



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

Client:

LumCAT: 2-2645-L Luminaire:

92.70.411.00 Report No: 2023829-B007

Ballast type: AC

Test No: 2023829-C007

LampCAT: LUXEON CoB 1205 LES13

Voltage(V): 35.250

Lamp flux(lm): 1852.5 Number of Lamps:

Current(A): 0.433

1 Length(mm): 0

Power (W): 15.263

Phm Type: C

PF: 0.000

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 1729.87, Efficiency(%): 93.38% , Luminous Efficacy(lm/W): 113.34

Central intensity(cd): 3917.734, Maximum intensity(cd): 3917.734

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=38.4

[C90/270]Total=38.4

Field angle(10%Imax): [C0/180]Total=62.4

[C90/270]Total=62.4

Maximum s/h(1/2): C0_180=0.63 C90_270=0.63

Maximum s/h(1/4): C0_180=0.60 C90_270=0.60

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 93.38%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.110%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3917.734	0.000	0	0.00%	0.00%
1.0	3906.525	3.744	3.744	0.20%	0.22%
2.0	3874.627	11.168	14.912	0.60%	0.86%
3.0	3834.496	18.438	33.35	1.00%	1.93%
4.0	3775.129	25.472	58.822	1.37%	3.40%
5.0	3706.906	32.187	91.009	1.74%	5.26%
6.0	3638.890	38.604	129.613	2.08%	7.49%
7.0	3561.049	44.690	174.303	2.41%	10.08%
8.0	3476.773	50.368	224.671	2.72%	12.99%
9.0	3383.157	55.596	280.267	3.00%	16.20%
10.0	3291.477	60.403	340.67	3.26%	19.69%
11.0	3197.030	64.834	405.504	3.50%	23.44%
12.0	3088.122	68.706	474.209	3.71%	27.41%
13.0	2964.061	71.824	546.034	3.88%	31.57%
14.0	2831.005	74.176	620.21	4.00%	35.85%
15.0	2680.719	75.667	695.877	4.08%	40.23%
16.0	2516.527	76.154	772.032	4.11%	44.63%
17.0	2349.151	75.772	847.803	4.09%	49.01%
18.0	2167.038	74.462	922.265	4.02%	53.31%
19.0	1989.907	72.322	994.588	3.90%	57.50%
20.0	1812.983	69.603	1064.191	3.76%	61.52%
21.0	1636.474	66.237	1130.428	3.58%	65.35%
22.0	1438.017	61.783	1192.211	3.34%	68.92%
23.0	1253.711	56.480	1248.691	3.05%	72.18%
24.0	1171.241	53.018	1301.709	2.86%	75.25%
25.0	1061.564	50.769	1352.478	2.74%	78.18%
26.0	937.925	47.198	1399.676	2.55%	80.91%
27.0	819.856	43.005	1442.681	2.32%	83.40%
28.0	706.955	38.656	1481.336	2.09%	85.63%
29.0	601.320	34.228	1515.564	1.85%	87.61%
30.0	502.742	29.809	1545.374	1.61%	89.33%
31.0	407.942	25.343	1570.717	1.37%	90.80%
32.0	324.677	20.989	1591.705	1.13%	92.01%
33.0	255.381	17.089	1608.794	0.92%	93.00%
34.0	202.442	13.855	1622.649	0.75%	93.80%
35.0	141.954	10.696	1633.345	0.58%	94.42%
36.0	88.490	7.337	1640.682	0.40%	94.84%
37.0	72.942	5.265	1645.947	0.28%	95.15%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	62.356	4.516	1650.463	0.24%	95.41%
39.0	54.143	3.976	1654.44	0.21%	95.64%
40.0	48.234	3.571	1658.01	0.19%	95.85%
41.0	42.851	3.243	1661.254	0.18%	96.03%
42.0	38.512	2.956	1664.21	0.16%	96.20%
43.0	34.582	2.708	1666.917	0.15%	96.36%
44.0	31.489	2.494	1669.411	0.13%	96.51%
45.0	29.040	2.326	1671.737	0.13%	96.64%
46.0	26.964	2.190	1673.928	0.12%	96.77%
47.0	25.227	2.076	1676.003	0.11%	96.89%
48.0	23.636	1.975	1677.979	0.11%	97.00%
49.0	22.294	1.886	1679.865	0.10%	97.11%
50.0	21.200	1.813	1681.678	0.10%	97.21%
51.0	20.169	1.750	1683.429	0.09%	97.32%
52.0	19.228	1.691	1685.119	0.09%	97.41%
53.0	18.433	1.638	1686.757	0.09%	97.51%
54.0	17.699	1.593	1688.35	0.09%	97.60%
55.0	17.028	1.550	1689.9	0.08%	97.69%
56.0	16.475	1.514	1691.414	0.08%	97.78%
57.0	15.949	1.482	1692.897	0.08%	97.86%
58.0	15.464	1.453	1694.349	0.08%	97.95%
59.0	15.015	1.425	1695.774	0.08%	98.03%
60.0	14.613	1.400	1697.174	0.08%	98.11%
61.0	14.226	1.376	1698.55	0.07%	98.19%
62.0	13.866	1.354	1699.904	0.07%	98.27%
63.0	13.513	1.332	1701.235	0.07%	98.34%
64.0	13.216	1.312	1702.547	0.07%	98.42%
65.0	12.897	1.292	1703.839	0.07%	98.50%
66.0	12.593	1.272	1705.111	0.07%	98.57%
67.0	12.323	1.253	1706.364	0.07%	98.64%
68.0	12.012	1.233	1707.597	0.07%	98.71%
69.0	11.763	1.213	1708.809	0.07%	98.78%
70.0	11.486	1.194	1710.003	0.06%	98.85%
71.0	11.230	1.174	1711.177	0.06%	98.92%
72.0	10.974	1.155	1712.332	0.06%	98.99%
73.0	10.739	1.135	1713.467	0.06%	99.05%
74.0	10.524	1.118	1714.585	0.06%	99.12%
75.0	10.296	1.100	1715.685	0.06%	99.18%

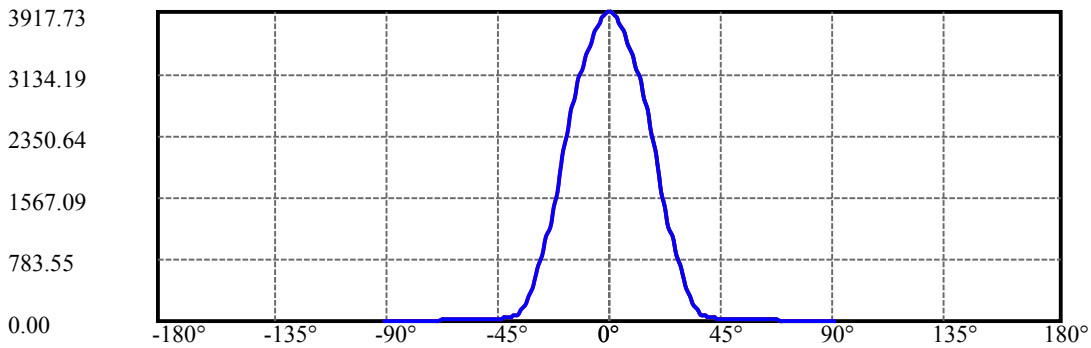
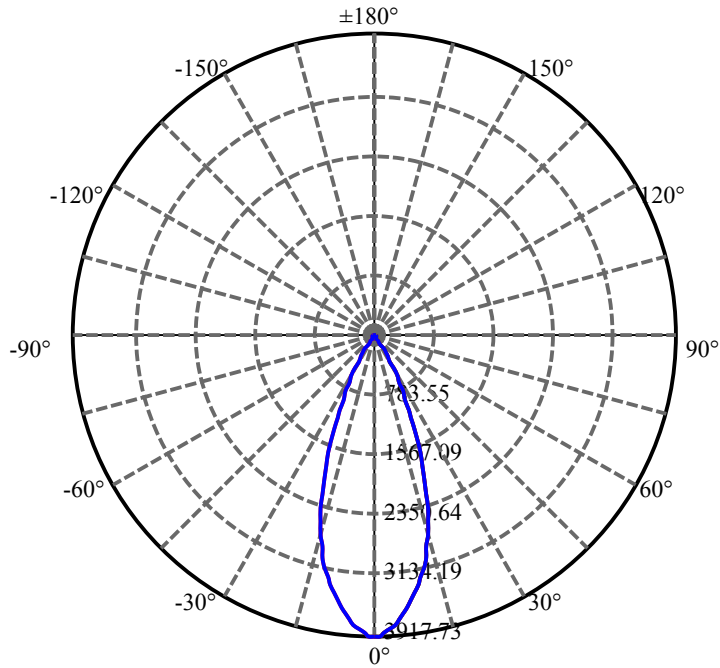
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	10.074	1.081	1716.767	0.06%	99.24%
77.0	9.853	1.062	1717.829	0.06%	99.30%
78.0	9.611	1.042	1718.871	0.06%	99.36%
79.0	9.382	1.020	1719.891	0.06%	99.42%
80.0	9.189	1.001	1720.893	0.05%	99.48%
81.0	8.974	0.982	1721.875	0.05%	99.54%
82.0	8.760	0.962	1722.837	0.05%	99.59%
83.0	8.559	0.941	1723.778	0.05%	99.65%
84.0	8.372	0.922	1724.7	0.05%	99.70%
85.0	8.192	0.904	1725.604	0.05%	99.75%
86.0	8.012	0.886	1726.49	0.05%	99.80%
87.0	7.853	0.868	1727.359	0.05%	99.86%
88.0	7.680	0.851	1728.209	0.05%	99.90%
89.0	7.535	0.834	1729.043	0.05%	99.95%
90.0	7.480	0.823	1729.867	0.04%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1545.37	83.42%	89.33%
0-40	1658.01	89.50%	95.85%
0-60	1697.17	91.61%	98.11%
0-90	1729.04	93.33%	99.95%
0-120	1729.04	93.33%	99.95%
0-180	1729.87	93.38%	100.00%
60-90	31.87	1.72%	1.84%
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%
0-25.67	1383.89	74.70%	80.00%

ZONAL LUMEN SUMMARY

0-10	340.67
10-20	723.52
20-30	481.18
30-40	112.64
40-50	23.67
50-60	15.50
60-70	12.83
70-80	10.89
80-90	8.15
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: ———

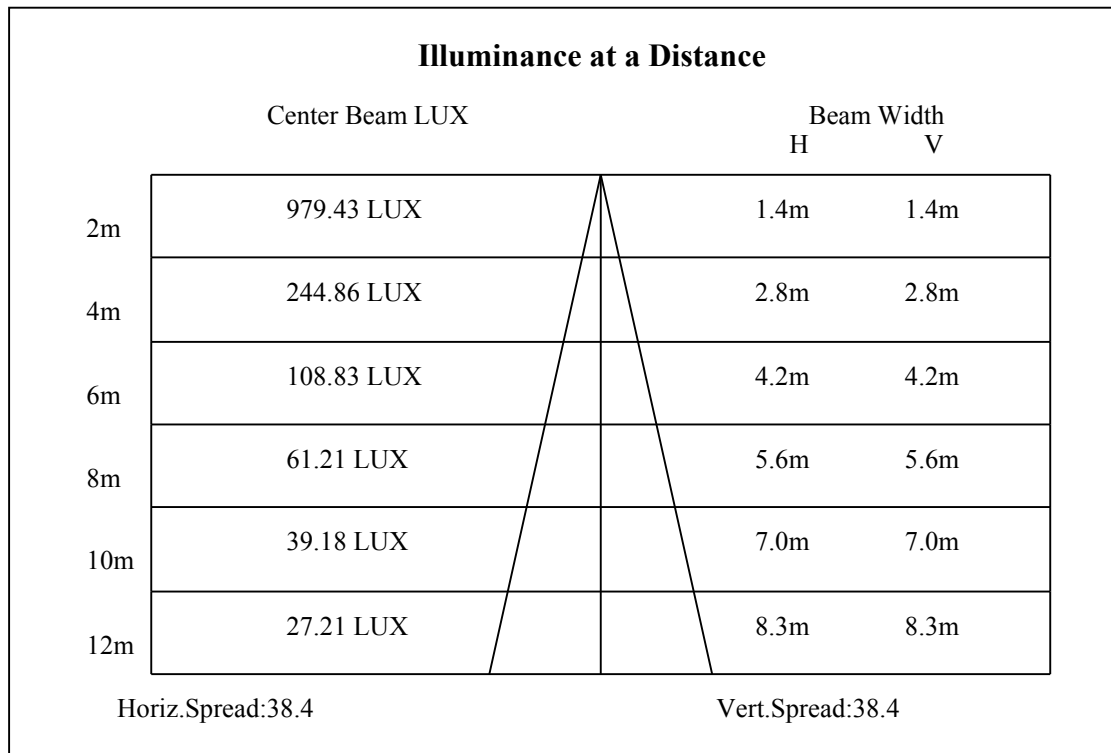
C90/C270: ———

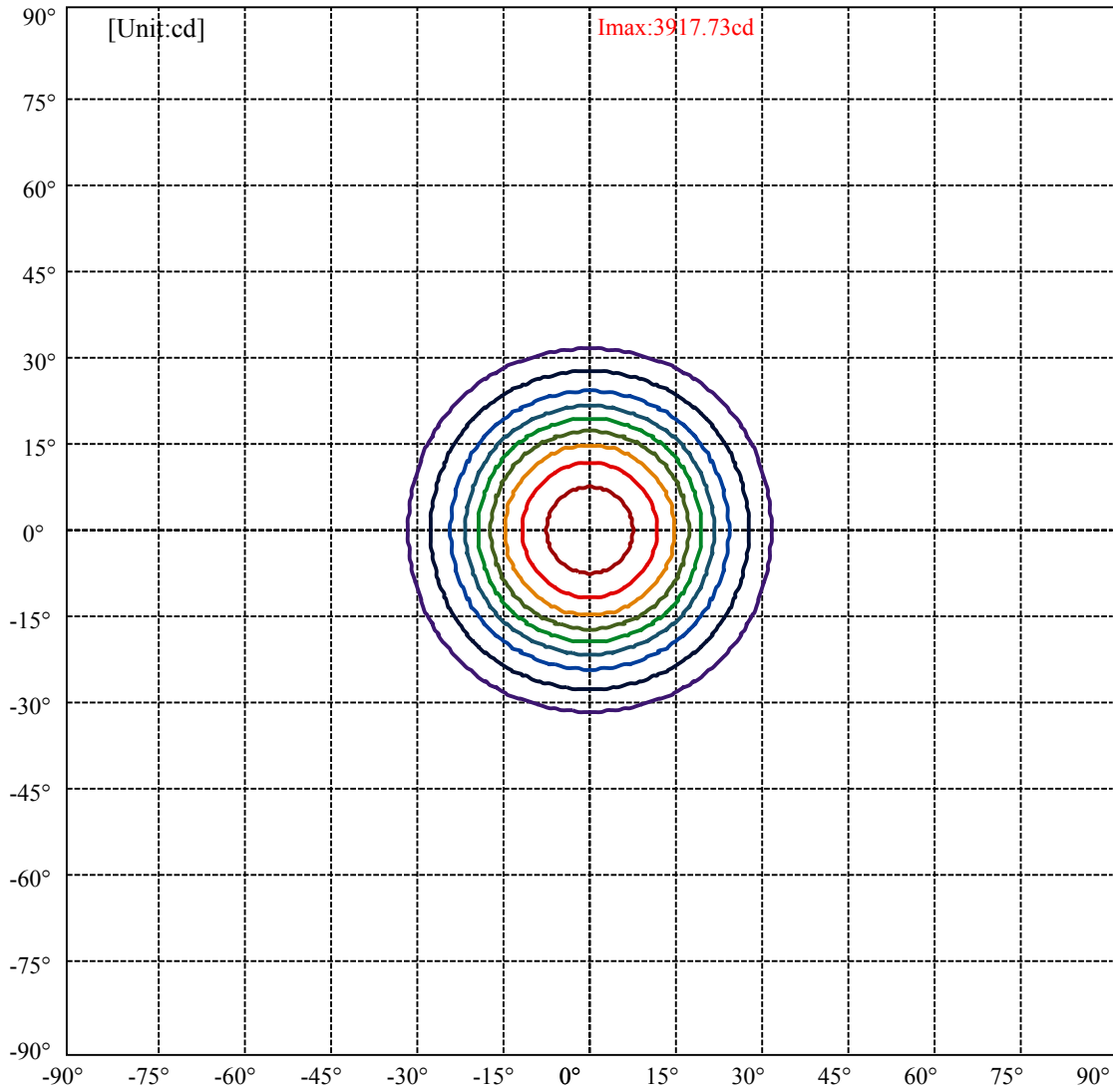
Field angle(10%Imax):C0/180Left:31.2 Right:31.2

:C90/270Left:31.2 Right:31.2

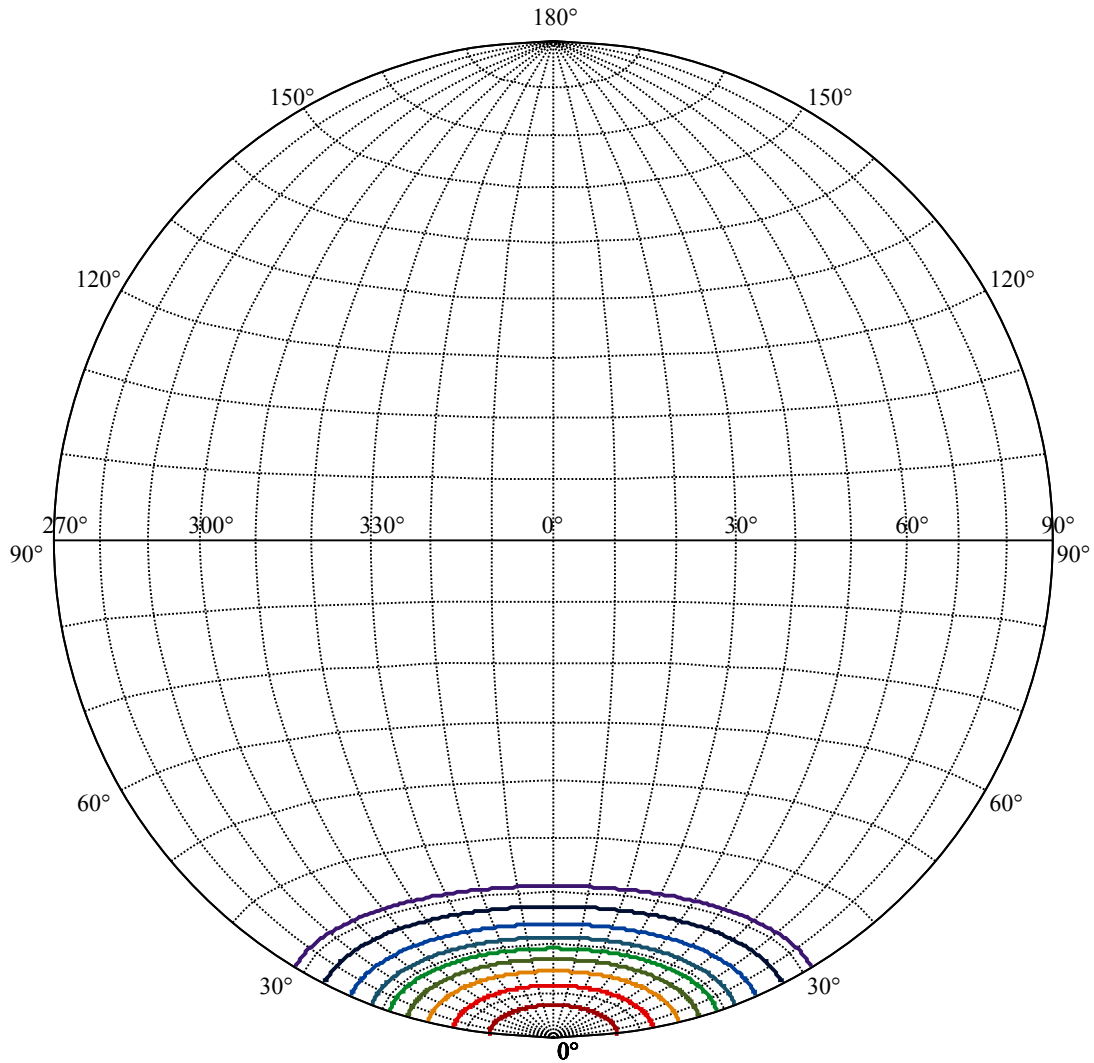
Beam Angle(50%Imax):C0/180Left:19.2 Right:19.2

:C90/270Left:19.2 Right:19.2





(10%Imax)	391.773	—
(20%Imax)	783.547	—
(30%Imax)	1175.32	—
(40%Imax)	1567.09	—
(50%Imax)	1958.87	—
(60%Imax)	2350.64	—
(70%Imax)	2742.41	—
(80%Imax)	3134.19	—
(90%Imax)	3525.96	—



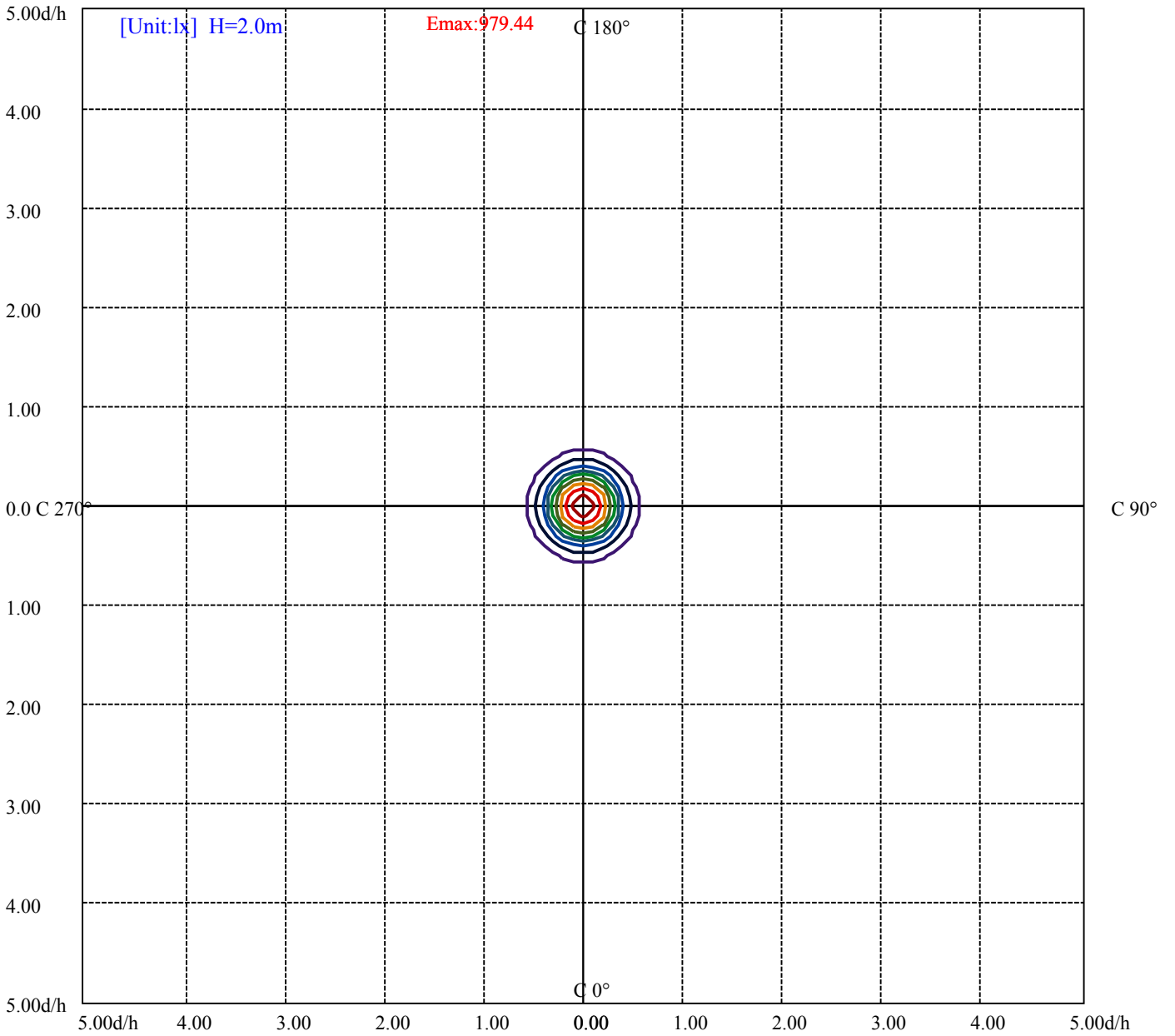
House

[Unit:cd]

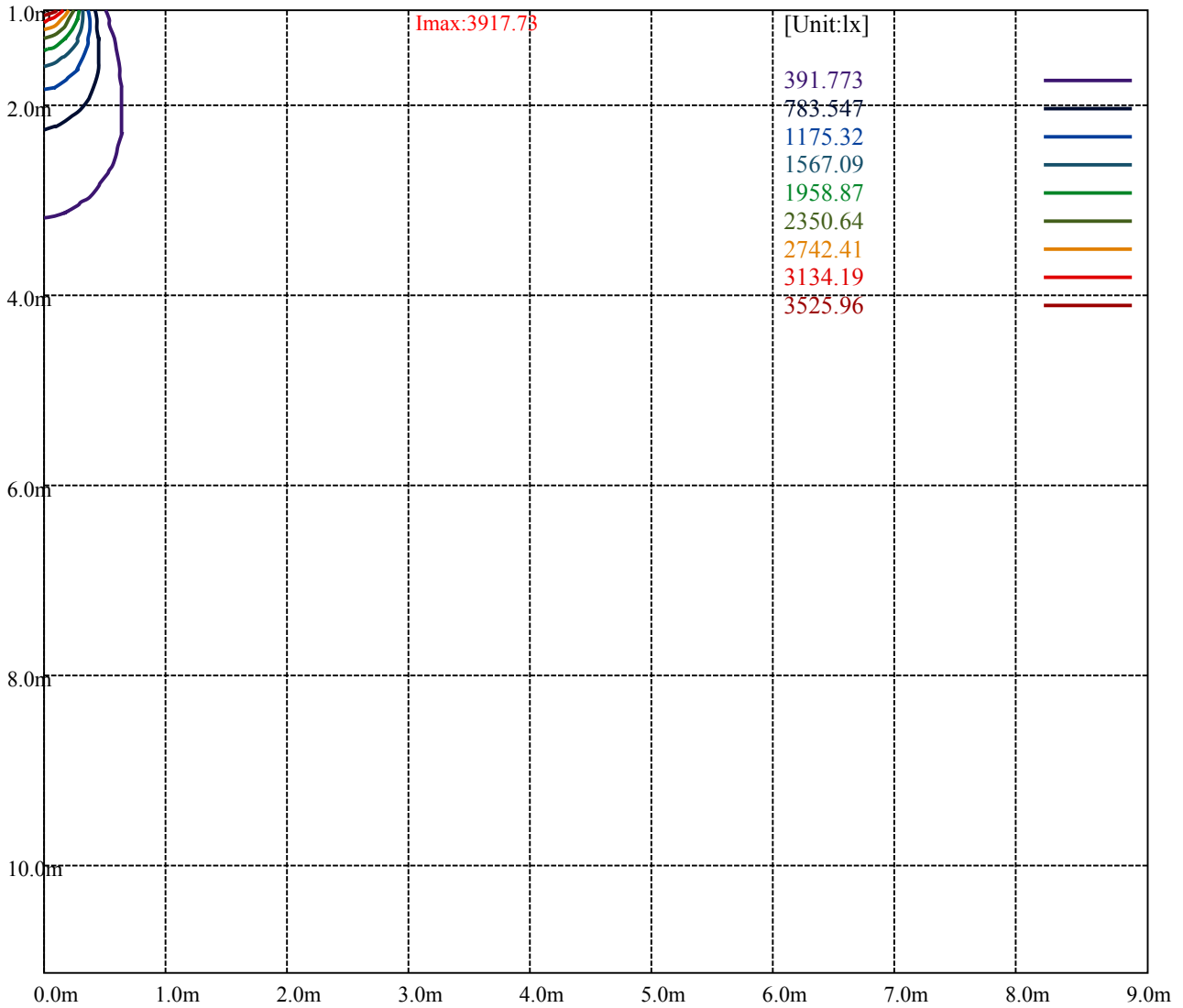
Road

I_{max}:3917.73

(10%I _{max})	391.773	—
(20%I _{max})	783.547	—
(30%I _{max})	1175.32	—
(40%I _{max})	1567.09	—
(50%I _{max})	1958.87	—
(60%I _{max})	2350.64	—
(70%I _{max})	2742.41	—
(80%I _{max})	3134.19	—
(90%I _{max})	3525.96	—



- (10%Emax) 97.94325
- (20%Emax) 195.8865
- (30%Emax) 293.83
- (40%Emax) 391.7725
- (50%Emax) 489.7175
- (60%Emax) 587.66
- (70%Emax) 685.6025
- (80%Emax) 783.5475
- (90%Emax) 881.49



Luminance Table

γ	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

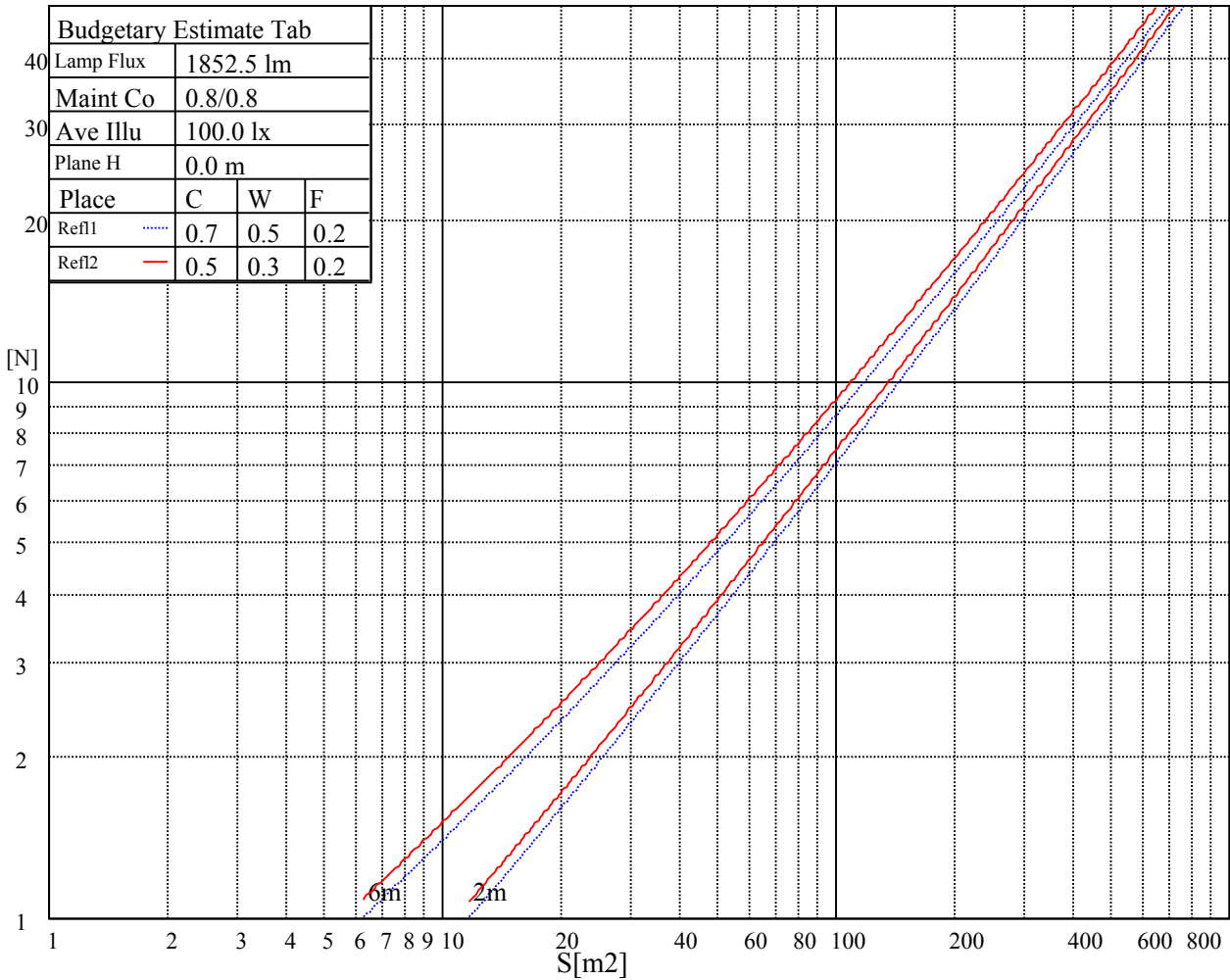
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

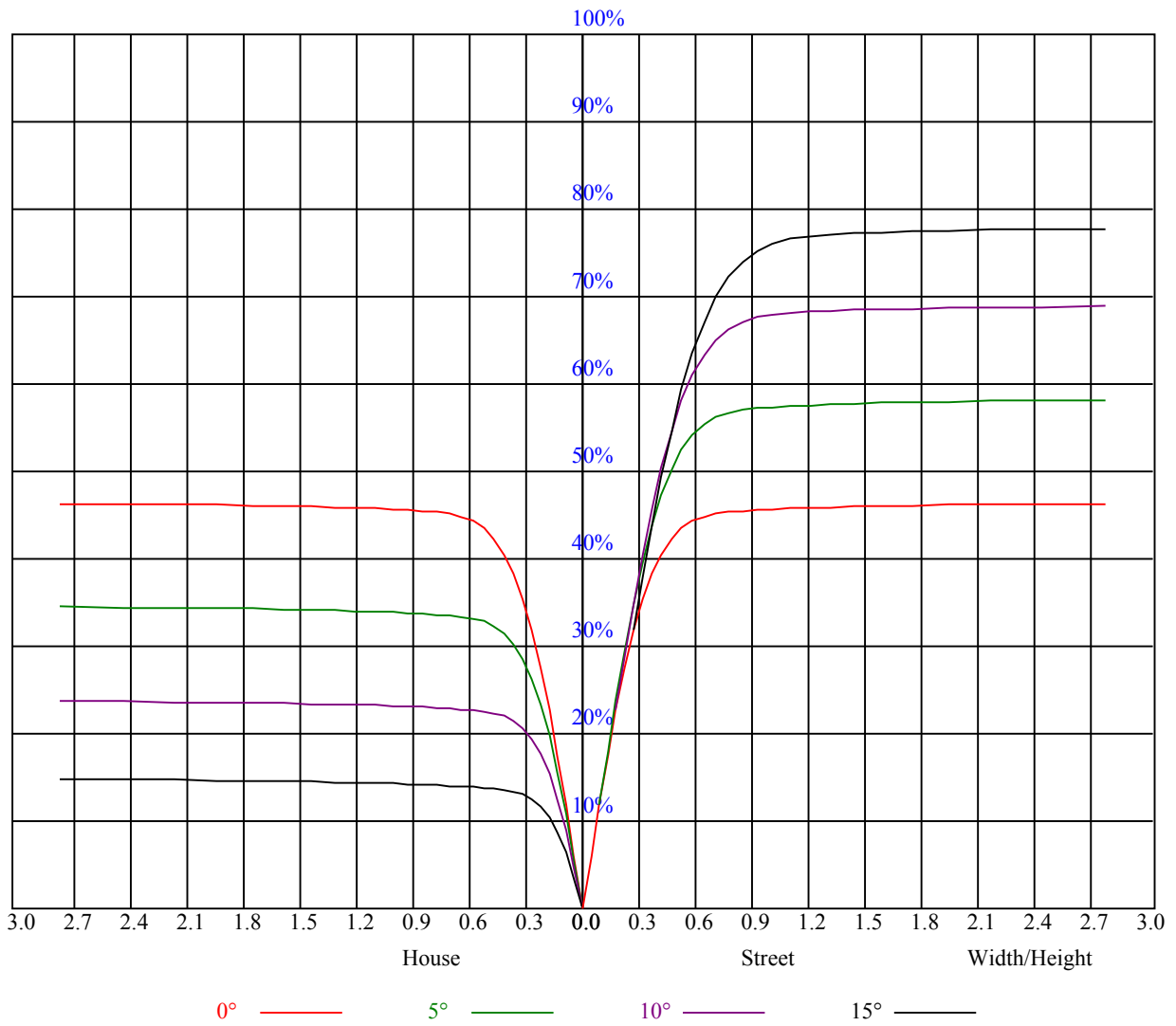


Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	3H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
4H	2H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	3H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
8H	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
12H	12H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	4H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	6H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	8H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
Variation with the observer position at spacings:											
S = 1.0H		非数字/非数字					非数字/非数字				
S = 1.5H		非数字/非数字					非数字/非数字				
S = 2.0H		非数字/非数字					非数字/非数字				
Standard tables:		BK0					BK0				
Uncorrected UGR		负无穷大					负无穷大				

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 RHOF=20 CU															
0	1.11	1.11	1.11	1.09	1.09	1.09	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.04	1.02	1.00	1.02	1.00	0.98	0.98	0.97	0.95	0.95	0.94	0.93	0.92	0.91	0.90	0.88
2	0.98	0.95	0.92	0.96	0.93	0.91	0.93	0.91	0.89	0.91	0.89	0.87	0.88	0.87	0.85	0.84
3	0.93	0.89	0.85	0.91	0.88	0.85	0.89	0.86	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.80
4	0.88	0.84	0.80	0.87	0.83	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.82	0.79	0.77	0.76
5	0.84	0.79	0.76	0.83	0.79	0.75	0.81	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.72
6	0.80	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.69
7	0.76	0.72	0.68	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.66
8	0.73	0.69	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
9	0.70	0.66	0.63	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.61
10	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.58



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	3947.21	3953.30	3946.66	3918.43	3883.00	3828.20	3750.70	3683.17	3605.12
45.0	3909.57	3937.25	3946.66	3938.35	3897.95	3865.84	3799.42	3736.31	3658.82
90.0	3904.59	3882.45	3827.65	3778.38	3717.49	3628.93	3563.06	3487.22	3398.10
135.0	3909.57	3874.14	3811.04	3747.38	3659.92	3582.98	3513.79	3417.48	3318.39
180.0	3947.21	3908.46	3859.75	3797.20	3720.81	3646.09	3572.47	3493.31	3383.16
225.0	3909.57	3870.27	3799.42	3746.28	3647.19	3578.55	3502.72	3393.67	3313.41
270.0	3904.59	3907.91	3886.32	3853.11	3821.00	3739.63	3677.08	3612.32	3544.24
315.0	3909.57	3918.43	3919.53	3896.84	3853.66	3785.02	3731.88	3664.91	3592.95
360.0	3947.21	3953.30	3946.66	3918.43	3883.00	3828.20	3750.70	3683.17	3605.12
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3499.95	3403.64	3299.57	3175.58	3000.11	2848.99	2667.43	2480.34	2240.66
45.0	3582.98	3504.93	3394.78	3299.02	3162.85	3030.55	2840.69	2673.52	2499.16
90.0	3293.48	3206.58	3114.69	2987.93	2868.92	2700.09	2544.55	2380.15	2223.50
135.0	3231.49	3139.05	3047.16	2934.79	2829.07	2711.72	2578.32	2401.74	2258.93
180.0	3301.79	3203.26	3111.37	2991.25	2888.85	2754.34	2625.37	2508.02	2333.65
225.0	3223.18	3106.39	3013.95	2914.31	2808.59	2688.47	2532.37	2399.52	2258.37
270.0	3434.08	3354.37	3271.34	3171.71	3063.21	2951.95	2840.14	2675.74	2534.03
315.0	3498.29	3413.60	3323.37	3230.38	3090.89	2961.92	2816.89	2613.19	2444.91
360.0	3499.95	3403.64	3299.57	3175.58	3000.11	2848.99	2667.43	2480.34	2240.66
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2039.72	1790.08	1601.32	1429.17	1077.57	1077.57	996.25	907.97	803.96
45.0	2313.17	2129.40	1889.72	1699.85	1530.47	1372.16	1195.03	1077.13	973.61
90.0	2019.80	1850.42	1686.57	1531.58	1252.04	1093.12	1093.12	978.82	831.52
135.0	2083.45	1947.84	1804.47	1630.11	1490.62	1359.98	1238.20	1085.98	952.58
180.0	2198.59	2059.10	1909.09	1733.62	1596.34	1460.17	1331.75	1176.76	1069.38
225.0	2079.03	1925.14	1764.62	1571.43	1429.17	1082.61	1082.61	1023.27	899.33
270.0	2379.04	2177.56	1999.32	1828.83	1671.62	1486.19	1335.07	1201.12	1055.54
315.0	2223.50	2039.72	1848.75	1667.20	1456.30	1097.88	1097.88	1041.48	917.49
360.0	2039.72	1790.08	1601.32	1429.17	1077.57	1077.57	996.25	907.97	803.96
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	720.87	640.94	561.23	461.04	377.46	293.82	213.50	131.74	91.89
45.0	849.62	755.52	665.29	561.78	478.20	394.06	289.44	289.44	195.62
90.0	717.66	618.63	504.44	416.26	332.34	237.85	171.54	121.00	88.07
135.0	819.18	691.86	552.37	457.72	371.37	295.53	295.53	148.62	103.95
180.0	934.87	774.34	649.80	537.98	420.08	340.37	285.02	285.02	133.13
225.0	744.51	628.43	527.35	437.29	336.22	261.71	195.95	142.70	99.08
270.0	945.94	808.66	698.51	602.75	487.61	397.94	314.91	296.09	296.09
315.0	826.21	737.25	651.57	547.11	460.27	376.13	277.16	204.92	127.81
360.0	720.87	640.94	561.23	461.04	377.46	293.82	213.50	131.74	91.89
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	72.46	63.05	56.02	49.21	44.39	40.02	36.09	32.33	29.89
45.0	93.55	77.33	66.37	57.96	50.98	45.61	40.74	36.04	32.82
90.0	74.84	64.54	56.96	49.87	44.89	40.46	36.75	32.82	30.39
135.0	85.24	69.19	59.62	53.03	47.77	42.01	38.03	34.60	31.77
180.0	100.58	82.09	67.59	58.79	51.64	44.56	40.19	36.42	33.05
225.0	80.93	69.14	57.79	50.43	44.95	39.52	35.81	32.66	29.39
270.0	109.32	84.03	70.19	58.51	51.70	46.39	40.74	36.81	32.66
315.0	91.00	74.17	64.32	55.35	49.54	44.23	39.74	34.98	31.94
360.0	72.46	63.05	56.02	49.21	44.39	40.02	36.09	32.33	29.89

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	27.79	26.02	24.19	22.92	21.81	20.59	19.71	18.93	18.05
45.0	30.28	27.62	25.85	24.30	22.69	21.59	20.65	19.76	18.76
90.0	27.79	26.07	24.58	22.97	21.81	20.81	19.71	18.88	18.16
135.0	29.01	27.12	25.52	24.08	22.47	21.37	20.20	19.37	18.60
180.0	30.39	27.73	26.02	24.19	22.86	21.75	20.54	19.60	18.82
225.0	27.34	25.63	24.19	22.58	21.48	20.54	19.60	18.60	17.88
270.0	30.17	28.06	26.24	24.30	23.03	21.86	20.81	19.65	18.88
315.0	29.56	27.46	25.24	23.75	22.20	21.09	20.15	19.04	18.32
360.0	27.79	26.02	24.19	22.92	21.81	20.59	19.71	18.93	18.05
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	17.38	16.77	16.27	15.78	15.33	14.83	14.50	14.12	13.78
45.0	18.10	17.49	16.94	16.33	15.89	15.44	14.95	14.61	14.17
90.0	17.49	16.77	16.22	15.72	15.28	14.78	14.45	14.00	13.67
135.0	17.71	17.10	16.55	16.05	15.50	15.06	14.67	14.28	13.89
180.0	17.88	17.21	16.66	16.11	15.55	15.11	14.72	14.34	13.89
225.0	17.27	16.55	16.05	15.50	15.06	14.67	14.28	13.89	13.56
270.0	18.10	17.44	16.72	16.22	15.67	15.17	14.78	14.34	14.00
315.0	17.66	16.88	16.38	15.89	15.44	15.06	14.56	14.23	13.95
360.0	17.38	16.77	16.27	15.78	15.33	14.83	14.50	14.12	13.78
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	13.40	13.12	12.84	12.51	12.23	11.96	11.57	11.35	11.13
45.0	13.84	13.56	13.23	12.84	12.62	12.34	12.07	11.73	11.51
90.0	13.34	13.01	12.73	12.45	12.18	11.79	11.57	11.29	11.07
135.0	13.51	13.28	12.90	12.62	12.34	12.01	11.79	11.46	11.18
180.0	13.56	13.23	12.90	12.68	12.29	12.01	11.79	11.57	11.24
225.0	13.28	12.95	12.68	12.34	12.12	11.79	11.57	11.35	11.07
270.0	13.67	13.34	13.01	12.73	12.45	12.18	11.96	11.62	11.35
315.0	13.51	13.23	12.90	12.57	12.34	12.01	11.79	11.51	11.29
360.0	13.40	13.12	12.84	12.51	12.23	11.96	11.57	11.35	11.13
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	10.85	10.57	10.41	10.19	9.91	9.69	9.47	9.24	8.97
45.0	11.24	10.96	10.74	10.52	10.24	10.02	9.74	9.47	9.30
90.0	10.79	10.57	10.35	10.07	9.91	9.63	9.41	9.19	9.02
135.0	10.96	10.74	10.46	10.30	10.07	9.85	9.63	9.41	9.24
180.0	11.02	10.79	10.57	10.35	10.13	9.96	9.69	9.47	9.30
225.0	10.85	10.63	10.41	10.19	9.96	9.74	9.52	9.35	9.13
270.0	11.07	10.85	10.68	10.41	10.19	10.02	9.74	9.52	9.35
315.0	11.02	10.79	10.57	10.35	10.19	9.91	9.69	9.41	9.19
360.0	10.85	10.57	10.41	10.19	9.91	9.69	9.47	9.24	8.97
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	8.80	8.58	8.36	8.25	8.03	7.86	7.69	7.58	7.53
45.0	9.08	8.80	8.58	8.41	8.25	8.03	7.92	7.69	7.53
90.0	8.80	8.64	8.41	8.25	8.03	7.86	7.69	7.58	7.47
135.0	8.97	8.80	8.52	8.36	8.19	8.03	7.86	7.69	7.47
180.0	9.08	8.91	8.69	8.47	8.30	8.14	7.97	7.80	7.64
225.0	8.91	8.69	8.58	8.30	8.19	8.03	7.86	7.64	7.47
270.0	9.13	8.91	8.75	8.52	8.36	8.14	7.97	7.75	7.64
315.0	9.02	8.75	8.58	8.41	8.19	8.03	7.86	7.69	7.53
360.0	8.80	8.58	8.36	8.25	8.03	7.86	7.69	7.58	7.53

Intensity data(cd)

C/γ(°)	90.0
0.0	7.53
45.0	7.53
90.0	7.47
135.0	7.53
180.0	7.47
225.0	7.42
270.0	7.42
315.0	7.47
360.0	7.53