
Nata

Client:

LumCAT: 3-2035-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): 78

Phm Type: C

Voltage(V): 35.0000

Current(A): 0.6000

Power (W): 21.0000

PF: 0.0000

Ballast type: DC

Width(mm): 78

Height(mm): 0

Photometric Results

Lumens(lm): 2372.82, Efficiency(%): 93.22% , Luminous Efficacy(lm/W): 112.99

Central intensity(cd): 4118.356, Maximum intensity(cd): 4118.356

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=42.8

[C90/270]Total=42.8

Field angle(10%Imax): [C0/180]Total=74.0

[C90/270]Total=74.0

Maximum s/h(1/2): C0_180=0.68 C90_270=0.68

Maximum s/h(1/4): C0_180=0.71 C90_270=0.71

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 94.10%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.842%

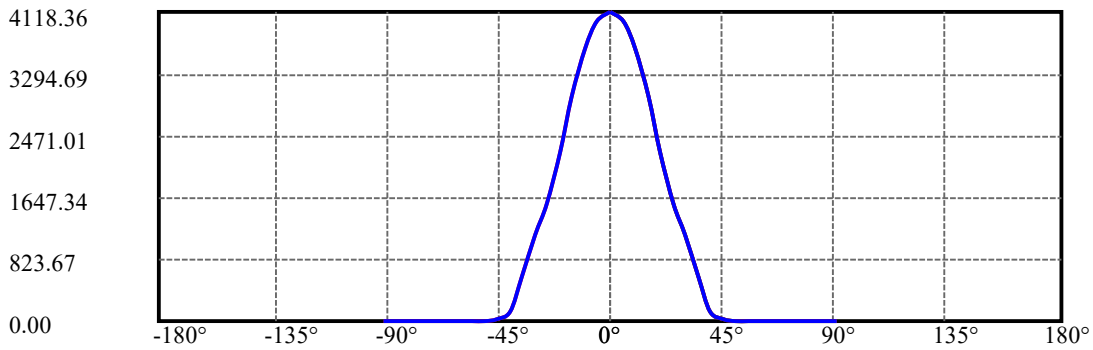
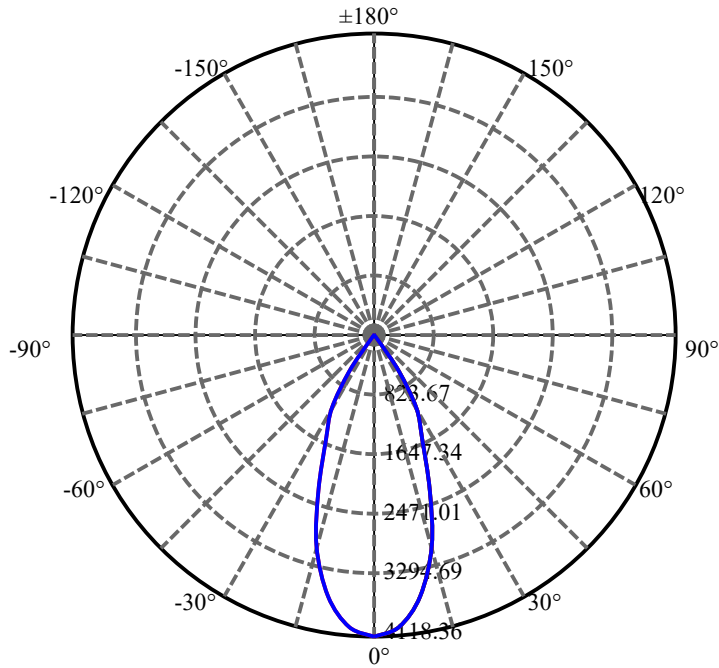
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4118.356	24.629	24.629	.968%	1.038%
5.0	3991.864	190.705	215.333	7.492%	9.075%
10.0	3626.634	345.194	560.527	13.562%	23.623%
15.0	2995.412	424.954	985.482	16.695%	41.532%
20.0	2260.272	423.742	1409.224	16.648%	59.390%
25.0	1559.954	361.368	1770.592	14.197%	74.620%
30.0	1144.746	313.739	2084.331	12.326%	87.842%
35.0	599.812	188.580	2272.911	7.409%	95.789%
40.0	139.774	49.248	2322.159	1.935%	97.865%
45.0	15.430	5.980	2328.139	.235%	98.117%
50.0	12.243	5.141	2333.28	.202%	98.334%
55.0	11.307	5.077	2338.357	.199%	98.548%
60.0	10.819	5.136	2343.492	.202%	98.764%
65.0	10.461	5.197	2348.689	.204%	98.983%
70.0	10.240	5.275	2353.964	.207%	99.205%
75.0	10.068	5.331	2359.295	.209%	99.430%
80.0	9.979	5.387	2364.681	.212%	99.657%
85.0	9.931	5.423	2370.104	.213%	99.886%
90.0	9.910	2.716	2372.82	.107%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2084.33	81.89%	87.84%
0-40	2322.16	91.23%	97.86%
0-60	2343.49	92.07%	98.76%
0-90	2370.10	93.11%	99.89%
0-120	2370.10	93.11%	99.89%
0-180	2372.82	93.22%	100.00%
60-90	31.75	1.25%	1.34%
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%
0-27.03	1898.26	74.58%	80.00%

ZONAL LUMEN SUMMARY

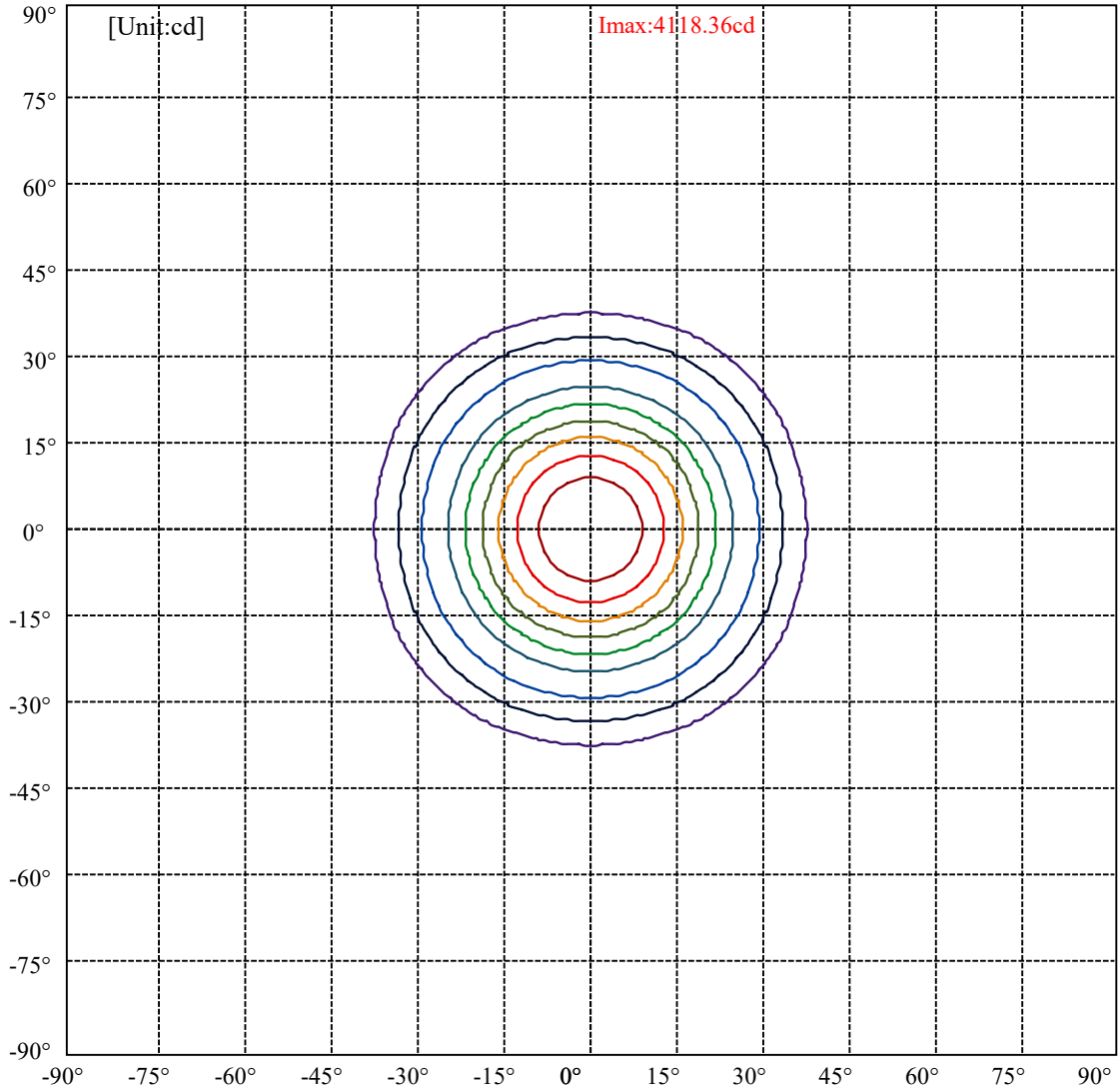
0-10	560.53
10-20	848.70
20-30	675.11
30-40	237.83
40-50	11.12
50-60	10.21
60-70	10.47
70-80	10.72
80-90	5.42
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



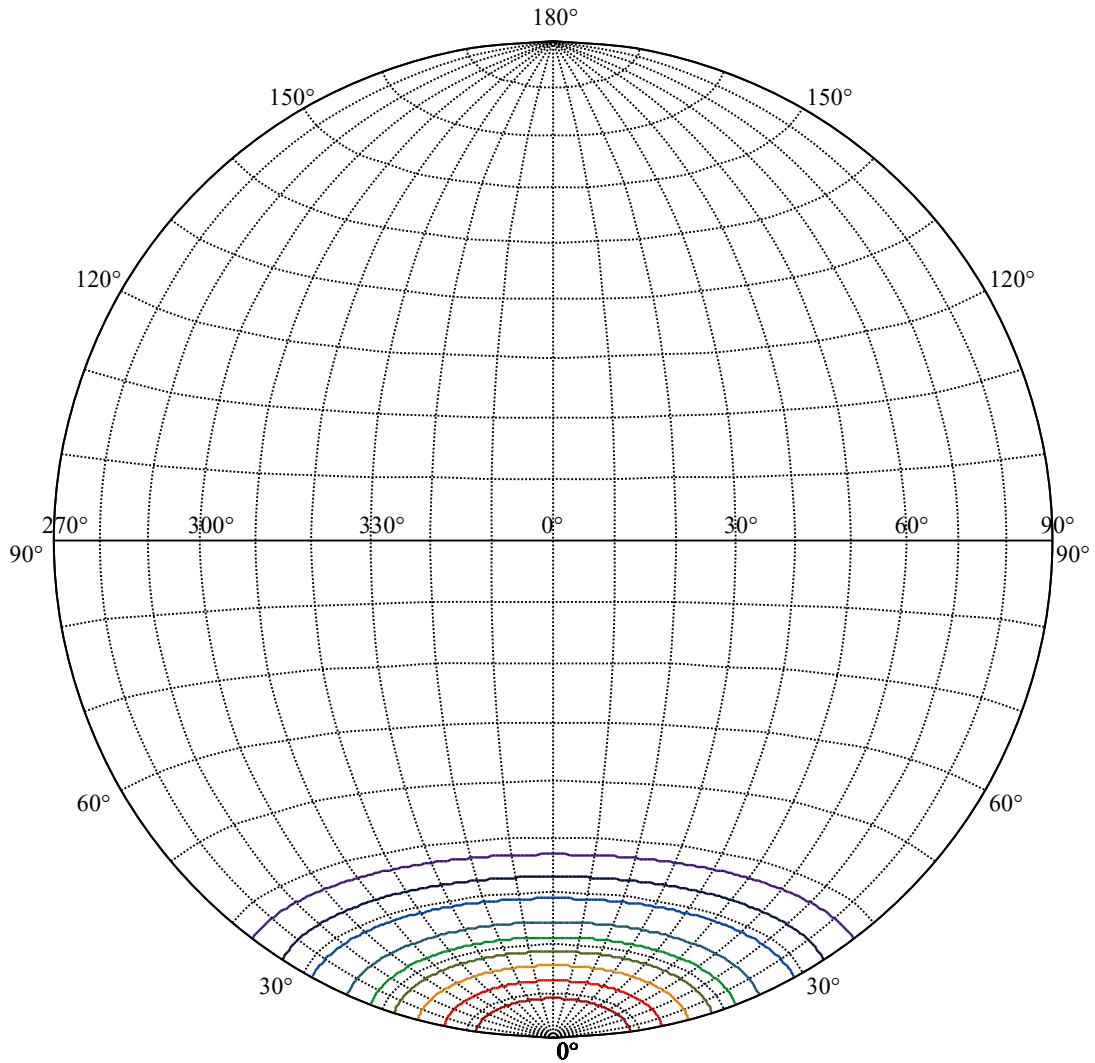
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:37.0 Right:37.0
:C90/270Left:37.0 Right:37.0

Beam Angle(50%Imax):C0/180Left:21.4 Right:21.4
:C90/270Left:21.4 Right:21.4



(10%Imax) 411.836	—
(20%Imax) 823.671	—
(30%Imax) 1235.51	—
(40%Imax) 1647.34	—
(50%Imax) 2059.18	—
(60%Imax) 2471.01	—
(70%Imax) 2882.85	—
(80%Imax) 3294.69	—
(90%Imax) 3706.52	—



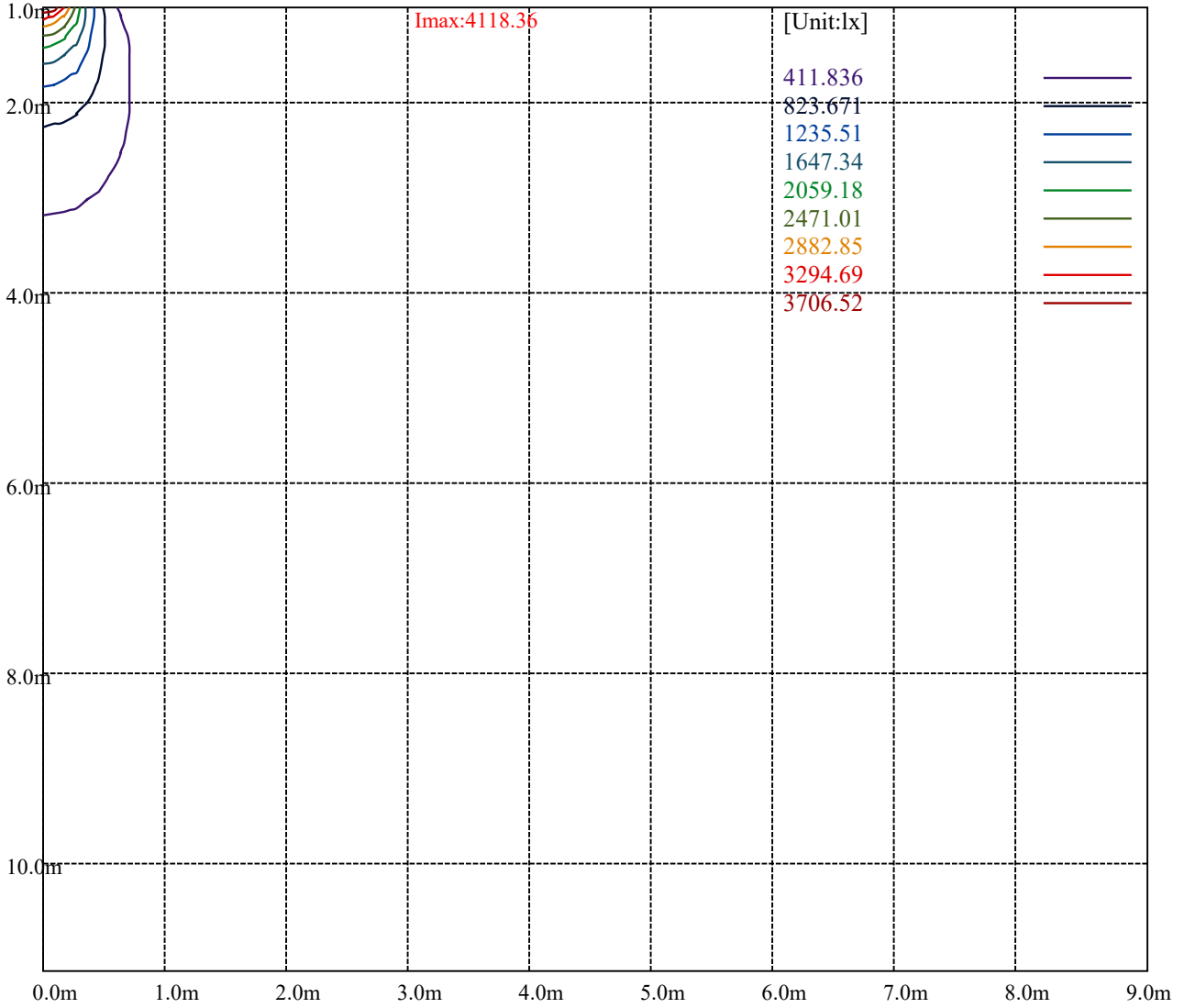
House

[Unit:cd]

Road

Imax:4118.36

(10%Imax) 411.836	—
(20%Imax) 823.671	—
(30%Imax) 1235.51	—
(40%Imax) 1647.34	—
(50%Imax) 2059.18	—
(60%Imax) 2471.01	—
(70%Imax) 2882.85	—
(80%Imax) 3294.69	—
(90%Imax) 3706.52	—



Luminance Table

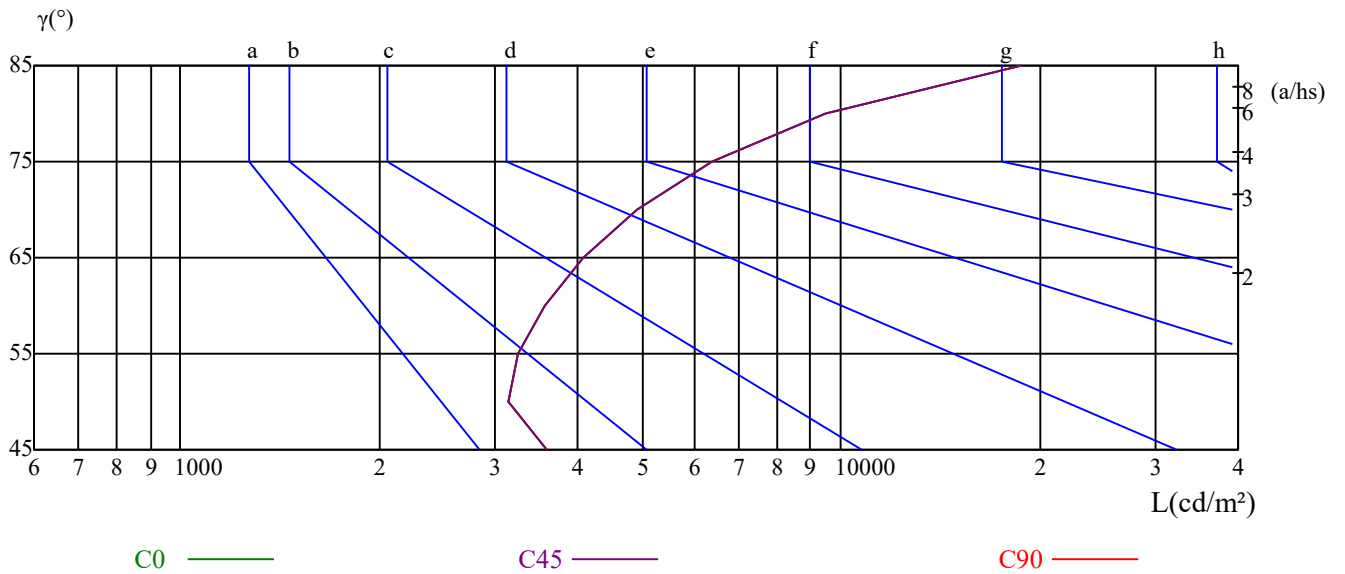
γ	45	50	55	60	65	70	75	80	85
C0	3587	3131	3240	3556	4068	4921	6394	9446	18728
C45	3587	3131	3240	3556	4068	4921	6394	9446	18728
C90	3587	3131	3240	3556	4068	4921	6394	9446	18728

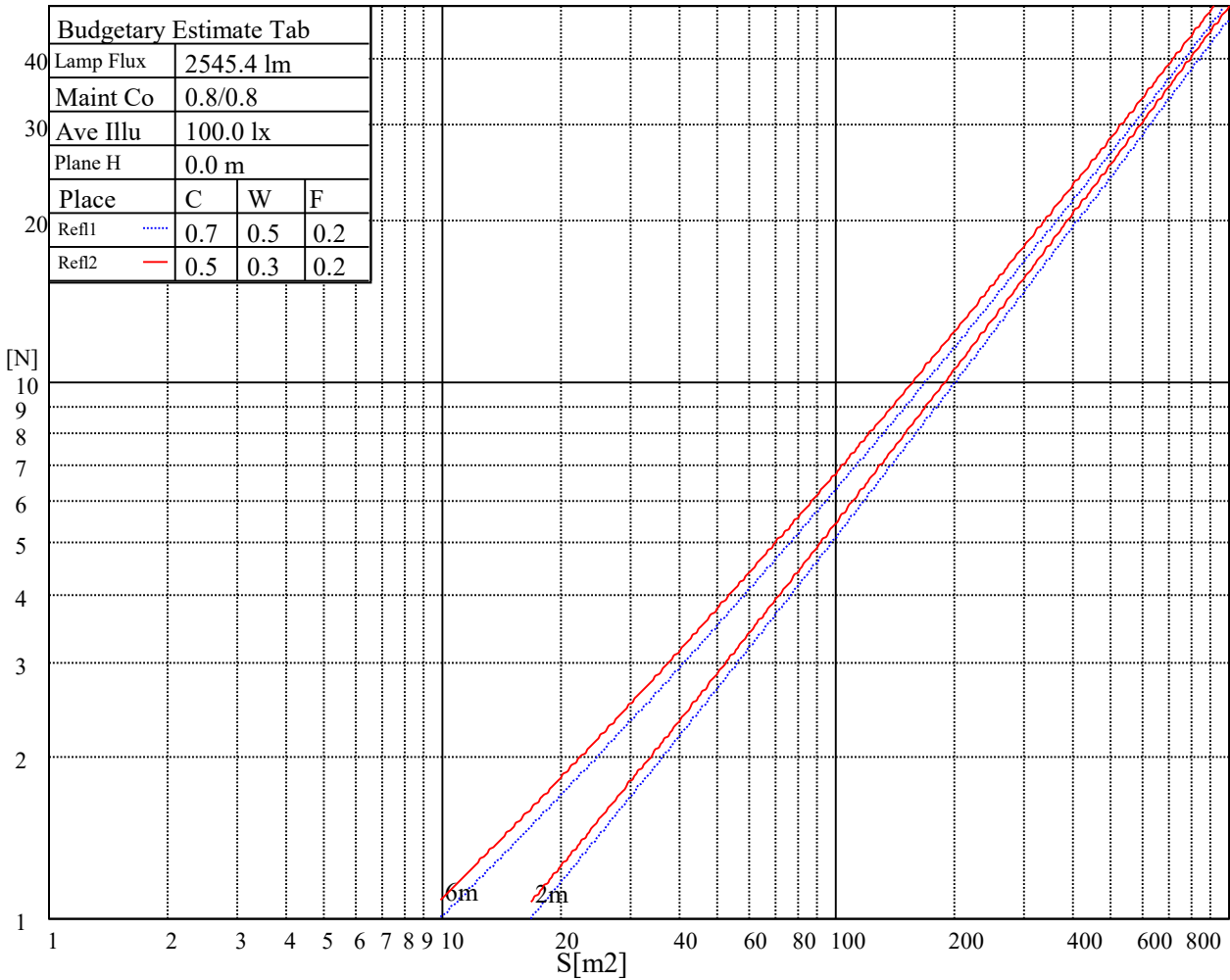
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4068	4068	4068	6394	6394	6394	18728	18728	18728

Glare Table

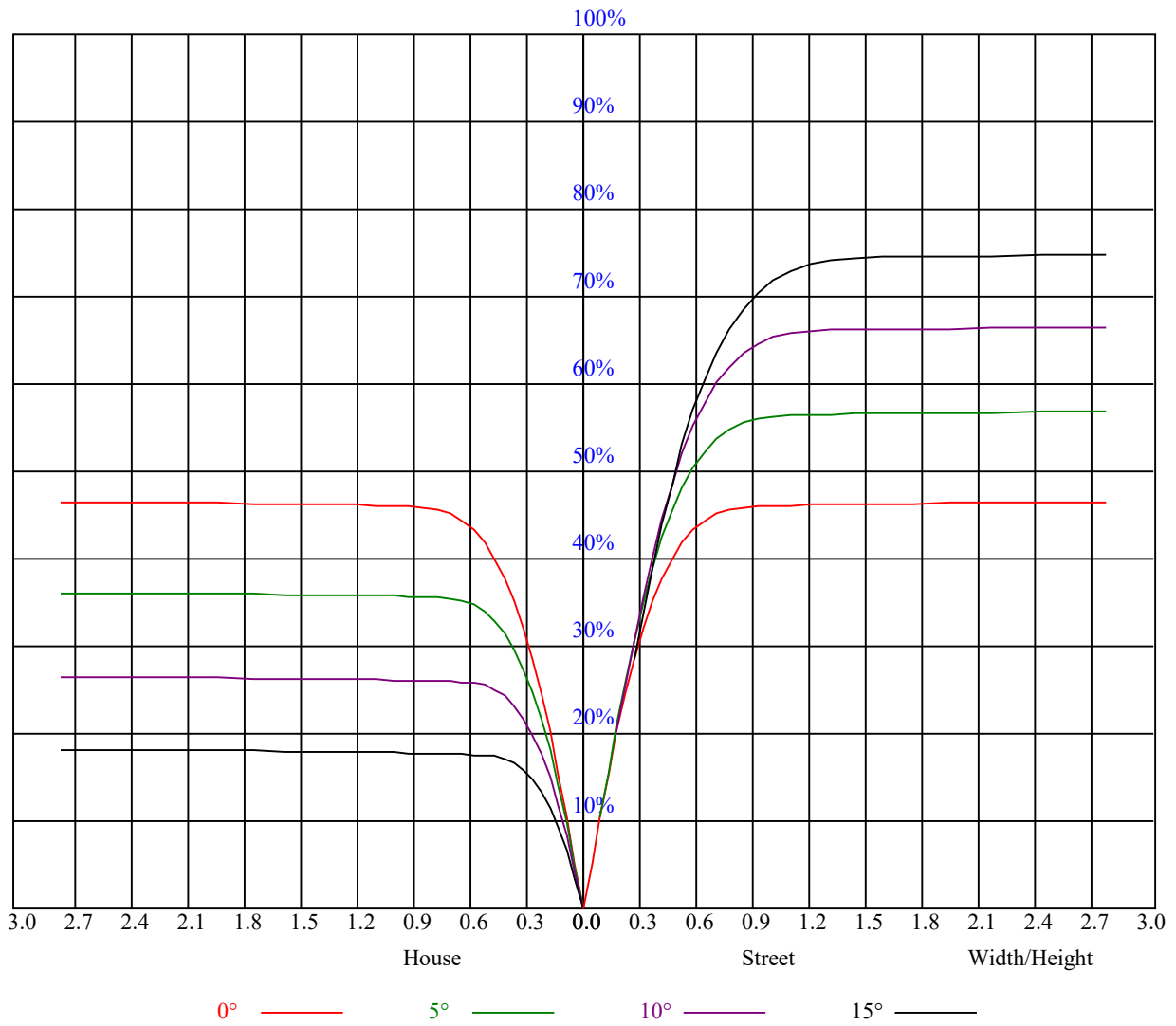
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

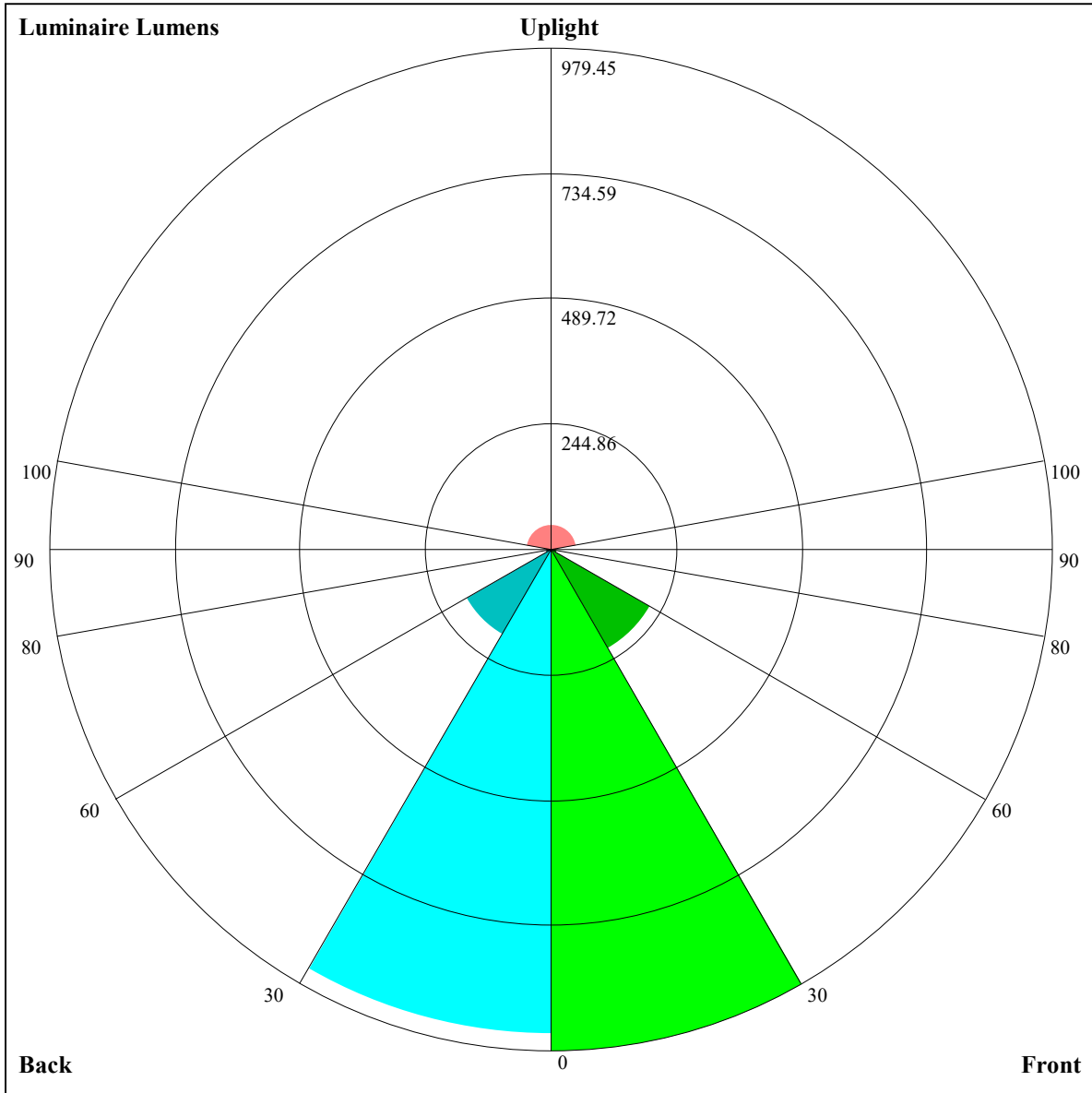
Luminance Limiting Curve





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	1.12	1.12	1.12	1.09	1.09	1.09	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.04	1.01	0.99	1.02	1.00	0.98	0.98	0.96	0.95	0.95	0.93	0.92	0.91	0.90	0.89	0.88
2	0.98	0.94	0.91	0.96	0.93	0.90	0.93	0.91	0.88	0.90	0.88	0.86	0.88	0.86	0.85	0.83
3	0.93	0.88	0.85	0.91	0.87	0.84	0.89	0.86	0.83	0.87	0.84	0.82	0.85	0.82	0.80	0.79
4	0.88	0.83	0.80	0.87	0.83	0.79	0.85	0.81	0.78	0.83	0.80	0.78	0.81	0.79	0.77	0.75
5	0.84	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.74	0.80	0.76	0.74	0.78	0.76	0.73	0.72
6	0.80	0.75	0.72	0.79	0.75	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.70	0.69
7	0.76	0.72	0.68	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.69	0.67	0.66
8	0.73	0.68	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.63
9	0.70	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.65	0.62	0.68	0.64	0.62	0.61
10	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.58





Luminaire Lumens:

FL=979.45,FM=222.99,FH=10.56,FVH=5.42

BL=945.54,BM=191.89,BH=10.51,BVH=5.42

UL=10.81,UH=51.45

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	4115.47	4063.71	3748.24	3145.92	2476.44	1685.28	1248.68	751.52	290.70
45.0	4112.71	4055.45	3744.94	3149.78	2491.85	1682.52	1242.62	820.34	295.10
90.0	4128.13	4020.22	3649.69	3032.51	2278.23	1584.52	1091.71	613.16	96.62
135.0	4120.97	4023.52	3721.81	3089.77	2355.86	1630.22	1207.39	663.98	282.99
180.0	4115.47	3918.91	3487.82	2857.98	2061.86	1435.87	1063.19	439.18	31.27
225.0	4105.01	3931.03	3491.68	2817.24	2062.41	1437.52	1047.06	437.37	31.00
270.0	4128.13	3969.02	3596.28	2973.05	2213.27	1534.42	1168.85	564.33	49.39
315.0	4120.97	3953.05	3572.61	2897.07	2142.24	1489.28	1088.47	508.61	41.13
360.0	4115.47	4063.71	3748.24	3145.92	2476.44	1685.28	1248.68	751.52	290.70
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	18.17	12.66	11.56	10.96	10.57	10.35	10.13	10.02	9.97
45.0	18.83	12.99	11.67	11.07	10.63	10.35	10.13	10.02	9.97
90.0	15.64	12.28	11.34	10.85	10.46	10.24	10.08	9.97	9.91
135.0	15.64	12.22	11.29	10.85	10.46	10.24	10.08	9.97	9.91
180.0	13.27	11.89	11.18	10.74	10.41	10.19	10.08	9.97	9.91
225.0	13.43	11.95	11.12	10.68	10.35	10.19	10.02	9.97	9.97
270.0	14.42	12.00	11.18	10.74	10.41	10.19	10.02	9.97	9.91
315.0	14.04	11.95	11.12	10.68	10.41	10.19	10.02	9.97	9.91
360.0	18.17	12.66	11.56	10.96	10.57	10.35	10.13	10.02	9.97
C/γ(°)	90.0								
0.0	9.91								
45.0	9.91								
90.0	9.91								
135.0	9.91								
180.0	9.91								
225.0	9.91								
270.0	9.91								
315.0	9.91								
360.0	9.91								