



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: 2-2643-L

Luminaire: 92.70.411.00

Report No: 20231023-B009

Ballast type: AC

Test No: 20231023-C009

Voltage(V): 36.720

LampCAT: NICHIA NFDWJ130B-V3

Current(A): 0.576

Lamp flux(lm): 2810.0

Power (W): 21.150

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

---

## Photometric Results

---

Lumens(lm): 2652.94, Efficiency(%): 94.41% , Luminous Efficacy(lm/W): 125.43

Central intensity(cd): 13853.620, Maximum intensity(cd): 13853.620

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

Beam Angle(50%Imax): [C0/180]Total=18.2

[C90/270]Total=18.2

Field angle(10%Imax): [C0/180]Total=46.6

[C90/270]Total=46.6

Maximum s/h(1/2): C0\_180=0.31 C90\_270=0.31

Maximum s/h(1/4): C0\_180=0.34 C90\_270=0.34

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 94.41%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 98.126%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	13853.622	0.000	0	0.00%	0.00%
1.0	13720.082	13.193	13.193	0.47%	0.50%
2.0	13313.925	38.802	51.995	1.38%	1.96%
3.0	12539.251	61.832	113.828	2.20%	4.29%
4.0	11659.129	81.000	194.827	2.88%	7.34%
5.0	11039.168	97.647	292.474	3.47%	11.02%
6.0	10153.995	111.376	403.85	3.96%	15.22%
7.0	9069.687	119.321	523.171	4.25%	19.72%
8.0	8064.535	122.626	645.797	4.36%	24.34%
9.0	7047.690	122.476	768.274	4.36%	28.96%
10.0	6123.423	119.194	887.467	4.24%	33.45%
11.0	5291.112	114.055	1001.522	4.06%	37.75%
12.0	4599.261	108.116	1109.638	3.85%	41.83%
13.0	4024.829	102.346	1211.984	3.64%	45.68%
14.0	3535.227	96.768	1308.752	3.44%	49.33%
15.0	3159.514	91.908	1400.661	3.27%	52.80%
16.0	2840.470	87.917	1488.577	3.13%	56.11%
17.0	2633.793	85.249	1573.826	3.03%	59.32%
18.0	2405.252	83.083	1656.909	2.96%	62.46%
19.0	2172.075	79.636	1736.545	2.83%	65.46%
20.0	1918.071	74.861	1811.406	2.66%	68.28%
21.0	1750.488	70.444	1881.85	2.51%	70.93%
22.0	1598.543	67.300	1949.15	2.40%	73.47%
23.0	1431.216	63.573	2012.723	2.26%	75.87%
24.0	1294.652	59.597	2072.32	2.12%	78.11%
25.0	1172.811	56.105	2128.425	2.00%	80.23%
26.0	1078.689	53.147	2181.572	1.89%	82.23%
27.0	970.778	50.141	2231.712	1.78%	84.12%
28.0	855.220	46.230	2277.943	1.65%	85.86%
29.0	744.817	41.861	2319.804	1.49%	87.44%
30.0	646.080	37.554	2357.358	1.34%	88.86%
31.0	550.464	33.298	2390.656	1.18%	90.11%
32.0	466.195	29.126	2419.782	1.04%	91.21%
33.0	388.292	25.173	2444.956	0.90%	92.16%
34.0	321.535	21.481	2466.437	0.76%	92.97%
35.0	270.755	18.394	2484.832	0.65%	93.66%
36.0	239.681	16.252	2501.084	0.58%	94.28%
37.0	189.980	14.013	2515.097	0.50%	94.80%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	139.816	11.008	2526.105	0.39%	95.22%
39.0	114.796	8.691	2534.796	0.31%	95.55%
40.0	93.866	7.277	2542.073	0.26%	95.82%
41.0	77.786	6.112	2548.186	0.22%	96.05%
42.0	65.947	5.222	2553.408	0.19%	96.25%
43.0	56.987	4.554	2557.962	0.16%	96.42%
44.0	50.005	4.038	2562	0.14%	96.57%
45.0	44.795	3.643	2565.643	0.13%	96.71%
46.0	40.886	3.351	2568.994	0.12%	96.84%
47.0	37.502	3.118	2572.112	0.11%	96.95%
48.0	34.810	2.923	2575.035	0.10%	97.06%
49.0	32.617	2.769	2577.804	0.10%	97.17%
50.0	30.687	2.639	2580.443	0.09%	97.27%
51.0	28.991	2.525	2582.968	0.09%	97.36%
52.0	27.587	2.428	2585.396	0.09%	97.45%
53.0	26.431	2.350	2587.746	0.08%	97.54%
54.0	25.380	2.284	2590.029	0.08%	97.63%
55.0	24.646	2.233	2592.262	0.08%	97.71%
56.0	24.065	2.201	2594.463	0.08%	97.80%
57.0	23.671	2.183	2596.646	0.08%	97.88%
58.0	23.470	2.180	2598.826	0.08%	97.96%
59.0	23.380	2.190	2601.016	0.08%	98.04%
60.0	23.352	2.208	2603.224	0.08%	98.13%
61.0	23.290	2.226	2605.45	0.08%	98.21%
62.0	23.165	2.239	2607.688	0.08%	98.29%
63.0	22.896	2.240	2609.929	0.08%	98.38%
64.0	22.342	2.220	2612.148	0.08%	98.46%
65.0	21.574	2.173	2614.322	0.08%	98.54%
66.0	20.751	2.112	2616.433	0.08%	98.62%
67.0	19.796	2.039	2618.472	0.07%	98.70%
68.0	18.813	1.956	2620.428	0.07%	98.77%
69.0	17.997	1.878	2622.306	0.07%	98.85%
70.0	17.201	1.808	2624.114	0.06%	98.91%
71.0	16.599	1.747	2625.861	0.06%	98.98%
72.0	16.087	1.700	2627.56	0.06%	99.04%
73.0	15.637	1.659	2629.219	0.06%	99.11%
74.0	15.257	1.624	2630.843	0.06%	99.17%
75.0	14.890	1.593	2632.436	0.06%	99.23%

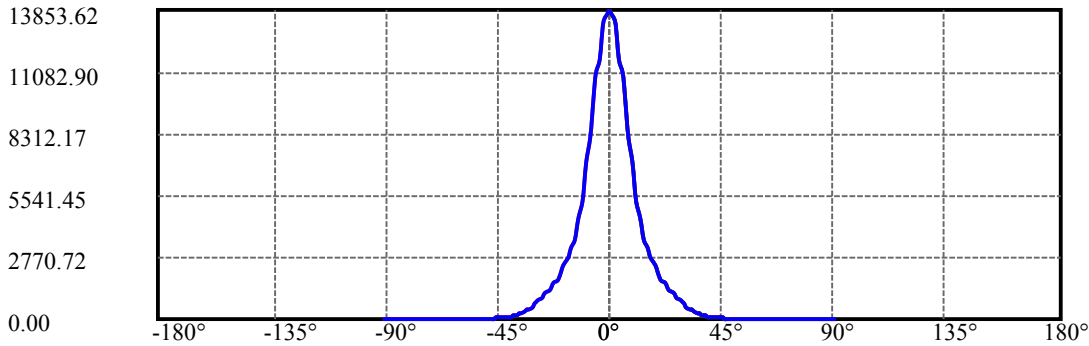
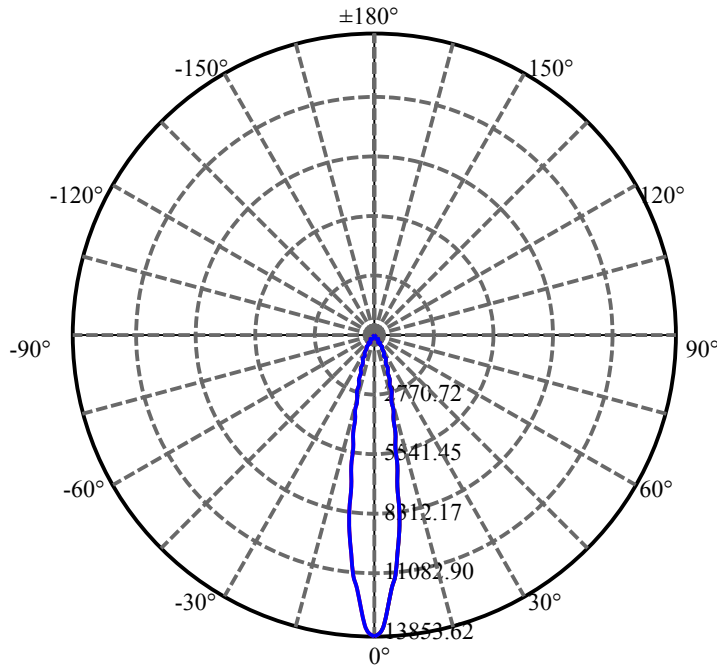
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	14.530	1.562	2633.998	0.06%	99.29%
77.0	14.198	1.532	2635.53	0.05%	99.34%
78.0	13.880	1.503	2637.033	0.05%	99.40%
79.0	13.548	1.474	2638.506	0.05%	99.46%
80.0	13.243	1.444	2639.951	0.05%	99.51%
81.0	12.918	1.415	2641.366	0.05%	99.56%
82.0	12.621	1.385	2642.75	0.05%	99.62%
83.0	12.323	1.356	2644.106	0.05%	99.67%
84.0	12.060	1.328	2645.435	0.05%	99.72%
85.0	11.818	1.303	2646.738	0.05%	99.77%
86.0	11.583	1.279	2648.017	0.05%	99.81%
87.0	11.382	1.257	2649.274	0.04%	99.86%
88.0	11.195	1.237	2650.511	0.04%	99.91%
89.0	11.098	1.222	2651.733	0.04%	99.95%
90.0	10.995	1.211	2652.944	0.04%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2357.36	83.89%	88.86%
0-40	2542.07	90.47%	95.82%
0-60	2603.22	92.64%	98.13%
0-90	2651.73	94.37%	99.95%
0-120	2651.73	94.37%	99.95%
0-180	2652.94	94.41%	100.00%
60-90	48.51	1.73%	1.83%
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%
0-24.89	2122.36	75.53%	80.00%

ZONAL LUMEN SUMMARY

0-10	887.47
10-20	923.94
20-30	545.95
30-40	184.72
40-50	38.37
50-60	22.78
60-70	20.89
70-80	15.84
80-90	11.78
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: —————

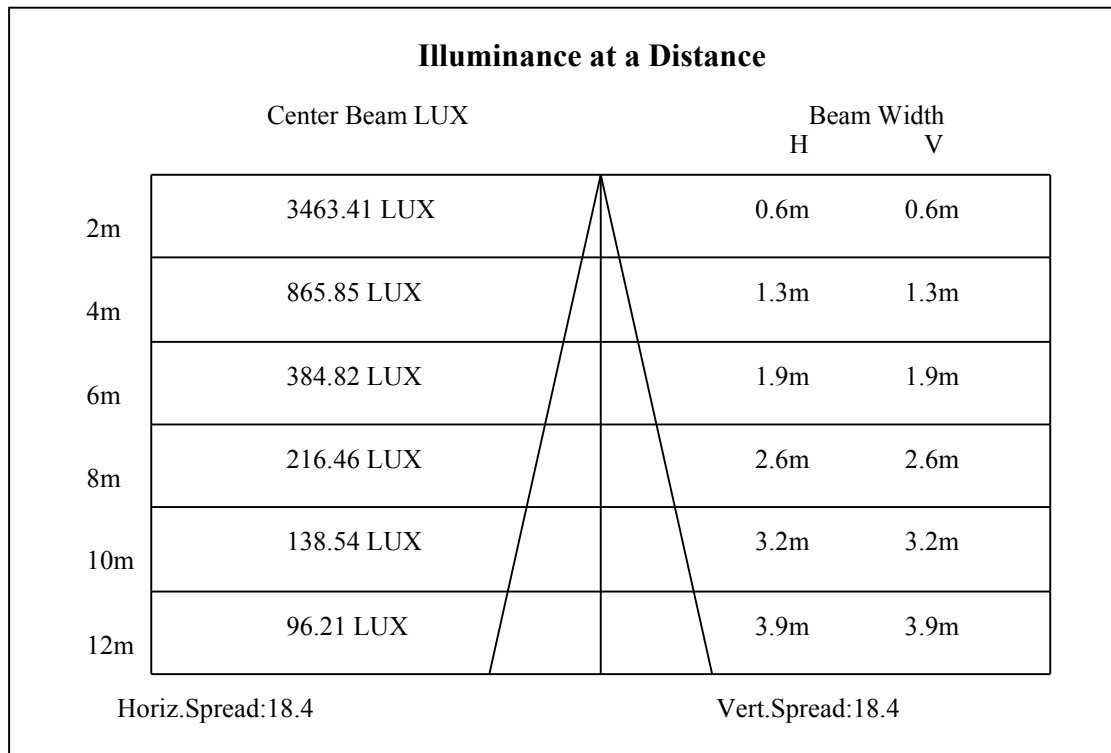
C90/C270: —————

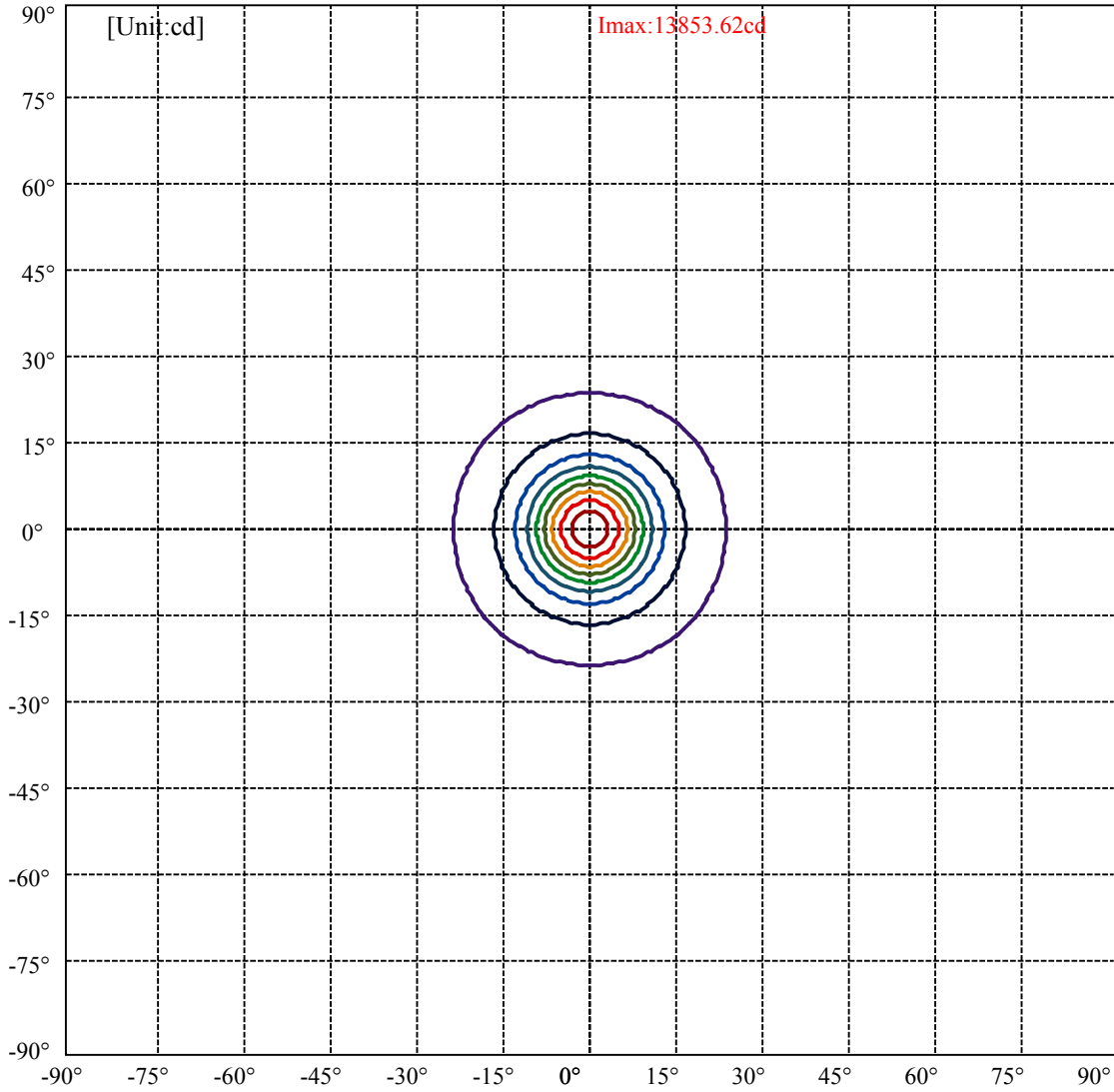
Field angle(10%Imax):C0/180Left:23.3 Right:23.3

:C90/270Left:23.3 Right:23.3

Beam Angle(50%Imax):C0/180Left:9.1 Right:9.1

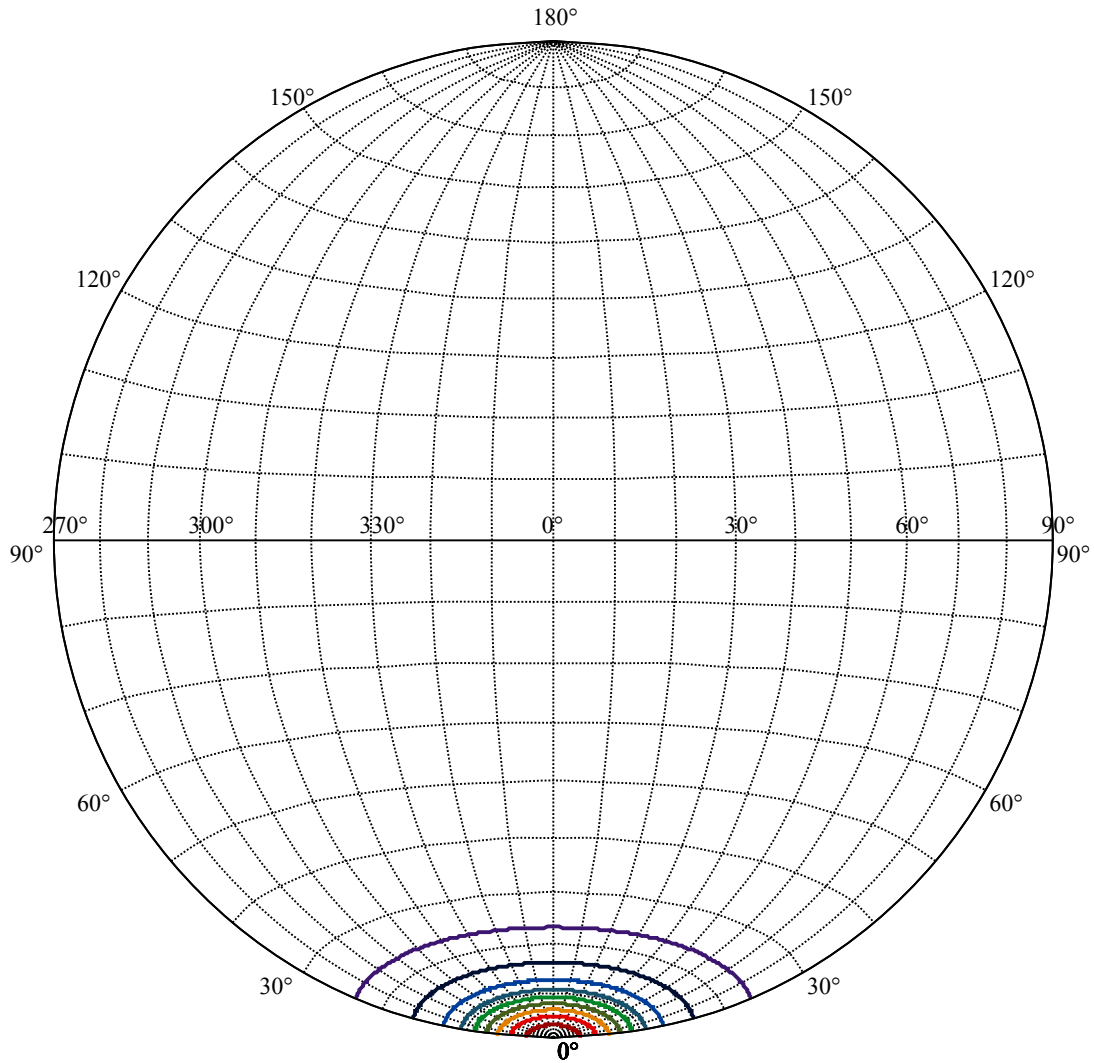
:C90/270Left:9.1 Right:9.1





(10%Imax) 1385.36	—
(20%Imax) 2770.72	—
(30%Imax) 4156.09	—
(40%Imax) 5541.45	—
(50%Imax) 6926.81	—
(60%Imax) 8312.17	—
(70%Imax) 9697.54	—
(80%Imax) 11082.9	—
(90%Imax) 12468.3	—





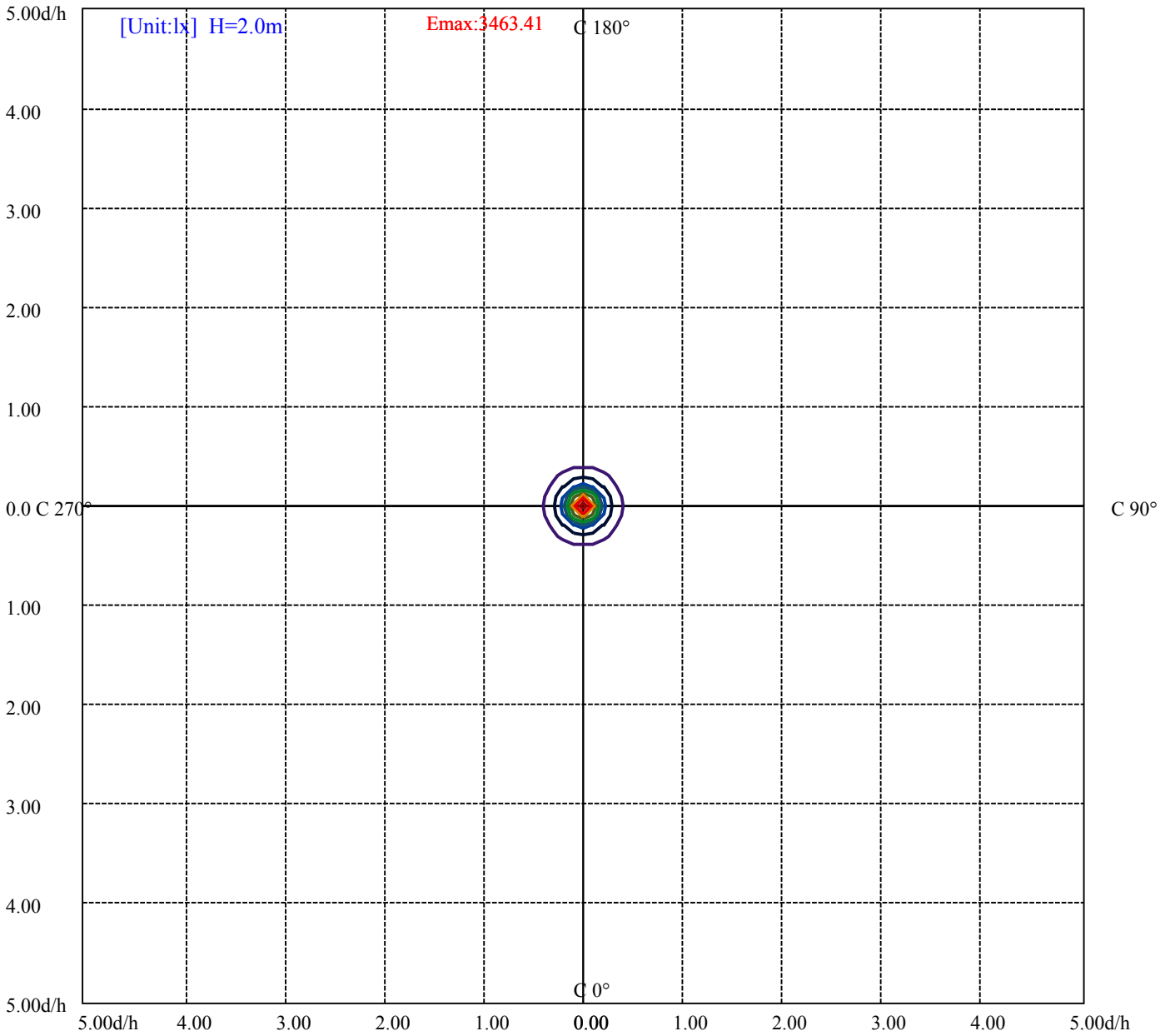
House

[Unit:cd]

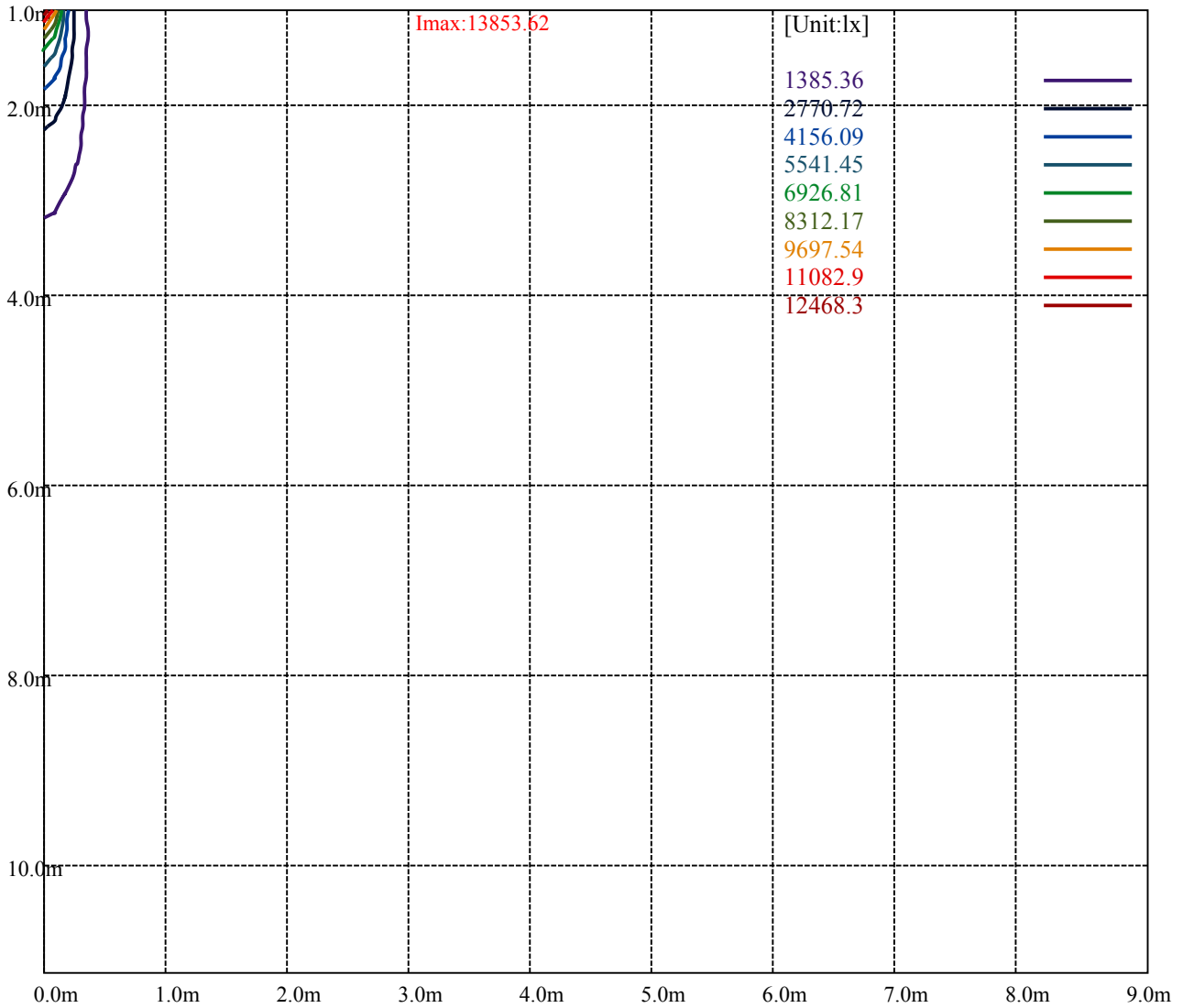
Road

**Imax:13853.62**

(10%Imax)	1385.36	—
(20%Imax)	2770.72	—
(30%Imax)	4156.09	—
(40%Imax)	5541.45	—
(50%Imax)	6926.81	—
(60%Imax)	8312.17	—
(70%Imax)	9697.54	—
(80%Imax)	11082.9	—
(90%Imax)	12468.3	—



(10%Emax) 346.34	—
(20%Emax) 692.68	—
(30%Emax) 1039.02	—
(40%Emax) 1385.36	—
(50%Emax) 1731.7	—
(60%Emax) 2078.04	—
(70%Emax) 2424.38	—
(80%Emax) 2770.725	—
(90%Emax) 3117.05	—



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

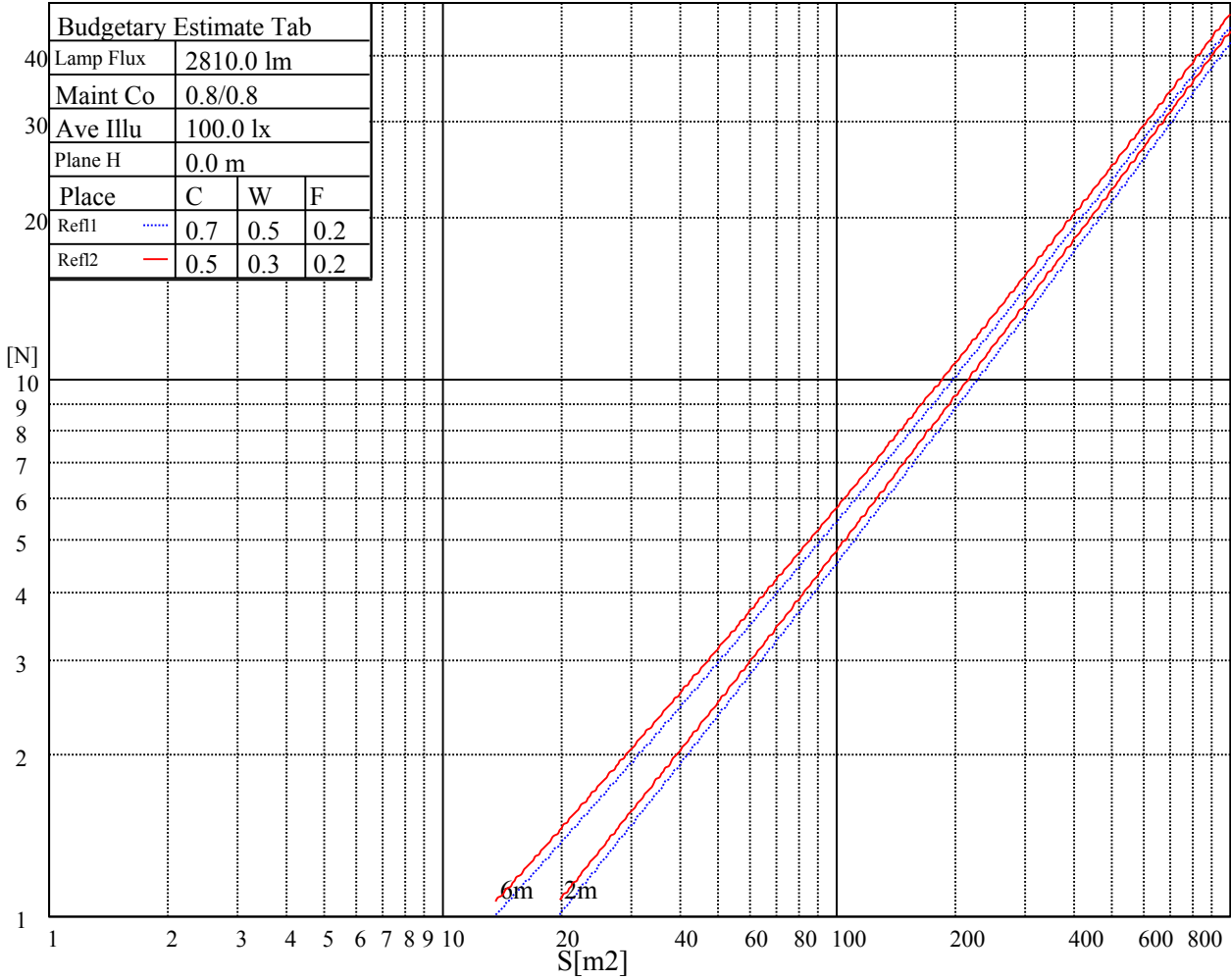
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

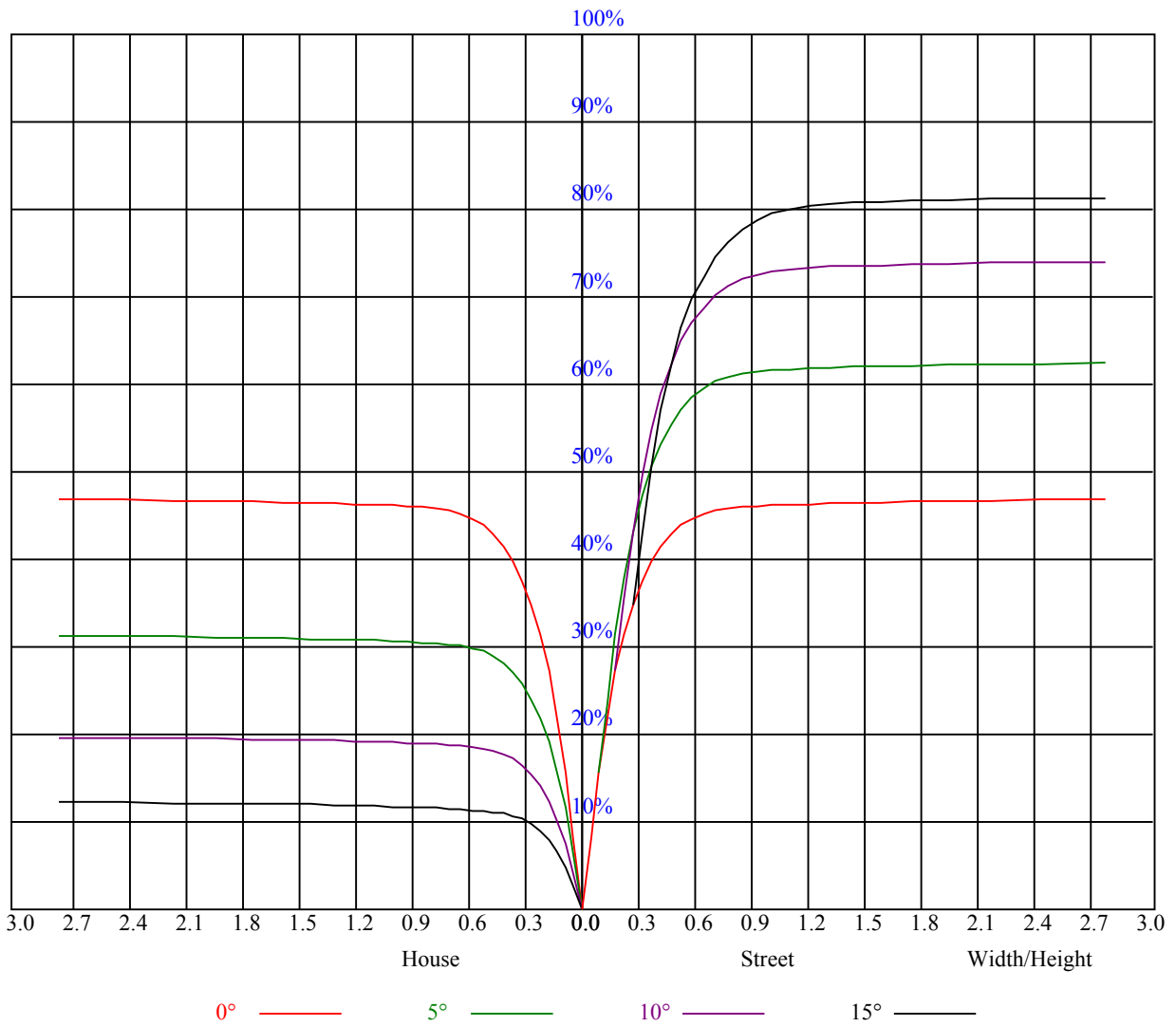


Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字
	3H	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	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	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	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	非数字
4H	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	非数字
	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	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	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	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	非数字
8H	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	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	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	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	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	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	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	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	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	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	1.12	1.12	1.12	1.10	1.10	1.10	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.06	1.04	1.02	1.04	1.02	1.00	1.00	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.92	0.90
2	1.00	0.97	0.94	0.99	0.96	0.93	0.96	0.93	0.91	0.93	0.91	0.89	0.90	0.89	0.87	0.86
3	0.95	0.91	0.88	0.94	0.91	0.88	0.92	0.89	0.86	0.89	0.87	0.85	0.87	0.85	0.84	0.82
4	0.91	0.87	0.84	0.90	0.86	0.83	0.88	0.85	0.82	0.86	0.84	0.81	0.85	0.82	0.80	0.79
5	0.87	0.83	0.80	0.86	0.82	0.79	0.85	0.81	0.79	0.83	0.80	0.78	0.82	0.79	0.77	0.76
6	0.84	0.79	0.76	0.83	0.79	0.76	0.82	0.78	0.76	0.81	0.78	0.75	0.80	0.77	0.75	0.74
7	0.81	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.73	0.78	0.75	0.72	0.77	0.74	0.72	0.71
8	0.78	0.74	0.71	0.77	0.73	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.70	0.69
9	0.75	0.71	0.68	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.73	0.70	0.68	0.67
10	0.73	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.71	0.68	0.66	0.65





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	13611.45	13152.02	12067.08	10897.46	10664.98	9704.04	8748.64	7546.36	6629.15
45.0	13943.57	13738.76	13329.15	12764.54	11817.99	10948.94	10013.47	9022.64	7793.79
90.0	13877.15	13450.92	12908.46	10869.79	10869.79	10153.51	9168.77	7926.08	6954.07
135.0	13982.32	13926.97	13644.66	13140.94	12260.82	11397.31	10478.44	9249.59	8253.22
180.0	13611.45	13938.04	13932.50	13672.34	13207.37	12365.99	11546.76	10633.43	9653.67
225.0	13943.57	13849.47	13522.88	12830.96	10833.25	10833.25	10124.17	9134.45	8148.60
270.0	13877.15	13987.85	13827.33	13450.92	12725.79	12017.27	11186.96	10063.28	9094.60
315.0	13982.32	13716.62	13279.33	12687.05	10893.03	10893.03	9964.76	8981.68	7989.19
360.0	13611.45	13152.02	12067.08	10897.46	10664.98	9704.04	8748.64	7546.36	6629.15
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	5622.82	4924.81	4329.76	3830.47	3330.07	3009.58	2730.04	2492.02	2241.82
45.0	6858.31	6022.47	5269.66	4461.50	3930.11	3398.71	3055.52	2828.57	2828.57
90.0	6080.59	5134.60	4492.50	3950.03	3512.19	3076.00	2785.95	2528.55	2314.33
135.0	7279.00	6171.93	5413.58	4583.28	4046.35	3592.45	3216.04	2834.10	2834.10
180.0	8397.14	7445.06	6304.78	5485.54	4771.48	4195.80	3620.13	3221.58	2906.06
225.0	7193.75	6093.88	5306.75	4649.15	4102.81	3539.86	3181.17	2872.85	2554.57
270.0	8131.44	7207.04	6122.11	5352.69	4539.00	4018.67	3581.38	3133.01	2834.10
315.0	6818.46	5987.60	5089.76	4481.43	3966.64	3450.74	3105.89	2813.07	2556.78
360.0	5622.82	4924.81	4329.76	3830.47	3330.07	3009.58	2730.04	2492.02	2241.82
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2061.37	1889.77	1693.27	1554.33	1425.91	1098.60	1098.60	1043.19	906.69
45.0	2252.89	2063.58	1849.92	1694.37	1557.65	1429.23	1279.78	1165.75	1053.93
90.0	2074.10	1895.31	1737.00	1557.65	1428.68	1218.89	1080.11	1054.71	947.49
135.0	2557.34	2162.67	1940.70	1780.73	1632.38	1501.74	1347.86	1229.40	1084.93
180.0	2839.64	2569.51	2169.86	1950.66	1796.22	1655.07	1490.12	1370.00	1254.87
225.0	2338.69	2146.06	1928.52	1771.87	1595.84	1472.41	1353.95	1078.34	1078.34
270.0	2834.10	2559.00	2114.51	1946.23	1785.15	1638.47	1474.07	1348.41	1238.26
315.0	2283.89	2090.71	1910.81	1748.07	1566.51	1435.32	1232.72	1092.68	1065.00
360.0	2061.37	1889.77	1693.27	1554.33	1425.91	1098.60	1098.60	1043.19	906.69
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	797.31	695.74	582.82	502.22	427.33	359.41	285.24	235.09	193.18
45.0	941.01	833.63	707.42	617.75	534.16	440.06	372.53	299.46	286.18
90.0	816.30	717.71	626.66	542.41	446.54	377.46	316.90	264.42	209.02
135.0	973.67	862.96	731.77	635.46	547.45	468.29	379.73	318.84	291.16
180.0	1148.59	1015.74	908.35	800.41	697.46	581.21	495.41	419.03	334.89
225.0	999.19	892.63	785.86	683.51	568.37	486.00	410.34	327.47	270.07
270.0	1132.53	995.26	888.43	756.13	659.81	571.25	469.40	393.01	331.57
315.0	957.62	828.09	727.24	630.75	522.59	445.87	376.79	314.96	249.98
360.0	797.31	695.74	582.82	502.22	427.33	359.41	285.24	235.09	193.18
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	159.25	125.82	104.84	88.18	71.68	61.55	52.59	47.38	43.29
45.0	286.18	158.70	130.97	108.94	91.11	73.62	63.21	55.41	49.65
90.0	173.26	143.64	113.53	94.82	75.78	64.38	55.91	49.76	43.90
135.0	291.16	168.77	139.49	115.19	96.48	77.94	66.09	55.30	49.21
180.0	289.50	289.50	171.71	140.76	110.21	92.22	78.71	67.86	57.29
225.0	221.86	172.81	141.43	115.97	92.61	78.38	67.09	56.13	49.76
270.0	289.50	289.50	174.75	142.04	118.62	94.32	78.49	67.25	58.07
315.0	206.75	171.10	141.82	112.48	94.43	79.88	65.48	56.79	48.88
360.0	159.25	125.82	104.84	88.18	71.68	61.55	52.59	47.38	43.29

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	39.97	36.53	34.15	32.22	30.56	28.73	27.57	26.51	25.63
45.0	44.28	40.96	38.14	35.04	32.88	31.05	29.23	27.84	26.63
90.0	40.35	37.42	34.32	32.33	30.61	29.12	27.79	26.51	25.57
135.0	44.62	39.97	37.03	34.49	31.72	30.06	28.51	27.23	26.07
180.0	50.98	46.05	42.12	38.14	35.54	33.21	31.22	29.17	27.84
225.0	45.00	41.24	37.47	34.98	32.82	31.00	28.95	27.57	26.18
270.0	48.93	44.34	39.85	36.81	34.49	31.77	30.06	28.51	27.18
315.0	44.23	40.57	36.92	34.49	32.33	30.56	28.62	27.34	26.35
360.0	39.97	36.53	34.15	32.22	30.56	28.73	27.57	26.51	25.63
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	24.69	24.19	23.69	23.53	23.58	23.47	23.36	23.25	23.08
45.0	25.52	24.74	24.19	23.75	23.47	23.47	23.47	23.41	23.25
90.0	24.63	24.08	23.64	23.36	23.36	23.41	23.41	23.36	23.19
135.0	25.24	24.52	23.91	23.58	23.41	23.36	23.47	23.36	23.30
180.0	26.46	25.46	24.69	24.02	23.58	23.30	23.14	23.19	23.14
225.0	25.30	24.58	23.91	23.47	23.25	23.08	23.14	22.97	22.92
270.0	25.79	24.96	24.36	23.80	23.47	23.30	23.30	23.41	23.25
315.0	25.41	24.63	24.13	23.86	23.64	23.64	23.53	23.36	23.19
360.0	24.69	24.19	23.69	23.53	23.58	23.47	23.36	23.25	23.08
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	22.25	21.31	20.59	19.65	18.38	17.66	16.99	16.27	15.83
45.0	23.14	22.53	21.59	20.87	19.76	18.71	17.93	17.33	16.50
90.0	22.81	21.75	20.92	20.15	19.10	17.99	17.27	16.50	15.94
135.0	23.25	22.92	21.92	20.92	20.15	19.15	18.21	17.44	16.83
180.0	22.97	22.92	22.64	21.92	21.09	20.09	19.15	18.10	17.44
225.0	22.86	22.47	21.64	20.98	19.98	19.04	18.27	17.38	16.77
270.0	23.08	22.92	22.20	21.26	20.48	19.60	18.54	17.66	17.05
315.0	22.81	21.92	21.09	20.26	19.43	18.27	17.60	16.94	16.44
360.0	22.25	21.31	20.59	19.65	18.38	17.66	16.99	16.27	15.83
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	15.50	15.06	14.72	14.39	14.12	13.78	13.51	13.12	12.84
45.0	16.05	15.61	15.28	14.83	14.50	14.23	13.84	13.51	13.23
90.0	15.55	15.11	14.78	14.50	14.06	13.78	13.51	13.17	12.90
135.0	16.27	15.78	15.39	15.00	14.61	14.28	14.00	13.62	13.34
180.0	16.83	16.33	15.78	15.39	15.00	14.67	14.28	13.95	13.67
225.0	16.16	15.72	15.39	15.06	14.61	14.28	13.95	13.62	13.34
270.0	16.50	16.00	15.55	15.22	14.95	14.50	14.17	13.89	13.45
315.0	15.83	15.50	15.17	14.72	14.39	14.06	13.78	13.51	13.17
360.0	15.50	15.06	14.72	14.39	14.12	13.78	13.51	13.12	12.84
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	12.57	12.34	12.07	11.85	11.57	11.35	11.18	11.02	11.02
45.0	12.84	12.57	12.23	12.01	11.79	11.51	11.29	11.07	10.90
90.0	12.57	12.29	12.01	11.79	11.57	11.40	11.18	11.02	10.96
135.0	13.06	12.68	12.40	12.07	11.85	11.62	11.46	11.24	11.18
180.0	13.28	13.01	12.62	12.34	12.07	11.79	11.57	11.40	11.24
225.0	13.01	12.68	12.34	12.07	11.85	11.57	11.40	11.24	11.24
270.0	13.17	12.84	12.57	12.29	12.01	11.79	11.57	11.35	11.24
315.0	12.84	12.57	12.34	12.07	11.85	11.62	11.40	11.24	11.02
360.0	12.57	12.34	12.07	11.85	11.57	11.35	11.18	11.02	11.02

Intensity data(cd)

<b>C/γ(°)</b>	<b>90.0</b>
<b>0.0</b>	<b>10.96</b>
<b>45.0</b>	<b>10.90</b>
<b>90.0</b>	<b>10.96</b>
<b>135.0</b>	<b>11.02</b>
<b>180.0</b>	<b>11.18</b>
<b>225.0</b>	<b>10.96</b>
<b>270.0</b>	<b>10.96</b>
<b>315.0</b>	<b>11.02</b>
<b>360.0</b>	<b>10.96</b>