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Nata

LumCAT: 2-1794-N	
Luminaire: 92.70.135.00	
Report No: NATA0100	Voltage(V): 33.8000
Test No: GC2018062507	Current(A): 0.5000
LampCAT: NICHIA NFCWJ120B-V3	Power (W): 16.9000
Lamp flux(lm): 2272.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 69	Width(mm): 69
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1919.32
Efficiency(%): 84.48%
Lumens(lm)/Power(W): 115.67
Central intensity(cd): 6236.927
Maximum intensity(cd): 6236.927
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=27.6
 [C90/270]Total=27.6
Field angle(10%Imax): [C0/180]Total=57.8
 [C90/270]Total=57.8
Maximum s/h(1/2): C0_180=0.46 C90_270=0.46
Maximum s/h(1/4): C0_180=0.49 C90_270=0.49
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 86.04%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.447%

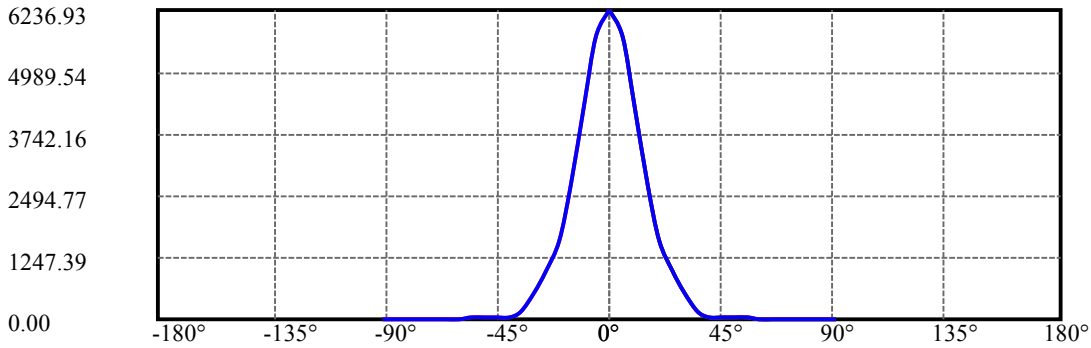
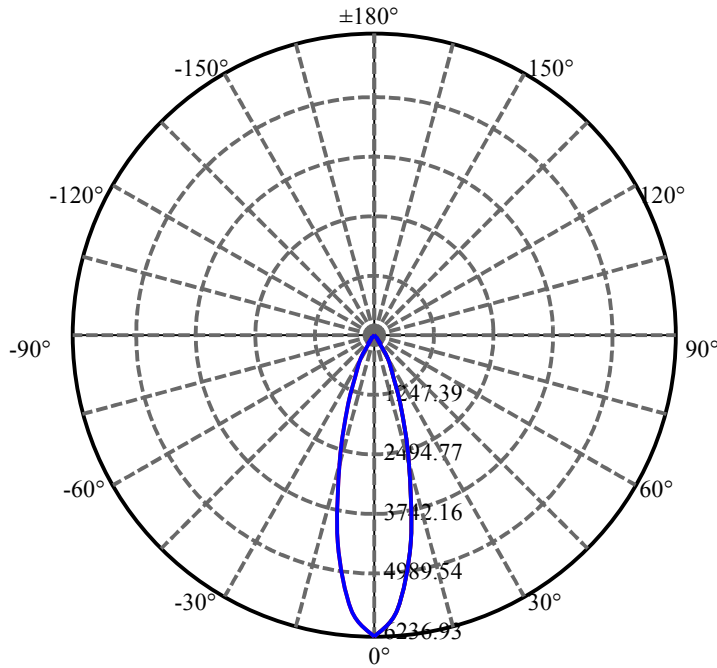
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6236.927	37.298	37.298	1.642%	1.943%
5.0	5692.075	271.929	309.227	11.969%	16.111%
10.0	4341.128	413.202	722.429	18.187%	37.640%
15.0	2730.660	387.394	1109.824	17.051%	57.824%
20.0	1594.640	298.954	1408.777	13.158%	73.400%
25.0	958.133	221.954	1630.731	9.769%	84.964%
30.0	531.700	145.722	1776.454	6.414%	92.557%
35.0	163.490	51.401	1827.855	2.262%	95.235%
40.0	46.812	16.493	1844.348	.726%	96.094%
45.0	32.786	12.708	1857.056	.559%	96.756%
50.0	25.347	10.643	1867.699	.468%	97.311%
55.0	20.770	9.326	1877.025	.410%	97.796%
60.0	17.487	8.301	1885.326	.365%	98.229%
65.0	14.707	7.306	1892.632	.322%	98.610%
70.0	13.021	6.707	1899.339	.295%	98.959%
75.0	11.734	6.213	1905.551	.273%	99.283%
80.0	10.791	5.825	1911.377	.256%	99.586%
85.0	10.082	5.505	1916.882	.242%	99.873%
90.0	8.885	2.435	1919.317	.107%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1776.45	78.19%	92.56%
0-40	1844.35	81.18%	96.09%
0-60	1885.33	82.98%	98.23%
0-90	1916.88	84.37%	99.87%
0-120	1916.88	84.37%	99.87%
0-180	1919.32	84.48%	100.00%
60-90	39.86	1.75%	2.08%
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%
0-22.85	1535.45	67.58%	80.00%

ZONAL LUMEN SUMMARY

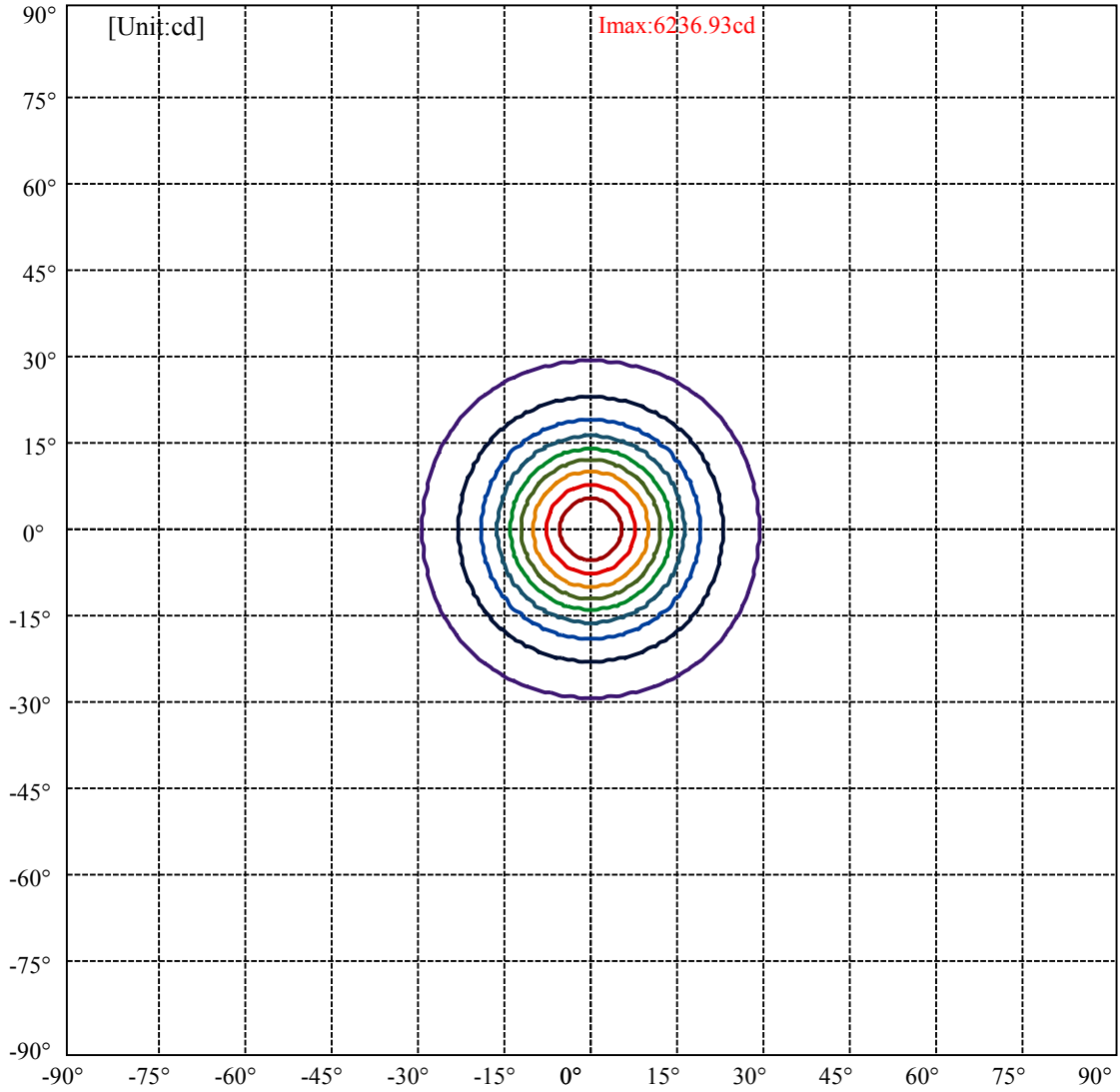
0-10	722.43
10-20	686.35
20-30	367.68
30-40	67.89
40-50	23.35
50-60	17.63
60-70	14.01
70-80	12.04
80-90	5.51
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



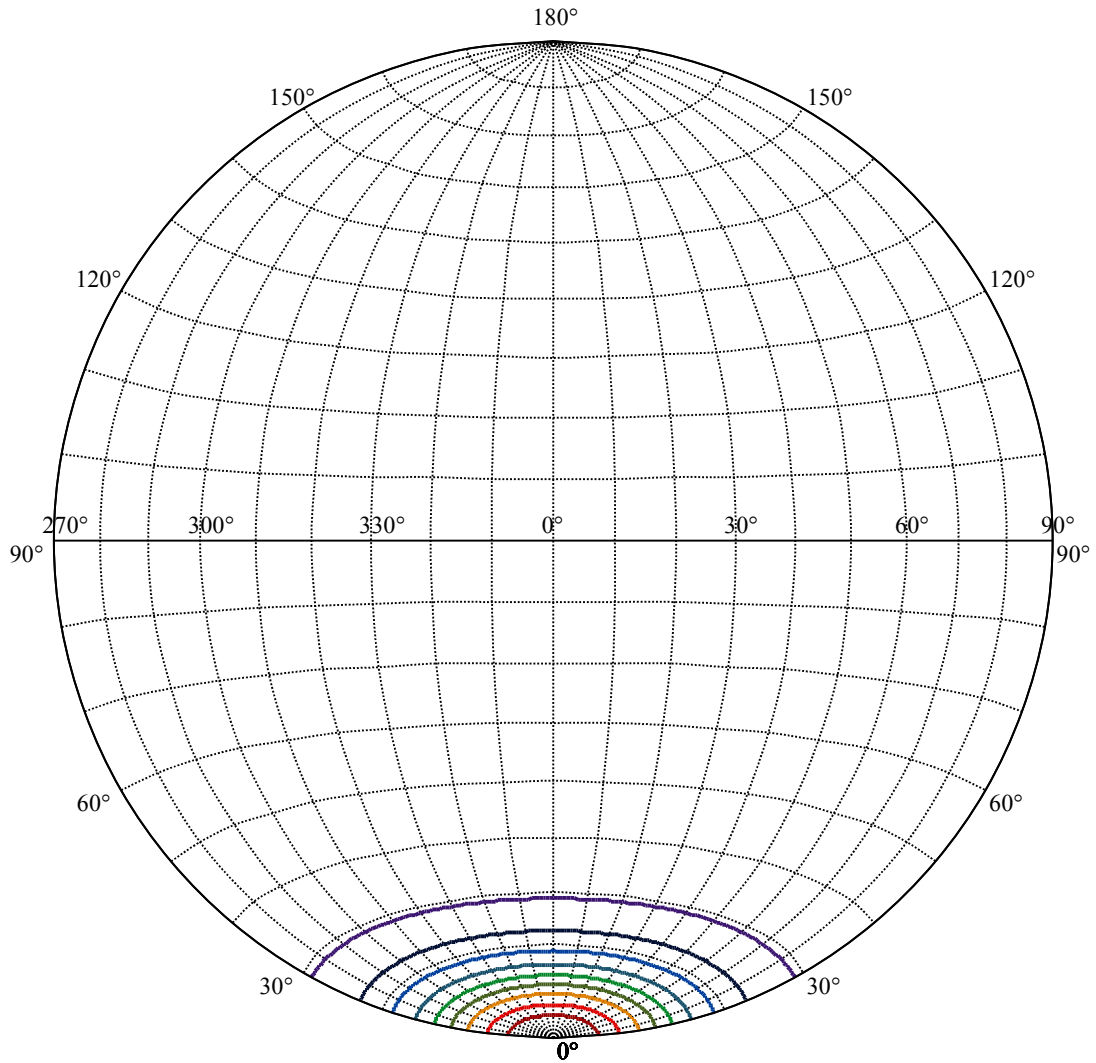
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:28.9 Right:28.9
:C90/270Left:28.9 Right:28.9

Beam Angle(50%Imax):C0/180Left:13.8 Right:13.8
:C90/270Left:13.8 Right:13.8



(10%Imax) 623.693	—
(20%Imax) 1247.39	—
(30%Imax) 1871.08	—
(40%Imax) 2494.77	—
(50%Imax) 3118.46	—
(60%Imax) 3742.16	—
(70%Imax) 4365.85	—
(80%Imax) 4989.54	—
(90%Imax) 5613.23	—



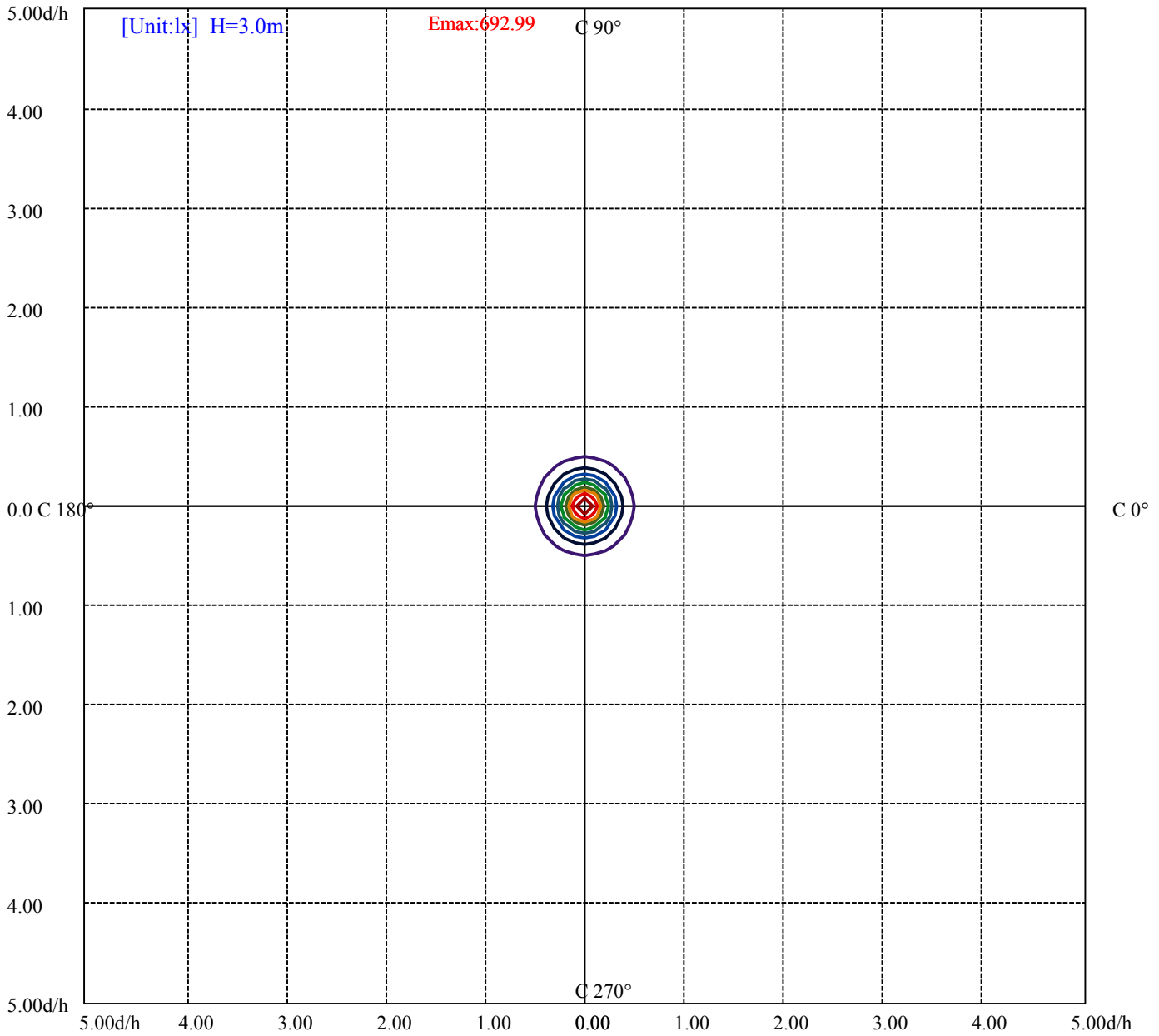
House

[Unit:cd]

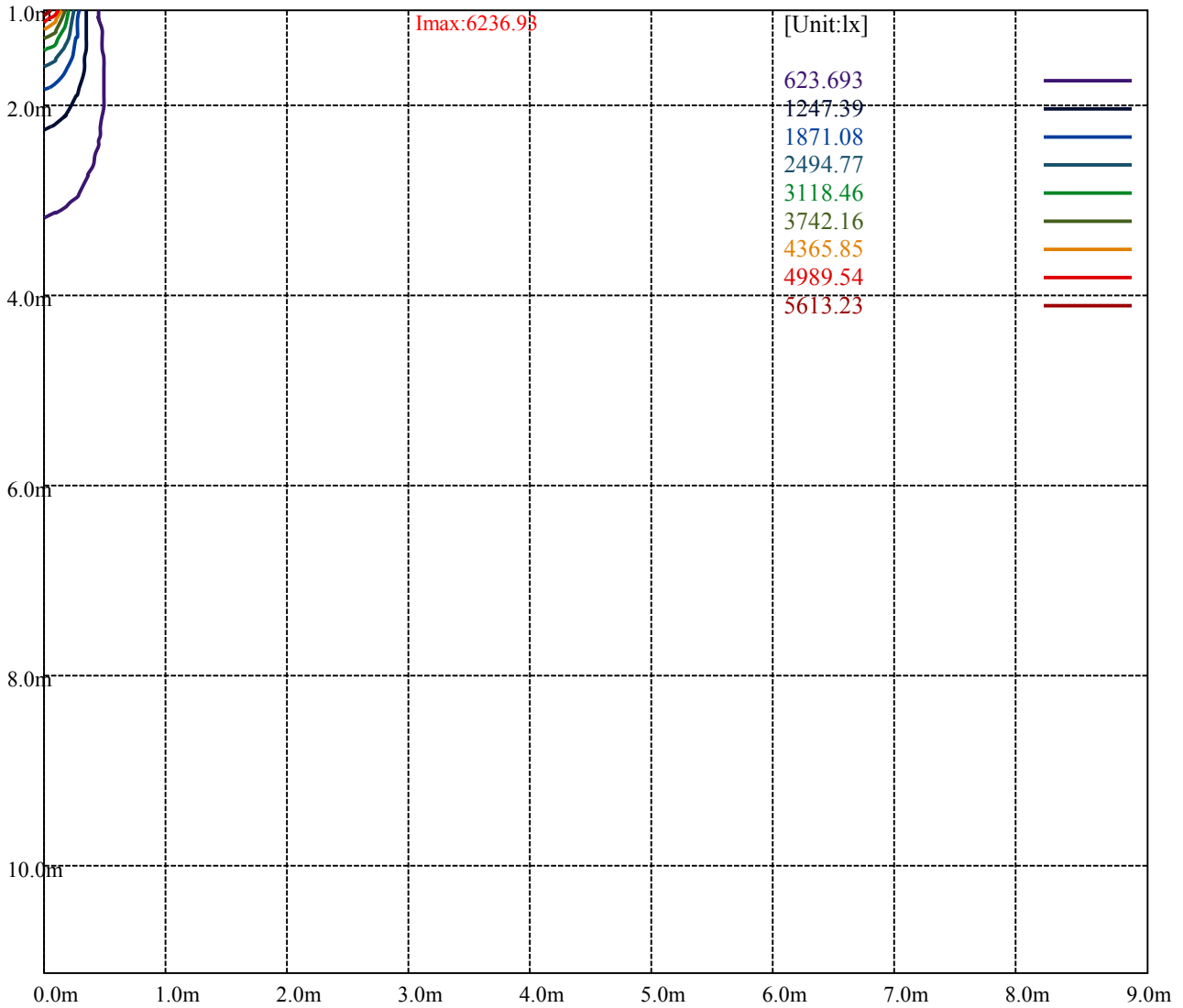
Road

Imax:6236.93

(10%Imax) 623.693	—
(20%Imax) 1247.39	—
(30%Imax) 1871.08	—
(40%Imax) 2494.77	—
(50%Imax) 3118.46	—
(60%Imax) 3742.16	—
(70%Imax) 4365.85	—
(80%Imax) 4989.54	—
(90%Imax) 5613.23	—



- (10%Emax) 69.299
- (20%Emax) 138.5978
- (30%Emax) 207.8967
- (40%Emax) 277.1956
- (50%Emax) 346.4955
- (60%Emax) 415.7944
- (70%Emax) 485.0933
- (80%Emax) 554.3922
- (90%Emax) 623.6912



Luminance Table

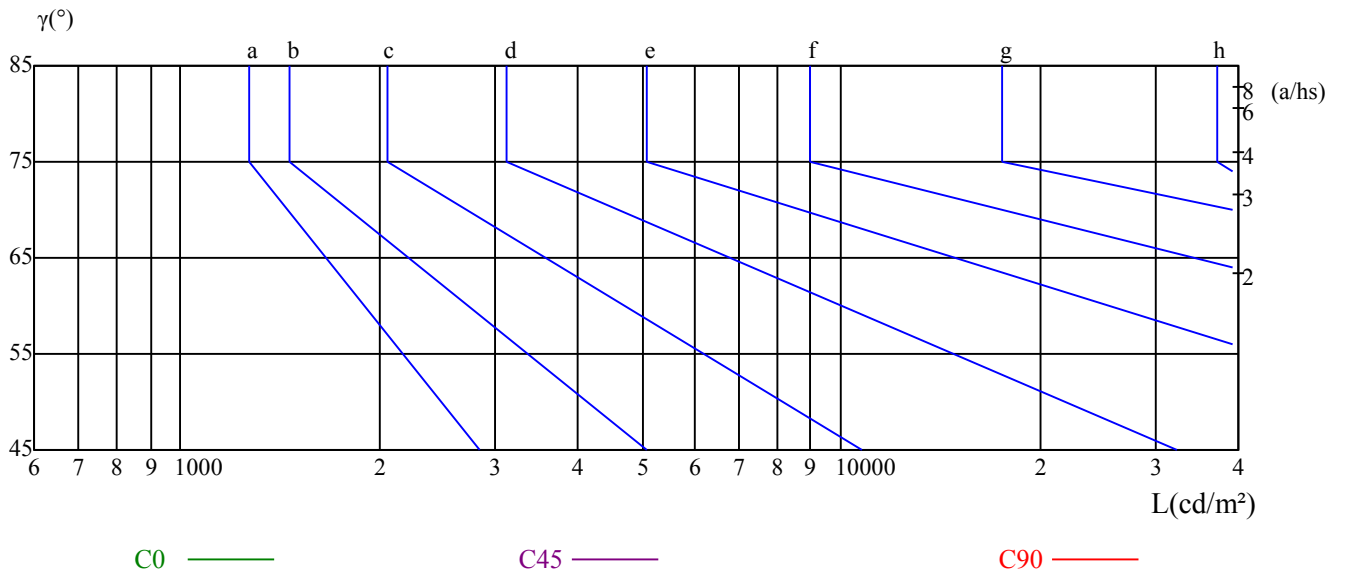
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

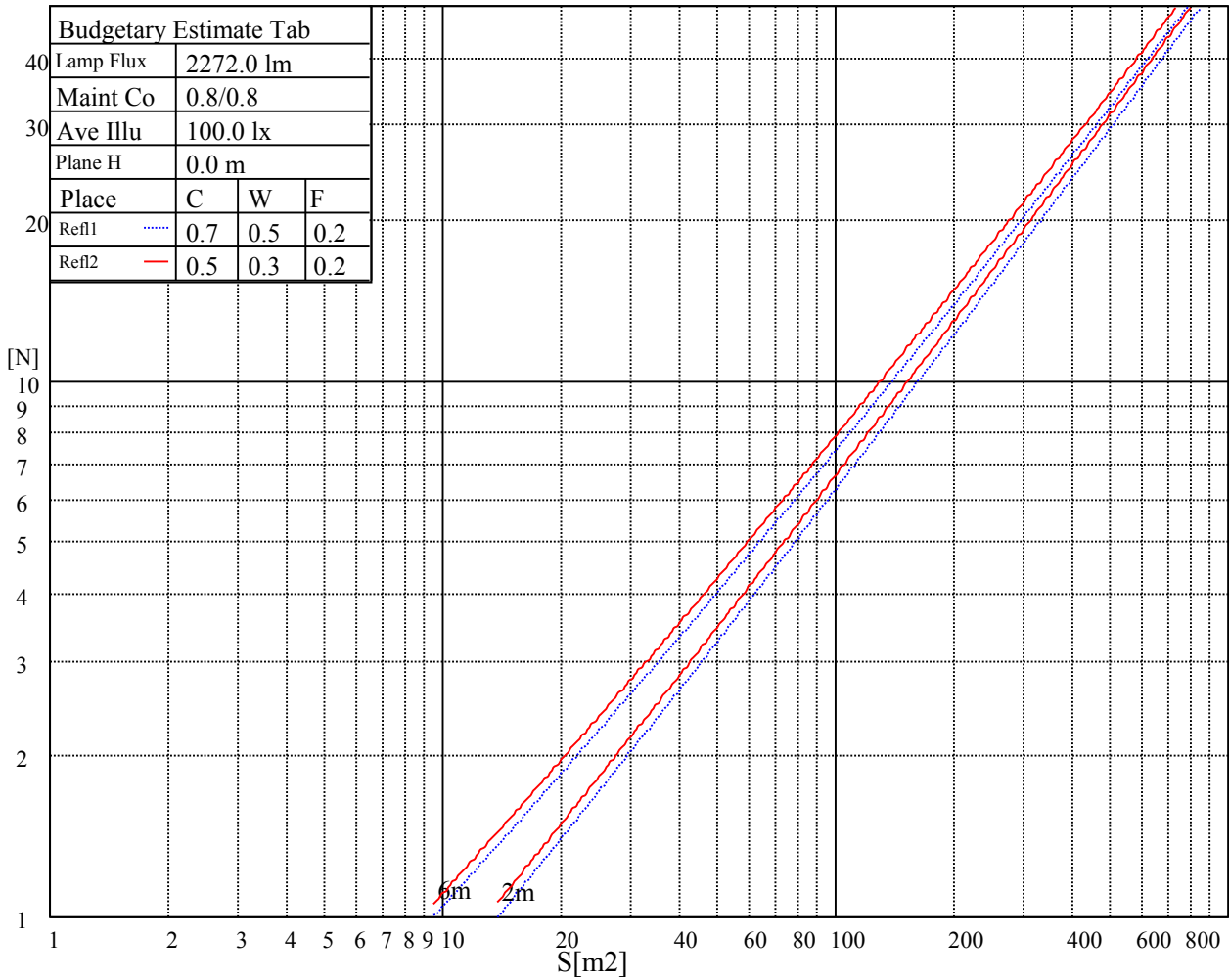
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

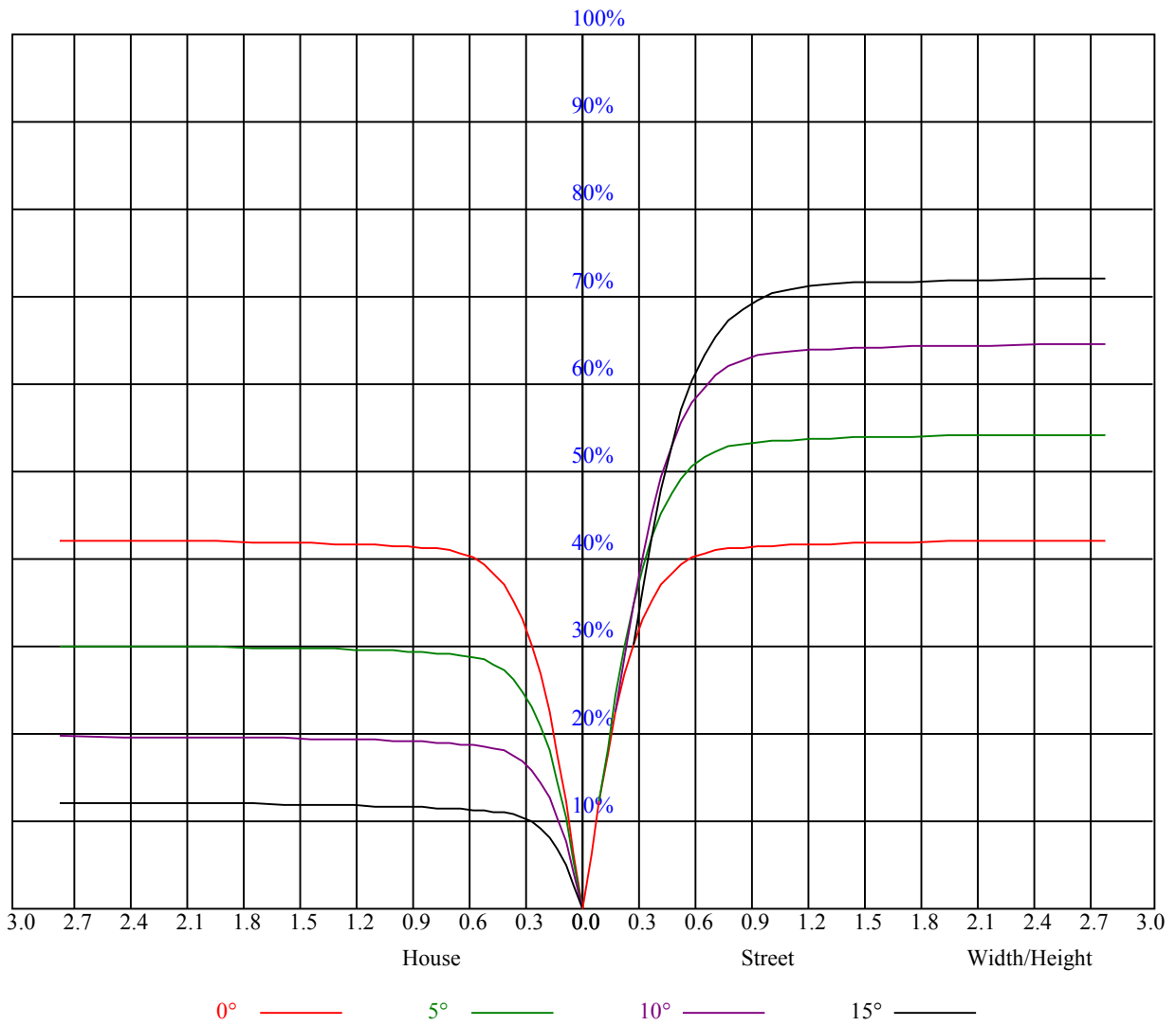
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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



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	6235.69	5891.59	4707.87	3117.29	1884.03	1087.36	720.14	295.10	56.21
45.0	6204.86	5919.66	4765.68	3155.28	1876.87	1087.36	690.41	282.44	56.21
90.0	6249.45	5709.90	4180.98	2724.19	1583.97	921.20	505.47	117.44	48.01
135.0	6257.71	5770.46	4480.49	2826.60	1696.29	985.51	556.07	278.59	44.21
180.0	6235.69	5545.28	4048.30	2445.05	1400.63	873.63	418.10	62.98	39.37
225.0	6204.86	5405.44	3964.61	2385.59	1250.33	865.32	400.04	65.02	38.98
270.0	6249.45	5643.83	4381.94	2725.29	1600.49	988.26	521.93	98.66	44.21
315.0	6257.71	5650.44	4199.15	2465.98	1464.50	856.40	441.44	107.69	47.29
360.0	6235.69	5891.59	4707.87	3117.29	1884.03	1087.36	720.14	295.10	56.21
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	39.70	30.06	23.84	19.55	16.30	14.15	12.61	11.62	10.68
45.0	39.75	30.17	23.89	20.15	16.46	14.04	12.33	11.34	10.46
90.0	33.80	26.04	21.25	17.84	14.76	12.94	11.62	10.63	9.97
135.0	30.61	24.11	19.99	17.12	14.42	12.88	11.73	10.74	10.13
180.0	27.53	21.69	18.17	15.58	13.65	12.50	11.45	10.63	10.08
225.0	27.31	21.20	17.89	15.53	13.49	12.22	11.18	10.41	9.97
270.0	30.72	23.73	20.32	17.01	14.20	12.72	11.51	10.57	9.69
315.0	32.87	25.77	20.81	17.12	14.37	12.72	11.45	10.41	9.69
360.0	39.70	30.06	23.84	19.55	16.30	14.15	12.61	11.62	10.68
C/ γ (°)	90.0								
0.0	9.58								
45.0	9.41								
90.0	8.75								
135.0	8.59								
180.0	8.64								
225.0	8.64								
270.0	8.59								
315.0	8.86								
360.0	9.58								