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## Nata

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LumCAT: LN01D05036DA-N

Luminaire: 97.70.234.00

Report No: 210701-B010

Test No: 210701-C010

LampCAT: Fortimo LED SLM 1202 G7N

Lamp flux(lm): 1511.8

Number of Lamps: 1

Length(mm): 570

Phm Type: C

Voltage(V): 37.0900

Current(A): 0.3040

Power (W): 11.2750

PF: 0.0000

Ballast type: DC

Width(mm): 45

Height(mm): 20

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## Photometric Results

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Lumens(lm): 1400.01

Efficiency(%): 92.60%

Lumens(lm)/Power(W): 124.17

Central intensity(cd): 2657.672

Maximum intensity(cd): 2657.672

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=41.5

[C90/270]Total=41.5

Field angle(10%Imax): [C0/180]Total=65.9

[C90/270]Total=65.9

Maximum s/h(1/2): C0\_180=0.68 C90\_270=0.68

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(%): 92.60%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 97.089%

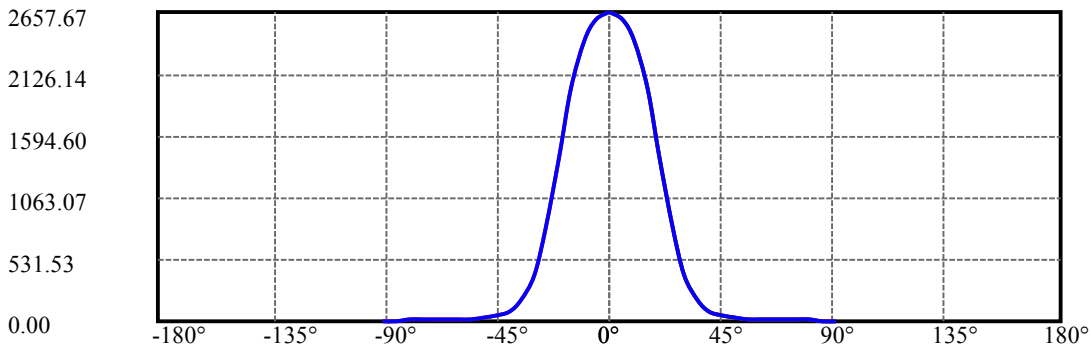
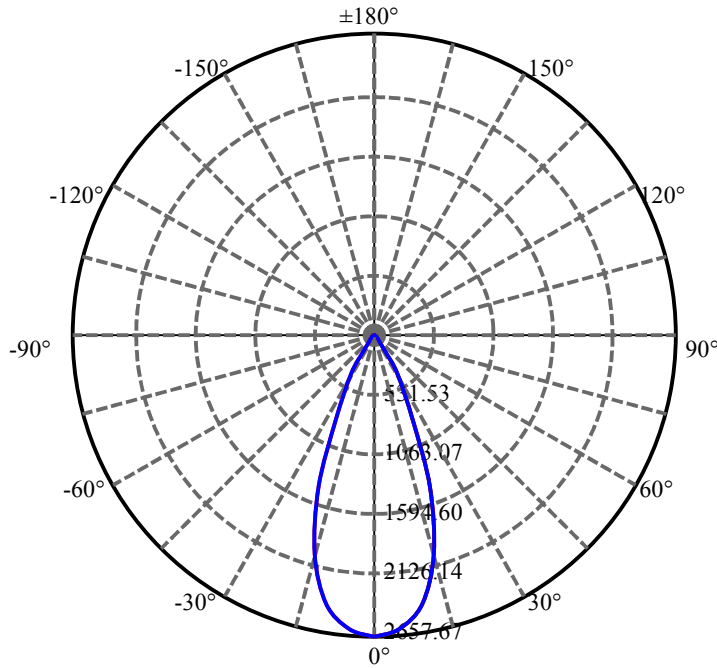
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2657.672	0.000	0	.000%	.000%
5.0	2598.891	62.841	62.841	4.157%	4.489%
10.0	2404.125	178.974	241.814	11.838%	17.272%
15.0	1997.297	261.089	502.904	17.270%	35.921%
20.0	1420.088	281.640	784.544	18.629%	56.039%
25.0	813.558	234.268	1018.812	15.496%	72.772%
30.0	392.576	152.637	1171.45	10.096%	83.674%
35.0	178.727	84.128	1255.578	5.565%	89.684%
40.0	84.572	43.929	1299.507	2.906%	92.821%
45.0	47.721	24.495	1324.003	1.620%	94.571%
50.0	30.473	15.800	1339.803	1.045%	95.700%
55.0	20.588	11.102	1350.905	.734%	96.493%
60.0	15.525	8.347	1359.253	.552%	97.089%
65.0	12.952	6.923	1366.175	.458%	97.583%
70.0	14.168	6.867	1373.042	.454%	98.074%
75.0	16.938	8.131	1381.173	.538%	98.655%
80.0	15.567	8.698	1389.87	.575%	99.276%
85.0	7.812	6.353	1396.223	.420%	99.730%
90.0	6.012	3.785	1400.008	.250%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1171.45	77.49%	83.67%
0-40	1299.51	85.96%	92.82%
0-60	1359.25	89.91%	97.09%
0-90	1396.22	92.35%	99.73%
0-120	1396.22	92.35%	99.73%
0-180	1400.01	92.60%	100.00%
60-90	45.32	3.00%	3.24%
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%
0-28.31	1120.01	74.08%	80.00%

ZONAL LUMEN SUMMARY

0-10	241.81
10-20	542.73
20-30	386.91
30-40	128.06
40-50	40.30
50-60	19.45
60-70	13.79
70-80	16.83
80-90	6.35
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): —————

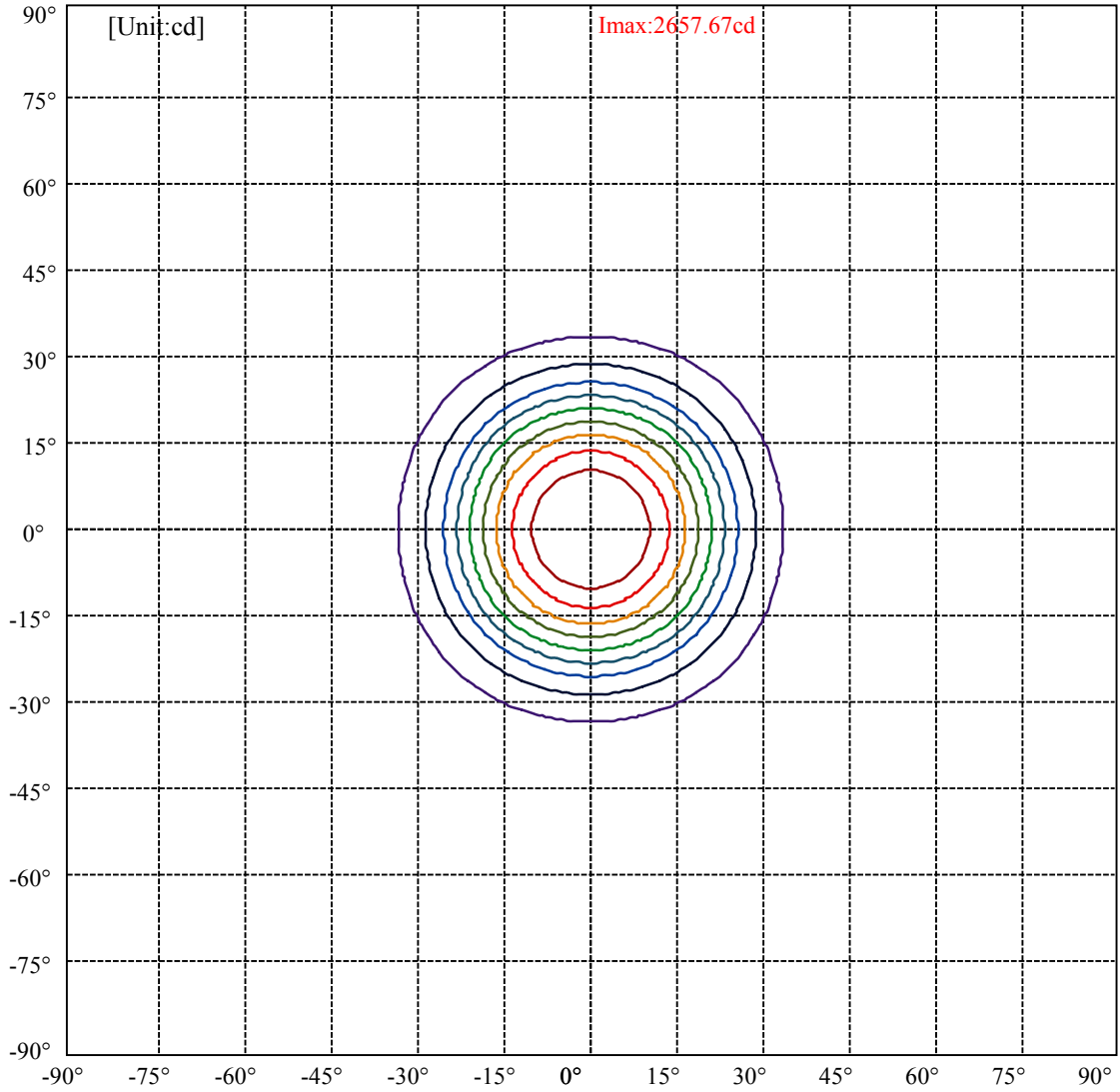
C0/C180: —————

C90/C270: —————

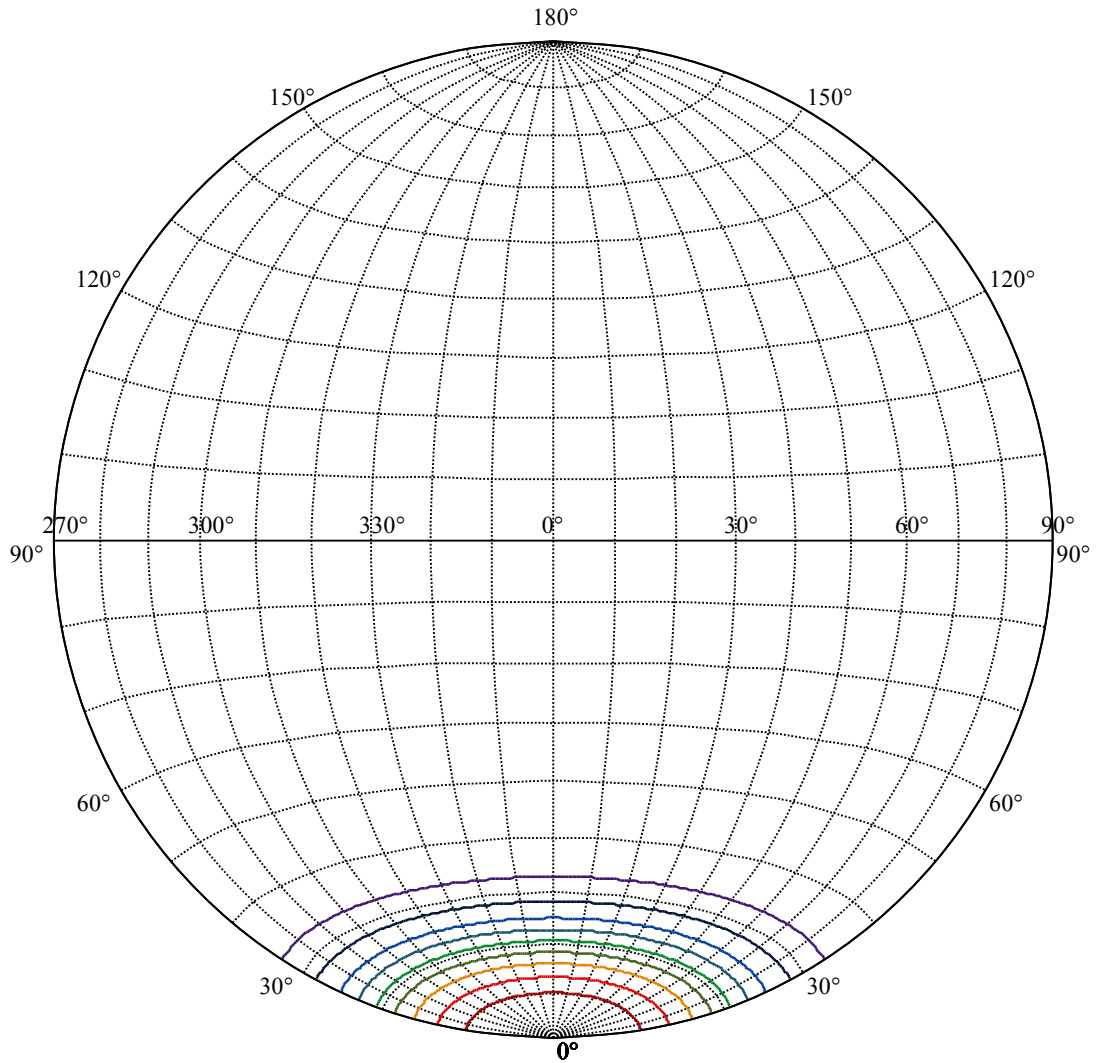
Field angle(10%Imax):C0/180Left:33.0 Right:33.0  
:C90/270Left:33.0 Right:33.0

Beam Angle(50%Imax):C0/180Left:20.8 Right:20.8  
:C90/270Left:20.8 Right:20.8





(10%Imax) 265.767	—
(20%Imax) 531.534	—
(30%Imax) 797.302	—
(40%Imax) 1063.07	—
(50%Imax) 1328.84	—
(60%Imax) 1594.6	—
(70%Imax) 1860.37	—
(80%Imax) 2126.14	—
(90%Imax) 2391.9	—



House

[Unit:cd]

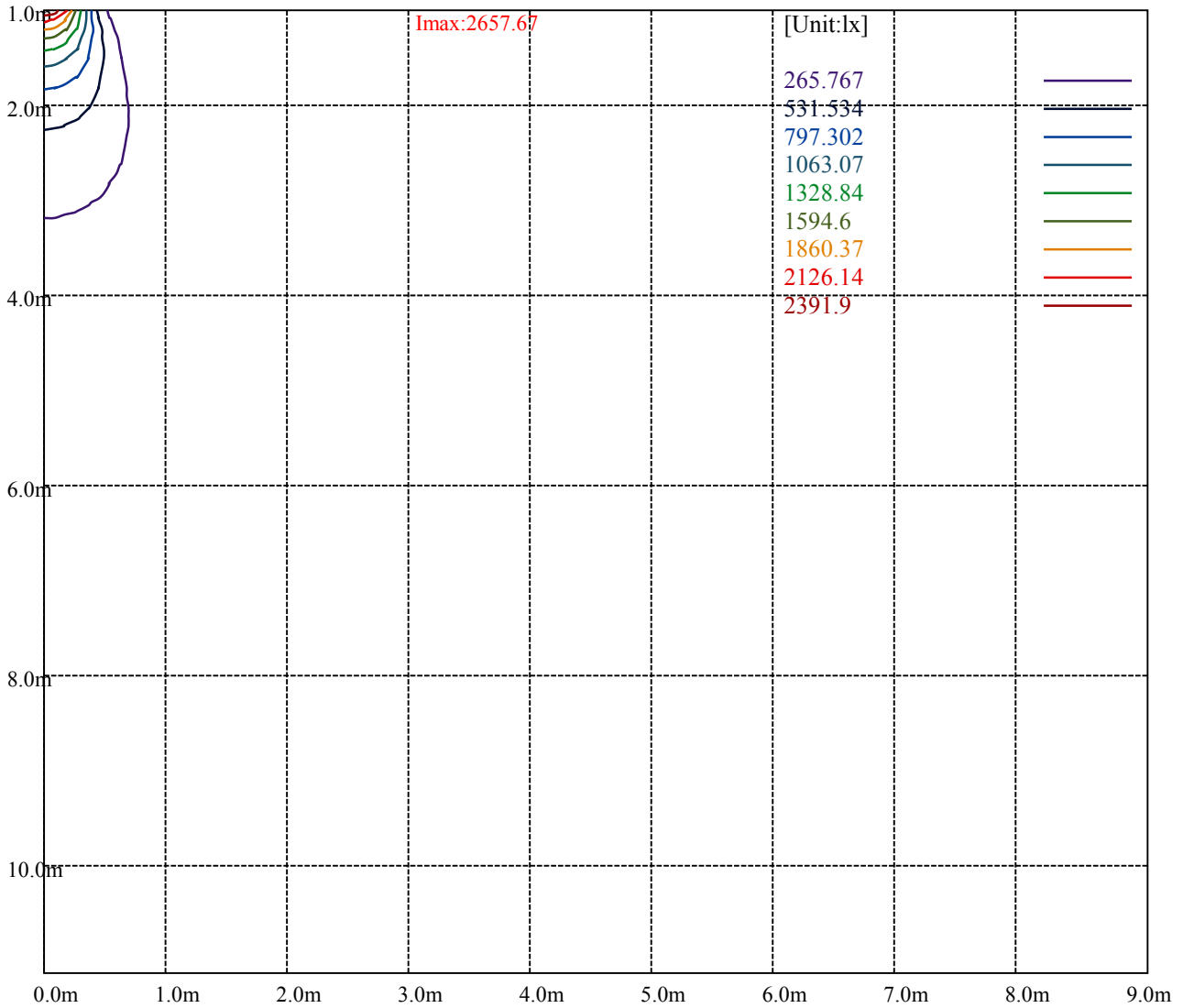
Road

**Imax:2657.67**

(10%Imax) 265.767	—
(20%Imax) 531.534	—
(30%Imax) 797.302	—
(40%Imax) 1063.07	—
(50%Imax) 1328.84	—
(60%Imax) 1594.6	—
(70%Imax) 1860.37	—
(80%Imax) 2126.14	—
(90%Imax) 2391.9	—







Luminance Table

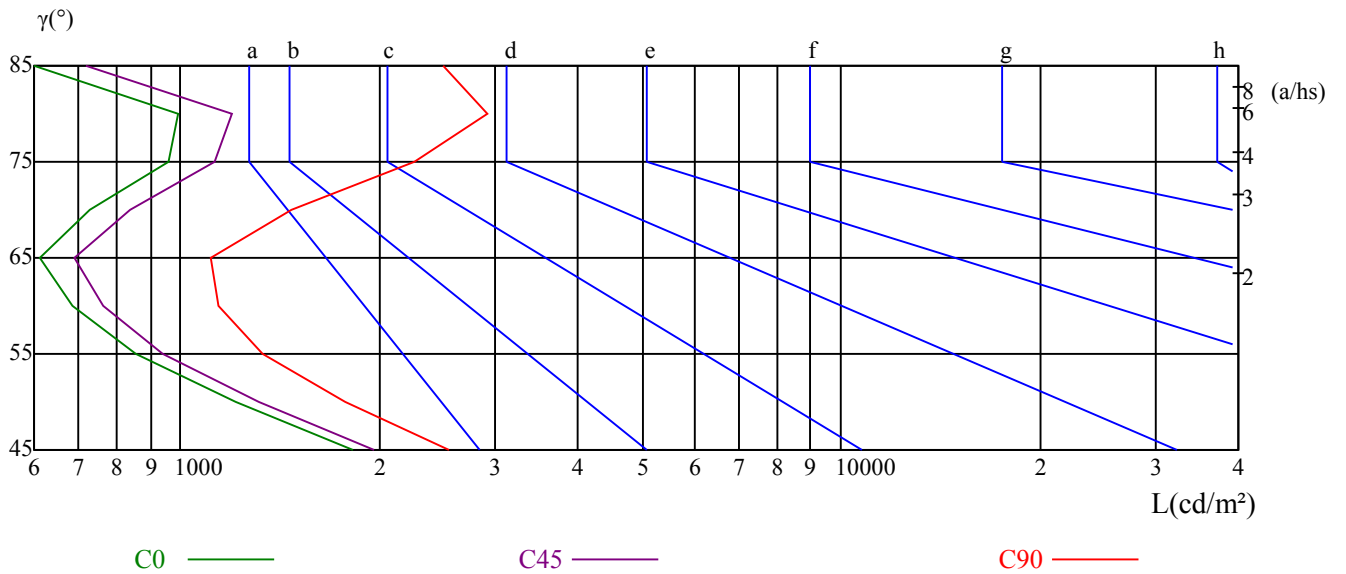
$\gamma$	45	50	55	60	65	70	75	80	85
C0	1822	1208	856	684	612	727	960	993	575
C45	1965	1316	943	763	692	836	1126	1196	717
C90	2542	1774	1333	1141	1111	1473	2256	2915	2494

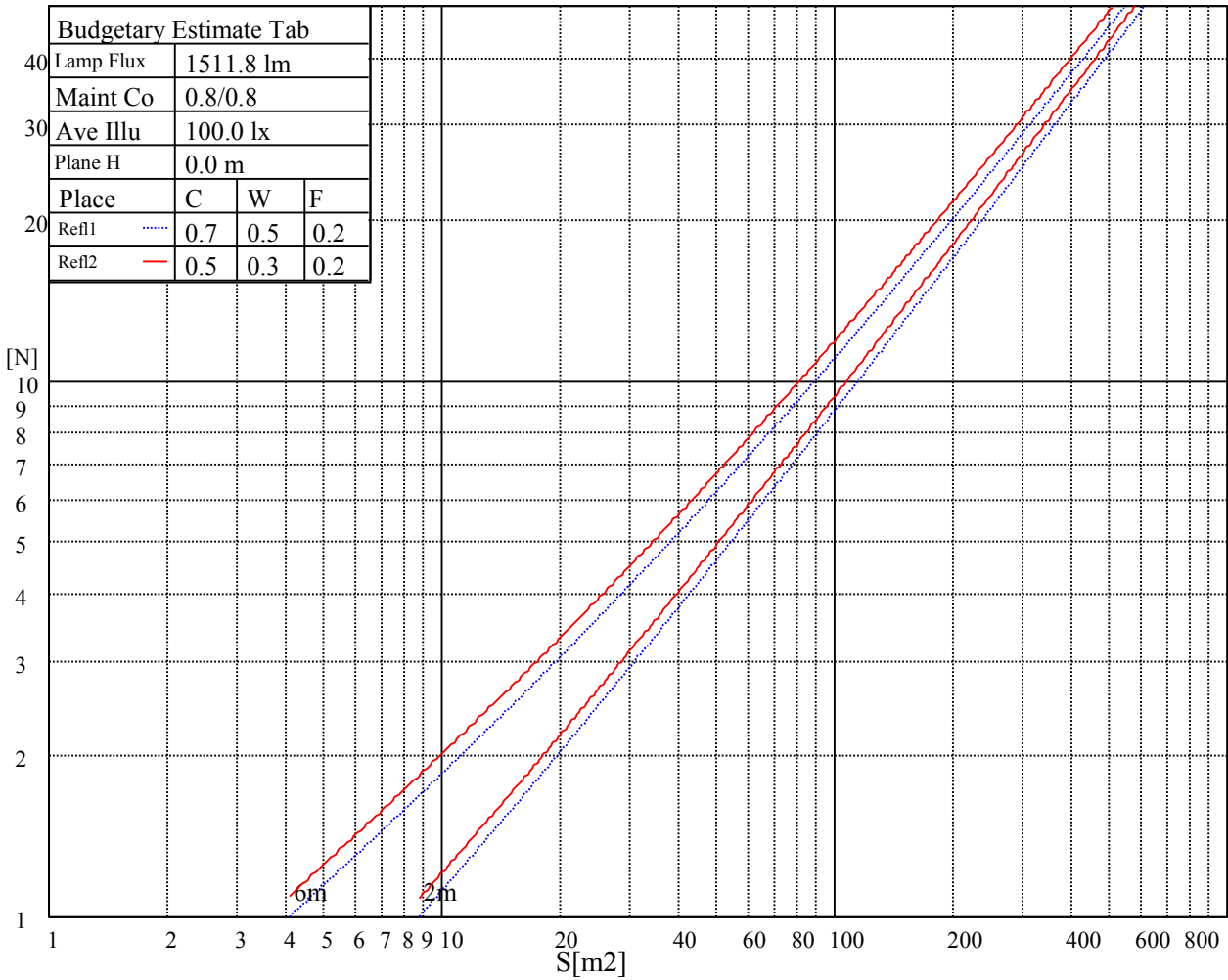
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1195	1195	1195	2551	2551	2551	3494	3494	3494

Glare Table

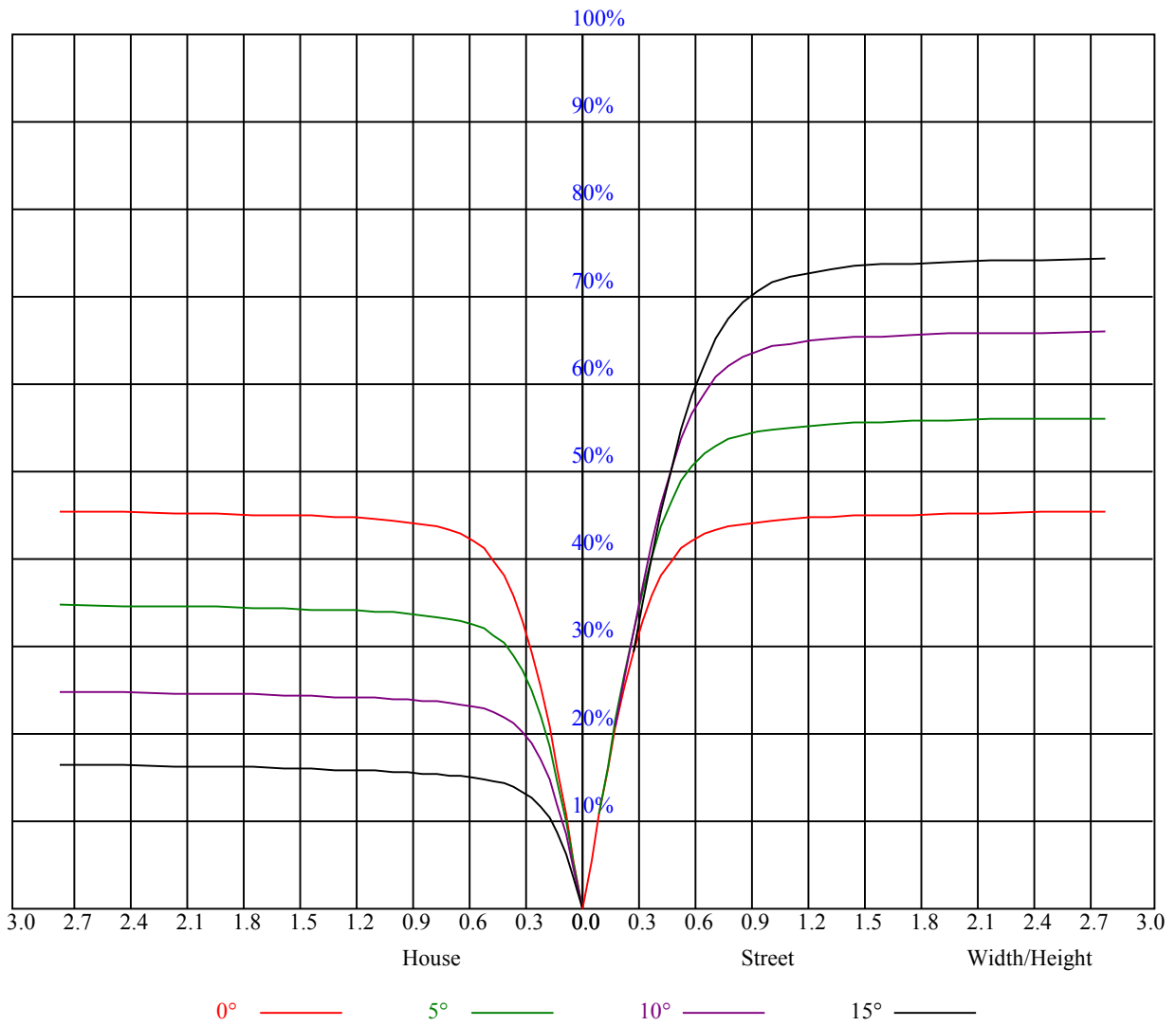
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.10	1.10	1.10	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.94	0.94	0.94	0.93
1	1.03	1.00	0.98	1.01	0.99	0.97	0.97	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
2	0.96	0.93	0.90	0.95	0.91	0.89	0.92	0.89	0.87	0.89	0.87	0.85	0.86	0.85	0.83	0.82
3	0.90	0.86	0.83	0.89	0.85	0.82	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.80	0.78	0.77
4	0.85	0.81	0.77	0.84	0.80	0.77	0.83	0.79	0.76	0.81	0.78	0.75	0.79	0.76	0.74	0.73
5	0.81	0.76	0.73	0.80	0.76	0.72	0.79	0.75	0.72	0.77	0.74	0.71	0.76	0.73	0.70	0.69
6	0.77	0.72	0.68	0.76	0.72	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.69	0.67	0.66
7	0.73	0.68	0.65	0.73	0.68	0.65	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.63
8	0.70	0.65	0.62	0.70	0.65	0.62	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.60
9	0.67	0.62	0.59	0.67	0.62	0.59	0.66	0.61	0.59	0.65	0.61	0.58	0.64	0.61	0.58	0.57
10	0.64	0.59	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.59	0.56	0.62	0.58	0.56	0.55



Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	2653.31	2616.75	2426.06	2027.81	1446.19	800.44	392.06	167.40	83.08
45.0	2658.38	2583.56	2367.00	1878.75	1259.44	644.06	312.19	132.36	69.19
90.0	2656.13	2565.56	2295.00	1844.44	1112.51	610.09	287.38	128.08	65.08
135.0	2662.88	2602.69	2408.63	1990.13	1447.31	801.56	371.81	165.66	82.97
180.0	2653.31	2593.13	2401.88	1983.94	1410.19	806.12	381.83	164.48	84.60
225.0	2658.38	2612.25	2466.00	2129.06	1595.81	986.63	489.26	212.46	98.61
270.0	2656.13	2622.38	2481.19	2166.19	1670.63	1073.25	538.31	291.38	109.74
315.0	2662.88	2594.81	2387.25	1958.06	1418.63	786.32	367.76	168.02	83.31
360.0	2653.31	2616.75	2426.06	2027.81	1446.19	800.44	392.06	167.40	83.08
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	50.57	31.33	21.04	15.98	12.83	11.08	9.39	8.21	7.20
45.0	41.46	27.28	18.84	14.68	12.04	10.52	10.01	8.27	6.41
90.0	37.91	24.81	17.10	13.56	14.29	30.32	42.08	28.91	6.36
135.0	46.86	30.99	20.81	15.58	12.71	10.91	9.23	7.93	6.58
180.0	48.15	30.77	21.15	15.81	12.77	11.19	9.45	8.10	7.03
225.0	54.45	33.92	22.50	16.82	13.33	11.59	10.69	10.63	7.76
270.0	54.84	33.41	22.16	16.09	13.11	16.71	35.21	44.33	14.01
315.0	47.53	31.28	21.09	15.69	12.54	11.03	9.45	8.16	7.14
360.0	50.57	31.33	21.04	15.98	12.83	11.08	9.39	8.21	7.20
C/ $\gamma$ (°)	90.0								
0.0	6.08								
45.0	5.96								
90.0	5.91								
135.0	5.91								
180.0	5.96								
225.0	6.30								
270.0	6.08								
315.0	5.91								
360.0	6.08								