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## NATA

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Client:

LumCAT: 2-2639-L

Luminaire: 92.70.412.00

Report No: 20231108-B015

Ballast type: AC

Test No: 20231008-C015

Voltage(V): 36.010

LampCAT: CITIZEN CLU038 LES14.5

Current(A): 0.540

Lamp flux(lm): 2889.2

Power (W): 19.445

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

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## Photometric Results

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Lumens(lm): 2748.65, Efficiency(%): 95.14% , Luminous Efficacy(lm/W): 141.36

Central intensity(cd): 11511.740, Maximum intensity(cd): 11511.740

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

Beam Angle(50%Imax): [C0/180]Total=20.6

[C90/270]Total=20.6

Field angle(10%Imax): [C0/180]Total=54.0

[C90/270]Total=54.0

Beam angle of C0 plane : 20.66

Aveage BeamAngle(IEC 61341):20.66

Maximum s/h(1/2): C0\_180=0.35 C90\_270=0.35

Maximum s/h(1/4): C0\_180=0.39 C90\_270=0.39

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 95.14%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 97.928%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	11511.736	0.000	0	0.00%	0.00%
1.0	11412.508	10.969	10.969	0.38%	0.40%
2.0	11191.917	32.444	43.413	1.12%	1.58%
3.0	10893.353	52.821	96.234	1.83%	3.50%
4.0	10337.465	71.066	167.3	2.46%	6.09%
5.0	9659.867	86.027	253.327	2.98%	9.22%
6.0	8968.432	97.897	351.224	3.39%	12.78%
7.0	8165.043	106.347	457.571	3.68%	16.65%
8.0	7398.811	111.388	568.959	3.86%	20.70%
9.0	6648.493	113.846	682.804	3.94%	24.84%
10.0	5968.820	114.182	796.987	3.95%	29.00%
11.0	5324.089	112.839	909.826	3.91%	33.10%
12.0	4777.334	110.423	1020.249	3.82%	37.12%
13.0	4209.060	106.646	1126.895	3.69%	41.00%
14.0	3782.491	102.291	1229.186	3.54%	44.72%
15.0	3388.512	98.447	1327.633	3.41%	48.30%
16.0	3014.529	93.822	1421.455	3.25%	51.71%
17.0	2736.032	89.552	1511.007	3.10%	54.97%
18.0	2538.897	86.972	1597.979	3.01%	58.14%
19.0	2272.424	83.707	1681.686	2.90%	61.18%
20.0	2013.847	78.451	1760.137	2.72%	64.04%
21.0	1850.831	74.210	1834.346	2.57%	66.74%
22.0	1701.722	71.390	1905.736	2.47%	69.33%
23.0	1580.221	68.864	1974.6	2.38%	71.84%
24.0	1473.319	66.761	2041.362	2.31%	74.27%
25.0	1359.360	64.409	2105.771	2.23%	76.61%
26.0	1237.035	61.288	2167.059	2.12%	78.84%
27.0	1153.410	58.483	2225.542	2.02%	80.97%
28.0	1066.754	56.210	2281.752	1.95%	83.01%
29.0	960.406	53.036	2334.788	1.84%	84.94%
30.0	847.429	48.811	2383.599	1.69%	86.72%
31.0	741.392	44.215	2427.814	1.53%	88.33%
32.0	632.408	39.358	2467.171	1.36%	89.76%
33.0	530.232	34.252	2501.423	1.19%	91.01%
34.0	425.337	28.918	2530.341	1.00%	92.06%
35.0	337.532	23.692	2554.033	0.82%	92.92%
36.0	263.400	19.134	2573.167	0.66%	93.62%
37.0	223.601	15.883	2589.05	0.55%	94.19%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	162.843	12.899	2601.949	0.45%	94.66%
39.0	102.965	9.073	2611.022	0.31%	94.99%
40.0	82.698	6.475	2617.497	0.22%	95.23%
41.0	72.029	5.510	2623.007	0.19%	95.43%
42.0	64.639	4.965	2627.973	0.17%	95.61%
43.0	58.799	4.573	2632.545	0.16%	95.78%
44.0	53.838	4.251	2636.796	0.15%	95.93%
45.0	49.742	3.981	2640.777	0.14%	96.08%
46.0	46.462	3.762	2644.539	0.13%	96.21%
47.0	43.812	3.590	2648.13	0.12%	96.34%
48.0	41.889	3.464	2651.594	0.12%	96.47%
49.0	40.304	3.375	2654.97	0.12%	96.59%
50.0	38.844	3.300	2658.27	0.11%	96.71%
51.0	37.730	3.240	2661.509	0.11%	96.83%
52.0	36.942	3.204	2664.714	0.11%	96.95%
53.0	36.437	3.192	2667.906	0.11%	97.06%
54.0	36.222	3.202	2671.108	0.11%	97.18%
55.0	36.353	3.240	2674.348	0.11%	97.30%
56.0	36.789	3.305	2677.653	0.11%	97.42%
57.0	37.440	3.394	2681.047	0.12%	97.54%
58.0	38.042	3.491	2684.537	0.12%	97.67%
59.0	38.235	3.566	2688.103	0.12%	97.80%
60.0	37.751	3.590	2691.693	0.12%	97.93%
61.0	36.208	3.529	2695.223	0.12%	98.06%
62.0	33.697	3.368	2698.591	0.12%	98.18%
63.0	30.541	3.124	2701.715	0.11%	98.29%
64.0	27.186	2.833	2704.548	0.10%	98.40%
65.0	24.466	2.556	2707.104	0.09%	98.49%
66.0	22.418	2.339	2709.443	0.08%	98.57%
67.0	21.014	2.184	2711.627	0.08%	98.65%
68.0	20.073	2.081	2713.709	0.07%	98.73%
69.0	19.388	2.013	2715.722	0.07%	98.80%
70.0	18.772	1.960	2717.681	0.07%	98.87%
71.0	18.191	1.910	2719.592	0.07%	98.94%
72.0	17.651	1.864	2721.455	0.06%	99.01%
73.0	17.167	1.821	2723.276	0.06%	99.08%
74.0	16.710	1.781	2725.057	0.06%	99.14%
75.0	16.274	1.743	2726.8	0.06%	99.20%

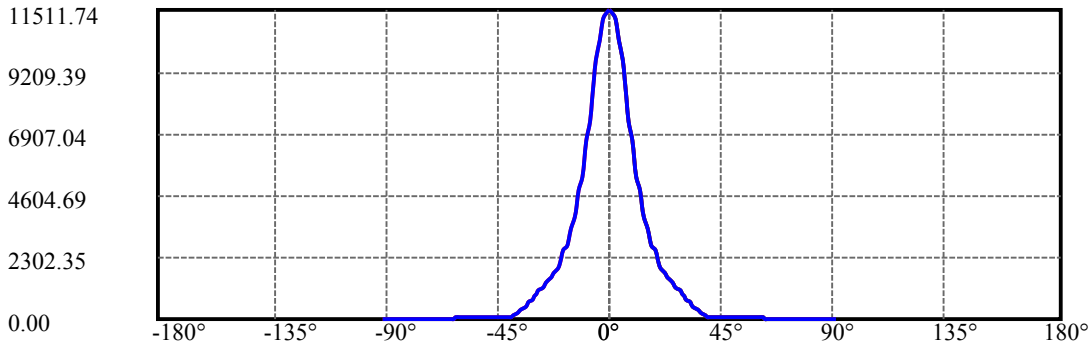
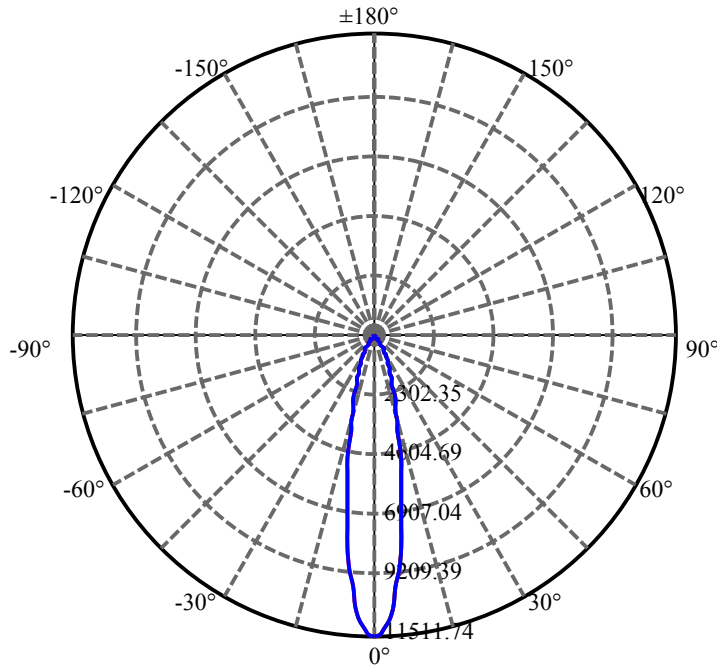
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	15.859	1.706	2728.506	0.06%	99.27%
77.0	15.485	1.671	2730.177	0.06%	99.33%
78.0	15.105	1.637	2731.814	0.06%	99.39%
79.0	14.717	1.602	2733.417	0.06%	99.45%
80.0	14.330	1.566	2734.983	0.05%	99.50%
81.0	13.949	1.529	2736.512	0.05%	99.56%
82.0	13.527	1.490	2738.002	0.05%	99.61%
83.0	13.119	1.449	2739.45	0.05%	99.67%
84.0	12.738	1.409	2740.859	0.05%	99.72%
85.0	12.413	1.373	2742.232	0.05%	99.77%
86.0	12.102	1.340	2743.572	0.05%	99.82%
87.0	11.839	1.310	2744.882	0.05%	99.86%
88.0	11.555	1.281	2746.163	0.04%	99.91%
89.0	11.320	1.254	2747.417	0.04%	99.95%
90.0	11.251	1.237	2748.655	0.04%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2383.60	82.50%	86.72%
0-40	2617.50	90.60%	95.23%
0-60	2691.69	93.16%	97.93%
0-90	2747.42	95.09%	99.95%
0-120	2747.42	95.09%	99.95%
0-180	2748.65	95.14%	100.00%
60-90	55.72	1.93%	2.03%
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%
0-26.54	2198.92	76.11%	80.00%

ZONAL LUMEN SUMMARY

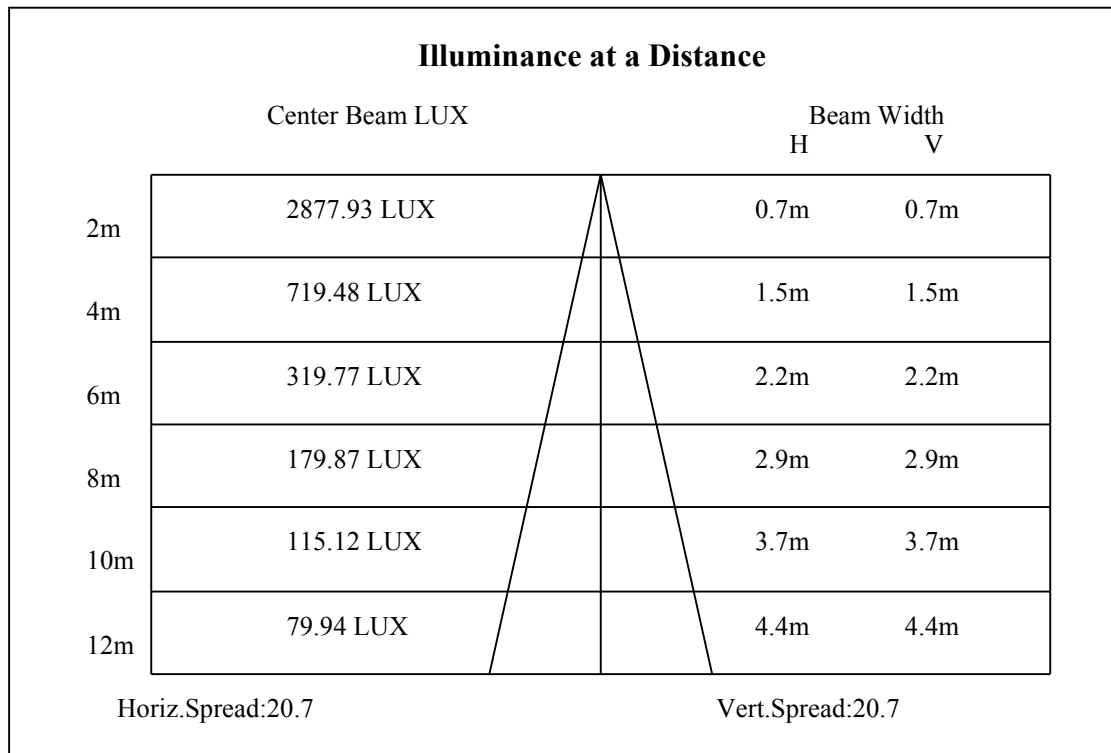
0-10	796.99
10-20	963.15
20-30	623.46
30-40	233.90
40-50	40.77
50-60	33.42
60-70	25.99
70-80	17.30
80-90	12.43
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

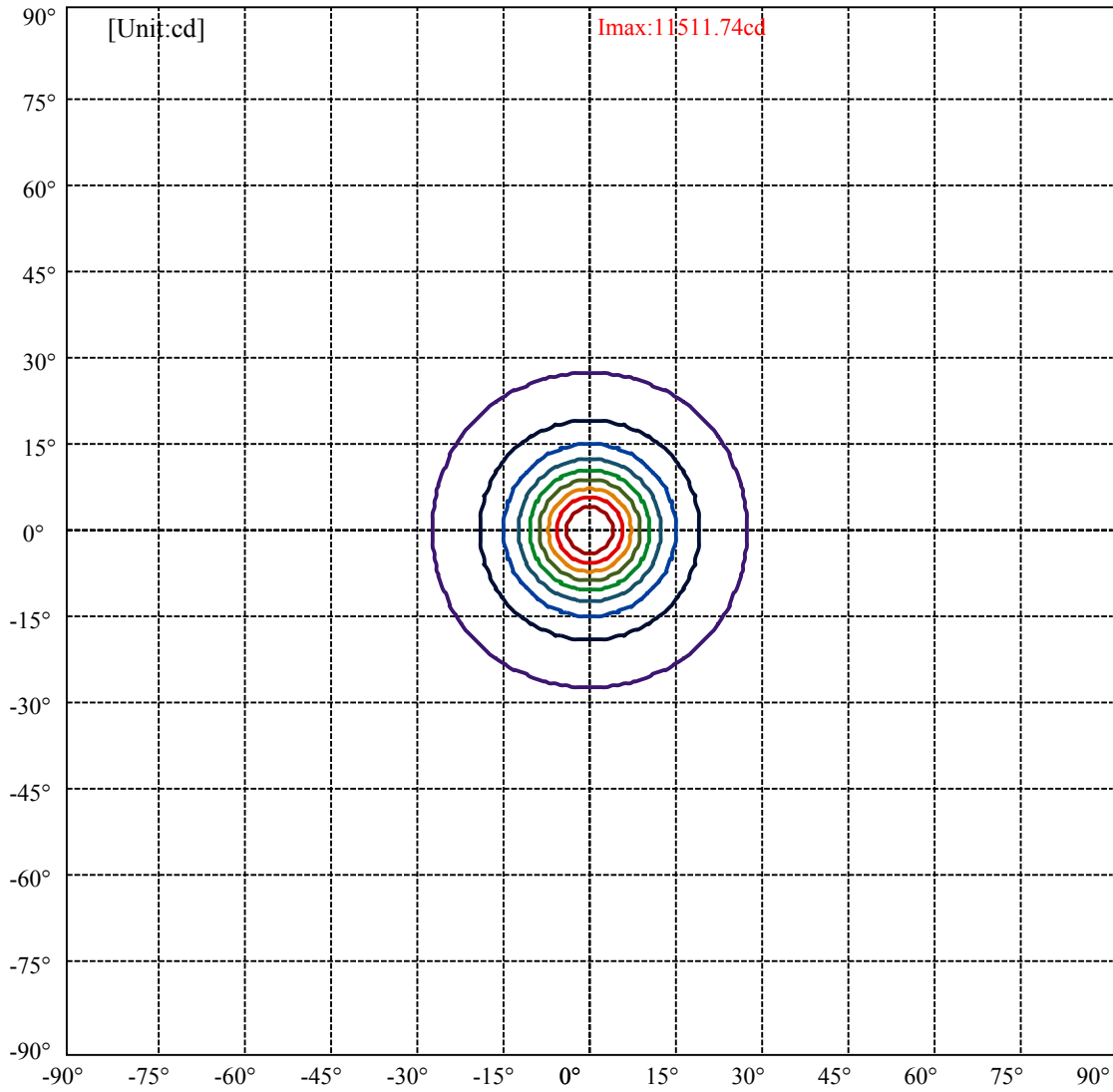


C0(Max): —————  
C0/C180: —————  
C90/C270: —————

Field angle(10%Imax):C0/180Left:27.0 Right:27.0  
:C90/270Left:27.0 Right:27.0

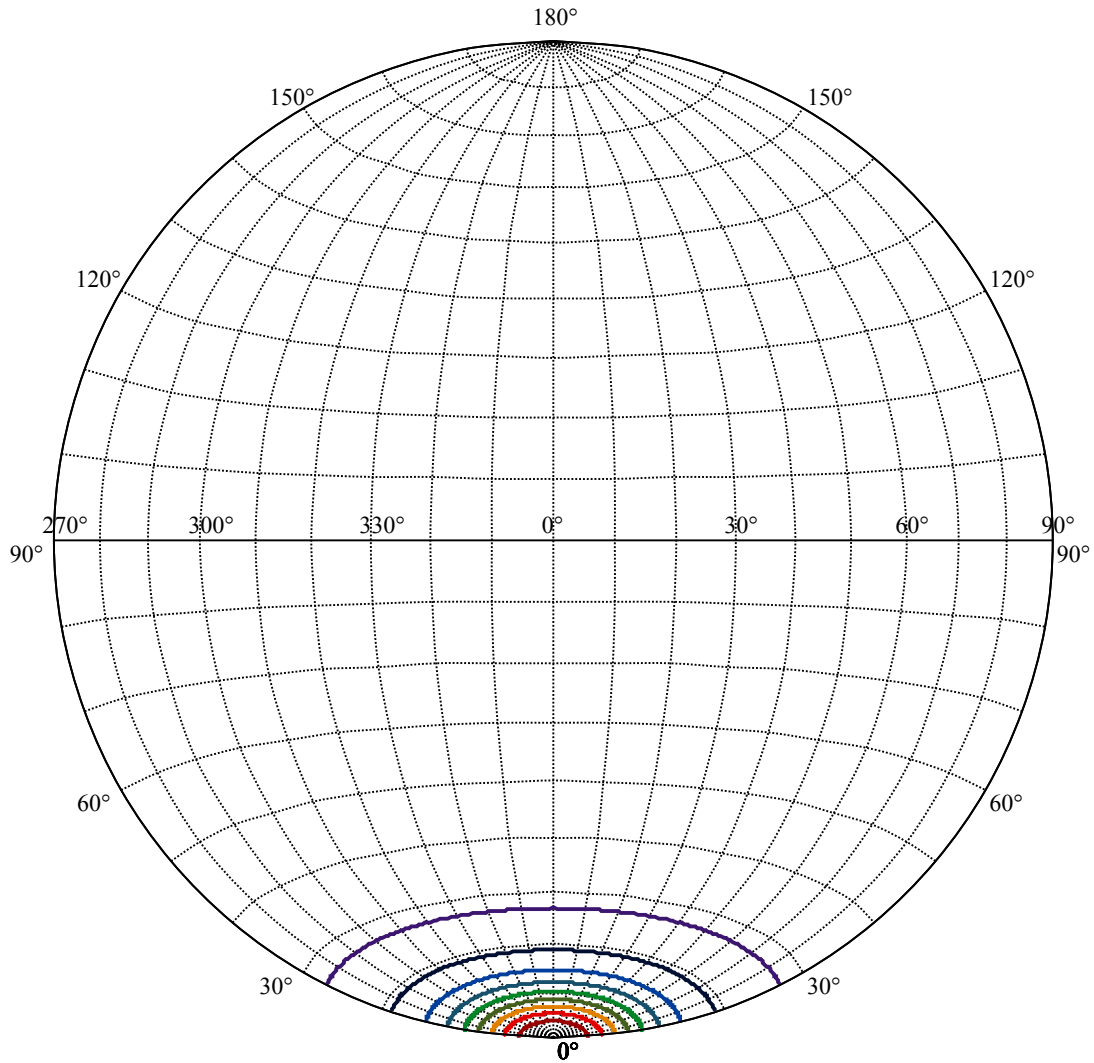
Beam Angle(50%Imax):C0/180Left:10.3 Right:10.3  
:C90/270Left:10.3 Right:10.3





(10%Imax)	1151.17	—
(20%Imax)	2302.35	—
(30%Imax)	3453.52	—
(40%Imax)	4604.69	—
(50%Imax)	5755.87	—
(60%Imax)	6907.04	—
(70%Imax)	8058.21	—
(80%Imax)	9209.39	—
(90%Imax)	10360.6	—





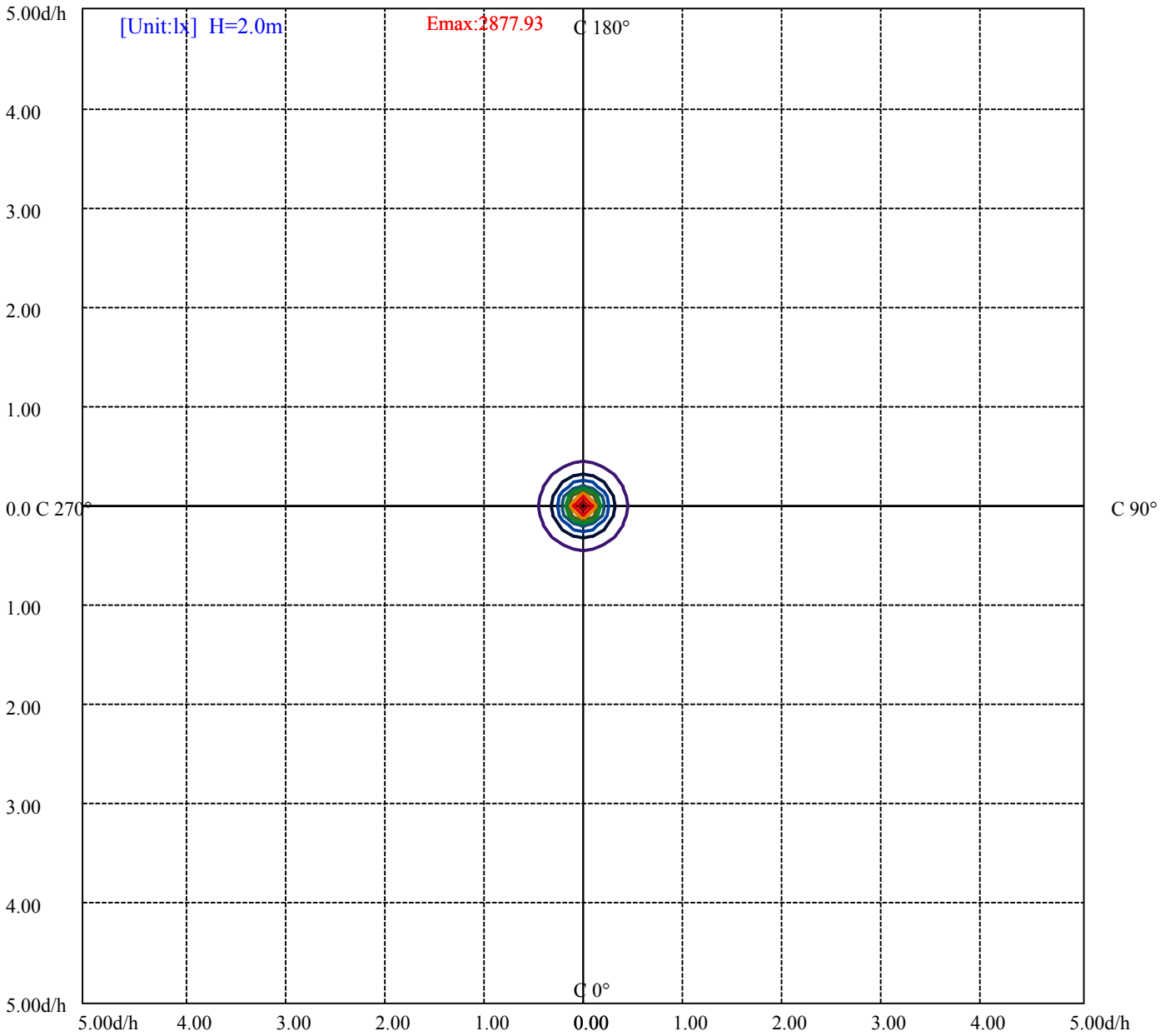
House

[Unit:cd]

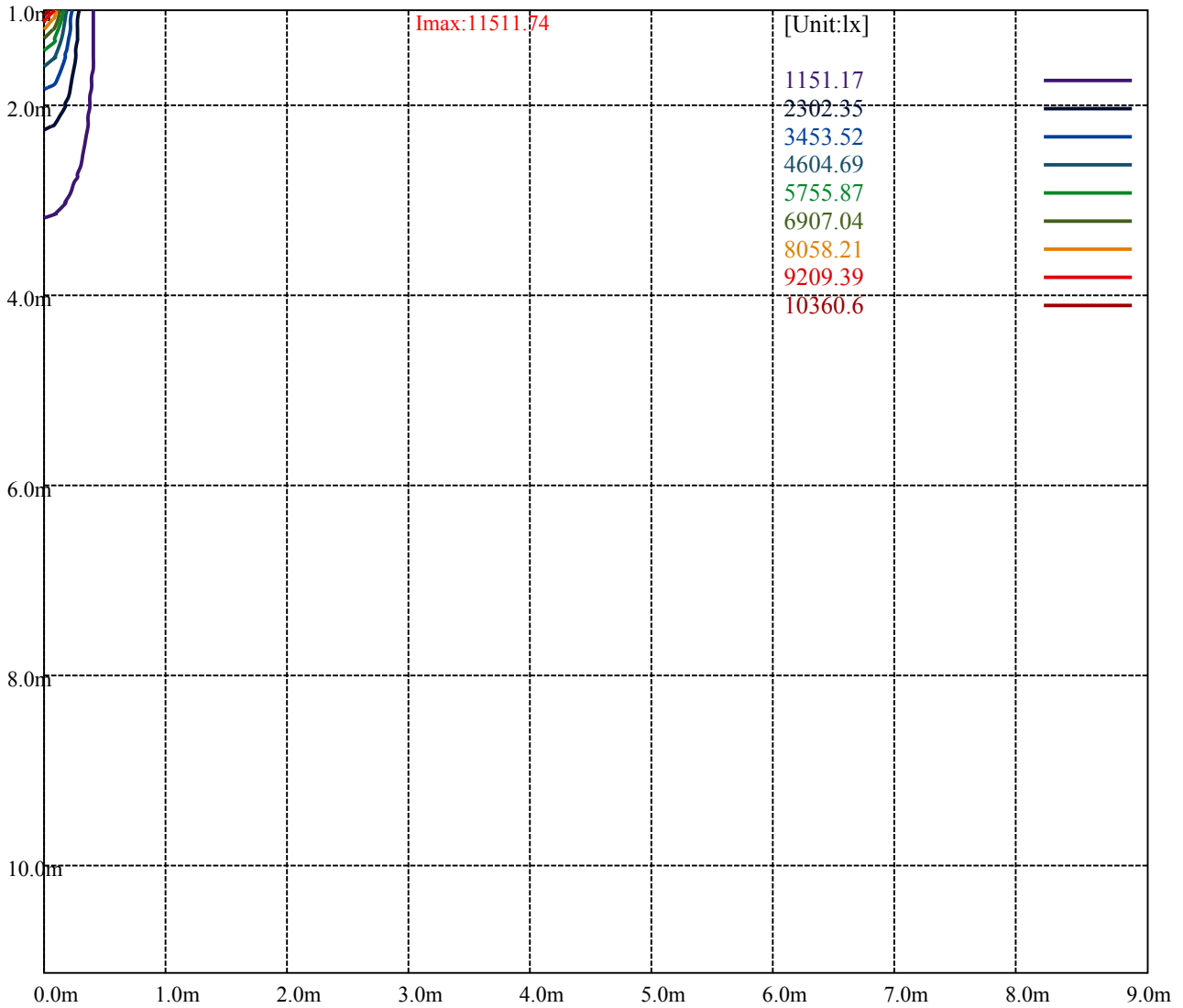
Road

**Imax:11511.74**

(10%Imax)	1151.17	—
(20%Imax)	2302.35	—
(30%Imax)	3453.52	—
(40%Imax)	4604.69	—
(50%Imax)	5755.87	—
(60%Imax)	6907.04	—
(70%Imax)	8058.21	—
(80%Imax)	9209.39	—
(90%Imax)	10360.6	—



- (10%Emax) 287.7925
- (20%Emax) 575.585
- (30%Emax) 863.38
- (40%Emax) 1151.172
- (50%Emax) 1438.965
- (60%Emax) 1726.757
- (70%Emax) 2014.55
- (80%Emax) 2302.345
- (90%Emax) 2590.125



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

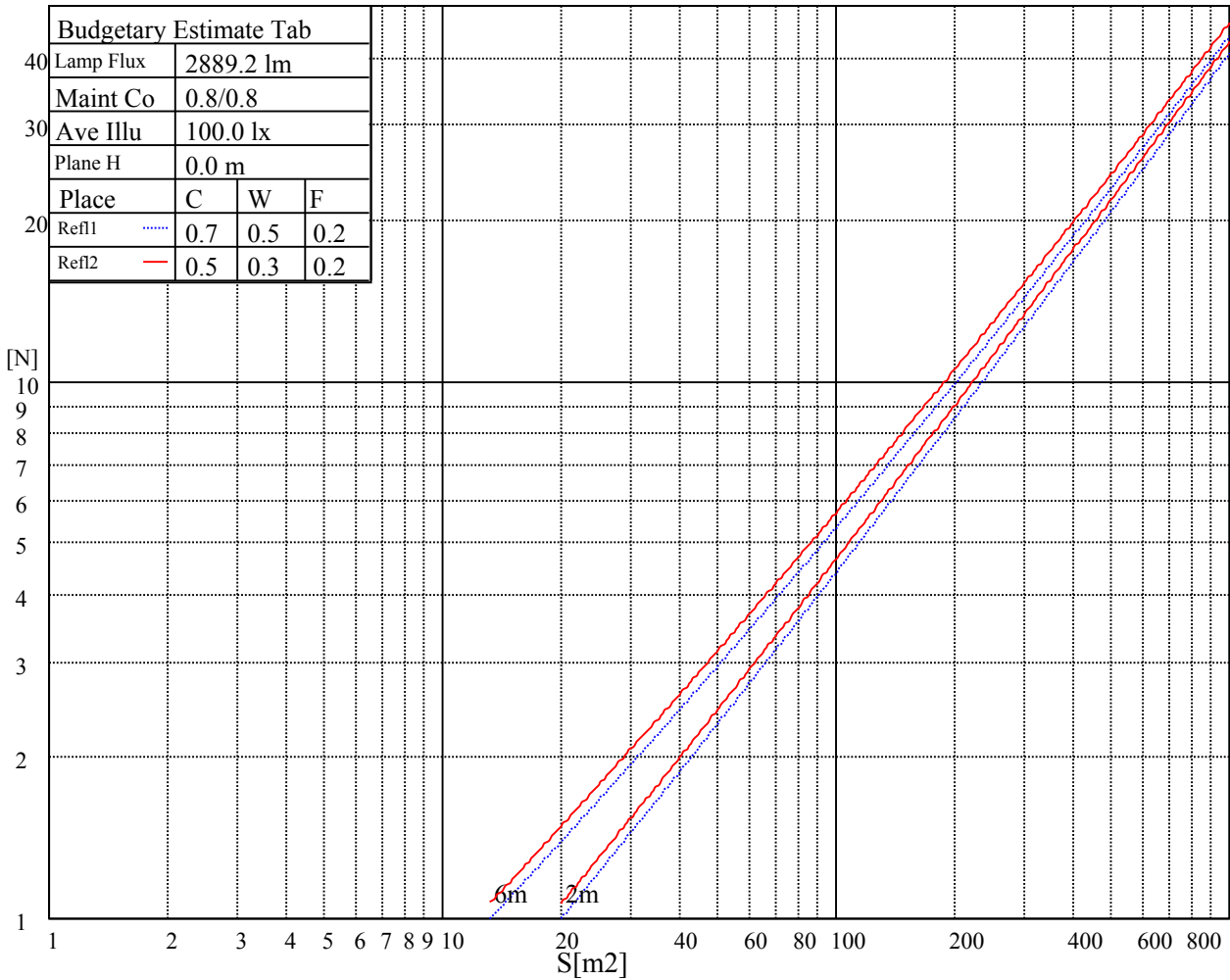
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

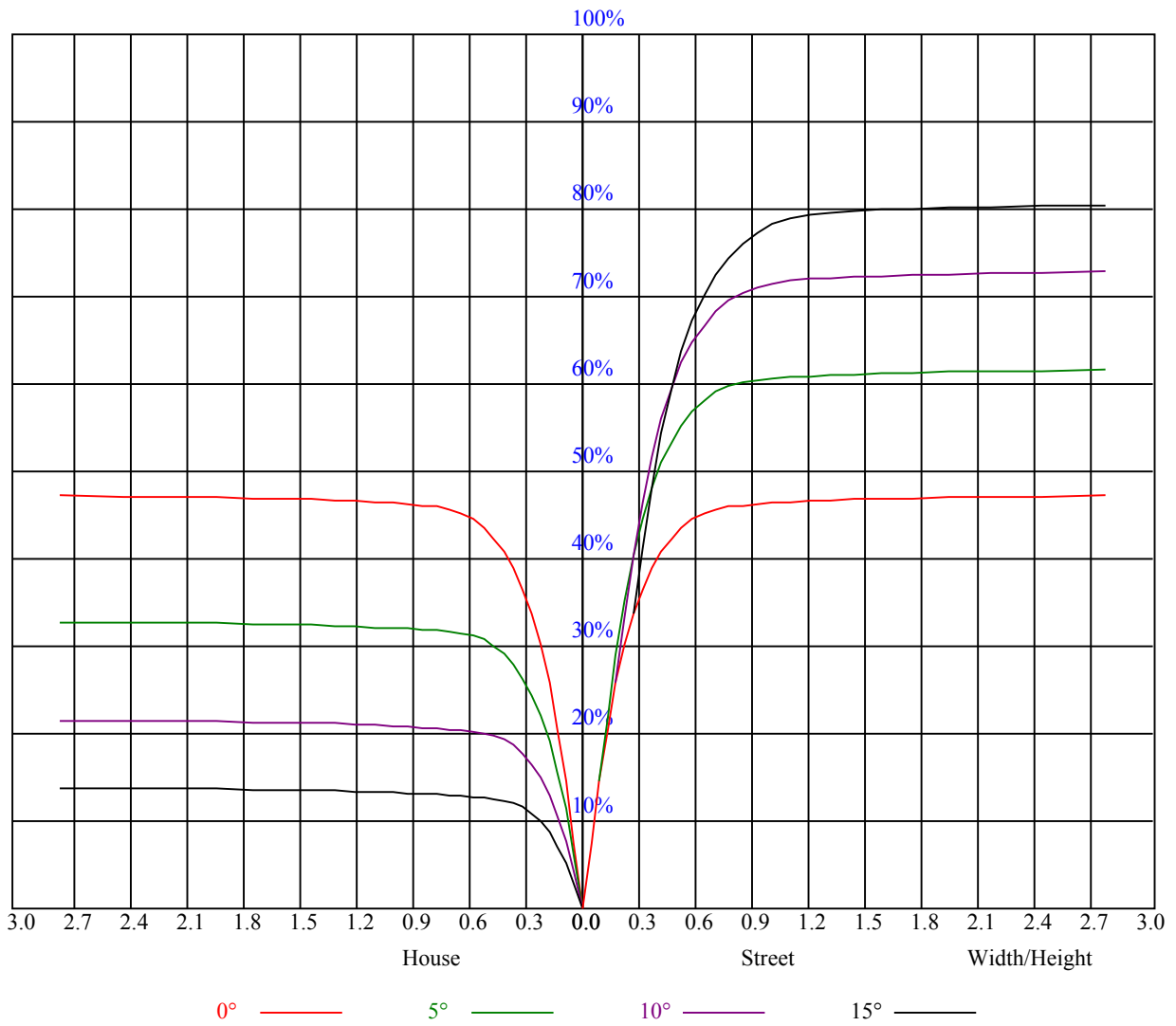


Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	3H	非数字	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	
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	
	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	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	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	1.13	1.13	1.13	1.11	1.11	1.11	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.95
1	1.06	1.04	1.02	1.04	1.02	1.01	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	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	0.90	0.87	0.91	0.88	0.86	0.89	0.87	0.85	0.87	0.85	0.83	0.82
4	0.91	0.86	0.83	0.89	0.85	0.82	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.82	0.80	0.78
5	0.86	0.82	0.79	0.86	0.81	0.78	0.84	0.80	0.78	0.83	0.79	0.77	0.81	0.78	0.76	0.75
6	0.83	0.78	0.75	0.82	0.78	0.75	0.81	0.77	0.74	0.80	0.76	0.74	0.78	0.75	0.73	0.72
7	0.80	0.75	0.72	0.79	0.75	0.71	0.78	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.69
8	0.77	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.67
9	0.74	0.69	0.66	0.73	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.65
10	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.62





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	11664.11	10979.33	10979.33	10592.41	9825.21	9142.15	8454.10	7545.75	6849.95
45.0	11669.65	11641.97	11381.81	11033.08	10363.30	9743.34	9073.56	8204.51	7495.98
90.0	11004.79	11004.79	10744.63	10198.29	9552.32	8697.10	8010.16	7291.67	6587.02
135.0	11708.39	11586.62	11204.68	10723.10	9964.76	9294.98	8614.13	7706.33	6997.80
180.0	11664.11	11669.65	11586.62	11293.24	10878.09	10175.10	9516.39	8807.86	8088.27
225.0	11669.65	11045.20	11045.20	10935.05	10377.64	9570.03	8872.02	8114.78	7197.02
270.0	11004.79	11680.72	11664.11	11442.70	11066.29	10568.11	9793.16	9134.45	8198.98
315.0	11708.39	11691.79	10928.96	10928.96	10672.12	10088.14	9413.93	8514.99	7775.46
360.0	11664.11	10979.33	10979.33	10592.41	9825.21	9142.15	8454.10	7545.75	6849.95
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	6030.72	5452.83	4910.36	4421.59	3871.38	3473.38	3126.87	2814.12	2485.87
45.0	6809.60	6001.44	5414.69	4872.22	4268.87	3842.65	3449.64	3106.44	2802.00
90.0	5804.88	5219.24	4697.25	4209.59	3677.64	3312.86	2903.24	2624.26	2391.22
135.0	6339.09	5730.20	5032.75	4540.10	4064.06	3643.37	3272.50	2868.42	2486.42
180.0	7180.47	6510.69	5719.13	5165.60	4534.57	4069.60	3648.91	3266.97	2851.82
225.0	6491.81	5694.72	5136.21	4624.74	4050.72	3640.55	3271.34	2941.43	2648.06
270.0	7484.91	6787.46	6112.14	5370.41	4811.33	4329.76	3886.93	3383.21	3045.56
315.0	7046.46	6353.98	5570.18	5014.43	4393.91	3947.76	3548.66	3111.37	2795.30
360.0	6030.72	5452.83	4910.36	4421.59	3871.38	3473.38	3126.87	2814.12	2485.87
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2261.69	2072.94	1914.63	1736.94	1621.81	1493.38	1402.05	1227.69	1102.64
45.0	2802.00	2264.46	2081.24	1885.84	1753.55	1635.64	1533.24	1416.44	1325.66
90.0	2148.22	1984.37	1837.68	1709.82	1571.43	1477.89	1384.34	1229.35	1093.18
135.0	2553.41	2115.01	1958.36	1810.01	1658.34	1552.06	1432.50	1345.04	1253.70
180.0	2851.82	2542.89	2110.02	1942.30	1764.06	1632.88	1522.17	1435.26	1327.88
225.0	2333.10	2119.43	1944.52	1793.95	1639.52	1531.58	1412.01	1328.98	1078.79
270.0	2829.68	2829.68	2202.46	2024.78	1837.68	1699.85	1582.50	1467.37	1372.71
315.0	2531.26	2250.62	2061.87	1903.00	1767.39	1618.48	1517.74	1424.75	1341.72
360.0	2261.69	2072.94	1914.63	1736.94	1621.81	1493.38	1402.05	1227.69	1102.64
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1102.64	1001.35	870.32	765.65	660.42	556.03	457.00	345.90	268.13
45.0	1206.10	1102.03	995.20	866.78	764.38	661.97	562.89	447.20	361.96
90.0	1066.50	961.66	835.62	731.28	628.15	509.14	417.53	333.78	240.62
135.0	1154.62	1023.99	919.37	815.30	714.01	586.69	494.81	404.03	302.18
180.0	1243.74	1134.69	1031.74	907.19	808.66	702.38	591.67	477.09	392.40
225.0	1078.79	1028.97	926.45	796.48	694.74	597.43	502.39	392.96	312.80
270.0	1295.77	1202.22	1078.23	974.72	869.55	760.50	634.30	539.64	447.76
315.0	1079.12	1079.12	1026.31	922.02	791.22	685.11	581.27	462.09	374.41
360.0	1102.64	1001.35	870.32	765.65	660.42	556.03	457.00	345.90	268.13
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	202.54	139.71	104.29	84.69	73.79	66.37	60.89	54.97	51.15
45.0	281.14	281.14	136.50	101.91	82.86	72.13	64.60	59.23	53.58
90.0	178.24	129.36	97.53	78.71	70.52	63.32	58.01	52.25	48.43
135.0	283.36	283.36	112.70	90.17	76.83	68.75	62.60	57.29	52.81
180.0	303.28	281.69	281.69	116.57	91.50	78.05	68.53	62.44	57.68
225.0	240.40	179.84	131.80	96.70	81.48	70.80	64.49	59.23	53.25
270.0	343.14	286.12	286.12	142.26	99.19	81.92	71.13	64.15	59.01
315.0	275.11	207.58	152.11	112.70	85.41	74.89	66.87	60.83	54.80
360.0	202.54	139.71	104.29	84.69	73.79	66.37	60.89	54.97	51.15

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	47.88	44.89	43.07	41.52	40.19	38.80	37.97	37.36	37.03
45.0	49.82	46.61	43.73	41.90	40.41	38.75	37.75	36.92	36.42
90.0	45.45	42.79	41.07	39.19	38.03	37.14	36.31	35.98	35.87
135.0	48.32	45.56	43.40	41.52	39.69	38.42	37.47	36.64	36.26
180.0	51.92	48.49	45.00	42.79	40.96	39.41	37.86	37.03	36.42
225.0	49.71	46.55	43.73	41.85	40.30	39.02	37.70	37.03	36.53
270.0	54.19	49.43	46.39	44.12	42.23	40.30	38.97	37.97	36.98
315.0	50.65	47.38	44.12	42.23	40.63	38.91	37.81	36.59	35.98
360.0	47.88	44.89	43.07	41.52	40.19	38.80	37.97	37.36	37.03
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	36.81	37.31	38.03	38.64	39.13	39.13	38.25	36.09	32.94
45.0	36.15	36.15	36.64	37.42	38.42	38.97	38.80	37.14	34.76
90.0	36.26	37.03	37.75	38.53	38.80	38.14	36.64	33.88	29.95
135.0	36.20	36.53	37.25	37.97	38.53	38.53	37.81	35.87	32.33
180.0	36.04	35.81	36.09	36.81	37.59	37.97	37.97	36.98	35.09
225.0	36.31	36.37	36.70	37.36	37.75	37.97	37.20	35.48	33.38
270.0	36.42	36.15	36.26	36.59	37.20	37.64	37.75	37.36	35.92
315.0	35.59	35.48	35.59	36.20	36.92	37.53	37.59	36.87	35.20
360.0	36.81	37.31	38.03	38.64	39.13	39.13	38.25	36.09	32.94
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	28.84	25.57	23.47	21.86	20.65	19.93	19.32	18.60	18.05
45.0	30.72	27.57	24.30	22.53	20.92	20.15	19.48	18.93	18.27
90.0	26.74	23.86	21.81	20.65	19.87	19.04	18.49	17.99	17.49
135.0	29.39	26.18	23.69	21.81	20.92	19.93	19.26	18.71	18.05
180.0	32.82	28.62	25.63	23.36	21.75	20.48	19.82	19.15	18.65
225.0	29.34	26.24	23.64	21.98	20.59	19.93	19.26	18.71	18.05
270.0	33.77	30.61	27.51	24.47	22.20	20.81	20.04	19.26	18.65
315.0	32.71	28.84	25.68	22.69	21.20	20.31	19.43	18.82	18.32
360.0	28.84	25.57	23.47	21.86	20.65	19.93	19.32	18.60	18.05
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	17.60	16.99	16.61	16.16	15.72	15.33	15.00	14.56	14.17
45.0	17.71	17.21	16.72	16.33	15.89	15.55	15.22	14.72	14.39
90.0	16.94	16.55	16.16	15.83	15.39	15.06	14.61	14.28	13.89
135.0	17.55	17.10	16.61	16.16	15.83	15.44	15.06	14.67	14.28
180.0	17.99	17.55	17.10	16.61	16.22	15.72	15.33	15.00	14.56
225.0	17.60	17.16	16.61	16.22	15.72	15.44	15.06	14.67	14.28
270.0	17.99	17.55	17.10	16.55	16.16	15.83	15.39	15.00	14.67
315.0	17.82	17.21	16.77	16.33	15.94	15.50	15.17	14.83	14.39
360.0	17.60	16.99	16.61	16.16	15.72	15.33	15.00	14.56	14.17
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	13.78	13.34	13.01	12.68	12.40	12.07	11.85	11.57	11.35
45.0	14.00	13.56	13.12	12.79	12.45	12.12	11.90	11.57	11.29
90.0	13.45	13.12	12.73	12.34	12.07	11.79	11.57	11.24	11.18
135.0	13.89	13.40	12.95	12.62	12.23	11.96	11.68	11.40	11.18
180.0	14.23	13.84	13.40	12.95	12.62	12.29	12.01	11.73	11.40
225.0	13.84	13.45	13.12	12.68	12.40	12.07	11.79	11.51	11.29
270.0	14.34	13.89	13.45	13.01	12.68	12.34	12.01	11.73	11.46
315.0	14.06	13.62	13.17	12.84	12.45	12.18	11.90	11.68	11.40
360.0	13.78	13.34	13.01	12.68	12.40	12.07	11.85	11.57	11.35

Intensity data(cd)

C/ $\gamma$ (°)	90.0
0.0	11.35
45.0	11.24
90.0	11.18
135.0	11.18
180.0	11.29
225.0	11.24
270.0	11.29
315.0	11.24
360.0	11.35