
Nata

Client:

LumCAT: 3-2044-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): 34.8000

Current(A): 0.6000

Power (W): 20.8800

PF: 0.0000

Ballast type: DC

Width(mm): 84

Height(mm): 0

Photometric Results

Lumens(lm): 2342.81, Efficiency(%): 92.04% , Luminous Efficacy(lm/W): 112.20

Central intensity(cd): 8223.705, Maximum intensity(cd): 8223.705

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=26.4

[C90/270]Total=26.4

Field angle(10%Imax): [C0/180]Total=57.8

[C90/270]Total=57.8

Maximum s/h(1/2): C0_180=0.45 C90_270=0.45

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(%): 93.89%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.844%

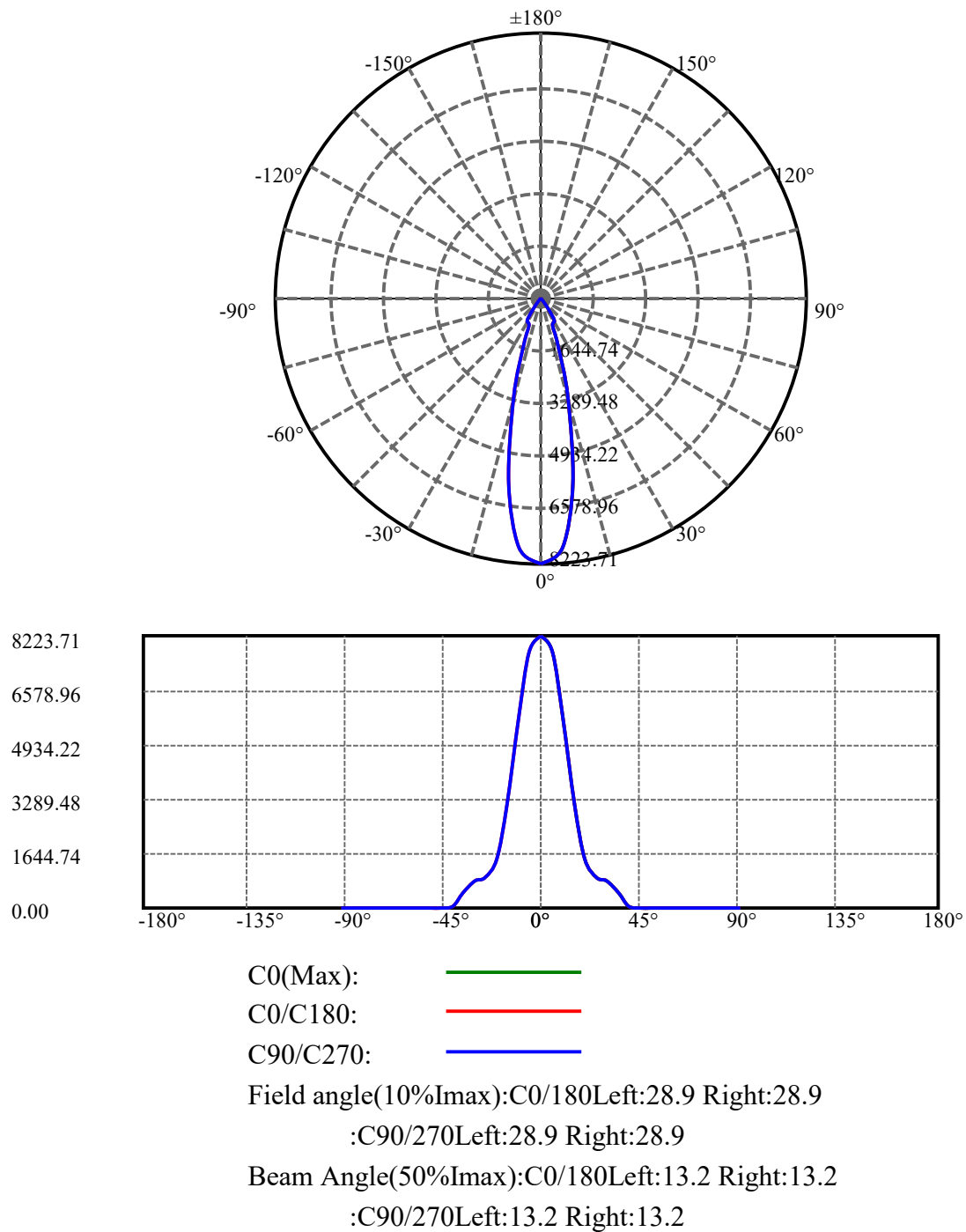
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8223.706	49.179	49.179	1.932%	2.099%
5.0	7715.810	368.610	417.789	14.482%	17.833%
10.0	5789.869	551.097	968.887	21.651%	41.356%
15.0	3137.527	445.116	1414.003	17.487%	60.355%
20.0	1480.625	277.579	1691.581	10.905%	72.203%
25.0	912.539	211.392	1902.974	8.305%	81.226%
30.0	796.467	218.287	2121.26	8.576%	90.543%
35.0	470.574	147.948	2269.208	5.812%	96.858%
40.0	74.271	26.168	2295.376	1.028%	97.975%
45.0	12.498	4.844	2300.22	.190%	98.182%
50.0	10.998	4.618	2304.838	.181%	98.379%
55.0	10.426	4.681	2309.52	.184%	98.579%
60.0	10.137	4.812	2314.332	.189%	98.785%
65.0	9.993	4.964	2319.296	.195%	98.996%
70.0	9.883	5.090	2324.386	.200%	99.214%
75.0	9.807	5.192	2329.579	.204%	99.435%
80.0	9.745	5.260	2334.839	.207%	99.660%
85.0	9.724	5.310	2340.149	.209%	99.886%
90.0	9.704	2.659	2342.809	.104%	100.000%

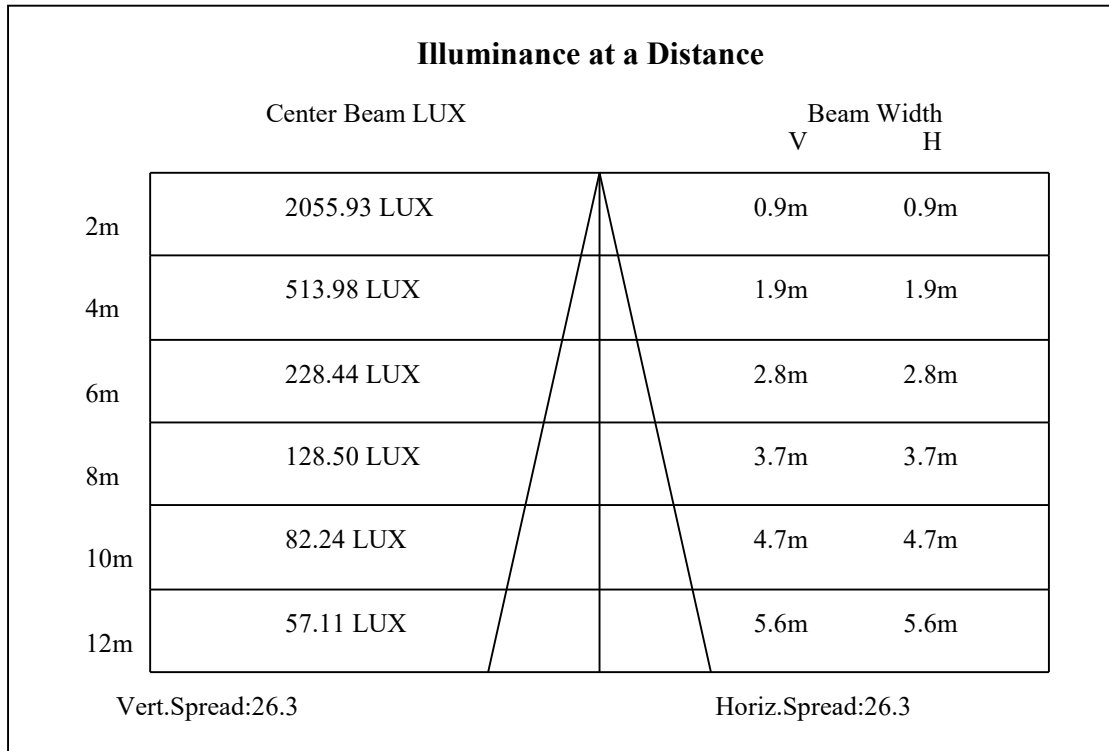
ZONAL LUMEN SUMMARY

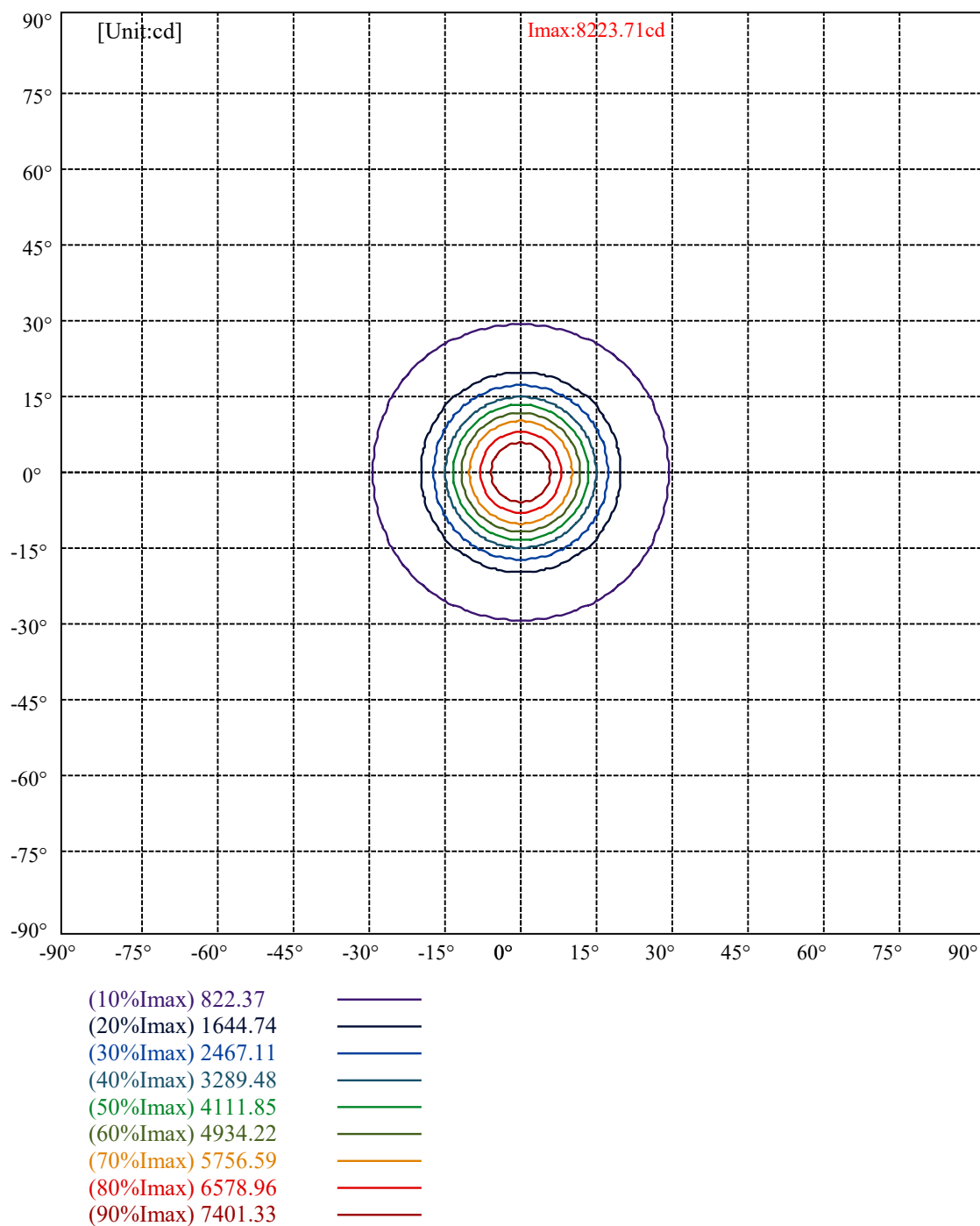
Zone	Lumens	%Lamp	%Fixt
0-30	2121.26	83.34%	90.54%
0-40	2295.38	90.18%	97.98%
0-60	2314.33	90.92%	98.78%
0-90	2340.15	91.94%	99.89%
0-120	2340.15	91.94%	99.89%
0-180	2342.81	92.04%	100.00%
60-90	30.63	1.20%	1.31%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-24.32	1874.25	73.63%	80.00%

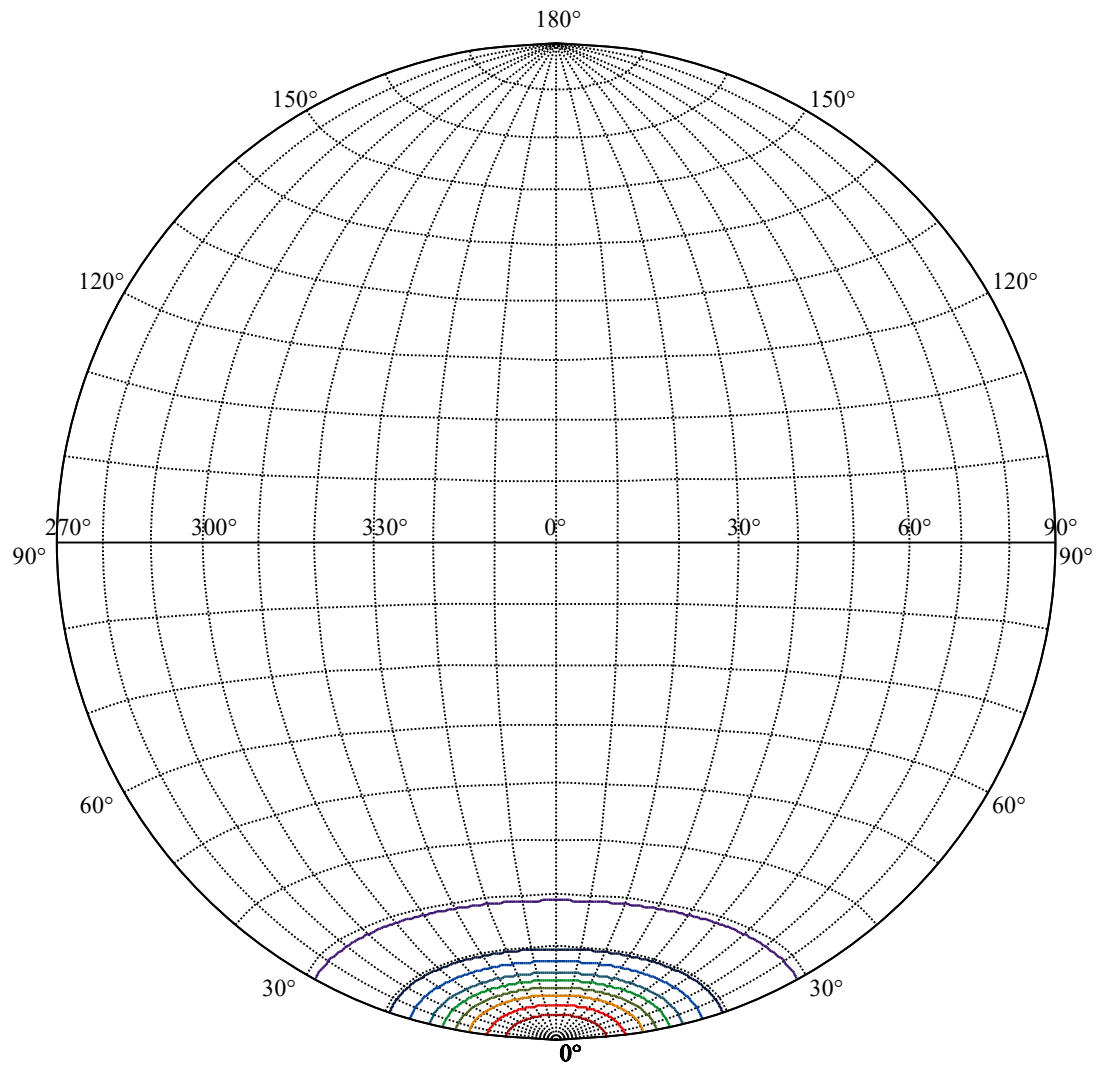
ZONAL LUMEN SUMMARY

0-10	968.89
10-20	722.69
20-30	429.68
30-40	174.12
40-50	9.46
50-60	9.49
60-70	10.05
70-80	10.45
80-90	5.31
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







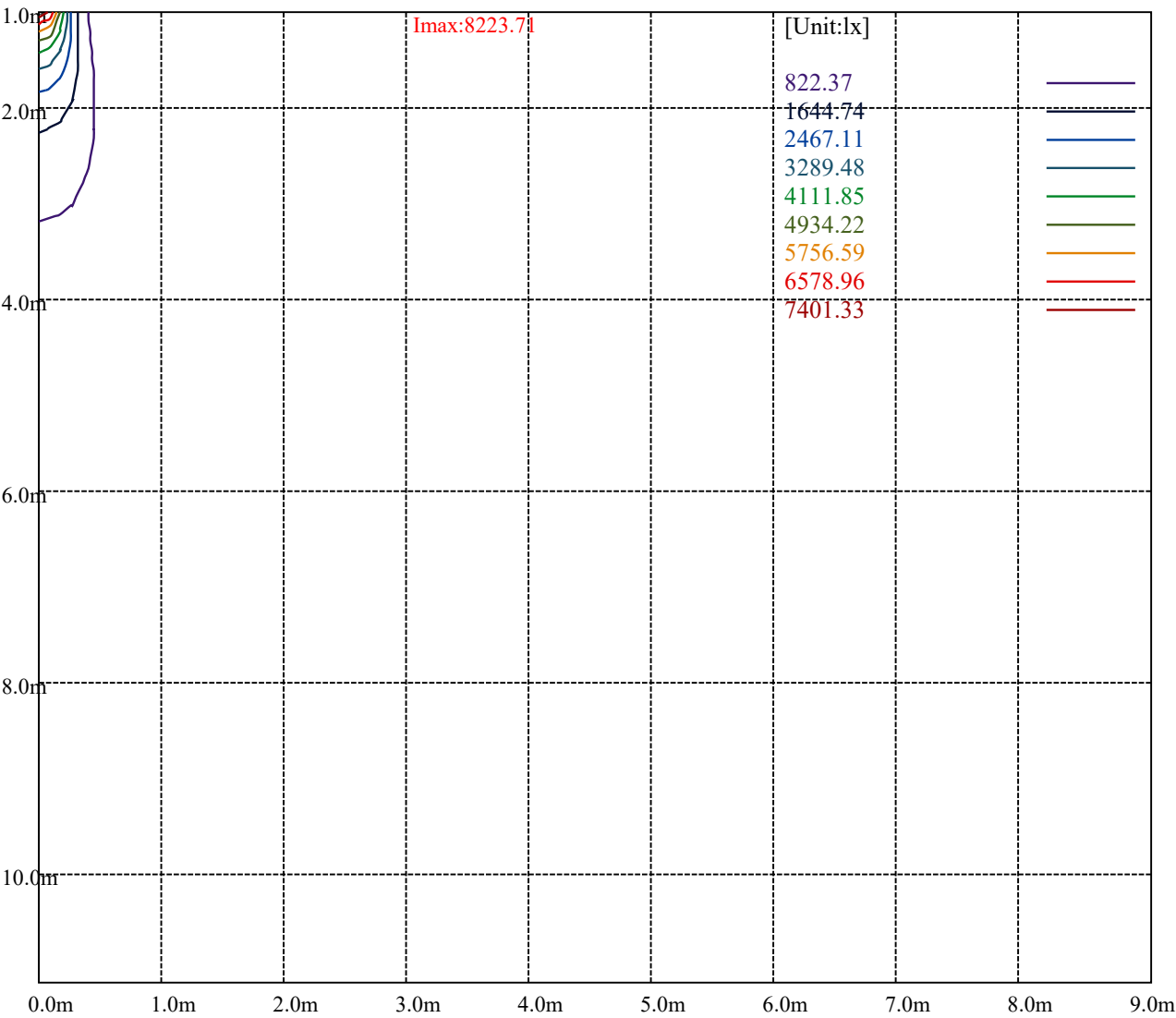


House

[Unit:cd]

Road

Imax:8223.71	
(10%Imax) 822.37	_____
(20%Imax) 1644.74	_____
(30%Imax) 2467.11	_____
(40%Imax) 3289.48	_____
(50%Imax) 4111.85	_____
(60%Imax) 4934.22	_____
(70%Imax) 5756.59	_____
(80%Imax) 6578.96	_____
(90%Imax) 7401.33	_____



Luminance Table

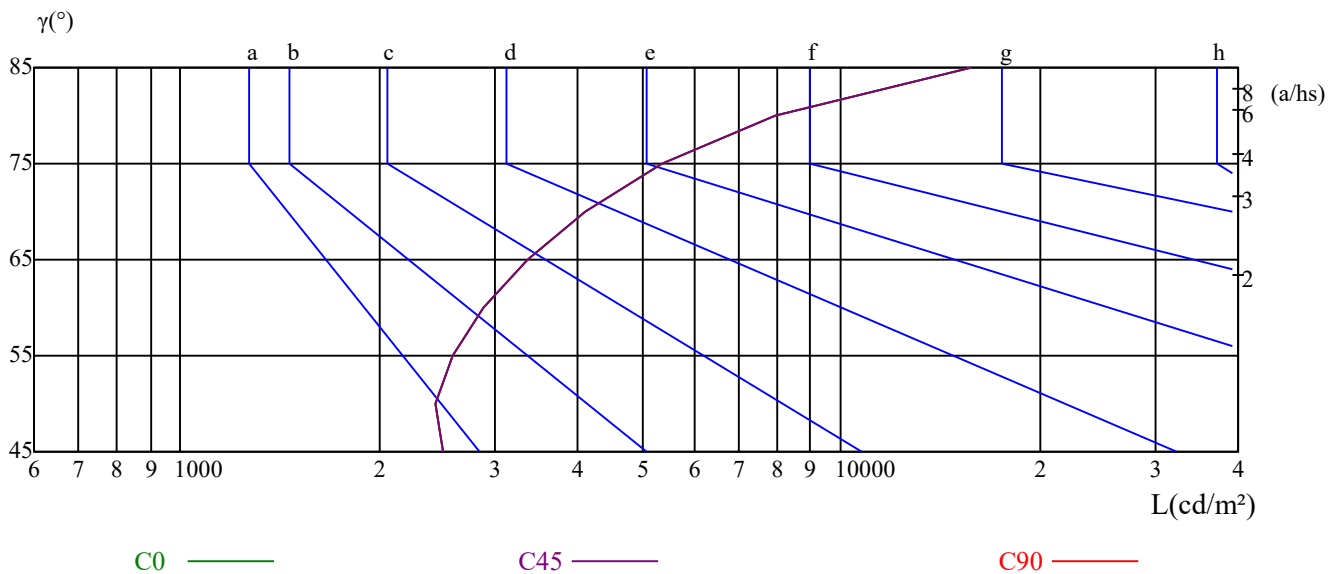
γ	45	50	55	60	65	70	75	80	85
C0	2505	2425	2576	2873	3351	4095	5370	7953	15813
C45	2505	2425	2576	2873	3351	4095	5370	7953	15813
C90	2505	2425	2576	2873	3351	4095	5370	7953	15813

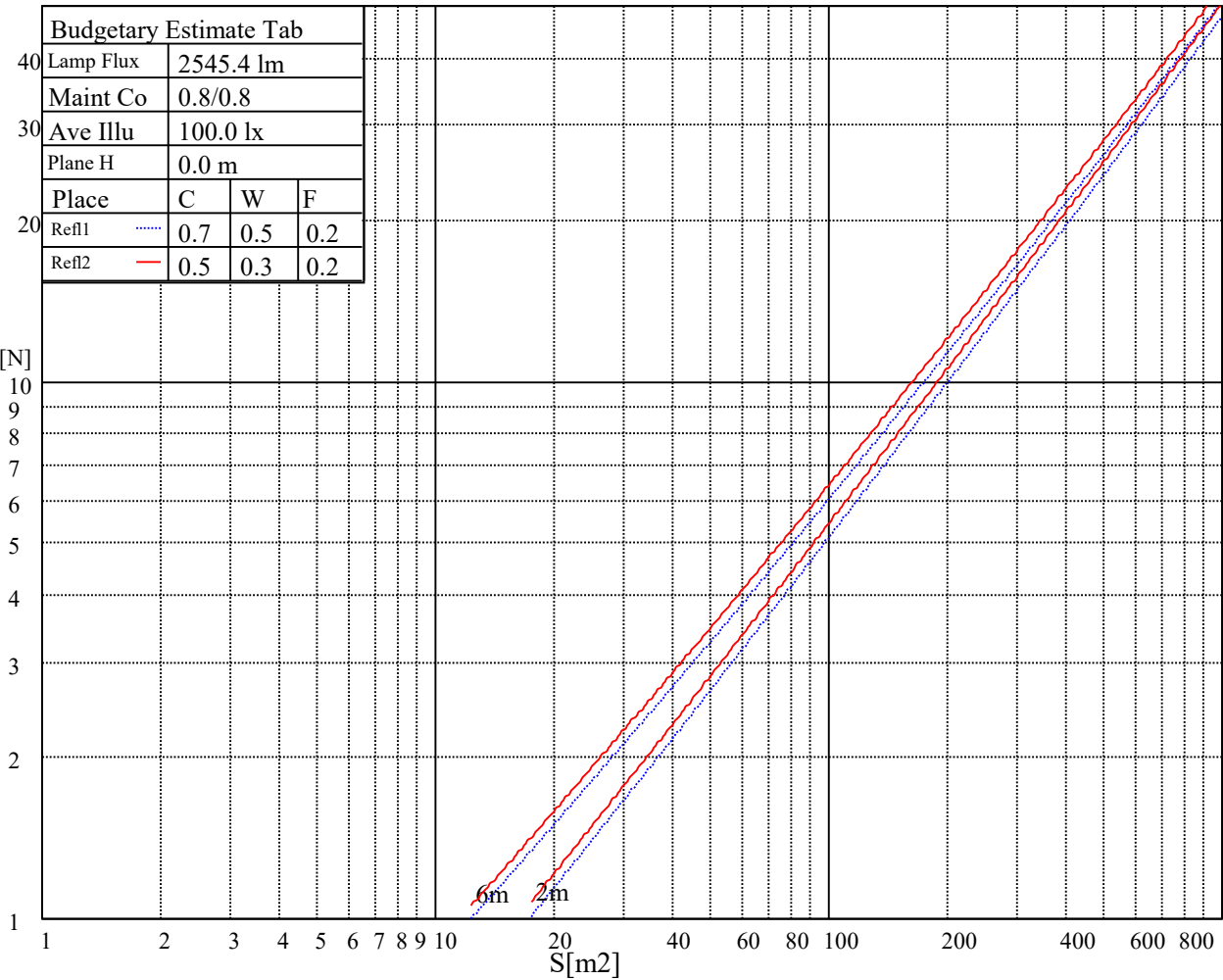
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3351	3351	3351	5370	5370	5370	15813	15813	15813

Glare Table

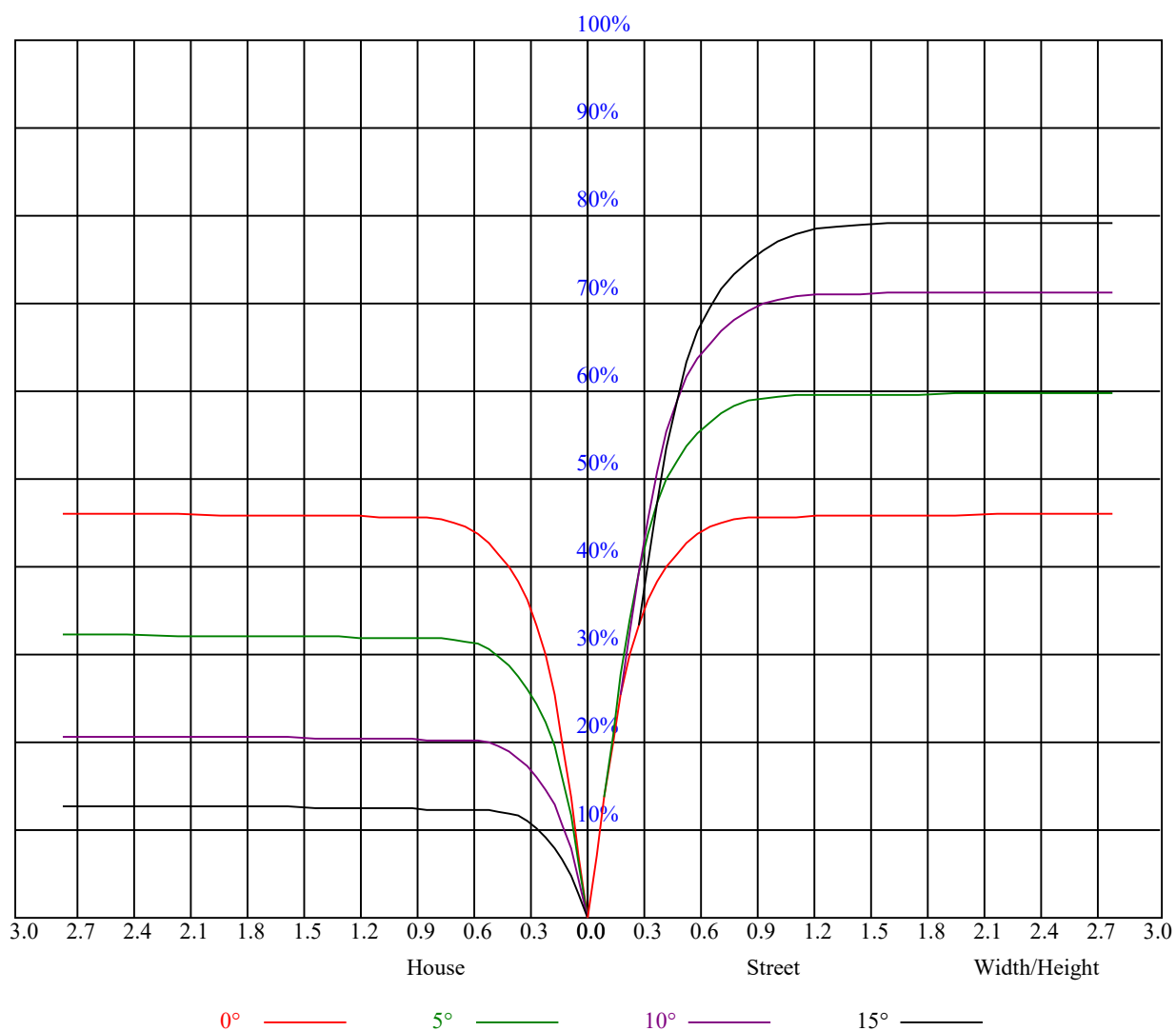
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

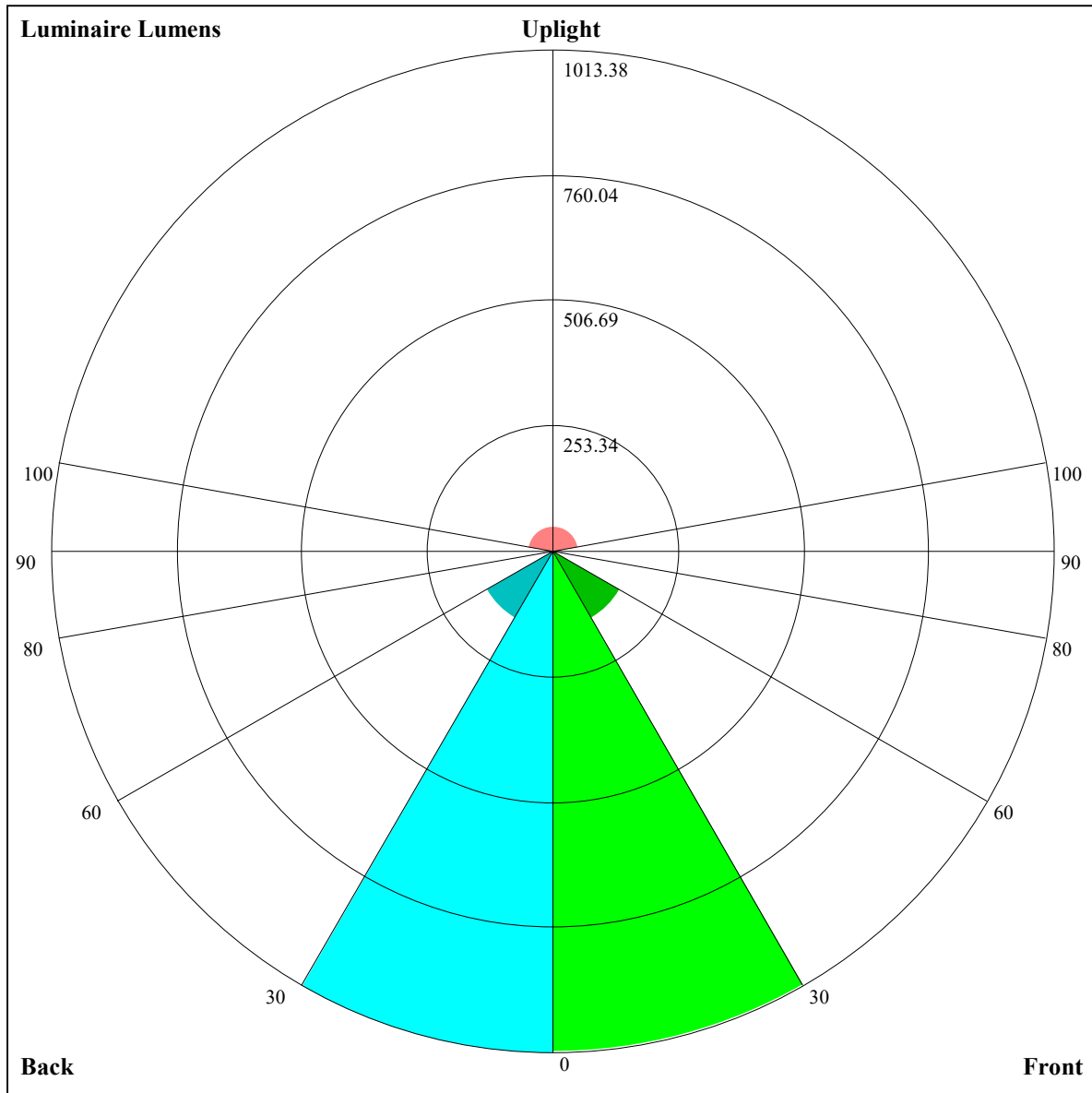
Luminance Limiting Curve





RHOC	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	1.04	1.04	1.04	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.03	1.01	0.98	1.01	0.99	0.97	0.97	0.95	0.94	0.94	0.92	0.91	0.90	0.89	0.88	0.86
2	0.98	0.94	0.91	0.96	0.93	0.90	0.93	0.91	0.88	0.91	0.88	0.87	0.88	0.86	0.85	0.83
3	0.93	0.89	0.86	0.92	0.88	0.85	0.90	0.87	0.84	0.88	0.85	0.83	0.85	0.83	0.82	0.80
4	0.90	0.85	0.82	0.88	0.85	0.81	0.87	0.83	0.81	0.85	0.82	0.80	0.83	0.81	0.79	0.78
5	0.86	0.82	0.78	0.85	0.81	0.78	0.84	0.80	0.77	0.82	0.79	0.77	0.81	0.78	0.76	0.75
6	0.83	0.79	0.75	0.82	0.78	0.75	0.81	0.77	0.75	0.80	0.77	0.74	0.79	0.76	0.74	0.73
7	0.80	0.76	0.73	0.80	0.75	0.73	0.79	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.72	0.70
8	0.78	0.73	0.70	0.77	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.70	0.75	0.72	0.69	0.68
9	0.75	0.71	0.68	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.68	0.73	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=1011.21,FM=155.2,FH=10.16,FVH=5.31

BL=1013.38,BM=155.14,BH=10.16,BVH=5.31

UL=10.59,UH=50.38

BUG Rating:B3-U2-G0

Intensity data(cd)									Appendix Page: 15 Total:15	
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	
0.0	8203.95	7798.74	5947.19	3214.74	1553.69	922.75	812.08	532.40	54.34	
45.0	8243.04	7530.06	5341.57	2872.84	1294.38	870.44	783.45	378.24	23.23	
90.0	8216.07	7225.05	4830.65	2290.35	1079.82	843.19	746.95	256.12	19.77	
135.0	8229.83	7661.10	5665.30	2915.79	1381.92	888.06	788.96	415.68	30.50	
180.0	8207.81	7672.66	5548.03	2870.09	1265.20	887.67	783.89	425.31	29.40	
225.0	8243.04	7961.16	6220.27	3496.63	1734.83	957.93	810.15	570.99	87.54	
270.0	8216.07	8059.71	6884.80	4157.31	1996.35	1015.24	835.21	671.14	298.96	
315.0	8229.83	7818.01	5881.12	3282.46	1538.83	915.04	811.04	514.72	50.43	
360.0	8203.95	7798.74	5947.19	3214.74	1553.69	922.75	812.08	532.40	54.34	
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	
0.0	12.28	11.07	10.41	10.13	9.97	9.86	9.80	9.74	9.74	
45.0	11.62	10.85	10.30	10.08	9.97	9.86	9.80	9.69	9.69	
90.0	11.45	10.68	10.30	10.08	9.97	9.86	9.80	9.74	9.74	
135.0	11.89	10.96	10.46	10.19	10.02	9.91	9.86	9.80	9.74	
180.0	11.73	10.85	10.35	10.08	9.97	9.86	9.80	9.69	9.69	
225.0	13.32	11.01	10.46	10.13	9.97	9.86	9.74	9.69	9.69	
270.0	15.31	11.40	10.63	10.24	10.08	9.97	9.86	9.80	9.74	
315.0	12.39	11.18	10.52	10.19	10.02	9.91	9.80	9.80	9.74	
360.0	12.28	11.07	10.41	10.13	9.97	9.86	9.80	9.74	9.74	
C/γ(°)	90.0									
0.0	9.69									
45.0	9.69									
90.0	9.69									
135.0	9.74									
180.0	9.69									
225.0	9.69									
270.0	9.74									
315.0	9.69									
360.0	9.69									