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Nata

LumCAT: LN01D04560DA-N

Luminaire: 97.70.234.00

Report No: 210709-B013

Test No: 210709-C013

LampCAT: Fortimo LED SLM 1204 G7N

Lamp flux(lm): 2429.4

Number of Lamps: 1

Length(mm): 570

Phm Type: C

Voltage(V): 36.0800

Current(A): 0.5100

Power (W): 18.4000

PF: 0.0000

Ballast type: DC

Width(mm): 45

Height(mm): 20

Photometric Results

Lumens(lm): 2057.75

Efficiency(%): 84.70%

Lumens(lm)/Power(W): 111.83

Central intensity(cd): 2015.719

Maximum intensity(cd): 2015.719

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=57.9

[C90/270]Total=57.9

Field angle(10%Imax): [C0/180]Total=94.4

[C90/270]Total=94.4

Maximum s/h(1/2): C0_180=0.87 C90_270=0.87

Maximum s/h(1/4): C0_180=0.89 C90_270=0.89

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 84.70%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 94.311%

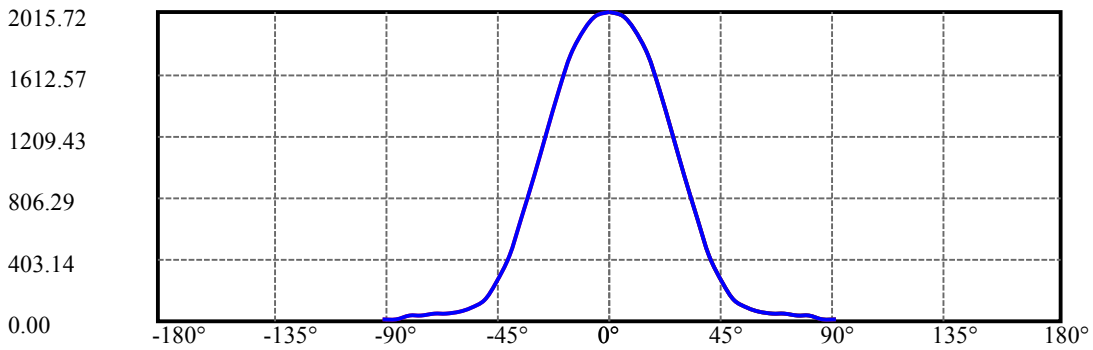
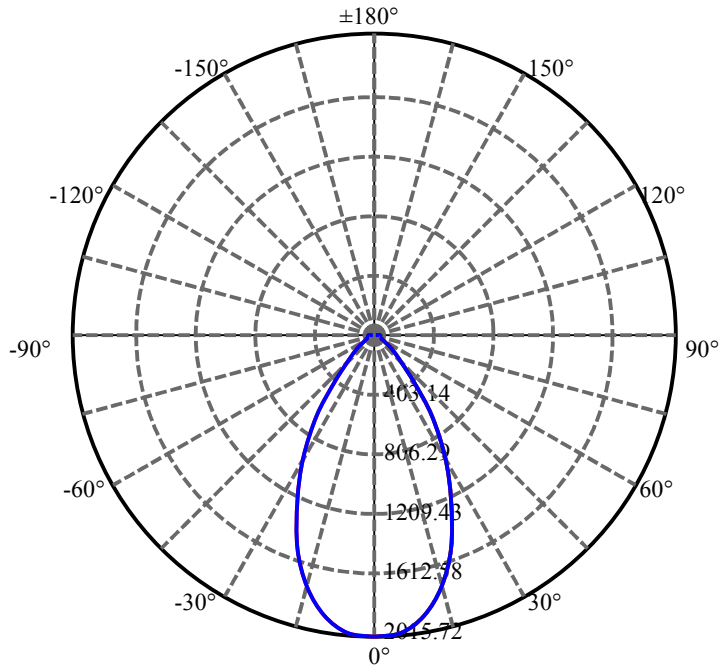
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2015.719	0.000	0	.000%	.000%
5.0	1993.852	47.933	47.933	1.973%	2.329%
10.0	1908.000	139.582	187.515	5.745%	9.113%
15.0	1745.438	216.719	404.234	8.921%	19.644%
20.0	1515.656	268.760	672.994	11.063%	32.705%
25.0	1213.320	286.219	959.213	11.781%	46.615%
30.0	954.492	274.338	1233.552	11.292%	59.947%
35.0	663.785	238.303	1471.854	9.809%	71.527%
40.0	420.216	180.857	1652.712	7.444%	80.317%
45.0	247.163	123.570	1776.282	5.086%	86.322%
50.0	142.636	78.764	1855.047	3.242%	90.149%
55.0	89.248	50.419	1905.466	2.075%	92.600%
60.0	63.113	35.218	1940.684	1.450%	94.311%
65.0	49.985	27.494	1968.178	1.132%	95.647%
70.0	46.526	24.437	1992.615	1.006%	96.835%
75.0	43.179	23.447	2016.062	.965%	97.974%
80.0	34.678	20.832	2036.895	.858%	98.987%
85.0	16.277	13.846	2050.741	.570%	99.659%
90.0	9.316	7.008	2057.748	.288%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1233.55	50.78%	59.95%
0-40	1652.71	68.03%	80.32%
0-60	1940.68	79.88%	94.31%
0-90	2050.74	84.41%	99.66%
0-120	2050.74	84.41%	99.66%
0-180	2057.75	84.70%	100.00%
60-90	145.27	5.98%	7.06%
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%
0-39.82	1646.20	67.76%	80.00%

ZONAL LUMEN SUMMARY

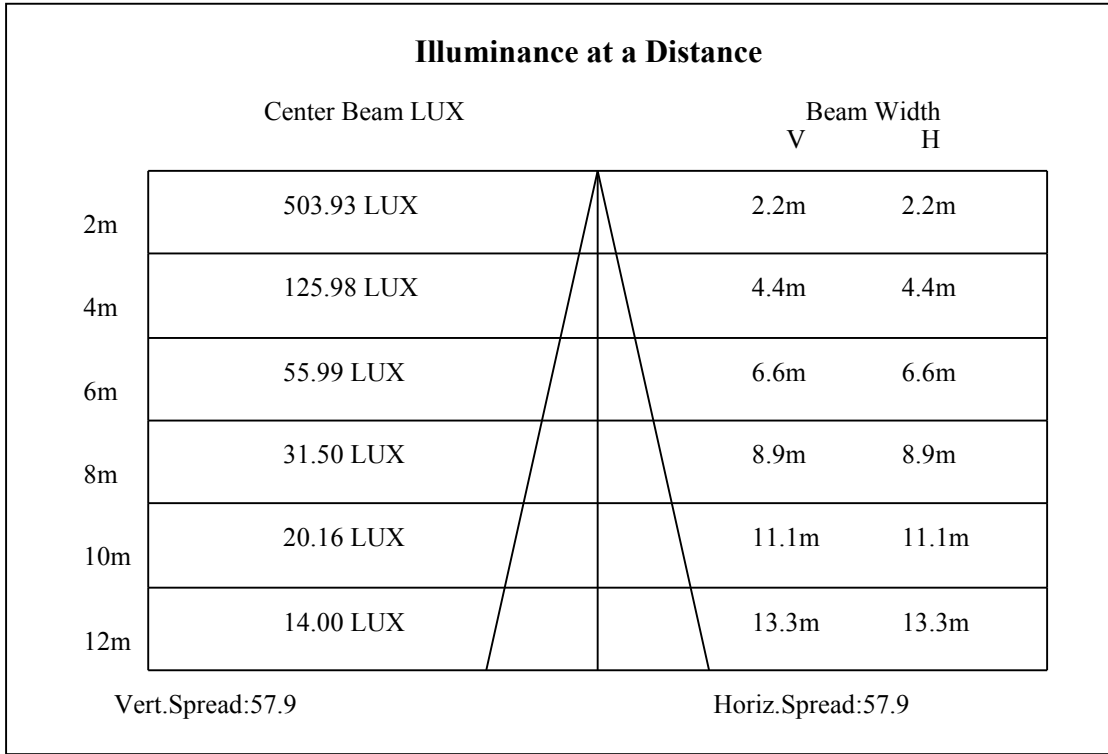
0-10	187.51
10-20	485.48
20-30	560.56
30-40	419.16
40-50	202.33
50-60	85.64
60-70	51.93
70-80	44.28
80-90	13.85
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

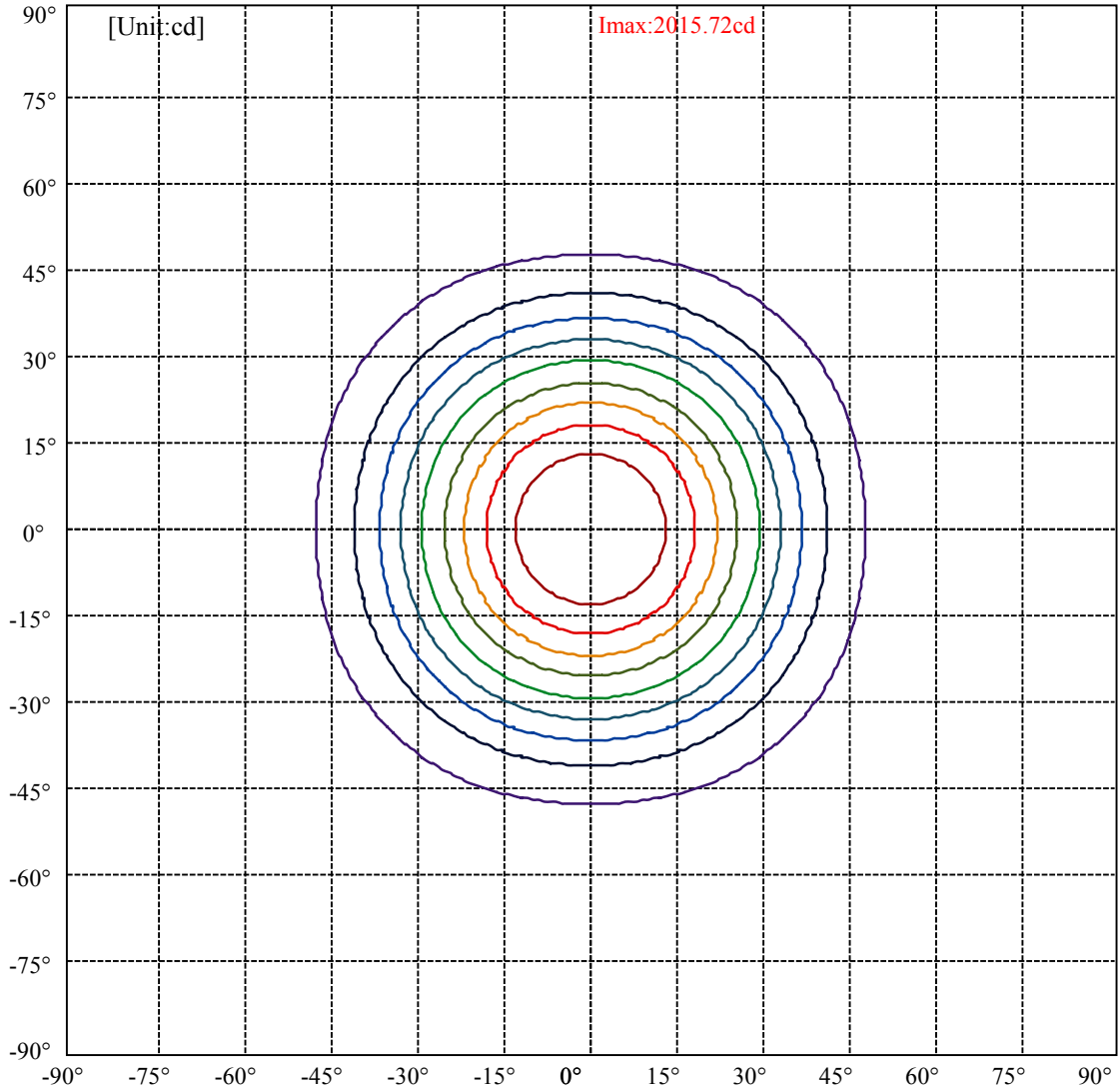


C0(Max): ———
C0/C180: ———
C90/C270: ———

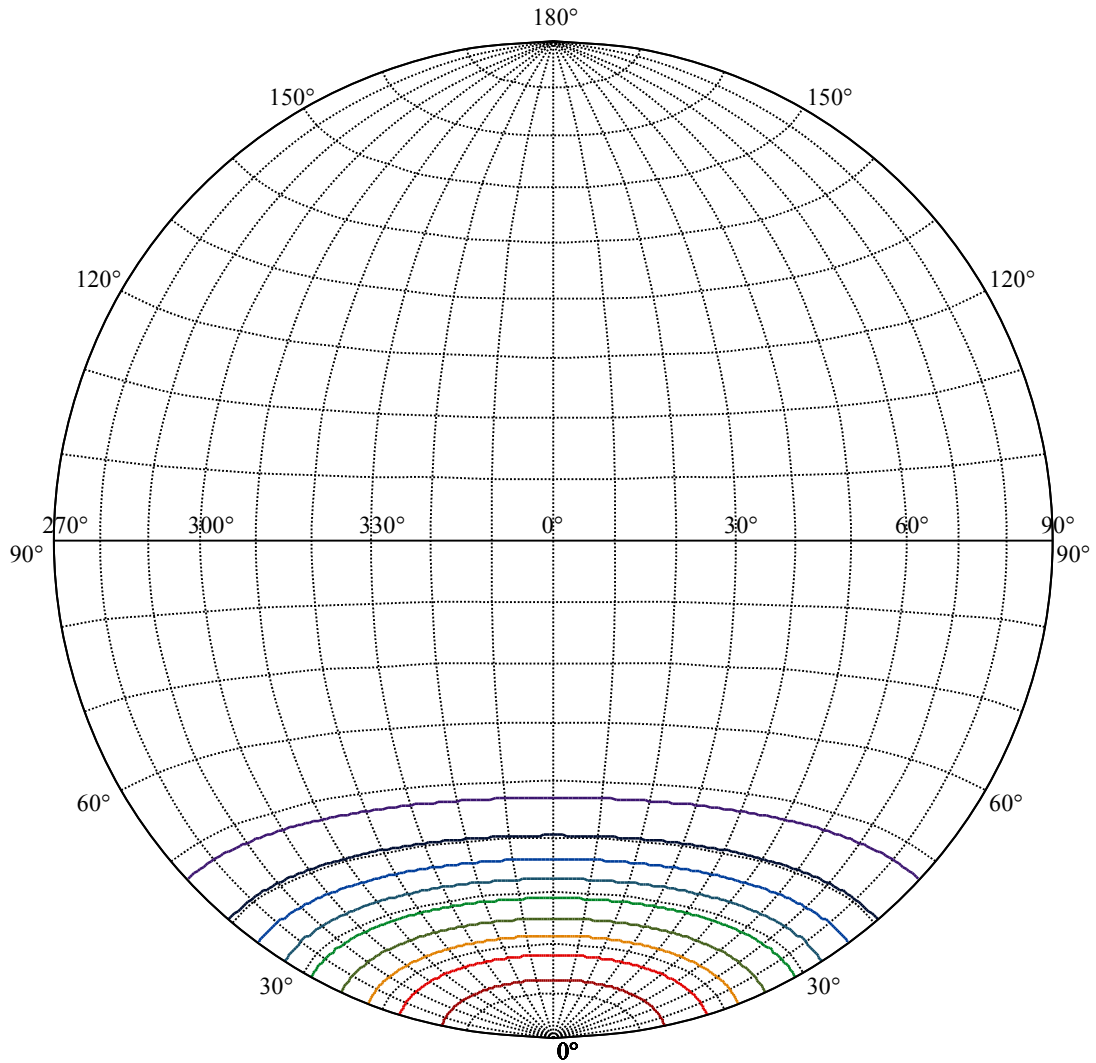
Field angle(10%Imax):C0/180Left:47.2 Right:47.2
:C90/270Left:47.2 Right:47.2

Beam Angle(50%Imax):C0/180Left:29.0 Right:29.0
:C90/270Left:29.0 Right:29.0





(10%Imax) 201.572	—
(20%Imax) 403.144	—
(30%Imax) 604.716	—
(40%Imax) 806.287	—
(50%Imax) 1007.86	—
(60%Imax) 1209.43	—
(70%Imax) 1411	—
(80%Imax) 1612.57	—
(90%Imax) 1814.15	—



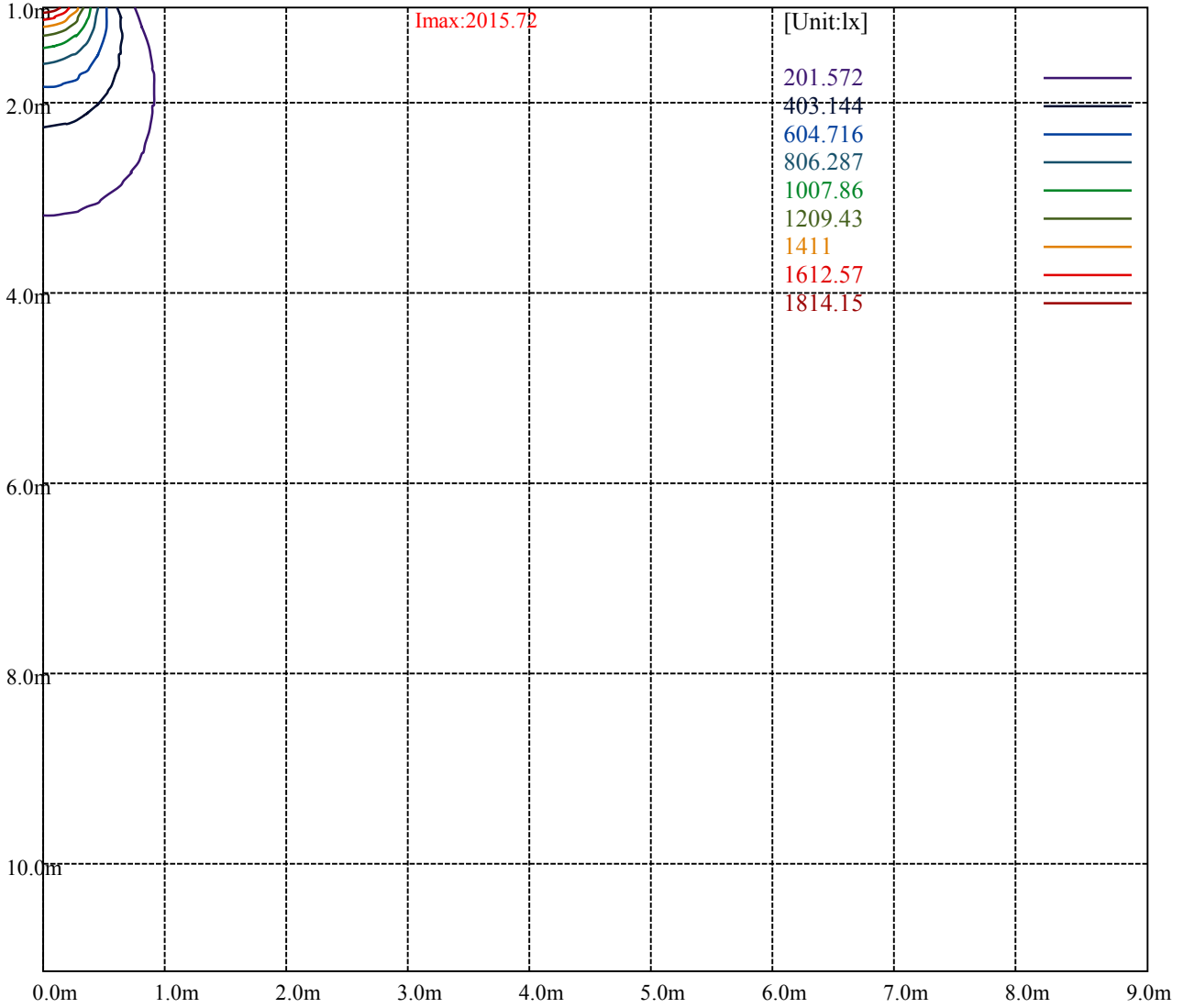
House

[Unit:cd]

Road

Imax:2015.72

(10%Imax) 201.572	—
(20%Imax) 403.144	—
(30%Imax) 604.716	—
(40%Imax) 806.287	—
(50%Imax) 1007.86	—
(60%Imax) 1209.43	—
(70%Imax) 1411	—
(80%Imax) 1612.57	—
(90%Imax) 1814.15	—



Luminance Table

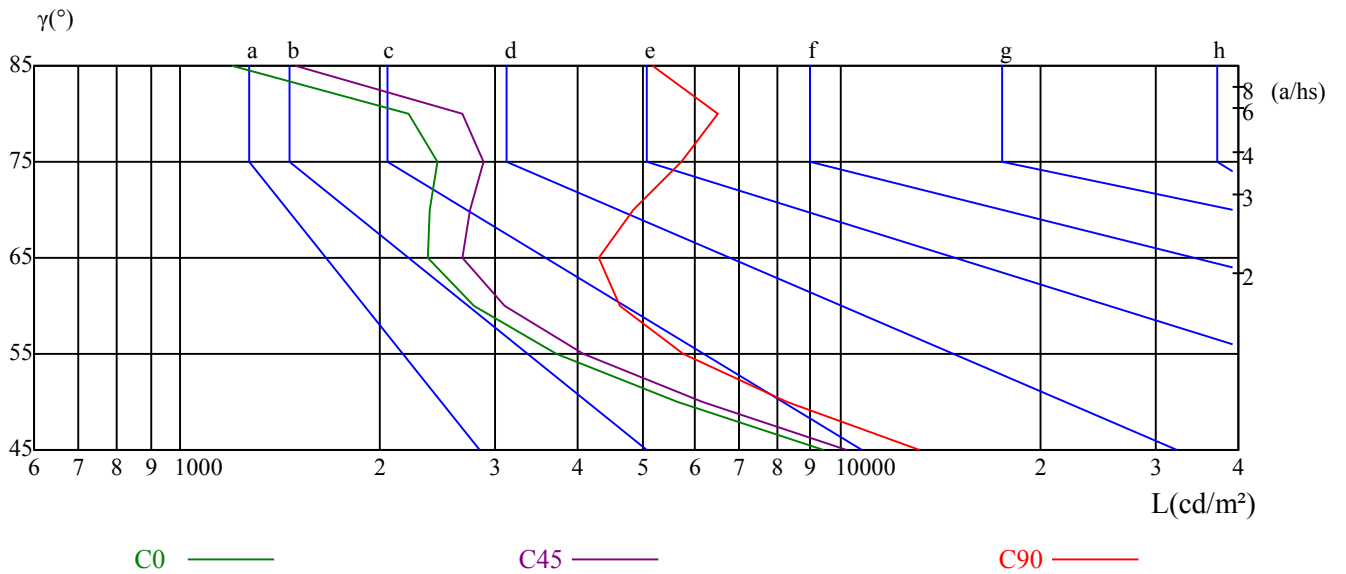
γ	45	50	55	60	65	70	75	80	85
C0	9434	5656	3711	2781	2361	2388	2446	2211	1198
C45	10177	6161	4087	3100	2670	2746	2871	2664	1493
C90	13165	8304	5777	4639	4288	4837	5751	6494	5197

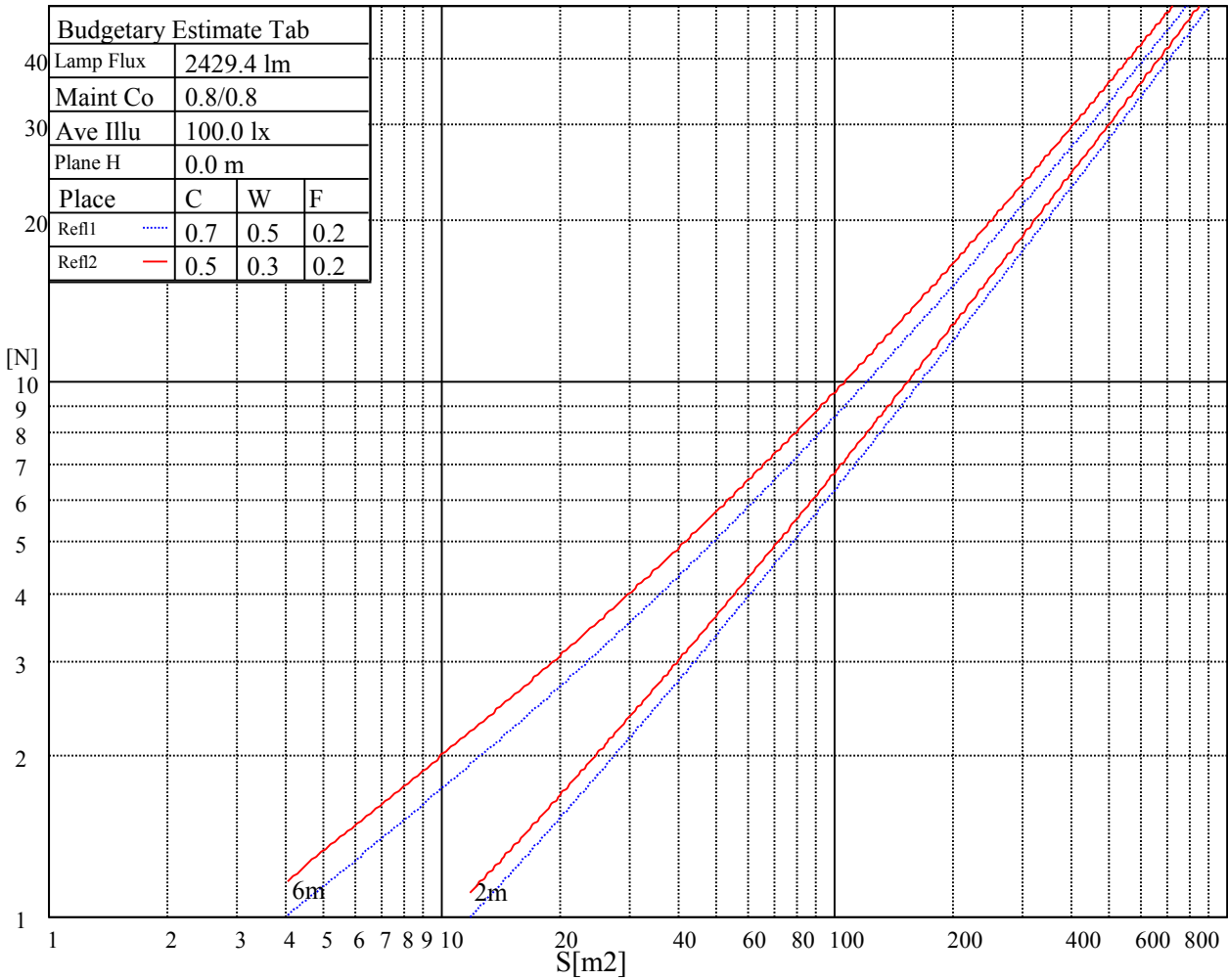
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4611	4611	4611	6504	6504	6504	7281	7281	7281

Glare Table

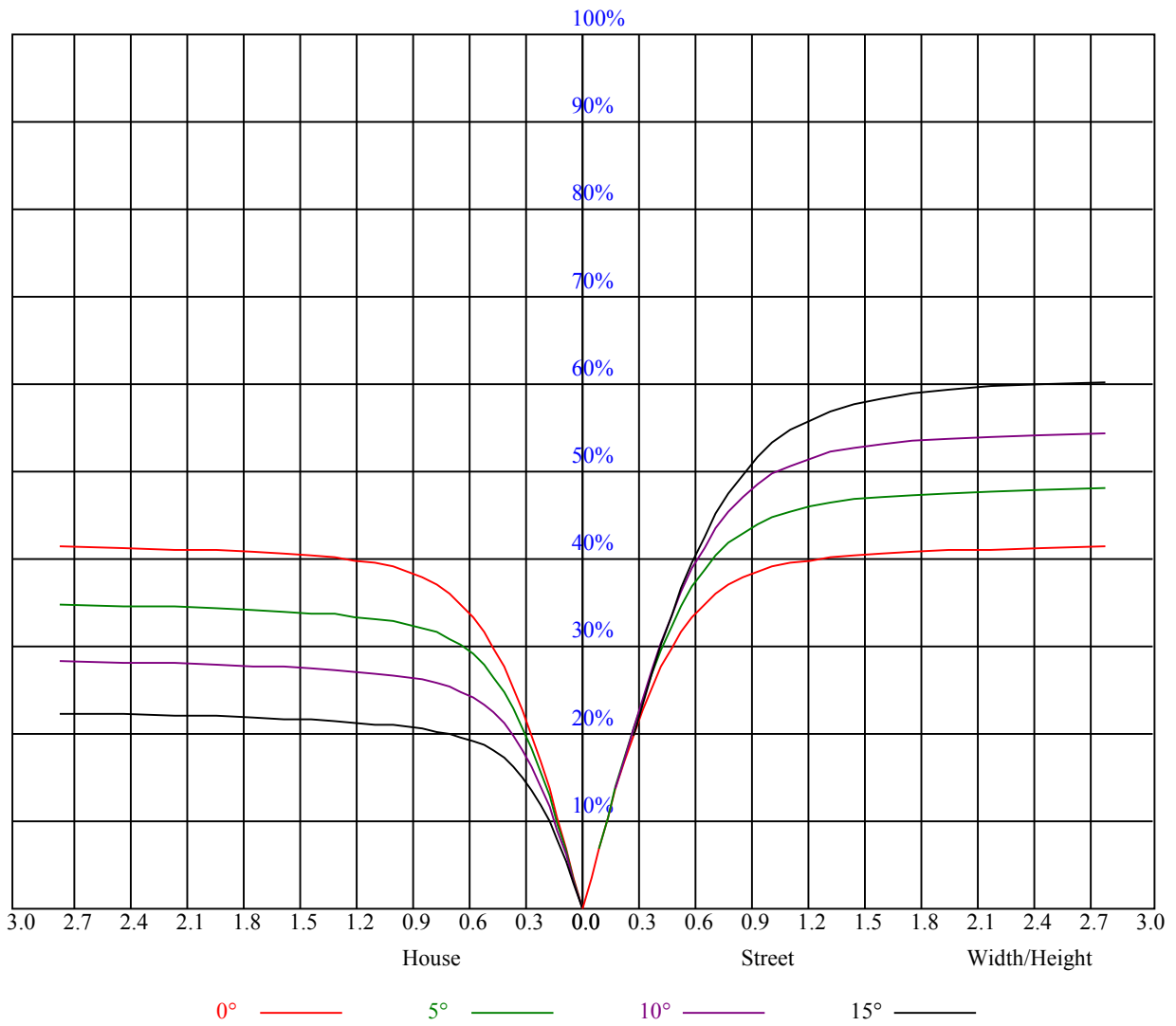
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.01	1.01	1.01	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.85
1	0.92	0.90	0.87	0.90	0.88	0.86	0.87	0.85	0.83	0.84	0.82	0.81	0.81	0.80	0.78	0.77
2	0.84	0.80	0.77	0.83	0.79	0.76	0.80	0.77	0.74	0.78	0.75	0.73	0.75	0.73	0.71	0.70
3	0.78	0.73	0.69	0.77	0.72	0.68	0.74	0.70	0.67	0.72	0.69	0.66	0.70	0.67	0.65	0.64
4	0.72	0.67	0.62	0.71	0.66	0.62	0.69	0.65	0.61	0.67	0.64	0.61	0.66	0.62	0.60	0.58
5	0.67	0.61	0.57	0.66	0.61	0.57	0.64	0.60	0.56	0.63	0.59	0.56	0.61	0.58	0.55	0.54
6	0.62	0.57	0.52	0.61	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.51	0.58	0.54	0.51	0.50
7	0.58	0.52	0.48	0.57	0.52	0.48	0.56	0.52	0.48	0.55	0.51	0.48	0.54	0.50	0.47	0.46
8	0.54	0.49	0.45	0.54	0.49	0.45	0.53	0.48	0.45	0.52	0.48	0.44	0.51	0.47	0.44	0.43
9	0.51	0.46	0.42	0.51	0.45	0.42	0.50	0.45	0.42	0.49	0.45	0.42	0.48	0.44	0.41	0.40
10	0.48	0.43	0.39	0.48	0.43	0.39	0.47	0.42	0.39	0.46	0.42	0.39	0.46	0.42	0.39	0.38



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	2015.44	1990.13	1909.13	1766.81	1553.06	1306.13	1065.94	784.13	518.63
45.0	2017.69	1986.75	1904.06	1735.88	1501.31	1249.88	966.38	684.00	443.81
90.0	2013.75	1974.94	1856.25	1677.94	1432.13	1117.69	889.43	606.09	374.51
135.0	2016.00	1991.25	1895.63	1726.31	1483.31	1183.50	897.19	614.81	379.69
180.0	2015.44	1984.50	1881.56	1694.81	1442.25	1120.78	851.01	550.13	337.56
225.0	2017.69	2018.25	1956.38	1796.63	1548.56	1121.96	932.18	624.21	372.49
270.0	2013.75	2012.63	1953.56	1816.31	1622.81	1341.56	1045.69	733.50	475.88
315.0	2016.00	1992.38	1907.44	1748.81	1541.81	1265.06	988.14	713.42	459.17
360.0	2015.44	1990.13	1909.13	1766.81	1553.06	1306.13	1065.94	784.13	518.63
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	320.06	176.74	105.75	74.19	52.14	40.61	32.01	25.71	18.51
45.0	284.63	151.26	92.70	65.19	47.81	37.74	31.28	24.58	15.53
90.0	203.29	128.59	81.28	58.78	42.27	33.53	26.94	20.03	13.73
135.0	209.70	129.38	81.90	58.44	45.11	35.27	27.79	21.49	13.50
180.0	188.55	115.59	75.54	55.91	42.53	33.53	26.94	20.03	13.73
225.0	222.86	133.14	85.05	60.75	45.39	36.06	29.81	22.11	15.47
270.0	286.88	154.18	96.24	66.38	57.04	44.21	34.21	26.74	18.61
315.0	261.34	152.21	95.51	65.25	47.59	37.69	29.93	23.51	16.99
360.0	320.06	176.74	105.75	74.19	52.14	40.61	32.01	25.71	18.51
C/γ(°)	90.0								
0.0	11.08								
45.0	8.78								
90.0	8.38								
135.0	9.00								
180.0	9.62								
225.0	9.11								
270.0	9.00								
315.0	9.56								
360.0	11.08								