
Nata

Client:

LumCAT: 3-2116-N

Luminaire: 92.70.131.00

Report No: nata-0100

Test No:

LampCAT: CREE CMT1922

Lamp flux(lm): 2807.4

Number of Lamps: 1

Length(mm): 80

Phm Type: C

Voltage(V): 35.6000

Current(A): 0.6000

Power (W): 21.3600

PF: 1.0000

Ballast type: DC

Width(mm): 80

Height(mm): 0

Photometric Results

Lumens(lm): 2418.99, Efficiency(%): 86.17% , Luminous Efficacy(lm/W): 113.25

Central intensity(cd): 8827.055, Maximum intensity(cd): 8827.055

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=26.0

[C90/270]Total=26.0

Field angle(10%Imax): [C0/180]Total=54.4

[C90/270]Total=54.4

Maximum s/h(1/2): C0_180=0.44 C90_270=0.44

Maximum s/h(1/4): C0_180=0.45 C90_270=0.45

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 87.96%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.253%

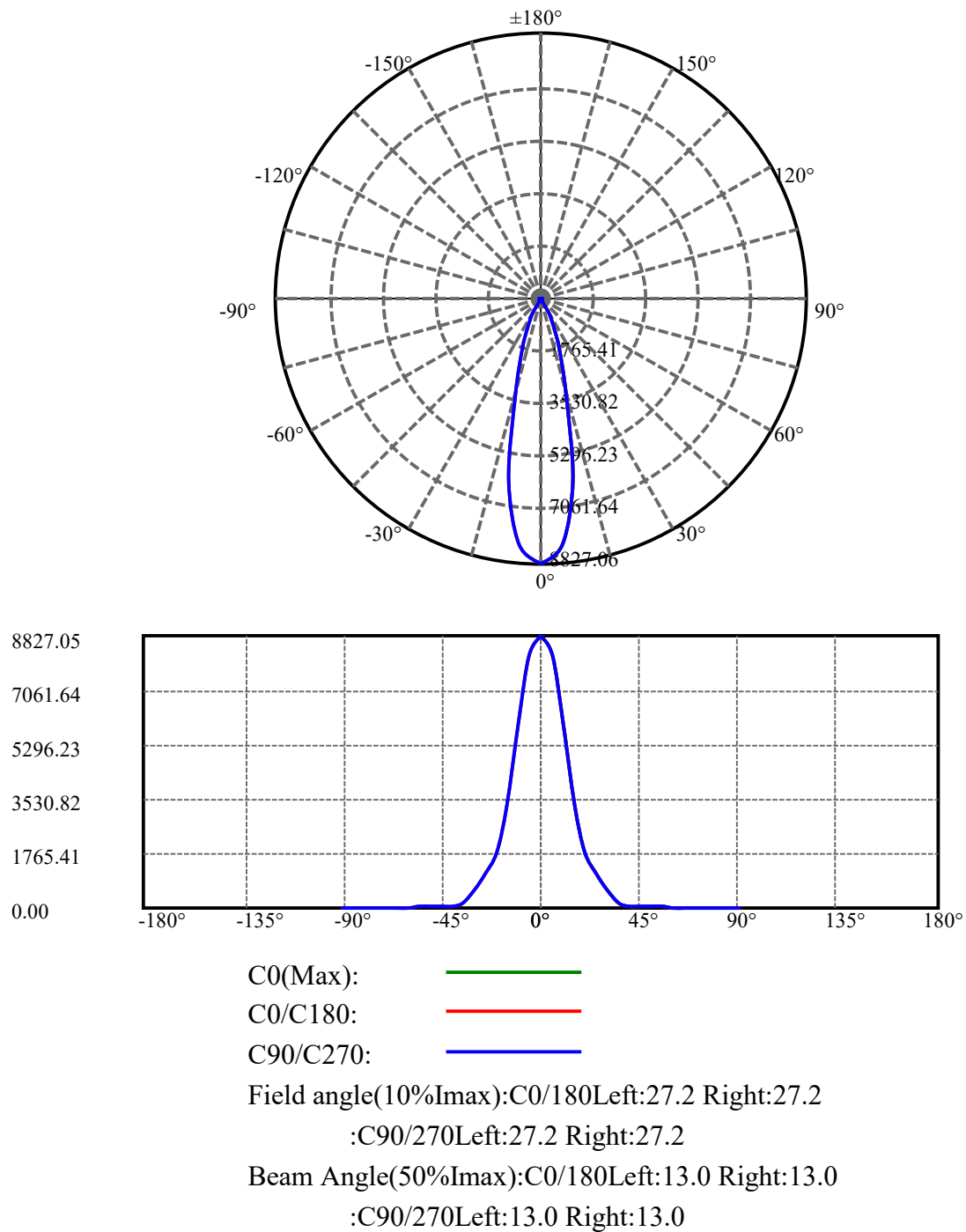
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8827.055	52.788	52.788	1.880%	2.182%
5.0	8174.017	390.500	443.288	13.910%	18.325%
10.0	6087.311	579.409	1022.696	20.639%	42.278%
15.0	3340.822	473.957	1496.653	16.882%	61.871%
20.0	1782.244	334.125	1830.778	11.902%	75.684%
25.0	1123.178	260.187	2090.965	9.268%	86.440%
30.0	584.486	160.189	2251.155	5.706%	93.062%
35.0	141.082	44.356	2295.511	1.580%	94.895%
40.0	61.725	21.748	2317.259	.775%	95.795%
45.0	48.670	18.864	2336.123	.672%	96.574%
50.0	38.250	16.061	2352.184	.572%	97.238%
55.0	29.001	13.022	2365.206	.464%	97.777%
60.0	24.700	11.725	2376.931	.418%	98.261%
65.0	20.405	10.137	2387.068	.361%	98.680%
70.0	15.670	8.072	2395.139	.288%	99.014%
75.0	14.287	7.564	2402.704	.269%	99.327%
80.0	13.138	7.092	2409.795	.253%	99.620%
85.0	11.865	6.479	2416.274	.231%	99.888%
90.0	9.903	2.714	2418.988	.097%	100.000%

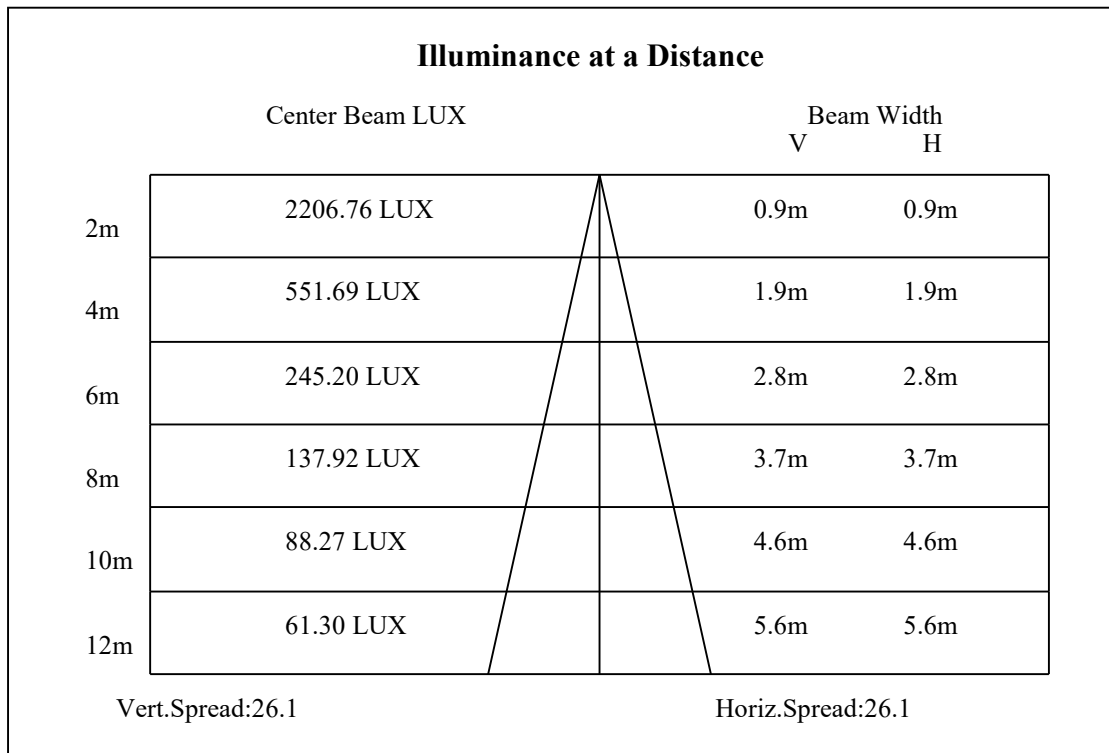
ZONAL LUMEN SUMMARY

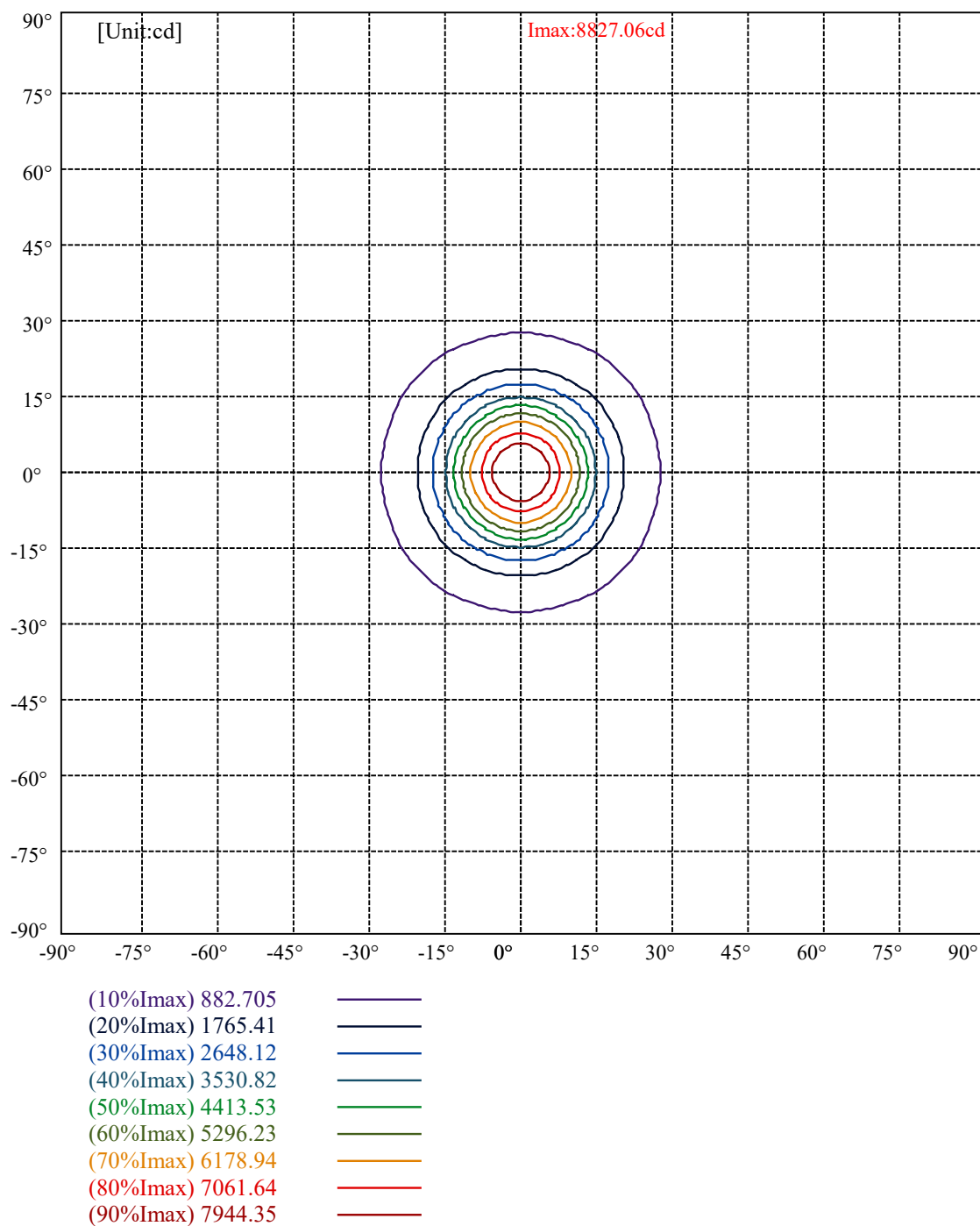
Zone	Lumens	%Lamp	%Fixt
0-30	2251.15	80.19%	93.06%
0-40	2317.26	82.54%	95.79%
0-60	2376.93	84.67%	98.26%
0-90	2416.27	86.07%	99.89%
0-120	2416.27	86.07%	99.89%
0-180	2418.99	86.17%	100.00%
60-90	51.07	1.82%	2.11%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-22.01	1935.19	68.93%	80.00%

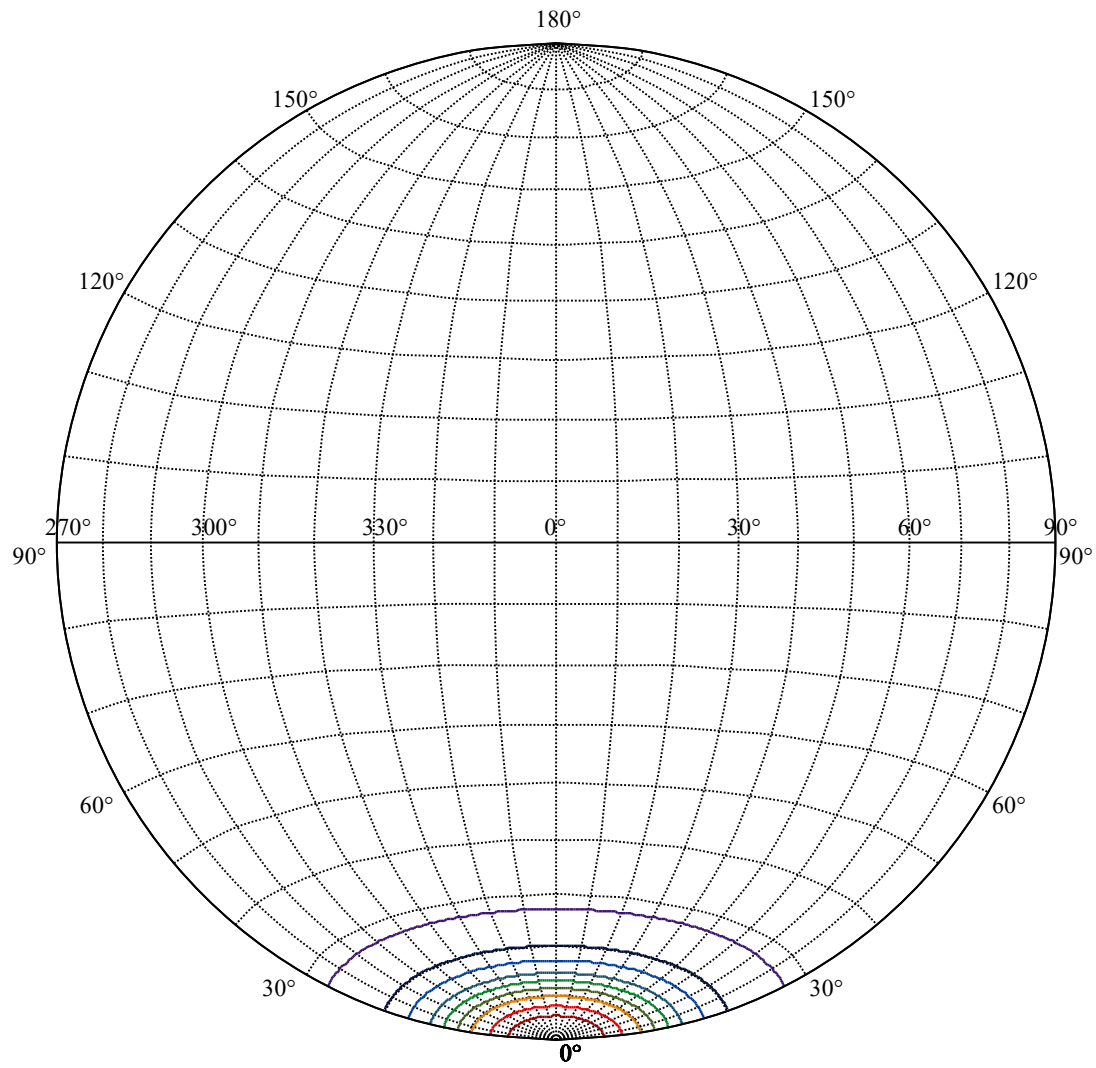
ZONAL LUMEN SUMMARY

0-10	1022.70
10-20	808.08
20-30	420.38
30-40	66.10
40-50	34.93
50-60	24.75
60-70	18.21
70-80	14.66
80-90	6.48
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







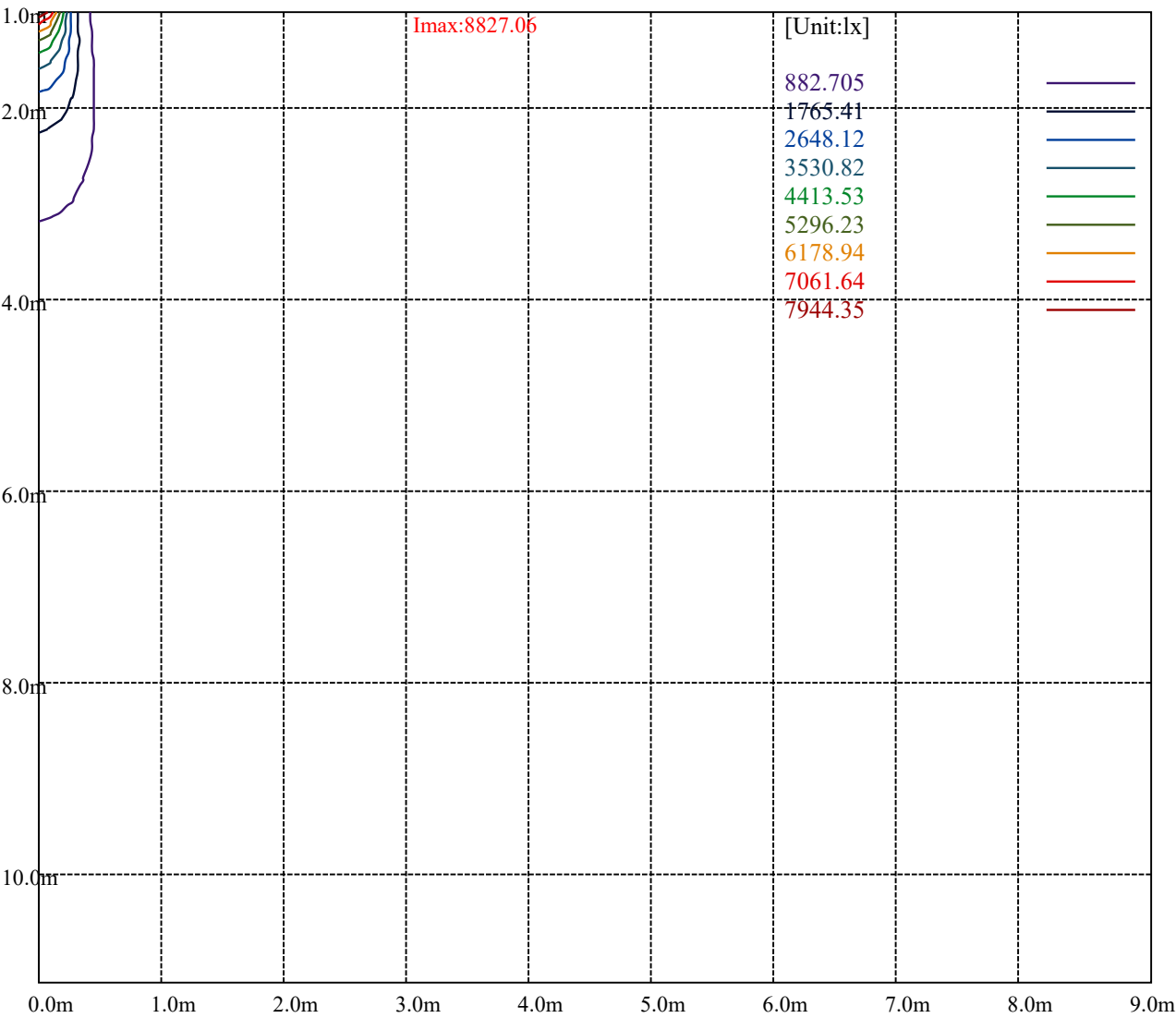


House

[Unit:cd]

Road

Imax:8827.06	
(10%Imax) 882.705	_____
(20%Imax) 1765.41	_____
(30%Imax) 2648.12	_____
(40%Imax) 3530.82	_____
(50%Imax) 4413.53	_____
(60%Imax) 5296.23	_____
(70%Imax) 6178.94	_____
(80%Imax) 7061.64	_____
(90%Imax) 7944.35	_____



Luminance Table

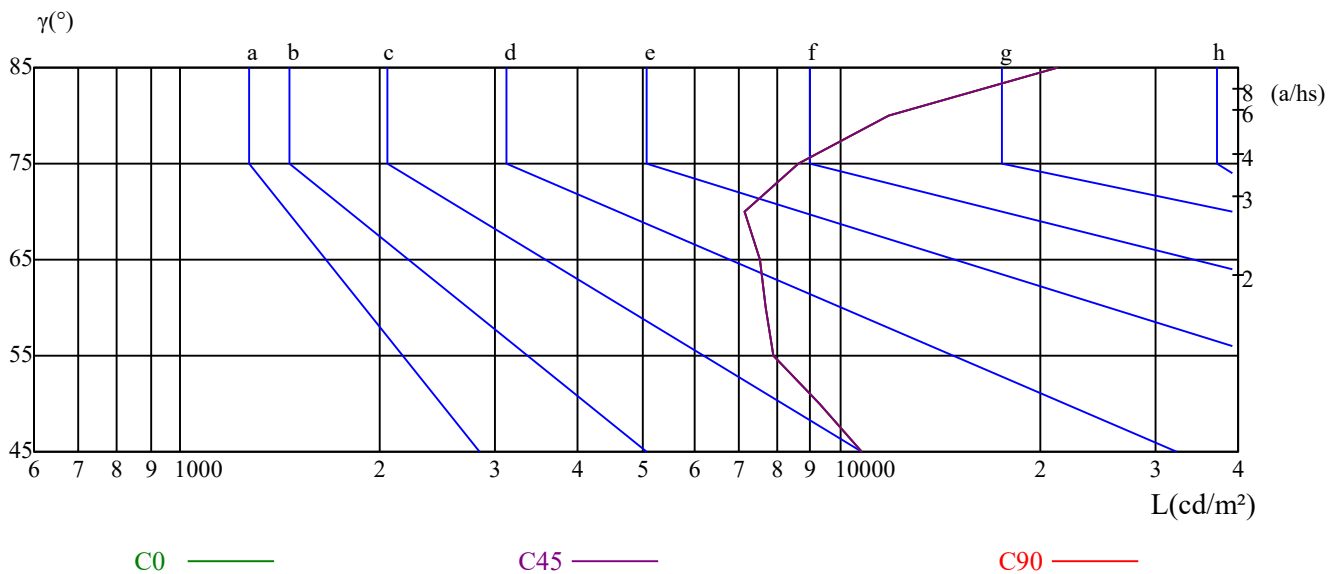
γ	45	50	55	60	65	70	75	80	85
C0	10755	9298	7900	7719	7544	7159	8625	11822	21271
C45	10755	9298	7900	7719	7544	7159	8625	11822	21271
C90	10755	9298	7900	7719	7544	7159	8625	11822	21271

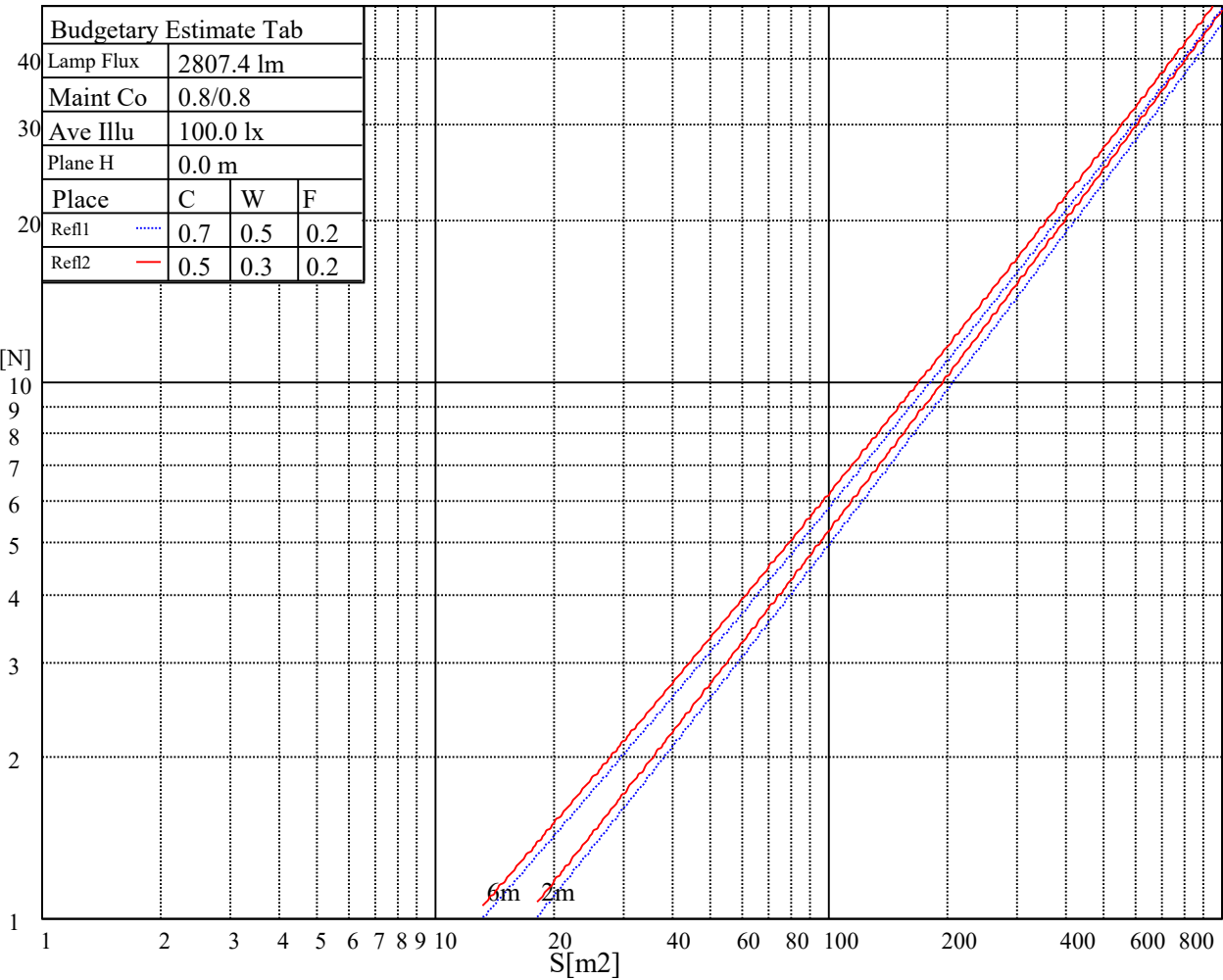
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7544	7544	7544	8625	8625	8625	21271	21271	21271

Glare Table

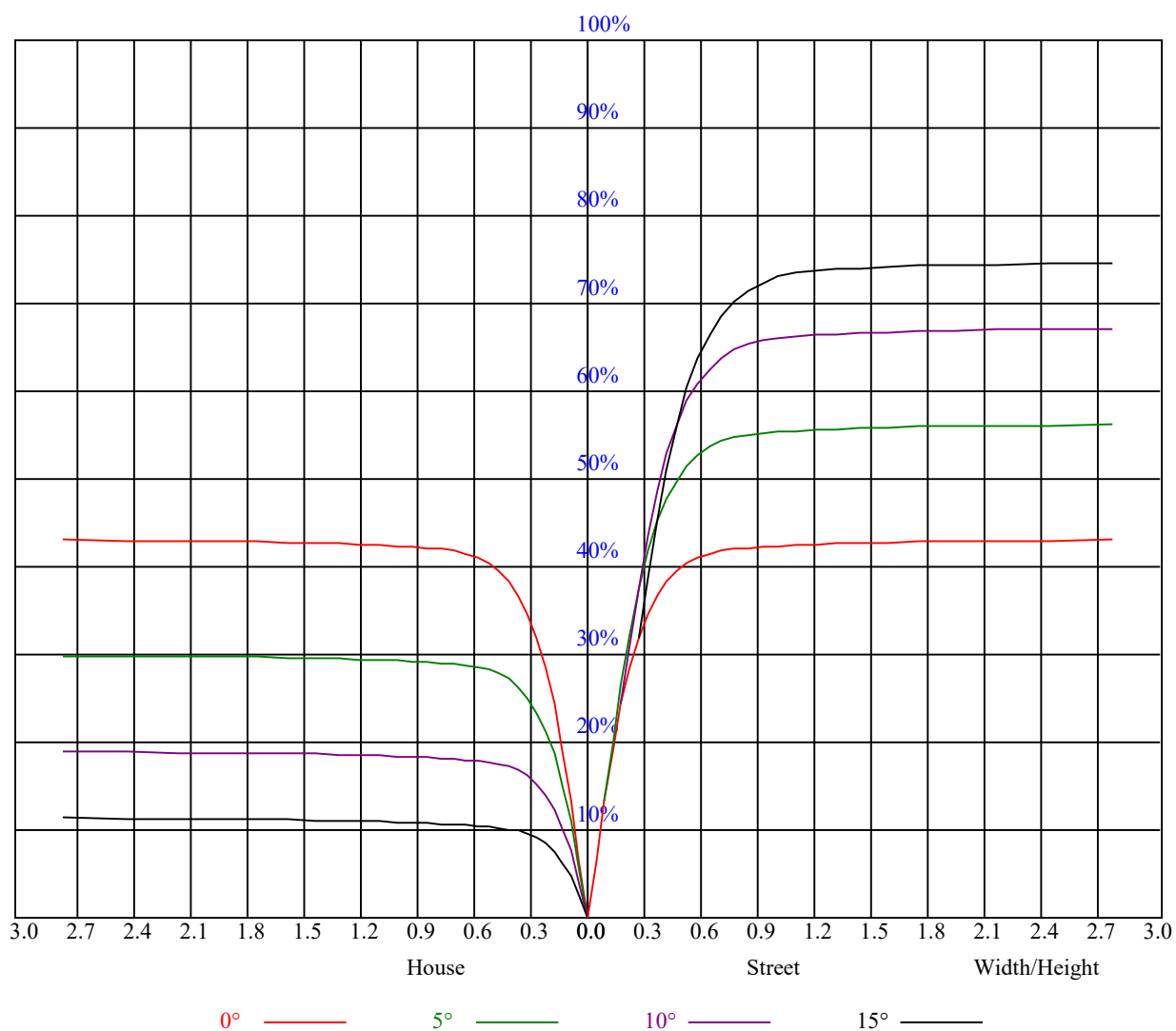
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

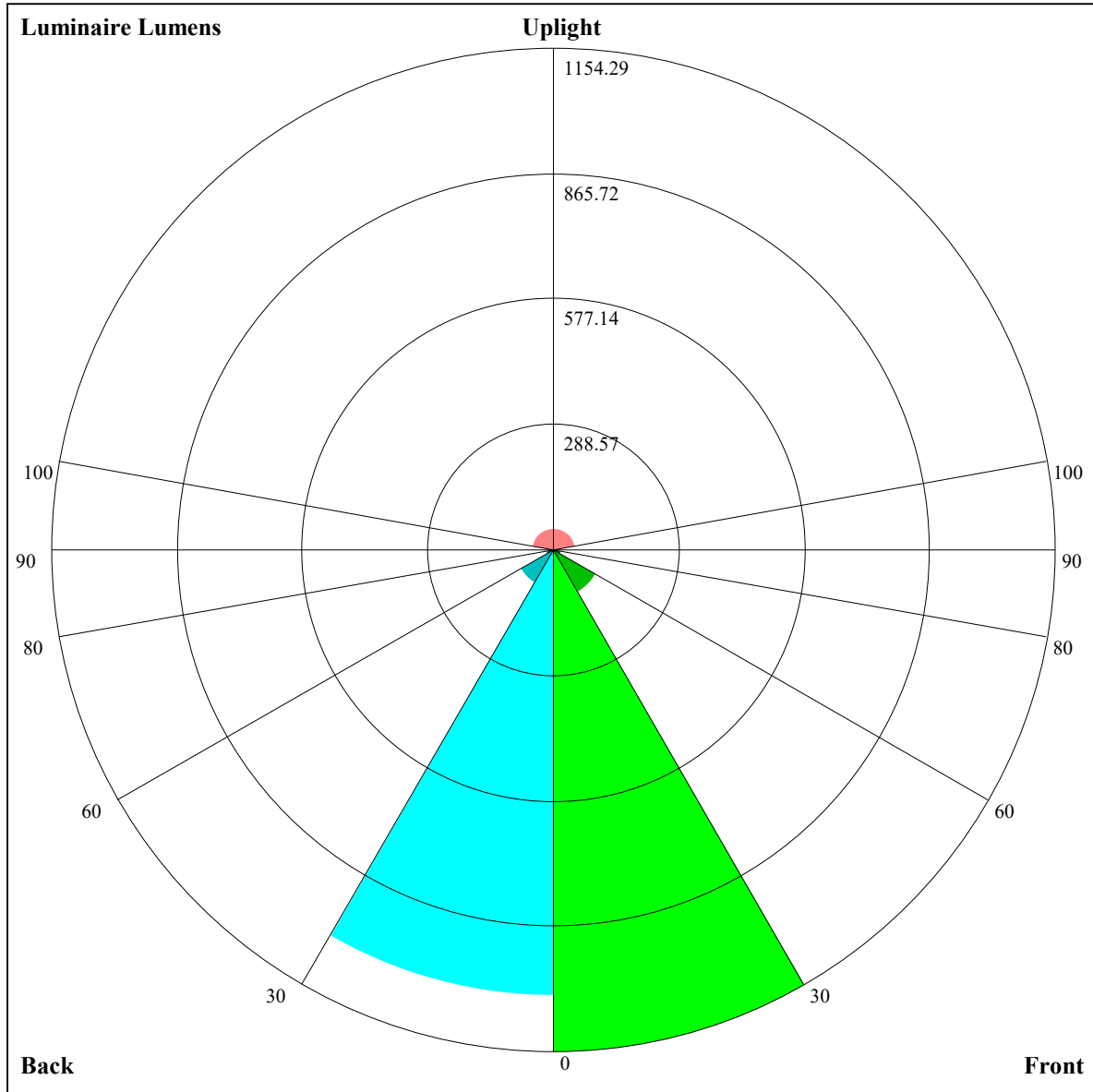
Luminance Limiting Curve





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





Luminaire Lumens:

FL=1154.29,FM=113.57,FH=17.96,FVH=6.45

BL=1025.27,BM=87.69,BH=17.33,BVH=6.26

UL=10.81,UH=51.42

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	8796.91	8603.66	7178.25	4313.12	2114.17	1250.88	794.46	301.16	66.73		
45.0	8811.23	8508.42	6954.17	4032.33	2075.08	1307.04	762.53	278.59	71.19		
90.0	8844.26	8154.95	5989.04	3300.63	1746.94	1090.28	620.27	98.11	59.57		
135.0	8855.82	8244.70	6009.96	3297.33	1771.16	1118.75	574.24	97.39	60.45		
180.0	8796.91	7601.09	5133.46	2578.84	1452.39	987.16	392.28	75.26	55.94		
225.0	8811.23	7789.38	5303.03	2666.38	1521.21	1017.50	418.59	80.27	57.70		
270.0	8844.26	8279.38	6074.37	3358.99	1842.74	1141.32	579.19	99.05	60.95		
315.0	8855.82	8210.56	6056.20	3178.96	1734.28	1072.50	534.32	98.83	61.28		
360.0	8796.91	8603.66	7178.25	4313.12	2114.17	1250.88	794.46	301.16	66.73		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	52.63	42.06	30.28	25.71	21.97	16.02	14.70	13.43	12.72		
45.0	52.69	42.67	30.23	25.99	21.80	16.24	14.81	13.60	12.66		
90.0	47.24	38.48	28.57	24.33	20.98	15.42	13.98	12.94	11.67		
135.0	47.79	38.32	29.07	24.94	21.03	15.75	14.37	13.16	11.67		
180.0	45.26	34.30	27.47	23.56	17.40	15.36	13.98	12.99	11.51		
225.0	46.52	34.63	28.13	23.67	18.06	15.47	14.09	13.05	11.40		
270.0	48.72	37.99	29.46	24.94	21.36	15.64	14.31	13.05	11.51		
315.0	48.50	37.55	28.79	24.45	20.65	15.47	14.04	12.88	11.78		
360.0	52.63	42.06	30.28	25.71	21.97	16.02	14.70	13.43	12.72		
C/ γ (°)	90.0										
0.0	10.35										
45.0	10.24										
90.0	9.80										
135.0	9.74										
180.0	9.80										
225.0	9.80										
270.0	9.74										
315.0	9.74										
360.0	10.35										