
Nata

Client:

LumCAT: 4-2275-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): 100

Phm Type: C

Voltage(V): 35.0000

Current(A): 0.6000

Power (W): 21.0000

PF: 0.0000

Ballast type: DC

Width(mm): 100

Height(mm): 0

Photometric Results

Lumens(lm): 2412.32, Efficiency(%): 94.77% , Luminous Efficacy(lm/W): 114.87

Central intensity(cd): 11926.590, Maximum intensity(cd): 11926.590

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=20.0

[C90/270]Total=20.0

Field angle(10%Imax): [C0/180]Total=39.8

[C90/270]Total=39.8

Maximum s/h(1/2): C0_180=0.34 C90_270=0.34

Maximum s/h(1/4): C0_180=0.35 C90_270=0.35

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 97.48%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.078%

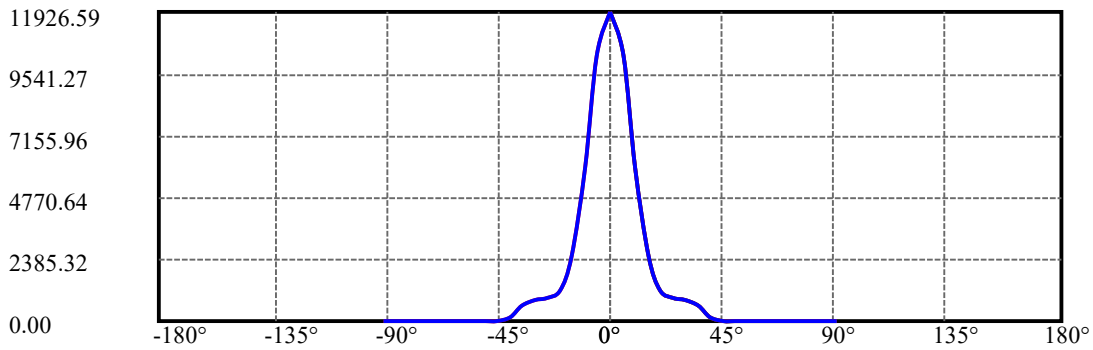
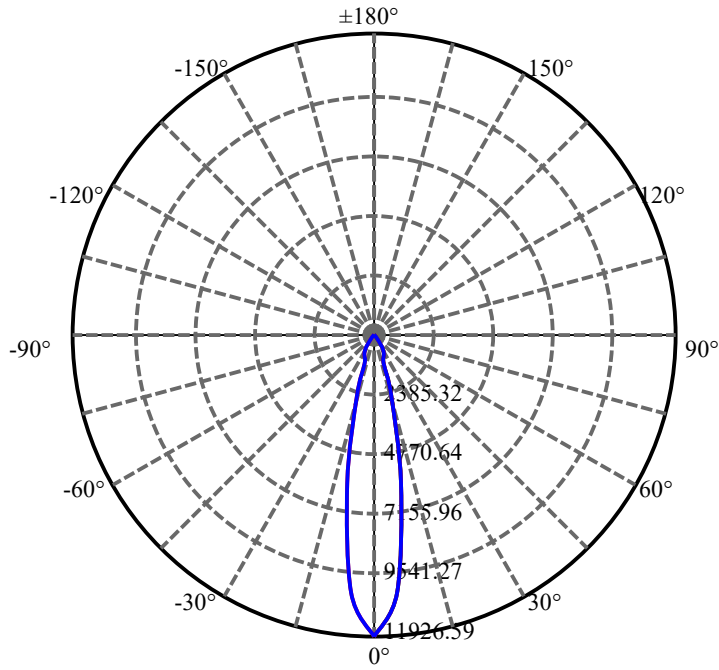
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	11926.593	71.323	71.323	2.802%	2.957%
5.0	10224.524	488.459	559.783	19.190%	23.205%
10.0	5960.268	567.317	1127.099	22.288%	46.723%
15.0	2526.676	358.455	1485.555	14.083%	61.582%
20.0	1178.895	221.012	1706.567	8.683%	70.744%
25.0	887.234	205.530	1912.097	8.075%	79.264%
30.0	814.676	223.277	2135.375	8.772%	88.520%
35.0	580.707	182.574	2317.948	7.173%	96.088%
40.0	134.868	47.519	2365.467	1.867%	98.058%
45.0	12.078	4.681	2370.148	.184%	98.252%
50.0	10.805	4.537	2374.685	.178%	98.440%
55.0	10.247	4.601	2379.286	.181%	98.631%
60.0	10.007	4.750	2384.037	.187%	98.828%
65.0	9.876	4.906	2388.943	.193%	99.031%
70.0	9.793	5.044	2393.987	.198%	99.240%
75.0	9.731	5.152	2399.139	.202%	99.454%
80.0	9.697	5.234	2404.374	.206%	99.671%
85.0	9.697	5.295	2409.669	.208%	99.890%
90.0	9.662	2.648	2412.317	.104%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2135.37	83.89%	88.52%
0-40	2365.47	92.93%	98.06%
0-60	2384.04	93.66%	98.83%
0-90	2409.67	94.67%	99.89%
0-120	2409.67	94.67%	99.89%
0-180	2412.32	94.77%	100.00%
60-90	30.38	1.19%	1.26%
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%
0-25.40	1929.85	75.82%	80.00%

ZONAL LUMEN SUMMARY

0-10	1127.10
10-20	579.47
20-30	428.81
30-40	230.09
40-50	9.22
50-60	9.35
60-70	9.95
70-80	10.39
80-90	5.29
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: —————

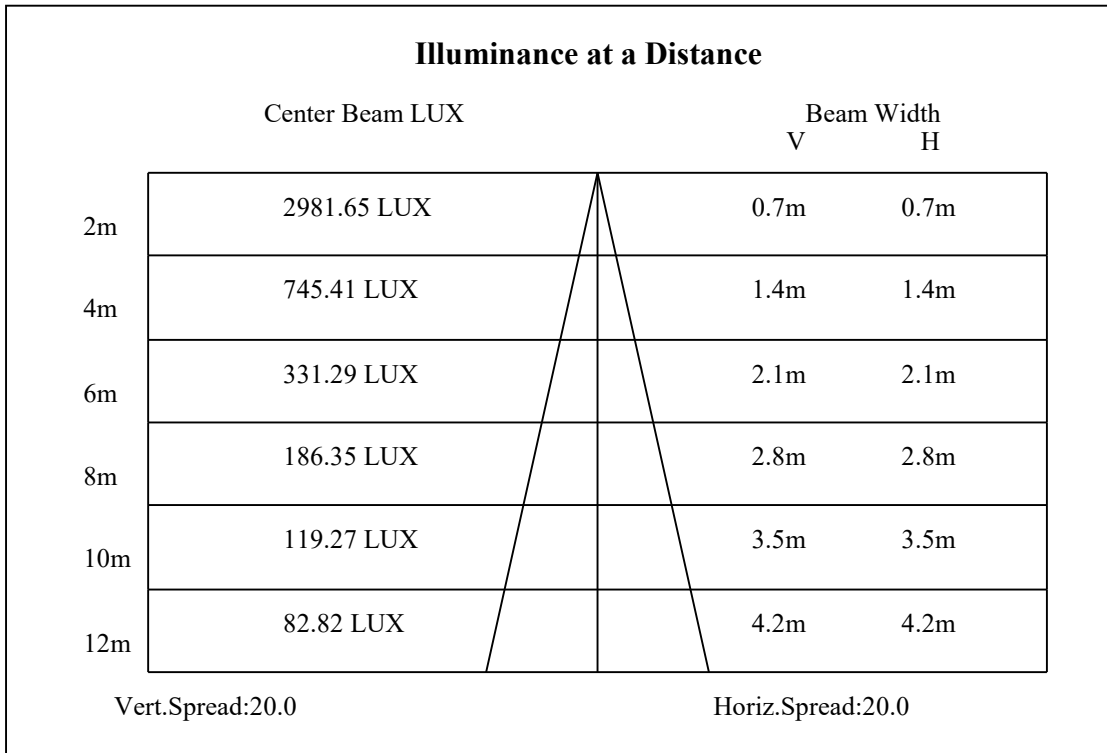
C90/C270: —————

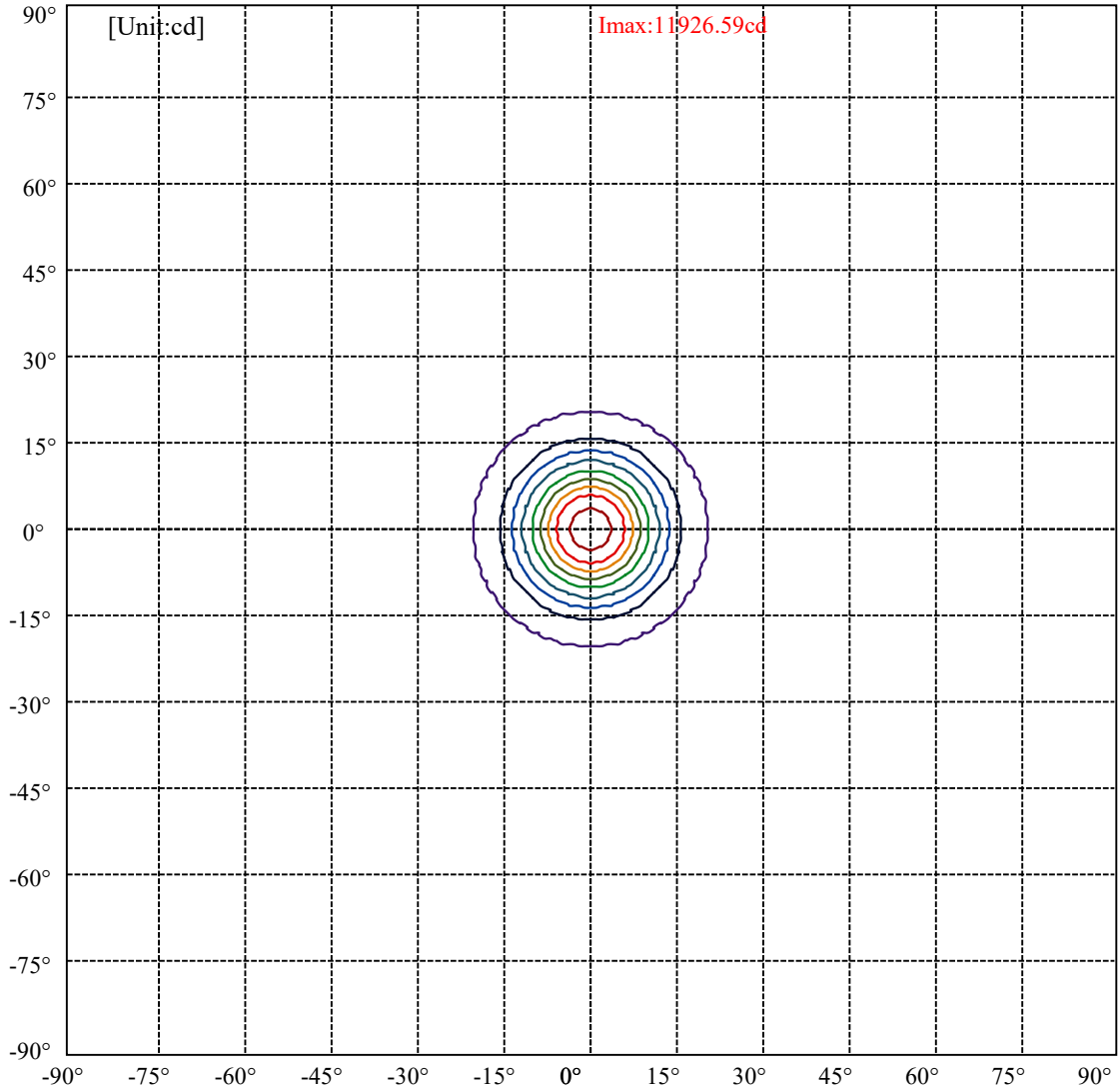
Field angle(10%Imax):C0/180Left:19.9 Right:19.9

:C90/270Left:19.9 Right:19.9

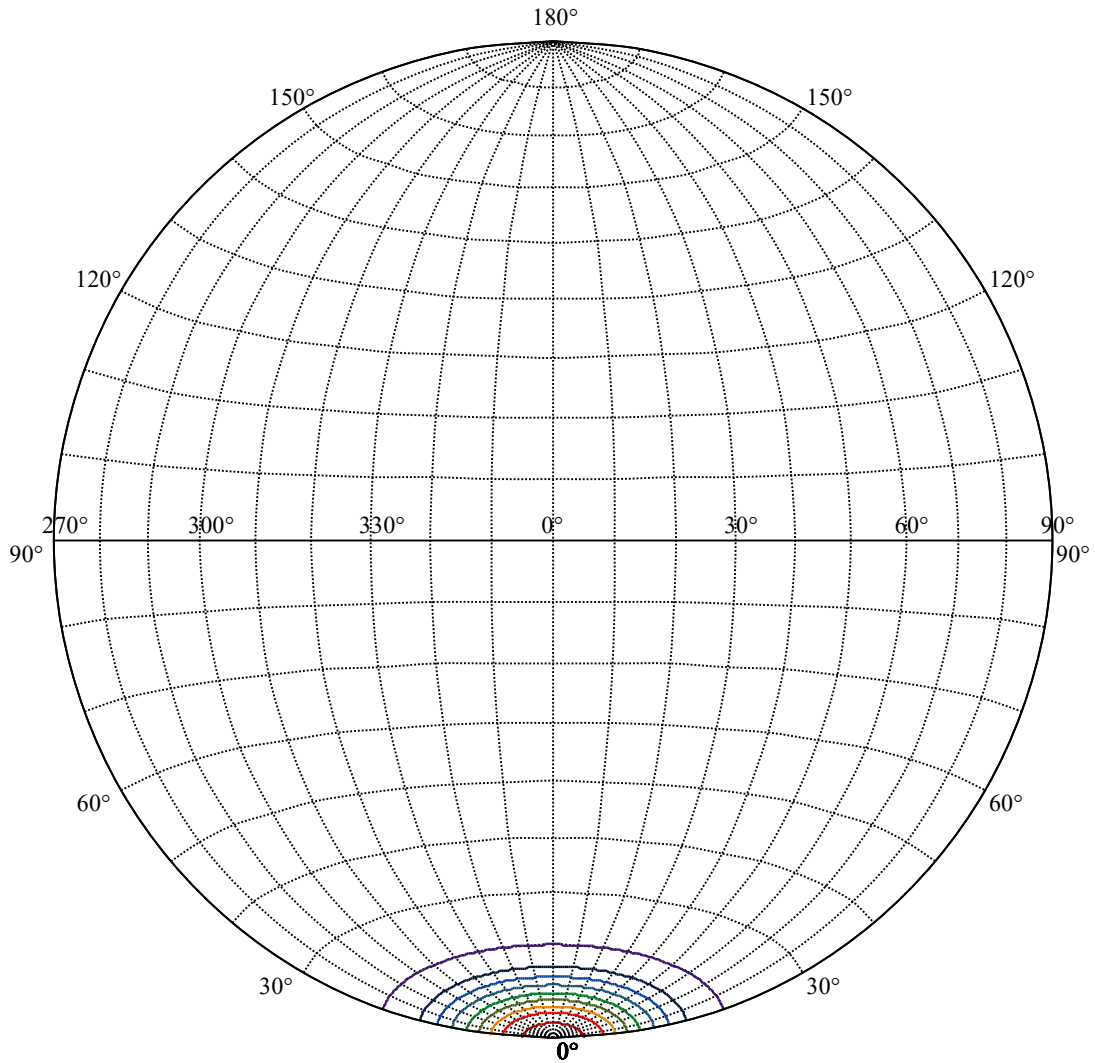
Beam Angle(50%Imax):C0/180Left:10.0 Right:10.0

:C90/270Left:10.0 Right:10.0





(10%Imax) 1192.66	—
(20%Imax) 2385.32	—
(30%Imax) 3577.98	—
(40%Imax) 4770.64	—
(50%Imax) 5963.3	—
(60%Imax) 7155.96	—
(70%Imax) 8348.62	—
(80%Imax) 9541.27	—
(90%Imax) 10733.9	—



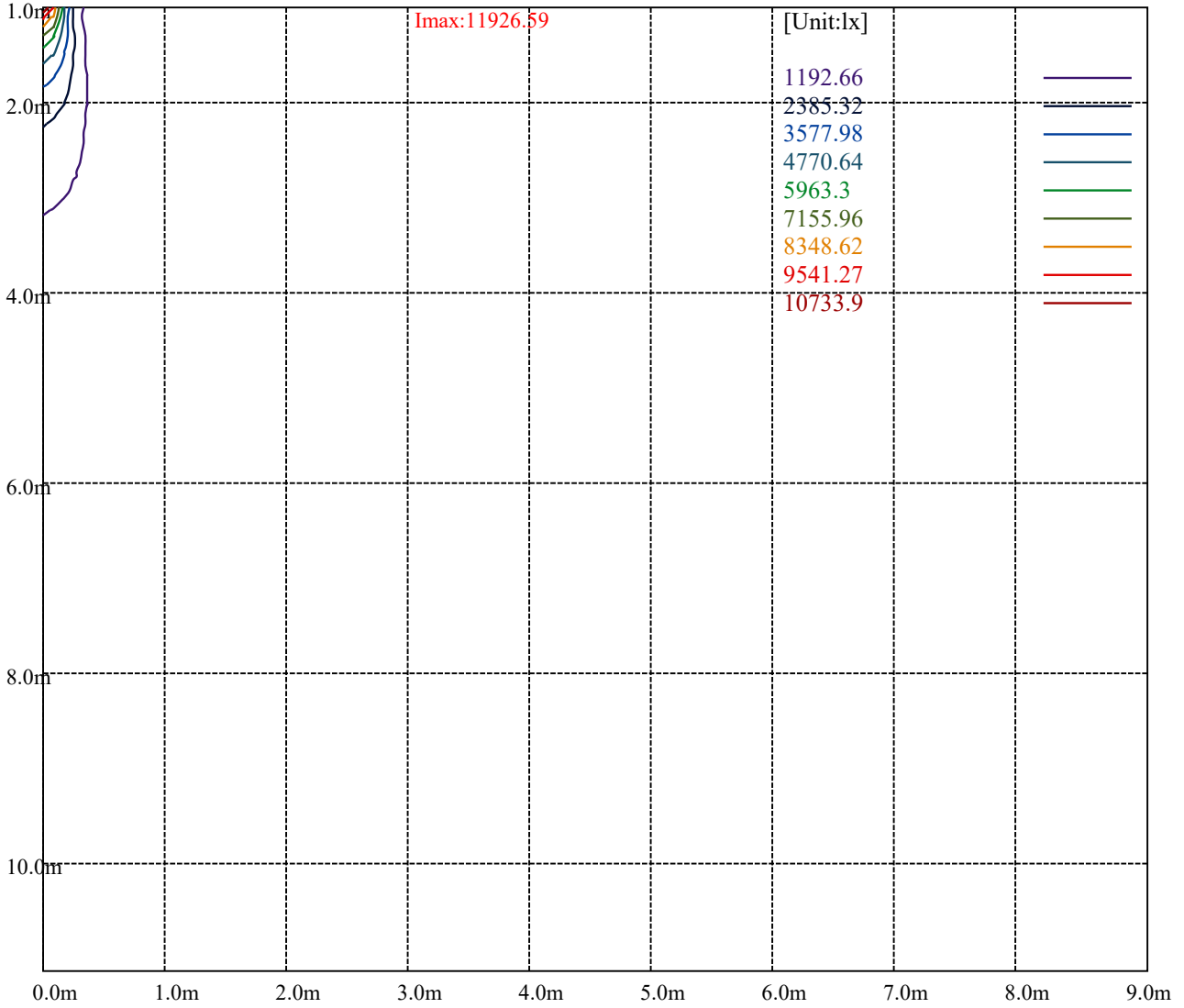
House

[Unit:cd]

Road

Imax:11926.59

(10%Imax)	1192.66	—
(20%Imax)	2385.32	—
(30%Imax)	3577.98	—
(40%Imax)	4770.64	—
(50%Imax)	5963.3	—
(60%Imax)	7155.96	—
(70%Imax)	8348.62	—
(80%Imax)	9541.27	—
(90%Imax)	10733.9	—



Luminance Table

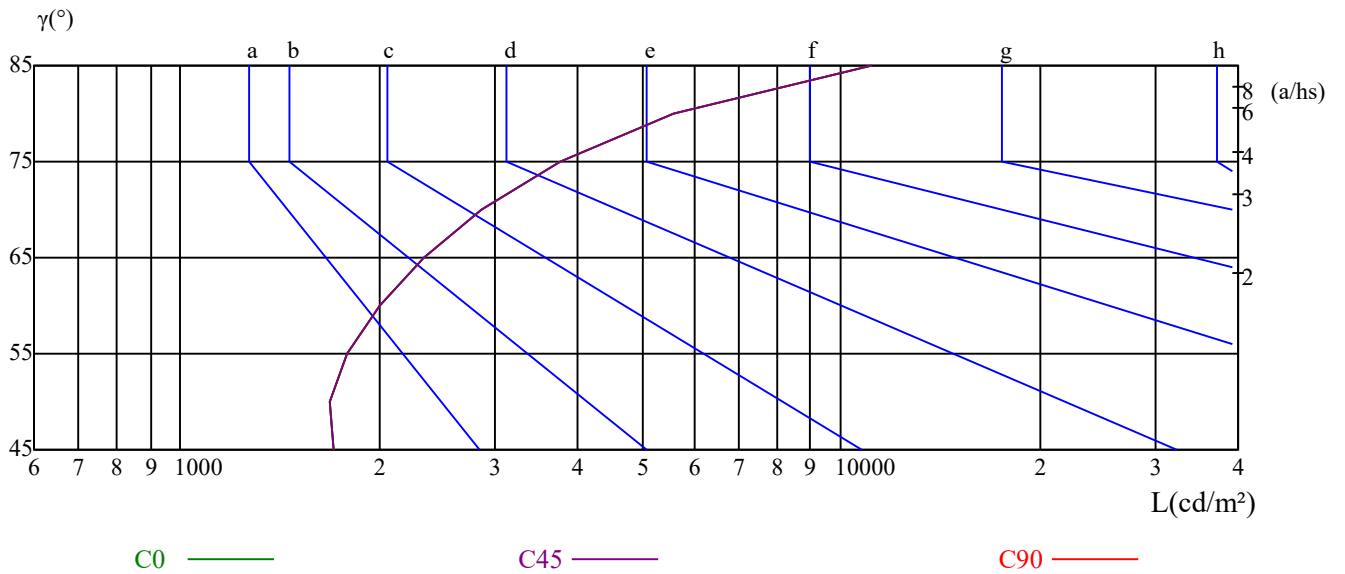
γ	45	50	55	60	65	70	75	80	85
C0	1708	1681	1787	2001	2337	2863	3760	5584	11126
C45	1708	1681	1787	2001	2337	2863	3760	5584	11126
C90	1708	1681	1787	2001	2337	2863	3760	5584	11126

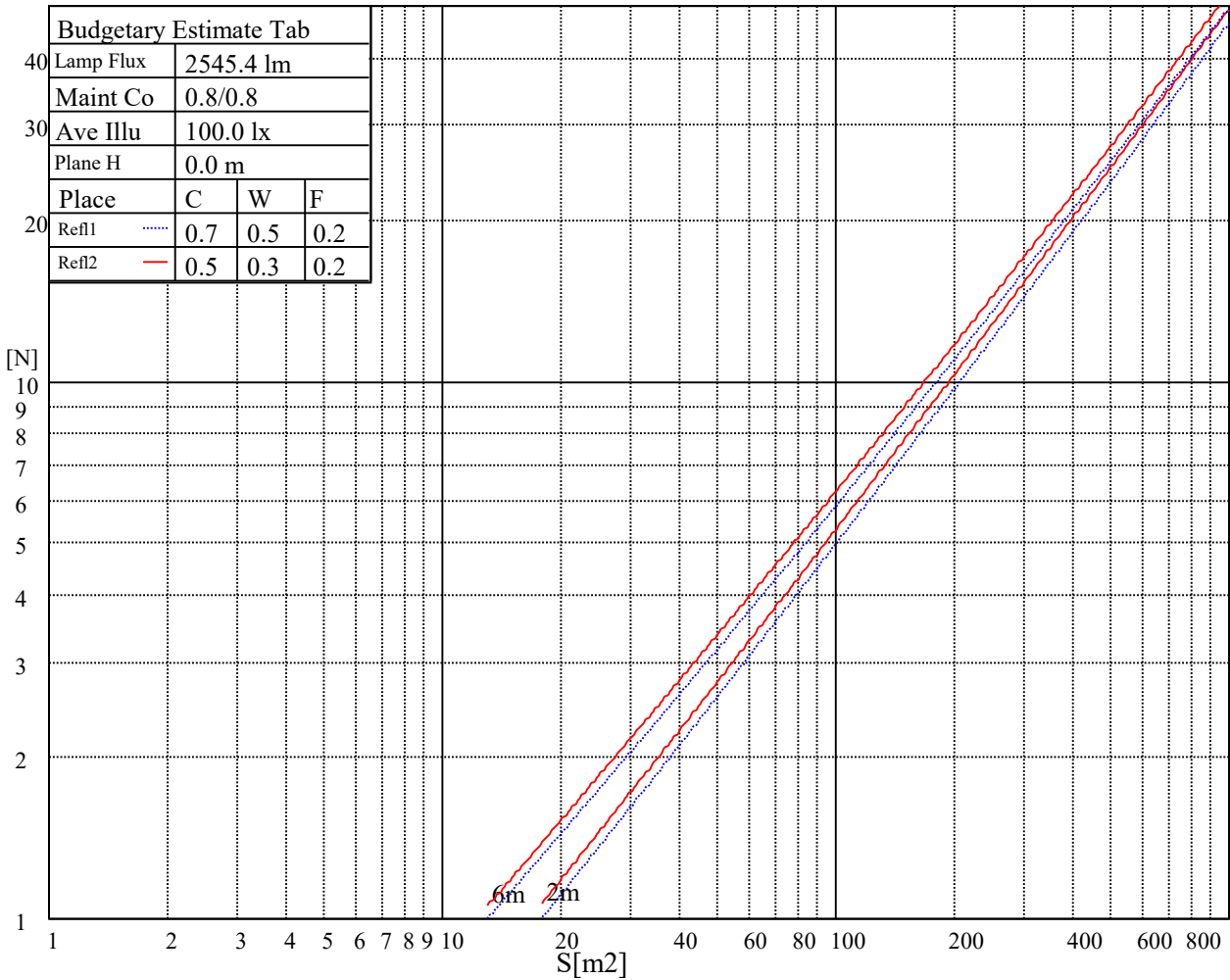
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2337	2337	2337	3760	3760	3760	11126	11126	11126

Glare Table

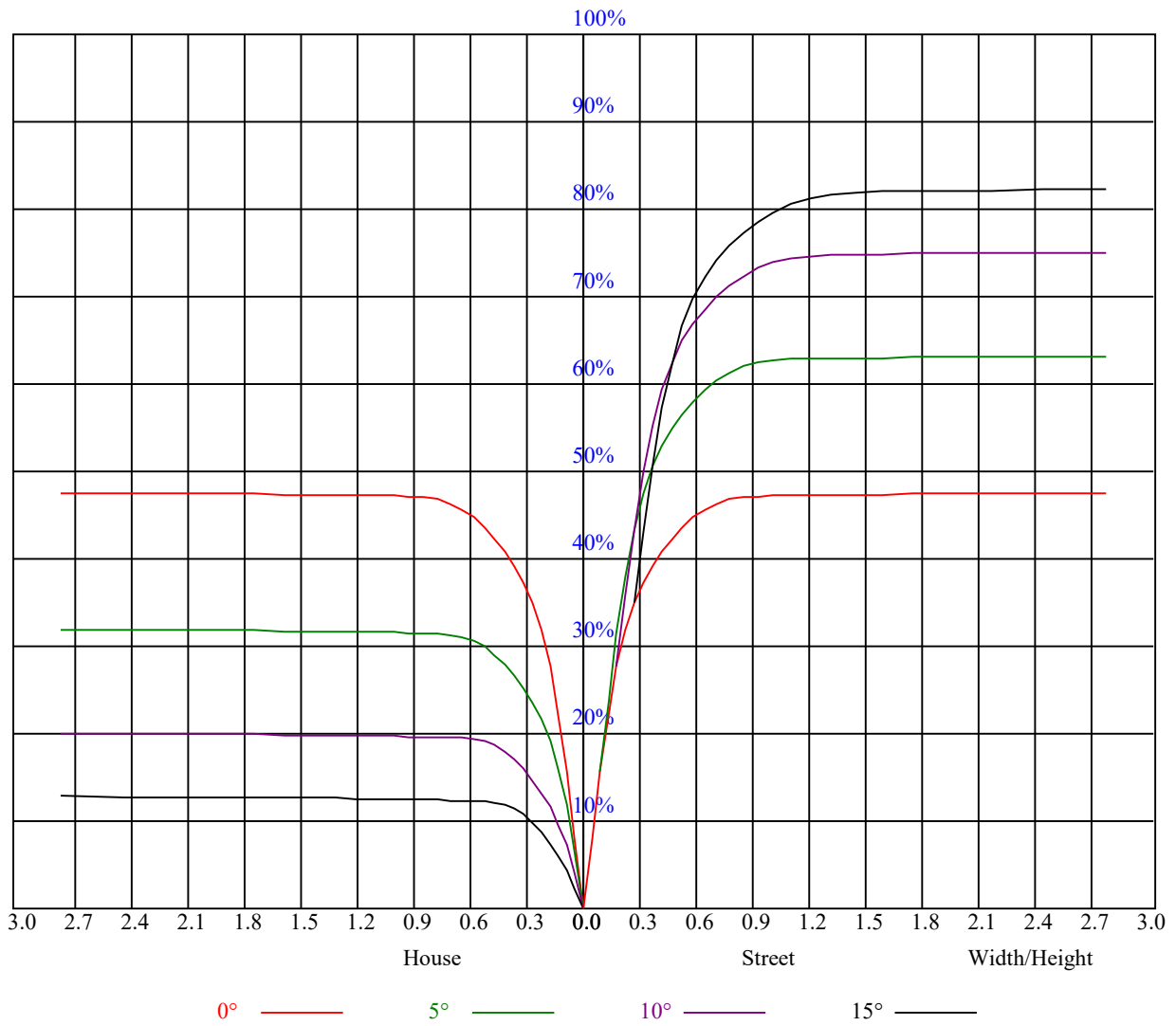
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

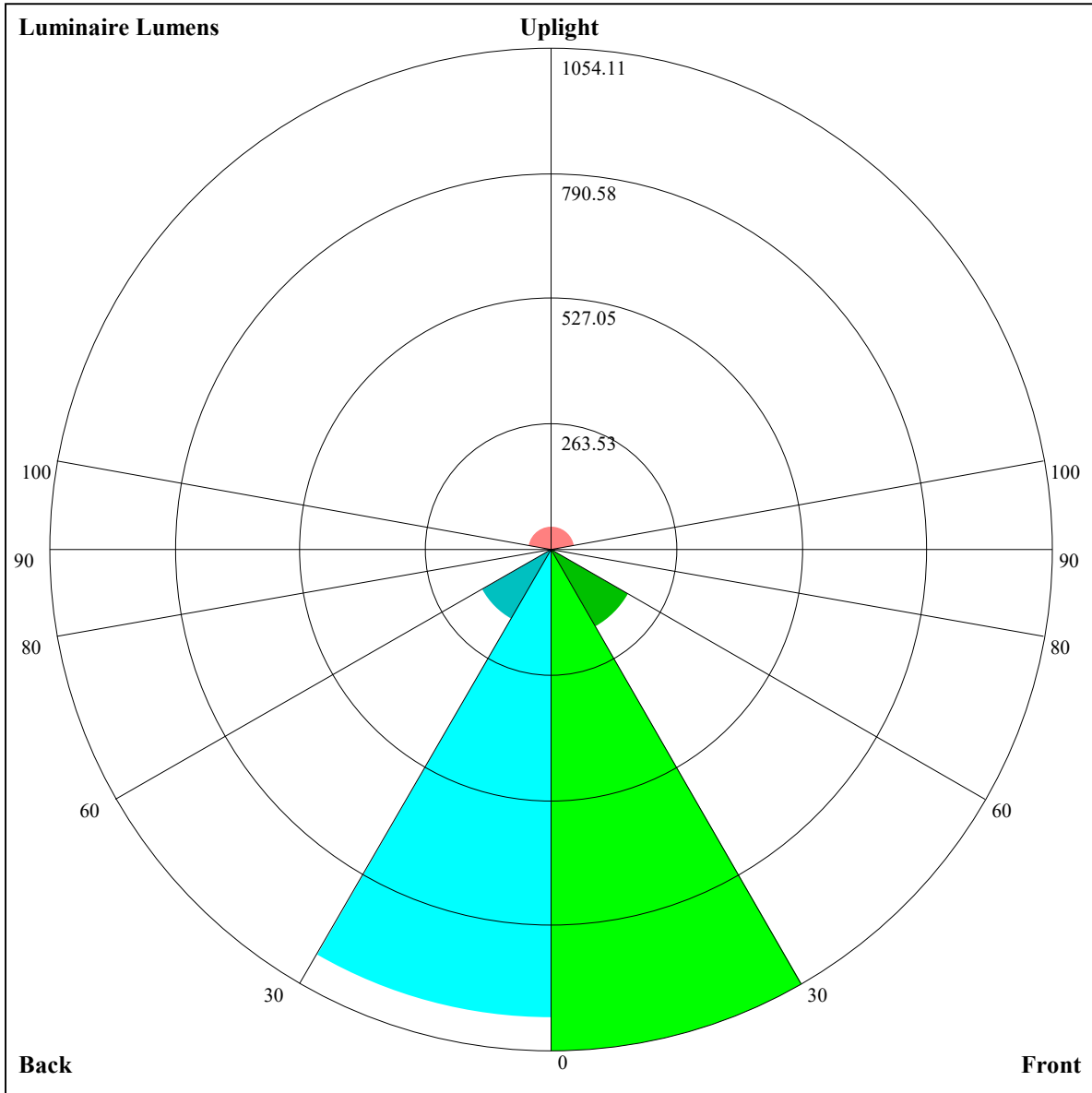
Luminance Limiting Curve





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	1.16	1.16	1.16	1.13	1.13	1.13	1.08	1.08	1.08	1.04	1.04	1.04	0.99	0.99	0.99	0.97
1	1.06	1.03	1.00	1.04	1.01	0.99	1.00	0.98	0.96	0.96	0.94	0.93	0.93	0.91	0.90	0.88
2	1.01	0.97	0.94	0.99	0.95	0.93	0.96	0.93	0.90	0.93	0.91	0.89	0.90	0.88	0.87	0.85
3	0.96	0.92	0.88	0.95	0.91	0.88	0.92	0.89	0.86	0.90	0.87	0.85	0.88	0.86	0.84	0.82
4	0.92	0.88	0.84	0.91	0.87	0.84	0.89	0.85	0.83	0.87	0.84	0.82	0.85	0.83	0.81	0.79
5	0.89	0.84	0.80	0.88	0.83	0.80	0.86	0.82	0.79	0.85	0.81	0.79	0.83	0.80	0.78	0.77
6	0.85	0.81	0.77	0.85	0.80	0.77	0.83	0.80	0.77	0.82	0.79	0.76	0.81	0.78	0.76	0.75
7	0.83	0.78	0.75	0.82	0.78	0.75	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.74	0.72
8	0.80	0.76	0.73	0.80	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.72	0.70
9	0.78	0.73	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
10	0.76	0.71	0.69	0.75	0.71	0.68	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.67





Luminaire Lumens:

FL=1054.11,FM=189.87,FH=10.06,FVH=5.28

BL=986.16,BM=167.73,BH=10.05,BVH=5.29

UL=10.54,UH=50.17

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	11842.63	10917.68	6893.06	2945.52	1346.68	905.68	830.80	709.68	295.10
45.0	11914.20	11099.37	7355.54	3006.08	1423.21	920.54	829.70	731.15	302.26
90.0	12018.81	10775.64	6497.21	2601.41	1069.20	892.08	814.06	617.02	83.80
135.0	11930.72	10576.33	6766.43	2895.97	1299.88	911.18	826.40	659.58	298.96
180.0	11842.63	9377.76	4900.02	1924.22	1069.36	866.15	795.95	466.22	23.67
225.0	11914.20	9413.54	4707.87	1897.79	1028.23	863.17	803.93	429.00	22.08
270.0	12018.81	9882.62	5489.12	2868.44	1120.95	879.80	814.28	547.81	28.63
315.0	11930.72	9753.24	5072.90	2073.97	1073.65	859.27	802.28	485.21	24.45
360.0	11842.63	10917.68	6893.06	2945.52	1346.68	905.68	830.80	709.68	295.10
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	13.10	11.07	10.35	10.08	9.91	9.80	9.74	9.69	9.69
45.0	13.38	11.01	10.41	10.13	9.97	9.86	9.80	9.74	9.74
90.0	11.84	10.79	10.24	10.02	9.86	9.80	9.74	9.69	9.69
135.0	11.95	10.90	10.30	10.02	9.91	9.80	9.74	9.69	9.69
180.0	11.40	10.63	10.13	9.97	9.86	9.74	9.69	9.69	9.69
225.0	11.45	10.57	10.13	9.97	9.86	9.80	9.69	9.74	9.74
270.0	11.78	10.74	10.24	9.97	9.86	9.80	9.74	9.69	9.69
315.0	11.73	10.74	10.19	9.91	9.80	9.74	9.69	9.63	9.63
360.0	13.10	11.07	10.35	10.08	9.91	9.80	9.74	9.69	9.69
C/ γ (°)	90.0								
0.0	9.63								
45.0	9.69								
90.0	9.69								
135.0	9.63								
180.0	9.63								
225.0	9.69								
270.0	9.69								
315.0	9.63								
360.0	9.63								