



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: 3-2384-L

Luminaire:

Report No: NATA0100

Voltage(V): 34.3600

Test No: GC2020010626

Current(A): 0.6000

LampCAT: LUMINUS CXM-14-AC40

Power (W): 20.6580

Lamp flux(lm): 2559.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2506.21

Efficiency(%): 97.94%

Lumens(lm)/Power(W): 121.32

Central intensity(cd): 5551.594

Maximum intensity(cd): 5551.594

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=37.0

[C90/270]Total=37.0

Field angle(10%Imax): [C0/180]Total=66.5

[C90/270]Total=66.5

Maximum s/h(1/2): C0_180=0.62 C90_270=0.62

Maximum s/h(1/4): C0_180=0.59 C90_270=0.59

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 97.94%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.322%

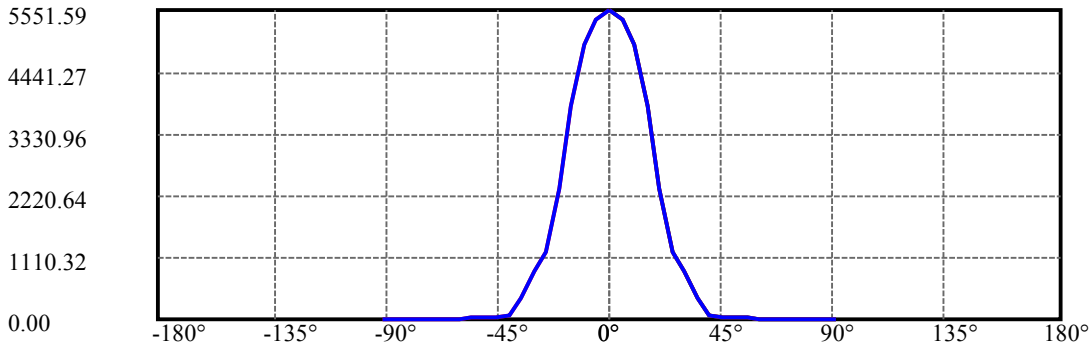
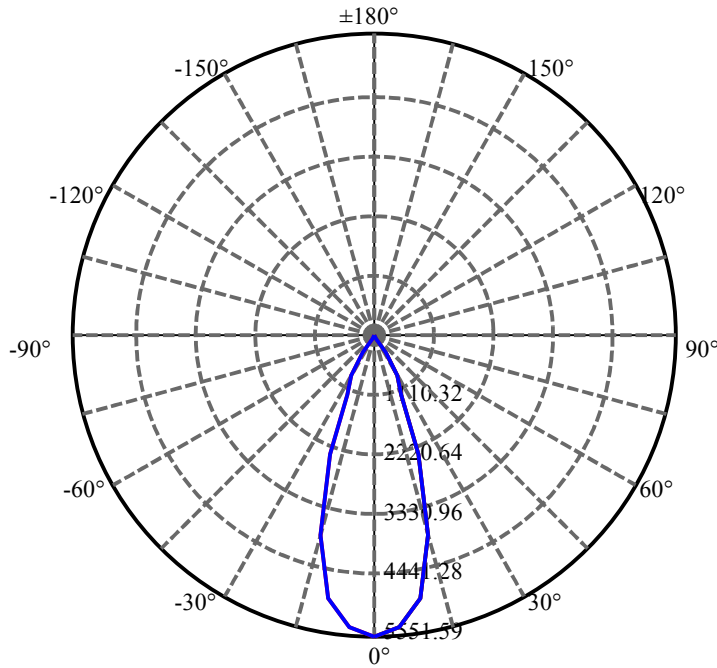
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5551.594	0.000	0	.000%	.000%
5.0	5388.258	130.783	130.783	5.111%	5.218%
10.0	4913.789	368.537	499.319	14.402%	19.923%
15.0	3820.008	518.083	1017.402	20.246%	40.595%
20.0	2332.547	507.057	1524.459	19.815%	60.827%
25.0	1211.913	371.748	1896.208	14.527%	75.660%
30.0	848.496	260.747	2156.954	10.189%	86.065%
35.0	394.320	183.013	2339.968	7.152%	93.367%
40.0	80.438	79.210	2419.177	3.095%	96.527%
45.0	24.961	19.515	2438.693	.763%	97.306%
50.0	20.257	9.137	2447.83	.357%	97.671%
55.0	18.000	8.318	2456.148	.325%	98.003%
60.0	16.608	7.999	2464.147	.313%	98.322%
65.0	15.384	7.777	2471.925	.304%	98.632%
70.0	14.330	7.524	2479.449	.294%	98.932%
75.0	13.057	7.158	2486.607	.280%	99.218%
80.0	12.255	6.773	2493.38	.265%	99.488%
85.0	11.735	6.519	2499.899	.255%	99.748%
90.0	11.299	6.307	2506.206	.246%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2156.95	84.29%	86.06%
0-40	2419.18	94.54%	96.53%
0-60	2464.15	96.29%	98.32%
0-90	2499.90	97.69%	99.75%
0-120	2499.90	97.69%	99.75%
0-180	2506.21	97.94%	100.00%
60-90	43.75	1.71%	1.75%
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%
0-27.09	2004.97	78.35%	80.00%

ZONAL LUMEN SUMMARY

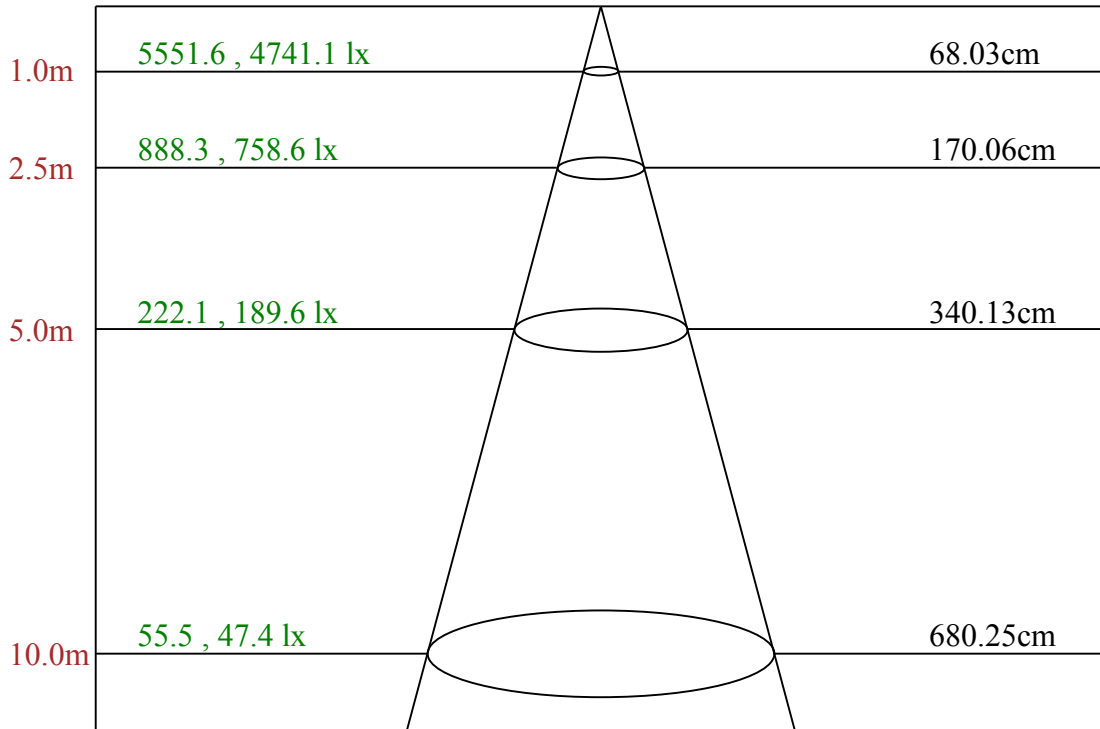
0-10	499.32
10-20	1025.14
20-30	632.50
30-40	262.22
40-50	28.65
50-60	16.32
60-70	15.30
70-80	13.93
80-90	6.52
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



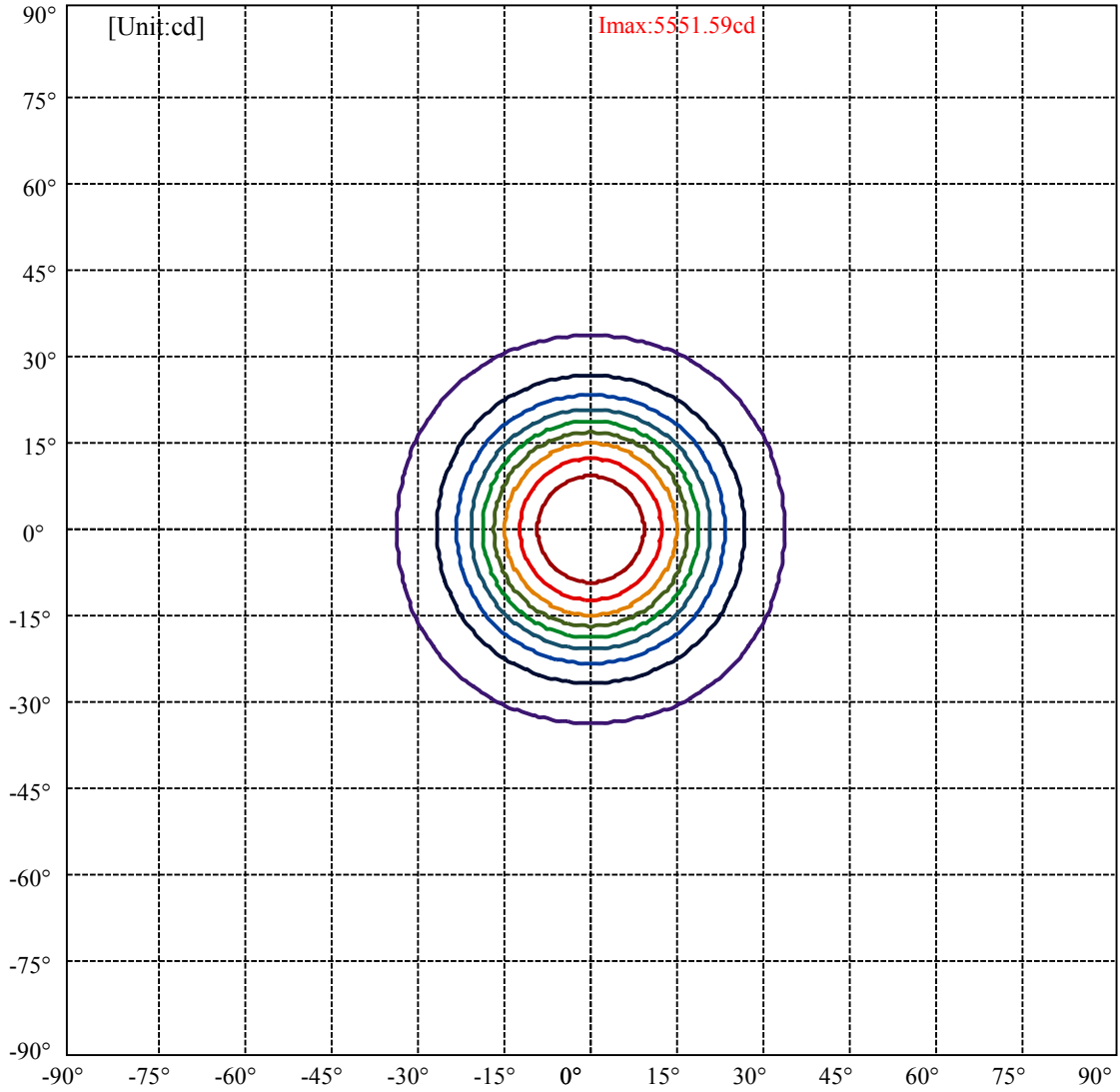
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:33.2 Right:33.2
:C90/270Left:33.2 Right:33.2

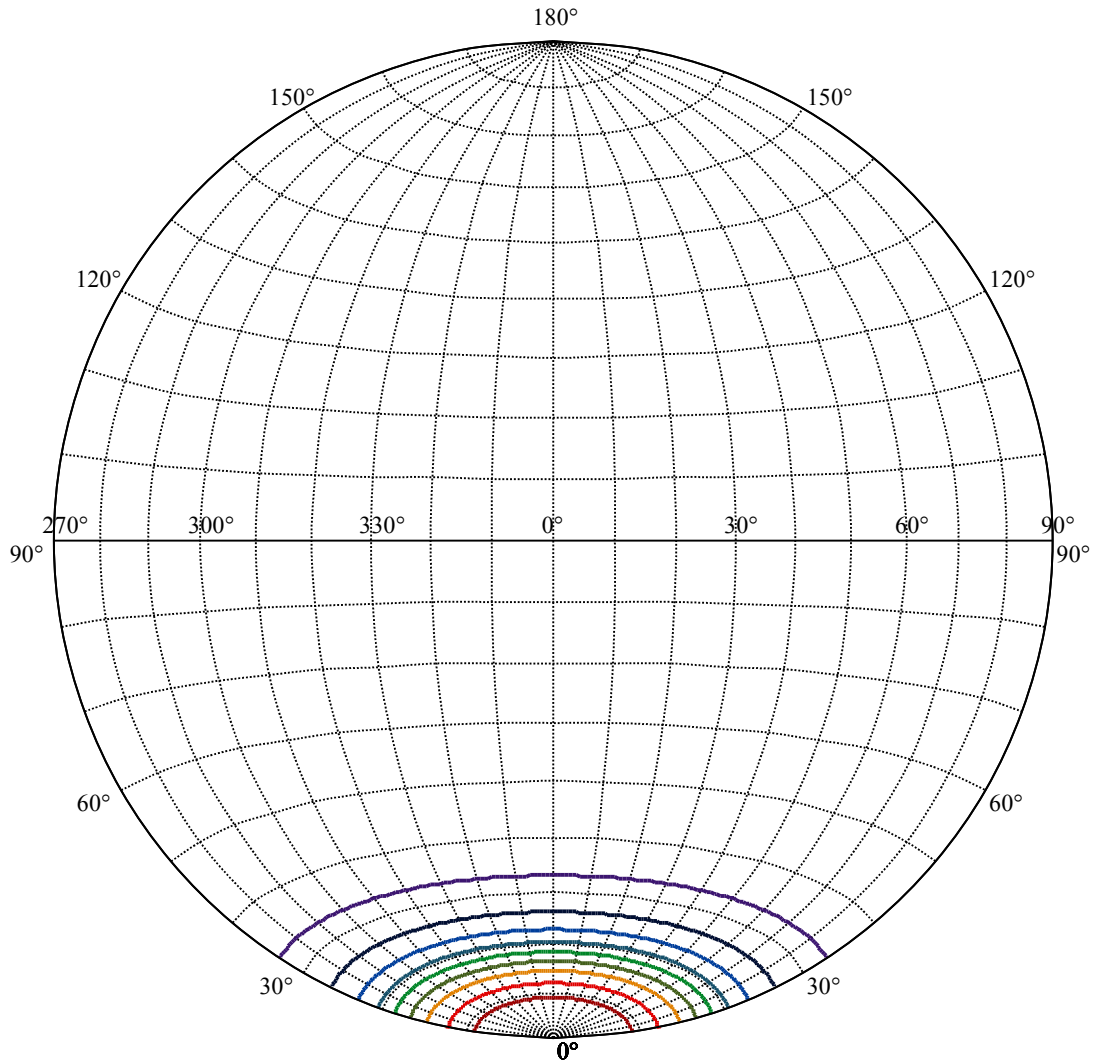
Beam Angle(50%Imax):C0/180Left:18.5 Right:18.5
:C90/270Left:18.5 Right:18.5



Max , Ave Beam angle of C0 plane 37.57



(10%Imax) 555.159	—
(20%Imax) 1110.32	—
(30%Imax) 1665.48	—
(40%Imax) 2220.64	—
(50%Imax) 2775.8	—
(60%Imax) 3330.96	—
(70%Imax) 3886.12	—
(80%Imax) 4441.27	—
(90%Imax) 4996.43	—



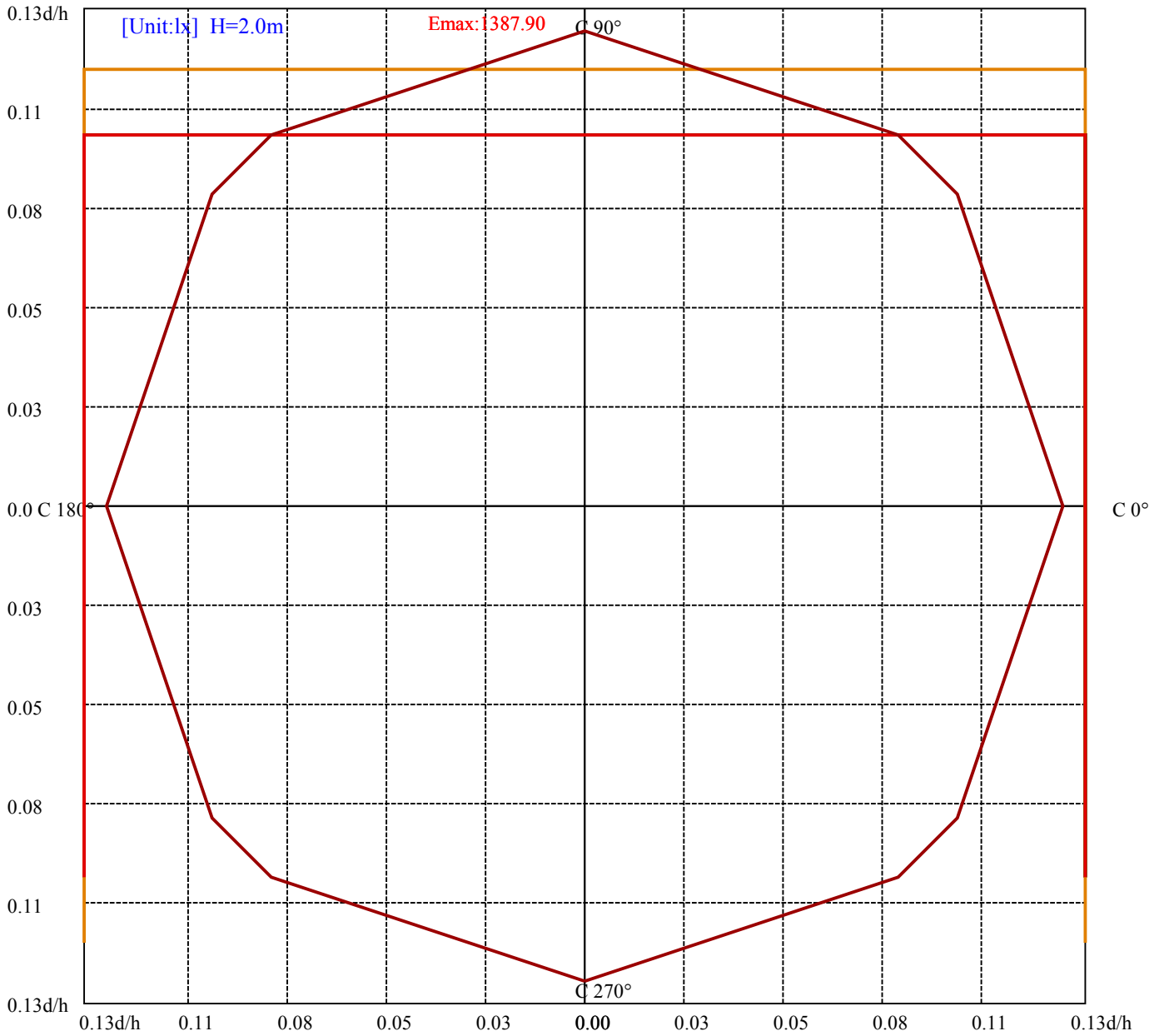
House

[Unit:cd]

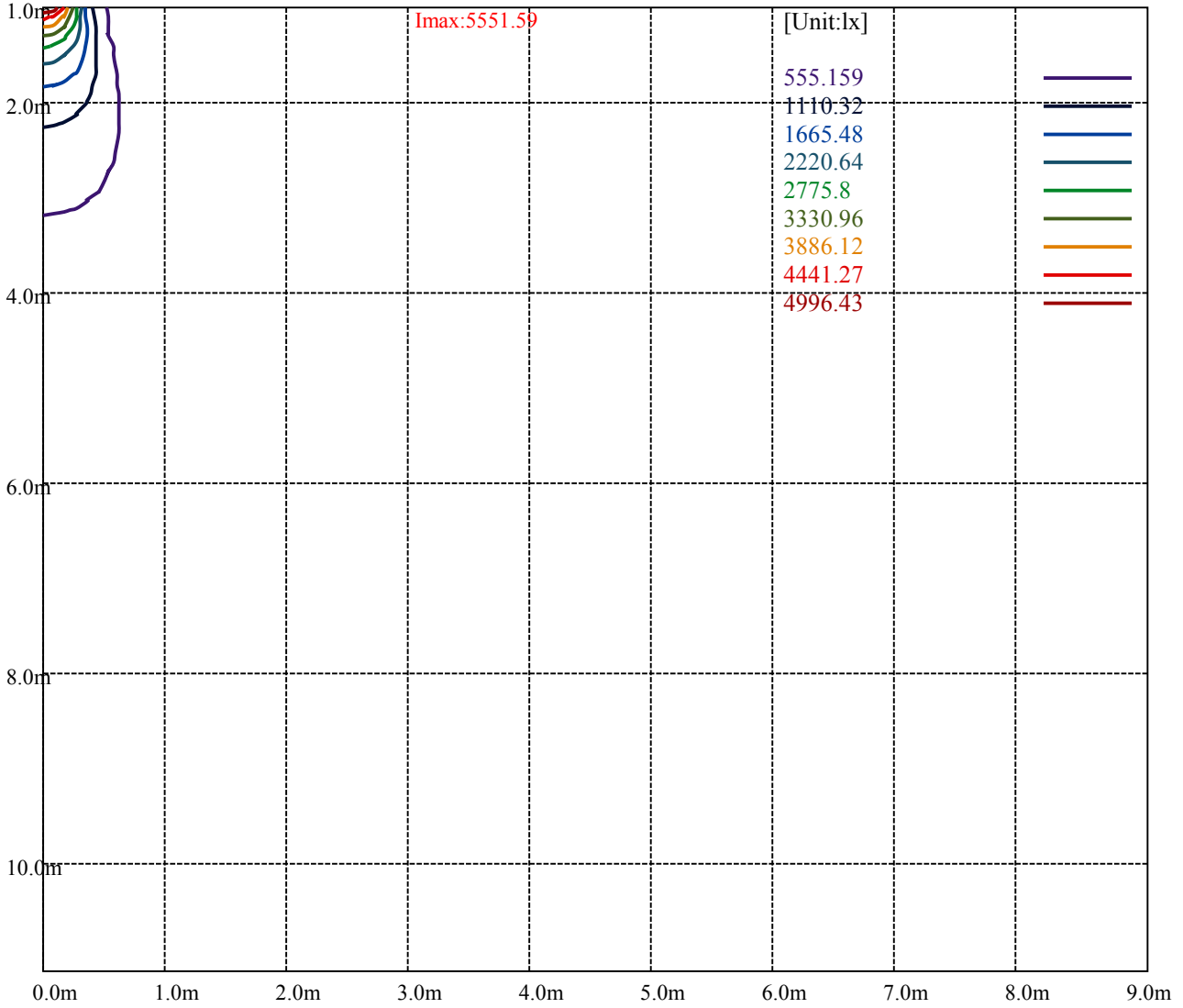
Road

Imax:5551.59

(10%Imax) 555.159	—
(20%Imax) 1110.32	—
(30%Imax) 1665.48	—
(40%Imax) 2220.64	—
(50%Imax) 2775.8	—
(60%Imax) 3330.96	—
(70%Imax) 3886.12	—
(80%Imax) 4441.27	—
(90%Imax) 4996.43	—



- (10%Emax) 138.7897
- (20%Emax) 277.58
- (30%Emax) 416.37
- (40%Emax) 555.16
- (50%Emax) 693.9475
- (60%Emax) 832.7375
- (70%Emax) 971.5275
- (80%Emax) 1110.318
- (90%Emax) 1249.108



Luminance Table

γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

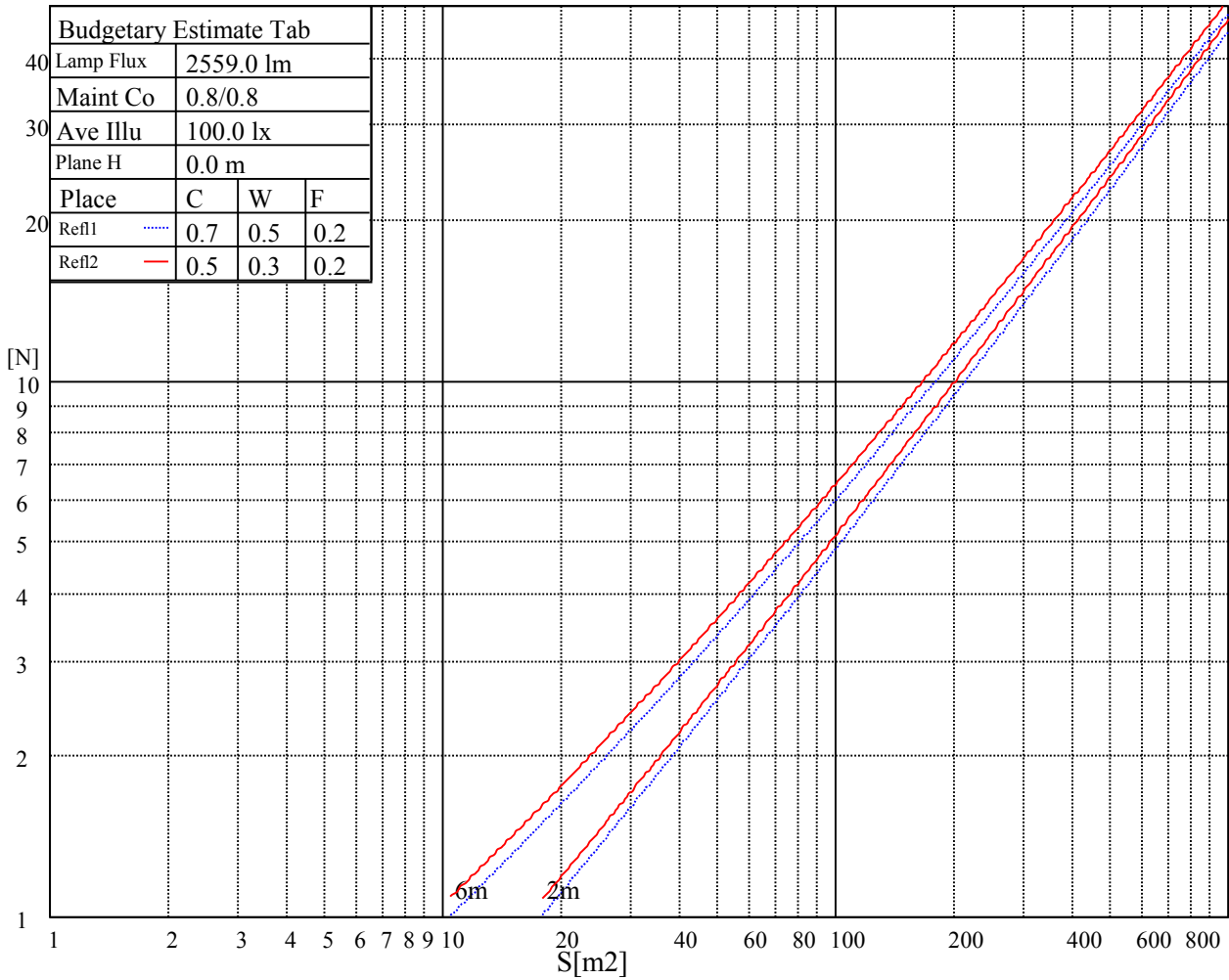
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

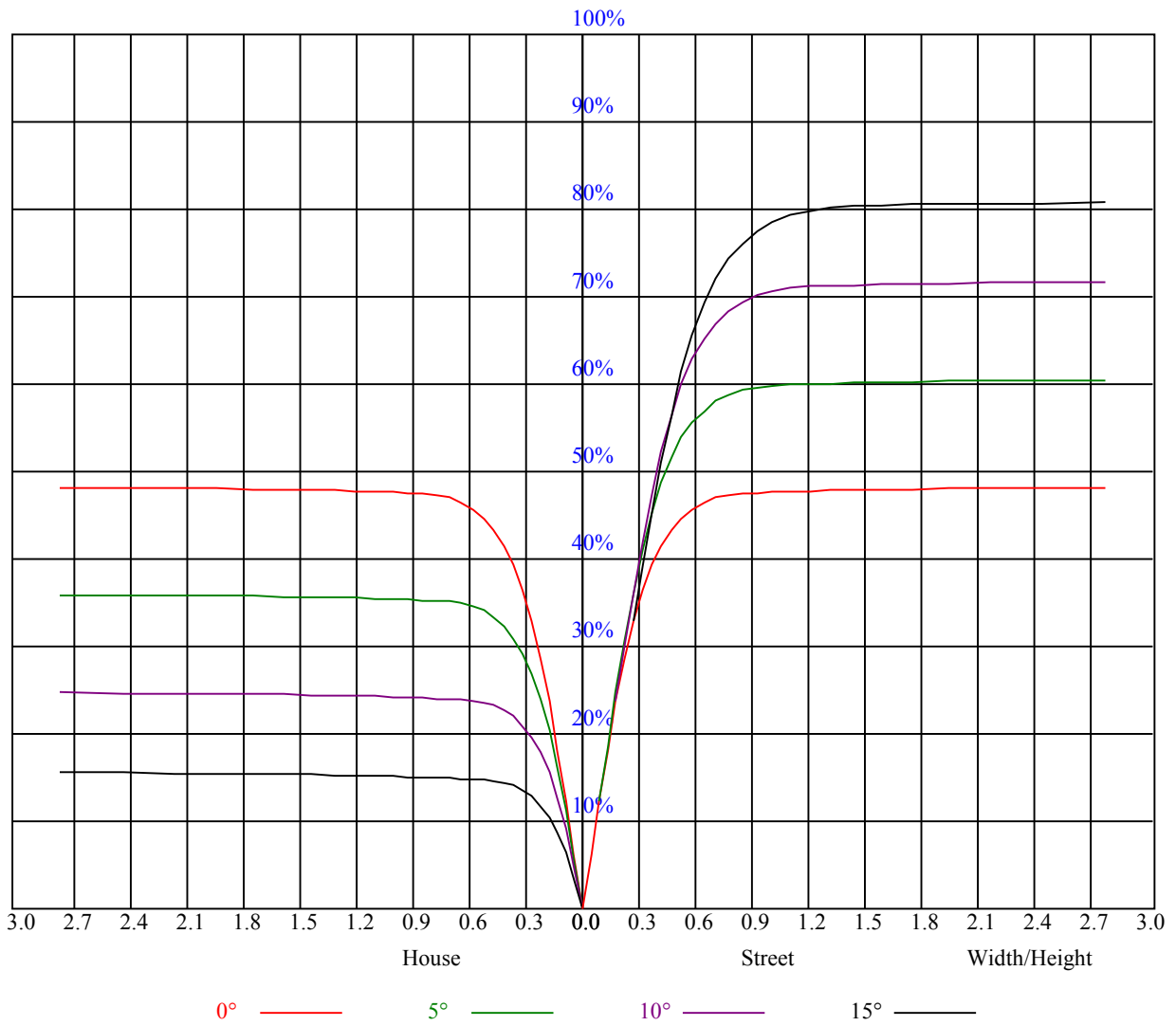
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.17	1.17	1.17	1.14	1.14	1.14	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.98
1	1.09	1.07	1.05	1.07	1.05	1.03	1.03	1.02	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93
2	1.03	0.99	0.96	1.01	0.98	0.95	0.98	0.95	0.93	0.95	0.93	0.91	0.92	0.91	0.89	0.88
3	0.97	0.93	0.89	0.96	0.92	0.89	0.93	0.90	0.87	0.91	0.88	0.86	0.89	0.87	0.85	0.83
4	0.92	0.87	0.84	0.91	0.87	0.83	0.89	0.85	0.82	0.87	0.84	0.82	0.85	0.83	0.81	0.79
5	0.88	0.83	0.79	0.87	0.82	0.79	0.85	0.81	0.78	0.84	0.80	0.77	0.82	0.79	0.77	0.76
6	0.84	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.74	0.80	0.77	0.74	0.79	0.76	0.73	0.72
7	0.80	0.75	0.71	0.79	0.75	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.76	0.73	0.70	0.69
8	0.76	0.71	0.68	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.70	0.67	0.66
9	0.73	0.68	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.64	0.63
10	0.70	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.61



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	5537.25	5578.88	5397.19	4550.06	2907.56	1331.44	902.25	567.56	176.85
45.0	5555.25	5396.63	4905.56	3889.69	2448.56	1240.31	928.69	447.19	51.58
90.0	5538.38	5112.56	4311.56	3180.38	1940.63	1099.18	766.80	266.29	52.93
135.0	5575.50	5202.00	4498.88	3439.13	2227.50	1248.19	845.44	290.25	40.67
180.0	5537.25	5205.38	4633.31	3419.44	1875.38	1000.91	688.67	221.91	25.20
225.0	5555.25	5425.31	4965.75	3663.56	1956.38	1076.96	816.58	329.12	35.21
270.0	5538.38	5573.81	5266.69	4161.38	2628.00	1332.00	879.19	521.44	181.97
315.0	5575.50	5611.50	5331.38	4256.44	2676.38	1366.31	960.36	510.81	79.09
360.0	5537.25	5578.88	5397.19	4550.06	2907.56	1331.44	902.25	567.56	176.85
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	21.04	17.16	15.30	14.29	13.73	13.39	13.05	12.38	11.81
45.0	22.84	18.79	16.59	15.36	14.74	14.23	13.05	12.21	11.64
90.0	31.05	24.64	20.81	18.39	16.31	14.57	12.99	12.32	11.70
135.0	24.02	19.97	18.17	16.93	15.86	14.57	13.05	12.21	11.64
180.0	17.66	15.69	14.63	14.01	13.61	13.33	12.66	11.98	11.64
225.0	21.21	18.73	17.72	16.93	15.53	14.23	12.66	12.04	11.59
270.0	36.17	25.88	22.05	19.69	17.44	15.75	13.78	12.60	11.98
315.0	25.71	21.21	18.73	17.27	15.86	14.57	13.22	12.32	11.87
360.0	21.04	17.16	15.30	14.29	13.73	13.39	13.05	12.38	11.81
C/ γ (°)	90.0								
0.0	11.53								
45.0	11.25								
90.0	11.25								
135.0	11.25								
180.0	11.31								
225.0	11.19								
270.0	11.25								
315.0	11.36								
360.0	11.53								