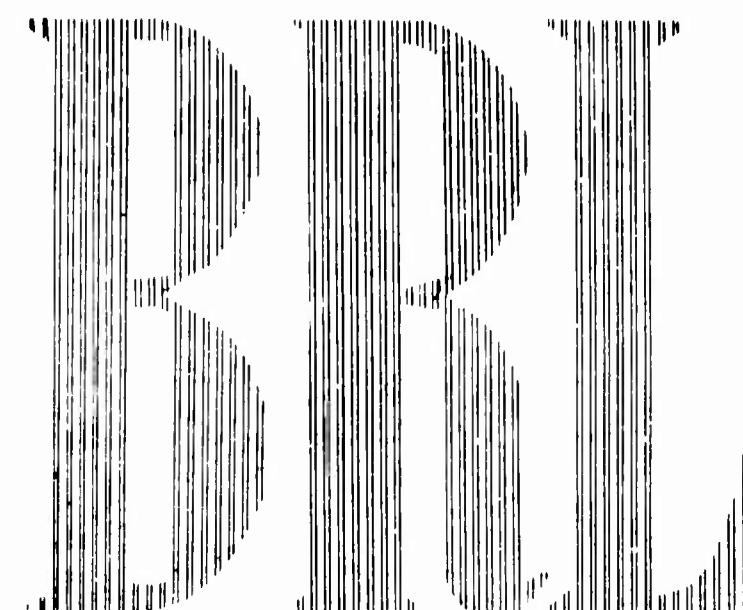


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REPORT NO. 730
AUGUST 1950

TABLES OF SUPERSONIC FLOWS ABOUT CONE CYLINDERS
PART II: COMPLETE FLOWS

R. F. Clippinger
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BALLISTIC RESEARCH LABORATORIES

ABERDEEN PROVING GROUND, MARYLAND

B A L L I S T I C R E S E A R C H L A B O R A T O R I E S

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A B E R D E E N P R O V I N G G R O U N D , M A R Y L A N D

C O N T E N T S

BALLISTIC RESEARCH LABORATORIES

REPORT NO. 730

Clippinger/Giese/Carter/emj
Aberdeen Proving Ground, Md.
11 August 1950

TABLES OF SUPERSONIC FLOWS ABOUT CONE CYLINDERS

PART II: COMPLETE FLOWS

ABSTRACT

Cylindrical coordinates and velocity components have been tabulated at points of a characteristic net for a family of steady, nonviscous, axisymmetric, irrotational supersonic flows about cone cylinders with semi cone angles of $5k^\circ$ ($1 \leq k \leq 10$) and free stream Mach numbers 1.3, 1.5, 1.7, 2.0, 3.0, 4.0, 5.0, and 7.0. These tables supplement BRL Report No. 729, Tables of Supersonic Flows about Cone Cylinders. Part I: Surface Data.

PREFACE

A family of steady, nonviscous, axisymmetric supersonic flows about cone cylinders has been calculated on the ENIAC by the method of characteristics. A list of the flows considered is contained in Table I. A description of the computational procedure, discussion of the accuracy of the calculations, comparisons with experiment, and a summary of calculated conditions at the surfaces of these bodies have been presented in Part I of this report. For the benefit of those who desire complete flow data for use as a basis for perturbation calculations or other purposes that cannot be served by the data in Part I, tables of values of cylindrical coordinates and velocity components at points of a characteristic net have been compiled here.

The notation used in the following discussion is defined in the index of symbols.

The portion of the flow field covered by the calculations is shown in Figure 1.

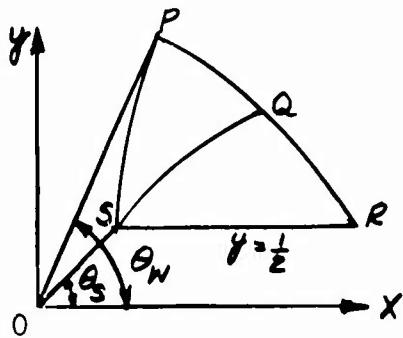


Fig. 1: Physical Plane

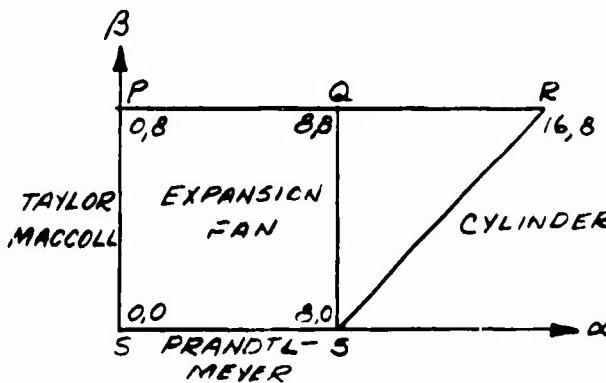


Fig. 2: Characteristic Plane

OSP is a region of Taylor-Maccoll flow bounded by the downstream characteristic through the shoulder, S. P is the last point on the Taylor-Maccoll shockwave in this flow. At S there is a Prandtl-Meyer expansion around the shoulder. PQR is the characteristic of the other family through P. In the entire region OPQRS the flow is irrotational.

As explained in Part I, all flows were mapped onto a trapezoid in the characteristic plane bounded by the lines $\beta = 0$, $\beta = 8$, $\alpha = 0$, $\alpha = \beta + 8$, shown in Figure 2. The determination of the characteristic variables was completed by requiring $\beta(\alpha)$ to be a linear function of $\arctan v/u$ on SP (SS). All computations were performed at two grid sizes, the length of an edge of a square mesh being $8/h$ where $h = 4$ or 8 . At grid points $\alpha = 2k$, $\beta = 2m$, where k, m are integers with $0 \leq k, m \leq 4$, the two sets of results were extrapolated to zero grid size ($h = \infty$) by means of the formula

$$f(0) = f(1/8) + [f(1/8) - f(1/4)] / 3$$

where f denotes any of the functions x , y , u , or v . The data for both the 8×8 and the zero grid are presented in Table II to five figures. The analysis in Ref. 1 indicates that they are accurate to between three and four significant figures.

If necessary, the values of x , y , u , and v at points of the 8×8 grid not contained in the zero grid can be reduced approximately to zero grid by basing estimates of the required corrections on those observed at nearby points. As suggested in Ref. 1 these corrections are probably of the order of a few tenths of a per cent, so the 8×8 data are sufficiently accurate for most purposes.

In a few cases the extent of the flow field was so great that calculations were terminated at $\beta = 6$.

Taylor-Maccoll flow data are listed in Table II and under $\alpha = 0$ in Table III.

Reference 1. R. F. Clippinger and N. Gerber, Supersonic Flow about Bodies of Revolution, with Special Reference to High Speed Computing, BRL Report No. 719.

INDEX OF SYMBOLS

- x = distance from vertex, parallel to axis of symmetry
- y = distance from axis of symmetry
- unit of length = one caliber
- u = x -component of velocity
- v = y -component of velocity
- q_c = speed at surface of cone
- unit of speed = speed of efflux into a vacuum
- α, β = characteristic variables
- M_1 = free stream Mach Number
- θ_s = semi-vertex angle of cone
- θ_w = semi-vertex angle of Taylor-Maccoll shockwave
- $\gamma_p = c_p / c_v = 1.400$

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TABLE I

EXTENT OF FLOW FIELD
(Calibers from vertex)

θ_s	M_1	1.3	1.5	1.7	1.72	2.0	2.13*	2.3	2.7*	3.0	3.8*	4.0	5.0	7.0
5°		19.7	19.0			18.05				18.3	8	85.6	66.5	36.7
9° 30'	*	87.9	86.4	71.7		52.5				24.6				
10°		68.9	67.9	57.6	55.1	43.2				21.4		14.8	12.1	8.3
12° 30'	*			24.6										
15°		4.9	4.2	6.7		11.8	11.1	10.4	9.0	8.3		6.9	6.3	5.9
20°			5.7	6.0		5.8	5.7			4.9		4.5	4.3	4.3
25°			2.7	3.4		3.6	3.6			3.2		3.3	3.3	3.3
30°				2.0		2.5	2.5	2.6		2.6		2.6	2.6	2.7
35°						1.6	1.8			2.0		2.1	2.2	2.2
40°										1.6		1.7	1.7	1.8
45°										1.1		1.3	1.4	1.5
50°												0.8	1.0	1.1

*Data for these values of M_1 or θ_s have been omitted from Table III.

TABLE II

Taylor-Maccoll Boundary Values

θ_s	M_1	1.3	1.5	1.7	2.0	3.0	4.0	5.0	7.0
5°		.49168 50.018	.54617 41.867		.65313 30.091	.79106 19.711	.86284 14.950	.90355 12.291	.94448 9.526
10°		.46857 51.098	.52391 42.627	.57239 36.966	.63424 31.190	.77136 21.710	.84482 17.713	.88687 15.607	.92942 13.540
15°		.43620 53.763	.49419 45.083	.54379 39.436	.60681 33.907	.74625 25.260	.82110 21.790	.86391 20.028	.90706 18.365
20°		.45765 49.017	.50955 43.252	.57409 37.800	.71547 29.617	.79079 26.487	.83364 24.955	.87659 23.530	
25°		.41172 54.754	.46841 48.233	.53538 42.553	.67820 34.490	.75314 31.567	.79550 30.160	.83771 28.902	
30°			.41681 54.602	.48893 48.102	.63350 39.792	.70760 36.942	.74910 35.611	.79030 34.431	
35°				.43099 54.746	.58045 45.500	.65348 42.611	.69413 41.277	.73373 40.126	
40°	The values tabulated are				.51677 51.783	.58985 48.624	.62961 47.229	.66845 46.044	
45°	q_c				.43640 59.145	.51366 55.219	.55357 53.623	.59185 52.304	
50°	θ_w					.41453 63.210	.45968 60.933	.49998 59.226	

TABLE III

Coordinates and Velocities on a Characteristic Net

$$\theta_s = 5^\circ \quad M_1 = 1.3$$

zero grid

α	β	x	y	u	v
2	5.71502	0.50000	.48980	.042852	
	5.71502	0.50000	.50401	.033071	
	5.71502	0.50000	.51730	.022629	
	5.71502	0.50000	.52979	.011587	
	5.71502	0.50000	.54156	-.000000	
2	5.81821	0.65736	.49075	.033257	
	5.82616	0.64858	.50319	.024787	
	5.83341	0.64087	.51494	.015624	
	5.84016	0.63387	.52607	.005849	
	5.84656	0.62738	.53661	-.004477	
	5.97261	0.50000	.53171	.000000	
	6.02654	0.96055	.49203	.023641	
2	6.04736	0.93666	.50236	.016524	
4	6.06655	0.91536	.51220	.008801	
6	6.08455	0.89588	.52118	.000544	
8	6.10165	0.87773	.53051	-.008191	
10	6.21974	0.75258	.52588	-.004560	
12	6.45490	0.50000	.52025	.000000	
2	6.61795	1.77731	.49401	.013993	
	6.66591	1.72044	.50160	.008528	
	6.71063	1.66870	.50890	.002667	
	6.75290	1.62077	.51589	-.003528	
	6.79320	1.57579	.52256	-.010018	
	6.89646	1.46071	.51876	-.007015	
	7.11144	1.21797	.51408	-.003613	
14	7.73636	0.50000	.50882	.000000	
2	12.43314	9.25815	.49824	.004288	
	12.61751	9.03498	.50148	.001744	
	12.79512	8.82224	.50475	-.000967	
	12.96535	8.62025	.50784	-.003679	
	13.12791	8.42896	.51077	-.006385	
	13.15525	8.39680	.50907	-.004891	
	13.28113	8.24791	.50688	-.003052	
	13.80714	7.62135	.50459	-.001240	
	19.73157	.50000	.50246	.000000	

8 x 8 grid

1	5.71502	0.50000	.48980	.042852
2	5.71502	0.50000	.49703	.038049
3	5.71502	0.50000	.50401	.033071
4	5.71502	0.50000	.51076	.027928
5	5.71502	0.50000	.51730	.022629
6	5.71502	0.50000	.52364	.017179
7	5.71502	0.50000	.52979	.011587
8	5.71502	0.50000	.53576	.005859
			.54156	-.000000

α	β	x	y	u	v
1	1	5.75898	.56789	.49024	.038057
	1	5.76033	.56586	.49702	.033589
	1	5.76257	.56400	.50359	.028932
	1	5.76423	.56225	.50996	.024103
	1	5.76582	.56061	.51615	.019112
	1	5.76735	.55904	.52216	.013968
	1	5.76884	.55755	.52799	.008677
	1	5.77028	.55611	.53367	.003247
	1	5.77169	.55471	.53918	-.002314
	1	5.82715	.50000	.53680	.000000
2	2	5.81821	.65736	.49075	.033257
	2	5.82233	.65277	.49705	.029121
	2	5.82620	.64854	.50317	.024789
	2	5.82989	.64458	.50913	.020285
	2	5.83345	.64083	.51493	.015620
	2	5.83687	.63726	.52056	.010802
	2	5.84020	.63383	.52605	.005839
	2	5.84344	.63053	.53139	.000738
	2	5.84660	.62734	.53659	-.004493
	2	5.90067	.57283	.53424	-.002410
10	2	5.97256	.50000	.53165	.000000
3	3	5.90163	.78052	.49134	.028452
	3	5.90861	.77259	.49711	.024649
	3	5.91518	.76527	.50275	.020650
	3	5.92148	.75838	.50825	.016487
	3	5.92754	.75184	.51361	.012169
	3	5.93340	.74560	.51883	.007705
	3	5.93909	.73962	.52392	.003102
	3	5.94463	.73384	.52888	-.001631
	3	5.95004	.72825	.53371	-.006491
	3	6.00245	.67420	.53142	-.004603
	3	6.07239	.60168	.52888	-.002482
11	3	6.16981	.50000	.52608	.000000
4	4	6.02654	.96055	.49203	.023641
	4	6.03729	.94811	.49722	.020183
	4	6.04747	.93655	.50233	.016538
	4	6.05725	.92562	.50731	.012742
	4	6.06668	.91524	.51217	.008805
	4	6.07581	.90530	.51692	.004735
	4	6.08468	.89575	.52155	.000539
	4	6.09334	.88652	.52607	-.003775
	4	6.10179	.87758	.53048	-.008204
	4	6.15210	.82445	.52830	-.006482
	4	6.21964	.75269	.52586	-.004581
12	4	6.31414	.65162	.52315	-.002469
	4	6.45473	.50000	.52016	.000000

α	β	x	y	u	v
	5	6.23107	1.24803	.49289	.018822
1	5	6.24719	1.22907	.49743	.015741
2	5	6.26254	1.21133	.50191	.012486
3	5	6.27730	1.19448	.50630	.009103
4	5	6.29158	1.17841	.51060	.005601
5	5	6.30544	1.16299	.51479	.001985
6	5	6.31892	1.14813	.51889	-.001736
7	5	6.33207	1.13377	.52290	-.005558
8	5	6.34493	1.11983	.52681	-.009476
9	5	6.39236	1.06847	.52480	-.007906
10	5	6.45673	.99837	.52253	-.006178
11	5	6.54744	.89888	.52000	-.004317
12	5	6.68341	.74861	.51721	-.002303
13	5	6.90605	.50000	.51415	.000000
	6	6.61795	1.77731	.49401	.013993
1	6	6.64254	1.74797	.49778	.011354
2	6	6.66615	1.72018	.50155	.008558
3	6	6.68894	1.69367	.50524	.005665
4	6	6.71104	1.66826	.50886	.002682
5	6	6.73251	1.64381	.51239	-.000384
6	6	6.75344	1.62019	.51585	-.003530
7	6	6.77387	1.59731	.51923	-.006749
8	6	6.79386	1.57508	.52253	-.010037
9	6	6.83678	1.52739	.52080	-.008647
10	6	6.89636	1.46082	.51879	-.007092
11	6	6.98156	1.36504	.51657	-.005432
12	6	7.11104	1.21841	.51411	-.003691
13	6	7.32583	.97313	.51147	-.001901
14	6	7.73538	.50000	.50858	.000000
	7	7.57805	3.05178	.49559	.009152
1	7	7.61879	3.00259	.49842	.007092
2	7	7.65874	2.95485	.50130	.004883
3	7	7.69743	2.90904	.50413	.002616
4	7	7.73503	2.86490	.50690	.000298
5	7	7.77166	2.82224	.50962	-.002066
6	7	7.80740	2.78091	.51227	-.004473
7	7	7.84232	2.74079	.51486	-.006919
8	7	7.87648	2.70177	.51738	-.009397
9	7	7.91041	2.66302	.51607	-.008291
10	7	7.96086	2.60517	.51448	-.006989
11	7	8.03582	2.51880	.51272	-.005595
12	7	8.15377	2.38212	.51080	-.004136
13	7	8.35553	2.14677	.50874	-.002664
14	7	8.74993	1.68328	.50666	-.001271
15	7	9.75142	.50000	.50516	.000000

α	β	x	y	u	v
	8	12.43314	9.25815	.49824	.004288
1	8	12.51891	9.15408	.49970	.003157
2	8	12.61605	9.03685	.50140	.001802
3	8	12.70988	8.92424	.50308	.000422
4	8	12.80132	8.81504	.50473	-.000967
5	8	12.89056	8.70898	.50633	-.002362
6	8	12.97771	8.60587	.50790	-.003760
7	8	13.06286	8.50556	.50942	-.005159
8	8	13.14607	8.40790	.51091	-.006555
9	8	13.14753	8.40618	.51027	-.005986
10	8	13.16635	8.38404	.50933	-.005170
11	8	13.20696	8.33613	.50829	-.004275
12	8	13.28736	8.24097	.50715	-.003326
13	8	13.44896	8.04899	.50594	-.002355
14	8	13.80214	7.62775	.50475	-.001429
15	8	14.76793	6.47168	.50385	-.000816
16	8	19.71782	.50000	.50203	.000000

$$\theta_B = 5^\circ \quad M_1 = 1.5$$

zero grid

α	β	x	y	u	v
2	5.71502	.50000	.54408	.047601	
	5.71502	.50000	.55597	.036481	
	5.71502	.50000	.56732	.024817	
	5.71502	.50000	.57814	.012645	
	5.71502	.50000	.58843	-.000000	
4	5.85511	.65398	.54509	.037362	
	5.86240	.64803	.55551	.027590	
	5.86951	.64227	.56551	.017290	
	5.87648	.63665	.57507	.006500	
	5.88334	.63112	.58420	-.004745	
6	6.04589	.50000	.58004	.000000	
	6.13166	.94581	.54643	.027101	
8	6.15076	.92966	.55511	.018813	
	6.16945	.91398	.56348	.010083	
	6.18781	.89863	.57150	.000950	
	6.20591	.88353	.57917	-.008554	
	6.36050	.75426	.57528	-.004706	
10	6.66349	.50000	.57074	.000000	
	6.87635	1.69700	.54842	.016810	
12	6.91979	1.65910	.55491	.010381	
	6.96238	1.62213	.56118	.003679	
	7.00428	1.58590	.56719	-.003254	
	7.04555	1.55026	.57293	-.010388	
	7.18628	1.42858	.56975	-.007191	
14	7.47119	1.18129	.56598	-.003658	
	8.25205	.50000	.56194	.000000	
16	12.11618	6.69252	.55219	.006464	
	12.25894	6.56509	.55542	.003054	
	12.39944	6.43997	.55860	-.000460	
	12.53733	6.31739	.56162	-.003949	
	12.67194	6.19789	.56447	-.007402	
	12.75844	6.12107	.56283	-.005555	
	12.98185	5.92244	.56086	-.003400	
	13.69681	5.28561	.55884	-.001335	
	19.05837	.50000	.55736	.000000	

8 x 8 grid

1	5.71502	.50000	.54408	.047601
2	5.71502	.50000	.55009	.042111
3	5.71502	.50000	.55597	.036481
4	5.71502	.50000	.56171	.030715
5	5.71502	.50000	.56732	.024817
6	5.71502	.50000	.57280	.018792
7	5.71502	.50000	.57814	.012645
8	5.71502	.50000	.58335	.006379
	5.71502	.50000	.58843	-.000000

α	β	x	y	u	v
1	1	5.77497	.56663	.54455	.042484
	1	5.77663	.56529	.55020	.037329
	1	5.77826	.56399	.55573	.032029
	1	5.77987	.56271	.56114	.026593
	1	5.78145	.56145	.56643	.021025
	1	5.78302	.56021	.57160	.015331
	1	5.78458	.55897	.57665	.009515
	1	5.78612	.55775	.58158	.003581
	1	5.78765	.55653	.58639	-.002466
	1	5.85899	.50000	.58434	.000000
2	2	5.85511	.65398	.54509	.037362
	2	5.85880	.65096	.55034	.032552
	2	5.86243	.64801	.55550	.027595
	2	5.86600	.64511	.56055	.022505
	2	5.86954	.64225	.56549	.017289
	2	5.87304	.63942	.57033	.011951
	2	5.87651	.63662	.57506	.006494
	2	5.87996	.63384	.57968	.000923
	2	5.88338	.63108	.58418	-.004756
	2	5.95326	.57473	.58218	-.002541
10	2	6.04584	.50000	.58000	.000000
3	3	5.96681	.77333	.54571	.032235
	3	5.97308	.76811	.55053	.027784
	3	5.97923	.76301	.55528	.023187
	3	5.98531	.75799	.55994	.018468
	3	5.99132	.75304	.56450	.013630
	3	5.99728	.74814	.56897	.008677
	3	6.00319	.74329	.57334	.003615
	3	6.00906	.73847	.57761	-.001551
	3	6.01489	.73369	.58178	-.006821
	3	6.08306	.67773	.57984	-.004815
	3	6.17367	.60326	.57772	-.002582
11	3	6.29910	.50000	.57541	.000000
4	4	6.13166	.94581	.54643	.027101
	4	6.14133	.93763	.55079	.023036
	4	6.15083	.92961	.55509	.018829
	4	6.16024	.92170	.55931	.014513
	4	6.16955	.91390	.56345	.010092
	4	6.17878	.90618	.56751	.005570
	4	6.18793	.89853	.57148	.000950
	4	6.19702	.89095	.57536	-.003760
	4	6.20605	.88341	.57915	-.008561
	4	6.27213	.82821	.57731	-.006730
	4	6.36038	.75436	.57528	-.004728
11	4	6.48298	.65159	.57306	-.002530
12	4	6.66333	.50000	.57067	.000000

α	β	x	y	u	v
1	5	6.39572	1.21616	.54731	.021961
2	5	6.41016	1.20372	.55114	.018324
3	5	6.42442	1.19149	.55494	.014553
4	5	6.43854	1.17942	.55867	.010692
5	5	6.45252	1.16750	.56233	.006744
6	5	6.46638	1.15570	.56592	.002714
7	5	6.48013	1.14401	.56943	-.001394
8	5	6.49379	1.13241	.57286	-.005577
9	5	6.50736	1.12088	.57621	-.009831
10	5	6.57064	1.06711	.57453	-.008162
11	5	6.65588	.99454	.57265	-.006339
12	5	6.77496	.89295	.57059	-.004399
13	5	6.95109	.74235	.56837	-.002329
	5	7.23350	.50000	.56600	.000000
1	6	6.87635	1.69700	.54842	.016810
2	6	6.89819	1.67792	.55165	.013677
3	6	6.91989	1.65902	.55487	.010417
4	6	6.94137	1.64036	.55804	.007090
5	6	6.96265	1.62190	.56114	.003701
6	6	6.98376	1.60363	.56418	.000253
7	6	7.00470	1.58553	.56716	-.003248
8	6	7.02548	1.56758	.57006	-.006800
9	6	7.04612	1.54976	.57290	-.010398
10	6	7.10520	1.49872	.57144	-.008913
11	6	7.18608	1.42874	.56978	-.007265
12	6	7.30025	1.32978	.56797	-.005529
13	6	7.47074	1.18167	.56601	-.003732
14	6	7.74650	.94150	.56395	-.001910
	6	8.25122	.50000	.56178	.000000
1	7	7.97300	2.76689	.54993	.011647
2	7	8.00819	2.73574	.55242	.009154
3	7	8.04375	2.70435	.55495	.006528
4	7	8.07893	2.67334	.55744	.003864
5	7	8.11378	2.64268	.55987	.001168
6	7	8.14833	2.61232	.56226	-.001556
7	7	8.18257	2.58228	.56459	-.004306
8	7	8.21651	2.55250	.56686	-.007076
9	7	8.25017	2.52299	.56907	-.009863
10	7	8.30149	2.47799	.56794	-.008651
11	7	8.37464	2.41376	.56660	-.007245
12	7	8.48034	2.32085	.56515	-.005761
13	7	8.64156	2.17891	.56358	-.004228
14	7	8.90713	1.94465	.56195	-.002706
15	7	9.40040	1.50861	.56033	-.001284
	7	10.53663	.50000	.55862	.000000

α	β	x	y	u	v
	8	12.11618	6.69252	.55219	.006464
1	8	12.18311	6.63275	.55369	.004901
2	8	12.25700	6.56684	.55535	.003134
3	8	12.32974	6.50203	.55697	.001353
4	8	12.40167	6.43801	.55856	-.000428
5	8	12.47279	6.37477	.56011	-.002208
6	8	12.54309	6.31230	.56163	-.003983
7	8	12.61256	6.25062	.56310	-.005750
8	8	12.68117	6.18970	.56452	-.007506
9	8	12.71067	6.16352	.56387	-.006767
10	8	12.76285	6.11716	.56300	-.005785
11	8	12.84618	6.04311	.56204	-.004732
12	8	12.98356	5.92092	.56102	-.003635
13	8	13.22433	5.70658	.55997	-.002533
14	8	13.69279	5.28912	.55894	-.001505
15	8	14.80335	4.29835	.55802	-.000630
16	8	19.04959	.50000	.55702	.000000

$$\theta_s = 5^\circ \quad M_1 = 1.7$$

zero grid

α	β	x	y	u	v
2	5.71502	.50000	.59195	.051789	
	5.71502	.50000	.60263	.039542	
	5.71502	.50000	.61286	.026809	
	5.71502	.50000	.62263	.013618	
8	5.71502	.50000	.63194	-.000000	
2	5.92652	.68748	.59322	.039149	
	5.93580	.68140	.60235	.028572	
	5.94514	.67520	.61112	.017553	
	5.95437	.66899	.61952	.006115	
	5.96357	.66264	.62754	-.005709	
10	6.20316	.50000	.62326	.000000	
2	6.41339	1.09920	.59500	.026478	
	6.43956	1.08113	.60223	.017856	
	6.46593	1.06288	.60920	.008914	
	6.49217	1.04470	.61587	-.000317	
	6.51854	1.02621	.62223	-.009808	
	6.74497	.86687	.61842	-.005328	
12	7.26685	.50000	.61396	.000000	
2	8.32820	2.63311	.59792	.013757	
	8.40100	2.58114	.60261	.007886	
	8.47379	2.52911	.60712	.001895	
	8.54615	2.47710	.61141	-.004153	
	8.61808	2.42509	.61548	-.010233	
	8.81500	2.28268	.61283	-.006850	
	9.30057	1.93185	.60971	-.003157	
14	11.28230	.50000	.60674	.000000	
2	11.46137	5.05910	.59971	.008964	
	11.58738	4.96832	.60310	.004608	
	11.71230	4.87793	.60635	.000227	
	11.83589	4.78842	.60943	-.004113	
	11.95788	4.69977	.61232	-.008392	
	12.12286	4.57971	.61040	-.005789	
	12.57225	4.25330	.60814	-.002894	
14	14.51890	2.83968	.60605	-.000498	
16	17.74019	.50000	.60553	.000000	

8 x 8 grid

1	5.71502	.50000	.59195	.051789
2	5.71502	.50000	.59734	.045728
3	5.71502	.50000	.60263	.039542
4	5.71502	.50000	.60780	.033235
5	5.71502	.50000	.61286	.026809
6	5.71502	.50000	.61781	.020269
7	5.71502	.50000	.62263	.013618
8	5.71502	.50000	.62735	.006860
			.63194	-.000000

α	β	x	y	u	v
1	1	5.80282	.57883	.59254	.045473
	1	5.80488	.57754	.59755	.039821
	1	5.80692	.57628	.60247	.034040
	1	5.80896	.57489	.60729	.028143
	1	5.81099	.57356	.61200	.022130
	1	5.81300	.57225	.61662	.016004
	1	5.81508	.57090	.62112	.009772
	1	5.81713	.56953	.62552	.003435
	1	5.81918	.56818	.62982	-.003002
	1	5.92133	.50000	.62771	.000000
2	2	5.92652	.68748	.59322	.039149
	2	5.93120	.68441	.59781	.033930
	2	5.93581	.68138	.60233	.028579
	2	5.94049	.67827	.60677	.023121
	2	5.94514	.67513	.61111	.017553
	2	5.94972	.67211	.61535	.011881
	2	5.95440	.66896	.61951	.006109
	2	5.95903	.66576	.62356	.000240
	2	5.96364	.66261	.62752	-.005721
	2	6.06356	.59472	.62547	-.003077
10	2	6.20308	.50000	.62322	.000000
3	3	6.11155	.84628	.59402	.032818
	3	6.11973	.84079	.59815	.028064
	3	6.12778	.83534	.60224	.023179
	3	6.13595	.82978	.60624	.018200
	3	6.14412	.82424	.61016	.013125
	3	6.15220	.81875	.61400	.007957
	3	6.16036	.81316	.61776	.002703
	3	6.16858	.80754	.62142	-.002634
	3	6.17677	.80191	.62500	-.008053
	3	6.27394	.73464	.62305	-.005696
10	3	6.41026	.64042	.62089	-.003060
11	3	6.61344	.50000	.61854	.000000
4	4	6.41339	1.09920	.59500	.026478
	4	6.42656	1.09012	.59862	.022244
	4	6.43960	1.08112	.60220	.017883
	4	6.45280	1.07198	.60572	.013444
	4	6.46601	1.06284	.60917	.008930
	4	6.47908	1.05378	.61255	.004342
	4	6.49232	1.04457	.61585	-.000313
	4	6.50549	1.03534	.61907	-.005034
	4	6.51875	1.02603	.62221	-.009817
	4	6.61238	.96014	.62043	-.007700
10	4	6.74471	.86706	.61842	-.005373
11	4	6.94307	.72757	.61623	-.002858
12	4	7.26648	.50000	.61387	.000000

α	β	x	y	u	v
	5	6.97797	1.56037	.59624	.020126
1	5	6.99902	1.54561	.59926	.016506
2	5	7.02010	1.53081	.60228	.012761
3	5	7.04133	1.51579	.60524	.008962
4	5	7.06257	1.50082	.60814	.005111
5	5	7.08363	1.48591	.61097	.001213
6	5	7.10485	1.47085	.61374	-.002727
7	5	7.12602	1.45582	.61645	-.006707
8	5	7.14726	1.44068	.61908	-.010722
9	5	7.23557	1.37757	.61754	-.008855
10	5	7.36228	1.28711	.61578	-.006780
11	5	7.55420	1.15008	.61386	-.004603
12	5	7.86984	.92465	.61180	-.002365
13	5	8.46350	.50000	.60963	.000000
	6	8.32820	2.63311	.59792	.013757
1	6	8.36386	2.60766	.60021	.010928
2	6	8.40056	2.58145	.60255	.007953
3	6	8.43741	2.55512	.60484	.004953
4	6	8.47410	2.52885	.60708	.001933
5	6	8.51061	2.50264	.60926	-.001103
6	6	8.54716	2.47633	.61139	-.004152
7	6	8.58349	2.45012	.61346	-.007208
8	6	8.61982	2.42380	.61548	-.010269
9	6	8.69809	2.36716	.61430	-.008761
10	6	8.81474	2.28283	.61291	-.007008
11	6	8.99565	2.15209	.61139	-.005170
12	6	9.29912	1.93285	.60979	-.003317
13	6	9.87906	1.51391	.60817	-.001565
14	6	11.27939	.50000	.60648	.000000
	7	9.42977	3.49263	.59874	.011363
1	7	9.47552	3.45977	.60072	.008883
2	7	9.52265	3.42590	.60276	.006269
3	7	9.56985	3.39201	.60475	.003641
4	7	9.61678	3.35817	.60669	.001007
5	7	9.66346	3.32448	.60858	-.001631
6	7	9.71011	3.29078	.61043	-.004268
7	7	9.75643	3.25726	.61222	-.006902
8	7	9.80270	3.22370	.61396	-.009527
9	7	9.87497	3.17126	.61295	-.008188
10	7	9.98510	3.09139	.61173	-.006610
11	7	10.15898	2.96531	.61040	-.004949
12	7	10.45504	2.75076	.60901	-.003269
13	7	11.02730	2.33610	.60761	-.001693
14	7	12.42019	1.32653	.60629	-.000305
15	7	13.55979	.50000	.60596	.000000

α	β	x	y	u	v
	8	11.46137	5.05910	.59971	.008964
1	8	11.52294	5.01477	.60135	.006888
2	8	11.58654	4.96890	.60304	.004685
3	8	11.64993	4.92305	.60469	.002480
4	8	11.71298	4.87744	.60631	.000280
5	8	11.77560	4.83211	.60788	-.001911
6	8	11.83794	4.78692	.60940	-.004092
7	8	11.89978	4.74199	.61088	-.006257
8	8	11.96129	4.69727	.61232	-.008403
9	8	12.02402	4.65159	.61149	-.007281
10	8	12.12386	4.57897	.61048	-.005926
11	8	12.28683	4.46052	.60938	-.004492
12	8	12.57148	4.25378	.60822	-.003035
13	8	13.13236	3.84644	.60707	-.001655
14	8	14.51403	2.84303	.60602	-.000478
15	8	15.65114	2.01723	.60576	-.000220
16	8	17.73931	.50000	.60551	.000000

$$\theta_s = 5^\circ \quad M_1 = 2.0$$

zero grid

α	β	x	y	u	v
2	5.71502	.50000	.65313	.057141	
	5.71502	.50000	.66269	.043483	
	5.71502	.50000	.67183	.029389	
	5.71502	.50000	.68055	.014885	
	5.71502	.50000	.68882	-.000000	
4	5.98785	.69324	.65452	.043269	
	5.99903	.68748	.66266	.031461	
	6.01022	.68154	.67046	.019272	
	6.02160	.67542	.67789	.006729	
	6.03338	.66894	.68495	-.006138	
6	6.34054	.50000	.68122	.000000	
	6.63133	1.12709	.65646	.029361	
	6.66343	1.10961	.66287	.019769	
	6.69577	1.09186	.66900	.009928	
	6.72870	.07348	.67484	-.000122	
8	6.76226	1.05454	.68037	-.010354	
	7.05340	.88911	.67708	-.005560	
	7.74196	.50000	.67333	.000000	
	8.09186	2.06783	.65863	.018896	
	8.16021	2.02961	.66339	.011516	
10	8.22889	1.99083	.66792	.004044	
	8.29831	1.95124	.67222	-.003469	
	8.36824	1.91093	.67625	-.010988	
	8.63704	1.75564	.67370	-.007026	
	9.29752	1.37559	.67074	-.002834	
12	10.82445	.50000	.66870	.000000	
	11.57707	4.23437	.66077	.011894	
	11.70844	4.15978	.66411	.006539	
	11.83946	4.08481	.66728	.001205	
	11.97033	4.00940	.67026	-.004042	
14	12.10059	3.93379	.67303	-.009178	
	12.33241	3.79902	.67122	-.006156	
	12.95189	3.44045	.66915	-.002883	
	14.44897	2.57627	.66770	-.000806	
	18.05042	.50000	.66719	.000000	

8 x 8 grid

1	5.71502	.50000	.65313	.057141
2	5.71502	.50000	.65796	.050368
3	5.71502	.50000	.66269	.043483
4	5.71502	.50000	.66731	.036489
5	5.71502	.50000	.67183	.029389
6	5.71502	.50000	.67625	.022186
7	5.71502	.50000	.68055	.014885
8	5.71502	.50000	.68474	.007488
			.68882	-.000000

α	β	x	y	u	v
1	1	5.82768	.58088	.65377	.050209
2	1	5.83007	.57964	.65825	.043886
3	1	5.83252	.57836	.66265	.037450
4	1	5.83495	.57712	.66694	.030908
5	1	5.83738	.57583	.67115	.024265
6	1	5.83982	.57453	.67525	.017523
7	1	5.84237	.57322	.67925	.010688
8	1	5.84498	.57185	.68315	.003763
9	1	5.84752	.57044	.68694	-.003249
	1	5.97750	.50000	.68509	.000000
1	2	5.98785	.69324	.65452	.043269
2	2	5.99339	.69041	.65862	.037426
3	2	5.99903	.68747	.66265	.031471
4	2	6.00458	.68456	.66659	.025417
5	2	6.01025	.68153	.67044	.019274
6	2	6.01592	.67845	.67421	.013042
7	2	6.02168	.67538	.67788	.006724
8	2	6.02757	.67215	.68145	.000326
9	2	6.03345	.66892	.68493	-.006150
10	2	6.16064	.59880	.68314	-.003298
	2	6.34045	.50000	.68118	.000000
1	3	6.23019	.85921	.65540	.036320
2	3	6.23996	.85405	.65908	.031002
3	3	6.24988	.84876	.66270	.025572
4	3	6.25971	.84351	.66625	.020058
5	3	6.26979	.83810	.66972	.014469
6	3	6.27988	.83255	.67310	.008806
7	3	6.28999	.82699	.67641	.003072
8	3	6.30037	.82121	.67962	-.002727
9	3	6.31068	.81543	.68275	-.008590
10	3	6.43449	.74600	.68105	-.006054
11	3	6.61033	.64771	.67918	-.003239
	3	6.87536	.50000	.67717	.000000
1	4	6.63133	1.12709	.65646	.029361
2	4	6.64722	1.11847	.65967	.024638
3	4	6.66340	1.10965	.66284	.019801
4	4	6.67950	1.10082	.66595	.014902
5	4	6.69586	1.09182	.66898	.009948
6	4	6.71238	1.08263	.67194	.004940
7	4	6.72891	1.07338	.67482	-.000116
8	4	6.74574	1.06394	.67762	-.005219
9	4	6.76254	1.05439	.68035	-.010362
10	4	6.88202	.98642	.67881	-.008092
11	4	7.05304	.88935	.67709	-.005613
12	4	7.31212	.74265	.67523	-.002963
	4	7.74154	.50000	.67325	.000000

α	β	x	y	u	v
	5	7.39610	1.62431	.65780	.022389
1	5	7.42188	1.61011	.66046	.018376
2	5	7.44833	1.59541	.66312	.014242
3	5	7.47469	1.58071	.66571	.010072
4	5	7.50135	1.56576	.66824	.005872
5	5	7.52822	1.55061	.67071	.001646
6	5	7.55512	1.53531	.67310	-.002602
7	5	7.58227	1.51978	.67543	-.006868
8	5	7.60943	1.50415	.67768	-.011147
9	5	7.72224	1.43919	.67638	-.009161
10	5	7.88642	1.34479	.67489	-.006960
11	5	8.13768	1.20072	.67328	-.004674
12	5	8.55780	.96034	.67158	-.002364
13	5	9.36290	.50000	.66982	.000000
	6	8.09186	2.06783	.65863	.018896
1	6	8.12553	2.04905	.66099	.015293
2	6	8.16001	2.02974	.66334	.011576
3	6	8.19444	2.01036	.66565	.007838
4	6	8.22913	1.99073	.66789	.004085
5	6	8.26399	1.97091	.67007	.000321
6	6	8.29894	1.95092	.67219	-.003449
7	6	8.33410	1.93070	.67424	-.007221
8	6	8.36921	1.91040	.67623	-.010990
9	6	8.47729	1.84789	.67507	-.009167
10	6	8.63649	1.75598	.67373	-.007126
11	6	8.88225	1.61439	.67228	-.005008
12	6	9.29638	1.37629	.67076	-.002901
13	6	10.09478	.91795	.66923	-.000884
14	6	10.82325	.50000	.66858	.000000
	7	9.27081	2.80833	.65960	.015399
1	7	9.31617	2.78283	.66162	.012264
2	7	9.36266	2.75660	.66365	.009021
3	7	9.40908	2.73027	.66562	.005772
4	7	9.45570	2.70373	.66755	.002523
5	7	9.50242	2.67702	.66942	-.000719
6	7	9.54916	2.65013	.67123	-.003953
7	7	9.59605	2.62310	.67298	-.007174
8	7	9.64285	2.59594	.67468	-.010374
9	7	9.74385	2.53727	.67368	-.008761
10	7	9.89571	2.44928	.67252	-.006924
11	7	10.13360	2.31173	.67127	-.005011
12	7	10.53943	2.07752	.66997	-.003103
13	7	11.32910	1.62258	.66867	-.001330
14	7	12.05348	1.20561	.66812	-.000626
15	7	13.27928	.50000	.66761	.000000

α	β	x	y	u	v
	8	11.57700	4.23437	.66077	.011894
1	8	11.64135	4.19791	.66239	.009316
2	8	11.70773	4.16018	.66405	.006622
3	8	11.77384	4.12240	.66567	.003937
4	8	11.83997	4.08452	.66724	.001267
5	8	11.90603	4.04656	.66876	-.001381
6	8	11.97195	4.00847	.67023	-.004007
7	8	12.03778	3.97034	.67165	-.006605
8	8	12.10329	3.93224	.67301	-.009170
9	8	12.19260	3.88027	.67222	-.007837
10	8	12.33246	3.79901	.67127	-.006272
11	8	12.55764	3.66846	.67025	-.004634
12	8	12.95041	3.44127	.66919	-.002991
13	8	13.72714	2.99269	.66816	-.001465
14	8	14.44620	2.57782	.66771	-.000849
15	8	15.66651	1.87407	.66735	-.000370
16	8	18.05093	.50000	.66725	.000000

$$\theta_s = 5^\circ \quad M_1 = 3.0$$

zero grid

α	β	x	y	u	v
2	5.71502	.50000	.78804	.068944	
	5.71502	.50000	.79562	.052206	
	5.71502	.50000	.80277	.035116	
	5.71502	.50000	.80946	.017704	
	5.71502	.50000	.81567	-.000000	
4	6.01185	.63689	.78918	.057005	
	6.02580	.63281	.79593	.041878	
	6.04021	.62840	.80228	.026452	
	6.05527	.62347	.80821	.010759	
	6.07097	.61815	.81371	-.005172	
	6.41653	.50000	.81181	.000000	
	6.55265	.87594	.79061	.045047	
6	6.58831	.86495	.79639	.031744	
	6.62549	.85296	.80183	.018246	
	6.66417	.84003	.80689	.004590	
	6.70431	.82609	.81156	-.009191	
	7.03710	.70925	.80979	-.004912	
10	7.64007	.50000	.80787	.000000	
	7.74340	1.37860	.79245	.033063	
12	7.81937	1.35398	.79711	.021980	
	7.89775	1.32783	.80146	.010850	
	7.97884	1.29999	.80549	-.000270	
	8.06227	1.27048	.80918	-.011330	
	8.37697	1.15796	.80768	-.007674	
14	8.95792	.95216	.80602	-.003849	
	10.24553	.50000	.8041	.000000	
16	11.51593	2.89141	.794	.021041	
	11.68932	2.83304	.7982	.012898	
	11.86563	2.77238	.80128	.004884	
	12.04479	2.70957	.80405	-.002913	
	12.22586	2.64468	.80655	-.010439	
	12.50218	2.54514	.80548	-.007607	
	13.04200	2.35210	.80430	-.004616	
	14.28635	1.91004	.80314	-.001872	
	18.27849	.50000	.80238	.000000	

8 x 8 grid

1	5.71502	.50000	.78804	.068944
2	5.71502	.50000	.79188	.060621
3	5.71502	.50000	.79562	.052206
4	5.71502	.50000	.79925	.043703
5	5.71502	.50000	.80277	.035116
6	5.71502	.50000	.80617	.026449
7	5.71502	.50000	.80946	.017704
8	5.71502	.50000	.81262	.008886
			.81567	-.000000

α	β	x	y	u	v
1	1	5.84389	.56011	.78858	.062977
	1	5.84698	.55925	.79222	.055045
	1	5.85015	.55827	.79576	.047025
	1	5.85330	.55732	.79919	.038919
	1	5.85657	.55630	.80252	.030735
	1	5.85986	.55525	.80573	.022475
	1	5.86329	.55411	.80884	.014145
	1	5.86674	.55299	.81183	.005745
	1	5.87044	.55177	.81470	-.002717
	1	6.02347	.50000	.81375	.000000
2	2	6.01185	.63689	.78918	.057005
	2	6.01866	.63490	.79260	.049488
	2	6.02578	.63280	.79593	.041884
	2	6.03290	.63062	.79915	.034203
	2	6.04020	.62836	.80227	.026452
	2	6.04766	.62595	.80529	.018634
	2	6.05527	.62345	.80820	.010752
	2	6.06301	.62087	.81101	.002811
	2	6.07102	.61812	.81370	-.005184
	2	6.22142	.56649	.81277	-.002722
10	2	6.41642	.50000	.81180	.000000
3	3	6.23751	.73792	.78985	.051029
	3	6.24908	.73447	.79303	.043952
	3	6.26095	.73085	.79613	.036790
	3	6.27301	.72708	.79913	.029565
	3	6.28528	.72316	.80204	.022280
	3	6.29792	.71904	.80484	.014941
	3	6.31073	.71479	.80755	.007549
	3	6.32383	.71040	.81015	.000110
	3	6.33735	.70573	.81265	-.007370
	3	6.48492	.65441	.81175	-.005122
10	3	6.67664	.58810	.81080	-.002697
11	3	6.93297	.50000	.80981	.000000
4	4	6.55265	.87594	.79061	.045047
	4	6.57026	.87054	.79353	.038447
	4	6.58836	.86491	.79638	.031765
	4	6.60682	.85902	.79914	.025035
	4	6.62557	.85292	.80181	.018259
	4	6.64476	.84656	.80439	.011444
	4	6.66426	.83999	.80687	.004594
	4	6.68405	.83319	.80926	-.002287
	4	6.70450	.82601	.81155	-.009195
	4	6.84873	.77525	.81069	-.007128
10	4	7.03684	.70936	.80978	-.004930
11	4	7.28896	.62155	.80883	-.002588
12	4	7.63991	.50000	.80785	.000000

α	β	x	y	u	v
	5	7.01555	1.07417	.79146	.039058
1	5	7.04133	1.06603	.79411	.032985
2	5	7.06779	1.05754	.79669	.026833
3	5	7.09469	1.04874	.79920	.020649
4	5	7.12199	1.03967	.80161	.014438
5	5	7.14998	1.03027	.80394	.008207
6	5	7.17839	1.02054	.80618	.001961
7	5	7.20718	1.01055	.80833	-.004295
8	5	7.23686	1.00007	.81038	-.010556
9	5	7.37707	.95024	.80960	-.008653
10	5	7.56105	.88518	.80874	-.006633
11	5	7.80851	.79802	.80785	-.004538
12	5	8.15389	.67696	.80692	-.002359
13	5	8.66122	.50000	.80598	.000000
	6	7.74340	1.37860	.79245	.033063
1	6	7.78084	1.36658	.79479	.027583
2	6	7.81931	1.35400	.79709	.022025
3	6	7.85833	1.34108	.79930	.016457
4	6	7.89789	1.32776	.80144	.010883
5	6	7.93820	1.31401	.80350	.005311
6	6	7.97912	1.29984	.80547	-.000250
7	6	8.02046	1.28532	.80736	-.005798
8	6	8.06283	1.27021	.80916	-.011324
9	6	8.19772	1.22189	.80845	-.009589
10	6	8.37631	1.15814	.80768	-.007729
11	6	8.61805	1.07232	.80687	-.005821
12	6	8.95712	.95237	.80602	-.003896
13	6	9.45706	.77633	.80516	-.001978
14	6	10.24450	.50000	.80433	.000000
	7	9.00290	1.89253	.79361	.027058
1	7	9.05794	1.87447	.79561	.022267
2	7	9.11472	1.85558	.79759	.017390
3	7	9.17216	1.83623	.79949	.012527
4	7	9.23024	1.81639	.80131	.007683
5	7	9.28914	1.79603	.80307	.002867
6	7	9.34868	1.77519	.80475	-.001913
7	7	9.40880	1.75392	.80635	-.006652
8	7	9.46995	1.73193	.80787	-.011341
9	7	9.59703	1.68619	.80727	-.009809
10	7	9.76818	1.62480	.80660	-.008126
11	7	10.00196	1.54122	.80589	-.006403
12	7	10.33266	1.42348	.80515	-.004677
13	7	10.82368	1.24934	.80441	-.003004
14	7	11.60140	.97458	.80370	-.001448
15	7	12.94779	.50000	.80302	.000000

α	β	x	y	u	v
	8	11.51593	2.89141	.79499	.021041
1	8	11.60029	2.86316	.79661	.017076
2	8	11.68821	2.83341	.79822	.012997
3	8	11.77673	2.80310	.79977	.008954
4	8	11.86583	2.77228	.80125	.004957
5	8	11.95575	2.74089	.80267	.001012
6	8	12.04617	2.70901	.80402	-.002871
7	8	12.13692	2.67664	.80531	-.006687
8	8	12.22860	2.64363	.80653	-.010428
9	8	12.34263	2.60247	.80605	-.009165
10	8	12.50150	2.54532	.80551	-.007718
11	8	12.72271	2.46603	.80493	-.006230
12	8	13.04055	2.35251	.80433	-.004735
13	8	13.51864	2.18234	.80373	-.003287
14	8	14.28346	1.91095	.80315	-.001964
15	8	15.61703	1.43920	.80264	-.000857
16	8	18.27714	.50000	.80241	.000000

$$\theta_B = 5^\circ \quad M_1 = 4.0$$

zero grid

α	β	x	y	u	v
2		5.71502	.50000	.85954	.075200
		5.71502	.50000	.86601	.056824
		5.71502	.50000	.87200	.038145
		5.71502	.50000	.87750	.019192
		5.71502	.50000	.88250	-.000000
4	2	6.26646	.69617	.86111	.059234
	2	6.29668	.68996	.86664	.043099
	2	6.32885	.68289	.87174	.026755
	2	6.36308	.67488	.87641	.010236
	2	6.39953	.66583	.88063	-.006415
	2	7.05586	.50000	.87886	.000000
	4	7.56764	1.12999	.86317	.043234
2	4	7.65696	1.11012	.86758	.029805
4	4	7.75119	1.08806	.87162	.016345
6	4	7.85044	1.06368	.87529	.002922
8	4	7.95475	1.03683	.87857	-.010400
10	4	8.57304	.87549	.87704	-.005361
12	4	10.03471	.50000	.87518	.000000
6	6	12.14087	2.54543	.86602	.027181
	6	12.38815	2.48665	.86903	.017392
	6	12.64396	2.42373	.87177	.007805
	6	12.90693	2.35688	.87422	-.001437
	6	13.17567	2.28644	.87636	-.010254
	6	13.71842	2.14304	.87529	-.006436
	6	15.09426	1.78423	.87408	-.002292
14	6	20.06613	.50000	.87336	.000000
8	8	57.21701	15.27768	.86992	.011036
	8	58.28628	15.00975	.87114	.006710
	8	59.35984	14.73679	.87232	.002331
	8	60.40469	14.46740	.87332	-.001542
	8	61.39671	14.20850	.87417	-.004942
	8	61.58128	14.16019	.87376	-.003349
	8	62.57244	13.90246	.87327	-.001437
	8	67.36062	12.66292	.87297	-.000347
16	8	85.52439	.50000	.87287	.000000

8 x 8 grid

1		5.71502	.50000	.85954	.075200
2		5.71502	.50000	.86283	.066052
3		5.71502	.50000	.86601	.056824
4		5.71502	.50000	.86907	.047521
5		5.71502	.50000	.87200	.038145
6		5.71502	.50000	.87481	.028701
7		5.71502	.50000	.87750	.019192
8		5.71502	.50000	.88006	.009624
				.88250	-.000000

α	β	x	y	v
1	1	5.94126	.58191	.86028 .067221
	1	5.94763	.58068	.86334 .058614
	1	5.95426	.57936	.86629 .049926
	1	5.96110	.57793	.86913 .041172
	1	5.96816	.57640	.87186 .032355
	1	5.97546	.57477	.87446 .023479
	1	5.98301	.57303	.87696 .014549
	1	5.99081	.57116	.87933 .005569
	1	5.99887	.56917	.88158 -.003458
	1	6.27629	.50000	.88067 .000000
2	2	6.06616	.69617	.86111 .059234
	2	6.08126	.69318	.86392 .051212
	2	6.09665	.68996	.86663 .043110
	2	6.11251	.68653	.86924 .034957
	2	6.12887	.68288	.87173 .026755
	2	6.14576	.67899	.87412 .018510
	2	6.136317	.67485	.87640 .010226
	2	6.138113	.67045	.87857 .001908
	2	6.139968	.66577	.88062 -.006437
	2	6.16995	.59705	.87970 -.003395
3	2	6.05545	.50000	.8798 .000000
	3	6.176022	.86423	.86111 .059234
	3	6.18566	.85865	.8645 .043386
	3	6.181421	.85267	.8670 .036407
	3	6.184255	.84632	.8694 .028912
	3	6.187170	.83960	.87165 .021395
	3	6.190174	.83248	.87380 .013857
	3	6.193264	.82496	.87584 .006304
	3	6.196444	.81700	.87778 -.001257
	3	6.199717	.80860	.87961 -.008820
4	3	7.25908	.74085	.87880 -.006113
	3	7.63518	.64443	.87794 -.003203
	3	8.20365	.50000	.87703 .000000
1	4	7.56764	1.12999	.86317 .043234
	4	7.61117	1.12043	.86540 .036585
	4	7.65665	1.11018	.86756 .029850
	4	7.70332	1.09939	.86963 .023111
	4	7.75119	1.08804	.87161 .016373
	4	7.80035	1.07611	.87349 .009643
	4	7.85076	1.06357	.87528 .002931
	4	7.90244	1.05041	.87697 -.003756
	4	7.95543	1.03660	.87856 -.010409
	4	8.20677	.97072	.87783 -.007988
	4	8.57174	.87579	.87704 -.005416
	4	9.12709	.73252	.87621 -.002777
12	4	10.03509	.50000	.87538 .000000

α	β	x	y	u	v
	5	9.03359	1.59561	.86447	.035216
1	5	9.10421	1.57952	.86635	.029422
2	5	9.17848	1.56222	.86820	.023524
3	5	9.25437	1.54416	.86995	.017652
4	5	9.33187	1.52532	.87163	.011816
5	5	9.41105	1.50567	.87322	.006026
6	5	9.49185	1.48522	.87472	.000291
7	5	9.57427	1.46395	.87614	-.005376
8	5	9.65825	1.44184	.87746	-.010968
9	5	9.89430	1.37943	.87685	-.008852
10	5	10.24432	1.28752	.87616	-.006563
11	5	10.78337	1.14697	.87544	-.004272
12	5	11.67300	.91666	.87472	-.002078
13	5	13.29302	.50000	.87431	.000000
	6	12.14087	2.54543	.86602	.027181
1	6	12.25880	2.51763	.86750	.022432
2	6	12.38509	2.48735	.86899	.017522
3	6	12.51323	2.45609	.87040	.012673
4	6	12.64324	2.42383	.87174	.007897
5	6	12.77505	2.39057	.87300	.003205
6	6	12.90850	2.35635	.87419	-.001391
7	6	13.04348	2.32121	.87530	-.005880
8	6	13.17979	2.28518	.87634	-.010251
9	6	13.38992	2.22945	.87586	-.008532
10	6	13.71566	2.14357	.87531	-.006584
11	6	14.22986	2.00884	.87474	-.004628
12	6	15.09431	1.78370	.87417	-.002784
13	6	16.69095	1.36980	.87374	-.001645
14	6	20.05855	.50000	.87334	.000000
	7	20.57902	5.01946	.86784	.019124
1	7	20.78962	4.96832	.86887	.015705
2	7	21.02889	4.90946	.86995	.011976
3	7	21.26860	4.84973	.87098	.008331
4	7	21.50912	4.78905	.87195	.004788
5	7	21.75011	4.72752	.87286	.001359
6	7	21.99102	4.66529	.87371	-.001948
7	7	22.23137	4.60251	.87449	-.005122
8	7	22.47060	4.53938	.87522	-.008155
9	7	22.62712	4.49799	.87491	-.006980
10	7	22.90321	4.42532	.87452	-.005506
11	7	23.36782	4.30363	.87411	-.004006
12	7	24.18477	4.09067	.87371	-.002576
13	7	25.74948	3.68431	.87341	-.001594
14	7	29.07555	2.82331	.87312	-.000717
15	7	38.06433	.50000	.87290	.000000

α	β	x	y	z	v
	8	57.21701	15.27768	.86992	.011036
1	8	57.60283	15.18144	.87039	.009375
2	8	58.19438	15.03280	.87104	.007038
3	8	58.76927	14.88719	.87167	.004754
4	8	59.33504	14.74279	.87225	.002573
5	8	59.89078	14.59991	.87279	.000502
6	8	60.43508	14.45901	.87329	-.001454
7	8	60.96611	14.32066	.87375	-.003290
8	8	61.48246	14.18533	.87417	-.005005
9	8	61.48895	14.18362	.87404	-.004468
10	8	61.61955	14.14944	.87381	-.003598
11	8	61.94052	14.06574	.87358	-.002680
12	8	62.62092	13.88882	.87334	-.001789
13	8	64.09223	13.50723	.87316	-.001126
14	8	67.32993	12.66925	.87300	-.000542
15	8	76.25200	10.36385	.87289	-.000161
16	8	85.56063	.50000	.87284	.000000

$$\theta_s = 5^\circ \quad M_1 = 5.0$$

zero grid

α	β	x	y	u	v
		5.71502	.50000	.90010	.078749
2		5.71502	.50000	.90581	.059436
4		5.71502	.50000	.91102	.039852
6		5.71502	.50000	.91572	.020028
8		5.71502	.50000	.91989	-.000000
	2	6.32629	.68343	.90156	.063761
2	2	6.36641	.67737	.90649	.046585
4	2	6.40981	.67017	.91098	.029233
6	2	6.45680	.66168	.91501	.011751
8	2	6.50770	.65173	.91856	-.005820
10	2	7.26621	.50000	.91731	.000000
	4	7.68473	1.06487	.90339	.048744
2	4	7.80044	1.04569	.90743	.034094
4	4	7.92445	1.02361	.91107	.019448
6	4	8.05707	.99835	.91431	.004883
8	4	8.19880	.96960	.91714	-.009517
10	4	8.91310	.82187	.91604	-.004873
12	4	10.49788	.50000	.91475	.000000
	6	11.73000	2.11803	.90578	.033687
2	6	12.02639	2.06487	.90874	.022265
4	6	12.33771	2.00607	.91138	.011099
6	6	12.66295	1.94165	.91369	.000334
8	6	13.00069	1.87171	.91566	-.009905
10	6	13.63813	1.73802	.91485	-.006224
12	6	15.13651	1.42841	.91394	-.002379
14	6	19.68239	.50000	.91335	.000000
	8	33.32873	7.26135	.90882	.018563
2	8	34.27436	7.08044	.91048	.011566
4	8	35.22720	6.89271	.91197	.004918
6	8	36.17365	6.70117	.91322	-.001084
8	8	37.09615	6.51003	.91425	-.006383
10	8	37.49785	6.42632	.91382	-.004266
12	8	38.75206	6.16738	.91333	-.001957
14	8	43.15504	5.26463	.91301	-.000536
16	8	66.49753	.50000	.91289	.000000

8 x 8 grid

1		5.71502	.50000	.90010	.078749
2		5.71502	.50000	.90302	.069128
3		5.71502	.50000	.90581	.059436
4		5.71502	.50000	.90848	.049676
5		5.71502	.50000	.91102	.039852
6		5.71502	.50000	.91343	.029968
7		5.71502	.50000	.91572	.020028
8		5.71502	.50000	.91787	.010037
		5.71502	.50000	.91989	-.000000

α	β	x	y	u	v
1	1	5.96833	.57739	.90079	.071258
	1	5.97681	.57621	.90351	.062153
	1	5.98568	.57490	.90612	.052977
	1	5.99492	.57347	.90861	.043742
	1	6.00456	.57189	.91098	.034455
	1	6.01460	.57018	.91323	.025118
	1	6.02508	.56830	.91536	.015736
	1	6.03600	.56627	.91736	.006313
	1	6.04741	.56404	.91923	-.003145
9	1	6.37186	.50000	.91858	.000000
1	2	6.32629	.68343	.90156	.063761
	2	6.34588	.68054	.90407	.055212
	2	6.36638	.67737	.90648	.046594
	2	6.38768	.67391	.90878	.037932
	2	6.40985	.67015	.91097	.029232
	2	6.43292	.66607	.91304	.020498
	2	6.45692	.66165	.91500	.011738
	2	6.48190	.65686	.91634	.002955
	2	6.50792	.65168	.91855	-.005845
	2	6.82365	.58806	.91793	-.003054
10	2	7.26572	.50000	.91729	.000000
1	3	6.85545	.83515	.90242	.056257
	3	6.89016	.82976	.90471	.048313
	3	6.92652	.82388	.90691	.040301
	3	6.96422	.81751	.90901	.032267
	3	7.00337	.81065	.91099	.024215
	3	7.04400	.80324	.91288	.016152
	3	7.08615	.79527	.91465	.008087
	3	7.12992	.78669	.91630	.000027
	3	7.17536	.77747	.91785	-.008021
	3	7.48112	.71476	.91727	-.005520
	3	7.91215	.62726	.91665	-.002872
	3	8.54558	.50000	.91602	.000000
1	4	7.68473	1.06487	.90339	.048744
	4	7.74109	1.05570	.90544	.041474
	4	7.80017	1.04572	.90741	.034134
	4	7.86127	1.03503	.90928	.026798
	4	7.92450	1.02356	.91106	.019471
	4	7.98989	1.01130	.91273	.012165
	4	8.05750	.99822	.91430	.004889
	4	8.12740	.98425	.91577	-.002344
	4	8.19966	.96936	.91713	-.009528
	4	8.91158	.82212	.91603	-.004917
	4	10.49771	.50000	.91486	.000000

α	β	x	y	u	v
	5	9.08890	1.43985	.90451	.041222
1	5	9.17811	1.42468	.90629	.034720
2	5	9.27190	1.40821	.90801	.028138
3	5	9.36847	1.39072	.90964	.021592
4	5	9.46797	1.37216	.91118	.015090
5	5	9.57039	1.35250	.91262	.008647
6	5	9.67573	1.33170	.91397	.002275
7	5	9.78401	1.30973	.91523	-.004010
8	5	9.89525	1.28656	.91639	-.010200
9	5	10.17216	1.22846	.91593	-.008199
10	5	10.57444	1.14471	.91543	-.006077
11	5	11.17562	1.02058	.91490	-.003969
12	5	12.12346	.82646	.91439	-.001945
13	5	13.72939	.50000	.91406	.000000
	6	11.73000	2.11803	.90578	.033687
1	6	11.87283	2.09275	.90726	.028088
2	6	12.02412	2.06524	.90871	.022376
3	6	12.17893	2.03636	.91007	.016736
4	6	12.33738	2.00605	.91136	.011179
5	6	12.49933	1.97433	.91255	.005721
6	6	12.66462	1.94118	.91367	.000380
7	6	12.83311	1.90663	.91470	-.004828
8	6	13.00467	1.87070	.91564	-.009891
9	6	13.25612	1.81773	.91527	-.008196
10	6	13.63484	1.73851	.91485	-.006332
11	6	14.21196	1.61865	.91441	-.004483
12	6	15.13522	1.42824	.91398	-.002742
13	6	16.71723	1.10381	.91365	-.001571
14	6	19.67516	.50000	.91334	.000000
	7	17.49544	3.53737	.90723	.026136
1	7	17.73363	3.49363	.90837	.021623
2	7	17.99128	3.44532	.90952	.016919
3	7	18.25236	3.39535	.91060	.012319
4	7	18.51698	3.34368	.91161	.007840
5	7	18.78460	3.29042	.91254	.003497
6	7	19.05466	3.23570	.91340	-.000692
7	7	19.32650	3.17966	.91420	-.004713
8	7	19.59959	3.12243	.91491	-.008552
9	7	19.80675	3.07886	.91464	-.007253
10	7	20.14514	3.00809	.91432	-.005725
11	7	20.68216	2.89647	.91398	-.004195
12	7	21.56691	2.71364	.91365	-.002747
13	7	23.12052	2.39413	.91339	-.001712
14	7	26.04322	1.79554	.91314	-.000777
15	7	32.38353	.50000	.91295	.000000

a	b	x	y	u	v
	8	33.32873	7.26135	.90882	.018563
1	8	33.75236	7.18093	.90959	.015383
2	8	34.24231	7.08653	.91042	.011837
3	8	34.73068	6.99099	.91120	.008409
4	8	35.21839	6.89419	.91192	.005122
5	8	35.70389	6.79652	.91258	.001991
6	8	36.18554	6.69835	.91318	-.000972
7	8	36.66145	6.60019	.91373	-.003759
8	8	37.13012	6.50244	.91423	-.006359
9	8	37.24826	6.47774	.91406	-.005536
10	8	37.50408	6.42449	.91384	-.004434
11	8	37.95978	6.33005	.91360	-.003312
12	8	38.76745	6.16343	.91337	-.002237
13	8	40.26535	5.85555	.91319	-.001426
14	8	43.13485	5.26757	.91303	-.000704
15	8	49.43409	3.98002	.91291	-.000241
16	8	66.47418	.50000	.91287	.000000

$$\theta_s = 5^\circ \quad M_1 = 7.0$$

zero grid

α	β	x	y	u	v
2		5.71502	.50000	.94087	.082316
4		5.71502	.50000	.94562	.062048
6		5.71502	.50000	.94985	.041550
8		5.71502	.50000	.95354	.020856
	2	6.34998	.65282	.94204	.070023
2	2	6.40609	.64779	.94625	.051553
4	2	6.46874	.64121	.94999	.032944
6	2	6.53896	.63277	.95324	.014247
8	2	6.61761	.62208	.95598	-.004488
10	2	7.48123	.50000	.95531	.000000
	4	7.58625	.93237	.94342	.057714
2	4	7.73846	.91699	.94704	.041276
4	4	7.90680	.89772	.95022	.024858
6	4	8.09309	.87388	.95296	.008544
8	4	8.29896	.84478	.95525	-.007565
10	4	9.11559	.72534	.95464	-.003861
12	4	10.68789	.50000	.95397	.000000
	6	10.40363	1.52645	.94508	.045382
2	6	10.74503	1.48828	.94802	.031339
4	6	11.11649	1.44256	.95057	.017544
6	6	11.51940	1.38849	.95275	.004148
8	6	11.95389	1.32548	.95453	-.008670
10	6	12.70420	1.21373	.95402	-.005543
12	6	14.20120	.99454	.95349	-.002378
14	6	17.62780	.50000	.95309	.000000
	8	18.52991	3.10942	.94703	.033016
2	8	19.31900	3.01347	.94920	.021901
4	8	20.15311	2.90471	.95106	.011294
6	8	21.02614	2.78356	.95261	.001415
8	8	21.92649	2.65159	.95384	-.007518
10	8	22.54888	2.55876	.95348	-.005127
12	8	23.91538	2.35766	.95310	-.002694
14	8	27.24208	1.87327	.95281	-.001003
16	8	36.75874	.50000	.95270	.000000

8 x 8 grid

1		5.71502	.50000	.94087	.082316
2		5.71502	.50000	.94331	.072213
3		5.71502	.50000	.94562	.062048
4		5.71502	.50000	.94780	.051826
5		5.71502	.50000	.94985	.041550
6		5.71502	.50000	.95176	.031225
7		5.71502	.50000	.95354	.020856
8		5.71502	.50000	.95519	.010446
				.95669	-.000000

α	β	x	y	u	v
1	1	5.98513	.56611	.94143	.076171
	1	5.99715	.56515	.94374	.066503
	1	6.00988	.56403	.94592	.056774
	1	6.02336	.56274	.94798	.046999
	1	6.03763	.56126	.94991	.037180
	1	6.05279	.55956	.95171	.027325
	1	6.06883	.55763	.95338	.017434
	1	6.08587	.55544	.95492	.007515
	1	6.10397	.55296	.95633	-.002427
	1	6.48350	.50000	.95599	.000000
2	2	6.34998	.65282	.94204	.070023
	2	6.37725	.65048	.94420	.060819
	2	6.40611	.64778	.94625	.051558
	2	6.43662	.64470	.94818	.042263
	2	6.46885	.64119	.94999	.032938
	2	6.50301	.63722	.95167	.023594
	2	6.53914	.63273	.95323	.014230
	2	6.57740	.62768	.95467	.004857
	2	6.61793	.62202	.95598	-.004518
	2	6.98743	.56938	.95564	-.002324
10	2	7.48059	.50000	.95530	.000000
3	3	6.85700	.76967	.94270	.063871
	3	6.90418	.76534	.94471	.055159
	3	6.95408	.76040	.94662	.046395
	3	7.00669	.75481	.94841	.037614
	3	7.06217	.74852	.95009	.028823
	3	7.12076	.74145	.95165	.020034
	3	7.18260	.73354	.95309	.011248
	3	7.24787	.72472	.95441	.002479
	3	7.31682	.71491	.95561	-.006261
	3	7.67525	.66293	.95529	-.004264
	3	8.15653	.59391	.95496	-.002200
11	3	8.81889	.50000	.95463	.000000
4	4	7.58625	.93237	.94342	.057714
	4	7.66024	.92514	.94527	.049533
	4	7.73843	.91697	.94703	.041302
	4	7.82066	.90784	.94868	.033078
	4	7.90709	.89765	.95021	.024870
	4	7.99807	.88632	.95164	.016689
	4	8.09375	.87375	.95295	.008542
	4	8.19432	.85987	.95416	.000446
	4	8.30012	.84456	.95524	-.007581
	4	8.64578	.79370	.95495	-.005752
	4	9.11405	.72550	.95463	-.003883
11	4	9.76152	.63215	.95432	-.001980
12	4	10.68727	.50000	.95401	.000000

α	β	x	y	u	v
1	5	8.67964	1.16808	.94421	.051551
2	5	8.79104	1.15655	.94589	.043950
3	5	8.90871	1.14366	.94749	.036298
4	5	9.03198	1.12938	.94898	.028682
5	5	9.16108	1.11362	.95037	.021113
6	5	9.29635	1.09628	.95165	.013603
7	5	9.43798	1.07724	.95283	.006167
8	5	9.58607	1.05644	.95391	-.001173
9	5	9.74096	1.03374	.95488	-.008400
10	5	10.07094	.98468	.95461	-.006731
11	5	10.52413	.91790	.95432	-.005017
12	5	11.15520	.82575	.95403	-.003316
13	5	12.06253	.69446	.95374	-.001654
	5	13.41843	.50000	.95353	.000000
1	6	10.40363	1.52645	.94508	.045382
2	6	10.56938	1.50839	.94658	.038421
3	6	10.74441	1.48832	.94800	.031405
4	6	10.92690	1.46638	.94933	.024456
5	6	11.11705	1.44243	.95056	.017590
6	6	11.31516	1.41637	.95169	.010823
7	6	11.52127	1.38813	.95273	.004174
8	6	11.73534	1.35763	.95367	-.002329
9	6	11.95747	1.32480	.95451	-.008664
10	6	12.26679	1.27851	.95427	-.007167
11	6	12.70100	1.21405	.95402	-.005599
12	6	13.31248	1.12403	.95376	-.004056
13	6	14.19931	.99452	.95350	-.002585
14	6	15.53371	.80099	.95328	-.001461
	6	17.62262	.50000	.95308	.000000
1	7	13.29457	2.10462	.94602	.039204
2	7	13.54288	2.07625	.94732	.032959
3	7	13.80542	2.04491	.94856	.026645
4	7	14.07733	2.01107	.94972	.020435
5	7	14.35879	1.97464	.95078	.014345
6	7	14.64974	1.93554	.95176	.008397
7	7	14.94996	1.89375	.95265	.002612
8	7	15.25884	1.84929	.95345	-.002975
9	7	15.57595	1.80220	.95416	-.008339
10	7	15.85617	1.76017	.95396	-.007042
11	7	16.26433	1.69940	.95374	-.005637
12	7	16.84979	1.61287	.95351	-.004253
13	7	17.71097	1.48651	.95329	-.002939
14	7	19.02351	1.29509	.95310	-.001929
15	7	21.08509	.99608	.95291	-.000951
	7	24.52044	.50000	.95277	.000000

α	β	x	y	u	v
	8	18.52991	3.10942	.94703	.033016
1	8	18.90998	3.06404	.94812	.027581
2	8	19.31361	3.01406	.94917	.022044
3	8	19.72802	2.96091	.95015	.016645
4	8	20.15311	2.90454	.95104	.011403
5	8	20.58802	2.84504	.95185	.006344
6	8	21.03177	2.78251	.95259	.001490
7	8	21.48259	2.71721	.95324	-.003125
8	8	21.93890	2.64941	.95382	-.007473
9	8	22.17549	2.61397	.95366	-.006416
10	8	22.54483	2.55901	.95348	-.005208
11	8	23.09213	2.47810	.95329	-.004013
12	8	23.91664	2.35698	.95311	-.002871
13	8	25.19985	2.16949	.95296	-.001970
14	8	27.23123	1.87410	.95280	-.001115
15	8	30.63800	1.38112	.95272	-.000332
16	8	36.74370	.50000	.95267	.000000

$$\theta_g = 10^\circ \quad M_1 = 1.3$$

zero grid

α	β	x	y	u	v
		2.83564	.50000	.46145	.081367
2		2.83564	.50000	.49313	.065214
4		2.83564	.50000	.52091	.045925
6		2.83564	.50000	.54585	.024062
8		2.83564	.50000	.56832	-.000000
	2	2.91286	.67425	.46523	.062586
2	2	2.93153	.65370	.49266	.049196
4	2	2.94634	.63893	.51727	.032401
6	2	2.95933	.62665	.53960	.012969
8	2	2.97134	.61562	.55984	-.008658
10	2	3.09772	.50000	.55145	.000000
	4	3.09918	1.04296	.47049	.043626
2	4	3.14983	.98327	.49256	.032512
4	4	3.19120	.93856	.51287	.018449
6	4	3.22785	.90093	.53153	.002103
8	4	3.26179	.86713	.54854	-.016124
10	4	3.37371	.75580	.54066	-.009110
12	4	3.62615	.50000	.53025	.000000
	6	3.83336	2.28375	.47901	.024392
2	6	3.96277	2.12388	.49376	.015819
4	6	4.07350	1.99480	.50770	.005541
6	6	4.17329	1.88299	.52062	-.006011
8	6	4.26574	1.78203	.53241	-.018538
10	6	4.34519	1.69541	.52637	-.013066
12	6	4.55099	1.46688	.51830	-.006557
14	6	5.39645	.50000	.50891	.000000
	8	34.15622	42.32493	.49690	.004605
2	8	34.99461	41.30302	.49927	.002788
4	8	36.03464	40.04581	.50309	-.000305
6	8	37.01839	38.86967	.50643	-.003229
8	8	37.91789	37.80382	.50947	-.005965
10	8	37.54499	38.24479	.50822	-.004796
12	8	37.19493	38.66079	.50604	-.002873
14	8	37.49611	38.29907	.50387	-.001046
16	8	68.85244	.50000	.50247	.000000

8 x 8 grid

1		2.83564	.50000	.46145	.081367
2		2.83564	.50000	.47790	.073733
3		2.83564	.50000	.49313	.065214
4		2.83564	.50000	.50741	.055919
5		2.83564	.50000	.52091	.045925
6		2.83564	.50000	.53371	.035290
7		2.83564	.50000	.54585	.024062
8		2.83564	.50000	.55739	.012285
		2.83564	.50000	.56832	-.000000

α	θ	x	y	u	v
1	1	2.86720	.57379	.46321	.071995
	1	2.87176	.56882	.47852	.065128
	1	2.87558	.56492	.49283	.057273
	1	2.87898	.56160	.50632	.048597
	1	2.88209	.55866	.51912	.039196
	1	2.88502	.55598	.53128	.029138
	1	2.88780	.55347	.54284	.018478
	1	2.89048	.55108	.55384	.007263
	1	2.89307	.54880	.56427	-.004461
	1	2.94850	.50000	.56023	.000000
2	2	2.91286	.67425	.46523	.062586
	2	2.92303	.66275	.47931	.056398
	2	2.93163	.65362	.49260	.049179
	2	2.93933	.64581	.50521	.041131
	2	2.94641	.63887	.51720	.032356
	2	2.95307	.63252	.52863	.022927
	2	2.95940	.62659	.53952	.012902
	2	2.96549	.62096	.54989	.002330
	2	2.97140	.61556	.55975	-.008743
	2	3.02446	.56711	.55576	-.004699
10	2	3.09759	.50000	.55125	.000000
3	3	2.98282	.81865	.46761	.053132
	3	3.00022	.79830	.48032	.047527
	3	3.01509	.78190	.49246	.040913
	3	3.02847	.76777	.50403	.033503
	3	3.04084	.75515	.51509	.025395
	3	3.05248	.74359	.52566	.016662
	3	3.06356	.73279	.53575	.007360
	3	3.07423	.72254	.54537	-.002462
	3	3.08457	.71270	.55453	-.012762
	3	3.13471	.66508	.55065	-.009092
10	3	3.20434	.59853	.54622	-.004943
11	3	3.30658	.50000	.54112	.000000
4	4	3.09918	1.04296	.47049	.043626
	4	3.12647	1.01007	.48166	.038534
	4	3.15011	.98304	.49247	.032519
	4	3.17155	.95950	.50283	.025786
	4	3.19145	.93835	.51277	.018422
	4	3.21020	.91891	.52229	.010491
	4	3.22810	.90071	.53141	.002045
	4	3.24533	.88345	.54012	-.006867
	4	3.26203	.86688	.54841	-.016207
	4	3.30826	.82107	.54474	-.012875
10	4	3.37338	.75606	.54050	-.009168
11	4	3.46991	.65882	.53559	-.004977
12	4	3.62560	.50000	.52992	.000000

α	β	x	y	u	v
	5	3.31873	1.43590	.47413	.034054
1	5	3.36085	1.38392	.48353	.029469
2	5	3.39804	1.33998	.49276	.024100
3	5	3.43208	1.30117	.50166	.018139
4	5	3.46385	1.26600	.51024	.011655
5	5	3.49388	1.23349	.51848	.004704
6	5	3.52258	1.20299	.52638	-.002667
7	5	3.55022	1.17401	.53394	-.010419
8	5	3.57700	1.14623	.54113	-.018512
9	5	3.61741	1.10434	.53783	-.015531
10	5	3.67607	1.04305	.53395	-.012202
11	5	3.76466	.94961	.52944	-.008544
12	5	3191019	.79425	.52424	-.004542
13	5	4.18087	.50000	.51829	.000000
	6	3.83336	2.28375	.47901	.024392
1	6	3.90128	2.19866	.48629	.020446
2	6	3.96330	2.12351	.49361	.015878
3	6	4.02067	2.05590	.50071	.010896
4	6	4.07458	1.99385	.50756	.005551
5	6	4.12577	1.93604	.51416	-.000112
6	6	4.17477	1.88157	.52049	-.006058
7	6	4.22195	1.82976	.52654	-.012246
8	6	4.26759	1.78014	.53229	-.018642
9	6	4.29734	1.74781	.52961	-.016157
10	6	4.34481	1.69588	.52636	-.013281
11	6	4.42011	1.61278	.52260	-.010138
12	6	4.54950	1.46840	.51828	-.006780
13	6	4.80000	1.18502	.51349	-.003356
14	6	5.39274	.50000	.50810	.000000
	7	5.72994	5.11563	.48612	.014594
1	7	5.85504	4.95899	.49064	.011761
2	7	5.98151	4.80374	.49555	.008381
3	7	6.09991	4.66098	.50033	.004799
4	7	6.21219	4.52769	.50495	.001059
5	7	6.31933	4.40217	.50939	-.002808
6	7	6.42201	4.28324	.51363	-.006772
7	7	6.52071	4.17000	.51767	-.010304
8	7	6.61576	4.06177	.52149	-.014873
9	7	6.61673	4.06067	.51988	-.013301
10	7	6.63555	4.03916	.51766	-.011233
11	7	6.67793	3.99040	.51509	-.008941
12	7	6.76927	3.88453	.51217	-.006470
13	7	6.97654	3.64205	.50899	-.003954
14	7	7.51971	2.99956	.50584	-.001665
15	7	9.60077	.50000	.50244	.000000

α	β	x	y	u	v
	8	34.15622	42.32493	.49690	.004605
1	8	34.17057	42.30733	.49717	.004392
2	8	34.86687	41.45855	.49905	.002959
3	8	35.48971	40.70439	.50107	.001341
4	8	36.08144	39.99246	.50304	-.000301
5	8	36.64796	39.31476	.50494	-.001934
6	8	37.19016	38.66950	.50674	-.003540
7	8	37.70807	38.05602	.50843	-.005106
8	8	38.20133	37.47408	.51002	-.006620
9	8	37.97085	37.74589	.50977	-.006350
10	8	37.74363	38.01436	.50894	-.005579
11	8	37.51674	38.28315	.50790	-.004628
12	8	37.30603	38.53361	.50669	-.003557
13	8	37.18769	38.67482	.50536	-.002416
14	8	37.41406	38.40355	.50405	-.001317
15	8	39.17721	36.28152	.50281	-.000307
16	8	68.86340	.50000	.50233	.000000

$$\theta_s = 10^\circ \quad M_1 = 1.5$$

zero grid

α	β	x	y	u	v
2	2.83564	.50000		.51595	.090976
	2.83564	.50000		.54214	.071696
	2.83564	.50000		.56633	.049929
	2.83564	.50000		.58856	.025944
	2.83564	.50000		.60881	.000000
4	2.96030	.68014		.52007	.070454
	2.97671	.66719		.54260	.053835
	2.99211	.65538		.56365	.034799
	3.00696	.64411		.58314	.013639
	3.02152	.63303		.60096	-.009383
	3.19572	.50000		.59330	.000000
6	3.25722	1.06870		.52572	.049742
	3.30297	1.03016		.54375	.035832
	3.34637	.99444		.56077	.019962
	3.38836	.96027		.57661	.002397
	3.42951	.92681		.59114	-.016615
	3.58638	.79867		.58415	-.009112
	3.95022	.50000		.57558	.000000
8	4.40014	2.39652		.53455	.028738
	4.52147	2.28910		.54659	.018404
	4.63832	2.18717		.55805	.007010
	4.75167	2.08908		.56870	-.005162
	4.86203	1.99376		.57839	-.017876
	4.98141	1.89040		.57331	-.012132
	5.29633	1.61648		.56699	-.005700
10	6.56989	.50000		.56067	.000000
	33.73688	31.05133		.55052	.007128
	34.44949	30.41191		.55321	.004359
	35.26043	29.68590		.55677	.000504
	36.04483	28.98522		.55989	-.003058
	36.77604	28.33306		.56263	-.006330
	36.54844	28.53595		.56138	-.004830
12	36.47087	28.60507		.55949	-.002653
	37.41164	27.76421		.55786	-.000839
	67.88333	.50000		.55701	.000000

8 x 8 grid

1	2.83564	.50000	.51595	.090976
2	2.83564	.50000	.52930	.081664
3	2.83564	.50000	.54214	.071696
4	2.83564	.50000	.55448	.061106
5	2.83564	.50000	.56633	.049929
6	2.83564	.50000	.57769	.038198
7	2.83564	.50000	.58856	.025944
8	2.83564	.50000	.59894	.013201
			.60881	.000000

α	β	x	y	u	v
1	1	2.88679	.57591	.51787	.080736
	1	2.89052	.57305	.53029	.072100
	1	2.89407	.57038	.54229	.062789
	1	2.89749	.56783	.55386	.052857
	1	2.90084	.56537	.56499	.042340
	1	2.90412	.56297	.57568	.031272
	1	2.90736	.56059	.58592	.019687
	1	2.91057	.55824	.59571	.007617
	1	2.91375	.55588	.60504	-.004904
	1	2.98929	.50000	.60128	.000000
2	2	2.96030	.68014	.52007	.070454
	2	2.96873	.67343	.53148	.062479
	2	2.97678	.66714	.54257	.053833
	2	2.98457	.66114	.55328	.044586
	2	2.99218	.65533	.56361	.034774
	2	2.99965	.64965	.57355	.024433
	2	3.00703	.64405	.58308	.013594
	2	3.01433	.63850	.59221	.002289
	2	3.02159	.63296	.60090	-.009447
	2	3.09418	.57749	.59723	-.005050
10	2	3.19556	.50000	.59316	.000000
3	3	3.07222	.83135	.52264	.060126
	3	3.08685	.81931	.53294	.052802
	3	3.10089	.80796	.54300	.044837
	3	3.11452	.79708	.55275	.036314
	3	3.12784	.78653	.56217	.027270
	3	3.14094	.77621	.57125	.017736
	3	3.15387	.76605	.57997	.007744
	3	3.16667	.75599	.58831	-.002673
	3	3.17938	.74597	.59627	-.013485
	3	3.24836	.69148	.59275	-.009524
	3	3.34553	.61464	.58881	-.005117
	3	3.49020	.50000	.58441	.000000
4	4	3.25722	1.06870	.52572	.049742
	4	3.28056	1.04889	.53478	.043096
	4	3.30312	1.03004	.54368	.035860
	4	3.32508	1.01189	.55233	.028137
	4	3.34659	.99426	.56070	.019961
	4	3.36774	.97701	.56877	.011360
	4	3.38863	.96003	.57653	.002367
	4	3.40931	.94323	.58397	-.006987
	4	3.42983	.92651	.59105	-.016673
	4	3.49409	.87406	.58778	-.013098
	4	3.58596	.79893	.58407	-.009180
	4	3.72410	.68569	.57992	-.004896
12	4	3.94960	.50000	.57533	.000000

α	ρ	x	y	u	v
1	5	3.60343	1.48863	.52956	.039287
2	5	3.64018	1.45661	.53718	.033412
3	5	3.67612	1.42568	.54475	.027013
4	5	3.71122	1.39576	.55211	.020226
5	5	3.74566	1.36662	.55925	.013084
6	5	3.77956	1.33807	.56613	.005614
7	5	3.81302	1.30996	.57275	-.002152
8	5	3.84612	1.28217	.57908	-.010186
9	5	3.87891	1.25461	.58510	-.018452
10	5	4.02064	1.13512	.57893	-.011784
11	5	4.15000	1.02567	.57521	-.008059
12	5	4.36478	.84331	.57112	-.004163
13	5	4.76626	.50000	.56672	.000000
	6	4.40014	2.39652	.53455	.028738
1	6	4.46061	2.34277	.54046	.023857
2	6	4.52129	2.28931	.54645	.018504
3	6	4.58070	2.23735	.55229	.012895
4	6	4.63906	2.18657	.55794	.007060
5	6	4.69652	2.13677	.56338	.001028
6	6	4.75317	2.08779	.56860	-.005172
7	6	4.80906	2.03948	.57358	-.011509
8	6	4.86426	1.99176	.57830	-.017950
9	6	4.90901	1.95303	.57605	-.015359
10	6	4.98081	1.89081	.57335	-.012368
11	6	5.09587	1.79087	.57033	-.009192
12	6	5.29434	1.61798	.56703	-.005935
13	6	5.67692	1.28345	.56361	-.002805
14	6	6.56589	.50000	.56009	.000000
	7	7.13272	5.29258	.54135	.018045
1	7	7.24390	5.19266	.54506	.014679
2	7	7.36681	5.08275	.54915	.010763
3	7	7.48695	4.97578	.55313	.006731
4	7	7.60496	4.87106	.55697	.002624
5	7	7.72087	4.76845	.56065	-.001533
6	7	7.83465	4.66788	.56416	-.005714
7	7	7.94627	4.56931	.56749	-.009891
8	7	8.05562	4.47274	.57062	-.014035
9	7	8.06897	4.46095	.56928	-.012397
10	7	8.11026	4.42445	.56745	-.010248
11	7	8.19197	4.35215	.56540	-.007928
12	7	8.35432	4.20827	.56318	-.005521
13	7	8.69936	3.90190	.56092	-.003206
14	7	9.55009	3.14471	.55889	-.001255
15	7	12.50655	.50000	.55696	.000000

α	β	x	y	u	v
	8	33.73688	31.05133	.55052	.007128
1	8	33.83951	30.95912	.55111	.006522
2	8	34.34194	30.50838	.55292	.004653
3	8	34.80985	30.08927	.55480	.002647
4	8	35.26400	29.68301	.55661	.000651
5	8	35.70577	29.28826	.55834	-.001305
6	8	36.13425	28.90566	.55997	-.003207
7	8	36.54824	28.53625	.56150	-.005041
8	8	36.94646	28.18104	.56292	-.006796
9	8	36.79066	28.31999	.56261	-.006398
10	8	36.65667	28.43950	.56184	-.005475
11	8	36.55342	28.53164	.56092	-.004390
12	8	36.51977	28.56166	.55991	-.003224
13	8	36.67011	28.42733	.55887	-.002059
14	8	37.35097	27.81858	.55794	-.001034
15	8	40.16545	25.30061	.55720	-.000225
16	8	67.87691	.50000	.55694	.000000

$$\theta_B = 10^0 \quad M_1 = 1.7$$

zero grid

α	β	x	y	u	v
		2.83564	.50000	.56369	.099394
2		2.83564	.50000	.58730	.077668
4		2.83564	.50000	.60937	.053724
6		2.83564	.50000	.62975	.027760
8		2.83564	.50000	.64833	.000000
	2	2.99673	.68246	.56804	.077604
2	2	3.01346	.67204	.58834	.058656
4	2	3.03013	.66163	.60742	.037648
6	2	3.04688	.65103	.62512	.014779
8	2	3.06384	.64007	.64129	-.009737
10	2	3.27870	.50000	.63449	.000000
	4	3.37821	1.07744	.57394	.055618
2	4	3.42555	1.04584	.59019	.039709
4	4	3.47280	1.01424	.60554	.022192
6	4	3.52029	.98219	.61979	.003271
8	4	3.56820	.94936	.63280	-.016835
10	4	3.76380	.81422	.62668	-.009080
12	4	4.22001	.50000	.61947	.000000
	6	4.79844	2.39883	.58282	.033333
2	6	4.92515	2.30952	.59380	.021530
4	6	5.05191	2.22000	.60418	.008912
6	6	5.17855	2.13001	.61375	-.004244
8	6	5.30470	2.03949	.62238	-.017695
10	6	5.46020	1.92739	.61799	-.011767
12	6	5.86671	1.63493	.61274	-.005348
14	6	7.44481	.50000	.60787	.000000
	8	28.62873	21.54692	.59735	.010447
2	8	29.27941	21.07572	.60064	.006327
4	8	29.96904	20.57542	.60436	.001420
6	8	30.61080	20.08692	.60761	-.003102
8	8	31.27303	19.62592	.61043	-.007223
10	8	31.15922	19.70889	.60911	-.005309
12	8	31.27402	19.62519	.60731	-.002783
14	8	32.61642	18.64808	.60583	-.000798
16	8	57.57253	.50000	.60527	.000000

8 x 8 grid

1		2.83564	.50000	.56369	.099394
2		2.83564	.50000	.57568	.088820
3		2.83564	.50000	.58730	.077668
4		2.83564	.50000	.59854	.065961
5		2.83564	.50000	.60937	.053724
6		2.83564	.50000	.61978	.040981
7		2.83564	.50000	.62975	.027760
8		2.83564	.50000	.63927	.014090
				.64833	.000000

α	β	x	y	u	v
1	1	2.90178	.57675	.57675	.088520
2	1	2.90549	.57453	.57453	.078632
3	1	2.90915	.57234	.57234	.068166
4	1	2.91281	.57015	.57015	.057157
5	1	2.91647	.56794	.56794	.045630
6	1	2.92012	.56571	.56571	.033610
7	1	2.92380	.56344	.56344	.021125
8	1	2.92751	.56113	.56113	.008201
9	1	2.93124	.55878	.55878	-.005131
		3.02388	.50000	.50000	.000000
1	2	2.99673	.68246	.68246	.077604
2	2	3.00515	.67721	.67721	.068414
3	2	3.01351	.67201	.67201	.058659
4	2	3.02184	.66681	.66681	.048389
5	2	3.03019	.66159	.66159	.037630
6	2	3.03855	.65632	.65632	.026405
7	2	3.04695	.65097	.65097	.014740
8	2	3.05540	.64554	.64554	.002664
9	2	3.06392	.64000	.64000	-.009795
10	2	3.15317	.58167	.58167	-.005214
		3.27850	.50000	.50000	.000000
1	3	3.14096	.83617	.83617	.066639
2	3	3.15570	.82665	.82665	.058171
3	3	3.17036	.81718	.81718	.049165
4	3	3.18499	.80773	.80773	.039691
5	3	3.19963	.79823	.79823	.029773
6	3	3.21431	.78866	.78866	.019435
7	3	3.22905	.77897	.77897	.008704
8	3	3.24387	.76915	.76915	-.002393
9	3	3.25880	.75914	.75914	-.013829
10	3	3.34397	.70182	.70182	-.009713
11	3	3.46460	.62083	.62083	-.005181
		3.64488	.50000	.50000	.000000
1	4	3.37821	1.07744	1.07744	.055618
2	4	3.40191	1.06161	1.06161	.047931
3	4	3.42563	1.04579	1.04579	.039747
4	4	3.44930	1.02998	1.02998	.031162
5	4	3.47299	1.01411	1.01411	.022201
6	4	3.49674	.99812	.99812	.012889
7	4	3.52057	.98198	.98198	.003251
8	4	3.54450	.96565	.96565	-.006682
9	4	3.56857	.94906	.94906	-.016884
10	4	3.64847	.89380	.89380	-.013177
11	4	3.76330	.81450	.81450	-.009154
12	4	3.93652	.69504	.69504	-.004831
		4.21933	.50000	.50000	.000000

α	β	x	y	u	v
	5	3.81727	1.50190	.57786	.044524
1	5	3.85488	1.47603	.58475	.037746
2	5	3.89287	1.44992	.59159	.030513
3	5	3.93081	1.42381	.59823	.022971
4	5	3.96877	1.39763	.60466	.015146
5	5	4.00678	1.37131	.61084	.007063
6	5	4.04487	1.34479	.61677	-.001248
7	5	4.08303	1.31804	.62242	-.009759
8	5	4.12132	1.29101	.62777	-.018436
9	5	4.19353	1.23986	.62528	-.015164
10	5	4.30037	1.16427	.62242	-.011571
11	5	4.46436	1.04834	.61928	-.007814
12	5	4.73616	.85632	.61591	-.003973
13	5	5.23949	.50000	.61241	.000000
	6	4.79844	2.39883	.58282	.033333
1	6	4.86045	2.35512	.58820	.027714
2	6	4.92456	2.30994	.59366	.021656
3	6	4.98851	2.26482	.59896	.015403
4	6	5.05239	2.21965	.60407	.008986
5	6	5.11622	2.17436	.60897	.002430
6	6	5.17996	2.12895	.61366	-.004232
7	6	5.24358	2.08339	.61810	-.010969
8	6	5.30706	2.03767	.62230	-.017746
9	6	5.36579	1.99528	.62035	-.015073
10	6	5.45933	1.92787	.61803	-.012004
11	6	5.60871	1.82031	.61549	-.008796
12	6	5.86437	1.63635	.61278	-.005577
13	6	6.34973	1.28721	.61007	-.002574
14	6	7.44070	.50000	.60742	.000000
	7	7.87454	5.03756	.58924	.022000
1	7	7.98688	4.95702	.59275	.018041
2	7	8.11292	4.86659	.59659	.013523
3	7	8.23793	4.77679	.60030	.008929
4	7	8.36225	4.68731	.60387	.004298
5	7	8.48574	4.59821	.60727	-.000341
6	7	8.60818	4.50960	.61050	-.004962
7	7	8.72933	4.42163	.61354	-.009535
8	7	8.84896	4.33443	.61638	-.014029
9	7	8.87650	4.31433	.61518	-.012283
10	7	8.94018	4.26793	.61358	-.010029
11	7	9.05773	4.18238	.61181	-.007635
12	7	9.28008	4.02075	.60995	-.005207
13	7	9.73226	3.69229	.60813	-.002942
14	7	10.79147	2.92320	.60656	-.001114
15	7	14.12141	.50000	.60518	.000000

α	β	x	y	u	v
	8	28.62873	21.54692	.59735	.010447
1	8	28.80335	21.42052	.59838	.009170
2	8	29.20403	21.13033	.60034	.006704
3	8	29.58690	20.85272	.60229	.004162
4	8	29.96220	20.58027	.60416	.001659
5	8	30.32982	20.31301	.60593	-.000778
6	8	30.68851	20.05185	.60759	-.003134
7	8	31.03694	19.79776	.60914	-.005392
8	8	31.37379	19.55169	.61057	-.007539
9	8	31.27790	19.62172	.61020	-.006970
10	8	31.21713	19.66607	.60943	-.005854
11	8	31.20557	19.67448	.60854	-.004594
12	8	31.29498	19.60931	.60760	-.003281
13	8	31.62034	19.37232	.60667	-.002017
14	8	32.57460	18.67766	.60588	-.000966
15	8	35.82549	16.31207	.60531	-.000218
16	8	57.55589	.50000	.60514	.000000

$$\theta_s = 10^{\circ} \quad M_1 = 2.0$$

zero grid

α	ρ	x	y	u	v
2	2.83564	.50000		.62460	.110135
	2.83564	.50000		.64604	.085435
	2.83564	.50000		.66607	.058723
	2.83564	.50000		.68452	.030174
	2.83564	.50000		.70122	.000000
4	3.03872	.68173		.62915	.087202
	3.05724	.67294		.64761	.065451
	3.07644	.66356		.66491	.041896
	3.09640	.65345		.68086	.016709
	3.11719	.64247		.69529	-.009908
8	3.38331	.50000		.68960	.000000
	4	3.51119	1.07039	.63518	.064077
2	4	3.56398	1.04337	.65007	.045674
4	4	3.61854	1.01479	.66402	.025917
6	4	3.67499	.98438	.67685	.005771
8	4	3.73338	.95189	.68840	-.016838
10	4	3.97800	.81416	.68333	-.008938
12	4	4.54145	.50000	.67758	.000000
2	6	5.14528	2.28784	.64381	.040660
	6	5.28470	2.21197	.65416	.026735
	6	5.42777	2.13277	.66383	.012180
	6	5.57384	2.05030	.67262	-.002704
	6	5.72219	1.96472	.68041	-.017643
	6	5.92485	1.84696	.67674	-.011531
	6	6.43843	1.55064	.67252	-.005130
14	6	8.27049	.50000	.66880	.000000
4	8	21.51125	13.02264	.65655	.016700
	8	22.09317	12.69276	.66081	.010171
	8	22.68511	12.35437	.66504	.003287
	8	23.26634	12.01915	.66872	-.003090
	8	23.82109	11.69649	.67186	-.008877
	8	23.82828	11.69228	.67042	-.006286
	8	24.13756	11.51273	.66865	-.003201
	8	25.80690	10.54702	.66723	-.000852
16	8	43.20236	.50000	.66662	.000000

8 x 8 grid

1	2.83564	.50000	.62460	.110135
2	2.83564	.50000	.63548	.098046
3	2.83564	.50000	.64604	.085435
4	2.83564	.50000	.65624	.072320
5	2.83564	.50000	.66607	.058723
6	2.83564	.50000	.67550	.044666
7	2.83564	.50000	.68452	.030174
8	2.83564	.50000	.69310	.015276
			.70122	.000000

α	β	x	y	u	v
1	1	2.91922	.57651	.62674	.098689
	1	2.92325	.57470	.63688	.087318
	1	2.92734	.57283	.64673	.075431
	1	2.93150	.57088	.65626	.063061
	1	2.93574	.56887	.66545	.050227
	1	2.94006	.56677	.67427	.036953
	1	2.94448	.56458	.68271	.023262
	1	2.94899	.56229	.69073	.009181
	1	2.95360	.55990	.69833	-.005262
	1	3.06807	.50000	.69547	.000000
2	2	3.03872	.68173	.62915	.087202
	2	3.04792	.67740	.63849	.076579
	2	3.05728	.67293	.64759	.065457
	2	3.06681	.66831	.65639	.053885
	2	3.07650	.66352	.66488	.041881
	2	3.08639	.65856	.67303	.029470
	2	3.09648	.65340	.68082	.016674
	2	3.10678	.64801	.68823	.003519
	2	3.11729	.64240	.69525	-.009965
	2	3.22784	.58295	.69248	-.005273
10	2	3.38308	.50000	.68951	.000000
3	3	3.21891	.83400	.63193	.075668
	3	3.23509	.82608	.64039	.065837
	3	3.25157	.81790	.64866	.055533
	3	3.26833	.80946	.65666	.044827
	3	3.28538	.80076	.66437	.033739
	3	3.30275	.79174	.67177	.022291
	3	3.32044	.78240	.67885	.010509
	3	3.33850	.77269	.68557	-.001578
	3	3.35688	.76261	.69193	-.013946
	3	3.46278	.70417	.68931	-.009732
10	3	3.61274	.62187	.68645	-.005150
11	3	3.83597	.50000	.68339	.000000
4	4	3.51119	1.07039	.63518	.064077
	4	3.53729	1.05710	.64267	.055119
	4	3.56400	1.04336	.65001	.045720
	4	3.59112	1.02523	.65712	.035984
	4	3.61870	1.01469	.66396	.025934
	4	3.64676	.99968	.67052	.015595
	4	3.67528	.98419	.67679	.004992
	4	3.70431	.96816	.68273	-.005842
	4	3.73380	.95160	.68834	-.016879
	4	3.83380	.89514	.68594	-.013085
10	4	3.97738	.81444	.68329	-.009012
11	4	4.19298	.69381	.68042	-.004708
12	4	4.54067	.50000	.67742	.000000

α	β	x	y	u	v
1	5	4.03729	1.47622	.63907	.052415
2	5	4.07871	1.45441	.64545	.044472
3	5	4.12138	1.43173	.65176	.036116
4	5	4.16467	1.40849	.65785	.027509
5	5	4.20860	1.38464	.66372	.018677
6	5	4.25317	1.36014	.66933	.009647
7	5	4.29835	1.33499	.67467	.000450
8	5	4.34419	1.30912	.67972	-.008880
9	5	4.39060	1.28255	.68447	-.018309
10	5	4.48218	1.22987	.68239	-.014954
11	5	4.61723	1.15250	.68004	-.011309
12	5	4.82319	1.03496	.67750	-.007557
13	5	5.15960	.84370	.67485	-.003796
	5	5.76520	.50000	.67218	.000000
1	6	5.14528	2.28784	.64381	.040660
2	6	5.21291	2.25118	.64891	.033977
3	6	5.28383	2.21243	.65404	.026881
4	6	5.35552	2.17291	.65899	.019636
5	6	5.42801	2.13258	.66373	.012274
6	6	5.50124	2.09142	.66825	.004827
7	6	5.57511	2.04947	.67253	-.002670
8	6	5.64960	2.00671	.67657	-.010182
9	6	5.72454	1.96319	.68033	-.017669
10	6	5.80210	1.91802	.67869	-.014894
11	6	5.92360	1.84749	.67677	-.011750
12	6	6.11501	1.73679	.67469	-.008516
13	6	6.43579	1.55189	.67253	-.005335
14	6	7.02448	1.21361	.67043	-.002433
	6	8.26645	.50000	.66846	.000000
1	7	8.16042	4.37302	.64962	.028773
2	7	8.27922	4.30706	.65320	.023782
3	7	8.41075	4.23357	.65699	.018260
4	7	8.54271	4.15934	.66062	.012695
5	7	8.67521	4.08426	.66409	.007130
6	7	8.80801	4.00844	.66738	.001595
7	7	8.94076	3.93206	.67048	-.003875
8	7	9.07319	3.85527	.67336	-.009248
9	7	9.20487	3.77830	.67604	-.014484
10	7	9.25352	3.74981	.67495	-.012550
11	7	9.34779	3.69477	.67356	-.010135
12	7	9.51080	3.59990	.67205	-.007618
13	7	9.80266	3.43057	.67050	-.005120
14	7	10.35340	3.10613	.66902	-.002849
15	7	11.57970	2.40398	.66778	-.001071
	7	14.88464	.50000	.66747	.000000

α	β	x	y	u	v
	8	21.51125	13.02264	.65655	.016700
1	8	21.73069	12.89854	.65824	.014146
2	8	22.05187	12.71619	.66053	.010604
3	8	22.36649	12.53673	.66274	.007059
4	8	22.67792	12.35827	.66484	.003592
5	8	22.98527	12.18131	.66680	.000229
6	8	23.28733	12.00660	.66863	-.003008
7	8	23.58285	11.83489	.67033	-.006099
8	8	23.87048	11.66702	.67187	-.009021
9	8	23.83683	11.68666	.67140	-.008145
10	8	23.85107	11.67835	.67060	-.006717
11	8	23.93211	11.63121	.66973	-.005173
12	8	24.14168	11.50957	.66882	-.003611
13	8	24.62630	11.22882	.66796	-.002160
14	8	25.78150	10.56070	.66725	-.001006
15	8	29.05975	8.66617	.66696	-.000625
16	8	43.18983	.50000	.66650	.000000

$$\theta_B = 10^\circ \quad M_1 = 3.0$$

zero grid

	x	y	u	v
2	2.83564	.50000	.75964	.133946
2	2.83564	.50000	.77757	.102830
2	2.83564	.50000	.79396	.069998
2	2.83564	.50000	.80865	.035646
2	2.83564	.50000	.82146	.000000
2	3.10711	.66116	.76398	.111539
2	3.13314	.65468	.77973	.083439
2	3.16168	.64686	.79412	.053867
2	3.19296	.63745	.80696	.023021
2	3.22727	.62617	.81811	-.008871
2	3.59951	.50000	.81492	.000000
4	3.67097	.97179	.76933	.088988
4	3.74280	.95201	.78258	.064310
4	3.82090	.92880	.79463	.038570
4	3.90566	.90166	.80532	.012016
4	3.99753	.87002	.81450	-.015059
4	4.34518	.74718	.81163	-.007810
4	5.05757	.50000	.80857	.000000
6	5.13346	1.71162	.77610	.066233
6	5.30257	1.66091	.78641	.045751
6	5.48381	1.60335	.79571	.024813
6	5.67701	1.53840	.80384	.003782
6	5.88159	1.46576	.81070	-.016926
6	6.19098	1.35385	.80842	-.010944
6	6.85944	1.11535	.80594	-.005008
6	8.60364	.50000	.80333	.000000
8	10.70320	4.26152	.78459	.043166
8	11.14785	4.11876	.79143	.028255
8	11.61061	3.96424	.79753	.013557
8	12.08573	3.79955	.80272	-.000404
8	12.56456	3.62773	.80697	-.013213
8	12.78396	3.54817	.80552	-.009100
8	13.36206	3.34070	.80395	-.004869
8	15.02096	2.75119	.80246	-.001072
8	21.38745	.50000	.80196	.000000

8 x 8 grid

2.83564	.50000	.75964	.133946
2.83564	.50000	.76878	.118613
2.83564	.50000	.77757	.102830
2.83564	.50000	.78597	.086617
2.83564	.50000	.79396	.069998
2.83564	.50000	.80153	.052999
2.83564	.50000	.80865	.035646
2.83564	.50000	.81529	.017969
2.83564	.50000	.82146	.000000

α	β	x	y	u	v
1	1	2.94965	.56901	.76170	.122759
2	1	2.95525	.56779	.77030	.108150
3	1	2.96112	.56637	.77857	.093107
4	1	2.96726	.56481	.78648	.077660
5	1	2.97371	.56307	.79400	.061833
6	1	2.98046	.56116	.80111	.045650
7	1	2.98755	.55905	.80779	.029139
8	1	2.99499	.55673	.81402	.012326
9	1	3.00280	.55417	.81979	-.004755
	1	3.16539	.50000	.81816	.000000
1	2	3.0711	.66116	.76398	.111539
2	2	3.1983	.65807	.77200	.097700
3	2	3.3317	.65467	.77972	.083445
4	2	3.4712	.65094	.78709	.068822
5	2	3.6174	.64684	.79410	.053852
6	2	3.7703	.64234	.80072	.038564
7	2	3.9306	.63741	.80694	.022985
8	2	20983	.63202	.81273	.007143
9	2	3.22741	.62610	.81808	-.008930
10	2	3.38503	.57231	.81650	-.004643
	2	3.59919	.50000	.81486	.000000
1	3	3.33264	.78832	.76650	.100284
2	3	3.35477	.78264	.77390	.087263
3	3	3.37797	.77642	.78103	.073849
4	3	3.40222	.76964	.78783	.060112
5	3	3.42754	.76224	.79429	.046078
6	3	3.45398	.75419	.80039	.031773
7	3	3.48163	.74541	.80610	.017229
8	3	3.51049	.73587	.81141	.002479
9	3	3.51066	.72549	.81630	-.012444
10	3	3.69265	.67249	.81480	-.008555
11	3	3.90065	.60064	.81322	-.004452
	3	4.19490	.50000	.81159	.000000
1	4	3.67097	.97179	.76933	.088988
2	4	3.70602	.96232	.77605	.076856
3	4	3.74280	.95200	.78254	.064355
4	4	3.78112	.94081	.78873	.051589
5	4	3.82105	.92872	.79459	.038587
6	4	3.86265	.91564	.80011	.025381
7	4	3.90600	.90150	.80528	.012005
8	4	3.95110	.88624	.81006	-.001501
9	4	3.99807	.86976	.81446	-.015098
10	4	4.14335	.81817	.81307	-.011556
11	4	4.34437	.74738	.81158	-.007862
12	4	4.63050	.64750	.81003	-.004048
	4	5.05666	.50000	.80848	.000000

α	β	x	y	u	v
1	5	4.20929	1.25182	.77251	.077641
2	5	4.26297	1.23661	.77850	.066499
3	5	4.31934	1.22010	.78430	.055009
4	5	4.37792	1.20236	.78982	.043327
5	5	4.43875	1.18332	.79503	.031485
6	5	4.50188	1.16289	.79993	.019521
7	5	4.56739	1.14099	.80450	.007475
8	5	4.63524	1.11757	.80871	-.004603
9	5	4.70552	1.09253	.81256	-.016668
10	5	4.84217	1.04332	.81132	-.013464
11	5	5.03472	.97450	.80996	-.010102
12	5	5.31152	.87634	.80855	-.006718
13	5	5.72704	.73013	.80712	-.003370
		6.38534	.50000	.80574	.000000
	6	5.13346	1.71162	.77610	.066233
1	6	5.21557	1.68735	.78129	.056223
2	6	5.30208	1.66103	.78634	.045877
3	6	5.39157	1.63300	.79113	.035421
4	6	5.48406	1.60319	.79564	.024898
5	6	5.57955	1.57152	.79986	.014349
6	6	5.67805	1.53792	.80378	.003824
7	6	5.77940	1.50239	.80737	-.006619
8	6	5.88356	1.46487	.81064	-.016924
9	6	6.00807	1.41964	.80958	-.014107
10	6	6.18925	1.35427	.80839	-.011076
11	6	6.45413	1.25935	.80716	-.008043
12	6	6.85701	1.11596	.80591	-.005116
13	6	7.50168	.88800	.80471	-.002423
14	6	8.60370	.50000	.80363	.000000
	7	6.88726	2.54330	.78014	.054747
1	7	7.01577	2.50383	.78444	.046069
2	7	7.15227	2.46087	.78868	.037032
3	7	7.29256	2.41561	.79268	.027980
4	7	7.43657	2.36803	.79644	.018962
5	7	7.58414	2.31809	.79993	.010024
6	7	7.73501	2.26584	.80315	.001221
7	7	7.88874	2.21137	.80608	-.007383
8	7	8.04498	2.15478	.80872	-.015727
9	7	8.15065	2.11626	.80788	-.013396
10	7	8.31465	2.05683	.80690	-.010768
11	7	8.56208	1.96773	.80588	-.008127
12	7	8.94753	1.82976	.80485	-.005577
13	7	9.57508	1.60637	.80387	-.003271
14	7	10.66060	1.22187	.80302	-.001386
15	7	12.70590	.50000	.80267	.000000

α	ρ	x	y	u	v
	8	10.70320	4.26152	.78459	.043166
1	8	10.91346	4.19467	.78792	.036091
2	8	11.14160	4.12071	.79129	.028566
3	8	11.37378	4.04390	.79446	.021115
4	8	11.60971	3.96434	.79741	.013795
5	8	11.84875	3.88218	.80013	.006653
6	8	12.09000	3.79772	.80263	-.000256
7	8	12.33233	3.71139	.80488	-.006877
8	8	12.57463	3.62363	.80688	-.013149
9	8	12.64817	3.59587	.80628	-.011421
10	8	12.78294	3.54807	.80553	-.009309
11	8	13.00103	3.46951	.80475	-.007165
12	8	13.35782	3.34165	.80396	-.005078
13	8	13.95885	3.12728	.80321	-.003178
14	8	15.02149	2.74981	.80257	-.001635
15	8	17.05097	2.03071	.80221	-.000950
16	8	21.37743	.50000	.80191	.000000

$$\theta_s = 10^{\circ} \quad M_1 = 4.0$$

zero grid

α	β	x	y	u	v
		2.83564	0.50000	.83198	.146702
2		2.83564	0.50000	.84799	.112142
4		2.83564	0.50000	.86231	.076024
6		2.83564	0.50000	.87478	.038561
8		2.83564	0.50000	.88525	-.000000
	2	3.11718	0.63555	.83566	.127322
2	2	3.14918	0.63074	.85005	.095463
4	2	3.18553	0.62425	.86289	.062278
6	2	3.22689	0.61567	.87402	.027992
8	2	3.27402	0.60446	.88330	-.007143
10	2	3.69253	0.50000	.88143	.000000
	4	3.63723	0.87016	.83996	.107846
2	4	3.72129	0.85580	.85254	.078975
4	4	3.81592	0.83727	.86372	.049117
6	4	3.92244	0.81364	.87334	.018561
8	4	4.04233	0.78385	.88128	-.012364
10	4	4.43722	0.68148	.87955	-.006351
12	4	5.15164	0.50000	.87778	.000000
	6	4.72693	1.32723	.84505	.088247
2	6	4.90604	1.29320	.85560	.062796
4	6	5.10505	1.25107	.86490	.036846
6	6	5.32543	1.19950	.87281	.010797
8	6	5.56833	1.13719	.87923	-.014865
10	6	5.93180	1.04074	.87776	-.009692
12	6	6.61013	0.86358	.87621	-.004635
14	6	8.02346	0.50000	.87473	.000000
	8	7.45525	2.38112	.85100	.068474
2	8	7.83522	2.30223	.85927	.047108
4	8	8.24846	2.20902	.86648	.025852
6	8	8.69364	2.10061	.87249	.005255
8	8	9.16667	1.97717	.87725	-.014044
10	8	9.47654	1.89431	.87613	-.009838
12	8	10.10107	1.72952	.87494	-.005704
14	8	11.46091	1.37502	.87383	-.002100
16	8	14.84802	.50000	.87320	.000000

8 x 8 grid

1		2.83564	0.50000	.83198	.146702
2		2.83564	0.50000	.84018	.129629
3		2.83564	0.50000	.84799	.112142
4		2.83564	0.50000	.85537	.094265
5		2.83564	0.50000	.86231	.076024
6		2.83564	0.50000	.86879	.057446
7		2.83564	0.50000	.87478	.038561
8		2.83564	0.50000	.88027	.019402
		2.83564	0.50000	.88525	-.000000

α	β	x	y	u	v
1	1	2.95682	0.55936	.83375	.137022
	1	2.96373	0.55845	.84154	.120598
	1	2.97110	0.55736	.84896	.103776
	1	2.97898	0.55609	.85598	.086590
	1	2.98738	0.55460	.86256	.069066
	1	2.99637	0.55288	.86870	.051231
	1	3.00598	0.55088	.87438	.033115
	1	3.01626	0.54858	.87957	.014748
	1	3.02727	0.54594	.88427	-.003835
	1	3.21404	0.50000	.88330	.000000
2	2	3.11718	0.63555	.83566	.127322
	2	3.13269	0.63333	.84302	.111583
	2	3.14922	0.63073	.85004	.095465
	2	3.16683	0.62772	.85666	.079017
	2	3.18561	0.62423	.86287	.062261
	2	3.20564	0.62022	.86866	.045231
	2	3.22701	0.61563	.87400	.027954
	2	3.24983	0.61037	.87888	.010463
	2	3.27420	0.60439	.88328	-.007203
	2	3.45584	0.55872	.88234	-.003695
10	2	3.69217	0.50000	.88139	.000000
3	3	3.33445	0.73551	.83772	.117597
	3	3.36092	0.73144	.84463	.102579
	3	3.38909	0.72673	.85121	.087203
	3	3.41904	0.72132	.85743	.071535
	3	3.45090	0.71514	.86325	.055602
	3	3.48480	0.70809	.86866	.039439
	3	3.52089	0.70008	.87364	.023076
	3	3.55931	0.69100	.87818	.006551
	3	3.60021	0.68075	.88227	-.010094
	3	3.77623	0.63562	.88137	-.006868
	3	4.00657	0.57719	.88044	-.003536
11	3	4.31420	0.50000	.87951	.000000
4	4	3.63723	0.87016	.83996	.107846
	4	3.67801	0.86345	.84639	.093593
	4	3.72136	0.85578	.85252	.079005
	4	3.76735	0.84707	.85829	.064172
	4	3.81614	0.83720	.86369	.049124
	4	3.86791	0.82606	.86870	.033903
	4	3.92285	0.81351	.87331	.018542
	4	3.98114	0.79941	.87749	.003088
	4	4.04295	0.78362	.88124	-.012408
	4	4.21260	0.73940	.88039	-.009430
	4	4.43644	0.68160	.87951	-.006384
12	4	4.73667	0.60484	.87861	-.003267
		5.15077	0.50000	.87772	.000000

α	β	x	y	u	v
	5	4.07340	1.05729	.84239	.098065
1	5	4.13346	1.04680	.84832	.084632
2	5	4.19723	1.03491	.85396	.070889
3	5	4.26468	1.02156	.85927	.056957
4	5	4.33603	1.00657	.86423	.042873
5	5	4.41145	0.98982	.86881	.028683
	5	4.49118	0.97113	.87301	.014430
7	5	4.57539	0.95034	.87682	.000169
8	5	4.66425	0.92730	.88021	-.014036
9	5	4.82633	0.88449	.87943	-.011290
10	5	5.04282	0.82780	.87860	-.008478
11	5	5.33500	0.75196	.87776	-.005665
12	5	5.74002	0.64775	.87691	-.002861
13	5	6.31909	0.50000	.87610	.000000
	6	4.72693	1.32723	.84505	.088247
1	6	4.81383	1.31118	.85042	.075706
2	6	4.90602	1.29318	.85556	.062877
3	6	5.00316	1.27314	.86037	.049926
4	6	5.10550	1.25091	.86486	.036896
5	6	5.21319	1.22630	.86899	.023841
	6	5.32645	1.19915	.87277	.010815
7	6	5.44538	1.16929	.87616	-.002116
8	6	5.57005	1.13658	.87918	-.014877
9	6	5.72260	1.09590	.87848	-.012369
10	6	5.93023	1.04098	.87772	-.009769
11	6	6.21314	0.96674	.87695	-.007192
12	6	6.60823	0.86386	.87617	-.004690
13	6	7.17639	0.71706	.87542	-.002307
14	6	8.02183	0.50000	.87473	.000000
	7	57.52827	17.34190	.84792	.078386
1	7	5.87845	1.70980	.85271	.056829
2	7	6.01168	1.68263	.85730	.054999
3	7	6.15142	1.65274	.86160	.043122
4	7	6.29784	1.61993	.86559	.031249
5	7	6.45103	1.58405	.86925	.019444
	7	6.61104	1.54496	.87257	.007769
7	7	6.77779	1.50253	.87555	-.003696
8	7	6.95103	1.45671	.87816	-.014864
9	7	7.09087	1.41923	.87755	-.012626
10	7	7.28708	1.36701	.87688	-.010247
11	7	7.55838	1.29532	.87620	-.007892
12	7	7.94172	1.19476	.87550	-.005621
13	7	8.49782	1.04985	.87484	-.003515
14	7	9.33070	.83417	.87422	-.001645
15	7	10.62685	.50000	.87370	.000000

α	β	x	y	u	v
	8	7.45525	2.38112	.85100	.068474
1	8	7.63905	2.34378	.85518	.058013
2	8	7.83415	2.30240	.85920	.047282
3	8	8.03749	2.25744	.86295	.036585
4	8	8.24914	2.20872	.86641	.025983
5	8	8.46884	2.15617	.86958	.015544
6	8	8.69628	2.09973	.87243	.005342
7	8	8.93085	2.03945	.87497	-.004535
8	8	9.17170	1.97551	.87718	-.013993
9	8	9.29373	1.94274	.87668	-.012073
10	8	9.47416	1.89461	.87610	-.009952
11	8	9.72974	1.82688	.87551	-.007846
12	8	10.09759	1.73003	.87492	-.005811
13	8	10.63879	1.58841	.87434	-.003927
14	8	11.45746	1.37533	.87382	-.002291
15	8	12.74020	1.04303	.87338	-.000983
16	8	14.84313	.50000	.87317	.000000
16	8	14.84313	.50000	.87317	.000000

$$\theta_s = 10^\circ \quad M_1 = 5.0$$

zero grid

α	β	x	y	u	v
2	2.83564	0.50000	.87339	.154003	
	2.83564	0.50000	.88809	.117446	
	2.83564	0.50000	.90102	.079437	
	2.83564	0.50000	.91199	.040202	
	2.83564	0.50000	.92089	-.000000	
4	3.10726	0.61464	.87644	.137660	
	3.14354	0.61123	.88990	.103450	
	3.18602	0.60598	.90170	.068002	
	3.23597	0.59827	.91167	.031557	
	3.29494	0.58734	.91969	-.005615	
6	3.73538	0.50000	.91853	.000000	
	3.56538	0.79740	.87989	.121255	
	3.65684	0.78731	.89200	.089583	
	3.76304	0.77272	.90255	.056961	
	3.88667	0.75231	.91141	.023687	
8	4.03083	0.72443	.91847	-.009889	
	4.44981	0.63842	.91739	-.005048	
	5.13781	0.50000	.91629	.000000	
	4.40045	1.11050	.88381	.104772	
	4.58260	1.08757	.89443	.075891	
10	4.79173	1.05618	.90362	.046445	
	5.03173	1.01423	.91127	.016835	
	5.30654	0.95934	.91727	-.012421	
	5.69947	0.87679	.91630	-.008153	
	6.35764	0.74073	.91531	-.003990	
12	7.54086	0.50000	.91434	.000000	
	4.40045	1.11050	.88381	.104772	
	4.58260	1.08757	.89443	.075891	
	4.79173	1.05618	.90362	.046445	
	5.03173	1.01423	.91127	.016835	
14	5.30654	0.95934	.91727	-.012421	
	5.69947	0.87679	.91630	-.008153	
	6.35764	0.74073	.91531	-.003990	
	7.54086	0.50000	.91434	.000000	
	6.08124	1.69874	.88823	.088188	
16	6.42617	1.65031	.89721	.062444	
	6.81583	1.58731	.90492	.036619	
	7.25369	1.50716	.91125	.011263	
	7.74102	1.40773	.91611	-.012891	
	8.09668	1.33215	.91530	-.009184	
18	8.71696	1.20219	.91447	-.005606	
	9.86013	.96577	.91367	-.002363	
	12.13727	.50000	.91313	.000000	

8 x 8 grid

1	2.83564	0.50000	.87339	.154003
2	2.83564	0.50000	.88095	.135919
3	2.83564	0.50000	.88809	.117446
4	2.83564	0.50000	.89479	.098610
5	2.83564	0.50000	.90102	.079437
6	2.83564	0.50000	.90676	.059957
7	2.83564	0.50000	.91199	.040202
8	2.83564	0.50000	.91671	.020205
			.92089	-.000000

a	b	x	y	u	v
1	1	2.95496	0.55111	.87487	.145839
	1	2.96285	0.55050	.88212	.128318
	1	2.97138	0.54970	.88896	.110426
	1	2.98064	0.54870	.89537	.092193
	1	2.99068	0.54745	.90133	.073651
	1	3.00159	0.54592	.90682	.054827
	1	3.01346	0.54407	.91181	.035753
	1	3.02639	0.54184	.91631	.016461
	1	3.04050	0.53917	.92028	-.003012
	1	3.24060	0.50000	.91968	.000000
2	2	3.10726	0.61464	.87644	.137660
	2	3.12473	0.61313	.88337	.120731
	2	3.14359	0.61122	.88990	.103450
	2	3.16400	0.60885	.89601	.085857
	2	3.18612	0.60596	.90169	.067984
	2	3.21009	0.60245	.90691	.049861
	2	3.23612	0.59824	.91165	.031521
	2	3.26441	0.59322	.91591	.012996
	2	3.29517	0.58728	.91967	-.005672
	2	3.49036	0.54829	.91909	-.002882
10	2	3.73503	0.50000	.91850	.000000
3	3	3.30473	0.69474	.87811	.129466
	3	3.33400	0.69195	.88469	.113152
	3	3.36557	0.68850	.89090	.096506
	3	3.39966	0.68430	.89671	.079582
	3	3.43651	0.67923	.90209	.062413
	3	3.47638	0.67315	.90703	.045034
	3	3.51955	0.66594	.91151	.027478
	3	3.56634	0.65743	.91553	.009786
	3	3.61706	0.64744	.91906	-.007998
	3	3.80700	0.60882	.91850	-.005404
10	3	4.04619	0.56071	.91793	-.002762
11	3	4.35130	0.50000	.91735	.000000
4	4	3.56538	0.79740	.87989	.121255
	4	3.60948	0.79283	.88611	.105585
	4	3.65697	0.78728	.89198	.089603
	4	3.70814	0.78061	.89746	.073384
	4	3.76331	0.77266	.90253	.056961
	4	3.82285	0.76325	.90718	.040375
	4	3.88712	0.75220	.91139	.023664
	4	3.95654	0.73927	.91515	.006876
	4	4.03153	0.72423	.91845	-.009935
	4	4.21572	0.68621	.91791	-.007514
10	4	4.44912	0.63849	.91736	-.005070
11	4	4.74775	0.57803	.91680	-.002580
12	4	5.13703	0.50000	.91626	.000000

α	β	x	y	u	v
1	5	3.91649	0.93152	.88179	.113025
2	5	3.97959	0.92446	.88763	.098030
3	5	4.04742	0.91602	.89315	.082745
4	5	4.12032	0.90601	.89829	.067268
5	5	4.19871	0.89423	.90303	.051638
6	5	4.28301	0.88046	.90738	.035900
7	5	4.37370	0.86443	.91130	.020102
8	5	4.47127	0.84589	.91479	.004302
9	5	4.57617	0.82453	.91784	-.011435
10	5	4.75383	0.78739	.91733	-.009174
11	5	4.98094	0.74032	.91680	-.006894
12	5	5.27274	0.68039	.91627	-.004613
13	5	5.65440	0.60270	.91575	-.002335
	5	6.16334	0.50000	.91524	.000000
1	6	4.40045	1.11050	.88381	.104772
2	6	4.48841	1.09996	.88926	.090492
3	6	4.58279	1.08753	.89440	.075943
4	6	4.68392	1.07297	.89918	.061255
5	6	4.79229	1.05605	.90359	.046472
6	6	4.90839	1.03648	.90762	.031646
7	6	5.03275	1.01397	.91124	.016836
8	6	5.16587	0.98821	.91445	.002111
9	6	5.30818	0.95888	.91723	-.012445
10	6	5.47817	0.92300	.91676	-.010340
11	6	5.69817	0.87692	.91627	-.008202
12	6	5.98249	0.81786	.91577	-.006087
13	6	6.35614	0.74087	.91527	-.004021
14	6	6.85624	0.63864	.91479	-.002006
	6	7.53951	0.50000	.91434	.000000
1	7	50.84924	13.55163	.88596	.096495
2	7	52.06133	13.39703	.89099	.082974
3	7	53.35957	13.21682	.89574	.069207
4	7	54.74541	13.00860	.90015	.055359
5	7	56.22439	12.76934	.90421	.041481
6	7	57.80165	12.49593	.90790	.027635
7	7	59.48199	12.18518	.91121	.013892
8	7	61.26953	11.83391	.91412	.000337
9	7	63.16677	11.43930	.91664	-.012930
10	7	64.77279	11.09789	.91621	-.010988
11	7	66.88863	10.65148	.91576	-.008988
12	7	69.64590	10.07411	.91530	-.007018
13	7	73.29403	9.31582	.91484	-.005114
14	7	78.20219	8.30285	.91438	-.003304
15	7	84.93506	6.92272	.91396	-.001615
	7	94.36896	5.00000	.91358	.000000

α	β	x	y	u	v
	8	6.08124	1.69874	.88823	.088188
1	8	6.24798	1.67622	.89283	.075480
2	8	6.42624	1.65026	.89717	.062547
3	8	6.61567	1.62065	.90120	.049597
4	8	6.81684	1.58705	.90489	.036691
5	8	7.03015	1.54913	.90823	.023899
6	8	7.25588	1.50660	.91121	.011304
7	8	7.49415	1.45918	.91383	-.000991
8	8	7.74474	1.40672	.91607	-.012873
9	8	7.89346	1.37499	.91569	-.011112
10	8	8.09462	1.33235	.91527	-.009257
11	8	8.35990	1.27652	.91486	-.007429
12	8	8.71432	1.20245	.91444	-.005668
13	8	9.19479	1.10268	.91403	-.004008
14	8	9.85763	.96588	.91365	-.002501
15	8	10.79026	.77445	.91330	-.001171
16	8	12.13374	.50000	.91311	.000000

$$\theta_s = 10^\circ \quad M_1 = 7.0$$

zero grid

α	ρ	x	y	u	v
2	2.83564	2.83564	0.50000	.91530	.161392
	2.83564	2.83564	0.50000	.92837	.122773
	2.83564	2.83564	0.50000	.93955	.082834
	2.83564	2.83564	0.50000	.94868	.041819
	2.83564	2.83564	0.50000	.95565	.000000
4	3.07731	3.07731	0.58712	.91749	.149449
	3.11895	3.11895	0.58576	.92974	.112631
	3.17039	3.17039	0.58247	.94018	.074684
	3.23454	3.23454	0.57632	.94868	.035862
	3.31533	3.31533	0.56597	.95512	-.003539
6	3.77904	3.77904	0.50000	.95460	.000000
	3.43974	3.43974	0.71223	.91987	.137476
	3.53925	3.53925	0.70784	.93125	.102557
	3.66124	3.66124	0.69890	.94091	.066733
	3.81200	3.81200	0.68338	.94872	.030299
8	3.99971	3.99971	0.65840	.95459	-.006364
	4.44615	4.44615	0.59305	.95410	-.003212
	5.09315	5.09315	0.50000	.95361	.000000
	4.00364	4.00364	0.89796	.92246	.125467
	4.18700	4.18700	0.88789	.93290	.092562
10	4.40978	4.40978	0.86960	.94173	.059009
	4.68204	4.68204	0.83976	.94882	.025191
	5.01602	5.01602	0.79391	.95408	-.008356
	5.44334	5.44334	0.73002	.95362	-.005504
	6.06882	6.06882	0.63790	.95316	-.002727
12	7.01940	7.01940	0.50000	.95273	.000000
	4.91966	4.91966	1.18474	.92526	.113414
	5.23000	5.23000	1.16445	.93471	.082640
	5.60294	5.60294	1.13073	.94265	.051530
	6.05220	6.05220	1.07879	.94898	.020587
14	6.59229	6.59229	1.00282	.95360	-.009429
	6.99645	6.99645	0.94157	.95318	-.006834
	7.59798	7.59798	0.85160	.95277	-.004354
	8.52240	8.52240	.71505	.95237	-.002080
	9.99535	9.99535	0.50000	.95201	.000000

8 x 8 grid

1	2.83564	0.50000	.91530	.161392
2	2.83564	0.50000	.92206	.142261
3	2.83564	0.50000	.92837	.122773
4	2.83564	0.50000	.93420	.102953
5	2.83564	0.50000	.93955	.082834
6	2.83564	0.50000	.94438	.062445
7	2.83564	0.50000	.94868	.041819
8	2.83564	0.50000	.95244	.020992
			.95565	.000000

α	β	x	y	u	v
1	1	2.94478	0.53979	.91637	.155424
1	1	2.95391	0.53962	.92292	.136726
2	1	2.96403	0.53927	.92904	.117686
3	1	2.97530	0.53870	.93469	.098340
4	1	2.98788	0.53786	.93985	.078715
5	1	3.00195	0.53669	.94452	.058845
6	1	3.01774	0.53511	.94867	.038762
7	1	3.03549	0.53304	.95229	.018503
8	1	3.05552	0.53037	.95538	-.001895
9	1	3.27119	0.50000	.95511	.000000
	2	3.07731	1.58712	.91749	.149449
1	2	3.09711	1.53663	.92283	.131202
2	2	3.11903	1.5175	.92974	.112630
3	2	3.14338	1.48440	.93520	.093778
4	2	3.17052	1.48246	.94018	.074671
5	2	3.20082	1.47981	.94468	.055346
6	2	3.23474	1.47630	.94867	.035838
7	2	3.27261	1.47175	.95215	.016184
8	2	3.31564	1.46593	.95511	-.003577
9	2	3.52711	1.43566	.96484	-.001794
10	2	3.77881	1.50000	.96458	.000000
	3	3.23951	0.64380	.91865	.143466
1	3	3.27189	0.64281	.92477	.125682
2	3	3.30769	0.64118	.93047	.107590
3	3	3.34739	0.63877	.93573	.089247
4	3	3.39154	0.63541	.94053	.070676
5	3	3.44074	0.63092	.94485	.051918
6	3	3.49569	0.62505	.94869	.033010
7	3	3.55719	0.61752	.95202	.013995
8	3	3.62619	0.60798	.95484	-.005080
9	3	3.83326	0.57791	.95459	-.003396
10	3	4.08056	0.54233	.95433	-.001716
11	3	4.37758	0.50000	.95408	.000000
	4	3.43974	0.71223	.91987	.137476
1	4	3.48713	0.71049	.92575	.120167
2	4	3.53943	0.70783	.93124	.102569
3	4	3.59732	0.70403	.93629	.084748
4	4	3.66156	0.69887	.94090	.066730
5	4	3.73297	0.69207	.94505	.048560
6	4	3.81252	0.68331	.94871	.030282
7	4	3.90129	0.67220	.95190	.011943
8	4	4.00054	0.65826	.95458	-.006398
9	4	4.20297	0.62848	.95433	-.004806
10	4	4.44572	0.59308	.95408	-.003226
11	4	4.73779	0.55085	.95383	-.001636
12	4	5.09265	0.50000	.95359	.000000

α	β	x	y	u	v
	5	3.68932	0.79555	.92114	.131476
1	5	3.75479	0.79277	.92678	.114659
2	5	3.82691	0.78871	.93205	.097568
3	5	3.90656	0.78311	.93689	.080288
4	5	3.99476	0.77565	.94130	.062845
5	5	4.09255	0.76598	.94526	.045291
6	5	4.20116	0.75368	.94875	.027673
7	5	4.32196	0.73825	.95178	.010052
8	5	4.45646	0.71910	.95432	-.007503
9	5	4.65389	0.68973	.95408	-.005995
10	5	4.89190	0.65461	.95384	-.004499
11	5	5.17891	0.61259	.95360	-.003012
12	5	5.52822	0.56187	.95336	-.001515
13	5	5.95782	0.50000	.95313	.000000
	6	4.00364	0.89796	.92246	.125467
1	6	4.09113	0.89376	.92786	.109155
2	6	4.18732	0.88785	.93289	.092587
3	6	4.29332	0.87990	.93751	.075865
4	6	4.41039	0.86952	.94172	.059017
5	6	4.53980	0.85627	.94549	.042106
6	6	4.68305	0.83961	.94881	.025183
7	6	4.84176	0.81896	.95167	.008325
8	6	5.01765	0.79362	.95407	-.008383
9	6	5.20959	0.76480	.95384	-.006954
10	6	5.44255	0.73008	.95361	-.005533
11	6	5.72428	0.68840	.95337	-.004133
12	6	6.06792	0.63794	.95314	-.002744
13	6	6.49137	0.57623	.95292	-.001376
14	6	7.01831	0.50000	.95271	.000000
	7	4.40391	1.02513	.92383	.119446
1	7	4.51851	1.01900	.92898	.103655
2	7	4.64427	1.01064	.93377	.087626
3	7	4.78249	0.99965	.93817	.071481
4	7	4.93470	0.98554	.94216	.055253
5	7	5.10240	0.96779	.94574	.039009
6	7	5.28733	0.94576	.94888	.022818
7	7	5.49127	0.91878	.95157	.006768
8	7	5.71606	0.88606	.95382	-.009035
9	7	5.90182	0.85796	.95360	-.007682
10	7	6.12927	0.82378	.95338	-.006329
11	7	6.40534	0.78260	.95316	-.005003
12	7	6.74307	0.73256	.95294	-.003702
13	7	7.16027	0.67116	.95272	-.002444
14	7	7.68045	0.59512	.95252	-.001222
15	7	8.33535	0.50000	.95233	.000000

α	β	x	y	u	v
1	8	4.91966	1.18474	.92526	.113414
2	8	5.06803	1.17599	.93015	.098160
3	8	5.23051	1.16439	.93470	.082687
4	8	5.40857	1.14945	.93886	.067139
5	8	5.60400	1.13059	.94264	.051556
6	8	5.81852	1.10718	.94601	.036014
7	8	6.05403	1.07850	.94896	.020593
8	8	6.31236	1.04380	.95149	.005399
9	8	6.59528	1.00228	.95358	-.009441
10	8	6.77395	0.97509	.95338	-.008166
11	8	6.99524	0.94164	.95317	-.006877
12	8	7.26509	0.90112	.95296	-.005618
13	8	7.59648	0.85168	.95275	-.004389
14	8	8.00721	0.79078	.95254	-.003215
15	8	8.52061	0.71513	.95235	-.002100
16	8	9.16822	0.62025	.95216	-.001033
		9.99341	0.50000	.95200	.000000

$$\theta_B = 15^\circ \quad M_1 = 1.3$$

zero grid

α	β	x	y	u	v
2		1.86602	.50000	.42133	.112896
4		1.86602	.50000	.47667	.095792
6		1.86602	.50000	.52049	.069733
8		1.86602	.50000	.55844	.037409
10	2	1.86602	.50000	.59138	.000000
12	2	1.89102	.64762	.42823	.090064
14	2	1.92068	.61262	.47699	.077687
16	2	1.93738	.59713	.51716	.054501
18	2	1.95108	.58548	.55226	.024813
20	2	1.96365	.57515	.58284	-.009967
22	2	2.05464	.50000	.57438	.000000
24	4	1.96294	.93443	.43758	.066812
26	4	2.03874	.83746	.47780	.056991
28	4	2.08430	.79062	.51273	.036867
30	4	2.12186	.75533	.54366	.010605
32	4	2.15614	.72426	.57071	-.020374
34	4	2.23675	.65127	.56253	-.011915
36	4	2.40196	.50000	.55088	.000000
38	6	2.25410	1.71994	.45187	.042951
40	6	2.42291	1.49413	.48055	.033595
42	6	2.53631	1.36427	.50708	.017259
44	6	2.63161	1.26346	.53098	-.003567
46	6	2.71820	1.17525	.55194	-.027734
48	6	2.77799	1.11451	.54492	-.020748
50	6	2.91091	.97726	.53473	-.011671
52	6	3.35881	.50000	.52014	.000000

8 x 8 grid

1	1.86602	.50000	.42133	.112896
2	1.86602	.50000	.45144	.105843
3	1.86602	.50000	.47667	.095792
4	1.86602	.50000	.49944	.083641
5	1.86602	.50000	.52049	.069733
6	1.86602	.50000	.54012	.054272
7	1.86602	.50000	.55844	.037409
8	1.86602	.50000	.57553	.019276
			.59138	.000000

<i>a</i>	<i>b</i>	<i>x</i>	<i>y</i>	<i>u</i>	<i>v</i>
1	1	1.87559	.56357	.42456	.101526
2	1	1.88409	.55345	.45259	.096034
3	1	1.88914	.54840	.47665	.086877
4	1	1.89311	.54480	.49851	.075447
5	1	1.89655	.54186	.51878	.062191
6	1	1.89969	.53927	.53770	.047349
7	1	1.90265	.53689	.55540	.031091
8	1	1.90548	.53464	.57191	.013559
9	1	1.90824	.53246	.58724	-.005119
		1.94898	.50000	.58311	.000000
1	2	1.89102	.64762	.42823	.090064
2	2	1.90959	.62451	.45409	.085858
3	2	1.92085	.61264	.47681	.077552
4	2	1.92976	.60411	.49761	.066865
5	2	1.93750	.59716	.51696	.054309
6	2	1.94456	.59108	.53509	.040156
7	2	1.95119	.58549	.55205	.024587
8	2	1.95756	.58023	.56790	.007751
9	2	1.96374	.57514	.58261	-.010218
10	2	2.00275	.54289	.57852	-.005439
	2	2.05452	.50000	.57391	.000000
1	3	1.91690	.76377	.43249	.078499
2	3	1.94769	.72379	.45593	.075128
3	3	1.96692	.70250	.47707	.067573
4	3	1.98227	.68706	.49660	.057623
5	3	1.99565	.67443	.51487	.045817
6	3	2.00782	.66340	.53202	.032432
7	3	2.01930	.65330	.54810	.017660
8	3	2.03027	.64377	.56313	.001649
9	3	2.04090	.63460	.57709	-.015465
10	3	2.07774	.60281	.57307	-.011024
11	3	2.12699	.56020	.56851	-.006046
	3	2.19628	.50000	.56308	.000000
1	4	1.96294	.93443	.43758	.066812
2	4	2.00917	.87234	.45830	.063800
3	4	2.03919	.83750	.47756	.056877
4	4	2.06343	.81183	.49554	.047669
5	4	2.08463	.79070	.51246	.036684
6	4	2.10398	.77223	.52839	.024191
7	4	2.12218	.75534	.54337	.010378
8	4	2.13959	.73945	.55737	-.004609
9	4	2.15643	.72420	.57039	-.020636
10	4	2.19045	.69341	.56650	-.016533
11	4	2.23648	.65157	.56204	-.011987
12	4	2.30162	.59201	.55670	-.006620
	4	2.40148	.50000	.55024	.000000

α	β	x	y	u	v
1	5	2.05246	1.20905	.44383	.054977
2	5	2.11953	1.11692	.46153	.051886
3	5	2.16525	1.06142	.47849	.045479
4	5	2.20277	1.01953	.49453	.037042
5	5	2.23583	.98472	.50972	.027004
6	5	2.26608	.95414	.52409	.015601
7	5	2.29454	.92616	.53763	.003008
8	5	2.32172	.89991	.55030	-.010635
9	5	2.34800	.87479	.56207	-.025201
10	5	2.37800	.84612	.55841	-.021451
11	5	2.41958	.80617	.55417	-.017304
12	5	2.47912	.74856	.54906	-.012522
13	5	2.57156	.65828	.54284	-.006909
	5	2.73128	.50000	.53526	.000000
1	6	2.25410	1.71994	.45187	.042951
2	6	2.35241	1.58393	.46616	.039506
3	6	2.42389	1.49408	.48028	.033569
4	6	2.48387	1.42374	.49383	.026018
5	6	2.53727	1.36422	.50677	.017165
6	6	2.58638	1.31149	.51905	.007201
7	6	2.63264	1.26316	.53064	-.003724
8	6	2.67675	1.21787	.54149	-.015482
9	6	2.71928	1.17467	.55156	-.027947
10	6	2.74267	1.15094	.54834	-.024640
11	6	2.77728	1.11561	.54451	-.020915
12	6	2.82822	1.06323	.53990	-.016669
13	6	2.90964	.97861	.53427	-.011821
14	6	3.05450	.82593	.52741	-.006327
	6	3.35640	.50000	.51910	.000000

$$\theta_s = 15^\circ \quad M_1 = 1.5$$

zero grid

α	β	x	y	u	v
2	3	1.86602	0.50000	.47735	.127905
	4	1.86602	0.50000	.52062	.104625
	6	1.86602	0.50000	.55942	.074948
	8	1.86602	0.50000	.59413	.039799
		1.86602	0.50000	.62458	.000000
4	2	1.93749	0.65427	.48473	.103308
	2	1.95926	0.63724	.52262	.083287
	2	1.97803	0.62356	.55722	.056823
	2	1.99565	0.61102	.58843	.025011
	2	2.01291	0.59865	.61591	-.011289
10	2	2.14942	0.50000	.60743	.000000
6	4	2.10333	0.95878	.49451	.078282
	4	2.16095	0.90987	.52578	.060955
	4	2.21175	0.86943	.55493	.037984
	4	2.25968	0.83226	.58146	.010352
	4	2.30650	0.79591	.60487	-.021117
	4	2.42816	0.70071	.59691	-.011753
	4	2.68430	0.50000	.58683	.000000
8	6	2.64714	1.78644	.50871	.052640
	6	2.78163	1.66564	.53150	.038038
	6	2.90439	1.56020	.55316	.019595
	6	3.02121	1.46195	.57298	-.001897
	6	3.13467	1.36574	.59039	-.025653
	6	3.22896	1.28721	.58393	-.018015
	6	3.44755	1.10205	.57560	-.009193
14	6	4.15206	0.50000	.56609	.000000

8 x 8 grid

1		1.86602	0.50000	.47735	.127905
2		1.86602	0.50000	.49962	.117138
3		1.86602	0.50000	.52062	.104625
4		1.86602	0.50000	.54053	.090522
5		1.86602	0.50000	.55942	.074948
6		1.86602	0.50000	.57729	.058007
7		1.86602	0.50000	.59413	.039799
8		1.86602	0.50000	.60991	.020428
				.62458	.000000

α	β	x	y	u	v
1	1	1.89534	0.56610	.48081	.115653
	1	1.90055	0.56212	.50166	.105754
	1	1.90514	0.55878	.52147	.094038
	1	1.90942	0.55517	.54034	.080712
	1	1.91349	0.55297	.55828	.065911
	1	1.91744	0.55027	.57529	.049748
	1	1.92131	0.54762	.59134	.032328
	1	1.92515	0.54499	.60638	.013756
	1	1.92899	0.54232	.62038	-.005861
	1	1.98962	0.50000	.61621	.000000
2	2	1.93749	0.65427	.48473	.103308
	2	1.94906	0.64501	.50404	.094197
	2	1.95935	0.63717	.52255	.083254
	2	1.96895	0.63010	.54025	.070724
	2	1.97810	0.62350	.55713	.056744
	2	1.98698	0.61716	.57317	.041432
	2	1.99571	0.61095	.58833	.024895
	2	2.00434	0.60478	.60255	.007236
	2	2.01295	0.59857	.61579	-.011437
	2	2.07093	0.55657	.61169	-.006058
10	2	2.14918	0.50000	.60717	.000000
3	3	2.00106	0.77712	.48923	.090857
	3	2.02069	0.76074	.50686	.082424
	3	2.03830	0.74671	.52391	.072219
	3	2.05479	0.73400	.54028	.060495
	3	2.07056	0.72210	.55596	.047388
	3	2.08588	0.71068	.57088	.033013
	3	2.10092	0.69952	.58500	.017473
	3	2.11580	0.68845	.59826	.000873
	3	2.13061	0.67734	.61060	-.016682
	3	2.18542	0.63608	.60662	-.011748
10	3	2.26001	0.57996	.60220	-.006307
11	3	2.36633	0.50000	.59721	.000000
4	4	2.10333	0.95878	.49451	.073282
	4	2.13365	0.93254	.51027	.070441
	4	2.16118	0.90970	.52567	.060955
	4	2.18710	0.88885	.54053	.050076
	4	2.21197	0.86925	.55480	.037929
	4	2.23615	0.85043	.56841	.024620
	4	2.25989	0.83204	.58131	.010251
	4	2.28337	0.81383	.59342	-.005077
	4	2.30671	0.79563	.60469	-.021261
	4	2.35751	0.75535	.60092	-.016740
	4	2.42763	0.70093	.59668	-.011820
	4	2.52843	0.62189	.59186	-.006341
12	4	2.68355	.. 0.50000	.58645	.000000

<i>a</i>	<i>b</i>	<i>x</i>	<i>y</i>	<i>u</i>	<i>v</i>
1	5	2.28351	1.25124	.50086	.065558
2	5	2.32903	1.21068	.51453	.058272
3	5	2.37103	1.17458	.52803	.049533
4	5	2.41083	1.14126	.54113	.039590
5	5	2.44917	1.10977	.55375	.028550
6	5	2.48651	1.07945	.56580	.016512
7	5	2.52319	1.04984	.57723	.003573
8	5	2.55941	1.02058	.58796	-.010166
9	5	2.59535	0.99143	.59793	-.024601
10	5	2.64063	0.95458	.59448	-.020503
11	5	2.70486	0.90225	.59054	-.016035
12	5	2.79861	0.82571	.58606	-.011185
13	5	2.94498	0.70590	.58099	-.005918
		3.19512	0.50000	.57541	.000000
1	6	2.64714	1.78644	.50871	.052640
2	6	2.71644	1.72341	.51999	.045986
3	6	2.78192	1.66550	.53131	.038110
4	6	2.84450	1.61133	.54234	.029286
5	6	2.90505	1.55971	.55298	.019607
6	6	2.96414	1.50984	.56315	.009162
7	6	3.02215	1.46112	.57278	-.001951
8	6	3.07935	1.41313	.58181	-.013633
9	6	3.13589	1.36554	.59016	-.025770
10	6	3.17247	1.33467	.58722	-.022202
11	6	3.22788	1.28785	.58377	-.018216
12	6	3.31145	1.21712	.57985	-.013925
13	6	3.44576	1.10309	.57541	-.009382
14	6	3.68125	0.90233	.57055	-.004723
		4.14909	0.50000	.56541	.000000

$$\theta_B = 15^\circ \quad M_1 = 1.7$$

zero grid

α	β	x	y	u	v
2 4 6 8 10 12 14 16	1.86602	.50000	.52526	.140744	
	1.86602	.50000	.54496	.127769	
	1.86602	.50000	.56394	.113331	
	1.86602	.50000	.58217	.097495	
	1.86602	.50000	.59959	.080330	
	1.36602	.50000	.61010	.061913	
	1.86602	.50000	.63181	.042323	
	1.86602	.50000	.64647	.021652	
	1.86602	.50000	.66008	.000000	
	2	1.90741	.56597	.52884	.128035
2 4 6 8 10 12 14 16 18	2	1.91200	.56334	.54736	.115849
	2	1.91647	.56082	.56526	.102211
	2	1.92087	.55835	.58249	.087194
	2	1.92525	.55589	.59899	.070870
	2	1.92967	.55338	.61470	.053316
	2	1.93409	.55083	.62955	.034611
	2	1.93858	.54818	.64346	.014849
	2	1.94315	.54542	.65639	-.005874
	2	2.01768	.50000	.65273	.000000
	4	1.96579	.65382	.53286	.115235
2 4 6 8 10 12 14 16 18 20	4	1.97608	.64764	.55010	.103794
	4	1.98612	.64169	.56681	.090946
	4	1.99601	.63587	.58294	.076764
	4	2.00586	.63006	.59842	.061321
	4	2.01575	.62419	.61317	.044695
	4	2.02570	.61821	.62712	.026963
	4	2.03578	.61204	.64020	.008217
	4	2.04602	.60563	.65235	-.011447
	4	2.11764	.56046	.64876	-.006069
	4	2.21407	.50000	.64483	.000000
2 4 6 8 10 12 14 16 18 20	6	2.05186	.77566	.53744	.102332
	6	2.06946	.76459	.55327	.091599
	6	2.08669	.75391	.56868	.079541
	6	2.10371	.74345	.58358	.066228
	6	2.12066	.73301	.59791	.051731
	6	2.13767	.72249	.61158	.036124
	6	2.15478	.71179	.62452	.019487
	6	2.17210	.70080	.63665	.001909
	6	2.18968	.68943	.64791	-.016517
	6	2.25793	.64491	.64443	-.011570
22	6	2.35032	.58489	.64059	-.006145
	6	2.48160	.50000	.63642	.000000

α	β	x	y	u	v
	8	2.18638	.95404	.54272	.089310
2	8	2.21385	.93607	.55702	.079272
4	8	2.24083	.91866	.7098	.068030
6	8	2.26754	.90153	.58451	.055649
8	8	2.29418	.88447	.59753	.042195
10	8	2.32091	.86727	.60997	.027744
12	8	2.34778	.84982	.62175	.012373
14	8	2.37496	.83196	.63278	-.003825
16	8	2.40247	.81358	.64302	-.020758
18	8	2.46662	.77036	.63971	-.016191
20	8	2.55424	.71150	.63605	-.011281
22	8	2.67971	.62742	.63202	-.005963
24	8	2.87053	.50000	.62772	.000000
	10	2.41404	1.23547	.54894	.076145
2	10	2.45568	1.20727	.56154	.066829
4	10	2.49676	1.17978	.57387	.056471
6	10	2.53757	1.15263	.58585	.045132
8	10	2.57830	1.12554	.59739	.032878
10	10	2.61917	1.09828	.60841	.019781
12	10	2.66023	1.07068	.61883	.005925
14	10	2.70164	1.04253	.62859	-.008597
16	10	2.74345	1.01372	.63762	-.023685
18	10	2.80222	.97292	.63457	-.019482
20	10	2.88375	.91647	.63119	-.015011
22	10	3.00217	.83461	.62746	-.010282
24	10	3.18439	.70879	.62341	-.005330
26	10	3.48739	.50000	.61926	.000000
	12	2.84536	1.72952	.55639	.062797
2	12	2.90928	1.68502	.56709	.054303
4	12	2.97267	1.64127	.57758	.044971
6	12	3.03581	1.59787	.58778	.034865
8	12	3.09892	1.55452	.59761	.024048
10	12	3.16218	1.51093	.60698	.012599
12	12	3.22562	1.46694	.61583	.000605
14	12	3.28940	1.42232	.62409	-.011832
16	12	3.35347	1.37697	.63169	-.024603
18	12	3.40438	1.34073	.62902	-.020827
20	12	3.47720	1.28901	.62606	-.016815
22	12	3.58587	1.21195	.62278	-.012599
24	12	3.75712	1.09063	.61922	-.008276
26	12	4.04723	.88515	.61551	-.004045
28	12	4.59124	.50000	.61207	.000000

α	β	x	y	u	v
	14	3.81145	2.74717	.56541	.049201
2	14	3.91509	2.67357	.57397	.041749
4	14	4.01845	2.60054	.58237	.033703
6	14	4.12168	2.52776	.59053	.025134
8	14	4.22486	2.45501	.59838	.016111
10	14	4.32804	2.38205	.60584	.00671
12	14	4.43110	2.30880	.61285	-.002958
14	14	4.53400	2.23513	.61935	-.012804
16	14	4.63649	2.16113	.62528	-.022701
18	14	4.67404	2.13390	.62313	-.019532
20	14	4.73230	2.09174	.62074	-.016145
22	14	4.82507	2.02475	.61810	-.012572
24	14	4.97914	1.91364	.61524	-.008899
26	14	5.25112	1.71766	.61228	-.005327
28	14	5.77626	1.33927	.60950	-.002251
30	14	6.94068	.50000	.60741	.000000
	16	6.62952	5.45260	.57622	.035249
2	16	6.81851	5.31681	.58238	.029248
4	16	7.00793	5.18097	.58843	.022904
6	16	7.19725	5.04524	.59427	.016319
8	16	7.38585	4.90986	.59986	.009558
10	16	7.57324	4.77499	.60514	.002699
12	16	7.75870	4.64103	.61006	-.004166
14	16	7.94148	4.50838	.61457	-.010942
16	16	8.12061	4.37766	.61865	-.017521
18	16	8.13091	4.37012	.61714	-.015240
20	16	8.15971	4.34909	.61545	-.012765
22	16	8.22047	4.30479	.61360	-.010131
24	16	8.34057	4.21736	.61160	-.007393
26	16	8.57811	4.04467	.60955	-.004700
28	16	9.07146	3.68633	.60767	-.002346
30	16	10.21068	2.85902	.60627	-.000751
32	16	13.45909	.50000	.60555	.000000

16 x 16 grid

1	1.86602	.50000	.52526	.140744
2	1.86602	.50000	.53520	.134444
3	1.86602	.50000	.54496	.127769
4	1.86602	.50000	.55454	.120729
5	1.86602	.50000	.56394	.113331
6	1.86602	.50000	.57315	.105583
7	1.86602	.50000	.58217	.097495
8	1.86602	.50000	.59098	.089074
9	1.86602	.50000	.59959	.080330
10	1.86602	.50000	.60799	.071273
11	1.86602	.50000	.61616	.061913
12	1.86602	.50000	.62410	.052259
13	1.86602	.50000	.63181	.042323
14	1.86602	.50000	.63926	.032117
15	1.86602	.50000	.64647	.021652
16	1.86602	.50000	.65341	.010942
			.66008	.000000

α	ρ	x	y	u	v
1	1	1.88504	.53077	.52700	.134400
1	1	1.88614	.53015	.53664	.128300
2	1	1.88723	.52955	.54612	.121823
3	1	1.88829	.52896	.55543	.114980
4	1	1.88934	.52838	.56457	.107780
5	1	1.89039	.52780	.57353	.100234
6	1	1.89143	.52723	.58231	.092348
7	1	1.89247	.52666	.59089	.084132
8	1	1.89350	.52609	.59928	.075595
9	1	1.89455	.52551	.60746	.066747
10	1	1.89559	.52492	.61543	.057598
11	1	1.89663	.52433	.62317	.048157
12	1	1.89769	.52373	.63068	.038438
13	1	1.89875	.52312	.63795	.028450
14	1	1.89982	.52250	.64498	.018206
15	1	1.90090	.52186	.65174	.007718
16	1	1.90199	.52121	.65825	-.002999
17	1	1.93734	.50000	.65643	.000000
	2	1.90741	.56597	.52884	.128035
1	2	1.90973	.56463	.53817	.122129
2	2	1.91201	.56333	.54736	.115847
3	2	1.91425	.56207	.55638	.109202
4	2	1.91648	.56081	.56525	.102204
5	2	1.91868	.55958	.57395	.094861
6	2	1.92088	.55834	.58248	.087182
7	2	1.92307	.55711	.59082	.079176
8	2	1.92526	.55588	.59898	.070853
9	2	1.92746	.55463	.60694	.062223
10	2	1.92967	.55337	.61468	.053295
11	2	1.93186	.55211	.62222	.044078
12	2	1.93409	.55082	.62953	.034586
13	2	1.93633	.54950	.63660	.024830
14	2	1.93858	.54817	.64344	.014820
15	2	1.94086	.54680	.65003	.004570
16	2	1.94315	.54541	.65636	-.005907
17	2	1.97784	.52422	.65456	-.003032
18	2	2.01765	.50000	.65269	.000000

α	β	x	y	u	v
1	3	1.93396	.60656	.53079	.121647
2	3	1.93764	.60440	.53980	.115929
3	3	1.94125	.60229	.54868	.109838
4	3	1.94481	.60023	.55741	.103388
5	3	1.94834	.59819	.56599	.096591
6	3	1.95184	.59618	.57442	.089452
7	3	1.95533	.59418	.58268	.081983
8	3	1.95880	.59218	.59078	.074192
9	3	1.96228	.59017	.59868	.066089
10	3	1.96576	.58815	.60640	.057683
11	3	1.96926	.58610	.61392	.048984
12	3	1.97275	.58405	.62124	.040002
13	3	1.97628	.58196	.62833	.030749
14	3	1.97983	.57984	.63520	.021236
15	3	1.98340	.57768	.64184	.011475
16	3	1.98701	.57548	.64824	.001477
17	3	1.99064	.57323	.65439	-.008742
18	3	2.02465	.55212	.65260	-.005986
19	3	2.06372	.52793	.65074	-.003094
	3	2.10898	.50000	.64880	.000000
	4				
1	4	1.96579	.65382	.53286	.115235
2	4	1.97100	.65069	.54153	.109699
3	4	1.97610	.64763	.55009	.103795
4	4	1.98114	.64464	.55851	.097539
5	4	1.98613	.64168	.56680	.090941
6	4	1.99108	.63877	.57494	.084009
7	4	1.99603	.63586	.58293	.076754
8	4	2.00095	.63296	.59075	.069183
9	4	2.00588	.63005	.59840	.061307
10	4	2.01081	.62713	.60587	.053134
11	4	2.01577	.62418	.61315	.044675
12	4	2.02072	.62121	.62022	.035939
13	4	2.02572	.61819	.62709	.026939
14	4	2.03075	.61513	.63375	.017685
15	4	2.03580	.61202	.64017	.008189
16	4	2.04090	.60885	.64637	-.001537
17	4	2.04604	.60561	.65232	-.011480
18	4	2.07930	.58460	.65055	-.008836
19	4	2.11759	.56048	.64871	-.006075
20	4	2.16198	.53259	.64679	-.003144
	4	2.21402	.50000	.64478	.000000

α	β	x	y	u	v
	5	2.00440	.70942	.53507	.108797
1	5	2.01132	.70515	.54339	.103438
2	5	2.01813	.70099	.55161	.097717
3	5	2.02485	.69690	.55971	.091654
4	5	2.03151	.69288	.56769	.085257
5	5	2.03812	.68890	.57552	.078535
6	5	2.04472	.68492	.58322	.071499
7	5	2.05129	.68097	.59076	.064155
8	5	2.05787	.67700	.59813	.056514
9	5	2.06445	.67302	.60534	.048585
10	5	2.07107	.66900	.61236	.040378
11	5	2.07769	.66496	.61919	.031903
12	5	2.08435	.66086	.62581	.023171
13	5	2.09107	.65669	.63223	.014194
14	5	2.09781	.65247	.63843	.004982
15	5	2.10461	.64817	.64441	-.004451
16	5	2.11147	.64378	.65015	-.014094
17	5	2.14394	.62293	.64841	-.011555
18	5	2.18138	.59893	.64660	-.008916
19	5	2.22485	.57114	.64469	-.006134
2	5	2.27586	.53860	.64270	-.003180
21	5	2.33656	.50000	.64062	.000000
	6	2.05186	.77566	.53744	.102332
1	6	2.06075	.77005	.54539	.097145
2	6	2.06949	.76457	.55325	.091605
3	6	2.07815	.75920	.56102	.085735
4	6	2.08672	.75390	.56866	.079541
5	6	2.09523	.74865	.57618	.073034
6	6	2.10374	.74343	.58356	.066223
7	6	2.11221	.73821	.59080	.059115
8	6	2.12069	.73299	.59789	.051720
9	6	2.12918	.72775	.60481	.044047
10	6	2.13770	.72246	.61155	.036108
11	6	2.14623	.71714	.61812	.027910
12	6	2.15482	.71176	.62449	.019465
13	6	2.16346	.70629	.63066	.010785
14	6	2.17214	.70076	.63662	.001881
15	6	2.18090	.69512	.64236	-.007233
16	6	2.18972	.68939	.64788	-.016549
17	6	2.22132	.66876	.64617	-.014111
18	6	2.25785	.64494	.64438	-.011584
19	6	2.30033	.61731	.64251	-.008938
20	6	2.35024	.58491	.64054	-.006152
21	6	2.40972	.54639	.63849	-.003193
22	6	2.48151	.50000	.63636	.000000

		x	y	u	v
1	7	2.11110	.85569	.53998	.095837
2	7	2.12227	.84849	.54754	.090820
3	7	2.13327	.84147	.55504	.085461
4	7	2.14416	.83456	.56245	.079784
5	7	2.15497	.82774	.56974	.073799
6	7	2.16571	.82099	.57693	.067512
7	7	2.17644	.81425	.58398	.060935
8	7	2.18713	.80754	.59090	.054074
9	7	2.19783	.80082	.59768	.046939
10	7	2.20853	.79407	.60429	.039539
11	7	2.21929	.78727	.61075	.031884
12	7	2.23005	.78043	.61703	.023984
13	7	2.24088	.77351	.62312	.015849
14	7	2.25178	.76649	.62902	.007492
15	7	2.26272	.75939	.63472	-.001076
16	7	2.27375	.75216	.64021	-.009843
17	7	2.28485	.74483	.64549	-.018798
18	7	2.31548	.72450	.64382	-.016455
19	7	2.35101	.70096	.64208	-.014033
20	7	2.39240	.67357	.64024	-.011509
21	7	2.44113	.64138	.63831	-.008874
22	7	2.49928	.60304	.63629	-.006106
23	7	2.56960	.55676	.63419	-.003170
	7	2.65603	.50000	.63202	.000000
1	8	2.18638	.95404	.54272	.089310
2	8	2.20022	.94494	.54988	.084462
3	8	2.21389	.93605	.55700	.079285
4	8	2.22742	.92729	.56402	.073807
5	8	2.24087	.91863	.57095	.068036
6	8	2.25424	.91005	.57778	.061979
7	8	2.26759	.90150	.58448	.055648
8	8	2.28090	.89298	.59106	.049048
9	8	2.29423	.88443	.59751	.042189
10	8	2.30757	.87586	.60380	.035080
11	8	2.32096	.86723	.60994	.027731
12	8	2.33437	.85854	.61592	.020152
13	8	2.34785	.84976	.62171	.012355
14	8	2.36141	.84088	.62733	.004350
15	8	2.37502	.83189	.63275	-.003850
16	8	2.38874	.82277	.63797	-.012234
17	8	2.40254	.81350	.64298	-.020789
18	8	2.43208	.79358	.64136	-.018539
19	8	2.46649	.77041	.63967	-.016215
20	8	2.50668	.74339	.63788	-.013804
21	8	2.55410	.71154	.63600	-.011301
22	8	2.61083	.67350	.63403	-.008698
23	8	2.67956	.62746	.63197	-.005976
24	8	2.76421	.57086	.62983	-.003104
	8	2.87036	.50000	.62765	.000000

α	β	x	y	u	v
	9	2.28407	1.07730	.54570	.082748
1	9	2.30111	1.06591	.55244	.073071
2	9	2.31796	1.05473	.55914	.073080
3	9	2.33467	1.04372	.56577	.067808
4	9	2.35128	1.03282	.57231	.062261
5	9	2.36781	1.02200	.57875	.056447
6	9	2.38433	1.01121	.58509	.050376
7	9	2.40081	1.00046	.59130	.044054
8	9	2.41731	.98968	.59739	.037492
9	9	2.43381	.97888	.60334	.030697
10	9	2.45039	.96800	.60915	.023681
11	9	2.46699	.95706	.61479	.016454
12	9	2.48366	.94601	.62027	.009025
13	9	2.50042	.93484	.62557	.001408
14	9	2.51724	.92355	.63069	-.006385
15	9	2.53417	.91209	.63561	-.014343
16	9	2.55119	.90048	.64034	-.022453
17	9	2.57948	.88112	.63879	-.020297
18	9	2.61261	.85846	.63716	-.018067
19	9	2.65144	.83194	.63543	-.015761
20	9	2.69739	.80059	.63362	-.013379
21	9	2.75253	.76301	.63171	-.010917
22	9	2.81953	.71739	.62971	-.008372
23	9	2.90224	.66114	.62763	-.005735
24	9	3.00622	.59051	.62549	-.002973
25	9	3.13960	.50000	.62333	.000000
	10	2.41404	1.23547	.54894	.076145
1	10	2.43497	1.22125	.55523	.071647
2	10	2.45571	1.20725	.56150	.066851
3	10	2.47631	1.19343	.56771	.061794
4	10	2.49681	1.17974	.57383	.056486
5	10	2.51723	1.16614	.57987	.050931
6	10	2.53763	1.15258	.58581	.045140
7	10	2.55800	1.13904	.59164	.039119
8	10	2.57838	1.12548	.59735	.032878
9	10	2.59878	1.11188	.60293	.026427
10	10	2.61926	1.09820	.60837	.019775
11	10	2.63977	1.08445	.61366	.012933
12	10	2.66035	1.07058	.61879	.005912
13	10	2.68102	1.05656	.62376	-.001275
14	10	2.70177	1.04241	.62855	-.008617
15	10	2.72263	1.02808	.63316	-.016100
16	10	2.74359	1.01357	.63757	-.023711
17	10	2.77039	.99496	.63610	-.021654
18	10	2.80203	.97300	.63454	-.019519
19	10	2.83927	.94720	.63289	-.017316
20	10	2.88354	.91655	.63115	-.015046
21	10	2.93687	.87966	.62933	-.012711
22	10	3.00192	.83470	.62741	-.010315
23	10	3.08249	.77903	.62542	-.007862
24	10	3.18411	.70889	.62335	-.005352
25	10	3.31484	.61872	.62126	-.002762
26	10	3.48706	.50000	.61917	.000000

α	β	x	y	u	v
1	11	2.59219	1.44426	.55249	.069497
2	11	2.61796	1.42649	.55831	.065190
3	11	2.64359	1.40894	.56412	.060602
4	11	2.66907	1.39157	.56988	.055778
5	11	2.69445	1.37434	.57557	.050726
6	11	2.71975	1.35720	.58117	.045452
7	11	2.74503	1.34010	.58668	.039965
8	11	2.77028	1.32302	.59210	.034274
9	11	2.79555	1.30592	.59740	.028386
10	11	2.82085	1.28878	.60258	.022312
11	11	2.84623	1.27154	.60763	.016062
12	11	2.87163	1.25421	.61253	.009647
13	11	2.89712	1.23676	.61729	.003079
14	11	2.92270	1.21916	.62189	-.003630
15	11	2.94836	1.20139	.62633	-.010467
16	11	2.97412	1.18344	.63059	-.017418
17	11	2.99997	1.16530	.63467	-.024469
18	11	3.02497	1.14771	.63329	-.022520
19	11	3.05481	1.12673	.63181	-.020487
20	11	3.09015	1.10190	.63026	-.018390
21	11	3.13241	1.07224	.62862	-.016234
22	11	3.18360	1.03634	.62690	-.014020
23	11	3.24638	.99235	.62509	-.011757
24	11	3.32452	.93762	.62320	-.009458
25	11	3.42351	.86833	.62125	-.007134
26	11	3.55134	.77886	.61925	-.004803
27	11	3.72034	.66064	.61726	-.002454
	11	3.94996	.50000	.61532	.000000
	12	2.84536	1.72952	.55639	.062797
1	12	2.87732	1.70722	.56171	.058700
2	12	2.90924	1.68505	.56704	.054340
3	12	2.94101	1.66309	.57232	.049771
4	12	2.97269	1.64125	.57753	.045001
5	12	3.00430	1.61952	.58267	.040036
6	12	3.03589	1.59781	.58773	.034886
7	12	3.06745	1.57614	.59270	.029558
8	12	3.09905	1.55442	.59756	.024061
9	12	3.13067	1.53265	.60231	.018406
10	12	3.16236	1.51078	.60693	.012603
11	12	3.19407	1.48883	.61143	.006664
12	12	3.22586	1.46674	.61578	.000601
13	12	3.25775	1.44448	.61999	-.005573
14	12	3.28969	1.42207	.62404	-.011845
15	12	3.32172	1.39946	.62792	-.018201
16	12	3.35380	1.37667	.63163	-.024624
17	12	3.37652	1.36048	.63036	-.022800
18	12	3.40412	1.34084	.62899	-.020882
19	12	3.43710	1.31740	.62755	-.018904
20	12	3.47689	1.28914	.62603	-.016870
21	12	3.52547	1.25466	.62443	-.014784
22	12	3.58550	1.21210	.62275	-.012654
23	12	3.66074	1.15876	.62100	-.010496
24	12	3.75665	1.09081	.61918	-.008329
25	12	3.88122	1.00258	.61733	-.006180
26	12	4.04667	.88538	.61546	-.004082
27	12	4.27242	.72549	.61365	-.002049
28	12	4.59057	.50000	.61194	.000000

α	β	x	y	u	v
1	13	3.22141	2.13613	.56068	.056036
2	13	3.26151	2.10784	.56546	.052179
3	13	3.30182	2.07954	.57028	.048074
4	13	3.34199	2.05142	.57505	.043791
5	13	3.38208	2.02343	.57977	.039336
6	13	3.42211	1.99553	.58441	.034717
7	13	3.46212	1.96766	.58898	.029942
8	13	3.50211	1.93981	.59347	.025020
9	13	3.54213	1.91191	.59786	.019960
10	13	3.58216	1.88396	.60214	.014773
11	13	3.62226	1.85590	.60631	.009470
12	13	3.66235	1.82777	.61036	.004062
13	13	3.70251	1.79950	.61427	-.001437
14	13	3.74271	1.77107	.61805	-.007014
15	13	3.78293	1.74251	.62168	-.012656
16	13	3.82318	1.71377	.62516	-.018346
17	13	3.86343	1.68487	.62848	-.024069
18	13	3.88315	1.67037	.62733	-.022397
19	13	3.90784	1.6592	.62609	-.020616
20	13	3.93778	1.63141	.62477	-.018778
21	13	3.97439	1.60515	.62339	-.016886
22	13	4.01963	1.57271	.62193	-.014945
23	13	4.07617	1.53221	.62041	-.012963
24	13	4.14776	1.48095	.61882	-.010955
25	13	4.23987	1.41504	.61717	-.008940
26	13	4.36048	1.32876	.61549	-.006951
27	13	4.52184	1.21334	.61380	-.005028
28	13	4.74329	1.05491	.61215	-.003222
29	13	5.05689	.83052	.61061	-.001565
	13	5.51834	.50000	.60922	.000000
	14	3.81145	2.74717	.56541	.049201
1	14	3.86269	2.71072	.56962	.045627
2	14	3.91464	2.67389	.57389	.041816
3	14	3.96648	2.63723	.57812	.037858
4	14	4.01824	2.60070	.58230	.033762
5	14	4.06996	2.56422	.58642	.029533
6	14	4.12166	2.52777	.59047	.025182
7	14	4.17334	2.49134	.59443	.020716
8	14	4.22503	2.45487	.59831	.016147
9	14	4.27671	2.41836	.60210	.011483
10	14	4.32840	2.38176	.60578	.006738
11	14	4.38004	2.34511	.60934	.001923
12	14	4.43167	2.30834	.61279	-.002948
13	14	4.48326	2.27147	.61611	-.007863
14	14	4.53476	2.23452	.61929	-.012806
15	14	4.58617	2.19746	.62233	-.017763
16	14	4.63745	2.16033	.62523	-.022716
17	14	4.65308	2.14899	.62423	-.021228
18	14	4.67384	2.13394	.62312	-.019615
19	14	4.69967	2.11524	.62195	-.017948
20	14	4.73199	2.09186	.62073	-.016230
21	14	4.77275	2.06240	.61944	-.014463
22	14	4.82463	2.02493	.61809	-.012657
23	14	4.89140	1.97675	.61668	-.010824
24	14	4.97853	1.91392	.61522	-.008982

α	β	x	y	u	v
25	14	5.09404	1.83065	.61374	-.007163
26	14	5.25026	1.71807	.61226	-.005407
27	14	5.46655	1.56219	.61081	-.003767
28	14	5.77502	1.33986	.60946	-.002304
29	14	6.23133	1.01090	.60827	-.001062
30	14	6.93920	.50000	.60725	.000000
	15	4.80374	3.72928	.57059	.042278
1	15	4.87082	3.68126	.57419	.039047
2	15	4.93977	3.63202	.57788	.035579
3	15	5.00862	3.58292	.58154	.031998
4	15	5.07742	3.53392	.58515	.028312
5	15	5.14619	3.48497	.58870	.024529
6	15	5.21492	3.43605	.59219	.020657
7	15	5.28359	3.38716	.59561	.016707
8	15	5.35221	3.33825	.59895	.012687
9	15	5.42073	3.28935	.60220	.008608
10	15	5.48916	3.24042	.60536	.004483
11	15	5.55740	3.19152	.60841	.000322
12	15	5.62547	3.14261	.61135	-.003859
13	15	5.69331	3.09371	.61418	-.008049
14	15	5.76084	3.04489	.61689	-.012233
15	15	5.82802	2.99613	.61946	-.016396
16	15	5.89476	2.94751	.62191	-.020523
17	15	5.90453	2.94037	.62108	-.019260
18	15	5.91969	2.92932	.62013	-.017851
19	15	5.93969	2.91476	.61913	-.016391
20	15	5.96593	2.89567	.61808	-.014883
21	15	6.00036	2.87063	.61697	-.013330
22	15	6.04567	2.83773	.61581	-.011738
23	15	6.10566	2.79419	.61461	-.010118
24	15	6.18583	2.73603	.61337	-.008487
25	15	6.29431	2.65740	.61210	-.006871
26	15	6.44352	2.54929	.61084	-.005307
27	15	6.65300	2.39755	.60962	-.003844
28	15	6.95500	2.17882	.60849	-.002540
29	15	7.40532	1.85264	.60749	-.001456
30	15	8.10768	1.34381	.60669	-.000622
31	15	9.27131	.50000	.60603	.000000

α	β	x	y	u	v
	16	6.62952	5.45260	.57622	.035249
1	16	6.72010	5.38748	.57915	.032444
2	16	6.81549	5.31899	.58224	.029381
3	16	6.91079	5.25062	.58529	.026238
4	16	7.00603	5.18234	.58830	.023025
5	16	7.10121	5.11410	.59126	.019750
6	16	7.19627	5.04594	.59416	.016420
7	16	7.29113	4.97786	.59700	.013046
8	16	7.38579	4.90988	.59977	.009637
9	16	7.48014	4.84202	.60246	.006202
10	16	7.57412	4.77433	.60506	.002755
11	16	7.66760	4.70686	.60757	-.000695
12	16	7.76053	4.63964	.60999	-.004135
13	16	7.85281	4.57274	.61231	-.007553
14	16	7.94428	4.50624	.61452	-.010935
15	16	8.03486	4.44021	.61661	-.014269
16	16	8.12440	4.37474	.61860	-.017540
17	16	8.12533	4.37406	.61794	-.016538
18	16	8.13204	4.36915	.61716	-.015369
19	16	8.14326	4.36095	.61634	-.014154
20	16	8.16034	4.34848	.61548	-.012894
21	16	8.18526	4.33030	.61457	-.011594
22	16	8.22069	4.30447	.61363	-.010256
23	16	8.27052	4.26817	.61264	-.008891
24	16	8.34031	4.21736	.61162	-.007512
25	16	8.43834	4.14605	.61059	-.006141
26	16	8.57724	4.04507	.60957	-.004809
27	16	8.77681	3.99004	.60858	-.003558
28	16	9.06968	3.68728	.60766	-.002438
29	16	9.51198	3.36600	.60687	-.001504
30	16	10.20759	2.86072	.60623	-.000794
31	16	11.36566	2.01946	.60577	-.000307
32	16	13.45605	.50000	.60541	.000000

$$\theta_s = 15^\circ \quad M_1 = 2.0$$

zero grid

a	b	x	y	u	v
2	1.86602	.50000	.58613	.157054	
	1.86602	.50000	.62138	.124874	
	1.86602	.50000	.65410	.087633	
	1.86602	.50000	.68361	.045793	
	1.86602	.50000	.70929	-.000000	
4	1.99309	.64831	.59375	.131188	
	2.01366	.63934	.62491	.102147	
	2.03521	.62961	.65395	.068416	
	2.05808	.61870	.68019	.030452	
	2.08247	.60627	.70299	-.011126	
6	2.28589	.50000	.69692	.000000	
	2.25879	.92821	.60334	.104946	
	2.31385	.90184	.62967	.079182	
	2.37152	.87345	.65429	.049451	
	2.43241	.84220	.67653	.016236	
8	2.49694	.80728	.69577	-.019810	
	2.68332	.70415	.69017	-.010571	
	3.05702	.50000	.68381	.000000	
	2.96299	1.58717	.61591	.078183	
	3.08846	1.52235	.63644	.056278	
10	3.21976	1.45303	.65564	.031587	
	3.35726	1.37806	.67286	.004718	
	3.50082	1.29661	.68757	-.023530	
	3.66033	1.20456	.68298	-.015832	
	4.00085	1.00978	.67766	-.007710	
12	4.89974	.50000	.67239	.000000	
	5.84626	3.92950	.63267	.050573	
	6.17164	3.75215	.64613	.034137	
	6.50918	3.56489	.65866	.016487	
	6.85466	3.36892	.66966	-.001519	
14	7.20151	3.16716	.67878	-.018995	
	7.29625	3.11155	.67585	-.013679	
	7.56609	2.95430	.67242	-.007881	
	8.39400	2.47490	.66907	-.002721	
	11.81888	.50000	.66732	.000000	

8 x 8 grid

1	1.86602	.50000	.58613	.157054
2	1.86602	.50000	.60403	.141619
3	1.86602	.50000	.62138	.124874
4	1.86602	.50000	.63810	.106862
5	1.86602	.50000	.65410	.087633
6	1.86602	.50000	.66930	.067252
7	1.86602	.50000	.68361	.045793
8	1.86602	.50000	.69696	.023344
	1.86602	.50000	.70929	-.000000

α	β	x	y	u	v
1	1	1.91934	.56395	.58974	.144162
	1	1.92389	.56209	.60662	.129487
	1	1.92851	.56016	.62301	.113527
	1	1.93325	.55814	.63881	.096338
	1	1.93811	.55600	.65395	.077969
	1	1.94312	.55374	.66834	.058484
	1	1.94829	.55132	.68189	.037956
	1	1.95365	.54872	.69452	.016469
	1	1.95920	.54593	.70618	-.005882
	1	2.04932	.50000	.70311	.000000
2	2	1.99309	.64831	.59375	.131188
	2	2.00331	.64388	.60952	.117285
	2	2.01371	.63932	.62488	.102138
	2	2.02435	.63456	.63970	.085817
	2	2.03527	.62956	.65391	.068372
	2	2.04654	.62427	.66741	.049868
	2	2.05814	.61864	.68013	.030374
	2	2.07014	.61263	.69198	.009974
	2	2.08255	.60619	.70291	-.011238
	2	2.16933	.56060	.69993	-.005867
10	2	2.28562	.50000	.69676	.000000
3	3	2.09904	.76355	.59825	.118121
	3	2.11657	.75557	.61282	.104998
	3	2.13441	.74735	.62705	.090690
	3	2.15267	.73881	.64080	.075285
	3	2.17140	.72986	.65398	.058835
	3	2.19068	.72042	.66651	.041404
	3	2.21055	.71043	.67831	.023063
	3	2.23105	.69982	.68930	.003896
	3	2.25221	.68851	.69941	-.016003
	3	2.33515	.64365	.69654	-.011083
10	3	2.44718	.58348	.69347	-.005827
11	3	2.60372	.50000	.69019	.000000
4	4	2.25879	.92821	.60334	.104946
	4	2.28609	.91520	.61660	.092633
	4	2.31396	.90178	.62960	.079209
	4	2.34246	.88786	.64217	.064793
	4	2.37170	.87333	.65422	.049438
	4	2.40175	.85807	.66567	.033209
	4	2.43266	.84200	.67644	.016181
	4	2.46449	.82500	.68646	-.001556
	4	2.49727	.80700	.69566	-.019907
	4	2.57561	.76349	.69297	.015396
10	4	2.68273	.70433	.69004	-.010632
11	4	2.83346	.62159	.68689	-.005562
12	4	3.05628	.50000	.68359	.000000

α	β	x	y	u	v
	5	2.51528	1.17778	.60917	.091644
1	5	2.55635	1.15739	.62100	.080206
2	5	2.59843	1.13630	.63265	.067748
3	5	2.64148	1.11446	.64391	.054430
5	5	2.68559	1.09173	.65470	.040311
5	5	2.73085	1.06797	.66494	.025461
6	5	2.77731	1.04306	.67456	.009962
7	5	2.82500	1.01688	.68349	-.006089
8	5	2.87394	.98934	.69166	-.022585
9	5	2.94635	.94818	.68920	-.018476
10	5	3.04746	.89100	.68650	-.014124
11	5	3.19135	.81002	.68358	-.009606
12	5	3.40613	.68977	.68049	-.004942
13	5	3.74642	.50000	.67735	.000000
	6	2.96299	1.58717	.61591	.078183
1	6	3.02472	1.55540	.62616	.067745
2	6	3.08842	1.52235	.63631	.056383
3	6	3.15353	1.48820	.64612	.044327
4	6	3.22016	1.45275	.65551	.031642
5	6	3.28834	1.41588	.66440	.018408
6	6	3.35807	1.37747	.67273	.004718
7	6	3.42933	1.33742	.68042	-.009320
8	6	3.50206	1.29565	.68742	-.023584
9	6	3.56608	1.25858	.68529	-.019935
10	6	3.65907	1.20499	.68289	-.015992
11	6	3.79412	1.12750	.68029	-.011931
12	6	3.99908	1.01041	.67754	-.007844
13	6	4.32823	.82315	.67475	-.003864
14	6	4.89734	.50000	.67206	.000000
	7	3.83846	2.33540	.62372	.064516
1	7	3.93373	2.28490	.63220	.055298
2	7	4.03334	2.23168	.64071	.045232
3	7	4.13496	2.17683	.64891	.034668
5	7	4.23864	2.12017	.65674	.023684
5	7	4.34429	2.06163	.66412	.012368
6	7	4.45173	2.00116	.67100	.000825
7	7	4.56074	1.93878	.67731	-.010824
8	7	4.67102	1.87455	.68302	-.022445
9	7	4.72181	1.84478	.68130	-.019401
10	7	4.80248	1.79770	.67929	-.015961
11	7	4.92447	1.72682	.67712	-.012408
12	7	5.11565	1.61616	.67483	-.008839
13	7	5.43036	1.43467	.67251	-.005430
14	7	5.98440	1.11617	.67033	-.002427
15	7	7.05662	.50000	.66842	.000000

a	b	x	y	u	v
	8	5.84626	3.92950	.63267	.050573
1	8	6.00115	3.84539	.63915	.042936
2	8	6.16796	3.75412	.64586	.034452
3	8	6.33739	3.66058	.65231	.025684
4	8	6.50929	3.56468	.65843	.016722
5	8	6.68314	3.46658	.66416	.007661
6	8	6.85828	3.36654	.66947	-.001390
7	8	7.03386	3.26493	.67429	-.010310
8	8	7.20893	3.16226	.67859	-.018968
9	8	7.23623	3.14619	.67738	-.016730
10	8	7.29539	3.11149	.67584	-.013970
11	8	7.39490	3.05332	.67417	-.011090
12	8	7.56292	2.95545	.67241	-.008175
13	8	7.85464	2.78611	.67064	-.005372
14	8	8.38710	2.47792	.66900	-.002920
15	8	9.44034	1.86968	766770	-.001082
16	8	11.81748	.50000	.66743	.000000

$$\theta_s = 15^\circ \quad M_1 = 3.0$$

zero grid

α	β	x	y	u	v
2	1	1.86602	0.50000	.72082	.193143
	2	1.86602	0.50000	.75136	.150995
	4	1.86602	0.50000	.77912	.104383
	6	1.86602	0.50000	.80338	.053816
	8	1.86602	0.50000	.82349	.000000
2	2	2.02212	0.61980	.72734	.170375
	2	2.04613	0.61504	.75510	.131155
	4	2.07369	0.60858	.78031	.087882
	6	2.10544	0.59988	.80227	.041059
	8	2.14209	0.58824	.82037	-.008620
	10	2.40502	0.50000	.81737	.000000
2	4	2.29976	0.81805	.73493	.147382
	4	2.36102	0.80419	.75958	.111307
	4	2.43086	0.78613	.78191	.071749
	6	2.51059	0.76265	.80126	.029266
	8	2.60164	0.73230	.81709	-.015362
	10	2.84902	0.64571	.81428	-.007968
	12	3.27328	0.50000	.81134	.000000
2	6	2.85023	1.18068	.74388	.124103
	6	2.97547	1.14906	.76502	.091530
	6	3.11693	1.10931	.78409	.056253
	6	3.27641	1.05950	.80048	.018979
	8	3.45541	0.99753	.81370	-.019302
	10	3.68281	0.91553	.81123	-.012845
	12	4.08355	0.77316	.80858	-.006356
	14	4.86425	0.50000	.80603	.000000
	8	4.11793	1.94313	.75439	.100429
	8	4.36804	1.87402	.77159	.071954
4	8	4.64650	1.79026	.78698	.041792
	8	4.95406	1.68962	.80003	.010880
	8	5.28933	1.57068	.81032	-.019498
	10	5.48529	1.49896	.80833	-.014044
	12	5.85314	1.36603	.80619	-.008587
	14	6.59893	1.09967	.80410	-.003691
	16	8.29501	0.50000	.80259	.000000

8 x 8 grid

1		1.86602	0.50000	.72082	.193143
2		1.86602	0.50000	.73639	.172650
3		1.86602	0.50000	.75136	.150995
4		1.86602	0.50000	.76564	.128220
5		1.86602	0.50000	.77912	.104383
6		1.86602	0.50000	.79173	.079554
7		1.86602	0.50000	.80338	.053816
8		1.86602	0.50000	.81399	.027263
		1.86602	0.50000	.82349	.000000

α	β	x	y	u	v
1	1	1.93380	0.55302	.72396	.181785
	1	1.93904	0.55211	.73884	.161986
	1	1.94465	0.55103	.75314	.141063
	1	1.95066	0.54976	.76678	.119067
	1	1.95712	0.54826	.77966	.096056
	1	1.96407	0.54650	.79169	.072098
	1	1.97155	0.54445	.80279	.047273
	1	1.97960	0.54206	.81289	.021673
	1	1.98827	0.53928	.82192	-.004597
9	1	2.10727	0.50000	.82037	.000000
1	2	2.02212	0.61980	.72734	.170375
	2	2.03374	0.61760	.74148	.151302
	2	2.04617	0.61503	.75509	.131149
	2	2.05948	0.61203	.76805	.109979
	2	2.07375	0.60855	.78029	.087848
	2	2.08907	0.60451	.79171	.064826
	2	2.10552	0.59983	.80223	.040994
	2	2.12320	0.59441	.81180	.016445
	2	2.14220	0.58816	.82033	-.008717
	2	2.25779	0.54910	.81882	-.004463
10	2	2.40470	0.50000	.81729	.000000
1	3	2.13961	0.70552	.73098	.158909
	3	2.15918	0.70153	.74435	.140588
	3	2.18008	0.69692	.75721	.121235
	3	2.20243	0.69160	.76946	.100930
	3	2.22635	0.68549	.78102	.079732
	3	2.25197	0.67845	.79179	.057712
	3	2.27943	0.67036	.80170	.034956
	3	2.30886	0.66108	.81069	.011559
	3	2.34040	0.65047	.81870	-.012370
	3	2.45226	0.61184	.81724	-.008420
	3	2.59523	0.56297	.81575	-.004339
	3	2.78133	0.50000	.81422	.000000
1	4	2.29976	0.81805	.73493	.147382
	4	2.32945	0.81156	.74747	.129844
	4	2.36112	0.80415	.75955	.111329
	4	2.39493	0.79569	.77104	.091940
	4	2.43104	0.78604	.78187	.071738
	4	2.46963	0.77504	.79195	.050801
	4	2.51088	0.76251	.80121	.029220
	4	2.55495	0.74825	.80959	.007098
	4	2.60203	0.73207	.81703	-.015446
	4	2.70973	0.69418	.81564	-.011771
	4	2.84842	0.64580	.81420	-.008006
	4	3.02968	0.58315	.81272	-.004114
12	4	3.27256	0.50000	.81123	.000000

α	β	x	y	u	v
	5	2.52440	0.96974	.73922	.135784
1	5	2.56731	0.95976	.75088	.119074
2	5	2.61305	0.94847	.76212	.101445
3	5	2.66177	0.93570	.77281	.083033
4	5	2.71369	0.92125	.78286	.063907
5	5	2.76902	0.90493	.79221	.044149
6	5	2.82796	0.88650	.80077	.023862
7	5	2.89071	0.86573	.80850	.003162
8	5	2.95746	0.84237	.81533	-.017817
9	5	3.06029	0.80559	.81403	-.014398
10	5	3.19422	0.75808	.81266	-.010899
11	5	3.37022	0.69614	.81125	-.007352
12	5	3.60715	0.61347	.80982	-.003747
13	5	3.93504	0.50000	.80841	.000000
	6	2.85023	1.18068	.74388	.124103
1	6	2.91093	1.16576	.75460	.108278
2	6	2.97560	1.14899	.76496	.091599
3	6	3.04431	1.13020	.77479	.074241
4	6	3.11731	1.10913	.78402	.056284
5	6	3.19484	1.08554	.79258	.037821
6	6	3.27709	1.05915	.80040	.018968
7	6	3.36426	1.02971	.80743	-.000141
8	6	3.45646	0.99696	.81361	-.019353
9	6	3.55335	0.96186	.81242	-.016192
10	6	3.68169	0.91571	.81115	-.012930
11	6	3.85175	0.85501	.80983	-.009659
12	6	4.08220	0.77336	.80849	-.006413
13	6	4.40285	0.66060	.80716	-.003219
14	6	4.86263	0.50000	.80589	.000000
	7	3.34174	1.48496	.74893	.112325
1	7	3.42716	1.46287	.75867	.097463
2	7	3.51815	1.43821	.76808	.081812
3	7	3.61452	1.41080	.77700	.065603
4	7	3.71652	1.38037	.78536	.048928
5	7	3.82436	1.34663	.79308	.031894
6	7	3.93820	1.30929	.80012	.014632
7	7	4.05809	1.26811	.80640	-.002703
8	7	4.18398	1.22286	.81189	-.019931
9	7	4.27325	1.19023	.81083	-.017054
10	7	4.39466	1.14614	.80967	-.014029
11	7	4.55754	1.08740	.80847	-.011007
12	7	4.78052	1.00753	.80725	-.008036
13	7	5.09327	0.89624	.80603	-.005189
14	7	5.54447	0.73669	.80487	-.002523
15	7	6.21715	0.50000	.80382	.000000

α	β	x	y	u	v
	8	4.11793	1.94313	.75459	.100429
1	8	4.23893	1.91040	.70390	.086635
2	8	4.36788	1.87401	.77148	.072110
3	8	4.50390	1.83395	.77944	.057165
4	8	4.64718	1.78991	.78688	.041901
5	8	4.79781	1.74161	.79372	.026444
6	8	4.95572	1.68883	.79992	.010940
7	8	5.12067	1.63140	.80543	-.004435
8	8	5.29217	1.56928	.81020	-.019478
9	8	5.37118	1.54024	.80928	-.016931
10	8	5.48349	1.49922	.80826	-.014173
11	8	5.63711	1.44347	.80720	-.011413
12	8	5.85074	1.36643	.80611	-.008704
13	8	6.15410	1.25768	.80503	-.006123
14	8	6.59584	1.10020	.80401	-.003767
15	8	7.25890	0.86500	.80309	-.001729
16	8	8.29180	0.50000	.80247	.000000

$$\theta_B = 15^0 \quad M_1 = 4.0$$

zero grid

α	β	x	y	u	v
2	1.86602	0.50000	.79312	.212516	
	1.86602	0.50000	.82130	.165050	
	1.86602	0.50000	.84635	.113389	
	1.86602	0.50000	.86755	.058115	
	1.86602	0.50000	.88432	.000000	
4	2.01867	0.59679	.79837	.193861	
	2.04533	0.59419	.82453	.148921	
	2.07752	0.58971	.84772	.100163	
	2.11662	0.58255	.86728	.048171	
	2.16434	0.57160	.88265	-.006281	
8	2.45091	0.50000	.88103	.000000	
10	2.26179	0.74252	.80422	.175074	
	2.32688	0.73482	.82818	.132819	
	2.40489	0.72263	.84935	.087199	
	2.49876	0.70415	.86712	.038861	
	2.61206	0.67699	.88095	-.011332	
12	2.88547	0.60629	.87942	-.005796	
14	3.30423	0.50000	.87786	.000000	
2	2.67208	0.97381	.81078	.156128	
	2.79602	0.95673	.83233	.116747	
	2.94319	0.93134	.85130	.074567	
	3.11823	0.89468	.86710	.030360	
	3.32629	0.84304	.87926	-.014793	
8	3.58436	0.77457	.87785	-.009833	
10	3.98549	0.66975	.87640	-.004913	
14	4.64552	0.50000	.87501	.000000	
16	3.41595	1.36570	.81810	.136981	
	3.63623	1.33129	.83704	.100730	
	3.89475	1.28279	.85361	.062382	
	4.19742	1.21602	.86727	.022900	
	4.54923	1.12639	.87762	-.016302	
10	4.78725	1.06222	.87638	-.011869	
12	5.16740	0.96111	.87510	-.007542	
14	5.80432	0.79383	.87385	-.003546	
16	6.93610	0.50000	.87272	.000000	

8 x 8 grid

1	1.86602	0.50000	.79312	.212516
2	1.86602	0.50000	.80755	.189336
3	1.86602	0.50000	.82130	.165050
4	1.86602	0.50000	.83426	.139713
5	1.86602	0.50000	.84635	.113389
6	1.86602	0.50000	.85747	.086160
7	1.86602	0.50000	.86755	.058115
8	1.86602	0.50000	.87652	.029358
			.88432	.000000

α	β	x	y	u	v
	1	1.93400	0.54374	.79567	.203204
1	1	1.93983	0.54330	.80960	.180621
2	1	1.94623	0.54268	.82286	.156971
3	1	1.95327	0.54184	.83536	.132313
4	1	1.96104	0.54075	.84700	.106715
5	1	1.96962	0.53935	.85770	.080253
6	1	1.97910	0.53757	.86739	.053019
7	1	1.98960	0.53536	.87600	.025114
8	1	2.00124	0.53261	.88347	-.003352
9	1	2.13344	0.50000	.88263	.000000
	2	2.01867	0.59679	.79837	.193861
1	2	2.03141	0.59567	.81176	.171903
2	2	2.04538	0.59417	.82452	.148916
3	2	2.06072	0.59221	.83653	.124972
4	2	2.07760	0.58969	.84771	.100136
5	2	2.09620	0.58650	.85798	.074487
6	2	2.11672	0.58251	.86726	.048118
7	2	2.13939	0.57758	.87549	.021130
8	2	2.16448	0.57153	.88262	-.006362
9	2	2.29360	0.53906	.88180	-.003220
10	2	2.45061	0.50000	.88098	.000000
	3	2.12541	0.66182	.80121	.184485
1	3	2.14646	0.65975	.81405	.163171
2	3	2.16948	0.65705	.82628	.140870
3	3	2.19473	0.65358	.83778	.117663
4	3	2.22246	0.64920	.84848	.093623
5	3	2.25296	0.64374	.85830	.068829
6	3	2.28652	0.63700	.86716	.043378
7	3	2.32351	0.62875	.87500	.017374
8	3	2.36432	0.61871	.88177	-.009060
9	3	2.49016	0.58650	.88097	-.006109
10	3	2.64382	0.54756	.88017	-.003113
11	3	2.83336	0.50000	.87936	.000000
	4	2.26179	0.74252	.80422	.175074
1	4	2.29296	0.73913	.81648	.154424
2	4	2.32700	0.73480	.82816	.132832
3	4	2.36426	0.72934	.83913	.110395
4	4	2.40509	0.72257	.84933	.087186
5	4	2.44989	0.71423	.85867	.063293
6	4	2.49906	0.70404	.86709	.038819
7	4	2.55309	0.69170	.87452	.013874
8	4	2.61251	0.67681	.88092	-.011406
9	4	2.73481	0.64502	.88015	-.008627
10	4	2.88495	0.60633	.87937	-.005823
11	4	3.07061	0.55893	.87858	-.002963
12	4	3.30360	0.50000	.87780	.000000

α	β	x	y	u	v
	5	2.43870	0.84406	.80740	.165623
1	5	2.46239	0.83886	.81906	.145660
2	5	2.53003	0.83234	.83016	.124802
3	5	2.58207	0.82427	.84058	.103167
4	5	2.63895	0.81439	.85025	.080832
5	5	2.70119	0.80237	.85910	.057893
7	5	2.76931	0.78785	.86705	.034462
8	5	2.84390	0.77042	.87406	.010663
9	5	2.92558	0.74963	.88006	-.013352
10	5	3.04399	0.71843	.87933	-.010732
11	5	3.19036	0.68016	.87857	-.008092
12	5	3.37193	0.63310	.87781	-.005440
13	5	3.60041	0.57438	.87705	-.002759
	5	3.89228	0.50000	.87631	.000000
	6	2.67208	0.97381	.81078	.156128
1	6	2.73153	0.96612	.82180	.136880
2	6	2.79623	0.95668	.83230	.116787
3	6	2.86673	0.94516	.84214	.095990
4	6	2.94358	0.93122	.85126	.074578
5	6	3.02743	0.91446	.85959	.052652
6	6	3.11887	0.89445	.86706	.030338
7	6	3.21860	0.87069	.87362	.007780
8	6	3.32727	0.84265	.87921	-.014849
9	6	3.44125	0.81227	.87852	-.012382
10	6	3.58348	0.77464	.87780	-.009888
11	6	3.76069	0.72812	.87707	-.007407
12	6	3.98445	0.66983	.87634	-.004945
13	6	4.27112	0.59573	.87562	-.002493
14	6	4.64427	0.50000	.87493	.000000
	7	2.98575	1.14243	.81434	.146583
1	7	3.06533	1.13136	.82470	.128083
2	7	3.15180	1.11796	.83457	.108789
3	7	3.24577	1.10184	.84381	.088876
4	7	3.34790	1.08258	.85236	.068439
5	7	3.45892	1.05969	.86015	.047593
6	7	3.57950	1.03266	.86711	.026480
7	7	3.71035	1.00093	.87320	.005266
8	7	3.85209	0.96393	.87837	-.015848
9	7	3.96088	0.93466	.87772	-.013536
10	7	4.09843	0.89793	.87705	-.011176
11	7	4.27080	0.85223	.87636	-.008841
12	7	4.48950	0.79465	.87567	-.006551
13	7	4.77077	0.72111	.87498	-.004320
14	7	5.13801	0.62575	.87432	-.002151
15	7	5.62540	0.50000	.87371	.000000

α	β	x	y	u	v
8	8	3.41595	1.36570	.81810	.136981
1	8	3.52176	1.34998	.82777	.119266
2	8	3.63652	1.33120	.83698	.100812
3	8	3.76083	1.30889	.84560	.081830
4	8	3.89547	1.28256	.85355	.062429
5	8	4.04120	1.25165	.86078	.042736
6	8	4.19871	1.21557	.86722	.022911
7	8	4.36861	1.17373	.87282	.003147
8	8	4.55129	1.12560	.87755	-.016322
9	8	4.65385	1.09784	.87695	-.014174
10	8	4.78589	1.06232	.87632	-.011949
11	8	4.95268	1.01777	.87568	-.009752
12	8	5.16571	0.96124	.87504	-.007607
13	8	5.44116	0.88862	.87440	-.005542
14	8	5.80230	0.79398	.87378	-.003584
15	8	6.28317	0.66871	.87320	-.001754
16	8	6.93406	0.50000	.87269	.000000

$$\theta_s = 15^\circ \quad M_1 = 5.0$$

zero grid

α	β	x	y	u	v
		1.86602	0.50000	.83447	.223596
2		1.86602	0.50000	.86109	.173047
4		1.86602	0.50000	.88433	.118478
6		1.86602	0.50000	.90351	.060524
8		1.86602	0.50000	.91807	.000000
	2	2.00936	0.58123	.83877	.208156
2	2	2.03787	0.58002	.86382	.159789
4	2	2.07362	0.57694	.88563	.107741
6	2	2.11897	0.57095	.90356	.052662
8	2	2.17708	0.56049	.91708	-.004623
10	2	2.47749	0.50000	.91612	.000000
	4	2.22182	0.69622	.84344	.192632
2	4	2.28938	0.69229	.86680	.146567
4	4	2.37345	0.68394	.88709	.097191
6	4	2.47919	0.66889	.90369	.045227
8	4	2.61318	0.64381	.91610	-.008411
10	4	2.90215	0.58390	.91519	-.004272
12	4	3.31382	0.50000	.91428	.000000
	6	2.54816	0.86430	.84854	.177011
2	6	2.67134	0.85522	.87009	.133366
4	6	2.82337	0.83822	.88875	.086843
6	6	3.01260	0.80949	.90392	.038284
8	6	3.24909	0.76376	.91515	-.011196
10	6	3.52535	0.70520	.91429	-.007442
12	6	3.92303	0.62209	.91342	-.003715
14	6	4.51597	0.50000	.91260	.000000
	8	3.07077	1.11937	.85407	.161275
2	8	3.27666	1.10116	.87370	.120182
4	8	3.52830	1.07002	.89061	.076719
6	8	3.83746	1.02037	.90426	.031904
8	8	4.21678	0.94509	.91422	-.012837
10	8	4.47766	0.88892	.91344	-.009426
12	8	4.85985	0.80767	.91265	-.006082
14	8	5.43562	0.68675	.91188	-.002947
16	8	6.33556	0.50000	.91120	.000000

8 x 8 grid

1		11.86602	0.50000	.83447	.223596
2		1.86602	0.50000	.84815	.198855
3		1.86602	0.50000	.86109	.173047
4		1.86602	0.50000	.87318	.146230
5		1.86602	0.50000	.88433	.118478
6		1.86602	0.50000	.89447	.089877
7		1.86602	0.50000	.90351	.060524
8		1.86602	0.50000	.91140	.030526
		1.86602	0.50000	.91807	.000000

α	β	x	y	u	v
1	1	1.93095	0.53724	.83657	.215886
	1	1.93719	0.53710	.84986	.191661
	1	1.94415	0.53679	.86242	.166405
	1	1.95197	0.53626	.87415	.140182
	1	1.96077	0.53547	.88496	.113066
	1	1.97070	0.53434	.89478	.085141
	1	1.98194	0.53278	.90352	.056506
	1	1.99469	0.53071	.91113	.027267
	1	2.00919	0.52798	.91756	-.002459
	1	2.14962	0.50000	.91707	.000000
2	2	2.00936	0.58123	.83877	.208156
	2	2.02283	0.58081	.85165	.184468
	2	2.03786	0.58002	.86381	.159783
	2	2.05470	0.57877	.87517	.134177
	2	2.07362	0.57694	.88563	.107723
	2	2.09492	0.57439	.89511	.080508
	2	2.11898	0.57094	.90356	.052630
	2	2.14621	0.56639	.91089	.024197
	2	2.17711	0.56047	.91707	-.004670
	2	2.31482	0.53258	.91658	-.002346
10	2	2.47730	0.50000	.91610	.000000
3	3	2.10476	0.63354	.84105	.200405
	3	2.12671	0.63267	.85351	.177268
	3	2.15115	0.63120	.86527	.153172
	3	2.17850	0.62898	.87624	.128199
	3	2.20915	0.62582	.88634	.102427
	3	2.24362	0.62150	.89548	.075946
	3	2.28244	0.61575	.90361	.048856
	3	2.32627	0.60825	.91066	.021273
	3	2.37585	0.59858	.91658	-.006678
	3	2.51071	0.57086	.91610	-.004475
	3	2.67034	0.53835	.91563	-.002267
11	3	2.86032	0.50000	.91516	.000000
4	4	2.22182	0.69622	.84344	.192632
	4	2.25379	0.69470	.85546	.170060
	4	2.28934	0.69229	.86680	.146566
	4	2.32903	0.68878	.87737	.122246
	4	2.37344	0.68393	.88709	.097178
	4	2.42325	0.67742	.89588	.071460
	4	2.47923	0.66887	.90368	.045197
	4	2.54224	0.65783	.91043	.018512
	4	2.61329	0.64376	.91609	-.008457
	4	2.74515	0.61629	.91563	-.006367
	4	2.90184	0.58393	.91517	-.004280
12	4	3.08862	0.54566	.91470	-.002166
		3.31347	0.50000	.91425	.000000

α	β	x	y	u	v
	5	2.36680	0.77196	.84593	.184835
1	5	2.41074	0.76950	.85749	.162841
2	5	2.45952	0.76583	.86840	.139966
3	5	2.51387	0.76067	.87856	.116318
4	5	2.57456	0.75367	.88789	.091979
5	5	2.64245	0.74443	.89632	.067055
6	5	2.71854	0.73247	.90378	.041660
7	5	2.80393	0.71719	.91023	.015927
8	5	2.89985	0.69793	.91561	-.009985
9	5	3.02849	0.67082	.91516	-.007999
10	5	3.18210	0.63869	.91471	-.006019
11	5	3.36559	0.60061	.91426	-.004035
12	5	3.58686	0.55505	.91381	-.002037
13	5	3.85639	0.50000	.91338	.000000
	6	2.54816	0.86430	.84854	.177011
1	6	2.60655	0.86056	.85962	.155612
2	6	2.67125	0.85523	.87008	.133373
3	6	2.74320	0.84792	.87981	.110418
4	6	2.82335	0.83821	.88874	.086835
5	6	2.91277	0.82558	.89679	.062741
6	6	3.01267	0.80944	.90391	.038258
7	6	3.12438	0.78907	.91003	.013538
8	6	3.24932	0.76365	.91513	-.011239
9	6	3.37444	0.73702	.91470	-.009351
10	6	3.52480	0.70524	.91427	-.007464
11	6	3.70486	0.66745	.91383	-.005590
12	6	3.92245	0.62212	.91340	-.003728
13	6	4.18799	0.56720	.91298	-.001872
14	6	4.51531	0.50000	.91257	.000000
	7	2.77750	0.97799	.85125	.169158
1	7	2.85352	0.97253	.86185	.148369
2	7	2.93760	0.96499	.87184	.126783
3	7	3.03089	0.95491	.88113	.104544
4	7	3.13454	0.94176	.88964	.081747
5	7	3.24984	0.92492	.89730	.058517
6	7	3.37820	0.90365	.90406	.034994
7	7	3.52112	0.87712	.90986	.011347
8	7	3.68017	0.84441	.91466	-.012210
9	7	3.80135	0.81839	.91425	-.010419
10	7	3.94817	0.78708	.91384	-.008616
11	7	4.12457	0.74972	.91342	-.006838
12	7	4.33834	0.70475	.91300	-.005088
13	7	4.59980	0.65010	.91259	-.003372
14	7	4.92270	0.58306	.91220	-.001692
15	7	5.32535	0.50000	.91183	.000000

a	b	x	y	u	v
	8	3.07077	1.11937	.85407	.161275
1	8	3.16853	1.11160	.86417	.141115
2	8	3.27646	1.10117	.87368	.120202
3	8	3.39590	1.08752	.88252	.098701
4	8	3.52823	1.07000	.89060	.076722
5	8	3.67493	1.04787	.89786	.054398
6	8	3.83760	1.02029	.90424	.031886
7	8	4.01785	0.98630	.90970	.009379
8	8	4.21725	0.94489	.91420	-.012873
9	8	4.33394	0.91967	.91382	-.011179
10	8	4.47683	0.88899	.91342	-.009457
11	8	4.64924	0.85220	.91302	-.007764
12	8	4.85892	0.80774	.91263	-.006107
13	8	5.11615	0.75353	.91224	-.004502
14	8	5.43460	0.68682	.91186	-.002961
15	8	5.83244	0.60397	.91150	-.001466
16	8	6.33443	0.50000	.91117	.000000

$$\theta_s = 15^\circ \quad M_1 = 7.0$$

zero grid

α	β	x	y	u	v
2	1.86602	0.50000	.87615	.234764	
	1.86602	0.50000	.90086	.181039	
	1.86602	0.50000	.92192	.123514	
	1.86602	0.50000	.93867	.062879	
	1.86602	0.50000	.95060	.000000	
4	1.99266	0.56336	.87931	.223279	
	2.02326	0.56387	.90293	.171279	
	2.06415	0.56265	.92300	.115787	
	2.11980	0.55831	.93892	.057506	
	2.19703	0.54847	.95018	-.002669	
6	2.52015	0.50000	.94977	.000000	
	2.16564	0.64698	.88266	.211752	
	2.23557	0.64734	.90512	.161547	
	2.32839	0.64371	.92417	.108159	
	2.45373	0.63310	.93920	.052347	
8	2.62590	0.61043	.94978	-.004901	
	2.94074	0.56220	.94938	-.002457	
	3.35215	0.50000	.94899	.000000	
	2.40622	0.75911	.88621	.200176	
	2.52791	0.75837	.90746	.151825	
10	2.68830	0.75069	.92542	.100619	
	2.90297	0.73114	.93954	.047404	
	3.19429	0.69168	.94939	-.006657	
	3.50041	0.64399	.94901	-.004396	
	3.90222	0.58210	.94863	-.002186	
12	4.44161	0.50000	.94828	.000000	
	2.74773	0.91218	.88998	.188546	
	2.93924	0.90898	.90995	.142107	
	3.18969	0.89489	.92678	.093161	
	3.52147	0.86268	.93993	.042685	
14	3.96518	0.80111	.94902	-.007895	
	4.26171	0.75432	.94866	-.005788	
	4.65349	0.69315	.94831	-.003760	
	5.18190	0.61146	.94797	-.001838	
	5.91008	0.50000	.94767	.000000	

8 x 8 grid

1	1.86602	0.50000	.87615	.234764
2	1.86602	0.50000	.88891	.208411
3	1.86602	0.50000	.90086	.181039
4	1.86602	0.50000	.91189	.152713
5	1.86602	0.50000	.92192	.123514
6	1.86602	0.50000	.93087	.093535
7	1.86602	0.50000	.93867	.062879
8	1.86602	0.50000	.94526	.031660
			.95060	.000000

α	β	x	y	u	v
1	1	1.92454	0.52954	.87771	.229027
	1	1.93124	0.52978	.89020	.203085
	1	1.93896	0.52987	.90188	.176156
	1	1.94790	0.52976	.91266	.148313
	1	1.95828	0.52938	.92245	.119637
	1	1.97042	0.52865	.93118	.090219
	1	1.98467	0.52742	.93879	.060167
	1	2.00149	0.52555	.94521	.029592
	1	2.02147	0.52282	.95039	-.001382
	1	2.17476	0.50000	.95018	.000000
2	2	1.99266	0.56336	.87931	.223279
	2	2.00691	0.56377	.89151	.197758
	2	2.02331	0.56386	.90292	.171283
	2	2.04225	0.56354	.91345	.143931
	2	2.06424	0.56264	.92300	.115787
	2	2.08989	0.56098	.93151	.086942
	2	2.11995	0.55829	.93891	.057505
	2	2.15536	0.55426	.94515	.027592
	2	2.19729	0.54843	.95018	-.002671
	2	2.34847	0.52567	.94998	-.001354
10	2	2.52014	0.50000	.94977	.000000
3	3	2.07224	0.60220	.88096	.217521
	3	2.09508	0.60272	.89287	.192431
	3	2.12131	0.60272	.90400	.166416
	3	2.15155	0.60205	.91426	.139564
	3	2.18659	0.60046	.92357	.111960
	3	2.22739	0.59766	.93185	.083701
	3	2.27511	0.59325	.93905	.054894
	3	2.33118	0.58672	.94510	.025666
	3	2.39741	0.57739	.94997	-.003851
	3	2.54642	0.55471	.94977	-.002594
10	3	2.71597	0.52907	.94957	-.001303
11	3	2.90958	0.50000	.94937	.000000
4	4	2.16564	0.64698	.88266	.211752
	4	2.19828	0.64752	.89427	.187100
	4	2.23570	0.64733	.90512	.161558
	4	2.27878	0.64616	.91511	.135217
	4	2.32860	0.64369	.92416	.108165
	4	2.38652	0.63951	.93221	.080505
	4	2.45408	0.63306	.93920	.052348
	4	2.53328	0.62364	.94507	.023829
	4	2.62651	0.61034	.94977	-.004906
	4	2.77330	0.58778	.94958	-.003704
	4	2.94069	0.56221	.94938	-.002470
11	4	3.13202	0.53317	.94918	-.001235
12	4	3.35208	0.50000	.94899	.000000

α	β	x	y	u	v
1	5	2.27575	0.69883	.88441	.205970
2	5	2.31965	0.69929	.89571	.181765
3	5	2.36988	0.69876	.90627	.156701
4	5	2.42763	0.69692	.91598	.130877
5	5	2.49429	0.69334	.92478	.104387
6	5	2.57161	0.68747	.93259	.077337
7	5	2.66159	0.67862	.93936	.049849
8	5	2.76677	0.66586	.94503	.022063
9	5	2.89017	0.64805	.94957	-.005849
10	5	3.03462	0.62565	.94938	-.004699
11	5	3.19981	0.60019	.94919	-.003516
12	5	3.38881	0.57123	.94899	-.002341
13	5	3.60641	0.53810	.94880	-.001179
	5	3.85816	0.50000	.94862	.000000
1	6	2.40622	0.75911	.88621	.200176
2	6	2.46313	0.75937	.89720	.176424
3	6	2.52813	0.75835	.90745	.151846
4	6	2.60274	0.75563	.91688	.126551
5	6	2.68868	0.75066	.92541	.100633
6	6	2.78814	0.74276	.93298	.074210
7	6	2.90360	0.73107	.93953	.047410
8	6	3.03815	0.71446	.94501	.020388
9	6	3.19541	0.69152	.94938	-.006662
10	6	3.33739	0.66932	.94919	-.005559
11	6	3.50031	0.64401	.94900	-.004422
12	6	3.68696	0.61517	.94881	-.003300
13	6	3.90207	0.58212	.94863	-.002200
14	6	4.15116	0.54407	.94845	-.001099
	6	4.44140	0.50000	.94827	.000000
1	7	2.56161	0.82952	.88807	.194368
2	7	2.63365	0.82946	.89873	.171077
3	7	2.71580	0.82774	.90867	.146993
4	7	2.80989	0.82387	.91781	.122234
5	7	2.91806	0.81719	.92608	.096900
6	7	3.04294	0.80685	.93340	.071118
7	7	3.18751	0.79181	.93972	.045025
8	7	3.35540	0.77072	.94500	.018797
9	7	3.55081	0.74194	.94919	-.007345
10	7	3.69016	0.72001	.94901	-.006288
11	7	3.85071	0.69488	.94883	-.005193
12	7	4.03492	0.66621	.94864	-.004116
13	7	4.24751	0.63330	.94846	-.003068
14	7	4.49394	0.59536	.94828	-.002031
15	7	4.78135	0.55134	.94811	-.001014
	7	5.11835	0.50000	.94795	.000000

α	β	x	y	u	v
	8	2.74773	0.91218	.88998	.188546
1	8	2.83745	0.91160	.90031	.165723
2	8	2.93959	0.90895	.90994	.142139
3	8	3.05635	0.90363	.91878	.117924
4	8	3.19029	0.89483	.92676	.093185
5	8	3.34451	0.88155	.93383	.068060
6	8	3.52250	0.86254	.93992	.042697
7	8	3.72843	0.83626	.94499	.017293
8	8	3.96698	0.80082	.94901	-.007896
9	8	4.10349	0.77922	.94884	-.006883
10	8	4.26153	0.75434	.94866	-.005827
11	8	4.44318	0.72588	.94848	-.004791
12	8	4.65318	0.69316	.94830	-.003789
13	8	4.89691	0.65537	.94813	-.002805
14	8	5.18149	0.61147	.94796	-.001854
15	8	5.51549	0.56020	.94780	-.000924
16	8	5.90949	0.50000	.94765	.000000

$$\theta_s = 20^\circ \quad M_1 = 1.5$$

zero grid

α	β	x	y	u	v
2	1.37373	0.50000	.43005	.156525	.
	1.37373	0.50000	.49447	.134981	.
	1.37373	0.50000	.54965	.100028	.
	1.37373	0.50000	.59805	.054418	.
	1.37373	0.50000	.63915	-.000000	.
4	1.39932	0.62376	.44018	.131316	.
	1.42617	0.60176	.49761	.113861	.
	1.44495	0.58879	.54826	.082080	.
	1.46187	0.57763	.59305	.039680	.
	1.47850	0.56650	.63116	-.011338	.
6	1.57594	0.50000	.62250	.000000	.
8	1.46389	0.84508	.45326	.105463	.
	1.53064	0.78547	.50201	.090508	.
	1.57934	0.74835	.54668	.062020	.
	1.62340	0.71646	.58661	.023596	.
	1.66650	0.68510	.62064	-.022772	.
10	1.75400	0.62056	.61272	-.012357	.
12	1.91858	0.50000	.60587	.000000	.
	1.66789	1.34104	.47144	.078743	.
	1.80532	1.21123	.50928	.064628	.
	1.91293	1.12109	.54548	.039908	.
	2.01149	1.04239	.57826	.007167	.
14	2.10731	0.96603	.60615	-.031749	.
10	2.17808	0.90906	.59914	-.022863	.
12	2.32207	0.79288	.59143	-.014498	.
14	2.68469	0.50000	.58066	.000000	.
16	2.72710	3.13880	.49887	.050581	.
	3.04774	2.83392	.52289	.037356	.
	3.32762	2.58355	.54668	.018431	.
	3.58982	2.35582	.56827	-.004518	.
	3.84042	2.13915	.58630	-.029689	.
10	3.86779	2.11536	.58150	-.023312	.
12	3.96522	2.03063	.57602	-.016864	.
14	4.25210	1.77991	.56755	-.007866	.
16	5.70450	0.50000	.55985	.000000	.

8 x 8 grid

1	1.37373	0.50000	.43005	.156525	.
	1.37373	0.50000	.46393	.147752	.
	1.37373	0.50000	.49447	.134981	.
	1.37373	0.50000	.52292	.118956	.
	1.37373	0.50000	.54965	.100028	.
	1.37373	0.50000	.57471	.078441	.
	1.37373	0.50000	.59805	.054418	.
	1.37373	0.50000	.61958	.028188	.
8	1.37373	0.50000	.63915	-.000000	.

a	b	x	y	u	v
	1	1.38385	0.55413	.43483	.143992
1	1	1.39102	0.54826	.46668	.136434
2	1	1.39618	0.54454	.49583	.124529
3	1	1.40060	0.54157	.52313	.109274
4	1	1.40464	0.53896	.54885	.091087
5	1	1.40850	0.53652	.57301	.070241
6	1	1.41226	0.53414	.59554	.046971
7	1	1.41601	0.53174	.61632	.021511
8	1	1.41978	0.52928	.63521	-.005889
9	1	1.46419	0.50000	.63130	.000000
	2	1.39932	0.62376	.44018	.131316
1	2	1.41490	0.61036	.46987	.124806
2	2	1.42628	0.60171	.49748	.113735
3	2	1.43605	0.59482	.52350	.099272
4	2	1.44501	0.58875	.54810	.081879
5	2	1.45355	0.58308	.57125	.061849
6	2	1.46190	0.57758	.59286	.039427
7	2	1.47019	0.57206	.61280	.014849
8	2	1.47851	0.56642	.63094	-.011634
9	2	1.52108	0.53733	.62707	-.006094
10	2	1.57593	0.50000	.62287	.000000
	3	1.42372	0.71636	.44625	.118480
1	3	1.44937	0.69331	.47357	.112712
2	3	1.46845	0.67808	.49943	.102380
3	3	1.48493	0.66585	.52398	.088696
4	3	1.50009	0.65507	.54728	.072136
5	3	1.51455	0.64503	.56927	.053000
6	3	1.52866	0.63529	.58982	.031533
7	3	1.54266	0.62558	.60879	.007973
8	3	1.55669	0.61569	.62603	-.017429
9	3	1.59711	0.58599	.62225	-.012236
10	3	1.64952	0.54988	.61809	-.006590
11	3	1.72071	0.50000	.61534	.000000
	4	1.46389	0.84508	.45326	.105463
1	4	1.50193	0.80960	.47797	.100108
2	4	1.53093	0.78537	.50183	.090405
3	4	1.55620	0.76566	.52467	.077495
4	4	1.57953	0.74824	.54645	.061827
5	4	1.60180	0.73200	.56706	.043695
6	4	1.62353	0.71630	.58635	.023340
7	4	1.64506	0.70069	.60415	.000998
8	4	1.66658	0.68488	.62033	-.023083
9	4	1.70436	0.65693	.61667	-.018234
10	4	1.75385	0.62037	.61261	-.013010
11	4	1.82159	0.57040	.60888	-.008458
12	4	1.91840	0.50000	.60590	.000000

α	β	x	y	u	v
1	5	1.53408	1.03516	.46151	.092233
2	5	1.58809	0.98339	.48336	.086974
3	5	1.63054	0.94640	.50491	.077792
4	5	1.66797	0.91580	.52574	.065665
5	5	1.70271	0.88855	.54570	.050987
6	5	1.73594	0.86309	.56464	.034027
7	5	1.76836	0.83850	.58239	.015019
8	5	1.80042	0.81414	.59878	-.005805
9	5	1.83240	0.78960	.61365	-.028200
10	5	1.86674	0.76308	.61017	-.023704
11	5	1.91256	0.72772	.60628	-.018874
12	5	1.97647	0.67837	.60264	-.014747
13	5	2.06743	0.60810	.59805	-.009600
	5	2.21016	0.50000	.59569	.000000
	6	1.66789	1.34104	.47144	.078743
1	6	1.74382	1.26700	.49017	.073332
2	6	1.80588	1.21105	.50904	.064599
3	6	1.86147	1.16360	.52745	.053311
4	6	1.91345	1.12084	.54520	.039788
5	6	1.96332	1.08072	.56208	.024268
6	6	2.01200	1.04196	.57792	.006970
7	6	2.06004	1.00371	.59253	-.011874
8	6	2.10779	0.96538	.60575	-.032014
9	6	2.13722	0.94164	.60258	-.027919
10	6	2.17803	0.90870	.59896	-.023480
11	6	2.23693	0.86112	.59552	-.019690
12	6	2.32134	0.79280	.59119	-.015071
13	6	2.45424	0.68493	.58636	-.010397
14	6	2.68342	0.50000	.58021	.000000
	7	1.95824	1.89977	.48366	.064909
1	7	2.06731	1.79309	.49895	.059277
2	7	2.16114	1.70650	.51471	.051026
3	7	2.24689	1.63070	.53022	.040743
4	7	2.32789	1.56121	.54525	.028672
5	7	2.40594	1.49550	.55957	.015021
6	7	2.48214	1.43195	.57300	-.000001
7	7	2.55713	1.36948	.58535	-.016157
8	7	2.63126	1.30735	.59646	-.033180
9	7	2.65267	1.28934	.59377	-.029634
10	7	2.68572	1.26152	.59060	-.025666
11	7	2.73718	1.21818	.58754	-.022208
12	7	2.81206	1.15498	.58370	-.018040
13	7	2.93388	1.05181	.57938	-.013808
14	7	3.14342	0.87350	.57278	-.007328
15	7	3.58078	0.50000	.56695	.000000

a	b	x	y	u	v
	8	2.72710	3.13880	.49887	.050581
1	8	2.85954	3.00827	.49817	.053297
2	8	3.01897	2.85559	.51272	.045663
3	8	3.16781	2.71906	.52739	.035978
4	8	3.31097	2.59179	.54189	.024395
5	8	3.45048	2.47036	.55899	.007974
6	8	3.58981	2.35067	.56902	-.003501
7	8	3.71774	2.24092	.57855	-.015995
8	8	3.84287	2.13317	.58705	-.028778
9	8	3.84856	2.12825	.58511	-.026121
10	8	3.86737	2.11202	.58261	-.022867
11	8	3.90557	2.07904	.58017	-.019919
12	8	3.96379	2.02872	.57715	-.016387
13	8	4.06730	1.93909	.57375	-.012688
14	8	4.24855	1.78165	.56876	-.007345
15	8	4.65635	1.42592	.56407	-.002753
16	8	5.01781	0.50000	.56237	.000000

$$\theta_s = 20^\circ \quad M_1 = 1.7$$

zero grid

α	β	x	y	u	v
2	1.37373	0.50000	.47882	.174276	
	1.37373	0.50000	.53459	.145931	
	1.37373	0.50000	.58559	.106569	
	1.37373	0.50000	.63107	.057423	
	1.37373	0.50000	.66972	-.000000	
	2	1.42584	0.62423	.48912	.148427
	2	1.44792	0.61121	.53904	.123248
	2	1.46804	0.59999	.58538	.087215
4	2	1.48805	0.58874	.62694	.041735
	2	1.50881	0.57648	.66229	-.011672
	2	1.63504	0.50000	.65506	.000000
	4	1.53586	0.84385	.50207	.121976
	4	1.59176	0.80770	.54498	.099363
	4	1.64352	0.77599	.58552	.066860
	4	1.69506	0.74443	.62213	.025805
	4	1.74823	0.71065	.65325	-.022301
6	4	1.86281	0.63614	.64637	-.012264
	4	2.07413	0.50000	.63800	.000000
	6	1.82238	1.31335	.51922	.094724
	6	1.93927	1.23231	.55362	.074281
	6	2.05043	1.15841	.58670	.045917
	6	2.16156	1.08470	.61670	.010819
	6	2.27526	1.00722	.64208	-.029463
	6	2.37216	0.93997	.63605	-.020851
8	6	2.55993	0.81024	.62856	-.011044
	6	3.01095	0.50000	.61989	.000000
	8	2.91228	2.73975	.54293	.066198
	8	3.17660	2.54942	.56690	.048579
	8	3.43739	2.36549	.59021	.026091
	8	3.69887	2.18095	.61123	-.000001
	8	3.96067	1.99283	.62863	-.027914
	8	4.01924	1.95025	.62428	-.021342
10	8	4.16095	1.84770	.61884	-.013787
	8	4.55571	1.56283	.61252	-.005921
	8	6.03070	0.50000	.60770	.000000

8 x 8 grid

1	1.37373	0.50000	.47882	.174276
	1.37373	0.50000	.50730	.161564
	1.37373	0.50000	.53459	.145931
	1.37373	0.50000	.56071	.127551
	1.37373	0.50000	.58559	.106569
	1.37373	0.50000	.60910	.083136
	1.37373	0.50000	.63107	.057423
	1.37373	0.50000	.65133	.029633
2	1.37373	0.50000	.66972	-.000000

α	β	x	y	u	v
	1	1.39548	0.55438	.48370	.161419
1	1	1.40075	0.55137	.51066	.149523
2	1	1.40554	0.54876	.53663	.134664
3	1	1.41012	0.54631	.56157	.117070
4	1	1.41462	0.54393	.58539	.096898
5	1	1.41911	0.54152	.60792	.074307
6	1	1.42365	0.53905	.62899	.049471
7	1	1.42829	0.53645	.64842	.022592
8	1	1.43305	0.53368	.66605	-.006098
9	1	1.49028	0.50000	.66242	.000000
	2	1.42584	0.62423	.48912	.148427
1	2	1.43742	0.61725	.51443	.137287
2	2	1.44800	0.61116	.53898	.123194
3	2	1.45814	0.60547	.56264	.106409
4	2	1.46809	0.59993	.58529	.087100
5	2	1.47803	0.59437	.60674	.065428
6	2	1.48808	0.58866	.62682	.041568
7	2	1.49832	0.58270	.64535	.015720
8	2	1.50882	0.57639	.66214	-.011885
9	2	1.56376	0.54293	.65858	-.006193
10	2	1.63471	0.50000	.65476	.000000
	3	1.46970	0.71667	.49518	.135286
1	3	1.48901	0.70445	.51870	.124792
2	3	1.50678	0.69371	.54168	.111421
3	3	1.52386	0.68365	.56393	.095451
4	3	1.54064	0.67386	.58527	.077047
5	3	1.55741	0.66406	.60551	.056369
6	3	1.57433	0.65404	.62448	.033593
7	3	1.59156	0.64361	.64198	.008917
8	3	1.60919	0.63264	.65783	-.017432
9	3	1.66151	0.59966	.65436	-.012125
10	3	1.72955	0.55699	.65061	-.006431
11	3	1.82094	0.50000	.64647	.000000
	4	1.53586	0.84385	.50207	.121976
1	4	1.56495	0.82465	.52363	.112022
2	4	1.59195	0.80757	.54487	.099337
3	4	1.61802	0.79149	.56552	.084198
4	4	1.64368	0.77583	.58539	.066764
5	4	1.66932	0.76018	.60427	.047189
6	4	1.69520	0.74421	.62196	.025647
7	4	1.72149	0.72768	.63828	.002337
8	4	1.74833	0.71037	.65304	-.022516
9	4	1.79753	0.67827	.64971	-.017576
10	4	1.86219	0.63624	.64607	-.012327
11	4	1.94955	0.57972	.64204	-.006547
12	4	2.07329	0.50000	.63761	.000000

α	β	x	y	u	v
	5	1.64134	1.02797	.50999	.108470
1	5	1.68333	0.99925	.52940	.098971
2	5	1.72277	0.97327	.54872	.086952
3	5	1.76104	0.94863	.56757	.072688
4	5	1.79882	0.92457	.58575	.056323
5	5	1.83659	0.90053	.60306	.038008
6	5	1.87468	0.87607	.61928	.017914
7	5	1.91331	0.85085	.63422	-.003756
8	5	1.95265	0.82458	.64772	-.026773
9	5	1.99791	0.79405	.64458	-.022198
10	5	2.05849	0.75330	.64112	-.017346
11	5	2.14106	0.69793	.63727	-.012108
12	5	2.25902	0.61909	.63301	-.006404
13	5	2.43765	0.50000	.62839	.000000
	6	1.82238	1.31335	.51922	.094724
1	6	1.88237	1.27115	.53629	.085642
2	6	1.93959	1.23211	.55344	.074313
3	6	1.99548	1.19474	.57025	.061014
4	6	2.05084	1.15807	.58650	.045877
5	6	2.10624	1.12139	.60197	.029050
6	6	2.16206	1.08417	.61647	.010708
7	6	2.21853	1.04598	.62980	-.008937
8	6	2.27582	1.00646	.64180	-.029642
9	6	2.31574	0.97867	.63895	-.025468
10	6	2.37099	0.94031	.63575	-.020939
11	6	2.44750	0.88732	.63219	-.016226
12	6	2.55838	0.81068	.62823	-.011156
13	6	2.72848	0.69334	.62391	-.005797
14	6	3.00882	0.50000	.61935	.000000
	7	2.16569	1.79894	.53010	.080670
1	7	2.25267	1.73652	.54458	.072065
2	7	2.33745	1.67709	.55932	.061523
3	7	2.42089	1.61948	.57380	.049358
4	7	2.50388	1.56260	.58782	.035696
5	7	2.58699	1.50563	.60116	.020688
6	7	2.67058	1.44798	.61363	.004521
7	7	2.75485	1.38916	.62506	-.012575
8	7	2.83981	1.32886	.63528	-.030333
9	7	2.87168	1.30608	.63283	-.026674
10	7	2.91927	1.27213	.63002	-.022642
11	7	2.98727	1.22374	.62687	-.018348
12	7	3.08858	1.15178	.62338	-.013821
13	7	3.24774	1.03885	.61956	-.009155
14	7	3.51533	0.84918	.61554	-.004521
15	7	4.00689	0.50000	.61156	.000000

α	β	x	y	u	v
	8	2.91228	2.73975	.54293	.066198
1	8	3.04359	2.64452	.55453	.058303
2	8	3.17589	2.55002	.56658	.048771
3	8	3.30717	2.45718	.57844	.038028
4	8	3.43824	2.36488	.58990	.026207
5	8	3.56949	2.27238	.60079	.013469
6	8	3.70103	2.17915	.61092	.000019
7	8	3.83272	2.08491	.62012	-.013896
8	8	3.96416	1.98962	.62827	-.027984
9	8	3.98229	1.97641	.62639	-.025061
10	8	4.01737	1.95090	.62408	-.021628
11	8	4.07168	1.91149	.62150	-.017956
12	8	4.15797	1.84899	.61863	-.014072
13	8	4.30080	1.74571	.61551	-.010070
14	8	4.55079	1.56509	.61226	-.006159
15	8	5.02373	1.22352	.60915	-.002690
16	8	6.02558	0.50000	.60722	.000000

$$\theta_B = 20^\circ \quad M_1 = 2.0$$

zero grid

α	β	x	y	u	v
2	1	1.37373	0.50000	.53946	.196350
		1.37373	0.50000	.58995	.161044
		1.37373	0.50000	.63710	.115942
		1.37373	0.50000	.67924	.061806
		1.37373	0.50000	.71471	-.000000
2	2	1.44757	0.61854	.54957	.170699
		1.46793	0.61025	.59518	.138303
		1.48912	0.60135	.63806	.096614
		1.51208	0.59105	.67645	.046401
		1.53719	0.57871	.70874	-.011027
		1.69104	0.50000	.70295	.000000
2	4	1.58970	0.82061	.56185	.144531
		1.64129	0.79724	.60178	.114909
		1.69524	0.77236	.63957	.076885
		1.75328	0.74417	.67347	.031291
		1.81635	0.71114	.70188	-.020562
		1.95815	0.63420	.69640	-.011058
		2.20907	0.50000	.69012	.000000
2	6	1.91014	1.21793	.57726	.117690
		2.01642	1.16555	.61051	.090894
		2.12830	1.10961	.64215	.057179
		2.24803	1.04726	.67051	.017466
		2.37673	0.97606	.69407	-.026750
		2.50176	0.90483	.68923	-.018502
		2.73146	0.77527	.68358	-.009537
		3.22489	0.50000	.67754	.000000
2	8	2.83682	2.20054	.59696	.089853
		3.06028	2.08339	.62233	.066508
		3.29710	1.95732	.64651	.038381
		3.54812	1.81928	.66798	.006675
		3.81166	1.66764	.68546	-.026735
		3.90636	1.61200	.68171	-.020018
		4.10147	1.49835	.67731	-.012722
		4.55505	1.23620	.67255	-.005584
2	16	5.83548	0.50000	.66818	.000000

8 x 8 grid

1	1	1.37373	0.50000	.53946	.196350
		1.37373	0.50000	.56503	.179948
		1.37373	0.50000	.58995	.161044
		1.37373	0.50000	.61404	.139683
		1.37373	0.50000	.63710	.115942
		1.37373	0.50000	.65890	.089933
		1.37373	0.50000	.67924	.061806
		1.37373	0.50000	.69791	.031752
2	8	1.37373	0.50000	.71471	-.000000

α	β	x	y	u	v
1	1	1.40524	0.55223	.54429	.183583
	1	1.40985	0.55046	.56862	.167881
	1	1.41449	0.54868	.59240	.149712
	1	1.41923	0.54681	.61542	.129139
	1	1.42412	0.54483	.63747	.106241
	1	1.42920	0.54269	.65834	.081127
	1	1.43451	0.54035	.67780	.053948
	1	1.44007	0.53777	.69566	.024890
	1	1.44593	0.53490	.71173	-.005821
	1	1.51581	0.50000	.70878	.000000
2	2	1.44757	0.61854	.54957	.170699
	2	1.45775	0.61440	.57258	.155691
	2	1.46799	0.61021	.59514	.138273
	2	1.47845	0.60587	.61701	.118524
	2	1.48919	0.60130	.63800	.096531
	2	1.50044	0.59634	.65785	.072401
	2	1.51213	0.59098	.67637	.046267
	2	1.52437	0.58510	.69336	.018323
	2	1.53721	0.57862	.70863	-.011207
	2	1.60460	0.54394	.70575	-.005781
10	2	1.69071	0.50000	.70273	.000000
3	3	1.50608	0.70484	.55538	.157687
	3	1.52311	0.69749	.57698	.143343
	3	1.54028	0.69009	.59821	.126671
	3	1.55783	0.68242	.61883	.107768
	3	1.57588	0.67437	.63864	.086700
	3	1.59469	0.66572	.65738	.063614
	3	1.61425	0.65640	.67487	.038625
	3	1.63469	0.64624	.69090	.011926
	3	1.65611	0.63510	.70529	-.016260
	3	1.72069	0.60087	.70249	-.011202
10	3	1.80377	0.55716	.69954	-.005886
11	3	1.91331	0.50000	.69637	.000000
4	4	1.58970	0.82061	.56185	.144531
	4	1.61543	0.80894	.58190	.130827
	4	1.64142	0.79716	.60170	.114906
	4	1.66803	0.78498	.62096	.096884
	4	1.69541	0.77221	.63947	.076830
	4	1.72387	0.75859	.65700	.054887
	4	1.75344	0.74397	.67335	.031177
	4	1.78429	0.72812	.68832	.005896
	4	1.81652	0.71086	.70173	-.020732
	4	1.87787	0.67743	.69904	-.016016
10	4	1.95754	0.63428	.69619	-.011105
11	4	2.06312	0.57751	.69310	-.005800
12	4	2.20829	0.50000	.68985	.000000

α	β	x	y	u	v
	5	1.71435	0.98196	.56909	.131209
1	5	1.75148	0.96435	.58748	.118138
2	5	1.78914	0.94650	.60572	.102989
3	5	1.82773	0.92806	.62349	.085903
4	5	1.86747	0.90875	.64057	.066955
5	5	1.90870	0.88826	.65675	.046289
6	5	1.95148	0.86636	.67183	.024034
7	5	1.99601	0.84278	.68561	.000396
8	5	2.04237	0.81726	.69792	-.024388
9	5	2.09981	0.78514	.69539	-.020005
10	5	2.17553	0.74304	.69267	-.015446
11	5	2.27658	0.68717	.68973	-.010615
12	5	2.41647	0.61031	.68659	-.005527
13	5	2.61843	0.50000	.68334	.000000
	6	1.91014	1.21793	.57726	.117690
1	6	1.96285	1.19193	.59385	.105273
2	6	2.01663	1.16541	.61038	.090943
3	6	2.07181	1.13799	.62651	.074882
4	6	2.12867	1.10932	.64201	.057170
5	6	2.18753	1.07902	.65669	.037959
6	6	2.24851	1.04680	.67035	.017392
7	6	2.31176	1.01234	.68279	-.004308
8	6	2.37734	0.97536	.69386	-.026886
9	6	2.42977	0.94538	.69155	-.022853
10	6	2.50062	0.90506	.68902	-.018622
11	6	2.59626	0.85092	.68627	-.014188
12	6	2.73004	0.77555	.68334	-.009626
13	6	2.92490	0.66636	.68027	-.004936
14	6	3.22304	0.50000	.67718	.000000
	7	2.23855	1.58469	.58651	.103927
1	7	2.31369	1.54639	.60114	.092235
2	7	2.39096	1.50696	.61582	.078815
3	7	2.47037	1.46612	.63013	.063911
4	7	2.55219	1.42347	.64389	.047617
5	7	2.63673	1.37858	.65690	.030095
6	7	2.72404	1.33113	.66896	.011513
7	7	2.81419	1.28080	.67991	-.007886
8	7	2.90707	1.22736	.68959	-.027812
9	7	2.95259	1.20086	.68756	-.024190
10	7	3.01699	1.16352	.68528	-.020308
11	7	3.10562	1.11238	.68280	-.016254
12	7	3.23182	1.03989	.68016	-.012120
13	7	3.41828	0.93325	.67738	-.007979
14	7	3.70694	0.76885	.67457	-.003941
15	7	4.18013	0.50000	.67189	.000000

a	b	x	y	u	v
	8	2.83682	2.20054	.59696	.089853
1	8	2.94619	2.14328	.60945	.079036
2	8	3.06004	2.08348	.62211	.066677
3	8	3.17716	2.02147	.63445	.053122
4	8	3.29778	1.95680	.64629	.038487
5	8	3.42198	1.88910	.65745	.022949
6	8	3.54966	1.81808	.66775	.006705
7	8	3.68055	1.74356	.67704	-.009976
8	8	3.81413	1.66556	.68518	-.026771
9	8	3.84932	1.64481	.68349	-.023679
10	8	3.90443	1.61245	.68153	-.020224
11	8	3.98314	1.56643	.67940	-.016610
12	8	4.09885	1.4907	.67712	-.012922
13	8	4.27429	1.3935	.67473	-.009243
14	8	4.55135	1.23729	.67232	-.005735
15	8	5.01238	0.97181	.67006	-.002616
16	8	5.83230	0.50000	.66809	.000000

$$\theta_s = 20^\circ \quad M_1 = 3.0$$

zero grid

α	β	x	y	u	v
2		1.37373	0.50000	.67232	.244705
4		1.37373	0.50000	.71705	.195739
6		1.37373	0.50000	.75821	.137984
8		1.37373	0.50000	.79388	.072237
10		1.37373	0.50000	.82231	-.000000
2	2	1.46744	0.59332	.68060	.223109
4	2	1.48824	0.59010	.72213	.176728
6	2	1.51313	0.58513	.76032	.122131
8	2	1.54320	0.57757	.79333	.060118
10	2	1.57973	0.56625	.81953	-.007840
12	2	1.77687	0.50000	.81683	0.000000
2	4	1.61937	0.73435	.68996	.101232
4	4	1.66998	0.72507	.72795	.157539
6	4	1.73018	0.71161	.76285	.106342
8	4	1.80230	0.69206	.79292	.048505
10	4	1.88903	0.66389	.81662	-.014418
12	4	2.07605	0.59850	.81404	-.007472
14	4	2.36292	0.50000	.81135	0.000000
2	6	1.88297	0.96079	.70066	.179016
4	6	1.97921	0.94060	.73472	.138159
6	6	2.09294	0.91259	.76595	.090702
8	6	2.22788	0.87356	.79273	.037663
10	6	2.38792	0.81946	.81362	-.019164
12	6	2.56296	0.75634	.81124	-.012935
14	6	2.83573	0.65938	.80872	-.006563
16	6	3.29121	0.50000	.80621	0.000000
2	8	2.38121	1.35368	.71288	.156380
4	8	2.55298	1.31341	.74259	.118601
6	8	2.75432	1.25961	.76974	.075364
8	8	2.99010	1.18755	.79285	.027949
10	8	3.26414	1.09201	.81060	-.021422
12	8	3.42316	1.03344	.80851	-.015862
14	8	3.67865	0.94054	.80628	-.010269
16	8	4.11453	0.78396	.80403	-.004925

8 x 8 grid

1		1.37373	0.50000	.67232	.244705
2		1.37373	0.50000	.69501	.221343
3		1.37373	0.50000	.71705	.195739
4		1.37373	0.50000	.73820	.167927
5		1.37373	0.50000	.75821	.137984
6		1.37373	0.50000	.77685	.106031
7		1.37373	0.50000	.79388	.072237
8		1.37373	0.50000	.80909	.036810

α	β	x	y	u	v
1	1	1.41530	0.54216	.67634	.233940
	1	1.41988	0.54157	.69823	.211178
	1	1.42486	0.54082	.71950	.186232
	1	1.43032	0.53987	.73990	.159147
	1	1.43632	0.53867	.75921	.129999
	1	1.44293	0.53717	.77717	.098908
	1	1.45022	0.53531	.79357	.066040
	1	1.45827	0.53301	.80820	.031599
	1	1.46718	0.53019	.82089	-.004169
	1	1.55835	0.50000	.81949	.000000
2	2	1.46744	0.59332	.68060	.223109
	2	1.47742	0.59188	.70165	.200970
	2	1.48828	0.59008	.72212	.176713
	2	1.50016	0.58785	.74174	.150391
	2	1.51318	0.58510	.76030	.122083
	2	1.52750	0.58170	.77756	.091909
	2	1.54326	0.57752	.79330	.060033
	2	1.56063	0.57241	.80733	.026662
	2	1.57980	0.56618	.81947	-.007963
	2	1.66865	0.53613	.81810	-.004038
10	2	1.77656	0.50000	.81673	.000000
3	3	1.53374	0.65613	.68513	.212208
	3	1.55019	0.65351	.70530	.190704
	3	1.56807	0.65031	.72491	.167150
	3	1.58759	0.64640	.74372	.141616
	3	1.60897	0.64162	.76149	.114182
	3	1.63242	0.63581	.77801	.08473
	3	1.65817	0.62874	.79306	.054154
	3	1.68649	0.62017	.80646	.021933
	3	1.71766	0.60981	.81802	-.011441
	3	1.80401	0.58001	.81669	-.007743
10	3	1.90936	0.54400	.81534	-.003969
11	3	2.03933	0.50000	.81396	.000000
4	4	1.61937	0.73435	.68996	.201232
	4	1.64368	0.73011	.70921	.180373
	4	1.67008	0.72503	.72792	.157543
	4	1.69887	0.71891	.74586	.132826
	4	1.73032	0.71153	.76281	.106309
	4	1.76475	0.70263	.77855	.078120
	4	1.80248	0.69193	.79287	.048431
	4	1.84387	0.67908	.80559	.017460
	4	1.88928	0.66368	.81654	-.014537
	4	1.97292	0.63429	.81525	-.011046
10	4	2.07553	0.59853	.81394	-.007507
11	4	2.20247	0.55468	.81259	-.003843
12	4	2.36226	0.50000	.81122	.000000

α	β	x	y	u	v
1	5	1.73195	0.83330	.69513	.190171
2	5	1.76598	0.82690	.71339	.169974
3	5	1.80290	0.81932	.73116	.147890
4	5	1.84310	0.81028	.74819	.124025
5	5	1.88693	0.79952	.76427	.098473
6	5	1.93481	0.78667	.77918	.071372
7	5	1.98714	0.77136	.79273	.042901
8	5	2.04436	0.75316	.80473	.013294
9	5	2.10691	0.73156	.81504	-.017175
10	5	2.18753	0.70276	.81380	-.013880
11	5	2.28719	0.66743	.81253	-.010545
12	5	2.41091	0.62393	.81122	-.007140
13	5	2.56710	0.56946	.80989	-.003647
	5	2.76796	0.50000	.80857	.000000
1	6	1.88297	0.96079	.70066	.179016
2	6	1.92923	0.95147	.71788	.159502
3	6	1.97939	0.94053	.73466	.138192
4	6	2.03390	0.92764	.75073	.115222
5	6	2.09322	0.91244	.76588	.090694
6	6	2.15787	0.89448	.77992	.064757
7	6	2.22830	0.87329	.79265	.037609
8	6	2.30503	0.84833	.80390	.009499
9	6	2.38853	0.81902	.81352	-.019268
10	6	2.46569	0.79106	.81235	-.016162
11	6	2.56209	0.75639	.81113	-.013010
12	6	2.68230	0.71345	.80988	-.009822
13	6	2.83467	0.65944	.80860	-.006608
14	6	3.03128	0.59029	.80731	-.003355
	6	3.28988	0.50000	.80606	.000000
1	7	2.09017	1.12845	.70657	.167752
2	7	2.15216	1.11515	.72271	.148949
3	7	2.21931	1.09969	.73844	.128449
4	7	2.29217	1.08165	.75349	.106425
5	7	2.37126	1.06058	.76768	.082990
6	7	2.45719	1.03592	.78079	.058310
7	7	2.55048	1.00712	.79266	.032600
8	7	2.65167	0.97354	.80310	.006140
9	7	2.76117	0.93455	.81199	-.020731
10	7	2.83424	0.90777	.81090	-.017819
11	7	2.92689	0.87403	.80975	-.014838
12	7	3.04318	0.83197	.80856	-.011841
13	7	3.19139	0.77874	.80735	-.008851
14	7	3.38348	0.71020	.80612	-.005889
15	7	3.63710	0.62033	.80492	-.002961
	7	3.97883	0.50000	.80378	.000000

α	β	x	y	u	v
	8	2.38121	1.35368	.71288	.156380
1	8	2.46379	1.33493	.72787	.138326
2	8	2155322	1.31329	.74250	.118681
3	8	2.65004	1.28828	.75649	.097662
4	8	2.75486	1.25933	.76965	.075399
5	8	2.86834	1.22579	.78180	.052076
6	8	2.99101	1.18702	.79275	.027934
7	8	3.12334	1.14234	.80235	.003286
8	8	3.26554	1.09111	.81046	-.021484
9	8	3.33360	1.06594	.80947	-.018782
10	8	3.42180	1.03352	.80840	-.015973
11	8	3.53351	0.99272	.80729	-.013156
12	8	3.67697	0.94066	.80616	-.010360
13	8	3.86412	0.87316	.80501	-.007620
14	8	4.11247	0.78412	.80389	-.004979
15	8	4.44850	0.66437	.80281	-.002456
16	8	4.91202	0.50000	.80182	.000000

$$\theta_s = 20^\circ \quad M_1 = 4.0$$

zero grid

α	β	x	y	u	v
2	1	1.37373	0.50000	.74309	.270466
	1	1.37373	0.50000	.78540	.214398
	1	1.37373	0.50000	.82351	.149868
	1	1.37373	0.50000	.85552	.077846
	1	1.37373	0.50000	.87977	-.000000
4	2	1.46545	0.57566	.74974	.252889
	2	1.48727	0.57452	.78969	.199063
	2	1.51508	0.57158	.82560	.137305
	2	1.55090	0.56573	.85567	.068596
	2	1.59756	0.55517	.87832	-.005406
	2	1.81391	0.50000	.87691	0.000000
6	4	1.60074	0.68165	.75699	.235148
	4	1.65203	0.67789	.79439	.183661
	4	1.71694	0.66993	.82794	.124825
	4	1.79988	0.65528	.85593	.059692
	4	1.90675	0.63011	.87686	-.009987
	4	2.11495	0.57539	.87550	-.005100
	4	2.40654	0.50000	.87413	0.000000
8	6	1.80771	0.83498	.76495	.217219
	6	1.90043	0.82635	.79959	.168172
	6	2.01690	0.81021	.83059	.112447
	6	2.16432	0.78234	.85633	.051226
	6	2.35182	0.73663	.87541	-.013512
	6	2.55100	0.68300	.87413	-.009046
	6	2.83231	0.60830	.87282	-.004555
10	6	3.24611	0.50000	.87155	0.000000
	8	2.13870	1.06578	.77368	.199048
	8	2.29231	1.04860	.80534	.152553
	8	2.48362	1.01914	.83360	.100166
	8	2.72304	0.97111	.85691	.043269
	8	3.02247	0.89602	.87399	-.015777
	8	3.21093	0.84437	.87281	-.011678
	8	3.48078	0.77131	.87160	-.007635
12	8	3.88171	0.66406	.87041	-.003752
	8	4.50241	0.50000	.86931	0.000000

8 x 8 grid

1	1.37373	0.50000	.74309	.270466
2	1.37373	0.50000	.76465	.243522
3	1.37373	0.50000	.78540	.214398
4	1.37373	0.50000	.80510	.183147
5	1.37373	0.50000	.82351	.149868
6	1.37373	0.50000	.84039	.114705
7	1.37373	0.50000	.85552	.077846
8	1.37373	0.50000	.86870	.039522
			.87977	-.000000

α	β	x	y	u	v
1	1	1.41534	0.53478	.74635	.261697
1	1	1.42012	0.53465	.76731	.235273
2	1	1.42550	0.53436	.78749	.206725
3	1	1.43158	0.53386	.80664	.176117
4	1	1.43848	0.53310	.82452	.143545
5	1	1.44632	0.53200	.84091	.109154
6	1	1.45527	0.53047	.85557	.073131
7	1	1.46550	0.52838	.86833	.035705
8	1	1.47723	0.52560	.87903	-.002863
9	1	1.57874	0.50000	.87830	.000000
1	2	1.46545	0.57566	.74974	.252889
1	2	1.47575	0.57525	.77009	.227004
2	2	1.48731	0.57451	.78968	.199055
3	2	1.50036	0.57331	.80825	.169112
4	2	1.51513	0.57156	.82559	.137275
5	2	1.53189	0.56908	.84146	.103690
6	2	1.55097	0.56569	.85565	.068544
7	2	1.57275	0.56113	.86798	.032065
8	2	1.59765	0.55511	.87829	-.005482
9	2	1.69718	0.52959	.87758	-.002764
10	2	1.81365	0.50000	.87686	.000000
1	3	1.52628	0.62401	.75328	.244041
1	3	1.54298	0.62317	.77300	.218707
2	3	1.56172	0.62176	.79197	.191369
3	3	1.58283	0.61964	.80995	.162109
4	3	1.60667	0.61662	.82672	.131029
5	3	1.63368	0.61243	.84206	.098278
6	3	1.66436	0.60677	.85576	.064046
7	3	1.69929	0.59928	.86764	.028566
8	3	1.73912	0.58948	.87756	-.007892
9	3	1.83658	0.56410	.87686	-.005308
10	3	1.95096	0.53457	.87615	-.002694
11	3	2.08606	0.50000	.87545	.000000
1	4	1.60074	0.68165	.75699	.235148
1	4	1.62499	0.68016	.77604	.210378
2	4	1.65213	0.67786	.79437	.183665
3	4	1.68266	0.67453	.81174	.155106
4	4	1.71707	0.66989	.82792	.124806
5	4	1.75598	0.66358	.84271	.092921
6	4	1.80007	0.65519	.85590	.059646
7	4	1.85013	0.64419	.86732	.025223
8	4	1.90704	0.62996	.87682	-.010065
9	4	2.00230	0.60480	.87614	-.007605
10	4	2.11453	0.57540	.87545	-.005125
11	4	2.24728	0.54090	.87476	-.002597
12	4	2.40599	0.50000	.87407	.000000

α	β	x	y	u	v
	5	1.69278	0.75093	.76088	.226209
1	5	1.72596	0.74854	.77924	.202014
2	5	1.76305	0.74505	.79690	.175941
3	5	1.80470	0.74014	.81362	.148103
4	5	1.85155	0.73345	.82920	.118611
5	5	1.90439	0.72453	.84341	.087628
6	5	1.96414	0.71281	.85608	.055358
7	5	2.03176	0.69763	.86702	.022057
8	5	2.10836	0.67817	.87609	-.011972
9	5	2.20127	0.65333	.87543	-.009629
10	5	2.31124	0.62413	.87475	-.007268
11	5	2.44157	0.58980	.87408	-.004887
12	5	2.59765	0.54899	.87340	-.002474
13	5	2.78647	0.50000	.87274	.000000
	6	1.80771	0.83498	.76495	.217219
1	6	1.85161	0.83138	.78259	.193609
2	6	1.90060	0.82631	.79956	.168193
3	6	1.95551	0.81937	.81562	.141096
4	6	2.01716	0.81011	.83056	.112441
5	6	2.08652	0.79794	.84418	.082399
6	6	2.16471	0.78216	.85629	.051188
7	6	2.25291	0.76195	.86673	.019081
8	6	2.35242	0.73632	.87536	-.013587
9	6	2.44277	0.71189	.87472	-.011355
10	6	2.55035	0.68300	.87407	-.009100
11	6	2.67814	0.64892	.87341	-.006844
12	6	2.83150	0.60831	.87275	-.004587
13	6	3.01737	0.55944	.87210	-.002315
14	6	3.24507	0.50000	.87147	.000000
	7	1.95285	0.93798	.76921	.208172
1	7	2.00974	0.93274	.78610	.185161
2	7	2.07313	0.92560	.80235	.160416
3	7	2.14402	0.91606	.81772	.134085
4	7	2.22344	0.90354	.83201	.106299
5	7	2.31257	0.88733	.84501	.077242
6	7	2.41272	0.86658	.85655	.047149
7	7	2.52527	0.84029	.86647	.016316
8	7	2.65165	0.80735	.87464	-.014884
9	7	2.73914	0.78347	.87403	-.012760
10	7	2.84412	0.75499	.87340	-.010603
11	7	2.96921	0.72128	.87277	-.008458
12	7	3.11973	0.68099	.87213	-.006330
13	7	3.30255	0.63236	.87150	-.004220
14	7	3.52695	0.57307	.87088	-.002123
15	7	3.80528	0.50000	.87029	.000000

α	β	x	y	u	v
1	8	2.13870	1.06578	.77368	.199048
2	8	2.21154	1.05837	.78979	.176653
3	8	2.29258	1.04852	.80530	.152599
4	8	2.38301	1.03563	.81995	.127060
5	8	2.48406	1.01897	.83355	.100181
6	8	2.59716	0.99770	.84591	.072158
7	8	2.72378	0.97080	.85686	.043247
8	.8	2.86544	0.93714	.86624	.013776
9	8	3.02365	0.89546	.87392	-.015837
10	8	3.10788	0.87229	.87335	-.013822
11	8	3.20998	0.84436	.87275	-.011758
12	8	3.33212	0.81117	.87214	-.009713
13	8	3.47959	0.77133	.87153	-.007696
14	8	3.65923	0.72309	.87092	-.005717
15	8	3.88024	0.66410	.87033	-.003786
16	8	4.15451	0.59122	.86975	-.001892
		4.50062	0.50000	.86922	.000000

$$\theta_s = 20^\circ \quad M_1 = 5.0$$

zero grid

α	β	x	y	u	v
2	1.37373	0.50000	.78336	.285121	
	1.37373	0.50000	.82413	.224970	
	1.37373	0.50000	.86028	.156558	
	1.37373	0.50000	.88992	.080976	
	1.37373	0.50000	.91146	-.000000	
4	1.46055	0.56461	.78889	.270369	
	1.48311	0.56466	.82778	.212194	
	1.51317	0.56303	.86217	.146246	
	1.55388	0.55834	.89029	.073642	
	1.60990	0.54826	.91062	-.003840	
10	2	1.83978	0.50000	.90979	.000000
4	1.58162	0.65104	.79482	.255508	
	1.63349	0.65030	.83169	.199386	
	1.70213	0.64566	.86424	.136006	
	1.79432	0.63412	.89075	.066543	
	1.91992	0.61070	.90978	-.007121	
10	4	2.14309	0.56271	.90898	-.003607
12	4	2.43884	0.50000	.90819	.000000
6	1.75440	0.76901	.80119	.240527	
	1.84543	0.76627	.83591	.186530	
	1.96499	0.75668	.86649	.125832	
	2.12417	0.73526	.89130	.059715	
	2.33846	0.69406	.90897	-.009722	
10	6	2.55447	0.64669	.90821	-.006476
12	6	2.84222	0.58436	.90744	-.003239
14	6	3.23657	0.50000	.90671	.000000
8	2.00751	0.93378	.80801	.225416	
	2.15233	0.92722	.84046	.173612	
	2.34110	0.90978	.86896	.115718	
	2.58986	0.87412	.89197	.053180	
	2.91983	0.80899	.90820	-.011561	
10	8	3.12782	0.76270	.90748	-.008542
12	8	3.40703	0.70123	.90675	-.005583
14	8	3.79195	0.61739	.90605	-.002746
16	8	4.33674	0.50000	.90542	.000000

8 x 8 grid

1	1.37373	0.50000	.78336	.285121
2	1.37373	0.50000	.80420	.256118
3	1.37373	0.50000	.82413	.224970
4	1.37373	0.50000	.84290	.191745
5	1.37373	0.50000	.86028	.156558
6	1.37373	0.50000	.87602	.119567
7	1.37373	0.50000	.88992	.080976
8	1.37373	0.50000	.90178	.041027
			.91146	-.000000

α	β	x	y	u	v
1	1	1.41366	0.53003	.78608	.277758
1	1	1.41859	0.53016	.80645	.249214
2	1	1.42426	0.53015	.82592	.218580
3	1	1.43082	0.52994	.84425	.185930
4	1	1.43843	0.52948	.86120	.151382
5	1	1.44730	0.52866	.87655	.115093
6	1	1.45768	0.52735	.89009	.077266
7	1	1.46988	0.52542	.90163	.038143
8	1	1.48430	0.52265	.91103	-.002000
9	1	1.59316	0.50000	.91061	.000000
	2	1.46055	0.56461	.78889	.270369
1	2	1.47108	0.56478	.80877	.242298
2	2	1.48315	0.56466	.82777	.212192
3	2	1.49709	0.56412	.84565	.180131
4	2	1.51323	0.56302	.86217	.146235
5	2	1.53201	0.56117	.87712	.110664
6	2	1.55396	0.55831	.89029	.073621
7	2	1.57970	0.55414	.90150	.035352
8	2	1.61003	0.54821	.91061	-.003869
9	2	1.71721	0.52561	.91019	-.001960
10	2	1.83961	0.50000	.90978	.000000
	3	1.51591	0.60459	.79181	.262953
1	3	1.53282	0.60472	.81118	.235365
2	3	1.55218	0.60436	.82969	.205798
3	3	1.57450	0.60334	.84710	.174340
4	3	1.60029	0.60141	.86317	.141112
5	3	1.63025	0.59830	.87771	.106278
6	3	1.66519	0.59360	.89050	.070045
7	3	1.70607	0.58681	.90137	.032663
8	3	1.75410	0.57728	.91018	-.005586
9	3	1.85954	0.55477	.90978	-.003763
10	3	1.98022	0.52920	.90937	-.001894
11	3	2.11903	0.50000	.90896	.000000
	4	1.58162	0.65104	.79482	.255508
1	4	1.60586	0.65102	.81367	.7228414
2	4	1.63358	0.65028	.83168	.199394
3	4	1.66547	0.64860	.84860	.168548
4	4	1.70226	0.64563	.86423	.136002
5	4	1.74490	0.64096	.87833	.101924
6	4	1.79452	0.63406	.89073	.066527
7	4	1.85243	0.62423	.90126	.030069
8	4	1.92026	0.61059	.90977	-.007152
9	4	2.02390	0.58822	.90937	-.005408
10	4	2.14283	0.56272	.90896	-.003624
11	4	2.27976	0.53356	.90856	-.001830
12	4	2.43850	0.50000	.90817	.000000

α	β	x	y	u	v
	5	1.66008	0.70528	.79795	.248034
1	5	1.69281	0.70498	.81626	.221441
2	5	1.73018	0.70371	.83375	.192979
3	5	1.77308	0.70114	.85017	.162759
4	5	1.82249	0.69686	.86532	.130911
5	5	1.87963	0.69031	.87899	.097611
6	5	1.94596	0.68079	.89099	.063080
7	5	2.02316	0.66742	.90116	.027588
8	5	2.11328	0.64905	.90935	-.008544
9	5	2.21501	0.62687	.90897	-.006875
10	5	2.33214	0.60149	.90857	-.005167
11	5	2.46715	0.57242	.90817	-.003461
12	5	2.62384	0.53891	.90778	-.001740
13	5	2.80701	0.50000	.90740	.000000
	6	1.75440	0.76901	.80119	.240527
1	6	1.79702	0.76826	.81894	.214444
2	6	1.84559	0.76624	.83589	.186550
3	6	1.90126	0.76254	.85181	.156969
4	6	1.96524	0.75662	.86647	.125837
5	6	2.03908	0.74778	.87969	.093337
6	6	2.12456	0.73515	.89128	.059703
7	6	2.22375	0.71763	.90108	.025222
8	6	2.33911	0.69384	.90895	-.009755
9	6	2.43882	0.67190	.90857	-.008157
10	6	2.55406	0.64669	.90818	-.006516
11	6	2.68711	0.61776	.90780	-.004889
12	6	2.84170	0.58436	.90741	-.003262
13	6	3.02264	0.54551	.90704	-.001639
14	6	3.23590	0.50000	.90668	.000000
	7	1.86855	0.84432	.80454	.232985
1	7	1.92277	0.84293	.82172	.207422
2	7	1.98447	0.83992	.83812	.180105
3	7	2.05505	0.83477	.85351	.151175
4	7	2.13601	0.82680	.86768	.120776
5	7	2.22922	0.81518	.88043	.089100
6	7	2.33680	0.79884	.89159	.056397
7	7	2.46123	0.77646	.90101	.022975
8	7	2.60532	0.74642	.90855	-.010776
9	7	2.70284	0.72479	.90819	-.009245
10	7	2.81610	0.69981	.90781	-.007666
11	7	2.94710	0.67109	.90743	-.006107
12	7	3.09954	0.63785	.90706	-.004561
13	7	3.27820	0.59913	.90669	-.003035
14	7	3.48902	0.55369	.90634	-.001520
15	7	3.73958	0.50000	.90600	.000000

α	β	x	y	u	v
	8	2.00751	0.93378	.80801	.225416
1	8	2.07542	0.93150	.82460	.200378
2	8	2.15259	0.92718	.84044	.173647
3	8	2.24068	0.92017	.85528	.145382
4	8	2.34151	0.90968	.86893	.115735
5	8	2.45729	0.89468	.88121	.084911
6	8	2.59053	0.87392	.89194	.053173
7	8	2.74405	0.84584	.90096	.020862
8	8	2.92096	0.80860	.90816	-.011592
9	8	3.01609	0.78736	.90781	-.010127
10	8	3.12723	0.76267	.90745	-.008605
11	8	3.25607	0.73421	.90708	-.007109
12	8	3.40627	0.70122	.90672	-.005633
13	8	3.58261	0.66268	.90636	-.004189
14	8	3.79099	0.61739	.90602	-.002774
15	8	4.03892	0.56379	.90568	-.001385
16	8	4.33550	0.50000	.90537	.000000

$$\theta_s = 20^\circ \quad M_1 = 7.0$$

zero grid

α	β	x	y	u	v
		1.37373	0.50000	.82372	.299811
2		1.37373	0.50000	.86266	.235489
4		1.37373	0.50000	.89651	.163152
6		1.37373	0.50000	.92341	.084023
8		1.37373	0.50000	.94185	-.000000
	2	1.45240	0.55263	.82801	.288289
2	2	1.47588	0.55399	.86554	.225618
4	2	1.50910	0.55391	.89809	.155371
6	2	1.55738	0.55072	.92389	.078811
8	2	1.62964	0.54112	.94149	-.002138
10	2	1.88102	0.50000	.94113	.000000
	4	1.55573	0.61962	.83252	.276705
2	4	1.60837	0.62200	.86857	.215736
4	4	1.68241	0.62111	.89976	.147632
6	4	1.78923	0.61333	.92441	.073715
8	4	1.94757	0.59169	.94114	-.003979
10	4	2.19420	0.55069	.94079	-.001996
12	4	2.50224	0.50000	.94045	.000000
	6	1.69323	0.70583	.83727	.265054
2	6	1.78281	0.70882	.87176	.205836
4	6	1.90794	0.70616	.90153	.139928
6	6	2.08707	0.69195	.92499	.068745
8	6	2.34971	0.65514	.94080	-.005475
10	6	2.59145	0.61442	.94046	-.003621
12	6	2.89415	0.56388	.94013	-.001795
14	6	3.28025	0.50000	.93982	.000000
	8	1.87874	0.81809	.84226	.253339
2	8	2.01584	0.82109	.87511	.195908
4	8	2.20603	0.81534	.90342	.132251
6	8	2.47599	0.79225	.92562	.063901
8	8	2.86681	0.73624	.94049	-.006590
10	8	3.10335	0.69598	.94016	-.004846
12	8	3.40061	0.64580	.93984	-.003152
14	8	3.78079	0.58213	.93954	-.001536
16	8	4.27498	0.50000	.93927	.000000
		1.37373	0.50000	.82372	.299811
1		1.37373	0.50000	.84371	.268700
2		1.37373	0.50000	.86266	.235489
3		1.37373	0.50000	.88034	.200262
4		1.37373	0.50000	.89651	.163152
5		1.37373	0.50000	.91093	.124332
6		1.37373	0.50000	.92341	.084023
7		1.37373	0.50000	.93376	.042482
8		1.37373	0.50000	.94185	-.000000

α	β	x	y	u	v
1	1	1.41045	0.52476	.82584	.294057
2	1	1.41555	0.52517	.84547	.263334
3	1	1.42160	0.52548	.86408	.230561
4	1	1.42879	0.52562	.88143	.195830
5	1	1.43742	0.52552	.89729	.159276
6	1	1.44783	0.52506	.91143	.121074
7	1	1.46049	0.52408	.92365	.081445
8	1	1.47601	0.52235	.93378	.040648
9	1	1.49520	0.51954	.94168	-.001027
		1.61545	0.50000	.94151	.000000
	2	1.45240	0.55263	.82801	.288289
1	2	1.46317	0.55342	.84728	.257958
2	2	1.47591	0.55399	.86554	.225627
3	2	1.49105	0.55420	.88255	.191391
4	2	1.50915	0.55390	.89809	.155391
5	2	1.53099	0.55285	.91193	.117803
6	2	1.55749	0.55070	.92389	.078849
7	2	1.58990	0.54701	.93379	.038792
8	2	1.62987	0.54110	.94150	-.002075
9	2	1.74890	0.52158	.94133	-.001091
10	2	1.88117	0.50000	.94115	.000000
	3	1.50047	0.58407	.83023	.282505
1	3	1.51758	0.58521	.84913	.252573
2	3	1.53777	0.58598	.86703	.220690
3	3	1.56174	0.58620	.88370	.186957
4	3	1.59034	0.58559	.89891	.151515
5	3	1.62478	0.58380	.91246	.114548
6	3	1.66649	0.58029	.92414	.076283
7	3	1.71739	0.57437	.93380	.036985
8	3	1.78000	0.56500	.94132	-.003043
9	3	1.89779	0.54553	.94115	-.002100
10	3	2.02884	0.52396	.94097	-.001052
11	3	2.17527	0.50000	.94080	.000000
	4	1.55573	0.61962	.83252	.276705
1	4	1.57995	0.62107	.85103	.247182
2	4	1.60846	0.62200	.86856	.215753
3	4	1.64227	0.62213	.88488	.182529
4	4	1.68254	0.62110	.89976	.147657
5	4	1.73095	0.61839	.91300	.111321
6	4	1.78947	0.61330	.92441	.073755
7	4	1.86070	0.60484	.93383	.035235
8	4	1.94805	0.59164	.94114	-.003920
9	4	2.06457	0.57222	.94098	-.003016
10	4	2.19439	0.55070	.94080	-.002008
11	4	2.33953	0.52675	.94063	-.001002
12	4	2.50246	0.50000	.94046	.000000

α	β	x	y	u	v
	5	1.61946	0.65995	.83486	.270889
1	5	1.65169	0.66168	.85298	.241778
2	5	1.68957	0.66269	.87013	.210811
3	5	1.73439	0.66264	.88609	.178103
4	5	1.78773	0.66104	.90063	.143806
5	5	1.85170	0.65723	.91356	.108111
6	5	1.92885	0.65029	.92469	.071257
7	5	2.02253	0.63895	.93387	.033536
8	5	2.13706	0.62146	.94097	-.004713
9	5	2.25227	0.60214	.94081	-.003844
10	5	2.38084	0.58067	.94064	-.002872
11	5	2.52467	0.55676	.94047	-.001907
12	5	2.68625	0.53003	.94030	-.000953
13	5	2.86862	0.50000	.94014	.000000
	6	1.69323	0.70583	.83727	.265054
1	6	1.73451	0.70779	.85498	.236362
2	6	1.78296	0.70881	.87175	.205860
3	6	1.84019	0.70846	.88733	.173673
4	6	1.90817	0.70614	.90153	.139959
5	6	1.98955	0.70099	.91414	.104913
6	6	2.08748	0.69190	.92498	.068788
7	6	2.20805	0.67729	.93391	.031887
8	6	2.35052	0.65503	.94080	-.005420
9	6	2.46437	0.63581	.94065	-.004585
10	6	2.59167	0.61442	.94048	-.003646
11	6	2.73418	0.59057	.94031	-.002719
12	6	2.89437	0.56388	.94014	-.001808
13	6	3.07530	0.53388	.93998	-.000907
14	6	3.28047	0.50000	.93983	.000000
	7	1.77895	0.75821	.83973	.259201
1	7	1.83052	0.76034	.85703	.230933
2	7	1.89094	0.76128	.87340	.200902
3	7	1.96219	0.76050	.88861	.169244
4	7	2.04669	0.75724	.90245	.136121
5	7	2.14762	0.75051	.91474	.101733
6	7	2.26879	0.73891	.92529	.066352
7	7	2.41509	0.72058	.93397	.030297
8	7	2.59266	0.69299	.94064	-.006027
9	7	2.70508	0.67391	.94049	-.005223
10	7	2.83107	0.65261	.94032	-.004313
11	7	2.97224	0.62885	.94016	-.003420
12	7	3.13106	0.60223	.94000	-.002546
13	7	3.31054	0.57227	.93984	-.001689
14	7	3.51418	0.53843	.93969	-.000834
15	7	3.74633	0.50000	.93954	.000000

α	β	x	y	u	v
	8	1.87874	0.81809	.84226	.253339
1	8	1.94203	0.82032	.85914	.225499
2	8	2.01606	0.82107	.87510	.195941
3	8	2.10321	0.81970	.88992	.164815
4	8	2.20640	0.81530	.90341	.132289
5	8	2.32937	0.80667	.91536	.098570
6	8	2.47663	0.79217	.92562	.063946
7	8	2.65385	0.76960	.93403	.028760
8	8	2.86807	0.73605	.94049	-.006541
9	8	2.97898	0.71714	.94034	-.005769
10	8	3.10361	0.69597	.94018	-.004886
11	8	3.24340	0.67232	.94001	-.004023
12	8	3.40081	0.64579	.93986	-.003183
13	8	3.57884	0.61591	.93970	-.002365
14	8	3.78096	0.58212	.93955	-.001555
15	8	4.01152	0.54372	.93941	-.000775
16	8	4.27506	0.50000	.93928	.000000

$$\theta_B = 25^\circ \quad M_1 = 1.5$$

zero grid

α	β	x	y	u	v
2	1	1.07225	0.50000	.37314	.174000
		1.07225	0.50000	.47253	.165258
		1.07225	0.50000	.54445	.126941
		1.07225	0.50000	.60718	.070783
		1.07225	0.50000	.65904	.000000
2	2	1.04987	0.58856	.38527	.150234
		1.09034	0.54832	.47362	.149597
		1.10184	0.54120	.54278	.113399
		1.11187	0.53538	.60319	.059189
		1.12196	0.52929	.65305	-.009515
		1.16902	0.50000	.64718	.000000
2	4	1.03290	0.73326	.40073	.125661
		1.12530	0.63497	.47675	.130474
		1.15597	0.61410	.54152	.096919
		1.18259	0.59732	.59841	.045490
		1.20915	0.58016	.64533	-.020066
		1.25249	0.55138	.63962	-.011232
		1.33052	0.50000	.63217	.000000
2	6	1.05007	1.01638	.42189	.100077
		1.21586	0.83398	.48242	.102967
		1.28570	0.78012	.53953	.072789
		1.34639	0.73715	.59029	.025893
		1.40632	0.69432	.63208	-.033971
		1.44296	0.66753	.62671	-.026070
		1.51139	0.61772	.61957	-.016346
		1.67408	0.50000	.60735	.000000
2	8	1.27509	1.80453	.45377	.072992
		1.57641	1.48122	.49523	.067293
		1.75098	1.32824	.53843	.041378
		1.90626	1.20164	.57759	.003005
		2.05723	1.07884	.60956	-.044413
		2.07865	1.06113	.60513	-.037937
		2.12652	1.02168	.59913	-.029993
		2.25209	0.91812	.58868	-.017500
		2.75501	0.50000	.57216	.000000

8 x 8 grid

1		1.07225	0.50000	.37314	.174000
2		1.07225	0.50000	.43195	.176244
3		1.07225	0.50000	.47253	.165258
4		1.07225	0.50000	.50966	.148538
5		1.07225	0.50000	.54445	.126941
6		1.07225	0.50000	.57702	.100900
7		1.07225	0.50000	.60718	.070783
8		1.07225	0.50000	.63463	.036991
		1.07225	0.50000	.65904	.000000

α	β	x	y	u	v
1	1	1.06109	0.53960	.37888	.162209
1	1	1.07652	0.52426	.43229	.166755
2	1	1.08025	0.52164	.47223	.156563
3	1	1.08302	0.51993	.50876	.140369
4	1	1.08546	0.51851	.54295	.119223
5	1	1.08776	0.51721	.57496	.093617
6	1	1.09002	0.51593	.60457	.063940
7	1	1.09230	0.51461	.63151	.030606
8	1	1.09462	0.51321	.65543	-.005907
9	1	1.11624	0.50000	.65184	.000000
	2	1.04987	0.58856	.38527	.150234
1	2	1.08231	0.55499	.43437	.158307
2	2	1.09059	0.54890	.47324	.148900
3	2	1.09678	0.54492	.50892	.133279
4	2	1.10220	0.54166	.54239	.112652
5	2	1.10731	0.53867	.57373	.087560
6	2	1.11231	0.53574	.60274	.058413
7	2	1.11734	0.53274	.62912	.025630
8	2	1.12248	0.52956	.65253	-.010308
9	2	1.14335	0.51647	.64899	-.004550
10	2	1.16976	0.50000	.64615	.000000
	3	1.03978	0.65090	.39248	.138058
1	3	1.09076	0.59600	.43702	.148672
2	3	1.10485	0.58513	.47454	.140078
3	3	1.11541	0.57802	.50918	.125088
4	3	1.12466	0.57221	.54174	.105057
5	3	1.13335	0.56691	.57227	.080572
6	3	1.14186	0.56175	.60054	.052060
7	3	1.15039	0.55648	.62624	.019949
8	3	1.15908	0.55094	.64903	-.015281
9	3	1.17904	0.53804	.64554	-.009694
10	3	1.20460	0.52161	.64273	-.005314
11	3	1.23838	0.50000	.63932	.000000
	4	1.03290	0.73326	.40073	.125661
1	4	1.10404	0.65402	.44045	.137370
2	4	1.12589	0.63624	.47621	.129576
3	4	1.14234	0.62455	.50951	.115284
4	4	1.15675	0.61504	.54093	.095953
5	4	1.17029	0.60640	.57042	.072207
6	4	1.18351	0.59801	.59774	.044489
7	4	1.19674	0.58951	.62257	.013231
8	4	1.21019	0.58063	.64456	-.021085
9	4	1.22896	0.56806	.64115	-.015702
10	4	1.25344	0.55173	.63837	-.011515
11	4	1.28586	0.53020	.63499	-.006466
12	4	1.33155	0.50000	.63069	.000000

α	β	x	y	u	v
1	5	1.03330	0.84743	.41037	.113015
2	5	1.12663	0.74086	.44507	.124136
3	5	1.15924	0.71278	.47850	.117041
4	5	1.18403	0.69411	.51004	.103501
5	5	1.20578	0.67889	.53993	.085000
6	5	1.22619	0.66512	.56806	.062178
7	5	1.24610	0.65183	.59413	.035486
8	5	1.26598	0.63843	.61782	.005357
9	5	1.28611	0.62453	.63877	-.027725
10	5	1.30327	0.61253	.63546	-.022591
11	5	1.32632	0.59646	.63273	-.018623
12	5	1.35696	0.57517	.62941	-.013872
13	5	1.40028	0.54517	.62517	-.007850
		1.46581	0.50000	.61967	.000000
1	6	1.05007	1.01638	.42189	.100077
2	6	1.16868	0.87944	.45147	.108916
3	6	1.21679	0.83563	.48184	.102271
4	6	1.25400	0.80576	.51101	.089504
5	6	1.28680	0.78127	.53885	.071992
6	6	1.31761	0.75913	.56512	.050354
7	6	1.34761	0.73786	.58951	.025033
8	6	1.37746	0.71657	.61165	-.003536
9	6	1.40757	0.69464	.63118	-.034875
10	6	1.42242	0.68371	.62804	-.030052
11	6	1.44353	0.66821	.62540	-.026329
12	6	1.47174	0.64753	.62218	-.021904
13	6	1.51188	0.61817	.61806	-.016356
14	6	1.57303	0.57356	.61269	-.009269
		1.67410	0.50000	.60571	.000000
1	7	1.10669	1.29109	.43602	.086779
2	7	1.25609	1.11986	.46047	.091974
3	7	1.32778	1.05145	.48691	.085388
4	7	1.38478	1.00269	.51289	.073375
5	7	1.43554	0.96209	.53792	.057063
6	7	1.48334	0.92527	.56166	.036993
7	7	1.52982	0.89000	.58372	.013587
8	7	1.57592	0.85493	.60371	-.012723
9	7	1.62217	0.81916	.62129	-.041453
10	7	1.63342	0.81038	.61841	-.037049
11	7	1.65169	0.79614	.61593	-.033603
12	7	1.67640	0.77690	.61289	-.029533
13	7	1.71198	0.74923	.60900	-.024478
14	7	1.76699	0.70648	.60391	-.018136
15	7	1.85942	0.63465	.59724	-.010164
		2.03231	0.50000	.58869	.000000

α	β	x	y	u	v
	8	1.27509	1.80453	.45377	.072992
1	8	1.46662	1.59168	.47309	.073967
2	8	1.57736	1.48304	.49474	.067065
3	8	1.66923	1.40021	.51653	.055835
4	8	1.75246	1.32921	.53777	.041064
5	8	1.83131	1.26412	.55801	.023184
6	8	1.90798	1.20177	.57682	.002588
7	8	1.98367	1.14019	.59382	-.020284
8	8	2.05903	1.07812	.60865	-.044914
9	8	2.06377	1.07418	.60624	-.041159
10	8	2.07745	1.06285	.60403	-.038069
11	8	2.09651	1.04707	.60134	-.034432
12	8	2.12482	1.02363	.59788	-.029939
13	8	2.17026	0.98600	.59335	-.024352
14	8	2.24975	0.92009	.58740	-.017486
15	8	2.40453	0.79135	.57974	-.009330
16	8	2.75115	0.50000	.57044	.000000

$$\theta_B = 25^\circ \quad M_1 = 1.7$$

zero grid

α	β	x	y	u	v
2	1	1.07225	0.50000	.42452	.197958
	2	1.07225	0.50000	.50041	.175008
	4	1.07225	0.50000	.56846	.132539
	6	1.07225	0.50000	.62883	.073307
	8	1.07225	0.50000	.67876	-.000000
2	2	1.08856	0.59834	.43688	.173514
	4	1.11306	0.58314	.50576	.154106
	4	1.13177	0.57322	.56903	.114648
	6	1.21295	0.54654	.62550	.058715
	8	1.16895	0.55302	.67221	-.010894
	10	1.25989	0.50000	.66581	.000000
2	4	1.12801	0.75899	.45217	.148324
	4	1.18697	0.71889	.51260	.131196
	4	1.23335	0.69170	.56987	.094818
	6	1.27826	0.66594	.62141	.042822
	8	1.32528	0.63759	.66401	-.021989
	10	1.40875	0.58549	.65782	-.012266
	12	1.54729	0.50000	.65004	.000000
2	6	1.23520	1.06213	.47203	.122201
	6	1.34821	0.97988	.52223	.105784
	6	1.44189	0.9196	.57157	.072692
	6	1.53324	0.86220	.61641	.025838
	8	1.62801	0.80046	.65338	-.031983
	10	1.70079	0.75165	.64766	-.023380
	12	1.82483	0.66901	.64036	-.013035
	14	2.08061	0.50000	.63110	.000000
2	8	1.60508	1.79725	.49916	.094710
	8	1.82256	1.63373	.53706	.077910
	8	2.01765	1.49807	.57559	.048910
	8	2.21071	1.36628	.61087	.009800
	8	2.40832	1.22781	.63963	-.036440
	10	2.46165	1.18962	.63490	-.029182
	12	2.56105	1.11881	.62882	-.020567
	14	2.78304	0.96128	.62099	-.010534
	16	3.43473	0.50000	.61220	.000000

8 x 8 grid

1	1.07225	0.50000	.42452	.197958
2	1.07225	0.50000	.46378	.189234
3	1.07225	0.50000	.50041	.175008
4	1.07225	0.50000	.53527	.156001
5	1.07225	0.50000	.56846	.132539
6	1.07225	0.50000	.59976	.104877
7	1.07225	0.50000	.62883	.073307
8	1.07225	0.50000	.65529	.038195
			.67876	-.000000

α	β	x	y	u	v
	1	1.07870	0.54382	.43040	.185821
1	1	1.08513	0.53983	.46767	.178091
2	1	1.09006	0.53714	.50285	.164618
3	1	1.09444	0.53489	.53650	.146117
4	1	1.09860	0.53281	.56861	.123569
5	1	1.10272	0.53075	.59892	.096654
6	1	1.10689	0.52862	.62709	.065872
7	1	1.11118	0.52634	.65273	.031593
8	1	1.11565	0.52386	.67546	-.005729
9	1	1.15764	0.50000	.67219	.000000
	2	1.08856	0.59834	.43688	.173514
1	2	1.10243	0.58928	.47203	.166687
2	2	1.11314	0.58310	.50565	.153958
3	2	1.12270	0.57793	.53796	.136392
4	2	1.13180	0.57316	.56888	.114412
5	2	1.14079	0.56846	.59813	.088316
6	2	1.14988	0.56362	.62532	.058413
7	2	1.15921	0.55849	.65006	.025073
8	2	1.16890	0.55292	.67199	-.011252
9	2	1.20938	0.52918	.66877	-.005800
10	2	1.25949	0.50000	.66536	.000000
	3	1.10383	0.66779	.44408	.161021
1	3	1.12641	0.65235	.47692	.154860
2	3	1.14406	0.64161	.50879	.142795
3	3	1.15990	0.63261	.53962	.125949
4	3	1.17499	0.62429	.56921	.104766
5	3	1.18989	0.61614	.59725	.079551
6	3	1.20495	0.60779	.62334	.050618
7	3	1.22038	0.59897	.64708	.018336
8	3	1.23636	0.58946	.66809	-.016845
9	3	1.27511	0.56597	.66493	-.011670
10	3	1.32335	0.53691	.66157	-.006207
11	3	1.38503	0.50000	.65781	.000000
	4	1.12801	0.75899	.45217	.148324
1	4	1.16094	0.73552	.48251	.142560
2	4	1.18717	0.71879	.51243	.131062
3	4	1.21085	0.70464	.54158	.114923
4	4	1.23346	0.69157	.56966	.094577
5	4	1.25580	0.67877	.59631	.070329
6	4	1.27831	0.66573	.62115	.042499
7	4	1.30141	0.65201	.64373	.011446
8	4	1.32523	0.63732	.66370	-.022385
9	4	1.36197	0.61428	.66062	-.017488
10	4	1.40805	0.58552	.65733	-.012352
11	4	1.46719	0.54881	.65362	-.006591
12	4	1.54632	0.50000	.64946	.000000

α	β	x	y	u	v
1	5	1.16754	0.88345	.46139	.135397
2	5	1.21314	0.84985	.48903	.129746
3	5	1.25030	0.82509	.51675	.118706
4	5	1.28414	0.80387	.54397	.103263
5	5	1.31658	0.78420	.57030	.083814
6	5	1.34864	0.76495	.59536	.060653
7	5	1.38095	0.74541	.61872	.034083
8	5	1.41400	0.72497	.63995	.004487
9	5	1.44801	0.70321	.65869	-.027698
10	5	1.48229	0.68094	.65573	-.023086
11	5	1.52583	0.65276	.65253	-.018263
12	5	1.58197	0.61657	.64892	-.012920
13	5	1.65750	0.56813	.64485	-.006932
		1.76427	0.50000	.64026	.000000
1	6	1.23520	1.06213	.47203	.122201
2	6	1.29689	1.01553	.49676	.116393
3	6	1.34861	0.97971	.52201	.105703
4	6	1.39627	0.94848	.54700	.090958
5	6	1.44219	0.91931	.57130	.072498
6	6	1.48766	0.89073	.59447	.050597
7	6	1.53346	0.86179	.61608	.025554
8	6	1.58019	0.83169	.63571	-.002243
9	6	1.62811	0.79987	.65298	-.032353
10	6	1.65924	0.77891	.65018	-.028044
11	6	1.69962	0.75180	.64713	-.023527
12	6	1.75210	0.71669	.64368	-.018572
13	6	1.82330	0.66922	.63977	-.013113
14	6	1.92475	0.60184	.63533	-.006997
		2.07861	0.50000	.63039	.000000
1	7	1.35871	1.33647	.48448	.108673
2	7	1.44196	1.27264	.50609	.102500
3	7	1.51426	1.22100	.52855	.092081
4	7	1.58187	1.17492	.55096	.078071
5	7	1.64747	1.13140	.57285	.060748
6	7	1.71260	1.08862	.59377	.040363
7	7	1.77820	1.04536	.61329	.017216
8	7	1.84491	1.00063	.63097	-.008293
9	7	1.91302	0.95374	.64646	-.035694
10	7	1.93978	0.93509	.64391	-.031741
11	7	1.97596	0.90994	.64107	-.027544
12	7	2.02368	0.87685	.63786	-.022967
13	7	2.08935	0.83145	.63421	-.017980
14	7	2.18420	0.76603	.63005	-.012517
15	7	2.32996	0.66576	.62539	-.006587
		2.57113	0.50000	.62033	.000000

α	β	x	y	u	v
	8	1.60508	1.79725	.49916	.094710
1	8	1.71935	1.70931	.51743	.088097
2	8	1.82300	1.63365	.53676	.077950
3	8	1.92171	1.56419	.55619	.064793
4	8	2.01838	1.49760	.57524	.048850
5	8	2.11469	1.43179	.59348	.030361
6	8	2.21164	1.36529	.61046	.009640
7	8	2.30983	1.29700	.62579	-.012884
8	8	2.40940	1.22618	.63912	-.036693
9	8	2.42942	1.21178	.63692	-.033218
10	8	2.45952	1.19021	.63439	-.029407
11	8	2.50040	1.16097	.63153	-.025259
12	8	2.55832	1.11965	.62828	-.020755
13	8	2.64422	1.05849	.62457	-.015866
14	8	2.77949	0.96233	.62040	-.010688
15	8	3.00807	0.80003	.61588	-.005367
16	8	3.42984	0.50000	.61126	.000000

$$\theta_B = 25^\circ \quad M_1 = 2.0$$

zero grid

α	β	x	y	u	v
2	4	1.07225	0.50000	.48521	.226261
		1.07225	0.50000	.55198	.193046
		1.07225	0.50000	.61520	.143438
		1.07225	0.50000	.67181	.078317
		1.07225	0.50000	.71822	.000000
2	6	1.11035	0.59554	.49727	.202131
		1.13024	0.58762	.55852	.171522
		1.15022	0.57973	.61708	.124998
		1.17185	0.57056	.66967	.063574
		1.19619	0.55897	.71274	-.010457
10	2	1.31329	0.50000	.70740	.000000
2	8	1.18160	0.74709	.51168	.177374
		1.22995	0.72557	.56650	.148964
		1.27886	0.70422	.61953	.105658
		1.33170	0.67991	.66734	.048501
		1.39065	0.65001	.70640	-.020205
10	4	1.49937	0.59202	.70127	-.010910
12	4	1.67454	0.50000	.69533	.000000
2	10	1.33165	1.01435	.52940	.151844
		1.42478	0.96907	.57670	.125211
		1.52032	0.92349	.62305	.085418
		1.62347	0.87226	.66498	.033514
		1.73746	0.81089	.69903	-.028060
10	6	1.83521	0.75594	.69431	-.019788
12	6	1.99642	0.66629	.68875	-.010546
14	6	2.29933	0.50000	.68249	.000000
2	12	1.70883	1.56823	.55173	.125239
		1.88343	1.47771	.59025	.100230
		2.06646	1.38373	.62842	.064641
		2.26406	1.27887	.66293	.019709
		2.47899	1.15718	.69060	-.031682
10	8	2.55956	1.10995	.68658	-.024501
12	8	2.70053	1.02806	.68182	-.016593
14	8	2.97823	0.86818	.67635	-.008247
16	8	3.62343	0.50000	.67084	.000000

8 x 8 grid

1	1.07225	0.50000	.48521	.226261
2	1.07225	0.50000	.51890	.211725
3	1.07225	0.50000	.55198	.193046
4	1.07225	0.50000	.58420	.170262
5	1.07225	0.50000	.61520	.143438
6	1.07225	0.50000	.64456	.112711
7	1.07225	0.50000	.67181	.078317
8	1.07225	0.50000	.69650	.040598
			.71822	.000000

α	β	x	y	u	v
1	1	1.08857	0.54279	.49099	.214268
1	1	1.09324	0.54101	.52327	.200361
2	1	1.09774	0.53935	.55507	.182332
3	1	1.10227	0.53767	.58612	.160250
4	1	1.10691	0.53591	.61603	.134192
5	1	1.11175	0.53399	.64437	.104302
6	1	1.11685	0.53185	.67068	.070812
7	1	1.12228	0.52944	.69451	.034062
8	1	1.12808	0.52666	.71546	-.005507
9	1	1.18222	0.50000	.71273	.000000
	2	1.11035	0.59554	.49727	.202131
1	2	1.12049	0.59144	.52803	.188832
2	2	1.13029	0.58758	.55847	.171460
3	2	1.14014	0.58371	.58826	.150110
4	2	1.15025	0.57967	.61700	.124868
5	2	1.16077	0.57531	.64426	.095881
6	2	1.17186	0.57048	.66956	.063383
7	2	1.18362	0.56505	.69248	.027710
8	2	1.19616	0.55887	.71260	-.010704
9	2	1.24851	0.53234	.70992	-.005490
10	2	1.31290	0.50000	.70713	.000000
	3	1.14005	0.66184	.50413	.189838
1	3	1.15670	0.65469	.53325	.177076
2	3	1.17285	0.64796	.56222	.160329
3	3	1.18909	0.64123	.59064	.139714
4	3	1.20577	0.63423	.61811	.115319
5	3	1.22312	0.62671	.64418	.087292
6	3	1.24137	0.61845	.66840	.055870
7	3	1.26069	0.60921	.69031	.021385
8	3	1.28124	0.59878	.70952	-.015730
9	3	1.33160	0.57252	.70690	-.010797
10	3	1.39388	0.54031	.70415	-.005647
11	3	1.47247	0.50000	.70120	.000000
	4	1.18160	0.74709	.51168	.177374
1	4	1.20615	0.73598	.53904	.165072
2	4	1.23008	0.72548	.56641	.148920
3	4	1.25420	0.71498	.59334	.129045
4	4	1.27896	0.70408	.61942	.105536
5	4	1.30471	0.69243	.64419	.078545
6	4	1.33176	0.67971	.66719	.048308
7	4	1.36034	0.66559	.68800	.015159
8	4	1.39065	0.64973	.70620	-.020468
9	4	1.43876	0.62394	.70366	-.015807
10	4	1.49870	0.59203	.70098	-.010971
11	4	1.57460	0.55192	.69808	-.005747
12	4	1.67363	0.50000	.69498	.000000

α	β	x	y	u	v
	5	1.24161	0.85987	.52005	.164719
1	5	1.27598	0.84358	.54552	.152800
2	5	1.30969	0.82806	.57115	.137214
3	5	1.34376	0.81252	.59645	.118095
4	5	1.37876	0.79640	.62098	.095530
5	5	1.41517	0.77925	.64431	.069672
6	5	1.45335	0.76061	.66597	.040763
7	5	1.49360	0.74006	.68554	.009142
8	5	1.53617	0.71715	.70263	-.024746
9	5	1.58166	0.69211	.70018	-.020351
10	5	1.63894	0.66076	.69759	-.015805
11	5	1.71131	0.62112	.69478	-.010957
12	5	1.80733	0.56952	.69175	-.005737
13	5	1.93695	0.50000	.68854	.000000
	6	1.33165	1.01435	.52940	.151844
1	6	1.37859	0.99121	.55283	.140243
2	6	1.42502	0.96891	.57657	.125203
3	6	1.47211	0.94648	.60007	.106869
4	6	1.52056	0.92322	.62290	.085327
5	6	1.57094	0.89854	.64461	.060736
6	6	1.62371	0.87185	.66478	.033343
7	6	1.67919	0.84262	.68296	.003506
8	6	1.73765	0.81030	.69877	-.028311
9	6	1.77994	0.78642	.69647	-.024190
10	6	1.83410	0.75600	.69399	-.019915
11	6	1.90348	0.71724	.69130	-.015400
12	6	1.99501	0.66640	.68840	-.010623
13	6	2.11997	0.59742	.68529	-.005539
14	6	2.29751	0.50000	.68205	.000000
	7	1.47321	1.23524	.53990	.138705
1	7	1.53687	1.20282	.56115	.127382
2	7	1.60049	1.17110	.58282	.112891
3	7	1.66530	1.13899	.60433	.095398
4	7	1.73213	1.10566	.62526	.074993
5	7	1.80161	1.07036	.64518	.051843
6	7	1.87426	1.03239	.66365	.026215
7	7	1.95040	0.99108	.68026	-.001507
8	7	2.03023	0.94584	.69464	-.030824
9	7	2.06842	0.92378	.69252	-.027003
10	7	2.11870	0.89488	.69020	-.022997
11	7	2.18384	0.85762	.68768	-.018791
12	7	2.27066	0.80820	.68495	-.014389
13	7	2.39026	0.74046	.68202	-.009806
14	7	2.56157	0.64396	.67893	-.005048
15	7	2.81828	0.50000	.67580	.000000

α	β	x	y	u	v
	8	1.70883	1.56823	.55173	.125239
1	8	1.79572	1.52280	.57062	.114199
2	8	1.88372	1.47752	.59005	.100298
3	8	1.97385	1.43133	.60937	.083743
4	8	2.06700	1.38325	.62820	.064630
5	8	2.16383	1.33242	.64610	.043156
6	8	2.26482	1.27801	.66266	.019613
7	8	2.37020	1.21934	.67750	-.005576
8	8	2.47995	1.15581	.69025	-.031857
9	8	2.5125	1.13664	.68836	-.028399
10	8	2.55771	1.11016	.68625	-.024691
11	8	2.61736	1.07536	.68396	-.020805
12	8	2.69821	1.02841	.68147	-.016755
13	8	2.81127	0.96305	.67879	-.012581
14	8	2.97528	0.86865	.67596	-.008356
15	8	3.22369	0.72628	.67307	-.004172
16	8	3.61961	0.50000	.67028	.000000

$$\theta_s = 25^\circ \quad M_1 = 3.0$$

zero grid

α	β	x	y	u	v
2	1	1.07225	0.50000	.61465	.286619
	2	1.07225	0.50000	.67427	.235814
	4	1.07225	0.50000	.73065	.170355
	6	1.07225	0.50000	.77985	.090912
	8	1.07225	0.50000	.81801	.000000
2	2	1.12977	0.57622	.62448	.266471
	2	1.14770	0.57403	.68055	.217828
	4	1.16984	0.57023	.73359	.155255
	6	1.19774	0.56372	.77980	.079459
	8	1.23335	0.55282	.81549	-.007088
10	2	1.38823	0.50000	.81303	.000000
2	4	1.21841	0.68526	.63544	.245989
	4	1.26080	0.67888	.68761	.199531
	4	1.31285	0.66870	.73696	.140003
	6	1.37795	0.65227	.77988	.068200
	8	1.46020	0.62591	.81284	-.013335
10	4	1.60811	0.57360	.81047	-.006920
12	4	1.81970	0.50000	.80798	.000000
2	6	1.36220	0.84840	.64780	.225120
	6	1.43958	0.83464	.69564	.180875
	6	1.53416	0.81400	.74091	.124604
	6	1.65152	0.78224	.78018	.057271
	8	1.79801	0.73334	.81010	-.018336
10	6	1.93795	0.68231	.80786	-.012488
12	6	2.14019	0.60956	.80549	-.006402
14	6	2.44943	0.50000	.80308	.000000
2	8	1.61070	1.10656	.66178	.203777
	8	1.74119	1.08006	.70485	.161807
	8	1.90000	1.04195	.74559	.109087
	8	2.09516	0.98580	.78079	.046861
	8	2.33495	0.90300	.80731	-.021605
10	8	2.46498	0.85445	.80526	-.016269
12	8	2.65632	0.78386	.80308	-.010818
14	8	2.95292	0.67575	.80082	-.005398
16	8	3.44124	0.50000	.79868	.000000

8 x 8 grid

1		1.07225	0.50000	.61465	.286619
2		1.07225	0.50000	.64464	.263026
3		1.07225	0.50000	.67427	.235814
4		1.07225	0.50000	.70311	.204916
5		1.07225	0.50000	.73065	.170355
6		1.07225	0.50000	.75640	.132269
7		1.07225	0.50000	.77985	.090912
8		1.07225	0.50000	.80052	.046661
				.81801	.000000

a	b	x	y	u	v
	1	1.09807	0.53489	.61943	.276585
1	1	1.10203	0.53451	.64854	.253477
2	1	1.10641	0.53399	.67732	.226829
3	1	1.11127	0.53328	.70532	.196580
4	1	1.11671	0.53234	.73206	.162761
5	1	1.12284	0.53108	.75705	.125508
6	1	1.12975	0.52942	.77978	.085074
7	1	1.13757	0.52724	.79981	.041828
8	1	1.14645	0.52441	.81672	-.003752
9	1	1.21902	0.50000	.81545	.000000
	2	1.12977	0.57622	.62448	.266471
1	2	1.13831	0.57526	.65266	.243867
2	2	1.14773	0.57401	.68054	.217804
3	2	1.15819	0.57236	.70766	.188236
4	2	1.16987	0.57019	.73357	.155194
5	2	1.18299	0.56735	.75776	.118818
6	2	1.19777	0.56366	.77976	.079361
7	2	1.21447	0.55888	.79911	.037188
8	2	1.23336	0.55273	.81543	-.007224
9	2	1.30429	0.52841	.81418	-.003654
10	2	1.38789	0.50000	.81292	.000000
	3	1.16908	0.62561	.62980	.256274
1	3	1.18297	0.62385	.65702	.234174
2	3	1.19827	0.62160	.68395	.208704
3	3	1.21525	0.61871	.71016	.179830
4	3	1.23417	0.61499	.73518	.147592
5	3	1.25538	0.61018	.75854	.112129
6	3	1.27922	0.60400	.77977	.073700
7	3	1.30610	0.59610	.79842	.032670
8	3	1.33643	0.58602	.81411	-.010481
9	3	1.40561	0.56185	.81288	-.007082
10	3	1.48744	0.53351	.81165	-.003622
11	3	1.58507	0.50000	.81038	.000000
	4	1.21841	0.68526	.63544	.245989
1	4	1.23863	0.68241	.66164	.224392
2	4	1.26087	0.67884	.68758	.199521
3	4	1.28551	0.67434	.71282	.171359
4	4	1.31294	0.66862	.73692	.139951
5	4	1.34362	0.66136	.75941	.105445
6	4	1.37805	0.65214	.77982	.068103
7	4	1.41675	0.64046	.79773	.028299
8	4	1.46030	0.62571	.81276	-.013479
9	4	1.52760	0.60179	.81157	-.010242
10	4	1.60756	0.57359	.81035	-.006959
11	4	1.70314	0.54017	.80911	-.003558
12	4	1.81897	0.50000	.80784	.000000

α	β	x	y	u	v
	5	1.28117	0.75815	.64143	.235607
1	5	1.30895	0.75383	.66655	.214514
2	5	1.33948	0.74853	.69145	.190251
3	5	1.37326	0.74194	.71568	.162821
4	5	1.41082	0.73371	.73880	.132277
5	5	1.45274	0.72338	.76037	.098776
6	5	1.49967	0.71040	.77993	.062591
7	5	1.55229	0.69411	.79706	.024109
8	5	1.61130	0.67376	.81139	-.016165
9	5	1.67656	0.65019	.81023	-.013081
10	5	1.75453	0.62224	.80905	-.009958
11	5	1.84794	0.58900	.80783	-.006753
12	5	1.96139	0.54895	.80659	-.003448
13	5	2.10120	0.50000	.80534	.000000
	6	1.36220	0.84840	.64780	.225120
1	6	1.39914	0.84214	.67179	.204531
2	6	1.43972	0.83457	.69559	.180885
3	6	1.48457	0.82530	.71875	.154210
4	6	1.53435	0.81385	.74085	.124568
5	6	1.58982	0.79965	.76145	.092130
6	6	1.65175	0.78199	.78010	.057183
7	6	1.72097	0.76007	.79640	.020134
8	6	1.79830	0.73295	.81000	-.018482
9	6	1.86129	0.70987	.80888	-.015546
10	6	1.93710	0.68229	.80773	-.012569
11	6	2.02820	0.64937	.80655	-.009538
12	6	2.13914	0.60957	.80534	-.006449
13	6	2.27617	0.56076	.80412	-.003288
14	6	2.44809	0.50000	.80291	.000000
	7	1.46856	0.96180	.65457	.214514
1	7	1.51678	0.95299	.67738	.194433
2	7	1.56973	0.94245	.70002	.171419
3	7	1.62818	0.92970	.72206	.145526
4	7	1.69297	0.91412	.74308	.116832
5	7	1.76499	0.89500	.76265	.085524
6	7	1.84518	0.87148	.78035	.051909
7	7	1.93448	0.84259	.79577	.016422
8	7	2.03380	0.80722	.80859	-.020358
9	7	2.09420	0.78482	.80753	-.017571
10	7	2.16763	0.75774	.80642	-.014730
11	7	2.25621	0.72530	.80528	-.011853
12	7	2.36445	0.68591	.80412	-.008947
13	7	2.49856	0.63743	.80293	-.006019
14	7	2.66724	0.57688	.80175	-.003051
15	7	2.88285	0.50000	.80060	.000000

a	b	x	y	u	v
	8	1.61070	1.10656	.66178	.203777
1	8	1.67300	1.09438	.68334	.184213
2	8	1.74142	1.07994	.70477	.161847
3	8	1.81686	1.06264	.72563	.136771
4	8	1.90035	1.04171	.74551	.109077
5	8	1.99292	1.01630	.76400	.078973
6	8	2.09566	0.98536	.78068	.046794
7	8	2.20961	0.94776	.79518	.013015
8	8	2.33565	0.90227	.80717	-.021732
9	8	2.39302	0.88076	.80617	-.019100
10	8	2.46375	0.85440	.80512	-.016389
11	8	2.54950	0.82263	.80403	-.013656
12	8	2.65479	0.78386	.80292	-.010911
13	8	2.78576	0.73592	.80179	-.008174
14	8	2.95104	0.67579	.80065	-.005451
15	8	3.16292	0.59919	.79954	-.002748
16	8	3.43891	0.50000	.79847	.000000

$$\theta_s = 25^\circ \quad M_1 = 4.0$$

zero grid

a	b	x	y	u	v
2	1.07225	0.50000	.68257	.318290	
	1.07225	0.50000	.73996	.258789	
	1.07225	0.50000	.79325	.184951	
	1.07225	0.50000	.83843	.097742	
	1.07225	0.50000	.87175	.000000	
4	1.13058	0.56309	.69060	.301635	
	1.14864	0.56279	.74531	.244051	
	1.17265	0.56090	.79604	.172816	
	1.20522	0.55605	.83895	.088942	
	1.25018	0.54581	.87043	-.004756	
6	1.42301	0.50000	.86915	.000000	
	1.21332	0.64800	.69929	.284778	
	1.25488	0.64642	.75111	.229168	
	1.30978	0.64117	.79910	.160642	
	1.38370	0.62921	.83957	.080303	
8	1.48471	0.60532	.86911	-.008936	
	1.65202	0.55977	.86786	-.004571	
	1.87475	0.50000	.86659	.000000	
	1.33403	0.76514	.70875	.267695	
	1.40714	0.76085	.75744	.214111	
10	1.50310	0.75010	.80248	.148421	
	1.63124	0.72778	.84035	.071881	
	1.80432	0.68545	.86778	-.012354	
	1.96564	0.64054	.86659	-.008320	
	2.18159	0.58117	.86536	-.004206	
12	2.48067	0.50000	.86417	.000000	
	1.51617	0.93154	.71905	.250351	
	1.63310	0.92240	.76438	.198838	
	1.78556	0.90290	.80624	.136135	
	1.98725	0.86537	.84131	.063716	
14	2.25582	0.79777	.86649	-.014849	
	2.41034	0.75399	.86536	-.011101	
	2.61892	0.69555	.86420	-.007343	
	2.90969	0.61496	.86306	-.003655	
	3.32922	0.50000	.86198	.000000	

8 x 8 grid

1	1.07225	0.50000	.68257	.318290
2	1.07225	0.50000	.71154	.290325
3	1.07225	0.50000	.73996	.258789
4	1.07225	0.50000	.76737	.223644
5	1.07225	0.50000	.79325	.184951
6	1.07225	0.50000	.81711	.142885
7	1.07225	0.50000	.83843	.097742
8	1.07225	0.50000	.85677	.049940
			.87175	.000000

α	β	x	y	u	v
	1	1.09897	0.52929	.68651	.309987
1	1	1.10292	0.52933	.71482	.282453
2	1	1.10745	0.52924	.74258	.251424
3	1	1.11267	0.52897	.76934	.216872
4	1	1.11874	0.52845	.79461	.178859
5	1	1.12582	0.52759	.81788	.137565
6	1	1.13413	0.52625	.83867	.093285
7	1	1.14391	0.52429	.85652	.046431
8	1	1.15547	0.52148	.87108	-.002481
9	1	1.23733	0.50000	.87042	.000000
	2	1.13058	0.56309	.69060	.301635
1	2	1.13902	0.56307	.71822	.274547
2	2	1.14866	0.56278	.74530	.244040
3	2	1.15979	0.56210	.77140	.210098
4	2	1.17268	0.56088	.79603	.172787
5	2	1.18768	0.55894	.81870	.132287
6	2	1.20525	0.55601	.83893	.088897
7	2	1.22589	0.55176	.85629	.043025
8	2	1.25022	0.54575	.87041	-.004812
9	2	1.33071	0.52432	.86976	-.002439
10	2	1.42275	0.50000	.86911	.000000
	3	1.16822 1.18177	0.60228 0.60210	.69485 .72175	.293233 .286599
2	3	1.19725	0.60146	.74814	.236624
3	3	1.21507	0.60021	.77355	.203302
4	3	1.23568	0.59810	.79752	.166708
5	3	1.25964	0.59483	.81956	.127024
6	3	1.28763	0.59000	.83922	.084553
7	3	1.32043	0.58308	.85607	.039706
8	3	1.35899	0.57339	.86974	-.006993
9	3	1.43806	0.55205	.86911	-.004721
10	3	1.52869	0.52777	.86846	-.002393
11	3	1.63312	0.50000	.86781	.000000
	4	1.21332	0.64800	.69929	.284778
1	4	1.23275	0.64752	.72544	.258603
2	4	1.25494	0.64639	.75109	.229167
3	4	1.28043	0.64437	.77579	.196480
4	4	1.30986	0.64112	.79908	.160619
5	4	1.34400	0.63622	.82048	.121777
6	4	1.38380	0.62911	.83955	.080260
7	4	1.43032	0.61907	.85586	.036488
8	4	1.48486	0.60517	.86907	-.009001
9	4	1.56244	0.58396	.86845	-.006825
10	4	1.65161	0.55976	.86781	-.004599
11	4	1.75449	0.53203	.86717	-.002327
12	4	1.87419	0.50000	.86654	.000000

α	β	x	y	u	v
	5	1.26776	0.70168	.70392	.276266
1	5	1.29403	0.70074	.72929	.250556
2	5	1.32397	0.69892	.75418	.221669
3	5	1.35831	0.69589	.77814	.189629
4	5	1.39788	0.69121	.80072	.154521
5	5	1.44371	0.68433	.82146	.116547
6	5	1.49701	0.67450	.83991	.076022
7	5	1.55913	0.66079	.85567	.033381
8	5	1.63173	0.64201	.86840	-.010819
9	5	1.70773	0.62100	.86779	-.008734
10	5	1.79539	0.59692	.86717	-.006599
11	5	1.89666	0.56928	.86654	-.004436
12	5	2.01462	0.53730	.86592	-.002243
13	5	2.15321	0.50000	.86530	.000000
	6	1.33403	0.76514	.70875	.267695
1	6	1.36828	0.76356	.73332	.242453
2	6	1.40727	0.76081	.75741	.214122
3	6	1.45191	0.75648	.78060	.182741
4	6	1.50326	0.75001	.80245	.148407
5	6	1.56261	0.74070	.82249	.111330
6	6	1.63146	0.72761	.84031	.071841
7	6	1.71148	0.70959	.85550	.030392
8	6	1.80464	0.68517	.86774	-.012427
9	6	1.87895	0.66441	.86715	-.010429
10	6	1.96503	0.64050	.86654	-.008379
11	6	2.06462	0.61302	.86592	-.006315
12	6	2.18080	0.58115	.86530	-.004239
13	6	2.31746	0.54391	.86469	-.002143
14	6	2.47965	0.50000	.86410	.000000
	7	1.41538	0.84075	.71379	.259058
1	7	1.45905	0.83828	.73752	.234288
2	7	1.50868	0.83431	.76080	.206522
3	7	1.56542	0.82832	.78319	.175815
4	7	1.63058	0.81963	.80427	.142278
5	7	1.70571	0.80734	.82360	.106133
6	7	1.79263	0.79034	.84076	.067726
7	7	1.89333	0.76722	.85536	.027537
8	7	2.01009	0.73624	.86707	-.013801
9	7	2.08255	0.71580	.86650	-.011888
10	7	2.16695	0.69213	.86591	-.009916
11	7	2.26479	0.66486	.86531	-.007939
12	7	2.37912	0.63317	.86471	-.005967
13	7	2.51379	0.59607	.86411	-.003995
14	7	2.67385	0.55224	.86352	-.002012
15	7	2.86578	0.50000	.86295	.000000

α	β	x	y	u	v
1	8	1.51617	0.93154	.71905	.250351
2	8	1.57102	0.92788	.74191	.226059
3	8	1.63329	0.92233	.76434	.198866
4	8	1.70437	0.91423	.78591	.168850
5	8	1.78584	0.90276	.80620	.136133
6	8	1.87956	0.88683	.82479	.100954
7	8	1.98766	0.86510	.84126	.063681
8	8	2.11245	0.83593	.85524	.024827
9	8	2.25646	0.79729	.86642	-.014924
10	8	2.32689	0.77727	.86587	-.013093
11	8	2.40948	0.75392	.86530	-.011193
12	8	2.50543	0.72693	.86472	-.009296
13	8	2.61782	0.69550	.86413	-.007414
14	8	2.75045	0.65861	.86355	-.005547
15	8	2.90832	0.61494	.86298	-.003695
16	8	3.09789	0.5628	.86242	-.001853
		3.32751	0.50000	.86189	.000000

$$\theta_s = 25^\circ \quad M_1 = 5.0$$

zero grid

α	β	x	y	u	v
2	1.07225	0.50000	.72096	.336192	
	1.07225	0.50000	.77706	.271763	
	1.07225	0.50000	.82844	.193155	
	1.07225	0.50000	.87110	.101550	
	1.07225	0.50000	.90135	.000000	
4	1.12871	0.55511	.72782	.321872	
	1.14698	0.55580	.78171	.259182	
	1.17242	0.55506	.83098	.182955	
	1.20876	0.55130	.87177	.094433	
	1.26197	0.54146	.90058	-.003331	
8	1.44750	0.50000	.89982	.000000	
	1.20515	0.62667	.73513	.307412	
2	1.24651	0.62750	.78666	.246517	
	1.30372	0.62506	.83369	.172746	
	1.38484	0.61585	.87253	.087433	
	1.50243	0.59337	.89981	-.006259	
	1.68349	0.55207	.89907	-.003174	
10	1.91453	0.50000	.89833	.000000	
	1.31065	0.72110	.74295	.292799	
	1.38185	0.72135	.79196	.233743	
	1.47970	0.71588	.83662	.162512	
	1.61733	0.69895	.87340	.080570	
12	1.81465	0.66012	.89906	-.008682	
	1.99102	0.61920	.89835	-.005806	
	2.21683	0.56735	.89763	-.002913	
	2.51330	0.50000	.89694	.000000	
	1.45925	0.84795	.75130	.278031	
14	1.56987	0.84655	.79764	.220849	
	1.72090	0.83617	.83980	.152243	
	1.93149	0.80834	.87439	.073859	
	2.22948	0.74817	.89834	-.010524	
	2.40070	0.70789	.89766	-.007828	
16	2.62103	0.65655	.89697	-.005157	
	2.91143	0.58951	.89630	-.002550	
	3.30282	0.50000	.89568	.000000	

8 x 8 grid

1	1.07225	0.50000	.72096	.336192
2	1.07225	0.50000	.74936	.305755
3	1.07225	0.50000	.77706	.271763
4	1.07225	0.50000	.80359	.234201
5	1.07225	0.50000	.82844	.193155
6	1.07225	0.50000	.85111	.148830
7	1.07225	0.50000	.87110	.101550
8	1.07225	0.50000	.88797	.051758
			.90135	.000000

α	β	x	y	u	v
1	1	1.09840	0.52581	.72434	.329049
	1	1.10238	0.52606	.75219	.299005
	1	1.10705	0.52621	.77935	.265480
	1	1.11255	0.52620	.80534	.228465
	1	1.11911	0.52595	.82969	.188055
	1	1.12696	0.52534	.85187	.144456
	1	1.13641	0.52424	.87143	.097991
	1	1.14786	0.52243	.88791	.049101
	1	1.16185	0.51961	.90097	-.001672
	1	1.25031	0.50000	.90060	.000000
2	2	1.12871	0.55511	.72782	.321872
	2	1.13713	0.55557	.75510	.292232
	2	1.14701	0.55580	.78170	.259181
	2	1.15863	0.55568	.80715	.222722
	2	1.17245	0.55505	.83097	.182952
	2	1.18897	0.55368	.85267	.140082
	2	1.20881	0.55127	.87177	.094436
	2	1.23283	0.54738	.88786	.046457
	2	1.26205	0.54141	.90058	-.003313
	2	1.34939	0.52183	.90021	-.001711
10	2	1.44737	0.50000	.89982	.000000
3	3	1.16396	0.58849	.73142	.314660
	3	1.21159	0.58900	.80902	.216969
	3	1.23352	0.58786	.83230	.177850
	3	1.25967	0.58555	.85349	.135724
	3	1.29104	0.58159	.87213	.090919
	3	1.32891	0.57531	.88781	.043881
	3	1.37488	0.56580	.90019	-.004841
	3	1.46106	0.54628	.89983	-.003304
	3	1.55789	0.52447	.89944	-.001663
11	3	1.66722	0.50000	.89907	.000000
4	4	1.20515	0.62667	.73513	.307412
	4	1.22426	0.62735	.76122	.278601
	4	1.24657	0.62749	.78665	.246523
	4	1.27278	0.62683	.81095	.211202
	4	1.30380	0.62502	.83368	.172748
	4	1.34074	0.62157	.85435	.131380
	4	1.38496	0.61579	.87252	.087436
	4	1.43820	0.60677	.88778	.041370
	4	1.50264	0.59326	.89981	-.006252
	4	1.58761	0.57382	.89945	-.004775
	4	1.68328	0.55206	.89907	-.003197
11	4	1.79137	0.52762	.89870	-.001610
12	4	1.91423	0.50000	.89833	.000000

α	β	x	y	u	v
1	5	1.25353	0.67051	.73898	.300126
2	5	1.27910	0.67120	.76444	.271737
3	5	1.30890	0.67115	.78925	.240155
4	5	1.34385	0.67002	.81296	.205415
5	5	1.38515	0.66736	.83511	.167635
6	5	1.43423	0.66250	.85525	.127043
7	5	1.49285	0.65458	.87294	.083984
8	5	1.56326	0.64241	.88777	.038928
9	5	1.64820	0.62440	.89942	-.007539
10	5	1.73193	0.60507	.89907	-.006119
11	5	1.82640	0.58338	.89870	-.004599
12	5	1.93323	0.55899	.89833	-.003081
13	5	2.05474	0.53140	.89797	-.001551
14	5	2.19385	0.50000	.89761	.000000
1	6	1.31065	0.72110	.74295	.292799
2	6	1.34360	0.72169	.76776	.264838
3	6	1.38196	0.72133	.79194	.233759
4	6	1.42687	0.71957	.81504	.199611
5	6	1.47985	0.71582	.83661	.162520
6	6	1.54268	0.70927	.85620	.122722
7	6	1.61755	0.69884	.87338	.080574
8	6	1.70722	0.68304	.88777	.036566
9	6	1.81503	0.65992	.89905	-.008685
10	6	1.89743	0.64074	.89871	-.007320
11	6	1.99067	0.61916	.89834	-.005855
12	6	2.09621	0.59485	.89798	-.004397
13	6	2.21636	0.56732	.89762	-.002940
14	6	2.35402	0.53595	.89726	-.001475
15	6	2.51265	0.50000	.89692	.000000
1	7	1.37847	0.77976	.74706	.285429
2	7	1.41993	0.78015	.77121	.257899
3	7	1.46811	0.77931	.79473	.227327
4	7	1.52444	0.77672	.81719	.193779
5	7	1.59076	0.77162	.83816	.157389
6	7	1.66926	0.76304	.85719	.118404
7	7	1.76257	0.74964	.87386	.077196
8	7	1.87399	0.72965	.88779	.034280
9	7	2.00742	0.70073	.89868	-.009688
10	7	2.08842	0.68175	.89835	-.008376
11	7	2.18037	0.66030	.89799	-.006959
12	7	2.28458	0.63611	.89763	-.005557
13	7	2.40333	0.60868	.89728	-.004163
14	7	2.53952	0.57739	.89693	-.002772
15	7	2.69659	0.54147	.89659	-.001390
		2.87888	0.50000	.89626	.000000

α	β	x	y	u	v
	8	1.45925	0.84795	.75130	.278031
1	8	1.51054	0.84800	.77476	.250935
2	8	1.57004	0.84651	.79761	.220876
3	8	1.63952	0.84283	.81942	.187937
4	8	1.72115	0.83608	.83977	.152259
5	8	1.81756	0.82505	.85822	.114106
6	8	1.93186	0.80816	.87436	.073865
7	8	2.06791	0.78332	.88783	.032083
8	8	2.23014	0.74784	.89832	-.010534
9	8	2.30963	0.72909	.89800	-.009273
10	8	2.40023	0.70782	.89765	-.007902
11	8	2.50305	0.68379	.89730	-.006550
12	8	2.62037	0.65650	.89696	-.005212
13	8	2.75506	0.62532	.89661	-.003886
14	8	2.91055	0.58949	.89628	-.002581
15	8	3.09116	0.54806	.89596	-.001288
16	8	3.30170	0.50000	.89565	.000000

$$\theta_s = 25^\circ \quad M_1 = 7.0$$

zero grid

α	β	x	y	u	v
2	1.07225	0.50000	.75922	.354031	
	1.07225	0.50000	.81384	.284627	
	1.07225	0.50000	.86307	.201228	
	1.07225	0.50000	.90289	.105256	
	1.07225	0.50000	.92975	.000000	
4	1.12514	0.54676	.76481	.342274	
	1.14374	0.54846	.81768	.274397	
	1.17114	0.54899	.86524	.193119	
	1.21295	0.54654	.90362	.099934	
	1.27929	0.53710	.92940	-.001838	
6	1.48343	0.50000	.92906	.000000	
	1.19349	0.60525	.77069	.330429	
	1.23483	0.60845	.82171	.264120	
	1.29535	0.60901	.86752	.184996	
	1.38711	0.60297	.90440	.094650	
8	1.53131	0.58188	.92906	-.003477	
	1.73239	0.54486	.92873	-.001761	
	1.97804	0.50000	.92839	.000000	
	1.28286	0.67915	.77688	.318489	
	1.35246	0.68361	.82595	.253788	
10	1.45371	0.68351	.86993	.176872	
	1.60610	0.67243	.90524	.089443	
	1.84314	0.63693	.92874	-.004819	
	2.04110	0.60008	.92841	-.003206	
	2.28332	0.55532	.92809	-.001579	
12	2.58493	0.50000	.92779	.000000	
	1.40143	0.77369	.78340	.306433	
	1.50674	0.77909	.83042	.243369	
	1.65900	0.77743	.87248	.168703	
	1.88634	0.75939	.90616	.084284	
14	2.23583	0.70590	.92844	-.005861	
	2.43049	0.66934	.92812	-.004338	
	2.66921	0.62482	.92781	-.002819	
	2.96707	0.56963	.92751	-.001382	
	3.34521	0.50000	.92725	.000000	

8 x 8 grid

1	1.07225	0.50000	.75922	.354031
	1.07225	0.50000	.78696	.321097
	1.07225	0.50000	.81384	.284627
	1.07225	0.50000	.83938	.244631
	1.07225	0.50000	.86307	.201228
	1.07225	0.50000	.88440	.154651
	1.07225	0.50000	.90289	.105256
	1.07225	0.50000	.91812	.053516
8	1.07225	0.50000	.92975	.000000

α	β	x	y	u	v
1	1	1.09704	0.52210	.76198	.348163
	1	1.10106	0.52257	.78929	.315580
	1	1.10590	0.52297	.81574	.279530
	1	1.11178	0.52324	.84085	.240033
	1	1.11900	0.52330	.86414	.197213
	1	1.12792	0.52301	.88509	.151307
	1	1.13905	0.52230	.90325	.102677
	1	1.15311	0.52057	.91820	.051792
	1	1.17103	0.51771	.92961	-.000779
	1	1.26905	0.50000	.92946	.000000
2	2	1.12514	0.54676	.76481	.342274
	2	1.13359	0.54769	.79168	.310042
	2	1.14376	0.54845	.81768	.274410
	2	1.15608	0.54894	.84236	.235403
	2	1.17117	0.54898	.86523	.193153
	2	1.18980	0.54831	.88581	.147900
	2	1.21302	0.54653	.90362	.100008
	2	1.24226	0.54307	.91827	.049951
	2	1.27945	0.53707	.92943	-.001701
	2	1.37671	0.51937	.92929	-.000956
3	3	1.15708	0.57434	.76772	.336363
	3	1.17044	0.57570	.79412	.304489
	3	1.18649	0.57681	.81967	.269281
	3	1.20591	0.57747	.84391	.230770
	3	1.22964	0.57742	.86636	.189095
	3	1.25891	0.57623	.88654	.144501
	3	1.29532	0.57332	.90400	.097359
	3	1.34106	0.56780	.91834	.048145
	3	1.39908	0.55835	.92925	-.002560
	3	1.49557	0.54067	.92911	-.001846
4	3	1.60166	0.52131	.92894	-.000925
	3	1.71891	0.50000	.92877	.000000
1	4	1.19349	0.60525	.77069	.330429
	4	1.21231	0.60703	.79662	.298919
	4	1.23488	0.60845	.82170	.264139
	4	1.26216	0.60922	.84549	.226131
	4	1.29543	0.60899	.86751	.185036
	4	1.33639	0.60717	.88730	.141110
	4	1.38725	0.60294	.90440	.094727
	4	1.45099	0.59509	.91843	.046376
	4	1.53163	0.58183	.92908	-.003348
	4	1.62732	0.56419	.92895	-.002664
	4	1.73261	0.54485	.92877	-.001774
	4	1.84903	0.52355	.92860	-.000886
	4	1.97828	0.50000	.92844	.000000

α	β	x	y	u	v
	5	1.23512	0.63999	.77375	.324471
1	5	1.26003	0.64218	.79919	.293330
2	5	1.28986	0.64385	.82379	.258984
3	5	1.32586	0.64468	.84712	.221484
4	5	1.36969	0.64416	.86870	.180977
5	5	1.42357	0.64155	.88808	.137725
6	5	1.49031	0.63579	.90481	.092115
7	5	1.57377	0.62532	.91853	.044644
8	5	1.67904	0.60786	.92892	-.004062
9	5	1.77391	0.59027	.92878	-.003406
10	5	1.87839	0.57096	.92861	-.002545
11	5	1.99397	0.54969	.92844	-.001691
12	5	2.12235	0.52615	.92828	-.000843
13	5	2.26551	0.50000	.92812	.000000
	6	1.28286	0.67915	.77688	.318489
1	6	1.31461	0.68171	.80182	.287722
2	6	1.35256	0.68360	.82594	.253814
3	6	1.39827	0.68440	.84879	.216827
4	6	1.45385	0.68347	.86992	.176916
5	6	1.52204	0.67991	.88888	.134347
6	6	1.60633	0.67238	.90524	.089520
7	6	1.71147	0.65895	.91863	.042952
8	6	1.84367	0.63683	.92876	-.004701
9	6	1.93769	0.61931	.92863	-.004070
10	6	2.04136	0.60005	.92846	-.003236
11	6	2.15608	0.57882	.92829	-.002411
12	6	2.28357	0.55531	.92813	-.001597
13	6	2.42581	0.52917	.92797	-.000794
14	6	2.58517	0.50000	.92783	.000000
	7	1.33782	0.72341	.78010	.312480
1	7	1.37725	0.72631	.80452	.282092
2	7	1.42430	0.72837	.82814	.248626
3	7	1.48091	0.72906	.85050	.212156
4	7	1.54961	0.72760	.87117	.172845
5	7	1.63374	0.72288	.88971	.130970
6	7	1.73752	0.71329	.90569	.086941
7	7	1.86660	0.69652	.91875	.041297
8	7	2.02832	0.66925	.92861	-.005262
9	7	2.12146	0.65181	.92848	-.004657
10	7	2.22429	0.63262	.92831	-.003847
11	7	2.33816	0.61144	.92815	-.003050
12	7	2.46476	0.58798	.92799	-.002267
13	7	2.60608	0.56187	.92783	-.001499
14	7	2.76447	0.53271	.92768	-.000746
15	7	2.94278	0.50000	.92754	.000000

α	β	x	y	u	v
	8	1.40143	0.77369	.78340	.306433
1	8	1.44954	0.77691	.80730	.276425
2	8	1.50688	0.77907	.83040	.243403
3	8	1.57576	0.77953	.85227	.207456
4	8	1.65921	0.77738	.87247	.168754
5	8	1.76118	0.77127	.89057	.127580
6	8	1.88669	0.75930	.90616	.084362
7	8	2.04236	0.73874	.91888	.039669
8	8	2.23663	0.70574	.92845	-.005753
9	8	2.32884	0.68841	.92833	-.005172
10	8	2.43080	0.66930	.92816	-.004385
11	8	2.54378	0.64819	.92800	-.003611
12	8	2.66948	0.62478	.92785	-.002856
13	8	2.80986	0.59873	.92770	-.002119
14	8	2.96729	0.56960	.92755	-.001402
15	8	3.14459	0.53691	.92741	-.000698
16	8	3.34536	0.50000	.92728	.000000

$$\theta_s = 30^\circ \quad M_1 = 1.7$$

zero grid

α	β	x	y	u	v
2		0.86602	0.50000	.36096	.208404
4		0.86602	0.50000	.46755	.202455
6		0.86602	0.50000	.55344	.159765
8		0.86602	0.50000	.62998	.090929
	2	0.84708	0.57096	.37473	.186307
2	2	0.88082	0.54509	.47124	.187194
4	2	0.89330	0.53902	.55377	.146583
6	2	0.90497	0.53353	.62753	.079875
8	2	0.91759	0.52700	.68714	-.008605
10	2	0.96680	0.50000	.63245	.000000
	4	0.83036	0.67948	.39174	.163358
2	4	0.90660	0.61665	.47655	.168885
4	4	0.93761	0.60005	.55445	.130654
6	4	0.96650	0.58533	.62446	.066684
8	4	0.99749	0.56828	.68094	-.018481
10	4	1.04355	0.54154	.67636	-.010422
12	4	1.11598	0.50000	.67037	.000000
	6	0.82997	0.86831	.41387	.139402
2	6	0.96280	0.75385	.48459	.144376
4	6	1.02627	0.71577	.55542	.108923
6	6	1.08537	0.68242	.61969	.048913
8	6	1.14805	0.64496	.67139	-.031019
10	6	1.18925	0.61917	.66700	-.023645
12	6	1.25495	0.57838	.66122	-.014304
14	6	1.38287	0.50000	.65231	.000000
	8	0.90734	1.27682	.44461	.114122
2	8	1.12756	1.08634	.49873	.112542
4	8	1.25978	0.99685	.55805	.080155
6	8	1.38458	0.91731	.61277	.026573
8	8	1.51512	0.83084	.65650	-.043675
10	8	1.54758	0.80850	.65256	-.037180
12	8	1.60164	0.77154	.64731	-.029074
14	8	1.71066	0.69753	.63912	-.017227
16	8	2.00450	0.50000	.62672	.000000

8 x 8 grid

1		0.86602	0.50000	.36096	.208404
2		0.86602	0.50000	.42077	.212570
3		0.86602	0.50000	.46755	.202455
4		0.86602	0.50000	.51149	.184569
5		0.86602	0.50000	.55344	.159765
6		0.86602	0.50000	.59315	.128420
7		0.86602	0.50000	.62998	.090929
8		0.86602	0.50000	.66316	.047859
	2	0.86602	0.50000	.69193	.000000

α	β	x	y	u	v
	1	0.85665	0.53216	.36752	.197455
1	1	0.86874	0.52276	.42310	.203687
2	1	0.87265	0.52059	.46887	.194264
3	1	0.87568	0.51913	.51200	.176869
4	1	0.87842	0.51788	.55320	.152516
5	1	0.88110	0.51667	.59220	.121637
6	1	0.88382	0.51540	.62837	.084645
7	1	0.88667	0.51400	.66093	.042117
8	1	0.88969	0.51242	.68913	-.005158
9	1	0.91269	0.50000	.68636	.000000
	2	0.84708	0.57096	.37473	.186307
1	2	0.87247	0.55034	.42641	.195230
2	2	0.88096	0.54541	.47094	.186531
3	2	0.88753	0.54209	.51309	.169677
4	2	0.89349	0.53925	.55345	.145840
5	2	0.89930	0.53653	.59168	.115496
6	2	0.90520	0.53369	.62715	.079080
7	2	0.91134	0.53059	.65906	.037175
8	2	0.91785	0.52710	.68667	-.009432
9	2	0.94018	0.51474	.68393	-.004398
10	2	0.96703	0.50000	.68152	.000000
	3	0.83795	0.61881	.38274	.174947
1	3	0.87783	0.58508	.43024	.185894
2	3	0.89187	0.57652	.47331	.177906
3	3	0.90275	0.57076	.51434	.161622
4	3	0.91260	0.56586	.55371	.138347
5	3	0.92220	0.56116	.59105	.108605
6	3	0.93193	0.55631	.62569	.072846
7	3	0.94205	0.55105	.65685	.031660
8	3	0.95273	0.54515	.68378	-.014167
9	3	0.97428	0.53291	.68108	-.009272
10	3	1.00037	0.51819	.67868	-.005015
11	3	1.03282	0.50000	.67587	.000000
	4	0.83036	0.67948	.39174	.163358
1	4	0.88598	0.63079	.43483	.175381
2	4	0.90694	0.61734	.47613	.168059
3	4	0.92326	0.60824	.51580	.152374
4	4	0.93805	0.60052	.55399	.129726
5	4	0.95243	0.59317	.59025	.100677
6	4	0.96699	0.58561	.62390	.065694
7	4	0.98210	0.57747	.65416	.025369
8	4	0.99800	0.56840	.68027	-.019512
9	4	1.01859	0.55634	.67762	-.014772
10	4	1.04377	0.54169	.67525	-.010672
11	4	1.07513	0.52354	.67247	-.005860
12	4	1.11610	0.50000	.66909	.000000

α	β	x	y	u	v
	5	0.82635	0.75910	.40200	.151519
1	5	0.89909	0.69369	.44050	.163476
2	5	0.92898	0.67348	.47963	.156717
3	5	0.95245	0.65964	.51761	.141650
4	5	0.97375	0.64792	.55433	.119710
5	5	0.99445	0.63680	.58927	.091479
6	5	1.01536	0.62544	.62171	.057439
7	5	1.03700	0.61329	.65085	.018182
8	5	1.05970	0.59986	.67595	-.025504
9	5	1.07910	0.58810	.67336	-.020944
10	5	1.10316	0.57359	.67103	-.017016
11	5	1.13318	0.55557	.66829	-.012427
12	5	1.17247	0.53213	.66496	-.006874
13	5	1.22673	0.50000	.66086	.000000
	6	0.82997	0.86831	.41387	.139402
1	6	0.92158	0.78453	.44770	.150048
2	6	0.96337	0.75477	.48412	.143653
3	6	0.99663	0.73399	.51999	.129199
4	6	1.02691	0.71633	.55486	.108064
5	6	1.05634	0.69961	.58812	.080825
6	6	1.08602	0.68265	.61902	.047965
7	6	1.11664	0.66463	.64676	.010084
8	6	1.14863	0.64489	.67058	-.032035
9	6	1.16646	0.63364	.66808	-.027685
10	6	1.18910	0.61942	.66581	-.023946
11	6	1.21742	0.60169	.66313	-.019600
12	6	1.25461	0.57854	.65987	-.014376
13	6	1.30617	0.54663	.65584	-.007983
14	6	1.38208	0.50000	.65086	.000000
	7	0.84998	1.02713	.42786	.126961
1	7	0.96307	0.92328	.45702	.135108
2	7	1.02127	0.87985	.49011	.128756
3	7	1.06857	0.84851	.52328	.114873
4	7	1.11193	0.82162	.55577	.094658
5	7	1.15412	0.79616	.58687	.068648
6	7	1.19662	0.77046	.61578	.037321
7	7	1.24031	0.74339	.64171	.001278
8	7	1.28574	0.71401	.66389	-.038686
9	7	1.30140	0.70367	.66152	-.034592
10	7	1.32217	0.69002	.65933	-.031061
11	7	1.34827	0.67291	.65675	-.026976
12	7	1.38272	0.65042	.65360	-.022101
13	7	1.43078	0.61919	.64970	-.016200
14	7	1.50210	0.57311	.64485	-.008984
15	7	1.61597	0.50000	.63888	.000000

α	β	x	y	u	v
	8	0.90734	1.27682	.44461	.114122
1	8	1.04640	1.15064	.46920	.118860
2	8	1.12834	1.08725	.49827	.112149
3	8	1.19699	1.03924	.52803	.098760
4	8	1.26066	0.99726	.55745	.079615
5	8	1.32285	0.95733	.58573	.055179
6	8	1.38543	0.91716	.61204	.025914
7	8	1.44952	0.87518	.63559	-.007566
8	8	1.51576	0.83015	.65562	-.044435
9	8	1.52817	0.82156	.65345	-.040676
10	8	1.54633	0.80903	.65139	-.037381
11	8	1.56934	0.79320	.64897	-.033583
12	8	1.60002	0.77215	.64601	-.029078
13	8	1.64335	0.74253	.64234	-.023675
14	8	1.70856	0.69812	.63775	-.017181
15	8	1.81426	0.62647	.63206	-.009399
16	8	2.00149	0.50000	.62522	.000000

$$\theta_s = 30^\circ \quad M_1 = 2.0$$

zero grid

α	β	x	y	u	v
2	0.86602	0.50000	.42342	.244464	
	0.86602	0.50000	.50799	.219968	
	0.86602	0.50000	.58881	.169977	
	0.86602	0.50000	.66195	.095545	
	0.86602	0.50000	.72078	.000000	
4	0.87790	0.57698	.43699	.222418	
	0.89839	0.56829	.51527	.200509	
	0.91647	0.56145	.59130	.153180	
	0.93580	0.55371	.66040	.082031	
	0.95806	0.54343	.71590	-.009556	
10	1.04548	0.50000	.71113	.000000	
2	0.90371	0.69298	.45314	.199652	
	0.95184	0.67028	.52400	.179550	
	0.99497	0.65214	.59432	.134911	
	1.04097	0.63210	.65857	.067506	
	1.09351	0.60630	.71008	-.019241	
10	1.17529	0.56337	.70546	-.010524	
12	1.29787	0.50000	.69992	.000000	
4	0.96314	0.88414	.47294	.176040	
	1.05115	0.83896	.53509	.156692	
	1.13240	0.80132	.59835	.114814	
	1.21917	0.76024	.65655	.051958	
	1.31735	0.70886	.70305	-.028367	
10	1.39192	0.66748	.69867	-.020454	
12	1.50523	0.60531	.69338	-.011198	
14	1.69996	0.50000	.68705	.000000	
6	1.11708	1.24509	.49801	.151313	
	1.26960	1.16203	.54999	.131633	
	1.41711	1.08762	.60432	.092752	
	1.57563	1.00638	.65464	.035886	
	1.75290	0.90777	.69453	-.035121	
10	1.81690	0.87036	.69059	-.028040	
12	1.91727	0.81222	.68580	-.019908	
14	2.09502	0.71029	.67999	-.010621	
16	2.46607	0.50000	.67335	.000000	

8 x 8 grid

1	0.86602	0.50000	.42342	.244464
2	0.86602	0.50000	.46619	.235510
3	0.86602	0.50000	.50799	.219968
4	0.86602	0.50000	.54900	.198105
5	0.86602	0.50000	.58881	.169977
6	0.86602	0.50000	.62674	.135694
7	0.86602	0.50000	.66195	.095545
8	0.86602	0.50000	.69357	.050054
			.72078	.000000

α	ρ	x	y	u	v
1	1	0.87084	0.53489	.42993	.233526
	1	0.87601	0.53273	.47099	.225230
	1	0.88041	0.53107	.51142	.210263
	1	0.88459	0.52957	.55122	.188993
	1	0.88878	0.52806	.58992	.161514
	1	0.89313	0.52643	.62682	.127958
	1	0.89775	0.52459	.66108	.088617
	1	0.90272	0.52246	.69184	.044014
	1	0.90812	0.51993	.71828	-.005078
	1	0.94904	0.50000	.71580	.000000
2	2	0.87790	0.57698	.43699	.222418
	2	0.88897	0.57204	.47622	.214756
	2	0.89844	0.56825	.51519	.200373
	2	0.90745	0.56481	.55368	.179729
	2	0.91648	0.56138	.59119	.152951
	2	0.92585	0.55771	.62699	.120184
	2	0.93577	0.55361	.66025	.081728
	2	0.94642	0.54888	.69009	.038106
	2	0.95796	0.54331	.71571	-.009920
	2	0.99765	0.52347	.71326	-.005046
10	2	1.04499	0.50000	.71075	.000000
3	3	0.88828	0.62854	.44468	.211131
	3	0.90616	0.62013	.48194	.203962
	3	0.92155	0.61360	.51931	.190108
	3	0.93623	0.60768	.55638	.170078
	3	0.95096	0.60179	.59259	.144018
	3	0.96622	0.59554	.62719	.112085
	3	0.98235	0.58861	.65934	.074584
	3	0.99963	0.58067	.68817	.032037
	3	1.01832	0.57139	.71290	-.014798
	3	1.05666	0.55170	.71050	-.010129
10	3	1.10258	0.52830	.70801	-.005319
11	3	1.15857	0.50000	.70530	.000000
4	4	0.90371	0.69298	.45311	.199652
	4	0.92952	0.68023	.48827	.192813
	4	0.95196	0.67019	.52388	.179420
	4	0.97345	0.66106	.55957	.159988
	4	0.99502	0.65199	.59416	.134671
	4	1.01735	0.64243	.62743	.103631
	4	1.04093	0.63188	.65836	.067176
	4	1.06615	0.61990	.68609	.025830
	4	1.09334	0.60601	.70982	-.019652
	4	1.13015	0.58658	.70747	-.015188
	4	1.17449	0.56333	.70503	-.010608
11	4	1.22869	0.53513	.70236	-.005585
12	4	1.29676	0.50000	.69943	.000000

α	β	x	y	u	v
1	5	0.92704	0.77545	.46249	.187964
	5	0.96223	0.75731	.49535	.181273
	5	0.99325	0.74274	.52904	.168261
	5	1.02308	0.72941	.56281	.149413
	5	1.05310	0.71617	.59598	.124872
	5	1.08416	0.70226	.62777	.094801
	5	1.11692	0.68703	.65734	.059513
	5	1.15189	0.66984	.68382	.019535
	5	1.18946	0.65006	.70643	-.024374
	5	1.22452	0.63104	.70415	-.020118
	5	1.26709	0.60808	.70176	-.015761
	5	1.31927	0.58011	.69915	-.011022
	5	1.38501	0.54514	.69627	-.005814
13	5	1.47055	0.50000	.69314	.000000
1	6	0.96314	0.88414	.47294	.176040
	6	1.00969	0.85928	.50336	.169308
	6	1.05140	0.83882	.53493	.156591
	6	1.09180	0.81989	.56677	.138312
	6	1.13255	0.80107	.59814	.114591
	6	1.17474	0.78134	.62827	.085592
	6	1.21919	0.75984	.65629	.051631
	6	1.26651	0.73576	.68136	.013245
	6	1.31718	0.70829	.70270	-.028794
	6	1.35016	0.68990	.70051	-.024752
	6	1.39068	0.66742	.69820	-.020612
	6	1.44055	0.63991	.69565	-.016141
	6	1.50364	0.60532	.69285	-.011283
	6	1.58607	0.56044	.68978	-.005954
14	6	1.69791	0.50000	.68645	.000000
1	7	1.02085	1.03270	.48469	.163844
	7	1.08154	0.99935	.51252	.156886
	7	1.13702	0.97105	.54176	.144376
	7	1.19123	0.94451	.57143	.126657
	7	1.24614	0.91801	.60078	.103822
	7	1.30306	0.89025	.62900	.076032
	7	1.36295	0.86015	.65525	.043613
	7	1.42653	0.82668	.67870	.007121
	7	1.49434	0.78885	.69860	-.032641
	7	1.52473	0.77144	.69652	-.028828
	7	1.56279	0.74973	.69430	-.024905
	7	1.60993	0.72300	.69186	-.020691
	7	1.66991	0.68915	.68917	-.016153
	7	1.74875	0.64492	.68621	-.011251
	7	1.85636	0.58494	.68298	-.005920
15	7	2.00973	0.50000	.67951	.000000

α	β	x	y	u	v
	8	1.11708	1.24509	.49801	.151313
1	8	1.19606	1.20081	.52309	.143974
2	8	1.27000	1.16182	.54977	.131597
3	8	1.34308	1.12463	.57702	.114449
4	8	1.41748	1.08721	.60405	.092596
5	8	1.49472	1.04800	.63009	.066202
6	8	1.57592	1.00565	.65431	.035616
7	8	1.66186	0.95892	.67588	.001426
8	8	1.75301	0.90666	.69409	-.035503
9	8	1.78000	0.89081	.69216	-.031956
10	8	1.81497	0.87035	.69008	-.028260
11	8	1.85870	0.84490	.68779	-.024304
12	8	1.91489	0.81234	.68525	-.020069
13	8	1.98944	0.76936	.68245	-.015542
14	8	2.09208	0.71050	.67938	-.010717
15	8	2.23957	0.62640	.67607	-.005577
16	8	2.46235	0.50000	.67262	.000000

$$\theta_s = 30^\circ \quad M_1 = 3.0$$

zero grid

α	β	x	y	u	v
2		0.86602	0.50000	.54862	.316750
		0.86602	0.50000	.62284	.269698
		0.86602	0.50000	.69592	.200896
		0.86602	0.50000	.76106	.109849
		0.86602	0.50000	.81080	.000000
	2	0.90021	0.56442	.55988	.298036
	2	0.91591	0.56280	.63024	.252704
	2	0.93556	0.55981	.69962	.186459
4	2	0.96115	0.55417	.76142	.098920
	2	0.99529	0.54369	.80844	-.006508
	2	1.12003	0.50000	.80613	.000000
	4	0.95198	0.65359	.57241	.278931
	4	0.98840	0.64874	.63850	.235269
6	4	1.03378	0.64075	.70379	.171675
	4	1.09248	0.62671	.76191	.087925
	4	1.17005	0.60182	.80593	-.012497
	4	1.28972	0.55844	.80369	-.006520
	4	1.45345	0.50000	.80130	.000000
	6	1.03393	0.78183	.58650	.259385
	6	1.09879	0.77137	.64784	.217314
8	6	1.17941	0.75529	.70858	.156501
	6	1.28298	0.72860	.76262	.076940
	6	1.41838	0.68334	.80331	-.017636
	6	1.53233	0.64076	.80116	-.012125
	6	1.68936	0.58285	.79886	-.006270
	6	1.91727	0.50000	.79648	.000000
	8	1.17112	0.97551	.60245	.239299
10	8	1.27704	0.95564	.65853	.196738
	8	1.40853	0.92644	.71421	.140882
	8	1.57632	0.88019	.76365	.066051
	8	1.79272	0.80518	.80058	-.021525
	8	1.89979	0.76415	.79857	-.016438
	8	2.04912	0.70757	.79641	-.011124
	8	2.26800	0.62562	.79414	-.005670
	8	2.60785	0.50000	.79189	.000000

8 x 8 grid

1		0.86602	0.50000	.54862	.316750
2		0.86602	0.50000	.58552	.295796
3		0.86602	0.50000	.62284	.269698
4		0.86602	0.50000	.65991	.238125
5		0.86602	0.50000	.69592	.200896
6		0.86602	0.50000	.72996	.158041
7		0.86602	0.50000	.76106	.109849
8		0.86602	0.50000	.78828	.056889
		0.86602	0.50000	.81080	.000000

α	β	x	y	u	v
1	1	0.88143	0.52973	.55411	.307439
	1	0.88493	0.52945	.59006	.286851
	1	0.88878	0.52907	.62644	.261215
	1	0.89310	0.52854	.66259	.230201
	1	0.89800	0.52778	.69770	.193643
	1	0.90359	0.52672	.73089	.151577
	1	0.91003	0.52523	.76119	.104292
	1	0.91748	0.52318	.78770	.052349
	1	0.92615	0.52038	.80960	-.003422
	1	0.98507	0.50000	.80841	.000000
2	2	0.90021	0.56442	.55988	.298036
	2	0.90769	0.56371	.59483	.277837
	2	0.91593	0.56278	.63023	.252670
	2	0.92515	0.56151	.66541	.222238
	2	0.93558	0.55977	.69959	.186381
	2	0.94747	0.55738	.73189	.145139
	2	0.96114	0.55411	.76138	.098804
	2	0.97694	0.54964	.78714	.047933
	2	0.99525	0.54360	.80838	-.006653
	2	1.05296	0.52328	.8621	-.003372
3	3	0.92330	0.60521	.56597	.288535
	3	0.93536	0.60387	.59986	.268709
	3	0.94863	0.60218	.63423	.244015
	3	0.96346	0.59995	.66840	.214174
	3	0.98021	0.59696	.70160	.179035
	3	0.99929	0.59294	.73297	.138647
	3	1.02117	0.58751	.76159	.093306
	3	1.04640	0.58018	.78657	.043568
	3	1.07556	0.57037	.80713	-.009746
	3	1.13199	0.55015	.80598	-.006600
4	3	1.19738	0.52691	.80480	-.003378
	3	1.27372	0.50000	.80360	.000000
4	4	0.95198	0.65359	.57241	.278931
	4	0.96935	0.65141	.60519	.259467
	4	0.98846	0.64870	.63847	.235243
	4	1.00978	0.64522	.67157	.206001
	4	1.03383	0.64066	.70374	.171600
	4	1.06118	0.63462	.73413	.132100
	4	1.09249	0.62657	.76185	.087802
	4	1.12849	0.61584	.78600	.039272
	4	1.17000	0.60160	.80585	-.012666
	4	1.22506	0.58155	.80472	-.009650
	4	1.28909	0.55840	.80356	-.006568
	4	1.36396	0.53154	.80237	-.003360
	4	1.45259	0.50000	.80115	.000000

α	β	x	y	u	v
	5	0.98803	0.71157	.57924	.269217
1	5	1.01162	0.70825	.61085	.250099
2	5	1.03755	0.70422	.64298	.226341
3	5	1.06648	0.69915	.67495	.197707
4	5	1.09906	0.69261	.70604	.164068
5	5	1.13605	0.68407	.73540	.125495
6	5	1.17832	0.67282	.76216	.082302
7	5	1.22679	0.65802	.78545	.035064
8	5	1.28250	0.63856	.80453	-.015375
9	5	1.33609	0.61874	.80343	-.012484
10	5	1.39868	0.59575	.80230	-.009532
11	5	1.47198	0.56900	.80113	-.006481
12	5	1.55891	0.53753	.79993	-.003316
13	5	1.66336	0.50000	.79871	.000000
	6	1.03393	0.78183	.58650	.259385
1	6	1.06487	0.77704	.61687	.240597
2	6	1.09890	0.77129	.64779	.217301
3	6	1.13684	0.76417	.67858	.189284
4	6	1.17952	0.75514	.70852	.156433
5	6	1.22790	0.74349	.73679	.118833
6	6	1.28306	0.72834	.76253	.076815
7	6	1.34614	0.70860	.78491	.030971
8	6	1.41838	0.68294	.80319	-.017824
9	6	1.47035	0.66344	.80212	-.015055
10	6	1.53140	0.64067	.80101	-.012224
11	6	1.60304	0.61413	.79987	-.009317
12	6	1.68816	0.58281	.79869	-.006327
13	6	1.79063	0.54537	.79749	-.003234
14	6	1.91573	0.50000	.79628	.000000
	7	1.09322	0.86806	.59422	.249421
1	7	1.13298	0.86135	.62329	.230947
2	7	1.17673	0.85340	.65293	.208109
3	7	1.22549	0.84367	.68247	.180722
4	7	1.28028	0.83147	.71120	.148690
5	7	1.34229	0.81593	.73832	.112116
6	7	1.41284	0.79596	.76299	.071353
7	7	1.49326	0.77022	.78439	.027021
8	7	1.58500	0.73711	.80182	-.019960
9	7	1.63515	0.71804	.80079	-.017312
10	7	1.69452	0.69559	.79971	-.014596
11	7	1.76438	0.66934	.79860	-.011819
12	7	1.84757	0.63828	.79745	-.008984
13	7	1.94795	0.60104	.79628	-.006084
14	7	2.07074	0.55580	.79510	-.003103
15	7	2.22322	0.50000	.79392	.000000

α	δ	x	y	u	v
	8	1.17112	0.97551	.60245	.239299
1	8	1.22161	0.96633	.63016	.221125
2	8	1.27722	0.95553	.65845	.198746
3	8	1.33918	0.94244	.68667	.172005
4	8	1.40875	0.92620	.71412	.140831
5	8	1.48735	0.90575	.74001	.105346
6	8	1.57653	0.87976	.76354	.065933
7	8	1.67787	0.84663	.78391	.023252
8	8	1.79291	0.80449	.80042	-.021717
9	8	1.84098	0.78599	.79944	-.019194
10	8	1.89847	0.76399	.79840	-.016587
11	8	1.96636	0.73816	.79733	-.013932
12	8	2.04747	0.70748	.79622	-.011236
13	8	2.14561	0.67057	.79509	-.008502
14	8	2.26596	0.62559	.79393	-.005732
15	8	2.41575	0.56996	.79278	-.002913
16	8	2.60532	0.50000	.79165	.000000

$$\theta_s = 30^\circ \quad M_1 = 4.0$$

zero grid

α	β	x	y	u	v
2	2	0.86602	0.50000	.61279	.353799
		0.86602	0.50000	.68504	.296634
		0.86602	0.50000	.75518	.218003
		0.86602	0.50000	.8161	.117803
		0.86602	0.50000	.86057	.000000
4	2	0.90334	0.55477	.62223	.337957
		0.91851	0.55488	.69149	.282348
		0.93929	0.55367	.75869	.206096
		0.96868	0.54959	.81701	.109217
		1.01140	0.53961	.85932	-.004335
6	2	1.15310	0.50000	.85808	.000000
		0.95545	0.62684	.63244	.321866
		0.98996	0.62631	.69847	.267833
		1.03690	0.62274	.76250	.194036
		1.10283	0.61270	.81798	.100645
8	4	1.19773	0.58972	.85803	-.008278
		1.33542	0.55028	.85683	-.004258
		1.51321	0.50000	.85559	.000000
		1.03012	0.72378	.64355	.305503
		1.08992	0.72158	.70608	.253050
10	6	1.17080	0.71403	.76669	.181799
		1.28356	0.69543	.81911	.092127
		1.44411	0.65525	.85674	-.011642
		1.57749	0.61623	.85558	-.007897
		1.75040	0.56621	.85437	-.004013
12	6	1.98202	0.50000	.85318	.000000
		1.14022	0.85741	.65565	.288858
		1.23402	0.85201	.71439	.237974
		1.36021	0.83812	.77133	.169369
		1.53477	0.80716	.82045	.083689
14	8	1.78017	0.74391	.85546	-.014284
		1.90873	0.70564	.85435	-.010781
		2.07636	0.65624	.85320	-.007201
		2.30201	0.59040	.85205	-.003616
		2.61521	0.50000	.85094	.000000

8 x 8 grid

1		0.86602	0.50000	.61279	.353799
2		0.86602	0.50000	.64881	.327768
3		0.86602	0.50000	.68504	.296634
4		0.86602	0.50000	.72078	.260091
5		0.86602	0.50000	.75518	.218003
6		0.86602	0.50000	.78730	.170456
7		0.86602	0.50000	.81616	.117803
8		0.86602	0.50000	.84084	.060683
		0.86602	0.50000	.86057	.000000

α	β	x	y	u	v
1	1	0.88318	0.52557	.61742	.345908
	1	0.88650	0.52569	.65271	.320211
	1	0.89035	0.52571	.68821	.289502
	1	0.89485	0.52558	.72321	.253487
	1	0.90017	0.52522	.75690	.212041
	1	0.90651	0.52454	.78833	.165255
	1	0.91413	0.52337	.81657	.113487
	1	0.92333	0.52152	.84069	.057370
	1	0.93450	0.51870	.85995	-.002204
	1	1.00199	0.50000	.85933	.000000
2	2	0.90334	0.55477	.62223	.337957
	2	0.91038	0.55492	.65675	.312607
	2	0.91853	0.55487	.69149	.28333
	2	0.92806	0.55450	.72574	.246857
	2	0.93930	0.55364	.75868	.206063
	2	0.95267	0.55210	.78941	.160051
	2	0.96868	0.54954	.81699	.109178
	2	0.98799	0.54555	.84054	.054077
	2	1.01139	0.53954	.85930	-.004364
	2	1.07789	0.52088	.85870	-.002246
10	2	1.15280	0.50000	.8580	.000000
3	3	0.92715	0.58825	.62723	.329944
	3	0.93841	0.58836	.66096	.304943
	3	0.95141	0.58813	.69490	.275110
	3	0.96658	0.58738	.72836	.240182
	3	0.98445	0.58588	.76054	.200054
	3	1.00567	0.58327	.79054	.154832
	3	1.03105	0.57906	.81745	.104883
	3	1.06156	0.57260	.84041	.050838
	3	1.09844	0.56299	.85866	-.006409
	3	1.16391	0.54439	.85806	-.004373
	3	1.23779	0.52353	.85743	-.002215
11	3	1.32170	0.50000	.85680	.000000
4	4	0.95545	0.62684	.63244	.321866
	4	0.97150	0.62681	.66534	.297214
	4	0.99001	0.62629	.69846	.267825
	4	1.01158	0.62503	.73110	.233455
	4	1.03694	0.62268	.76248	.194007
	4	1.06699	0.61876	.79173	.149597
	4	1.10286	0.61260	.81795	.100602
	4	1.14588	0.60328	.84028	.047658
	4	1.19774	0.58956	.85800	-.008326
	4	1.26213	0.57105	.85741	-.006368
	4	1.33495	0.55025	.85679	-.004293
12	4	1.41773	0.52674	.85617	-.002175
		1.51256	0.50000	.85555	.000000

α	β	x	y	u	v
	5	0.98931	0.67158	.63788	.313721
1	5	1.01084	0.67129	.66991	.289416
2	5	1.03564	0.67034	.70217	.260474
3	5	1.06450	0.66838	.73396	.226669
4	5	1.09838	0.66497	.76452	.187915
5	5	1.13845	0.65946	.79299	.144341
6	5	1.18617	0.65098	.81849	.096334
7	5	1.24327	0.63834	.84018	.044544
8	5	1.31187	0.61993	.85735	-.010099
9	5	1.37513	0.60155	.85677	-.008216
10	5	1.44686	0.58083	.85616	-.006218
11	5	1.52847	0.55739	.85555	-.004189
12	5	1.62205	0.53068	.85493	-.002122
13	5	1.73020	0.50000	.85432	.000000
	6	1.03012	0.72378	.64355	.305503
1	6	1.05797	0.72310	.67469	.281544
2	6	1.09001	0.72154	.70605	.253051
3	6	1.12725	0.71868	.73696	.219818
4	6	1.17089	0.71393	.76666	.181774
5	6	1.22242	0.70649	.79432	.139061
6	6	1.28363	0.69525	.81907	.092080
7	6	1.35669	0.67873	.84010	.041503
8	6	1.44417	0.65496	.85670	-.011710
9	6	1.50621	0.63675	.85613	-.009899
10	6	1.57679	0.61615	.85553	-.007972
11	6	1.65720	0.59280	.85493	-.006025
12	6	1.74949	0.56617	.85432	-.004055
13	6	1.85625	0.53553	.85371	-.002051
14	6	1.98083	0.50000	.85311	.000000
	7	1.07971	0.78511	.64948	.297207
1	7	1.11488	0.78386	.67968	.273590
2	7	1.15532	0.78148	.71011	.245548
3	7	1.20225	0.77745	.74010	.212898
4	7	1.25716	0.77104	.76891	.175581
5	7	1.32189	0.76125	.79573	.133756
6	7	1.39859	0.74673	.81971	.087844
7	7	1.48988	0.72567	.84004	.038543
8	7	1.59876	0.69572	.85604	-.013141
9	7	1.65950	0.67773	.85549	-.011399
10	7	1.72887	0.65728	.85491	-.009539
11	7	1.80801	0.63408	.85432	-.007666
12	7	1.89896	0.60756	.85372	-.005783
13	7	2.00430	0.57701	.85312	-.003883
14	7	2.12734	0.54154	.85253	-.001961
15	7	2.27222	0.50000	.85195	.000000

α	β	x	y	u	v
	8	1.14022	0.85741	.65565	.288858
1	8	1.18394	0.85539	.68488	.265579
2	8	1.23415	0.85195	.71435	.237987
3	8	1.29236	0.84643	.74339	.205925
4	8	1.36037	0.83796	.77128	.169352
5	8	1.44037	0.82532	.79723	.128443
6	8	1.53494	0.80688	.82040	.083643
7	8	1.64712	0.78051	.84001	.035685
8	8	1.78037	0.74344	.85539	-.014366
9	8	1.83969	0.72573	.85487	-.012693
10	8	1.90778	0.70549	.85429	-.010895
11	8	1.98558	0.68248	.85372	-.009091
12	8	2.07514	0.65613	.85314	-.007285
13	8	2.17901	0.62572	.85255	-.005475
14	8	2.30048	0.59036	.85197	-.003663
15	8	2.44366	0.54888	.85140	-.001841
16	8	2.61331	0.50000	.85085	.000000

$$\theta_B = 30^\circ \quad M_1 = 5.0$$

zero grid

α	δ	x	y	u	v
2	0.86602	0.50000	.64873	.374550	
	0.86602	0.50000	.72004	.311788	
	0.86602	0.50000	.78849	.227618	
	0.86602	0.50000	.84694	.122246	
	0.86602	0.50000	.88807	.000000	
4	0.90338	0.54893	.65701	.360579	
	0.91844	0.54988	.72578	.299269	
	0.94008	0.54967	.70381	.791725	
	0.97234	0.54657	.84792	.115119	
	1.02207	0.53692	.88731	-.003041	
	1.17512	0.50000	.88656	.000000	
6	0.95342	0.61145	.66584	.346427	
	0.98724	0.61295	.73190	.286599	
	1.03549	0.61177	.79517	.206959	
	1.10690	0.60416	.84899	.107999	
	1.21597	0.58232	.88654	-.005809	
	1.36582	0.54550	.88581	-.002973	
8	1.55294	0.50000	.88507	.000000	
	1.02171	0.69260	.67530	.332080	
	1.07934	0.69410	.73846	.273755	
	1.16107	0.69093	.79889	.196473	
	1.28113	0.67694	.85018	.100923	
	1.46259	0.63955	.88579	-.008166	
10	1.60906	0.60299	.88508	-.005508	
	1.79241	0.55764	.88435	-.002770	
	2.02770	0.50000	.88365	.000000	
	1.11706	0.80006	.68547	.317489	
	1.20566	0.80079	.74551	.260676	
	1.33056	0.79422	.80292	.185827	
12	1.51262	0.77122	.85152	.093868	
	1.78449	0.71374	.88506	-.010046	
	1.92728	0.67762	.88437	-.007543	
	2.10666	0.63263	.88367	-.005000	
	2.33755	0.57520	.88299	-.002492	
	2.64253	0.50000	.88234	.000000	

8 x 8 grid

1	0.86602	0.50000	.64873	.374550
2	0.86602	0.50000	.68436	.345728
3	0.86602	0.50000	.72004	.311788
4	0.86602	0.50000	.75504	.272452
5	0.86602	0.50000	.78849	.227618
6	0.86602	0.50000	.81945	.177416
7	0.86602	0.50000	.84694	.122246
8	0.86602	0.50000	.87007	.062792
	0.86602	0.50000	.88807	.000000

α	β	x	y	u	v
1	1	0.88337	0.52301	.65281	.367586
	1	0.88664	0.52331	.68781	.339080
	1	0.89053	0.52353	.72287	.305542
	1	0.89518	0.52362	.75724	.266709
	1	0.90082	0.52351	.79008	.222492
	1	0.90772	0.52306	.82046	.173028
	1	0.91623	0.52210	.84742	.118719
	1	0.92681	0.52039	.87009	.060249
	1	0.94008	0.51754	.88771	-.001447
	1	1.01334	0.50000	.88736	.000000
2	2	0.90338	0.54893	.65701	.360579
	2	0.91027	0.54948	.69137	.332395
	2	0.91846	0.54987	.72578	.299265
	2	0.92826	0.54998	.75950	.260939
	2	0.94009	0.54965	.79171	.217335
	2	0.95455	0.54862	.82150	.168600
	2	0.97234	0.54654	.84792	.115139
	2	0.99444	0.54287	.87010	.057637
	2	1.02209	0.53687	.88732	-.002974
	2	1.09454	0.51934	.88698	-.001583
10	2	1.17495	0.50000	.88659	.000000
3	3	0.92652	0.57822	.66135	.353526
	3	0.93748	0.57899	.69505	.325670
	3	0.95046	0.57949	.72879	.292953
	3	0.96596	0.57954	.76184	.255139
	3	0.98467	0.57888	.79341	.212158
	3	1.00748	0.57712	.82257	.164166
	3	1.03549	0.57371	.84843	.111571
	3	1.07020	0.56782	.87012	.055065
	3	1.11351	0.55830	.88693	-.004415
	3	1.18514	0.54081	.88659	-.003078
10	3	1.26472	0.52148	.88621	-.001552
11	3	1.35362	0.50000	.88583	.000000
4	4	0.95342	0.61145	.66584	.346427
	4	0.96893	0.61239	.69885	.318901
	4	0.98728	0.61293	.73189	.286601
	4	1.00916	0.61283	.76426	.249308
	4	1.03553	0.61172	.79516	.206960
	4	1.06761	0.60906	.82370	.159724
	4	1.10694	0.60408	.84898	.108016
	4	1.15555	0.59566	.87016	.052537
	4	1.21602	0.58220	.88655	-.005760
	4	1.28679	0.56477	.88621	-.004473
10	4	1.36552	0.54547	.88583	-.003002
11	4	1.45354	0.52401	.88545	-.001511
12	4	1.55252	0.50000	.88508	.000000

α	ρ	x	y	u	v
	5	0.98484	0.64930	.67049	.339280
1	5	1.00549	0.65035	.70278	.312085
2	5	1.02988	0.65085	.73511	.280206
3	5	1.05892	0.65049	.76677	.243439
4	5	1.09386	0.64879	.79698	.201734
5	5	1.13629	0.64503	.82487	.155269
6	5	1.18821	0.63822	.84955	.104471
7	5	1.25222	0.62690	.87022	.050054
8	5	1.33160	0.60903	.88616	-.007005
9	5	1.40148	0.59168	.88583	-.005766
10	5	1.47935	0.57243	.88546	-.004345
11	5	1.56645	0.55100	.88509	-.002912
12	5	1.66445	0.52701	.88472	-.001467
13	5	1.77538	0.50000	.88435	.000000
	6	1.02171	0.69260	.67530	.332080
1	6	1.04819	0.69369	.70685	.305219
2	6	1.07942	0.69407	.73844	.273764
3	6	1.11654	0.69333	.76937	.237530
4	6	1.16115	0.69085	.79887	.196479
5	6	1.21520	0.68577	.82609	.150800
6	6	1.28121	0.67681	.85017	.100937
7	6	1.36238	0.66217	.87029	.047622
8	6	1.46271	0.64934	.88579	-.008136
9	6	1.53166	0.62209	.88546	-.006942
10	6	1.60863	0.60291	.88509	-.005566
11	6	1.69479	0.58155	.88472	-.004186
12	6	1.79181	0.55760	.88436	-.002802
13	6	1.90169	0.53061	.88400	-.001406
14	6	2.02690	0.50000	.88365	.000000
	7	1.06522	0.74237	.68029	.324826
1	7	1.09835	0.74341	.71107	.298298
2	7	1.13735	0.74356	.74189	.267269
3	7	1.18366	0.74229	.77206	.231573
4	7	1.23922	0.73885	.80083	.191187
5	7	1.30642	0.73215	.82736	.146312
6	7	1.38828	0.72067	.85081	.097409
7	7	1.48867	0.70222	.87038	.045238
8	7	1.61232	0.67380	.88541	-.009149
9	7	1.68028	0.65668	.88509	-.008000
10	7	1.75632	0.63760	.88473	-.006667
11	7	1.84152	0.61632	.88437	-.005335
12	7	1.93753	0.59244	.88401	-.004006
13	7	2.04634	0.56550	.88365	-.002675
14	7	2.17042	0.53492	.88331	-.001345
15	7	2.31275	0.50000	.88297	.000000

α	β	x	y	u	v
	8	1.11706	0.80006	.68547	.317489
1	8	1.15784	0.80097	.71546	.291294
2	8	1.20577	0.80075	.74548	.260694
3	8	1.26262	0.79876	.77487	.225546
4	8	1.33070	0.79410	.80289	.185837
5	8	1.41288	0.78547	.82870	.141789
6	8	1.51277	0.77101	.85150	.093879
7	8	1.63490	0.74816	.87049	.042902
8	8	1.78473	0.71340	.88504	-.010035
9	8	1.85162	0.69644	.88473	-.008929
10	8	1.92669	0.67749	.88438	-.007636
11	8	2.01088	0.65632	.88402	-.006349
12	8	2.10585	0.63254	.88367	-.005069
13	8	2.21357	0.60567	.88332	-.003795
14	8	2.33650	0.57515	.88298	-.002532
15	8	2.47761	0.54027	.88264	-.001269
16	8	2.64118	0.50000	.88232	.000000

$$\theta_B = 30^\circ \quad M_1 = 7.0$$

zero grid

α	β	x	y	u	v
2		0.86602	0.50000	.68441	.395149
		0.86602	0.50000	.75473	.326808
		0.86602	0.50000	.82134	.237100
		0.86602	0.50000	.87704	.126590
		0.86602	0.50000	.91460	.000000
4	2	0.90237	0.54294	.69147	.383182
	2	0.91742	0.54469	.75968	.316169
	2	0.94023	0.54553	.82420	.228535
	2	0.97638	0.54357	.87804	.120982
	2	1.03637	0.53424	.91424	-.001724
	2	1.20466	0.50000	.91388	.000000
6	4	0.94918	0.59624	.69890	.371089
	4	0.98252	0.59960	.76489	.305435
	4	1.03272	0.60085	.82721	.219900
	4	1.11170	0.59594	.87911	.115349
	4	1.24168	0.57521	.91388	-.003307
	4	1.40776	0.54102	.91352	-.001694
	4	1.60846	0.50000	.91317	.000000
8	6	1.01022	0.66307	.70675	.358863
	6	1.06611	0.66785	.77038	.294595
	6	1.14971	0.66898	.83039	.211206
	6	1.28032	0.65985	.88027	.109736
	6	1.49318	0.62510	.91353	-.004636
	6	1.65701	0.59103	.91319	-.003116
	6	1.85522	0.55009	.91284	-.001541
10	8	2.09933	0.50000	.91251	.000000
	8	1.09086	0.74779	.71505	.346500
	8	1.17494	0.75376	.77617	.283633
	8	1.29996	0.75405	.83376	.202426
	8	1.49386	0.73905	.88152	.104128
	8	1.80633	0.68694	.91321	-.005688
	8	1.96781	0.65309	.91287	-.004248
12	8	2.16348	0.61233	.91253	-.002772
	8	2.40487	0.56233	.91221	-.001358
	8	2.70749	0.50000	.91192	.000000

8 x 8 grid

1		0.86602	0.50000	.68441	.395149
	2	0.86602	0.50000	.71964	.36352
	3	0.86602	0.50000	.75473	.326808
	4	0.86602	0.50000	.82134	.237100
	5	0.86602	0.50000	.85103	.184254
	6	0.86602	0.50000	.87704	.126590
	7	0.86602	0.50000	.89847	.064841
	8	0.86602	0.50000	.91460	.000000

α	β	x	y	u	v
1	1	0.88307	0.52034	.68790	.389181
	1	0.88631	0.52081	.72261	.357877
	1	0.89026	0.52123	.75717	.321512
	1	0.89512	0.52156	.79084	.279860
	1	0.90118	0.52170	.82275	.232872
	1	0.90881	0.52152	.85196	.180736
	1	0.91853	0.52082	.87754	.123911
	1	0.93109	0.51927	.89861	.063129
	1	0.94750	0.51638	.91447	-.000624
	1	1.02848	0.50000	.91435	.000000
2	2	0.90237	0.54294	.69147	.383182
	2	0.90917	0.54387	.72565	.352172
	2	0.91744	0.54469	.75968	.316180
	2	0.92761	0.54530	.79281	.274993
	2	0.94025	0.54552	.82419	.228573
	2	0.95615	0.54507	.85292	.177115
	2	0.97640	0.54354	.87805	.121081
	2	1.00247	0.54026	.89874	.061209
	2	1.03645	0.53421	.91428	-.001516
	2	1.11690	0.51783	.91416	-.000921
10	2	1.20476	0.50000	.91397	.000000
3	3	0.92426	0.56812	.69514	.377151
	3	0.93500	0.56949	.72877	.346441
	3	0.94803	0.57069	.76224	.310828
	3	0.96402	0.57154	.79482	.270113
	3	0.98387	0.57177	.82568	.224266
	3	1.00881	0.57097	.85390	.173493
	3	1.04048	0.56846	.87857	.118263
	3	1.08119	0.56323	.89887	.059318
	3	1.13412	0.55371	.91410	-.002347
	3	1.21402	0.53734	.91397	-.001778
10	3	1.30130	0.51952	.91378	-.000388
11	3	1.39726	0.50000	.91360	.000000
4	4	0.94918	0.59624	.69890	.371089
	4	0.96428	0.59804	.73197	.340682
	4	0.98256	0.59959	.76488	.305451
	4	1.00498	0.60064	.79689	.265211
	4	1.03276	0.60082	.82720	.219943
	4	1.06759	0.59954	.85491	.169864
	4	1.11174	0.59589	.87912	.115448
	4	1.16838	0.58847	.89901	.057451
	4	1.24181	0.57514	.91391	.03116
	4	1.32116	0.55880	.91379	-.002574
	4	1.40785	0.54099	.91360	-.001713
	4	1.50321	0.52148	.91342	-.000857
12	4	1.60853	0.50000	.91324	.000000

α	β	x	y	u	v
	5	0.97763	0.62772	.70277	.364993
1	5	0.99757	0.62993	.73526	.334892
2	5	1.02169	0.63180	.76758	.300048
3	5	1.05120	0.63300	.79902	.260289
4	5	1.08771	0.63304	.82877	.215606
5	5	1.13342	0.63115	.85595	.166227
6	5	1.19126	0.62617	.87968	.112638
7	5	1.26526	0.61629	.89916	.055608
8	5	1.36093	0.59878	.91374	-.003825
9	5	1.43972	0.58247	.91361	-.003306
10	5	1.52582	0.56469	.91343	-.002471
11	5	1.62056	0.54519	.91325	-.001644
12	5	1.72524	0.52372	.91307	-.000820
13	5	1.84130	0.50000	.91290	.000000
	6	1.01022	0.66307	.70675	.358863
1	6	1.03557	0.66568	.73864	.329072
2	6	1.06618	0.66783	.77036	.294617
3	6	1.10358	0.66912	.80121	.255344
4	6	1.14978	0.66893	.83038	.211252
5	6	1.20750	0.66629	.85702	.162583
6	6	1.28041	0.65976	.88027	.109833
7	6	1.37346	0.64711	.89933	.053793
8	6	1.49339	0.62498	.91356	-.004463
9	6	1.57159	0.60872	.91344	-.003966
10	6	1.65710	0.59098	.91326	-.003156
11	6	1.75122	0.57151	.91308	-.002357
12	6	1.85525	0.55006	.91291	-.001564
13	6	1.97064	0.52635	.91274	-.000779
14	6	2.09929	0.50000	.91257	.000000
	7	1.04769	0.70288	.71085	.352696
1	7	1.07909	0.70587	.74211	.323216
2	7	1.11695	0.70827	.77322	.289153
3	7	1.16315	0.70958	.80345	.250368
4	7	1.22013	0.70904	.83204	.206874
5	7	1.29118	0.70549	.85813	.158922
6	7	1.38075	0.69717	.88088	.107025
7	7	1.49477	0.68139	.89952	.051999
8	7	1.64123	0.65416	.91340	-.005035
9	7	1.71882	0.63796	.91328	-.004560
10	7	1.80371	0.62026	.91310	-.003773
11	7	1.89720	0.60084	.91292	-.002998
12	7	2.00059	0.57943	.91275	-.002233
13	7	2.11530	0.55574	.91258	-.001481
14	7	2.24324	0.52940	.91242	-.000739
15	7	2.38646	0.50000	.91226	.000000

α	β	x	y	u	v
	8	1.09086	0.74779	.71505	.346500
1	8	1.12905	0.75113	.74568	.317332
2	8	1.17504	0.75373	.77615	.283662
3	8	1.23107	0.75498	.80576	.245368
4	8	1.30007	0.75398	.83375	.202477
5	8	1.38597	0.74933	.85927	.155252
6	8	1.49400	0.73892	.88152	.104224
7	8	1.63116	0.71962	.89971	.050235
8	8	1.80668	0.68675	.91323	-.005532
9	8	1.88363	0.67062	.91312	-.005078
10	8	1.96789	0.65299	.91294	-.004311
11	8	2.06074	0.63362	.91277	-.003559
12	8	2.16347	0.61225	.91260	-.002819
13	8	2.27750	0.58860	.91243	-.002094
14	8	2.40474	0.56229	.91227	-.001384
15	8	2.54723	0.53290	.91212	-.000683
16	8	2.70724	0.50000	.91197	.000000

$$\theta_s = 35^\circ \quad M_1 = 2.0$$

zero grid

α	β	x	y	u	v
2	0.71407	0.50000	.35304	.247205	
	0.71407	0.50000	.46205	.242648	
	0.71407	0.50000	.56147	.196575	
	0.71407	0.50000	.65313	.114332	
	0.71407	0.50000	.72590	-.000000	
4	0.70119	0.55788	.36763	.227639	
	0.72682	0.54415	.46827	.227460	
	0.74056	0.53919	.56372	.183377	
	0.75469	0.53398	.65205	.103509	
	0.77145	0.52662	.72206	-.007822	
	0.82649	0.50000	.71829	0.000000	
6	0.68969	0.64154	.38513	.207274	
	0.74743	0.60783	.47591	.210339	
	0.77985	0.59486	.56641	.168036	
	0.81304	0.58159	.65061	.090950	
	0.85204	0.56347	.71722	-.016688	
	0.90416	0.53700	.71353	-.009331	
	0.97803	0.50000	.70885	0.000000	
8	0.68649	0.77355	.40687	.186015	
	0.78600	0.71166	.48602	.188905	
	0.84671	0.68455	.56990	.149074	
	0.90883	0.65734	.64858	.075533	
	0.98102	0.62146	.71062	-.027029	
	1.02920	0.59553	.70706	-.020198	
	1.09792	0.55894	.70252	-.011656	
	1.21041	0.50000	.69635	0.000000	
10	0.71533	1.01202	.43509	.163678	
	0.87379	0.90998	.50077	.163028	
	0.98365	0.85519	.57525	.125354	
	1.09688	0.80024	.64600	.056758	
	1.22681	0.73044	.70148	-.037934	
	1.26913	0.70607	.69815	-.031705	
	1.33033	0.67114	.69387	-.024018	
	1.43203	0.61375	.68802	-.013849	
12	1.63694	0.50000	.68003	0.000000	

8 x 8 grid

1	0.71407	0.50000	.35304	.247205
2	0.71407	0.50000	.41067	.251614
3	0.71407	0.50000	.46205	.242648
4	0.71407	0.50000	.51224	.224174
5	0.71407	0.50000	.56147	.196575
6	0.71407	0.50000	.60889	.159882
7	0.71407	0.50000	.65313	.114332
8	0.71407	0.50000	.69264	.060624

α	θ	x	y	u	v
1	1	0.70766	0.52653	.36003	.237517
	1	0.71584	0.52200	.41471	.243180
	1	0.71981	0.52039	.46484	.234751
	1	0.72310	0.51922	.51403	.216712
	1	0.72623	0.51816	.56235	.189562
	1	0.72943	0.51705	.60891	.153374
	1	0.73284	0.51578	.65236	.108408
	1	0.73657	0.51427	.69113	.055368
	1	0.74070	0.51239	.72374	-.004508
	1	0.76668	0.50000	.72160	.000000
2	2	0.70119	0.55788	.36763	.227639
	2	0.71839	0.54788	.41933	.234811
	2	0.72688	0.54423	.46808	.226974
	2	0.73392	0.54160	.51617	.209424
	2	0.74061	0.53922	.56350	.182779
	2	0.74745	0.53675	.60916	.147156
	2	0.75471	0.53396	.65177	.102838
	2	0.76264	0.53064	.68978	.050530
	2	0.77141	0.52656	.72170	-.008535
	2	0.79674	0.51422	.71958	-.004137
10	2	0.82615	0.50000	.71758	.000000
3	3	0.69501	0.59551	.37595	.217561
	3	0.72213	0.57901	.42444	.225886
	3	0.73585	0.57281	.47165	.218597
	3	0.74724	0.56832	.51850	.201535
	3	0.75808	0.56426	.56474	.175417
	3	0.76914	0.56010	.60939	.140402
	3	0.78087	0.55543	.65106	.096789
	3	0.79365	0.54992	.68822	.045291
	3	0.80773	0.54320	.71939	-.012867
	3	0.83232	0.53093	.71730	-.008588
	3	0.86101	0.51572	.71532	-.004574
11	3	0.89504	0.50000	.71307	.000000
4	4	0.68969	0.64154	.38513	.207274
	4	0.72769	0.61750	.43020	.216278
	4	0.74760	0.60802	.47565	.209467
	4	0.76419	0.60112	.52111	.192888
	4	0.77998	0.59492	.56611	.167327
	4	0.79607	0.58857	.60961	.132975
	4	0.81311	0.58152	.65023	.090149
	4	0.83162	0.57327	.68642	.039567
	4	0.85198	0.56329	.71673	-.017552
	4	0.87572	0.55114	.71467	-.013399
	4	0.90358	0.53698	.71271	-.009516
11	4	0.93666	0.52028	.71048	-.005104
12	4	0.97717	0.50000	.70792	.000000

α	β	x	y	u	v
	5	0.68624	0.69920	.39535	.196765
1	5	0.73622	0.66655	.43682	.205877
2	5	0.76358	0.65282	.48027	.199437
3	5	0.78654	0.64275	.52411	.183330
4	5	0.80842	0.63368	.56767	.158361
5	5	0.83070	0.62447	.60984	.124749
6	5	0.85427	0.61432	.64924	.082820
7	5	0.87978	0.60254	.68433	.033300
8	5	0.90775	0.58841	.71364	-.022595
9	5	0.93051	0.57644	.71162	-.018577
10	5	0.95742	0.56237	.70969	-.014833
11	5	0.98939	0.54575	.70749	-.010593
12	5	1.02861	0.52552	.70496	-.005709
13	5	1.07851	0.50000	.70203	.000000
	6	0.68649	0.77355	.40687	.186015
1	6	0.74973	0.73118	.44460	.194587
2	6	0.78630	0.71191	.48572	.188364
3	6	0.81730	0.69755	.52766	.172699
4	6	0.84694	0.68459	.56952	.148367
5	6	0.87710	0.67148	.61014	.115591
6	6	0.90893	0.65715	.64811	.074710
7	6	0.94331	0.64065	.68188	.026457
8	6	0.98087	0.62106	.71002	-.027948
9	6	1.00243	0.60938	.70805	-.024083
10	6	1.02821	0.59547	.70616	-.020485
11	6	1.05889	0.57902	.70400	-.016425
12	6	1.09659	0.55893	.70152	-.011770
13	6	1.14466	0.53351	.69863	-.006369
14	6	1.20860	0.50000	.69526	.000000
	7	0.69390	0.87296	.41998	.174999
1	7	0.77205	0.81975	.45389	.182341
2	7	0.82030	0.79314	.49230	.176122
3	7	0.86181	0.77283	.53199	.160849
4	7	0.90168	0.75441	.57183	.137202
5	7	0.94227	0.73581	.61058	.105393
6	7	0.98506	0.71562	.64682	.065769
7	7	1.03112	0.69260	.67903	.019073
8	7	1.08122	0.66554	.70577	-.033463
9	7	1.10128	0.65430	.70387	-.029767
10	7	1.12570	0.64068	.70202	-.026324
11	7	1.15482	0.62453	.69992	-.022452
12	7	1.19069	0.60474	.69750	-.018035
13	7	1.23657	0.57960	.69467	-.012948
14	7	1.29783	0.54629	.69137	-.007019
15	7	1.38375	0.50000	.68751	.000000

α	β	x	y	u	v
	8	0.71533	1.01202	.43509	.163678
1	8	0.81072	0.94670	.46514	.169129
2	8	0.87428	0.91024	.50043	.162639
3	8	0.93006	0.88149	.53743	.147681
4	8	0.98403	0.85512	.57482	.124778
5	8	1.03910	0.82851	.61130	.094113
6	8	1.09707	0.79978	.64545	.056038
7	8	1.15927	0.76732	.67574	.011315
8	8	1.22659	0.72959	.70077	-.038787
9	8	1.24469	0.71910	.69897	-.035289
10	8	1.26740	0.70599	.69719	-.032011
11	8	1.29456	0.69038	.69517	-.028338
12	8	1.32817	0.67117	.69283	-.024168
13	8	1.37136	0.64661	.69010	-.019397
14	8	1.42935	0.61385	.68690	-.013898
15	8	1.51119	0.56797	.68315	-.007515
16	8	1.63349	0.50000	.67882	.000000

$$\theta_g = 35^\circ \quad M_1 = 3.0$$

zero grid

α	β	x	y	u	v
2	0.71407	0.50000	.47547	.332932	
	0.71407	0.50000	.56316	.295748	
	0.71407	0.50000	.65390	.228935	
	0.71407	0.50000	.73765	.129127	
	0.71407	0.50000	.80134	-.000000	
4	0.73123	0.55519	.48802	.315711	
	0.74542	0.55368	.57155	.279839	
	0.76279	0.55123	.65327	.215190	
	0.78580	0.54635	.73834	.118655	
	0.81775	0.53642	.79907	-.006078	
8	0.91807	0.50000	.79684	.000000	
	4	0.75795	0.63004	.50206	.298034
2	4	0.79040	0.62557	.58090	.263323
4	4	0.83003	0.61896	.66315	.200872
6	4	0.88224	0.60690	.73915	.107843
8	4	0.95401	0.58357	.79659	-.011956
10	4	1.05055	0.54735	.79442	-.006307
12	4	1.17858	0.50000	.79204	.000000
6	6	0.80126	0.73534	.51794	.279855
	6	0.85806	0.72585	.59153	.246086
	6	0.92747	0.71255	.66875	.185887
	6	1.01841	0.68979	.74018	.096719
	6	1.14218	0.64784	.79393	-.017334
	6	1.23445	0.61214	.79183	-.012079
	6	1.35744	0.56513	.78953	-.006323
14	6	1.53025	0.50000	.78107	.000000
8	8	0.87522	0.89066	.53609	.261088
	8	0.96594	0.87303	.60379	.227995
	8	1.07726	0.84899	.67532	.170118
	8	1.22247	0.80984	.74156	.085302
	8	1.41776	0.74101	.79109	-.021846
	8	1.50494	0.70634	.78910	-.016959
	8	1.62212	0.66023	.78691	-.011681
	8	1.78803	0.59571	.78454	-.006065
	8	2.03739	0.50000	.78209	.000000

8 x 8 grid

1	0.71407	0.50000	.47547	.332932
2	0.71407	0.50000	.51851	.317681
3	0.71407	0.50000	.56316	.295748
4	0.71407	0.50000	.60866	.266370
5	0.71407	0.50000	.65390	.228935
6	0.71407	0.50000	.69745	.183135
7	0.71407	0.50000	.73765	.129127
8	0.71407	0.50000	.77279	.067639
			.80134	-.000000

α	β	x	y	u	v
1	1	0.72174	0.52561	.48158	.324376
	1	0.72496	0.52533	.52359	.309394
	1	0.72842	0.52499	.56723	.287807
	1	0.73226	0.52455	.61174	.258881
	1	0.73660	0.52393	.65601	.222023
	1	0.74161	0.52303	.69862	.176942
	1	0.74746	0.52171	.73794	.123800
	1	0.75433	0.51981	.77231	.063324
	1	0.76260	0.51709	.80018	-.003175
9	1	0.81024	0.50000	.79904	.000000
1	2	0.73123	0.55519	.48802	.315711
	2	0.73808	0.55448	.52894	.301008
	2	0.74544	0.55366	.57153	.279783
	2	0.75358	0.55261	.61499	.251331
	2	0.76279	0.55117	.65824	.215078
	2	0.77339	0.54915	.69987	.170745
	2	0.78576	0.54627	.73829	.118502
	2	0.80034	0.54216	.77183	.059072
	2	0.81762	0.53631	.79900	-.006244
	2	0.86436	0.51926	.79787	-.003182
10	2	0.91757	0.50000	.79671	.000000
1	3	0.74306	0.58963	.49484	.306932
	3	0.75403	0.58831	.53460	.292482
	3	0.76580	0.58681	.57606	.271609
	3	0.77882	0.58495	.61842	.243631
	3	0.79353	0.58249	.66059	.207993
	3	0.81044	0.57909	.70120	.164432
	3	0.83014	0.57432	.73866	.113127
	3	0.85330	0.56761	.77134	.054801
	3	0.88068	0.55817	.79777	-.009250
	3	0.92645	0.54119	.79066	-.006297
	3	0.97870	0.52196	.79551	-.003235
	3	1.03880	0.50000	.79432	.000000
1	4	0.75795	0.63004	.50206	.298034
	4	0.77362	0.62791	.54050	.283808
	4	0.79045	0.62552	.58087	.263270
	4	0.80905	0.62262	.62206	.235765
	4	0.83005	0.61885	.66310	.200755
	4	0.85414	0.61376	.70262	.157995
	4	0.88217	0.60673	.73908	.107673
	4	0.91504	0.59694	.77085	.050521
	4	0.95379	0.58333	.79649	-.012166
	4	0.99854	0.56646	.79540	-.009319
	4	1.04977	0.54729	.79427	-.006371
	4	1.10875	0.52536	.79309	-.003273
12	4	1.17751	0.50000	.79186	.000000

α	β	x	y	u	v
1	5	0.77688	0.67794	.50975	.289012
2	5	0.79798	0.67474	.54699	.274974
3	5	0.82065	0.67121	.58599	.254753
4	5	0.84570	0.66697	.62595	.227719
5	5	0.87397	0.66157	.66578	.193353
6	5	0.90635	0.65439	.70416	.151425
7	5	0.94395	0.64461	.73954	.102142
8	5	0.98795	0.63117	.77036	.046245
9	5	1.03965	0.61268	.79517	-.014957
10	5	1.08330	0.59597	.79409	-.012215
11	5	1.13345	0.57689	.79298	-.009376
12	5	1.19126	0.55504	.79182	-.006407
13	5	1.25873	0.52972	.79061	-.003292
	5	1.33854	0.50000	.78936	.000000
	6	0.80126	0.73534	.51794	.279855
1	6	0.82866	0.73078	.55381	.265965
2	6	0.85815	0.72577	.59147	.246041
3	6	0.89076	0.71983	.63011	.219475
4	6	0.92752	0.71237	.66867	.185770
5	6	0.96959	0.70261	.70583	.144715
6	6	1.01834	0.68949	.74008	.096535
7	6	1.07524	0.67167	.76987	.041991
8	6	1.14188	0.64740	.79379	-.017583
9	6	1.18432	0.63091	.79275	-.014945
10	6	1.23331	0.61198	.79165	-.012210
11	6	1.28987	0.59027	.79051	-.009363
12	6	1.35598	0.56505	.78932	-.006395
13	6	1.43429	0.53538	.78809	-.003285
14	6	1.52839	0.50000	.78683	.000000
	7	0.83307	0.80498	.52670	.270553
1	7	0.86789	0.79869	.56111	.256770
2	7	0.90545	0.79180	.59736	.237119
3	7	0.94700	0.78371	.63461	.211018
4	7	0.99384	0.77366	.67180	.177992
5	7	1.04738	0.76067	.70766	.137856
6	7	1.10931	0.74344	.74070	.090856
7	7	1.18138	0.72031	.76939	.037781
8	7	1.26549	0.68916	.79237	-.019994
9	7	1.30659	0.67296	.79136	-.017459
10	7	1.35432	0.65425	.79029	-.014823
11	7	1.40954	0.63274	.78917	-.012091
12	7	1.47418	0.60769	.78801	-.009259
13	7	1.55089	0.57816	.78680	-.006315
14	7	1.64322	0.54286	.78556	-.003242
15	7	1.75611	0.50000	.78429	.000000

α	β	x	y	u	v
	8	0.87522	0.89066	.53609	.261088
1	8	0.91887	0.88219	.56897	.247369
2	8	0.96610	0.87291	.60371	.227967
3	8	1.01841	0.86206	.63947	.202330
4	8	1.07737	0.84873	.67522	.170010
5	8	1.14472	0.83170	.70968	.130845
6	8	1.22245	0.80937	.74142	.085114
7	8	1.31264	0.77974	.76895	.033646
8	8	1.41746	0.74029	.79091	-.022123
9	8	1.45702	0.72448	.78993	-.019694
10	8	1.50337	0.70607	.78889	-.017155
11	8	1.55710	0.68483	.78780	-.014532
12	8	1.62016	0.66005	.78667	-.011825
13	8	1.69516	0.63075	.78549	-.009031
14	8	1.78561	0.59563	.78428	-.006144
15	8	1.89641	0.55288	.78303	-.003146
16	8	2.03440	0.50000	.78178	.000000

$$\theta_B = 35^\circ \quad M_1 = 4.0$$

zero grid

α	ρ	x	y	u	v
2	0.71407	0.50000		.53529	.374820
	0.71407	0.50000		.62093	.326090
	0.71407	0.50000		.70892	.248196
	0.71407	0.50000		.78854	.138036
	0.71407	0.50000		.84662	-.000000
4	0.73635	0.54852		.54613	.359818
	0.74939	0.54873		.62851	.312258
	0.76736	0.54790		.71316	.236445
	0.79357	0.54440		.78970	.129517
	0.83338	0.53472		.84535	-.004109
6	0.94990	0.50000		.84411	.000000
	0.76768	0.61158		.55792	.344511
	0.79710	0.61133		.63672	.298088
	0.83744	0.60869		.71777	.224395
	0.89583	0.60009		.79099	.120842
8	0.98370	0.57795		.84403	-.008006
	1.09716	0.54334		.84281	-.004167
	1.24096	0.50000		.84152	.000000
	0181294	0.69539		.57083	.328874
	0.86346	0.69380		.64572	.283532
10	0.93240	0.68800		.72285	.212018
	1.03154	0.67204		.79247	.112060
	1.17921	0.63358		.84267	-.011474
	1.28937	0.59927		.84148	-.007878
	1.42938	0.55611		.84023	-.004037
12	1.61349	0.50000		.83896	.000000
	0.88052	0.81008		.58506	.312838
	0.95902	0.80584		.65566	.268498
	1.06580	0.79491		.72850	.199227
	1.21835	0.76830		.79419	.103145
14	1.44289	0.70798		.84129	-.014377
	1.54936	0.67421		.84016	-.010999
	1.68526	0.63151		.83895	-.007436
	1.86468	0.57568		.83771	-.003786
	2.11045	0.50000		.83649	.000000

8 x 8 grid

1	0.71407	0.50000	.53529	.374820
2	0.71407	0.50000	.57734	.353727
3	0.71407	0.50000	.62093	.326090
4	0.71407	0.50000	.66520	.291112
5	0.71407	0.50000	.70892	.248196
6	0.71407	0.50000	.75060	.197091
7	0.71407	0.50000	.78854	.138036
8	0.71407	0.50000	.82105	.071863
			.84662	-.000000

α	β	x	y	u	v
1	1	0.72429	0.52273	.54060	.367356
	1	0.72716	0.52285	.58186	.346498
	1	0.73047	0.52290	.62464	.319188
	1	0.73435	0.52284	.66809	.284652
	1	0.73899	0.52258	.71099	.242314
	1	0.74460	0.52203	.75189	.191937
	1	0.75146	0.52100	.78910	.133772
	1	0.75993	0.51925	.82097	.068644
	1	0.77048	0.51644	.84600	-.002031
	1	0.82614	0.50000	.84540	.000000
2	2	0.73635	0.54852	.54613	.359818
	2	0.74241	0.54869	.58655	.339205
	2	0.74940	0.54871	.62850	.312232
	2	0.75760	0.54849	.67109	.278149
	2	0.76736	0.54786	.71315	.236396
	2	0.77914	0.54659	.75323	.186750
	2	0.79353	0.54434	.78969	.129469
	2	0.81127	0.54059	.82088	.065378
	2	0.83329	0.53434	.84535	-.004116
	2	0.88820	0.51822	.84475	-.002157
10	2	0.94951	0.50000	.84410	.000000
3	3	0.75064	0.57791	.55189	.352204
	3	0.76029	0.57805	.59145	.331830
	3	0.77140	0.57797	.63251	.305194
	3	0.78442	0.57747	.67421	.271568
	3	0.79989	0.57633	.71540	.230409
	3	0.81853	0.57418	.75463	.181511
	3	0.84125	0.57047	.79031	.125140
	3	0.86919	0.56443	.82080	.062126
	3	0.90378	0.55494	.84468	-.006126
	3	0.95791	0.53856	.84409	-.004236
10	3	1.01843	0.52035	.84345	-.002155
11	3	1.08653	0.50000	.84280	.000000
4	4	0.76768	0.61158	.55792	.344511
	4	0.78139	0.61161	.59656	.324369
	4	0.79714	0.61130	.63670	.298066
	4	0.81557	0.61042	.67748	.264900
	4	0.83745	0.60862	.71775	.224346
	4	0.86377	0.60538	.75610	.176216
	4	0.89578	0.59996	.79096	.120784
	4	0.93504	0.59127	.82073	.058893
	4	0.98354	0.57776	.84400	-.008046
	4	1.03685	0.56145	.84342	-.006223
10	4	1.09655	0.54328	.84278	-.004214
11	4	1.16378	0.52295	.84214	-.002142
12	4	1.24011	0.50000	.84149	.000000

α	β	x	y	u	v
1	5	0.78816	0.65038	.56422	.336736
	5	0.80646	0.65021	.60191	.316815
	5	0.82748	0.64956	.64109	.290844
	5	0.85205	0.64814	.68090	.258141
	5	0.88117	0.64548	.72021	.218203
	5	0.91613	0.64092	.75765	.170861
	5	0.95858	0.63346	.79167	.116403
	5	1.01052	0.62170	.82068	.055686
	5	1.07448	0.60365	.84332	-.009858
	5	1.12692	0.58743	.84274	-.008100
	5	1.18578	0.56932	.84212	-.006158
	5	1.25210	0.54903	.84148	-.004164
	5	1.32747	0.52610	.84083	-.002114
	5	1.41379	0.50000	.84018	.000000
1	6	0.81294	0.69539	.57083	.328874
	6	0.83649	0.69488	.60752	.309163
	6	0.86353	0.69375	.64569	.283517
	6	0.89508	0.69161	.68448	.251280
	6	0.93244	0.68788	.72281	.211969
	6	0.97723	0.68170	.75929	.165438
	6	1.03148	0.67182	.79242	.111992
	6	1.09771	0.65650	.82065	.052508
	6	1.17898	0.63325	.84262	-.011549
	6	1.23051	0.61716	.84206	-.009854
	6	1.28849	0.59913	.84144	-.007976
	6	1.35387	0.57891	.84082	-.006055
	6	1.42822	0.55604	.84018	-.004091
	6	1.51347	0.52996	.83953	-.002078
	6	1.61200	0.50000	.83889	.000000
1	7	0.84317	0.74797	.57776	.320919
	7	0.87276	0.74697	.61340	.301404
	7	0.90671	0.74518	.65051	.276077
	7	0.94630	0.74211	.68826	.244309
	7	0.99311	0.73703	.72554	.205639
	7	1.04916	0.72888	.76103	.159944
	7	1.11690	0.71613	.79324	.107552
	7	1.19937	0.69664	.82065	.049369
	7	1.30021	0.66744	.84192	-.013096
	7	1.35074	0.65150	.84138	-.011462
	7	1.40779	0.63359	.84077	-.009644
	7	1.47219	0.61348	.84015	-.007791
	7	1.54551	0.59069	.83952	-.005906
	7	1.62964	0.56468	.83889	-.003986
	7	1.72695	0.53475	.83825	-.002021
	7	1.84062	0.50000	.83762	.000000

α	β	x	y	u	v
1	8	0.88052	0.81008	.58506	.312838
2	8	0.91712	0.80842	.61960	.233506
3	8	0.95912	0.80576	.65561	.263492
4	8	1.00807	0.80149	.69225	.237196
5	8	1.06588	0.79472	.72844	.199183
6	8	1.13498	0.78416	.76289	.154355
7	8	1.21831	0.76796	.79413	.103069
8	8	1.31946	0.74356	.82068	.046265
9	8	1.44265	0.70745	.84122	-.014483
10	8	1.49210	0.69173	.84069	-.012910
11	8	1.54816	0.67397	.84010	-.011150
12	8	1.61151	0.65400	.83949	-.009360
13	8	1.68373	0.63134	.83887	-.007547
14	8	1.76669	0.60544	.83825	-.005712
15	8	1.86276	0.57559	.83762	-.003847
16	8	1.97507	0.54088	.83700	-.001952
		2.10807	0.50000	.83638	.000000

$$\theta_s = 35^\circ \quad M_1 = 5.0$$

zero grid

α	β	x	y	u	v
2	2	0.71407	0.50000	.65359	.343238
		0.71407	0.50000	.56859	.398136
		0.71407	0.50000	.74016	.259135
		0.71407	0.50000	.81737	.143083
		0.71407	0.50000	.87203	-.000000
4	2	0.73771	0.54427	.57832	.384594
		0.75037	0.54524	.66050	.330808
		0.76883	0.54528	.74415	.248714
		0.79719	0.54266	.81865	.135807
		0.84287	0.53323	.87123	-.002938
10	2	0.96938	0.50000	.87045	.000000
4	4	0.76956	0.60043	.58877	.370819
		0.79787	0.60197	.66789	.318142
		0.83882	0.60141	.74842	.238086
		0.90136	0.59494	.82004	.128417
		1.00116	0.57368	.87040	-.005721
10	4	1.12519	0.54052	.86963	-.002967
12	4	1.27824	0.50000	.86883	.000000
6	6	0.81334	0.67282	.60004	.356795
		0.86133	0.67447	.67586	.305211
		0.93036	0.67243	.75303	.227245
		1.03506	0.66044	.82158	.120968
		1.20048	0.62418	.86958	-.008168
10	6	1.32189	0.59121	.86883	-.005576
12	6	1.47199	0.55081	.86804	-.002824
14	6	1.66246	0.50000	.86726	.000000
8	8	0.87488	0.76797	.61223	.342493
		0.94817	0.76905	.68447	.291965
		1.05309	0.76435	.75804	.216135
		1.21110	0.74454	.82330	.113431
		1.45795	0.68897	.86877	-.010209
10	8	1.57652	0.65634	.86804	-.007764
12	8	1.72349	0.61622	.86727	-.005193
14	8	1.91296	0.56965	.86695	-.003063
16	8	2.17282	0.50000	.86611	.000000

8 x 8 grid

1	0.71407	0.50000	.56859	.398136
	0.71407	0.50000	.61039	.373977
	0.71407	0.50000	.65359	.343238
	0.71407	0.50000	.69726	.305144
	0.71407	0.50000	.74016	.259135
	0.71407	0.50000	.78077	.205013
	0.71407	0.50000	.81737	.143083
	0.71407	0.50000	.84828	.074247
8	0.71407	0.50000	.87203	-.000000

α	ρ	x	y	u	v
1	1	0.72503	0.52086	.57337	.391393
	1	0.72778	0.52115	.61449	.367459
	1	0.73105	0.52138	.65699	.337039
	1	0.73500	0.52151	.69994	.299380
	1	0.73985	0.52147	.71212	.253942
	1	0.74585	0.52112	.78204	.200545
	1	0.75340	0.52028	.81801	.139504
	1	0.76300	0.51866	.84836	.071722
	1	0.77533	0.51582	.87167	-.001320
	1	0.83599	0.50000	.87133	.000000
2	2	0.73771	0.54427	.57832	.384594
	2	0.74350	0.54481	.61873	.360892
	2	0.75039	0.54522	.66049	.330795
	2	0.75868	0.54543	.70270	.293572
	2	0.76883	0.54525	.74414	.248699
	2	0.78139	0.54444	.78334	.196010
	2	0.79716	0.54261	.81865	.135827
	2	0.81717	0.53915	.84843	.069057
	2	0.84280	0.53316	.87126	-.002828
	2	0.90286	0.51735	.87091	-.001556
10	2	0.96911	0.50000	.87050	.000000
3	3	0.75241	0.57063	.58345	.377737
	3	0.76160	0.57137	.62312	.354267
	3	0.77249	0.57192	.66412	.324496
	3	0.78559	0.57212	.70556	.287712
	3	0.80158	0.57172	.74623	.243411
	3	0.82137	0.57032	.78470	.191442
	3	0.84614	0.56732	.81932	.132136
	3	0.87751	0.56177	.84850	.066407
	3	0.91759	0.55229	.87084	-.004272
	3	0.97702	0.53651	.87050	-.003047
	3	1.04262	0.51916	.87009	-.001542
11	3	1.11547	0.50000	.86968	.000000
4	4	0.76956	0.60043	.58877	.370819
	4	0.78254	0.60133	.62767	.347579
	4	0.79790	0.60195	.66788	.318133
	4	0.81635	0.60207	.70852	.281793
	4	0.83883	0.60134	.74840	.238072
	4	0.86660	0.59921	.78610	.186836
	4	0.90131	0.59483	.82003	.128430
	4	0.94516	0.58690	.84859	.063775
	4	1.00102	0.57353	.87042	-.005643
	4	1.05980	0.55779	.87008	-.004462
	4	1.12474	0.54047	.86968	-.003006
12	4	1.19690	0.52131	.86927	-.001520
	4	1.27760	0.50000	.86886	.000000

α	δ	x	y	u	v
1	5	0.78966	0.63425	.59430	.363840
2	5	0.80689	0.63526	.63239	.340826
3	5	0.82726	0.63588	.67178	.311706
4	5	0.85169	0.63584	.71159	.275813
5	5	0.88141	0.63466	.75066	.232681
6	5	0.91807	0.63161	.78757	.182194
7	5	0.96379	0.62560	.82077	.124709
8	5	1.02142	0.61497	.84870	.061165
9	5	1.09462	0.59725	.87000	-.006930
10	5	1.15272	0.58156	.86967	-.005792
11	5	1.21698	0.56428	.86927	-.004382
12	5	1.28842	0.54516	.86886	-.002948
13	5	1.36836	0.52386	.86846	-.001489
	5	1.45832	0.50000	.86806	.000000
1	6	0.81334	0.67282	.60004	.356795
2	6	0.83537	0.67387	.63729	.334002
3	6	0.86138	0.67443	.67583	.305207
4	6	0.89254	0.67411	.71478	.269766
5	6	0.93039	0.67233	.75300	.227232
6	6	0.97700	0.66817	.78911	.177508
7	6	1.03501	0.66026	.82156	.120972
8	6	1.10794	0.64652	.84883	.058581
9	6	1.20029	0.62392	.86958	-.008121
10	6	1.25768	0.60831	.86925	-.007025
11	6	1.32125	0.59109	.86886	-.005657
12	6	1.39195	0.57201	.86846	-.004271
13	6	1.47111	0.55074	.86806	-.002869
14	6	1.56024	0.52690	.86766	-.001446
	6	1.66130	0.50000	.86727	.000000
1	7	0.84141	0.71702	.60602	.349681
2	7	0.86888	0.71805	.64240	.327103
3	7	0.90128	0.71844	.68005	.298630
4	7	0.94005	0.71772	.71811	.263641
5	7	0.98708	0.71517	.75545	.221713
6	7	1.04489	0.70966	.79071	.172769
7	7	1.11669	0.69951	.82239	.117209
8	7	1.20673	0.68221	.84897	.056016
9	7	1.32035	0.65412	.86916	-.009217
10	7	1.37699	0.63861	.86884	-.008161
11	7	1.43982	0.62146	.86845	-.006834
12	7	1.50976	0.60244	.86806	-.005493
13	7	1.58812	0.58123	.86767	-.004142
14	7	1.67641	0.55743	.86727	-.002779
15	7	1.77656	0.53054	.86688	-.001404
	7	1.89087	0.50000	.86650	.000000

<i>a</i>	<i>d</i>	<i>x</i>	<i>y</i>	<i>u</i>	<i>v</i>
	8	0.87488	0.76797	.61223	.342493
1	8	0.90856	0.76888	.64771	.320123
2	8	0.94825	0.76899	.68444	.291969
3	8	0.99568	0.76773	.72157	.257436
4	8	1.05315	0.76420	.75801	.216125
5	8	1.12367	0.75705	.79240	.167981
6	8	1.21106	0.74427	.82327	.113428
7	8	1.32035	0.72287	.84915	.053486
8	8	1.45775	0.68857	.86875	-.010194
9	8	1.51358	0.67318	.86844	-.009176
10	8	1.57565	0.65612	.86806	-.007988
11	8	1.64480	0.63720	.86767	-.006588
12	8	1.72233	0.61606	.86728	-.005284
13	8	1.80975	0.59232	.86689	-.003975
14	8	6.35372	0.56549	.86642	-.003002
15	8	4.25778	1.13049	.86601	-.001412
16	8	6.60668	0.50000	.86562	.000000

$$\theta_s = 35^\circ \quad M_1 = 7.0$$

zero grid

α	β	x	y	u	v
2	0.71407	0.50000	.60133	.421062	
	0.71407	0.50000	.68581	.360157	
	0.71407	0.50000	.77096	.269916	
	0.71407	0.50000	.84562	.148027	
	0.71407	0.50000	.89665	-.000000	
4	0.73823	0.53995	.60992	.409059	
	0.75067	0.54157	.69198	.349207	
	0.76975	0.54249	.77460	.260884	
	0.80083	0.54084	.84693	.142033	
	0.85439	0.53167	.89624	-.001757	
6	0.99310	0.50000	.89582	.000000	
	0.76961	0.58941	.61903	.396884	
	0.79710	0.59250	.69850	.338094	
	0.83900	0.59394	.77844	.251705	
	0.90681	0.58975	.84832	.135928	
8	1.02265	0.56939	.89580	-.003452	
	1.15962	0.53775	.89540	-.001801	
	1.32420	0.50000	.89497	.000000	
	0.81090	0.65136	.62873	.384526	
	0.85691	0.65574	.70542	.326803	
10	0.92663	0.65724	.78252	.242390	
	1.03864	0.64932	.84983	.129779	
	1.22820	0.61520	.89538	-.004915	
	1.36337	0.58366	.89499	-.003357	
	1.52592	0.54598	.89457	-.001677	
12	1.72546	0.50000	.89417	.000000	
	0.86615	0.73002	.63906	.371969	
	0.93527	0.73544	.71279	.315305	
	1.03947	0.73635	.78689	.232901	
	1.20571	0.72317	.85146	.123568	
14	1.48405	0.67196	.89499	-.006111	
	1.61732	0.64060	.89460	-.004634	
	1.77778	0.60306	.89419	-.003054	
	1.97504	0.55717	.89380	-.001508	
	2.22218	0.50000	.89344	.000000	

8 x 8 grid

1	0.71407	0.50000	.60133	.421062
2	0.71407	0.50000	.64296	.393934
3	0.71407	0.50000	.68581	.360157
4	0.71407	0.50000	.72890	.318989
5	0.71407	0.50000	.77096	.269916
6	0.71407	0.50000	.81043	.212802
7	0.71407	0.50000	.84562	.148027
8	0.71407	0.50000	.87483	.076570
			.89665	-.000000

α	ρ	x	y	u	v
1	1	0.72538	0.51893	.60557	.415082
	1	0.72806	0.51936	.64661	.388171
	1	0.73132	0.51976	.68885	.354705
	1	0.73537	0.52009	.73131	.313963
	1	0.74046	0.52026	.77275	.265454
	1	0.74696	0.52015	.81163	.209061
	1	0.75539	0.51953	.84627	.145176
	1	0.76647	0.51806	.87504	.074784
	1	0.78124	0.51516	.89652	-.000559
	1	0.84805	0.50000	.89639	.000000
2	2	0.73823	0.53995	.60992	.409059
	2	0.74384	0.54079	.65036	.382368
	2	0.75068	0.54156	.69197	.349209
	2	0.75914	0.54218	.73380	.308880
	2	0.76975	0.54247	.77459	.260909
	2	0.78330	0.54216	.81285	.205194
	2	0.80081	0.54080	.84693	.142136
	2	0.82380	0.53768	.87520	.072721
	2	0.85437	0.53162	.89629	-.001495
	2	0.92076	0.51646	.89617	-.000964
10	2	.99304	.50000	.89051	.000000
3	3	0.75287	0.56332	.61441	.402994
	3	0.76172	0.56456	.65422	.376524
	3	0.77248	0.56569	.69518	.343676
	3	0.78577	0.56655	.73634	.303766
	3	0.80242	0.56690	.77648	.256339
	3	0.82364	0.56631	.81411	.201309
	3	0.85102	0.56408	.84761	.139089
	3	0.88688	0.55910	.87539	.070674
	3	0.93446	0.54959	.89607	-.002379
	3	1.00044	0.53443	.89595	-.001872
10	3	1.07226	0.51798	.89573	-.000939
11	3	1.15100	0.50000	.89551	.000000
4	4	0.76961	0.58941	.61903	.396884
	4	0.78202	0.59103	.65820	.370636
	4	0.79712	0.59248	.69849	.338100
	4	0.81573	0.59356	.73897	.298611
	4	0.83902	0.59390	.77843	.251734
	4	0.86862	0.59292	.81541	.197397
	4	0.90678	0.58966	.84832	.136027
	4	0.95663	0.58260	.87558	.068631
	4	1.02258	0.56929	.89585	-.003218
	4	1.08813	0.55415	.89573	-.002735
10	4	1.15948	0.53771	.89551	-.001830
11	4	1.23773	0.51973	.89529	-.000922
12	4	1.32395	0.50000	.89508	.000000

α	β	x	y	u	v
1	5	0.78880	0.61859	.62380	.390729
2	5	0.80519	0.62058	.66229	.364704
3	5	0.82509	0.62233	.70189	.332482
4	5	0.84958	0.62357	.74167	.293420
5	5	0.88017	0.62384	.78044	.247098
6	5	0.91900	0.62236	.81676	.193464
7	5	0.96896	0.61790	.84906	.132959
8	5	1.03408	0.60849	.87579	.066609
9	5	1.11999	0.59101	.89564	-.003991
10	5	1.18511	0.57588	.89552	-.003531
11	5	1.25597	0.55946	.89530	-.002653
12	5	1.33372	0.54151	.89508	-.001775
13	5	1.41942	0.52178	.89487	-.000886
	5	1.51436	0.50000	.89466	.000000
1	6	0.81090	0.65136	.62873	.384526
2	6	0.83172	0.65369	.66652	.358723
3	6	0.85695	0.65571	.70540	.326814
4	6	0.88796	0.65706	.74446	.288181
5	6	0.92665	0.65716	.78251	.242420
6	6	0.97567	0.65505	.81815	.189498
7	6	1.03860	0.64919	.84982	.129874
8	6	1.12045	0.63713	.87601	.064594
9	6	1.22810	0.61504	.89543	-.004708
10	6	1.29276	0.59995	.89531	-.004268
11	6	1.36314	0.58356	.89509	-.003415
12	6	1.44038	0.56563	.89488	-.002565
13	6	1.52555	0.54592	.89467	-.001708
14	6	1.61993	0.52415	.89446	-.000857
	6	1.72493	0.50000	.89426	.000000
1	7	0.83646	0.68828	.63381	.378274
2	7	0.86223	0.69093	.67088	.352691
3	7	0.89341	0.69317	.70902	.321098
4	7	0.93170	0.69457	.74733	.282895
5	7	0.97939	0.69441	.78465	.237702
6	7	1.03970	0.69151	.81959	.185502
7	7	1.11699	0.69402	.85062	.126777
8	7	1.21727	0.66897	.87625	.062596
9	7	1.34872	0.64178	.89522	-.005353
10	7	1.41291	0.62674	.89510	-.004933
11	7	1.48279	0.61039	.89489	-.004104
12	7	1.55951	0.59249	.89468	-.003279
13	7	1.64413	0.57282	.89447	-.002451
14	7	1.73795	0.55106	.89427	-.001632
15	7	1.84237	0.52692	.89407	-.000812
	7	1.95920	0.50000	.89388	.000000

α	β	x	y	u	v
	8	0.86615	0.73002	.63906	.371969
1	8	0.89747	0.73297	.67539	.346601
2	8	0.93533	0.73540	.71276	.315322
3	8	0.98176	0.73677	.75030	.277553
4	8	1.03951	0.73623	.78686	.232933
5	8	1.11241	0.73238	.82108	.181465
6	8	1.20566	0.72297	.85145	.123656
7	8	1.32632	0.70454	.87651	.060607
8	8	1.48393	0.67170	.89502	-.005934
9	8	1.54762	0.65671	.89491	-.005534
10	8	1.61698	0.64041	.89470	-.004726
11	8	1.69318	0.62257	.89449	-.003925
12	8	1.77725	0.60293	.89428	-.003122
13	8	1.87049	0.58121	.89408	-.002333
14	8	1.97431	0.55710	.89388	-.001547
15	8	2.09052	0.53018	.89369	-.000775
16	8	2.22120	0.50000	.89351	.000000

$$\theta_B = 40^\circ \quad M_1 = 3.0$$

zero grid

α	β	x	y	u	v
2	0.59587	0.50000	.39586	.332173	
	0.59587	0.50000	.49599	.312141	
	0.59587	0.50000	.60479	.253742	
	0.59587	0.50000	.71002	.148944	
	0.59587	0.50000	.79063	-.000000	
4	0.59868	0.54678	.40953	.316552	
	0.61258	0.54473	.50498	.297640	
	0.62774	0.54253	.60958	.240963	
	0.64761	0.53841	.71092	.139038	
	0.67608	0.52939	.78842	-.005739	
6	0.75385	0.50000	.78624	.000000	
	0.60541	0.60947	.42501	.300402	
	0.63680	0.60382	.51511	.282281	
	0.67113	0.59792	.61493	.227299	
	0.71588	0.58777	.71192	.128445	
8	0.77940	0.56672	.78589	-.011670	
	0.85439	0.53745	.78375	-.006275	
	0.95161	0.50000	.78131	.000000	
	0.61980	0.69689	.44279	.283682	
	0.67384	0.68547	.52679	.265860	
10	0.73348	0.67363	.62113	.212540	
	0.81092	0.65444	.71311	.117090	
	0.91976	0.61675	.78304	-.017546	
	0.99155	0.58779	.78096	-.012486	
	1.08491	0.55056	.77858	-.006674	
12	1.21352	0.50000	.77590	.000000	
	0.64987	0.82534	.46355	.266316	
	0.73447	0.80505	.54059	.248159	
	0.82941	0.78364	.62853	.196444	
	0.95248	0.75047	.71465	.104878	
14	1.12360	0.68853	.77983	-.023045	
	1.19153	0.66023	.77784	-.018312	
	1.28035	0.62362	.77555	-.012935	
	1.40341	0.57348	.77296	-.006897	
	1.58635	0.50000	.77009	.000000	

8 x 8 grid

1	0.59587	0.50000	.39586	.332173
2	0.59587	0.50000	.4453	.326385
3	0.59587	0.50000	.49599	.312141
4	0.59587	0.50000	.54980	.288338
5	0.59587	0.50000	.60479	.253742
6	0.59587	0.50000	.65905	.207379
7	0.59587	0.50000	.71002	.148944
8	0.59587	0.50000	.75480	.079169
			.79063	-.000000

α	β	x	y	u	v
1	1	0.59693	0.52178	.40250	.324426
	1	0.60027	0.52131	.44997	.318865
	1	0.60351	0.52091	.50034	.304874
	1	0.60691	0.52049	.55312	.281405
	1	0.61067	0.51995	.60709	.247264
	1	0.61499	0.51919	.66036	.201509
	1	0.62007	0.51807	.71040	.143856
	1	0.62618	0.51638	.75436	.075042
	1	0.63359	0.51385	.78950	-.003003
2	1	0.67066	0.50000	.78837	.000000
	2	0.59868	0.54678	.40953	.316552
	2	0.60575	0.54566	.45573	.311239
	2	0.61259	0.54470	.50495	.297527
	2	0.61978	0.54370	.55662	.274421
	2	0.62773	0.54246	.60953	.240765
	2	0.63683	0.54077	.66177	.195644
	2	0.64753	0.53831	.71085	.138792
	2	0.66035	0.53467	.75393	.070949
3	2	0.67587	0.52926	.78832	-.005972
	2	0.71227	0.51544	.78721	-.003055
	2	0.75323	0.50000	.78605	.000000
	3	0.60138	0.57570	.41702	.308545
	3	0.61262	0.57373	.46185	.303424
	3	0.62353	0.57204	.50984	.289964
	3	0.63498	0.57028	.56034	.267212
	3	0.64763	0.56816	.61211	.234045
	3	0.66209	0.56530	.66326	.189578
4	3	0.67907	0.56125	.71131	.133564
	3	0.69936	0.55533	.75347	.066747
	3	0.72387	0.54663	.78707	-.008968
	3	0.75956	0.53286	.78597	-.006139
	3	0.79981	0.51743	.78483	-.003178
	3	0.84561	0.50000	.78361	.000000
	4	0.60541	0.60947	.42501	.300402
	4	0.62134	0.60640	.46838	.295406
	4	0.63685	0.60376	.51506	.282162
5	4	0.65314	0.60103	.56430	.259752
	4	0.67112	0.59779	.61486	.227082
	4	0.69166	0.59351	.66484	.183294
	4	0.71573	0.58754	.71181	.128161
	4	0.74443	0.57894	.75299	.062437
	4	0.77898	0.56643	.78575	-.011977
	4	0.81392	0.55273	.78466	-.009234
	4	0.85340	0.53734	.78353	-.006367
	4	0.89837	0.51993	.78233	-.003299
12	4	0.95023	0.50000	.78105	.000000

α	ρ	x	y	u	v
	5	0.61129	0.64932	.43358	.292117
1	5	0.63253	0.64487	.47539	.287167
2	5	0.65330	0.64102	.52066	.274097
3	5	0.67515	0.63706	.56856	.252013
4	5	0.69926	0.63240	.61782	.219847
5	5	0.72677	0.62638	.66656	.176767
6	5	0.75896	0.61808	.71235	.122569
7	5	0.79724	0.60629	.75248	.058021
8	5	0.84319	0.58934	.78434	-.014973
9	5	0.87730	0.57574	.78327	-.012318
10	5	0.91597	0.56041	.78215	-.009542
11	5	0.96005	0.54305	.78096	-.006581
12	5	1.01092	0.52315	.77970	-.003412
13	5	1.07054	0.50000	.77836	.000000
	6	0.61980	0.69689	.44279	.283682
1	6	0.64709	0.69076	.48295	.278688
2	6	0.67394	0.68538	.52671	.265744
3	6	0.70224	0.67984	.57316	.243968
4	6	0.73348	0.67341	.62102	.212312
5	6	0.76911	0.66521	.66842	.169974
6	6	0.81071	0.65407	.71296	.116774
7	6	0.86007	0.63845	.75196	.053500
8	6	0.91913	0.61624	.78285	-.017924
9	6	0.95233	0.60279	.78180	-.015359
10	6	0.99012	0.58755	.78070	-.012673
11	6	1.03324	0.57028	.77952	-.009818
12	6	1.08306	0.55044	.77828	-.006775
13	6	1.14150	0.52733	.77695	-.003517
14	6	1.21117	0.50000	.77556	.000000
	7	0.63208	0.75449	.45275	.275087
1	7	0.66634	0.74630	.49115	.269950
2	7	0.70029	0.73899	.53329	.257075
3	7	0.73621	0.73147	.57818	.235583
4	7	0.77587	0.72279	.62452	.204447
5	7	0.82108	0.71185	.67047	.162892
6	7	0.87379	0.69721	.71365	.110769
7	7	0.93617	0.67693	.75142	.048891
8	7	1.01054	0.64842	.78126	-.020783
9	7	1.04272	0.63517	.78024	-.018307
10	7	1.07955	0.62007	.77916	-.015710
11	7	1.12163	0.60293	.77800	-.012957
12	7	1.17030	0.58321	.77678	-.010036
13	7	1.22748	0.56019	.77547	-.006925
14	7	1.29573	0.53292	.77409	-.003593
15	7	1.37871	0.50000	.77264	.000000

α	ρ	x	y	u	v
1	8	0.64987	0.82534	.46355	.266316
2	8	0.69226	0.81465	.50009	.260928
3	8	0.73463	0.80492	.54048	.248058
4	8	0.77965	0.79487	.58369	.226825
5	8	0.82945	0.78333	.62839	.196219
6	8	0.88619	0.76894	.67276	.155497
7	8	0.95224	0.74991	.71446	.104545
8	8	1.03020	0.72387	.75089	.044214
9	8	1.12277	0.68771	.77958	-.023482
10	8	1.15379	0.67473	.77859	-.021101
11	8	1.18956	0.65984	.77753	-.018591
12	8	1.23048	0.64288	.77640	-.015939
13	8	1.27790	0.62335	.77520	-.013134
14	8	1.33370	0.60049	.77392	-.010163
15	8	1.40040	0.57335	.77257	-.007004
16	8	1.48165	0.54051	.77114	-.003633
		1.58266	0.50000	.76965	.000000

$$\theta_B = 40^\circ \quad M_1 = 4.0$$

zero grid

α	ρ	x	y	u	v
2	1	0.59587	0.50000	.45185	.379148
		0.59587	0.50000	.54847	.345169
		0.59587	0.50000	.65442	.274563
		0.59587	0.50000	.75568	.158523
		0.59587	0.50000	.83061	-.000000
2	2	0.60596	0.54300	.46399	.365138
		0.61763	0.54301	.55706	.331966
		0.63317	0.54231	.65934	.263056
		0.65607	0.53928	.75711	.150027
		0.69213	0.53007	.82929	-.004047
		0.78623	0.50000	.82798	.000000
2	4	0.62107	0.59860	.47735	.350756
		0.64726	0.59793	.56647	.318280
		0.68198	0.59562	.66472	.251066
		0.73280	0.58814	.75867	.141169
		0.81214	0.56713	.82783	-.008093
		0.90383	0.53714	.82655	-.004285
		1.01867	0.50000	.82514	.000000
2	6	0.64426	0.67230	.49217	.335976
		0.68891	0.67000	.57688	.304033
		0.74803	0.66487	.67069	.238527
		0.83403	0.65092	.76045	.131986
		0.96701	0.61445	.82630	-.011886
		1.05607	0.58468	.82505	-.008302
		1.16784	0.54767	.82366	-.004316
		1.31346	0.50000	.82222	.000000
2	8	0.68098	0.77304	.50875	.320753
		0.74979	0.76781	.58856	.289128
		0.84099	0.75804	.67741	.225334
		0.97298	0.73464	.76253	.122428
		1.17486	0.67738	.82469	-.015277
		1.26093	0.64801	.82348	-.011903
		1.36930	0.61136	.82214	-.008185
		1.51098	0.56391	.82073	-.004241
		1.70387	0.50000	.81927	.000000

8 x 8 grid

1	0.59587	0.50000	.45185	.379148
	0.59587	0.50000	.49851	.366016
	0.59587	0.50000	.54847	.345169
	0.59587	0.50000	.60092	.315145
	0.59587	0.50000	.65442	.274563
	0.59587	0.50000	.70690	.222435
	0.59587	0.50000	.75568	.158523
	0.59587	0.50000	.79783	.13682
8	0.59587	0.50000	.83061	-.000000

α	β	x	y	u	v
1	1	0.60042	0.52018	.45778	.372188
	1	0.60304	0.52023	.50359	.359200
	1	0.60596	0.52025	.55267	.338576
	1	0.60933	0.52019	.60422	.308887
	1	0.61334	0.51998	.65682	.268788
	1	0.61820	0.51951	.70841	.217318
	1	0.62423	0.51860	.75637	.154264
	1	0.63182	0.51699	.79779	.080484
	1	0.64146	0.51426	.82998	-.001951
	1	0.68649	0.50000	.82936	.000000
2	2	0.60596	0.54300	.46399	.365138
	2	0.61149	0.54304	.50889	.352305
	2	0.61764	0.54300	.55705	.331918
	2	0.62474	0.54279	.60766	.302577
	2	0.63316	0.54226	.55932	.262967
	2	0.64337	0.54118	.70999	.212154
	2	0.65600	0.53920	.75708	.149939
	2	0.67184	0.53574	.79773	.077184
	2	0.69195	0.52996	.82928	-.004054
	2	0.73639	0.51572	.82866	-.002164
10	2	0.78571	0.50000	.82797	.000000
3	3	0.61274	0.56894	.47051	.357995
	3	0.62150	0.56887	.51444	.345299
	3	0.63127	0.56868	.56164	.325140
	3	0.64252	0.56822	.61126	.296145
	3	0.65584	0.56726	.66194	.257031
	3	0.67196	0.56543	.71165	.206888
	3	0.69186	0.56216	.75783	.145539
	3	0.71679	0.55659	.79767	.073851
	3	0.74833	0.54740	.82855	-.006127
	3	0.79216	0.53318	.82794	-.004298
	3	0.84085	0.51747	.82725	-.002200
11	3	0.89534	0.50000	.82654	.000000
4	4	0.62107	0.59860	.47735	.350756
	4	0.63347	0.59833	.52027	.338177
	4	0.64729	0.59789	.56644	.318232
	4	0.66318	0.59707	.61504	.289581
	4	0.68197	0.59553	.66468	.250970
	4	0.70469	0.59276	.71339	.201515
	4	0.73268	0.58797	.75863	.141060
	4	0.76765	0.57995	.79763	.070487
	4	0.81178	0.56690	.82780	-.008155
	4	0.85497	0.55273	.82720	-.006386
	4	0.90301	0.53705	.82652	-.004352
11	4	0.95680	0.51959	.82581	-.002227
12	4	1.01752	0.50000	.82508	.000000

α	β	x	y	u	v
	5	0.63139	0.63273	.48456	.343418
1	5	0.64789	0.63215	.52641	.330929
2	5	0.66627	0.63134	.57151	.311184
3	5	0.68740	0.63001	.61902	.282874
4	5	0.71236	0.62772	.66758	.244772
5	5	0.74249	0.62381	.71522	.196025
6	5	0.77954	0.61721	.75948	.136501
7	5	0.82573	0.60637	.79759	.067097
8	5	0.88385	0.58893	.82703	-.010120
9	5	0.92636	0.57483	.82644	-.008410
10	5	0.97372	0.55919	.82576	-.006438
11	5	1.02678	0.54176	.82506	-.004384
12	5	1.08671	0.52219	.82434	-.002241
13	5	1.15507	0.50000	.82361	.000000
	6	0.64426	0.67230	.49217	.335976
1	6	0.66540	0.67126	.53289	.323549
2	6	0.68897	0.66994	.57685	.303987
3	6	0.71606	0.66794	.62321	.276011
4	6	0.74802	0.66471	.67063	.238426
5	6	0.78656	0.65938	.71717	.190409
6	6	0.83385	0.65063	.76039	.131856
7	6	0.89268	0.63649	.79758	.063686
8	6	0.96645	0.61405	.82624	-.012006
9	6	1.00824	0.60004	.82566	-.010353
10	6	1.05488	0.58447	.82499	-.008441
11	6	1.10718	0.56709	.82430	-.006456
12	6	1.16629	0.54756	.82359	-.004392
13	6	1.23375	0.52539	.82286	-.002246
14	6	1.31148	0.50000	.82211	.000000
	7	0.66044	0.71853	.50022	.328424
1	7	0.68689	0.71690	.53974	.316026
2	7	0.71639	0.71488	.58250	.296626
3	7	0.75031	0.71202	.62766	.268977
4	7	0.79031	0.70759	.67388	.231915
5	7	0.83846	0.70053	.71925	.184653
6	7	0.89745	0.68921	.76137	.127115
7	7	0.97064	0.67121	.79758	.060254
8	7	1.06211	0.64300	.82543	-.013793
9	7	1.10310	0.62911	.82486	-.012199
10	7	1.14899	0.61362	.82420	-.010343
11	7	1.20048	0.59633	.82352	-.008423
12	7	1.25872	0.57686	.82282	-.006435
13	7	1.32525	0.55474	.82209	-.004377
14	7	1.40195	0.52938	.82136	-.002239
15	7	1.49134	0.50000	.82061	.000000

α	β	x	y	u	v
	8	0.68098	0.77304	.50875	.320753
1	8	0.71352	0.77063	.54701	.308348
2	8	0.74989	0.76772	.58851	.289088
3	8	0.79171	0.76374	.63239	.261760
4	8	0.84101	0.75781	.67734	.225232
5	8	0.90029	0.74862	.72148	.178752
6	8	0.97277	0.73421	.76244	.122281
7	8	1.06247	0.71165	.79762	.056814
8	8	1.17414	0.67676	.82460	-.015450
9	8	1.21426	0.66302	.82404	-.013913
10	8	1.25934	0.64765	.82339	-.012113
11	8	1.30997	0.63047	.82273	-.010254
12	8	1.36729	0.61111	.82204	-.008337
13	8	1.43284	0.58907	.82133	-.006362
14	8	1.50848	0.56378	.82060	-.004323
15	8	1.59670	0.53443	.81986	-.002205
16	8	1.70082	0.50000	.81911	.000000

$$\theta_g = 40^\circ \quad M_1 = 5.0$$

zero grid

α	ρ	x	y	u	v
		0.59587	0.50000	.48230	.404705
2		0.59587	0.50000	.57826	.363914
4		0.59587	0.50000	.68303	.286566
6		0.59587	0.50000	.78207	.164059
8		0.59587	0.50000	.85356	-.000000
	2	0.60842	0.54020	.49347	.391766
2	2	0.61942	0.54095	.58632	.351727
4	2	0.63517	0.54102	.68778	.276052
6	2	0.65976	0.53874	.78364	.156558
8	2	0.70080	0.52963	.85267	-.003005
10	2	0.80391	0.50000	.85180	.000000
	4	0.62597	0.59112	.50559	.378530
2	4	0.65050	0.59220	.59504	.339189
4	4	0.68541	0.59173	.69291	.265192
6	4	0.73956	0.58604	.78534	.148793
8	4	0.82913	0.56553	.85171	-.005996
10	4	0.93022	0.53595	.85085	-.003165
12	4	1.05424	0.50000	.84991	.000000
	6	0.65105	0.65682	.51881	.364979
2	6	0.69252	0.65772	.60453	.326248
4	6	0.75130	0.65589	.69849	.253953
6	6	0.84188	0.64525	.78722	.140811
8	6	0.99028	0.61022	.85073	-.008752
10	6	1.08921	0.58079	.84988	-.006081
12	6	1.21074	0.54493	.84896	-.003126
14	6	1.36444	0.50000	.84802	.000000
	8	0.68784	0.74357	.53333	.351080
2	8	0.75098	0.74355	.61494	.312845
4	8	0.84026	0.73922	.70464	.242263
6	8	0.97701	0.72146	.78935	.132582
8	8	1.19869	0.66760	.84973	-.011175
10	8	1.29525	0.63844	.84890	-.008649
12	8	1.41410	0.60281	.84801	-.005882
14	8	1.56476	0.55802	.84709	-.003006
16	8	1.76160	0.50000	.84617	.000000

8 x 8 grid

		0.59587	0.50000	.48230	.404705
1		0.59587	0.50000	.52865	.388148
2		0.59587	0.50000	.57826	.363914
3		0.59587	0.50000	.63021	.330509
4		0.59587	0.50000	.68303	.286566
5		0.59587	0.50000	.73455	.231135
6		0.59587	0.50000	.78207	.164059
7		0.59587	0.50000	.82264	.086284
8		0.59587	0.50000	.85356	-.000000

α	β	x	y	u	v
1	1	0.60163	0.51896	.48778	.398272
	1	0.60405	0.51918	.53339	.381848
	1	0.60687	0.51937	.58222	.357834
	1	0.61025	0.51949	.63337	.324768
	1	0.61458	0.51947	.68536	.281315
	1	0.61955	0.51918	.73607	.226561
	1	0.62613	0.51843	.78284	.160368
	1	0.63466	0.51691	.82276	.083695
	1	0.64583	0.51412	.85319	-.001289
	1	0.69532	0.50000	.85281	.000000
2	2	0.60842	0.54020	.49347	.391766
	2	0.61350	0.54060	.53830	.375484
	2	0.61943	0.54094	.58632	.351698
	2	0.62651	0.54111	.63663	.318975
	2	0.63516	0.54098	.68777	.276006
	2	0.64597	0.54030	.73765	.221906
	2	0.65970	0.53867	.78363	.156550
	2	0.67745	0.53543	.82285	.080904
	2	0.70065	0.52954	.85271	-.002874
	2	0.74967	0.51543	.85234	-.001630
3	2	0.80350	0.50000	.85187	.000000
	3	0.61644	0.56411	.49940	.385186
	3	0.62449	0.56464	.54342	.369037
	3	0.63386	0.56506	.59058	.345476
	3	0.64503	0.56522	.64002	.313096
	3	0.65867	0.56491	.69028	.270618
	3	0.67568	0.56372	.73928	.217183
	3	0.69724	0.56103	.78445	.152686
	3	0.72504	0.55583	.82296	.078100
	3	0.76130	0.54653	.85222	-.004419
4	3	0.80982	0.53243	.85186	-.003218
	3	0.86313	0.51701	.85139	-.001637
	3	0.92220	0.50000	.85092	.000000
	4	0.62597	0.59112	.50559	.378530
	4	0.63732	0.59173	.54874	.362503
	4	0.65052	0.59217	.59502	.339160
	4	0.66624	0.59225	.64355	.307124
	4	0.68540	0.59165	.69288	.265142
	4	0.70925	0.58982	.74099	.212386
	4	0.73944	0.58589	.78532	.148769
5	4	0.77828	0.57846	.82308	.075282
	4	0.82880	0.56534	.85173	-.005916
	4	0.87679	0.55127	.85137	-.004756
	4	0.92955	0.53586	.85091	-.003223
	4	0.98804	0.51886	.85043	-.001639
6	4	1.05328	0.50000	.84995	.000000

α	β	x	y	u	v
	5	0.63736	0.62180	.51205	.371795
1	5	0.65241	0.62242	.55430	.355878
2	5	0.66990	0.62282	.59966	.332745
3	5	0.69069	0.62273	.64723	.301050
4	5	0.71601	0.62173	.69561	.259573
5	5	0.74747	0.61909	.74278	.207509
6	5	0.78723	0.61370	.78623	.144799
7	5	0.83825	0.60371	.82321	.072452
8	5	0.90442	0.58632	.85123	-.007354
9	5	0.95187	0.57229	.85087	-.006235
10	5	1.00407	0.55692	.85041	-.004747
11	5	1.06196	0.53994	.84995	-.003215
12	5	1.12655	0.52109	.84947	-.001635
13	5	1.19915	0.50000	.84899	.000000
	6	0.65105	0.65682	.51881	.364979
1	6	0.67026	0.65740	.56012	.349154
2	6	0.69256	0.65767	.60450	.326223
3	6	0.71907	0.65730	.65108	.294868
4	6	0.75129	0.65576	.69846	.253900
5	6	0.79127	0.65214	.74465	.202546
6	6	0.84171	0.64501	.78719	.140771
7	6	0.90628	0.63209	.82337	.069613
8	6	0.98976	0.60990	.85073	-.008722
9	6	1.03663	0.59592	.85037	-.007643
10	6	1.08824	0.58060	.84992	-.006197
11	6	1.14551	0.56365	.84946	-.004713
12	6	1.20944	0.54483	.84898	-.003189
13	6	1.28133	0.52376	.84851	-.001619
14	6	1.36276	0.50000	.84803	.000000
	7	0.66763	0.69706	.52590	.358076
1	7	0.69154	0.69749	.56621	.342327
2	7	0.71929	0.69754	.60958	.319586
3	7	0.75225	0.69677	.65511	.288567
4	7	0.79227	0.69453	.70145	.248115
5	7	0.84185	0.68969	.74662	.197488
6	7	0.90429	0.68051	.78821	.136682
7	7	0.98403	0.66422	.82355	.066764
8	7	1.08678	0.63659	.85021	-.010009
9	7	1.13303	0.62270	.84987	-.008968
10	7	1.18402	0.60743	.84942	-.007563
11	7	1.24065	0.59054	.84896	-.006125
12	7	1.30389	0.57176	.84850	-.004653
13	7	1.37504	0.55072	.84802	-.003143
14	7	1.45568	0.52698	.84755	-.001596
15	7	1.54777	0.50000	.84707	.000000

	θ	x	y	u	v
	8	0.68784	0.74357	.53333	.351080
1	8	0.71710	0.74377	.57261	.335387
2	8	0.75105	0.74348	.61490	.312824
3	8	0.79136	0.74217	.65935	.282139
4	8	0.84026	0.73903	.70459	.242209
5	8	0.90077	0.73271	.74871	.192330
6	8	0.97681	0.72110	.78930	.132528
7	8	1.07366	0.70089	.82376	.063913
8	8	1.19802	0.66710	.84970	-.011195
9	8	1.24360	0.65330	.84936	-.010193
10	8	1.29395	0.63811	.84892	-.008826
11	8	1.34990	0.62130	.84847	-.007431
12	8	1.41242	0.60258	.84801	-.006009
13	8	1.48281	0.58160	.84754	-.004556
14	8	1.56264	0.55790	.84707	-.003075
15	8	1.65385	0.53094	.84660	-.001558
16	8	1.75900	0.50000	.84613	.000000

$$\theta_s = 40^\circ \quad M_1 = 7.0$$

zero grid

α	β	x	y	u	v
2	0.59587	0.50000	.51206	.429671	
	0.59587	0.50000	.60774	.382468	
	0.59587	0.50000	.71147	.298498	
	0.59587	0.50000	.80824	.169549	
	0.59587	0.50000	.87613	-.000000	
4	0.61005	0.53719	.52219	.417877	
	0.62060	0.53854	.61517	.371397	
	0.63664	0.53935	.71594	.289071	
	0.66315	0.53789	.80986	.163106	
	0.71030	0.52896	.87562	-.001949	
6	0.82338	0.50000	.87511	.000000	
	0.62896	0.58335	.53306	.405852	
	0.65230	0.58584	.62310	.360070	
	0.68756	0.58709	.72071	.279392	
	0.74546	0.58331	.81160	.156451	
8	0.84751	0.56344	.87507	-.003914	
	0.95908	0.53451	.87456	-.002076	
	1.09308	0.50000	.87401	.000000	
	0.65463	0.64142	.54476	.393581	
	0.93369	0.64481	.63161	.348456	
10	0.75241	0.64602	.72582	.269447	
	0.84819	0.63879	.81348	.149641	
	1.01546	0.60538	.87451	-.005700	
	1.12543	0.57653	.87401	-.003960	
	1.25761	0.54208	.87347	-.002017	
12	1.42012	0.50000	.87293	.000000	
	0.69015	0.71574	.55740	.381045	
	0.74888	0.71970	.64080	.336519	
	0.83680	0.72020	.73134	.259194	
	0.97932	0.70801	.81555	.142659	
14	1.22563	0.65759	.87395	-.007238	
	1.33391	0.62890	.87347	-.005589	
	1.46417	0.59458	.87294	-.003759	
	1.62456	0.55259	.87241	-.001892	
	1.82665	0.50000	.87190	.000000	

8 x 8 grid

1	0.59587	0.50000	.51206	.429671
2	0.59587	0.50000	.55834	.409941
3	0.59587	0.50000	.60774	.382468
4	0.59587	0.50000	.65930	.345766
5	0.59587	0.50000	.71147	.298498
6	0.59587	0.50000	.76203	.239782
7	0.59587	0.50000	.80824	.169549
8	0.59587	0.50000	.84716	.088857
			.87613	-.000000

α	β	x	y	u	v
1	1	0.60246	0.51762	.51704	.423802
	1	0.60474	0.51798	.56268	.404204
	1	0.60750	0.51831	.61140	.376952
	1	0.61090	0.51860	.66224	.340593
	1	0.61518	0.51876	.71367	.293824
	1	0.62068	0.51867	.76350	.235797
	1	0.62790	0.51811	.80905	.166471
	1	0.63754	0.51671	.84741	.086917
	1	0.65062	0.51386	.87598	-.000585
	1	0.70507	0.50000	.87583	.000000
2	2	0.61005	0.53719	.52219	.417877
	2	0.61484	0.53788	.56716	.398414
	2	0.62060	0.53852	.61517	.371384
	2	0.62771	0.53905	.66527	.335360
	2	0.63663	0.53932	.71594	.289066
	2	0.64810	0.53906	.76502	.231682
	2	0.66311	0.53783	.80987	.163184
	2	0.68311	0.53487	.84761	.084647
	2	0.71018	0.52889	.87570	-.001655
	2	0.76429	0.51503	.87555	-.001097
10	2	0.82313	0.50000	.87526	.000000
3	3	0.61880	0.55899	.52753	.411894
	3	0.62636	0.55999	.57179	.392563
	3	0.63545	0.56092	.61906	.365754
	3	0.69383	0.64466	.63153	.348423
	3	0.64661	0.56166	.66839	.330068
	3	0.66063	0.56198	.71827	.284256
	3	0.67859	0.56147	.76659	.227524
	3	0.70207	0.55943	.81071	.159869
	3	0.73329	0.55470	.84783	.082376
	3	0.77543	0.54530	.87541	-.002680
	3	0.82919	0.53144	.87526	-.002148
10	3	0.88762	0.51642	.87498	-.001083
11	3	0.95170	0.50000	.87470	.000000
4	4	0.62896	0.58335	.53306	.405852
	4	0.63957	0.58463	.57659	.386648
	4	0.65232	0.58581	.62309	.360058
	4	0.66795	0.58672	.67162	.324711
	4	0.68755	0.58702	.72069	.279385
	4	0.71263	0.58617	.76821	.223315
	4	0.74535	0.58318	.81159	.156517
	4	0.78877	0.57645	.84807	.080094
	4	0.84722	0.56329	.87513	-.003668
	4	0.90062	0.54944	.87498	-.003159
	4	1.33034	0.62773	.87392	-.006155
10	4	0.95863	0.53443	.87470	-.002125
10	4	1.45930	0.59376	.87334	-.004153
11	4	1.02228	0.51802	.87442	-.001075
12	4	1.09240	0.50000	.87414	.000000
12	4	8.74144	2.35871	.00254	.000402

α	β	x	y	u	v
	5	0.64079	0.61066	.53880	.399748
1	5	0.65479	0.61220	.58157	.380666
2	5	0.67159	0.61360	.62726	.354292
3	5	0.69217	0.61463	.67496	.319283
4	5	0.71793	0.61485	.72320	.274448
5	5	0.75085	0.61353	.76989	.219048
6	5	0.79371	0.60943	.81251	.153127
7	5	0.85046	0.60045	.84831	.077805
8	5	0.92664	0.58313	.87484	-.004609
9	5	0.97966	0.56930	.87469	-.004123
10	5	1.03725	0.55430	.87442	-.003117
11	5	1.10045	0.53790	.87414	-.002100
12	5	1.17010	0.51989	.87386	-.001062
13	5	1.24731	0.50000	.87358	.000000
	6	0.65463	0.64142	.54476	.393581
1	6	0.67242	0.64320	.58673	.374612
2	6	0.69372	0.64477	.63159	.348448
3	6	0.71980	0.64586	.67843	.313778
4	6	0.75240	0.64591	.72579	.269440
5	6	0.79398	0.64401	.77164	.214723
6	6	0.84803	0.63859	.81347	.149697
7	6	0.91943	0.62705	.84858	.075509
8	6	1.01499	0.60513	.87456	-.005496
9	6	1.06762	0.59132	.87441	-.005033
10	6	1.12477	0.57636	.87414	-.004054
11	6	1.18751	0.55998	.87386	-.003068
12	6	1.25667	0.54199	.87358	-.002064
13	6	1.33337	0.52210	.87331	-.001042
14	6	1.41890	0.50000	.87303	.000000
	7	0.67091	0.67621	.55095	.387348
1	7	0.69292	0.67818	.59209	.368482
2	7	0.71927	0.67988	.63609	.342524
3	7	0.75148	0.68096	.68204	.308192
4	7	0.79170	0.68074	.72850	.264355
5	7	0.84292	0.67810	.77347	.210333
6	7	0.90937	0.67114	.81447	.146223
7	7	0.99695	0.65669	.84887	.073205
8	7	1.11378	0.62967	.87427	-.006323
9	7	1.16601	0.61589	.87413	-.005882
10	7	1.22270	0.60096	.87386	-.004928
11	7	1.28497	0.58462	.87358	-.003970
12	7	1.35364	0.56665	.87331	-.002998
13	7	1.42981	0.54678	.87304	-.002013
14	7	1.51479	0.52469	.87276	-.001014
15	7	1.61009	0.50000	.87250	.000000

α	β	x	y	u	v
	8	0.69015	0.71574	.55740	.381045
1	8	0.71692	0.71786	.59767	.362271
2	8	0.74893	0.71965	.64077	.336514
3	8	0.78804	0.72064	.68578	.302518
4	8	0.83680	0.72004	.73131	.259187
5	8	0.89882	0.71649	.77537	.205872
6	8	0.97911	0.70771	.81553	.142703
7	8	1.08467	0.68995	.84919	.070898
8	8	1.22500	0.65721	.87399	-.007079
9	8	1.27679	0.64348	.87385	-.006659
10	8	1.33302	0.62861	.87358	-.005730
11	8	1.39480	0.61231	.87331	-.004799
12	8	1.46296	0.59438	.87304	-.003857
13	8	1.53859	0.57454	.87277	-.002906
14	8	1.62300	0.55248	.87250	-.001946
15	8	1.71771	0.52779	.87224	-.000978
16	8	1.82470	0.50000	.87198	.000000

$$\theta_s = 45^\circ \quad M_1 = 3.0$$

zero grid

α	β	x	y	u	v
2	0.50000	0.50000	0.50000	.30858	.308581
	0.50000	0.50000	0.50000	.42609	.319567
	0.50000	0.50000	0.50000	.55274	.276373
	0.50000	0.50000	0.50000	.68212	.170530
	0.50000	0.50000	0.50000	.78294	.000000
4	0.48661	0.53532	0.53532	.32299	.294829
	0.50451	0.53015	0.53015	.43377	.308183
	0.51586	0.52836	0.52836	.55681	.266173
	0.52982	0.52560	0.52560	.68288	.162333
	0.55046	0.51906	0.51906	.78097	-.004996
10	0.59961	0.50000	0.50000	.77904	.000000
2	0.47202	0.58231	0.58231	.33971	.280466
	0.51152	0.56957	0.56957	.44269	.295567
	0.53712	0.56485	0.56485	.56149	.254734
	0.56847	0.55807	0.55807	.68369	.153065
	0.61438	0.54291	0.54291	.77858	-.010672
10	0.66195	0.52388	0.52388	.77668	-.005887
12	0.72239	0.50000	0.50000	.77435	.000000
4	0.45737	0.64807	0.64807	.35952	.265470
	0.52326	0.62477	0.62477	.45351	.280854
	0.56794	0.61524	0.61524	.56707	.241157
	0.62243	0.60226	0.60226	.68455	.142013
	0.70138	0.57490	0.57490	.77553	-.017324
10	0.74701	0.55598	0.55598	.77366	-.012773
12	0.80505	0.53218	0.53218	.77137	-.007203
14	0.88462	0.50000	0.50000	.76845	.000000
6	0.44606	0.74667	0.74667	.38361	.249816
	0.54511	0.70918	0.70918	.46736	.263369
	0.61735	0.69138	0.69138	.57420	.224672
	0.70538	0.66809	0.66809	.68561	.128617
	0.83138	0.62193	0.62193	.77156	-.024948
10	0.87450	0.60330	0.60330	.76975	-.020658
12	0.92946	0.57976	0.57976	.76753	-.015435
14	1.00500	0.54781	0.54781	.76469	-.008753
16	1.11989	0.50000	0.50000	.76101	.000000

8 x 8 grid

1	0.50000	0.50000	.30858	.308581
2	0.50000	0.50000	.36760	.321655
3	0.50000	0.50000	.42609	.319567
4	0.50000	0.50000	.48788	.304927
5	0.50000	0.50000	.55274	.276373
6	0.50000	0.50000	.61867	.232001
7	0.50000	0.50000	.68212	.170530
8	0.50000	0.50000	.73847	.092308
			.78294	.000000

α	ρ	x	y	u	v
1	1	0.49348	0.51649	.31553	.301780
	1	0.49902	0.51478	.37230	.315355
	1	0.50204	0.51420	.42972	.313504
	1	0.50469	0.51379	.49062	.299070
	1	0.50742	0.51339	.55462	.270786
	1	0.51046	0.51287	.61970	.226807
	1	0.51405	0.51211	.68234	.165896
	1	0.51842	0.51092	.73795	.088428
	1	0.52386	0.50903	.78180	-.002940
	1	0.54733	0.50000	.78067	.000000
2	2	0.48661	0.53532	.32299	.294829
	2	0.49819	0.53150	.37742	.309263
	2	0.50454	0.53018	.43368	.307723
	2	0.51013	0.52920	.49361	.293554
	2	0.51587	0.52834	.55671	.265587
	2	0.52226	0.52719	.62091	.222033
	2	0.52977	0.52553	.68271	.161688
	2	0.53891	0.52297	.73755	.084940
	2	0.55027	0.51895	.78074	-.005565
	2	0.57336	0.50994	.77963	-.002678
10	2	0.59902	0.50000	.77859	.000000
3	3	0.47942	0.55702	.33102	.287725
	3	0.49757	0.55070	.38294	.302847
	3	0.50765	0.54845	.43794	.301588
	3	0.51653	0.54685	.49682	.287675
	3	0.52564	0.54529	.55893	.260032
	3	0.53578	0.54336	.62219	.216920
	3	0.54767	0.54063	.68308	.157174
	3	0.56211	0.53649	.73709	.081195
	3	0.57999	0.53005	.77957	-.008379
	3	0.60266	0.52108	.77847	-.005548
10	3	0.62793	0.51113	.77744	-.002926
11	3	0.65640	0.50000	.77629	.000000
4	4	0.47202	0.58231	.33971	.280466
	4	0.49729	0.57308	.38896	.296046
	4	0.51158	0.56964	.44257	.295021
	4	0.52421	0.56720	.50030	.281351
	4	0.53715	0.56481	.56133	.254038
	4	0.55153	0.56192	.62355	.211394
	4	0.56838	0.55790	.68345	.152289
	4	0.58877	0.55189	.73656	.077142
	4	0.61397	0.54265	.77826	-.011414
	4	0.63617	0.53371	.77717	-.008641
	4	0.66100	0.52378	.77614	-.006078
12	4	0.68899	0.51265	.77501	-.003221
		0.72104	0.50000	.77374	.000000

α	β	x	y	u	v
	5	0.46457	0.61220	.34916	.273048
1	5	0.49755	0.59960	.39560	.288801
2	5	0.51666	0.59468	.44767	.287946
3	5	0.53362	0.59115	.50412	.274502
4	5	0.55099	0.58772	.56396	.247527
5	5	0.57027	0.58363	.62502	.205380
6	5	0.59281	0.57802	.68784	.146971
7	5	0.62003	0.56977	.7115	.072738
8	5	0.65356	0.55722	.7119	-.014687
9	5	0.67524	0.54834	.77570	-.011978
10	5	0.69959	0.53842	.77469	-.009476
11	5	0.72703	0.52731	.77357	-.006691
12	5	0.75847	0.51467	.77230	-.003556
13	5	0.79521	0.50000	.77088	.000000
	6	0.45737	0.64807	.35952	.265470
1	6	0.49867	0.63167	.40300	.281053
2	6	0.52338	0.62489	.45336	.280283
3	6	0.54541	0.61994	.50837	.267039
4	6	0.56800	0.61517	.56687	.240410
5	6	0.59305	0.60954	.62666	.198799
6	6	0.62228	0.60196	.68425	.141156
7	6	0.65749	0.59095	.73525	.067942
8	6	0.70069	0.57442	.77511	-.018204
9	6	0.72178	0.56562	.77405	-.015562
10	6	0.74559	0.55574	.77305	-.013125
11	6	0.77242	0.54466	.77193	-.010416
12	6	0.80317	0.53204	.77069	-.007371
13	6	0.83914	0.51739	.76928	-.003926
14	6	0.88218	0.50000	.76769	.000000
	7	0.45091	0.69192	.37093	.257726
1	7	0.50123	0.67130	.41137	.272744
2	7	0.53252	0.66216	.45979	.271942
3	7	0.56063	0.65538	.51317	.258858
4	7	0.58949	0.64883	.57016	.232581
5	7	0.62148	0.64121	.62849	.191554
6	7	0.65874	0.63111	.68471	.134766
7	7	0.70349	0.61665	.73444	.062710
8	7	0.75819	0.59524	.77322	-.021963
9	7	0.77860	0.58655	.77217	-.019395
10	7	0.80179	0.57672	.77118	-.017025
11	7	0.82794	0.56570	.77008	-.014395
12	7	0.85792	0.55313	.76885	-.011445
13	7	0.89300	0.53853	.76746	-.008115
14	7	0.93502	0.52116	.76589	-.004333
15	7	0.98668	0.50000	.76411	.000000

α	β	x	y	u	v
	8	0.44606	0.74667	.38361	.249816
1	8	0.50618	0.72142	.42092	.263831
2	8	0.54532	0.70932	.46718	.262839
3	8	0.58086	0.70012	.51870	.249858
4	8	0.61746	0.69123	.57395	.223937
5	8	0.65802	0.68098	.63061	.183552
6	8	0.70517	0.66758	.68524	.127735
7	8	0.76163	0.64871	.73353	.057018
8	8	0.830 ¹¹	0.62113	.77106	-.025919
9	8	0.849, ¹⁴	0.61260	.77003	-.023432
10	8	0.87242	0.60286	.76906	-.021133
11	8	0.89778	0.59193	.76798	-.018587
12	8	0.92688	0.57945	.76677	-.015736
13	8	0.96095	0.56493	.76540	-.012526
14	8	1.00180	0.54765	.76385	-.008894
15	8	1.05209	0.52653	.76209	-.004753
16	8	1.11590	0.50000	.76010	.000000

$$\theta_s = 45^\circ \quad M_1 = 4.0$$

zero grid

α	β	x	y	u	v
2	0.50000	0.50000	0.50000	.36321	.363212
	0.50000	0.50000	0.50000	.46885	.351641
	0.50000	0.50000	0.50000	.59203	.296018
	0.50000	0.50000	0.50000	.71796	.179491
	0.50000	0.50000	0.50000	.81376	.000000
4	0.49855	0.53695	0.53624	.37647	.350426
	0.51018	0.53624	0.53542	.47802	.339531
	0.52347	0.53542	0.53285	.59734	.285163
	0.54250	0.53285	0.52457	.71952	.171207
	0.57330	0.52457	0.50000	.81233	-.004073
	0.64499	0.50000	0.50000	.81093	.000000
6	0.49868	0.58475	0.58240	.39134	.337189
	0.52458	0.58240	0.57991	.48822	.326702
	0.55420	0.57991	0.57353	.60320	.273544
	0.59637	0.57353	0.55465	.72122	.162263
	0.66405	0.55465	0.53012	.81068	-.008460
	0.73388	0.53012	0.50000	.80929	-.004595
	0.82058	0.50000	0.50000	.80768	.000000
8	0.50200	0.64850	0.64329	.40821	.323478
	0.54578	0.64329	0.63789	.49978	.312993
	0.59616	0.63789	0.62589	.60983	.260981
	0.66755	0.62589	0.59297	.72314	.152602
	0.78102	0.59297	0.56857	.80882	-.012932
	0.84876	0.56857	0.53855	.80746	-.009272
	0.93295	0.53855	0.50000	.80583	-.004954
	1.04234	0.50000	0.50000	.80410	.000000
10	0.51182	0.73691	0.72720	.42760	.309257
	0.57862	0.73691	0.71703	.51314	.298229
	0.65647	0.71703	0.69656	.61751	.247266
	0.76652	0.69656	0.64434	.72541	.142097
	0.93956	0.64434	0.62022	.80674	-.017330
	1.00486	0.62022	0.59046	.80542	-.013873
	1.08616	0.59046	0.55209	.80388	-.009823
	1.19208	0.55209	0.50000	.80214	-.005242
	1.33759	0.50000	0.50000	.80022	.000000

8 x 8 grid

1	0.50000	0.50000	.36321	.363212
2	0.50000	0.50000	.41364	.361936
3	0.50000	0.50000	.46885	.351641
4	0.50000	0.50000	.52871	.330445
5	0.50000	0.50000	.59203	.296018
6	0.50000	0.50000	.65638	.246143
7	0.50000	0.50000	.71796	.179491
8	0.50000	0.50000	.77201	.096502
			.81376	.000000

α	β	x	y	u	v
1	1	0.49914	0.51735	.36966	.356874
	1	0.50194	0.51719	.41905	.355710
	1	0.50468	0.51708	.47331	.345551
	1	0.50762	0.51696	.53223	.324571
	1	0.51099	0.51675	.59460	.290492
	1	0.51503	0.51635	.65801	.241149
	1	0.52005	0.51557	.71869	.175257
	1	0.52644	0.51416	.77195	.093283
	1	0.53475	0.51166	.81308	-.001965
	1	0.5908	0.50000	.81241	.000000
2	2	0.49855	0.53695	.37647	.350426
	2	0.50443	0.53652	.42475	.349407
	2	0.51019	0.53621	.47800	.339415
	2	0.51638	0.53588	.53592	.318680
	2	0.52345	0.53536	.59730	.284968
	2	0.53191	0.53443	.65972	.236158
	2	0.54240	0.53274	.71947	.170998
	2	0.55574	0.52971	.77188	.089965
	2	0.57302	0.52444	.81230	-.004148
	2	0.60691	0.51278	.81164	-.002234
10	2	0.64430	0.50000	.81087	.000000
3	3	0.49834	0.55924	.38368	.343865
	3	0.50763	0.55841	.43078	.342946
	3	0.51675	0.55780	.48294	.333097
	3	0.52654	0.55716	.53981	.312595
	3	0.53771	0.55622	.60014	.279253
	3	0.55106	0.55464	.66153	.230989
	3	0.56758	0.55186	.72028	.166588
	3	0.58855	0.54697	.77160	.086541
	3	0.61563	0.53858	.81148	-.006369
	3	0.64906	0.52694	.81082	-.004508
	3	0.68597	0.51416	.81006	-.002330
11	3	0.72712	0.50000	.80925	.000000
4	4	0.49868	0.58475	.39134	.337189
	4	0.51176	0.58339	.43717	.336314
	4	0.52461	0.58235	.48818	.326578
	4	0.53843	0.58127	.54393	.306298
	4	0.55418	0.57978	.60314	.273326
	4	0.57297	0.57739	.66343	.225624
	4	0.59618	0.57330	.72114	.162012
	4	0.62559	0.56627	.77172	.083001
	4	0.66346	0.55435	.81061	-.008628
	4	0.69639	0.54274	.80995	-.006819
10	4	0.73278	0.52998	.80920	-.004698
11	4	0.77337	0.51582	.80840	-.002434
12	4	0.81903	0.50000	.80755	.000000

α	β	x	y	u	v
	5	0.49979	0.61420	.39950	.330394
1	5	0.51709	0.61214	.44398	.329500
2	5	0.53415	0.61053	.49376	.319842
3	5	0.55249	0.60887	.54830	.299766
4	5	0.57341	0.60667	.60633	.267165
5	5	0.59832	0.60327	.66545	.220043
6	5	0.62905	0.59762	.72205	.157258
7	5	0.66789	0.58810	.77163	.079345
8	5	0.71775	0.57215	.80968	-.010907
9	5	0.75014	0.56059	.80904	-.009151
10	5	0.78599	0.54785	.80829	-.007088
11	5	0.82600	0.53372	.80750	-.004889
12	5	0.87101	0.51790	.80665	-.002532
13	5	0.92230	0.50000	.80576	.000000
	6	0.50200	0.64850	.40821	.323478
1	6	0.52402	0.64556	.45125	.322490
2	6	0.54584	0.64322	.49972	.312866
3	6	0.56934	0.64080	.55299	.292975
4	6	0.59613	0.63769	.60915	.260746
5	6	0.62801	0.63303	.66762	.214225
6	6	0.66727	0.62551	.72303	.152310
7	6	0.71676	0.61305	.77154	.075568
8	6	0.78010	0.59247	.80870	-.013192
9	6	0.81191	0.58097	.80807	-.011489
10	6	0.84718	0.56828	.80733	-.009482
11	6	0.88656	0.55418	.80654	-.007347
12	6	0.93089	0.53839	.80571	-.005066
13	6	0.98142	0.52050	.80482	-.002624
14	6	1.03971	0.50000	.80389	.000000
	7	0.50578	0.68886	.41755	.316435
1	7	0.53313	0.68484	.45907	.315269
2	7	0.56038	0.68155	.50613	.305629
3	7	0.58980	0.67816	.55802	.285901
4	7	0.62335	0.67390	.61342	.254042
5	7	0.66325	0.66768	.66995	.208147
6	7	0.71229	0.65789	.72409	.147155
7	7	0.77397	0.64195	.77146	.071672
8	7	0.85264	0.61597	.80767	-.015459
9	7	0.88381	0.60455	.80704	-.013810
10	7	0.91846	0.59193	.80631	-.011859
11	7	0.95716	0.57789	.80553	-.009788
12	7	1.00075	0.56215	.80471	-.007582
13	7	1.05047	0.54430	.80384	-.005227
14	7	1.10787	0.52382	.80291	-.002709
15	7	1.17506	0.50000	.80194	.000000

α	β	x	y	u	v
1	8	0.51182	0.73691	.42760	.309257
2	8	0.54521	0.73158	.46751	.307819
3	8	0.57872	0.72710	.51306	.298107
4	8	0.61502	0.72247	.56347	.278511
5	8	0.65645	0.71674	.61740	.247022
6	8	0.70570	0.70858	.67249	.201779
7	8	0.76614	0.69600	.72526	.141773
8	8	0.84196	0.67589	.77140	.067654
9	8	0.93828	0.64356	.80657	-.017680
10	8	0.96875	0.63227	.80596	-.016086
11	8	1.00271	0.61972	.80524	-.014191
12	8	1.04068	0.60577	.80447	-.012182
13	8	1.08348	0.59011	.80366	-.010048
14	8	1.13234	0.57233	.80280	-.007778
15	8	1.18878	0.55190	.80189	-.005362
16	8	1.25491	0.52811	.80093	-.002778
		1.33358	0.50000	.79992	.000000

$$\theta_B = 45^\circ \quad M_1 = 5.0$$

zero grid

α	β	x	y	u	v
2		0.50000	0.50000	.39143	.391433
		0.50000	0.50000	.49520	.371403
		0.50000	0.50000	.61713	.308565
		0.50000	0.50000	.74106	.185266
		0.50000	0.50000	.83355	.000000
4	2	0.50229	0.53575	.40388	.379370
	2	0.51257	0.53599	.50419	.359822
	2	0.52602	0.53588	.62250	.298238
	2	0.54669	0.53386	.74285	.177621
	2	0.58216	0.52538	.83252	-.003207
	2	0.66287	0.50000	.83150	.000000
6	4	0.50681	0.58119	.41763	.366933
	4	0.52967	0.58112	.51405	.347713
	4	0.55946	0.58028	.62836	.287348
	4	0.60501	0.57520	.74478	.169487
	4	0.68243	0.55606	.83134	-.006618
	4	0.76148	0.53071	.83034	-.003578
	4	0.85814	0.50000	.82918	.000000
8	6	0.51512	0.64031	.43294	.354105
	6	0.55363	0.63921	.52500	.334979
	6	0.60381	0.63678	.63486	.275802
	6	0.68015	0.62718	.74694	.160875
	6	0.80868	0.59432	.83007	-.009984
	6	0.88588	0.56907	.82908	-.007104
	6	0.98037	0.53843	.82794	-.003740
10	6	1.10007	0.50000	.82672	.000000
	8	0.53005	0.71955	.45015	.340856
	8	0.58850	0.71646	.53732	.321519
	8	0.66496	0.71120	.64219	.263475
	8	0.78078	0.69493	.74941	.151713
	8	0.97378	0.64391	.82870	-.013176
	8	1.04891	0.61887	.82773	-.010449
12	8	1.14098	0.58843	.82662	-.007285
	8	1.25784	0.55012	.82542	-.003817
	8	1.41228	0.50000	.82415	.000000

8 x 8 grid

1		0.50000	0.50000	.39143	.391433
		0.50000	0.50000	.44071	.385629
		0.50000	0.50000	.49520	.371403
		0.50000	0.50000	.55446	.346538
		0.50000	0.50000	.61713	.308565
		0.50000	0.50000	.68062	.255235
		0.50000	0.50000	.74106	.185266
		0.50000	0.50000	.79362	.099203
2		0.50000	0.50000	.83355	.000000

α	β	x	y	u	v
1	1	0.50093	0.51685	.39751	.385447
	1	0.50328	0.51694	.44596	.379709
	1	0.50583	0.51702	.49960	.365605
	1	0.50875	0.51707	.55798	.340962
	1	0.51224	0.51702	.61975	.303359
	1	0.51656	0.51677	.68234	.250600
	1	0.52211	0.51611	.74192	.181452
	1	0.52939	0.51473	.79375	.096487
	1	0.53910	0.51209	.83312	-.001358
	1	0.57785	0.50000	.83270	.000000
2	2	0.50229	0.53575	.40388	.379370
	2	0.50723	0.53586	.45144	.373716
	2	0.51258	0.53597	.50418	.359754
	2	0.51870	0.53600	.56165	.335348
	2	0.52600	0.53583	.62248	.298120
	2	0.53505	0.53521	.68414	.245913
	2	0.54661	0.53376	.74282	.177527
	2	0.56174	0.53082	.79384	.093549
	2	0.58190	0.52526	.83255	-.003102
	2	0.62026	0.51317	.83213	-.001786
10	2	0.66226	0.50000	.83157	.000000
3	3	0.50419	0.55705	.41058	.373199
	3	0.51200	0.55711	.45719	.367604
	3	0.52046	0.55718	.50899	.353769
	3	0.53011	0.55713	.56549	.329594
	3	0.54161	0.55675	.62534	.292742
	3	0.55585	0.55567	.68601	.241101
	3	0.57400	0.55328	.74375	.173500
	3	0.59772	0.54855	.79393	.090547
	3	0.62922	0.53976	.83196	-.004849
	3	0.66717	0.52768	.83154	-.003574
	3	0.70873	0.51450	.83098	-.001834
11	3	0.75474	0.50000	.83040	.000000
4	4	0.50681	0.58119	.41763	.366933
	4	0.51780	0.58112	.46323	.361368
	4	0.52970	0.58108	.51403	.347640
	4	0.54327	0.58086	.56952	.323689
	4	0.55943	0.58017	.62833	.287216
	4	0.57941	0.57849	.68797	.236153
	4	0.60483	0.57499	.74473	.169363
	4	0.63797	0.56821	.79403	.087476
	4	0.68187	0.55580	.83135	-.006595
	4	0.71939	0.54374	.83093	-.005360
	4	0.76049	0.53058	.83037	-.003666
12	4	0.80600	0.51608	.82979	-.001885
		0.85675	0.50000	.82919	.000000

α	β	x	y	u	v
	5	0.51035	0.60871	.42507	.360570
1	5	0.52489	0.60843	.46960	.354998
2	5	0.54063	0.60818	.51935	.341356
3	5	0.55859	0.60770	.57376	.317618
4	5	0.57995	0.60658	.63148	.281526
5	5	0.60632	0.60416	.69004	.231054
6	5	0.63982	0.59933	.74577	.165105
7	5	0.68340	0.59020	.79415	.084335
8	5	0.74094	0.57371	.83070	-.008330
9	5	0.77801	0.56168	.83029	-.007134
10	5	0.81862	0.54855	.82974	-.005485
11	5	0.86361	0.53406	.82916	-.003755
12	5	0.91380	0.51799	.82857	-.001930
13	5	0.97025	0.50000	.82794	.000000
	6	0.51512	0.64031	.43294	.354105
1	6	0.53362	0.63971	.47634	.348487
2	6	0.55368	0.63915	.52497	.334905
3	6	0.57657	0.63828	.57824	.311369
4	6	0.60379	0.63660	.63481	.275658
5	6	0.63734	0.63326	.69223	.225794
6	6	0.67988	0.62685	.74687	.160720
7	6	0.73510	0.61499	.79428	.081125
8	6	0.80779	0.59388	.83004	-.010041
9	6	0.84437	0.58189	.82963	-.008885
10	6	0.88447	0.56879	.82908	-.007280
11	6	0.92892	0.55434	.82851	-.005600
12	6	0.97851	0.53829	.82792	-.003832
13	6	1.03432	0.52031	.82730	-.001970
14	6	1.09770	0.50000	.82666	.000000
	7	0.52151	0.67688	.44129	.347536
1	7	0.54447	0.67584	.48349	.341826
2	7	0.56941	0.67485	.53093	.328274
3	7	0.59790	0.67346	.58300	.304925
4	7	0.63176	0.67105	.63835	.269598
5	7	0.67345	0.66656	.69456	.220360
6	7	0.72623	0.65825	.74805	.156199
7	7	0.79456	0.64321	.79443	.077846
8	7	0.88423	0.61683	.82934	-.011707
9	7	0.92028	0.60490	.82894	-.010591
10	7	0.95984	0.59185	.82840	-.009029
11	7	1.00371	0.57744	.82784	-.007397
12	7	1.05268	0.56143	.82725	-.005685
13	7	1.10781	0.54348	.82664	-.003888
14	7	1.17046	0.52319	.82601	-.001995
15	7	1.24244	0.50000	.82536	.000000

a	b	x	y	u	v
	8	0.53005	0.71955	.45015	.340856
1	8	0.55807	0.71794	.49109	.335002
2	8	0.58858	0.71637	.53727	.321448
3	8	0.62347	0.71430	.58806	.298269
4	8	0.66494	0.71095	.64212	.263324
5	8	0.71595	0.70503	.69705	.214732
6	8	0.78042	0.69444	.74932	.151531
7	8	0.86368	0.67568	.79461	.074498
8	8	0.97255	0.64324	.82863	-.013314
9	8	1.00802	0.63139	.82823	-.012237
10	8	1.04701	0.61840	.82770	-.010717
11	8	1.09026	0.60406	.82715	-.009132
12	8	1.13857	0.58810	.82657	-.007474
13	8	1.19300	0.57020	.82596	-.005740
14	8	1.25487	0.54994	.82533	-.003920
15	8	1.32600	0.52678	.82469	-.002013
16	8	1.40865	0.50000	.82402	.000000

$$\theta_s = 45^\circ \quad M_1 = 7.0$$

zero grid

α	β	x	y	u	v
2	0.50000	0.50000	0.50000	.41850	.418501
	0.50000	0.50000	0.50000	.52158	.391189
	0.50000	0.50000	0.50000	.64263	.321315
	0.50000	0.50000	0.50000	.76460	.191150
	0.50000	0.50000	0.50000	.85362	.000000
4	2	0.50496	0.53403	.43007	.407239
	2	0.51440	0.53493	.53016	.380335
	2	0.52796	0.53548	.64788	.311718
	2	0.55018	0.53412	.76650	.184296
	2	0.59065	0.52564	.85295	-.002279
	2	0.68013	0.50000	.85229	.000000
6	4	0.51247	0.57652	.44269	.395673
	4	0.53335	0.57800	.53945	.369086
	4	0.56318	0.57869	.65354	.301700
	4	0.61177	0.57513	.76854	.177059
	4	0.69952	0.55618	.85218	-.004733
	4	0.78763	0.53056	.85152	-.002575
	4	0.89357	0.50000	.85077	.000000
8	6	0.52390	0.63055	.45651	.383788
	6	0.55888	0.63223	.54959	.357385
	6	0.60866	0.63250	.65972	.291217
	6	0.68934	0.62563	.77079	.169492
	6	0.83368	0.59354	.85137	-.007091
	6	0.92032	0.56799	.85073	-.005043
	6	1.02451	0.53748	.84998	-.002620
	6	1.15350	0.50000	.84920	.000000
10	8	0.54158	0.70080	.47177	.371561
	8	0.59423	0.70216	.56077	.345165
	8	0.66913	0.70125	.66653	.280190
	8	0.78986	0.68950	.77330	.161550
	8	1.00371	0.64058	.85054	-.009271
	8	1.08875	0.61517	.84990	-.007329
	8	1.19106	0.58479	.84917	-.005042
	8	1.31789	0.54739	.84840	-.002604
	8	1.47982	0.50000	.84762	.000000

8 x 8 grid

1	0.50000	0.50000	.41850	.418501
2	0.50000	0.50000	.46740	.408979
3	0.50000	0.50000	.52158	.391189
4	0.50000	0.50000	.58048	.362804
5	0.50000	0.50000	.64263	.321315
6	0.50000	0.50000	.70532	.264497
7	0.50000	0.50000	.76460	.191150
8	0.50000	0.50000	.81561	.101951
			.85362	.000000

α	β	x	y	u	v
	1	0.50222	0.51610	.42417	.412907
1	1	0.50432	0.51634	.47236	.403436
2	1	0.50673	0.51658	.52579	.385767
3	1	0.50962	0.51678	.58389	.357613
4	1	0.51320	0.51689	.64520	.316514
5	1	0.51779	0.51679	.70706	.260299
6	1	0.52384	0.51628	.76553	.187823
7	1	0.53202	0.51498	.81587	.099790
8	1	0.54329	0.51224	.85341	-.000709
9	1	0.58634	0.50000	.85321	.000000
	2	0.50496	0.53403	.43007	.407239
1	2	0.50936	0.53447	.47752	.397831
2	2	0.51441	0.53491	.53016	.380293
3	2	0.52046	0.53527	.58743	.352376
4	2	0.52794	0.53544	.64787	.311654
5	2	0.53750	0.53517	.70885	.256001
6	2	0.55010	0.53403	.76649	.184303
7	2	0.56707	0.53127	.81608	.097280
8	2	0.59040	0.52553	.85303	-.001992
9	2	0.63315	0.51328	.85283	-.001311
10	2	0.67962	0.50000	.85245	.000000
	3	0.50833	0.55405	.43624	.401495
1	3	0.51526	0.55467	.48289	.392135
2	3	0.52322	0.55526	.53470	.374721
3	3	0.53273	0.55574	.59110	.347035
4	3	0.54448	0.55590	.65064	.306695
5	3	0.55947	0.55537	.71071	.251612
6	3	0.57918	0.55349	.76748	.180712
7	3	0.60570	0.54907	.81631	.094729
8	3	0.64204	0.54003	.85264	-.003263
9	3	0.68448	0.52778	.85244	-.002610
10	3	0.73058	0.51450	.85206	-.001332
11	3	0.78116	0.50000	.85168	.000000
	4	0.51247	0.57652	.44269	.395673
1	4	0.52220	0.57726	.48849	.386345
2	4	0.53337	0.57797	.53943	.369043
3	4	0.54670	0.57851	.59492	.341584
4	4	0.56315	0.57859	.65352	.301628
5	4	0.58411	0.57772	.71265	.247127
6	4	0.61160	0.57495	.76852	.177043
7	4	0.64852	0.56864	.81655	.092134
8	4	0.69899	0.55596	.85224	-.004519
9	4	0.74110	0.54371	.85204	-.003893
10	4	0.78681	0.53044	.85167	-.002649
11	4	0.83699	0.51595	.85128	-.001355
12	4	0.89239	0.50000	.85089	.000000

α	β	x	y	u	v	
1	5	0.51758	0.60185	.44944	.389772	
	5	0.53042	0.60266	.49436	.380455	
	5	0.54516	0.60344	.54438	.363252	
	5	0.56271	0.60398	.59892	.336017	
	5	0.58437	0.60392	.65653	.296446	
	5	0.61192	0.60259	.71467	.242538	
	5	0.64799	0.59876	.76961	.173293	
	5	0.69632	0.59031	.81681	.089499	
	5	0.76220	0.57357	.85183	-.005748	
	5	0.80397	0.56133	.85163	-.005147	
	5	0.84929	0.54809	.85126	-.003935	
	5	0.89904	0.53360	.85088	-.002678	
	5	0.95400	0.51766	.85049	-.001365	
	5	1.01513	0.50000	.85009	.000000	
	1	6	0.52390	0.63055	.45651	.383788
		6	0.54021	0.63139	.50051	.374460
		6	0.55892	0.63218	.54957	.357342
		6	0.58120	0.63266	.60310	.330321
		6	0.60864	0.63235	.65968	.291138
		6	0.64352	0.63042	.71680	.237835
		6	0.68908	0.62534	.77075	.169454
		6	0.75001	0.61444	.81708	.086817
		6	0.83283	0.59318	.85141	-.006947
		6	0.87423	0.58096	.85121	-.006371
		6	0.91914	0.56773	.85085	-.005190
		6	0.96845	0.55327	.85047	-.003968
		6	1.02294	0.53734	.85008	-.002696
		6	1.08357	0.51969	.84968	-.001378
		6	1.15147	0.50000	.84928	.000000
2	7	0.53176	0.66327	.46395	.377719	
	7	0.55195	0.66407	.50696	.368354	
	7	0.57510	0.66480	.55501	.351302	
	7	0.60268	0.66513	.60749	.324489	
	7	0.63660	0.66447	.66299	.285694	
	7	0.67968	0.66179	.71903	.233009	
	7	0.73584	0.65522	.77196	.165520	
	7	0.81078	0.64151	.81738	.084091	
	7	0.91232	0.61516	.85098	-.008102	
	7	0.95334	0.60297	.85079	-.007552	
	7	0.99782	0.58978	.85042	-.006401	
	7	1.04667	0.57535	.85005	-.005213	
	7	1.10066	0.55945	.84966	-.003979	
	7	1.16077	0.54181	.84927	-.002705	
	7	1.22811	0.52213	.84887	-.001379	
	7	1.30415	0.50000	.84846	.000000	

α	β	x	y	u	v
	8	0.54158	0.70080	.47177	.371561
1	8	0.56612	0.70150	.51375	.362129
2	8	0.59429	0.70209	.56074	.345124
3	8	0.62784	0.70217	.61211	.318508
4	8	0.66910	0.70104	.66648	.280105
5	8	0.72141	0.69742	.72139	.228053
6	8	0.78951	0.68907	.77325	.161489
7	8	0.88014	0.67211	.81772	.081324
8	8	1.00253	0.64003	.85055	-.009199
9	8	1.04314	0.62788	.85035	-.008673
10	8	1.08716	0.61474	.85000	-.007551
11	8	1.13553	0.60035	.84963	-.006395
12	8	1.18902	0.58449	.84924	-.005198
13	8	1.24859	0.56688	.84886	-.003967
14	8	1.31534	0.54723	.84846	-.002689
15	8	1.39076	0.52510	.84805	-.001368
16	8	1.47669	0.50000	.84764	.000000

$$\theta_s = 50^\circ \quad M_1 = 4.0$$

zero grid

α	β	x	y	u	v
2	41954	0.41954	0.50000	.26645	.317548
	41954	0.41954	0.50000	.39201	.350391
	41954	0.41954	0.50000	.53075	.316262
	41954	0.41954	0.50000	.68355	.203657
	41954	0.41954	0.50000	.80412	.000000
2	40124	0.40124	0.52379	.28035	.306394
	42027	0.42027	0.51828	.39776	.341429
	42773	0.42773	0.51768	.53401	.307965
	43754	0.43754	0.51644	.68422	.196629
	45400	0.45400	0.51198	.80248	-.004549
10	48762	0.48762	0.50000	.80087	.000000
2	38055	0.38055	0.55491	.29647	.294698
	42164	0.42164	0.54185	.40475	.332787
	43848	0.43848	0.54015	.53797	.300008
	46047	0.46047	0.53708	.68527	.190092
	49710	0.49710	0.52683	.80103	-.008362
10	52986	0.52986	0.51491	.79945	-.003922
12	57123	0.57123	0.50000	.79804	.000000
2	35773	0.35773	0.59781	.31555	.282460
	42437	0.42437	0.57501	.41362	.321798
	45399	0.45399	0.57132	.54293	.289738
	49244	0.49244	0.56531	.68646	.181557
	55583	0.55583	0.54683	.79899	-.013448
10	58745	0.58745	0.53501	.79744	-.009144
12	62765	0.62765	0.52010	.79604	-.005368
14	68247	0.68247	0.50000	.79408	.000000
2	33368	0.33368	0.66084	.33871	.269711
	43027	0.43027	0.62601	.42558	.307545
	47874	0.47874	0.61854	.54953	.276173
	54130	0.54130	0.60738	.68795	.170220
	64314	0.64314	0.57612	.79610	-.020121
10	67317	0.67317	0.56447	.79458	-.015990
12	71177	0.71177	0.54962	.79321	-.012395
14	76439	0.76439	0.52957	.79129	-.007298
16	84317	0.84317	0.50000	.78855	.000000

8 x 8 grid

1	41954	0.41954	0.50000	.26645	.317548
2	41954	0.41954	0.50000	.33154	.345729
3	41954	0.41954	0.50000	.39201	.350391
4	41954	0.41954	0.50000	.45826	.341336
5	41954	0.41954	0.50000	.53075	.316262
6	41954	0.41954	0.50000	.60743	.271467
7	41954	0.41954	0.50000	.68355	.203657
8	41954	0.41954	0.50000	.75184	.112001
				.80412	.000000

α	β	x	y	u	v
1	1	0.41069	0.51117	.27316	.312038
	1	0.41778	0.50900	.33479	.339722
	1	0.41986	0.50873	.39468	.344644
	1	0.42161	0.50859	.46036	.335702
	1	0.42343	0.50845	.53222	.310746
	1	0.42553	0.50825	.60822	.266163
	1	0.42812	0.50786	.68362	.198744
	1	0.43149	0.50712	.75122	.107727
	1	0.43599	0.50573	.80293	-.003361
	1	0.45212	0.50000	.80174	.000000
2	2	0.40124	0.52379	.28035	.306394
	2	0.41590	0.51908	.33866	.335498
	2	0.42023	0.51845	.39773	.340651
	2	0.42398	0.51811	.46273	.331857
	2	0.42779	0.51779	.53395	.307075
	2	0.43219	0.51733	.60930	.262749
	2	0.43762	0.51649	.68406	.195712
	2	0.44464	0.51492	.75105	.105224
	2	0.45402	0.51197	.80225	-.005196
	2	0.46990	0.50627	.80107	-.001867
10	2	0.48752	0.50000	.80041	.000000
3	3	0.39118	0.53822	.28810	.300614
	3	0.41391	0.53056	.34290	.331046
	3	0.42087	0.52947	.40105	.336425
	3	0.42673	0.52887	.46532	.327781
	3	0.43279	0.52831	.53583	.303180
	3	0.43974	0.52752	.61047	.259124
	3	0.44832	0.52615	.68453	.192492
	3	0.45940	0.52361	.75088	.102569
	3	0.47415	0.51890	.80152	-.007133
	3	0.48977	0.51325	.80035	-.003838
10	3	0.50719	0.50697	.79969	-.001995
11	3	0.52666	0.50000	.79898	.000000
4	4	0.38055	0.55491	.29647	.294698
	4	0.41179	0.54391	.34761	.326168
	4	0.42168	0.54223	.40473	.331758
	4	0.43003	0.54128	.46817	.323263
	4	0.43863	0.54041	.53789	.298851
	4	0.44850	0.53921	.61175	.255087
	4	0.46066	0.53719	.68503	.188895
	4	0.47632	0.53350	.75065	.099590
	4	0.49713	0.52678	.80067	-.009318
	4	0.51244	0.52116	.79952	-.006061
	4	0.52964	0.51489	.79886	-.004245
	4	0.54888	0.50792	.79815	-.002280
12	4	0.57084	0.50000	.79733	.000000

α	β	x	y	u	v
	5	0.36938	0.57450	.30559	.288646
1	5	0.40952	0.55976	.35291	.320763
2	5	0.42282	0.55732	.40886	.326543
3	5	0.43406	0.55591	.47136	.318193
4	5	0.44564	0.55462	.54020	.293981
5	5	0.45889	0.55290	.61317	.250534
6	5	0.47519	0.55006	.68557	.184831
7	5	0.49614	0.54501	.75037	.096216
8	5	0.52390	0.53589	.79968	-.011799
9	5	0.53885	0.53033	.79854	-.008583
10	5	0.55582	0.52407	.79789	-.006797
11	5	0.57478	0.51709	.79718	-.004865
12	5	0.59643	0.50918	.79637	-.002625
13	5	0.62168	0.50000	.79541	.000000
	6	0.35773	0.59781	.31555	.282460
1	6	0.40713	0.57902	.35899	.314738
2	6	0.42445	0.57557	.41358	.320665
3	6	0.43913	0.57353	.47500	.312451
4	6	0.45423	0.57166	.54281	.288451
5	6	0.47149	0.56925	.61476	.245355
6	6	0.49267	0.56538	.68616	.180201
7	6	0.51984	0.55864	.75002	.092368
8	6	0.55571	0.54664	.79852	-.014625
9	6	0.57025	0.54116	.79739	-.011457
10	6	0.58693	0.53490	.79675	-.009705
11	6	0.60559	0.52793	.79605	-.007810
12	6	0.62688	0.52002	.79523	-.005614
13	6	0.65172	0.51084	.79429	-.003042
14	6	0.68128	0.50000	.79317	.000000
	7	0.34574	0.62604	.32653	.276145
1	7	0.40470	0.60292	.36605	.307995
2	7	0.42683	0.59814	.41906	.314001
3	7	0.44567	0.59524	.47922	.305905
4	7	0.46505	0.59259	.54583	.282126
5	7	0.48717	0.58925	.61659	.239422
6	7	0.51424	0.58406	.68682	.174893
7	7	0.54888	0.57518	.74959	.087965
8	7	0.59442	0.55962	.79714	-.017836
9	7	0.60847	0.55423	.79604	-.014723
10	7	0.62482	0.54799	.79540	-.013006
11	7	0.64312	0.54104	.79470	-.011152
12	7	0.66401	0.53314	.79390	-.009006
13	7	0.68836	0.52397	.79296	-.006493
14	7	0.71736	0.51313	.79186	-.003524
15	7	0.75278	0.50000	.79055	.000000

α	θ	x	y	u	v
	8	0.33368	0.66084	.33871	.269711
1	8	0.40244	0.63322	.37435	.300462
2	8	0.43041	0.62668	.42550	.306432
3	8	0.45437	0.62260	.48415	.298417
4	8	0.47903	0.61887	.54935	.274867
5	8	0.50716	0.61427	.61871	.232605
6	8	0.54150	0.60730	.68757	.168800
7	8	0.58527	0.59567	.74906	.082931
8	8	0.64259	0.57564	.79551	-.021454
9	8	0.65606	0.57037	.79443	-.018404
10	8	0.67202	0.56415	.79380	-.016728
11	8	0.68990	0.55722	.79311	-.014920
12	8	0.71031	0.54935	.79232	-.012827
13	8	0.73411	0.54021	.79139	-.010381
14	8	0.76244	0.52939	.79030	-.007493
15	8	0.79707	0.51627	.78901	-.004072
16	8	0.84042	0.50000	.78748	.000000

$$\theta_s = 50^\circ \quad M_1 = 5.0$$

zero grid

α	β	x	y	u	v
2	4	0.41954	0.50000	.29547	.352135
	4	0.41954	0.50000	.40785	.364543
	6	0.41954	0.50000	.54515	.324846
	8	0.41954	0.50000	.69671	.207579
	10	0.41954	0.50000	.81520	.000000
4	2	0.40992	0.52859	.30886	.341332
	2	0.42226	0.52722	.41647	.354690
	2	0.43299	0.52677	.55028	.315810
	2	0.44822	0.52519	.69838	.200521
	2	0.47486	0.51845	.81406	-.003297
6	2	0.52918	0.50000	.81293	.000000
	4	0.39944	0.56521	.32406	.330066
	4	0.42658	0.56140	.42618	.344009
	4	0.45034	0.55989	.55601	.305888
	4	0.48390	0.55593	.70019	.192629
8	4	0.54209	0.54066	.81264	-.007205
	4	0.59523	0.52221	.81152	-.004043
	4	0.65985	0.50000	.81012	.000000
	6	0.38854	0.61372	.34160	.318331
	6	0.43363	0.60615	.43740	.332148
10	6	0.47385	0.60266	.56257	.294691
	6	0.53041	0.59506	.70222	.183660
	6	0.62751	0.56857	.81092	-.011594
	6	0.67926	0.55016	.80982	-.008577
	6	0.74218	0.52798	.80844	-.004727
12	6	0.82243	0.50000	.80678	.000000
	8	0.37845	0.68083	.36215	.306131
	8	0.44573	0.66783	.45076	.318821
	8	0.50769	0.66093	.57036	.281861
	8	0.59463	0.64764	.70460	.173340
14	8	0.74224	0.60560	.80884	-.016432
	8	0.79233	0.58730	.80776	-.013567
	8	0.85321	0.56523	.80641	-.009920
	8	0.93093	0.53733	.80478	-.005476
	8	1.03626	0.50000	.80282	.000000

8 x 8 grid

1	4	0.41954	0.50000	.29547	.352135
	4	0.41954	0.50000	.34921	.364154
	2	0.41954	0.50000	.40785	.364543
	3	0.41954	0.50000	.47323	.352490
	4	0.41954	0.50000	.54515	.324846
	5	0.41954	0.50000	.62128	.277658
	6	0.41954	0.50000	.69671	.207579
	7	0.41954	0.50000	.76408	.113824
8	0.41954	0.50000	.81520	.000000	

α	β	x	y	u	v
1	1	0.41485	0.51346	.30196	.346790
	1	0.41825	0.51303	.35432	.358962
	1	0.42076	0.51289	.41203	.359429
	1	0.42319	0.51281	.47656	.347479
	1	0.42587	0.51271	.54763	.320039
	1	0.42907	0.51249	.62289	.273229
	1	0.43313	0.51198	.69747	.203785
	1	0.43851	0.51091	.76409	.110990
	1	0.44584	0.50878	.81467	-.001548
	1	0.47188	0.50000	.81415	.000000
2	2	0.40992	0.52859	.30886	.341332
	2	0.41701	0.52757	.35974	.353808
	2	0.42228	0.52721	.41644	.354424
	2	0.42737	0.52698	.48008	.342631
	2	0.43298	0.52671	.55025	.315428
	2	0.43966	0.52619	.62461	.268998
	2	0.44812	0.52508	.69830	.200127
	2	0.45930	0.52280	.76411	.108127
	2	0.47451	0.51831	.81402	-.003405
	2	0.50027	0.50953	.81350	-.001890
3	3	0.40477	0.54570	.31621	.335757
	3	0.41589	0.54393	.36551	.348458
	3	0.42419	0.54324	.42113	.349193
	3	0.43223	0.54280	.48379	.337544
	3	0.44105	0.54228	.55301	.310576
	3	0.45156	0.54138	.62641	.264533
	3	0.46485	0.53955	.69916	.196258
	3	0.48237	0.53588	.76411	.105093
	3	0.50613	0.52876	.81331	-.005374
	3	0.53160	0.51999	.81280	-.003892
4	3	0.55940	0.51046	.81216	-.002039
	3	0.59008	0.50000	.81146	.000000
4	4	0.39944	0.56521	.32406	.330066
	4	0.41495	0.56250	.37168	.342889
	4	0.42661	0.56138	.42614	.343705
	4	0.43792	0.56062	.48775	.332184
	4	0.45033	0.55977	.55594	.305450
	4	0.46508	0.55837	.62832	.259808
	4	0.48370	0.55568	.70007	.192156
	4	0.50821	0.55042	.76410	.101871
	4	0.54135	0.54034	.81254	-.007457
	4	0.56650	0.53158	.81203	-.006010
	4	0.59396	0.52206	.81139	-.004196
	4	0.62428	0.51160	.81070	-.002200
	4	0.65807	0.50000	.80994	.000000

α	β	x	y	u	v
	5	0.39399	0.58765	.33250	.324257
1	5	0.41430	0.58382	.37831	.337079
2	5	0.42970	0.58212	.43152	.337927
3	5	0.44468	0.58093	.49200	.326511
4	5	0.46111	0.57964	.55909	.300008
5	5	0.48063	0.57761	.63036	.254780
6	5	0.50522	0.57388	.70103	.187784
7	5	0.53750	0.56675	.76408	.098438
8	5	0.58103	0.55332	.81169	-.009664
9	5	0.60583	0.54457	.81118	-.008253
10	5	0.63293	0.53506	.81055	-.006479
11	5	0.66285	0.52460	.80986	-.004528
12	5	0.69620	0.51301	.80911	-.002381
13	5	0.73385	0.50000	.80828	.000000
	6	0.38854	0.61372	.34160	.318331
1	6	0.41407	0.60856	.38550	.331004
2	6	0.43370	0.60612	.43734	.331826
3	6	0.45283	0.60437	.49660	.320489
4	6	0.47384	0.60248	.56248	.294213
5	6	0.49876	0.59966	.63255	.249416
6	6	0.53010	0.59466	.70206	.183117
7	6	0.57115	0.58534	.76404	.094779
8	6	0.62632	0.56803	.81076	-.011988
9	6	0.65073	0.55932	.81025	-.010614
10	6	0.67744	0.54982	.80963	-.008880
11	6	0.70693	0.53938	.80895	-.006976
12	6	0.73980	0.52779	.80820	-.004883
13	6	0.77692	0.51479	.80738	-.002566
14	6	0.81941	0.50000	.80648	.000000
	7	0.38326	0.64437	.35144	.312286
1	7	0.41451	0.63765	.39334	.324641
2	7	0.43891	0.63429	.44369	.325362
3	7	0.46283	0.63179	.50161	.314071
4	7	0.48909	0.62913	.56618	.288014
5	7	0.52023	0.62530	.63494	.243667
6	7	0.55932	0.61874	.70318	.178115
7	7	0.61039	0.60679	.76399	.090871
8	7	0.67878	0.58497	.80974	-.014426
9	7	0.70277	0.57629	.80924	-.013091
10	7	0.72905	0.56682	.80862	-.011400
11	7	0.75806	0.55640	.80794	-.009543
12	7	0.79042	0.54484	.80720	-.007506
13	7	0.82695	0.53186	.80639	-.005254
14	7	0.86879	0.51708	.80550	-.002767
15	7	0.91745	0.50000	.80452	.000000

<i>i</i>	<i>x</i>	<i>y</i>	<i>u</i>	<i>v</i>
1	8	0.37845	0.68083	.36215
2	8	0.41596	0.67233	.40154
3	8	0.44584	0.66780	.45067
4	8	0.47529	0.66434	.50711
5	8	0.50768	0.66067	.57023
6	8	0.54608	0.65555	.63756
7	8	0.59420	0.64705	.70440
8	8	0.65689	0.63194	.76393
9	8	0.74053	0.60478	.80861
10	8	0.76404	0.59615	.80812
11	8	0.78984	0.58671	.80751
12	8	0.81833	0.57634	.80684
13	8	0.85012	0.56481	.80611
14	8	0.88602	0.55186	.80530
15	8	0.92714	0.53711	.80442
16	8	0.97499	0.52005	.80346
		1.03163	0.50000	.80240

$$\theta_s = 50^\circ \quad M_1 = 7.0$$

zero grid

α	β	x	y	u	v
2	41954	0.41954	0.50000	.32138	.383006
	41954	0.41954	0.50000	.42943	.383836
	41954	0.41954	0.50000	.56545	.336939
	41954	0.41954	0.50000	.71540	.213145
	41954	0.41954	0.50000	.83089	.000000
2	2	0.41452	0.52916	.33411	.372680
	2	0.42442	0.52914	.43850	.373900
	2	0.43570	0.52924	.57102	.327821
	2	0.45314	0.52800	.71738	.206239
	2	0.48538	0.52059	.83003	-.002666
10	2	0.55024	0.50000	.82917	.000000
2	4	0.40962	0.56596	.34833	.361963
	4	0.43143	0.56532	.44854	.363338
	4	0.45630	0.56504	.57715	.318014
	4	0.49452	0.56179	.71953	.198670
	4	0.56459	0.54516	.82895	-.005804
10	4	0.62830	0.52457	.82810	-.003257
12	4	0.70497	0.50000	.82705	.000000
2	6	0.40545	0.61360	.36440	.350846
	6	0.44182	0.61160	.45985	.351991
	6	0.48352	0.61026	.58402	.307341
	6	0.54732	0.60391	.72193	.190389
	6	0.66317	0.57545	.82773	-.009136
10	6	0.72557	0.55490	.82689	-.006711
12	6	0.80064	0.53036	.82585	-.003619
14	6	0.89440	0.50000	.82466	.000000
2	8	0.40335	0.67732	.38277	.339319
	8	0.45783	0.67298	.47281	.339713
	8	0.52109	0.66959	.59188	.295607
	8	0.61754	0.65852	.72468	.181254
	8	0.79097	0.61435	.82634	-.012582
10	8	0.85186	0.59390	.82551	-.010279
12	8	0.92510	0.56947	.82449	-.007349
14	8	1.01666	0.53918	.82332	-.003952
16	8	1.13627	0.50000	.82200	.000000

8 x 8 grid

1	41954	0.41954	0.50000	.32138	.383006
2	41954	0.41954	0.50000	.37207	.387992
3	41954	0.41954	0.50000	.42943	.383836
4	41954	0.41954	0.50000	.49410	.368034
5	41954	0.41954	0.50000	.56545	.336939
6	41954	0.41954	0.50000	.64091	.286428
7	41954	0.41954	0.50000	.71540	.213145
8	41954	0.41954	0.50000	.78145	.116412
				.83089	.000000

<i>C</i>	<i>x</i>	<i>y</i>	<i>u</i>	<i>v</i>
1	0.41704	0.51377	.32701	.37268
1	0.41946	0.51377	.37111	.37268
2	0.42177	0.51382	.43386	.363111
3	0.42426	0.51389	.49769	.363111
4	0.42716	0.51391	.56817	.332252
5	0.43076	0.51379	.64273	.282182
6	0.43548	0.51334	.71635	.209636
7	0.44191	0.51223	.78165	.114003
8	0.45090	0.50981	.83059	-.000939
9	0.48205	0.50000	.83029	.000000
10	2	0.41452	0.52916	.33411
1	2	0.41959	0.52907	.38286
2	2	0.42443	0.52912	.43849
3	2	0.42963	0.52920	.50144
4	2	0.43568	0.52918	.57100
5	2	0.44320	0.52887	.64464
6	2	0.45303	0.52788	.71734
7	2	0.46637	0.52551	.78182
8	2	0.48501	0.52045	.83008
9	2	0.51591	0.51063	.82978
10	2	0.54947	0.50000	.82928
11	3	0.41203	0.54644	.34101
1	3	0.42000	0.54617	.38869
2	3	0.42761	0.54617	.44337
3	3	0.43579	0.54620	.50537
4	3	0.44531	0.54609	.57398
5	3	0.45712	0.54550	.64661
6	3	0.47251	0.54386	.71838
7	3	0.49337	0.54005	.78199
8	3	0.52243	0.53207	.82954
9	3	0.55306	0.52224	.82925
10	3	0.58631	0.51161	.82875
11	3	0.62283	0.50000	.82822
12	4	0.40962	0.56596	.34833
1	4	0.42078	0.56543	.39486
2	4	0.43145	0.56528	.44852
3	4	0.44293	0.56521	.50953
4	4	0.45627	0.56492	.57711
5	4	0.47280	0.56397	.64871
6	4	0.49431	0.56154	.71947
7	4	0.52339	0.55610	.78211
8	4	0.56380	0.54485	.82891
9	4	0.59415	0.53503	.82861
10	4	0.62707	0.52441	.82811
11	4	0.66322	0.51279	.82711
12	4	0.70324	0.50000	.82713

α	β	x	y	u	v
	5	0.40738	0.58816	.35611	.356455
1	5	0.42206	0.58727	.40141	.361551
2	5	0.43613	0.58690	.45398	.357622
3	5	0.45127	0.58663	.51393	.342411
4	5	0.46887	0.58609	.58043	.312545
5	5	0.49064	0.58466	.65096	.264211
6	5	0.51892	0.58129	.72062	.194371
7	5	0.55709	0.57395	.78234	.102561
8	5	0.60996	0.55904	.82836	-.007448
9	5	0.63999	0.54923	.82806	-.006621
10	5	0.67256	0.53862	.82757	-.005146
11	5	0.70833	0.52701	.82704	-.003562
12	5	0.74793	0.51422	.82648	-.001851
13	5	0.79217	0.50000	.82588	.000000
	6	0.40545	0.61360	.36440	.350846
1	6	0.42400	0.61223	.40840	.355309
2	6	0.44187	0.61154	.45981	.351840
3	6	0.46111	0.61098	.51861	.336706
4	6	0.48349	0.61007	.58396	.307079
5	6	0.51113	0.60804	.65332	.259206
6	6	0.54698	0.60352	.72184	.190110
7	6	0.59525	0.59399	.78252	.099380
8	6	0.66191	0.57494	.82770	-.009192
9	6	0.69161	0.56514	.82741	-.008393
10	6	0.72381	0.55454	.82692	-.006953
11	6	0.75917	0.54295	.82640	-.005409
12	6	0.79833	0.53017	.82584	-.003744
13	6	0.84209	0.51596	.82525	-.001946
14	6	0.89147	0.50000	.82461	.000000
	7	0.40402	0.64300	.37326	.345135
1	7	0.42686	0.64102	.41588	.349882
2	7	0.44898	0.63990	.46604	.345825
3	7	0.47286	0.63894	.52363	.330743
4	7	0.50065	0.63753	.58774	.301349
5	7	0.53493	0.63473	.65584	.253951
6	7	0.57933	0.62883	.72315	.185638
7	7	0.63898	0.61674	.78273	.096055
8	7	0.72107	0.59295	.82700	-.010966
9	7	0.75041	0.58317	.82672	-.010196
10	7	0.78220	0.57260	.82623	-.008790
11	7	0.81713	0.56103	.82571	-.007285
12	7	0.85581	0.54827	.82516	-.005665
13	7	0.89905	0.53407	.82457	-.003920
14	7	0.94786	0.51812	.82394	-.002036
15	7	1.00363	0.50000	.82327	.000000

<i>B</i>	x	y	u	v
1	0.40335	0.67732	.38277	.33451
2	0.43096	0.67460	.42392	
3	0.45791	0.67290	.47275	.33920
4	0.48709	0.67140	.52902	.324499
5	0.52105	0.66933	.59180	.295328
6	0.56293	0.66553	.65356	.248419
7	0.61708	0.65795	.72456	.180933
8	0.68965	0.64283	.78295	.092373
9	0.78919	0.61358	.82626	-.012757
10	0.81813	0.60383	.82598	-.012016
11	0.84949	0.59330	.82550	-.010646
12	0.88395	0.58177	.82498	-.009180
13	0.92212	0.56904	.82444	-.007604
14	0.96480	0.55488	.82385	-.005912
15	1.01300	0.53895	.82323	-.004039
16	1.06810	0.52083	.82256	-.002126
	1.13182	0.50000	.82186	.000000