



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: 3-1942-M

Luminaire:

Report No: NATA0100

Voltage(V): 34.1700

Test No: GC2020010626

Current(A): 0.6000

LampCAT: LUMINUS CXM-14-AC40

Power (W): 20.5000

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): 2379.83

Efficiency(%): 93.00%

Lumens(lm)/Power(W): 116.09

Central intensity(cd): 9477.351

Maximum intensity(cd): 9477.351

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=16.7

[C90/270]Total=16.7

Field angle(10%Imax): [C0/180]Total=61.6

[C90/270]Total=61.6

Maximum s/h(1/2): C0_180=0.29 C90_270=0.29

Maximum s/h(1/4): C0_180=0.37 C90_270=0.37

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 93.00%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.575%

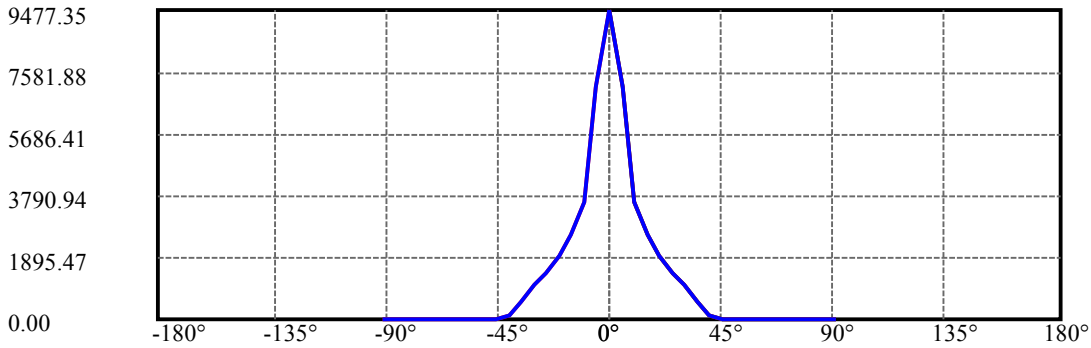
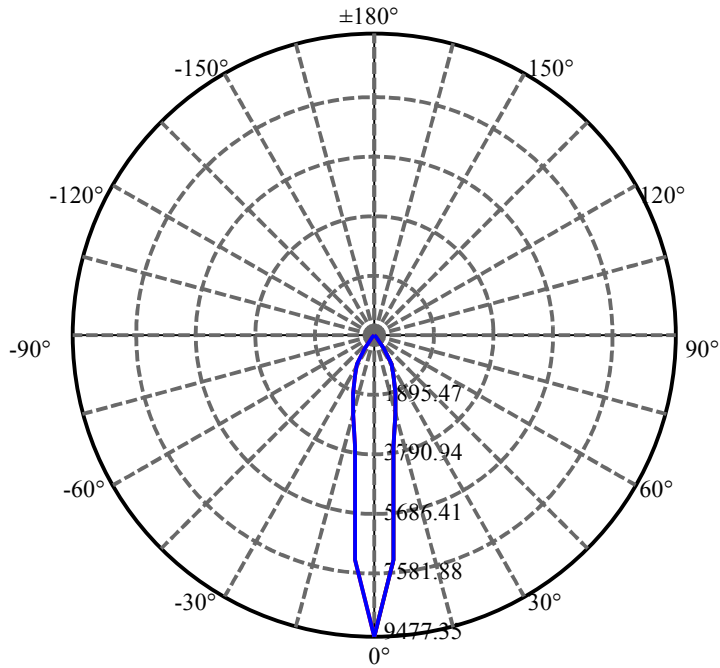
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	9477.352	0.000	0	.000%	.000%
5.0	7118.367	198.397	198.397	7.753%	8.337%
10.0	3562.313	382.082	580.479	14.931%	24.392%
15.0	2562.188	363.301	943.78	14.197%	39.657%
20.0	1956.305	372.387	1316.167	14.552%	55.305%
25.0	1400.203	352.036	1668.203	13.757%	70.097%
30.0	1032.975	307.921	1976.124	12.033%	83.036%
35.0	501.012	225.890	2202.014	8.827%	92.528%
40.0	97.186	99.805	2301.819	3.900%	96.722%
45.0	24.659	22.561	2324.379	.882%	97.670%
50.0	17.508	8.520	2332.899	.333%	98.028%
55.0	14.196	6.893	2339.793	.269%	98.317%
60.0	12.263	6.116	2345.909	.239%	98.574%
65.0	11.370	5.745	2351.654	.225%	98.816%
70.0	10.891	5.637	2357.29	.220%	99.053%
75.0	10.596	5.616	2362.907	.219%	99.289%
80.0	10.441	5.629	2368.536	.220%	99.525%
85.0	10.350	5.650	2374.185	.221%	99.763%
90.0	10.280	5.649	2379.834	.221%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1976.12	77.22%	83.04%
0-40	2301.82	89.95%	96.72%
0-60	2345.91	91.67%	98.57%
0-90	2374.19	92.78%	99.76%
0-120	2374.19	92.78%	99.76%
0-180	2379.83	93.00%	100.00%
60-90	34.39	1.34%	1.45%
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%
0-28.83	1903.87	74.40%	80.00%

ZONAL LUMEN SUMMARY

0-10	580.48
10-20	735.69
20-30	659.96
30-40	325.70
40-50	31.08
50-60	13.01
60-70	11.38
70-80	11.25
80-90	5.65
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



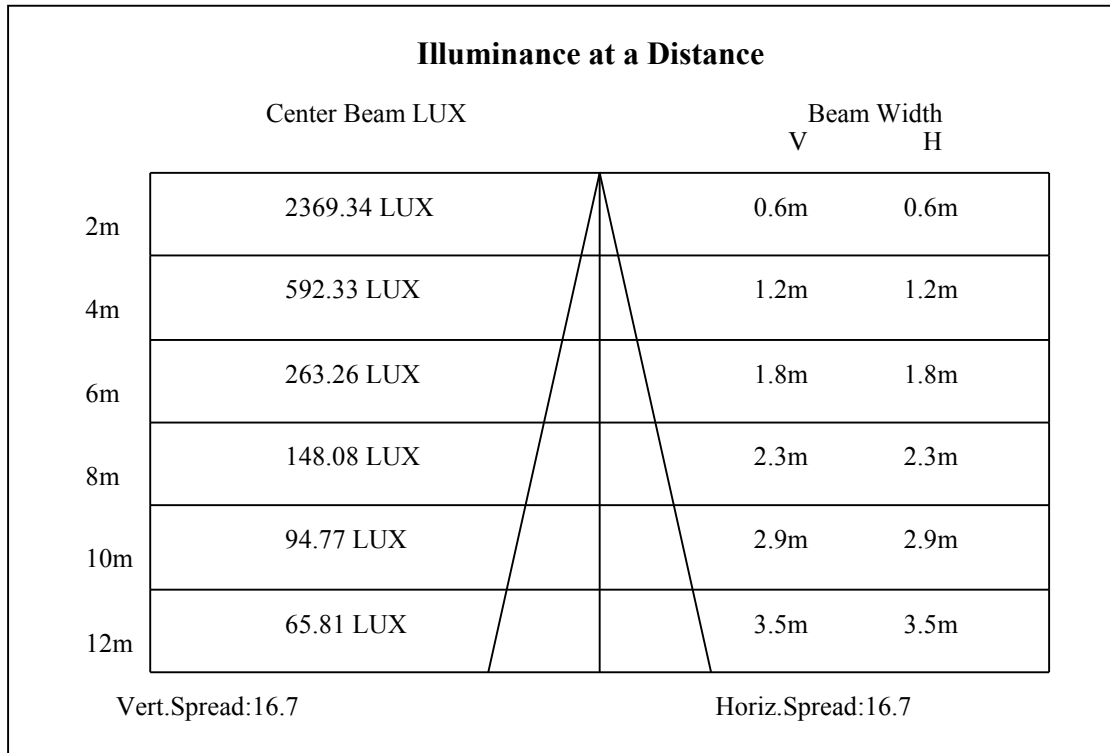
C0(Max): —————

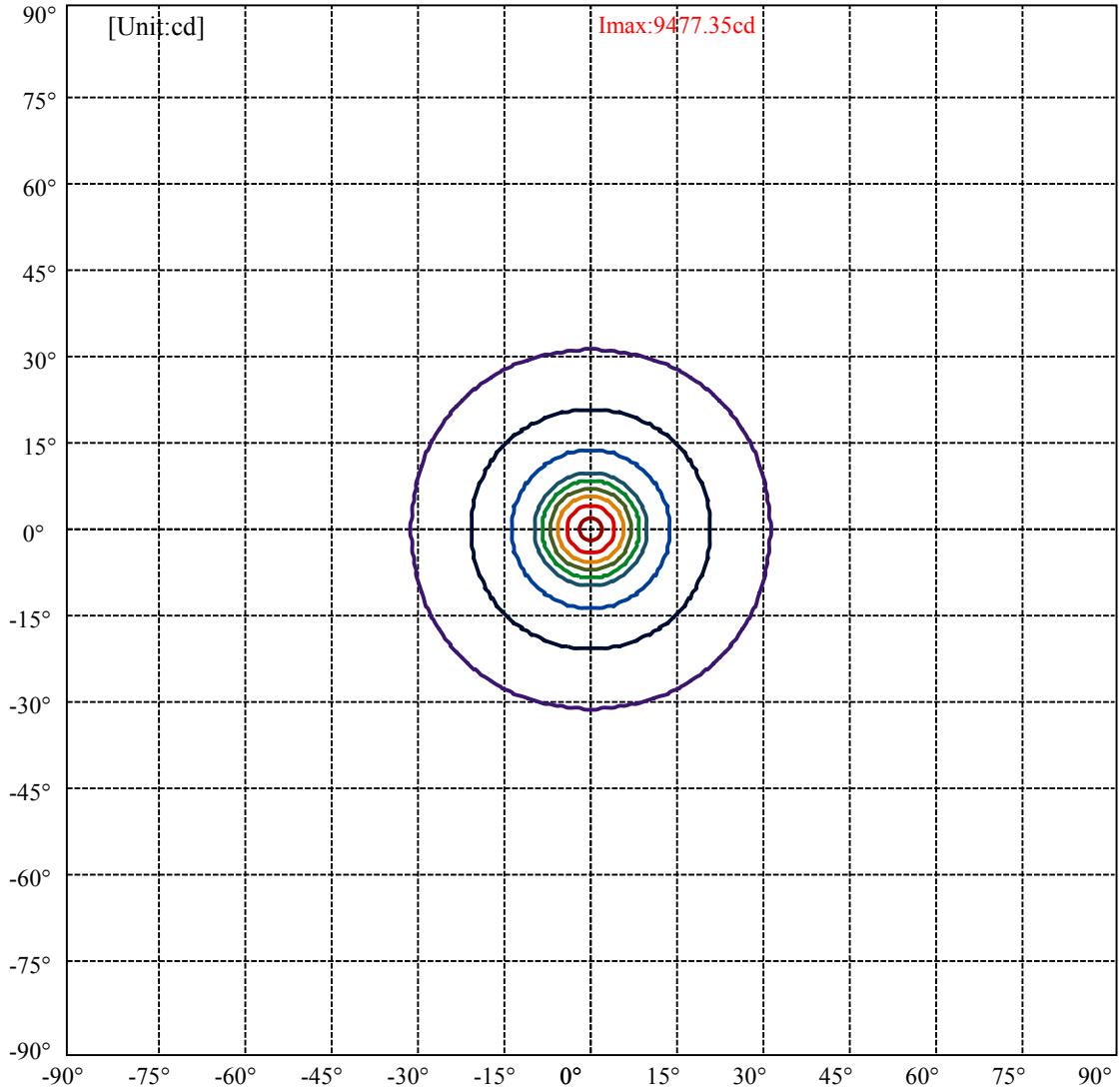
C0/C180: —————

C90/C270: —————

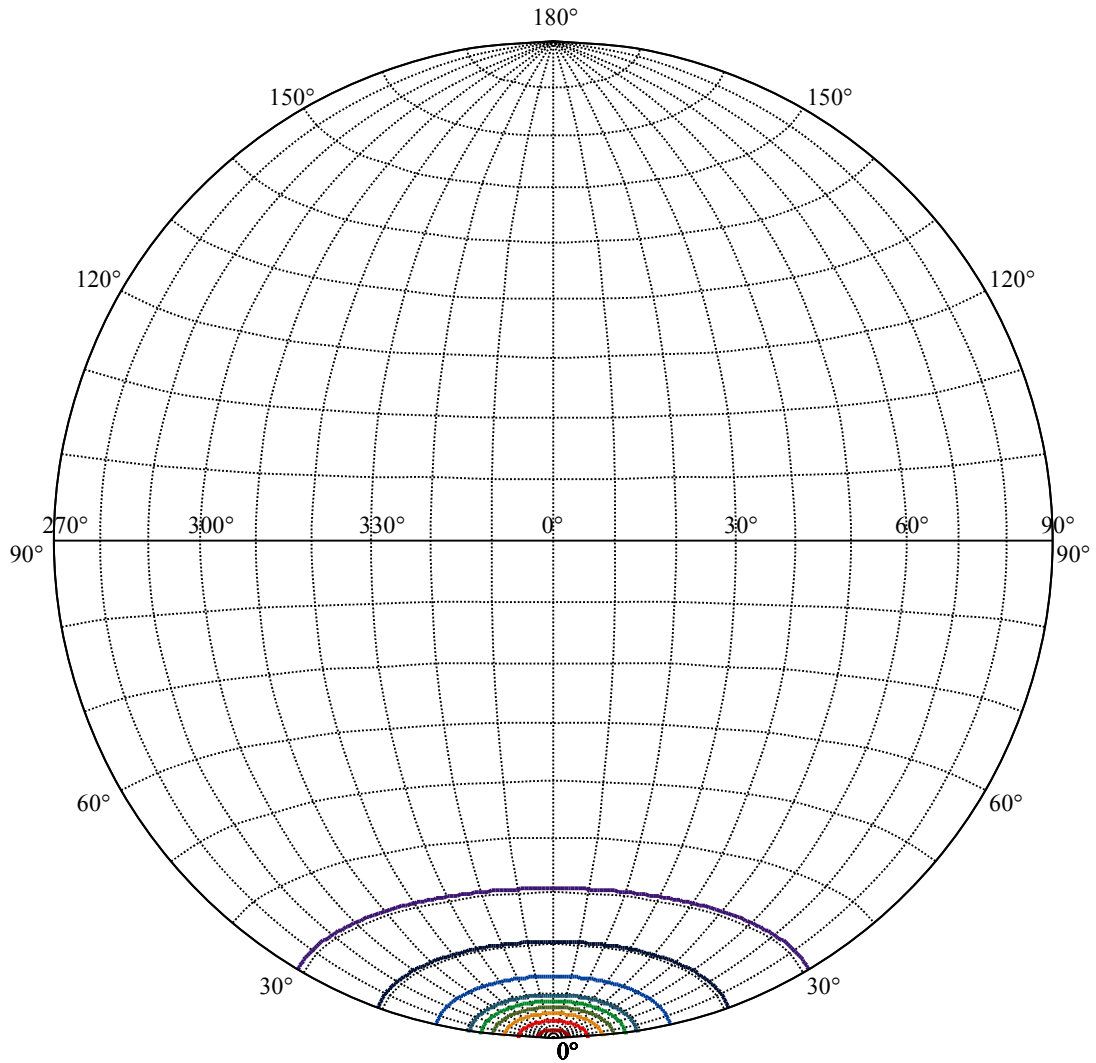
Field angle(10%Imax):C0/180Left:30.8 Right:30.8
:C90/270Left:30.8 Right:30.8

Beam Angle(50%Imax):C0/180Left:8.3 Right:8.3
:C90/270Left:8.3 Right:8.3





(10%Imax) 947.735	—
(20%Imax) 1895.47	—
(30%Imax) 2843.21	—
(40%Imax) 3790.94	—
(50%Imax) 4738.68	—
(60%Imax) 5686.41	—
(70%Imax) 6634.15	—
(80%Imax) 7581.88	—
(90%Imax) 8529.62	—



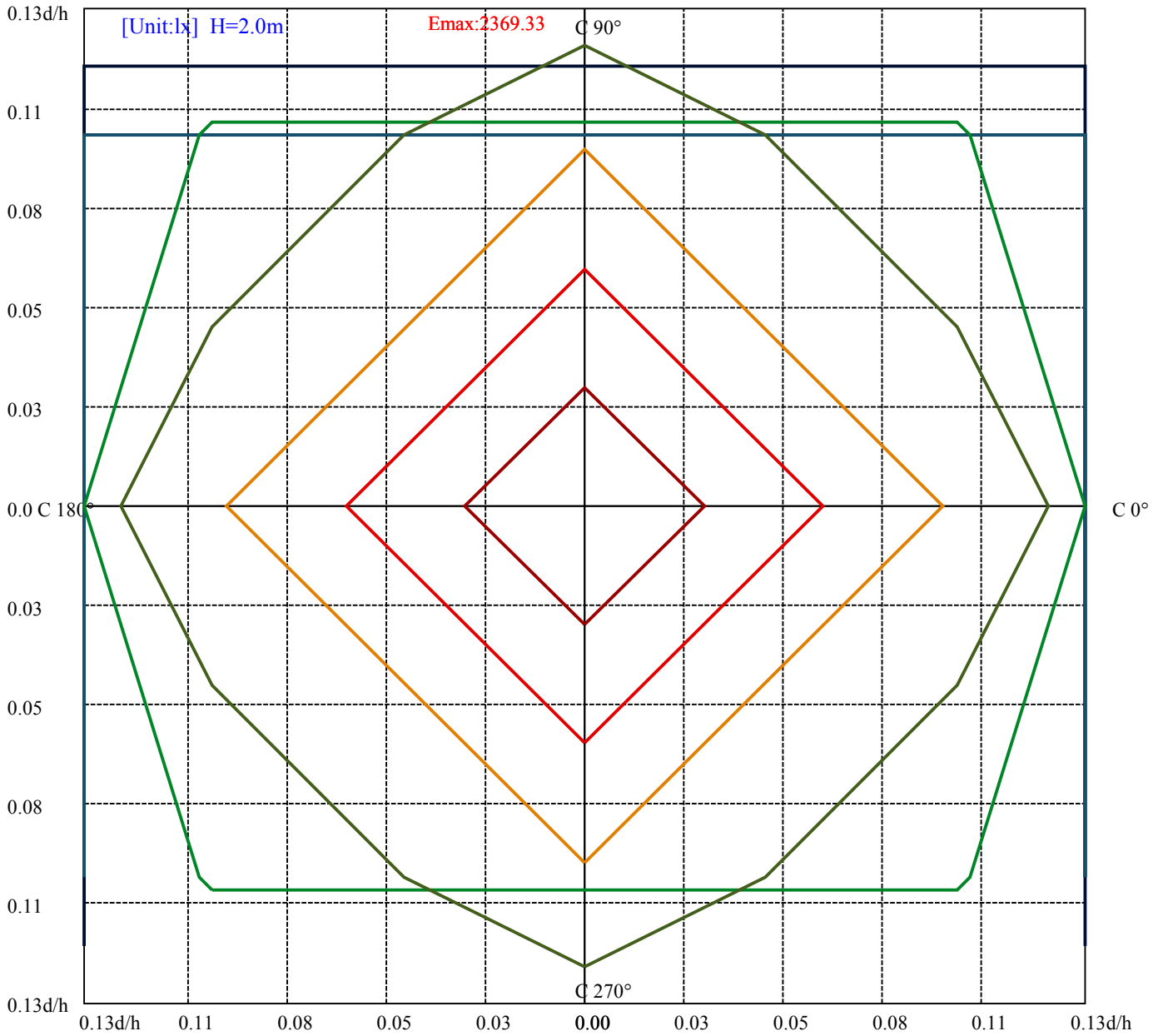
House

[Unit:cd]

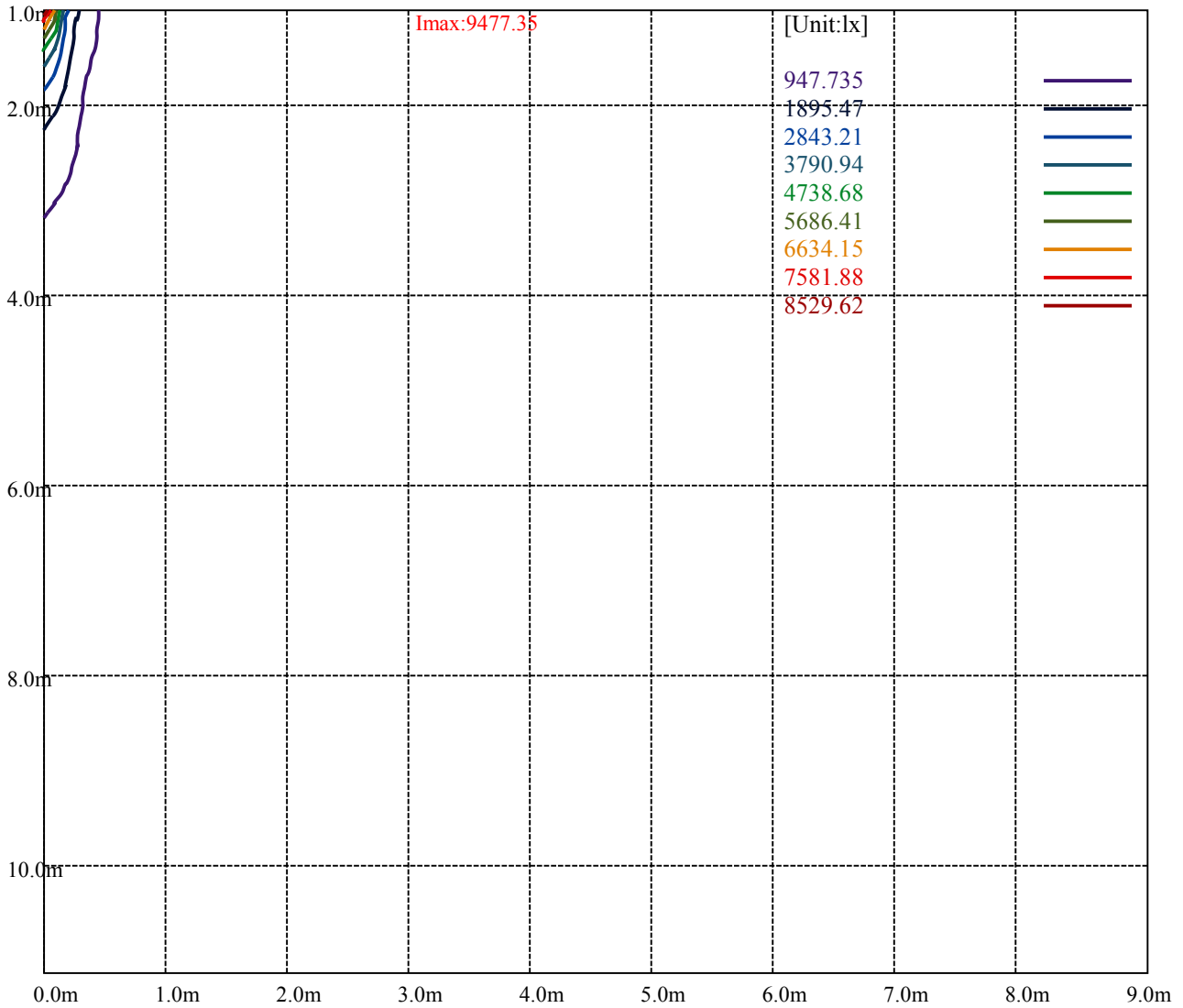
Road

Imax:9477.35

(10%Imax)	947.735	—
(20%Imax)	1895.47	—
(30%Imax)	2843.21	—
(40%Imax)	3790.94	—
(50%Imax)	4738.68	—
(60%Imax)	5686.41	—
(70%Imax)	6634.15	—
(80%Imax)	7581.88	—
(90%Imax)	8529.62	—



(10%Emax) 236.932	—
(20%Emax) 473.865	—
(30%Emax) 710.795	—
(40%Emax) 947.7275	—
(50%Emax) 1184.66	—
(60%Emax) 1421.593	—
(70%Emax) 1658.525	—
(80%Emax) 1895.455	—
(90%Emax) 2132.387	—



Luminance Table

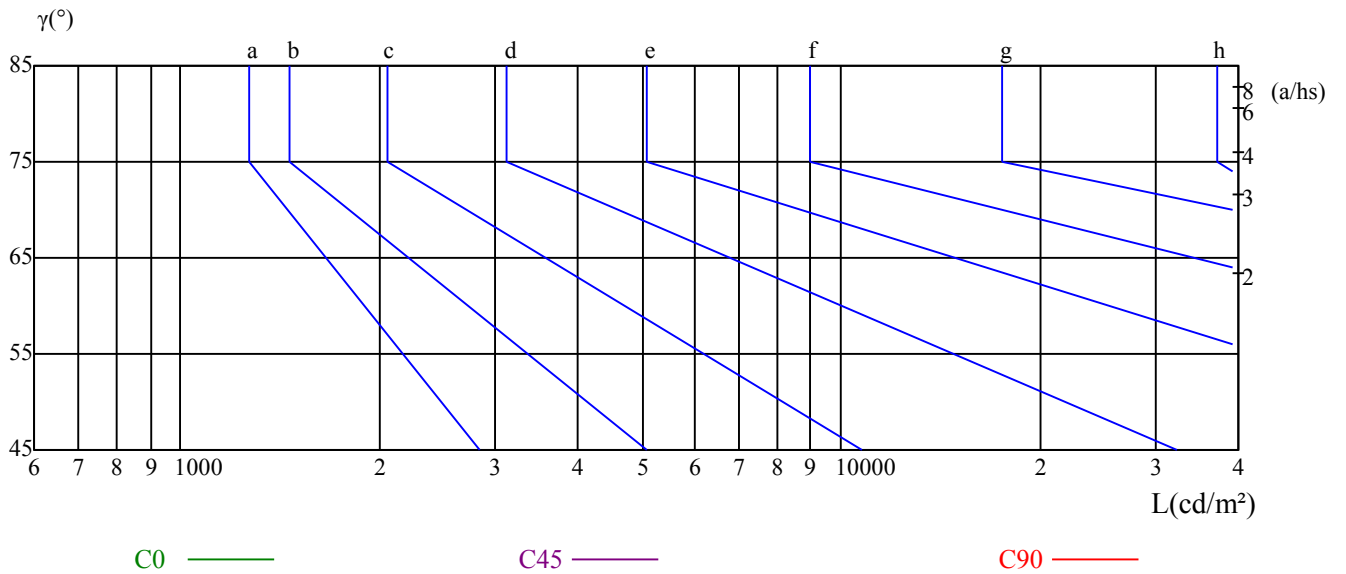
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

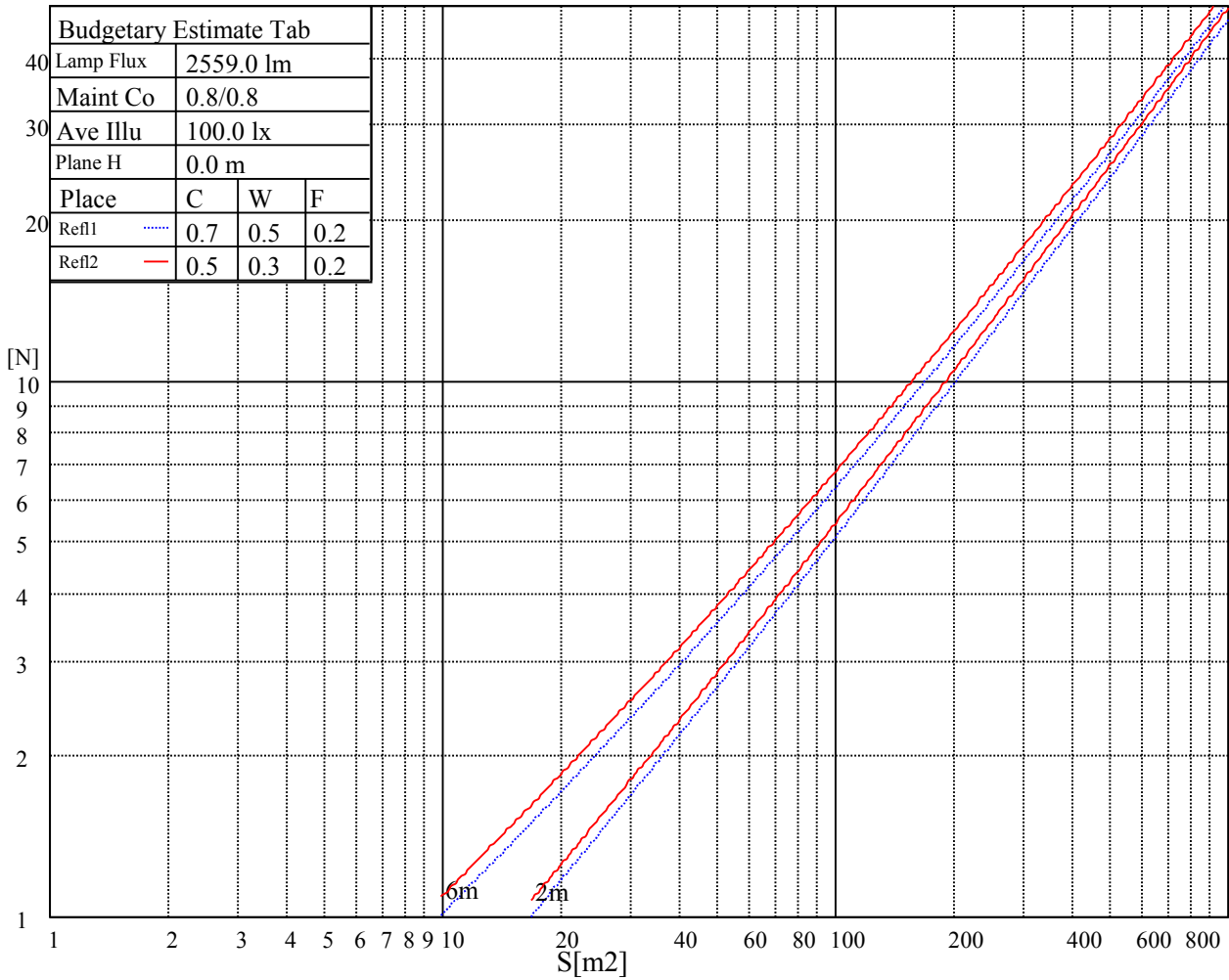
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

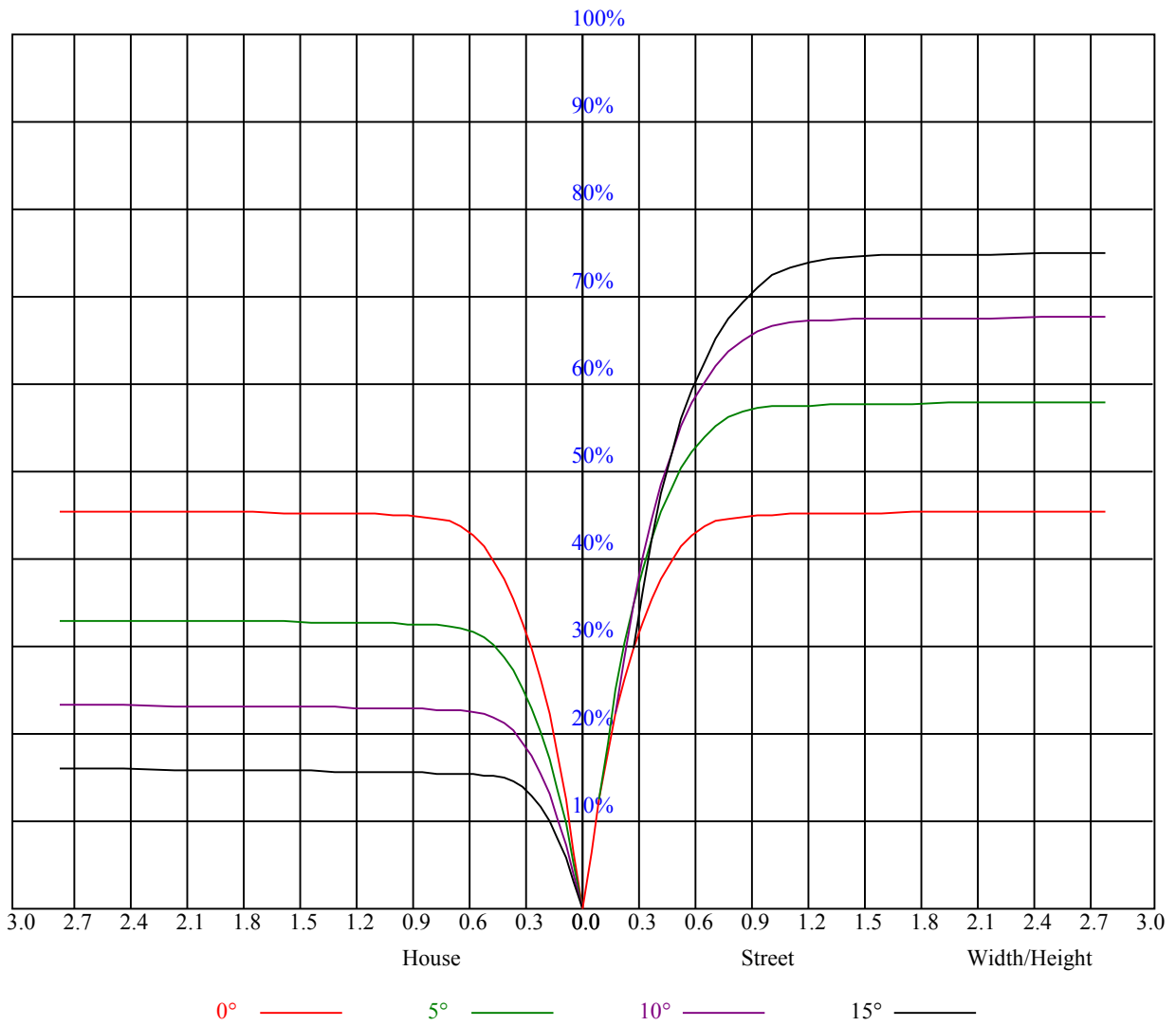
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.11	1.11	1.11	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.04	1.02	1.00	1.02	1.00	0.98	0.98	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.90	0.88
2	0.98	0.94	0.91	0.96	0.93	0.90	0.93	0.91	0.88	0.90	0.88	0.87	0.88	0.86	0.85	0.83
3	0.92	0.88	0.85	0.91	0.87	0.84	0.89	0.85	0.83	0.86	0.84	0.82	0.84	0.82	0.80	0.79
4	0.87	0.83	0.80	0.86	0.82	0.79	0.84	0.81	0.78	0.83	0.80	0.77	0.81	0.78	0.76	0.75
5	0.83	0.78	0.75	0.82	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.72
6	0.79	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.68
7	0.76	0.71	0.67	0.75	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.65
8	0.72	0.68	0.64	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.62
9	0.69	0.65	0.62	0.69	0.65	0.61	0.68	0.64	0.61	0.67	0.64	0.61	0.67	0.63	0.61	0.60
10	0.67	0.62	0.59	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.57



Nata 3-1942-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	9344.25	8596.13	4070.81	2718.00	2169.00	1605.94	1151.44	709.88	310.50
45.0	9482.06	8264.25	3913.31	2736.00	2063.81	1505.25	1092.38	597.38	169.14
90.0	9532.69	6827.63	3393.56	2493.00	1874.81	1342.69	988.76	437.63	40.50
135.0	9558.56	7053.19	3547.69	2578.50	1913.63	1352.81	1033.88	438.19	42.75
180.0	9344.25	5634.00	3238.31	2400.19	1776.38	1109.25	884.25	291.26	34.93
225.0	9482.06	5874.19	3237.19	2471.06	1861.88	1321.88	976.44	360.28	38.14
270.0	9516.38	7431.19	3630.38	2592.56	2055.94	1497.94	1071.00	625.50	70.43
315.0	9558.56	7266.38	3467.25	2508.19	1935.00	1465.88	1065.66	547.99	71.10
360.0	9344.25	8596.13	4070.81	2718.00	2169.00	1605.94	1151.44	709.88	310.50

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	29.87	19.74	15.64	13.05	11.81	11.14	10.69	10.52	10.41
45.0	25.82	17.66	14.46	12.32	11.36	10.91	10.63	10.46	10.41
90.0	21.77	16.20	13.22	11.76	11.14	10.74	10.58	10.41	10.29
135.0	23.51	16.88	13.61	11.87	11.08	10.74	10.52	10.41	10.35
180.0	19.86	15.41	12.83	11.64	11.03	10.69	10.52	10.41	10.35
225.0	21.49	15.98	13.33	11.87	11.19	10.80	10.52	10.41	10.29
270.0	27.00	18.84	14.85	12.66	11.64	11.08	10.69	10.46	10.35
315.0	27.96	19.35	15.64	12.94	11.70	11.03	10.63	10.46	10.35
360.0	29.87	19.74	15.64	13.05	11.81	11.14	10.69	10.52	10.41

C/γ(°)	90.0
0.0	10.29
45.0	10.29
90.0	10.24
135.0	10.24
180.0	10.29
225.0	10.29
270.0	10.29
315.0	10.29
360.0	10.29