
NATA

Client:

LumCAT: 3-1549-A3

Luminaire: 92.76.365.00

Report No: GC2019031803

Test No:

LampCAT: PrevaLED Core G7 L15-H1

Lamp flux(lm): 3636.0

Number of Lamps: 1

Length(mm): 78

Phm Type: C

Voltage(V):

Current(A):

Power (W): 31.7900

PF:

Ballast type:

Width(mm): 78

Height(mm): 0

Photometric Results

Lumens(lm): 3223.56, Efficiency(%): 88.66% , Luminous Efficacy(lm/W): 101.40

Central intensity(cd): 12668.710, Maximum intensity(cd): 12668.710

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=22.4

[C90/270]Total=22.4

Field angle(10%Imax): [C0/180]Total=60.0

[C90/270]Total=60.0

Maximum s/h(1/2): C0_180=0.38 C90_270=0.38

Maximum s/h(1/4): C0_180=0.40 C90_270=0.40

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 88.66%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.670%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	12668.715	0.000	0	.000%	.000%
1.0	12567.787	12.075	12.075	.332%	.375%
2.0	12285.308	35.672	47.747	.981%	1.481%
3.0	11843.896	57.709	105.456	1.587%	3.271%
4.0	11387.403	77.763	183.218	2.139%	5.684%
5.0	10686.120	94.959	278.178	2.612%	8.630%
6.0	9753.263	107.414	385.592	2.954%	11.962%
7.0	9318.579	118.379	503.971	3.256%	15.634%
8.0	8698.050	128.942	632.912	3.546%	19.634%
9.0	7946.897	134.898	767.81	3.710%	23.819%
10.0	7179.675	136.890	904.7	3.765%	28.065%
11.0	6455.725	136.246	1040.946	3.747%	32.292%
12.0	5754.803	133.479	1174.425	3.671%	36.433%
13.0	5108.927	128.925	1303.35	3.546%	40.432%
14.0	4484.047	122.789	1426.139	3.377%	44.241%
15.0	3947.741	115.755	1541.894	3.184%	47.832%
16.0	3409.520	107.804	1649.699	2.965%	51.176%
17.0	3032.435	100.319	1750.017	2.759%	54.288%
18.0	2697.055	94.467	1844.484	2.598%	57.219%
19.0	2405.294	88.770	1933.254	2.441%	59.973%
20.0	2219.100	84.639	2017.894	2.328%	62.598%
21.0	2123.916	83.395	2101.288	2.294%	65.185%
22.0	1891.922	80.700	2181.988	2.219%	67.689%
23.0	1731.471	76.029	2258.017	2.091%	70.047%
24.0	1629.210	73.477	2331.493	2.021%	72.327%
25.0	1548.468	72.253	2403.747	1.987%	74.568%
26.0	1472.308	71.306	2475.053	1.961%	76.780%
27.0	1418.248	70.718	2545.771	1.945%	78.974%
28.0	1366.451	70.503	2616.273	1.939%	81.161%
29.0	1316.625	70.197	2686.47	1.931%	83.339%
30.0	1270.048	69.840	2756.31	1.921%	85.505%
31.0	1189.062	68.433	2824.743	1.882%	87.628%
32.0	1069.261	64.698	2889.442	1.779%	89.635%
33.0	960.607	59.801	2949.242	1.645%	91.490%
34.0	876.211	55.588	3004.83	1.529%	93.215%
35.0	744.530	50.334	3055.164	1.384%	94.776%
36.0	605.401	42.982	3098.146	1.182%	96.110%
37.0	461.916	34.810	3132.956	.957%	97.189%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	334.684	26.589	3159.545	.731%	98.014%
39.0	230.764	19.300	3178.846	.531%	98.613%
40.0	171.971	14.046	3192.892	.386%	99.049%
41.0	67.934	8.543	3201.435	.235%	99.314%
42.0	21.775	3.259	3204.694	.090%	99.415%
43.0	13.996	1.325	3206.019	.036%	99.456%
44.0	10.493	0.924	3206.943	.025%	99.485%
45.0	8.080	0.714	3207.657	.020%	99.507%
46.0	6.015	0.551	3208.208	.015%	99.524%
47.0	5.128	0.443	3208.651	.012%	99.538%
48.0	4.710	0.398	3209.049	.011%	99.550%
49.0	4.443	0.376	3209.425	.010%	99.562%
50.0	4.223	0.361	3209.786	.010%	99.573%
51.0	4.037	0.349	3210.136	.010%	99.584%
52.0	3.886	0.340	3210.476	.009%	99.594%
53.0	3.753	0.332	3210.808	.009%	99.605%
54.0	3.614	0.325	3211.133	.009%	99.615%
55.0	3.486	0.317	3211.45	.009%	99.624%
56.0	3.358	0.309	3211.759	.009%	99.634%
57.0	3.248	0.302	3212.061	.008%	99.643%
58.0	3.150	0.296	3212.357	.008%	99.653%
59.0	3.045	0.290	3212.647	.008%	99.662%
60.0	2.970	0.284	3212.931	.008%	99.670%
61.0	2.894	0.280	3213.211	.008%	99.679%
62.0	2.813	0.275	3213.486	.008%	99.688%
63.0	2.773	0.272	3213.757	.007%	99.696%
64.0	2.744	0.271	3214.028	.007%	99.704%
65.0	2.726	0.271	3214.299	.007%	99.713%
66.0	2.732	0.272	3214.571	.007%	99.721%
67.0	2.715	0.274	3214.845	.008%	99.730%
68.0	2.703	0.274	3215.119	.008%	99.738%
69.0	2.691	0.275	3215.394	.008%	99.747%
70.0	2.668	0.275	3215.67	.008%	99.755%
71.0	2.668	0.276	3215.945	.008%	99.764%
72.0	2.633	0.276	3216.221	.008%	99.772%
73.0	2.633	0.275	3216.496	.008%	99.781%
74.0	2.796	0.285	3216.782	.008%	99.790%
75.0	3.109	0.312	3217.094	.009%	99.800%

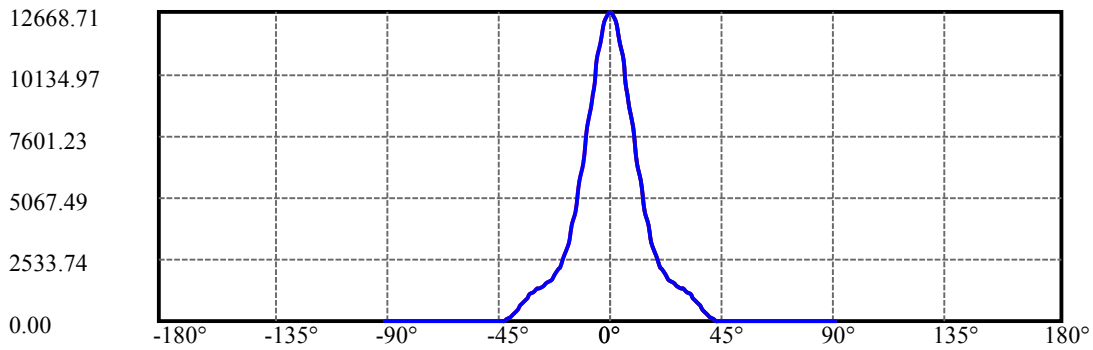
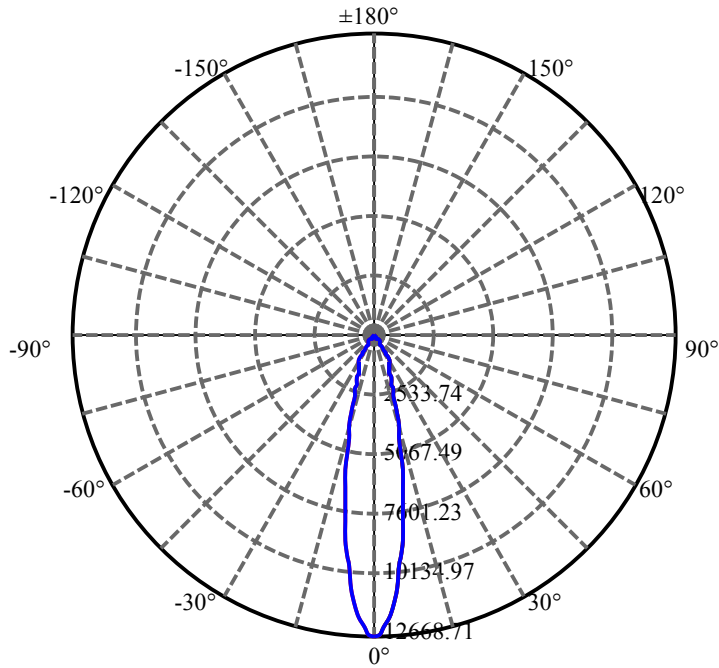
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	3.480	0.350	3217.444	.010%	99.810%
77.0	3.996	0.399	3217.842	.011%	99.823%
78.0	4.640	0.462	3218.305	.013%	99.837%
79.0	5.447	0.542	3218.847	.015%	99.854%
80.0	6.421	0.640	3219.486	.018%	99.874%
81.0	6.746	0.712	3220.198	.020%	99.896%
82.0	6.723	0.730	3220.929	.020%	99.918%
83.0	5.313	0.654	3221.583	.018%	99.939%
84.0	3.092	0.458	3222.041	.013%	99.953%
85.0	2.541	0.307	3222.348	.008%	99.963%
86.0	2.396	0.270	3222.618	.007%	99.971%
87.0	2.280	0.256	3222.874	.007%	99.979%
88.0	2.135	0.242	3223.116	.007%	99.986%
89.0	2.001	0.227	3223.343	.006%	99.993%
90.0	1.903	0.214	3223.557	.006%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2756.31	75.81%	85.51%
0-40	3192.89	87.81%	99.05%
0-60	3212.93	88.36%	99.67%
0-90	3223.34	88.65%	99.99%
0-120	3223.34	88.65%	99.99%
0-180	3223.56	88.66%	100.00%
60-90	10.70	0.29%	0.33%
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%
0-27.47	2578.85	70.93%	80.00%

ZONAL LUMEN SUMMARY

0-10	904.70
10-20	1113.19
20-30	738.42
30-40	436.58
40-50	16.89
50-60	3.14
60-70	2.74
70-80	3.82
80-90	3.86
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



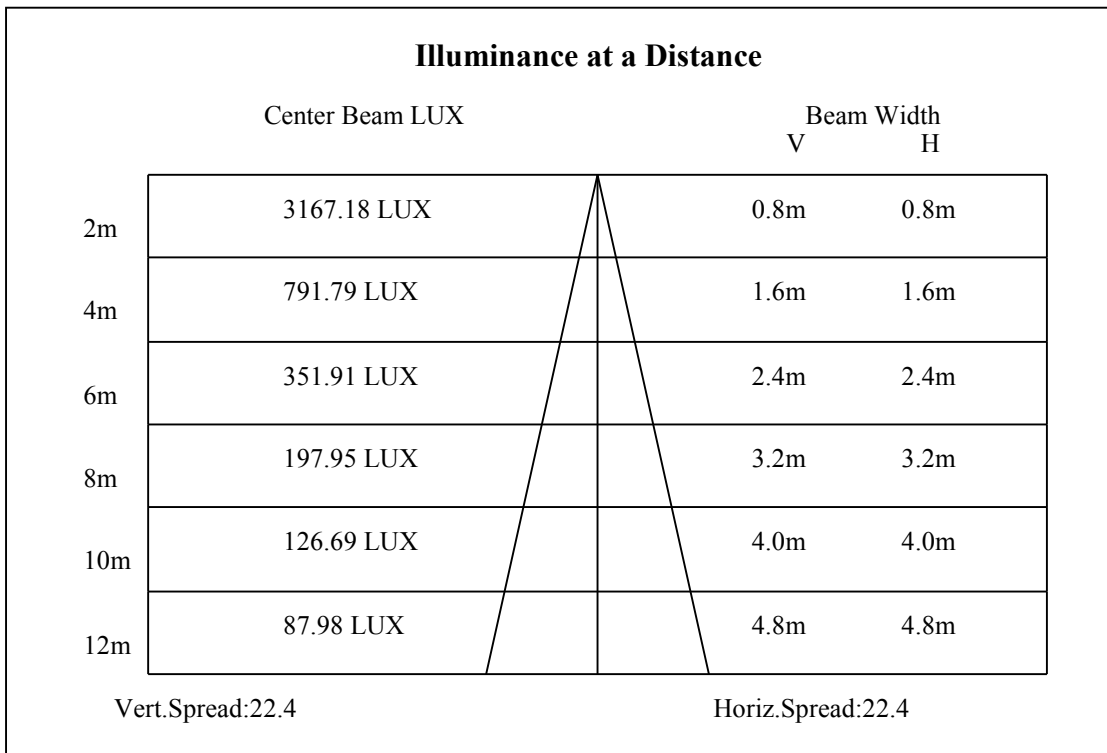
C0(Max): —————

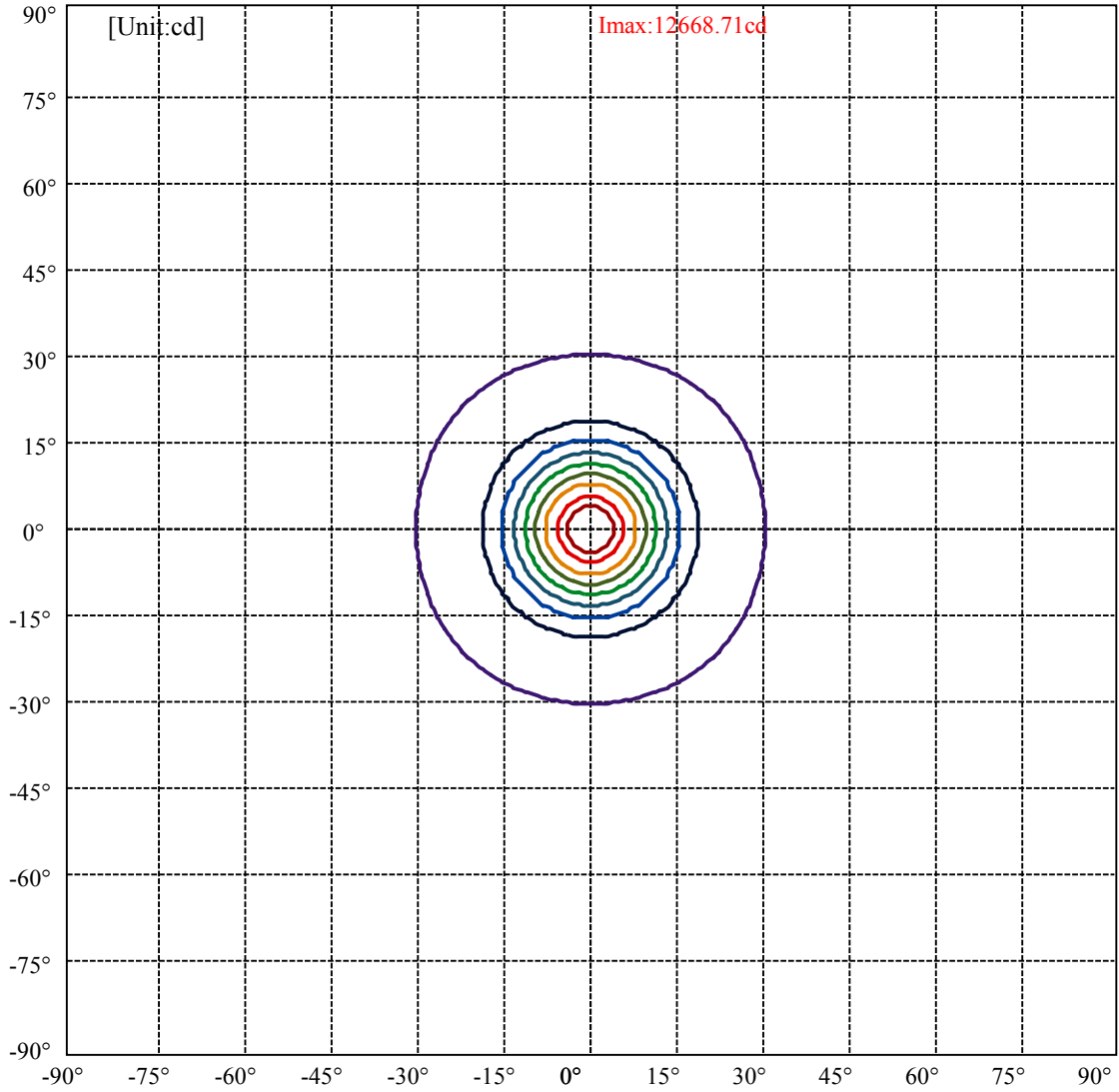
C0/C180: —————

C90/C270: —————

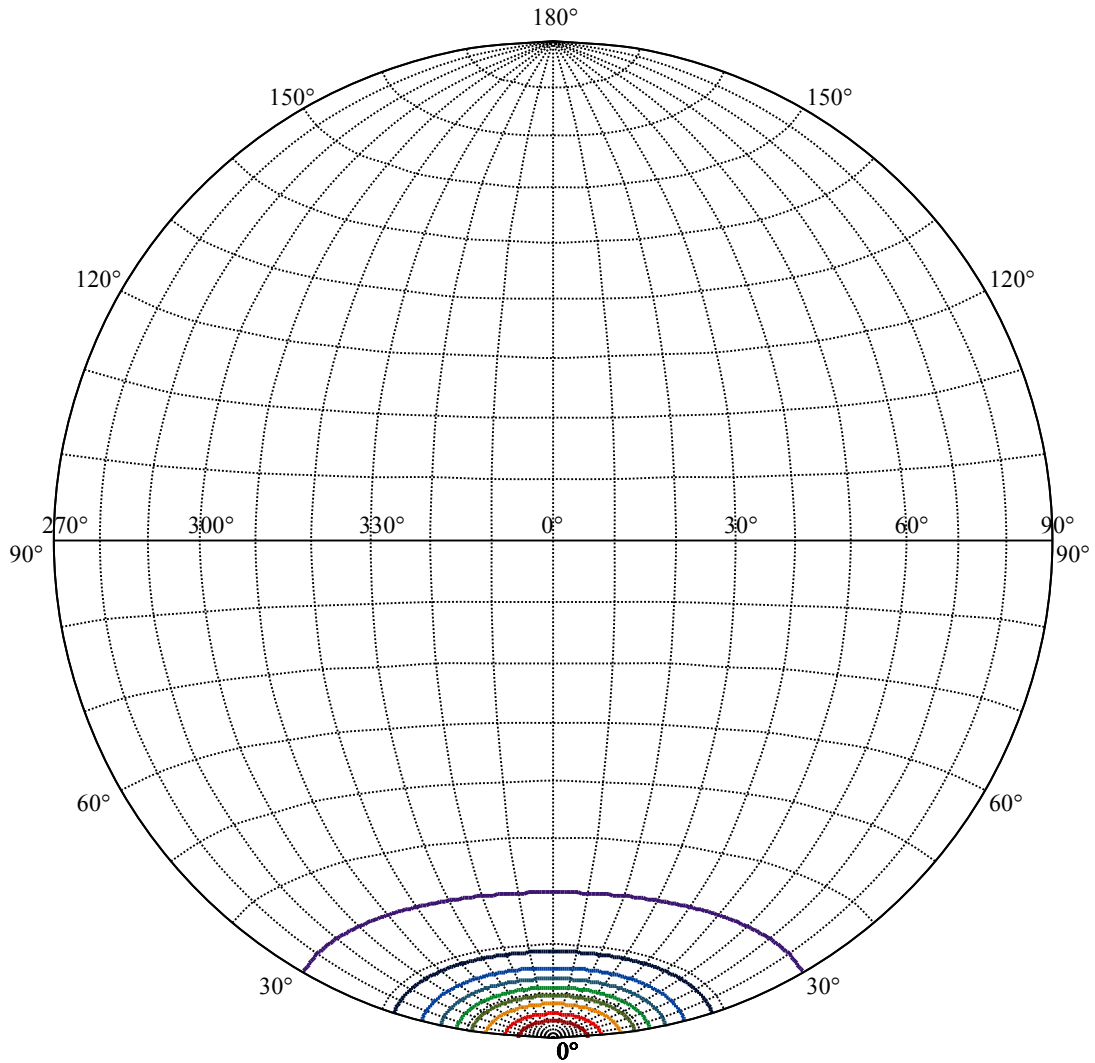
Field angle(10%Imax):C0/180Left:30.0 Right:30.0
:C90/270Left:30.0 Right:30.0

Beam Angle(50%Imax):C0/180Left:11.2 Right:11.2
:C90/270Left:11.2 Right:11.2





(10%Imax) 1266.87	—
(20%Imax) 2533.74	—
(30%Imax) 3800.61	—
(40%Imax) 5067.49	—
(50%Imax) 6334.36	—
(60%Imax) 7601.23	—
(70%Imax) 8868.1	—
(80%Imax) 10135	—
(90%Imax) 11401.8	—



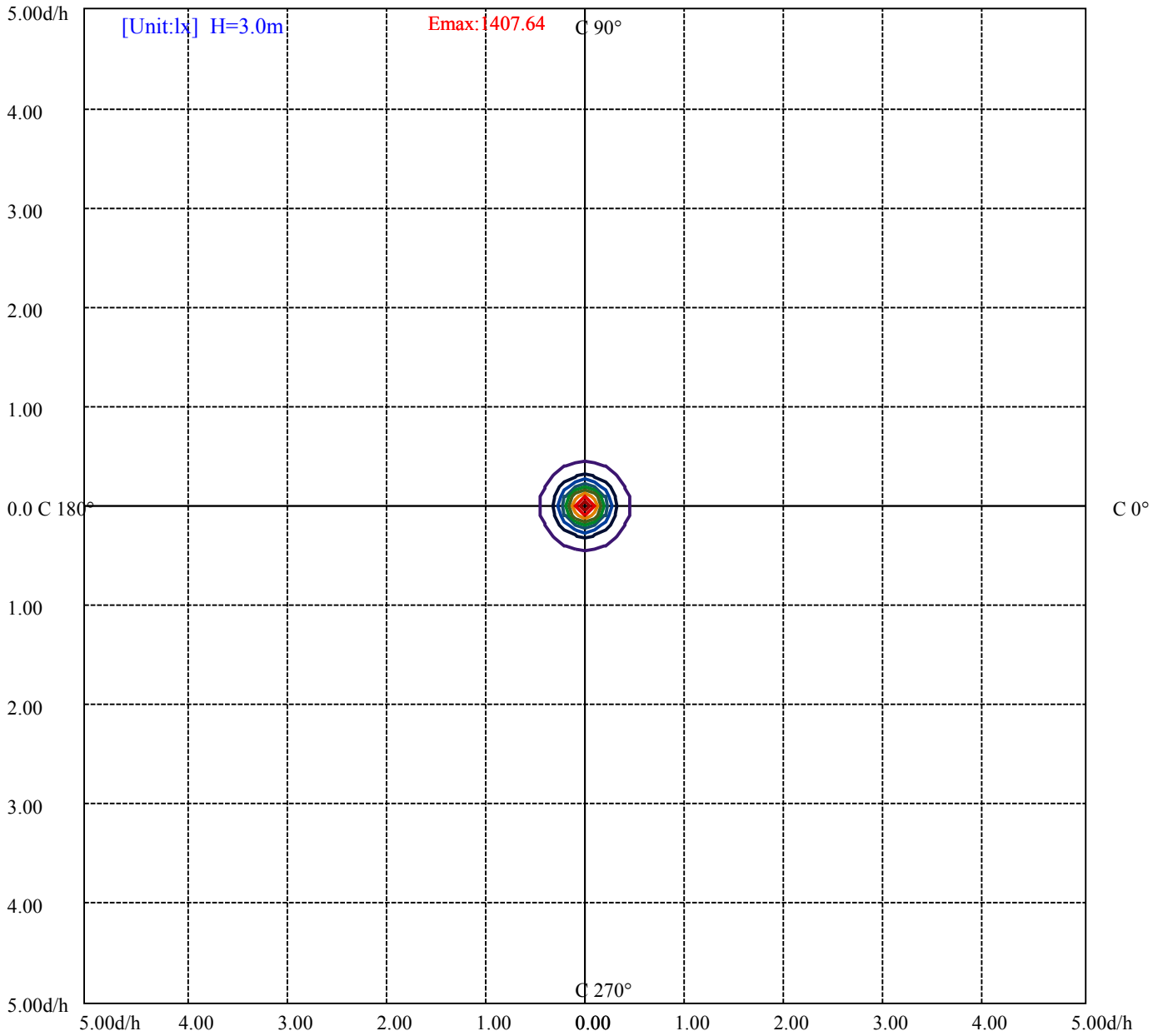
House

[Unit:cd]

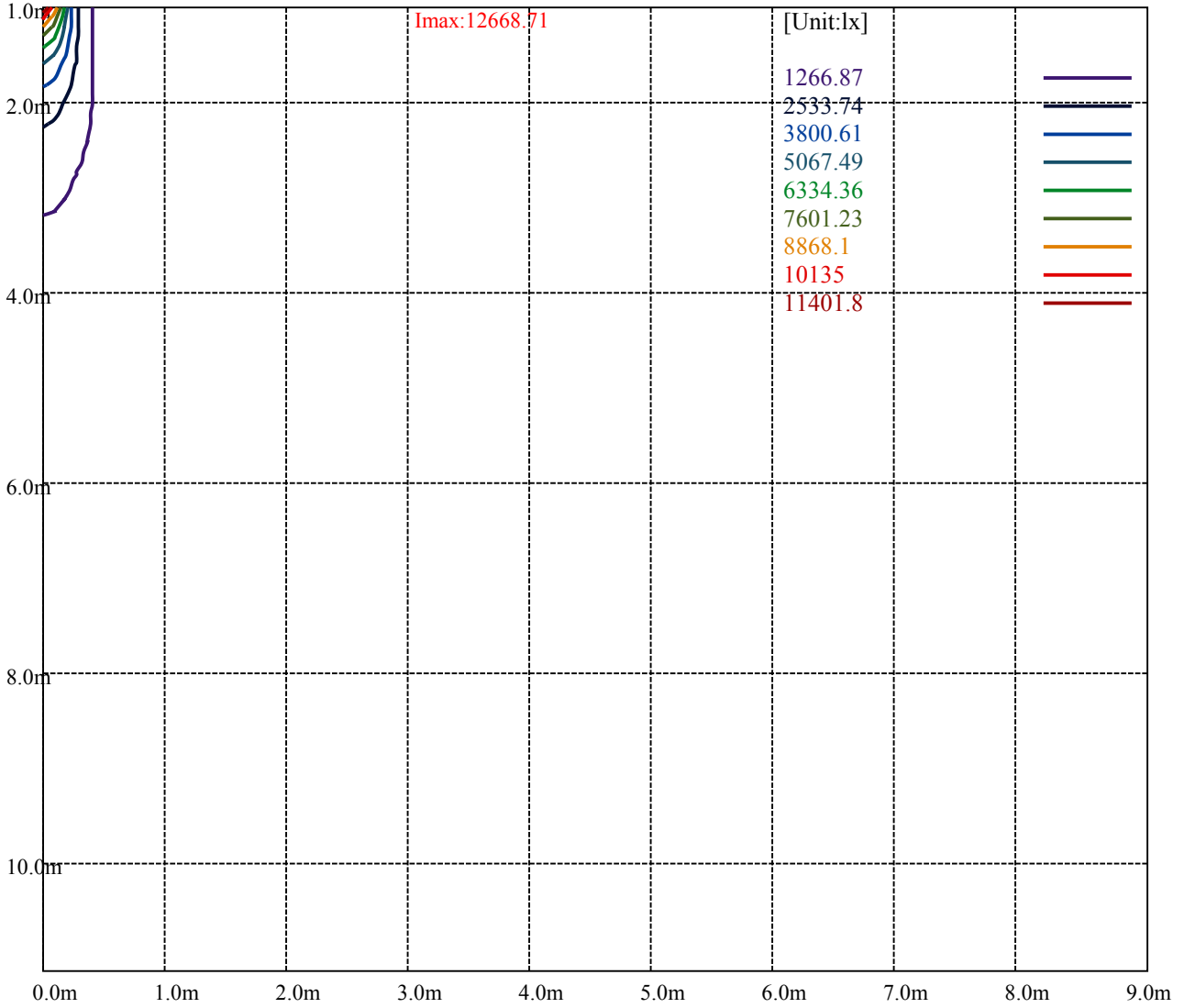
Road

Imax:12668.71

(10%Imax)	1266.87	—
(20%Imax)	2533.74	—
(30%Imax)	3800.61	—
(40%Imax)	5067.49	—
(50%Imax)	6334.36	—
(60%Imax)	7601.23	—
(70%Imax)	8868.1	—
(80%Imax)	10135	—
(90%Imax)	11401.8	—



(10%Emax) 140.7633	—
(20%Emax) 281.5267	—
(30%Emax) 422.29	—
(40%Emax) 563.0533	—
(50%Emax) 703.8167	—
(60%Emax) 844.58	—
(70%Emax) 985.3433	—
(80%Emax) 1126.111	—
(90%Emax) 1266.867	—



Luminance Table

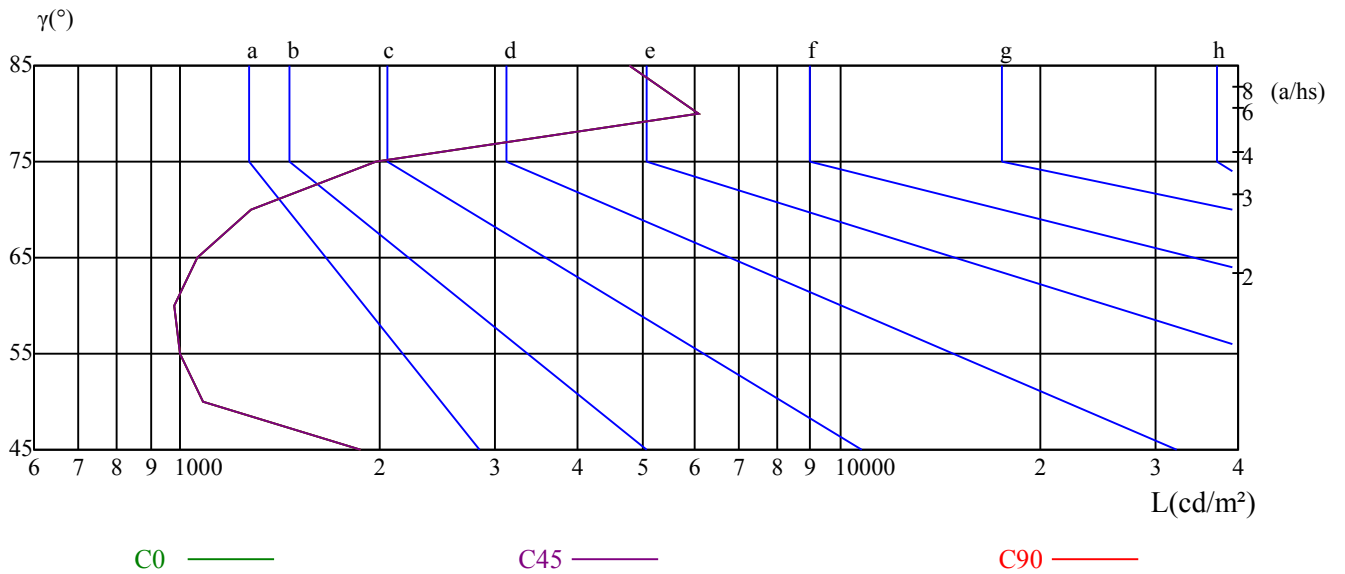
γ	45	50	55	60	65	70	75	80	85
C0	1878	1080	999	976	1060	1282	1974	6078	4792
C45	1878	1080	999	976	1060	1282	1974	6078	4792
C90	1878	1080	999	976	1060	1282	1974	6078	4792

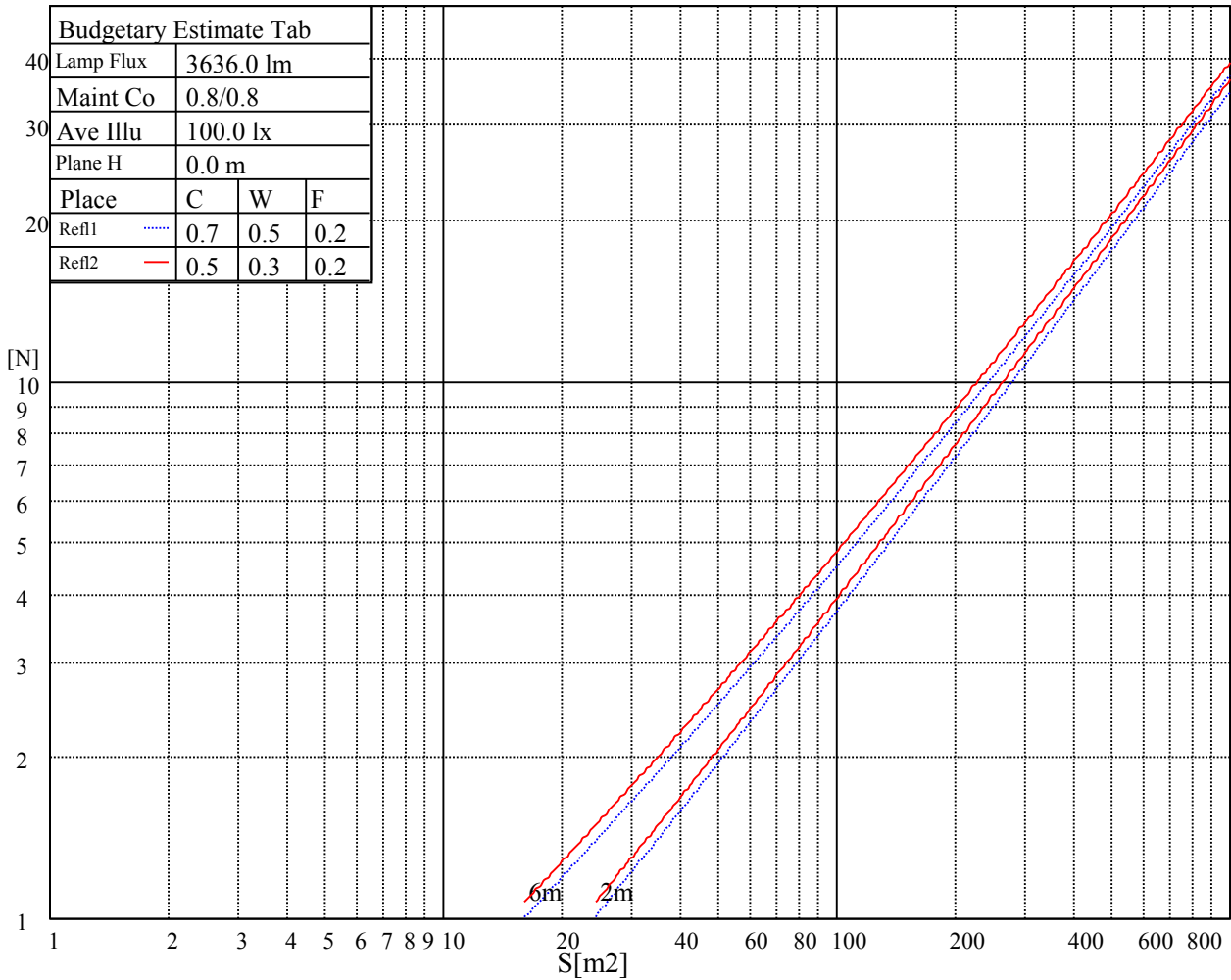
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1060	1060	1060	1974	1974	1974	4792	4792	4792

Glare Table

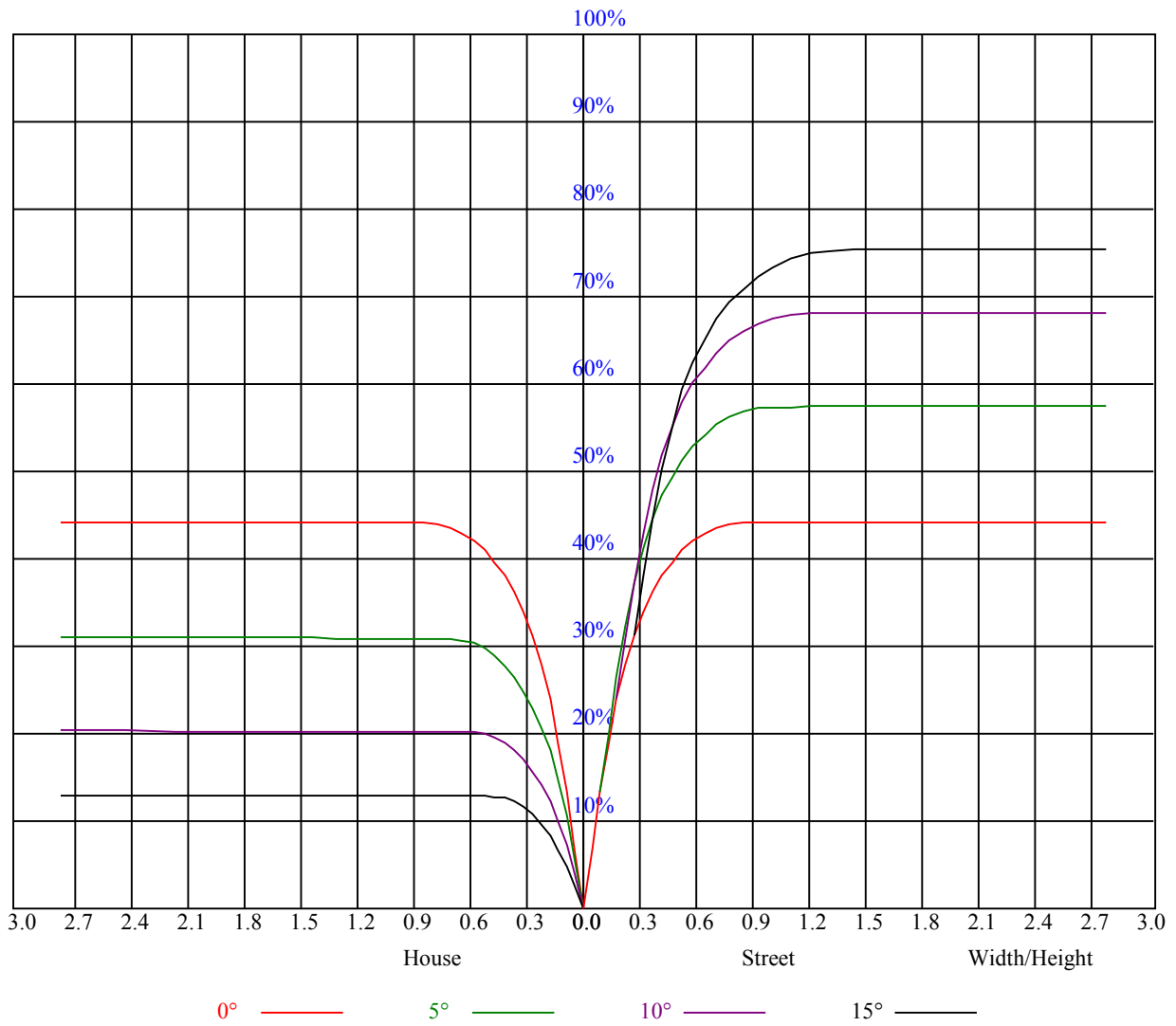
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

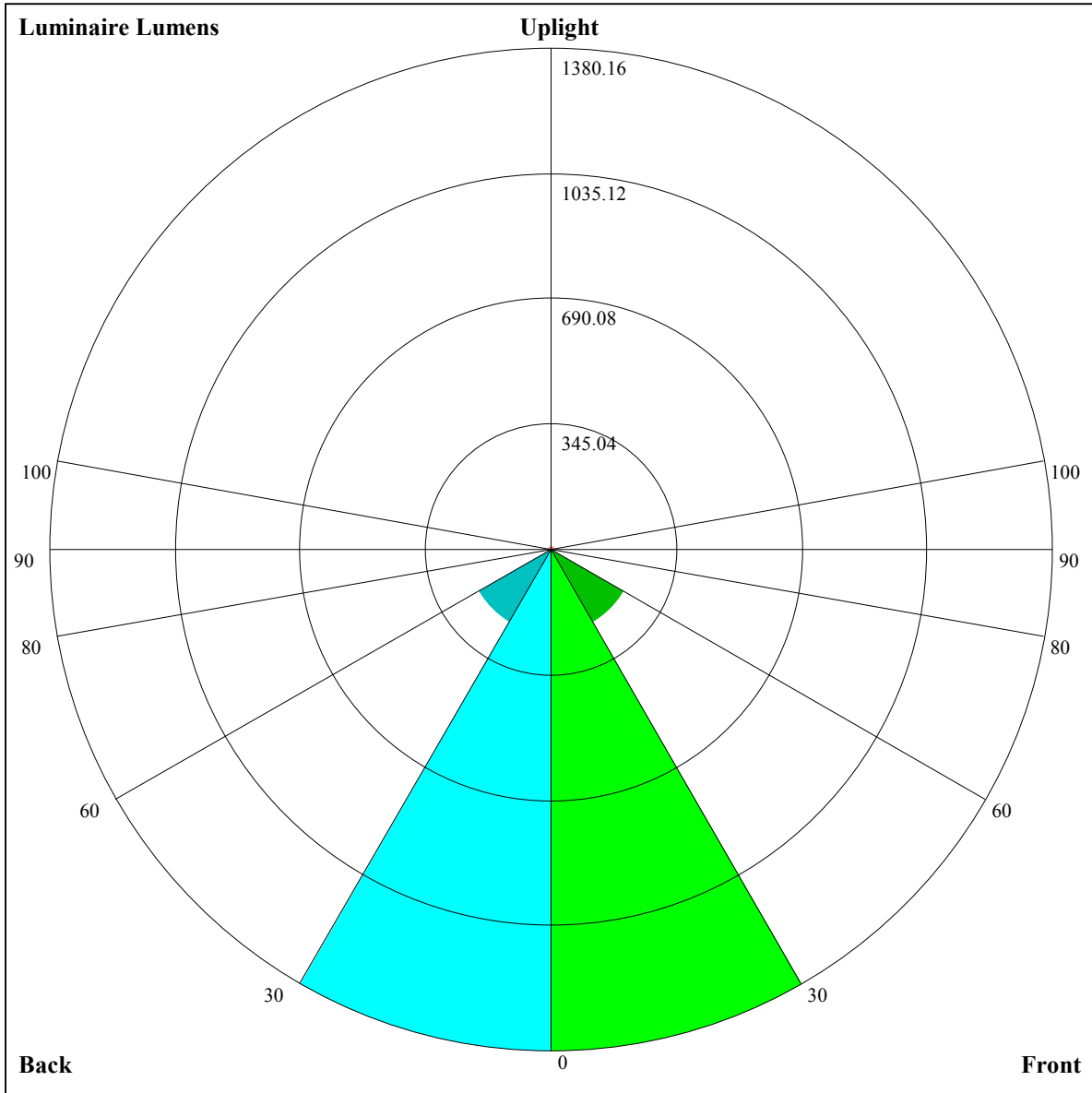
Luminance Limiting Curve





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	1.06	1.06	1.06	1.03	1.03	1.03	0.99	0.99	0.99	0.94	0.94	0.94	0.90	0.90	0.90	0.89
1	0.99	0.98	0.96	0.98	0.96	0.94	0.94	0.93	0.91	0.91	0.90	0.89	0.88	0.87	0.86	0.85
2	0.94	0.91	0.89	0.93	0.90	0.88	0.90	0.88	0.86	0.87	0.85	0.84	0.85	0.83	0.82	0.81
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	0.78	0.77
4	0.85	0.81	0.78	0.84	0.80	0.78	0.82	0.79	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.74
5	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.73	0.77	0.75	0.72	0.76	0.74	0.72	0.71
6	0.78	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.68
7	0.74	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.65
8	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.69	0.66	0.64	0.63
9	0.69	0.65	0.62	0.68	0.64	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.60
10	0.66	0.62	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.58





Luminaire Lumens:

FL=1380.16,FM=230.74,FH=3.31,FVH=2.03

BL=1380.16,BM=230.74,BH=3.31,BVH=2.03

UL=2.08,UH=9.88

BUG Rating:B3-U1-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	12668.72	12567.79	12285.31	11843.90	11387.40	10686.12	9753.26	9318.58	8698.05
45.0	12668.72	12567.79	12285.31	11843.90	11387.40	10686.12	9753.26	9318.58	8698.05
90.0	12668.72	12567.79	12285.31	11843.90	11387.40	10686.12	9753.26	9318.58	8698.05
135.0	12668.72	12567.79	12285.31	11843.90	11387.40	10686.12	9753.26	9318.58	8698.05
180.0	12668.72	12567.79	12285.31	11843.90	11387.40	10686.12	9753.26	9318.58	8698.05
225.0	12668.72	12567.79	12285.31	11843.90	11387.40	10686.12	9753.26	9318.58	8698.05
270.0	12668.72	12567.79	12285.31	11843.90	11387.40	10686.12	9753.26	9318.58	8698.05
315.0	12668.72	12567.79	12285.31	11843.90	11387.40	10686.12	9753.26	9318.58	8698.05
360.0	12668.72	12567.79	12285.31	11843.90	11387.40	10686.12	9753.26	9318.58	8698.05
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	7946.90	7179.68	6455.73	5754.80	5108.93	4484.05	3947.74	3409.52	3032.44
45.0	7946.90	7179.68	6455.73	5754.80	5108.93	4484.05	3947.74	3409.52	3032.44
90.0	7946.90	7179.68	6455.73	5754.80	5108.93	4484.05	3947.74	3409.52	3032.44
135.0	7946.90	7179.68	6455.73	5754.80	5108.93	4484.05	3947.74	3409.52	3032.44
180.0	7946.90	7179.68	6455.73	5754.80	5108.93	4484.05	3947.74	3409.52	3032.44
225.0	7946.90	7179.68	6455.73	5754.80	5108.93	4484.05	3947.74	3409.52	3032.44
270.0	7946.90	7179.68	6455.73	5754.80	5108.93	4484.05	3947.74	3409.52	3032.44
315.0	7946.90	7179.68	6455.73	5754.80	5108.93	4484.05	3947.74	3409.52	3032.44
360.0	7946.90	7179.68	6455.73	5754.80	5108.93	4484.05	3947.74	3409.52	3032.44
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2697.06	2405.29	2219.10	2123.92	1891.92	1731.47	1629.21	1548.47	1472.31
45.0	2697.06	2405.29	2219.10	2123.92	1891.92	1731.47	1629.21	1548.47	1472.31
90.0	2697.06	2405.29	2219.10	2123.92	1891.92	1731.47	1629.21	1548.47	1472.31
135.0	2697.06	2405.29	2219.10	2123.92	1891.92	1731.47	1629.21	1548.47	1472.31
180.0	2697.06	2405.29	2219.10	2123.92	1891.92	1731.47	1629.21	1548.47	1472.31
225.0	2697.06	2405.29	2219.10	2123.92	1891.92	1731.47	1629.21	1548.47	1472.31
270.0	2697.06	2405.29	2219.10	2123.92	1891.92	1731.47	1629.21	1548.47	1472.31
315.0	2697.06	2405.29	2219.10	2123.92	1891.92	1731.47	1629.21	1548.47	1472.31
360.0	2697.06	2405.29	2219.10	2123.92	1891.92	1731.47	1629.21	1548.47	1472.31
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1418.25	1366.45	1316.63	1270.05	1189.06	1069.26	960.61	876.21	744.53
45.0	1418.25	1366.45	1316.63	1270.05	1189.06	1069.26	960.61	876.21	744.53
90.0	1418.25	1366.45	1316.63	1270.05	1189.06	1069.26	960.61	876.21	744.53
135.0	1418.25	1366.45	1316.63	1270.05	1189.06	1069.26	960.61	876.21	744.53
180.0	1418.25	1366.45	1316.63	1270.05	1189.06	1069.26	960.61	876.21	744.53
225.0	1418.25	1366.45	1316.63	1270.05	1189.06	1069.26	960.61	876.21	744.53
270.0	1418.25	1366.45	1316.63	1270.05	1189.06	1069.26	960.61	876.21	744.53
315.0	1418.25	1366.45	1316.63	1270.05	1189.06	1069.26	960.61	876.21	744.53
360.0	1418.25	1366.45	1316.63	1270.05	1189.06	1069.26	960.61	876.21	744.53
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	605.40	461.92	334.68	230.76	171.97	67.93	21.78	14.00	10.49
45.0	605.40	461.92	334.68	230.76	171.97	67.93	21.78	14.00	10.49
90.0	605.40	461.92	334.68	230.76	171.97	67.93	21.78	14.00	10.49
135.0	605.40	461.92	334.68	230.76	171.97	67.93	21.78	14.00	10.49
180.0	605.40	461.92	334.68	230.76	171.97	67.93	21.78	14.00	10.49
225.0	605.40	461.92	334.68	230.76	171.97	67.93	21.78	14.00	10.49
270.0	605.40	461.92	334.68	230.76	171.97	67.93	21.78	14.00	10.49
315.0	605.40	461.92	334.68	230.76	171.97	67.93	21.78	14.00	10.49
360.0	605.40	461.92	334.68	230.76	171.97	67.93	21.78	14.00	10.49

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	8.08	6.02	5.13	4.71	4.44	4.22	4.04	3.89	3.75
45.0	8.08	6.02	5.13	4.71	4.44	4.22	4.04	3.89	3.75
90.0	8.08	6.02	5.13	4.71	4.44	4.22	4.04	3.89	3.75
135.0	8.08	6.02	5.13	4.71	4.44	4.22	4.04	3.89	3.75
180.0	8.08	6.02	5.13	4.71	4.44	4.22	4.04	3.89	3.75
225.0	8.08	6.02	5.13	4.71	4.44	4.22	4.04	3.89	3.75
270.0	8.08	6.02	5.13	4.71	4.44	4.22	4.04	3.89	3.75
315.0	8.08	6.02	5.13	4.71	4.44	4.22	4.04	3.89	3.75
360.0	8.08	6.02	5.13	4.71	4.44	4.22	4.04	3.89	3.75
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	3.61	3.49	3.36	3.25	3.15	3.05	2.97	2.89	2.81
45.0	3.61	3.49	3.36	3.25	3.15	3.05	2.97	2.89	2.81
90.0	3.61	3.49	3.36	3.25	3.15	3.05	2.97	2.89	2.81
135.0	3.61	3.49	3.36	3.25	3.15	3.05	2.97	2.89	2.81
180.0	3.61	3.49	3.36	3.25	3.15	3.05	2.97	2.89	2.81
225.0	3.61	3.49	3.36	3.25	3.15	3.05	2.97	2.89	2.81
270.0	3.61	3.49	3.36	3.25	3.15	3.05	2.97	2.89	2.81
315.0	3.61	3.49	3.36	3.25	3.15	3.05	2.97	2.89	2.81
360.0	3.61	3.49	3.36	3.25	3.15	3.05	2.97	2.89	2.81
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	2.77	2.74	2.73	2.73	2.72	2.70	2.69	2.67	2.67
45.0	2.77	2.74	2.73	2.73	2.72	2.70	2.69	2.67	2.67
90.0	2.77	2.74	2.73	2.73	2.72	2.70	2.69	2.67	2.67
135.0	2.77	2.74	2.73	2.73	2.72	2.70	2.69	2.67	2.67
180.0	2.77	2.74	2.73	2.73	2.72	2.70	2.69	2.67	2.67
225.0	2.77	2.74	2.73	2.73	2.72	2.70	2.69	2.67	2.67
270.0	2.77	2.74	2.73	2.73	2.72	2.70	2.69	2.67	2.67
315.0	2.77	2.74	2.73	2.73	2.72	2.70	2.69	2.67	2.67
360.0	2.77	2.74	2.73	2.73	2.72	2.70	2.69	2.67	2.67
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	2.63	2.63	2.80	3.11	3.48	4.00	4.64	5.45	6.42
45.0	2.63	2.63	2.80	3.11	3.48	4.00	4.64	5.45	6.42
90.0	2.63	2.63	2.80	3.11	3.48	4.00	4.64	5.45	6.42
135.0	2.63	2.63	2.80	3.11	3.48	4.00	4.64	5.45	6.42
180.0	2.63	2.63	2.80	3.11	3.48	4.00	4.64	5.45	6.42
225.0	2.63	2.63	2.80	3.11	3.48	4.00	4.64	5.45	6.42
270.0	2.63	2.63	2.80	3.11	3.48	4.00	4.64	5.45	6.42
315.0	2.63	2.63	2.80	3.11	3.48	4.00	4.64	5.45	6.42
360.0	2.63	2.63	2.80	3.11	3.48	4.00	4.64	5.45	6.42
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	6.75	6.72	5.31	3.09	2.54	2.40	2.28	2.14	2.00
45.0	6.75	6.72	5.31	3.09	2.54	2.40	2.28	2.14	2.00
90.0	6.75	6.72	5.31	3.09	2.54	2.40	2.28	2.14	2.00
135.0	6.75	6.72	5.31	3.09	2.54	2.40	2.28	2.14	2.00
180.0	6.75	6.72	5.31	3.09	2.54	2.40	2.28	2.14	2.00
225.0	6.75	6.72	5.31	3.09	2.54	2.40	2.28	2.14	2.00
270.0	6.75	6.72	5.31	3.09	2.54	2.40	2.28	2.14	2.00
315.0	6.75	6.72	5.31	3.09	2.54	2.40	2.28	2.14	2.00
360.0	6.75	6.72	5.31	3.09	2.54	2.40	2.28	2.14	2.00

Intensity data(cd)

C/γ(°)	90.0
0.0	1.90
45.0	1.90
90.0	1.90
135.0	1.90
180.0	1.90
225.0	1.90
270.0	1.90
315.0	1.90
360.0	1.90