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NATA

Client:

LumCAT: 2-2643-L

Luminaire: 92.70.412.00

Report No: 20231013-B007

Ballast type: AC

Test No: 20231013-C007

Voltage(V): 34.130

LampCAT: LUMINUS CXM-14-AC40

Current(A): 0.530

Lamp flux(lm): 2320.0

Power (W): 18.088

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2196.66, Efficiency(%): 94.68% , Luminous Efficacy(lm/W): 121.44

Central intensity(cd): 11121.090, Maximum intensity(cd): 11121.090

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=18.4

[C90/270]Total=18.4

Field angle(10%Imax): [C0/180]Total=47.4

[C90/270]Total=47.4

Maximum s/h(1/2): C0_180=0.32 C90_270=0.32

Maximum s/h(1/4): C0_180=0.35 C90_270=0.35

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 94.68%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.030%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	11121.092	0.000	0	0.00%	0.00%
1.0	10980.424	10.575	10.575	0.46%	0.48%
2.0	10805.991	31.270	41.845	1.35%	1.90%
3.0	10372.088	50.651	92.496	2.18%	4.21%
4.0	9810.872	67.559	160.055	2.91%	7.29%
5.0	9114.801	81.417	241.472	3.51%	10.99%
6.0	8333.830	91.697	333.169	3.95%	15.17%
7.0	7441.115	97.915	431.084	4.22%	19.62%
8.0	6578.775	100.338	531.422	4.32%	24.19%
9.0	5734.425	99.792	631.214	4.30%	28.74%
10.0	5006.941	97.205	728.419	4.19%	33.16%
11.0	4306.233	93.058	821.477	4.01%	37.40%
12.0	3747.646	88.040	909.517	3.79%	41.40%
13.0	3311.252	83.771	993.289	3.61%	45.22%
14.0	2957.197	80.236	1073.524	3.46%	48.87%
15.0	2696.897	77.622	1151.146	3.35%	52.40%
16.0	2500.668	76.159	1227.305	3.28%	55.87%
17.0	2264.308	74.203	1301.508	3.20%	59.25%
18.0	1960.002	69.650	1371.158	3.00%	62.42%
19.0	1773.183	64.950	1436.108	2.80%	65.38%
20.0	1605.393	61.837	1497.945	2.67%	68.19%
21.0	1422.567	58.143	1556.088	2.51%	70.84%
22.0	1247.691	53.660	1609.748	2.31%	73.28%
23.0	1172.735	50.787	1660.535	2.19%	75.59%
24.0	1081.997	49.297	1709.832	2.12%	77.84%
25.0	985.751	47.016	1756.848	2.03%	79.98%
26.0	894.646	44.387	1801.235	1.91%	82.00%
27.0	802.620	41.524	1842.759	1.79%	83.89%
28.0	708.519	38.259	1881.018	1.65%	85.63%
29.0	617.234	34.685	1915.703	1.50%	87.21%
30.0	528.060	30.923	1946.626	1.33%	88.62%
31.0	444.282	27.059	1973.685	1.17%	89.85%
32.0	363.777	23.150	1996.835	1.00%	90.90%
33.0	289.451	19.244	2016.079	0.83%	91.78%
34.0	239.640	16.012	2032.091	0.69%	92.51%
35.0	209.188	13.939	2046.03	0.60%	93.14%
36.0	161.992	11.818	2057.848	0.51%	93.68%
37.0	123.016	9.295	2067.144	0.40%	94.10%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	108.465	7.727	2074.87	0.33%	94.46%
39.0	96.723	7.004	2081.874	0.30%	94.77%
40.0	86.109	6.377	2088.25	0.27%	95.06%
41.0	76.852	5.803	2094.053	0.25%	95.33%
42.0	69.054	5.301	2099.354	0.23%	95.57%
43.0	62.121	4.859	2104.213	0.21%	95.79%
44.0	56.018	4.459	2108.672	0.19%	95.99%
45.0	51.084	4.116	2112.788	0.18%	96.18%
46.0	46.919	3.833	2116.621	0.17%	96.36%
47.0	43.017	3.577	2120.198	0.15%	96.52%
48.0	39.647	3.342	2123.54	0.14%	96.67%
49.0	36.727	3.136	2126.676	0.14%	96.81%
50.0	34.326	2.962	2129.638	0.13%	96.95%
51.0	32.119	2.811	2132.45	0.12%	97.08%
52.0	30.223	2.675	2135.125	0.12%	97.20%
53.0	28.528	2.556	2137.68	0.11%	97.32%
54.0	27.075	2.451	2140.131	0.11%	97.43%
55.0	25.788	2.360	2142.491	0.10%	97.53%
56.0	24.750	2.284	2144.775	0.10%	97.64%
57.0	23.802	2.220	2146.994	0.10%	97.74%
58.0	23.041	2.166	2149.161	0.09%	97.84%
59.0	22.411	2.125	2151.286	0.09%	97.93%
60.0	21.885	2.093	2153.378	0.09%	98.03%
61.0	21.332	2.062	2155.441	0.09%	98.12%
62.0	20.785	2.029	2157.47	0.09%	98.22%
63.0	20.163	1.992	2159.462	0.09%	98.31%
64.0	19.547	1.949	2161.41	0.08%	98.40%
65.0	18.841	1.900	2163.31	0.08%	98.48%
66.0	18.052	1.841	2165.151	0.08%	98.57%
67.0	17.333	1.779	2166.93	0.08%	98.65%
68.0	16.627	1.720	2168.65	0.07%	98.72%
69.0	15.949	1.662	2170.312	0.07%	98.80%
70.0	15.319	1.606	2171.918	0.07%	98.87%
71.0	14.738	1.554	2173.471	0.07%	98.94%
72.0	14.219	1.506	2174.977	0.06%	99.01%
73.0	13.769	1.464	2176.441	0.06%	99.08%
74.0	13.354	1.426	2177.867	0.06%	99.14%
75.0	12.946	1.390	2179.256	0.06%	99.21%

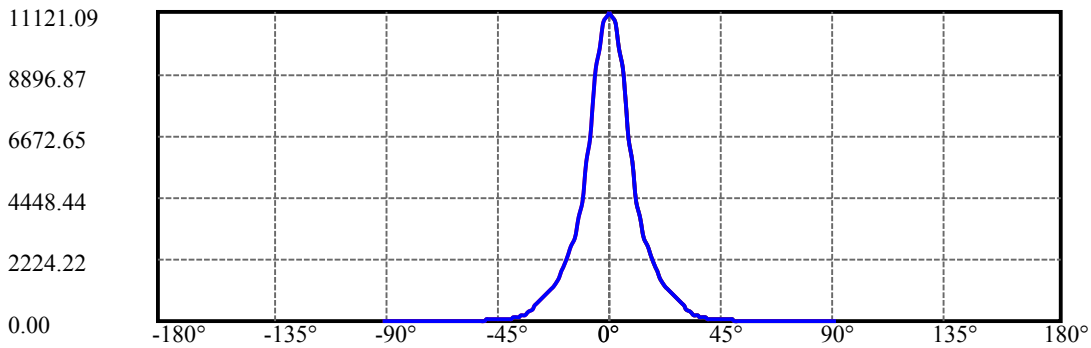
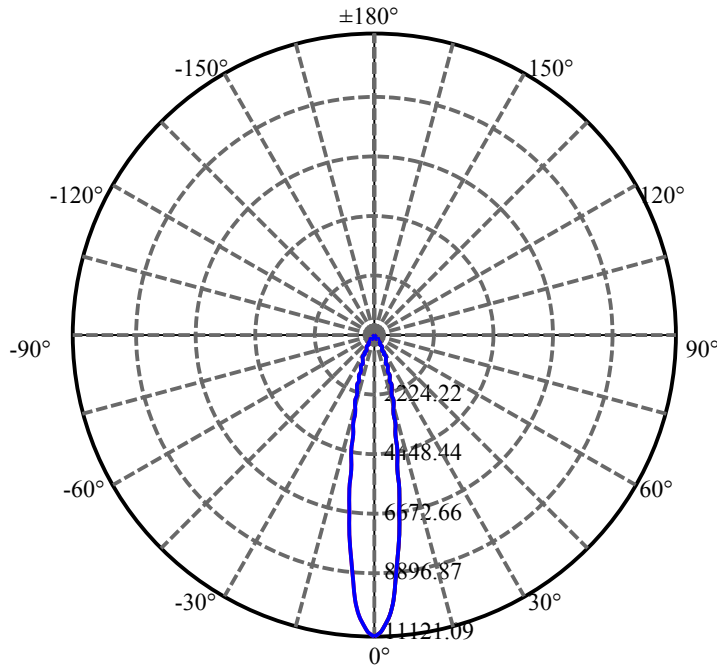
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	12.579	1.355	2180.611	0.06%	99.27%
77.0	12.212	1.322	2181.933	0.06%	99.33%
78.0	11.873	1.289	2183.222	0.06%	99.39%
79.0	11.534	1.258	2184.48	0.05%	99.45%
80.0	11.202	1.226	2185.706	0.05%	99.50%
81.0	10.925	1.197	2186.902	0.05%	99.56%
82.0	10.628	1.169	2188.071	0.05%	99.61%
83.0	10.379	1.142	2189.213	0.05%	99.66%
84.0	10.123	1.117	2190.33	0.05%	99.71%
85.0	9.908	1.093	2191.423	0.05%	99.76%
86.0	9.728	1.073	2192.497	0.05%	99.81%
87.0	9.597	1.058	2193.554	0.05%	99.86%
88.0	9.514	1.047	2194.601	0.05%	99.91%
89.0	9.362	1.035	2195.636	0.04%	99.95%
90.0	9.327	1.025	2196.66	0.04%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1946.63	83.91%	88.62%
0-40	2088.25	90.01%	95.06%
0-60	2153.38	92.82%	98.03%
0-90	2195.64	94.64%	99.95%
0-120	2195.64	94.64%	99.95%
0-180	2196.66	94.68%	100.00%
60-90	42.26	1.82%	1.92%
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%
0-25.01	1757.33	75.75%	80.00%

ZONAL LUMEN SUMMARY

0-10	728.42
10-20	769.53
20-30	448.68
30-40	141.62
40-50	41.39
50-60	23.74
60-70	18.54
70-80	13.79
80-90	9.93
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



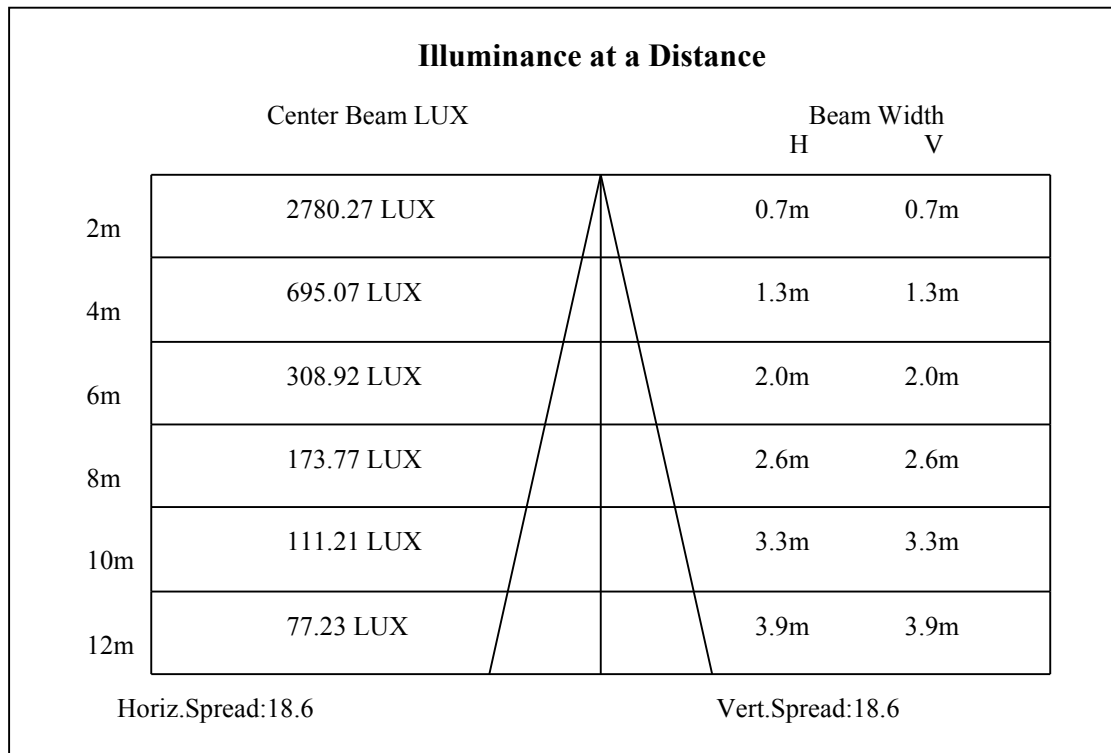
C0(Max): —————

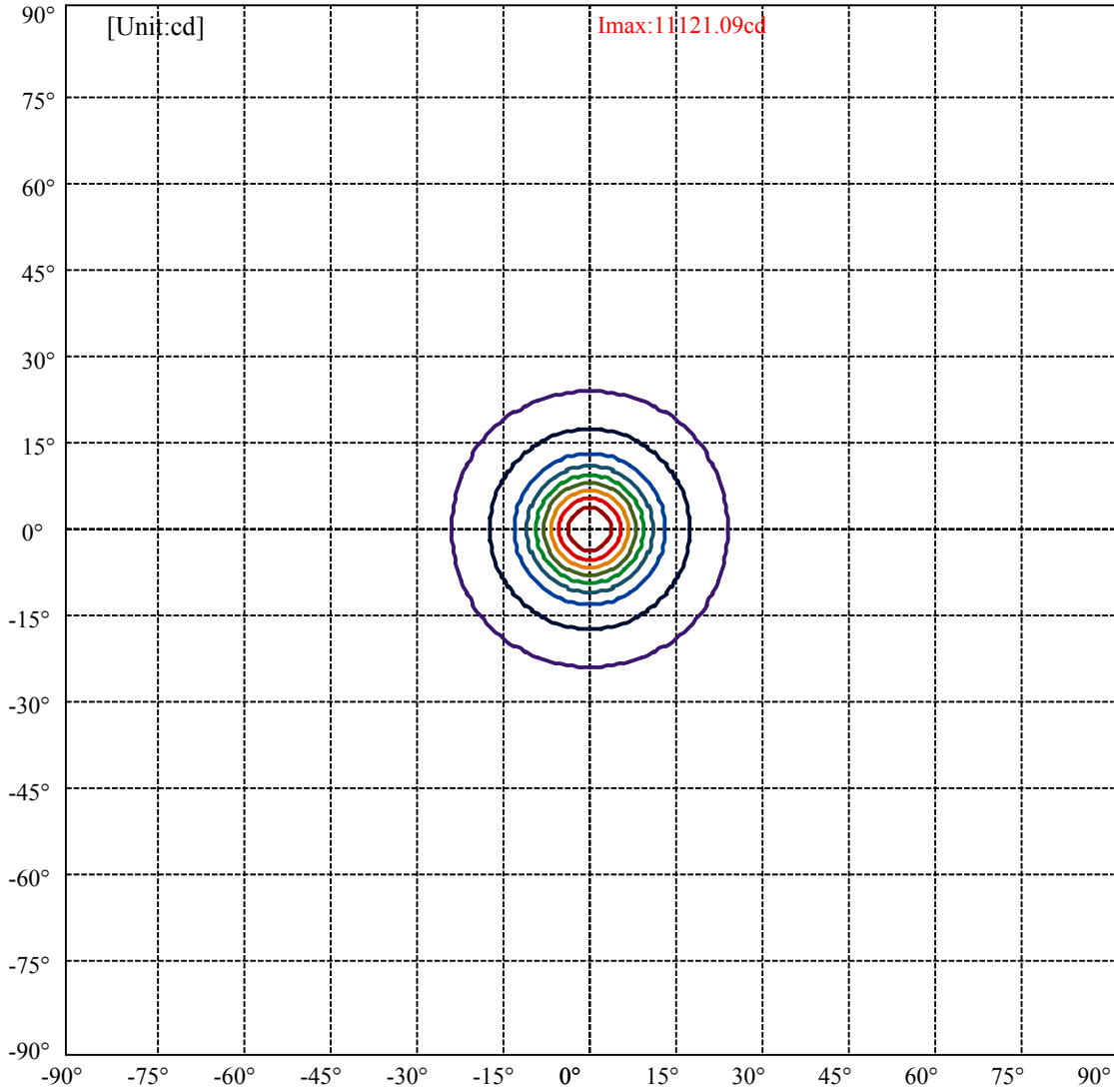
C0/C180: —————

C90/C270: —————

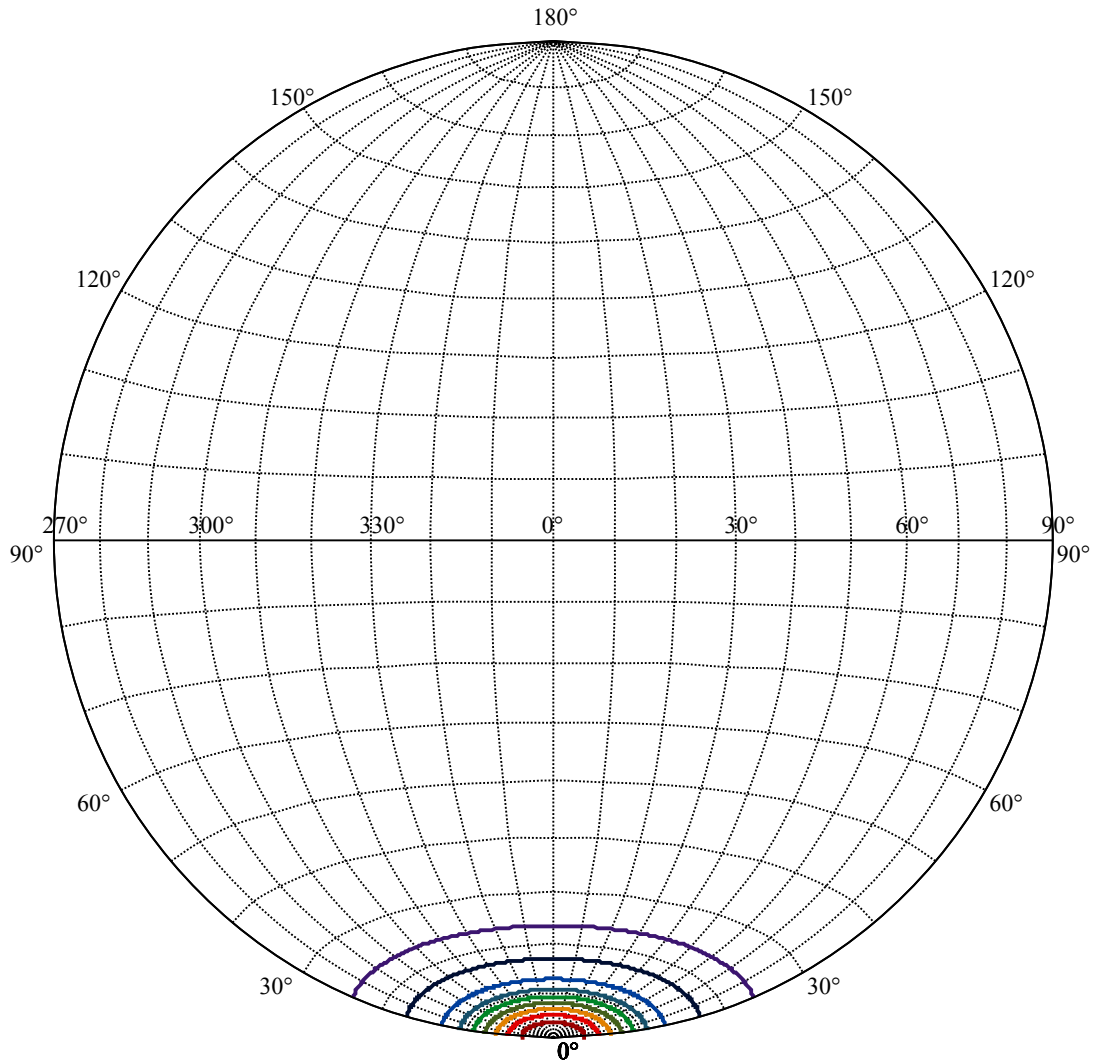
Field angle(10%Imax):C0/180Left:23.7 Right:23.7
:C90/270Left:23.7 Right:23.7

Beam Angle(50%Imax):C0/180Left:9.2 Right:9.2
:C90/270Left:9.2 Right:9.2





(10%Imax) 1112.11	—
(20%Imax) 2224.22	—
(30%Imax) 3336.33	—
(40%Imax) 4448.44	—
(50%Imax) 5560.55	—
(60%Imax) 6672.66	—
(70%Imax) 7784.76	—
(80%Imax) 8896.87	—
(90%Imax) 10009	—



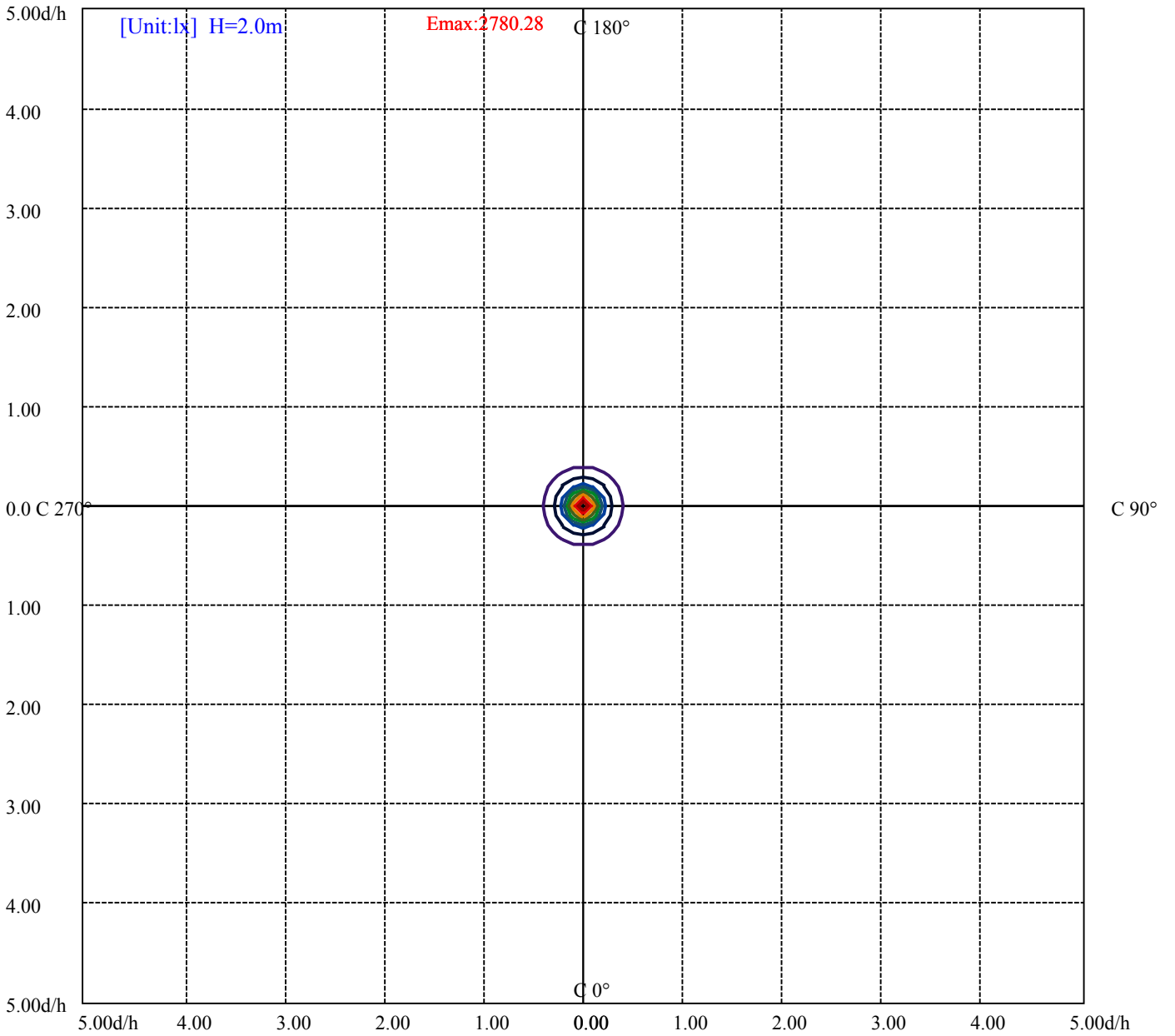
House

[Unit:cd]

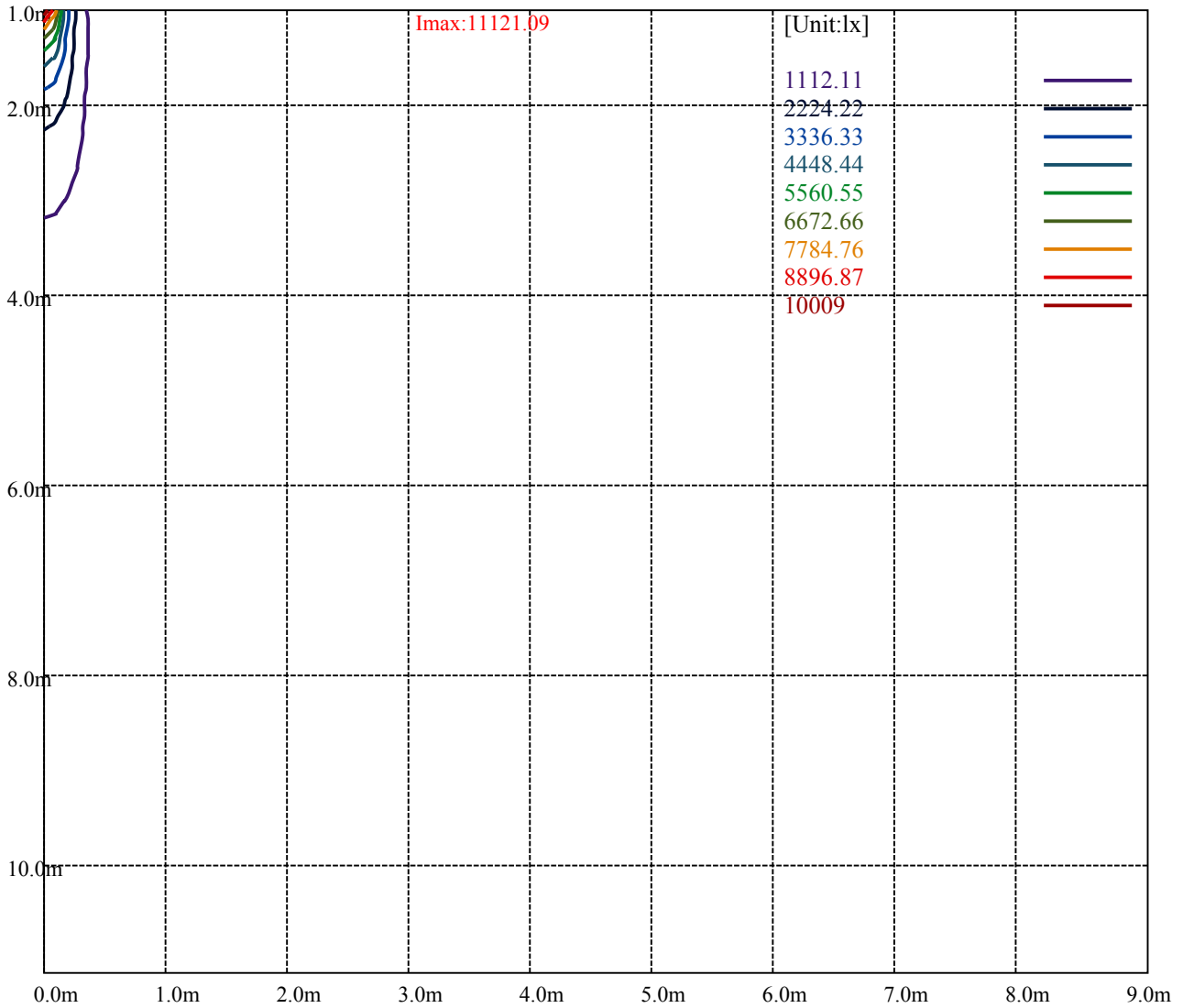
Road

Imax:11121.09

(10%Imax)	1112.11	—
(20%Imax)	2224.22	—
(30%Imax)	3336.33	—
(40%Imax)	4448.44	—
(50%Imax)	5560.55	—
(60%Imax)	6672.66	—
(70%Imax)	7784.76	—
(80%Imax)	8896.87	—
(90%Imax)	10009	—



(10%Emax) 278.0275	—
(20%Emax) 556.0525	—
(30%Emax) 834.08	—
(40%Emax) 1112.108	—
(50%Emax) 1390.135	—
(60%Emax) 1668.16	—
(70%Emax) 1946.188	—
(80%Emax) 2224.215	—
(90%Emax) 2502.25	—



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

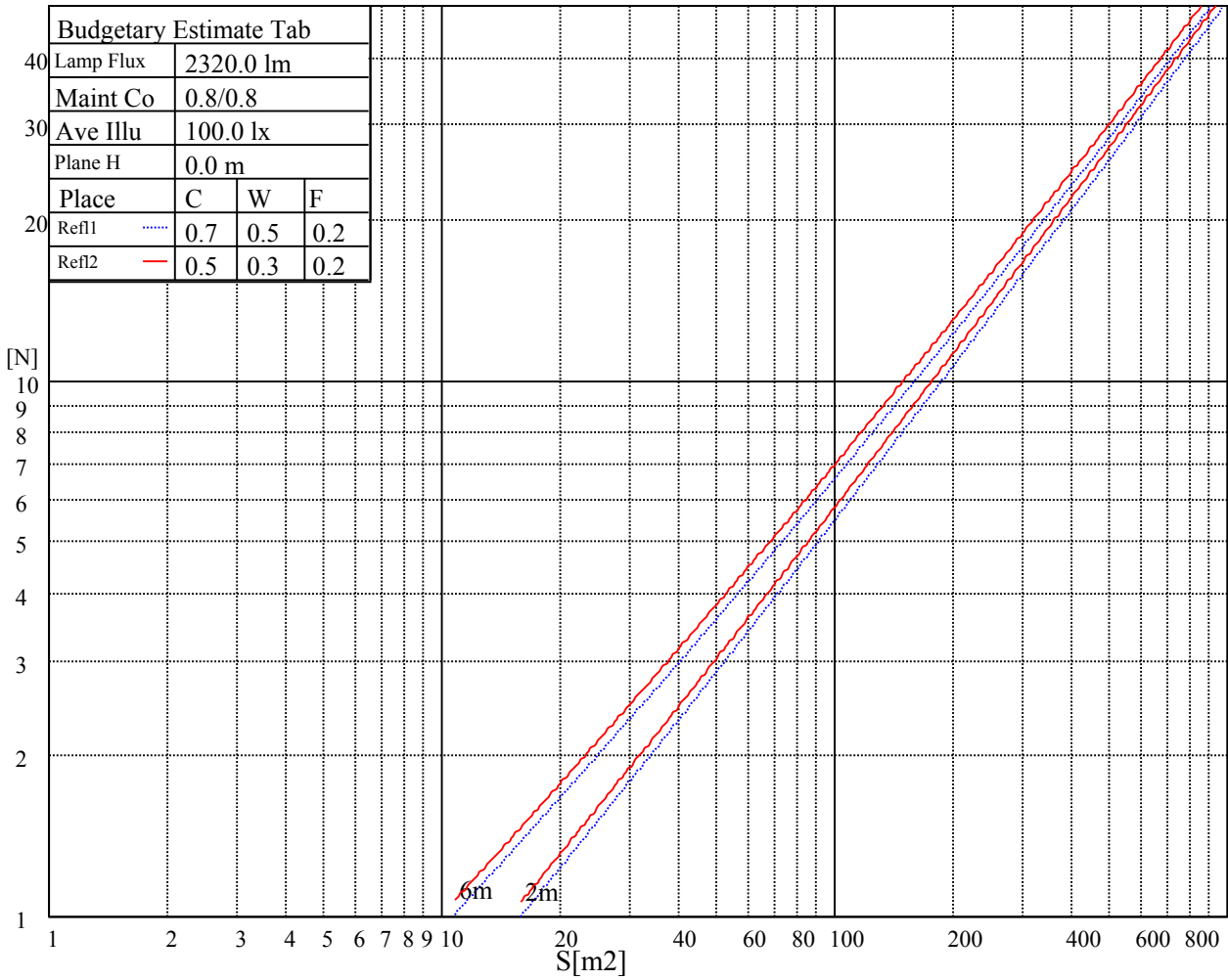
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

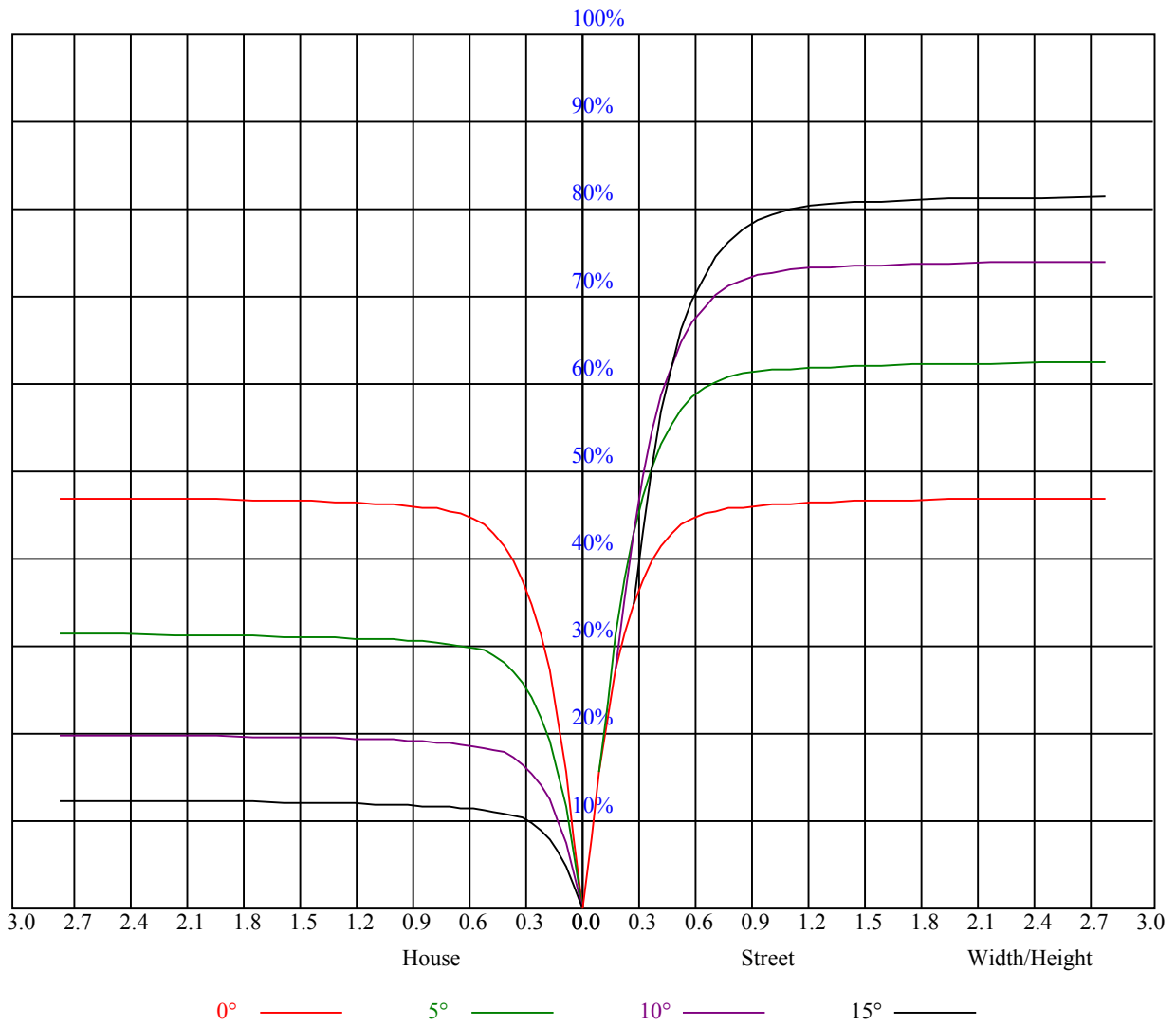


Illumination assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	非数字	
	3H	非数字	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	1.13	1.13	1.13	1.10	1.10	1.10	1.05	1.05	1.05	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	1.00	1.00	0.99	0.97	0.97	0.96	0.95	0.93	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	0.88	0.86
3	0.95	0.92	0.88	0.94	0.91	0.88	0.92	0.89	0.86	0.90	0.87	0.85	0.87	0.86	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	0.77	0.75	0.80	0.77	0.75	0.73
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	0.70	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	0.70	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	0.65	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	11039.72	10632.87	10174.55	9604.40	8746.42	7992.51	7199.84	6191.30	5425.21
45.0	11358.56	11043.04	10749.67	10190.60	9631.53	8934.07	8175.73	7212.57	6409.95
90.0	11040.28	10826.61	10290.79	9718.99	9030.39	8273.70	7289.52	6492.42	5703.08
135.0	11045.81	11175.89	10915.73	10539.33	9991.32	9127.81	8369.46	7373.10	6559.40
180.0	11039.72	11039.72	11358.56	11054.11	10666.64	10173.99	9559.57	8812.29	7793.79
225.0	11358.56	11039.17	10968.87	10614.05	10105.91	9289.99	8529.99	7703.01	6641.32
270.0	11040.28	11040.28	11148.22	10904.66	10528.25	10013.47	9188.70	8408.21	7594.51
315.0	11045.81	11045.81	10841.56	10350.57	9786.52	9112.86	8357.84	7336.01	6502.94
360.0	11039.72	10632.87	10174.55	9604.40	8746.42	7992.51	7199.84	6191.30	5425.21

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4750.45	4034.72	3566.43	3181.72	2797.57	2539.62	2311.01	2103.99	1880.36
45.0	5480.01	4799.16	4217.94	3625.66	3238.19	2922.67	2850.71	2542.94	2138.31
90.0	4826.83	4230.68	3743.56	3241.51	2921.01	2652.54	2351.97	2142.74	1957.30
135.0	5773.38	5042.71	4267.76	3758.51	3348.89	3005.70	2850.71	2850.71	2189.79
180.0	6957.95	6138.71	5164.49	4478.11	3919.03	3365.50	3011.24	2856.25	2856.25
225.0	5814.90	5051.02	4258.91	3756.85	3333.95	2985.77	2626.53	2384.63	2173.18
270.0	6576.01	5784.45	5037.18	4245.62	3736.37	3315.68	2972.49	2817.50	2817.50
315.0	5695.89	4974.07	4193.59	3693.19	3195.01	2870.08	2600.51	2306.58	2101.78
360.0	4750.45	4034.72	3566.43	3181.72	2797.57	2539.62	2311.01	2103.99	1880.36

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1718.73	1567.61	1424.25	1098.60	1098.60	1054.65	946.55	857.32	748.77
45.0	1952.88	1789.03	1595.84	1457.46	1326.27	1212.24	1098.77	1011.31	919.42
90.0	1751.39	1599.17	1453.03	1228.85	1098.88	1077.90	995.31	909.35	800.14
135.0	1998.26	1790.69	1638.47	1491.78	1324.06	1201.17	1079.95	997.47	912.78
180.0	2194.77	1999.37	1818.92	1625.18	1479.05	1345.65	1225.53	1095.45	1012.97
225.0	1981.11	1761.35	1605.25	1461.34	1100.10	1100.10	1077.46	973.45	886.05
270.0	2164.88	1967.82	1746.96	1593.63	1450.82	1286.42	1169.62	1058.36	976.99
315.0	1918.00	1710.43	1560.42	1423.69	1103.75	1103.75	1062.79	983.30	900.05
360.0	1718.73	1567.61	1424.25	1098.60	1098.60	1054.65	946.55	857.32	748.77

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	661.70	579.72	500.18	406.24	334.50	268.08	211.06	162.24	141.98
45.0	807.06	717.38	611.10	528.63	447.81	352.05	282.30	282.30	211.12
90.0	714.34	630.09	526.63	447.59	354.43	284.63	221.97	172.37	137.94
135.0	824.77	714.61	631.03	551.32	471.61	376.96	305.55	287.29	287.29
180.0	929.94	822.55	737.86	633.25	551.88	470.51	393.01	302.23	285.62
225.0	798.53	694.63	611.93	531.06	431.70	356.59	287.01	226.29	167.06
270.0	892.30	804.84	700.78	615.53	532.50	449.47	352.05	281.20	281.20
315.0	792.33	704.32	618.36	510.86	429.82	351.94	262.65	203.20	161.30
360.0	661.70	579.72	500.18	406.24	334.50	268.08	211.06	162.24	141.98

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	126.87	113.53	99.30	89.40	78.77	71.41	64.93	58.07	53.14
45.0	148.68	129.14	115.63	103.84	93.66	82.64	75.11	66.76	61.11
90.0	124.16	111.37	100.08	87.68	79.16	71.90	63.71	58.23	53.36
135.0	136.72	119.73	104.29	93.38	83.86	73.62	66.65	60.28	53.64
180.0	285.62	140.21	117.13	105.06	94.05	82.03	73.51	66.09	58.40
225.0	135.45	119.84	107.28	93.55	83.92	75.45	66.15	59.95	53.36
270.0	205.25	130.69	116.85	104.45	91.00	81.48	73.18	64.60	58.67
315.0	133.18	119.62	107.16	96.43	84.47	76.28	69.19	62.99	56.46
360.0	126.87	113.53	99.30	89.40	78.77	71.41	64.93	58.07	53.14

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	48.99	45.50	41.35	38.47	36.20	34.10	31.55	29.95	28.56
45.0	55.96	50.59	47.05	43.51	39.58	37.03	34.82	32.82	30.72
90.0	47.88	44.28	41.07	37.70	35.37	33.38	31.00	29.28	27.95
135.0	49.32	45.33	41.63	37.97	35.37	32.94	31.00	28.95	27.46
180.0	53.19	48.77	44.06	40.52	37.59	34.65	32.38	30.44	28.73
225.0	49.04	45.06	41.24	37.53	35.04	32.60	30.56	28.40	26.90
270.0	52.36	48.21	44.23	40.85	37.53	35.04	32.77	30.94	28.95
315.0	51.92	47.60	43.51	40.63	37.14	34.87	32.88	31.00	28.95
360.0	48.99	45.50	41.35	38.47	36.20	34.10	31.55	29.95	28.56
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	27.01	25.79	25.02	24.13	23.47	22.81	22.47	21.86	21.09
45.0	29.23	27.84	26.68	25.46	24.58	23.91	23.19	22.75	22.09
90.0	26.57	25.19	24.19	23.47	22.86	22.14	21.53	21.09	20.59
135.0	26.18	24.80	23.80	22.69	22.03	21.53	21.03	20.48	19.98
180.0	26.85	25.57	24.47	23.58	22.58	21.92	21.42	20.81	20.31
225.0	25.57	24.24	23.41	22.58	21.81	21.31	20.87	20.20	19.76
270.0	27.46	26.29	25.02	24.13	23.36	22.64	22.14	21.64	21.03
315.0	27.73	26.57	25.41	24.36	23.64	23.03	22.42	21.81	21.42
360.0	27.01	25.79	25.02	24.13	23.47	22.81	22.47	21.86	21.09
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	20.15	19.43	18.43	17.77	16.83	16.05	15.50	14.95	14.28
45.0	21.20	20.54	19.93	18.54	17.82	17.16	16.33	15.55	15.06
90.0	19.93	19.15	18.43	17.60	16.94	16.11	15.44	14.95	14.50
135.0	19.54	19.04	18.32	17.77	16.99	16.44	15.72	15.11	14.45
180.0	19.82	19.43	18.88	18.27	17.55	16.88	16.27	15.67	14.89
225.0	19.37	18.60	18.05	17.38	16.77	16.00	15.44	14.83	14.34
270.0	20.70	20.20	19.54	18.76	18.10	17.38	16.77	16.00	15.39
315.0	20.59	19.98	19.15	18.32	17.66	16.99	16.11	15.50	15.00
360.0	20.15	19.43	18.43	17.77	16.83	16.05	15.50	14.95	14.28
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	13.84	13.34	12.95	12.57	12.12	11.79	11.46	11.13	10.74
45.0	14.45	13.95	13.45	13.06	12.57	12.23	11.85	11.46	11.13
90.0	13.89	13.51	13.12	12.62	12.29	11.90	11.51	11.18	10.90
135.0	14.00	13.67	13.23	12.95	12.62	12.23	11.90	11.62	11.29
180.0	14.39	14.00	13.62	13.17	12.84	12.51	12.23	11.90	11.57
225.0	13.84	13.51	13.06	12.73	12.45	12.12	11.85	11.57	11.29
270.0	14.89	14.34	13.95	13.45	13.06	12.73	12.34	11.90	11.57
315.0	14.45	13.84	13.45	13.01	12.68	12.18	11.85	11.51	11.13
360.0	13.84	13.34	12.95	12.57	12.12	11.79	11.46	11.13	10.74
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	10.52	10.24	10.02	9.85	9.63	9.52	9.69	9.63	9.52
45.0	10.85	10.52	10.24	10.02	9.80	9.63	9.47	9.69	9.47
90.0	10.63	10.35	10.07	9.85	9.69	9.52	9.41	9.13	9.13
135.0	10.96	10.68	10.46	10.19	9.96	9.80	9.63	9.41	9.24
180.0	11.35	11.07	10.79	10.52	10.30	10.02	9.80	9.58	9.47
225.0	10.96	10.68	10.46	10.13	9.91	9.74	9.58	9.41	9.30
270.0	11.29	10.90	10.63	10.35	10.07	9.91	9.69	9.52	9.52
315.0	10.85	10.57	10.35	10.07	9.91	9.69	9.52	9.74	9.24
360.0	10.52	10.24	10.02	9.85	9.63	9.52	9.69	9.63	9.52

Intensity data(cd)

C/γ(°)	90.0
0.0	9.58
45.0	9.52
90.0	9.41
135.0	9.13
180.0	9.30
225.0	9.08
270.0	9.02
315.0	9.58
360.0	9.58