



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: 1-0927-M	
Luminaire:92.70.124.00	
Report No: NATA0100	Voltage(V): 34.1100
Test No: GC2019091104	Current(A): 0.2470
LampCAT: CITIZEN CLU 028	Power (W): 8.4100
Lamp flux(lm): 1237.0	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): 936.87
Efficiency(%): 75.74%
Lumens(lm)/Power(W): 111.40
Central intensity(cd): 4623.891
Maximum intensity(cd): 4623.891
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=25.1
 [C90/270]Total=25.1
Field angle(10%Imax): [C0/180]Total=43.0
 [C90/270]Total=43.0
Maximum s/h(1/2): C0_180=0.43 C90_270=0.43
Maximum s/h(1/4): C0_180=0.42 C90_270=0.42
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 75.74%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.574%

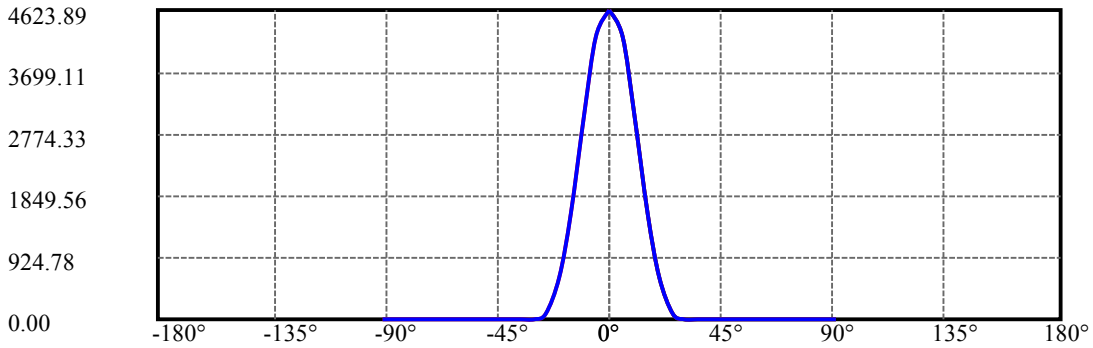
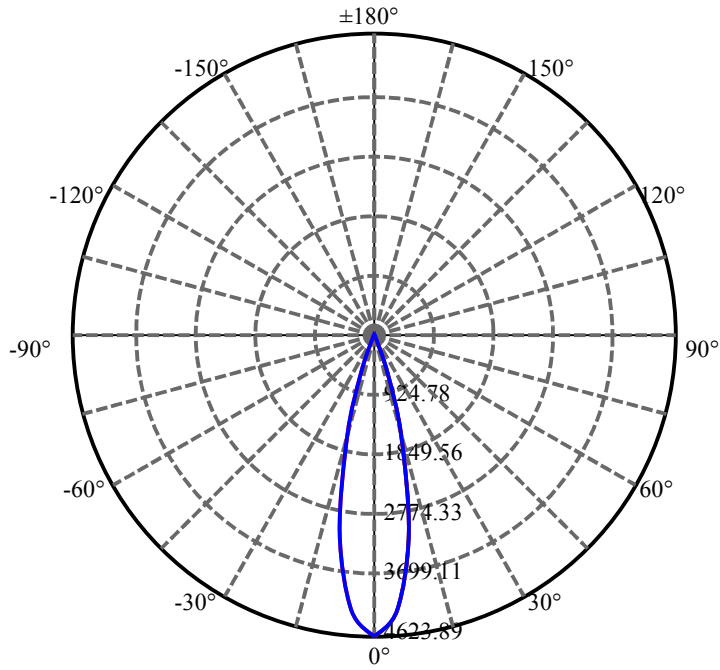
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4623.891	0.000	0	.000%	.000%
5.0	4223.742	105.771	105.771	8.551%	11.290%
10.0	3072.797	261.020	366.791	21.101%	39.151%
15.0	1591.636	276.691	643.482	22.368%	68.684%
20.0	624.319	182.626	826.108	14.764%	88.177%
25.0	79.453	73.813	899.921	5.967%	96.056%
30.0	9.239	11.224	911.145	.907%	97.254%
35.0	6.602	2.333	913.477	.189%	97.503%
40.0	5.548	2.027	915.505	.164%	97.719%
45.0	5.020	1.957	917.461	.158%	97.928%
50.0	4.725	1.969	919.43	.159%	98.138%
55.0	4.542	2.015	921.445	.163%	98.353%
60.0	4.416	2.071	923.516	.167%	98.574%
65.0	4.338	2.128	925.644	.172%	98.802%
70.0	4.268	2.179	927.823	.176%	99.034%
75.0	4.233	2.222	930.045	.180%	99.271%
80.0	4.205	2.258	932.303	.183%	99.512%
85.0	4.184	2.279	934.582	.184%	99.756%
90.0	4.177	2.289	936.871	.185%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	911.14	73.66%	97.25%
0-40	915.50	74.01%	97.72%
0-60	923.52	74.66%	98.57%
0-90	934.58	75.55%	99.76%
0-120	934.58	75.55%	99.76%
0-180	936.87	75.74%	100.00%
60-90	13.14	1.06%	1.40%
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%
0-17.90	749.50	60.59%	80.00%

ZONAL LUMEN SUMMARY

0-10	366.79
10-20	459.32
20-30	85.04
30-40	4.36
40-50	3.93
50-60	4.09
60-70	4.31
70-80	4.48
80-90	2.28
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: ———

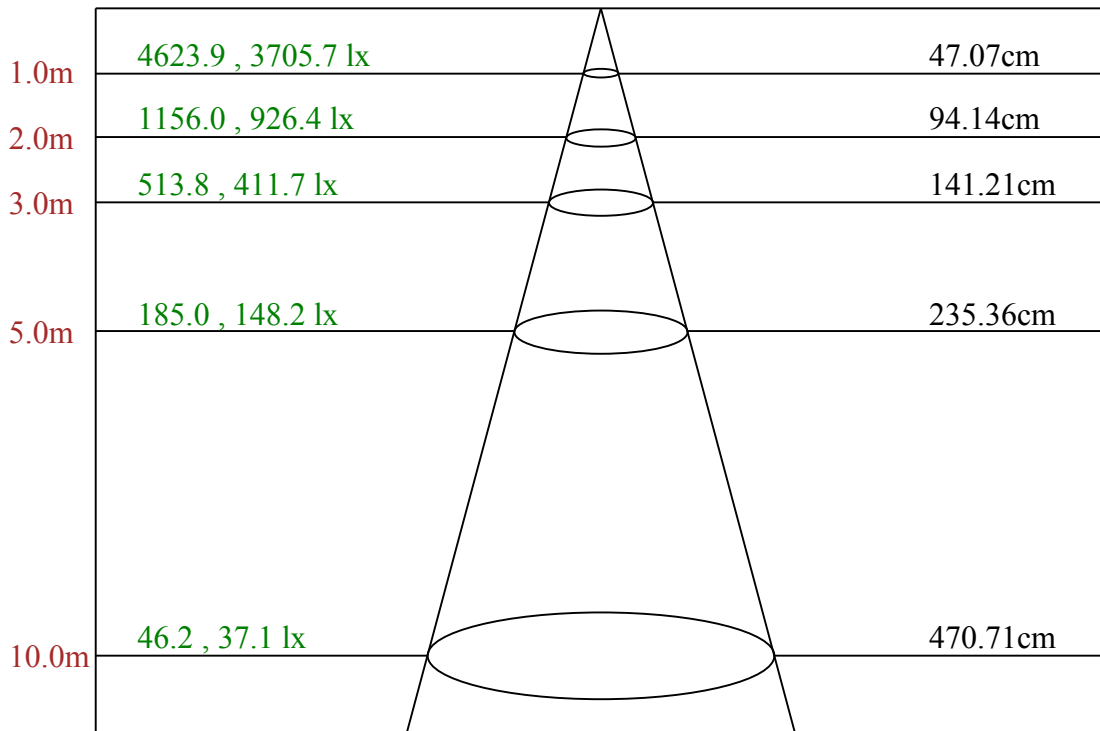
C90/C270: ———

Field angle(10%Imax):C0/180Left:21.5 Right:21.5

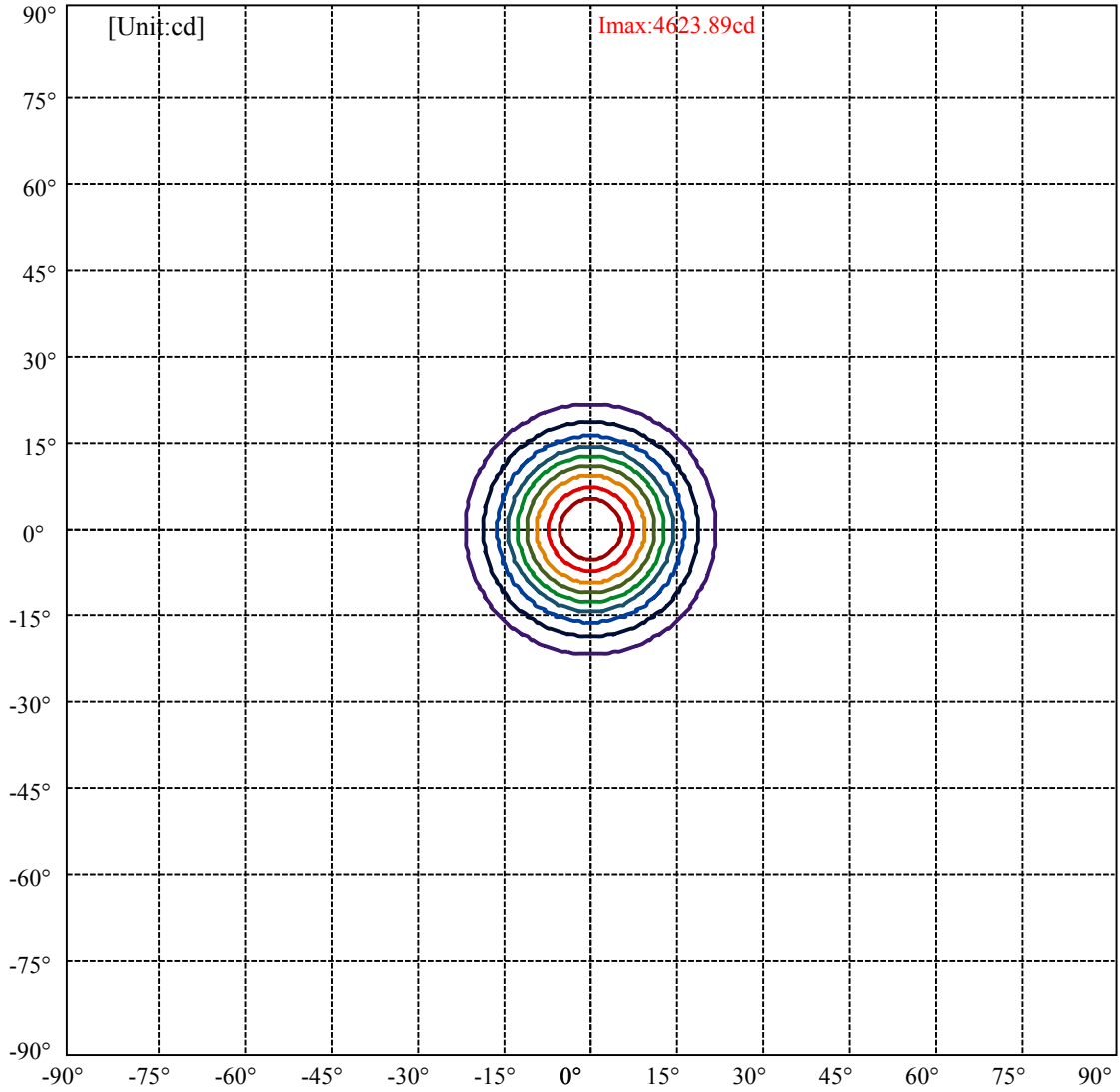
:C90/270Left:21.5 Right:21.5

Beam Angle(50%Imax):C0/180Left:12.6 Right:12.6

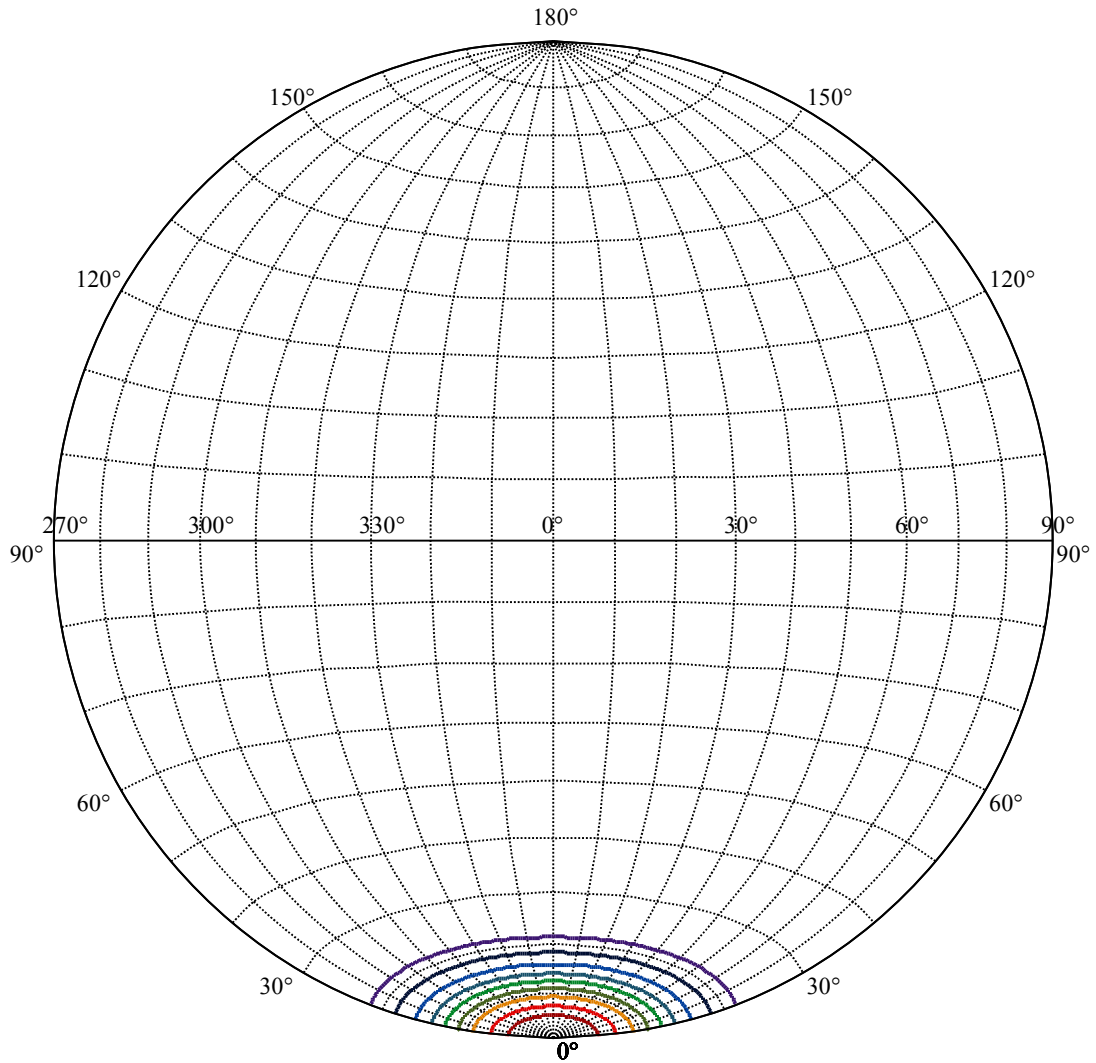
:C90/270Left:12.6 Right:12.6



Max , Ave Beam angle of C0 plane 26.49



(10%Imax) 462.389	—
(20%Imax) 924.778	—
(30%Imax) 1387.17	—
(40%Imax) 1849.56	—
(50%Imax) 2311.95	—
(60%Imax) 2774.33	—
(70%Imax) 3236.72	—
(80%Imax) 3699.11	—
(90%Imax) 4161.5	—



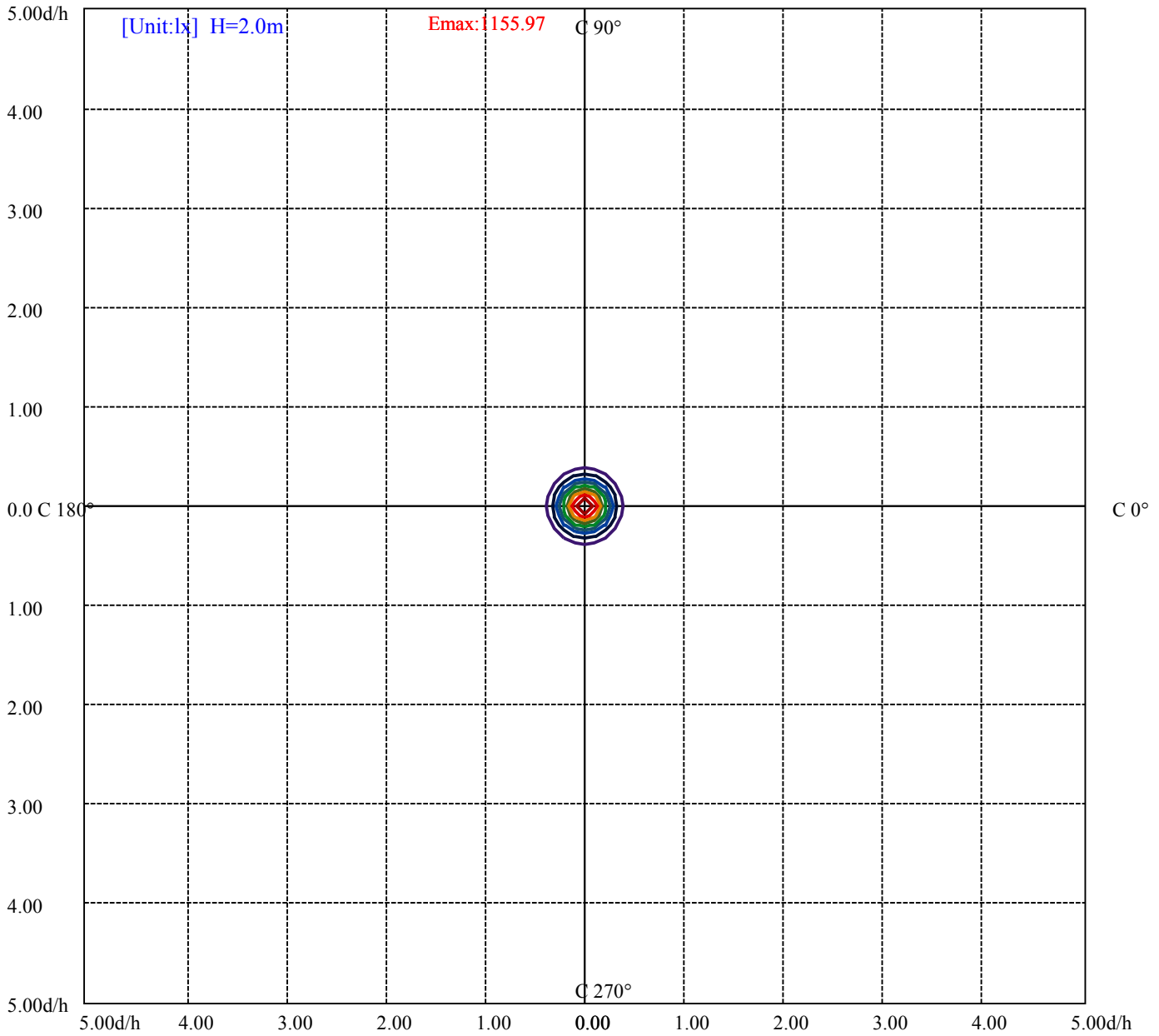
House

[Unit:cd]

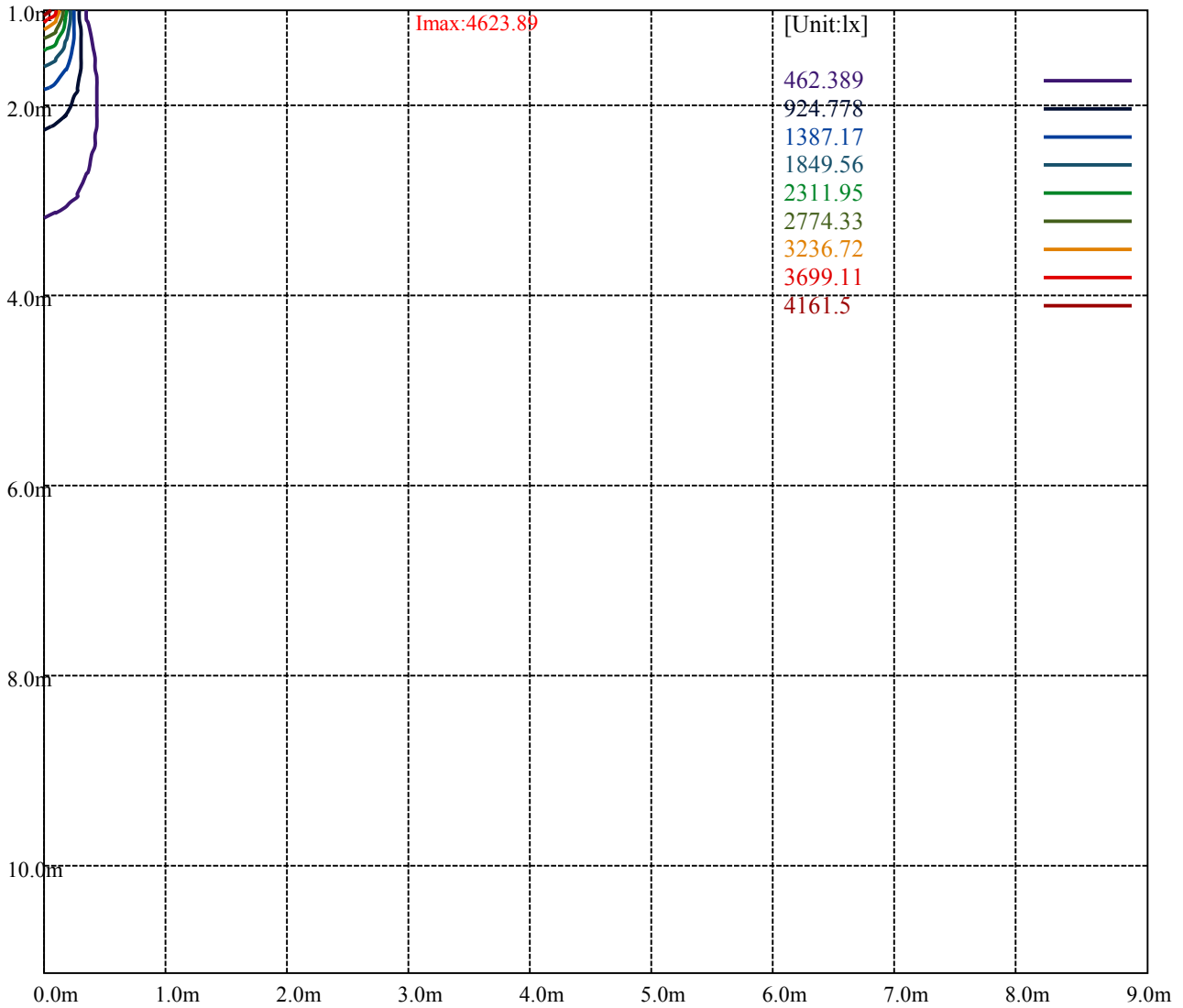
Road

Imax:4623.89

(10%Imax)	462.389	—
(20%Imax)	924.778	—
(30%Imax)	1387.17	—
(40%Imax)	1849.56	—
(50%Imax)	2311.95	—
(60%Imax)	2774.33	—
(70%Imax)	3236.72	—
(80%Imax)	3699.11	—
(90%Imax)	4161.5	—



- (10%Emax) 115.597
- (20%Emax) 231.194
- (30%Emax) 346.79
- (40%Emax) 462.3875
- (50%Emax) 577.985
- (60%Emax) 693.5825
- (70%Emax) 809.1775
- (80%Emax) 924.775
- (90%Emax) 1040.373



Luminance Table

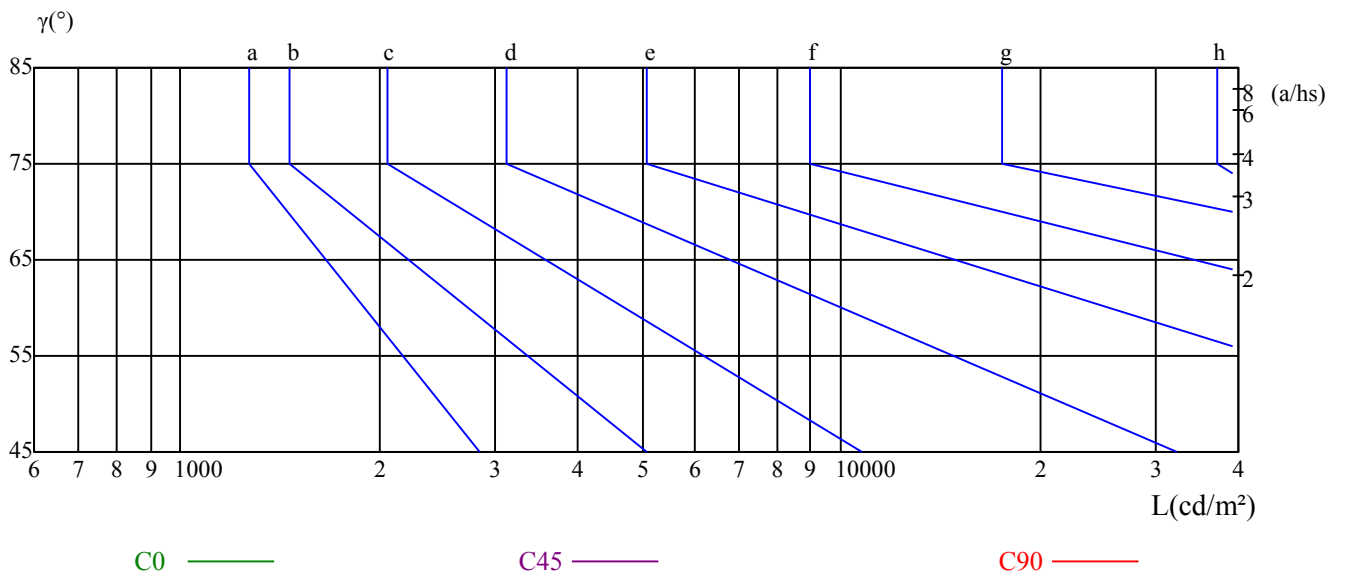
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

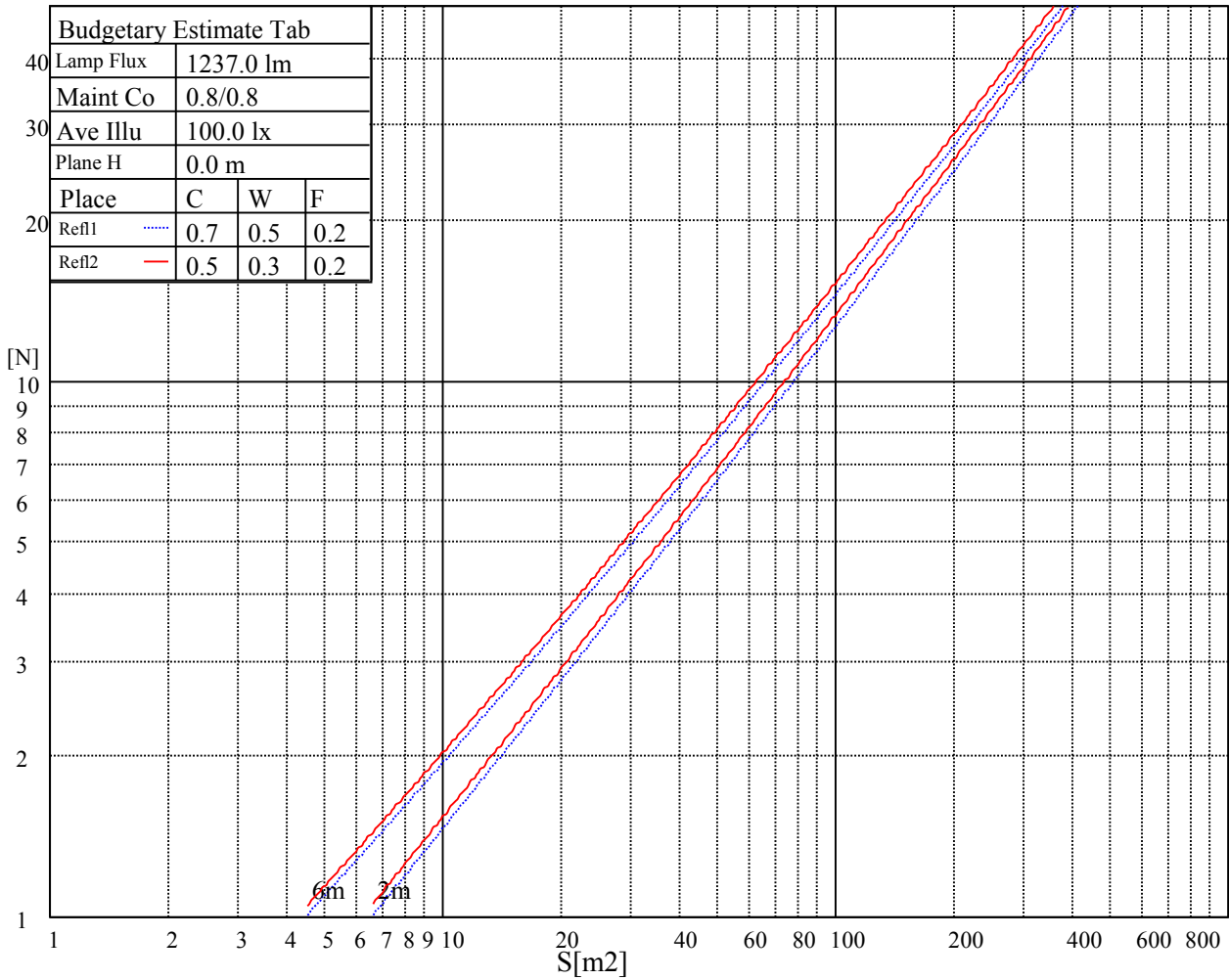
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

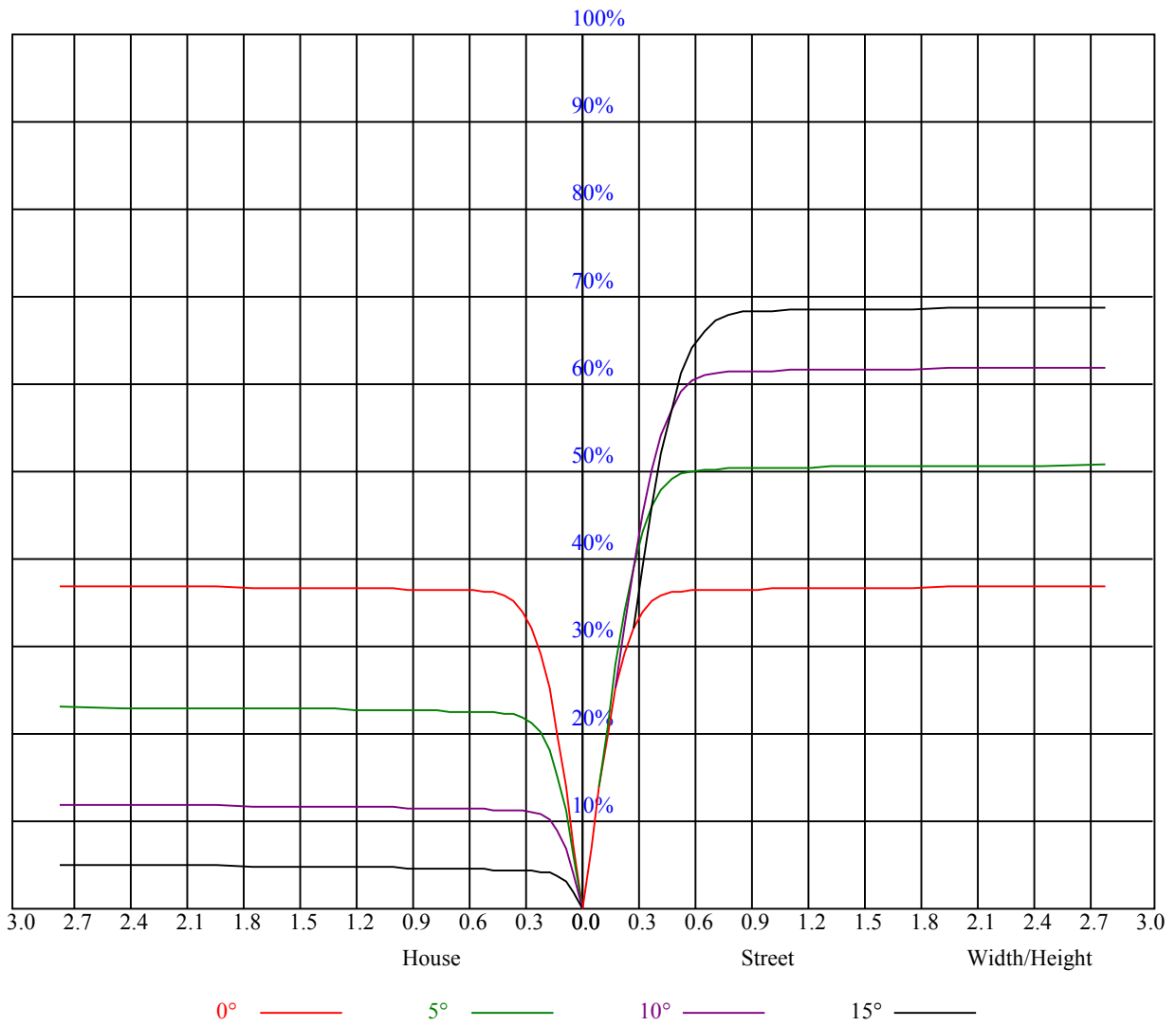
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.90	0.90	0.90	0.88	0.88	0.88	0.84	0.84	0.84	0.81	0.81	0.81	0.77	0.77	0.77	0.76
1	0.85	0.84	0.83	0.84	0.83	0.81	0.81	0.80	0.79	0.78	0.77	0.77	0.75	0.75	0.74	0.73
2	0.82	0.79	0.77	0.80	0.78	0.77	0.78	0.76	0.75	0.76	0.75	0.73	0.74	0.73	0.72	0.71
3	0.78	0.76	0.74	0.77	0.75	0.73	0.76	0.74	0.72	0.74	0.72	0.71	0.72	0.71	0.70	0.69
4	0.76	0.73	0.71	0.75	0.72	0.70	0.73	0.71	0.69	0.72	0.70	0.69	0.71	0.69	0.68	0.67
5	0.73	0.70	0.68	0.73	0.70	0.68	0.71	0.69	0.67	0.70	0.68	0.67	0.69	0.67	0.66	0.65
6	0.71	0.68	0.66	0.70	0.68	0.66	0.69	0.67	0.65	0.69	0.66	0.65	0.68	0.66	0.64	0.64
7	0.69	0.66	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.67	0.65	0.63	0.66	0.64	0.63	0.62
8	0.67	0.64	0.62	0.67	0.64	0.62	0.66	0.64	0.62	0.65	0.63	0.62	0.65	0.63	0.61	0.61
9	0.65	0.63	0.61	0.65	0.62	0.61	0.65	0.62	0.60	0.64	0.62	0.60	0.63	0.61	0.60	0.59
10	0.64	0.61	0.59	0.64	0.61	0.59	0.63	0.61	0.59	0.63	0.60	0.59	0.62	0.60	0.59	0.58



Nata 1-0927-M

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	4636.13	4111.31	3073.50	1551.94	538.31	26.55	9.06	6.47	5.46
45.0	4640.63	4134.38	2865.94	1488.94	501.19	19.97	8.55	6.36	5.40
90.0	4602.38	4024.69	2701.13	1116.62	423.06	16.43	8.16	6.19	5.40
135.0	4616.44	4330.69	3195.00	1860.75	701.44	74.98	9.51	6.64	5.57
180.0	4636.13	4310.44	3202.88	1734.75	667.24	68.29	9.00	6.47	5.51
225.0	4640.63	4354.88	3300.19	1808.44	779.06	85.11	9.96	6.98	5.68
270.0	4602.38	4411.69	3406.50	2087.44	849.94	316.13	10.86	7.20	5.85
315.0	4616.44	4111.88	2837.25	1084.22	534.32	28.18	8.83	6.53	5.51
360.0	4636.13	4111.31	3073.50	1551.94	538.31	26.55	9.06	6.47	5.46

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	4.95	4.67	4.50	4.39	4.33	4.22	4.22	4.16	4.16
45.0	4.95	4.67	4.50	4.39	4.28	4.22	4.22	4.22	4.16
90.0	4.95	4.73	4.56	4.44	4.39	4.33	4.28	4.28	4.22
135.0	5.06	4.78	4.61	4.50	4.39	4.33	4.28	4.22	4.22
180.0	5.01	4.67	4.50	4.39	4.33	4.22	4.16	4.16	4.16
225.0	5.06	4.73	4.50	4.39	4.28	4.22	4.22	4.16	4.16
270.0	5.18	4.84	4.61	4.44	4.39	4.33	4.28	4.22	4.22
315.0	5.01	4.73	4.56	4.39	4.33	4.28	4.22	4.22	4.16
360.0	4.95	4.67	4.50	4.39	4.33	4.22	4.22	4.16	4.16

C/γ(°)	90.0
0.0	4.16
45.0	4.16
90.0	4.16
135.0	4.22
180.0	4.16
225.0	4.11
270.0	4.22
315.0	4.22
360.0	4.16