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Nata

LumCAT: 2-1795-N	
Luminaire: 92.70.135.00	
Report No: NATA0100	Voltage(V): 33.8000
Test No: GC2018061911	Current(A): 0.5000
LampCAT: NICHIA NFCW108B-V3	Power (W): 16.9000
Lamp flux(lm): 2263.0	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): 1837.56
Efficiency(%): 81.20%
Lumens(lm)/Power(W): 109.95
Central intensity(cd): 3750.029
Maximum intensity(cd): 3750.029
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=41.1
 [C90/270]Total=41.1
Field angle(10%Imax): [C0/180]Total=64.7
 [C90/270]Total=64.7
Maximum s/h(1/2): C0_180=0.67 C90_270=0.67
Maximum s/h(1/4): C0_180=0.64 C90_270=0.64
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 82.11%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.778%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/6/19
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

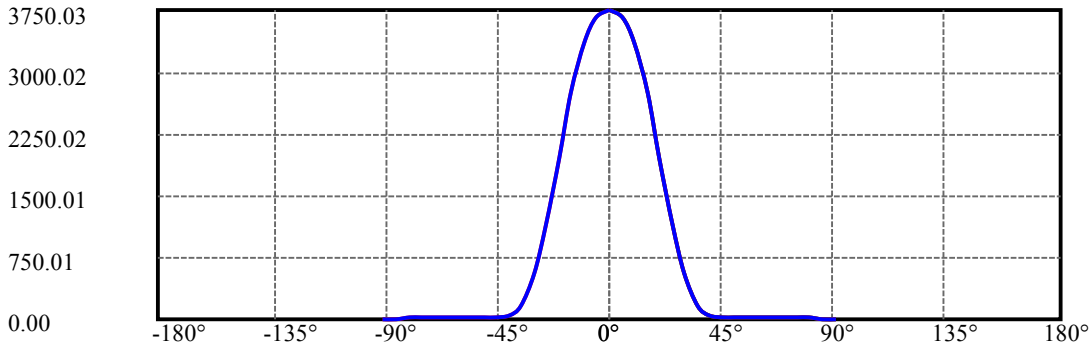
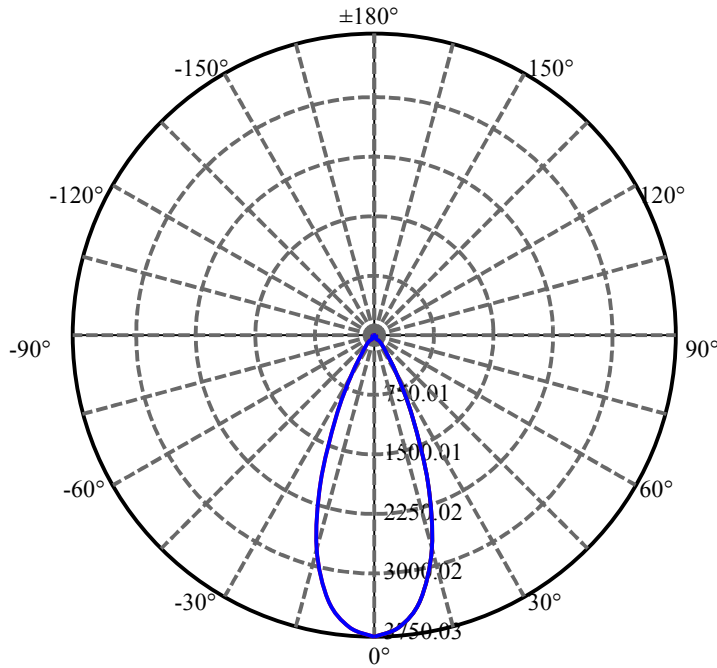
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3750.029	22.426	22.426	.991%	1.220%
5.0	3645.491	174.157	196.583	7.696%	10.698%
10.0	3352.591	319.110	515.693	14.101%	28.064%
15.0	2746.420	389.630	905.323	17.217%	49.268%
20.0	1963.380	368.083	1273.406	16.265%	69.299%
25.0	1131.884	262.204	1535.61	11.587%	83.568%
30.0	566.489	155.257	1690.867	6.861%	92.017%
35.0	157.964	49.664	1740.531	2.195%	94.720%
40.0	47.486	16.731	1757.262	.739%	95.630%
45.0	29.875	11.579	1768.841	.512%	96.261%
50.0	24.734	10.386	1779.227	.459%	96.826%
55.0	21.706	9.746	1788.973	.431%	97.356%
60.0	19.772	9.386	1798.359	.415%	97.867%
65.0	17.714	8.800	1807.159	.389%	98.346%
70.0	15.870	8.174	1815.333	.361%	98.791%
75.0	14.342	7.594	1822.927	.336%	99.204%
80.0	12.395	6.691	1829.618	.296%	99.568%
85.0	10.240	5.592	1835.209	.247%	99.872%
90.0	8.561	2.346	1837.556	.104%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1690.87	74.72%	92.02%
0-40	1757.26	77.65%	95.63%
0-60	1798.36	79.47%	97.87%
0-90	1835.21	81.10%	99.87%
0-120	1835.21	81.10%	99.87%
0-180	1837.56	81.20%	100.00%
60-90	46.24	2.04%	2.52%
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%
0-23.75	1470.05	64.96%	80.00%

ZONAL LUMEN SUMMARY

0-10	515.69
10-20	757.71
20-30	417.46
30-40	66.39
40-50	21.97
50-60	19.13
60-70	16.97
70-80	14.28
80-90	5.59
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: ———

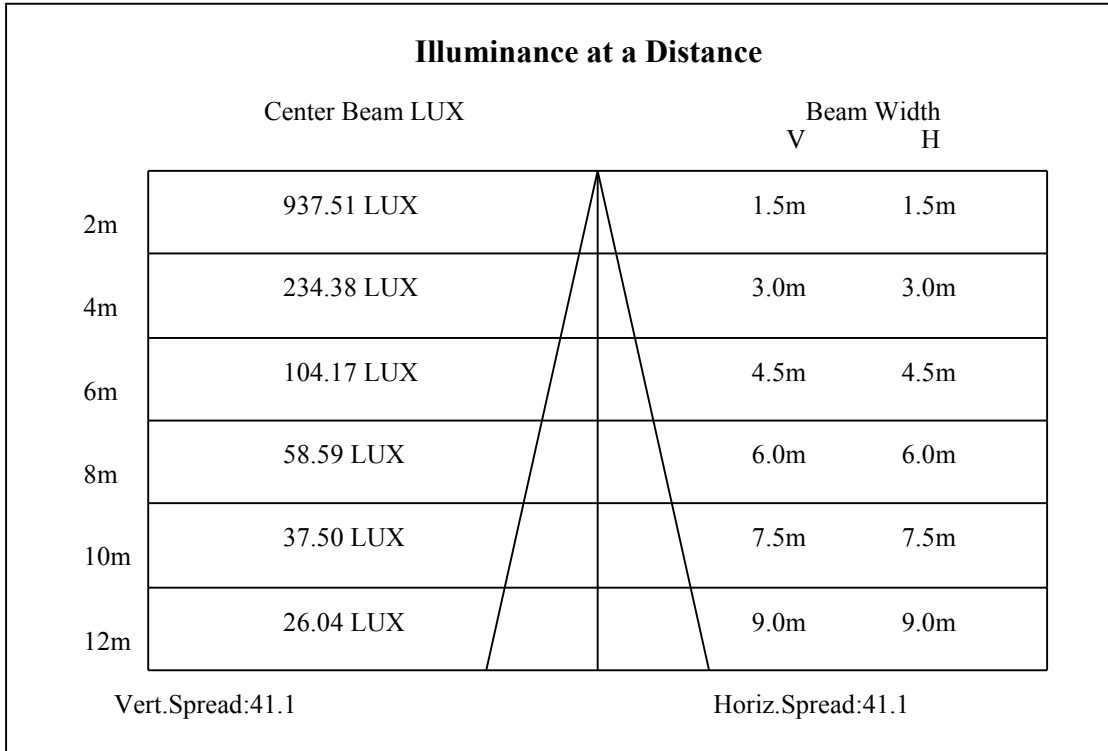
C90/C270: ———

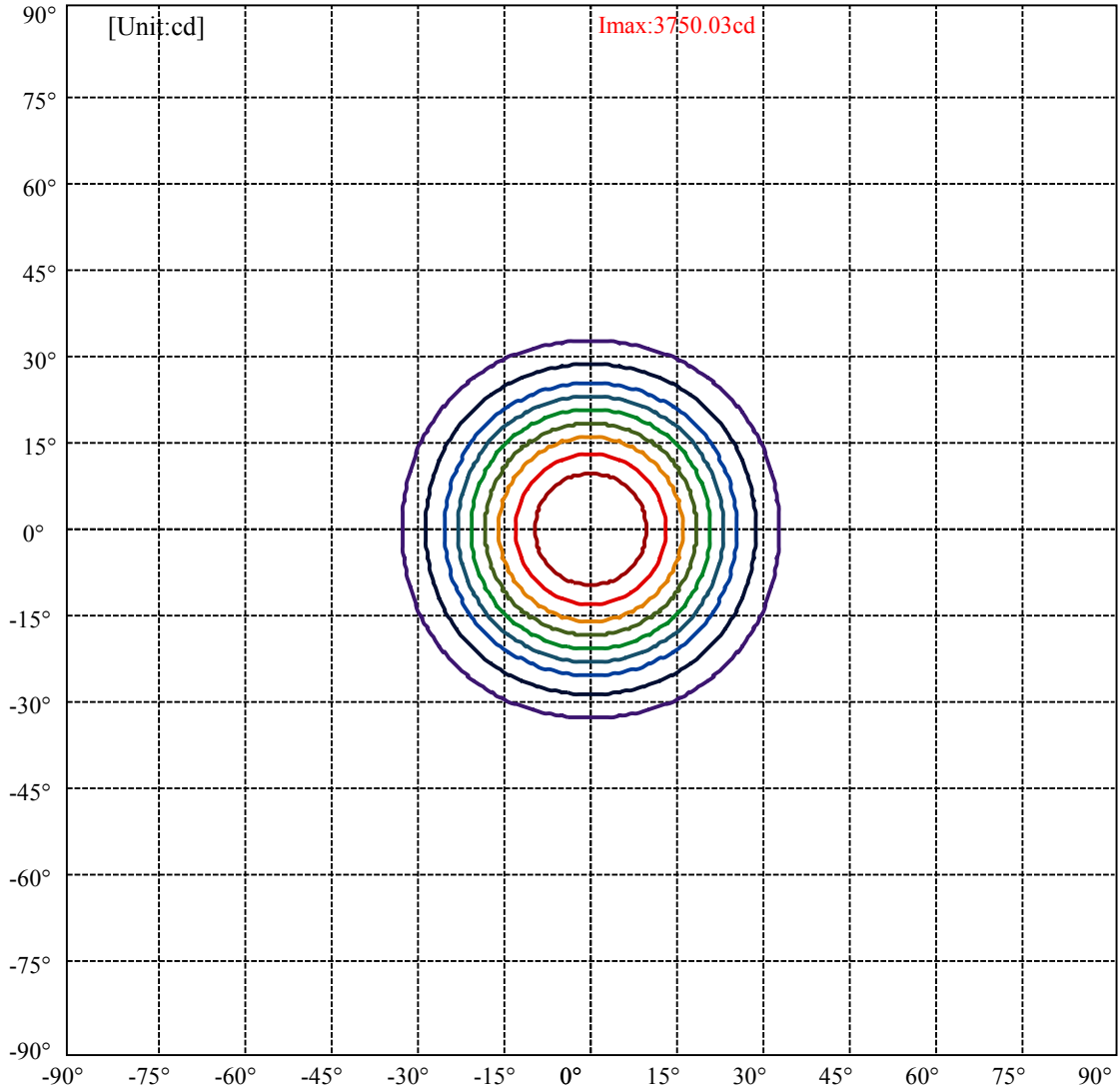
Field angle(10%Imax):C0/180Left:32.3 Right:32.3

:C90/270Left:32.3 Right:32.3

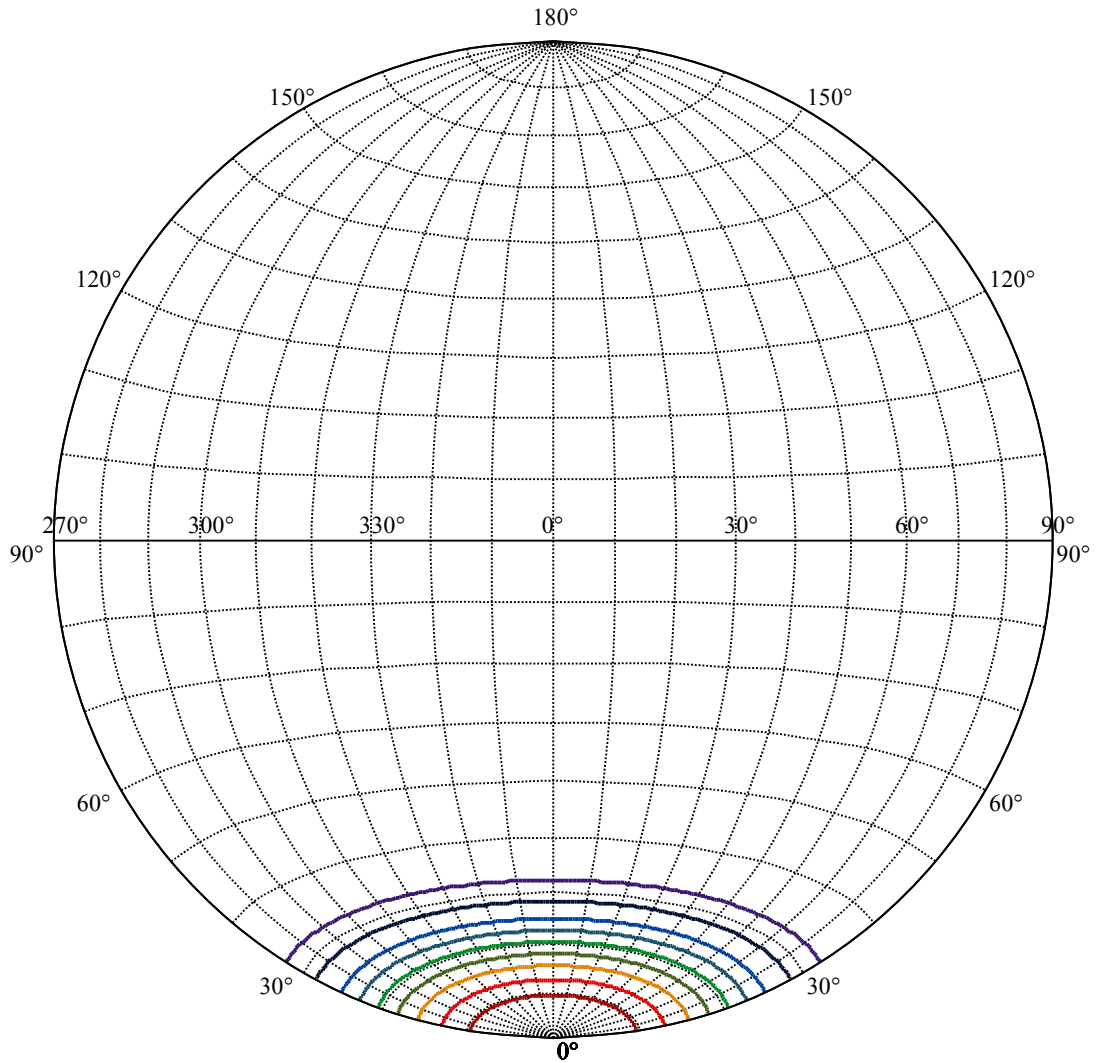
Beam Angle(50%Imax):C0/180Left:20.5 Right:20.5

:C90/270Left:20.5 Right:20.5





(10%Imax) 375.003	—
(20%Imax) 750.006	—
(30%Imax) 1125.01	—
(40%Imax) 1500.01	—
(50%Imax) 1875.01	—
(60%Imax) 2250.02	—
(70%Imax) 2625.02	—
(80%Imax) 3000.02	—
(90%Imax) 3375.03	—



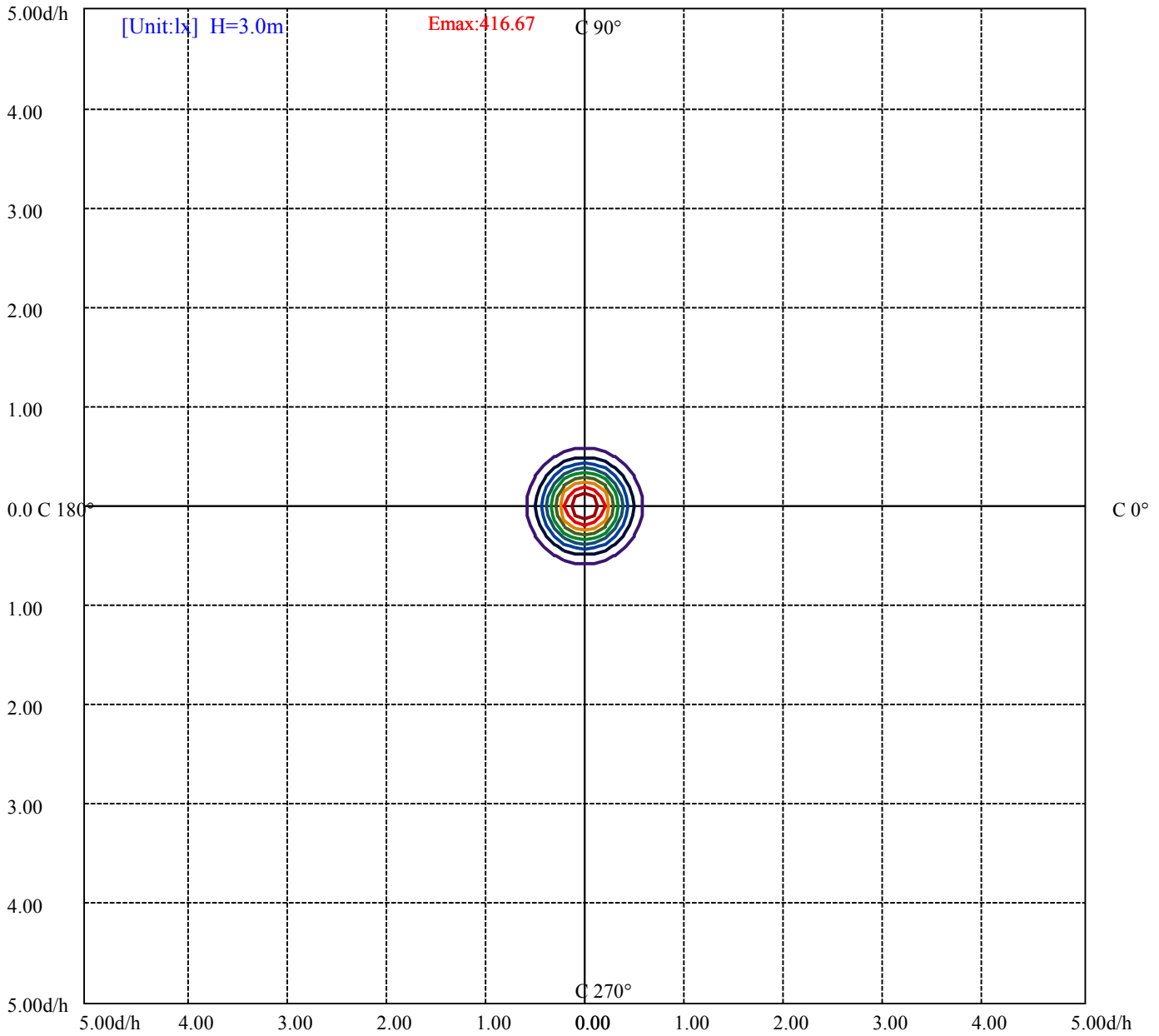
House

[Unit:cd]

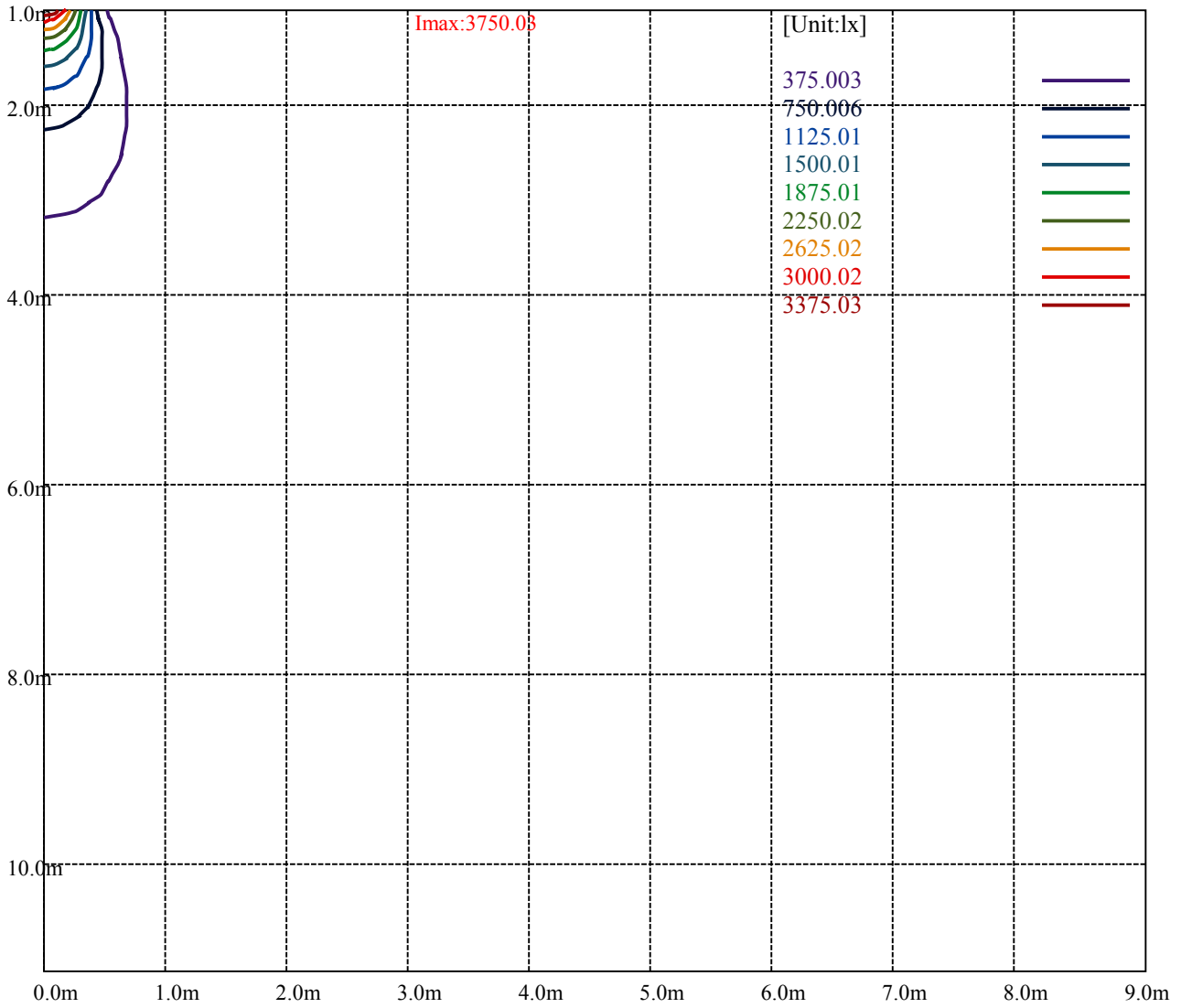
Road

Imax:3750.03

(10%Imax) 375.003	—
(20%Imax) 750.006	—
(30%Imax) 1125.01	—
(40%Imax) 1500.01	—
(50%Imax) 1875.01	—
(60%Imax) 2250.02	—
(70%Imax) 2625.02	—
(80%Imax) 3000.02	—
(90%Imax) 3375.03	—



(10%Emax) 41.667	—
(20%Emax) 83.33389	—
(30%Emax) 125.0011	—
(40%Emax) 166.6678	—
(50%Emax) 208.3344	—
(60%Emax) 250.0022	—
(70%Emax) 291.6689	—
(80%Emax) 333.3356	—
(90%Emax) 375.0022	—



Luminance Table

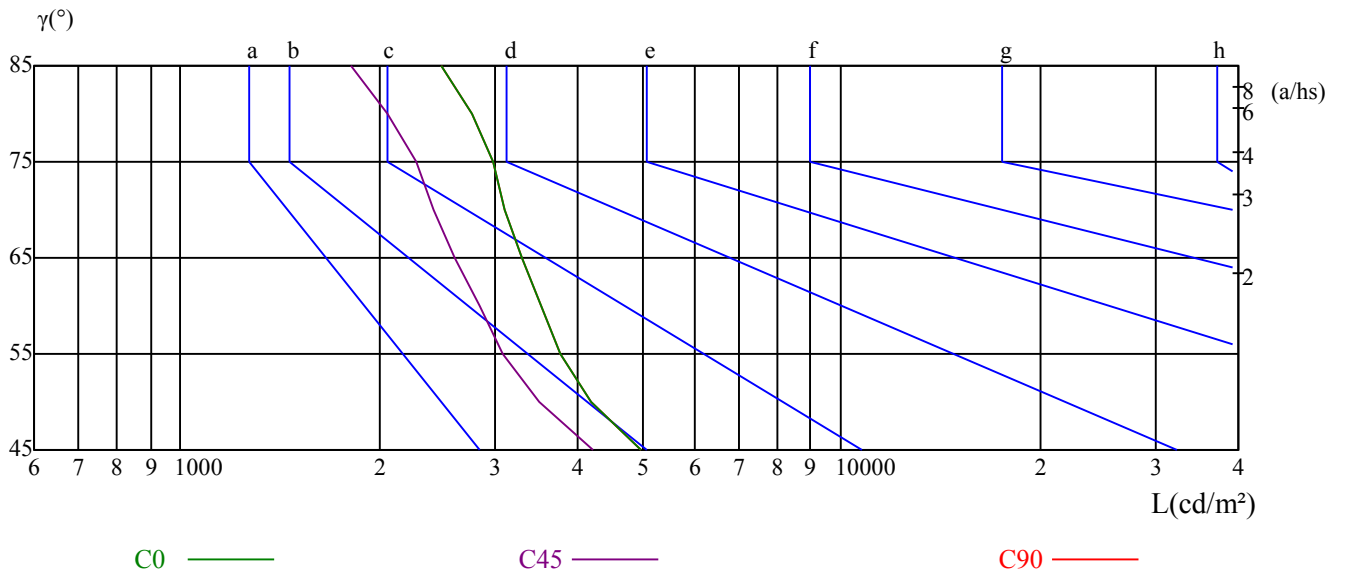
γ	45	50	55	60	65	70	75	80	85
C0	4978	4182	3753	3526	3287	3094	2969	2757	2481
C45	4212	3485	3080	2847	2610	2412	2269	2060	1808
C90	4978	4182	3753	3526	3287	3094	2969	2757	2481

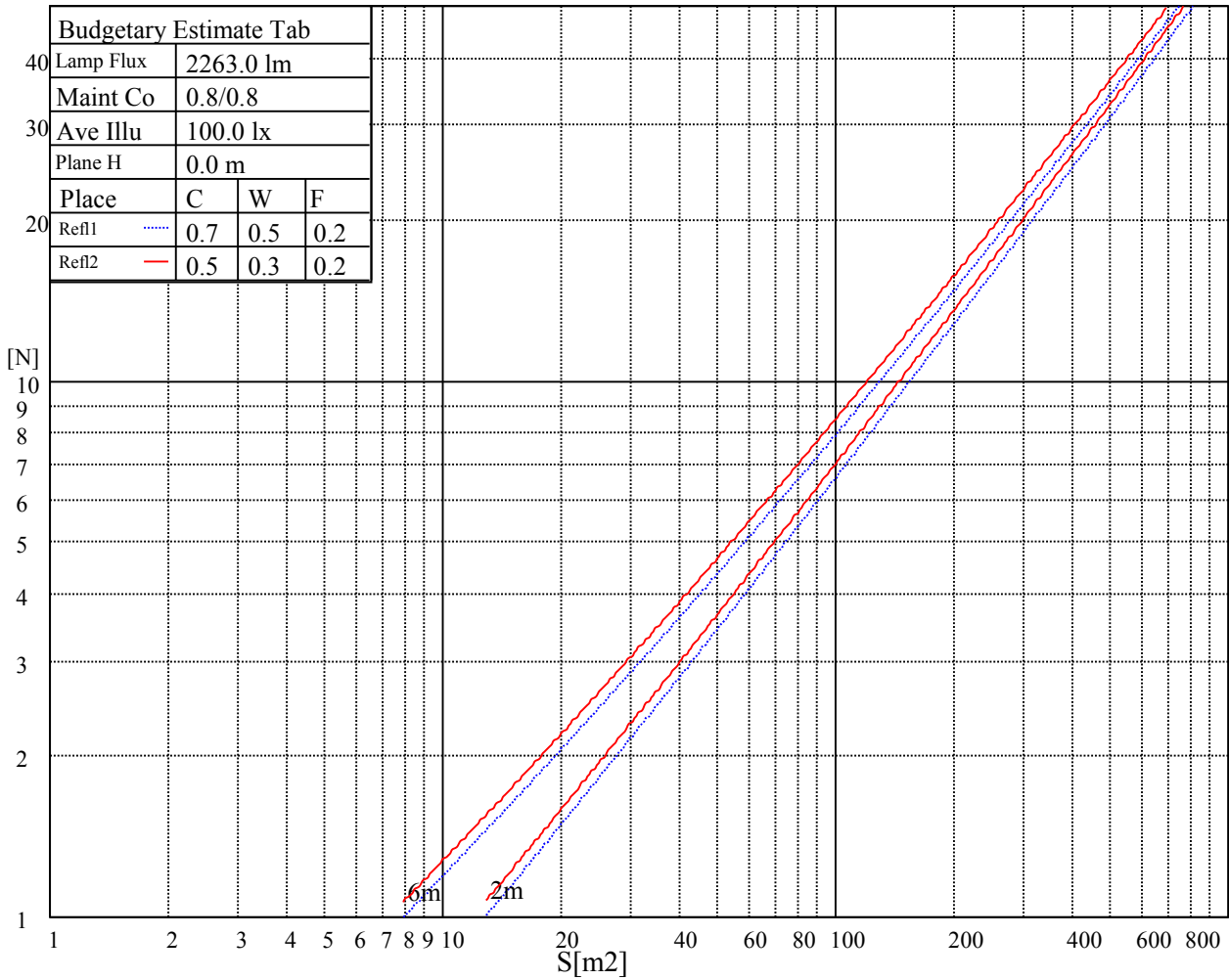
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
8804	8804	8804	11639	11639	11639	24679	24679	24679

Glare Table

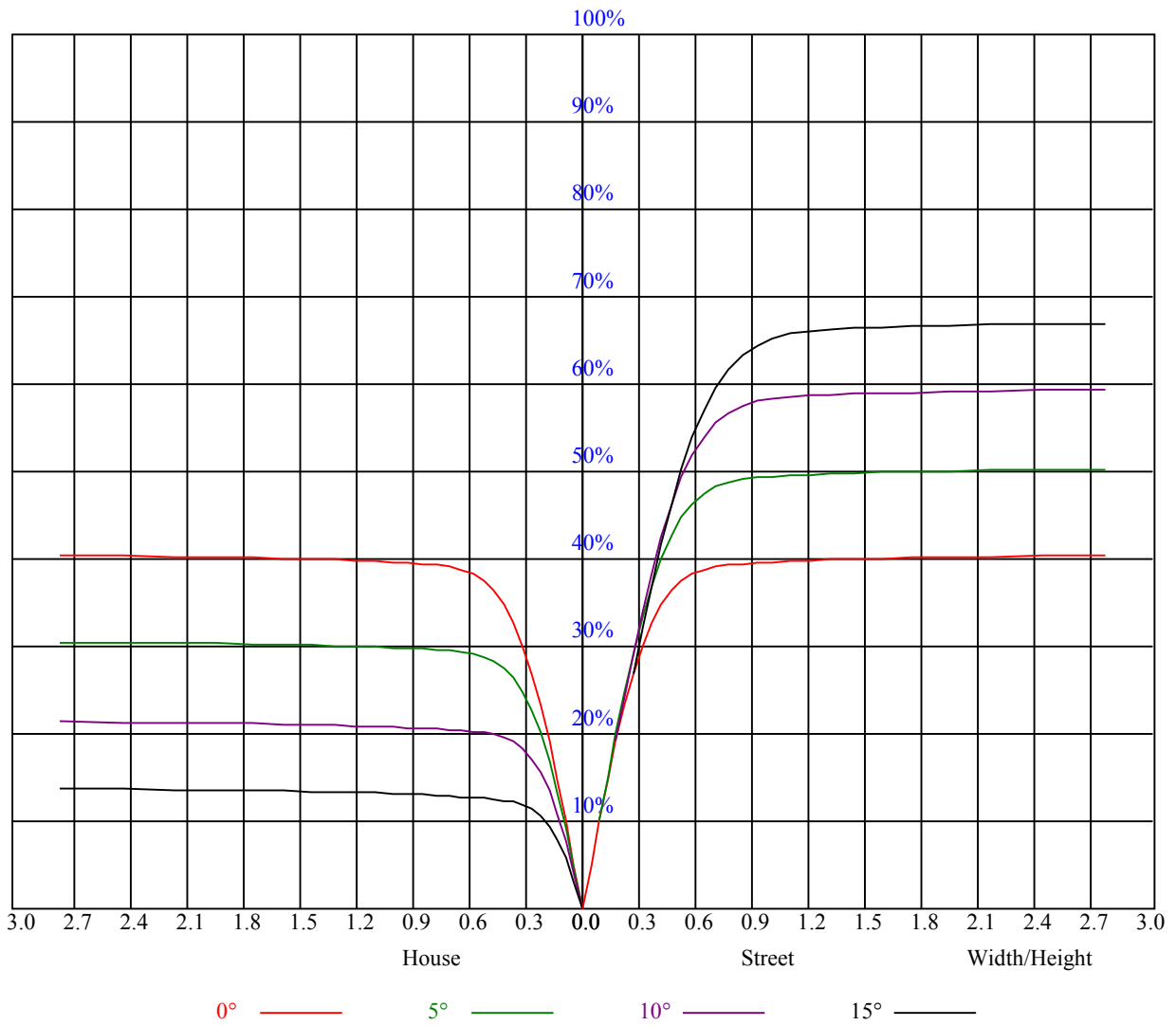
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.98	0.98	0.98	0.95	0.95	0.95	0.91	0.91	0.91	0.87	0.87	0.87	0.84	0.84	0.84	0.82
1	0.91	0.88	0.87	0.89	0.87	0.85	0.85	0.84	0.83	0.82	0.81	0.80	0.80	0.79	0.78	0.76
2	0.86	0.82	0.80	0.84	0.81	0.79	0.82	0.79	0.77	0.79	0.77	0.76	0.77	0.75	0.74	0.73
3	0.81	0.78	0.75	0.80	0.77	0.74	0.78	0.75	0.73	0.76	0.74	0.72	0.74	0.72	0.71	0.70
4	0.77	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.69	0.73	0.71	0.69	0.72	0.70	0.68	0.67
5	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.70	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	0.68	0.64	0.62	0.68	0.64	0.61	0.67	0.64	0.61	0.66	0.63	0.61	0.65	0.63	0.61	0.60
8	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
9	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	0.58	0.56	0.56
10	0.61	0.58	0.55	0.61	0.57	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.59	0.57	0.55	0.54



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	3744.39	3706.95	3482.87	2973.60	2223.73	1432.57	720.14	280.79	60.01
45.0	3755.40	3617.76	3281.91	2625.64	1825.67	1063.14	478.44	100.04	40.14
90.0	3739.98	3524.16	3105.18	2329.44	1564.15	855.69	316.52	70.14	33.86
135.0	3760.35	3562.70	3212.54	2512.22	1737.58	1018.54	422.83	88.70	38.98
180.0	3744.39	3567.10	3198.23	2477.54	1738.68	974.61	389.30	90.68	38.92
225.0	3755.40	3694.84	3449.83	2883.85	2073.97	1076.41	642.73	144.19	50.32
270.0	3739.98	3762.00	3591.33	3139.87	2361.37	1544.33	844.57	296.75	62.38
315.0	3760.35	3728.42	3498.83	3029.20	2181.89	1089.79	717.38	192.42	55.28
360.0	3744.39	3706.95	3482.87	2973.60	2223.73	1432.57	720.14	280.79	60.01
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	32.98	26.87	22.85	20.48	18.28	16.41	14.65	13.16	10.57
45.0	28.79	24.00	21.14	19.27	17.01	15.09	13.49	11.29	9.52
90.0	26.98	23.18	20.81	18.94	16.85	15.25	13.65	11.18	9.74
135.0	27.97	24.06	21.64	19.60	17.67	15.80	14.65	12.50	10.74
180.0	28.35	24.39	21.97	20.04	17.95	15.86	14.37	11.89	10.46
225.0	29.90	24.50	21.47	19.71	17.62	15.91	14.26	12.66	10.13
270.0	32.43	25.82	22.19	20.54	18.55	16.68	15.36	13.71	10.46
315.0	31.60	25.05	21.58	19.60	17.78	15.97	14.31	12.77	10.30
360.0	32.98	26.87	22.85	20.48	18.28	16.41	14.65	13.16	10.57
C/ γ (°)	90.0								
0.0	8.64								
45.0	8.37								
90.0	8.37								
135.0	8.48								
180.0	8.53								
225.0	8.70								
270.0	8.59								
315.0	8.81								
360.0	8.64								