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Nata

LumCAT: 2-1778-L

Luminaire:

Report No: NATA0100

Voltage(V): 34.4300

Test No: GC2020010626

Current(A): 0.6000

LampCAT: LUMINUS CXM-14-AC40

Power (W): 20.6580

Lamp flux(lm): 2559.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2518.07

Efficiency(%): 98.40%

Lumens(lm)/Power(W): 121.89

Central intensity(cd): 8228.672

Maximum intensity(cd): 8228.672

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=27.0

[C90/270]Total=27.0

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

[C90/270]Total=57.4

Maximum s/h(1/2): C0_180=0.46 C90_270=0.46

Maximum s/h(1/4): C0_180=0.46 C90_270=0.46

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 98.40%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.144%

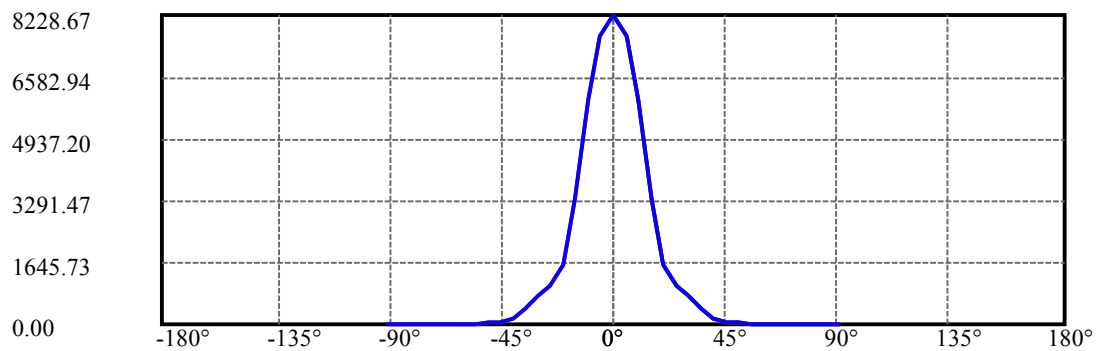
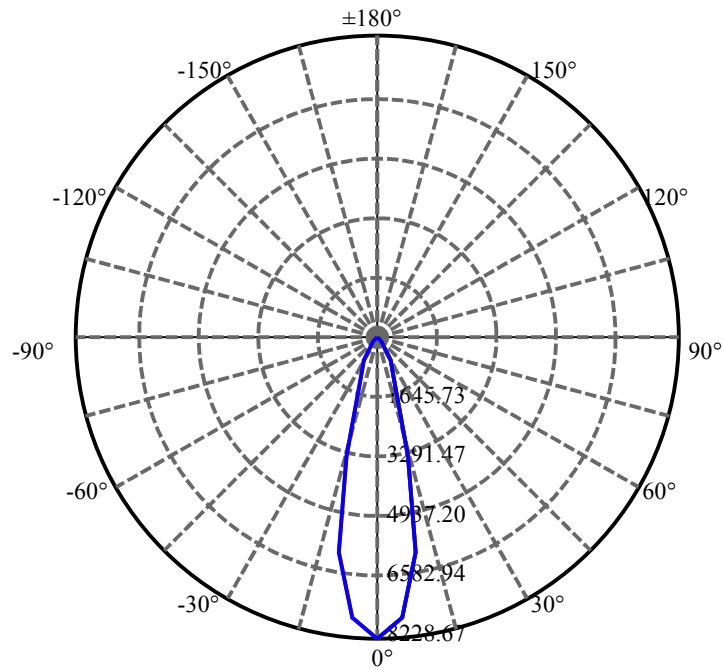
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8228.672	0.000	0	.000%	.000%
5.0	7691.977	190.327	190.327	7.438%	7.558%
10.0	5956.594	488.252	678.579	19.080%	26.948%
15.0	3340.617	551.504	1230.083	21.552%	48.850%
20.0	1602.851	407.411	1637.495	15.921%	65.030%
25.0	1021.535	275.250	1912.744	10.756%	75.961%
30.0	752.674	224.528	2137.272	8.774%	84.877%
35.0	405.703	170.579	2307.851	6.666%	91.651%
40.0	154.329	93.437	2401.288	3.651%	95.362%
45.0	34.481	34.960	2436.248	1.366%	96.750%
50.0	28.448	12.716	2448.964	.497%	97.255%
55.0	24.771	11.572	2460.536	.452%	97.715%
60.0	22.015	10.814	2471.35	.423%	98.144%
65.0	19.146	10.006	2481.356	.391%	98.542%
70.0	16.355	8.989	2490.345	.351%	98.899%
75.0	13.711	7.859	2498.204	.307%	99.211%
80.0	12.473	7.006	2505.21	.274%	99.489%
85.0	11.763	6.586	2511.796	.257%	99.751%
90.0	11.166	6.278	2518.074	.245%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2137.27	83.52%	84.88%
0-40	2401.29	93.84%	95.36%
0-60	2471.35	96.58%	98.14%
0-90	2511.80	98.16%	99.75%
0-120	2511.80	98.16%	99.75%
0-180	2518.07	98.40%	100.00%
60-90	51.26	2.00%	2.04%
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%
0-27.27	2014.46	78.72%	80.00%

ZONAL LUMEN SUMMARY

0-10	678.58
10-20	958.92
20-30	499.78
30-40	264.02
40-50	47.68
50-60	22.39
60-70	19.00
70-80	14.86
80-90	6.59
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:

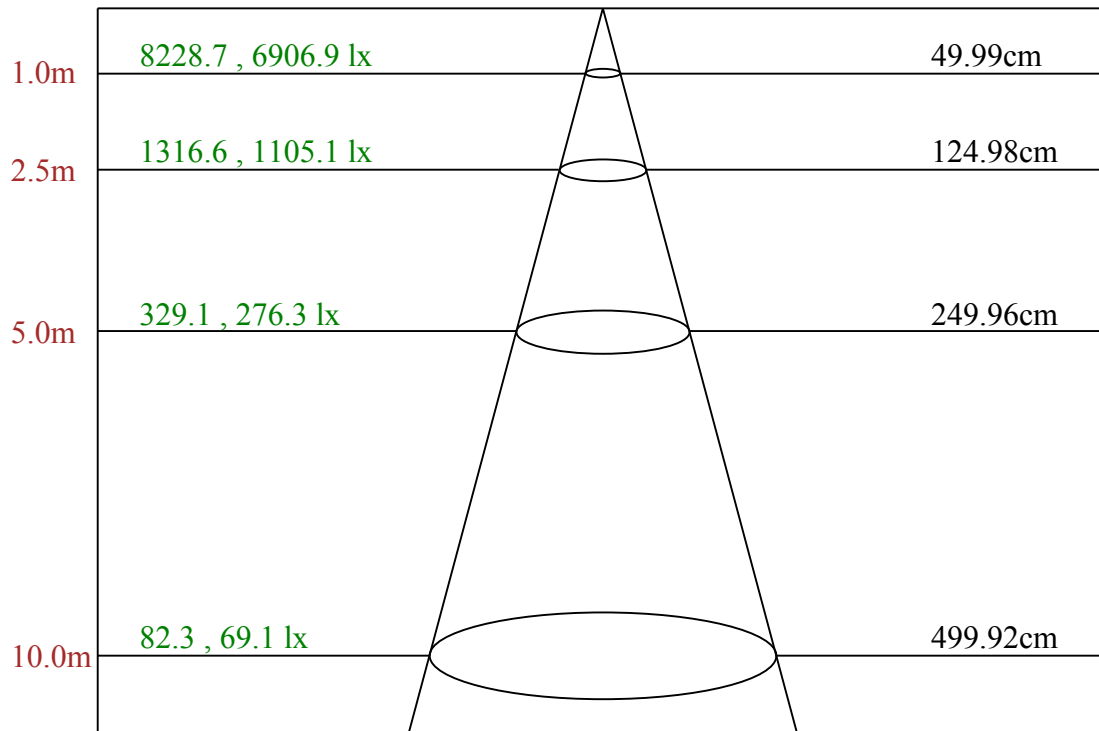
C90/C270:

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

:C90/270Left:28.7 Right:28.7

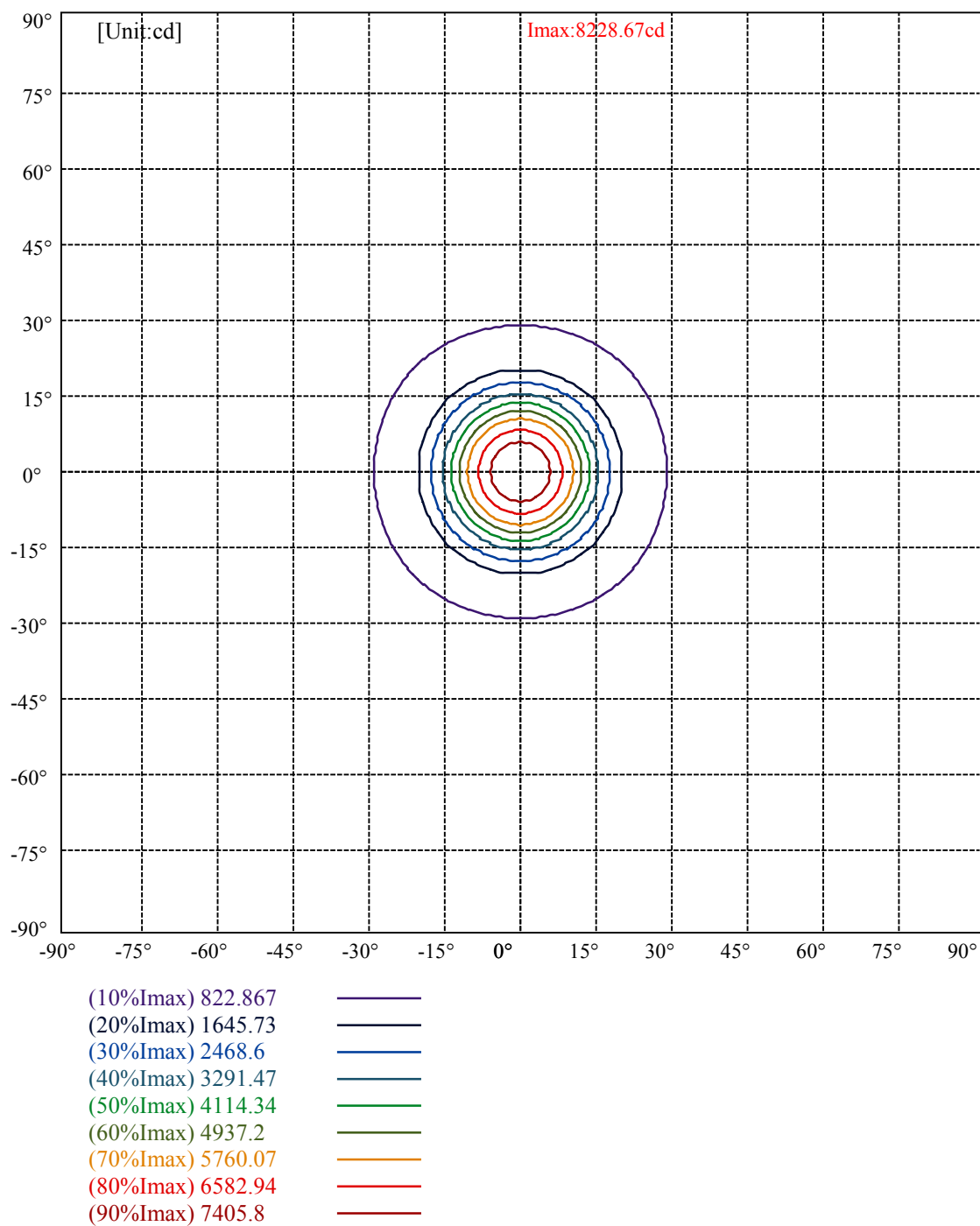
Beam Angle(50%Imax):C0/180Left:13.5 Right:13.5

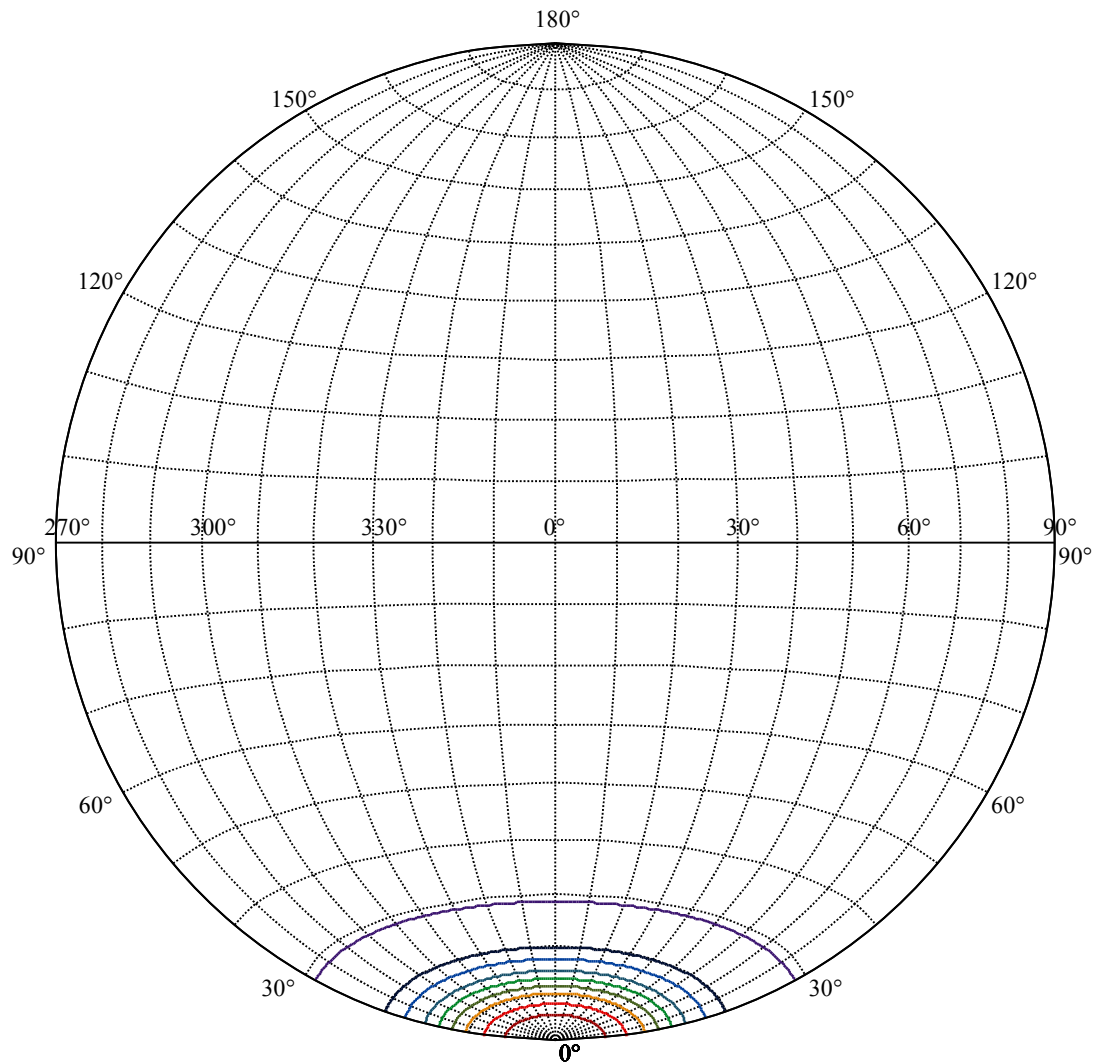
:C90/270Left:13.5 Right:13.5



Max , Ave

Beam angle of C0 plane 28.07





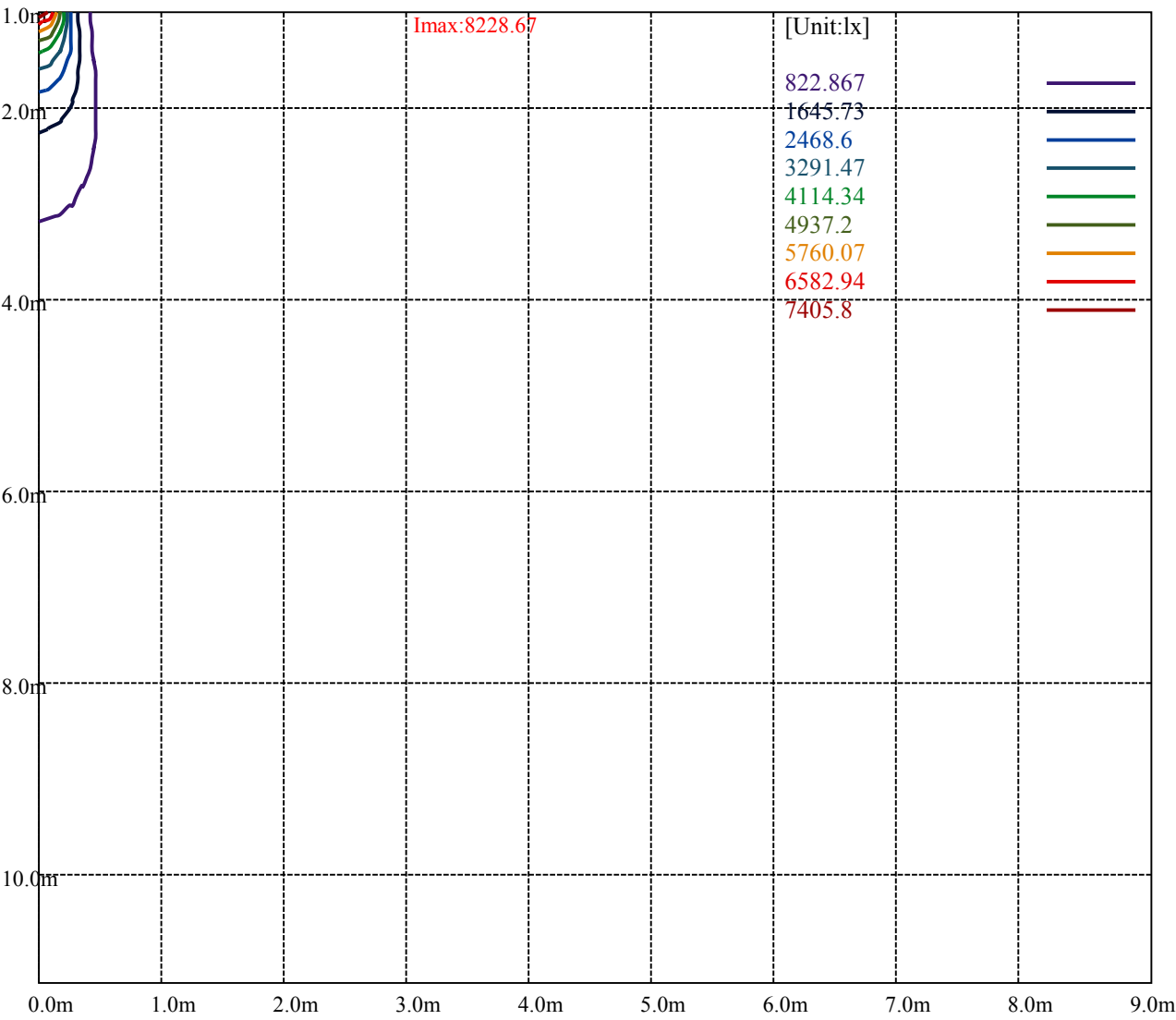
House

[Unit:cd]

Road

I_{max}:8228.67

(10%I _{max}) 822.867	—
(20%I _{max}) 1645.73	—
(30%I _{max}) 2468.6	—
(40%I _{max}) 3291.47	—
(50%I _{max}) 4114.34	—
(60%I _{max}) 4937.2	—
(70%I _{max}) 5760.07	—
(80%I _{max}) 6582.94	—
(90%I _{max}) 7405.8	—



Luminance Table

γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

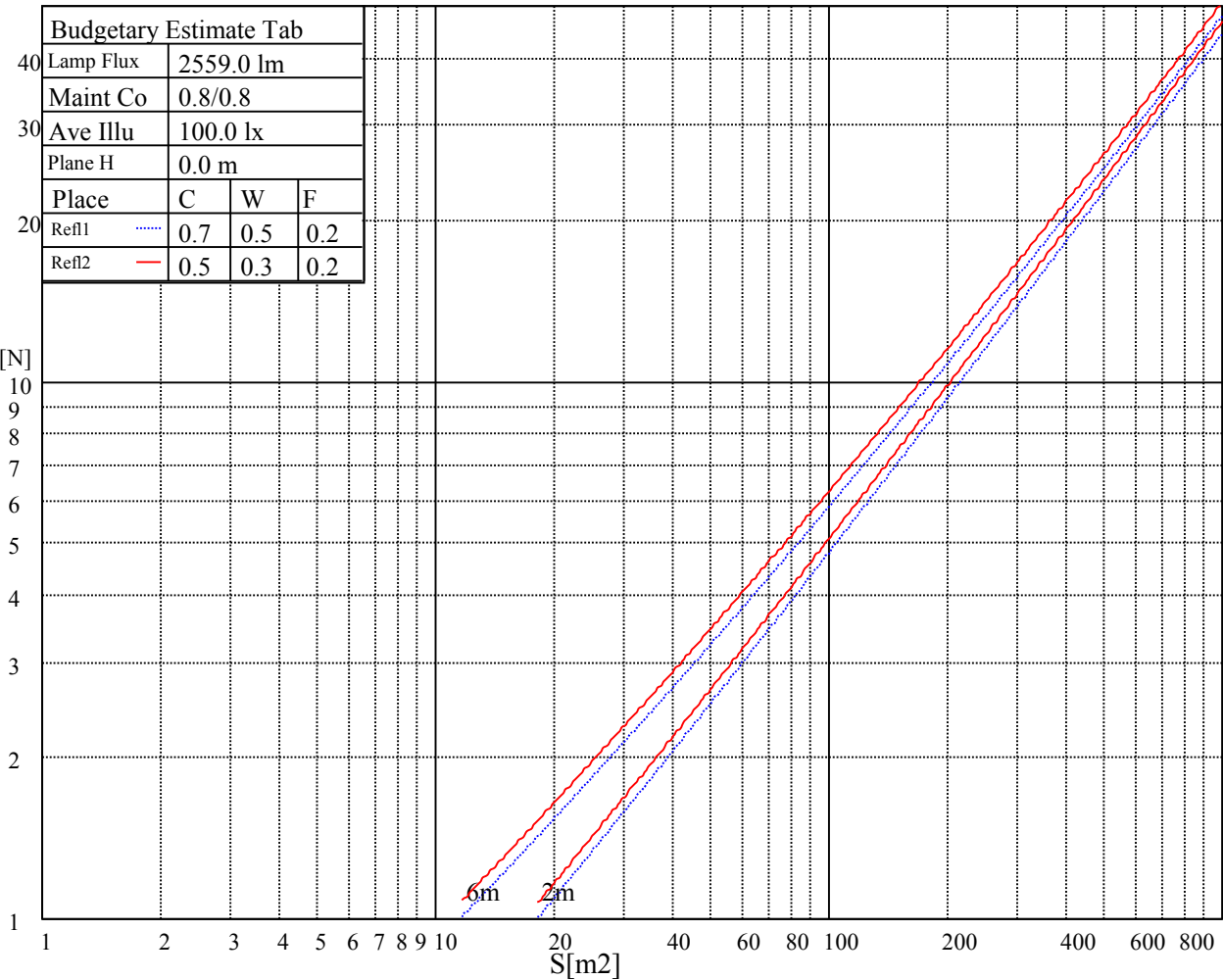
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

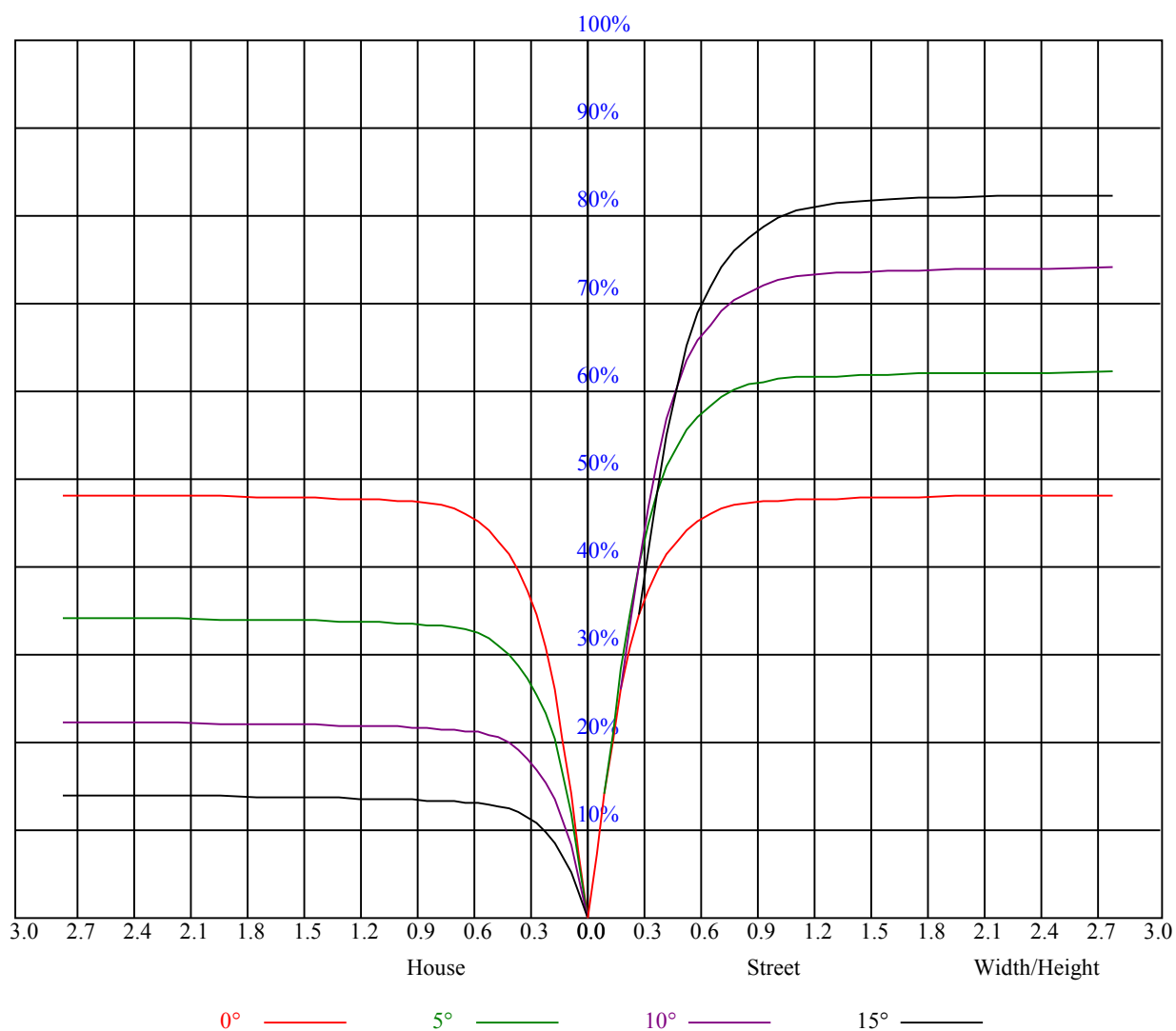
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

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	1.17	1.17	1.17	1.14	1.14	1.14	1.09	1.09	1.09	1.05	1.05	1.05	1.00	1.00	1.00	0.98
1	1.10	1.08	1.06	1.08	1.06	1.04	1.04	1.02	1.01	1.00	0.99	0.98	0.97	0.96	0.95	0.93
2	1.04	1.00	0.97	1.02	0.99	0.96	0.99	0.96	0.94	0.96	0.94	0.92	0.93	0.92	0.90	0.89
3	0.98	0.94	0.91	0.97	0.93	0.90	0.94	0.91	0.89	0.92	0.89	0.87	0.90	0.88	0.86	0.85
4	0.93	0.89	0.85	0.92	0.88	0.85	0.90	0.87	0.84	0.88	0.85	0.83	0.87	0.84	0.82	0.81
5	0.89	0.84	0.81	0.88	0.84	0.81	0.87	0.83	0.80	0.85	0.82	0.79	0.84	0.81	0.79	0.77
6	0.85	0.81	0.77	0.85	0.80	0.77	0.83	0.79	0.76	0.82	0.78	0.76	0.81	0.78	0.75	0.74
7	0.82	0.77	0.74	0.81	0.77	0.73	0.80	0.76	0.73	0.79	0.75	0.73	0.78	0.75	0.72	0.71
8	0.79	0.74	0.71	0.78	0.74	0.70	0.77	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.70	0.69
9	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.74	0.70	0.67	0.73	0.70	0.67	0.66
10	0.73	0.68	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.68	0.65	0.71	0.67	0.65	0.64



Intensity data(cd)

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C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	8200.13	8055.00	6847.88	4295.25	1870.31	1101.94	880.31	530.44	285.75
45.0	8168.63	8346.38	7595.44	5060.25	2345.06	1224.00	955.13	668.25	297.56
90.0	8317.69	8352.00	7351.88	4372.88	2022.19	1089.45	753.19	449.78	203.91
135.0	8228.25	8133.19	6614.44	3690.56	1840.50	1139.06	906.19	578.81	288.56
180.0	8200.13	7297.31	4768.31	2352.94	1338.75	968.63	708.02	310.22	40.56
225.0	8168.63	6842.81	4321.69	2003.63	1120.61	900.45	586.18	171.34	36.11
270.0	8317.69	7178.63	5006.25	2377.13	1180.13	916.31	621.56	293.06	39.60
315.0	8228.25	7330.50	5146.88	2572.31	1105.26	832.44	610.82	243.73	42.58
360.0	8200.13	8055.00	6847.88	4295.25	1870.31	1101.94	880.31	530.44	285.75
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	34.54	29.31	25.31	22.50	19.74	17.55	14.12	12.49	11.81
45.0	42.58	34.14	29.42	26.21	22.33	19.01	15.41	12.94	12.04
90.0	44.94	31.56	26.21	23.63	20.53	17.38	14.29	12.88	12.04
135.0	38.81	29.98	26.55	24.08	21.09	18.00	14.40	12.88	12.04
180.0	28.24	25.26	22.61	19.97	17.72	15.41	12.94	12.09	11.48
225.0	28.01	24.81	22.67	19.91	17.33	14.57	12.88	12.15	11.59
270.0	27.84	24.24	21.04	18.90	16.54	14.18	12.88	12.43	11.53
315.0	30.88	28.29	24.36	20.93	17.89	14.74	12.77	11.93	11.59
360.0	34.54	29.31	25.31	22.50	19.74	17.55	14.12	12.49	11.81
C/ γ (°)	90.0								
0.0	11.36								
45.0	11.48								
90.0	11.25								
135.0	11.03								
180.0	10.91								
225.0	11.14								
270.0	11.08								
315.0	11.08								
360.0	11.36								