



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: 2-1299-N
Luminaire: 92.70.045.00+92.70.059.00
Report No: NATA0100
Test No: GC2018070211
LampCAT: NICHIA NFCWD096B-V3
Lamp flux(lm): 2246.0
Number of Lamps: 1
Length(mm): 70
Phm Type: C

Voltage(V): 33.9000
Current(A): 0.5000
Power (W): 16.9500
PF: 0.0000
Ballast type: DC
Width(mm): 70
Height(mm): 0

Photometric Results

Lumens(lm): 1735.42
Efficiency(%): 77.27%
Lumens(lm)/Power(W): 102.38
Central intensity(cd): 7795.849
Maximum intensity(cd): 7795.849
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=21.5
 [C90/270]Total=21.5
Field angle(10%Imax): [C0/180]Total=44.5
 [C90/270]Total=44.5
Maximum s/h(1/2): C0_180=0.36 C90_270=0.36
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(%): 79.27%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.468%

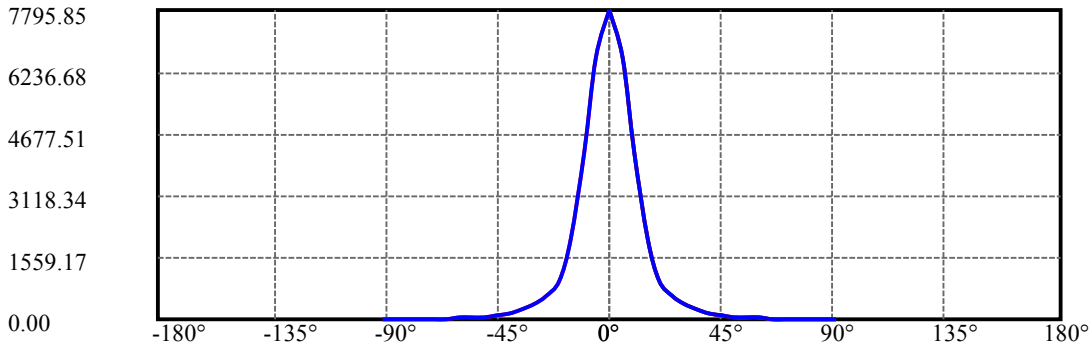
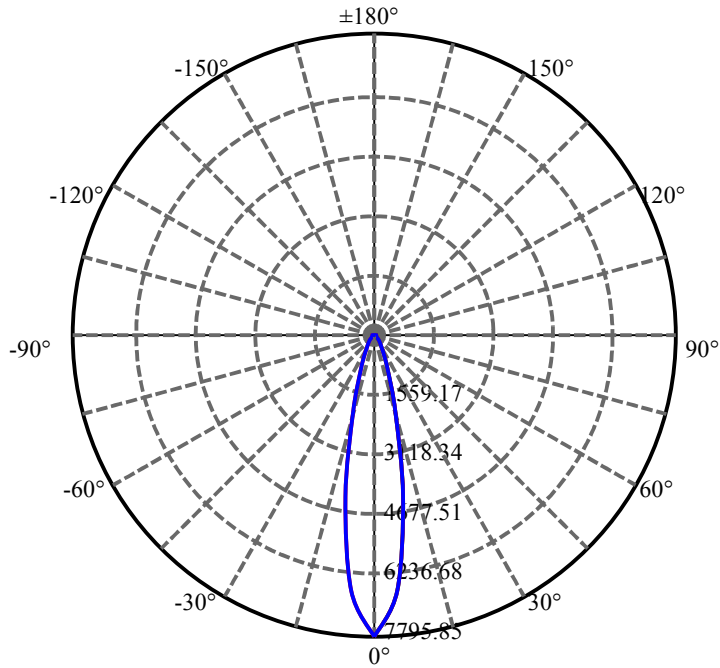
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7795.849	46.621	46.621	2.076%	2.686%
5.0	6605.805	315.581	362.202	14.051%	20.871%
10.0	4232.805	402.891	765.093	17.938%	44.087%
15.0	2037.844	289.106	1054.199	12.872%	60.746%
20.0	960.514	180.071	1234.27	8.017%	71.122%
25.0	562.848	130.385	1364.656	5.805%	78.636%
30.0	375.058	102.792	1467.447	4.577%	84.559%
35.0	251.222	78.984	1546.431	3.517%	89.110%
40.0	161.329	56.842	1603.273	2.531%	92.385%
45.0	101.015	39.152	1642.426	1.743%	94.642%
50.0	64.788	27.204	1669.63	1.211%	96.209%
55.0	40.143	18.025	1687.655	.803%	97.248%
60.0	25.367	12.042	1699.696	.536%	97.942%
65.0	17.240	8.564	1708.261	.381%	98.435%
70.0	14.741	7.593	1715.854	.338%	98.873%
75.0	12.856	6.807	1722.66	.303%	99.265%
80.0	10.970	5.922	1728.582	.264%	99.606%
85.0	8.905	4.863	1733.445	.217%	99.886%
90.0	7.199	1.973	1735.418	.088%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1467.45	65.34%	84.56%
0-40	1603.27	71.38%	92.39%
0-60	1699.70	75.68%	97.94%
0-90	1733.44	77.18%	99.89%
0-120	1733.44	77.18%	99.89%
0-180	1735.42	77.27%	100.00%
60-90	45.79	2.04%	2.64%
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%
0-26.15	1388.33	61.81%	80.00%

ZONAL LUMEN SUMMARY

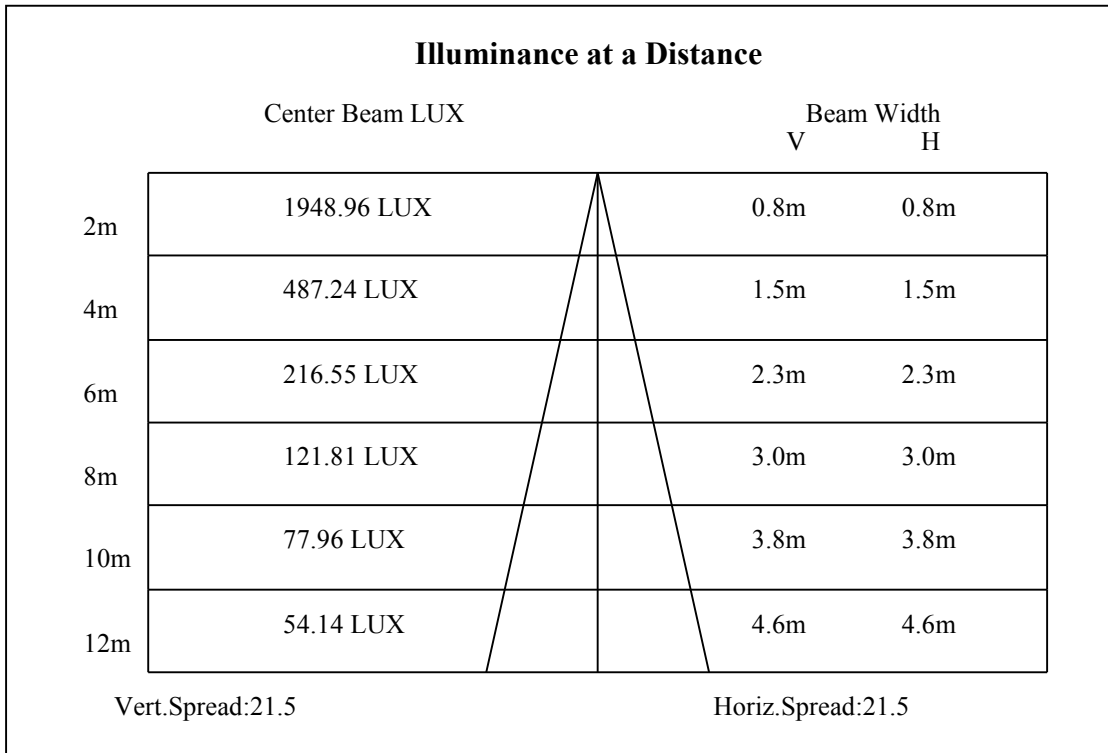
0-10	765.09
10-20	469.18
20-30	233.18
30-40	135.83
40-50	66.36
50-60	30.07
60-70	16.16
70-80	12.73
80-90	4.86
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

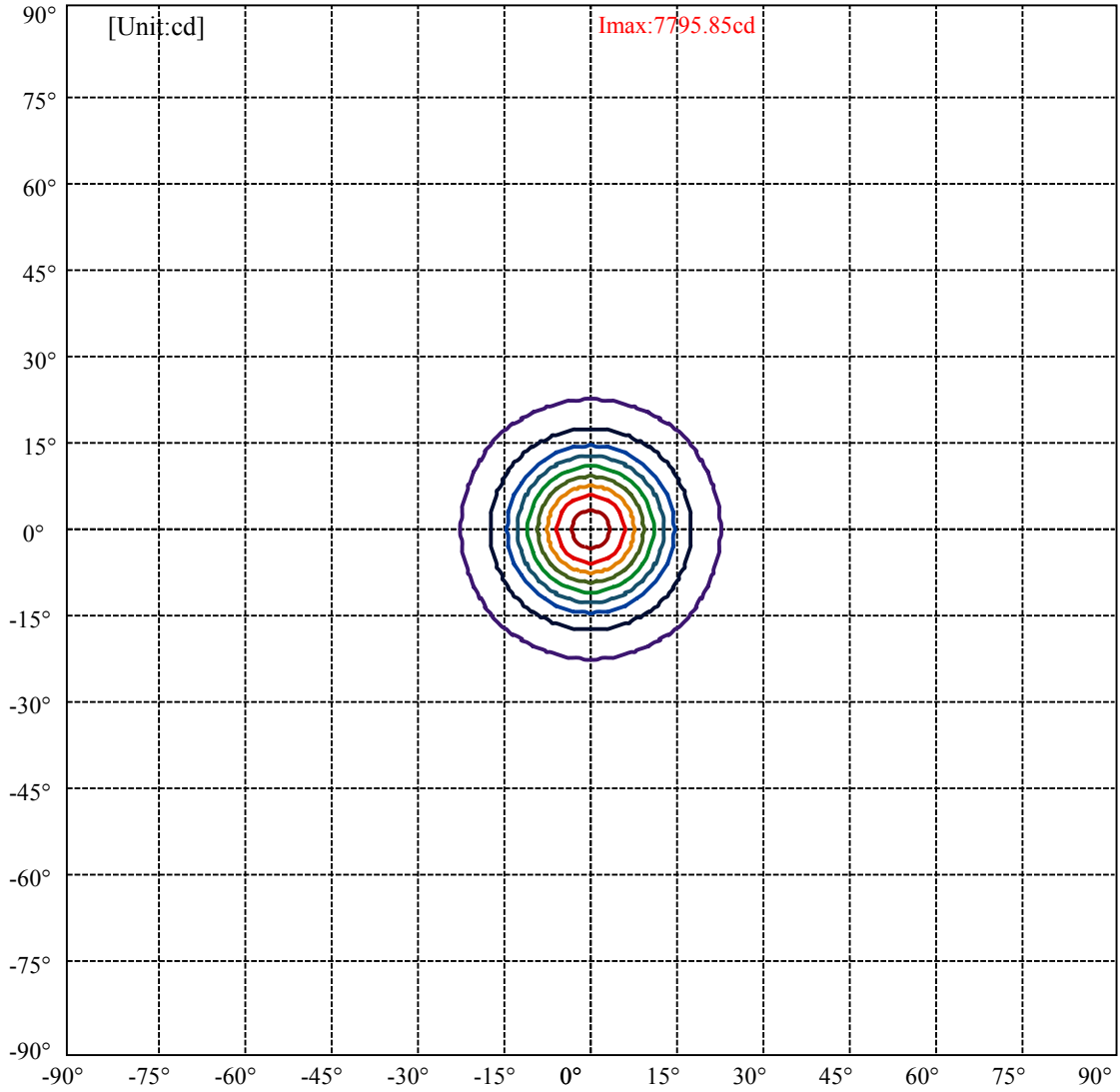


C0(Max): —————
C0/C180: —————
C90/C270: —————

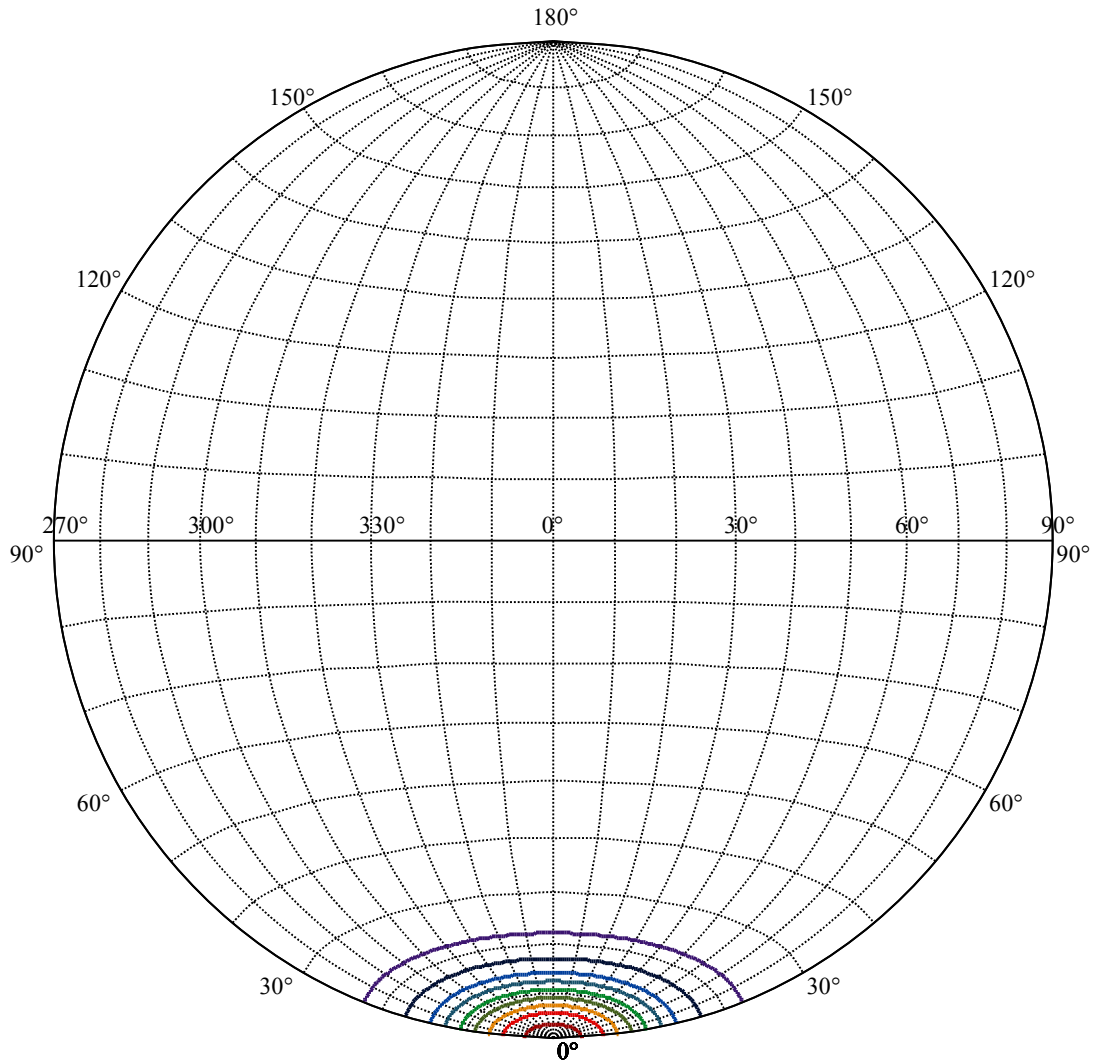
Field angle(10%Imax):C0/180Left:22.3 Right:22.3
:C90/270Left:22.3 Right:22.3

Beam Angle(50%Imax):C0/180Left:10.8 Right:10.8
:C90/270Left:10.8 Right:10.8





(10%Imax) 779.585	—
(20%Imax) 1559.17	—
(30%Imax) 2338.75	—
(40%Imax) 3118.34	—
(50%Imax) 3897.92	—
(60%Imax) 4677.51	—
(70%Imax) 5457.09	—
(80%Imax) 6236.68	—
(90%Imax) 7016.26	—



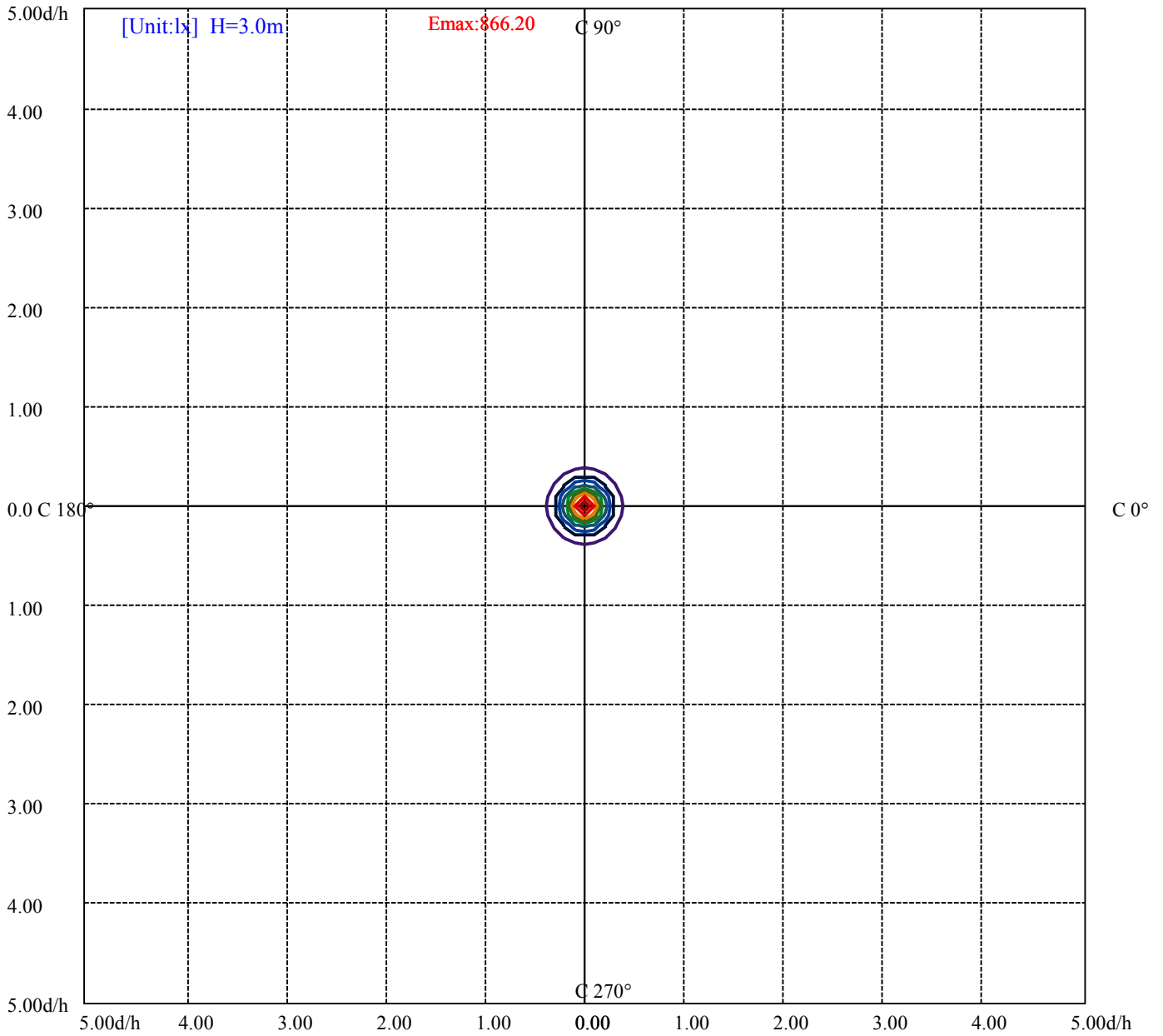
House

[Unit:cd]

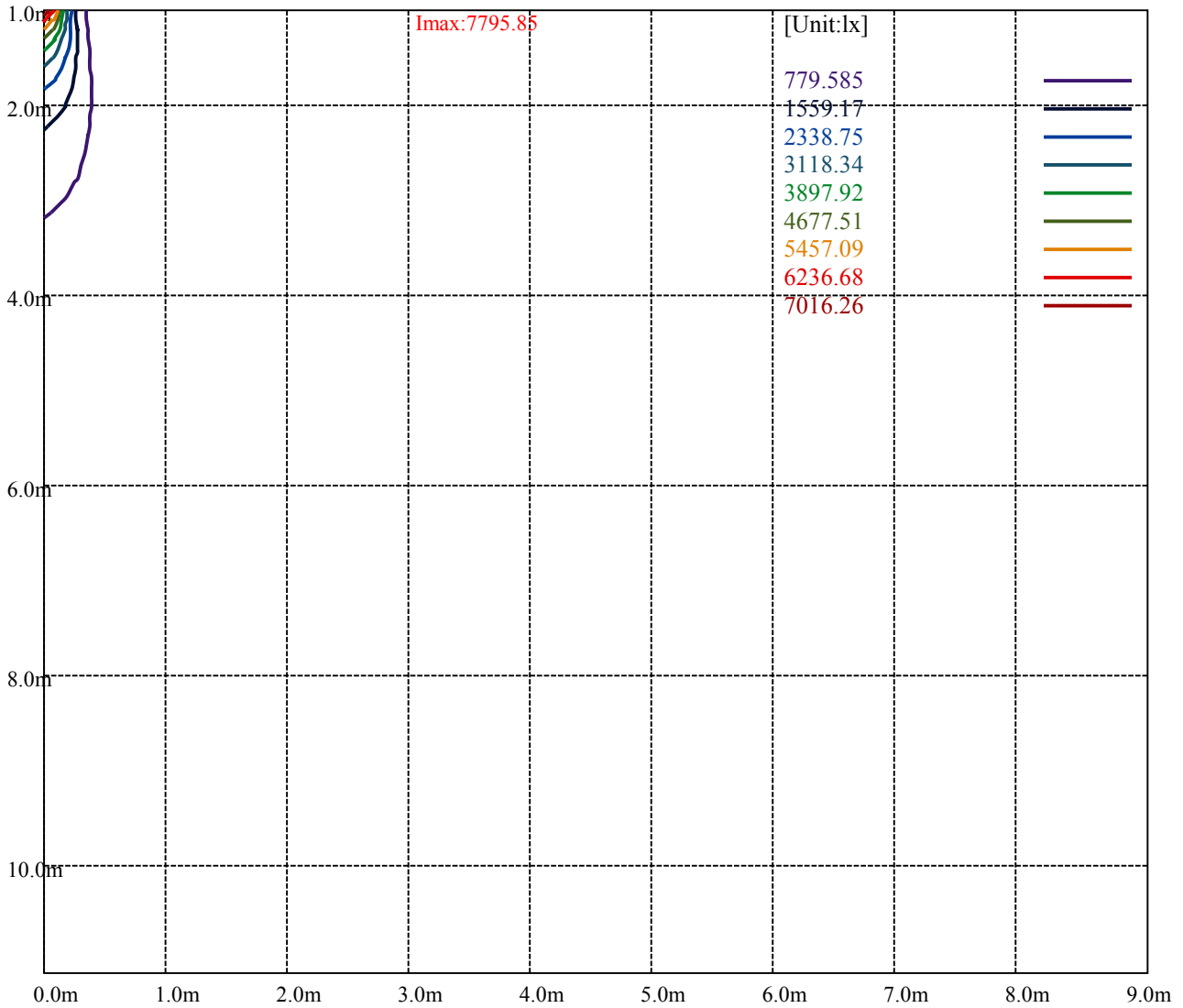
Road

Imax:7795.85

(10%Imax) 779.585	—
(20%Imax) 1559.17	—
(30%Imax) 2338.75	—
(40%Imax) 3118.34	—
(50%Imax) 3897.92	—
(60%Imax) 4677.51	—
(70%Imax) 5457.09	—
(80%Imax) 6236.68	—
(90%Imax) 7016.26	—



(10%Emax) 86.62011	—
(20%Emax) 173.24	—
(30%Emax) 259.86	—
(40%Emax) 346.48	—
(50%Emax) 433.1011	—
(60%Emax) 519.7211	—
(70%Emax) 606.3411	—
(80%Emax) 692.9611	—
(90%Emax) 779.5811	—



Luminance Table

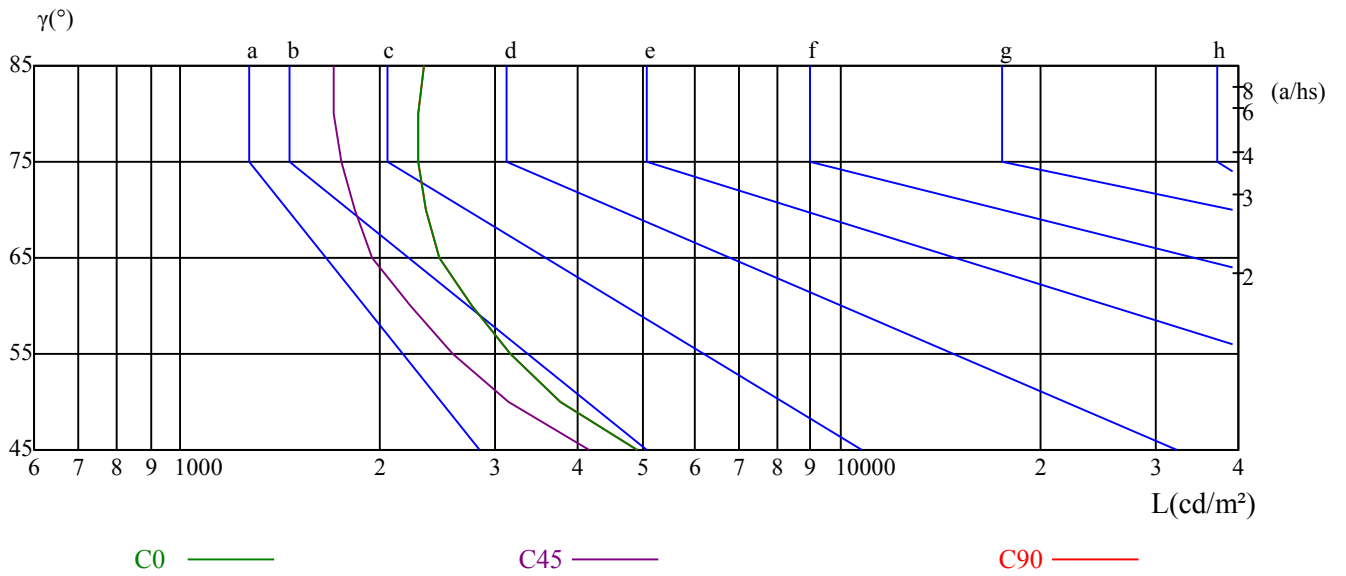
γ	45	50	55	60	65	70	75	80	85
C0	4917	3770	3151	2759	2462	2351	2291	2290	2335
C45	4161	3142	2586	2228	1955	1832	1750	1711	1701
C90	4917	3770	3151	2759	2462	2351	2291	2290	2335

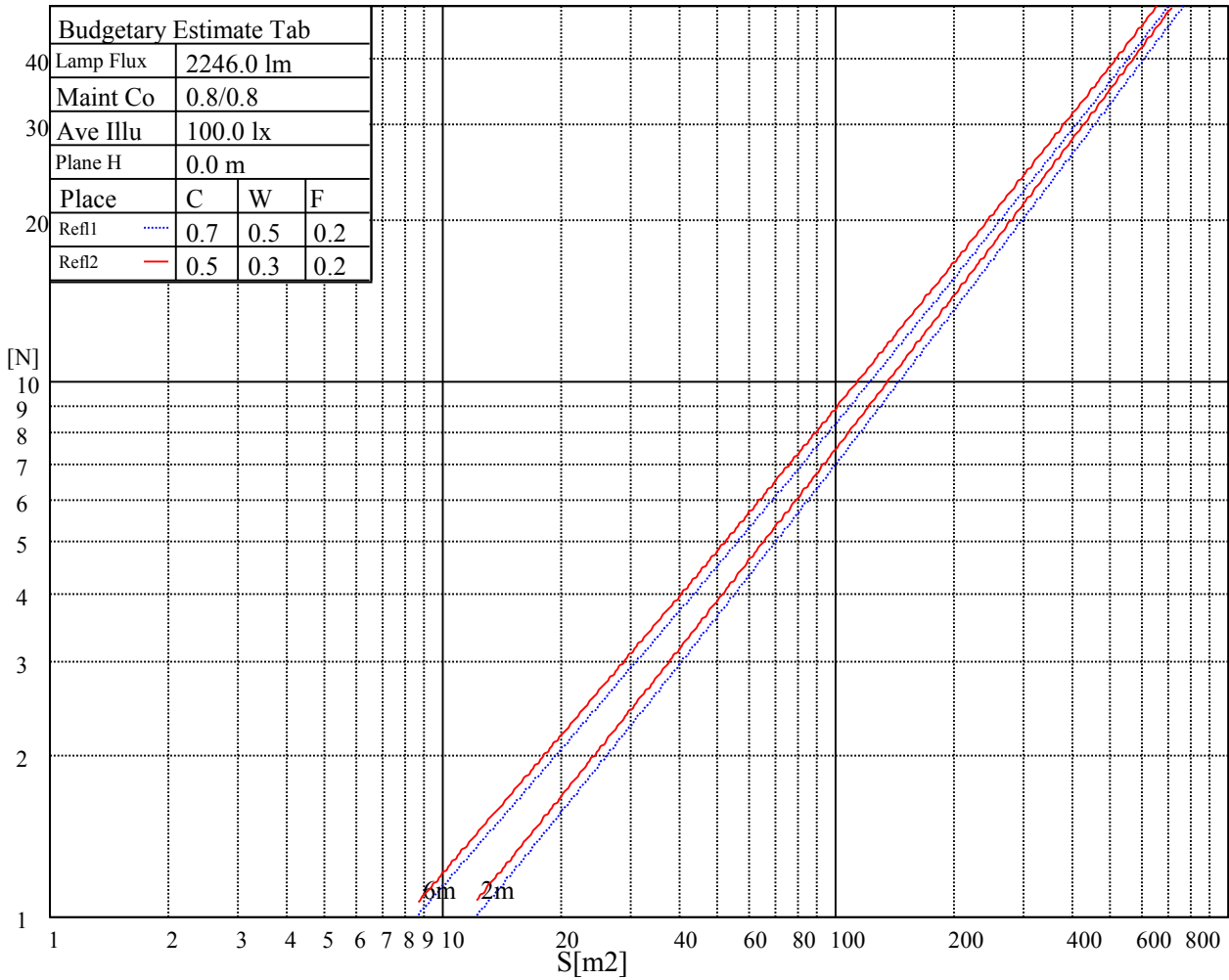
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6594	6594	6594	8981	8981	8981	23219	23219	23219

Glare Table

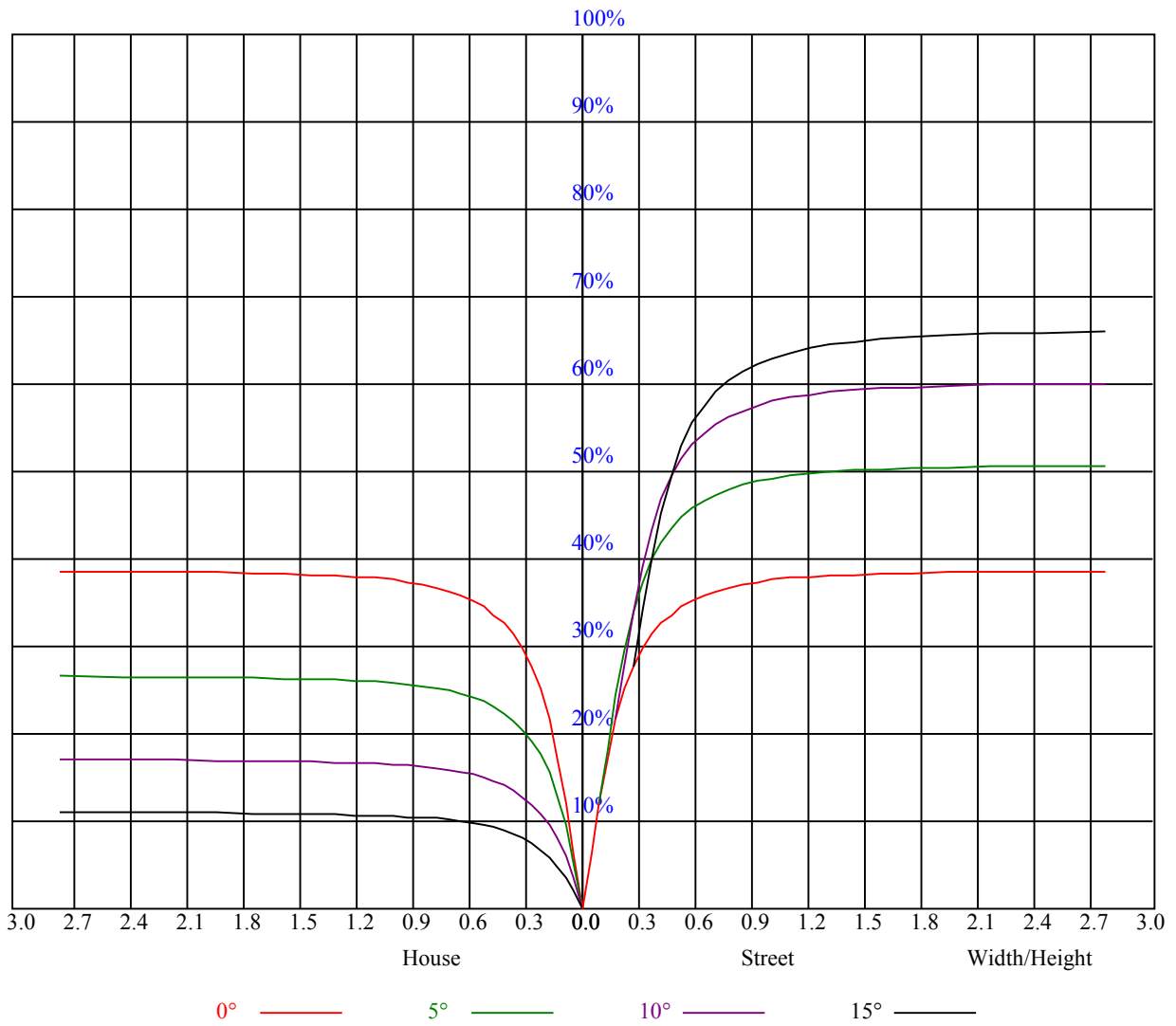
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.86	0.84	0.82	0.84	0.82	0.80	0.81	0.79	0.78	0.78	0.77	0.75	0.75	0.74	0.73	0.72
2	0.81	0.78	0.75	0.80	0.77	0.75	0.78	0.75	0.73	0.75	0.73	0.71	0.73	0.71	0.70	0.69
3	0.77	0.74	0.71	0.76	0.73	0.70	0.74	0.71	0.69	0.72	0.70	0.68	0.71	0.69	0.67	0.66
4	0.74	0.70	0.67	0.73	0.69	0.67	0.71	0.68	0.66	0.70	0.67	0.65	0.68	0.66	0.64	0.63
5	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.63	0.68	0.65	0.63	0.66	0.64	0.62	0.61
6	0.68	0.64	0.62	0.68	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.65	0.62	0.60	0.59
7	0.66	0.62	0.59	0.65	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.63	0.60	0.58	0.57
8	0.64	0.60	0.57	0.63	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.61	0.59	0.57	0.56
9	0.62	0.58	0.56	0.62	0.58	0.56	0.61	0.58	0.55	0.60	0.57	0.55	0.60	0.57	0.55	0.54
10	0.60	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.54	0.59	0.56	0.54	0.58	0.56	0.54	0.53



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	7840.03	6735.05	4276.78	2148.85	1008.08	600.11	400.81	280.79	172.60
45.0	7740.38	7113.29	4857.63	2545.26	1142.97	638.65	445.41	281.89	184.99
90.0	7835.08	6845.71	4506.37	2203.91	995.03	589.32	388.37	251.11	165.61
135.0	7767.91	7204.68	4869.19	2538.10	1138.57	612.78	398.06	279.14	170.62
180.0	7840.03	6522.53	4111.61	1920.92	906.94	528.32	348.56	233.38	155.31
225.0	7740.38	6104.10	3550.04	1342.28	777.73	476.84	314.81	204.20	139.46
270.0	7835.08	6314.97	4064.26	1886.78	874.85	535.70	354.56	251.17	154.60
315.0	7767.91	6006.10	3626.57	1716.66	839.94	521.05	349.88	228.10	147.44
360.0	7840.03	6735.05	4276.78	2148.85	1008.08	600.11	400.81	280.79	172.60

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	107.03	68.16	41.29	25.71	17.51	14.76	12.72	10.96	8.75
45.0	118.65	74.88	44.93	28.24	18.33	15.31	13.32	11.56	9.30
90.0	105.76	67.77	41.46	26.59	17.40	14.92	13.05	11.18	9.19
135.0	107.53	70.42	44.93	28.35	17.95	15.20	13.27	11.40	9.41
180.0	95.41	62.05	39.31	24.94	17.01	14.76	12.88	10.79	9.03
225.0	86.71	55.39	35.29	22.24	16.35	14.26	12.44	10.52	8.42
270.0	95.52	60.73	37.66	24.17	16.85	14.48	12.77	10.85	8.59
315.0	91.50	58.91	36.28	22.68	16.52	14.26	12.39	10.52	8.53
360.0	107.03	68.16	41.29	25.71	17.51	14.76	12.72	10.96	8.75

C/γ(°)	90.0
0.0	7.21
45.0	7.27
90.0	7.16
135.0	7.27
180.0	7.16
225.0	7.21
270.0	7.16
315.0	7.16
360.0	7.21