



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): 120.08

LampCAT:

Current(A): 0.1330

Lamp flux(lm): -1.0

Power (W): 15.86

Number of Lamps: 1

PF: 0.9924

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1043.86, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 65.82

Central intensity(cd): 373.833, Maximum intensity(cd): 379.893

Angle of maximum intensity: C=112.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=109.4

[C90/270]Total=112.9

Field angle(10%Imax): [C0/180]Total=157.1

[C90/270]Total=160.9

Maximum s/h(1/2): C0_180=1.23 C90_270=1.29

Maximum s/h(1/4): C0_180=1.35 C90_270=1.40

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.40%

Down flux rate of LUM(%): 99.60%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.637%

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	373.833	0.000	0	0.00%	0.00%
5.0	372.125	8.918	8.918	0.00%	0.85%
10.0	366.929	26.438	35.356	0.00%	3.39%
15.0	358.308	43.021	78.377	0.00%	7.51%
20.0	346.311	58.070	136.447	0.00%	13.07%
25.0	331.503	71.090	207.537	0.00%	19.88%
30.0	313.770	81.660	289.197	0.00%	27.70%
35.0	293.365	89.405	378.602	0.00%	36.27%
40.0	270.588	94.091	472.693	0.00%	45.28%
45.0	245.464	95.551	568.244	0.00%	54.44%
50.0	218.295	93.709	661.954	0.00%	63.41%
55.0	189.670	88.705	750.659	0.00%	71.91%
60.0	159.200	80.640	831.3	0.00%	79.64%
65.0	127.501	69.698	900.997	0.00%	86.31%
70.0	95.174	56.383	957.38	0.00%	91.72%
75.0	63.274	41.416	998.795	0.00%	95.68%
80.0	33.456	25.882	1024.678	0.00%	98.16%
85.0	10.203	11.863	1036.541	0.00%	99.30%
90.0	1.142	3.106	1039.647	0.00%	99.60%
95.0	0.490	0.447	1040.094	0.00%	99.64%
100.0	0.490	0.266	1040.36	0.00%	99.66%
105.0	0.452	0.252	1040.612	0.00%	99.69%
110.0	0.490	0.246	1040.858	0.00%	99.71%
115.0	0.490	0.248	1041.106	0.00%	99.74%
120.0	0.565	0.256	1041.362	0.00%	99.76%
125.0	0.678	0.287	1041.649	0.00%	99.79%
130.0	0.678	0.295	1041.944	0.00%	99.82%
135.0	0.765	0.292	1042.235	0.00%	99.84%
140.0	0.803	0.290	1042.526	0.00%	99.87%
145.0	0.878	0.281	1042.806	0.00%	99.90%
150.0	0.941	0.268	1043.074	0.00%	99.92%
155.0	0.941	0.238	1043.313	0.00%	99.95%
160.0	0.904	0.193	1043.506	0.00%	99.97%
165.0	0.929	0.151	1043.657	0.00%	99.98%
170.0	0.979	0.113	1043.77	0.00%	99.99%
175.0	0.979	0.070	1043.84	0.00%	100.00%
180.0	1.004	0.024	1043.864	0.00%	100.00%

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

Date:
Humidity(%): 58%

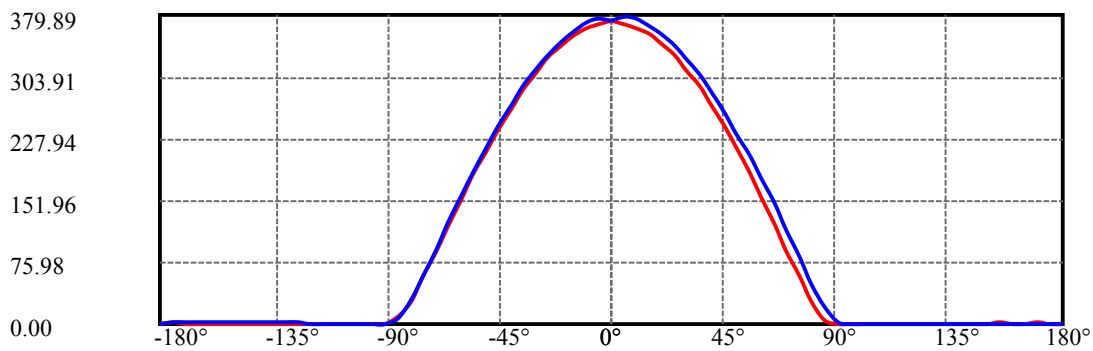
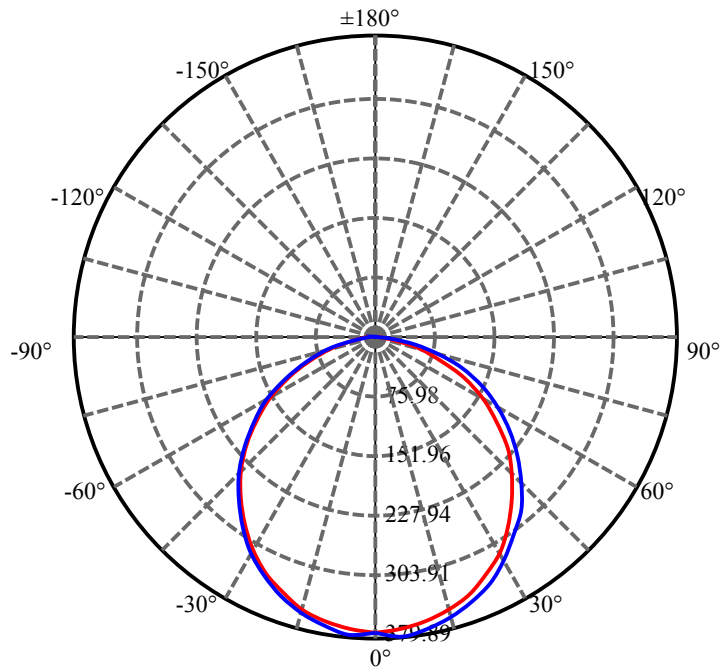
Operator: Tester

ZONAL LUMEN SUMMARY

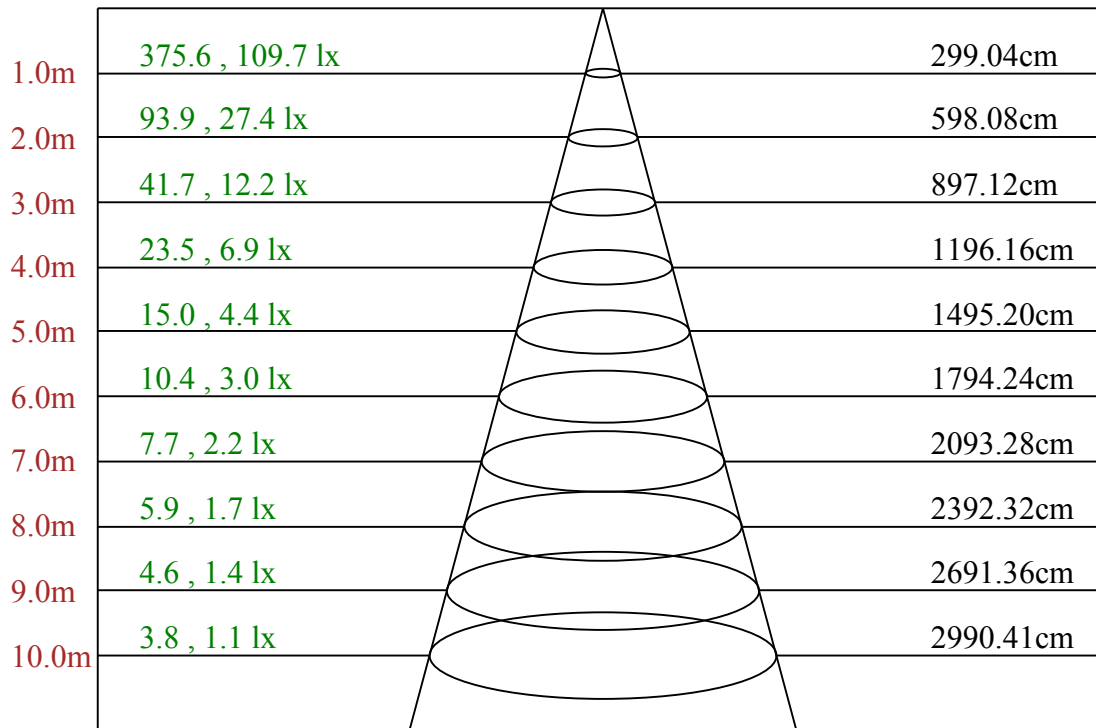
Zone	Lumens	%Lamp	%Fixt
0-30	289.20	N.A.	27.70%
0-40	472.69	N.A.	45.28%
0-60	831.30	N.A.	79.64%
0-90	1039.65	N.A.	99.60%
0-120	1041.36	N.A.	99.76%
0-180	1043.86	N.A.	100.00%
60-90	208.35	N.A.	19.96%
90-120	1.71	N.A.	0.16%
90-130	2.30	N.A.	0.22%
90-150	3.43	N.A.	0.33%
90-180	4.19	N.A.	0.40%
0-60.27	835.09	N.A.	80.00%

ZONAL LUMEN SUMMARY

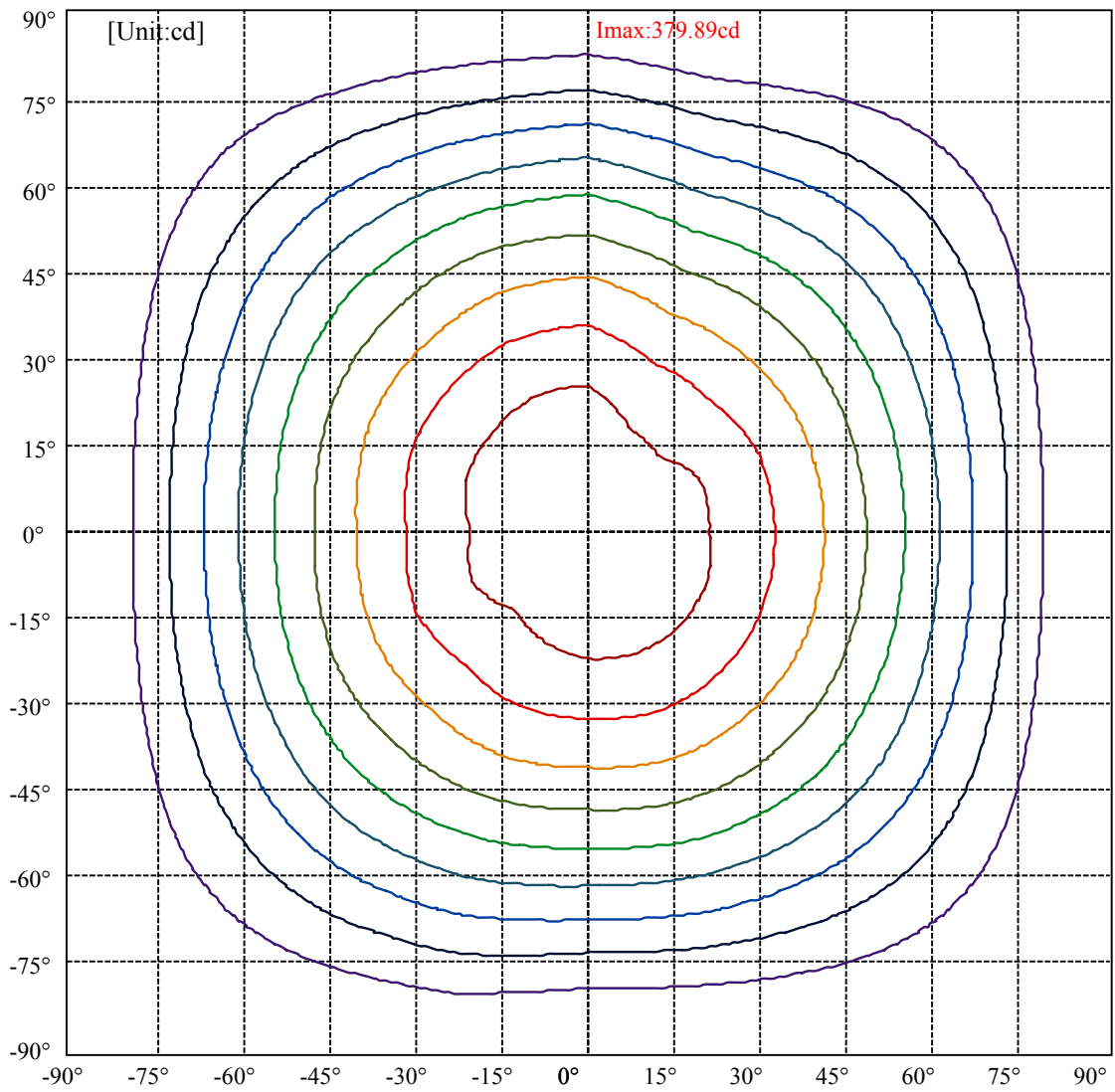
0-10	35.36
10-20	101.09
20-30	152.75
30-40	183.50
40-50	189.26
50-60	169.35
60-70	126.08
70-80	67.30
80-90	14.97
90-100	0.71
100-110	0.50
110-120	0.50
120-130	0.58
130-140	0.58
140-150	0.55
150-160	0.43
160-170	0.26
170-180	0.07












C0/C180: —
 C90/C270: —
 Field angle(10%Imax):C0/180Left:78.6 Right:78.5
 :C90/270Left:78.7 Right:82.2
 Beam Angle(50%Imax):C0/180Left:54.4 Right:55.0
 :C90/270Left:54.7 Right:58.2



Max , Ave Beam angle of C112.5 plane 112.45

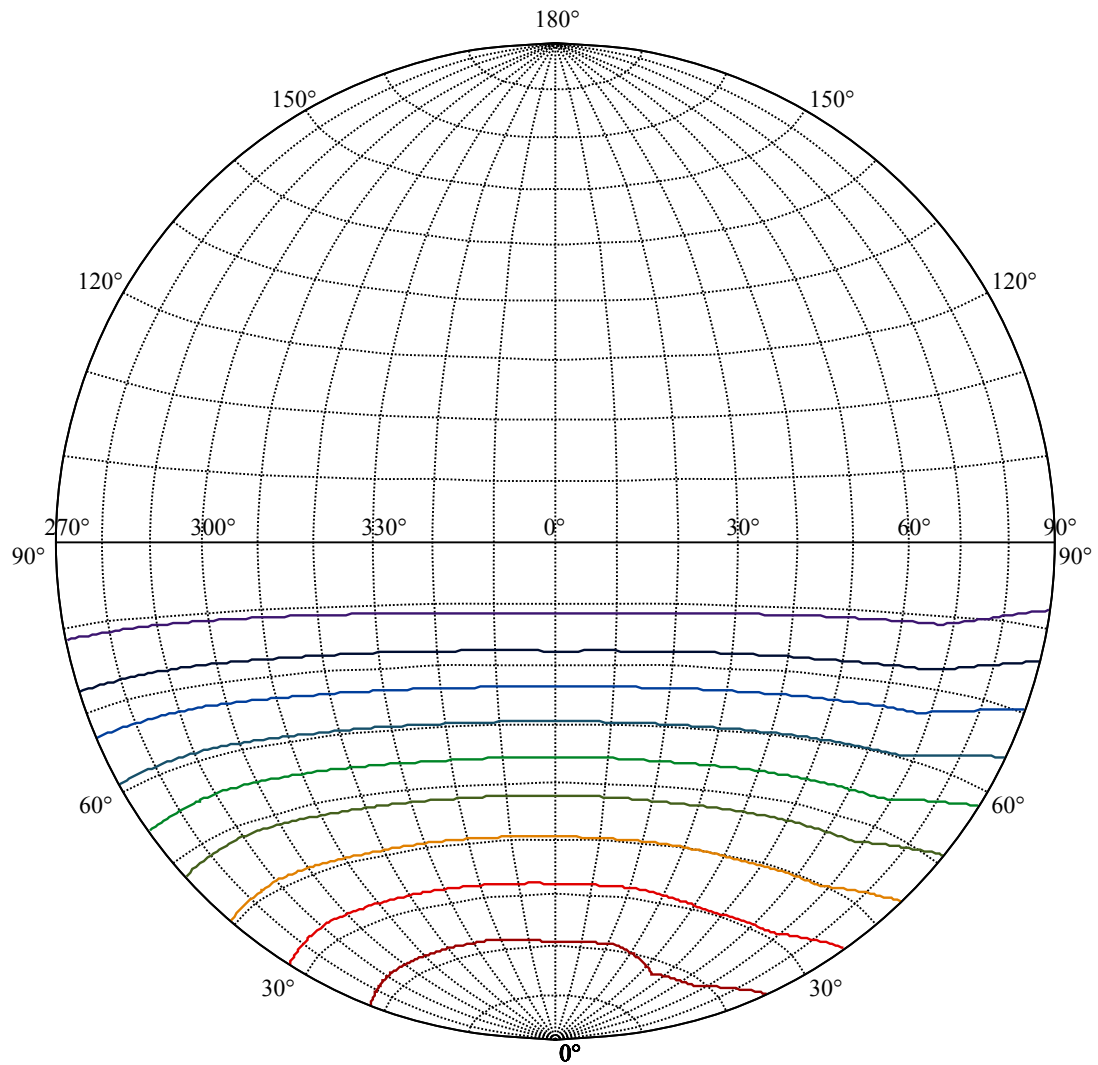


(10%Imax)	37.9491	
(20%Imax)	75.8983	
(30%Imax)	113.847	
(40%Imax)	151.797	
(50%Imax)	189.746	
(60%Imax)	227.695	
(70%Imax)	265.644	
(80%Imax)	303.593	
(90%Imax)	341.542	

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

Date:
Humidity(%): 58%

Operator: Tester



House

[Unit:cd]

Road

Imax:379.89

(10%Imax) 37.9857	—
(20%Imax) 75.9715	—
(30%Imax) 113.957	—
(40%Imax) 151.943	—
(50%Imax) 189.929	—
(60%Imax) 227.914	—
(70%Imax) 265.9	—
(80%Imax) 303.886	—
(90%Imax) 341.872	—

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	373.83	369.25	364.03	356.00	344.15	329.50	312.43	291.55	269.06
22.5	373.83	372.66	367.24	358.01	345.56	329.90	311.62	291.14	267.65
45.0	373.83	361.42	356.20	347.77	336.12	321.87	305.20	285.52	264.44
67.5	373.83	365.24	359.81	350.78	339.33	325.08	307.81	287.13	264.44
90.0	373.83	378.29	374.07	366.44	355.60	341.94	324.88	305.60	284.52
112.5	373.83	379.89	375.27	367.85	356.00	341.54	323.87	304.40	281.71
135.0	373.83	376.68	372.06	363.83	351.78	336.72	319.66	298.77	274.88
157.5	373.83	375.48	370.46	361.82	349.57	335.32	316.85	295.56	272.47
180.0	373.83	368.85	363.83	354.59	342.35	327.09	308.61	287.73	264.84
202.5	373.83	373.67	367.85	359.21	347.16	331.10	313.43	292.95	268.25
225.0	373.83	362.02	357.20	348.97	337.73	323.47	306.61	287.13	265.64
247.5	373.83	366.04	361.42	353.59	342.35	328.49	311.62	292.55	270.26
270.0	373.83	375.68	369.65	359.81	347.37	331.50	313.03	291.55	268.86
292.5	373.83	378.49	372.06	362.22	348.97	334.11	315.64	295.36	272.07
315.0	373.83	375.07	370.05	361.22	348.77	333.31	314.84	293.96	270.06
337.5	373.83	375.27	369.65	360.82	348.17	333.11	314.24	292.95	270.26
360.0	373.83	369.25	364.03	356.00	344.15	329.50	312.43	291.55	269.06
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	243.36	217.05	187.14	155.41	122.08	89.95	58.03	28.11	5.22
22.5	241.55	213.64	185.73	154.61	123.28	90.76	60.24	29.72	6.02
45.0	240.14	213.84	185.13	154.41	123.69	90.96	59.43	31.32	7.83
67.5	239.74	212.03	183.72	153.40	123.49	91.96	60.04	31.12	9.44
90.0	260.22	233.92	206.61	179.30	148.38	115.86	83.53	50.40	21.48
112.5	257.61	231.11	202.80	171.27	139.95	107.02	74.29	42.97	16.67
135.0	248.98	222.07	193.56	162.24	131.32	98.19	65.46	35.74	12.65
157.5	246.17	217.86	188.14	157.82	124.89	91.96	59.63	31.73	10.04
180.0	239.34	211.63	183.72	153.00	121.28	88.95	58.03	29.11	8.63
202.5	243.16	216.45	185.93	154.41	122.08	90.15	58.43	30.12	8.84
225.0	242.55	216.25	188.34	159.03	127.50	95.58	63.25	33.33	11.45
247.5	244.96	217.66	190.15	162.24	131.32	100.39	70.08	39.96	14.66
270.0	243.36	216.05	187.14	158.22	126.10	92.76	59.63	29.92	7.63
292.5	247.37	219.86	191.15	159.43	127.70	94.37	61.24	31.32	9.24
315.0	244.36	217.45	188.94	156.82	124.09	92.76	60.44	31.12	7.43
337.5	244.56	215.85	186.53	155.61	122.88	91.16	60.64	29.32	6.02
360.0	243.36	217.05	187.14	155.41	122.08	89.95	58.03	28.11	5.22
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.60	0.60	0.40	0.40	0.60	0.80	0.80	0.60	1.00
22.5	0.80	0.40	0.80	0.60	0.80	0.80	0.80	0.80	0.80
45.0	1.00	0.60	0.60	0.80	0.40	0.60	0.60	0.80	0.80
67.5	0.60	0.60	0.40	0.60	0.60	0.40	0.60	0.80	0.80
90.0	3.21	0.40	0.40	0.40	0.40	0.40	0.60	0.60	0.60
112.5	2.21	0.40	0.40	0.20	0.20	0.60	0.40	0.60	0.60
135.0	1.41	0.40	0.60	0.40	0.20	0.20	0.20	0.40	0.40
157.5	1.00	0.40	0.20	0.00	0.40	0.20	0.20	0.40	0.60
180.0	0.80	0.20	0.20	0.20	0.20	0.20	0.40	0.60	0.40
202.5	0.80	0.40	0.40	0.20	0.40	0.20	0.60	0.40	0.40
225.0	1.21	0.40	0.40	0.20	0.40	0.40	0.60	0.60	0.60
247.5	1.41	0.40	0.40	0.40	0.40	0.40	0.20	0.60	0.40
270.0	1.00	0.80	0.80	1.00	1.00	0.80	1.00	1.21	1.21
292.5	0.60	0.60	0.60	0.80	0.60	0.80	0.80	0.80	1.00
315.0	0.80	0.60	0.60	0.60	0.60	0.40	0.60	0.80	0.60
337.5	0.80	0.60	0.60	0.40	0.60	0.60	0.60	0.80	0.60
360.0	0.60	0.60	0.40	0.40	0.60	0.80	0.80	0.60	1.00

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	1.00	0.80	1.00	1.00	1.21	1.00	1.00	1.21	0.80
22.5	0.80	1.00	0.80	1.21	1.00	1.00	1.00	1.21	1.00
45.0	0.80	1.00	1.00	1.00	0.80	0.80	0.80	1.00	1.00
67.5	0.80	0.80	1.00	0.80	1.00	0.80	0.80	1.00	1.00
90.0	0.80	0.80	1.00	0.80	0.80	1.00	0.80	1.00	1.00
112.5	0.60	0.60	0.60	0.80	0.80	0.80	1.00	1.00	0.80
135.0	0.60	0.60	0.80	0.80	0.60	1.00	0.80	1.00	0.80
157.5	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	1.00
180.0	0.40	0.40	0.60	0.80	1.00	0.80	1.00	0.80	1.21
202.5	0.60	0.60	0.80	1.00	0.80	0.80	1.00	0.80	1.00
225.0	0.40	0.80	0.80	0.80	0.80	0.80	1.00	1.00	0.80
247.5	0.60	0.80	0.80	0.80	0.60	1.00	0.80	0.80	1.00
270.0	1.41	1.21	1.21	1.41	1.41	1.21	1.21	1.21	1.41
292.5	1.00	0.80	0.80	1.00	1.00	0.80	0.80	0.80	1.00
315.0	0.80	1.00	1.00	1.00	1.21	1.00	1.00	1.00	1.00
337.5	0.80	0.80	1.00	1.00	1.21	0.80	1.00	1.00	0.80
360.0	1.00	0.80	1.00	1.00	1.21	1.00	1.00	1.21	0.80

C/γ(°)	180.0
0.0	1.00
22.5	1.00
45.0	1.00
67.5	1.00
90.0	1.00
112.5	1.00
135.0	1.00
157.5	1.00
180.0	1.00
202.5	1.00
225.0	1.00
247.5	1.00
270.0	1.00
292.5	1.00
315.0	1.00
337.5	1.00
360.0	1.00