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Nata

Client:

LumCAT: 2-1793-N

Luminaire: 92.70.131.00

Report No:

Voltage(V): 34.0200

Test No: GC2019082206

Current(A): 0.4480

LampCAT: TRIDONIC SLE 15MM G7

Power (W): 15.2400

Lamp flux(lm): 1700.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 69

Width(mm): 69

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1510.35, Efficiency(%): 88.84% , Luminous Efficacy(lm/W): 99.10

Central intensity(cd): 7825.781, Maximum intensity(cd): 7825.781

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=18.8

[C90/270]Total=18.8

Field angle(10%Imax): [C0/180]Total=47.0

[C90/270]Total=47.0

Maximum s/h(1/2): C0_180=0.32 C90_270=0.32

Maximum s/h(1/4): C0_180=0.34 C90_270=0.34

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 88.84%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.748%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/8/22
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7825.781	0.000	0	.000%	.000%
1.0	7742.813	7.449	7.449	.438%	.493%
2.0	7529.555	21.920	29.37	1.289%	1.945%
3.0	7186.641	35.196	64.566	2.070%	4.275%
4.0	6762.305	46.692	111.258	2.747%	7.366%
5.0	6318.984	56.275	167.533	3.310%	11.092%
6.0	5759.297	63.475	231.007	3.734%	15.295%
7.0	5195.672	67.997	299.004	4.000%	19.797%
8.0	4689.211	70.744	369.749	4.161%	24.481%
9.0	4116.656	71.367	441.115	4.198%	29.206%
10.0	3564.141	69.508	510.624	4.089%	33.808%
11.0	3122.578	66.814	577.438	3.930%	38.232%
12.0	2705.695	63.711	641.149	3.748%	42.450%
13.0	2302.594	59.436	700.585	3.496%	46.386%
14.0	2020.219	55.332	755.917	3.255%	50.049%
15.0	1780.453	52.177	808.094	3.069%	53.504%
16.0	1576.758	49.193	857.286	2.894%	56.761%
17.0	1408.739	46.492	903.779	2.735%	59.839%
18.0	1281.220	44.352	948.13	2.609%	62.776%
19.0	1164.952	42.558	990.689	2.503%	65.593%
20.0	1064.011	40.796	1031.485	2.400%	68.294%
21.0	970.896	39.074	1070.559	2.298%	70.882%
22.0	888.848	37.372	1107.932	2.198%	73.356%
23.0	815.491	35.762	1143.693	2.104%	75.724%
24.0	745.376	34.126	1177.819	2.007%	77.983%
25.0	689.991	32.637	1210.456	1.920%	80.144%
26.0	639.141	31.374	1241.831	1.846%	82.221%
27.0	583.973	29.924	1271.755	1.760%	84.203%
28.0	520.284	27.957	1299.712	1.645%	86.054%
29.0	458.789	25.615	1325.327	1.507%	87.750%
30.0	394.945	23.051	1348.378	1.356%	89.276%
31.0	327.143	20.095	1368.473	1.182%	90.606%
32.0	269.536	17.094	1385.567	1.006%	91.738%
33.0	216.977	14.333	1399.9	.843%	92.687%
34.0	165.853	11.586	1411.485	.682%	93.454%
35.0	114.877	8.718	1420.204	.513%	94.031%
36.0	84.199	6.339	1426.542	.373%	94.451%
37.0	62.719	4.792	1431.334	.282%	94.768%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	50.105	3.766	1435.1	.222%	95.018%
39.0	43.685	3.201	1438.301	.188%	95.230%
40.0	39.248	2.892	1441.194	.170%	95.421%
41.0	35.599	2.665	1443.859	.157%	95.598%
42.0	32.548	2.476	1446.335	.146%	95.762%
43.0	29.742	2.307	1448.642	.136%	95.914%
44.0	27.429	2.158	1450.8	.127%	96.057%
45.0	25.488	2.034	1452.834	.120%	96.192%
46.0	23.491	1.915	1454.749	.113%	96.319%
47.0	22.120	1.814	1456.563	.107%	96.439%
48.0	20.925	1.740	1458.303	.102%	96.554%
49.0	19.821	1.673	1459.977	.098%	96.665%
50.0	18.907	1.615	1461.591	.095%	96.772%
51.0	18.183	1.569	1463.16	.092%	96.876%
52.0	17.550	1.533	1464.694	.090%	96.977%
53.0	17.016	1.504	1466.197	.088%	97.077%
54.0	16.573	1.480	1467.678	.087%	97.175%
55.0	16.200	1.463	1469.141	.086%	97.272%
56.0	15.912	1.451	1470.592	.085%	97.368%
57.0	15.659	1.443	1472.035	.085%	97.463%
58.0	15.405	1.437	1473.472	.085%	97.558%
59.0	15.209	1.431	1474.903	.084%	97.653%
60.0	14.984	1.426	1476.329	.084%	97.748%
61.0	14.766	1.420	1477.749	.084%	97.842%
62.0	14.632	1.417	1479.166	.083%	97.935%
63.0	14.463	1.415	1480.581	.083%	98.029%
64.0	14.231	1.408	1481.989	.083%	98.122%
65.0	13.964	1.395	1483.384	.082%	98.215%
66.0	13.662	1.378	1484.762	.081%	98.306%
67.0	13.310	1.356	1486.119	.080%	98.396%
68.0	12.923	1.329	1487.448	.078%	98.484%
69.0	12.614	1.303	1488.75	.077%	98.570%
70.0	12.284	1.279	1490.029	.075%	98.655%
71.0	11.939	1.252	1491.281	.074%	98.737%
72.0	11.637	1.226	1492.507	.072%	98.819%
73.0	11.327	1.201	1493.708	.071%	98.898%
74.0	11.018	1.175	1494.882	.069%	98.976%
75.0	10.709	1.148	1496.03	.068%	99.052%

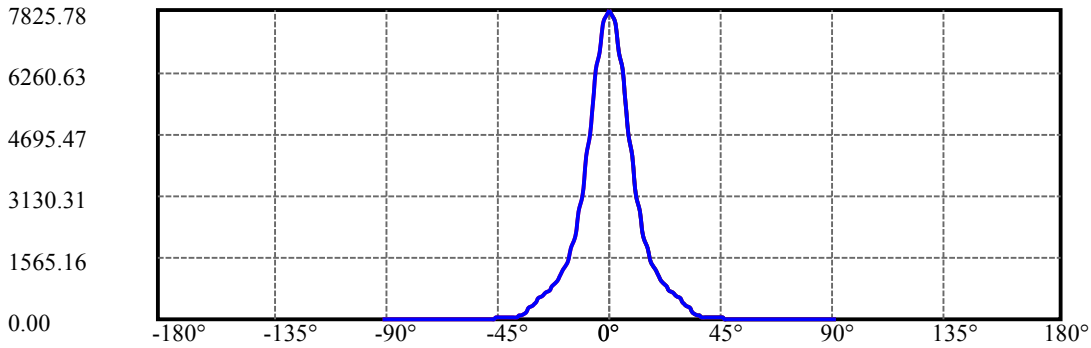
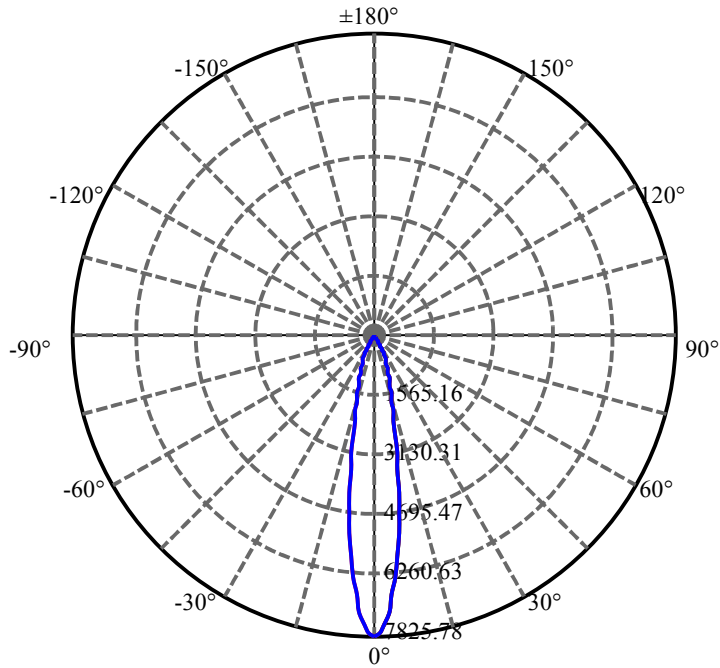
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	10.413	1.121	1497.152	.066%	99.126%
77.0	10.139	1.096	1498.247	.064%	99.199%
78.0	9.907	1.073	1499.32	.063%	99.270%
79.0	9.619	1.049	1500.37	.062%	99.339%
80.0	9.359	1.023	1501.393	.060%	99.407%
81.0	9.134	1.000	1502.393	.059%	99.473%
82.0	8.880	0.977	1503.37	.057%	99.538%
83.0	8.627	0.952	1504.321	.056%	99.601%
84.0	8.438	0.930	1505.251	.055%	99.662%
85.0	8.184	0.907	1506.158	.053%	99.722%
86.0	7.988	0.884	1507.042	.052%	99.781%
87.0	7.741	0.861	1507.903	.051%	99.838%
88.0	7.509	0.835	1508.738	.049%	99.893%
89.0	7.348	0.814	1509.553	.048%	99.947%
90.0	7.186	0.797	1510.35	.047%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1348.38	79.32%	89.28%
0-40	1441.19	84.78%	95.42%
0-60	1476.33	86.84%	97.75%
0-90	1509.55	88.80%	99.95%
0-120	1509.55	88.80%	99.95%
0-180	1510.35	88.84%	100.00%
60-90	34.65	2.04%	2.29%
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%
0-24.93	1208.28	71.08%	80.00%

ZONAL LUMEN SUMMARY

0-10	510.62
10-20	520.86
20-30	316.89
30-40	92.82
40-50	20.40
50-60	14.74
60-70	13.70
70-80	11.36
80-90	8.16
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



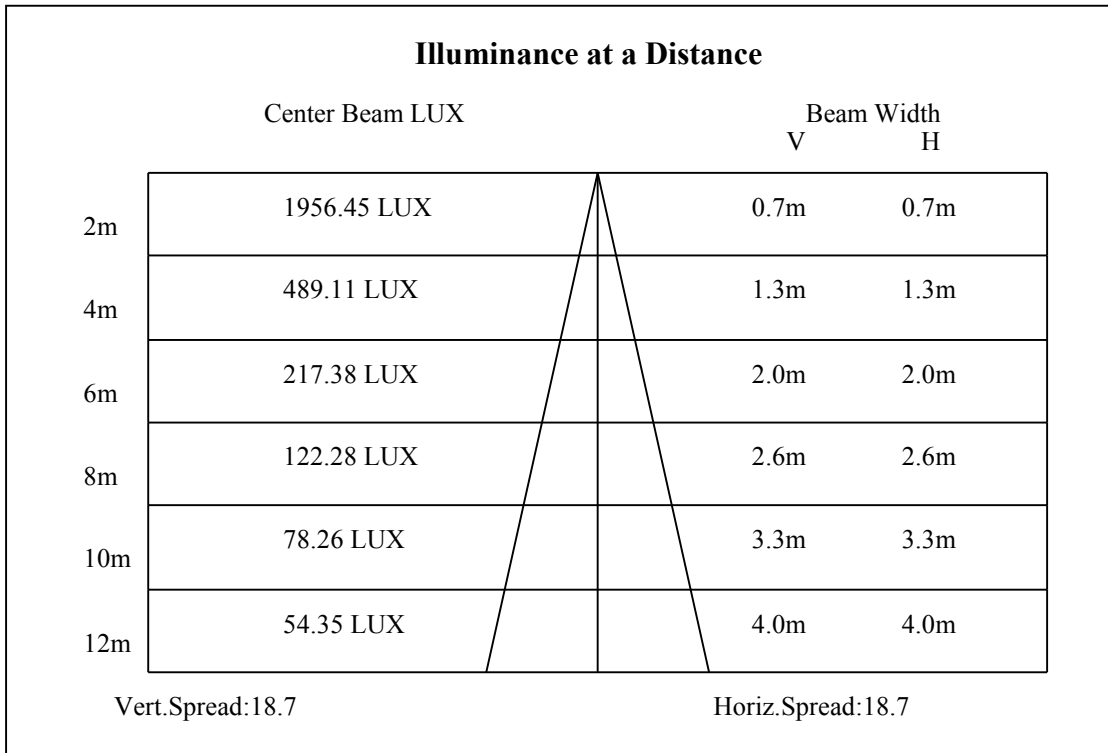
C0(Max): —————

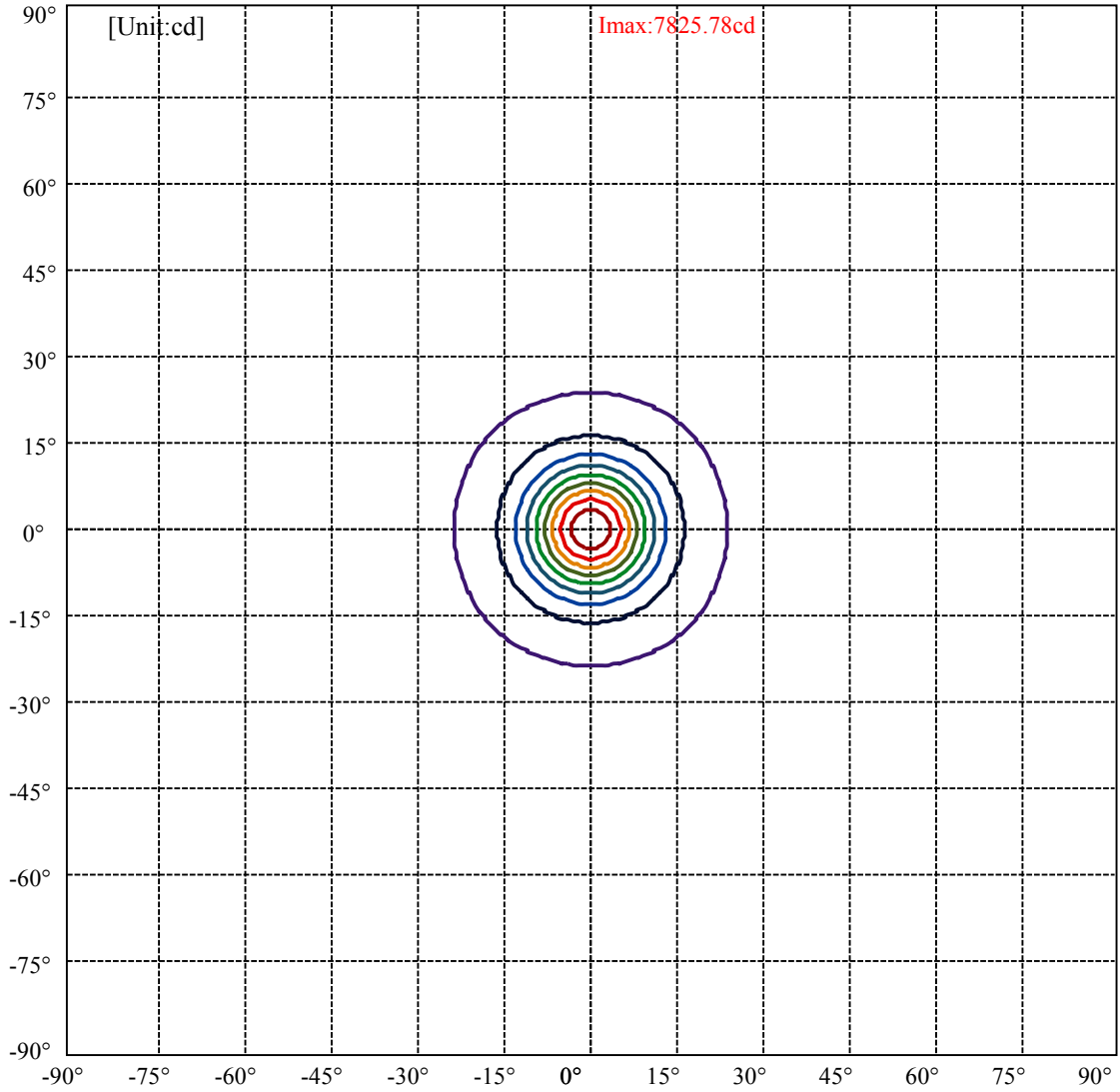
C0/C180: —————

C90/C270: —————

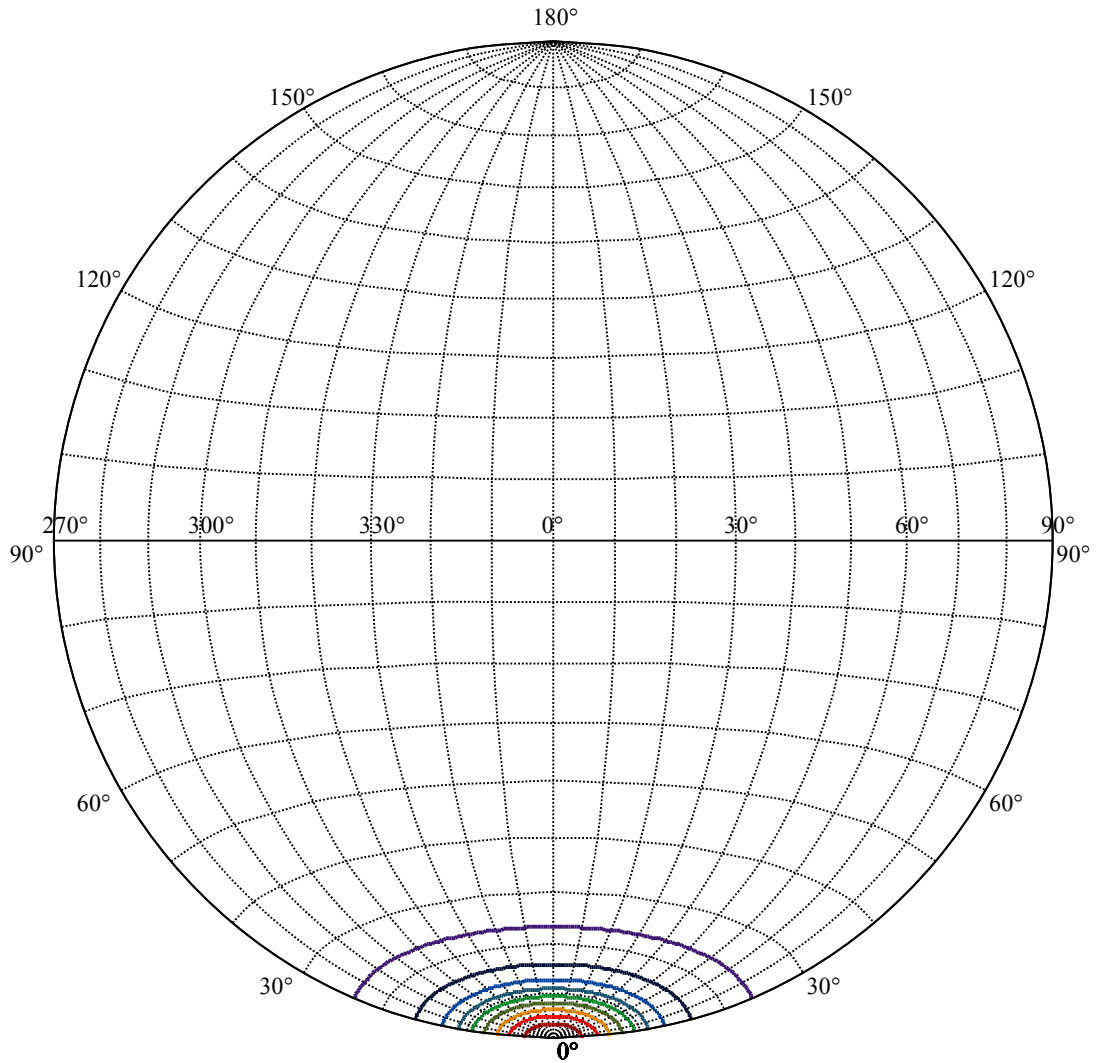
Field angle(10%Imax):C0/180Left:23.5 Right:23.5
:C90/270Left:23.5 Right:23.5

Beam Angle(50%Imax):C0/180Left:9.4 Right:9.4
:C90/270Left:9.4 Right:9.4





(10%Imax) 782.578	—
(20%Imax) 1565.16	—
(30%Imax) 2347.73	—
(40%Imax) 3130.31	—
(50%Imax) 3912.89	—
(60%Imax) 4695.47	—
(70%Imax) 5478.05	—
(80%Imax) 6260.63	—
(90%Imax) 7043.2	—



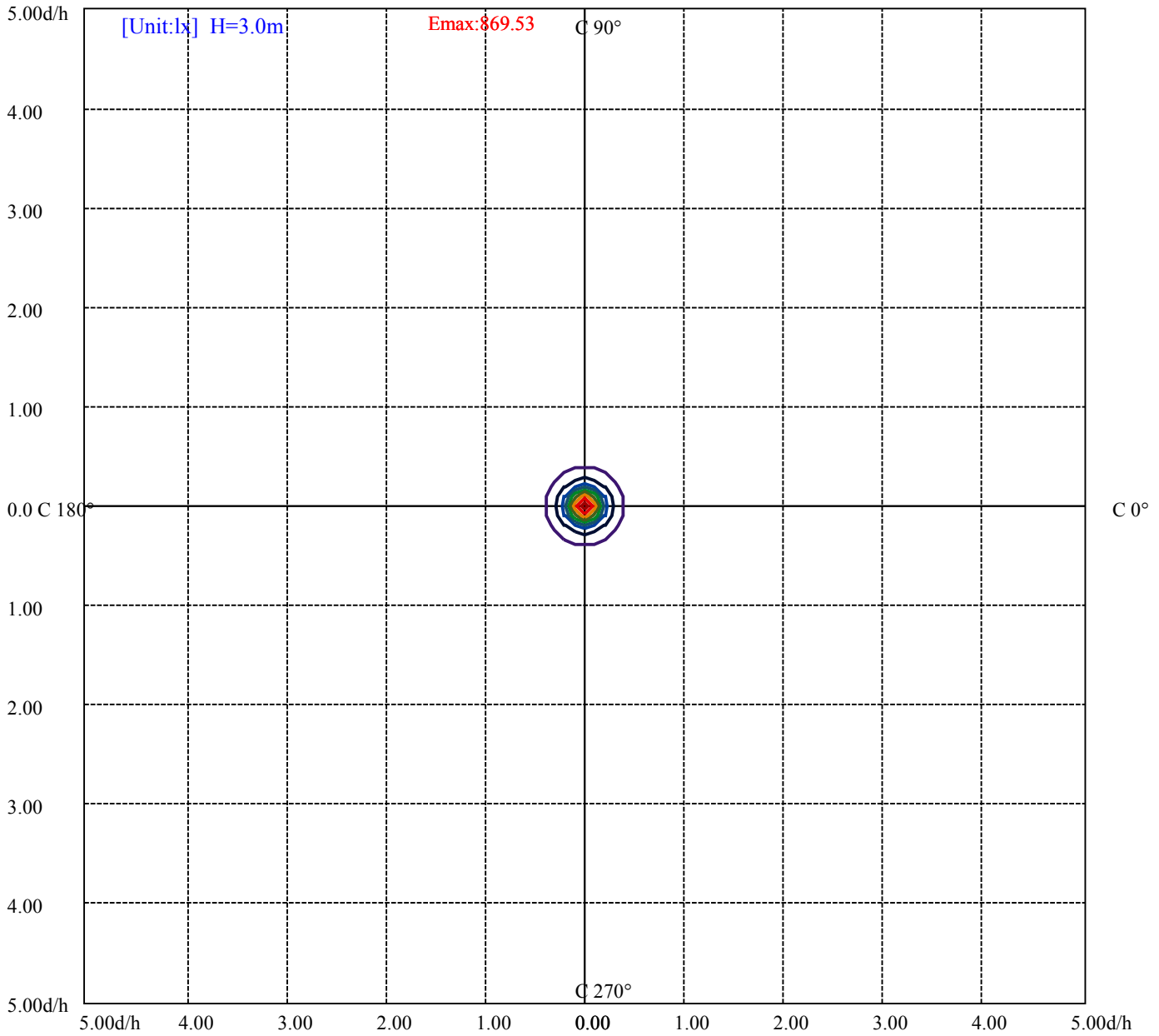
House

[Unit:cd]

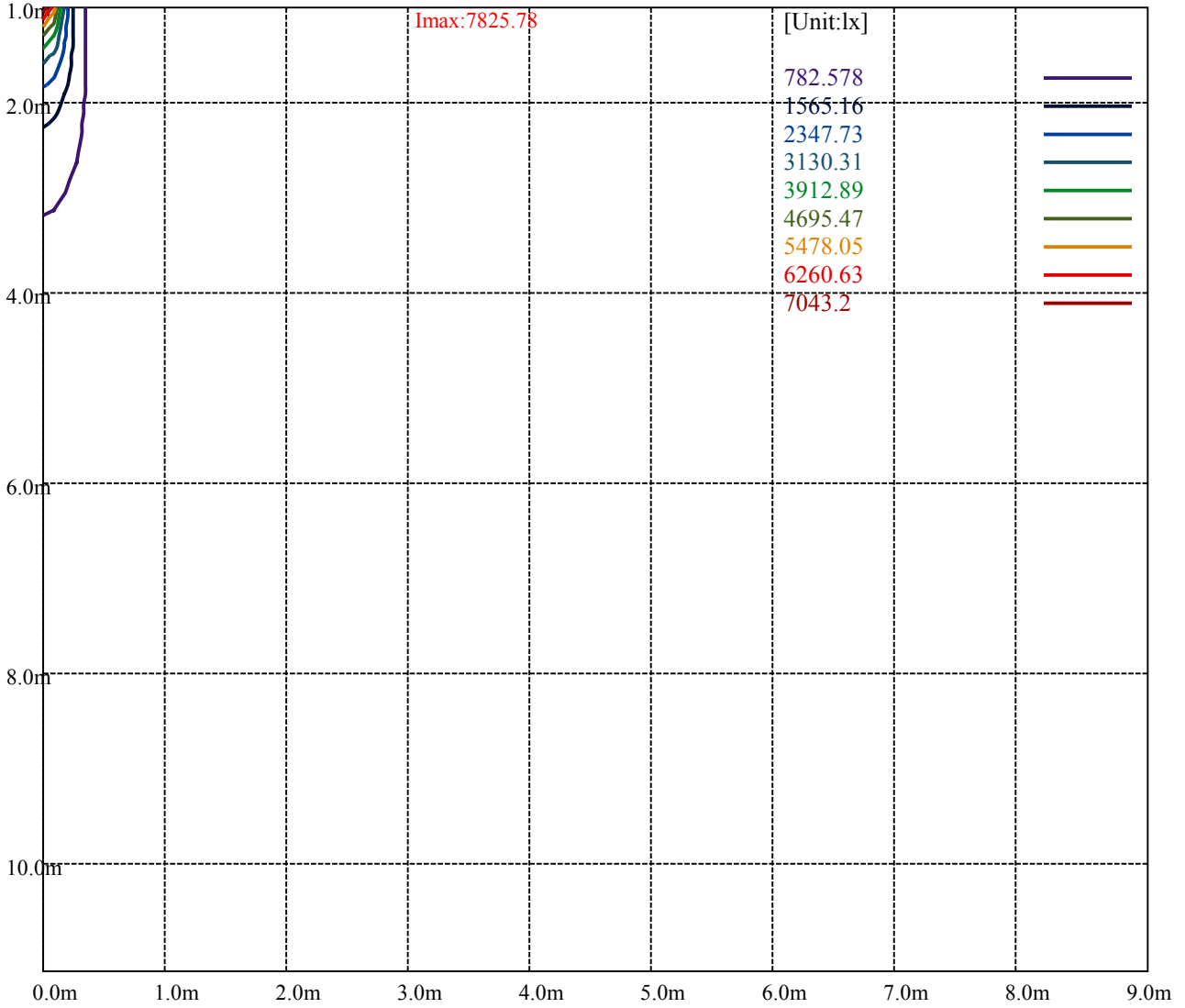
Road

Imax:7825.78

(10%Imax) 782.578	—
(20%Imax) 1565.16	—
(30%Imax) 2347.73	—
(40%Imax) 3130.31	—
(50%Imax) 3912.89	—
(60%Imax) 4695.47	—
(70%Imax) 5478.05	—
(80%Imax) 6260.63	—
(90%Imax) 7043.2	—



- (10%Emax) 86.953
- (20%Emax) 173.9056
- (30%Emax) 260.8589
- (40%Emax) 347.8122
- (50%Emax) 434.7644
- (60%Emax) 521.7178
- (70%Emax) 608.6711
- (80%Emax) 695.6233
- (90%Emax) 782.5767



Luminance Table

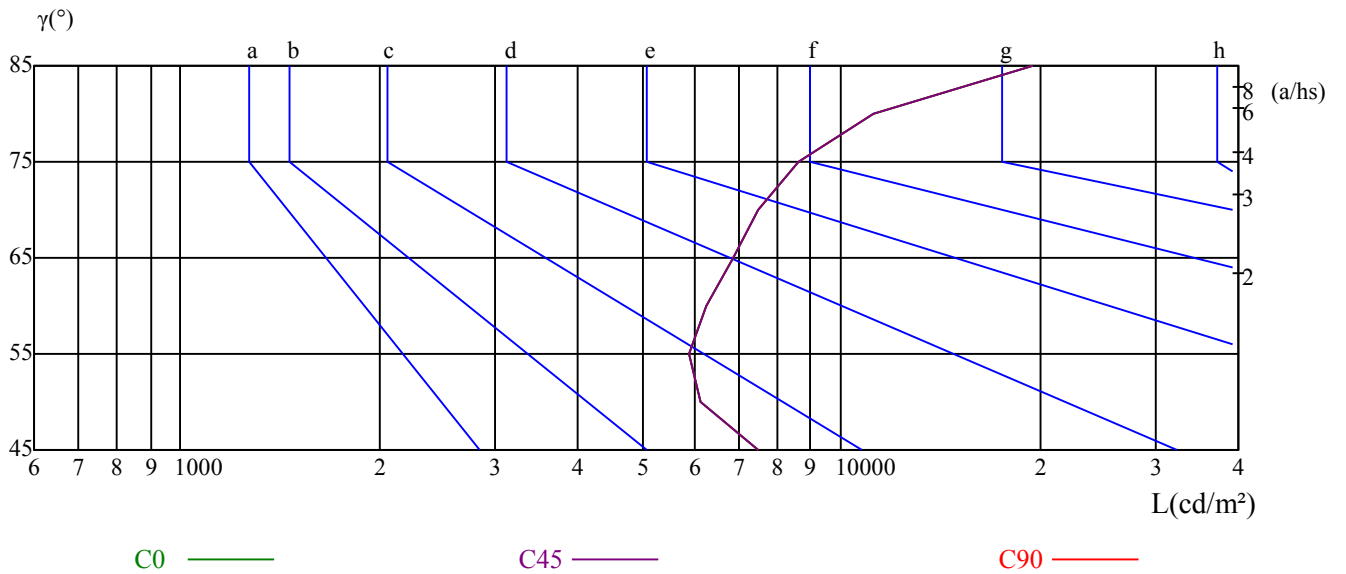
γ	45	50	55	60	65	70	75	80	85
C0	7506	6125	5881	6240	6880	7478	8615	11222	19553
C45	7506	6125	5881	6240	6880	7478	8615	11222	19553
C90	7506	6125	5881	6240	6880	7478	8615	11222	19553

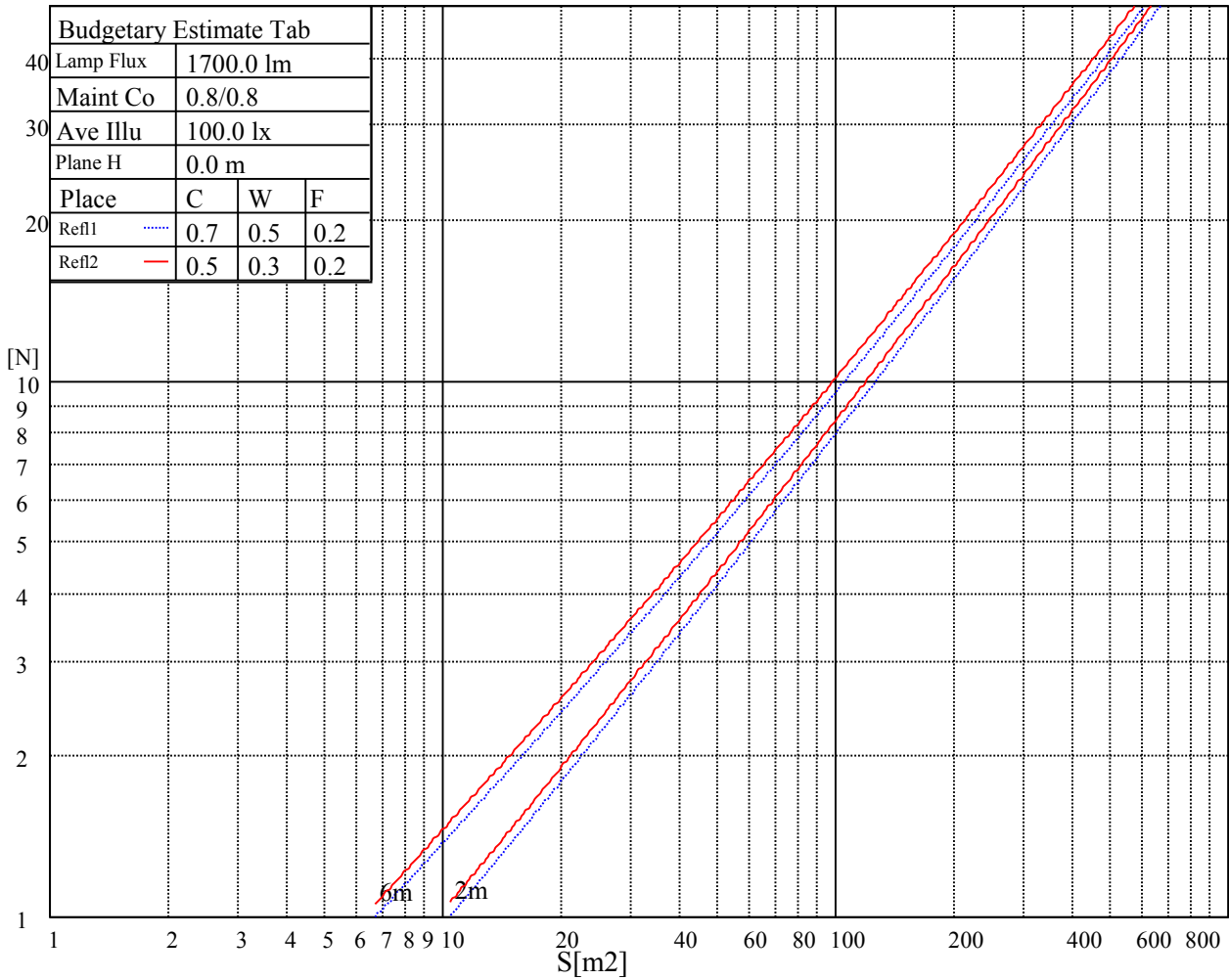
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6880	6880	6880	8615	8615	8615	19553	19553	19553

Glare Table

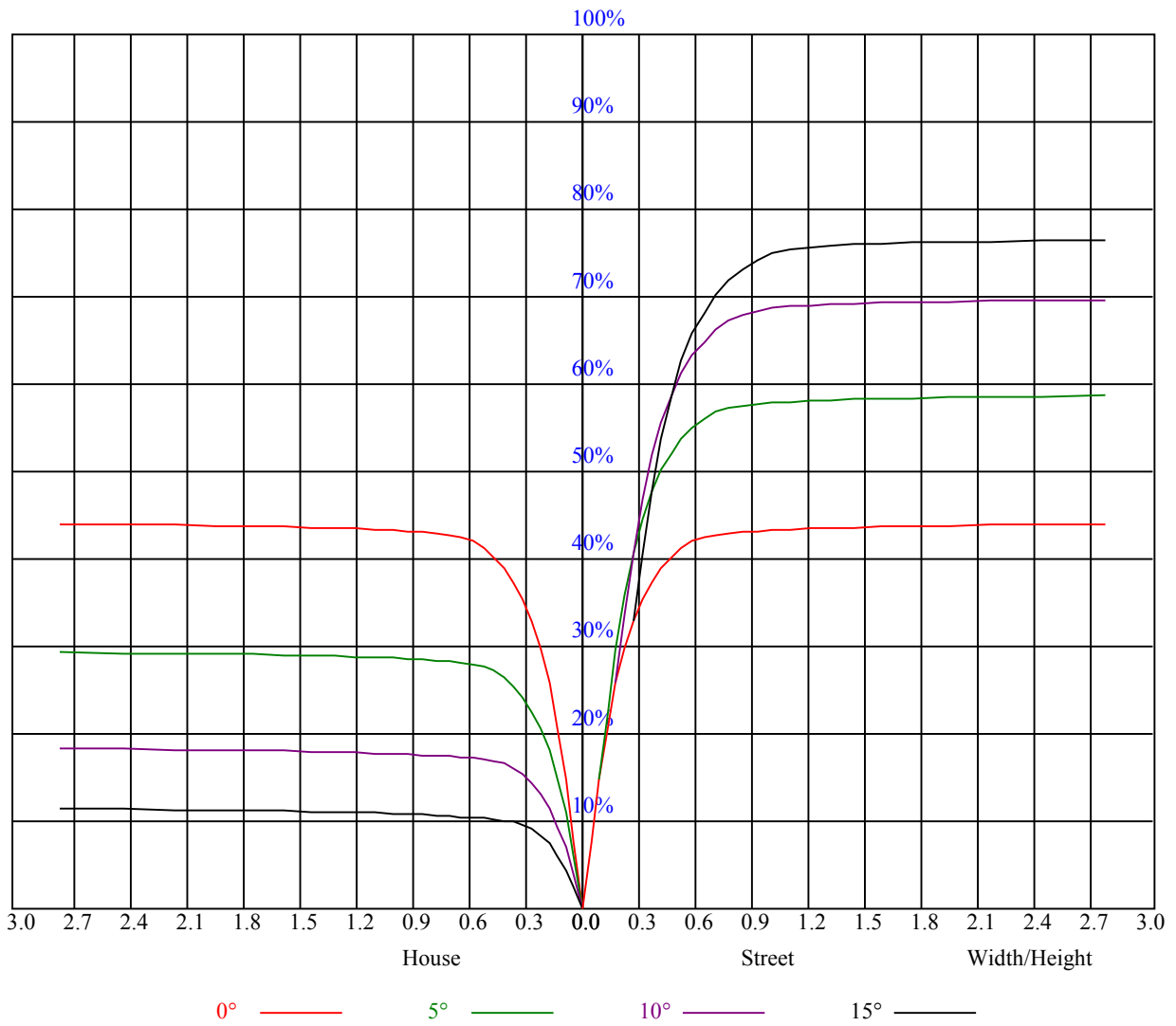
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

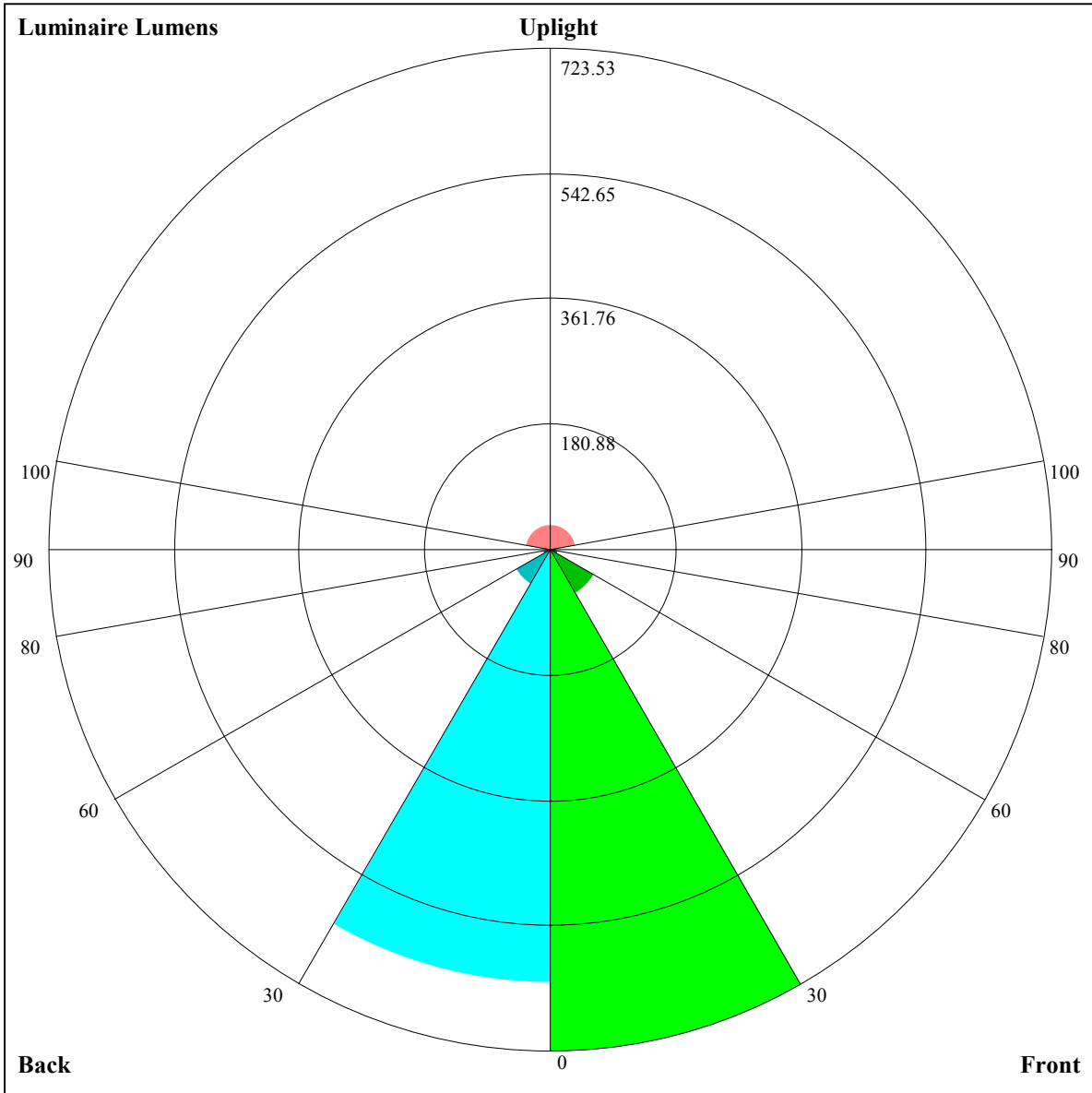
Luminance Limiting Curve





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	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.99	0.97	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	0.90	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	0.86	0.82	0.79	0.85	0.81	0.78	0.83	0.80	0.77	0.81	0.79	0.76	0.80	0.77	0.76	0.74
5	0.82	0.78	0.75	0.81	0.77	0.75	0.80	0.76	0.74	0.78	0.76	0.73	0.77	0.75	0.73	0.72
6	0.79	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.75	0.72	0.70	0.69
7	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.68	0.73	0.70	0.68	0.73	0.70	0.68	0.67
8	0.73	0.69	0.67	0.73	0.69	0.66	0.72	0.69	0.66	0.71	0.68	0.66	0.70	0.68	0.66	0.65
9	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.69	0.66	0.64	0.63
10	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.67	0.64	0.62	0.61





Luminaire Lumens:

FL=723.53,FM=72.95,FH=12.67,FVH=4.55

BL=624.76,BM=56.44,BH=12.35,BVH=4.4

UL=7.84,UH=37.31

BUG Rating:B2-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	7813.13	7972.88	7946.44	7735.50	7440.75	7069.50	6507.56	6027.75	5521.50
45.0	7756.88	7865.44	7801.88	7587.56	7301.25	6881.63	6400.13	5888.81	5388.19
90.0	7826.63	7676.44	7427.81	7062.19	6617.25	6155.44	5598.00	5024.25	4507.88
135.0	7906.50	7711.31	7356.94	6921.56	6489.00	6018.19	5398.31	4880.25	4364.44
180.0	7813.13	7460.44	7088.63	6656.06	6050.25	5602.50	5012.44	4341.38	3882.38
225.0	7756.88	7489.13	7142.63	6674.63	6137.44	5628.94	5115.94	4443.75	3913.31
270.0	7826.63	7815.94	7643.25	7315.31	6913.13	6459.19	5834.81	5323.50	4813.31
315.0	7906.50	7950.94	7828.88	7540.31	7149.38	6736.50	6207.19	5635.69	5122.69
360.0	7813.13	7972.88	7946.44	7735.50	7440.75	7069.50	6507.56	6027.75	5521.50
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	4875.75	4352.63	3844.13	3306.94	2820.94	2455.31	2113.31	1867.50	1649.25
45.0	4739.06	4223.81	3708.56	3224.25	2695.50	2346.19	2050.88	1751.63	1563.75
90.0	3998.81	3385.13	2953.13	2575.69	2216.81	1922.63	1712.81	1524.94	1372.50
135.0	3758.06	3299.63	2882.81	2484.00	2151.00	1907.44	1682.44	1521.00	1366.88
180.0	3391.88	2799.00	2482.31	2175.19	1837.13	1671.19	1513.69	1368.00	1243.13
225.0	3408.19	2844.56	2460.94	2137.50	1840.50	1606.50	1443.94	1294.88	1121.29
270.0	4163.06	3667.50	3197.25	2732.63	2338.31	2043.56	1782.56	1604.81	1436.06
315.0	4598.44	3940.88	3451.50	3009.38	2520.56	2208.94	1944.00	1681.31	1517.06
360.0	4875.75	4352.63	3844.13	3306.94	2820.94	2455.31	2113.31	1867.50	1649.25
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1473.75	1346.63	1220.63	1110.38	1023.19	942.19	845.44	780.75	728.44
45.0	1406.25	1260.56	1137.38	1035.56	951.19	862.31	794.81	728.44	677.25
90.0	1259.44	1115.04	1049.96	958.22	872.94	806.79	746.21	692.72	649.41
135.0	1238.63	1136.81	1032.75	932.63	860.06	786.38	718.88	673.88	628.88
180.0	1114.71	1047.94	953.89	865.35	793.52	730.18	672.41	627.47	564.47
225.0	1076.12	981.51	908.27	827.21	743.96	680.74	624.66	562.05	507.04
270.0	1298.25	1195.88	1092.94	1000.13	921.94	848.25	768.94	717.75	673.31
315.0	1382.63	1235.25	1116.28	1037.70	943.99	867.09	791.66	736.88	684.34
360.0	1473.75	1346.63	1220.63	1110.38	1023.19	942.19	845.44	780.75	728.44
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	675.56	626.63	571.50	501.75	433.69	372.94	307.13	285.19	186.75
45.0	622.13	580.50	529.88	479.81	395.44	336.94	289.13	213.75	165.49
90.0	595.07	519.53	454.78	388.29	317.93	250.59	196.03	146.76	96.53
135.0	565.88	495.56	430.31	358.31	289.69	253.69	177.41	123.86	82.12
180.0	502.03	432.17	364.16	301.33	243.17	179.27	133.93	95.40	61.48
225.0	446.96	372.26	317.70	263.76	210.54	165.04	127.91	93.15	71.21
270.0	621.56	555.75	491.63	419.63	349.31	288.00	252.28	170.78	120.09
315.0	642.60	579.88	510.36	446.68	377.38	309.83	252.00	197.94	135.34
360.0	675.56	626.63	571.50	501.75	433.69	372.94	307.13	285.19	186.75
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	134.16	93.15	62.44	50.18	44.89	40.05	36.00	33.13	30.49
45.0	125.21	87.30	61.20	52.65	46.41	41.74	38.03	34.48	31.61
90.0	67.84	53.89	47.76	42.08	37.91	34.71	31.84	28.86	26.49
135.0	57.09	47.93	43.09	38.31	35.04	32.23	29.31	27.00	25.09
180.0	51.98	46.58	41.01	37.41	34.37	31.05	28.69	26.33	24.36
225.0	58.28	50.46	44.78	40.16	36.28	33.30	30.71	27.90	26.04
270.0	84.21	58.22	50.40	44.55	39.21	36.06	32.91	30.04	27.84
315.0	94.84	64.24	50.18	44.16	39.88	35.66	32.91	30.21	27.51
360.0	134.16	93.15	62.44	50.18	44.89	40.05	36.00	33.13	30.49

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	28.13	25.59	23.96	22.33	20.98	19.91	18.90	18.11	17.49
45.0	29.03	26.55	24.98	23.34	21.83	20.87	19.86	19.07	18.34
90.0	24.64	22.84	21.43	20.42	19.46	18.51	17.89	17.33	16.82
135.0	23.40	21.66	20.36	19.52	18.45	17.66	17.10	16.54	16.03
180.0	22.84	21.43	20.36	19.46	18.62	18.00	17.38	16.93	16.59
225.0	24.36	22.67	21.66	20.70	19.69	19.07	18.45	17.83	17.44
270.0	26.10	23.63	22.28	21.04	19.86	18.73	18.11	17.38	16.82
315.0	25.43	23.57	21.94	20.59	19.69	18.51	17.78	17.21	16.59
360.0	28.13	25.59	23.96	22.33	20.98	19.91	18.90	18.11	17.49
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	16.82	16.43	16.03	15.75	15.47	15.30	15.02	14.79	14.68
45.0	17.83	17.27	16.93	16.54	16.26	16.03	15.69	15.47	15.30
90.0	16.37	16.09	15.75	15.53	15.30	15.02	14.85	14.63	14.46
135.0	15.75	15.53	15.24	15.19	14.96	14.79	14.68	14.51	14.40
180.0	16.26	15.92	15.75	15.53	15.30	15.13	14.91	14.68	14.63
225.0	17.04	16.54	16.31	16.03	15.69	15.53	15.24	14.96	14.79
270.0	16.37	15.98	15.75	15.47	15.24	15.02	14.79	14.63	14.40
315.0	16.14	15.86	15.53	15.24	15.02	14.85	14.68	14.46	14.40
360.0	16.82	16.43	16.03	15.75	15.47	15.30	15.02	14.79	14.68
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	14.46	14.40	14.29	14.01	13.67	13.28	12.94	12.66	12.32
45.0	15.02	14.79	14.63	14.29	13.84	13.50	13.16	12.83	12.49
90.0	14.34	14.12	13.73	13.44	13.11	12.66	12.38	11.98	11.70
135.0	14.34	14.06	13.73	13.50	13.05	12.71	12.43	11.98	11.64
180.0	14.40	14.01	13.67	13.28	12.94	12.54	12.21	11.93	11.53
225.0	14.51	14.18	13.84	13.50	13.11	12.77	12.43	12.15	11.81
270.0	14.34	14.18	13.89	13.67	13.39	12.94	12.66	12.32	11.98
315.0	14.29	14.12	13.95	13.61	13.39	12.99	12.71	12.43	12.04
360.0	14.46	14.40	14.29	14.01	13.67	13.28	12.94	12.66	12.32
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	11.98	11.70	11.36	11.03	10.80	10.46	10.24	9.96	9.68
45.0	12.21	11.93	11.59	11.25	10.91	10.63	10.35	10.01	9.79
90.0	11.42	11.08	10.80	10.46	10.18	9.90	9.68	9.39	9.11
135.0	11.36	11.03	10.74	10.41	10.07	9.84	9.68	9.34	9.11
180.0	11.19	10.91	10.58	10.29	10.01	9.79	9.51	9.23	9.00
225.0	11.48	11.14	10.86	10.58	10.29	10.01	9.79	9.51	9.17
270.0	11.70	11.36	11.08	10.80	10.46	10.24	10.01	9.73	9.51
315.0	11.76	11.48	11.14	10.86	10.58	10.24	10.01	9.79	9.51
360.0	11.98	11.70	11.36	11.03	10.80	10.46	10.24	9.96	9.68
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	9.45	9.23	8.94	8.72	8.49	8.27	8.10	7.88	7.71
45.0	9.45	9.17	8.89	8.66	8.38	8.10	7.82	7.59	7.37
90.0	8.94	8.72	8.49	8.33	8.10	8.04	7.59	7.37	7.20
135.0	8.94	8.66	8.44	8.27	8.04	7.88	7.71	7.37	7.14
180.0	8.83	8.61	8.33	8.16	7.93	7.76	7.54	7.31	7.20
225.0	8.89	8.61	8.27	8.10	7.82	7.59	7.31	7.20	7.09
270.0	9.28	9.00	8.83	8.61	8.33	8.04	7.76	7.54	7.37
315.0	9.28	9.06	8.83	8.66	8.38	8.21	8.10	7.82	7.71
360.0	9.45	9.23	8.94	8.72	8.49	8.27	8.10	7.88	7.71

Intensity data(cd)

C/γ(°)	90.0
0.0	7.48
45.0	7.20
90.0	7.09
135.0	7.09
180.0	7.14
225.0	7.09
270.0	7.09
315.0	7.31
360.0	7.48