



Shenzhen Belling Efficiency Testing Laboratory Co., Ltd.
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Client:

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.04

LampCAT:

Current(A): 0.1570

Lamp flux(lm): -1.0

Power (W): 17.88

Number of Lamps: 1

PF: 0.9464

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1197.16, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 66.96

Central intensity(cd): 444.221, Maximum intensity(cd): 450.596

Angle of maximum intensity: C=112.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=105.5

[C90/270]Total=109.9

Field angle(10%Imax): [C0/180]Total=156.6

[C90/270]Total=160.1

Maximum s/h(1/2): C0_180=1.25 C90_270=1.27

Maximum s/h(1/4): C0_180=1.36 C90_270=1.38

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.45%

Down flux rate of LUM(%): 99.55%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.804%

Equipment: GMS-3000
Temperature(°C): 25

Date:
Humidity(%): 59%

Operator: Tester

Zonal flux distribution table

Appendix Page: 2 Total:9

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	444.221	0.000	0	0.00%	0.00%
5.0	441.970	10.594	10.594	0.00%	0.88%
10.0	434.687	31.361	41.955	0.00%	3.50%
15.0	422.747	50.862	92.817	0.00%	7.75%
20.0	406.578	68.348	161.165	0.00%	13.46%
25.0	386.428	83.172	244.337	0.00%	20.41%
30.0	363.290	94.877	339.214	0.00%	28.34%
35.0	337.007	103.124	442.338	0.00%	36.95%
40.0	308.819	107.751	550.089	0.00%	45.95%
45.0	278.464	108.740	658.83	0.00%	55.03%
50.0	246.387	106.054	764.883	0.00%	63.89%
55.0	213.187	99.927	864.81	0.00%	72.24%
60.0	178.630	90.568	955.378	0.00%	79.80%
65.0	143.382	78.282	1033.66	0.00%	86.34%
70.0	107.377	63.494	1097.153	0.00%	91.65%
75.0	72.050	46.899	1144.053	0.00%	95.56%
80.0	38.668	29.625	1173.677	0.00%	98.04%
85.0	13.194	14.092	1187.769	0.00%	99.22%
90.0	1.449	4.009	1191.779	0.00%	99.55%
95.0	0.561	0.550	1192.329	0.00%	99.60%
100.0	0.548	0.301	1192.63	0.00%	99.62%
105.0	0.613	0.311	1192.941	0.00%	99.65%
110.0	0.679	0.338	1193.279	0.00%	99.68%
115.0	0.731	0.357	1193.636	0.00%	99.71%
120.0	0.757	0.362	1193.997	0.00%	99.74%
125.0	0.809	0.362	1194.359	0.00%	99.77%
130.0	0.900	0.372	1194.731	0.00%	99.80%
135.0	0.966	0.377	1195.108	0.00%	99.83%
140.0	1.031	0.370	1195.478	0.00%	99.86%
145.0	1.044	0.346	1195.824	0.00%	99.89%
150.0	1.122	0.319	1196.143	0.00%	99.92%
155.0	1.227	0.297	1196.44	0.00%	99.94%
160.0	1.240	0.259	1196.699	0.00%	99.96%
165.0	1.188	0.200	1196.899	0.00%	99.98%
170.0	1.201	0.142	1197.04	0.00%	99.99%
175.0	1.214	0.086	1197.127	0.00%	100.00%
180.0	1.241	0.029	1197.156	0.00%	100.00%

Equipment: GMS-3000
Temperature($^{\circ}\text{C}$): 25

Date:
Humidity(%): 59%

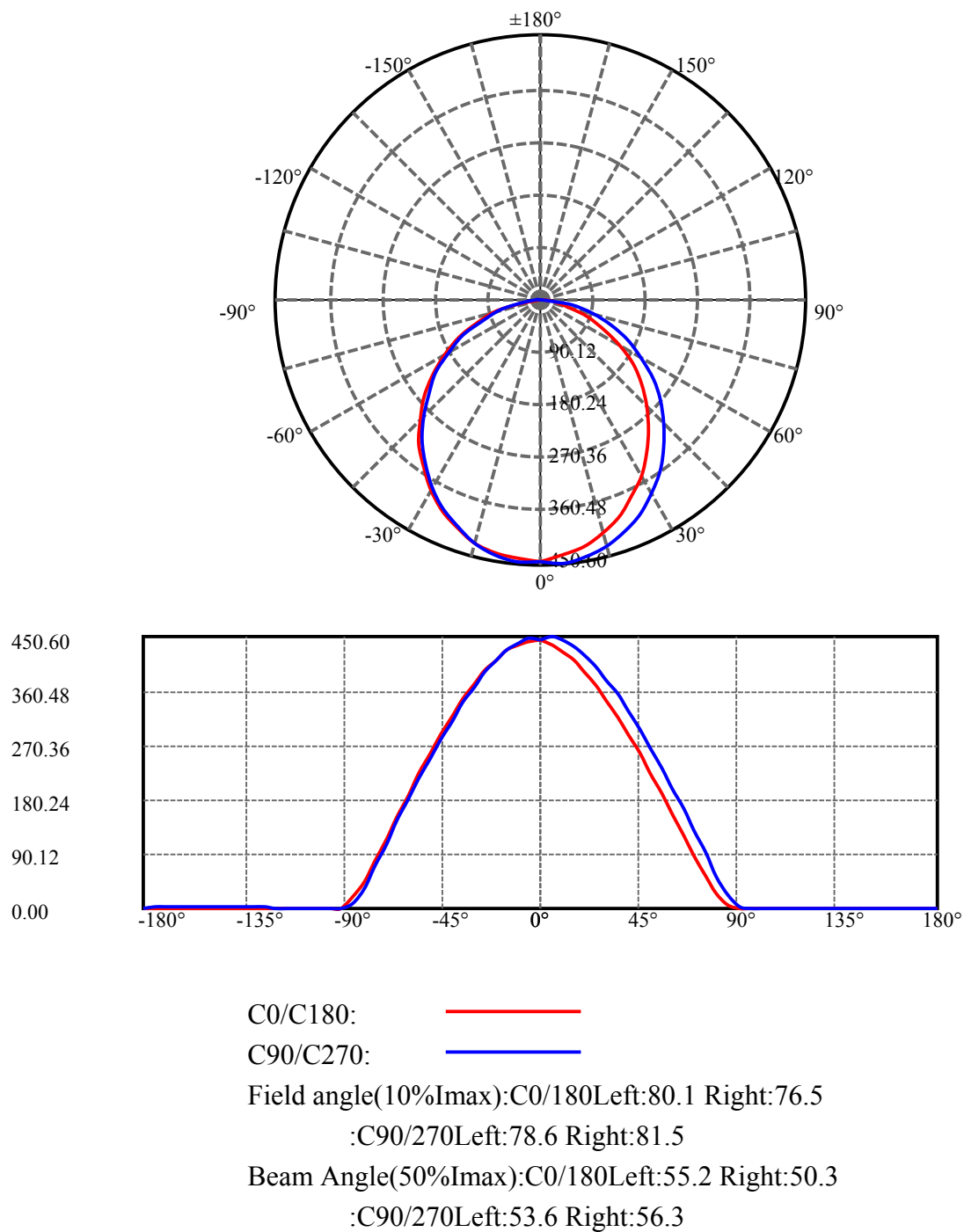
Operator: Tester

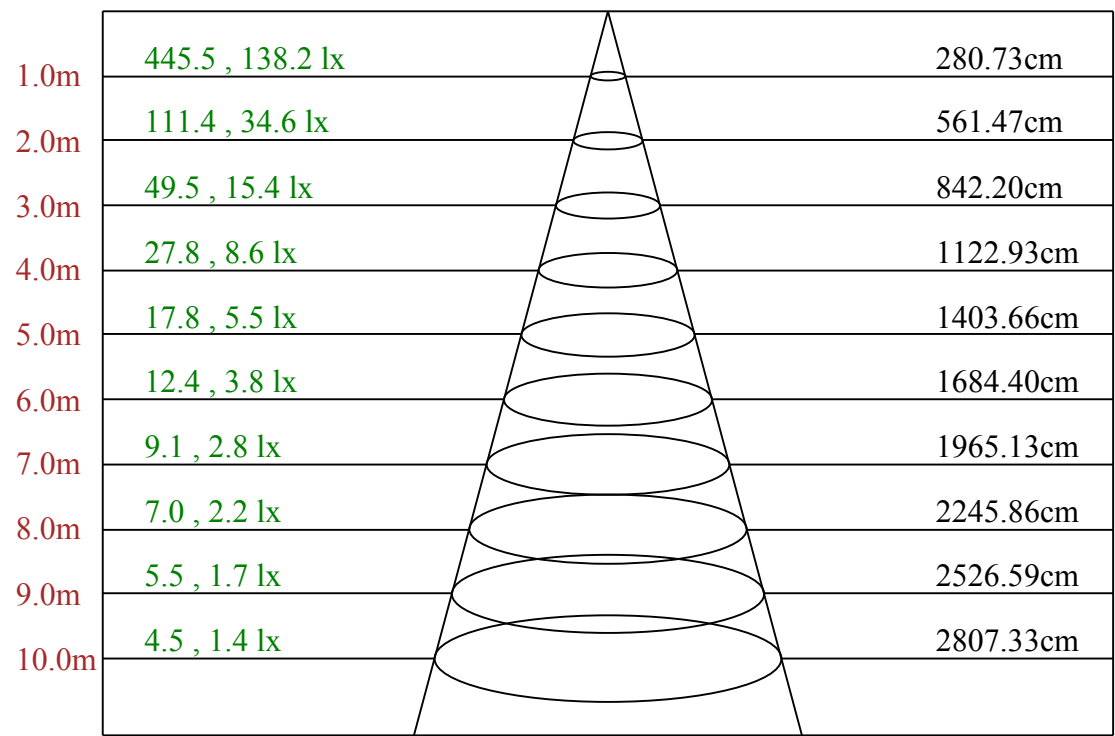
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	339.21	N.A.	28.34%
0-40	550.09	N.A.	45.95%
0-60	955.38	N.A.	79.80%
0-90	1191.78	N.A.	99.55%
0-120	1194.00	N.A.	99.74%
0-180	1197.16	N.A.	100.00%
60-90	236.40	N.A.	19.75%
90-120	2.22	N.A.	0.19%
90-130	2.95	N.A.	0.25%
90-150	4.36	N.A.	0.36%
90-180	5.35	N.A.	0.45%
0-60.15	957.73	N.A.	80.00%

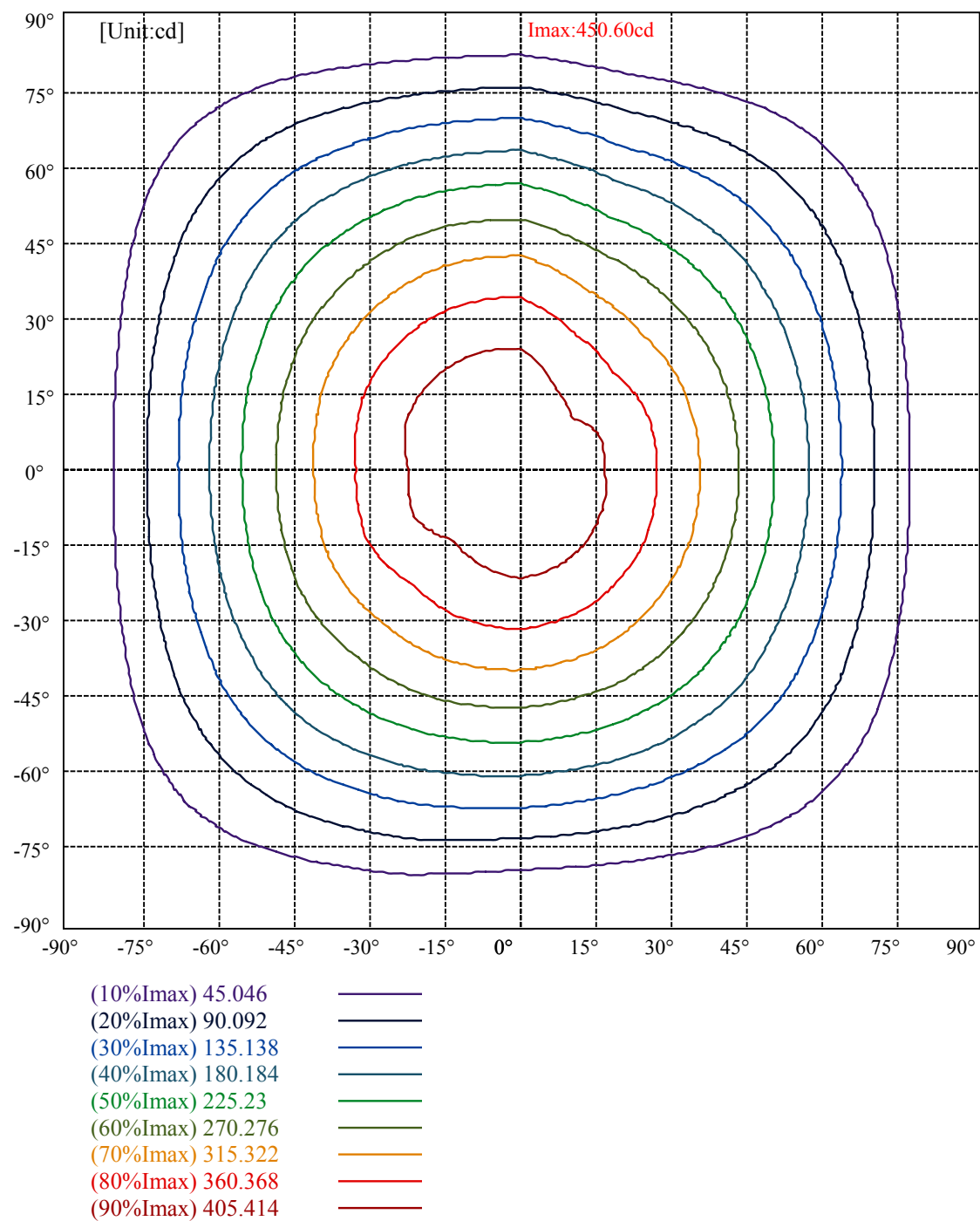
ZONAL LUMEN SUMMARY

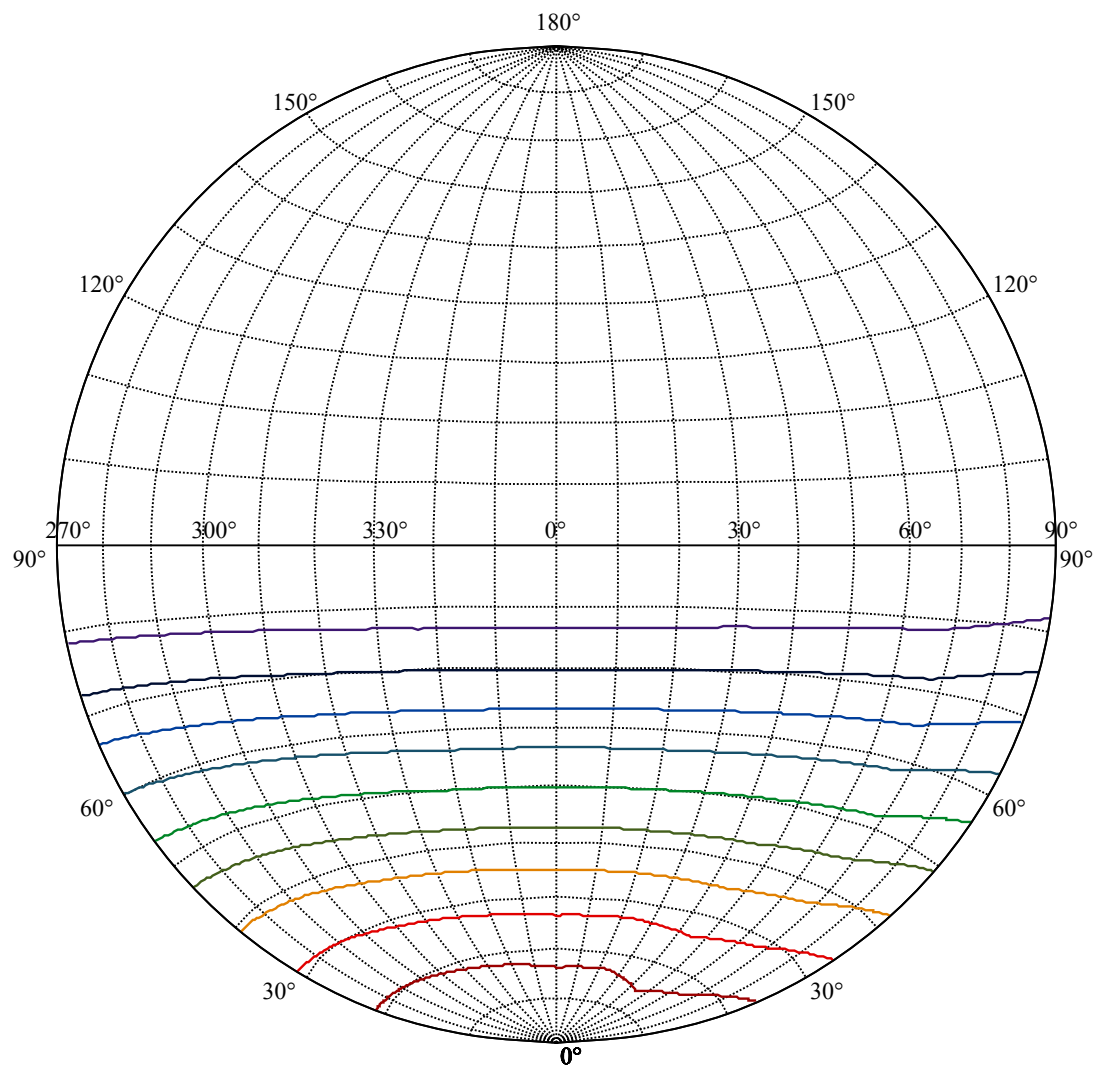
0-10	41.95
10-20	119.21
20-30	178.05
30-40	210.87
40-50	214.79
50-60	190.49
60-70	141.78
70-80	76.52
80-90	18.10
90-100	0.85
100-110	0.65
110-120	0.72
120-130	0.73
130-140	0.75
140-150	0.67
150-160	0.56
160-170	0.34
170-180	0.09





Max , Ave Beam angle of C112.5 plane 109.07





House

[Unit:cd]

Road

Imax:450.60	
(10%Imax) 45.0591	
(20%Imax) 90.1183	
(30%Imax) 135.177	
(40%Imax) 180.237	
(50%Imax) 225.296	
(60%Imax) 270.355	
(70%Imax) 315.414	
(80%Imax) 360.473	
(90%Imax) 405.532	

C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	444.22	435.77	425.96	410.71	392.34	368.75	343.48	315.92	287.52
22.5	444.22	438.90	427.84	412.59	393.80	370.62	345.15	316.96	288.15
45.0	444.22	426.17	416.98	403.20	385.45	365.20	341.81	315.92	288.15
67.5	444.22	434.52	425.96	413.64	397.14	376.89	354.13	327.82	299.63
90.0	444.22	449.34	443.71	433.68	419.28	400.90	378.56	354.55	327.40
112.5	444.22	450.60	445.79	435.98	421.36	402.99	382.11	356.64	329.28
135.0	444.22	450.39	446.00	436.40	421.78	403.62	381.07	354.76	326.57
157.5	444.22	449.97	445.79	435.77	421.99	403.20	380.23	354.55	325.52
180.0	444.22	441.41	436.61	427.00	412.80	394.64	372.71	347.03	319.26
202.5	444.22	445.38	440.36	431.39	416.56	397.56	375.64	349.54	320.51
225.0	444.22	430.55	425.54	416.35	402.57	384.41	362.90	338.47	313.20
247.5	444.22	437.23	431.80	421.99	406.54	388.16	366.66	341.60	313.83
270.0	444.22	447.46	439.32	427.00	410.30	390.67	367.08	340.35	311.33
292.5	444.22	446.21	437.23	423.45	406.12	384.20	360.81	334.08	304.64
315.0	444.22	444.54	434.10	418.86	401.11	378.35	352.67	324.48	295.66
337.5	444.22	443.08	432.01	415.94	396.10	372.71	347.66	319.47	290.44
360.0	444.22	435.77	425.96	410.71	392.34	368.75	343.48	315.92	287.52
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	257.04	224.05	191.26	156.60	121.11	86.03	53.45	24.01	4.59
22.5	257.04	225.09	191.47	158.27	124.24	89.16	56.17	26.31	6.06
45.0	259.75	229.06	196.90	163.08	129.46	94.59	60.76	29.65	7.93
67.5	269.15	236.78	204.42	170.80	136.14	101.69	67.23	35.08	9.81
90.0	296.92	264.97	233.23	199.41	164.33	128.62	91.46	54.50	22.97
112.5	298.80	266.85	232.61	197.32	163.08	125.91	88.12	51.78	21.92
135.0	295.46	262.47	229.47	194.60	159.53	121.73	85.61	50.53	20.25
157.5	294.20	261.63	228.64	192.10	155.14	118.18	82.06	47.61	19.00
180.0	288.98	257.66	223.84	188.55	151.80	115.47	78.93	44.89	18.38
202.5	290.65	259.33	224.67	188.13	152.64	115.05	78.51	45.73	17.54
225.0	284.60	253.90	221.33	189.18	152.64	115.89	80.81	45.31	17.33
247.5	285.22	252.65	218.83	186.04	150.76	116.30	81.43	46.77	17.96
270.0	281.05	248.89	215.48	180.61	145.54	107.74	70.16	34.87	9.40
292.5	273.74	241.17	207.97	172.26	136.35	100.23	64.31	30.49	7.31
315.0	264.97	232.82	199.82	163.91	128.00	92.71	59.09	27.14	5.85
337.5	257.87	224.88	191.05	157.23	123.40	88.74	54.71	24.01	4.80
360.0	257.04	224.05	191.26	156.60	121.11	86.03	53.45	24.01	4.59
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.63	0.63	0.84	0.84	1.04	0.84	0.84	1.04	1.04
22.5	0.63	0.84	0.63	0.63	0.63	0.63	1.04	1.04	1.04
45.0	1.04	0.63	0.84	0.84	0.84	0.84	1.04	1.04	1.04
67.5	0.84	0.63	0.84	0.63	0.84	0.84	1.04	0.84	1.04
90.0	3.13	0.42	0.63	0.84	0.63	0.63	0.63	0.63	0.84
112.5	3.76	0.42	0.42	0.42	0.42	0.63	0.63	0.63	0.84
135.0	2.51	0.42	0.42	0.42	0.21	0.42	0.42	0.42	0.42
157.5	1.88	0.42	0.21	0.42	0.42	0.42	0.42	0.63	0.63
180.0	1.25	0.21	0.21	0.21	0.42	0.63	0.63	0.63	0.63
202.5	1.46	0.42	0.21	0.42	0.42	0.84	0.42	0.63	0.63
225.0	1.25	0.42	0.21	0.21	0.42	0.42	0.42	0.42	0.63
247.5	1.46	0.21	0.21	0.21	0.63	0.42	0.42	0.42	0.63
270.0	1.04	1.25	1.04	1.25	1.25	1.25	1.25	1.46	1.67
292.5	0.63	0.84	0.63	0.84	1.04	1.04	1.04	1.04	1.25
315.0	0.84	0.63	0.84	0.84	0.84	1.04	0.84	1.25	1.04
337.5	0.84	0.63	0.63	0.84	0.84	0.84	1.04	0.84	1.04
360.0	0.63	0.63	0.84	0.84	1.04	0.84	0.84	1.04	1.04

C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.25	1.25	1.25	1.25	1.25	1.25	1.04	1.04	0.84
22.5	1.25	1.04	1.04	1.04	1.46	1.25	1.25	1.25	1.25
45.0	1.25	1.04	1.25	1.04	1.25	1.46	1.25	1.25	1.46
67.5	1.04	1.25	1.04	1.25	1.25	1.04	1.04	1.04	1.25
90.0	1.04	1.25	1.04	1.25	1.04	1.25	1.25	1.25	1.25
112.5	0.63	0.84	1.04	1.04	1.04	1.25	1.04	1.04	1.04
135.0	0.84	0.84	0.84	1.04	1.04	1.04	1.04	1.04	1.04
157.5	0.63	0.84	0.84	0.84	1.04	1.25	1.04	1.04	1.25
180.0	0.63	0.84	1.04	1.04	1.25	1.04	1.25	1.25	1.04
202.5	0.63	0.84	0.63	0.84	1.25	1.25	1.04	1.04	1.25
225.0	0.63	0.63	0.63	0.84	1.25	1.04	1.04	1.25	1.25
247.5	0.63	0.84	0.84	0.84	0.84	0.84	1.04	1.04	1.25
270.0	1.67	1.67	1.46	1.88	1.88	1.88	1.67	1.67	2.09
292.5	1.25	1.25	1.25	1.25	1.25	1.46	1.25	1.46	1.04
315.0	1.04	1.04	1.25	1.25	1.25	1.04	1.46	1.25	1.04
337.5	1.04	1.04	1.25	1.25	1.25	1.46	1.25	1.25	1.04
360.0	1.25	1.25	1.25	1.25	1.25	1.25	1.04	1.04	0.84

C/ γ (°)	180.0
0.0	1.24
22.5	1.24
45.0	1.24
67.5	1.24
90.0	1.24
112.5	1.24
135.0	1.24
157.5	1.24
180.0	1.24
202.5	1.24
225.0	1.24
247.5	1.24
270.0	1.24
292.5	1.24
315.0	1.24
337.5	1.24
360.0	1.24