Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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Client:
LumCAT:
Luminaire:
Report No:
Ballast type:
Test No:
LampCAT:
Lamp flux(lm): -1.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 120.07
Current(A): 0.0680
Power (W): 7.91
PF: 0.9747
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 478.53, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 60.49
Central intensity(cd): 171.445, Maximum intensity(cd): 176.205
Angle of maximum intensity: C=90.0 γ=5.0
Beam Angle(50%Imax): [C0/180]Total=106.2
[C90/270]Total=113.7
Field angle(10%Imax): [C0/180]Total=155.8
[C90/270]Total=160.9
Maximum s/h(1/2): C0_180=1.20 C90_270=1.30
Maximum s/h(1/4): C0_180=1.32 C90_270=1.40
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 0.00%
Up flux rate of LUM(%): 0.89%
Down flux rate of LUM(%): 99.11%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 79.474%

Zonal flux distribution table

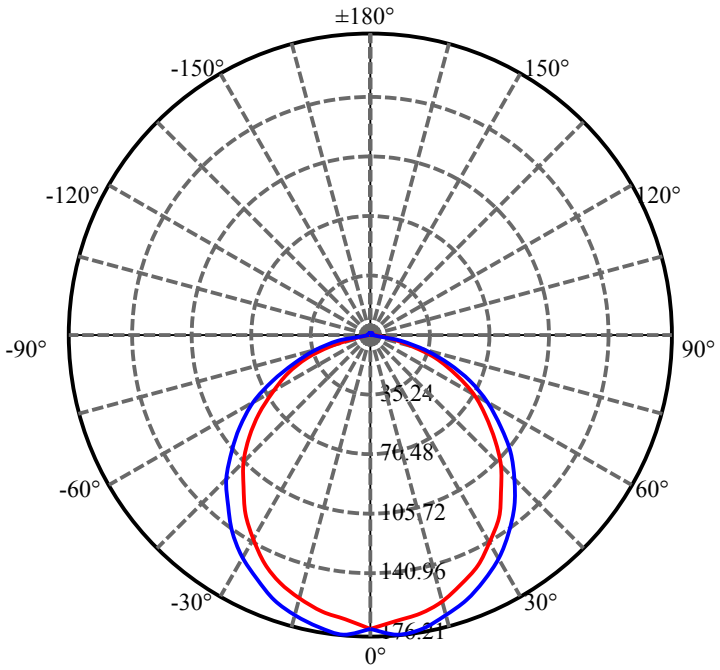
γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	171.445	0.000	0	0.00%	0.00%
5.0	170.906	4.093	4.093	0.00%	0.86%
10.0	168.438	12.139	16.232	0.00%	3.39%
15.0	164.374	19.742	35.974	0.00%	7.52%
20.0	158.847	26.638	62.612	0.00%	13.08%
25.0	151.993	32.601	95.214	0.00%	19.90%
30.0	143.757	37.427	132.641	0.00%	27.72%
35.0	134.193	40.930	173.571	0.00%	36.27%
40.0	123.663	43.021	216.592	0.00%	45.26%
45.0	112.140	43.661	260.253	0.00%	54.39%
50.0	99.679	42.801	303.054	0.00%	63.33%
55.0	86.479	40.477	343.531	0.00%	71.79%
60.0	72.636	36.779	380.31	0.00%	79.47%
65.0	58.243	31.817	412.127	0.00%	86.12%
70.0	43.099	25.660	437.788	0.00%	91.49%
75.0	28.317	18.667	456.455	0.00%	95.39%
80.0	14.527	11.464	467.919	0.00%	97.78%
85.0	3.997	5.034	472.952	0.00%	98.83%
90.0	0.899	1.341	474.293	0.00%	99.11%
95.0	0.564	0.400	474.693	0.00%	99.20%
100.0	0.496	0.288	474.981	0.00%	99.26%
105.0	0.523	0.273	475.254	0.00%	99.31%
110.0	0.523	0.274	475.527	0.00%	99.37%
115.0	0.577	0.279	475.806	0.00%	99.43%
120.0	0.604	0.287	476.093	0.00%	99.49%
125.0	0.657	0.291	476.384	0.00%	99.55%
130.0	0.738	0.303	476.688	0.00%	99.61%
135.0	0.778	0.306	476.994	0.00%	99.68%
140.0	0.805	0.293	477.287	0.00%	99.74%
145.0	0.845	0.275	477.562	0.00%	99.80%
150.0	0.818	0.245	477.807	0.00%	99.85%
155.0	0.845	0.210	478.017	0.00%	99.89%
160.0	0.858	0.179	478.196	0.00%	99.93%
165.0	0.885	0.144	478.34	0.00%	99.96%
170.0	0.925	0.107	478.447	0.00%	99.98%
175.0	0.885	0.065	478.512	0.00%	100.00%
180.0	0.984	0.022	478.534	0.00%	100.00%

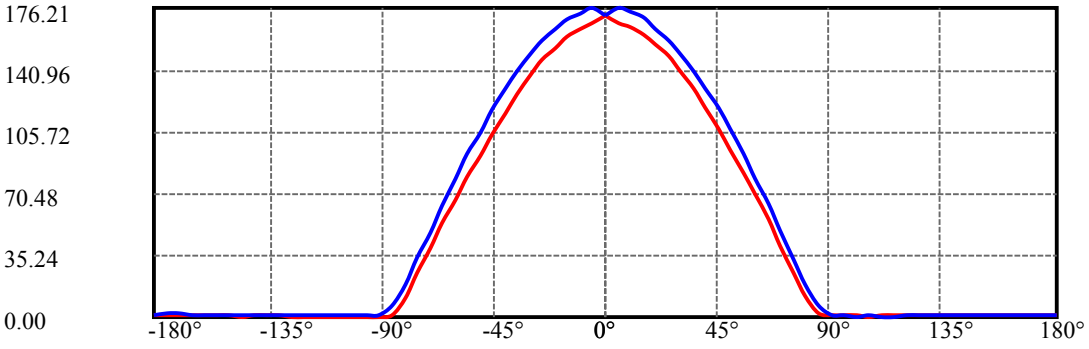
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	132.64	N.A.	27.72%
0-40	216.59	N.A.	45.26%
0-60	380.31	N.A.	79.47%
0-90	474.29	N.A.	99.11%
0-120	476.09	N.A.	99.49%
0-180	478.53	N.A.	100.00%
60-90	93.98	N.A.	19.64%
90-120	1.80	N.A.	0.38%
90-130	2.39	N.A.	0.50%
90-150	3.51	N.A.	0.73%
90-180	4.22	N.A.	0.88%
0-60.40	382.83	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	16.23
10-20	46.38
20-30	70.03
30-40	83.95
40-50	86.46
50-60	77.26
60-70	57.48
70-80	30.13
80-90	6.37
90-100	0.69
100-110	0.55
110-120	0.57
120-130	0.59
130-140	0.60
140-150	0.52
150-160	0.39
160-170	0.25
170-180	0.06



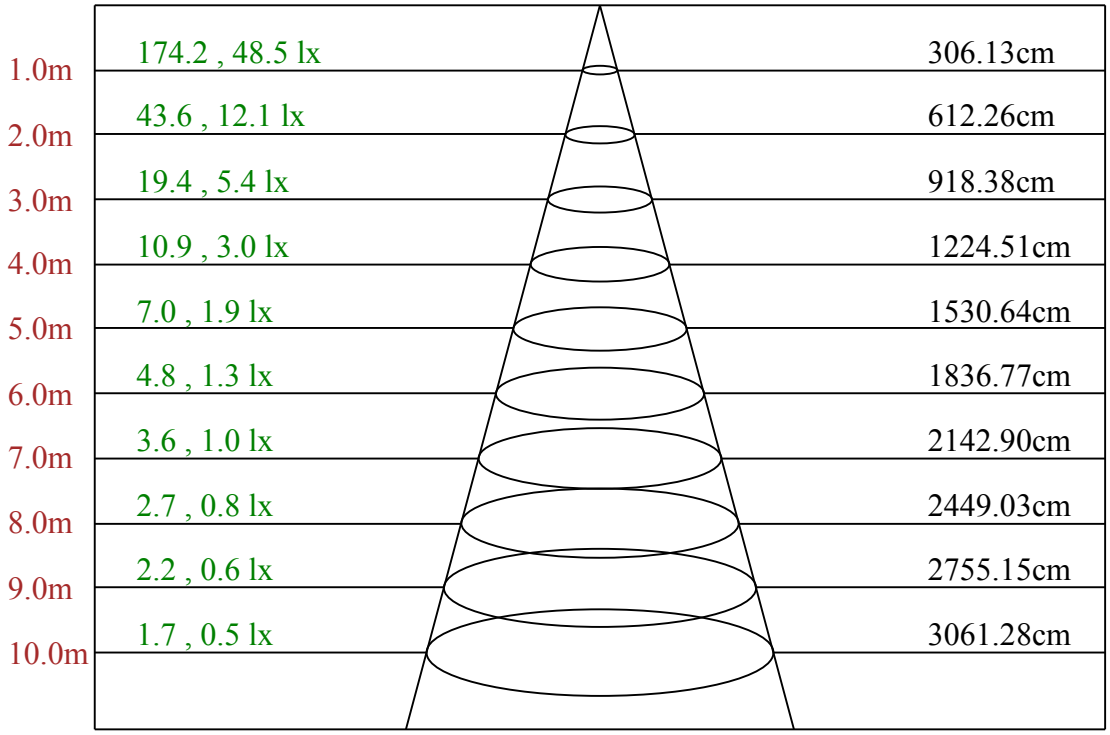


C0/C180:

C90/C270:

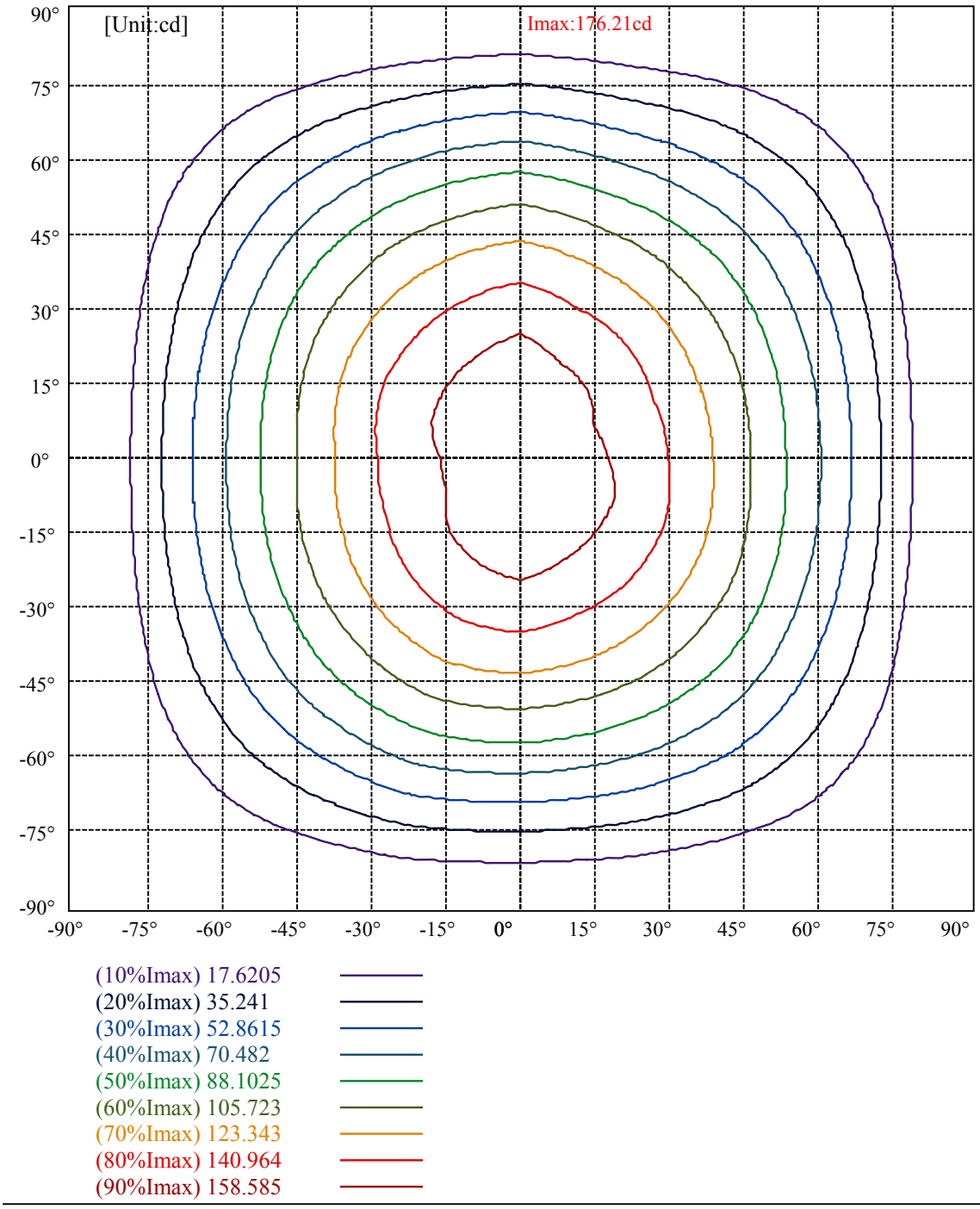
Field angle(10%Imax):C0/180Left:77.7 Right:78.1
:C90/270Left:80.5 Right:80.4

Beam Angle(50%Imax):C0/180Left:52.5 Right:53.7
:C90/270Left:56.8 Right:56.9

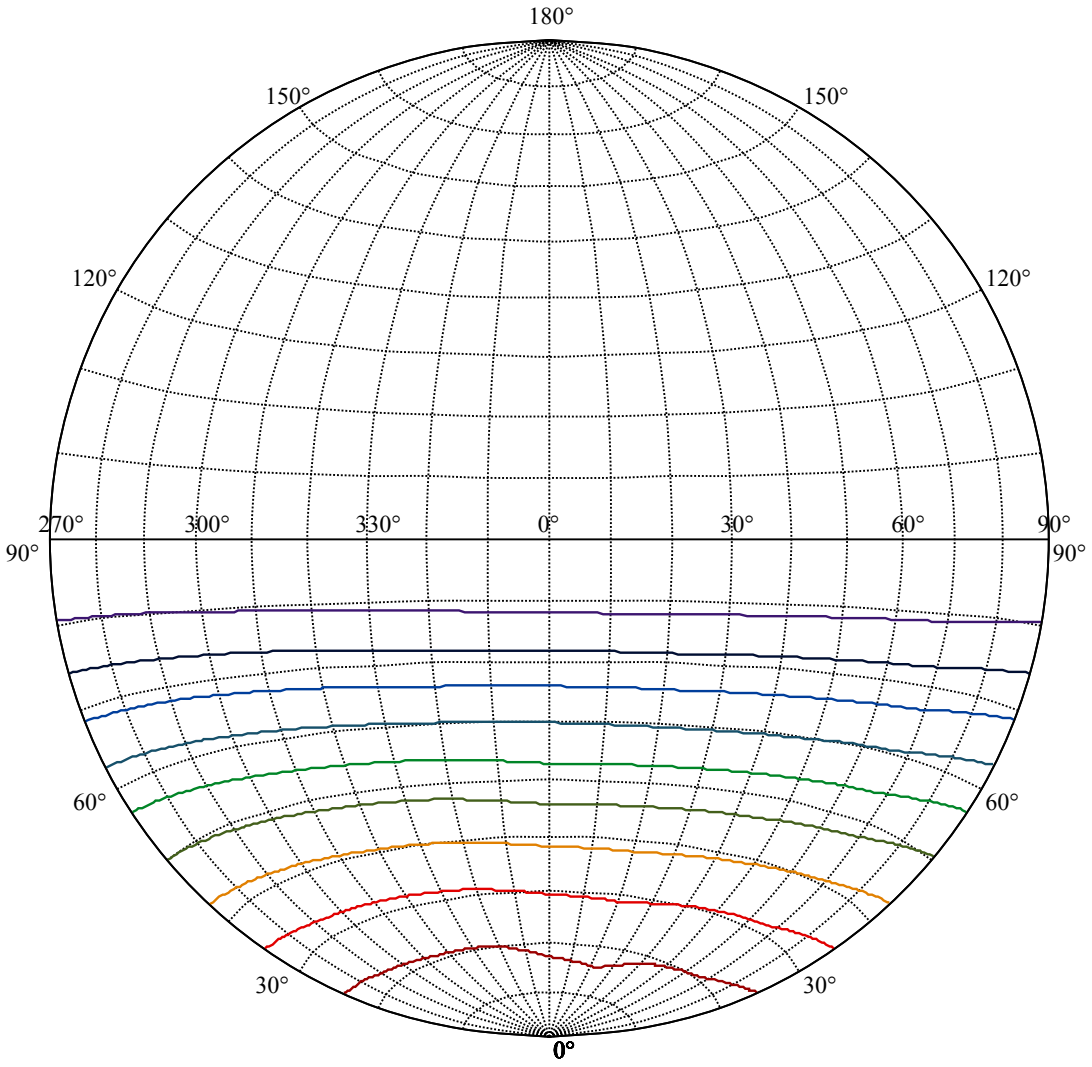


Max , Ave

Beam angle of C90 plane 113.69


[Unit:cd]
Imax:176.21cd
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) 17.6205
(20%Imax) 35.241
(30%Imax) 52.8615
(40%Imax) 70.482
(50%Imax) 88.1025
(60%Imax) 105.723
(70%Imax) 123.343
(80%Imax) 140.964
(90%Imax) 158.585

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:176.21

(10%Imax) 17.6205
(20%Imax) 35.241
(30%Imax) 52.8615
(40%Imax) 70.482
(50%Imax) 88.1025
(60%Imax) 105.723
(70%Imax) 123.343
(80%Imax) 140.964
(90%Imax) 158.585

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	171.45	167.84	165.26	161.18	155.60	148.73	139.93	130.49	119.55
22.5	171.45	165.90	163.33	159.46	153.88	147.02	138.86	129.63	119.12
45.0	171.45	170.20	167.41	163.11	157.32	150.02	141.65	132.21	121.05
67.5	171.45	171.48	169.34	164.62	159.25	152.38	144.01	134.57	124.27
90.0	171.45	176.21	174.06	170.20	164.62	157.96	150.45	140.58	130.28
112.5	171.45	173.20	170.63	166.76	161.40	154.53	146.59	136.93	126.84
135.0	171.45	171.48	168.69	164.40	159.04	151.74	143.58	133.28	123.19
157.5	171.45	170.63	168.05	163.76	157.53	150.45	141.87	131.56	120.40
180.0	171.45	166.98	164.19	159.68	153.67	146.80	138.00	127.49	115.90
202.5	171.45	166.12	163.54	159.46	154.10	147.45	139.29	129.85	119.55
225.0	171.45	170.41	168.05	164.40	158.82	152.38	143.80	134.78	124.48
247.5	171.45	172.56	170.63	166.98	161.61	155.60	147.88	139.29	129.20
270.0	171.45	175.99	173.42	169.98	164.40	157.53	149.59	140.36	130.06
292.5	171.45	173.20	170.63	166.55	161.61	154.31	146.37	136.93	127.06
315.0	171.45	171.48	169.12	165.05	159.68	153.03	144.87	135.43	124.70
337.5	171.45	170.84	168.69	164.40	159.04	151.95	143.37	133.71	122.98
360.0	171.45	167.84	165.26	161.18	155.60	148.73	139.93	130.49	119.55

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	107.53	95.51	82.42	69.97	55.59	40.56	25.33	12.23	2.58
22.5	108.17	95.72	83.06	68.89	54.94	39.92	25.33	12.02	2.58
45.0	109.46	97.22	84.13	69.75	55.80	40.99	26.61	12.88	3.01
67.5	112.46	99.80	86.28	72.11	57.73	42.71	28.12	14.38	3.86
90.0	119.12	106.88	93.36	79.20	64.82	49.15	33.27	18.46	6.87
112.5	115.25	102.59	89.28	75.55	60.95	44.86	29.62	15.88	4.72
135.0	111.17	98.73	85.21	70.83	55.80	40.78	26.18	12.88	2.79
157.5	108.17	95.72	82.20	67.82	53.23	38.63	24.25	11.16	1.72
180.0	104.31	92.07	79.41	66.32	53.66	39.06	24.68	10.73	1.50
202.5	108.38	95.29	82.20	68.89	54.30	39.71	25.54	12.45	2.36
225.0	112.89	100.23	87.35	73.19	58.59	43.35	28.97	15.24	4.08
247.5	118.04	105.81	92.29	79.63	64.60	49.15	33.48	18.89	7.08
270.0	118.47	105.59	93.15	78.77	63.74	48.29	33.48	18.89	7.08
292.5	115.68	103.23	90.14	76.41	61.81	47.00	31.55	17.81	6.01
315.0	113.54	101.09	87.57	73.62	59.67	44.21	29.62	15.02	4.51
337.5	111.60	99.37	85.63	71.26	56.66	41.21	27.04	13.52	3.22
360.0	107.53	95.51	82.42	69.97	55.59	40.56	25.33	12.23	2.58

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.86	0.64	0.86	0.43	0.86	0.86	0.86	0.86	0.86
22.5	0.86	0.64	0.64	0.64	0.64	0.86	0.64	0.43	0.64
45.0	0.86	0.86	0.64	0.64	0.64	0.64	0.64	0.64	1.07
67.5	1.07	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.86
90.0	1.07	0.64	0.43	0.64	0.43	0.43	0.64	0.64	0.86
112.5	0.86	0.22	0.22	0.22	0.22	0.43	0.22	0.43	0.64
135.0	0.64	0.00	0.22	0.22	0.43	0.22	0.22	0.43	0.43
157.5	0.43	0.22	0.22	0.43	0.22	0.22	0.22	0.43	0.43
180.0	0.22	0.22	0.22	0.22	0.43	0.43	0.43	0.43	0.64
202.5	0.43	0.43	0.22	0.22	0.22	0.22	0.64	0.43	0.43
225.0	1.07	0.22	0.22	0.00	0.22	0.22	0.22	0.43	0.43
247.5	0.86	0.22	0.22	0.43	0.43	0.43	0.43	0.43	0.43
270.0	1.50	1.29	1.07	1.29	1.29	1.29	1.29	1.50	1.50
292.5	1.29	1.07	0.86	0.86	0.64	0.86	1.07	1.07	1.07
315.0	1.29	1.07	0.64	0.64	0.64	0.86	0.64	0.86	0.86
337.5	1.07	0.64	0.64	0.86	0.43	0.64	0.86	0.86	0.64
360.0	0.86	0.64	0.86	0.43	0.86	0.86	0.86	0.86	0.86

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	0.86	0.86	1.07	0.86	0.86	0.86	0.86	0.64	0.86
22.5	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.64
45.0	0.64	0.64	0.86	0.86	1.07	0.86	1.07	0.86	0.86
67.5	0.86	1.07	0.86	0.86	0.86	0.86	1.07	0.86	1.07
90.0	0.86	0.86	0.86	1.07	0.86	1.07	0.86	1.07	0.86
112.5	0.64	0.64	0.64	0.86	0.64	0.64	0.86	0.86	0.86
135.0	0.43	0.64	0.64	0.64	0.64	0.64	0.86	0.86	0.86
157.5	0.43	0.64	0.64	0.43	0.86	0.86	0.86	0.64	0.64
180.0	0.64	0.64	0.43	0.64	0.64	0.86	0.64	1.07	0.86
202.5	0.64	0.86	0.64	0.64	0.86	0.86	0.64	0.86	0.86
225.0	0.64	0.43	0.64	0.64	0.64	0.64	0.64	0.86	0.86
247.5	0.64	0.64	0.64	0.64	0.64	0.86	0.64	0.86	0.64
270.0	1.50	1.29	1.50	1.50	1.50	1.29	1.50	1.72	1.72
292.5	1.07	0.86	1.29	0.86	0.86	0.86	0.86	0.86	1.07
315.0	0.86	0.86	1.07	0.64	0.86	0.86	1.29	1.07	0.86
337.5	0.86	1.07	0.86	1.07	0.86	0.86	0.64	0.86	0.64
360.0	0.86	0.86	1.07	0.86	0.86	0.86	0.86	0.64	0.86

C/γ(°)	180.0
0.0	0.98
22.5	0.98
45.0	0.98
67.5	0.98
90.0	0.98
112.5	0.98
135.0	0.98
157.5	0.98
180.0	0.98
202.5	0.98
225.0	0.98
247.5	0.98
270.0	0.98
292.5	0.98
315.0	0.98
337.5	0.98
360.0	0.98