



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.05

LampCAT:

Current(A): 0.0680

Lamp flux(lm): -1.0

Power (W): 7.91

Number of Lamps: 1

PF: 0.9749

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 493.50, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 62.39

Central intensity(cd): 177.248, Maximum intensity(cd): 180.188

Angle of maximum intensity: C=90.0 $\gamma=5.0$

Beam Angle(50%Imax): [C0/180]Total=108.7

[C90/270]Total=113.6

Field angle(10%Imax): [C0/180]Total=153.9

[C90/270]Total=161.2

Maximum s/h(1/2): C0_180=1.20 C90_270=1.29

Maximum s/h(1/4): C0_180=1.33 C90_270=1.41

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.79%

Down flux rate of LUM(%): 99.21%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.783%

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

Date:
Humidity(%): 58%

Operator: Tester

Zonal flux distribution table

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$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	177.248	0.000	0	0.00%	0.00%
5.0	176.614	4.230	4.23	0.00%	0.86%
10.0	174.151	12.548	16.778	0.00%	3.40%
15.0	169.917	20.410	37.188	0.00%	7.54%
20.0	164.316	27.545	64.734	0.00%	13.12%
25.0	157.063	33.707	98.44	0.00%	19.95%
30.0	148.565	38.677	137.118	0.00%	27.78%
35.0	138.760	42.310	179.428	0.00%	36.36%
40.0	128.083	44.521	223.949	0.00%	45.38%
45.0	116.251	45.240	269.189	0.00%	54.55%
50.0	103.398	44.383	313.573	0.00%	63.54%
55.0	89.793	42.006	355.579	0.00%	72.05%
60.0	75.243	38.148	393.727	0.00%	79.78%
65.0	60.063	32.893	426.62	0.00%	86.45%
70.0	44.356	26.439	453.059	0.00%	91.81%
75.0	28.875	19.141	472.201	0.00%	95.68%
80.0	14.130	11.507	483.708	0.00%	98.02%
85.0	3.303	4.737	488.445	0.00%	98.98%
90.0	0.841	1.135	489.579	0.00%	99.21%
95.0	0.436	0.350	489.929	0.00%	99.28%
100.0	0.451	0.241	490.17	0.00%	99.33%
105.0	0.451	0.241	490.411	0.00%	99.37%
110.0	0.451	0.236	490.646	0.00%	99.42%
115.0	0.526	0.247	490.894	0.00%	99.47%
120.0	0.601	0.274	491.167	0.00%	99.53%
125.0	0.616	0.281	491.449	0.00%	99.59%
130.0	0.706	0.287	491.736	0.00%	99.64%
135.0	0.706	0.285	492.021	0.00%	99.70%
140.0	0.751	0.270	492.291	0.00%	99.76%
145.0	0.826	0.263	492.554	0.00%	99.81%
150.0	0.796	0.239	492.793	0.00%	99.86%
155.0	0.856	0.209	493.002	0.00%	99.90%
160.0	0.841	0.178	493.18	0.00%	99.94%
165.0	0.796	0.135	493.315	0.00%	99.96%
170.0	0.856	0.098	493.413	0.00%	99.98%
175.0	0.856	0.061	493.474	0.00%	100.00%
180.0	0.975	0.022	493.496	0.00%	100.00%

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

Date:
Humidity(%): 58%

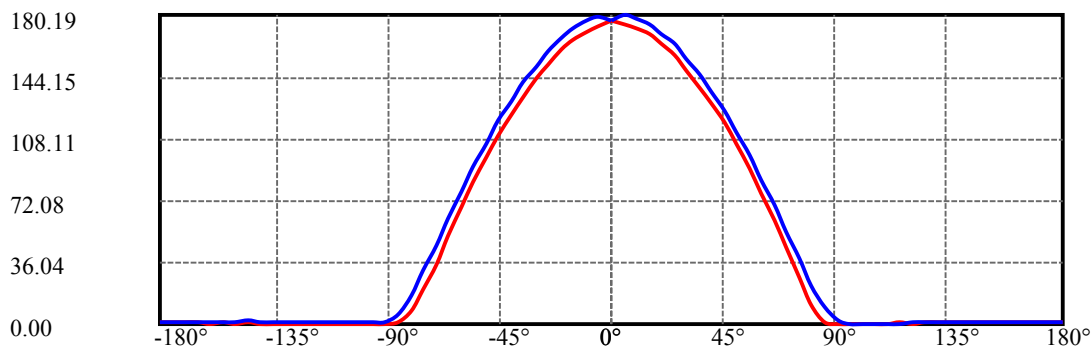
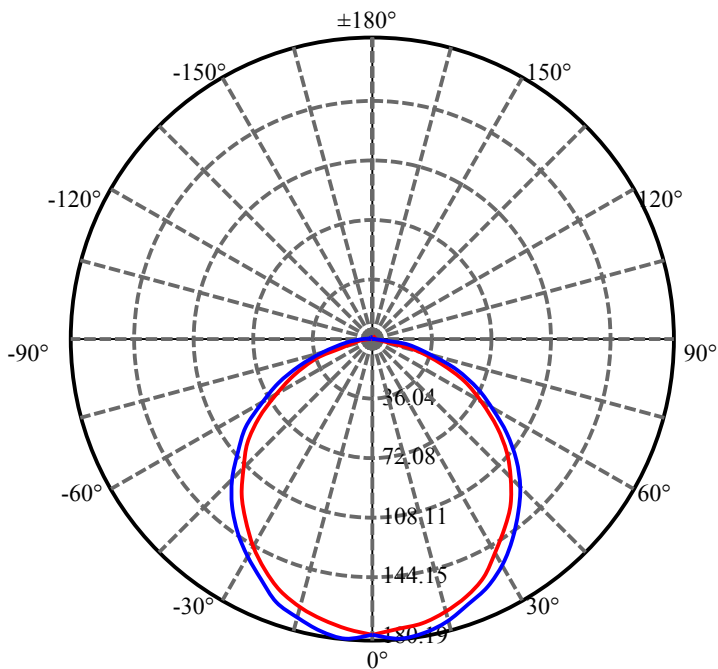
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	137.12	N.A.	27.78%
0-40	223.95	N.A.	45.38%
0-60	393.73	N.A.	79.78%
0-90	489.58	N.A.	99.21%
0-120	491.17	N.A.	99.53%
0-180	493.50	N.A.	100.00%
60-90	95.85	N.A.	19.42%
90-120	1.59	N.A.	0.32%
90-130	2.16	N.A.	0.44%
90-150	3.21	N.A.	0.65%
90-180	3.89	N.A.	0.79%
0-60.16	394.80	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	16.78
10-20	47.96
20-30	72.38
30-40	86.83
40-50	89.62
50-60	80.15
60-70	59.33
70-80	30.65
80-90	5.87
90-100	0.59
100-110	0.48
110-120	0.52
120-130	0.57
130-140	0.56
140-150	0.50
150-160	0.39
160-170	0.23
170-180	0.06

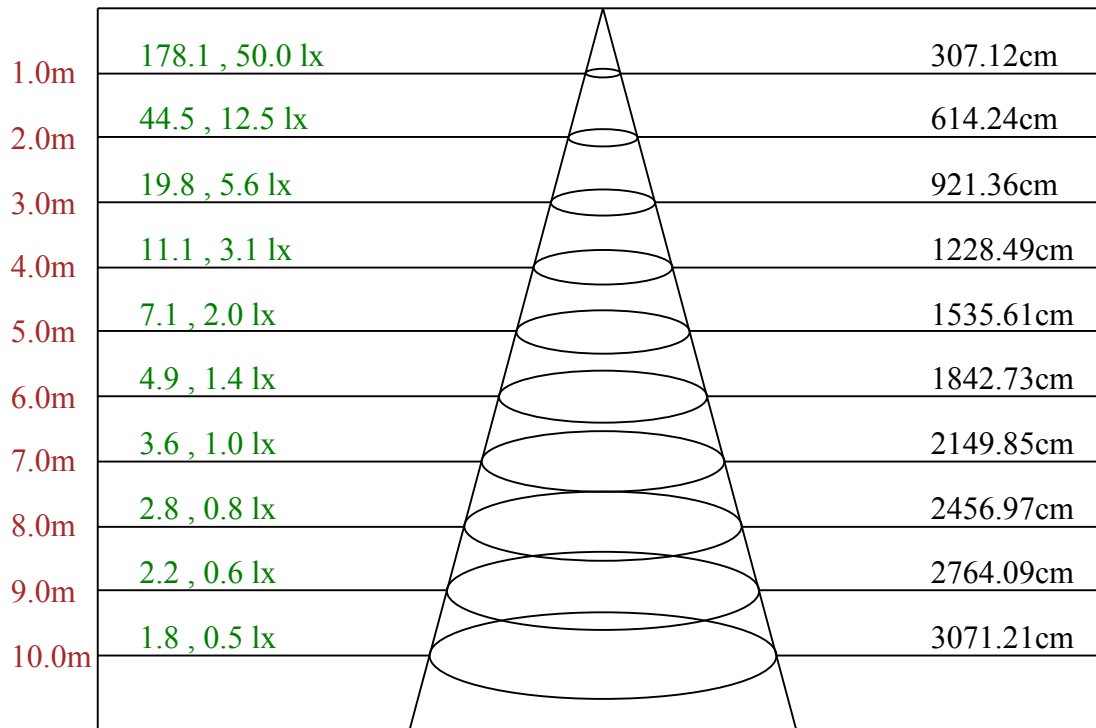


C0/C180: —

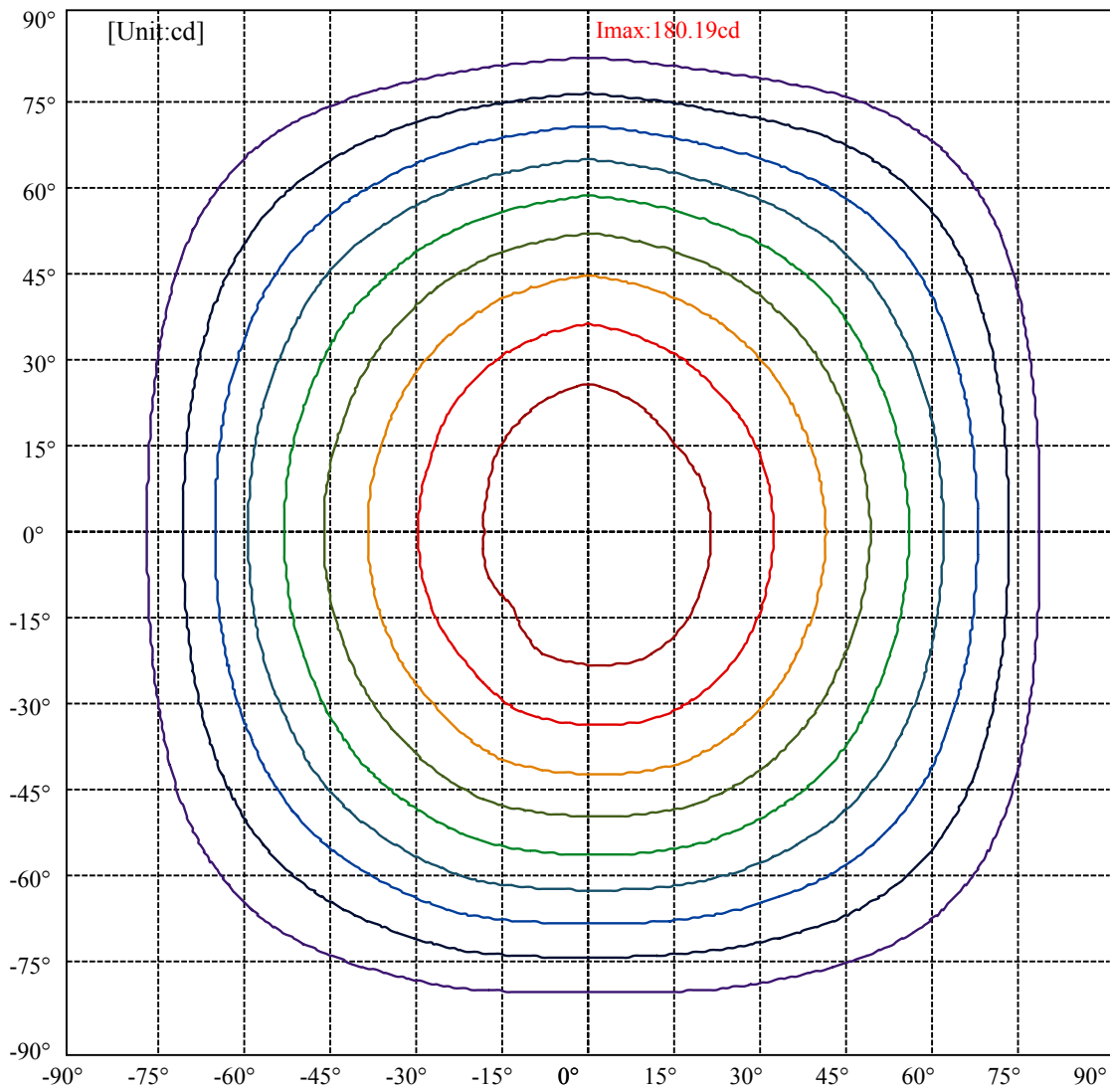
C90/C270: —

Field angle(10%Imax):C0/180Left:76.0 Right:77.9
 :C90/270Left:79.4 Right:81.8

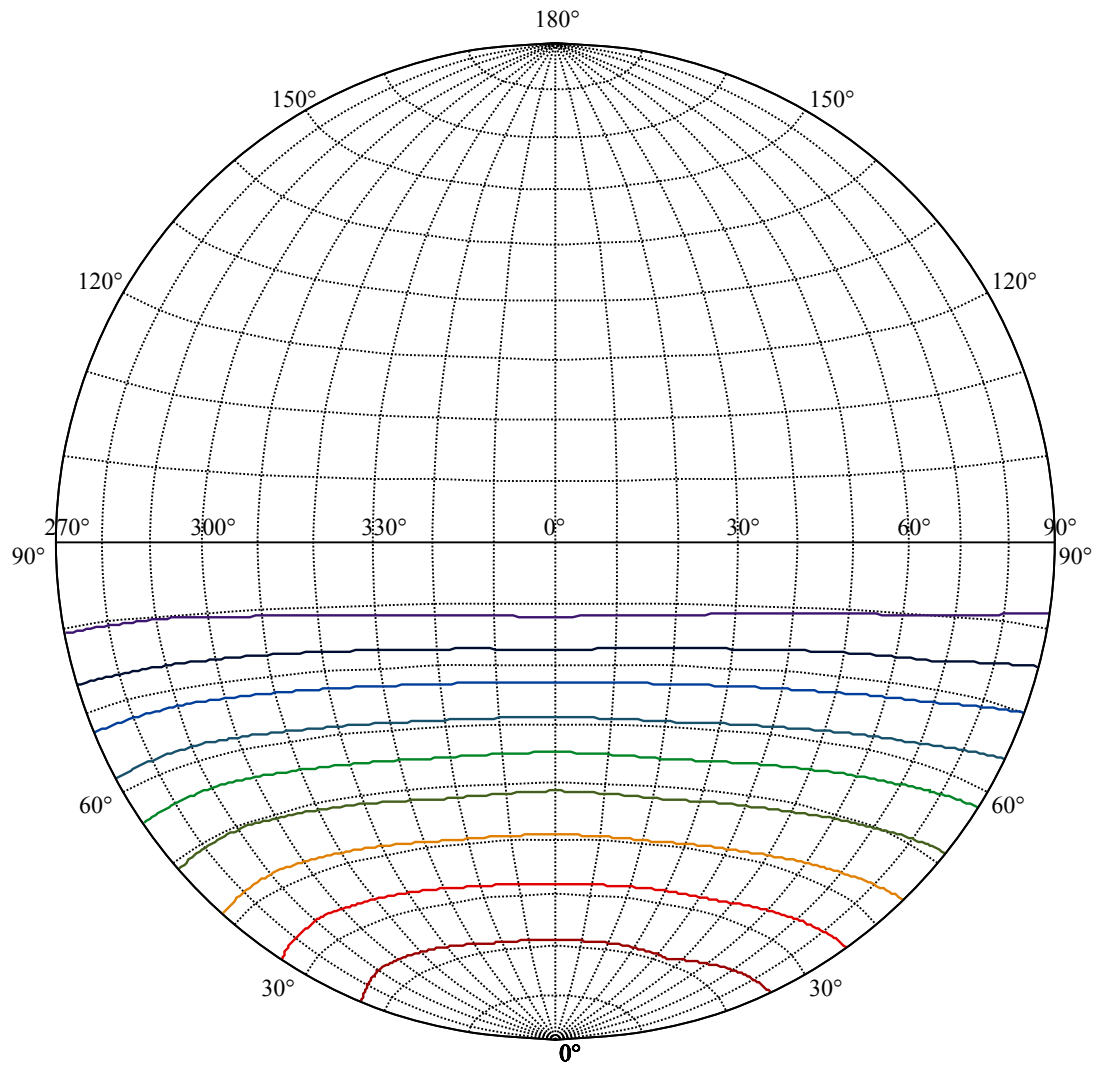
Beam Angle(50%Imax):C0/180Left:52.9 Right:55.8
 :C90/270Left:55.7 Right:57.9



Max , Ave Beam angle of C90 plane 113.86



(10%I _{max}) 18.0188	—
(20%I _{max}) 36.0376	—
(30%I _{max}) 54.0564	—
(40%I _{max}) 72.0752	—
(50%I _{max}) 90.094	—
(60%I _{max}) 108.113	—
(70%I _{max}) 126.132	—
(80%I _{max}) 144.15	—
(90%I _{max}) 162.169	—



House

[Unit:cd]

Road

Imax:180.19

(10%Imax) 18.0188

(20%Imax) 36.0376

(30%Imax) 54.0564

(40%Imax) 72.0752

(50%Imax) 90.094

(60%Imax) 108.113

(70%Imax) 126.132

(80%Imax) 144.15

(90%Imax) 162.169



Intensity data(cd)

C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	177.25	174.42	172.74	168.90	163.85	156.64	147.75	137.90	128.29
22.5	177.25	175.62	173.46	169.86	164.09	156.88	148.47	138.38	127.33
45.0	177.25	173.94	171.78	168.18	163.37	156.40	148.47	139.35	128.77
67.5	177.25	178.27	176.10	172.02	166.73	160.25	152.08	142.23	131.66
90.0	177.25	180.19	178.27	174.42	169.14	162.89	154.96	145.59	135.50
112.5	177.25	179.47	177.06	172.50	167.21	160.01	151.60	141.99	131.42
135.0	177.25	177.55	174.42	169.86	163.85	155.92	147.51	137.42	126.13
157.5	177.25	174.66	171.54	166.73	160.49	152.80	143.67	133.58	122.29
180.0	177.25	173.46	170.58	165.77	159.53	151.60	142.71	132.38	121.81
202.5	177.25	174.90	172.02	166.73	160.73	152.80	143.67	133.34	122.05
225.0	177.25	172.98	170.10	165.53	160.25	152.56	144.87	135.02	124.21
247.5	177.25	177.79	175.14	171.06	165.29	158.57	149.68	140.07	129.74
270.0	177.25	179.47	176.82	172.50	166.73	158.81	150.16	141.03	130.22
292.5	177.25	179.23	177.06	173.22	167.45	160.49	152.08	142.23	131.90
315.0	177.25	178.27	175.86	171.78	166.01	159.29	150.64	140.79	129.98
337.5	177.25	175.62	173.46	169.62	164.33	157.12	148.72	138.87	128.05
360.0	177.25	174.42	172.74	168.90	163.85	156.64	147.75	137.90	128.29
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	117.24	104.75	91.06	75.68	60.78	44.45	27.15	10.81	1.20
22.5	115.56	102.83	89.13	74.72	60.30	45.17	29.55	12.49	1.68
45.0	117.24	104.27	91.30	76.64	61.50	46.37	31.71	15.62	2.88
67.5	120.13	107.39	94.18	79.28	63.91	48.05	32.19	17.78	5.29
90.0	124.21	111.96	98.26	84.09	69.67	53.82	37.72	22.58	9.61
112.5	119.89	106.91	92.98	78.80	63.67	48.05	32.67	18.02	6.01
135.0	113.88	100.43	86.73	72.80	56.70	41.56	26.67	12.97	2.64
157.5	109.55	96.58	83.13	68.23	53.58	37.72	22.82	9.85	1.20
180.0	109.55	96.82	82.65	67.75	51.65	35.08	20.18	8.17	0.72
202.5	109.55	96.58	82.89	67.99	52.86	37.24	22.58	9.13	0.72
225.0	112.44	99.94	86.49	72.32	56.46	41.32	25.95	12.49	2.16
247.5	118.20	105.23	91.30	77.84	62.47	46.61	31.47	16.58	5.29
270.0	118.44	105.47	92.26	77.36	61.98	46.13	30.99	16.34	5.29
292.5	119.89	107.15	93.22	78.56	63.43	46.85	30.99	17.06	4.32
315.0	118.44	105.23	91.30	76.40	61.74	45.89	30.51	14.42	2.16
337.5	115.80	102.83	89.85	75.44	60.30	45.41	28.83	11.77	1.68
360.0	117.24	104.75	91.06	75.68	60.78	44.45	27.15	10.81	1.20
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.48	0.48	0.48	0.48	0.48	0.72	0.48	0.72	0.96
22.5	0.72	0.48	0.72	0.72	0.72	0.48	0.96	0.96	0.72
45.0	1.20	0.72	0.72	0.72	0.72	0.24	0.96	0.72	0.96
67.5	0.96	0.72	0.48	0.72	0.48	0.72	0.96	0.72	0.72
90.0	1.68	0.48	0.48	0.48	0.48	0.48	0.72	0.72	0.72
112.5	0.96	0.48	0.48	0.24	0.48	0.24	0.48	0.48	0.72
135.0	0.72	0.24	0.00	0.24	0.00	0.00	0.48	0.24	0.24
157.5	0.48	0.24	0.00	0.00	0.24	0.24	0.24	0.24	0.48
180.0	0.24	0.00	0.24	0.24	0.00	0.24	0.24	0.24	0.48
202.5	0.72	0.00	0.24	0.24	0.24	0.24	0.48	0.48	0.48
225.0	0.48	0.24	0.24	0.24	0.24	0.24	0.48	0.48	0.48
247.5	0.48	0.24	0.24	0.00	0.24	0.24	0.24	0.24	0.48
270.0	1.20	0.96	0.96	0.96	1.44	0.96	1.20	1.20	1.44
292.5	1.20	0.48	0.72	0.72	0.72	0.72	0.96	0.96	0.96
315.0	1.20	0.72	0.72	0.72	0.72	0.96	0.48	0.48	0.72
337.5	0.72	0.48	0.48	0.48	0.48	0.96	0.72	0.96	0.72
360.0	0.48	0.48	0.48	0.48	0.48	0.72	0.48	0.72	0.96

Intensity data(cd)

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.72	0.72	0.72	0.96	0.96	0.96	0.96	0.72	0.96
22.5	0.96	0.72	0.72	0.96	0.72	1.20	0.96	0.96	0.72
45.0	0.72	0.96	0.96	0.96	0.96	0.72	0.72	0.72	0.96
67.5	0.72	0.72	0.96	0.72	0.96	0.96	0.72	0.96	0.96
90.0	0.72	0.72	0.96	0.96	0.72	0.96	0.96	0.96	0.72
112.5	0.48	0.48	0.96	0.48	0.72	0.96	0.96	0.96	0.96
135.0	0.48	0.48	0.72	0.48	0.72	0.48	0.72	0.48	0.96
157.5	0.48	0.48	0.24	0.48	0.96	0.72	0.72	0.72	0.72
180.0	0.48	0.48	0.72	0.48	0.72	0.48	0.96	0.96	0.72
202.5	0.48	0.72	0.72	0.72	0.72	0.48	0.48	0.72	0.72
225.0	0.48	0.72	0.48	0.72	0.48	0.72	0.72	0.96	0.72
247.5	0.48	0.48	0.72	0.72	0.96	0.72	0.48	0.72	0.72
270.0	1.20	1.44	1.68	1.44	1.44	1.44	1.20	1.20	1.20
292.5	0.96	0.96	0.96	0.72	0.72	0.96	0.72	0.72	0.72
315.0	0.96	0.96	0.96	1.20	0.96	0.72	0.72	0.96	0.96
337.5	0.96	0.96	0.72	0.72	0.96	0.96	0.72	0.96	0.96
360.0	0.72	0.72	0.72	0.96	0.96	0.96	0.96	0.72	0.96

C/γ(°)	180.0
0.0	0.98
22.5	0.98
45.0	0.98
67.5	0.98
90.0	0.98
112.5	0.98
135.0	0.98
157.5	0.98
180.0	0.98
202.5	0.98
225.0	0.98
247.5	0.98
270.0	0.98
292.5	0.98
315.0	0.98
337.5	0.98
360.0	0.98