
Nata

Client:

LumCAT: 2-1672-M

Luminaire: 92.70.131.00

Report No: nata-0100

Test No:

LampCAT: CREE CMT1922

Lamp flux(lm): 2545.4

Number of Lamps: 1

Length(mm): 70

Phm Type: C

Voltage(V): 35.0000

Current(A): 0.6000

Power (W): 21.0000

PF: 0.0000

Ballast type: DC

Width(mm): 70

Height(mm): 0

Photometric Results

Lumens(lm): 2385.53, Efficiency(%): 93.72% , Luminous Efficacy(lm/W): 113.60

Central intensity(cd): 7749.877, Maximum intensity(cd): 7749.877

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=27.2

[C90/270]Total=27.2

Field angle(10%Imax): [C0/180]Total=61.8

[C90/270]Total=61.8

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

Maximum s/h(1/4): C0_180=0.44 C90_270=0.44

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 95.45%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.981%

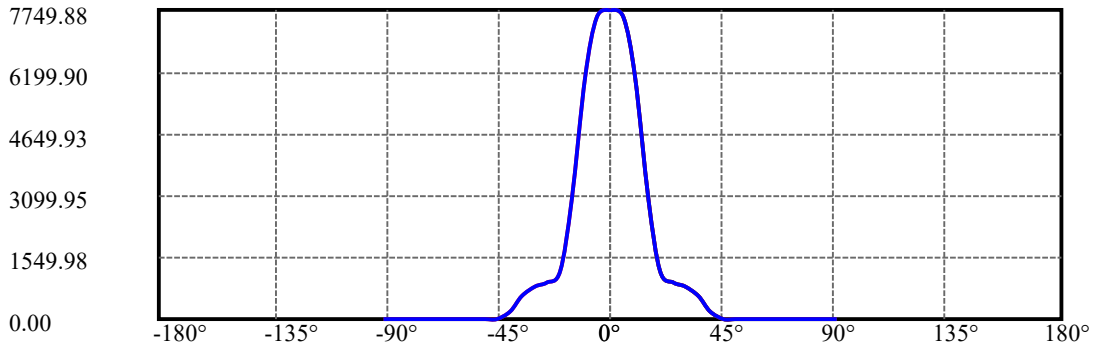
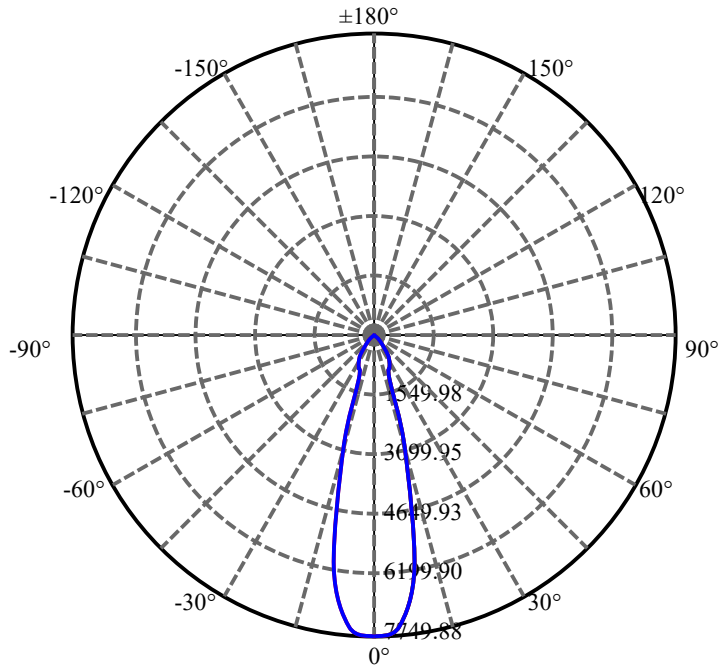
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7749.877	46.346	46.346	1.821%	1.943%
5.0	7545.686	360.482	406.828	14.162%	17.054%
10.0	6042.922	575.184	982.012	22.597%	41.165%
15.0	2996.238	425.071	1407.084	16.700%	58.984%
20.0	1222.913	229.264	1636.348	9.007%	68.595%
25.0	907.226	210.162	1846.509	8.257%	77.405%
30.0	817.037	223.924	2070.434	8.797%	86.791%
35.0	592.902	186.408	2256.841	7.323%	94.605%
40.0	213.667	75.283	2332.124	2.958%	97.761%
45.0	20.963	8.125	2340.249	.319%	98.102%
50.0	13.041	5.476	2345.725	.215%	98.331%
55.0	11.775	5.287	2351.012	.208%	98.553%
60.0	11.059	5.250	2356.262	.206%	98.773%
65.0	10.550	5.241	2361.503	.206%	98.993%
70.0	10.240	5.275	2366.778	.207%	99.214%
75.0	10.034	5.313	2372.091	.209%	99.437%
80.0	9.931	5.361	2377.451	.211%	99.661%
85.0	9.862	5.385	2382.837	.212%	99.887%
90.0	9.834	2.695	2385.532	.106%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2070.43	81.34%	86.79%
0-40	2332.12	91.62%	97.76%
0-60	2356.26	92.57%	98.77%
0-90	2382.84	93.61%	99.89%
0-120	2382.84	93.61%	99.89%
0-180	2385.53	93.72%	100.00%
60-90	31.82	1.25%	1.33%
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%
0-26.38	1908.43	74.98%	80.00%

ZONAL LUMEN SUMMARY

0-10	982.01
10-20	654.34
20-30	434.09
30-40	261.69
40-50	13.60
50-60	10.54
60-70	10.52
70-80	10.67
80-90	5.39
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



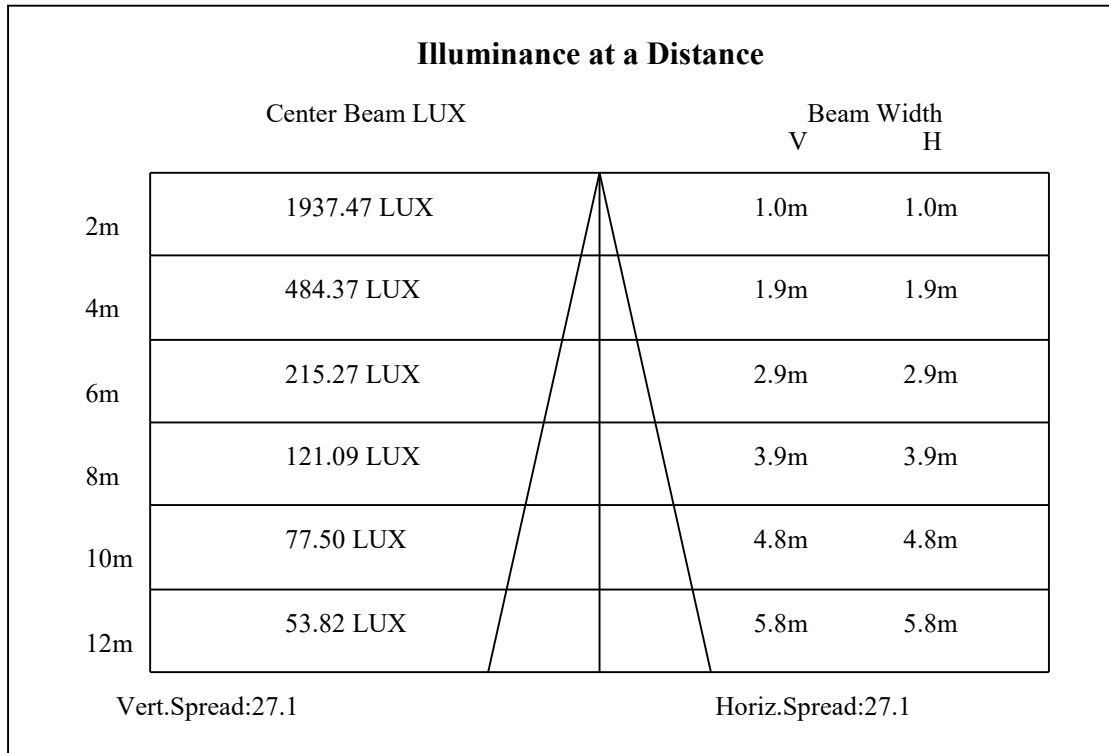
C0(Max): —————

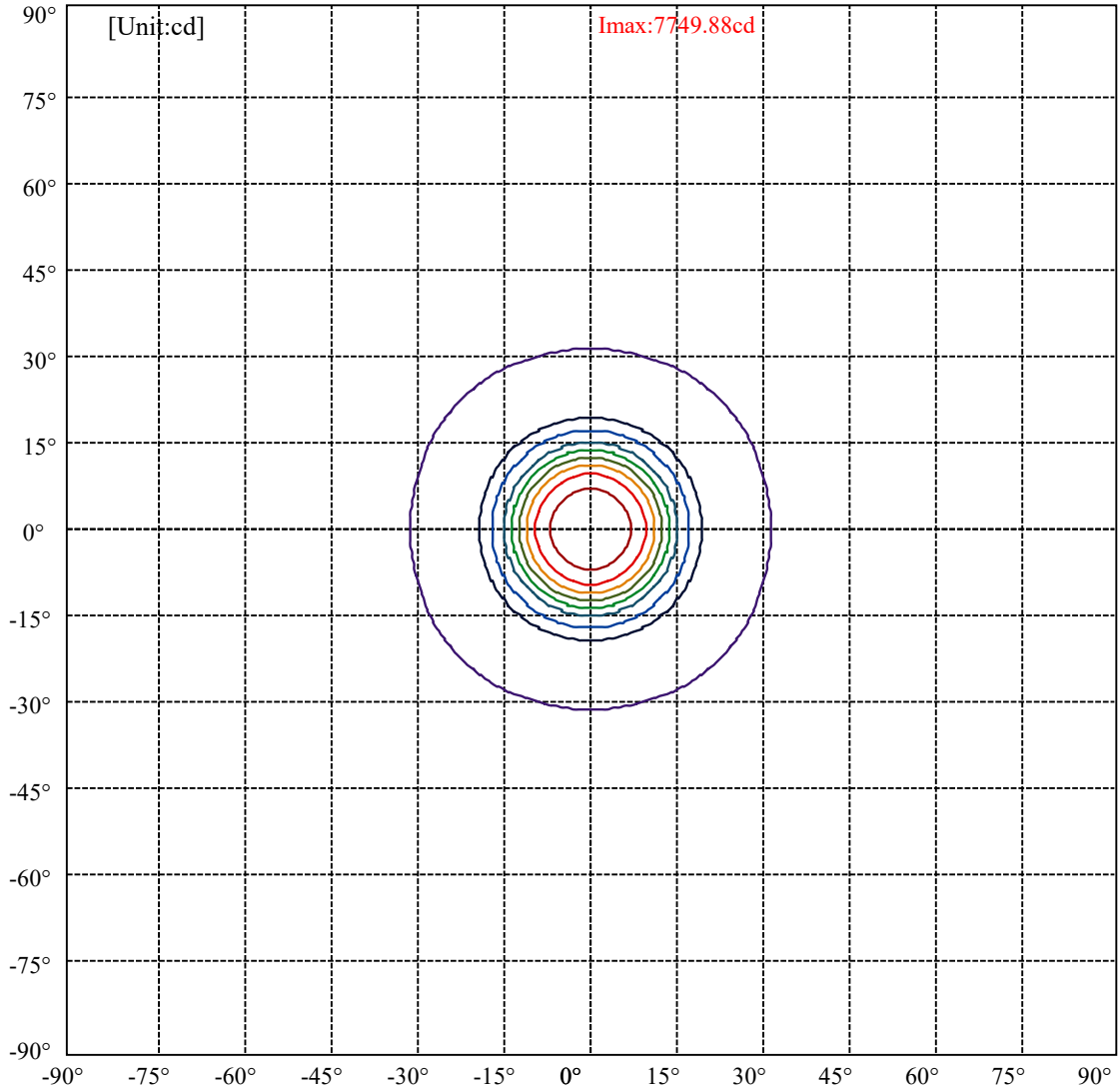
C0/C180: —————

C90/C270: —————

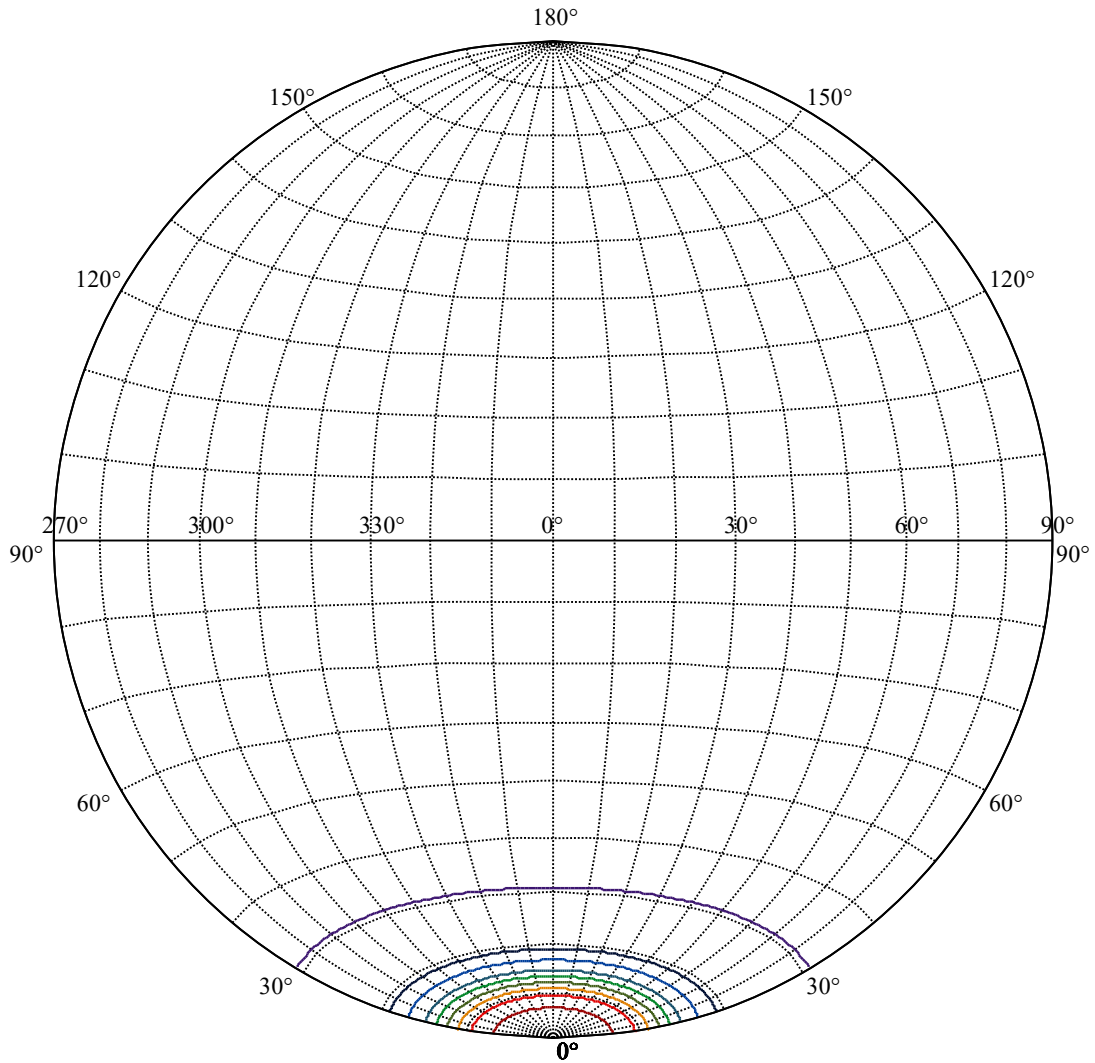
Field angle(10%Imax):C0/180Left:30.9 Right:30.9
:C90/270Left:30.9 Right:30.9

Beam Angle(50%Imax):C0/180Left:13.6 Right:13.6
:C90/270Left:13.6 Right:13.6





(10%Imax) 774.988	—
(20%Imax) 1549.98	—
(30%Imax) 2324.96	—
(40%Imax) 3099.95	—
(50%Imax) 3874.94	—
(60%Imax) 4649.93	—
(70%Imax) 5424.91	—
(80%Imax) 6199.9	—
(90%Imax) 6974.89	—



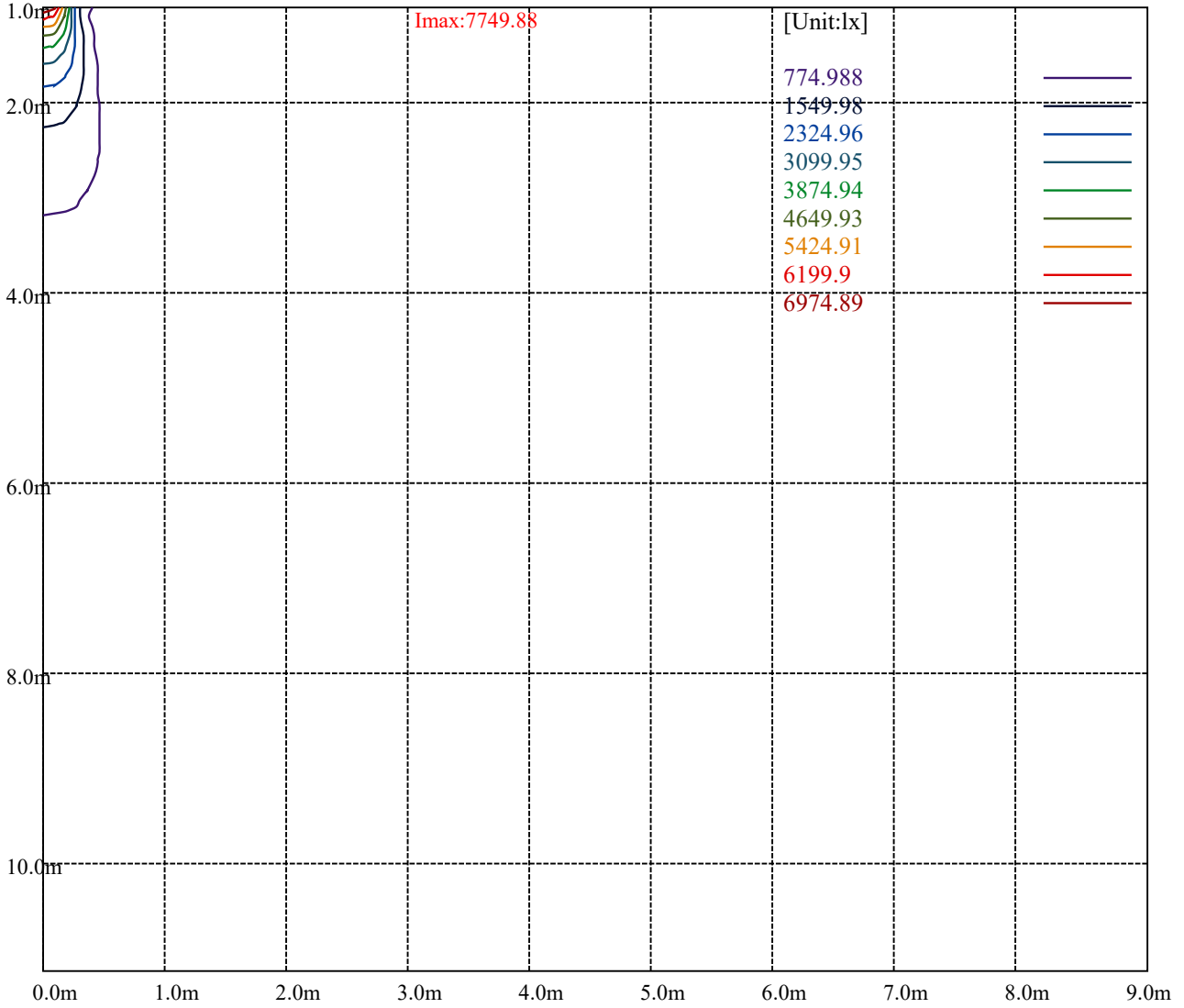
House

[Unit:cd]

Road

Imax:7749.88

(10%Imax) 774.988	—
(20%Imax) 1549.98	—
(30%Imax) 2324.96	—
(40%Imax) 3099.95	—
(50%Imax) 3874.94	—
(60%Imax) 4649.93	—
(70%Imax) 5424.91	—
(80%Imax) 6199.9	—
(90%Imax) 6974.89	—



Luminance Table

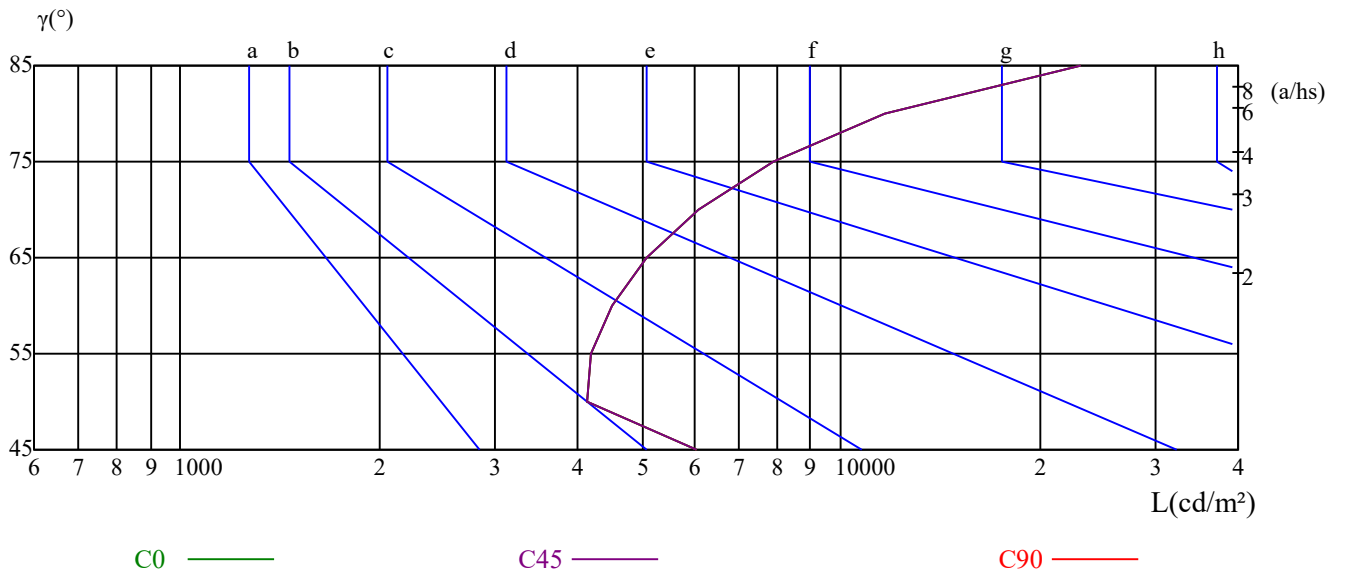
γ	45	50	55	60	65	70	75	80	85
C0	6050	4141	4190	4514	5095	6110	7912	11671	23093
C45	6050	4141	4190	4514	5095	6110	7912	11671	23093
C90	6050	4141	4190	4514	5095	6110	7912	11671	23093

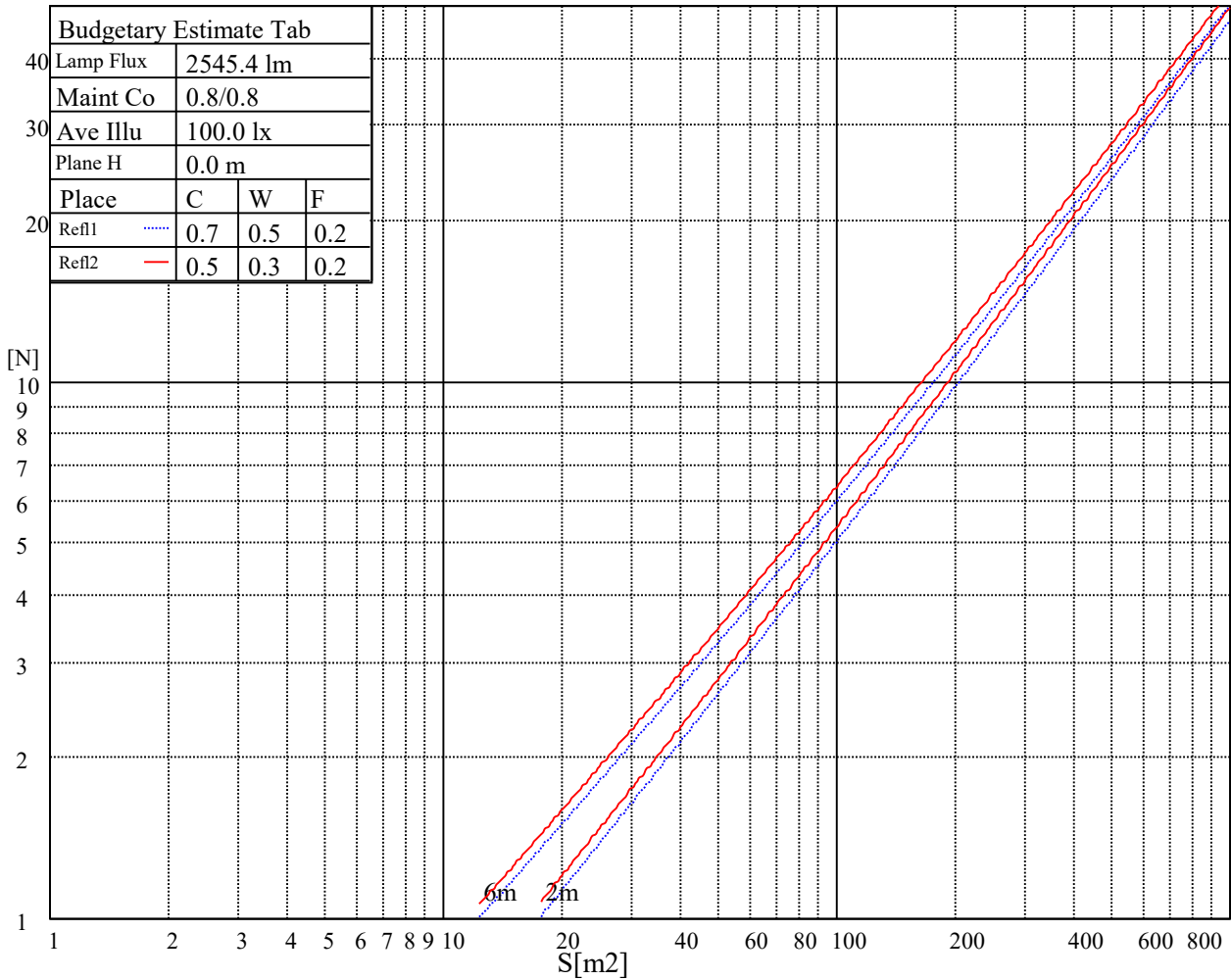
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5095	5095	5095	7912	7912	7912	23093	23093	23093

Glare Table

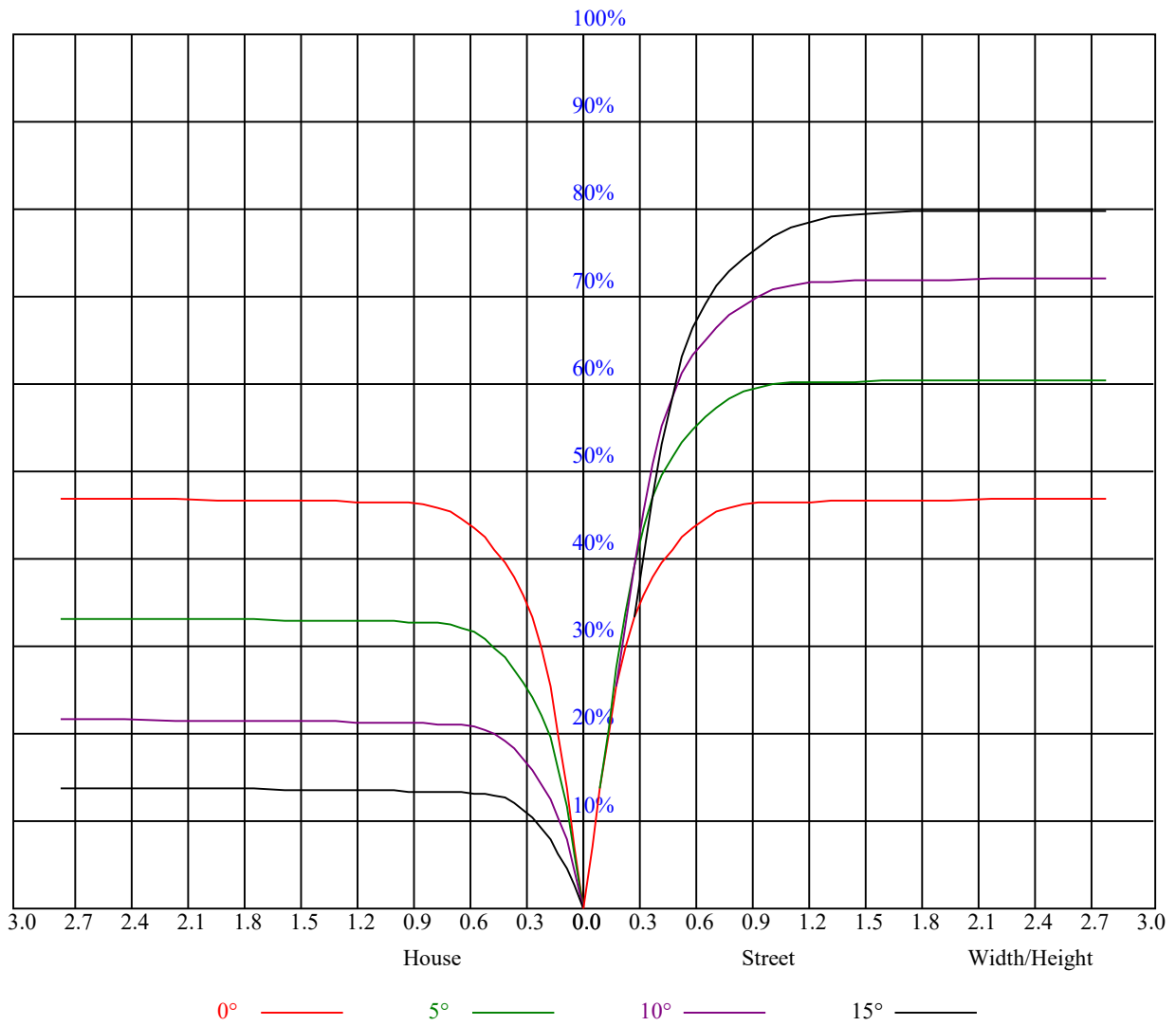
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

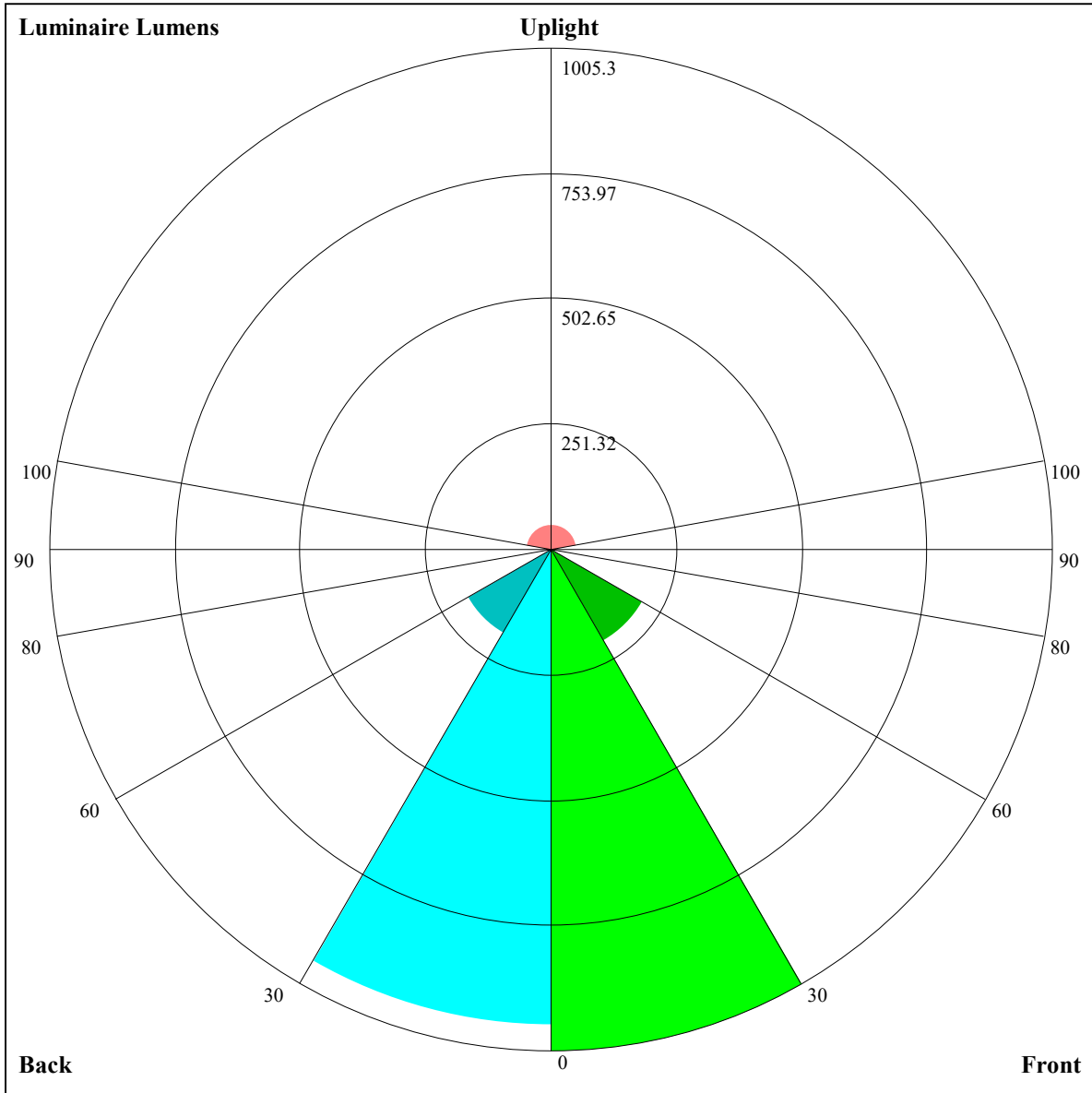
Luminance Limiting Curve





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	1.14	1.14	1.14	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	0.97	0.97	0.97	0.95
1	1.05	1.02	1.00	1.03	1.00	0.98	0.99	0.97	0.95	0.95	0.94	0.92	0.92	0.91	0.90	0.88
2	0.99	0.96	0.93	0.98	0.94	0.92	0.95	0.92	0.90	0.92	0.90	0.88	0.89	0.88	0.86	0.84
3	0.95	0.91	0.87	0.93	0.90	0.87	0.91	0.88	0.85	0.89	0.86	0.84	0.87	0.84	0.83	0.81
4	0.91	0.86	0.83	0.90	0.85	0.82	0.88	0.84	0.81	0.86	0.83	0.80	0.84	0.82	0.79	0.78
5	0.87	0.82	0.79	0.86	0.82	0.79	0.84	0.81	0.78	0.83	0.80	0.77	0.82	0.79	0.77	0.75
6	0.84	0.79	0.76	0.83	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.75	0.79	0.76	0.74	0.73
7	0.81	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.72	0.78	0.75	0.72	0.77	0.74	0.72	0.71
8	0.78	0.74	0.70	0.77	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.70	0.69
9	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.68	0.67
10	0.73	0.69	0.66	0.73	0.69	0.66	0.72	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.66	0.65





Luminaire Lumens:

FL=1005.3,FM=210.44,FH=10.65,FVH=5.4

BL=954.51,BM=193.45,BH=10.52,BVH=5.37

UL=10.73,UH=51.06

BUG Rating:B2-U2-G0

Intensity data(cd)

C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	7749.19	7643.48	6523.08	3731.72	1470.56	945.87	841.26	683.80	291.80
45.0	7732.67	7711.20	6782.40	3827.52	1462.30	939.26	834.10	686.55	282.44
90.0	7767.36	7691.93	6142.64	3208.69	1083.01	901.82	815.44	630.07	216.70
135.0	7750.29	7715.05	6513.72	3533.52	1343.93	922.19	822.54	690.41	281.34
180.0	7749.19	7481.06	5529.31	2329.44	1081.69	872.31	794.68	467.10	110.83
225.0	7732.67	7305.98	5432.41	2305.21	1072.17	882.06	804.32	482.90	102.07
270.0	7767.36	7427.66	5864.06	2741.26	1191.42	908.43	819.24	567.08	300.06
315.0	7750.29	7389.12	5555.74	2292.55	1078.22	885.86	804.70	535.31	124.10
360.0	7749.19	7643.48	6523.08	3731.72	1470.56	945.87	841.26	683.80	291.80
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	24.83	13.54	12.11	11.23	10.74	10.41	10.13	10.02	9.91
45.0	25.55	13.71	12.22	11.45	10.79	10.41	10.19	10.02	9.91
90.0	23.73	13.21	11.89	11.18	10.63	10.30	10.02	9.91	9.86
135.0	22.68	13.27	11.89	11.12	10.57	10.24	10.02	9.91	9.86
180.0	16.52	12.50	11.45	10.90	10.41	10.13	9.97	9.91	9.86
225.0	17.18	12.39	11.29	10.68	10.24	9.97	9.86	9.80	9.74
270.0	19.27	12.88	11.73	11.01	10.52	10.24	10.08	9.97	9.91
315.0	17.95	12.83	11.62	10.90	10.52	10.24	10.02	9.91	9.86
360.0	24.83	13.54	12.11	11.23	10.74	10.41	10.13	10.02	9.91
C/ γ (°)	90.0								
0.0	9.91								
45.0	9.86								
90.0	9.80								
135.0	9.80								
180.0	9.80								
225.0	9.74								
270.0	9.91								
315.0	9.86								
360.0	9.91								