



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: LN01D02836DA-N  
Luminaire: 92.70.307.00  
Report No: 211113-B001 Voltage(V): 21.2800  
Test No: 211113-C001 Current(A): 0.1200  
LampCAT: CITIZEN CLU7B2 CLU7B2 LES3 Bower (W): 2.5530  
Lamp flux(lm): 268.6 PF: 0.0000  
Number of Lamps: 1 Ballast type: DC  
Length(mm): 111 Width(mm): 111  
Phm Type: C Height(mm): 0

---

## Photometric Results

---

Lumens(lm): 172.04  
Efficiency(%): 64.04%  
Lumens(lm)/Power(W): 67.39  
Central intensity(cd): 337.216  
Maximum intensity(cd): 337.216  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=35.8  
[C90/270]Total=35.8  
Field angle(10%Imax): [C0/180]Total=68.1  
[C90/270]Total=68.1  
Maximum s/h(1/2): C0\_180=0.59 C90\_270=0.59  
Maximum s/h(1/4): C0\_180=0.60 C90\_270=0.60  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 64.04%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 95.250%

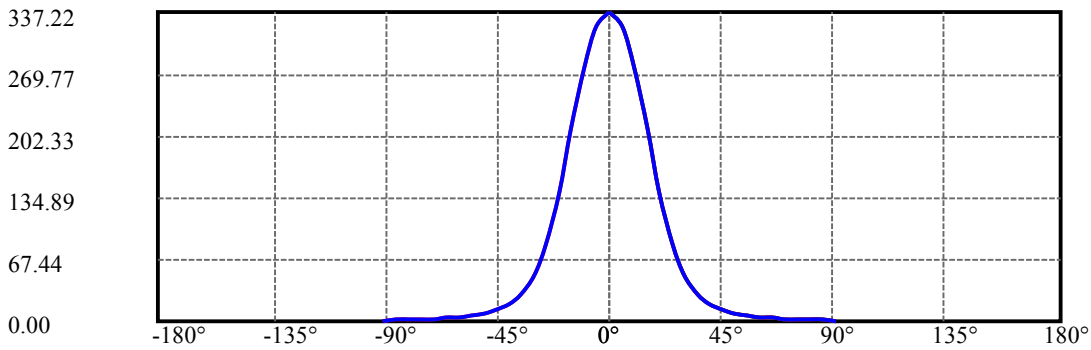
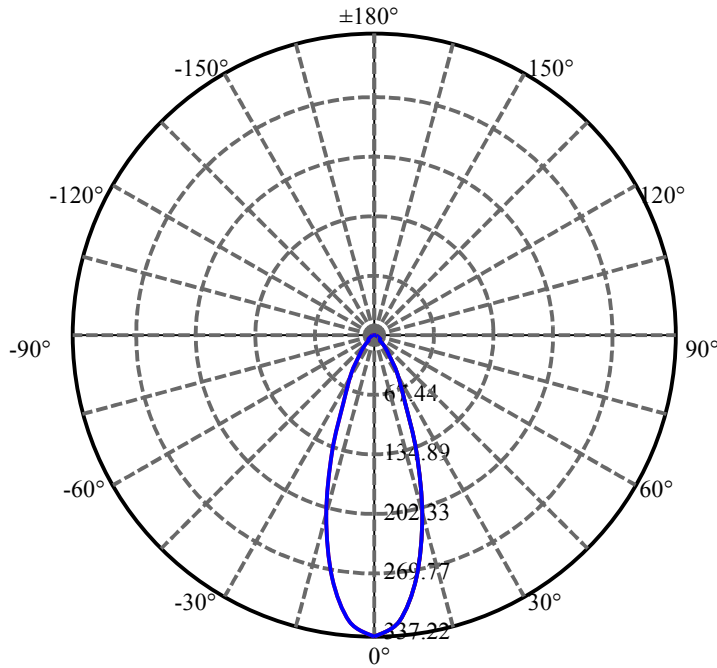
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	337.215	0.000	0	.000%	.000%
5.0	320.283	7.860	7.86	2.926%	4.569%
10.0	275.872	21.326	29.187	7.939%	16.965%
15.0	208.911	28.757	57.944	10.705%	33.680%
20.0	139.762	28.736	86.679	10.697%	50.382%
25.0	83.699	23.437	110.116	8.724%	64.005%
30.0	50.222	16.948	127.064	6.309%	73.856%
35.0	29.899	11.798	138.862	4.392%	80.714%
40.0	19.397	8.225	147.087	3.062%	85.494%
45.0	13.108	6.019	153.106	2.240%	88.993%
50.0	9.344	4.537	157.642	1.689%	91.630%
55.0	6.730	3.495	161.137	1.301%	93.661%
60.0	5.094	2.733	163.87	1.017%	95.250%
65.0	3.794	2.161	166.031	.804%	96.506%
70.0	2.950	1.708	167.739	.636%	97.498%
75.0	2.293	1.371	169.109	.510%	98.295%
80.0	2.472	1.275	170.384	.475%	99.036%
85.0	1.449	1.066	171.45	.397%	99.655%
90.0	0.717	0.593	172.043	.221%	100.000%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	127.06	47.30%	73.86%
0-40	147.09	54.75%	85.49%
0-60	163.87	61.00%	95.25%
0-90	171.45	63.82%	99.66%
0-120	171.45	63.82%	99.66%
0-180	172.04	64.04%	100.00%
60-90	10.31	3.84%	5.99%
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%
0-34.48	137.63	51.23%	80.00%

## ZONAL LUMEN SUMMARY

0-10	29.19
10-20	57.49
20-30	40.38
30-40	20.02
40-50	10.56
50-60	6.23
60-70	3.87
70-80	2.65
80-90	1.07
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: —————

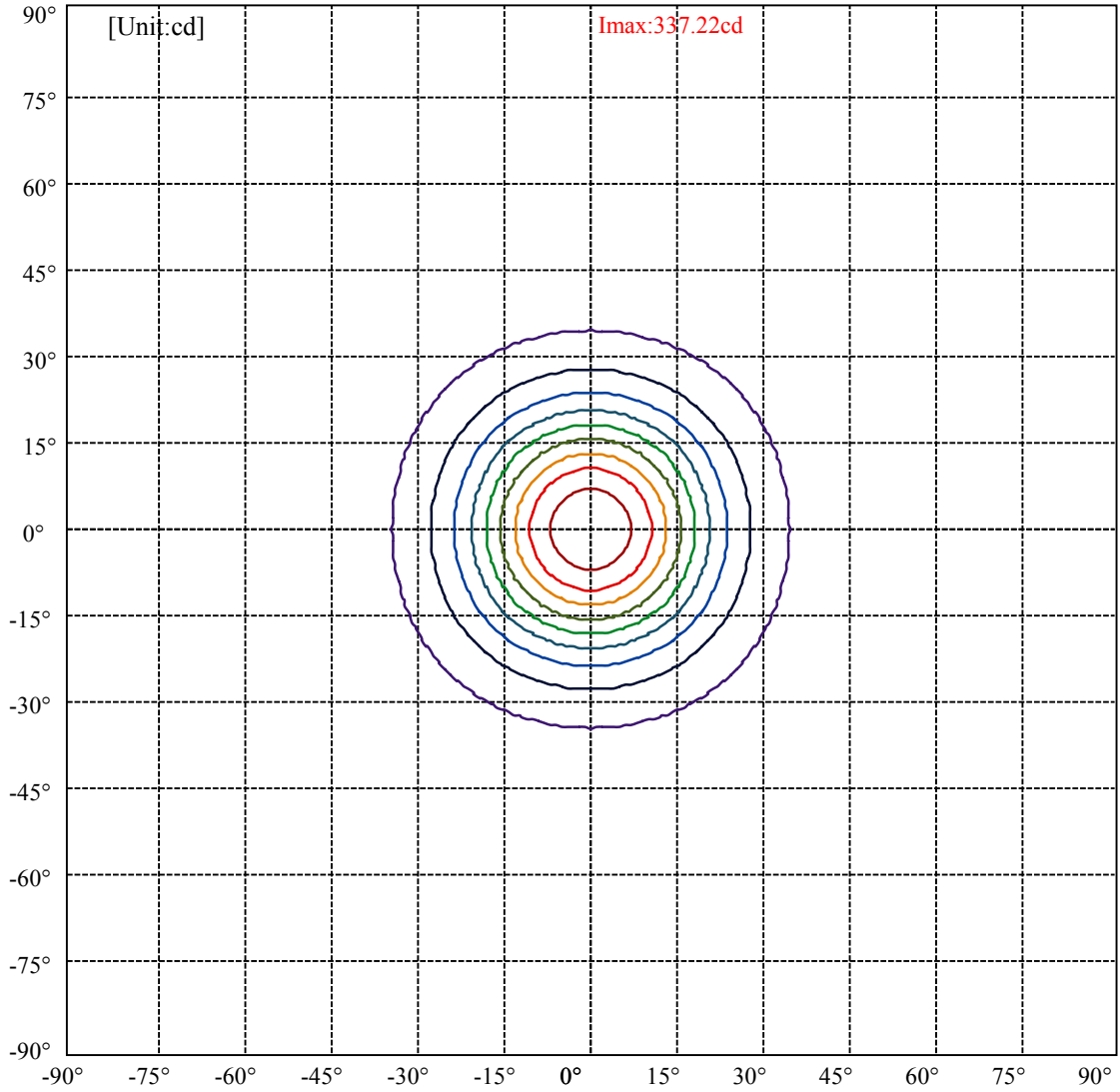
Field angle(10%Imax):C0/180Left:34.1 Right:34.1

:C90/270Left:34.1 Right:34.1

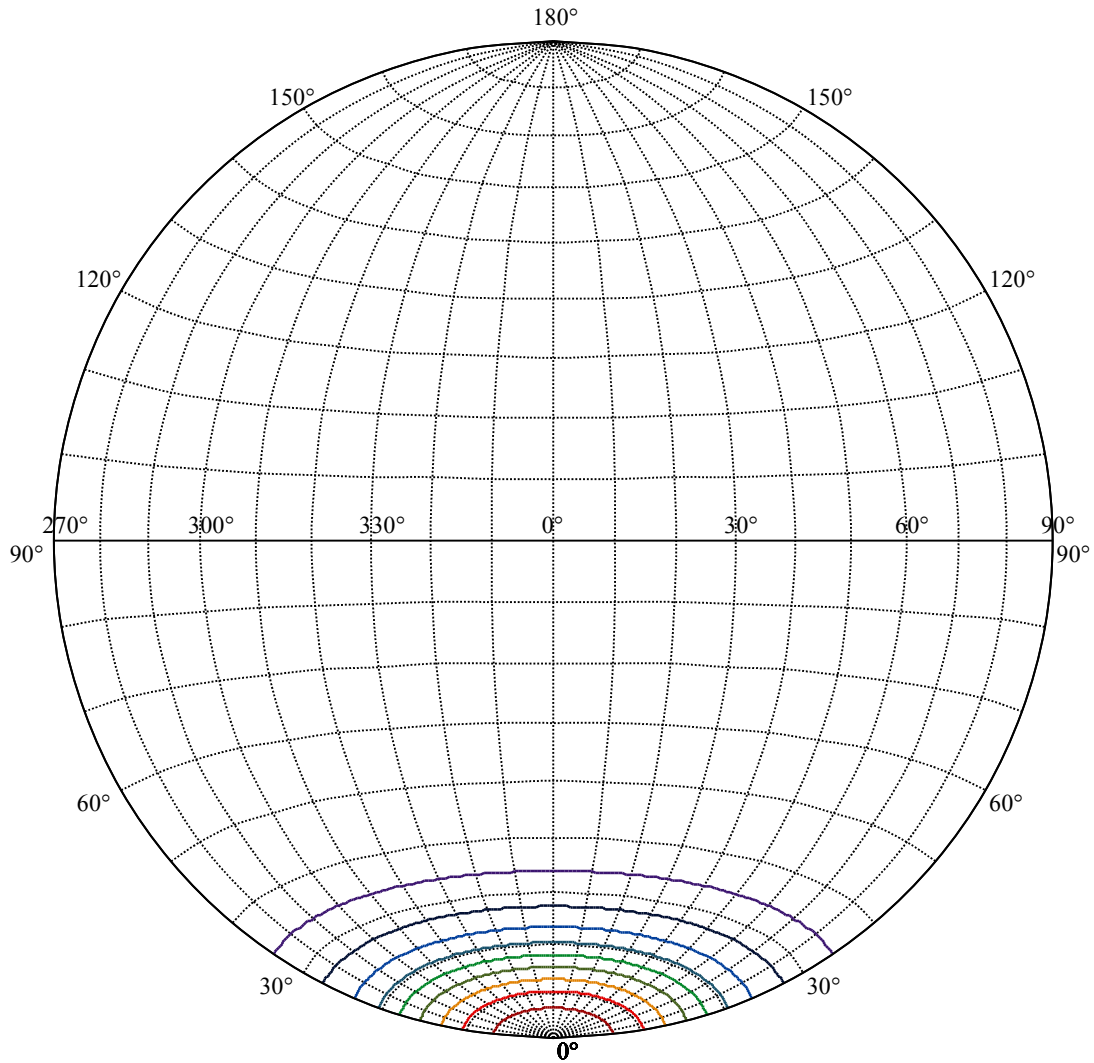
Beam Angle(50%Imax):C0/180Left:17.9 Right:17.9

:C90/270Left:17.9 Right:17.9





(10%Imax) 33.7215	—
(20%Imax) 67.4431	—
(30%Imax) 101.165	—
(40%Imax) 134.886	—
(50%Imax) 168.608	—
(60%Imax) 202.329	—
(70%Imax) 236.051	—
(80%Imax) 269.772	—
(90%Imax) 303.494	—



House

[Unit:cd]

Road

Imax:337.22

(10%Imax) 33.7215

(20%Imax) 67.4431

(30%Imax) 101.165

(40%Imax) 134.886

(50%Imax) 168.608

(60%Imax) 202.329

(70%Imax) 236.051

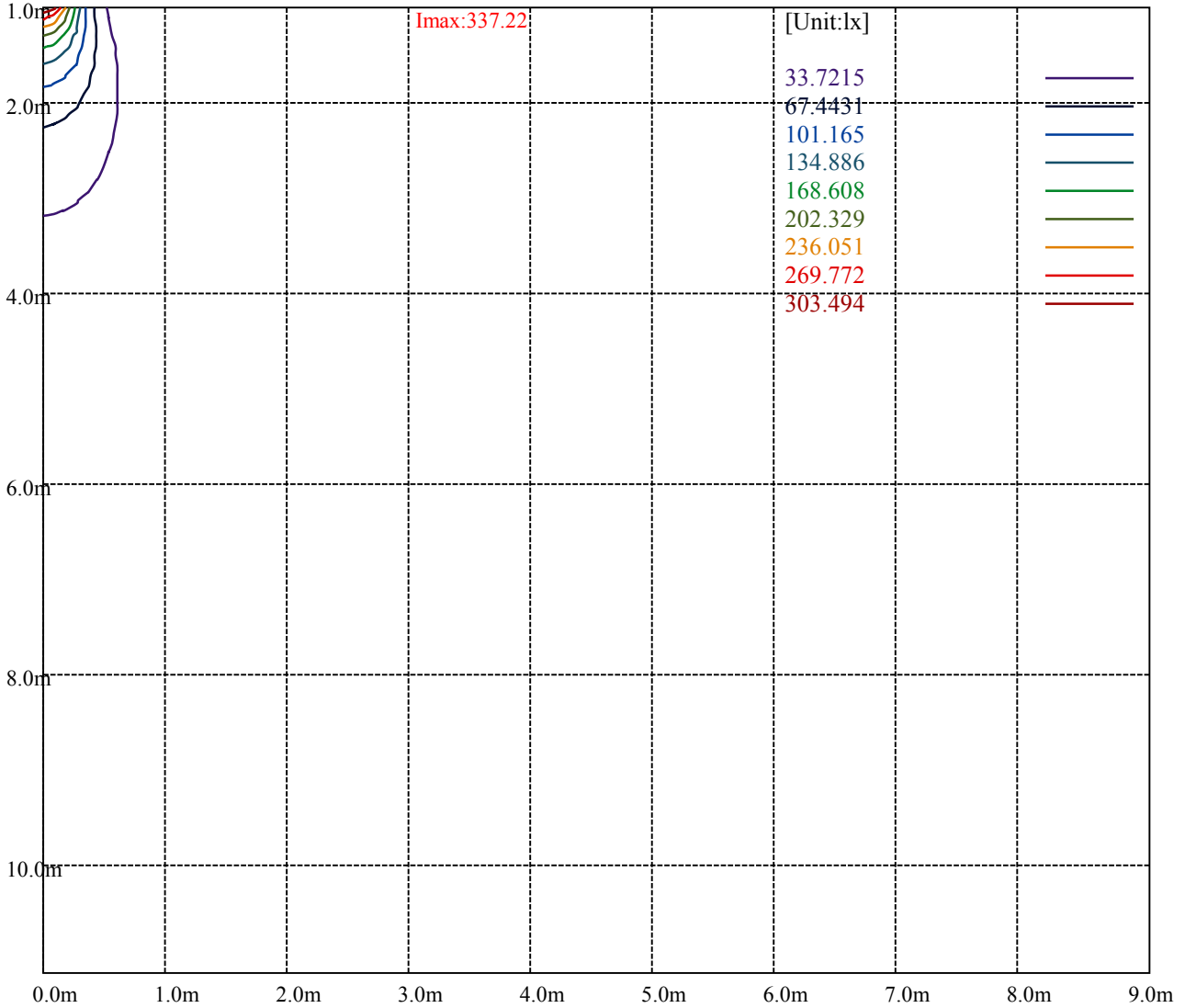
(80%Imax) 269.772

(90%Imax) 303.494









Luminance Table

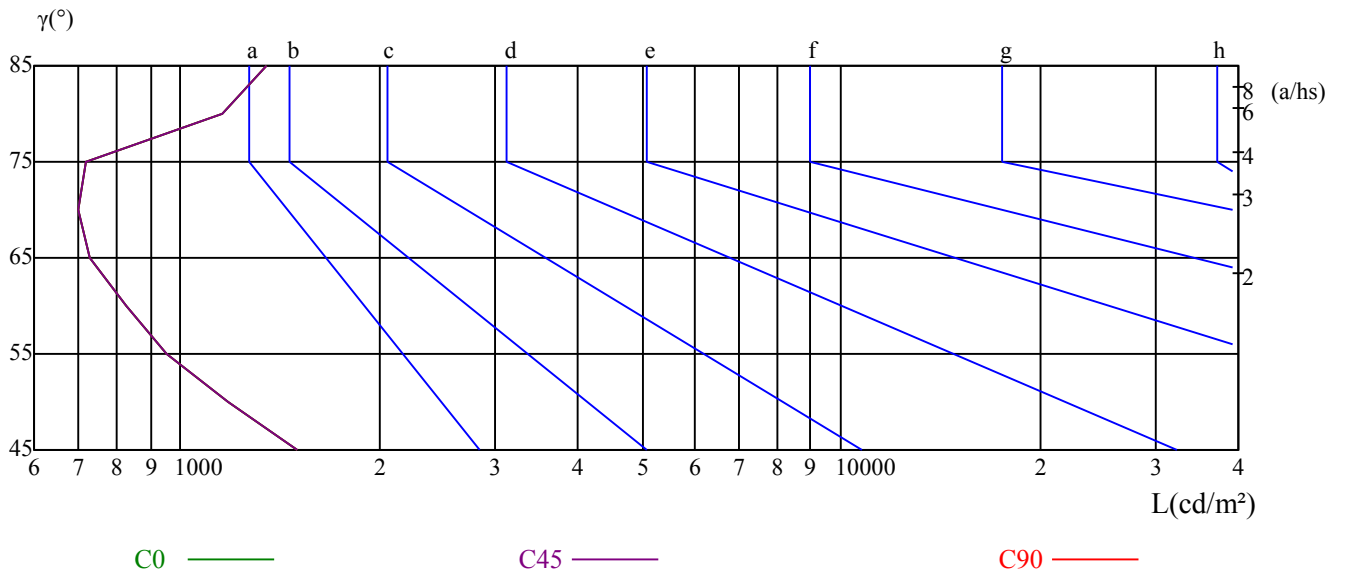
$\gamma$	45	50	55	60	65	70	75	80	85
C0	1505	1180	952	827	729	700	719	1156	1349
C45	1505	1180	952	827	729	700	719	1156	1349
C90	1505	1180	952	827	729	700	719	1156	1349

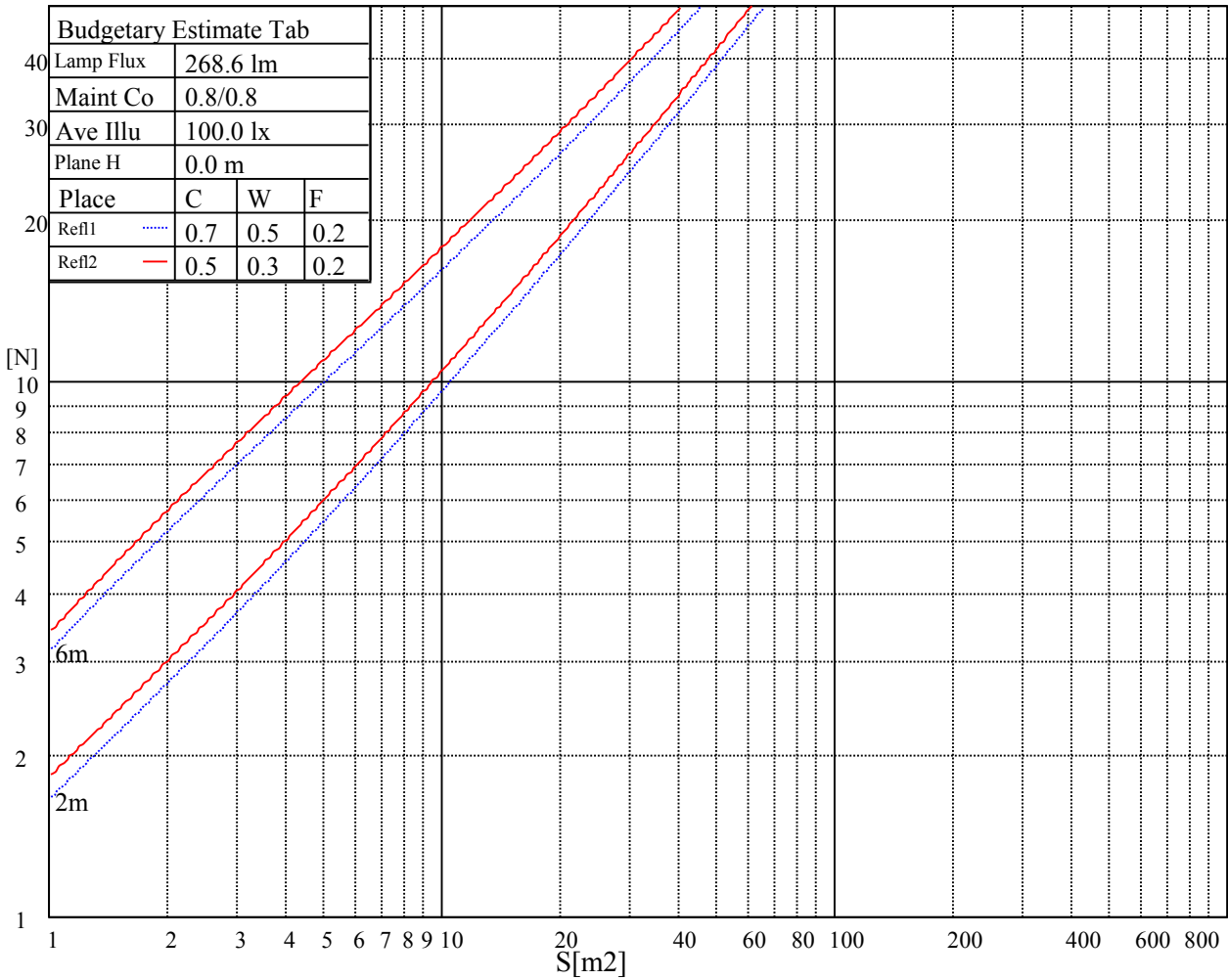
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
729	729	729	719	719	719	1349	1349	1349

Glare Table

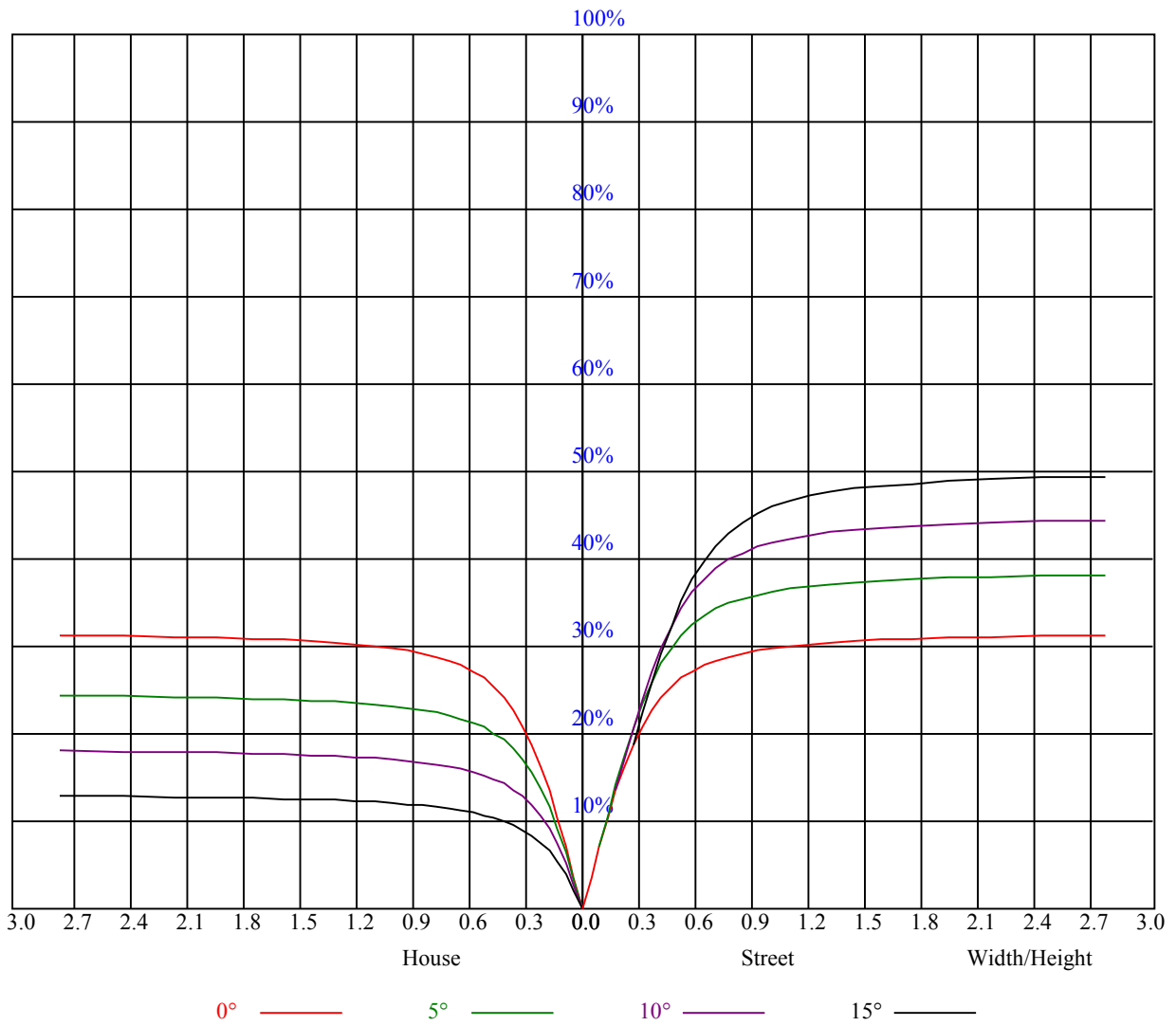
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.76	0.76	0.76	0.74	0.74	0.74	0.71	0.71	0.71	0.68	0.68	0.68	0.65	0.65	0.65	0.64
1	0.70	0.69	0.67	0.69	0.67	0.66	0.66	0.65	0.64	0.64	0.63	0.62	0.62	0.61	0.60	0.59
2	0.65	0.63	0.60	0.64	0.62	0.60	0.62	0.60	0.58	0.60	0.59	0.57	0.59	0.57	0.56	0.55
3	0.61	0.58	0.55	0.60	0.57	0.55	0.58	0.56	0.54	0.57	0.55	0.53	0.55	0.54	0.52	0.51
4	0.57	0.54	0.51	0.57	0.53	0.51	0.55	0.52	0.50	0.54	0.51	0.49	0.53	0.51	0.49	0.48
5	0.54	0.50	0.47	0.53	0.50	0.47	0.52	0.49	0.47	0.51	0.49	0.46	0.50	0.48	0.46	0.45
6	0.51	0.47	0.45	0.50	0.47	0.44	0.50	0.46	0.44	0.49	0.46	0.44	0.48	0.45	0.43	0.43
7	0.48	0.45	0.42	0.48	0.44	0.42	0.47	0.44	0.42	0.46	0.44	0.41	0.46	0.43	0.41	0.40
8	0.46	0.42	0.40	0.46	0.42	0.40	0.45	0.42	0.39	0.44	0.41	0.39	0.44	0.41	0.39	0.38
9	0.44	0.40	0.38	0.43	0.40	0.38	0.43	0.40	0.38	0.42	0.39	0.37	0.42	0.39	0.37	0.36
10	0.42	0.38	0.36	0.42	0.38	0.36	0.41	0.38	0.36	0.41	0.38	0.36	0.40	0.37	0.36	0.35



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	336.41	327.80	290.82	228.91	160.62	100.21	58.68	34.54	22.41
45.0	337.54	321.59	279.23	208.84	136.89	79.53	47.92	28.38	18.34
90.0	337.48	316.27	266.62	190.43	119.69	68.24	41.53	25.16	16.49
135.0	337.42	322.49	275.28	200.41	127.75	75.77	44.52	26.77	17.93
180.0	336.41	310.48	255.38	184.46	116.76	67.46	41.41	25.34	17.03
225.0	337.54	319.62	275.82	209.02	141.20	86.04	51.09	30.47	19.60
270.0	337.48	324.70	287.35	232.80	164.56	101.52	61.25	35.85	22.47
315.0	337.42	319.32	276.48	216.43	150.64	90.82	55.39	32.68	20.91
360.0	336.41	327.80	290.82	228.91	160.62	100.21	58.68	34.54	22.41
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	14.94	10.64	7.83	6.15	4.66	3.64	2.93	3.82	4.30
45.0	12.43	8.84	6.33	4.66	3.41	2.57	1.97	1.43	0.84
90.0	11.29	8.13	5.74	4.30	3.17	2.39	1.79	1.25	0.78
135.0	12.01	8.66	6.21	4.66	3.47	2.81	2.21	1.79	1.02
180.0	11.89	8.72	6.63	5.26	4.18	3.35	2.75	6.27	1.02
225.0	13.27	9.38	6.63	4.96	3.59	2.75	2.09	1.61	1.14
270.0	14.94	10.34	7.23	5.38	3.88	2.93	2.15	1.61	1.08
315.0	14.10	10.04	7.23	5.38	4.00	3.17	2.45	1.97	1.43
360.0	14.94	10.64	7.83	6.15	4.66	3.64	2.93	3.82	4.30
C/γ(°)	90.0								
0.0	0.72								
45.0	0.66								
90.0	0.72								
135.0	0.72								
180.0	0.90								
225.0	0.66								
270.0	0.72								
315.0	0.66								
360.0	0.72								