



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.11

LampCAT:

Current(A): 0.0950

Lamp flux(lm): -1.0

Power (W): 11.11

Number of Lamps: 1

PF: 0.9752

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

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### Photometric Results

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Lumens(lm): 669.82, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 60.29

Central intensity(cd): 239.299, Maximum intensity(cd): 244.940

Angle of maximum intensity: C=112.5  $\gamma$ =5.0

Beam Angle(50%Imax): [C0/180]Total=109.3

[C90/270]Total=113.6

Field angle(10%Imax): [C0/180]Total=156.7

[C90/270]Total=160.4

Maximum s/h(1/2): C0\_180=1.24 C90\_270=1.30

Maximum s/h(1/4): C0\_180=1.36 C90\_270=1.41

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.54%

Down flux rate of LUM(%): 99.46%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 79.639%

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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	239.299	0.000	0	0.00%	0.00%
5.0	238.298	5.710	5.71	0.00%	0.85%
10.0	235.082	16.934	22.644	0.00%	3.38%
15.0	229.631	27.566	50.21	0.00%	7.50%
20.0	222.089	37.228	87.438	0.00%	13.05%
25.0	212.642	45.595	133.034	0.00%	19.86%
30.0	201.263	52.380	185.414	0.00%	27.68%
35.0	188.151	57.344	242.758	0.00%	36.24%
40.0	173.702	60.372	303.13	0.00%	45.26%
45.0	157.626	61.348	364.478	0.00%	54.41%
50.0	140.372	60.215	424.693	0.00%	63.40%
55.0	121.835	57.012	481.705	0.00%	71.92%
60.0	101.961	51.730	533.435	0.00%	79.64%
65.0	81.386	44.572	578.007	0.00%	86.29%
70.0	60.335	35.885	613.892	0.00%	91.65%
75.0	39.760	26.163	640.055	0.00%	95.56%
80.0	21.104	16.286	656.341	0.00%	97.99%
85.0	7.092	7.662	664.003	0.00%	99.13%
90.0	0.953	2.203	666.205	0.00%	99.46%
95.0	0.463	0.388	666.593	0.00%	99.52%
100.0	0.371	0.226	666.819	0.00%	99.55%
105.0	0.371	0.198	667.017	0.00%	99.58%
110.0	0.410	0.204	667.222	0.00%	99.61%
115.0	0.463	0.221	667.443	0.00%	99.65%
120.0	0.490	0.232	667.674	0.00%	99.68%
125.0	0.582	0.248	667.922	0.00%	99.72%
130.0	0.609	0.259	668.181	0.00%	99.76%
135.0	0.675	0.259	668.44	0.00%	99.79%
140.0	0.701	0.255	668.695	0.00%	99.83%
145.0	0.741	0.241	668.935	0.00%	99.87%
150.0	0.741	0.218	669.154	0.00%	99.90%
155.0	0.781	0.193	669.346	0.00%	99.93%
160.0	0.768	0.162	669.509	0.00%	99.95%
165.0	0.834	0.132	669.641	0.00%	99.97%
170.0	0.807	0.097	669.738	0.00%	99.99%
175.0	0.794	0.057	669.795	0.00%	100.00%
180.0	0.872	0.020	669.815	0.00%	100.00%

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

Date:  
Humidity(%): 58%

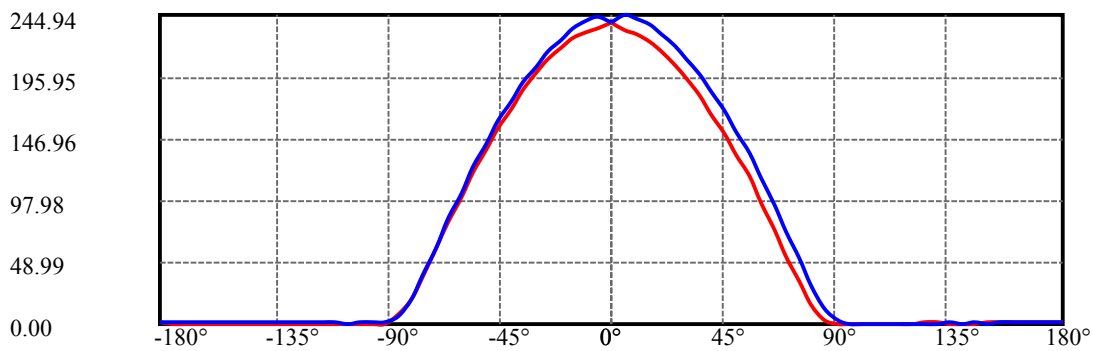
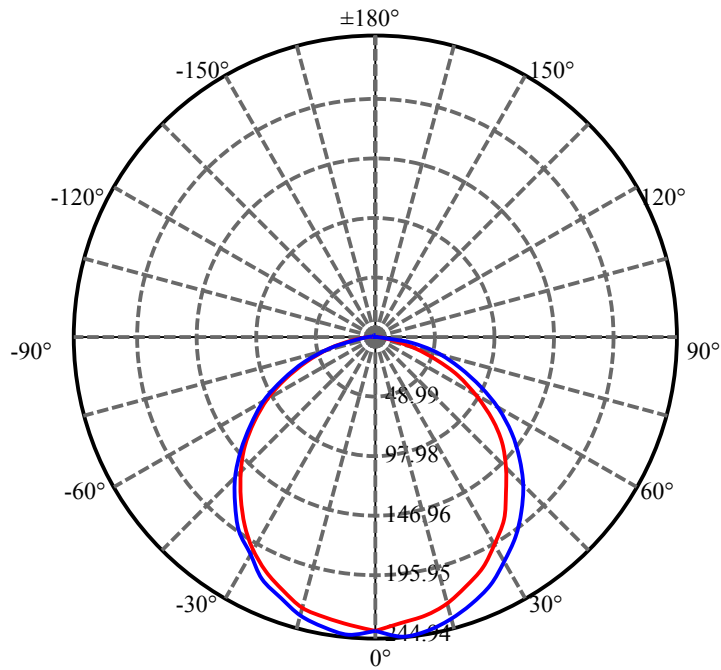
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	185.41	N.A.	27.68%
0-40	303.13	N.A.	45.26%
0-60	533.43	N.A.	79.64%
0-90	666.21	N.A.	99.46%
0-120	667.67	N.A.	99.68%
0-180	669.82	N.A.	100.00%
60-90	132.77	N.A.	19.82%
90-120	1.47	N.A.	0.22%
90-130	1.98	N.A.	0.29%
90-150	2.95	N.A.	0.44%
90-180	3.59	N.A.	0.54%
0-60.27	535.85	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	22.64
10-20	64.79
20-30	97.98
30-40	117.72
40-50	121.56
50-60	108.74
60-70	80.46
70-80	42.45
80-90	9.86
90-100	0.61
100-110	0.40
110-120	0.45
120-130	0.51
130-140	0.51
140-150	0.46
150-160	0.35
160-170	0.23
170-180	0.06

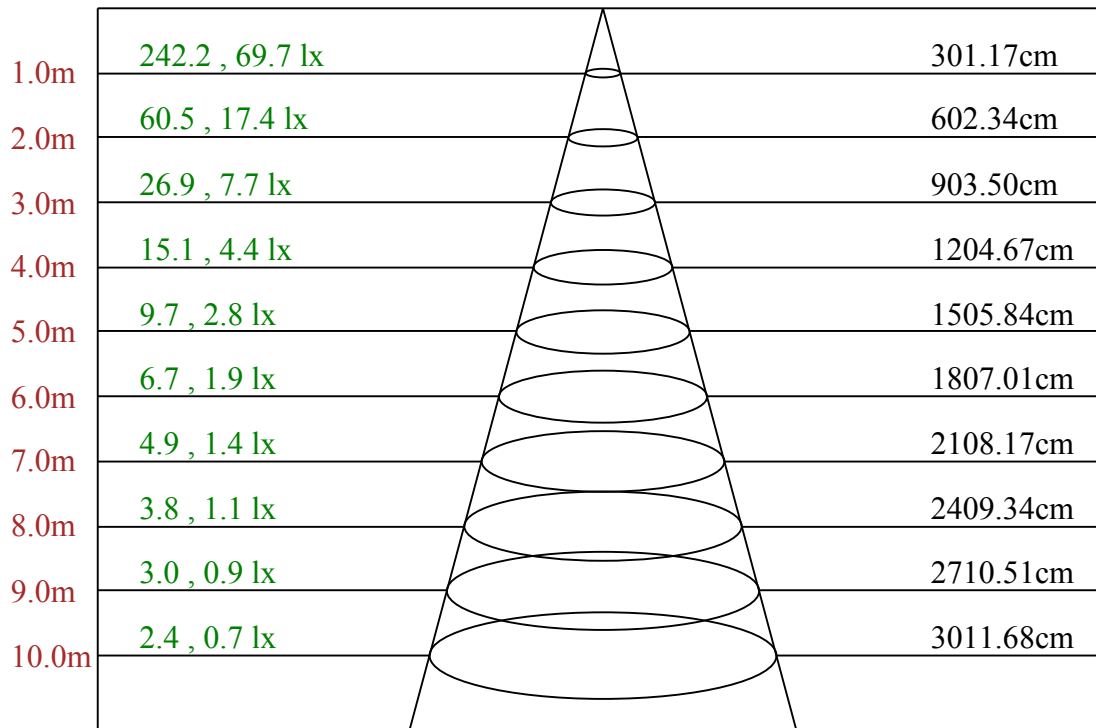


C0/C180: —

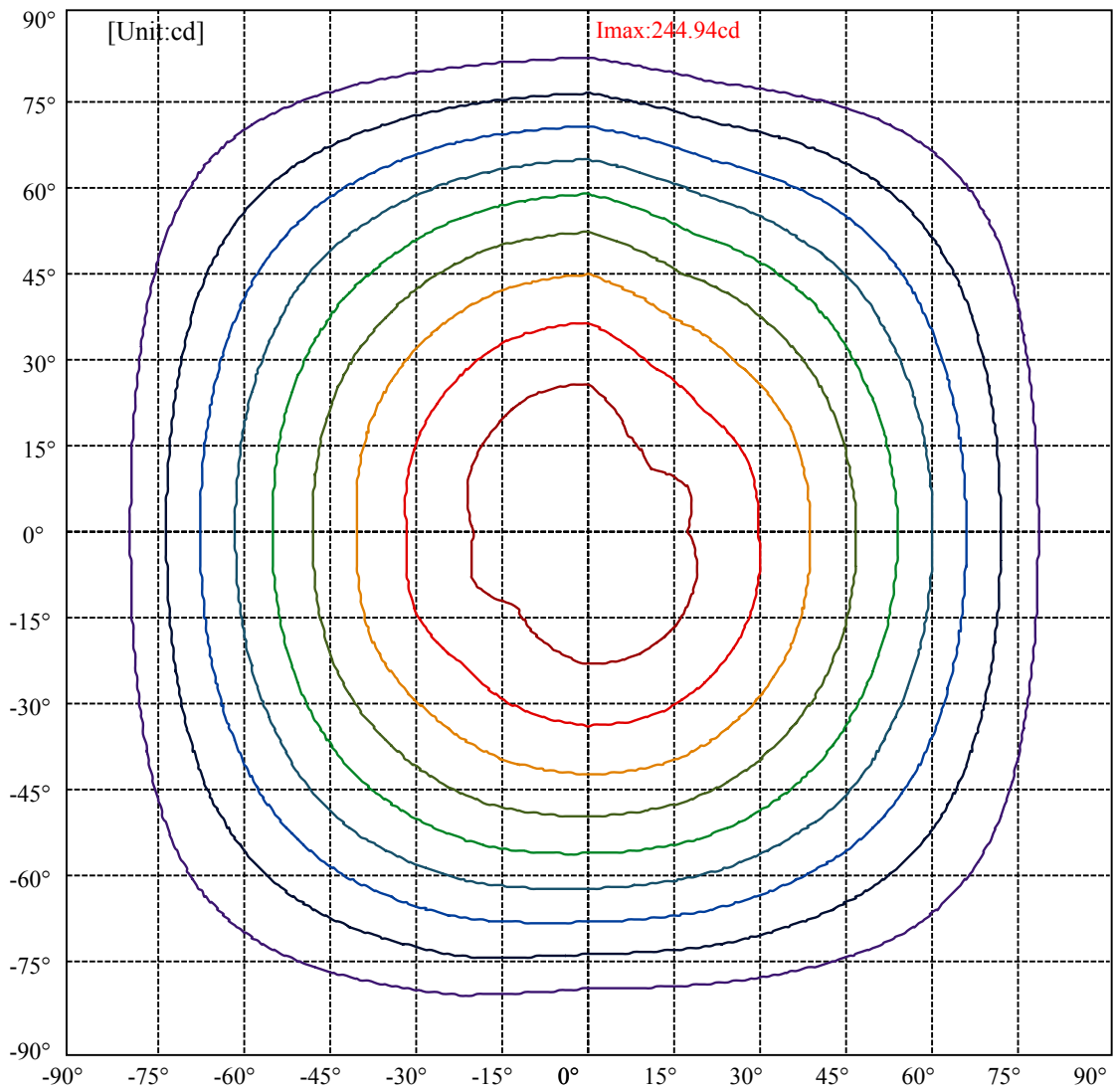
C90/C270: —

Field angle(10%Imax):C0/180Left:79.0 Right:77.7  
:C90/270Left:78.7 Right:81.7

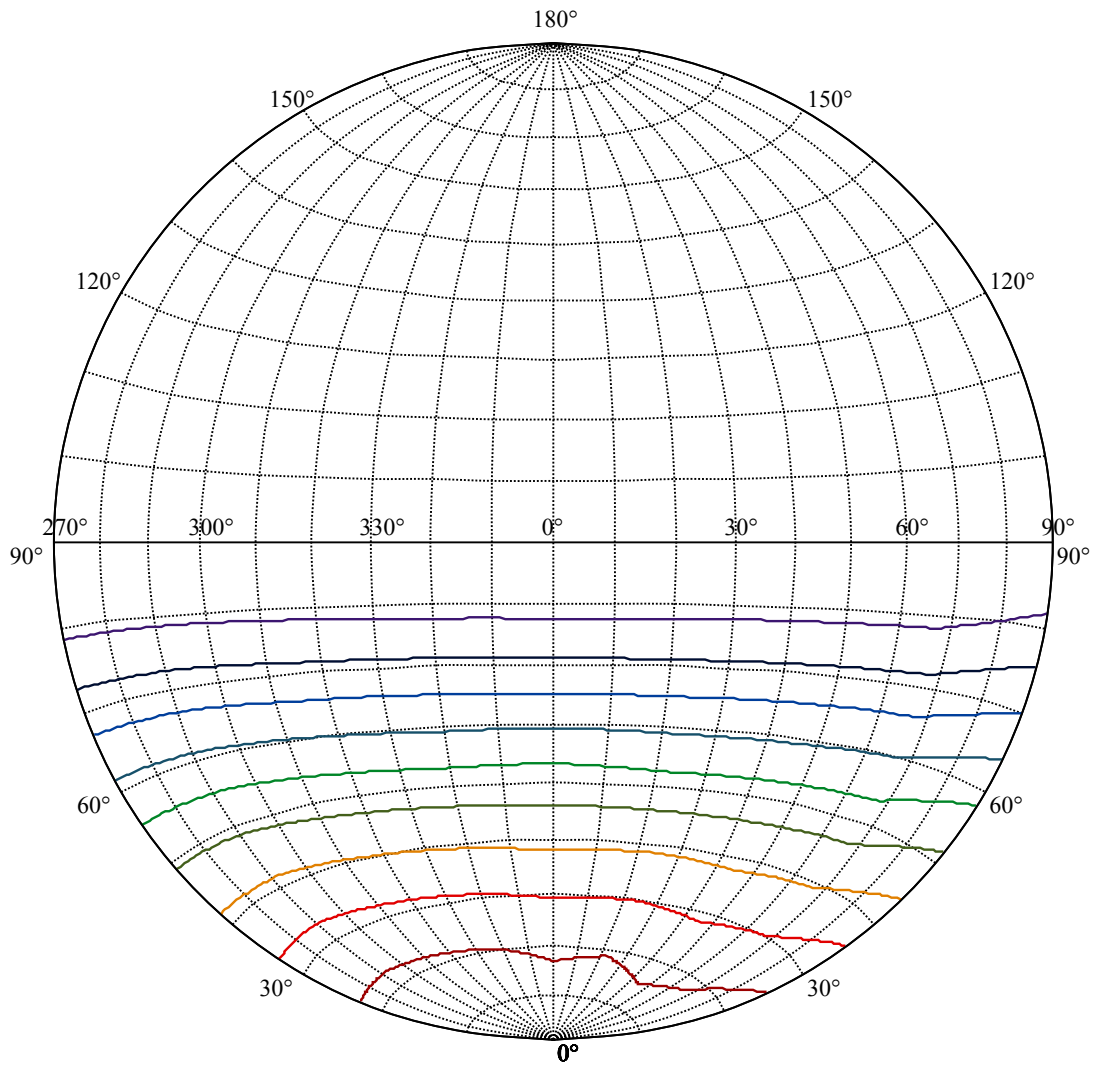
Beam Angle(50%Imax):C0/180Left:55.1 Right:54.2  
:C90/270Left:55.4 Right:58.2



Max , Ave      Beam angle of C112.5 plane 112.83



(10%I <sub>max</sub> ) 24.4732	—
(20%I <sub>max</sub> ) 48.9463	—
(30%I <sub>max</sub> ) 73.4195	—
(40%I <sub>max</sub> ) 97.8927	—
(50%I <sub>max</sub> ) 122.366	—
(60%I <sub>max</sub> ) 146.839	—
(70%I <sub>max</sub> ) 171.312	—
(80%I <sub>max</sub> ) 195.785	—
(90%I <sub>max</sub> ) 220.259	—



House

[Unit:cd]

Road

**I<sub>max</sub>:244.94**

(10%I <sub>max</sub> ) 24.4931	—
(20%I <sub>max</sub> ) 48.9861	—
(30%I <sub>max</sub> ) 73.4792	—
(40%I <sub>max</sub> ) 97.9722	—
(50%I <sub>max</sub> ) 122.465	—
(60%I <sub>max</sub> ) 146.958	—
(70%I <sub>max</sub> ) 171.451	—
(80%I <sub>max</sub> ) 195.944	—
(90%I <sub>max</sub> ) 220.438	—

## Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	239.30	233.51	229.49	223.77	215.73	205.99	194.13	181.01	165.76
22.5	239.30	237.32	233.08	226.73	218.48	207.68	195.61	182.28	167.46
45.0	239.30	229.70	226.31	220.59	212.76	203.66	192.23	179.74	165.76
67.5	239.30	234.36	230.54	224.83	217.21	207.47	196.67	183.55	169.15
90.0	239.30	244.52	241.76	237.11	230.33	221.23	210.43	198.37	184.82
112.5	239.30	244.94	242.40	237.32	230.12	221.02	210.22	197.31	182.91
135.0	239.30	242.19	239.22	234.14	226.95	217.84	206.41	193.07	179.10
157.5	239.30	240.28	237.11	231.81	225.04	215.51	203.66	190.11	175.50
180.0	239.30	234.57	231.60	226.95	219.75	210.01	199.00	185.88	170.63
202.5	239.30	238.38	236.05	230.54	223.13	213.82	202.60	189.47	174.66
225.0	239.30	230.97	228.22	223.77	217.00	208.53	198.15	185.88	172.96
247.5	239.30	235.20	232.66	227.79	221.02	212.55	201.96	189.26	175.50
270.0	239.30	243.03	239.65	233.72	225.46	216.36	204.29	191.80	176.77
292.5	239.30	243.46	240.07	233.93	225.68	216.15	204.72	191.59	176.77
315.0	239.30	241.34	237.53	231.60	223.77	213.82	201.75	187.15	172.33
337.5	239.30	239.01	235.63	229.49	221.02	210.64	198.37	183.97	169.15
360.0	239.30	233.51	229.49	223.77	215.73	205.99	194.13	181.01	165.76
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	150.73	134.43	116.86	95.27	73.88	53.14	33.24	15.88	3.60
22.5	150.31	132.31	113.26	94.00	73.88	53.14	33.87	16.72	4.23
45.0	150.52	133.58	114.95	94.63	75.37	54.62	34.72	17.36	4.87
67.5	152.85	135.28	117.28	98.02	77.27	56.53	36.41	18.00	5.29
90.0	169.15	152.43	134.85	115.17	94.42	72.61	51.23	30.27	12.91
112.5	166.82	149.89	131.47	111.36	90.19	69.02	47.21	27.10	11.01
135.0	162.16	144.17	124.90	105.85	84.89	63.30	42.34	23.92	9.10
157.5	158.99	140.99	122.58	102.68	81.93	60.76	40.65	22.23	7.83
180.0	154.54	138.03	120.04	100.98	80.87	60.34	38.74	20.11	6.99
202.5	158.14	140.57	121.52	101.41	81.29	60.55	40.22	21.81	7.83
225.0	157.93	141.84	123.85	105.43	84.47	63.72	42.76	24.13	9.10
247.5	160.47	144.38	126.39	106.91	87.01	66.26	46.58	26.46	10.80
270.0	161.11	143.32	124.06	103.95	82.99	61.18	39.17	19.48	5.72
292.5	160.05	142.26	123.42	102.46	81.51	60.12	38.74	19.48	5.72
315.0	155.60	137.82	118.98	98.44	77.06	55.68	35.99	18.21	4.66
337.5	152.64	134.64	114.95	94.84	75.15	54.41	34.30	16.51	3.81
360.0	150.73	134.43	116.86	95.27	73.88	53.14	33.24	15.88	3.60
C/ $\gamma$ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.64	0.42	0.64	0.64	0.42	0.42	0.64	0.85	1.06
22.5	0.42	0.42	0.64	0.42	0.64	0.42	0.64	0.64	0.64
45.0	0.64	0.64	0.21	0.21	0.42	0.42	0.64	0.64	0.85
67.5	0.64	0.64	0.64	0.42	0.64	0.85	0.64	0.64	0.64
90.0	2.33	0.42	0.42	0.42	0.42	0.64	0.42	0.64	0.42
112.5	1.91	0.42	0.21	0.21	0.21	0.42	0.21	0.42	0.42
135.0	1.06	0.42	0.00	0.21	0.00	0.42	0.21	0.21	0.42
157.5	0.85	0.42	0.21	0.21	0.21	0.42	0.21	0.42	0.21
180.0	0.64	0.00	0.00	0.21	0.21	0.21	0.21	0.42	0.42
202.5	0.85	0.42	0.00	0.00	0.21	0.21	0.42	0.42	0.21
225.0	1.06	0.42	0.21	0.21	0.21	0.00	0.21	0.42	0.42
247.5	1.91	0.42	0.21	0.21	0.21	0.21	0.42	0.42	0.64
270.0	0.85	1.06	1.06	0.64	0.85	1.06	1.06	1.06	1.27
292.5	0.64	0.42	0.64	0.85	0.85	0.64	0.64	0.85	0.64
315.0	0.42	0.42	0.42	0.64	0.64	0.42	0.64	0.64	0.64
337.5	0.42	0.42	0.42	0.42	0.42	0.64	0.64	0.64	0.85
360.0	0.64	0.42	0.64	0.64	0.42	0.42	0.64	0.85	1.06



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	0.64	0.64	0.64	0.85	0.85	0.85	0.85	0.85	0.85
22.5	0.85	0.85	0.85	0.85	0.64	0.85	0.85	0.85	0.64
45.0	0.85	0.64	0.85	1.06	0.85	0.85	0.85	0.64	0.85
67.5	0.85	0.85	0.85	0.85	0.85	0.85	0.42	0.85	0.64
90.0	0.85	0.64	0.85	0.64	1.06	1.06	0.85	1.06	1.06
112.5	0.42	0.42	0.64	0.64	0.85	0.64	0.64	0.64	0.64
135.0	0.64	0.42	0.85	0.64	0.42	0.64	0.64	0.64	0.64
157.5	0.42	0.42	0.42	0.42	0.64	0.64	0.85	0.85	0.85
180.0	0.42	0.64	0.42	0.42	0.64	0.64	0.64	0.64	0.64
202.5	0.42	0.64	0.64	0.64	0.64	0.64	0.85	0.85	0.64
225.0	0.42	0.64	0.64	0.64	0.42	0.42	0.85	0.64	0.64
247.5	0.42	0.42	0.64	0.64	0.64	0.85	0.85	0.64	0.85
270.0	1.27	1.27	1.06	1.27	1.27	1.06	1.27	1.27	1.27
292.5	0.64	1.06	1.06	0.85	0.85	0.64	1.06	0.85	0.85
315.0	0.85	0.85	0.85	0.64	0.85	0.85	1.06	0.85	0.85
337.5	0.85	0.85	0.64	0.85	1.06	0.85	0.85	0.85	0.85
360.0	0.64	0.64	0.64	0.85	0.85	0.85	0.85	0.85	0.85

C/γ(°)	180.0
0.0	0.87
22.5	0.87
45.0	0.87
67.5	0.87
90.0	0.87
112.5	0.87
135.0	0.87
157.5	0.87
180.0	0.87
202.5	0.87
225.0	0.87
247.5	0.87
270.0	0.87
292.5	0.87
315.0	0.87
337.5	0.87
360.0	0.87