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): 0.0670
Lamp flux(lm): -1.0	Power (W): 7.89
Number of Lamps: 1	PF: 0.9751
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 507.52, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 64.32
Central intensity(cd): 183.320, Maximum intensity(cd): 186.059
Angle of maximum intensity: C=292.5 γ=5.0
Beam Angle(50%Imax): [C0/180]Total=107.7
[C90/270]Total=112.6
Field angle(10%Imax): [C0/180]Total=156.0
[C90/270]Total=160.7
Maximum s/h(1/2): C0_180=1.16 C90_270=1.29
Maximum s/h(1/4): C0_180=1.28 C90_270=1.41
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 0.00%
Up flux rate of LUM(%): 0.48%
Down flux rate of LUM(%): 99.52%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 79.856%

Zonal flux distribution table

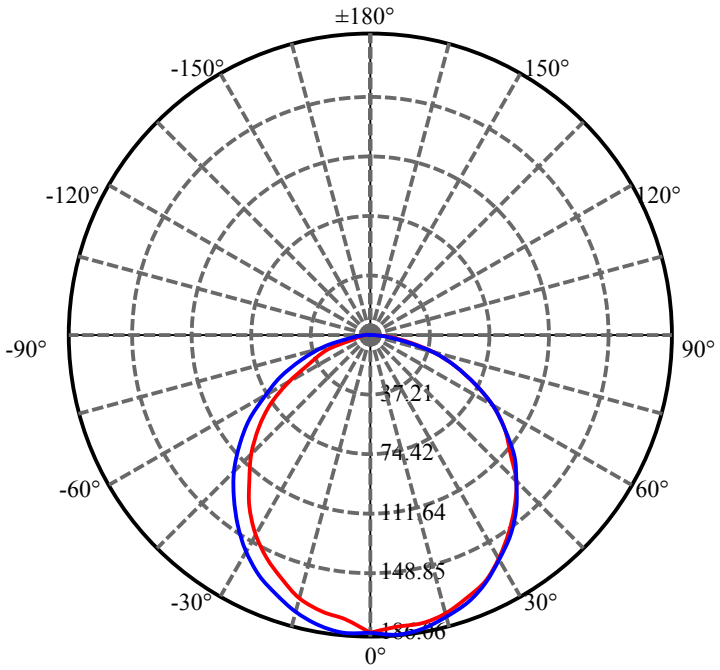
γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	183.320	0.000	0	0.00%	0.00%
5.0	182.765	4.376	4.376	0.00%	0.86%
10.0	180.308	12.988	17.365	0.00%	3.42%
15.0	176.019	21.137	38.502	0.00%	7.59%
20.0	169.995	28.516	67.018	0.00%	13.20%
25.0	162.470	34.869	101.888	0.00%	20.08%
30.0	153.536	39.991	141.878	0.00%	27.96%
35.0	143.240	43.702	185.581	0.00%	36.57%
40.0	131.815	45.891	231.471	0.00%	45.61%
45.0	119.395	46.513	277.985	0.00%	54.77%
50.0	105.810	45.506	323.491	0.00%	63.74%
55.0	91.656	42.936	366.427	0.00%	72.20%
60.0	76.460	38.859	405.286	0.00%	79.86%
65.0	60.955	33.406	438.692	0.00%	86.44%
70.0	45.083	26.849	465.541	0.00%	91.73%
75.0	29.747	19.559	485.1	0.00%	95.58%
80.0	15.807	12.189	497.289	0.00%	97.98%
85.0	5.855	5.886	503.176	0.00%	99.14%
90.0	1.106	1.906	505.081	0.00%	99.52%
95.0	0.314	0.389	505.47	0.00%	99.60%
100.0	0.268	0.158	505.628	0.00%	99.63%
105.0	0.250	0.138	505.767	0.00%	99.65%
110.0	0.291	0.141	505.908	0.00%	99.68%
115.0	0.308	0.152	506.06	0.00%	99.71%
120.0	0.308	0.150	506.21	0.00%	99.74%
125.0	0.349	0.152	506.362	0.00%	99.77%
130.0	0.396	0.162	506.524	0.00%	99.80%
135.0	0.396	0.160	506.684	0.00%	99.83%
140.0	0.425	0.152	506.835	0.00%	99.86%
145.0	0.437	0.144	506.979	0.00%	99.89%
150.0	0.460	0.132	507.111	0.00%	99.92%
155.0	0.489	0.120	507.231	0.00%	99.94%
160.0	0.483	0.102	507.333	0.00%	99.96%
165.0	0.507	0.082	507.415	0.00%	99.98%
170.0	0.512	0.060	507.475	0.00%	99.99%
175.0	0.495	0.036	507.511	0.00%	100.00%
180.0	0.548	0.012	507.524	0.00%	100.00%

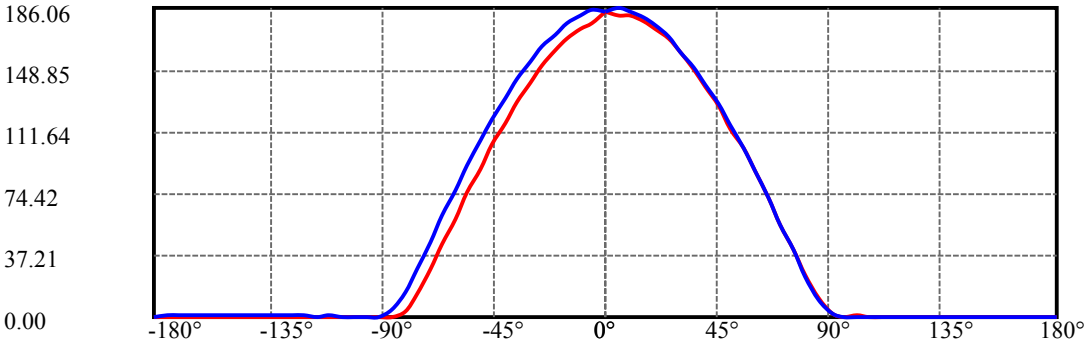
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	141.88	N.A.	27.96%
0-40	231.47	N.A.	45.61%
0-60	405.29	N.A.	79.86%
0-90	505.08	N.A.	99.52%
0-120	506.21	N.A.	99.74%
0-180	507.52	N.A.	100.00%
60-90	99.80	N.A.	19.66%
90-120	1.13	N.A.	0.22%
90-130	1.44	N.A.	0.28%
90-150	2.03	N.A.	0.40%
90-180	2.43	N.A.	0.48%
0-60.11	406.02	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	17.36
10-20	49.65
20-30	74.86
30-40	89.59
40-50	92.02
50-60	81.80
60-70	60.25
70-80	31.75
80-90	7.79
90-100	0.55
100-110	0.28
110-120	0.30
120-130	0.31
130-140	0.31
140-150	0.28
150-160	0.22
160-170	0.14
170-180	0.04



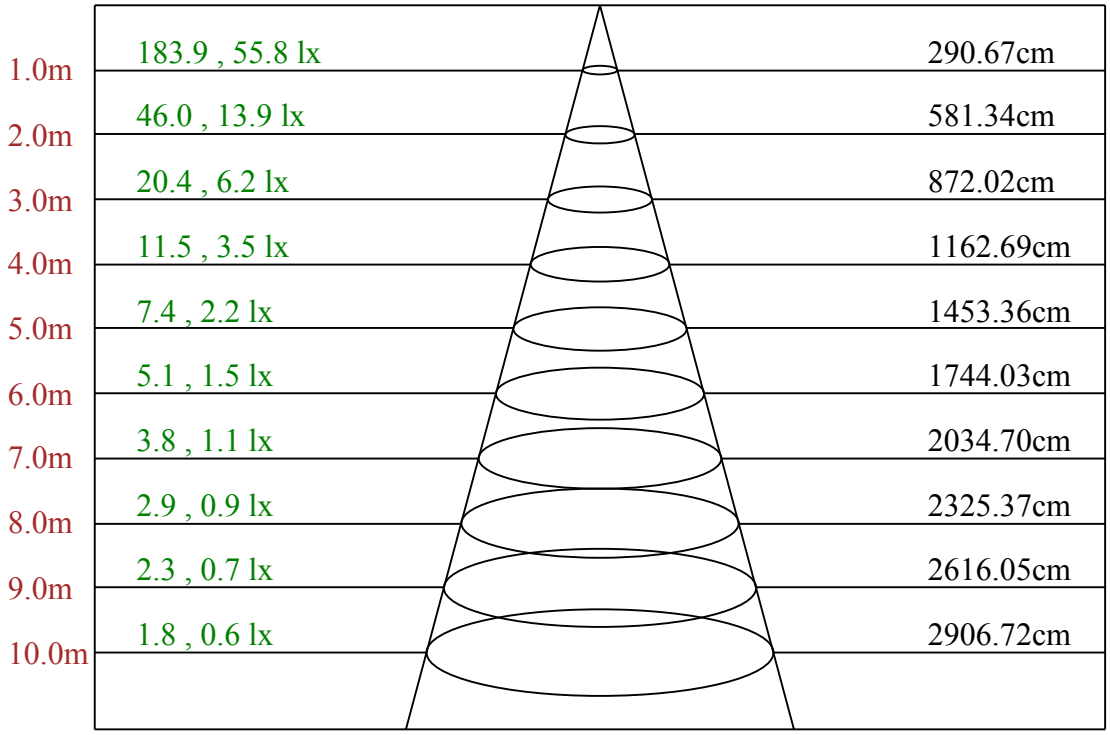


C0/C180:

C90/C270:

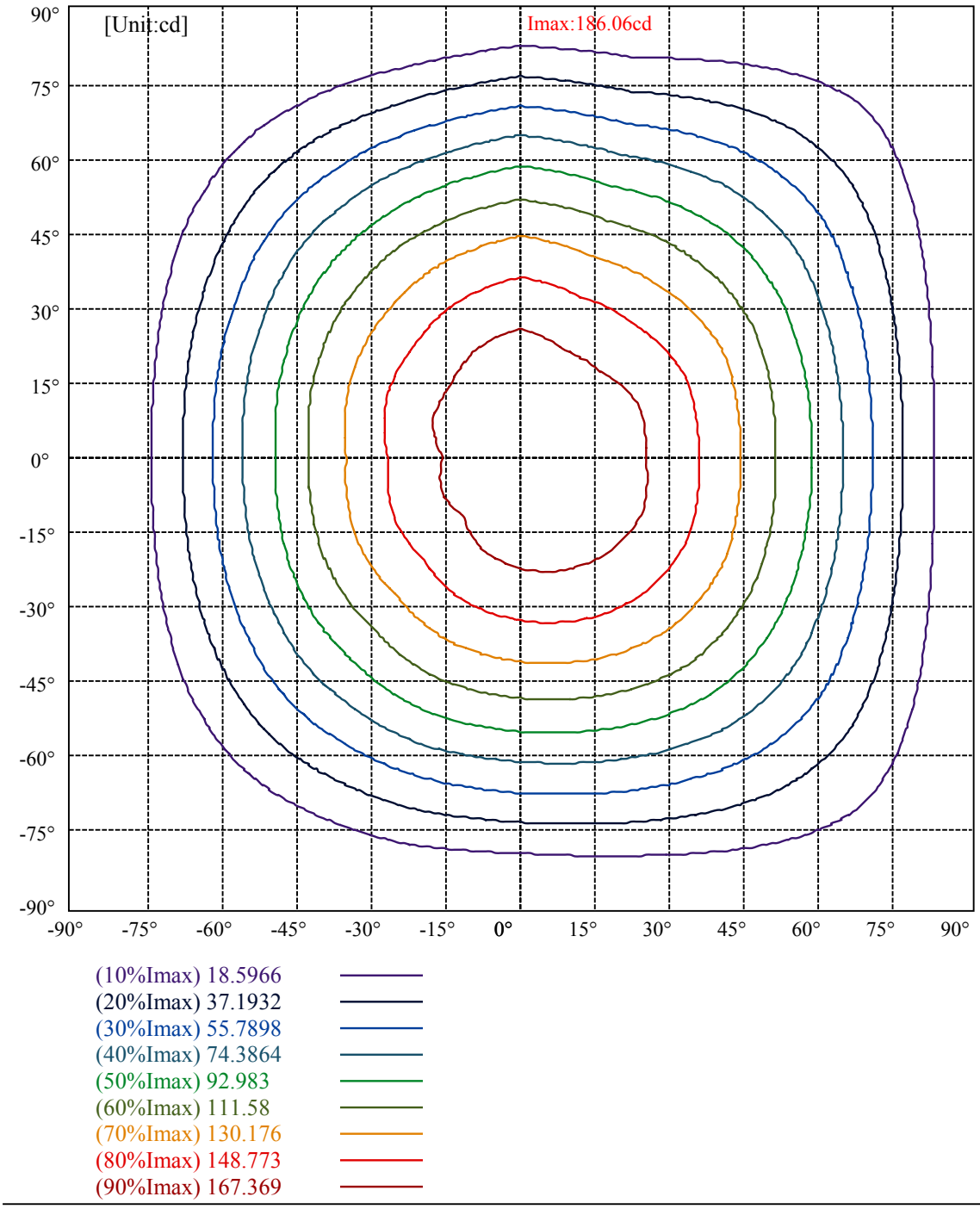
Field angle(10%Imax):C0/180Left:73.5 Right:82.5
:C90/270Left:78.7 Right:82.0

Beam Angle(50%Imax):C0/180Left:49.2 Right:58.5
:C90/270Left:54.5 Right:58.1

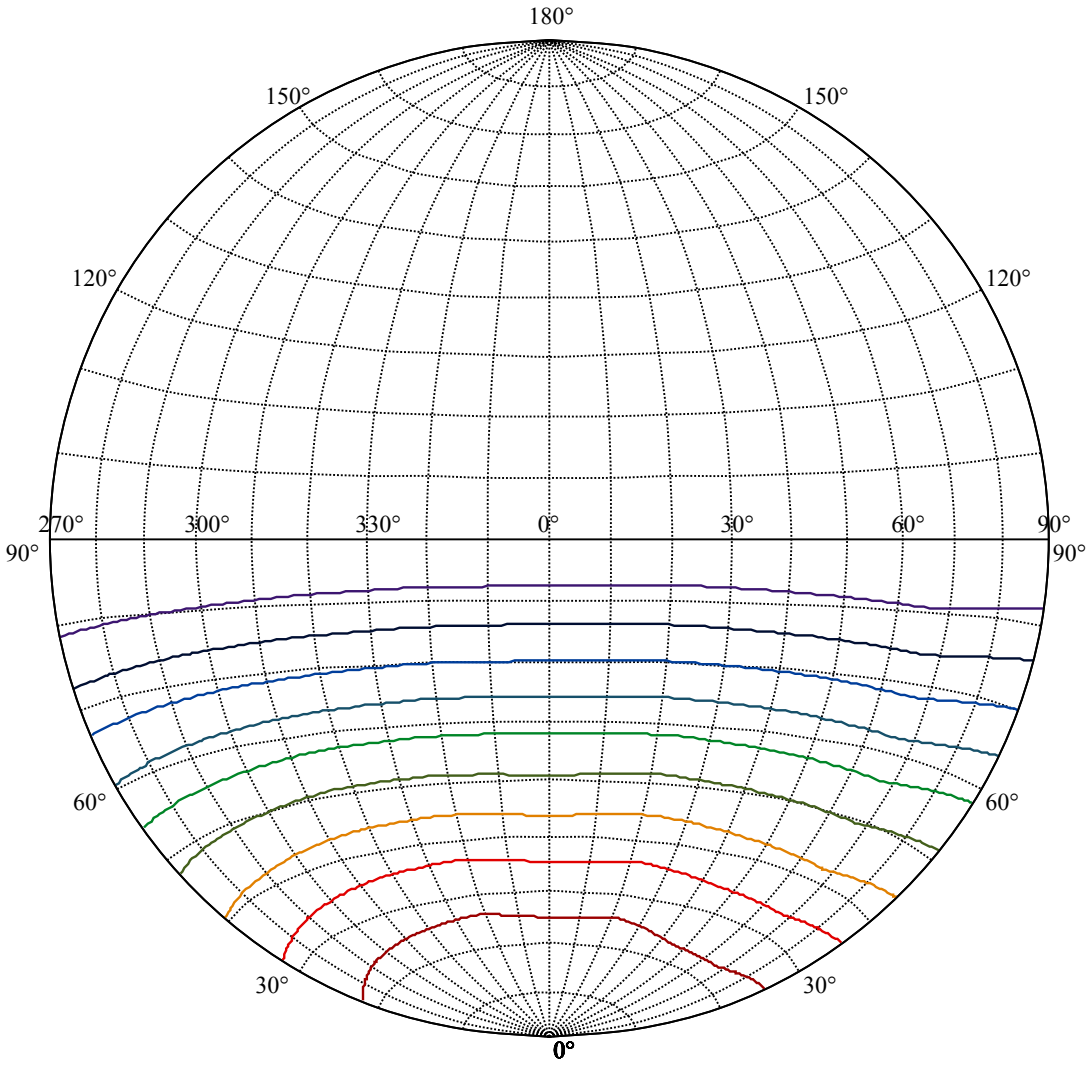


Max , Ave

Beam angle of C292.5 plane 110.94


[Unit:cd]
Imax:186.06cd
90°
75°
60°
45°
30°
15°
0°
-15°
-30°
-45°
-60°
-75°
-90°
-90° -75° -60° -45° -30° -15° 0° 15° 30° 45° 60° 75° 90°
(10%Imax) 18.5966
(20%Imax) 37.1932
(30%Imax) 55.7898
(40%Imax) 74.3864
(50%Imax) 92.983
(60%Imax) 111.58
(70%Imax) 130.176
(80%Imax) 148.773
(90%Imax) 167.369

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:186.06

(10%Imax) 18.6032
(20%Imax) 37.2064
(30%Imax) 55.8096
(40%Imax) 74.4128
(50%Imax) 93.016
(60%Imax) 111.619
(70%Imax) 130.222
(80%Imax) 148.826
(90%Imax) 167.429

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	183.32	181.03	180.94	178.14	173.30	167.25	158.96	149.65	139.03
22.5	183.32	183.82	182.71	179.63	174.98	168.55	160.45	151.32	141.17
45.0	183.32	180.84	179.35	176.37	171.35	165.01	157.19	147.69	136.89
67.5	183.32	182.71	180.75	177.03	171.53	164.73	156.35	146.58	134.93
90.0	183.32	185.97	184.10	180.47	175.54	168.46	159.98	150.67	139.87
112.5	183.32	185.78	182.99	178.70	172.46	164.73	155.70	145.18	133.63
135.0	183.32	182.80	179.26	173.95	167.25	159.15	149.56	138.75	126.83
157.5	183.32	183.08	178.89	173.02	165.85	156.91	146.48	134.84	122.36
180.0	183.32	176.28	173.58	168.09	160.17	151.32	141.27	129.25	117.06
202.5	183.32	180.57	176.56	170.60	162.96	153.93	144.15	132.61	119.66
225.0	183.32	178.42	174.42	169.11	162.22	153.84	144.15	132.98	121.15
247.5	183.32	181.59	178.61	173.77	167.16	158.96	149.83	139.13	127.58
270.0	183.32	184.85	181.68	176.93	170.41	162.87	153.56	143.32	131.49
292.5	183.32	186.06	183.64	179.35	173.49	165.94	157.47	147.32	135.96
315.0	183.32	184.76	183.08	179.82	174.88	168.09	159.80	150.39	139.87
337.5	183.32	185.69	184.38	181.31	176.37	169.76	161.66	152.16	141.55
360.0	183.32	181.03	180.94	178.14	173.30	167.25	158.96	149.65	139.03

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	127.21	113.42	101.32	87.54	71.89	55.97	40.79	25.05	11.45
22.5	129.35	116.03	102.34	88.00	72.54	56.90	40.97	25.80	11.83
45.0	125.81	112.86	99.46	84.84	70.03	53.92	38.18	22.91	10.24
67.5	123.02	110.26	96.10	81.39	65.65	50.01	34.55	19.74	7.73
90.0	128.04	115.29	101.88	87.35	71.89	55.78	40.04	24.21	10.24
112.5	120.87	107.56	92.94	77.39	61.93	45.26	29.80	15.09	4.38
135.0	114.35	100.20	84.74	68.72	52.80	36.97	21.05	8.47	1.21
157.5	108.67	93.96	79.06	62.77	46.38	30.45	16.11	4.56	0.65
180.0	103.74	89.21	75.15	59.41	43.49	28.50	13.97	3.07	0.47
202.5	106.44	92.01	76.55	60.90	45.35	29.71	14.99	3.82	0.56
225.0	108.30	94.43	79.90	65.28	49.54	34.27	19.65	7.17	0.93
247.5	115.10	101.88	87.26	71.89	56.25	40.79	26.35	13.22	3.07
270.0	119.29	105.88	91.63	75.71	61.46	45.16	29.24	14.81	4.10
292.5	123.29	109.98	95.73	80.37	65.09	49.36	33.43	18.53	6.52
315.0	127.58	114.45	100.48	84.74	69.10	52.52	37.06	21.88	9.13
337.5	129.25	115.57	101.97	87.07	71.89	55.78	39.76	24.58	11.18
360.0	127.21	113.42	101.32	87.54	71.89	55.97	40.79	25.05	11.45

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	2.33	0.28	0.65	0.47	0.37	0.47	0.37	0.37	0.37
22.5	2.33	0.56	0.37	0.37	0.37	0.37	0.37	0.47	0.47
45.0	1.86	0.65	0.37	0.28	0.37	0.37	0.37	0.37	0.37
67.5	1.12	0.47	0.28	0.28	0.19	0.47	0.37	0.47	0.37
90.0	2.05	0.28	0.28	0.28	0.28	0.37	0.28	0.28	0.37
112.5	0.75	0.19	0.09	0.09	0.19	0.09	0.28	0.28	0.37
135.0	0.47	0.19	0.19	0.00	0.09	0.19	0.19	0.28	0.28
157.5	0.28	0.19	0.00	0.09	0.09	0.19	0.19	0.19	0.28
180.0	0.19	0.09	0.09	0.19	0.19	0.19	0.28	0.19	0.28
202.5	0.37	0.00	0.19	0.19	0.19	0.09	0.19	0.28	0.28
225.0	0.56	0.09	0.09	0.19	0.09	0.09	0.19	0.19	0.37
247.5	0.56	0.09	0.19	0.09	0.19	0.28	0.09	0.19	0.28
270.0	0.47	0.47	0.37	0.47	0.65	0.56	0.65	0.75	0.84
292.5	0.93	0.56	0.37	0.28	0.47	0.47	0.37	0.47	0.56
315.0	1.40	0.47	0.28	0.37	0.47	0.37	0.37	0.47	0.47
337.5	2.05	0.47	0.47	0.37	0.47	0.37	0.37	0.37	0.37
360.0	2.33	0.28	0.65	0.47	0.37	0.47	0.37	0.37	0.37

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	0.37	0.47	0.47	0.37	0.56	0.56	0.47	0.47	0.56
22.5	0.47	0.47	0.47	0.47	0.47	0.47	0.56	0.56	0.37
45.0	0.47	0.37	0.47	0.56	0.56	0.47	0.56	0.56	0.56
67.5	0.47	0.47	0.47	0.47	0.47	0.47	0.56	0.47	0.47
90.0	0.37	0.47	0.47	0.47	0.47	0.47	0.47	0.56	0.56
112.5	0.37	0.37	0.37	0.37	0.47	0.47	0.47	0.56	0.37
135.0	0.37	0.37	0.37	0.47	0.37	0.37	0.47	0.37	0.47
157.5	0.28	0.19	0.28	0.47	0.47	0.37	0.47	0.47	0.47
180.0	0.19	0.37	0.28	0.47	0.37	0.37	0.37	0.47	0.47
202.5	0.19	0.37	0.37	0.37	0.37	0.37	0.47	0.47	0.47
225.0	0.28	0.28	0.37	0.37	0.47	0.37	0.47	0.56	0.47
247.5	0.37	0.37	0.37	0.37	0.47	0.47	0.47	0.56	0.47
270.0	0.75	0.84	0.65	0.75	0.93	0.93	0.84	0.75	0.84
292.5	0.47	0.56	0.56	0.47	0.56	0.56	0.47	0.47	0.47
315.0	0.47	0.47	0.47	0.47	0.47	0.56	0.47	0.47	0.47
337.5	0.47	0.37	0.56	0.47	0.37	0.47	0.56	0.47	0.47
360.0	0.37	0.47	0.47	0.37	0.56	0.56	0.47	0.47	0.56

C/γ(°)	180.0
0.0	0.55
22.5	0.55
45.0	0.55
67.5	0.55
90.0	0.55
112.5	0.55
135.0	0.55
157.5	0.55
180.0	0.55
202.5	0.55
225.0	0.55
247.5	0.55
270.0	0.55
292.5	0.55
315.0	0.55
337.5	0.55
360.0	0.55