



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): 0.0430

Lamp flux(lm): -1.0

Power (W): 4.97

Number of Lamps: 1

PF: 0.9622

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

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### Photometric Results

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Lumens(lm): 304.01, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 61.17

Central intensity(cd): 110.811, Maximum intensity(cd): 114.161

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

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

[C90/270]Total=108.8

Field angle(10%Imax): [C0/180]Total=156.5

[C90/270]Total=159.7

Maximum s/h(1/2): C0\_180=1.26 C90\_270=1.30

Maximum s/h(1/4): C0\_180=1.38 C90\_270=1.40

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.84%

Down flux rate of LUM(%): 99.16%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 79.840%

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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	110.811	0.000	0	0.00%	0.00%
5.0	110.389	2.644	2.644	0.00%	0.87%
10.0	108.896	7.845	10.489	0.00%	3.45%
15.0	106.009	12.748	23.237	0.00%	7.64%
20.0	102.581	17.191	40.428	0.00%	13.30%
25.0	97.907	21.027	61.455	0.00%	20.22%
30.0	92.641	24.114	85.569	0.00%	28.15%
35.0	85.982	26.304	111.873	0.00%	36.80%
40.0	78.748	27.484	139.357	0.00%	45.84%
45.0	71.334	27.789	167.146	0.00%	54.98%
50.0	62.838	27.112	194.257	0.00%	63.90%
55.0	54.391	25.489	219.747	0.00%	72.28%
60.0	44.992	22.972	242.719	0.00%	79.84%
65.0	35.593	19.590	262.309	0.00%	86.28%
70.0	26.539	15.732	278.042	0.00%	91.46%
75.0	17.223	11.439	289.48	0.00%	95.22%
80.0	9.349	7.110	296.59	0.00%	97.56%
85.0	3.772	3.566	300.156	0.00%	98.73%
90.0	0.935	1.289	301.445	0.00%	99.16%
95.0	0.295	0.337	301.781	0.00%	99.27%
100.0	0.328	0.169	301.951	0.00%	99.32%
105.0	0.262	0.158	302.109	0.00%	99.38%
110.0	0.262	0.137	302.246	0.00%	99.42%
115.0	0.262	0.133	302.379	0.00%	99.46%
120.0	0.344	0.147	302.526	0.00%	99.51%
125.0	0.312	0.152	302.678	0.00%	99.56%
130.0	0.410	0.157	302.835	0.00%	99.61%
135.0	0.459	0.176	303.01	0.00%	99.67%
140.0	0.475	0.173	303.183	0.00%	99.73%
145.0	0.492	0.161	303.345	0.00%	99.78%
150.0	0.607	0.162	303.507	0.00%	99.84%
155.0	0.590	0.152	303.658	0.00%	99.89%
160.0	0.574	0.122	303.78	0.00%	99.93%
165.0	0.591	0.096	303.876	0.00%	99.96%
170.0	0.640	0.073	303.949	0.00%	99.98%
175.0	0.607	0.045	303.994	0.00%	100.00%
180.0	0.494	0.013	304.007	0.00%	100.00%

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

Date:  
Humidity(%): 58%

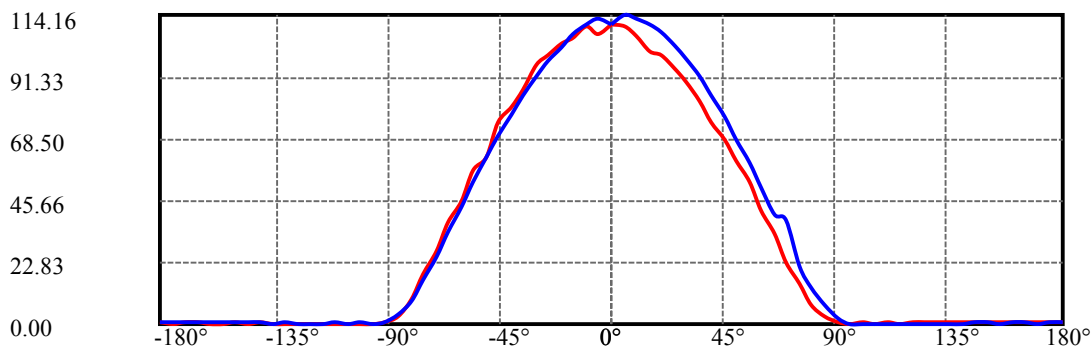
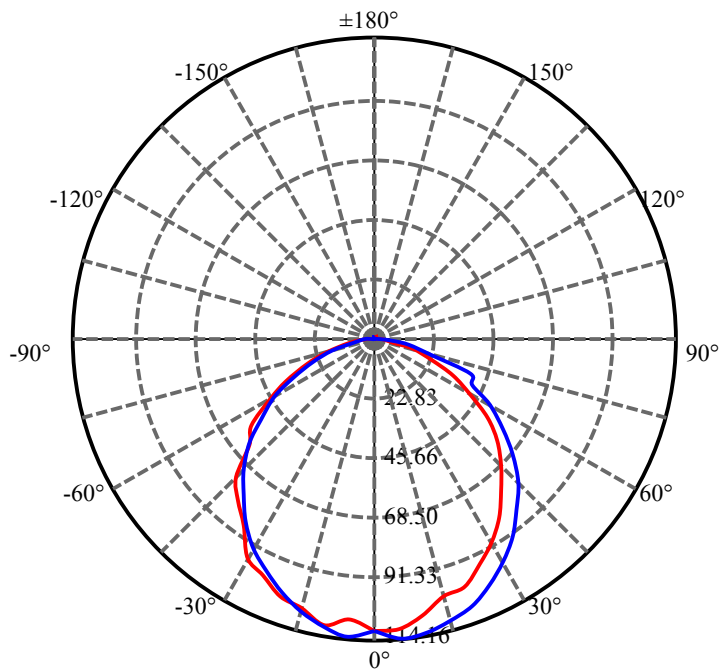
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	85.57	N.A.	28.15%
0-40	139.36	N.A.	45.84%
0-60	242.72	N.A.	79.84%
0-90	301.44	N.A.	99.16%
0-120	302.53	N.A.	99.51%
0-180	304.01	N.A.	100.00%
60-90	58.73	N.A.	19.32%
90-120	1.08	N.A.	0.36%
90-130	1.39	N.A.	0.46%
90-150	2.06	N.A.	0.68%
90-180	2.55	N.A.	0.84%
0-60.12	243.21	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	10.49
10-20	29.94
20-30	45.14
30-40	53.79
40-50	54.90
50-60	48.46
60-70	35.32
70-80	18.55
80-90	4.85
90-100	0.51
100-110	0.30
110-120	0.28
120-130	0.31
130-140	0.35
140-150	0.32
150-160	0.27
160-170	0.17
170-180	0.04

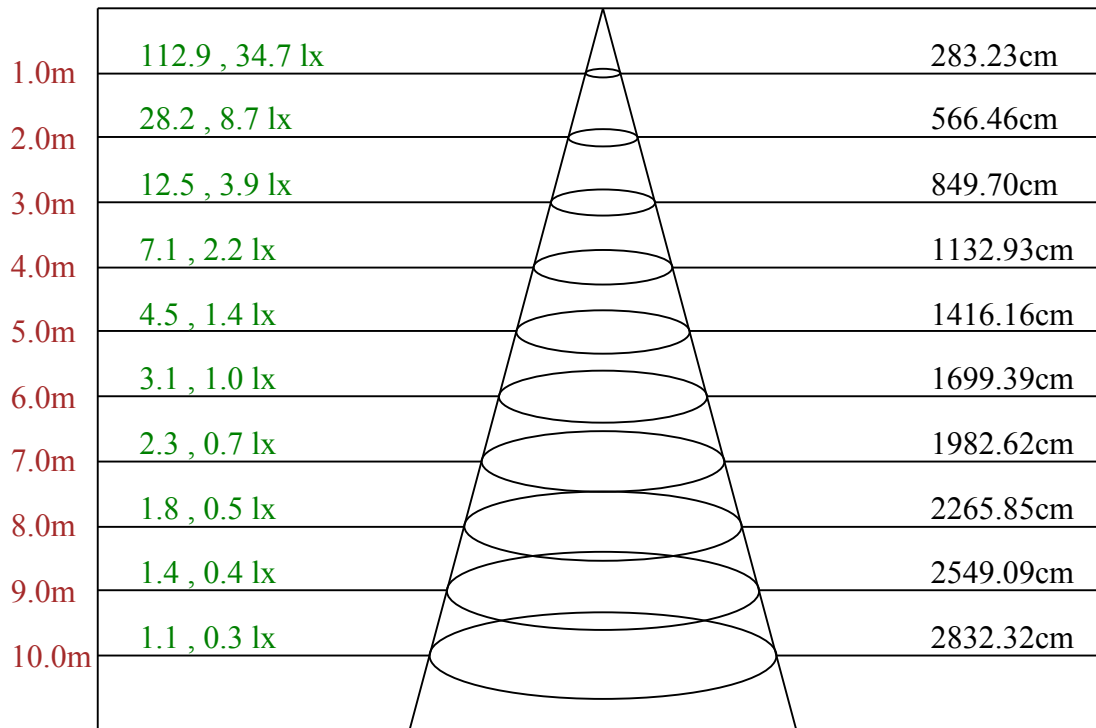


C0/C180: —

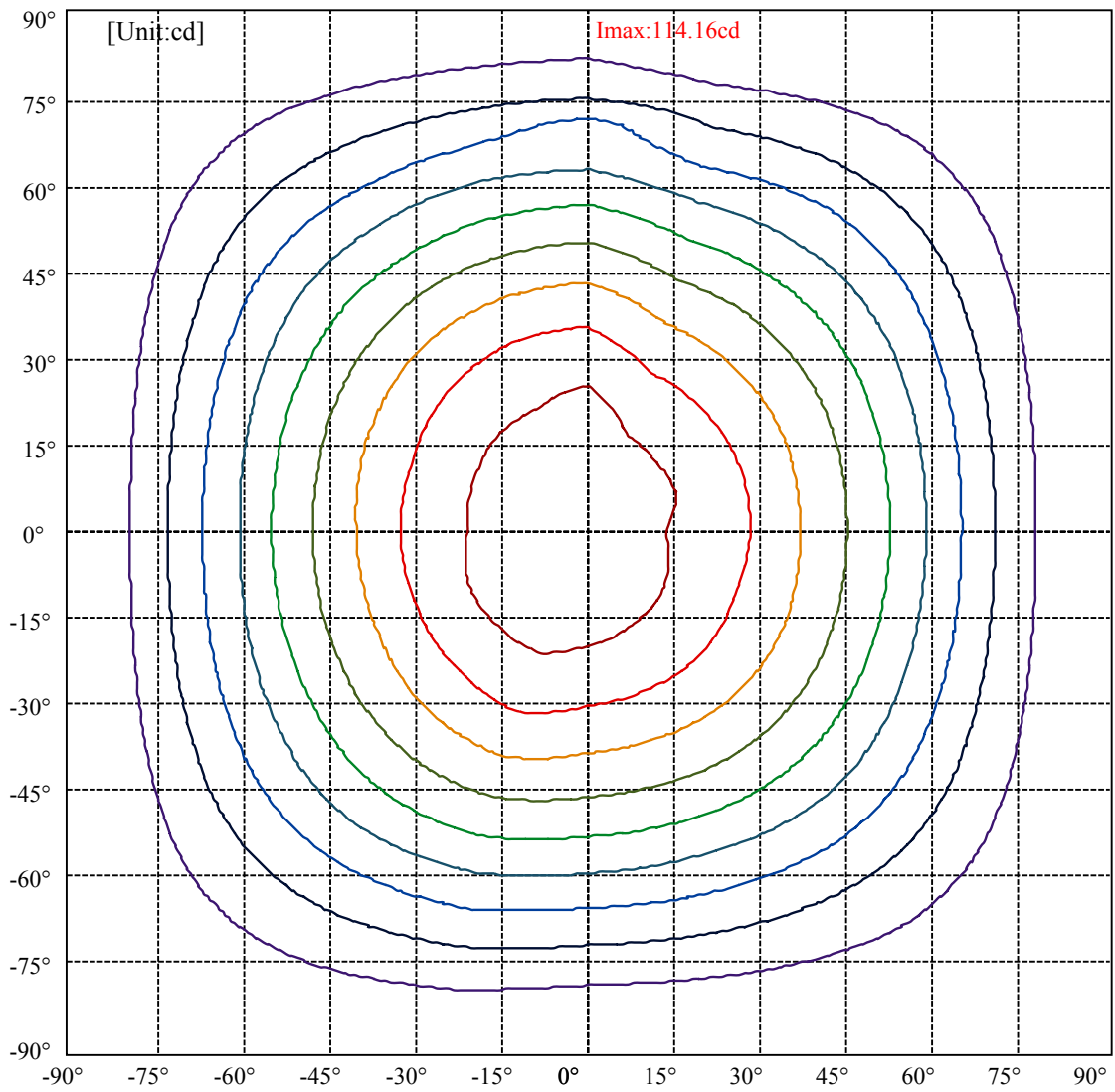
C90/C270: —

Field angle(10%Imax):C0/180Left:79.1 Right:77.4  
 :C90/270Left:78.1 Right:81.6

Beam Angle(50%Imax):C0/180Left:55.6 Right:53.0  
 :C90/270Left:52.5 Right:56.3



Max , Ave      Beam angle of C90 plane 109.55

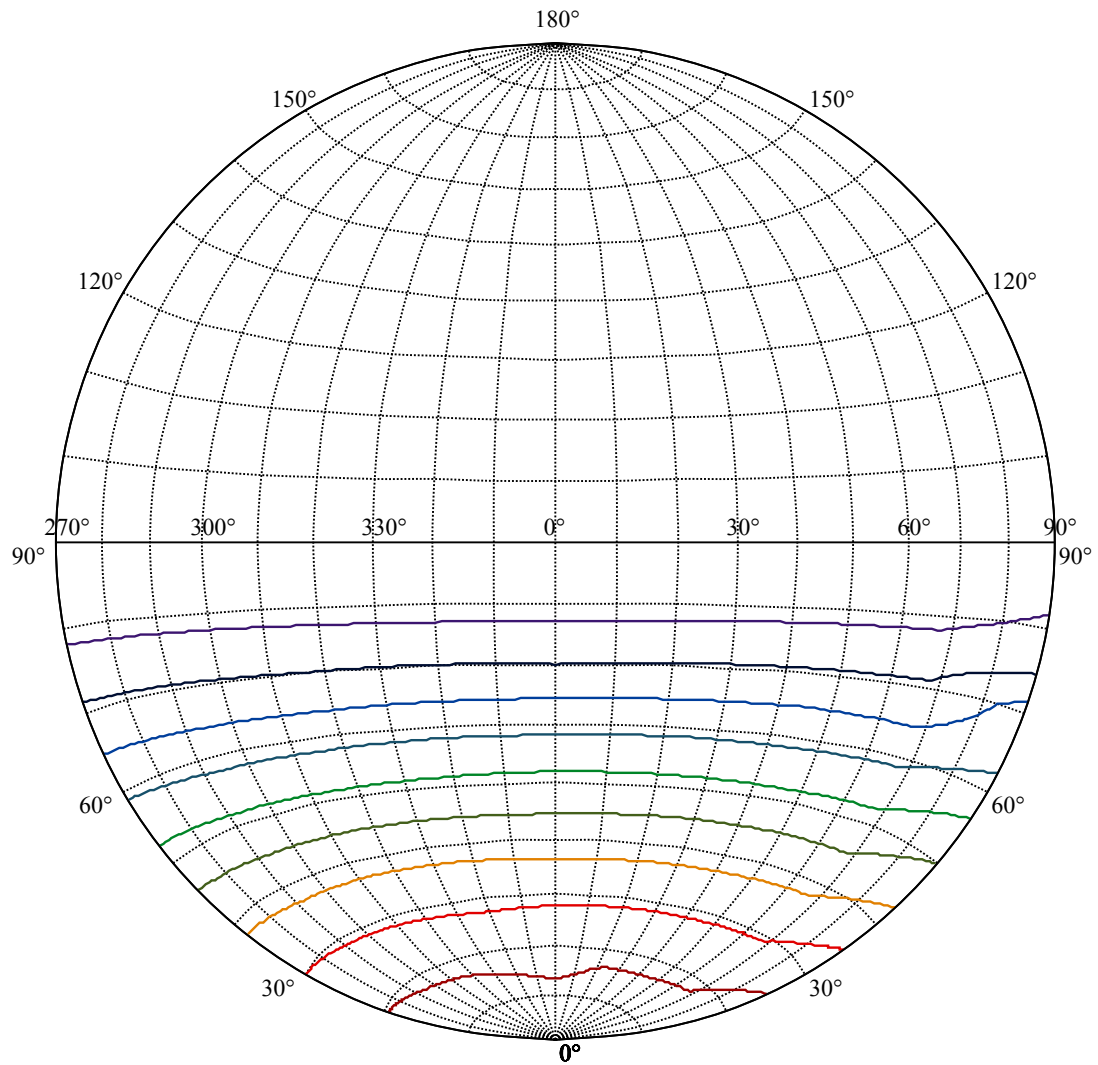


(10%Imax) 11.4161	—
(20%Imax) 22.8322	—
(30%Imax) 34.2483	—
(40%Imax) 45.6644	—
(50%Imax) 57.0805	—
(60%Imax) 68.4966	—
(70%Imax) 79.9127	—
(80%Imax) 91.3288	—
(90%Imax) 102.745	—

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

Date:  
Humidity(%): 58%

Operator: Tester



House

[Unit:cd]

Road

**Imax:114.16**

(10%Imax) 11.4161	
(20%Imax) 22.8322	
(30%Imax) 34.2483	
(40%Imax) 45.6644	
(50%Imax) 57.0805	
(60%Imax) 68.4966	
(70%Imax) 79.9127	
(80%Imax) 91.3288	
(90%Imax) 102.745	

## 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	110.81	109.96	106.55	101.04	99.47	94.22	89.23	82.14	74.53
22.5	110.81	107.60	106.03	103.93	99.99	95.27	89.23	82.67	75.58
45.0	110.81	108.91	107.34	104.19	99.99	95.27	89.49	82.93	75.85
67.5	110.81	111.54	108.39	105.24	100.78	96.05	90.54	83.98	76.90
90.0	110.81	114.16	112.85	110.75	107.60	102.88	97.63	91.59	84.24
112.5	110.81	111.80	110.75	108.39	104.71	101.30	96.84	91.07	83.72
135.0	110.81	111.01	109.44	107.60	104.98	100.52	96.05	89.75	82.67
157.5	110.81	109.96	108.39	106.55	104.19	99.20	94.22	88.44	81.36
180.0	110.81	106.81	110.23	105.76	103.40	98.94	95.79	86.34	79.78
202.5	110.81	108.65	107.86	107.08	104.98	100.52	93.95	87.13	79.26
225.0	110.81	111.28	111.01	108.39	104.71	100.25	94.22	87.66	80.57
247.5	110.81	112.32	110.49	107.86	104.98	100.52	95.53	88.71	81.36
270.0	110.81	112.85	110.49	107.08	102.35	97.10	91.33	84.51	77.16
292.5	110.81	110.49	108.13	104.98	101.04	96.05	90.02	83.19	75.58
315.0	110.81	109.96	108.13	104.45	99.73	94.74	89.49	82.93	75.85
337.5	110.81	108.91	106.29	102.88	98.42	93.69	88.71	82.67	75.58
360.0	110.81	109.96	106.55	101.04	99.47	94.22	89.23	82.14	74.53
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	67.97	60.36	52.23	41.99	33.07	22.83	14.70	7.09	2.62
22.5	68.50	60.62	52.23	43.04	33.59	23.88	15.22	7.35	2.62
45.0	68.76	60.36	52.23	42.78	34.12	24.41	15.48	8.14	3.15
67.5	69.02	61.15	52.49	43.30	33.33	24.67	16.01	8.40	3.15
90.0	76.63	68.23	59.57	50.13	40.68	38.32	21.52	13.38	7.09
112.5	75.32	67.19	58.00	49.60	39.63	29.92	20.21	12.07	5.77
135.0	74.80	65.35	56.43	46.98	37.00	27.82	18.37	10.76	4.46
157.5	73.22	64.82	56.16	46.45	37.53	27.56	18.37	9.97	3.67
180.0	74.53	61.94	56.69	45.67	37.27	26.77	18.63	9.45	2.89
202.5	71.91	64.30	55.38	46.19	37.00	27.56	18.37	9.97	3.67
225.0	73.22	64.82	56.43	47.24	37.27	27.56	18.90	10.76	4.46
247.5	73.48	65.09	56.43	46.98	37.27	28.08	18.90	11.02	4.72
270.0	69.55	61.41	52.75	43.57	33.86	24.93	16.27	8.40	3.41
292.5	68.23	60.10	51.18	41.73	32.81	23.88	15.48	7.87	3.15
315.0	68.23	59.84	50.65	41.99	32.28	23.10	14.70	7.61	2.89
337.5	67.97	59.84	51.44	42.25	32.81	23.36	14.43	7.35	2.62
360.0	67.97	60.36	52.23	41.99	33.07	22.83	14.70	7.09	2.62
C/ $\gamma$ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.53	0.26	0.53	0.26	0.53	0.26	0.79	0.53	0.53
22.5	0.79	0.79	0.79	0.53	0.53	0.53	0.53	0.53	0.53
45.0	1.05	0.79	0.79	0.53	0.53	0.53	0.53	0.53	0.53
67.5	1.05	0.79	0.53	0.53	0.53	0.53	0.79	0.79	0.53
90.0	1.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.5	1.31	0.26	0.00	0.26	0.00	0.00	0.00	0.00	0.53
135.0	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26
157.5	1.05	0.00	0.00	0.00	0.00	0.00	0.26	0.00	0.00
180.0	0.53	0.00	0.00	0.26	0.00	0.26	0.00	0.00	0.00
202.5	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53
225.0	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.26
247.5	1.31	0.00	0.00	0.00	0.00	0.00	0.26	0.26	0.26
270.0	0.79	0.26	0.53	0.26	0.79	0.26	0.26	0.26	0.53
292.5	0.79	0.26	0.53	0.53	0.26	0.53	0.79	0.26	0.79
315.0	0.79	0.53	0.79	0.53	0.53	0.79	0.53	0.53	0.79
337.5	1.05	0.79	0.79	0.53	0.53	0.53	0.79	1.05	0.53
360.0	0.53	0.26	0.53	0.26	0.53	0.26	0.79	0.53	0.53



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	0.79	0.53	0.79	0.79	0.79	0.79	0.53	0.53	0.53
22.5	0.79	0.79	0.79	1.05	0.53	0.53	0.79	0.79	0.79
45.0	1.05	0.79	0.79	0.79	0.79	0.79	0.53	0.79	0.53
67.5	0.79	0.53	0.79	0.79	0.79	0.53	0.53	0.79	0.53
90.0	0.26	0.26	0.53	0.53	0.26	0.53	0.53	0.26	0.53
112.5	0.00	0.26	0.53	0.26	0.53	0.26	0.53	0.53	0.79
135.0	0.26	0.26	0.00	0.53	0.53	0.26	0.53	0.79	0.79
157.5	0.26	0.26	0.26	0.00	0.53	0.53	0.53	0.53	0.53
180.0	0.26	0.53	0.26	0.53	0.26	0.26	0.79	0.53	0.26
202.5	0.26	0.26	0.26	0.53	0.53	0.53	0.53	0.79	0.79
225.0	0.26	0.00	0.26	0.26	0.53	0.53	0.79	0.79	0.53
247.5	0.26	0.26	0.26	0.53	0.53	0.79	0.53	0.53	0.53
270.0	0.26	0.53	0.53	0.79	0.53	0.53	0.53	0.53	0.53
292.5	0.53	0.79	0.79	0.79	0.79	0.53	0.53	0.53	0.79
315.0	0.53	0.79	0.53	0.79	1.05	1.05	0.79	0.79	0.79
337.5	0.79	0.79	0.53	0.79	0.53	0.79	0.53	0.79	0.53
360.0	0.79	0.53	0.79	0.79	0.79	0.79	0.53	0.53	0.53

C/γ(°)	180.0
0.0	0.49
22.5	0.49
45.0	0.49
67.5	0.49
90.0	0.49
112.5	0.49
135.0	0.49
157.5	0.49
180.0	0.49
202.5	0.49
225.0	0.49
247.5	0.49
270.0	0.49
292.5	0.49
315.0	0.49
337.5	0.49
360.0	0.49