
Client:

LumCAT: 3-2031-M

Luminaire: 92.70.123.00

Report No: GC2019091909

Test No: GC2019121610

LampCAT: LUMINUS CXM-6-AC40

Lamp flux(lm): 830.0

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 34.8700

Current(A): 0.1970

Power (W): 6.8600

PF: 1.0000

Ballast type: DC

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 725.72, Efficiency(%): 87.44% , Luminous Efficacy(lm/W): 105.79

Central intensity(cd): 10010.810, Maximum intensity(cd): 10010.810

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=10.4

[C90/270]Total=10.4

Field angle(10%Imax): [C0/180]Total=19.4

[C90/270]Total=19.4

Maximum s/h(1/2): C0_180=0.18 C90_270=0.18

Maximum s/h(1/4): C0_180=0.18 C90_270=0.18

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 87.44%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.497%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	10010.813	0.000	0	.000%	.000%
1.0	9784.477	9.472	9.472	1.141%	1.305%
2.0	9029.109	27.003	36.475	3.253%	5.026%
3.0	7938.914	40.582	77.057	4.889%	10.618%
4.0	6700.289	49.002	126.059	5.904%	17.370%
5.0	5326.313	51.738	177.797	6.233%	24.499%
6.0	3976.734	48.890	226.687	5.890%	31.236%
7.0	2800.090	42.064	268.75	5.068%	37.032%
8.0	1903.739	33.664	302.415	4.056%	41.671%
9.0	1288.498	25.871	328.286	3.117%	45.236%
10.0	872.684	19.558	347.844	2.356%	47.931%
11.0	677.384	15.488	363.332	1.866%	50.065%
12.0	560.299	13.530	376.862	1.630%	51.929%
13.0	484.488	12.399	389.261	1.494%	53.638%
14.0	437.344	11.799	401.06	1.422%	55.264%
15.0	407.559	11.599	412.659	1.397%	56.862%
16.0	385.615	11.622	424.282	1.400%	58.463%
17.0	365.963	11.704	435.986	1.410%	60.076%
18.0	350.515	11.813	447.799	1.423%	61.704%
19.0	337.739	11.974	459.773	1.443%	63.354%
20.0	326.152	12.151	471.924	1.464%	65.028%
21.0	316.259	12.336	484.26	1.486%	66.728%
22.0	308.707	12.559	496.819	1.513%	68.458%
23.0	301.331	12.800	509.619	1.542%	70.222%
24.0	293.991	13.016	522.635	1.568%	72.016%
25.0	288.788	13.251	535.886	1.597%	73.842%
26.0	284.119	13.524	549.409	1.629%	75.705%
27.0	279.900	13.799	563.208	1.663%	77.606%
28.0	275.266	14.056	577.264	1.693%	79.543%
29.0	270.935	14.290	591.554	1.722%	81.512%
30.0	267.173	14.529	606.083	1.750%	83.514%
31.0	262.934	14.752	620.835	1.777%	85.547%
32.0	257.998	14.924	635.759	1.798%	87.604%
33.0	251.416	15.008	650.767	1.808%	89.671%
34.0	231.026	14.600	665.367	1.759%	91.683%
35.0	194.210	13.206	678.573	1.591%	93.503%
36.0	142.847	10.732	689.305	1.293%	94.982%
37.0	91.638	7.648	696.952	.921%	96.036%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	50.456	4.743	701.695	.571%	96.689%
39.0	22.971	2.506	704.202	.302%	97.034%
40.0	12.382	1.233	705.435	.149%	97.204%
41.0	9.956	0.795	706.23	.096%	97.314%
42.0	8.374	0.666	706.896	.080%	97.406%
43.0	7.397	0.584	707.48	.070%	97.486%
44.0	6.820	0.537	708.017	.065%	97.560%
45.0	6.356	0.506	708.523	.061%	97.630%
46.0	6.075	0.486	709.009	.059%	97.697%
47.0	5.808	0.473	709.482	.057%	97.762%
48.0	5.597	0.461	709.943	.056%	97.826%
49.0	5.379	0.451	710.394	.054%	97.888%
50.0	5.168	0.440	710.834	.053%	97.948%
51.0	4.985	0.430	711.263	.052%	98.007%
52.0	4.845	0.422	711.685	.051%	98.066%
53.0	4.683	0.414	712.099	.050%	98.123%
54.0	4.528	0.406	712.505	.049%	98.179%
55.0	4.402	0.399	712.904	.048%	98.234%
56.0	4.282	0.392	713.296	.047%	98.288%
57.0	4.177	0.387	713.683	.047%	98.341%
58.0	4.092	0.382	714.065	.046%	98.394%
59.0	4.001	0.378	714.444	.046%	98.446%
60.0	3.930	0.375	714.819	.045%	98.497%
61.0	3.867	0.372	715.191	.045%	98.549%
62.0	3.811	0.370	715.561	.045%	98.600%
63.0	3.769	0.369	715.929	.044%	98.650%
64.0	3.698	0.366	716.296	.044%	98.701%
65.0	3.691	0.366	716.661	.044%	98.751%
66.0	3.635	0.366	717.027	.044%	98.802%
67.0	3.586	0.363	717.39	.044%	98.852%
68.0	3.565	0.362	717.752	.044%	98.902%
69.0	3.537	0.362	718.115	.044%	98.952%
70.0	3.509	0.362	718.476	.044%	99.001%
71.0	3.495	0.362	718.838	.044%	99.051%
72.0	3.480	0.363	719.201	.044%	99.101%
73.0	3.452	0.363	719.564	.044%	99.151%
74.0	3.424	0.362	719.925	.044%	99.201%
75.0	3.431	0.362	720.287	.044%	99.251%

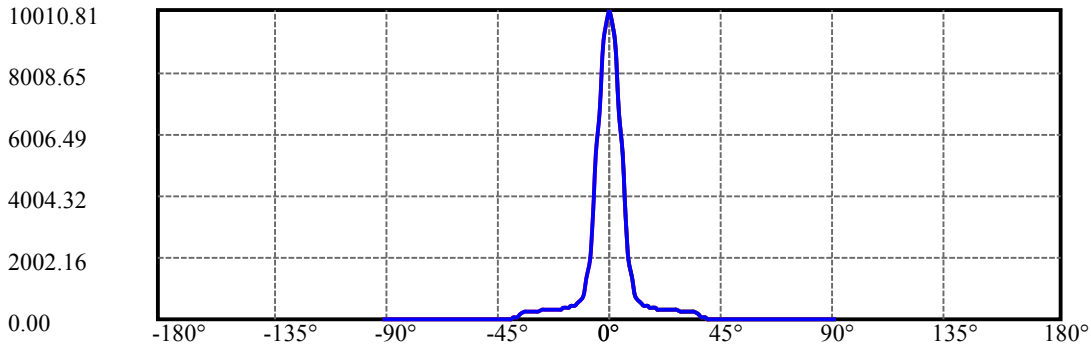
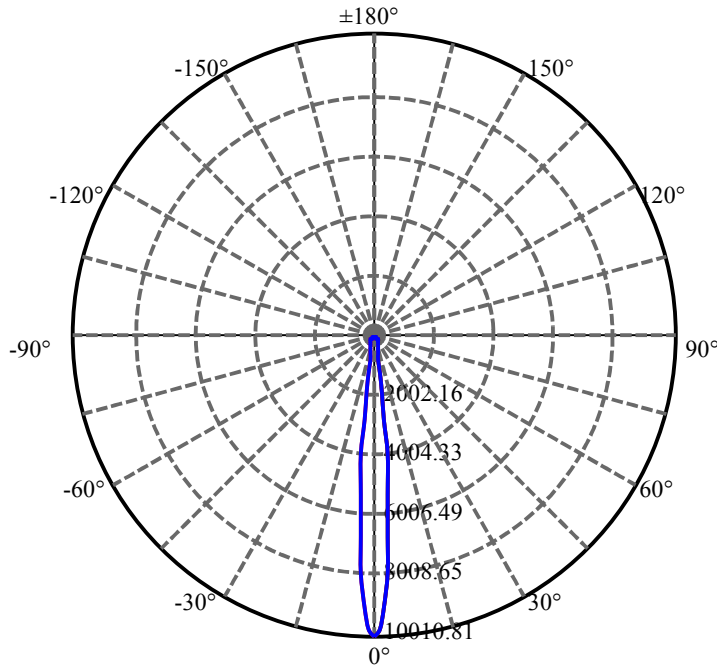
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	3.403	0.363	720.65	.044%	99.301%
77.0	3.403	0.363	721.013	.044%	99.351%
78.0	3.375	0.363	721.376	.044%	99.401%
79.0	3.368	0.362	721.738	.044%	99.451%
80.0	3.361	0.363	722.101	.044%	99.501%
81.0	3.354	0.363	722.464	.044%	99.551%
82.0	3.354	0.364	722.828	.044%	99.601%
83.0	3.354	0.365	723.192	.044%	99.651%
84.0	3.347	0.365	723.557	.044%	99.702%
85.0	3.340	0.365	723.922	.044%	99.752%
86.0	3.305	0.363	724.286	.044%	99.802%
87.0	3.284	0.361	724.646	.043%	99.852%
88.0	3.270	0.359	725.005	.043%	99.901%
89.0	3.277	0.359	725.364	.043%	99.950%
90.0	3.277	0.359	725.723	.043%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	606.08	73.02%	83.51%
0-40	705.43	84.99%	97.20%
0-60	714.82	86.12%	98.50%
0-90	725.36	87.39%	99.95%
0-120	725.36	87.39%	99.95%
0-180	725.72	87.44%	100.00%
60-90	10.92	1.32%	1.50%
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%
0-28.23	580.58	69.95%	80.00%

ZONAL LUMEN SUMMARY

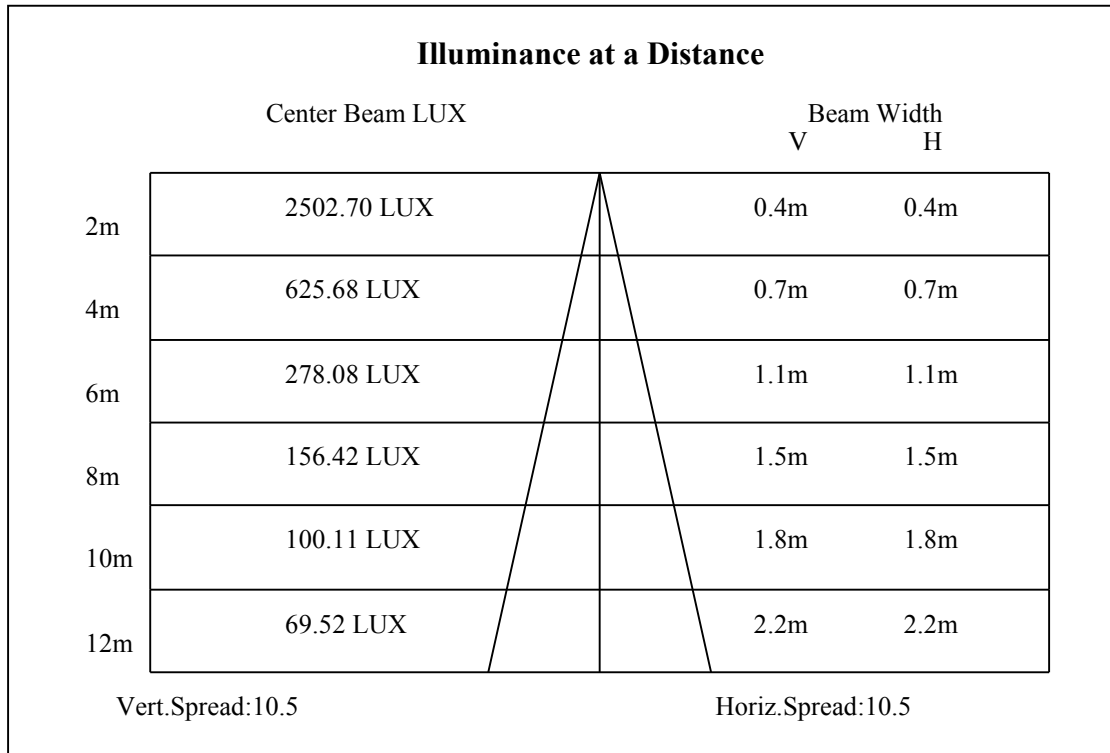
0-10	347.84
10-20	124.08
20-30	134.16
30-40	99.35
40-50	5.40
50-60	3.98
60-70	3.66
70-80	3.62
80-90	3.26
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

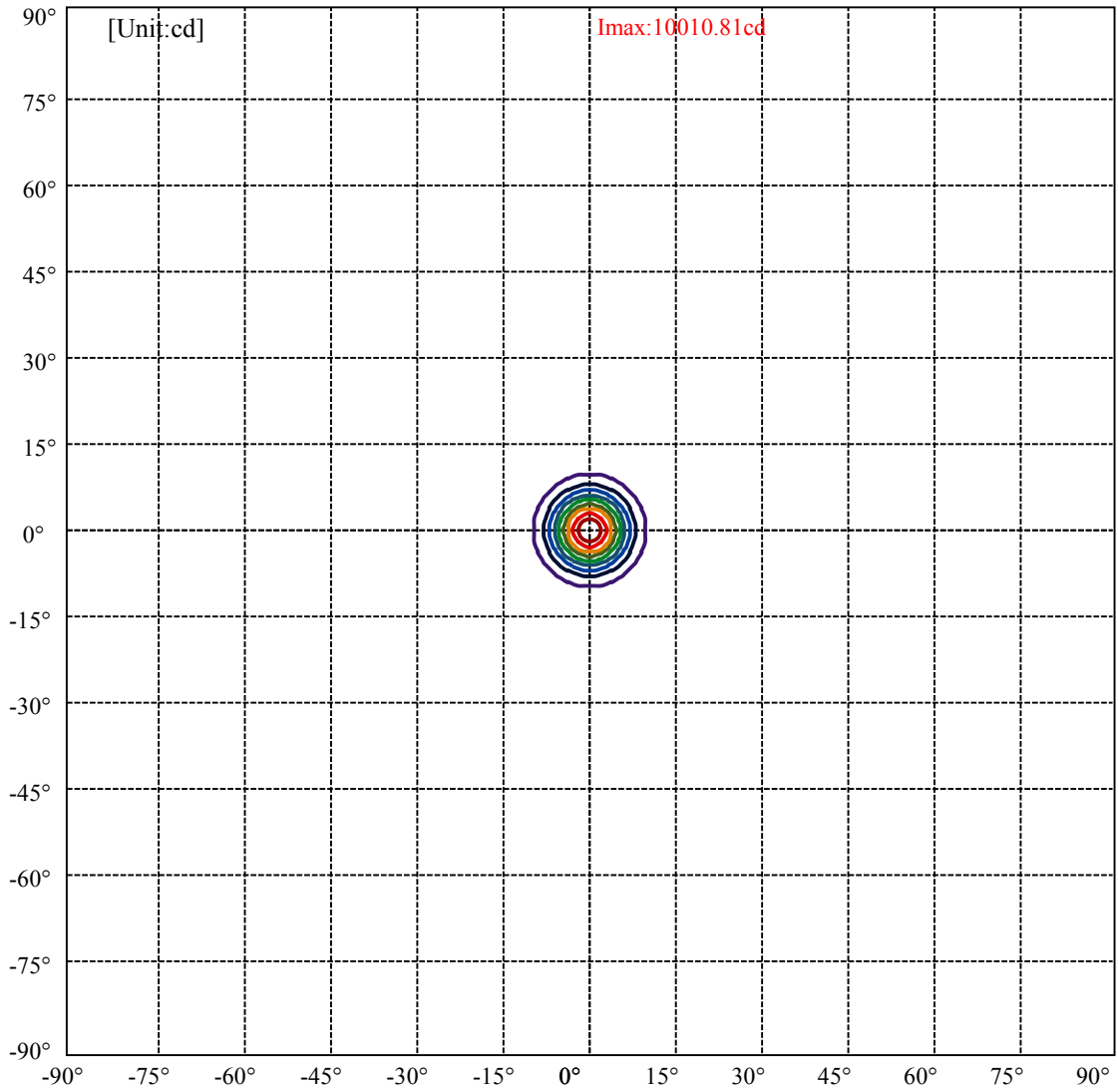


C0(Max): —————
C0/C180: —————
C90/C270: —————

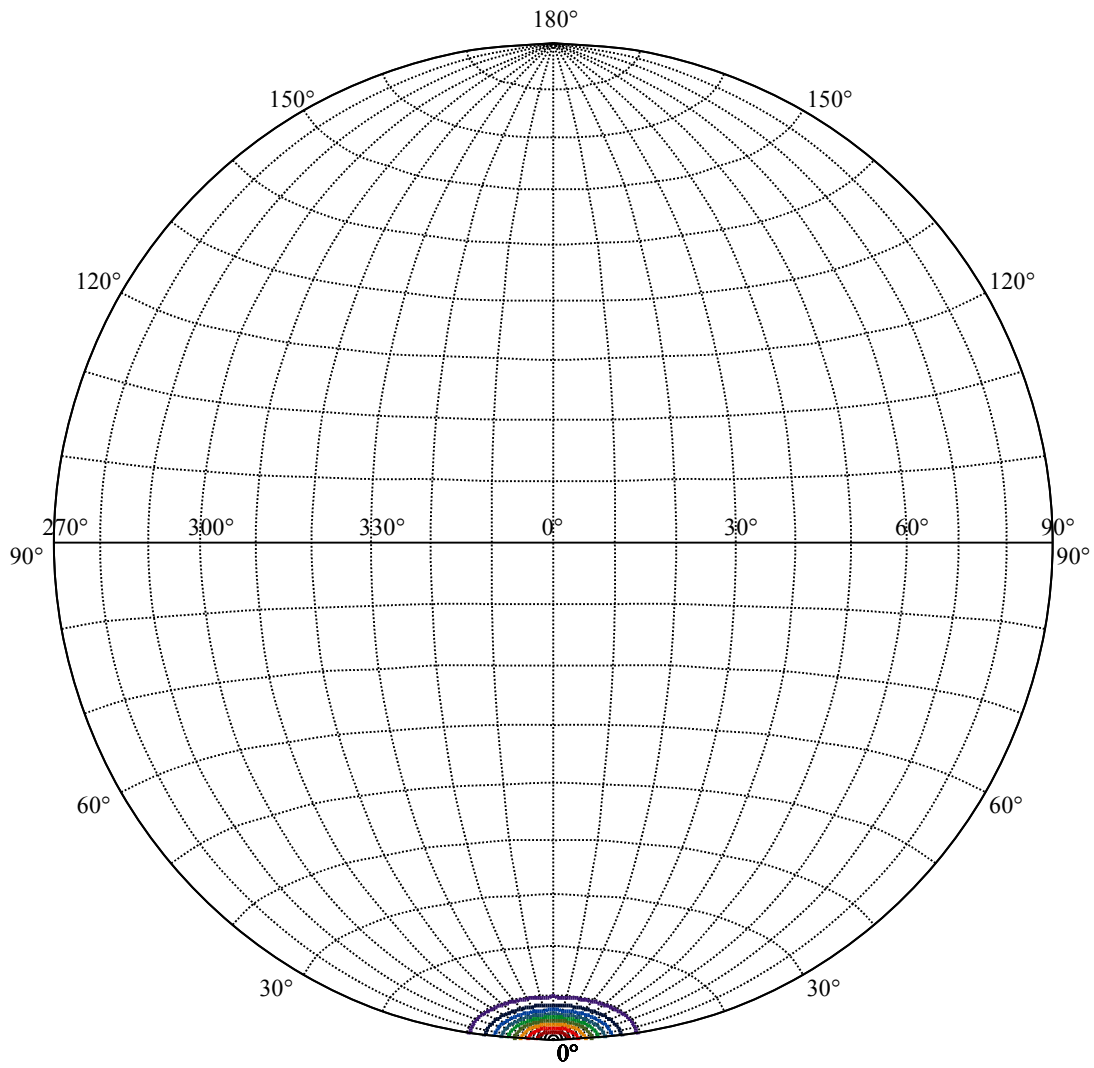
Field angle(10%Imax):C0/180Left:9.7 Right:9.7
:C90/270Left:9.7 Right:9.7

Beam Angle(50%Imax):C0/180Left:5.2 Right:5.2
:C90/270Left:5.2 Right:5.2





(10%Imax) 1001.08	—
(20%Imax) 2002.16	—
(30%Imax) 3003.24	—
(40%Imax) 4004.32	—
(50%Imax) 5005.41	—
(60%Imax) 6006.49	—
(70%Imax) 7007.57	—
(80%Imax) 8008.65	—
(90%Imax) 9009.73	—



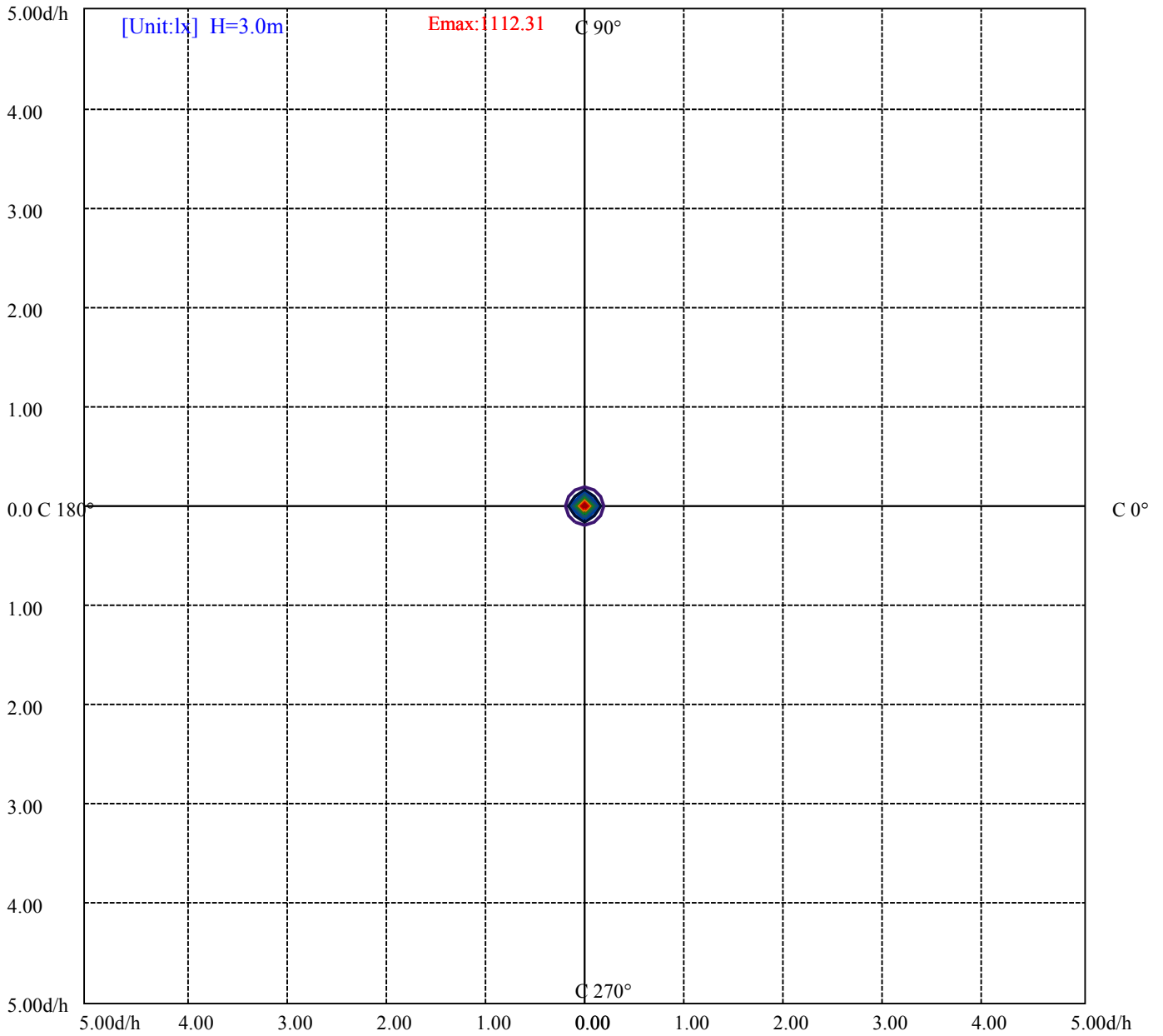
House

[Unit:cd]

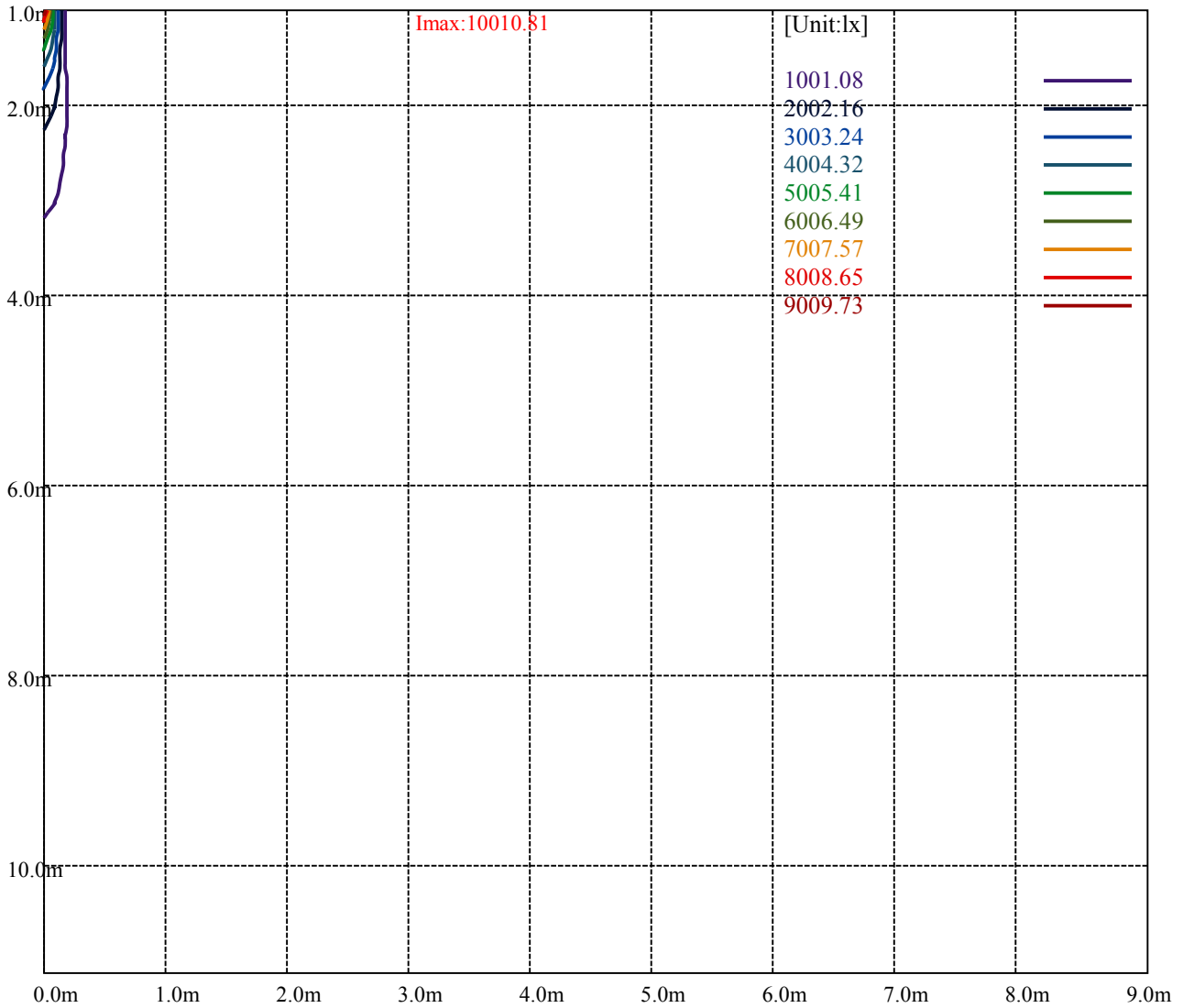
Road

Imax:10010.81

(10%Imax) 1001.08	—
(20%Imax) 2002.16	—
(30%Imax) 3003.24	—
(40%Imax) 4004.32	—
(50%Imax) 5005.41	—
(60%Imax) 6006.49	—
(70%Imax) 7007.57	—
(80%Imax) 8008.65	—
(90%Imax) 9009.73	—



- (10%E_{max}) 111.2311
- (20%E_{max}) 222.4622
- (30%E_{max}) 333.6922
- (40%E_{max}) 444.9233
- (50%E_{max}) 556.1545
- (60%E_{max}) 667.3856
- (70%E_{max}) 778.6155
- (80%E_{max}) 889.8467
- (90%E_{max}) 1001.078



Luminance Table

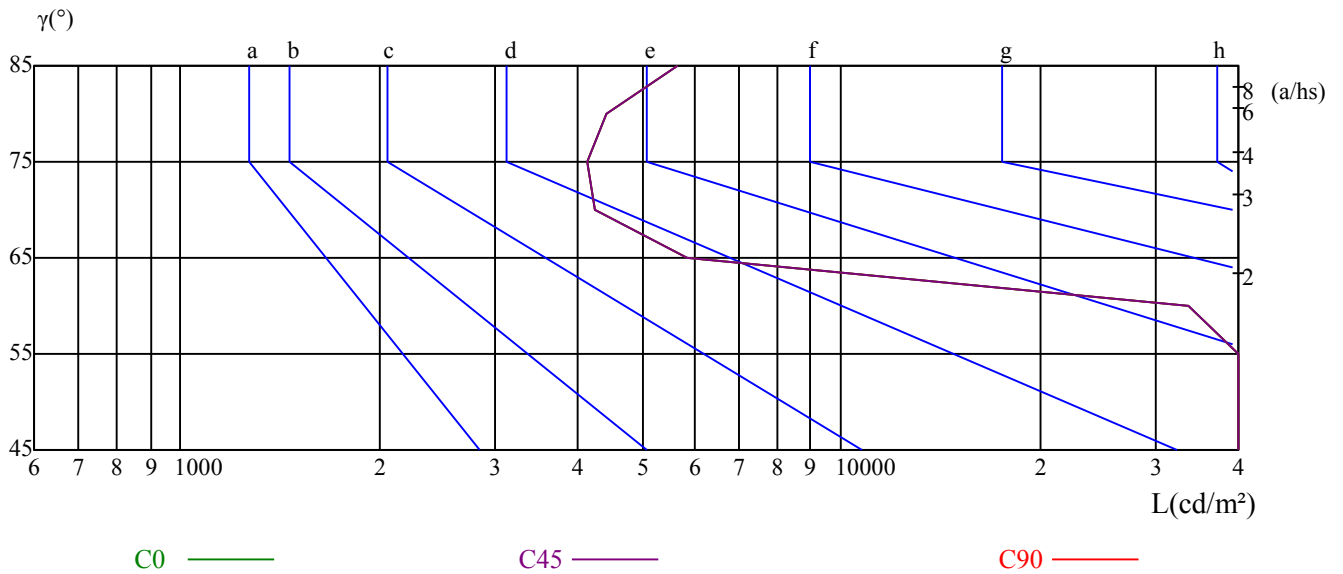
γ	45	50	55	60	65	70	75	80	85
C0	46650	52836	53885	33658	5848	4245	4131	4405	5640
C45	46650	52836	53885	33658	5848	4245	4131	4405	5640
C90	46650	52836	53885	33658	5848	4245	4131	4405	5640

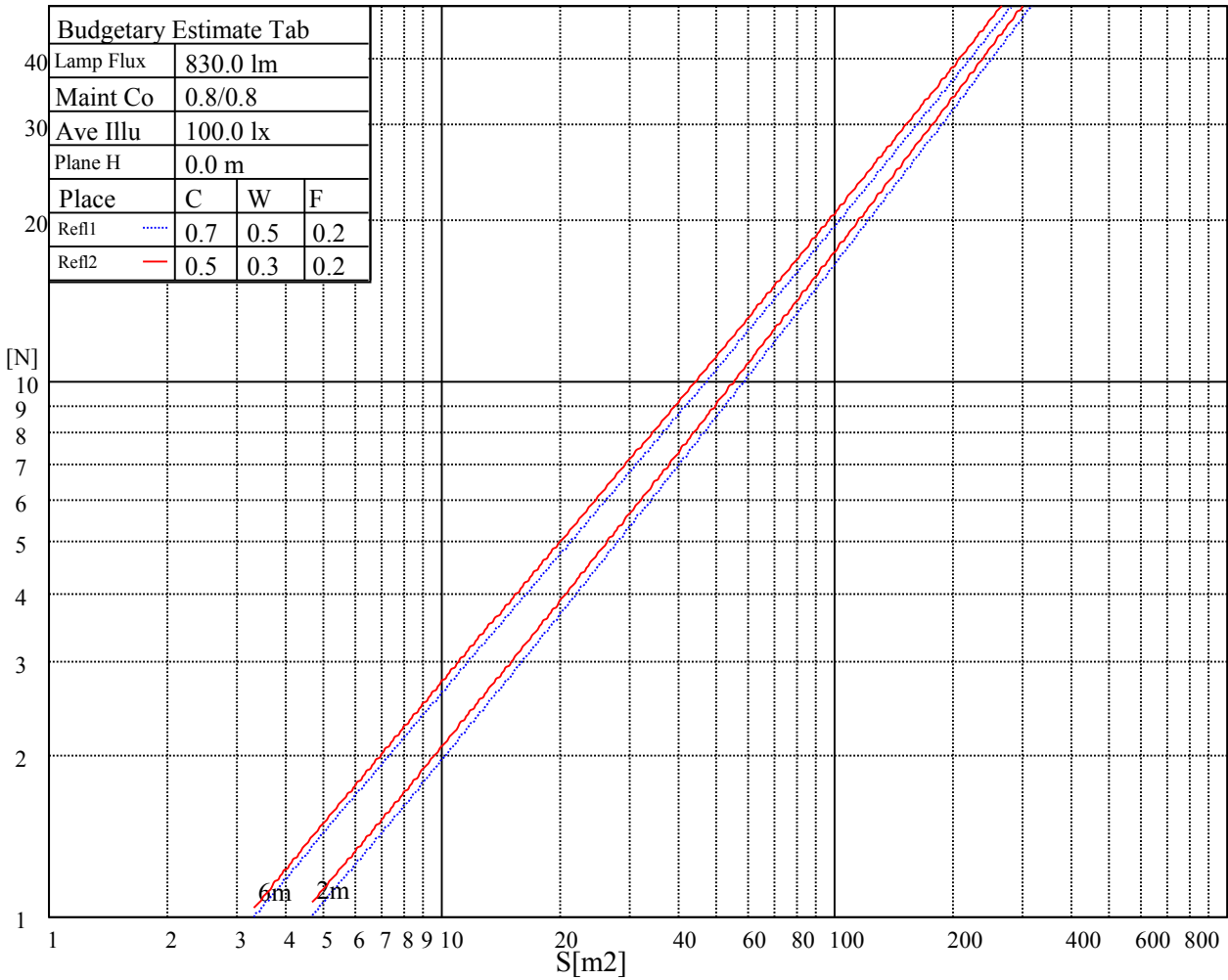
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5848	5848	5848	4131	4131	4131	5640	5640	5640

Glare Table

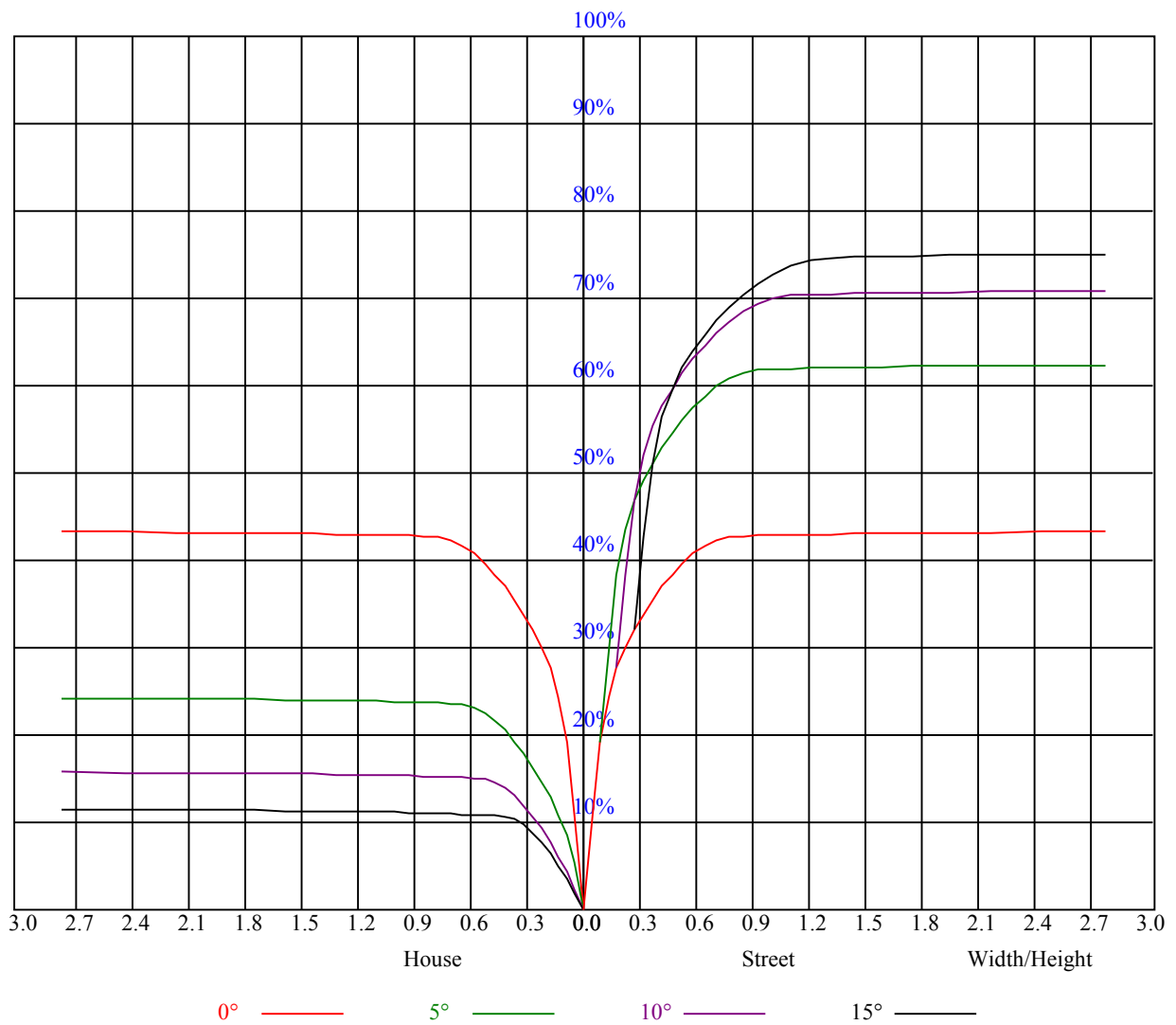
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

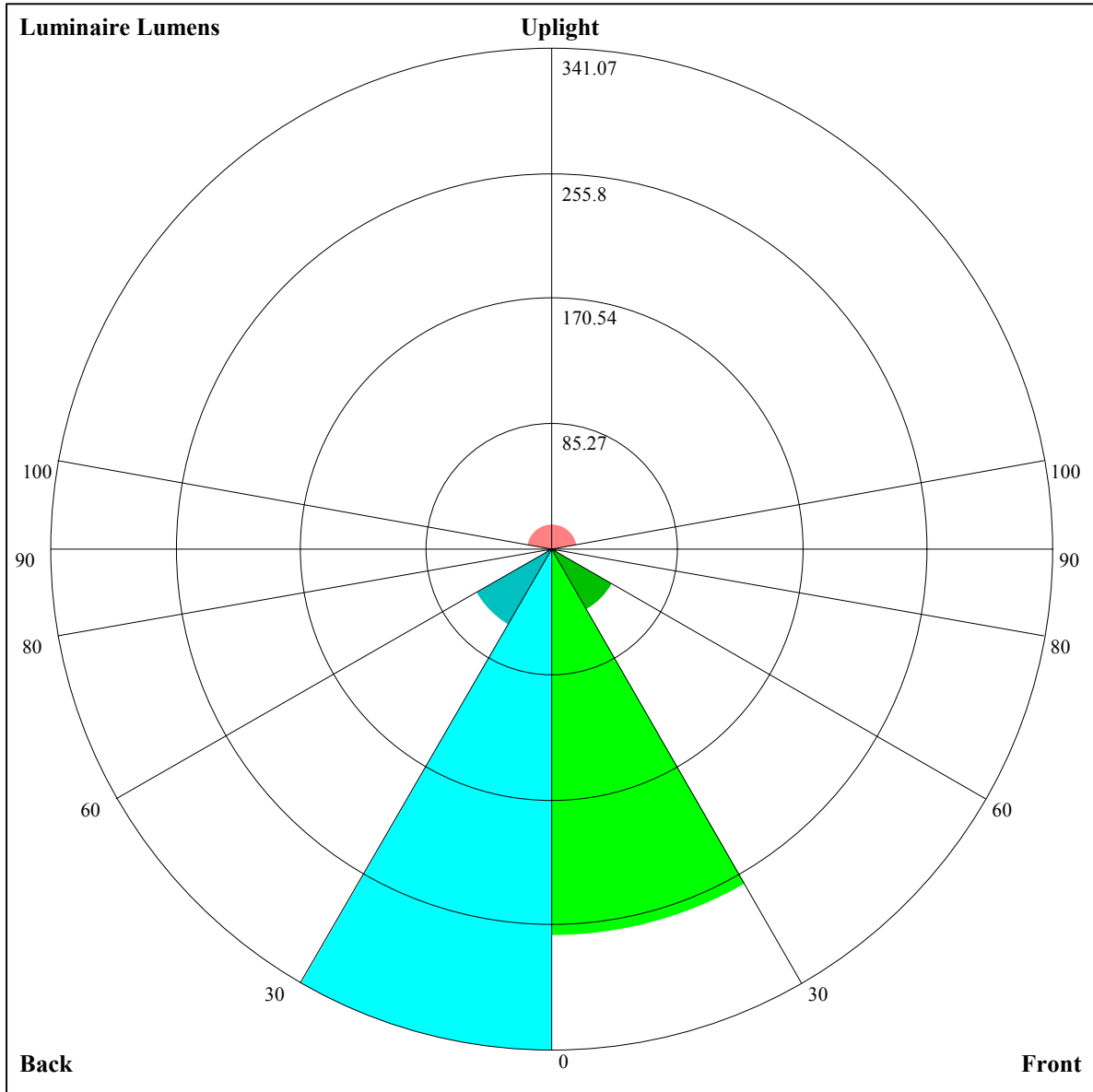
Luminance Limiting Curve





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	1.04	1.04	1.04	1.02	1.02	1.02	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.87
1	0.98	0.96	0.95	0.96	0.95	0.93	0.93	0.92	0.90	0.90	0.89	0.88	0.87	0.86	0.85	0.84
2	0.93	0.90	0.88	0.92	0.89	0.87	0.89	0.87	0.85	0.87	0.85	0.83	0.84	0.83	0.82	0.80
3	0.89	0.86	0.83	0.88	0.85	0.82	0.86	0.83	0.81	0.84	0.82	0.80	0.82	0.80	0.79	0.77
4	0.85	0.82	0.79	0.84	0.81	0.78	0.83	0.80	0.77	0.81	0.79	0.77	0.79	0.77	0.76	0.75
5	0.82	0.78	0.75	0.81	0.78	0.75	0.80	0.77	0.74	0.78	0.76	0.74	0.77	0.75	0.73	0.72
6	0.79	0.75	0.72	0.78	0.75	0.72	0.77	0.74	0.72	0.76	0.73	0.71	0.75	0.73	0.71	0.70
7	0.76	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.73	0.71	0.69	0.68
8	0.74	0.70	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.71	0.69	0.67	0.66
9	0.72	0.68	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.70	0.67	0.65	0.64
10	0.70	0.66	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.69	0.66	0.64	0.68	0.65	0.64	0.63





Luminaire Lumens:

FL=263.09,FM=48.16,FH=3.62,FVH=1.82

BL=341.07,BM=60.22,BH=3.68,BVH=1.82

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	10261.13	9294.75	7634.81	6190.88	4797.00	3221.44	2194.88	1469.81	1005.19
45.0	10049.06	9273.94	7984.69	6521.06	5212.69	3823.88	2588.63	1737.00	1191.94
90.0	9936.00	9520.88	8701.31	7450.31	6028.88	4755.38	3383.44	2330.44	1114.20
135.0	9797.06	10357.31	10355.63	9797.06	8807.06	7383.38	5842.13	4486.50	3084.19
180.0	10261.13	10795.50	10806.19	10240.88	9240.19	7724.25	6252.19	4640.63	3149.44
225.0	10049.06	10379.25	10160.44	9354.94	8085.94	6744.38	5392.69	3768.75	2610.00
270.0	9936.00	9820.69	9160.88	8028.00	6800.63	5664.38	3965.63	2870.44	2058.19
315.0	9797.06	8833.50	7428.94	5928.19	4629.94	3293.44	2194.31	1097.16	1016.78
360.0	10261.13	9294.75	7634.81	6190.88	4797.00	3221.44	2194.88	1469.81	1005.19
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	754.88	619.88	523.13	466.31	423.00	393.75	375.75	360.00	346.50
45.0	819.00	651.38	549.00	475.88	429.19	403.31	383.63	367.31	354.38
90.0	1021.95	744.19	599.57	518.34	456.58	418.39	394.31	374.79	354.88
135.0	1960.88	1278.56	864.56	674.44	555.75	483.75	441.56	411.75	382.50
180.0	2049.19	1088.89	859.84	675.11	563.79	482.34	441.11	410.74	384.98
225.0	1713.94	1092.43	781.43	631.01	529.09	467.16	429.75	401.79	378.51
270.0	1203.19	880.88	715.50	572.63	492.19	450.00	410.63	388.69	371.81
315.0	784.97	625.28	526.05	468.68	426.32	400.05	383.74	369.84	354.15
360.0	754.88	619.88	523.13	466.31	423.00	393.75	375.75	360.00	346.50
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	335.81	326.25	316.69	309.94	303.19	297.00	291.38	286.88	284.06
45.0	340.88	328.50	318.38	309.94	303.19	297.00	288.00	284.63	278.44
90.0	340.93	328.89	317.36	307.80	300.54	292.61	285.47	280.52	276.02
135.0	363.94	347.06	334.13	322.88	314.44	306.56	298.13	292.50	287.44
180.0	364.67	349.48	334.80	323.04	314.61	306.39	299.19	292.39	287.21
225.0	360.56	347.40	334.86	324.06	315.90	307.80	301.05	294.86	290.08
270.0	354.94	343.13	332.44	320.63	313.31	306.56	298.69	293.06	288.56
315.0	342.39	331.20	320.57	311.79	304.48	296.72	290.03	285.47	281.14
360.0	335.81	326.25	316.69	309.94	303.19	297.00	291.38	286.88	284.06
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	277.03	272.42	268.88	265.11	260.83	255.32	248.68	208.80	153.11
45.0	273.99	269.49	265.28	261.11	256.33	250.48	243.56	204.41	151.09
90.0	272.42	268.48	262.91	259.20	255.77	250.26	244.46	228.60	172.91
135.0	284.06	277.71	274.39	270.39	266.01	262.69	258.41	253.29	246.54
180.0	283.39	279.73	275.29	271.80	267.47	263.14	259.59	255.43	248.46
225.0	286.26	282.54	278.21	274.56	270.00	265.73	262.13	257.29	249.81
270.0	284.63	280.18	274.89	270.96	267.36	263.64	257.57	251.66	215.83
315.0	277.43	271.58	267.64	264.26	259.71	252.73	236.93	188.72	115.93
360.0	277.03	272.42	268.88	265.11	260.83	255.32	248.68	208.80	153.11
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	87.36	38.31	14.68	11.42	9.23	7.99	6.81	6.41	6.19
45.0	86.01	36.79	14.96	11.93	9.51	7.88	6.92	6.58	6.30
90.0	113.96	57.83	20.93	13.39	10.97	8.83	7.88	7.20	6.41
135.0	206.38	151.37	94.56	33.19	14.51	12.09	9.39	8.04	7.26
180.0	223.14	174.94	110.76	51.41	18.79	12.94	10.58	8.66	7.71
225.0	216.34	163.13	96.08	37.58	15.24	12.43	10.24	8.49	7.59
270.0	150.30	88.54	38.64	14.34	12.09	9.84	8.04	7.26	6.92
315.0	59.29	22.22	13.05	10.52	8.72	7.65	7.14	6.53	6.19
360.0	87.36	38.31	14.68	11.42	9.23	7.99	6.81	6.41	6.19

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	5.85	5.63	5.46	5.23	5.06	4.89	4.67	4.56	4.44
45.0	6.02	5.79	5.57	5.40	5.18	5.01	4.89	4.73	4.56
90.0	6.13	5.91	5.63	5.46	5.23	5.06	4.89	4.78	4.61
135.0	6.75	6.41	6.19	5.91	5.68	5.46	5.23	5.06	4.89
180.0	6.81	6.47	6.13	5.91	5.68	5.46	5.23	5.06	4.95
225.0	6.81	6.53	6.13	5.91	5.68	5.40	5.23	5.06	4.84
270.0	6.58	6.24	5.96	5.74	5.51	5.29	5.06	4.95	4.78
315.0	5.91	5.63	5.40	5.23	5.01	4.78	4.67	4.56	4.39
360.0	5.85	5.63	5.46	5.23	5.06	4.89	4.67	4.56	4.44
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	4.28	4.16	4.05	3.94	3.88	3.83	3.77	3.71	3.71
45.0	4.50	4.33	4.22	4.11	4.05	3.94	3.88	3.77	3.71
90.0	4.44	4.33	4.22	4.16	4.05	3.99	3.94	3.88	3.77
135.0	4.73	4.61	4.50	4.33	4.28	4.16	4.05	3.99	3.94
180.0	4.73	4.56	4.44	4.39	4.22	4.16	4.05	3.99	3.94
225.0	4.73	4.61	4.44	4.33	4.16	4.11	3.99	3.94	3.88
270.0	4.61	4.44	4.33	4.22	4.16	3.99	3.94	3.94	3.88
315.0	4.22	4.16	4.05	3.94	3.94	3.83	3.83	3.71	3.66
360.0	4.28	4.16	4.05	3.94	3.88	3.83	3.77	3.71	3.71
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	3.66	3.60	3.60	3.54	3.49	3.49	3.49	3.49	3.49
45.0	3.71	3.60	3.66	3.60	3.54	3.54	3.49	3.49	3.43
90.0	3.77	3.71	3.71	3.66	3.60	3.54	3.54	3.54	3.54
135.0	3.88	3.83	3.77	3.71	3.66	3.66	3.60	3.54	3.54
180.0	3.88	3.83	3.77	3.71	3.66	3.66	3.60	3.54	3.54
225.0	3.83	3.77	3.71	3.66	3.60	3.60	3.54	3.49	3.49
270.0	3.77	3.71	3.71	3.66	3.66	3.54	3.54	3.54	3.49
315.0	3.66	3.54	3.60	3.54	3.49	3.49	3.49	3.43	3.43
360.0	3.66	3.60	3.60	3.54	3.49	3.49	3.49	3.49	3.49
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	3.43	3.38	3.38	3.43	3.38	3.38	3.32	3.32	3.32
45.0	3.43	3.38	3.38	3.38	3.38	3.38	3.38	3.32	3.32
90.0	3.54	3.49	3.43	3.49	3.43	3.49	3.43	3.43	3.43
135.0	3.49	3.49	3.49	3.43	3.43	3.43	3.38	3.38	3.38
180.0	3.49	3.49	3.43	3.43	3.38	3.38	3.38	3.38	3.38
225.0	3.49	3.49	3.43	3.43	3.38	3.38	3.38	3.38	3.32
270.0	3.54	3.49	3.49	3.49	3.49	3.49	3.43	3.43	3.43
315.0	3.43	3.43	3.38	3.38	3.38	3.32	3.32	3.32	3.32
360.0	3.43	3.38	3.38	3.43	3.38	3.38	3.32	3.32	3.32
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	3.32	3.32	3.32	3.32	3.26	3.26	3.26	3.26	3.32
45.0	3.32	3.32	3.32	3.32	3.32	3.26	3.26	3.26	3.26
90.0	3.43	3.43	3.43	3.38	3.38	3.32	3.32	3.26	3.26
135.0	3.38	3.38	3.38	3.38	3.32	3.32	3.32	3.26	3.26
180.0	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.26	3.26
225.0	3.32	3.32	3.32	3.32	3.32	3.26	3.26	3.32	3.26
270.0	3.43	3.43	3.43	3.43	3.49	3.38	3.26	3.26	3.26
315.0	3.32	3.32	3.32	3.32	3.32	3.32	3.26	3.26	3.32
360.0	3.32	3.32	3.32	3.32	3.26	3.26	3.26	3.26	3.32

Intensity data(cd)

C/γ(°)	90.0
0.0	3.32
45.0	3.32
90.0	3.26
135.0	3.26
180.0	3.26
225.0	3.26
270.0	3.26
315.0	3.26
360.0	3.32