



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: LM01L01675150AX

Luminaire:

Report No: NATA0100

Voltage(V): 24.8400

Test No: GC20190701304

Current(A): 0.1980

LampCAT: LUMILED LUXEON5050

Power (W): 4.9200

Lamp flux(lm): 636.0

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): 582.82

Efficiency(%): 91.64%

Lumens(lm)/Power(W): 118.46

Central intensity(cd): 159.863

Maximum intensity(cd): 303.019

Angle of maximum intensity: C=0.0 γ =65.0

Beam Angle(50%Imax): [C0/180]Total=153.2

[C90/270]Total=65.6

Field angle(10%Imax): [C0/180]Total=163.8

[C90/270]Total=120.3

Maximum s/h(1/2): C0_180=2.18 C90_270=0.63

Maximum s/h(1/4): C0_180=2.33 C90_270=0.67

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 91.64%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 75.497%

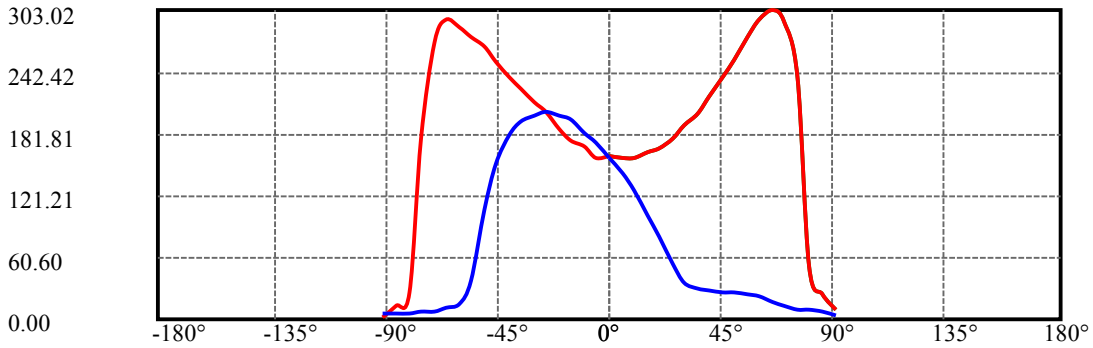
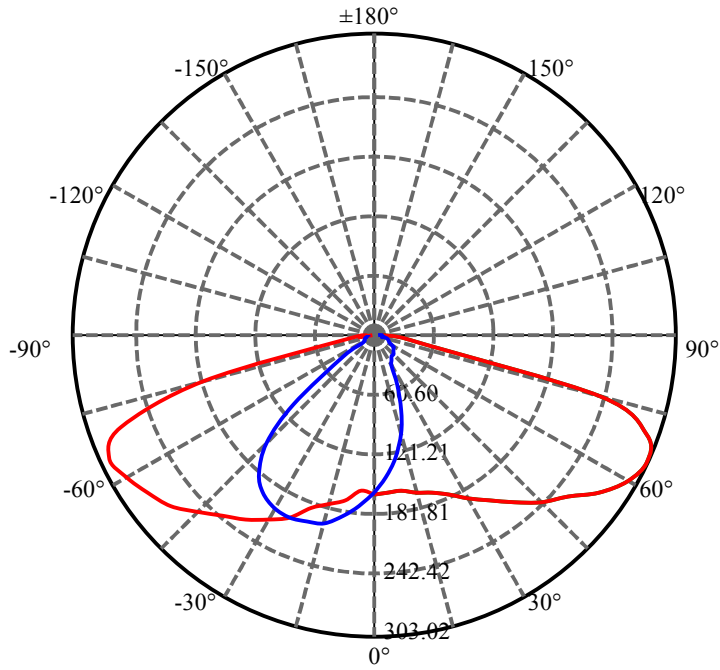
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	160.186	0.000	0	.000%	.000%
5.0	158.706	3.812	3.812	.599%	.654%
10.0	159.940	11.399	15.211	1.792%	2.610%
15.0	159.588	18.954	34.165	2.980%	5.862%
20.0	158.179	26.188	60.354	4.118%	10.356%
25.0	157.627	33.122	93.476	5.208%	16.039%
30.0	154.596	39.512	132.988	6.213%	22.818%
35.0	152.082	45.161	178.149	7.101%	30.567%
40.0	150.599	50.500	228.649	7.940%	39.232%
45.0	145.336	54.795	283.443	8.616%	48.633%
50.0	130.426	55.722	339.165	8.761%	58.194%
55.0	110.704	52.430	391.595	8.244%	67.190%
60.0	98.733	48.411	440.005	7.612%	75.497%
65.0	83.120	44.209	484.214	6.951%	83.082%
70.0	68.488	38.388	522.602	6.036%	89.669%
75.0	46.726	30.115	552.717	4.735%	94.836%
80.0	18.000	17.319	570.036	2.723%	97.807%
85.0	11.661	8.060	578.096	1.267%	99.190%
90.0	5.576	4.720	582.816	.742%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	132.99	20.91%	22.82%
0-40	228.65	35.95%	39.23%
0-60	440.01	69.18%	75.50%
0-90	578.10	90.90%	99.19%
0-120	578.10	90.90%	99.19%
0-180	582.82	91.64%	100.00%
60-90	186.50	29.32%	32.00%
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%
0-62.97	466.25	73.31%	80.00%

ZONAL LUMEN SUMMARY

0-10	15.21
10-20	45.14
20-30	72.63
30-40	95.66
40-50	110.52
50-60	100.84
60-70	82.60
70-80	47.43
80-90	8.06
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: —————

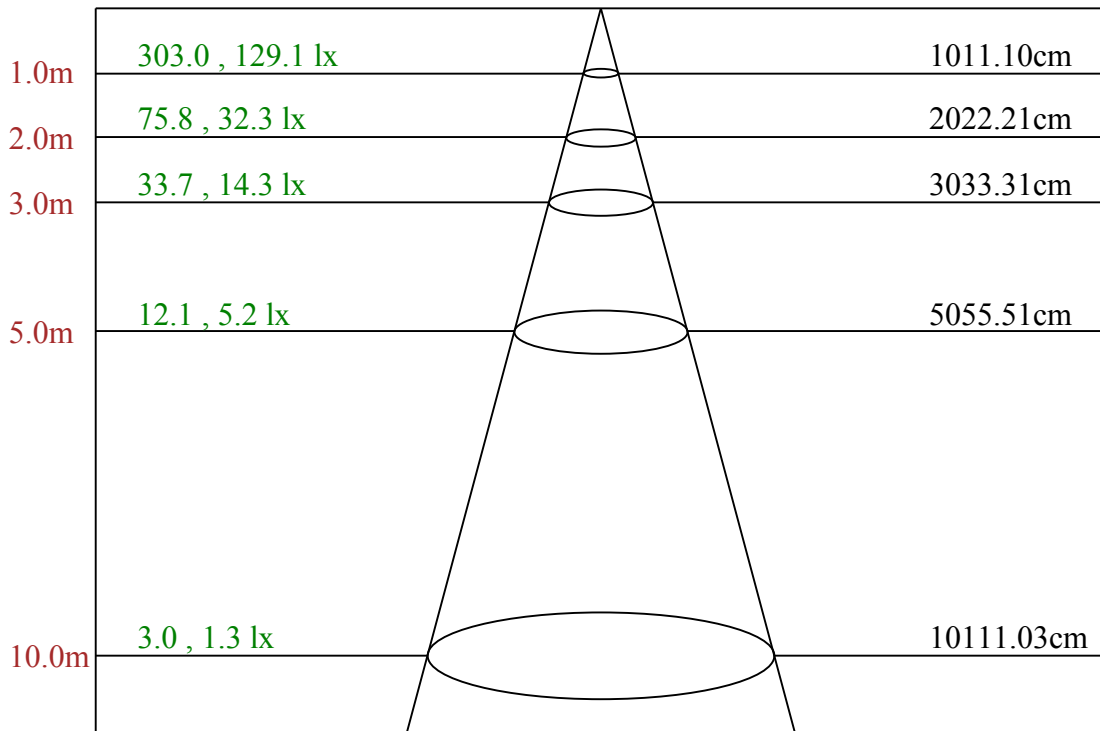
C90/C270: —————

Field angle(10%Imax):C0/180Left:144.9 Right:19.0

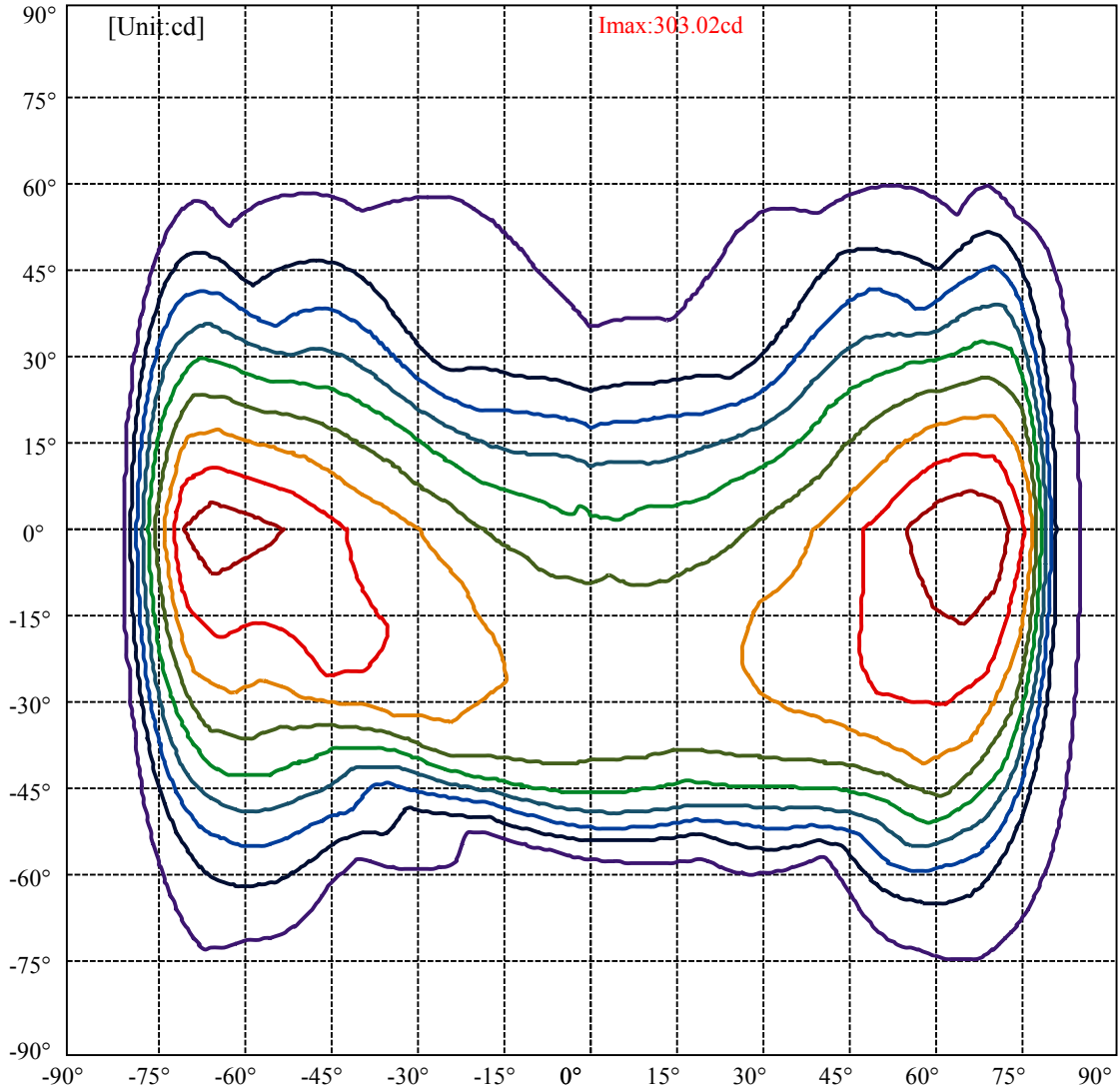
:C90/270Left:33.7 Right:86.6

Beam Angle(50%Imax):C0/180Left:140.9 Right:12.3

:C90/270Left:25.4 Right:40.2



Max , Ave Beam angle of C0 plane 157.58

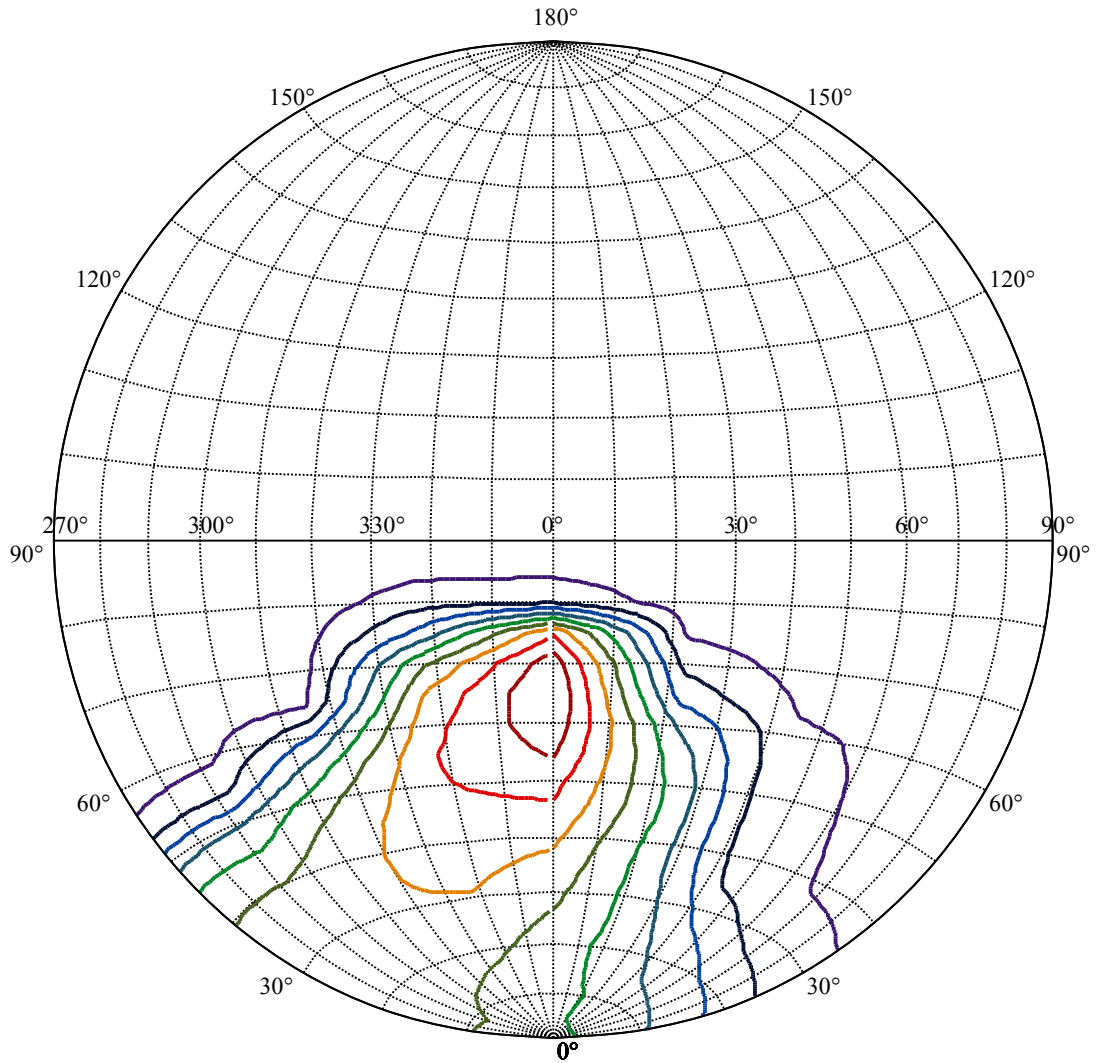


(10%Imax) 30.3019	—
(20%Imax) 60.6038	—
(30%Imax) 90.9056	—
(40%Imax) 121.208	—
(50%Imax) 151.509	—
(60%Imax) 181.811	—
(70%Imax) 212.113	—
(80%Imax) 242.415	—
(90%Imax) 272.717	—

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/7/13
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50



House

[Unit:cd]

Road

Imax:303.02

(10%Imax) 30.3019

(20%Imax) 60.6038

(30%Imax) 90.9056

(40%Imax) 121.208

(50%Imax) 151.509

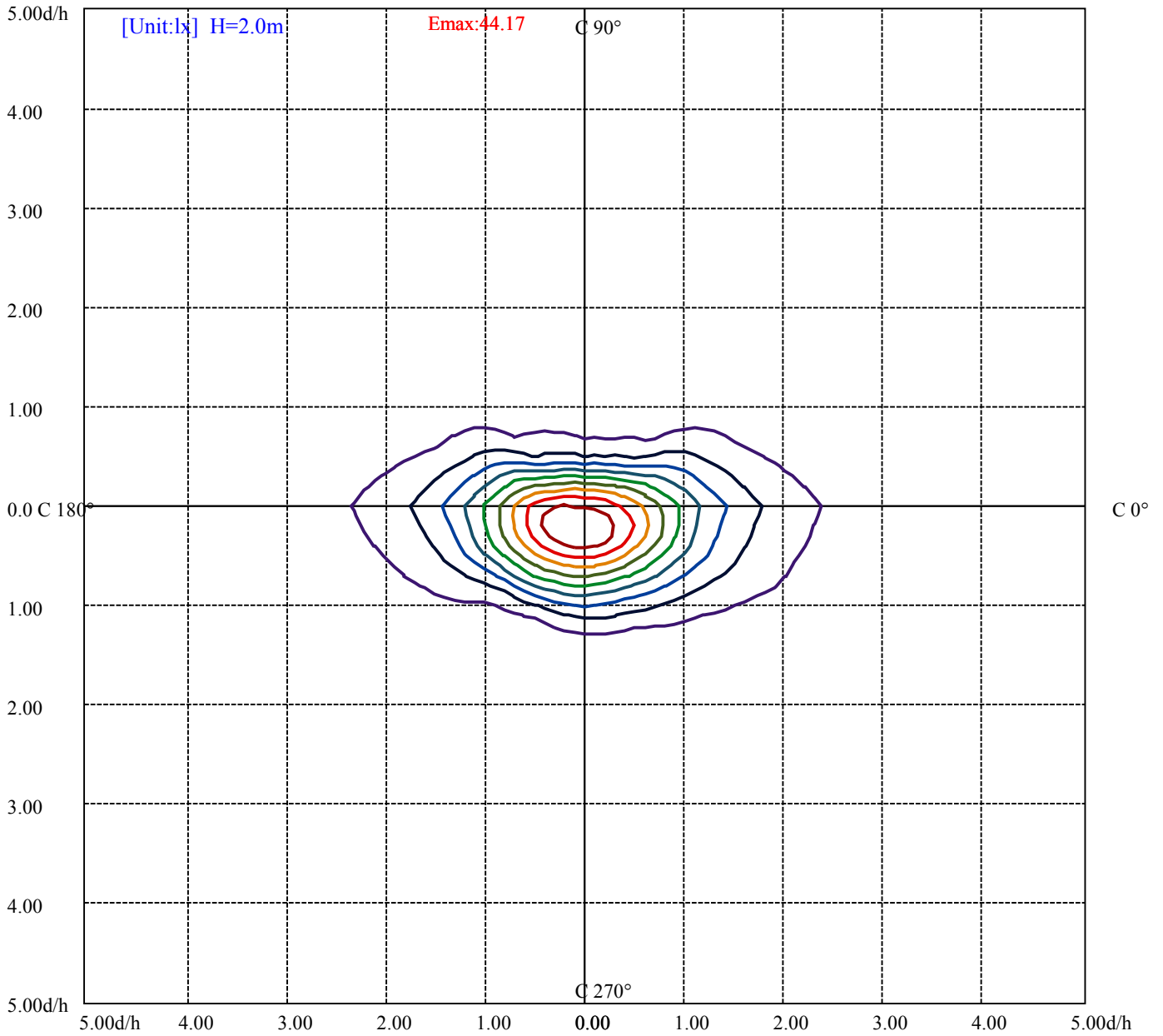
(60%Imax) 181.811

(70%Imax) 212.113

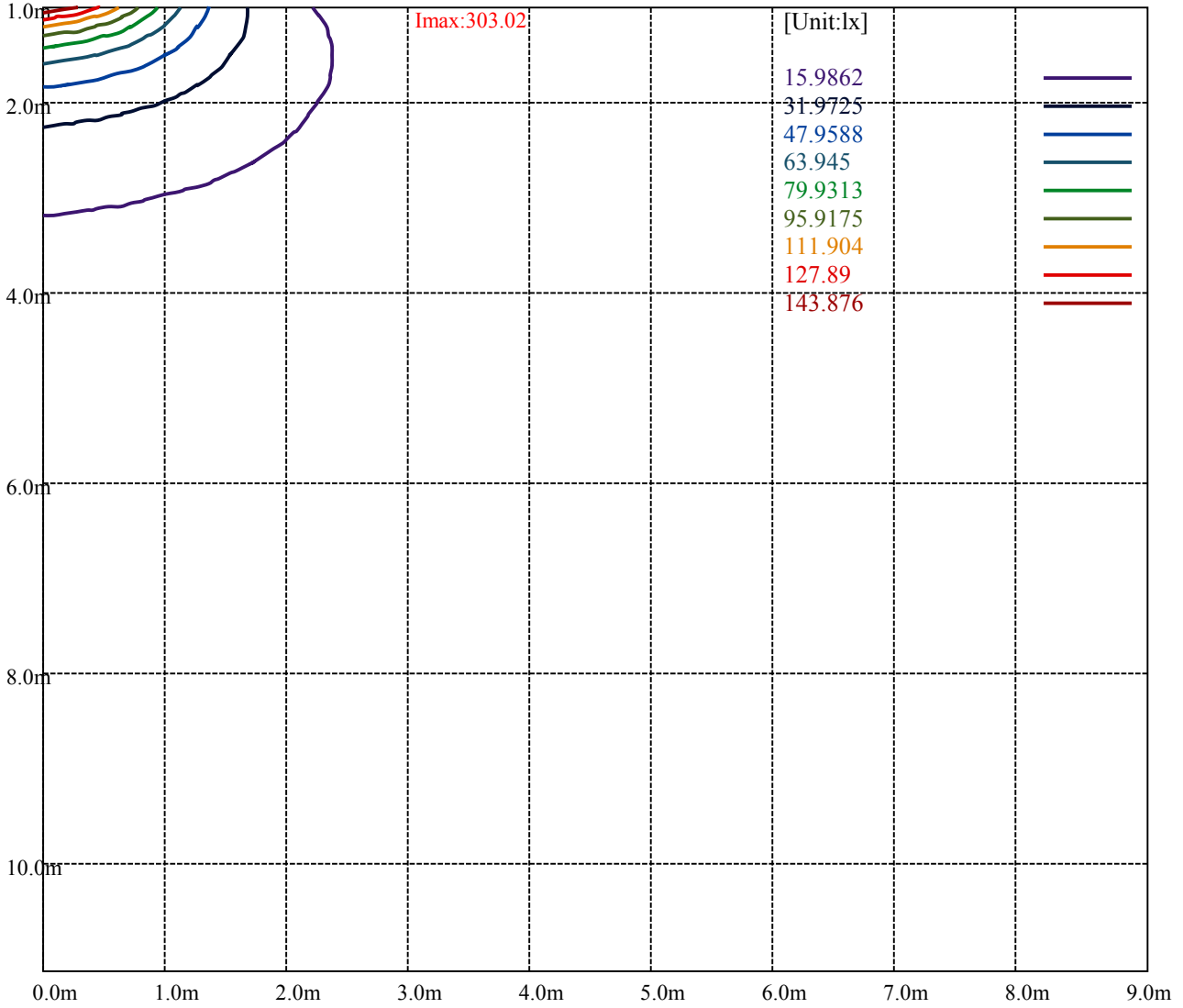
(80%Imax) 242.415

(90%Imax) 272.717





- (10%Emax) 4.417375 ———
- (20%Emax) 8.834725 ———
- (30%Emax) 13.2521 ———
- (40%Emax) 17.66945 ———
- (50%Emax) 22.08682 ———
- (60%Emax) 26.50425 ———
- (70%Emax) 30.9215 ———
- (80%Emax) 35.339 ———
- (90%Emax) 39.75625 ———



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

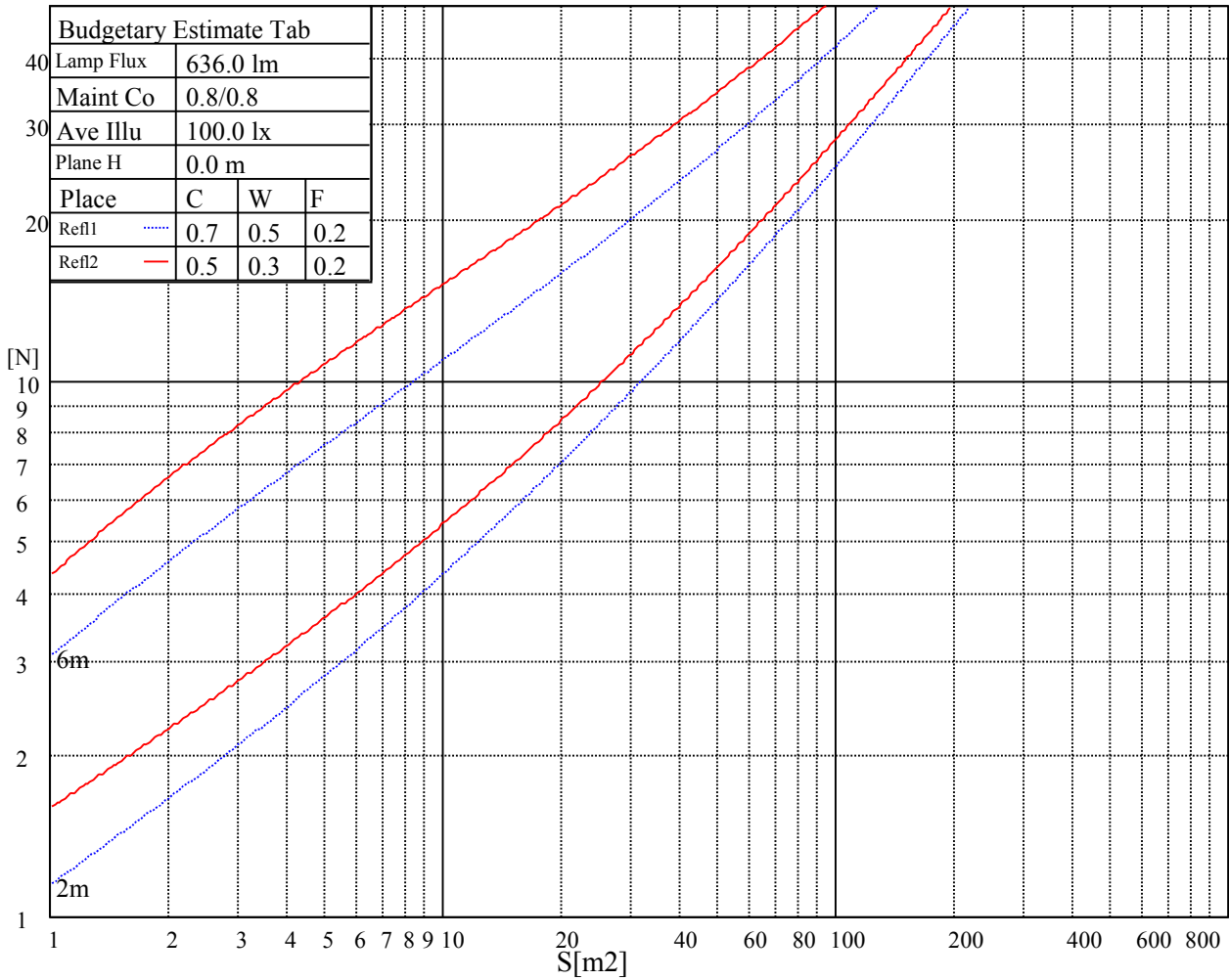
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

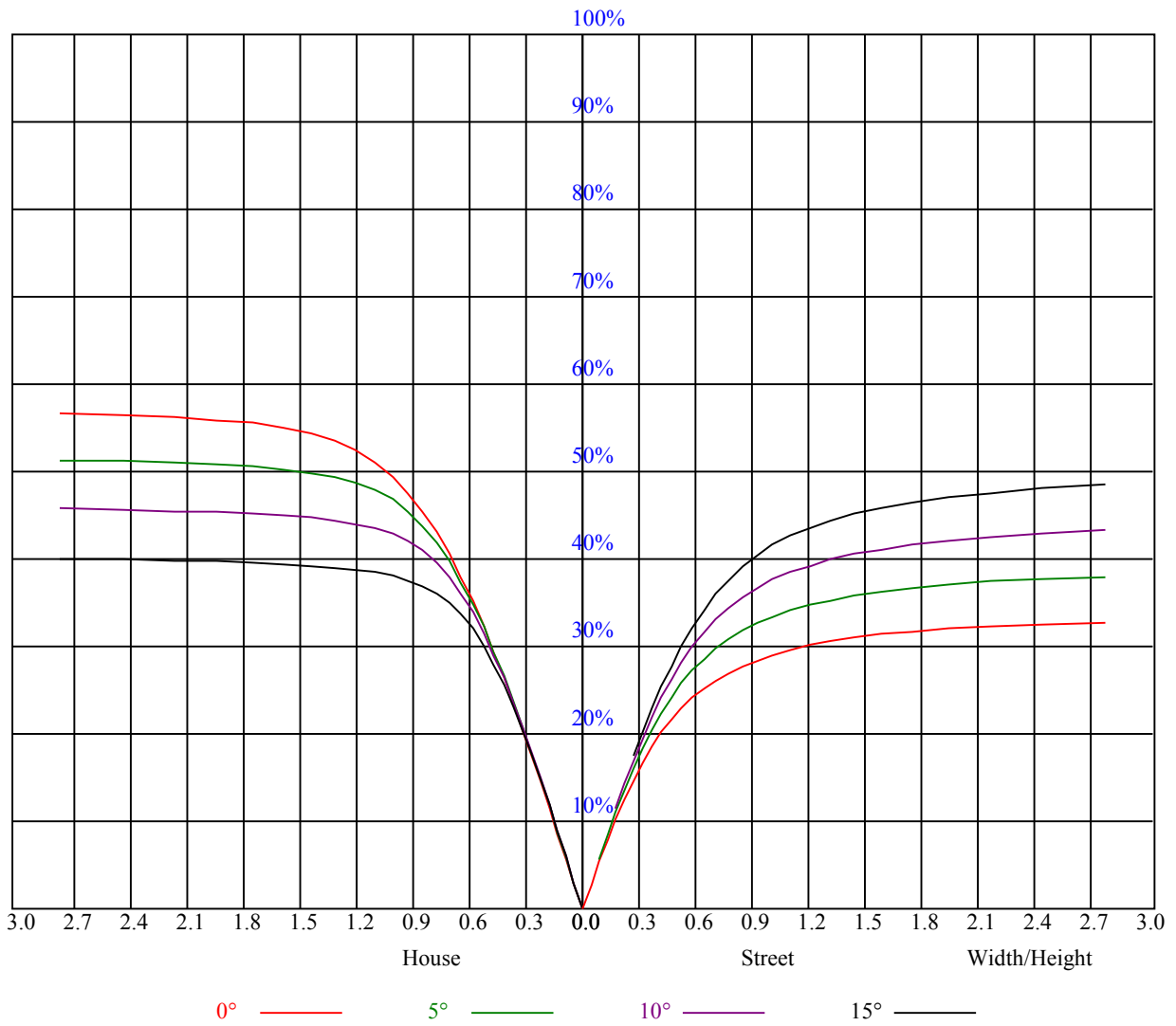
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.09	1.09	1.09	1.07	1.07	1.07	1.02	1.02	1.02	0.97	0.97	0.97	0.94	0.94	0.94	0.92
1	0.94	0.90	0.86	0.92	0.88	0.85	0.88	0.85	0.82	0.85	0.82	0.80	0.81	0.79	0.77	0.75
2	0.81	0.75	0.69	0.80	0.74	0.68	0.76	0.71	0.67	0.73	0.69	0.65	0.70	0.67	0.64	0.62
3	0.71	0.63	0.57	0.69	0.62	0.56	0.67	0.60	0.55	0.64	0.59	0.54	0.62	0.57	0.53	0.51
4	0.62	0.54	0.47	0.61	0.53	0.47	0.59	0.52	0.46	0.56	0.50	0.46	0.54	0.49	0.45	0.43
5	0.55	0.47	0.40	0.54	0.46	0.40	0.52	0.45	0.39	0.50	0.44	0.39	0.49	0.43	0.39	0.37
6	0.49	0.41	0.35	0.49	0.40	0.35	0.47	0.40	0.34	0.45	0.39	0.34	0.44	0.38	0.34	0.32
7	0.45	0.36	0.30	0.44	0.36	0.30	0.42	0.35	0.30	0.41	0.35	0.30	0.40	0.34	0.29	0.28
8	0.40	0.32	0.27	0.40	0.32	0.27	0.39	0.32	0.27	0.37	0.31	0.26	0.36	0.30	0.26	0.24
9	0.37	0.29	0.24	0.36	0.29	0.24	0.35	0.28	0.24	0.34	0.28	0.24	0.33	0.28	0.23	0.22
10	0.34	0.26	0.21	0.33	0.26	0.21	0.33	0.26	0.21	0.32	0.26	0.21	0.31	0.25	0.21	0.19



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	159.86	158.40	158.57	163.24	167.57	177.41	189.39	202.11	218.03
22.5	159.08	150.19	151.59	146.25	142.93	144.17	142.31	141.81	144.17
45.0	156.54	146.48	137.53	122.91	112.33	97.09	79.76	58.44	46.18
67.5	160.03	143.89	130.78	111.15	89.55	68.57	43.65	32.51	28.91
90.0	158.79	143.27	125.27	101.93	80.27	54.39	35.04	30.09	27.79
112.5	165.04	149.91	137.31	115.37	94.61	73.52	50.46	39.09	35.33
135.0	160.71	148.95	143.49	129.43	116.49	99.96	82.91	62.83	51.53
157.5	161.44	153.06	155.25	154.24	151.37	155.25	157.39	163.24	162.96
180.0	159.86	157.84	168.81	175.50	185.46	202.89	213.41	226.35	236.42
202.5	159.08	167.06	176.06	189.23	200.53	216.45	227.98	236.87	246.09
225.0	156.54	170.10	179.78	194.06	202.89	213.30	220.50	221.63	219.99
247.5	160.03	172.41	184.33	196.65	202.61	207.28	207.73	200.64	190.74
270.0	158.79	172.29	183.26	195.86	199.86	202.44	199.80	193.67	180.51
292.5	165.04	174.26	185.46	196.14	202.56	205.20	203.18	194.18	182.59
315.0	160.71	168.41	173.42	186.02	195.08	204.53	209.98	209.31	207.11
337.5	161.44	162.79	168.13	175.44	186.75	199.58	210.04	220.56	231.24
360.0	159.86	158.40	158.57	163.24	167.57	177.41	189.39	202.11	218.03
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	236.64	253.35	276.58	294.47	303.02	291.21	236.25	53.33	24.24
22.5	151.31	151.43	140.91	120.38	79.88	53.33	27.11	15.30	11.81
45.0	41.63	39.88	38.93	36.23	26.10	16.43	11.25	9.96	9.06
67.5	27.17	26.16	25.26	22.89	18.90	13.61	10.29	8.44	7.14
90.0	26.21	25.54	24.64	21.71	16.99	13.56	10.29	8.66	7.59
112.5	33.24	31.95	30.71	28.46	23.57	18.90	15.53	13.33	11.76
135.0	47.53	45.34	41.96	36.62	27.06	18.62	14.06	12.49	11.42
157.5	160.09	150.53	130.50	98.44	69.30	44.10	23.12	14.51	12.21
180.0	252.28	266.74	277.59	286.82	293.85	271.80	177.75	26.89	12.99
202.5	253.86	246.66	213.98	183.60	167.01	130.84	81.45	40.61	22.73
225.0	196.76	126.96	72.68	67.67	28.86	10.52	8.72	7.59	5.57
247.5	154.97	78.08	21.49	21.04	11.59	7.65	6.36	5.01	4.22
270.0	153.28	106.88	37.63	14.29	10.86	7.54	6.75	6.41	6.58
292.5	154.58	118.07	51.75	22.44	11.64	8.78	8.38	8.72	9.06
315.0	198.90	178.59	144.68	90.90	24.69	10.91	9.17	8.38	7.20
337.5	236.93	240.69	241.99	233.78	216.62	178.03	101.14	48.38	23.01
360.0	236.64	253.35	276.58	294.47	303.02	291.21	236.25	53.33	24.24
C/γ(°)	90.0								
0.0	8.66								
22.5	4.11								
45.0	3.32								
67.5	2.93								
90.0	3.88								
112.5	7.26								
135.0	6.13								
157.5	4.95								
180.0	2.81								
202.5	8.49								
225.0	4.39								
247.5	3.09								
270.0	5.18								
292.5	7.37								
315.0	6.36								
337.5	10.29								
360.0	8.66								