



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: NA01D020060BW

Luminaire:

Report No: 200406-B014

Voltage(V): 6.5000

Test No: 200406-C014

Current(A): 0.1540

LampCAT: LUMILEDS 3030 2D

Power (W): 1.0010

Lamp flux(lm): 92.5

PF: 1.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 83.25

Efficiency(%): 89.96%

Lumens(lm)/Power(W): 83.16

Central intensity(cd): 82.856

Maximum intensity(cd): 82.856

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=54.4

[C90/270]Total=54.4

Field angle(10%Imax): [C0/180]Total=97.2

[C90/270]Total=97.2

Maximum s/h(1/2): C0_180=0.83 C90_270=0.83

Maximum s/h(1/4): C0_180=0.85 C90_270=0.85

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 89.96%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 92.731%

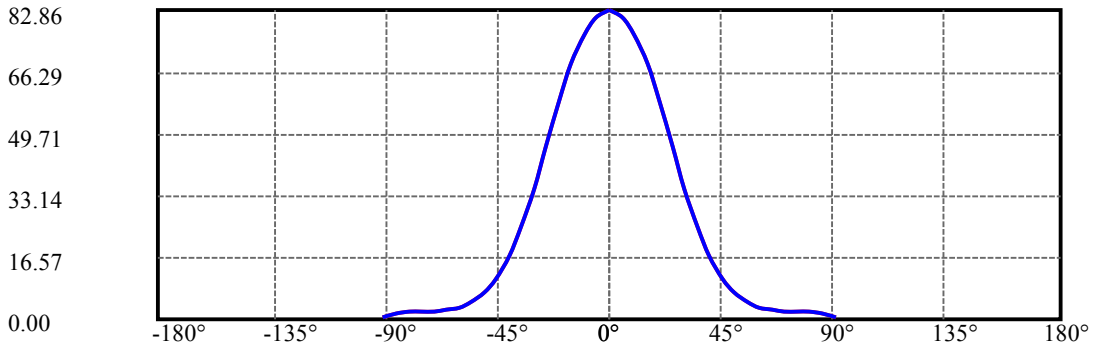
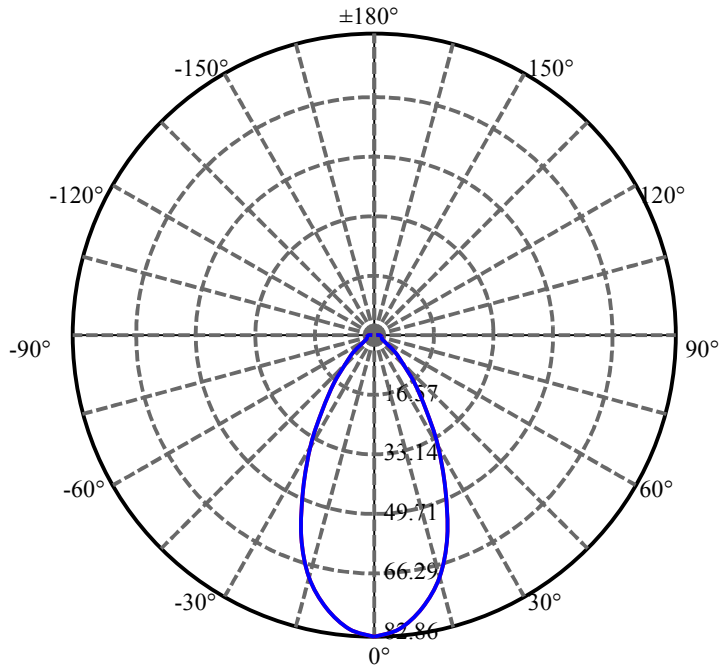
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	82.856	0.000	0	.000%	.000%
5.0	80.902	1.958	1.958	2.115%	2.352%
10.0	76.275	5.623	7.58	6.076%	9.106%
15.0	68.674	8.598	16.179	9.291%	19.434%
20.0	58.830	10.508	26.687	11.355%	32.057%
25.0	46.561	11.054	37.74	11.945%	45.335%
30.0	34.931	10.313	48.053	11.144%	57.723%
35.0	24.863	8.805	56.858	9.515%	68.300%
40.0	17.023	6.988	63.847	7.552%	76.695%
45.0	11.032	5.195	69.041	5.613%	82.934%
50.0	7.242	3.693	72.734	3.990%	87.370%
55.0	4.760	2.610	75.343	2.820%	90.505%
60.0	3.255	1.853	77.196	2.002%	92.731%
65.0	2.355	1.364	78.56	1.474%	94.369%
70.0	2.025	1.109	79.669	1.199%	95.702%
75.0	1.983	1.048	80.717	1.132%	96.960%
80.0	1.905	1.040	81.757	1.124%	98.210%
85.0	1.638	0.963	82.72	1.041%	99.366%
90.0	0.288	0.528	83.248	.570%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	48.05	51.93%	57.72%
0-40	63.85	68.99%	76.69%
0-60	77.20	83.42%	92.73%
0-90	82.72	89.39%	99.37%
0-120	82.72	89.39%	99.37%
0-180	83.25	89.96%	100.00%
60-90	7.38	7.97%	8.86%
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%
0-42.65	66.60	71.97%	80.00%

ZONAL LUMEN SUMMARY

0-10	7.58
10-20	19.11
20-30	21.37
30-40	15.79
40-50	8.89
50-60	4.46
60-70	2.47
70-80	2.09
80-90	0.96
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: —

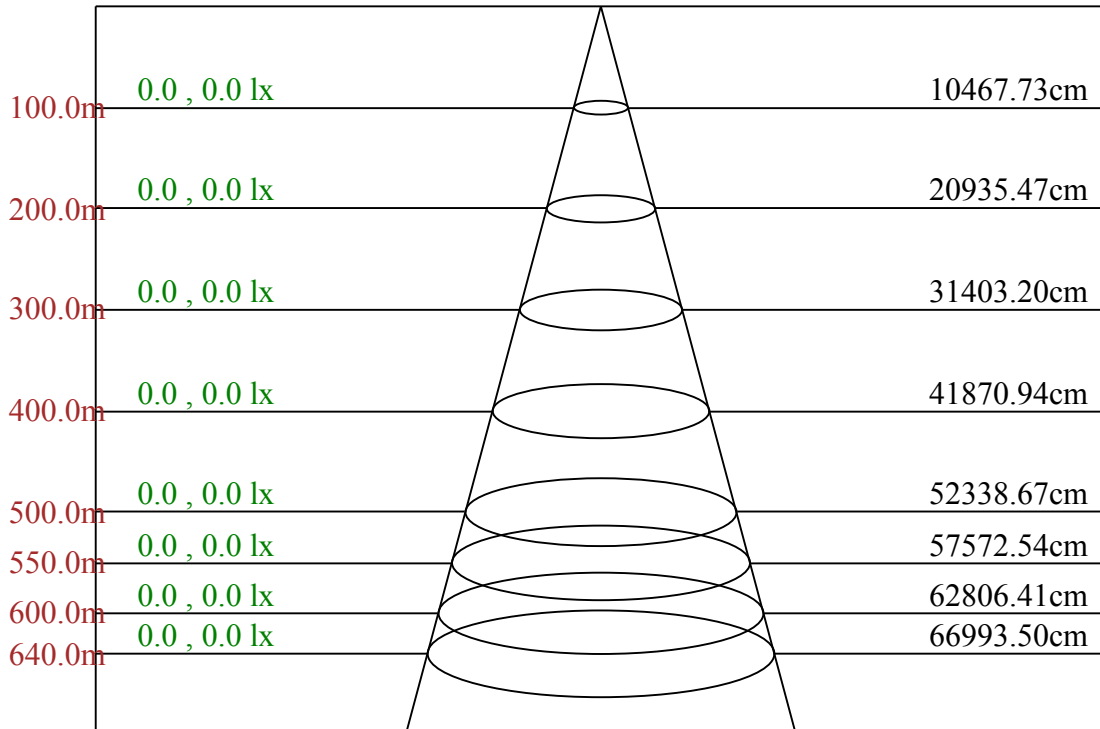
C90/C270: —

Field angle(10%Imax):C0/180Left:48.6 Right:48.6

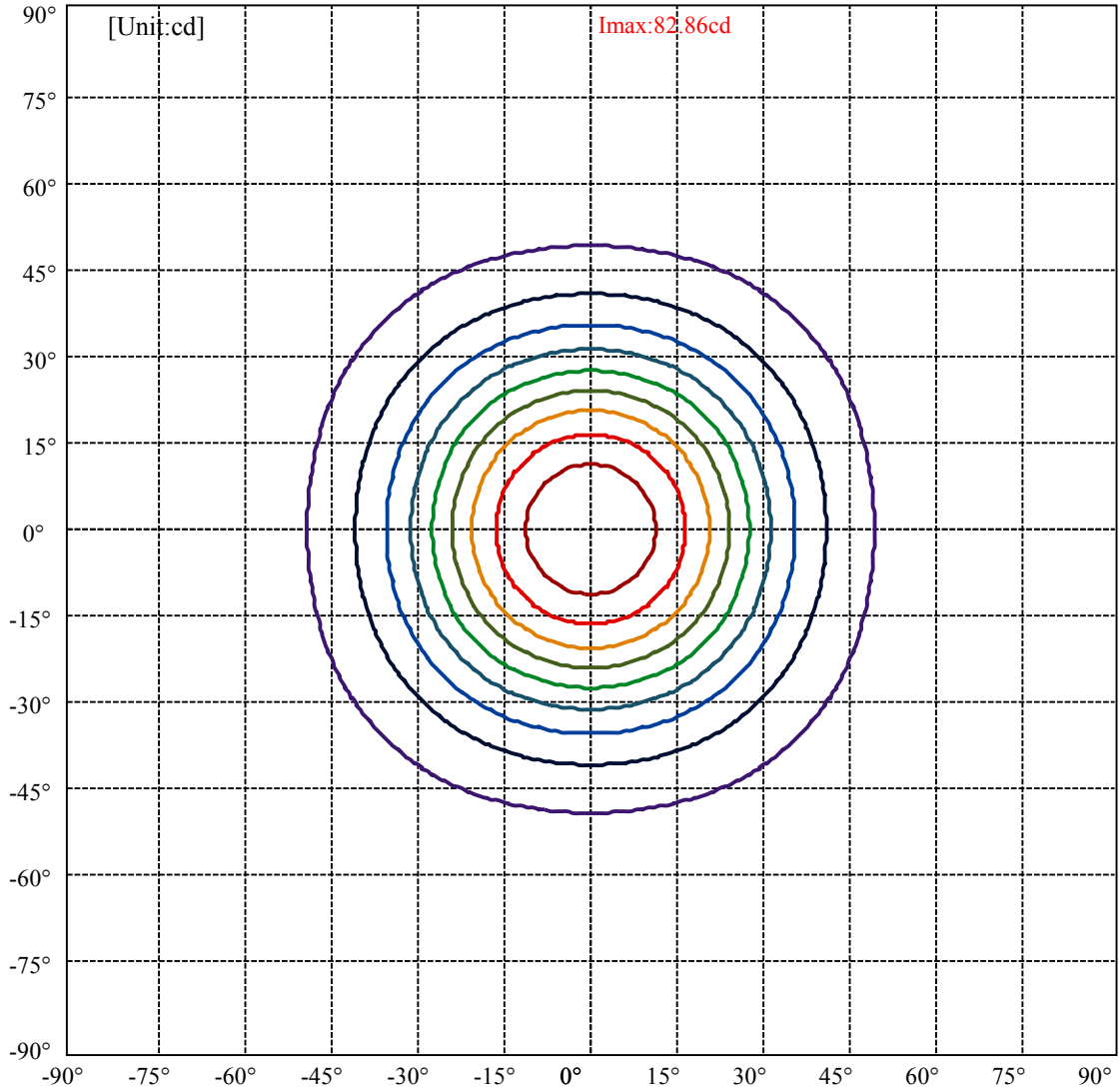
:C90/270Left:48.6 Right:48.6

Beam Angle(50%Imax):C0/180Left:27.2 Right:27.2

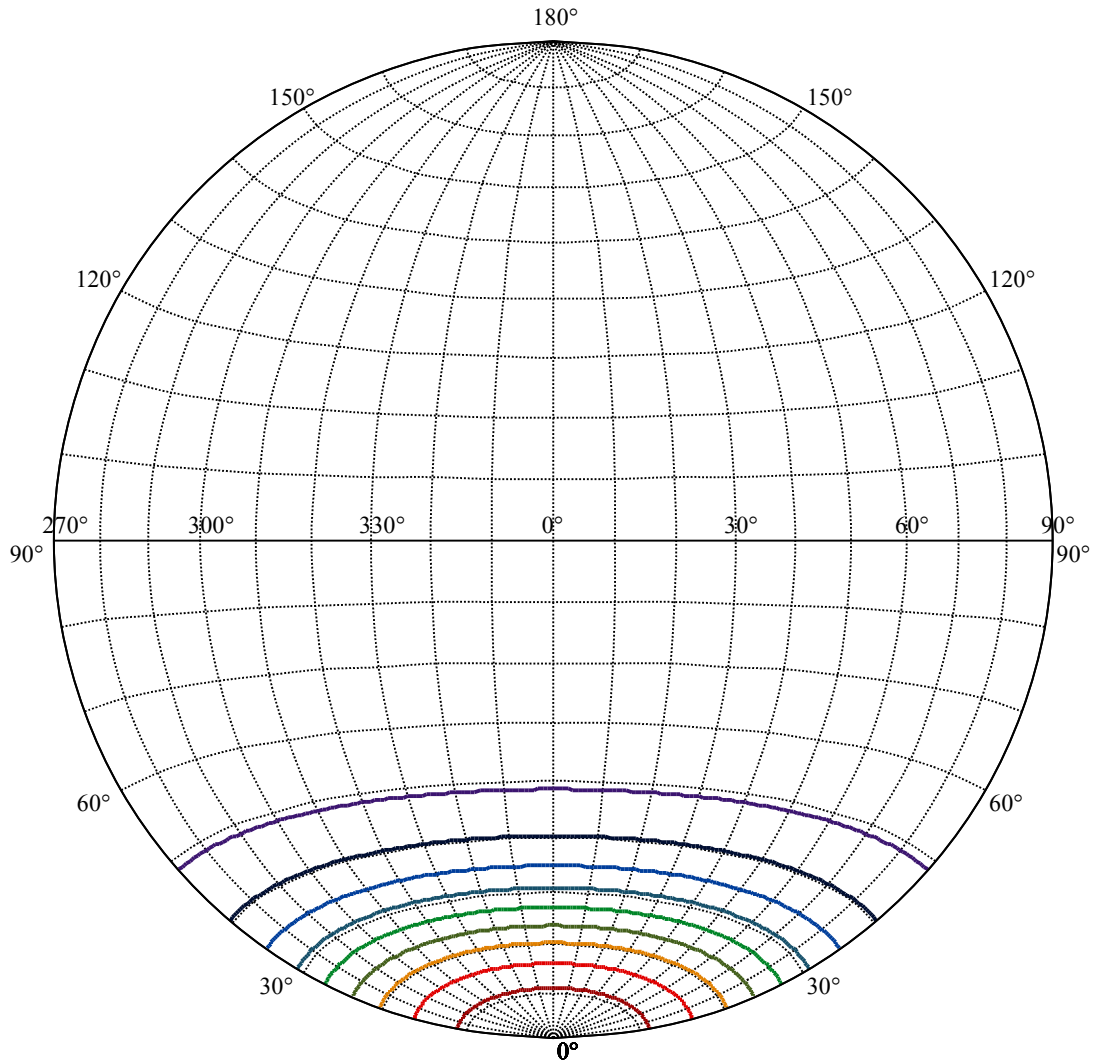
:C90/270Left:27.2 Right:27.2



Max , Ave Beam angle of C0 plane 55.25



(10%Imax) 8.28563	—
(20%Imax) 16.5713	—
(30%Imax) 24.8569	—
(40%Imax) 33.1425	—
(50%Imax) 41.4281	—
(60%Imax) 49.7138	—
(70%Imax) 57.9994	—
(80%Imax) 66.285	—
(90%Imax) 74.5706	—

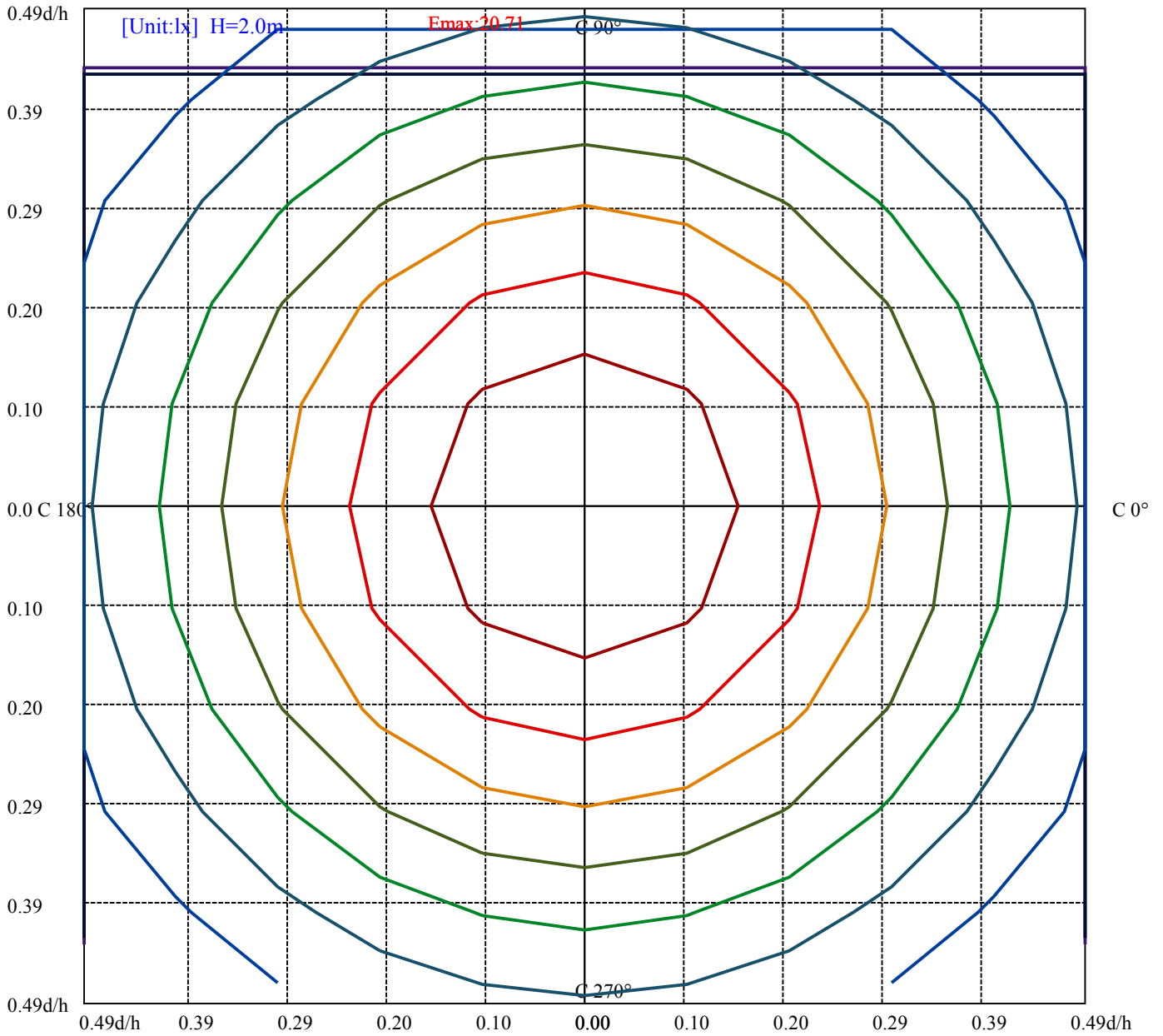


House

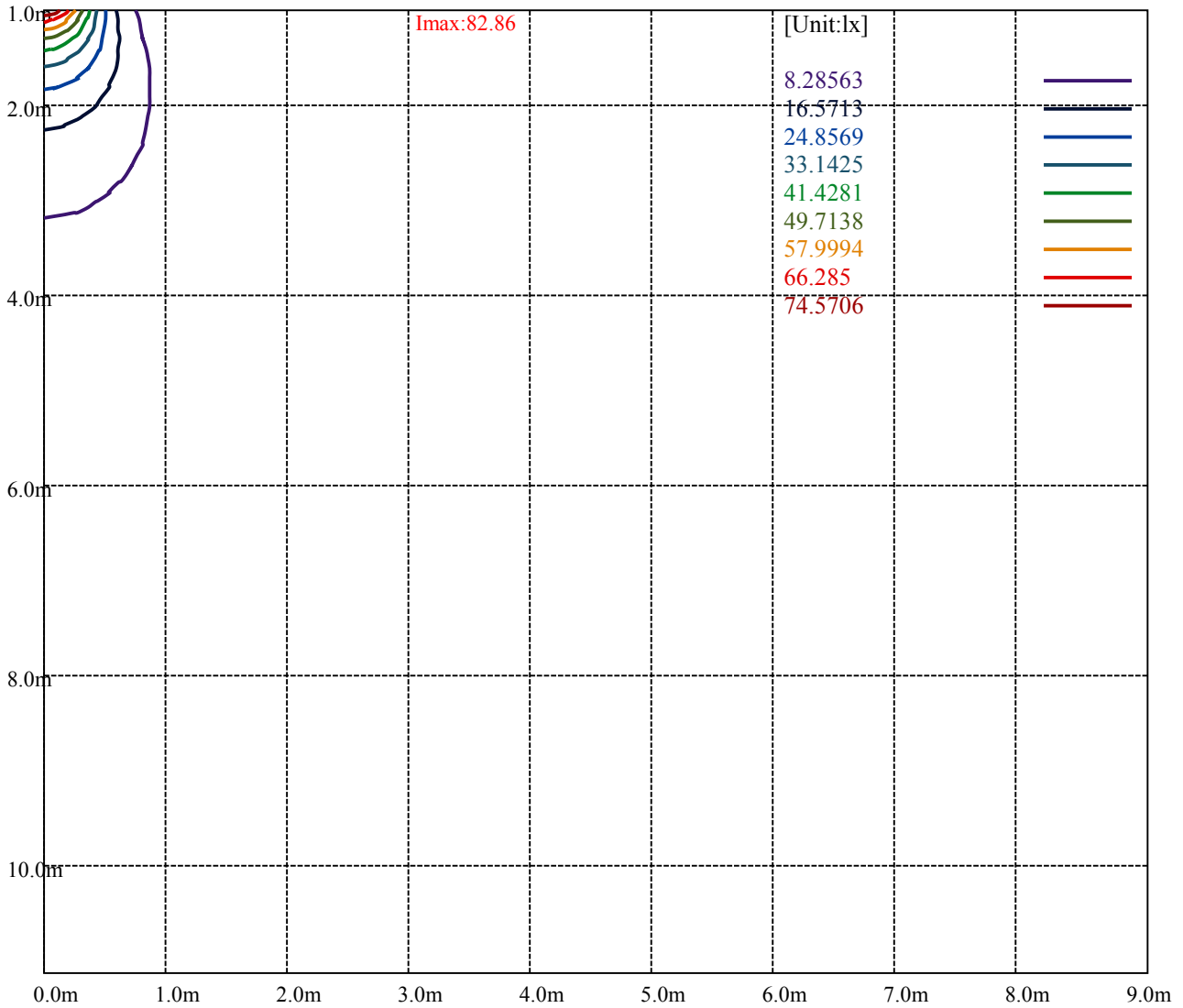
[Unit:cd]

Road

Imax:82.86	
(10%Imax) 8.28563	—
(20%Imax) 16.5713	—
(30%Imax) 24.8569	—
(40%Imax) 33.1425	—
(50%Imax) 41.4281	—
(60%Imax) 49.7138	—
(70%Imax) 57.9994	—
(80%Imax) 66.285	—
(90%Imax) 74.5706	—



- (10%Emax) 2.071405
- (20%Emax) 4.1428
- (30%Emax) 6.214225
- (40%Emax) 8.285625
- (50%Emax) 10.35703
- (60%Emax) 12.42842
- (70%Emax) 14.49982
- (80%Emax) 16.57125
- (90%Emax) 18.64265



Luminance Table

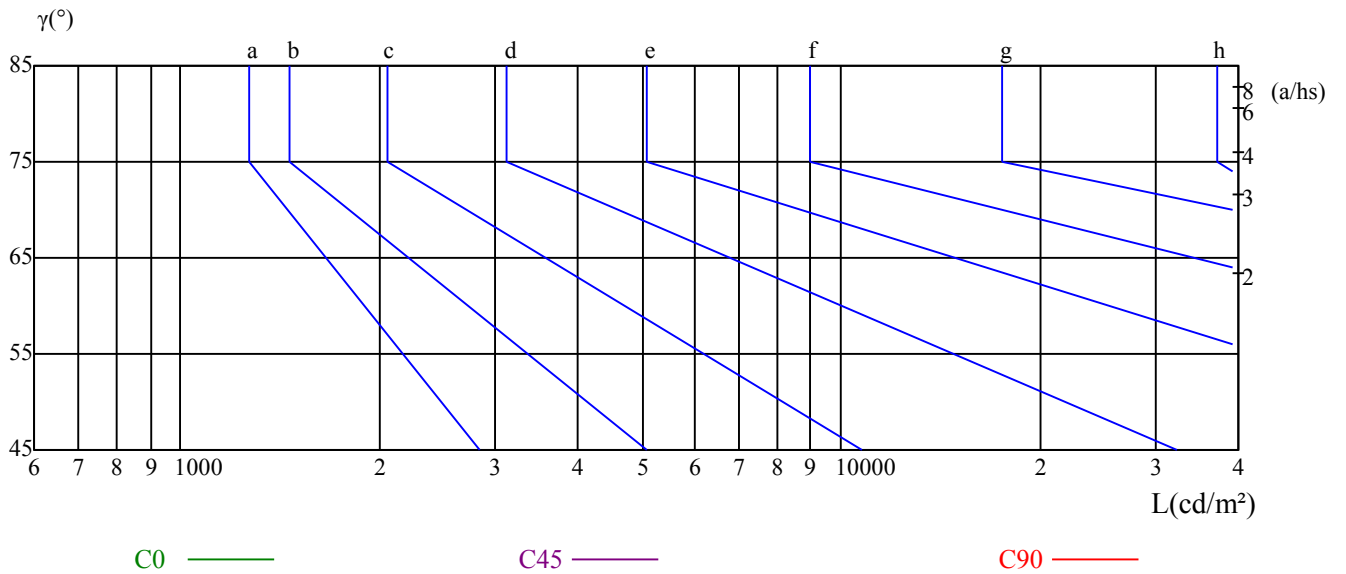
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

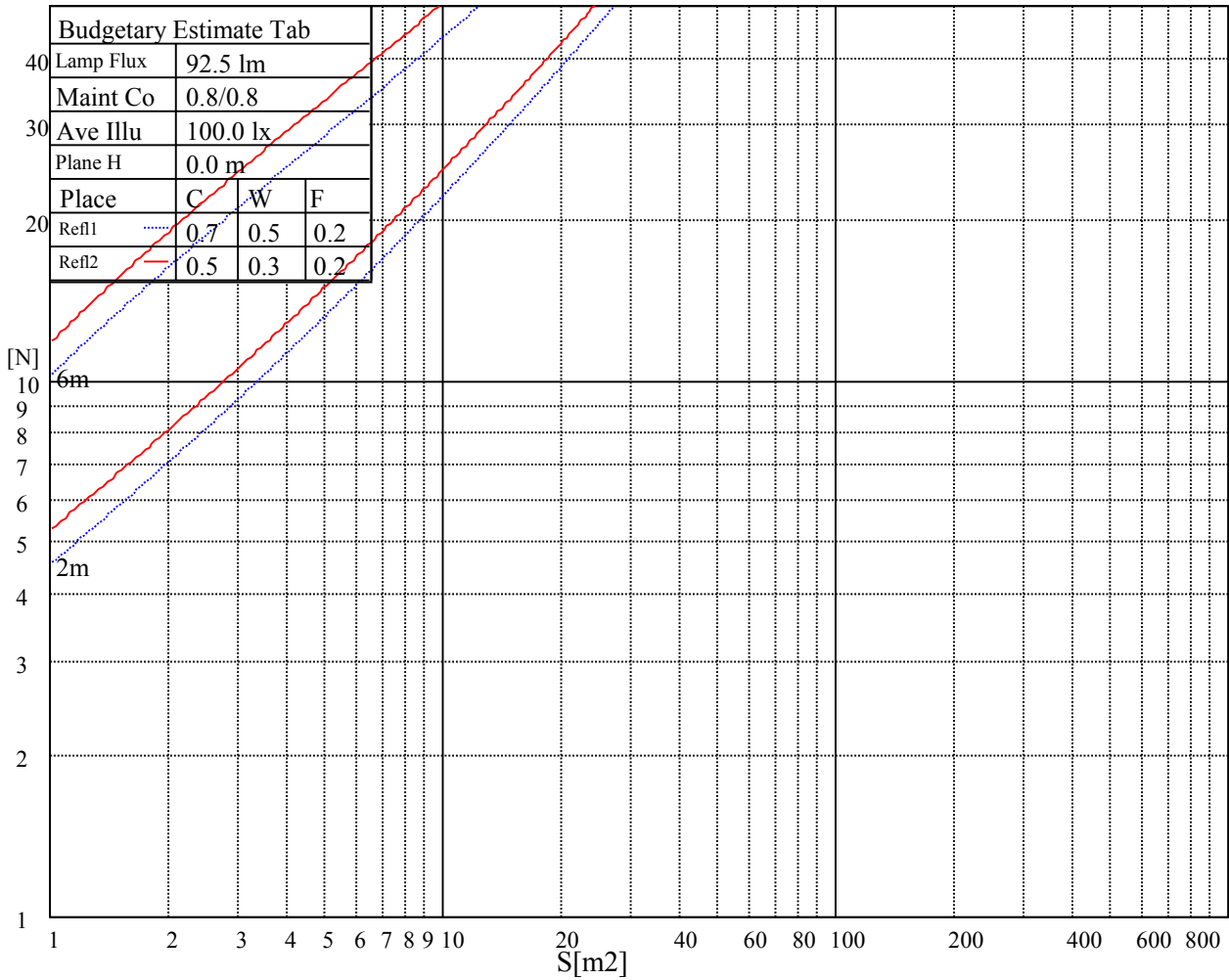
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

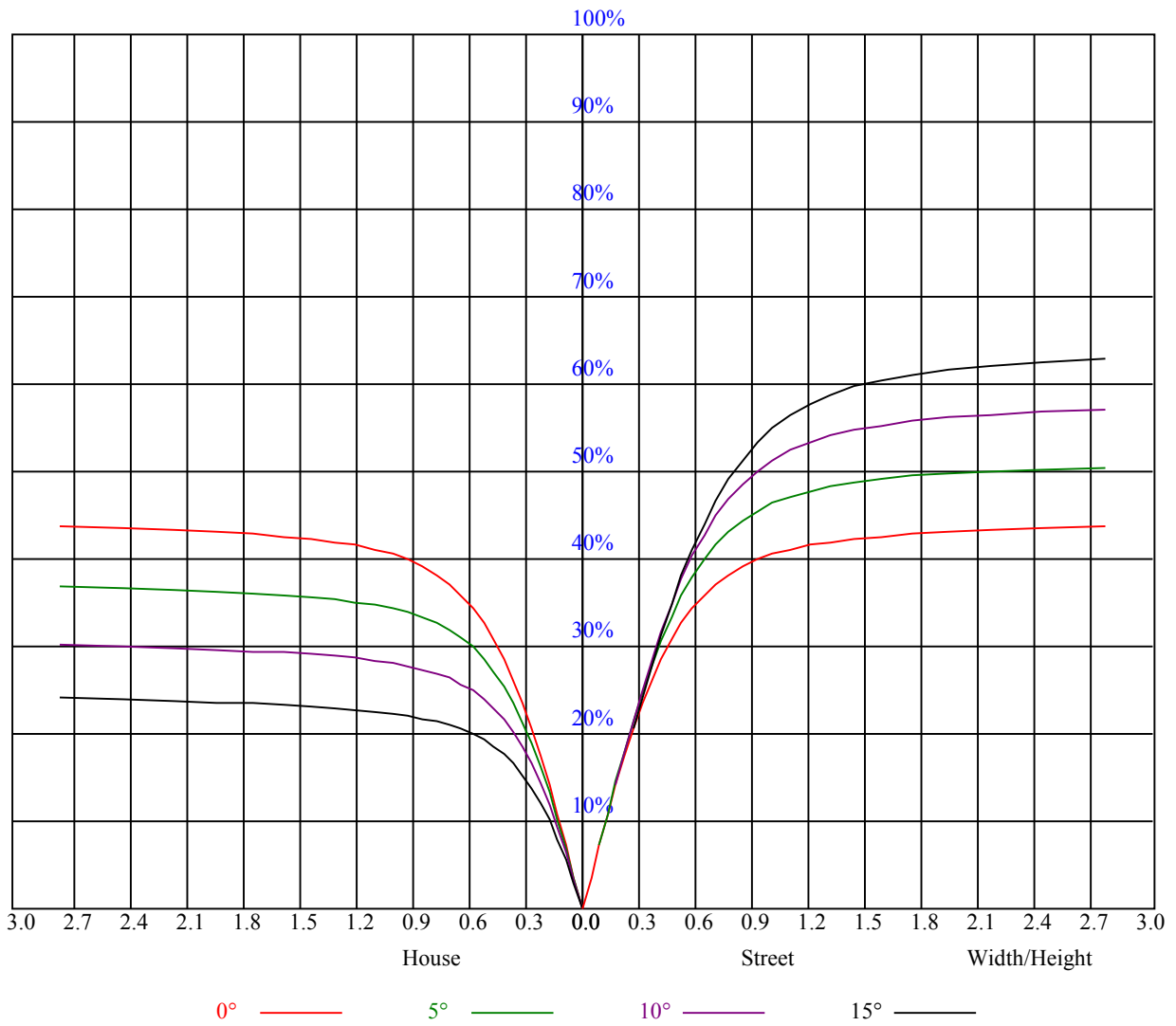
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.07	1.07	1.07	1.05	1.05	1.05	1.00	1.00	1.00	0.96	0.96	0.96	0.92	0.92	0.92	0.90
1	0.97	0.94	0.92	0.95	0.93	0.90	0.92	0.89	0.88	0.88	0.86	0.85	0.85	0.84	0.82	0.81
2	0.89	0.84	0.81	0.87	0.83	0.80	0.84	0.81	0.78	0.81	0.79	0.76	0.79	0.77	0.75	0.73
3	0.82	0.76	0.72	0.80	0.75	0.71	0.78	0.74	0.70	0.76	0.72	0.69	0.73	0.70	0.68	0.66
4	0.75	0.69	0.65	0.74	0.69	0.64	0.72	0.67	0.64	0.70	0.66	0.63	0.68	0.65	0.62	0.61
5	0.70	0.64	0.59	0.69	0.63	0.59	0.67	0.62	0.58	0.66	0.61	0.58	0.64	0.60	0.57	0.56
6	0.65	0.59	0.54	0.64	0.58	0.54	0.63	0.57	0.54	0.61	0.57	0.53	0.60	0.56	0.53	0.51
7	0.61	0.54	0.50	0.60	0.54	0.50	0.59	0.53	0.50	0.57	0.53	0.49	0.56	0.52	0.49	0.48
8	0.57	0.51	0.46	0.56	0.50	0.46	0.55	0.50	0.46	0.54	0.49	0.46	0.53	0.49	0.46	0.44
9	0.53	0.47	0.43	0.53	0.47	0.43	0.52	0.47	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.41
10	0.50	0.44	0.40	0.50	0.44	0.40	0.49	0.44	0.40	0.48	0.43	0.40	0.47	0.43	0.40	0.39



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	82.69	78.36	71.38	62.61	51.81	39.99	29.31	20.64	13.84
45.0	82.29	80.49	75.54	67.61	57.71	45.45	33.92	23.40	16.20
90.0	83.42	83.48	79.65	71.55	61.88	49.33	37.24	26.89	18.68
135.0	83.03	84.88	83.36	78.02	69.58	57.43	44.83	33.24	22.89
180.0	82.69	83.87	82.58	77.29	68.12	55.01	41.51	29.81	20.53
225.0	82.29	80.55	76.22	70.09	60.08	47.53	35.49	25.26	17.16
270.0	83.42	79.03	72.39	63.62	53.33	41.40	30.94	21.66	14.79
315.0	83.03	76.56	69.08	58.61	48.15	36.34	26.21	18.00	12.09
360.0	82.69	78.36	71.38	62.61	51.81	39.99	29.31	20.64	13.84

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	8.94	6.08	3.99	2.87	2.36	2.25	2.25	2.14	1.86
45.0	10.46	6.81	4.56	3.09	2.25	1.91	1.91	1.80	1.63
90.0	12.15	8.10	5.12	3.43	2.36	1.86	1.74	1.63	1.46
135.0	14.91	9.73	6.30	4.11	2.59	1.91	1.69	1.58	1.41
180.0	13.33	8.49	5.63	3.71	2.53	2.03	1.86	1.80	1.58
225.0	11.03	7.26	4.67	3.15	2.25	1.91	1.91	1.91	1.74
270.0	9.56	6.19	4.16	2.93	2.19	2.03	2.08	2.08	1.35
315.0	7.88	5.29	3.66	2.76	2.31	2.31	2.42	2.31	2.08
360.0	8.94	6.08	3.99	2.87	2.36	2.25	2.25	2.14	1.86

C/γ(°)	90.0
0.0	0.28
45.0	0.23
90.0	0.28
135.0	0.28
180.0	0.28
225.0	0.34
270.0	0.34
315.0	0.28
360.0	0.28