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NATA

LumCAT: 2-2642-L
Luminaire: 92.70.412.00
LampCAT: CITIZEN CLU038 LES14.5
Ballast type: AC
Report No: 20231008-B014
Test No: 20231008-C014
Number of Lamps: 1
Lamp flux(lm): 2889.2
Length(mm): 0
Phm Type: C

Voltage(V): 36.0200
Current(A): 0.5400
Power (W): 19.4500
PF: 0.0000
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 2709.96, Efficiency(%): 93.80% , Luminous Efficacy(lm/W): 139.33
Central intensity(cd): 4435.013, Maximum intensity(cd): 4435.013
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=46.6
[C90/270]Total=46.6
Field angle(10%Imax): [C0/180]Total=71.8
[C90/270]Total=71.8
Maximum s/h(1/2): C0_180=0.73 C90_270=0.73
Maximum s/h(1/4): C0_180=0.74 C90_270=0.74
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 93.80%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.127%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/10/08
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4435.013	0.000	0	0.00%	0.00%
1.0	4432.938	4.243	4.243	0.15%	0.16%
2.0	4426.918	12.717	16.96	0.44%	0.63%
3.0	4412.180	21.140	38.1	0.73%	1.41%
4.0	4382.635	29.439	67.539	1.02%	2.49%
5.0	4339.529	37.522	105.061	1.30%	3.88%
6.0	4281.546	45.306	150.367	1.57%	5.55%
7.0	4217.197	52.752	203.119	1.83%	7.50%
8.0	4134.028	59.768	262.887	2.07%	9.70%
9.0	4040.619	66.251	329.138	2.29%	12.15%
10.0	3939.184	72.214	401.352	2.50%	14.81%
11.0	3827.439	77.605	478.957	2.69%	17.67%
12.0	3712.026	82.417	561.374	2.85%	20.72%
13.0	3591.978	86.680	648.054	3.00%	23.91%
14.0	3469.716	90.389	738.443	3.13%	27.25%
15.0	3356.033	93.707	832.15	3.24%	30.71%
16.0	3232.664	96.543	928.693	3.34%	34.27%
17.0	3102.652	98.658	1027.351	3.41%	37.91%
18.0	2975.823	100.221	1127.572	3.47%	41.61%
19.0	2844.843	101.268	1228.839	3.51%	45.35%
20.0	2705.075	101.579	1330.418	3.52%	49.09%
21.0	2560.118	101.102	1431.521	3.50%	52.82%
22.0	2421.388	100.105	1531.626	3.46%	56.52%
23.0	2266.329	98.361	1629.987	3.40%	60.15%
24.0	2124.139	95.991	1725.978	3.32%	63.69%
25.0	1975.861	93.225	1819.203	3.23%	67.13%
26.0	1830.004	89.838	1909.041	3.11%	70.45%
27.0	1672.523	85.690	1994.731	2.97%	73.61%
28.0	1510.614	80.590	2075.322	2.79%	76.58%
29.0	1304.359	73.648	2148.969	2.55%	79.30%
30.0	1177.932	67.021	2215.991	2.32%	81.77%
31.0	1057.939	62.221	2278.212	2.15%	84.07%
32.0	913.632	56.483	2334.695	1.95%	86.15%
33.0	773.117	49.692	2384.387	1.72%	87.99%
34.0	641.770	42.819	2427.206	1.48%	89.57%
35.0	524.579	36.222	2463.428	1.25%	90.90%
36.0	429.689	30.384	2493.812	1.05%	92.02%
37.0	340.957	25.134	2518.946	0.87%	92.95%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	273.433	20.508	2539.454	0.71%	93.71%
39.0	239.107	17.494	2556.948	0.61%	94.35%
40.0	187.974	14.895	2571.843	0.52%	94.90%
41.0	132.703	11.419	2583.263	0.40%	95.32%
42.0	108.825	8.775	2592.038	0.30%	95.65%
43.0	90.801	7.395	2599.432	0.26%	95.92%
44.0	76.741	6.323	2605.756	0.22%	96.15%
45.0	66.805	5.517	2611.273	0.19%	96.36%
46.0	59.173	4.927	2616.199	0.17%	96.54%
47.0	52.918	4.458	2620.657	0.15%	96.70%
48.0	48.040	4.081	2624.739	0.14%	96.86%
49.0	43.743	3.769	2628.508	0.13%	96.99%
50.0	40.284	3.503	2632.011	0.12%	97.12%
51.0	37.322	3.283	2635.295	0.11%	97.24%
52.0	34.928	3.100	2638.395	0.11%	97.36%
53.0	32.880	2.950	2641.345	0.10%	97.47%
54.0	31.102	2.820	2644.165	0.10%	97.57%
55.0	29.593	2.709	2646.874	0.09%	97.67%
56.0	28.216	2.612	2649.486	0.09%	97.77%
57.0	27.130	2.531	2652.017	0.09%	97.86%
58.0	26.023	2.458	2654.475	0.09%	97.95%
59.0	25.103	2.390	2656.865	0.08%	98.04%
60.0	24.252	2.332	2659.197	0.08%	98.13%
61.0	23.449	2.276	2661.473	0.08%	98.21%
62.0	22.730	2.225	2663.698	0.08%	98.29%
63.0	22.038	2.177	2665.875	0.08%	98.37%
64.0	21.415	2.132	2668.008	0.07%	98.45%
65.0	20.848	2.092	2670.099	0.07%	98.53%
66.0	20.273	2.052	2672.151	0.07%	98.60%
67.0	19.734	2.012	2674.163	0.07%	98.68%
68.0	19.235	1.974	2676.137	0.07%	98.75%
69.0	18.751	1.938	2678.074	0.07%	98.82%
70.0	18.225	1.899	2679.973	0.07%	98.89%
71.0	17.755	1.860	2681.833	0.06%	98.96%
72.0	17.263	1.821	2683.654	0.06%	99.03%
73.0	16.814	1.782	2685.436	0.06%	99.10%
74.0	16.392	1.746	2687.182	0.06%	99.16%
75.0	15.914	1.707	2688.889	0.06%	99.22%

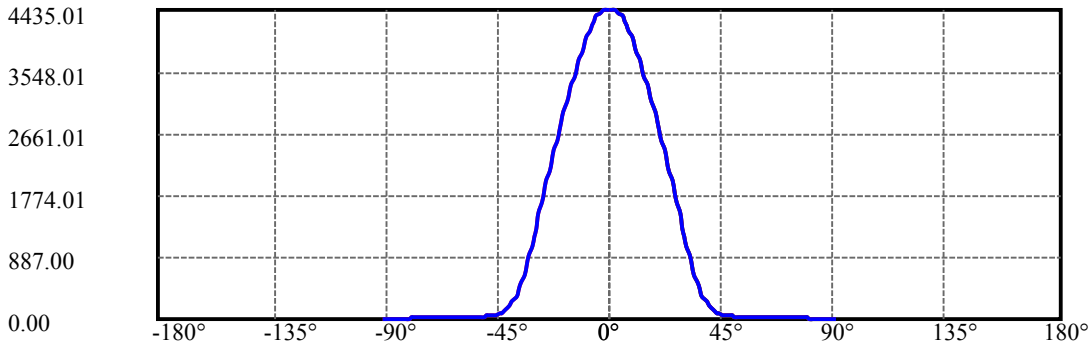
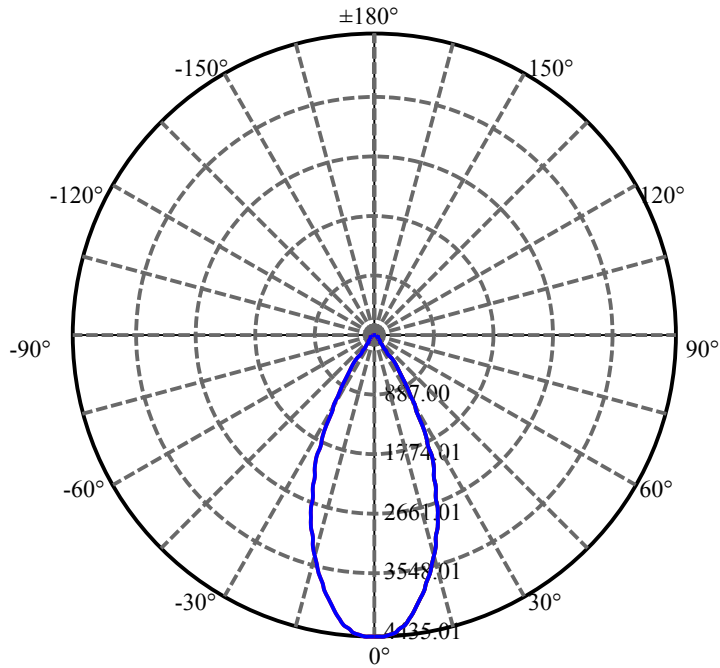
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	15.485	1.667	2690.555	0.06%	99.28%
77.0	15.015	1.626	2692.181	0.06%	99.34%
78.0	14.579	1.584	2693.766	0.05%	99.40%
79.0	14.136	1.543	2695.308	0.05%	99.46%
80.0	13.714	1.501	2696.81	0.05%	99.51%
81.0	13.313	1.462	2698.271	0.05%	99.57%
82.0	12.911	1.422	2699.693	0.05%	99.62%
83.0	12.531	1.383	2701.077	0.05%	99.67%
84.0	12.212	1.348	2702.424	0.05%	99.72%
85.0	11.929	1.318	2703.742	0.05%	99.77%
86.0	11.638	1.288	2705.03	0.04%	99.82%
87.0	11.403	1.261	2706.291	0.04%	99.86%
88.0	11.209	1.239	2707.53	0.04%	99.91%
89.0	11.050	1.220	2708.75	0.04%	99.96%
90.0	10.974	1.208	2709.957	0.04%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2215.99	76.70%	81.77%
0-40	2571.84	89.02%	94.90%
0-60	2659.20	92.04%	98.13%
0-90	2708.75	93.75%	99.96%
0-120	2708.75	93.75%	99.96%
0-180	2709.96	93.80%	100.00%
60-90	49.55	1.72%	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%
0-29.28	2167.97	75.04%	80.00%

ZONAL LUMEN SUMMARY

0-10	401.35
10-20	929.07
20-30	885.57
30-40	355.85
40-50	60.17
50-60	27.19
60-70	20.78
70-80	16.84
80-90	11.94
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



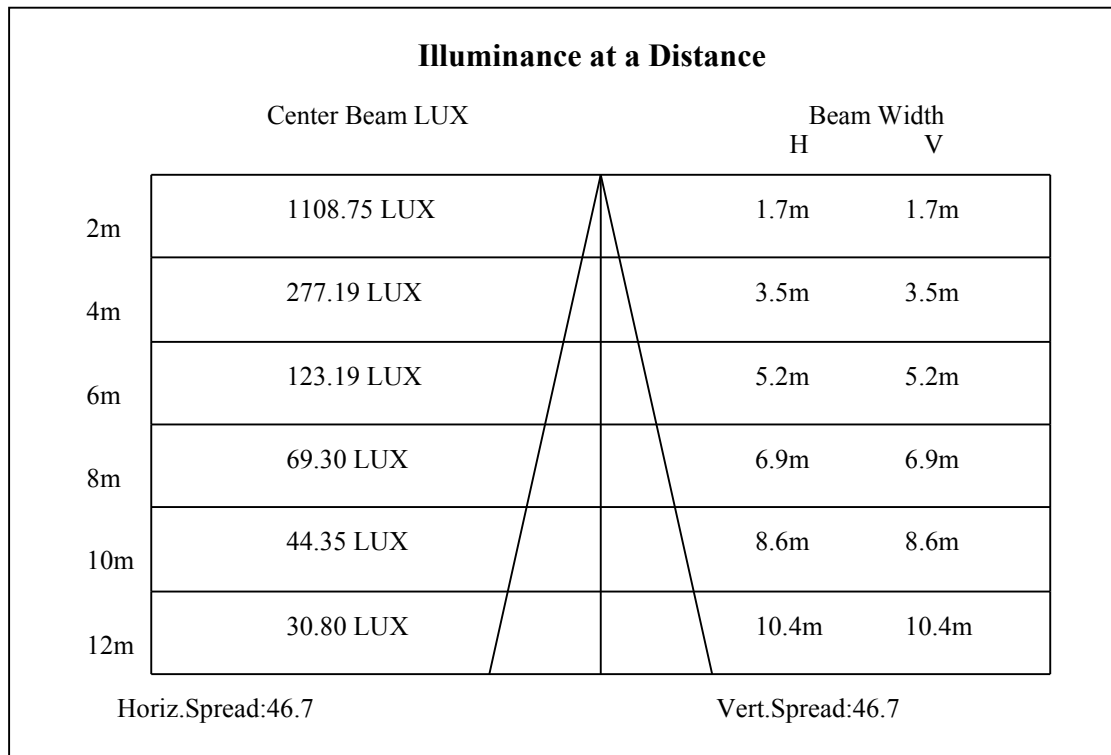
C0(Max): ———

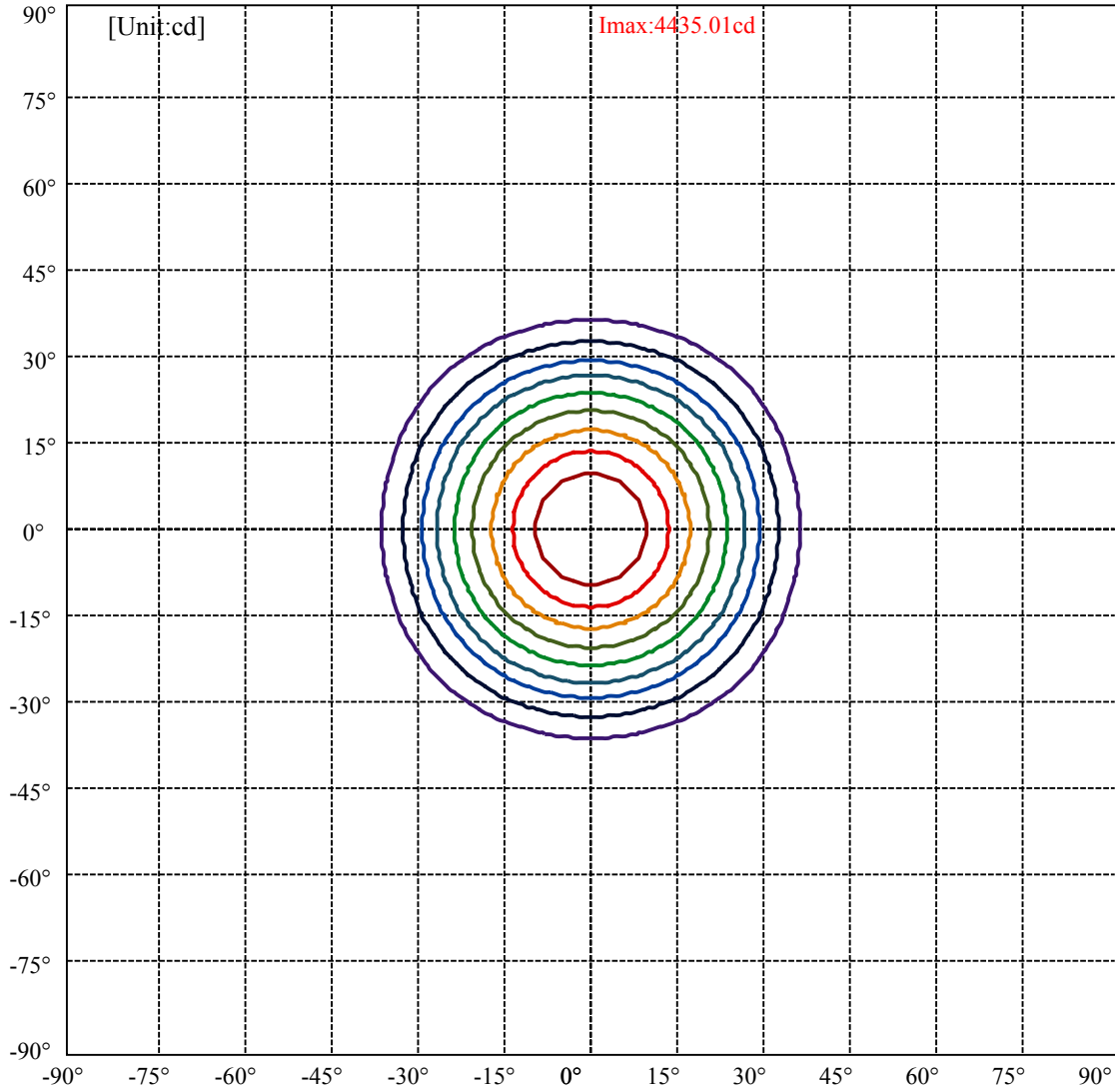
C0/C180: ———

C90/C270: ———

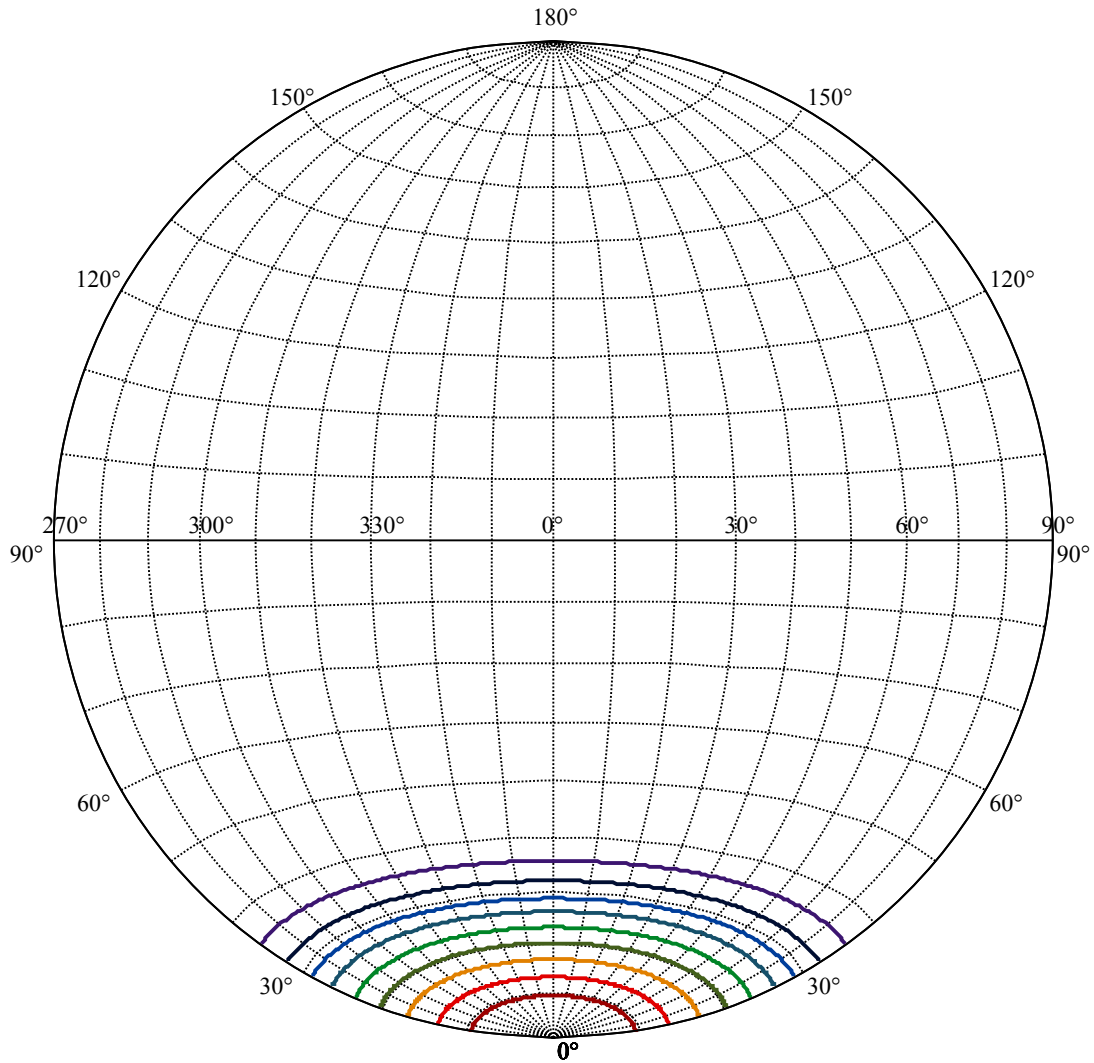
Field angle(10%Imax):C0/180Left:35.9 Right:35.9
:C90/270Left:35.9 Right:35.9

Beam Angle(50%Imax):C0/180Left:23.3 Right:23.3
:C90/270Left:23.3 Right:23.3





(10%Imax) 443.501	—
(20%Imax) 887.003	—
(30%Imax) 1330.5	—
(40%Imax) 1774.01	—
(50%Imax) 2217.51	—
(60%Imax) 2661.01	—
(70%Imax) 3104.51	—
(80%Imax) 3548.01	—
(90%Imax) 3991.51	—



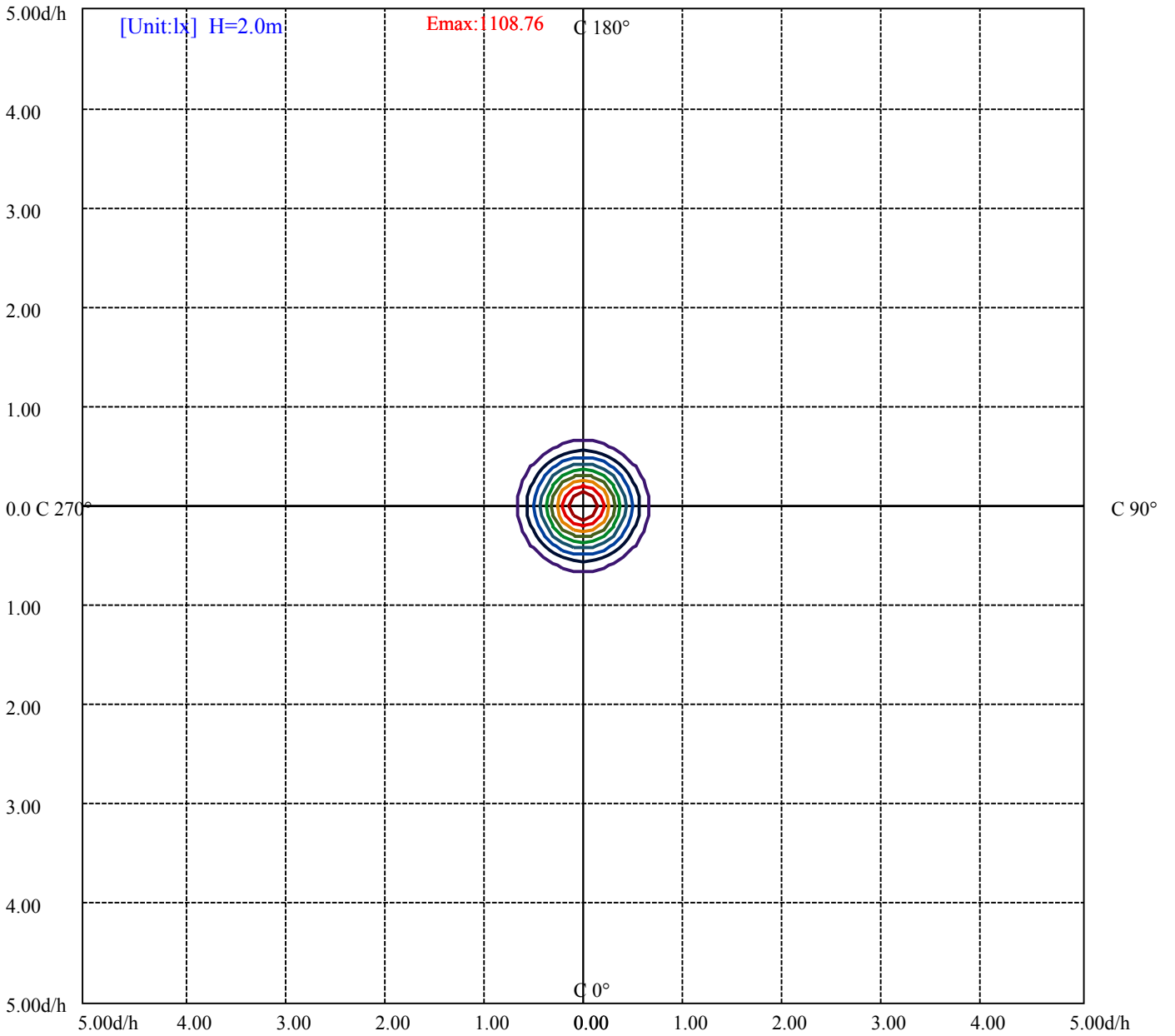
House

[Unit:cd]

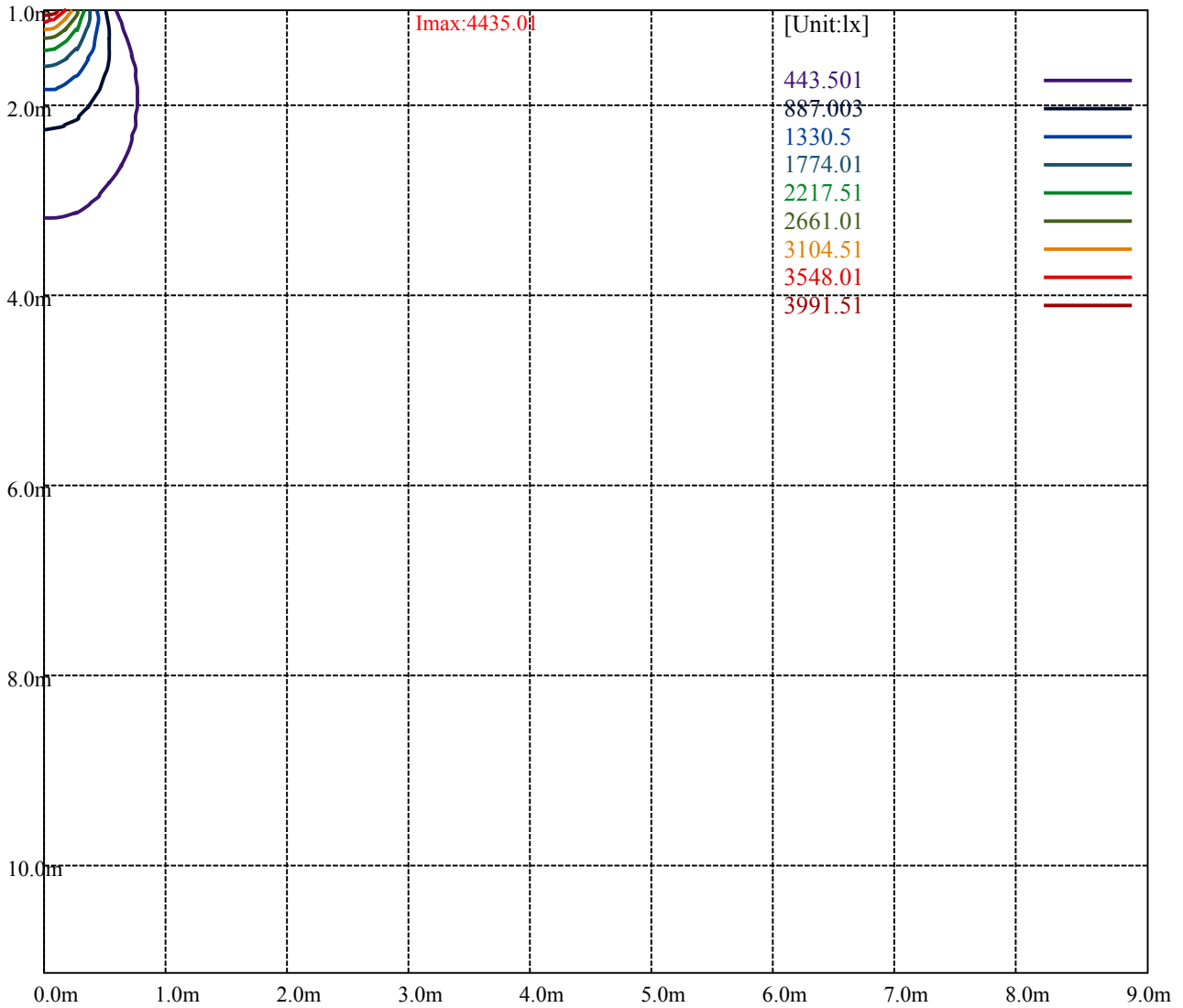
Road

Imax:4435.01

(10%Imax)	443.501	—
(20%Imax)	887.003	—
(30%Imax)	1330.5	—
(40%Imax)	1774.01	—
(50%Imax)	2217.51	—
(60%Imax)	2661.01	—
(70%Imax)	3104.51	—
(80%Imax)	3548.01	—
(90%Imax)	3991.51	—



(10%Emax) 110.8753	—
(20%Emax) 221.7507	—
(30%Emax) 332.625	—
(40%Emax) 443.5025	—
(50%Emax) 554.3775	—
(60%Emax) 665.2525	—
(70%Emax) 776.1275	—
(80%Emax) 887.0025	—
(90%Emax) 997.8775	—



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

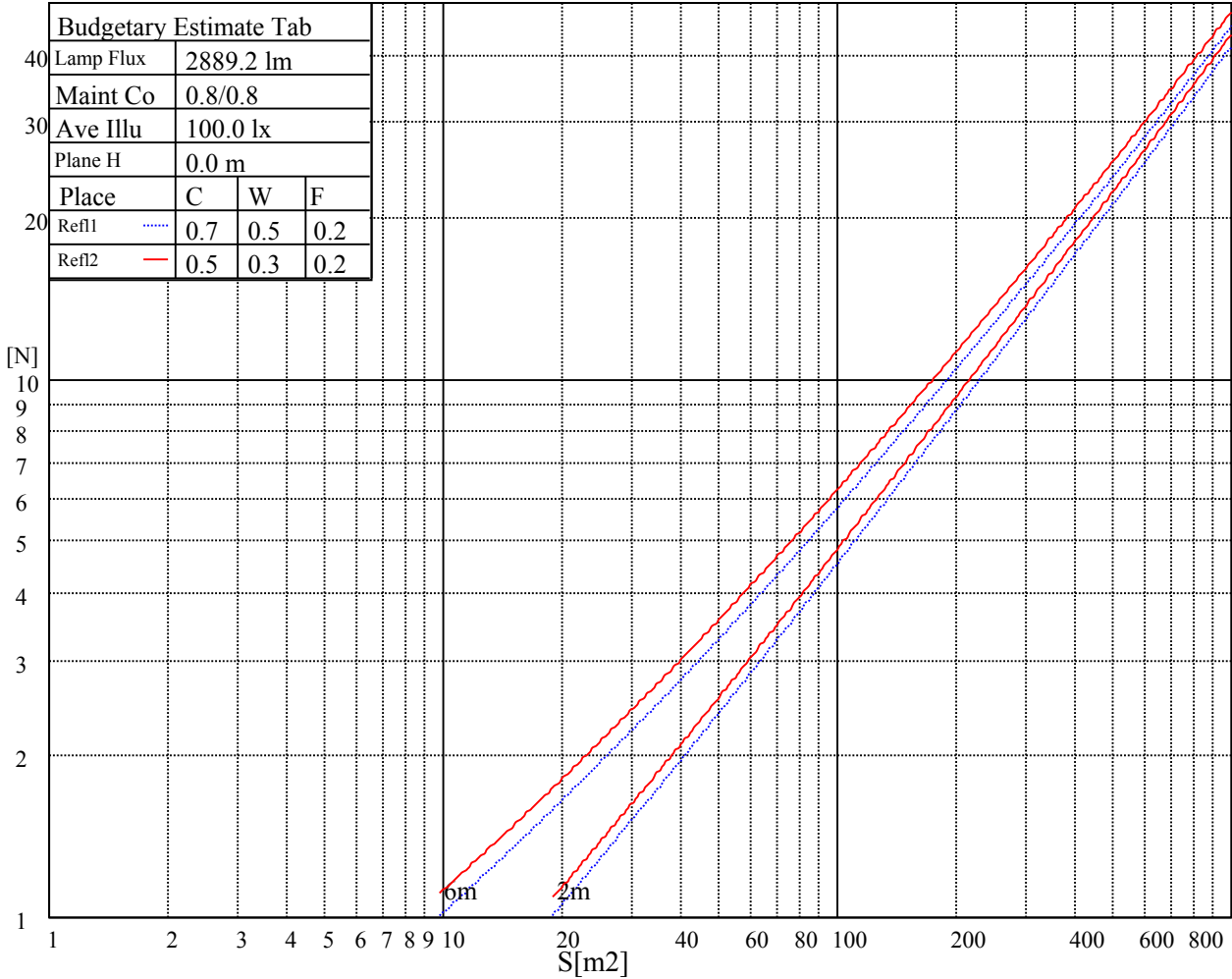
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

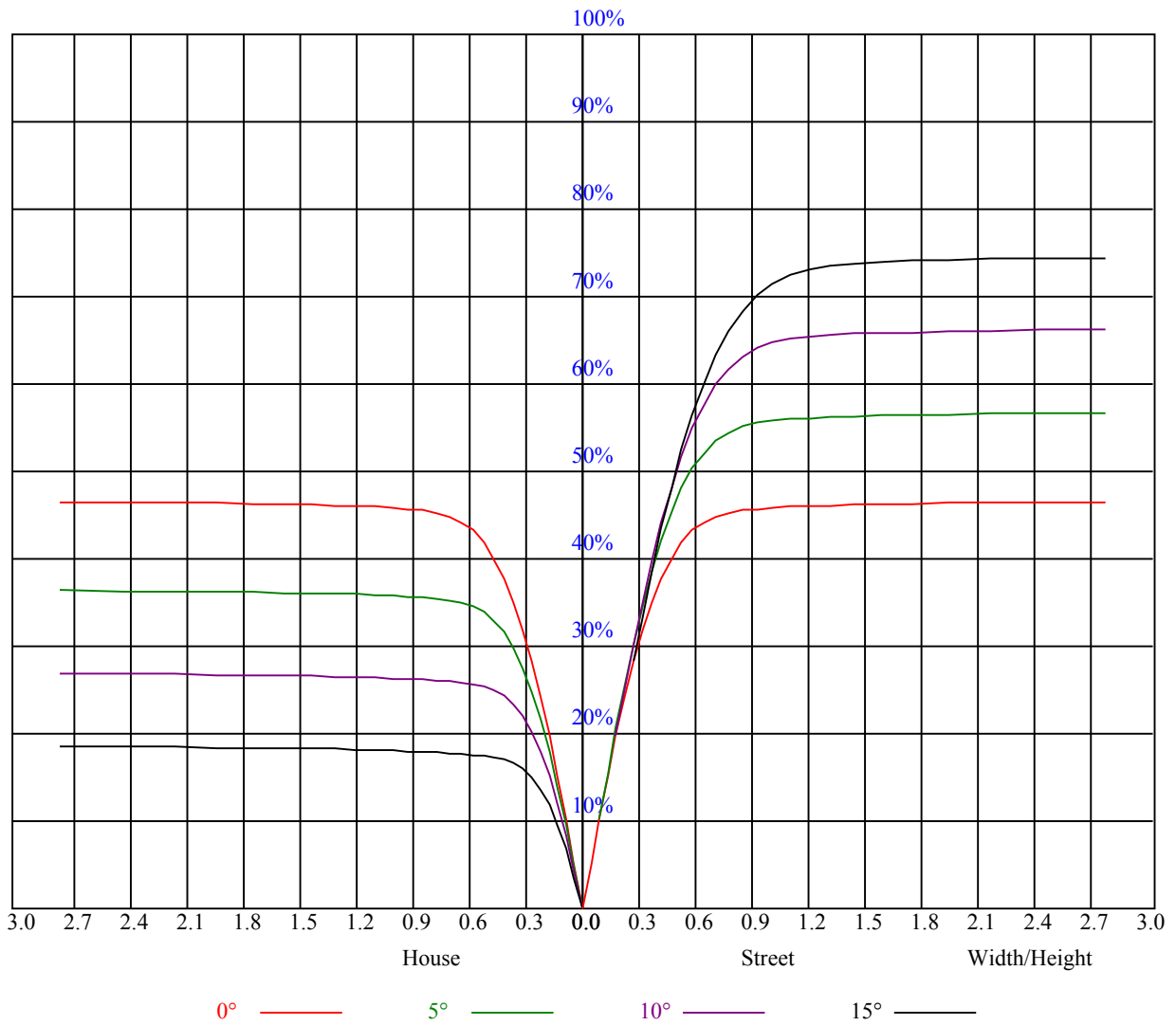


Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	3H	非数字	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	
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 RHOFC=20 CU															
0	1.12	1.12	1.12	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.04	1.02	1.00	1.02	1.00	0.98	0.98	0.97	0.95	0.95	0.93	0.92	0.92	0.91	0.90	0.88
2	0.97	0.94	0.91	0.96	0.92	0.90	0.93	0.90	0.88	0.90	0.88	0.86	0.87	0.86	0.84	0.83
3	0.91	0.87	0.84	0.90	0.86	0.83	0.88	0.84	0.82	0.86	0.83	0.80	0.83	0.81	0.79	0.78
4	0.86	0.81	0.78	0.85	0.81	0.77	0.83	0.79	0.76	0.81	0.78	0.75	0.80	0.77	0.75	0.73
5	0.81	0.76	0.73	0.81	0.76	0.72	0.79	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.70	0.69
6	0.77	0.72	0.68	0.76	0.72	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.69	0.67	0.65
7	0.73	0.68	0.64	0.73	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.62
8	0.70	0.64	0.61	0.69	0.64	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.59
9	0.66	0.61	0.58	0.66	0.61	0.58	0.65	0.61	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.56
10	0.63	0.58	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.54	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	4437.64	4431.55	4427.13	4427.13	4378.41	4335.79	4272.69	4217.89	4150.91
45.0	4434.32	4439.30	4439.30	4441.52	4434.32	4401.11	4349.63	4289.30	4223.98
90.0	4437.64	4436.54	4428.23	4397.79	4365.68	4307.56	4228.96	4155.89	4060.13
135.0	4430.45	4434.88	4423.25	4386.16	4355.17	4304.24	4245.57	4173.05	4072.86
180.0	4437.64	4430.45	4420.48	4409.41	4383.95	4335.24	4284.87	4218.44	4138.18
225.0	4434.32	4416.61	4414.39	4386.72	4336.90	4292.62	4230.07	4157.55	4049.06
270.0	4437.64	4430.45	4431.00	4425.46	4401.11	4362.36	4325.27	4277.67	4195.19
315.0	4430.45	4443.73	4431.55	4423.25	4405.54	4377.31	4315.31	4247.78	4181.91
360.0	4437.64	4431.55	4427.13	4427.13	4378.41	4335.79	4272.69	4217.89	4150.91
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4025.26	3921.75	3813.25	3697.01	3545.34	3418.58	3291.82	3176.69	3017.27
45.0	4126.56	4029.13	3925.07	3790.01	3671.00	3549.22	3420.24	3269.13	3153.99
90.0	3958.83	3830.41	3713.06	3597.93	3457.88	3354.93	3234.81	3080.93	2960.26
135.0	3980.98	3878.57	3758.45	3644.98	3523.75	3397.55	3290.72	3177.79	3026.68
180.0	4062.35	3968.80	3848.13	3735.21	3631.14	3496.08	3397.55	3289.06	3139.60
225.0	3947.21	3864.18	3730.78	3636.12	3524.31	3404.19	3298.47	3186.65	3064.32
270.0	4117.15	4031.35	3938.91	3811.04	3706.98	3597.38	3494.42	3368.76	3255.84
315.0	4106.63	3989.28	3891.86	3783.92	3675.42	3539.81	3420.24	3312.30	3203.26
360.0	4025.26	3921.75	3813.25	3697.01	3545.34	3418.58	3291.82	3176.69	3017.27
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2888.30	2765.41	2592.71	2455.98	2323.14	2152.65	2016.48	1877.54	1708.16
45.0	3027.23	2902.13	2744.93	2608.21	2479.23	2313.17	2172.02	2033.08	1862.59
90.0	2846.78	2690.13	2558.39	2423.33	2278.30	2102.83	1964.44	1833.81	1692.66
135.0	2913.76	2791.43	2662.45	2495.28	2355.79	2216.30	2081.79	1908.54	1770.15
180.0	3020.59	2900.47	2775.93	2615.96	2484.77	2345.83	2208.55	2047.47	1909.64
225.0	2920.40	2795.30	2663.56	2529.60	2360.78	2224.05	2087.33	1911.86	1775.69
270.0	3139.60	2986.82	2866.71	2716.15	2586.62	2444.91	2272.76	2145.45	2005.41
315.0	3049.93	2927.04	2775.93	2636.44	2502.48	2330.88	2189.73	2049.13	1915.73
360.0	2888.30	2765.41	2592.71	2455.98	2323.14	2152.65	2016.48	1877.54	1708.16
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1570.33	1430.84	1078.40	1078.40	973.50	834.90	707.36	564.61	462.65
45.0	1726.42	1591.36	1412.57	1275.29	1136.91	998.52	826.93	702.38	585.59
90.0	1517.19	1275.85	1100.15	1064.73	924.13	760.06	641.49	532.17	412.00
135.0	1632.88	1455.19	1314.04	1175.10	1000.18	866.78	710.13	597.21	498.13
180.0	1733.62	1594.13	1454.64	1273.08	1127.50	982.47	844.64	691.86	581.16
225.0	1597.45	1453.53	1083.33	1083.33	974.44	834.46	707.97	593.39	467.18
270.0	1862.04	1686.02	1540.44	1394.86	1248.17	1059.97	912.17	776.56	624.33
315.0	1740.26	1598.00	1451.32	1078.68	1078.68	971.90	834.23	675.98	565.60
360.0	1570.33	1430.84	1078.40	1078.40	973.50	834.90	707.36	564.61	462.65
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	373.47	300.29	226.78	181.95	140.76	116.85	98.86	81.87	71.57
45.0	480.97	366.94	292.77	292.77	171.04	138.83	114.91	93.05	80.10
90.0	332.84	267.41	213.28	163.02	132.85	110.26	93.22	77.16	67.70
135.0	407.35	311.03	293.87	293.87	156.82	122.55	102.57	87.07	72.79
180.0	483.18	395.17	303.84	287.78	287.78	155.99	122.11	102.18	83.64
225.0	378.45	306.44	246.10	186.87	151.50	124.10	99.30	84.58	70.96
270.0	515.29	420.63	322.10	288.34	288.34	151.78	123.44	102.85	86.96
315.0	465.97	359.74	288.72	218.26	174.70	141.26	116.19	97.64	80.21
360.0	373.47	300.29	226.78	181.95	140.76	116.85	98.86	81.87	71.57

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	63.55	55.52	50.37	46.05	42.40	38.64	36.20	34.10	32.33
45.0	67.81	60.22	54.25	49.15	43.84	40.41	37.47	35.20	32.71
90.0	60.11	52.81	48.05	44.06	39.85	37.20	34.98	32.66	31.00
135.0	64.49	57.73	51.26	46.77	43.12	39.25	36.75	34.60	32.71
180.0	72.85	64.49	56.46	51.37	47.16	43.45	39.69	37.14	34.93
225.0	62.72	56.24	49.93	45.67	42.12	39.13	36.09	33.99	32.22
270.0	72.68	64.15	57.29	51.81	46.22	42.57	39.41	36.20	34.10
315.0	70.24	62.22	55.74	49.43	45.22	41.63	37.97	35.54	33.05
360.0	63.55	55.52	50.37	46.05	42.40	38.64	36.20	34.10	32.33
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	30.44	29.06	27.62	26.57	25.63	24.58	23.86	23.08	22.47
45.0	31.11	29.67	28.12	27.07	26.07	25.02	24.19	23.47	22.58
90.0	29.61	28.40	27.07	26.07	25.19	24.36	23.47	22.81	22.20
135.0	30.78	29.39	28.23	27.18	25.96	25.08	24.24	23.36	22.64
180.0	33.05	31.05	29.61	28.40	27.07	26.13	25.24	24.19	23.47
225.0	30.67	28.95	27.79	26.74	25.52	24.74	23.97	23.08	22.42
270.0	31.83	30.39	29.01	27.84	26.57	25.63	24.74	24.02	23.19
315.0	31.33	29.84	28.29	27.18	26.18	25.30	24.30	23.58	22.86
360.0	30.44	29.06	27.62	26.57	25.63	24.58	23.86	23.08	22.47
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	21.75	21.20	20.65	20.15	19.54	19.10	18.60	18.05	17.60
45.0	22.03	21.48	20.92	20.26	19.82	19.32	18.93	18.32	17.88
90.0	21.42	20.92	20.37	19.71	19.21	18.65	18.16	17.71	17.27
135.0	21.86	21.31	20.70	20.04	19.54	19.10	18.60	17.99	17.55
180.0	22.58	21.98	21.31	20.76	20.09	19.60	19.10	18.60	17.99
225.0	21.81	21.03	20.54	20.04	19.54	18.99	18.49	18.05	17.60
270.0	22.53	21.86	21.26	20.70	20.20	19.65	19.15	18.60	18.16
315.0	22.31	21.53	21.03	20.54	19.93	19.48	18.99	18.49	17.99
360.0	21.75	21.20	20.65	20.15	19.54	19.10	18.60	18.05	17.60
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	17.16	16.66	16.27	15.83	15.39	14.95	14.50	14.12	13.62
45.0	17.44	16.94	16.50	16.00	15.61	15.22	14.83	14.28	13.89
90.0	16.77	16.33	15.94	15.50	15.00	14.56	14.17	13.67	13.28
135.0	17.05	16.61	16.22	15.72	15.28	14.72	14.34	13.95	13.45
180.0	17.49	17.10	16.66	16.05	15.67	15.11	14.67	14.23	13.73
225.0	17.05	16.61	16.16	15.67	15.22	14.72	14.28	13.89	13.51
270.0	17.71	17.27	16.77	16.38	15.94	15.55	15.00	14.56	14.17
315.0	17.44	16.99	16.61	16.16	15.78	15.28	14.83	14.39	14.06
360.0	17.16	16.66	16.27	15.83	15.39	14.95	14.50	14.12	13.62
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	13.23	12.84	12.51	12.18	11.90	11.62	11.40	11.24	11.02
45.0	13.51	13.06	12.68	12.29	12.01	11.73	11.51	11.29	11.13
90.0	12.90	12.57	12.18	11.90	11.62	11.40	11.18	11.02	10.96
135.0	13.12	12.73	12.29	12.01	11.73	11.46	11.24	11.07	10.96
180.0	13.40	12.95	12.57	12.29	11.96	11.68	11.46	11.24	11.02
225.0	13.06	12.68	12.40	12.07	11.85	11.51	11.29	11.13	11.02
270.0	13.78	13.34	12.90	12.57	12.23	11.90	11.62	11.40	11.18
315.0	13.51	13.12	12.73	12.40	12.12	11.79	11.51	11.29	11.13
360.0	13.23	12.84	12.51	12.18	11.90	11.62	11.40	11.24	11.02

Intensity data(cd)

C/ γ (°)	90.0
0.0	11.02
45.0	10.96
90.0	10.96
135.0	10.96
180.0	10.96
225.0	10.96
270.0	11.02
315.0	10.96
360.0	11.02