



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: 3-1945-M

Luminaire:

Report No: NATA0100

Voltage(V): 34.2200

Test No: GC2020010626

Current(A): 0.6000

LampCAT: LUMINUS CXM-14-AC40

Power (W): 20.5100

Lamp flux(lm): 2559.0

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): 2296.05

Efficiency(%): 89.72%

Lumens(lm)/Power(W): 111.95

Central intensity(cd): 2908.828

Maximum intensity(cd): 2908.828

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=56.9

[C90/270]Total=56.9

Field angle(10%Imax): [C0/180]Total=75.0

[C90/270]Total=75.0

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

Maximum s/h(1/4): C0_180=0.84 C90_270=0.84

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 89.72%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.500%

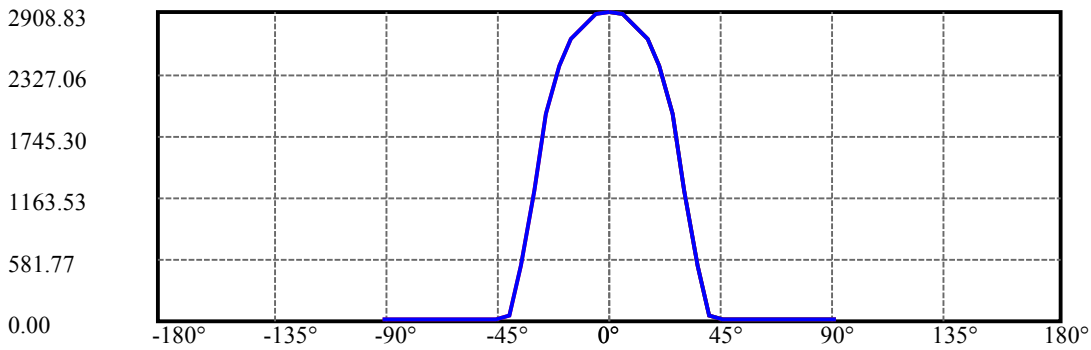
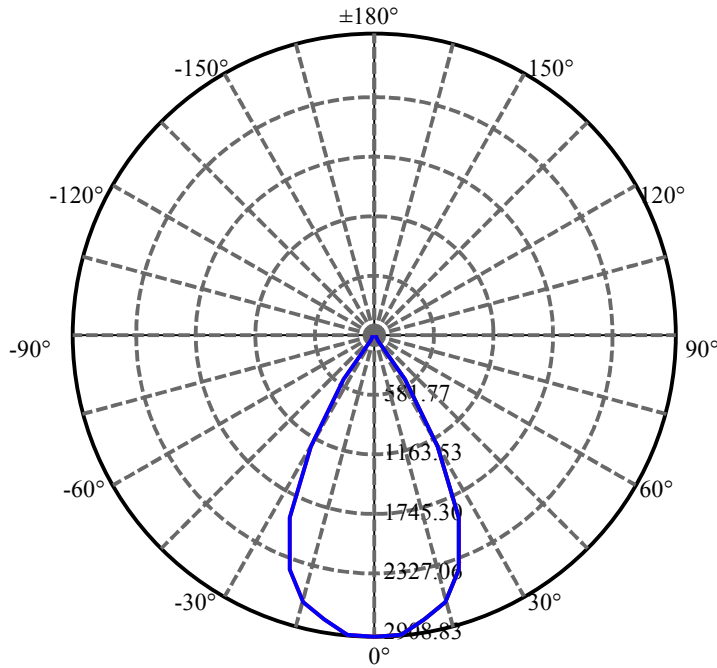
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2908.828	0.000	0	.000%	.000%
5.0	2892.797	69.357	69.357	2.710%	3.021%
10.0	2791.195	203.334	272.691	7.946%	11.877%
15.0	2658.375	323.265	595.956	12.632%	25.956%
20.0	2396.320	416.578	1012.534	16.279%	44.099%
25.0	1943.016	455.116	1467.65	17.785%	63.921%
30.0	1231.784	401.774	1869.424	15.700%	81.419%
35.0	524.039	258.557	2127.981	10.104%	92.680%
40.0	60.722	97.563	2225.544	3.813%	96.929%
45.0	22.170	15.348	2240.892	.600%	97.598%
50.0	16.516	7.817	2248.709	.305%	97.938%
55.0	14.154	6.669	2255.378	.261%	98.229%
60.0	12.769	6.223	2261.601	.243%	98.500%
65.0	11.693	5.947	2267.547	.232%	98.759%
70.0	10.948	5.733	2273.28	.224%	99.008%
75.0	10.582	5.628	2278.908	.220%	99.253%
80.0	10.533	5.650	2284.557	.221%	99.499%
85.0	10.589	5.739	2290.297	.224%	99.749%
90.0	10.427	5.754	2296.051	.225%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1869.42	73.05%	81.42%
0-40	2225.54	86.97%	96.93%
0-60	2261.60	88.38%	98.50%
0-90	2290.30	89.50%	99.75%
0-120	2290.30	89.50%	99.75%
0-180	2296.05	89.72%	100.00%
60-90	34.92	1.36%	1.52%
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%
0-29.59	1836.84	71.78%	80.00%

ZONAL LUMEN SUMMARY

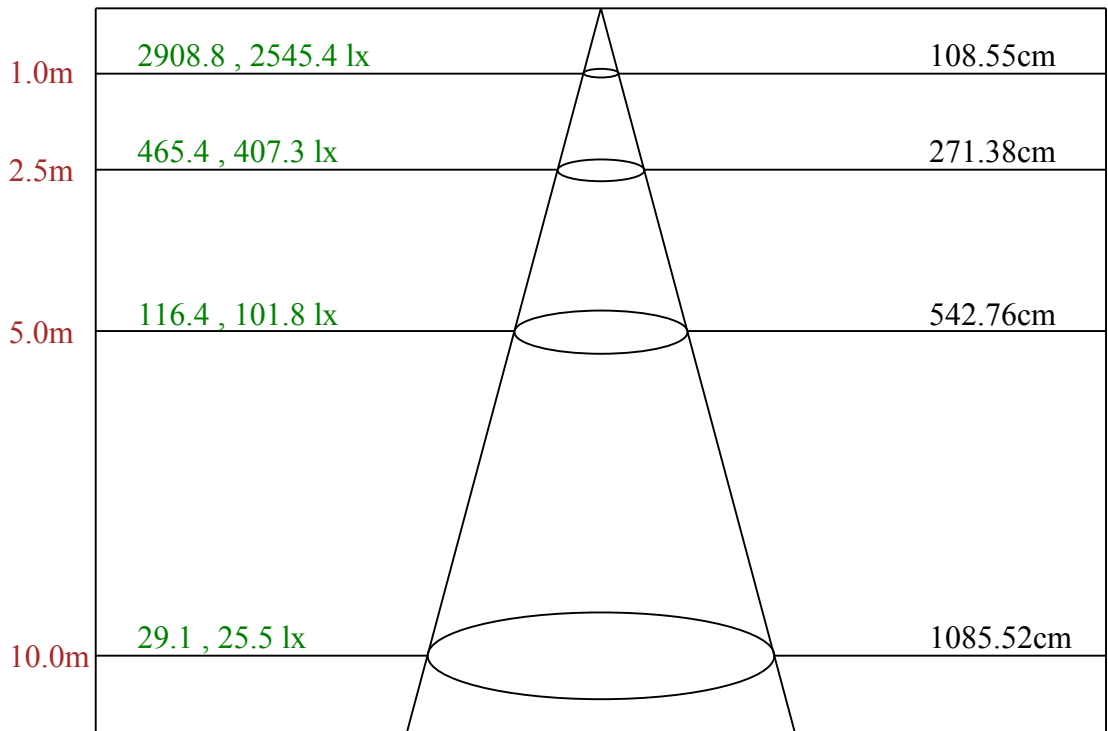
0-10	272.69
10-20	739.84
20-30	856.89
30-40	356.12
40-50	23.17
50-60	12.89
60-70	11.68
70-80	11.28
80-90	5.74
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



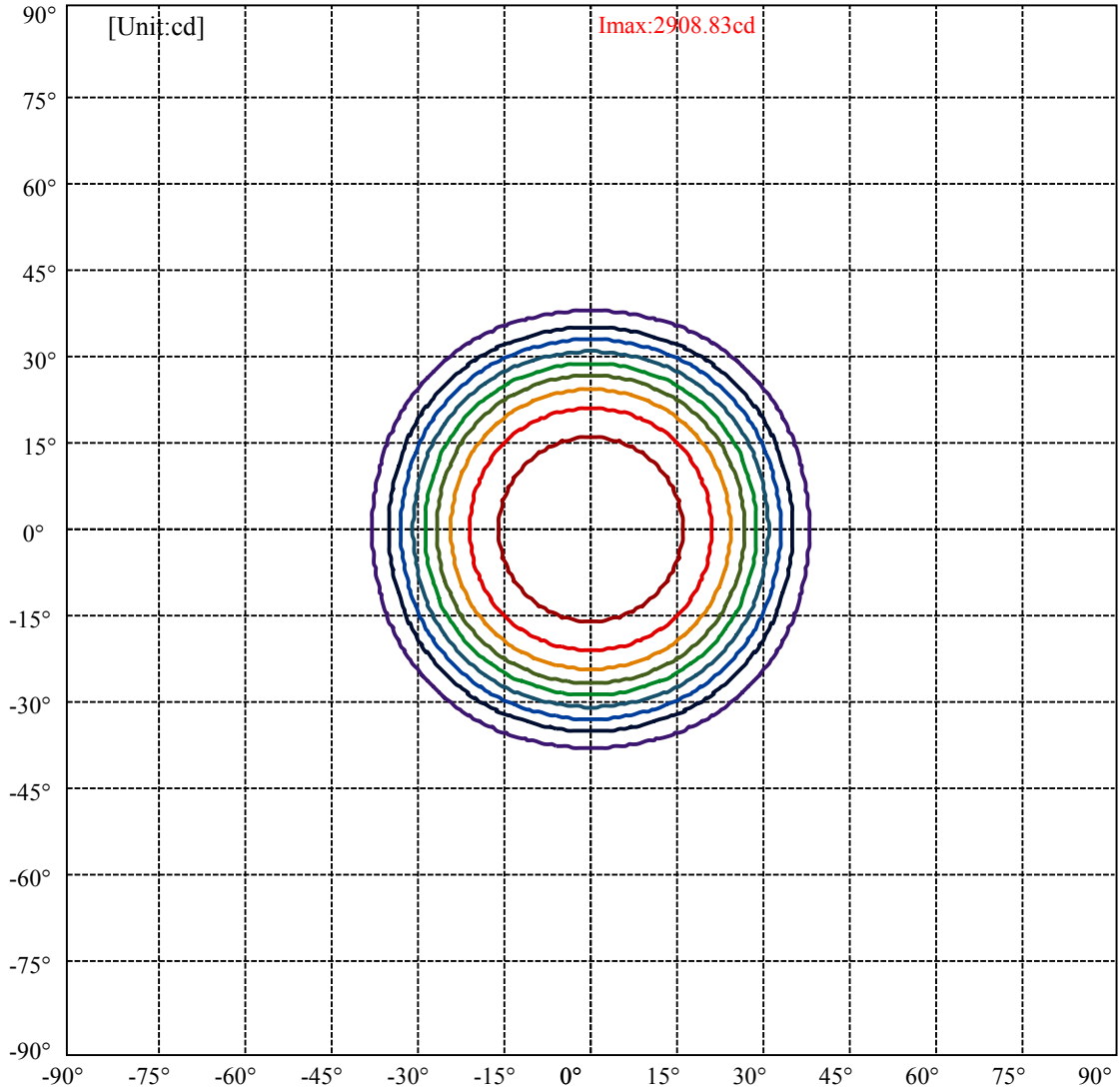
C0(Max): ———
C0/C180: ———
C90/C270: ———

Field angle(10%Imax):C0/180Left:37.5 Right:37.5
:C90/270Left:37.5 Right:37.5

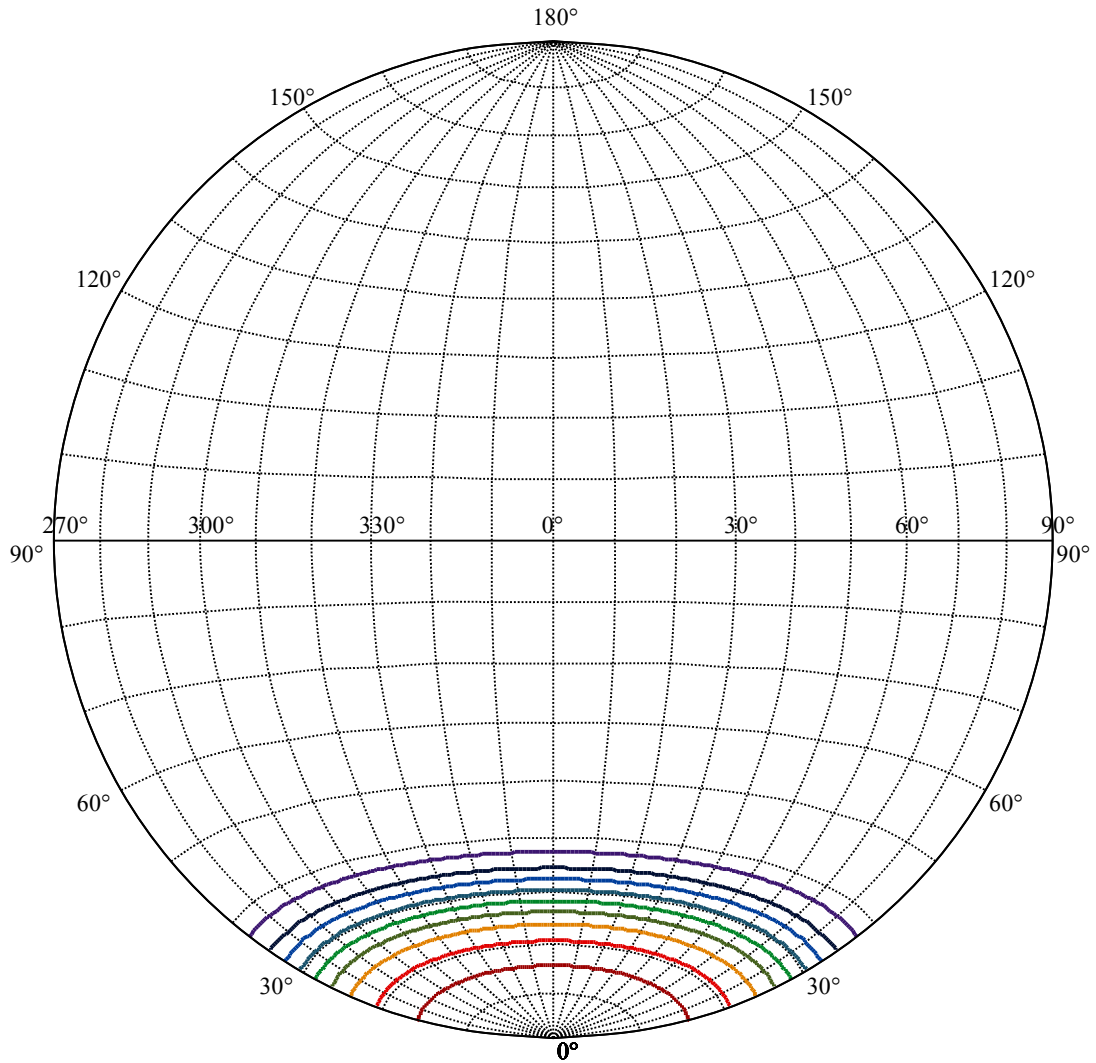
Beam Angle(50%Imax):C0/180Left:28.4 Right:28.4
:C90/270Left:28.4 Right:28.4



Max , Ave Beam angle of C0 plane 56.98



(10%Imax) 290.883	—
(20%Imax) 581.766	—
(30%Imax) 872.648	—
(40%Imax) 1163.53	—
(50%Imax) 1454.41	—
(60%Imax) 1745.3	—
(70%Imax) 2036.18	—
(80%Imax) 2327.06	—
(90%Imax) 2617.95	—



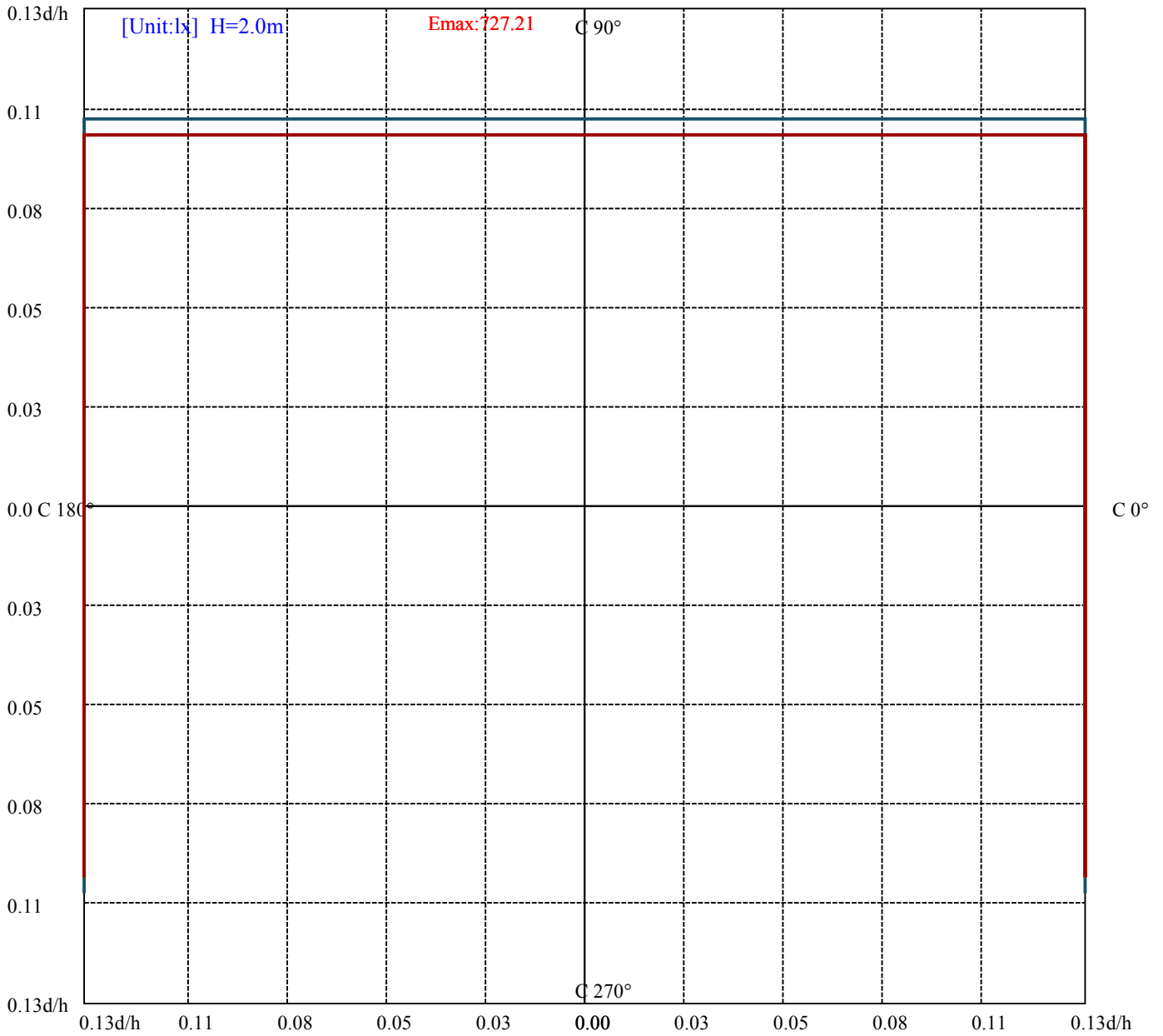
House

[Unit:cd]

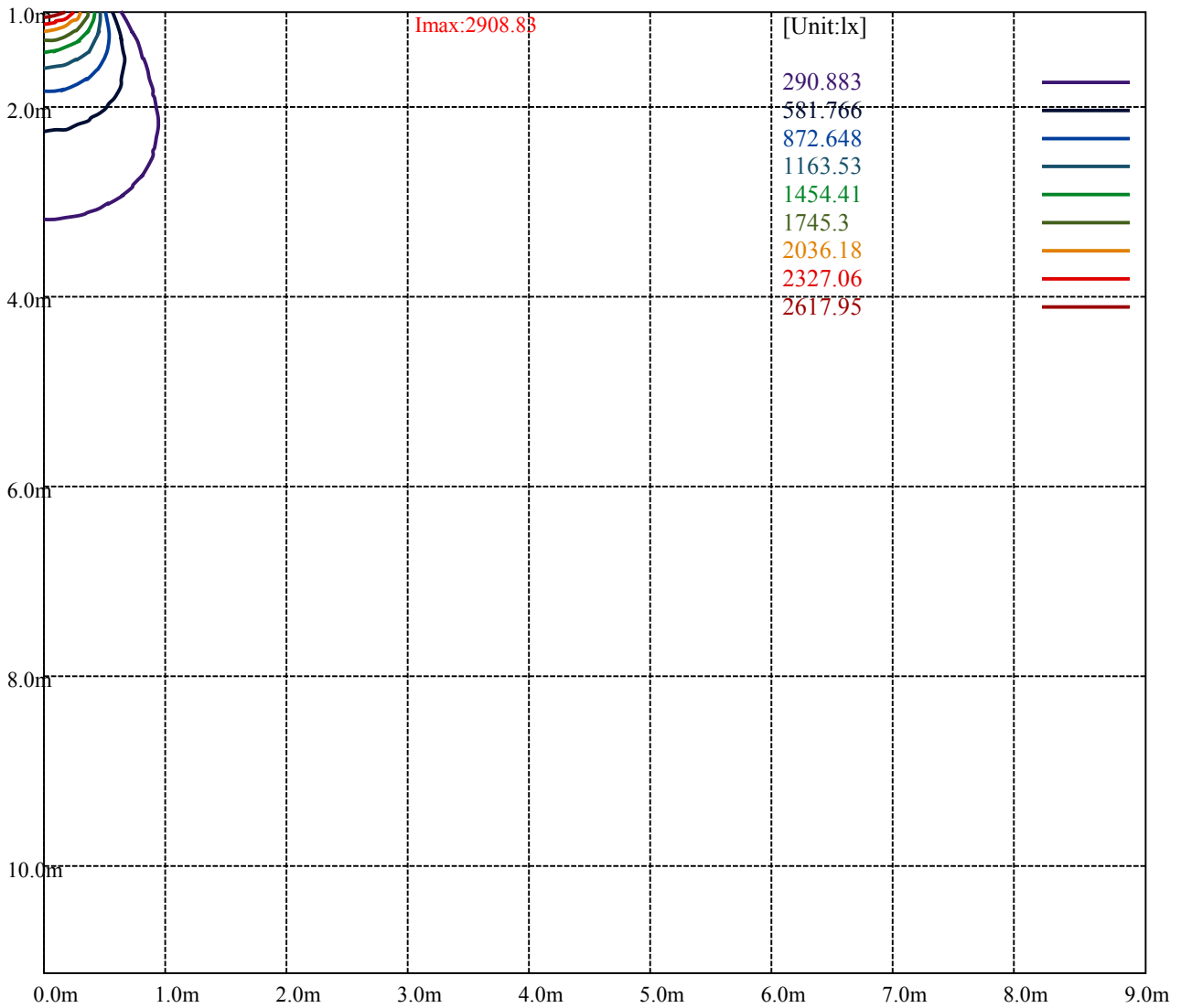
Road

Imax:2908.83

(10%Imax)	290.883	—
(20%Imax)	581.766	—
(30%Imax)	872.648	—
(40%Imax)	1163.53	—
(50%Imax)	1454.41	—
(60%Imax)	1745.3	—
(70%Imax)	2036.18	—
(80%Imax)	2327.06	—
(90%Imax)	2617.95	—



(10%Emax) 72.72075	—
(20%Emax) 145.4415	—
(30%Emax) 218.162	—
(40%Emax) 290.8825	—
(50%Emax) 363.6025	—
(60%Emax) 436.325	—
(70%Emax) 509.045	—
(80%Emax) 581.765	—
(90%Emax) 654.485	—



Luminance Table

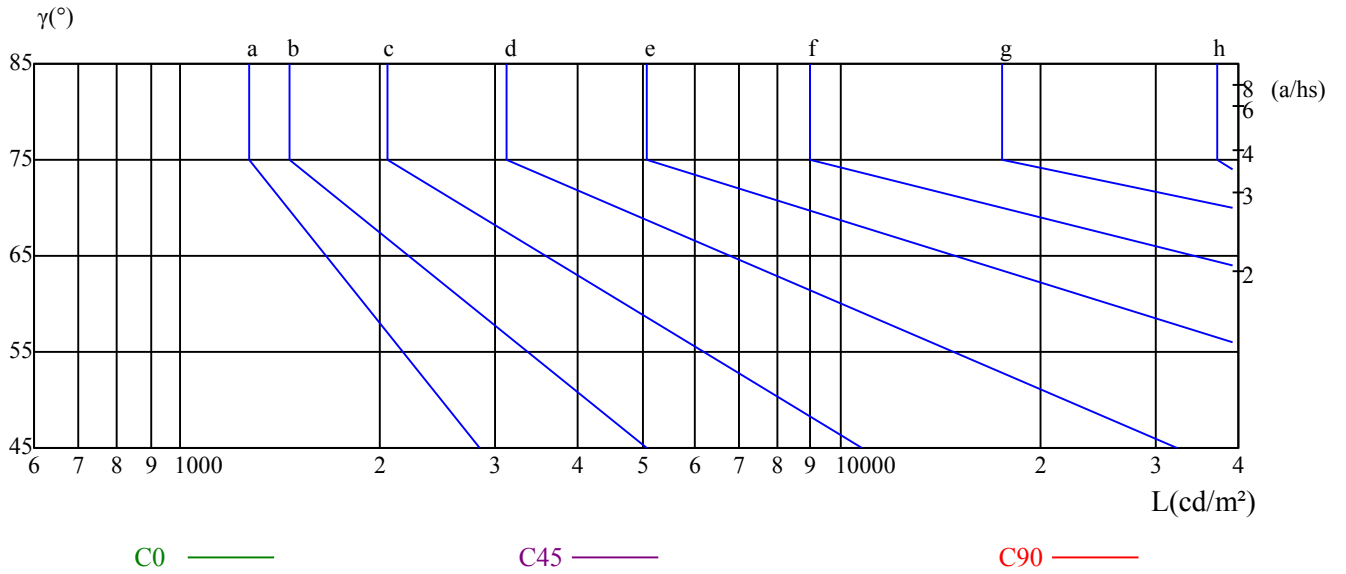
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

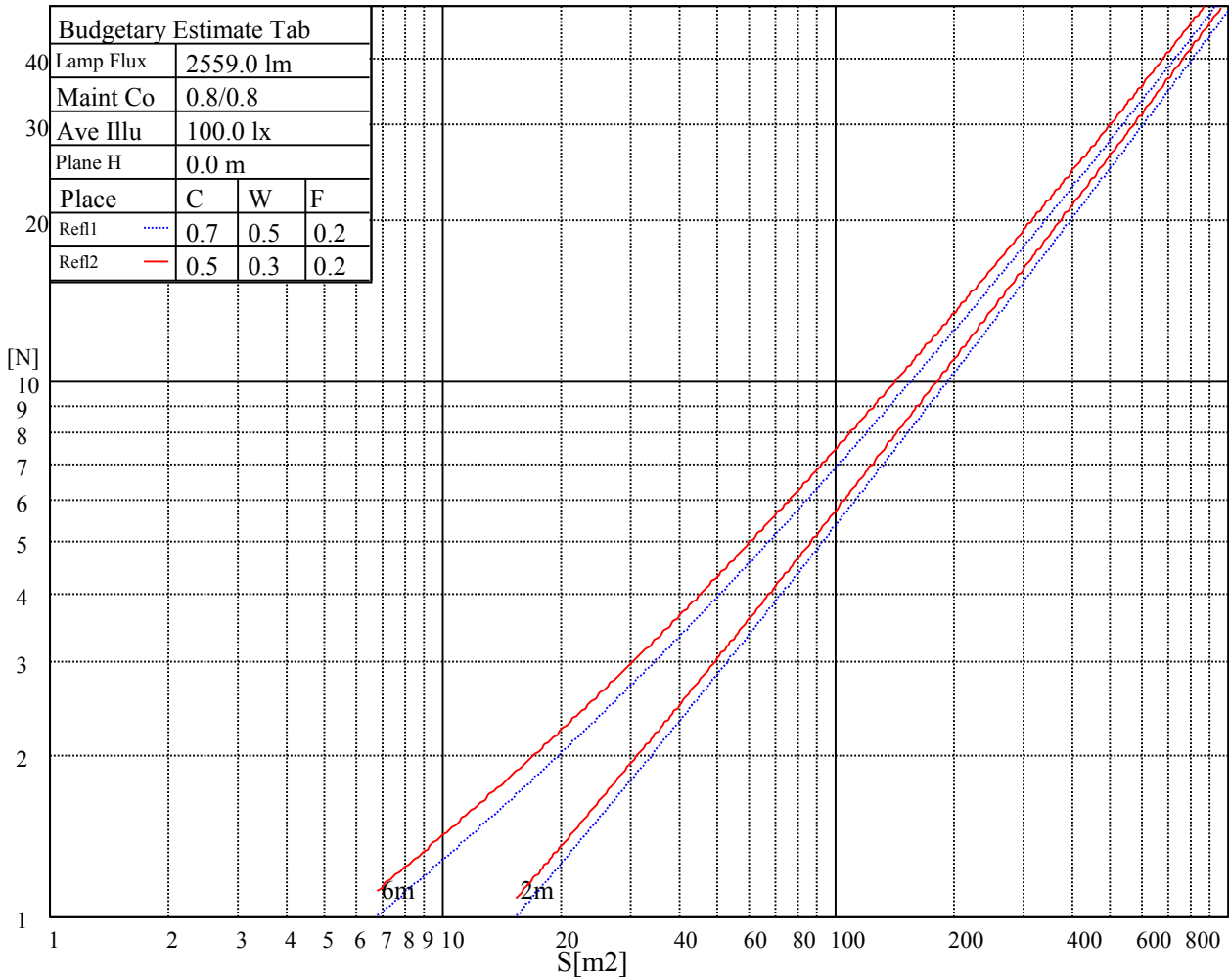
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

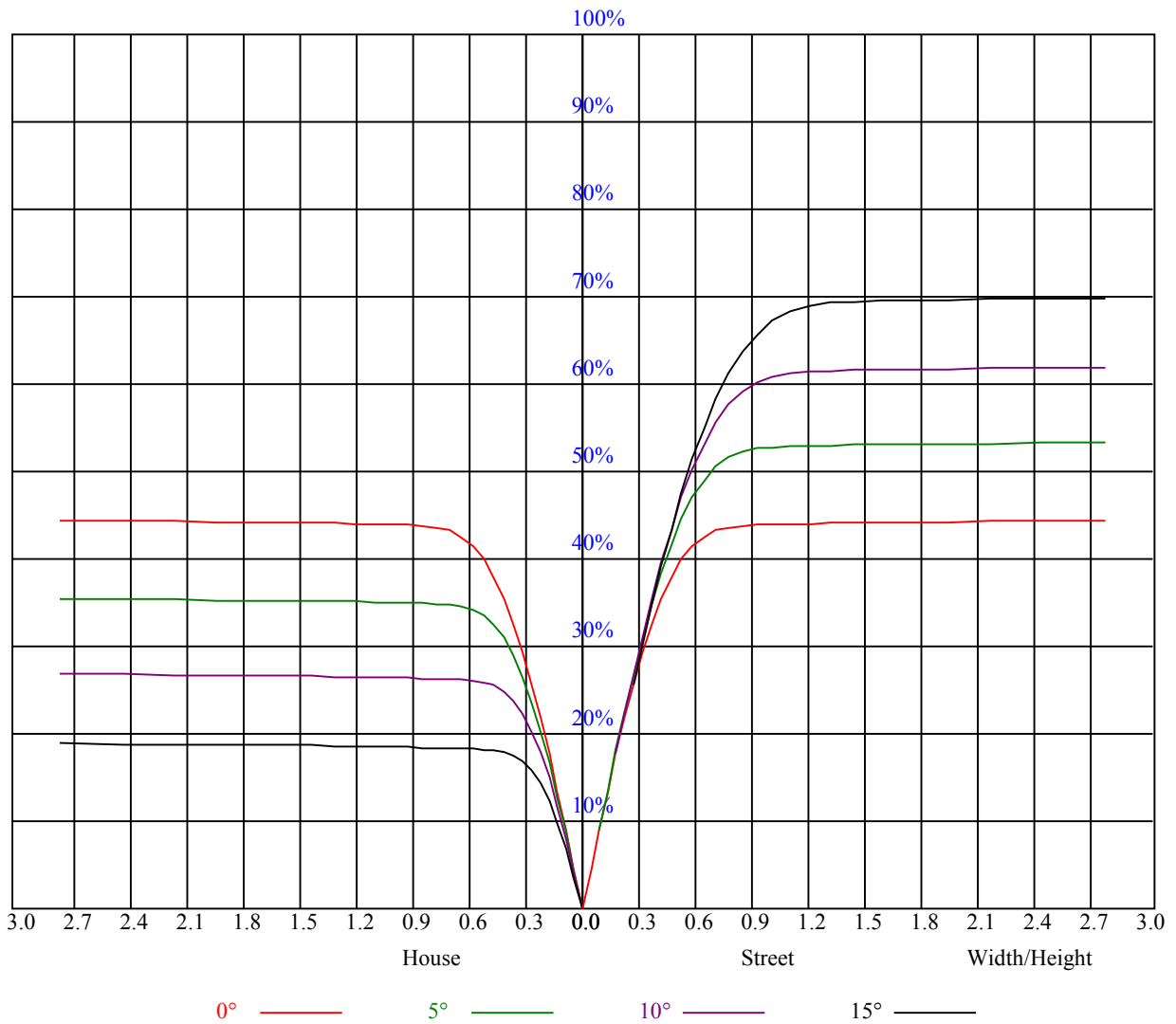
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.04	1.04	1.04	1.00	1.00	1.00	0.95	0.95	0.95	0.92	0.92	0.92	0.90
1	0.99	0.97	0.95	0.98	0.96	0.94	0.94	0.92	0.91	0.91	0.89	0.88	0.87	0.87	0.86	0.84
2	0.93	0.90	0.87	0.91	0.88	0.86	0.89	0.86	0.84	0.86	0.84	0.82	0.83	0.82	0.80	0.79
3	0.87	0.83	0.80	0.86	0.82	0.79	0.84	0.80	0.78	0.82	0.79	0.76	0.80	0.77	0.75	0.74
4	0.82	0.77	0.74	0.81	0.77	0.73	0.79	0.75	0.72	0.77	0.74	0.72	0.76	0.73	0.71	0.70
5	0.77	0.72	0.69	0.76	0.72	0.68	0.75	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.65
6	0.73	0.68	0.64	0.72	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.65	0.63	0.62
7	0.69	0.64	0.60	0.68	0.64	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.59	0.58
8	0.65	0.60	0.57	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.55
9	0.62	0.57	0.54	0.62	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.53	0.59	0.56	0.53	0.52
10	0.59	0.54	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.57	0.53	0.51	0.57	0.53	0.50	0.49



Nata 3-1945-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	2903.06	2879.44	2767.50	2633.06	2354.63	1942.88	1275.75	473.06	56.98
45.0	2912.06	2877.19	2771.44	2625.75	2374.88	1884.38	1235.81	432.00	50.57
90.0	2910.94	2876.63	2764.69	2614.50	2359.69	1867.50	1111.11	431.04	52.76
135.0	2909.25	2891.25	2784.94	2672.44	2434.50	2038.50	1490.06	656.44	79.14
180.0	2903.06	2886.75	2795.63	2667.38	2400.75	1941.75	1108.58	570.38	61.03
225.0	2912.06	2909.81	2802.94	2674.13	2402.44	1941.19	1099.07	593.21	63.51
270.0	2910.94	2923.88	2837.25	2728.69	2469.38	2037.38	1423.69	650.25	72.84
315.0	2909.25	2897.44	2805.19	2651.06	2374.31	1890.56	1110.21	385.93	48.94
360.0	2903.06	2879.44	2767.50	2633.06	2354.63	1942.88	1275.75	473.06	56.98

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	21.04	16.20	14.12	12.77	11.64	10.86	10.52	10.46	10.46
45.0	21.09	16.43	14.34	12.99	11.93	11.14	10.63	10.52	10.52
90.0	21.09	16.65	14.29	12.94	11.76	10.97	10.63	10.52	10.52
135.0	24.24	16.82	14.18	12.83	11.76	11.03	10.58	10.46	10.58
180.0	22.33	16.09	13.73	12.49	11.53	10.86	10.58	10.63	10.91
225.0	22.22	16.76	14.18	12.71	11.70	10.97	10.58	10.58	10.69
270.0	24.81	17.38	14.57	12.99	11.81	11.08	10.63	10.63	10.58
315.0	20.53	15.81	13.84	12.43	11.42	10.69	10.52	10.46	10.46
360.0	21.04	16.20	14.12	12.77	11.64	10.86	10.52	10.46	10.46

C/γ(°)	90.0
0.0	10.41
45.0	10.46
90.0	10.46
135.0	10.41
180.0	10.35
225.0	10.46
270.0	10.46
315.0	10.41
360.0	10.41