
Nata

Client:

LumCAT: 3-2046-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): 84

Phm Type: C

Voltage(V): 34.9000

Current(A): 0.6000

Power (W): 20.9400

PF: 0.0000

Ballast type: DC

Width(mm): 84

Height(mm): 0

Photometric Results

Lumens(lm): 2335.83, Efficiency(%): 91.77% , Luminous Efficacy(lm/W): 111.55

Central intensity(cd): 5770.461, Maximum intensity(cd): 5770.461

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=33.4

[C90/270]Total=33.4

Field angle(10%Imax): [C0/180]Total=67.4

[C90/270]Total=67.4

Maximum s/h(1/2): C0_180=0.54 C90_270=0.54

Maximum s/h(1/4): C0_180=0.57 C90_270=0.57

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 93.04%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.422%

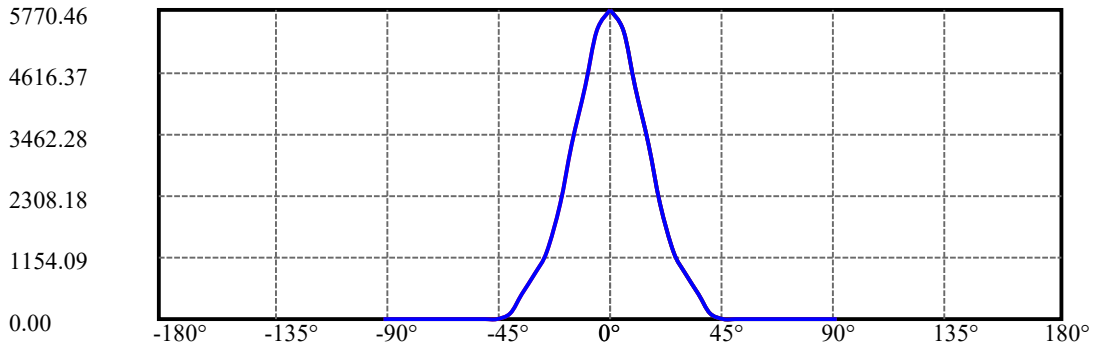
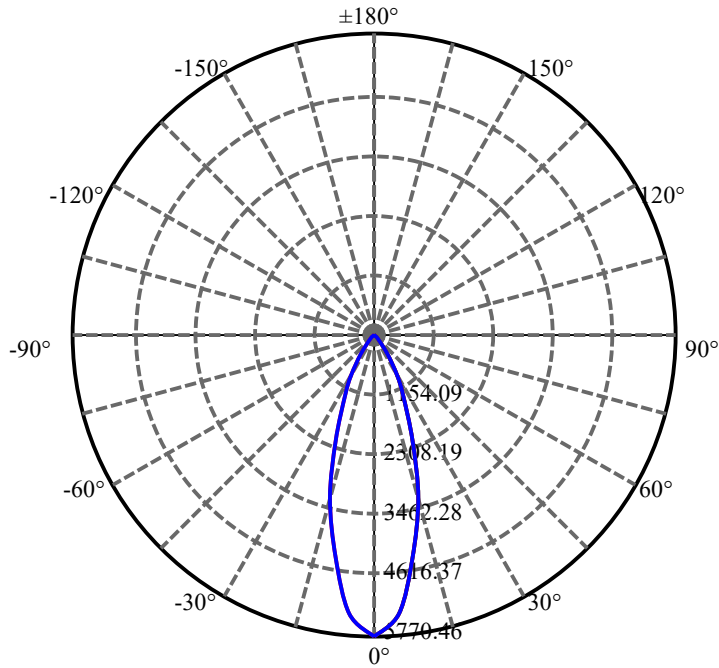
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5770.461	34.509	34.509	1.356%	1.477%
5.0	5365.246	256.316	290.824	10.070%	12.451%
10.0	4327.227	411.879	702.703	16.181%	30.084%
15.0	3247.226	460.679	1163.382	18.099%	49.806%
20.0	2162.271	405.370	1568.751	15.926%	67.160%
25.0	1265.664	293.195	1861.946	11.519%	79.712%
30.0	877.523	240.502	2102.448	9.449%	90.008%
35.0	466.438	146.647	2249.095	5.761%	96.287%
40.0	108.303	38.159	2287.254	1.499%	97.920%
45.0	13.152	5.097	2292.352	.200%	98.139%
50.0	11.569	4.858	2297.209	.191%	98.346%
55.0	10.867	4.879	2302.089	.192%	98.555%
60.0	10.474	4.972	2307.061	.195%	98.768%
65.0	10.213	5.074	2312.134	.199%	98.985%
70.0	10.027	5.165	2317.299	.203%	99.207%
75.0	9.890	5.236	2322.535	.206%	99.431%
80.0	9.807	5.294	2327.829	.208%	99.657%
85.0	9.773	5.336	2333.165	.210%	99.886%
90.0	9.731	2.667	2335.832	.105%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2102.45	82.60%	90.01%
0-40	2287.25	89.86%	97.92%
0-60	2307.06	90.64%	98.77%
0-90	2333.17	91.66%	99.89%
0-120	2333.17	91.66%	99.89%
0-180	2335.83	91.77%	100.00%
60-90	31.08	1.22%	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%
0-25.14	1868.67	73.41%	80.00%

ZONAL LUMEN SUMMARY

0-10	702.70
10-20	866.05
20-30	533.70
30-40	184.81
40-50	9.96
50-60	9.85
60-70	10.24
70-80	10.53
80-90	5.34
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



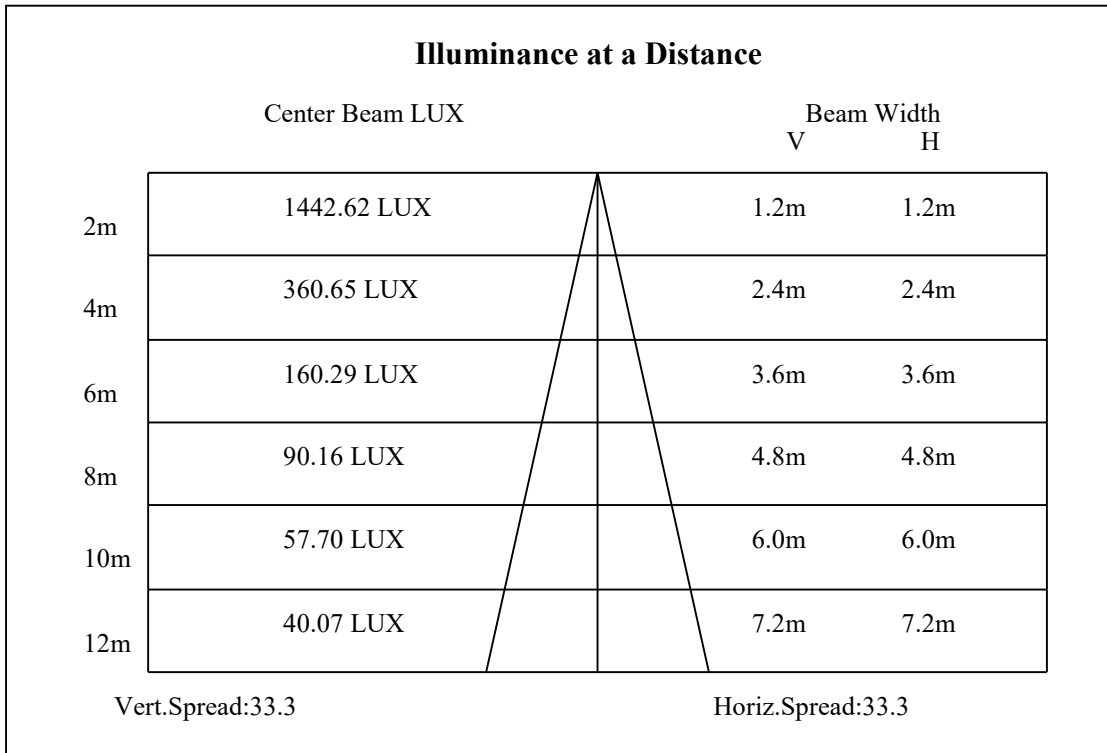
C0(Max): —————

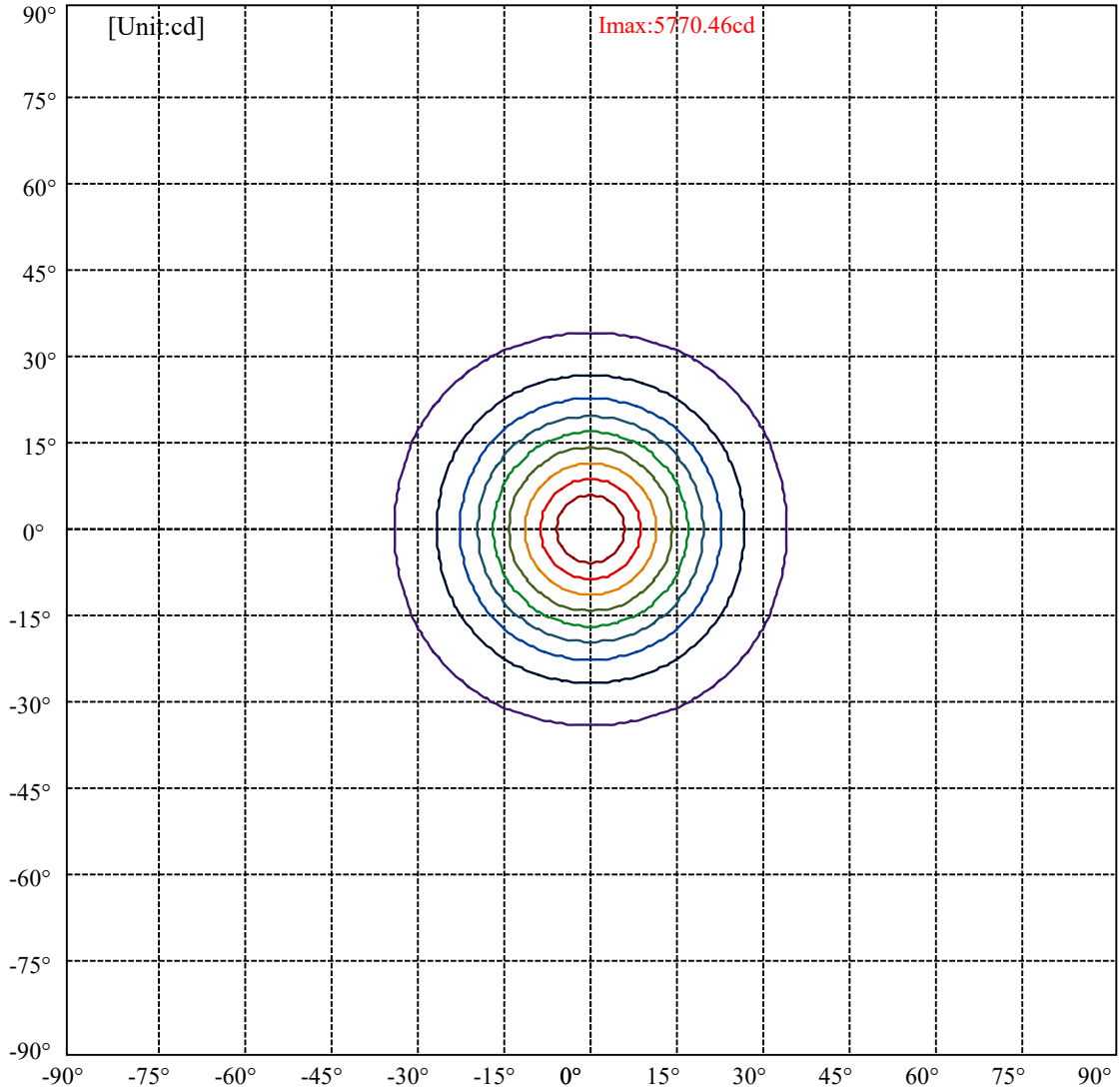
C0/C180: —————

C90/C270: —————

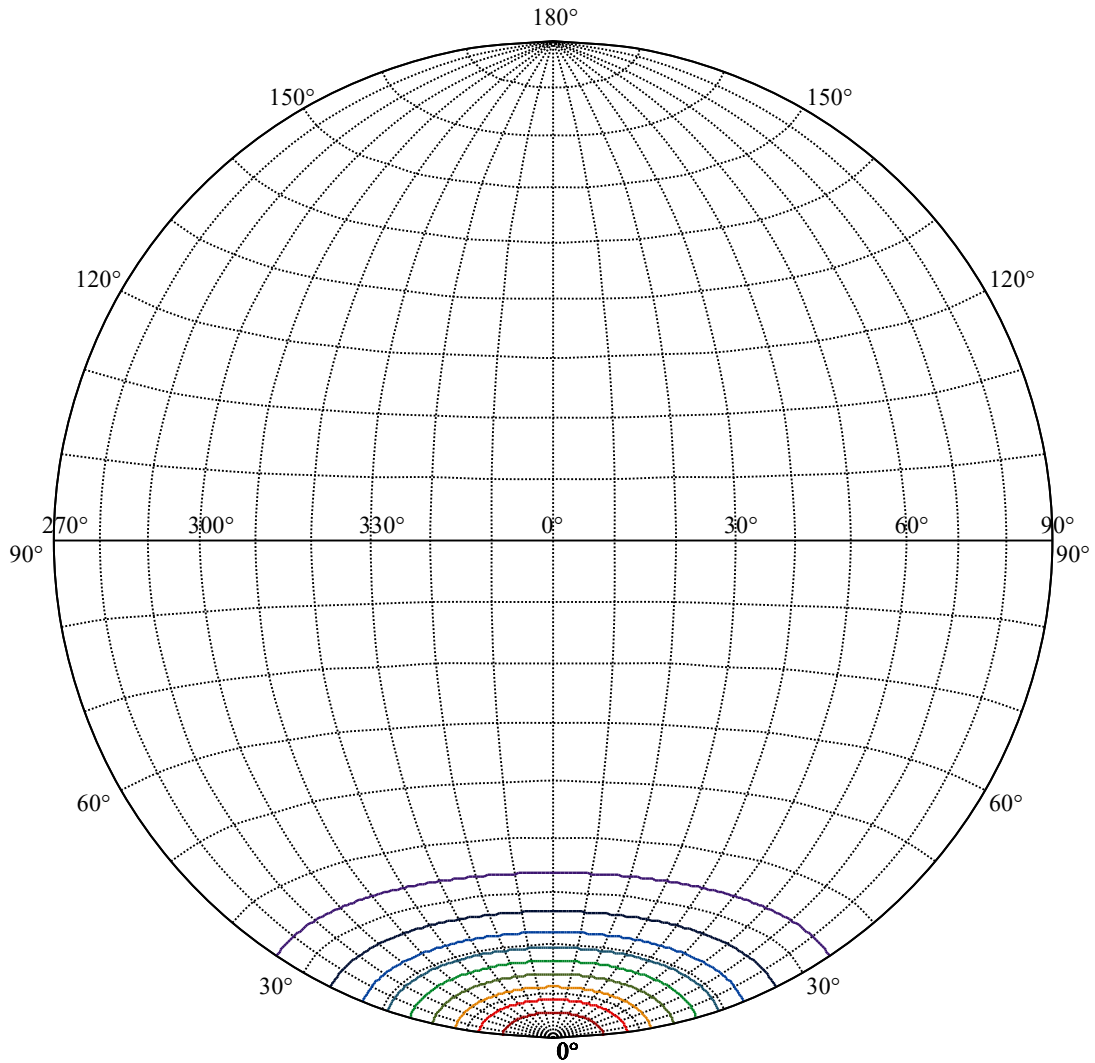
Field angle(10%Imax):C0/180Left:33.7 Right:33.7
:C90/270Left:33.7 Right:33.7

Beam Angle(50%Imax):C0/180Left:16.7 Right:16.7
:C90/270Left:16.7 Right:16.7





(10%Imax) 577.046	—
(20%Imax) 1154.09	—
(30%Imax) 1731.14	—
(40%Imax) 2308.18	—
(50%Imax) 2885.23	—
(60%Imax) 3462.28	—
(70%Imax) 4039.32	—
(80%Imax) 4616.37	—
(90%Imax) 5193.42	—



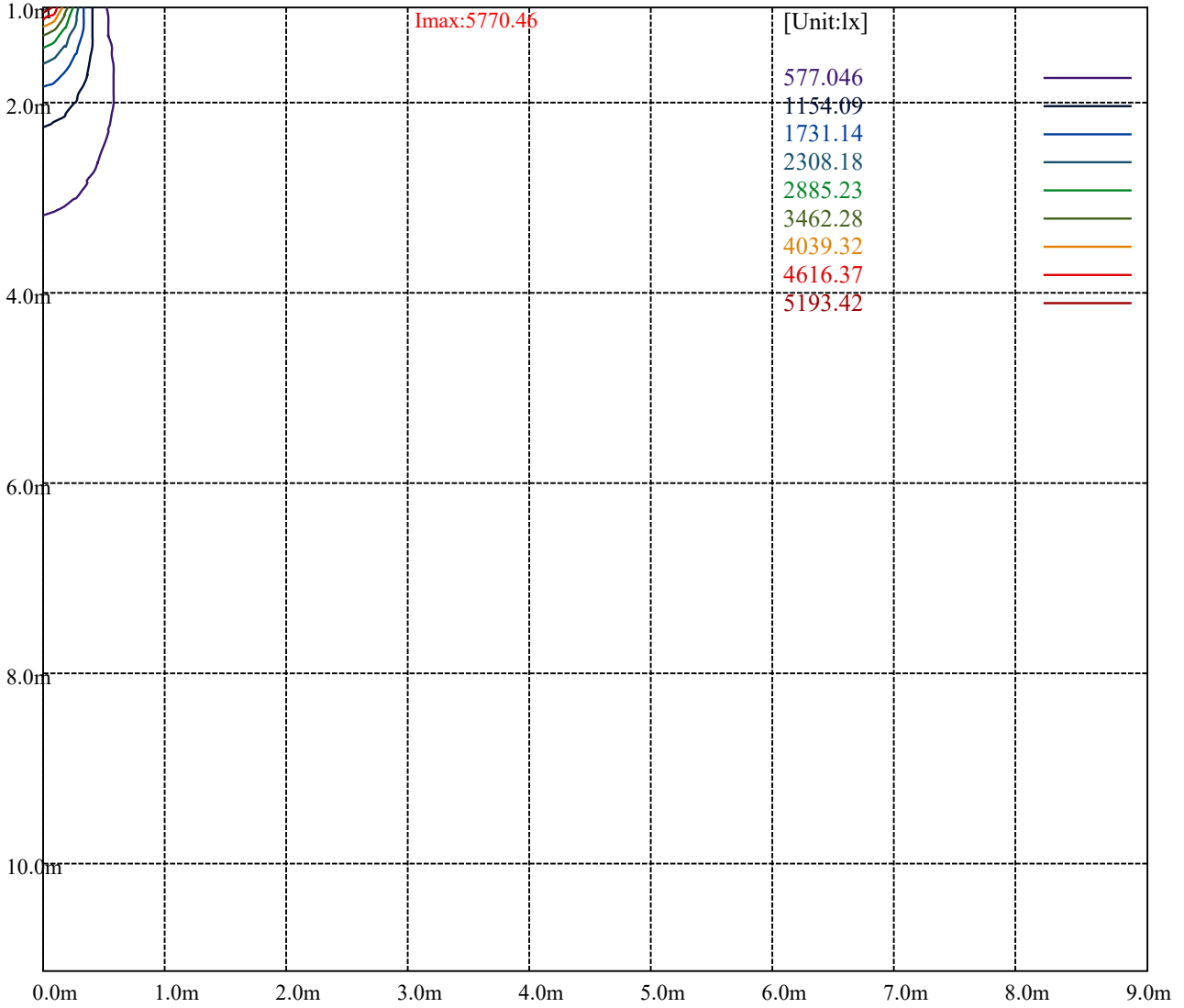
House

[Unit:cd]

Road

Imax:5770.46

(10%Imax) 577.046	—
(20%Imax) 1154.09	—
(30%Imax) 1731.14	—
(40%Imax) 2308.18	—
(50%Imax) 2885.23	—
(60%Imax) 3462.28	—
(70%Imax) 4039.32	—
(80%Imax) 4616.37	—
(90%Imax) 5193.42	—



Luminance Table

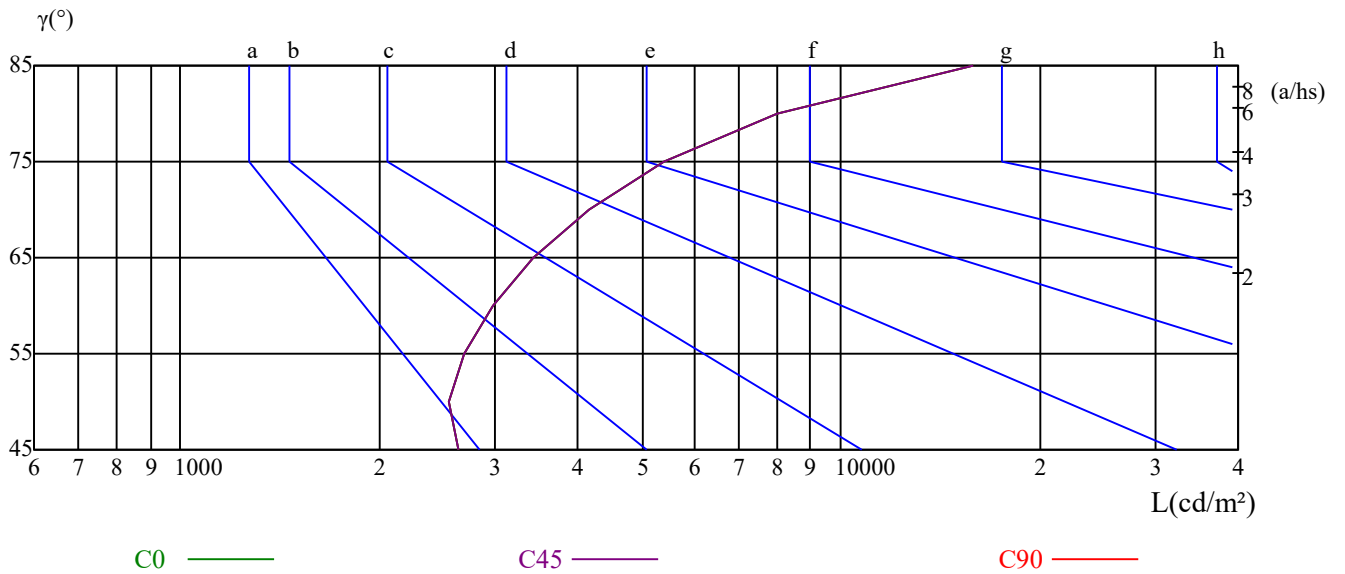
γ	45	50	55	60	65	70	75	80	85
C0	2636	2551	2685	2969	3425	4155	5415	8004	15891
C45	2636	2551	2685	2969	3425	4155	5415	8004	15891
C90	2636	2551	2685	2969	3425	4155	5415	8004	15891

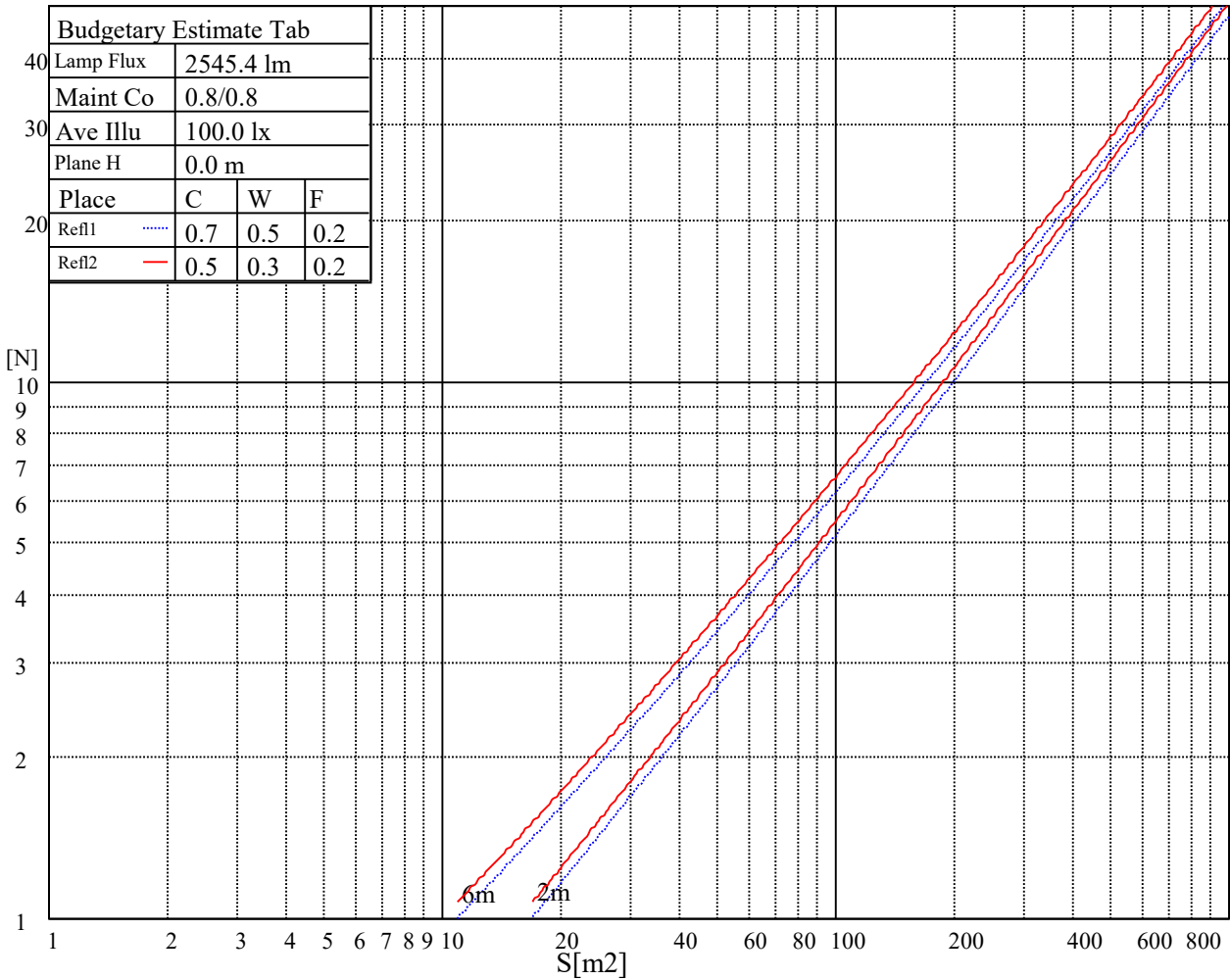
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3425	3425	3425	5415	5415	5415	15891	15891	15891

Glare Table

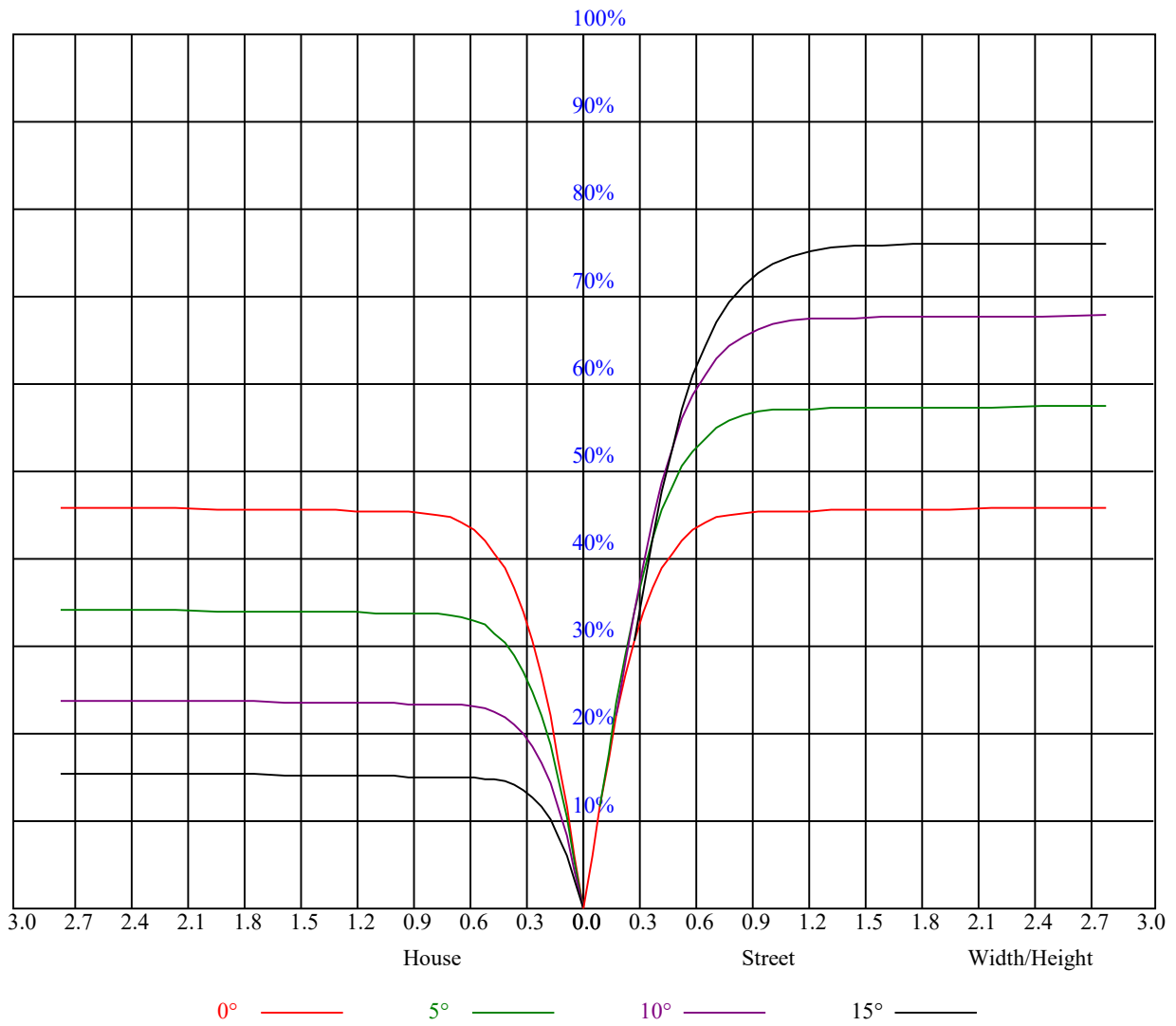
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

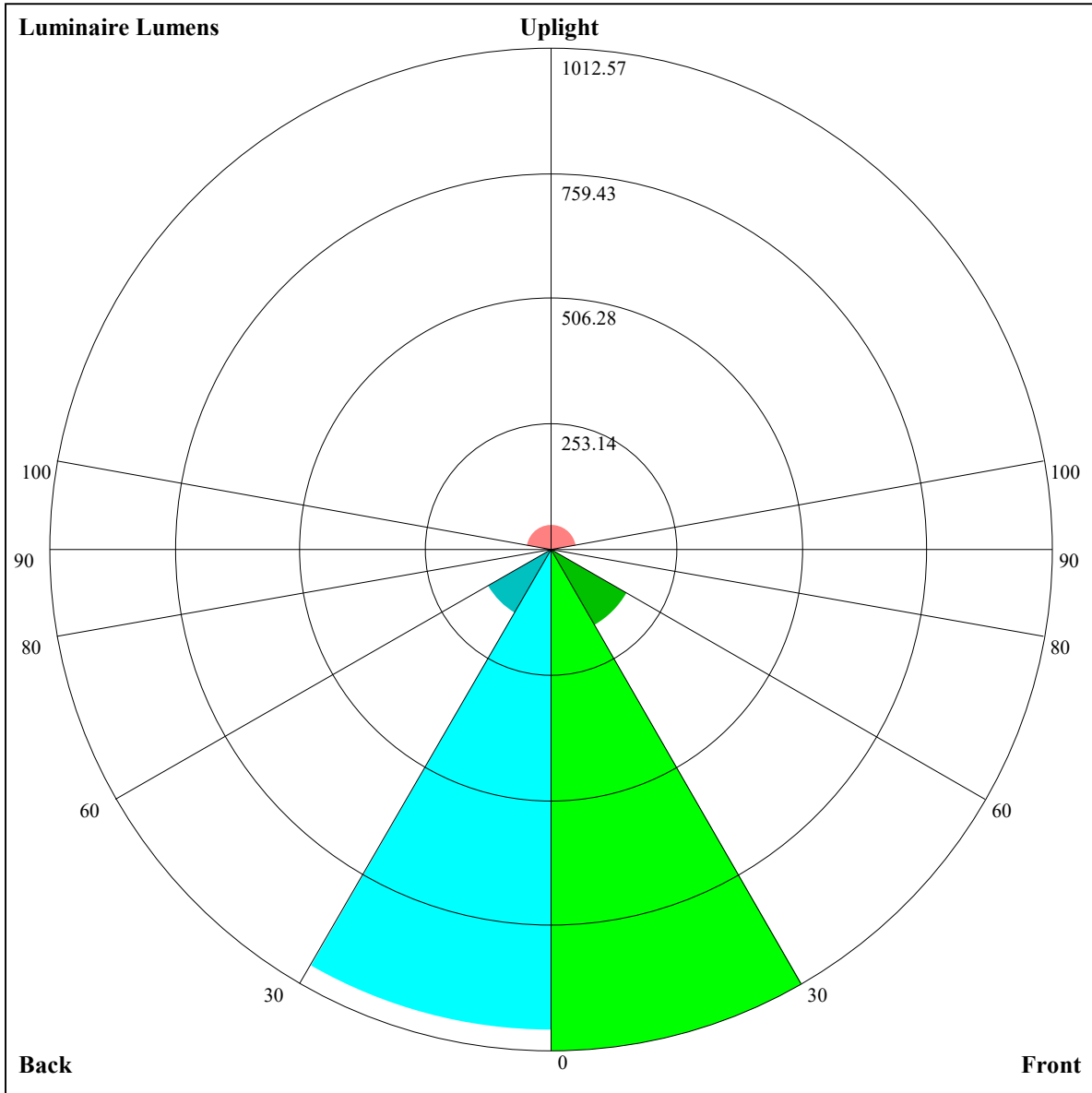
Luminance Limiting Curve





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	1.11	1.11	1.11	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.03	1.00	0.98	1.00	0.98	0.96	0.97	0.95	0.93	0.93	0.92	0.91	0.90	0.89	0.88	0.86
2	0.97	0.93	0.91	0.95	0.92	0.90	0.92	0.90	0.88	0.90	0.88	0.86	0.87	0.85	0.84	0.82
3	0.92	0.88	0.85	0.91	0.87	0.84	0.88	0.85	0.83	0.86	0.84	0.82	0.84	0.82	0.80	0.79
4	0.88	0.83	0.80	0.87	0.83	0.80	0.85	0.81	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.76
5	0.84	0.80	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
6	0.81	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.72	0.77	0.74	0.72	0.76	0.73	0.71	0.70
7	0.77	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.69	0.75	0.71	0.69	0.74	0.71	0.69	0.67
8	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.72	0.68	0.66	0.65
9	0.72	0.68	0.65	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.63
10	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.61





Luminaire Lumens:

FL=1012.57,FM=175.77,FH=10.33,FVH=5.33

BL=970.78,BM=147.58,BH=10.3,BVH=5.33

UL=10.62,UH=50.53

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	5767.16	5523.81	4492.05	3459.19	2425.78	1500.84	953.03	579.74	289.05
45.0	5757.80	5544.18	4543.80	3577.01	2450.56	1475.51	957.43	589.65	278.03
90.0	5785.33	5424.71	4353.86	3378.26	2232.54	1226.11	888.50	507.68	50.98
135.0	5771.56	5556.84	4612.63	3510.95	2278.78	1380.26	893.57	541.75	149.53
180.0	5767.16	5251.83	4152.35	3012.14	1900.55	1072.83	810.15	354.51	21.97
225.0	5757.80	5168.69	4120.42	2942.76	1902.20	1098.10	810.54	331.94	22.30
270.0	5785.33	5315.70	4237.14	3099.12	2080.58	1294.93	859.98	433.29	30.61
315.0	5771.56	5136.21	4105.56	2998.37	2027.18	1076.74	846.99	392.94	23.95
360.0	5767.16	5523.81	4492.05	3459.19	2425.78	1500.84	953.03	579.74	289.05
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	13.98	11.73	10.90	10.46	10.24	10.02	9.91	9.86	9.74
45.0	15.09	11.95	11.18	10.74	10.41	10.19	10.02	9.86	9.86
90.0	13.10	11.73	10.96	10.52	10.24	10.02	9.86	9.80	9.74
135.0	12.94	11.51	10.79	10.46	10.19	10.02	9.86	9.80	9.74
180.0	12.17	11.29	10.68	10.35	10.13	9.97	9.86	9.74	9.74
225.0	12.55	11.51	10.85	10.46	10.24	10.02	9.91	9.86	9.86
270.0	12.83	11.56	10.90	10.46	10.19	10.02	9.86	9.80	9.74
315.0	12.55	11.29	10.68	10.35	10.08	9.97	9.86	9.74	9.74
360.0	13.98	11.73	10.90	10.46	10.24	10.02	9.91	9.86	9.74
C/γ(°)	90.0								
0.0	9.74								
45.0	9.74								
90.0	9.74								
135.0	9.69								
180.0	9.69								
225.0	9.80								
270.0	9.74								
315.0	9.69								
360.0	9.74								