



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): 0.0680

Lamp flux(lm): -1.0

Power (W): 7.96

Number of Lamps: 1

PF: 0.9749

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 518.52, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 65.14

Central intensity(cd): 184.711, Maximum intensity(cd): 190.150

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

Beam Angle(50%Imax): [C0/180]Total=108.7

[C90/270]Total=113.0

Field angle(10%Imax): [C0/180]Total=157.3

[C90/270]Total=160.7

Maximum s/h(1/2): C0_180=1.22 C90_270=1.31

Maximum s/h(1/4): C0_180=1.35 C90_270=1.42

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.75%

Down flux rate of LUM(%): 99.25%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.305%

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	184.711	0.000	0	0.00%	0.00%
5.0	184.112	4.409	4.409	0.00%	0.85%
10.0	181.597	13.083	17.492	0.00%	3.37%
15.0	177.286	21.289	38.78	0.00%	7.48%
20.0	171.371	28.734	67.515	0.00%	13.02%
25.0	163.933	35.167	102.682	0.00%	19.80%
30.0	155.313	40.401	143.083	0.00%	27.59%
35.0	145.114	44.240	187.323	0.00%	36.13%
40.0	133.842	46.542	233.864	0.00%	45.10%
45.0	121.400	47.260	281.124	0.00%	54.22%
50.0	108.088	46.371	327.496	0.00%	63.16%
55.0	93.769	43.890	371.386	0.00%	71.62%
60.0	78.554	39.832	411.218	0.00%	79.31%
65.0	62.767	34.355	445.574	0.00%	85.93%
70.0	46.640	27.703	473.276	0.00%	91.27%
75.0	30.962	20.284	493.56	0.00%	95.19%
80.0	16.766	12.771	506.331	0.00%	97.65%
85.0	6.296	6.266	512.597	0.00%	98.86%
90.0	1.224	2.059	514.656	0.00%	99.25%
95.0	0.585	0.495	515.151	0.00%	99.35%
100.0	0.476	0.288	515.439	0.00%	99.41%
105.0	0.435	0.244	515.683	0.00%	99.45%
110.0	0.490	0.242	515.925	0.00%	99.50%
115.0	0.503	0.251	516.176	0.00%	99.55%
120.0	0.558	0.258	516.434	0.00%	99.60%
125.0	0.530	0.252	516.686	0.00%	99.65%
130.0	0.612	0.248	516.934	0.00%	99.69%
135.0	0.639	0.253	517.187	0.00%	99.74%
140.0	0.625	0.234	517.421	0.00%	99.79%
145.0	0.734	0.227	517.648	0.00%	99.83%
150.0	0.762	0.220	517.868	0.00%	99.87%
155.0	0.775	0.194	518.063	0.00%	99.91%
160.0	0.775	0.163	518.225	0.00%	99.94%
165.0	0.775	0.128	518.353	0.00%	99.97%
170.0	0.802	0.094	518.447	0.00%	99.98%
175.0	0.816	0.058	518.504	0.00%	100.00%
180.0	0.858	0.020	518.524	0.00%	100.00%

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

Date:
Humidity(%): 58%

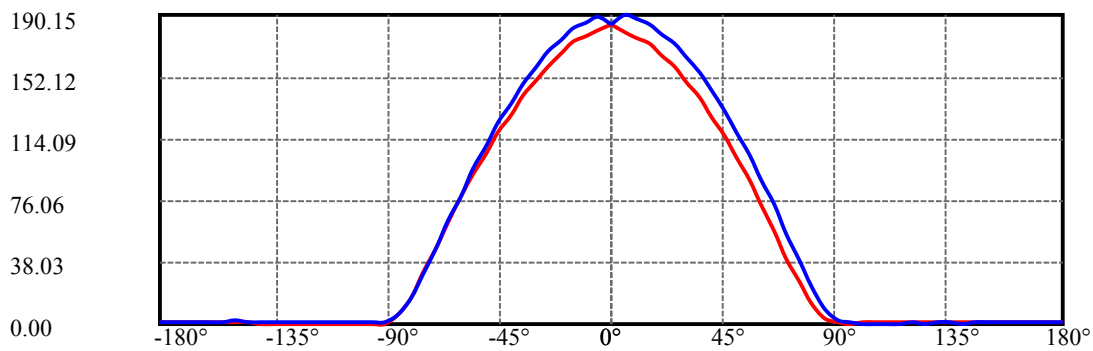
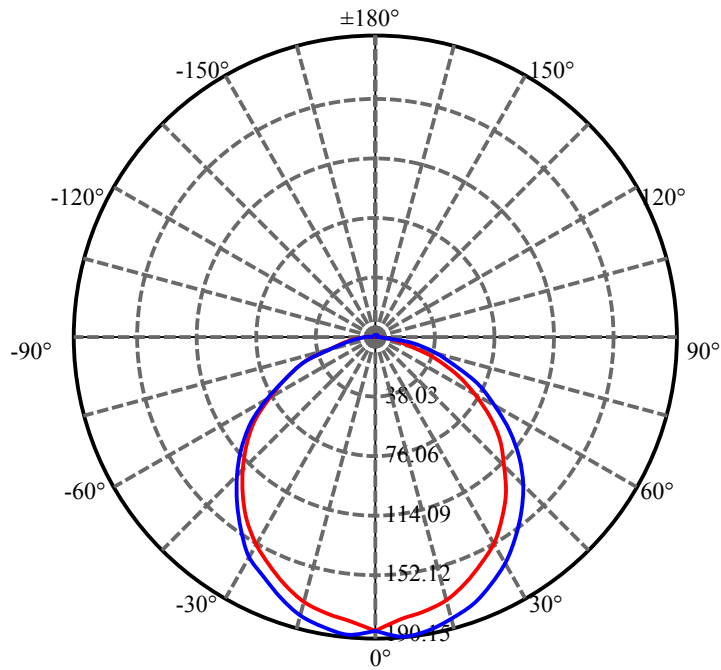
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	143.08	N.A.	27.59%
0-40	233.86	N.A.	45.10%
0-60	411.22	N.A.	79.31%
0-90	514.66	N.A.	99.25%
0-120	516.43	N.A.	99.60%
0-180	518.52	N.A.	100.00%
60-90	103.44	N.A.	19.95%
90-120	1.78	N.A.	0.34%
90-130	2.28	N.A.	0.44%
90-150	3.21	N.A.	0.62%
90-180	3.85	N.A.	0.74%
0-60.52	414.82	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	17.49
10-20	50.02
20-30	75.57
30-40	90.78
40-50	93.63
50-60	83.72
60-70	62.06
70-80	33.05
80-90	8.33
90-100	0.78
100-110	0.49
110-120	0.51
120-130	0.50
130-140	0.49
140-150	0.45
150-160	0.36
160-170	0.22
170-180	0.06



C0/C180: —

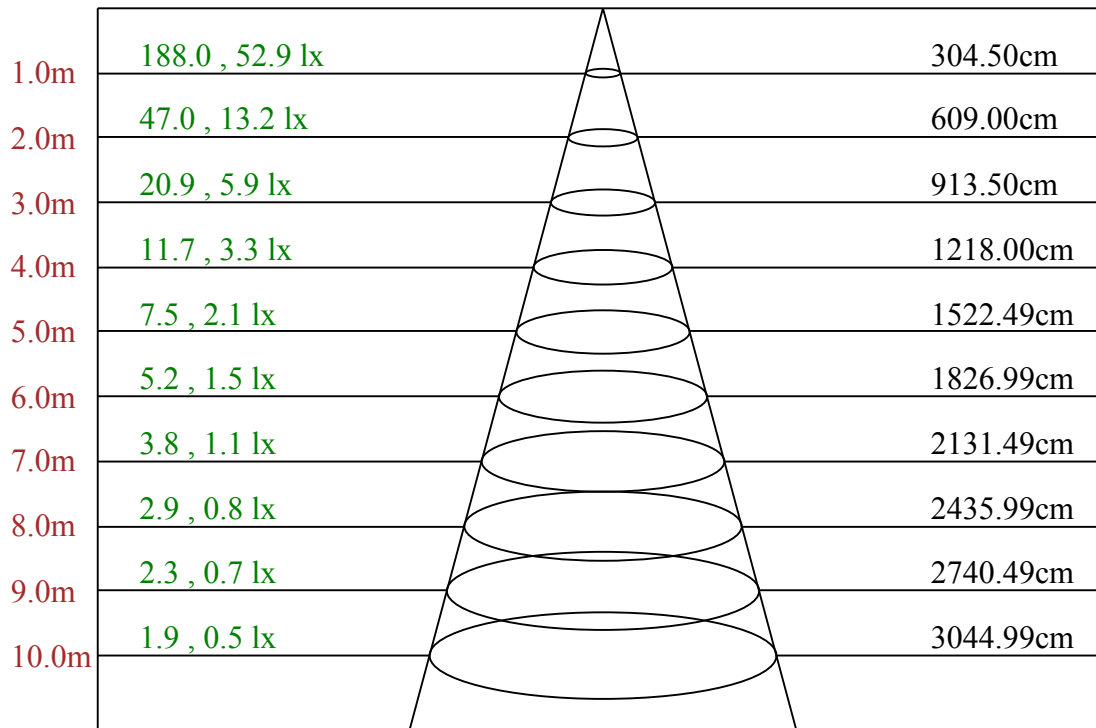
C90/C270: —

Field angle(10%Imax):C0/180Left:79.4 Right:77.9

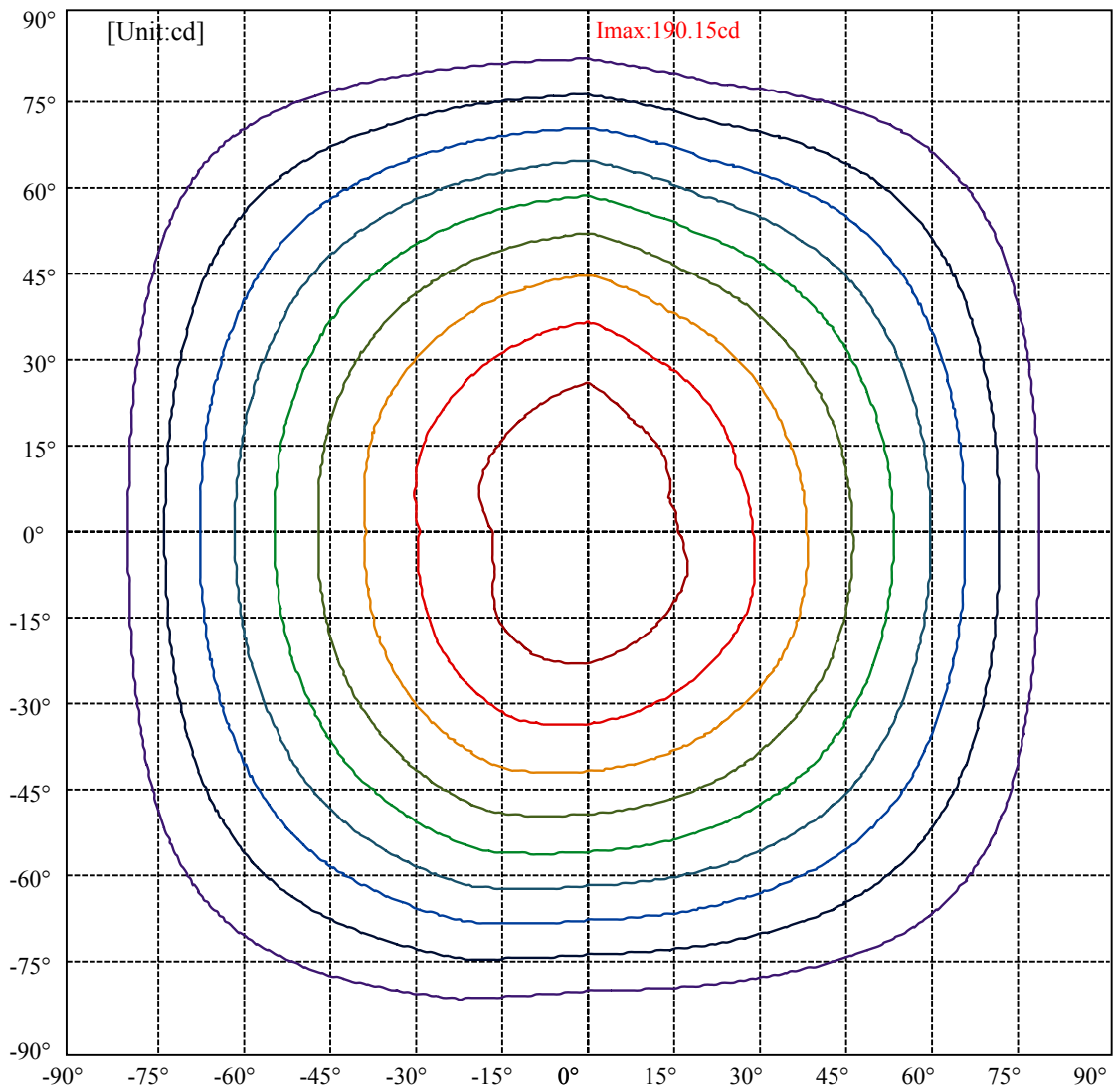
:C90/270Left:79.1 Right:81.6

Beam Angle(50%Imax):C0/180Left:55.1 Right:53.6

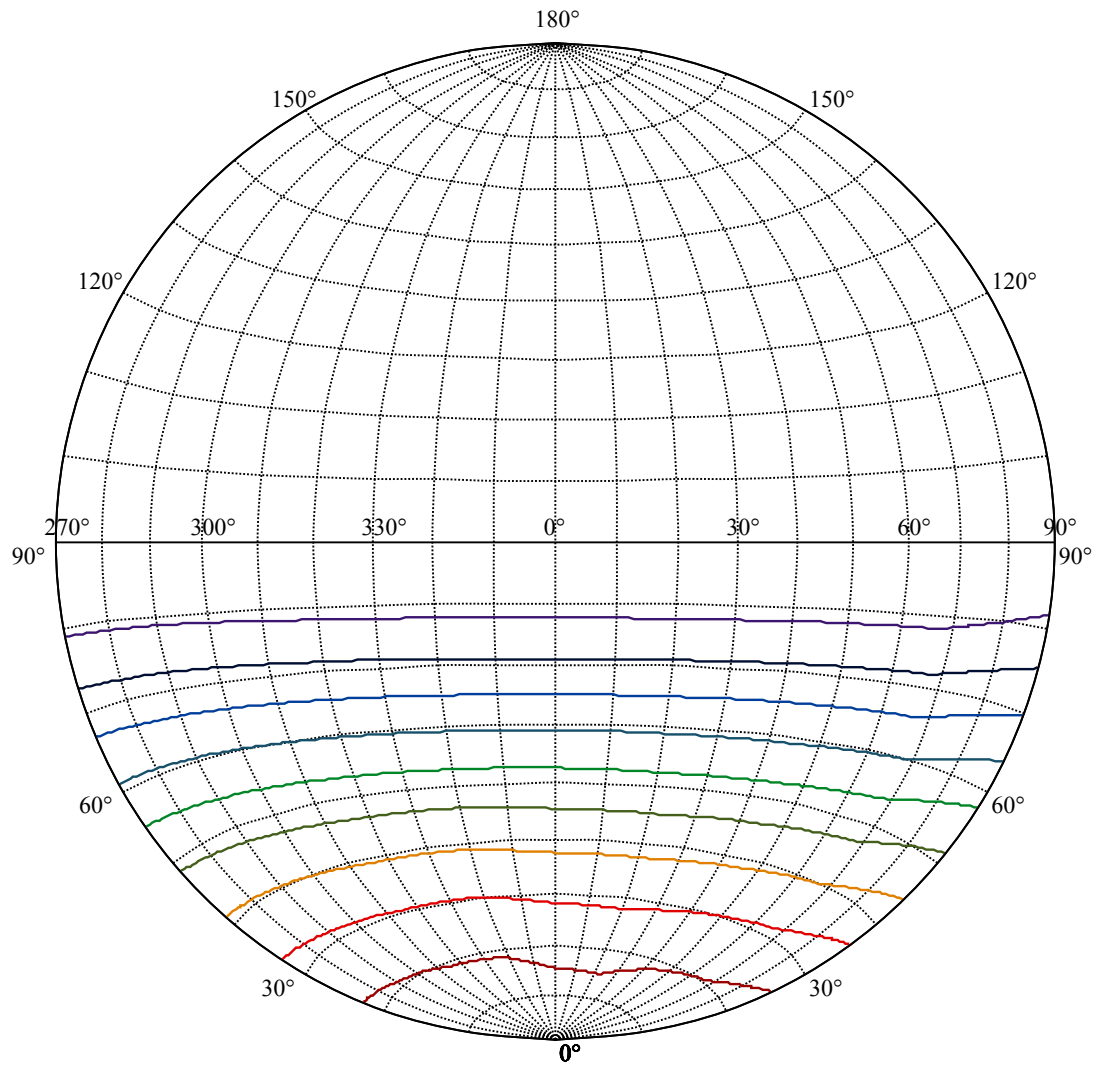
:C90/270Left:55.1 Right:57.9



Max , Ave Beam angle of C90 plane 113.40



(10%Imax) 19.015	—
(20%Imax) 38.03	—
(30%Imax) 57.045	—
(40%Imax) 76.06	—
(50%Imax) 95.075	—
(60%Imax) 114.09	—
(70%Imax) 133.105	—
(80%Imax) 152.12	—
(90%Imax) 171.135	—



House

[Unit:cd]

Road

Imax:190.15

(10%Imax) 19.015	—
(20%Imax) 38.03	—
(30%Imax) 57.045	—
(40%Imax) 76.06	—
(50%Imax) 95.075	—
(60%Imax) 114.09	—
(70%Imax) 133.105	—
(80%Imax) 152.12	—
(90%Imax) 171.135	—

Intensity data(cd)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	184.71	179.27	176.44	171.87	165.57	157.95	149.25	139.02	127.93
22.5	184.71	178.84	175.79	171.22	165.35	157.30	148.38	138.59	127.49
45.0	184.71	183.19	180.36	175.57	169.05	161.43	151.86	140.98	129.45
67.5	184.71	185.58	182.75	178.18	171.87	164.04	155.56	145.33	133.15
90.0	184.71	190.15	187.97	184.28	178.84	172.09	163.83	154.47	143.81
112.5	184.71	187.10	185.15	181.23	175.57	168.61	160.56	150.55	139.68
135.0	184.71	184.71	182.54	178.62	172.96	166.00	157.52	147.29	135.98
157.5	184.71	184.06	181.67	177.31	171.87	164.48	155.56	145.33	134.02
180.0	184.71	180.14	177.31	173.18	166.44	158.60	150.55	140.55	129.23
202.5	184.71	179.49	177.75	173.62	168.39	161.43	153.38	143.37	132.50
225.0	184.71	184.28	182.32	178.84	173.40	166.22	157.52	147.51	136.41
247.5	184.71	186.89	184.71	181.23	175.57	168.83	160.78	150.99	140.11
270.0	184.71	188.84	186.02	181.45	175.14	167.52	158.82	148.16	136.19
292.5	184.71	186.02	183.19	178.40	172.31	164.26	155.56	144.68	133.58
315.0	184.71	183.84	181.01	176.23	170.13	162.30	153.16	143.16	131.19
337.5	184.71	183.41	180.58	175.36	169.48	161.87	152.73	141.85	130.76
360.0	184.71	179.27	176.44	171.87	165.57	157.95	149.25	139.02	127.93
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	115.53	102.47	88.33	73.10	57.00	40.47	26.11	13.05	3.92
22.5	114.87	101.82	87.46	72.88	57.22	41.12	25.89	12.62	4.13
45.0	116.83	103.13	88.55	73.32	58.31	42.43	26.98	13.49	4.35
67.5	120.09	106.61	91.81	75.71	59.61	44.17	28.07	13.71	4.57
90.0	131.19	118.14	103.78	88.55	72.67	55.48	39.16	23.06	10.01
112.5	127.27	114.22	99.64	84.63	68.32	52.43	35.90	20.67	8.92
135.0	124.01	110.96	95.95	80.28	64.83	48.30	32.42	18.71	7.62
157.5	121.18	107.91	93.77	78.54	63.09	46.78	31.76	17.62	6.31
180.0	117.70	105.30	92.68	78.76	63.09	47.65	31.33	16.75	5.87
202.5	120.31	107.04	92.90	78.11	62.88	47.21	31.76	17.62	6.53
225.0	124.23	110.52	96.38	81.15	65.49	49.39	33.72	19.80	8.05
247.5	127.93	115.31	100.95	85.72	69.62	52.87	37.20	21.97	9.57
270.0	124.01	110.30	95.51	79.19	63.31	47.21	30.89	16.32	6.09
292.5	120.97	107.26	92.90	77.45	61.35	45.69	29.81	15.66	5.00
315.0	118.57	104.65	90.72	75.49	59.61	43.30	27.85	13.92	5.00
337.5	117.70	103.78	88.98	73.97	57.87	41.77	26.54	13.27	4.79
360.0	115.53	102.47	88.33	73.10	57.00	40.47	26.11	13.05	3.92
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.87	0.44	0.87	0.87	0.87	0.65	0.87	0.87	0.87
22.5	1.09	0.65	0.87	0.65	0.87	0.65	0.87	0.65	0.65
45.0	1.31	0.87	0.65	0.65	0.65	0.87	0.65	0.44	0.65
67.5	1.31	1.09	0.44	0.65	0.44	0.65	0.65	0.87	0.65
90.0	1.96	0.87	0.44	0.44	0.44	0.44	0.87	0.44	0.65
112.5	1.52	0.44	0.22	0.22	0.44	0.22	0.22	0.65	0.65
135.0	1.09	0.44	0.22	0.00	0.22	0.44	0.22	0.22	0.22
157.5	1.09	0.22	0.00	0.00	0.00	0.22	0.00	0.22	0.00
180.0	0.44	0.22	0.22	0.22	0.00	0.00	0.22	0.22	0.22
202.5	0.65	0.44	0.22	0.00	0.00	0.22	0.22	0.22	0.44
225.0	1.09	0.22	0.00	0.00	0.00	0.00	0.22	0.22	0.65
247.5	1.96	0.22	0.00	0.22	0.22	0.00	0.22	0.00	0.44
270.0	1.52	1.09	1.31	1.09	1.52	1.31	1.31	1.31	1.31
292.5	1.52	0.87	0.65	0.65	0.87	0.87	0.87	0.87	0.87
315.0	1.09	0.87	0.65	0.65	0.65	0.87	0.87	0.65	0.65
337.5	1.09	0.44	0.87	0.65	0.65	0.65	0.65	0.65	0.87
360.0	0.87	0.44	0.87	0.87	0.87	0.65	0.87	0.87	0.87

Equipment: GMS-3000
Temperature(°C): 25Date:
Humidity(%): 58%

Operator: Tester

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	0.65	0.65	0.87	0.87	0.87	0.65	0.65	1.09	0.65
22.5	1.09	0.87	0.87	0.65	0.87	0.87	0.87	0.65	0.87
45.0	0.65	0.87	0.87	0.65	0.87	0.44	0.65	0.65	0.87
67.5	1.09	0.44	0.87	0.65	0.87	0.65	0.87	0.87	0.65
90.0	0.65	0.44	1.09	0.87	0.65	1.09	0.87	0.87	1.09
112.5	0.44	0.44	0.65	0.65	0.87	0.65	0.87	0.87	0.65
135.0	0.44	0.44	0.44	0.22	0.65	0.87	0.65	0.87	0.44
157.5	0.44	0.44	0.44	0.44	0.65	0.87	0.65	0.65	0.87
180.0	0.22	0.44	0.65	0.65	0.65	0.65	0.65	0.65	0.87
202.5	0.44	0.44	0.44	0.65	0.44	0.44	0.65	0.65	0.87
225.0	0.22	0.44	0.44	0.65	0.65	0.65	0.65	0.87	0.87
247.5	0.22	0.22	0.44	0.65	0.65	0.44	0.65	0.65	0.65
270.0	1.31	1.52	1.31	1.96	1.31	1.52	1.52	1.31	1.31
292.5	0.87	0.87	0.87	0.87	0.87	0.87	0.65	0.65	0.87
315.0	0.65	0.87	0.87	0.87	0.65	0.87	0.87	0.87	0.87
337.5	0.87	0.65	0.65	0.87	0.87	0.87	0.65	0.65	0.65
360.0	0.65	0.65	0.87	0.87	0.87	0.65	0.65	1.09	0.65

C/γ(°)	180.0
0.0	0.86
22.5	0.86
45.0	0.86
67.5	0.86
90.0	0.86
112.5	0.86
135.0	0.86
157.5	0.86
180.0	0.86
202.5	0.86
225.0	0.86
247.5	0.86
270.0	0.86
292.5	0.86
315.0	0.86
337.5	0.86
360.0	0.86