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Nata

LumCAT: LN01D05036DA-N

Luminaire: 97.70.234.00

Report No: 210709-B010

Test No: 210709-C010

LampCAT: Fortimo LED SLM 1204 G7N

Lamp flux(lm): 2429.4

Number of Lamps: 1

Length(mm): 570

Phm Type: C

Voltage(V): 35.8700

Current(A): 0.5100

Power (W): 18.2930

PF: 0.0000

Ballast type: DC

Width(mm): 45

Height(mm): 20

Photometric Results

Lumens(lm): 2294.47

Efficiency(%): 94.45%

Lumens(lm)/Power(W): 125.43

Central intensity(cd): 4405.500

Maximum intensity(cd): 4405.500

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=41.4

[C90/270]Total=41.4

Field angle(10%Imax): [C0/180]Total=65.6

[C90/270]Total=65.6

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(%): 94.45%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.005%

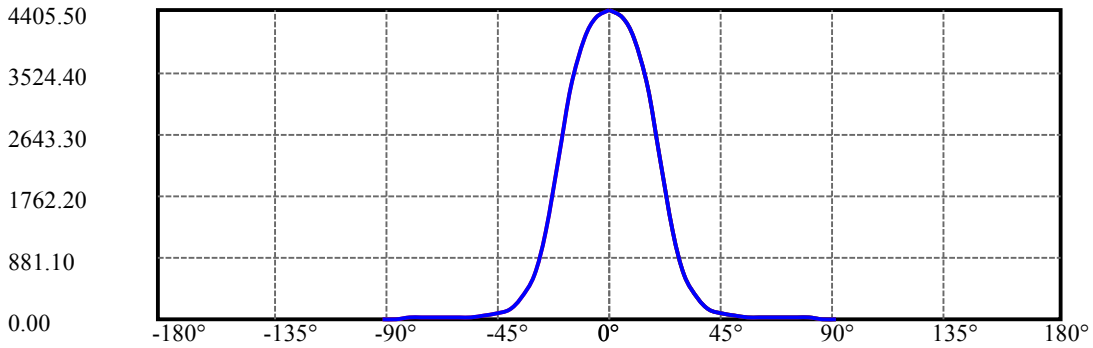
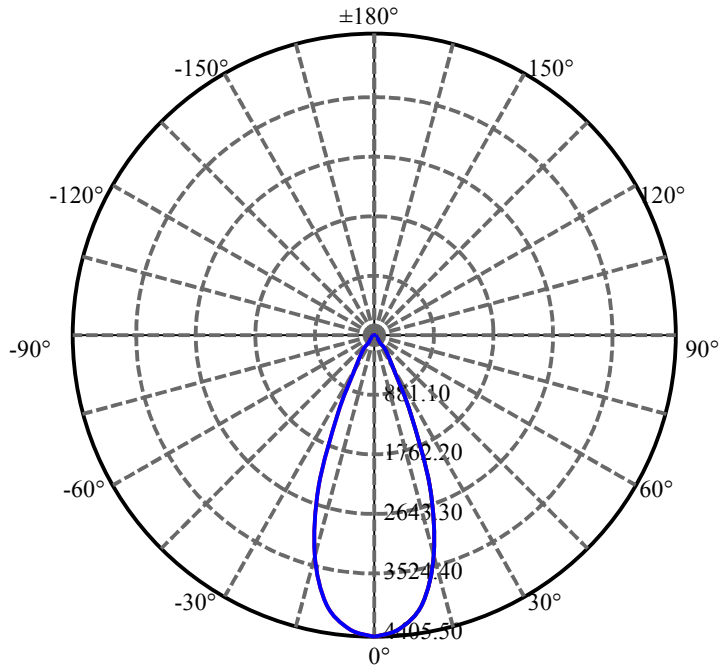
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4405.500	0.000	0	.000%	.000%
5.0	4307.063	104.156	104.156	4.287%	4.539%
10.0	3982.922	296.559	400.715	12.207%	17.464%
15.0	3316.500	432.997	833.712	17.823%	36.336%
20.0	2355.117	467.421	1301.133	19.240%	56.707%
25.0	1258.917	379.046	1680.178	15.602%	73.227%
30.0	634.148	239.569	1919.747	9.861%	83.668%
35.0	289.519	136.016	2055.764	5.599%	89.596%
40.0	139.141	71.519	2127.283	2.944%	92.713%
45.0	78.216	40.245	2167.528	1.657%	94.467%
50.0	50.456	26.000	2193.528	1.070%	95.601%
55.0	34.080	18.381	2211.909	.757%	96.402%
60.0	25.798	13.841	2225.75	.570%	97.005%
65.0	21.698	11.546	2237.296	.475%	97.508%
70.0	24.581	11.718	2249.014	.482%	98.019%
75.0	29.145	14.043	2263.057	.578%	98.631%
80.0	26.452	14.876	2277.933	.612%	99.279%
85.0	12.066	10.466	2288.399	.431%	99.735%
90.0	10.104	6.070	2294.47	.250%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1919.75	79.02%	83.67%
0-40	2127.28	87.56%	92.71%
0-60	2225.75	91.62%	97.00%
0-90	2288.40	94.20%	99.74%
0-120	2288.40	94.20%	99.74%
0-180	2294.47	94.45%	100.00%
60-90	76.49	3.15%	3.33%
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%
0-28.24	1835.58	75.56%	80.00%

ZONAL LUMEN SUMMARY

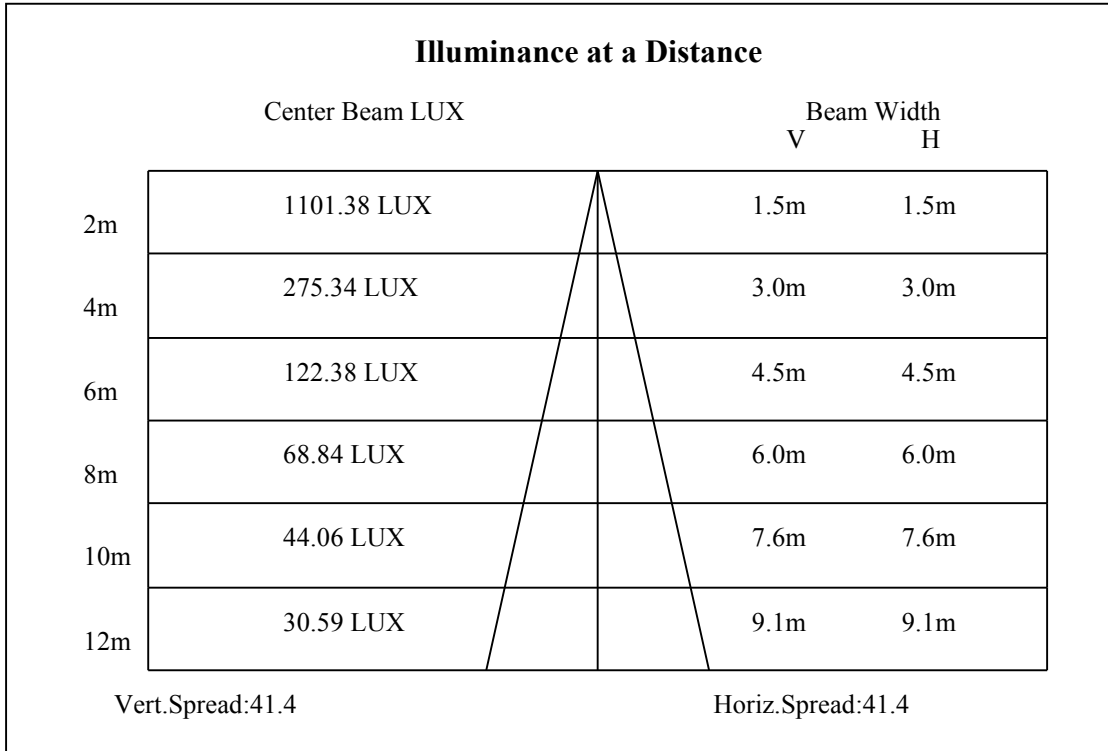
0-10	400.72
10-20	900.42
20-30	618.61
30-40	207.54
40-50	66.25
50-60	32.22
60-70	23.26
70-80	28.92
80-90	10.47
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

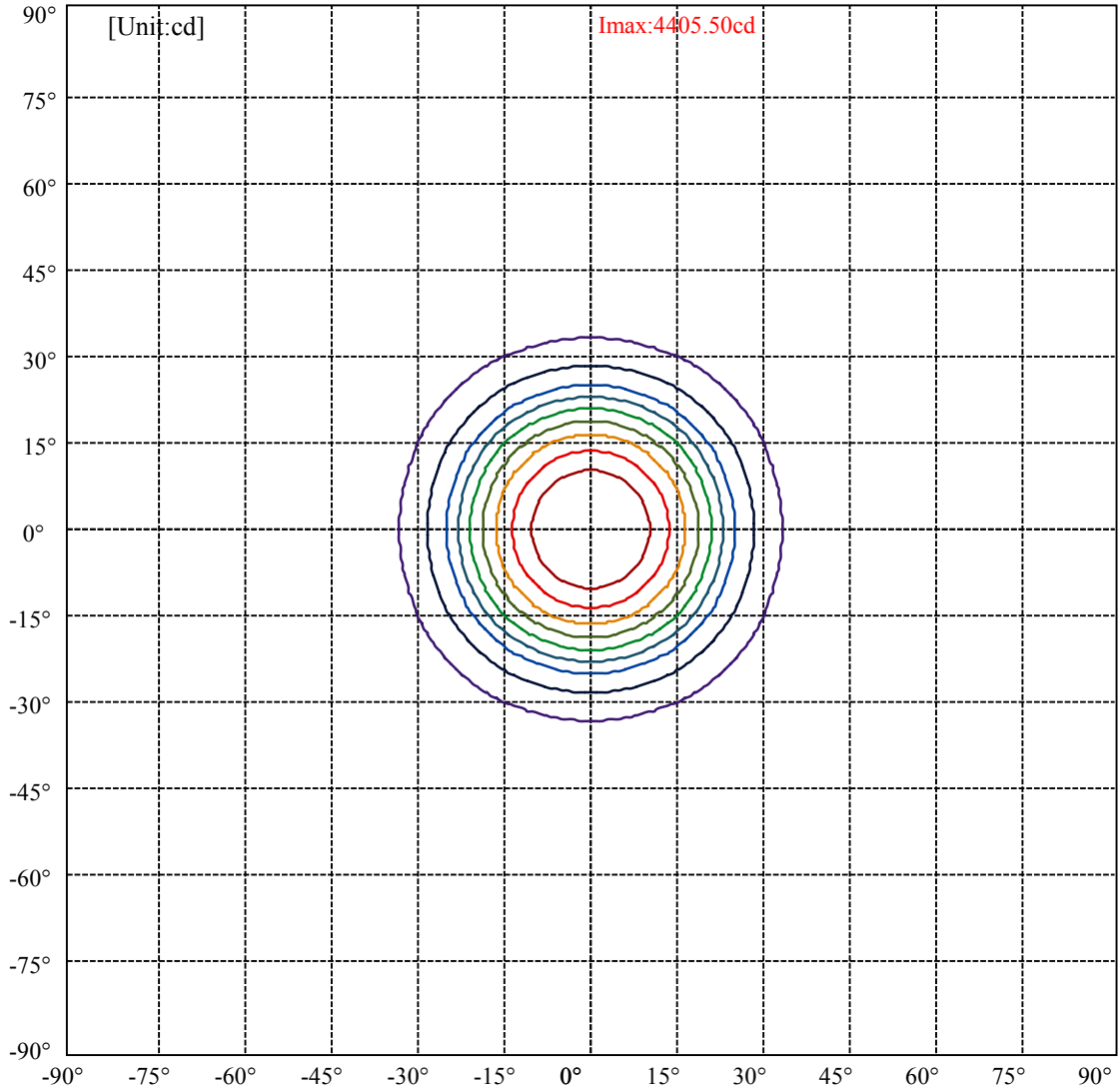


C0(Max): ———
C0/C180: ———
C90/C270: ———

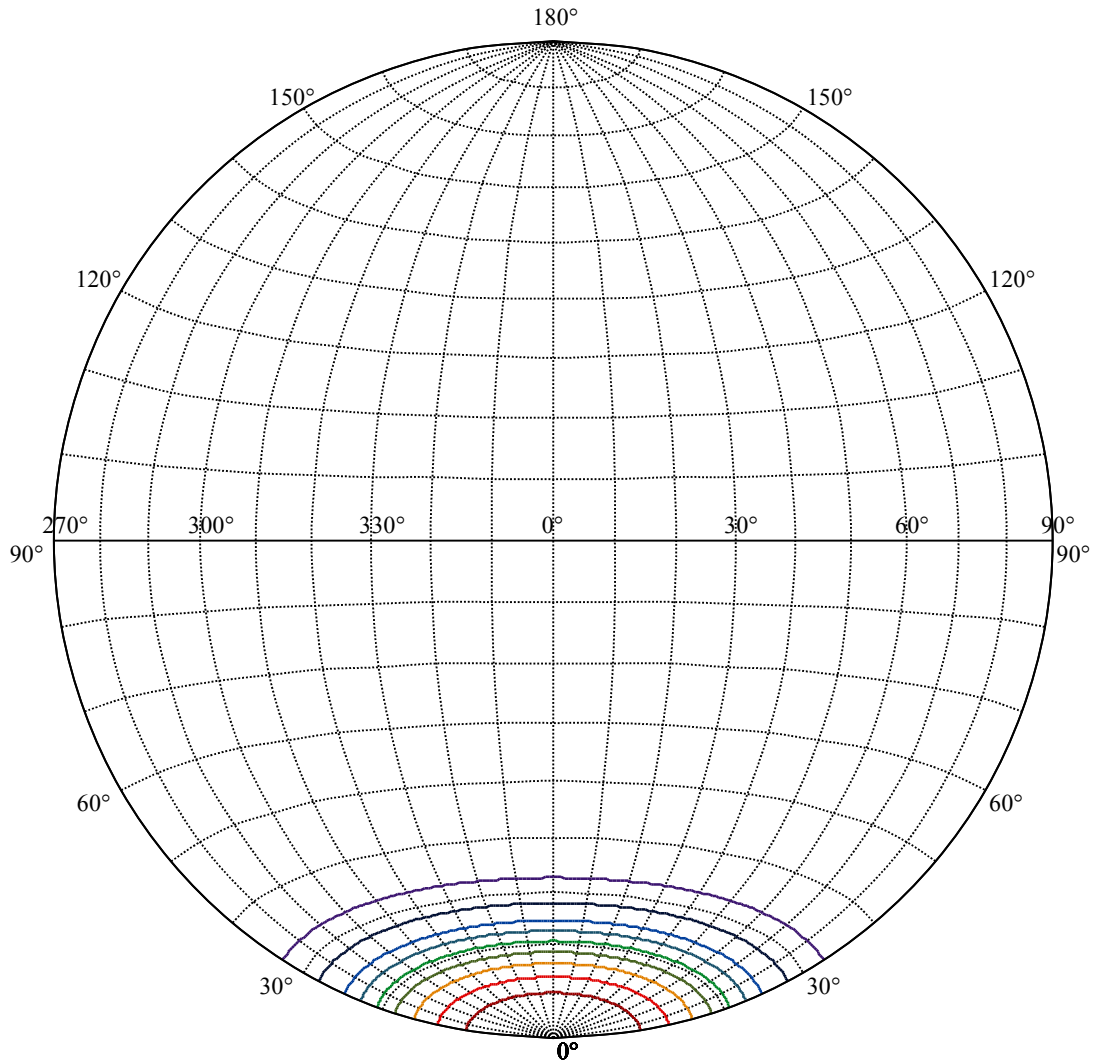
Field angle(10%Imax):C0/180Left:32.8 Right:32.8
:C90/270Left:32.8 Right:32.8

Beam Angle(50%Imax):C0/180Left:20.7 Right:20.7
:C90/270Left:20.7 Right:20.7





(10%Imax) 440.55	—
(20%Imax) 881.1	—
(30%Imax) 1321.65	—
(40%Imax) 1762.2	—
(50%Imax) 2202.75	—
(60%Imax) 2643.3	—
(70%Imax) 3083.85	—
(80%Imax) 3524.4	—
(90%Imax) 3964.95	—



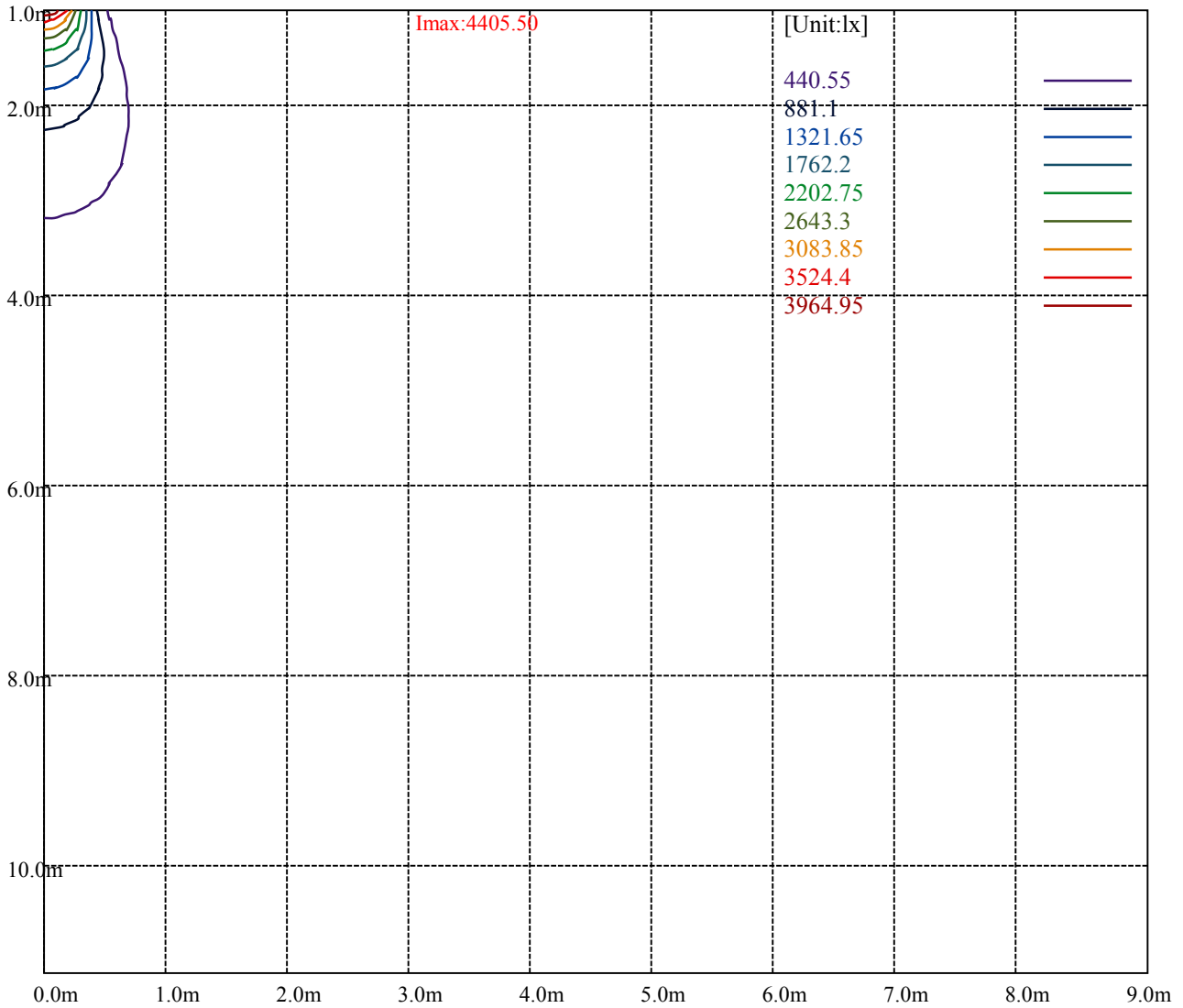
House

[Unit:cd]

Road

Imax:4405.50

(10%Imax) 440.55	—
(20%Imax) 881.1	—
(30%Imax) 1321.65	—
(40%Imax) 1762.2	—
(50%Imax) 2202.75	—
(60%Imax) 2643.3	—
(70%Imax) 3083.85	—
(80%Imax) 3524.4	—
(90%Imax) 3964.95	—



Luminance Table

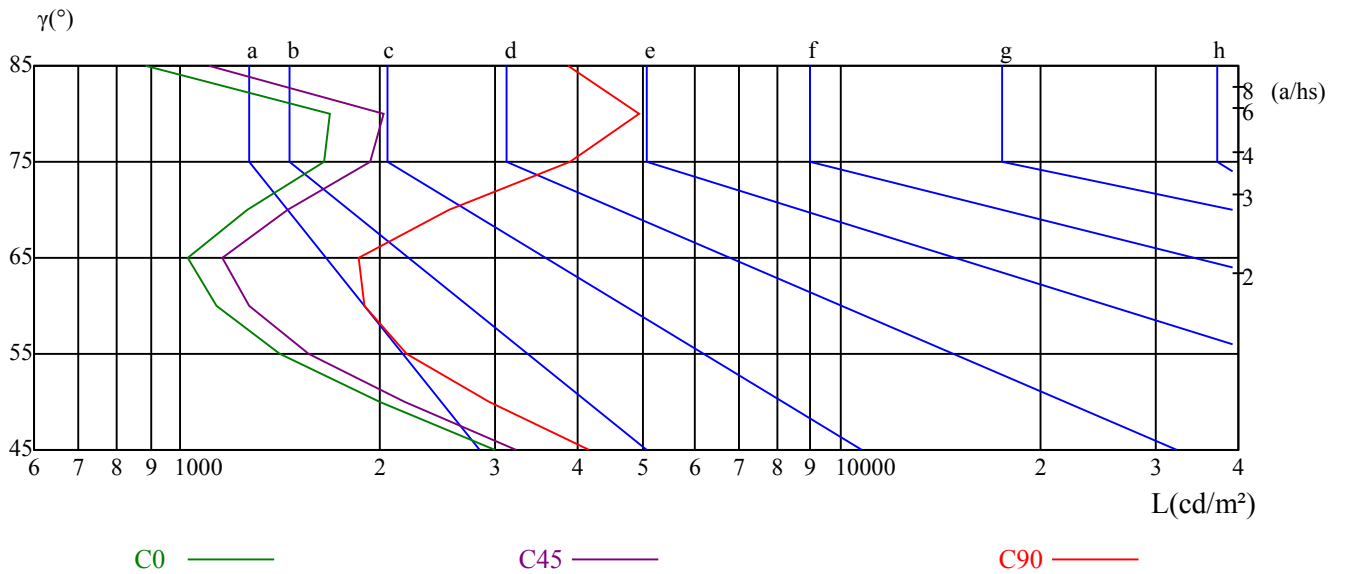
γ	45	50	55	60	65	70	75	80	85
C0	2986	2001	1417	1137	1025	1262	1651	1687	888
C45	3220	2180	1561	1267	1159	1451	1938	2032	1107
C90	4166	2937	2206	1896	1862	2556	3882	4953	3852

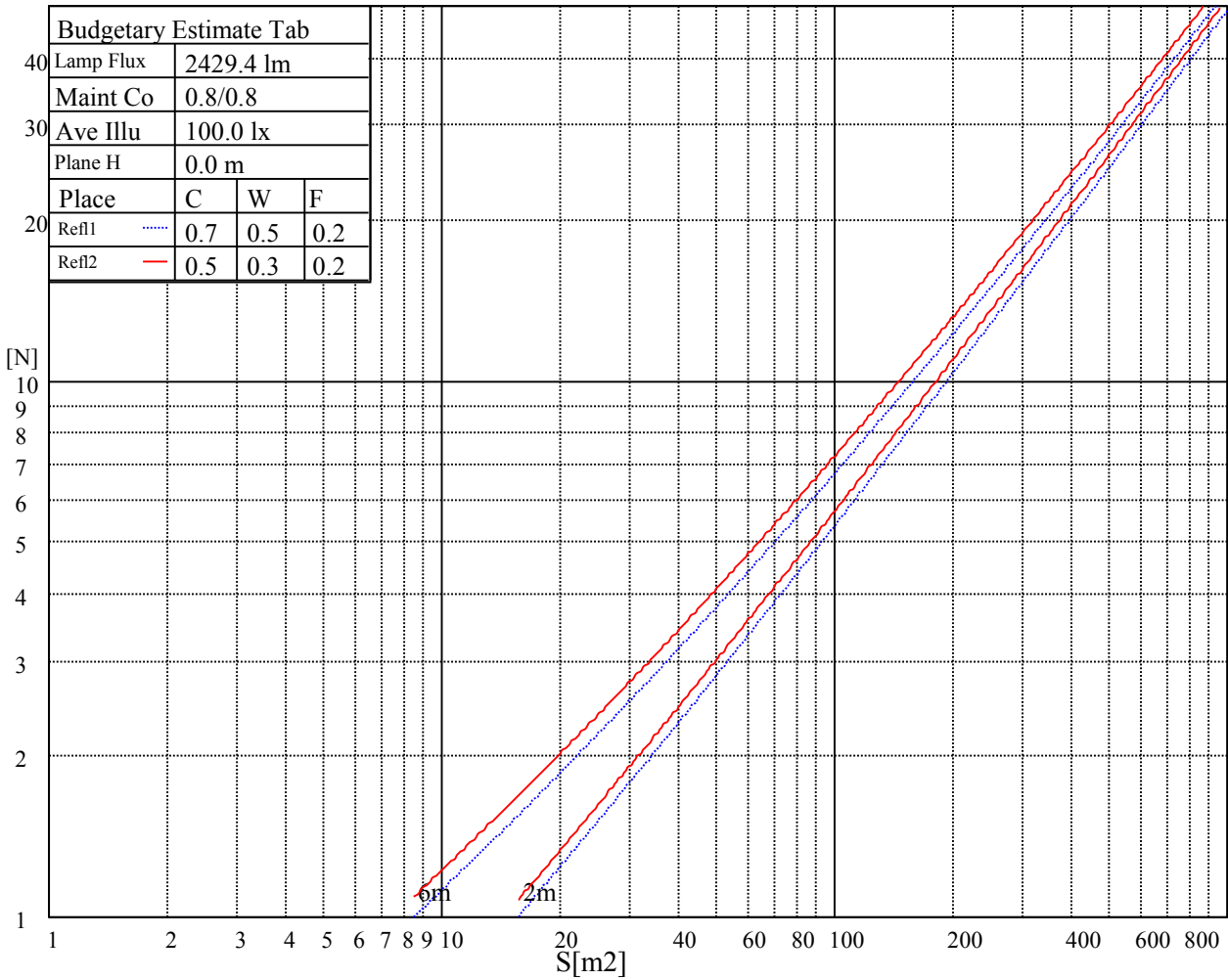
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2002	2002	2002	4390	4390	4390	5397	5397	5397

Glare Table

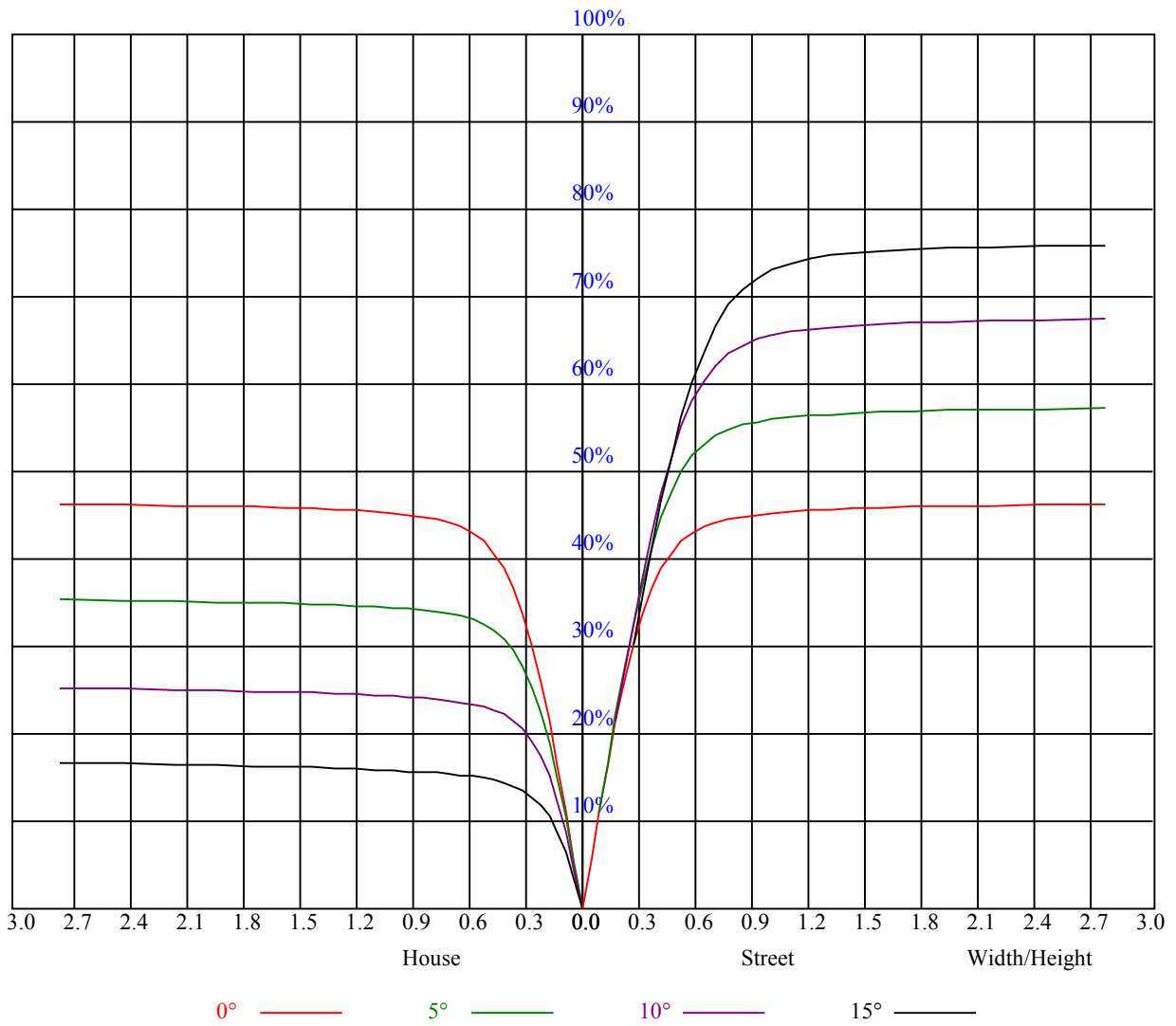
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.12	1.12	1.12	1.10	1.10	1.10	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.05	1.02	1.00	1.03	1.01	0.99	0.99	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.88
2	0.98	0.94	0.91	0.96	0.93	0.90	0.93	0.91	0.88	0.91	0.88	0.86	0.88	0.86	0.85	0.83
3	0.92	0.88	0.84	0.91	0.87	0.84	0.89	0.85	0.82	0.86	0.84	0.81	0.84	0.82	0.80	0.78
4	0.87	0.82	0.79	0.86	0.82	0.78	0.84	0.80	0.77	0.82	0.79	0.77	0.81	0.78	0.76	0.74
5	0.83	0.78	0.74	0.82	0.77	0.74	0.80	0.76	0.73	0.79	0.75	0.72	0.77	0.74	0.72	0.71
6	0.79	0.74	0.70	0.78	0.73	0.70	0.77	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.68	0.67
7	0.75	0.70	0.66	0.74	0.70	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.68	0.65	0.64
8	0.72	0.66	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.61
9	0.68	0.63	0.60	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.66	0.62	0.59	0.58
10	0.66	0.61	0.57	0.65	0.61	0.57	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.56



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	4399.31	4380.75	4092.75	3458.81	2409.75	1363.50	635.63	288.00	141.64
45.0	4416.19	4350.94	4021.31	3292.88	2232.00	1157.06	534.38	288.00	126.00
90.0	4401.00	4299.75	3916.69	3166.31	2181.38	1076.96	508.11	234.39	117.73
135.0	4405.50	4297.50	4007.25	3383.44	2414.25	1362.94	674.44	290.81	142.20
180.0	4399.31	4228.31	3843.00	3191.06	2274.19	1090.01	631.07	272.25	134.61
225.0	4416.19	4297.50	3993.19	3314.25	2472.75	1314.00	724.61	330.81	155.76
270.0	4401.00	4317.75	4044.94	3518.44	2622.94	1599.75	785.81	360.00	163.58
315.0	4405.50	4284.00	3944.25	3206.81	2233.69	1107.11	579.15	251.89	131.63
360.0	4399.31	4380.75	4092.75	3458.81	2409.75	1363.50	635.63	288.00	141.64
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	81.73	52.14	35.83	26.72	21.54	18.68	15.92	13.89	12.15
45.0	72.39	48.43	33.08	25.20	20.48	17.83	15.86	13.11	11.31
90.0	65.53	42.47	29.59	23.29	24.24	49.39	74.81	57.09	11.42
135.0	81.79	52.14	34.93	26.49	21.21	18.28	15.75	13.56	11.48
180.0	79.26	50.85	34.43	25.93	21.32	18.62	15.75	13.67	11.48
225.0	84.54	54.68	36.51	27.00	21.77	19.01	17.44	15.64	12.32
270.0	84.09	53.38	34.93	25.82	21.99	36.68	61.88	71.16	14.57
315.0	76.39	49.56	33.36	25.93	21.04	18.17	15.75	13.50	11.81
360.0	81.73	52.14	35.83	26.72	21.54	18.68	15.92	13.89	12.15
C/ γ (°)	90.0								
0.0	10.18								
45.0	10.18								
90.0	10.07								
135.0	9.96								
180.0	10.07								
225.0	10.29								
270.0	10.18								
315.0	9.90								
360.0	10.18								