



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: LN01D04536DA-N

Luminaire: 97.70.234.00

Report No: 210709-B014

Test No: 210709-C014

LampCAT: Fortimo LED SLM 1204 G7N

Lamp flux(lm): 2429.4

Number of Lamps: 1

Length(mm): 570

Phm Type: C

Voltage(V): 36.0300

Current(A): 0.5100

Power (W): 18.3750

PF: 0.0000

Ballast type: DC

Width(mm): 45

Height(mm): 20

Photometric Results

Lumens(lm): 2267.88

Efficiency(%): 93.35%

Lumens(lm)/Power(W): 123.42

Central intensity(cd): 4381.172

Maximum intensity(cd): 4381.172

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=40.6

[C90/270]Total=40.6

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

[C90/270]Total=65.9

Maximum s/h(1/2): C0_180=0.67 C90_270=0.67

Maximum s/h(1/4): C0_180=0.63 C90_270=0.63

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 93.35%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.702%

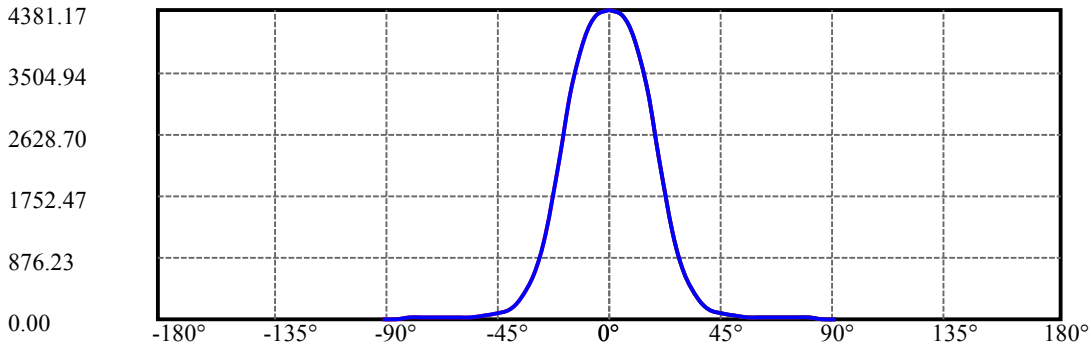
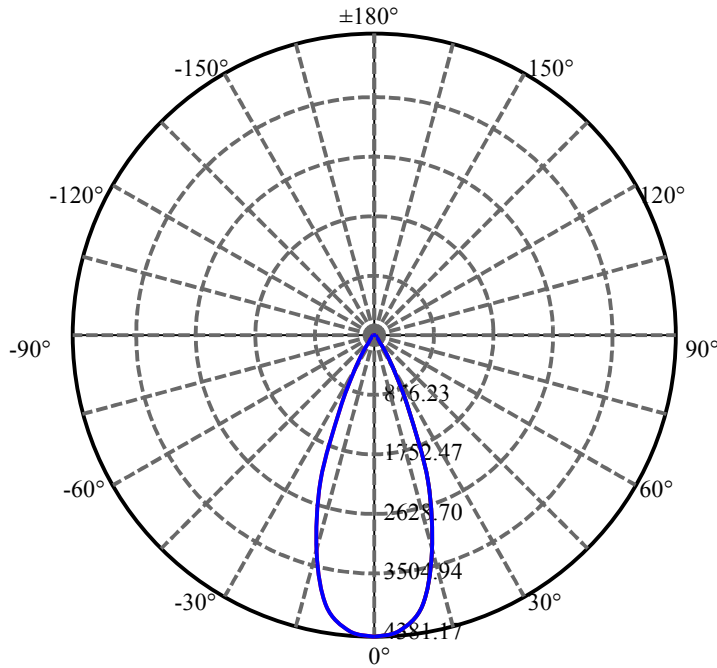
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4381.172	0.000	0	.000%	.000%
5.0	4301.438	103.798	103.798	4.273%	4.577%
10.0	3982.641	296.348	400.146	12.198%	17.644%
15.0	3251.039	429.097	829.243	17.663%	36.565%
20.0	2253.938	453.687	1282.93	18.675%	56.570%
25.0	1212.244	363.538	1646.469	14.964%	72.600%
30.0	640.645	234.485	1880.953	9.652%	82.939%
35.0	294.919	137.768	2018.722	5.671%	89.014%
40.0	145.673	73.509	2092.231	3.026%	92.255%
45.0	80.044	41.793	2134.024	1.720%	94.098%
50.0	51.131	26.506	2160.53	1.091%	95.267%
55.0	34.355	18.587	2179.118	.765%	96.086%
60.0	26.051	13.963	2193.08	.575%	96.702%
65.0	24.940	12.396	2205.476	.510%	97.248%
70.0	29.032	13.666	2219.142	.563%	97.851%
75.0	32.259	16.021	2235.163	.659%	98.557%
80.0	26.972	15.849	2251.011	.652%	99.256%
85.0	12.382	10.693	2261.705	.440%	99.728%
90.0	10.160	6.172	2267.877	.254%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1880.95	77.42%	82.94%
0-40	2092.23	86.12%	92.26%
0-60	2193.08	90.27%	96.70%
0-90	2261.70	93.10%	99.73%
0-120	2261.70	93.10%	99.73%
0-180	2267.88	93.35%	100.00%
60-90	82.59	3.40%	3.64%
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%
0-28.58	1814.30	74.68%	80.00%

ZONAL LUMEN SUMMARY

0-10	400.15
10-20	882.78
20-30	598.02
30-40	211.28
40-50	68.30
50-60	32.55
60-70	26.06
70-80	31.87
80-90	10.69
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: ———

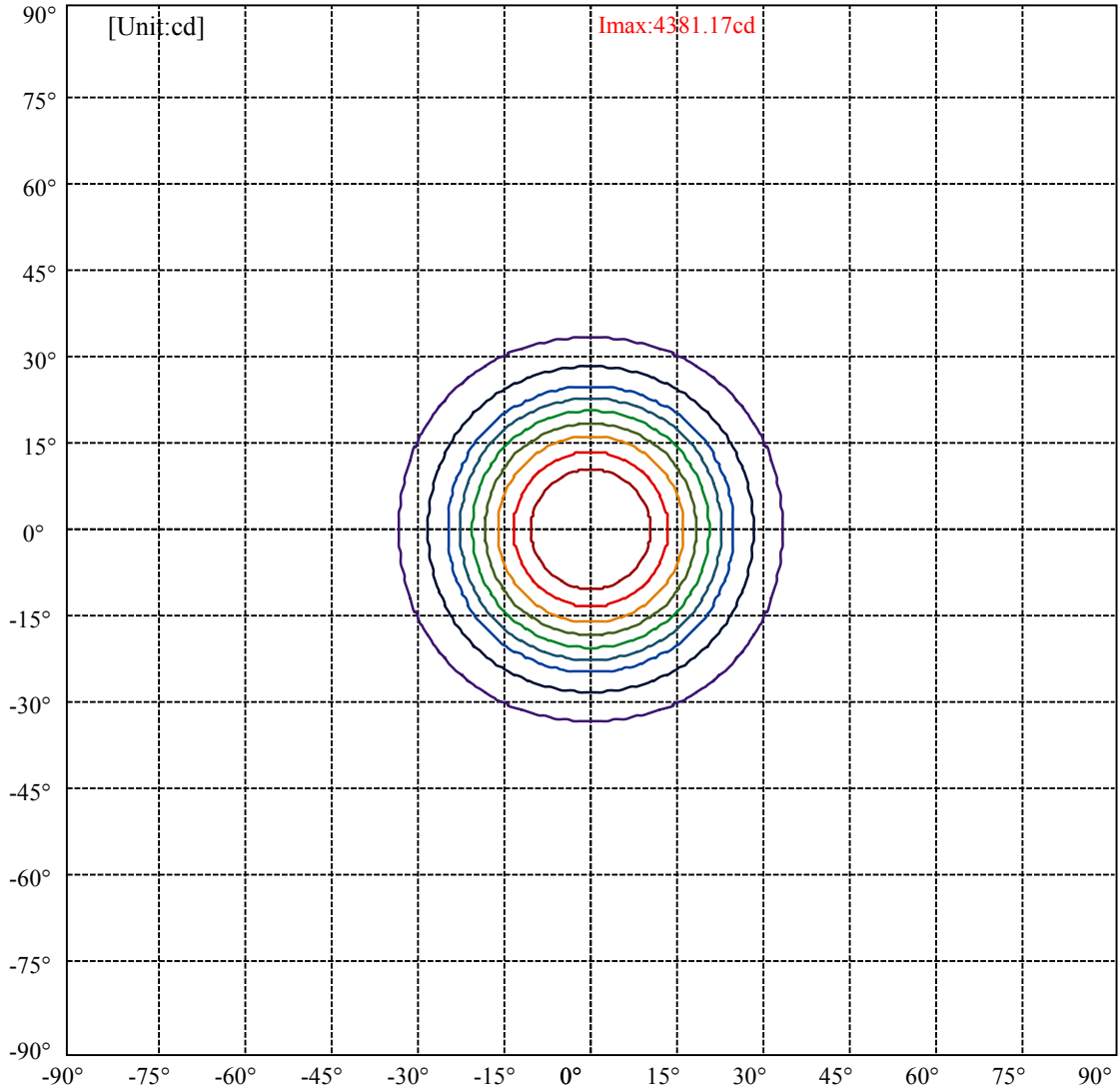
C90/C270: ———

Field angle(10%Imax):C0/180Left:32.9 Right:32.9

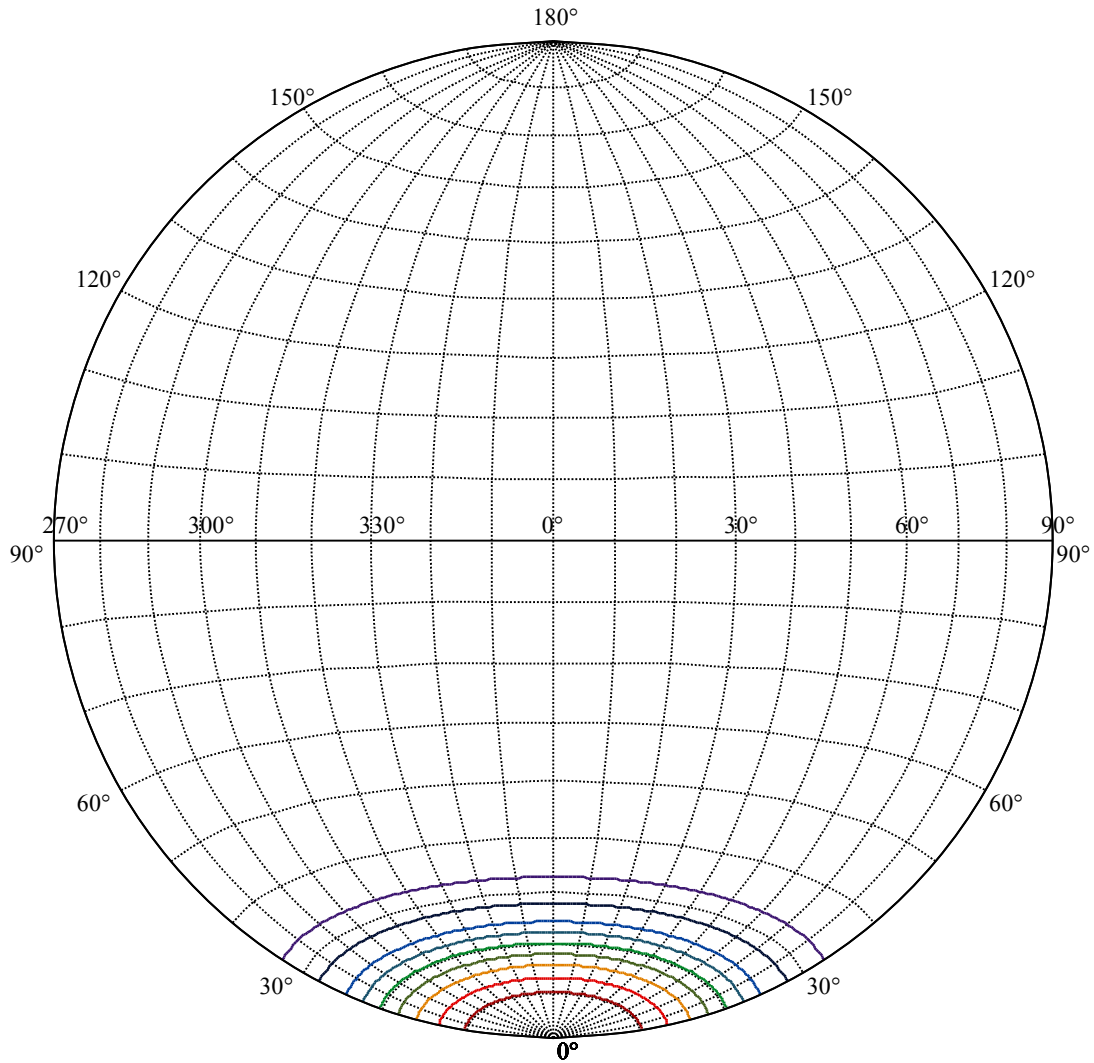
:C90/270Left:32.9 Right:32.9

Beam Angle(50%Imax):C0/180Left:20.3 Right:20.3

:C90/270Left:20.3 Right:20.3



- (10%Imax) 438.117
- (20%Imax) 876.234
- (30%Imax) 1314.35
- (40%Imax) 1752.47
- (50%Imax) 2190.59
- (60%Imax) 2628.7
- (70%Imax) 3066.82
- (80%Imax) 3504.94
- (90%Imax) 3943.05



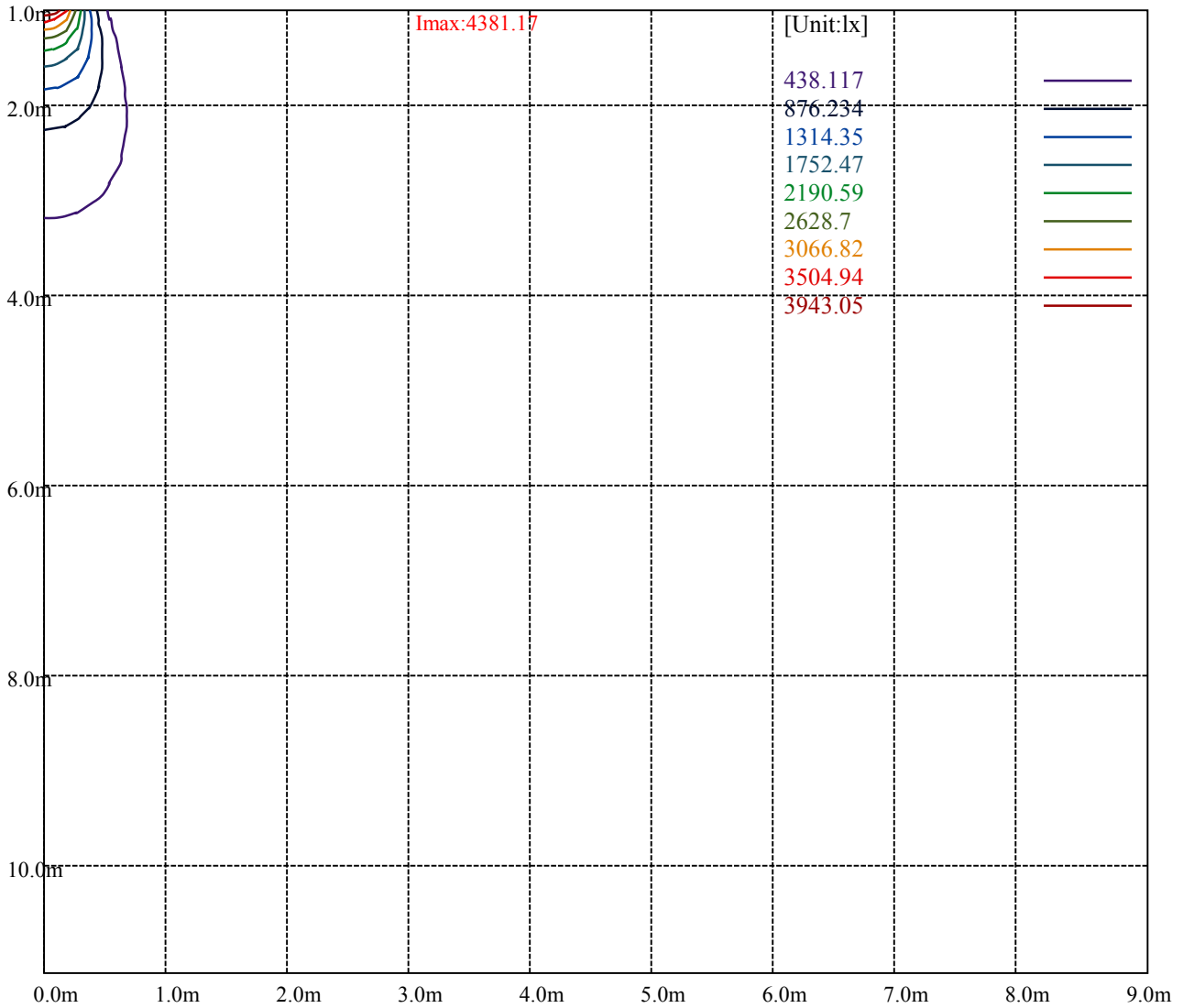
House

[Unit:cd]

Road

Imax:4381.17

(10%Imax) 438.117	—
(20%Imax) 876.234	—
(30%Imax) 1314.35	—
(40%Imax) 1752.47	—
(50%Imax) 2190.59	—
(60%Imax) 2628.7	—
(70%Imax) 3066.82	—
(80%Imax) 3504.94	—
(90%Imax) 3943.05	—



Luminance Table

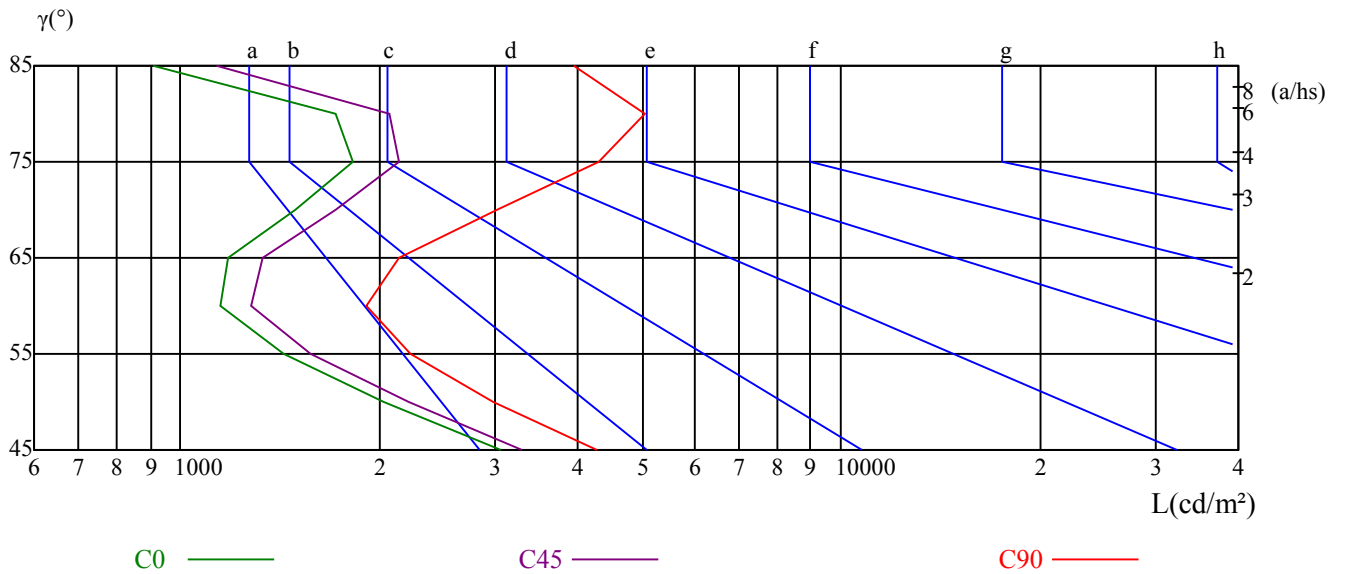
γ	45	50	55	60	65	70	75	80	85
C0	3055	2027	1428	1148	1178	1490	1828	1720	911
C45	3296	2209	1573	1280	1332	1713	2145	2072	1136
C90	4264	2977	2224	1915	2140	3018	4297	5051	3953

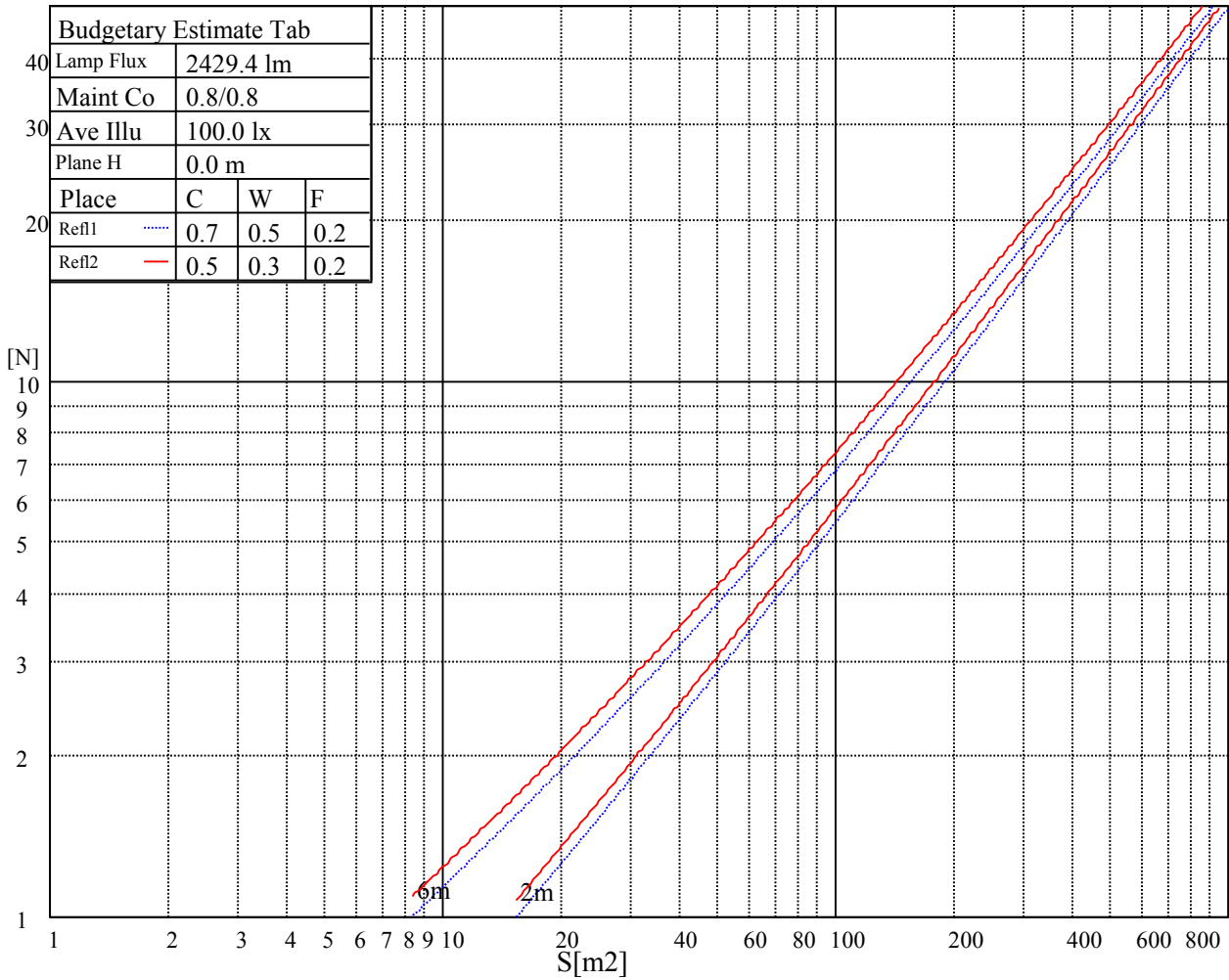
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2301	2301	2301	4859	4859	4859	5539	5539	5539

Glare Table

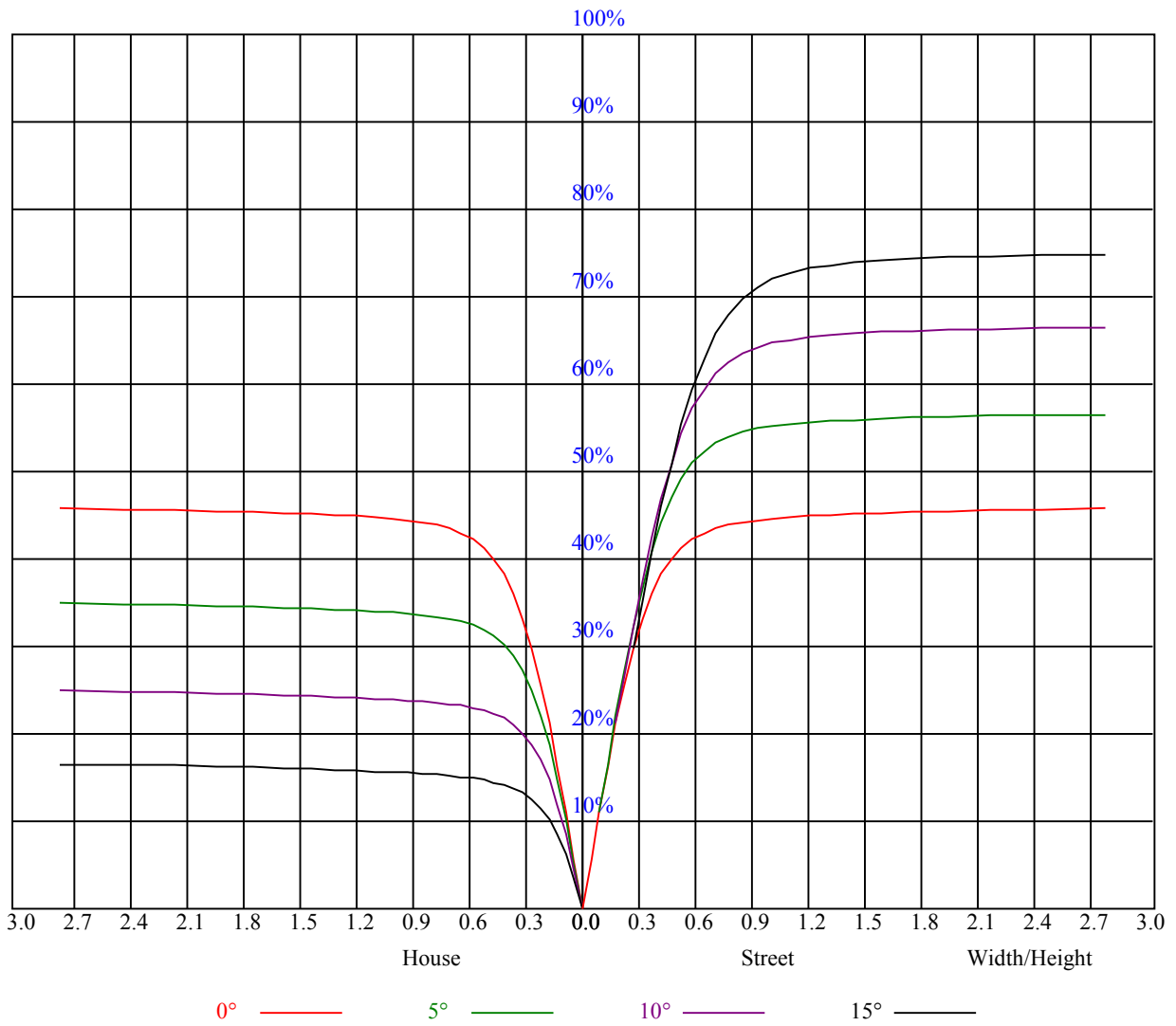
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.03	1.01	0.99	1.01	0.99	0.97	0.98	0.96	0.94	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	0.89	0.87	0.89	0.87	0.85	0.87	0.85	0.84	0.82
3	0.91	0.87	0.83	0.90	0.86	0.83	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.81	0.79	0.77
4	0.86	0.81	0.78	0.85	0.81	0.77	0.83	0.79	0.76	0.81	0.78	0.75	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	0.71	0.76	0.73	0.71	0.69
6	0.78	0.72	0.69	0.77	0.72	0.69	0.75	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	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	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	0.57	0.64	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	4379.63	4321.69	4030.88	3283.88	2320.88	1289.25	638.44	290.81	149.40
45.0	4389.19	4300.31	3959.44	3157.31	2144.81	1160.44	570.38	293.63	135.17
90.0	4374.56	4286.81	3933.00	3126.38	2055.94	1102.84	556.93	236.87	125.44
135.0	4381.31	4309.31	4025.81	3382.31	2342.81	1375.31	693.56	313.31	154.58
180.0	4379.63	4276.13	3903.19	3173.63	2171.25	1113.13	617.18	279.84	139.73
225.0	4389.19	4326.75	4032.56	3267.56	2396.81	1100.98	663.86	327.60	161.38
270.0	4374.56	4320.56	4064.06	3489.19	2501.44	1464.19	804.94	354.38	168.13
315.0	4381.31	4269.94	3912.19	3128.06	2097.56	1091.81	579.88	262.91	131.57
360.0	4379.63	4321.69	4030.88	3283.88	2320.88	1289.25	638.44	290.81	149.40

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	82.63	51.86	35.44	26.38	21.09	18.11	16.20	14.68	12.43
45.0	75.94	51.24	33.86	25.76	21.04	18.39	18.79	14.51	11.59
90.0	69.81	44.78	31.11	25.03	42.41	69.08	82.91	57.88	11.81
135.0	83.81	53.49	35.61	26.83	21.54	18.00	16.03	14.29	11.70
180.0	76.50	49.73	33.58	25.48	21.15	18.17	16.26	14.46	12.15
225.0	85.89	54.45	36.06	26.72	21.77	18.84	18.39	16.37	12.88
270.0	88.99	53.89	35.44	26.49	29.59	54.11	73.80	69.75	14.79
315.0	76.78	49.61	33.75	25.71	20.93	17.55	15.69	13.84	11.70
360.0	82.63	51.86	35.44	26.38	21.09	18.11	16.20	14.68	12.43

C/γ(°)	90.0
0.0	10.52
45.0	10.13
90.0	9.90
135.0	9.90
180.0	10.52
225.0	10.41
270.0	10.07
315.0	9.84
360.0	10.52