



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.  
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Client:

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 119.76

LampCAT:

Current(A): 3.2510

Lamp flux(lm): -1.0

Power (W): 387.91

Number of Lamps: 1

PF: 0.9964

Length(mm): 680

Width(mm): 260

Phm Type: C

Height(mm): 0

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### Photometric Results

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Lumens(lm): 54099.48, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 139.46

Central intensity(cd): 19195.630, Maximum intensity(cd): 19949.790

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

Beam Angle(50%Imax): [C0/180]Total=110.1

[C90/270]Total=111.6

Field angle(10%Imax): [C0/180]Total=159.2

[C90/270]Total=162.5

Maximum s/h(1/2): C0\_180=1.25 C90\_270=1.30

Maximum s/h(1/4): C0\_180=1.37 C90\_270=1.40

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.23%

Down flux rate of LUM(%): 99.77%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 78.819%

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

Date:  
Humidity(%): 58%

Operator: Sam

## 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	19195.631	0.000	0	0.00%	0.00%
5.0	19104.695	457.870	457.87	0.00%	0.85%
10.0	18822.996	1356.793	1814.662	0.00%	3.35%
15.0	18373.131	2206.449	4021.112	0.00%	7.43%
20.0	17756.943	2977.626	6998.737	0.00%	12.94%
25.0	16980.658	3643.333	10642.07	0.00%	19.67%
30.0	16072.718	4182.932	14825.003	0.00%	27.40%
35.0	15015.793	4578.001	19403.004	0.00%	35.87%
40.0	13859.633	4817.647	24220.65	0.00%	44.77%
45.0	12572.349	4894.096	29114.746	0.00%	53.82%
50.0	11206.738	4804.912	33919.658	0.00%	62.70%
55.0	9760.544	4558.985	38478.643	0.00%	71.13%
60.0	8245.812	4162.118	42640.762	0.00%	78.82%
65.0	6675.377	3627.369	46268.131	0.00%	85.52%
70.0	5104.544	2982.752	49250.883	0.00%	91.04%
75.0	3529.081	2256.691	51507.573	0.00%	95.21%
80.0	2039.224	1489.923	52997.497	0.00%	97.96%
85.0	759.880	760.584	53758.08	0.00%	99.37%
90.0	35.063	217.662	53975.742	0.00%	99.77%
95.0	10.678	12.524	53988.266	0.00%	99.79%
100.0	10.241	5.684	53993.95	0.00%	99.80%
105.0	11.114	5.714	53999.665	0.00%	99.82%
110.0	12.821	6.256	54005.921	0.00%	99.83%
115.0	14.965	7.036	54012.956	0.00%	99.84%
120.0	17.479	7.887	54020.844	0.00%	99.85%
125.0	19.887	8.637	54029.48	0.00%	99.87%
130.0	22.044	9.117	54038.598	0.00%	99.89%
135.0	23.975	9.299	54047.896	0.00%	99.90%
140.0	25.748	9.207	54057.103	0.00%	99.92%
145.0	27.416	8.870	54065.973	0.00%	99.94%
150.0	28.924	8.296	54074.269	0.00%	99.95%
155.0	30.009	7.458	54081.727	0.00%	99.97%
160.0	30.168	6.311	54088.039	0.00%	99.98%
165.0	30.062	4.964	54093.003	0.00%	99.99%
170.0	29.969	3.561	54096.564	0.00%	99.99%
175.0	30.565	2.165	54098.729	0.00%	100.00%
180.0	32.241	0.751	54099.48	0.00%	100.00%

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

Date:  
Humidity(%): 58%

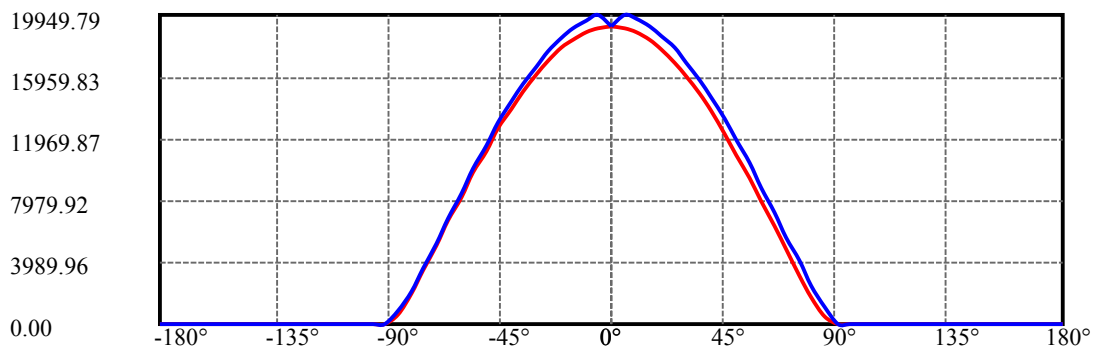
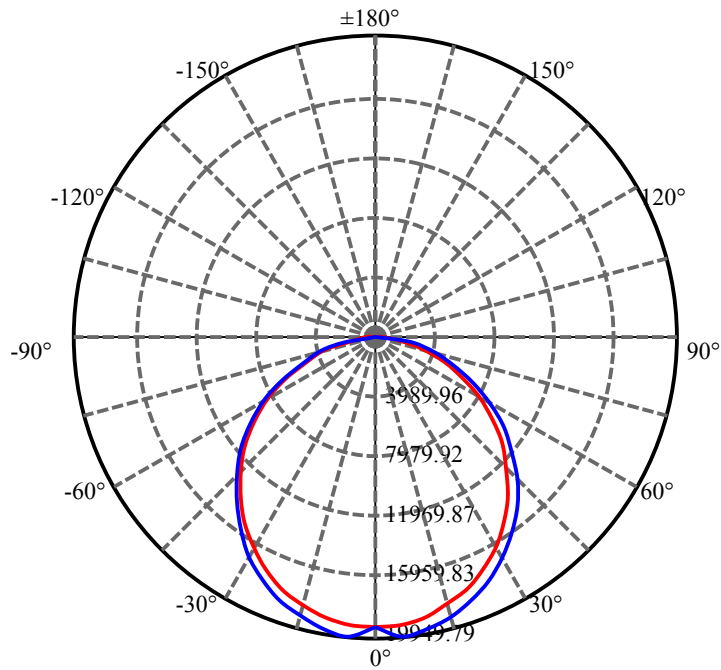
Operator: Sam

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	14825.00	N.A.	27.40%
0-40	24220.65	N.A.	44.77%
0-60	42640.76	N.A.	78.82%
0-90	53975.74	N.A.	99.77%
0-120	54020.84	N.A.	99.85%
0-180	54099.48	N.A.	100.00%
60-90	11334.98	N.A.	20.95%
90-120	45.10	N.A.	0.08%
90-130	62.86	N.A.	0.12%
90-150	98.53	N.A.	0.18%
90-180	122.99	N.A.	0.23%
0-60.88	43279.58	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	1814.66
10-20	5184.07
20-30	7826.27
30-40	9395.65
40-50	9699.01
50-60	8721.10
60-70	6610.12
70-80	3746.61
80-90	978.25
90-100	18.21
100-110	11.97
110-120	14.92
120-130	17.75
130-140	18.51
140-150	17.17
150-160	13.77
160-170	8.52
170-180	2.17

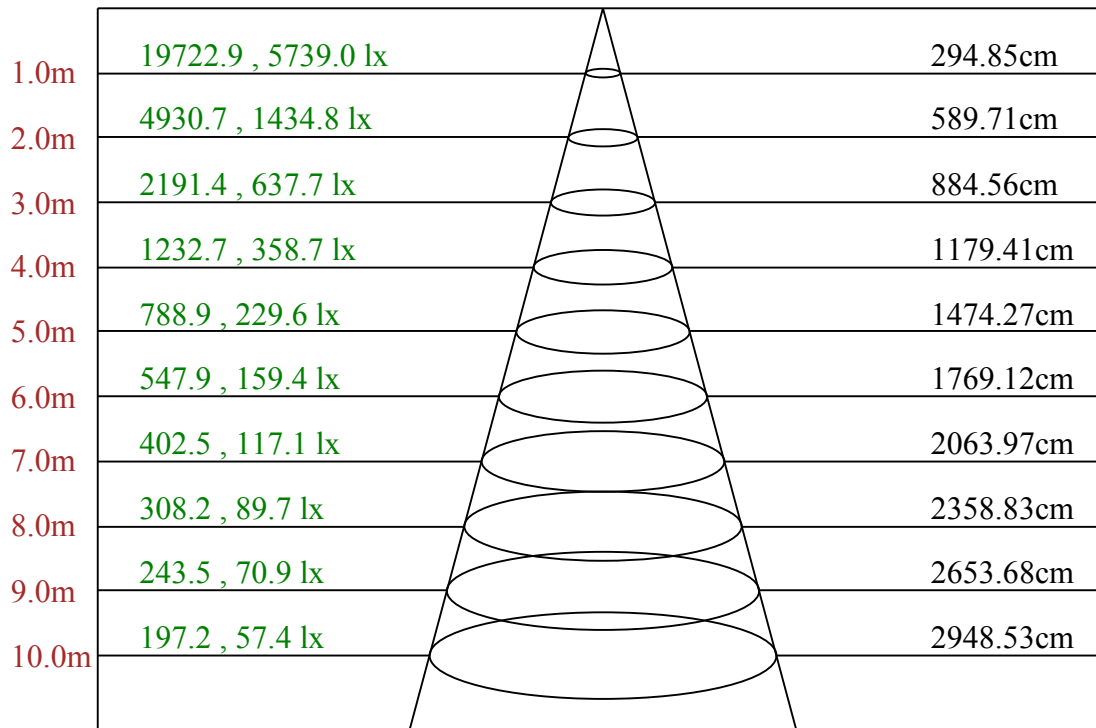


C0/C180: —

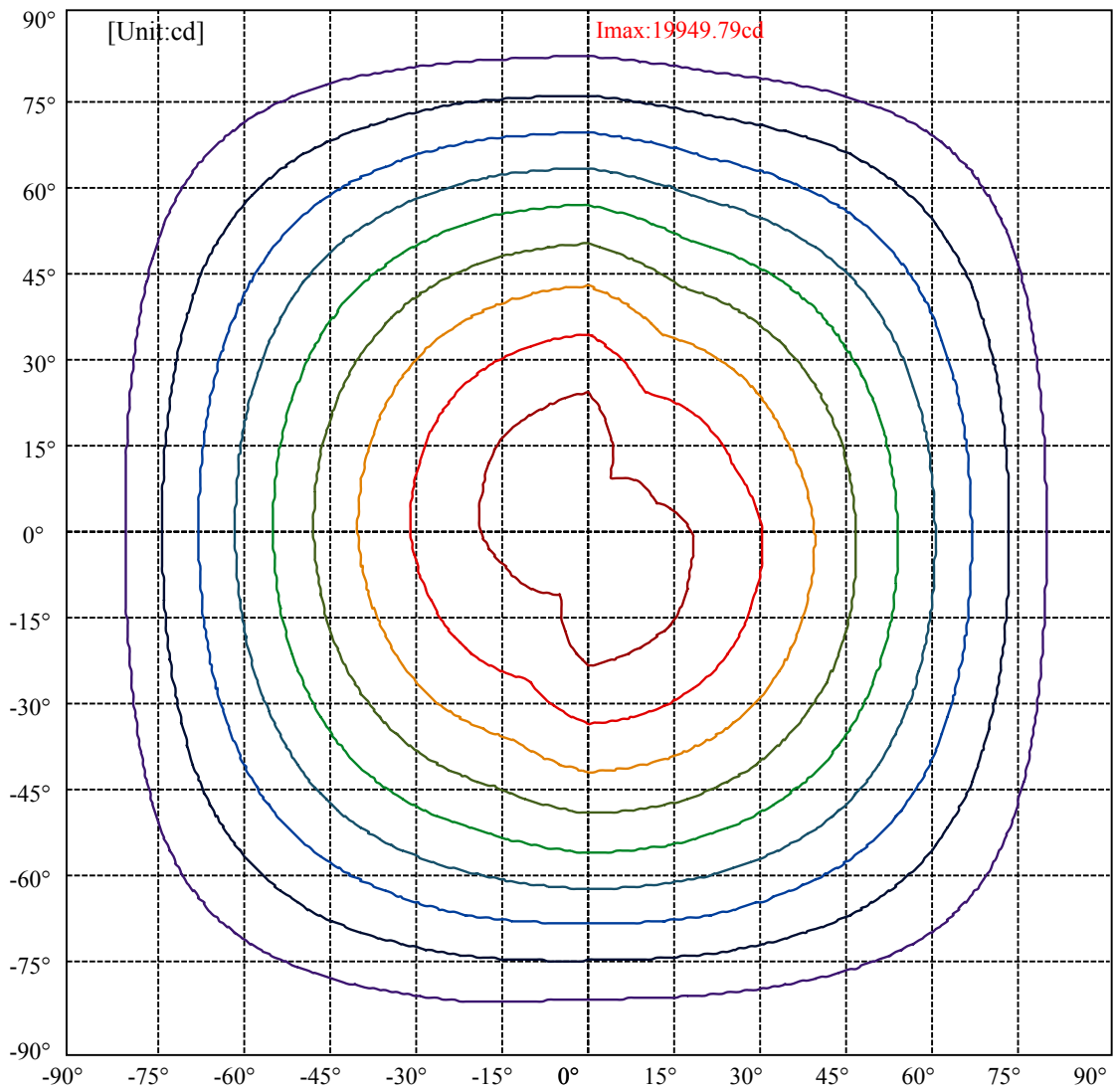
C90/C270: —

Field angle(10%Imax):C0/180Left:80.0 Right:79.2  
 :C90/270Left:80.6 Right:81.9

Beam Angle(50%Imax):C0/180Left:55.5 Right:54.6  
 :C90/270Left:55.3 Right:56.3



Max , Ave      Beam angle of C90 plane 111.70

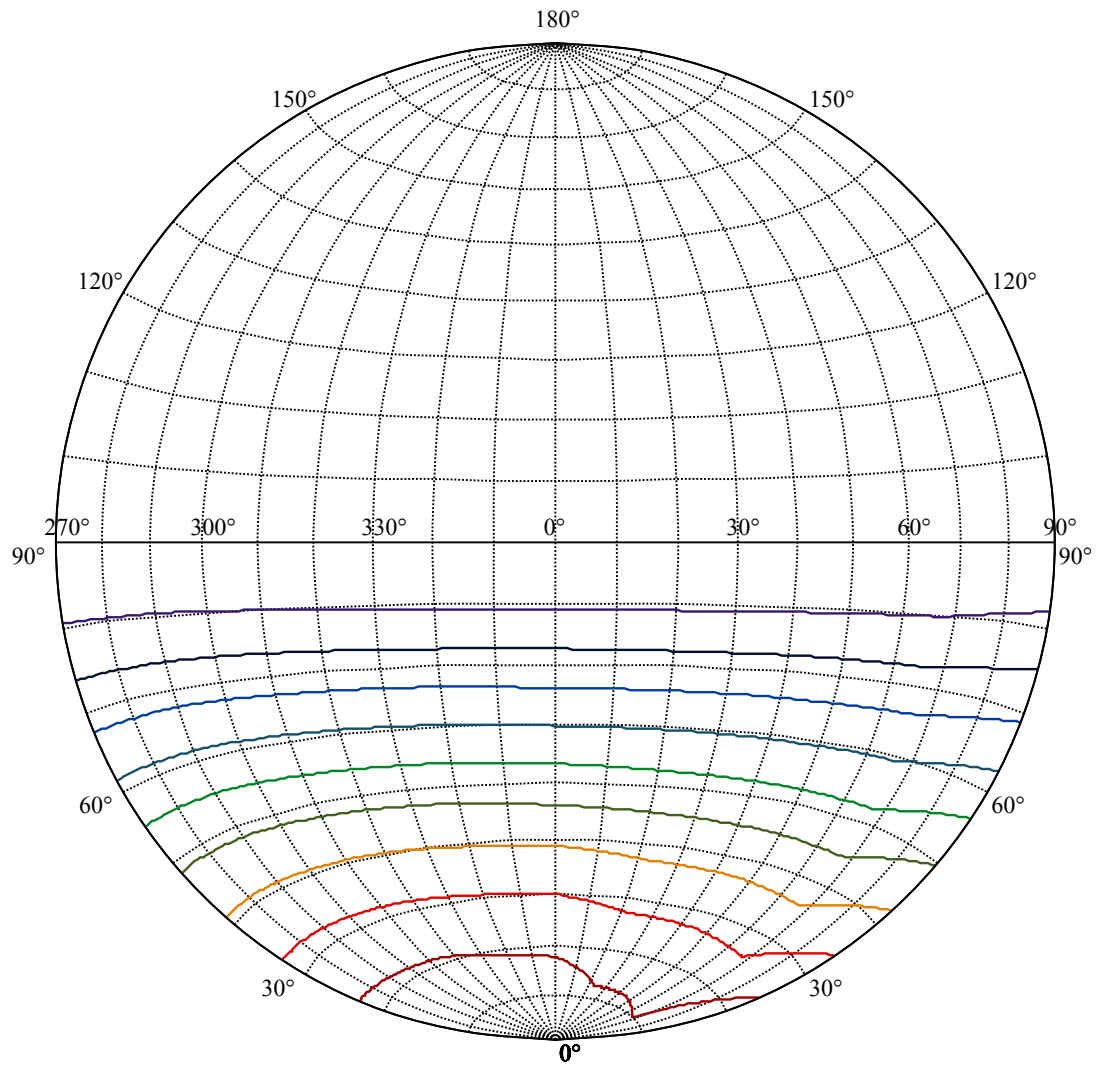


(10%I <sub>max</sub> ) 1994.98	—
(20%I <sub>max</sub> ) 3989.96	—
(30%I <sub>max</sub> ) 5984.94	—
(40%I <sub>max</sub> ) 7979.92	—
(50%I <sub>max</sub> ) 9974.89	—
(60%I <sub>max</sub> ) 11969.9	—
(70%I <sub>max</sub> ) 13964.9	—
(80%I <sub>max</sub> ) 15959.8	—
(90%I <sub>max</sub> ) 17954.8	—

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

Date:  
Humidity(%): 58%

Operator: Sam



House

[Unit:cd]

Road

Imax:19949.79

(10%Imax) 1994.98	—
(20%Imax) 3989.96	—
(30%Imax) 5984.94	—
(40%Imax) 7979.92	—
(50%Imax) 9974.89	—
(60%Imax) 11969.9	—
(70%Imax) 13964.9	—
(80%Imax) 15959.8	—
(90%Imax) 17954.8	—

## 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	19195.63	19075.45	18785.42	18313.32	17699.39	16903.39	15971.89	14896.45	13727.85
22.5	19195.63	18620.29	18209.59	17750.20	17146.85	16382.60	15476.51	14443.40	13334.08
45.0	19195.63	18455.17	18171.48	17720.56	17098.15	16323.32	15436.29	14396.83	13240.93
67.5	19195.63	18251.93	17947.08	17498.27	16869.51	16124.32	15220.35	14195.71	13090.62
90.0	19195.63	19949.79	19674.57	19213.06	18575.84	17798.89	16839.88	15751.72	14572.54
112.5	19195.63	19662.63	19420.53	18978.07	18353.55	17559.66	16647.23	15573.89	14384.13
135.0	19195.63	19551.79	19280.80	18825.64	18201.12	17438.99	16499.03	15421.47	14263.46
157.5	19195.63	19217.29	18963.25	18520.79	17908.97	17134.14	16236.52	15182.24	14003.06
180.0	19195.63	19094.51	18821.41	18381.07	17786.19	17000.77	16073.51	15019.23	13888.74
202.5	19195.63	18662.63	18423.41	18004.24	17417.82	16672.63	15846.99	14803.30	13668.57
225.0	19195.63	18505.97	18270.98	17868.75	17271.75	16535.02	15755.96	14733.44	13638.93
247.5	19195.63	18311.21	18078.33	17669.75	17117.21	16391.07	15527.32	14570.42	13458.99
270.0	19195.63	19911.68	19611.06	19122.03	18469.98	17640.11	16655.70	15531.55	14326.97
292.5	19195.63	19666.10	19382.42	18906.09	18258.28	17443.23	16507.50	15423.59	14386.30
315.0	19195.63	19520.03	19215.18	18751.55	18122.79	17318.32	16357.19	15264.81	14089.86
337.5	19195.63	19187.66	18912.44	18446.70	17813.71	17024.06	16111.62	15044.64	13859.10
360.0	19195.63	19075.45	18785.42	18313.32	17699.39	16903.39	15971.89	14896.45	13727.85
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	12267.10	10958.78	9476.86	7901.80	6263.22	4880.80	3133.62	1684.73	505.12
22.5	12089.27	10734.38	9294.80	7840.40	6286.51	4802.47	3141.88	1713.10	485.43
45.0	11987.65	10641.23	9271.51	7781.13	6254.75	4819.41	3246.88	1796.72	521.85
67.5	11873.33	10575.60	9203.77	7812.88	6324.61	4840.58	3330.72	1959.10	659.03
90.0	13257.87	11856.40	10363.90	8839.64	7213.76	5579.42	4033.99	2520.32	1161.19
112.5	13090.62	11701.86	10283.45	8735.90	7171.42	5543.43	3987.42	2420.82	1055.34
135.0	12957.25	11538.84	10033.64	8515.73	6955.49	5287.27	3686.80	2200.65	1082.86
157.5	12715.91	11354.66	9860.04	8344.25	6695.09	5122.14	3521.67	1972.01	643.58
180.0	12605.83	11198.00	9760.54	8229.94	6654.87	5052.28	3487.80	1921.20	584.72
202.5	12417.41	11104.86	9665.28	8138.90	6616.76	5020.53	3449.69	1946.60	636.17
225.0	12402.59	11064.63	9686.45	8246.87	6665.45	5115.79	3627.52	2147.72	1072.27
247.5	12264.99	10975.72	9661.04	8225.70	6800.94	5289.39	3773.60	2378.48	1076.51
270.0	12982.66	11545.20	10071.75	8475.51	6830.58	5145.43	3652.72	2149.63	808.28
292.5	12921.26	11519.79	10023.05	8445.87	6870.81	5230.11	3635.14	2108.56	760.86
315.0	12766.72	11350.43	9832.52	8293.45	6676.04	5035.34	3477.64	1937.71	592.13
337.5	12557.13	11187.42	9680.10	8105.03	6525.73	4908.32	3278.21	1770.26	512.74
360.0	12267.10	10958.78	9476.86	7901.80	6263.22	4880.80	3133.62	1684.73	505.12
C/ $\gamma$ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	37.47	10.59	9.95	10.80	12.28	14.61	16.72	19.27	21.38
22.5	34.08	10.80	10.16	11.01	12.49	14.82	16.94	19.48	21.59
45.0	27.31	11.01	10.59	11.43	12.91	15.24	17.78	19.90	22.23
67.5	16.30	10.80	10.37	11.43	13.34	15.67	18.21	20.32	22.44
90.0	46.36	10.16	10.59	11.86	13.76	16.09	18.84	21.38	23.71
112.5	36.20	10.59	10.16	11.22	13.34	15.88	18.63	20.96	23.08
135.0	39.38	10.80	10.37	11.22	12.91	15.24	17.57	20.11	22.44
157.5	45.09	9.95	9.53	10.80	12.70	14.61	17.15	19.69	21.59
180.0	47.63	9.10	9.32	9.95	12.07	13.97	16.51	18.84	20.75
202.5	45.73	9.95	9.53	10.37	11.86	13.76	16.30	18.63	20.75
225.0	45.52	10.80	9.74	10.37	12.07	13.76	16.30	18.63	20.75
247.5	41.71	9.95	9.74	10.59	12.49	14.18	16.72	19.27	21.38
270.0	12.70	11.64	11.43	12.70	14.40	16.51	19.48	22.02	24.35
292.5	19.90	11.86	11.01	11.86	13.34	15.88	18.42	20.75	23.08
315.0	29.85	11.86	11.01	11.43	12.70	14.82	17.36	19.69	21.81
337.5	35.78	11.01	10.37	10.80	12.49	14.40	16.72	19.27	21.38
360.0	37.47	10.59	9.95	10.80	12.28	14.61	16.72	19.27	21.38

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	23.29	25.19	26.68	28.16	29.22	29.64	29.22	29.22	30.91
22.5	23.29	25.19	26.68	27.95	29.00	29.00	29.43	29.64	30.91
45.0	24.13	25.62	27.10	28.79	29.64	30.06	30.06	30.27	30.49
67.5	24.35	26.04	27.52	29.22	30.27	30.06	30.49	30.06	30.27
90.0	25.83	27.52	29.43	30.91	31.97	32.39	31.97	31.33	31.12
112.5	24.98	27.10	28.79	30.49	31.54	31.76	31.54	31.12	30.91
135.0	24.35	26.04	27.95	29.43	30.49	30.91	30.91	30.91	30.91
157.5	23.71	25.40	27.10	28.58	29.85	29.85	29.43	30.06	30.27
180.0	22.86	24.77	26.46	27.95	29.22	29.22	29.22	28.79	29.22
202.5	22.44	24.35	25.83	27.10	28.58	28.58	28.58	28.37	29.00
225.0	22.65	24.56	26.25	27.73	28.58	29.22	28.58	28.79	28.79
247.5	23.50	24.98	26.68	28.58	29.64	29.43	29.22	28.58	29.00
270.0	26.04	28.16	29.64	31.33	32.60	32.60	32.39	32.39	33.03
292.5	24.98	26.68	28.58	29.64	30.70	30.91	30.70	30.70	31.76
315.0	23.92	25.40	27.10	28.79	29.64	29.85	29.85	29.85	31.33
337.5	23.29	24.98	26.89	28.16	29.22	29.22	29.43	29.43	31.12
360.0	23.29	25.19	26.68	28.16	29.22	29.64	29.22	29.22	30.91

C/γ(°)	180.0
0.0	32.24
22.5	32.24
45.0	32.24
67.5	32.24
90.0	32.24
112.5	32.24
135.0	32.24
157.5	32.24
180.0	32.24
202.5	32.24
225.0	32.24
247.5	32.24
270.0	32.24
292.5	32.24
315.0	32.24
337.5	32.24
360.0	32.24