166.7)	-	-	-	-	-
		14017	90R40/FL/MI 6PK	120	30	Miser®, Reflector Flood	1100	90	2000	CC-6	6 9/16	(166.7)	-	-	-	-	-

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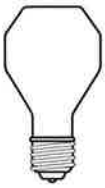
PAR38
Med Skrt


TB19
Med


A19
Med


A21
Med

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
90 WATTS (con't)																	
HALOGEN PERFORMANCE PLUS™ PAR LAMPS																	
PAR38	Med Skirt	13307 Ⓔ	90PAR/H/FL25°	120	12	Flood (23,15)*	1260	90	2500	C-8	5 5/16	(134.9)	-	-	2870	4100	27
		17451 Ⓔ	90PAR/FL/HAL 6PK	120	6	Flood (23,15)*	1260	90	2500	CC-8	5 5/16	(134.9)	-	-	2870	4100	27
		13308 Ⓒ	90PAR/H/FL25°	130	12	Flood (23,15)*	1260	90	2500	CC-8	5 5/16	(134.9)	-	-	2870	4100	27
						Ratings at 120 volts.	940	79	4000								
		17691 Ⓔ	90PAR/CB/H/FL25°	120	12	Cool Beam Flood (23,78,15)*	1260	90	2500	CC-8	5 5/16	(134.9)	-	-	2870	4100	27
		13309 Ⓒ	90PAR/H/SP10°	120	12	Spot (14,23,56,88,96,15)*	1260	90	2500	CC-8	5 5/16	(134.9)	-	-	2870	16000	10
		17450 Ⓔ	90PAR/SP/HAL 6PK	120	6	Spot (14,23,56,88,96,15)*	1260	90	2500	CC-8	5 5/16	(134.9)	-	-	2870	16000	10
		13311 Ⓒ	90PAR/H/SP10°	130	12	Spot (14,15,56,88,96)*	1240	90	2000	CC-8	5 5/16	(134.9)	-	-	2870	16000	10
						Ratings at 120 volts.	940	79	4000								
HALOGEN PERFORMANCE PLUS™ A-LINE LAMPS																	
TB19	Med	20648	90A/HAL 6PK	120	6	Frost, Brass Base (23,83,88)*	1580	90	2000	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	2930	-	-
		16744	90TB/H	120	60	Frost, Brass Base (23,83,88)*	1580	90	2000	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	2930	-	-
		16745	90TB/H	130	60	Frost, Brass Base (23,83,88)*	1580	90	2000	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	2930	-	-
						Ratings at 120 volts.	1220	81	4000								
95 WATTS																	
MISER® LAMPS																	
A19	Med	11906	95A/SW/MI 48PK	120	144	Soft White Miser®	1610	95	750	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
100 WATTS																	
A19	Med	41034	100A 48PK	120	144	Standard	1710	100	750	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		17933	100A	130	120	Inside Frost	1680	100	750	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	1275	89	1950								
		39321	100A/CL 24PK	120	120	Crystal Clear	1730	100	750	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		41036	100A/W 48PK	120	144	Soft White	1690	100	750	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		11948	100A/W/STG 24PK	120	24	Soft White Saf-T-Gard™, (47,83,95)*	1624	100	750	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		41289	100A/W/LL 24PK	120	120	Soft White-LongLife	1600	100	1125	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		17995	100A/LHT	120	120	Inside Frost, BB, Left-Hand Medium Base (23)*	1710	100	750	CC-6	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		15813	100A/S	120	120	Survivor™-I.F. LongLife, Vibration Resistant, BB (23,46)*	1190	100	3000	C-9	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		15815	100A/S	130	120	Survivor™-I.F. LongLife, Vibration Resistant, BB (23,46)*	1170	100	3000	C-9	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
						Ratings at 120 volts.	880	89	8300								
		41291	100A/Y 24PK	120	120	Bug-Lite (14)*	1010	100	1000	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
		20328	100A/SPK 24PK	120	120	Soft Pink (46)*	1330	100	1000	CC-8	4 7/16	(112.7)	3 1/8	(79.4)	-	-	-
A21	Med	18212	100A21	120	60	Inside Frost	1710	100	750	CC-6	5 1/4	(133.4)	3 7/8	(98.4)	-	-	-
		18221	100A21	130	60	Inside Frost	1690	100	750	CC-6	5 1/4	(133.4)	3 7/8	(98.4)	-	-	-
						Ratings at 120 volts.	1285	89	1950								
		21314	100A21/99 60PK	120	60	Diffuse Coating-Extended Service, BB (23)*	1440	100	2500	CC-6	5 1/4	(133.4)	3 7/8	(98.4)	-	-	-
		21315	100A21/99 60PK	130	60	Diffuse Coating-Extended Service, BB (23)*	1420	100	2500	CC-6	5 1/4	(133.4)	3 7/8	(98.4)	-	-	-
						Ratings at 120 volts.	1080	89	6800								
		13612	100A/RS/AUTO CD	120	24	I.F. Rough Service (95)*	1160	100	1000	C-17	5 1/4	(133.4)	3 13/16	(96.8)	-	-	-
		18275	100A/RS 12PK	120	60	I.F. Rough Service (95)*	1160	100	1000	C-17	5 1/4	(133.4)	3 13/16	(96.8)	-	-	-
		17522	100A/RS 60PK	130	60	I.F. Rough Service (95)*	1150	100	1000	C-17	5 1/4	(133.4)	3 13/16	(96.8)	-	-	-
						Ratings at 120 volts.	875	89	2600								

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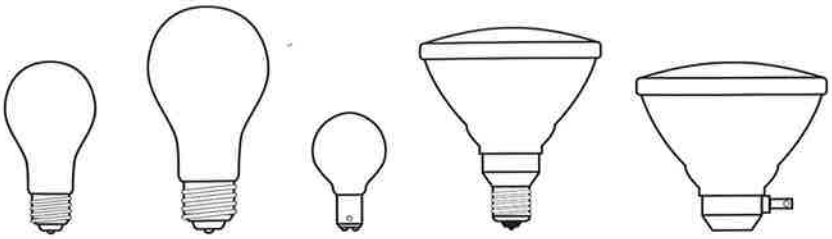

A21 Med | A23 Med | G16½ DC Bay | PAR38 Med Skrt | PAR38 Med Sid Pr

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
100 WATTS (con't)																	
A21	Med	14719	100A/RS/CVG	120	120	I.F.-COV-R-GUARD™ Rough Service, BB, Teflon® Coated (23,47,83,95)*	1230	100	1000	C-17	5 1/4	(133.4)	3 13/16	(96.8)	-	-	-
		11245	100A/RT 6PK	120	48	Rough Service "Ruff-n-Tuff" (83,95)*	-	100	1000	C-17	5 1/4	(133.4)	-	-	-	-	-
		18365	100A21/TS	130	120	Clear-Traffic Signal, Rated Watts: 98, BDTH, BB (23)*	1280	100	3000	C-9	4 3/8	(111.1)	2 7/16	(61.9)	-	-	-
		17860	100A21/4SP	120	120	Light I.F.-Medical Spot, BB (23)*	1150	100	200	C-5	4 3/8	(111.1)	3	(76.2)	-	-	-
		17525	100A21/SBIF 60PK	120	60	I.F. Silvered Bowl (28)*	1400	100	1000	CC-6	5 1/4	(133.4)	3 3/8	(98.4)	-	-	-
		17528	100A21/SB 60PK	120	60	Clear-Silvered Bowl (28)*	1400	100	1000	CC-6	5 1/4	(133.4)	3 3/8	(98.4)	-	-	-
A23	Med	18512	100A23	12	120	Inside Frost (53)*	1750	100	1000	C-6	5 15/16	(150.8)	4 7/16	(112.7)	-	-	-
A21	Med	17845	100A21/3	32	120	Clear-Locomotive Headlight, BB (13,23,53)*	1610	100	500	C-5	4 3/8	(111.1)	3	(76.2)	-	-	-
		17515	100A 60PK	230	60	Inside Frost (53)*	1280	100	750	C-7A	5 1/4	(133.4)	3 13/16	(96.8)	-	-	-
		17516	100A 60PK	250	60	Inside Frost (53)*	1280	100	750	C-7A	5 1/4	(133.4)	3 13/16	(96.8)	-	-	-
		17524	100A/RS 60PK	250	60	I.F. Rough Service (53,95)*	960	100	1000	C-17	5 1/4	(133.4)	3 13/16	(96.8)	-	-	-
		17517	100A 60PK	277	60	Inside Frost (32,53)*	1250	100	750	C-7A	5 1/4	(133.4)	3 13/16	(96.8)	-	-	-
A23	Med	17904	100A	34	120	I.F.-Train (53)*	2160	100	1000	C-9	5 15/16	(150.8)	4 7/16	(112.7)	-	-	-
		18487	100A/D	120	120	I.F.-Daylight	720	100	750	CC-6	5 15/16	(150.8)	4 7/16	(112.7)	-	-	-
		18542	100A23/20	120	120	Clear-Commercial Oven, BB (3,23)*	1530	100	1000	CC-6	5 15/16	(150.8)	4 7/16	(112.7)	-	-	-
		18449	100A23	120	120	Inside Frost	1600	100	750	CC-6	5 15/16	(150.8)	4 7/16	(112.7)	-	-	-
		18632	100A/R	120	120	Red (46)*	-	100	750	CC-6	5 15/16	(150.8)	-	-	-	-	-
		33454	100A23/VS 24PK	120	24	I.F.-Vibration Service (12)*	1360	100	1000	C-9	5 15/16	(150.8)	4 7/16	(112.7)	-	-	-
		33456	100A23/VS 24PK	130	24	I.F.-Vibration Service (12)*	1340	100	1000	C-9	5 15/16	(150.8)	4 7/16	(112.7)	-	-	-
						Ratings at 120 volts.	1020	89	2600								
G16½	DC Bay	18721	100G16½/29DC	120	60	Clear-Spot. BDTH, BB (7,23,99)*	1660	100	200	CC-13	3	(76.2)	1 3/8	(34.9)	-	-	-
100 WATTS																	
STANDARD HALOGEN PAR LAMPS																	
PAR38	Med Skirt	17946 ©	100PAR/H/FL	120	12	Flood (14,15,23,56,88,96)*	1400	100	2000	CC-8	5 5/16	(134.9)	-	-	2900	4800	27
		17992 ©	100PAR/SP/S/HAL 6PK	120	6	Spot (14,15,23,56,88,96)*	1400	100	2000	CC-8	5 5/16	(134.9)	-	-	2900	17000	11
		17947 ©	100PAR/H/FL	130	12	Flood (14,15,23,56,88,96)*	1400	100	2000	CC-8	5 5/16	(134.9)	-	-	2900	4800	27
						Ratings at 120 volts.	1100	88	4000								
		17951 ©	100PAR/H/SP	120	12	Spot (14,15,23,56,88,96)*	1400	100	2000	CC-8	5 5/16	(134.9)	-	-	2900	17000	11
		17986 ©	100PAR/FL/S/HAL 6PK	120	6	Flood (14,15,23,56,88,96)*	1400	100	2000	CC-8	5 5/16	(134.9)	-	-	2900	4800	27
		17952 ©	100PAR/H/SP	130	6	Spot (14,15,23,56,88,96)*	1400	100	2000	CC-8	5 5/16	(134.9)	-	-	2900	17000	11
						Ratings at 120 volts.	1100	88	4000								
HALOGEN-IR™ PAR LAMPS																	
PAR38	Med Skirt	18631 ©	100PAR/HIR/NFL25°	120	12	Narrow Flood (15,23,56,88,96)*	2070	100	3000	CC-8	5 5/16	(134.9)	-	-	2900	7500	27
		11883 ©	100PAR/FL/HIR 6PK	120	6	Narrow Flood (15,23,56,88,96)*	2070	100	3000	CC-8	5 5/16	(134.9)	-	-	2900	7500	27
		18633 ©	100PAR/HIR/NFL25°	130	12	Narrow Flood (15,23,56,88,96)*	2070	100	3000	CC-8	5 5/16	(134.9)	-	-	2900	7500	27
						Ratings at 120 volts.	1570	88	6000								
		10473 ©	100PAR/HIR/40°	120	12	Flood (23,56,88,96)*	2070	100	3000	C-8	5 5/16	(134.9)	-	-	2900	3400	40
		18635 ©	100PAR/HIR/SP10°	120	12	Spot (15,23,56,88,96)*	2070	100	3000	CC-8	5 5/16	(134.9)	-	-	2900	29000	10
		11885 ©	100PAR/SP/HIR 6PK	120	6	Spot (15,23,56,88,96)*	2070	100	3000	CC-8	5 5/16	(134.9)	-	-	2900	29000	10
		18636 ©	100PAR/HIR/SP10°	130	12	Spot (15,23,56,88,96)*	2070	100	3000	CC-8	5 5/16	(134.9)	-	-	2900	29000	10
						Ratings at 120 volts.	1570	88	6000								
	Med Sid Pr	18822	100PAR38/FL	12	12	PAR-Mine Flood (58,15)*	1400	100	1000	C-6	4 5/16	(109.5)	-	-	-	2200	60

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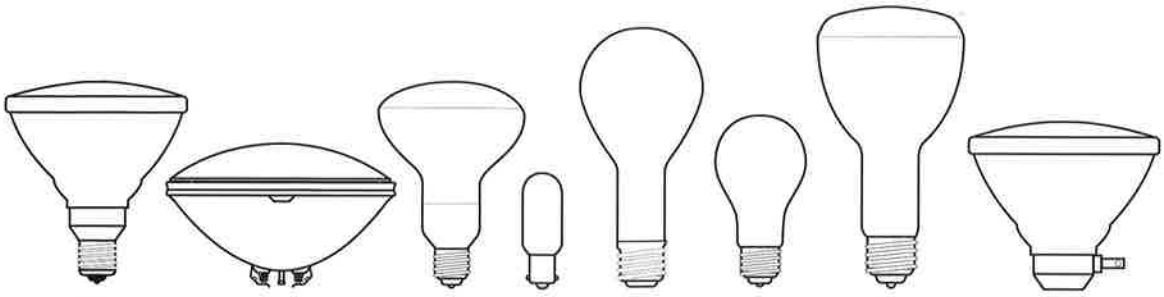

PAR38 Med Skrt | PAR46 Scrw Trm | R30 Med | T8 SC Bay | PS25 3C Mog | A21 Med | ER40 Med | PAR38 Med Sid Pr

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in. (mm)	LCL in. (mm)	Color Temp. K	CBCP	Appx. Beam Spread
E27 BASE - EXPORT LAMPS															
PAR38	Skirted (E27)	38854	100PAR/FL/27	220/0	12	Clear Flood (15)*	800	100	2000	CC-6	5 1/2 (140.0)	- -	2600	1500	35
		40027	100PAR/SP/27	220/0	12	Clear Spot (15)*	800	100	2000	CC-6	5 1/2 (140.0)	- -	2600	3300	20
		42711	100PAR/FL/27	240/0	12	Clear Flood (15)*	800	100	2000	CC-6	5 1/2 (140.0)	- -	2600	1500	35
		42710	100PAR/SP/27	240/0	12	Clear Spot (15)*	800	100	2000	CC-6	5 1/2 (140.0)	- -	2600	3300	20
		40028	100PAR/FL/B/27	220/0	12	Silicone Blue Flood (15)*	-	100	2000	CC-6	5 1/2 (140.0)	- -	-	-	-
		40029	100PAR/FL/G/27	220/0	12	Silicone Green Flood (15)*	-	100	2000	CC-6	5 1/2 (140.0)	- -	-	-	-
		40030	100PAR/FL/R/27	220/0	12	Silicone Red Flood (15)*	-	100	2000	CC-6	5 1/2 (140.0)	- -	-	-	-
		40031	100PAR/FL/Y/27	220/0	12	Silicone Yellow Flood (15)*	-	100	2000	CC-6	5 1/2 (140.0)	- -	-	-	-
		20776	100PAR/FL/B/27	240/0	12	Silicone Blue Flood (15)*	-	100	2000	CC-6	5 1/2 (140.0)	- -	-	-	-
		20777	100PAR/FL/G/27	240/0	12	Silicone Green Flood (15)*	-	100	2000	CC-6	5 1/2 (140.0)	- -	-	-	-
		20778	100PAR/FL/R/27	240/0	12	Silicone Red Flood (15)*	-	100	2000	CC-6	5 1/2 (140.0)	- -	-	-	-
		20779	100PAR/FL/Y/27	240/0	12	Silicone Yellow Flood (15)*	-	100	2000	CC-6	5 1/2 (140.0)	- -	-	-	-
100 WATTS															
PAR46	Scrw Term	34465	100PAR46	60	12	Mine Locomotive Headlight (71,15)*	1290	100	800	CC-2V	3 3/4 (95.3)	- -	-	-	-
R30	Med	39503	100R30/CL	12	24	Reflector-Clear, Swimming Pool, BB (4,23,46,53)*	1200	100	2000	C-6	5 3/8 (136.5)	- -	-	-	-
T8	SC Bay	18881	100T8/1SC	20	24	Clear-Contour Map ANSI: BZA, Source 4.5x3.0 mm (8,31,61,94)*	2600	100	50	CC-6	3 (76.2)	2 3/16 (55.6)	-	-	-
100-200-300 WATTS															
PS25	3 C Mog	18780	100/300/2	120	60	Soft White - 3-Way, Neck of bulb coated red from base to maximum bulb diameter (1,25,46)*	1320 3300 4620	100 200 300	1500 1200 1200	CC-6	6 11/16 (169.9)	4 7/16 (112.7)	-	-	-
		41459	100/300 6PK	120	30	Soft White - 3-Way (1,25,46)*	1320 3300 4620	100 200 300	1500 1200 1200	CC-6	6 11/16 (169.9)	4 7/16 (112.7)	-	-	-
110 WATTS															
R30	Med	18980	110R30/FL/RS	120	24	Reflector Flood, I.F. Rough Service, BB (23)*	1080	110	2000	C-17	5 3/8 (136.5)	- -	-	-	-
116 WATTS															
A21	Med	19008	116A21/TS	120	120	Clear-Traffic Signal, BDTH, (23)*	1280	116	8000	C-9	4 3/8 (111.1)	2 7/16 (61.9)	-	-	-
		19009	116A21/TS	125	120	Clear-Traffic Signal, BDTH, BB (23)*	1280	116	8000	C-9	4 3/8 (111.1)	2 7/16 (61.9)	-	-	-
		19010	116A21/TS	130	120	Clear-Traffic Signal, BDTH, BB (23)*	1280	116	8000	C-9	4 3/8 (111.1)	2 7/16 (61.9)	-	-	-
		18209	116A21/TS/5	125	120	Traffic Signal-Clear, BDTH (23)*	1240	116	8000	C-9	4 3/8 (111.1)	2 7/16 (61.9)	-	-	-
120 WATTS															
ER40	Med	41607	120ER40	120	24	ER-Elliptical Reflector, Light I.F. (4,35,56)*	1425	120	2000	CC-6	7 3/8 (187.3)	- -	-	1700	-
		43231	120ER40	130	24	ER-Elliptical Reflector, Light I.F. (4,35,56)*	1425	120	2000	CC-6	7 3/8 (187.3)	- -	-	1700	-
WATT-MISER® LAMPS															
PAR38	Med Sid Pr	12810	150PAR/3SP/120WM	120	12	Watt-Miser®-Spot (56,58,96,15)*	1370	120	2000	CC-6	4 5/16 (109.5)	- -	2725	9200	18
		12808	150PAR/3FL/120WM	120	12	Watt-Miser®-Flood (56,58,96,15)*	1370	120	2000	CC-6	4 5/16 (109.5)	- -	2725	3600	30
E27 BASE - EXPORT LAMPS															
PAR38	Skirted (E27)	18172	120PAR/FL/27	220/0	12	Clear Flood (15)*	1200	120	2000	CC-6	5 1/2 (140.0)	- -	2675	2300	35
		18173	120PAR/FL/27	240/0	12	Clear Flood (15)*	1200	120	2000	CC-6	5 1/2 (140.0)	- -	2675	2300	35
		18175	120PAR/SP/27	220/0	12	Clear Spot (15)*	1200	120	2000	CC-6	5 1/2 (140.0)	- -	2675	5500	20
		18177	120PAR/SP/27	240/0	12	Clear Spot (15)*	1200	120	2000	CC-6	5 1/2 (140.0)	- -	2675	5500	20

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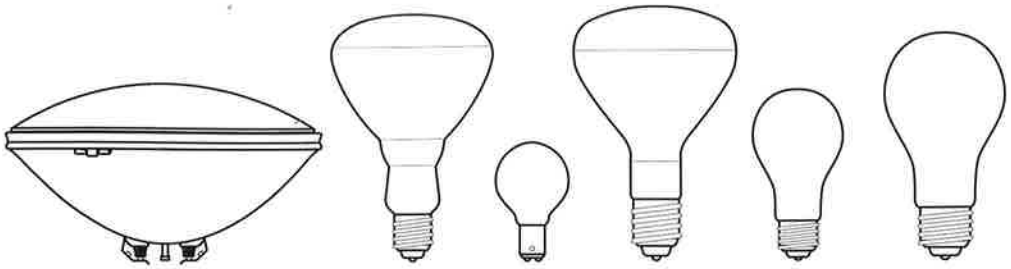

PAR56 Scrw Trm | BR40 Med | G16 1/2 DC Bay | R40 Med | A21 Med | A23 Med

Bulb Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in. (mm)	LCL in. (mm)	Color Temp. K	CBCP	Appx. Beam Spread
120 WATTS (con't)														
PAR56 Scrw Term	19023	120PAR56VNSP	12	12	Very Narrow Spot (11,56,59,15)*	1050	120	2000	C-6	4 1/2 (114.3)	- -	2750	60000	8x6
	19024	120PAR56/MFL	12	12	Medium Flood (11,56,59,15)*	1050	120	2000	C-6	4 1/2 (114.3)	- -	2750	19000	18x9
	19025	120PAR56WFL	12	12	Wide Flood (11,56,59)*	1050	120	2000	C-6	4 1/2 (114.3)	- -	2750	5625	35x18
WATT-MISER® AND MISER® PLUS LAMPS														
BR40 Med	15048	150R/FL/120WM	120	24	Watt-Miser®-Reflector Flood I.F. (4,35,46,56)*	1600	120	2000	CC-6	6 9/16 (166.7)	- -	-	1450	-
	15746	150R/FL/120WM	130	24	Watt-Miser®-Reflector Flood I.F. (4,35,46,56)*	1600	120	2000	CC-6	6 9/16 (166.7)	- -	-	1450	-
	15047	150R/SP/120WM	120	24	Watt-Miser®-Reflector Spot-Light I.F. (4,35,46,56)*	1600	120	2000	CC-6	6 9/16 (166.7)	- -	-	6700	-
	15747	150R/SP/120WM	130	24	Watt-Miser®-Reflector Spot-Light I.F. (4,35,46,56)*	1600	120	2000	CC-6	6 9/16 (166.7)	- -	-	-	-
	20333	120R/FL/MI/1 6PK	120	30	Miser®-Reflector Flood (4,35,46,56)*	1600	120	2000	CC-6	6 9/16 (166.7)	- -	-	-	-
	20334	120R/SP/MI/1 6PK	120	30	Miser®-Reflector Spot (4,35,46,56)*	1600	120	2000	CC-6	6 9/16 (166.7)	- -	-	-	-
125 WATTS														
G16 1/2 DC Bay	19031	125G16 1/2 DC	120	60	Clear-Spot, BDTH (7,99)*	1650	125	600	CC-13	3 (76.2)	1 1/2 (38.1)	-	-	-
R40 Med	13049	125R40/1	120	24	Reflector Infrared, Clear (2A,4,46,56,94)*	-	125	5000	C-9	6 9/16 (166.7)	- -	-	-	-
135 WATTS														
WATT-MISER® AND WATT-MISER® PLUS LAMPS														
A21 Med	12619	150A/135WM	120	60	Watt-Miser®-Diffuse Coating	2380	135	1000	CC-8	5 3/8 (136.5)	4 1/16 (103.2)	-	-	-
	12627	150A/135WM	130	60	Watt-Miser®-Diffuse Coating	2340	135	1000	CC-8	5 3/8 (136.5)	4 1/16 (103.2)	-	-	-
					Ratings at 120 volts.	1790	120	2600						
	13024	150A/135WMP/99	120	60	Watt-Miser® Plus-Diffuse Coating, LongLife	2100	135	2500	CC-8	5 3/8 (136.5)	4 1/16 (103.2)	-	-	-
	13025	150A/135WMP/99	130	60	Watt-Miser® Plus-Diffuse Coating, LongLife	2060	135	2500	CC-8	5 3/8 (136.5)	4 1/16 (103.2)	-	-	-
					Ratings at 120 volts.	1580	120	6800						
	17973	150A21/135WM/TS	120	120	Watt-Miser®-Clear, Traffic Signal, Burn BDTH, BB, Krypton (23)*	1750	135	7000	C-11V	4 11/16 (119.1)	3 (76.2)	-	-	-
	17974	150A21/135WM/TS	130	120	Watt-Miser®-Clear, Traffic Signal, Burn BDTH, BB, Krypton (23)*	1750	135	7000	C-11V	4 11/16 (119.1)	3 (76.2)	-	-	-
150 WATTS														
A21 Med	19168	150A	120	60	Inside Frost	2850	150	750	CC-8	5 3/8 (136.5)	4 1/16 (103.2)	-	-	-
	41294	150A 24PK	120	24	Standard	2850	150	750	CC-8	5 3/8 (136.5)	4 1/16 (103.2)	-	-	-
	33009	150A	130	60	Inside Frost	2800	150	750	CC-8	5 3/8 (136.5)	4 1/16 (103.2)	-	-	-
					Ratings at 120 volts.	2140	133	1950						
	10429	150A/W 12PK	120	60	Soft White	2780	150	750	CC-8	5 3/8 (136.5)	4 1/16 (103.2)	-	-	-
	16068	150A/CL 12PK	120	60	Crystal Clear	2850	150	750	CC-8	5 3/8 (136.5)	4 1/16 (103.2)	-	-	-
	17623	150A21/RS	120	60	I.F.-Rough Service (95)*	2100	150	1000	C-17	5 1/4 (133.4)	3 13/16 (96.8)	-	-	-
	17625	150A21/RS	130	60	I.F.-Rough Service (95)*	2065	150	1000	C-17	5 1/4 (133.4)	3 13/16 (96.8)	-	-	-
					Ratings at 120 volts.	1580	133	2600						
	15817	150A/S	120	60	Survivor™-I.F. LongLife, Vibration Resistant, BB (23,46)*	1950	150	3000	C-9	4 15/16 (125.4)	3 3/8 (85.7)	-	-	-
	15818	150A/S	130	60	Survivor™-I.F. LongLife, Vibration Resistant, BB (23,46)*	1925	150	3000	C-9	4 15/16 (125.4)	3 3/8 (85.7)	-	-	-
					Ratings at 120 volts.	1470	133	8300						
A23 Med	19080	150A23	120	60	Inside Frost	2780	150	750	CC-8	6 3/16 (157.2)	4 5/8 (117.5)	-	-	-
	19082	150A23	130	60	Inside Frost	2730	150	750	CC-8	6 3/16 (157.2)	4 5/8 (117.5)	-	-	-
					Ratings at 120 volts.	2085	133	1950						

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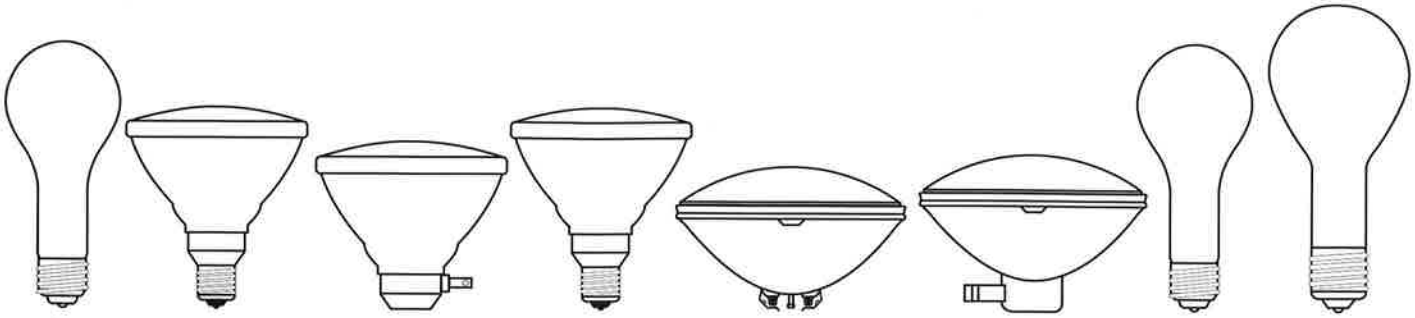

P25 Med | PAR38 Med Skrt | PAR38 Med Sid Pr | PAR38 Skrt | PAR46 Scrw Trm | PAR46 Med Sid Pr | PS25 Med | PS30 Med

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in. (mm)	LCL in. (mm)	Color Temp. K	CBCP	Appx. Beam Spread
150 WATTS (con't)															
A23	Med	19204	150A23/99	120	60	I.F.-Extended Service, BB (23)*	2350	150	2500	CC-8	6 3/16 (157.2)	4 5/8 (117.5)	-	-	-
		19206	150A23/99	130	60	I.F.-Extended Service, BB (23)*	2310	150	2500	CC-8	6 3/16 (157.2)	4 5/8 (117.5)	-	-	-
						Ratings at 120 volts.	1765	133	6800						
P25	Med	19334	150P25/2SB	120	60	Clear-Spot, Silvered Bowl, Hard glass button, BB (23,28)*	2100	150	200	C-7A	4 3/4 (120.7)	- -	-	-	-
		19372	150P25/10	120	60	Light I.F.-Spot, Hard glass button, BB (23)*	2100	150	200	C-7A	4 3/4 (120.7)	3 (76.2)	-	-	-
PAR38	Med Skirt	19464	150PAR/FL/A	120	12	Flood, Dichro Amber (23,15)*	-	150	2000	CC-6	5 5/16 (134.9)	- -	-	-	-
		19465	150PAR/FL/B	120	12	Flood, Dichro Blue (23,15)*	-	150	2000	CC-6	5 5/16 (134.9)	- -	-	-	-
		19467	150PAR/FL/G	120	12	Flood, Dichro Green (23,15)*	-	150	2000	CC-6	5 5/16 (134.9)	- -	-	-	-
		19468	150PAR/FL/R	120	12	Flood, Dichro Red (23,15)*	-	150	2000	CC-6	5 5/16 (134.9)	- -	-	-	-
	Med Sid Pr	44933	150PAR/3VWFL	125	12	Mine-Very Wide Flood (18,15)*	1500	150	2000	C-13	4 5/16 (109.5)	- -	2775	-	-
		19497	150PAR/4	125	12	Mine-Spot (18,56,96,15)*	1500	150	2000	C-13	4 5/16 (109.5)	- -	2775	-	-
		19503	150PAR/3FL/MINE	120	12	Mine-Flood (56,68,96,15)*	1740	150	2000	CC-6	4 5/16 (109.5)	- -	2775	3100	36
		19505	150PAR/3FL/MINE	130	12	Mine-Flood (56,68,96,15)*	1740	150	2000	CC-6	4 5/16 (109.5)	- -	-	3100	36
		19487	150PAR/3SP/MINE	120	12	Mine-Spot (56,58,96)*	1740	150	2000	CC-6	4 5/16 (109.5)	- -	-	12000	16
		19489	150PAR/3SP/MINE	130	12	Mine-Spot (56,58,96,15)*	1740	150	2000	CC-6	4 5/16 (109.5)	- -	-	12000	16
E27 BASE - EXPORT LAMPS															
PAR38	Skirted(E27)	40033	150PAR/FL/27	220/0	12	Clear Flood (15)*	1350	150	2000	CC-6	5 1/2 (140.0)	- -	2650	2450	35
		40035	150PAR/FL/27	240/0	12	Clear Flood (15)*	1350	150	2000	CC-6	5 1/2 (140.0)	- -	2650	2450	35
		40032	150PAR/SP/27	220/0	12	Clear Spot (15)*	1350	150	2000	CC-6	5 1/2 (140.0)	- -	2650	5600	20
		40034	150PAR/SP/27	240/0	12	Clear Spot (15)*	1350	150	2000	CC-6	5 1/2 (140.0)	- -	2650	5600	20
		34725	150PAR38/2FL/27	220/0	12	Cool Beam Clear Flood (78,15)*	1350	150	2000	CC-6	5 1/2 (140.0)	- -	2650	2450	35
PAR46	Scrw Term	19512	150PAR46/1	32	12	Mine Locomotive Headlight (56,15)*	1950	150	800	CC-8	3 3/4 (95.3)	- -	-	100000	9x9
	3 Prong	35327	150PAR46/TS	115	12	Traffic Signal - Burn Horiz. (2,15)*	1750	150	6000	CC-6	4 (101.6)	- -	-	-	-
	Scrw Term	19517	150PAR46	125	12	Mine Locomotive Headlight (15)*	1250	150	1000	C-13	3 3/4 (95.3)	- -	-	-	-
	Med Sid Pr	41968	150PAR46/3MFL	125	12	Medium Flood (4,11,56,58,96,15)*	1500	150	2000	CC-13	4 (101.6)	- -	2750	8000	26x13
PS25	Med	14635	150PS25/CVG	120	60	Inside Frost-COV-R-GUARD™, BB, Teflon® Coated (23,83,95,47)*	2630	150	1000	C-9	6 15/16 (176.2)	- -	-	-	-
		19528	150/IF	120	60	Inside Frost	2570	150	750	C-9	6 15/16 (176.2)	5 3/16 (131.8)	-	-	-
		19530	150/IF	130	60	Inside Frost	2520	150	750	C-9	6 15/16 (176.2)	5 3/16 (131.8)	-	-	-
						Ratings at 120 volts.	1930	133	1950						
		19616	150/RS	120	60	I.F.-Rough Service (95)*	2190	150	1000	C-17	6 15/16 (176.2)	5 3/16 (131.8)	-	-	-
		19618	150/RS	130	60	I.F.-Rough Service (95)*	2160	150	1000	C-17	6 15/16 (176.2)	5 3/16 (131.8)	-	-	-
						Ratings at 120 volts.	1650	133	2600						
		19597	150/SBIF	120	60	I.F.-Silver Bowl (28)*	2370	150	1000	C-9	6 15/16 (176.2)	5 3/16 (131.8)	-	-	-
		19656	150/99	120	60	I.F.-Extended Service, BB (23)*	2250	150	2500	C-9	6 15/16 (176.2)	5 3/16 (131.8)	-	-	-
		19658	150/99	130	60	I.F.-Extended Service, BB (23)*	2200	150	2500	C-9	6 15/16 (176.2)	5 3/16 (131.8)	-	-	-
						Ratings at 120 volts.	1680	133	6800						
		19668	150/99CL	130	60	Clear-Extended Service, BB (23)*	2200	150	2500	C-9	6 15/16 (176.2)	5 3/16 (131.8)	-	-	-
						Ratings at 120 volts.	1680	133	6800						
		33463	150/VS 24PK	120	24	I.F.-Vibration Service	2310	150	1000	C-9	6 15/16 (176.2)	5 3/16 (131.8)	-	-	-
		33465	150/VS 24PK	130	24	I.F.-Vibration Service	2270	150	1000	C-9	6 15/16 (176.2)	5 3/16 (131.8)	-	-	-
						Ratings at 120 volts.	1735	133	2600						
		14716	150/RS/CVG	120	60	Inside Frost-COV-R-GUARD™ Rough Service, BB, Teflon® Coated (23,47,83,95)*	2120	150	1000	C-17	6 15/16 (176.2)	5 3/16 (131.8)	-	-	-
PS30	Med	19756	150PS30	240	60	Clear-Reflector, Silvered Neck, BB (23,43,53)*	1950	150	1000	C-9	8 1/16 (204.8)	6 (152.4)	-	-	-

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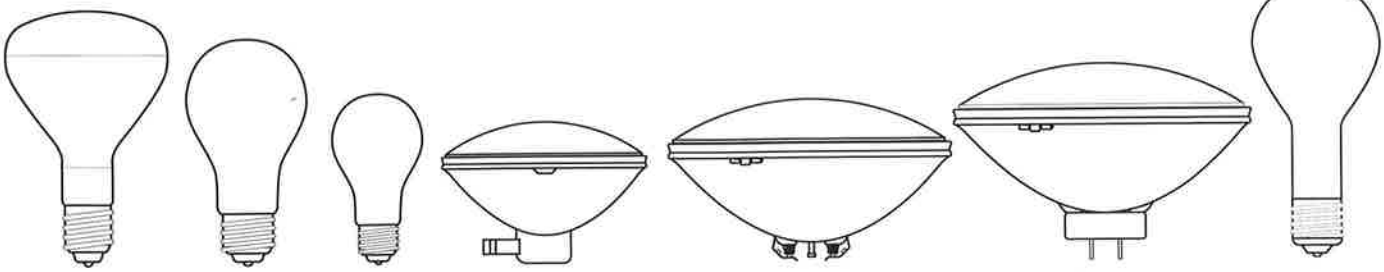

R40 Med | A23 Med | A21 Med | PAR46 Med Sid Pr | PAR56 Scrw Trm | PAR56 Mog End Pr | PS30 Med

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in. (mm)	LCL in. (mm)	Color Temp. K	CBCP	Appx. Beam Spread
150 WATTS (con't)															
R40	Med	19823	150R/B	120	24	Reflector-Blue (35,36,46)*	-	150	2000	CC-6	6 9/16 (166.7)	- -	-	-	-
		19827	150R/BW	120	24	Reflector-Blue-White (35,36,46)*	-	150	2000	CC-6	6 9/16 (166.7)	- -	-	-	-
		19835	150R/PK	120	24	Reflector-Pink (35,36,46)*	-	150	2000	CC-6	6 9/16 (166.7)	- -	-	-	-
		19841	150R/R	120	24	Reflector-Red (35,36,46)*	-	150	2000	CC-6	6 9/16 (166.7)	- -	-	-	-
		21000	150R40/PL-1 6PK	120	30	Reflector Plant Light-Gro &Sho™, BB (4,23,46,56)*	-	150	2000	CC-6	6 9/16 (166.7)	- -	-	-	-
		44674	150R40/TB	120	24	Jewelry Spot Reflector Transparent Daylight Blue (4,35,46,56,76)*	-	150	2000	CC-6	6 9/16 (166.7)	- -	-	-	-
		14715	150R/FL/CVG	130	24	Reflector Flood-COV-R-GUARD™, BB, Teflon® Coated (4,23,35,46,56,83,95,47)*	1860	150	2000	CC-6	6 9/16 (166.7)	- -	-	-	-
170 WATTS															
A23	Med	15842	170A/RL/SW 6PK	120	30	Soft White-Reader Light™	3100	170	750	CC-8	5 3/4 (146.1)	4 5/16 (125.4)	-	-	-
175 WATTS															
PAR38	Med Skirt	13643	175PAR38/HEAT	120	12	PAR, Infrared, Clear	-	175	5000	CC-6	5 3/16 (134.9)	- -	-	-	-
200 WATTS															
A21	Med	11585	200A/W/1 12PK	120	60	Soft White	3910	200	750	CC-8	5 3/8 (136.5)	4 1/16 (103.2)	-	-	-
A23	Med	20019	200A 12PK	120	60	Standard	3920	200	750	CC-8	6 3/16 (157.2)	4 5/8 (117.5)	-	-	-
		20030	200A	130	60	Inside Frost	3850	200	750	CC-8	6 3/16 (157.2)	4 5/8 (117.5)	-	-	-
						Ratings at 120 volts.	2965	177	1950						
A21	Med	16069	200A/CL/1 12PK	120	60	Crystal	3980	200	750	CC-8	5 3/8 (136.5)	4 1/16 (103.2)	-	-	-
A23	Med	20051	200A/CL	130	60	Clear	3850	200	750	CC-8	6 3/16 (157.2)	4 5/8 (117.5)	-	-	-
						Ratings at 120 volts.	2965	177	1950						
		20076	200A/99	120	60	I.F.-Extended Service, BB (23)*	3320	200	2500	CC-8	6 3/16 (157.2)	4 5/8 (117.5)	-	-	-
		20078	200A/99	130	60	I.F.-Extended Service, BB (23)*	3250	200	2500	CC-8	6 3/16 (157.2)	4 5/8 (117.5)	-	-	-
						Ratings at 120 volts.	2500	177	6800						
		20081	200A/99/CL	130	60	Clear-Extended Service, BB (23)*	3250	200	2500	CC-8	6 3/16 (157.2)	4 5/8 (117.5)	-	-	-
						Ratings at 120 volts.	2500	177	6800						
PAR46	Med Sid Pr	20115	200PAR46/3NSP	120	12	Narrow Spot (4,11,36,58,96,15)*	2270	200	2000	CC-13	4 (101.6)	- -	2750	31000	12x8
		20117	200PAR46/3NSP	130	12	Narrow Spot (4,11,36,56,58,96,15)*	2270	200	2000	CC-13	4 (101.6)	- -	2750	31000	12x8
		20138	200PAR46/3MFL	120	12	Medium Flood (4,11,36,56,58,96,15)*	2270	200	2000	CC-13	4 (101.6)	- -	2750	11500	27x13
		20140	200PAR46/3MFL	130	12	Medium Flood (4,11,36,56,58,96,15)*	2270	200	2000	CC-13	4 (101.6)	- -	2750	11500	27x13
PAR56	Scrw Term	20122	200PAR	30	12	Locomotive Headlight (2,15)*	3700	200	500	CC-8	4 1/2 (114.3)	- -	-	270000	9x9
	Mog End Pr	49889	200PAR56/MFL	120	12	Medium Flood (4,11,56,59,15)*	2270	200	2000	CC-13	5 (127.0)	- -	2750	15000	22x13
PS30	Med	14636	200PS30/CVG	120	60	Inside Frost-COV-R-GUARD™, BB, Teflon® Coated (23,83,95,47)*	3480	200	1000	C-9	8 1/16 (204.8)	6 (152.4)	-	-	-
		14637	200PS30/RS/CVG	120	60	Inside Frost-COV-R-GUARD™, Rough Service, BB, Teflon® Coated (23,83,95,47)*	3330	200	1000	C-9	8 1/16 (204.8)	6 (152.4)	-	-	-
		20403	200PS30/24	130	60	Clear-Rough Service (95)*	3240	200	1000	C-9	8 1/16 (204.8)	6 (152.4)	-	-	-
						Ratings at 120 volts.	2495	177	2600						
		20316	200/SBIF	120	60	I.F.-Silvered Bowl (28)*	3320	200	1000	C-9	8 1/16 (204.8)	6 (152.4)	-	-	-
		20352	200/99IF	120	60	I.F.-Extended Service, BB (23)*	3050	200	2500	C-9	8 1/16 (204.8)	6 (152.4)	-	-	-
		20354	200/99IF	130	60	I.F.-Extended Service, BB (23)*	3000	200	2500	C-9	8 1/16 (204.8)	6 (152.4)	-	-	-
						Ratings at 120 volts.	2310	177	6800						
		20170	200	120	60	Clear	3600	200	750	C-9	8 1/16 (204.8)	6 (152.4)	-	-	-
		20172	200	130	60	Clear	3540	200	750	C-9	8 1/16 (204.8)	6 (152.4)	-	-	-
						Ratings at 120 volts.	2725	177	1950						
		20250	200/IF	120	60	Inside Frost	3600	200	750	C-9	8 1/16 (204.8)	6 (152.4)	-	-	-

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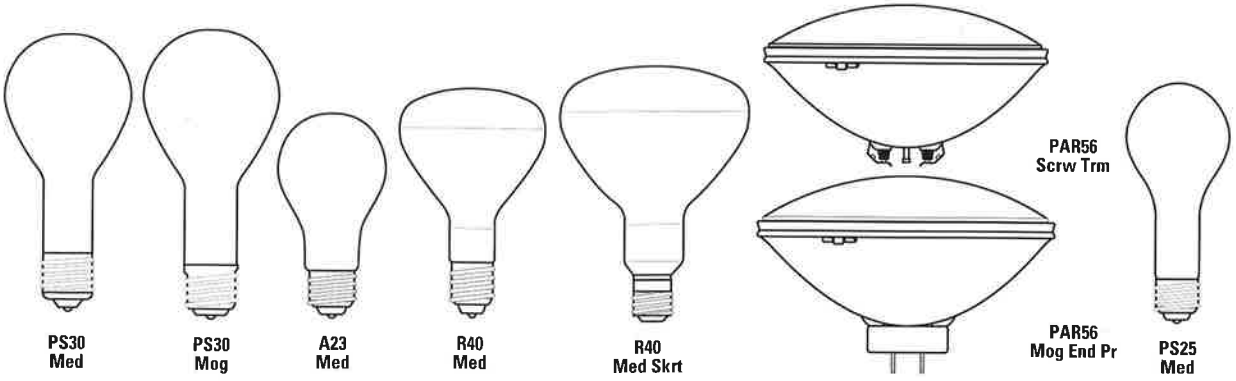

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
200 WATTS (con't)																	
PS30	Med	20252	200/IF	130	60	Inside Frost	3540	200	750	C-9	8 1/16	(204.8)	6	(152.4)	-	-	-
						Ratings at 120 volts.	2725	177	1950								
	Mog	20426	200PS30/12	130	60	Clear	3710	200	750	C-9	8 7/16	(214.3)	6 3/8	(161.9)	-	-	-
	Med	33466	200PS30/23 24PK	120	24	I.F.-Rough Service (95)*	3300	200	1000	C-9	8 1/16	(204.8)	6	(152.4)	-	-	-
		33468	200PS30/23 24PK	130	24	I.F.-Rough Service (95)*	3240	200	1000	C-9	8 1/16	(204.8)	6	(152.4)	-	-	-
						Ratings at 120 volts.	2495	177	2600								
		20192	200	250	60	Clear	2980	200	1000	C-9	8 1/16	(204.8)	6	(152.4)	-	-	-
240 WATTS																	
PAR56	Scrw Term	20575	240PAR56/VNSP	12	12	Very Narrow Spot (4,11,56,59,15)*	2570	240	2000	C-6	4 1/2	(114.3)	-	-	2800	140000	9x6
		20576	240PAR56/MFL	12	12	Medium Flood (4,11,56,59,15)*	2570	240	2000	C-6	4 1/2	(114.3)	-	-	2800	46000	19x8
		20577	240PAR56/WFL	12	12	Wide Flood (4,11,56,69,15)*	2570	240	2000	C-6	4 1/2	(114.3)	-	-	2800	13000	35x18
250 WATTS																	
A23	Med	15843	250A/RL/SW 6PK	120	30	Soft White-Reader Light™ (1)*	4500	250	750	CC-8	5 3/4	(146.1)	4 5/16	(125.4)	-	-	-
R40	Med	37770	250R40/1 6PK	120	30	Reflector-Infrared. Clear Face (2A,4,6,34,46,56,94,95)*	2200	250	5000	C-9	6 9/16	(166.7)	-	-	-	-	-
		16257	250R40/1/CVG	120	24	Clear-COV-R-GUARD™ Teflon® Coated, Food Warming, Reflector-Infrared (47,6,34,46,56,94,95)*	2150	250	5000	C-9	6 9/16	(166.7)	-	-	-	-	-
	Med Skirt	20724	250R40/4	120	24	Reflector Infrared Industrial-Light I.F. (4,6,23,34,56,95)*	-	250	5000	C-9	7 7/16	(188.9)	-	-	-	-	-
	Med	37771	250R40/10 6PK	120	30	Reflector-Infrared, Red, HRG (2A,4,6,34,46,56,94,15)*	-	250	5000	C-9	6 9/16	(166.7)	-	-	-	-	-
300 WATTS																	
PAR56	Scrw Term	23427	300PAR56/WFL	12	12	PAR-Wide Flood, Swimming (4,15)*	6000	300	1000	C-6	4 1/2	(114.3)	-	-	-	-	-
	Mog End Pr	20803	300PAR56/NSP	120	12	Narrow Spot (4,11,56,59,15)*	3840	300	2000	CC-13	5	(127.0)	-	-	2750	68000	10x8
		20836	300PAR56/MFL	120	12	Medium Flood (4,11,56,59,15)*	3840	300	2000	CC-13	5	(127.0)	-	-	2750	24000	23x11
		20838	300PAR56/MFL	130	12	Medium Flood (4,11,56,59,15)*	3840	300	2000	CC-13	5	(127.0)	-	-	2750	24000	23x11
		20849	300PAR56/WFL	120	12	Wide Flood (4,11,56,59,15)*	3840	300	2000	CC-13	5	(127.0)	-	-	2750	11000	37x18
		20851	300PAR56/WFL	130	12	Wide Flood (4,11,56,59,15)*	3840	300	2000	CC-13	5	(127.0)	-	-	2750	11000	37x18
EXPORT PAR LAMPS																	
PAR56	Gx16d	20853	300PAR56/NSP	230	12	Narrow Spot (11,36,56,59,15)*	3450	300	2000	CC-13	5	(127.0)	-	-	-	-	-
		18676	300PAR56/NSP	240/0	12	Narrow Spot (11,36,56,59,15)*	3450	300	2000	CC-13	5	(127.0)	-	-	-	-	-
		20852	300PAR56/MFL	230	12	Medium Flood (11,36,56,59,15)*	3450	300	2000	CC-13	5	(127.0)	-	-	-	-	-
		18677	300PAR56/MFL	240/0	12	Medium Flood (11,36,56,59,15)*	3450	300	2000	CC-13	5	(127.0)	-	-	-	-	-
		20854	300PAR56/WFL	230	12	Wide Flood (11,36,56,59,15)*	3450	300	2000	CC-13	5	(127.0)	-	-	-	-	-
		18678	300PAR56/WFL	240/0	12	Wide Flood (11,36,56,59,15)*	3450	300	2000	CC-13	5	(127.0)	-	-	-	-	-
300 WATTS (con't)																	
PS25	Med	20861	300M	120	60	Clear	6200	300	750	CC-8	6 15/16	(176.2)	5 3/16	(131.8)	-	-	-
		20863	300M	130	60	Clear	6120	300	750	CC-8	6 15/16	(176.2)	5 3/16	(131.8)	-	-	-
						Ratings at 120 volts.	4710	266	1950								
		41058	300M/IF 12PK	120	60	Inside Frost	6200	300	750	CC-8	6 15/16	(176.2)	5 3/16	(131.8)	-	-	-
		20917	300M/IF	130	60	Inside Frost	6120	300	750	CC-8	6 15/16	(176.2)	5 3/16	(131.8)	-	-	-
						Ratings at 120 volts.	4710	266	1950								
PS30	Med	20885	300M/99	120	60	Clear-Extended Service, BB (23)*	5190	300	2500	C-9	8 1/16	(204.8)	6	(152.4)	-	-	-
		20887	300M/99	130	60	Clear-Extended Service, BB (23)*	5110	300	2500	C-9	8 1/16	(204.8)	6	(152.4)	-	-	-
						Ratings at 120 volts.	3935	266	6800								
		20892	300M/99/IF	120	60	I.F.-Extended Service, BB (23)*	5190	300	2500	C-9	8 1/16	(204.8)	6	(152.4)	-	-	-
		20894	300M/99/IF	130	60	I.F.-Extended Service, BB (23)*	5110	300	2500	C-9	8 1/16	(204.8)	6	(152.4)	-	-	-
						Ratings at 120 volts.	3935	266	6800								

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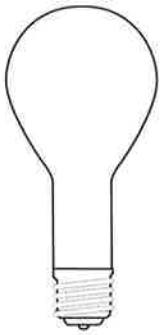
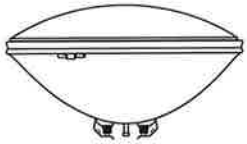

PS35 Mog


R40 Med


R40 Mog

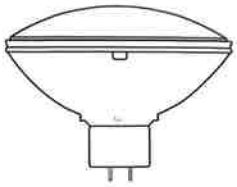

T20 Med BiPost


PAR56 Scrw Trm


G30 Med Skrt


G30 Med


R40 Med Skrt


PAR64 Ex Mog End Pr

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
300 WATTS (con't)																	
PS35	Mog	21137	300/SBIF	120	24	I.F.-Silver Bowl, Burn base up (46)*	5410	300	1000	C-9	9 3/8	(238.1)	7	(177.8)	-	-	-
		21139	300/SBIF	130	24	I.F.-Silver Bowl, Burn base up (46)*	5410	300	1000	C-9	9 3/8	(238.1)	7	(177.8)	-	-	-
		21165	300/99	120	24	Clear-Extended Service	5190	300	2500	C-9	9 3/8	(238.1)	7	(177.8)	-	-	-
		21167	300/99	130	24	Clear-Extended Service	5190	300	2500	C-9	9 3/8	(238.1)	7	(177.8)	-	-	-
		21175	300/99IF	120	24	I.F.-Extended Service, BB (23)*	5190	300	2500	C-9	9 3/8	(238.1)	7	(177.8)	-	-	-
		21177	300/99IF	130	24	I.F.-Extended Service, BB (23)*	5190	300	2500	C-9	9 3/8	(238.1)	7	(177.8)	-	-	-
		21023	300	120	24	Clear	5820	300	1000	C-9	9 3/8	(238.1)	7	(177.8)	-	-	-
		21025	300	130	24	Clear	5820	300	1000	C-9	9 3/8	(238.1)	7	(177.8)	-	-	-
		21077	300/IF	120	24	Inside Frost	5820	300	1000	C-9	9 3/8	(238.1)	7	(177.8)	-	-	-
		21079	300/IF	130	24	Inside Frost	5820	300	1000	C-9	9 3/8	(238.1)	7	(177.8)	-	-	-
		21117	300/RS	130	24	Clear-Rough Service, BB (23,95)*	5340	300	1000	C-9	9 3/8	(238.1)	7	(177.8)	-	-	-
R40	Med	21213	300R/FL	120	24	Reflector Flood-I.F., HORIZ (4,35,46,56,73)*	3700	300	2000	CC-2V (HORIZ)	6 9/16	(166.7)	-	-	-	2500	-
		21215	300R/FL	130	24	Reflector Flood-I.F., HORIZ (4,35,46,56,73)*	3465	300	2000	CC-2V (HORIZ)	6 9/16	(166.7)	-	-	-	2500	-
						Ratings at 120 volts.	2670	266	5400								
		21229	300R/FL/1	120	24	Reflector Flood-I.F., BB, HRG (15,35,46,56,73)*	3700	300	2000	CC-2V (HORIZ)	6 3/4	(171.5)	-	-	-	1900	-
		21197	300R/SP	120	24	Reflector Spot-Light I.F., HORIZ (4,35,46,56,73)*	3700	300	2000	CC-2V (HORIZ)	6 9/16	(166.7)	-	-	-	9000	-
	Mog	21254	300R/3FL	120	24	Reflector Flood-I.F., BB (4,23,33,73,15)*	3750	300	2000	CC-2V	7 1/4	(184.2)	-	-	-	-	-
		21256	300R/3FL	130	24	Reflector Flood-I.F., BB (4,23,33,73,15)*	3750	300	2000	CC-2V	7 1/4	(184.2)	-	-	-	-	-
		21263	300R/3FL	250	24	Reflector Flood-I.F., BB (4,23,33,73,15)*	3300	300	2000	C-7A	7 1/4	(184.2)	-	-	-	-	-
T20	Med BiPost	21280	300T20/1	120	12	Inside Frost, HRG (52,73,89,99,15)*	5500	300	1000	C-13	6 1/2	(165.1)	4	(101.6)	-	-	-
350 WATTS																	
PAR56	Scrw Term	19866	350PAR56/SP	75	12	Ditch Light-Locomotive (4,59,15)*	6200	350	500	CC-8	4 1/2	(114.3)	-	-	-	-	-
375 WATTS																	
G30	Med Skirt	21329	375G30	115	24	Clear-Infrared, Industrial, BB (4,6,23,46,53,56)*	-	375	5000	C-7A	7 3/16	(182.6)	5	(127)	-	-	-
R40	Med Skirt	21331	375R40	115	24	Reflector Infrared Industrial-Light I.F., BB (4,6,23,46,56)*	-	375	5000	C-9	7 3/8	(187.3)	-	-	-	-	-
		21334	375R40/1	115	24	Reflector Infrared Industrial-Clear Face, HRG, BB (4,6,15,23,46,56)*	-	375	5000	C-9	7 1/2	(190.5)	-	-	-	-	-
		21336	375R40/10	115	24	Reflector Infrared Industrial-Red Bowl, HRG, BB (4,6,15,23,46,56)*	-	375	5000	C-9	7 1/2	(190.5)	-	-	-	-	-
400 WATTS																	
G30	Med	21363	400G/FL	120	60	Clear-Flood, BDTH, BB (23,99)*	6800	400	800	C-5	5 1/8	(130.2)	3	(76.2)	-	-	-
R40	Med	17542	400R40/FL	120	24	Reflector Flood, Swimming, BB, HRG (15,23,35,36,93)*	5000	400	2000	CC-2V (HORIZ)	6 3/4	(171.5)	-	-	-	-	-
500 WATTS																	
G30	Med Skirt	21426	500G30/1	115	60	Infrared, Industrial, BB (2A,6,23,46,53,56)*	-	500	5000	C-7A	7 1/8	(181.0)	5	(127)	-	-	-
PAR64	ExMogEndPr	39406	500PAR64/NSP	120	12	Narrow Spot (4,11,56,59,15)*	6500	500	2000	CC-13	6	(152.4)	-	-	2800	110000	12x7
		39409	500PAR64/MFL	120	12	Medium Flood (4,11,56,59,15)*	6500	500	2000	CC-13	6	(152.4)	-	-	2800	37000	23x11
		39412	500PAR64/WFL	120	12	Wide Flood (4,11,56,59,15)*	6500	500	2000	CC-13	6	(152.4)	-	-	2800	13000	42x20
	MogEndPr	39411	500PAR64/MFL	230	12	Medium Flood (4,11,56,59,15)*	5500	500	2000	CC-13	6	(152.4)	-	-	2700	-	-
		39414	500PAR64/WFL	230	12	Wide Flood (4,11,56,59,15)*	5500	500	2000	CC-13	6	(152.4)	-	-	2700	-	-
PS35	Mog	21530	500	120	24	Clear, BB (23)*	10850	500	1000	CC-8	9 3/8	(238.1)	7	(177.8)	-	-	-
		21532	500	130	24	Clear, BB (23)*	10850	500	1000	CC-8	9 3/8	(238.1)	7	(177.8)	-	-	-

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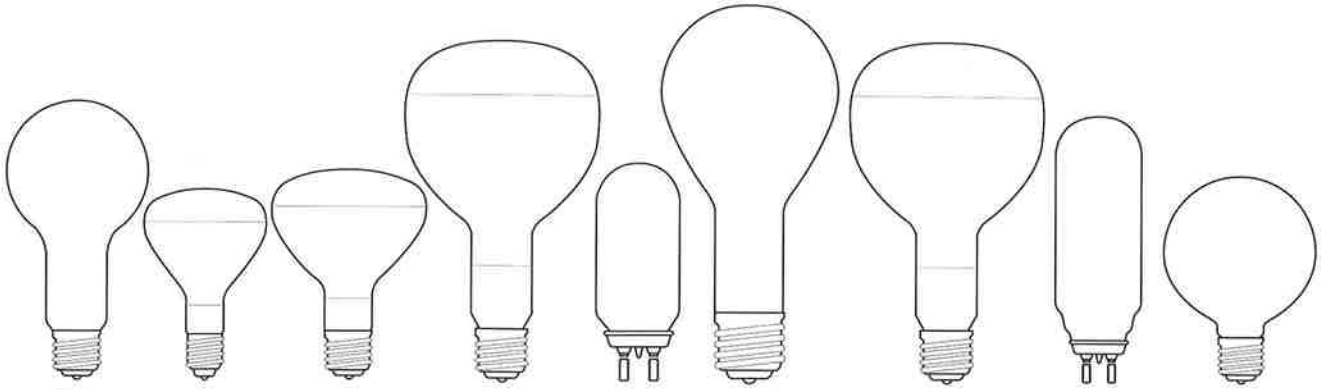

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
500 WATTS (con't)																	
PS40	Mog	21687	500PS40	120	24	Clear, BB (23)*	9900	500	1000	C-9	9 3/4	(247.7)	7	(177.8)	-	-	9900
		21641	500/99	120	24	Clear-Extended Service, BB (23)*	9070	500	2500	C-9	9 3/4	(247.7)	7	(177.8)	-	-	-
		21643	500/99	130	24	Clear-Extended Service, BB (23)*	9070	500	2500	C-9	9 3/4	(247.7)	7	(177.8)	-	-	-
		21649	500/99/IF	120	24	I.F.-Extended Service, BB (23)*	9070	500	2500	C-9	9 3/4	(247.7)	7	(177.8)	-	-	-
		21651	500/99/IF	130	24	I.F.-Extended Service, BB (23)*	9070	500	2500	C-9	9 3/4	(247.7)	7	(177.8)	-	-	-
		21622	500/SBIF	120	24	I.F.-Silver Bowl, BU, BB (23,46)*	9530	500	1000	C-9	9 3/4	(247.7)	7	(177.8)	-	-	-
R40	Mog	21734	500R/3FL	120	24	Reflector Flood-I.F., BB, HRG (4,23,33,73,15)*	6500	500	2000	CC-2V (HORIZ)	7 1/4	(184.2)	-	-	-	-	-
		21736	500R/3FL	130	24	Reflector Flood-I.F., BB, HRG	6500	500	2000	CC-2V (HORIZ)	7 1/4	(184.2)	-	-	-	-	-
		21751	500R/3FL/MS	120	24	Reflector Flood-I.F., Mill Service, BB, HRG (4,23,15)*	6500	500	1000	C-7A	7 1/4	(184.2)	-	-	-	-	-
	Med	41928	500R40/5FL	120	24	Reflector Flood-Swimming, BB, HRG (15,23,35,36,93)*	6500	500	2000	CC-2V (HORIZ)	6 3/4	(171.5)	-	-	-	-	-
	Mog	21744	500R/3FL	250	24	Reflector Flood-I.F., BB, HRG (4,23,33,73,15)*	6400	500	2000	C-7A	7 1/4	(184.2)	-	-	-	-	-
R52	Mog	21759	500R52	120	12	Reflector High Bay-Light I.F., BB (4,19,23,34,73,92)*	7600	500	2000	C-7A	11 3/4	(298.5)	-	-	-	-	-
		21761	500R52	130	12	Reflector High Bay-Light I.F., BB (4,19,23,34,73,92)*	7600	500	2000	C-7A	11 3/4	(298.5)	-	-	-	-	-
		21773	500R52	250	12	Reflector High Bay-Light I.F., BB (4,19,23,34,73,92)*	6100	500	2000	C-7A	11 3/4	(298.5)	-	-	-	-	-
T20	Med BiPost	21872	500T20/50	130	12	I.F., HRG (52,73,89,99,15)*	9800	500	1000	C-13	6 1/2	(165.1)	4	(101.6)	-	-	-
750 WATTS																	
PS52	Mog	21998	750	120	12	Clear, BB (4,23,92)*	17040	750	1000	CC-8	13	(330.2)	9 1/2	(241.3)	-	-	-
		22000	750	130	12	Clear, BB (4,23,92)*	17040	750	1000	CC-8	13	(330.2)	9 1/2	(241.3)	-	-	-
R52	Mog	22080	750R52	120	12	Reflector High Bay-Light I.F., BB (14,19,23,34,73,92)*	13000	750	2000	C-7A	11 3/4	(298.5)	-	-	-	-	-
		22082	750R52	130	12	Reflector High Bay-Light I.F., BB (14,19,23,34,73,92)*	13000	750	2000	C-7A	11 3/4	(298.5)	-	-	-	-	-
T24	Med BiPost	22117	750T24	130	24	Inside Frost, HRG (52,73,89,99,15)*	14800	750	1000	C-13	9 3/16	(233.4)	5 1/2	(139.7)	-	-	-
1000 WATTS																	
G40	Mog	22193	1M/G40FL	120	24	Clear-Flood, BDTH, BB, HRG (15,23,99)*	20000	1000	800	C-5	7 7/8	(200.0)	5 1/4	(133.4)	-	-	-
PS52	Mog	22348	1000/SBIF	120	12	I.F.-Silvered Bowl, BB (4,23,19,92)*	20400	1000	1000	C-7A	13	(330.2)	9 1/2	(241.3)	-	-	-
		22310	1000/IF	120	12	I.F. BB (4,23,92)*	23740	1000	1000	CC-8	13	(330.2)	9 1/2	(241.3)	-	-	-
		22301	1000/99	130	12	Clear-Extended Service, BB	19800	1000	2500	C-7A	13	(330.2)	9 1/2	(241.3)	-	-	-
		22258	1000	120	12	Clear, BB (4,23,92)*	23740	1000	1000	CC-8	13	(330.2)	9 1/2	(241.3)	-	-	-
		22260	1000	130	12	Clear, BB (4,23,92)*	23740	1000	1000	CC-8	13	(330.2)	9 1/2	(241.3)	-	-	-
		22280	1000	250	12	Clear, BB (4,23,92)*	17700	1000	2000	C-7A	13	(330.2)	9 1/2	(241.3)	-	-	-
		22284	1000	277	12	Clear, BB (4,23,92)*	17700	1000	2000	C-7A	13	(330.2)	9 1/2	(241.3)	-	-	-
T24	Med BiPost	22479	1M/T24	120	24	Inside Frost, HRG (52,73,89,99,15)*	21200	1000	1000	C-13	9 3/16	(233.4)	5 1/2	(139.7)	-	-	-
1500 WATTS																	
PS52	Mog	22590	1500	120	12	Clear, BB (4,20,23,92)*	34400	1500	1000	C-7A	13	(330.2)	9 1/2	(241.3)	-	-	-
		22592	1500	130	12	Clear, BB (4,20,23,92)*	34400	1500	1000	C-7A	13	(330.2)	9 1/2	(241.3)	-	-	-

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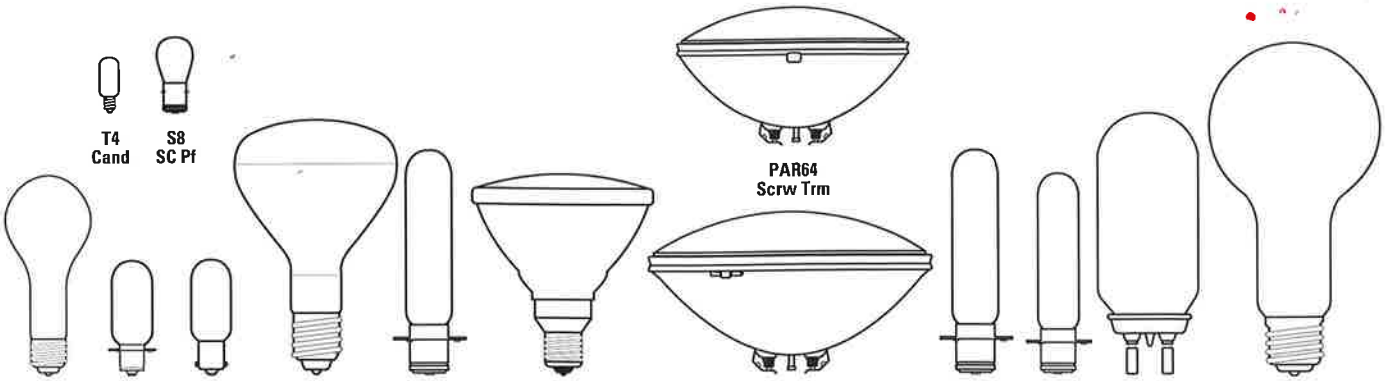

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in. (mm)	LCL in. (mm)	Color Temp. K	CBCP	Appx. Beam Spread
LUMEN RATED TRAFFIC SIGNAL LAMPS EXTENDED GROUP REPLACEMENT SERVICE															
P25	Med	20094	1950L/P25/TS	120	60	Clear-Traffic Signal (BDTH), BB (23)*	1950	165	8000	C-9	4 3/4 (120.7)	3 (76.2)	-	-	-
		20096	1950L/P25/TS	125	60	Clear-Traffic Signal (BDTH), BB (23)*	1950	165	8000	C-9	4 3/4 (120.7)	3 (76.2)	-	-	-
		20097	1950L/P25/TS	130	60	Clear-Traffic Signal (BDTH), BB (23)*	1950	165	8000	C-9	4 3/4 (120.7)	3 (76.2)	-	-	-
LAMPS LISTED BY AMPERES															
T4	Cand	23351	11A/T4C	18	100	Switchboard, Clear	13	-	2000	C-2F	1 1/2 (38.1)	15/16 (23.8)	-	-	-
S8	SC Pf	23478	55A/S8	12	100	Clear-Marine Signal, Spiral lead (37)*	-	-	500	C-8	2 (50.8)	1 1/8 (28.6)	-	-	-
		23501	77A/S8	12	100	Clear-Marine Signal, Spiral lead (37)*	-	-	500	C-8	2 (50.8)	1 1/8 (28.6)	-	-	-
		23219	1.15A/S8	12	100	Clear-Marine Signal, Spiral lead (37)*	-	-	500	C-8	2 (50.8)	1 1/8 (28.6)	-	-	-
T8	SC Pf	23258	4A/T8SCP	9	24	Clear-Sound Reproduction Source WxH: 4.8 x 1.2mm. ANSI: BXM, NPBB55 (1,37,55,61)*	560	-	500	C-6	3 1/8 (79.4)	1 15/32 (37.3)	-	-	-
		23272	5A/T8SCP	10	24	Clear-Sound Reproduction, Source WxH: 5.4 x 1.4mm. ANSI: BXN, NPBB55 (1,37,55,61)*	1000	-	100	C-6	3 1/8 (79.4)	1 15/32 (37.3)	-	-	-
	SC Bay	23326	7.5A/T8/92SC	10	24	Clear-Sound Reproduction Optical Comparator, Source WxH: 1.8 x 4.6mm. ANSI: BXE, BB (1,23,61)*	1620	-	100	C-8Z	3 1/8 (79.4)	1 3/4 (44.5)	-	-	-
R40	Med	23423	21A/R40/FL	12	24	Reflector Flood-I.F., Swimming pool, BDTH, HORIZ, HRG, BB (21,23,35,53,15)*	-	-	1000	C-2V	6 11/16 (169.9)	-	-	-	-
AIRPORT LAMPS															
30 WATTS															
T10	Med Pf	23294	6.6A/T10/1P	-	60	Clear (1)*	400	30	1000	C-2V	3 15/16 (100.0)	1 1/2 (38.1)	-	-	-
40 WATTS															
T10	Med Pf	15921	40T10P	120	60	Clear (1)*	400	40	1000	CC-2V	3 15/16 (100.0)	1 1/2 (38.1)	-	-	-
45 WATTS															
PAR38	Med Skirt	15937	45PAR38/6.6	-	12	Flood, BB (23,15)*	700	45	800	C-6	5 5/16 (134.9)	-	-	-	-
PAR56	Scrw Term	23310	6.6A/PAR56/5	-	12	Stippled cover (15)*	700	45	1000	C-8	4 1/2 (114.3)	-	-	-	-
T10	Med Pf	23295	6.6A/T10P	-	60	Clear (1)*	675	45	1000	C-2V	3 15/16 (100.0)	1 1/2 (38.1)	-	-	-
120 WATTS															
PAR64	Scrw Term	39395	120PAR	-	12	Transmissometer, Filament Shielded, Very Narrow Spot (15)*	780	120	3000	C-6	4 (101.6)	-	-	-	-
200 WATTS															
T14	Med Pf	23298	6.6A/T14P	-	24	Clear (1)*	4900	200	-	C-13	5 3/4 (146.1)	2 3/16 (55.6)	-	-	-
204 WATTS															
T14	Med Pf	23300	6.6A/T14/2P	-	24	Clear (1)*	4220	204	500	C-13	5 3/4 (146.1)	2 3/16 (55.6)	-	-	-
210 WATTS															
T14	Med Pf	34677	6.6A/T14/3P	-	24	Clear, HRG (1,15)*	4800	210	300	C-13	5 3/4 (146.1)	2 3/16 (55.6)	-	-	-
500 WATTS															
T20	Med BiPost	21835	500T20/13	120	12	Clear-Beacon, HRG (40,89,99,15)*	10300	500	500	C-130	7 1/2 (190.5)	3 (76.2)	-	-	-
503 WATTS															
T20	Med BiPost	23417	20A/T20/3	-	12	Clear, HRG (1,73,89,15)*	10300	503	500	C-13	6 1/2 (165.1)	2 21/32 (67.5)	-	-	-
620 WATTS															
PS40	Mog Pf	21950	620PS40P	120	24	Clear	11200	620	3000	C-9	10 1/16 (255.6)	5 11/16 (144.5)	-	-	-
		21952	620PS40P	130	24	Clear	11200	620	3000	C-9	10 1/16 (255.6)	5 11/16 (144.5)	-	-	-

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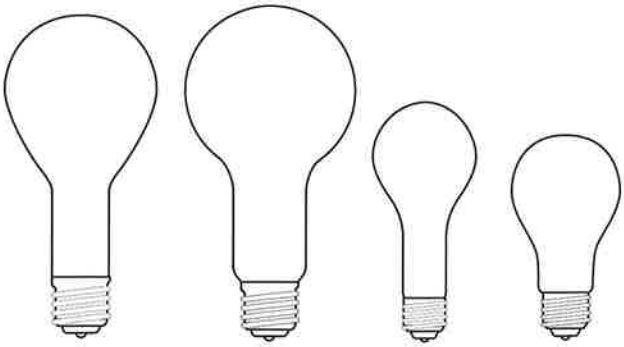

PS35 Mog | PS40 Mog | PS25 Med | A23 Med

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in. (mm)	LCL in. (mm)	Color Temp. K	CBCP	Appx. Beam Spread
1000 WATTS															
T20	Mog BiPost	22429	1M/T20BP	120	12	Clear-Beacon, HRG (1,15)*	22000	1000	500	C-13	9 1/2 (241.3)	4 (101.6)	-	-	-
1200 WATTS															
T20	Mog BiPost	22524	1200T20	115	12	Clear-Beacon, HRG (1,73,99,15)*	29600	1200	750	CC-8	9 1/2 (241.3)	4 (101.6)	-	-	-
SERIES STREET LIGHTING LAMPS															
PS35	Mog	23111	4M/66G	37	24	Clear-Initial volts: 37.6, BB (23)*	4000	-	6000	C-2V	9 3/8 (238.1)	7 (177.8)	-	-	-
PS40	Mog	23129	6M/66G	52	24	Clear-Initial volts: 52.6, BB (23)*	6000	-	6000	C-2V	9 3/4 (247.7)	7 (177.8)	-	-	-
MULTIPLE STREET LIGHTING LAMPS															
GROUP REPLACEMENT SERVICE															
PS25	Med	19938	189PS25/64	120	60	Clear, BB (23)*	2910	189	3000	C-9	6 15/16 (176.2)	5 1/4 (133.4)	-	-	-
		19939	189PS25/64	130	60	Clear, BB (23)*	-	189	3000	C-9	6 15/16 (176.2)	5 1/4 (133.4)	-	-	-
PS35	Mog	20772	295PS35/58	125	24	Clear, BB (23)*	-	295	3000	C-9	9 3/8 (238.1)	7 (177.8)	-	-	-
PS40	Mog	21408	405PS40/54	120	24	Clear, BB (23)*	6850	405	3000	C-9	9 3/4 (247.7)	7 (177.8)	-	-	-
EXTENDED GROUP REPLACEMENT SERVICE															
A23	Med	42392	105A23/12	125	120	Clear, BB (23)*	-	105	12000	C-9	5 15/16 (150.8)	4 7/16 (112.7)	-	-	-
PS25	Med	20540	202PS25	125	60	Clear, BB (23)*	-	202	6000	C-9	6 15/16 (176.2)	5 1/4 (133.4)	-	-	-
		42663	205PS25/12	125	60	Clear, BB (23)*	-	205	12000	C-9	6 15/16 (176.2)	5 1/4 (133.4)	-	-	-
PS35	Mog	21307	327PS35	125	24	Clear, BB (23)*	-	327	6000	C-9	9 3/4 (238.1)	7 (177.8)	-	-	-

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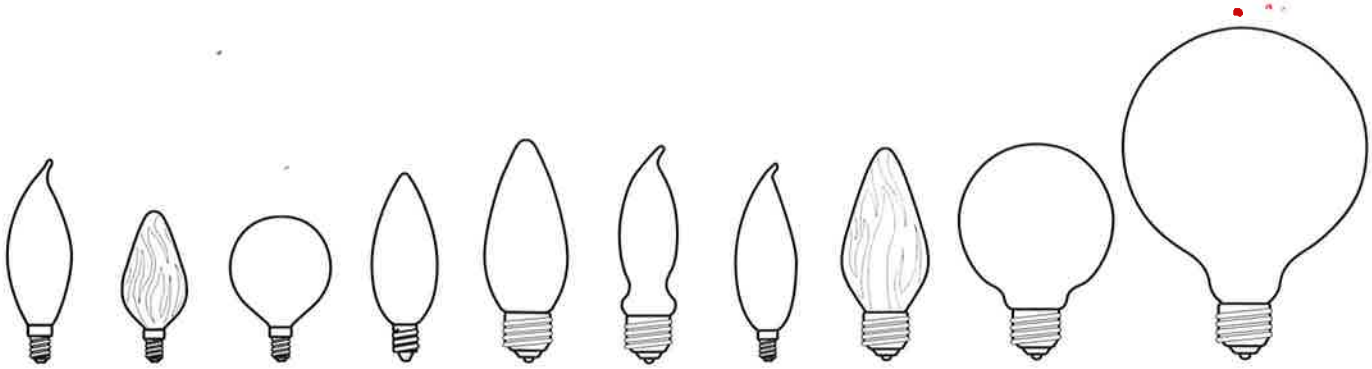

CA8 Cand | F10 Cand | G16½ Cand | B10 Cand | B13 Med | CA9 Med | CA10 Cand | F15 Med | G25 Med | G40 Med

Bulb Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
DECORATIVE LAMPS																
15 WATTS																
CA8 Cand	41528	15CAC 12PK	120	120	Crystal (Clear)-Bent Tip	90	15	1500	C-7A	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
	47929	15CAC CD/2	120	60	Crystal (Clear)-Bent Tip (9)*	-	15	1500	C-7A	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
	41524	15CAC/L	120	120	Crystal (Clear)-Bent Tip, LL	90	15	4000	C-7A	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
	47930	15CAC/F CD/2	120	60	Satin (Frost)-Bent Tip (9)*	90	15	1500	C-7A	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
F10 Cand	47928	15FC CD/2	120	60	Crystal (Clear)-Flame (9)*	136	15	1500	C-7A	3 1/8	(79.4)	-	-	-	-	-
	47926	15FC/A CD/2	120	60	Amber-Flame (9)*	-	15	1500	C-7A	3 1/8	(79.4)	-	-	-	-	-
	47927	15FC/AU CD/2	120	60	Auradescent-Flame (9)*	136	15	1500	C-7A	3 1/8	(79.4)	-	-	-	-	-
G16½ Cand	15789	15GC 25PK	120	100	Crystal (Clear)-Globe	130	15	1500	C-7A	3	(76.2)	1 5/8	(41.3)	-	-	-
	12578	15GC/L	120	60	Crystal (Clear)-Globe, LL	100	15	4000	C-7A	3	(76.2)	1 5/8	(41.3)	-	-	-
	15792	15GC/W 25PK	120	100	Pearl (White)-Globe	120	15	1500	C-7A	3	(76.2)	1 5/8	(41.3)	-	-	-
	40985	15GC/W/L	120	60	Pearl (White)-Globe, LL	90	15	4000	C-7A	3	(76.2)	1 5/8	(41.3)	-	-	-
25 WATTS																
B10 Cand	15787	25BC 25PK	120	200	Crystal (Clear)-Blunt Tip, BDTH	235	25	1500	C-7A	3 3/4	(95.3)	1 5/8	(41.3)	-	-	-
	47939	25BC CD/2	120	60	Crystal (Clear)-Blunt Tip, BDTH (9)*	-	25	1500	CC-2V	3 3/4	(95.3)	1 7/8	(47.6)	-	-	-
B13 Med	22756	25BM CD/2	120	60	Crystal (Clear)-Blunt Tip (9)*	220	25	1500	C-9	4 5/8	(117.5)	2 3/8	(60.3)	-	-	-
CA9 Med	40043	25CAM/L	120	120	Crystal (Clear)-Bent Tip, LL	185	25	4000	CC-2V	4 9/16	(115.9)	2 1/8	(54)	-	-	-
CA10 Cand	34649	25CAC 12PK	120	120	Crystal (Clear)-Bent Tip, BDTH	-	25	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
	15777	25CAC 25PK	120	200	Crystal (Clear)-Bent Tip, BDTH	235	25	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
	47933	25CAC CD/2	120	60	Crystal (Clear)-Bent Tip, BDTH (9)*	-	25	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
	16045	25CAC CD/4	120	30	Crystal (Clear)-Bent Tip, BDTH (44)*	-	25	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
	47934	25CAC/F CD/2	120	60	Satin (Frost)-Bent Tip, BDTH (9)*	-	25	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
	16046	25CAC/F CD/4	120	30	Satin (Frost)-Bent Tip, BDTH (44)*	-	25	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
	40045	25CAC/L	120	120	Crystal (Clear)-Bent Tip, BDTH, LL	180	25	4000	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
F15 Med	14403	25FM 12PK	120	120	Crystal (Clear)-Flame	215	25	1500	CC-2V	4 3/8	(111.1)	-	-	-	-	-
	18890	25FM CD/2	120	30	Crystal (Clear)-Flame (9)*	215	25	1500	CC-2V	4 3/8	(111.1)	-	-	-	-	-
	14405	25FM/W 12PK	120	120	Pearl (White)-Flame	179	25	1500	CC-2V	4 3/8	(111.1)	-	-	-	-	-
	18895	25FM/W CD/2	120	30	Pearl (White)-Flame (9)*	179	25	1500	CC-2V	4 3/8	(111.1)	-	-	-	-	-
	14404	25FM/A 12PK	120	120	Amber-Flame	-	25	1500	CC-2V	4 3/8	(111.1)	-	-	-	-	-
	18891	25FM/A CD/2	120	30	Amber-Flame (9)*	-	25	1500	CC-2V	4 3/8	(111.1)	-	-	-	-	-
	18894	25FM/AU CD/2	120	30	Auradescent-Flame (9)*	-	25	1500	CC-2V	4 3/8	(111.1)	-	-	-	-	-
G16½ Cand	11303	25GC 12PK	120	120	Crystal (Clear)-Globe	235	25	1500	C-7A	3	(76.2)	1 3/4	(44.5)	-	-	-
	15790	25GC 25PK	120	100	Crystal (Clear)-Globe	235	25	1500	C-7A	3	(76.2)	1 3/4	(44.5)	-	-	-
	17722	25GC CD/2	120	60	Crystal (Clear)-Globe (9)*	235	25	1500	C-7A	3	(76.2)	1 3/4	(44.5)	-	-	-
	23510	25GC/AU CD/2	120	60	Auradescent-Globe	235	25	1500	C-7A	3	(76.2)	1 3/4	(44.5)	-	-	-
	39679	25GC/W 12PK	120	120	Pearl (White)-Globe	210	25	1500	C-7A	3	(76.2)	1 3/4	(44.5)	-	-	-
	15793	25GC/W 25PK	120	100	Pearl (White)-Globe	210	25	1500	C-7A	3	(76.2)	1 3/4	(44.5)	-	-	-
	17729	25GC/W CD/2	120	60	Pearl (White)-Globe (9)*	210	25	1500	C-7A	3	(76.2)	1 3/4	(44.5)	-	-	-
	43158	25GC/L	120	60	Crystal (Clear)-Globe, LL	190	25	4000	C-7A	3	(76.2)	1 3/4	(44.5)	-	-	-
G25 Med	12983	25G25 6PK	120	24	Crystal (Clear)-Globe	210	25	1500	C-9	4 1/2	(114.3)	2 15/16	(74.6)	-	-	-
	16735	25G25 CPK	120	60	Crystal (Clear)-Globe	210	25	1500	C-9	4 1/2	(114.3)	2 15/16	(74.6)	-	-	-
	20408	25G25/L 24PK	120	24	Crystal (Clear)-Globe, LL	185	25	4000	C-9	4 1/2	(114.3)	2 15/16	(74.6)	-	-	-
	12982	25G25/W 6PK	120	24	Pearl (White)-Globe	190	25	1500	C-9	4 1/2	(114.3)	2 15/16	(74.6)	-	-	-
	16736	25G25/W CPK	120	60	Pearl (White)-Globe	190	25	1500	C-9	4 1/2	(114.3)	2 15/16	(74.6)	-	-	-
	20410	25G25/W/L 24PK	120	24	Pearl (White)-Globe, LL	170	25	4000	C-9	4 1/2	(114.3)	2 15/16	(74.6)	-	-	-
G40 Med	39625	25G40	120	24	Crystal (Clear)-Globe	235	25	2500	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-

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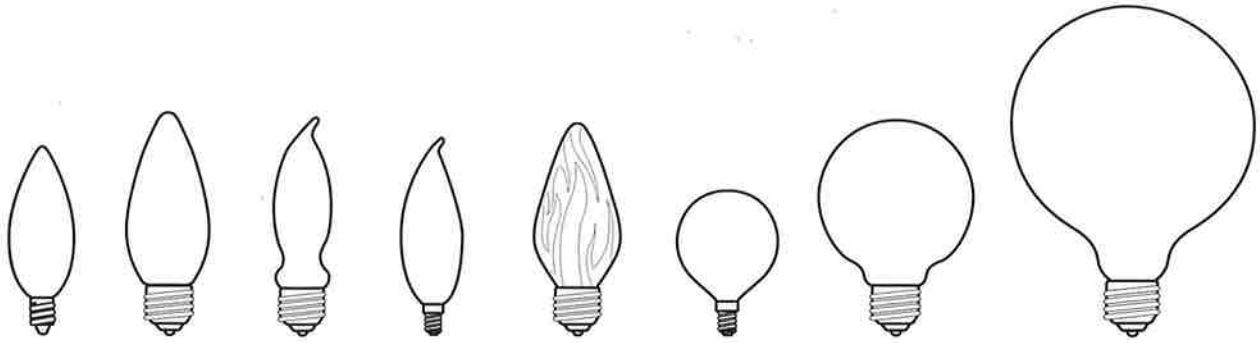
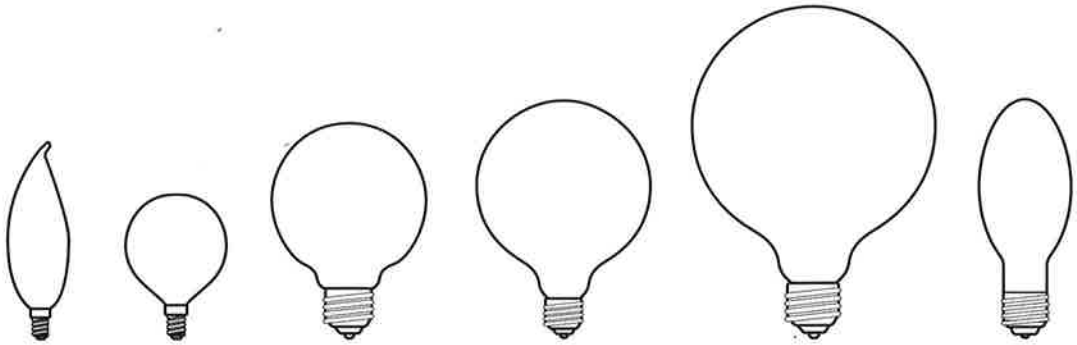


B10 Cand | B13 Med | CA9 Med | CA10 Cand | F15 Med | G16 1/2 Cand | G25 Med | G40 Med

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
DECORATIVE LAMPS (con't)																	
40 WATTS																	
B10	Cand	15788	40BC 25PK	120	200	Crystal (Clear)-Blunt Tip, BDTH	370	40	1500	CC-2V	3 3/4	(95.3)	1 7/8	(47.6)	-	-	-
		19110	40BC CD/2	120	30	Crystal (Clear)-Blunt Tip, BDTH (9)*	-	40	1500	CC-2V	3 3/4	(95.3)	1 7/8	(47.6)	-	-	-
		19981	40BC CD/4	120	30	Crystal (Clear)-Blunt Tip, BDTH (44)*	-	40	1500	CC-2V	3 3/4	(95.3)	1 7/8	(47.6)	-	-	-
		13054	40BC/L	120	120	Crystal (Clear)-Blunt Tip, BDTH, LL	310	40	4000	CC-2V	3 3/4	(95.3)	1 7/8	(47.6)	-	-	-
B13	Med	12993	40BM CD/2	120	60	Crystal (Clear)-Blunt Tip (9)*	455	40	1500	C-9	4 5/8	(117.5)	2 3/8	(60.3)	-	-	-
CA9	Med	34651	40CAM 12PK	120	120	Crystal (Clear)-Bent Tip	330	40	1500	CC-2V	4 9/16	(115.9)	2 1/8	(54)	-	-	-
		47945	40CAM CD/2	120	60	Crystal (Clear)-Bent Tip (9)*	-	40	1500	CC-2V	4 9/16	(115.9)	2 1/8	(54)	-	-	-
		16049	40CAM CD/4	120	30	Crystal (Clear)-Bent Tip (44)*	-	40	1500	CC-2V	4 9/16	(115.9)	2 1/8	(54)	-	-	-
		34652	40CAM/F 12PK	120	120	Satin (Frost)-Bent Tip	330	40	1500	CC-2V	4 9/16	(115.9)	2 1/8	(54)	-	-	-
		12994	40CAM/F CD/2	120	60	Satin (Frost)-Bent Tip (9)*	330	40	1500	CC-2V	4 9/16	(115.9)	2 1/8	(54)	-	-	-
		40047	40CAM/L	120	120	Crystal (Clear)-Bent Tip, LL	-	40	4000	CC-2V	4 9/16	(115.9)	2 1/8	(54)	-	-	-
CA10	Cand	34653	40CAC 12PK	120	120	Crystal (Clear)-Bent Tip, BDTH	370	40	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
		15778	40CAC 25PK	120	200	Crystal (Clear)-Bent Tip, BDTH	-	40	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
		19107	40CAC CD/2	120	30	Crystal (Clear)-Bent Tip, BDTH (9)*	-	40	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
		16047	40CAC CD/4	120	30	Crystal (Clear)-Bent Tip, BDTH (44)*	-	40	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
		34654	40CAC/F 12PK	120	120	Satin (Frost)-Bent Tip, BDTH	370	40	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
		47941	40CAC/F CD/2	120	60	Satin (Frost)-Bent Tip, BDTH (9)*	-	40	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
		16048	40CAC/F CD/4	120	30	Satin (Frost)-Bent Tip, BDTH (44)*	-	40	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
		40050	40CAC/L	120	120	Crystal (Clear)-Bent Tip, BDTH, LL	310	40	4000	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
F15	Med	15692	40FM 12PK	120	120	Crystal (Clear)-Flame	455	40	1500	CC-2V	4 3/8	(111.1)	-	-	-	-	-
		18896	40FM CD/2	120	30	Crystal (Clear)-Flame (9)*	455	40	1500	CC-2V	4 3/8	(111.1)	-	-	-	-	-
		15693	40FM/W 12PK	120	120	Pearl (White)-Flame	390	40	1500	CC-2V	4 3/8	(111.1)	-	-	-	-	-
		18899	40FM/W CD/2	120	30	Pearl (White)-Flame (9)*	390	40	1500	CC-2V	4 3/8	(111.1)	-	-	-	-	-
		15694	40FM/AU 12PK	120	120	Auradescent-Flame	455	40	1500	CC-2V	4 3/8	(111.1)	-	-	-	-	-
		18897	40FM/AU CD/2	120	30	Auradescent-Flame (9)*	-	40	1500	CC-2V	4 3/8	(111.1)	-	-	-	-	-
G16 1/2	Cand	14958	40GC 12PK	120	120	Crystal (Clear)-Globe, BDTH (4)*	260	40	1500	C-9	3	(76.2)	1 3/4	(44.5)	-	-	-
		15791	40GC 25PK	120	100	Crystal (Clear)-Globe, BDTH (4)*	260	40	1500	C-9	3	(76.2)	1 3/4	(44.5)	-	-	-
		17730	40GC CD/2	120	60	Crystal (Clear)-Globe, BDTH (4,9)*	260	40	1500	C-9	3	(76.2)	1 3/4	(44.5)	-	-	-
		43159	40GC/L	120	60	Crystal (Clear)-Globe, BDTH, LL (4)*	220	40	4000	C-9	3	(76.2)	1 3/4	(44.5)	-	-	-
		23511	40GC/AU CD/2	120	60	Auradescent-Globe	260	40	1500	C-7A	3	(76.2)	1 3/4	(44.5)	-	-	-
		15795	40GC/W 25PK	120	100	Pearl (White)-Globe, BDTH (4)*	245	40	1500	C-9	3	(76.2)	-	-	-	-	-
		17732	40GC/W CD/2	120	60	Pearl (White)-Globe, BDTH (4,9)*	245	40	1500	C-9	3	(76.2)	-	-	-	-	-
G25	Med	12980	40G25 6PK	120	24	Crystal (Clear)-Globe	410	40	1500	C-9	4 1/2	(114.3)	2 15/16	(58.7)	-	-	-
		16737	40G25 CPK	120	60	Crystal (Clear)-Globe	410	40	1500	C-9	4 1/2	(114.3)	2 15/16	(58.7)	-	-	-
		20419	40G25/L 24PK	120	24	Crystal (Clear)-Globe, LL	360	40	4000	C-9	4 1/2	(114.3)	2 15/16	(58.7)	-	-	-
		12979	40G25/W 6PK	120	24	Pearl (White)-Globe	370	40	1500	C-9	4 1/2	(114.3)	2 15/16	(58.7)	-	-	-
		16740	40G25/W CPK	120	60	Pearl (White)-Globe	370	40	1500	C-9	4 1/2	(114.3)	2 15/16	(58.7)	-	-	-
		20420	40G25/W/L 24PK	120	24	Pearl (White)-Globe, LL	325	40	4000	C-9	4 1/2	(114.3)	2 15/16	(58.7)	-	-	-
G40	Med	37914	40G40	120	24	Crystal (Clear)-Globe	440	40	2500	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-
		36191	40G40/W 6PK	120	6	Pearl (White)-Globe	400	40	2500	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-
		36192	40G40/W	130	24	Pearl (White)-Globe	400	40	2500	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-
60 WATTS																	
B10	Cand	37891	60BC 12PK	120	120	Crystal (Clear)-Blunt Tip, BDTH (13)*	650	60	1500	CC-2V	3 3/4	(95.3)	1 7/8	(47.6)	-	-	-
		47949	60BC CD/2	120	60	Crystal (Clear)-Blunt Tip, BDTH (9,13)*	-	60	1500	CC-2V	3 3/4	(95.3)	1 7/8	(47.6)	-	-	-
B13	Med	22757	60BM CD/2	120	60	Crystal (Clear)-Blunt Tip (9)*	650	60	1500	C-9	4 5/8	(117.5)	2 3/8	(60.3)	-	-	-
CA9	Med	34655	60CAM 12PK	120	120	Crystal (Clear)-Bent Tip (13)*	-	60	1500	CC-2V	4 9/16	(115.9)	2 1/8	(54)	-	-	-
		47948	60CAM CD/2	120	60	Crystal (Clear)-Bent Tip (9,13)*	-	60	1500	CC-2V	4 9/16	(115.9)	2 1/8	(54)	-	-	-
		21009	60CAM CD/4	120	30	Crystal (Clear)-Bent Tip (13,44)*	-	60	1500	CC-2V	4 9/16	(115.9)	2 1/8	(54)	-	-	-

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.

© Means this lamp meets Federal Minimum Efficiency Standards. ( ) * All footnote references found at the end of this section. Reduced Wattage



CA10 Cand | G16½ Cand | G25 Med | G30 Med | G40 Med | E17 Med

Bulb	Base	Product Code ©	Lamp Description	Volts	Case Qty.	Additional Information	Light Output Lumens	Energy Used Watts	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
DECORATIVE LAMPS (con't)																	
60 WATTS (con't)																	
CA10	Cand	34657	60CAC 12PK	120	120	Crystal (Clear)-Bent Tip, BDTH (13)*	650	60	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
		15781	60CAC 25PK	120	200	Crystal (Clear)-Bent Tip, BDTH (13)*	-	60	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
		19153	60CAC CD/2	120	30	Crystal (Clear)-Bent Tip, BDTH (13)*	-	60	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
		16050	60CAC CD/4	120	30	Crystal (Clear)-Bent Tip, BDTH (13,44)*	-	60	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
		47947	60CAC/F CD/2	120	60	Satin (Frost)-Bent Tip, BDTH (9,13)*	650	60	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
		16051	60CAC/F CD/4	120	30	Satin (Frost)-Bent Tip, BDTH (13,44)*	-	60	1500	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
		40049	60CAC/L	120	120	Crystal (Clear)-Bent Tip, BDTH, LL (13)*	580	60	4000	CC-2V	4 1/8	(104.8)	1 7/8	(47.6)	-	-	-
G16½	Cand	23091	60GC CD/2	120	60	Crystal (Clear)-Globe, BDTH (4,9)*	450	60	1500	C-9	3	(76.2)	1 5/8	(41.3)	-	-	-
		23093	60GC/W CD/2	120	60	Pearl (White)-Globe, BDTH (4,9)*	405	60	1500	C-9	3	(76.2)	1 5/8	(41.3)	-	-	-
G25	Med	14846	60G25 6PK	120	24	Crystal (Clear)-Globe	-	60	1500	C-9	4 1/2	(114.3)	2 15/16	(74.6)	-	-	-
		20427	60G25 24PK	120	24	Crystal (Clear)-Globe	710	60	1500	C-9	4 1/2	(114.3)	2 15/16	(74.6)	-	-	-
		14848	60G25/W 6PK	120	24	Pearl (White)-Globe	660	60	1500	C-9	4 1/2	(114.3)	2 15/16	(74.6)	-	-	-
		20428	60G25/W 24PK	120	24	Pearl (White)-Globe	660	60	1500	C-9	4 1/2	(114.3)	2 15/16	(74.6)	-	-	-
G30	Med	14850	60G30/W 6PK	120	24	Pearl (White)-Globe, Retail Pack	660	60	2500	CC-9	5	(127.0)	3 1/8	(79.4)	-	-	-
G40	Med	14187	60G40 6PK	120	6	Crystal (Clear)-Globe	740	60	2500	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-
		17037	60G40 CPK	120	24	Crystal (Clear)-Globe	740	60	2500	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-
		49780	60G40/W 6PK	120	6	Pearl (White)-Globe	680	60	2500	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-
		16741	60G40/W CPK	120	24	Pearl (White)-Globe	680	60	2500	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-
		13044	60G40/W/L	120	24	Pearl (White)-Globe	640	60	4000	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-
75 WATTS																	
E17	Med	10695	75E17/TF 6PK	120	120	Post Light - I.F., Teflon® Coated, BB (23,47)*	900	75	4000	CC-6	5	(127.0)	3 1/8	(79.4)	-	-	-
G40	Med	36193	75G40/W 6PK	120	6	Pearl (White)-Globe	910	75	2500	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-
100 WATTS																	
G40	Med	17038	100G40 CPK	120	24	Crystal (Clear)-Globe	1380	100	2500	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-
		49781	100G40/W 6PK	120	6	Pearl (White)-Globe	1280	100	2500	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-
		16742	100G40/W CPK	120	24	Pearl (White)-Globe	1280	100	2500	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-
150 WATTS																	
G40	Med	16585	150G40/W	120	24	Pearl (White)-Globe	1950	150	2500	CC-6	6 15/16	(176.2)	3 3/4	(95.3)	-	-	-
PORTABLE LIGHTING PRODUCTS																	
		44848	PLK-1	120	4	Plant Light Kit includes one 75R30/PL PlantLight lamp, UL listed holder and information booklet	-	-	-	-	-	-	-	-	-	-	-

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.
© Means this lamp meets Federal Minimum Efficiency Standards. ( ) * All footnote references found at the end of this section. Reduced Wattage

Notes

Protection From Moisture

When HRG or footnote 15 (Hard Glass) appears in the Lamp Designation or Description column, the outer bulbs are made of special thermal-shock-resistant glass. However, sometimes external protection of the lamps is also needed to eliminate the chance of bulb breakage due to contact with water during operation. Footnotes will indicate when external protection is needed. Where HRG is not shown, the bulb glass is such that the lamps require protection from exposure to mist or condensation as well as direct contact with water during operation. Cov-R-Guard™ lamps and some Saf-T-Gard® lamps (lamps coated with Teflon®) need no such protection from water. (Teflon® is a registered trademark of DuPont.)

Rated Average Life

Values are based on a large number of representative lamps under controlled conditions. Individual lamps or groups of lamps may vary from the Rated Average Life shown. Rated Average Life is a median value of life expectancy – the total operating time at which under normal conditions, 50% of any large group of initially installed lamps are expected to be still burning.

Bases

When Footnote 23 or BB (Brass Base) appears in the Lamp Designation or Description column, the lamp is supplied only with a brass base. If Brass Base (Footnote 23 or BB) does not appear, the lamp is supplied only with an aluminum base. Brass Bases are recommended for outdoor lighting applications.

Burning Position

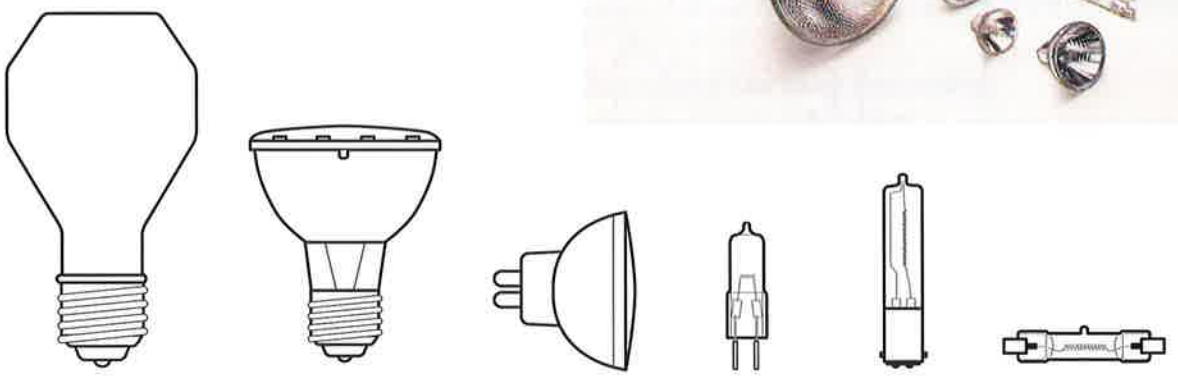
Unless otherwise stated, the lamp can be burned in any position. Limitations on lamp operating position are shown in the Description column. The following abbreviations are used:

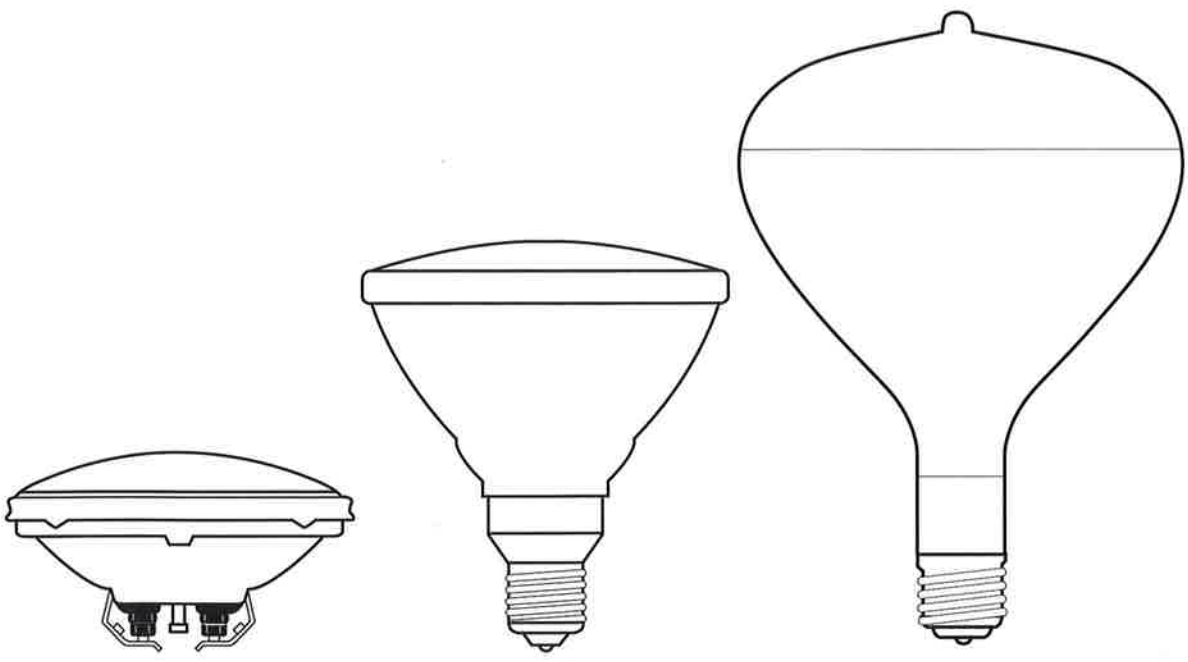
BDTH (Burn lamp in Base Down To Horizontal Position)

BUTV (Burn lamp in Base Up To Vertical Position).

Footnotes

1. Burning position-base down only.
1A. Because bulb coating may become electrically conductive, take precaution to avoid electric shock: use in sockets supplied by same voltage as marked on lamp. Do not install in higher-voltage series circuits.
2. Burning position-horizontal.
2A. Do not allow the bulb to be dragged across or to strike a hard surface since this action may cause minute cracks. Do not place lamp directly over the exposed person unless a protective screen or mesh is between lamp and user.
3. Burning position - base up.
3A. Operate lamp only when bulb is cooled by direct immersion in water, to avoid overheating. Observe cleaning instructions.
4. Avoid contact of hot glass bulb with liquid or metal, as glass may shatter.
6. Design life in excess of 5000 hours. Actual life depends on service conditions.
7. Base pins approximately parallel to plane of lead wires.
8. For use only in equipment specially designed to maintain bulb and base temperatures within safe limits.
9. Indicates total count of 2-lamp packs in shipping units. Multiply by 2 to determine actual quantity of lamps.
10. Single contact medium bayonet base without pins, with a lug focusing sleeve as indicated. LCL and A.A. tolerance: 1/64 in.
11. To protect persons against risk of breakage, use a protective screen external to the lamp.
12. Not recommended for horizontal burning.
13. Unsatisfactory lamp operation is likely to occur in burning position between horizontal and base up, particularly between 45° from base up and base up.
14. In "base up" use, heat eventually may deteriorate paper-lined or plastic sockets.
15. Lamp is made of heat resistant glass (HRG).
18. Operating position horizontal with locating lug up or down and with lamp supported by bulb rim.
19. Burn within 25° of vertically base up.
20. Recommended burning position: any within 60° of vertically base up or down; but lumen maintenance is best when burned vertically base up.
21. May not give satisfactory performance if any accessory equipment is attached to or touches the glass bulb. The bulb, although made of heat-resistant glass, may break if moisture falls on it.
23. Lamp base is a brass base (BB).
25. To produce all three levels of light, this lamp should be tightened firmly but not forcibly in the socket to assure that all contacts are connected.
28. For use only in porcelain sockets and fixtures so designed that the temperatures of the lamp and fixture do not exceed limits for satisfactory operation.
29. Average laboratory life is 200 hrs for vacuum cleaners & 600 hrs for sewing machine services.
31. Bulb top selected for minimum glass imperfections.
32. This 277-volt lamp should be enclosed if it is used on high-capacity low impedance electrical distribution systems. At the end of lamp life on such systems, the lamp may shatter, with risk of injury to persons or property if it is not suitably enclosed.
33. Light output is maintained best when burned within 45° of vertically base up.
34. May not give satisfactory performance if any accessory equipment is attached to or touches the glass bulb.
35. Should not be used in equipment where the base temperature will exceed 500°F (260°C)
36. Should be shielded against moisture falling on the bulb.
37. The plane containing the base axis and the major locking eyelet (the eyelet that is equidistant from the other two eyelets) is at right angles to the plane of the filament or lead wires. Distance from bottom base contact to bottom of the collar is .406.
38. Special base. Lead wire to shell soldered at bottom.
39. Tungsten powder cleaner in bulb. Useful lamp life and maintenance of output depend on periodic removal from socket and rotating to scour bulb wall with tungsten powder to remove dark film that normally accumulates.
40. Operate base down within 45° of vertical. Any tilt should be in direction in which the filament plane faces.
41. Nominal watts. Actual watts are determined by multiplying the volts by the design amperes.
43. Design volts of range: 240
44. Indicates total count of 4-lamp packs in shipping units. Multiply by 4 to determine actual quantity of lamps.
46. This lamp produces base temperatures which may deteriorate paper-lined or plastic sockets. Use only in fixtures approved for this type and wattage bulb.
47. Teflon® coated. Teflon is a registered trademark of DuPont.
52. Operate base up, within 30° of vertical.
53. Use lamp only on circuits supplying the same voltage as marked on the bulb. DO NOT insert in household sockets.
55. Lamp base is a nickel plated brass base (NPBB).
56. Avoid use at short distances on materials that are inflammable or susceptible to heat damage.
58. For use only with heat-resistant connector and with lamp supported by bulb rim or metal shell of base.
59. For use only with heat-resistant connector and with lamp supported by bulb rim.
61. Maximum Excursion Radius: 5/8 in.
62. Wattage shown is nominal. Design current is 0.139 amps at 120 volts.
64. Designed for base down burning but can be operated in other positions. Brightness maintenance is best when filament is viewed horizontally or from below when lamp is burned in any position other than base down.
66. Rated average life is based on 14-volt operation.
69. Light center length and A.A. tolerance: 1/16 in.
70. Light center length and A.A. tolerance: 1/64 in.
71. Burning position - plane through lamp axis and base terminals is horizontal.
72. Burning position - plane through lamp axis and base prongs is horizontal. Base is without insulator.
73. Collector grid.
74. High Intensity (Supplementary Lighting) lamps should be replaced only with an equivalent lamp having correct volts and watts for the fixture used. Substituting higher wattage lamps may cause damage to fixture.
76. Burn base down to horizontal.
78. Use only in fixtures rated for Cool Beam lamp operation.
80. Do not use lamp in application where it may be exposed to direct water splash. If lamp is used outdoors, it must be protected by an enclosed fixture or an overhang. Failure to properly protect the lamp can result in premature failure of the lamp.
83. Will operate in any burning position, but fixed-socket usage other than base up or continuous burning in any position in ambient temperatures above 150°F (66C°), may result in some loss of protective coating. Reflectors and accessories may raise bulb temperature and cause some loss of protective coating.
88. If lamp is cracked or broken, replace immediately. The lamp may continue to light, but the inner bulb is pressurized and could unexpectedly shatter. Dispose of with care.
89. Insertion in "twist-in" type sockets requires only a slight clockwise turn - excessive force may break the bulb.
92. LAMP SHOULD BE SCREWED FIRMLY INTO THE SOCKET, ALTHOUGH NOT FORCIBLY so that it will not loosen and fall out. USE LAMP-GRIP SOCKETS OR WIRE GUARDS where vibration is present, particularly if lamp is used above or close to people. DO NOT ATTEMPT TO USE THE LAMP IF THE FILAMENT HAS BEEN BROKEN even though ends of filament are in contact. Also, HAVE CIRCUITS PROPERLY FUSED. DO NOT USE IF GLASS IS CRACKED.
93. Use only in swimming pool fixtures that comply with applicable safety standards and codes.
94. Observe operating and exposure limitations stated on packaging material, fixture and/or instruction booklet enclosed.
95. Do not use in hazardous locations such as near gasoline or other combustible materials or vapor.
96. Under moist conditions, metal parts of lamp and lampholder may become a shock hazard. Therefore, disconnect from circuit before touching.
97. While this lamp was carefully inspected before shipment, the glass bulb may crack when subjected to abnormal pressure. Therefore, it is recommended that the bulb be grasped with a cloth or glove when removing or installing the lamp in a tight-fitting socket.
98. For use only in equipment designed for lamps of this type and wattage, having ventilation adequate to maintain bulb and base temperatures within safe limits.

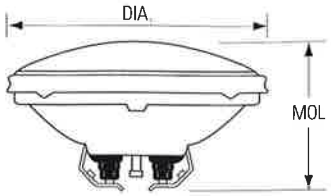




Halogen Lamp Shapes

(drawings not to scale)

Bulb Identification:



DIA. in. (mm):
Diameter of bulb at widest point.

MOL in. (mm):
Maximum Overall Length including base or pins.

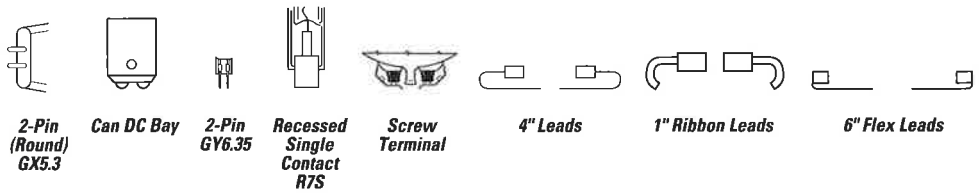
LCL in. (mm):
Distance between the center of the filament and the Light Center Length reference plane.

Note: Lamp drawings are not drawn to scale. Be sure to check size and dimension information when identifying each lamp.

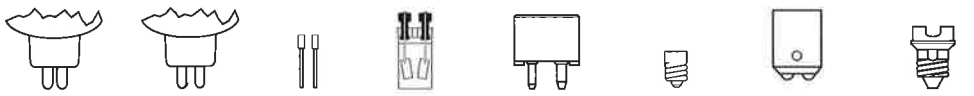
Filament Identification:

C-8 CC-8 | C-2V CC-2V | C-6 CC-6 | CC-8 | C-6 Oval

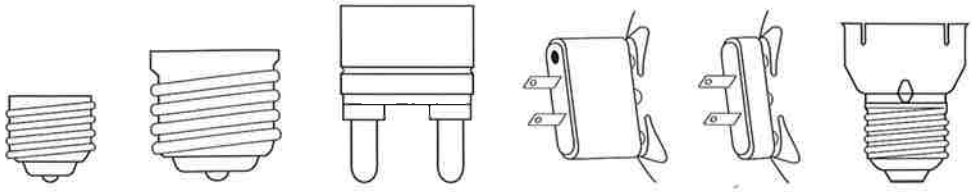
Base Identification:



2-Pin (Round) GX5.3 | Can DC Bay | 2-Pin GY6.35 | Recessed Single Contact R7S | Screw Terminal | 4" Leads | 1" Ribbon Leads | 6" Flex Leads



2-Pin GU-4 | 2-Pin GU-5.3 | 2-Pin G4 | Turn & Lock GU-7 | 2-Pin Pf | Min Screw E10 | DC Bay BA15D | Min Cand E11



Med Screw E26 | Mog Screw E39 | Mogul BiPost G38 | Ext. Mog End Pr GX16d | Mog End Pr GX16d | Med Skirted E26/50x39

Introduction

Halogen lamps provide a small, highly efficient white light source. Unlike standard incandescent lamps, halogen lamps use a halogen gas which allows the bulbs to burn more intensely without sacrificing life.

Compared to incandescent lamps, halogen lamps provide:

- Energy savings
- Crisp, white light
- More compact source
- Longer life
- Better beam control

The chart at the bottom of this page will help you gain a basic understanding of how the Halogen section's lamps are identified and classified. There are nine groups in this section: **Halogen, Halogen Plus & Halogen-IR™; Turn & Lock; Precise™; ConstantColor™; ConstantColor™ Cover Glass; Halogen Display; Quartz Halogen & Halogen-IR™ Linear General Lighting; Airport Quartz Lamps; Quartz Heat Lamps.**

HALOGEN BRAND NAME CROSS-REFERENCE

GE	OSRAM/SYLVANIA	PHILIPS
Cool Beam	Cool-Lux	Cool Beam
ConstantColor™ Precise™	Decostar Titan	Masterline™ Plus
Halogen A-Line	Capsylite® A-Line (Midbreak)	Halogen A™
Halogen-IR™	–	–
Performance Plus™	Capsylite® Par	Masterline™ Par
Precise™	Tru-Aim®	Masterline™ (MR16)
Performance Plus™ Long Neck	Long Neck Capsylite®	Masterline™
Turn and Lock (TAL)	–	–

ATTENTION: *This brand-name cross reference chart is provided only as a quick reference. Other lamp company brand listings may only represent a near equivalent, versus an identical match to GE Lighting brands. Individual lamp manufacturers' performance specifications should be consulted. Lamp performance may be affected by environmental conditions, ballast type and/or other auxiliary equipment.*

NOTE: All Halogen PAR and A-line lamps from Section 2 (Halogen) are also listed in Section 1 (Incandescent).

Headings in this catalog section:

The following glossary of terms and descriptions can help you when checking Halogen lamp specifications and when ordering products. Within each product line, lamps are divided into families. Within families, lamps are listed by wattage. In each of these groups, lamps are listed alphabetically by bulb shape. To find your lamp, follow these simple steps:

When You Don't Know The Lamp Description:

1. Identify bulb shape by using table on page 2-1.
2. Measure bulb diameter using ruler in appendix section page 8-6 to determine width in eighths of an inch.
3. Identify base type using table on page 2-2.
4. Find your lamp in the table containing the bulb shape, size and base, which are all listed by wattage.

Energy Used
Watts:
Energy Used (as defined by FTC lamp label rules). To find actual energy used (kWh) multiply power (watts shown) x time divided by 1000.

Bulb:
Bulb shape followed by its size (the maximum diameter of the bulb expressed in eighths of an inch).

Product Code:
It is important to use this five-digit code when ordering to ensure that you receive the exact product you require.

Base:
The type of base.

© = Means this lamp meets Federal Minimum Efficiency Standards. To save energy costs, find the lamp with the light output you need, then choose the one with the lowest watts.

Case Quantity:
Number of product units packed in a case.

Volts:
Each lamp's voltage is listed.

Lamp Designation:
The lamp's identification code.

Light Output -
Lumens:
The lamp's rated output after the initial 2 hours of operation.

Additional Information
Typical application and/or other important information.

Filament Design:
Filaments are designated by a letter combination in which C is a coiled wire filament, CC is a coiled wire that is itself wound into a larger coil, and SR is a straight ribbon filament. Numbers represent the type of filament-support arrangement.

Life:
Hours:
Life (as defined by FTC lamp label rules) is rated average life (see notes 1-34).

MOL in. (mm):
Maximum Overall Length in inches and millimeters.

LCL in. (mm):
Distance between the center of the filament and the Light Center Length reference plane, in inches and millimeters.

Color Temperature Kelvins (K):
"Warmth" or "Coolness" of the lamp, measured in Kelvins (K). The higher the temperature, the cooler the appearance of the light.

CBCP (Center Beam Candlepower):
For reflector type lamps. Center Beam Candlepower is the intensity (candelas) at the center or maximum intensity of the beam.

Approximate Beam Spread:
For reflector type lamps. The total angle of the directed beam (in degrees) to where the intensity of the beam falls to 50% of the maximum value

Halogen Performance Plus™ Par Lamps

35 WATTS

Energy Used (Watts)	Bulb	Base	Product Code	©	Lamp Designation	Volts	Case Qty.	Additional Information	Light Output (Lumens)	Life (Hours)	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
35	PAR36	Scrw Term	19873		35PAR36/H/VNSP5°	12	12	Very Narrow Spot (15)*	250	4000	C-6	2 3/4	(69.8)	-	-	3000	25000	5
			19875		35PAR36/H/NSP8°	12	12	Narrow Spot (15)*	250	4000	C-6	2 3/4	(69.8)	-	-	3000	19700	8
			19877		35PAR36/H/WFL30°	12	12	Wide Flood (15)*	250	4000	C-6	2 3/4	(69.8)	-	-	3000	900	30

35 PAR36 / H / WFL 30°

Identifies the lamp's wattage.
Identifies the lamp shape and the bulb diameter in eighths of inches.
Identifies the lamp type.
Identifies beam angle, code may also include packaging information
Identifies as Wide Flood lamp.

Yellow Highlight *indicates that this is a reduced wattage option for lamps normally used in this application. Be sure to check wattage, lumens and life to determine which lamp is best suited to your needs.*

Blue Highlight *indicates that this is a lamp with high color rendering, which helps objects and persons illuminated to appear more true to life.*

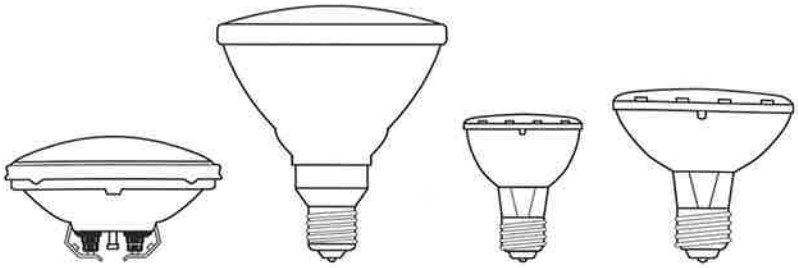
To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.
© Means this lamp meets Federal Minimum Efficiency Standards. ( ) * All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Halogen PAR Lamps (H)

- Substantial energy cost savings vs. standard PAR lamps
- Whiter, crisper light
- Excellent color rendering
- Diode-free, dimmable, no annoying flicker

GE Compact PAR Halogen Lamps (PAR20/PAR30)

- Ultra compact size
- Direct replacement for R20/R30 lamps
- Provides more light with higher efficiency
- Diode-free, dimmable, no annoying flicker



PAR36 Scrw Term | PAR38 Med Skirt | PAR20 Med NP | PAR30 Med NP

Energy Used Watts	Bulb	Base	Product Code	©	Lamp Designation	Volts	Case Qty.	Additional Information	Light Output Lumens	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
Halogen Performance Plus™ Par Lamps																		
35 WATTS																		
35	PAR36	Scrw Term	19873		35PAR36/H/VNSP5°	12	12	Very Narrow Spot (15)*	250	4000	C-6	2 3/4	(69.8)	- -		3000	25000	5
			19875		35PAR36/H/NSP8°	12	12	Narrow Spot (15)*	250	4000	C-6	2 3/4	(69.8)	- -		3000	19700	8
			19877		35PAR36/H/WFL30°	12	12	Wide Flood (15)*	250	4000	C-6	2 3/4	(69.8)	- -		3000	900	30
45 WATTS																		
45	PAR38	Med Skirt	12235	©	45PAR/FL/H/STG 6PK	120	6	Photocell Saf-T-Gard™ "Dawn to Dusk" (15,23,56,88,96)*	510	3000	CC-8	5 5/16	(134.9)	- -		2750	1800	27
			16228	©	45PAR/H/SP11°	120	12	Spot (15,23,56,88,96)*	510	2500	CC-8	5 5/16	(134.9)	- -		2750	7000	11
			17470	©	45PAR/SP/HAL 6PK	120	6	Spot (15,23,56,88,96)*	510	2500	CC-8	5 5/16	(135)	- -		2750	7000	11
45			16229	©	45PAR/H/SP11°	130	12	Spot (15,23,56,88,96)*	510	2500	CC-8	5 5/16	(134.9)	- -		2750	7000	11
40								Ratings @ 120 Volts.	385	4000								
			16230	©	45PAR/H/FL25°	120	12	Flood (15,23,56,88,96)*	510	2500	CC-8	5 5/16	(134.9)	- -		2750	1800	27
			17471	©	45PAR/FL/HAL 6PK	120	6	Flood (15,23,56,88,96)*	510	2500	CC-8	5 5/16	(135)	- -		2750	1800	27
			16231	©	45PAR/H/FL25°	130	12	Flood (15,23,56,88,96)*	510	2500	CC-8	5 5/16	(134.9)	- -		2750	1800	27
								Ratings @ 120 Volts.	385	4000								
Standard Halogen Par Lamps																		
50 Watts																		
50	PAR38	Med Skirt	17925	©	50PAR/H/FL	120	12	Flood (56,88,96)*	590	2000	CC-8	- -		- -		2750	2200	25
50			17926	©	50PAR/H/FL	130	12	Flood (56,88,96)*	590	2000	CC-8	- -		- -		2750	2200	25
46								Ratings @ 120 Volts.	450	4000								
			17979	©	50PAR/FL/S/HAL 6PK	120	6	Flood (56,88,96)*	590	2000	CC-8	- -		- -		2750	2200	25
			17927	©	50PAR/H/SP	120	12	Spot (56,88,96)*	590	2000	CC-8	- -		- -		2750	9000	10
			17980	©	50PAR/SP/S/HAL 6PK	120	6	Spot (56,88,96)*	590	2000	CC-8	- -		- -		2750	9000	10
50			17928	©	50PAR/H/SP	130	12	Spot (56,88,96)*	590	2000	CC-8	- -		- -		2750	9000	10
46								Ratings @ 120 Volts.	450	4000								
Halogen Performance Plus™ Par Lamps																		
50 WATTS																		
50	PAR20	Med NP	17864		50PAR20/H/NSP8°	120	15	Narrow Spot (15,55,56,80,88)*	570	2000	CC-8	3 1/8	(79.4)	- -		2800	6000	8
50			17866		50PAR20/H/NSP8°	130	15	Narrow Spot (15,55,56,80,88)*	570	2000	CC-8	3 1/8	(79.4)	- -		2800	6000	8
46								Ratings @ 120 Volts.	498	4000								
			14927		50PAR20/SP/HAL 6PK	120	6	Spot (15,55,56,80,88)*	570	2000	CC-8	3 1/8	(79.4)	- -		2800	6000	10
			17867		50PAR20/H/NFL25°	120	15	Narrow Flood (15,55,80,88)*	570	2000	CC-8	3 1/8	(79.4)	- -		2800	1500	27
50			17868		50PAR20/H/NFL25°	130	15	Narrow Flood (15,55,80,88)*	570	2000	CC-8	3 1/8	(79.4)	- -		2800	1500	27
46								Ratings @ 120 Volts.	498	4000								
			14928		50PAR20/FL/HAL 6PK	120	6	Flood (15,55,56,80,88)*	570	2000	CC-8	3 1/8	(79.4)	- -		2800	1850	27
50	PAR30	Med NP	17869	©	50PAR30/H/NSP8°	120	15	Narrow Spot (15,55,56,80,88)*	610	2000	CC-8	3 5/8	(92.1)	- -		2800	9200	8
50			17870	©	50PAR30/H/NSP8°	130	15	Narrow Spot (15,55,56,80,88)*	610	2000	CC-8	3 5/8	(92.1)	- -		2800	9200	8
46								Ratings @ 120 Volts.	477	4000								
			17871	©	50PAR30/H/NFL25°	120	15	Narrow Flood (15,55,56,80,88)*	610	2000	CC-8	3 5/8	(92.1)	- -		2800	2000	26
50			17872	©	50PAR30/H/NFL25°	130	15	Narrow Flood (15,55,56,80,88)*	610	2000	CC-8	3 5/8	(92.1)	- -		2800	2000	26
46								Ratings @ 120 Volts.	477	4000								
			17873	©	50PAR30/H/FL35°	120	15	Flood (15,55,56,80,88)*	610	2000	CC-8	3 5/8	(92.1)	- -		2800	1400	35
50			17874	©	50PAR30/H/FL35°	130	15	Flood (15,55,56,80,88)*	610	2000	CC-8	3 5/8	(92.1)	- -		2800	1400	35
46								Ratings @ 120 Volts.	477	4000								
	PAR36	Scrw Term	19878		50PAR36/H/VNSP5°	12	12	Very Narrow Spot (15)*	400	4000	C-6	2 3/4	(69.8)	- -		3050	40000	5
			19879		50PAR36/H/NSP8°	12	12	Narrow Spot (15)*	400	4000	C-6	2 3/4	(69.8)	- -		3050	11000	8
			19880		50PAR36/H/WFL30°	12	12	Wide Flood (15)*	400	4000	C-6	2 3/4	(69.8)	- -		3050	1300	30

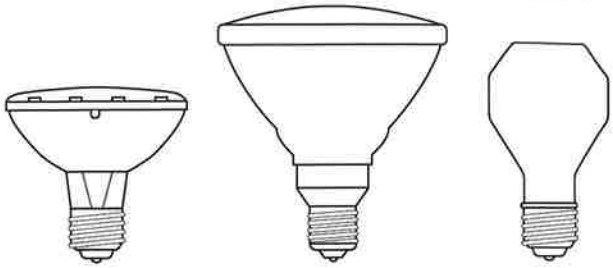
To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.
© Means this lamp meets Federal Minimum Efficiency Standards. ( ) * All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Long Neck PAR30 Halogen Lamps (PAR30L)

- Direct replacement for R30 lamps
- Ideal for recessed fixtures
- Diode-free, dimmable, no annoying flicker

GE Halogen-IR™ PAR30 & PAR38 Lamps

- The most efficient halogen lamps made, 35% more useful light per watt than standard halogen
- Breakthrough GE technology offers dramatic energy cost savings while maintaining high light output
- Exclusive IR reflective coating uses wasted energy to produce more useful light
- Crisp, white halogen light... excellent color rendering
- 50% longer life than typical PAR halogen lamps
- Diode-free, dimmable, no annoying flicker



PAR30 Med NP | PAR38 Med Skirt | TB19 Med

Energy Used Watts	Bulb	Base	Product Code ©	Lamp Designation	Volts	Case Qty.	Additional Information	Light Output Lumens	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread°
Halogen Performance Plus™ Long Neck Par Lamps																	
50 WATTS																	
50	PAR30	Med NP	11113 Ⓔ	50PAR30L/H/12°	120	15	Spot (15,55)*	580	2000	CC-8	4 3/4	(120.7)	- -		2800	6000	12
50			11117 Ⓔ	50PAR30L/H/12°	130	15	Spot (15,55)*	580	2000	CC-8	4 3/4	(120.7)	- -		2800	6000	12
46							Ratings @ 120 Volts.	458	4000								
			14940 Ⓓ	50PAR30L/H/25° 6PK	120	6	Narrow Flood (15,55)*	580	2000	CC-8	4 3/4	(120.7)	- -		2800	1900	27
50			11120 Ⓔ	50PAR30L/H/25°	130	15	Narrow Flood (15,55)*	580	2000	CC-8	4 3/4	(120.7)	- -		2800	1900	27
46							Ratings @ 120 Volts.	430	4000								
			11116 Ⓓ	50PAR30L/H/40°	120	15	Flood (15,55)*	580	2000	CC-8	4 3/4	(120.7)	- -		2800	1000	40
50			11123 Ⓔ	50PAR30L/H/40°	130	15	Flood (15,55)*	580	2000	CC-8	4 3/4	(120.7)	- -		2800	1000	40
46							Ratings @ 120 Volts.	458	4000								
			14941 Ⓔ	50PAR30L/H/60° 6PK	120	6	Wide Flood (15,55)*	630	2000	CC-8	4 3/4	(120.7)	- -		2800	600	57
50			11141 Ⓔ	50PAR30L/H/60°	130	15	Wide Flood (15,55)*	630	2000	CC-8	4 3/4	(120.7)	- -		2800	600	57
46							Ratings @ 120 Volts.	458	4000								
Halogen-IR™ Par Lamps																	
50 WATTS																	
50	PAR30	Med NP	19902 Ⓔ	50PAR30/HIR/NSP8°	120	15	Narrow Spot (15,55,56,80,88)*	770	3000	CC-8	3 5/8	(92.1)	- -		2810	17000	8
50			21534 Ⓓ	50PAR30/HIR/NSP8°	130	15	Narrow Spot (15,55,56,80,88)*	770	3000	CC-8	3 5/8	(92.1)	- -		2810	17000	8
46							Ratings @ 120 Volts.	570	6000								
			19901 Ⓔ	50PAR30/HIR/NFL25°	120	15	Narrow Flood (15,55,56,80,88)*	770	3000	CC-8	3 5/8	(92.1)	- -		2810	3000	26
50			21533 Ⓔ	50PAR30/HIR/NFL25°	130	15	Narrow Flood (15,55,56,80,88)*	770	3000	CC-8	3 5/8	(92.1)	- -		2810	3000	26
46							Ratings @ 120 Volts.	570	6000								
			19900 Ⓔ	50PAR30/HIR/FL35°	120	15	Flood (15,55,56,80,88)*	770	3000	CC-8	3 5/8	(92.1)	- -		2810	1600	37
50			19903 Ⓔ	50PAR30/HIR/FL35°	130	15	Flood (15,55,56,80,88)*	770	3000	CC-8	3 5/8	(92.1)	- -		2810	1600	37
46							Ratings @ 120 Volts.	570	6000								
50	PAR38	Med Skirt	12396 Ⓓ	50PAR/HIR/9°	120	12	Narrow Spot (15,23,56,80,88,96)*	850	3000	CC-8	5 5/16	(134.9)	- -		2810	14000	9
			12397 Ⓔ	50PAR/HIR/25°	120	12	Flood (15,23,56,80,88,96)*	850	3000	CC-8	5 5/16	(134.9)	- -		2810	3000	27
Halogen Performance Plus™ A-Line Lamps																	
50 WATTS																	
50	TB19	Med	20647	50A/HAL 6PK	120	6	Frost, Brass Base (15,23,56,83,88)*	710	2000	CC-8	4 7/16	(113)	3 1/8	(79)	2800	-	-
			16746	50TB/H	120	60	Frost, Brass Base (15,23,56,83,88)*	710	2000	CC-8	4 7/16	(112.7)	3 1/8	(79)	2800	-	-
50			16747	50TB/H	130	60	Frost, Brass Base (15,23,56,83,88)*	710	2000	CC-8	4 7/16	(112.7)	3 1/8	(79)	2800	-	-
46							Ratings @ 120 Volts.	540	4000								
Halogen-IR™ Par Lamps																	
60 WATTS																	
60	PAR38	Med Skirt	18627 Ⓔ	60PAR/HIR/SP10°	120	12	Spot (15,23,56,88,96)*	1110	3000	CC-8	5 5/16	(134.9)	- -		2875	16000	10
			11881 Ⓔ	60PAR/SP/HIR 6PK	120	6	Spot (15,23,56,88,96)*	1110	3000	CC-8	5 5/16	(134.9)	- -		2875	16000	10
60			18629 Ⓔ	60PAR/HIR/SP10°	130	12	Spot (15,23,56,88,96)*	1110	3000	CC-8	5 5/16	(134.9)	- -		2875	16000	10
54							Ratings @ 120 Volts.	840	4000								
			18626 Ⓔ	60PAR/HIR/FL30°	120	12	Flood (15,23,56,88,96)*	1110	3000	CC-8	5 5/16	(134.9)	- -		2875	3600	28
			11878 Ⓔ	60PAR/FL/HIR 6PK	120	6	Flood (15,23,56,88,96)*	1110	3000	CC-8	5 5/16	(134.9)	- -		2875	3600	28
60			18628 Ⓔ	60PAR/HIR/FL30°	130	12	Flood (15,23,56,88,96)*	1110	3000	CC-8	5 5/16	(134.9)	- -		2875	3600	28
54							Ratings @ 120 Volts.	840	4000								
			10467 Ⓓ	60PAR/HIR/40°	120	12	Flood (15,23,56,88,96)*	1110	3000	C-8	5 5/16	(134.9)	- -		2875	2000	40
			20947 Ⓔ	60PAR/HIR/WFL	120	12	Wide Flood (15,23,56,88,96)*	1110	3000	CC-8	5 5/16	(134.9)	- -		2875	1250	N/A
60			20948 Ⓔ	60PAR/HIR/WFL	130	12	Wide Flood (15,23,56,88,96)*	1110	3000	CC-8	5 5/16	(134.9)	- -		2875	1250	N/A
54							Ratings @ 120 Volts.	840	4000								

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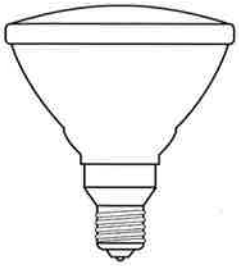
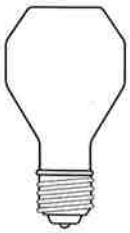
PAR30
Med NP



PAR38
Med Skirt



TB19
Med

Energy Used Watts	Bulb	Base	Product Code	©	Lamp Designation	Volts	Case Qty.	Additional Information	Light Output Lumens	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
Halogen Performance Plus™ Par Lamps																		
75 WATTS																		
75	PAR30	Med NP	18055	©	75PAR30/H/NSP9°	120	15	Narrow Spot (15,55,56,80,88)*	1030	2000	CC-8	3 5/8	(92.1)	- -		2830	13000	9
75			18056	©	75PAR30/H/NSP9°	130	15	Narrow Spot (15,55,56,80,88)*	1030	2000	CC-8	3 5/8	(92.1)	- -		2830	13000	9
66								Ratings @ 120 Volts.	790	4000								
			18057	©	75PAR30/H/NFL25°	120	15	Narrow Flood (15,55,56,80,88)*	1030	2000	CC-8	3 5/8	(92.1)	- -		2830	3100	27
75			18058	©	75PAR30/H/NFL25°	130	15	Narrow Flood (15,55,56,80,88)*	1030	2000	CC-8	3 5/8	(92.1)	- -		2830	3100	27
66								Ratings @ 120 Volts.	790	4000								
			18059	©	75PAR30/H/FL35°	120	15	Flood (15,55,56,80,88)*	1030	2000	CC-8	3 5/8	(92.1)	- -		2830	2000	37
75			18060	©	75PAR30/H/FL35°	130	15	Flood (15,55,56,80,88)*	1030	2000	CC-8	3 5/8	(92.1)	- -		2830	2000	37
66								Ratings @ 120 Volts.	790	4000								
75	PAR38	Med Skirt	21388	©	75PAR/H/NSP9°	120	12	Narrow Spot (15,23,46,56,88,96)*	1030	2500	CC-8	5 5/16	(134.9)	- -		2850	18000	9
			21387	©	75PAR/H/NFL25°	120	12	Narrow Flood (15,23,46,56,88,96)*	1030	2500	CC-8	5 5/16	(134.9)	- -		2850	4000	25
75			21389	©	75PAR/H/NFL25°	130	12	Narrow Flood (15,23,46,56,88,96)*	1030	2500	CC-8	5 5/16	(134.9)	- -		2850	4000	25
66								Ratings @ 120 Volts.	800	4000								
Halogen Performance Plus™ Long Neck Par Lamps																		
75 WATTS																		
75	PAR30	Med NP	11124	©	75PAR30L/H/12°	120	15	Narrow Spot (15,55)*	940	2000	CC-8	4 3/4	(120.7)	- -		2830	9000	12
75			11129	©	75PAR30L/H/12°	130	15	Narrow Spot (15,55)*	940	2000	CC-8	4 3/4	(120.7)	- -		2830	9000	12
66								Ratings @ 120 Volts.	751	4000								
			14943	©	75PAR30L/H/25° 6PK	120	6	Flood (15,55)*	940	2000	CC-8	4 3/4	(120.7)	- -		2830	3100	27
75			11131	©	75PAR30L/H/25°	130	15	Flood (15,55)*	940	2000	CC-8	4 3/4	(120.7)	- -		2830	3100	27
66								Ratings @ 120 Volts.	751	4000								
			16393	©	75PAR30L/H/60° 6PK	120	6	Wide Flood (15,55)*	1050	2000	CC-8	4 3/4	(120.7)	- -		2830	900	60
75			11154	©	75PAR30L/H/60°	130	15	Wide Flood (15,55)*	1050	2000	CC-8	4 3/4	(120.7)	- -		2830	900	60
66								Ratings @ 120 Volts.	751	4000								
Halogen Performance Plus™ Par Lamps																		
90 WATTS																		
90	PAR38	Med Skirt	13307	©	90PAR/H/FL25°	120	12	Flood (15,23)*	1260	2500	C-8	5 5/16	(134.9)	- -		2870	4100	27
			17451	©	90PAR/FL/HAL 6PK	120	6	Flood (15,23)*	1260	2500	CC-8	5 5/16	(134.9)	- -		2870	4100	27
90			13308	©	90PAR/H/FL25°	130	12	Flood (15,23)*	1260	2500	CC-8	5 5/16	(134.9)	- -		2870	4100	27
79								Ratings @ 120 Volts.	940	4000								
			17691	©	90PAR/CB/H/FL25°	120	12	Cool Beam Flood (15,23,78)*	1260	2500	CC-8	5 5/16	(134.9)	- -		2870	4100	27
			13309	©	90PAR/H/SP10°	120	12	Spot (14,15,23,56,88,96)*	1260	2500	CC-8	5 5/16	(134.9)	- -		2870	16000	10
			17450	©	90PAR/SP/HAL 6PK	120	6	Spot (14,15,23,56,88,96)*	1260	2500	CC-8	5 5/16	(134.9)	- -		2870	16000	10
90			13311	©	90PAR/H/SP10°	130	12	Spot (14,15,56,88,96)*	1260	2000	CC-8	5 5/16	(134.9)	- -		2870	16000	10
79								Ratings @ 120 Volts.	940	4000								
Halogen Performance Plus™ A-Line Lamps																		
90 WATTS																		
90	TB19	Med	20648		90A/HAL 6PK	120	6	Frost, BB (23,83,88)*	1580	2000	CC-8	4 7/16	(113)	3 1/8	(79)	2930	-	-
			16744		90TB/H	120	60	Frost, BB (23,83,88)*	1580	2000	CC-8	4 7/16	(112.7)	3 1/8	(79)	2930	-	-
90			16745		90TB/H	130	60	Frost, BB (23,83,88)*	1580	2000	CC-8	4 7/16	(112.7)	3 1/8	(79)	2930	-	-
81								Ratings @ 120 Volts.	1220	4000								
Standard Halogen Par Lamps																		
100	PAR38	Med Skirt	17946	©	100PAR/H/FL	120	12	Flood (14,15,56,88,96)*	1400	2000	CC-8	5 5/16	(134.9)	- -		2900	4800	27
			17986	©	100PAR/FL/S/HAL 6PK	120	6	Flood (14,15,56,88,96)*	1400	2000	CC-8	5 5/16	(134.9)	- -		2900	4800	27
100			17947	©	100PAR/H/FL	130	12	Flood (14,15,56,88,96)*	1400	2000	CC-8	5 5/16	(134.9)	- -		2900	4800	27
88								Ratings @ 120 Volts.	1100	4000								
			17951	©	100PAR/H/SP	120	12	Spot (14,15,56,88,96)*	1400	2000	CC-8	5 5/16	(134.9)	- -		2900	17000	11
			17992	©	100PAR/SP/S/HAL 6PK	120	6	Spot (14,15,56,88,96)*	1400	2000	CC-8	5 5/16	(134.9)	- -		2900	17000	11
100			17952	©	100PAR/H/SP	130	12	Spot (14,15,56,88,96)*	1400	2000	CC-8	5 5/16	(134.9)	- -		2900	17000	11
88								Ratings @ 120 Volts.	1100	4000								

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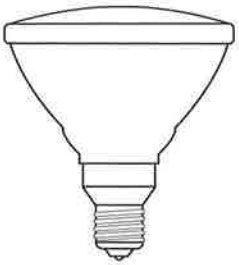
GE Turn and Lock (TAL) Lamps

- User-friendly base... easy to install and remove
- Turn and lock in one easy motion
- Over 90% maintained light over life
- Crisp, white light over life... no color shift

GE Precise™ Lamps

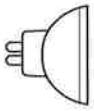
- Small size, precise beam control
- Highly efficient
- Crisp, white light
- Long 4000 hour life
- Popular for downlighting and accent lighting



PAR38
Med Skirt

MR16
TAL

MR11
2-Pin GU4



MR16
2-Pin GX5.3

Energy Used Watts	Bulb	Base	Product Code	©	Lamp Designation	Volts	Case Qty.	Additional Information	Light Output Lumens	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
Halogen-IR™ Par Lamps																		
100 WATTS																		
100	PAR38	Med Skirt	18631	©	100PAR/HIR/NFL25°	120	12	Narrow Flood (15,23,56,88,96)*	2070	3000	CC-8	5 5/16	(134.9)	-	-	2900	7500	27
			11883	©	100PAR/FL/HIR 6PK	120	6	Narrow Flood (15,23,56,88,96)*	2070	3000	CC-8	5 5/16	(134.9)	-	-	2900	7500	27
100			18633	©	100PAR/HIR/NFL25°	130	12	Narrow Flood (15,23,56,88,96)*	2070	3000	CC-8	5 5/16	(134.9)	-	-	2900	7500	27
88								Ratings @ 120 Volts.	1570	6000								
			10473	©	100PAR/HIR/40°	120	12	Flood (23,56,88,96)*	2070	3000	C-8	5 5/16	(134.9)	-	-	2900	3400	40
			18635	©	100PAR/HIR/SP10°	120	12	Spot (15,23,56,88,96)*	2070	3000	CC-8	5 5/16	(134.9)	-	-	2900	29000	10
			11885	©	100PAR/SP/HIR 6PK	120	6	Spot (15,23,56,88,96)*	2070	3000	CC-8	5 5/16	(134.9)	-	-	2900	29000	10
100			18636	©	100PAR/HIR/SP10°	130	12	Spot (15,23,56,88,96)*	2070	3000	CC-8	5 5/16	(134.9)	-	-	2900	29000	10
88								Ratings @ 120 Volts.	1570	4000								
TURN AND LOCK (TAL) CONSTANTCOLOR® LAMPS																		
20-65 WATTS																		
20	MR16	TAL	30927		20MR16/Q/11°/TL	12	10	Narow Spot (132)*	-	3500	C-6	2	(50.8)	-	-	2900	4500	11
			30928		20MR16/Q/25°/TL	12	10	Narrow Flood (132)*	-	3500	C-6	2	(50.8)	-	-	2900	900	24
			30931		20MR16/Q/35°/TL	12	10	Flood (132)*	-	3500	C-6	2	(50.8)	-	-	2900	450	36
35	MR16	TAL	30932		35MR16/Q/8°/TL	12	10	Very Narrow Spot (132)*	-	3500	C-6	2	(50.8)	-	-	2900	8100	8
			30933		35MR16/Q/20°/TL	12	10	Spot (132)*	-	3500	C-6	2	(50.8)	-	-	2900	3240	18
			30934		35MR16/Q/40°/TL	12	10	Flood (132)*	-	3500	C-6	2	(50.8)	-	-	2900	870	38
50	MR16	TAL	30901		50MR16/Q/10°/TL	12	10	Narrow Spot (132)*	-	3500	C-6	2	(50.8)	-	-	3000	10800	10
			30900		50MR16/Q/20°/TL	12	10	Narrow Flood (132)*	-	3500	C-6	2	(50.8)	-	-	3000	3330	21
			30899		50MR16/Q/40°/TL	12	10	Flood (132)*	-	3500	C-6	2	(50.8)	-	-	3000	1395	38
			30935		50MR16/Q/60°/TL	12	10	Wide Flood (132)*	-	3500	C-6	2	(50.8)	-	-	3000	630	60
Precise™ MR11 & MR16 LAMPS																		
20-71 WATTS																		
20	MR11	2-Pin - GU4	30773		Q20MR11/NFL30°-FTD	12	10	Narrow Flood, ANSI: FTD (132)*	-	3500	C-6	1 3/8	(34.9)	-	-	2900	600	30
35	MR11	2-Pin - GU4	30774		Q35MR11/SP20°-FTF	12	10	Spot, ANSI: FTF (132)*	-	3500	C-6	1 3/8	(34.9)	-	-	2900	3000	20
			30890		Q35MR11/NFL30°-FTH	12	10	Narrow Flood, ANSI: FTH (132)*	-	3500	C-6	1 3/8	(34.9)	-	-	2900	1300	30
20	MR16	2-Pin - GX5.3	14789		Q20MR16/NSP15°-ESX 10PK	12	20	Narrow Spot, ANSI: ESX (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	2900	3600	13
		2-Pin - GX5.3	14790		Q20MR16/FL40°-BAB 10PK	12	20	Flood, ANSI: BAB (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	2900	525	40
35	MR16	2-Pin - GX5.3	19983		Q35MR16/SP20°-FRA 10PK	12	20	Spot, ANSI: FRA (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3000	3900	20
			19984		Q35MR16/FL40°-FMW 10PK	12	20	Flood, ANSI: FMW (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3000	1000	40
42	MR16	2-Pin - GX5.3	14945		Q42MR16/VNSP9°-EZY 10PK	12	20	Very Narrow Spot, ANSI: EZY (132)*	-	3500	CC-6	1 7/8	(47.6)	-	-	3000	13100	9
			14785		Q42MR16/NFL25°-EYS 10PK	12	20	Narrow Flood, ANSI: EYS (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3000	2400	27
50	MR16	2-Pin - GX5.3	14787		Q50MR16/NSP15°-EXT 10PK	12	20	Narrow Spot, ANSI: EXT (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	10200	14
			14793		Q50MR16/NFL25°-EXZ 10PK	12	20	Narrow Flood, ANSI: EXZ (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	3400	27
			14788		Q50MR16/FL40°-EXN 10PK	12	20	Flood, ANSI: EXN (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	1850	40
			39857		Q50MR16/FL/1-ENL 10PK	12	20	Narrow Flood, ANSI: ENL (105,132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	2325	32
			18710		Q50MR16/WFL55°-FNV 10PK	12	20	Wide Flood, ANSI: FNV (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	1000	55
71	MR16	2-Pin - GX5.3	14795		Q71MR16/NSP15°-EYF 10PK	12	20	Narrow Spot, ANSI: EYF (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	12000	14
			15941		Q71MR16/NFL25°-EYJ 10PK	12	20	Narrow Flood, ANSI: EYJ (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	4900	2
			14794		Q71MR16/FL40°-EYC 10PK	12	20	Flood, ANSI: EYC (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	2100	42

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GE ConstantColor® Precise™ MR16 Lamps

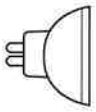
- Bright, white light over life
- Consistent white light over lamp life – no beam discoloration
- No loss in light over life
- Longest life – 5000 hours (50-watt types)

GE ConstantColor® Precise™ Cover Glass Lamps

- A cleaner bulb for more light
- Cover glass lens protects bulb from dust and dirt which can reduce light output

Linear Halogen-IR Quartzline® Lamps

- 30%-40% energy cost savings vs. standard quartz lamps
- 95% maintained light output over life
- Cooler operation increases fixture life
- Easily dimmed



MR16
2-Pin GX5.3

T3
2-Pin G4

T2½
2-Pin G4

Energy Used Watts	Bulb	Base	Product Code ©	Lamp Designation	Volts	Case Qty.	Additional Information	Light Output Lumens	Rated Avg. Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
CONSTANTCOLOR® Precise™ MR16 LAMPS																	
20-42 WATTS																	
20	MR16	2-Pin - GX5.3	20816	Q20MR16/C/VNSP7°-EZX 10PK	12	20	Very Narrow Spot, ANSI: EZX (132)*	-	3000	CC-6	1 7/8	(47.6)	-	-	2900	7400	7
			20815	Q20MR16/C/NSP15°-ESX 10PK	12	20	Narrow Spot, ANSI: ESX (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	2900	3600	13
			20814	Q20MR16/C/FL40°-BAB 10PK	12	20	Flood, ANSI: BAB (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	2900	525	40
35	MR16	2-Pin - GX5.3	20826	Q35MR16/C/SP20°-FRA 10PK	12	20	Spot, ANSI: FRA (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3000	3900	20
			20825	Q35MR16/C/FL40°-FMW 10PK	12	20	Flood, ANSI: FMW (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3000	1000	40
42	MR16	2-Pin - GX5.3	20828	Q42MR16/C/NFL25°	12	20	Narrow Flood, ANSI: EYS (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	3000	19000	24
			20830	Q42MR16/C/VNSP9°-EZY 10PK	12	20	Very Narrow Spot, ANSI: EZY (132)*	-	3500	CC-6	1 7/8	(47.6)	-	-	3000	13100	9
50-71 WATTS																	
50	MR16	2-Pin - GX5.3	20839	Q50MR16/C/NSP15°-EXT 10PK	12	20	Narrow Spot, ANSI: EXT (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	3050	10200	14
			20835	Q50MR16/C/NFL25°-EXZ 10PK	12	20	Narrow Flood, ANSI: EXZ (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	3050	3400	27
			20834	Q50MR16/C/NFL30°-EXK 10PK	12	20	Narrow Flood, ANSI: EXK (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	3050	2450	32
			20833	Q50MR16/C/FL40°-EXN 10PK	12	20	Flood, ANSI: EXN (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	3050	1850	40
			20832	Q50MR16/C/WFL55°-FNV 10PK	12	20	Wide Flood, ANSI: FNV (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	3050	900	55
71	MR16	2-Pin - GX5.3	20843	Q71MR16/C/NSP15°-EYF 10PK	12	20	Narrow Spot, ANSI: EYF (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	12000	14
			20841	Q71MR16/C/NFL25°-EYJ 10PK	12	20	Narrow Flood, ANSI: EYJ (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	4900	25
			20840	Q71MR16/C/FL40°-EYC 10PK	12	20	Flood, ANSI: EYC (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	2100	42
CONSTANTCOLOR® Precise™ COVER GLASS LAMPS																	
20-71 WATTS																	
20	MR16	2-Pin - GX5.3	20858	Q20MR16/C/CG15°-ESX 10PK	12	20	Narrow Spot, Clear glass protective lens, ANSI: ESX (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	2900	3350	13
			20857	Q20MR16/C/CG40°-BAB 10PK	12	20	Flood, Clear glass protective lens, ANSI: BAB (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	2900	490	40
35	MR16	2-Pin - GX5.3	20860	Q35MR16/C/CG20°-FRA 10PK	12	20	Spot, Clear glass protective lens, ANSI: FRA (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3000	3625	20
			20859	Q35MR16/C/CG40°-FMW 10PK	12	20	Flood, Clear glass protective lens, ANSI: FMW (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3000	900	40
50	MR16	2-Pin - GX5.3	20872	Q50MR16/C/CG15°-EXT 10PK	12	20	Narrow Spot, Clear glass protective lens, ANSI: EXT (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	3050	9500	14
			20871	Q50MR16/C/CG25°-EXZ 10PK	12	20	Narrow Flood, Clear glass protective lens, ANSI: EXZ (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	3050	3160	27
			20867	Q50MR16/C/CG40°-EXN 10PK	12	20	Flood, Clear glass protective lens, ANSI: EXN (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	3050	1720	40
			20865	Q50MR16/C/CG55°-FNV 10PK	12	20	Wide Flood, Clear glass protective lens, ANSI: FNV (132)*	-	5000	C-6	1 7/8	(47.6)	-	-	3050	850	55
71	MR16	2-Pin - GX5.3	20876	Q71MR16/C/CG15°-EYF 10PK	12	20	Narrow Spot, Clear glass protective lens, ANSI: EYF (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	11200	12
			20874	Q71MR16/C/CG25°-EYJ 10PK	12	20	Narrow Flood, Clear glass protective lens, ANSI: EYJ (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	4560	25
			20873	Q71MR16/C/CG40°-EYC 10PK	12	20	Flood, Clear glass protective lens, ANSI: EYC (132)*	-	4000	C-6	1 7/8	(47.6)	-	-	3050	1950	42
QUARTZ HALOGEN DISPLAY LAMPS																	
5-100 WATTS																	
5	T3	2-Pin - G4	18426	Q5T3/CL	12	50	Clear (132)*	60	2000	C-6	1 1/4	(31.8)	3/4	(19.1)	-	-	-
10	T2½	2-Pin - G4	34728	Q10T2.5/6V/CL	6	100	(132)*	140	2000	-	1 1/4	(31.8)	-	-	-	-	-
	T3	2-Pin - G4	18431	Q10T3/CL	12	50	Clear (132)*	140	2000	C-6	1 1/4	(31.8)	3/4	(19.1)	-	-	-
			19371	Q10T3/CL/CD 5PK	12	25	Clear, Carded (132)*	140	2000	C-6	1 1/4	(31.8)	3/4	(19.1)	-	-	-
20	T2½	2-Pin - G4	34715	Q20T2.5/12V/CL	12	100	(132)*	350	2000	C-6	1 1/4	(31.8)	3/4	(19.1)	-	-	-

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T3 2-Pin | T4 2-Pin GY6.35 | T2 1/2 R7S | T4 2-Pin Pf | MR16 2-Pin GX5.3 | T3 Min Scrw | T4 Mini Cand | T3 R7S | T4 DC Bay | T4 R7S

Energy Used Watts	Bulb	Base	Product Code ©	Lamp Designation	Volts	Case Qty.	Additional Information	Light Output Lumens	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
QUARTZ HALOGEN DISPLAY LAMPS																	
5-100 WATTS (con't)																	
20	T3	2-Pin - G4	19375	Q20T3/CL/CD 5PK	12	25	Clear, Carded (132)*	350	2000	C-6	1 1/4	(31.8)	3/4	(19.1)	-	-	-
			18434	Q20T3/CL	24	50	(132)*	350	1000	C-6	1 1/4	(31.8)	3/4	(19.1)	-	-	-
35	T3	2-Pin - GY6.35	34708	Q35T3/CL	12	100	(132)*	550	2000	C-6	1 3/4	(44.5)	-	-	-	-	-
50	T3	2-Pin - GY6.35	34702	Q50T3/CL	12	100	(132)*	850	2000	C-6	1 3/4	(44.5)	-	-	-	-	-
	T4	2-Pin - GY6.35	19376	Q50T3/CL/CD 5PK	12	25	Clear, Carded (132)*	950	2000	C-6	1 3/4	(44.5)	1 1/8	(28.6)	-	-	-
75	T3	2-Pin - GY6.35	34682	Q75T3/CL	12	100	(132)*	1330	2000	C-6	1 3/4	(44.5)	-	-	-	-	-
	T4	2-Pin - GY6.35	19377	Q75T3/CL/CD 5PK	12	25	Clear, Carded (132)*	1600	2000	C-6	1 3/4	(44.5)	1 1/8	(28.6)	-	-	-
100	T3	2-Pin - GY6.35	34676	Q100T3/12V/CL	12	100	(132)*	2350	2000	CC-6	1 3/4	(44.5)	-	-	-	-	-
			34663	Q100T3/24V/CL	24	100	(132)*	2000	2000	CC-6	1 3/4	(44.5)	-	-	-	-	-
QUARTZLINE® TUNGSTEN HALOGEN LAMPS																	
45-75 WATTS																	
45	T2 1/2	R7S	23850	Q45T2 1/2/CL	7	12	Clear Instrument (137)*	710	1000	C-8	2 1/16	(52.4)	-	-	-	-	-
	T4	2-Pin Pf	41541	Q45T4/CL	0	12	Clear Airport, BASE DOWN	835	500	C-6	2 1/2	(63.5)	1 17/32	(38.9)	-	-	-
50	MR16	2-Pin	43948	Q50MR16-EZP	13.8	20	Display/Microfilm. Proj. dichroic refl. Burn pos: Any (132)*	-	1000	CC-6	1 3/4	(44.5)	-	-	3150	9000	14
75	T3	Min Scrw	39574	Q75CL	28	20	Clear	1350	2000	CC-6	2 1/2	(63.5)	13/16	(30.2)	-	-	-
	T4	Mini-Cand	12715	Q75CL/MC/CD CARD	120	25	Clear, Carded	1200	2000	CC-8	2 3/16	(55.6)	-	-	-	-	-
100 WATTS																	
100	T3	R7S	22489	Q100T3/CL/CD 5PK	120	60	Clear, Carded	1650	1500	C-8	3 1/8	(79.4)	1 1/4	(31.8)	2950	-	-
	T4	Mini-Cand	15507	Q100CL/MC	120	6	Clear	1600	2000	CC-8	2 13/16	(71.4)	1 3/8	(34.9)	2950	-	-
			19383	Q100CL/MC/CD 5PK	120	25	Clear, Carded	1600	2000	CC-8	2 13/16	(71.4)	1 3/8	(34.9)	2950	-	-
			44385	Q100CL/MC/2V-ESN	120	6	Clear	1800	750	CC-2V	2 13/16	(71.4)	1 3/8	(34.9)	2950	-	-
			16452	Q100MC	120	6	Frosted	1550	2000	CC-8	2 13/16	(71.4)	1 3/8	(34.9)	2950	-	-
			44656	Q100MC/2V-ETE	120	6	Frosted	1750	750	CC-2V	2 13/16	(71.4)	1 3/8	(34.9)	2950	-	-
		DC Bay	15508	Q100CL/DC	120	6	Clear	1600	2000	CC-8	2 7/16	(61.9)	1 3/8	(34.9)	2950	-	-
			44386	Q100CL/DC/2V-ESR	120	6	Clear	1800	750	CC-2V	2 7/16	(61.9)	1 3/8	(34.9)	2950	-	-
			16451	Q100DC	120	6	Frosted	1550	2000	CC-8	2 7/16	(61.9)	1 3/8	(34.9)	2950	-	-
			44657	Q100DC/2V-ETD	120	6	Frosted	1750	750	CC-2V	2 7/16	(61.9)	1 3/8	(34.9)	2950	-	-
150 WATTS																	
150	T3	R7S	19378	Q150T3/CL/CD 5PK	120	60	Clear, HORIZ., Carded	2400	1500	C-8	1 1/4	(31.8)	-	-	2950	-	-
	T4	R7S	23710	Q150T4/CL	25	12	Clear Dental Spotlight (139)*	2760	3000	CC-8	2 9/16	(65.1)	-	-	2850	-	-
		DC Bay	43693	Q150CL/DC-ETC	120	6	Clear	2800	2000	CC-8	2 1/2	(63.5)	1 3/8	(34.9)	2950	-	-
			44384	Q150CL/DC/2V-ESP	120	6	Clear	2800	1000	CC-2V	2 7/16	(61.9)	1 3/8	(34.9)	2950	-	-
			44653	Q150DC-ETF	120	6	Frosted	2700	2000	CC-8	2 1/2	(63.5)	1 3/8	(34.9)	-	2950	-
		Mini-Cand	43694	Q150CL/MC-ETG	120	6	Clear	2800	2000	CC-8	3	(76.2)	1 3/8	(34.9)	-	2950	-
			19386	Q150CL/MC/CD 5PK	120	25	Clear, Carded	2800	2000	CC-8	3	(76.2)	1 3/8	(34.9)	-	2950	-
			44383	Q150CL/MC/2V-ESL	120	6	Clear	2800	1000	CC-2V	2 13/16	(71.4)	1 3/8	(34.9)	-	2950	-
			44654	Q150MC-ETH	120	6	Frosted	2700	2000	CC-8	3	(76.2)	1 3/8	(34.9)	2950	-	-
200 WATTS																	
200	T3	R7S	16580	Q200T3 6PK	120	144	Frosted (100)*	3350	1500	CC-8	3 1/8	(79.4)	1 1/4	(31.8)	2925	-	-
			43713	Q200T3/CL 6PK	120	144	Clear	3460	1500	CC-8	3 1/8	(79.4)	1 1/4	(31.8)	2925	-	-
	T4	2-Pin Pf	40702	Q200T4/CL	6.6A	12	Clear Airport, BASE DOWN	4500	500	CC-6	2 1/2	(63.5)	1 17/32	(38.9)	-	-	-

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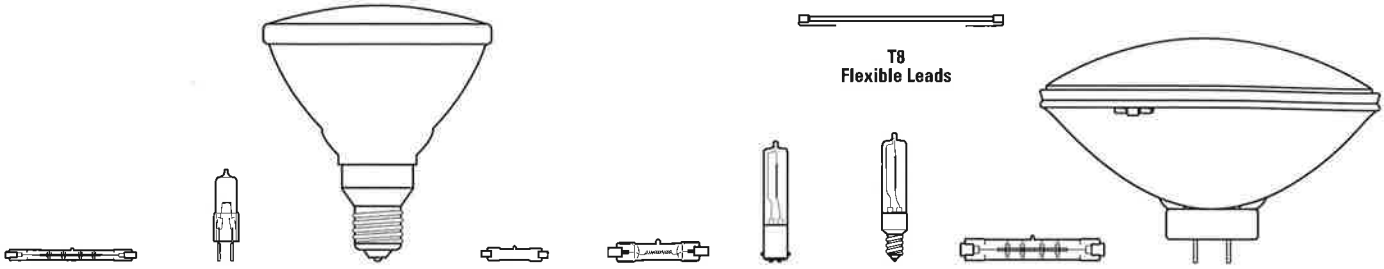

Energy Used Watts	Bulb	Base	Product © Code	Lamp Designation	Volts	Case Qty.	Additional Information	Light Output Lumens	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
225 WATTS																	
225	T2	R7S	12282	Q225T2/CL/ULTRA CARD 5PK	120	25	IR Clear HORIZ.	5950	3000	C-8	4 11/16	(119.1)	2 1/2	(54)	2965	-	-
235 WATTS																	
235	T4	2-Pin - GZ9.5	11548	Q235T4/3	33	12	Frosted Instrument Prefocus (103)*	6000	150	CC-6	2 5/8	(66.7)	1 17/32	(38.9)	-	-	-
250 WATTS																	
250	PAR38	Med Skirt	23719	Q250PAR/SP11°	120	12	Spot - Ceramic Socket Only (112)*	3600	4200	CC-8	5 5/16	(134.9)	-	-	2880	40000	11°
			23718	Q250PAR/FL30°	120	12	Flood - Ceramic Socket Only (112,120)*	3600	4200	CC-8	5 5/16	(134.9)	-	-	2880	8000	32°
	T3	R7S	22865	Q250T3/CL 6PK	120	144	Clear HORIZ.	4000	1500	C-8	3 1/8	(79.4)	1 1/4	(31.8)	2950	-	-
		R S C	22121	Q250T3/CL/CD 5PK	120	60	Clear, Carded	4000	1500	C-8	3 1/8	(79.4)	1 1/4	(31.8)	2950	-	-
	T4	D C Bay	43701	Q250DC-ETB	120	6	Frosted	4850	2000	CC-8	3	(76.2)	1 5/8	(41.3)	2950	-	-
			43702	Q250DC	130	6	Frosted	4850	2000	CC-8	3	(76.2)	1 5/8	(41.3)	2950	-	-
		Mini-Cand	43695	Q250MC-ESM	120	6	Frosted	4850	2000	CC-8	3 5/32	(80.2)	1 5/8	(41.3)	2950	-	-
			43696	Q250MC	130	6	Frosted	4850	2000	CC-8	3 5/32	(80.2)	1 5/8	(41.3)	2950	-	-
		D C Bay	43697	Q250CL/DC-ESS	120	6	Clear	5000	2000	CC-8	3	(76.2)	1 5/8	(41.3)	2950	-	-
			43698	Q250CL/DC	130	6	Clear	5000	2000	CC-8	3	(76.2)	1 5/8	(41.3)	2950	-	-
		Mini-Cand	43699	Q250CL/MC-EHT	120	6	Clear	5000	2000	CC-8	3 5/32	(80.2)	1 5/8	(41.3)	2950	-	-
			19387	Q250CL/MC/CD 5PK	120	25	Clear, Carded	5000	2000	CC-8	3 5/32	(80.2)	1 5/8	(41.3)	2950	-	-
			43700	Q250CL/MC	130	6	Clear, Carded	5000	2000	CC-8	3 5/32	(80.2)	1 5/8	(41.3)	2950	-	-
300 WATTS																	
300	T3	R7S	43704	Q300T2 1/2-EHZ 6PK	120	144	Frosted HORIZ.	5900	2000	C-8	4 11/16	(119.1)	2 1/4	(57)	2950	-	-
		R S C	19379	Q300T2 1/2 /CL/CD 5PK	120	60	Clear HORIZ., Carded	5950	2000	C-8	4 11/16	(119.1)	2 1/4	(57)	2950	-	-
		R7S	43703	Q300T3/CL-EHM 6PK	120	144	Clear HORIZ.	5950	2000	C-8	4 11/16	(119.1)	2 1/4	(57)	2950	-	-
	T4	R7S	43705	Q300T4/CL-EHP	120	6	Clear	5650	2000	CC-8	3 1/8	(79.4)	2 1/4	(57)	2900	-	-
350-425 WATTS																	
350	T3	R7S	13894	Q350T3/CL/HIR	120	6	IR Clear HORIZ.	10000	2000	C-8	4 11/16	(119.1)	2 1/4	(57)	3075	-	-
			14311	Q350T3/CL/HIR	130	6	IR Clear HORIZ.	9600	2000	C-8	4 11/16	(119.1)	2 1/4	(57)	3000	-	-
		R S C	12283	Q350T3/CL/ULTRA CARD 5PK	120	25	IR Clear HORIZ.	10000	2000	C-8	4 11/16	(119.1)	2 1/4	(57)	3075	-	-
400	T4	Mini-Cand	43706	Q400MC	120	6	Frosted	7850	2000	CC-8	3 5/8	(92.1)	2	(50.8)	2950	-	-
			43707	Q400CL/MC	120	6	Clear	8250	2000	CC-8	3 5/8	(92.1)	2	(50.8)	2950	-	-
		R7S	43708	Q400T4/CL-EHR	120	6	Clear	7750	2000	CC-8	3 1/8	(79.4)	13/16	(20.6)	2900	-	-
425	T3	R7S	11178	Q425T3/CL	120	12	Clear, HORIZ.	8900	2000	C-8	4 11/16	(119.1)	2 7/32	(56.4)	3000	-	-
500 WATTS																	
500	PAR56	Mog End Pr	43494	Q500PAR56NSP	120	6	Narrow Spot (131)*	8000	4000	CC-6	5	(127.0)	-	-	-	96000	13x8
			43495	Q500PAR56MFL	120	6	Medium Flood (131)*	8000	4000	CC-6	5	(127.0)	-	-	2950	43000	26x10
			43496	Q500PAR56WFL	120	6	Wide Flood (131)*	8000	4000	CC-6	5	(127.0)	-	-	-	19000	44x20
	T3	R7S	23717	Q500T3 12PK	130	144	Frosted, HORIZ.	10300	2000	C-8	4 11/16	(119.1)	2 1/4	(57)	3000	-	-
			23731	Q500T3/CL-FCL	120	12	Clear HORIZ.	11100	2000	C-8	4 11/16	(119.1)	2 1/4	(57)	3000	-	-
		R S C	19382	Q500T3/CL/CD 5PK	120	60	Clear HORIZ., Carded	11100	2000	C-8	4 11/16	(119.1)	2 1/4	(57)	3000	-	-
		R7S	23733	Q500T3/CL-DVS	130	12	Clear HORIZ.	10550	2000	C-8	4 11/16	(119.1)	2 1/4	(57)	3000	-	-
			23744	Q500T3/CL/6 12PK	120	144	Clear, 6 Filament Support, Rough Service HORIZ. (103,133)*	10950	1500	C-8	4 11/16	(119.1)	2 1/4	(57)	3000	-	-
	T4	DC Bay	43709	Q500DC	120	6	Frosted	10100	2000	CC-8	3 7/16	(87.3)	2 1/8	(54)	2950	-	-
			43710	Q500CL/DC	120	6	Clear	10450	2000	CC-8	3 7/16	(87.3)	2 1/8	(54)	2950	-	-
	T8	Approx. 6" (152 mm) Flexible Leads	39071	Q500T8/1CL	-	20	Clear Airport, Special bulb (134)*	13400	500	CC-8	4 1/4	(108)	2 1/2	(63.5)	-	-	-

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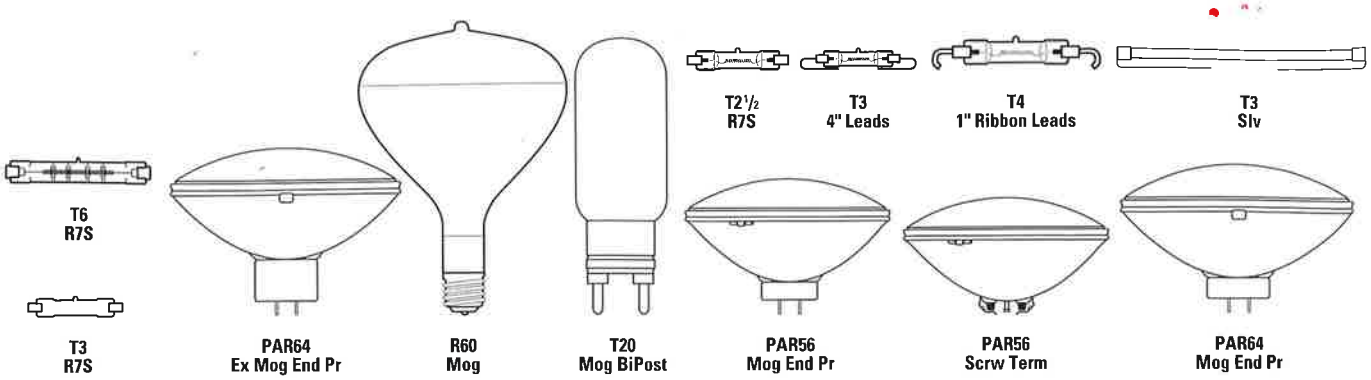

Energy Used Watts	Bulb	Base	Product Code ©	Lamp Designation	Volts	Case Qty.	Additional Information	Light Output Lumens	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
900 WATTS																	
900	T3	R7S	13642	Q900T3/CL/HIR	240	6	IR Clear, HORIZ.	32000	2000	C-8	10 1/16	(255.6)	6 1/8	(155.6)	3160	-	-
			14335	Q900T3/CL/HIR	277	6	IR Clear, HORIZ.	31000	2000	C-8	10 1/16	(255.6)	6 1/8	(155.6)	3160	-	-
1000 WATTS																	
1000	PAR64	ExMogEndPr	43497	Q1000PAR64/NSP	120	6	Narrow Spot (131)*	19400	4000	CC-6	6	(152.4)	-	-	3000	200000	15x8
			43498	Q1000PAR64/MFL	120	6	Medium Flood (131)*	19400	4000	CC-6	6	(152.4)	-	-	3000	80000	28x12
			43499	Q1000PAR64/WFL	120	6	Wide Flood (131)*	19400	4000	CC-6	6	(152.4)	-	-	3000	33000	48x24
	R60	Mog	23781	Q1000R60FL	120	6	Reflector Flood I.F. (55,108,114,172)*	18300	3000	CC-8	10 1/8	(257.2)	-	-	-	-	-
	T3	R7S	43711	Q1000T3/CL 6PK	220	144	Clear HORIZ.	21500	2000	C-8	10 1/16	(255.6)	6 1/8	(155.6)	3050	-	-
			43712	Q1000T3/CL 6PK	240	144	Clear HORIZ.	21500	2000	C-8	10 1/16	(255.6)	6 7/16	(163.5)	3050	-	-
	T6	R7S	23800	Q1000T6/CL-DWT	120	6	Clear	23400	2000	CC-8	5 5/8	(142.9)	1	(25.4)	3200	-	-
	T20	Mog BiPost	41734	Q1000T20BP	120	6	Clear Lighthouse, BASE DOWN	22400	3000	CC-8	9 1/2	(241.3)	4	(101.6)	3050	-	-
1500 WATTS																	
1500	T3	R7S	23828	Q1500T3/CL 12PK	208	144	Clear HORIZ.	35800	2000	C-8	10 1/16	(255.6)	6 9/16	(166.7)	3050	-	-
			23826	Q1500T3/CL 12PK	220	144	Clear HORIZ.	35800	2000	C-8	10 1/16	(255.6)	6 13/16	(173.0)	3050	-	-
			23830	Q1500T3/CL	240	12	Clear HORIZ.	35800	2000	C-8	10 1/16	(255.6)	6 5/16	(160.3)	3050	-	-
			23836	Q1500T3/CL/6 12PK	240	144	Clear 14 Filament Support, Rough Service HORIZ. (100,133)*	35800	1000	C-8	10 1/16	(255.6)	6 3/4	(171.5)	3050	-	-
			23832	Q1500T3/CL	277	12	Clear HORIZ.	34400	2000	C-8	10 1/16	(255.6)	6 9/16	(166.7)	3050	-	-
6000 WATTS																	
6000	T3	Slv	13511	Q6000T3/CL	480	6	Clear Infrared, HORIZ. (100,103,111,122,125)*	-	150	C-8	11 15/16	(303.2)	9 3/4	(247.7)	-	-	-
			23113	Q6M/T3/CL/1	480	12	Clear	-	150	-	11 15/16	(303.2)	9 3/4	(247.7)	-	-	-
			23843	Q6M/T3/CL/HT	480	12	Clear Infrared, High Temp. Constr. (103,111,122,125,100)*	-	100	C-8	11 15/16	(303.2)	9 3/4	(247.7)	3250	-	-
AIRPORT LAMPS LISTED BY AMPERES																	
200	PAR56	Mog End Pr	38271	Q6.6A/PAR56/2	-	12	PAR Airport, BDTH	-	1000	CC-6	5	(127.0)	-	-	-	16000	-
		Scrw Term	33279	Q6.6A/PAR56/3	-	12	PAR Airport, BDTH	-	1000	CC-6	4 1/2	(114.3)	-	-	-	200000	-
		Mog End Pr	18309	Q6.6A/PAR56/4	-	12	PAR Airport, Prismatic Lens, BDTH	-	600	CC-6	5	(127)	-	-	-	-	-
	PAR64	Mog End Pr	13224	Q6.6A/PAR64/2P 6PK	-	6	PAR Airport, BDTH	-	2000	CC-6	4 1/2	(114.3)	-	-	-	-	-
300	PAR64	Mog End Pr	13223	Q6.6A/PAR64/3P 6PK	-	6	PAR Airport, BDTH	-	2000	CC-6	4 1/2	(114.3)	-	-	-	-	-
45	T2 1/2	R7S	23846	Q6.6A/T2 1/2/CL	-	12	Clear Airport, (137,151)*	710	1000	C-8	2 1/16	(52.4)	-	-	-	-	-
		Special	23847	Q6.6A/T2 1/2/1CL	-	12	Clear Airport, (134,137,151,161)*	710	1000	C-8	1 3/4	(44.5)	-	-	-	-	-
100	T3	4" Leads	23855	Q6.6A/T3/2CL	-	12	Clear Airport, (134,138)*	2290	1000	C-8	2	(50.8)	-	-	-	-	-
200	T4	Special 1" (25 mm) Ribbon Leads	23857	Q6.6A/T4/5CL	-	12	Clear Airport, (134,135,175)*	5000	500	CC-8	3	(76.2)	-	-	-	-	-
		D C Bay	23860	Q6.6A/T4/DCR	-	12	Clear Airport, Ringed (129)*	5150	500	CC-6	2 1/2	(63.5)	1 1/16	(27)	-	-	-
300	PAR56	Mog End Pr	15482	Q20A/PAR56/C	-	12	PAR Airport, Teflon® Coated, Burn pos: Any (113)*	-	500	CC-6	5	(127.0)	-	-	-	-	-
		Scrw Term	32861	Q20A/PAR56/2	-	12	PAR Airport, Burn pos: Any	-	500	CC-6	4 1/2	(114.3)	-	-	-	200000	-
499	PAR56	Scrw Term	23863	Q20A/PAR56/3	-	12	PAR Airport, BDTH	-	500	CC-6	4 1/2	(114.3)	-	-	-	330000	-
500	PAR56	Mog End Pr	15485	Q20A/PAR56/1/C	-	12	PAR Airport, Teflon® Coated, Burn pos: Any (113)*	-	500	CC-6	5	(127.0)	-	-	-	-	-

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T3
Slv

Energy Used Watts	Bulb	Base	Product Code ©	Lamp Designation	Volts	Case Qty.	Additional Information	Light Output Lumens	Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CBCP	Appx. Beam Spread
TUBULAR QUARTZ HEAT LAMPS																	
300-375 WATTS																	
300	T3	Slv	39019	QH300T3/CL	120	12	Infrared (100)*	-	5000	C-8	8 15/32	(215.1)	4 3/16	(106.4)	2400	-	-
375	T3	Slv	21337	QH375T3/CL	115	12	Infrared (100)*	-	5000	C-8	8 13/16	(223.8)	5 1/16	(128.6)	2400	-	-
			38893	QH375T3/CL/7	115	12	Infrared (100)*	-	5000	C-8	8 11/16	(220.7)	5 1/16	(128.6)	2400	-	-
500 WATTS																	
500	T3	Slv	21788	QH500T3/CL	115	12	Infrared Clear (100)*	-	5000	C-8	8 13/16	(223.8)	4 13/16	(123)	2400	-	-
			21787	QH500T3/CL/7	115	12	Infrared (100)*	-	5000	C-8	8 11/16	(220.7)	4 13/16	(123)	2400	-	-
1000 WATTS																	
1000	T3	Slv	22355	QH1000T3/CL	200	12	Infrared (100)*	-	5000	C-8	13 13/16	(350.8)	10	(254)	2400	-	-
			22357	QH1000T3/CL	230	12	Infrared (100)*	-	5000	C-8	13 13/16	(350.8)	10	(254)	2400	-	-
			22358	QH1000T3/CL/1	230	12	Infrared Clear, HORIZ. (100,125)*	-	5000	C-8	11 7/8	(301.6)	10	(254)	2400	-	-
			22365	QH1000T3/2CL/HT	230	12	Infrared Clear, Hi.-Temp. Constr. HORIZ. (125)*	-	5000	C-8	13 13/16	(350.8)	10	(254)	2400	-	-
1200-1600 WATTS																	
1200	T3	Slv	22531	QH1200T3/CL	144	12	Infrared Clear, HORIZ (100,123,125)*	-	5000	C-8	8 13/16	(223.8)	6 1/8	(157)	2450	-	-
			22532	QH1200T3/CL/HT	144	12	Infrared Clear, Hi.-Temp. Constr. HORIZ. (125)*	-	5000	C-8	8 13/16	(223.8)	6 1/8	(157)	2450		
								-	-								
1600	T3	Slv	22686	QH1600T3/CL	200	12	Infrared, HORIZ. (100)*	-	5000	C-8	19 13/16	(503.2)	15 7/8	(400)	2350	-	-
			22699	QH1600T3/CL/7	200	12	Infrared, HORIZ. (100)*	-	5000	C-8	19 5/8	(498.5)	15 7/8	(400)	2350	-	-
			22691	QH1600T3/CL/7	230	12	Infrared, HORIZ. (100)*	-	5000	C-8	19 5/8	(498.5)	15 7/8	(400)	2400	-	-
		Slv	22688	QH1600T3/CL	230	12	Infrared Clear, HORIZ. (100)*	-	5000	C-8	19 13/16	(503.2)	15 7/8	(400)	2400	-	-
			22695	QH1600T3/CL	277	12	Infrared, HORIZ. (100)*	-	5000	C-8	19 13/16	(503.2)	15 7/8	(400)	2400	-	-
2000 WATTS																	
2000	T3	Slv	22789	QH2M/T3/1CL/HT	230	12	Infrared Clear, Hi.-Temp. Constr.	-	5000	C-8	11 15/16	(303.2)	9 11/16	(246)	2450	-	-
			15551	QH2M/T3/1CL/HT/VB	230	12	Infrared Clear, Hi.-Temp. Constr. VERTICAL (123,125)*	-	500	C-8	11 15/16	(303.2)	9 11/16	(246)	2450	-	-
			22790	QH2M/T3/CL/HT	230	12	Infrared Clear, Hi.-Temp. Constr. HORIZ. (125)*	-	5000	C-8	13 13/16	(350.8)	10	(254)	2450	-	-
			12716	QH2MT3/CL/HT/R	230	12	Infrared Clear, Hi-Temp, Horiz, Reflector 170° (125)*	-	5000	C-8	13 29/32	(351.8)	11 1/16	(281)	2450	-	-
2500 WATTS																	
2500	T3	Slv	22837	QH2500T3/CL/7	460	12	Infrared, HORIZ. (100)*	-	5000	C-8	28 5/8	(727.1)	24 7/8	(631.8)	2400	-	-
			22838	QH2500T3/CL	460	12	Infrared Clear, HORIZ. (100)*	-	5000	C-8	28 13/16	(731.8)	24 7/8	(631.8)	2400	-	-
3650-5000 WATTS																	
3650	T3	Slv	10872	QH3650T3/CL/5	480	6	Infrared, HORIZ. (100)*	-	5000	C-8	41 5/8	(1057.3)	38	(965)	2500	-	-
3800	T3	Slv	22875	QH3800T3/CL	550	6	Infrared, HORIZ. (100)*	-	5000	C-8	41 13/16	(1062.0)	38	(965)	2500	-	-
			22878	QH3800T3/CL/VB	550	6	Infrared, Clear, Universal (100)* (100,123)*	-	5000	C-8	41 13/16	(1062.0)	38	(965)	2500	-	-
5000	T3	Slv	22900	QH5M/T3/1CL/HT	575	12	Infrared Clear, Hi.-Temp. Constr. HORIZ. (100,125)*	-	5000	C-8	28 13/16	(731.8)	25 1/4	(641.4)	2500	-	-

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General Information

Halogen Lamp Operating Precautions

The lamps listed in this catalog are filled to high internal gas pressures to maximize lamp efficacy (lumens per watt). Some general cautions are given below.

High Operating Temperatures

Since operating temperatures are critical to the effective self-cleaning properties of halogen lamps, filament tube wall temperatures should not go below 482°F (250°C). Hot spots on the bulb wall itself can go as high as 1230°F (700°C) in normal operation.

Substantial heat is generated in all halogen lamps, so equipment design should make allowance for the dissipation of excessive heat. Certain lamps and extremely confined fixtures may require additional ventilation or heat sinking to ensure proper operation of the halogen cycle and to prevent damage to the fixture. It is a good practice to test the lamp in the operating environment early in the design cycle to ensure adequate performance. Precautions must be taken in the selection of materials for lampholders, reflectors and lamp housings because the 1230°F (700°C) bulb wall temperature is greater than the kindling temperature of many materials. Lamp base temperatures should not exceed 662°F (350°C) because, above that point, lead wires may deteriorate and the basing cement loosen, causing premature lamp failure.

Distribution of Spectral Radiation

Halogen lamps offer large amounts of visible and infrared energy from a small light source, with about 90% of the energy in the infrared. Some halogen lamps can be used for special applications where small amounts of ultraviolet energy are required. The slight ultraviolet radiation that comes from unprotected sources could cause skin and eye irritation following extended direct exposure. Passing the light through ordinary glass or plastic provides adequate protection. The lenses of the PAR, TAL or Cover Glass Precise™ lamps provide this protection.

Quartz Heat Lamps

GE standard quartz heat products are primarily pressurized halogen lamps. Many standard tungsten coil filaments have been converted to a deflection coil winding design that eliminates the need for filament supports through an integral coil/support construction. These changes will improve lamp life as well as keep the bulb wall cleaner during operation and throughout the life of the lamp.

In general, halogen lamps are more efficient than ordinary incandescent lamps. Halogen-IR lamps are the most efficient halogen lamps we offer. For each application, check life, lumens, wattage, beam spread and lamp dimensions to determine proper bulb selection.

GE has added a reflectorized heat lamp with a patented design that directs the infrared to a surface rather than in 360° angle.

Halogen Lamps – Caution Notice

The filament tubes or bulbs used in all halogen lamps generate intense heat, are pressurized and could shatter if scratched or damaged. Glass halogen bulbs should be protected against liquids when in use. Provide glass or plastic protective shielding with equipment in which halogen bulbs are installed or used. PAR, TAL and Cover Glass lamps have integral shields and do not require extra protection. Do not operate in proximity to substances or materials that are flammable or adversely affected by heat or drying.

For satisfactory performance:

- Do not operate above rated voltage
- For 2 Pin (GU4, GU5.3) lamps, care must be taken to ensure that the lamp seal area is not strained, cracked, chipped or otherwise damaged to avoid premature lamp failure
- The GU5.3 lamp caps are compatible with GX5.3 lamp holders; GU4 caps are compatible with GZ4 lamp holders.
- Limit seal and outer lead wire temperature to 662°F (350°C) to avoid lead wire deterioration, except for high temperature (HT) lamps
- Maintain a minimum bulb wall temperature of 482°F (250°C) for operation of the halogen cycle
- Remove grease or fingerprints from quartz halogen bulbs with a grease-free solvent before use

Use appropriate protection to avoid risk of injury when handling or disposing of all halogen bulbs. Wear eye protection. Turn power off when installing and before removing lamp. Allow lamp to cool before removal.

Halogen PAR lamps use an inner halogen bulb. If the outer sealed envelope is broken replace the entire unit. Do not use even though it appears to be operable.

Remove carefully and dispose of the lamp by placing it in a closed container.

A complete statement of precautions is provided with each halogen lamp.

Operating Notes

Low voltage tungsten-halogen lamps are sensitive to voltage variations. Even a small change in voltage can have a considerable impact on lamp life. Designers should match fixture transformer ratings to actual line voltages to ensure that the lamps operate at as close to 12 volts as possible.

Rapid cycling can also shorten lamp life, and designers should take advice from their GE Lighting representative before using these lamps in flashing or blinking applications.

The lamps may be dimmed by reducing voltage. However, this may cause the bulbs to blacken. If this occurs the lamp should be run at full voltage for fifteen minutes, thereby clearing the problem. Note that the nature of low voltage lighting systems requires the use of fluorescent-type dimmers. Lamp can be operated on AC or DC currents.

Footnotes:

14. In "base up" use, heat eventually may deteriorate paper-lined or plastic sockets.
15. Lamp is made of heat resistant glass (HRG).
23. Lamp base is a brass base (BB).
46. This lamp produces base temperatures which may deteriorate paper-lined or plastic sockets. Use only in fixtures approved for this type and wattage bulb.
55. Lamp base is a nickel plated brass base (NPBB).
56. Avoid use at short distances on materials that are inflammable or susceptible to heat damage.
78. Use only in fixtures rated for Cool Beam lamp operation.
80. Do not use lamp in application where it may be exposed to direct water splash. If lamp is used outdoors, it must be protected by an enclosed fixture or an overhang. Failure to properly protect the lamp can result in premature failure of the lamp.
83. Will operate in any burning position, but fixed-socket usage other than base up or continuous burning in any position in ambient temperatures above 150°F, may result in some loss of protective coating. Reflectors and accessories may raise bulb temperature and cause some loss of protective coating.
88. If lamp is cracked or broken, replace immediately. The lamp may continue to light, but the inner bulb is pressurized and could unexpectedly shatter. Dispose of with care.
96. Under moist conditions, metal parts of lamp and lampholder may become a shock hazard. Therefore, disconnect from circuit before touching.
100. For use only where seal temperature does not exceed 650°F. For satisfactory lamp operation a minimum bulb wall temperature of 500°F. is required.
103. Life dependent on service conditions.
105. For a more uniform lighting pattern in display applications calling for ENL, use Precises lamp (Q50MR16/NFL30 (EXK).
106. Although made of heat-resistant glass, the bulb and lens should be protected from moisture or breakage may result. The lens or bulb may break during usage under certain other conditions beyond the control of the manufacturer. Therefore screening techniques are recommended where appropriate, to protect people and surroundings from hot fragments.
108. The bulb, although made of heat-resistant glass, may break if moisture falls on it. Lamp not recommended for use in enclosed close-fitting housings.
111. Flexible leads not included in maximum overall length.
112. This lamp is made of heat-resistant glass. It can be used indoors in an open fixture, and outdoors without moisture protection if burned base up to base horizontal in a neck sealed

Footnotes (con't):

gasketed-type lampholder. In other burning positions outdoors, protect lens and bulb from moisture, or breakage may result. Lamp is not recommended for enclosed, close-fitting housings.

113. Continuous operation of the lamp at full amperage for extended periods (longer than 100 hours), I or high duty cycle at high temperature may cause coating to delaminate (peel) near the center of the lamp lens.

114. Nickel plated brass base (NPBB).

120. Initial Avg. Max. Candlepower (Average over a 5 cone for SP and NSP and over a 10 cone for FL and NFL).

122. 36mm stranded leads with lug terminals.

123. Can be operated in any position, even vertically; however, when burned other than horizontally, the end marked "This End Up" on the sleeve base must be higher than other end of lamp.

125. Generally limited to intermittent burning in special equipment.

129. D.C. Bayonet (Ba15d) base with ring collar added. Light Center Length measured from plane of the three bosses on ring collar.

131. For use only with heat-resistant connector and with lamp supported by bulb rim.

132. For use only in equipment designed for lamps of this type and wattage, having ventilation adequate to maintain bulb and base temperatures within safe limits.

133. Lamp provides maximum filament straightness under severe operating conditions.

134. MOL dimension includes only length of quartz.

135. Filament: diameter, 3.6mm; length, 5.5mm (10%).

137. Filament: diameter, 1.5mm; length, 4.5mm (10%).

138. Filament: diameter, 1.5mm; length, 10mm (10%).

139. Filament: diameter, 3mm; length, 10mm (10%).

150. Filament dimension: diameter, 1.9mm; length, 6.4mm (10%).

151. Filament offset 0.0359 from center axis of lamp.

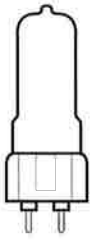
161. Approx. 1" (25mm) ribbon leads extending along axis of the lamp.

172. Initial average beam candlepower within cone is 15, 500.

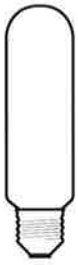
175. Approx. 1" ribbon leads extending normal to lamp axis in same plane as seals.

176. Recessed Single Contact base with metal ferrule. Designed for use only in special equipment, not for general use. The non-insulated ferrules are exposed and may be energized.

Double-Ended T



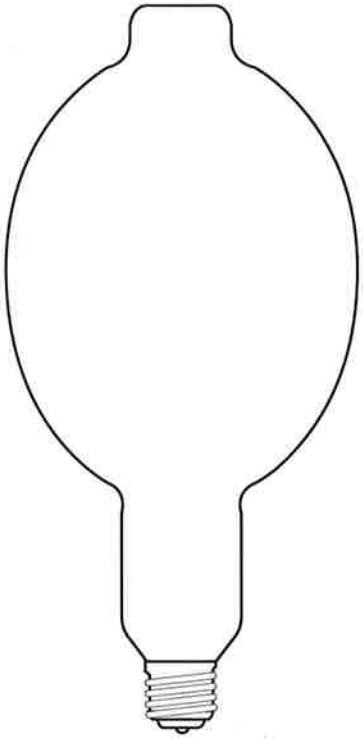
Single-Ended T



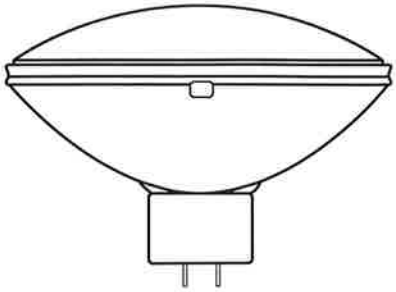
Single-Ended T

B
BD = Dimpled

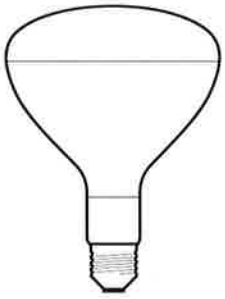
A



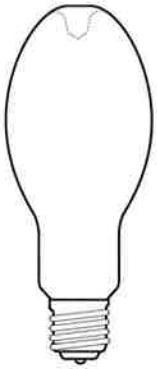
BT



PAR



R

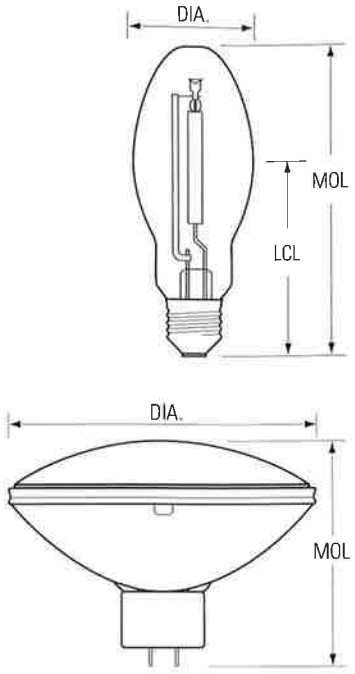


E
ED = Dimpled

HID Lamp Shapes

(drawings not to scale)

Bulb Identification:



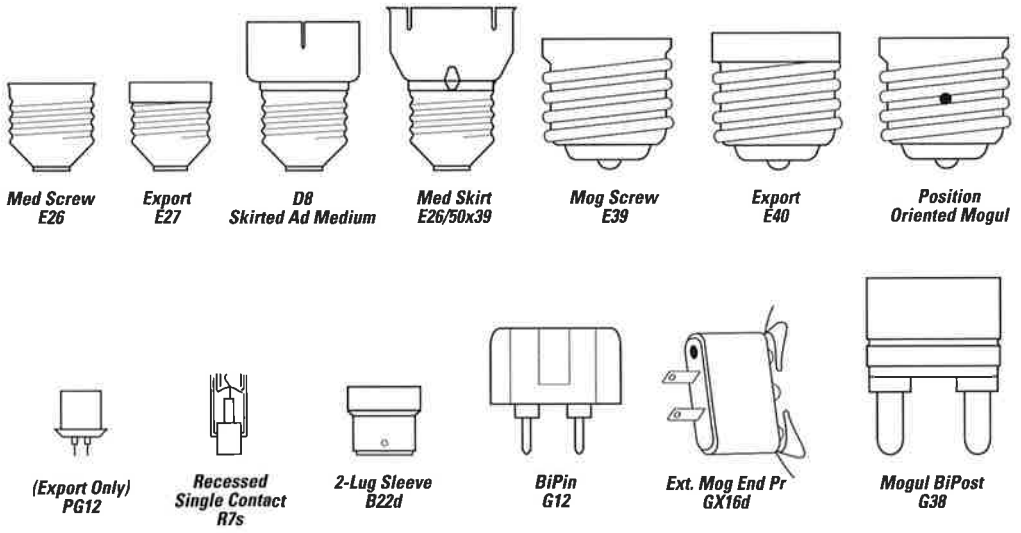
DIA. in. (mm):
Diameter of bulb at widest point.

MOL in. (mm):
Maximum Overall Length including base or pins.

LCL in. (mm):
Distance between the center of the arc tube and the Light Center Length reference plane.

Note: Lamp drawings are not drawn to scale. Be sure to check size and dimension information when identifying each lamp.

Base Identification:



Introduction

GE HID lamps provide the following benefits:

High Efficiency/Low Operating Cost.
HID is generally the most efficient light source. Better efficiency almost always means lower operating cost.

Long Life.
Most HID lamps have life ratings that are better than incandescent lamps and similar to fluorescent lamps.

Compact Size.
An HID lamp produces high light output from a relatively compact source. Like incandescent, it is a "point" light source, which allows for good optical control.

The following chart on the next page shows how HID lamps compare to incandescent, halogen, and fluorescent in terms of efficiency and rated average life. Efficiency is measured in lumens per watt (LPW). Rated average life for most lamp types is the number of burning hours when 50% of the tested samples have failed and 50% are still operational. For both HID and fluorescent, lamp life depends on the number of hours per start.

The combination of high efficiency and long life makes HID an ideal light source for many commercial and industrial applications.

Typical Lamp Characteristics

Lamp Type	Typical LPW	Rated Avg. Life (in hours)
Incandescent	5-22	750-2000
Halogen	12-36	2000-5000
Compact Fluorescent	27-80	9000-10,000
Fluorescent	75-100	12,000-24,000+
Mercury	50-60	12,000-24,000+
Multi-Vapor® metal halide	80-115	10,000-20,000
Lucalox® High Pressure Sodium	90-140	10,000-24,000+

Suggested Color Applications for HID Lamps:

Clear Mercury: Landscape lighting, specialized floodlighting such as green copper roofs.

MVR: Stores, public spaces, industrial, gymnasiums, floodlighting signs & buildings, parking areas, sports.

MVR/C: Same as MVR – warmer color – diffuse coating reduces glare.

MVR/SP30: Same as MVR – warmer than MVR or MVR/C – matches SP30 fluorescent.

Halarc: Stores, public spaces.

LU: Street lighting, parking areas, industrial, floodlighting, security, CCTV.

LU/DX: Floodlighting, parking areas, indoor/outdoor pedestrian malls, industrial, security, roadway.

Deluxe (DX) Mercury: Stores, public spaces – Multi-Vapor® lamps however, are preferred.

Warm Deluxe (WDX) Mercury: Stores – Halarc® or Multi-Vapor® lamps are preferred.

HID BRAND NAME CROSS-REFERENCE

GE	OSRAM/SYLVANIA	PHILIPS
Arcstream™ MQI, MBI	BRITE-LINE™, HQI®	MHN-TD
E-Z Lux®	Unalux®	Ceramalux™ Retrolux
E-Z Merc®	–	Self Ballasted Mercury
ChromaFit™ Multi-Vapor®	–	–
Deluxe Lucalox®	–	Ceramalux™ Comfort
Halarc®	Metalarc®	Metal Halide
Halarc® Open Fixture	Metalarc® Pro-Tech™	Protected Metal Halide
High Output Multi-Vapor®	Super Metalarc®	Metal Halide
I-Line Multi-Vapor®	–	–
Lucalox®	Lumalux®	Ceramalux™
Multi-Vapor®	Metalarc®	Metal Halide
MPR Protected High Output Multi-Vapor® Lamp	Metalarc® Pro-Tech™	–
Saf-T-Gard® Multi-Vapor®	Metalarc Safeline®	Safety Lifeguard Metal Halide
Saf-T-Gard® Mercury	Mercury Safeline®	Safety Lifeguard Mercury
SOX Low Pressure Sodium	SOX Low Pressure Sodium	SOX Low Pressure Sodium
Standby Lucalox®	Lumalux® Standby	Instant Strike Ceramalux™

ATTENTION: *This brand-name cross-reference chart is provided only as a quick reference. Other lamp company brand listings may only represent a near equivalent, versus an identical match to GE Lighting brands. Individual lamp manufacturers' performance specifications should be consulted. Lamp performance may be affected by environmental conditions, ballast type and/or other auxiliary equipment.*

Headings in this catalog section:

The following glossary of terms and descriptions can help you when checking High Intensity Discharge lamp specifications and when ordering products. Within each product line, lamps are divided into families. Within families, lamps are listed by wattage. In each of these wattage groups, lamps are listed in order alphabetically by bulb shape. To find your lamp, follow these simple steps:

When You Don't Know The Lamp Description:

1. Identify bulb shape by using table on page 3-1.
2. Measure bulb diameter using ruler in appendix section page 8-6 to determine width in eighths of an inch.
3. Identify base type using table on page 3-2.
4. Find your lamp in the tabular data containing the bulb shape, size and base, which are all listed by wattage.

Bulb: *Bulb shape followed by its size (the maximum diameter of the bulb expressed in eighths of an inch).*

Product Code: *It is important to use this five-digit code when ordering to ensure that you receive the exact product you require.*

Base: *The type of base.*

Lamp Designation: *The lamp's identification code.*

Case Quantity: *Number of product units packed in a case.*

Additional Information: *Typical application and/or other important information.*

Light Output - Initial: *Lamp light output (lumens) after the initial 100 hours of operation.*

ANSI Ballast Type: *Ballast type used to operate lamp.*

Light Output - Mean: *Lamp light output (lumens) at 40% of rated lamp life for Metal Halide lamps and 50% of rated life for Mercury and HPS lamps.*

Color Temperature Kelvins (K) - *A measure of the visual "warmth" or "coolness" of the light from the lamp. The higher the value the whiter or "cooler" the light appears.*

MOL in. (mm): *Maximum Overall Length in inches and millimeters.*

Rated Average Life - Hours: *Lamp burning hours to median life expectancy.*

LCL in. (mm): *Distance between the center of the arc tube and the Light Center Length reference plane, in inches and millimeters.*

Color Rendering Index (CRI or R_a): *An indication of the ability of the lamp to render object colors in a normal, natural way. The higher the number (0-100), the better the color appearance.*

Bulb	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	ANSI Ballast Type	Lumens Initial	Lumens Mean	Rated Avg. Life Hours	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CRI
High Output Multi-Vapor® Metal Halide Lamps															
ED37	Mog	49657	MVR400/VBU	6	Clear, vertical base up ±15° (7)*	M59	40000	32000	20000	11 5/16	(287)	7	(178)	4000	65
		49656	MVR400/C/VBU	6	Coated, vertical base up ±15° (7)*	M59	37600	30100	20000	11 5/16	(287)	7	(178)	3700	70

MVR 400 / C / VBU

- MVR — *Identifies as Multi-Vapor® lamp.*
- 400 — *Identifies the lamp's wattage.*
- C — *Outer Bulb Finish.*
- VBU — *Burning Position.*

Yellow Highlight *indicates that this is a reduced wattage option for lamps normally used in this application. Be sure to check wattage, lumens and life to determine which lamp is best suited to your needs.*

Blue Highlight *indicates that this is a lamp with high color rendering, which helps objects and persons illuminated to appear more true to life.*

( )* All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Halarc® Metal Halide Lamps

- Compact source
- Sparkling white light (3000-4000K) and very good color rendition (70-75CRI)
- High efficiency – 3+ times as much light per watt as incandescent systems
- Long life – up to 15 times longer than incandescent systems and up to 7 times longer than most PAR and R systems, saving maintenance and labor costs
- Superior optical control
- Uses: Display lighting, downlighting, floodlighting, corridors, lobbies, walkways; retail, office, commercial

ED17 Med

BD17 Med

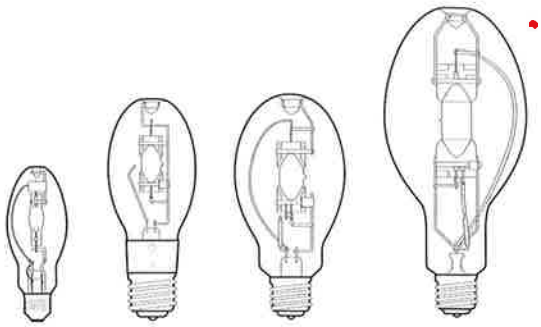
PAR38 Med

Bulb	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	ANSI Ballast Type	Light Output Initial	Light Output Mean	Rated Avg. Life Hours	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CRI
HALARC® METAL HALIDE LAMPS (For Open or Enclosed Fixtures)															
32 WATTS - For Open or Enclosed Fixtures															
ED17	Med	12651	MXR32/C/VBD/O	6	Coated, vertical base down ±15° (3)*	M100	2500	1900	10000	5 7/16	(138)	3 7/16	(87)	3200	70
		16469	MXR32/C/VBU/O	6	Coated, vertical base up ±15° (3)*	M100	2500	1900	10000	5 7/16	(138)	3 7/16	(87)	3200	70
	E27 Base - Export Lamp														
ED17	E27	16893	MXR32/C/VBU/O/27	6	Coated, vertical base up ±15° (3)*	M100	2500	1900	10000	5 1/2	(140)	3 1/2	(89)	3200	70
	HALARC® METAL HALIDE BALLASTS (Use only with 32-watt HALARC® lamps)														
		18778	HAL32/120	6	Halarc Ballast for 120v 60HZ service	-	-	-	-	-	-	-	-	-	-
		18776	HAL32/230	5	Halarc Ballast for 230v 50HZ service	-	-	-	-	-	-	-	-	-	-
70 WATTS - For Open or Enclosed Fixtures															
ED17	Med	12377	MXR70/U/MED/O	6	Clear (3)*	M98	5500	4000	12000	5 7/16	(138)	3 7/16	(87)	3200	70
		12577	MXR70/C/U/MED/O	6	Coated (3)*	M98	5300	3400	12000	5 7/16	(138)	3 7/16	(87)	3200	70
PAR38	Med	12741	MXR70/U/PAR/SP	12	Clear, Spot, Beam spread 12°, 50,000 CBCP (3)*	M98	3700	2740	7500	5 7/16	(138)	-	-	3000	70
		12745	MXR70/U/PAR/FL	12	Clear, Flood, Beam spread 40°, 6500 CBCP (3)*	M98	3700	2740	7500	5 7/16	(138)	-	-	3000	70
		12746	MXR70/U/PAR/WFL	12	Clear, Wide Flood, Beam spread 60°, 3600 CBCP (3)*	M98	3700	2740	7500	5 7/16	(138)	-	-	3000	70
100 WATTS - For Open or Enclosed Fixtures															
ED17	Med	12381	MXR100/U/MED/O	6	Clear (3)*	M90	9000	6400	15000	5 7/16	(138)	3 7/16	(87)	3200	70
		12579	MXR100/C/U/MED/O	6	Coated (3)*	M90	8500	5400	15000	5 7/16	(138)	3 7/16	(87)	3200	70
PAR38	Med	12747	MXR100/U/PAR/SP	12	Clear, Spot, Beam spread 12°, 54,000 CBCP (3)*	M90	5700	4330	7500	5 7/16	(138)	-	-	3000	70
		12748	MXR100/U/PAR/FL	12	Clear, Flood, Beam spread 40°, 10,000 CBCP (3)*	M90	5700	4330	7500	5 7/16	(138)	-	-	3000	70
		12749	MXR100/U/PAR/WFL	12	Clear, Wide Flood, Beam spread 60°, 5000 CBCP (3)*	M90	5700	4330	7500	5 7/16	(138)	-	-	3000	70
HALARC® METAL HALIDE LAMPS (For Enclosed Fixtures Only)															
50 WATTS - For Enclosed Fixtures Only															
BD17	Med	10361	MXR50/U/MED	6	Clear (3)*	M110	3500	2550	5000	5 7/16	(138)	3 7/16	(87)	3200	70
		10364	MXR50/C/U/MED	6	Coated (3)*	M110	3300	2500	5000	5 7/16	(138)	3 7/16	(87)	3200	70
		12581	MVR50/U/MED	6	Clear (3)*	M110	3000	2200	5000	5 7/16	(138)	3 7/16	(87)	4000	75
		12583	MVR50/C/U/MED	6	Coated (3)*	M110	2800	2000	5000	5 7/16	(138)	3 7/16	(87)	4000	75
70 WATTS - For Enclosed Fixtures Only															
BD17	Med	22158	MXR70/U/MED	6	Clear (3)*	M98	5500	4000	12000	5 7/16	(138)	3 7/16	(87)	3200	70
		22162	MXR70/C/U/MED	6	Coated (3)*	M98	5300	3400	12000	5 7/16	(138)	3 7/16	(87)	3200	70
		12590	MVR70/U/MED	6	Clear (3)*	M98	4700	3400	12000	5 7/16	(138)	3 7/16	(87)	4000	75
		12594	MVR70/C/U/MED	6	Coated (3)*	M98	4500	2900	12000	5 7/16	(138)	3 7/16	(87)	4000	75
100 WATTS - For Enclosed Fixtures Only															
BD17	Med	18680	MXR100/U/MED	6	Clear (3)*	M90	9000	6400	15000	5 7/16	(138)	3 7/16	(87)	3200	70
		18679	MXR100/C/U/MED	6	Coated (3)*	M90	8500	5400	15000	5 7/16	(138)	3 7/16	(87)	3200	70
		12652	MVR100/U/MED	6	Clear (3)*	M90	8100	5800	15000	5 7/16	(138)	3 7/16	(87)	4000	75
		12653	MVR100/C/U/MED	6	Coated (3)*	M90	7600	4900	15000	5 7/16	(138)	3 7/16	(87)	4000	75

(3)* All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Multi-Vapor® Metal Halide Lamps

- Sparkling white light (3000-4000K) and very good color rendition (70-75CRI)
- Warm, rich 3000K color of SP30 blends well with incandescent, halogen and triphosphor fluorescent lamps for interior retail applications
- High efficiency – more efficient than incandescent, mercury and most fluorescent sources
- Long life – 10,000-20,000 hours for most types
- Full line, 175-1000 watts, to meet most application needs
- Uses: Downlighting, floodlighting, corridors, lobbies, walkways; retail, commercial, industrial

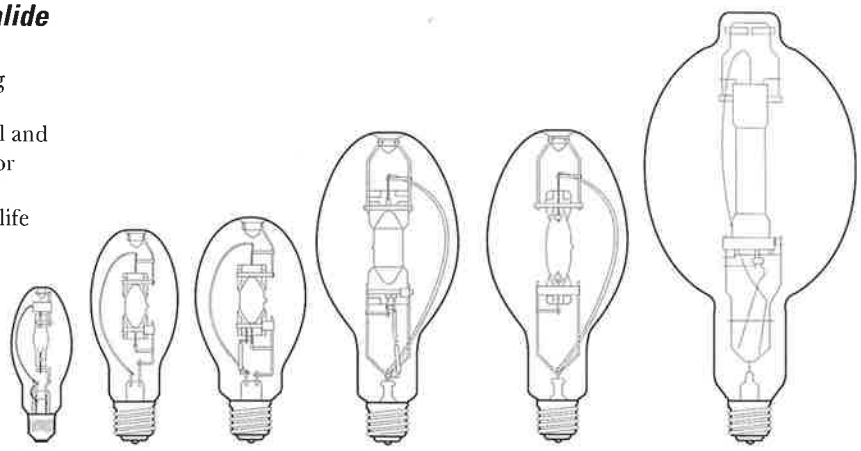


Bulb	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	ANSI Ballast Type	Light Output Initial	Light Output Mean	Rated Avg. Life Hours	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CRI
HALARC® METAL HALIDE LAMPS (For Enclosed Fixtures Only - con't)															
E27 Base - Export Lamps															
BD17	E27	18686	MXR100/U/27	6	Clear (3)*	-	9000	6400	15000	5 1/2	(140)	3 1/2	(89)	3200	70
		18684	MXR100/C/U/27	6	Coated (3)*	-	8500	5400	15000	5 1/2	(140)	3 1/2	(89)	3200	70
150 WATTS - For Enclosed Fixtures Only															
BD17	Med	22935	MXR150/U/MED	6	Clear (3)*	M102	13000	8700	15000	5 7/16	(138)	3 7/16	(87)	3200	70
		22936	MXR150/C/U/MED	6	Coated (3)*	M102	12500	7875	15000	5 7/16	(138)	3 7/16	(87)	3200	70
		12598	MVR150/U/MED	6	Clear (3)*	M102	11700	7850	15000	5 7/16	(138)	3 7/16	(87)	4000	75
		12604	MVR150/C/U/MED	6	Coated (3)*	M102	11200	7100	15000	5 7/16	(138)	3 7/16	(87)	4000	75
175 WATTS - For Enclosed Fixtures Only															
ED23 1/2	Mog	11420	MXR175/VBD	6	Clear, vertical base down ±15° (4,13)*	M57	16600	13300	10000	7 3/4	(197)	5	(127)	3200	70
		11417	MXR175/VBU	6	Clear, vertical base up ±15° (4,13)*	M57	16600	13300	10000	7 3/4	(197)	5	(127)	3200	70
		11203	MXR175/C/VBU	6	Coated, vertical base up ±15° (4,13)*	M57	15750	12150	10000	7 3/4	(197)	5	(127)	3200	70
E40 Base - Export Lamp															
ED23 1/2	E40/45	18952	MXR175/C/VBU/40	6	Coated, vertical base up ±15° (4,13)*	-	15750	12150	10000	7 7/8	(200)	5 1/8	(130)	3200	70
MULTI-VAPOR® METAL HALIDE LAMPS															
150 WATTS - WATT-MISER® For Enclosed Fixtures Only															
ED28	Mog	13481	MVR150/U/WM	12	Clear, Watt-Miser® (8,14)*	M57	13500 V 11500 H	10100 8600	10000 V 10000 H	8 1/4	(210)	5	(127)	4000	65
		13490	MVR150/C/U/WM	12	Coated, Watt-Miser® (8,14)*	M57	12800 V 10900 H	9600 7200	10000 V 10000 H	8 1/4	(210)	5	(127)	3700	70
175 WATTS - For Enclosed Fixtures Only															
BD17	Med	18902	MVR175/U/MED	6	Clear (8,14)*	M57	14000 V 12000 H	10350 8300	10000 V 6000 H	5 3/4	(146)	3 7/16	(87)	4000	65
		19976	MVR175/C/U/MED	6	Coated (8,14)*	M57	12350 V 11400 H	9950 7800	10000 V 6000 H	5 3/4	(146)	3 7/16	(87)	3900	65
ED28	Mog	47760	MVR175/U	12	Clear (8,14)*	M57	14000 V 12000 H	10350 8300	10000 V 6000 H	8 1/4	(210)	5	(127)	4000	65
		47761	MVR175/C/U	12	Coated (8,14)*	M57	13200 V 11300 H	9750 7800	10000 V 6000 H	8 1/4	(210)	5	(127)	3900	70
		17634	MVR175/SP30/U	12	RE730 phosphor coating (5,14)*	M57	12000 V 10300 H	8300 7100	10000 V 6000 H	8 1/4	(210)	5	(127)	3000	70
E40 Base - Export Lamps															
ED28	E40/45	47762	MVR175/U/40	12	Clear (8,14)*	-	14000	10350	10000	8 1/2	(216)	5 1/8	(130)	4000	65
		47763	MVR175/C/U/40	12	Coated (8,14)*	-	13200	9750	10000	8 1/2	(216)	5 1/8	(130)	3900	70
		17714	MVR175/SP30/U/40	12	RE730 phosphor coating (5,14)*	-	12000	8300	10000	8 1/2	(216)	5 1/8	(130)	3000	70
250 WATTS - For Enclosed Fixtures Only															
ED28	Mog	42729	MVR250/U	12	Clear (6,14)*	M58	21500 V 20000 H	17500 14500	10000 V 6000 H	8 1/4	(210)	5	(127)	4200	65
		42731	MVR250/C/U	12	Coated (6,14)*	M58	19800 V 18800 H	16400 13600	10000 V 6000 H	8 1/4	(210)	5	(127)	3900	70
		17633	MVR250/SP30/U	12	RE730 phosphor coating (6,14)*	M58	18000 V 17600 H	14200 13950	10000 V 6000 H	8 1/4	(210)	5	(127)	3000	70
E40 Base - Export Lamps															
ED28	E40/45	44542	MVR250/U/40	12	Clear (6,14)*	-	21500	17500	10000	8 1/2	(216)	5 1/8	(130)	4200	65
		44543	MVR250/C/U/40	12	Coated (6,14)*	-	19800	16400	10000	8 1/2	(216)	5 1/8	(130)	3900	70
		17715	MVR250/SP30/U/40	12	RE730 phosphor coating (6,14)*	-	18000	14200	10000	8 1/2	(216)	5 1/8	(130)	3000	70

( )* All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE High Performance High Output Metal Halide Lamps (/E Models)

- Designed for operation only on Magnetic Regulating ballasts, or CWA ballasts with ignitors
- More light – 400W lamps provide both highest initial and maintained lumens versus other standard universal or vertical base-up lamp options
- 50% longer life – 400W lamps provide 30,000 hours life when burned on 120 hour on/1 hour off cycle (approximately continuous)
- Faster hot restrike – less than 4 miunutes vs. 10-15 minutes for typical metal halide lamps

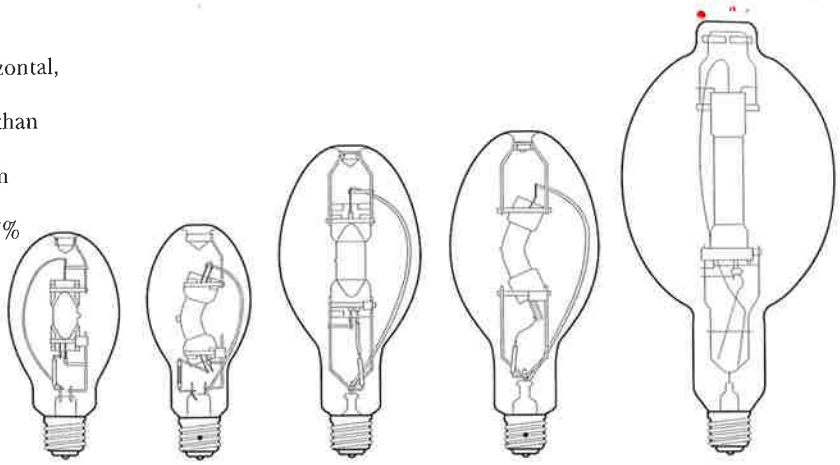


Bulb	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	ANSI Ballast Type	Light Output Initial	Light Output Mean	Rated Avg. Life Hours	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CRI
MULTI-VAPOR® METAL HALIDE LAMPS (con't)															
360 WATTS - WATT-MISER® For Open or Enclosed Fixtures															
ED37	Mog	13495	MVR360/VBU/WM	6	Clear, vertical base up ±15° (7)*	M59	36000	27000	20000	11 1/2	(292)	7	(178)	4000	65
		13496	MVR360/C/VBU/WM	6	Coated, vertical base up ±15° (7)*	M59	34200	25700	20000	11 1/2	(292)	7	(178)	3700	70
400 WATTS - In Burning Positions Other than VBU or VBD ± 15°, use in Enclosed Fixtures Only															
ED37	Mog	43828	MVR400/U	6	Clear (7,14)*	M59	36000 V 32000 H	28800 23700	20000 V 15000 H	11 5/16	(287)	7	(178)	4000	65
		43829	MVR400/C/U	6	Coated (7,14)*	M59	33900 V 30100 H	27100 22300	20000 V 15000 H	11 5/16	(287)	7	(178)	3700	70
		17632	MVR400/SP30/U	6	RE730 phosphor coating (6,14)*	M59	33000 V 31000 H	25000 23500	20000 V 15000 H	11 5/16	(287)	7	(178)	3000	70
ED28	Mog	18904	MVR400/U/ED28	12	Clear (8)*	M59	36000 V 32000 H	28800 23700	20000 V 15000 H	8 1/4	(210)	5	(127)	4000	65
		19979	MVR400/C/U/ED28	12	Coated (8)*	M59	33900 V 30100 H	25000 23500	20000 V 15000 H	8 1/4	(210)	5	(127)	3700	70
	E40 Base - Export Lamps														
ED37	E40/45	43907	MVR400/U/40	6	Clear (7,14)*	-	36000	28800	20000	11 5/8	(295)	7 3/16	(183)	4000	65
		43908	MVR400/C/U/40	6	Coated (7,14)*	-	33900	27100	20000	11 5/8	(295)	7 3/16	(183)	3700	70
		17716	MVR400/SP30/U/40	6	RE730 phosphor coating (6,14)*	-	33000	25000	20000	11 5/8	(295)	7 3/16	(183)	3000	70
1000 WATTS - In Burning Positions Other than VBU or VBD ± 15°, use in Enclosed Fixtures Only															
BT56	Mog	41826	MVR1000/U	6	Clear (6)*	M47	110000 V 107800 H	88000 86240	12000 V 9000 H	15 3/8	(391)	9 1/2	(241)	4000	65
		41827	MVR1000/C/U	6	Coated (6)*	M47	105000 V 100000 H	79800 76000	12000 V 9000 H	15 3/8	(391)	9 1/2	(241)	3400	70
	E40 Base - Export Lamps														
BT56	E40/45	41828	MVR1000/U/40	6	Clear (6)*	-	110000	88000	12000	15 5/32	(385)	9 5/32	(233)	4000	65
		41829	MVR1000/C/U/40	6	Coated (6)*	-	105000	79800	12000	15 5/32	(385)	9 5/32	(233)	3400	70
HIGH PERFORMANCE HIGH OUTPUT MULTI-VAPOR® METAL HALIDE LAMPS															
175 WATTS - For Enclosed Fixtures Only															
ED23 1/2	Mog	22342	MXR175/VBU/E	6	Clear, vertical base up ±15° (29)*	-	17100	14000	15000	7 1/2	(191)	5	(127)	3200	65
		11185	MXR175/C/VBU/E	6	Coated, vertical base up ±15° (29)*	-	16250	12500	15000	7 1/2	(191)	5	(127)	3200	65
		12622	MVR175/VBU/E	6	Clear, vertical base up ±15° (29)*	-	16800	13775	15000	7 1/2	(191)	5	(127)	4000	75
		12633	MVR175/C/VBU/E	6	Coated, vertical base up ±15° (29)*	-	15750	12130	15000	7 1/2	(191)	5	(127)	4000	75
BD17	Med	12634	MXR175/VBU/MED/E	6	Clear, vertical base up ± 15° (29)*	-	17100	14000	15000	5 3/4	(146)	3 7/16	(87)	3200	65
		12635	MXR175/C/VBU/MED/E	6	Coated, vertical base up ±15° (29)*	-	16250	12500	15000	5 3/4	(146)	3 7/16	(87)	3200	65
		12636	MVR175/VBU/MED/E	6	Clear, vertical base up ± 15° (29)*	-	16800	13800	15000	5 3/4	(146)	3 7/16	(87)	4000	75
		12637	MVR175/C/VBU/MED/E	6	Coated, vertical base up ±15°(29)*	-	15750	12100	15000	5 3/4	(146)	3 7/16	(87)	4000	75
400 WATTS - In Burning Positions Other than VBU or VBD ± 15°, use in Enclosed Fixtures Only															
ED37	Mog	12638	MXR400/VBU/E	6	Clear, vertical base up ±15° (29)*	-	44000	33900	20000	11 5/16	(287)	7	(178)	3200	65
		12640	MXR400/C/VBU/E	6	Coated, vertical base up ±15° (29)*	-	42000	30250	20000	11 5/16	(287)	7	(178)	3200	65
		12642	MVR400/VBU/E	6	Clear, vertical base up ±15° (29)*	-	44000	33900	20000	11 5/16	(287)	,7	(178)	4000	65
		12644	MVR400/C/BU/E	6	Coated, vertical base up ±15° (29)*	-	42000	30250	20000	11 5/16	(287)	7	(178)	4000	65

( )* All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE High Output Multi-Vapor® Lamps

- More light – optimized for higher light output in horizontal, vertical base-up and base-down burn applications
  - Horizontal burn lamps provide up to 25% more light than standard universal burn equivalents
  - Vertical burn lamps provide up to 11% more light than standard universal burn equivalents
  - *NEW* 400W"/XL" vertical burn lamps provide up to 17% more light than standard universal burn equivalents; the highest lumen lamps available for operation on standard M59 ballasts
- Longer life – horizontal burn lamps last up to 67% longer than universal burn lamp equivalents, significantly reducing replacement lamp and maintenance costs
- For any application where fixed orientation lamps can be used. Gas stations, sports lighting, billboards, retail, office, roadway, parking garages, floodlights, sign lighting



ED28 Mog | ED28 Pos Mog | ED37 Mog | ED37 Pos Mog | BT56 Mog

Bulb	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	ANSI Ballast Type	Light Output Initial	Light Output Mean	Rated Avg. Life Hours	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CRI
MULTI-VAPOR® METAL HALIDE LAMPS (con't)															
HIGH OUTPUT MULTI-VAPOR® METAL HALIDE LAMPS															
175 WATTS - For Enclosed Fixtures Only															
ED28	Pos Mog	18104	MVR175/HOR	12	Clear, horizontal burn ±15° position-oriented socket required (7)*	M57	15000	12000	10000	8 1/4	(210)	5	(127)	4000	65
		18105	MVR175/C/HOR	12	Coated, horizontal burn ±15° position-oriented socket required (7)*	M57	14100	11300	10000	8 1/4	(210)	5	(127)	3500	70
250 WATTS - For Enclosed Fixtures Only															
ED28	Pos Mog	18101	MVR250/HOR	12	Clear, horizontal burn ±15° position-oriented socket required (7)*	M58	23000	16800	15000	8 1/4	(210)	5	(127)	4200	65
		18103	MVR250/C/HOR	12	Coated, horizontal burn ±15° position-oriented socket required (7)*	M58	21600	15800	15000	8 1/4	(210)	5	(127)	3600	70
400 WATTS - In Burning Positions Other than VBU or VBD ± 15°, use in Enclosed Fixtures Only															
ED37	Mog	49657	MVR400/VBU	6	Clear, vertical base up ±15° (7)*	M59	40000	32000	20000	11 5/16	(287)	7	(178)	4000	65
		49656	MVR400/C/VBU	6	Coated, vertical base up ±15° (7)*	M59	37600	30100	20000	11 5/16	(287)	7	(178)	3700	70
		49655	MVR400/VBD	6	Clear, vertical base down ±15° (7)*	M59	40000	32000	20000	11 5/16	(287)	7	(178)	4000	65
		20931	MVR400/SP30/VBU	6	RE730 phosphor coating, vertical base up ±15° (6)*	M59	36000	27300	20000	11 5/16	(287)	7	(178)	3200	70
	Pos Mog	18096	MVR400/HOR	6	Clear, horizontal burn ±15° (7)*	M59	40000	32000	20000	11 1/2	(292)	7	(178)	4200	65
		18097	MVR400/C/HOR	6	Coated, horizontal burn ±15° (7)*	M59	37600	30100	20000	11 1/2	(292)	7	(178)	4000	70
	Mog	13923	MVR400/VBU/XL	6	Clear, vertical base up ±15° (6)*	M59	42000	34000	20000	11 5/16	(287)	7	(178)	4000	65
		13924	MVR400/C/VBU/XL	6	Coated, vertical base up ±15° (6)*	M59	39600	32000	20000	11 5/16	(287)	7	(178)	3700	70
	E40 Base - Export Lamps														
ED37	E40/45	49860	MVR400/VBU/40	6	Clear, vertical base up ±15° (7)*	-	40000	32000	20000	11 5/8	(295)	7 3/16	(183)	4000	65
		49857	MVR400/C/VBU/40	6	Coated, vertical base up ±15° (7)*	-	37600	30100	20000	11 5/8	(295)	7 3/16	(183)	3700	70
		13583	MVR400/VBU/XL/40	6	Clear, vertical base up ±15° (6)*	-	42000	34000	20000	11 5/8	(295)	7 3/16	(183)	4000	65
		13920	MVR400/C/VBU/XL/40	6	Coated, vertical base up ±15° (6)*	-	39600	32000	20000	11 5/8	(295)	7 3/16	(183)	3700	70
		21440	MVR400/SP30/VBU/40	6	RE730 phosphor coating, vertical base up ±15° (6)*	-	36000	27300	20000	11 5/8	(295)	7 3/16	(183)	3200	70
1000 WATTS - For Open or Enclosed Fixtures															
BT56	Mog	44835	MVR1000/VBU	6	Clear, vertical base up ±15° (6)*	M47	115000	92000	12000	15 3/8	(391)	9 1/2	(241)	3800	65
		13137	MVR1000/C/VBU	6	Coated, vertical base up ±15° (6)*	M47	110000	83600	12000	15 3/8	(391)	9 1/2	(241)	3400	70
		10390	MVR1000/VBD	6	Clear, vertical base down ±15° (6)*	M47	115000	92000	12000	15 3/8	(391)	9 1/2	(241)	3800	65
1500 WATTS - For Enclosed Fixtures Only															
BT56	Mog	37405	MVR1500/HBU	6	Clear, base up to 15° below horizontal (6,17)*	M48	155000 V 150000 H	140000 135000	3000 V 3000 H	15 3/8	(391)	9 1/2	(241)	3600	65
		37406	MVR1500/HBD	6	Clear, base down to 15° above horizontal (6,17)*	M48	155000 V 150000 H	140000 135000	3000 V 3000 H	15 3/8	(391)	9 1/2	(241)	3600	65

( )* All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Protected High Output Multi-Vapor® Lamps (MPR)

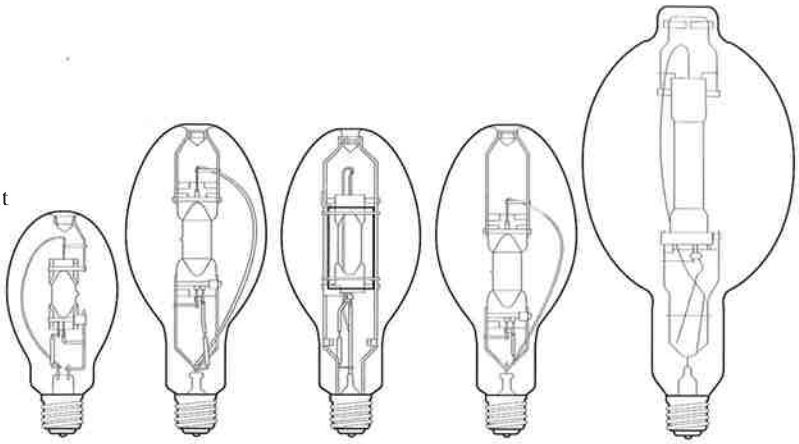
- Protective quartz jacket surrounds the arc tube
- For open fixture applications

GE ChromaFit™ Multi-Vapor® Lamps

- The advantages of metal halide lighting for HPS users
- Converts high pressure sodium sockets to crisp white metal halide light
- Operates on standard HPS ballasts and auxiliary equipment

GE I-Line Multi-Vapor® Lamps

- Converts mercury sockets to crisp white metal halide light
- More light, better color, energy cost savings for mercury users
- 40%-100% more light than existing mercury lamps
- Operates on standard mercury ballasts and auxiliary equipment
- Uses: General lighting, industrial
- See operating notes for further information



ED28 Mog | ED37 Mog | ED37 Mog (MPR) | ED37 Mog (Chromafit) | BT56 Mog

Bulb	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	ANSI Ballast Type	Light Output Initial	Light Output Mean	Rated Avg. Life Hours	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CRI
MULTI-VAPOR® METAL HALIDE LAMPS (con't)															
PROTECTED HIGH OUTPUT MULTI-VAPOR® LAMPS															
400 WATTS - For Open or Enclosed Fixtures															
ED37	Mog	18708	MPR400/VBU/O	6	Clear, vertical base up ±15° shrouded arc tube (7)*	M59	38000	30500	20000	11 5/16	(287)	7	(178)	3400	65
		13582	MPR400/C/VBU/O	6	Coated, vertical base up ±15° shrouded arc tube (7)*	M59	35000	27000	20000	11 5/16	(287)	7	(178)	3200	70
	E40 Base - Export Lamp														
ED37	E40/45	18709	MPR400/VBU/O/40	6	Clear, vertical base up ±15° shrouded arc tube (7)*	-	38000	30500	20000	11 5/8	(295)	7 3/16	(183)	3400	65
CHROMAFIT™ MULTI-VAPOR® LAMPS (HPS RETROFIT LAMPS)															
250 WATTS - For Enclosed Fixtures Only															
ED28	Mog	12762	MVR250/VBU/R	12	Clear HPS Retrofit, vertical base up ±15° (3)*	S50	18500	13875	10000	8 1/4	(210)	5 3/4	(146)	4500	65
		12769	MVR250/C/VBU/R	12	Coated HPS Retrofit, vertical base up ±15° (3)*	S50	18000	12960	10000	8 1/4	(210)	5 3/4	(146)	4000	70
400 WATTS - For Open or Enclosed Fixtures															
ED37	Mog	12770	MVR400/VBU/R	6	Clear HPS Retrofit, vertical base up ±15° (3)*	S51	40000	30000	20000	11 1/2	(292)	5 3/4	(146)	4500	65
		12772	MVR400/C/VBU/R	6	Coated HPS Retrofit, vertical base up ±15° (3)*	S51	36500	26280	20000	11 1/2	(292)	5 3/4	(146)	4000	70
I-LINE MULTI-VAPOR® LAMPS (MERCURY RETROFIT LAMPS)															
325 WATTS - In Burning Positions Other than VBU or VBD ± 15°, use in Enclosed Fixtures Only															
ED37	Mog	10687	MVR325/I/U/WM	6	Clear, energy-saving retrofit for 400W Mercury, Watt-Miser® (5,14,19)*	H33	28000 V 26000 H	18200 16400	20000 V 10000 H	11 5/16	(287)	7	(178)	4000	65
		10688	MVR325/C/I/U/WM	6	Coated, energy-saving retrofit for 400W Mercury, Watt-Miser® (5,14,20)*	H33	26300 V 26000 H	17100 15800	20000 V 10000 H	11 5/16	(287)	7	(178)	3700	70
400 WATTS - In Burning Positions Other than VBU or VBD ± 15°, use in Enclosed Fixtures Only															
ED37	Mog	43817	MVR400/I/U	6	Clear, retrofit for 400W Mercury (14,21)*	H33	36000 V 32000 H	21600 18400	15000 V 10000 H	11 5/16	(287)	7	(178)	4000	65
		43818	MVR400/C/I/U	6	Coated, retrofit for 400W Mercury (14,22)*	H33	33800 V 32000 H	20300 15600	15000 V 10000 H	11 5/16	(287)	7	(178)	3700	70
950 WATTS - For Open or Enclosed Fixtures															
BT56	Mog	42789	MVR950/I/VBD	6	Clear, energy-saving retrofit for 1000W Mercury, vertical base down ±15° (27)*	H36	100000	80000	12000	15 1/16	(383)	9 1/2	(241)	3800	65
		39097	MVR950/I/VBU	6	Clear, energy-saving retrofit for 1000W Mercury, vertical base up ±15° (27)*	H36	100000	80000	12000	15 1/16	(383)	9 1/2	(241)	3800	65

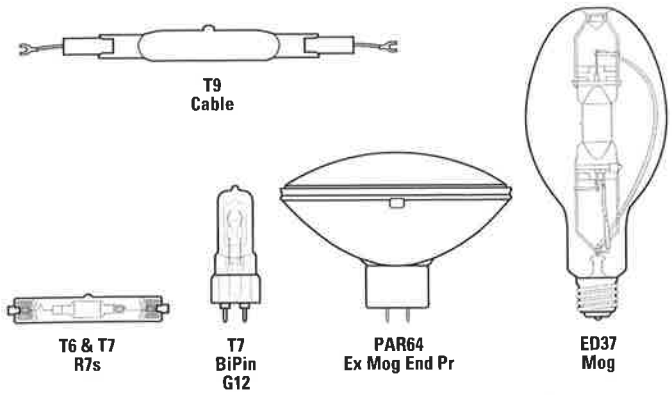
( )* All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Saf-T-Gard® Multi-Vapor Lamps (MVT)

- Converts mercury sockets to crisp white metal halide light
- Special self-extinguishing feature prevents exposure to harmful UV in case outer bulb is punctured or broken; lamp turns off within 15 minutes
- Certified to meet Federal Standard 21CFR1040.30
- Operates on standard mercury ballasts and auxiliary equipment
- Uses: Industrial, commercial, gymnasiums, sports complexes, especially where open fixtures are used and risk of outer bulb breakage is possible
- See operating notes for further information

GE Arcstream™ Compact Metal Halide Lamps

- Compact size, white light, excellent color
- Precise optical control delivers a concentrated beam of light right where it's needed
- Choice of warm or cool color temperature
- Uses: Ideal for retail and commercial display lighting, floodlighting, accent/highlighting
- See operating notes for further information



Bulb	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	ANSI Ballast Type	Light Output Initial	Light Output Mean	Rated Avg. Life Hours	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CRI
MULTI-VAPOR® METAL HALIDE LAMPS (con't)															
SAF-T-GARD® SELF-EXTINGUISHING MULTI-VAPOR® LAMPS (MERCURY RETROFIT LAMPS)															
325 WATTS - In Burning Positions Other than VBU or VBD ±15°, use in Enclosed Fixtures Only															
ED37	Mog	11148	MVT325/I/U/WM	6	Clear, energy-saving retrofit for 400W Mercury, Watt-Miser® (4,14,23)*	H33	26700 V 24800 H	17350 15600	15000 V 10000 H	11 5/16	(287)	7	(178)	4000	65
		11149	MVT325/C/I/U/WM	6	Coated, energy-saving retrofit for 400W Mercury, Watt-Miser® (4,14,24)*	H33	25100 V 24800 H	16400 15100	15000 V 10000 H	11 5/16	(287)	7	(178)	3700	70
400 WATTS - In Burning Positions Other than VBU or VBD ±15°, use in Enclosed Fixtures Only															
ED37	Mog	11146	MVT400/I/U	6	Clear retrofit for 400W Mercury (14,25)*	H33	34300 V 32000 H	20600 18400	15000 V 10000 H	11 5/16	(287)	7	(178)	4000	65
		11119	MVT400/C/I/U	6	Coated retrofit for 400W Mercury (14,26)*	H33	32200 V 32000 H	19400 17600	15000 V 10000 H	11 5/16	(287)	7	(178)	3700	70
400 WATTS - For Use in Open or Enclosed Fixtures															
ED37	Mog	11144	MVT400/VBU	6	Clear retrofit for 400W Mercury, vertical base up ±15° (7)*	H33	37400	29900	20000	11 5/16	(287)	7	(178)	4000	65
		11145	MVT400/C/VBU	6	Coated retrofit for 400W Mercury, vertical base up ±15° (7)*	H33	35500	28100	20000	11 5/16	(287)	7	(178)	3700	70
ARCSTREAM™ COMPACT METAL HALIDE LAMPS															
70 WATTS - For Enclosed Fixtures Only															
T6	R7s	17443	MQI/70/T6/30	12	Clear, Horizontal burn ±45°	M85	6000	3900	6000	4 11/16	(119)	-	-	3000	75
		34592	MQI/70/T6/43	12	Clear, Horizontal burn ±45°	M85	6000	4100	6000	4 11/16	(119)	-	-	4300	75
150 WATTS - For Enclosed Fixtures Only															
T7	Bipin	21053	MBI150/T/30	10	Clear	M81	11500	9000	6000	3	(76)	2 1/4	(57)	3000	80
		21054	MBI150/T/40	10	Clear	M81	11250	8800	6000	3	(76)	2 1/4	(57)	4000	80
	R7s	30095	MQI/150/T7/30	12	Clear, Horizontal ±45°	M81	11250	10000	6000	5 3/8	(137)	-	-	3000	75
		17445	MQI/150/T7/43	12	Clear, Horizontal ±45°	M81	11250	10000	6000	5 3/8	(137)	-	-	4300	75
150 WATTS - For Open or Enclosed Fixtures															
PAR64	ExMog EndPr	30080	MBI150/PAR64/30M	1	Clear, Medium Beam, 13° beam spread, 50,000 CBCP	M81	11500	9000	6000	5 1/4	(133)	-	-	3000	80
		21285	MBI150/PAR64/30N	1	Clear, Narrow Beam, 3° beam spread, 300,000 CBCP	M81	11500	9000	6000	5 1/4	(133)	-	-	3000	80
1500 WATTS - For Enclosed Fixtures Only															
T7	Rx7s	30061	MBI1500/L/H	1	Clear	-	120000	90000	6000	10 1/8	(257)	5	(127)	5200	65
2000 WATTS - For Enclosed Fixtures Only															
T9	Cable	12275	MQI2000/T9/40	10	Clear	-	200000	160000	3000	10	(254)	5	(127)	4000	65

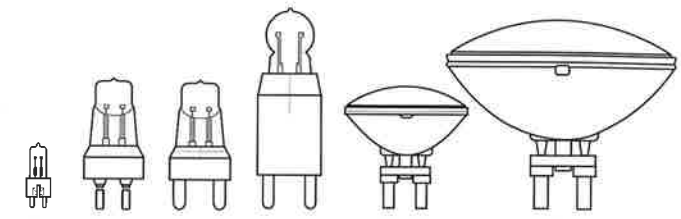
( )* All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Xenon Metal Halide Lamp

- Designed and optimized for fiber optic systems
- Highly efficient – consumes 70% less power than a comparable single-ended metal halide lamp providing the same incident lumens
- Rapid start – delivers 50% of rated light output in less than 20 seconds

GE CSI PAR64 Lamps

- A new dimension in floodlighting design – provides a spotlight rather than the wide beam of flood or linear lamps
- Extremely accurate optical control provided by built-in reflector system
- Ideal for long range projection of light
- High efficiency/Long life mean lower operational and maintenance costs vs. incandescent floodlighting systems
- Excellent CRI (80), cool color (4000K)
- Uses: Indoor/Outdoor sports lighting, general floodlighting



GE Compact Iodide Daylight Lamps

- Simulates natural daylight with 5500K color temperature and high 85 CRI
- Three times as efficient as Halogen

Bulb	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	ANSI Ballast Type	Light Output Initial	Light Output Mean	Rated Avg. Life Hours	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CRI
XENON METAL HALIDE LAMP															
60 WATTS															
		12374	XMH60	10	Clear, 60-watt source for fiber optic systems, arc gap 2.7mm, vertical base up ±15	-	2000	1500	4000	-	-	-	-	4000	65
XENON METAL HALIDE BALLASTS															
		12375	XMH60-120	10	Xenon Metal Halide Ballast, 120 volt	-	-	-	20000	-	-	-	-	-	-
		12376	XMH60-230	10	Xenon Metal Halide Ballast, 230 volt	-	-	-	20000	-	-	-	-	-	-
CSI - Compact Source Iodide Metal Halide Lamps															
1000 WATTS - For Open or Enclosed Fixtures															
PAR64	G38	29333	CSI1000/SB/G38	1	Clear, Narrow Spot, 6° beam spread 1,350,000 CBCP	-	76000	55000	3500	6 7/8	(175)	-	-	4000	80
		29336	CSI1000/SB/HR/G38	1	Clear, Narrow Spot, 6° beam spread, 1,350,000 CBCP, Hot Restrike	-	76000	55000	3500	6 7/8	(175)	-	-	4000	80
COMPACT IODIDE DAYLIGHT METAL HALIDE LAMPS															
200-2500 WATTS															
Capsule	Bi-pin	30560	CID200HR	4	Hot Restrike	-	14000	-	150	2 1/4	(57)	1 7/16	(37)	5500	85
	G22	30563	CID575	4		-	40250	-	500	3 11/16	(94)	2 1/16	(52)	5500	85
PAR46	G38	28869	CID575PAR46HR	6	425,000 peak beam CP, Hot Restrike	-	-	-	1000	-	-	-	-	5500	85
Capsule	G22	30561	CID1000G22	4		-	70000	-	500	4 17/32	(115)	2 17/32	(64)	5500	85
	G38	30564	CID1000G38HR	4	Hot Restrike	-	70000	-	500	4 17/32	(115)	2 17/32	(64)	5500	85
PAR64	G38	30360	CID1000PAR64	1	850,000 Peak beam CP	-	-	-	1500	-	-	-	-	5500	85
		30371	CID1000PAR64HR	1	850,000 Peak beam CP, Hot Restrike	-	-	-	1000	-	-	-	-	5500	85
		30372	CID1200PAR64HR	1	820,000 Peak beam CP, Hot Restrike	-	-	-	1000	-	-	-	-	5500	85
Capsule	G38	30567	CID2500HR	1	Hot Restrike	-	200000	-	350	6 7/8	(175)	5	(127)	5500	85

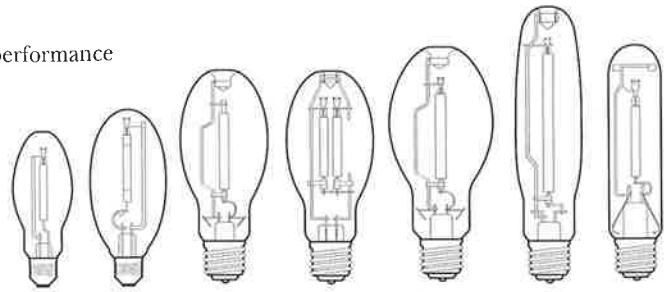
( )* All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Lucalox® High Pressure Sodium (HPS) Lamps

- Very high efficiency/low operating cost
- Superior lumen maintenance – over 90% @ 50% of life
- Very long life – 24,000+ hours
- Universal burn– can be operated in any position without affecting performance
- Warm color
- For open or enclosed fixtures
- Uses: Industrial, roadway, security, floodlighting

GE Standby (SBY) Lucalox® Lamps

- Extra arc tube provides light instantly after momentary power interruption, and will increase to full light output in 1-2 minutes (this feature is applicable provided neither arc tube has reached end of life)
- Dual arc tubes provide 40,000 hour rated life
- Uses: Industrial, roadway, security
- Operates on standard HPS ballasts and auxiliary equipment



B17 Med | E21 E27 | ED23.5 Mog | ED23.5 Mog (SBY) | ED28 Mog | ED18 Mog | T14.5 E40/45

Bulb	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	ANSI Ballast Type	Light Output Initial	Light Output Mean	Rated Avg. Life Hours	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CRI
LUCALOX® HIGH PRESSURE SODIUM (HPS) LAMPS															
35 WATTS															
B17	Med	11668	LU35/MED	6	Clear (3)*	S76	2250	2025	16000	5 7/16	(138)	3 7/16	(87)	1900	22
		11669	LU35/D/MED	6	Diffuse (3)*	S76	2150	1935	16000	5 7/16	(138)	3 7/16	(87)	1900	22
50 WATTS															
B17	Med	11345	LU50/MED	6	Clear (3)*	S68	4000	3600	24000+	5 7/16	(138)	3 7/16	(87)	1900	22
		11347	LU50/D/MED	6	Diffuse (3)*	S68	3800	3420	24000+	5 7/16	(138)	3 7/16	(87)	1900	22
ED23 1/2	Mog	44975	LU50	12	Clear (3)*	S68	4000	3600	24000+	7 3/4	(197)	5	(127)	1900	22
		45006	LU50/D	12	Diffuse (3)*	S68	3800	3420	24000+	7 3/4	(197)	5	(127)	1900	22
E27 Base - Export Lamp															
E21	E27	10794	LU50/90/D/27	12	Diffuse (3)*	-	3300	2970	24000+	5 5/16	(135)	4 5/32	(106)	1900	22
70 WATTS															
B17	Med	11339	LU70/MED	6	Clear (3)*	S62	6400	5450	24000+	5 7/16	(138)	3 7/16	(87)	1900	22
		11340	LU70/D/MED	6	Diffuse (3)*	S62	5950	5050	24000+	5 7/16	(138)	3 7/16	(87)	1900	22
ED23 1/2	Mog	44033	LU70	12	Clear (3)*	S62	6400	5450	24000+	7 3/4	(197)	5	(127)	1900	22
		44035	LU70/D	12	Diffuse (3)*	S62	5950	5050	24000+	7 3/4	(197)	5	(127)	1900	22
		19264	LU70/SBY	12	Clear, Standby-Dual arc tube (3)*	S62	6400	5050	40000	7 3/4	(197)	5	(127)	1900	22
E27 Base - Export Lamps															
E21	E27	10405	LU70/90/27	12	Clear (3)*	-	6000	5400	24000+	5 5/16	(135)	4 5/32	(106)	1900	22
		10101	LU70/90/D/27	12	Diffuse (3)*	-	5800	5220	24000+	5 5/16	(135)	4 5/32	(106)	1900	22
100 WATTS															
B17	Med	13250	LU100/MED	6	Clear (3)*	S54	9500	8550	24000+	5 1/2	(140)	3 7/16	(87)	2000	22
		13251	LU100/D/MED	6	Diffuse (3)*	S54	8800	7920	24000+	5 1/2	(140)	3 7/16	(87)	2000	22
ED23 1/2	Mog	44037	LU100	12	Clear (3)*	S54	9500	8550	24000+	7 3/4	(197)	5	(127)	2000	22
		44038	LU100/D	12	Diffuse (3)*	S54	8800	7920	24000+	7 3/4	(197)	5	(127)	2000	22
		19265	LU100/SBY	12	Clear, Standby-Dual arc tube (3)*	S54	9500	8190	40000	7 3/4	(197)	5	(127)	2000	22
E40 Base - Export Lamps															
ED23 1/2	E40/45	17589	LU100/100/D/40	12	Diffuse (3)*	-	9200	7820	24000+	7 5/16	(186)	5	(127)	2000	22
T14 1/2	E40/45	17590	LU100/100/T/40	12	Clear (3)*	-	9600	8160	24000+	8 1/4	(210)	5	(127)	2000	22
150 WATTS															
B17	Med	13252	LU150/MED	6	Clear (2,10)*	S55	16000	14400	24000+	5 3/4	(146)	3 1/2	(89)	2000	22
		13253	LU150/D/MED	6	Diffuse (2,10)*	S55	15000	13500	24000+	5 3/4	(146)	3 1/2	(89)	2000	22
ED23 1/2	Mog	44043	LU150/55	12	Clear (2,10)*	S55	16000	14400	24000+	7 3/4	(197)	5	(127)	2000	22
		44045	LU150/55/D	12	Diffuse (2,10)*	S55	15000	13500	24000+	7 3/4	(197)	5	(127)	2000	22
		19266	LU150/55/SBY	12	Clear, Standby-Dual arc tube (2, 10)*	S55	16000	14000	40000	7 3/4	(197)	5	(127)	2000	22
ED28	Mog	44243	LU150/100	12	Clear (2,11)*	S56	15000	13500	24000+	8 5/16	(211)	5	(127)	2000	22
		18245	LU150/100/D	12	Diffuse (2,11)*	S56	14000	12600	24000+	8 5/16	(211)	5	(127)	2000	22
E40 Base - Export Lamps															
ED23 1/2	E40/45	44044	LU150/55/40	12	Clear (2,10)*	-	16000	14400	24000+	7 15/16	(202)	5 5/32	(131)	2000	22
T14 1/2	E40/45	44244	LU150/100/40	12	Clear (2,11)*	-	15000	13500	24000+	8 1/4	(210)	5 5/32	(131)	2000	22
ED28	E40/45	44245	LU150/100/D/40	12	Diffuse (2,11)*	-	14000	12600	24000+	8 7/16	(214)	5 5/32	(131)	2000	22
200 WATTS															
ED18	Mog	44206	LU200	12	Clear (2)*	S66	22000	19800	24000+	9 3/4	(248)	5 3/4	(146)	2100	22

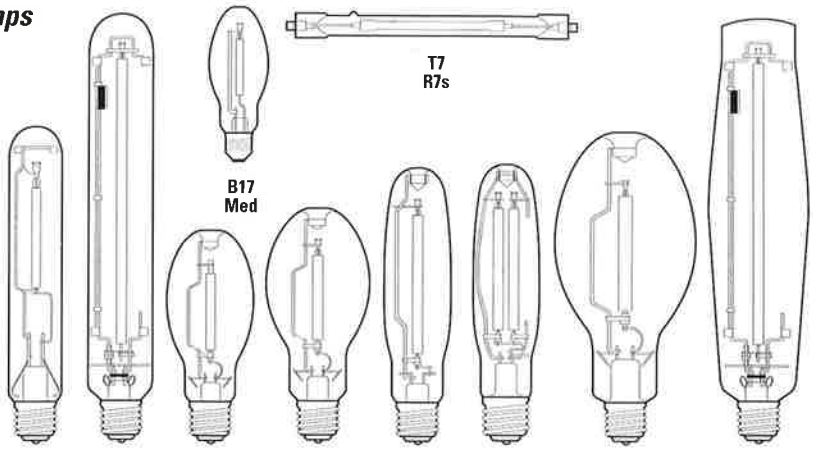
( )* All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Deluxe Lucalox® High Pressure Sodium Lamps

- High efficiency, lumen maintenance and long life of standard Lucalox HPS
- High color rendering (65-70CRI), much better than standard HPS
- Blends well with incandescent and standard HPS sources
- Operates on standard HPS ballasts and auxiliary equipment
- Highly versatile light source... storage rooms, industrial facilities, offices, gymnasiums, malls, parks, building floodlighting

GE Double-Ended Lucalox® Lamps (/TD Models)

- Compact tubular design fits compact fixtures for excellent optical control
- High efficiency, lumen maintenance and long life of standard Lucalox HPS



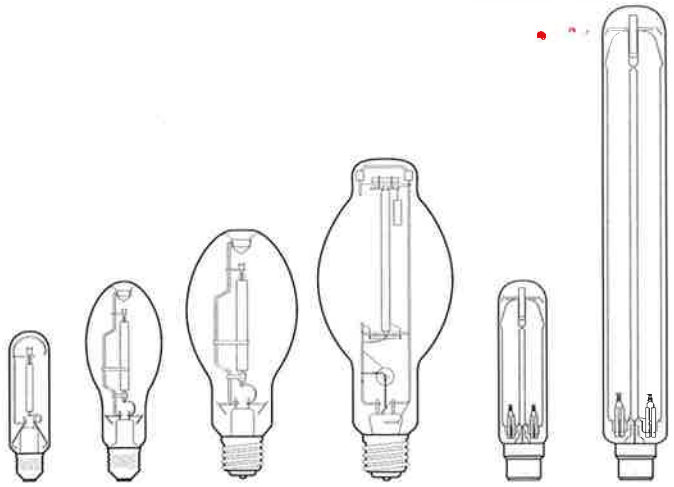
Bulb	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	ANSI Ballast Type	Light Output Initial	Light Output Mean	Rated Avg. Life Hours	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CRI
LUCALOX® HIGH PRESSURE SODIUM (HPS) LAMPS (con't)															
250 WATTS															
ED18	Mog	44047	LU250	12	Clear (1)*	S50	28000	27000	24000+	9 3/4	(248)	5 3/4	(146)	2100	22
		44049	LU250/S	12	Clear (3)*	S50	30000	28000	24000+	9 3/4	(248)	5 3/4	(146)	2100	22
		19270	LU250/SBY	12	Clear, Standby-Dual arc tube (1)*	S50	27500	24750	40000	9 3/4	(248)	5 3/4	(146)	2100	22
		44051	LU250/D	12	Diffuse (1)*	S50	26000	23400	24000+	9	(229)	5	(127)	2100	22
	E40 Base - Export Lamps														
ED18	E40/45	44048	LU250/40	12	Clear (1)*	-	28000	27000	24000+	9 15/16	(252)	5 29/32	(150)	2100	22
		44052	LU250/D/40	12	Diffuse (1)*	-	26000	23400	24000+	9 1/8	(232)	5 3/8	(137)	2100	22
T14 1/2	E40/45	22453	LU250/T/40	12	Clear (1)*	-	27500	24750	24000+	10 1/4	(260)	6 7/32	(158)	2100	22
310 WATTS															
ED18	Mog	44053	LU310	12	Clear (2)*	S67	37000	33300	24000+	9 3/4	(248)	5 3/4	(146)	2100	22
400 WATTS															
ED18	Mog	44054	LU400	12	Clear (2)*	S51	51000	45000	24000+	9 3/4	(248)	5 3/4	(146)	2100	22
		19272	LU400/SBY	12	Clear, Standby-Dual arc tube (2)*	S51	50000	45000	40000	9 3/4	(248)	5 3/4	(146)	2100	22
ED37	Mog	44056	LU400/D	6	Diffuse (2)*	S51	47500	42750	24000+	11 5/16	(287)	7	(178)	2100	22
T7	Rx7s	30244	LU400/TD	10	Clear, double-ended, horizontal burn ±20°	S51	48000	41600	24000	10 1/8	(257)	-	-	2000	25
	E40 Base - Export Lamps														
ED18	E40/45	44055	LU400/40	12	Clear (2)*	-	51000	45000	24000+	9 15/16	(252)	5 29/32	(150)	2100	22
ED37	E40/45	44057	LU400/D/40	6	Diffuse (2)*	-	47500	42750	24000+	11 1/2	(292)	7 3/16	(183)	2100	22
T14 1/2	E40/45	11678	LU400/T/40	12	Clear (2)*	-	51000	45000	24000	11	(279)	7 3/32	(180)	2100	22
1000 WATTS															
E25	Mog	44058	LU1000	6	Clear (3)*	S52	140000	126000	24000+	15 1/16	(383)	8 3/4	(222)	2100	22
T7	Rx7s	30246	LU1000/TD	10	Clear, double-ended, horizontal burn ±20°	S52	137500	118200	24000	13 3/16	(335)	-	-	2000	25
	E40 Base - Export Lamps														
E25	E40/45	44059	LU1000/40	6	Clear (3)*	-	140000	126000	24000	15 3/16	(386)	8 13/16	(224)	2100	22
T18	E40/45	44247	LU1000/T18/40	6	Clear (3)*	-	140000	126000	24000	15 1/16	(383)	8 13/16	(224)	2100	22
DELUXE LUCALOX® HIGH PRESSURE SODIUM (HPS) LAMPS															
70 WATTS															
B17	Med	16611	LU70/DX/MED	6	Clear Deluxe (3)*	S62	3800	3040	10000	5 1/2	(140)	3 1/2	(89)	2200	65
150 WATTS															
B17	Med	18094	LU150/DX/MED	6	Clear Deluxe (2)*	S55	10500	9135	15000	5 3/4	(146)	3 1/2	(89)	2200	65
ED23 1/2	Mog	18092	LU150/55/DX	12	Clear Deluxe (2)*	S55	10500	9135	15000	7 3/4	(197)	5	(127)	2200	65
250 WATTS															
ED18	Mog	11785	LU250/DX	12	Clear Deluxe (2)*	S50	22500	20700	15000	9 3/4	(248)	5 3/4	(146)	2200	65
400 WATTS															
ED28	Mog	19650	LU400/DX	12	Clear Deluxe (2)*	S51	37400	34400	15000	9	(229)	5 3/16	(132)	2200	70

(*) All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE White Lucalox® High Pressure Sodium Lamps
- Incandescent-like color – 2800K, 70 CRI
- Good efficiency
- Uses: Retail display, downlights, track lighting, commercial

GE E-Z Lux® Lucalox® High Pressure Sodium Lamps
- Direct replacement for mercury lamps on mercury ballasts
- More efficient – 57-114% more lumens and 10-14% fewer watts than mercury lamps they replace
- Uses: General lighting, roadway
- See operating notes for further information

GE SOX Low Pressure Sodium Lamps
- Highest luminous efficiency for general, non color critical lighting
- Monochromatic, yellow color (589nm)

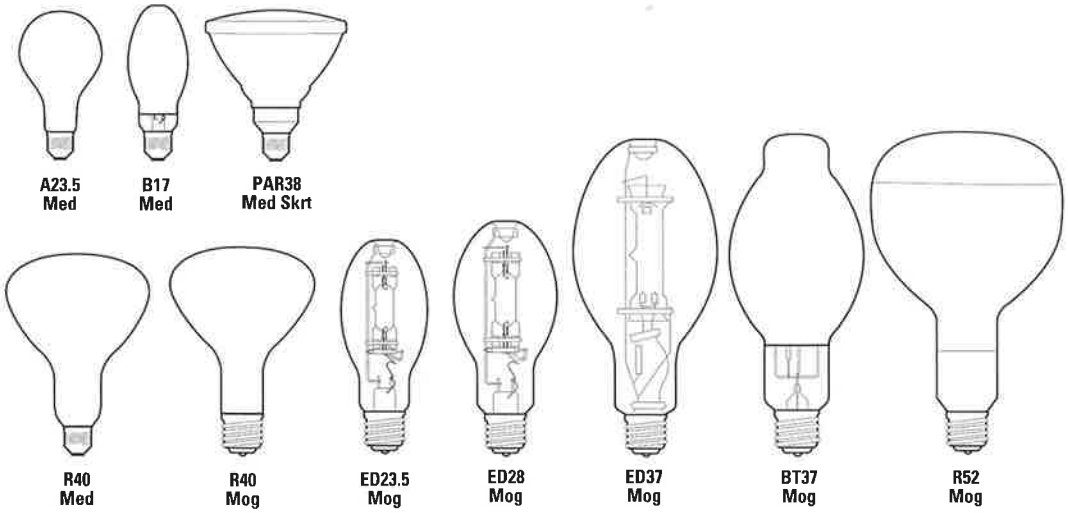


Bulb	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	ANSI Ballast Type	Light Output Initial	Light Output Mean	Rated Avg. Life Hours	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CRI
LUCALOX® HIGH PRESSURE SODIUM (HPS) LAMPS (con't)															
WHITE LUCALOX® HIGH PRESSURE SODIUM LAMPS															
95 WATTS															
T10	Med	18836	LU95/SP28/MED	12	Clear, White Lucalox (3)*	-	5200	4160	10000	5 1/8	(130)	3 3/16	(81)	2800	70
	E27	18839	LU95/SP28/27	12	Clear, White Lucalox (3)*	-	5000	4160	10000	5 1/4	(133)	3 9/32	(83)	2800	70
	PG12	18838	LU95/SP28/PG12	12	Clear, White Lucalox (3)*	-	5200	4160	10000	5 7/8	(149)	3 7/16	(87)	2800	70
White LUCALOX® Ballasts (Use only with 95-WATT LUCALOX® lamps)															
		18783	WL95/120	4	Ballast for White Lucalox® Lamps	-	-	-	-	-	-	-	-	-	-
E-Z LUX® LUCALOX® HIGH PRESSURE SODIUM LAMPS (MERCURY RETROFIT)															
110 WATTS - Export Only															
ED23 1/2	E27	11683	LUH110/D/27	12	Diffuse, energy-saving retrofit for 125W Mercury (6,12)*	-	8800	7920	10000	6 7/8	(175)	4 5/16	(110)	1900	22
150 WATTS															
ED28	Mog	49943	LUH150/EZ	12	Clear, energy-saving retrofit for 175W Mercury (6,12)*	H39	12500	12000	13000	9	(229)	5	(127)	1900	22
215 WATTS															
ED28	Mog	49939	LUH215/EZ	12	Clear, energy-saving retrofit for 250W Mercury (6,12)*	H37	20200	18600	12000	9	(229)	5	(127)	1900	22
E40 Base - Export Lamp															
ED28	E40/45	49941	LUH215/D/EZ/40	12	Diffuse, energy-saving retrofit for 250W Mercury (6,12)*	H37	20200	18600	12000	9 1/8	(232)	5 7/32	(133)	1900	22
360 WATTS															
BT37	Mog	18012	LUH360/EZ	6	Clear, energy-saving retrofit for 400W Mercury (6,12)*	H33	45000	40500	24000	11 5/16	(287)	7 1/8	(181)	2100	25
SOX LOW PRESSURE SODIUM LAMPS															
18 WATTS															
T16	B22d	21294	SOX-18	16	Clear, horizontal burn ±20° or vertical base up ±15°	L69	1800	1570	18000	8 1/2	(216)	5 3/8	(137)	1800	-
35 WATTS															
T16	B22d	21296	SOX-35	16	Clear, horizontal burn ±20° or vertical base up ±15°	L70	4600	4000	18000	12 1/4	(311)	7 1/4	(184)	1800	-
55 WATTS															
T16	B22d	21297	SOX-55	16	Clear, horizontal burn ±20° or vertical base up ±15°	L71	7650	6655	18000	16 3/4	(426)	9 1/2	(241)	1800	-
90 WATTS															
T21	B22d	21298	SOX-90	9	Clear, horizontal burn ±20°	L72	12750	11095	16000	20 3/4	(527)	11 1/2	(292)	1800	-
135 WATTS															
T21	B22d	21299	SOX-135	9	Clear, horizontal burn ±20°	L73	22000	19140	16000	30 1/2	(775)	16 3/8	(416)	1800	-
180 WATTS															
T21	B22d	30203	SOX180	9	Clear, horizontal burn ±20°	L74	33000	28710	16000	44 1/8	(1121)	22 7/8	(581)	1800	-

( )* All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Mercury Lamps

- Good efficiency
- Long life
- Phosphor coated Deluxe lamps provide good color rendering (50CRI)
- Uses: Industrial, roadway, landscapes, residential and commercial security, parking lots
- For open or enclosed fixtures
- Universal burn – can be operated in any position without affecting performance



Bulb	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	ANSI Ballast Type	Light Output Initial	Light Output Mean	Rated Avg. Life Hours	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CRI
MERCURY LAMPS															
40 WATTS															
B17	Med	12460	HR40/50DX45	5	Deluxe White, 40W on H45 Ballast, 50W on H46 Ballast	H45	1140 (40w) 1575 (50w)	910 1250	16000 (40w) 16000 (50w)	5 1/8	(130)	3 1/8	(79)	3900	50
75 WATTS															
B17	Med	12461	HR75DX43 5PK	5	Deluxe White	H43	2800	2250	16000	5 7/16	(138)	3 1/2	(89)	3900	50
100 WATTS															
A23 1/2	Med	12464	HR100A38/A23 5PK	5	Clear	H38	3700	3000	18000	5 7/16	(138)	3 1/2	(89)	5700	15
		12467	HR100DX38/A23 5PK	5	Deluxe White	H38	4000	3050	18000	5 7/16	(138)	3 1/2	(89)	3800	50
B17	Med	17113	HR100DX38/MED	5	Deluxe White (6)*	H38	4000	3800	18000	5 7/16	(138)	3 1/2	(89)	3900	50
ED23 1/2	Mog	12471	HR100A38 5PK	5	Clear (6)*	H38	3850	2800	24000+	7 1/2	(191)	5	(127)	5700	15
		22575	HR100DX38 12PK	12	Deluxe White (6)*	H38	4200	3200	24000+	7 1/2	(191)	5	(127)	3900	50
		12474	HR100WDX38 5PK	5	Warm Deluxe White (6)*	H38	3400	2600	24000+	7 1/2	(191)	5	(127)	3300	50
PAR38	Admed Skrt	24040	HR100PSP44	12	PAR Spot	H44	2450	1700	12000	5 7/16	(138)	-	-	5700	15
		24038	HR100PFL44	12	PAR Flood	H44	2450	1700	12000	5 7/16	(138)	-	-	5700	15
	Med Skirt	19648	HR100PSP44/MED	12	PAR Spot	H44	2450	1700	12000	5 7/16	(138)	-	-	5700	15
		19647	HR100PFL44/MED	12	PAR Flood	H44	2450	1700	12000	5 7/16	(138)	-	-	5700	15
R40	Med	36238	HR100RFL38	12	Reflector Flood (6)*	H38	2450	2000	24000+	7	(178)	-	-	5700	15
		36495	HR100RDXFL38	12	Reflector WFL, Deluxe White (6)*	H38	2450	2050	24000+	7	(178)	-	-	3900	50
175 WATTS															
ED28	Mog	16616	HR175A39 5PK	5	Clear (6)*	H39	7950	7000	24000+	8 1/4	(210)	5	(127)	5700	15
		24048	HR175A39	12	Clear (6)*	H39	7950	7000	24000+	8 1/4	(210)	5	(127)	5700	15
		24062	HR175DX39	12	Deluxe White (6)*	H39	8600	7200	24000+	8 1/4	(210)	5	(127)	3900	50
		14111	HR175DX39 5PK	5	Deluxe White (6)*	H39	8600	7200	24000+	8 1/4	(210)	5	(127)	3900	50
		37872	HR175WDX39	12	Warm Deluxe White (6)*	H39	7000	5400	24000+	8 1/4	(210)	5	(127)	3300	50
R40	Med	24058	HR175RFL39	12	Reflector Flood (6)*	H39	5700	4800	24000+	7	(178)	-	-	5700	15
		33026	HR175RDXFL39	12	Reflector WFL Deluxe White (6)*	H39	5700	4350	24000+	7	(178)	-	-	3900	50
	Mog	36445	HR175RFL39/M	12	Reflector Flood (6)*	H39	5700	4800	24000+	7 1/2	(191)	-	-	5700	15
250 WATTS															
ED28	Mog	24068	HR250A37	12	Clear (6)*	H37	11200	9850	24000	8 1/4	(210)	5	(127)	5700	15
		32127	HR250DX37	12	Deluxe White (6)*	H37	12100	9800	24000+	8 1/4	(210)	5	(127)	3900	50
		37871	HR250WDX37	12	Warm Deluxe White (6)*	H37	10000	7200	24000+	8 1/4	(210)	5	(127)	3300	50
	E40 Base - Export Lamp														
ED28	E40/45	32372	HR250DX37/40	12	Deluxe White (7)*	-	12100	9800	24000+	8 3/8	(213)	5 5/32	(131)	3900	50
400 WATTS															
BT37	Mog	32313	HR400DX33/BT	6	Deluxe White (7)*	H33	22100	16500	24000+	11 5/16	(287)	7	(178)	3900	50
ED37	Mog	23974	HR400A33	6	Clear (7)*	H33	21000	18200	24000+	11 5/16	(287)	7	(178)	5700	15
		23998	HR400DX33	6	Deluxe White (7)*	H33	22500	17500	24000+	11 5/16	(287)	7	(178)	3900	50
		37870	HR400WDX33	6	Warm Deluxe White (7)*	H33	19500	14450	24000+	11 5/16	(287)	7	(178)	3300	50
R52	Mog	33879	HR400RDX33	6	Reflector, Deluxe White (7)*	H33	22000	17100	24000+	11 3/4	(299)	7 3/4	(197)	3900	50

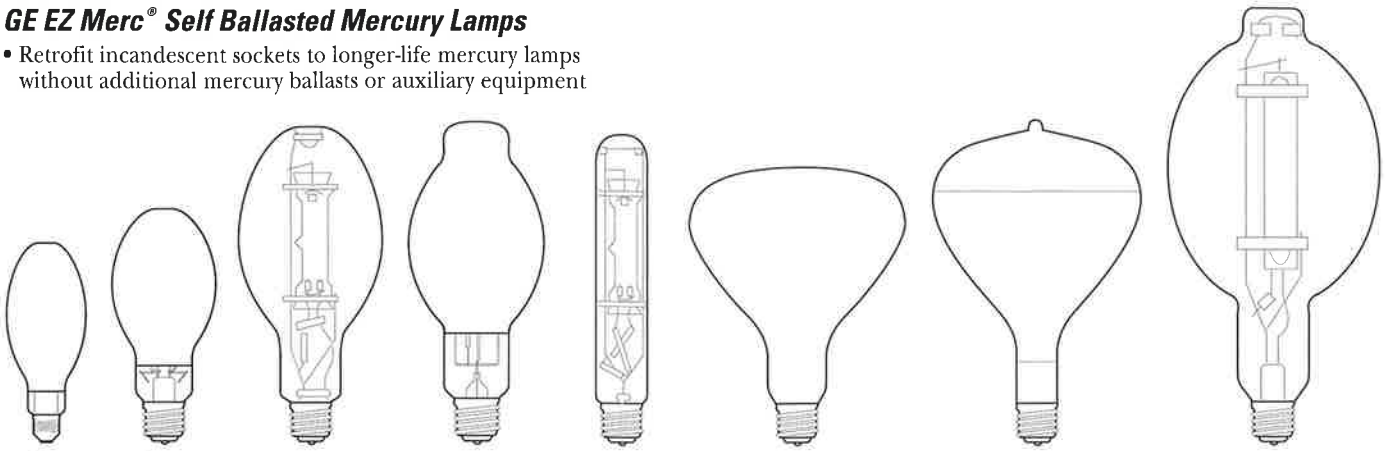
( )* All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Saf-T-Gard® Mercury Lamps

- Special self-extinguishing feature prevents exposure to harmful UV in case outer bulb is punctured or broken; lamp turns off within 15 minutes
- Certified to meet Federal Standard 21 CFR 1040.30
- See operating notes for further information

GE EZ Merc® Self Ballasted Mercury Lamps

- Retrofit incandescent sockets to longer-life mercury lamps without additional mercury ballasts or auxiliary equipment



Bulb	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	ANSI Ballast Type	Light Output Initial	Light Output Mean	Rated Avg. Life Hours	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	CRI
MERCURY LAMPS (con't)															
400 WATTS (con't)															
R60	Mog	33938	HR400RDXFL33	6	Reflector WFL, Deluxe White Clear Face (7)*	H33	15500	8950	24000+	10 1/8	(257)	-	-	3900	50
		23996	HR400RSP33	6	Reflector Spot Clear Face (7)*	H33	15300	11050	24000+	10 1/8	(257)	-	-	5700	15
T16	Mog	14873	H400A33/T16	6	Clear	H33	20000	18200	12000	11	(279)	7	(178)	-	-
	E40 Base - Export Lamp														
ED37	E40/45	32294	HR400DX33/40	6	Deluxe White (6)*	-	22500	17500	24000	11 7/16	(291)	7 11/64	(182)	3900	50
1000 WATTS															
BT56	Mog	24171	HR1000A36	6	Clear (6)*	H36	57000	44450	24000+	15 1/16	(383)	9 1/2	(241)	5700	15
		24191	HR1000DX36	6	Deluxe White (6)*	H36	63000	40000	24000+	15 1/16	(383)	9 1/2	(241)	3900	50
		32733	HR1000DX34	6	Deluxe White (28)*	H34	62000	47700	16000	15 1/16	(383)	9 3/8	(238)	3900	50
	E40 Base - Export Lamp														
BT56	E40/45	12017	HR1000DX34/40	6	Deluxe White	-	62000	47700	16000	15 1/16	(383)	9 3/8	(238)	3900	50
SAF-T-GARD® MERCURY LAMPS															
175 WATTS															
ED28	Mog	43391	HT175DX39	12	Deluxe White	H39	7700	6450	16000	8 1/4	(210)	5	(127)	3900	50
250 WATTS															
ED28	Mog	43392	HT250DX37	12	Deluxe White	H37	11200	9050	24000	8 1/4	(210)	5	(127)	3900	50
400 WATTS															
ED37	Mog	43363	HT400DX33	6	Deluxe White	H33	20000	11400	24000	11 5/16	(287)	7	(178)	3900	50
E-Z MERC® SELF-BALLASTED LAMPS (INCANDESCENT RETROFIT)															
160 WATTS															
ED24	Med	45178	HSB160/M	24	Deluxe White 120V (9)*	-	2300	1600	12000	7	(178)	4 9/16	(116)	3900	50
250 WATTS															
ED28	Med	45174	HSB250/M	12	Deluxe White 130V (9)*	-	5000	3750	12000	8 1/2	(216)	5 3/16	(132)	3900	50
	Mog	45176	HSB250	12	Deluxe White 120V (9)*	-	5000	3750	12000	8 1/2	(216)	5 3/16	(132)	3900	50
450 WATTS															
BT37	Mog	40122	HSB450	6	Deluxe White 120V (9)*	-	9100	8280	16000	11 13/32	(290)	7 3/8	(187)	3900	50
750 WATTS															
R57	Mog	44012	HSB750R/120-6PK	6	Reflector Flood, Deluxe White 120V (9)*	-	14000	11200	16000	12 3/4	(324)	8 3/8	(213)	3900	50

( )* All footnote references found at the end of this section. Reduced Wattage High Color Rendering

General Information

High Intensity Discharge (HID) Operating Characteristics and Limitations:

Protection of Bulbs from Moisture.

Outer bulbs of HID lamps are made of heat-resistant glass, designed to have strength and thermal-shock-resistant characteristics suitable for normal applications in typical luminaries. However, shielding of lamps must be provided to avoid bulb breakage that could result from direct contact with liquids (such as water) during operation.

Rated Average Life

Values are based on laboratory tests of a large number of representative lamps under controlled conditions, including operation at 10 hours per start on ballasts having specified electrical characteristics. Individual lamps or groups of lamps may, of course, vary from the Rated Average Life shown. Lamp operating conditions can also affect life. Where Rated Average Life is less than 24,000 hours, it is a MEDIAN value of life expectancy; that is, the total operating time at which, under normal operating conditions, 50% of any large group of initially installed lamps is expected to be still burning. Where Rated Average Life is 24,000+ hours, 67% of lamps are expected to be still burning at 24,000 hours. For cost-of-light calculations involving these lamps, if an estimated operating time is required at which 50% of the lamps will still be burning, a value of 28,500 hours is suggested. At burning cycles shorter than 10 hours per start, the median life will be shortened:

5 hrs/start – approx. life 75% of rating;
2 1/2 hrs/start – approx. life 56% of rating;
1 1/4 hrs/start – approx. life 42% of rating.

Lumens– Lumens listed are reference lumens

Rated average lamp lumens obtained under controlled laboratory conditions in a prescribed burning position. Initial Reference Lumens refer to the lamp lumen output after 100-hours burning. Mean Reference Lumens refer to the lamp lumen output at the mean lumen point during lamp life. The mean lumen point occurs at 50% rated life for HPS and mercury lamps, while the mean lumen point occurs at 40% rated life for metal halide lamps. Lamp performance on typical systems under typical service conditions will vary from the reference lumen ratings.

Ballasts

HID lamps (except E-Z-Merc®) require auxiliary ballast equipment designed to produce proper electrical values. Actual lamp watts may vary depending on ballast characteristics. For total system watts, add nominal ballast watts.

All Lucalox® and Mercury lamps will start at ambient temperatures of -22°F (-30°C) when used on ballasts meeting these specifications. All metal halide lamps, except I-Line, will start at ambient temperatures of -22°F (-30°C) when used on ballasts meeting these specifications. Halarc® MXR32 lamps will start at ambient temperatures of -22°F (-30°C). I-Line Multi-Vapor® will start at ambient temperatures of 5°F (-15°C) when used on approved mercury ballasts.

Start Characteristics

Full light output does not occur immediately when power is applied. Instead, there is a time delay for the lamp to reach 90% total light output. The starting delay for High Pressure Sodium is 3-4 minutes, for Metal Halide 2-5 minutes, and for Mercury 5-7 minutes.

Restart Characteristics

With a power interruption of half cycle or more, the arc will extinguish. When power is immediately reapplied, full light output does not occur immediately. For HPS lamps there is a delay of 1 minute to reach 90% total light output; however, Lucalox® LU1000 requires 2 minutes and E-Z Lux® lamps require 3 minutes to reach 90% total light output. For Metal Halide lamps, when the power is immediately reapplied, there will be a delay of 10 to 15 minutes before the lamps reach the 90% light output level. The restart delay for mercury lamps is 3 to 6 minutes to reach 90% total light output.

Burn Positions and Codes

Mercury and High Pressure Sodium lamps may be operated in any burn position and still maintain their rated performance specifications. Metal Halide and Low Pressure Sodium lamps, however, are optimized for performance in specific burn positions, or may be restricted to certain burn positions for safety reasons.

U– Universal burning position	HBU– Horizontal - 15° to Base Up
VBU– Vertical Base Up ±15°	HBD– Horizontal - 15° to Base Down
VBD– Vertical Base Down ±15°	HOR– Horizontal ±15°

HID Color

All high intensity discharge lamps exhibit some degree of lamp to lamp color variation and shift over life. These characteristics can be increased based on choice of fixture, ballast, burning position, and ambient conditions. The color temperature listed in the tabular data is for reference purposes only. Color variation can be higher than normal during the initial 100 hours of burning. Contact your local GE Lighting representative for quantitative data on color uniformity and shift for specific HID lamps.

Export Base Lamps

Export only lamps have a non-domestic (non-U.S.) base and are not intended for use in the United States due to potential shock hazard. The lamps are identified by "/27" or "/40" at the end of the lamp description.

Operating Notes

E-Z Lux® Lucalox® Lamps

Use in 110-watt E-Z Lux® only with 125-watt Mercury ballasts: high reactance lag-type autotransformer, 220-volt or greater reactor. Use 150-watt E-Z Lux® only with H39 175-watt mercury ballasts: high reactance lag-type autotransformer, 240-volt or 277-volt reactor. Use 215-watt E-Z Lux® only with E37 250-watt mercury ballasts: high reactance lag-type autotransformer 240-volt or 277-volt reactor type meeting current ANSI H37 ballast specs. Do not use either with CW (lead-type) or CWA ballasts. Use 360-watt E-Z Lux® only with 400-watt mercury ballasts: reactor, high reactance lag-type autotransformer, auto regulator (CWA) or regulator (CW) types.

Halarc® Lamp - Electronic Ballasts

The 32-watt Halarc lamps must be operated on special GE lighting-approved ballasts. A suitable high power factor electronic ballast is HAL32/120 for 120 volt applications.

The outside dimensions are 9.25" (235mm) long, 3.125" (78mm) wide and 1.75" (45mm) high.

I-Line Multi-Vapor® Lamps

Universal – U: Burn any position, but in positions other than vertical base up or base down, use only in enclosed fixtures which can contain fragments of hot quartz or glass.

Vertical – VBU/VBD: Vertical base up or vertical base down – lamp must be operated only within 15° of vertical.

Saf-T-Gard® Multi-Vapor® and Saf-T-Gard® Mercury Lamps

Caution: If the outer glass envelope of a Saf-T-Gard lamp is broken, although the arc tube will have self-extinguished, its supporting structure will still be electrically connected. Be sure power is off and the lamp has cooled before removing to avoid possible electrical shock from contact with the arc tube support or burn from the hot arc tube.

Arcstream™ Metal Halide Lamps

It is important the tubular shaped lamps are operated in suitably enclosed luminaries with a UV absorbing cover glass. Full enclosure will also retain any fragments of quartz in the unusual event of the outer bulb shattering. All Arcstream lamps can operate on relevant double-ended metal halide ballasts.

Caution Notice – Metal Halide Lamps

The following operating instructions must be complied with to help avoid possible shattering and early failure of the lamp. Metal Halide lamps are constructed of an outer bulb with an internal arc tube made of quartz. The arc tube operates under high pressure at very high temperatures – as high as approximately 1100°C.

The arc tube and outer bulb may unexpectedly rupture due to internal causes or external factors such as a system failure or misapplication.

- Lamp may only be operated in the types of fixtures prescribed in the applicable specification bulletin. Fixture lens/diffuser material must be able to contain fragments of hot quartz or glass (up to 1100°C). If in doubt, contact your fixture manufacturer.
- Electrically insulate any metal to glass support in fixture to avoid decomposition of the glass.
- Protect lamp from direct contact with liquids (such as water) to avoid breakage from thermal shock.
- In continuously operating systems (24 hours/day, 7 days/week), turn lamps off once per week for at least 15 minutes. Failure to comply increases the risk of rupture.
- Screw lamp firmly but not forcibly into the socket to minimize loosening due to vibration. Do not use excessive force as the glass bulb may break.
- Do not scratch glass bulb because it may break during installation or later during lamp operation.
- Relamp fixtures at or before the end of rated life. Beyond rated life, light output diminishes while energy consumption and risk of rupture increase.
- Turn power off and let lamp cool before removal to avoid potential burn and electrical shock hazard during lamp replacement.

Use In Enclosed Fixtures. For lamps requiring enclosed fixtures, fixture lens/diffuser material must be able to contain fragments of hot quartz or glass (up to 1100°C).

Use In Open Fixtures. For lamps operated in the vertical position that are not designated "Enclosed Fixtures only," lamp may be used in an open or enclosed lighting fixture depending upon the application and operating environment. For example, if the lamp is located near combustible material or in an area which is unoccupied for extended periods, an enclosed fixture which can contain fragments of hot quartz or glass is recommended. For more information, contact your fixture manufacturer.

Arcstream tubular lamps must be used in enclosed fixtures with UV absorbing glass. Enclosed fixtures must be capable of containing fragments of hot quartz or glass (up to 1100°C).

Important Notice

In accordance with Federal Standard 21 CFR 1040.30, the following notice applies to the Multi-Vapor®, Halarc®, and Arcstream™ PAR 64 (those having Ordering Codes beginning with the letters "MVR...," "MXR..." or "MBI150PAR64..."). "WARNING. This lamp can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if outer envelope of the lamp is broken or punctured, and the arc tube continues to operate. Do not use where people will remain for more than a few minutes 1 unless adequate shielding or other safety precautions are used. Certain types of lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available from General Electric Company." These are the self extinguishing Saf-T-Gard® Mercury and Multi-Vapor® lamps.

Caution Notice – High Pressure Sodium Lamps

The following instructions must be complied with to help assure good lamp performance and minimize risk of breakage. General Electric Company will not be responsible for poor lamp performance, personal injury or property damage resulting from failure to follow these instructions.

- Lamp must only be operated with compatible auxiliary equipment.
- This is a vacuum jacket lamp and may implode if broken. As a precaution, wear safety glasses and gloves when installing or removing lamp.
- Lamp may be operated in any position.
- Electrically insulated any metal to glass support in fixture to avoid decomposition of the glass.
- Protect lamps from direct contact with liquids (such as rain, sleet or snow) to avoid breakage from thermal shock.
- Screw lamp firmly but not forcibly into the socket to minimize loosening due to vibration. Do not use excessive force as the glass bulb may break.
- Do not scratch glass bulb because it may break during installation or later during lamp operation.
- Turn power off and let lamp cool before removal to avoid potential burn and electric shock hazard during lamp replacement.

Caution Notice – Low Pressure Sodium Lamps

Before Use

1. Always isolate the equipment from the electricity supply before inserting or replacing a lamp.
2. Check that the replacement lamp is the correct type, including cap, and wattage for use in the circuit and with appropriate control gear for the application.
3. Ensure that the lamp is correctly located in the lampholder and the glass bulb is not scratched during insertion.

During Use

For all lamps (unless indicted to the contrary by the manufacturer) prevent rain, snow condensation droplets or water, splashing on the lamp as these may cause the bulb to shatter.

Disposal

Low pressure sodium lamps must be broken with precautions against the risk of fire. Precautions must also be taken against flying glass or other fragments. The lamps (not more than 20 at a time) should be broken into small pieces in a large dry container, in a dry atmosphere. The container, when one-quarter full, should be filled with water; the operator must stand back (e.g. should use a hose). After a few minutes, the metallic sodium will be inactive and the debris may be disposed of as for glass.

Caution Notice – Mercury Lamps

Mercury lamps are constructed of an outer bulb with an internal arc tube made of quartz. The arc tube operates under high pressure at very high temperatures – as high as approximately 1100°C. The arc tube and outer bulb may unexpectedly rupture due to internal causes or external factors such as a system failure or misapplication.

- Lamp may be operated in any position. Lamp must only be operated with compatible electrical equipment in the types of fixtures prescribed in the applicable specification bulletin. Fixture lens/diffuser material must be able to contain fragments of hot quartz or glass (up to 1100°C). If in doubt, contact your fixture manufacturer.
- Electrically insulate any metal to glass support in fixture to avoid decomposition of the glass.
- Protect lamps from direct contact with liquids (such as rain, sleet or snow) to avoid breakage from thermal shock.
- Screw lamp firmly but not forcibly into the socket to minimize loosening due to vibration. Do not use excessive force as the glass bulb may break.
- Do not scratch glass bulb because it may break during installation or later during lamp operation.
- Turn power off and let lamp cool before removal, to avoid potential burn and electrical shock hazard during lamp replacement.
- Relamp fixtures at or before the end of rated life. Beyond rated life, light output diminishes while energy consumption and risk of rupture increase.

Important Notice

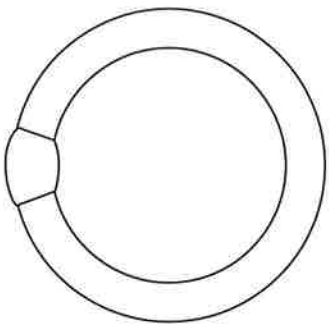
In accordance with Federal Standard 21 CFR 1040.30, the following notice applies to all Standard Mercury Lamps (those having Ordering Codes beginning with the letters "HR..."):

"WARNING: This lamp can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if outer envelope of the lamp is broken or punctured, and the arc tube continues to operate. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Certain types of lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available from General Electric Company." These are self-extinguishing Saf-T-Gard® mercury and Multi-Vapor® lamps.

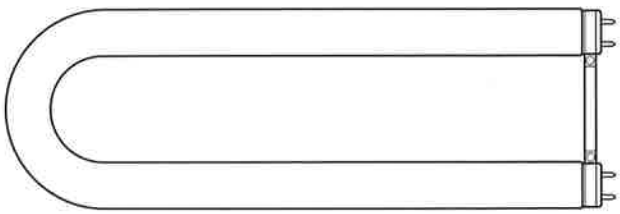
Footnotes:

Design Factor. A factor that combines the increase or decrease of a lamp light output over lamp life with the electrical characteristics of ballasts and, when applicable, fixture characteristics. The design factor, when multiplied by the published Referenced Mean Lumens of the lamp, will more accurately state the light output of the HID system over life. Fixture Coefficient of Utilization and fixture/lamp depreciation are not included in the Design Factor.

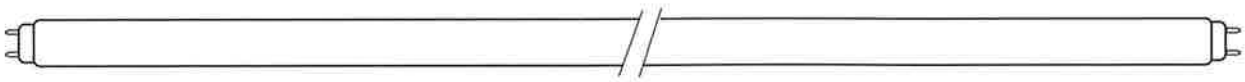
1. Design Factor 1.1
2. Design Factor 1.05
3. Design Factor 1.0
4. Design Factor .90
5. Design Factor .85
6. Design Factor .80
7. Design Factor .75
8. Design Factor .70
9. Do not use this lamp in fixtures designed for less than rated lamp wattage.
10. When operated on ANSI specification "S56" High Pressure Sodium ballasts, lumen ratings will decrease by about 50%.
11. When operated on ANSI "S55" High Pressure Sodium ballasts, intermittent cycle and short lamp life will occur.
12. On suitable mercury ballasts, lamp wattage will slowly drop as the lamp ages.
13. For use only in 175-watt metal halide luminaires that do not exceed maximum temperatures of 160°C at the point where metallic base meets the heat resistant collar and 245°C on the solder button of the plastic collar for this lamp.
14. Life shown is for vertical ±15° operation.
16. Approximate lumen ratings at 45° burning position: Initial - 145,000. Mean - 135,500.
17. Mean lumens and rated life based on 5 or more burning hours per start.
19. Mean lumens shown are for operation on approved CW/CWA mercury ballasts at 10 hours per start. For continuous operation, mean lumens are 22,800 for vertical burning and 21,000 for horizontal.
20. Mean lumens shown are for operation on approved CW/CWA mercury ballasts at 10 hours per start. For continuous operation, mean lumens are 22,000 for vertical burning and 20,200 for horizontal.
21. When operated vertically on metal halide-type ballasts at 10 hours per start, approximate mean lumens are 27,000. This value also applies when lamp is operated continuously on approved CW/CWA ballasts. When operated horizontally, initial and mean lumens decrease by about 2000 lumens.
22. When operated vertically on metal halide-type ballasts at 10 hours per start, approximate mean lumens are 26,300. This value also applies when lamp is operated continuously on approved CW/CWA ballasts. When operated horizontally, initial and mean lumens decrease by about 2000 lumens.
23. Mean lumens shown are for operation on approved CW/CWA mercury ballasts at 10 hours per start. For continuous operation, mean lumens are 21,650 for vertical burning and 19,850 for horizontal burning.
24. Mean lumens shown are for operation on approved CW/CWA mercury ballasts at 10 hours per start. For continuous operation, mean lumens are 21,100 for vertical burning and 19,350 for horizontal burning.
25. Mean lumens shown are for operation on approved CW/CWA mercury ballasts at 10 hours per start. For continuous operation, mean lumens are 25,700 for vertical burning and 23,600 for horizontal burning.
26. Mean lumens shown are for operation on approved CW/CWA mercury ballasts at 10 hours per start. For continuous operation, mean lumens are 25,500 for vertical operation, 22,600 for horizontal burning.
27. Data shown are for operation on typical CW/CWA mercury ballasts. On lag-type mercury ballasts: approx. initial lumens 109,200; mean lumens 87,350; lamp wattage approximately 970 watts. On M47 metal halide ballasts; approximate initial lumens 115,000; mean lumens 92,000; lamp watts 1000.
28. Use only 1000-watt H12 or H34-type ballasts. Do not use on 1000-watt H36-type ballasts.
29. Operate only on Magnetic Regulating Ballasts or CWA ballasts with ignitors.



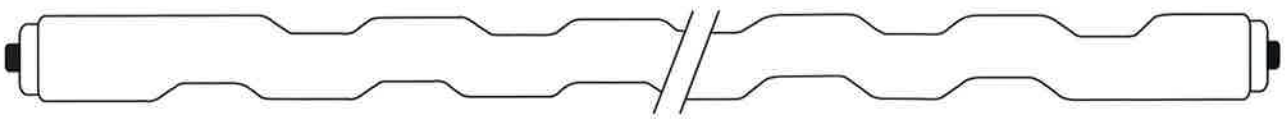
Circline T9



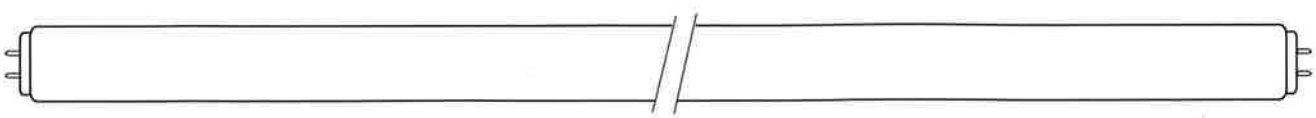
Mod-U-Line® T8



Trimline™ T8



PG17 Power Groove®



T12

Fluorescent Lamp Shapes

(drawings not to scale)

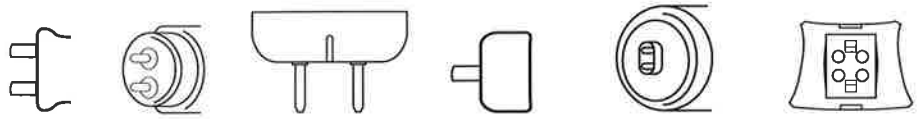
Bulb Identification:

DIA. in. (mm):
Diameter of bulb at widest point.

NOM LENGTH in. (mm):
Length of bulb including base or pins.

Note: Lamp drawings are not drawn to scale. Be sure to check size and dimension information when identifying each lamp.

Base Identification:



Min BiPin G5 | *Med BiPin G13* | *Mog BiPin G20* | *Single Pin Fa8* | *Rec Double Contact R17d* | *4-Pin G10q*

Introduction

GE introduced the first fluorescent lamp in 1935. Today, these lamps have become almost a universal standard in office and other lighting applications. The characteristics of fluorescent lamps vary widely according to the lamp type. In general, fluorescent lamps have the following advantages:

- **Low Operating Cost:**
  Because they are so efficient, fluorescent lamps can cost significantly less to operate over their lifetime than incandescent lamps.
- **Long Life:**
  Life ratings for fluorescent lamps range from 6000 to 24,000 hours based on the industry standard of 3 burning hours per start.
- **Low Surface Brightness:**
  Because it is a "diffuse" (less concentrated) light source, a fluorescent lamp is visually comfortable to the eye.
- **Flexibility:**
  Fluorescent lamps are available in a wide range of sizes, shapes, color performance, and wattage ratings.
- **Fast Starting:**
  The common "rapid-start" lamp types start within 1 second of being turned on.

GE SP & SPX Specification Series Color Enhancing Lamps

True and natural color

- Color appears richer, more natural
- Merchandise, decor look more appealing
- People look better
- SP – moderately priced, good color rendering
- SPX – excellent color rendering

See pages 14-16 for more technical information regarding color.

FLUORESCENT BRAND NAME CROSS-REFERENCE

GE	OSRAM/SYLVANIA	PHILIPS
Aquarium	—	—
1500	VHO	VHO
Power Groove®	—	—
Chroma 50	Design 50®	Colortone 50
Gro & Sho™	GRO-LUX	Agro-Lite
Mod-U-Line®	Curvalume®	U-Bent
SP 30	Interior Design® (D30)	Softone Pastel FL (SPEC 30)
Specification Series (SP)	Designer® Series (D)	SPEC Series
Specification Series (SPX)	Designer® "800" Series	Ultralume™
StayBright™ XL	—	Advantage X™
StayBright™ XL Watt-Miser®	—	—
T10/1500MA	VHO/LT	—
Trimline T8™	Octron®	TL70/TL80™
Watt-Miser®	SuperSaver®	Econ-o-Watt
Watt-Miser® Plus	SuperSaver Plus®	—

ATTENTION: *This brand-name cross-reference chart is provided only as a quick reference. Other lamp company brand listings may only represent a near equivalent, versus an identical match to GE Lighting brands. Individual lamp manufacturer's performance specifications and product offerings should be consulted. Lamp performance may be affected by environmental conditions, ballast type and/or other auxiliary equipment.*

Headings in this catalog section:

The following glossary of terms and descriptions can help you when checking Fluorescent lamp specifications and when ordering products. Within each product line, lamps are divided into families, within these families, lamps are then listed by wattage. To find your lamp, follow these simple steps:

When You Don't Know The Lamp Description:

1. Identify bulb shape by using table on page 4-1.
2. Measure bulb diameter using ruler in appendix section page 8-6 to determine width in eighths of an inch.
3. Identify base type using table on page 4-2.
4. Find your lamp in the table containing the bulb shape, size and base.

NOTE: Lumens and watts are nominal values as defined on page 4-16.

Color Rendering Index (CRI or R_a):
An indication of the ability of the lamp to render object colors in a normal, natural way. The higher the number (0-100), the better the color appearance.

Product Code:
It is important to use this five-digit code when ordering to ensure that you receive the exact product you require.

Energy Used
Watts:
Energy Used (as defined by FTC lamp label rules). To find actual energy used (kWh) multiply power (watts shown) x time divided by 1000.

©
Means this lamp meets Federal Minimum Efficiency Standards. To save energy costs, find the lamp with the light output you need, then choose the one with the lowest watts.

Lamp Designation:
The lamp's identification code.

Case Quantity:
Number of product units packed in a case.

Additional Information:
Typical application and/or other important information.

Nominal Length:
Expressed in inches and mm.

Light Output - Initial:
Lamp light output (lumens) after the initial 100 hours of operation.

Light Output - Mean:
Lamp light output (lumens) at 40% of rated lamp life.

Rated Average Life -
Hours:
Lamp burning hours to median life expectancy.

Color Temperature - Kelvins (K):
A measure of the visual "warmth" or "coolness" of the light from the lamp. The higher the value, the whiter or "cooler" the light appears.

PREHEAT FLUORESCENT LAMPS

T5 Diameter 5/8 in (16mm) - Miniature BiPin (G5) Base

Energy Used Watts	Product Code	©	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI
4	10004		F4T5/CW	24	Cool White	6	(152)	135	100	6000	4150	62
	15983		F4T5/CW CARD	10	Cool White, Carded	6	(152)	135	100	6000	4150	62
6	10032		F6T5/CW	24	Cool White	9	(229)	295	235	7500	4150	62
	15986		F6T5/CW CARD	10	Cool White, Carded	9	(229)	295	235	7500	4150	62
	10028		F6T5/D	24	Daylight	9	(229)	230	185	7500	6250	75
8	10059		F8T5/CW	24	Cool White	12	(305)	400	320	7500	4150	62
	15987		F8T5/CW CARD	10	Cool White, Carded	12	(305)	400	320	7500	4150	62
	10064		F8T5/WW	24	Warm White	12	(305)	410	330	7500	3000	52
	10055		F8T5/D	24	Daylight	12	(305)	330	265	7500	6250	-
13	10086		F13T5/CW	24	Cool White	21	(533)	850	705	7500	4150	62
	10089		F13T5/WW	24	Warm White	21	(533)	870	720	7500	3000	52

F 13 T5 / WW

- F — Identifies as Fluorescent lamp.
- 13 — Identifies either the lamp's wattage or its length in inches.
- T5 — Identifies the lamp shape and the bulb diameter in eighths of inches.
- WW — Identifies the lamp finish or color.

Yellow Highlight *indicates that this is a reduced wattage option for lamps normally used in this application. Be sure to check wattage, lumens and life to determine which lamp is best suited to your needs.*

Blue Highlight *indicates that this is a lamp with high color rendering, which helps objects and persons illuminated to appear more true to life.*

Watt-Miser® Energy Saving Replacements

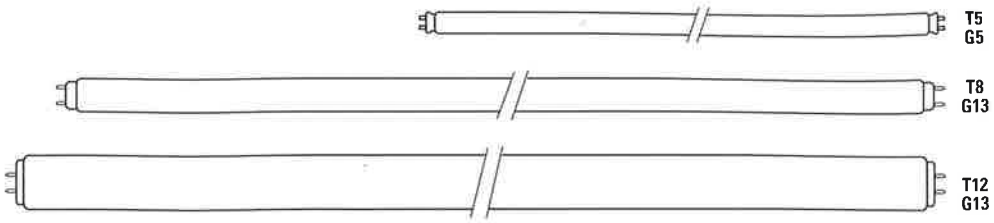
Standard Lamp	40-watt F40 U Tube	40-watt F40 Rapid Start	40-watt F40 Rapid Start	75-watt F96 Slimline	110-watt F96 High Output	215-watt F96 Power Groove®	215-watt F96 1500 ma T12	
Energy Saving Replacement	Replace w/ 35-watt F40 Watt-Miser U Tube	Replace w/ 34-watt F40 Watt-Miser	Replace w/ 32-watt F40 Watt-Miser Plus	Replace w/ 60-watt F96 Watt-Miser	Replace w/ 95-watt F96HO Watt-Miser	Replace w/ 185-watt F96PG Watt-Miser	Replace w/ 185-watt F96 1500 ma. T12 Watt-Miser	Replace w/ 185-watt F96PG Watt-Miser
Energy Savings*	$7.20	$9.60	$9.60	$14.40	$14.40	$28.80	$21.60	$21.60

* 8¢ per KHW over lamp life.

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.
© Means this lamp meets Federal Minimum Efficiency Standards. ( ) * All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Preheat Fluorescent Lamps

- Require use of starters
- Available in various tube diameters (T5, T8, T12, and T17) and lengths (6" to 60")
- Excellent for small-fit applications: cabinet and display case lighting, emergency lighting and transportation vehicles



Energy Used Watts	Product Code	©	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI
PREHEAT FLUORESCENT LAMPS												
T5 Diameter 5/8 in (16mm) - Miniature BiPin (G5) Base												
4	10004		F4T5/CW	24	Cool White	6	(152)	135	100	6000	4150	62
	15983		F4T5/CW CARD	10	Cool White, Carded	6	(152)	135	100	6000	4150	62
6	10032		F6T5/CW	24	Cool White	9	(229)	295	235	7500	4150	62
	15986		F6T5/CW CARD	10	Cool White, Carded	9	(229)	295	235	7500	4150	62
	10028		F6T5/D	24	Daylight	9	(229)	230	185	7500	6250	75
8	10059		F8T5/CW	24	Cool White	12	(305)	400	320	7500	4150	62
	15987		F8T5/CW CARD	10	Cool White, Carded	12	(305)	400	320	7500	4150	62
	10064		F8T5/WW	24	Warm White	12	(305)	410	330	7500	3000	52
	10055		F8T5/D	24	Daylight	12	(305)	330	265	7500	6250	-
13	10086		F13T5/CW	24	Cool White	21	(533)	850	705	7500	4150	62
	10089		F13T5/WW	24	Warm White	21	(533)	870	720	7500	3000	52
T8 Diameter 1 in (26mm) - Medium BiPin (G13) Base												
13	10098		F13T8/CW	24	Cool White	12	(305)	565	480	7500	4150	62
14	10104		F14T8/CW	24	Cool White	15	(381)	685	580	7500	4150	62
	10102		F14T8/D	24	Daylight	15	(381)	575	490	7500	6250	75
15	19644		F15T8/SPX30	24	RE 830 Phosphor	18	(457)	1000	900	7500	3000	82
	19645		F15T8/SPX35	24	RE 835 Phosphor	18	(457)	1000	900	7500	3500	82
	19646		F15T8/SPX41	24	RE 841 Phosphor	18	(457)	1000	900	7500	4100	80
	10756		F15T8/SPX50	24	RE 850 Phosphor	18	(457)	940	850	7500	5000	80
	17910		F15T8/SP30	24	RE 730 Phosphor	18	(457)	940	850	7500	3000	75
	17911		F15T8/SP35	24	RE 735 Phosphor	18	(457)	940	850	7500	3500	75
	19643		F15T8/SP41	24	RE 741 Phosphor	18	(457)	940	850	7500	4100	75
	21326		F15T8/KB 6PK	24	Kitchen and Bath	18	(457)	940	850	7500	3000	75
	12662		F15T8/KB/HH	24	Kitchen and Bath, Hook Hang Package	18	(457)	940	850	7500	3000	75
	10142		F15T8/CW	24	Cool White	18	(457)	825	725	7500	4150	62
	10143		F15T8/CW 6PK	24	Cool White	18	(457)	825	725	7500	4150	62
	10147		F15T8/WW	24	Warm White	18	(457)	845	745	7500	3000	52
	10134		F15T8/D	24	Daylight	18	(457)	700	615	7500	6250	75
	38185		F15T8/C50	24	Chroma 50	18	(457)	620	525	7500	5000	90
	13968		F15T8/SUN 6PK	24	Sunshine	18	(457)	620	525	7500	5000	90
30	16323		F30T8/SPX30	24	RE 830 Phosphor	36	(915)	2300	2140	7500	3000	82
	22747		F30T8/KB 6PK	24	Kitchen and Bath	36	(915)	2125	1910	7500	3000	75
	10316		F30T8/CW 6PK	24	Cool White	36	(915)	2175	1980	7500	4150	62
	23491		F30T8/CW 25PK	25	Cool White	36	(915)	2175	1980	7500	4150	62
	23492		F30T8/WW 25PK	25	Warm White	36	(915)	2250	1980	7500	3000	52
	23494		F30T8/D 25PK	25	Daylight	36	(915)	1850	1628	7500	6250	62
	10328		F30T8/N	24	Natural	36	(915)	1500	1320	7500	3700	90
T12 Diameter 1 1/2 in (26mm) - Medium BiPin (G13) Base												
14	10116		F14T12/CW	24	Cool White	15	(381)	650	550	9000	4150	62
	10117		F14T12/CW 6PK	24	Cool White	15	(381)	650	550	9000	4150	62
	10113		F14T12/D	24	Daylight	15	(381)	555	470	9000	6250	75
	22979		F14T12/KB 6PK	24	Kitchen and Bath	15	(381)	700	650	9000	3000	70
15	10182		F15T12/CW	24	Cool White	18	(457)	760	685	9000	4150	62
	10183		F15T12/CW 6PK	24	Cool White	18	(457)	760	685	9000	4150	62
	10185		F15T12/WW	24	Warm White	18	(457)	780	700	9000	3000	52
	10179		F15T12/D	24	Daylight	18	(457)	640	575	9000	6250	75
	22745		F15T12/KB 6PK	24	Kitchen and Bath	18	(457)	785	730	9000	3000	70
20	15109		F20T12/SPX30	24	RE 830 Phosphor	24	(610)	1300	1220	9000	3000	82
	15354		F20T12/SPX35	24	RE 835 Phosphor	24	(610)	1300	1220	9000	3500	82
	14446		F20T12/SP30	24	RE 730 Phosphor	24	(610)	1275	1200	9000	3000	70
	14423		F20T12/SP35	24	RE 735 Phosphor	24	(610)	1275	1200	9000	3500	73
	15353		F20T12/SP41	24	RE 741 Phosphor	24	(610)	1275	1200	9000	4100	72
	21325		F20T12/KB 6PK	24	Kitchen and Bath	24	(610)	1275	1200	9000	3000	70

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.

© Means this lamp meets Federal Minimum Efficiency Standards. ( ) * All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Fluorescent T12 Rapid Start Lamps

- Popular lamp for commercial lighting
- Upgrade new and existing facilities easily... change the lamp to SP/SPX color-improved lamps (available in standard and Watt-Miser versions).

Performance Note:

Rated life is rated average life on rapid start circuits. Rated average life on preheat circuits is 15,000 hours. Life on single-lamp, rapid start ballasts may be reduced.

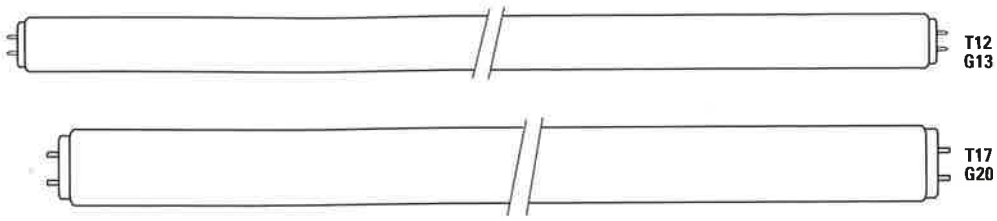
GE 4' Staybright™ XL Lamps

Extra life, extra light, excellent color

- Extra life... lasts 25% longer than standard F40 lamps for reduced lamp replacement and maintenance costs
- Extra light... up to 8% more initial lumens than standard F40s
- Excellent color... color enhanced SP and SPX versions provide true and natural color

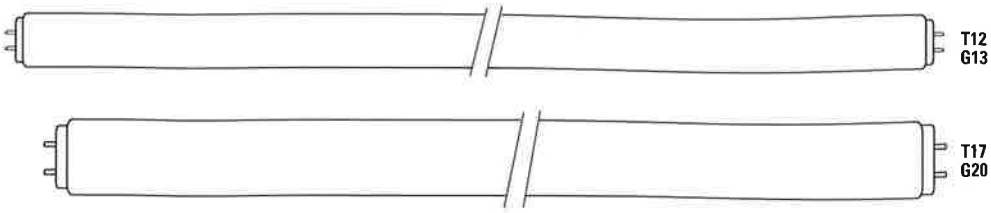
GE Watt-Miser® Energy Saving Lamps (WM)

- Energy efficient, reduce energy costs
- Replacement for standard wattage lamps
- Wide variety of sizes and colors available



Energy Used Watts	Product Code	©	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI
T12 Diameter 1 1/2 in (26mm) - Medium BiPin (G13) Base (con't)												
20	12661		F20T12/KB/HH	24	Kitchen and Bath, Hook Hang Package	24	(610)	1275	1200	9000	3000	70
	10213		F20T12/CW	24	Cool White	24	(610)	1200	1150	9000	4150	62
	10214		F20T12/CW 6PK	24	Cool White	24	(610)	1200	1150	9000	4150	62
	10217		F20T12/WW	24	Warm White	24	(610)	1250	1150	9000	3000	52
	10205		F20T12/D	24	Daylight	24	(610)	1025	945	9000	6250	75
	38114		F20T12/C50	24	Chroma 50	24	(610)	875	790	9000	5000	90
	14419		F20T12/SUN	24	Sunshine	24	(610)	875	790	9000	5000	90
	10231		F20T12/B 6PK	24	Blue	24	(610)	450	330	9000	-	-
	10233		F20T12/G 6PK	24	Green	24	(610)	1575	975	9000	-	-
T17 Diameter 2 1/8 in (26mm) - Mogul BiPin (G20) Base												
82	43443		F90T17/CW/WM	12	Cool White, Watt-Miser® (1)*	60	(1524)	5750	5060	9000	4150	62
90	10643		F90T17/CW	12	Cool White	60	(1524)	6000	5280	9000	4150	62
FLUORESCENT T12 RAPID START LAMPS												
F30T12 RS Diameter 1 1/2 in (38mm) - Medium BiPin (G13) Base												
25	14447		F30T12/SP30/RS/WM	24	RE 730 Phosphor, Watt-Miser® (1)*	36	(915)	2025	1780	18000	3000	70
	14425		F30T12/SP35/RS/WM	24	RE 735 Phosphor, Watt-Miser® (1)*	36	(915)	2025	1780	18000	3500	73
	14701		F30T12/SP41/RS/WM	24	RE 741 Phosphor, Watt-Miser® (1)*	36	(915)	2025	1780	18000	4100	72
	44599		F30T12/CW/RS/WM	24	Cool White, Watt-Miser® (1)*	36	(915)	1925	1640	18000	4150	62
	44600		F30T12/WW/RS/WM	24	Warm White, Watt-Miser® (1)*	36	(915)	1975	1680	18000	3000	52
30	15108		F30T12/SPX30/RS	24	RE 830 Phosphor	36	(915)	2375	2140	18000	3000	82
	15355		F30T12/SPX35/RS	24	RE 835 Phosphor	36	(915)	2375	2140	18000	3500	82
	15266		F30T12/SP30/RS	24	RE 730 Phosphor	36	(915)	2350	2120	18000	3000	70
	15085		F30T12/SP35/RS	24	RE 735 Phosphor	36	(915)	2350	2120	18000	3500	73
	15267		F30T12/SP41/RS	24	RE 741 Phosphor	36	(915)	2350	2120	18000	4100	72
	77119		F30T12/KB/RS 6PK	24	Kitchen and Bath	36	(915)	2350	2120	18000	3000	70
	10357		F30T12/CW/RS	24	Cool White	36	(915)	2225	1940	18000	4150	62
	39176		F30T12/CW/RS 6PK	24	Cool White	36	(915)	2225	1940	18000	4150	62
	10359		F30T12/WW/RS	24	Warm White	36	(915)	2275	1980	18000	3000	52
	10365		F30T12/D/RS	24	Daylight	36	(915)	1900	1650	18000	6250	75
	38115		F30T12/C50/RS	24	Chroma 50	36	(915)	1650	1350	18000	5000	90
STAYBRIGHT XL™ LAMPS												
T12 Diameter 1 1/2 in (38mm) - Medium BiPin (G13) Base												
40	18331	©	F40SXL/SPX30	30	RE 830 Phosphor	48	(1220)	3400	3060	24000	3000	82
	18332	©	F40SXL/SPX35	30	RE 835 Phosphor	48	(1220)	3400	3060	24000	3500	82
	18333	©	F40SXL/SPX41	30	RE 841 Phosphor	48	(1220)	3400	3060	24000	4100	80
	23471	©	F40SXL/SPX50	30	RE 850 Phosphor	48	(1220)	3350	3050	24000	5000	80
	18337	©	F40SXL/SP30	30	RE 730 Phosphor	48	(1220)	3300	2970	24000	3000	75
	18338	©	F40SXL/SP35	30	RE 735 Phosphor	48	(1220)	3300	2970	24000	3500	75
	18342	©	F40SXL/SP41	30	RE 741 Phosphor	48	(1220)	3300	2970	24000	4100	73
FLUORESCENT T12 RAPID START LAMPS												
F40T12 RS Diameter 1 1/2 in (38mm) - Medium BiPin (G13) Base												
34	14627	©	F40SPX30/RS/WM	30	RE 830 Phosphor, Watt-Miser® (1)*	48	(1220)	2900	2610	20000	3000	82
	14628	©	F40SPX35/RS/WM	30	RE 835 Phosphor, Watt-Miser® (1)*	48	(1220)	2900	2610	20000	3500	82
	14811	©	F40SPX41/RS/WM	30	RE 841 Phosphor, Watt-Miser® (1)*	48	(1220)	2900	2610	20000	4100	80

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.
© Means this lamp meets Federal Minimum Efficiency Standards. ( ) * All footnote references found at the end of this section. Reduced Wattage High Color Rendering



Energy Used Watts	Product Code	©	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	(mm)	Light Output Lumens Initial	Mean	Rated Avg. Life Hours	Color Temp. K	CRI
FLUORESCENT T12 RAPID START LAMPS												
F40T12 RS Diameter 1 1/2 in (38mm) - Medium BiPin (G13) Base (con't)												
34	23459	Ⓔ	F40SPX50/RS/WM	30	RE 850 Phosphor, Watt-Miser® (1)*	48	(1220)	2700	2430	20000	5000	80
	14200	Ⓔ	F40SP30/RS/WM	30	RE 730 Phosphor, Watt-Miser® (1)*	48	(1220)	2750	2475	20000	3000	70
	13807	Ⓔ	F40SP35/RS/WM	30	RE 735 Phosphor, Watt-Miser® (1)*	48	(1220)	2750	2475	20000	3500	73
	23486	Ⓔ	F40SP35/WM/C 10PK	10	RE 735 Phosphor, Watt-Miser®, Commercial Pack (1)*	48	(1220)	2750	2475	20000	3500	73
	21858	Ⓔ	F40SP35/RS/WM/UPC 6PK	24	RE 735 Phosphor, Watt-Miser®, UPC code (1)*	48	(1220)	2750	2475	20000	3500	73
	13809	Ⓔ	F40SP41/RS/WM	30	RE 741 Phosphor, Watt-Miser® (1)*	48	(1220)	2750	2475	20000	4100	72
	12134	Ⓔ	F40SP65/RS/WM	30	RE 765 Phosphor, Watt-Miser® (1)*	48	(1220)	2650	2430	20000	6500	75
	13803	Ⓔ	F40CW/RS/WM	30	Cool White, Watt-Miser® (1)*	48	(1220)	2650	2280	20000	4150	62
	23485	Ⓔ	F40CW/RS/WM/C 10PK	10	Cool White, Watt-Miser®, Commercial Pack (1)*	48	(1220)	2650	2280	20000	4150	62
	13822	Ⓔ	F40LW/RS/WM	30	Lite White, Watt-Miser® (1)*	48	(1220)	2825	2430	20000	4200	49
	13821	Ⓔ	F40WW/RS/WM	30	Warm White, Watt-Miser® (1)*	48	(1220)	2750	2370	20000	3000	52
	12702	Ⓔ	F40WW/EC 6PK	24	Warm White, Energy Choice (1)*	48	(1220)	2750	2370	20000	3000	52
	14655		F40DX/RS/WM	30	Deluxe Daylight, Watt-Miser® (1,7)*	48	(1220)	1950	1620	20000	6500	84
	19217		F40/C50/RS/WM	30	Chroma 50, Watt-Miser® (1)*	48	(1220)	2000	1720	20000	5000	90
32	14226	Ⓔ	F40SP30/RS/WMP	30	RE 730 Phosphor, Watt-Miser® Plus (1,2)*	48	(1220)	2650	2410	15000	3000	70
	14225	Ⓔ	F40SP35/RS/WMP	30	RE 735 Phosphor, Watt-Miser® Plus (1,2)*	48	(1220)	2650	2410	15000	3500	73
	14224	Ⓔ	F40SP41/RS/WMP	30	RE 741 Phosphor, Watt-Miser® Plus (1,2)*	48	(1220)	2650	2410	15000	4100	72
	14221	Ⓔ	F40CW/RS/WMP	30	Cool White, Watt-Miser® Plus (1,2)*	48	(1220)	2525	2220	15000	4150	62
	14222	Ⓔ	F40LW/RS/WMP	30	Lite White, Watt-Miser® Plus (1,2)*	48	(1220)	2700	2380	15000	4200	49
	14223	Ⓔ	F40WW/RS/WMP	30	Warm White, Watt-Miser® Plus (1,2)*	48	(1220)	2625	2310	15000	3000	52
40	15079	Ⓔ	F40SPX30	30	RE 830 Phosphor	48	(1220)	3350	3050	20000	3000	82
	15083	Ⓔ	F40SPX35	30	RE 835 Phosphor	48	(1220)	3350	3050	20000	3500	82
	15084	Ⓒ	F40SPX41	30	RE 841 Phosphor	48	(1220)	3350	3050	20000	4100	80
	23457	Ⓒ	F40SPX50	30	RE 850 Phosphor	48	(1220)	3100	2820	20000	5000	82
	15075	Ⓒ	F40SP30	30	RE 730 Phosphor	48	(1220)	3200	2910	20000	3000	70
	15077	Ⓒ	F40SP35	30	RE 735 Phosphor	48	(1220)	3200	2910	20000	3500	73
	20463	Ⓔ	F40SP35/UPC	30	RE 735 Phosphor	48	(1220)	3200	2910	20000	3500	73
	15078	Ⓒ	F40SP41	30	RE 741 Phosphor	48	(1220)	3200	2910	20000	4100	72
	12133	Ⓒ	F40SP65	30	RE 765 Phosphor	48	(1220)	3050	2775	20000	6500	75
	13969	Ⓒ	F40D/ULTRA 6PK	24	RE 765 Phosphor, Ultra	48	(1220)	3050	2775	20000	6500	75
	14654		F40DX	30	Deluxe Daylight (7)*	48	(1220)	2250	1910	20000	6500	84
	21323	Ⓒ	F40KB 6PK	24	Kitchen and Bath	48	(1220)	3200	2910	20000	3000	70
	13348	Ⓒ	F40KB/2PK/PP	6	Kitchen and Bath, Promotional Package	48	(1220)	3200	2910	20000	3000	70
	14440	Ⓒ	F40RES/SLV	30	Residental Light	48	(1220)	3150	2860	15000	4100	72
	14433	Ⓒ	F40RES-6PK	24	Residential Light	48	(1220)	3150	2860	15000	4100	72
	14441	Ⓒ	F40RES/TWIN-9PK	9	Residential Light, Twin Pack	48	(1220)	3150	2860	15000	4100	72
25	14445		F48"/25W/UTSL	30	Utility Shoplite	48	(1220)	1860	1675	12000	4150	62
	14450		F48"/25W/UTSL/SLV	30	Utility Shoplite	48	(1220)	1860	1675	12000	4150	62
	14456		F48"/25W/UTSL/TWIN-9PK	9	Utility Shoplite, Twin Pack	48	(1220)	1860	1675	12000	4150	62
	14444		F48"/25W/UTSL-550PAL	55	Utility Shoplite, 55 Palletized 10 pks.	48	(1220)	1860	1675	12000	4150	62
40	13797		F40N	30	Natural	48	(1220)	2100	1740	20000	3700	90
	13794		F40/C50	30	Chroma 50	48	(1220)	2250	1870	20000	5000	90
	12224		F40/SUN 6PK	24	Sunshine	48	(1220)	2250	1870	20000	5000	90
	13795		F40/C75	30	Chroma 75	48	(1220)	1950	1680	20000	7500	92
	13799		F40SGN	30	Sign White	48	(1220)	2350	2020	20000	5200	82
	10535		F40CG 6PK	24	Cool Green	48	(1220)	2850	2450	20000	-	-
	10514		F40B 6PK	24	Blue	48	(1220)	1200	720	20000	-	-
	10517		F40G 6PK	24	Green	48	(1220)	4000	2000	20000	-	-
	10522		F40GO 6PK	24	Gold	48	(1220)	2150	1830	20000	-	-
T17 Diameter 2 1/8 in (54mm) - Mogul BiPin (G20) Base												
40	10575		F40T17/CW/IS	12	Cool White, Instant Start Only (3)*	60	(1524)	2850	2620	7500	4150	62
"OPTIMISER™" F40T12 RAPID START LAMP												
T12 Diameter 1 1/2 in (38mm) - Medium BiPin (G13) Base												
28	13823	Ⓒ	FM28LW 30PK	30	Lite White	48	(1220)	2475	2130	18000	4200	49

** For use only with electromagnetic ballasts with cathode heat cut-out.

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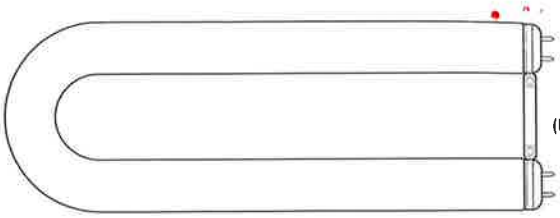
© Means this lamp meets Federal Minimum Efficiency Standards. ( ) * All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Mod-U-Line® T12 U-Shaped Lamps

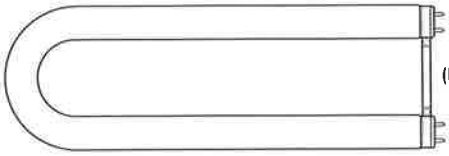
- Primarily used in 2x2 fixtures with prismatic or parabolic lenses
- Available in standard and Watt-Miser versions
- Operate on standard or electronic rapid start ballasts
- Ideal locations: offices, stores and institutions



GE Mod-U-Line® T8 U-Shaped Lamps

Compact size, low system wattage, choice of color options

- Mod-U-Line T8 Standard – 11% energy cost savings vs. F40T12 Mod-U-Line. Efficiency is increased an additional 9%+ when used on electronic ballasts
- Mod-U-Line T8 Watt-Miser® (WM) – 17% energy cost savings vs. F40T12 Mod-U-Line Watt-Miser®. Efficiency is increased an additional 11% when used on electronic ballasts
- Same overall length as F40 Mod-U-Line (F40T12/U/6)... easy retrofit in existing fixtures
- Longer lamp life – 20,000 hour life is 11% longer than F40T12 Mod-U-Line
- Trimmer size offers design flexibility



Energy Used Watts	Product Code	©	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI
MOD-U-LINE® T12 U-SHAPED LAMPS												
T12 Diameter 1 1/2 in (38mm) - Medium BiPin (G13) Base												
35	12199	©	F40CW/U/3/WM	12	Cool White, Watt-Miser®, 3" spacing between legs/pins (1)*	22 1/2	(570)	2350	2070	18000	4150	62
	12202	©	F40LW/U/3/WM	12	Lite White, Watt-Miser®, 3" spacing between legs/pins (1)*	22 1/2	(570)	2500	2200	18000	4200	49
	12200	©	F40WW/U/3/WM	12	Warm White, Watt-Miser®, 3" spacing between legs/pins (1)*	22 1/2	(570)	2425	2130	18000	3000	52
40	14814	©	F40SPX30/U/3	12	RE 830 Phosphor, 3" spacing between legs/pins	22 1/2	(570)	3000	2730	18000	3000	82
	14813	©	F40SPX35/U/3	12	RE 835 Phosphor, 3" spacing between legs/pins	22 1/2	(570)	3000	2730	18000	3500	82
	15259	©	F40SP30/U/3	12	RE 730 Phosphor, 3" spacing between legs/pins	22 1/2	(570)	2925	2660	18000	3000	70
	14228	©	F40SP35/U/3	12	RE 735 Phosphor, 3" spacing between legs/pins	22 1/2	(570)	2925	2660	18000	3500	73
	15260	©	F40SP41/U/3	12	RE 741 Phosphor, 3" spacing between legs/pins	22 1/2	(570)	2925	2660	18000	4100	72
	14649	©	F40SCW/U/3	12	Super Cool White, 3" spacing between legs/pins (7)*	22 1/2	(570)	2725	2400	18000	4100	70
	14610	©	F40SWW/U/3	12	Super Warm White, 3" spacing between legs/pins (7)*	22 1/2	(570)	2725	2400	18000	3000	70
35	14471	©	F40CW/U/6/WM/UPC	12	Cool White, Watt-Miser®, UPC Code, 6" spacing between legs/pins (1)*	22 1/2	(570)	2400	2110	18000	4150	62
	12203	©	F40CW/U/6/WM	12	Cool White, Watt-Miser®, 6" spacing between legs/pins (1)*	22 1/2	(570)	2400	2110	18000	4150	62
	12211	©	F40LW/U/6/WM	12	Lite White, Watt-Miser®, 6" spacing between legs/pins (1)*	22 1/2	(570)	2550	2240	18000	4200	49
	12207	©	F40WW/U/6/WM	12	Warm White, Watt-Miser®, 6" spacing between legs/pins (1)*	22 1/2	(570)	2500	2200	18000	3000	52
40	14816	©	F40SPX30/U/6	12	RE 830 Phosphor, 6" spacing between legs/pins	22 1/2	(570)	3100	2820	18000	3000	82
	14815	©	F40SPX35/U/6	12	RE 835 Phosphor, 6" spacing between legs/pins	22 1/2	(570)	3100	2820	18000	3500	82
	15263	©	F40SP30/U/6	12	RE 730 Phosphor, 6" spacing between legs/pins	22 1/2	(570)	3050	2780	18000	3000	70
	14227	©	F40SP35/U/6	12	RE 735 Phosphor, 6" spacing between legs/pins	22 1/2	(570)	3050	2780	18000	3500	73
	22050	©	F40SP35/U/6/UPC	12	RE 735 Phosphor, UPC Code, 6" spacing between legs/pins	22 1/2	(570)	3050	2780	18000	3500	73
	15265	©	F40SP41/U/6	12	RE 741 Phosphor, 6" spacing between legs/pins	22 1/2	(570)	3050	2780	18000	4100	72
	14632	©	F40SWW/U/6	12	Super Warm White, 6" spacing between legs/pins (7)*	22 1/2	(570)	2800	2460	18000	3000	70
	14648	©	F40SCW/U/6	12	Super Cool White, 6" spacing between legs/pins (7)*	22 1/2	(570)	2800	2460	18000	4100	70
MOD-U-LINE® T8 U-SHAPED LAMPS												
T8 Diameter 1 in (26mm) - Medium BiPin (G13) Base												
32	10483	©	F32T8/SPX30/U/6	12	RE 830 Phosphor, 6" spacing between legs/pins	22 1/2	(570)	2800	2630	20000	3000	84
	10485	©	F32T8/SPX35/U/6	12	RE 835 Phosphor, 6" spacing between legs/pins	22 1/2	(570)	2800	2630	20000	3500	84
	10488	©	F32T8/SPX41/U/6	12	RE 841 Phosphor, 6" spacing between legs/pins	22 1/2	(570)	2800	2630	20000	4100	80
	10489	©	F32T8/SPX50/U/6	12	RE 850 Phosphor, 6" spacing between legs/pins	22 1/2	(570)	2660	2510	20000	5000	80
	10479	©	F32T8/SP30/U/6	12	RE 730 Phosphor, 6" spacing between legs/pins	22 1/2	(570)	2700	2565	20000	3000	75
	23585	©	F32T8/SP35/U/6	12	RE 735 Phosphor, 6" spacing between legs/pins	22 1/2	(570)	2700	2565	20000	3500	75
	10480	©	F32T8/SP41/U/6	12	RE 741 Phosphor, 6" spacing between legs/pins	22 1/2	(570)	2700	2565	20000	4100	75

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GE Trimline T8™ Rapid Start Energy-Saving Lamps

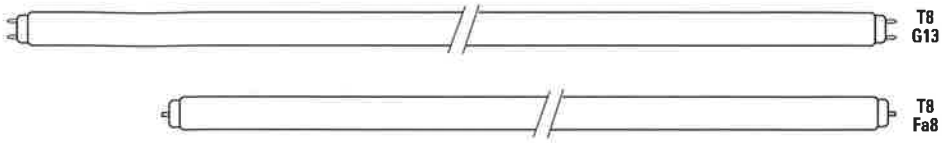
Compact size, low system wattage, plus a choice of color options

- Highly efficient... 11% to 33% energy cost savings vs. standard F40
- Trimmer size (only 1" in diameter) offers design flexibility
- Long lamp life (20,000 hours) means low lamp replacement and labor cost
- Excellent for many applications, including offices, conference rooms, stores, hallways

GE 4' Trimline T8™ Staybright™ XL Lamps

Extra life, extra light and excellent lumen maintenance

- 20% longer life than standard T8 and F40 lamps
- Up to 24% greater lumens than standard F40CW/WM lamps
- Maintains 96% of initial light output at 40% of rated life



Energy Used Watts	Product Code	©	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI
TRIMLINE T8™ STAYBRIGHT™ XL LAMPS												
32	12528	Ⓔ	F32T8SXL/SPX30	36	RE 830 Phosphor, Staybright™ XL (7)*	48	(1220)	2950	2830	24000	3000	84
	12529	Ⓔ	F32T8/SXL/SPX35	36	RE 835 Phosphor, Staybright™ XL (7)*	48	(1220)	2950	2830	24000	3500	84
	12530	Ⓔ	F32T8/SXL/SPX41	36	RE 841 Phosphor, Staybright™ XL (7)*	48	(1220)	2950	2830	24000	4100	80
	12539	Ⓔ	F32T8/SXL/SPX50	36	RE 850 Phosphor, Staybright™ XL (7)*	48	(1220)	2800	2830	24000	5000	80
TRIMLINE T8™ LAMPS												
T8 Diameter 1 in (26mm) - Medium BiPin (G13) Base												
17	22642		F17T8/SPX30	24	RE 830 Phosphor	24	(610)	1375	1230	20000	3000	84
	22646		F17T8/SPX35	24	RE 835 Phosphor	24	(610)	1375	1230	20000	3500	84
	22647		F17T8/SPX41	24	RE 841 Phosphor	24	(610)	1375	1230	20000	4100	80
	10415		F17T8/SPX50	24	RE 850 Phosphor	24	(610)	1300	1160	20000	5000	80
	17033		F17T8/SP30	24	RE 730 Phosphor	24	(610)	1325	1190	20000	3000	75
	17035		F17T8/SP35	24	RE 735 Phosphor	24	(610)	1325	1190	20000	3500	75
	17036		F17T8/SP41	24	RE 741 Phosphor	24	(610)	1325	1190	20000	4100	75
25	22648		F25T8/SPX30	24	RE 830 Phosphor	36	(915)	2150	1980	20000	3000	84
	22650		F25T8/SPX35	24	RE 835 Phosphor	36	(915)	2150	1980	20000	3500	84
	22651		F25T8/SPX41	24	RE 841 Phosphor	36	(915)	2150	1980	20000	4100	80
	10416		F25T8/SPX50	24	RE 850 Phosphor	36	(915)	2030	1870	20000	5000	80
	15943		F25T8/SP30	24	RE 730 Phosphor	36	(915)	2080	1910	20000	3000	75
	15944		F25T8/SP35	24	RE 735 Phosphor	36	(915)	2080	1910	20000	3500	75
	15945		F25T8/SP41	24	RE 741 Phosphor	36	(915)	2080	1910	20000	4100	75
32	22655	Ⓔ	F32T8/SPX30	36	RE 830 Phosphor	48	(1220)	2950	2650	20000	3000	84
	22656	Ⓔ	F32T8/SPX35	36	RE 835 Phosphor	48	(1220)	2950	2650	20000	3500	84
	22657	Ⓔ	F32T8/SPX41	36	RE 841 Phosphor	48	(1220)	2950	2650	20000	4100	80
	23460	Ⓔ	F32T8/SPX50	36	RE 850 Phosphor	48	(1220)	2800	2520	20000	5000	80
	15946	Ⓔ	F32T8/SP30	36	RE 730 Phosphor	48	(1220)	2850	2570	20000	3000	75
	15947	Ⓔ	F32T8/SP35	36	RE 735 Phosphor	48	(1220)	2850	2570	20000	3500	75
	15949	Ⓔ	F32T8/SP41	36	RE 741 Phosphor	48	(1220)	2850	2570	20000	4100	75
	14613	Ⓔ	F32T8/SP50	36	RE 750 Phosphor	48	(1220)	2750	2475	20000	5000	75
	12132	Ⓔ	F32T8/SP65	36	RE 765 Phosphor	48	(1220)	2700	2430	20000	6500	75
40	22660		F40T8/SPX30	24	RE 830 Phosphor	60	(1524)	3725	3350	20000	3000	84
	22661		F40T8/SPX35	24	RE 835 Phosphor	60	(1524)	3725	3350	20000	3500	84
	22662		F40T8/SPX41	24	RE 841 Phosphor	60	(1524)	3725	3350	20000	4100	80
	10417		F40T8/SPX50	24	RE 850 Phosphor	60	(1524)	3550	3180	20000	5000	80
	15950		F40T8/SP30	24	RE 730 Phosphor	60	(1524)	3600	3240	20000	3000	75
	15951		F40T8/SP35	24	RE 735 Phosphor	60	(1524)	3600	3240	20000	3500	75
	15952		F40T8/SP41	24	RE 741 Phosphor	60	(1524)	3600	3240	20000	4100	75
T8 Diameter 1 in (26mm) - Single Pin (Fa8) Base (Instant Start Only)												
59	23414	Ⓔ	F96T8/SPX30	24	RE 830 Phosphor	96	(2440)	5950	5440	15000	3000	84
	23415	Ⓔ	F96T8/SPX35	24	RE 835 Phosphor	96	(2440)	5950	5440	15000	3500	84
	23416	Ⓔ	F96T8/SPX41	24	RE 841 Phosphor	96	(2440)	5950	5440	15000	4100	80
	23575	Ⓔ	F96T8/SPX50	24	RE 850 Phosphor	96	(2440)	5650	5300	15000	5000	80
	23407	Ⓔ	F96T8/SP30	24	RE 730 Phosphor	96	(2440)	5800	5310	15000	3000	75
	23411	Ⓔ	F96T8/SP35	24	RE 735 Phosphor	96	(2440)	5800	5310	15000	3500	75
	23412	Ⓔ	F96T8/SP41	24	RE 741 Phosphor	96	(2440)	5800	5310	15000	4100	75

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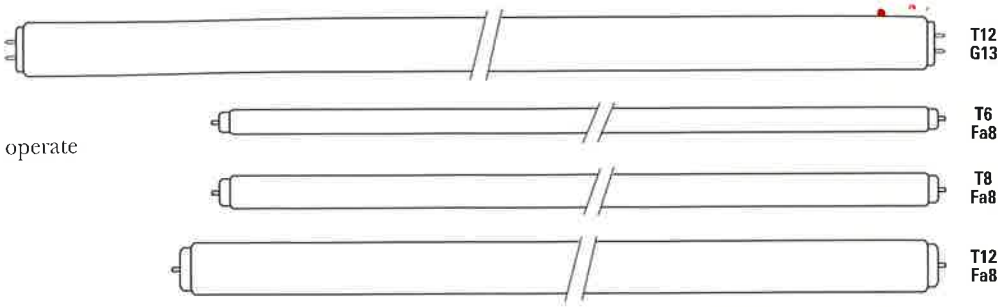
GE Slimline Lamps

- One of the most efficient fluorescent products available, up to 98 lumens per watt
- Single pin based lamps designed to operate on instant start ballast
- Excellent for store, industrial, and institutional lighting



Energy Used Watts	Product Code	©	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI
ENERGY-SAVING F25T12 LAMPS												
F25T12 Diameter 1 1/2 in (38mm) - Medium BiPin (G13) Base												
25	11439		F25T12/SP30	30	RE 730 Phosphor, For use on T8 instant start electronic ballasts	48	(1220)	2300	2140	20000	3000	70
	11440		F25T12/SP35	30	RE 735 Phosphor, For use on T8 instant start electronic ballasts	48	(1220)	2300	2140	20000	3500	73
	11442		F25T12/SP41	30	RE 741 Phosphor, For use on T8 instant start electronic ballasts	48	(1220)	2300	2140	20000	4100	72
SLIMLINE (INSTANT START) LAMPS												
T6 Diameter 3/4 in (19mm) - Single Pin (Fa8) Base												
25	12221		F42T6/SP35	24	RE 735 Phosphor	42	(1067)	1830	1700	7500	3500	73
	10720		F42T6/CW	24	Cool White	42	(1067)	1750	1580	7500	4150	62
	10721		F42T6/WW	24	Warm White	42	(1067)	1825	1640	7500	3000	52
40	12223		F64T6/SP35	24	RE 735 Phosphor	64	(1626)	2930	2720	7500	3500	73
	10805		F64T6/CW	24	Cool White	64	(1626)	2800	2520	7500	4150	62
	10807		F64T6/WW	24	Warm White	64	(1626)	2900	2610	7500	3000	52
T8 Diameter 1 in (26mm) - Single Pin (Fa8) Base												
35	10829		F72T8/CW	24	Cool White	72	(1830)	3000	2730	7500	4150	62
	10835		F72T8/WW 6PK	6	Warm White	72	(1830)	3100	2820	7500	3000	52
50	10912		F96T8/CW	24	Cool White	96	(2440)	4050	3730	7500	4150	62
T12 Diameter 1 1/2 in (38mm) - Single Pin (Fa8) Base												
20	10691		F24T12/CW	24	Cool White	24	(610)	1165	1050	7500	4150	62
30	10709		F36T12/CW	24	Cool White	36	(915)	2000	1800	7500	4150	62
35	10735		F42T12/CW	24	Cool White	42	(1067)	2400	2210	7500	4150	62
30	14319		F48T12/SP35/WM	24	RE 735 Phosphor, Watt-Miser® (1)*	48	(1220)	2575	2420	9000	3500	73
	13048		F48T12/SP41/WM	24	RE 741 Phosphor, Watt-Miser® (1)*	48	(1220)	2575	2420	9000	4100	72
	44967		F48T12/CW/WM	24	Cool White, Watt-Miser® (1)*	48	(1220)	2475	2280	9000	4150	62
	44971		F48T12/LW/WM	24	Lite White, Watt-Miser® (1)*	48	(1220)	2650	2440	9000	4200	49
	10528		F48T12/WW/WM	24	Warm White, Watt-Miser® (1)*	48	(1220)	2475	2280	9000	3000	52
40	15088		F48T12/SPX30	24	RE 830 Phosphor	48	(1220)	3050	2870	9000	3000	82
	15116		F48T12/SPX35	24	RE 835 Phosphor	48	(1220)	3050	2870	9000	3500	82
	15262		F48T12/SP35	24	RE 735 Phosphor	48	(1220)	3000	2820	9000	3500	73
	13062		F48T12/SP41	24	RE 741 Phosphor	48	(1220)	3000	2820	9000	4100	72
	10748		F48T12/CW	24	Cool White	48	(1220)	2875	2650	9000	4150	62
	20461		F48T12/CW/UPC 6PK	24	Cool White w/ UPC Code	48	(1220)	2875	2650	9000	4150	62
	10761		F48T12/D	24	Daylight	48	(1220)	2450	2250	9000	6250	75
50	12446		F60T12/SP41	24	RE 741 Phosphor	60	(1524)	3750	3520	12000	4100	72
	23073		F60T12/CW 15PK	15	Cool White	60	(1524)	3600	3310	12000	4150	62
	23076		F60T12/D 15PK	15	Daylight	60	(1524)	3000	2760	12000	6250	75
	12448		F64T12/SP41	24	RE 741 Phosphor	64	(1626)	4000	3760	12000	4100	72
	23082		F64T12/CW 15PK	15	Cool White	64	(1626)	3850	3540	12000	4150	62
	23085		F64T12/D 15PK	15	Daylight	64	(1626)	3300	3040	12000	6250	75
55	15117		F72T12/SPX30 15PK	15	RE 830 Phosphor	72	(1830)	4800	4510	12000	3000	82
	15098		F72T12/SPX35 15PK	15	RE 835 Phosphor	72	(1830)	4800	4510	12000	3500	82
	15118		F72T12/SP30 15PK	15	RE 730 Phosphor	72	(1830)	4700	4420	12000	3000	70
	15286		F72T12/SP35 15PK	15	RE 735 Phosphor	72	(1830)	4700	4420	12000	3500	73
	15097		F72T12/SP41 15PK	15	RE 741 Phosphor	72	(1830)	4700	4420	12000	4100	72
	12453		F72T12/SP65	15	RE 765 Phosphor	72	(1830)	4475	4210	12000	6500	75
	13743		F72T12/CW 15PK	15	Cool White	72	(1830)	4500	4140	12000	4150	62
	12525		F72T12/CW/UPC 6PK	10	Cool White w/ UPC Code	72	(1830)	4500	4140	12000	4150	62
	13751		F72T12/WW	15	Warm White	72	(1830)	4650	4280	12000	3000	52
	13748		F72T12/D	15	Daylight	72	(1830)	3800	3500	12000	6250	75
	12524		F72T12/GO	10	Gold	72	(1830)	3200	2840	12000	-	-

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.
© Means this lamp meets Federal Minimum Efficiency Standards. ( ) * All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE 8' Staybright™ XL Lamps

Extra life, extra light, excellent color

- Extra life... lasts 22% longer than standard F96 lamps for reduced lamp replacement and maintenance costs
- Extra light... 5% more lumens than standard F96s
- Excellent color... color enhanced SP and SPX versions provide color so true and natural you won't believe it's fluorescent

T12
Fa8

Energy Used Watts	Product Code	©	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI
SLIMLINE (INSTANT START) LAMPS												
T6 Diameter 3/4 in (19mm) - Single Pin (Fa8) Base (con't)												
65	12450		F84T12/SP41	15	RE 741 Phosphor	84	(2134)	5550	5220	12000	4100	72
	13764		F84T12/CW	15	Cool White	84	(2134)	5300	4880	12000	4150	62
8' SLIMLINE STAYBRIGHT™ XL LAMPS (INSTANT START ONLY)												
T12 Diameter 1 1/2 in (38mm) - Single Pin (Fa8) Base												
60	12404	Ⓔ	F96T12/SXL/SP30/WM	15	RE 830 Phosphor, Watt-Miser® (1)*	96	(2440)	5900	5480	15000	3000	75
	12406	Ⓔ	F96T12/SXL/SP35/WM	15	RE 835 Phosphor, Watt-Miser® (1)*	96	(2440)	5900	5480	15000	3500	75
	12408	Ⓔ	F96T12/SXL/SP41/WM	15	RE 841 Phosphor, Watt-Miser® (1)*	96	(2440)	5900	5480	15000	4100	73
75	11662	Ⓔ	F96T12/SXL/SPX30	15	RE 830 Phosphor	96	(2440)	6900	6370	15000	3000	82
	11663	Ⓔ	F96T12/SXL/SPX35	15	RE 835 Phosphor	96	(2440)	6900	6370	15000	3500	82
	11664	Ⓔ	F96T12/SXL/SPX41	15	RE 841 Phosphor	96	(2440)	6900	6370	15000	4100	80
	11665	Ⓔ	F96T12/SXL/SPX50	15	RE 850 Phosphor	96	(2440)	6425	5930	15000	5000	80
	11659	Ⓔ	F96T12/SXL/SP30	15	RE 730 Phosphor	96	(2440)	6700	6180	15000	3000	75
	23576	Ⓔ	F96T12/SXL/SP35	15	RE 735 Phosphor	96	(2440)	6700	6180	15000	3500	75
	11661	Ⓔ	F96T12/SXL/SP41	15	RE 741 Phosphor	96	(2440)	6700	6180	15000	4100	73
8' SLIMLINE INSTANT START LAMPS												
T12 Diameter 1 1/2 in (38mm) - Single Pin (Fa8) Base												
60	14629	Ⓔ	F96T12/SPX30/WM	15	RE 830 Phosphor, Watt-Miser® (1)*	96	(2440)	6000	5640	12000	3000	82
	14630	Ⓔ	F96T12/SPX35/WM	15	RE 835 Phosphor, Watt-Miser® (1)*	96	(2440)	6000	5640	12000	3500	82
	15340	Ⓔ	F96T12/SPX41/WM	15	RE 841 Phosphor, Watt-Miser® (1)*	96	(2440)	6000	5640	12000	4100	80
	23467	Ⓔ	F96T12/SPX50/WM	15	RE 850 Phosphor, Watt-Miser® (1)*	96	(2440)	5600	5260	12000	5000	82
	14201	Ⓔ	F96T12/SP30/WM	15	RE 730 Phosphor, Watt-Miser® (1)*	96	(2440)	5700	5360	12000	3000	70
	13849	Ⓔ	F96T12/SP35/WM	15	RE 735 Phosphor, Watt-Miser® (1)*	96	(2440)	5700	5360	12000	3500	73
	13758	Ⓔ	F96T12/SP41/WM	15	RE 741 Phosphor, Watt-Miser® (1)*	96	(2440)	5700	5360	12000	4100	72
	12128	Ⓔ	F96T12/SP65/WM	15	RE 765 Phosphor, Watt-Miser® (1)*	96	(2440)	5100	4800	12000	6500	75
	13729	Ⓔ	F96T12/CW/WM	15	Cool White, Watt-Miser® (1)*	96	(2440)	5500	5060	12000	4150	62
	11218	Ⓔ	F96T12/CW/WM/C 10PK	10	Cool White, Watt-Miser®, Commercial Pack (1)*	96	(2440)	5500	5060	12000	4150	62
	21713	Ⓔ	F96T12/CW/WM/UPC 10PK	10	Cool White, Watt-Miser® w/ UPC Code (1)*	96	(2440)	5500	5060	12000	4150	62
	17892	Ⓔ	F96T12/CW/WM 10PK	10	Cool White, Watt-Miser® (1)*	96	(2440)	5500	5060	12000	4150	62
	13742	Ⓔ	F96T12/LW/WM	15	Lite White, Watt-Miser® (1)*	96	(2440)	5800	5340	12000	4200	49
	13736	Ⓔ	F96T12/WW/WM	15	Warm White, Watt-Miser® (1)*	96	(2440)	5700	5240	12000	3000	52
	13756		F96T12/C50/WM	15	Chroma 50, Watt-Miser® (1)*	96	(2440)	4000	3520	12000	5000	90
75	15110	Ⓔ	F96T12/SPX30	15	RE 830 Phosphor	96	(2440)	6800	6390	12000	3000	82
	15101	Ⓔ	F96T12/SPX35	15	RE 835 Phosphor	96	(2440)	6800	6390	12000	3500	82
	15335	Ⓔ	F96T12/SPX41	15	RE 841 Phosphor	96	(2440)	6800	6390	12000	4100	80
	23466	Ⓔ	F96T12/SPX50	15	RE 850 Phosphor	96	(2440)	6250	5880	12000	5000	82
	15357	Ⓔ	F96T12/SP30	15	RE 730 Phosphor	96	(2440)	6500	6110	12000	3000	70
	14067	Ⓔ	F96T12/SP35	15	RE 735 Phosphor	96	(2440)	6500	6110	12000	3500	73
	15358	Ⓔ	F96T12/SP41	15	RE 741 Phosphor	96	(2440)	6500	6110	12000	4100	72
	12127	Ⓔ	F96T12/SP65	15	RE 765 Phosphor	96	(2440)	6125	5760	12000	6500	75
	13725		F96T12/N	15	Natural	96	(2440)	4250	3740	12000	3700	90
	13752		F96T12/C50	15	Chroma 50	96	(2440)	4600	4050	12000	5000	90
	14652		F96T12/DX	15	Deluxe Daylight (7)*	96	(2440)	4500	4050	12000	6500	84
	17897		F96T12/GO 10PK	10	Gold	96	(2440)	4350	3870	12000	-	-

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.
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Certain lamps cannot be sold in Canada, the United States, or its territories. See pages 8-2 and 8-3 for those lamp types available for export only.

GE High Output Lamps

- High light output and long life
- Produces about 45% more initial lumens than Slimline lamps of same size
- Recommended for industrial areas, retail stores with high ceilings
- Usually operated at 800 mA

Energy Used Watts	Product Code	©	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI
HIGH OUTPUT LAMPS (800MA)												
T12 Diameter 1 1/2 in (38mm) - Recessed Double Contact (R17d) Base												
25	10204		F18T12/CW/HO	24	Cool White	18	(457)	1000	750	9000	4150	62
35	13051		F24T12/SP41/HO	24	RE 741 Phosphor	24	(610)	1700	1460	9000	4100	72
	10261		F24T12/CW/HO	24	Cool White	24	(610)	1620	1345	9000	4150	62
	10275		F24T12/D/HO	24	Daylight	24	(610)	1400	1160	9000	6250	75
40	13055		F30T12/SP41/HO	24	RE 741 Phosphor	30	(762)	2350	2110	9000	4100	72
	33707		F30T12/CW/HO	24	Cool White	30	(762)	2250	1950	9000	4150	62
45	13052		F36T12/SP41/HO	24	RE 741 Phosphor	36	(915)	2900	2610	9000	4100	72
	10374		F36T12/CW/HO	24	Cool White	36	(915)	2800	2440	9000	4150	62
	10380		F36T12/D/HO	24	Daylight	36	(915)	2350	2040	9000	6250	75
	10388		F36T12/SGN/HO	24	Sign White	36	(915)	2150	1830	9000	5200	82
55	10559		F42T12/CW/HO	24	Cool White	42	(1067)	3400	2960	9000	4150	62
	10560		F42T12/D/HO	24	Daylight	42	(1067)	2900	2520	9000	6250	75
	15341		F48T12/SP30/HO/WM	24	RE 730 Phosphor, Watt-Miser® (1)*	48	(1220)	3850	3465	12000	3000	70
	15342		F48T12/SP35/HO/WM	24	RE 735 Phosphor, Watt-Miser® (1)*	48	(1220)	3850	3465	12000	3500	73
	14317		F48T12/SP41/HO/WM	24	RE 741 Phosphor, Watt-Miser® (1)*	48	(1220)	3850	3465	12000	4100	72
	11179		F48T12/LW/HO/WM	24	Lite White, Watt-Miser® (1)*	48	(1220)	3900	3390	12000	4200	49
60	15114		F48T12/SPX30/HO	24	RE 830 Phosphor	48	(1220)	4350	3920	12000	3000	82
	15115		F48T12/SPX35/HO	24	RE 835 Phosphor	48	(1220)	4350	3920	12000	3500	82
	15360		F48T12/SP35/HO	24	RE 735 Phosphor	48	(1220)	4250	3830	12000	3500	73
	15361		F48T12/SP41/HO	24	RE 741 Phosphor	48	(1220)	4250	3830	12000	4100	72
	10773		F48T12/CW/HO	24	Cool White	48	(1220)	4050	3520	12000	4150	62
	10778		F48T12/D/HO	24	Daylight	48	(1220)	3400	2960	12000	6250	75
	10565		F48T12/WW/HO	24	Warm White	48	(1220)	4130	3590	12000	3000	52
	10573		F48T12/SGN/HO	24	Sign White	48	(1220)	3100	2640	12000	5200	82
75	13056		F60T12/SP41/HO	24	RE 741 Phosphor	60	(1524)	5350	4820	12000	4100	72
	23075		F60T12/CW/HO	15	Cool White	60	(1524)	5150	4480	12000	4150	62
	23077		F60T12/D/HO	15	Daylight	60	(1524)	4400	3830	12000	6250	75
	23081		F60T12/SGN/HO	15	Sign White	60	(1524)	4000	3400	12000	5200	82
80	13061		F64T12/SP41/HO	24	RE 741 Phosphor	64	(1626)	5850	5260	12000	4100	72
	23083		F64T12/CW/HO 15PK	15	Cool White	64	(1626)	5600	4870	12000	4150	62
	23087		F64T12/D/HO 15PK	15	Daylight	64	(1626)	4750	4130	12000	6250	75
	23089		F64T12/SGN/HO	15	Sign White	64	(1626)	4300	3660	12000	5200	82
85	15137		F72T12/SPX30/HO	15	RE 830 Phosphor	72	(1830)	6800	6120	12000	3000	82
	15351		F72T12/SPX35/HO	15	RE 835 Phosphor	72	(1830)	6800	6120	12000	3500	82
	17907		F72T12/SPX41/HO	15	RE 841 Phosphor	72	(1830)	6800	6120	12000	4100	80
	15343		F72T12/SP30/HO	15	RE 730 Phosphor	72	(1830)	6650	5990	12000	3000	70
	15347		F72T12/SP35/HO	15	RE 735 Phosphor	72	(1830)	6650	5990	12000	3500	73
	15348		F72T12/SP41/HO	15	RE 741 Phosphor	72	(1830)	6650	5990	12000	4100	72
	13697		F72T12/CW/HO	15	Cool White	72	(1830)	6350	5520	12000	4150	62
	13702		F72T12/WW/HO	15	Warm White	72	(1830)	6550	5700	12000	3000	52
	13699		F72T12/D/HO	15	Daylight	72	(1830)	5350	4650	12000	6250	75
	12527		F72T12/N/HO	10	Natural	72	(1830)	4300	3610	12000	3700	90
	13701		F72T12/SGN/HO	15	Sign White	72	(1830)	4900	4170	12000	5200	82
100	12451		F84T12/SP41/HO	15	RE 741 Phosphor	84	(2134)	8000	7200	12000	4100	72
	13766		F84T12/CW/HO	15	Cool White	84	(2134)	7700	6700	12000	4150	62
	13767		F84T12/D/HO	15	Daylight	84	(2134)	6500	5660	12000	6250	75
95	15120	©	F96T12/SPX30/HO/WM	15	RE 830 Phosphor, Watt-Miser® (1)*	96	(2440)	8500	7650	12000	3000	82
	15122	©	F96T12/SPX35/HO/WM	15	RE 835 Phosphor, Watt-Miser® (1)*	96	(2440)	8500	7650	12000	3500	82
	23069	©	F96T12/SPX41/HO/WM	15	RE 841 Phosphor, Watt-Miser® (1)*	96	(2440)	8500	7650	12000	4100	80
	15268	©	F96T12/SP30/HO/WM	15	RE 730 Phosphor, Watt-Miser® (1)*	96	(2440)	8350	7520	12000	3000	70
	14069	©	F96T12/SP35/HO/WM	15	RE 735 Phosphor, Watt-Miser® (1)*	96	(2440)	8350	7520	12000	3500	73
	13721	©	F96T12/SP41/HO/WM	15	RE 741 Phosphor, Watt-Miser® (1)*	96	(2440)	8350	7520	12000	4100	72
	12131	©	F96T12/SP65/HO/WM	15	RE 765 Phosphor, Watt-Miser® (1)*	96	(2440)	7700	6930	12000	6500	75
	13716	©	F96T12/CW/HO/WM	15	Cool White, Watt-Miser® (1)*	96	(2440)	8000	6960	12000	4150	62
	21714	©	F96T12/CW/HO/WM/UPC	15	Cool White, Watt-Miser® w/ UPC Code (1)*	96	(2440)	8000	6960	12000	4150	62

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.
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GE Trimline T8™ High Output Lamps

Significant energy savings and long life

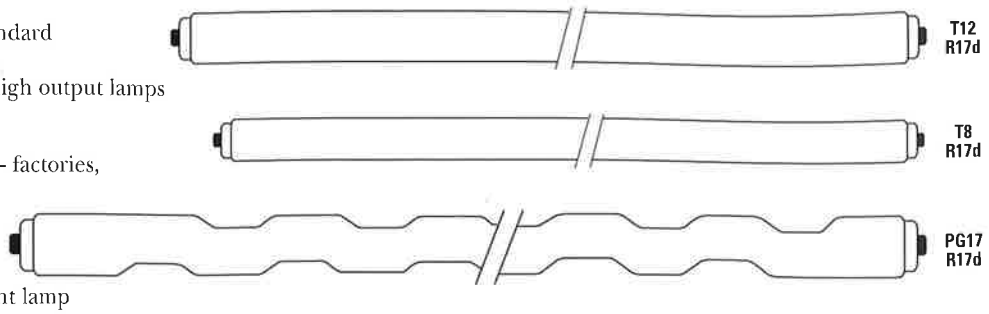
- 38% wattage savings compared to standard T12CW/HO lamps
- Over 50% longer life than standard high output lamps

GE Very High Output Lamps

- Where high light levels are required – factories, warehouses, gymnasiums, open areas
- Rapid start, operate at 1500mA

GE Power Groove® Lamps

- Highest light output of any fluorescent lamp
- Grooved bulb actually increases the effective arc length by about 10%
- Rapid start, operate at 1500 mA



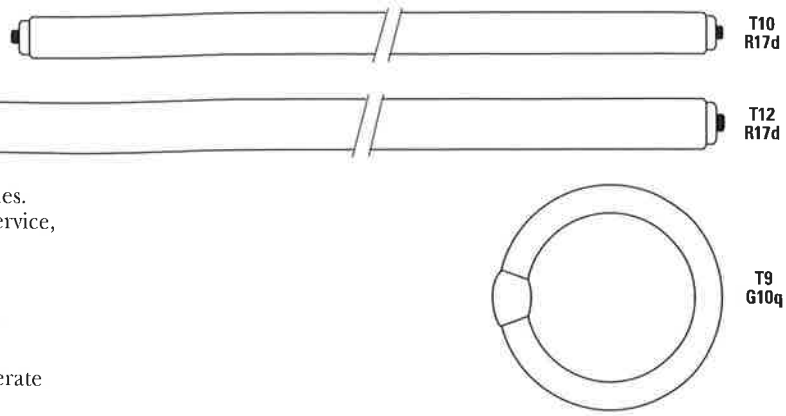
Energy Used Watts	Product Code	©	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI
HIGH OUTPUT LAMPS (800MA)												
T12 Diameter 1 1/2 in (38mm) - Recessed Double Contact (R17d) Base (con't)												
95	13720	©	F96T12/LW/HO/WM	15	Lite White, Watt-Miser® (1)*	96	(2440)	8500	7900	12000	4200	49
	13719	©	F96T12/WW/HO/WM	15	Warm White, Watt-Miser® (1)*	96	(2440)	8200	7130	12000	3000	52
110	15119	©	F96T12/SPX30/HO	15	RE 830 Phosphor	96	(2440)	9350	8420	12000	3000	82
	15352	©	F96T12/SPX35/HO	15	RE 835 Phosphor	96	(2440)	9350	8420	12000	3500	82
	23070	©	F96T12/SPX41/HO	15	RE 841 Phosphor	96	(2440)	9350	8420	12000	4100	80
	15362	©	F96T12/SP30/HO	15	RE 730 Phosphor	96	(2440)	9200	8280	12000	3000	70
	15363	©	F96T12/SP35/HO	15	RE 735 Phosphor	96	(2440)	9200	8280	12000	3500	73
	15364	©	F96T12/SP41/HO	15	RE 741 Phosphor	96	(2440)	9200	8280	12000	4100	72
	12130	©	F96T12/SP65/HO	15	RE 765 Phosphor	96	(2440)	8900	8010	12000	6500	75
	13709		F96T12/N/HO	15	Natural	96	(2440)	6200	5210	12000	3700	90
	13707		F96T12/C50/HO	15	Chroma 50	96	(2440)	6750	5670	12000	5000	90
	14653		F96T12/DX/HO	15	Deluxe Daylight (7)*	96	(2440)	6600	5610	12000	6500	84
	35503		F96T12/GO/HO 10PK	10	Gold	96	(2440)	6300	5300	12000	-	-
	11918		F96T12/CW/HO/CT	15	Cool White, For Cold Temperature Use (6)*	96	(2440)	8900	7740	12000	4150	62
	11919		F96T12/D/HO/CT	15	Daylight, For Cold Temperature Use (6)*	96	(2440)	7600	6610	12000	6250	75
T8 Diameter 1 in (26MM) - Recessed Double Contact (R17d) Base												
86	12532	©	F96T8/SPX30/HO	24	RE 830 Phosphor (7)*	96	(2440)	8200	7380	18000	3000	82
	12533	©	F96T8/SPX35/HO	24	RE 835 Phosphor (7)*	96	(2440)	8200	7380	18000	3500	82
	12534	©	F96T8/SPX41/HO	24	RE 841 Phosphor (7)*	96	(2440)	8200	7380	18000	4100	80
	12535	©	F96T8/SPX50/HO	24	RE 850 Phosphor (7)*	96	(2440)	8200	7380	18000	5000	80
	12536	©	F96T8/SP30/HO	24	RE 730 Phosphor (7)*	96	(2440)	8000	7200	18000	3000	75
	12537	©	F96T8/SP35/HO	24	RE 735 Phosphor (7)*	96	(2440)	8000	7200	18000	3500	75
	12538	©	F96T8/SP41/HO	24	RE 741 Phosphor (7)*	96	(2440)	8000	7200	18000	4100	75
VERY HIGH OUTPUT LAMPS (1500MA)												
T12 Diameter 1 1/2 in (38mm) - Recessed Double Contact (R17d) Base												
110	10751		F48T12/CW/1500	24	Cool White (4)*	48	(1220)	6200	4030	10000	4150	62
	10753		F48T12/WW/1500	24	Warm White (4)*	48	(1220)	6280	4080	10000	3000	52
165	13760		F72T12/CW/1500	15	Cool White (4)*	72	(1830)	9700	6790	10000	4150	62
185	13789		F96T12/CW/1500/WM	15	Cool White, Watt-Miser® (1,4)*	96	(2440)	12500	9380	9000	4150	62
	13790		F96T12/LW/1500/WM	15	Lite White, Watt-Miser® (1,4)*	96	(2440)	13250	9940	9000	4200	49
215	13781		F96T12/CW/1500	15	Cool White (4)*	96	(2440)	13500	10125	10000	4150	62
	13785		F96T12/WW/1500	15	Warm White (4)*	96	(2440)	14000	10500	10000	3000	52
	13783		F96T12/D/1500	15	Daylight (4)*	96	(2440)	11500	8630	10000	6250	75
POWER GROOVE®												
PG17 Diameter 2 1/8 in (54mm) - Recessed Double Contact (R17d) Base												
95	47732		F48PG17/CW/WM	12	Cool White, Watt-Miser® (1,4)*	48	(1220)	5700	3990	12000	4150	62
110	10782		F48PG17/CW	12	Cool White (4)*	48	(1220)	6800	4760	12000	4150	62
	10788		F48PG17/D	12	Daylight (4)*	48	(1220)	5700	3990	12000	6250	75
165	10602		F72PG17/CW	8	Cool White (4)*	72	(1830)	11000	8140	12000	4150	62
185	42666		F96PG17/CW/WM	8	Cool White, Watt-Miser® (4)*	96	(2440)	13500	10530	12000	4150	62
	47731		F96PG17/LW/WM	8	Lite White, Watt-Miser® (4)*	96	(2440)	14100	11000	12000	4200	49
215	11009		F96PG17/CW	8	Cool White (4)*	96	(2440)	15300	11930	12000	4150	62
	11018		F96PG17/D	8	Daylight (4)*	96	(2440)	12700	9910	12000	6250	75

To save energy costs, find the bulbs with the light output you need, then choose the one with the lowest watts.

© Means this lamp meets Federal Minimum Efficiency Standards. ( ) * All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE All-Weather Lamps

- For severe or continued low temperatures (down to -20° F or -29° C) and/or high wind velocities use T10 or T10J (Jacketed) for better light output than T12 or T12J.
- In still air environments, T12 and T12J offer equal or superior lumen performance
- Typical applications: outdoor lighting, freezers and low temperature display cases
- Rated nominal lamp watts and initial lumens are peak values. Actual watt and lumen values may be somewhat lower in service, depending on ambient conditions



GE Circline Circular Fluorescent Lamps

- Used in household, kitchen and bath applications... where significant levels of uniform light are desired
- Designed for operation on rapid start ballasts; will also operate on preheat or switch start ballasts

Energy Used Watts	Product Code	©	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI
"ALL-WEATHER" 1500 MA. RAPID START LAMPS												
T10 Diameter 1 1/4 in (32mm) - Recessed Double Contact (R17d) Base												
110	10742		F48T10/CW	24	Cool White	48	(1220)	6200	-	9000	4150	62
	10743		F48T10J/CW	12	Cool White 1 13/16" (46 mm) diameter clear glass outer jacket	48	(1220)	6000	-	9000	4150	62
135	39157		F60T10/CW	24	Cool White	60	(1524)	8200	-	9000	4150	62
	17135		F60T10/SP30	24	RE 730 Phosphor	60	(1524)	8500	-	9000	3000	70
	13002		F60T10/CW 6PK	6	Cool White	60	(1524)	8200	-	9000	4150	62
	40441		F60T10J/CW	12	Cool White 1 13/16" (46 mm) diameter clear glass outer jacket	60	(1524)	8000	-	9000	4150	62
160	13776		F72T10/CW 15PK	15	Cool White	72	(1830)	9700	-	9000	4150	62
	10858		F72T10J/CW	8	Cool White 1 13/16" (46 mm) diameter clear glass outer jacket	72	(1830)	9600	-	9000	4150	62
205	13780		F96T10/CW 15PK	15	Cool White	96	(2440)	13500	-	9000	4150	62
	10945		F96T10J/CW	8	Cool White 1 13/16" (46 mm) diameter clear glass outer jacket	96	(2440)	13300	-	9000	4150	62
T12 Diameter 1 1/2 in (38mm) - Recessed Double Contact (R17d) Base												
110	34206		F48T12/CW/1500/O	24	Cool White	48	(1220)	7000	-	10000	4150	62
	41606		F48T12J/CW/1500/O	12	Cool White 1 13/16" (46 mm) diameter clear glass outer jacket	48	(1220)	6800	-	10000	4150	62
170	13762		F72T12/CW/1500/O	15	Cool White	72	(1830)	10800	-	10000	4150	62
	41612		F72T12J/CW/1500/O	8	Cool White 1 13/16" (46 mm) diameter clear glass outer jacket	72	(1830)	10500	-	10000	4150	62
220	13788		F96T12/CW/1500/O	15	Cool White	96	(2440)	14400	-	10000	4150	62
	41613		F96T12J/CW/1500/O	8	Cool White 1 13/16" (46 mm) diameter clear glass outer jacket	96	(2440)	14000	-	10000	4150	62
CIRCLINE - CIRCULAR FLUORESCENT LAMPS - NOMINAL MEASUREMENTS REFLECT DIAMETER IN (MM)												
T9 Diameter 1 1/8 in (29mm) - 4 Pin (G10q) Base												
20	42732		FC6T9/CW	12	Cool White	6 1/2	(165)	800	560	12000	4150	62
32	11084		FC8T9/KB	6	Kitchen and Bath	8 1/4	(210)	1400	1120	9000	3000	80
22	33774		FC8T9/CW	12	Cool White	8 1/4	(210)	1100	825	12000	4150	62
	11023		FC8T9/WW	12	Warm White	8 1/4	(210)	1150	860	12000	3000	52
	11026		FC8T9/D	12	Daylight	8 1/4	(210)	925	690	12000	6250	75
32	11085		FC12T9/KB	6	Kitchen and Bath	12	(305)	2400	1920	9000	3000	70
	33890		FC12T9/CW	12	Cool White	12	(305)	1950	1460	12000	4150	62
	11034		FC12T9/WW	12	Warm White	12	(305)	2000	1500	12000	3000	52
	11039		FC12T9/D	12	Daylight	12	(305)	1675	1260	12000	6250	75
40	33893		FC16T9/CW	12	Cool White	16	(407)	2700	2030	12000	4150	62
	11048		FC16T9/WW	12	Warm White	16	(407)	2800	2100	12000	3000	52
	49900		FC16T9/SW 6PK	6	Soft White, Replaces WWX	16	(407)	1950	1560	12000	3025	77
	11052		FC16T9/D	12	Daylight	16	(407)	2250	1690	12000	6250	75

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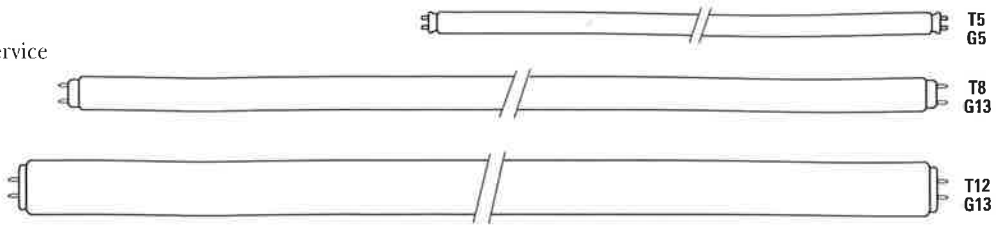
GE Appliance Lamps

- Designed for intermittent burning service in appliances, ovens and dryers
- Starters are required
- Rated at 3 hrs per start; life and watts depend upon the ballast



GE Blacklight/Plant and Aquarium/Reprographic

- Blacklight (BL) lamps are commonly used in "bug zappers"... produce long wavelength UVA radiation in 350-400 nanometer range
- Blacklight Blue (BLB) lamps are often used decoratively in disco lighting and theatrical applications. These lamps also produce UVA radiation
- Plant and Aquarium (PL/AQ) lamps are designed to highlight indoor greenery and enhance plant growth
- The Diazo Reprographic lamp emits a blue light, peaking at approximately 417 nanometers... used primarily in reprographic equipment

Energy Used Watts	Product Code	©	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI
APPLIANCE LAMPS (HOME AND OTHER)												
T8 Diameter 1 in (26mm) - Medium BiPin (G13) Base												
18	10257		F22"T8/D/4	24	Daylight	22	(560)	925	790	7500	6250	75
	10259		F24"T8/CW/4	24	Cool White	24	(610)	1225	1040	7500	4150	62
	17705		F24"T8/CW/4 6PK	24	Cool White	24	(610)	1225	1040	7500	4150	62
19	10702		F26"T8/CW/4	24	Cool White	26	(661)	1275	1085	7500	4150	62
	38199		F26"T8/CW/4 6PK	24	Cool White	26	(661)	1275	1085	7500	4150	62
	10706		F28"T8/CW/4	24	Cool White	28	(711)	1350	1145	7500	4150	62
	17704		F28"T8/CW/4 6PK	24	Cool White	28	(711)	1350	1145	7500	4150	62
	10349		F30"T8/CW/4	24	Cool White	30	(762)	1375	1170	7500	4150	62
T12 Diameter 1 1/2 in (38mm) - Medium BiPin (G13) Base												
20	17735		F20T12/CW/26 6PK	24	Cool White	26	(661)	1175	1060	7500	4150	62
25	10281		F25T12/CW/28	24	Cool White	28	(711)	1665	1500	7500	4150	62
	10282		F25T12/CW/28 6PK	24	Cool White	28	(711)	1665	1500	7500	4150	62
	10286		F25T12/D/28	24	Daylight	28	(711)	1450	1310	7500	6250	75
21	10355		F30"T12/CW	24	Cool White	30	(762)	1350	1220	7500	4150	62
25	10278		F25T12/CW/33	24	Cool White	33	(839)	1860	1675	7500	4150	62
	38201		F25T12/CW/33 6PK	24	Cool White	33	(839)	1860	1675	7500	6250	62
	10299		F25T12/D/33	24	Daylight	33	(839)	1600	1440	7500	6250	75
	10293		F25T12/WW/33	24	Warm White	33	(839)	1910	1720	7500	3000	52
PLANT AND AQUARIUM LAMPS												
T8 Diameter 1 in (26mm) - Medium BiPin (G13) Base												
15	49892		F15T8/PL/AQ 6PK	24	Plant & Aquarium wide spectrum	18	(457)	510	-	7500	3050	90
40	49893		F40PL/AQ 6PK	24	Plant & Aquarium wide spectrum	48	(1220)	1900	-	20000	3050	90
T12 Diameter 1 1/2 in (38mm) - Medium BiPin (G13) Base												
20	49891		F20T12/PL/AQ 6PK	24	Plant & Aquarium	24	(610)	750	-	9000	3050	90
BLACKLIGHT/BLACKLIGHT BLUE LAMPS												
T5 Diameter 5/8 in (16mm) - Miniature BiPin (G5) Base												
4	10017		F4T5/BL	24	Blacklight, UVA Source, Peak emission 365nm.	6	(152)	-	-	6000	-	-
	10019		F4T5/BLB	24	Blacklight Blue, UVA Source, Integral Filter, Peak emission 365nm.	6	(152)	-	-	6000	-	-
8	10077		F8T5/BLB	24	Blacklight Blue, UVA Source, Integral Filter, Peak emission 365nm.	12	(305)	-	-	7500	-	-
T8 Diameter 1 in (26mm) - Medium BiPin (G13) Base												
15	35884		F15T8/BL 6PK	24	Blacklight, UVA Source, Peak emission 365nm.	18	(457)	-	-	7500	-	-
	35885		F15T8/BLB 6PK	24	Blacklight Blue, UVA Source, Integral Filter, Peak emission 365nm.	18	(457)	-	-	7500	-	-
25	47718		F25T8/BL	24	Blacklight, UVA Source, Peak emission 365nm.	18	(457)	-	-	7500	-	-

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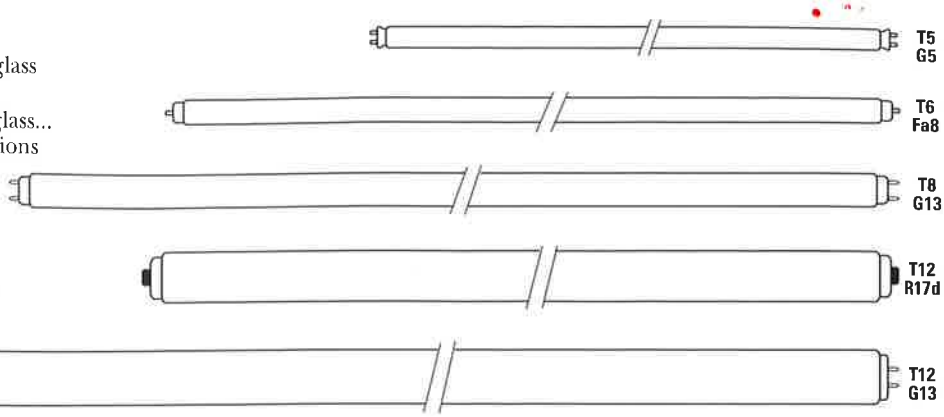
GE Germicidal Lamps

- Clear lamps with special UV transmitting glass
- The 253.7 nanometer radiation from the mercury discharge is passed through the glass... used in water and air purification applications

CAUTION:

Exposure to UV radiation from Germicidal Lamps can be dangerous. Proper safety procedures and protective equipment should be used when working with this type of source.



Energy Used Watts	Product Code	©	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI
BLACKLIGHT/BLACKLIGHT BLUE LAMPS												
T12 Diameter 1 1/2 in (38mm) - Medium BiPin (G13) Base												
20	10244		F20T12/BL 6PK	24	Blacklight, UVA Source, Peak emission 365nm.	24	(610)	-	-	9000	-	-
	34747		F20T12/BLB 6PK	24	Blacklight Blue, UVA Source, Integral Filter, Peak emission 365nm.	24	(610)	-	-	9000	-	-
40	10526		F40BL 6PK	24	Blacklight, UVA Source, Peak emission 365nm.	48	(1220)	-	-	20000	-	-
	10531		F40BLB 6PK	24	Blacklight Blue, UVA Source, Integral Filter, Peak emission 365nm.	48	(1220)	-	-	20000	-	-
	40537		F40BL/U/3	12	Blacklight, UVA Source, ModULine 3 5/8" (92.1 mm) Leg Spacing, Peak emission 365nm.	24	(610)	-	-	12000	-	-
T12 Diameter 1 1/2 in (26mm) - Recessed Double Contact (R17d) Base												
85	12526		F72T12/BL/HO	10	Blacklight, UVA Source Hi Output, For 800 mA Operation, Peak emission 365nm.	72	(1830)	-	-	12000	-	-
DIAZO REPROGRAPHIC 1500 MA. LAMP												
T12 Diameter 1 1/2 in (38mm) - Medium BiPin (G13) Base												
125	39683		F59"T12/SPB	24	Reprographic, Peak emission: 417 nm. 1000 hour useful life; actual burning hours longer	60	(1524)	-	-	1000	-	-
GERMICIDAL LAMPS												
T5 Diameter 5/8 in (16mm) - Miniature BiPin (G5) Base												
8	11077		G8T5	24	Clear, For use with starters, UVC source Peak emission 254nm.	12	(305)	-	-	7500	-	-
T6 Diameter 3/4 in (19mm) - Single Pin (Fa8) Base												
65	11086		G64T6	24	Clear, Instant Start, 425 mA, Peak emission 254nm.	64	(1626)	-	-	7500	-	-
T8 Diameter 1 in (26mm) - Medium BiPin (G13) Base												
15	11078		G15T8	24	Clear, For use with starters, UVC source, Peak emission 254nm.	18	(457)	-	-	7500	-	-
25	11082		G25T8	24	Clear, For use with starters, UVC source, Peak emission 254nm.	18	(457)	-	-	7500	-	-
30	11080		G30T8	24	Clear, For use with starters, UVC source, Peak emission 254nm.	36	(914)	-	-	7500	-	-

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General Information

Lumens and watts are nominal values as defined below.

Nominal Lumens

The nominal lumen rating is an approximation based on the performance of lamps operated under laboratory conditions within industry standard tolerances. A self-ballasted lamp is measured using its integral ballast. Lamps without an integral ballast are measured using reference ballasts.

Lumens produced by lamps operated on commercial ballasts may not be equivalent to reference ballast ratings. For lighting design calculations, refer to the ballast manufacturer's published data for the appropriate "Ballast Factor."

Nominal Initial Lumens

The nominal light output of the lamp after 100 hours of operation.

Nominal Mean Lumens

The nominal light output of the lamp after it has been operated for 40% of its rated life.

Nominal Watts

Catalog wattage is classified in accordance with ANSI standards and may not be the same as the wattage run on a reference ballast. Watts consumed by lamps operated on commercial ballasts may not be equivalent to reference ballast ratings. The watts shown for self-ballasted lamps are nominal system watts.

Rated Life

The rated life (hours) is the approximate median life when lamps are operated for three hours per start under laboratory conditions using ballasts which meet industry standards or GE Lighting specifications where no industry standards exist. Rated life for self-ballasted lamps is the approximate median life when operated for three hours per start under laboratory conditions.

Color Temperature/Chromaticity

Color temperature/chromaticity is measured in Kelvins using industry standard measurements.

Color temperature describes the overall warmth or coolness produced by the source.

- 3000 Kelvin (K) and lower are described as "warm" in tone and slightly enhance reds and yellows
- 4000 K and higher are considered "cool" in tone, slightly biased towards blues and greens
- 3500 K is considered moderate in tone, producing a balance between warmth and coolness

Color Rendering Index (CRI)

The color rendering index shows how well (normal and natural) a source makes objects appear. Generally, the higher the CRI, the better it makes people and objects appear. The CRI of different sources can be compared only if the sources have the same color temperature. The nominal (or approximate) CRI rating is an approximation based on the performance of lamps operated under laboratory conditions within industry standards tolerances.

Dimensions

The nominal lamp length shown in inches is the overall dimension of the lamp, including the lampholders in which it is seated, except as noted.

Operation

All GE fluorescent lamps should be used only with auxiliary equipment designed to produce proper characteristics. Specifications for auxiliary equipment are covered by ANSI. Specifications for auxiliary equipment not included in ANSI Standards are available from GE Lighting Technical Support.

Ratings

Ratings published in this catalog are based on laboratory tests conducted under controlled conditions. Design improvements are frequently made in fluorescent lamps, which tend to obsolete ratings after a period of time. Technical bulletins will be issued from time to time if changes in ratings occur prior to the next catalog printing.

Factors Affecting Lamp Performance

The Ballast

The three basic types of ballasts for fluorescent lamps are Preheat (PH), Instant Start (IS) and Rapid Start (RS). In general, lamps identified as preheat, rapid start or instant start should be used only on the corresponding ballast type. Electronic ballasts are presently available in both instant start and rapid start designs.

Operating Characteristics – The life of a fluorescent lamp is strongly affected by the ballast. The American National Standards Institute has set standards for fluorescent ballasts that will ensure proper operation of fluorescent lamps. Ballast characteristics that have a significant effect on lamp life are Current Crest Factor, Starting Time, Cathode Voltage and Open Circuit Voltage.

Ballast Factor – This is the percentage of a lamp's rated lumen output that can be expected when operated on a specific, commercially available ballast. For example, a ballast having a ballast factor of 0.93 will result in the lamp emitting 93% of its rated lumen output.

High Frequency – All fluorescent lamps operate more efficiently when driven at frequencies greater than 15 kHz. Four-foot fluorescent lamps operate approximately 10% more efficiently, while eight-foot lamps improve by about 5%. This efficiency improvement is one reason for the popularity of electronic ballasts.

Other Factors

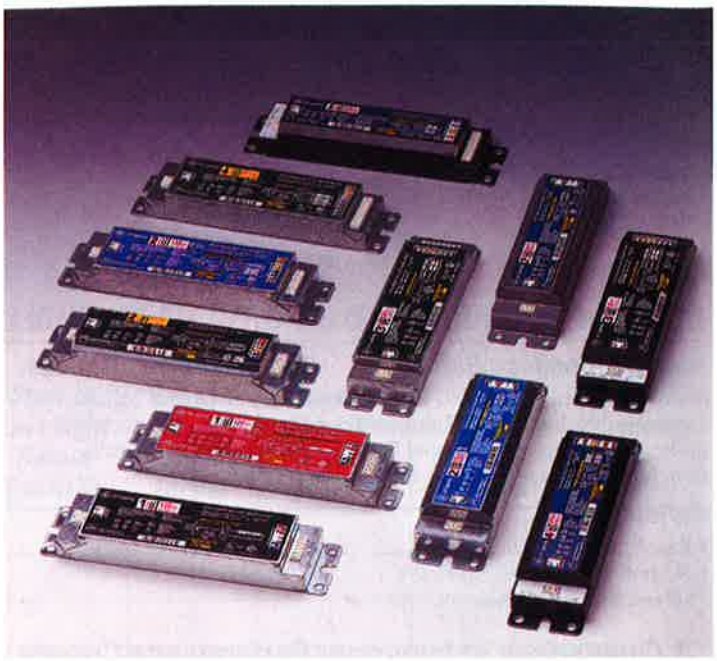
Temperature – The characteristics of a fluorescent lamp – light output and watts – are affected by the ambient temperature, or by drafts. Most fluorescent lamps reach their maximum light output at room temperatures or at "luminaire temperatures." All-Weather fluorescent lamps are designed with glass jackets that permit them to reach optimum performance at outdoor and sub-zero temperatures.

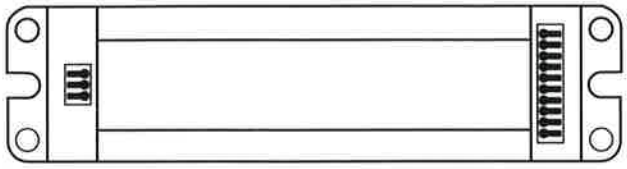
Luminaire – The design of the lighting fixture (luminaire) affects the ambient temperature in which the fluorescent lamps will be operating. A fixture that operates too cool or warm will result in lower light output from the lamps and reduce illumination levels.

Switching – The life of a fluorescent lamp is affected by the number of times the lamp is started. Frequent switching results in shorter lamp life, while continuous operation will provide the longest lamp life. All fluorescent lamps, except where noted, have life ratings based on 3 hours per start.

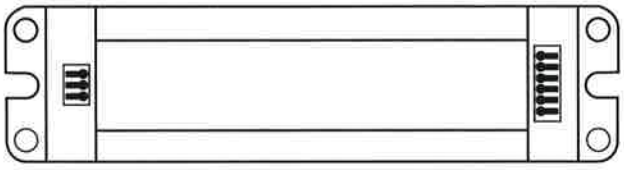
Footnotes

1. Watt-Miser® lamps are intended for use where ambient temperatures are 60°F (16°C) or higher and where the lamp surface is protected from strong air drafts. Failure to protect the lamp surface may result in reduced life, poor starting or erratic operation, such as flickering or spiraling. All Watt-Miser® lamps are intended for use on two-lamp, indoor, lead, high power factor ballasts and are not recommended for use with dimming or reduced current systems.
   The use of Watt-Miser® lamps on single lamp ballasts may shorten lamp life. Rapid Start Watt-Miser® lamps are intended for use only with rapid start ballasts. F40 Rapid Start Watt-Miser® lamps on high frequency electronic systems may display erratic starting before end of life.
2. F40 Watt-Miser® Plus lamps are not recommended for use with cathode cut-out ballasts. The F40 Watt-Miser® Plus lamp is not recommended for use with electronic ballasts and may require up to one minute to restart if a circuit interruption of up to 60 seconds occurs.
3. F40T12/CW/IS and F40T17/CW/IS lamps are for use only in fixtures equipped with instant start ballasts.
4. Because Power Groove® and Very High Output lamps are most used in commercial applications, the life rating is based on 12 hrs. per start.
5. When base pins or Recessed Double Contact bases are horizontal, the window opening is centered in a vertical plane through the lamp axis.
6. Cold Temperature lamps are designed for use where ambient temperatures drop below 60°F (16°C).
7. Performance data based on engineering estimates.

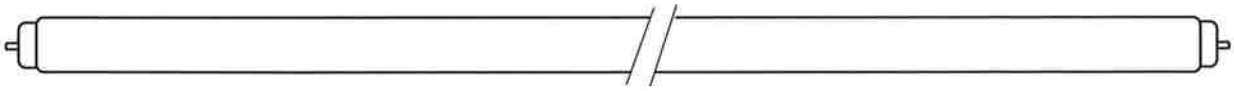




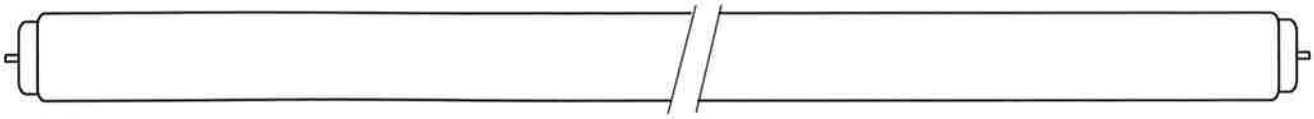
Rapid Start



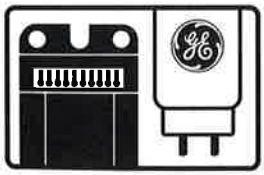
Instant Start



Trimline™ T8



T12



The Perfect Match
Total Performance Systems

GE Lighting

MOTOROLA
Motorola Lighting Inc.

Introduction

GE Lighting, the world's leading lamp manufacturer and Motorola Lighting, the innovator and quality leader in electronic ballasts, have formed an alliance to deliver world class electronic lighting systems that offer an unsurpassed combination of...

- Quality
- Performance
- Energy Efficiency
- Innovation
- Reliability

General Information

High Performance Ballasts

Energy-efficient, non-potted High Performance electronic ballasts are known worldwide for their quality and reliability. Manufactured in the U.S.A., they offer unique features for easy, low-cost installation, low maintenance, and maximum performance.

Reliability

- Rated to 20-year life*
- No potting material; No PCB's

* At 20 years, 50% of a given lot are operating

SIX SIGMA® Quality

- The goal of SIX SIGMA® Quality is no more than 3.4 defects per million opportunities

Optimized Lamp Life

- Lamp current crest factor
  Rapid Start ..... <1.5
  Instant Start ..... <1.7
  Flicker ..... <2.0%

Power Line Quality

- Total harmonic distortion ..... <10%
- Power factor ..... >0.99

Easy, Lower Cost Installation

- Poke-in wiretrap connectors
- Weighs less than 1.3 lbs.

Systems Warranty

- 5 years for dual branded GE Lighting and Motorola Lighting Electronic Ballasts and up to 3 years for GE lamps **when used together.**

A Comparison of Important Performance Criteria Appears Below:

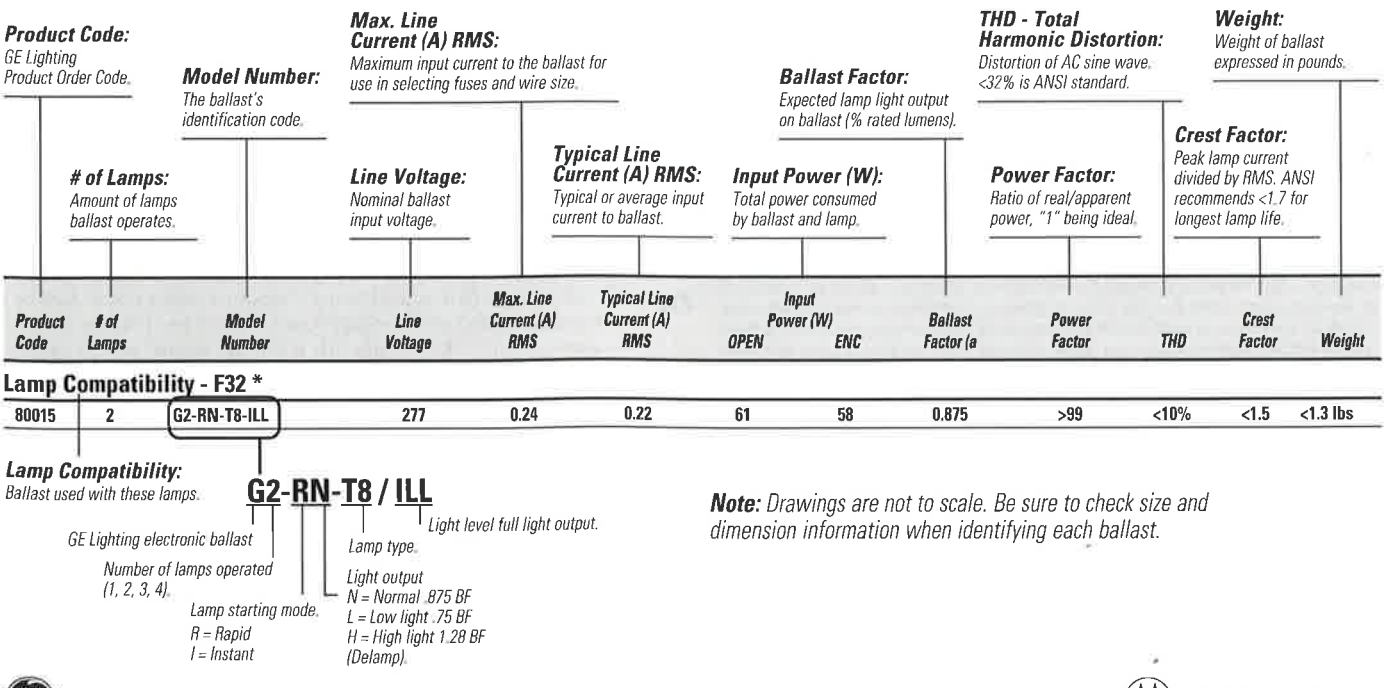
Parameter	GE Lighting and Motorola Lighting High Performance Electronic Ballast	Magnetic Ballast	Generic Electronic Ballast
Flicker	Less Than 2%	33%	Less Than 2%
Power Factor	Greater Than .99	.95	Less Than .99
Harmonic Distortion	Less Than 10%	18-20%	Less Than 20%
Lamp Current Crest Factor	Less Than 1.70	1.65	Less Than 1.70

Headings in the Ballast section:

The chart on this page will help you gain a basic understanding of how the Ballasts are identified and classified. Simply look for the corresponding wattage and type of bulb you have and match that to the Ballast listed.

Electronic Ballast Wire Harness:

If required, special installation wire sets are available. See page 5-6 for details.



Note: *Drawings are not to scale. Be sure to check size and dimension information when identifying each ballast.*

GE Lighting

MOTOROLA
Motorola Lighting Inc.

(a = ±0.025

* Performance data represents most common lamp and ballast combination. Additional lamp performance data (ex. F17 and F25) can be found in the Linear Fluorescent Electronic Lighting System Brochure (#203-41091R 10/94).

The Perfect Match
Total Performance Systems

Lamp and Ballast Compatibility:

GE LIGHTING AND MOTOROLA LIGHTING ELECTRONIC BALLASTS

GE LAMPS	Instant Start T8 Normal Light Output	Rapid Start T8 Normal Light Output	Rapid Start T12 Normal Light Output	Rapid Start T8 Low Light Output LOWATT™	Rapid Start T8 High Light Output	Rapid Start T8 Dimming 100%-10%	Rapid Start T5 40W Biax	Instant Start Slimline 8 ft. T8
T8 Medium Bipin								
F17T8	X	X		X	X	X		
F25T8	X	X		X	X	X		
F32T8	X	X		X	X	X		
F32T8SXL	X	X		X	X	X		
F32T8/U/6	X	X		X	X	X		
F32T8/U/6/WM	X	X		X	X	X		
T8 Single Pin								
F96T8								X
T12 Medium Bipin								
F25T12	X	X		X	X	X		
F30T12			X					
F40WMT12			X					
F40T12			X					
T5 Single End 4 Pin								
F40/BX							X	

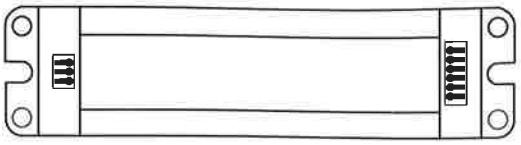
ELECTRONIC BALLAST BRAND NAME CROSS-REFERENCE

GE	MAGNETEK	ADVANCE	EBT	OSI
Instant Start T8 Normal Light Output	Triad	Centium & Standard	Centium & Standard	Quicktronic System 32
Rapid Start T8 Normal Light Output	Triad	Centium & Mark V	Centium	–
Rapid Start T8 Low Light Output	–	–	–	–
Instant Start 8' T8 Normal Light Output	Triad	Standard	Standard	Quicktronic
Rapid Start T8 High Light Output	–	Mark V	–	–
Rapid Start T12 Normal Light Output	Triad	Centium & Standard	Centium & Standard	–

GE T8 Instant Start Normal Light Output

High performance features combined with maximum energy savings and the convenience of parallel wiring.

- Enhanced power quality; exceeds utility requirements;
- No potting or PCB's
- Features parallel operation for easy maintenance – if one lamp fails, the others remain illuminated
- Economical solution for lighting project



Instant Start

Instant Start T8 Normal Light Output (1, 2, 3)

Lamp Compatibility: F32 *

Product Code	# of Lamps	Model Number	Line Voltage	Max. Line Current (A) RMS	Typical Line Current (A) RMS	Input Power (W) OPEN	Input Power (W) ENC	Ballast Factor (a	Power Factor	THD	Crest Factor	Weight
80000	1	G1-IN-T8-120	120	0.31	0.28	33	32	0.875	>.99	<10%	<1.7	<1.3
80001	1	G1-IN-T8-277	277	0.13	0.12	33	32	0.875	>.99	<10%	<1.7	<1.3
80054	1	G1-IN-T8-347	347	0.11	0.09	32	31	0.875	>.99	<10%	<1.7	<1.3
80002	2	G2-IN-T8-120	120	0.51	0.48	59	58	0.875	>.99	<10%	<1.7	<1.3
80003	2	G2-IN-T8-277	277	0.22	0.20	59	58	0.875	>.99	<10%	<1.7	<1.3
80055	2	G2-IN-T8-347	347	0.19	0.17	60	59	0.875	>.99	<10%	<1.7	<1.3
80004	3	G3-IN-T8-120	120	0.77	0.70	85	83	0.875	>.99	<10%	<1.7	<1.3
80005	3	G3-IN-T8-277	277	0.34	0.31	84	82	0.875	>.99	<10%	<1.7	<1.3
80006	4	G4-IN-T8-120	120	1.01	0.92	114	112	0.875	>.99	<10%	<1.7	<1.3
80007	4	G4-IN-T8-277	277	0.44	0.40	111	109	0.875	>.99	<10%	<1.7	<1.3

Instant Start 8' T8 Normal Light Output (3, 4, 5)

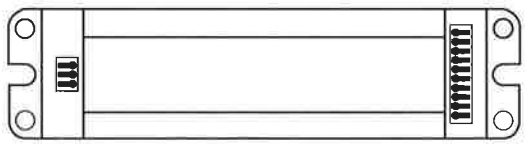
Lamp Compatibility: F96T8

80032	1	G2-1L-T8-8FT-120	120	0.58	0.55	65	64	0.83	>.99	<10%	<1.7	<1.5
80033	1	G2-1L-T8-8FT-277	277	0.25	0.24	66	65	0.83	>.99	<10%	<1.7	<1.5
80032	2	G2-1L-T8-8FT-120	120	0.90	0.88	105	103	0.83	>.99	<10%	<1.7	<1.5
80033	2	G2-1L-T8-8FT-277	277	0.40	0.38	105	103	0.83	>.99	<10%	<1.7	<1.5

GE T8 Rapid Start Normal Light Output

An optimum combination of energy efficiency, power line quality and lighting system performance.

- Get excellent energy savings compared to T12 40W systems
- No potting or PCB's
- Accommodates custom fixtures, strip lighting and standard troffers requiring different lamp lengths or combinations



Rapid Start

Rapid Start T8 Normal Light Output (1, 2, 3)

Lamp Compatibility: F32 *

Product Code	# of Lamps	Model Number	Line Voltage	Max. Line Current (A) RMS	Typical Line Current (A) RMS	Input Power (W) OPEN	Input Power (W) ENC	Ballast Factor (a	Power Factor	THD	Crest Factor	Weight
80010	1	G1-RN-T8-1LL-120	120	0.28	0.26	31	30	0.875	>.99	<10%	<1.5	<1.3
80011	1	G1-RN-T8-1LL-277	277	0.12	0.11	31	30	0.875	>.99	<10%	<1.5	<1.3
80014	2	G2-RN-T8-1LL-120	120	0.55	0.51	60	55	0.875	>.99	<10%	<1.5	<1.3
80056	2	G2-RN-T8-1LL-230	230	0.31	0.27	61	59	0.875	>.99	<10%	<1.5	<1.3
80015	2	G2-RN-T8-1LL-277	277	0.24	0.22	60	58	0.875	>.99	<10%	<1.5	<1.3
80018	3	G3-RN-T8-1LL-120	120	0.84	0.76	92	89	0.875	>.99	<10%	<1.5	<1.3
80057	3	G3-RN-T8-1LL-230	230	0.45	0.40	93	90	0.875	>.99	<10%	<1.5	<1.3
80019	3	G3-RN-T8-1LL-277	277	0.37	0.33	90	86	0.875	>.99	<10%	<1.5	<1.3
80020	4	G4-RN-T8-1LL-120	120	1.05	0.95	122	120	0.875	>.99	<10%	<1.5	<1.3
80021	4	G4-RN-T8-1LL-277	277	0.45	0.41	114	111	0.875	>.99	<10%	<1.5	<1.3

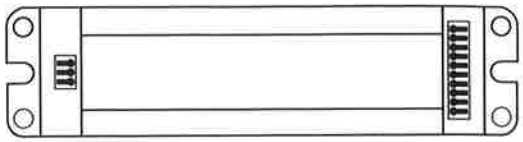
(a = ±0.025

* Performance data represents most common lamp and ballast combination. Additional lamp performance data (ex. F17 and F25) can be found in the Linear Fluorescent Electronic Lighting System Brochure (#203-41091R 10/94).

GE T8 Rapid Start Lowatt™ Low Light Output

Additional energy savings where reduced light output is acceptable.

- Get excellent energy savings compared to T12 40W systems
- No potting or PCB's
- Accommodates custom fixtures, strip lighting and standard troffers requiring different lamp lengths or combinations



Rapid Start

Rapid Start T8 Lowatt™ Low Light Output (1, 2, 3)

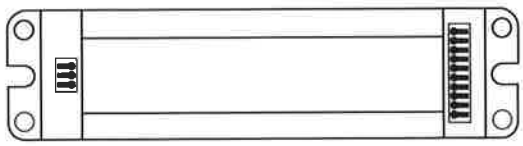
Lamp Compatibility: F32 *

Product Code	# of Lamps	Model Number	Line Voltage	Max. Line Current (A) RMS	Typical Line Current (A) RMS	Input Power (W) OPEN	Input Power (W) ENC	Ballast Factor (a	Power Factor	THD	Crest Factor	Weight
80022	1	G1-RL-T8-1LL-120	120	0.26	0.23	30	29	0.75	>.99	<10%	<1.5	<1.3
80023	1	G1-RL-T8-1LL-277	277	0.11	0.10	27	26	0.75	>.99	<10%	<1.5	<1.3
80024	2	G2-RL-T8-1LL-120	120	0.51	0.46	55	54	0.75	>.99	<10%	<1.5	<1.3
80025	2	G2-RL-T8-1LL-277	277	0.21	0.20	55	54	0.75	>.99	<10%	<1.5	<1.3
80026	3	G3-RL-T8-1LL-120	120	0.71	0.69	78	76	0.75	>.99	<10%	<1.5	<1.3
80027	3	G3-RL-T8-1LL-277	277	0.32	0.29	79	76	0.75	>.99	<10%	<1.5	<1.3
80028	4	G4-RL-T8-1LL-120	120	1.01	0.92	110	107	0.75	>.99	<10%	<1.5	<1.3
80029	4	G4-RL-T8-1LL-277	277	0.40	0.37	102	99	0.75	>.99	<10%	<1.5	<1.3

GE T8 Rapid Start High Light Output

An economical choice... Achieve additional light, or use fewer lamps to get needed light.

- Highly efficient – up to 90 LPW
- Two-Lamp T8 High Light Output ballast provides nearly the same light as a four-lamp F34T12 system



Rapid Start

Rapid Start T8 High Light Output (1, 2, 3)

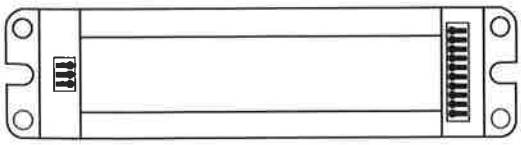
Lamp Compatibility: F32 *

Product Code	# of Lamps	Model Number	Line Voltage	Max. Line Current (A) RMS	Typical Line Current (A) RMS	Input Power (W) OPEN	Input Power (W) ENC	Ballast Factor (a	Power Factor	THD	Crest Factor	Weight
80034	2	G2-RH-T8-1LL-120	120	0.79	0.72	86	84	1.28	>.99	<10%	<1.5	<1.3
80035	2	G2-RH-T8-1LL-277	277	0.34	0.31	86	84	1.28	>.99	<10%	<1.5	<1.3

GE T8 Rapid Start Electronic Dimming 100%-10%

The flexibility of continuous dimming from full light output down to 10%.

- Continuous dimming to 10% light
- Uses only 18 Watts at full dim setting
- Compatible with widely available 0-10V controls
- Control wire may be co-located with power wiring or run separately
- No potting or PCB's



Rapid Start

Rapid Start T8 Dimming 100% - 10% Light Output (1, 2, 3)

Lamp Compatibility: F32 *

Product Code	# of Lamps	Model Number	Line Voltage	Max. Line Current (A) RMS	Typical Line Current (A) RMS	Input Power (W) OPEN	Input Power (W) ENC	Ballast Factor (a	Power Factor	THD	Crest Factor	Weight
80040	2	G2-RN-T8-10C-120	120	0.55	-	65	-	0.875	>.99	<10%	<1.5	<1.3
80041	2	G2-RN-T8-10C-277	277	0.22	-	65	-	0.875	>.99	<10%	<1.5	<1.3

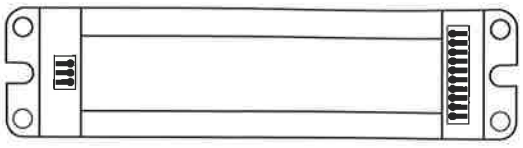
(a = ±0.025

* Performance data represents most common lamp and ballast combination. Additional lamp performance data (ex. F17 and F25) can be found in the Linear Fluorescent Electronic Lighting System Brochure (#203-41091R 10/94).

GE T5 Rapid Start Normal Light Output

High performance ballast benefits for the versatile High Lumen Biax® lamp.

- Up to 30% energy cost savings vs. electromagnetic ballasts
- Cooler operation
- No potting or PCB's



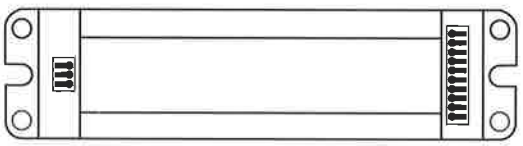
Rapid Start

Product Code	# of Lamps	Model Number	Line Voltage	Max. Line Current (A) RMS	Typical Line Current (A) RMS	Input Power (W) OPEN	Input Power (W) ENC	Ballast Factor (a	Power Factor	THD	Crest Factor	Weight
Rapid Start T5 Normal Light Output (4)												
Lamp Compatibility: F40BX												
80036	2	G2-RN-T5/40-ILL-120	120	0.61	0.55	66	64	0.785	>.99	<10%	<1.5	<1.3
80037	2	G2-RN-T5/40-ILL-277	277	0.26	0.23	66	64	0.785	>.99	<10%	<1.5	<1.3

GE T10/T12 Rapid Start Normal Light Output

Highest performance choice for standard T12 systems; also operates T10 lamps.

- An economical and convenient solution to new and retrofit lighting
- High performance provides improved power quality, energy efficiency and eliminates annoying lamp flicker
- Unique poke-in wire trap design makes retrofitting quick and easy
- No potting or PCB's



Rapid Start

Product Code	# of Lamps	Model Number	Line Voltage	Max. Line Current (A) RMS	Typical Line Current (A) RMS	Input Power (W) OPEN	Input Power (W) ENC	Ballast Factor (a	Power Factor	THD	Crest Factor	Weight
Rapid Start T10/T12 Normal Light Output (3, 4)												
Lamp Compatibility: F40T12 *												
80008	1	G1-RN-T12-1LL-120	120	0.35	0.31	38	37	0.875	>.99	<10%	<1.5	<1.3
80009	1	G1-RN-T12-1LL-277	277	0.16	0.14	38	37	0.875	>.99	<10%	<1.5	<1.3
80012	2	G2-RN-T12-1LL-120	120	0.63	0.57	69	67	0.875	>.99	<10%	<1.5	<1.3
80013	2	G2-RN-T12-1LL-277	277	0.27	0.25	68	66	0.875	>.99	<10%	<1.5	<1.3
80016	3	G3-RN-T12-1LL-120	120	1.00	0.91	109	106	0.875	>.99	<10%	<1.5	<1.3
80017	3	G3-RN-T12-1LL-277	277	0.45	0.38	105	102	0.875	>.99	<10%	<1.5	<1.3

Wire Harnesses

Although **not necessary** when retrofitting with GE Lighting and Motorola Lighting electronic ballasts, wire harnesses can be ordered separately from your GE Lighting distributor for an additional cost:

Model Numbers and Descriptions

GE Lighting — Number Output Wires — MFGR. Code

G1 - RS - 04 - 50109

- G1 = Number of Lamps Wired
- RS = Rapid Start, IS = Instant Start, RD = Dimming, 8FT = T8 Slimline

Product Code	Instant Start	Description	Qty. Carton
80450	One Lamp	G1-IS-02-50113	20
80451	Two Lamp	G2-IS-03-50114	20
80452	Three Lamp	G3-IS-04-50115	20
80453	Four Lamp	G4-IS-06-50116	20

Product Code	8 Ft. Slimline	Description	Qty. Carton
80454	Two Lamp	G2-8FT-03-50118	20

Product Code	Rapid Start	Description	Qty. Carton
80455	One Lamp	G1-RS-04-50109	20
80456	Two Lamp	G2-RS-06-50110	20
80457	Three Lamp	G3-RS-08-50111	20
80458	Four Lamp	G4-RS-10-50112	20

Product Code	Dimming	Description	Qty. Carton
80459	Two Lamp	G2-RD-08-50120	20

Product Code	Y-Wires	Description	Qty. Carton
80460	Y-Wires for 3 and 4 Lamp rapid start ballasts	Y-Wire-67L001	20

(a = ±0.025

* Performance data represents most common lamp and ballast combination. Additional lamp performance data (ex. F17 and F25) can be found in the Linear Fluorescent Electronic Lighting System Brochure (#203-41091R 10/94).

4' Fluorescent System Performance Ballasts

	STANDARD (OBSOLETE)	HI EFFICIENCY	HYBRID	GE LIGHTING AND MOTOROLA LIGHTING ELECTRONIC INSTANT START	RAPID START LOWATT™	RAPID START NORMAL	RAPID START HIGH-LIGHT
Standard T12[1]	Watts: 181 Ballast Factor: .94 Light: 100% Relative Efficiency: 100	Watts: 164 Ballast Factor: .94 Light: 100% Relative Efficiency: 111	Watts: 133 Ballast Factor: .83 Light: 94% Relative Efficiency: 129	Not recommended	Not recommended	Watts: 132 Ballast Factor: .88 Light: 99% Relative Efficiency: 136	Not recommended
Staybright™ XL T12	Watts: 181 Ballast Factor: .94 Light: 106% Relative Efficiency: 107	Watts: 164 Ballast Factor: .94 Light: 106% Relative Efficiency: 118	Not recommended	Not recommended	Not recommended	Watts: 132 Ballast Factor: .88 Light: 105% Relative Efficiency: 144	Not recommended
Watt-Miser® T12	Watts: 160 Ballast Factor: .88 Light: 89% Relative Efficiency: 102	Watts: 143 Ballast Factor: .88 Light: 88% Relative Efficiency: 113	Watts: 117 Ballast Factor: .83 Light: 89% Relative Efficiency: 138	Not recommended	Not recommended	Watts: 120 Ballast Factor: .88 Light: 89% Relative Efficiency: 134	Not recommended
F25T12	Not recommended	Not recommended	Not recommended	Watts: 91 Ballast Factor: .88 Light: 70% Relative Efficiency: 139	Watts: 85 Ballast Factor: .75 Light: 60% Relative Efficiency: 128	Watts: 93 Ballast Factor: .88 Light: 70% Relative Efficiency: 136	Watts: 139 Ballast Factor: 1.28 Light: 102% Relative Efficiency: 133
Watt-Miser® Plus T12	Watts: 149 Ballast Factor: .90 Light: 89% Relative Efficiency: 108	Watts: 133 Ballast Factor: .90 Light: 89% Relative Efficiency: 121	Not recommended	Not recommended	Not recommended	Not recommended	Not recommended
Trimline T8	Not recommended	Watts: 140 Ballast Factor: .93 Light: 93% Relative Efficiency: 120	Watts: 112 Ballast Factor: .87 Light: 92% Relative Efficiency: 137	Watts: 110 Ballast Factor: .88 Light: 93% Relative Efficiency: 153	Watts: 103 Ballast Factor: .75 Light: 85% Relative Efficiency: 150	Watts: 112 Ballast Factor: .88 Light: 93% Relative Efficiency: 150	Watts: 168 Ballast Factor: 1.28 Light: 135% Relative Efficiency: 145

Note: Applies to typical performance in 4-lamp 2x4 recessed prismatic troffer. Light values are based on initial light out of SP35 lamps. Ballast Factors represent typical average performance. Relative efficiency is a comparison to Standard Lamps on Standard Ballasts. Actual wattage and light output will vary with ballast, ballast factor and fixture design along with ambient conditions.
(1) Halophosphor versions of this lamp (CW,WW,W,D) were delisted as of October 31, 1995 due to Federal Energy Legislation.

The Lamps

Many lamp and ballast choices are now available – and one of the combinations is just right for you.

- STANDARD (40 watts) lamp ..... the **work horse** of the past, operates on all ballasts.
- WATT-MISER® (34 watts) lamp ..... **low wattage,** high efficiency, operates on most* ballasts.
- WATT-MISER® PLUS (32 watts) lamp ..... **very low wattage,** very high efficiency, operates on most* ballasts. Ballast watts reduced by one watt, so is equivalent to 31 watts
- STAYBRIGHT™ XL (40 watts) lamp ..... **high light output,** long life: very high efficiency; operates on all ballasts.
- F25T12 ..... **lower wattage** with higher light output. Operates on T8 electronic ballasts.
- TRIMLINE T8 ..... the **highest efficiency** lamp for 4 foot fixtures. Excellent performance on both Instant Start and Rapid Start Electronic ballasts.

* *Not recommended for use on dimming or other low-current ballasts unless approved by the system manufacturer. Watt-Miser® Plus not recommended for use on electronic ballasts, compatible with hybrid ballasts but not needed because of redundancy.*

The Ballast

- Standard ballast ..... lowest price ballast, but also **lowest efficiency** and **highest wattage** ballast. Obsolete.
- Hi Efficiency ballast ..... **low watts** (saves 8.5 watts/ballast†), same light†, good efficiency, longer life than standard.
- Hybrid ballast ..... **low watts** (saves 24 watts/ballast†), high efficiency, longer life than standard hi efficiency ballasts.
- Electronic Rapid Start .... **low wattage** and longest lamp life available with various ballast factors and wattage packages for T12 and T8 lamps.
- Electronic Instant Start ..... **lowest system watts** and highest system efficacy. Lamp life is slightly shorter than Rapid Start.

† *Compared with standard ballasts operating standard wattage lamps in 4-lamp enclosed troffer.*

Energy Savings Worksheet

A. Fixture Calculations

		Present System 2 Lamp Fixture with Standard Magnetic Ballast and 2-40 Watt T12 Lamps Enclosed Fixtures		**Same Fixture with GE Lighting and Motorola Lighting Ballasts and 2-T8 Lamps Enclosed Fixtures**
A1.	Watts per Fixture		96	58
A2.	Operating Hours per Year	X	4000	X 4000
A3.	Watt Hours per Year	=	384,000	= 232,000
A4.	Divided by 1000	÷	1000	÷ 1000
A5.	Total KWH per Year	=	384 KWH/YR	= 232 KWH/YR
A6.	Average Cost per KWH	X	$0.08	X $0.08
A7.	Annual Power Cost to Operate 1 Fixture	=	**$30.72**	= **$18.56**
A8.	Annual Power Savings per Fixture per Year (Present System Cost minus New System Cost)			= $12.16
A9.	Fixture Quantity			X 1000
A10.	**Annual Savings After Conversion (All Fixtures)**			= **$12,160.00**

B. Payback Calculations

Includes:
- Lamps, (2, F32T8's),
- Ballast,
- Labor,
- Miscellaneous Materials

Total Retrofit Cost per Fixture		**$40.00**
B2.	Subtract Utility Rebate[1]	10.00
B3.	Cost	**30.00**
B4.	Divide by Savings	12.16
B5.	Payback in Years	**2.47**

Assumption:
1. Rebate varies by utility service area.
2. Based on one watt of air conditioning energy required to remove four watts of heat load.
3. Air conditioning operated 30 percent of the year.

C. Air Conditioning Savings Calculations Additional Savings

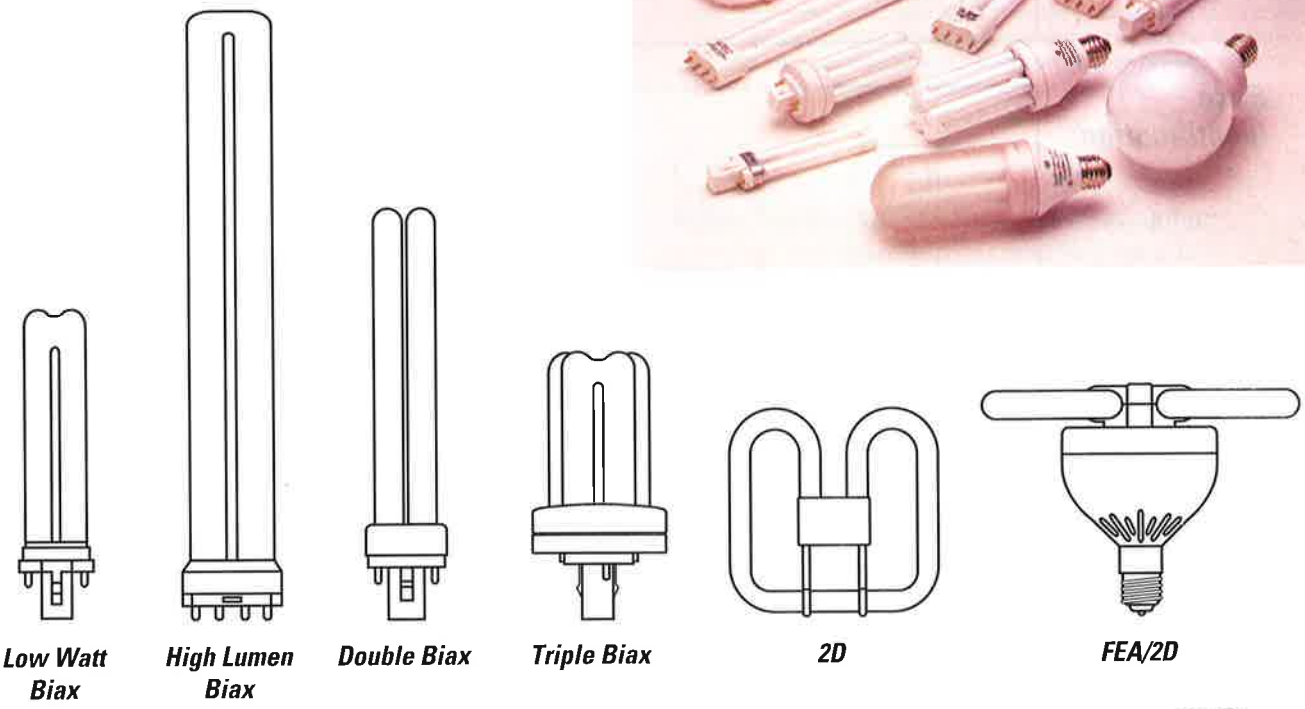
C1.	Savings per Fixture (A8)		$12.16
C2.	Multiply Savings per Fixture[2]	X	0.25
			$3.04
C3.	Multiply by Percent Average Cooling Hours per Year[3]	X	0.30
C4.	Air Conditioning Savings per Fixture		$.91
C5.	Multiply by Fixture Quantity	X	1000
C6.	Annual Air Conditioning Savings per Year - All Fixtures		$910.00
C7.	**Compute Savings** (C6 + A10)		$13,070.00
C8.	**Compute Total Payback in Years** Divide Total Cost of Retrofit (B3 x C5)		$30,000.00
		÷	13,070.00
	Total Payback in Years with Rebate		**2.3**

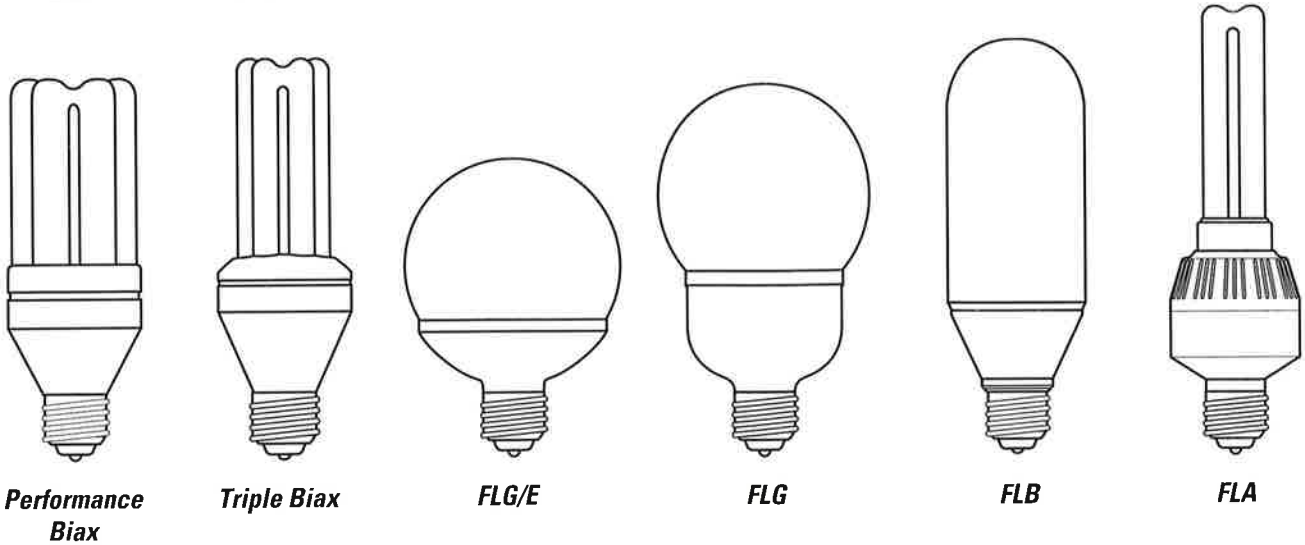
Footnotes

* Performance data represents most common lamp and ballast combinations. Additional lamp performance data (ex.: F17 and F25) can be found in the Linear Fluorescent Electronic Lighting System brochure (203-41091R) 10/94.

(a = ± 0.025

1. Will also operate F25T12 DSM Lamp.
2. Will also operate Mod-U-Line™ Watt-Miser® Lamps.
3. Will not operate F40BX lamps.
4. Will not operate Mod-U-Line™ T8 Watt-Miser® lamps.
5. Will also operate one lamp 8FT. T8 without implication of lamp life or ballast performance.

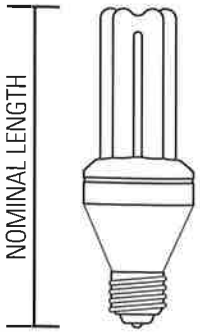




Compact Fluorescent Lamp Shapes

(drawings not to scale)

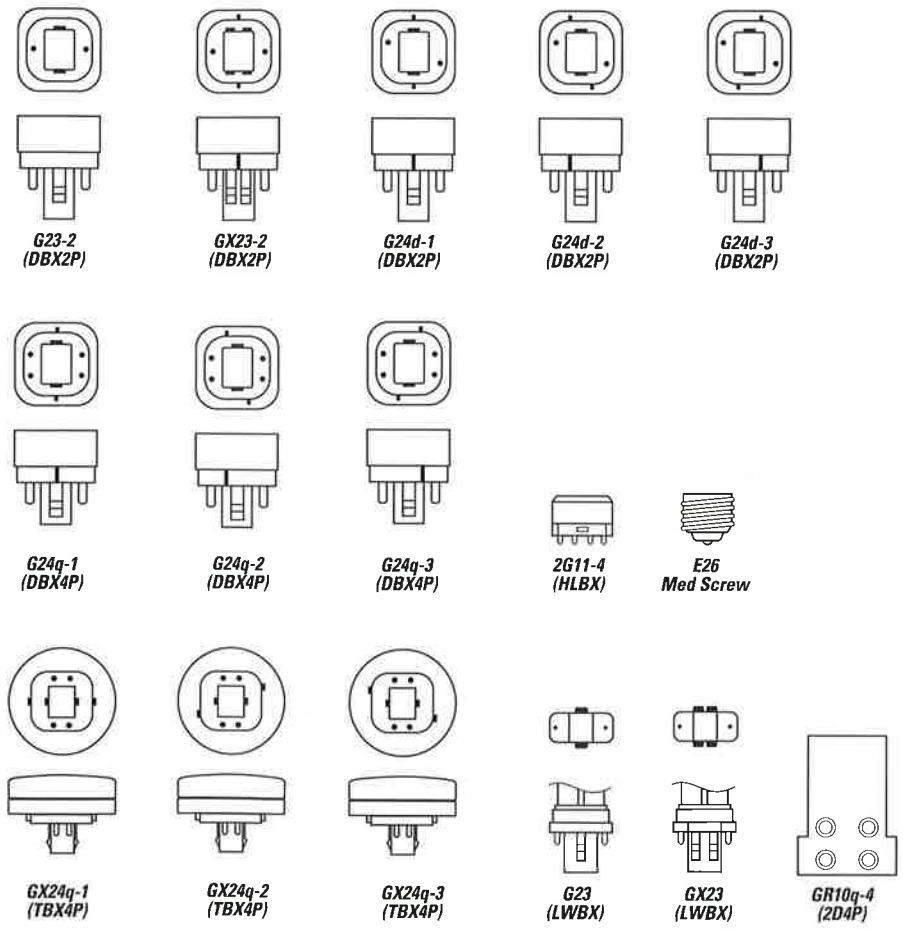
Bulb Identification:



NOMINAL LENGTH in. (mm):
Overall length including base or pins.

Note: Lamp drawings are not drawn to scale. Be sure to check size and dimension information when identifying each lamp.

Base Identification:



Introduction

GE Compact Fluorescents Lamps offer many advantages:

- **Dramatic energy cost savings...** up to 75% vs. incandescent bulbs of comparable light output. The high efficiency of the compact fluorescent line allows the user to significantly reduce energy usage, by up to 75% over incandescent equivalents. Compare the performance of compact fluorescent lamps to that of some commonly used incandescent products:
- **Extra long life, 9,000-10,000 hours...** up to 13 times longer than standard incandescent lamps.
- **High light output** comparable, and in some cases exceeding, incandescent lamps replaced.
- **Excellent color rendering...** rare earth tri-phosphor provides color so true and natural you won't believe it's fluorescent. Deluxe SPX colors are available. Most types offer a choice of color options, from warm to cool, to let you select the tone and atmosphere you need.
- **A choice of wattages, shapes and sizes** to meet your lighting needs. Designed to fit everything from table lamps to wall sconces and ceiling fixtures.

COMPACT FLUORESCENT BRAND NAME CROSS-REFERENCE

GE	OSRAM/SYLVANIA	PHILIPS
2D™	—	—
Biax®	Dulux® S/Twin Tube	PL
Compax™, Biax®	Dulux® EL/Electronic Compact	Earthlight®, PL
Double Biax®	Dulux®/Double Twin Tube	PL-C
High Lumen Biax®	Dulux® L	PL-L
Oct	—	—
Triple Biax®	Dulux® T/E	PL-T

ATTENTION: *This brand-name cross-reference chart is provided only as a quick reference. Other lamp company brand listings may only represent a near equivalent, versus an identical match to GE Lighting brands. Individual lamp manufacturer's performance specifications should be consulted. Lamp performance may be affected by environmental conditions, ballast type and/or other auxiliary equipment.*

Headings in this catalog section:

The following glossary of terms and descriptions can help you when checking Compact Fluorescent lamp specifications and when ordering products. Within each product line, lamps are divided into families, within these families, lamps are then listed by wattage. To find your lamp, follow these simple steps:

When You Don't Know The Lamp Description:

1. Identify bulb shape by using table on page 6-1.
2. Measure bulb diameter using ruler in appendix section page 8-6 to determine width in eighths of an inch.
3. Identify base type using table on page 6-2.
4. Find your lamp in the table containing the bulb shape, size and base.

NOTE: Lumens and watts are nominal values as defined on page 4-16.

Energy Used
Watts:
Energy Used (as defined by FTC lamp label rules). To find actual energy used (kWh) multiply power (watts shown) x time divided by 1000.

Lamp Designation:
The lamp's identification code.

Product Code:
It is important to use this five-digit code when ordering to ensure that you receive the exact product you require.

Base:
The type of base.

Case Quantity:
Number of product units packed in a case.

Additional Information:
Typical application and/or other important information.

Color Temperature - Kelvins (K):
A measure of the visual "warmth" or "coolness" of the light from the lamp. The higher the value, the whiter or "cooler" the light appears.

Total Harmonic Distortion (THD):
A measure (in percent) of power quality. Indicates the distortion of the alternating current wave form. Low values (<20%) are preferred.

Power Factor (PF):
A measure of power quality. The ratio of total watts to total volt-amperes. A value of 1.0 is ideal.

Light Output - Mean:
Lamp light output (lumens) at 40% of rated lamp life.

Color Rendering Index (CRI or R_a):
An indication of the ability of the lamp to render object colors in a normal, natural way. The higher the number (0-100), the better the color appearance.

Nominal Length:
Expressed in inches.

Light Output - Initial:
Lamp light output (lumens) after the initial 100 hours of operation.

Rated Average Life -
Hours:
Lamp burning hours to median life expectancy.

Minimum Starting Temperature:
The minimum ambient temperature at which the lamp will start reliably.

Energy Used (Watts)	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	Nominal Length In.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI	Minimum Start Temp F	Minimum Start Temp (°C)	Power Factor	THD
ELECTRONIC BALLASTED ONE PIECE SCREW-IN LAMPS																
20		12545	FLE20TBX/SPX27/EC	6	RE 827 Phosphor - Soft White Energy Choice™, Triple Biax (1,9,10,11,12)*	6.0	(152)	1200	1020	10000	2700	82	-10F	(-23)	<.6	170%

FL E 20 TBX / SPX27 / EC

- FL — *Identifies as Fluorescent lamp.*
- E — *Electronically ballasted.*
- 20 — *Identifies the lamp's wattage.*
- TBX — *Identifies the lamp shape.*
- SPX27 — *Identifies the lamp: finish or color.*
- EC — *Identifies the lamp as an Energy Choice™ product.*

Yellow Highlight *indicates that this is a reduced wattage option for lamps normally used in this application. Be sure to check wattage, lumens and life to determine which lamp is best suited to your needs.*

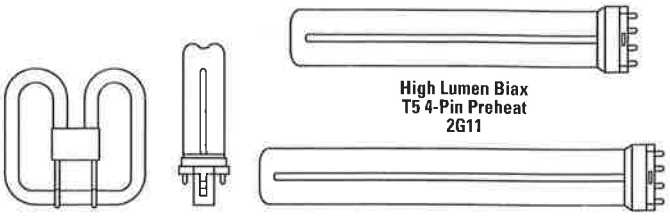
Blue Highlight *indicates that this is a lamp with high color rendering, which helps objects and persons illuminated to appear more true to life.*

( ) * All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Plug-In Compact Fluorescent Lamps

Their compact size offers the opportunity to create attractive, cost-efficient lighting designs in recessed downlights, task lights, accent lighting, general lighting or wherever long life, compact size and energy savings are important.

Their high efficiency, compact size and long 10,000 hour life make them an economical alternative to incandescent and even conventional fluorescent lighting.



2D GR10q-4

Low Watt Biax T4 G23 or GX23

High Lumen Biax T5 4-Pin Preheat 2G11

High Lumen Biax T5 4-Pin Rapid Start 2G11

GE 2D™ Plug-in Lamps

- GE's highest light output compact fluorescent lamp
- Uniform light distribution
- High light output – up to 150W incandescent equiv.
- Unique shape suitable for broad range of applications

GE Low-Wattage Biax®

- Compact size offers fixture & design flexibility
- GX23 and G23 bases are preheat lamps with internal starters
- Available in warm & cool color temperatures

GE High Lumen Biax®

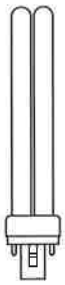
- Available in a range of sizes & wattages for innovative compact luminaires
- High efficiency & outstanding performance in fixtures make them ideal for 2X2, 1X1 & indirect fixtures
- Available in warm to cool color temperatures; excellent color rendering

Energy Used Watts	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	Nominal Length In.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI	Minimum Start Temp F	Minimum Start Temp (°C)	Power Factor	THD
2D™ PLUG-IN LAMPS 4-PIN																
10	GR10q-4	21301	F10/2D/827/4P	60	RE 827 Phosphor (1,2,4)*	3.6	(91)	650	545	10000	2700	82	25F	(-4)	-	-
		22173	F10/2D/835/4P	60	RE 835 Phosphor (1,2,4)*	3.6	(91)	650	545	10000	3500	82	25F	(-4)	-	-
16		22169	F16/2D/827/4P	50	RE 827 Phosphor (1,2,4)*	5.5	(140)	1050	880	8000	2700	82	25F	(-4)	-	-
		22177	F16/2D/835/4P	50	RE 835 Phosphor (1,2,4)*	5.5	(140)	1050	880	8000	3500	82	25F	(-4)	-	-
21		21303	F21/2D/827/4P	50	RE 827 Phosphor (1,2,4)*	5.5	(140)	1350	1135	10000	2700	82	25F	(-4)	-	-
		22178	F21/2D/835/4P	50	RE 835 Phosphor (1,2,4)*	5.5	(140)	1350	1135	10000	3500	82	25F	(-4)	-	-
28		22172	F28/2D/827/4P	20	RE 827 Phosphor (1,2,4)*	8.1	(205)	2050	1720	10000	2700	82	25F	(-4)	-	-
		22180	F28/2D/835/4P	20	RE 835 Phosphor (1,2,4)*	8.1	(205)	2050	1720	10000	3500	82	25F	(-4)	-	-
38		21305	F38/2D/827/4P	20	RE 827 Phosphor (1,2,4)*	8.1	(205)	2850	2395	10000	2700	82	25F	(-4)	-	-
		22181	F38/2D/835/4P	20	RE 835 Phosphor (1,2,4)*	8.1	(205)	2850	2395	10000	3500	82	25F	(-4)	-	-
LOW WATT BIAX® PLUG-IN LAMPS - T4																
5	G23	19355	F5BX/SPX27/827 10PK	100	RE 827 Phosphor (1,2)*	4.2	(106)	250	210	10000	2700	82	0F	(-18)	-	-
		13575	F5BX/SPX27/CD	6	RE 827 Phosphor, Carded (1,2)*	4.2	(106)	250	210	10000	2700	82	0F	(-18)	-	-
		29960	F5BX/SPX35/835 10PK	100	RE 835 Phosphor (1,2)*	4.2	(106)	250	210	10000	3500	82	0F	(-18)	-	-
		29961	F5BX/SPX41/840 10PK	100	RE 835 Phosphor (1,2)*	4.2	(106)	250	210	10000	4100	82	0F	(-18)	-	-
7		14115	F7BX/SPX27/827 10PK	100	RE 827 Phosphor (1,2)*	5.3	(135)	400	330	10000	2700	82	0F	(-18)	-	-
		13576	F7BX/SPX27/CD	6	RE 827 Phosphor, Carded (1,2)*	5.3	(135)	400	330	10000	2700	82	0F	(-18)	-	-
		17084	F7BX/SPX35/835 10PK	100	RE 835 Phosphor (1,2)*	5.3	(135)	400	330	10000	3500	82	0F	(-18)	-	-
		20432	F7BX/SPX41/840 10PK	100	RE 841 Phosphor (1,2)*	5.3	(135)	400	330	10000	4100	82	0F	(-18)	-	-
		11667	F7BX/SPX50/850	10	RE 850 Phosphor (1,2)*	5.3	(135)	380	314	10000	5000	80	0F	(-18)	-	-
9		14117	F9BX/SPX27/827 10PK	100	RE 827 Phosphor (1,2)*	6.6	(167)	600	500	10000	2700	82	25F	(-4)	-	-
		13577	F9BX/SPX27/CD	6	RE 827 Phosphor, Carded (1,2)*	6.6	(167)	600	500	10000	2700	82	25F	(-4)	-	-
		20661	F9BX/SPX27/EC	10	RE 827 Phosphor - Energy Choice™ (1,2)*	6.6	(167)	600	500	10000	2700	82	25F	(-4)	-	-
		17086	F9BX/SPX35/835 10PK	100	RE 835 Phosphor (1,2)*	6.6	(167)	600	500	10000	3500	82	25F	(-4)	-	-
		20431	F9BX/SPX41/840 10PK	100	RE 841 Phosphor (1,2)*	6.6	(167)	600	500	10000	4100	82	25F	(-4)	-	-
		11670	F9BX/SPX50/850	10	RE 850 Phosphor (1,2)*	6.6	(167)	570	475	10000	5000	80	25F	(-4)	-	-
13	GX23	14650	F13BX/SPX27/827 10PK	100	RE 827 Phosphor (1,2)*	7.5	(191)	825	710	10000	2700	82	32F	(0)	-	-
		17612	F13BX/SPX30/830 10PK	100	RE 830 Phosphor (1,2)*	7.5	(191)	825	710	10000	3000	82	32F	(0)	-	-
		17048	F13BX/SPX35/835 10PK	100	RE 835 Phosphor (1,2)*	7.5	(191)	825	710	10000	3500	82	32F	(0)	-	-
		20434	F13BX/SPX41/840 10PK	100	RE 841 Phosphor (1,2)*	7.5	(191)	825	710	10000	4100	82	32F	(0)	-	-
		11671	F13BX/SPX50/850 10PK	100	RE 850 Phosphor (1,2)*	7.5	(191)	784	675	10000	5000	80	32F	(0)	-	-
HIGH LUMEN BIAX® PLUG-IN LAMPS - T5																
Preheat																
18	2G11	16649	F18BX/SPX30 10PK	40	RE 830 Phosphor (1,2,5)*	9.0	(229)	1200	1080	10000	3000	82	25F	(-4)	-	-
		16053	F18BX/SPX35 10PK	40	RE 835 Phosphor (1,2,5)*	9.0	(229)	1200	1080	10000	3500	82	25F	(-4)	-	-
		16940	F18BX/SPX41 10PK	40	RE 841 Phosphor (1,2,5)*	9.0	(229)	1200	1080	10000	4100	82	25F	(-4)	-	-
Rapid Start																
18		17174	F18BX/SPX30/RS 10PK	40	RE 830 Phosphor (1,2,5,8)*	10.5	(267)	1250	1130	20000	3000	82	50F	(10)	-	-
		17175	F18BX/SPX35/RS 10PK	40	RE 835 Phosphor (1,2,5,8)*	10.5	(267)	1250	1130	20000	3500	82	50F	(10)	-	-
		17176	F18BX/SPX41/RS 10PK	40	RE 841 Phosphor (1,2,5,8)*	10.5	(267)	1250	1130	20000	4100	82	50F	(10)	-	-
		12521	F18BX/SPX65/RS 10PK	40	RE 865 Phosphor (1,2,5,8)*	10.5	(276)	1250	1130	20000	6500	82	50F	(10)	-	-

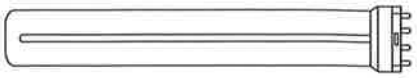
( ) * All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Double Biax®

- More compact than low wattage Biax with higher lumen output – suitable for a broad range of applications
- 2-pin: preheat lamps with starters; not suitable for use with dimming ballasts
- 4-pin: dimmable & compatible with electronic ballasts
- Available in warm to cool color temperatures



Double Biax T4
2-Pin



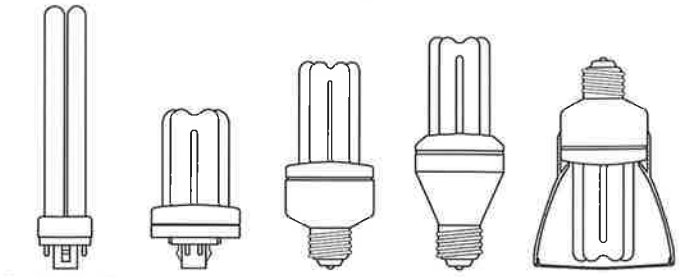
High Lumen Biax
T5 4-Pin Rapid Start
2G11

Energy Used Watts	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	Nominal Length In.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI	Minimum Start Temp F	Minimum Start Temp (°C)	Power Factor	THD
HIGH LUMEN BIAX® PLUG-IN LAMPS - T5																
Rapid Start (con't)																
27		16944	F27/24BX/SPX30 10PK	40	RE 830 Phosphor (1,2,5,8)*	12.8	(326)	1800	1620	12000	3000	82	50F	(10)	-	-
		16948	F27/24BX/SPX35 10PK	40	RE 835 Phosphor (1,2,5,8)*	12.8	(326)	1800	1620	12000	3500	82	50F	(10)	-	-
		16951	F27/24BX/SPX41 10PK	40	RE 841 Phosphor (1,2,5,8)*	12.8	(326)	1800	1620	12000	4100	82	50F	(10)	-	-
39		16538	F39/36BX/SPX30 10PK	40	RE 830 Phosphor (1,2,5,8)*	16.5	(419)	2850	2510	12000	3000	82	50F	(10)	-	-
		15867	F39/36BX/SPX35 10PK	40	RE 835 Phosphor (1,2,5,8)*	16.5	(419)	2850	2510	12000	3500	82	50F	(10)	-	-
		16952	F39/36BX/SPX41 10PK	40	RE 841 Phosphor (1,2,5,8)*	16.5	(419)	2850	2510	12000	4100	82	50F	(10)	-	-
		10493	F39/36BX/SPX50 10PK	40	RE 850 Phosphor (1,2,5,8)*	16.5	(419)	2700	2385	12000	5000	82	50F	(10)	-	-
		16953	F40/30BX/SPX30 10PK	40	RE 830 Phosphor (1,2,5,8)*	22.5	(572)	3150	2840	20000	3000	82	50F	(10)	-	-
		20444	F40/30BX/SPX30 36PK	36	RE 830 Phosphor Bulk Pack (1,2,5,8)*	22.5	(572)	3150	2840	20000	3000	82	50F	(10)	-	-
		16648	F40/30BX/SPX35 10PK	40	RE 835 Phosphor (1,2,5,8)*	22.5	(572)	3150	2840	20000	3500	82	50F	(10)	-	-
		20446	F40/30BX/SPX35 36PK	36	RE 835 Phosphor Bulk Pack (1,2,5,8)*	22.5	(572)	3150	2840	20000	3500	82	50F	(10)	-	-
		16954	F40/30BX/SPX41 10PK	40	RE 841 Phosphor (1,2,5,8)*	22.5	(572)	3150	2840	20000	4100	82	50F	(10)	-	-
		20447	F40/30BX/SPX41 36PK	36	RE 841 Phosphor Bulk Pack (1,2,5,8)*	22.5	(572)	3150	2840	20000	4100	82	50F	(10)	-	-
		10490	F40/30BX/SPX50 36PK	36	RE 850 Phosphor Bulk Pack (1,2,5,8)*	22.5	(572)	2900	2700	20000	5000	80	50F	(10)	-	-
50		20898	F50BX/SPX30/RS 10PK	40	RE 830 Phosphor (1,2,5,8)*	22.5	(572)	4000	3400	14000	3000	82	50F	(10)	-	-
		20899	F50BX/SPX35/RS 10PK	40	RE 835 Phosphor (1,2,5,8)*	22.5	(572)	4000	3400	14000	3500	82	50F	(10)	-	-
		20900	F50BX/SPX41/RS 10PK	40	RE 841 Phosphor (1,2,5,8)*	22.5	(572)	4000	3400	14000	4100	82	50F	(10)	-	-
		10497	F50BX/SPX50/RS 10PK	40	RE 850 Phosphor (1,2,5,8)*	22.5	(572)	3800	3230	14000	5000	82	50F	(10)	-	-
DOUBLE BIAX® PLUG-IN LAMPS - T4																
2-PIN BASE																
9	G23-2	12409	F9DBX23T4/SPX27/827	50	RE 827 Phosphor (1,2)*	4.3	(109)	550	470	10000	2700	82	25F	(-4)	-	-
10	G24d-1	12872	F10DBXT4/SPX27 10PK	50	RE 827 Phosphor (1,2)*	4.3	(109)	550	470	10000	2700	82	5F	(-15)	-	-
		12874	F10DBXT4/SPX30 10PK	50	RE 830 Phosphor (1,2)*	4.3	(109)	550	470	10000	3000	82	5F	(-15)	-	-
		12875	F10DBXT4/SPX35 10PK	50	RE 835 Phosphor (1,2)*	4.3	(109)	550	470	10000	3500	82	5F	(-15)	-	-
		12876	F10DBXT4/SPX41 10PK	50	RE 841 Phosphor (1,2)*	4.3	(109)	550	470	10000	4100	82	5F	(-15)	-	-
		12997	F10DBXT4/SPX65 10PK	50	RE 865 Phosphor (1,2)*	4.3	(109)	550	470	10000	6500	82	5F	(-15)	-	-
13	GX23-2	18844	F13DBX23T4/SPX27 10PK	50	RE 827 Phosphor (1,2)*	4.7	(119)	860	730	10000	2700	82	32F	(0)	-	-
		13578	F13DBX/SPX27/CD	6	RE 827 Phosphor, Carded (1,2)*	4.7	(119)	860	730	10000	2700	82	32F	(0)	-	-
		10574	F13DBX23T4/SPX30 10PK	50	RE 830 Phosphor (1,2)*	4.7	(119)	860	730	10000	3000	82	32F	(0)	-	-
		18556	F13DBX23T4/SPX35 10PK	50	RE 835 Phosphor (1,2)*	4.7	(119)	860	730	10000	3500	82	32F	(0)	-	-
		20531	F13DBX23T4/SPX41 10PK	50	RE 841 Phosphor (1,2)*	4.7	(119)	860	730	10000	4100	82	32F	(0)	-	-
		32132	F13DBX23T4/SPX65 10PK	50	RE 865 Phosphor (1,2)*	4.7	(119)	860	730	10000	6500	82	32F	(0)	-	-
	G24d-1	18557	F13DBXT4/SPX27 10PK	50	RE 827 Phosphor (1,2)*	5.3	(134)	900	765	10000	2700	82	5F	(-15)	-	-
	G24d-1	12956	F13DBXT4/SPX30 10PK	50	RE 830 Phosphor (1,2)*	5.3	(134)	900	765	10000	3000	82	32F	(0)	-	-
	G24d-1	18559	F13DBXT4/SPX35 10PK	50	RE 835 Phosphor (1,2)*	5.3	(134)	900	765	10000	3500	82	5F	(-15)	-	-
		20532	F13DBXT4/SPX41 10PK	50	RE 841 Phosphor (1,2)*	5.3	(134)	900	765	10000	4100	82	5F	(-15)	-	-
	G24d-1	13015	F13DBXT4/SPX65 10PK	50	RE 865 Phosphor (1,2)*	5.3	(134)	900	765	10000	6500	82	5F	(-15)	-	-
18	G24d-2	12860	F18DBXT4/SPX27 10PK	50	RE 827 Phosphor (1,2,6)*	6.1	(154)	1160	985	10000	2700	82	5F	(-15)	-	-
		12861	F18DBXT4/SPX30 10PK	50	RE 830 Phosphor (1,2,6)*	6.1	(154)	1160	985	10000	3000	82	5F	(-15)	-	-
		12863	F18DBXT4/SPX35 10PK	50	RE 835 Phosphor (1,2,6)*	6.1	(154)	1160	985	10000	3500	82	5F	(-15)	-	-
		12864	F18DBXT4/SPX41 10PK	50	RE 841 Phosphor (1,2,6)*	6.1	(154)	1160	985	10000	4100	82	5F	(-15)	-	-
		13017	F18DBXT4/SPX65 10PK	50	RE 865 Phosphor (1,2,6)*	6.1	(154)	1160	985	10000	6500	82	5F	(-15)	-	-
26	G24d-3	18566	F26DBXT4/SPX27 10PK	50	RE 827 Phosphor (1,2)*	6.7	(169)	1700	1440	10000	2700	82	15F	(-9)	-	-
		10578	F26DBXT4/SPX30 10PK	50	RE 830 Phosphor (1,2)*	6.7	(169)	1700	1440	10000	3000	82	15F	(-9)	-	-
		18567	F26DBXT4/SPX35 10PK	50	RE 835 Phosphor (1,2)*	6.7	(169)	1700	1440	10000	3500	82	15F	(-9)	-	-
		20534	F26DBXT4/SPX41 10PK	50	RE 841 Phosphor (1,2)*	6.7	(169)	1700	1440	10000	4100	82	15F	(-9)	-	-
		13020	F26DBXT4/SPX65 10PK	50	RE 865 Phosphor (1,2)*	6.7	(169)	1700	1440	10000	6500	82	15F	(-9)	-	-

( ) * All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Triple Biax®

- GE's shortest, most compact Biax lamp. 17-31% shorter than Double Biax lamps
- 2-pin: preheat lamps with starters; not suitable for use with dimming ballasts
- 4-pin: dimmable & compatible with electronic ballasts
- Available in warm to cool color temperatures



Double Biax T4 4-Pin | Triple Biax T4 4-Pin | Triple Biax S Med | Triple Biax Med | Triple Biax R30 Med

One Piece Screw-in Lamps for Incandescent Sockets

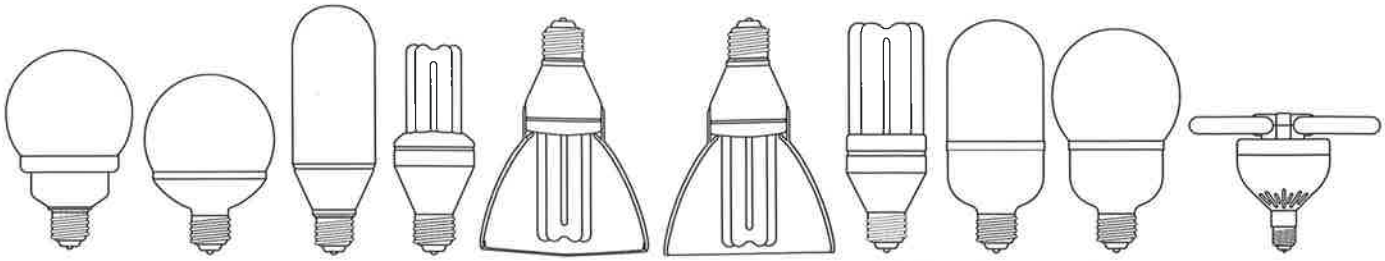
- Highly efficient – up to 80% energy cost savings vs. incandescent
- Short (5.1"-7.1" long) and lightweight to meet application needs
- One piece unit screws directly into incandescent sockets and is simply discarded at end of long 10,000 hour life
- Wide variety of wattages and sizes to meet application needs. High and low power factor versions available
- 16 watt Electronic Globe (FLG 16/E) is GE's lightest (1/3 lb.) and most compact (5" long) fluorescent globe; delivers more light than 60W G25
- FLB17 & FLG17 are more economical replacements, delivering more light than a 60W G25 globe

Energy Used Watts	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	Nominal Length In.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI	Minimum Start Temp F	Minimum Start Temp (°C)	Power Factor	THD
DOUBLE BIAX® PLUG-IN LAMPS																
4-PIN BASE																
10	G24q-1	30031	F10DBX/SPX27/4P 10PK	50	RE 827 Phosphor (1,2,8)*	4.0	(101)	550	470	10000	2700	82	32F	(0)	-	-
		12877	F10DBX/SPX30/4P 10PK	50	RE 830 Phosphor (1,2,8)*	4.0	(101)	550	470	10000	3000	82	32F	(0)	-	-
		30032	F10DBX/SPX35/4P 10PK	50	RE 835 Phosphor (1,2,8)*	4.0	(101)	550	470	10000	3500	82	32F	(0)	-	-
		30034	F10DBX/SPX41/4P 10PK	50	RE 841 Phosphor (1,2,8)*	4.0	(101)	550	470	10000	4100	82	32F	(0)	-	-
13		30035	F13DBX/SPX27/4P 10PK	50	RE 827 Phosphor (1,2,8)*	5.1	(128)	900	765	10000	2700	82	32F	(0)	-	-
		10580	F13DBX/SPX30/4P 10PK	50	RE 830 Phosphor (1,2,8)*	5.1	(128)	900	765	10000	3000	82	32F	(0)	-	-
	G24q 1	30037	F13DBX/SPX35/4P 10PK	50	RE 835 Phosphor (1,2,8)*	5.1	(128)	900	765	10000	3500	82	32F	(0)	-	-
	G24q-1	30038	F13DBX/SPX41/4P 10PK	50	RE 841 Phosphor (1,2,8)*	5.1	(128)	900	765	10000	4100	82	32F	(0)	-	-
18	G24q -2	12865	F18DBX/SPX27/4P 10PK	50	RE 850 Phosphor (1,2,6,8)*	5.8	(146)	1160	985	10000	2700	82	32F	(0)	-	-
		12866	F18DBX/SPX30/4P 10PK	50	RE 830 Phosphor (1,2,6,8)*	5.8	(146)	1160	985	10000	3000	82	32F	(0)	-	-
		12869	F18DBX/SPX35/4P 10PK	50	RE 835 Phosphor (1,2,6,8)*	5.8	(146)	1160	985	10000	3500	82	32F	(0)	-	-
		12870	F18DBX/SPX41/4P 10PK	50	RE 841 Phosphor (1,2,6,8)*	5.8	(146)	1160	985	10000	4100	82	32F	(0)	-	-
26	G24q -3	30042	F26DBX/SPX27/4P 10PK	50	RE 827 Phosphor (1,2,8)*	6.4	(163)	1700	1440	10000	2700	82	32F	(0)	-	-
		10610	F26DBX/SPX30/4P 10PK	50	RE 830 Phosphor (1,2,8)*	6.4	(163)	1700	1440	10000	3000	82	32F	(0)	-	-
		30043	F26DBX/SPX35/4P 10PK	50	RE 835 Phosphor (1,2,8)*	6.4	(163)	1700	1440	10000	3500	82	32F	(0)	-	-
		30044	F26DBX/SPX41/4P 10PK	50	RE 841 Phosphor (1,2,8)*	6.4	(163)	1700	1440	10000	4100	82	32F	(0)	-	-
TRIPLE BIAX® PLUG-IN LAMPS - T4																
4-PIN BASE																
13	GX24q-1	11982	F13TBX/SPX27/4P	6	RE 827 Phosphor (1,2,7,8)*	4.2	(106)	840	710	10000	2700	82	32F	(0)	-	-
		11983	F13TBX/SPX30/4P	6	RE 830 Phosphor (1,2,7,8)*	4.2	(106)	840	710	10000	3000	82	32F	(0)	-	-
		11984	F13TBX/SPX35/4P	6	RE 835 Phosphor (1,2,7,8)*	4.2	(106)	840	710	10000	3500	82	32F	(0)	-	-
		12816	F13TBX/SPX41/4P	6	RE 841 Phosphor (1,2,7,8)*	4.2	(106)	840	710	10000	4100	82	32F	(0)	-	-
18	GX24q-2	10449	F18TBX/SPX27/4P	6	RE 827 Phosphor (1,2,7,8)*	4.6	(116)	1120	950	10000	2700	82	32F	(0)	-	-
		11986	F18TBX/SPX30/4P	6	RE 830 Phosphor (1,2,7,8)*	4.6	(116)	1120	950	10000	3000	82	32F	(0)	-	-
		11987	F18TBX/SPX35/4P	6	RE 835 Phosphor (1,2,7,8)*	4.6	(116)	1120	950	10000	3500	82	32F	(0)	-	-
		12817	F18TBX/SPX41/4P	6	841 RE Phosphor (1,2,7,8)*	4.6	(116)	1120	950	10000	4100	82	32F	(0)	-	-
26	GX24q-3	12278	F26TBX/SPX27/4P	6	RE 827 Phosphor (1,2,7,8)*	5.2	(131)	1610	1370	10000	2700	82	32F	(0)	-	-
		12480	F26TBX/SPX30/4P	6	830 RE Phosphor (1,2,7,8)*	5.2	(131)	1610	1370	10000	3000	82	32F	(0)	-	-
		12488	F26TBX/SPX35/4P	6	835 RE Phosphor (1,2,7,8)*	5.2	(131)	1610	1370	10000	3500	82	32F	(0)	-	-
		12821	F26TBX/SPX41/4P	6	841 RE Phosphor (1,2,7,8)*	5.2	(131)	1610	1370	10000	4100	82	32F	(0)	-	-
32	GX24q-3	12781	F32TBX/SPX27/4P	6	827 RE Phosphor (1,2,7,8)*	5.8	(146)	2200	1870	10000	2700	82	32F	(0)	-	-
		12489	F32TBX/SPX30/4P	6	RE 830 Phosphor (1,2,7,8)*	5.8	(146)	2200	1870	10000	3000	82	32F	(0)	-	-
		12490	F32TBX/SPX35/4P	6	RE 835 Phosphor (1,2,7,8)*	5.8	(146)	2200	1870	10000	3500	82	32F	(0)	-	-
		12823	F32TBX/SPX41/4P	6	841 RE Phosphor (1,2,7,8)*	5.8	(146)	2200	1870	10000	4100	82	32F	(0)	-	-
ELECTRONIC BALLASTED ONE PIECE SCREW-IN LAMPS																
15	Med	12544	FLE15TBX/S/SPX27/EC	6	RE 827 Phosphor - Soft White Energy Choice™, Triple Biax (1,9,10,11,12)*	5.4	(137)	825	700	10000	2700	82	-10F	(-23)	<.6	170%
		12981	FLE15TBX/HPF/SPX27/SW	6	RE 827 Phosphor - Soft White Ultra, Triple Biax, High Power Factor (1,9,10,11,12)*	6.0	(152)	825	700	10000	2700	82	-10F	(-23)	0.95	<20%
		13105	FLE15TBX/S/R30	6	RE 827 Phosphor - Soft White Energy Choice™, R30 Reflector (1,3,9,10,11,12,13)*	5.6	(142)	390	330	10000	2700	82	-10F	(-23)	<.6	170%

{} * All footnote references found at the end of this section. Reduced Wattage High Color Rendering

GE Plug-In Lamp with Adapter Systems

- Most economical system
- Lamp and adapter are separate. Replacable lamps plug into adapters that screw into standard incandescent sockets.
- Lamps last 10,000 hours; adapters last 40,000 hours (4 lamp lives).
- 2D system is GE's highest light output compact fluorescent lamp: 39W system gives nearly the light of a 150W bulb, 22W system gives more light than a 75W bulb



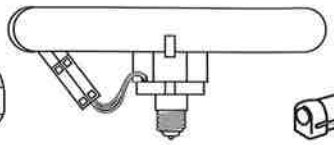
Triple Biax G30 Med | FLG16/E Med | T19 Med | Triple Biax Med | Triple Biax R40 Med | Triple Biax RFL Med | Performance Biax Med | FLB17 Med | FLG17 Med | 2D Med

Energy Used Watts	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	Nominal Length In.	(mm)	Light Ouptut Lumens Initial	Mean	Rated Avg. Life Hours	Color Temp. K	CRI	Minimum Start Temp F	(°C)	Power Factor	THD
ELECTRONIC BALLASTED ONE PIECE SCREW-IN LAMPS (con't)																
		12501	FLE15TBX/S/G30	6	RE 827 Phosphor - Soft White Energy Choice™, G30 Globe (1,3,9,10,11,12)*	5.8	(147)	630	550	10000	2700	82	-10F	(-23)	<.6	170%
16		80506	FLG16/E	6	RE 827 Phosphor - Soft White Ultra, Globe Shaped (1,9,10,11,12)*	5.1	(130)	800	600	10000	2800	82	0F	(-18)	0.5	<150%
20		12545	FLE20TBX/SPX27/EC	6	RE 827 Phosphor - Soft White Energy Choice™, Triple Biax (1,9,10,11,12)*	6.0	(152)	1200	1020	10000	2700	82	-10F	(-23)	<.6	170%
		12498	FLE20TBX/T19	6	RE 827 Phosphor - Soft White Energy Choice™, Triple Biax, Tubular Shaped Bullet Bulb (1,3,9,10,11,12)*	7.2	(182)	850	720	10000	2700	82	-10F	(-23)	<.6	170%
		12987	FLE20TBX/HPF/SPX27/SW	6	RE 827 Phosphor - Soft White Ultra, Triple Biax, High Power Factor (1,9,10,11,12)*	6.6	(168)	1200	1020	10000	2700	82	-10F	(-23)	0.95	<20%
		14595	FLE20TBX/R40/EC	6	RE 827 Phosphor - Soft White Energy Choice™, Triple Biax, R40 Reflector (1,9,10,11,12)*	6.9	(174)	650	550	10000	2700	82	-10F	(-23)	<.6	170%
		13174	FLE20TBX/HPF/RFL/SW	6	RE 827 Phosphor - Soft White Ultra, High Power Factor, Triple Biax R40 Reflector (1,9,10,11,12)*	7.1	(180)	800	680	10000	2700	82	-10F	(-23)	0.95	<20%
23		12546	FLE23TBX/SPX27/EC	6	RE 827 Phosphor - Soft White Energy Choice™, Triple Biax (1,9,10,11,12)*	6.9	(175)	1520	1290	10000	2700	82	-10F	(-23)	<.6	170%
25		12990	FLE25TBX/HPF/SPX27/SW	6	RE 827 Phosphor - Soft White Ultra, Triple Biax, High Power Factor (1,9,10,11,12)*	6.9	(175)	1520	1290	10000	2700	82	-10F	(-23)	0.95	<20%
28		13129	FLE28QBX/SPX27/EC	6	RE 827 Phosphor - Soft White Energy Choice™, Performance Biax (1,9,10,11,12)*	6.6	(168)	1750	1485	10000	2700	82	-10F	(-23)	<.6	170%
30		14615	FLE30QBX/HPF/SPX27/SW	6	RE 827 Phosphor - Soft White Ultra, Performance Biax, High Power Factor (1,3,9,10,11,12)*	6.6	(168)	1750	1485	10000	2700	82	-10F	(-23)	0.95	<20%
ELECTROMAGNETIC-BALLASTED ONE PIECE SCREW-IN LAMPS																
17		80503	FLB17	6	RE 827 Phosphor - Bullet Shape Shape (1,9,10,11,12)*	6.7	(170)	700	595	9000	2800	82	32F	(0)	0.5	<32%
		80504	FLG17	6	RE 827 Phosphor - Globe Shape (1,9,10,11,12)*	6.4	(163)	700	595	9000	2800	82	32F	(0)	0.5	<32%
PLUG-IN LAMPS WITH SEPARABLE ELECTRONIC ADAPTERS																
22		11522	FEA22/2D/HPF/SW/CD	6	RE 827 Phosphor - Soft White Ultra, High Power Factor, Carded (1,4,9,11,14)*	4.0	(102)	1300	1105	10000	2700	82	0F	(-18)	>.9	<20%
39		11526	FEA39/2D/HPF/SW/CD	6	RE 827 Phosphor - Soft White Ultra, High Power Factor (1,4,9,11,14)	4.3	(109)	2780	2360	10000	2700	82	0F	(-18)	>.9	<20%

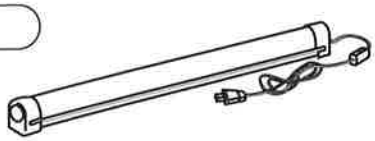
( )* All footnote references found at the end of this section. Reduced Wattage High Color Rendering

Biax
Med

Double Biax R40
Med



Circlite
Med



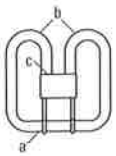
Bright Stik

Light'N Easy

Energy Used Watts	Base	Product Code	Lamp Designation	Case Qty.	Additional Information	Nominal Length in.	Nominal Length (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp. K	CRI	Minimum Start Temp F	Minimum Start Temp (°C)	Power Factor	THD
PLUG-IN LAMPS WITH SEPARABLE ELECTROMAGNETIC ADAPTERS																
9		80508	FLA5/SPX27	6	RE 827 Phosphor - Biax (1,9,11,14)*	6.5	(165)	250	210	10000	2700	82	32F	(0)	0.5	<20%
		80510	FLA7/SPX27	6	RE 827 Phosphor - Biax (1,9,11,14)*	7.7	(195)	375	320	10000	2700	82	32F	(0)	0.5	<20%
		80511	FLA9/SPX27	6	RE 827 Phosphor - Biax (1,9,11,14)*	8.8	(223)	500	425	10000	2700	82	32F	(0)	0.5	<20%
13		80505	FLA13/SPX27/HPF	6	RE 827 Phosphor - Biax, High Power Factor (1,9,11,14)*	7.4	(188)	650	550	10000	2700	82	32F	(0)	0.5	<20%
15		11981	FLA15DBX/R40	10	RE 827 Phosphor, Bulk Pack, Double Biax, R40 Reflector (1,9,11,14,15)*	7.4	(188)	450	380	10000	2700	82	32F	(0)	0.5	<20%
17		80507	FLA13/SPX27	6	RE 827 Phosphor (1,9,11,14)*	7.2	(183)	750	635	10000	2700	82	32F	(0)	0.9	<33%
21		11307	FCA21/CD	4	RE 830 Phosphor - Soft White, Energy Choice™, Circlite, Carded (1,3,9,11,14)*	3.4	(86)	1200	1020	10000	3000	82	50F	(10)	0.5	<20%
21		14681	FCA21/BLB	4	Blacklight, UVA Source Peak Emission 365nm.	3.4	(86)	-	-	10000	-	-	-	-	-	-
BIAX® SCREW-IN ADAPTERS																
9		16217	FLA7/9 BULK	50	Bulk pack contains 50 screw-in adapters to operate F7BX or F9BX Biax lamps (1,9,11,14)*	2.9	(73)	-	-	-	-	-	-	-	-	-
BRIGHT STIK® LIGHTING UNIT																
33		12257	FBS25/WX/PP	6	Bright Stik. White Lamp- in-holder unit with standard 2-prong plug (1)*	25	(635)	725	-	7500	-	-	-	-	-	-
		47912	FBS25/BLB/PP	6	Bright Stik. Blacklight Blue Lamp - in-holder unit with standard 2-prong plug (1)*	25	(635)	-	-	7500	-	-	-	-	-	-
		12263	FBS25/GS/PP	6	Bright Stik. Gro & Sho Lamp - in-holder unit with standard 2-prong plug (1)*	25	(635)	470	-	7500	-	-	-	-	-	-
LITE'N EASY™ LIGHTING UNIT																
13		21585	FCF13/SPX27/PP	4	LITE'N EASY™, F13BX/SPX27 Biax® Lamp in self-ballasted under cabinet fixture. Ready to use - needs no special wiring. On/Off switch on fixture. 6 ft. cord with standard 2-prong plug. (1)* 8 3/4 (222) Width; 6 1/4 (159) Depth; 1 1/4 (32) Height			825	-	10000	2700	82	-	-	-	-

Footnotes:

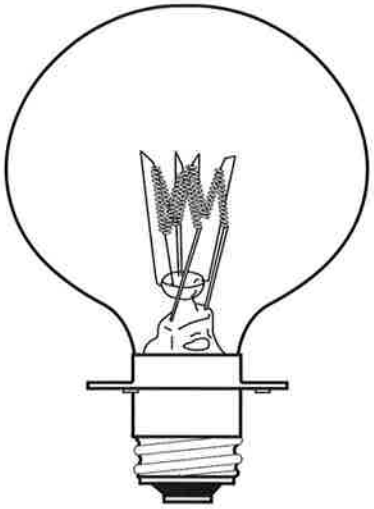
1. Fluorescent lamp lumens decline during life.
2. Based on 60Hz reference ballast.
3. Engineering estimates.
4. 10-watt, 16-watt and 28-watt 2D lamps may be operated in any position. 21-watt and 38-watt 2D lamps must not be used with the leg marked (a) in the diagram below the bend (b), in order to avoid overheating the end of the cap marked (c).



5. Life ratings for the F18BX Preheat lamps are based on operating the lamp at 3 hrs. per start on a preheat type circuit. Operation on rapid start and instant start ballasts is not recommended. Life ratings for all other Rapid Start High Lumen Biax lamps are based on operating the lamp at 3 hrs. per start on a rapid start type ballast. Life rating on a preheat type of ballast is 25% lower.
6. Cold cathode resistance is approximately 6.0 Ohms.
7. Typically not used in under cabinet applications.
8. 4-pin lamp minimum starting temperature is a function of the ballast. Magnetic ballast minimums are 50°F (10°C). Electronic ballast minimums can be as low as -20°F (-29°C).
9. One piece screw-in lamps for incandescent sockets and plug-in lamps with screw-in adapters do not work with clip-on shades.
10. Lumens of one piece screw in lamp systems are measured base up. Lumen output when operated base down may be more than 5% less.
11. Best performance if operated base up and at 77°F (25°C) ambient temperature.
12. Use only on 120V 60Hz circuits. Do not use on dimming circuits. Use indoors and do not use in wet locations. Not for use in totally enclosed recessed fixtures.
13. Fits most R30 applications.
14. Adapters rated at 40,000 hours.
15. Typically not used in enclosed outdoor applications.
16. Lumens measured with reflector lens.

See page 4-16 for other general fluorescent lamp information.

( ) * All footnote references found at the end of this section. Reduced Wattage High Color Rendering



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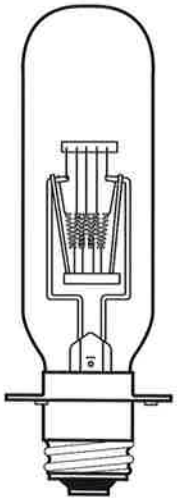
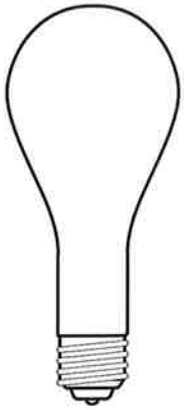


Single-Ended T



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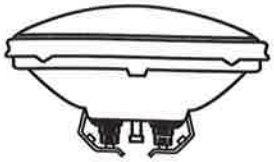


PAR

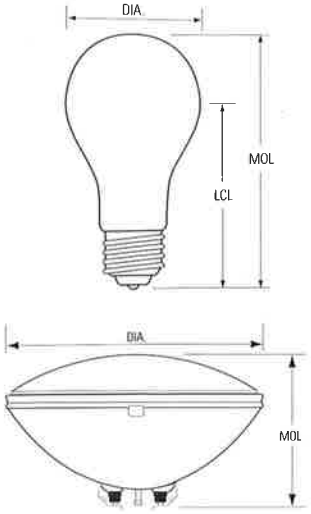
A

Double-Ended T

Stage/Studio Lamp Shapes

(drawings not to scale)

Bulb Identification:



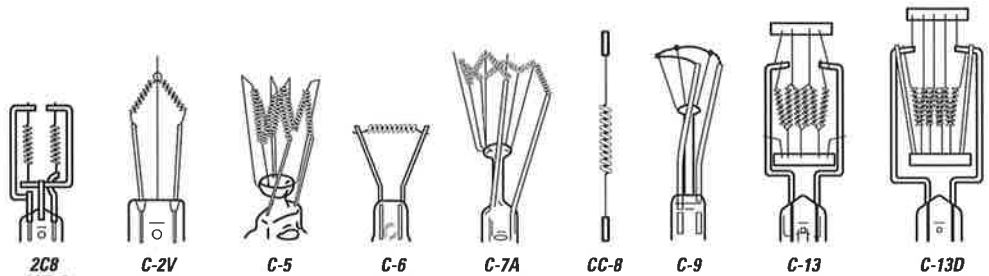
DIA.:
Diameter of bulb at widest point.

MOL in. (mm):
Maximum Overall Length including base or pins.

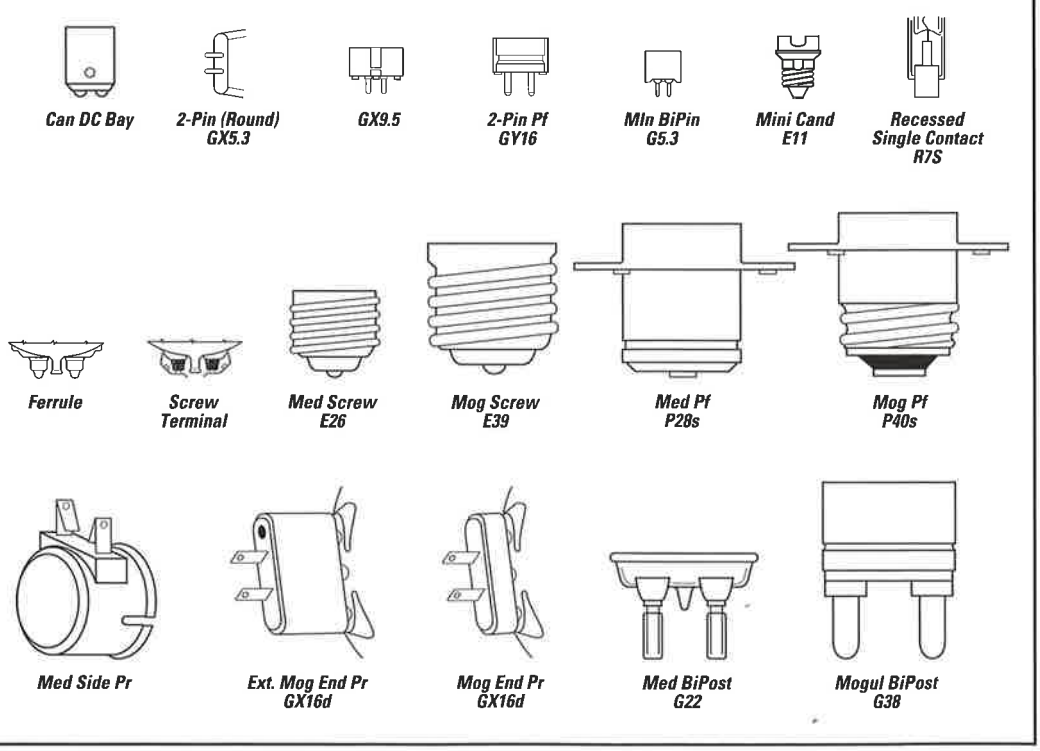
LCL in. (mm):
Distance between the center of the filament and the Light Center Length reference plane.

Note:
Lamp drawings are not drawn to scale. Be sure to check size and dimension information when identifying each lamp.

Filament Identification:



Base Identification:



Introduction

GE Lighting has been a leading supplier to stage and studio users for many decades, and continues its pioneering work in the development of new and innovative light sources.

The primary change in recent years has been the migration from glass to quartz as the standard bulb material. The higher melting point of quartz enables bulb envelopes to be reduced in size and the halogen fillings to be run at higher pressures, leading to smaller, lighter, brighter, more energy-efficient and more reliable lamps.

GE Lighting's comprehensive range of single- and double-ended lamps is complemented by a group of PAR lamps, where the light source is enclosed in a sealed reflector unit.

The beam patterns of PAR lamps range from very narrow spot to wide-angle floods. This ensures consistency from lamp to lamp, interchangeability to suit the beam pattern needs of the moment and instant replaceability without the need to refocus and re-aim fixtures.

The sealed beam design prolongs the life of the inner lamp as well as protecting it from dust, vapor and other hazards, thereby ensuring high lumen maintenance over the life of the lamp.

PAR lamps may be used with very simple, lightweight, economical fixtures.

General Information

Operational Characteristics

Quartz halogen lamps are designed to be operated within close voltage tolerances, and excessive voltage can lead to drastically shortened life, albeit with significantly higher light output.

A second important variable is temperature. The tungsten halogen cycle does not operate properly below about 482°F (250°C) and quartz may begin to devitrify above about 1832°F (1000°C). Bulb envelopes should therefore be held in the range 482-1472°F (250-800°C).

The rate of oxidation of the sealing foil carrying current from the base to the filament through the quartz envelope increases with temperature above 662°F (350°C), and lamp life may be severely curtailed by premature seal failure if this temperature is exceeded.

The contact pins are plated to ensure good electrical connection with the lampholder. However, at temperatures above 662°F (350°C), the plating may lose adhesion, leading to deterioration in contact and possibly local hot spots, arcing and consequent irreparable damage to both lamp and holder. Note that if there is evidence that this has occurred, the lampholder should be replaced before the next lamp is fitted, otherwise it is likely to fail prematurely for the same reason.

Lamps normally fail by fusing of the filament. This is often followed by arcing, leading to very high currents which can cause the envelope and seals to fail and the lamp to shatter. A quick-acting, high-breaking capacity fuse should therefore be connected to the supply line in all applications. Suitable types are given in IEC 127, 241 and 269.

Lamp Codes

GE Stage & Studio lamps are coded as such:

Lamp Designation. This may be either an American National Standards Institute (ANSI) three letter code such as EJG, or a descriptive code in the general form Q750T3/4CL. ANSI codes are assigned to lamp specifications – mechanical, electrical and photometric characteristics – filed with the Institute.

They ensure interchangeability among similarly coded lamps from different manufacturers. Most of these lamps are rated for 120-volt operation. In a few cases a pair of ANSI codes are given (e.g. BFL/BFK), where the first is the official code for the lamp and the second code describes lamps the specifications of which are met or exceeded. In such cases, the lamps may be used to replace lamps with either code.

Base designations conform to IEC standards.

Single-Ended (top) Double-Ended (bottom) and PAR lamps (right)

Headings in this catalog section:

The following glossary of terms and descriptions can help you when checking Stage/Studio lamp specifications and when ordering products. Within each product line, lamps are divided into families, within these families, lamps are then listed by wattage. To find your lamp, follow these simple steps:

When You Don't Know The Lamp Description:

1. Identify bulb shape by using table on page 7-1.
2. Measure bulb diameter using ruler in appendix section page 8-6 to determine width in eighths of an inch.
3. Identify base type using table on page 7-2.
4. Find your lamp in the table containing the bulb shape, size and base.

Energy Used *Watts:*
Energy Used (as defined by FTC lamp label rules). To find actual energy used (kWh) multiply power (watts shown) x time divided by 1000.

Bulb:
Bulb shape followed by its size (the maximum diameter of the bulb expressed in eighths of an inch).

Base:
The type of base.

Product Code:
It is important to use this five-digit code when ordering to ensure that you receive the exact product you require.

Lamp Designation:
The lamp's identification code.

LIF Code:
These are assigned by the Lighting Federation of London, U.K. They ensure electrical and mechanical interchangeability of similarly coded lamps. LIF codes are divided into groups according to the primary application of the lamps.

Volts:
Each lamp's voltage is listed.

Case Quantity:
Number of product units packed in a case.

Additional Information:
Typical application and/or other important information.

Light Output - Lumens:
The lamp's rated output after the initial 2 hours of operation.

Rated Average Life - Hours:
Lamp burning hours to median life expectancy.

Filament Design:
Filaments are designated by a letter combination in which C is a coiled wire filament, CC is a coiled wire that is itself wound into a larger coil, and SR is a straight ribbon filament. Numbers represent the type of filament-support arrangement.

MOL in. (mm):
Maximum Overall Length in inches and millimeters.

LCL in. (mm):
Distance between the center of the filament and the Light Center Length reference plane, in inches and millimeters.

Color Temperature - Kelvins (K):
A measure of the visual "warmth" or "coolness" of the light from the lamp. The higher the value, the whiter or "cooler" the light appears.

Approximate Beam Spread:
For reflector type lamps. The total angle of the directed beam (in degrees) to where the intensity of the beam falls to 50% or 10% of the maximum value as indicated.

STAGE/STUDIO QUARTZLINE® TUNGSTEN HALOGEN LAMPS (ARRANGED IN WATTAGE ORDER)

Energy Used Watts	Bulb	Base	Product Code	Lamp Designation	LIF Code	Volts	Case Qty.	Additional Information	Light Output Lumens	Rated Avg. Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	Appx. Beam Spread 10% Peak CP	Appx. Beam Spread 50% Peak CP
200	T4	D C Bay (BA15d)	14119	FEV-Q200/CL/DC		120	6	Clear	5500	50	CC-2V	2 7/16	(61.9)	1 3/8	(34.9)	3200	-	-
250	G6	2-Pin Pf (GY9.5)	37427	DYG-Q250/4CL/2PP		30	24	Clear	8000	15	CC-6	2 1/2	(63.5)	1 7/16	(36.5)	3400	-	-
300	T8	2-Pin Pf (GY9.5)	30455	FKW-Q300T8	CP81	120	50		7200	150	C-13	3 7/16	(87)	1 13/16	(46)	3200	-	-
350	T3	RSC (R7s)	20881	FDF/HIR-Q350T2/4CL		120	6	Halogen-IR, Clear (31)*	13250	400	C-8	4 11/16	(119.1)	2 3/8	(60.3)	3200	-	-
420	G7	2-Pin Pf (GY9.5)	33934	EKB-Q420/4CL/2PP		120	24	Clear (15)*	11000	75	CC-6	2 1/2	(63.5)	1 7/16	(36.5)	3200	-	-
500	T3	RSC (R7s)	23735	FDF-Q500T3/4CL		120	12	Clear (31)*	13250	400	C-8	4 11/16	(119.1)	2 3/8	(60.3)	3200	-	-
			23734	FDN-Q500T3/4	P2/31	120	12	Frosted (26,31)*	12800	400	C-8	4 11/16	(119.1)	2 3/8	(60.3)	3200	-	-
	T4	Med Pf (P28s)	39135	EGE-Q500CL/P		120	12	Clear (15)*	10450	2000	CC-8	6	(152)	3 1/2	(88.9)	2950	-	-
		Med 2-Pin (G9.5)	37082	EHC-Q500/5CL		120	6	Clear (15,29)*	12700	500	CC-8	4	(101.6)	2 3/8	(60.3)	3150	-	-
			37083	EHD-Q500CL/TP		120	6	Clear (15)*	10450	2000	CC-8	4	(101.6)	2 3/8	(60.3)	2950	-	-
		Mini-Cand	47950	EVR-Q500CL/MC		120	6	Clear (15,19)*	10450	2000	CC-8	3 5/8	(92.1)	2	(50.8)	2950	-	-
	T6	Med Pf (P28s)	11966	BTL-Q500T6/CL/P	T17	120	12	Clear (17)*	11000	500	C-13	5 1/4	(133)	2 3/16	(55.6)	3000	-	-
			16465	BTM-Q500T6/4CL/2P		120	12	Clear (17)*	13000	150	C-13	5 1/4	(133)	2 3/16	(55.6)	3200	-	-
	T8	Med BiPost (G22)	30373	EGN-Q500T8		120	12	Clear (12)*	13000	150	C-13	5 1/2	(140)	2 1/2	(63.5)	3200	-	-
		2-Pin Pf (GY9.5)	30458	FRG-Q500T8	CP82	120	24	Clear (17)*	13000	150	C-13	3 7/16	(87.3)	1 13/16	(46.0)	3200	-	-
			30461	FRF-Q500T8	T18	120	50	(17)*	12000	400	C-13	3 7/16	(87)	1 13/16	(46)	3050	-	-
	T12	Med Pf (P28s)	39134	EGC-Q500/5CL/P		120	12	Clear (15)*	12700	500	CC-8	6	(152)	3 1/2	(88.9)	3150	-	-
525	T3	RSC (R7s)	20883	EJG/HIR-Q525T2 1/2/4		120	6	Halogen-IR, HORZ (31)*	20600	400	C-8	4 11/16	(119.1)	2 1/2	(63.5)	3250	-	-
575	T6	Med 2-pin (G9.5)	11450	FLK-Q575T6/4CL		115	24	Clear (15)*	16500	300	CC-8	3 31/32	(100.8)	2 3/8	(60.3)	3200	-	-
			14327	FLK/LL-Q575T6		115	50	Clear, Long Life (15)*	12800	1500	CC-8	3 31/32	(100.8)	2 3/8	(60.3)	2950	-	-
600	T5	2-Pin Pf (GY9.5)	30475	FMR-Q600T5		120	24	Clear (15)*	12600	2000	CC-8	3 7/8	(98.4)	2	(50.8)	3050	-	-
650	PAR36	Ferrule	41668	FAY-Q650PAR36/3D		120	12	Spot (3,4)*	-	30	-	2 7/16	(61.9)	-	-	5000	-	25x15
		Scrw Term	41669	FBE-Q650PAR36/5D		120	12	Spot (3,4)*	-	30	-	2 7/16	(61.9)	-	-	5000	-	25x15
			41671	FBO-Q650PAR36/5		120	12	Spot (3,4)*	-	30	-	2 7/16	(61.9)	-	-	3400	-	25x15

FBO- Q650 PAR36/5

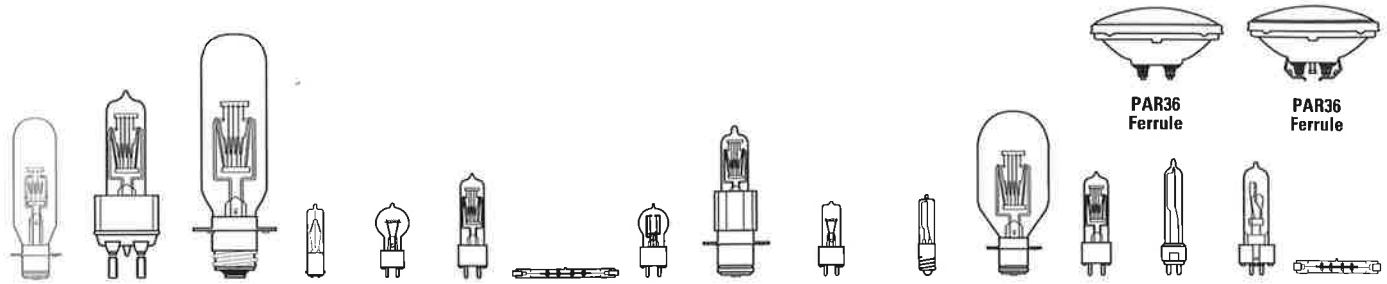
Identifies the lamp ANSI code.

Identifies the lamp shape and the bulb diameter in eighths of inches.

Identifies as Quartz bulb and its wattage.

Yellow Highlight *indicates that this is a reduced wattage option for lamps normally used in this application. Be sure to check wattage, lumens and life to determine which lamp is best suited to your needs.*

( ) * All footnote references found at the end of this section. Reduced Wattage



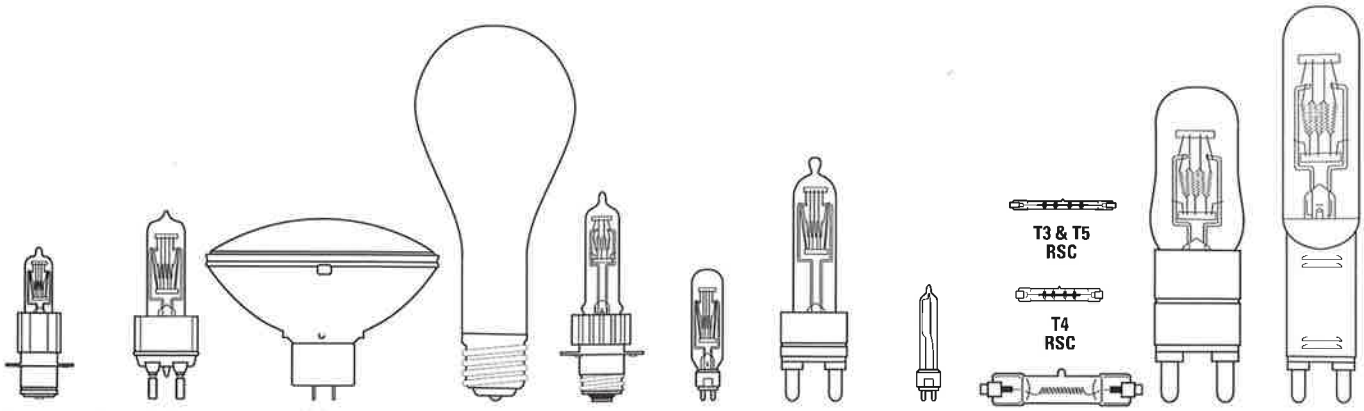
STAGE/STUDIO INCANDESCENT LAMPS (ARRANGED IN WATTAGE ORDER)

Energy Used Watts	Bulb	Base	Product Code	Lamp Designation	LIF Code	Volts	Case Qty.	Additional Information	Light Output Lumens	Rated Avg. Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	Appx. Beam Spread 10% Peak CP	Appx. Beam Spread 50% Peak CP
250	T20	Med Pf (P28s)	20762	250T20/47		120	24	Spot, Clear (17)*	4600	200	C-13	5 3/4	(146)	2 3/16	(55.6)	2900	-	-
500	T14	Med BiPost (G22)	21803	500T14/7		120	24	Clear, base up ± 30° (29)*	9000	800	C-13D	6 7/16	(164)	4	(101.6)	2850	-	-
	T20	Med Pf (P28s)	29802	DMX-500T20P	A1/8	120	24	Spot, Clear (8)*	13200	50	C-13	5 3/4	(146)	2 3/16	(55.6)	3200	-	-
			21887	DNW-500T20/64		120	24	Spot, Clear (17)*	10000	500	C-13	5 3/4	(146)	2 3/16	(55.6)	2900	-	-
1000	T20	Mog Pf (P40s)	29964	DPW-1M/T20P	A1/188	120	12	Projection, Spot, Clear (30)*	28000	50	C-13	9 1/2	(241)	3 7/16	(87.3)	3200	-	-
1500	T20	Mog Pf (P40s)	30004	DTJ-1500T20/39		120	12	Projection, Spot, Clear (30)*	42500	25	C-13D	9 1/2	(241)	3 7/16	(87.3)	3220	-	-

STAGE/STUDIO QUARTZLINE® TUNGSTEN HALOGEN LAMPS (ARRANGED IN WATTAGE ORDER)

200	T4	D C Bay (BA15d)	14119	FEV-Q200/CL/DC		120	6	Clear	5500	50	CC-2V	2 7/16	(61.9)	1 3/8	(34.9)	3200	-	-
250	G6	2-Pin Pf (GY9.5)	37427	DYG-Q250/4CL/2PP		30	24	Clear	8000	15	CC-6	2 1/2	(63.5)	1 7/16	(36.5)	3400	-	-
300	T8	2-Pin Pf (GY9.5)	30455	FKW-Q300T8	CP81	120	50		7200	150	C-13	3 7/16	(87)	1 13/16	(46)	3200	-	-
350	T3	RSC (R7s)	20881	FDF/HIR-Q350T2/4CL		120	6	Halogen-IR, Clear (31)*	13250	400	C-8	4 11/16	(119.1)	2 3/8	(60.3)	3200	-	-
420	G7	2-Pin Pf (GY9.5)	33934	EKB-Q420/4CL/2PP		120	24	Clear (15)*	11000	75	CC-6	2 1/2	(63.5)	1 7/16	(36.5)	3200	-	-
500	T3	RSC (R7s)	23735	FDF-Q500T3/4CL		120	12	Clear (31)*	13250	400	C-8	4 11/16	(119.1)	2 3/8	(60.3)	3200	-	-
			23734	FDN-Q500T3/4	P2/31	120	12	Frosted (26,31)*	12800	400	C-8	4 11/16	(119.1)	2 3/8	(60.3)	3200	-	-
	T4	Med Pf (P28s)	39135	EGE-Q500CL/P		120	12	Clear (15)*	10450	2000	CC-8	6	(152)	3 1/2	(88.9)	2950	-	-
		Med 2-Pin (G9.5)	37082	EHC-Q500/5CL		120	6	Clear (15,29)*	12700	500	CC-8	4	(101.6)	2 3/8	(60.3)	3150	-	-
			37083	EHD-Q500CL/TP		120	6	Clear (15)*	10450	2000	CC-8	4	(101.6)	2 3/8	(60.3)	2950	-	-
		Mini-Cand	47950	EVR-Q500CL/MC		120	6	Clear (15,19)*	10450	2000	CC-8	3 5/8	(92.1)	2	(50.8)	2950	-	-
	T6	Med Pf (P28s)	11966	BTL-Q500T6/CL/P	T17	120	12	Clear (17)*	11000	500	C-13	5 1/4	(133)	2 3/16	(55.6)	3000	-	-
			16465	BTM-Q500T6/4CL/2P		120	12	Clear (17)*	13000	150	C-13	5 1/4	(133)	2 3/16	(55.6)	3200	-	-
	T8	Med BiPost (G22)	30373	EGN-Q500T8		120	12	Clear (12)*	13000	150	C-13	5 1/2	(140)	2 1/2	(63.5)	3200	-	-
		2-Pin Pf (GY9.5)	30458	FRG-Q500T8	CP82	120	24	Clear (17)*	13000	150	C-13	3 7/16	(87.3)	1 13/16	(46.0)	3200	-	-
			30461	FRF-Q500T8	T18	120	50	(17)*	12000	400	C-13	3 7/16	(87)	1 13/16	(46)	3050	-	-
	T12	Med Pf (P28s)	39134	EGC-Q500/5CL/P		120	12	Clear (15)*	12700	500	CC-8	6	(152)	3 1/2	(88.9)	3150	-	-
525	T3	RSC (R7s)	20883	EJG/HIR-Q525T2 1/2/4		120	6	Halogen-IR, HORZ (31)*	20600	400	C-8	4 11/16	(119.1)	2 1/2	(63.5)	3250	-	-
575	T6	Med 2-pin (G9.5)	11450	FLK-Q575T6/4CL		115	24	Clear (15)*	16500	300	CC-8	3 31/32	(100.8)	2 3/8	(60.3)	3200	-	-
			14327	FLK/LL-Q575T6		115	50	Clear, Long Life (15)*	12800	1500	CC-8	3 31/32	(100.8)	2 3/8	(60.3)	2950	-	-
600	T5	2-Pin Pf (GY9.5)	30475	FMR-Q600T5		120	24	Clear (15)*	12600	2000	CC-8	3 7/8	(98.4)	2	(50.8)	3050	-	-
650	PAR36	Ferrule	41668	FAY-Q650PAR36/3D		120	12	Spot (3,4)*	-	30	-	2 7/16	(61.9)	-	-	5000	-	25x15
		Scrw Term	41669	FBE-Q650PAR36/5D		120	12	Spot (3,4)*	-	30	-	2 7/16	(61.9)	-	-	5000	-	25x15
			41671	FBO-Q650PAR36/5		120	12	Spot (3,4)*	-	30	-	2 7/16	(61.9)	-	-	3400	-	25x15
		Ferrule	41672	FCW-Q650PAR36/6		120	12	Flood (3,4)*	-	100	-	2 7/16	(61.9)	-	-	3200	-	60x55
			41673	FCX-Q650PAR36/7		120	12	Medium Flood (3,4)*	-	100	-	2 7/16	(61.9)	-	-	3200	-	40x30
		Scrw Term	41667	DWE-Q650PAR36/1		120	12	Medium Flood (3,4)*	-	100	-	2 9/16	(65.1)	-	-	3200	-	40x30
	T3	RSC (R7s)	13895	FCM/HIR-Q650T3/4		120	6	Halogen-IR, Clear (31)*	25200	400	C-8	4 11/16	(119.1)	2 3/8	(60.3)	3275	-	-
	T4	RSC (R7s)	30325	FAD-Q650T4/4CL	P2/6	120	24	Clear	16500	100	CC-8	3 3/16	(81.0)	5/8	(15.9)	3200	-	-
			30343	FBX-Q650T4/4		120	24	Frosted (14,26)*	16500	100	CC-8	3 3/16	(81.0)	5/8	(15.9)	3200	-	-
	T8	2-Pin Pf (GY9.5)	30481	FRK-Q650T8	CP89	120	50	Clear (17)*	16900	200	C-13	3 7/16	(87.3)	1 13/16	(46.0)	3200	-	-
			30476	FRE-Q650T8	T26	120	50	(17)*	15000	400	C-13	3 7/16	(87)	1 13/16	(46)	3050	-	-
	G6	2-Pin Pf (GY9.5)	34328	EKD-Q650/3CL/2PP		120	24	Clear (16,17)*	20000	25	CC-6	2 1/2	(63.5)	1 7/16	(36.5)	3300	-	-
675	T3	RSC (R7s)	20884	FFT/HIR-Q675T3/4		120	6	Halogen-IR (31)*	26400	400	C-8	6 9/16	(167)	2 5/8	(66.7)	3250	-	-
750	T3	RSC (R7s)	23756	EJG-Q750T3/4CL		120	12	Clear (31)*	20600	400	C-8	4 11/16	(119.1)	2 1/2	(63.5)	3200	-	-
			23755	EMD-Q750T3/4		120	12	Frosted (31)*	19500	400	C-8	4 11/16	(119.1)	2 1/2	(63.5)	3200	-	-
	T6	Med Pf (P28s)	39136	EGF-Q750/4CL/P		120	12	Clear (15)*	20400	500	CC-8	6	(152)	3 1/2	(88.9)	3200	-	-
			39137	EGG-Q750CL/P		120	12	Clear (15)*	15750	2000	CC-8	6	(152)	3 1/2	(88.9)	3000	-	-
		Med 2-Pin (G9.5)	37051	EHF-Q750/4CL		120	6	Clear, BD (15)*	20400	500	CC-8	4	(101.6)	2 3/8	(60.3)	3200	-	-
			43167	EHG-Q750CL/TP		120	6	Clear (15)*	15400	2000	CC-8	4	(101.6)	2 3/8	(60.3)	3000	-	-

( ) * All footnote references found at the end of this section. Reduced Wattage



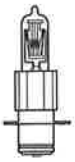
T4, T6, T7 & T8 Med Pf | T7 & T8 Med BiPost | PAR64 ExMogEndPr | PS52 Mog | T7, 8, 9, 10 & 12 Mog Pf | T7 & T8 Med 2-Pin | T7, 8, 9 & 10 Mog BiPost | T6 Med 2-Pin | T6 RSC | T20 Mog BiPost | T24 Mog BiPost

STAGE/STUDIO QUARTZLINE® TUNGSTEN HALOGEN LAMPS (ARRANGED IN WATTAGE ORDER) con't

Energy Used Watts	Bulb	Base	Product Code	Lamp Designation	LIF Code	Volts	Case Qty.	Additional Information	Light Output Lumens	Rated Avg. Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	Appx. Beam Spread 10% Peak CP	Appx. Beam Spread 50% Peak CP
750	T7	Med Pf	11954	BTP-Q750T7/4CL/2P		120	12	Clear (15)*	21000	200	C-13D	4 3/4	(120.7)	2 3/16	(55.6)	3200	-	-
		Med BiPost (G22)	39190	EGR-Q750T7/4CL		120	12	Clear (17)*	21000	200	C-13D	5	(127)	2 1/2	(63.5)	3200	-	-
		Med Pf (P28s)	11953	BTN-Q750T7/CL/2P		120	12	(15)*	17600	500	C-13D	4 3/4	(120.7)	3 3/16	(55.6)	3050	-	-
	T8	Med 2-Pin (G9.5)	39680	BWM-Q750T7/4CL/TP		120	6	Clear (17)*	21000	200	C-13D	4 1/2	(114.3)	2 3/8	(60.3)	3200	-	-
1000	PAR64	ExMogEndPr	13226	FGM-Q1000PAR64/3D		120	6	(3)*	-	200	-	-	-	-	-	5200	24x12	13x6
			13233	FFN-Q1000PAR64/1		120	6	Very Narrow Spot, Clear (3)*	11000	800	-	6	(152)	-	-	3200	24x10	12x6
			13229	FFP-Q1000PAR64/2		120	6	Narrow Spot, Clear (3)*	12000	800	-	6	(152)	-	-	3200	26x14	14x7
			13228	FFR-Q1000PAR64/5		120	6	Medium Flood, Clear (3)*	14000	800	-	6	(152)	-	-	3200	44x11	28x12
			13227	FFS-Q1000PAR64/6		120	6	Wide Flood, Clear (3)*	19000	800	-	6	(152)	-	-	3200	71x45	48x24
			13225	FGN-Q1000PAR64/7D		120	6	Medium Flood (3)*	8200	200	-	6	(152)	-	-	5200	43x20	37x11
	PS52	Mog (E39)	39582	DKZ/DSE-Q1000PS52/4		120	12	I.F., Scoop Lamp (15,22)*	28000	750	CC-8	13	(330)	9 1/2	(241)	3200	-	-
	T3	RSC (R7s)	23788	EJD-Q1000T3/3CL		185	12	Clear (31)*	33600	100	C-8	4 11/16	(119.1)	2 3/4	(69.8)	3350	-	-
			23797	FCM-Q1000T3/4CL	P2/28	120	12	Clear (31)*	28000	400	C-8	4 11/16	(119.1)	2 3/8	(60.3)	3200	-	-
			33280	FFT-Q1000T3/1CL		120	12	Clear (31)*	26400	400	C-8	6 9/16	(167)	2 5/8	(66.7)	3200	-	-
			23792	FHM-Q1000T3/4	P2/29	120	12	Frosted (26,31)*	27300	400	C-8	4 1/4	(108.0)	2 3/8	(60.3)	3200	-	-
	T5	RSC (R7s)	30157	DXW-Q1000T5/4CL		120	24	Clear (27)*	28000	150	CC-8	3 3/4	(95.3)	7/8	(22.2)	3200	-	-
			30362	DYA-Q1000T5/1CL		120	24	Clear (15)*	28000	200	CC-8	4 3/8	(111.1)	7/8	(22.2)	3200	-	-
			30374	FBY-Q1000T5/4		120	24	Frosted (26,27)*	26000	150	CC-8	3 3/4	(95.3)	7/8	(22.2)	3200	-	-
	T6	Med Pf (P28s)	38853	EGJ-Q1000/4CL/P		120	12	Clear (15)*	27500	300	CC-8	6	(152)	3 1/2	(88.9)	3200	-	-
			38852	EGK-Q1000/4/P		120	12	Frosted (15)*	26500	300	CC-8	6	(152)	3 1/2	(88.9)	3200	-	-
			39138	EGM-Q1000CL/P		120	12	Clear (15)*	21500	2000	CC-8	6	(152)	3 1/2	(88.9)	3000	-	-
		Med 2-Pin (G9.5)	35853	FCV-Q1000/4		120	6	Frosted (15,20)*	26500	375	CC-8	4	(101.6)	2 3/8	(60.3)	3200	-	-
			35607	FEL-Q1000/4CL		120	6	Clear (15,20)*	27500	375	CC-8	4	(101.6)	2 3/8	(60.3)	3200	-	-
	T7	Med Pf (P28s)	11955	BTR-Q1000T7/4CL/2P		120	12	Clear (15)*	28500	250	C-13D	4 3/4	(120.7)	2 3/16	(55.6)	3200	-	-
		Mog Pf (P40s)	12554	BVT-Q1000T7/CL/MP		120	6	Clear (15)*	24500	500	C-13 D	7 1/4	(184)	3 15/16	(100.0)	3050	-	-
			12553	BVV-Q1000T7/4CL/MP		120	6	Clear (15)*	28500	200	C-13D	7 1/4	(184)	3 15/16	(100.0)	3200	-	-
		Med 2-Pin (G9.5)	39681	BWN-Q1000T7/4CL/TP		120	6	Clear (17)*	28500	250	C-13D	4 1/2	(114.3)	2 3/8	(60.3)	3200	-	-
		Mog BiPost (G38)	42697	CYV-Q1000T7/4CL/BP		120	6	Clear (17)*	28500	200	C-13D	8	(203)	5	(127)	3200	-	-
		Med BiPost (G22)	39191	EGT-Q1000T7/4CL		120	12	Clear (17)*	28500	250	C-13D	5	(127)	2 1/2	(63.5)	3200	-	-
	T6	RSC (R7s)	33760	FER-Q1000T6/4CL		120	6	Clear (15)*	27500	500	CC-8	5 5/8	(143)	13/16	(20.6)	3200	-	-
1200	PAR64	ExMogEndPr	34812	GFA-Q1200PAR64/5		120	6	Medium Flood, Clear (3)*	-	400	-	6	(152)	-	-	3200	13x24	22x36
			34810	GFB-Q1200PAR64/2		120	6	Narrow Spot, Clear (3)*	-	400	-	6	(152)	-	-	3200	8x10	16x18
			34808	GFC-Q1200PAR64/1		120	6	Very Narrow Spot, Clear (3)*	-	400	-	6	(152)	-	-	3200	8x10	14x16
			34806	GFE-Q1200PAR64/6		120	6	Wide Flood, Clear (3)*	-	400	-	6	(152)	-	-	3200	25x58	34x71
1500	PS52	Mog (E39)	40357	DKX/DSF-Q1500PS52/4		120	12	I.F., Scoop Lamp (15,22)*	41000	1000	C-8	13	(330)	-	-	3200	-	-
	T4	RSC (R7s)	23841	FDB-Q1500T4/4CL		120	12	Clear (31)*	41200	400	C-8	6 9/16	(167)	2 7/16	(61.9)	3200	-	-
			41229	FGT-Q1500T4/4		120	12	Frosted (26,31)*	40200	400	C-8	6 9/16	(167)	2 13/32	(61.1)	3200	-	-
	T8	Mog Pf (P40s)	30522	DTA-Q1500T8/4CL		120	6	(17)*	41000	300	C-13D	200	-	3 7/16	(87)	3200	-	-
	T10	Mog BiPost (G38)	37564	CXZ-Q1500T10/4CL		120	6	Clear (17)*	44500	400	C-13	8 1/2	(216)	5	(127)	3200	-	-
	T12	Mog Pf (P40s)	30526	CWZ-Q1500/T12		120	6	Clear (17)*	41000	300	C-13	8 15/32	(215)	3 15/16	(100.0)	3200	-	-
2000	T4	RSC (R7s)	33761	FEY-Q2000T8/4CL		120	6	Clear (4)*	57000	400	CC-8	5 5/8	(143)	1	(25.4)	3200	-	-
	T8	Mog BiPost (G38)	39587	BWA-Q2000/4CL/BP		120	6	Clear (23)*	54000	500	CC-8	8 1/4	(210)	5	(127)	3200	-	-
		Mog (E39)	37086	BWF-Q2000/4CL		120	6	Clear (15)*	54000	500	CC-8	7 1/2	(191)	5 1/4	(133)	3200	-	-
	T9	Mog (E39)	30491	BWG-Q2M/T9		120	6	Frosted (15)*	56000	400	CC-8	7 1/2	(191)	5 1/4	(133)	3200	-	-
	T10	Mog Pf (P40s)	12555	BVW-Q2000T10/4CL/MP		120	6	Clear (15)*	59000	350	C-13	8 15/32	(215)	3 15/16	(100.0)	3200	-	-
		Mog BiPost (G38)	36636	CYX-Q2000T10/4CL		120	6	Clear (17)*	59000	350	C-13	8	(203)	5	(127)	3200	-	-
5000	T20	Mog BiPost (G38)	41736	DPY-Q5000T20/4CL	CP29	120	6	Clear (9)*	143000	500	C-13	11	(279)	6 1/2	(165)	3200	-	-
10000	T24	Mog BiPost (G38)	18305	DTY-Q10M/T24/4CL		120	4	Clear (9)*	290000	300	C-13	15 3/4	(400)	10	(254)	3200	-	-

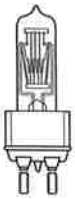
( )* All footnote references found at the end of this section. Reduced Wattage

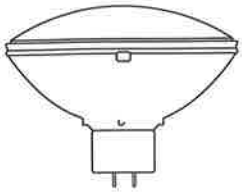

T8
2-Pin Pf

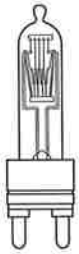

T4, T6, T7 & T8
Med Pf

T3 & T5
RSC

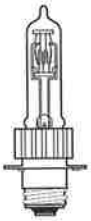

T6
Med 2-Pin


T7 & T8
Med BiPost


PAR64
ExMogEndPr


T7, 8, 9 & 10
Mog BiPost


T10
2-Pin Pf


T7, 8, 9, 10 & 12
Mog Pf

STAGE/STUDIO QUARTZLINE® TUNGSTEN HALOGEN HIGH VOLTAGE LAMPS (ARRANGED IN WATTAGE ORDER)

Energy Used Watts	Bulb	Base	Product Code	Lamp Designation	LIF Code	Volts	Case Qty.	Additional Information	Light Output Lumens	Rated Avg. Life Hours	Filament Design	MOL in.	MOL (mm)	LCL in.	LCL (mm)	Color Temp. K	Appx. Beam Spread 10% Peak CP	Appx. Beam Spread 50% Peak CP
300	T8	2-Pin Pf (GY9.5)	30456	FSL-Q300T8		230	50	(17)*	6900	150	C-13	3 7/16	(87)	1 13/16	(46)	3200	-	-
500		Med Pf (P28s)	30535	FKF-Q500T6/CL	T17	230	12	(17)*	9500	750	C-13	5 1/4	(130)	3 3/16	(55.6)	2950	-	-
		2-Pin Pf (GY9.5)	30459	FRH-Q500T8		230	50	(17)*	12500	150	C-13	3 7/16	(87)	1 13/16	(46)	3200	-	-
			30462	GCV-Q500T8		230	50	(17)*	11000	400	C-13	3 7/16	(87)	1 13/16	(46)	3050	-	-
625	T3	RSC (R7s)	19697	Q625T3/4CL	P2/10	230	12	(4)*	16900	300	C-8	7 7/16	(189)	4 23/32	(120)	3200	-	-
			19698	Q625T3/4CL	P2/10	240	12	(4)*	16900	300	C-8	7 7/16	(189)	4 23/32	(120)	3200	-	-
650	T6	Med 2-Pin (G9.5)	30488	FKR-Q650T6/CL		230	24	(15)*	15000	300	CC-8	4	(101)	2 3/8	(60.5)	3100	-	-
	T8	Med Pf (P28s)	30541	FKB-Q650T8	T13	230	12	Clear (9)*	13500	750	C-13	5 1/8	(130)	2 3/16	(55.6)	3000	-	-
		Med BiPost (G22)	20320	FKH-Q650T8/4CL	CP39	230	12	(17)*	16900	200	C-13	5 1/2	(140)	2 1/2	(63.5)	3200	-	-
		Med Pf (P28s)	20323	FKM-Q650T8/4CL	CP51	230	12	(17)*	16900	200	C-13	5 1/4	(130)	3 3/16	(55.6)	3200	-	-
		2-Pin Pf (GY9.5)	30482	FRL-Q650T8		230	50	(17)*	16250	150	C-13	3 7/16	(87)	1 13/16	(46)	3200	-	-
			30479	GCT-Q650T8		230	50	(17)*	15000	400	C-13	3 7/16	(87)	1 13/16	(46)	3050	-	-
			20315	Q650T8/4CL	CP23	230	12	(12,17)*	16900	200	C-13	4 3/8	(110)	2 13/16	(55)	3200	-	-
800	T3	RSC (R7s)	23760	EME-Q800T3/4CL	P2/11	230	12	Clear (4,31)*	22000	250	C-8	4 5/8	(118)	2 13/16	(71.4)	3200	-	-
			23761	EMF-Q800T3/4	P2/11	240	12	Frosted (4)*	21400	250	C-8	4 11/16	(119)	2 13/16	(71.4)	3200	-	-
1000	PAR64	ExMogEndPr	19909	EXC-Q1M/PAR64	CP60	220	6	(3)*	-	300	-	6	(152)	-	-	3200	20x17	12x6
			19910	EXC-Q1M/APR64	CP60	240	6	(3)*	-	300	-	6	(152)	-	-	3200	20x17	12x6
			19911	EXD-Q1M/PAR64	CP61	220	6	(3)*	-	300	-	6	(152)	-	-	3200	23x20	13x10
			19912	EXD-Q1M/PAR64	CP61	240	6	(3)*	-	300	-	6	(152)	-	-	3200	23x20	13x10
			19913	EXE-Q1M/PAR64	CP62	220	6	(3)*	-	300	-	6	(152)	-	-	3200	39x24	25x14
			19914	EXE-Q1M/PAR64	CP62	240	6	(3)*	-	300	-	6	(152)	-	-	3200	39x24	25x14
			19915	EXG-Q1M/PAR64	HX134	220	6	(3)*	-	300	-	6	(152)	-	-	3200	60x38	45x24
			19918	EXG-Q1M/PAR64	HX134	240	6	(3)*	-	300	-	6	(152)	-	-	3200	60x38	45x24
	T3	RSC (R7s)	20249	EKM-Q1M/T3/4CL	P2/7	230	12	(4)*	28000	300	C-8	7 7/16	(189)	4 23/32	(120)	3200	-	-
			20253	EKM-Q1M/T3/4CL	P2/7	240	12	(4)*	28000	300	C-8	7 7/16	(189)	4 23/32	(119.9)	3200	-	-
	T6	Med Pf (P28s)	30533	EWE-Q1000T6/CL		220	12	(17)*	26500	250	CC-8	6	(152)	3 1/2	(88.9)	3200	-	-
		Med 2-pin (G9.5)	31839	FEP-Q1000T6/4CL		230	50	(15)*	25000	300	CC-8	4	(101.6)	2 3/8	(60.5)	3200	-	-
	T8	Med BiPost (G22)	20285	FKJ-Q1M/T8/4CL	CP40	230	12	(17)*	26500	250	C-13	5 1/2	(140)	2 1/2	(63.5)	3200	-	-
		Med Pf (P28s)	20287	FKN-Q1M/T8/4CL	CP52	230	12	(17)*	26500	250	C-13	5	(127)	3 3/16	(55.6)	3200	-	-
		2-Pin Pf (GY9.5)	20281	Q1000T8/4CL	CP24	230	24	(17)*	26500	250	C-13	4 3/8	(110)	2 3/16	(55)	3200	-	-
			20383	Q1000T8/CL	T11	120	24	(17)*	23000	750	C-13	4 3/8	(110)	2 3/16	(55)	3050	-	-
		Med Pf (P28s)	20388	FKD/Q1000T8/CL	T14	230	12	(17)*	23000	750	C-13	5 1/8	(130)	2 3/16	(55)	3050	-	-
	T11	Med Pf (P28s)	30531	FKE-Q1000T11	T15	230	12	(17)*	23000	750	C-13	6 5/16	(160)	3 1/2	(88.9)	3050	-	-
		2-Pin Pf (GY9.5)	30439	FVA-Q1000T11	CP70	230	24	(17)*	25000	200	C-13D	4 3/8	(110)	2 3/16	(55)	3200	-	-
			30436	FWP-Q1000T11	T19	230	24	(17)*	21000	750	C-13D	4 3/8	(110)	2 3/16	(55)	3050	-	-
1250	T3	RSC (R7s)	19695	Q1250T3/4CL	P2/12	230	12	(4)*	35000	300	C-8	7 7/16	(189)	4 23/32	(120)	3200	-	-
			19696	Q1250T3/4CL	P2/12	240	12	(4)*	35000	300	C-8	7 7/16	(189)	4 23/32	(120)	3200	-	-
2000	T8	RSC (R7s)	35338	FEX-Q2MT8/4CL		230	12	(4)*	50000	300	CC-8	-	(143)	1 7/16	(37)	3200	-	-
	T10	Mog Bipost (G38)	31844	FKK-Q2MT10/4CL	CP41	230	12	(17)*	54000	400	C-13	-	(216)	5	(127)	3200	-	-
		2-Pin Pf (GY16)	20309	FTM-Q2000T10/4CL	CP43	230	12	(17)*	54000	400	C-13	5 11/16	(145)	2 3/4	(70)	3200	-	-
		Mog Pf (P40s)	20311	Q2000T10/4CL	CP53	230	12	(17)*	54000	400	C-13	7 7/8	(200)	3 7/16	(87)	3200	-	-
5000	T10	Mog Bipost (G38)	30505	Q5000T20	CP29	220	12	(17)*	135000	500	C-13	11	(280)	6 1/2	(165)	3200	-	-
			30506	Q5000T20	CP29	240	12	(17)*	135000	500	C-13	11	(280)	6 1/2	(165)	3200	-	-
10000	T27	Mog Bipost (G38)	30507	Q10M/T27	CP83	220	4	(17)*	290000	500	C-13	15 3/4	(400)	10	(254)	3200	-	-

( ) * All footnote references found at the end of this section. Reduced Wattage

Stage and Studio ANSI Codes

ANSI CODE	PRODUCT CODE	LAMP DESCRIPTION	VOLTS
BAB	14790	Q20MR16/FL40°-BAB	12
BTL	11966	BTL-Q500T6/CL/P	120
BTM	16465	BTM-Q500T6/4CL/2P	120
BTN	11953	BTN-Q750T7/CL/2P	120
BTP	11954	BTP-Q750T7/4CL/2P	120
BTR	11955	BTR-Q1000T7/4CL/2P	120
BVT	12554	BVT-Q1000T7/CL/MP	120
BVV	12553	BVV-Q1000T7/4CL/MP	120
BVW	12555	BVW-Q2000T10/4CL/MP	120
BWA	39587	BWA-Q2000/4CL/BP	120
BWF	37086	BWF-Q2000/4CL	120
BWG	30491	BWG-Q2M/T9	120
BWM	39680	BWM-Q750T7/4CL/TP	120
BWN	39681	BWN-Q1000T7/4CL/TP	120
CWZ	30526	CWZ-Q1500/T12	120
CXZ	37564	CXZ-Q1500T10/4CL	120
CYV	42697	CYV-Q1000T7/4CL/BP	120
CYX	36636	CYX-Q2000T10/4CL	120
DEB	21799	500T12/8	120
DKX	40357	DKX/DSF-Q1500PS52/4	120
DKZ	39582	DKZ/DSE-Q1000PS52/4	120
DMX	29802	500T20P-DMX	115/0
DNS	21795	500T12/9	120
DNW	21887	500T20/64	120
DPW	29964	1M/T20P-DPW	115/0
DPY	41736	DPY-Q5000T20/4CL	120
DTA	30522	DTA-Q1500T8/4CL	120
DTJ	30004	1500T20/39-DTJ	115/0
DTY	18305	DTY-Q10M/T24/4CL	120
DVS	23733	Q500T3/CL-DVS	130
DWC	19797	150R/FL	120
DWE	41667	DWE-Q650PAR36/1	120
DWT	23800	Q1000T6/CL-DWT	120
DXW	30157	DXW-Q1000T5/4CL	120
DYA	30362	DYA-Q1000T5/1CL	120
DYG	37427	DYG-Q250/4CL/2PP	30
EGC	39134	EGC-Q500/5CL/P	120
EGE	39135	EGE-Q500CL/P	120
EGF	39136	EGF-Q750/4CL/P	120
EGG	39137	EGG-Q750CL/P	120
EGJ	38853	EGJ-Q1000/4CL/P	120
EGK	38852	EGK-Q1000/4/P	120
EGM	39138	EGM-Q1000CL/P	120
EGN	30373	EGN-Q500T8	120
EGR	39190	EGR-Q750T7/4CL	120
EGT	39191	EGT-Q1000T7/4CL	120
EHC	37082	EHC-Q500/5CL	120
EHD	37083	EHD-Q500CL/TP	120
EHF	37051	EHF-Q750/4CL	120
EHG	43167	EHG-Q750CL/TP	120
EHM	43703	Q300T3/CL-EHM	120
EHP	43705	Q300T4/CL-EHP	120
EHR	43708	Q400T4/CL-EHR	120
EHT	43699	Q250CL/MC-EHT	120
EHZ	43704	Q300T3-EHZ	120
EJD	23788	EJD-Q1000T3/3CL	185
EJG	23756	EJG-Q750T3/4CL	120
EJG	20883	EJG/HIR-Q525T2½/4	120
EKB	33934	EKB-Q420/4CL/2PP	120
EKD	34328	EKD-Q650/3CL/2PP	120
EKM	20249	EKM-Q1M/T3/4CL/P2/7	230
EKM	20253	EKM-Q1M/T3/4CL/P2/7	240
EMD	23755	EMD-Q750T3/4	120
EME	23760	EME-Q800T3/4CL	230
EMF	23761	EMF-Q800T3/4	240
ENL	39857	Q50MR16/FL/1-ENL	12
ESL	44383	Q150CL/MC/2V-ESL	120
ESM	43695	Q250MC-ESM	120
ESN	44385	Q100CL/MC/2V-ESN	120
ESP	44384	Q150CL/DC/2V-ESP	120
ESR	44386	Q100CL/DC/2V-ESR	120
ESS	43697	Q250CL/DC-ESS	120
ESX	14789	Q20MR16/NSP15°-ESX	12
ETB	43701	Q250DC-ETB	120
ETC	43693	Q150CL/DC-ETC	120
ETD	44657	Q100DC/2V-ETD	120
ETE	44656	Q100MC/2V-ETE	120
ETF	44653	Q150DC-ETF	120

Stage and Studio ANSI Codes (con't)

ANSI CODE	PRODUCT CODE	LAMP DESCRIPTION	VOLTS
EXD	19912	EXD-Q1M/PAR64/CP61	240
ETG	43694	Q150CL/MC-ETG	120
ETH	44654	Q150MC-ETH	120
EVR	47950	EVR-Q500CL/MC	120
EWE	30533	EWE-Q1000T6/CL	230
EXC	19909	EXC-Q1M/PAR64/CP60	220
EXC	19910	EXC-Q1M/APR64/CP60	240
EXD	19911	EXD-Q1M/PAR64/CP61	220
EXE	19913	EXE-Q1M/PAR64/CP62	220
EXE	19914	EXE-Q1M/PAR64/CP62	240
EXG	19915	EXG-Q1M/PAR64	220
EXG	19918	EXG-Q1M/PAR64	240
EXN	14788	Q50MR16/FL40°-EXN	12
EXT	14787	Q50MR16/NSP15°-EXT	12
EXZ	14793	Q50MR16/NFL25°-EXZ	12
EYC	14794	Q71MR16/FL40°-EYC	12
EYF	14795	Q71MR16/NSP15°-EYF	12
EYJ	15941	Q71MR16/NFL25°-EYJ	12
EYS	14785	Q42MR16/NFL25°-EYS	12
EZX	14942	Q20MR16/VNSP7°-EZX	12
EZY	14945	Q42MR16/VNSP9°-EZY	12
FAD	30325	FAD-Q650T4/4CL	120
FAY	41668	FAY-Q650PAR36/3D	120
FBE	41669	FBE-Q650PAR36/5D	120
FBO	41671	FBO-Q650PAR36/5	120
FBX	30343	FBX-Q650T4/4	120
FBY	30374	FBY-Q1000T5/4	120
FCL	23731	Q500T3/CL-FCL	120
FCM	13895	FCM/HIR-Q650T3/4	120
FCM	23797	FCM-Q1000T3/4CL	120
FCV	35853	FCV-Q1000/4	120
FCW	41672	FCW-Q650PAR36/6	120
FCX	41673	FCX-Q650PAR36/7	120
FDB	23841	FDB-Q1500T4/4CL	120
FDF	23735	FDF-Q500T3/4CL	120
FDF	20881	FDF/HIR-Q350T2/4CL	120
FDN	23734	FDN-Q500T3/4	120
FEL	35607	FEL-Q1000/4CL	120
FEP	31839	FEP-Q1000T6/4CL	230
FER	33760	FER-Q1000T6/4CL	120
FEV	14119	FEV-Q200/CL/DC	120
FEX	20297	FEX-Q2M/T8/4CL	230
FEY	33761	FEY-Q2000T8/4CL	120
FFN	13233	FFN-Q1000PAR64/1	120
FFP	13229	FFP-Q1000PAR64/2	120
FFR	13228	FFR-Q1000PAR64/5	120
FFS	13227	FFS-Q1000PAR64/6	120
FFT	33280	FFT-Q1000T3/1CL	120
FFT	20884	FFT/HIR-Q675T3/4	120
FGM	13226	FGM-Q1000PAR64/3D	120
FGN	13225	FGN-Q1000PAR64/7D	120
FGT	41229	FGT-Q1500T4/4	120
FHM	23792	FHM-Q1000T3/4	120
FKB	30541	FKB-Q650T8	230
FKE	30531	FKE-Q1000T11	230
FKF	30535	FKF-Q500T6/CL	230
FKH	20320	FKH-Q650T8/4CL/CP39	230
FKJ	20285	FKJ-Q1M/T8/4CL/CP40	230
FKM	20323	FKM-Q650T8/4CL/CP51	230
FKN	20287	FKN-Q1M/T8/4CL/CP52	230
FKR	30488	FKR-Q650T6/CL	230
FKW	30455	FKW-Q300T8	120
FLK	11450	FLK-Q575T6/4CL	115
FMR	30475	FMR-Q600T5	120
FRE	30476	FRE-Q650T8	120
FRF	30461	FRF-Q500T8	120
FRG	30458	FRG-Q500T8	120
FRH	30459	FRH-Q500T8	230
FRK	30481	FRK-Q650T8	120
FRL	30482	FRL-Q650T8	230
FSL	30456	FSL-Q300T8	230
FVA	30439	FVA-Q1000T11	230
FWP	30436	FWP-Q1000T11	230
GCT	30479	GCT-Q650T8	230
GCV	30462	GCV-Q500T8	230

Footnotes

1. Hemispherical shield in front of filament masking all direct light.
2. If lamp is cracked or broken, replace immediately. It may continue to operate, but the inner bulb is pressurized and could shatter unexpectedly. Dispose of with care.
3. Although made of heat-resistant glass, the bulb and lens should be protected from moisture or breakage may result. The lens or bulb may break during usage under certain other conditions beyond the control of the manufacturer. Therefore, screening techniques are recommended, where appropriate, to protect people and surroundings from possible hot fragments. If lamp is cracked or broken, replace immediately. It may continue to operate, but the inner bulb is pressurized and could shatter unexpectedly.
4. Operate at or near horizontal.
5. Although this lamp is made of heat-resistant glass, the bulb and lens should be protected from moisture or breakage may result. To protect persons against risk of breakage, use a protective screen external to the lamp.
6. To protect persons against risk of breakage, use a protective screen external to lamp.
7. Use only in fixture designed for Cool Beam PAR lamps.
8. Burning position vertical base down ±30°.
9. Burning position vertical base down ±45°.
10. Has blackening protector grid.
11. Non-stock item available to special order.
12. 21mm max bulb.
13. Staggered filament.
14. Frosted bulb.
15. Universal operating position.
16. Ultra-violet absorbing bulb.
17. BDTH operating position.
18. Top end of bulb is opaque-coated to absorb upward light.
19. Life depends on service conditions; for use only in equipment specially designed to maintain bulb and base temperatures within safe limits.
20. To avoid possible overheating, this lamp is not recommended for use without force-cooling in deep-bowled fixtures.
21. Blue glass bulb; apparent color temperature may vary from lamp to lamp.
22. Silica coated.
23. Burn BDTH but avoid horizontal burning with support spine beneath filament to prevent premature arcing.
24. 100V rating available to special order.
25. 15mm max bulb.
26. Apparent lighted length slightly longer than similar clear lamp.
27. No filament support rod.
28. Hot (instant) restrike; other lamps require 10-minute pause before restrike.
29. Low noise construction to minimize generation of audible noise when operated on A.C. circuits.
30. Operate base down within 30° of vertical. Any tilt should be in direction in which the filament plane faces.
31. Burning position, horizontal ±4°.

Appendix Listings:

International - US Export Only

FOR EXPORT ONLY

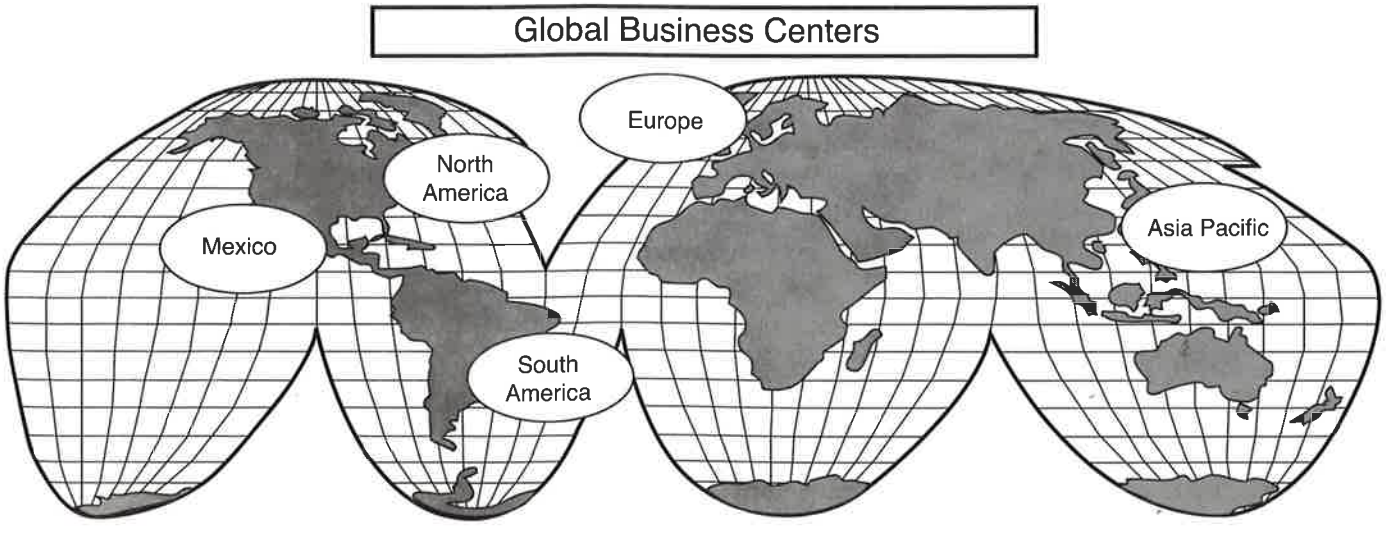
The U.S. Energy Policy Act of 1992 and Canadian energy legislation prohibits the manufacturing and/or importation of certain lamp types for sale in Canada, the United States, and its territories. The lamps in this section are for sale outside of these areas.

GE's Global Leadership

GE lamps are favored throughout the world, lighting up such diverse locations as the Palace of the Lost City in South Africa, the Sydney Opera House, and the historic town of Cuzco, Peru. GE Lighting operates five primary business centers worldwide to serve our global customers. These centers (shown below) provide leadership in product technology, sales growth and new product introductions.

This Section includes items which are manufactured but are prohibited from being sold in Canada, the U.S. and its territories under the new Federal Energy Legislation. These lamps are for EXPORT only.

Other GE lighting business centers produce many products not available in the USA. These businesses provide individual catalogs listing products available in their markets. These include operations in Mexico, South America, Europe, Asia. Please see page 8-4, for a complete listing of international sales offices.



International - Export Only (con't)

Products listed under the "OLD PRODUCT" column are no longer available for sale. When ordering, use the /EX version of the product found in the column marked "NEW PRODUCT".

FLUORESCENT LAMPS

Energy Used Watts	OLD PRODUCT Order Code	OLD PRODUCT Description	NEW PRODUCT Order Code	NEW PRODUCT Description	Case Qty	Additional Information	Nominal Length In (mm)	Light Output Lumens Initial	Light Output Lumens Mean	Rated Avg. Life Hours	Color Temp K	CRI
34	13819	F40D/RS/WM	14490	F40D/RS/WM/EX	30	WATT-MISER®	48 (1220)	2225	1910	20000	6250	75
40	13792	F40CW	14656	F40CW/EX	30	COOL WHITE	48 (1220)	3050	2680	20000	4150	62
40	13832	F40CW/SLV	13832	F40CW/SLV/EX	30	COOL WHITE	48 (1220)	3050	2680	20000	4150	62
40	13800	F40WW	14493	F40WW/EX	30	WARM WHITE	48 (1220)	3150	2770	20000	3000	52
40	13796	F40D	14488	F40D/EX	30	DAYLIGHT	48 (1220)	2550	2240	20000	6250	75
40	39433	F40CW/U/6	14496	F40CW/U/6/EX	12	COOL WHITE, 6" SPACING BETWEEN LEGS/PINS	22.5 (570)	2800	2460	18000	4150	62
40	39434	F40/WW/U/6	14500	F40WW/U/6/EX	12	WARM WHITE, 6" SPACING BETWEEN LEGS/PINS	22.5 (570)	2900	2550	18000	3000	52
40	13462	F40D/U/6	14498	F40D/U/6/EX	12	DAYLIGHT, 6" SPACING BETWEEN LEGS/PINS	22.5 (570)	2350	2070	18000	6250	75
40	39631	F40CW/U/3	14494	F40CW/U/3/EX	12	COOL WHITE, 3" SPACING BETWEEN LEGS/PINS	22.5 (570)	2725	2400	18000	4150	62
40	39632	F40WW/U/3	14499	F40WW/U/3/EX	12	WARM WHITE, 3" SPACING BETWEEN LEGS/PINS	22.5 (570)	2825	2490	18000	3000	52
40	13936	F40D/U/3	14497	F40D/U/3/EX	12	"DAYLIGHT, 3" SPACING BETWEEN LEGS/PINS	22.5 (570)	2280	2020	18000	6250	75
75	13722	F96T12/CW	12541	F96T12/CW /EX	15	COOL WHITE	96 (2440)	6150	5660	12000	4150	62
75	13727	F96T12/WW	12549	F96T12/WW/EX	15	WARM WHITE	96 (2440)	6400	5890	12000	3000	52
75	13724	F96T12/D	12543	F96T12/D/EX	15	DAYLIGHT	96 (2440)	5250	4330	12000	6250	75
110	13703	F96T12/CW/HO	12540	F96T12/CW/HO/EX	15	COOL WHITE	96 (2440)	8900	7740	12000	4150	62
110	13708	F96T12/D/HO	12542	F96T12/D/HO/EX	15	DAYLIGHT	96 (2440)	7600	6610	12000	6250	75

INCANDESCENT LAMPS

Bulb	Base	OLD PRODUCT Order Code	OLD PRODUCT Description	Volts	NEW PRODUCT Order Code	NEW PRODUCT Description	Case Volts	Case Qty	Additional Information	Light Output Lumens	Energy Used Watts	Rated Avg. Life Hours	Filament Design	MOL In	MOL (mm)	Temp K	CBCP	Approx. Beam Spread
PAR38	MED SKIRT	12805	75PAR/FL/65WM	130	14506	75PAR/FL/65WM/EX	130	12	WATT-MISER®, FLOOD (15,23,56,96)*	675	65	2000	CC-6	5 5/16	(134.9)	2675	1750	30
PAR38	MED SKIRT	12801	75PAR/SP/65/WM	130	14505	75PAR/SP/65/WM/EX	130	12	WATT-MISER®, SPOT (15,23,56,96)*	675	65	2000	CC-6	5 5/16	(134.9)	2675	5900	14
PAR38	MED SKIRT	16762	75PAR/FL	120	14510	75PAR/FL/EX	120	12	FLOOD (15,23,56,96)*	765	75	2000	CC-6	5 5/16	(134.9)	2700	1750	33
PAR38	MED SKIRT	16763	75PAR/FL	130	14523	75PAR/FL/EX	130	12	FLOOD (15,23,56,96)*	765	75	2000	CC-6	5 5/16	(134.9)	2700	1750	33
R30	MED	38207	75R30/FL	120	14536	75R30/FL/EX	120	24	REFLECTOR FLOOD, IF	900	75	2000	CC-6	5 3/8	(136.5)	-	-	-
R30	MED	38208	75R30/FL	130	14537	75R30/FL/EX	130	24	REFLECTOR FLOOD, IF	900	75	2000	CC-6	5 3/8	(136.5)	-	-	-
R30	MED	38209	75R30/SP	120	14539	75R30/SP/EX	120	24	REFLECTOR SPOT, IF	900	75	2000	CC-6	5 3/8	(136.5)	-	-	-
R40	MED	17736	75R/FL	120	14540	75R/FL/EX	120	24	REFLECTOR FLOOD, IF (4,35,56)*	890	75	2000	CC-6	6 9/16	(166.7)	-	-	-
R40	MED	17738	75R/FL	130	14548	75R/FL/EX	130	24	REFLECTOR FLOOD, IF (4,35,56)*	890	75	2000	CC-6	6 9/16	(166.7)	-	-	-
PAR38	MED SKIRT	13312	100PAR/FL/85WM	120	14509	100PAR/FL/85WM/EX	120	6	MISER® FLOOD (14,15,23,56,96)*	930	85	2000	CC-6	5 5/16	(134.9	2700	2000	37
R40	MED	18871	100R/FL	120	14549	100R/FL/EX	120	24	REFLECTOR FLOOD, IF (4,35,56)*	1190	100	2000	CC-6	6 9/16	(166.7)	-	-	-
R40	MED	18873	100R/FL	130	14559	100R/FL/EX	130	24	REFLECTOR FLOOD (4,35,56)*	1190	100	2000	CC-6	6 9/16	(166.7)	-	-	-
PAR38	MED SKIRT	12175	150PAR/FL/120WM	120	14501	150PAR/FL/120WM/EX	120	12	WATT-MISER®, FLOOD (14,15,23,56,96)*	1370	120	2000	CC-6	5 5/16	(134.9)	2725	3600	30
PAR38	MED SKIRT	12176	150PAR/SP/120WM	120	14502	150PAR/SP/120WM/EX	120	12	WATT-MISER®, SPOT (14,15,23,56,96)*	1370	120	2000	CC-6	5 5/16	(134.9	2725	9200	18
PAR38	MED SKIRT	12475	150PAR/FL/120WM	130	14503	150PAR/FL/120WM/EX	130	12	WATT-MISER®, FLOOD (14,15,23,56,96)*	1370	120	2000	CC-6	5 5/16	(134.9)	2725	3600	30
PAR38	MED SKIRT	39182	150PAR/FL	120	14531	150PAR/FL/EX	120	12	FLOOD (14,15,23,56,96)*	1740	150	2000	CC-6	5 5/16	(134.9)	2775	3100	36
PAR38	MED SKIRT	39183	150PAR/FL	130	14532	150PAR/FL/EX	130	12	FLOOD (14,15,23,56,96)*	1740	150	2000	CC-6	5 5/16	(134.9)	2775	3100	36
PAR38	MED SKIRT	39184	150PAR/SP	120	14535	150PAR/SP/EX	120	12	SPOT(14,15,23,56,96)*	1740	150	2000	CC-6	5 5/16	(134.9)	2775	12000	16
R40	MED	19797	150R/FL	120	14561	150R/FL/EX	120	24	REFLECTOR FLOOD, ANSI:DWC, (4,35,46,56)*	1900	150	2000	CC-6	6 9/16	(166.7)	-	-	-
R40	MED	19799	150R/FL	130	14563	150R/FL/EX	130	24	REFLECTOR FLOOD (4,35,46,56)*	1900	150	2000	CC-6	6 9/16	(166.7)	-	-	-

GE Lighting International Sales Office Listing

Information concerning GE lamps – worldwide – is available at the following locations.

UNITED-STATES (Headquarters Location)	GE Lighting International Sales and Product Management Nela Park – 1975 Noble Road Cleveland, Ohio 44112-6300 U.S.A.	*Phone:* (010-1-216) 266-6889 *Fax:* (010-1-216) 266-2780
ARGENTINA	GE Iluminacion S.A. Av. San Martin s/n esquina 25 de Mayo 1618-El Talar Tigre, Pcia de Buenos Aires ARGENTINA	*Phone:* (54-1) 736-8069 *Fax:* (54-1) 736-8336
AUSTRALIA NEW ZEALAND	GE Lighting Australia 125-127 Long Street Smithfield, NSW 2164 AUSTRALIA	*Phone:* (61-2) 729-0011 *Fax:* (61-2) 729-1144
AUSTRIA	GE Lighting AG Hofherr-Schrantz-Gasse 4 Postfach 17 1211 Vienna AUSTRIA	*Phone:* (43-1) 27772 *Fax:* (43-1) 277724
BELGIUM	GE Lighting SA-NV Av. Firmin Lecharlierlaan 143 1090 Brussels BELGIUM	*Phone:* (32-2)427 70 93 *Fax:* (32-2) 42-56765
BRAZIL URUGUAY PARAGUAY BOLIVIA	General Electric do Brasil, S/A Parque Industrial Thomas Alva Edison Rua Miguel Angelo, 37 Maria da Graca Rio de Janeiro 20783-900 BRAZIL	*Phone:* (55-21) 201-8012 (55-21) 261-1747 *Fax:* (55-21) 281-9547
CARIBBEAN CENTRAL AMERICA	GE Lighting 790 N.W. 107 Avenue Suite 204 Miami, Florida 33172	*Phone:* (010-1-305) 551-5174 *Fax:*-(010-1-305) 551-5116
CHILE	General Electric de Chile S/A Casilla 2103 Av. Vicuna Mackenna 2385 Santiago CHILE	*Phone:* (56-2) 555-3031 *Fax:* (56-2) 556-7329
CHINA	General Electric (USA) China Company Beijing Representative Office Third Floor, CITIC-Building No. 19 Jian Guo Men Wai Avenue Beijing, 100004 P.R.C.	*Phone:* (86-10) 5006438 *Fax:* (86-10) 5127345
CHINA	General Electric (USA) China Company 10th Floor, Shartex Center 88 Zun Yi Road (S) Shanghai 200335 P.R.C.	*Phone:* (86-21) 270-6789 *Fax:* (86-21) 270-9976
COLOMBIA ECUADOR	GEICO-LTDA. Carrera 99 #46A-46 Edificio Centro El Dorado Torre B Bodegas 1 Santafe de Bogota, Colombia	*Phone:* (57-1) 415-3888 *Fax:*-(57-1) 618-4931
DENMARK	GE Lighting A/S Sdr. Ringvej 45 DK-2605 Brondby DENMARK	*Phone:* (45) 43 237400 *Fax:*-(45) 43 237475
FINLAND	GE Lighting Oy Vernissakatu 6, 7 KRS FIN-01530 Vantaa FINLAND	*Phone:* (358) 0-836-2100 *Fax:*-(358) 0-836-21020
FRANCE	GE Lighting SARL Zac de Paris Nord II 13 Rue de la Perdix BP 50073 96972 Roissy Charles de Gaulle CEDEX FRANCE	*Phone:* (33-1) 4863-6800 *Fax:*-(33-1) 4863-6808
GERMANY	GE Lighting GmbH Otto-Hahn-Strasse 21 35510 Butzbach GERMANY	*Phone:* (49-60) 33 8980 *Fax:* (49-60) 33 67678
GREECE/CYPRUS AFRICA MIDDLE EAST	GETSCO INC. 6, Rue du Simplon CH-1207 Geneva SWITZERLAND	*Phone:* (41-22) 735 9260 *Fax:* (41-22) 786 5525
HUNGARY	Tungsram Company Limited Vaci ut 77 H-1340 Budapest HUNGARY	*Phone:* (36-1) 169 2800 *Fax:* (36-1) 169-1779
HONG-KONG	General Electric International Operations Co., Inc. Unit 909, Tower 2, Silvercord 30 Canton Road Tsim Sha Tsui, Kowloon HONG-KONG	*Phone:* (852) 2376-0226 *Fax:* (852) 2376-0013
INDIA	GE-APAR Lighting Ltd. A1-Corporate Towers Golden Enclave, Airport Road Bangalore 560 017 INDIA	*Phone:* (91-80) 526-9361 *Fax:* (91-80) 526-7167
INDONESIA	PT-GE Lighting Jl. Rungkut Industri IV No. 2 Surabaya 60292 INDONESIA	*Phone:* (62-31) 849-5466 *Fax:* (62-31) 839-869
IRELAND	GE-Lighting Limited 280 Holly Road Western Industrial Estate Naas Road Dublin 12 IRELAND	*Phone:* (353-1) 456-5591 *Fax:* (353-1) 450-4142
ITALY	GE Lighting SPA Via Astichello No. 2 P.O. Box No. 604 36100 Vicenza ITALY	*Phone:* (39-444) 946-000 *Fax:* (39-444) 945-863
JAPAN	Hitachi GE Lighting Limited Suda-Cho Sashida Bldg. 2F 2-5-2 Kanda Suda-cho Chiyoda-ku, Tokyo 101 JAPAN	*Phone:* (81-3) 5296-2919 *Fax:* (81-3) 5296-2920
KOREA	GE Lighting, Korea 10th Floor, Hanil Building 175-14, Nonhyun-Dong Gangnam-Ku Seoul 135-010 KOREA	*Phone:* (822) 515-8133 *Fax:* (822) 515-8135
MEXICO	GE Lighting Mexico, S.A. de C.V. Churubusco 3900 Norte Apartado Postal 216 64000 Monterrey, N.L. MEXICO	*Phone:* (52-8) 318-5600 *Fax:* (52-8) 318-5602
NETHERLANDS	GE LIGHTING Burgemeester Goudsmitlaan 5 3956 G5 Leersum NETHERLANDS	*Phone:* (31) 34 34 52149 *Fax:* (31) 34 34 51464
NORWAY	GE Lighting-AS Industriveien 24 1481 Hagan NORWAY	*Phone:* (47-670) 60480 *Fax:*-(47-670) 60220
PERU	GE Lighting Peru Av. Salaverry 2375 San Isidro Lima 27 PERU	*Phone:* (51-14) 21-1633 *Fax:* (51-14) 21-1610
PHILIPPINES GUAM	GE Lighting Philippines 1873 P. Domingo Street Makati, Metro Manila P.O. Box 2087MCC THE-PHILIPPINES	*Phone:* (63-2) 812-3033 *Fax:* (63-2) 816-0152
SINGAPORE MALAYSIA	GE Lighting 1 Goldhill Plaza #03-43 Podium Block Singapore 1130 SINGAPORE	*Phone:* (65) 352-2488 *Fax:* (65) 352-1622
SPAIN PORTUGAL	GE Lighting S.A. C/Muntaner No. 479 2°-1a 08021 Barcelona SPAIN	*Phone:* (34-3) 418 21 00 *Fax:*-(34-3) 417 24 17
SWEDEN	GE Lighting AB Box 6769 Slt Eriksgatan 117 S-113 85 Stockholm SWEDEN	*Phone:* (46) 8 457 96 00 *Fax:*-(46) 8 457 96 45
SWITZLERLAND	GE-Lighting AG Manessestrasse 152 CH-8027 Zurich SWITZERLAND	*Phone:* (41-1) 202 11 00 Fax:-(41-1) 202 11 36
TAIWAN	GETSCO, INC. 2 Fl. No. 48 Nan-Kang Road, Section 3 Taipei TAIWAN	*Phone:* (886-2) 651-7508 *Fax:* (886-2) 651-5374
THAILAND	GE Lighting (Thailand) Ltd. 253-259 Sipraya Road Bangkok, 10500 THAILAND	*Phone:* (662) 237-3795 *Fax:* (662) 237-3799
TURKEY	GENERAL-ELECTRIK T.A.S. Ampul Fabrikasi Davutpasa Cad. No. 4 34020 Topkapi Istanbul TURKEY	*Phone:* (90-212) 612-4444 *Fax:* (90-212) 576-0979
UNITED KINGDOM	GE Lighting Limited Miles Road Mitcham Surrey CR4 3YX ENGLAND	*Phone:* (44-181) 640 1221 *Fax:* (44-181) 646-8017
VENEZUELA	GE Iluminacion de Venezuela (GEISA) S.A. Avenida Veracruz Edificio Torreon Piso 6 Oficinia 6-B Las Mercedes Caracas VENEZUELA	*Phone:* (58-2) 92-99-98 *Fax:* (58-2) 92-32-76

GE Lighting Domestic Sales Offices and Customer Service Centers

GE LIGHTING HEADQUARTERS

CLEVELAND, OHIO Nela Park, Cleveland, OH 44112 (216) 266-2121

SALES OFFICES To Obtain Sales Information

City	Address	Zip No.	Area Code	Telephone No.
ATLANTA, GA	7000 Central Parkway, Suite 1550	30328		
	Commercial & Industrial		(404)	913-3822
	Consumer Products		(404)	913-3801
BALTIMORE, MD	7125 Thomas Edison Dr., Suite 200 Columbia, MD	21046	(410)	290-1050
BOSTON, MA	990 Washington St., Suite 219 North, Dedham, MA	02026	(617)	320-4200
CHARLOTTE, NC	1900 Rexford Rd., Suite 500	28211		
	Commercial & Industrial		(704)	362-4367
	Consumer Products		(704)	362-4373
CHICAGO, IL	2021 Spring Rd., Suite 550, Oak Brook, IL	60522		
	Commercial & Industrial		(708)	573-3860
	Consumer Products		(708)	573-3907
CINCINNATI, OH	Northmark Business Center II 10101 Alliance Road, Suite 150	45242-4707		
	P.O. Box 42730			
	Commercial & Industrial		(513)	243-8900
	Consumer Products		(513)	243-8903
CLEVELAND, OH	1975 Noble Rd., Nela Park, E. Cleveland	44112		
	Commercial & Industrial		(216)	266-5572
	Consumer Products		(216)	266-8359
DALLAS, TX	2080 McDaniel, Carrollton, TX	75006		
	P.O. Box 115035 (Zip 75011-5035)			
	Commercial & Industrial		(214)	888-0548
	Consumer Products		(214)	888-0566
DENVER, CO	373 Inverness Dr. South, Suite 205 Englewood, CO	80112		
	Commercial & Industrial		(303)	643-1660
	Consumer Products		(303)	643-1660
DETROIT, MI	2300 Meijer Drive, Troy, MI	48084		
	P.O. Box 7031 (Zip 48007-7031)			
	Commercial & Industrial		(810)	280-4855
	Consumer Products		(810)	280-4853
HOUSTON, TX	1240 Blalock Road, Suite 130	77055		
	Commercial & Industrial		(713)	932-6472
	Consumer Products		(713)	932-6682
INDIANAPOLIS, IN	2511 E. 46th St., Bldg. P-2	46205	(317)	547-5513
KANSAS CITY, MO	535 E. 14th Ave., N. Kansas City, MO	64116	(816)	426-8272
LONG ISLAND, NY	1983 Marcus Ave., Suite 109 Lake Success, NY	11042	(516)	775-9200
LOS ANGELES, CA	16257 Laguna Canyon Rd., Suite 100 Irvine, CA P.O. Box 57042	92718		
	Commercial & Industrial		(714)	450-4705
	Consumer Products		(714)	450-4700
MEMPHIS, TN	1760 Moriah Wood Blvd., Suite 9	38117	(901)	762-4327
MILFORD, CT	612 Wheelers Farms Road	06460	(203)	876-6200
MILWAUKEE, WI	11950 W. Lake Park Dr., Suite 290	53224	(414)	359-1200
MINNEAPOLIS, MN	2905 Northwest Blvd. Suite 80, Plymouth, MN	55441		
	Commercial & Industrial		(612)	553-2100
	Consumer Products		(612)	553-2120
NEWARK, NJ	1639 Route 10 East, Parsippany, NJ	07054		
	Commercial & Industrial		(201)	292-7220
	Consumer Products		(201)	292-7210
NEW YORK, NY	570 Lexington Avenue, Suite 2110	10022	(212)	836-3501
	Commercial & Industrial		(212)	836-3243
ORLANDO, FL	5728 Craindale Dr.	32819-3915	(407)	352-4175
PHILADELPHIA, PA	640 Freedom Business Center – 2nd Floor King of Prussia, PA	19406		
	Commercial & Industrial		(610)	992-6601
	Consumer Products		(610)	992-6622
PITTSBURGH, PA	1370 Washington Pike, Bridgeville, PA	15017		
	Commercial & Industrial		(412)	221-6320
	Consumer Products		(412)	221-2111
PORTLAND, OR	One Embassy Center #420 9020 SW Washington Square Rd., Tigard, OR	97223	(503)	526-7150
SALT LAKE CITY, UT	2180 S. 1300 East, Suite 340	84106		
	Commercial & Industrial		(801)	468-5780
	Consumer Products		(801)	468-5784
SAN FRANCISCO, CA	Commercial & Industrial 1800 Sutter St., Suite 590, Concord, CA	94520	(510)	603-2450
SEATTLE, WA	1605 N.W. Sammamish Rd., Suite 300 Issaquah, WA	98027		
	Commercial & Industrial		(206)	557-3073
	Consumer Products		(206)	557-3056
ST. LOUIS, MO	12101 Woodcrest, Executive Dr. - 2nd Floor St. Louis, MO	63141	(314)	579-7201
TAMPA, FL	8020 Woodland Center Blvd., Suite 100	33614-2405		
	Commercial & Industrial		(813)	243-3011
	Consumer Products		(813)	243-3017
WASHINGTON, DC	7125 Thomas Edison Dr., Suite 200 Columbia, MD	21046	(301)	621-8234*
CANADA	2300 Meadowvale Blvd., Mississauga, Ontario L5N 5P9			
	Commercial & Industrial		(905)	858-6592
	Consumer		(905)	858-5403

In addition to the Sales Offices in the cities listed above, GE Lamp Sales Representatives are resident in other cities. Consult your telephone directory under GE Lighting.
*Washington, D.C. Telephone Number

Order Site: Worldwide Customer Service Center

	Telephone No.	Facsimile No.
WORLDWIDE CUSTOMER SERVICE CENTER		
4400 Cox Road Glen Allen, VA 23060	(804) 965-1020	
O.E.M.	1-800-544-4680	FAX 1-800-544-4845
Government	1-800-624-0624	FAX 1-800-544-4854
Auto OEM	1-800-327-7155	FAX 1-800-327-0588
Quartz	1-800-438-2100	FAX 1-800-258-3803
Commercial & Industrial	1-800-327-0097	FAX 1-800-544-4830
Consumer/Retail	1-800-327-2080	FAX 1-800-544-4850
Wiring Device	1-800-833-4933	FAX 1-800-327-0177
Telesales:		
Commercial & Industrial	1-800-327-7085	FAX 1-800-327-0663
Consumer/Retail	1-800-443-6272	FAX 1-800-327-0663
Auto O.E.M./O.E.M.	1-800-544-4610	FAX 1-800-327-0663
O.E.M.	1-800-544-4780	FAX 1-800-327-0663
Canada	1-800-433-5081	FAX 1-800-327-0063
Quartz	1-800-327-3481	FAX 1-800-327-0063
Government	1-800-624-0601	FAX 1-800-327-0063
Canada:		
French	1-800-443-4916	FAX 1-800-443-4923
English	1-800-443-4925	FAX 1-800-443-4923
National Account Customers:		
Mass Merchandisers	1-800-544-4765	FAX 1-800-544-6724
Home Centers/Hardware Branches	1-800-544-4740	FAX 1-800-544-4850

LIGHTING TECHNICAL INFORMATION

Consumer Inquiries 1-800-GE LIGHT (435-4448)
Commercial, Trade Magazine 1-800-GE LAMPS (435-2677)

MASTER DISTRIBUTION CENTERS

ATLANTA 1700 Westgate Parkway, Atlanta, GA 30336
CHICAGO 7770 West 71st Street, Bridgeview, IL 60455
DALLAS 2080 McDaniel, P.O. Box 115035, Carrollton, TX 75011-5035
HAGERSTOWN 18212 Shawley Dr., Hagerstown, MD 21740
KANSAS CITY 535 East 14th Ave., North Kansas City, MO 64116
LOS ANGELES 11600 Philadelphia Ave., Mira Loma, CA 91752
OAKVILLE 1300 South Service Road, Oakville, Ontario, Canada L6L 5T7
RAVENNA 150 Loomis Parkway, Ravenna, OH 44266

FOR INTERNATIONAL GE LAMP SALES LOCATIONS, CONTACT:
INTERNATIONAL MARKETING DEPARTMENT, NELA PARK – CLEVELAND, OHIO 44112
PHONE (010-1-216) 266-6889, FAX 266-2371, TELEX 980390

INTERNATIONAL CUSTOMER SERVICE

FRANCHISE EXPORTERS TEL. 1-800-327-6886 FAX 1-800-443-5130
INTERNATIONAL CUSTOMERS TEL. 1-(804)-965-1015 FAX 1-(804) 965-1018

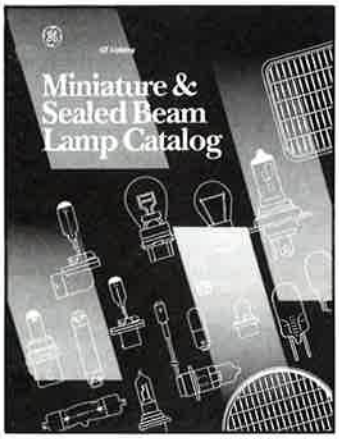
OEM AREA SALES OFFICES

MIDWEST	11950 West Lake Park Drive Milwaukee, WI 53224	(414)	359-7089
	2021 Spring Road, Ste. 550 Oak Brook, IL 60522	(708)	573-3866
NORTH CENTRAL	Nela Park, Bldg. 307, Cleveland, OH 44112	(216)	266-6695
NORTHEAST	612 Wheelers Farm Road Milford, CT 06460	(203)	876-6205
NORTHWEST	1605 N.W. Sammamish Rd. Issaquah, WA 98027	(206)	557-3066
SOUTH CENTRAL	2080 McDaniel, Carrollton, TX 70056	(214)	888-0521
SOUTHEAST	7000 Central Parkway #1550 Atlanta, GA 30328	(404)	913-3831
SOUTHERN	8020 Woodland Ctr. Blvd. Tampa, FL 33614-2405	(813)	526-1369 (813) 243-3017
SOUTHWEST	1816 El Paso Lane, Fullerton, CA 92633	(714)	526-1369

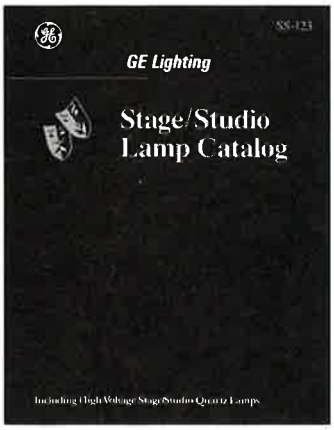
GE Lighting

General Offices: Nela Park, Cleveland, Ohio 44112

Other Lamp Catalogs Available from GE:

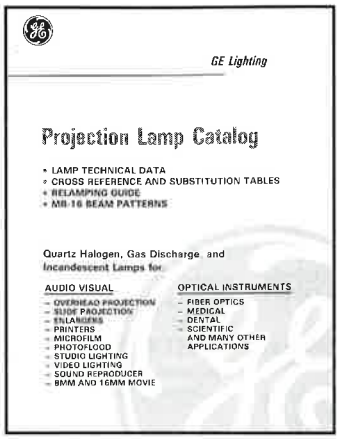


Miniature & Sealed Beam Lamp Catalog
208-41145

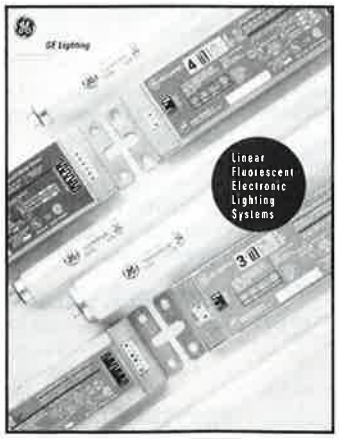


Stage/Studio Lamp Catalog
SS-123

Holiday Lighting Catalog
X6200 1996



Projection Lamp Catalog
204-01016

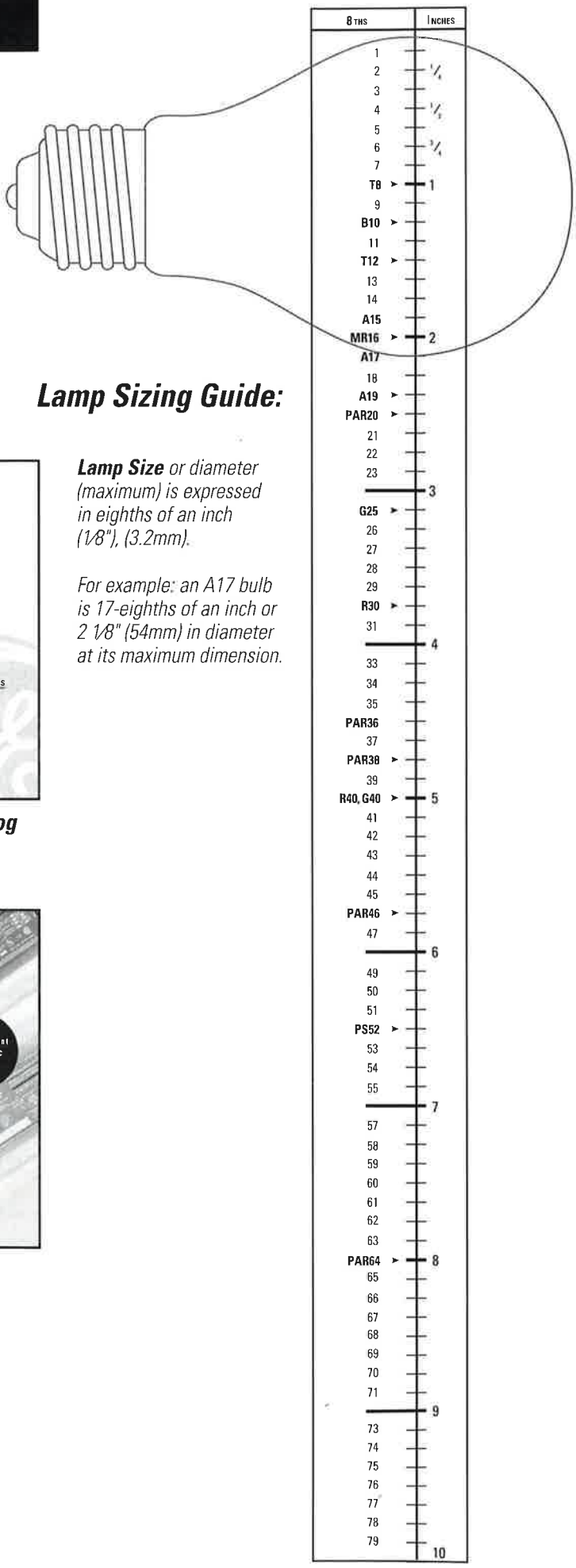


Linear Fluorescent Electronic Lighting Systems Catalog
203-41091R

Lamp Sizing Guide:

Lamp Size *or diameter (maximum) is expressed in eighths of an inch (1⁄8"), (3.2mm).*

For example: an A17 bulb is 17-eighths of an inch or 2 1⁄8" (54mm) in diameter at its maximum dimension.



GE Projection Lamps... a name synonymous with quality and leadership

Projection lamps are assigned a three letter code (ENX, ELH, etc.) by the American National Standards Institute (ANSI). The three letter code describes a specific lamp design and indicates all physical and electrical characteristics of that lamp. Dual-coded lamps (ELD/EJN, EMM/EKS, etc.) may be used in applications calling for a lamp with either code. In this listing, ANSI coded lamps are arranged alphabetically. For additional technical and application information, see the General Electric Projection Lamp Catalog.

ORDERING CODE	DESCRIPTION	WATTS	VOLTS
	BAB... use Q20MR16/FL (BAB)		
40886	BAH	300	115
39700	BAK	75A	4
40563	BBA	250	115-120
40564	BCA	250	115-120
36178	BCK	500	120
29378	BEH	150	120
30182	BEP	300	115-120
	BFK... use BFL/BFK		
29890	BFL/BFK	750	115-120
40658	BHB	250	120
	BHC... use DYS/DYC/BHC		
29212	BHD/BHF	100	20
	BHF... use BHD/BHF		
29140	BLC	30	115-125
30232	BLK	30	120-130
29154	BLR	50	115-125
29156	BLX	50	115-125
29224	BMY	100	115-120
32137	BNF	75	115-125
39704	BRD	.75A	4
29604	BRH	1000	120
39705	BRK	.75A	4
18234	BRL	50	12
38675	BVE	600	120
30421	BXB	4A	8.5
30418	BXJ	4A	8.5
29179	BZW	50	115-125
29525	CAL	300	120
29380	CAR	150	120
29171	CAX	50	115-125
29169	CAX	50	130
36117	CBA	500	120
	CBS... use CBX/CBS		
29208	CBX/CBS	75	115-125
29257	CDD	100	120
29266	CDJ	100	115-125
	CDX... use CDS/CDX		

ORDERING CODE	DESCRIPTION	WATTS	VOLTS
29244	CEB	100	115-125
43330	CEM	120	120
	CFC... use CEW/CFC		
29248	CJX	100	230
	CLG... use CLS/CLG		
29494	CLS/CLG	300	120-125
29346	CTL	150	115-125
	CXL... use CXR/CXL		
41396	CXR/CXL	50	8
29664	CZA/CZB	500	120
	CZB... use CZA/CZB		
29677	CZX/DAB	500	115-120
	DAB use... CZX/DAB		
29695	DAY/DAK	500	120
29360	DCA	150	21
29364	DCH/DJA/DFP	150	120
29836	DDB	750	125
43986	DDF	55	17
43359	DDJ/DZZ	80	10
42806	DDK	80	19
43537	DDL	150	20
43206	DDM	80	19
34570	DDN	200	20
43988	DDS	80	21
43950	DED	85	13.8
29359	DEF	150	21
29737	DEK/DFW/DHN	500	120
36122	DFE	80	30
29386	DFN/DFC	150	125
	DFP... use DCH/DJA/DFP		
	DFW... use DEK/DFW/DHN		
	DFZ... use DLD/DFZ		
29730	DGF	500	120
29875	DGH	750	120
29911	DGS	1000	115-120
	DHN... use DEK/DFW/DHN		
29984	DHT	1200	115-120
	DHX... use DLX/DLG/DHX		

GE ANSI-Coded Projection Lamps (con't)

ORDERING CODE	DESCRIPTION	WATTS	VOLTS
	DJA... use DCH/DJA/DFP		
29338	DJL	150	120
44854	DJT	50	13.8
29454	DKM	250	21.5
40216	DLD/DFZ	80	30
	DLG... use DLS/DLG/DHX		
29456	DLR	250	21.5
29366	DLS/DLG/DHX	150	22
40161	DNE	150	120
39742	DFN	150	21
29959	DPT	1000	115-120
18239	DRA	300	120
29968	DRB	1000	115-120
29979	DRC	1000	120
29947	DRS	1000	120
29405	DSW	200	24
30304	DVY	650	120
	DWA... use FGS/DWA		
29953	DWK	1000	230
30301	DWY	650	120
29578	DWZ	375	30
30151	DXB	500	115-120
30145	DXC	500	115-120
30313	DXN	1000	120
30347	DXX	800	230
30350	DXX	800	240
35123	DYF	140	19.3
30364	DYH	600	120
32071	DYP	600	120
33248	DYR	650	220
33250	DYR	650	240
19479	DYS-5	600	120
32955	DYS/DYV/BHC	600	120
	DYV... use DYS/DYV/BHC		
37346	DZA	30	10.8
37695	DZE/FDS	150	24
	DZZ... use DDJ/DZZ		
30202	EAJ 25	35 12	12
30281	EAL	500	120
40566	EBV	500	115-120
40567	EBW	500	115-120
40565	ECA	250	120
40568	ECT	500	120
30358	ECV	1000	120
41251	EFM	50	8
41252	EFN	75	12
41253	EFP	100	12
41254	EFR	150	15

ORDERING CODE	DESCRIPTION	WATTS	VOLTS
37527	EHA	500	120
14874	EHJ	250	24
32882	EJA	150	21
29150	EJL	200	24
29151	EJM	150	21
	EJN... use ELD/EJN		
32831	EJV	150	21
32886	EJY	80	19
35200	EKE	150	21
34865	EKN	120	17.5
35800	EKP/ENA	80	30
	EKS... use EMM/EKS		
36899	EKX	200	24
36902	EKZ	30	10.8
37412	ELB	80	30
37462	ELC	250	24
38306	ELD/EJN	150	21
38476	ELH	300	120
	ELR... use ELS/ELR		
41885	ELS/ELR	50	18
42612	EML	175	24
40017	EMM/EKS	250	24
	ENA... use EXP/ENA		
	ENC... use ENW/ENC		
38685	ENG	300	120
38686	ENH	250	120
40248	ENW/ENC	80	19
41705	ENX	360	82
19475	ENX-5	360	82
40598	ENZ	50	30
43378	EPG	80	21
41430	EPN	35	12
19897	EPR	500	120
41729	EPT	42	10.8
41882	EPV	90	14.5
41702	EPW	360	100
42614	EPX	90	14.5
	EPZ... use Q50MR16/EPZ		
19550	ERF	50	14
41874	ERV	340	36
43756	ESD	150	120
49651	ESH	85	82
11698	ESJ	85	82
11322	ETJ	250	120
38311	ETT	1000	120
18237	EVC	250	24
18238	EVD	400	36
10099	EVV	120	6.6A
11110	EVW	250	82

GE ANSI-Coded Projection Lamps (con't)

ORDERING CODE	DESCRIPTION	WATTS	VOLTS
11132	EWF	200	24
11427	EWR	150	6.6A
11478	EXL	30	6.6A
11482	EXM	45	6.6A
12092	EXR	300	82
12503	EXS	200	30
12003	EXV	100	12
12095	EXW	300	82
11750	EXX	250	120
12097	EXY	250	82
13152	EYA	200	82
12696	EYB	360	82
19322	EYB-5	82	86
13617	EYH/FKT	250	120
13905	EYK	300	120
23522	EZA	30	6.6A
23071	EZC	45	6.6A
15832	EZF/EZJ	225	68
11134	EZG Gemini® 300 (High-intensity arc)	300	35
15477	EZK	150	120
15243	EZL	200	30.67V/6.6A
29469	EZM (MARC-300/16) (High-intensity arc)	300	37.5
23523	EZP	50	6.6A
39936	EZT MARC-350/16T (High-intensity arc)	350	45
15213	EZW	85	82
29581	FAL	420	120
	FBD... use FBG/FBD		
33663	FBG/FBD	500	120
29598	FCB	600	120
14876	FCR	100	12
13598	FCS	150	24
	FDS... use DZE/FDS		
35321	FDT	100	12
36878	FDV	150	24
18243	FDX	100	12
29592	FFJ	600	120
30276	FFM	420	120
47614	FHS	300	82
47914	FHX	25	13.8
	FKT... use EYH/FKT		
30894	FLS	28	12
31964	FLT	25	13.8
19868	FLW	300	24
14887	FML	50	13.8
18241	FNT	275	24
21613	FXL	410	82

ORDERING CODE	DESCRIPTION	WATTS	VOLTS
30162	PH/111A	75	125
43220	PH/140	75	120
40569	PH/211	75	115-125
40570	PH/212	150	115-125
40571	PH/213	250	115-125
43222	PH/1400	75	230

GAS DISCHARGE MARC and Gemini®

11134	Gemini 300 (EZG)	300	35
29469	MARC-300/16 (EZM)	300	37.5
39936	MARC-350/16T (EZT)	350	45

Pulsed Xenon Arc Lamps

30119	PXA-44	600	-
30120	PXA-45	1500	-
30124	PXA-50	4000	-
30129	PXA-80	8000	

Xenon Metal Halide

12374	XMZH60 Lamp	60	60
12375	XMH60/120 Ballast	60	120
12376	XMH60/230 Ballast	60	230

Metal Halide

Double-Ended			
32497	MQI/70/T6/30	70	95
32498	MQI/150/T7/43	150	90
Single-Ended			
32271	MBI 70/T/30	75	95
32370	MBI 70/T/40	75	95
21053	MBI 150/T/30	150	95
21054	MBI 150/T/40	150	95

GE Miniature and Sealed Beam Product Ordering Information

GE Miniature and Sealed Beam Lamps are designed for those applications requiring specific bulb size, life, cost, and performance. These specialty lamps are available with a wide variety of filament constructions, base designations, and wire terminal leads. Most are operated in special applications utilizing a low voltage source. This should make identifying the application of use easier. GE Lighting provides a full line of GE Miniature and Sealed Beam products to meet your specialty lighting needs. The lamps are indicated in numeric order by American National Standards Institute (ANSI) codes and are associated to the specific market segments indicated below:

Aircraft	Automotive	Agriculture
CIM/Tractor	Emergency	Entertainment
Flashlight/Handlantern	Indicator	Medical/Scientific
Marine	Spot	Telephone

For replacement details and specification verification refer to the **GE Lighting Miniature Sealed Beam Lamp Catalog.**

LAMP NUMBER	PRODUCT CODE	SEGMENT
B1A UNIT	12064	Indicator
B2A UNIT	12065	Indicator
B7A UNIT	31675	Indicator
H1-55 UNIT 12.8V	20727	CIM, Agric./Tractor, Auto/Truck
H2-55 UNIT 12.8V	20734	CIM, Agric./Tractor, Auto/Truck
H3-100/BP1 13.2V	12341	CIM, Agric./Tractor
H3-55/BP1 13.2V	12339	CIM, Agric./Tractor, Auto/Truck
H3-70	21149	CIM, Agric./Tractor
H4-60/55W	20731	CIM, Agric./Tractor, Auto/Truck
KPR102	14362	Flashlight/Handlantern
PR2	25181	Flashlight/Handlantern
PR2/BP2	12675	Flashlight/Handlantern
PR3 3.57V	25193	Flashlight/Handlantern
PR3/BP2	12676	Flashlight/Handlantern
PR4	25207	Flashlight/Handlantern
PR4/BP2	12677	Flashlight/Handlantern
PR6 2.47V	25222	Flashlight/Handlantern
PR7	25235	Flashlight/Handlantern
PR9	25247	Flashlight/Handlantern
PR12	25252	Flashlight/Handlantern
PR12/BP2	12680	Flashlight/Handlantern
PR13	25262	Flashlight/Handlantern
PR13/BP2	12681	Flashlight/Handlantern
PR18	25289	Flashlight/Handlantern
PR20	25295	Flashlight/Handlantern
6 UNIT	25299	Indicator
TEL/6PSB	12756	Telephone
10C5	28947	Telephone
10	25312	Indicator
12	25319	Entertainment (T.V., radio)
TEL/12PSB	12760	Telephone
13	25331	Flashlight/Handlantern, Entertainment
14	25354	Flashlight/Handlantern
15 UNIT	25371	Indicator
19 UNIT	25377	Entertainment (T.V., radio)
TEL/24E2	29001	Telephone
TEL/24EX UNIT	36600	Telephone
TEL/24PSB UNIT	12071	Telephone
TEL/24X	29004	Telephone
24 UNIT 14V	17853	Automotive/Truck
24NA UNIT 14V	17854	Automotive/Truck
27 4.9V	25388	Flashlight/Handlantern
TEL/28MB	12761	Telephone
TEL/28PSB UNIT	12072	Telephone
37 UNIT	39220	Automotive/Truck
40	25420	Entertainment (T.V., radio)
43 UNIT	25442	Indicator
44 UNIT	25450	Entertainment (T.V., radio)
47 UNIT	25485	Entertainment (T.V., radio)
48PSB	12075	Telephone
51	25529	Indicator
53 UNIT	25550	Indicator, Automotive/Truck
53/BP2	12333	Indicator, Automotive/Truck
53X 12V	25571	Automotive/Truck
55 UNIT	25576	Indicator
57 UNIT	25591	Indicator, Automotive/Truck
60MB	12076	Telephone
TEL/60PSB UNIT	12077	Telephone
63 UNIT 6V	25628	Entertainment (T.V., radio)
63/BP2	12321	Entertainment (T.V., radio)
305 UNIT	26143	Aircraft
306 UNIT	26152	Aircraft
307 UNIT	26157	Aircraft
307AF	26161	Aircraft
307R UNIT	26163	Aircraft
307SB UNIT	26166	Aircraft
308 UNIT	26168	Aircraft
308AF	26171	Aircraft, Medical/Scientific
309 UNIT	26175	Aircraft
310 UNIT	26183	Aircraft
311 UNIT	26191	Aircraft
311R UNIT	26198	Aircraft
313 UNIT	26212	Aircraft
315 UNIT	26238	Aircraft
316 UNIT	26243	Aircraft, Medical/Scientific
327	28519	Aircraft
328 UNIT	28546	Aircraft
330 UNIT	28567	Aircraft, Indicator
334 UNIT	28588	Aircraft, Indicator
335 UNIT 28V	28601	Indicator
356 UNIT	26255	Aircraft, CIM
370 UNIT	28641	Indicator
381 UNIT 6.3V	28653	Indicator
382 14V	28657	Indicator
385 UNIT	28660	Indicator
386 UNIT	28662	Indicator
387 UNIT	28664	Aircraft, Indicator
388 UNIT	28672	Indicator
394 UNIT	28675	Indicator
400 UNIT	38918	Aircraft, Indicator
407 UNIT	26324	Flashlight/Handlantern
425 UNIT	26354	Flashlight/Handlantern
447 UNIT	47784	Entertainment (T.V., radio)
455 UNIT	26436	Entertainment (T.V., radio)
456 UNIT 24V	26441	CIM
464 UNIT	39645	Aircraft, Indicator
502 UNIT 5.1V	26460	Flashlight/Handlantern
503 UNIT	26469	Flashlight/Handlantern

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LAMP NUMBER	PRODUCT CODE	SEGMENT
509K UNIT	26485	Indicator
545 UNIT	21002	Indicator
555 UNIT	44773	Entertainment (T.V., radio)
561 UNIT	39746	Automotive/Truck
561/BP2	12358	Automotive/Truck
562 UNIT	39745	Automotive/Truck
563 BULK	40025	Automotive/Truck
570 UNIT 12V	21864	Automotive/Truck
577 UNIT 12.8V	20241	Automotive/Truck
585 UNIT	49936	Indicator
590 UNIT	18439	Automotive/Truck
605 UNIT	26549	Flashlight/Handlantern
612 UNIT	36935	Indicator
623 UNIT	26561	Indicator
624 UNIT	26567	Marine
631 UNIT	26570	Automotive/Truck
656 UNIT	38866	Indicator
657 UNIT	38196	Entertainment (T.V., radio), Indicator
658 UNIT	39999	Entertainment (T.V., radio)
705 UNIT	43132	Aircraft
755 UNIT	26591	Indicator
756 UNIT	26593	Entertainment (T.V., radio)
757 UNIT	26599	Indicator
1129 UNIT	26872	General Lighting
1133 UNIT 6V	26885	Indicator
1141 UNIT	26903	Automotive/Truck
1141/BP2	12346	Automotive/Truck
1142 UNIT	26917	Automotive/Truck
1152 UNIT 12.8V	26945	Medical/Scientific
1154 UNIT	26948	Automotive/Truck
1154/BP2	12297	Automotive/Truck
1155 UNIT 12V	26955	Automotive/Truck
1156 UNIT 12V	26960	Automotive/Truck
1156/BP2	12344	Automotive/Truck
1157 UNIT 12V	26969	Automotive/Truck
1157/BP2	12294	Automotive/Truck
1157NA UNIT	26975	Automotive/Truck
1157NA/BP2	12310	Automotive/Truck
1176 UNIT	27004	Automotive/Truck
1195 UNIT	27021	Automotive/Truck
1196 UNIT	27026	Automotive/Truck
1203 UNIT	27032	Automotive/Truck
1209	27040	Medical/Scientific
1224 UNIT	27044	Agriculture/Tractor
1229 UNIT	39904	Emergency (Vehicle, Building, Spot)
1240 UNIT 32V	27081	Medical/Scientific
1251 UNIT	27092	Indicator
1252 UNIT	27097	Indicator
1302 6.3V	27116	Entertainment (T.V., radio)
1308 UNIT	12824	Aircraft
1309 UNIT	27118	Aircraft
1315 UNIT	32098	Aircraft
1315 UNIT	32098	Emergency (Vehicle, Building, Spot)
1317 UNIT	34265	Aircraft
1317 UNIT	34265	Emergency (Vehicle, Building, Spot)
1383 UNIT	27150	Aircraft
1383 UNIT	27150	Automotive/Truck
1385 UNIT	27154	Aircraft
1388	27159	Aircraft
1408 UNIT 10V	27179	Emergency (Vehicle, Building, Spot)
1414 UNIT	27181	Aircraft
1416 UNIT	38914	Marine
1424 UNIT	37813	Medical/Scientific
1434 UNIT	27193	Medical/Scientific
1445 UNIT	27207	Automotive/Truck, Entertainment
1445/BP2	12329	Automotive/Truck
1449 UNIT	27252	Entertainment (T.V., radio)
1450 UNIT	27263	Indicator
1460	28310	Medical/Scientific
1460X UNIT	37342	Medical/Scientific
1468 UNIT	27305	Medical/Scientific
1468X UNIT	42677	Medical/Scientific
1487 UNIT	27356	Entertainment (T.V., radio)
1489 UNIT	27369	Medical/Scientific
1493 UNIT	27382	Medical/Scientific
1495 UNIT	27392	Aircraft
1495X UNIT	44842	Aircraft
1503 UNIT	27410	Indicator
1534 UNIT	47773	Aircraft
1561 UNIT	27431	Medical/Scientific
1565 UNIT	27434	Medical/Scientific
1591 UNIT	40943	Automotive/Truck
1594 UNIT	27439	Medical/Scientific
1612	27461	Medical/Scientific
1976	34521	Aircraft
1978X	38545	Aircraft
1982 UNIT	38627	Aircraft
1983 UNIT	39718	Aircraft
1982SP	21061	Aircraft
1986 UNIT	44717	Aircraft
1987 UNIT	47695	Aircraft
1988	38535	Aircraft
2040 UNIT	19280	Automotive/Truck
2057 UNIT	44760	Automotive/Truck
2057/BP2	12296	Automotive/Truck
2057NA UNIT	44763	Automotive/Truck
2057NA/BP2	12312	Automotive/Truck
2232 UNIT	34763	Aircraft
2232SB UNIT	43134	Aircraft
2233 UNIT	36906	Aircraft
2331 UNIT	28100	Medical/Scientific
2357 UNIT	16291	Automotive/Truck
2357/BP2	12298	Automotive/Truck
2357NA UNIT	15698	Automotive/Truck
2357NA/BP2	12299	Automotive/Truck
2577 UNIT	20246	Entertainment (T.V., radio)
2604X UNIT	43805	Medical/Scientific
2627 BULK	64380	Automotive/Truck
3011 UNIT	36508	Aircraft
3057 UNIT 12V	18389	Automotive/Truck
3057/BP2	12305	Automotive/Truck
3057NA UNIT 12V	18391	Automotive/Truck
3078	14698	Aircraft
3057NA/BP2	12313	Automotive/Truck
3155 UNIT 12.8V	20243	Automotive/Truck
3156 UNIT 12V	21863	Automotive/Truck
3156/BP2	12351	Automotive/Truck
3157 UNIT 12.8V	17172	Automotive/Truck
3157/BP2	12306	Automotive/Truck
3157NA UNIT 12.8V	17173	Automotive/Truck
3157NA/BP2	12314	Automotive/Truck
4000 12.8V	18511	Automotive/Truck
4001 12.8V	18516	Automotive/Truck
4013 UNIT	24327	Agriculture/Tractor

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LAMP NUMBER	PRODUCT CODE	SEGMENT
4014 UNIT	24339	Emergency (Vehicle, Building, Spot)
4019 UNIT	24369	Agriculture/Tractor
4040 UNIT	38418	Automotive/Truck
4042	39585	Emergency (Vehicle, Building, Spot)
4044 UNIT	40588	Emergency (Vehicle, Building, Spot)
4313	25051	Aircraft
4340 UNIT	39366	Agriculture/Tractor
4350 UNIT	39362	Agriculture/Tractor
4405 UNIT	24425	Emergency (Vehicle, Building, Spot)
H4405	15129	Emergency (Vehicle, Building, Spot)
4406 UNIT	24430	Agriculture/Tractor
4411 UNIT	24448	Agriculture/Tractor
4411-1 UNIT	37889	Agriculture/Tractor
4412 UNIT	24454	Automotive/Truck
4412A UNIT	24460	Automotive/Truck
4413 UPC UNIT	22981	Agriculture/Tractor
4414 UNIT	24478	Emergency (Vehicle, Building, Spot)
4414A UNIT	24483	Emergency (Vehicle, Building, Spot)
4414R UNIT	24487	Emergency (Vehicle, Building, Spot)
4415	22982	Automotive/Truck
4415A UNIT	24499	Automotive/Truck
4582	24853	Aircraft
4587	24867	Aircraft
4589 UNIT	24873	Aircraft
4591	24882	Aircraft
4593 UNIT	24887	Aircraft
4594 UNIT	24891	Aircraft
4595	24892	Aircraft
4596 UNIT	24898	Aircraft
Q4597	37372	Aircraft
4614	24940	Aircraft
4626	24964	Aircraft
4627	24966	Aircraft
Q4629	40577	Aircraft
Q4631 UNIT	34537	Aircraft
Q4632 UNIT	39112	Aircraft
4635	33284	Aircraft
4636-3 14V	19632	Emergency (Vehicle, Building, Spot)
4651 12.8V	18517	Automotive/Truck
H4651 12.8V	18532	Automotive/Truck
HP4651 12.8V	18541	Automotive/Truck
4652 12.8V	18518	Automotive/Truck
H4656 12.8V	18533	Automotive/Truck
H4656HO	14753	Automotive/Truck
H4666 12.8V	18535	Automotive/Truck
Q4681	36271	Aircraft
4700 UNIT	39906	Emergency (Vehicle, Building, Spot)
H4701 12.8V	18536	Automotive/Truck
H4703 12.8V	18538	Automotive/Truck
4752	44724	Construction/Industrial Machinery
4800	24973	Automotive/Truck
4811 UNIT	24980	Automotive/Truck
4825R UNIT 28V	24981	Construction/Industrial Machinery
4880 UNIT	24995	Construction/Industrial Machinery
4919-1 UNIT	45114	Agriculture/Tractor
4921-1 UNIT	45116	Automotive/Truck
H5001 12.8V	18522	Automotive/Truck
5004 CW	28154	Aircraft
5004 WW	28155	Aircraft
H5006 12.8V	18523	Automotive/Truck
5008CW	28160	Aircraft
5008WW	28163	Aircraft
5013CW	28168	Aircraft
5013WW	28169	Aircraft
H5024 12.8V	19428	Automotive/Truck
H5054 12.8V	19429	Automotive/Truck
H5062 12.8V	19412	Automotive/Truck
5104 WW	28173	Aircraft
5106WW	33612	Aircraft
5108 WW	28175	Aircraft
5113 WW	28178	Aircraft
5557	16152	Aircraft
6006	25114	Automotive/Truck
6014 12.8V	18519	Automotive/Truck
6015 UNIT	38416	Automotive/Truck
H6024 12.8V	18525	Automotive/Truck
6052 12.8V	18521	Automotive/Truck
6053 12.8V	18298	Automotive/Truck
H6054 12.8V	18534	Automotive/Truck
H6054HO	14752	Automotive/Truck
7387	28926	Indicator
7400 UNIT	40190	Emergency (Vehicle, Building, Spot)
64 UNIT 7V	25643	Aircraft, Emergency
67 UNIT	25652	Automotive/Truck
68 UNIT	25692	Automotive/Truck, Marine
70 UNIT 14V	43606	Automotive/Truck
73 UNIT	39218	Indicator
74 UNIT	38457	Automotive/Truck
81 UNIT 6V	25736	Automotive/Truck, Aircraft, Entertainment
82 UNIT 6V	25751	Auto/Truck, Marine, Emergency
85 UNIT	40969	Indicator
86 UNIT	40967	Indicator
88	25772	Indicator
89 UNIT	25778	Automotive/Truck
89/BP2	12363	Automotive/Truck
90 UNIT 12V	25794	Automotive/Truck, Marine
90/BP2	12364	Automotive/Truck, Marine
93 UNIT	25811	Automotive/Truck
94	25829	Marine
97 UNIT	25836	Automotive/Truck
97/BP2	12322	Automotive/Truck
98 UNIT	16287	Automotive/Truck
105 UNIT	36147	Automotive/Truck
112	25848	Flashlight/Handlantern
TEL/120MB UNIT	12078	Telephone
TEL/120PSB UNIT	12080	Telephone
127 UNIT	44767	Entertainment (T.V., radio)
131	25897	Flashlight/Handlantern
147	25916	Indicator
157 UNIT	25927	Medical/Scientific
158 UNIT 12V	25931	Automotive/Truck, Indicator
161 UNIT 12V	25956	Automotive/Truck, Indicator
161B BULK	20273	Automotive/Truck, Indicator
168	25962	Automotive/Truck, Indicator
168/BP2	12327	Automotive/Truck, Indicator
193 UNIT 14V	19553	Automotive/Truck
194 UNIT 12V	25965	Automotive/Truck, Indicator
194NA/BP2	12319	Automotive/Truck
198 UNIT	37983	Automotive/Truck
199 UNIT	37985	Automotive/Truck
210 UNIT	25988	Entertainment (T.V., radio)
211-2 UNIT	39224	Automotive/Truck

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LAMP NUMBER	PRODUCT CODE	SEGMENT
211-2/BP2	12673	Automotive/Truck
212-2 UNIT	39222	Automotive/Truck
214-2 UNIT	39356	Automotive/Truck
222	26008	Flashlight/Handlantern
238 UNIT	26052	Indicator
243 UNIT 2.33V	26063	Flashlight/Handlantern
245	26070	Entertainment, Flashlight/Handlantern
251	28464	Medical/Scientific
252	28466	Indicator
253X	28470	Indicator
257 UNIT	26088	Auto/Truck, Agric./Tractor, Entertainment
258 UNIT	26095	Entertainment (T.V., radio)
259 6.3V	26099	Entertainment (T.V., radio)
265 UNIT	44719	Indicator
267 UNIT	42758	Indicator
293 UNIT	32688	Auto+B152/Truck, Entertainment
301 UNIT	26112	Aircraft
302 UNIT	26120	Aircraft
303 UNIT	26127	Aircraft
304 UNIT	26136	Aircraft
767 UNIT	11014	Aircraft, Indicator
773 UNIT	11250	Indicator
774 UNIT	12723	Emergency (Vehicle, Building, Spot)
778 UNIT	49718	Medical/Scientific
780 UNIT	18344	General Lighting
782 UNIT	44840	Indicator
783 UNIT	44500	Emergency (Vehicle, Building, Spot)
784 UNIT	43760	Emergency (Vehicle, Building, Spot)
785 UNIT	43762	Emergency (Vehicle, Building, Spot)
786 UNIT	43764	Emergency (Vehicle, Building, Spot)
787 UNIT	43115	Medical/Scientific
788 UNIT	43117	Medical/Scientific
789 UNIT	43119	Emergency (Vehicle, Building, Spot)
790 UNIT	43121	Medical/Scientific
791 UNIT	43123	Medical/Scientific
795 UNIT 12.8V	20469	Emergency (Vehicle, Building, Spot)
862 BULK	14132	Tractor
880 UNIT	12783	Automotive/Truck
881 UNIT	12843	Automotive/Truck
882 UNIT	13158	Automotive/Truck
882-X UNIT	18167	Automotive/Truck
884 UNIT	14072	General Lighting
885 UNIT	14774	Automotive/Truck
886 UNIT	20240	Automotive/Truck
889 UNIT	15244	Automotive/Truck
890 UNIT	15226	Automotive/Truck
891 UNIT	15246	Automotive/Truck
892 UNIT	16481	Automotive/Truck
893 12.8V	20237	Automotive/Truck
894 UNIT	20238	Agriculture/Tractor
896 UNIT	20239	Automotive/Truck
898 BULK	12271	Automotive/Truck
904 UNIT	40462	Entertainment (T.V., radio)
906 UNIT	40289	Automotive/Truck
906/BP2	12366	Automotive/Truck
908 UNIT	44754	Emergency (Vehicle, Building, Spot)
909 UNIT	44756	Emergency (Vehicle, Building, Spot)
912 UNIT	40504	Automotive/Truck
912/BP2	12365	Automotive/Truck
914 UNIT	44769	Emergency (Vehicle, Building, Spot)
915 UNIT	44771	Emergency (Vehicle, Building, Spot)
916 UNIT	16289	Automotive/Truck
917 UNIT	44800	Indicator
918 UNIT 12.8V	17837	Emergency (Vehicle, Building, Spot)
921 UNIT	43374	Auto/Truck, Emergency
921/BP2	12307	Automotive/Truck
922 UNIT	13274	Automotive/Truck
923 UNIT 12.8V	16955	Emergency (Vehicle, Building, Spot)
926 UNIT	13483	Emergency (Vehicle, Building, Spot)
927 UNIT	13485	Emergency (Vehicle, Building, Spot)
939 UNIT 6V	16975	Emergency (Vehicle, Building, Spot)
1003 UNIT	26709	Automotive/Truck
1003/BP2	12367	Automotive/Truck
1004/BP2	12373	Automotive/Truck, Marine
1004 UNIT	26726	Automotive/Truck, Marine
1034 UNIT	26775	Automotive/Truck
1047 UNIT	26815	Aircraft, Medical/Scientific
1062 UNIT	32147	Emergency (Vehicle, Building, Spot)
1073 UNIT	26838	Automotive/Truck
1076 UNIT 12V	26854	Automotive/Truck
1096 UNIT	37169	Medical/Scientific
1619 UNIT	27472	Medical/Scientific
1630 UNIT	27488	Medical/Scientific
1631X UNIT	27491	Medical/Scientific
1634 UNIT 20V	27496	Medical/Scientific
1638 UNIT	27504	Marine
1649 UNIT	27513	Medical/Scientific
1651 UNIT	27515	Flashlight/Handlantern
1662 UNIT	27529	Aircraft
1665 UNIT	27532	Aircraft
1680 UNIT 6V	27548	Aircraft
1680X	33995	Aircraft
1683 UNIT	27557	Aircraft
1691 UNIT	27566	Aircraft
1691AF	27568	Aircraft
1692 UNIT	27571	Marine, Aircraft
1723	27596	Aircraft
1731 UNIT	27608	Medical/Scientific
1763 UNIT	27627	Medical/Scientific
1777 UNIT	27630	Aircraft
1810 UNIT	27659	Indicator
1813 UNIT	27667	Entertainment (T.V., radio)
1815 UNIT	27677	Indicator
1816 UNIT	27688	Aircraft
1818 UNIT	27707	Aircraft
1819 UNIT	27711	Indicator
1820 UNIT	27727	Indicator
1822 UNIT	27749	Indicator
1828 UNIT	27772	Indicator
1829 UNIT	27776	Indicator
1835 UNIT	27804	Indicator
1843 UNIT	27816	Indicator
1847 UNIT	27819	Entertainment (T.V., radio)
1850 UNIT	27833	Emergency (Vehicle, Building, Spot)
1864 UNIT	27862	Aircraft
1866 UNIT	27868	Entertainment (T.V., radio)
1873 UNIT	40383	Aircraft
1873 UNIT	40383	CIM
1874 UNIT	27882	Medical/Scientific
1876 UNIT 3.5V	27889	Medical/Scientific
1876X UNIT	36774	Medical/Scientific
1889 12V	27907	Automotive/Truck

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LAMP NUMBER	PRODUCT CODE	SEGMENT
1891/BP2	12331	Automotive/Truck, Indicator
1891 UNIT 12V	27917	Automotive/Truck, Indicator
1892 UNIT	27927	Indicator
1892 UNIT	27927	Indicator
1893 UNIT 12V	27935	Automotive/Truck
1893/BP2	12332	Automotive/Truck
1895R BULK	34508	Agriculture/Tractor
1895 UNIT 12V	27945	Automotive/Truck
1895/BP2	12330	Automotive/Truck
1939X UNIT	34021	Aircraft
1940 UNIT	28008	Aircraft
1944 UNIT	37034	Medical/Scientific
1944X UNIT	45087	Medical/Scientific
1958	28011	Aircraft
1959	35093	Aircraft
1967	28019	Aircraft
1968	28034	Aircraft
1970	28036	Aircraft
1970X	41938	Aircraft
1974	32780	Medical/Scientific
4416A	24506	Emergency (Vehicle, Building, Spot)
4416R UNIT	24513	Emergency (Vehicle, Building, Spot)
4416UPC	22983	Emergency (Vehicle, Building, Spot)
4419 UNIT	24531	Agriculture/Tractor
4420 UNIT	24536	Automotive/Truck
4421 UNIT 13V	24539	Automotive/Truck
4422	24542	Agriculture/Tractor
4431	24566	Automotive/Truck
4434 A	24572	Emergency (Vehicle, Building, Spot)
4435 UNIT	24577	Emergency (Vehicle, Building, Spot)
4436 UNIT 12V	24582	Emergency (Vehicle, Building, Spot)
4440X UNIT	39932	Agriculture/Tractor
4446 UNIT	37046	Emergency (Vehicle, Building, Spot)
4459	24589	Agriculture/Tractor
4460X UNIT	40176	Agriculture/Tractor
4461 UNIT	24592	Agriculture/Tractor
4464 UNIT	24606	Emergency (Vehicle, Building, Spot)
4466 UNIT	24596	Agriculture/Tractor
4467 UNIT	42887	Automotive/Truck
4478 UNIT	24613	Construction/Industrial Machinery
4502 UNIT	24627	Automotive/Truck
4505 UNIT	24640	Aircraft
4509 UNIT	24650	Aircraft
Q4509	22109	Aircraft
4509X	41503	Marine, Emergency
4510 UNIT	24654	Agric./Tractor, Emergency
4511 UNIT	24663	Agriculture/Tractor
4515 UNIT	24673	Emergency (Vehicle, Building, Spot)
H4515	15133	Emergency (Vehicle, Building, Spot)
4516	24678	Emergency (Vehicle, Building, Spot)
4519	24690	Marine, Emergency
4522 UNIT	24700	Emergency (Vehicle, Building, Spot)
4530	24721	Aircraft
4531 UNIT	24726	Emergency (Vehicle, Building, Spot)
4535 UNIT	24735	Automotive/Truck
4537-2 UNIT	40822	Aircraft
4537 UNIT	24742	Emergency (Vehicle, Building, Spot)
4541	24756	Emergency (Vehicle, Building, Spot)
4543 UNIT	24764	Aircraft
4545 UNIT	24768	Marine
4546 UNIT	24780	Marine
4547 UNIT	24788	Flashlight/Handlantern
4551 UNIT	24795	Aircraft
4552 UNIT 28V	40576	Aircraft
4553 UNIT	24799	Aircraft
4554	24802	Aircraft
Q4554	37706	Aircraft
4555	40583	Aircraft
4556	40580	Aircraft
4557	40581	Aircraft
4559 UNIT 28V	40578	Aircraft
Q4559 UNIT	40579	Aircraft
Q4559X UNIT	42552	Aircraft
Q4566	41097	Aircraft
4570 UNIT	24828	Aircraft
4571 UNIT	24830	Aircraft
4572	24833	Automotive/Truck
4578 UNIT	25005	CIM
4579 UNITLAMP	25009	CIM
4580	24859	Aircraft
4581 UNIT	24862	Aircraft
7400R UNIT	43347	Emergency (Vehicle, Building, Spot)
7414Y	39987	Emergency (Vehicle, Building, Spot)
H7550	43561	Flashlight/Handlantern
H7551	43564	Emergency (Vehicle, Building, Spot)
H7552	43567	Emergency (Vehicle, Building, Spot)
H7553	43570	Emergency (Vehicle, Building, Spot)
H7555	44642	Emergency (Vehicle, Building, Spot)
H7557	12720	Emergency (Vehicle, Building, Spot)
H7600 UNIT	42841	Emergency (Vehicle, Building, Spot)
H7604 UNIT	43576	Emergency (Vehicle, Building, Spot)
H7606	14616	Agriculture/Tractor
H7607	19276	Agriculture/Tractor
H7609	14617	Agriculture/Tractor
H7610	14618	Agriculture/Tractor
H7612	49695	Automotive/Truck
7613 UNIT	41865	Emergency (Vehicle, Building, Spot)
H7614	49731	Emergency (Vehicle, Building, Spot)
H7616	42838	Emergency (Vehicle, Building, Spot)
H7619	14619	Agriculture/Tractor
H7635 UNIT	43591	Emergency (Vehicle, Building, Spot)
7672-1	11421	Emergency (Vehicle, Building, Spot)
9003 UNIT	22389	Automotive/Truck
9003/BP	22432	Automotive/Truck
9004 UNIT	13382	Automotive/Truck
9004 XL UNIT	11249	Automotive/Truck
9004/BP 12.8V	18508	Automotive/Truck
9005 UNIT	13384	Automotive/Truck
9005/BP 12.8V	18509	Automotive/Truck
9006 UNIT	13397	Automotive/Truck
9006/BP 12.8V	18510	Automotive/Truck
9007 UNIT 12.8V	20551	Automotive/Truck
9007XL BULK	12276	Automotive/Truck
9011 BULK	14776	Automotive/Truck
H9406	15769	Agriculture/Tractor
H9411	15771	Agriculture/Tractor
50320/1 24V	64169	Automotive/Truck
50340LL 12V	14565	Automotive/Truck
50450 24V	30833	Automotive/Truck
58710 UNIT	64371	Flashlight/Handlantern Tungsram Branded
58720 (HPR 52)	64363	Flashlight/Handlantern Tungsram Branded
58760 (HPR 50)	58760	Flashlight/Handlantern Tungsram Branded
58770 (HPR 51)	64370	Flashlight/Handlantern Tungsram Branded
58790 (HPR 44)	64366	Flashlight/Handlantern Tungsram Branded

GE Lighting

GE Triple-Range Pocket Light Meters

Low cost, handy light meters for general and task lighting measurements.

APPLICATIONS

- *Illuminance*
- *Reflectance*
- *Transmission*
- *Luminance*

- **Two versions provide direct reading of illuminance**
  – Model 217 Footcandle scale (lumens/sq. ft.)
  – Model 216 Lux scale (lumens/sq. meter)

- **Convenient size, lightweight and rugged.** Perfect for in-the-field lighting survey and verification work.

- **Color and cosine corrected – accurate rendering with any general lighting source, electric lighting or downlighting.**

- **No batteries required.** Light powers the meter. Rugged "taut band" meter movement ensures long life.

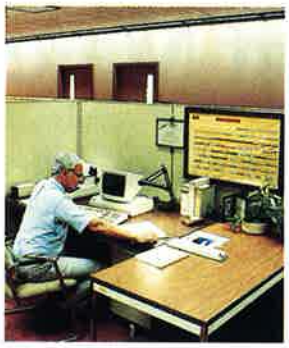
- **3 scales plus 10X multiplier provide wide range of light measurements** (10-10,000 footcandles or 100-100,000 lux).

- **Carrying case and full instructions included.**

The GE 216 and 217 Pocket Light Meters

Low cost, rugged, accurate and easy-to-use

The GE 216 and 217 Pocket Light Meters provide lighting users and designers with a low cost, light weight, ever ready light measurement tool with excellent ruggedness and accuracy. Color and cosine corrections built into the meter itself simplify the interpretation of results.



The meters can be used to measure illuminance directly over a wide range:

- Type 216 100-100,000 lux
- Type 217 10-10,000 footcandles

Accurate in ambient temperatures from 37°F (3°C) thru 109°F (43°C).

Accuracy

Type 217 (footcandles)		Type 216 (lux)		
Scale	**Part of scale**	**Scale**	**Part of scale**	**Accuracy**
10-50 fc	10-20	100-500 lux	100-200 lux	±15%
	20-50		200-500 lux	±10%
50-250 fc	50-100	500-2500 lux	500-1000 lux	±15%
	100-250		1000-2500 lux	±10%
200-10,000 fc	All	2000-100,000 lux	All	±15%

This lightweight (3.5 oz. [99g]) convenient-sized meter (2.4" x 1.5" x 3.2") (61 x 38 x 81mm) is perfect for a variety of commonly required lighting measurements including:

- Illuminance
- Reflectance
- Transmittance
- Brightness (luminance)

Equipment used for testing and calibration are traceable to US NIST. Meters are full warranted for one year from date of purchase against manufacturing defects.

Availability

Both GE Pocket Light Meters are delivered complete with carrying case, 10X multiplier, and detailed instructions for use. Information on price and delivery is available through any GE Lamp Distributor or by contacting GE Lighting, Nela Park, Component #4162, Cleveland, Ohio 44112 USA.

Product Ordering Codes:
Type 216 (Lux) – 22271
Type 217 (Footcandles) – 21475

GE Lighting

Glossary of Terms

Amperes

("Amps.") A measure of electrical current. In incandescent lamps, the current is related to voltage and power as follows: Current (Amps) = Power (Watts) / Voltage (Volts).

American National Standards Institute (ANSI)

A consensus organization which coordinates voluntary standards for the physical, electrical and performance characteristics of lamps, ballasts, luminaires and other lighting and electrical equipment.

Average Rated Life

The median time it takes for a lamp to burn out. For example, a 60-watt Soft White bulb can be expected, on the average, to burn for 1,000 hours. Based upon continuous testing of lamps in laboratories, the 1,000 hour rating is the point in time when 50% of the test samples have burned out and 50% are still burning.

Ballast

An auxiliary piece of equipment designed to start and to properly control the flow of power to gas discharge light sources such as fluorescent and high intensity discharge (HID) lamps.

Beam Angle

The angular dimension of the cone of light from reflectorized lamps (such as R and PAR types) encompassing the central part of the beam out to the angle where the intensity is 50% of maximum. The beam angle sometimes called "beam spread" is often part of the ordering code for reflectorized lamps. Example: The 50PAR30/HIR/NFL25° is a 50 watt PAR30 narrow flood lamp with a beam angle of 25 degrees. See also Field Angle.

Biax®

GE trademark for the biaxial family of high-efficiency and long-life compact fluorescent lamps.

Candela (cd)

The international unit (SI) of luminous intensity. The term has been retained from the early days of lighting when a standard candle of a fixed size and composition was used as a basis for evaluating the intensity of other light sources.

Candlepower

Luminous intensity expressed in candelas. Plots of luminous intensity, called candlepower distribution curves, are used to indicate the intensity distribution characteristics of reflector type lamps.

Chromaticity

See Color Temperature

Coefficient of Utilization (CU)

In general lighting calculations, the fraction of initial lamp lumens that reach the work plane. CU is a function of luminaire intensity distribution, room surface reflectances and room shape.

Color Rendering Index (CRI)

An international system used to rate a lamp's ability to render object colors. The higher the CRI (based upon a 0-100 scale), the better colors appear. CRI ratings of various lamps may be compared, but a numerical comparison is only valid if the lamps are also rated for the same chromaticity. (See Chromaticity.) CRI differences among lamps are not usually significant (visible to the eye) unless the difference is more than 3-5 points.

Color Temperature

Originally, a term used to describe the "whiteness" of incandescent lamp light. Color temperature is directly related to the physical temperature of the filament in incandescent lamps so the Kelvin (absolute) temperature scale is used to describe color temperature. For discharge lamps where no hot filament is involved, the term "correlated color temperature" is used to indicate that the light appears "as if" the discharge lamp is operating at a given color temperature. More recently, the term "chromaticity" has been used in place of color temperature. Chromaticity is expressed either in Kelvins (K) or as "x" and "y" coordinates on the CIE Standard Chromaticity Diagram. Although it may not seem sensible, a higher color temperature (K) describes a visually cooler, bluer light source. Typical color temperatures are 2800K (incandescent), 3000K (halogen), 4100K (cool white or SP41 fluorescent), and 5000K (daylight-simulating fluorescent colors such as Chroma 50 and SPX50).

Compact Fluorescent Lamp (CFL)

The general term applied to families of smaller diameter fluorescent lamps (e.g. T4, T5), some of which have built-in ballasts and medium screw bases for easy replacement of incandescent lamps.

Canadian Standards Association (CSA)

An organization that writes standards and tests lighting equipment for performance as well as electrical and fire safety. Canadian provincial laws generally require that all products sold for consumer use in Canada must have CSA or equivalent approval.

Glossary of Terms (con't)

Efficacy
See Luminous Efficacy

Electromagnetic Spectrum
A continuum of electric and magnetic radiation that can be characterized by wavelength or frequency. Visible light encompasses a small part of the electromagnetic spectrum in the region from about 380 nanometers (violet) to 770 nanometers (red) by wavelength.

Electronic Ballast
A short name for a fluorescent high frequency electronic ballast. Electronic ballasts use solid state electronic components and typically operate fluorescent lamps at frequencies in the range of 25-35 kHz. The benefits are: increased lamp efficacy, reduced ballast losses and lighter, smaller ballasts compared to electromagnetic ballasts. Electronic ballasts may also be used with HID lamps, but the circuits are quite different, there are few designs at present and only minor lamp efficacy improvements result.

Elliptical Reflector (ER) Lamp
An incandescent lamp with an elliptically-shaped reflector. This shape produces a focal point directly in front of the lamp which reduces light absorption in some types of luminaires. It is particularly effective at increasing the efficiency of baffled downlights.

Energy Policy Act (EPACT)
Comprehensive energy legislation passed by the U.S. Congress in 1992. The lighting portion includes lamp labeling and minimum energy efficacy (lumens/watt) requirements for many commonly used incandescent and fluorescent lamp types. Similar legislation is being proposed in Canada.

Federal Communications Commission
A U.S. Federal agency which is charged with regulating emissions in the radio frequency portion of the electromagnetic spectrum. For example, a regulation entitled, "Part 18" deals with electromagnetic interference (EMI) from all lighting devices operating at frequencies higher than 9 kilohertz (kHz.). Typical electronically-ballasted compact fluorescent lamps operate in the range of 24-100 kHz.

Field Angle
The angular dimension of the cone of light from reflectorized lamps (such as R and PAR types) encompassing the central part of the beam out to the angle where the intensity is 10% of maximum. See Beam Angle.

Fluorescent Lamp
A high efficiency lamp utilizing an electric discharge through low pressure mercury vapor to produce ultraviolet (UV) energy. The UV excites phosphor materials applied as a thin layer on the inside of a glass tube which makes up the structure of the lamp. The phosphors transform the UV to visible light.

Footcandle (fc)
A unit of illuminance or light falling onto a surface. One footcandle is equal to 1 lumen per square foot. See also Lux.

Genura™ Lamp
A new GE fluorescent light source of a unique design. Features include a reflector shape, built-in high frequency electronic ballast and an electrodeless arc tube. The 23-watt R25 Genura lamp is rated for 1100 initial lumens and 10,000 hours life and is designed to directly replace a 75-watt incandescent reflector lamp.

Halogen Lamp
A short name for the tungsten-halogen lamp. Halogen lamps are high pressure incandescent lamps containing halogen gases such as iodine or bromine which allow the filaments to be operated at higher temperatures and higher efficacies. A high-temperature chemical reaction involving tungsten and the halogen gas recycles evaporated particles of tungsten back onto the filament surface.

Halogen IR™ (HIR) Lamp
GE designation for a new form of high-efficiency tungsten halogen lamp. HIR lamps utilize shaped filament tubes coated with numerous layers of materials which selectively reflect and transmit infrared energy and light. Reflecting the infrared back onto the filament reduces the power needed to keep the filament hot.

High-Intensity Discharge (HID) Lamp
A general term for mercury, metal halide (GE Multi-Vapor, MXR or Arcstream) and high-pressure sodium (GE Lucalox) lamps. HID lamps contain compact arc tubes which enclose various gases and metal salts operating at relatively high pressures and temperatures.

High-Pressure Sodium (HPS) Lamp
A generic name for GE's Lucalox® lamp. HPS lamps are high intensity discharge light sources which produce light by an electrical discharge through sodium vapor operating at relatively high pressures and temperatures.

Glossary of Terms (con't)

Illuminance

The "density" of light (lūmens/area) incident on a surface. Illuminance is measured in footcandles or lux.

Incandescent Lamp

A light source which generates light utilizing a thin filament wire (usually of tungsten) heated to white heat by an electric current passing through it.

Infrared Radiation

Electromagnetic energy radiated in the wavelength range of about 770 to 1106 nanometers. Energy in this range cannot be seen by the human eye, but can be sensed as heat by the skin.

Instant Start

A type of fluorescent lamp-ballast circuit designed to start fluorescent lamps as soon as the power is applied. Originally, instant-start circuits were developed to eliminate separate mechanical starter devices. Slimline fluorescent lamps operate only on instant start circuits.

Kilowatt (kW)

A measure of electrical power equal to 1000 watts.

Kilowatt Hour (kWh)

The standard measure of electrical energy and the typical billing unit used by electrical utilities for electricity use. A 100-watt lamp operated for 10 hours consumes 1000 watt-hours (100 x 10) or 1 kilowatt-hour. If the utility charges $.08/kWh, then the electricity cost for the 10 hours of operation would be 8 cents (1 x $.08).

Lamp

The term used to refer to the complete light source package including the inner parts as well as the outer bulb or tube. "Lamp", of course, is also commonly used to refer to a type of small light fixture such as a table lamp.

Light

Radiant energy which can be sensed or seen by the human eye. Visible light is measured in lumens.

Light Center Length (L.C.L.)

The distance between the center of the filament or arc tube in a lamp and a reference plane - usually the bottom of the lamp base. See L.C.L. Reference Plane location below.

L.C.L. Reference Plane Location

Base Type	Location
All Screw Bases (except Mini-Can.)	Bottom of base contact
Mini-Can	Where diameter of ceramic base insulator is .531 inches
3-Contact Medium	Bottom of base contact
Mogul Medium Prefocus	Top of base fins
Mogul Prefocus	Top of base fins
Medium Bipost	Base end of bulb (Glass lamps) Bottom of ceramic base (Quartz lamps)
Mogul Bipost	Shoulder of posts (Glass lamps) Bottom of ceramic base (Quartz lamps)
2-Pin Prefocus	Bottom of ceramic base.
S.C. or D.C. Bayonet Candelabra	Top of base pins
Medium Bayonet	Top of base pins
S.C. or D.C. Prefocus	Plane of locating bosses on prefocus collar
Medium 2-Pin	Bottom of metal base shell

Lumen

The international (SI) unit of luminous flux or quantity of light. For example, a dinner candle provides about 12 lumens. A 60-watt Soft White incandescent lamp provides 840 lumens.

Lumen Maintenance

A measure of how a lamp maintains its light output over time. It may be expressed as a graph of light output vs. time or numerically.

Lumens Per Watt (lpW)

A measure of the efficiency, or, more properly, "efficacy" of a light source. Efficacy is easily calculated by taking the lumen output of a lamp and dividing by the lamp watts. For example, a 100-watt lamp producing 1750 lumens has an efficacy of 17.5 lumens per watt.

Typical lamp efficacies:

Edison's first lamp	1.4 lpw
Incandescent lamps	10-40
Halogen incandescent lamps	20-45
Fluorescent lamps	35-100
Mercury lamps	50-60
Metal-halide lamps	80-115
High-pressure sodium lamps	100-140

Note: the values above for discharge lamps do not include the effect of the ballasts which must be used with those lamps. Taking ballast losses into account reduces "system" or lamp-ballast efficacies - typically by 10-20 percent depending upon the type of ballast used.

Luminaire

A complete lighting unit consisting of a lamp (or lamps), ballast (or ballasts) as required together with the parts

Glossary of Terms (con't)

designed to distribute the light, position and protect the lamps and connect them to the power supply.

Luminaire Efficiency

The ratio of total lumens emitted by a luminaire to those emitted by the lamp or lamps used.

Luminance

Formerly, a measure of photometric brightness. Luminance has a rather complicated mathematical definition involving the intensity and direction of light. It should be expressed in candelas per square inch or candelas per square meter although an older unit, the "footlambert", is still sometimes used. Luminance is a measurable quantity whereas brightness is a subjective sensation.

Luminous Efficacy

The light output of a light source divided by the total power input to that source. It is expressed in lumens per watt.

Lux (lx)

The SI (International) unit of illuminance. One lux is equal to 1 lumen per square meter. See also Footcandle.

Maximum Overall Length (M.O.L.)

The end-to-end measurement of a lamp expressed in inches or millimeters.

Mean Lumens

The average light output of a lamp over its rated life. For fluorescent and metal halide lamps, mean lumen ratings are measured at 40% of rated lamp life. For mercury, high pressure sodium and incandescent lamps, mean lumen ratings are measured at 50% of rated lamp life.

Mercury Lamp

A high-intensity discharge light source operating at a relatively high pressure (about 1 atmosphere) and temperature in which most of the light is produced by radiation from excited mercury vapor. Phosphor coatings on some lamp types add additional light and improve color rendering.

Metal Halide Lamp

A high-intensity discharge light source in which the light is produced by the radiation from mercury, plus halides of metals such as sodium, scandium, indium and dysprosium. Some lamp types may also utilize phosphor coatings. GE trade names include: Multi-Vapor®, Halarc™, and Arcstream™.

Nanometer

A unit of wavelength equal to 10-9 meter.

PAR Lamp

PAR is an acronym for parabolic aluminized reflector. A PAR lamp which may utilize either an incandescent filament, a halogen filament tube or HID arc tube is a precision pressed-glass reflector lamp. PAR lamps rely on both the internal reflector and prisms in the lens for the control of the light beam.

Phosphor

An inorganic chemical compound processed into a powder and deposited on the inner glass surface of fluorescent tubes and some mercury and metal-halide lamp bulbs. Phosphors are designed to absorb short wavelength ultraviolet radiation and to transform and emit it as visible light.

Power Factor (PF)

A measure of the phase difference between voltage and current on alternating current circuits. Power factors can range from 0 to 1.0 with 1.0 being ideal. Power factor is sometimes expressed as a percent. A high power factor means that an electrical system or device is utilizing power efficiently. Incandescent lamps always have power factors close to 1.0 because they are simple "resistive" loads. The power factor of a discharge lamp system is determined by the ballast used. "High" power factor usually means a rating of 0.9 or greater. The power factor of "core and coil" electromagnetic ballasts may be as low as 0.5-0.6.

Precise™

The GE trade name for the compact MR-16 and MR-11 low-voltage halogen dichroic "cool beam" reflectorized spot and flood lamps.

Preheat Circuit

A type of fluorescent lamp-ballast circuit used with the first commercial fluorescent lamp products. A push button or automatic switch is used to preheat the lamp cathodes to a glow state. Starting the lamp can then be accomplished using simple "choke" or reactor ballasts.

Quartzline®

A GE registered trademark term for some types of tungsten-halogen lamps.

Rapid Start Circuit

A fluorescent lamp-ballast circuit which utilizes continuous cathode heating, while the system is energized, to

Glossary of Terms (con't)

start and maintain lamp light output at efficient levels. Rapid start ballasts may be either electromagnetic, electronic or of hybrid designs. Full-range fluorescent lamp dimming is only possible with rapid start systems.

Reflector Lamp

An incandescent, compact fluorescent or HID lamp with a built-in reflecting surface. Incandescent and HID versions are made from a single piece of blow-molded soft or hard glass. CFL versions may be one piece or may be designed so that the inner lamp can be replaced.

Specification Series (SP) Colors

Energy-efficient, all-purpose tri-phosphor fluorescent lamp colors that provide good color rendering (as measured by the Color Rendering Index or CRI). The CRI for SP colors is 70 or above and varies by specific lamp type. Available chromaticities (or "tones") within the SP group include SP30 (3000K) - a good match for the old standard "warm white" color and incandescent or halogen incandescent lamps; SP35 (3500K) - neutral all-purpose tone; SP41 (4100K) - cool in appearance and designed to match the old standard "cool white" color; SP50 - still cooler much like the combination of sun-sky-clouds; SP65 - a color with a very cool appearance, much like north skylight, and designed to match the appearance of the old "daylight" color. SP fluorescent colors are available in most of the widely-used linear lamp types including the T8, T12, slimline, U-tube, high output and 1500 mA types.

Specification Series Deluxe (SPX) Colors

Energy-efficient tri-phosphor fluorescent lamp colors that provide better color rendering (as measured by the Color Rendering Index or CRI) than Specification Series colors. The CRI for SPX colors is 80 or higher and varies by specific lamp type. Available chromaticities within the SPX group include SPX27 (2700K) - a visually "warm" tone intended to match the visual appearance of low wattage incandescent lamps; SPX30 (3000K) - a good match with high wattage incandescent and halogen incandescent lamps; SPX35 (3500K) - a widely- used, neutral all-purpose tone; SPX41 (4100K) - cool in appearance and SPX50 - a "daylight simulating" color with a very cool appearance much like skylight. SPX fluorescent colors are available in most of the widely-used lamp types including T8, T12, U-tube and high-lumen Biax types. GE compact fluorescent lamps (CFL's) typically use only SPX colors.

Spectral Power Distribution (SPD)

A graph of the radiant power emitted by a light source as a function of wavelength. SPD's provide a visual profile or "finger print" of the color characteristics of the source throughout the visible part of the spectrum.

Total Harmonic Distortion (THD)

A measure of the distortion of the sine wave on alternating current (ac) systems caused by higher order waves superimposed on the fundamental (usually 60 Hz.) frequency of the system. THD is expressed in percent and may refer to individual electrical loads (such as a ballast) or a total electrical circuit or system in a building. The ANSI recommendation is for THD to be no greater than 32% although some electrical utilities may require lower THD's on some systems. Excessive THD's on electrical systems can cause efficiency losses as well as overheating and deterioration of system components.

Voltage

A measurement of the electromotive force in an electrical circuit or device expressed in volts. Voltage can be thought of as being analogous to the pressure in a waterline.

Watt

A unit of electrical power. Lamps are rated in watts to indicate their power consumption. Power consumed over time equals the electrical energy used.

Watt-Miser®

A Watt-Miser lamp is a term used by GE to indicate a reduced-wattage lamp with performance characteristics (life, light output, etc.) such that it can usually directly replace a higher-wattage product. Watt-Miser lamps are available in a wide range of incandescent, fluorescent and HID lamp types.

Underwriters Laboratories (UL)

A private organization which tests and lists electrical (and other) equipment for electrical and fire safety according to recognized UL and other standards. A UL listing is not an indication of overall performance. Lamps are not UL listed except for compact fluorescent lamp assemblies - those with screw bases and built-in ballasts.

Ultraviolet (UV) Radiation

Radiant energy in the range of about 100-380 nanometers (nm). For practical applications, the UV band is broken down further as follows:

Ozone-producing	180-220 nm
Bactericidal (germicidal)	220-300
Erythemal (skin reddening)	280-320
"Black" light	320-400

The International Commission on Illumination (CIE) defines the UV band as UV-A (315-400 nm); UV-B (280-315 nm) and UV-C (100-280 mm).

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The UNIVERSITY of Light

For over seventy years the training of lighting designers, distributors, and users has been a key element in GE Lighting's business philosophy. This effort has resulted in the world's foremost lighting training center – The GE Lighting Institute located at Nela Park, GE Lighting's world headquarters in Cleveland, Ohio.

In this last decade of the twentieth century, with ever changing lighting technologies and the increasing complexity of lighting systems and their applications, training for the business of lighting has even greater significance and value.

The Lighting Institute offers conferences for engineers, architects, lighting designers, distributor sales representatives, end-users, and contractors. Each conference is designed as a comprehensive process involving the participant, a highly skilled and experienced professional staff, the largest base of lighting information in the industry, an advanced and interactive training system, and a facility created as a total lighting environment and experience. There is no other facility like the GE Lighting Institute – anywhere in the world!

The success of the Lighting Institute really rests with the hundreds of thousands of visitors from all over the world who have attended conferences where they experienced the impact of lighting on their environment. They returned to their places of business with a new enthusiasm to translate knowledge into practice.

We invite you to participate as these others have done in one of the many conference opportunities at the GE Lighting Institute. Here you can personally experience the magic of light and learn about the application of modern lighting technology in this world class facility with GE's team of preeminent lighting professionals.

For more information, please call the GE Lighting Institute at 1-800-255-1200 or (216) 266-9000. Inquiries may also be faxed to (216) 266-2900. Registration and conference information plus a visual tour of the GE Lighting Institute may be accessed via the GE Corporate Home Page on the Internet Worldwide Web. The command is http://www.ge.com

GE Lighting

9200/22nd Edition
Printed in U.S.A. (1/96)