



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
www.bellingeel.com

Tel:0755-21038430

Address:Rm. 108, No.1 Building, Meibaohe industrial park, No.14 Shilongzi Road, Dalang street, Longhua district, Shenzhen, China

Client:

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.05

LampCAT:

Current(A): 0.0800

Lamp flux(lm): -1.0

Power (W): 8.92

Number of Lamps: 1

PF: 0.9287

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 599.32, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 67.19

Central intensity(cd): 221.829, Maximum intensity(cd): 228.205

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

Beam Angle(50%Imax): [C0/180]Total=104.5

[C90/270]Total=110.4

Field angle(10%Imax): [C0/180]Total=156.0

[C90/270]Total=160.1

Maximum s/h(1/2): C0_180=1.23 C90_270=1.28

Maximum s/h(1/4): C0_180=1.35 C90_270=1.39

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.63%

Down flux rate of LUM(%): 99.37%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.694%

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	221.829	0.000	0	0.00%	0.00%
5.0	220.756	5.291	5.291	0.00%	0.88%
10.0	217.200	15.667	20.958	0.00%	3.50%
15.0	211.230	25.414	46.372	0.00%	7.74%
20.0	203.119	34.148	80.52	0.00%	13.44%
25.0	193.139	41.560	122.08	0.00%	20.37%
30.0	181.446	47.404	169.484	0.00%	28.28%
35.0	168.597	51.546	221.031	0.00%	36.88%
40.0	154.503	53.907	274.937	0.00%	45.87%
45.0	139.267	54.394	329.331	0.00%	54.95%
50.0	123.356	53.067	382.398	0.00%	63.81%
55.0	106.550	49.989	432.387	0.00%	72.15%
60.0	89.159	45.237	477.625	0.00%	79.69%
65.0	71.483	39.052	516.677	0.00%	86.21%
70.0	53.262	31.586	548.263	0.00%	91.48%
75.0	35.689	23.250	571.513	0.00%	95.36%
80.0	19.260	14.703	586.216	0.00%	97.81%
85.0	7.008	7.138	593.354	0.00%	99.00%
90.0	1.090	2.217	595.571	0.00%	99.37%
95.0	0.493	0.434	596.005	0.00%	99.45%
100.0	0.415	0.247	596.252	0.00%	99.49%
105.0	0.428	0.226	596.477	0.00%	99.53%
110.0	0.389	0.214	596.691	0.00%	99.56%
115.0	0.480	0.220	596.911	0.00%	99.60%
120.0	0.519	0.243	597.154	0.00%	99.64%
125.0	0.519	0.240	597.394	0.00%	99.68%
130.0	0.623	0.248	597.643	0.00%	99.72%
135.0	0.623	0.252	597.894	0.00%	99.76%
140.0	0.714	0.248	598.142	0.00%	99.80%
145.0	0.753	0.245	598.387	0.00%	99.84%
150.0	0.766	0.224	598.61	0.00%	99.88%
155.0	0.896	0.210	598.821	0.00%	99.92%
160.0	0.870	0.185	599.006	0.00%	99.95%
165.0	0.818	0.139	599.145	0.00%	99.97%
170.0	0.818	0.097	599.242	0.00%	99.99%
175.0	0.818	0.059	599.3	0.00%	100.00%
180.0	0.929	0.021	599.321	0.00%	100.00%

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

Date:
Humidity(%): 59%

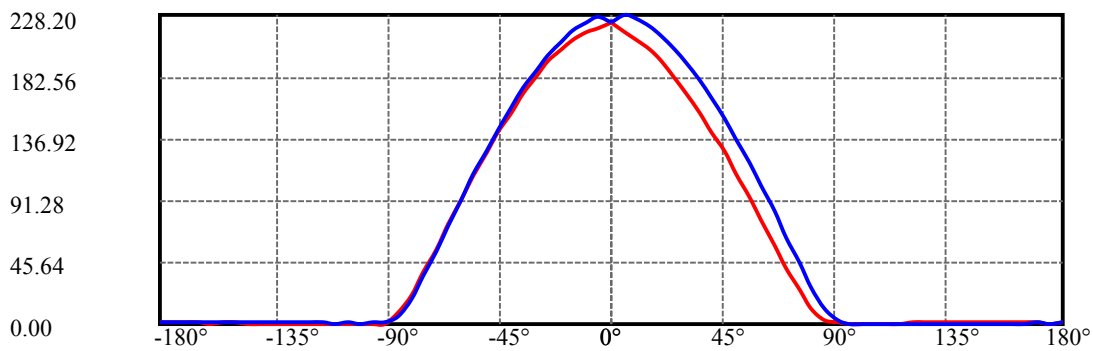
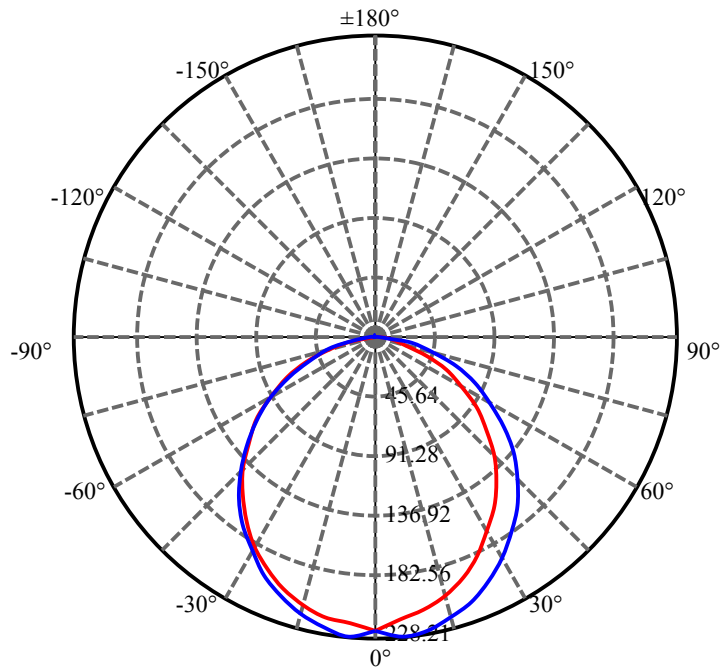
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	169.48	N.A.	28.28%
0-40	274.94	N.A.	45.87%
0-60	477.62	N.A.	79.69%
0-90	595.57	N.A.	99.37%
0-120	597.15	N.A.	99.64%
0-180	599.32	N.A.	100.00%
60-90	117.95	N.A.	19.68%
90-120	1.58	N.A.	0.26%
90-130	2.07	N.A.	0.35%
90-150	3.04	N.A.	0.51%
90-180	3.73	N.A.	0.62%
0-60.23	479.46	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	20.96
10-20	59.56
20-30	88.96
30-40	105.45
40-50	107.46
50-60	95.23
60-70	70.64
70-80	37.95
80-90	9.35
90-100	0.68
100-110	0.44
110-120	0.46
120-130	0.49
130-140	0.50
140-150	0.47
150-160	0.40
160-170	0.24
170-180	0.06

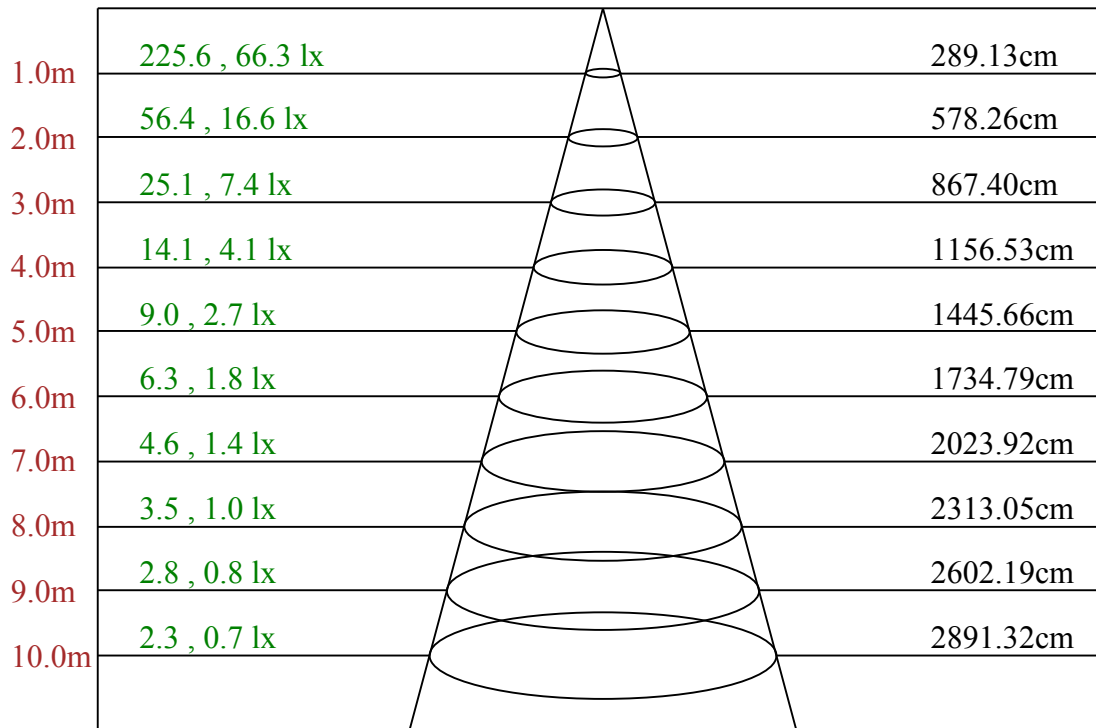


C0/C180: —

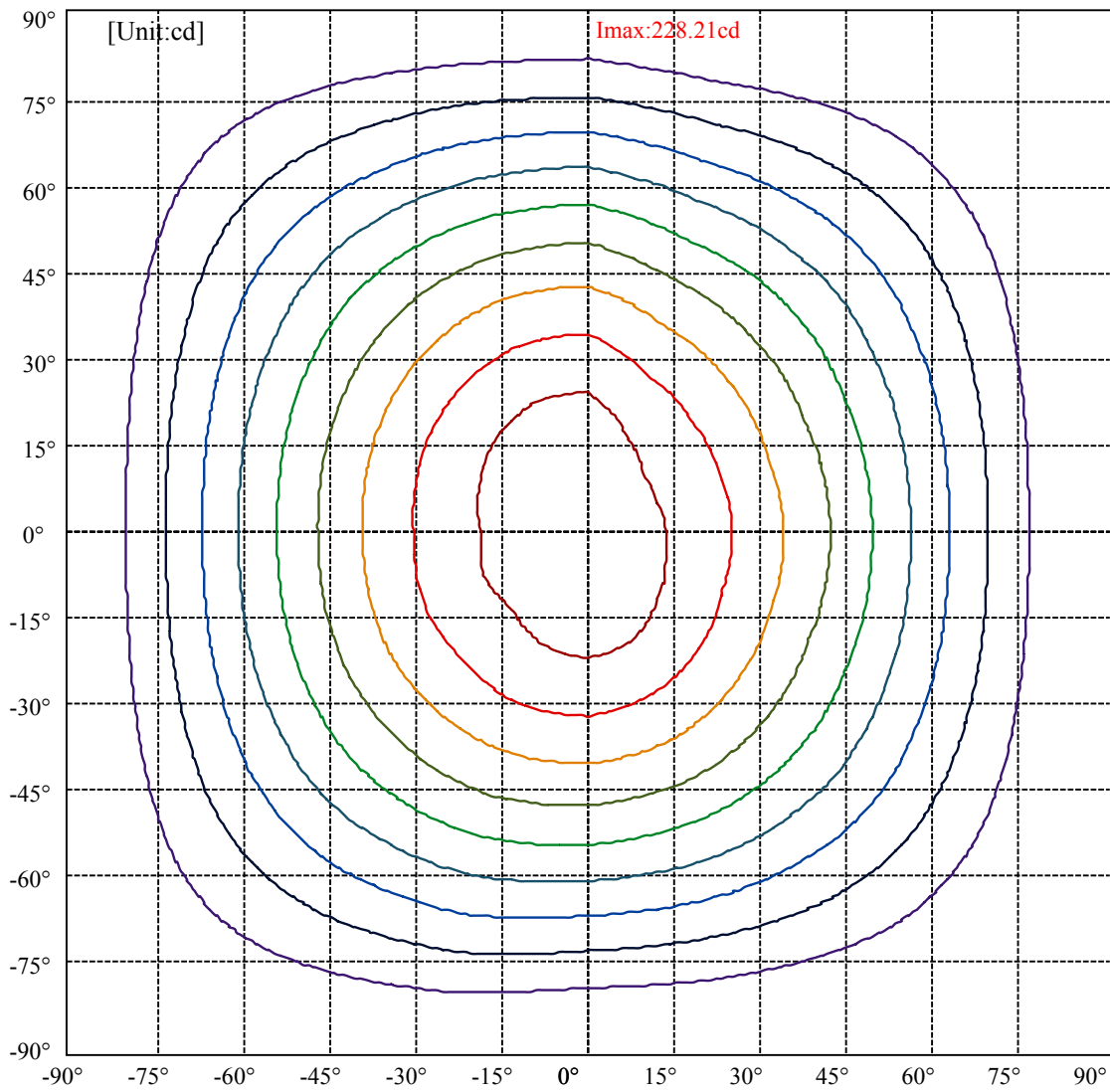
C90/C270: —

Field angle(10%Imax):C0/180Left:79.8 Right:76.2
 :C90/270Left:78.6 Right:81.5

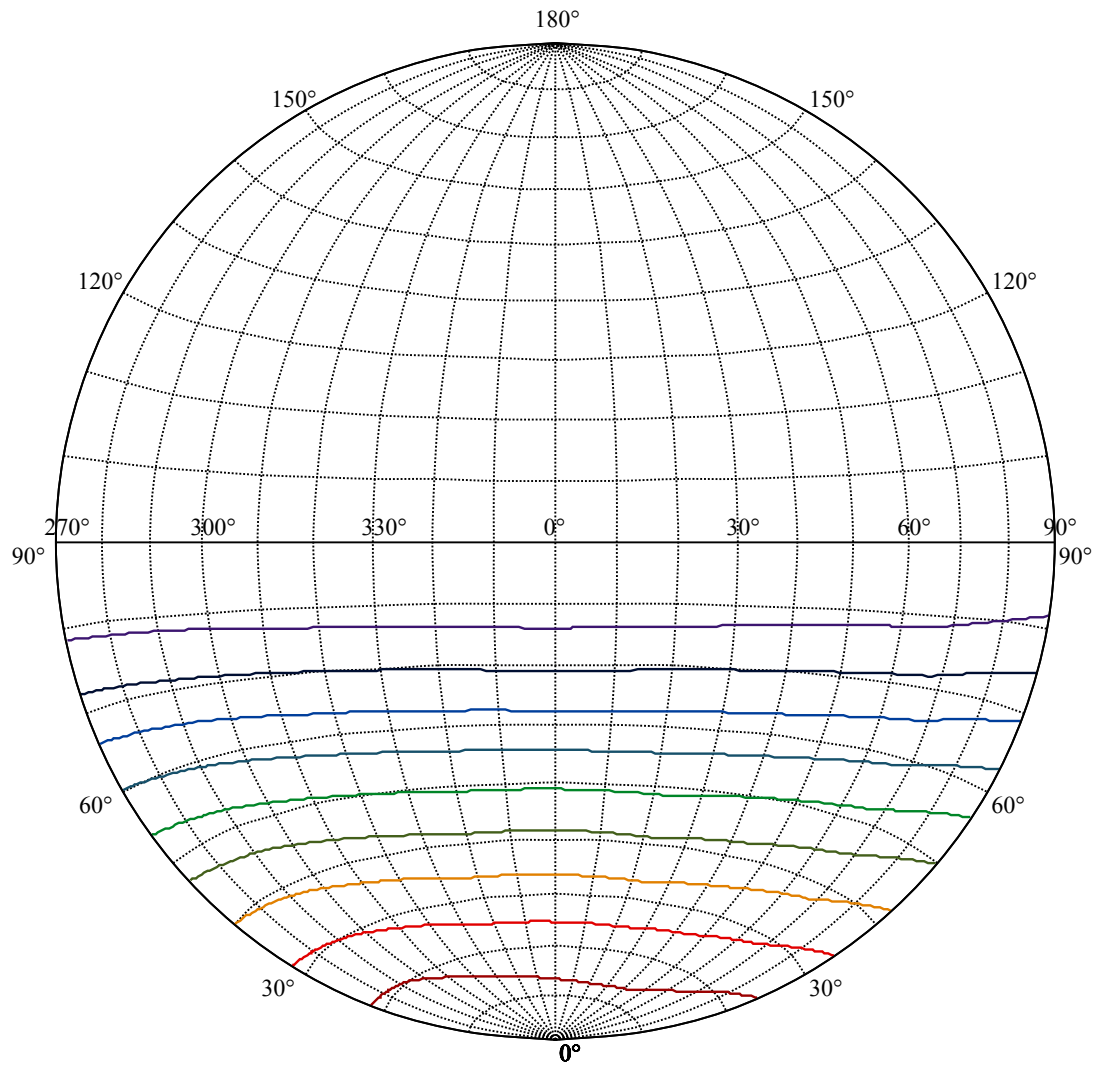
Beam Angle(50%Imax):C0/180Left:54.6 Right:49.9
 :C90/270Left:54.0 Right:56.4



Max , Ave Beam angle of C90 plane 110.65



(10%I _{max}) 22.8205	—
(20%I _{max}) 45.641	—
(30%I _{max}) 68.4615	—
(40%I _{max}) 91.282	—
(50%I _{max}) 114.103	—
(60%I _{max}) 136.923	—
(70%I _{max}) 159.743	—
(80%I _{max}) 182.564	—
(90%I _{max}) 205.385	—



House

[Unit:cd]

Road

I_{max}:228.21

(10%I _{max}) 22.8205	—
(20%I _{max}) 45.641	—
(30%I _{max}) 68.4615	—
(40%I _{max}) 91.282	—
(50%I _{max}) 114.103	—
(60%I _{max}) 136.923	—
(70%I _{max}) 159.743	—
(80%I _{max}) 182.564	—
(90%I _{max}) 205.385	—

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	221.83	215.12	210.14	203.08	193.53	182.11	169.44	156.36	142.24
22.5	221.83	215.33	209.93	202.25	192.49	181.69	168.61	155.11	140.58
45.0	221.83	214.92	210.35	203.50	194.77	184.39	172.56	159.47	144.94
67.5	221.83	220.32	216.16	209.31	201.42	191.24	179.20	166.74	152.21
90.0	221.83	228.21	225.30	220.32	212.84	203.29	192.70	180.03	166.74
112.5	221.83	227.58	224.88	219.90	212.42	203.91	192.28	179.82	166.33
135.0	221.83	223.85	221.77	216.79	209.73	200.38	188.96	176.29	162.59
157.5	221.83	220.11	218.03	213.26	205.99	196.85	185.43	173.18	158.85
180.0	221.83	218.03	215.33	210.14	203.08	193.53	182.73	170.27	156.36
202.5	221.83	218.45	216.16	211.59	204.74	195.40	184.18	171.73	157.81
225.0	221.83	217.82	215.33	210.14	203.29	194.15	183.56	171.73	158.44
247.5	221.83	221.56	219.28	214.29	207.03	197.68	187.09	174.22	160.10
270.0	221.83	227.17	223.01	217.41	208.89	198.72	187.09	174.22	159.68
292.5	221.83	225.30	221.15	214.29	205.78	195.19	182.52	169.23	155.11
315.0	221.83	221.35	216.16	208.89	199.34	188.75	175.88	162.38	148.05
337.5	221.83	216.99	212.22	204.53	194.57	182.94	170.89	156.77	142.03
360.0	221.83	215.12	210.14	203.08	193.53	182.11	169.44	156.36	142.24
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	127.29	110.68	93.23	76.21	58.76	41.53	25.33	11.84	3.53
22.5	125.63	109.64	93.44	76.83	60.63	43.81	27.20	12.67	3.95
45.0	129.78	114.83	97.60	80.98	63.75	46.93	30.11	14.74	4.36
67.5	137.26	121.06	104.86	87.63	69.98	51.50	34.05	17.86	5.61
90.0	151.17	136.43	118.98	101.54	83.48	64.37	45.06	27.41	11.63
112.5	150.96	134.76	117.53	100.29	82.02	62.71	44.64	26.37	11.01
135.0	147.02	131.23	114.21	96.56	78.49	59.60	41.74	24.71	10.18
157.5	143.49	127.50	111.09	93.65	76.42	58.14	40.91	23.26	9.55
180.0	141.82	126.04	109.43	92.20	73.72	55.23	37.58	21.60	8.93
202.5	142.86	126.25	109.85	92.61	74.75	56.48	39.45	22.01	8.72
225.0	143.49	127.91	111.51	93.86	76.21	57.93	39.87	22.63	8.51
247.5	145.56	129.78	113.17	95.52	78.28	59.60	41.11	23.46	9.34
270.0	143.69	127.91	110.47	91.99	72.88	53.78	35.51	17.86	4.98
292.5	139.12	122.31	105.69	87.42	69.15	50.04	32.81	16.20	4.15
315.0	132.48	116.08	99.05	81.61	64.16	46.72	29.07	13.50	3.95
337.5	126.67	111.30	94.69	77.66	61.05	43.81	26.58	12.04	3.74
360.0	127.29	110.68	93.23	76.21	58.76	41.53	25.33	11.84	3.53
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.83	0.42	0.42	0.62	0.42	0.62	1.04	0.83	0.83
22.5	0.83	0.42	0.62	0.83	0.83	0.83	0.62	0.62	0.62
45.0	0.83	0.62	0.83	0.83	0.62	0.62	0.42	0.62	0.83
67.5	1.04	0.62	0.83	0.62	0.62	0.83	0.83	0.83	1.04
90.0	2.28	0.21	0.21	0.21	0.21	0.00	0.21	0.21	0.42
112.5	2.28	0.42	0.21	0.21	0.21	0.42	0.21	0.00	0.21
135.0	1.66	0.42	0.21	0.00	0.00	0.21	0.21	0.21	0.21
157.5	1.04	0.42	0.00	0.00	0.42	0.42	0.21	0.21	0.62
180.0	0.62	0.42	0.42	0.21	0.21	0.21	0.42	0.42	0.42
202.5	0.83	0.42	0.21	0.42	0.00	0.21	0.42	0.62	0.42
225.0	1.04	0.62	0.21	0.42	0.21	0.42	0.42	0.42	0.42
247.5	0.83	0.42	0.21	0.21	0.42	0.42	0.62	0.62	0.62
270.0	1.04	0.83	0.62	0.83	0.42	0.83	0.83	0.83	0.83
292.5	0.83	0.42	0.42	0.42	0.42	0.62	0.62	0.62	0.83
315.0	1.04	0.62	0.42	0.62	0.62	0.62	0.62	0.62	0.83
337.5	0.42	0.62	0.83	0.42	0.62	0.42	0.62	0.62	0.83
360.0	0.83	0.42	0.42	0.62	0.42	0.62	1.04	0.83	0.83

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	0.83	1.04	1.04	0.83	1.04	1.25	0.83	0.83	0.62
22.5	0.83	1.04	0.83	0.83	1.04	1.04	1.04	0.83	0.62
45.0	0.83	0.83	0.62	0.83	1.04	1.04	0.83	0.83	0.83
67.5	0.83	0.83	0.83	0.83	0.83	1.04	1.04	0.83	0.83
90.0	0.21	0.42	0.42	0.62	0.62	0.62	0.62	0.83	0.62
112.5	0.42	0.21	0.62	0.62	0.62	0.62	0.62	0.62	0.83
135.0	0.21	0.21	0.62	0.42	0.83	0.62	0.62	0.83	0.83
157.5	0.42	0.62	0.83	0.62	0.83	0.62	0.62	0.83	0.83
180.0	0.62	0.62	0.62	0.83	0.83	0.62	0.83	1.04	0.83
202.5	0.42	0.42	0.62	0.83	0.83	1.04	1.04	0.83	1.04
225.0	0.62	0.83	0.83	0.83	0.83	0.83	0.62	0.83	0.83
247.5	0.42	0.83	0.62	0.62	0.83	0.83	1.04	0.62	0.83
270.0	1.25	1.45	1.25	1.25	1.25	1.25	1.25	1.25	1.25
292.5	0.62	0.62	0.83	0.42	1.04	0.83	0.62	0.62	0.42
315.0	0.62	0.62	0.62	0.83	0.83	0.83	0.62	0.83	0.83
337.5	0.83	0.83	0.83	1.04	1.04	0.83	0.83	0.62	1.04
360.0	0.83	1.04	1.04	0.83	1.04	1.25	0.83	0.83	0.62
C/γ(°)	180.0								
0.0	0.93								
22.5	0.93								
45.0	0.93								
67.5	0.93								
90.0	0.93								
112.5	0.93								
135.0	0.93								
157.5	0.93								
180.0	0.93								
202.5	0.93								
225.0	0.93								
247.5	0.93								
270.0	0.93								
292.5	0.93								
315.0	0.93								
337.5	0.93								
360.0	0.93								