



NATA LIGHTING CO.,LTD.  
www.nata.cn  
Email:info@nata.com  
Tel:+86-750-3770000 Fax:+86-750-3771111  
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

---

## Nata

---

LumCAT: LN01D04560DA-N

Luminaire: 97.70.234.00

Report No: 210706-B016

Test No: 210706-C016

LampCAT: Fortimo LED SLM 1203 G7N

Lamp flux(lm): 2173.0

Number of Lamps: 1

Length(mm): 570

Phm Type: C

Voltage(V): 36.6500

Current(A): 0.4510

Power (W): 16.5290

PF: 0.0000

Ballast type: DC

Width(mm): 45

Height(mm): 20

---

## Photometric Results

---

Lumens(lm): 1817.88

Efficiency(%): 83.66%

Lumens(lm)/Power(W): 109.98

Central intensity(cd): 1768.781

Maximum intensity(cd): 1768.781

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

Beam Angle(50%Imax): [C0/180]Total=58.1

[C90/270]Total=58.1

Field angle(10%Imax): [C0/180]Total=94.7

[C90/270]Total=94.7

Maximum s/h(1/2): C0\_180=0.88 C90\_270=0.88

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(%): 83.66%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 94.337%

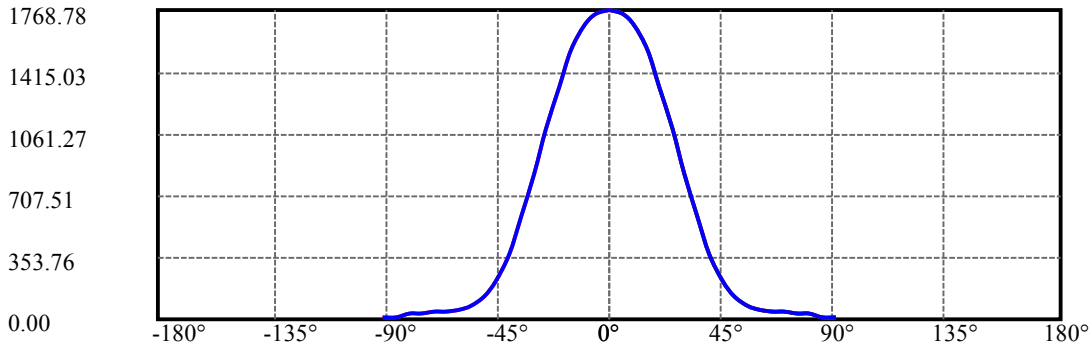
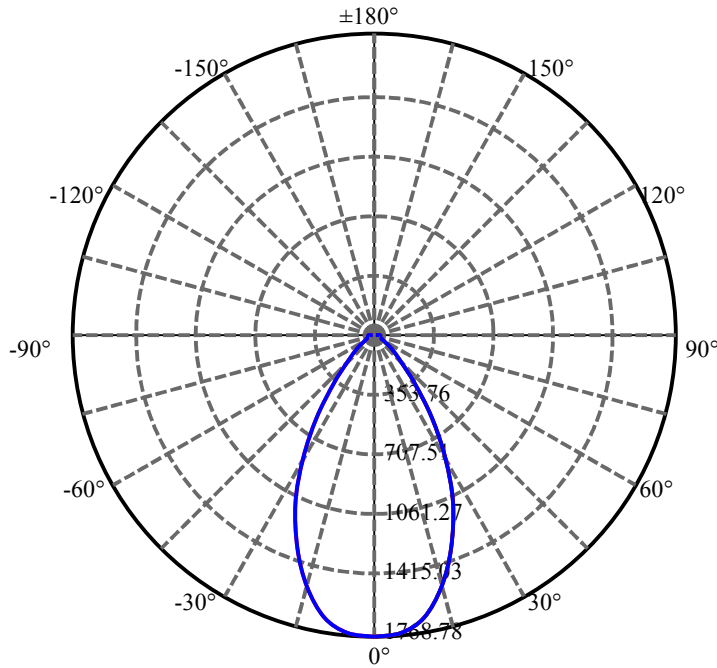
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1768.781	0.000	0	.000%	.000%
5.0	1751.836	42.088	42.088	1.937%	2.315%
10.0	1679.203	122.739	164.827	5.648%	9.067%
15.0	1532.953	190.543	355.37	8.769%	19.549%
20.0	1333.266	236.217	591.587	10.871%	32.543%
25.0	1083.607	253.485	845.072	11.665%	46.487%
30.0	838.702	243.270	1088.342	11.195%	59.869%
35.0	585.309	209.696	1298.037	9.650%	71.404%
40.0	373.704	160.004	1458.042	7.363%	80.206%
45.0	221.456	110.199	1568.24	5.071%	86.267%
50.0	126.921	70.395	1638.635	3.240%	90.140%
55.0	79.734	44.934	1683.569	2.068%	92.612%
60.0	55.934	31.359	1714.928	1.443%	94.337%
65.0	44.388	24.388	1739.316	1.122%	95.678%
70.0	40.816	21.574	1760.891	.993%	96.865%
75.0	38.250	20.667	1781.558	.951%	98.002%
80.0	29.939	18.245	1799.803	.840%	99.006%
85.0	14.302	12.021	1811.824	.553%	99.667%
90.0	7.819	6.057	1817.881	.279%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1088.34	50.09%	59.87%
0-40	1458.04	67.10%	80.21%
0-60	1714.93	78.92%	94.34%
0-90	1811.82	83.38%	99.67%
0-120	1811.82	83.38%	99.67%
0-180	1817.88	83.66%	100.00%
60-90	128.26	5.90%	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%
0-39.88	1454.31	66.93%	80.00%

ZONAL LUMEN SUMMARY

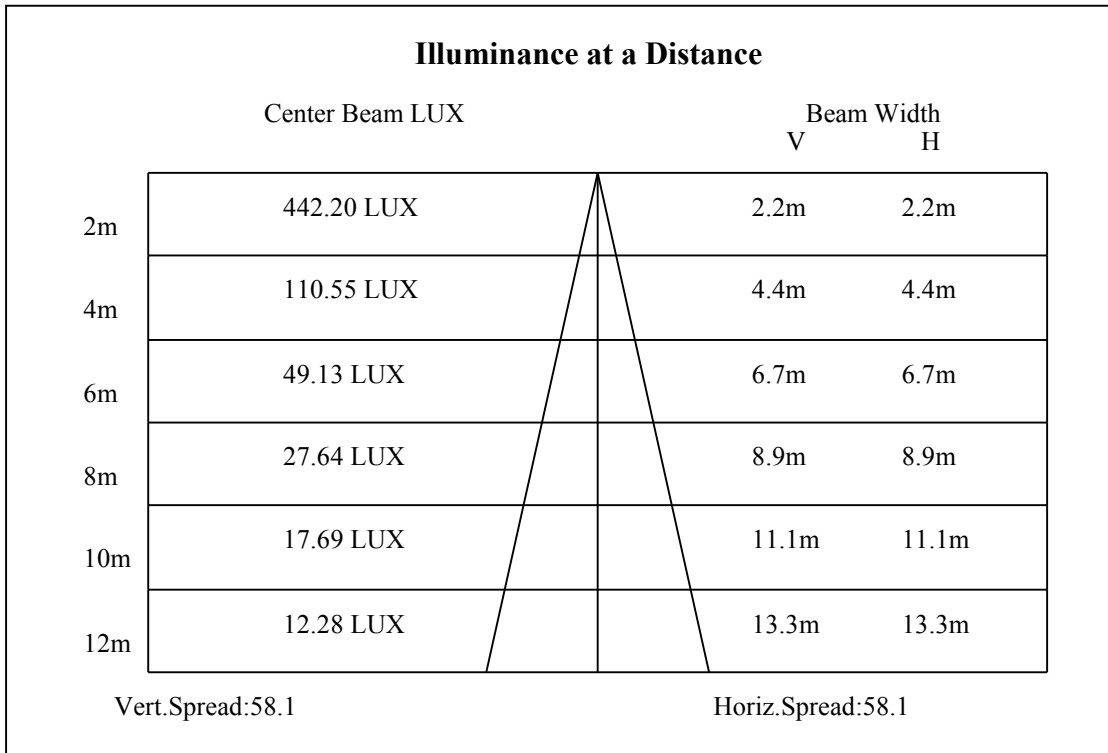
0-10	164.83
10-20	426.76
20-30	496.76
30-40	369.70
40-50	180.59
50-60	76.29
60-70	45.96
70-80	38.91
80-90	12.02
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

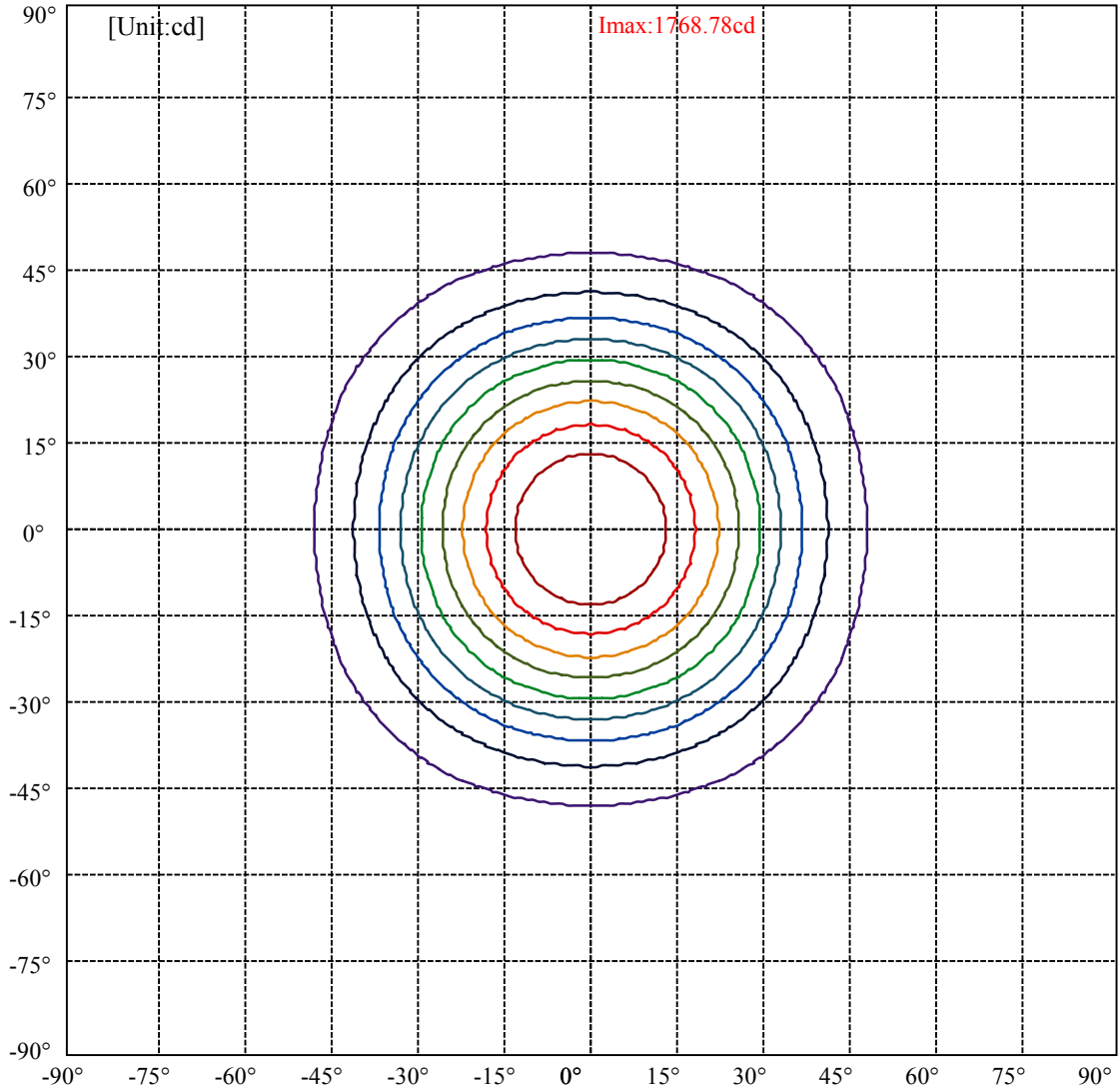


C0(Max): —  
C0/C180: —  
C90/C270: —

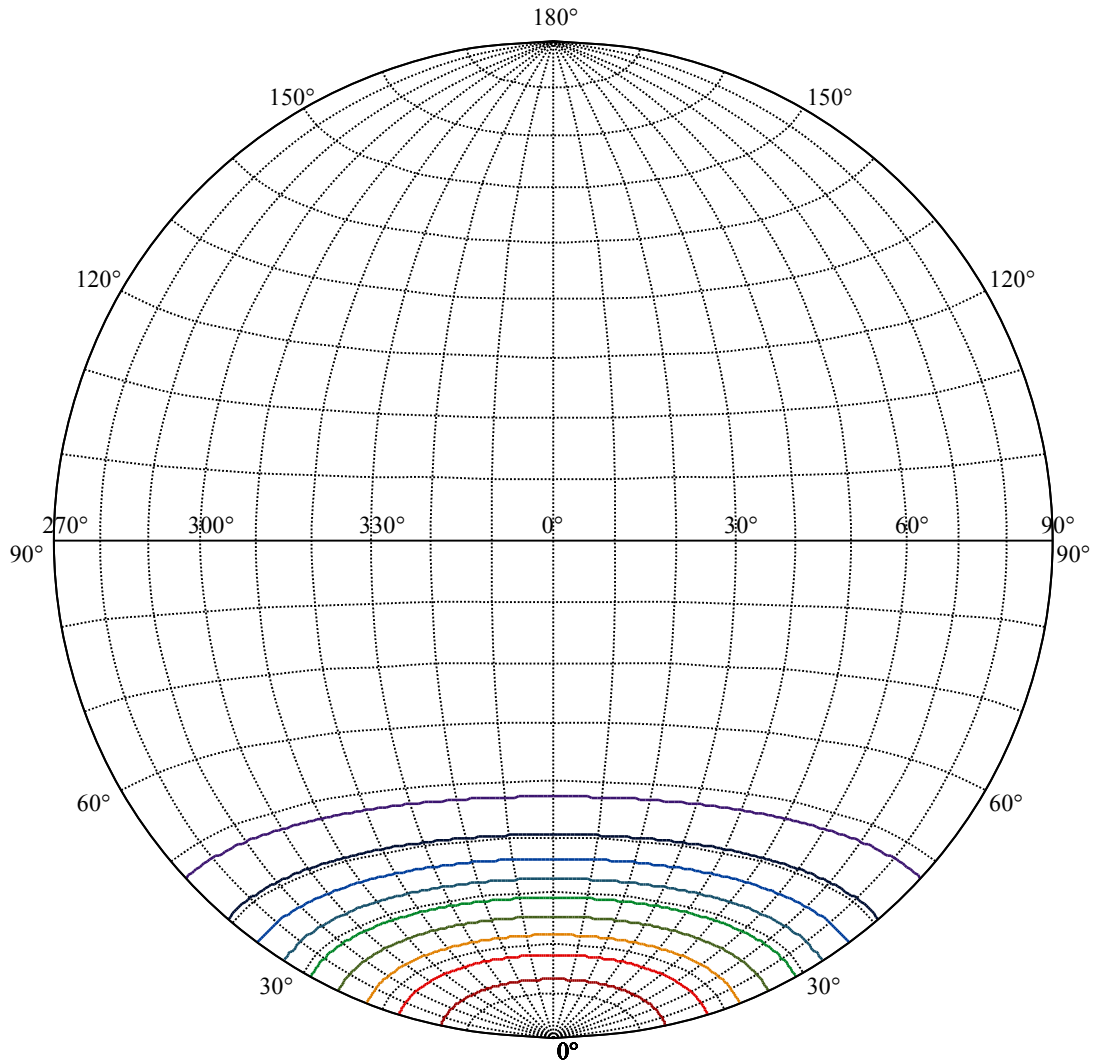
Field angle(10%Imax):C0/180Left:47.4 Right:47.4  
:C90/270Left:47.4 Right:47.4

Beam Angle(50%Imax):C0/180Left:29.1 Right:29.1  
:C90/270Left:29.1 Right:29.1





(10%Imax) 176.878	—
(20%Imax) 353.756	—
(30%Imax) 530.634	—
(40%Imax) 707.513	—
(50%Imax) 884.391	—
(60%Imax) 1061.27	—
(70%Imax) 1238.15	—
(80%Imax) 1415.03	—
(90%Imax) 1591.9	—



House

[Unit:cd]

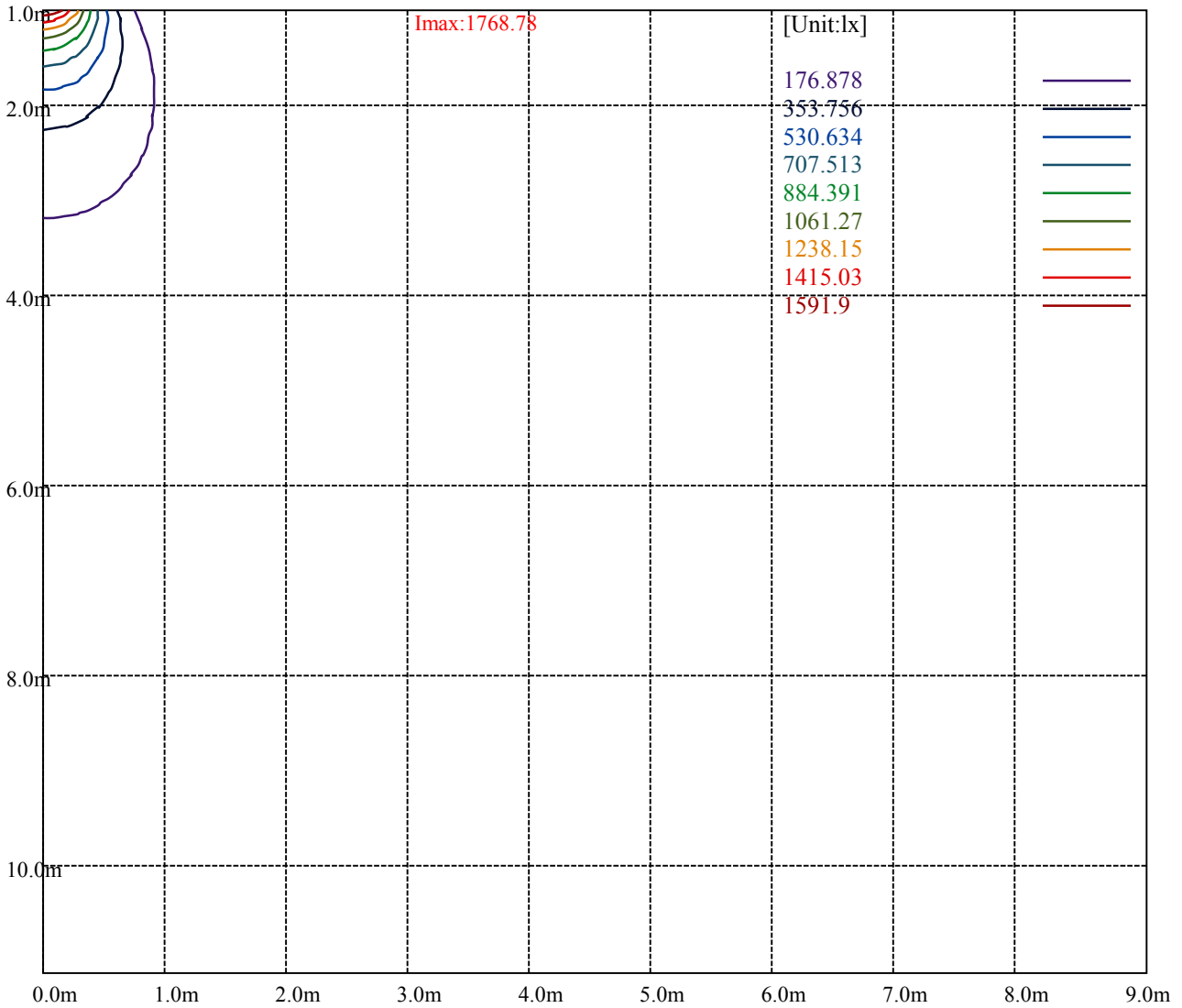
Road

**Imax:1768.78**

(10%Imax) 176.878	—
(20%Imax) 353.756	—
(30%Imax) 530.634	—
(40%Imax) 707.513	—
(50%Imax) 884.391	—
(60%Imax) 1061.27	—
(70%Imax) 1238.15	—
(80%Imax) 1415.03	—
(90%Imax) 1591.9	—







Luminance Table

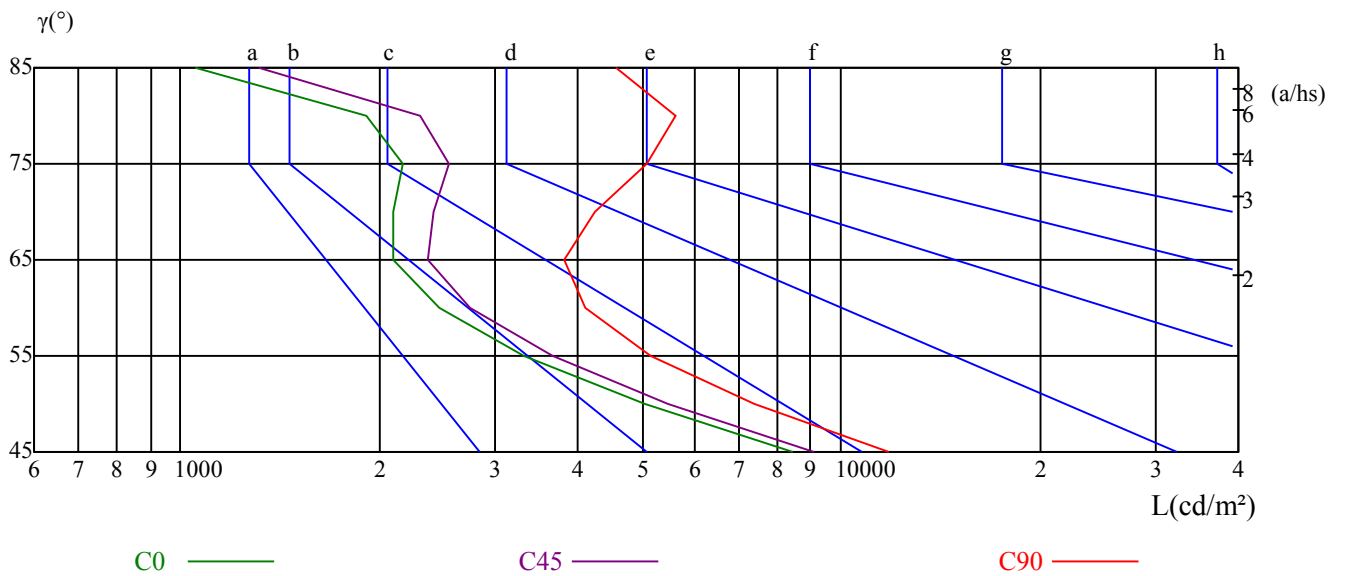
$\gamma$	45	50	55	60	65	70	75	80	85
C0	8453	5032	3315	2464	2097	2095	2167	1909	1052
C45	9118	5483	3651	2748	2371	2409	2543	2300	1312
C90	11796	7389	5161	4111	3808	4244	5095	5606	4566

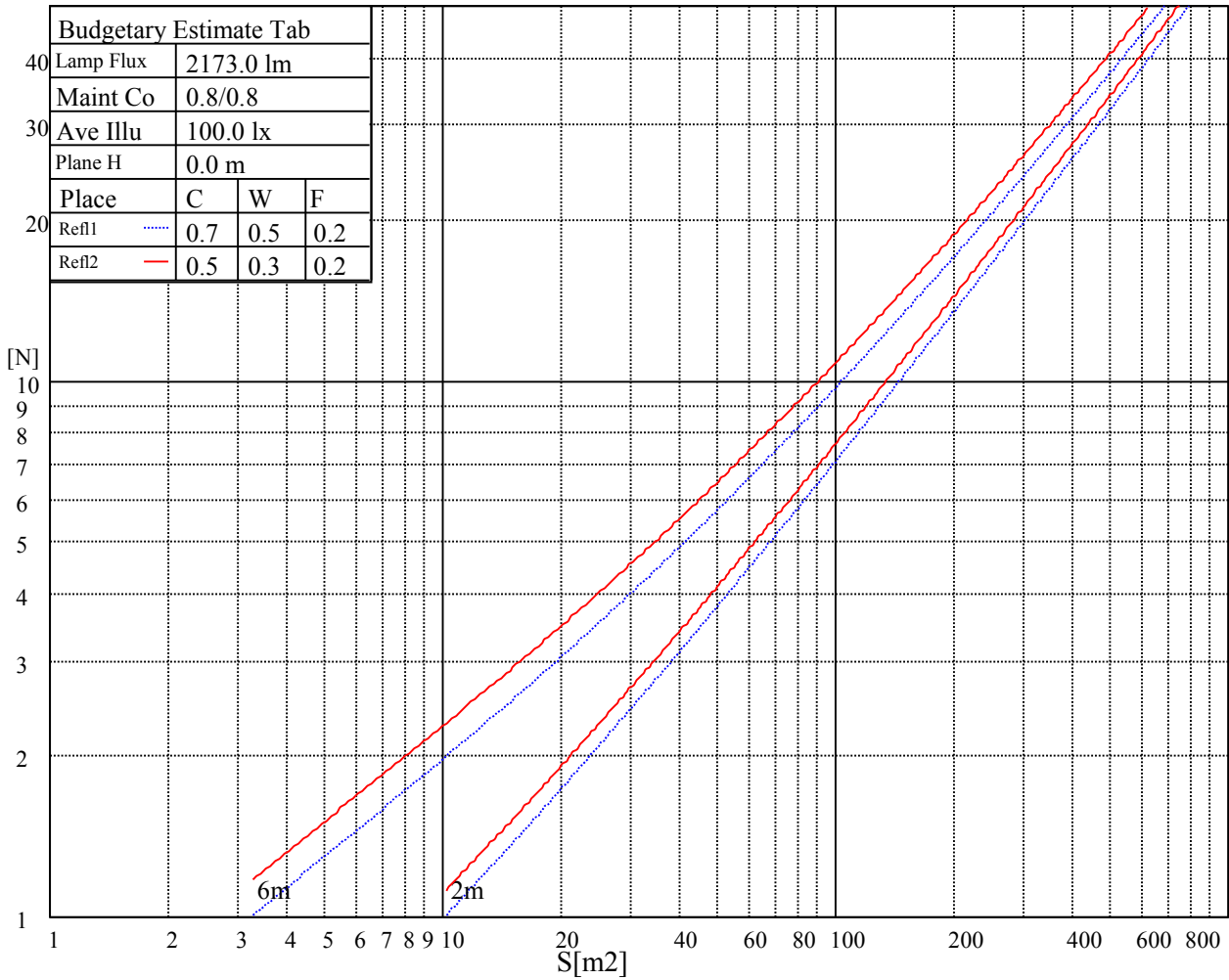
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4095	4095	4095	5762	5762	5762	6397	6397	6397

Glare Table

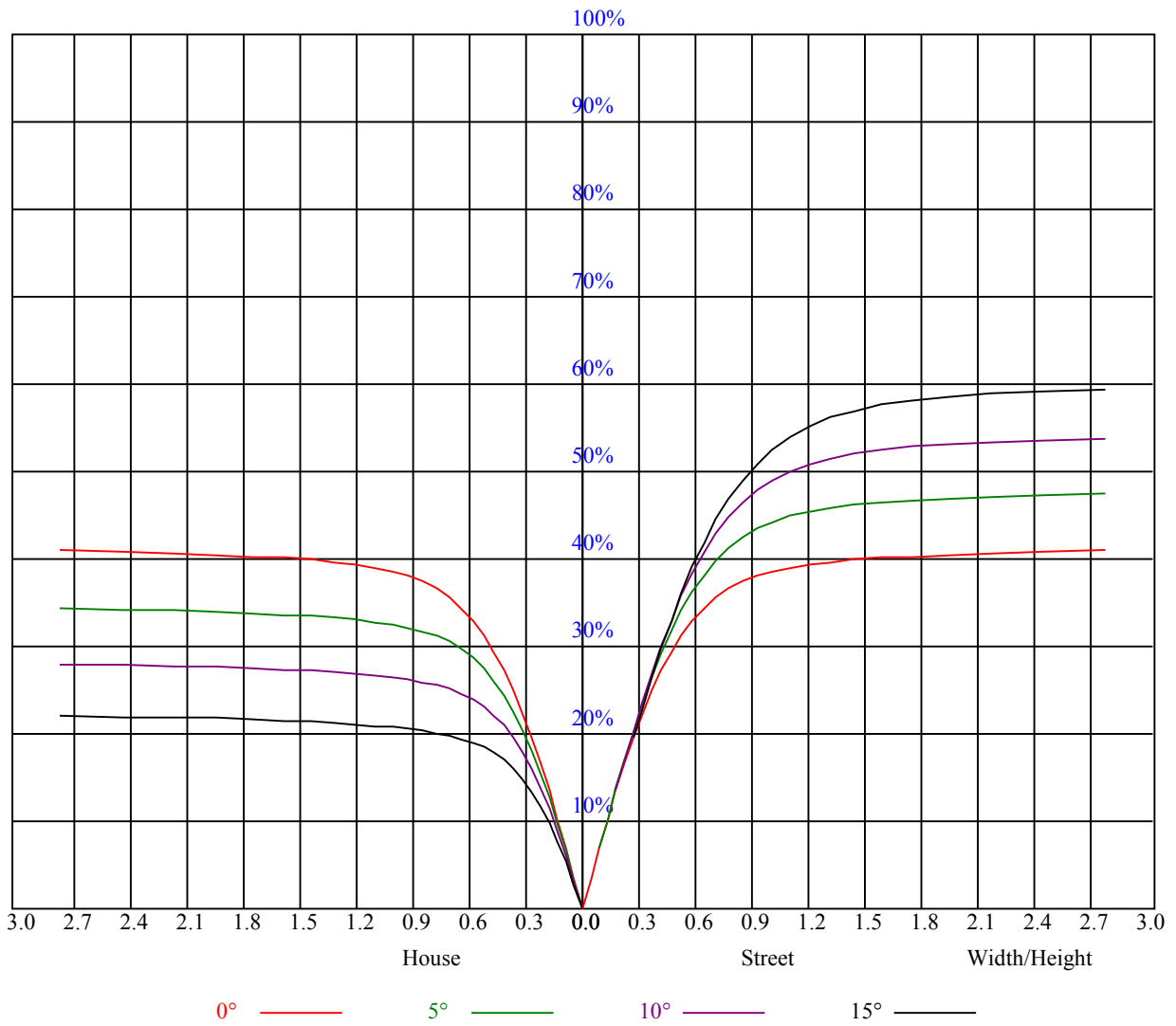
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.00	1.00	1.00	0.97	0.97	0.97	0.93	0.93	0.93	0.89	0.89	0.89	0.85	0.85	0.85	0.84
1	0.91	0.89	0.86	0.89	0.87	0.85	0.86	0.84	0.82	0.83	0.81	0.80	0.80	0.79	0.77	0.76
2	0.83	0.79	0.76	0.82	0.78	0.75	0.79	0.76	0.74	0.77	0.74	0.72	0.74	0.72	0.70	0.69
3	0.77	0.72	0.68	0.76	0.71	0.68	0.73	0.70	0.66	0.71	0.68	0.65	0.69	0.67	0.64	0.63
4	0.71	0.66	0.62	0.70	0.65	0.61	0.68	0.64	0.61	0.66	0.63	0.60	0.65	0.62	0.59	0.58
5	0.66	0.60	0.56	0.65	0.60	0.56	0.64	0.59	0.56	0.62	0.58	0.55	0.61	0.57	0.54	0.53
6	0.61	0.56	0.52	0.61	0.55	0.52	0.59	0.55	0.51	0.58	0.54	0.51	0.57	0.53	0.50	0.49
7	0.57	0.52	0.48	0.57	0.51	0.48	0.56	0.51	0.47	0.55	0.50	0.47	0.54	0.50	0.47	0.46
8	0.54	0.48	0.44	0.53	0.48	0.44	0.52	0.47	0.44	0.51	0.47	0.44	0.50	0.47	0.44	0.42
9	0.50	0.45	0.41	0.50	0.45	0.41	0.49	0.44	0.41	0.48	0.44	0.41	0.48	0.44	0.41	0.40
10	0.48	0.42	0.39	0.47	0.42	0.39	0.46	0.42	0.39	0.46	0.41	0.38	0.45	0.41	0.38	0.37



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	1766.81	1755.00	1685.25	1533.94	1334.81	1095.75	864.00	604.69	381.38
45.0	1773.00	1738.69	1657.69	1500.75	1293.19	1062.56	819.00	563.63	363.94
90.0	1765.69	1726.31	1629.56	1452.38	1257.75	1006.88	763.59	551.42	349.93
135.0	1769.63	1739.81	1662.75	1538.44	1331.44	1086.19	863.44	614.25	398.81
180.0	1766.81	1742.63	1662.19	1509.19	1307.81	1072.58	826.93	570.04	367.99
225.0	1773.00	1774.13	1719.00	1590.75	1386.56	1115.72	867.88	598.78	379.63
270.0	1765.69	1775.25	1728.56	1607.06	1425.94	1168.31	900.00	637.31	403.31
315.0	1769.63	1762.88	1688.63	1531.13	1328.63	1060.88	804.77	542.36	344.64
360.0	1766.81	1755.00	1685.25	1533.94	1334.81	1095.75	864.00	604.69	381.38

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	245.42	129.83	80.72	57.32	42.19	33.36	26.72	20.93	14.40
45.0	202.16	120.66	79.20	54.51	40.56	32.06	25.48	19.58	12.88
90.0	198.34	120.99	75.54	54.11	56.87	67.61	70.71	47.25	13.28
135.0	249.13	135.62	82.91	57.38	42.98	34.31	31.39	25.37	14.06
180.0	207.84	123.86	77.68	55.86	41.57	32.96	26.27	20.48	14.18
225.0	223.48	132.47	82.91	57.32	42.98	33.81	26.72	21.21	14.91
270.0	251.10	136.13	83.70	58.05	48.38	59.74	67.95	62.33	17.21
315.0	194.18	115.82	75.21	52.93	39.60	32.68	30.77	22.39	13.50
360.0	245.42	129.83	80.72	57.32	42.19	33.36	26.72	20.93	14.40

C/γ(°)	90.0
0.0	8.16
45.0	8.10
90.0	7.26
135.0	7.43
180.0	7.93
225.0	8.78
270.0	7.48
315.0	7.43
360.0	8.16