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Nata

LumCAT: LN01D04536DA-N

Luminaire: 97.70.234.00

Report No: 210701-B006

Test No: 210701-C006

LampCAT: Fortimo LED SLM 1202 G7N

Lamp flux(lm): 1511.8

Number of Lamps: 1

Length(mm): 570

Phm Type: C

Voltage(V): 37.1800

Current(A): 0.3040

Power (W): 11.3020

PF: 0.0000

Ballast type: DC

Width(mm): 45

Height(mm): 20

Photometric Results

Lumens(lm): 1381.21

Efficiency(%): 91.36%

Lumens(lm)/Power(W): 122.21

Central intensity(cd): 2640.938

Maximum intensity(cd): 2640.938

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=40.2

[C90/270]Total=40.2

Field angle(10%Imax): [C0/180]Total=66.3

[C90/270]Total=66.3

Maximum s/h(1/2): C0_180=0.67 C90_270=0.67

Maximum s/h(1/4): C0_180=0.64 C90_270=0.64

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 91.36%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.764%

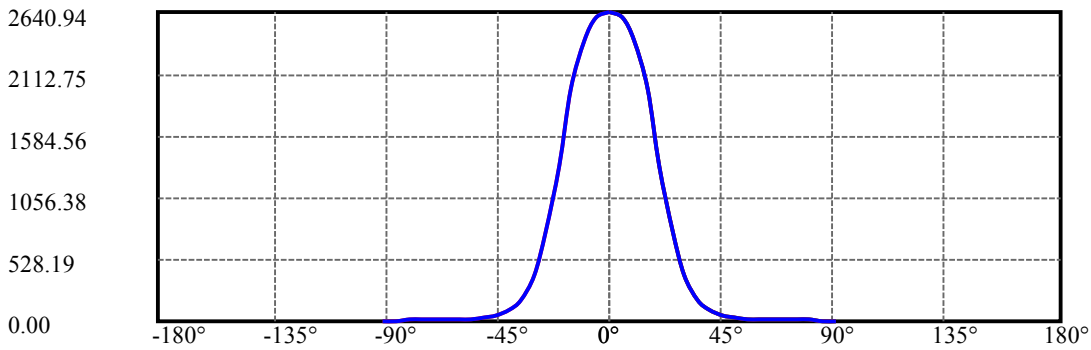
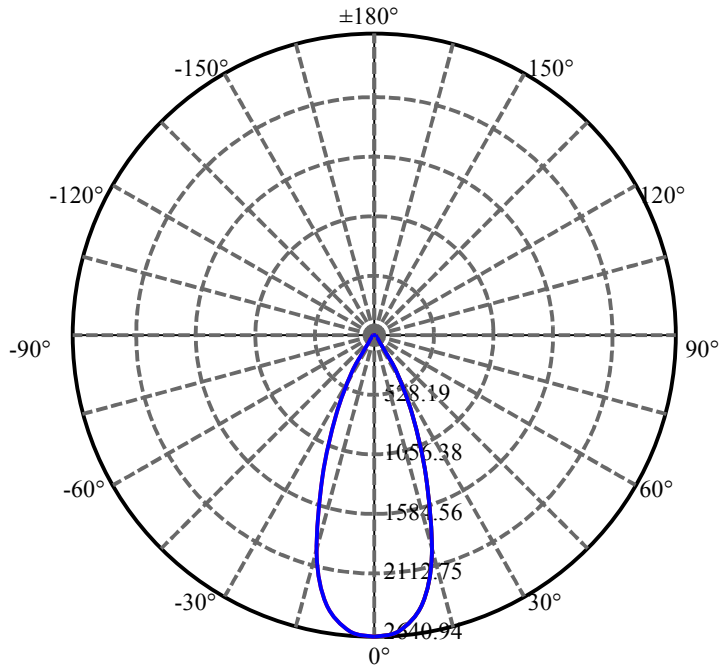
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2640.938	0.000	0	.000%	.000%
5.0	2592.141	62.560	62.56	4.138%	4.529%
10.0	2393.859	178.365	240.925	11.798%	17.443%
15.0	1979.367	259.417	500.342	17.159%	36.225%
20.0	1329.680	272.712	773.054	18.039%	55.969%
25.0	776.918	220.943	993.997	14.614%	71.965%
30.0	395.564	148.379	1142.375	9.815%	82.708%
35.0	187.713	85.892	1228.267	5.681%	88.927%
40.0	90.295	46.384	1274.651	3.068%	92.285%
45.0	49.205	25.830	1300.48	1.709%	94.155%
50.0	31.099	16.227	1316.707	1.073%	95.330%
55.0	20.904	11.307	1328.014	.748%	96.148%
60.0	15.884	8.503	1336.517	.562%	96.764%
65.0	14.991	7.506	1344.023	.496%	97.307%
70.0	17.304	8.177	1352.2	.541%	97.899%
75.0	18.907	9.465	1361.665	.626%	98.585%
80.0	15.827	9.294	1370.959	.615%	99.258%
85.0	7.910	6.450	1377.409	.427%	99.725%
90.0	5.984	3.804	1381.213	.252%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1142.38	75.56%	82.71%
0-40	1274.65	84.31%	92.28%
0-60	1336.52	88.41%	96.76%
0-90	1377.41	91.11%	99.72%
0-120	1377.41	91.11%	99.72%
0-180	1381.21	91.36%	100.00%
60-90	49.40	3.27%	3.58%
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%
0-28.74	1104.97	73.09%	80.00%

ZONAL LUMEN SUMMARY

0-10	240.92
10-20	532.13
20-30	369.32
30-40	132.28
40-50	42.06
50-60	19.81
60-70	15.68
70-80	18.76
80-90	6.45
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



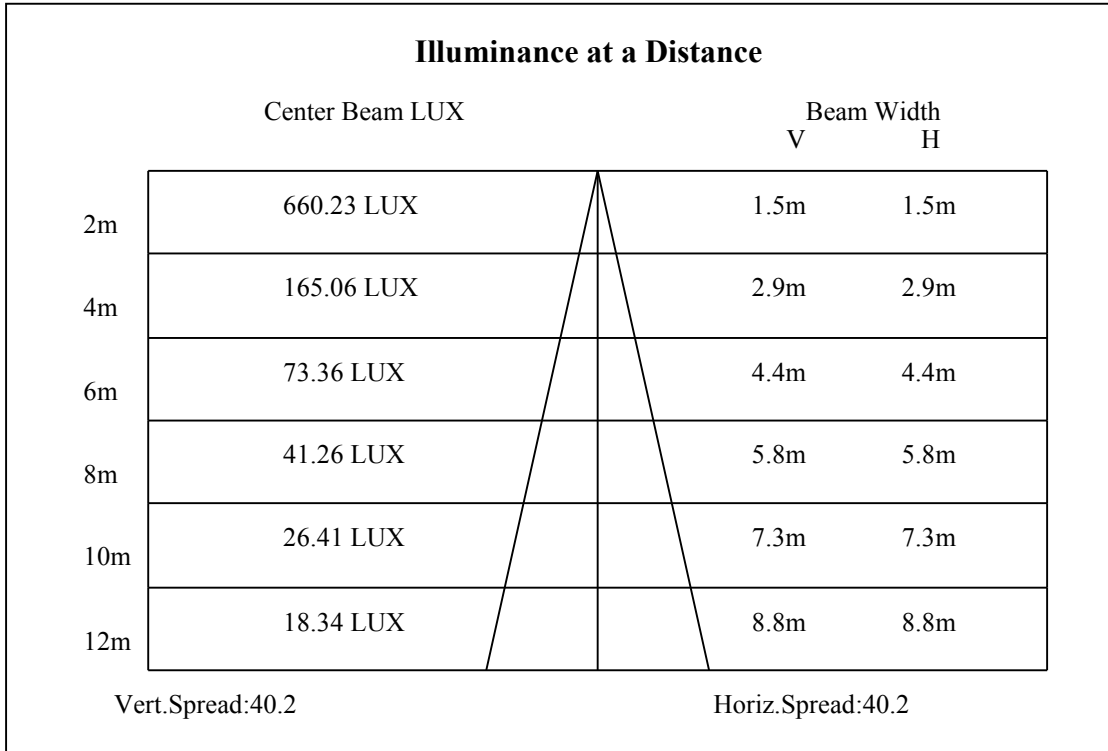
C0(Max): —————

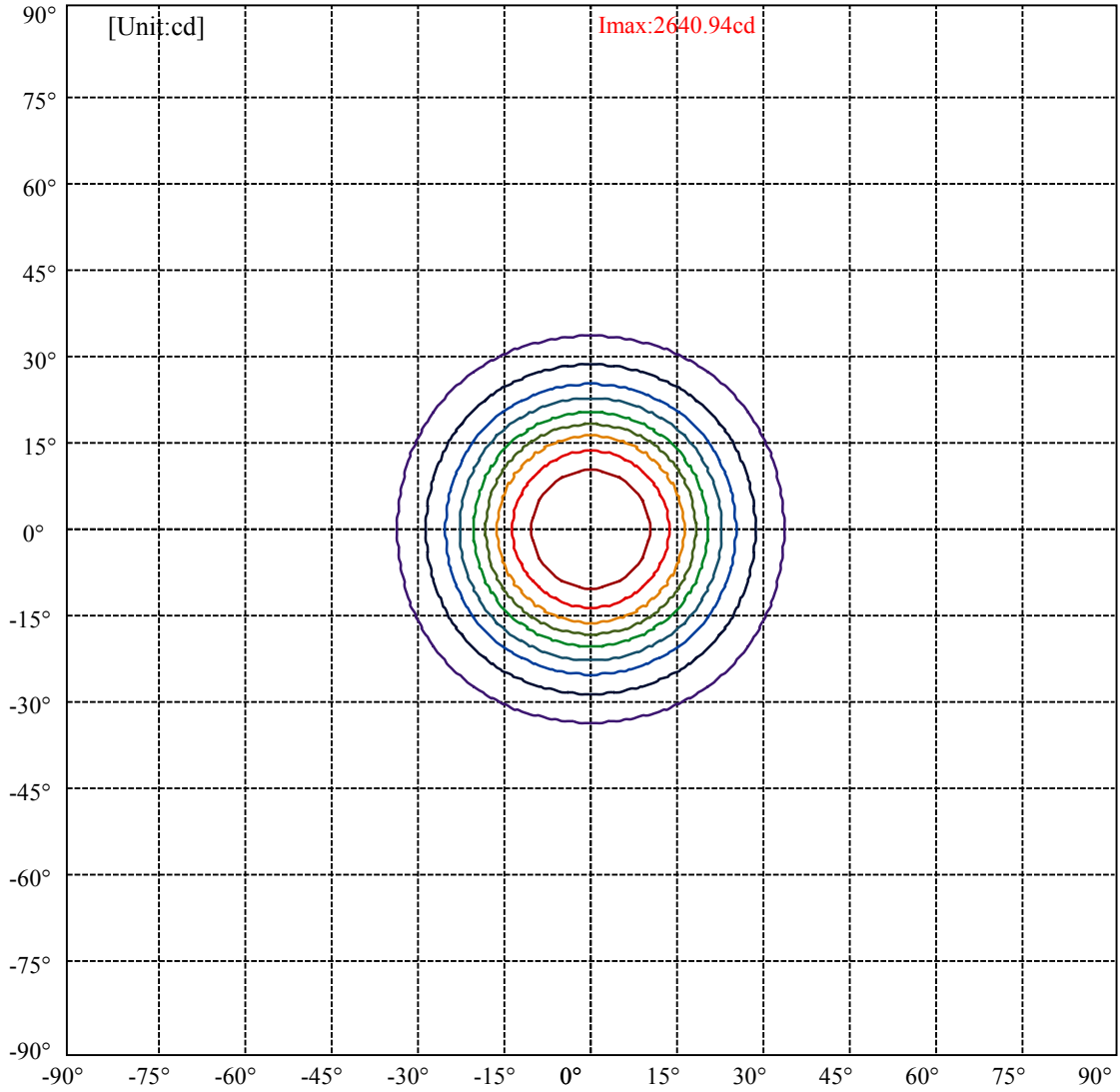
C0/C180: —————

C90/C270: —————

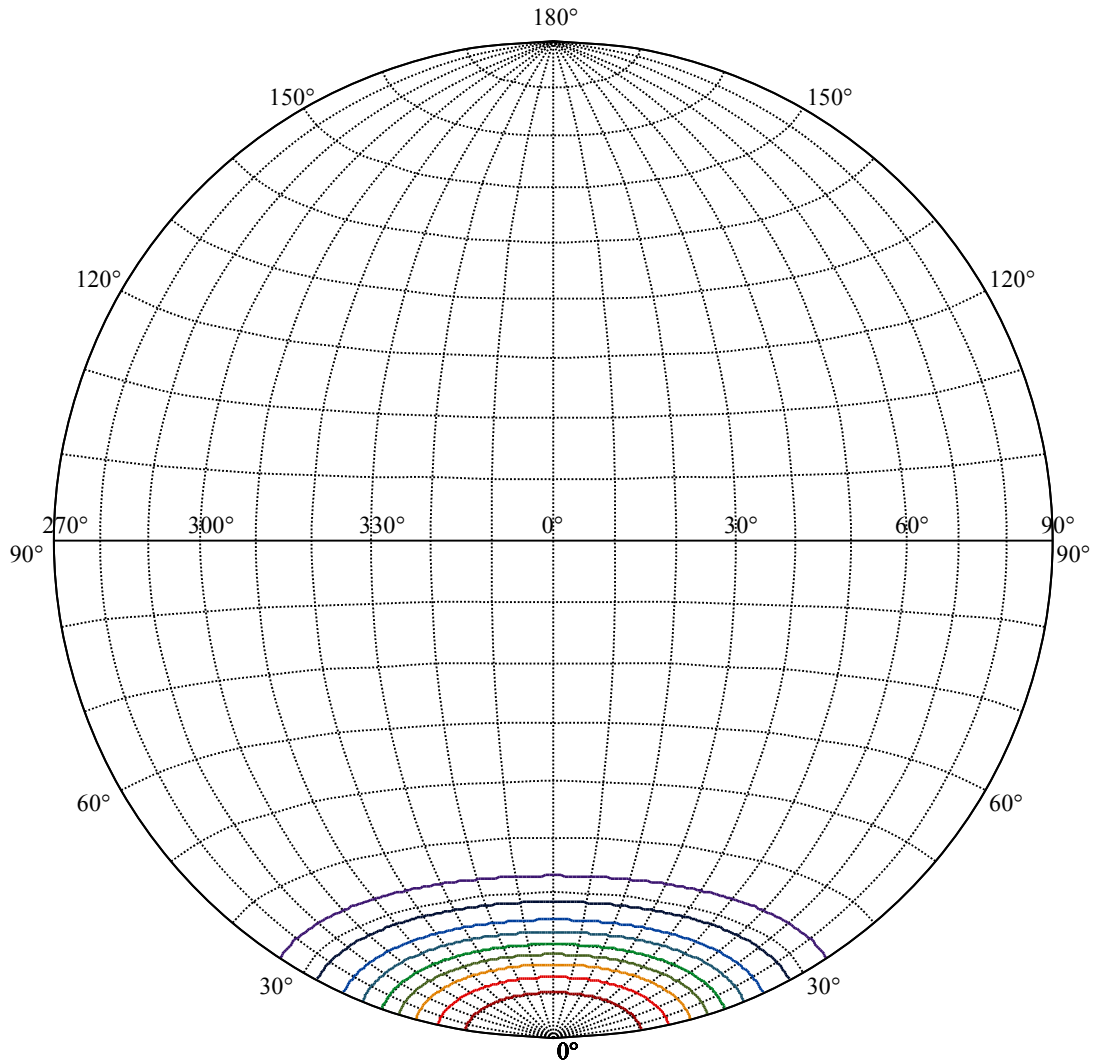
Field angle(10%Imax):C0/180Left:33.2 Right:33.2
:C90/270Left:33.2 Right:33.2

Beam Angle(50%Imax):C0/180Left:20.1 Right:20.1
:C90/270Left:20.1 Right:20.1





(10%Imax) 264.094	—
(20%Imax) 528.188	—
(30%Imax) 792.281	—
(40%Imax) 1056.38	—
(50%Imax) 1320.47	—
(60%Imax) 1584.56	—
(70%Imax) 1848.66	—
(80%Imax) 2112.75	—
(90%Imax) 2376.84	—



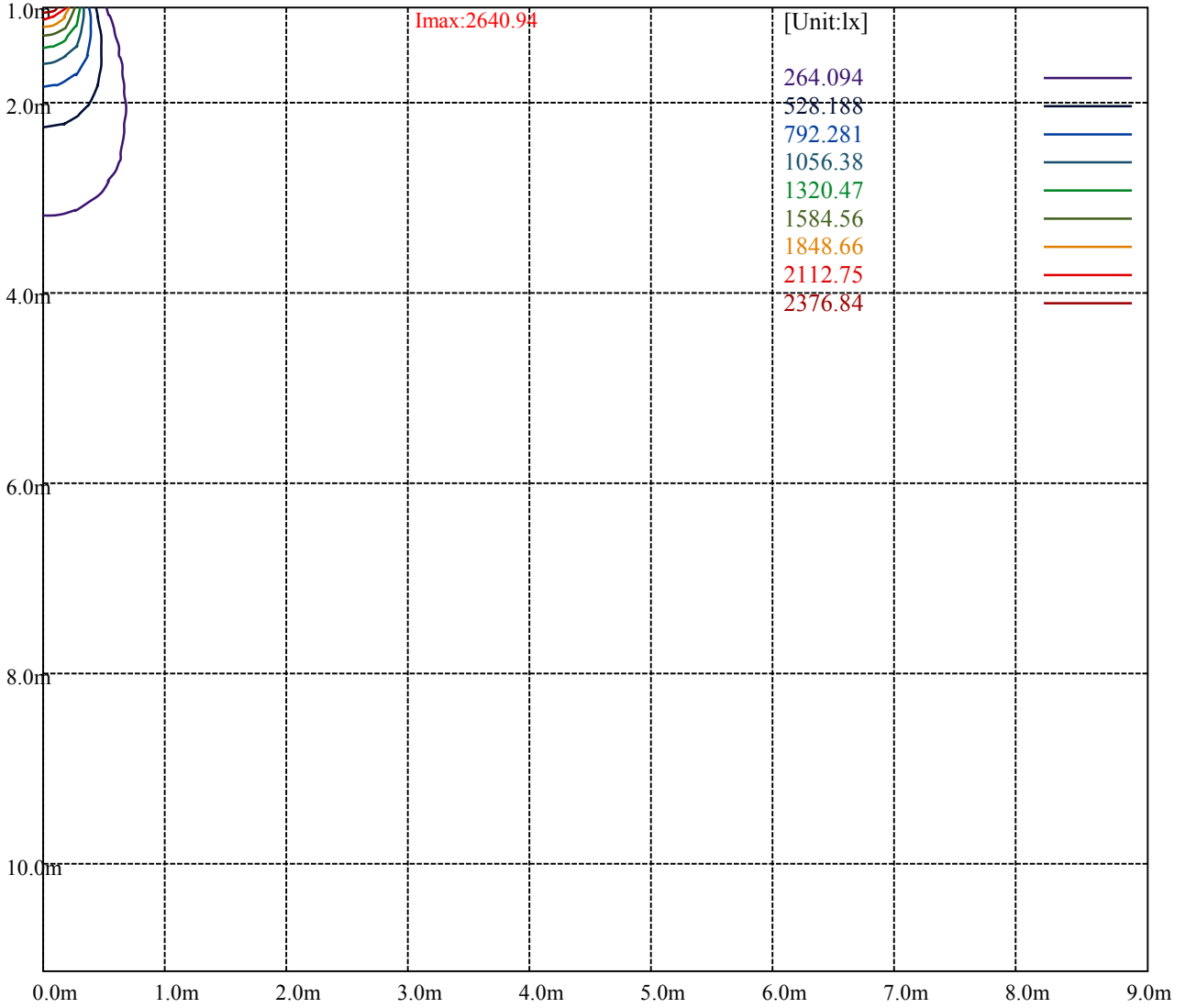
House

[Unit:cd]

Road

Imax:2640.94

(10%Imax)	264.094	—
(20%Imax)	528.188	—
(30%Imax)	792.281	—
(40%Imax)	1056.38	—
(50%Imax)	1320.47	—
(60%Imax)	1584.56	—
(70%Imax)	1848.66	—
(80%Imax)	2112.75	—
(90%Imax)	2376.84	—



Luminance Table

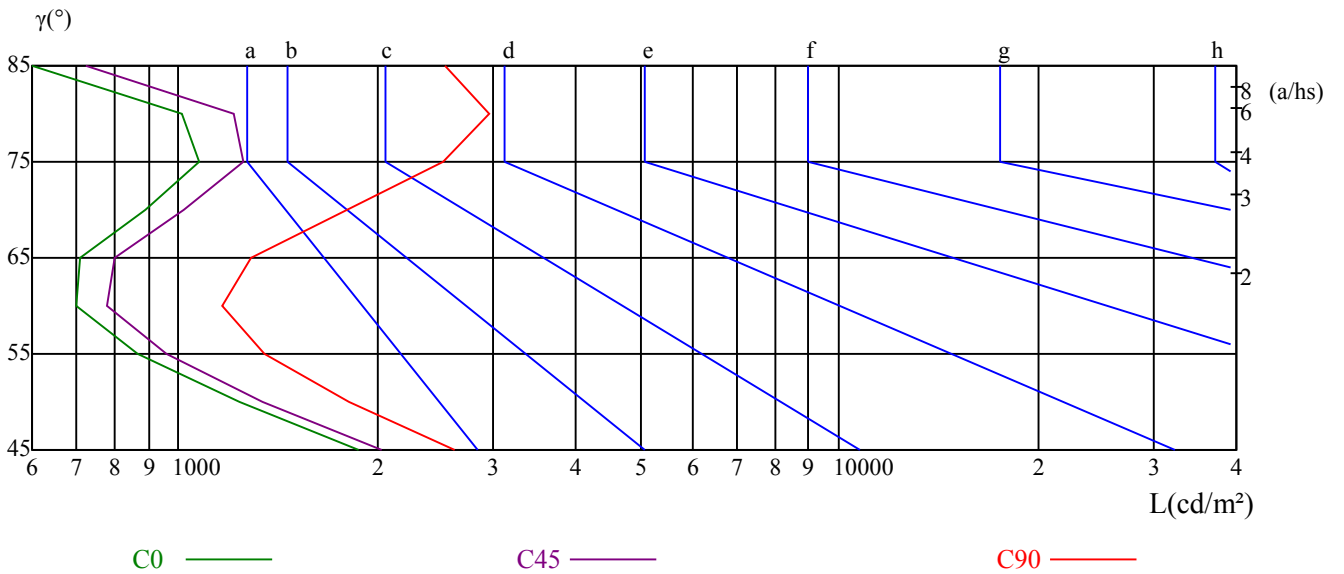
γ	45	50	55	60	65	70	75	80	85
C0	1878	1233	869	700	708	888	1071	1009	582
C45	2026	1343	957	780	801	1021	1257	1216	726
C90	2621	1811	1353	1168	1286	1799	2518	2964	2525

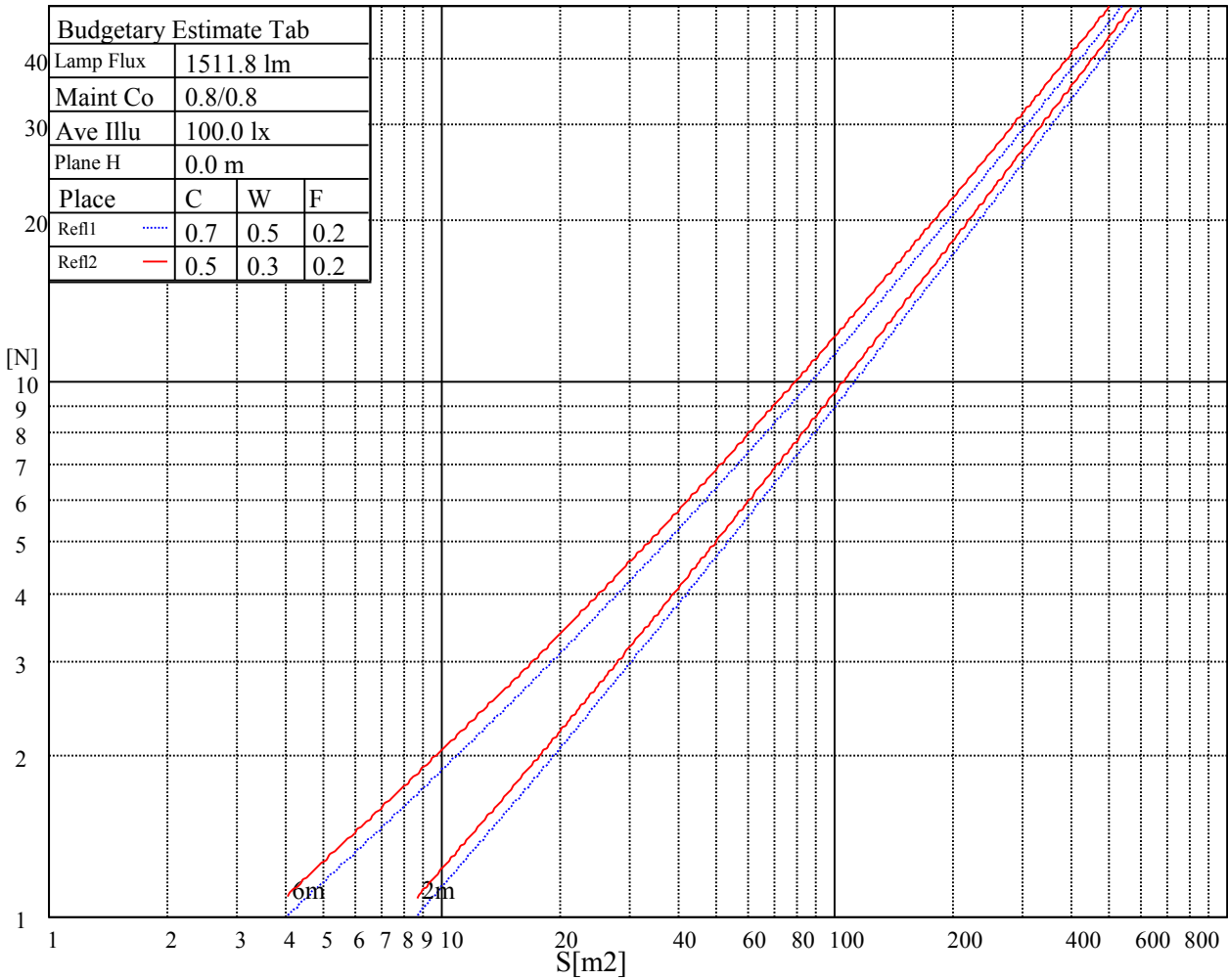
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1383	1383	1383	2848	2848	2848	3538	3538	3538

Glare Table

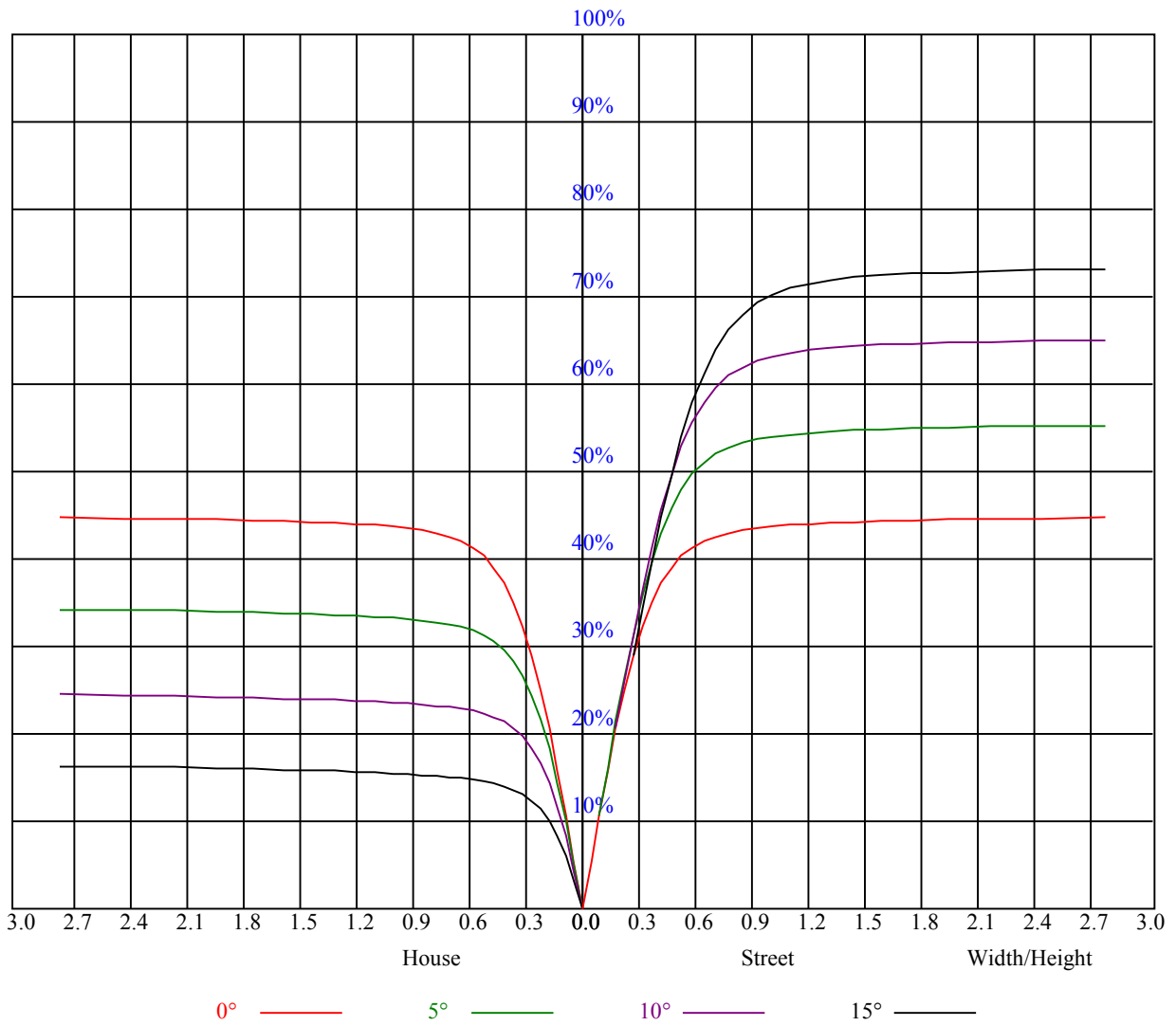
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.09	1.09	1.09	1.06	1.06	1.06	1.02	1.02	1.02	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.01	0.99	0.97	0.99	0.97	0.95	0.96	0.94	0.92	0.92	0.91	0.90	0.89	0.88	0.87	0.85
2	0.95	0.91	0.88	0.93	0.90	0.87	0.90	0.88	0.85	0.87	0.85	0.83	0.85	0.83	0.82	0.80
3	0.89	0.85	0.81	0.88	0.84	0.81	0.85	0.82	0.79	0.83	0.81	0.78	0.81	0.79	0.77	0.76
4	0.84	0.79	0.76	0.83	0.79	0.75	0.81	0.77	0.75	0.79	0.76	0.74	0.78	0.75	0.73	0.72
5	0.80	0.75	0.71	0.79	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.74	0.71	0.69	0.68
6	0.76	0.71	0.67	0.75	0.70	0.67	0.74	0.70	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.65
7	0.72	0.67	0.64	0.72	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.63	0.61
8	0.69	0.64	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.59
9	0.66	0.61	0.58	0.65	0.61	0.58	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.56
10	0.63	0.58	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.58	0.55	0.61	0.57	0.55	0.54



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	2638.13	2599.88	2399.06	2013.19	1374.19	762.19	393.75	176.51	87.64
45.0	2642.06	2584.69	2352.38	1880.44	1199.25	668.25	324.00	144.39	79.88
90.0	2640.38	2556.00	2301.75	1816.88	1107.23	626.74	313.09	140.96	70.54
135.0	2643.19	2599.31	2391.19	1985.63	1365.19	763.31	379.13	175.56	87.30
180.0	2638.13	2572.88	2384.44	1935.56	1112.40	750.54	373.84	169.43	88.99
225.0	2642.06	2603.81	2459.81	2091.38	1531.13	884.76	474.13	217.18	105.58
270.0	2640.38	2626.31	2488.50	2175.75	1678.50	994.50	522.00	295.88	114.53
315.0	2643.19	2594.25	2373.75	1936.13	1269.56	765.06	384.58	181.80	87.92
360.0	2638.13	2599.88	2399.06	2013.19	1374.19	762.19	393.75	176.51	87.64
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	49.61	30.83	20.64	15.98	12.77	10.91	9.73	8.72	7.37
45.0	43.59	28.07	19.18	15.02	12.38	10.74	10.63	8.83	6.53
90.0	39.60	26.16	18.00	14.85	27.17	41.74	48.83	26.83	6.36
135.0	48.66	31.73	21.21	15.86	12.99	10.69	9.39	8.38	6.69
180.0	49.05	30.99	20.87	15.92	12.77	10.86	9.79	8.89	7.54
225.0	57.54	35.44	23.23	17.16	13.50	11.25	10.18	9.90	7.93
270.0	56.98	34.48	22.78	16.54	15.64	31.50	43.26	46.69	13.78
315.0	48.60	31.11	21.32	15.75	12.71	10.74	9.45	8.38	7.09
360.0	49.61	30.83	20.64	15.98	12.77	10.91	9.73	8.72	7.37
C/γ(°)	90.0								
0.0	6.24								
45.0	5.96								
90.0	5.79								
135.0	5.85								
180.0	6.19								
225.0	6.08								
270.0	5.91								
315.0	5.85								
360.0	6.24								