



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: CR01D01260AP-N

Luminaire:

Report No: NATA0100

Voltage(V): 3.3000

Test No: GC2018122905

Current(A): 0.2500

LampCAT: CREE XPE2

Power (W): 0.8250

Lamp flux(lm): 68.4

PF: 0.0000

Number of Lamps: 1

Ballast type:

Length(mm): 11

Width(mm): 11

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 62.72

Efficiency(%): 91.71%

Lumens(lm)/Power(W): 76.02

Central intensity(cd): 54.520

Maximum intensity(cd): 54.520

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=60.2

[C90/270]Total=60.2

Field angle(10%Imax): [C0/180]Total=103.6

[C90/270]Total=103.6

Maximum s/h(1/2): C0_180=0.93 C90_270=0.93

Maximum s/h(1/4): C0_180=0.92 C90_270=0.92

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 92.10%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 94.260%

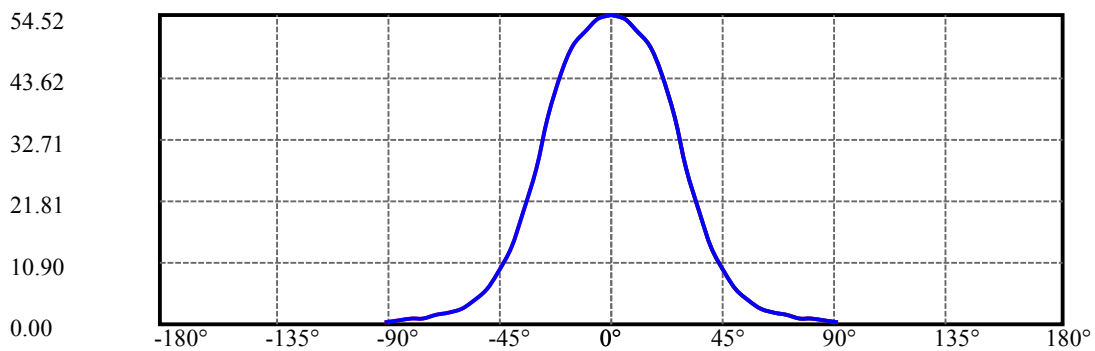
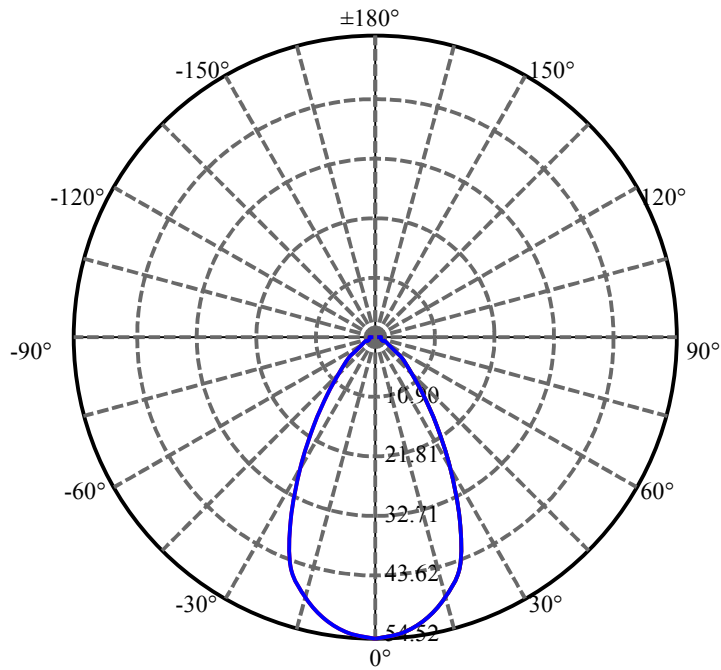
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	54.520	0.326	0.326	.477%	.520%
5.0	53.810	2.571	2.897	3.759%	4.619%
10.0	51.919	4.942	7.839	7.226%	12.498%
15.0	48.973	6.948	14.786	10.159%	23.576%
20.0	44.438	8.331	23.117	12.181%	36.859%
25.0	36.464	8.447	31.564	12.351%	50.327%
30.0	27.429	7.517	39.081	10.992%	62.313%
35.0	19.477	6.123	45.205	8.954%	72.077%
40.0	13.662	4.814	50.018	7.038%	79.751%
45.0	9.120	3.535	53.553	5.168%	85.387%
50.0	6.188	2.598	56.151	3.799%	89.530%
55.0	4.141	1.860	58.011	2.719%	92.495%
60.0	2.862	1.358	59.369	1.986%	94.661%
65.0	2.046	1.016	60.386	1.486%	96.281%
70.0	1.554	0.800	61.186	1.170%	97.558%
75.0	1.167	0.618	61.804	.904%	98.543%
80.0	0.935	0.505	62.309	.738%	99.348%
85.0	0.661	0.361	62.67	.528%	99.923%
90.0	0.176	0.048	62.718	.070%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	39.08	57.15%	62.31%
0-40	50.02	73.14%	79.75%
0-60	59.37	86.81%	94.66%
0-90	62.67	91.64%	99.92%
0-120	62.67	91.64%	99.92%
0-180	62.72	91.71%	100.00%
60-90	4.66	6.81%	7.43%
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%
0-40.22	50.17	73.36%	80.00%

ZONAL LUMEN SUMMARY

0-10	7.84
10-20	15.28
20-30	15.96
30-40	10.94
40-50	6.13
50-60	3.22
60-70	1.82
70-80	1.12
80-90	0.36
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: —————

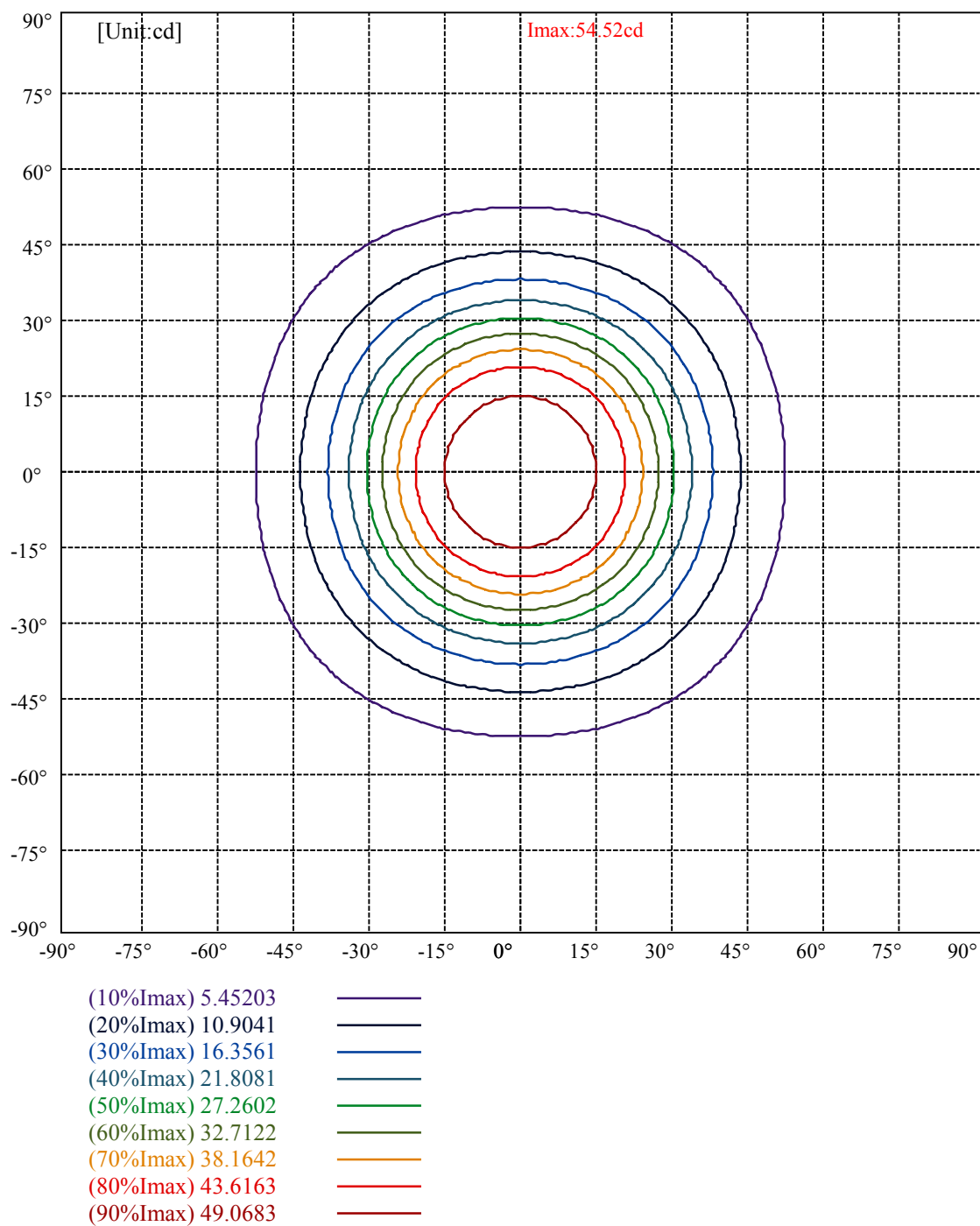
C90/C270: —————

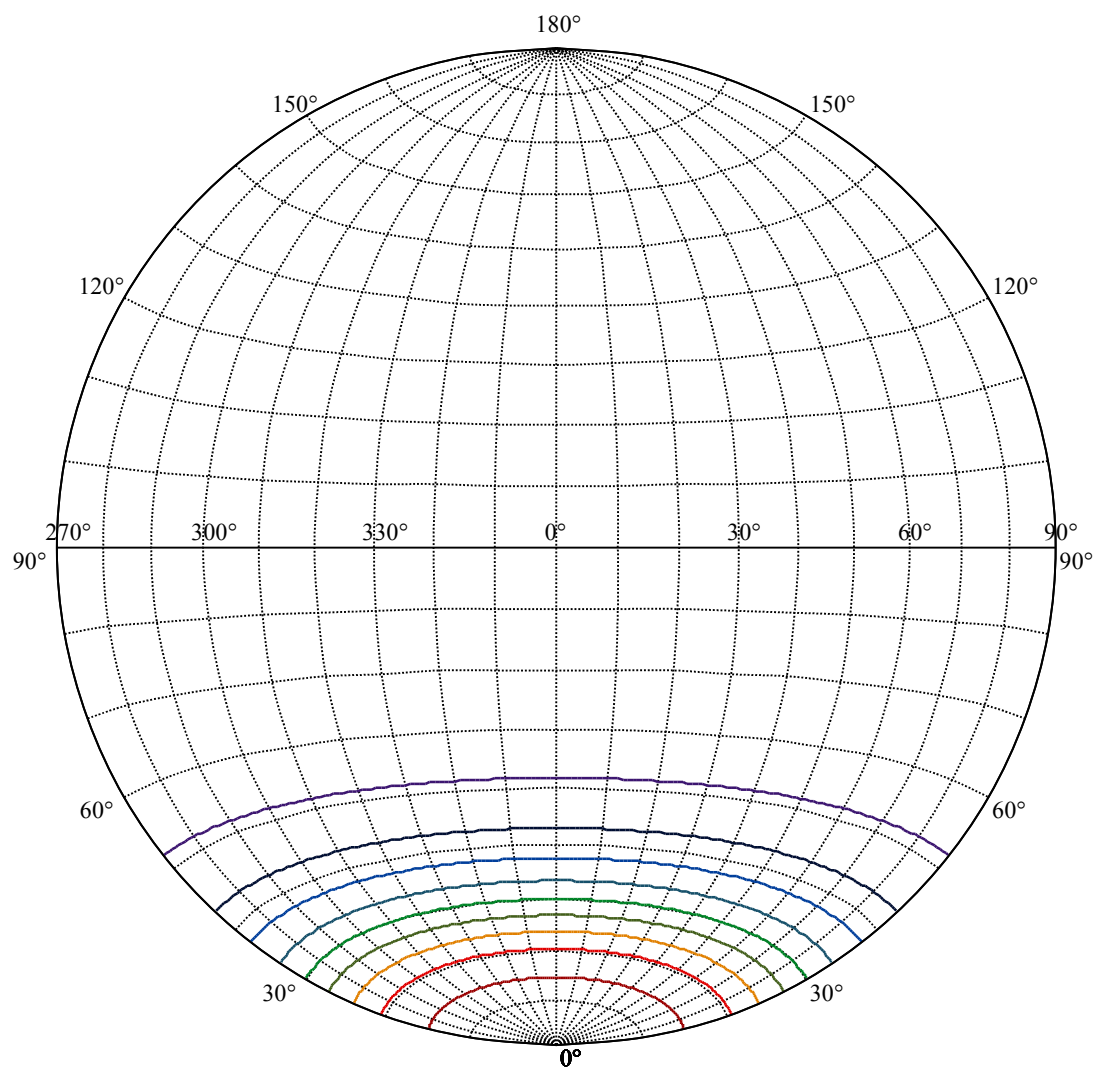
Field angle(10%Imax):C0/180Left:51.8 Right:51.8

:C90/270Left:51.8 Right:51.8

Beam Angle(50%Imax):C0/180Left:30.1 Right:30.1

:C90/270Left:30.1 Right:30.1





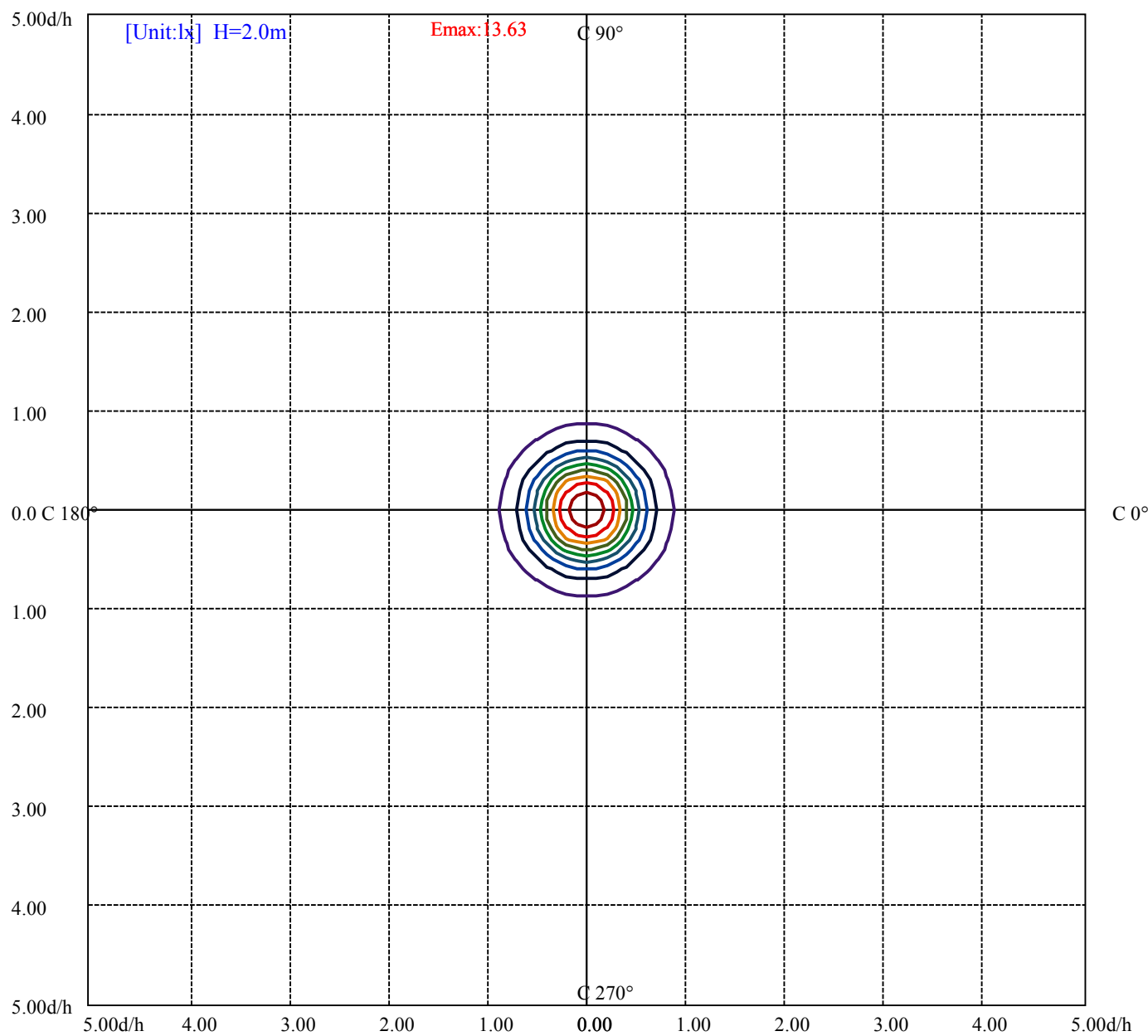
House

[Unit:cd]

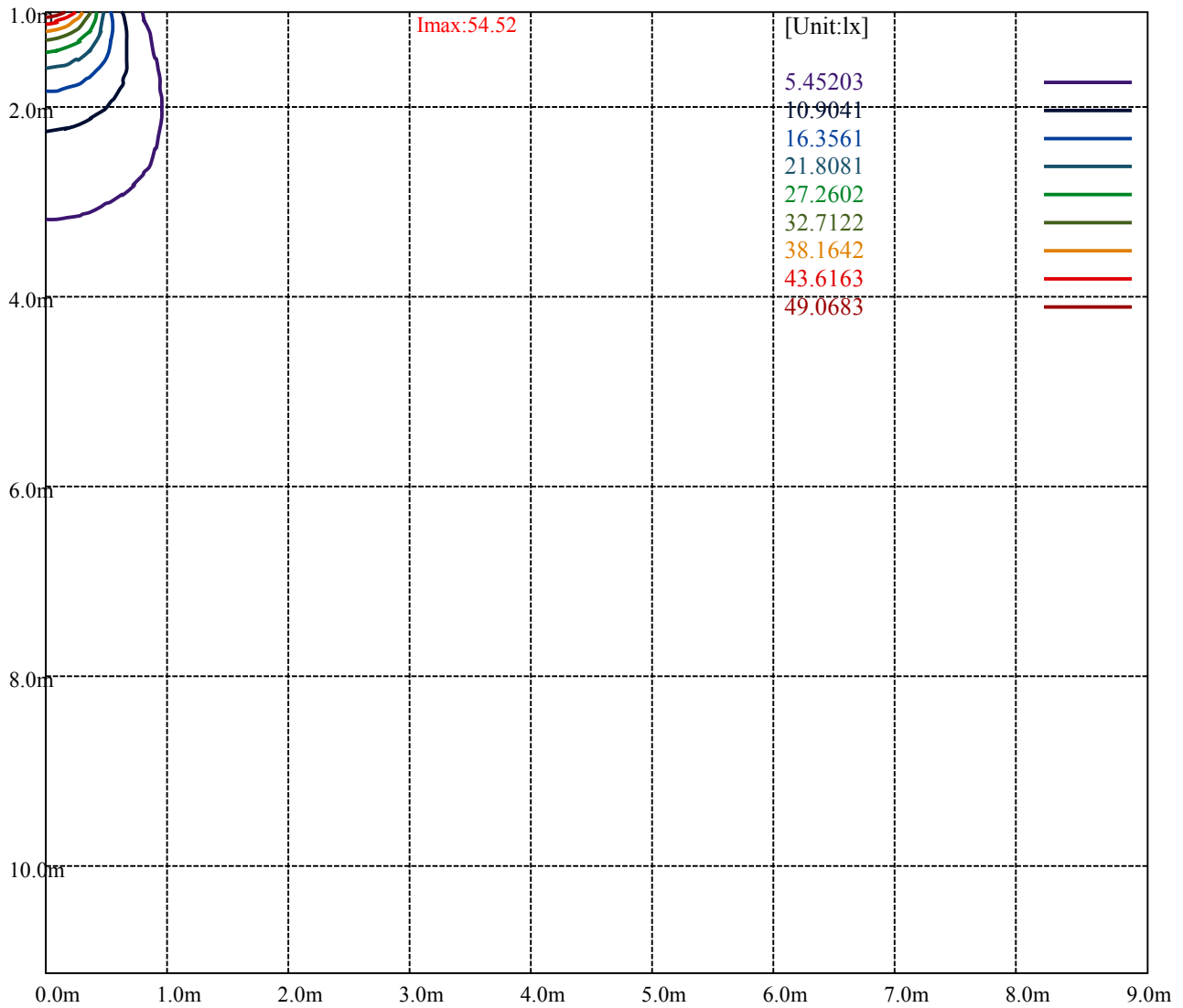
Road

Imax:54.52
(10%Imax) 5.45203
(20%Imax) 10.9041
(30%Imax) 16.3561
(40%Imax) 21.8081
(50%Imax) 27.2602
(60%Imax) 32.7122
(70%Imax) 38.1642
(80%Imax) 43.6163
(90%Imax) 49.0683





(10%E _{max}) 1.363008	—
(20%E _{max}) 2.726025	—
(30%E _{max}) 4.089025	—
(40%E _{max}) 5.452025	—
(50%E _{max}) 6.815025	—
(60%E _{max}) 8.17805	—
(70%E _{max}) 9.54105	—
(80%E _{max}) 10.90405	—
(90%E _{max}) 12.26707	—



Luminance Table

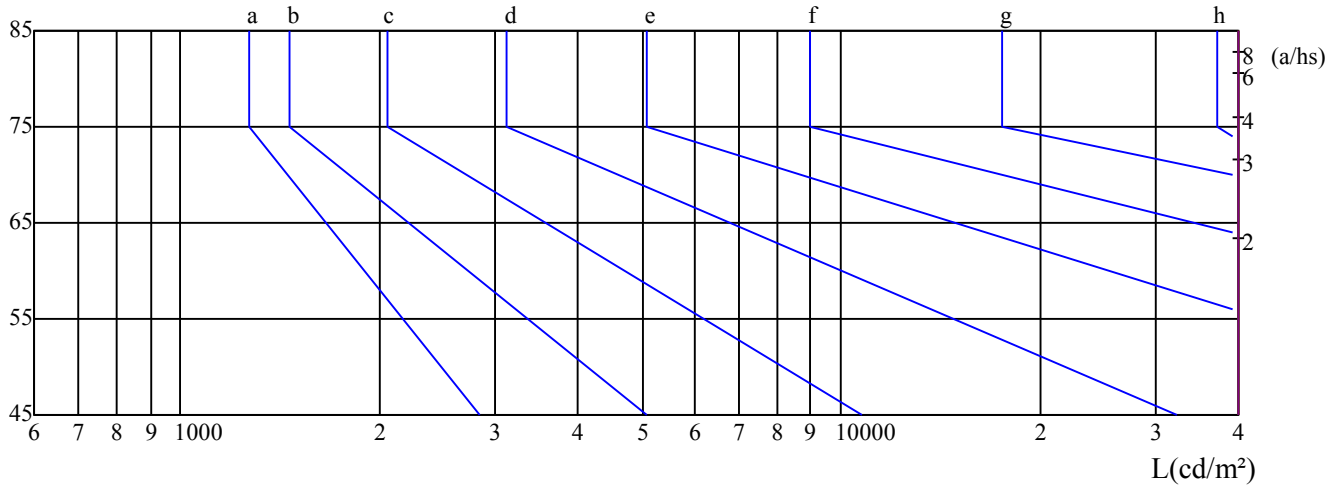
γ	45	50	55	60	65	70	75	80	85
C0	116979	87311	65490	51913	43914	41209	40904	48847	68784
C45	116979	87311	65490	51913	43914	41209	40904	48847	68784
C90	116979	87311	65490	51913	43914	41209	40904	48847	68784

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
43914	43914	43914	40904	40904	40904	68784	68784	68784

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

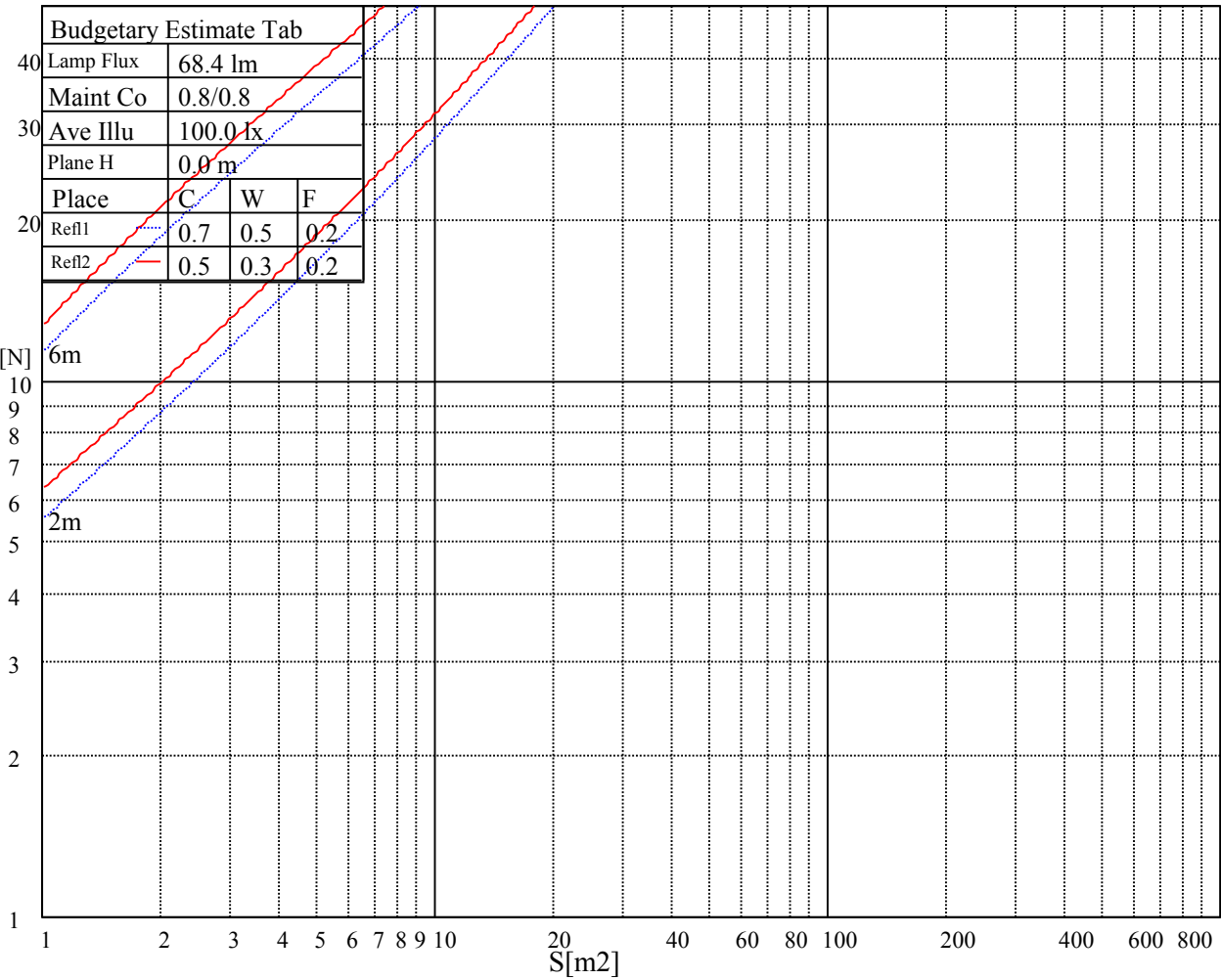
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

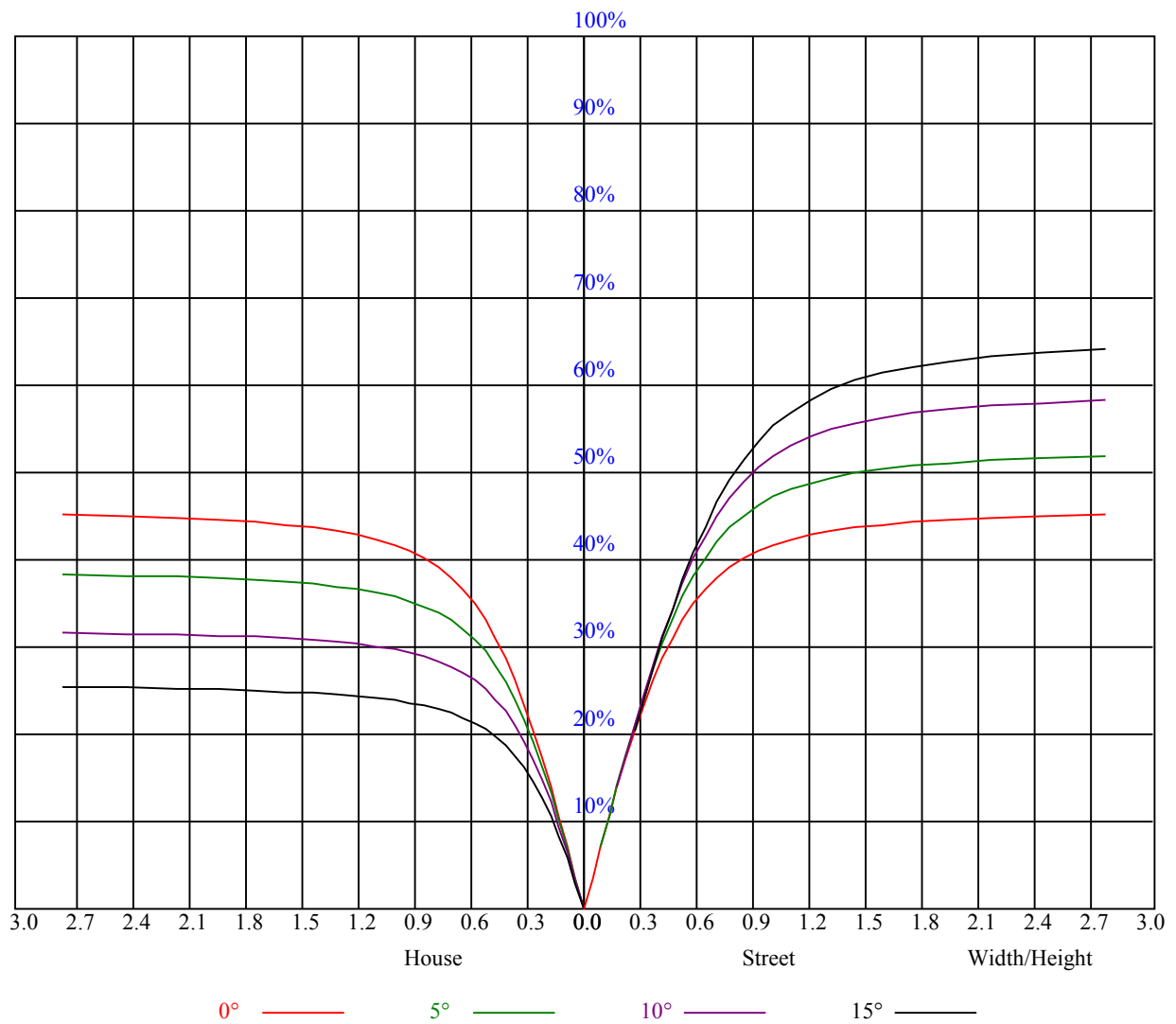
C0 ———

C45 ———

C90 ———



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	1.10	1.10	1.10	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.00	0.97	0.95	0.98	0.95	0.93	0.94	0.92	0.90	0.91	0.89	0.88	0.88	0.86	0.85	0.83
2	0.92	0.87	0.84	0.90	0.86	0.83	0.87	0.84	0.81	0.84	0.82	0.79	0.82	0.80	0.78	0.76
3	0.85	0.79	0.75	0.83	0.79	0.75	0.81	0.77	0.73	0.79	0.75	0.72	0.76	0.74	0.71	0.69
4	0.79	0.73	0.68	0.77	0.72	0.68	0.75	0.71	0.67	0.73	0.69	0.66	0.72	0.68	0.65	0.64
5	0.73	0.67	0.63	0.72	0.67	0.62	0.70	0.66	0.62	0.69	0.65	0.61	0.67	0.64	0.61	0.59
6	0.68	0.62	0.58	0.67	0.62	0.58	0.66	0.61	0.57	0.65	0.60	0.57	0.63	0.59	0.56	0.55
7	0.64	0.58	0.54	0.63	0.58	0.54	0.62	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.51
8	0.60	0.54	0.50	0.60	0.54	0.50	0.59	0.53	0.50	0.58	0.53	0.50	0.57	0.52	0.49	0.48
9	0.57	0.51	0.47	0.56	0.51	0.47	0.55	0.50	0.47	0.54	0.50	0.47	0.54	0.49	0.46	0.45
10	0.54	0.48	0.44	0.53	0.48	0.44	0.52	0.47	0.44	0.52	0.47	0.44	0.51	0.47	0.44	0.42



NATA CR01D012100AP

Intensity data(cd)										Appendix Page: 14 Total:14
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	
0.0	53.66	52.82	51.47	48.88	44.72	36.51	27.06	19.46	13.05	
45.0	54.73	52.54	49.89	46.35	42.02	35.27	26.94	18.84	13.33	
90.0	54.73	51.36	47.76	44.66	41.23	34.82	26.49	18.90	13.22	
135.0	54.96	53.16	50.29	47.76	44.44	37.97	29.53	20.98	15.13	
180.0	53.66	53.61	52.37	50.18	45.84	37.69	28.63	20.70	14.63	
225.0	54.73	55.97	55.46	52.48	46.46	37.01	27.56	19.80	13.95	
270.0	54.73	55.97	54.90	51.81	46.35	37.35	27.73	19.46	13.84	
315.0	54.96	55.07	53.21	49.67	44.44	35.10	25.48	17.66	12.15	
360.0	53.66	52.82	51.47	48.88	44.72	36.51	27.06	19.46	13.05	
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	
0.0	8.66	5.79	3.88	2.76	1.91	1.46	1.13	0.84	0.56	
45.0	8.89	5.96	3.99	2.76	1.97	1.58	1.18	1.07	0.84	
90.0	8.83	6.08	4.05	2.81	2.03	1.58	1.24	0.96	0.73	
135.0	10.24	6.92	4.61	3.15	2.19	1.63	1.24	0.90	0.56	
180.0	9.90	6.64	4.44	3.04	2.19	1.63	1.18	0.90	0.62	
225.0	9.11	6.41	4.22	2.87	2.14	1.58	1.18	1.07	0.79	
270.0	9.34	6.24	4.33	2.98	2.14	1.58	1.18	0.96	0.68	
315.0	7.99	5.46	3.60	2.53	1.80	1.41	1.01	0.79	0.51	
360.0	8.66	5.79	3.88	2.76	1.91	1.46	1.13	0.84	0.56	
C/γ(°)	90.0									
0.0	0.17									
45.0	0.17									
90.0	0.17									
135.0	0.17									
180.0	0.17									
225.0	0.23									
270.0	0.17									
315.0	0.17									
360.0	0.17									