
Nata

LumCAT: 3-1700-N
Luminaire: 92.70.065.00+92.70.089.00
Report No: NT2018041603
Test No: nata-0100
LampCAT: CITIZEN CLU038
Lamp flux(lm): 2449.1
Number of Lamps: 1
Length(mm): 77
Phm Type: C

Voltage(V): 36.6000
Current(A): 0.6000
Power (W): 21.9600
PF: 0.0000
Ballast type: DC
Width(mm): 77
Height(mm): 0

Photometric Results

Lumens(lm): 1921.46
Efficiency(%): 78.46%
Lumens(lm)/Power(W): 87.50
Central intensity(cd): 4051.462
Maximum intensity(cd): 4051.462
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=37.2
 [C90/270]Total=37.2
Field angle(10%Imax): [C0/180]Total=66.1
 [C90/270]Total=66.1
Maximum s/h(1/2): C0_180=0.61 C90_270=0.61
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(%): 79.37%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.008%

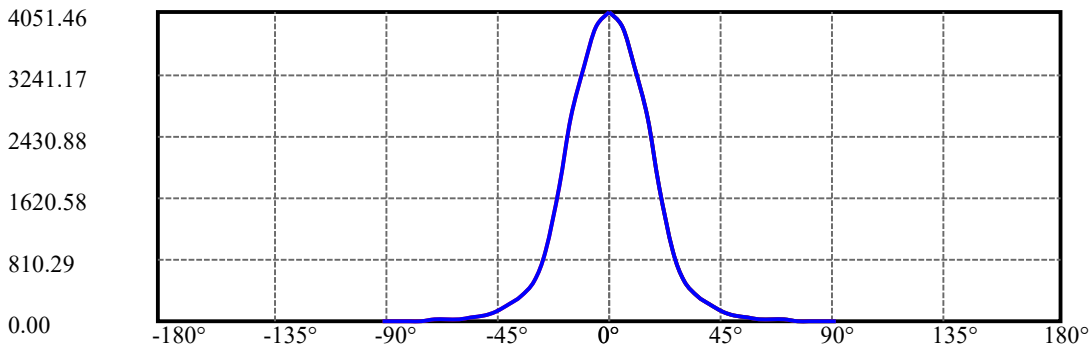
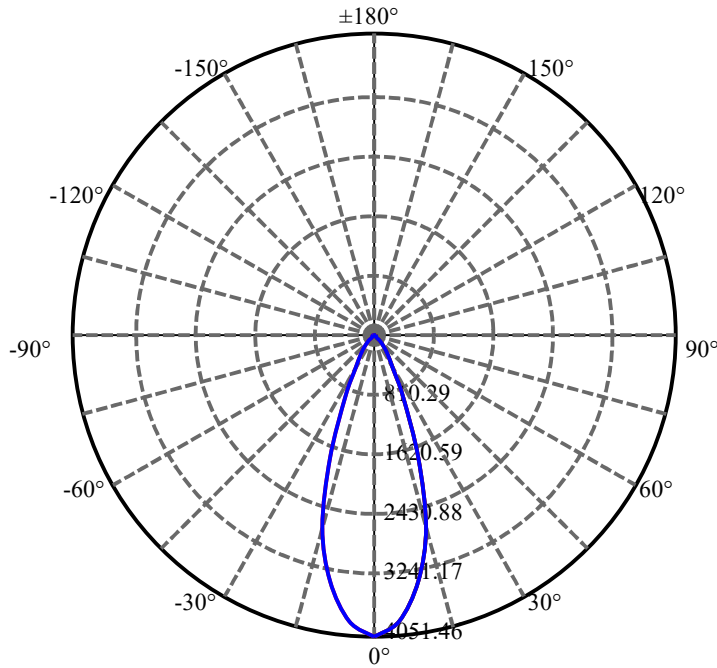
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4051.463	24.229	24.229	.989%	1.261%
5.0	3849.956	183.925	208.154	7.510%	10.833%
10.0	3348.393	318.710	526.864	13.013%	27.420%
15.0	2675.466	379.564	906.428	15.498%	47.174%
20.0	1770.614	331.944	1238.372	13.554%	64.450%
25.0	921.362	213.436	1451.808	8.715%	75.558%
30.0	527.248	144.502	1596.31	5.900%	83.078%
35.0	327.888	103.088	1699.398	4.209%	88.443%
40.0	214.761	75.668	1775.066	3.090%	92.381%
45.0	126.224	48.923	1823.989	1.998%	94.927%
50.0	74.794	31.406	1855.395	1.282%	96.562%
55.0	41.994	18.856	1874.251	.770%	97.543%
60.0	24.108	11.444	1885.695	.467%	98.139%
65.0	17.639	8.763	1894.458	.358%	98.595%
70.0	14.741	7.593	1902.051	.310%	98.990%
75.0	12.525	6.632	1908.682	.271%	99.335%
80.0	10.708	5.781	1914.463	.236%	99.636%
85.0	8.933	4.878	1919.341	.199%	99.890%
90.0	7.735	2.120	1921.461	.087%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1596.31	65.18%	83.08%
0-40	1775.07	72.48%	92.38%
0-60	1885.70	77.00%	98.14%
0-90	1919.34	78.37%	99.89%
0-120	1919.34	78.37%	99.89%
0-180	1921.46	78.46%	100.00%
60-90	45.09	1.84%	2.35%
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%
0-27.95	1537.17	62.76%	80.00%

ZONAL LUMEN SUMMARY

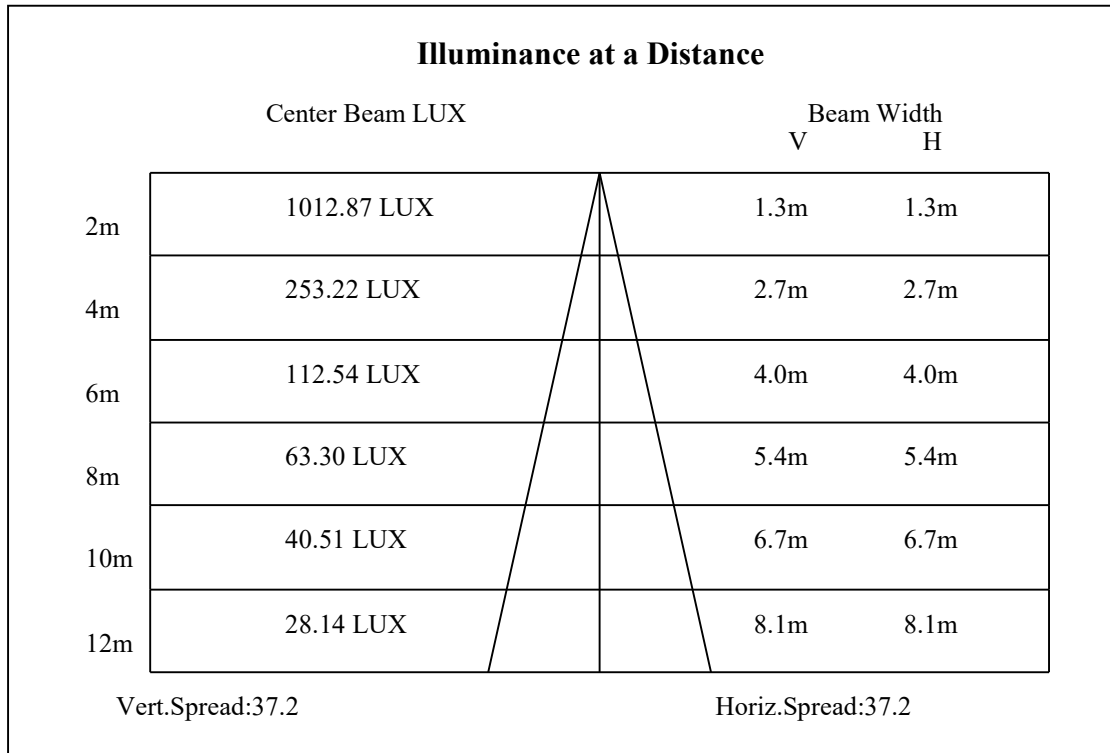
0-10	526.86
10-20	711.51
20-30	357.94
30-40	178.76
40-50	80.33
50-60	30.30
60-70	16.36
70-80	12.41
80-90	4.88
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

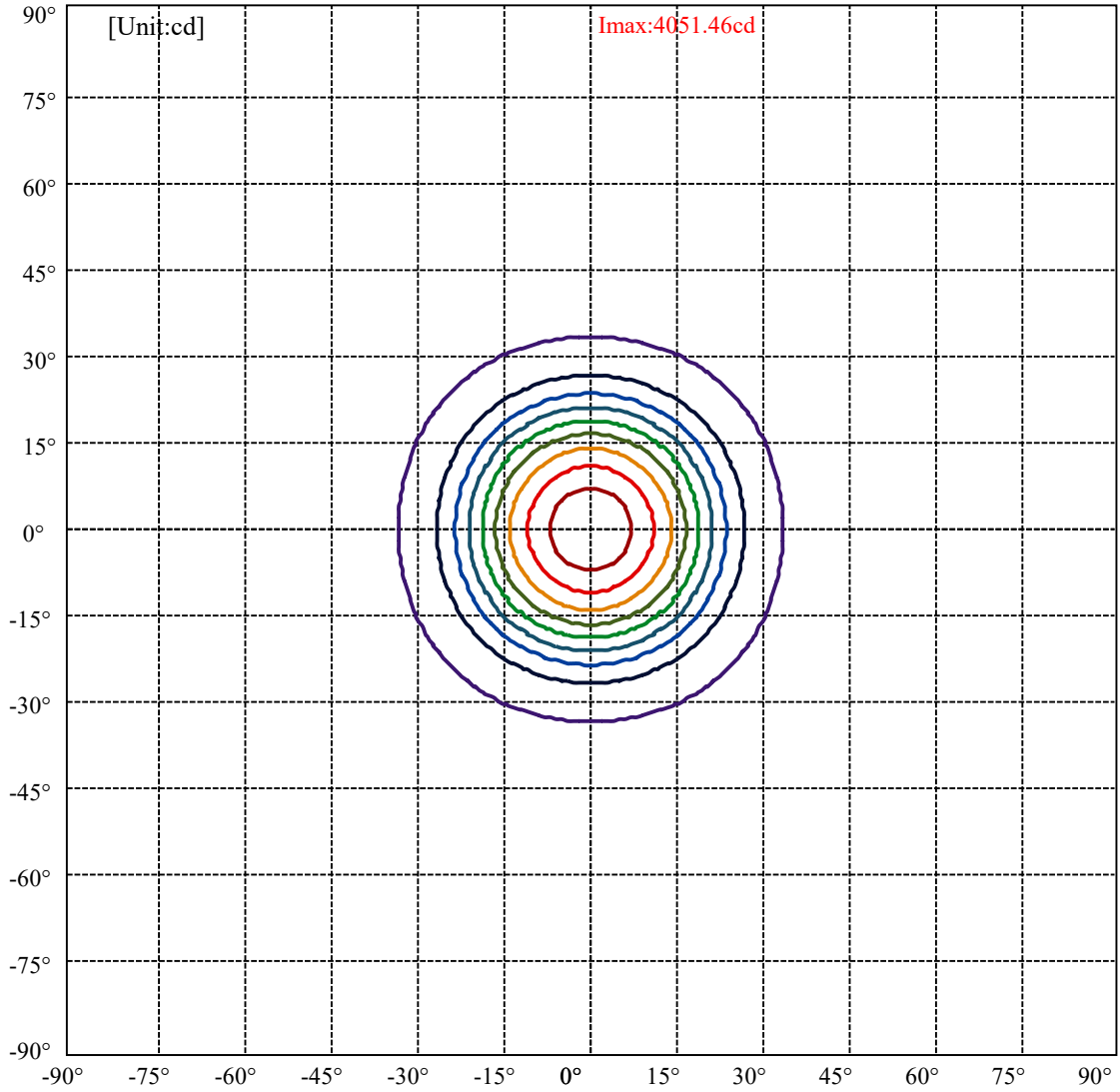


C0(Max): ———
C0/C180: ———
C90/C270: ———

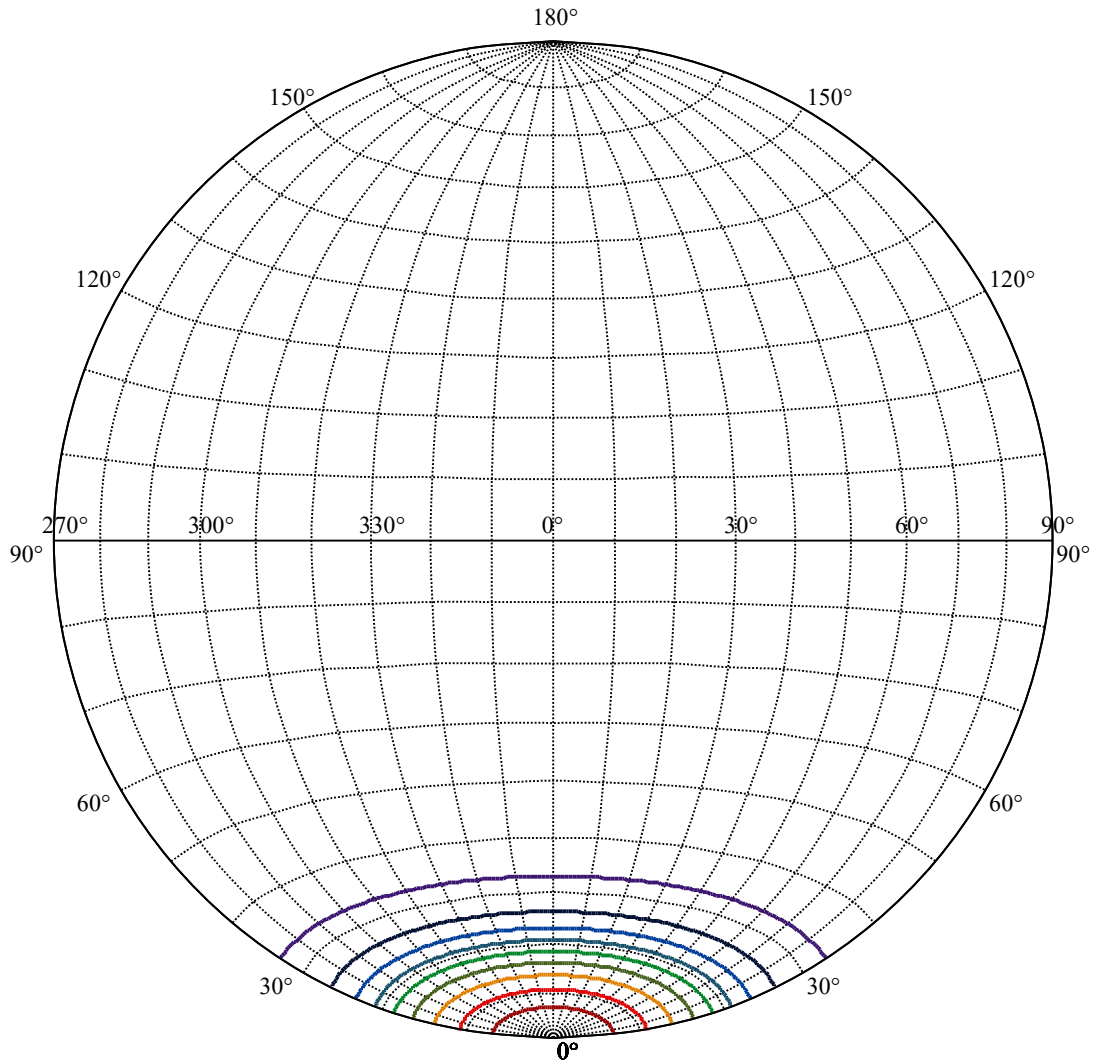
Field angle(10%Imax):C0/180Left:33.1 Right:33.1
:C90/270Left:33.1 Right:33.1

Beam Angle(50%Imax):C0/180Left:18.6 Right:18.6
:C90/270Left:18.6 Right:18.6





(10%Imax) 405.146	—
(20%Imax) 810.292	—
(30%Imax) 1215.44	—
(40%Imax) 1620.58	—
(50%Imax) 2025.73	—
(60%Imax) 2430.88	—
(70%Imax) 2836.02	—
(80%Imax) 3241.17	—
(90%Imax) 3646.32	—



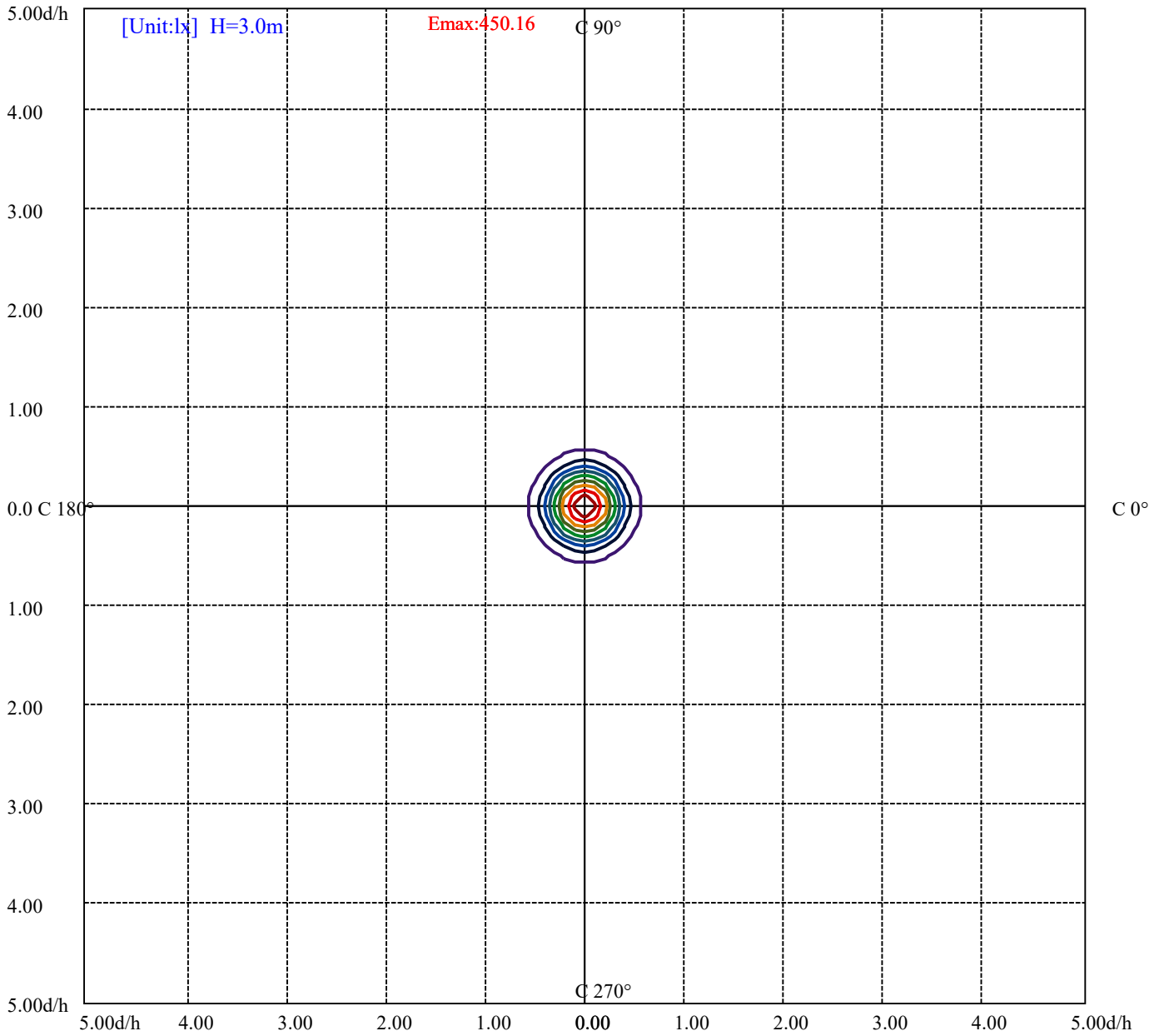
House

[Unit:cd]

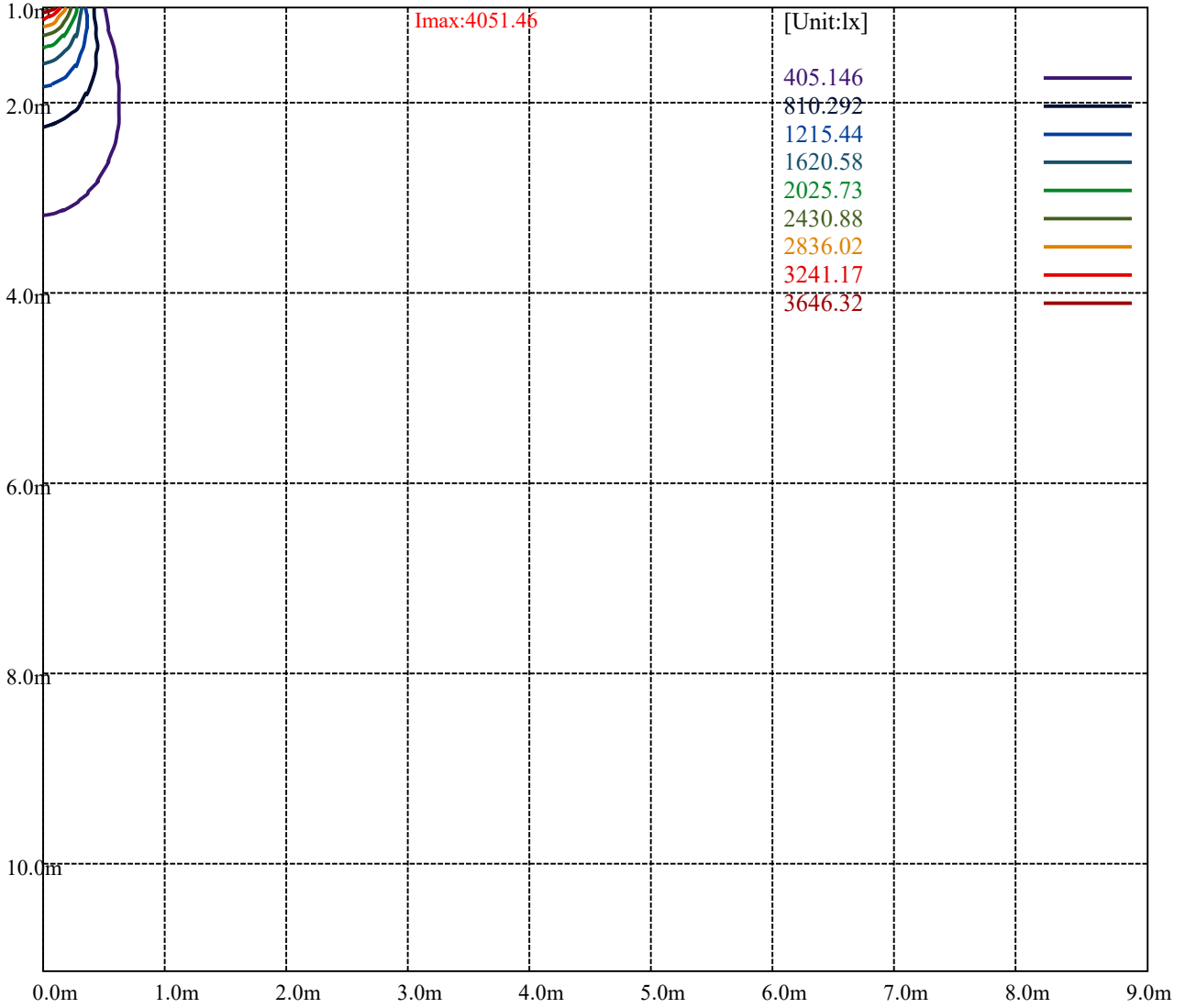
Road

Imax:4051.46

(10%Imax) 405.146	—
(20%Imax) 810.292	—
(30%Imax) 1215.44	—
(40%Imax) 1620.58	—
(50%Imax) 2025.73	—
(60%Imax) 2430.88	—
(70%Imax) 2836.02	—
(80%Imax) 3241.17	—
(90%Imax) 3646.32	—



- (10%Emax) 45.01622
- (20%Emax) 90.03233
- (30%Emax) 135.0489
- (40%Emax) 180.0644
- (50%Emax) 225.0811
- (60%Emax) 270.0967
- (70%Emax) 315.1133
- (80%Emax) 360.13
- (90%Emax) 405.1456



Luminance Table

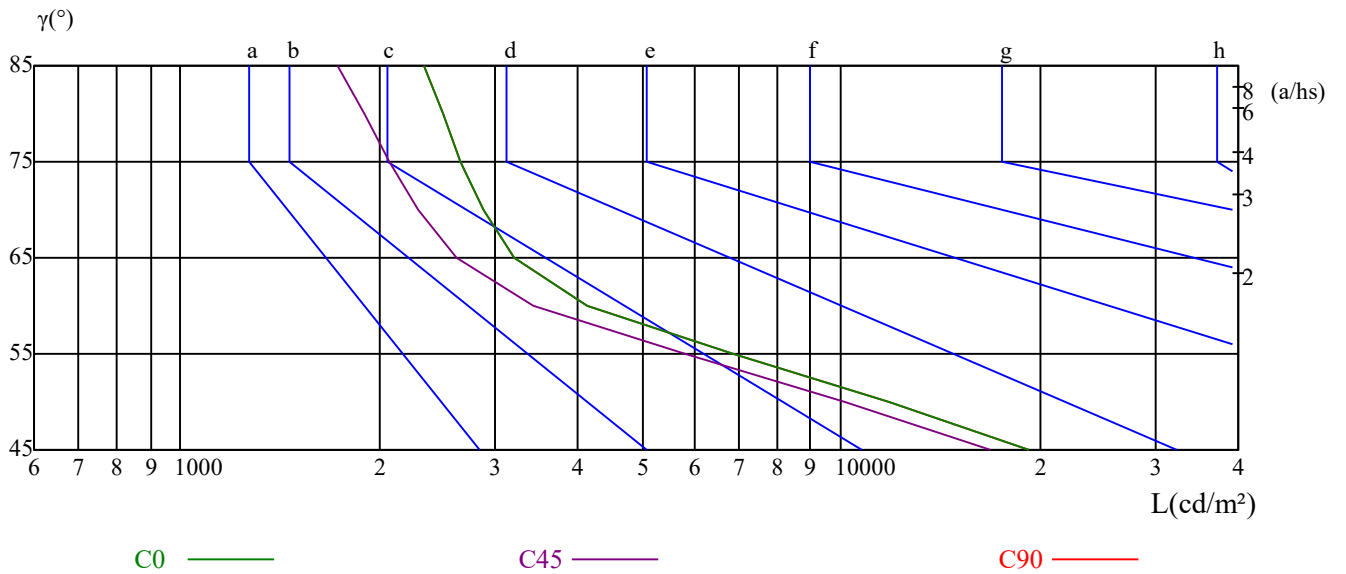
γ	45	50	55	60	65	70	75	80	85
C0	19319	11783	6870	4134	3203	2868	2647	2496	2341
C45	16822	10110	5803	3434	2613	2293	2068	1898	1724
C90	19319	11783	6870	4134	3203	2868	2647	2496	2341

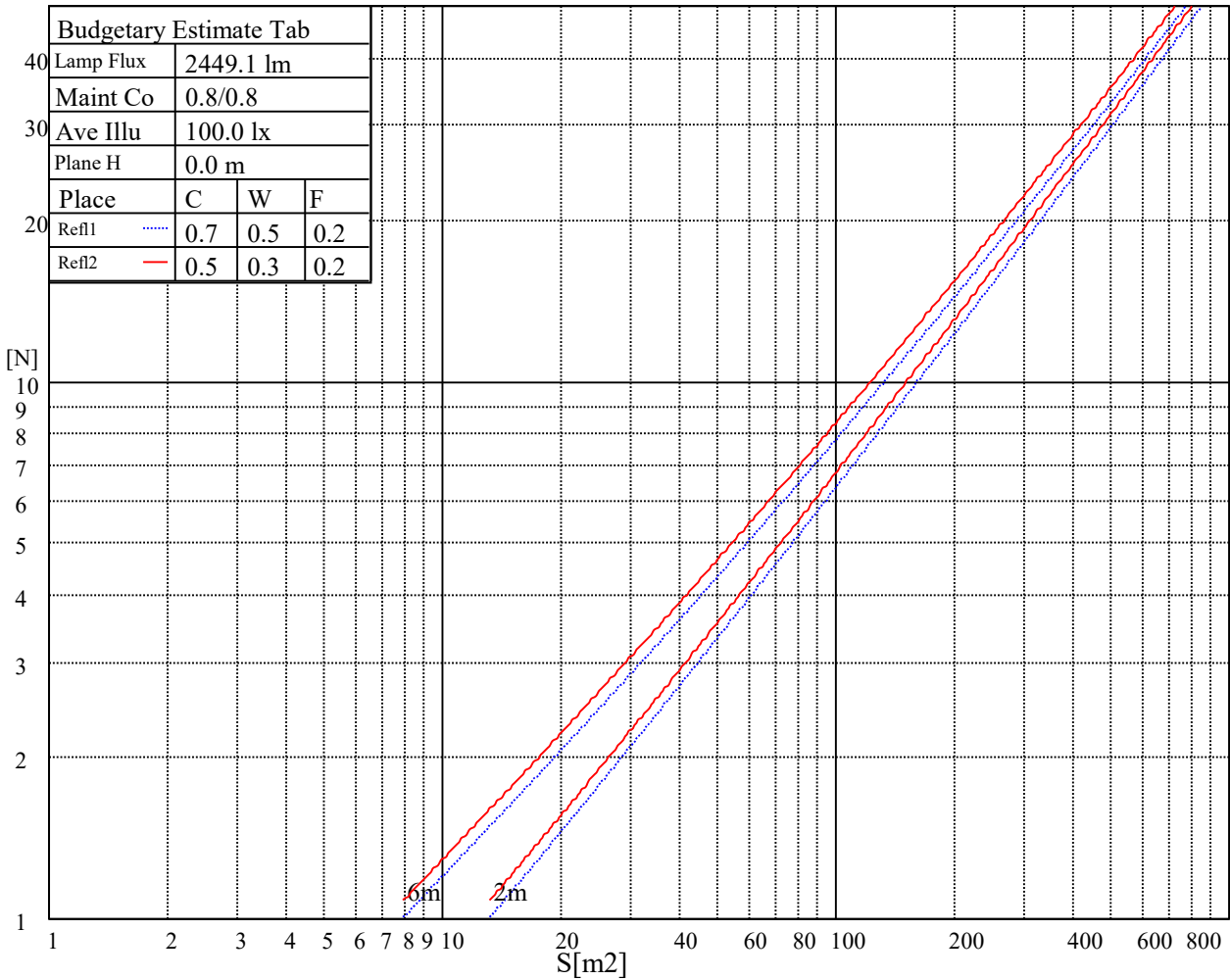
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7039	7039	7039	8162	8162	8162	17287	17287	17287

Glare Table

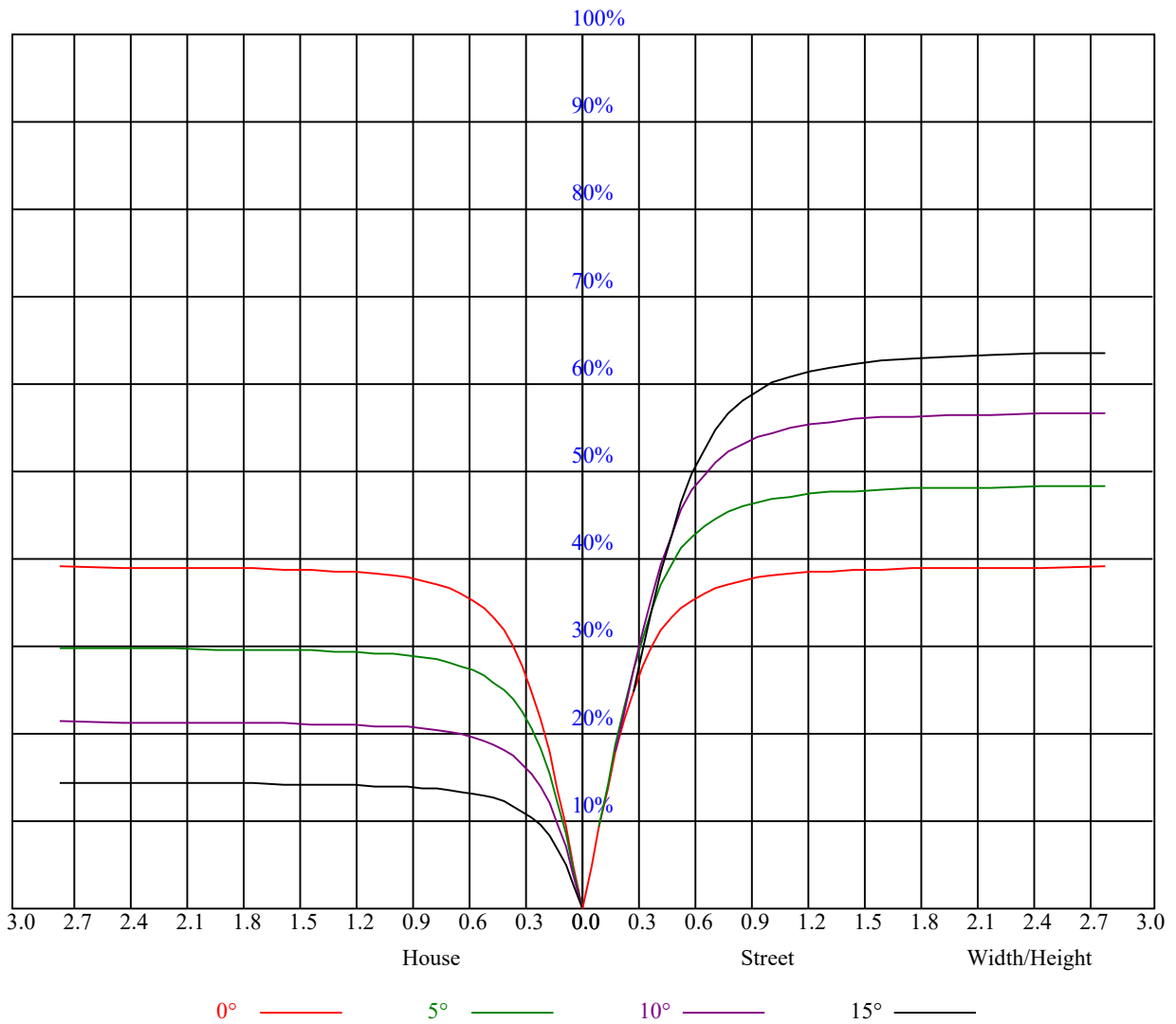
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.94	0.94	0.94	0.92	0.92	0.92	0.88	0.88	0.88	0.84	0.84	0.84	0.81	0.81	0.81	0.79
1	0.87	0.85	0.83	0.86	0.84	0.82	0.82	0.81	0.79	0.79	0.78	0.77	0.77	0.76	0.75	0.73
2	0.82	0.79	0.76	0.81	0.78	0.76	0.78	0.76	0.74	0.76	0.74	0.72	0.74	0.72	0.71	0.69
3	0.78	0.74	0.71	0.77	0.73	0.70	0.74	0.72	0.69	0.73	0.70	0.68	0.71	0.69	0.67	0.66
4	0.74	0.70	0.67	0.73	0.69	0.66	0.71	0.68	0.65	0.70	0.67	0.65	0.68	0.66	0.64	0.63
5	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.62	0.67	0.64	0.62	0.66	0.63	0.61	0.60
6	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.63	0.61	0.59	0.57
7	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.56	0.61	0.58	0.56	0.55
8	0.62	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.54	0.53
9	0.59	0.55	0.53	0.59	0.55	0.52	0.58	0.55	0.52	0.58	0.54	0.52	0.57	0.54	0.52	0.51
10	0.57	0.53	0.51	0.57	0.53	0.51	0.56	0.53	0.50	0.56	0.52	0.50	0.55	0.52	0.50	0.49



Nata 3-1700-N

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	4058.76	3818.71	3281.91	2621.24	1708.40	842.36	491.10	314.37	198.97
45.0	4056.56	3853.95	3373.31	2767.13	1897.79	974.50	559.37	343.55	217.14
90.0	4054.35	3827.52	3357.89	2711.53	1839.43	972.96	543.02	337.44	218.41
135.0	4036.18	3978.38	3525.26	2900.92	2092.69	1183.16	623.79	386.50	280.24
180.0	4058.76	3895.79	3407.44	2748.42	1927.52	985.95	548.47	347.08	224.02
225.0	4056.56	3859.45	3327.06	2601.97	1676.47	850.84	493.86	298.46	199.91
270.0	4054.35	3859.45	3362.29	2647.11	1721.61	844.57	505.42	314.37	202.88
315.0	4036.18	3706.40	3151.98	2405.41	1300.98	716.56	452.95	281.34	176.51
360.0	4058.76	3818.71	3281.91	2621.24	1708.40	842.36	491.10	314.37	198.97

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	118.21	71.35	39.59	22.68	17.45	14.53	12.39	10.57	8.81
45.0	129.00	78.46	43.71	24.78	18.17	14.98	12.72	10.90	9.14
90.0	133.02	77.85	42.94	24.94	17.95	14.87	12.66	10.85	9.03
135.0	151.18	89.30	51.31	28.63	18.94	15.80	13.21	11.29	9.41
180.0	133.35	81.10	45.53	25.60	17.73	14.98	12.66	10.68	9.03
225.0	118.15	68.99	40.08	22.74	17.07	14.37	12.22	10.46	8.81
270.0	120.52	70.20	38.98	23.01	17.29	14.48	12.39	10.63	8.81
315.0	106.37	61.11	33.80	20.48	16.52	13.93	11.95	10.30	8.42
360.0	118.21	71.35	39.59	22.68	17.45	14.53	12.39	10.57	8.81

C/γ(°)	90.0
0.0	7.65
45.0	7.76
90.0	7.71
135.0	7.82
180.0	7.65
225.0	7.82
270.0	7.76
315.0	7.71
360.0	7.65