



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: LN01D05036DA-N

Luminaire: 97.70.234.00

Report No: 210707-B005

Test No: 210707-C005

LampCAT: Fortimo LED SLM 1203 G7N

Lamp flux(lm): 2182.7

Number of Lamps: 1

Length(mm): 570

Phm Type: C

Voltage(V): 36.7100

Current(A): 0.4510

Power (W): 16.5560

PF: 0.0000

Ballast type: DC

Width(mm): 45

Height(mm): 20

Photometric Results

Lumens(lm): 2039.72

Efficiency(%): 93.45%

Lumens(lm)/Power(W): 123.20

Central intensity(cd): 3857.625

Maximum intensity(cd): 3857.625

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=41.7

[C90/270]Total=41.7

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

[C90/270]Total=66.3

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(%): 93.45%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.095%

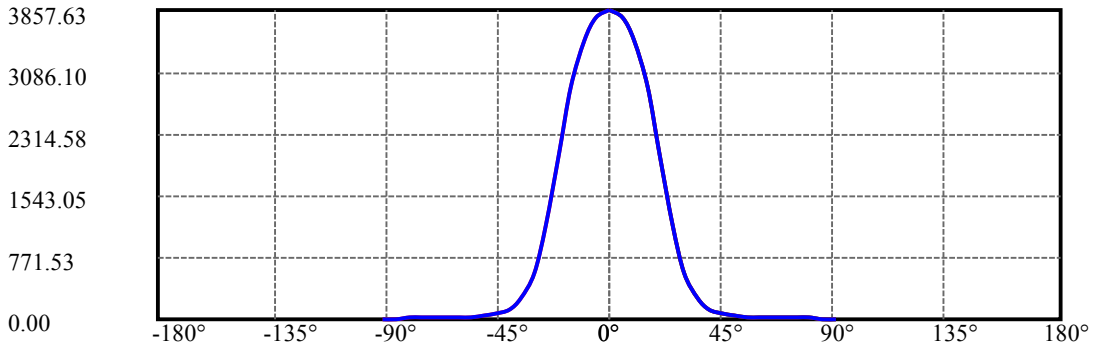
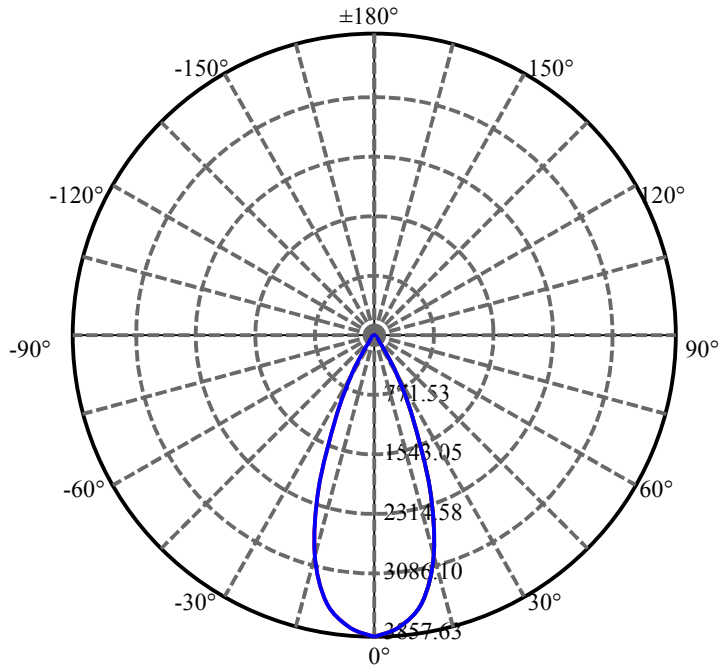
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3857.625	0.000	0	.000%	.000%
5.0	3760.031	91.067	91.067	4.172%	4.465%
10.0	3470.063	258.643	349.71	11.850%	17.145%
15.0	2896.664	377.670	727.38	17.303%	35.661%
20.0	2084.273	410.499	1137.879	18.807%	55.786%
25.0	1172.285	341.553	1479.432	15.648%	72.531%
30.0	582.391	222.056	1701.488	10.173%	83.418%
35.0	268.066	125.236	1826.724	5.738%	89.558%
40.0	125.754	65.706	1892.43	3.010%	92.779%
45.0	70.073	36.259	1928.689	1.661%	94.557%
50.0	44.824	23.217	1951.906	1.064%	95.695%
55.0	30.227	16.319	1968.224	.748%	96.495%
60.0	22.746	12.245	1980.469	.561%	97.095%
65.0	18.928	10.131	1990.6	.464%	97.592%
70.0	21.016	10.114	2000.714	.463%	98.088%
75.0	25.059	12.043	2012.758	.552%	98.678%
80.0	22.184	12.641	2025.399	.579%	99.298%
85.0	10.758	8.951	2034.35	.410%	99.737%
90.0	8.845	5.367	2039.717	.246%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1701.49	77.95%	83.42%
0-40	1892.43	86.70%	92.78%
0-60	1980.47	90.73%	97.10%
0-90	2034.35	93.20%	99.74%
0-120	2034.35	93.20%	99.74%
0-180	2039.72	93.45%	100.00%
60-90	66.13	3.03%	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%
0-28.43	1631.77	74.76%	80.00%

ZONAL LUMEN SUMMARY

0-10	349.71
10-20	788.17
20-30	563.61
30-40	190.94
40-50	59.48
50-60	28.56
60-70	20.25
70-80	24.68
80-90	8.95
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: —————

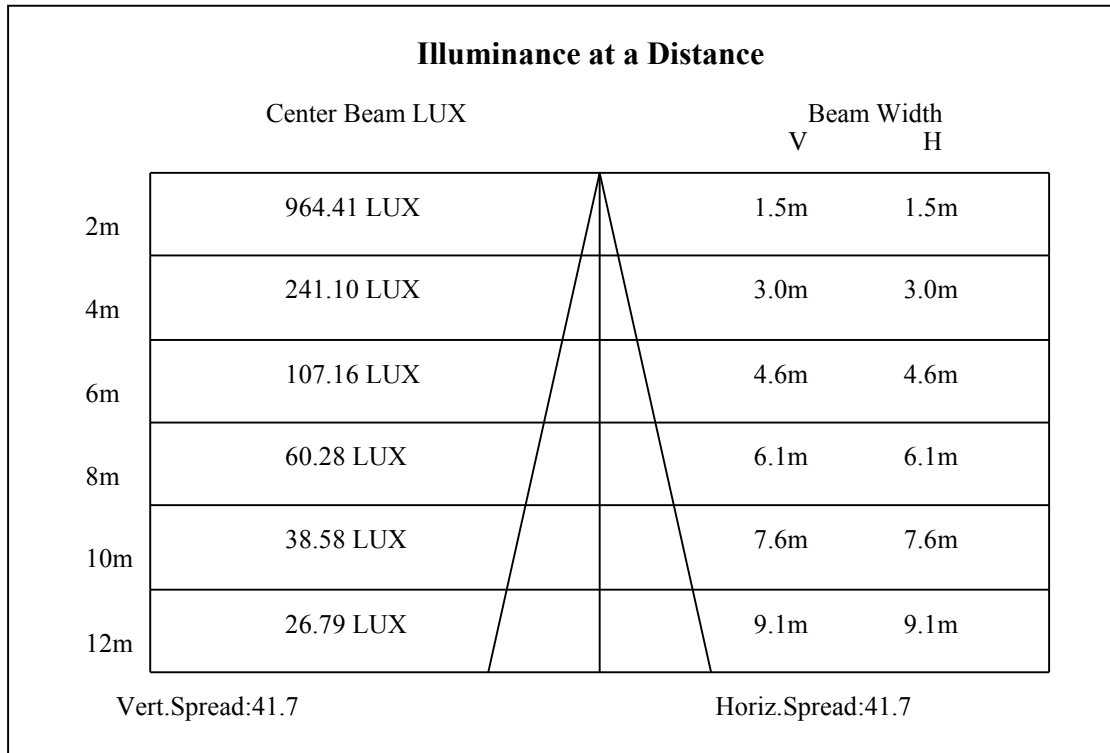
C90/C270: —————

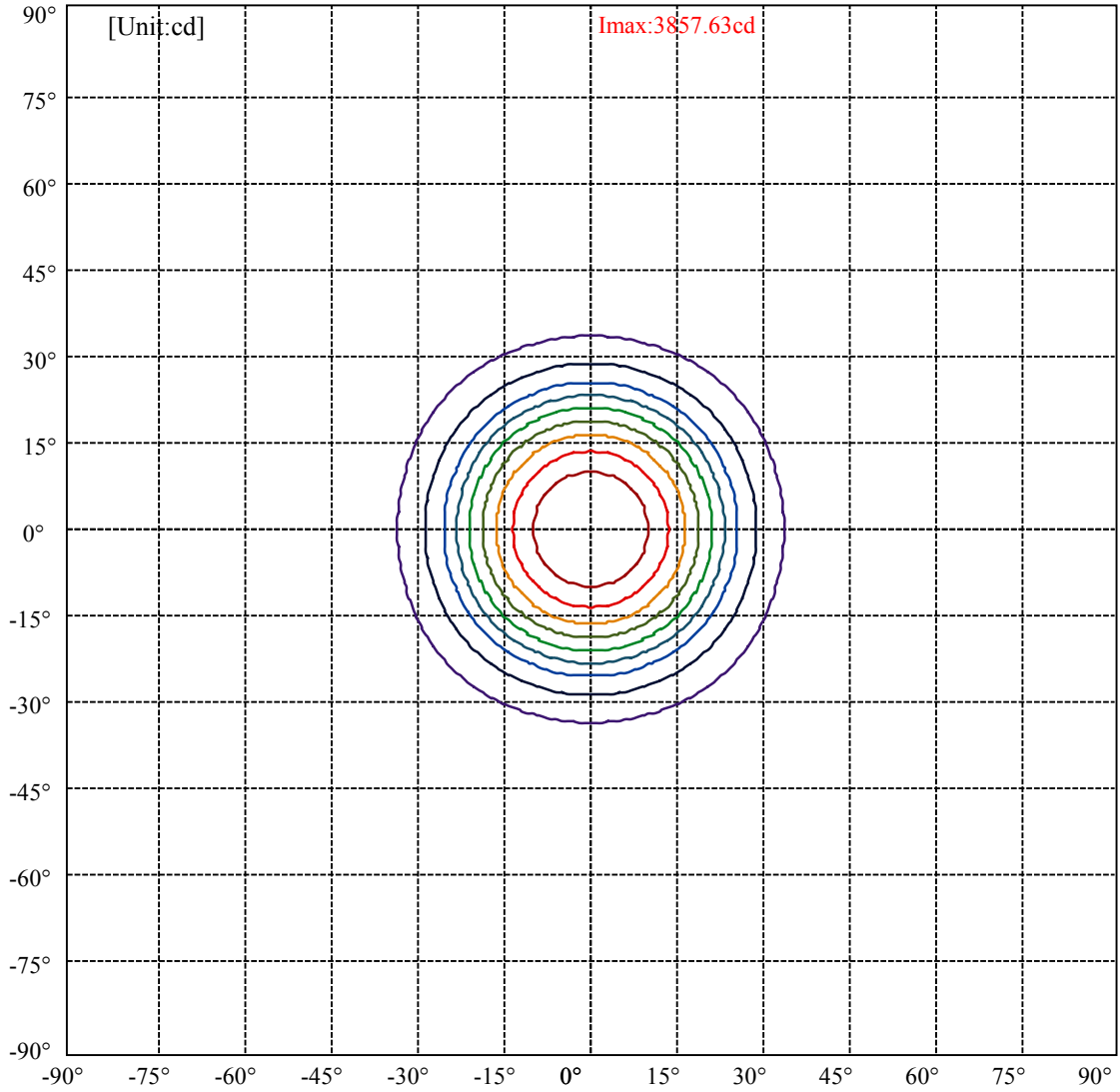
Field angle(10%Imax):C0/180Left:33.1 Right:33.1

:C90/270Left:33.1 Right:33.1

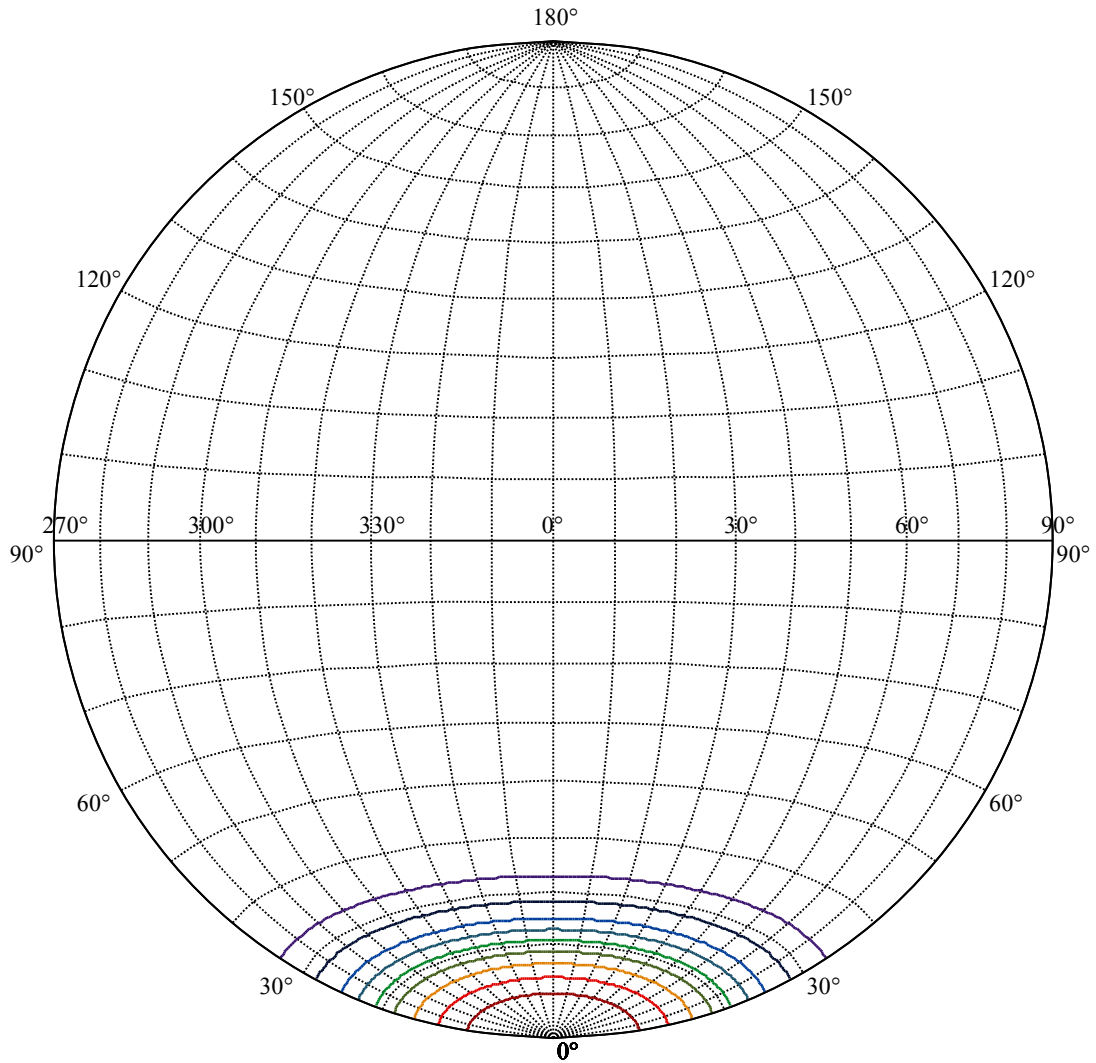
Beam Angle(50%Imax):C0/180Left:20.9 Right:20.9

:C90/270Left:20.9 Right:20.9





(10%I _{max}) 385.763	—
(20%I _{max}) 771.525	—
(30%I _{max}) 1157.29	—
(40%I _{max}) 1543.05	—
(50%I _{max}) 1928.81	—
(60%I _{max}) 2314.57	—
(70%I _{max}) 2700.34	—
(80%I _{max}) 3086.1	—
(90%I _{max}) 3471.86	—



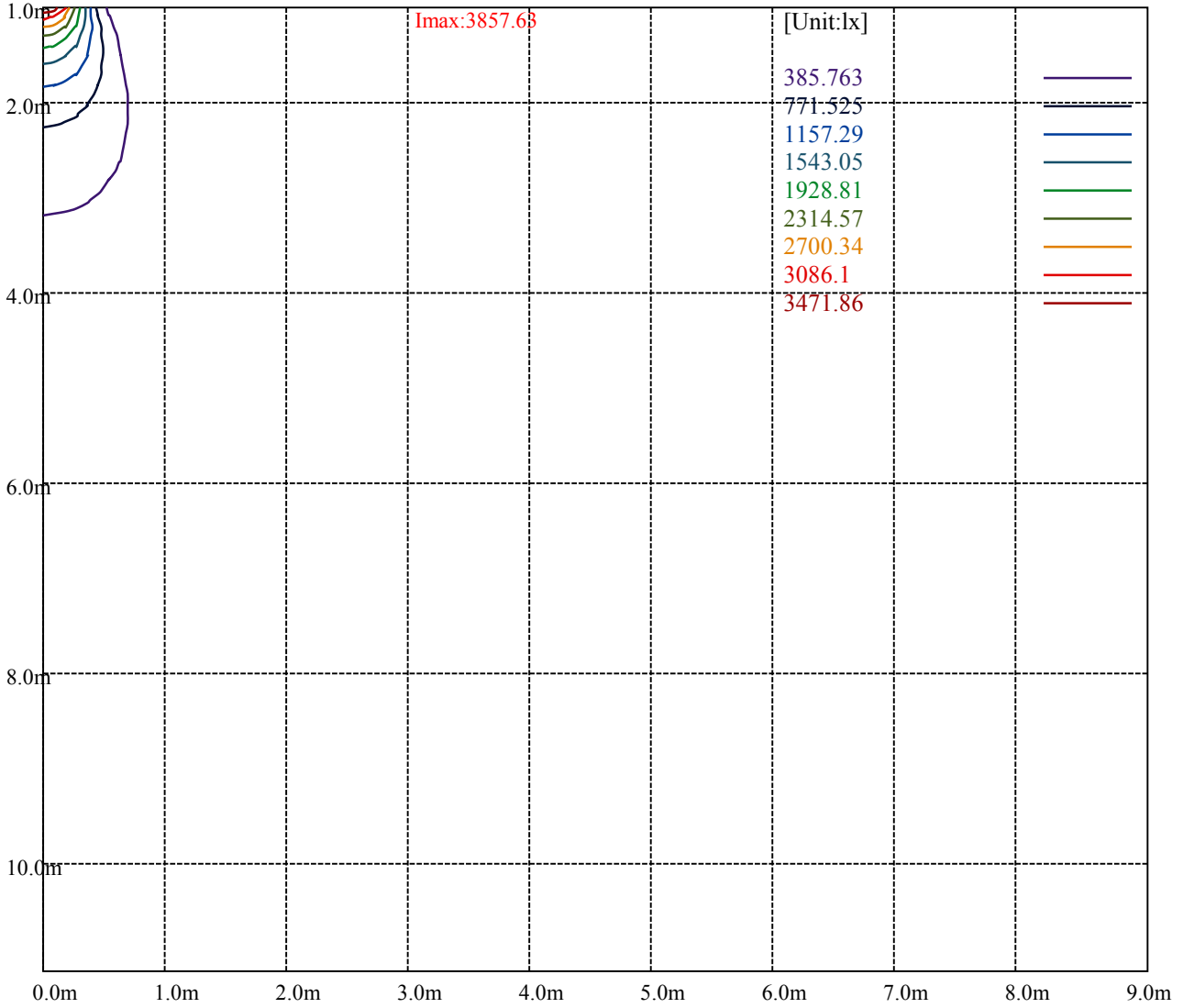
House

[Unit:cd]

Road

Imax:3857.63

(10%Imax) 385.763	—
(20%Imax) 771.525	—
(30%Imax) 1157.29	—
(40%Imax) 1543.05	—
(50%Imax) 1928.81	—
(60%Imax) 2314.57	—
(70%Imax) 2700.34	—
(80%Imax) 3086.1	—
(90%Imax) 3471.86	—



Luminance Table

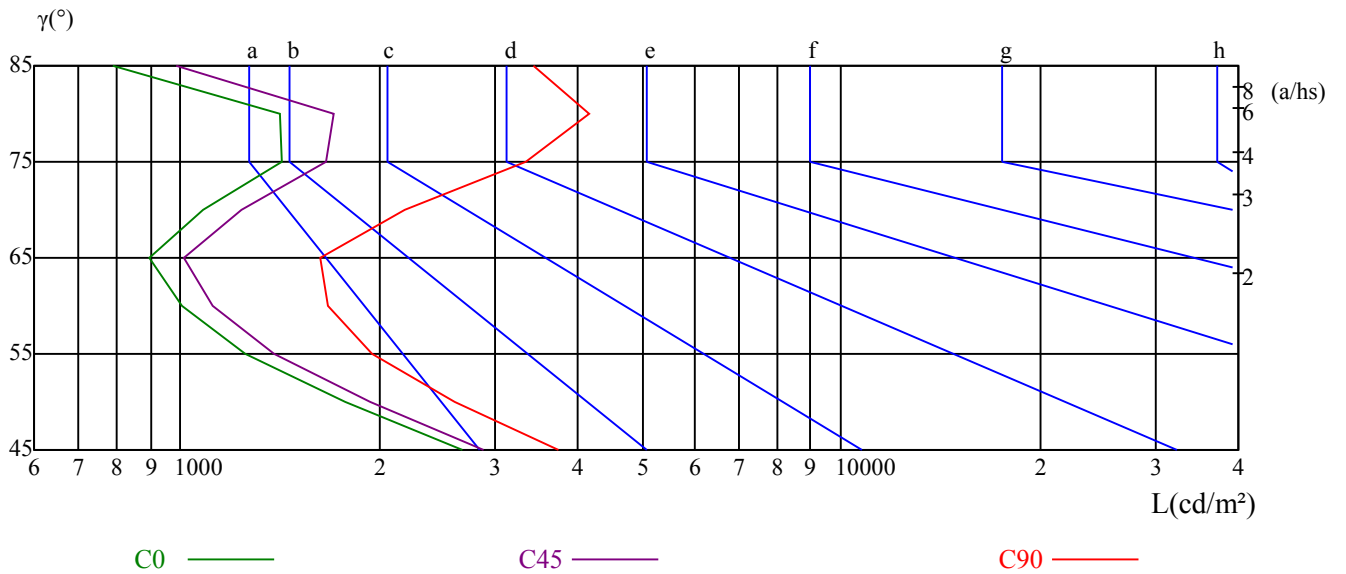
γ	45	50	55	60	65	70	75	80	85
C0	2675	1777	1257	1002	894	1079	1420	1415	791
C45	2885	1936	1384	1117	1011	1240	1666	1704	987
C90	3733	2610	1957	1672	1624	2185	3338	4154	3435

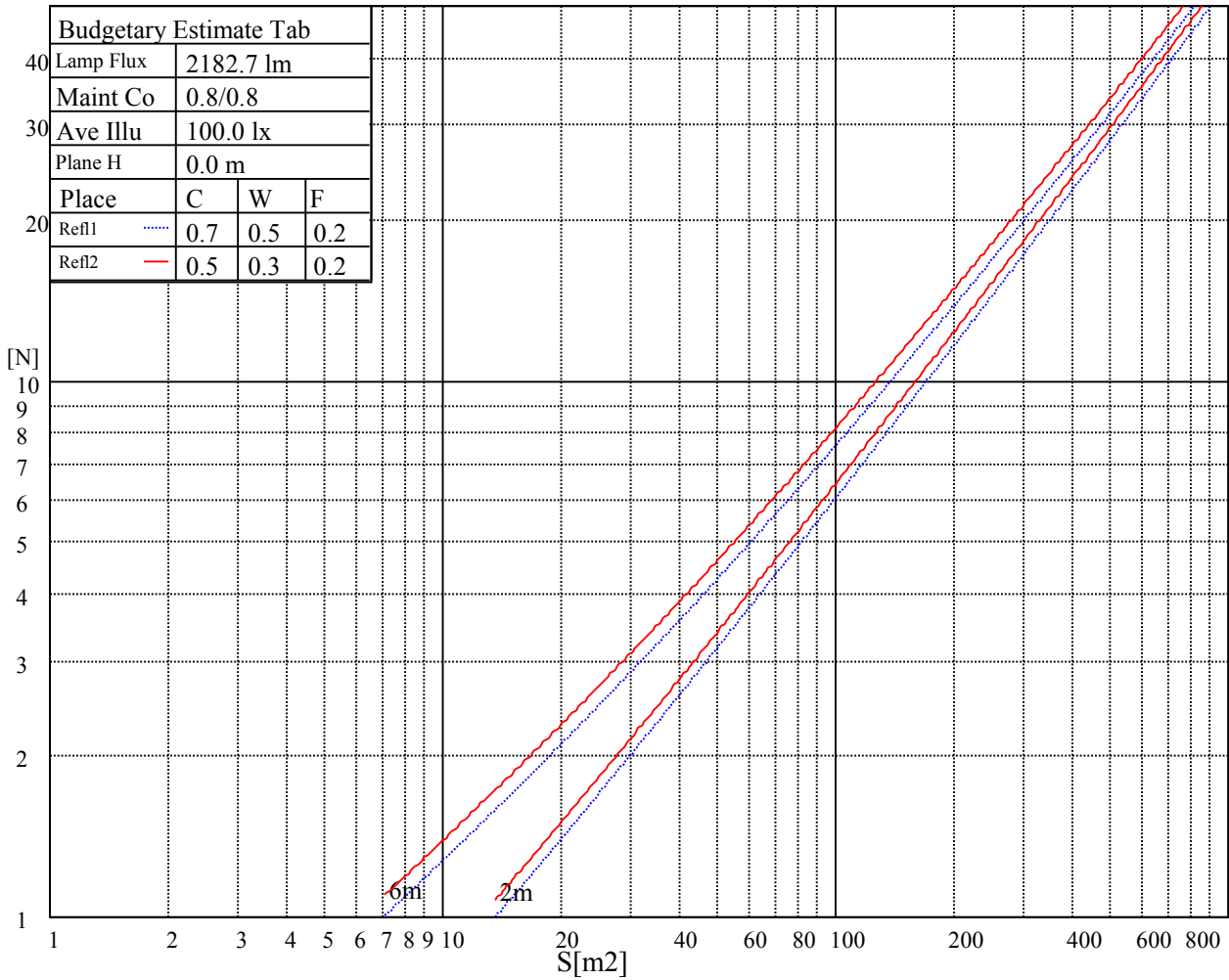
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1746	1746	1746	3775	3775	3775	4812	4812	4812

Glare Table

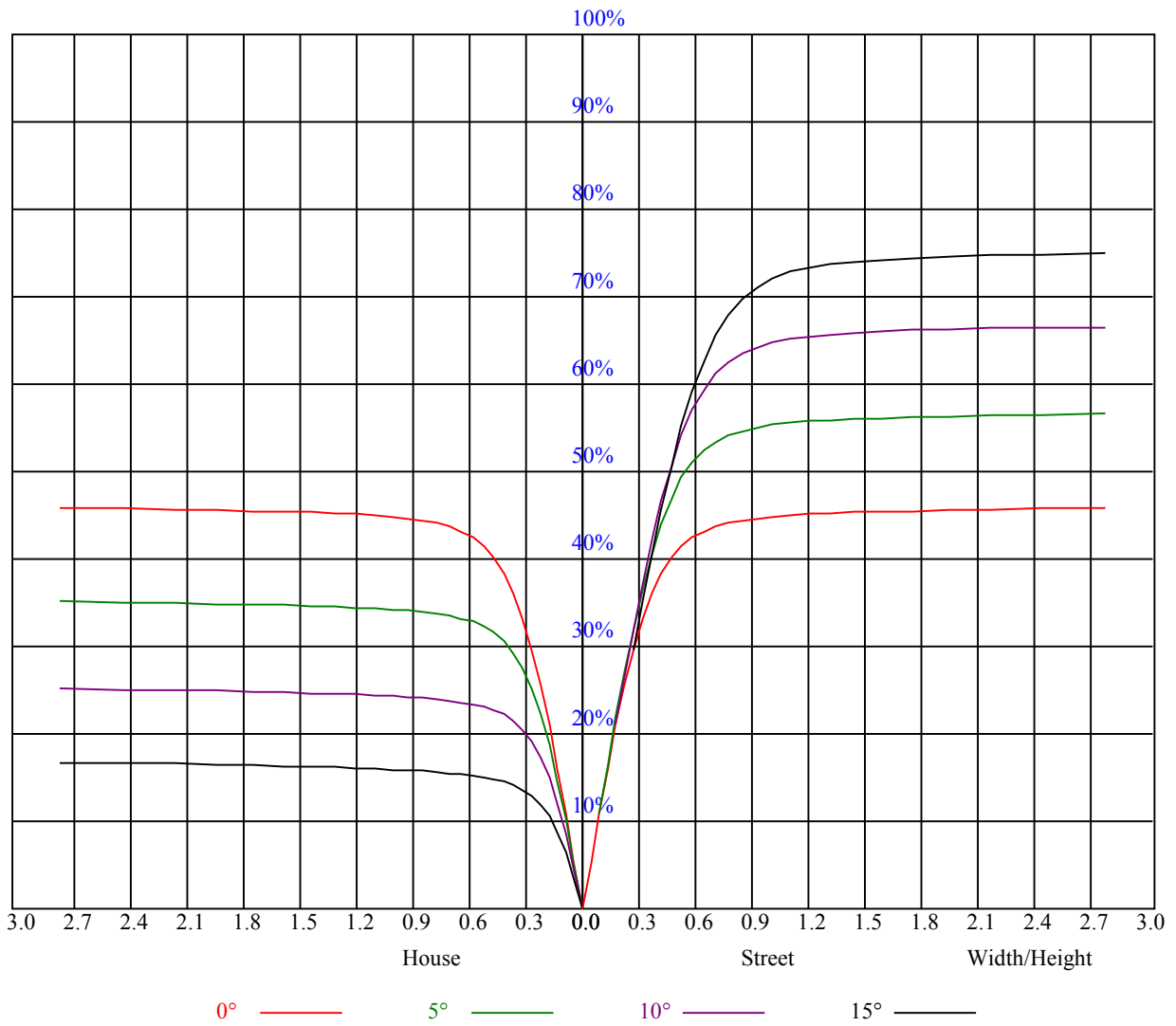
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.11	1.11	1.11	1.09	1.09	1.09	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.04	1.01	0.99	1.02	0.99	0.98	0.98	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.87
2	0.97	0.93	0.90	0.95	0.92	0.89	0.92	0.90	0.87	0.90	0.87	0.86	0.87	0.85	0.84	0.82
3	0.91	0.87	0.83	0.90	0.86	0.83	0.88	0.84	0.81	0.85	0.83	0.80	0.83	0.81	0.79	0.78
4	0.86	0.81	0.78	0.85	0.81	0.77	0.83	0.79	0.76	0.81	0.78	0.76	0.80	0.77	0.75	0.73
5	0.82	0.77	0.73	0.81	0.76	0.73	0.79	0.75	0.72	0.78	0.74	0.72	0.76	0.73	0.71	0.70
6	0.78	0.73	0.69	0.77	0.72	0.69	0.76	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.66
7	0.74	0.69	0.65	0.73	0.69	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
8	0.71	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.67	0.64	0.61	0.60
9	0.67	0.63	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.62	0.59	0.65	0.61	0.59	0.57
10	0.65	0.60	0.57	0.64	0.60	0.56	0.63	0.59	0.56	0.63	0.59	0.56	0.62	0.59	0.56	0.55



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	3849.19	3819.94	3619.69	3148.31	2382.75	1495.69	741.94	327.38	158.40
45.0	3860.44	3792.94	3550.50	2987.44	2141.44	1236.38	592.31	285.75	134.83
90.0	3855.94	3737.25	3395.81	2740.50	1902.38	993.88	451.97	207.28	104.01
135.0	3865.50	3736.69	3411.00	2821.50	1984.50	1045.69	527.06	290.25	106.09
180.0	3849.19	3691.13	3313.69	2631.38	1758.94	936.96	433.01	189.90	99.79
225.0	3860.44	3746.25	3420.56	2835.00	2004.19	1103.63	540.73	240.02	120.04
270.0	3854.81	3778.31	3546.00	3048.19	2359.69	1466.44	727.31	330.19	148.44
315.0	3865.50	3777.75	3503.25	2961.00	2140.31	1099.63	644.79	273.77	134.44
360.0	3849.19	3819.94	3619.69	3148.31	2382.75	1495.69	741.94	327.38	158.40
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	85.84	53.49	35.10	25.88	20.14	17.33	15.08	12.94	11.19
45.0	74.48	47.93	32.68	24.30	19.24	16.48	13.89	11.87	10.13
90.0	57.94	37.97	25.93	20.25	19.97	38.98	57.09	40.50	9.73
135.0	62.33	40.39	27.68	21.32	17.72	15.81	18.00	14.46	9.73
180.0	60.24	39.43	27.28	21.43	17.83	15.53	13.22	11.48	9.84
225.0	70.03	45.11	30.38	22.39	18.45	15.81	13.44	11.59	10.07
270.0	75.88	47.81	31.05	22.95	19.18	31.50	51.24	56.98	14.12
315.0	73.86	46.46	31.73	23.46	18.90	16.71	18.51	17.66	11.25
360.0	85.84	53.49	35.10	25.88	20.14	17.33	15.08	12.94	11.19
C/γ(°)	90.0								
0.0	9.06								
45.0	8.89								
90.0	8.78								
135.0	8.72								
180.0	8.83								
225.0	8.83								
270.0	8.83								
315.0	8.83								
360.0	9.06								