



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.10

LampCAT:

Current(A): 0.0420

Lamp flux(lm): -1.0

Power (W): 4.89

Number of Lamps: 1

PF: 0.9621

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 289.20, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 59.14

Central intensity(cd): 106.141, Maximum intensity(cd): 107.595

Angle of maximum intensity: C=292.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=106.6

[C90/270]Total=110.0

Field angle(10%Imax): [C0/180]Total=155.8

[C90/270]Total=160.3

Maximum s/h(1/2): C0_180=1.24 C90_270=1.26

Maximum s/h(1/4): C0_180=1.35 C90_270=1.37

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 1.21%

Down flux rate of LUM(%): 98.79%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.562%

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	106.141	0.000	0	0.00%	0.00%
5.0	105.691	2.532	2.532	0.00%	0.88%
10.0	103.601	7.487	10.019	0.00%	3.46%
15.0	101.104	12.143	22.162	0.00%	7.66%
20.0	97.141	16.338	38.501	0.00%	13.31%
25.0	92.679	19.909	58.409	0.00%	20.20%
30.0	87.608	22.815	81.225	0.00%	28.09%
35.0	81.383	24.885	106.11	0.00%	36.69%
40.0	74.752	26.050	132.16	0.00%	45.70%
45.0	67.559	26.350	158.51	0.00%	54.81%
50.0	59.633	25.701	184.21	0.00%	63.70%
55.0	51.410	24.144	208.355	0.00%	72.05%
60.0	42.642	21.740	230.095	0.00%	79.56%
65.0	33.733	18.567	248.661	0.00%	85.98%
70.0	24.714	14.799	263.461	0.00%	91.10%
75.0	16.320	10.726	274.186	0.00%	94.81%
80.0	8.956	6.763	280.95	0.00%	97.15%
85.0	3.729	3.447	284.396	0.00%	98.34%
90.0	1.030	1.303	285.699	0.00%	98.79%
95.0	0.530	0.427	286.127	0.00%	98.94%
100.0	0.453	0.267	286.394	0.00%	99.03%
105.0	0.453	0.242	286.636	0.00%	99.11%
110.0	0.421	0.228	286.864	0.00%	99.19%
115.0	0.453	0.221	287.086	0.00%	99.27%
120.0	0.531	0.239	287.325	0.00%	99.35%
125.0	0.499	0.238	287.563	0.00%	99.43%
130.0	0.531	0.224	287.787	0.00%	99.51%
135.0	0.577	0.224	288.011	0.00%	99.59%
140.0	0.593	0.217	288.227	0.00%	99.66%
145.0	0.687	0.213	288.441	0.00%	99.74%
150.0	0.624	0.193	288.634	0.00%	99.80%
155.0	0.655	0.162	288.796	0.00%	99.86%
160.0	0.687	0.141	288.936	0.00%	99.91%
165.0	0.624	0.108	289.044	0.00%	99.95%
170.0	0.749	0.081	289.126	0.00%	99.97%
175.0	0.796	0.055	289.181	0.00%	99.99%
180.0	0.778	0.019	289.2	0.00%	100.00%

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

Date:
Humidity(%): 58%

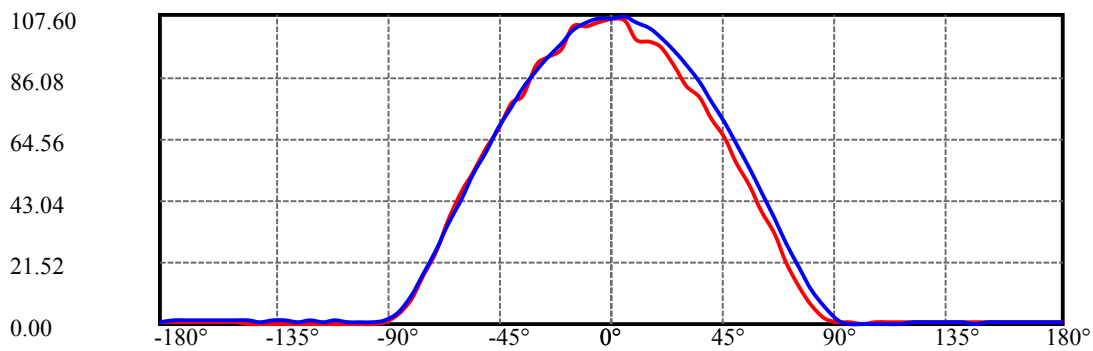
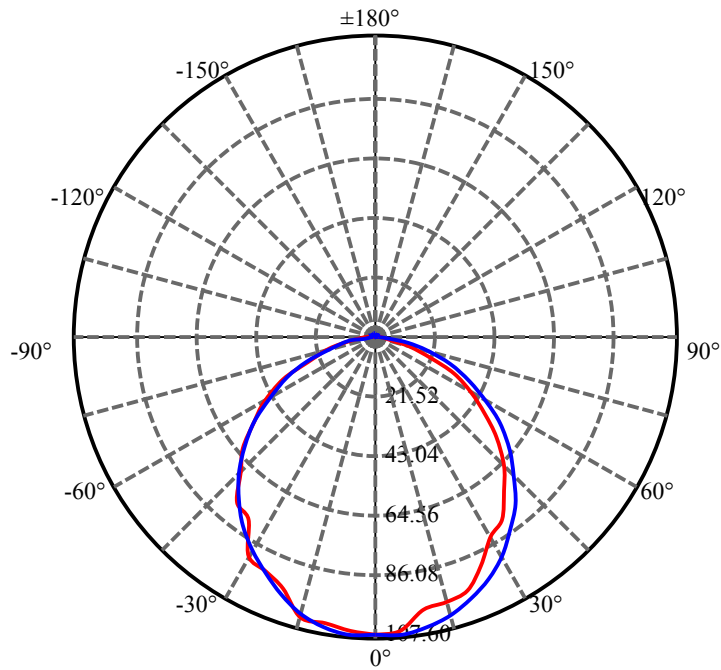
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	81.22	N.A.	28.09%
0-40	132.16	N.A.	45.70%
0-60	230.09	N.A.	79.56%
0-90	285.70	N.A.	98.79%
0-120	287.32	N.A.	99.35%
0-180	289.20	N.A.	100.00%
60-90	55.60	N.A.	19.23%
90-120	1.63	N.A.	0.56%
90-130	2.09	N.A.	0.72%
90-150	2.93	N.A.	1.01%
90-180	3.48	N.A.	1.20%
0-60.34	231.36	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	10.02
10-20	28.48
20-30	42.72
30-40	50.93
40-50	52.05
50-60	45.88
60-70	33.37
70-80	17.49
80-90	4.75
90-100	0.69
100-110	0.47
110-120	0.46
120-130	0.46
130-140	0.44
140-150	0.41
150-160	0.30
160-170	0.19
170-180	0.06

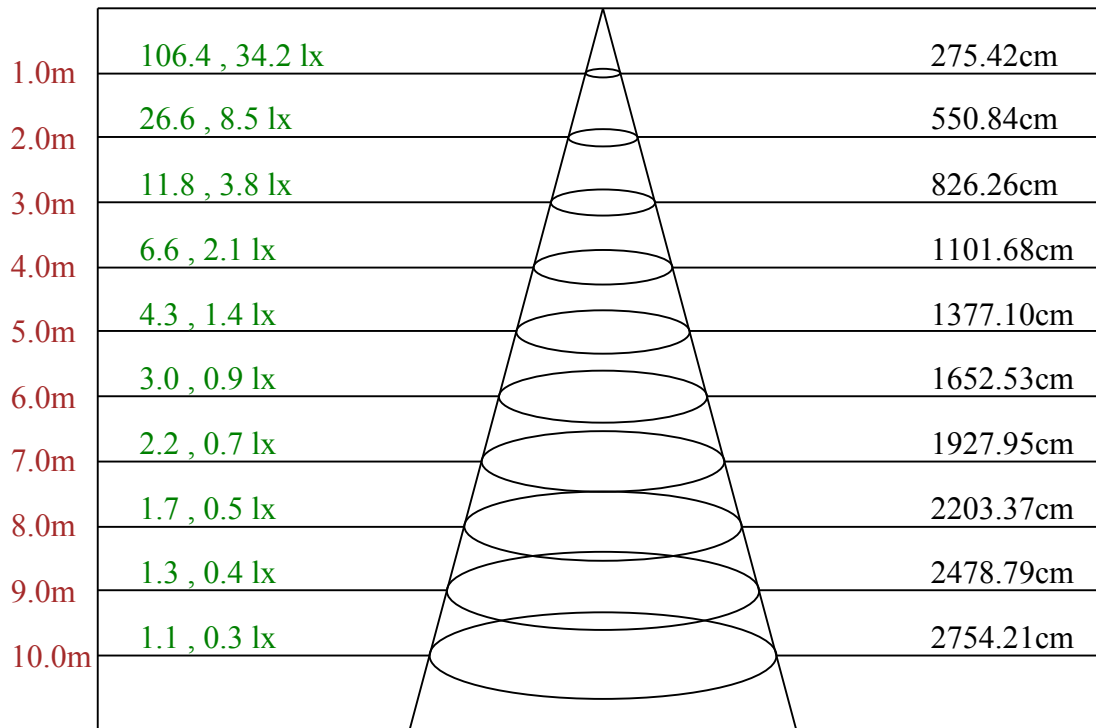


C0/C180: —

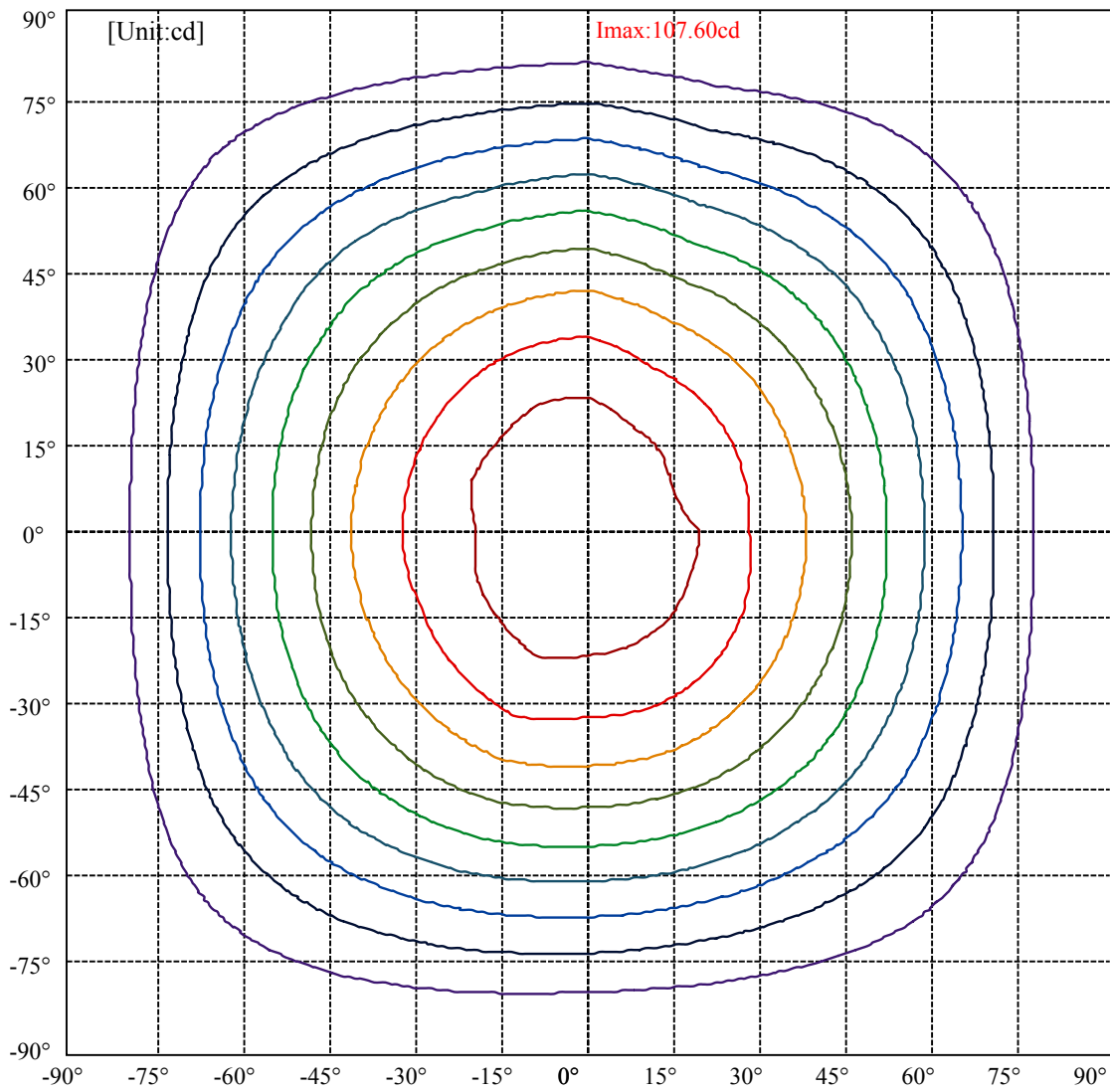
C90/C270: —

Field angle(10%Imax):C0/180Left:79.0 Right:76.8
 :C90/270Left:79.4 Right:80.9

Beam Angle(50%Imax):C0/180Left:54.8 Right:51.8
 :C90/270Left:54.5 Right:55.5



Max , Ave Beam angle of C292.5 plane 108.03

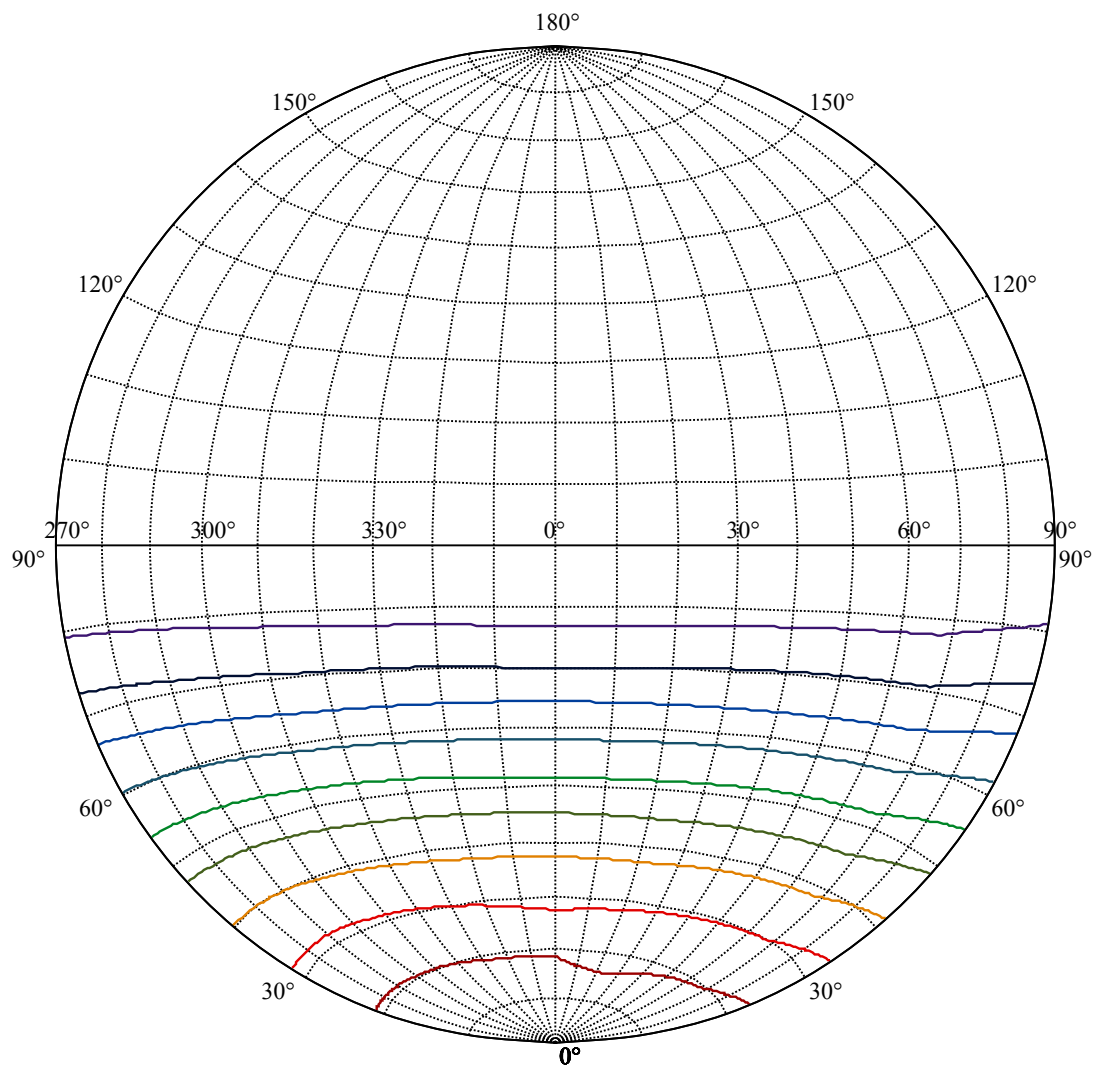


(10%Imax) 10.7387	—
(20%Imax) 21.4774	—
(30%Imax) 32.2161	—
(40%Imax) 42.9548	—
(50%Imax) 53.6936	—
(60%Imax) 64.4323	—
(70%Imax) 75.171	—
(80%Imax) 85.9097	—
(90%Imax) 96.6484	—

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

Date:
Humidity(%): 58%

Operator: Tester



House

[Unit:cd]

Road

I_{max}:107.60

(10%I _{max}) 10.7567	
(20%I _{max}) 21.5135	
(30%I _{max}) 32.2702	
(40%I _{max}) 43.0269	
(50%I _{max}) 53.7836	
(60%I _{max}) 64.5404	
(70%I _{max}) 75.2971	
(80%I _{max}) 86.0538	
(90%I _{max}) 96.8105	

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	106.14	105.35	98.86	98.11	96.36	89.87	82.63	79.14	71.40
22.5	106.14	103.10	100.61	97.61	93.12	89.87	84.38	78.39	71.40
45.0	106.14	105.10	102.35	98.86	95.36	90.12	85.38	79.39	72.40
67.5	106.14	106.85	105.10	100.86	96.36	91.37	86.13	80.13	73.15
90.0	106.14	106.60	105.10	102.85	99.36	95.11	90.37	84.13	77.39
112.5	106.14	107.10	105.35	102.60	99.36	95.36	89.87	83.63	76.64
135.0	106.14	105.85	104.35	102.35	98.11	93.87	88.87	82.63	75.89
157.5	106.14	105.35	103.85	101.10	98.36	93.62	88.37	82.13	75.64
180.0	106.14	105.10	103.35	103.35	95.61	92.62	90.12	79.39	76.64
202.5	106.14	106.10	104.35	101.35	97.36	92.62	87.37	81.88	75.64
225.0	106.14	104.85	103.60	101.35	97.86	93.37	88.87	82.38	75.89
247.5	106.14	106.35	105.10	102.85	99.11	95.36	90.37	84.63	77.14
270.0	106.14	106.35	104.85	102.10	97.86	93.12	88.12	82.38	75.64
292.5	106.14	107.60	105.35	101.60	97.36	93.37	88.37	82.13	75.14
315.0	106.14	105.60	103.35	100.61	96.86	92.37	87.12	80.63	73.64
337.5	106.14	103.85	102.10	100.11	95.86	90.87	85.38	79.14	72.40
360.0	106.14	105.35	98.86	98.11	96.36	89.87	82.63	79.14	71.40
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	65.16	55.92	47.93	39.44	31.21	21.22	12.98	6.49	2.00
22.5	64.41	56.17	48.18	39.44	30.96	21.97	13.48	6.74	2.25
45.0	64.91	56.92	48.68	39.44	30.71	22.47	14.23	7.24	2.75
67.5	65.41	57.17	48.93	40.19	31.21	22.47	14.48	7.74	3.25
90.0	70.15	62.66	54.17	45.93	36.95	28.21	19.47	11.73	5.74
112.5	69.15	61.16	52.42	43.44	35.45	26.46	17.97	10.74	4.49
135.0	68.65	60.91	52.92	43.94	34.70	25.46	17.48	9.74	4.49
157.5	68.40	61.16	52.92	43.94	34.95	26.46	17.48	9.74	3.99
180.0	67.65	61.41	52.67	45.93	36.20	25.71	16.98	8.99	3.50
202.5	68.90	61.41	53.42	44.94	35.95	26.71	17.72	9.99	4.24
225.0	69.40	61.66	53.67	44.94	35.95	26.71	18.47	10.74	4.49
247.5	70.40	61.91	53.67	44.69	35.45	26.96	18.47	10.74	5.24
270.0	68.40	60.41	52.42	43.44	34.70	25.96	17.48	9.74	4.24
292.5	67.90	59.41	51.43	42.19	32.95	23.97	15.98	8.74	3.50
315.0	66.40	58.42	50.18	40.44	31.21	22.47	14.48	7.49	3.00
337.5	65.66	57.42	48.93	39.94	31.21	22.22	13.98	6.74	2.50
360.0	65.16	55.92	47.93	39.44	31.21	21.22	12.98	6.49	2.00
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.50	0.75	0.25	0.75	0.75	0.50	1.00	0.50	0.75
22.5	1.00	0.75	0.75	0.75	0.50	0.50	0.50	0.75	0.50
45.0	0.75	0.50	0.75	0.50	0.50	0.50	0.75	0.50	0.75
67.5	0.75	0.50	0.75	0.50	0.75	0.50	0.75	0.50	0.75
90.0	1.25	0.25	0.00	0.00	0.25	0.25	0.50	0.50	0.50
112.5	1.50	0.25	0.25	0.25	0.00	0.25	0.25	0.25	0.50
135.0	1.25	0.75	0.50	0.25	0.00	0.25	0.25	0.50	0.25
157.5	1.00	0.50	0.00	0.25	0.00	0.25	0.00	0.25	0.00
180.0	0.75	0.00	0.25	0.25	0.25	0.25	0.25	0.25	0.00
202.5	1.00	0.50	0.25	0.25	0.25	0.25	0.25	0.25	0.25
225.0	1.00	0.50	0.25	0.50	0.00	0.25	0.25	0.25	0.25
247.5	1.50	0.50	0.25	0.00	0.00	0.25	0.50	0.25	0.25
270.0	1.25	0.75	1.00	1.00	1.25	1.00	1.25	1.00	1.25
292.5	1.00	0.75	0.50	0.75	0.75	0.75	0.75	0.50	1.00
315.0	1.00	0.75	0.75	0.50	0.75	0.75	0.75	1.00	0.75
337.5	1.00	0.50	0.75	0.75	0.75	0.75	0.50	0.75	0.75
360.0	0.50	0.75	0.25	0.75	0.75	0.50	1.00	0.50	0.75

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	0.75	0.75	0.75	0.50	0.75	0.50	0.75	0.50	0.75
22.5	0.75	0.75	0.50	0.75	0.75	0.50	0.50	0.75	0.75
45.0	0.75	0.75	1.00	0.75	1.00	0.75	0.50	0.75	1.00
67.5	0.75	1.00	0.75	0.75	0.75	1.00	0.75	0.75	0.50
90.0	0.75	0.50	0.25	0.75	0.50	0.50	0.75	0.75	0.75
112.5	0.25	0.50	0.75	0.50	0.50	0.25	0.50	1.00	0.75
135.0	0.25	0.25	0.75	0.50	0.50	0.75	0.50	0.75	0.75
157.5	0.25	0.25	0.50	0.25	0.25	0.75	0.75	0.75	0.75
180.0	0.25	0.25	0.25	0.50	0.50	0.75	0.50	0.75	0.75
202.5	0.25	0.50	0.50	0.50	0.50	0.75	0.50	0.75	0.75
225.0	0.25	0.25	0.50	0.25	0.50	0.50	0.50	0.50	0.75
247.5	0.50	0.25	0.50	0.50	0.50	0.50	0.25	0.50	0.75
270.0	1.25	1.00	1.25	1.25	1.25	1.50	1.25	1.50	1.25
292.5	0.75	1.00	1.00	0.75	0.50	1.00	0.75	0.50	0.75
315.0	0.75	0.75	0.75	0.75	0.75	0.50	0.75	0.75	1.00
337.5	0.75	0.75	1.00	0.75	1.00	0.50	0.50	0.75	0.75
360.0	0.75	0.75	0.75	0.50	0.75	0.50	0.75	0.50	0.75

C/γ(°)	180.0
0.0	0.78
22.5	0.78
45.0	0.78
67.5	0.78
90.0	0.78
112.5	0.78
135.0	0.78
157.5	0.78
180.0	0.78
202.5	0.78
225.0	0.78
247.5	0.78
270.0	0.78
292.5	0.78
315.0	0.78
337.5	0.78
360.0	0.78