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NATA

Client:

LumCAT: 2-2640-L

Luminaire: 92.70.411.00

Report No: 20231023-B012

Ballast type: AC

Test No: 20231023-C012

Voltage(V): 36.590

LampCAT: NICHIA NFDWJ130B-V3

Current(A): 0.576

Lamp flux(lm): 2810.0

Power (W): 21.075

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2587.94, Efficiency(%): 92.10% , Luminous Efficacy(lm/W): 122.80

Central intensity(cd): 7377.250, Maximum intensity(cd): 7377.250

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=27.2

[C90/270]Total=27.2

Field angle(10%Imax): [C0/180]Total=63.4

[C90/270]Total=63.4

Maximum s/h(1/2): C0_180=0.45 C90_270=0.45

Maximum s/h(1/4): C0_180=0.51 C90_270=0.51

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 92.10%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.908%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7377.251	0.000	0	0.00%	0.00%
1.0	7341.202	7.043	7.043	0.25%	0.27%
2.0	7236.099	20.923	27.965	0.74%	1.08%
3.0	7075.505	34.229	62.194	1.22%	2.40%
4.0	6852.361	46.621	108.815	1.66%	4.20%
5.0	6581.059	57.790	166.605	2.06%	6.44%
6.0	6281.872	67.598	234.203	2.41%	9.05%
7.0	5939.303	75.857	310.06	2.70%	11.98%
8.0	5581.580	82.453	392.512	2.93%	15.17%
9.0	5198.948	87.370	479.883	3.11%	18.54%
10.0	4852.297	90.960	570.843	3.24%	22.06%
11.0	4514.294	93.591	664.434	3.33%	25.67%
12.0	4173.108	94.966	759.4	3.38%	29.34%
13.0	3859.599	95.328	854.728	3.39%	33.03%
14.0	3562.904	95.007	949.735	3.38%	36.70%
15.0	3294.577	94.143	1043.878	3.35%	40.34%
16.0	3032.755	92.713	1136.591	3.30%	43.92%
17.0	2799.578	90.825	1227.416	3.23%	47.43%
18.0	2578.993	88.681	1316.097	3.16%	50.86%
19.0	2394.874	86.535	1402.632	3.08%	54.20%
20.0	2202.105	84.137	1486.77	2.99%	57.45%
21.0	2036.943	81.398	1568.168	2.90%	60.60%
22.0	1882.230	78.757	1646.925	2.80%	63.64%
23.0	1743.016	76.067	1722.993	2.71%	66.58%
24.0	1618.332	73.491	1796.484	2.62%	69.42%
25.0	1481.401	70.481	1866.965	2.51%	72.14%
26.0	1342.809	66.666	1933.631	2.37%	74.72%
27.0	1228.718	62.913	1996.544	2.24%	77.15%
28.0	1135.185	59.849	2056.393	2.13%	79.46%
29.0	1037.659	56.848	2113.24	2.02%	81.66%
30.0	926.737	53.038	2166.279	1.89%	83.71%
31.0	811.214	48.365	2214.643	1.72%	85.58%
32.0	707.862	43.520	2258.163	1.55%	87.26%
33.0	601.265	38.567	2296.731	1.37%	88.75%
34.0	509.551	33.617	2330.347	1.20%	90.05%
35.0	425.738	29.047	2359.394	1.03%	91.17%
36.0	347.994	24.636	2384.029	0.88%	92.12%
37.0	285.645	20.666	2404.695	0.74%	92.92%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	243.092	17.649	2422.344	0.63%	93.60%
39.0	196.574	15.007	2437.351	0.53%	94.18%
40.0	150.811	12.116	2449.466	0.43%	94.65%
41.0	114.658	9.453	2458.92	0.34%	95.01%
42.0	92.572	7.529	2466.449	0.27%	95.31%
43.0	78.554	6.339	2472.788	0.23%	95.55%
44.0	67.877	5.527	2478.314	0.20%	95.76%
45.0	59.810	4.907	2483.222	0.17%	95.95%
46.0	53.707	4.439	2487.661	0.16%	96.13%
47.0	49.029	4.086	2491.747	0.15%	96.28%
48.0	45.245	3.811	2495.558	0.14%	96.43%
49.0	42.166	3.590	2499.148	0.13%	96.57%
50.0	39.958	3.424	2502.572	0.12%	96.70%
51.0	38.166	3.305	2505.877	0.12%	96.83%
52.0	36.817	3.218	2509.095	0.11%	96.95%
53.0	35.738	3.156	2512.251	0.11%	97.08%
54.0	35.025	3.119	2515.37	0.11%	97.20%
55.0	34.444	3.101	2518.471	0.11%	97.32%
56.0	33.959	3.091	2521.562	0.11%	97.44%
57.0	33.551	3.087	2524.648	0.11%	97.55%
58.0	33.018	3.078	2527.727	0.11%	97.67%
59.0	32.347	3.056	2530.783	0.11%	97.79%
60.0	31.517	3.017	2533.8	0.11%	97.91%
61.0	30.334	2.952	2536.751	0.11%	98.02%
62.0	29.019	2.860	2539.611	0.10%	98.13%
63.0	27.559	2.752	2542.363	0.10%	98.24%
64.0	25.982	2.627	2544.99	0.09%	98.34%
65.0	24.452	2.496	2547.486	0.09%	98.44%
66.0	22.923	2.364	2549.85	0.08%	98.53%
67.0	21.609	2.239	2552.089	0.08%	98.61%
68.0	20.363	2.126	2554.215	0.08%	98.70%
69.0	19.401	2.029	2556.244	0.07%	98.78%
70.0	18.530	1.948	2558.192	0.07%	98.85%
71.0	17.865	1.881	2560.073	0.07%	98.92%
72.0	17.291	1.828	2561.901	0.07%	98.99%
73.0	16.772	1.781	2563.682	0.06%	99.06%
74.0	16.281	1.738	2565.42	0.06%	99.13%
75.0	15.790	1.694	2567.115	0.06%	99.20%

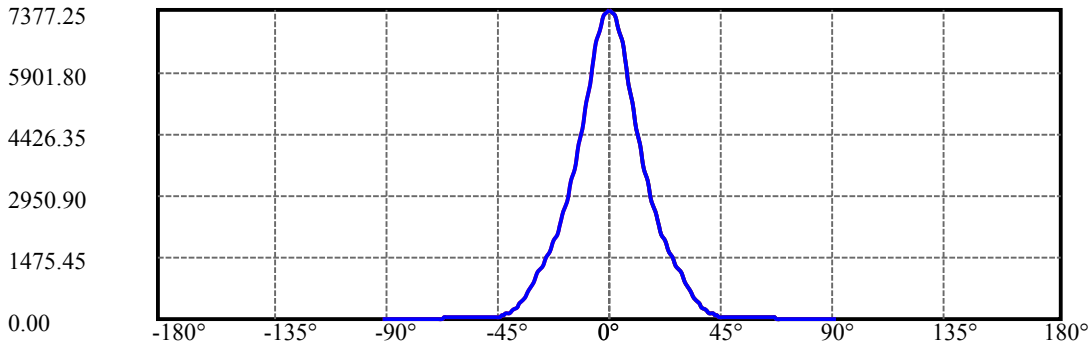
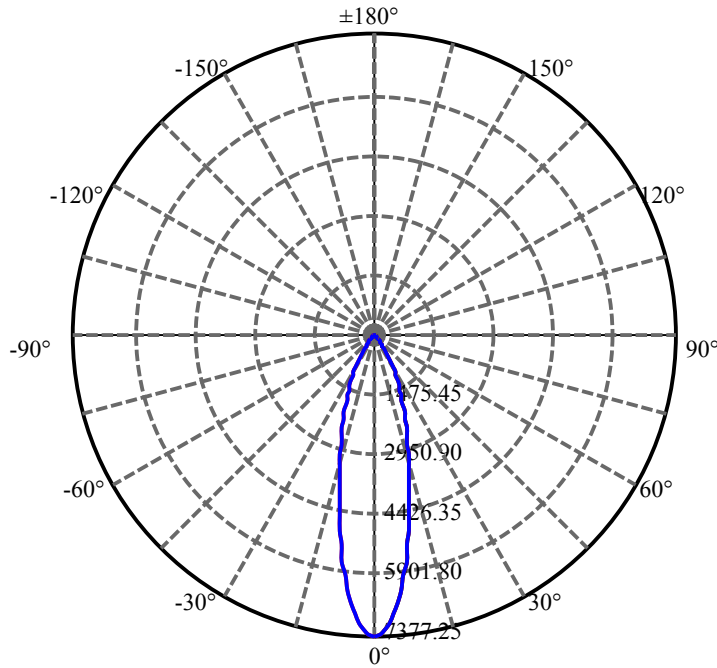
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	15.347	1.653	2568.767	0.06%	99.26%
77.0	14.876	1.611	2570.379	0.06%	99.32%
78.0	14.475	1.571	2571.95	0.06%	99.38%
79.0	14.018	1.531	2573.481	0.05%	99.44%
80.0	13.624	1.490	2574.971	0.05%	99.50%
81.0	13.236	1.453	2576.424	0.05%	99.56%
82.0	12.807	1.412	2577.836	0.05%	99.61%
83.0	12.461	1.374	2579.21	0.05%	99.66%
84.0	12.129	1.340	2580.549	0.05%	99.71%
85.0	11.811	1.307	2581.856	0.05%	99.76%
86.0	11.514	1.275	2583.131	0.05%	99.81%
87.0	11.237	1.245	2584.376	0.04%	99.86%
88.0	10.925	1.214	2585.59	0.04%	99.91%
89.0	10.690	1.185	2586.775	0.04%	99.95%
90.0	10.559	1.165	2587.94	0.04%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2166.28	77.09%	83.71%
0-40	2449.47	87.17%	94.65%
0-60	2533.80	90.17%	97.91%
0-90	2586.77	92.06%	99.95%
0-120	2586.77	92.06%	99.95%
0-180	2587.94	92.10%	100.00%
60-90	52.98	1.89%	2.05%
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%
0-28.25	2070.35	73.68%	80.00%

ZONAL LUMEN SUMMARY

0-10	570.84
10-20	915.93
20-30	679.51
30-40	283.19
40-50	53.11
50-60	31.23
60-70	24.39
70-80	16.78
80-90	11.80
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



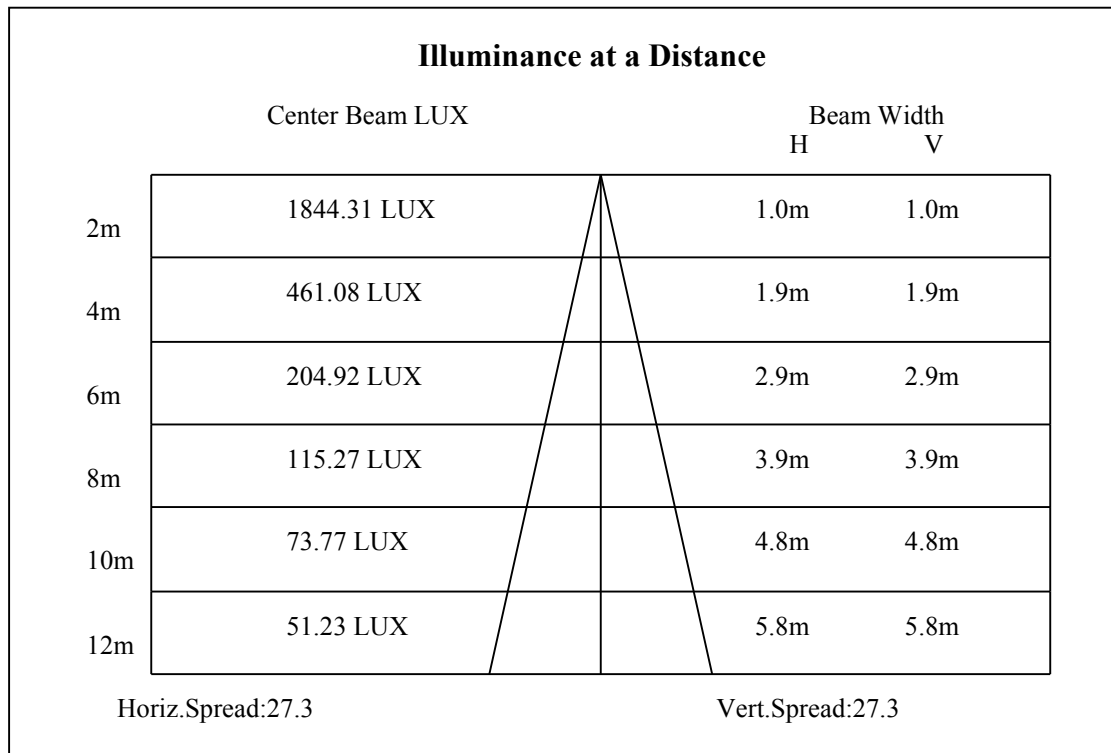
C0(Max): —————

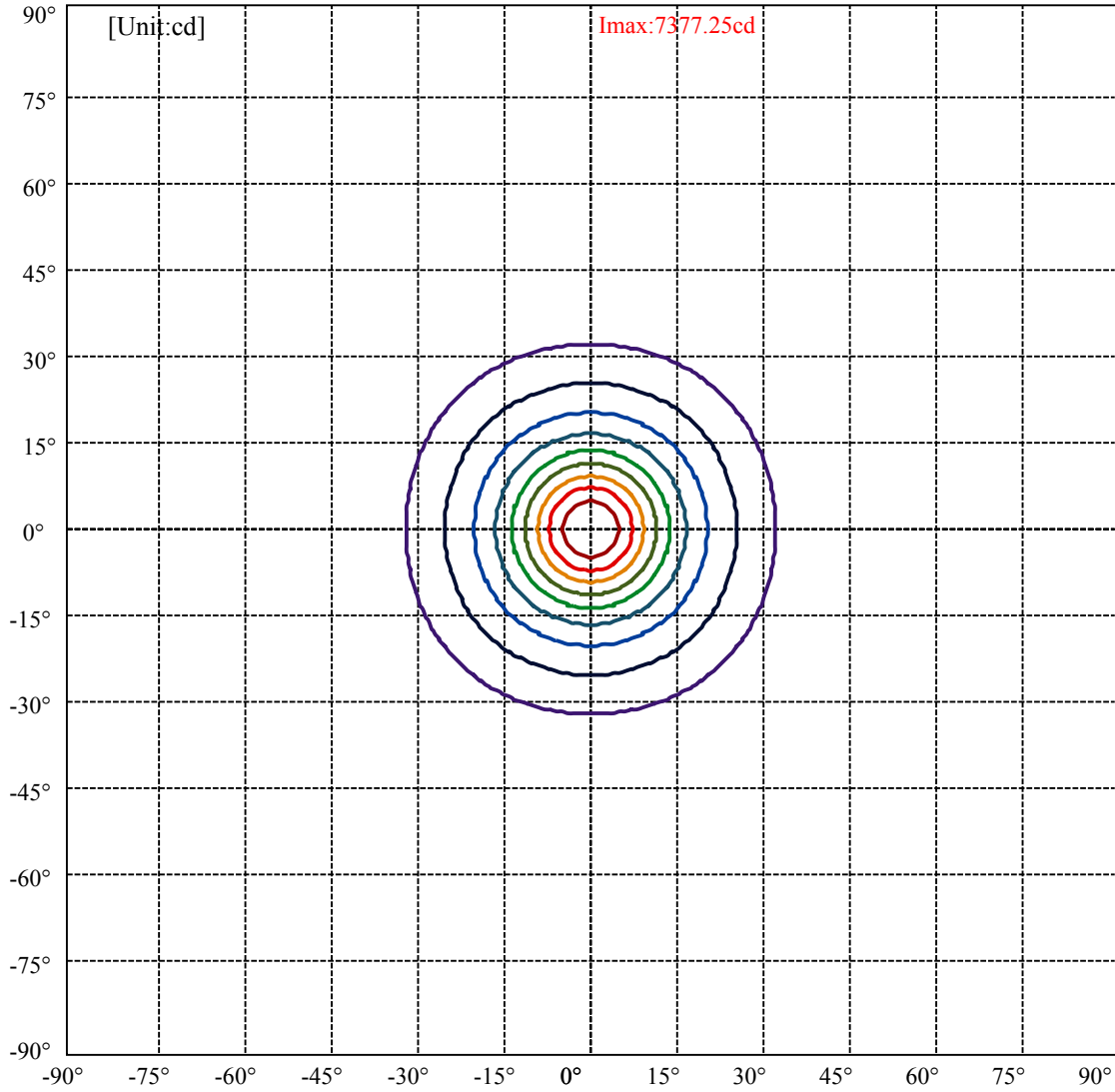
C0/C180: —————

C90/C270: —————

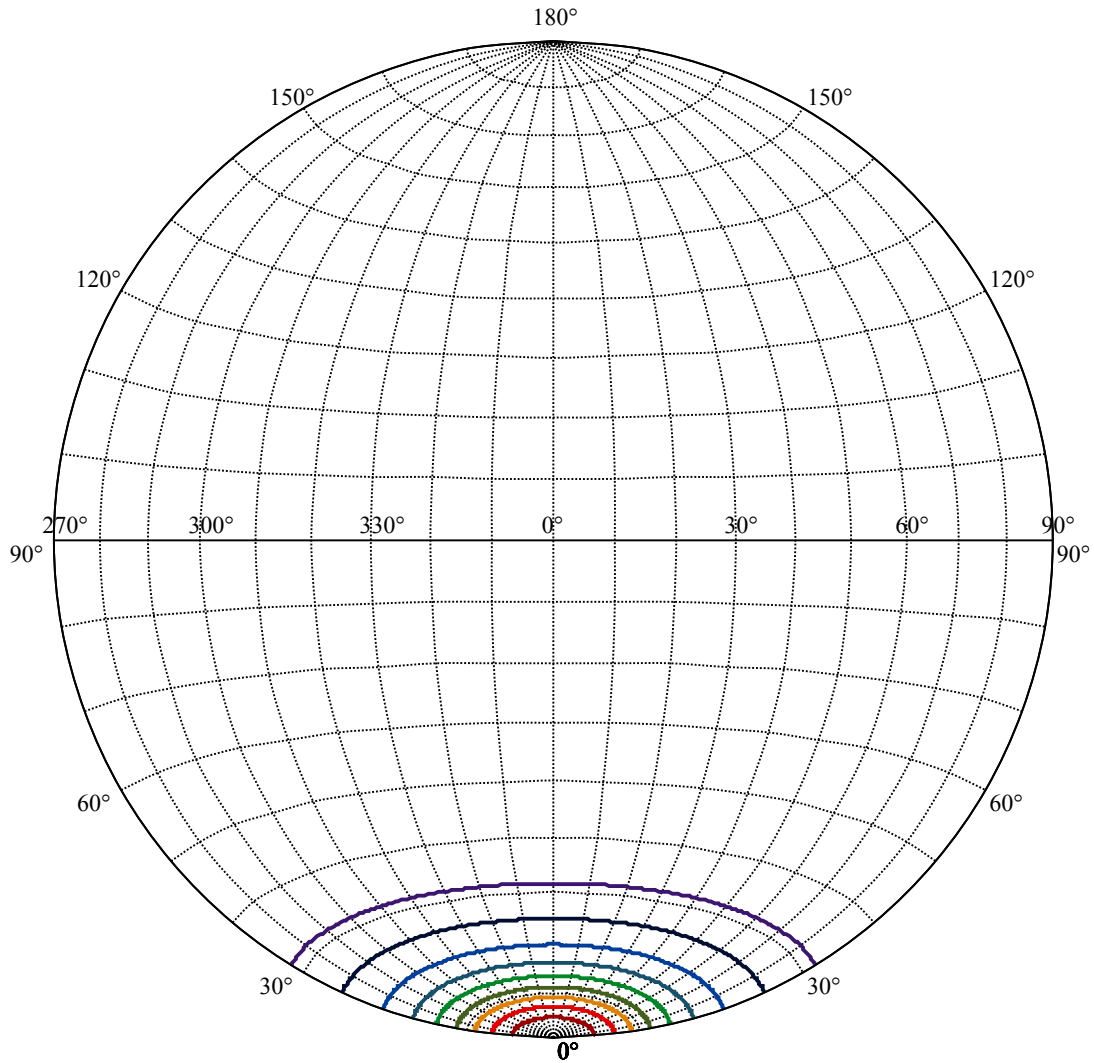
Field angle(10%Imax):C0/180Left:31.7 Right:31.7
:C90/270Left:31.7 Right:31.7

Beam Angle(50%Imax):C0/180Left:13.6 Right:13.6
:C90/270Left:13.6 Right:13.6





(10%Imax) 737.725	—
(20%Imax) 1475.45	—
(30%Imax) 2213.18	—
(40%Imax) 2950.9	—
(50%Imax) 3688.63	—
(60%Imax) 4426.35	—
(70%Imax) 5164.08	—
(80%Imax) 5901.8	—
(90%Imax) 6639.53	—



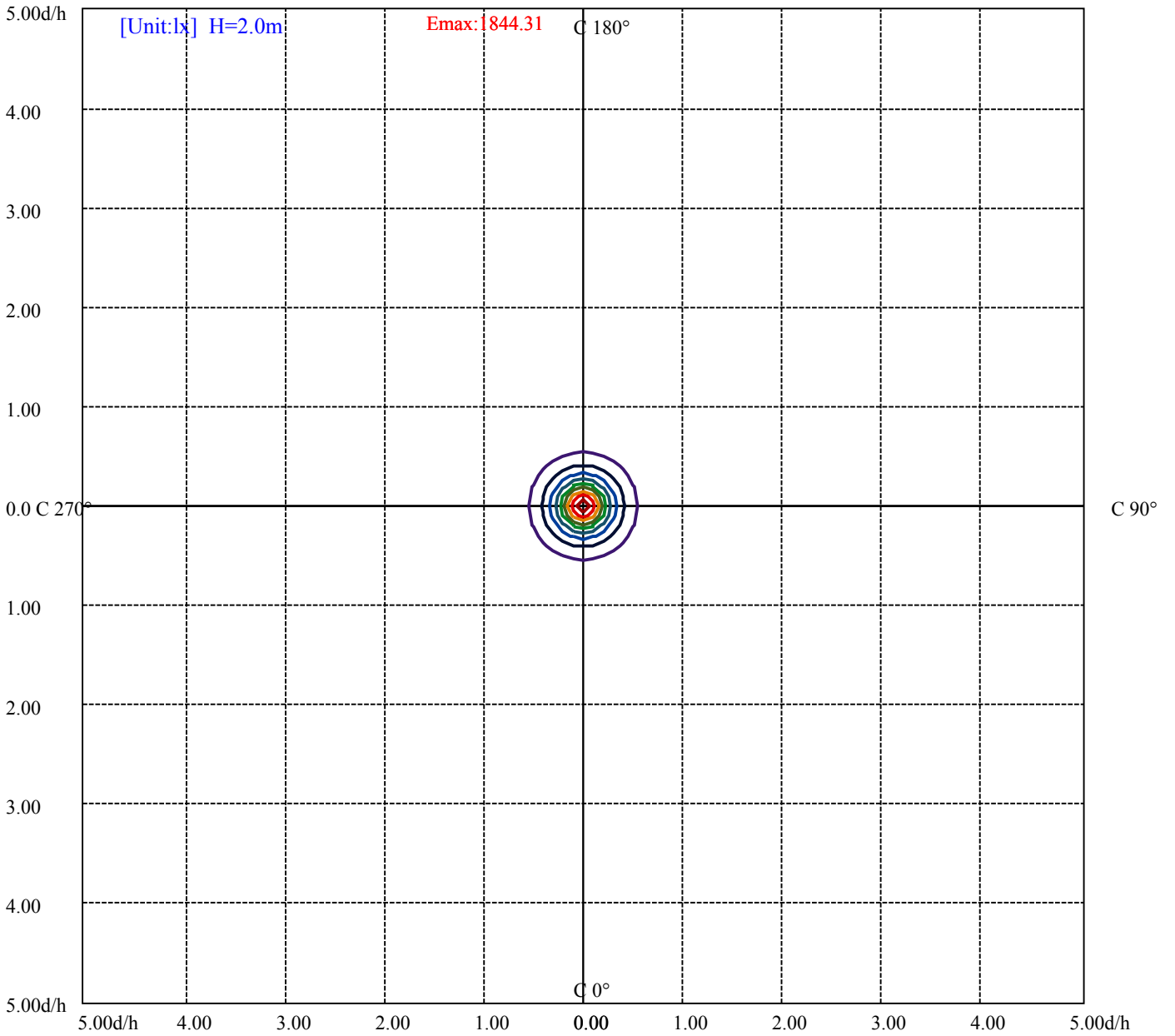
House

[Unit:cd]

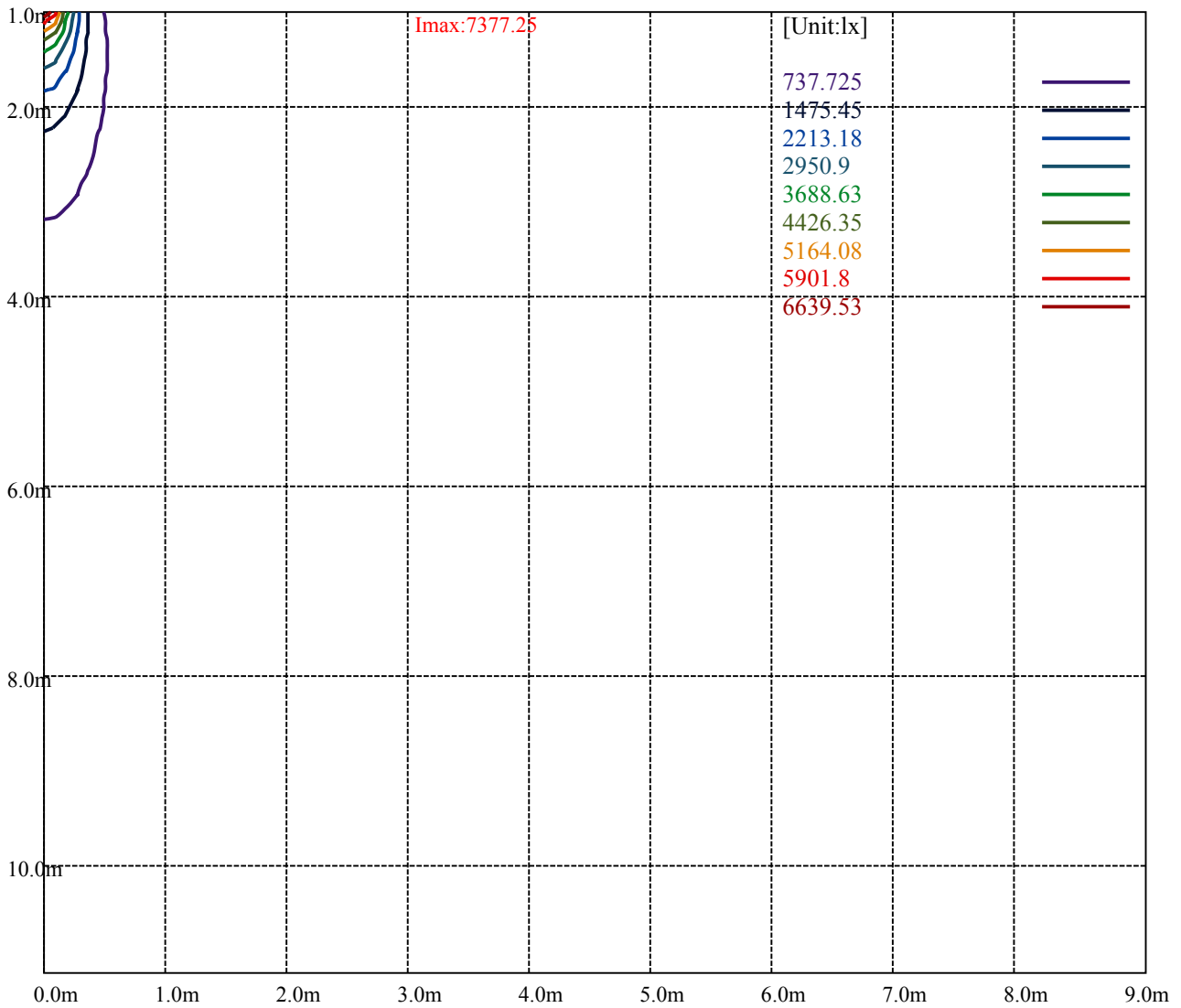
Road

Imax:7377.25

(10%Imax) 737.725	—
(20%Imax) 1475.45	—
(30%Imax) 2213.18	—
(40%Imax) 2950.9	—
(50%Imax) 3688.63	—
(60%Imax) 4426.35	—
(70%Imax) 5164.08	—
(80%Imax) 5901.8	—
(90%Imax) 6639.53	—



(10%Emax) 184.431	—
(20%Emax) 368.8625	—
(30%Emax) 553.2925	—
(40%Emax) 737.725	—
(50%Emax) 922.155	—
(60%Emax) 1106.588	—
(70%Emax) 1291.017	—
(80%Emax) 1475.45	—
(90%Emax) 1659.88	—



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

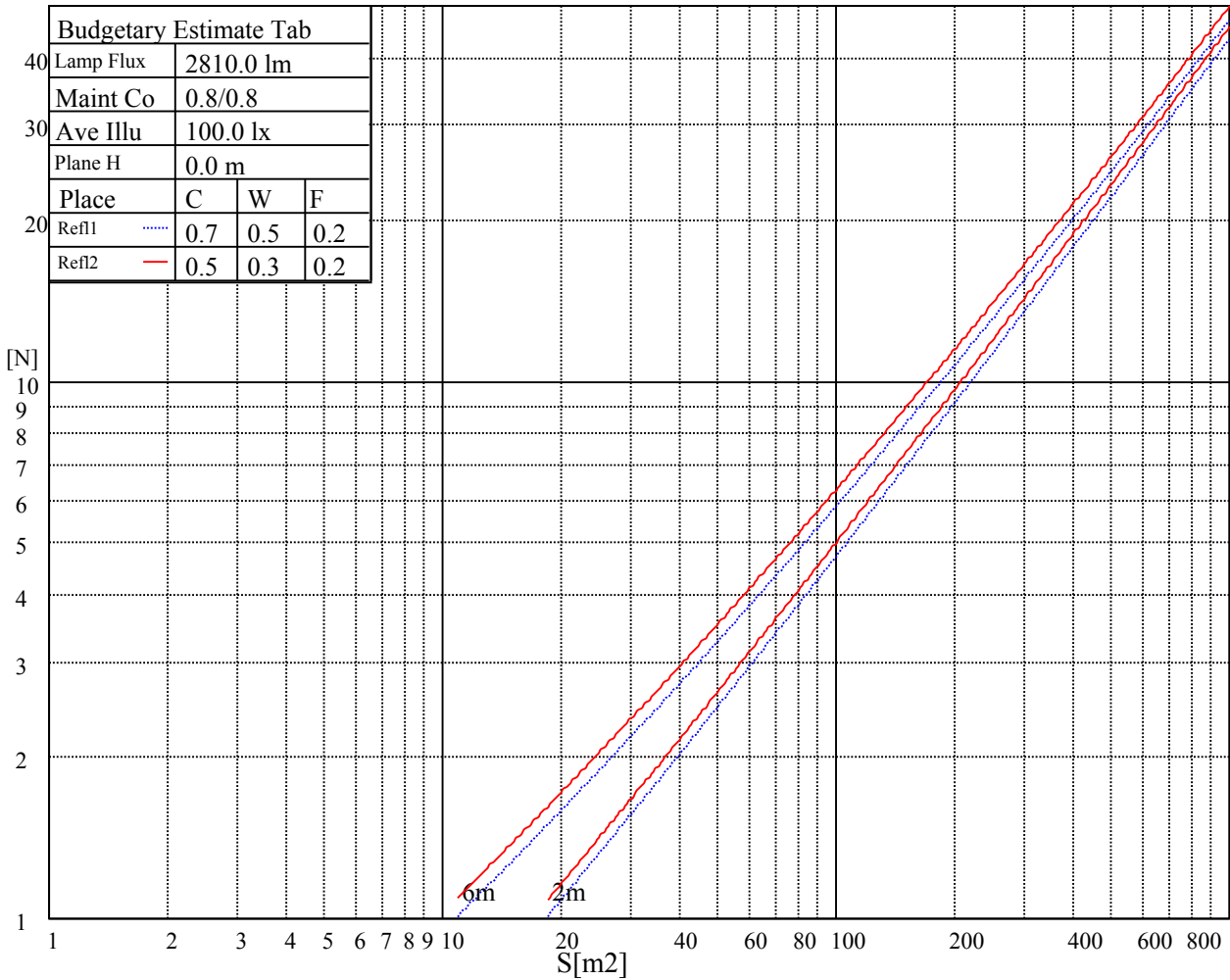
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

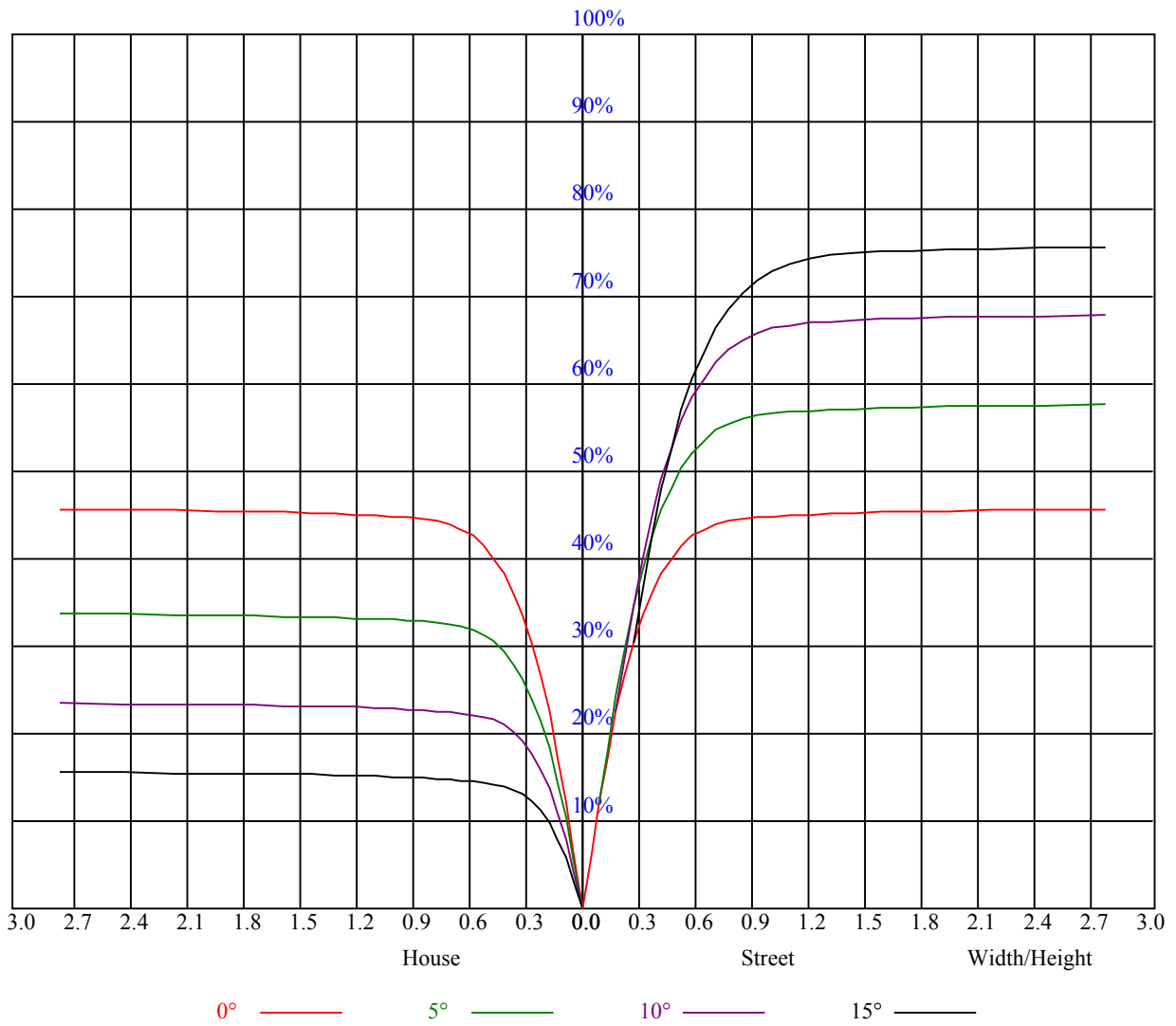


Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	3H	非数字	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	1.10	1.10	1.10	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.02	1.00	0.98	1.01	0.99	0.97	0.97	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
2	0.96	0.93	0.90	0.95	0.92	0.89	0.92	0.89	0.87	0.89	0.87	0.85	0.87	0.85	0.84	0.82
3	0.91	0.87	0.84	0.90	0.86	0.83	0.87	0.84	0.82	0.85	0.82	0.80	0.83	0.81	0.79	0.78
4	0.86	0.82	0.78	0.85	0.81	0.78	0.83	0.80	0.77	0.81	0.78	0.76	0.80	0.77	0.75	0.74
5	0.82	0.77	0.74	0.81	0.77	0.73	0.79	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.71	0.70
6	0.78	0.73	0.70	0.77	0.73	0.69	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.68	0.67
7	0.74	0.70	0.66	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.68	0.65	0.64
8	0.71	0.66	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.61
9	0.68	0.64	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.66	0.62	0.60	0.59
10	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.64	0.60	0.58	0.63	0.60	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	7302.80	7131.76	6954.07	6743.18	6464.75	6078.93	5760.65	5434.06	5068.73
45.0	7395.79	7348.74	7208.70	7015.52	6814.58	6545.01	6251.64	5871.91	5546.43
90.0	7381.96	7254.09	7040.98	6855.54	6592.06	6233.92	5924.50	5595.70	5243.09
135.0	7428.45	7431.77	7329.37	7138.95	6949.64	6701.11	6409.39	6019.15	5687.03
180.0	7302.80	7381.40	7383.62	7357.05	7163.86	6957.39	6688.93	6403.86	6096.65
225.0	7395.79	7385.83	7307.78	7121.24	6906.47	6684.50	6320.83	6006.42	5585.18
270.0	7381.96	7417.94	7405.20	7306.68	7101.31	6893.18	6645.20	6352.38	5945.53
315.0	7428.45	7378.08	7259.07	7065.89	6826.21	6554.42	6253.85	5830.95	5480.01
360.0	7302.80	7131.76	6954.07	6743.18	6464.75	6078.93	5760.65	5434.06	5068.73
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4655.79	4357.99	4055.20	3693.19	3426.94	3114.75	2886.69	2673.03	2439.43
45.0	5116.89	4783.10	4475.89	4102.26	3822.17	3541.52	3270.29	2974.70	2759.93
90.0	4815.21	4508.55	4215.73	3907.96	3566.99	3310.15	3066.59	2782.07	2586.67
135.0	5342.18	4985.15	4603.76	4287.14	3912.95	3626.77	3359.96	3054.41	2828.02
180.0	5685.37	5353.25	5004.52	4641.95	4254.48	3964.98	3698.73	3431.92	3123.05
225.0	5250.29	4887.72	4464.27	4170.89	3889.70	3561.45	3299.63	3057.18	2837.43
270.0	5598.46	5255.82	4901.56	4480.32	4193.04	3899.11	3553.15	3295.20	3042.79
315.0	5127.40	4686.79	4393.42	4101.15	3810.54	3484.51	3221.58	2993.52	2779.30
360.0	4655.79	4357.99	4055.20	3693.19	3426.94	3114.75	2886.69	2673.03	2439.43
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2270.05	2112.85	1963.39	1794.01	1666.70	1548.79	1435.32	1226.08	1091.91
45.0	2562.87	2383.53	2173.74	2018.19	1878.15	1712.09	1592.52	1444.73	1327.38
90.0	2358.62	2192.00	2037.01	1891.43	1723.71	1600.83	1483.48	1373.32	1095.12
135.0	2628.19	2443.31	2227.98	2070.22	1925.75	1795.12	1639.57	1522.78	1409.86
180.0	2913.26	2689.63	2446.63	2268.39	2072.44	1920.77	1789.58	1670.02	1530.53
225.0	2587.23	2402.35	2234.62	2076.31	1900.29	1771.32	1656.73	1519.46	1408.20
270.0	2779.86	2582.80	2386.85	2180.93	2032.03	1894.20	1764.12	1619.09	1508.39
315.0	2531.87	2352.53	2146.61	1996.05	1858.77	1701.02	1585.33	1475.73	1371.11
360.0	2270.05	2112.85	1963.39	1794.01	1666.70	1548.79	1435.32	1226.08	1091.91
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1091.91	989.17	863.13	762.22	639.94	548.44	465.75	373.30	306.60
45.0	1217.78	1108.18	975.88	873.48	771.63	670.33	557.41	476.04	401.31
90.0	1095.12	1017.23	914.33	812.76	687.93	591.07	485.17	409.40	339.15
135.0	1270.37	1162.98	1057.81	925.51	819.79	717.94	597.27	512.57	433.42
180.0	1426.46	1319.63	1212.24	1078.84	973.67	870.71	737.86	636.01	545.23
225.0	1233.83	1096.28	1069.99	963.37	830.19	726.02	626.33	536.60	433.64
270.0	1402.66	1296.38	1166.30	1062.79	961.49	833.07	730.67	609.44	521.43
315.0	1091.63	1091.63	1041.59	934.92	805.06	705.32	609.66	523.04	425.12
360.0	1091.91	989.17	863.13	762.22	639.94	548.44	465.75	373.30	306.60
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	249.04	201.15	153.00	124.10	102.35	86.46	72.02	63.60	56.96
45.0	315.52	285.07	285.07	163.57	126.70	105.39	86.02	74.62	66.04
90.0	264.20	214.66	173.53	133.79	109.99	92.22	78.99	66.76	59.45
135.0	359.80	279.54	279.54	213.78	142.76	111.43	93.33	79.99	67.97
180.0	438.95	365.33	300.02	284.52	218.76	145.25	112.31	93.16	79.27
225.0	361.13	296.36	241.06	183.88	148.07	119.73	94.27	79.93	69.52
270.0	441.17	352.05	289.50	289.50	222.13	146.85	112.53	93.10	78.60
315.0	354.15	290.99	223.02	179.46	135.73	109.93	91.11	77.27	65.21
360.0	249.04	201.15	153.00	124.10	102.35	86.46	72.02	63.60	56.96

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	50.76	46.83	43.78	40.74	38.91	37.47	36.26	35.54	34.98
45.0	57.79	52.64	48.49	45.11	41.79	39.74	38.19	36.92	35.76
90.0	53.80	49.26	44.89	42.23	39.52	37.92	36.64	35.48	34.71
135.0	60.67	55.08	49.38	45.78	42.23	40.08	38.30	36.87	35.59
180.0	69.08	59.89	54.36	49.82	46.16	42.62	40.41	38.58	36.81
225.0	59.89	54.30	49.65	45.17	42.35	40.24	38.42	36.70	35.70
270.0	68.25	58.84	53.25	48.82	44.56	41.90	39.30	37.75	36.64
315.0	58.23	52.81	48.43	44.28	41.79	39.69	37.81	36.70	35.70
360.0	50.76	46.83	43.78	40.74	38.91	37.47	36.26	35.54	34.98
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	34.60	34.26	33.88	33.43	32.94	31.72	30.50	28.84	27.34
45.0	35.15	34.54	34.04	33.65	32.99	32.38	31.50	30.22	28.56
90.0	34.10	33.65	33.21	32.60	32.11	31.11	29.95	28.84	27.51
135.0	34.87	34.15	33.71	33.27	32.60	32.11	31.44	30.06	28.89
180.0	35.70	34.76	34.04	33.60	33.16	32.49	32.05	31.39	30.39
225.0	34.93	34.32	33.82	33.43	32.88	32.38	31.61	30.28	29.12
270.0	35.65	35.04	34.54	34.32	33.88	33.43	32.99	32.22	30.72
315.0	35.20	34.82	34.43	34.10	33.60	33.16	32.11	30.83	29.61
360.0	34.60	34.26	33.88	33.43	32.94	31.72	30.50	28.84	27.34
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	25.96	23.97	22.47	21.31	19.82	18.99	18.27	17.71	17.05
45.0	27.12	25.68	24.13	22.36	21.20	20.15	19.21	18.32	17.71
90.0	25.68	24.36	22.92	21.42	20.31	19.10	18.43	17.82	17.27
135.0	27.40	25.96	24.52	22.75	21.64	20.54	19.43	18.49	17.88
180.0	28.95	27.68	26.29	24.91	23.19	21.86	20.81	19.43	18.71
225.0	27.68	25.96	24.47	22.92	21.70	20.31	19.32	18.60	17.93
270.0	29.61	28.06	26.24	24.69	23.14	21.59	20.37	19.37	18.49
315.0	28.06	26.18	24.58	23.03	21.86	20.37	19.37	18.49	17.88
360.0	25.96	23.97	22.47	21.31	19.82	18.99	18.27	17.71	17.05
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	16.55	16.16	15.67	15.17	14.72	14.34	13.89	13.51	13.06
45.0	17.21	16.61	16.11	15.55	15.17	14.83	14.45	13.89	13.51
90.0	16.72	16.27	15.83	15.39	14.89	14.45	14.12	13.62	13.23
135.0	17.38	16.83	16.33	15.89	15.50	14.95	14.50	14.17	13.67
180.0	17.93	17.44	16.94	16.50	15.94	15.44	15.06	14.61	14.17
225.0	17.27	16.77	16.22	15.78	15.39	14.83	14.45	14.00	13.67
270.0	17.93	17.38	16.88	16.27	15.83	15.33	14.95	14.39	14.06
315.0	17.33	16.72	16.27	15.78	15.33	14.83	14.39	13.95	13.62
360.0	16.55	16.16	15.67	15.17	14.72	14.34	13.89	13.51	13.06
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	12.73	12.40	12.07	11.73	11.46	11.18	10.90	10.63	10.57
45.0	13.12	12.68	12.34	11.96	11.68	11.46	11.13	10.85	10.52
90.0	12.90	12.51	12.18	11.85	11.51	11.24	11.02	10.63	10.52
135.0	13.28	12.84	12.51	12.23	11.90	11.57	11.29	10.96	10.68
180.0	13.78	13.28	12.90	12.51	12.18	11.79	11.57	11.24	10.96
225.0	13.23	12.79	12.51	12.12	11.90	11.57	11.29	11.02	10.74
270.0	13.67	13.23	12.79	12.51	12.07	11.79	11.46	11.18	10.90
315.0	13.17	12.73	12.40	12.12	11.79	11.51	11.24	10.90	10.63
360.0	12.73	12.40	12.07	11.73	11.46	11.18	10.90	10.63	10.57

Intensity data(cd)

C/ γ (°)	90.0
0.0	10.57
45.0	10.52
90.0	10.52
135.0	10.52
180.0	10.68
225.0	10.52
270.0	10.57
315.0	10.57
360.0	10.57