
Nata

LumCAT: 3-1699-N
Luminaire: 92.70.045.00+92.70.089.00
Report No: NT2017122803
Test No: nata-0100
LampCAT: NICHIA NEVWJ048Z-V1
Lamp flux(lm): 2300.0
Number of Lamps: 1
Length(mm): 79
Phm Type: C

Voltage(V):
Current(A):
Power (W): 16.1000
PF:
Ballast type:
Width(mm): 79
Height(mm): 43

Photometric Results

Lumens(lm): 1843.11
Efficiency(%): 80.14%
Lumens(lm)/Power(W): 114.48
Central intensity(cd): 8117.516
Maximum intensity(cd): 8117.516
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=22.4
[C90/270]Total=22.4
Field angle(10%Imax): [C0/180]Total=44.4
[C90/270]Total=44.4
Maximum s/h(1/2): C0_180=0.38 C90_270=0.38
Maximum s/h(1/4): C0_180=0.38 C90_270=0.38
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 82.17%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.740%

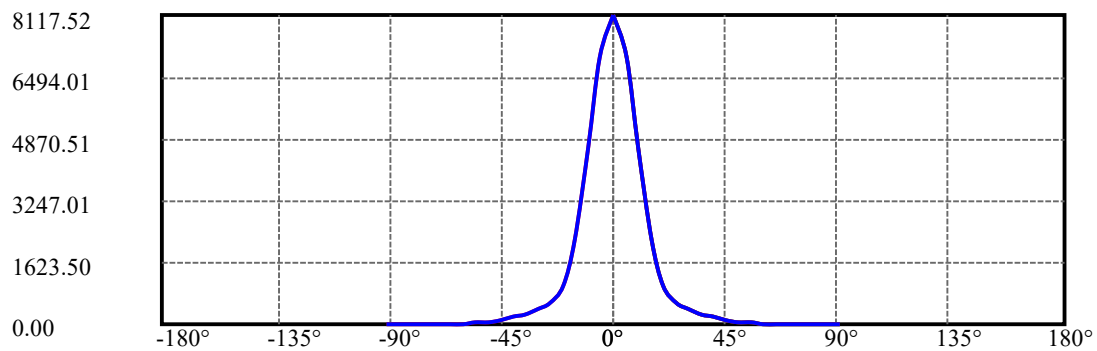
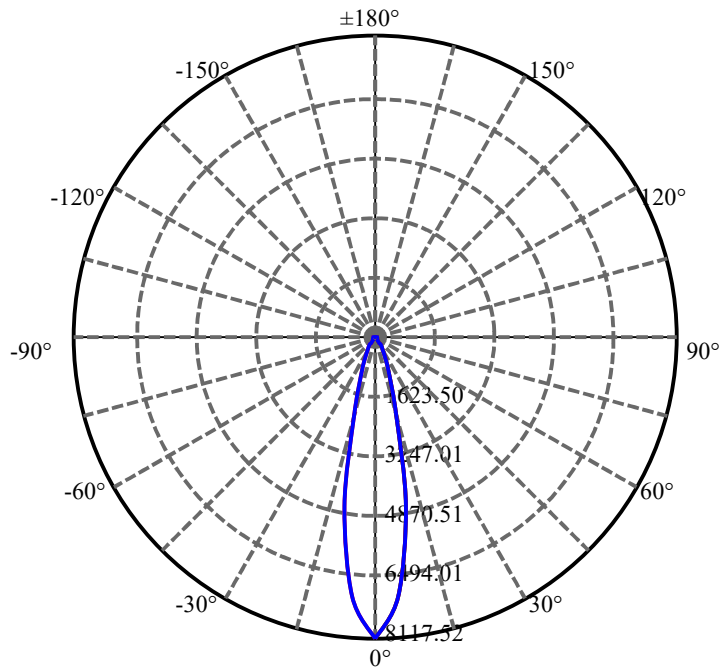
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8117.516	48.544	48.544	2.111%	2.634%
5.0	7013.910	335.078	383.622	14.569%	20.814%
10.0	4636.575	441.323	824.946	19.188%	44.758%
15.0	2216.708	314.481	1139.426	13.673%	61.821%
20.0	997.932	187.086	1326.513	8.134%	71.971%
25.0	579.125	134.156	1460.669	5.833%	79.250%
30.0	390.377	106.990	1567.659	4.652%	85.055%
35.0	265.812	83.571	1651.23	3.634%	89.589%
40.0	180.716	63.673	1714.902	2.768%	93.044%
45.0	109.053	42.268	1757.17	1.838%	95.337%
50.0	64.987	27.288	1784.458	1.186%	96.818%
55.0	35.367	15.880	1800.338	.690%	97.679%
60.0	19.091	9.063	1809.401	.394%	98.171%
65.0	15.030	7.467	1816.868	.325%	98.576%
70.0	13.503	6.955	1823.823	.302%	98.953%
75.0	12.188	6.453	1830.276	.281%	99.303%
80.0	10.667	5.758	1836.034	.250%	99.616%
85.0	9.139	4.990	1841.024	.217%	99.887%
90.0	7.625	2.090	1843.114	.091%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1567.66	68.16%	85.05%
0-40	1714.90	74.56%	93.04%
0-60	1809.40	78.67%	98.17%
0-90	1841.02	80.04%	99.89%
0-120	1841.02	80.04%	99.89%
0-180	1843.11	80.14%	100.00%
60-90	40.69	1.77%	2.21%
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%
0-25.65	1474.49	64.11%	80.00%

ZONAL LUMEN SUMMARY

0-10	824.95
10-20	501.57
20-30	241.15
30-40	147.24
40-50	69.56
50-60	24.94
60-70	14.42
70-80	12.21
80-90	4.99
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: —————

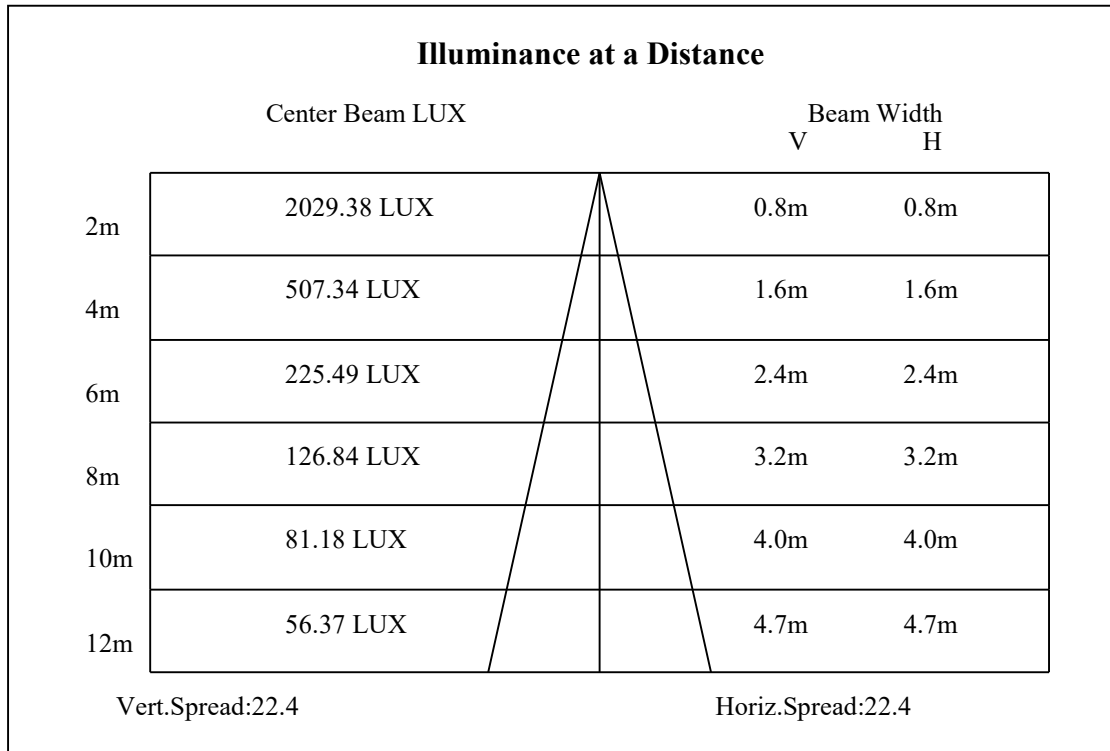
C90/C270: —————

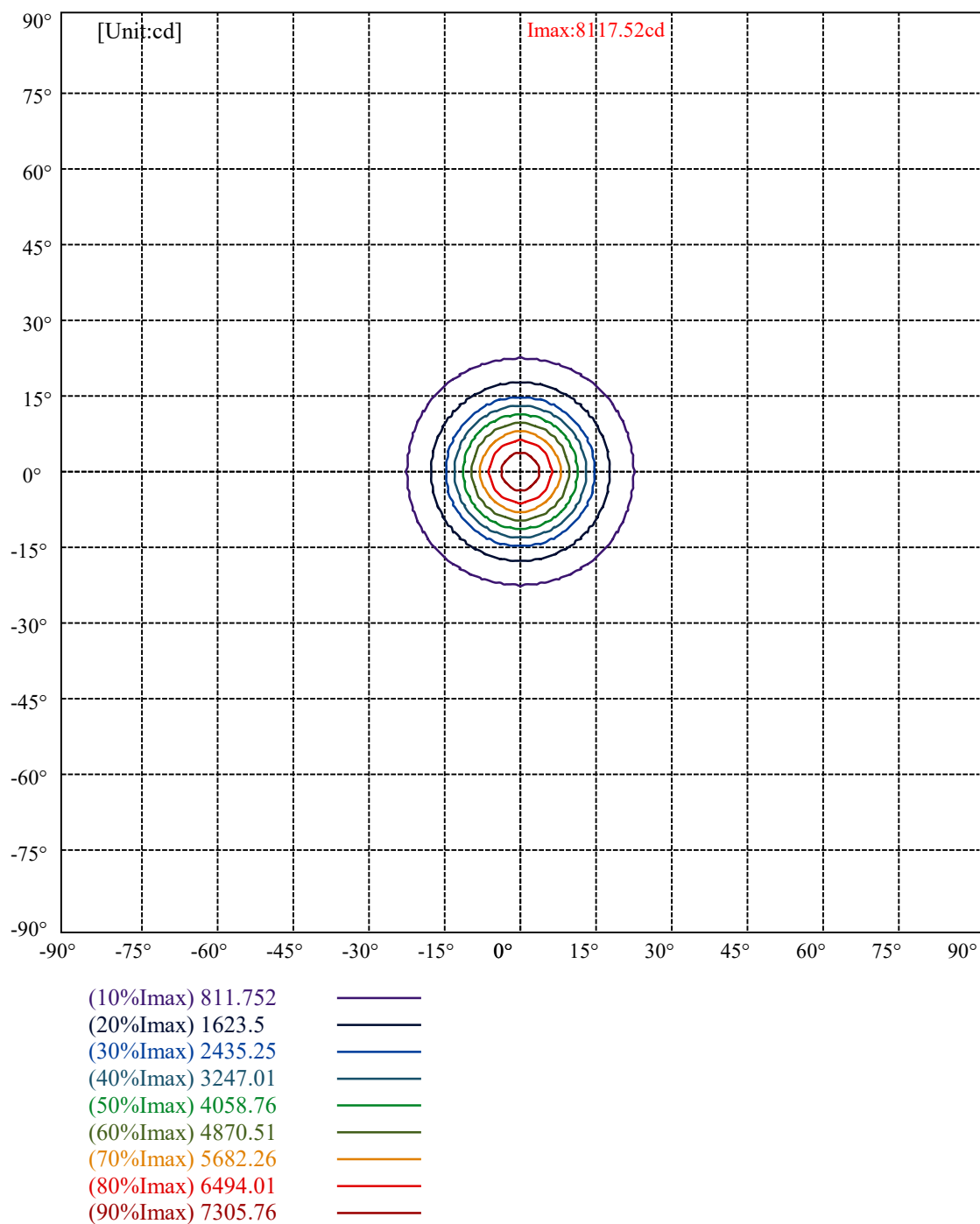
Field angle(10%Imax):C0/180Left:22.2 Right:22.2

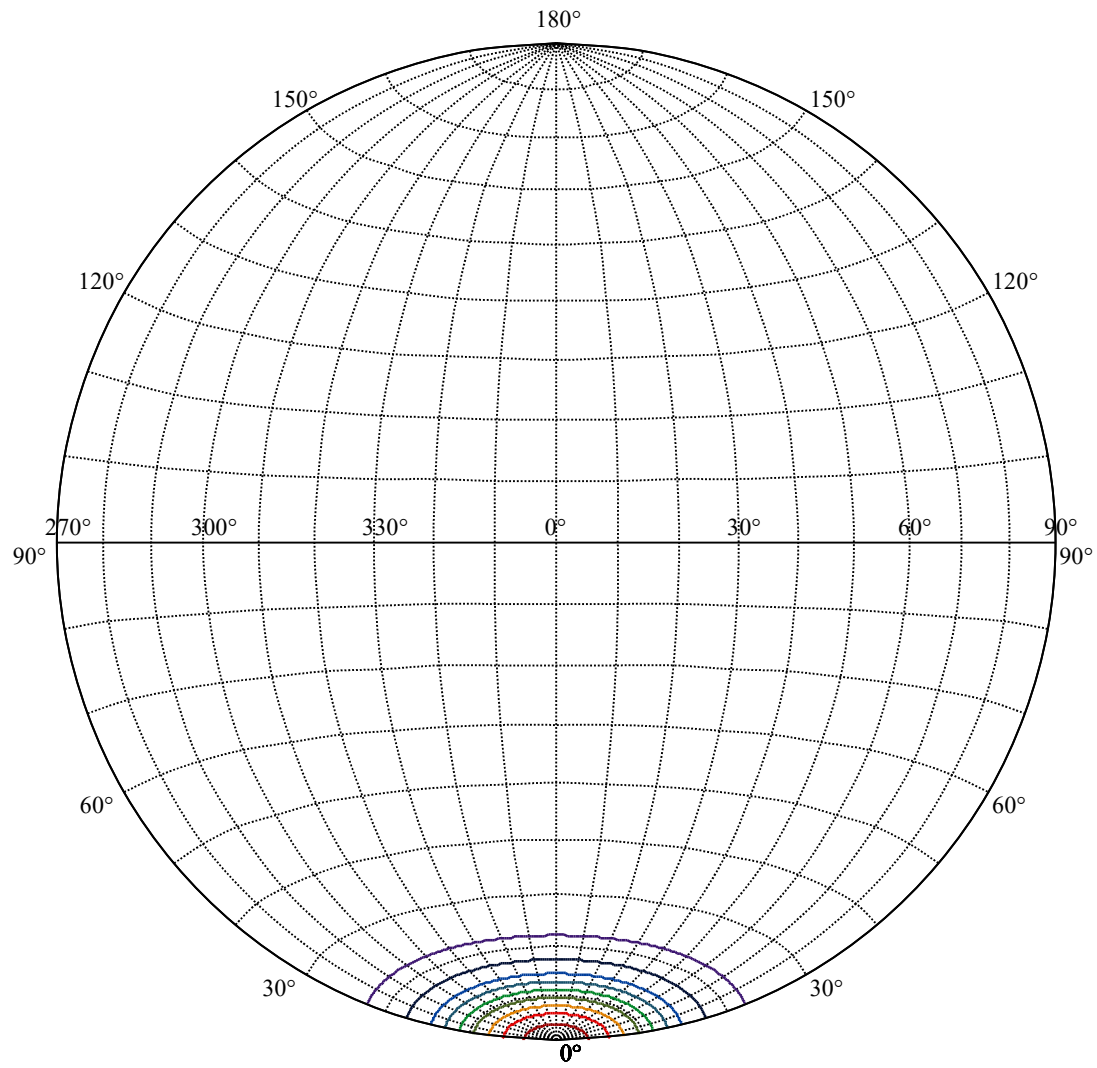
:C90/270Left:22.2 Right:22.2

Beam Angle(50%Imax):C0/180Left:11.2 Right:11.2

:C90/270Left:11.2 Right:11.2





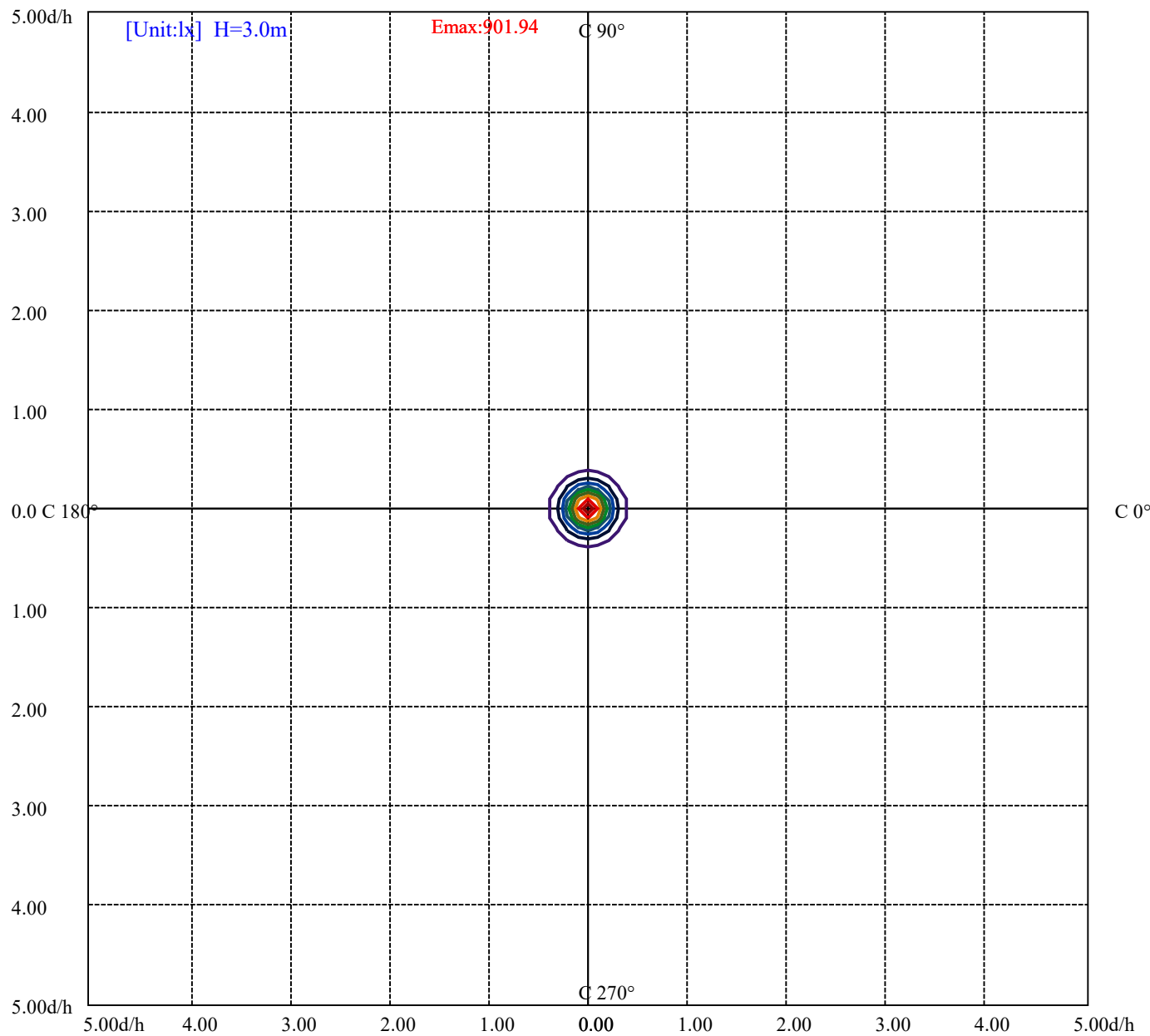


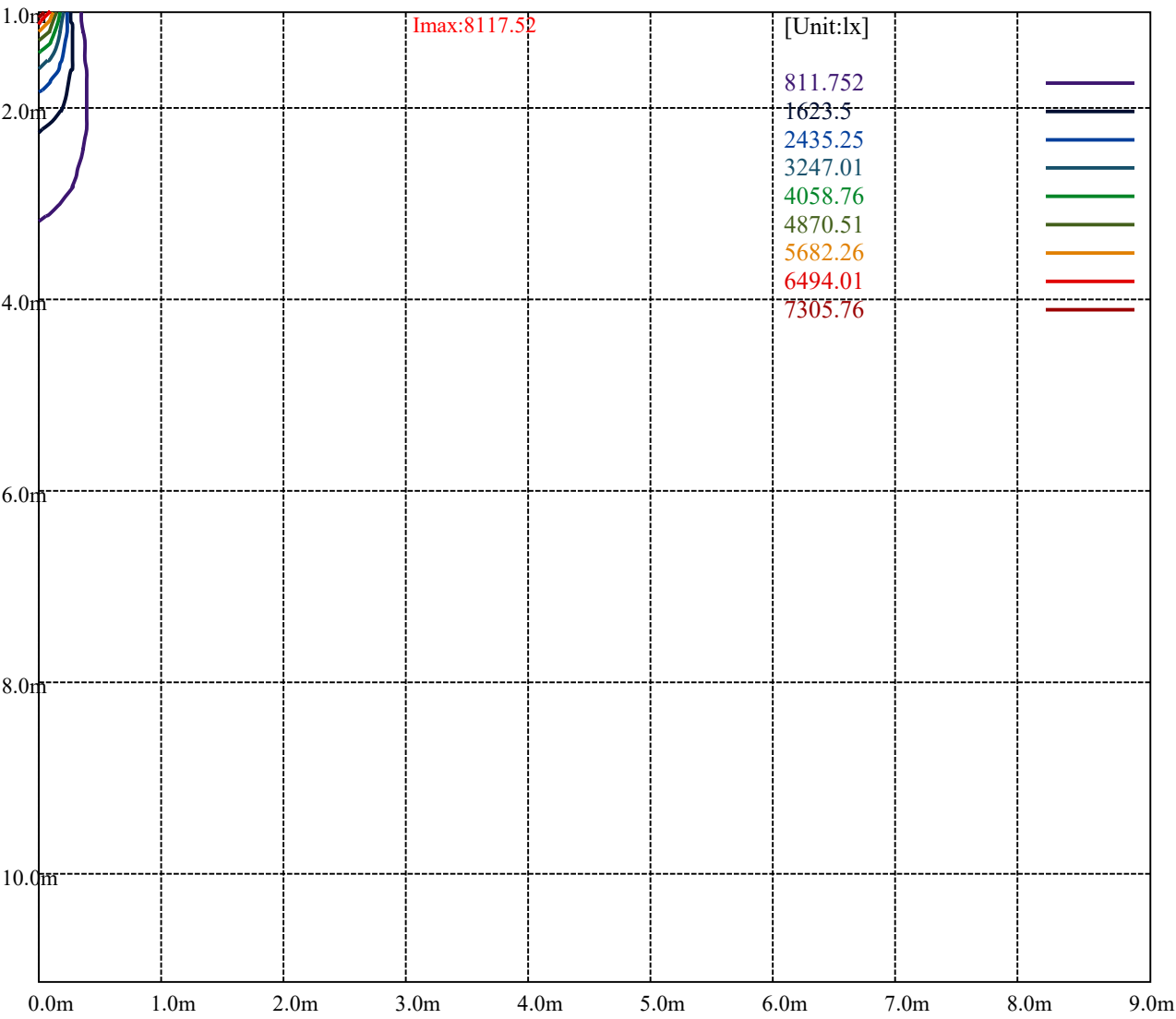
House

[Unit:cd]

Road

Imax:8117.52	
(10%Imax) 811.752	_____
(20%Imax) 1623.5	_____
(30%Imax) 2435.25	_____
(40%Imax) 3247.01	_____
(50%Imax) 4058.76	_____
(60%Imax) 4870.51	_____
(70%Imax) 5682.26	_____
(80%Imax) 6494.01	_____
(90%Imax) 7305.76	_____





Luminance Table

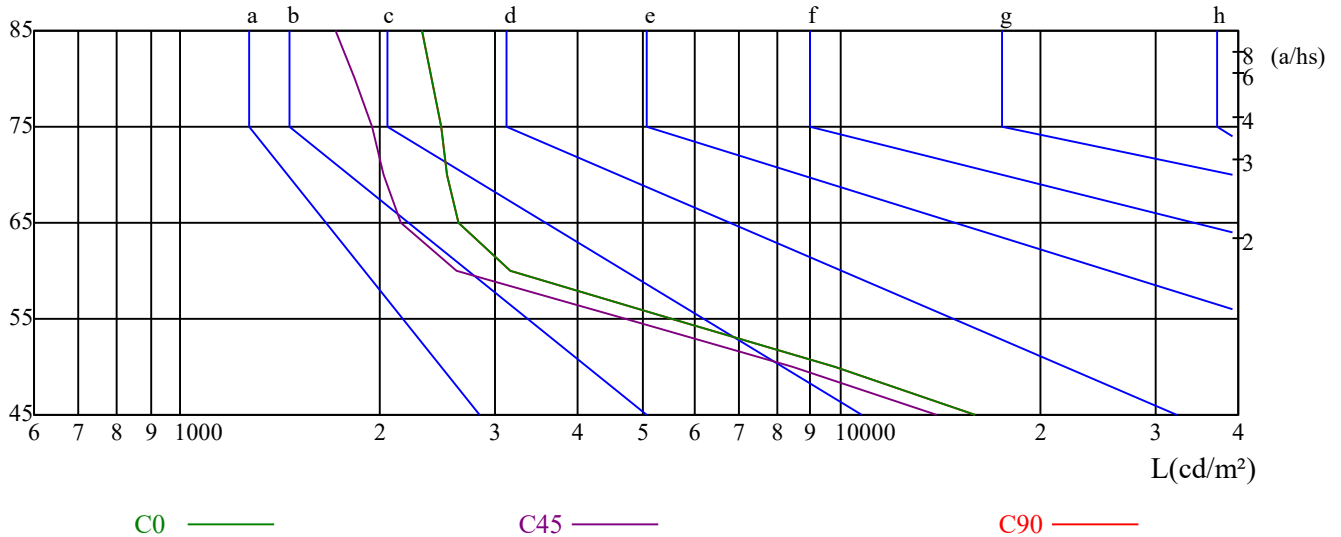
γ	45	50	55	60	65	70	75	80	85
C0	16002	9826	5559	3149	2629	2535	2489	2408	2327
C45	13963	8449	4706	2622	2150	2031	1948	1834	1715
C90	16002	9826	5559	3149	2629	2535	2489	2408	2327

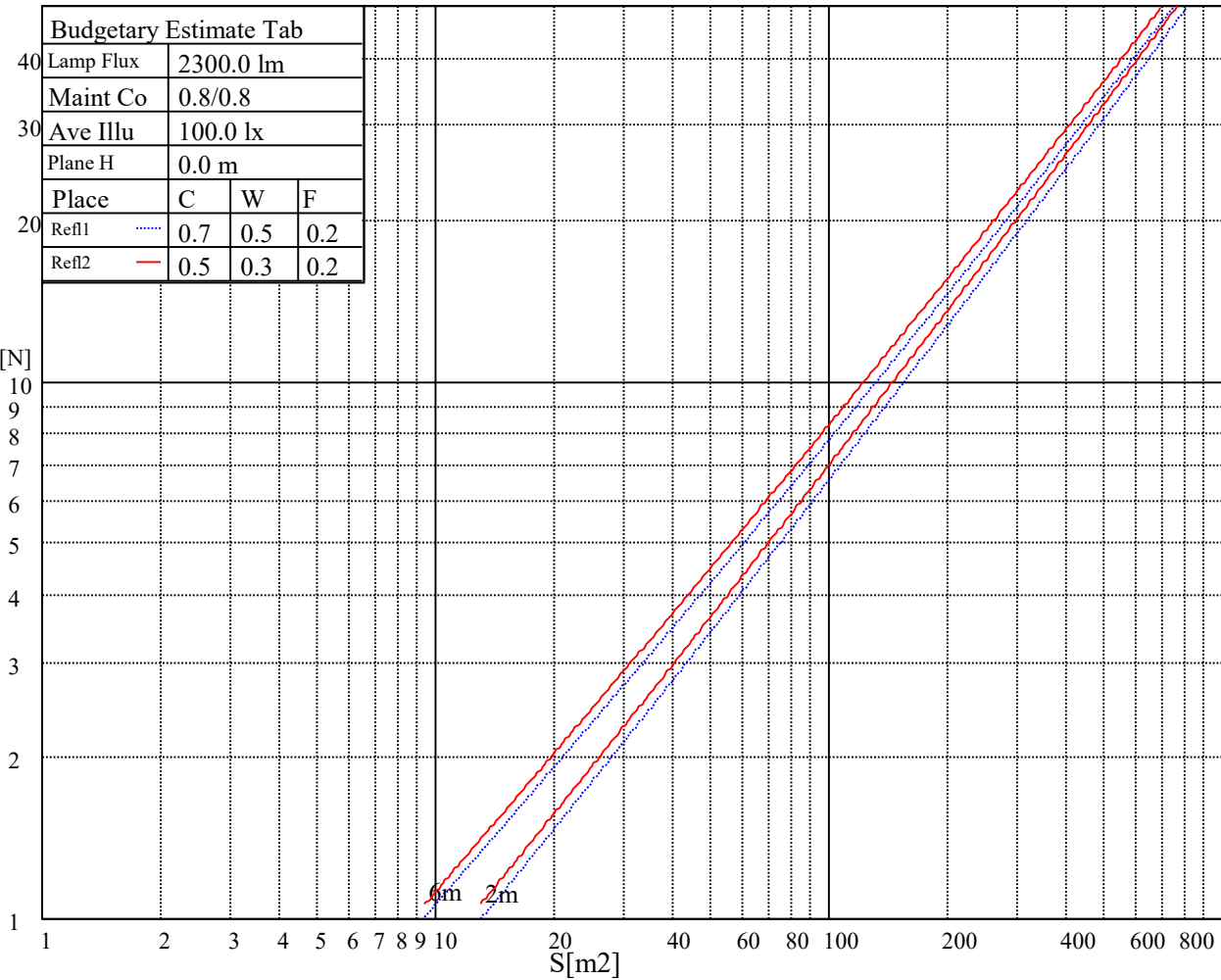
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5698	5698	5698	7545	7545	7545	16802	16802	16802

Glare Table

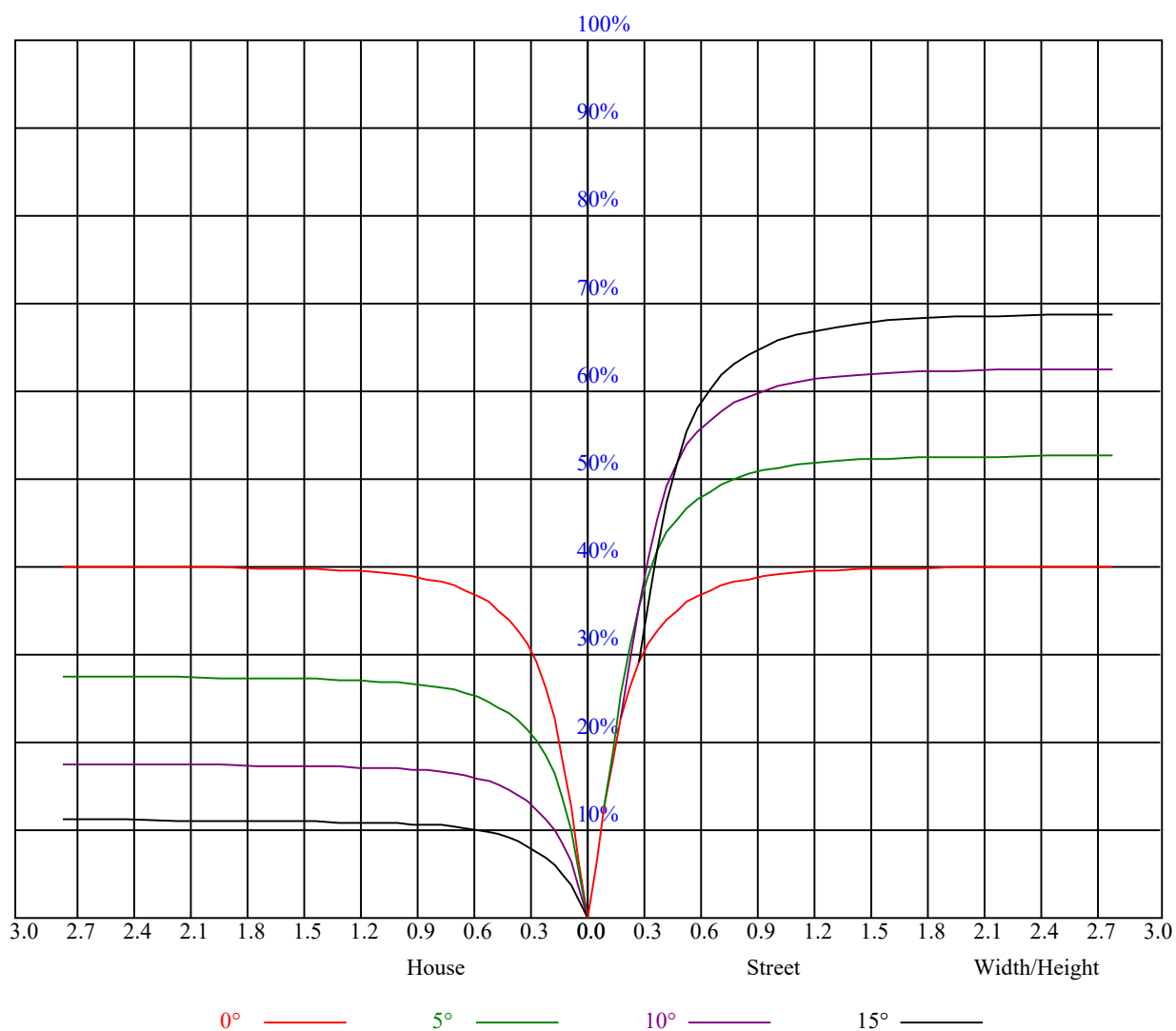
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve

 $\gamma(^{\circ})$ 



RHOC	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	0.98	0.98	0.98	0.96	0.96	0.96	0.91	0.91	0.91	0.87	0.87	0.87	0.84	0.84	0.84	0.82
1	0.89	0.87	0.85	0.88	0.85	0.83	0.84	0.82	0.81	0.81	0.80	0.78	0.78	0.77	0.76	0.75
2	0.85	0.81	0.79	0.83	0.80	0.78	0.81	0.78	0.76	0.78	0.76	0.74	0.76	0.74	0.73	0.71
3	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.75	0.73	0.71	0.74	0.72	0.70	0.69
4	0.77	0.73	0.70	0.76	0.72	0.70	0.74	0.71	0.69	0.73	0.70	0.68	0.71	0.69	0.67	0.66
5	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.71	0.68	0.65	0.69	0.67	0.65	0.64
6	0.71	0.67	0.64	0.71	0.67	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.67	0.65	0.63	0.62
7	0.69	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.62	0.66	0.63	0.61	0.66	0.63	0.61	0.60
8	0.67	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.65	0.62	0.59	0.64	0.61	0.59	0.58
9	0.65	0.61	0.58	0.64	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.58	0.62	0.60	0.58	0.57
10	0.63	0.59	0.57	0.63	0.59	0.57	0.62	0.59	0.57	0.61	0.58	0.56	0.61	0.58	0.56	0.55



Intensity data(cd)										Appendix Page: 14 Total:14	
C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	8117.52	7013.91	4636.58	2216.71	997.93	579.13	390.38	265.81	180.72		
45.0	8117.52	7013.91	4636.58	2216.71	997.93	579.13	390.38	265.81	180.72		
90.0	8117.52	7013.91	4636.58	2216.71	997.93	579.13	390.38	265.81	180.72		
135.0	8117.52	7013.91	4636.58	2216.71	997.93	579.13	390.38	265.81	180.72		
180.0	8117.52	7013.91	4636.58	2216.71	997.93	579.13	390.38	265.81	180.72		
225.0	8117.52	7013.91	4636.58	2216.71	997.93	579.13	390.38	265.81	180.72		
270.0	8117.52	7013.91	4636.58	2216.71	997.93	579.13	390.38	265.81	180.72		
315.0	8117.52	7013.91	4636.58	2216.71	997.93	579.13	390.38	265.81	180.72		
360.0	8117.52	7013.91	4636.58	2216.71	997.93	579.13	390.38	265.81	180.72		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	109.05	64.99	35.37	19.09	15.03	13.50	12.19	10.67	9.14		
45.0	109.05	64.99	35.37	19.09	15.03	13.50	12.19	10.67	9.14		
90.0	109.05	64.99	35.37	19.09	15.03	13.50	12.19	10.67	9.14		
135.0	109.05	64.99	35.37	19.09	15.03	13.50	12.19	10.67	9.14		
180.0	109.05	64.99	35.37	19.09	15.03	13.50	12.19	10.67	9.14		
225.0	109.05	64.99	35.37	19.09	15.03	13.50	12.19	10.67	9.14		
270.0	109.05	64.99	35.37	19.09	15.03	13.50	12.19	10.67	9.14		
315.0	109.05	64.99	35.37	19.09	15.03	13.50	12.19	10.67	9.14		
360.0	109.05	64.99	35.37	19.09	15.03	13.50	12.19	10.67	9.14		
C/ γ (°)	90.0										
0.0	7.63										
45.0	7.63										
90.0	7.63										
135.0	7.63										
180.0	7.63										
225.0	7.63										
270.0	7.63										
315.0	7.63										
360.0	7.63										