



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.06

LampCAT:

Current(A): 0.0430

Lamp flux(lm): -1.0

Power (W): 4.92

Number of Lamps: 1

PF: 0.9626

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 304.47, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 61.88

Central intensity(cd): 109.357, Maximum intensity(cd): 110.840

Angle of maximum intensity: C=112.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=108.6

[C90/270]Total=112.5

Field angle(10%Imax): [C0/180]Total=154.1

[C90/270]Total=160.1

Maximum s/h(1/2): C0_180=1.28 C90_270=1.28

Maximum s/h(1/4): C0_180=1.40 C90_270=1.39

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 1.32%

Down flux rate of LUM(%): 98.68%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.545%

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	109.357	0.000	0	0.00%	0.00%
5.0	108.812	2.608	2.608	0.00%	0.86%
10.0	107.361	7.733	10.341	0.00%	3.40%
15.0	104.911	12.592	22.933	0.00%	7.53%
20.0	101.370	17.000	39.934	0.00%	13.12%
25.0	96.923	20.797	60.731	0.00%	19.95%
30.0	91.680	23.868	84.599	0.00%	27.79%
35.0	85.627	26.110	110.708	0.00%	36.36%
40.0	78.824	27.437	138.146	0.00%	45.37%
45.0	71.569	27.846	165.992	0.00%	54.52%
50.0	63.471	27.287	193.279	0.00%	63.48%
55.0	54.780	25.712	218.991	0.00%	71.93%
60.0	45.575	23.197	242.187	0.00%	79.54%
65.0	36.026	19.837	262.025	0.00%	86.06%
70.0	26.337	15.791	277.816	0.00%	91.25%
75.0	17.053	11.342	289.157	0.00%	94.97%
80.0	8.878	6.938	296.096	0.00%	97.25%
85.0	3.230	3.290	299.385	0.00%	98.33%
90.0	0.702	1.077	300.462	0.00%	98.68%
95.0	0.531	0.338	300.8	0.00%	98.80%
100.0	0.437	0.263	301.062	0.00%	98.88%
105.0	0.484	0.246	301.309	0.00%	98.96%
110.0	0.546	0.269	301.578	0.00%	99.05%
115.0	0.562	0.281	301.859	0.00%	99.14%
120.0	0.640	0.292	302.151	0.00%	99.24%
125.0	0.671	0.303	302.454	0.00%	99.34%
130.0	0.671	0.292	302.746	0.00%	99.43%
135.0	0.702	0.277	303.023	0.00%	99.53%
140.0	0.671	0.254	303.277	0.00%	99.61%
145.0	0.749	0.237	303.514	0.00%	99.69%
150.0	0.796	0.227	303.742	0.00%	99.76%
155.0	0.843	0.207	303.949	0.00%	99.83%
160.0	0.905	0.183	304.132	0.00%	99.89%
165.0	0.905	0.149	304.282	0.00%	99.94%
170.0	0.858	0.105	304.386	0.00%	99.97%
175.0	0.843	0.061	304.447	0.00%	99.99%
180.0	0.822	0.020	304.467	0.00%	100.00%

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

Date:
Humidity(%): 58%

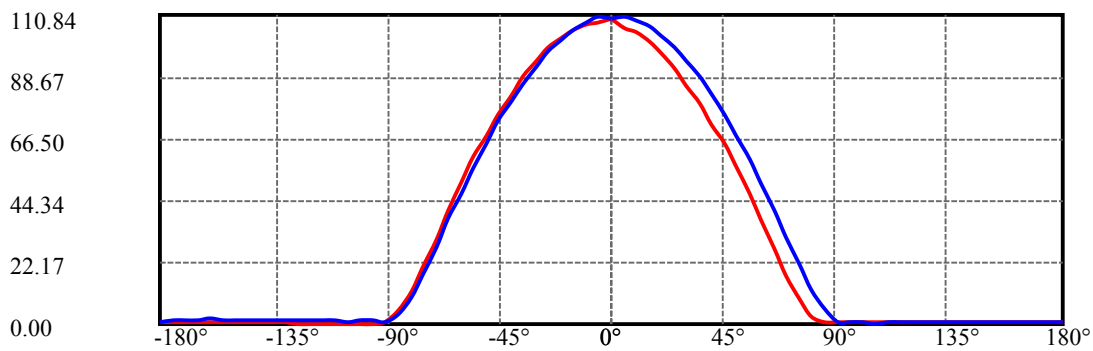
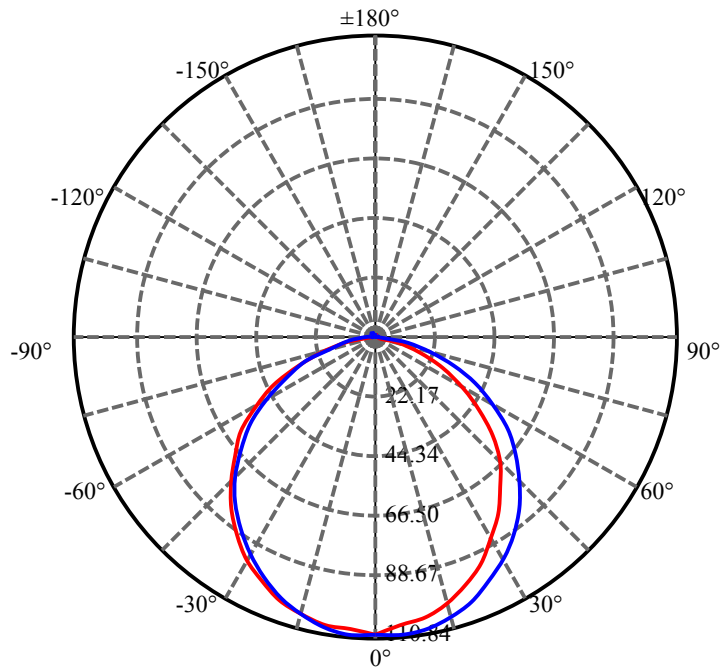
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	84.60	N.A.	27.79%
0-40	138.15	N.A.	45.37%
0-60	242.19	N.A.	79.54%
0-90	300.46	N.A.	98.68%
0-120	302.15	N.A.	99.24%
0-180	304.47	N.A.	100.00%
60-90	58.27	N.A.	19.14%
90-120	1.69	N.A.	0.55%
90-130	2.28	N.A.	0.75%
90-150	3.28	N.A.	1.08%
90-180	3.98	N.A.	1.31%
0-60.35	243.57	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	10.34
10-20	29.59
20-30	44.67
30-40	53.55
40-50	55.13
50-60	48.91
60-70	35.63
70-80	18.28
80-90	4.37
90-100	0.60
100-110	0.52
110-120	0.57
120-130	0.59
130-140	0.53
140-150	0.46
150-160	0.39
160-170	0.25
170-180	0.06

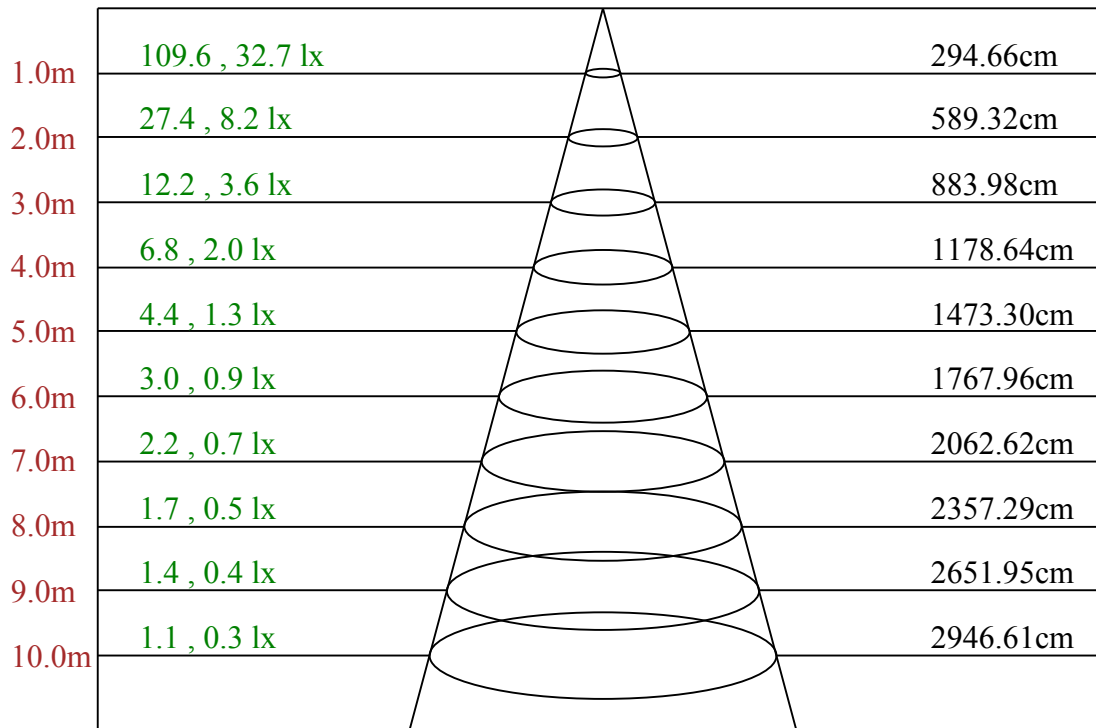


C0/C180: —

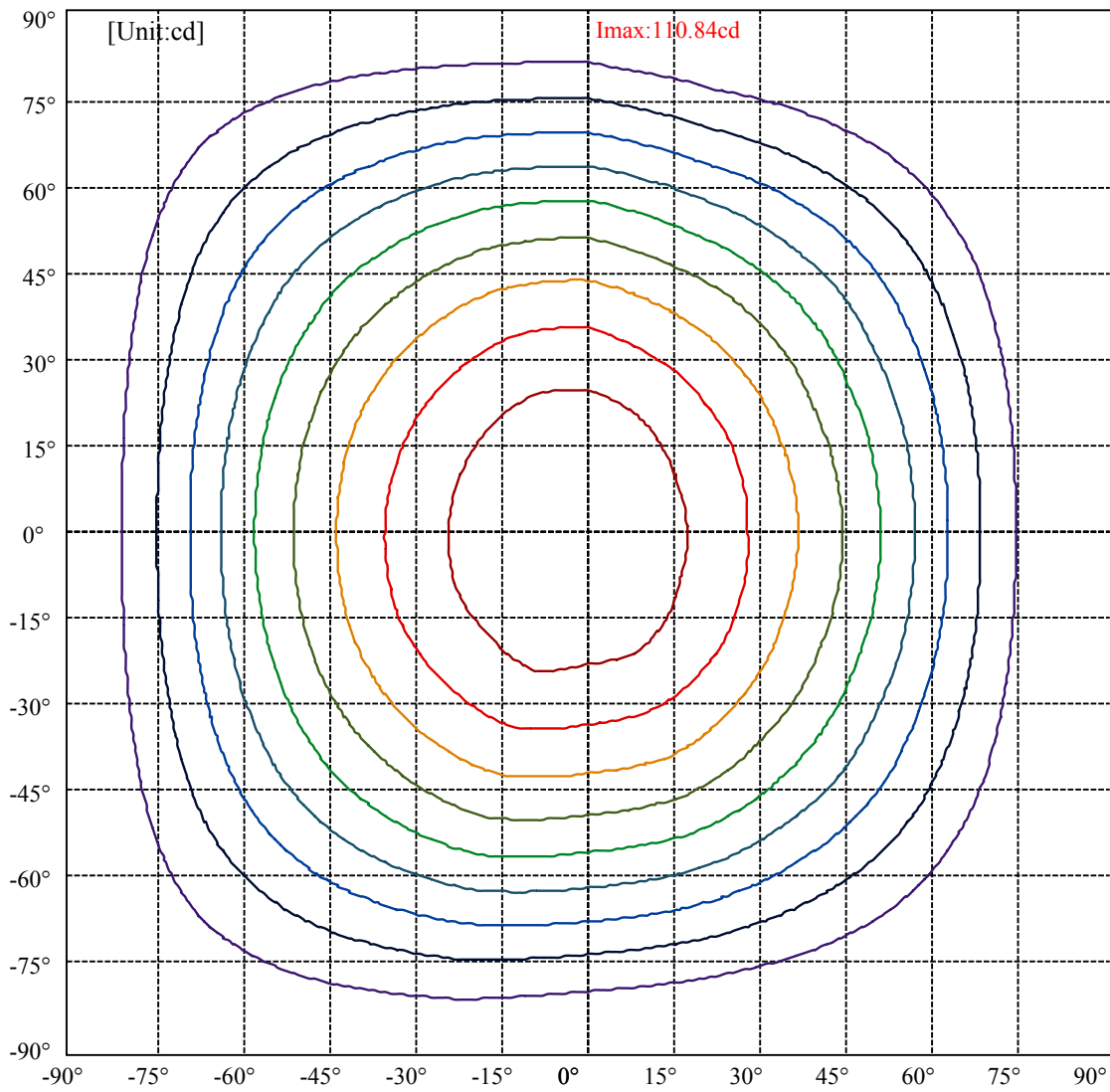
C90/C270: —

Field angle(10%Imax):C0/180Left:80.4 Right:73.7
 :C90/270Left:79.2 Right:80.9

Beam Angle(50%Imax):C0/180Left:57.8 Right:50.8
 :C90/270Left:55.3 Right:57.2



Max , Ave Beam angle of C112.5 plane 111.67

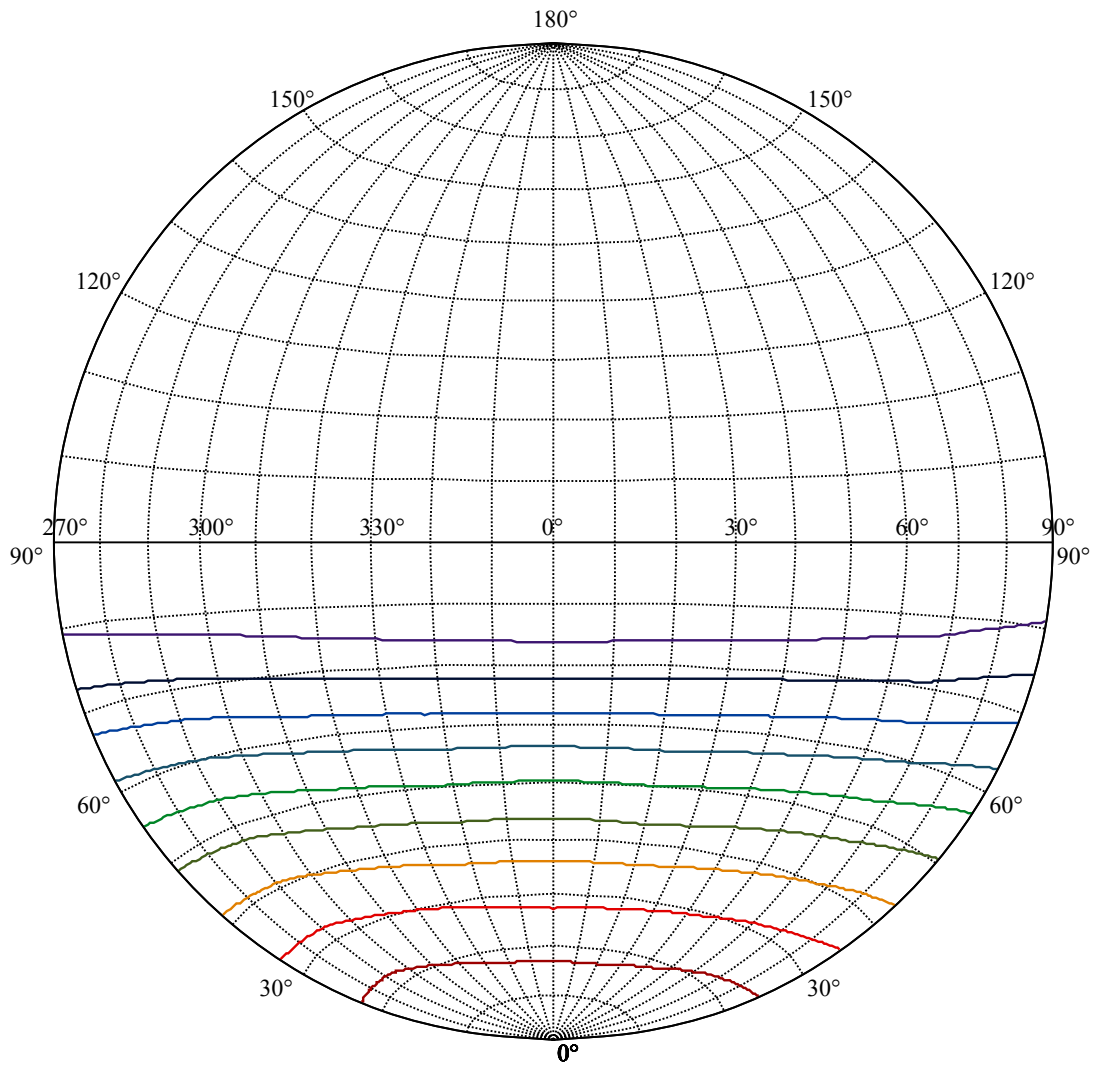


(10%Imax) 11.0715	—
(20%Imax) 22.143	—
(30%Imax) 33.2145	—
(40%Imax) 44.2861	—
(50%Imax) 55.3576	—
(60%Imax) 66.4291	—
(70%Imax) 77.5006	—
(80%Imax) 88.5721	—
(90%Imax) 99.6436	—

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

Date:
Humidity(%): 58%

Operator: Tester



House

[Unit:cd]

Road

I_{max}:110.84	
(10%I _{max}) 11.0818	—
(20%I _{max}) 22.1636	—
(30%I _{max}) 33.2453	—
(40%I _{max}) 44.3271	—
(50%I _{max}) 55.4089	—
(60%I _{max}) 66.4907	—
(70%I _{max}) 77.5725	—
(80%I _{max}) 88.6543	—
(90%I _{max}) 99.736	—

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	109.36	106.35	104.35	101.35	97.11	91.62	85.38	79.14	71.90
22.5	109.36	107.35	105.10	101.35	97.36	92.12	86.38	79.39	71.65
45.0	109.36	107.84	105.60	102.85	98.61	93.87	87.87	81.38	74.39
67.5	109.36	109.59	108.09	105.35	101.35	96.61	91.12	84.38	77.64
90.0	109.36	109.84	108.84	106.85	103.60	99.11	94.11	88.87	82.38
112.5	109.36	110.84	109.59	107.35	104.35	99.86	95.36	89.62	82.88
135.0	109.36	109.09	108.59	106.35	103.10	99.11	94.36	88.62	81.88
157.5	109.36	108.34	107.60	105.60	102.85	98.86	94.11	88.37	82.38
180.0	109.36	107.84	107.35	105.60	102.60	98.86	94.36	88.62	82.13
202.5	109.36	108.59	108.09	106.10	103.10	99.36	94.61	89.12	82.38
225.0	109.36	108.59	107.84	106.10	103.10	99.11	94.36	88.87	82.63
247.5	109.36	110.59	109.34	107.35	104.10	100.36	95.36	89.62	83.38
270.0	109.36	110.09	108.09	105.60	102.10	97.61	92.37	86.38	79.64
292.5	109.36	110.34	108.34	105.60	101.85	97.11	91.37	85.63	78.64
315.0	109.36	108.59	106.35	103.35	99.36	94.86	88.87	82.38	74.89
337.5	109.36	107.10	104.60	101.85	97.36	92.37	86.88	79.64	72.40
360.0	109.36	106.35	104.35	101.35	97.11	91.62	85.38	79.14	71.90
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	64.91	56.17	46.68	37.45	26.96	17.48	8.74	2.50	0.50
22.5	63.91	55.42	46.18	37.20	27.71	18.47	9.49	3.25	1.00
45.0	66.65	58.42	48.93	39.19	30.21	20.22	11.48	4.49	1.00
67.5	70.15	61.66	52.67	43.19	33.45	23.72	14.48	6.74	1.50
90.0	74.89	67.40	59.17	49.93	40.44	30.71	21.47	12.23	5.24
112.5	75.89	68.15	59.66	50.68	40.94	31.70	21.97	12.73	5.24
135.0	75.39	67.15	59.17	49.93	40.69	31.21	21.72	12.73	5.24
157.5	75.14	67.40	59.17	50.18	40.69	31.21	21.97	12.48	4.74
180.0	75.14	67.65	59.91	50.68	40.94	30.21	20.72	11.48	4.74
202.5	75.64	67.90	59.41	50.43	41.19	31.70	21.97	12.48	4.74
225.0	75.89	67.90	59.41	50.93	41.44	31.95	22.22	13.23	4.99
247.5	76.14	68.90	60.41	51.18	41.44	31.46	21.97	12.98	5.49
270.0	72.65	64.41	55.67	46.68	37.70	27.46	17.97	9.74	3.50
292.5	71.15	62.66	53.67	44.19	34.45	24.47	14.98	7.24	2.00
315.0	66.90	58.42	49.68	39.94	30.21	20.72	11.98	4.74	1.00
337.5	64.66	55.92	46.68	37.45	27.96	18.72	9.74	3.00	0.75
360.0	64.91	56.17	46.68	37.45	26.96	17.48	8.74	2.50	0.50
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.75	0.75	0.75	0.50	0.75	0.50	0.75	0.75	0.75
22.5	0.50	1.00	1.00	0.75	0.75	0.50	0.50	1.00	0.75
45.0	0.75	0.50	0.50	1.00	0.50	0.75	1.00	1.00	0.75
67.5	0.75	0.50	0.50	0.75	0.75	0.50	1.00	0.75	1.00
90.0	0.75	0.50	0.50	0.25	0.50	0.75	0.75	0.50	0.50
112.5	1.00	0.50	0.00	0.25	0.50	0.50	0.25	0.50	0.50
135.0	0.75	0.25	0.00	0.25	0.00	0.25	0.25	0.25	0.50
157.5	0.00	0.25	0.25	0.25	0.25	0.00	0.50	0.25	0.25
180.0	0.75	0.00	0.00	0.25	0.25	0.25	0.25	0.25	0.50
202.5	0.75	0.00	0.00	0.00	0.50	0.50	0.25	0.25	0.50
225.0	0.75	0.25	0.25	0.25	0.25	0.25	0.25	0.50	0.25
247.5	0.75	0.25	0.25	0.25	0.25	0.25	0.50	0.50	0.25
270.0	1.00	1.50	1.25	1.00	1.25	1.25	1.25	1.50	1.50
292.5	0.75	0.75	0.50	0.75	0.75	1.00	1.00	1.00	1.00
315.0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.00	1.00
337.5	0.50	0.75	0.50	0.50	0.75	1.00	1.00	0.75	0.75
360.0	0.75	0.75	0.75	0.50	0.75	0.50	0.75	0.75	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	0.50	0.75	1.00	1.00	0.75	0.75	1.00	0.75
22.5	0.75	1.00	0.75	0.75	0.75	1.25	0.75	1.00	0.75
45.0	0.75	1.00	1.00	1.00	1.00	0.75	0.75	0.75	0.75
67.5	0.75	0.75	0.75	1.00	1.00	1.25	1.00	0.75	1.00
90.0	0.75	0.75	0.75	0.75	1.00	1.00	1.00	0.75	1.00
112.5	0.75	0.50	0.75	0.75	0.50	0.75	0.75	0.75	0.75
135.0	0.25	0.25	0.50	0.25	0.75	0.75	0.75	0.50	1.00
157.5	0.25	0.75	0.50	0.50	0.75	0.75	0.75	0.75	0.75
180.0	0.75	0.50	0.50	0.50	0.75	1.00	0.75	0.75	0.75
202.5	0.75	0.25	0.50	0.50	0.75	0.50	1.00	0.75	0.75
225.0	0.25	0.50	0.75	0.75	0.50	0.75	1.00	0.75	0.50
247.5	0.25	0.50	0.50	0.75	0.75	0.75	1.00	0.75	0.50
270.0	1.50	1.50	1.50	1.25	1.50	1.75	1.50	1.50	1.50
292.5	1.00	0.50	0.75	1.00	0.75	1.00	1.00	1.00	1.00
315.0	1.00	0.75	0.75	1.00	0.75	0.50	1.00	1.00	0.75
337.5	0.75	0.75	1.00	1.00	1.00	1.00	0.75	1.00	1.00
360.0	0.75	0.50	0.75	1.00	1.00	0.75	0.75	1.00	0.75

C/γ(°)	180.0
0.0	0.82
22.5	0.82
45.0	0.82
67.5	0.82
90.0	0.82
112.5	0.82
135.0	0.82
157.5	0.82
180.0	0.82
202.5	0.82
225.0	0.82
247.5	0.82
270.0	0.82
292.5	0.82
315.0	0.82
337.5	0.82
360.0	0.82