



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:LM01L01175150AX

Luminaire:

Report No: NATA0100

Voltage(V): 6.3600

Test No: GC20190606

Current(A): 0.1490

LampCAT: LUMILEDS LUXEON 3030 2D(ROUND LES) Power (W): 0.9500

Lamp flux(lm): 92.67

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 11

Width(mm): 11

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 88.04

Efficiency(%): 95%

Lumens(lm)/Power(W): 92.67

Central intensity(cd): 14.119

Maximum intensity(cd): 54.169

Angle of maximum intensity: C=180.0 γ =70.0

Beam Angle(50%Imax): [C0/180]Total=154.3

[C90/270]Total=77.1

Field angle(10%Imax): [C0/180]Total=166.8

[C90/270]Total=148.1

Maximum s/h(1/2): C0_180=2.56 C90_270=1.00

Maximum s/h(1/4): C0_180=3.19 C90_270=1.22

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 99.88%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 63.856%

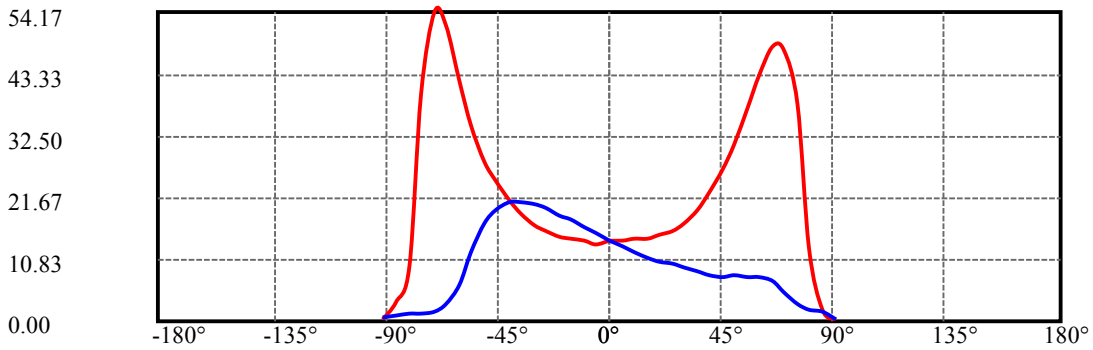
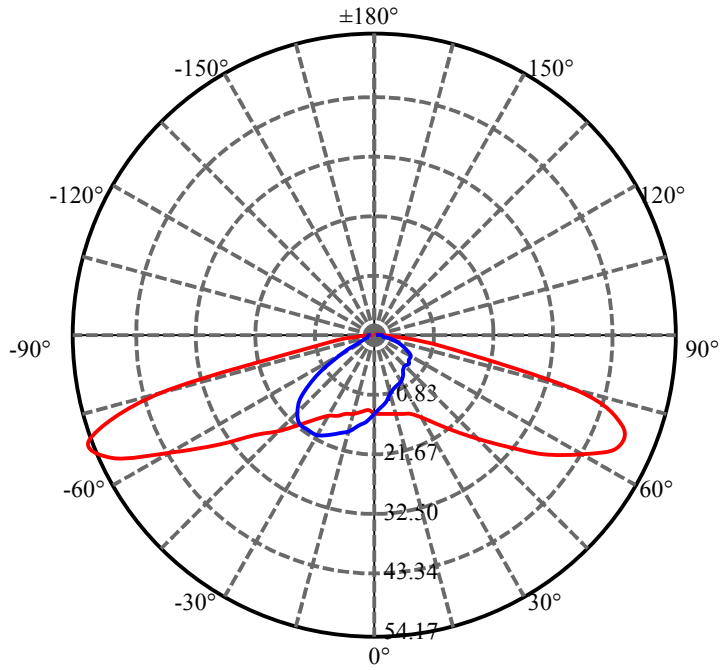
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	14.189	0.000	0	.000%	.000%
5.0	14.084	0.338	0.338	.383%	.384%
10.0	14.358	1.017	1.355	1.154%	1.540%
15.0	14.597	1.718	3.073	1.949%	3.491%
20.0	14.871	2.429	5.502	2.755%	6.249%
25.0	15.469	3.182	8.684	3.610%	9.863%
30.0	16.130	3.999	12.682	4.537%	14.406%
35.0	17.044	4.885	17.567	5.542%	19.954%
40.0	18.120	5.867	23.434	6.656%	26.618%
45.0	19.076	6.887	30.321	7.814%	34.441%
50.0	19.962	7.888	38.209	8.950%	43.401%
55.0	20.292	8.753	46.962	9.930%	53.342%
60.0	19.751	9.256	56.218	10.501%	63.856%
65.0	18.570	9.316	65.533	10.569%	74.437%
70.0	16.277	8.823	74.357	10.011%	84.459%
75.0	11.862	7.355	81.712	8.345%	92.814%
80.0	4.092	4.269	85.981	4.843%	97.663%
85.0	1.554	1.534	87.515	1.741%	99.405%
90.0	0.359	0.524	88.039	.594%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	12.68	14.39%	14.41%
0-40	23.43	26.59%	26.62%
0-60	56.22	63.78%	63.86%
0-90	87.51	99.29%	99.41%
0-120	87.51	99.29%	99.41%
0-180	88.04	99.89%	100.00%
60-90	40.55	46.01%	46.06%
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%
0-67.78	70.43	79.91%	80.00%

ZONAL LUMEN SUMMARY

0-10	1.36
10-20	4.15
20-30	7.18
30-40	10.75
40-50	14.78
50-60	18.01
60-70	18.14
70-80	11.62
80-90	1.53
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

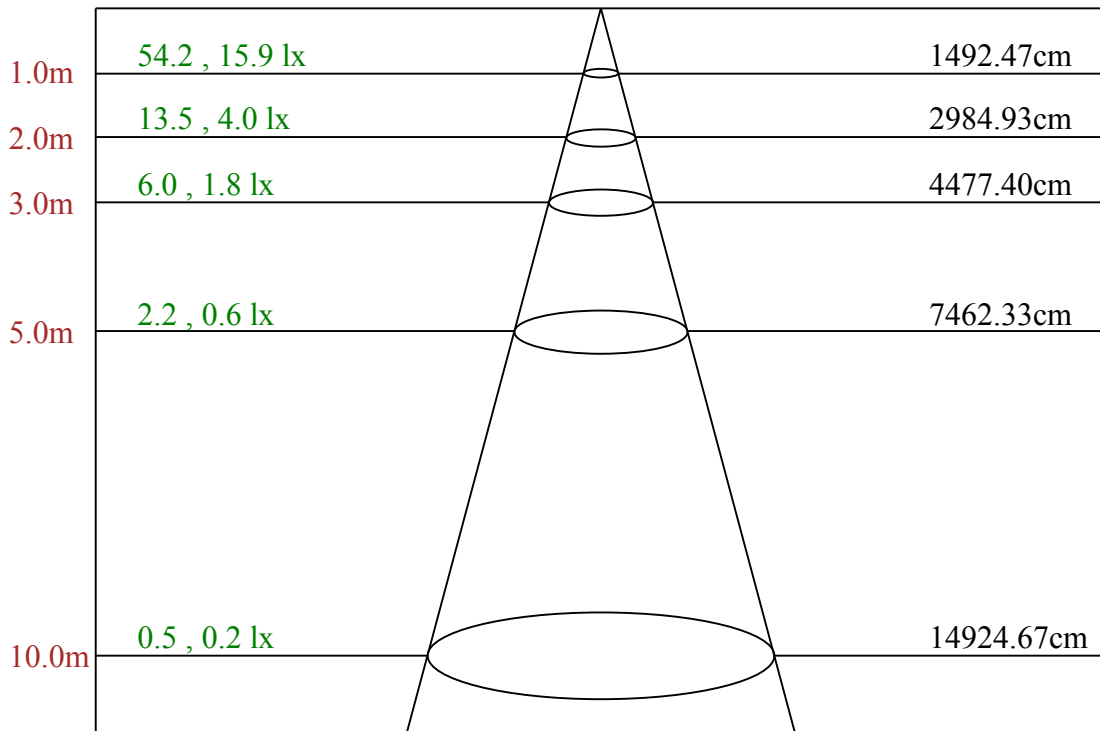


C0/C180: —

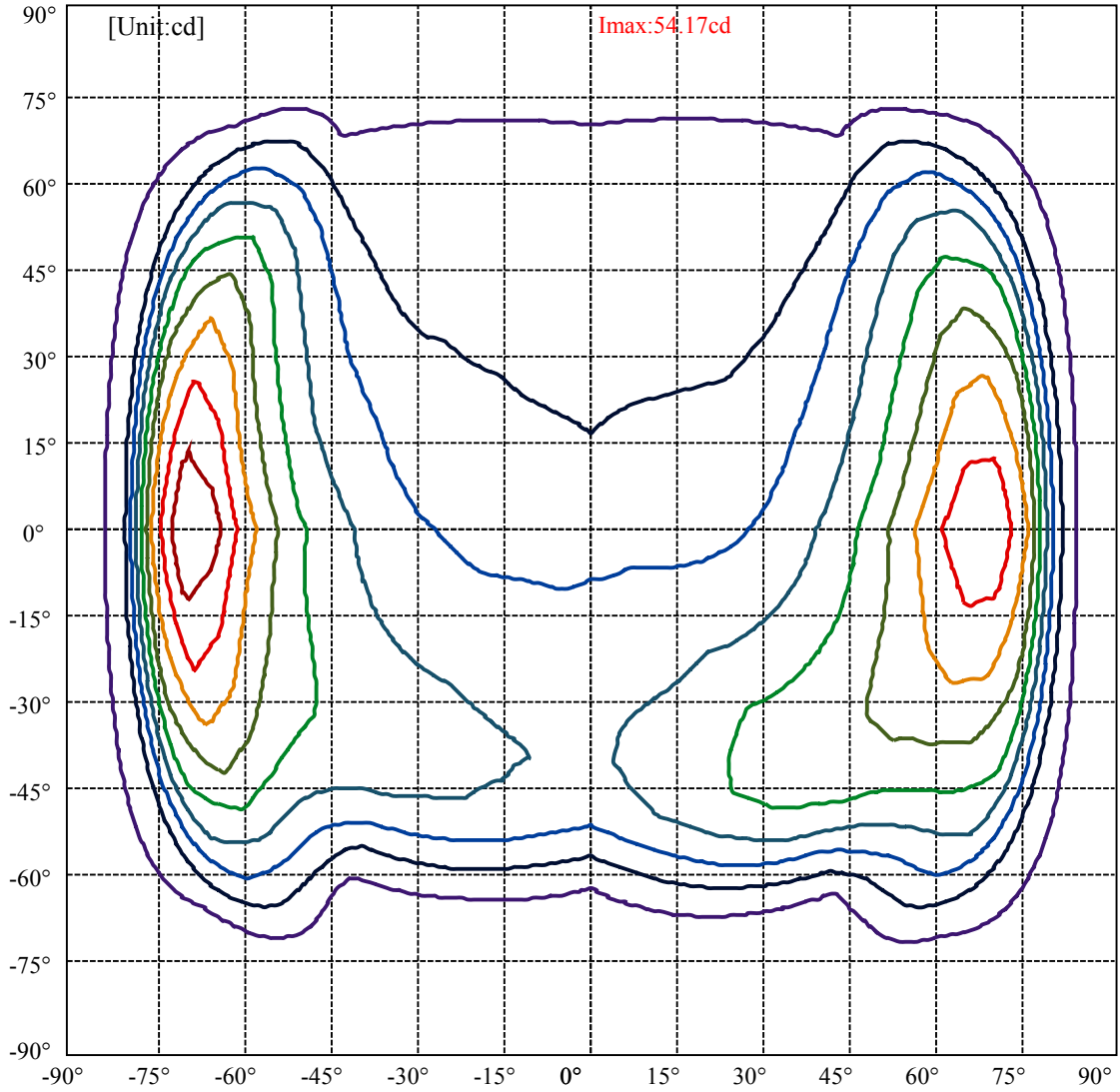
C90/C270: —

Field angle(10%Imax):C0/180Left:13.4 Right:153.4
:C90/270Left:34.0 Right:114.1

Beam Angle(50%Imax):C0/180Left:7.1 Right:147.2
:C90/270Left:21.5 Right:55.6



Max , Ave Beam angle of C180 plane 164.72

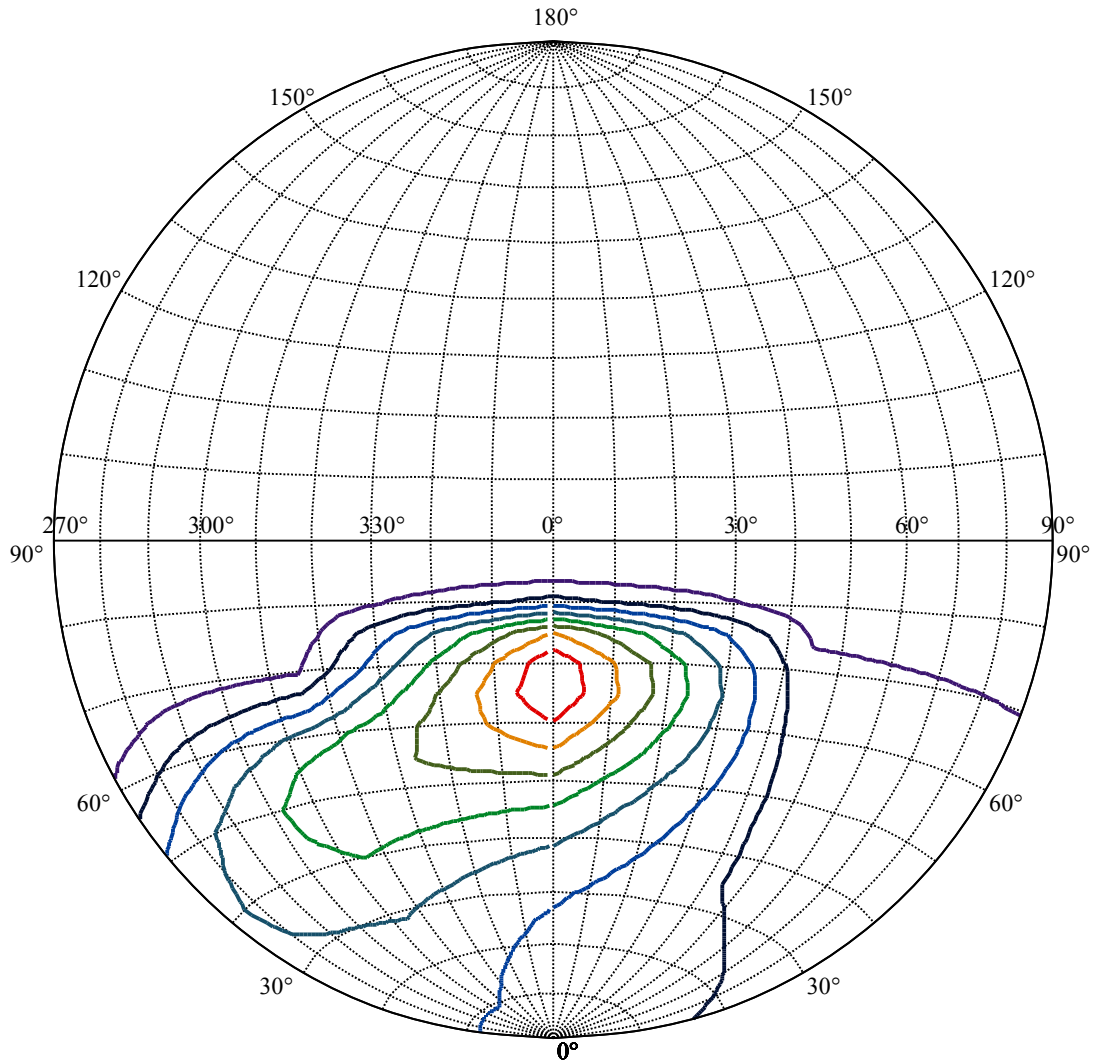


(10%Imax) 5.41687	—
(20%Imax) 10.8337	—
(30%Imax) 16.2506	—
(40%Imax) 21.6675	—
(50%Imax) 27.0844	—
(60%Imax) 32.5013	—
(70%Imax) 37.9181	—
(80%Imax) 43.335	—
(90%Imax) 48.7519	—

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/9/6
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50



House

[Unit:cd]

Road

Imax:54.17

(10%Imax) 5.41687

(20%Imax) 10.8337

(30%Imax) 16.2506

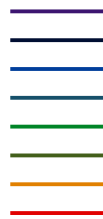
(40%Imax) 21.6675

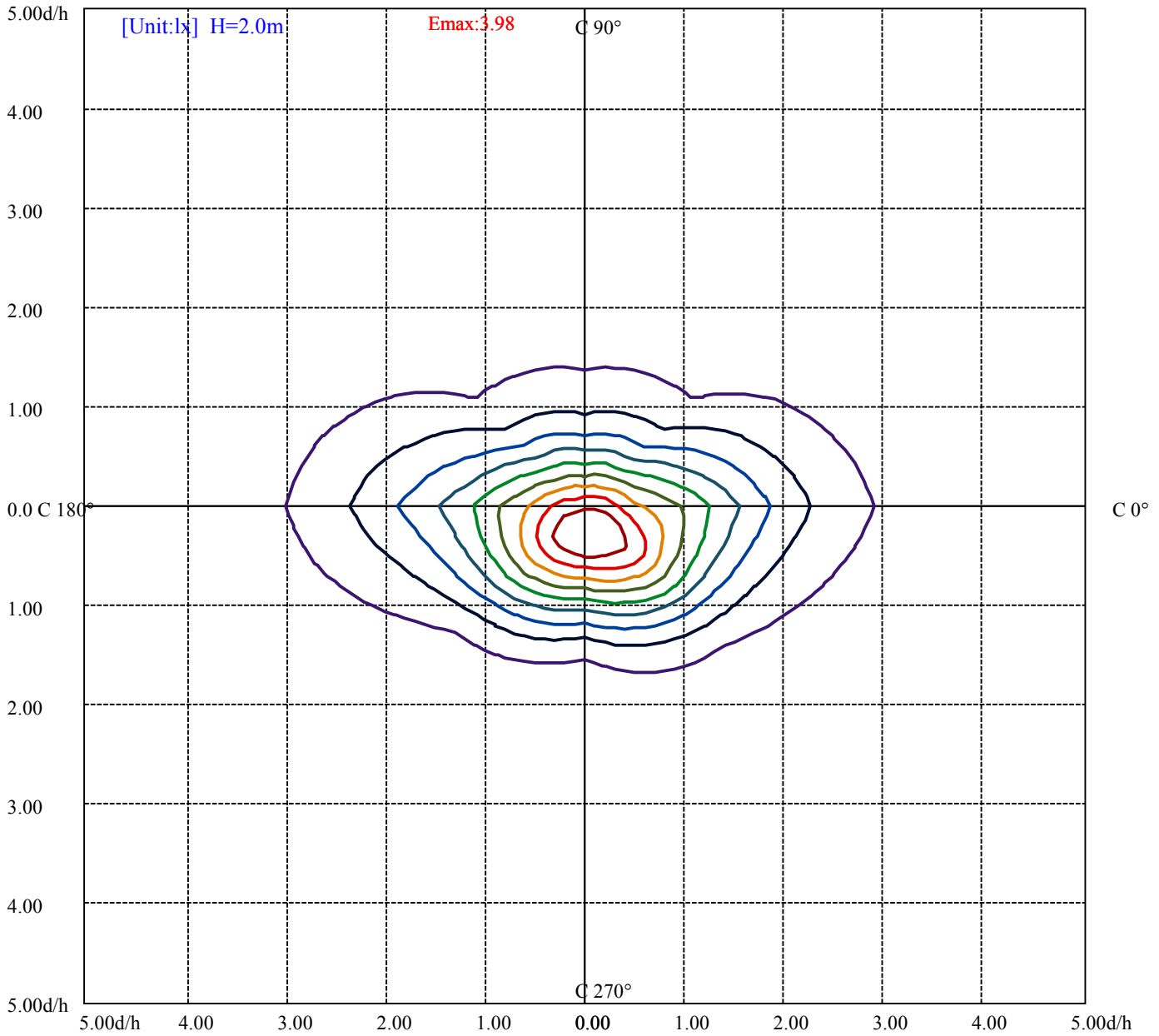
(50%Imax) 27.0844

(60%Imax) 32.5013

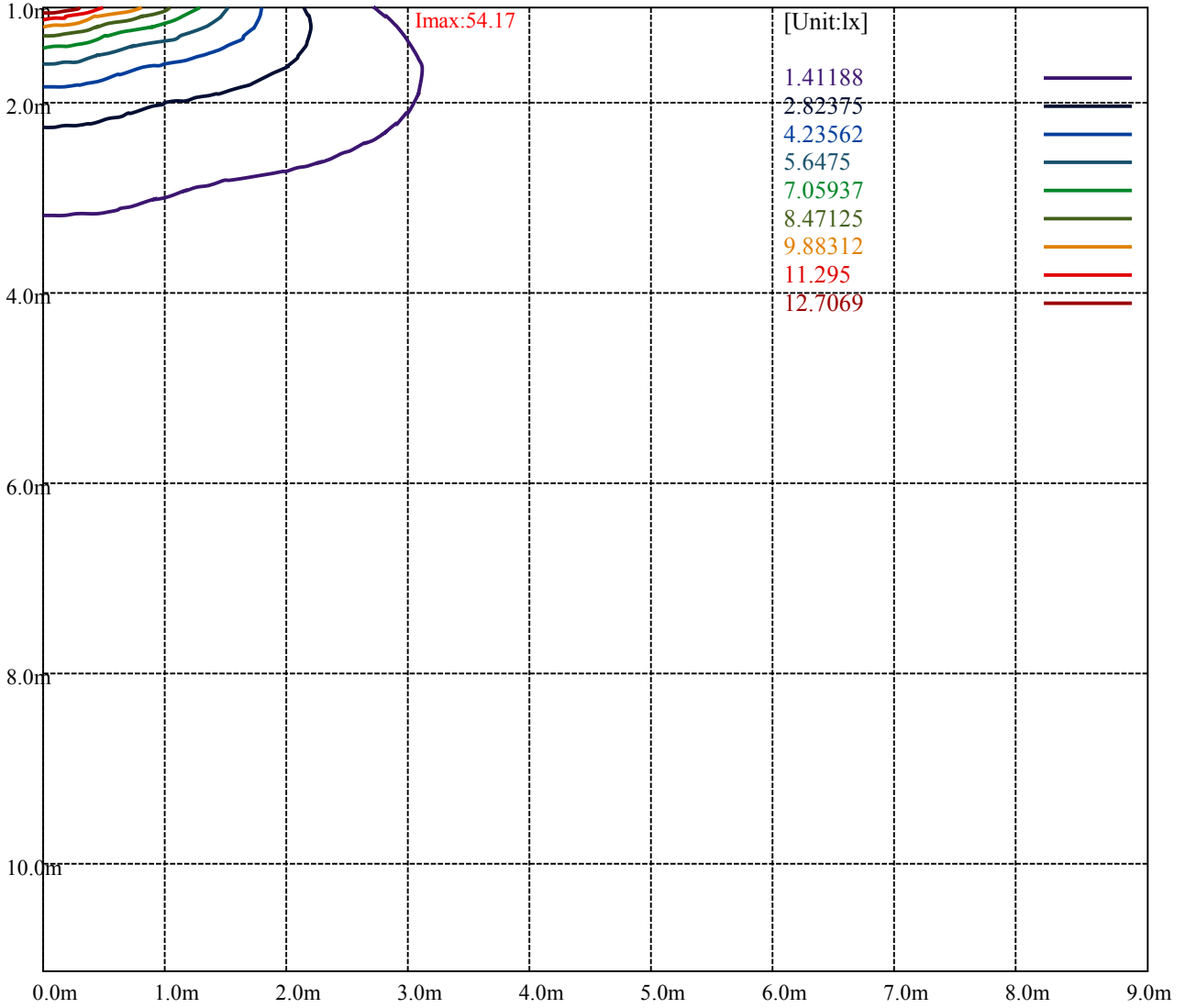
(70%Imax) 37.9181

(80%Imax) 43.335





- (10%Emax) 0.3984175 ———
- (20%Emax) 0.796835 ———
- (30%Emax) 1.195253 ———
- (40%Emax) 1.59367 ———
- (50%Emax) 1.992087 ———
- (60%Emax) 2.390505 ———
- (70%Emax) 2.788925 ———
- (80%Emax) 3.18735 ———
- (90%Emax) 3.58575 ———



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

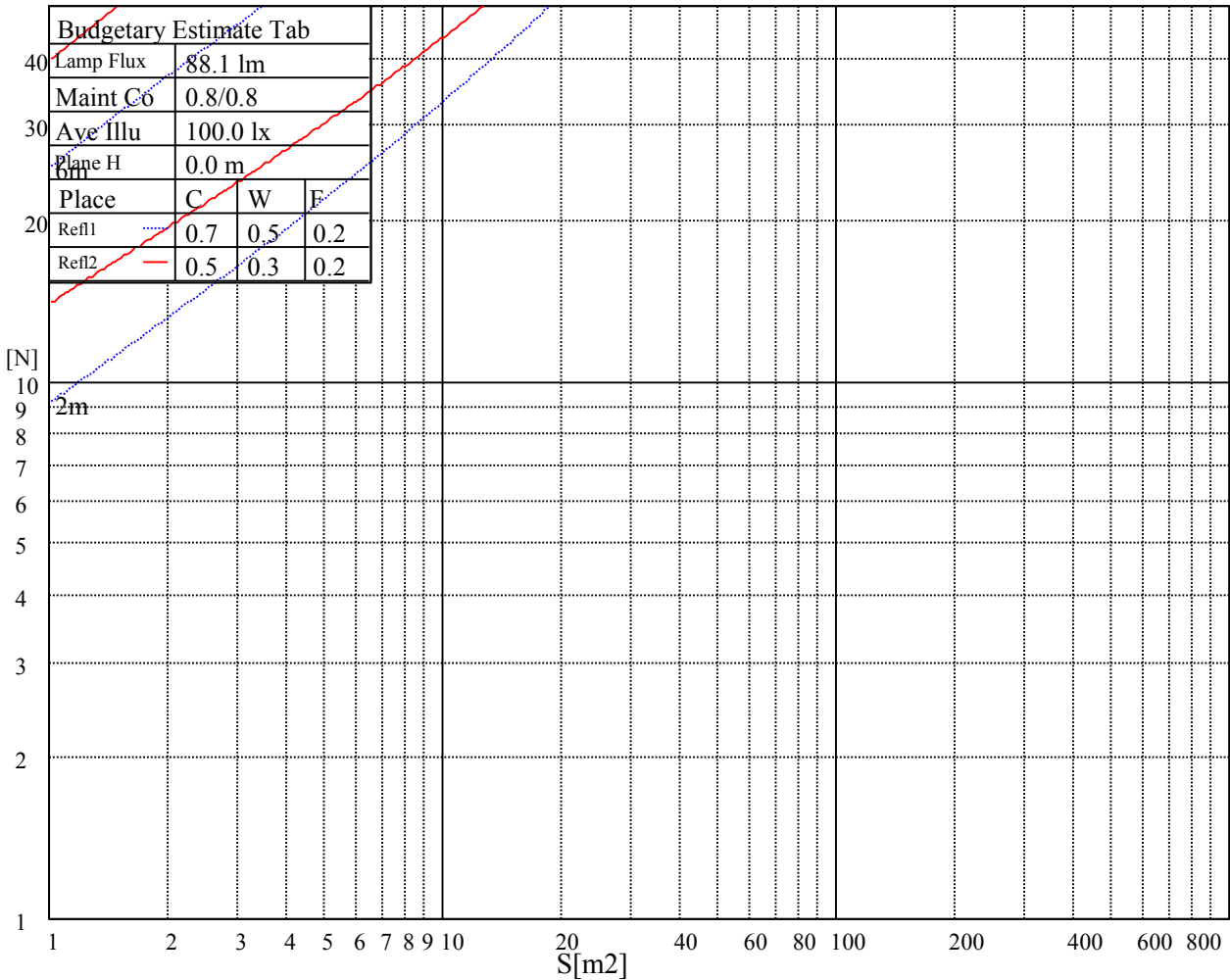
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

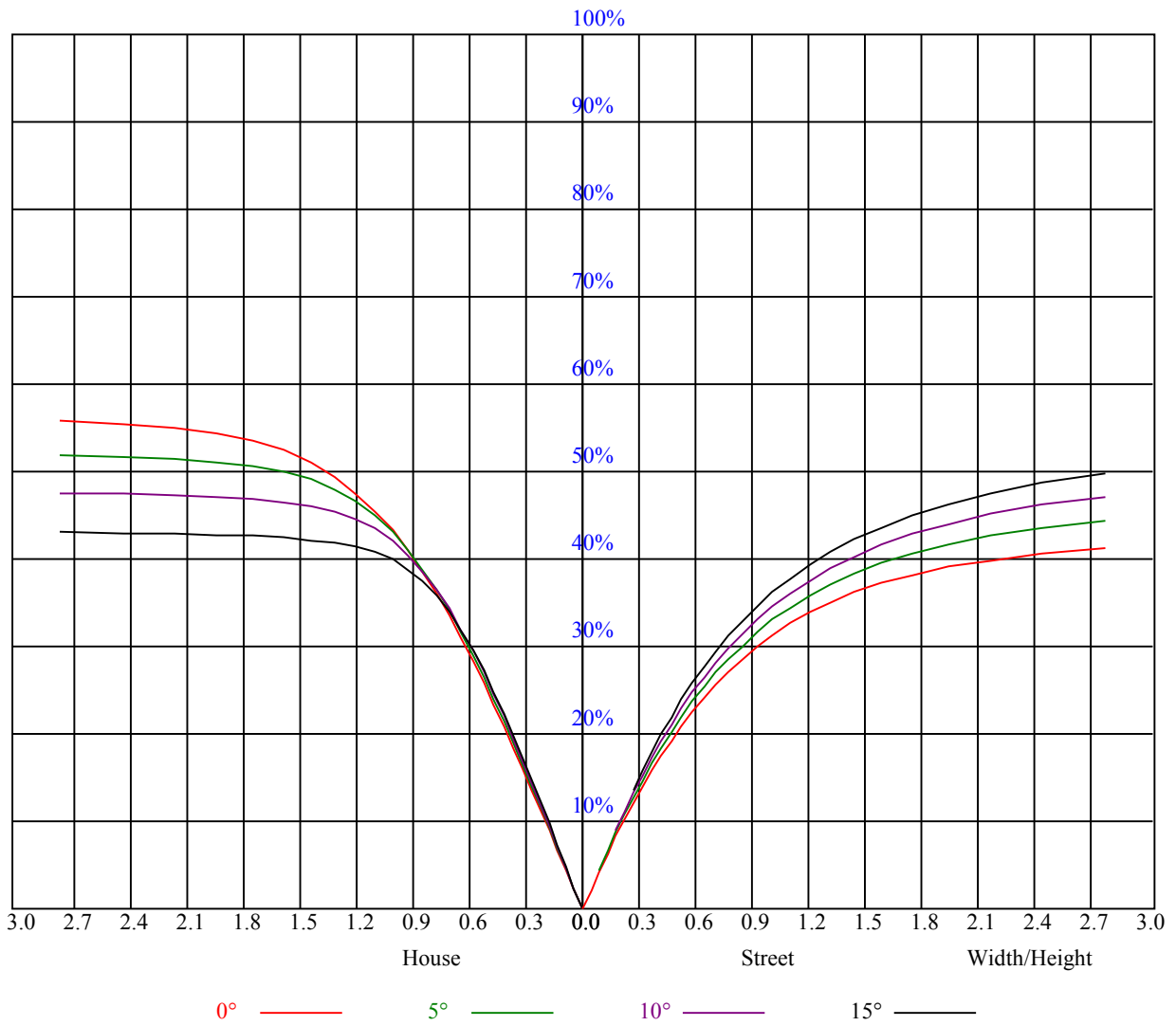
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.00	0.95	0.90	0.98	0.93	0.89	0.94	0.90	0.86	0.90	0.86	0.83	0.86	0.83	0.81	0.78
2	0.84	0.76	0.69	0.82	0.74	0.68	0.78	0.72	0.66	0.75	0.70	0.65	0.72	0.67	0.63	0.61
3	0.71	0.62	0.54	0.70	0.61	0.53	0.67	0.59	0.52	0.64	0.57	0.51	0.61	0.55	0.50	0.48
4	0.62	0.51	0.43	0.60	0.50	0.43	0.57	0.49	0.42	0.55	0.48	0.42	0.53	0.46	0.41	0.38
5	0.54	0.43	0.36	0.52	0.43	0.35	0.50	0.42	0.35	0.48	0.40	0.34	0.46	0.39	0.34	0.32
6	0.47	0.37	0.30	0.46	0.37	0.30	0.44	0.36	0.29	0.43	0.35	0.29	0.41	0.34	0.29	0.26
7	0.42	0.32	0.25	0.41	0.32	0.25	0.40	0.31	0.25	0.38	0.31	0.25	0.37	0.30	0.25	0.22
8	0.38	0.29	0.22	0.37	0.28	0.22	0.36	0.28	0.22	0.35	0.27	0.22	0.33	0.26	0.21	0.19
9	0.35	0.25	0.19	0.34	0.25	0.19	0.33	0.25	0.19	0.32	0.24	0.19	0.30	0.24	0.19	0.17
10	0.32	0.23	0.17	0.31	0.23	0.17	0.30	0.22	0.17	0.29	0.22	0.17	0.28	0.21	0.17	0.15



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	14.12	14.12	14.46	14.63	15.02	15.69	17.04	19.41	22.50
45.0	13.89	13.28	12.88	12.21	11.93	11.36	11.08	10.80	10.69
90.0	14.12	13.05	12.15	10.97	10.46	10.01	9.45	8.78	8.21
135.0	14.63	12.99	12.83	12.26	11.59	11.36	11.42	11.19	11.08
180.0	14.12	13.44	14.12	14.63	14.96	15.92	16.88	18.68	21.32
225.0	13.89	14.91	15.47	16.76	17.72	19.13	20.31	21.60	23.18
270.0	14.12	15.58	16.54	17.89	18.62	19.97	20.64	20.81	20.81
315.0	14.63	15.30	16.43	17.44	18.68	20.31	22.22	25.09	27.17
360.0	14.12	14.12	14.46	14.63	15.02	15.69	17.04	19.41	22.50

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	26.44	31.11	37.24	43.09	48.15	47.36	38.03	12.77	1.86
45.0	10.35	10.29	9.96	9.28	8.27	7.09	4.78	2.31	1.29
90.0	7.82	7.93	7.76	7.71	7.03	5.18	3.15	1.86	1.52
135.0	10.63	10.18	10.01	9.51	8.38	6.81	4.84	2.76	1.63
180.0	24.41	28.01	34.31	42.02	51.86	54.17	39.71	9.73	3.38
225.0	24.02	24.19	21.83	15.86	7.82	2.93	1.41	1.01	0.90
270.0	19.52	17.10	12.04	6.41	3.15	1.80	1.24	1.18	0.90
315.0	29.42	30.88	29.19	24.13	13.89	4.89	1.74	1.13	0.96
360.0	26.44	31.11	37.24	43.09	48.15	47.36	38.03	12.77	1.86

C/γ(°)	90.0
0.0	0.23
45.0	0.17
90.0	0.45
135.0	0.45
180.0	0.23
225.0	0.23
270.0	0.56
315.0	0.56
360.0	0.23