
Client:

LumCAT: 1658-S

Luminaire: 92.70.123.00

Report No: nt0100

Test No: GC2019121806

LampCAT: LUMINUS CXM-6-AC40

Lamp flux(lm): 830.0

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 34.4900

Current(A): 0.1970

Power (W): 6.7900

PF: 1.0000

Ballast type: DC

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 691.89, Efficiency(%): 83.36% , Luminous Efficacy(lm/W): 101.90

Central intensity(cd): 1881.563, Maximum intensity(cd): 1881.563

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=31.2

[C90/270]Total=31.2

Field angle(10%Imax): [C0/180]Total=63.6

[C90/270]Total=63.6

Maximum s/h(1/2): C0_180=0.51 C90_270=0.51

Maximum s/h(1/4): C0_180=0.54 C90_270=0.54

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 83.36%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.269%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1881.563	0.000	0	.000%	.000%
1.0	1878.609	1.799	1.799	.217%	.260%
2.0	1861.102	5.368	7.167	.647%	1.036%
3.0	1834.172	8.838	16.005	1.065%	2.313%
4.0	1798.945	12.161	28.166	1.465%	4.071%
5.0	1750.430	15.269	43.435	1.840%	6.278%
6.0	1693.336	18.098	61.533	2.180%	8.893%
7.0	1631.461	20.637	82.17	2.486%	11.876%
8.0	1561.148	22.849	105.019	2.753%	15.179%
9.0	1482.469	24.667	129.686	2.972%	18.744%
10.0	1404.000	26.121	155.807	3.147%	22.519%
11.0	1313.149	27.150	182.957	3.271%	26.443%
12.0	1239.188	27.901	210.858	3.362%	30.476%
13.0	1137.579	28.206	239.064	3.398%	34.552%
14.0	1060.390	28.134	267.198	3.390%	38.618%
15.0	991.554	28.170	295.368	3.394%	42.690%
16.0	910.673	27.873	323.241	3.358%	46.718%
17.0	830.974	27.122	350.363	3.268%	50.638%
18.0	760.071	26.233	376.596	3.161%	54.430%
19.0	693.063	25.282	401.877	3.046%	58.084%
20.0	625.845	24.140	426.017	2.908%	61.573%
21.0	566.634	22.898	448.915	2.759%	64.882%
22.0	515.025	21.736	470.651	2.619%	68.024%
23.0	467.655	20.619	491.271	2.484%	71.004%
24.0	424.624	19.508	510.779	2.350%	73.824%
25.0	389.278	18.506	529.286	2.230%	76.498%
26.0	360.605	17.701	546.987	2.133%	79.057%
27.0	333.077	16.971	563.958	2.045%	81.510%
28.0	306.893	16.203	580.16	1.952%	83.851%
29.0	280.751	15.374	595.535	1.852%	86.074%
30.0	253.350	14.421	609.955	1.737%	88.158%
31.0	216.478	13.075	623.03	1.575%	90.047%
32.0	179.452	11.343	634.373	1.367%	91.687%
33.0	143.866	9.525	643.898	1.148%	93.064%
34.0	110.313	7.692	651.59	.927%	94.175%
35.0	77.843	5.843	657.434	.704%	95.020%
36.0	52.530	4.151	661.585	.500%	95.620%
37.0	34.959	2.853	664.438	.344%	96.032%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	22.788	1.928	666.366	.232%	96.311%
39.0	16.313	1.335	667.7	.161%	96.504%
40.0	13.170	1.028	668.729	.124%	96.652%
41.0	11.503	0.879	669.607	.106%	96.779%
42.0	10.090	0.785	670.392	.095%	96.893%
43.0	9.000	0.707	671.099	.085%	96.995%
44.0	8.255	0.651	671.75	.078%	97.089%
45.0	7.706	0.613	672.363	.074%	97.178%
46.0	7.327	0.588	672.951	.071%	97.263%
47.0	7.017	0.570	673.522	.069%	97.345%
48.0	6.715	0.555	674.077	.067%	97.425%
49.0	6.455	0.541	674.618	.065%	97.504%
50.0	6.202	0.528	675.145	.064%	97.580%
51.0	5.984	0.516	675.661	.062%	97.654%
52.0	5.801	0.506	676.167	.061%	97.727%
53.0	5.604	0.496	676.663	.060%	97.799%
54.0	5.400	0.485	677.148	.058%	97.869%
55.0	5.259	0.476	677.624	.057%	97.938%
56.0	5.112	0.469	678.092	.056%	98.006%
57.0	4.992	0.462	678.554	.056%	98.072%
58.0	4.887	0.457	679.011	.055%	98.138%
59.0	4.788	0.452	679.463	.054%	98.204%
60.0	4.697	0.448	679.911	.054%	98.269%
61.0	4.584	0.443	680.354	.053%	98.333%
62.0	4.514	0.438	680.793	.053%	98.396%
63.0	4.437	0.435	681.228	.052%	98.459%
64.0	4.338	0.431	681.659	.052%	98.521%
65.0	4.268	0.426	682.085	.051%	98.583%
66.0	4.205	0.423	682.507	.051%	98.644%
67.0	4.141	0.420	682.927	.051%	98.704%
68.0	4.071	0.416	683.343	.050%	98.765%
69.0	4.022	0.413	683.756	.050%	98.824%
70.0	3.938	0.409	684.165	.049%	98.883%
71.0	3.909	0.406	684.57	.049%	98.942%
72.0	3.839	0.403	684.973	.049%	99.000%
73.0	3.818	0.400	685.374	.048%	99.058%
74.0	3.790	0.400	685.774	.048%	99.116%
75.0	3.748	0.398	686.172	.048%	99.173%

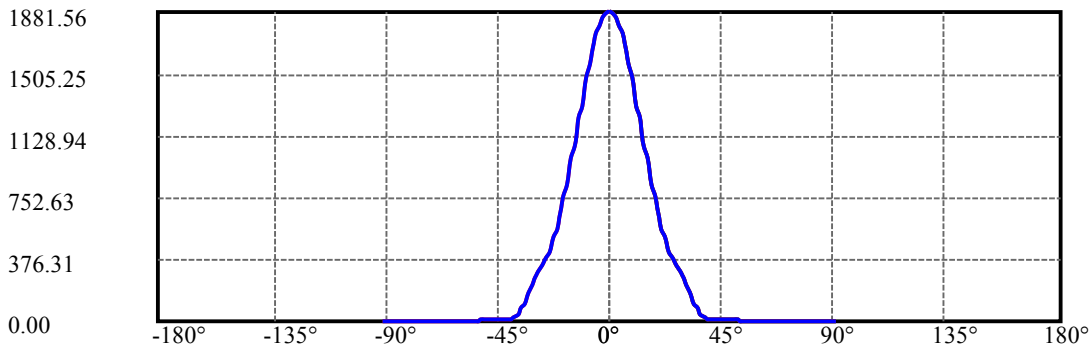
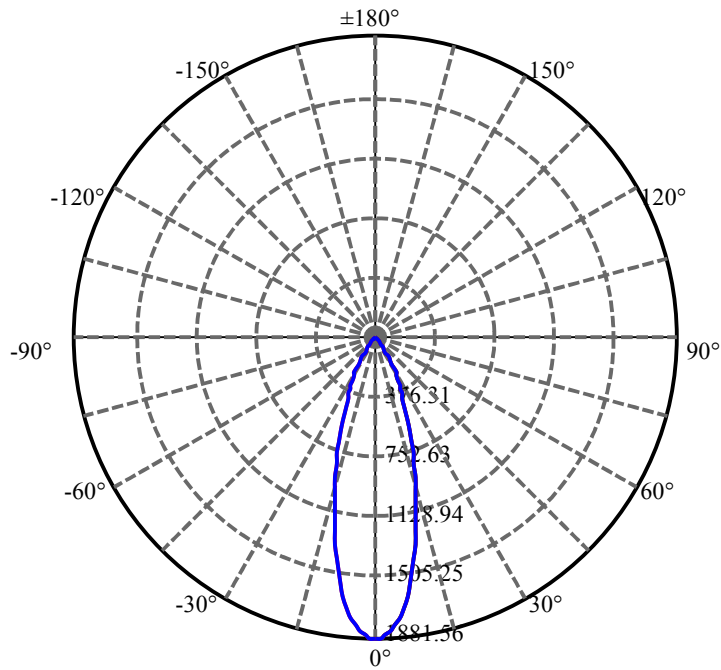
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	3.734	0.397	686.569	.048%	99.231%
77.0	3.691	0.396	686.965	.048%	99.288%
78.0	3.677	0.394	687.359	.048%	99.345%
79.0	3.628	0.393	687.752	.047%	99.402%
80.0	3.607	0.390	688.142	.047%	99.458%
81.0	3.579	0.389	688.53	.047%	99.514%
82.0	3.551	0.387	688.917	.047%	99.570%
83.0	3.523	0.385	689.302	.046%	99.626%
84.0	3.473	0.381	689.683	.046%	99.681%
85.0	3.431	0.377	690.06	.045%	99.735%
86.0	3.382	0.372	690.432	.045%	99.789%
87.0	3.368	0.369	690.801	.045%	99.843%
88.0	3.326	0.367	691.168	.044%	99.896%
89.0	3.291	0.363	691.531	.044%	99.948%
90.0	3.277	0.360	691.891	.043%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	609.96	73.49%	88.16%
0-40	668.73	80.57%	96.65%
0-60	679.91	81.92%	98.27%
0-90	691.53	83.32%	99.95%
0-120	691.53	83.32%	99.95%
0-180	691.89	83.36%	100.00%
60-90	12.07	1.45%	1.74%
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%
0-26.38	553.51	66.69%	80.00%

ZONAL LUMEN SUMMARY

0-10	155.81
10-20	270.21
20-30	183.94
30-40	58.77
40-50	6.42
50-60	4.77
60-70	4.25
70-80	3.98
80-90	3.39
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: —————

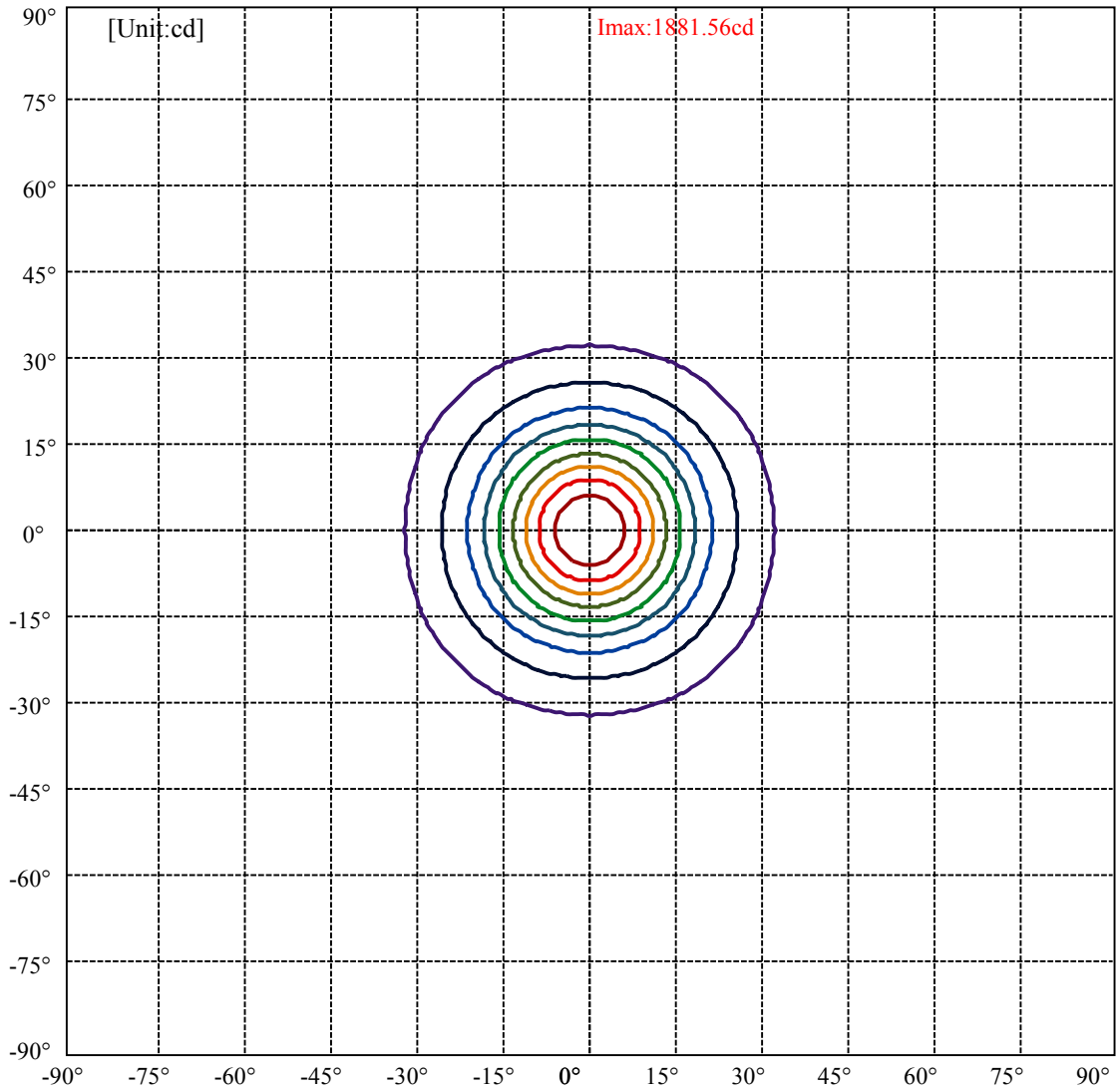
C90/C270: —————

Field angle(10%Imax):C0/180Left:31.8 Right:31.8

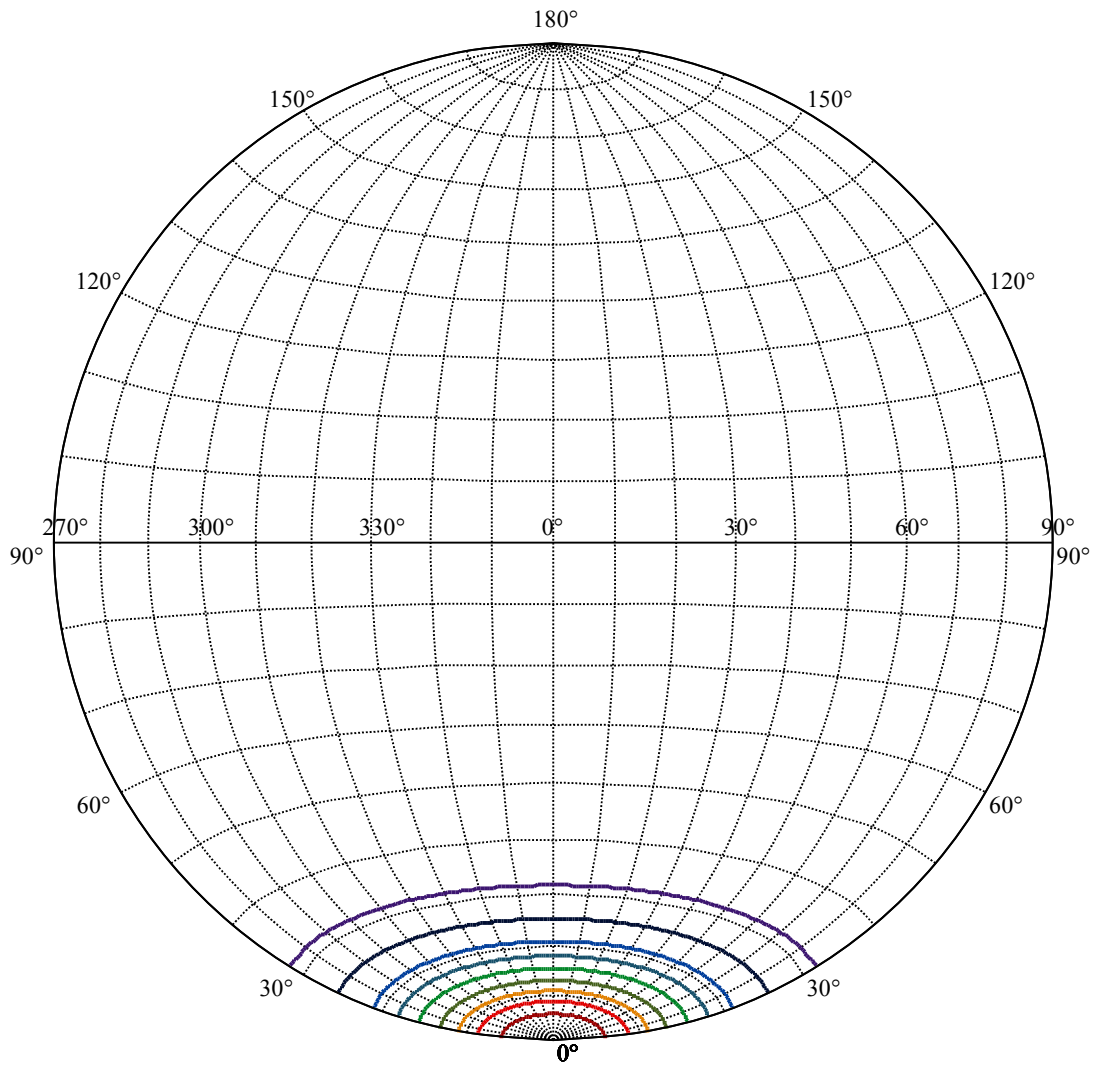
:C90/270Left:31.8 Right:31.8

Beam Angle(50%Imax):C0/180Left:15.6 Right:15.6

:C90/270Left:15.6 Right:15.6



(10%Imax) 188.156	—
(20%Imax) 376.313	—
(30%Imax) 564.469	—
(40%Imax) 752.625	—
(50%Imax) 940.781	—
(60%Imax) 1128.94	—
(70%Imax) 1317.09	—
(80%Imax) 1505.25	—
(90%Imax) 1693.41	—



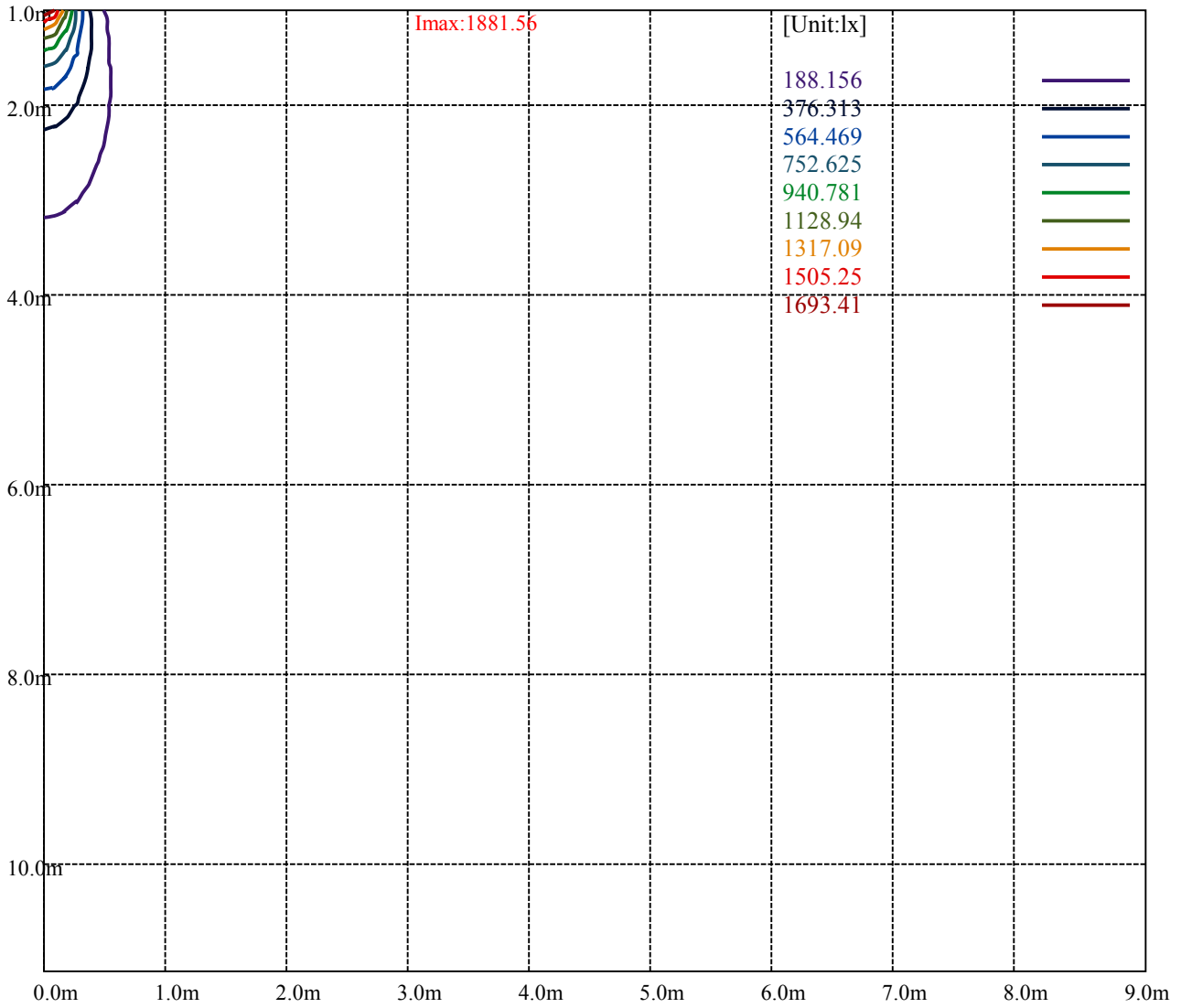
House

[Unit:cd]

Road

Imax:1881.56

(10%Imax) 188.156	—
(20%Imax) 376.313	—
(30%Imax) 564.469	—
(40%Imax) 752.625	—
(50%Imax) 940.781	—
(60%Imax) 1128.94	—
(70%Imax) 1317.09	—
(80%Imax) 1505.25	—
(90%Imax) 1693.41	—



Luminance Table

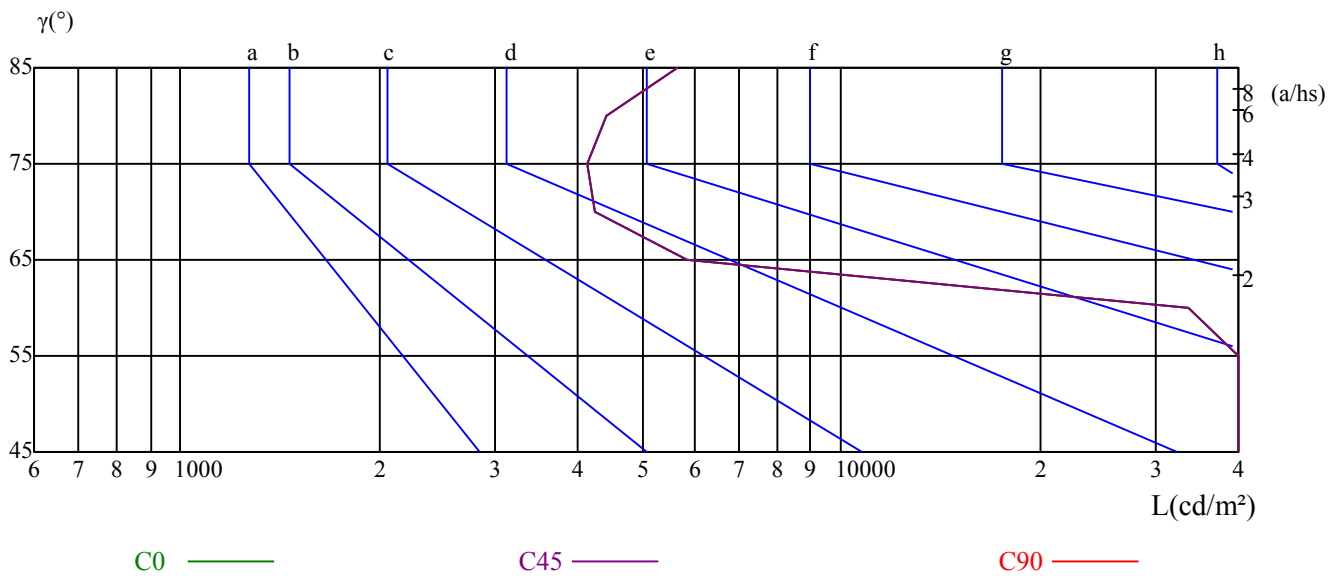
γ	45	50	55	60	65	70	75	80	85
C0	46650	52836	53885	33658	5848	4245	4131	4405	5640
C45	46650	52836	53885	33658	5848	4245	4131	4405	5640
C90	46650	52836	53885	33658	5848	4245	4131	4405	5640

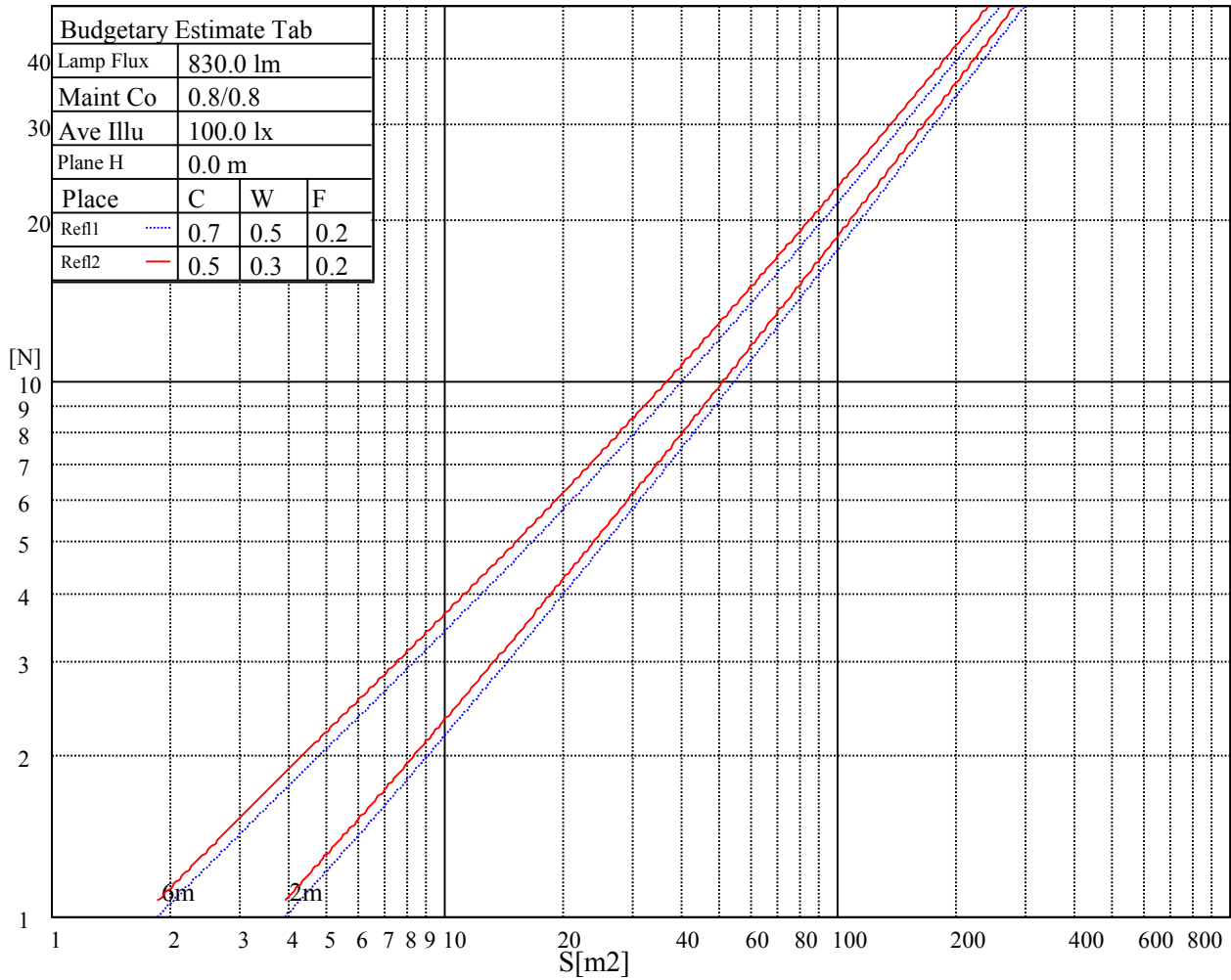
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5848	5848	5848	4131	4131	4131	5640	5640	5640

Glare Table

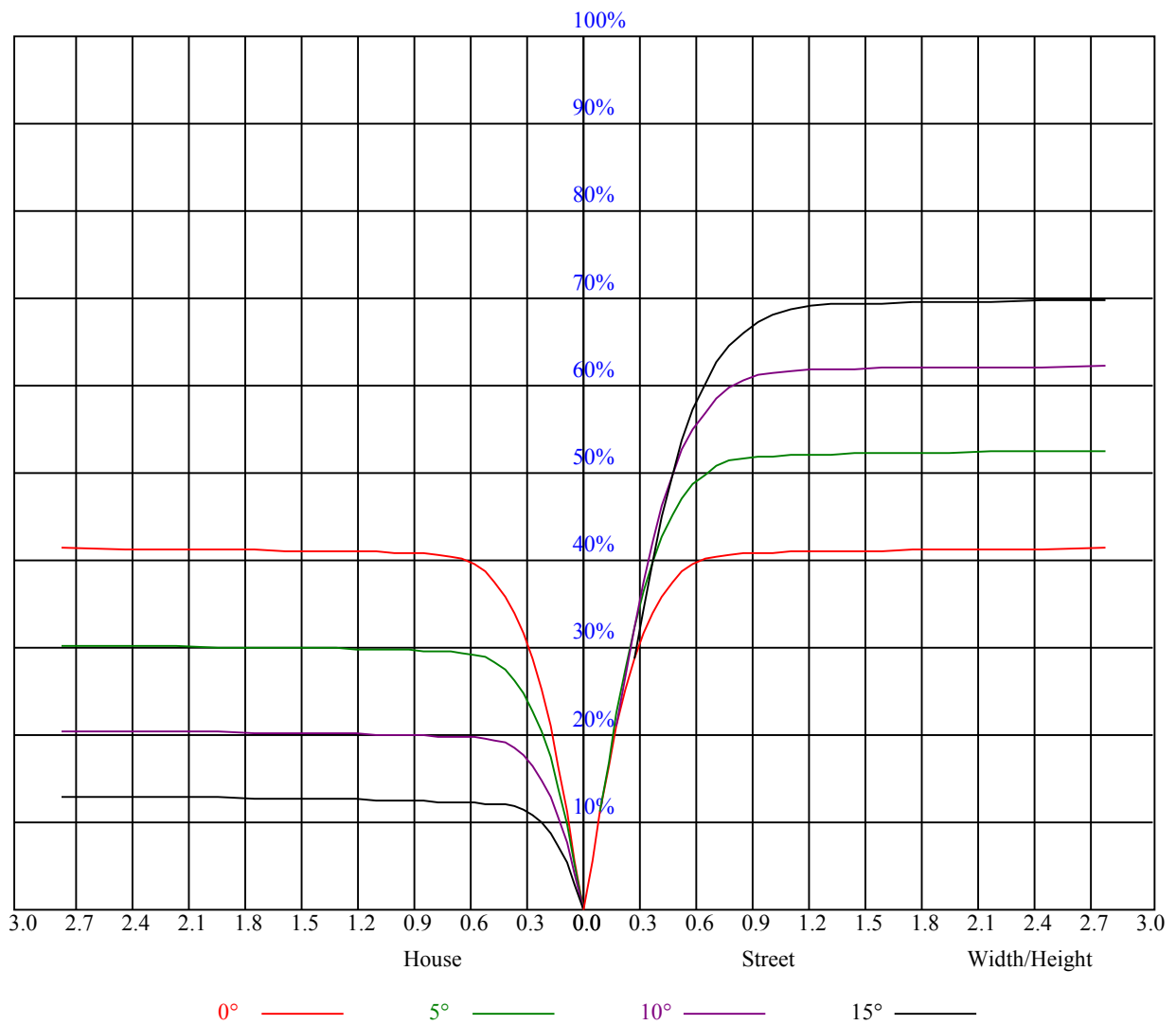
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

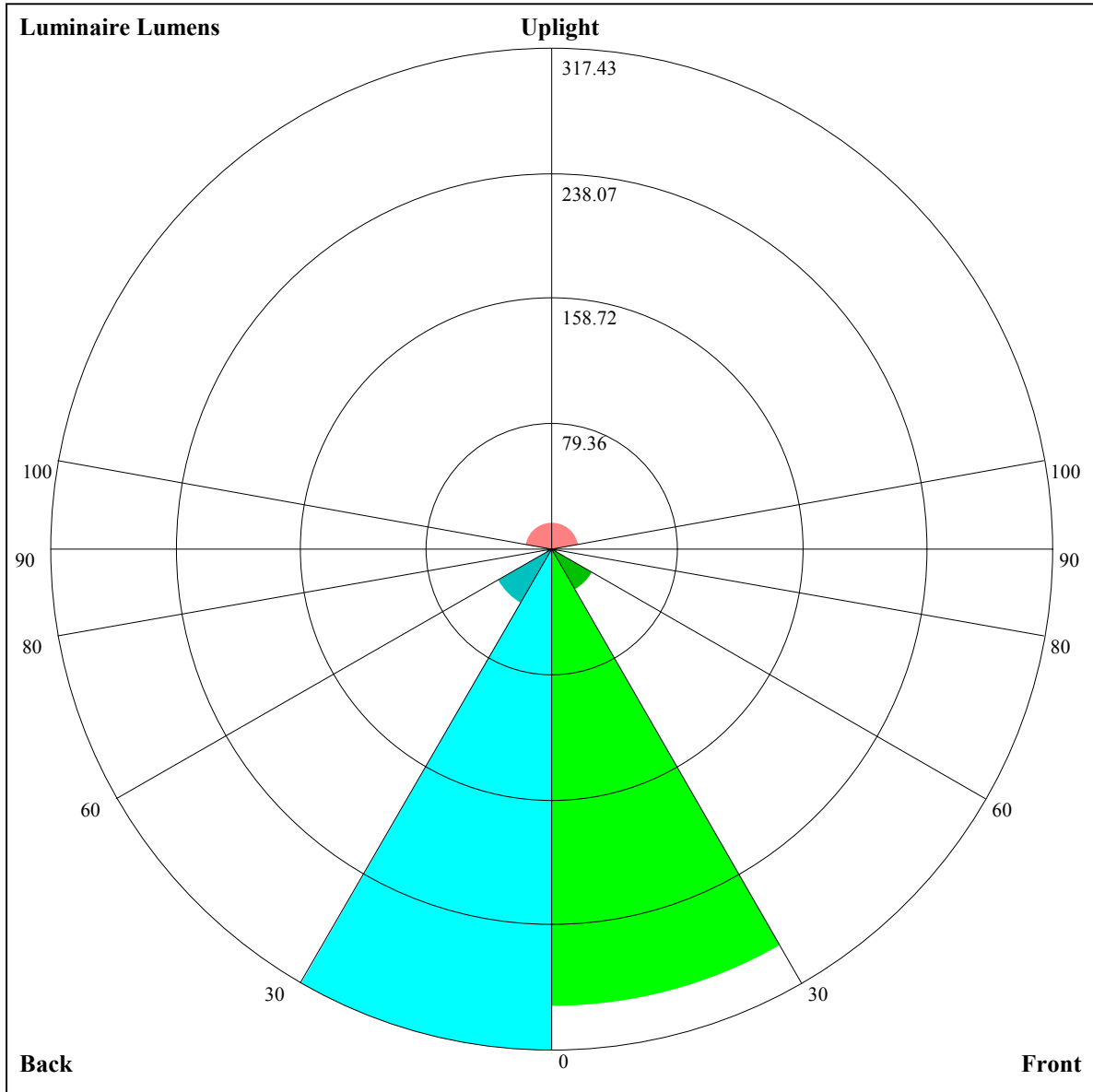
Luminance Limiting Curve





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	0.93	0.93	0.93	0.89	0.89	0.89	0.85	0.85	0.85	0.83
1	0.93	0.91	0.89	0.91	0.90	0.88	0.88	0.87	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	0.81	0.84	0.81	0.80	0.81	0.79	0.78	0.79	0.78	0.76	0.75
3	0.83	0.79	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	0.71
4	0.79	0.75	0.72	0.78	0.74	0.72	0.76	0.73	0.71	0.75	0.72	0.70	0.73	0.71	0.69	0.68
5	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.70	0.68	0.66	0.65
6	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.62
7	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.65	0.63	0.61	0.60
8	0.66	0.62	0.59	0.65	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.63	0.60	0.58	0.57
9	0.63	0.59	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.56	0.55
10	0.61	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.54	0.59	0.56	0.54	0.53





Luminaire Lumens:

FL=290.08,FM=29.91,FH=4.14,FVH=1.88

BL=317.43,BM=40.23,BH=4.2,BVH=1.88

UL=3.57,UH=17.01

BUG Rating:B1-U2-G0

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	1881.56	1860.19	1826.44	1787.06	1730.25	1676.81	1605.94	1531.13	1458.56
45.0	1883.81	1875.38	1860.19	1828.69	1791.00	1738.13	1674.56	1611.00	1541.81
90.0	1887.19	1891.13	1878.19	1855.69	1821.38	1780.88	1731.94	1670.63	1596.38
135.0	1873.69	1888.31	1894.50	1886.06	1865.25	1832.06	1792.69	1738.13	1686.94
180.0	1881.56	1888.31	1887.19	1872.56	1851.75	1819.13	1765.69	1717.31	1659.38
225.0	1883.81	1884.94	1866.38	1843.31	1815.75	1767.38	1715.06	1659.94	1584.00
270.0	1887.19	1884.38	1854.56	1830.38	1798.88	1731.38	1676.25	1620.00	1535.63
315.0	1873.69	1856.25	1821.38	1769.63	1717.31	1657.69	1584.56	1503.56	1426.50
360.0	1881.56	1860.19	1826.44	1787.06	1730.25	1676.81	1605.94	1531.13	1458.56

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1371.38	1288.69	1208.81	1136.81	1041.19	969.75	897.75	812.81	741.38
45.0	1461.94	1387.69	1302.75	1224.00	1134.56	1049.06	981.56	909.00	819.56
90.0	1526.63	1441.69	1355.06	1278.00	1119.38	1099.86	1013.96	931.89	852.98
135.0	1622.25	1546.88	1476.56	1398.94	1302.75	1226.81	1147.50	1055.25	975.38
180.0	1573.31	1503.00	1429.31	1335.94	1255.50	1121.12	1102.16	1010.48	934.14
225.0	1512.56	1428.75	1335.94	1253.25	1116.73	1067.74	994.89	916.20	826.82
270.0	1448.44	1383.75	1283.63	1201.50	1120.50	1020.38	943.31	866.25	779.06
315.0	1343.25	1251.56	1113.13	1085.06	1010.03	928.41	851.29	783.51	718.48
360.0	1371.38	1288.69	1208.81	1136.81	1041.19	969.75	897.75	812.81	741.38

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	681.19	611.44	554.63	508.50	462.38	424.69	390.38	359.44	339.19
45.0	759.38	698.63	619.31	569.25	519.75	466.31	423.56	393.19	361.13
90.0	761.12	694.35	630.56	556.37	504.96	460.91	421.03	384.92	356.01
135.0	902.81	825.19	748.69	684.56	619.88	563.06	506.81	459.00	417.38
180.0	860.40	780.58	717.81	642.99	576.84	526.61	475.82	426.94	395.27
225.0	759.04	697.44	625.78	567.45	516.54	470.36	424.69	391.95	365.63
270.0	712.69	649.13	576.00	526.50	479.81	424.13	387.56	354.94	325.13
315.0	643.95	587.76	533.98	477.45	440.04	405.17	367.14	343.86	325.13
360.0	681.19	611.44	554.63	508.50	462.38	424.69	390.38	359.44	339.19

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	318.94	286.88	267.08	216.68	172.58	138.43	104.74	69.58	40.56
45.0	339.75	315.56	288.56	285.19	216.96	175.22	138.54	102.88	64.80
90.0	324.68	300.43	277.14	251.21	221.40	185.18	149.85	119.14	92.19
135.0	381.38	351.56	329.63	310.50	285.75	249.19	215.72	181.13	139.39
180.0	363.66	334.74	315.00	297.90	269.66	233.61	199.41	160.82	124.31
225.0	338.29	316.41	295.71	265.73	232.93	194.23	152.27	116.78	79.99
270.0	302.06	286.31	243.45	214.26	178.76	144.23	112.95	79.43	50.91
315.0	295.88	263.25	229.44	185.34	153.79	115.54	77.46	52.76	30.60
360.0	318.94	286.88	267.08	216.68	172.58	138.43	104.74	69.58	40.56

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	24.47	16.09	14.18	12.21	10.52	9.23	8.16	7.48	7.09
45.0	41.85	24.69	16.54	14.01	12.26	10.63	9.00	8.04	7.43
90.0	59.51	37.41	24.02	17.27	14.96	13.11	11.53	10.24	9.45
135.0	105.81	76.84	44.10	25.88	16.82	14.57	12.49	10.97	9.45
180.0	91.69	59.23	35.72	21.21	15.75	13.89	12.15	10.24	9.11
225.0	48.71	29.93	19.07	14.96	13.28	11.48	10.13	8.94	8.27
270.0	31.67	20.76	15.69	13.84	12.15	10.63	9.62	8.89	8.38
315.0	16.54	14.74	12.99	11.14	9.62	8.49	7.65	7.20	6.86
360.0	24.47	16.09	14.18	12.21	10.52	9.23	8.16	7.48	7.09

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	6.75	6.41	6.19	5.96	5.74	5.51	5.34	5.18	5.06
45.0	6.98	6.64	6.36	6.08	5.85	5.68	5.46	5.34	5.18
90.0	8.89	8.55	8.27	7.99	7.76	7.54	7.31	7.03	6.75
135.0	8.49	7.93	7.54	7.20	6.86	6.53	6.24	6.08	5.74
180.0	8.33	7.82	7.48	7.14	6.81	6.53	6.30	6.02	5.85
225.0	7.76	7.43	7.03	6.64	6.36	6.08	5.79	5.63	5.46
270.0	7.99	7.65	7.31	7.03	6.75	6.47	6.30	6.13	5.91
315.0	6.47	6.19	5.96	5.68	5.51	5.29	5.12	5.01	4.89
360.0	6.75	6.41	6.19	5.96	5.74	5.51	5.34	5.18	5.06
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	4.89	4.84	4.67	4.56	4.50	4.39	4.33	4.22	4.16
45.0	5.01	4.89	4.84	4.73	4.61	4.56	4.50	4.44	4.39
90.0	6.36	6.19	6.02	5.85	5.68	5.57	5.46	5.29	5.12
135.0	5.57	5.40	5.23	5.06	4.95	4.78	4.67	4.56	4.50
180.0	5.63	5.40	5.23	5.06	4.95	4.84	4.73	4.56	4.50
225.0	5.29	5.12	4.95	4.84	4.73	4.67	4.61	4.50	4.44
270.0	5.74	5.63	5.46	5.40	5.29	5.18	5.06	4.95	4.84
315.0	4.73	4.61	4.50	4.44	4.39	4.33	4.22	4.16	4.16
360.0	4.89	4.84	4.67	4.56	4.50	4.39	4.33	4.22	4.16
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	4.11	4.05	4.05	3.99	3.94	3.88	3.88	3.77	3.77
45.0	4.39	4.33	4.28	4.22	4.16	4.11	4.05	3.99	3.99
90.0	4.95	4.78	4.67	4.56	4.50	4.39	4.33	4.22	4.16
135.0	4.39	4.28	4.22	4.16	4.11	3.99	3.99	3.88	3.83
180.0	4.39	4.28	4.22	4.16	4.05	4.05	3.99	3.88	3.88
225.0	4.39	4.33	4.28	4.22	4.16	4.11	3.99	3.94	3.94
270.0	4.78	4.61	4.50	4.39	4.33	4.22	4.11	4.05	3.99
315.0	4.11	4.05	3.94	3.94	3.88	3.83	3.83	3.77	3.71
360.0	4.11	4.05	4.05	3.99	3.94	3.88	3.88	3.77	3.77
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	3.71	3.66	3.66	3.60	3.60	3.54	3.49	3.49	3.49
45.0	3.94	3.88	3.88	3.83	3.77	3.77	3.77	3.71	3.71
90.0	4.05	4.05	3.99	3.99	3.94	3.88	3.83	3.77	3.77
135.0	3.77	3.77	3.71	3.66	3.66	3.60	3.60	3.60	3.54
180.0	3.83	3.77	3.71	3.66	3.66	3.60	3.60	3.49	3.49
225.0	3.83	3.83	3.83	3.77	3.77	3.77	3.77	3.71	3.66
270.0	3.94	3.94	3.94	3.88	3.88	3.83	3.83	3.77	3.71
315.0	3.66	3.66	3.60	3.60	3.60	3.54	3.54	3.49	3.49
360.0	3.71	3.66	3.66	3.60	3.60	3.54	3.49	3.49	3.49
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	3.43	3.43	3.43	3.43	3.43	3.38	3.38	3.32	3.21
45.0	3.71	3.66	3.66	3.54	3.43	3.38	3.38	3.38	3.32
90.0	3.71	3.71	3.66	3.66	3.54	3.38	3.32	3.26	3.26
135.0	3.49	3.49	3.43	3.43	3.43	3.38	3.32	3.32	3.32
180.0	3.43	3.43	3.43	3.43	3.38	3.38	3.38	3.38	3.38
225.0	3.66	3.60	3.54	3.49	3.49	3.43	3.43	3.38	3.38
270.0	3.71	3.66	3.60	3.43	3.38	3.38	3.38	3.32	3.26
315.0	3.49	3.43	3.43	3.38	3.38	3.38	3.38	3.26	3.21
360.0	3.43	3.43	3.43	3.43	3.43	3.38	3.38	3.32	3.21

Intensity data(cd)

C/γ($^{\circ}$)	90.0
0.0	3.21
45.0	3.32
90.0	3.26
135.0	3.32
180.0	3.32
225.0	3.32
270.0	3.26
315.0	3.21
360.0	3.21