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## Nata

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Client: NT

LumCAT: 3-3015-LM

Luminaire: BJB 47.360.2050

Report No: 20251117-B007

Ballast type: DC

Test No: 20251117-C007

Voltage(V): 35.530

LampCAT: Bridgelux V18 LES18

Current(A): 0.898

Lamp flux(lm): 5130.8

Power (W): 31.900

Number of Lamps: 1

PF: 0.000

Length(mm): 85

Width(mm): 85

Phm Type: C

Height(mm): 51

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## Photometric Results

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Lumens(lm): 4929.79, Efficiency(%): 96.08% , Luminous Efficacy(lm/W): 154.54

Central intensity(cd): 7246.303, Maximum intensity(cd): 7246.303

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=52.8

[C90/270]Total=52.8

Field angle(10%Imax): [C0/180]Total=75.0

[C90/270]Total=75.0

Maximum s/h(1/2): C0\_180=0.79 C90\_270=0.79

Maximum s/h(1/4): C0\_180=0.81 C90\_270=0.81

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 96.08%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 99.341%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7246.304	0.000	0	0.00%	0.00%
1.0	7232.955	6.928	6.928	0.14%	0.14%
2.0	7202.599	20.719	27.647	0.40%	0.56%
3.0	7160.078	34.351	61.998	0.67%	1.26%
4.0	7087.200	47.690	109.688	0.93%	2.23%
5.0	7006.141	60.629	170.317	1.18%	3.45%
6.0	6905.167	73.108	243.425	1.42%	4.94%
7.0	6781.480	84.953	328.378	1.66%	6.66%
8.0	6654.240	96.157	424.534	1.87%	8.61%
9.0	6524.093	106.803	531.338	2.08%	10.78%
10.0	6370.049	116.687	648.025	2.27%	13.15%
11.0	6217.296	125.773	773.798	2.45%	15.70%
12.0	6066.697	134.282	908.08	2.62%	18.42%
13.0	5911.468	142.151	1050.23	2.77%	21.30%
14.0	5746.552	149.222	1199.452	2.91%	24.33%
15.0	5570.117	155.360	1354.812	3.03%	27.48%
16.0	5404.662	160.811	1515.624	3.13%	30.74%
17.0	5234.040	165.673	1681.297	3.23%	34.10%
18.0	5071.168	169.911	1851.207	3.31%	37.55%
19.0	4908.512	173.626	2024.833	3.38%	41.07%
20.0	4753.607	176.844	2201.677	3.45%	44.66%
21.0	4598.916	179.587	2381.264	3.50%	48.30%
22.0	4447.456	181.791	2563.055	3.54%	51.99%
23.0	4267.683	182.867	2745.922	3.56%	55.70%
24.0	4082.529	182.566	2928.487	3.56%	59.40%
25.0	3899.958	181.504	3109.992	3.54%	63.09%
26.0	3711.036	179.658	3289.65	3.50%	66.73%
27.0	3488.527	176.139	3465.789	3.43%	70.30%
28.0	3233.401	170.185	3635.974	3.32%	73.76%
29.0	2975.046	162.430	3798.404	3.17%	77.05%
30.0	2674.924	152.548	3950.952	2.97%	80.14%
31.0	2357.674	140.050	4091.002	2.73%	82.99%
32.0	2071.352	126.886	4217.889	2.47%	85.56%
33.0	1787.990	113.698	4331.586	2.22%	87.87%
34.0	1567.710	101.553	4433.14	1.98%	89.93%
35.0	1311.465	89.417	4522.556	1.74%	91.74%
36.0	1049.762	75.182	4597.738	1.47%	93.26%
37.0	822.711	61.070	4658.808	1.19%	94.50%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	623.874	48.285	4707.093	0.94%	95.48%
39.0	479.766	37.670	4744.763	0.73%	96.25%
40.0	363.861	29.423	4774.186	0.57%	96.84%
41.0	261.154	22.256	4796.442	0.43%	97.30%
42.0	209.924	17.115	4813.557	0.33%	97.64%
43.0	167.274	13.973	4827.53	0.27%	97.93%
44.0	128.220	11.153	4838.683	0.22%	98.15%
45.0	105.549	8.984	4847.667	0.18%	98.33%
46.0	87.066	7.533	4855.199	0.15%	98.49%
47.0	72.490	6.346	4861.545	0.12%	98.62%
48.0	60.617	5.381	4866.926	0.10%	98.72%
49.0	51.122	4.589	4871.515	0.09%	98.82%
50.0	43.619	3.950	4875.465	0.08%	98.90%
51.0	37.451	3.430	4878.895	0.07%	98.97%
52.0	32.391	2.997	4881.892	0.06%	99.03%
53.0	28.107	2.632	4884.523	0.05%	99.08%
54.0	24.845	2.334	4886.857	0.05%	99.13%
55.0	22.412	2.109	4888.967	0.04%	99.17%
56.0	20.335	1.932	4890.898	0.04%	99.21%
57.0	18.322	1.767	4892.666	0.03%	99.25%
58.0	16.976	1.632	4894.298	0.03%	99.28%
59.0	15.857	1.535	4895.833	0.03%	99.31%
60.0	14.812	1.449	4897.282	0.03%	99.34%
61.0	13.983	1.374	4898.656	0.03%	99.37%
62.0	13.359	1.318	4899.974	0.03%	99.40%
63.0	12.789	1.272	4901.245	0.02%	99.42%
64.0	12.347	1.233	4902.479	0.02%	99.45%
65.0	11.906	1.200	4903.679	0.02%	99.47%
66.0	11.604	1.173	4904.852	0.02%	99.49%
67.0	11.325	1.153	4906.005	0.02%	99.52%
68.0	11.066	1.134	4907.139	0.02%	99.54%
69.0	10.851	1.118	4908.257	0.02%	99.56%
70.0	10.657	1.105	4909.362	0.02%	99.59%
71.0	10.485	1.093	4910.455	0.02%	99.61%
72.0	10.345	1.083	4911.538	0.02%	99.63%
73.0	10.205	1.075	4912.612	0.02%	99.65%
74.0	10.054	1.065	4913.678	0.02%	99.67%
75.0	9.947	1.057	4914.734	0.02%	99.69%

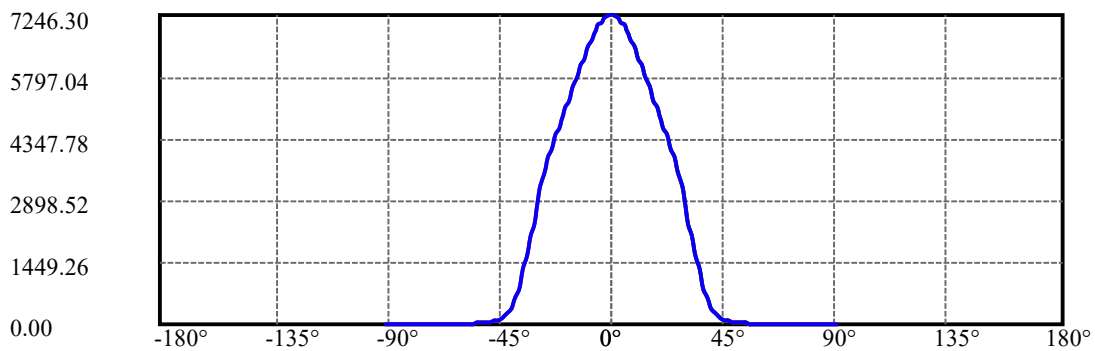
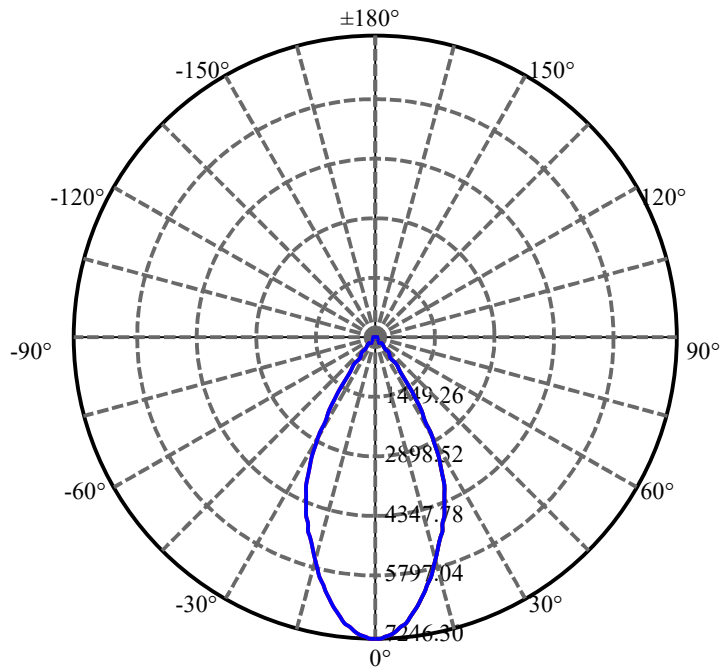
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	9.828	1.050	4915.784	0.02%	99.72%
77.0	9.742	1.043	4916.827	0.02%	99.74%
78.0	9.634	1.037	4917.865	0.02%	99.76%
79.0	9.570	1.032	4918.897	0.02%	99.78%
80.0	9.441	1.025	4919.921	0.02%	99.80%
81.0	9.355	1.016	4920.938	0.02%	99.82%
82.0	9.258	1.009	4921.947	0.02%	99.84%
83.0	9.193	1.003	4922.95	0.02%	99.86%
84.0	9.096	0.996	4923.947	0.02%	99.88%
85.0	9.032	0.989	4924.936	0.02%	99.90%
86.0	8.967	0.984	4925.92	0.02%	99.92%
87.0	8.881	0.977	4926.897	0.02%	99.94%
88.0	8.795	0.968	4927.865	0.02%	99.96%
89.0	8.752	0.962	4928.827	0.02%	99.98%
90.0	8.741	0.959	4929.786	0.02%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	3950.95	77.00%	80.14%
0-40	4774.19	93.05%	96.84%
0-60	4897.28	95.45%	99.34%
0-90	4928.83	96.06%	99.98%
0-120	4928.83	96.06%	99.98%
0-180	4929.79	96.08%	100.00%
60-90	31.54	0.61%	0.64%
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%
0-29.95	3943.83	76.87%	80.00%

ZONAL LUMEN SUMMARY

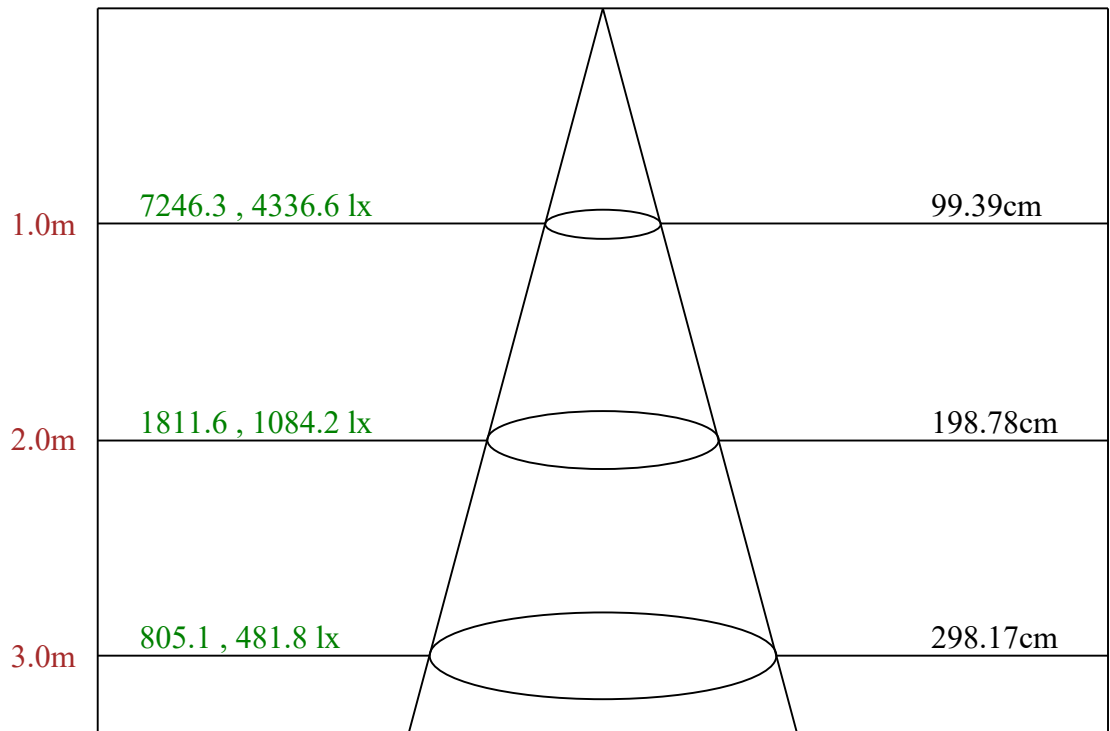
0-10	648.02
10-20	1553.65
20-30	1749.28
30-40	823.23
40-50	101.28
50-60	21.82
60-70	12.08
70-80	10.56
80-90	8.91
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



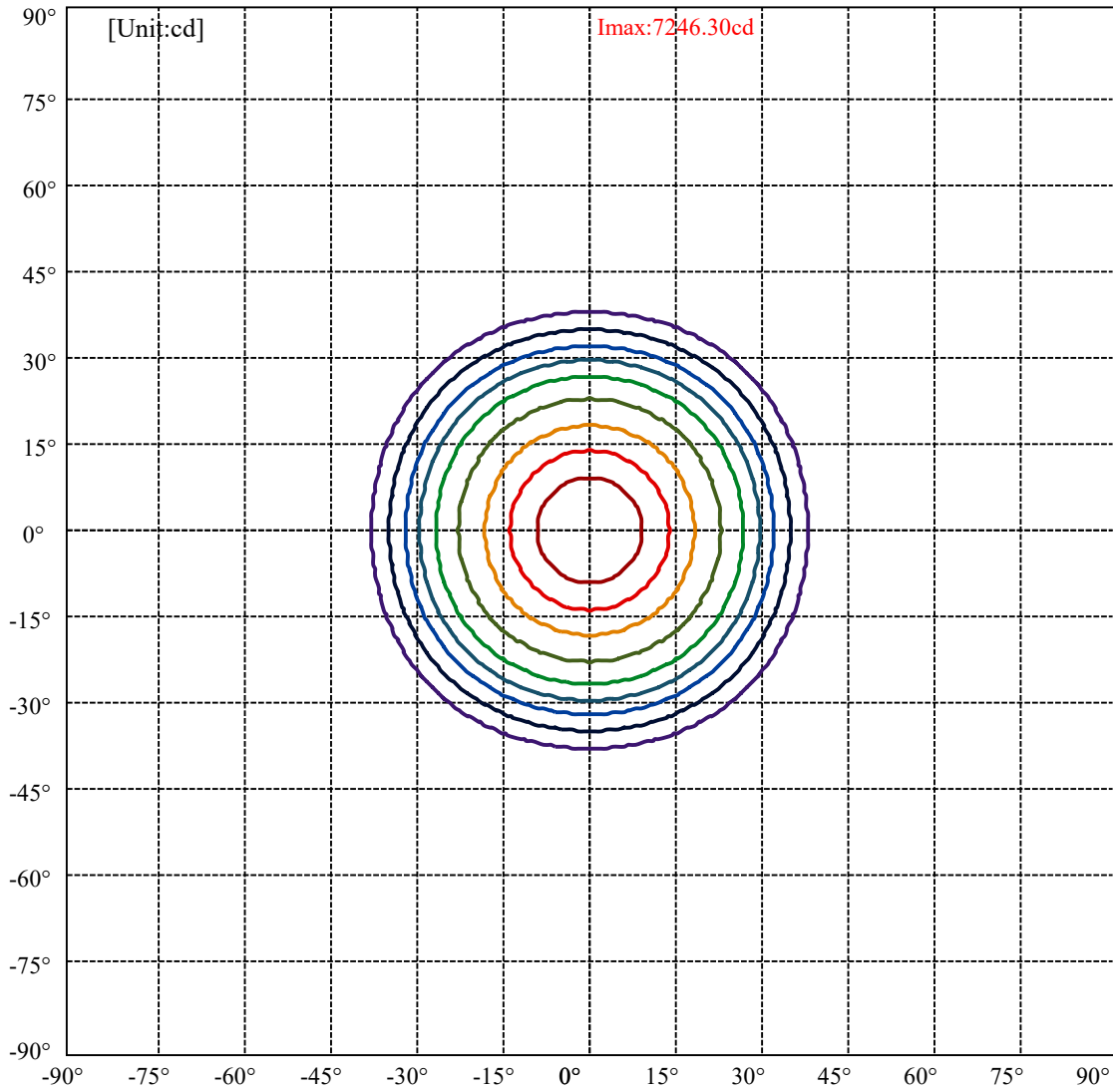
C0(Max): ———  
C0/C180: ———  
C90/C270: ———

Field angle(10%Imax):C0/180Left:37.5 Right:37.5  
:C90/270Left:37.5 Right:37.5

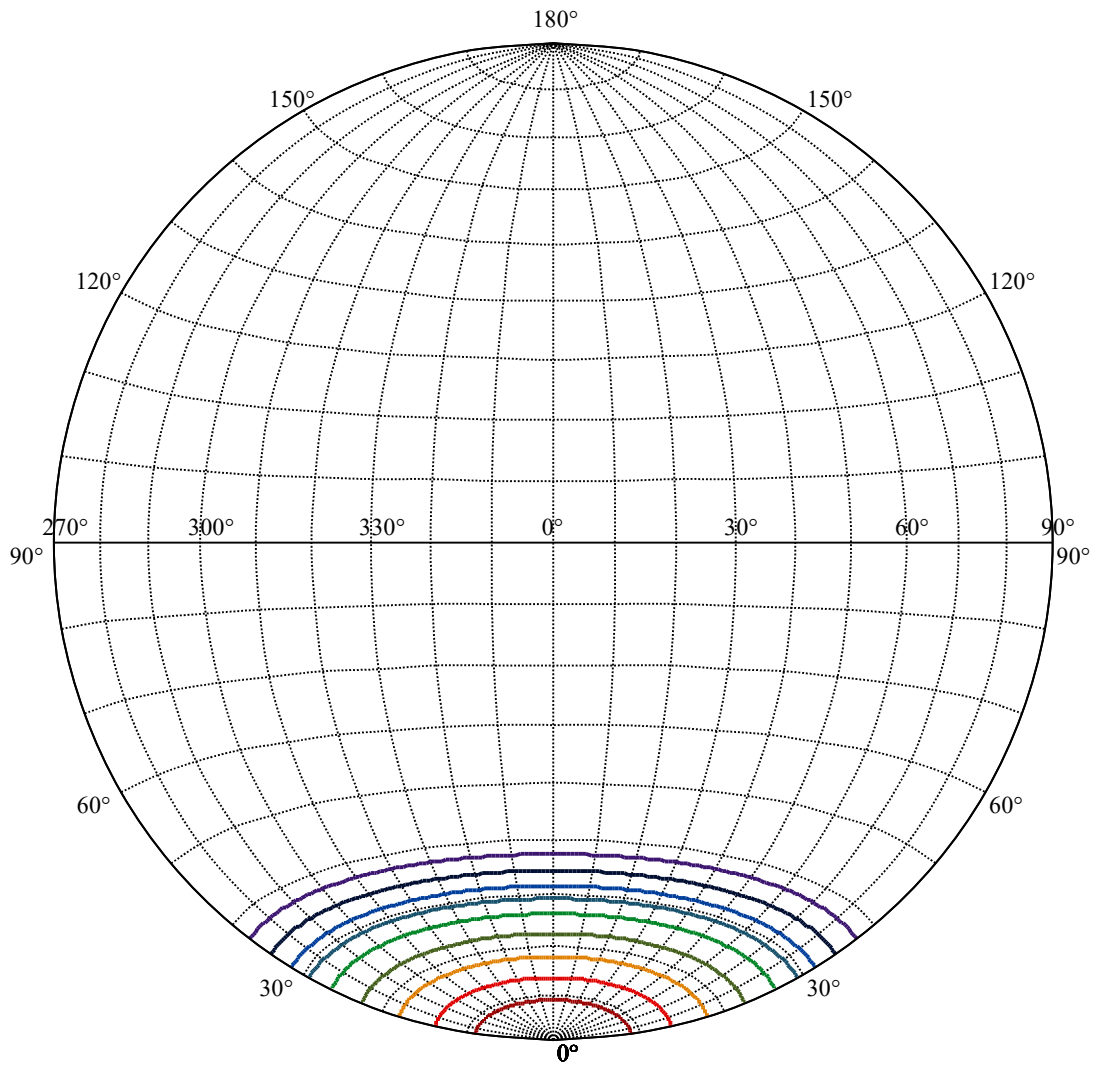
Beam Angle(50%Imax):C0/180Left:26.4 Right:26.4  
:C90/270Left:26.4 Right:26.4



Max , Ave      Beam angle of C0 plane 52.85



(10%Imax) 724.63	—
(20%Imax) 1449.26	—
(30%Imax) 2173.89	—
(40%Imax) 2898.52	—
(50%Imax) 3623.15	—
(60%Imax) 4347.78	—
(70%Imax) 5072.41	—
(80%Imax) 5797.04	—
(90%Imax) 6521.67	—



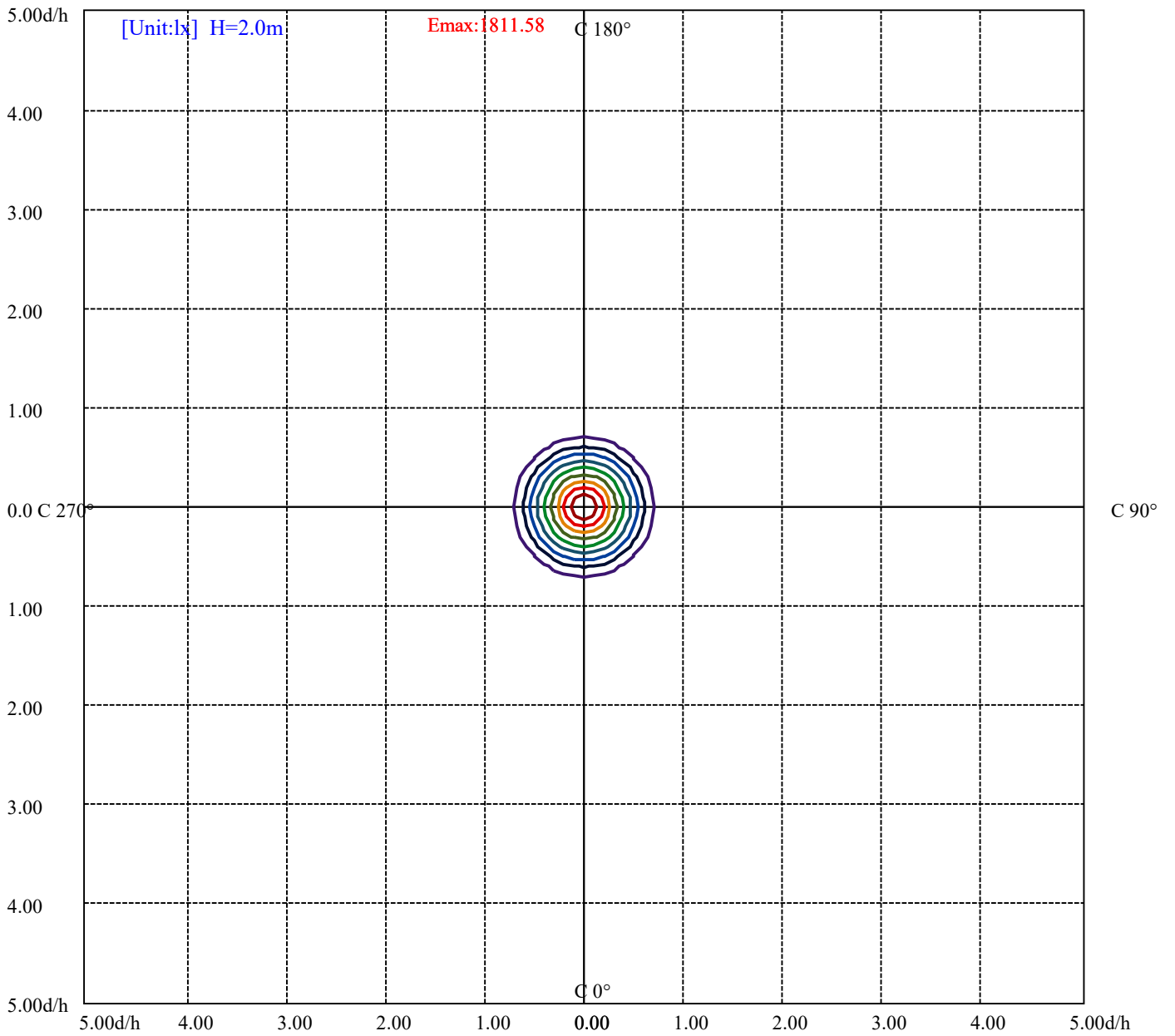
House

[Unit:cd]

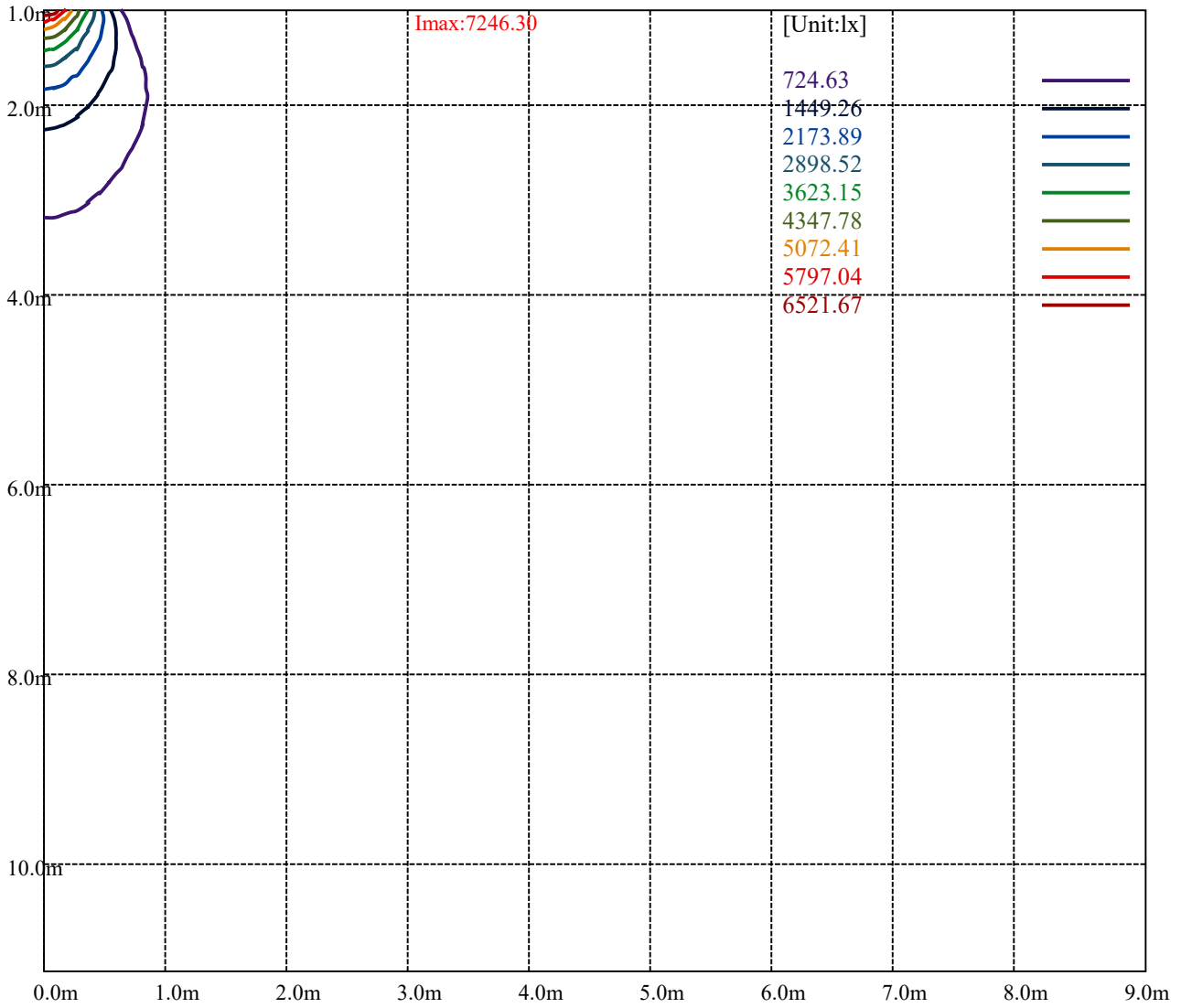
Road

**Imax:7246.30**

(10%Imax) 724.63	—
(20%Imax) 1449.26	—
(30%Imax) 2173.89	—
(40%Imax) 2898.52	—
(50%Imax) 3623.15	—
(60%Imax) 4347.78	—
(70%Imax) 5072.41	—
(80%Imax) 5797.04	—
(90%Imax) 6521.67	—



- (10%Emax) 181.1575
- (20%Emax) 362.315
- (30%Emax) 543.4725
- (40%Emax) 724.63
- (50%Emax) 905.7875
- (60%Emax) 1086.945
- (70%Emax) 1268.103
- (80%Emax) 1449.26
- (90%Emax) 1630.417



Luminance Table

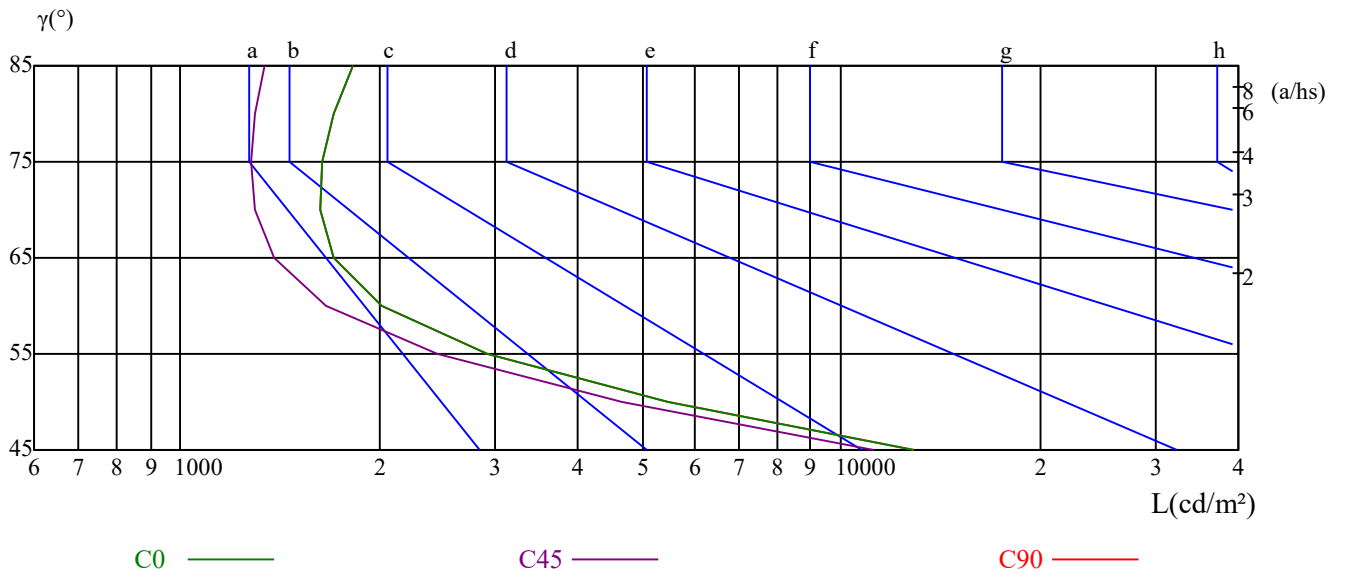
$\gamma$	45	50	55	60	65	70	75	80	85
C0	12913	5476	2913	2011	1705	1628	1642	1709	1825
C45	11176	4670	2445	1660	1383	1295	1277	1295	1341
C90	12913	5476	2913	2011	1705	1628	1642	1709	1825

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3899	3899	3899	5319	5319	5319	14343	14343	14343

Glare Table

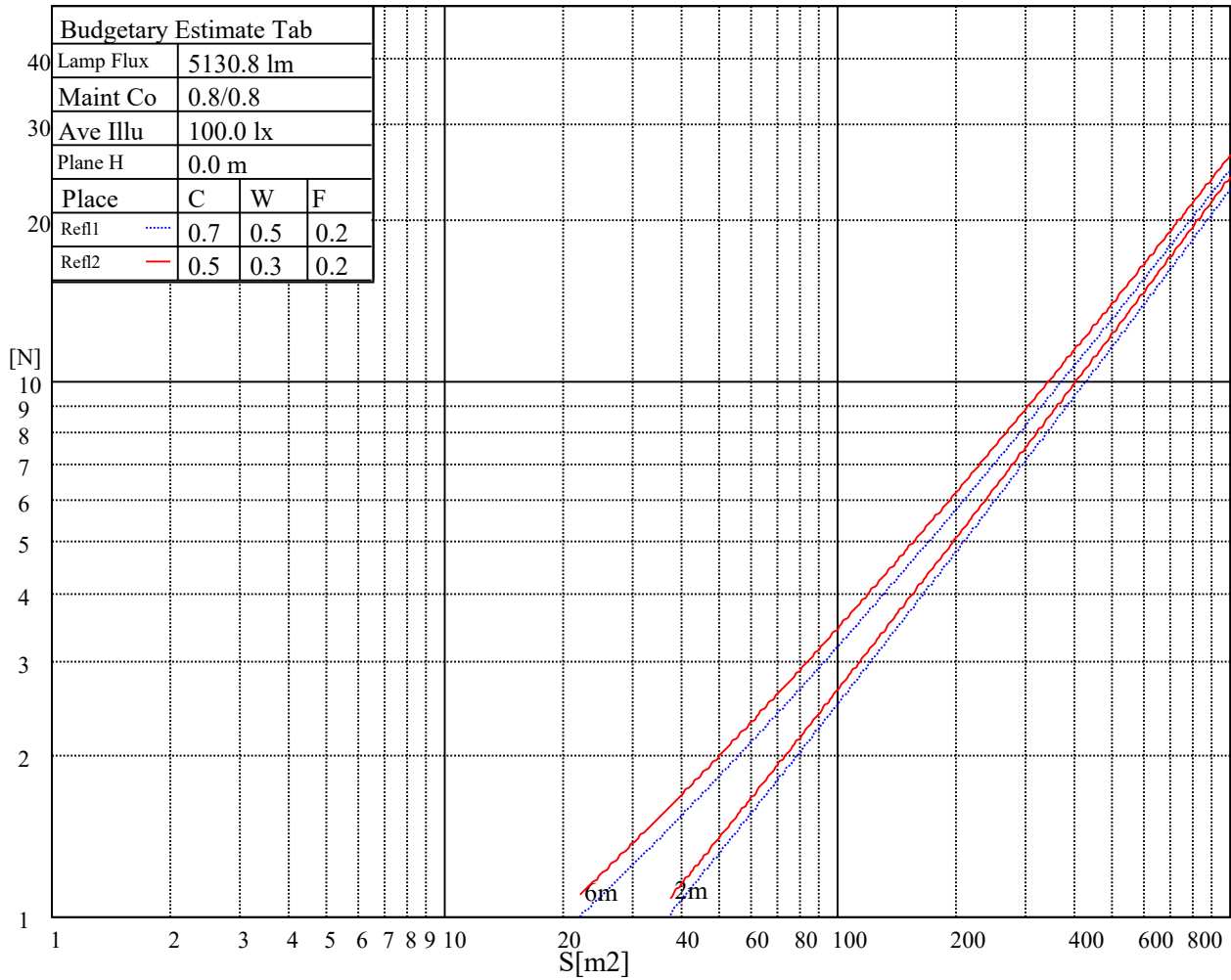
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve



Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	19.38	20.31	19.75	20.62	20.93	19.35	20.27	19.71	20.58	20.90
	3H	19.18	20.00	19.57	20.33	20.68	19.14	19.96	19.53	20.30	20.65
	4H	19.08	19.84	19.48	20.19	20.56	19.05	19.80	19.45	20.16	20.52
	6H	19.00	19.69	19.42	20.07	20.47	18.97	19.66	19.39	20.04	20.44
	8H	18.94	19.60	19.36	19.98	20.39	18.90	19.56	19.33	19.95	20.36
	12H	18.88	19.50	19.31	19.90	20.32	18.85	19.47	19.27	19.86	20.28
4H	2H	19.06	19.82	19.46	20.17	20.54	19.02	19.78	19.42	20.13	20.50
	3H	18.82	19.45	19.25	19.85	20.27	18.78	19.42	19.21	19.81	20.23
	4H	18.75	19.30	19.19	19.73	20.17	18.72	19.27	19.16	19.69	20.14
	6H	18.64	19.12	19.11	19.57	20.03	18.60	19.08	19.08	19.54	19.99
	8H	18.60	19.04	19.09	19.50	19.98	18.56	19.01	19.05	19.47	19.94
	12H	18.57	18.98	19.06	19.44	19.96	18.54	18.95	19.03	19.40	19.92
8H	4H	18.55	19.00	19.04	19.46	19.93	18.52	18.96	19.01	19.42	19.90
	6H	18.44	18.80	18.95	19.28	19.79	18.40	18.77	18.91	19.25	19.76
	8H	18.45	18.76	18.99	19.28	19.78	18.42	18.72	18.96	19.25	19.74
	12H	18.45	18.67	18.99	19.19	19.72	18.41	18.64	18.96	19.16	19.68
12H	4H	18.50	18.91	18.99	19.36	19.89	18.47	18.88	18.96	19.33	19.85
	6H	18.43	18.73	18.96	19.25	19.75	18.39	18.69	18.93	19.22	19.72
	8H	18.41	18.64	18.96	19.16	19.68	18.38	18.61	18.92	19.12	19.65
Variation with the observer position at spacings:											
S = 1.0H	6.0/-13.1					6.0/-13.1					
S = 1.5H	8.8/-12.1					8.8/-12.1					
S = 2.0H	10.7/-11.1					10.7/-11.1					
Standard tables:	BK0					BK0					
Uncorrected UGR	0.0					0.0					

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25



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	1.14	1.14	1.14	1.12	1.12	1.12	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.96
1	1.07	1.04	1.02	1.05	1.03	1.01	1.01	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.90
2	1.00	0.96	0.93	0.98	0.95	0.92	0.95	0.92	0.90	0.92	0.90	0.88	0.90	0.88	0.86	0.85
3	0.94	0.89	0.86	0.92	0.88	0.85	0.90	0.87	0.84	0.88	0.85	0.82	0.86	0.83	0.81	0.80
4	0.88	0.83	0.79	0.87	0.83	0.79	0.85	0.81	0.78	0.83	0.80	0.77	0.81	0.79	0.76	0.75
5	0.83	0.78	0.74	0.82	0.77	0.74	0.81	0.76	0.73	0.79	0.75	0.72	0.78	0.74	0.72	0.70
6	0.79	0.73	0.69	0.78	0.73	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.74	0.70	0.68	0.66
7	0.74	0.69	0.65	0.74	0.69	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.63
8	0.70	0.65	0.61	0.70	0.65	0.61	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.59
9	0.67	0.62	0.58	0.66	0.61	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.57	0.56
10	0.64	0.58	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.54	0.53

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	7249.53	7238.34	7209.06	7162.55	7101.41	7000.65	6905.06	6767.27	6644.98
45.0	7244.37	7252.98	7236.62	7203.03	7148.77	7077.30	6966.20	6859.42	6708.71
90.0	7257.28	7241.78	7190.11	7142.75	7074.71	6996.34	6893.86	6759.52	6639.81
135.0	7234.03	7239.20	7256.42	7248.67	7195.28	7147.05	7079.88	6986.87	6880.09
180.0	7249.53	7234.89	7204.75	7157.39	7072.99	6990.32	6888.70	6775.02	6619.15
225.0	7244.37	7216.81	7159.11	7089.35	7006.68	6906.78	6762.10	6630.34	6492.55
270.0	7257.28	7239.20	7232.31	7190.11	7111.74	7041.13	6960.18	6833.58	6724.21
315.0	7234.03	7200.45	7132.41	7086.77	6986.01	6889.56	6785.35	6639.81	6524.42
360.0	7249.53	7238.34	7209.06	7162.55	7101.41	7000.65	6905.06	6767.27	6644.98
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	6513.22	6338.40	6194.58	6046.46	5897.47	5711.46	5559.03	5403.15	5245.56
45.0	6577.81	6438.30	6255.73	6105.02	5957.76	5804.47	5617.59	5459.99	5297.23
90.0	6514.94	6341.85	6199.75	6054.21	5901.78	5702.85	5534.92	5356.65	5146.52
135.0	6787.08	6635.51	6520.97	6377.15	6215.25	6072.29	5919.00	5715.76	5544.39
180.0	6480.50	6300.51	6152.38	5998.23	5802.74	5643.42	5481.52	5318.76	5124.99
225.0	6312.56	6166.16	6022.35	5832.02	5683.90	5532.33	5341.15	5193.03	5051.79
270.0	6602.78	6464.13	6297.06	6154.11	6013.73	5854.41	5663.23	5508.22	5345.46
315.0	6403.85	6275.53	6095.55	5966.37	5819.11	5651.18	5444.49	5281.73	5116.38
360.0	6513.22	6338.40	6194.58	6046.46	5897.47	5711.46	5559.03	5403.15	5245.56
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	5060.40	4922.61	4789.99	4628.09	4491.16	4310.31	4141.52	3975.31	3798.77
45.0	5141.35	4958.78	4826.16	4697.84	4541.97	4406.76	4266.39	4066.60	3902.97
90.0	4991.51	4808.94	4666.84	4525.61	4380.07	4179.41	4008.90	3842.69	3672.17
135.0	5366.98	5198.19	5002.70	4843.38	4703.87	4552.30	4357.68	4177.69	4011.48
180.0	4985.48	4852.86	4689.23	4554.89	4409.35	4250.89	4037.32	3862.50	3681.65
225.0	4920.89	4759.85	4632.39	4488.58	4335.29	4119.99	3941.73	3747.10	3483.58
270.0	5137.05	4996.68	4811.52	4656.51	4499.77	4331.84	4096.74	3913.31	3729.01
315.0	4965.67	4770.18	4610.00	4396.43	4218.17	3989.95	3809.96	3614.48	3408.65
360.0	5060.40	4922.61	4789.99	4628.09	4491.16	4310.31	4141.52	3975.31	3798.77
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	3572.28	3357.84	3127.05	2812.71	2549.19	2057.45	1714.53	1645.81	1375.57
45.0	3725.57	3486.16	3263.97	3016.81	2754.15	2407.96	2128.07	1846.46	1574.33
90.0	3451.71	3231.25	3009.92	2713.68	2464.79	2010.09	1687.75	1623.25	1373.76
135.0	3793.60	3611.03	3362.15	3145.99	2904.00	2581.92	2323.56	2072.09	1819.77
180.0	3479.27	3188.19	2854.05	2576.75	2296.86	2014.40	1657.00	1371.95	1125.65
225.0	3234.69	2883.33	2588.81	2060.90	1709.79	1641.07	1374.71	1123.50	885.99
270.0	3531.80	3241.58	2989.26	2732.62	2475.13	2150.46	1888.66	1553.66	1303.92
315.0	3119.29	2867.83	2605.17	2339.92	1707.47	1707.47	1529.64	1304.95	1032.73
360.0	3572.28	3357.84	3127.05	2812.71	2549.19	2057.45	1714.53	1645.81	1375.57
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	1120.74	890.12	640.63	465.81	300.73	225.20	182.05	139.08	111.87
45.0	1245.36	993.89	766.54	518.52	473.74	287.38	155.87	121.77	94.90
90.0	1080.61	867.13	680.16	512.49	350.24	281.61	233.64	192.99	151.14
135.0	1510.60	1268.61	1042.12	833.71	603.78	455.65	455.65	349.21	241.39
180.0	904.33	645.97	462.54	462.54	301.50	168.10	132.88	106.18	79.83
225.0	627.98	448.50	298.49	193.77	132.36	103.43	81.21	60.28	48.23
270.0	1076.57	817.35	633.92	476.32	441.87	305.81	215.04	178.52	141.49
315.0	831.90	650.11	466.59	374.96	306.67	262.06	223.05	190.15	156.91
360.0	1120.74	890.12	640.63	465.81	300.73	225.20	182.05	139.08	111.87

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	90.17	73.89	58.39	48.83	41.34	35.39	29.37	25.84	22.91
45.0	70.96	56.58	46.33	38.67	31.52	27.21	23.94	21.36	18.77
90.0	124.35	103.26	82.33	69.24	58.39	47.62	40.73	34.02	29.71
135.0	202.29	162.07	136.33	114.54	93.18	79.32	67.69	58.04	47.80
180.0	64.67	51.24	42.97	36.26	31.00	26.09	23.08	20.67	18.69
225.0	38.32	32.55	27.99	23.77	21.27	19.20	17.57	16.02	15.16
270.0	118.24	100.07	84.83	69.50	59.25	50.81	42.37	36.86	31.09
315.0	135.38	116.86	100.76	84.14	73.03	63.30	54.86	46.33	40.73
360.0	90.17	73.89	58.39	48.83	41.34	35.39	29.37	25.84	22.91
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	20.15	18.34	16.97	15.59	14.64	13.95	13.18	12.75	12.31
45.0	17.22	16.10	14.98	14.21	13.43	13.00	12.57	12.23	11.97
90.0	26.27	23.42	21.01	18.77	17.22	16.02	14.81	14.04	13.35
135.0	41.42	36.08	31.61	27.21	24.37	21.87	19.46	17.83	16.53
180.0	16.88	15.76	14.81	13.87	13.35	12.83	12.40	12.06	11.71
225.0	14.38	13.78	13.18	12.75	12.49	12.06	11.80	11.54	11.37
270.0	27.64	24.80	22.39	19.81	18.26	16.97	15.76	14.64	13.95
315.0	34.79	31.00	27.73	24.37	22.05	20.15	18.52	16.79	15.67
360.0	20.15	18.34	16.97	15.59	14.64	13.95	13.18	12.75	12.31
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	11.97	11.63	11.37	11.20	10.94	10.76	10.59	10.42	10.33
45.0	11.71	11.45	11.28	11.11	10.94	10.85	10.68	10.59	10.42
90.0	12.75	12.31	11.88	11.54	11.28	11.02	10.76	10.59	10.42
135.0	15.24	14.38	13.52	12.92	12.49	12.06	11.71	11.28	11.11
180.0	11.45	11.20	11.02	10.85	10.68	10.51	10.42	10.33	10.16
225.0	11.20	11.11	10.85	10.76	10.68	10.51	10.33	10.25	10.16
270.0	13.26	12.75	12.23	11.88	11.45	11.20	11.02	10.76	10.59
315.0	14.73	13.95	13.09	12.57	12.14	11.63	11.28	11.02	10.68
360.0	11.97	11.63	11.37	11.20	10.94	10.76	10.59	10.42	10.33
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	10.16	10.08	9.99	9.90	9.73	9.65	9.56	9.56	9.39
45.0	10.33	10.25	10.08	9.99	9.90	9.82	9.73	9.65	9.56
90.0	10.25	10.16	9.99	9.90	9.82	9.73	9.65	9.56	9.47
135.0	10.85	10.68	10.42	10.25	10.08	9.99	9.90	9.82	9.73
180.0	10.08	9.99	9.90	9.82	9.65	9.65	9.47	9.47	9.30
225.0	10.16	9.99	9.90	9.73	9.73	9.65	9.56	9.47	9.30
270.0	10.42	10.25	10.08	9.99	9.90	9.82	9.65	9.56	9.47
315.0	10.51	10.25	10.08	9.99	9.82	9.65	9.56	9.47	9.30
360.0	10.16	10.08	9.99	9.90	9.73	9.65	9.56	9.56	9.39
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	9.30	9.21	9.13	9.13	8.96	8.96	8.87	8.78	8.70
45.0	9.47	9.39	9.30	9.21	9.13	9.04	8.96	8.87	8.78
90.0	9.39	9.21	9.21	9.04	9.04	8.96	8.87	8.78	8.70
135.0	9.56	9.47	9.39	9.30	9.21	9.21	9.04	8.96	8.87
180.0	9.21	9.13	9.04	8.96	8.96	8.87	8.78	8.70	8.70
225.0	9.21	9.21	9.13	8.96	8.96	8.87	8.87	8.70	8.78
270.0	9.39	9.30	9.21	9.13	9.04	8.96	8.87	8.78	8.70
315.0	9.30	9.13	9.13	9.04	8.96	8.87	8.78	8.78	8.78
360.0	9.30	9.21	9.13	9.13	8.96	8.96	8.87	8.78	8.70

Intensity data(cd)

C/ $\gamma$ ( $^{\circ}$ )	90.0
0.0	8.70
45.0	8.78
90.0	8.70
135.0	8.78
180.0	8.70
225.0	8.78
270.0	8.70
315.0	8.78
360.0	8.70