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Nata

LumCAT: 3-1742-N
Luminaire: 92.70.045.00 +92.70.061.00
Report No: NATA0100
Test No: GC2018070224
LampCAT: NICHIA NFCWJ120B-V3
Lamp flux(lm): 2276.0
Number of Lamps: 1
Length(mm): 86
Phm Type: C

Voltage(V): 33.5000
Current(A): 0.5000
Power (W): 16.7500
PF: 0.0000
Ballast type: DC
Width(mm): 86
Height(mm): 0

Photometric Results

Lumens(lm): 1811.94
Efficiency(%): 79.61%
Lumens(lm)/Power(W): 110.56
Central intensity(cd): 6961.469
Maximum intensity(cd): 6961.469
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=23.8
 [C90/270]Total=23.8
Field angle(10%Imax): [C0/180]Total=48.1
 [C90/270]Total=48.1
Maximum s/h(1/2): C0_180=0.40 C90_270=0.40
Maximum s/h(1/4): C0_180=0.41 C90_270=0.41
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 81.36%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 95.796%

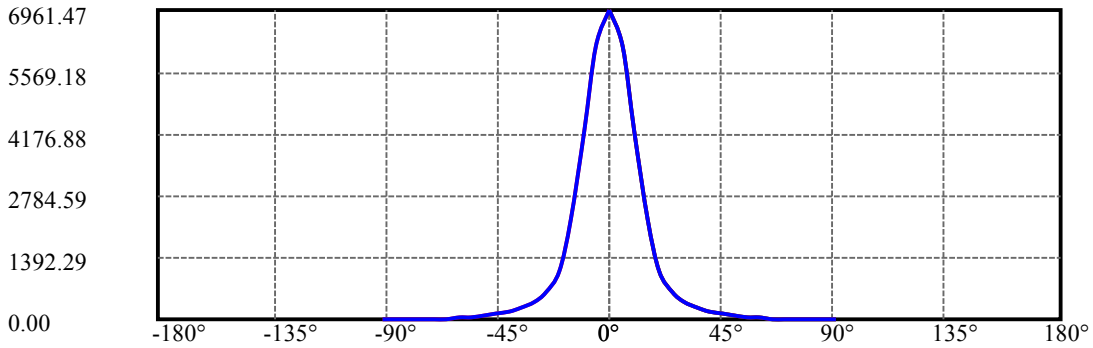
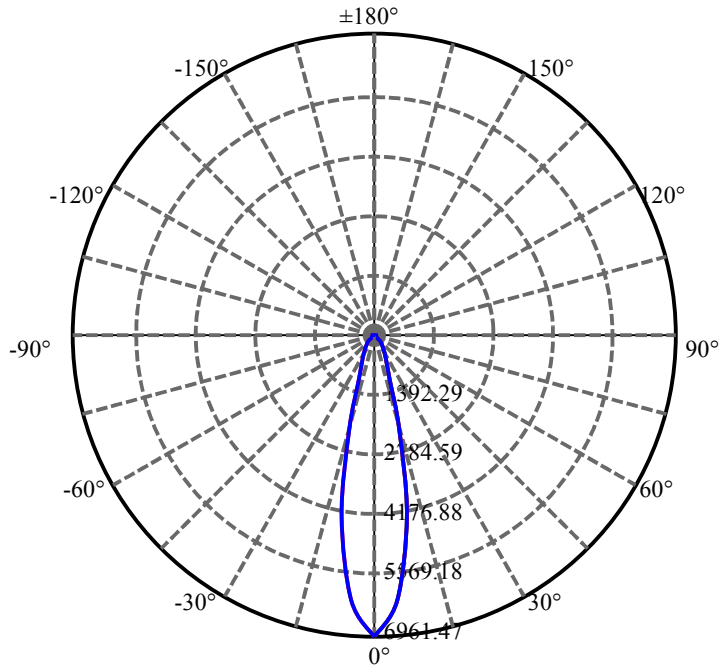
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6961.469	41.631	41.631	1.829%	2.298%
5.0	6123.923	292.560	334.191	12.854%	18.444%
10.0	4219.798	401.653	735.844	17.647%	40.611%
15.0	2256.142	320.075	1055.92	14.063%	58.276%
20.0	1074.329	201.409	1257.329	8.849%	69.391%
25.0	609.997	141.308	1398.636	6.209%	77.190%
30.0	408.002	111.821	1510.457	4.913%	83.362%
35.0	274.263	86.228	1596.685	3.789%	88.120%
40.0	190.158	66.999	1663.684	2.944%	91.818%
45.0	122.590	47.515	1711.199	2.088%	94.440%
50.0	74.663	31.351	1742.55	1.377%	96.171%
55.0	42.621	19.137	1761.687	.841%	97.227%
60.0	25.925	12.306	1773.994	.541%	97.906%
65.0	18.836	9.357	1783.351	.411%	98.422%
70.0	16.063	8.274	1791.625	.364%	98.879%
75.0	13.695	7.251	1798.876	.319%	99.279%
80.0	11.335	6.119	1804.994	.269%	99.617%
85.0	8.926	4.874	1809.868	.214%	99.886%
90.0	7.543	2.067	1811.936	.091%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1510.46	66.36%	83.36%
0-40	1663.68	73.10%	91.82%
0-60	1773.99	77.94%	97.91%
0-90	1809.87	79.52%	99.89%
0-120	1809.87	79.52%	99.89%
0-180	1811.94	79.61%	100.00%
60-90	48.18	2.12%	2.66%
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%
0-27.28	1449.55	63.69%	80.00%

ZONAL LUMEN SUMMARY

0-10	735.84
10-20	521.48
20-30	253.13
30-40	153.23
40-50	78.87
50-60	31.44
60-70	17.63
70-80	13.37
80-90	4.87
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: —————

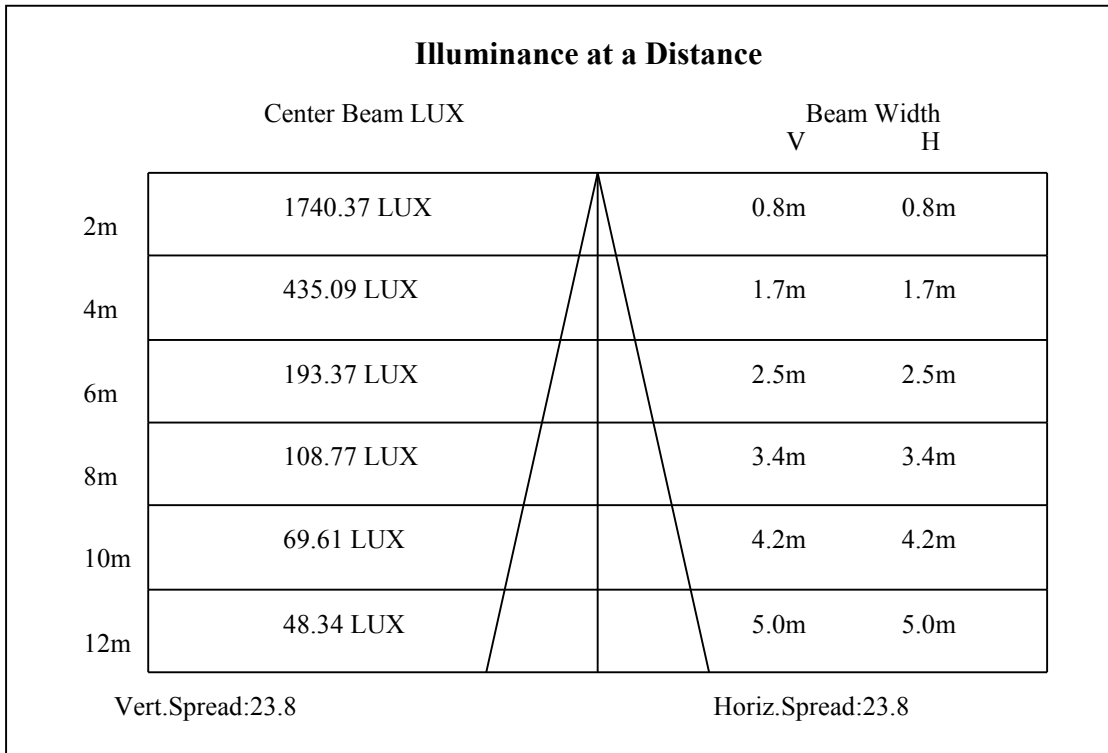
C90/C270: —————

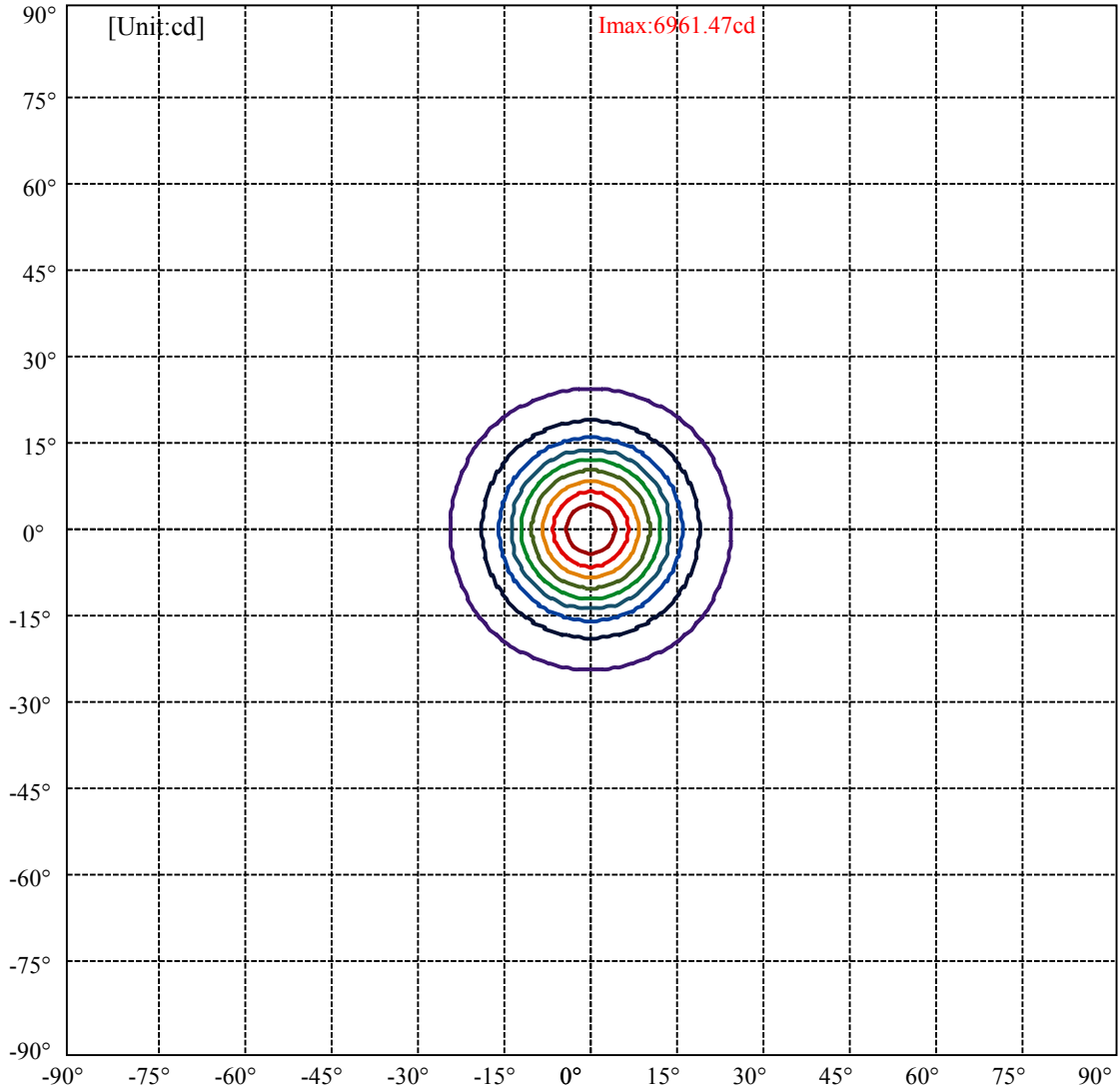
Field angle(10%Imax):C0/180Left:24.1 Right:24.1

:C90/270Left:24.1 Right:24.1

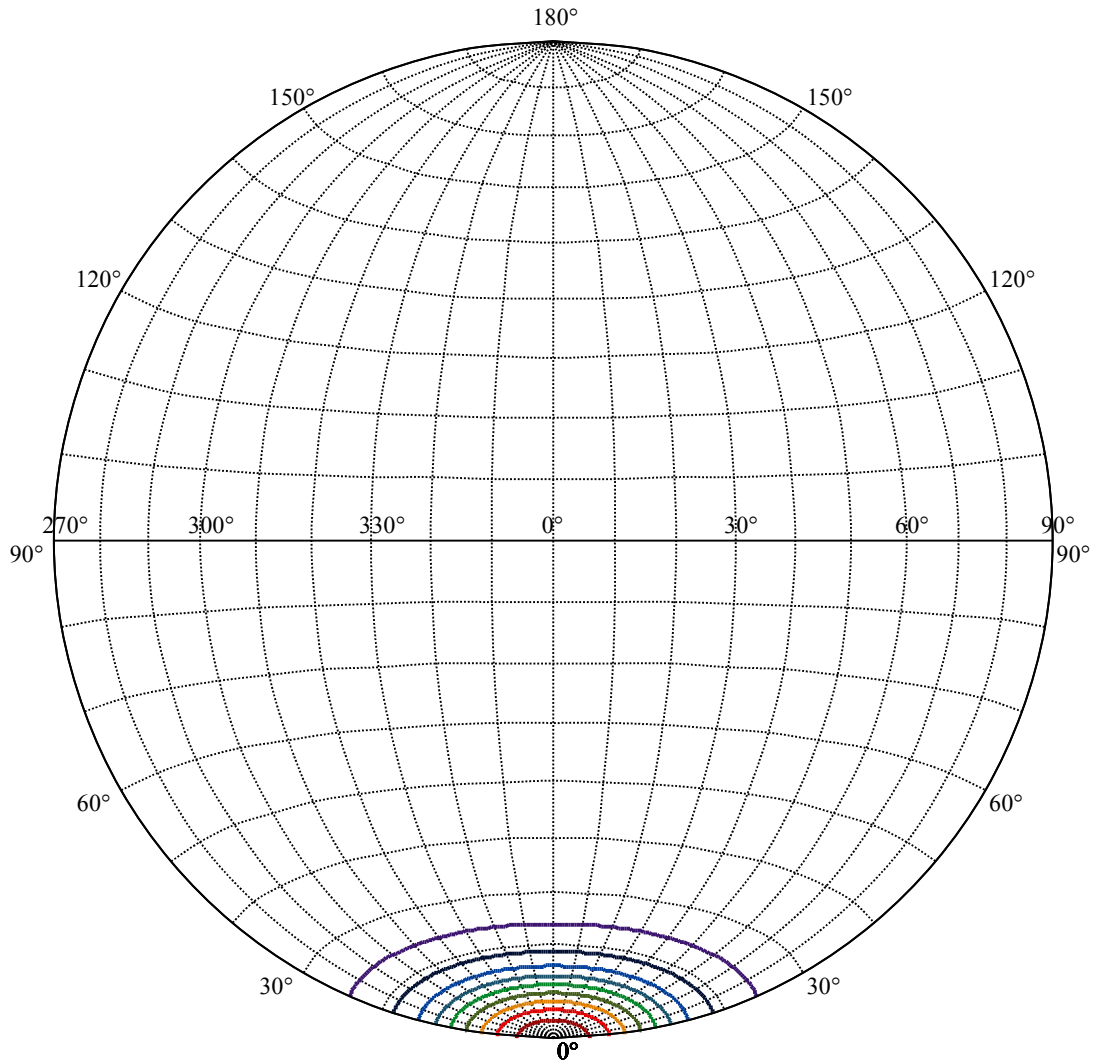
Beam Angle(50%Imax):C0/180Left:11.9 Right:11.9

:C90/270Left:11.9 Right:11.9





(10%Imax) 696.147	—
(20%Imax) 1392.29	—
(30%Imax) 2088.44	—
(40%Imax) 2784.59	—
(50%Imax) 3480.73	—
(60%Imax) 4176.88	—
(70%Imax) 4873.03	—
(80%Imax) 5569.18	—
(90%Imax) 6265.32	—



House

[Unit:cd]

Road

I_{max}:6961.47

(10%I_{max}) 696.147

(20%I_{max}) 1392.29

(30%I_{max}) 2088.44

(40%I_{max}) 2784.59

(50%I_{max}) 3480.73

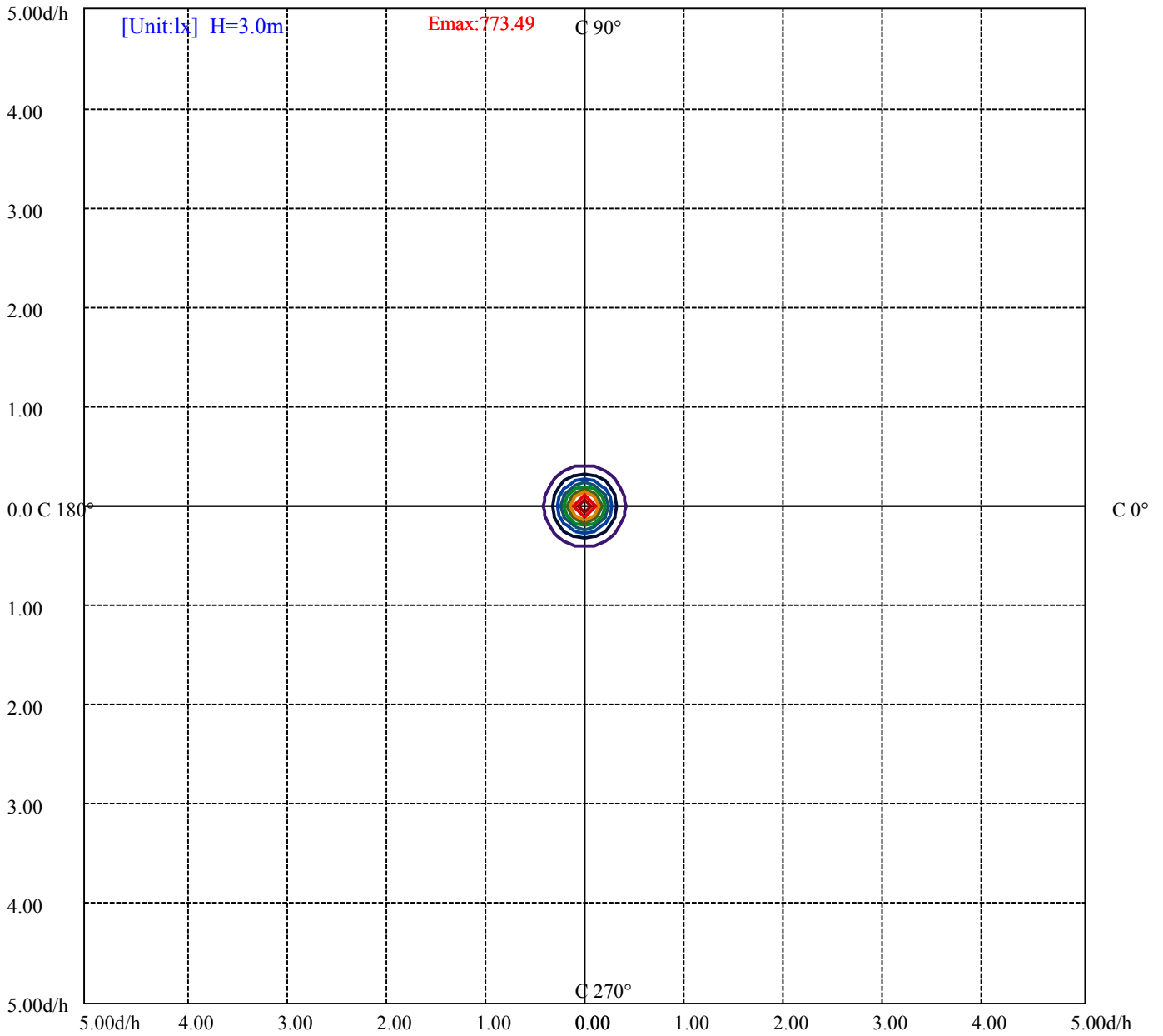
(60%I_{max}) 4176.88

(70%I_{max}) 4873.03

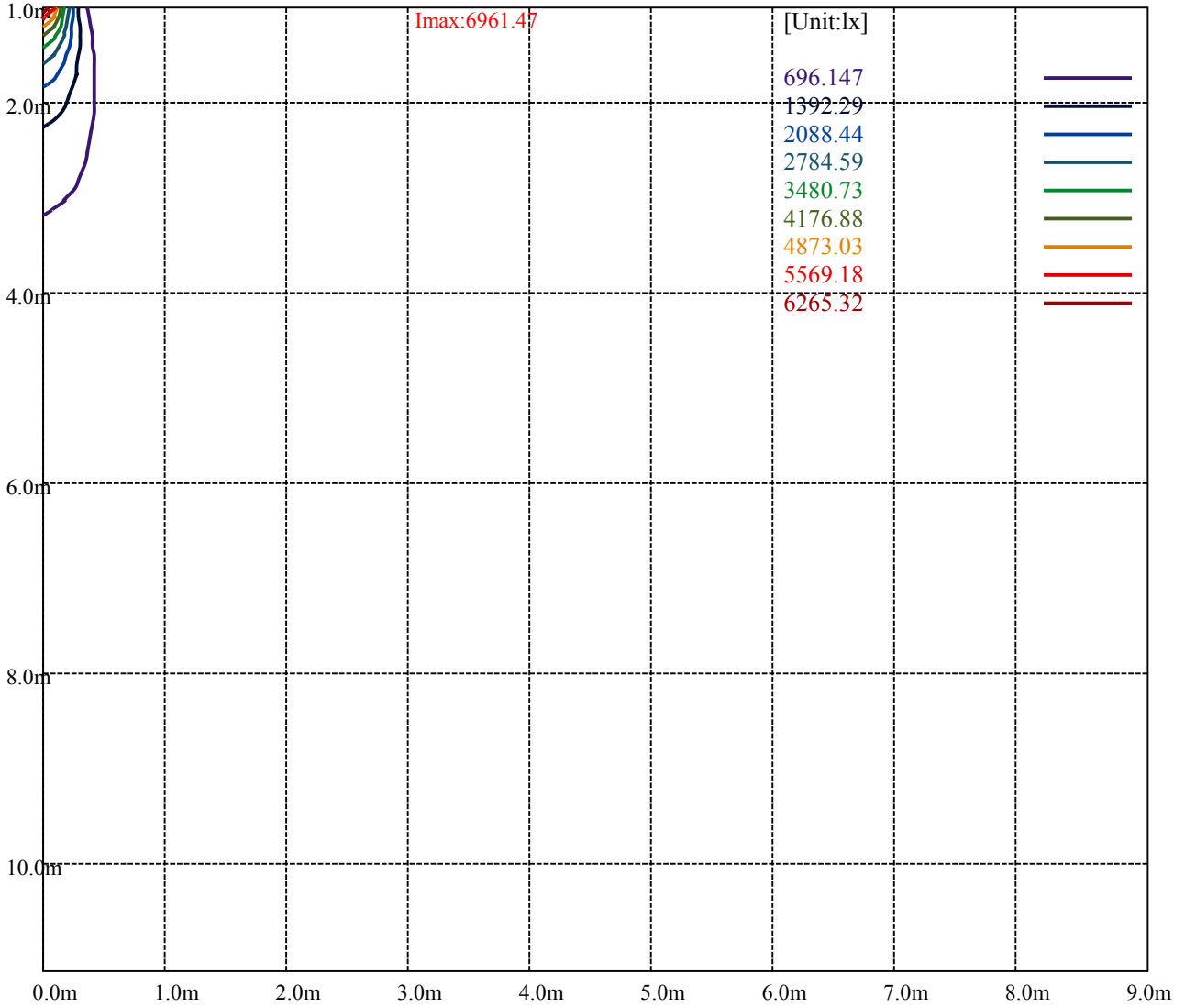
(80%I_{max}) 5569.18

(90%I_{max}) 6265.32





(10%Emax) 77.34933	—
(20%Emax) 154.6989	—
(30%Emax) 232.0478	—
(40%Emax) 309.3978	—
(50%Emax) 386.7467	—
(60%Emax) 464.0967	—
(70%Emax) 541.4456	—
(80%Emax) 618.7956	—
(90%Emax) 696.1444	—



Luminance Table

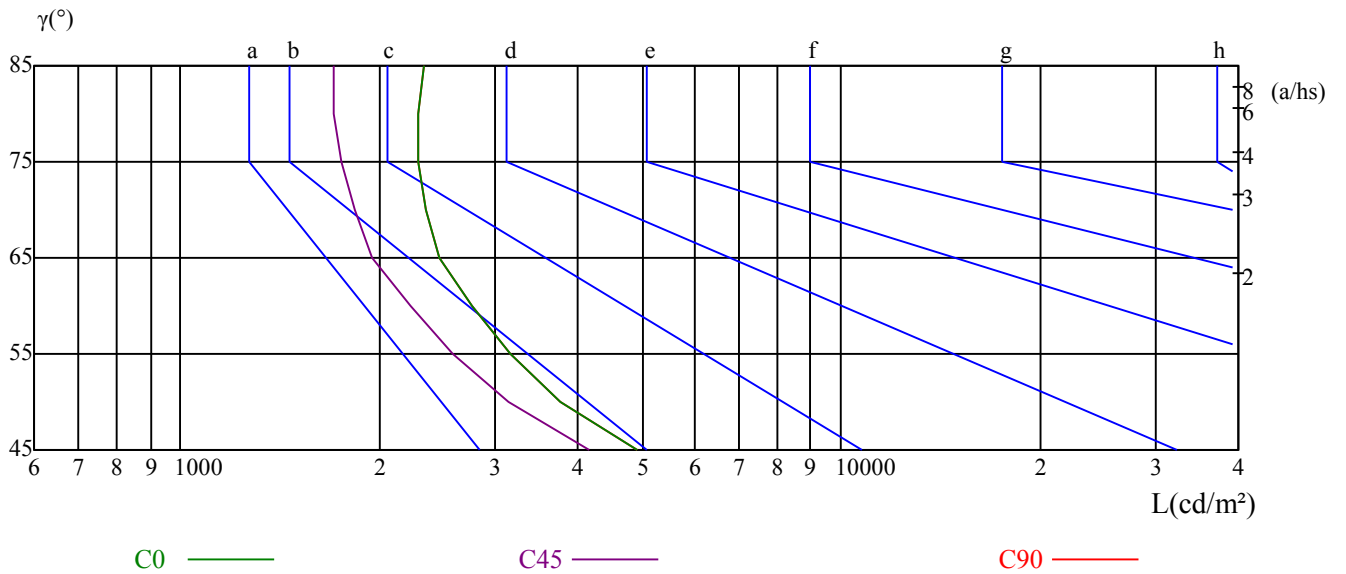
γ	45	50	55	60	65	70	75	80	85
C0	4917	3770	3151	2759	2462	2351	2291	2290	2335
C45	4161	3142	2586	2228	1955	1832	1750	1711	1701
C90	4917	3770	3151	2759	2462	2351	2291	2290	2335

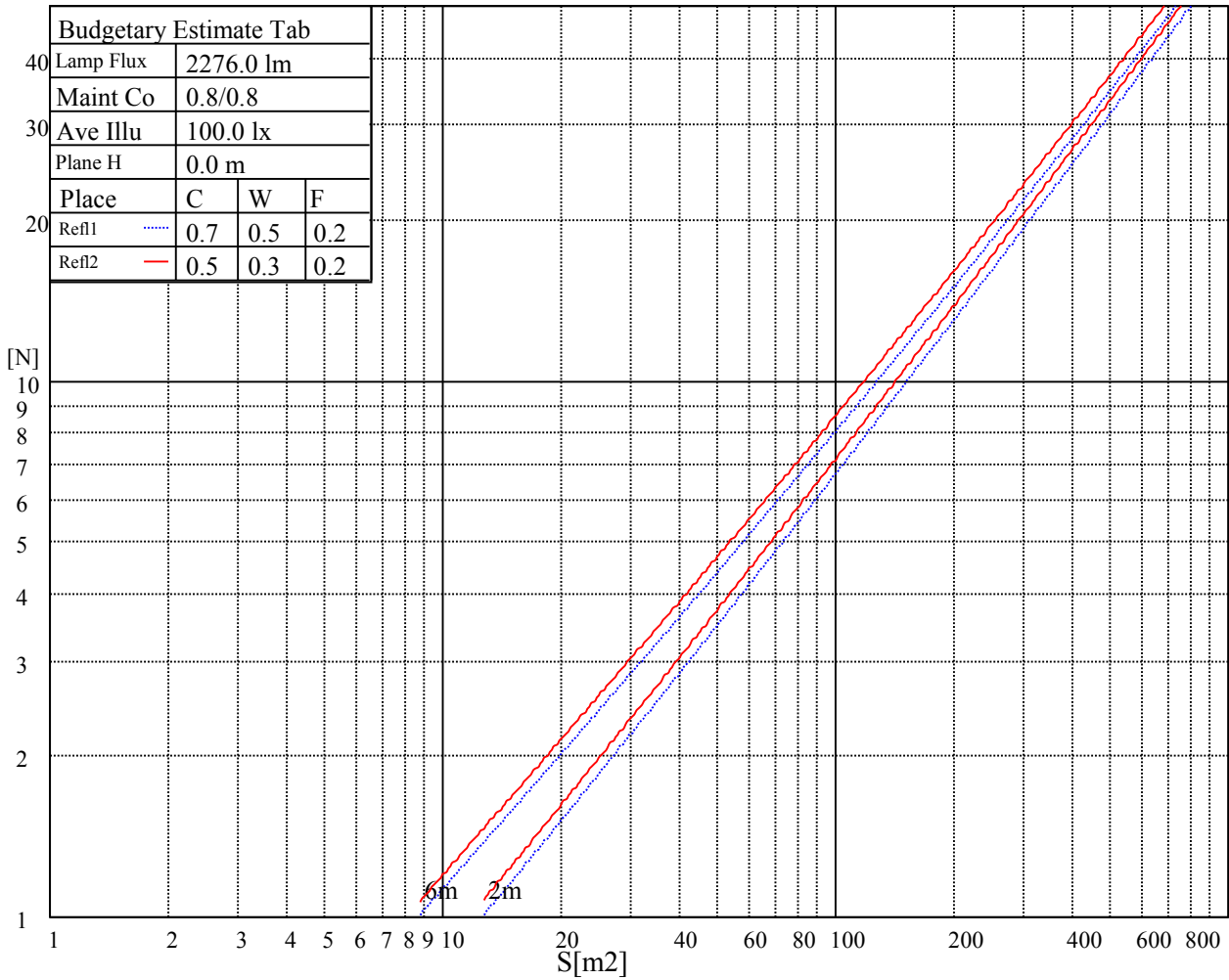
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6594	6594	6594	8981	8981	8981	23219	23219	23219

Glare Table

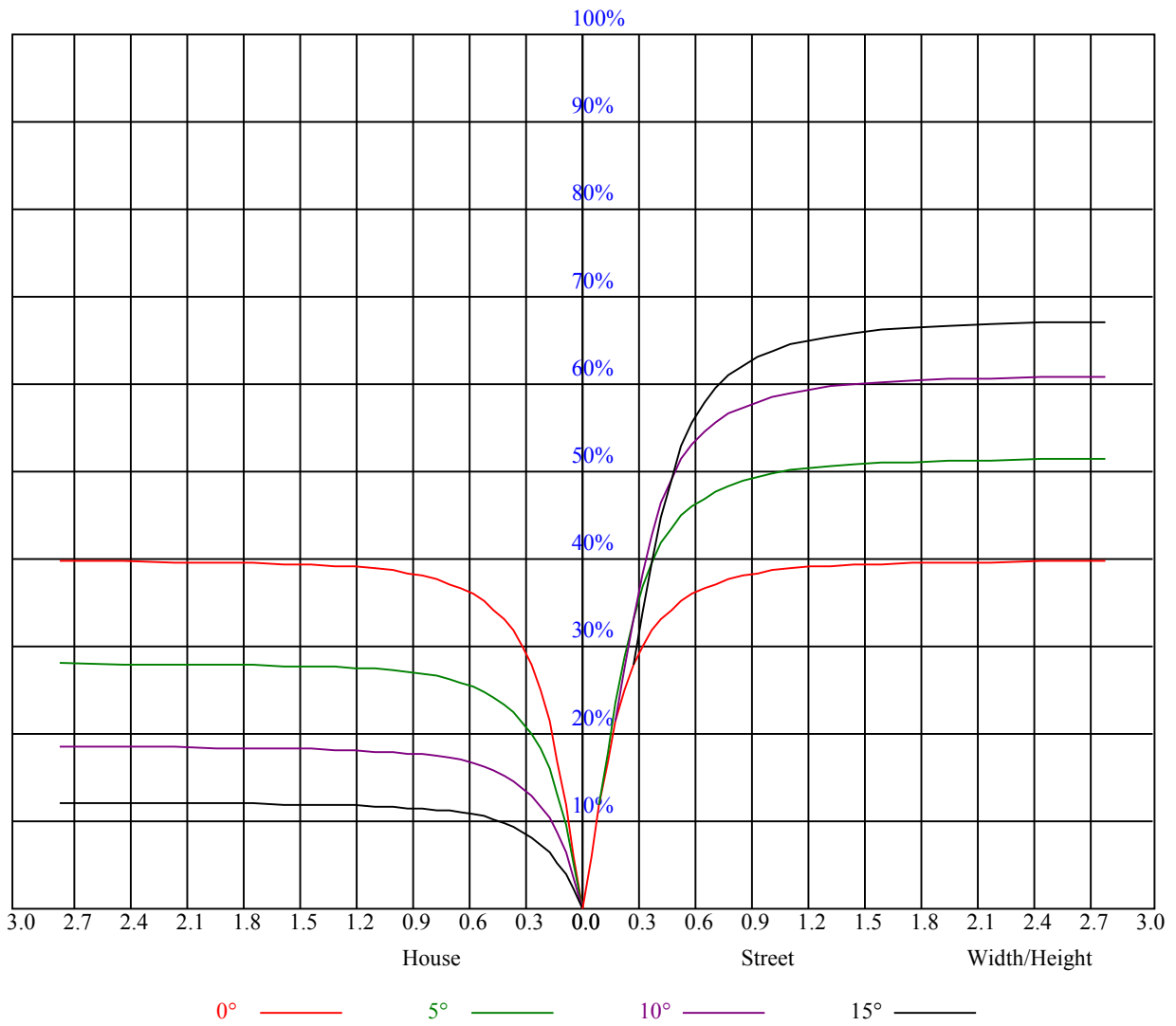
Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.97	0.97	0.97	0.95	0.95	0.95	0.90	0.90	0.90	0.87	0.87	0.87	0.83	0.83	0.83	0.81
1	0.89	0.86	0.84	0.87	0.85	0.83	0.84	0.82	0.80	0.81	0.79	0.78	0.78	0.77	0.76	0.74
2	0.84	0.80	0.78	0.82	0.79	0.77	0.80	0.77	0.75	0.77	0.75	0.73	0.75	0.73	0.72	0.71
3	0.79	0.76	0.73	0.78	0.75	0.72	0.76	0.73	0.71	0.74	0.72	0.70	0.73	0.71	0.69	0.68
4	0.76	0.72	0.69	0.75	0.71	0.68	0.73	0.70	0.68	0.72	0.69	0.67	0.70	0.68	0.66	0.65
5	0.73	0.68	0.65	0.72	0.68	0.65	0.70	0.67	0.65	0.69	0.66	0.64	0.68	0.65	0.63	0.62
6	0.70	0.66	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.62	0.66	0.63	0.61	0.60
7	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.64	0.61	0.59	0.58
8	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	0.59	0.57	0.56
9	0.63	0.59	0.56	0.62	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.56	0.61	0.58	0.56	0.55
10	0.61	0.57	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.59	0.56	0.54	0.59	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	6960.78	5982.98	4255.86	2358.62	1143.52	659.58	442.65	297.30	205.20
45.0	6976.75	6205.41	4336.24	2326.68	1106.63	635.90	422.28	280.79	198.75
90.0	6970.69	5967.01	3877.62	1953.95	950.93	556.62	375.10	255.52	178.22
135.0	6937.66	6284.69	4420.48	2388.90	1079.11	596.26	415.68	280.24	185.65
180.0	6960.78	6140.99	4197.50	2152.15	983.58	575.95	383.36	254.42	178.71
225.0	6976.75	6020.42	3972.32	2102.05	976.43	553.32	370.36	245.72	174.69
270.0	6970.69	6340.85	4596.66	2565.63	1286.67	674.99	440.45	305.01	203.10
315.0	6937.66	6049.05	4101.70	2201.15	1067.76	627.37	414.13	275.12	196.94
360.0	6960.78	5982.98	4255.86	2358.62	1143.52	659.58	442.65	297.30	205.20
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	130.70	77.63	43.49	26.32	18.61	15.91	13.54	11.18	8.75
45.0	126.79	75.87	44.43	26.54	18.77	16.08	13.60	11.29	8.86
90.0	109.07	67.11	37.99	23.62	18.06	15.53	13.16	10.74	8.53
135.0	121.95	73.89	42.23	25.99	18.88	16.02	13.65	11.40	8.81
180.0	117.33	71.13	40.41	25.55	18.77	15.97	13.82	11.40	9.03
225.0	116.11	70.14	40.08	24.67	18.88	16.08	13.82	11.45	9.03
270.0	134.28	86.93	48.39	28.57	19.88	16.90	14.37	12.00	9.41
315.0	124.48	74.60	43.94	26.15	18.83	16.02	13.60	11.23	8.97
360.0	130.70	77.63	43.49	26.32	18.61	15.91	13.54	11.18	8.75
C/ γ (°)	90.0								
0.0	7.60								
45.0	7.54								
90.0	7.49								
135.0	7.54								
180.0	7.54								
225.0	7.49								
270.0	7.60								
315.0	7.54								
360.0	7.60								