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Nata

Client:

LumCAT: 3-1943-M

Luminaire:

Report No:

Voltage(V): 32.8200

Test No: GC2019081301

Current(A): 0.2970

LampCAT: TRIDONIC SLE G7 17MM

Power (W): 9.7400

Lamp flux(lm): 1190.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 86

Width(mm): 86

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1010.60, Efficiency(%): 84.92% , Luminous Efficacy(lm/W): 103.76

Central intensity(cd): 3406.219, Maximum intensity(cd): 3406.219

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=27.0

[C90/270]Total=27.0

Field angle(10%Imax): [C0/180]Total=61.6

[C90/270]Total=61.6

Maximum s/h(1/2): C0_180=0.46 C90_270=0.46

Maximum s/h(1/4): C0_180=0.43 C90_270=0.43

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 84.92%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.399%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3406.219	0.000	0	.000%	.000%
1.0	3402.563	3.258	3.258	.274%	.322%
2.0	3387.727	9.746	13.004	.819%	1.287%
3.0	3363.117	16.146	29.15	1.357%	2.884%
4.0	3317.695	22.363	51.513	1.879%	5.097%
5.0	3246.328	28.238	79.751	2.373%	7.891%
6.0	3139.945	33.562	113.312	2.820%	11.212%
7.0	3012.680	38.189	151.501	3.209%	14.991%
8.0	2856.375	42.004	193.505	3.530%	19.147%
9.0	2675.531	44.833	238.338	3.767%	23.584%
10.0	2478.023	46.638	284.976	3.919%	28.199%
11.0	2277.141	47.514	332.49	3.993%	32.900%
12.0	2064.375	47.459	379.949	3.988%	37.596%
13.0	1825.172	46.159	426.108	3.879%	42.164%
14.0	1589.428	43.707	469.815	3.673%	46.489%
15.0	1381.690	40.789	510.603	3.428%	50.525%
16.0	1152.612	37.135	547.738	3.121%	54.199%
17.0	967.409	33.014	580.752	2.774%	57.466%
18.0	834.391	29.708	610.46	2.496%	60.406%
19.0	728.782	27.196	637.656	2.285%	63.097%
20.0	640.582	25.063	662.719	2.106%	65.577%
21.0	572.843	23.300	686.02	1.958%	67.882%
22.0	528.202	22.126	708.146	1.859%	70.072%
23.0	492.497	21.417	729.563	1.800%	72.191%
24.0	461.580	20.860	750.422	1.753%	74.255%
25.0	440.487	20.511	770.933	1.724%	76.284%
26.0	422.135	20.362	791.295	1.711%	78.299%
27.0	406.259	20.267	811.562	1.703%	80.305%
28.0	393.251	20.242	831.804	1.701%	82.308%
29.0	379.069	20.206	852.01	1.698%	84.307%
30.0	361.266	19.989	871.999	1.680%	86.285%
31.0	336.009	19.404	891.403	1.631%	88.205%
32.0	303.989	18.335	909.738	1.541%	90.019%
33.0	264.670	16.753	926.491	1.408%	91.677%
34.0	222.188	14.734	941.225	1.238%	93.135%
35.0	178.643	12.448	953.673	1.046%	94.367%
36.0	134.114	9.958	963.632	.837%	95.352%
37.0	98.543	7.588	971.22	.638%	96.103%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	63.534	5.410	976.63	.455%	96.638%
39.0	36.225	3.405	980.035	.286%	96.975%
40.0	21.558	2.015	982.05	.169%	97.175%
41.0	13.908	1.263	983.313	.106%	97.300%
42.0	10.934	0.903	984.215	.076%	97.389%
43.0	9.823	0.769	984.984	.065%	97.465%
44.0	9.042	0.712	985.696	.060%	97.535%
45.0	8.304	0.667	986.363	.056%	97.601%
46.0	7.685	0.625	986.988	.053%	97.663%
47.0	7.151	0.590	987.578	.050%	97.722%
48.0	6.820	0.565	988.143	.047%	97.778%
49.0	6.609	0.551	988.694	.046%	97.832%
50.0	6.391	0.542	989.237	.046%	97.886%
51.0	6.251	0.535	989.771	.045%	97.939%
52.0	6.117	0.531	990.302	.045%	97.991%
53.0	5.998	0.527	990.829	.044%	98.043%
54.0	5.885	0.524	991.353	.044%	98.095%
55.0	5.752	0.519	991.872	.044%	98.147%
56.0	5.667	0.516	992.388	.043%	98.198%
57.0	5.548	0.513	992.901	.043%	98.248%
58.0	5.463	0.509	993.41	.043%	98.299%
59.0	5.400	0.508	993.918	.043%	98.349%
60.0	5.330	0.507	994.425	.043%	98.399%
61.0	5.273	0.506	994.931	.043%	98.449%
62.0	5.231	0.506	995.437	.043%	98.499%
63.0	5.196	0.507	995.944	.043%	98.549%
64.0	5.140	0.507	996.452	.043%	98.600%
65.0	5.105	0.507	996.959	.043%	98.650%
66.0	5.084	0.508	997.467	.043%	98.700%
67.0	5.063	0.510	997.977	.043%	98.751%
68.0	5.041	0.512	998.489	.043%	98.801%
69.0	5.105	0.518	999.006	.043%	98.852%
70.0	5.210	0.530	999.536	.045%	98.905%
71.0	5.337	0.545	1000.081	.046%	98.959%
72.0	5.562	0.567	1000.648	.048%	99.015%
73.0	5.730	0.590	1001.239	.050%	99.073%
74.0	5.857	0.609	1001.848	.051%	99.134%
75.0	5.984	0.626	1002.473	.053%	99.196%

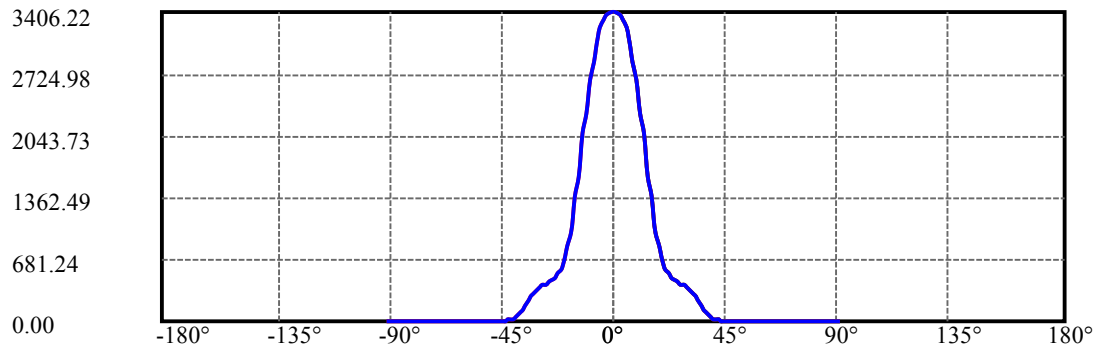
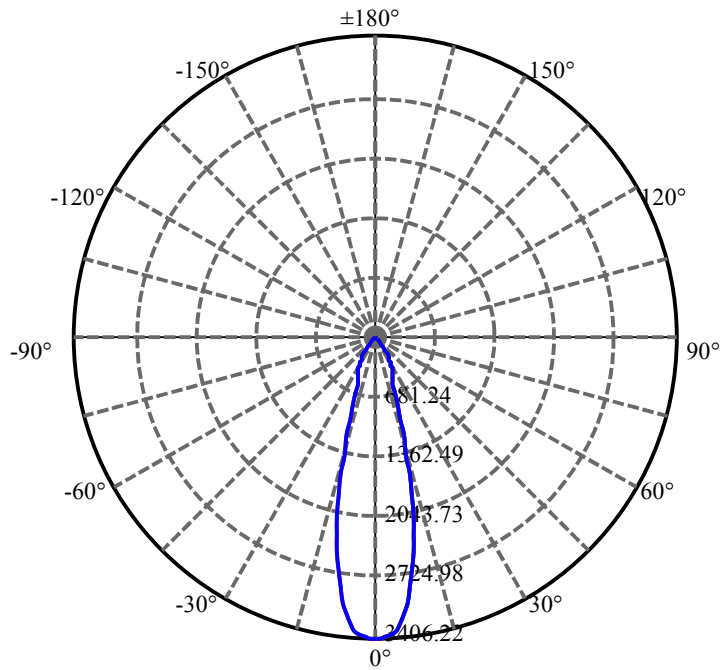
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	6.054	0.639	1003.112	.054%	99.259%
77.0	5.977	0.641	1003.754	.054%	99.322%
78.0	5.562	0.618	1004.371	.052%	99.383%
79.0	5.070	0.571	1004.943	.048%	99.440%
80.0	4.964	0.541	1005.484	.045%	99.493%
81.0	4.859	0.531	1006.015	.045%	99.546%
82.0	4.795	0.524	1006.538	.044%	99.598%
83.0	4.802	0.522	1007.06	.044%	99.649%
84.0	4.788	0.522	1007.582	.044%	99.701%
85.0	4.746	0.520	1008.103	.044%	99.753%
86.0	4.697	0.516	1008.619	.043%	99.804%
87.0	4.655	0.512	1009.131	.043%	99.854%
88.0	4.514	0.502	1009.633	.042%	99.904%
89.0	4.409	0.489	1010.122	.041%	99.952%
90.0	4.373	0.482	1010.604	.040%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	872.00	73.28%	86.28%
0-40	982.05	82.53%	97.17%
0-60	994.43	83.57%	98.40%
0-90	1010.12	84.88%	99.95%
0-120	1010.12	84.88%	99.95%
0-180	1010.60	84.92%	100.00%
60-90	16.20	1.36%	1.60%
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%
0-26.85	808.48	67.94%	80.00%

ZONAL LUMEN SUMMARY

0-10	284.98
10-20	377.74
20-30	209.28
30-40	110.05
40-50	7.19
50-60	5.19
60-70	5.11
70-80	5.95
80-90	4.64
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: —————

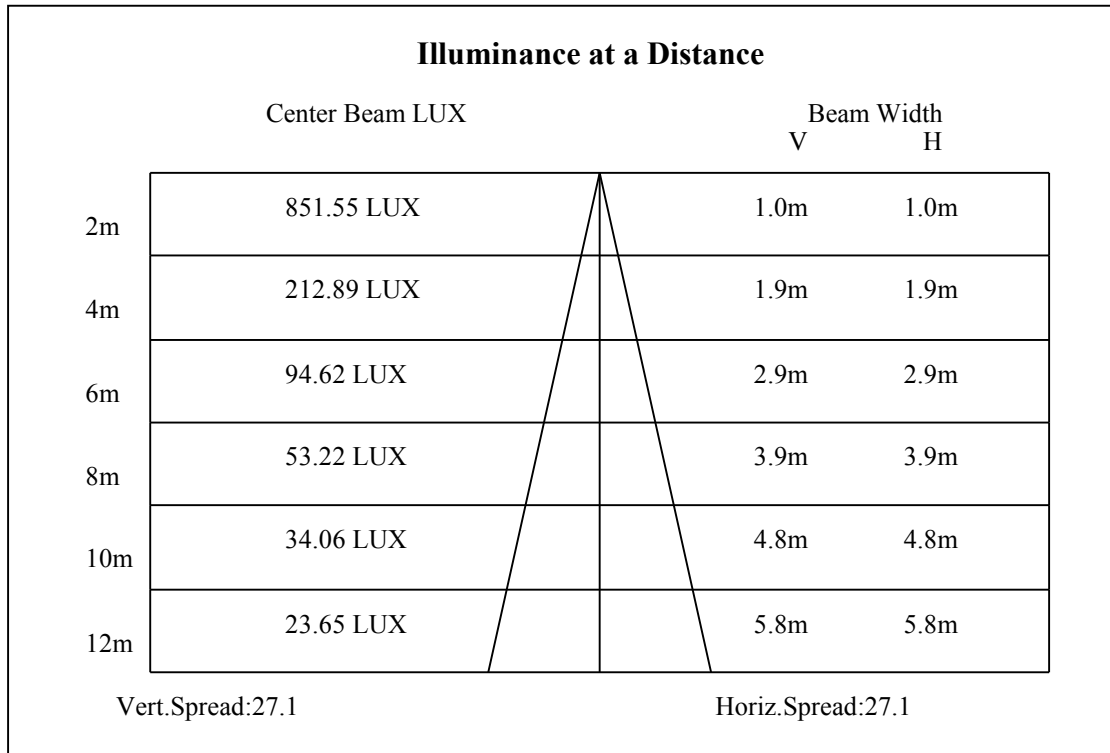
C90/C270: —————

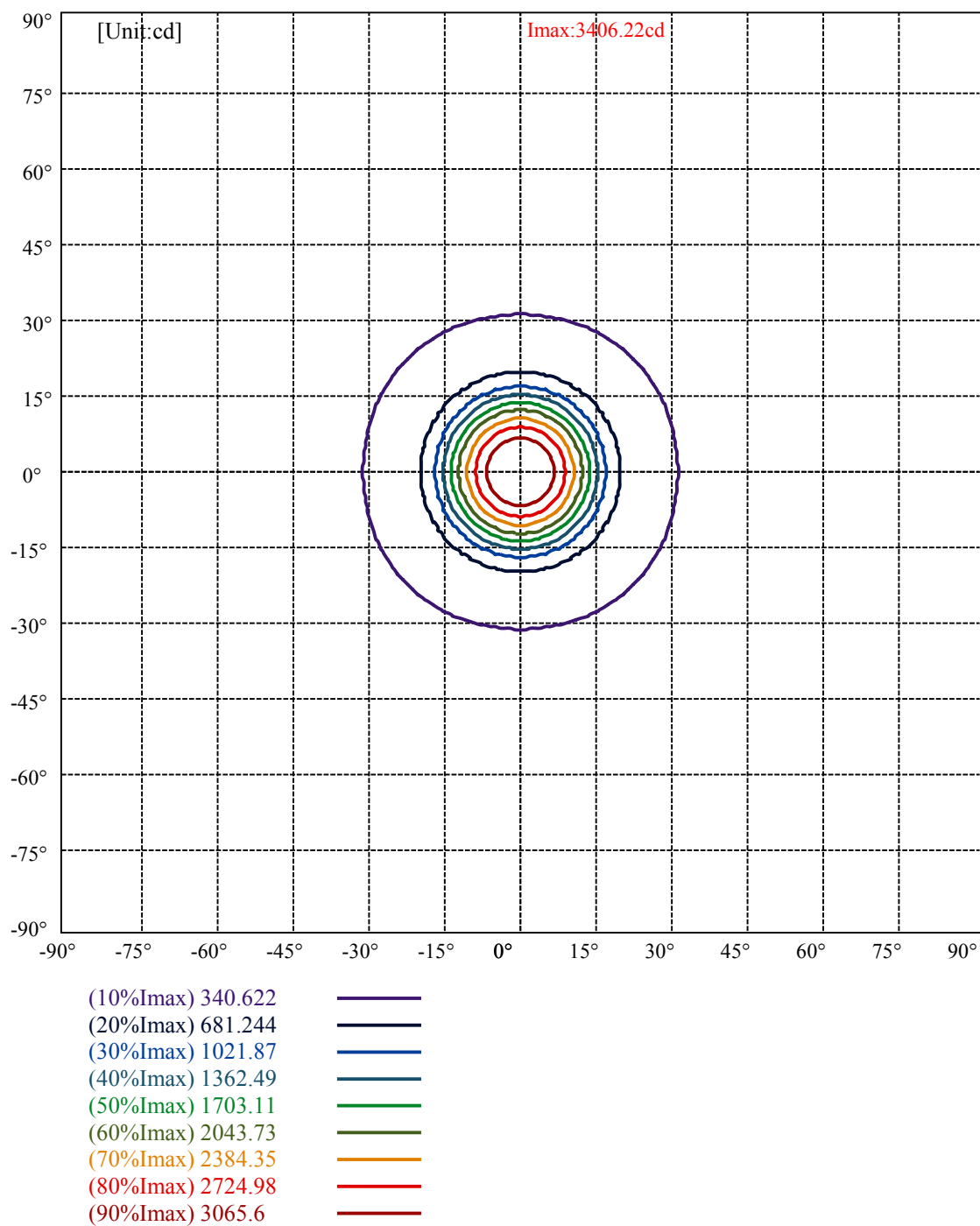
Field angle(10%Imax):C0/180Left:30.8 Right:30.8

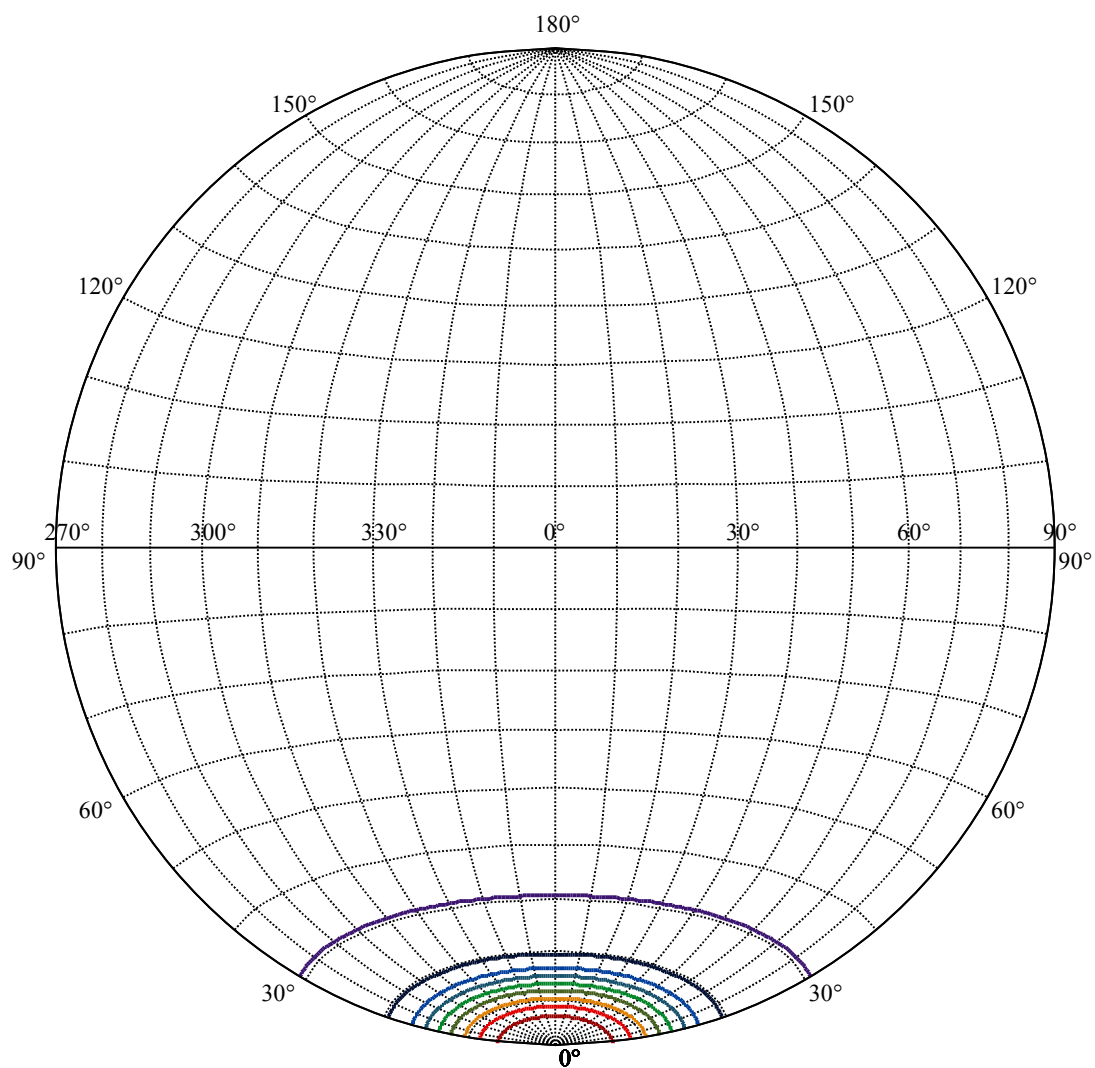
:C90/270Left:30.8 Right:30.8

Beam Angle(50%Imax):C0/180Left:13.5 Right:13.5

:C90/270Left:13.5 Right:13.5







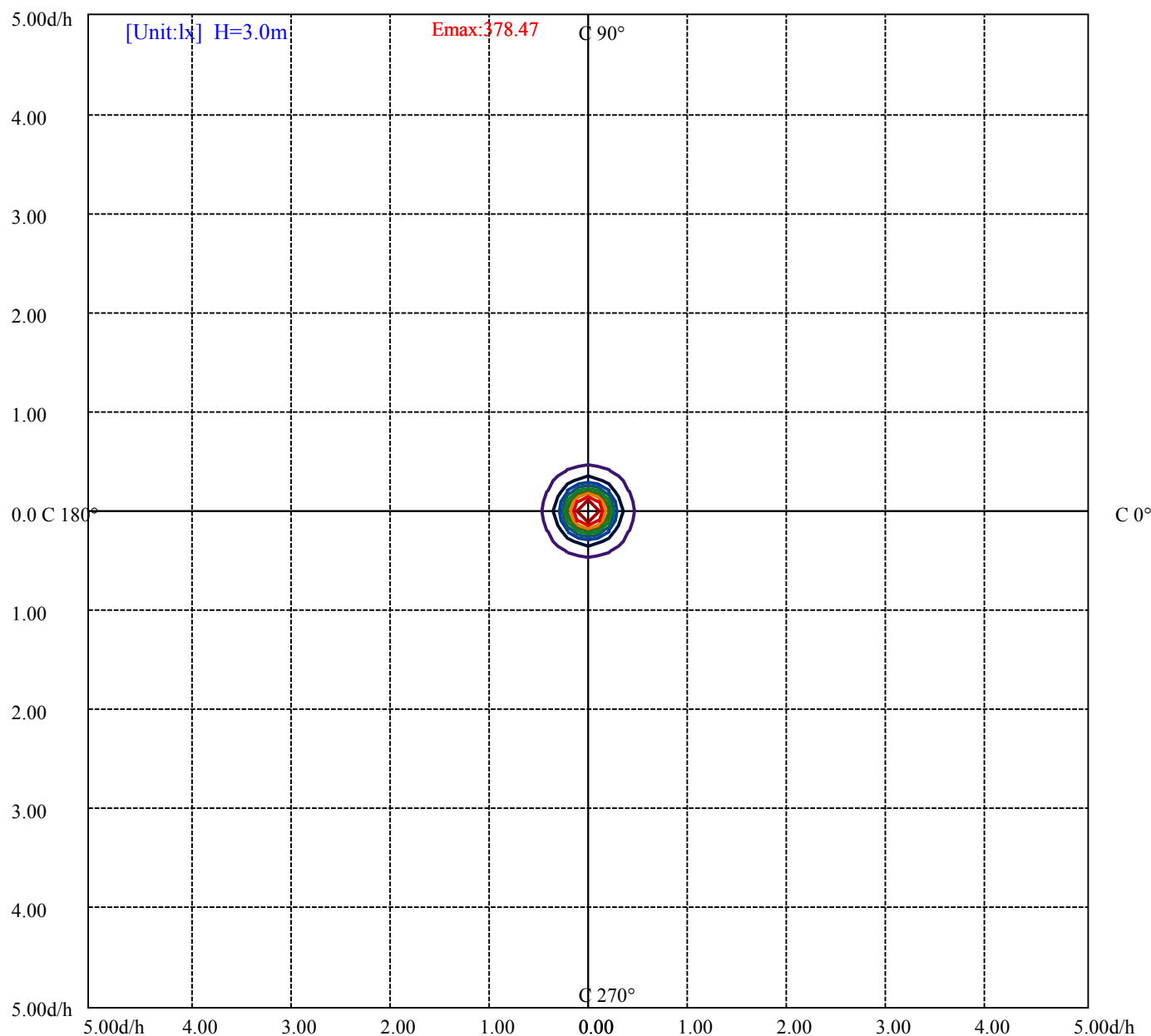
House

[Unit:cd]

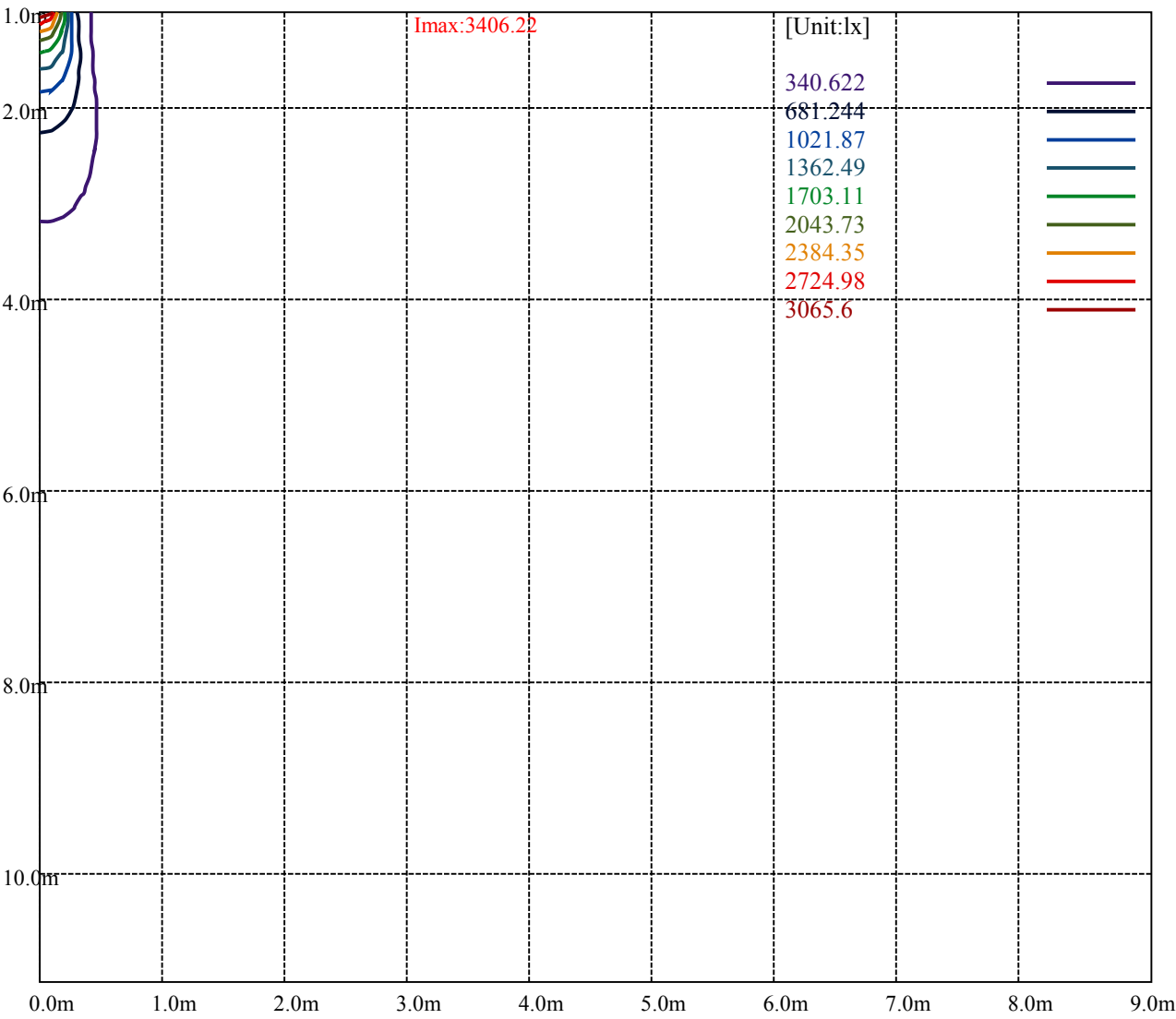
Road

Imax:3406.22

(10%Imax)	340.622	—
(20%Imax)	681.244	—
(30%Imax)	1021.87	—
(40%Imax)	1362.49	—
(50%Imax)	1703.11	—
(60%Imax)	2043.73	—
(70%Imax)	2384.35	—
(80%Imax)	2724.98	—
(90%Imax)	3065.6	—



(10%Emax)	37.84689	—
(20%Emax)	75.69378	—
(30%Emax)	113.5411	—
(40%Emax)	151.3878	—
(50%Emax)	189.2344	—
(60%Emax)	227.0811	—
(70%Emax)	264.9278	—
(80%Emax)	302.7744	—
(90%Emax)	340.6222	—



Luminance Table

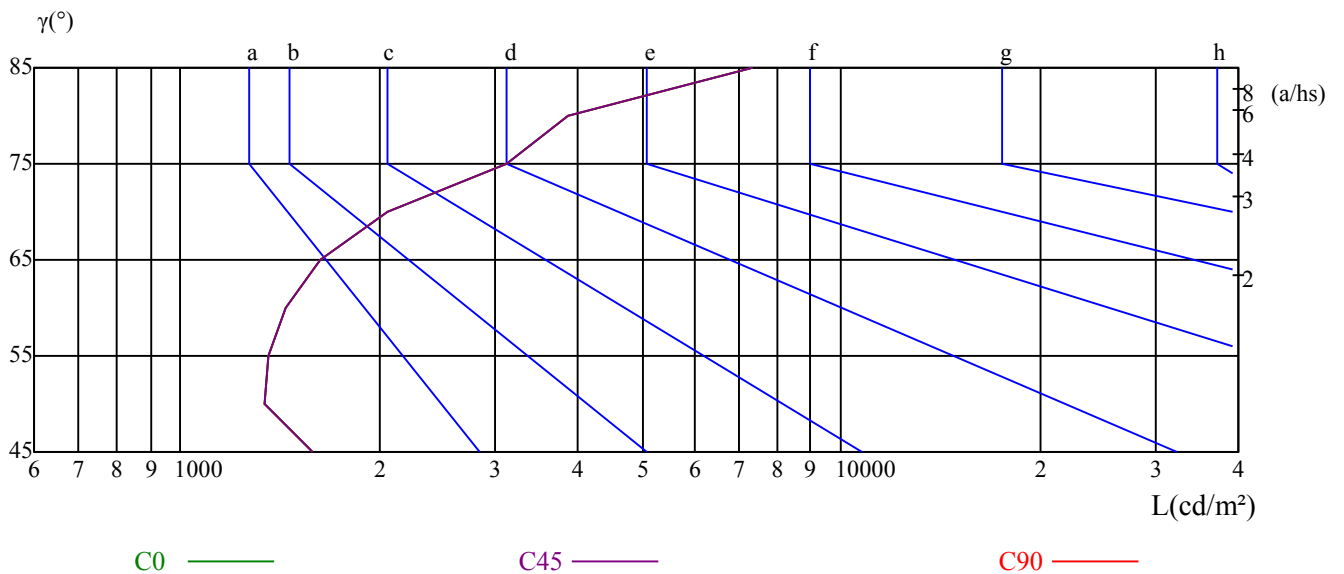
γ	45	50	55	60	65	70	75	80	85
C0	1588	1344	1356	1441	1633	2060	3126	3865	7363
C45	1588	1344	1356	1441	1633	2060	3126	3865	7363
C90	1588	1344	1356	1441	1633	2060	3126	3865	7363

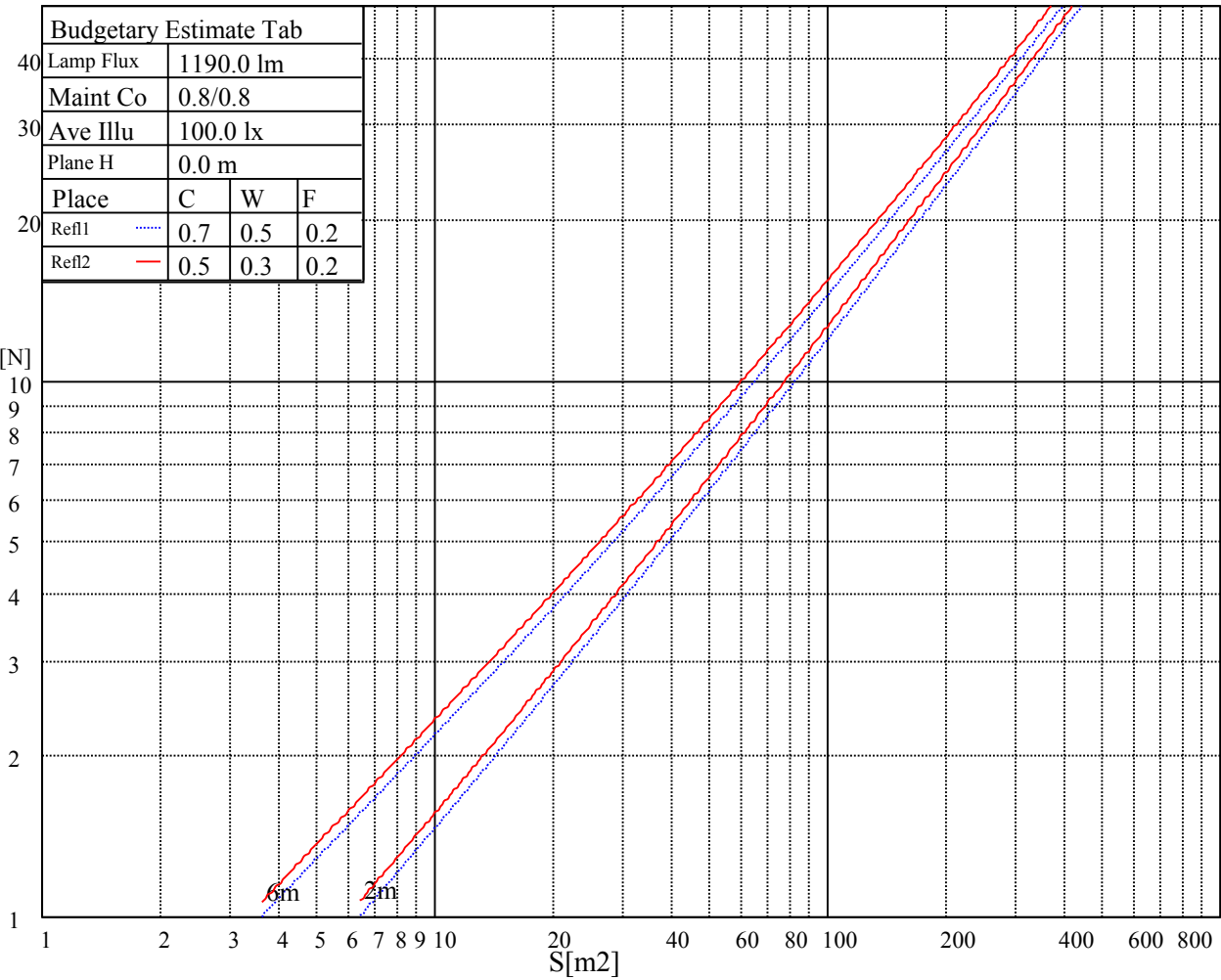
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1633	1633	1633	3126	3126	3126	7363	7363	7363

Glare Table

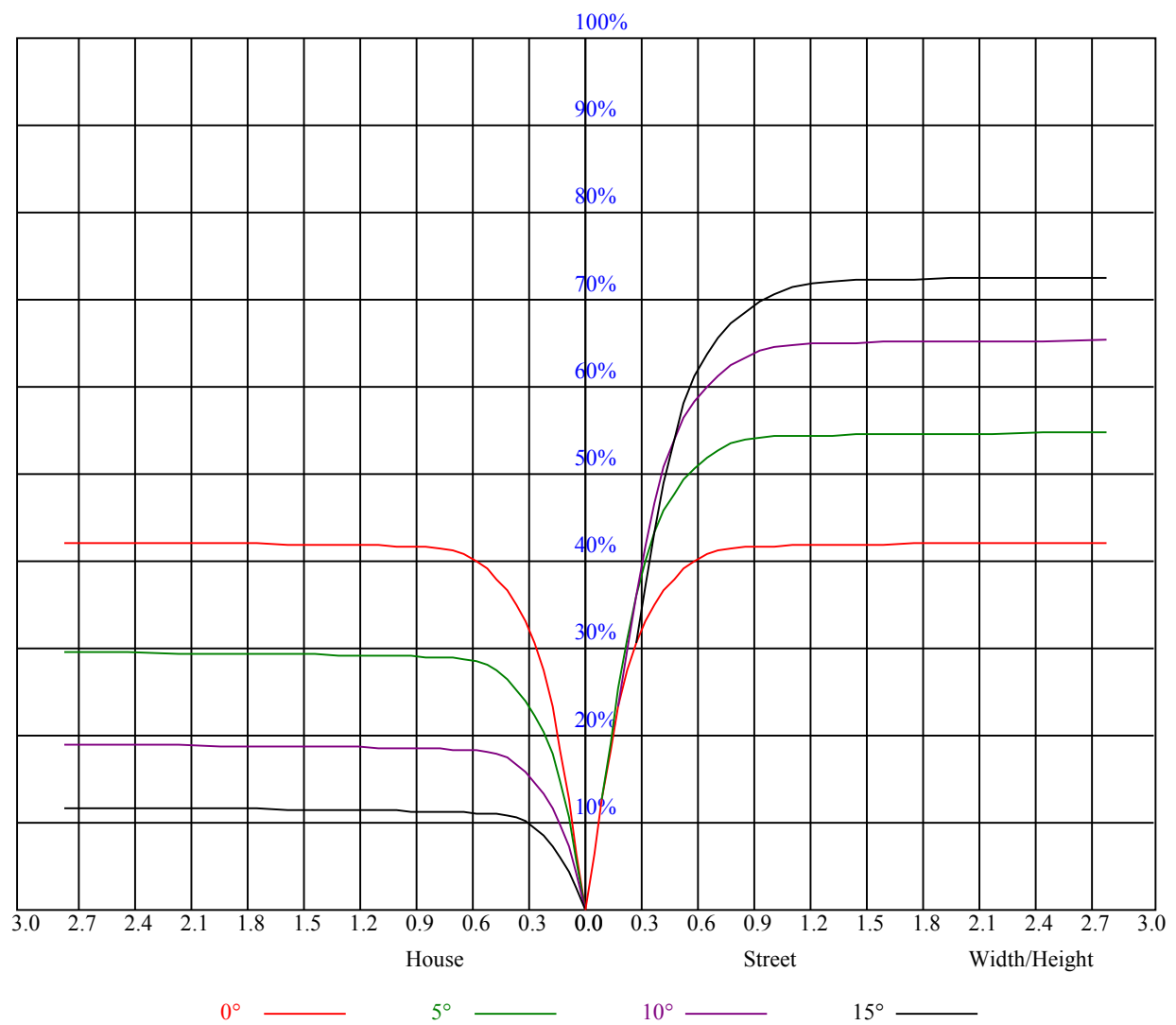
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

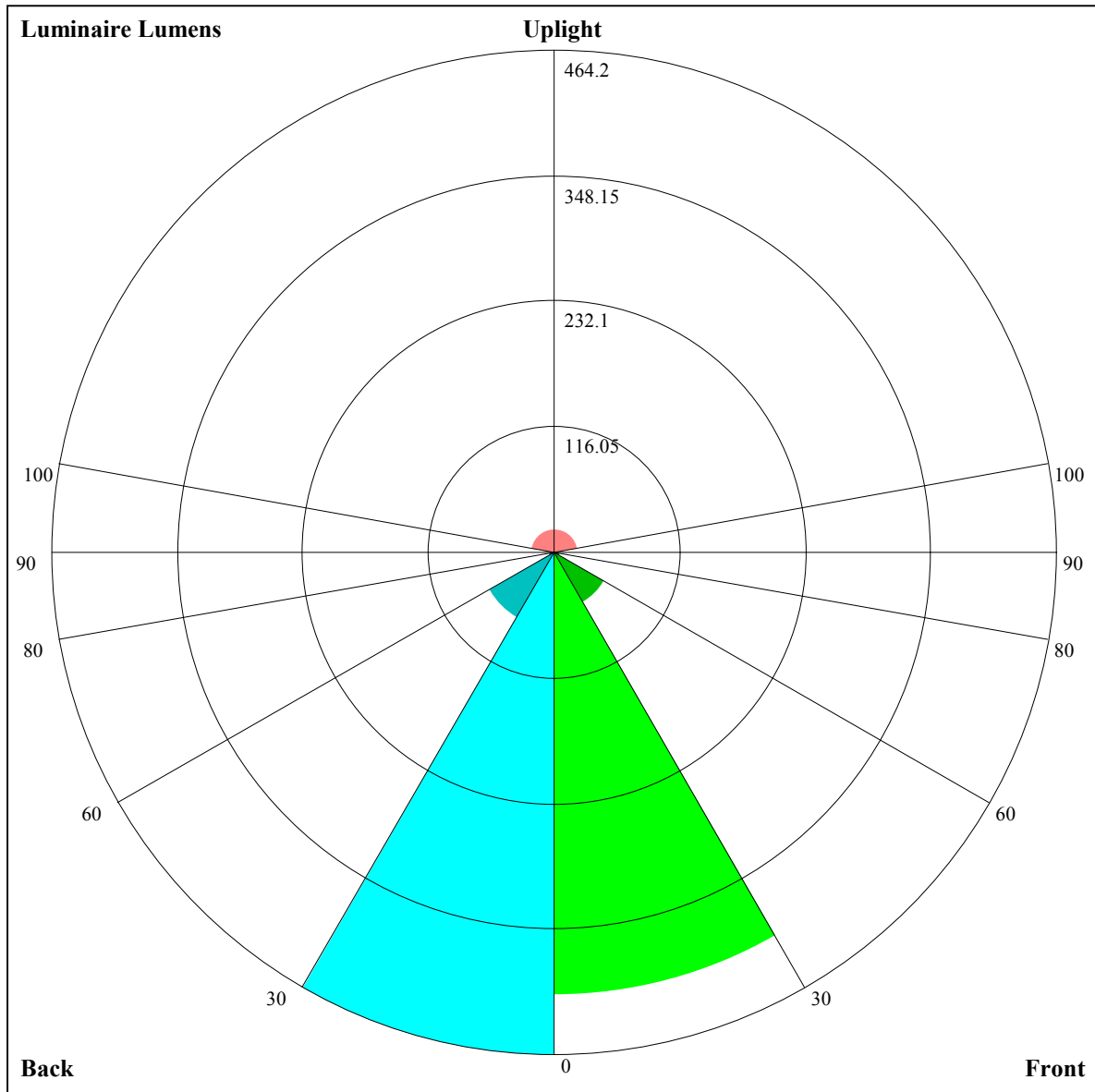
Luminance Limiting Curve





RHOC	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	1.01	1.01	1.01	0.99	0.99	0.99	0.94	0.94	0.94	0.90	0.90	0.90	0.87	0.87	0.87	0.85
1	0.95	0.93	0.91	0.93	0.91	0.90	0.90	0.88	0.87	0.87	0.86	0.85	0.84	0.83	0.82	0.81
2	0.90	0.87	0.84	0.88	0.86	0.83	0.86	0.83	0.82	0.83	0.81	0.80	0.81	0.79	0.78	0.77
3	0.85	0.82	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.78	0.76	0.75	0.73
4	0.81	0.77	0.74	0.80	0.77	0.74	0.78	0.75	0.73	0.77	0.74	0.72	0.75	0.73	0.71	0.70
5	0.78	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.70	0.74	0.71	0.69	0.73	0.70	0.69	0.67
6	0.74	0.70	0.67	0.74	0.70	0.67	0.72	0.69	0.67	0.71	0.68	0.66	0.70	0.68	0.66	0.65
7	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.62
8	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.60
9	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.62	0.59	0.64	0.61	0.59	0.64	0.61	0.59	0.58
10	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.62	0.59	0.57	0.62	0.59	0.57	0.56





Luminaire Lumens:

FL=408.49,FM=53.71,FH=5.57,FVH=2.57

BL=464.2,BM=69.39,BH=5.46,BVH=2.54

UL=4.77,UH=22.71

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	3403.69	3388.50	3353.63	3306.94	3211.88	3101.06	2940.19	2760.75	2586.94
45.0	3411.56	3409.88	3396.38	3375.00	3328.88	3232.13	3117.94	2970.56	2776.50
90.0	3411.00	3414.94	3413.25	3402.00	3367.69	3311.44	3201.19	3077.44	2923.88
135.0	3398.63	3413.81	3418.88	3420.56	3412.13	3393.56	3345.75	3266.44	3161.25
180.0	3403.69	3412.13	3410.44	3403.69	3392.44	3371.63	3320.44	3251.81	3143.25
225.0	3411.56	3408.19	3398.06	3380.63	3353.63	3292.31	3221.44	3099.94	2924.44
270.0	3411.00	3400.88	3378.38	3352.50	3305.81	3223.13	3106.69	2971.69	2804.63
315.0	3398.63	3372.19	3332.81	3263.63	3169.13	3045.38	2865.94	2702.81	2530.13
360.0	3403.69	3388.50	3353.63	3306.94	3211.88	3101.06	2940.19	2760.75	2586.94
C/ γ (°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2377.13	2159.44	1955.81	1739.25	1466.44	1252.69	1057.50	874.13	741.94
45.0	2568.94	2377.13	2157.75	1954.13	1717.31	1473.19	1266.19	1052.44	879.75
90.0	2723.06	2502.00	2300.63	2067.19	1827.56	1614.38	1380.38	1106.55	980.16
135.0	3007.69	2818.69	2629.69	2431.13	2174.63	1965.94	1754.44	1541.25	1277.44
180.0	2989.13	2804.63	2622.38	2406.38	2180.81	1972.13	1734.19	1520.44	1099.69
225.0	2787.75	2599.88	2400.19	2210.63	2009.25	1741.50	1519.88	1116.51	1093.78
270.0	2624.06	2454.75	2250.00	2053.69	1820.81	1577.81	1357.88	1173.38	950.06
315.0	2326.50	2107.69	1900.69	1652.63	1404.56	1117.80	983.08	836.21	716.46
360.0	2377.13	2159.44	1955.81	1739.25	1466.44	1252.69	1057.50	874.13	741.94
C/ γ (°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	655.88	584.44	532.69	497.25	466.88	446.06	428.63	411.75	401.06
45.0	763.31	675.00	604.13	559.13	522.56	484.88	462.38	442.13	420.75
90.0	823.89	719.78	641.81	571.16	530.33	497.53	464.85	443.19	424.97
135.0	1080.00	905.63	762.75	672.19	597.38	545.63	504.56	474.75	450.56
180.0	1031.06	888.98	763.09	641.31	578.64	536.23	484.48	459.56	437.46
225.0	890.49	769.73	680.46	597.94	549.17	509.74	475.31	448.88	430.03
270.0	799.88	713.25	610.88	556.88	519.19	478.13	450.56	434.81	415.69
315.0	630.62	573.47	528.86	486.90	461.48	441.79	421.88	408.83	396.56
360.0	655.88	584.44	532.69	497.25	466.88	446.06	428.63	411.75	401.06
C/ γ (°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	390.38	380.81	361.13	332.44	288.56	264.43	207.28	166.50	116.89
45.0	402.75	390.38	378.56	358.88	324.56	286.88	239.63	193.56	150.41
90.0	406.80	391.61	381.71	369.68	346.56	310.16	267.69	227.87	183.60
135.0	431.44	412.31	396.56	385.88	374.06	357.75	330.19	296.44	262.63
180.0	417.38	401.23	388.52	376.88	368.55	349.99	317.76	282.71	240.41
225.0	411.92	398.53	386.55	376.59	356.63	320.96	279.23	238.84	197.61
270.0	403.88	393.75	382.50	370.69	342.56	299.25	284.63	216.84	166.84
315.0	385.54	377.38	357.02	319.11	286.59	242.49	190.97	154.74	110.76
360.0	390.38	380.81	361.13	332.44	288.56	264.43	207.28	166.50	116.89
C/ γ (°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	79.99	51.36	20.48	12.66	11.14	10.13	9.23	8.72	8.04
45.0	111.04	75.26	38.14	17.72	12.77	10.97	10.07	9.28	8.61
90.0	139.16	101.19	66.77	30.77	14.96	12.71	10.97	10.18	9.39
135.0	205.71	165.77	122.74	82.29	49.61	22.39	13.61	11.64	10.63
180.0	195.64	156.21	117.51	73.74	43.14	20.76	12.99	10.80	9.90
225.0	148.11	108.90	72.79	38.03	16.59	12.77	11.03	10.07	9.28
270.0	126.45	88.54	50.68	22.50	13.39	11.48	10.52	9.68	8.94
315.0	66.83	41.12	19.18	12.09	10.86	10.07	9.06	8.21	7.54
360.0	79.99	51.36	20.48	12.66	11.14	10.13	9.23	8.72	8.04

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	7.54	7.09	6.58	6.41	6.30	6.13	5.96	5.85	5.74
45.0	7.82	7.26	6.98	6.81	6.64	6.47	6.36	6.19	6.13
90.0	8.44	7.65	7.09	6.81	6.64	6.47	6.30	6.24	6.08
135.0	9.79	9.06	8.27	7.65	7.26	6.64	6.53	6.36	6.19
180.0	9.06	8.27	7.71	7.14	6.81	6.58	6.47	6.30	6.13
225.0	8.66	8.10	7.31	6.86	6.69	6.53	6.36	6.24	6.13
270.0	8.27	7.43	6.86	6.64	6.41	6.30	6.13	6.02	5.91
315.0	6.86	6.64	6.41	6.24	6.13	6.02	5.91	5.74	5.68
360.0	7.54	7.09	6.58	6.41	6.30	6.13	5.96	5.85	5.74
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	5.68	5.57	5.51	5.40	5.34	5.29	5.29	5.23	5.18
45.0	6.02	5.85	5.74	5.68	5.63	5.57	5.51	5.46	5.40
90.0	5.96	5.85	5.74	5.57	5.51	5.46	5.40	5.34	5.29
135.0	6.08	5.91	5.85	5.68	5.63	5.51	5.40	5.34	5.34
180.0	6.02	5.85	5.79	5.68	5.51	5.46	5.40	5.34	5.29
225.0	5.96	5.85	5.74	5.63	5.51	5.46	5.34	5.29	5.29
270.0	5.79	5.68	5.57	5.46	5.34	5.29	5.18	5.12	5.06
315.0	5.57	5.46	5.40	5.29	5.23	5.18	5.12	5.06	5.01
360.0	5.68	5.57	5.51	5.40	5.34	5.29	5.29	5.23	5.18
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	5.18	5.18	5.12	5.18	5.18	5.18	5.18	5.18	5.18
45.0	5.40	5.34	5.34	5.34	5.29	5.29	5.74	6.13	6.64
90.0	5.23	5.18	5.18	5.12	5.12	5.12	5.46	5.85	6.24
135.0	5.29	5.18	5.12	5.06	5.06	5.01	4.95	4.95	4.89
180.0	5.23	5.18	5.12	5.06	5.06	5.01	4.95	4.95	4.89
225.0	5.23	5.18	5.18	5.12	5.12	5.12	5.06	5.12	5.46
270.0	5.01	4.95	4.89	4.89	4.84	4.78	4.73	4.73	4.67
315.0	5.01	4.95	4.89	4.89	4.84	4.84	4.78	4.78	4.73
360.0	5.18	5.18	5.12	5.18	5.18	5.18	5.18	5.18	5.18
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	5.18	5.18	5.12	5.12	5.12	5.06	5.01	5.01	5.01
45.0	7.20	7.76	8.38	9.11	9.51	9.17	6.92	5.68	5.91
90.0	6.64	6.86	7.03	7.03	6.86	6.53	6.08	4.89	4.89
135.0	4.89	4.84	4.84	4.78	4.78	4.73	4.73	4.73	4.73
180.0	4.89	4.84	4.84	4.84	4.78	4.78	4.78	4.78	4.73
225.0	6.36	6.98	7.37	7.71	8.16	8.33	7.76	6.24	5.23
270.0	4.67	4.67	4.61	4.61	4.56	4.56	4.56	4.56	4.56
315.0	4.67	4.73	4.67	4.67	4.67	4.67	4.67	4.67	4.67
360.0	5.18	5.18	5.12	5.12	5.12	5.06	5.01	5.01	5.01
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	4.95	4.95	4.95	4.89	4.78	4.73	4.67	4.39	4.33
45.0	5.29	5.18	5.18	5.06	5.06	4.95	4.89	4.56	4.39
90.0	4.78	4.78	4.78	4.78	4.73	4.73	4.67	4.56	4.39
135.0	4.67	4.67	4.67	4.67	4.67	4.61	4.56	4.50	4.44
180.0	4.73	4.73	4.67	4.67	4.67	4.67	4.61	4.56	4.44
225.0	5.23	4.84	4.89	4.89	4.84	4.78	4.73	4.67	4.50
270.0	4.56	4.56	4.61	4.61	4.61	4.56	4.56	4.50	4.39
315.0	4.67	4.67	4.67	4.73	4.61	4.56	4.56	4.39	4.39
360.0	4.95	4.95	4.95	4.89	4.78	4.73	4.67	4.39	4.33

Intensity data(cd)

Appendix Page: 19 Total:19

C/ $\gamma(^{\circ})$	90.0
0.0	4.33
45.0	4.39
90.0	4.39
135.0	4.39
180.0	4.33
225.0	4.39
270.0	4.39
315.0	4.39
360.0	4.33