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Nata

Client:

LumCAT: 2-1794-N

Luminaire: 92.70.131.00

Report No: nata-0100

Test No:

LampCAT: CREE CMT1922

Lamp flux(lm): 2839.6

Number of Lamps: 1

Length(mm): 69

Phm Type: C

Voltage(V): 35.6000

Current(A): 0.6000

Power (W): 21.3600

PF: 0.0000

Ballast type: DC

Width(mm): 69

Height(mm): 0

Photometric Results

Lumens(lm): 2414.54, Efficiency(%): 85.03% , Luminous Efficacy(lm/W): 113.04

Central intensity(cd): 7881.324, Maximum intensity(cd): 7881.324

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=27.8

[C90/270]Total=27.8

Field angle(10%Imax): [C0/180]Total=57.4

[C90/270]Total=57.4

Maximum s/h(1/2): C0_180=0.47 C90_270=0.47

Maximum s/h(1/4): C0_180=0.49 C90_270=0.49

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 86.61%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.540%

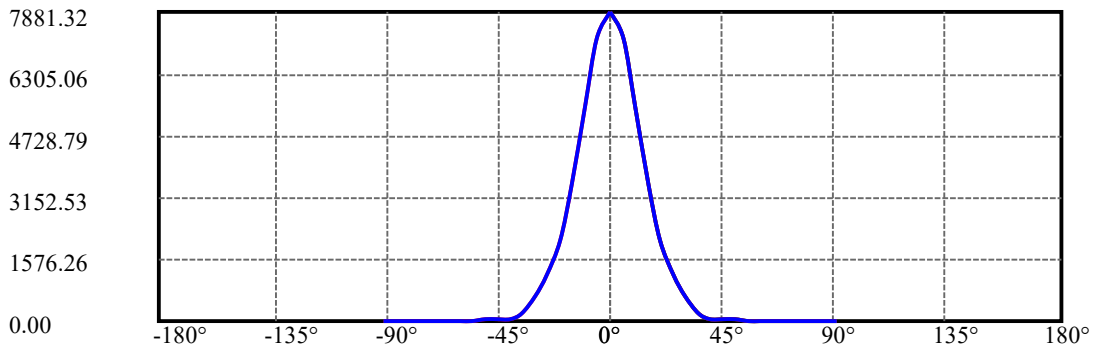
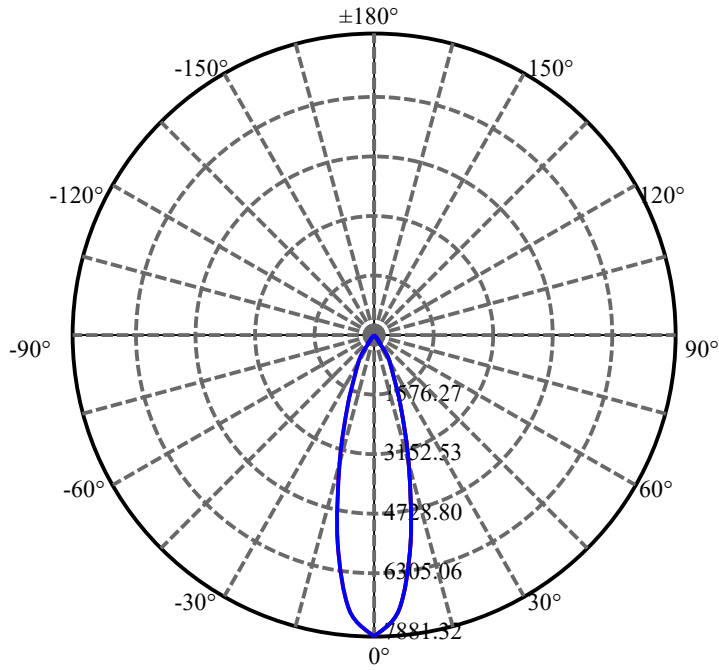
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7881.324	47.132	47.132	1.660%	1.952%
5.0	7206.676	344.287	391.419	12.125%	16.211%
10.0	5506.603	524.135	915.554	18.458%	37.918%
15.0	3489.131	494.997	1410.551	17.432%	58.419%
20.0	2039.083	382.275	1792.826	13.462%	74.251%
25.0	1172.805	271.684	2064.51	9.568%	85.503%
30.0	659.789	180.828	2245.338	6.368%	92.992%
35.0	192.167	60.417	2305.755	2.128%	95.495%
40.0	58.181	20.499	2326.254	.722%	96.344%
45.0	39.207	15.196	2341.45	.535%	96.973%
50.0	29.586	12.423	2353.873	.437%	97.487%
55.0	24.011	10.781	2364.655	.380%	97.934%
60.0	20.261	9.618	2374.272	.339%	98.332%
65.0	17.164	8.527	2382.799	.300%	98.685%
70.0	15.306	7.884	2390.683	.278%	99.012%
75.0	13.943	7.382	2398.065	.260%	99.318%
80.0	12.904	6.966	2405.031	.245%	99.606%
85.0	12.030	6.569	2411.6	.231%	99.878%
90.0	10.729	2.941	2414.54	.104%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2245.34	79.07%	92.99%
0-40	2326.25	81.92%	96.34%
0-60	2374.27	83.61%	98.33%
0-90	2411.60	84.93%	99.88%
0-120	2411.60	84.93%	99.88%
0-180	2414.54	85.03%	100.00%
60-90	46.94	1.65%	1.94%
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%
0-22.55	1931.63	68.03%	80.00%

ZONAL LUMEN SUMMARY

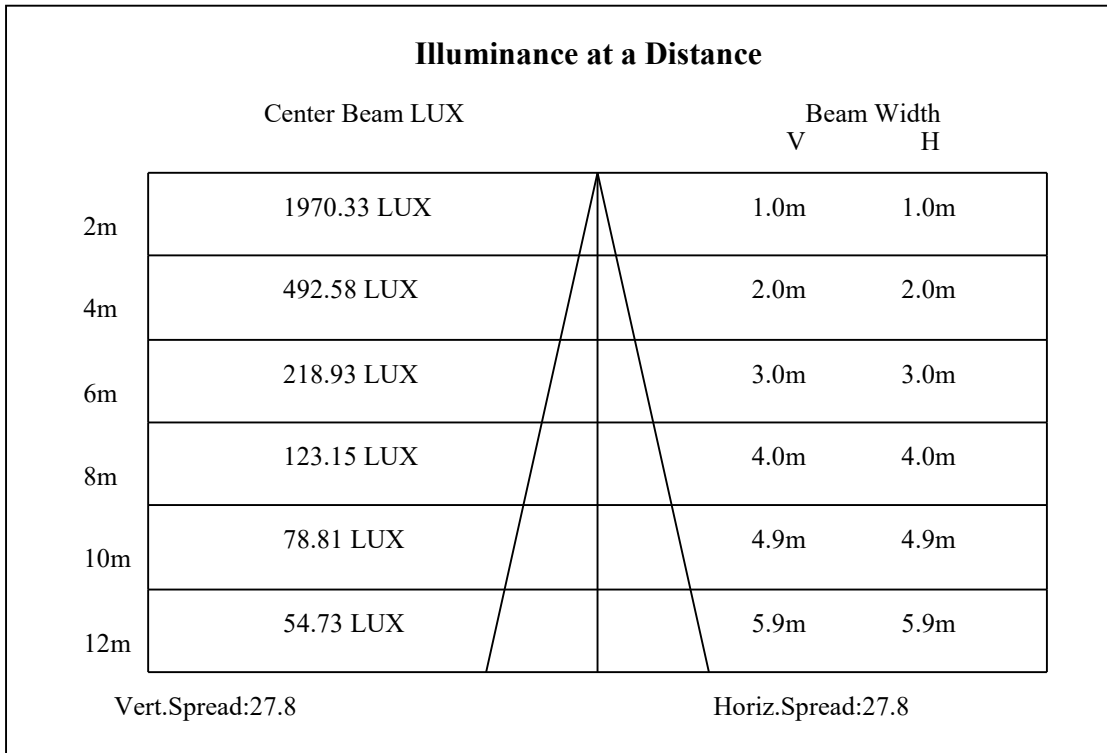
0-10	915.55
10-20	877.27
20-30	452.51
30-40	80.92
40-50	27.62
50-60	20.40
60-70	16.41
70-80	14.35
80-90	6.57
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

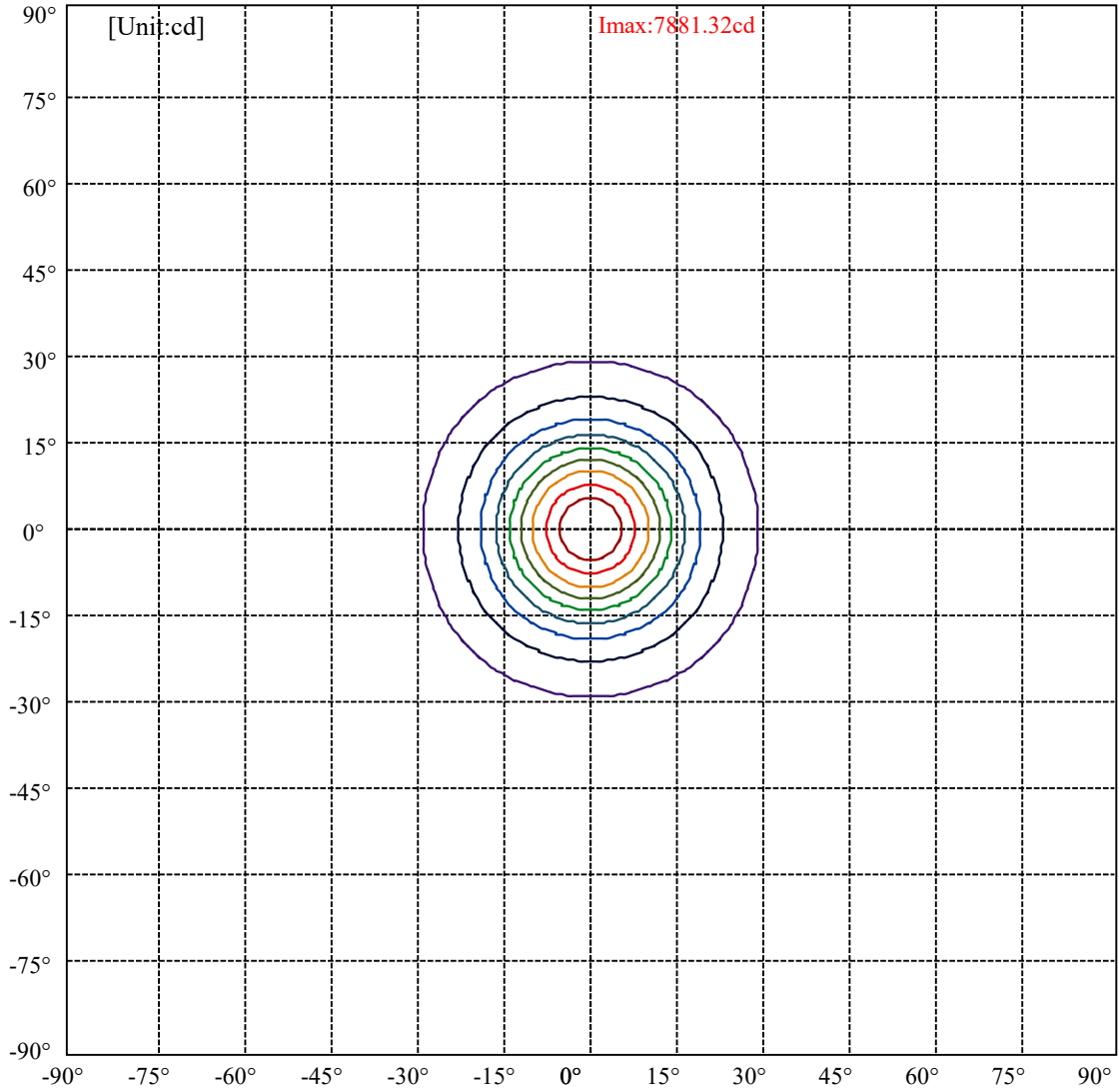


C0(Max): ———
C0/C180: ———
C90/C270: ———

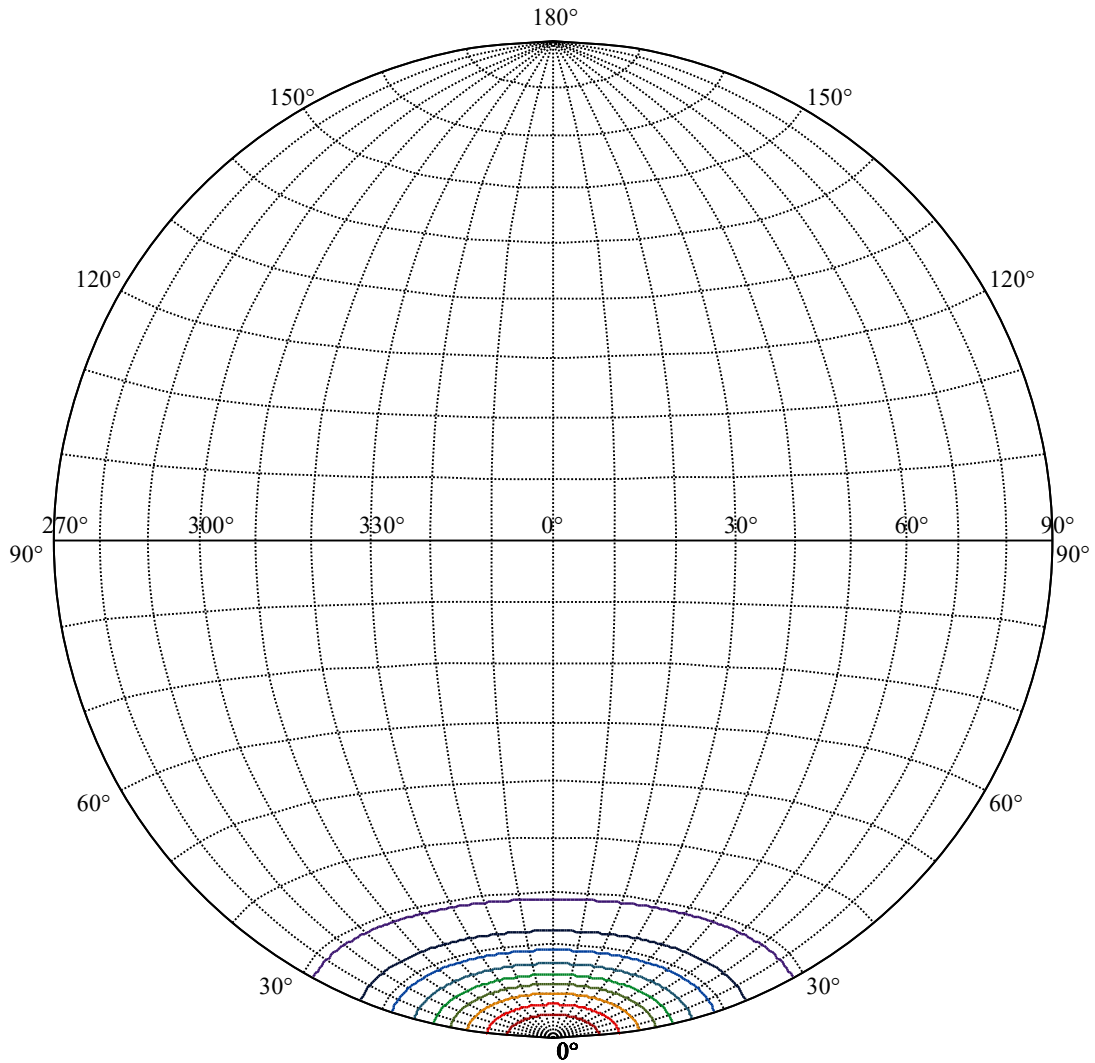
Field angle(10%Imax):C0/180Left:28.7 Right:28.7
:C90/270Left:28.7 Right:28.7

Beam Angle(50%Imax):C0/180Left:13.9 Right:13.9
:C90/270Left:13.9 Right:13.9





(10%Imax) 788.132	—
(20%Imax) 1576.26	—
(30%Imax) 2364.4	—
(40%Imax) 3152.53	—
(50%Imax) 3940.66	—
(60%Imax) 4728.79	—
(70%Imax) 5516.93	—
(80%Imax) 6305.06	—
(90%Imax) 7093.19	—



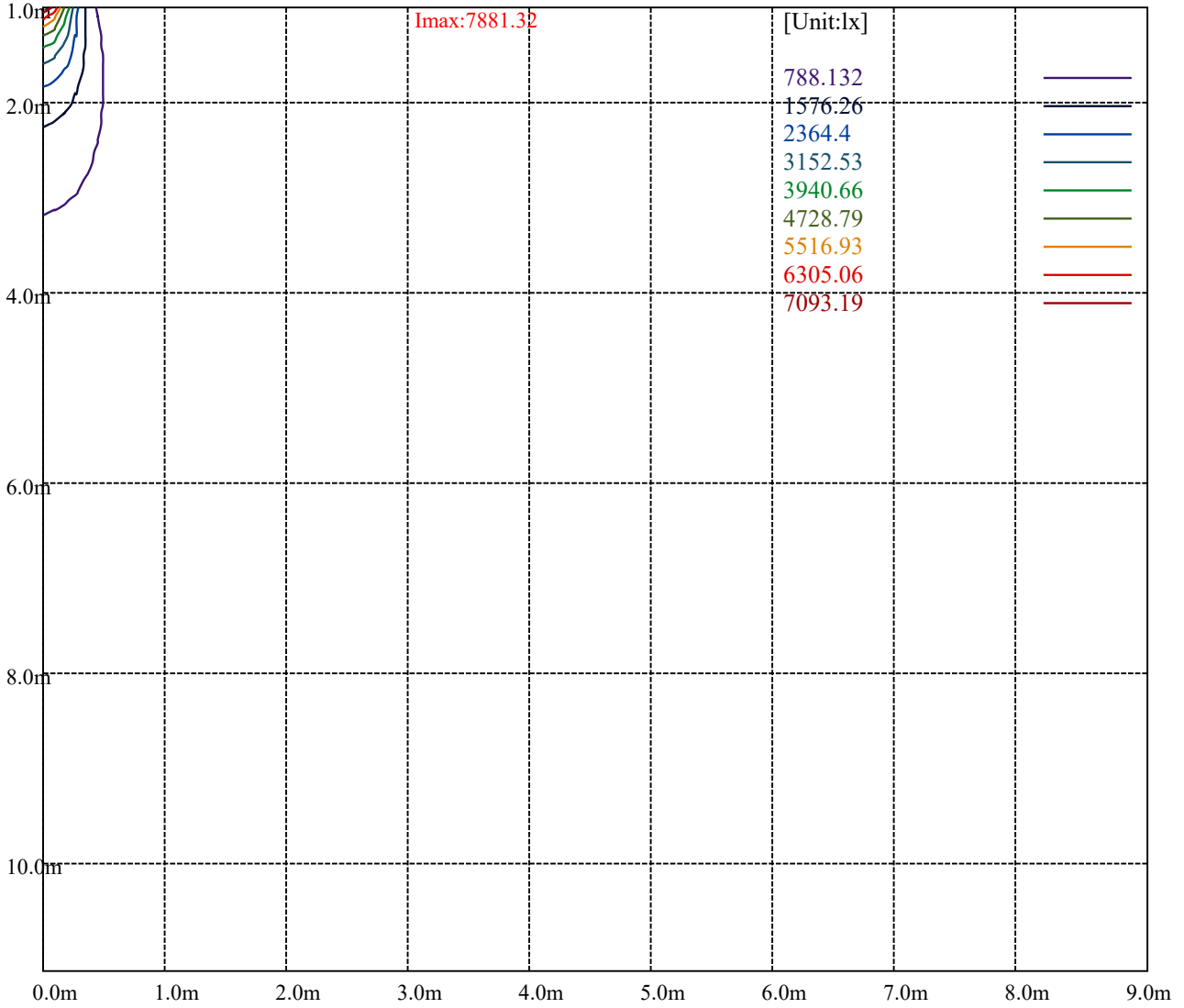
House

[Unit:cd]

Road

Imax:7881.32

(10%Imax) 788.132	—
(20%Imax) 1576.26	—
(30%Imax) 2364.4	—
(40%Imax) 3152.53	—
(50%Imax) 3940.66	—
(60%Imax) 4728.79	—
(70%Imax) 5516.93	—
(80%Imax) 6305.06	—
(90%Imax) 7093.19	—



Luminance Table

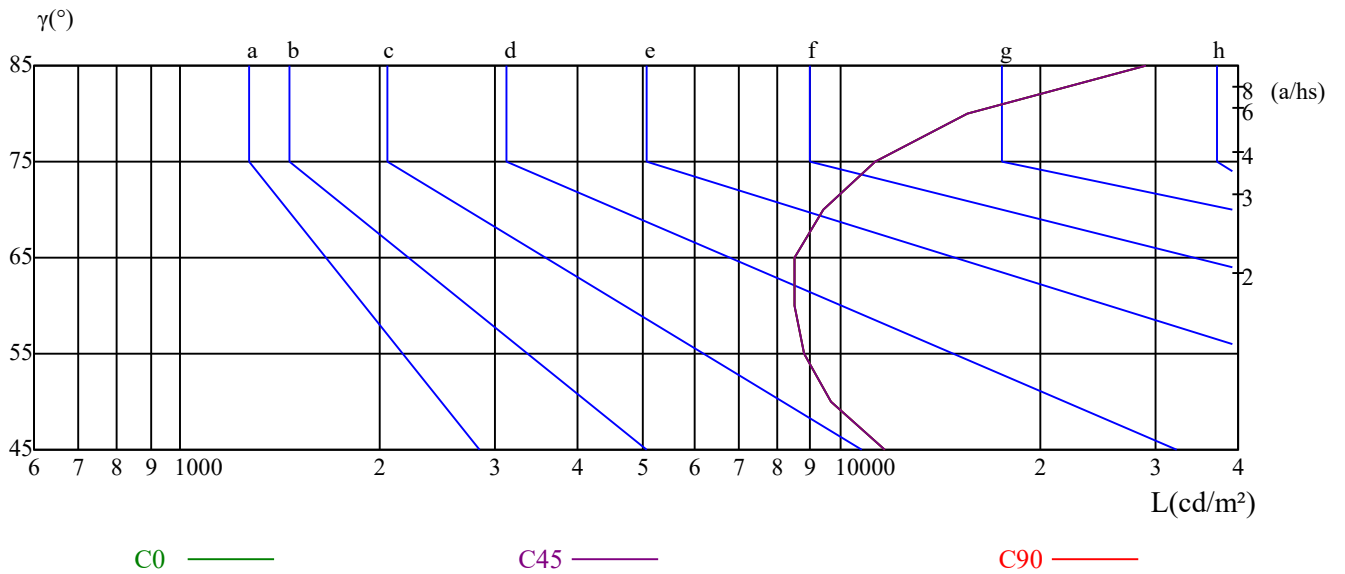
γ	45	50	55	60	65	70	75	80	85
C0	11646	9668	8793	8511	8530	9399	11315	15608	28991
C45	11646	9668	8793	8511	8530	9399	11315	15608	28991
C90	11646	9668	8793	8511	8530	9399	11315	15608	28991

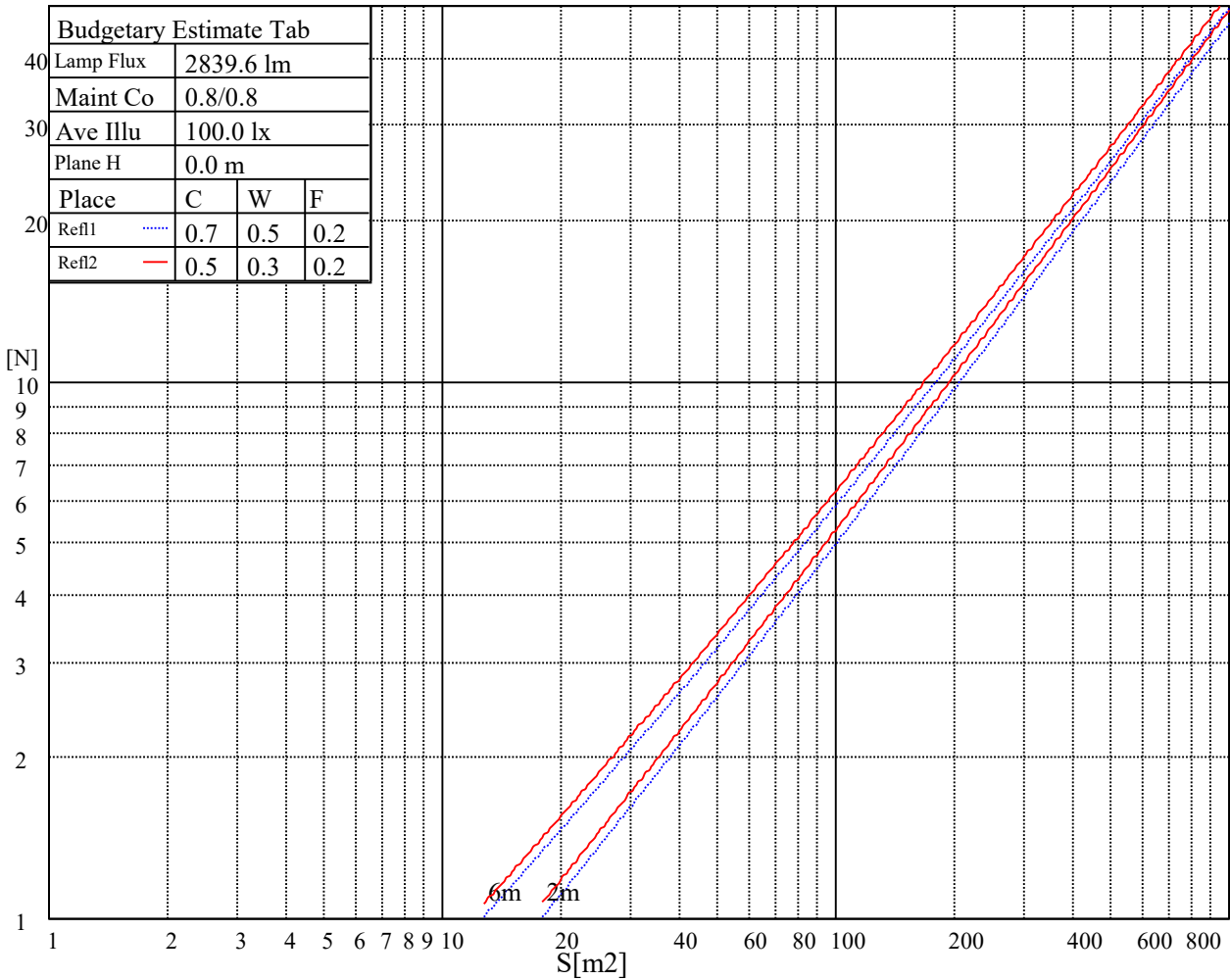
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
8530	8530	8530	11315	11315	11315	28991	28991	28991

Glare Table

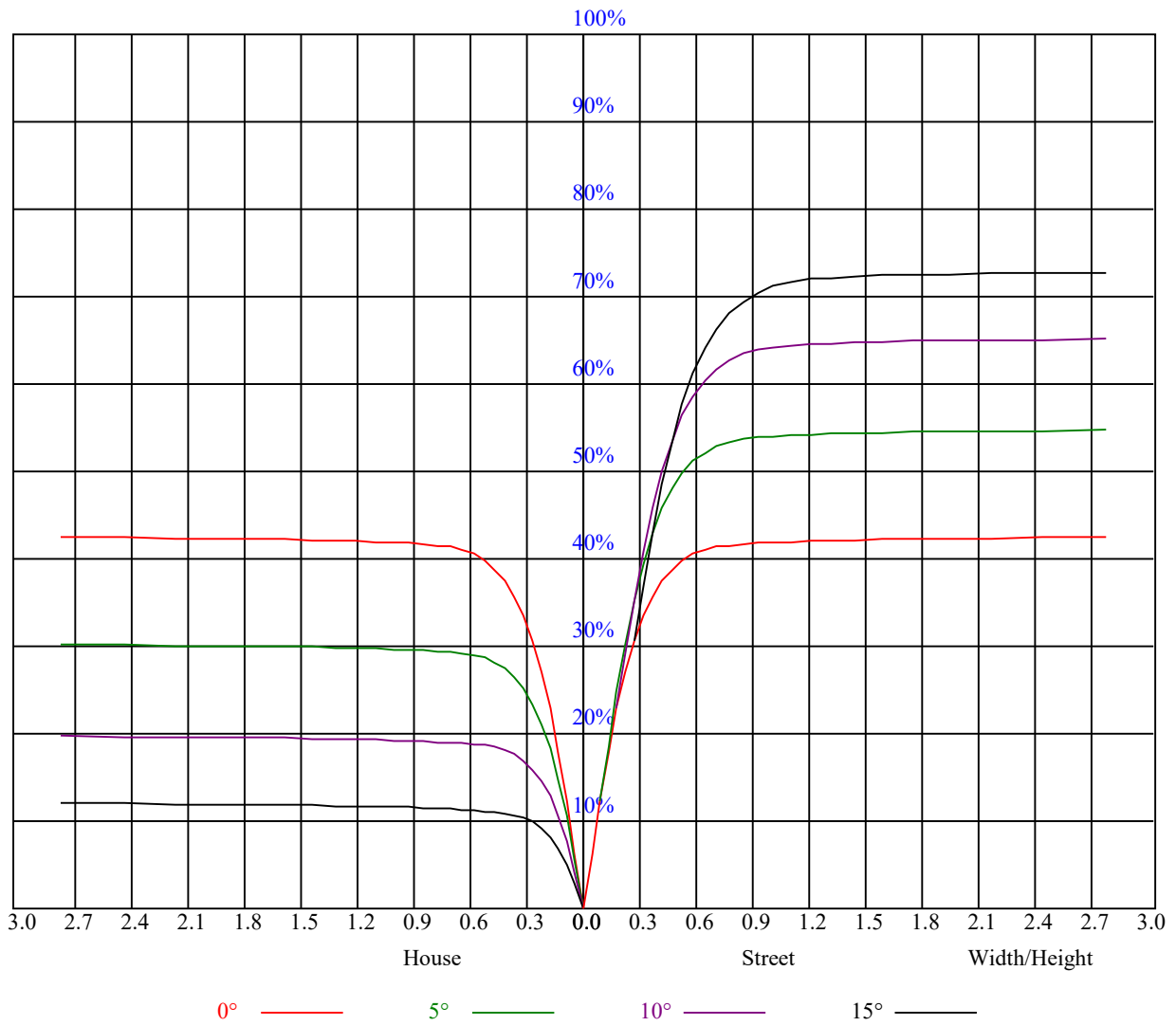
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

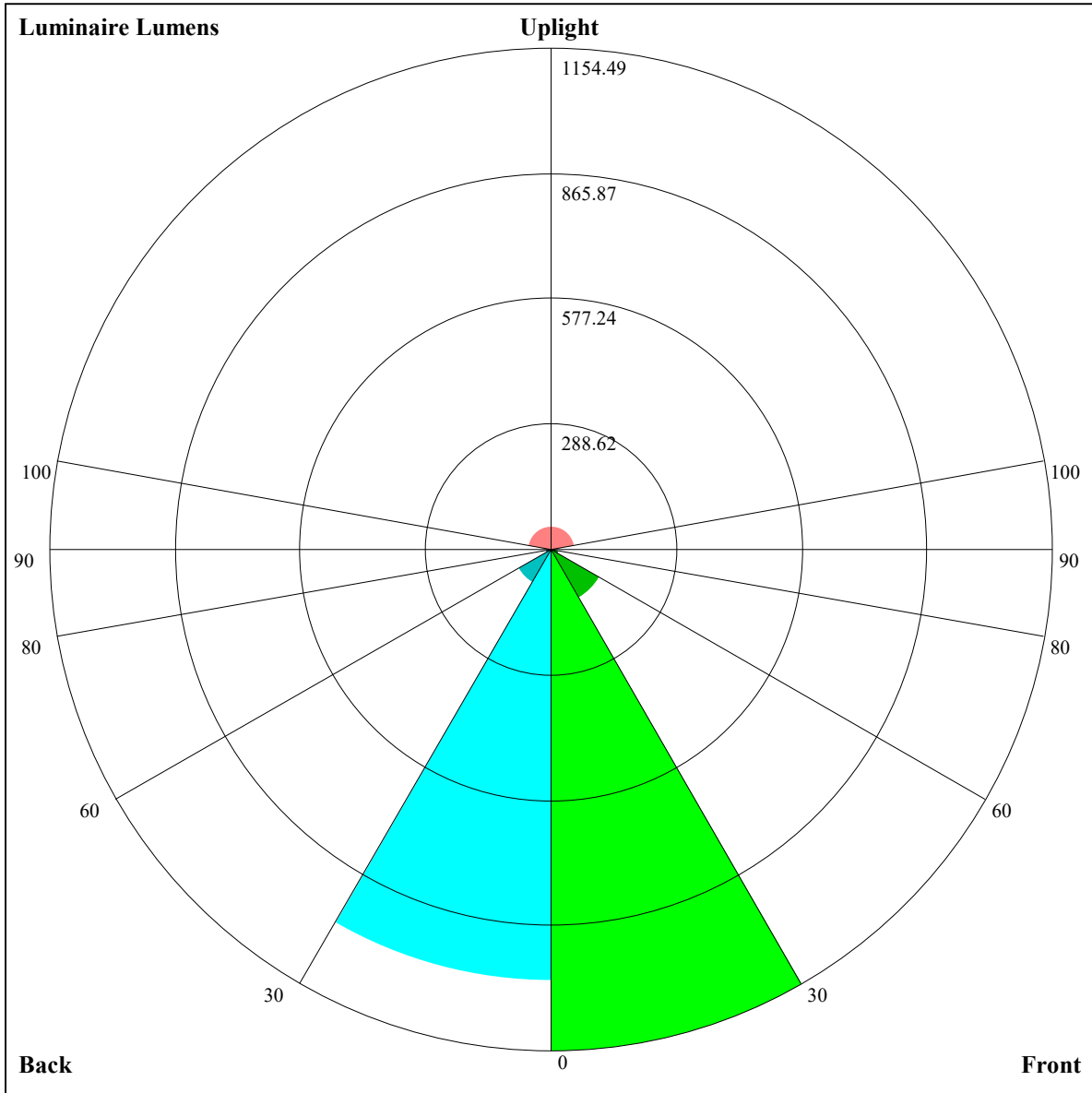
Luminance Limiting Curve





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	1.03	1.03	1.03	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.87
1	0.95	0.93	0.91	0.93	0.91	0.89	0.90	0.88	0.86	0.86	0.85	0.84	0.83	0.82	0.81	0.80
2	0.90	0.87	0.84	0.89	0.86	0.83	0.86	0.84	0.81	0.83	0.81	0.80	0.81	0.80	0.78	0.77
3	0.86	0.82	0.79	0.85	0.81	0.79	0.83	0.80	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.74
4	0.82	0.78	0.75	0.82	0.78	0.75	0.80	0.77	0.74	0.78	0.75	0.73	0.77	0.74	0.73	0.71
5	0.79	0.75	0.72	0.78	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.71	0.74	0.72	0.70	0.69
6	0.76	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.69	0.73	0.71	0.68	0.72	0.70	0.68	0.67
7	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.70	0.68	0.66	0.65
8	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
9	0.69	0.65	0.63	0.69	0.65	0.63	0.68	0.65	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.61
10	0.67	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.66	0.63	0.61	0.65	0.62	0.61	0.60





Luminaire Lumens:

FL=1154.49,FM=127.17,FH=16.43,FVH=6.52

BL=994.45,BM=88.56,BH=15.67,BVH=6.4

UL=11.71,UH=55.71

BUG Rating:B2-U2-G0

Intensity data(cd)

C/\u03b3(\u00b0)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	7794.89	7816.36	6534.09	4580.69	2766.58	1525.06	1007.53	415.68	75.70
45.0	7873.07	7591.73	6170.17	4102.80	2392.20	1354.39	869.34	282.99	69.48
90.0	7928.67	7199.73	5195.67	3342.47	1917.06	1090.01	636.40	132.47	56.60
135.0	7928.67	7139.16	5386.72	3303.93	1950.10	1153.43	594.61	179.10	50.93
180.0	7794.89	6695.41	4631.89	2703.27	1515.70	962.55	386.88	65.24	44.10
225.0	7873.07	6713.58	4912.68	3012.14	1672.06	1071.95	483.89	78.13	48.89
270.0	7928.67	7169.99	5565.65	3424.51	1949.00	1146.82	609.47	192.20	58.86
315.0	7928.67	7327.46	5655.94	3443.23	2149.95	1078.22	690.19	191.54	60.89
360.0	7794.89	7816.36	6534.09	4580.69	2766.58	1525.06	1007.53	415.68	75.70
C/\u03b3(\u00b0)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	46.74	34.08	26.26	21.86	18.44	16.24	14.76	13.71	12.66
45.0	46.30	34.13	27.09	23.45	18.99	16.02	14.31	13.16	12.17
90.0	39.09	29.40	24.17	20.43	17.18	15.36	13.82	12.72	11.51
135.0	35.07	27.36	22.74	19.43	16.68	15.03	13.71	12.72	11.89
180.0	31.60	25.38	21.31	18.28	16.19	14.92	13.76	12.88	12.66
225.0	34.25	26.54	22.46	18.72	16.13	14.59	13.49	12.55	11.78
270.0	39.70	29.51	24.06	20.10	16.90	15.20	13.87	12.72	11.56
315.0	40.91	30.28	24.00	19.82	16.79	15.09	13.82	12.77	12.00
360.0	46.74	34.08	26.26	21.86	18.44	16.24	14.76	13.71	12.66
C/\u03b3(\u00b0)	90.0								
0.0	11.56								
45.0	11.01								
90.0	10.41								
135.0	10.46								
180.0	10.52								
225.0	10.52								
270.0	10.46								
315.0	10.90								
360.0	11.56								