



NATA LIGHTING CO.,LTD.  
www.nata.cn  
Email:info@nata.com  
Tel:+86-750-3770000 Fax:+86-750-3771111  
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

---

## Nata

---

LumCAT: 1-1009-M	
Luminaire: BJB 47.360.1020	
Report No: NATA0100	Voltage(V): 33.8900
Test No: GC2019102404	Current(A): 0.2970
LampCAT: BRIDGELUX V10B LES10	Power (W): 10.0600
Lamp flux(lm): 1478.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

---

## Photometric Results

---

Lumens(lm): 1074.59  
Efficiency(%): 72.71%  
Lumens(lm)/Power(W): 106.82  
Central intensity(cd): 5450.906  
Maximum intensity(cd): 5450.906  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=25.5  
                                  [C90/270]Total=25.5  
Field angle(10%Imax): [C0/180]Total=41.7  
                                  [C90/270]Total=41.7  
Maximum s/h(1/2): C0\_180=0.43 C90\_270=0.43  
Maximum s/h(1/4): C0\_180=0.42 C90\_270=0.42  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 72.71%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.497%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5450.906	0.000	0	.000%	.000%
1.0	5434.383	5.208	5.208	.352%	.485%
2.0	5373.773	15.513	20.721	1.050%	1.928%
3.0	5274.773	25.468	46.189	1.723%	4.298%
4.0	5142.305	34.869	81.058	2.359%	7.543%
5.0	4968.141	43.495	124.553	2.943%	11.591%
6.0	4743.422	51.037	175.59	3.453%	16.340%
7.0	4505.203	57.406	232.996	3.884%	21.682%
8.0	4241.531	62.599	295.595	4.235%	27.508%
9.0	3939.891	66.306	361.901	4.486%	33.678%
10.0	3622.289	68.435	430.336	4.630%	40.046%
11.0	3300.539	69.173	499.509	4.680%	46.484%
12.0	2982.094	68.678	568.187	4.647%	52.875%
13.0	2634.961	66.660	634.847	4.510%	59.078%
14.0	2308.570	63.277	698.124	4.281%	64.966%
15.0	2004.398	59.210	757.334	4.006%	70.476%
16.0	1712.320	54.460	811.795	3.685%	75.544%
17.0	1419.321	48.768	860.563	3.300%	80.083%
18.0	1136.637	42.142	902.705	2.851%	84.004%
19.0	929.784	35.951	938.657	2.432%	87.350%
20.0	715.099	30.106	968.762	2.037%	90.152%
21.0	514.920	23.619	992.381	1.598%	92.349%
22.0	380.742	17.999	1010.38	1.218%	94.024%
23.0	240.581	13.037	1023.417	.882%	95.238%
24.0	135.436	8.221	1031.638	.556%	96.003%
25.0	70.446	4.681	1036.319	.317%	96.438%
26.0	36.190	2.517	1038.837	.170%	96.673%
27.0	22.303	1.431	1040.268	.097%	96.806%
28.0	17.065	0.997	1041.264	.067%	96.898%
29.0	14.477	0.825	1042.09	.056%	96.975%
30.0	12.888	0.739	1042.828	.050%	97.044%
31.0	11.742	0.685	1043.514	.046%	97.108%
32.0	10.744	0.644	1044.158	.044%	97.168%
33.0	9.949	0.610	1044.768	.041%	97.224%
34.0	9.352	0.584	1045.352	.040%	97.279%
35.0	8.761	0.563	1045.914	.038%	97.331%
36.0	8.276	0.542	1046.457	.037%	97.382%
37.0	7.924	0.528	1046.985	.036%	97.431%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	7.594	0.518	1047.503	.035%	97.479%
39.0	7.298	0.508	1048.011	.034%	97.526%
40.0	7.080	0.501	1048.513	.034%	97.573%
41.0	6.884	0.497	1049.01	.034%	97.619%
42.0	6.687	0.493	1049.503	.033%	97.665%
43.0	6.553	0.490	1049.994	.033%	97.711%
44.0	6.420	0.490	1050.483	.033%	97.756%
45.0	6.300	0.489	1050.972	.033%	97.802%
46.0	6.180	0.488	1051.46	.033%	97.847%
47.0	6.096	0.488	1051.948	.033%	97.893%
48.0	6.012	0.489	1052.438	.033%	97.938%
49.0	5.920	0.490	1052.928	.033%	97.984%
50.0	5.857	0.491	1053.419	.033%	98.030%
51.0	5.794	0.493	1053.912	.033%	98.075%
52.0	5.730	0.495	1054.406	.033%	98.121%
53.0	5.695	0.497	1054.903	.034%	98.168%
54.0	5.632	0.499	1055.403	.034%	98.214%
55.0	5.597	0.501	1055.904	.034%	98.261%
56.0	5.555	0.504	1056.408	.034%	98.308%
57.0	5.505	0.506	1056.913	.034%	98.355%
58.0	5.484	0.508	1057.422	.034%	98.402%
59.0	5.456	0.511	1057.933	.035%	98.450%
60.0	5.428	0.514	1058.447	.035%	98.497%
61.0	5.386	0.516	1058.963	.035%	98.546%
62.0	5.379	0.519	1059.482	.035%	98.594%
63.0	5.351	0.522	1060.004	.035%	98.642%
64.0	5.330	0.524	1060.528	.035%	98.691%
65.0	5.302	0.526	1061.054	.036%	98.740%
66.0	5.295	0.529	1061.583	.036%	98.789%
67.0	5.273	0.531	1062.114	.036%	98.839%
68.0	5.259	0.534	1062.648	.036%	98.888%
69.0	5.238	0.536	1063.183	.036%	98.938%
70.0	5.224	0.537	1063.721	.036%	98.988%
71.0	5.217	0.540	1064.26	.037%	99.038%
72.0	5.196	0.541	1064.802	.037%	99.089%
73.0	5.189	0.543	1065.345	.037%	99.139%
74.0	5.175	0.545	1065.89	.037%	99.190%
75.0	5.154	0.546	1066.436	.037%	99.241%

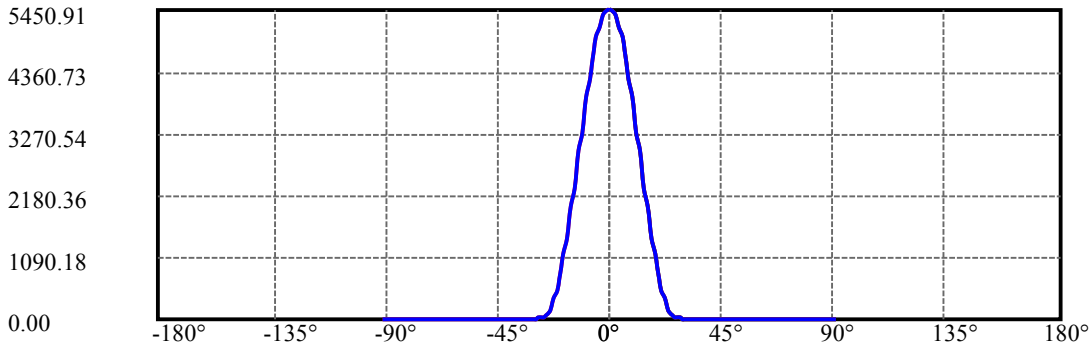
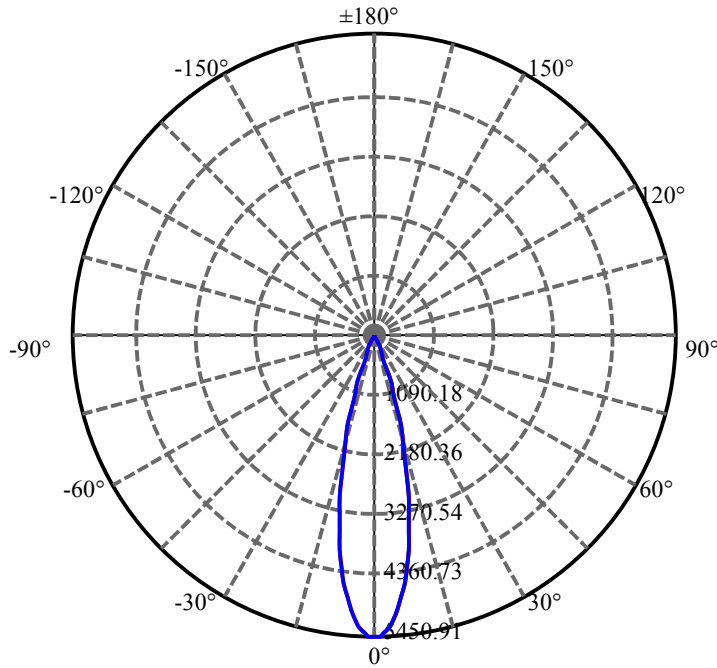
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	5.161	0.548	1066.983	.037%	99.292%
77.0	5.140	0.549	1067.532	.037%	99.343%
78.0	5.133	0.550	1068.082	.037%	99.394%
79.0	5.098	0.550	1068.632	.037%	99.445%
80.0	5.063	0.548	1069.18	.037%	99.496%
81.0	5.006	0.545	1069.724	.037%	99.547%
82.0	4.999	0.543	1070.267	.037%	99.597%
83.0	4.992	0.543	1070.81	.037%	99.648%
84.0	4.971	0.543	1071.353	.037%	99.698%
85.0	4.957	0.542	1071.894	.037%	99.749%
86.0	5.006	0.545	1072.439	.037%	99.800%
87.0	4.915	0.543	1072.982	.037%	99.850%
88.0	4.908	0.538	1073.52	.036%	99.900%
89.0	4.894	0.537	1074.057	.036%	99.950%
90.0	4.880	0.536	1074.593	.036%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1042.83	70.56%	97.04%
0-40	1048.51	70.94%	97.57%
0-60	1058.45	71.61%	98.50%
0-90	1074.06	72.67%	99.95%
0-120	1074.06	72.67%	99.95%
0-180	1074.59	72.71%	100.00%
60-90	16.12	1.09%	1.50%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-16.98	859.67	58.16%	80.00%

ZONAL LUMEN SUMMARY

0-10	430.34
10-20	538.43
20-30	74.07
30-40	5.68
40-50	4.91
50-60	5.03
60-70	5.27
70-80	5.46
80-90	4.88
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



C0(Max): —————

C0/C180: —————

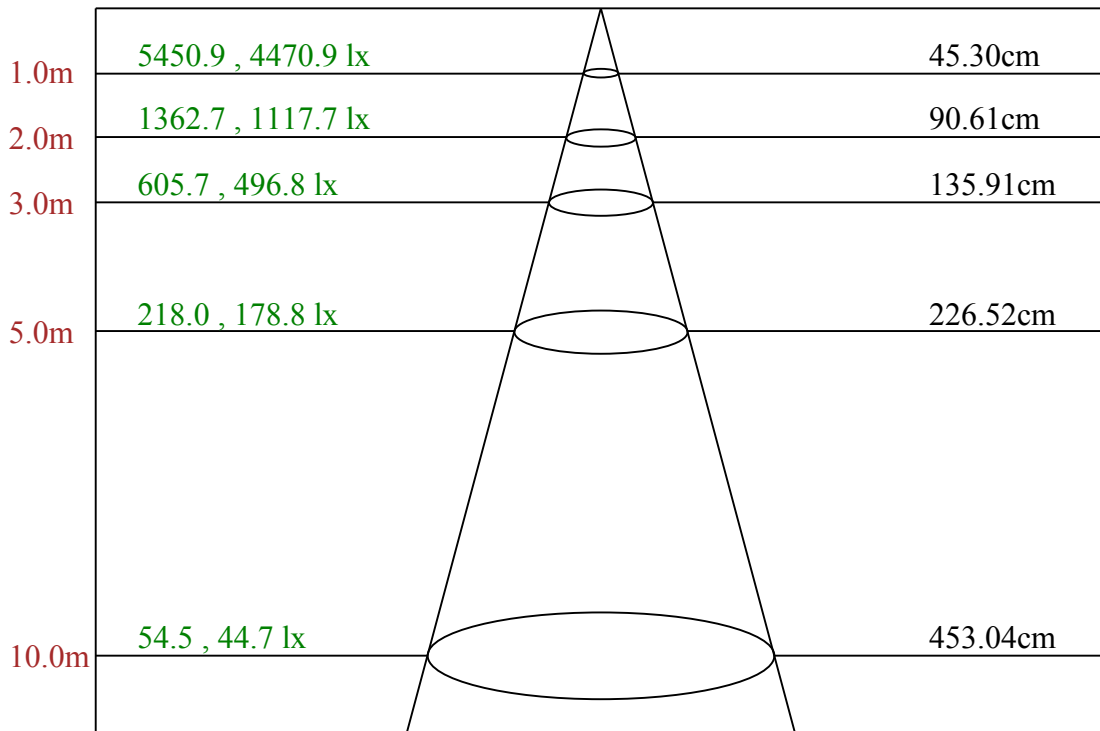
C90/C270: —————

Field angle(10%Imax):C0/180Left:20.8 Right:20.8

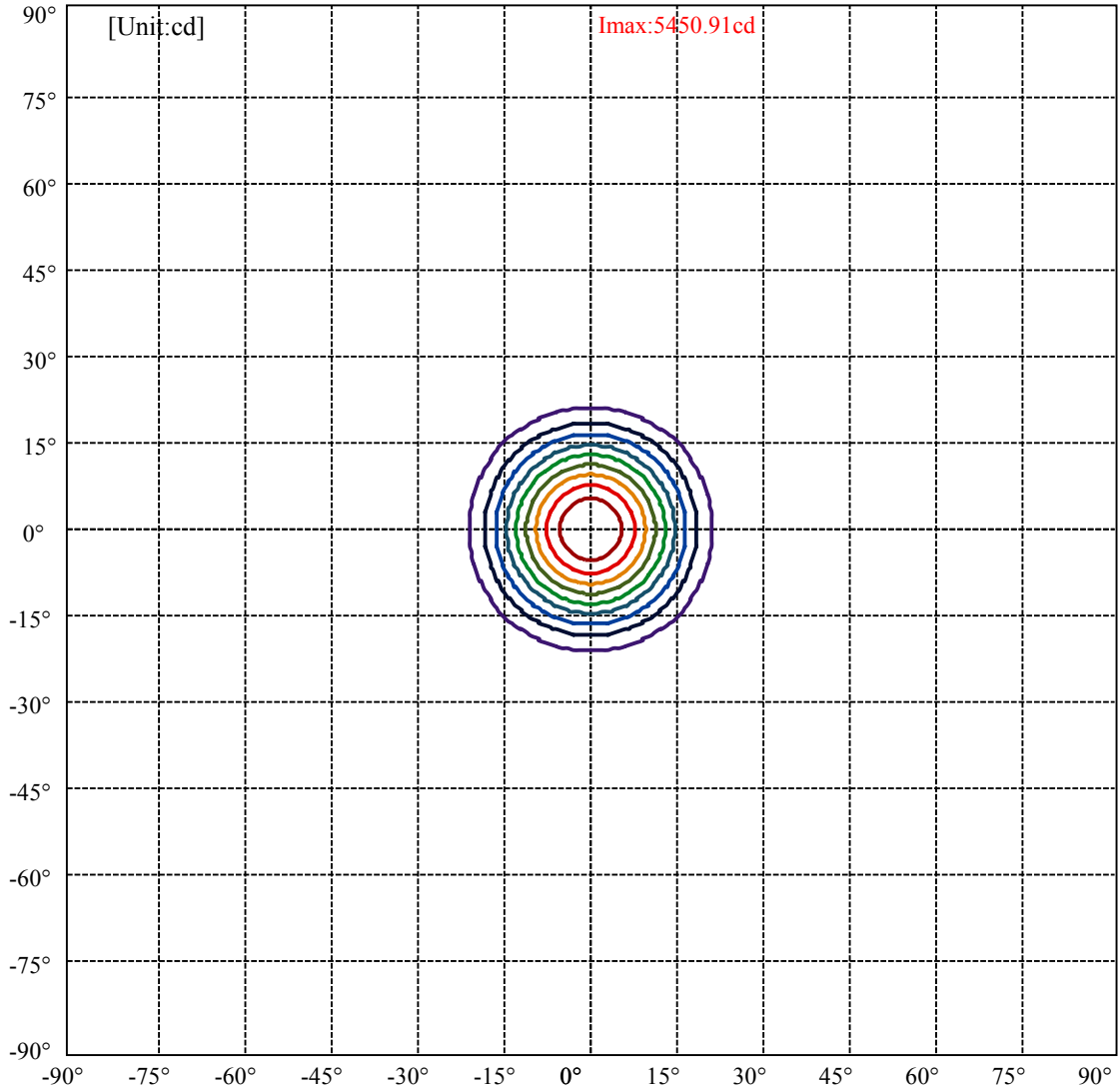
:C90/270Left:20.8 Right:20.8

Beam Angle(50%Imax):C0/180Left:12.7 Right:12.7

:C90/270Left:12.7 Right:12.7

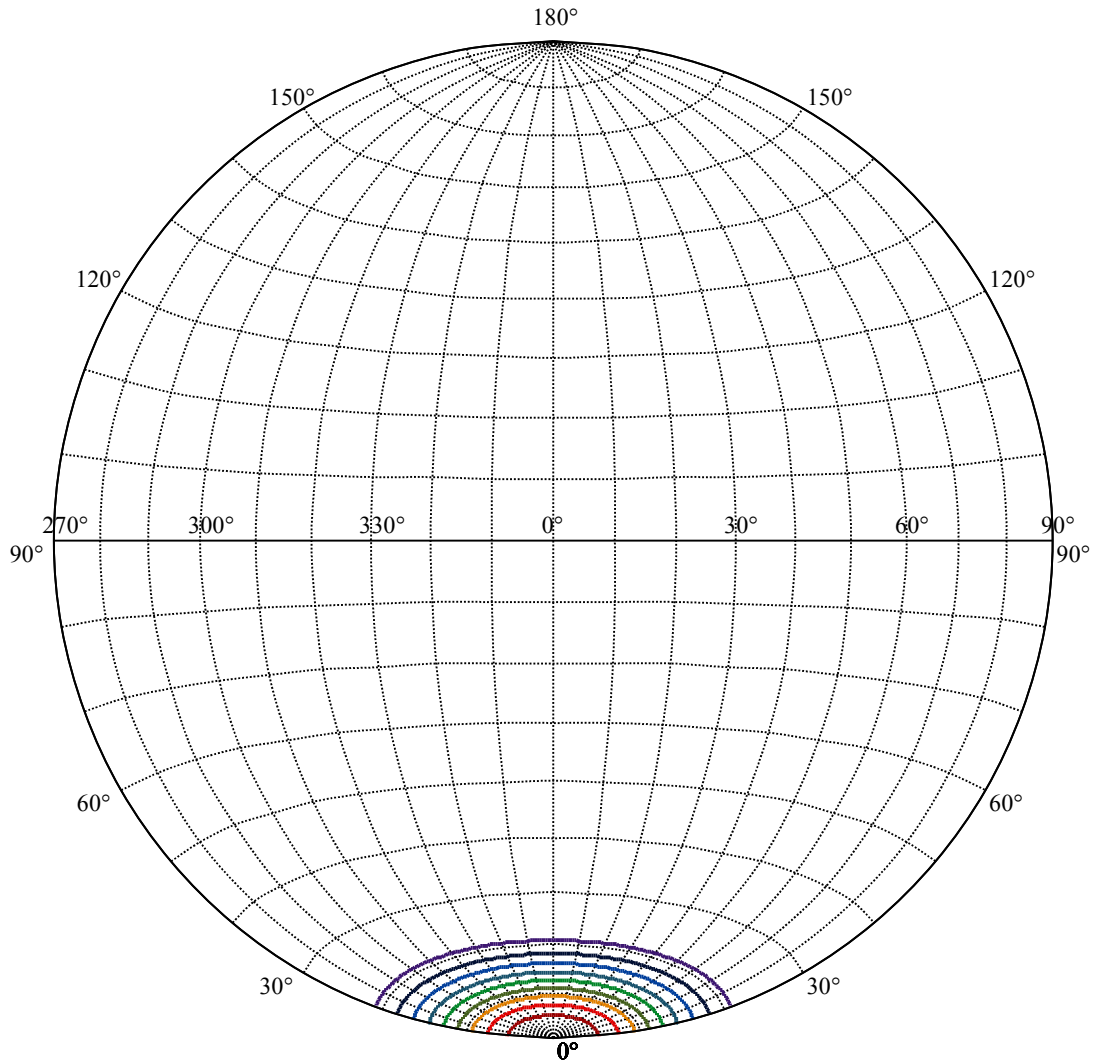


Max , Ave      Beam angle of C0 plane 25.53



(10%Imax) 545.091	—
(20%Imax) 1090.18	—
(30%Imax) 1635.27	—
(40%Imax) 2180.36	—
(50%Imax) 2725.45	—
(60%Imax) 3270.54	—
(70%Imax) 3815.63	—
(80%Imax) 4360.73	—
(90%Imax) 4905.82	—





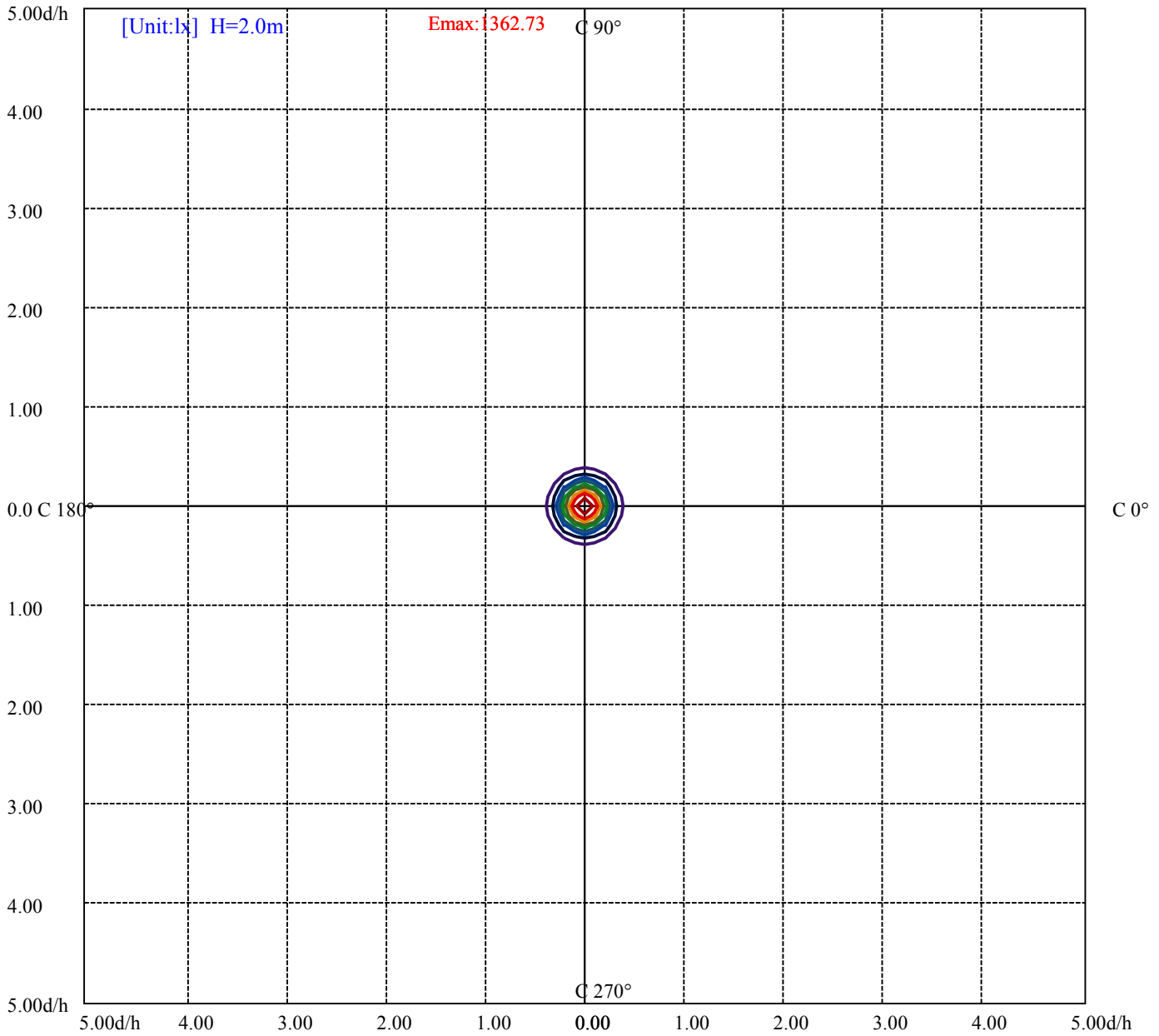
House

[Unit:cd]

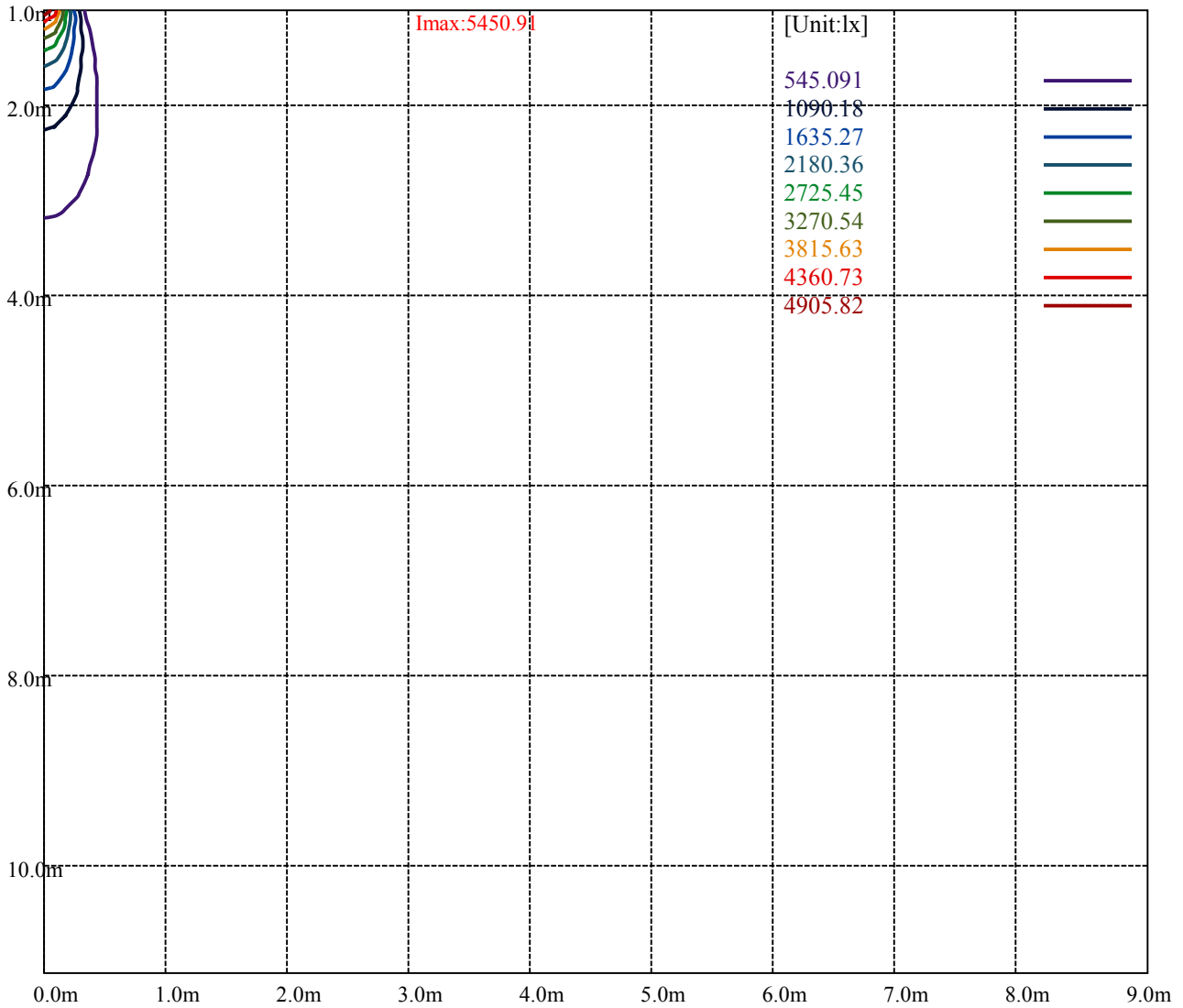
Road

**Imax:5450.91**

(10%Imax) 545.091	—
(20%Imax) 1090.18	—
(30%Imax) 1635.27	—
(40%Imax) 2180.36	—
(50%Imax) 2725.45	—
(60%Imax) 3270.54	—
(70%Imax) 3815.63	—
(80%Imax) 4360.73	—
(90%Imax) 4905.82	—



(10%Emax) 136.2725	—
(20%Emax) 272.545	—
(30%Emax) 408.8175	—
(40%Emax) 545.09	—
(50%Emax) 681.3625	—
(60%Emax) 817.635	—
(70%Emax) 953.9075	—
(80%Emax) 1090.18	—
(90%Emax) 1226.453	—



Luminance Table

$\gamma$	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

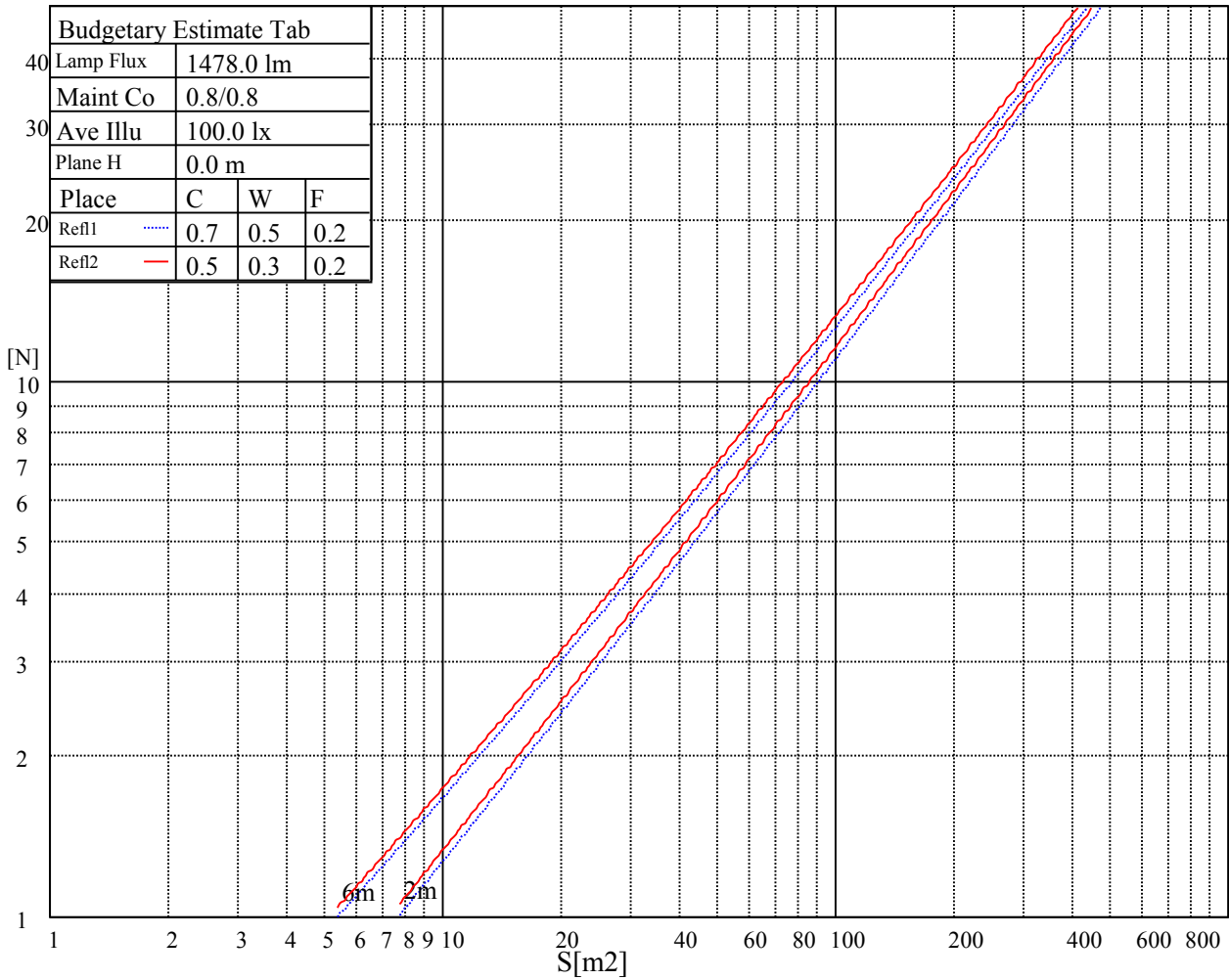
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

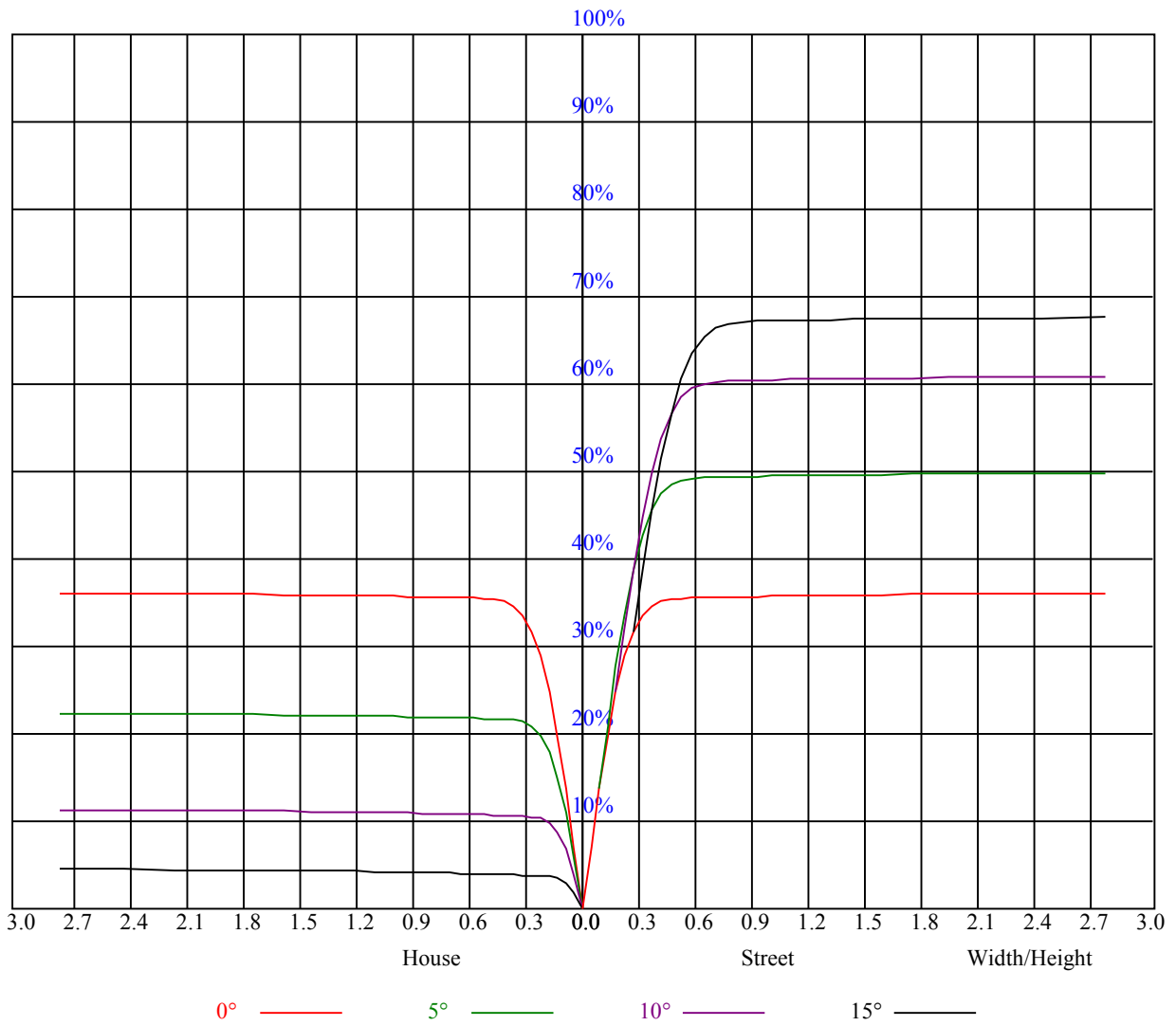
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	0.87	0.87	0.87	0.85	0.85	0.85	0.81	0.81	0.81	0.77	0.77	0.77	0.74	0.74	0.74	0.73
1	0.82	0.81	0.79	0.80	0.79	0.78	0.78	0.77	0.76	0.75	0.74	0.74	0.72	0.72	0.71	0.70
2	0.78	0.76	0.74	0.77	0.75	0.74	0.75	0.73	0.72	0.73	0.72	0.71	0.71	0.70	0.69	0.68
3	0.75	0.73	0.71	0.74	0.72	0.70	0.73	0.71	0.69	0.71	0.69	0.68	0.69	0.68	0.67	0.66
4	0.73	0.70	0.68	0.72	0.69	0.68	0.71	0.68	0.67	0.69	0.67	0.66	0.68	0.67	0.65	0.64
5	0.70	0.68	0.66	0.70	0.67	0.65	0.69	0.66	0.65	0.68	0.66	0.64	0.67	0.65	0.64	0.63
6	0.68	0.66	0.63	0.68	0.65	0.63	0.67	0.65	0.63	0.66	0.64	0.62	0.65	0.63	0.62	0.61
7	0.66	0.64	0.62	0.66	0.63	0.62	0.65	0.63	0.61	0.65	0.62	0.61	0.64	0.62	0.61	0.60
8	0.65	0.62	0.60	0.64	0.62	0.60	0.64	0.61	0.60	0.63	0.61	0.60	0.63	0.61	0.59	0.59
9	0.63	0.60	0.59	0.63	0.60	0.59	0.62	0.60	0.58	0.62	0.60	0.58	0.61	0.59	0.58	0.57
10	0.62	0.59	0.57	0.61	0.59	0.57	0.61	0.59	0.57	0.61	0.58	0.57	0.60	0.58	0.57	0.56



Intensity data(cd)

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	5460.75	5402.25	5294.81	5158.13	4958.44	4750.31	4486.50	4193.44	3915.56
45.0	5455.69	5421.38	5329.69	5214.94	5066.44	4833.00	4612.50	4363.88	4062.38
90.0	5451.75	5436.56	5372.44	5279.63	5153.63	4992.75	4744.13	4510.69	4253.06
135.0	5435.44	5472.00	5468.63	5432.63	5352.19	5243.06	5078.25	4867.31	4651.31
180.0	5460.75	5480.44	5469.75	5412.94	5329.69	5212.13	5014.69	4820.06	4592.81
225.0	5455.69	5457.94	5422.50	5344.31	5238.00	5076.00	4898.81	4665.38	4401.00
270.0	5451.75	5437.13	5369.63	5274.00	5142.38	4953.38	4727.25	4501.13	4217.63
315.0	5435.44	5367.38	5262.75	5081.63	4897.69	4684.50	4385.25	4119.75	3838.50
360.0	5460.75	5402.25	5294.81	5158.13	4958.44	4750.31	4486.50	4193.44	3915.56
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3592.13	3255.19	2949.19	2637.56	2258.44	1969.31	1692.00	1391.63	1125.00
45.0	3742.31	3440.81	3092.06	2778.19	2424.38	2086.31	1803.38	1505.81	1225.13
90.0	3940.31	3609.00	3268.69	2961.00	2648.81	2301.19	1972.69	1695.94	1397.81
135.0	4379.63	4074.75	3781.13	3475.13	3084.75	2768.06	2455.31	2154.38	1798.88
180.0	4304.81	3989.81	3696.75	3358.13	3007.69	2694.94	2347.31	2054.25	1735.88
225.0	4140.00	3823.31	3482.44	3172.50	2860.88	2475.56	2177.44	1892.25	1590.19
270.0	3912.75	3621.94	3284.44	2975.06	2629.13	2287.13	2000.81	1758.38	1404.56
315.0	3507.19	3163.50	2849.63	2499.19	2165.63	1886.06	1586.25	1245.94	1077.13
360.0	3592.13	3255.19	2949.19	2637.56	2258.44	1969.31	1692.00	1391.63	1125.00
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	910.69	692.44	495.00	342.56	291.94	114.02	50.74	26.33	18.96
45.0	987.75	775.13	551.25	392.06	289.13	129.71	66.09	32.68	20.81
90.0	1117.46	895.11	693.90	473.23	326.70	210.60	115.37	52.03	28.63
135.0	1517.63	1258.31	981.56	762.75	568.13	388.69	290.25	145.18	66.54
180.0	1434.38	1097.49	959.29	680.68	524.19	368.33	201.99	124.20	64.18
225.0	1109.59	1082.53	844.93	630.28	460.58	314.89	187.26	96.86	43.09
270.0	1173.94	986.63	714.38	537.75	398.25	297.00	127.69	63.51	29.25
315.0	841.67	650.64	480.49	300.04	187.03	101.42	44.10	22.78	18.06
360.0	910.69	692.44	495.00	342.56	291.94	114.02	50.74	26.33	18.96
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	15.81	13.84	12.43	11.36	10.46	9.68	9.06	8.66	8.04
45.0	16.59	14.63	13.16	11.93	10.97	10.13	9.51	8.94	8.49
90.0	19.63	15.92	14.06	12.66	11.59	10.63	9.84	9.28	8.72
135.0	34.54	22.11	16.82	14.40	12.88	11.70	10.69	9.96	9.23
180.0	30.71	20.19	16.43	14.06	12.71	11.48	10.52	9.84	9.17
225.0	25.54	19.74	16.14	14.40	13.11	11.87	10.86	10.13	9.51
270.0	20.42	16.71	14.57	13.22	11.93	10.91	10.18	9.56	8.94
315.0	15.19	13.39	12.21	11.08	10.29	9.56	8.94	8.44	7.99
360.0	15.81	13.84	12.43	11.36	10.46	9.68	9.06	8.66	8.04
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	7.65	7.37	7.09	6.86	6.69	6.47	6.30	6.24	6.08
45.0	8.04	7.76	7.43	7.20	7.03	6.81	6.64	6.53	6.41
90.0	8.27	7.93	7.65	7.31	7.09	6.92	6.75	6.58	6.47
135.0	8.72	8.27	7.88	7.59	7.26	7.03	6.81	6.64	6.53
180.0	8.61	8.16	7.82	7.43	7.20	6.98	6.75	6.58	6.41
225.0	8.83	8.44	8.04	7.65	7.43	7.26	6.98	6.86	6.69
270.0	8.49	8.10	7.76	7.48	7.26	7.03	6.86	6.69	6.58
315.0	7.59	7.37	7.09	6.86	6.69	6.58	6.41	6.30	6.19
360.0	7.65	7.37	7.09	6.86	6.69	6.47	6.30	6.24	6.08



Intensity data(cd)

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	5.96	5.91	5.85	5.74	5.68	5.57	5.57	5.51	5.46
45.0	6.30	6.19	6.13	6.02	5.91	5.85	5.79	5.74	5.74
90.0	6.36	6.19	6.13	6.08	5.96	5.91	5.85	5.79	5.79
135.0	6.36	6.24	6.13	6.08	5.91	5.85	5.79	5.74	5.68
180.0	6.30	6.13	6.08	5.96	5.85	5.79	5.68	5.63	5.57
225.0	6.58	6.41	6.30	6.24	6.13	6.08	5.96	5.91	5.91
270.0	6.47	6.36	6.24	6.19	6.13	6.08	6.02	5.91	5.85
315.0	6.08	6.02	5.91	5.79	5.79	5.74	5.68	5.63	5.57
360.0	5.96	5.91	5.85	5.74	5.68	5.57	5.57	5.51	5.46
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	5.40	5.34	5.34	5.29	5.29	5.23	5.23	5.18	5.18
45.0	5.68	5.63	5.57	5.57	5.51	5.46	5.46	5.40	5.40
90.0	5.68	5.63	5.63	5.57	5.57	5.57	5.51	5.46	5.51
135.0	5.63	5.63	5.57	5.46	5.46	5.40	5.40	5.34	5.34
180.0	5.51	5.46	5.40	5.40	5.34	5.29	5.29	5.23	5.23
225.0	5.79	5.79	5.74	5.68	5.63	5.63	5.57	5.57	5.51
270.0	5.85	5.79	5.74	5.68	5.68	5.68	5.63	5.57	5.57
315.0	5.51	5.51	5.46	5.40	5.40	5.40	5.34	5.34	5.29
360.0	5.40	5.34	5.34	5.29	5.29	5.23	5.23	5.18	5.18
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	5.12	5.12	5.12	5.12	5.06	5.06	5.06	5.01	5.01
45.0	5.40	5.34	5.34	5.34	5.34	5.29	5.29	5.23	5.23
90.0	5.46	5.46	5.40	5.40	5.40	5.40	5.40	5.40	5.40
135.0	5.34	5.29	5.23	5.23	5.18	5.18	5.18	5.18	5.18
180.0	5.18	5.18	5.12	5.12	5.06	5.06	5.01	5.01	5.01
225.0	5.46	5.46	5.46	5.40	5.40	5.40	5.34	5.34	5.34
270.0	5.57	5.51	5.51	5.51	5.51	5.46	5.46	5.46	5.46
315.0	5.29	5.29	5.23	5.23	5.23	5.23	5.18	5.18	5.12
360.0	5.12	5.12	5.12	5.12	5.06	5.06	5.06	5.01	5.01
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	5.01	5.01	4.95	4.95	4.95	4.95	4.95	4.89	4.89
45.0	5.23	5.23	5.23	5.18	5.23	5.23	5.23	5.18	5.18
90.0	5.34	5.40	5.40	5.40	5.40	5.34	5.34	5.23	5.12
135.0	5.12	5.12	5.06	5.06	5.06	5.06	5.06	5.01	5.01
180.0	5.01	4.95	4.95	4.95	4.95	4.89	4.89	4.89	4.89
225.0	5.29	5.29	5.29	5.23	5.23	5.23	5.23	5.18	5.18
270.0	5.40	5.40	5.40	5.34	5.34	5.34	5.29	5.29	5.18
315.0	5.18	5.12	5.12	5.12	5.12	5.06	5.06	5.12	5.06
360.0	5.01	5.01	4.95	4.95	4.95	4.95	4.95	4.89	4.89
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	4.89	4.89	4.89	4.89	4.89	5.01	4.78	4.84	4.78
45.0	5.06	5.06	5.06	5.06	5.06	5.18	4.95	4.95	4.95
90.0	5.01	5.01	5.01	5.01	5.01	5.01	4.95	4.95	4.95
135.0	5.01	5.01	5.01	4.95	4.95	4.95	4.89	4.89	4.89
180.0	4.84	4.84	4.84	4.84	4.78	4.84	4.78	4.78	4.78
225.0	5.12	5.12	5.06	5.01	5.01	5.01	4.95	4.95	4.95
270.0	5.06	5.06	5.06	5.06	5.01	5.01	5.06	5.01	4.95
315.0	5.06	5.01	5.01	4.95	4.95	5.06	4.89	4.89	4.89
360.0	4.89	4.89	4.89	4.89	4.89	5.01	4.78	4.84	4.78

Intensity data(cd)

C/ $\gamma$ (°)	90.0
0.0	4.78
45.0	4.95
90.0	4.89
135.0	4.89
180.0	4.78
225.0	4.89
270.0	4.95
315.0	4.89
360.0	4.78