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Nata

LumCAT: 1-1248-L	
Luminaire: 92.70.123.00	
Report No: 220929-B015	Voltage(V): 34.5800
Test No: 220929-C015	Current(A): 0.1850
LampCAT: LUMINUS CXM-6	Power (W): 6.3970
Lamp flux(lm): 813.7	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 676.41
Efficiency(%): 83.13%
Lumens(lm)/Power(W): 105.74
Central intensity(cd): 2433.586
Maximum intensity(cd): 2433.586
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=24.8
 [C90/270]Total=24.8
Field angle(10%Imax): [C0/180]Total=55.5
 [C90/270]Total=55.5
Maximum s/h(1/2): C0_180=0.42 C90_270=0.42
Maximum s/h(1/4): C0_180=0.46 C90_270=0.46
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 83.13%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.035%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2433.586	0.000	0	.000%	.000%
1.0	2415.212	2.320	2.32	.285%	.343%
2.0	2367.410	6.864	9.185	.844%	1.358%
3.0	2293.391	11.147	20.332	1.370%	3.006%
4.0	2205.928	15.061	35.392	1.851%	5.232%
5.0	2115.701	18.591	53.984	2.285%	7.981%
6.0	2003.216	21.646	75.63	2.660%	11.181%
7.0	1889.163	24.160	99.79	2.969%	14.753%
8.0	1784.222	26.290	126.079	3.231%	18.639%
9.0	1656.201	27.883	153.962	3.427%	22.762%
10.0	1522.504	28.766	182.728	3.535%	27.014%
11.0	1392.653	29.128	211.857	3.580%	31.321%
12.0	1264.812	29.050	240.907	3.570%	35.615%
13.0	1151.789	28.679	269.586	3.525%	39.855%
14.0	1047.028	28.145	297.73	3.459%	44.016%
15.0	943.894	27.332	325.062	3.359%	48.057%
16.0	851.329	26.305	351.367	3.233%	51.946%
17.0	768.467	25.225	376.592	3.100%	55.675%
18.0	694.067	24.114	400.706	2.964%	59.240%
19.0	633.291	23.093	423.799	2.838%	62.654%
20.0	577.026	22.152	445.952	2.722%	65.929%
21.0	527.596	21.211	467.163	2.607%	69.065%
22.0	486.441	20.377	487.54	2.504%	72.078%
23.0	448.864	19.625	507.165	2.412%	74.979%
24.0	404.072	18.648	525.814	2.292%	77.736%
25.0	361.677	17.411	543.225	2.140%	80.310%
26.0	320.970	16.114	559.339	1.980%	82.692%
27.0	279.083	14.680	574.019	1.804%	84.863%
28.0	232.312	12.947	586.967	1.591%	86.777%
29.0	189.342	11.032	597.998	1.356%	88.408%
30.0	153.221	9.249	607.248	1.137%	89.775%
31.0	118.027	7.548	614.796	.928%	90.891%
32.0	89.562	5.947	620.743	.731%	91.770%
33.0	69.642	4.690	625.433	.576%	92.464%
34.0	55.585	3.790	629.223	.466%	93.024%
35.0	46.854	3.181	632.405	.391%	93.494%
36.0	41.483	2.813	635.217	.346%	93.910%
37.0	36.651	2.548	637.766	.313%	94.287%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	32.461	2.307	640.072	.284%	94.628%
39.0	28.345	2.075	642.148	.255%	94.935%
40.0	25.022	1.861	644.009	.229%	95.210%
41.0	22.161	1.680	645.689	.206%	95.458%
42.0	19.681	1.520	647.209	.187%	95.683%
43.0	17.739	1.386	648.596	.170%	95.888%
44.0	16.327	1.286	649.881	.158%	96.078%
45.0	15.110	1.208	651.09	.148%	96.257%
46.0	13.878	1.134	652.223	.139%	96.424%
47.0	12.862	1.063	653.287	.131%	96.581%
48.0	11.988	1.005	654.291	.123%	96.730%
49.0	11.114	0.949	655.24	.117%	96.870%
50.0	10.292	0.893	656.132	.110%	97.002%
51.0	9.643	0.843	656.976	.104%	97.127%
52.0	9.030	0.801	657.777	.098%	97.245%
53.0	8.485	0.762	658.539	.094%	97.358%
54.0	8.014	0.727	659.266	.089%	97.465%
55.0	7.604	0.697	659.963	.086%	97.569%
56.0	7.245	0.671	660.634	.082%	97.668%
57.0	6.931	0.648	661.283	.080%	97.764%
58.0	6.640	0.628	661.91	.077%	97.856%
59.0	6.416	0.610	662.521	.075%	97.947%
60.0	6.192	0.596	663.116	.073%	98.035%
61.0	5.998	0.582	663.698	.071%	98.121%
62.0	5.811	0.569	664.267	.070%	98.205%
63.0	5.662	0.558	664.825	.069%	98.287%
64.0	5.490	0.547	665.372	.067%	98.368%
65.0	5.355	0.537	665.909	.066%	98.448%
66.0	5.221	0.528	666.436	.065%	98.526%
67.0	5.109	0.519	666.956	.064%	98.602%
68.0	4.959	0.510	667.466	.063%	98.678%
69.0	4.840	0.500	667.966	.061%	98.752%
70.0	4.728	0.491	668.457	.060%	98.824%
71.0	4.579	0.481	668.938	.059%	98.895%
72.0	4.459	0.470	669.408	.058%	98.965%
73.0	4.347	0.460	669.869	.057%	99.033%
74.0	4.242	0.452	670.32	.055%	99.100%
75.0	4.115	0.442	670.762	.054%	99.165%

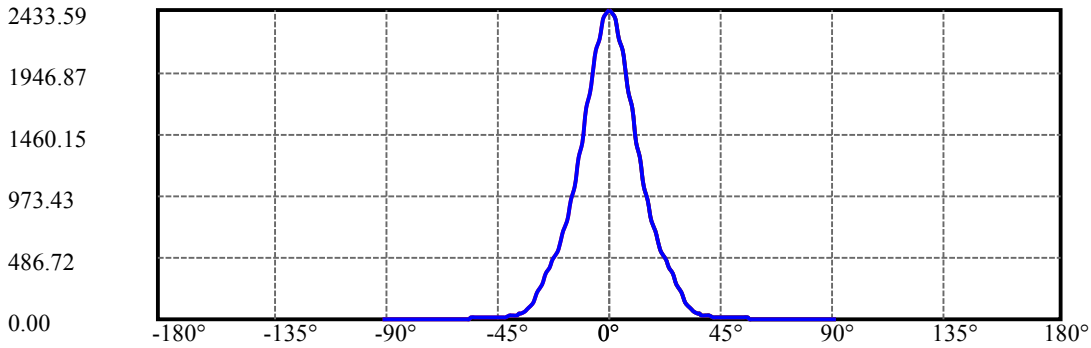
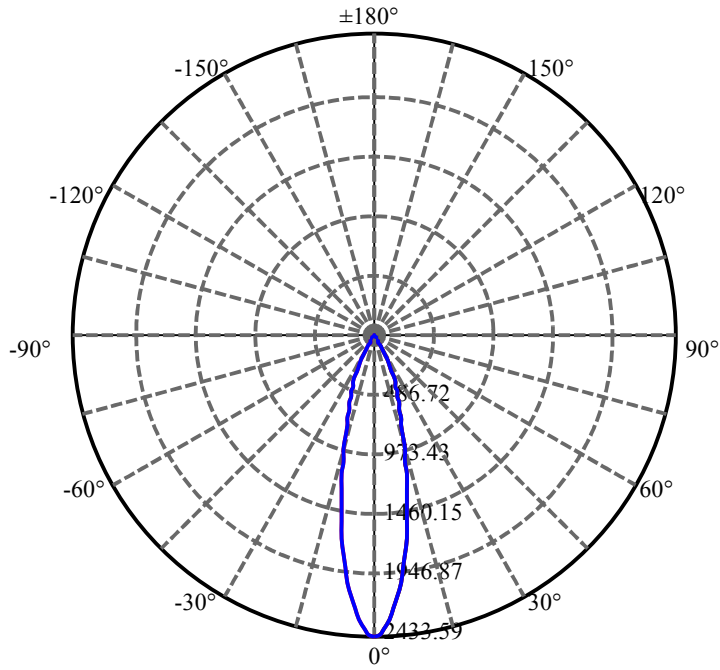
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	4.011	0.431	671.193	.053%	99.229%
77.0	3.906	0.422	671.615	.052%	99.291%
78.0	3.794	0.412	672.028	.051%	99.352%
79.0	3.712	0.403	672.431	.050%	99.412%
80.0	3.615	0.395	672.826	.049%	99.470%
81.0	3.540	0.387	673.213	.048%	99.527%
82.0	3.466	0.380	673.593	.047%	99.584%
83.0	3.398	0.373	673.966	.046%	99.639%
84.0	3.346	0.367	674.333	.045%	99.693%
85.0	3.271	0.361	674.695	.044%	99.746%
86.0	3.197	0.354	675.048	.043%	99.799%
87.0	3.144	0.347	675.395	.043%	99.850%
88.0	3.100	0.342	675.737	.042%	99.901%
89.0	3.062	0.338	676.075	.042%	99.950%
90.0	3.047	0.335	676.41	.041%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	607.25	74.63%	89.78%
0-40	644.01	79.15%	95.21%
0-60	663.12	81.50%	98.03%
0-90	676.07	83.09%	99.95%
0-120	676.07	83.09%	99.95%
0-180	676.41	83.13%	100.00%
60-90	13.55	1.67%	2.00%
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%
0-24.88	541.13	66.50%	80.00%

ZONAL LUMEN SUMMARY

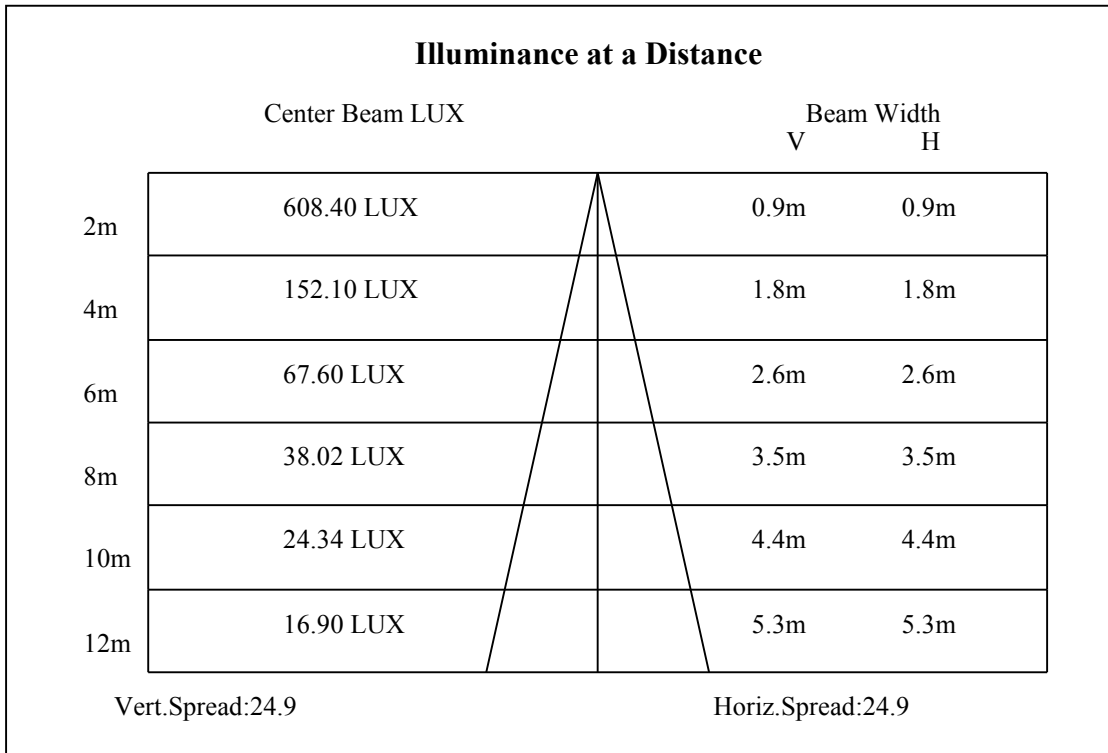
0-10	182.73
10-20	263.22
20-30	161.30
30-40	36.76
40-50	12.12
50-60	6.98
60-70	5.34
70-80	4.37
80-90	3.25
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

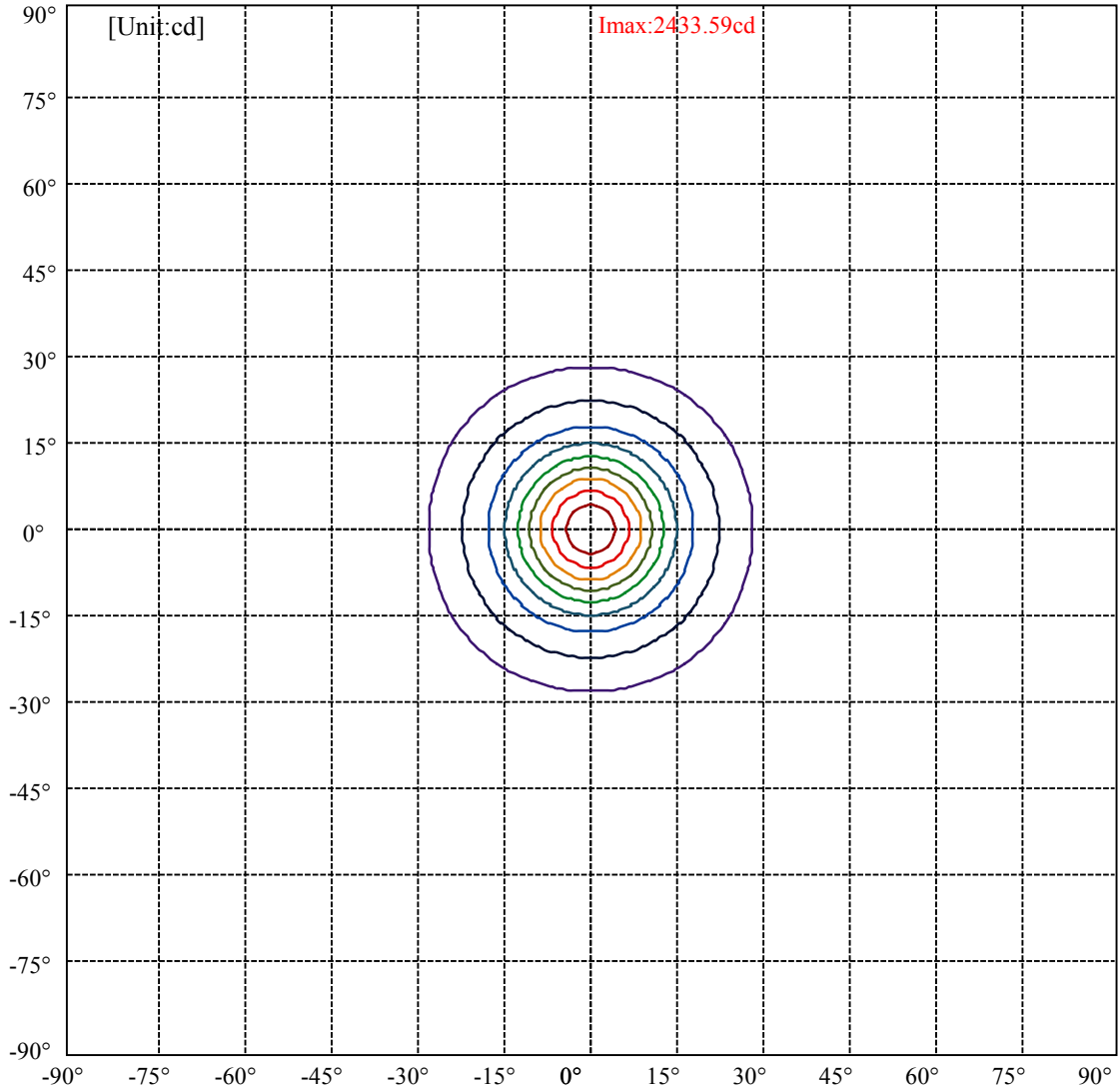


C0(Max): —————
C0/C180: —————
C90/C270: —————

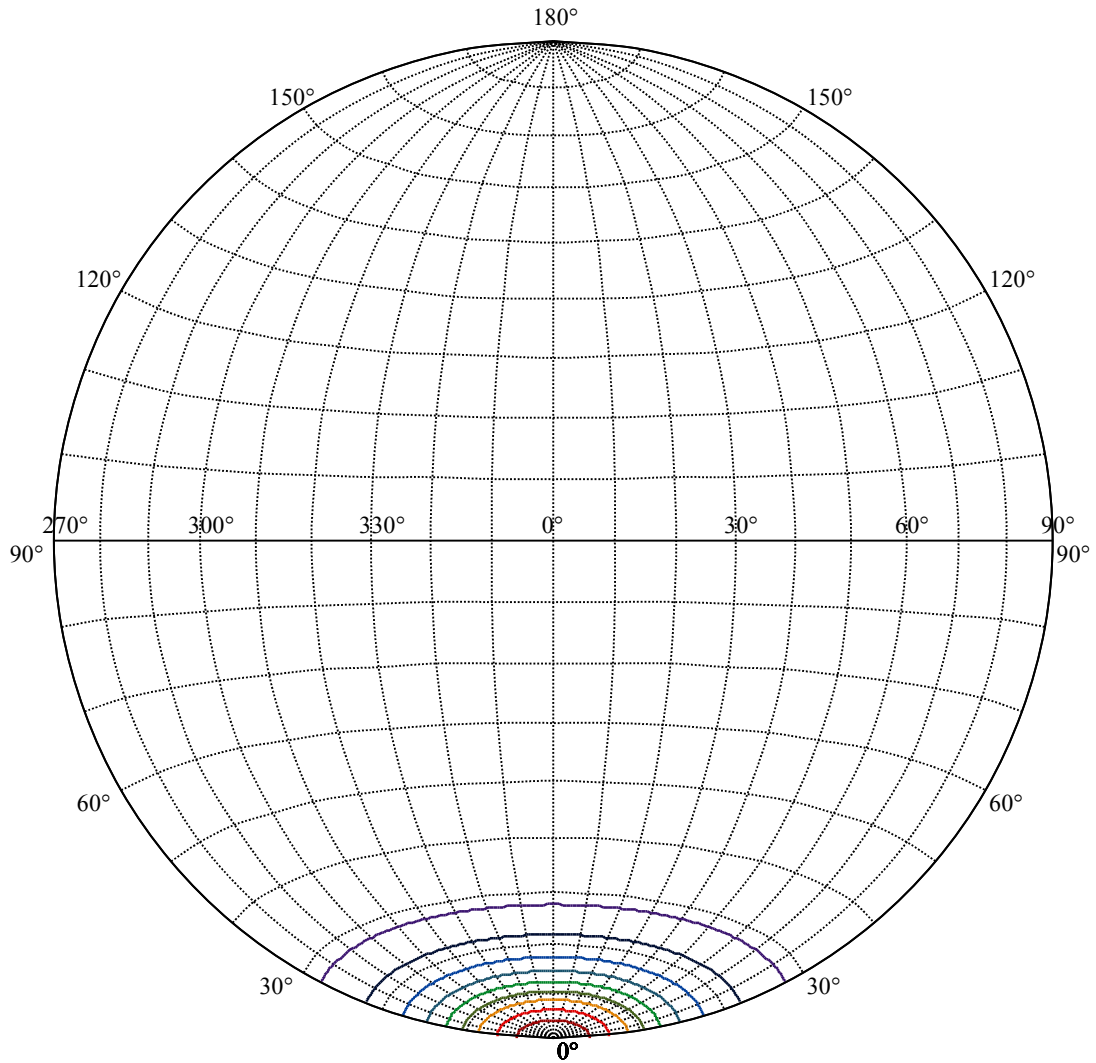
Field angle(10%Imax):C0/180Left:27.8 Right:27.8
:C90/270Left:27.8 Right:27.8

Beam Angle(50%Imax):C0/180Left:12.4 Right:12.4
:C90/270Left:12.4 Right:12.4





(10%Imax) 243.359	—
(20%Imax) 486.717	—
(30%Imax) 730.076	—
(40%Imax) 973.434	—
(50%Imax) 1216.79	—
(60%Imax) 1460.15	—
(70%Imax) 1703.51	—
(80%Imax) 1946.87	—
(90%Imax) 2190.23	—



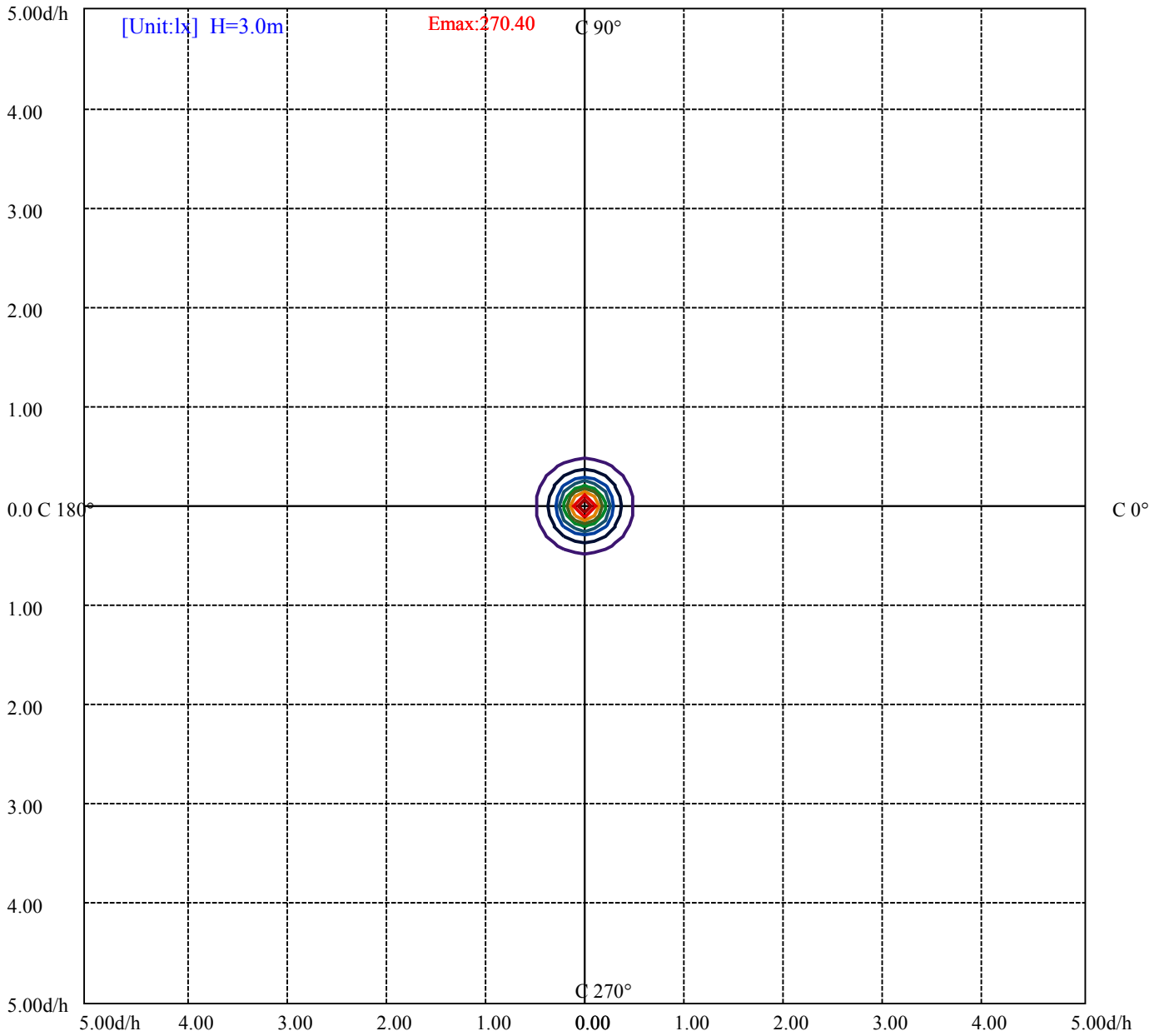
House

[Unit:cd]

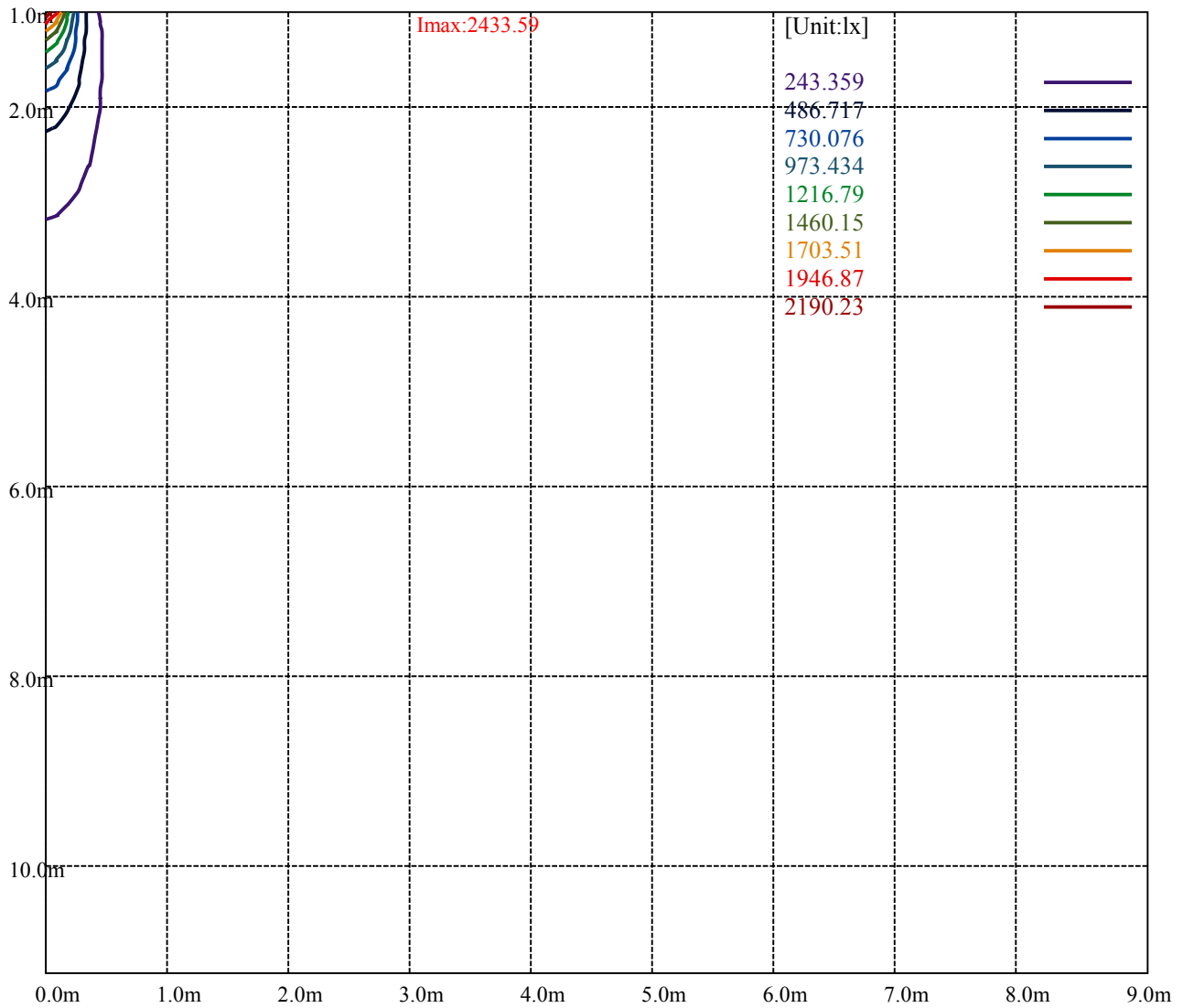
Road

Imax:2433.59

(10%Imax) 243.359	—
(20%Imax) 486.717	—
(30%Imax) 730.076	—
(40%Imax) 973.434	—
(50%Imax) 1216.79	—
(60%Imax) 1460.15	—
(70%Imax) 1703.51	—
(80%Imax) 1946.87	—
(90%Imax) 2190.23	—



- (10%Emax) 27.03978
- (20%Emax) 54.07967
- (30%Emax) 81.11945
- (40%Emax) 108.1592
- (50%Emax) 135.1989
- (60%Emax) 162.2389
- (70%Emax) 189.2789
- (80%Emax) 216.3189
- (90%Emax) 243.3589



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

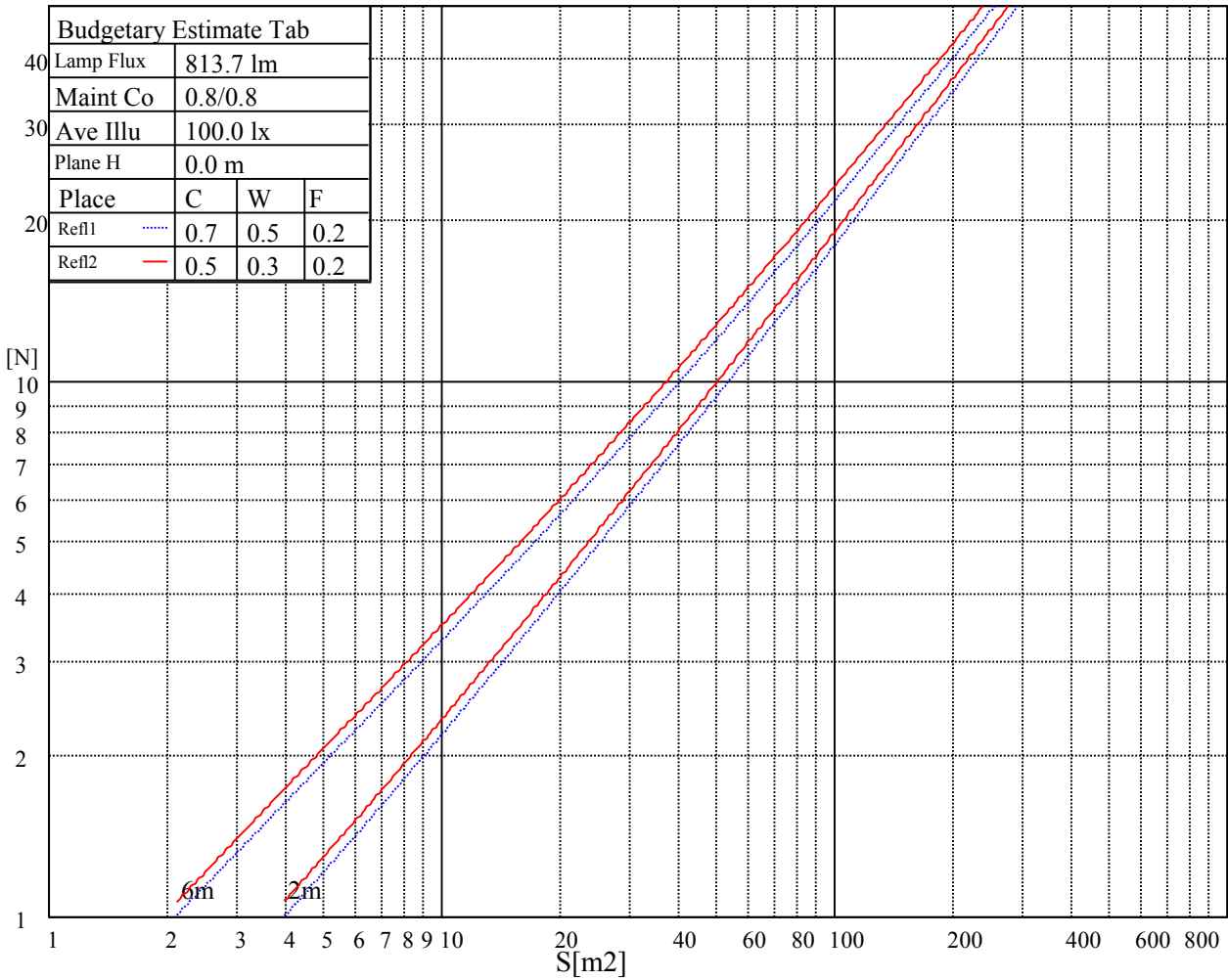
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

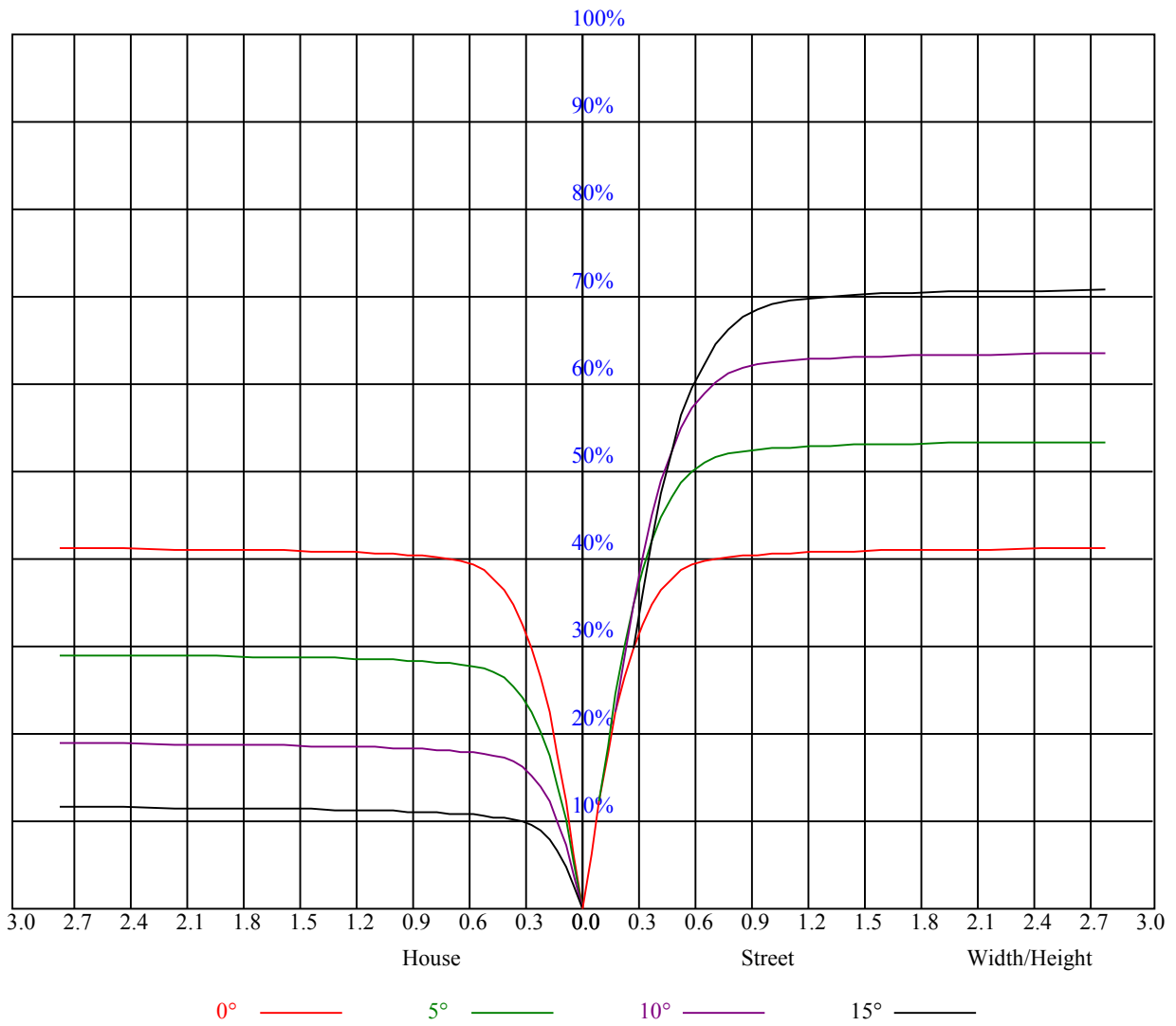
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





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	0.99	0.99	0.99	0.97	0.97	0.97	0.92	0.92	0.92	0.88	0.88	0.88	0.85	0.85	0.85	0.83
1	0.93	0.91	0.89	0.91	0.89	0.88	0.88	0.86	0.85	0.85	0.84	0.83	0.82	0.81	0.80	0.79
2	0.88	0.85	0.82	0.86	0.84	0.82	0.84	0.82	0.80	0.81	0.80	0.78	0.79	0.78	0.76	0.75
3	0.83	0.80	0.77	0.82	0.79	0.76	0.80	0.77	0.75	0.78	0.76	0.74	0.76	0.74	0.73	0.72
4	0.79	0.76	0.73	0.78	0.75	0.72	0.77	0.74	0.71	0.75	0.73	0.71	0.74	0.72	0.70	0.69
5	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.68	0.72	0.70	0.68	0.71	0.69	0.67	0.66
6	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.69	0.66	0.64	0.63
7	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.63	0.67	0.64	0.62	0.67	0.64	0.62	0.61
8	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.64	0.62	0.60	0.59
9	0.65	0.61	0.58	0.64	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.62	0.60	0.58	0.57
10	0.62	0.59	0.56	0.62	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.56	0.60	0.58	0.56	0.55



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	2431.35	2435.53	2403.26	2339.33	2265.23	2166.64	2061.48	1958.10	1866.08
45.0	2436.13	2410.43	2348.89	2267.62	2182.18	2093.74	1968.26	1861.90	1751.36
90.0	2428.96	2381.75	2319.61	2229.98	2135.57	2036.98	1920.46	1797.96	1683.24
135.0	2437.92	2417.00	2359.04	2278.98	2197.71	2106.89	1983.80	1879.83	1769.88
180.0	2431.35	2393.10	2335.14	2249.10	2153.49	2062.67	1964.08	1830.23	1716.10
225.0	2436.13	2429.55	2388.32	2327.38	2240.14	2153.49	2048.33	1938.98	1835.61
270.0	2428.96	2434.33	2406.85	2351.28	2273.60	2186.96	2074.02	1974.83	1872.66
315.0	2437.92	2419.99	2378.17	2303.47	2199.50	2118.24	2005.31	1871.46	1778.84
360.0	2431.35	2435.53	2403.26	2339.33	2265.23	2166.64	2061.48	1958.10	1866.08

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1711.32	1596.00	1492.03	1349.22	1223.14	1128.13	1003.25	899.28	826.98
45.0	1607.35	1487.85	1365.95	1235.09	1112.60	1008.63	901.67	819.81	734.96
90.0	1564.93	1413.16	1191.17	1177.91	1055.83	944.04	854.47	764.06	683.75
135.0	1625.28	1504.58	1380.89	1249.43	1122.76	1018.19	910.04	823.99	740.34
180.0	1599.59	1463.95	1333.68	1189.02	1106.21	983.47	892.23	810.13	727.37
225.0	1726.26	1584.05	1463.95	1349.22	1191.53	1098.50	1002.65	894.50	814.31
270.0	1751.96	1628.27	1512.35	1383.28	1257.20	1152.04	1039.10	947.08	854.47
315.0	1662.92	1502.19	1401.21	1185.32	1145.04	1043.23	947.74	851.78	765.55
360.0	1711.32	1596.00	1492.03	1349.22	1223.14	1128.13	1003.25	899.28	826.98

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	737.35	674.61	616.05	556.30	514.47	478.02	433.21	393.77	350.15
45.0	660.87	601.71	548.53	504.31	465.48	427.23	377.64	337.60	302.95
90.0	621.91	569.27	518.83	475.99	437.57	401.00	356.72	309.82	270.86
135.0	663.26	602.91	550.32	505.51	467.27	431.42	384.21	345.37	305.93
180.0	654.29	597.23	541.48	496.96	460.81	419.70	380.15	333.72	287.53
225.0	745.12	673.83	619.22	563.47	510.95	476.83	431.60	378.18	341.55
270.0	770.81	706.28	639.95	585.58	540.17	501.33	453.52	415.88	372.86
315.0	698.93	640.49	581.81	532.64	494.81	455.38	415.52	379.07	335.93
360.0	737.35	674.61	616.05	556.30	514.47	478.02	433.21	393.77	350.15

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	301.75	251.14	211.05	169.64	130.74	100.80	73.26	55.93	46.67
45.0	276.48	204.12	169.16	139.46	99.07	76.42	61.66	49.06	42.60
90.0	232.44	186.91	152.43	120.58	94.53	71.23	59.69	52.52	45.89
135.0	257.83	213.02	176.09	138.27	105.40	83.47	66.39	57.00	49.95
180.0	247.97	209.43	164.56	131.04	102.18	74.15	59.69	50.97	44.34
225.0	299.42	241.46	208.42	171.13	134.80	101.10	76.90	58.26	48.46
270.0	322.67	305.93	231.00	192.58	148.37	115.80	88.14	64.83	51.03
315.0	294.10	246.48	202.02	163.07	129.13	93.51	71.40	56.11	45.89
360.0	301.75	251.14	211.05	169.64	130.74	100.80	73.26	55.93	46.67

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	41.05	36.93	32.80	28.92	25.99	23.36	20.55	18.82	17.45
45.0	38.66	33.52	29.82	26.35	22.53	19.90	17.81	15.89	14.70
90.0	41.05	36.33	31.73	27.31	23.84	20.44	17.93	16.31	15.00
135.0	43.86	38.78	34.30	29.16	25.45	22.29	18.88	17.09	15.77
180.0	38.72	34.30	29.94	26.05	23.18	20.44	18.40	16.67	15.30
225.0	43.02	37.64	33.70	29.64	26.29	23.72	21.45	19.18	17.69
270.0	44.70	39.32	35.13	30.89	27.31	24.50	21.87	19.42	17.75
315.0	40.81	36.39	32.27	28.44	25.57	22.65	20.55	18.52	16.97
360.0	41.05	36.93	32.80	28.92	25.99	23.36	20.55	18.82	17.45

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	15.89	14.76	13.74	12.73	11.77	10.93	10.16	9.56	9.02
45.0	13.62	12.43	11.59	10.82	9.92	9.32	8.78	8.19	7.71
90.0	13.92	12.91	11.89	11.11	10.40	9.62	9.08	8.54	8.01
135.0	14.64	13.38	12.49	11.65	10.76	9.98	9.32	8.72	8.19
180.0	14.16	13.15	12.07	11.23	10.52	9.68	9.08	8.54	8.01
225.0	16.49	15.12	14.10	13.21	12.31	11.41	10.70	10.04	9.50
270.0	16.43	14.88	13.80	12.91	11.83	10.88	10.22	9.38	8.78
315.0	15.72	14.40	13.21	12.25	11.41	10.52	9.80	9.26	8.66
360.0	15.89	14.76	13.74	12.73	11.77	10.93	10.16	9.56	9.02
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	8.48	8.01	7.65	7.29	6.99	6.75	6.51	6.27	6.09
45.0	7.29	6.93	6.63	6.39	6.09	5.92	5.74	5.56	5.44
90.0	7.59	7.29	6.93	6.63	6.45	6.21	5.98	5.86	5.68
135.0	7.77	7.35	7.05	6.75	6.45	6.27	6.04	5.86	5.68
180.0	7.59	7.23	6.87	6.57	6.33	6.15	5.98	5.80	5.56
225.0	8.90	8.43	8.01	7.65	7.29	6.99	6.75	6.51	6.27
270.0	8.37	7.83	7.47	7.11	6.75	6.51	6.27	6.04	5.86
315.0	8.13	7.77	7.35	7.05	6.75	6.51	6.27	6.09	5.92
360.0	8.48	8.01	7.65	7.29	6.99	6.75	6.51	6.27	6.09
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	5.92	5.74	5.62	5.44	5.32	5.20	5.02	4.90	4.72
45.0	5.32	5.14	5.02	4.90	4.84	4.66	4.60	4.48	4.36
90.0	5.56	5.38	5.26	5.14	5.02	4.84	4.78	4.66	4.48
135.0	5.56	5.38	5.26	5.14	5.02	4.90	4.78	4.66	4.54
180.0	5.44	5.32	5.20	5.08	4.96	4.78	4.66	4.60	4.48
225.0	6.09	5.92	5.74	5.56	5.44	5.32	5.14	5.02	4.84
270.0	5.68	5.50	5.38	5.26	5.08	4.96	4.84	4.72	4.60
315.0	5.74	5.56	5.38	5.26	5.20	5.02	4.90	4.78	4.60
360.0	5.92	5.74	5.62	5.44	5.32	5.20	5.02	4.90	4.72
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	4.60	4.48	4.36	4.24	4.18	4.06	3.88	3.76	3.70
45.0	4.24	4.12	4.06	3.88	3.82	3.76	3.64	3.53	3.47
90.0	4.36	4.24	4.18	4.06	3.88	3.82	3.70	3.64	3.53
135.0	4.42	4.30	4.24	4.06	3.94	3.88	3.76	3.70	3.59
180.0	4.36	4.24	4.12	4.00	3.94	3.76	3.70	3.64	3.53
225.0	4.72	4.60	4.42	4.30	4.18	4.06	3.94	3.88	3.76
270.0	4.48	4.36	4.24	4.18	4.06	3.94	3.88	3.76	3.70
315.0	4.48	4.42	4.30	4.18	4.06	3.94	3.82	3.76	3.64
360.0	4.60	4.48	4.36	4.24	4.18	4.06	3.88	3.76	3.70
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	3.64	3.53	3.47	3.41	3.35	3.29	3.17	3.11	3.11
45.0	3.41	3.35	3.29	3.23	3.17	3.11	3.05	3.05	2.99
90.0	3.47	3.35	3.35	3.29	3.23	3.11	3.11	3.05	3.05
135.0	3.47	3.47	3.35	3.29	3.23	3.17	3.11	3.11	3.11
180.0	3.47	3.41	3.35	3.29	3.23	3.17	3.11	3.05	3.05
225.0	3.70	3.59	3.53	3.47	3.35	3.29	3.23	3.17	3.11
270.0	3.59	3.53	3.47	3.41	3.29	3.23	3.23	3.17	3.05
315.0	3.59	3.53	3.41	3.41	3.35	3.23	3.17	3.11	3.05
360.0	3.64	3.53	3.47	3.41	3.35	3.29	3.17	3.11	3.11

Intensity data(cd)

C/γ(°)	90.0
0.0	3.05
45.0	3.05
90.0	3.05
135.0	3.05
180.0	3.05
225.0	3.05
270.0	3.05
315.0	3.05
360.0	3.05