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## Nata

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LumCAT: 2-1568-M  
Luminaire: BJB47.319.2131  
Report No: NT2017080812  
Test No: GC2017080812  
LampCAT: CREE CXA1816  
Lamp flux(lm): 2010.0  
Number of Lamps: 1  
Length(mm): 70  
Phm Type: C

Voltage(V): 38.5000  
Current(A): 0.5000  
Power (W): 19.2500  
PF: 0.0000  
Ballast type: DC  
Width(mm): 70  
Height(mm):0

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## Photometric Results

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Lumens(lm): 1843.18  
Efficiency(%): 91.70%  
Lumens(lm)/Power(W): 96.77  
Central intensity(cd): 3585.772  
Maximum intensity(cd): 3585.772  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=38.9  
                                  [C90/270]Total=38.9  
Field angle(10%Imax): [C0/180]Total=74.4  
                                  [C90/270]Total=74.4  
Maximum s/h(1/2): C0\_180=0.65 C90\_270=0.65  
Maximum s/h(1/4): C0\_180=0.61 C90\_270=0.61  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 92.68%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 97.721%

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Equipment: GMS1980  
Temperature(°C): 25.0

Date: 2017/8/8  
Humidity(%): 60.0%

Operator: NT07  
Distance(m): 7.46

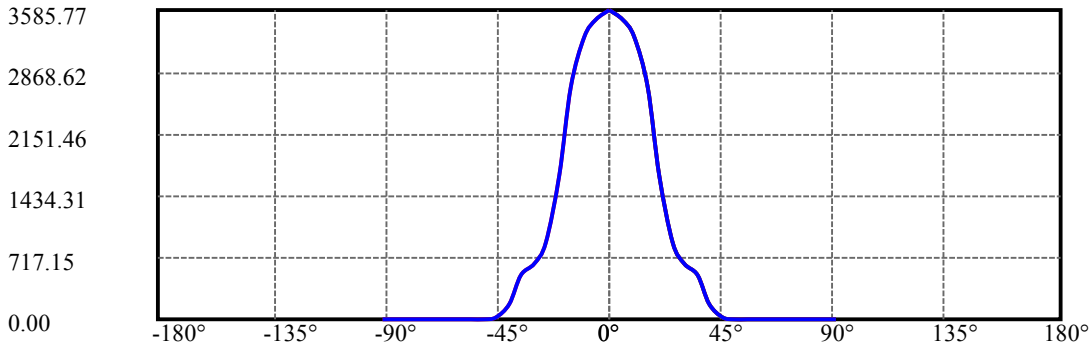
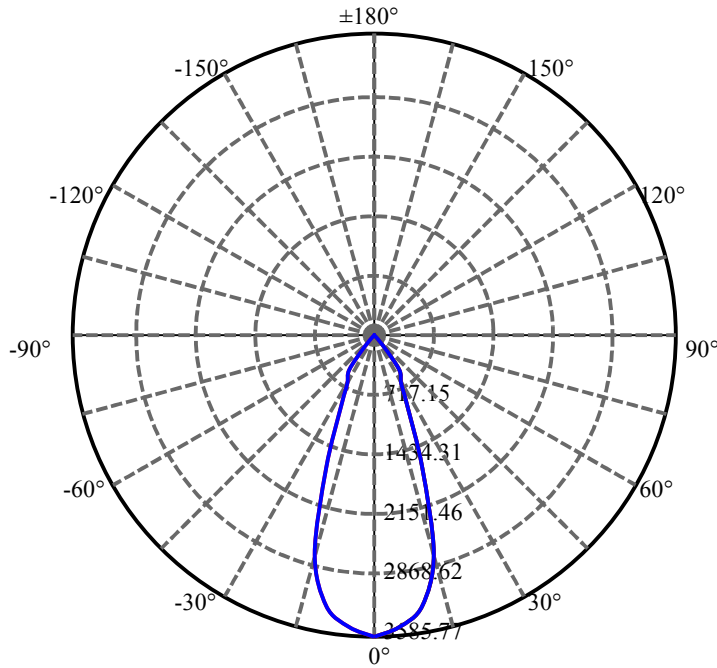
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3585.772	21.444	21.444	1.067%	1.163%
5.0	3480.381	166.269	187.713	8.272%	10.184%
10.0	3264.940	310.767	498.48	15.461%	27.045%
15.0	2697.016	382.621	881.101	19.036%	47.803%
20.0	1676.713	314.340	1195.441	15.639%	64.858%
25.0	895.330	207.406	1402.847	10.319%	76.110%
30.0	655.214	179.574	1582.421	8.934%	85.853%
35.0	502.499	157.985	1740.406	7.860%	94.424%
40.0	176.033	62.023	1802.429	3.086%	97.789%
45.0	14.991	5.810	1808.239	.289%	98.105%
50.0	9.781	4.107	1812.346	.204%	98.327%
55.0	8.967	4.026	1816.372	.200%	98.546%
60.0	8.515	4.042	1820.414	.201%	98.765%
65.0	8.209	4.078	1824.492	.203%	98.986%
70.0	7.986	4.113	1828.606	.205%	99.210%
75.0	7.826	4.144	1832.749	.206%	99.434%
80.0	7.722	4.168	1836.917	.207%	99.660%
85.0	7.652	4.178	1841.096	.208%	99.887%
90.0	7.589	2.080	1843.176	.103%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1582.42	78.73%	85.85%
0-40	1802.43	89.67%	97.79%
0-60	1820.41	90.57%	98.77%
0-90	1841.10	91.60%	99.89%
0-120	1841.10	91.60%	99.89%
0-180	1843.18	91.70%	100.00%
60-90	24.72	1.23%	1.34%
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%
0-27.00	1474.54	73.36%	80.00%

ZONAL LUMEN SUMMARY

0-10	498.48
10-20	696.96
20-30	386.98
30-40	220.01
40-50	9.92
50-60	8.07
60-70	8.19
70-80	8.31
80-90	4.18
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

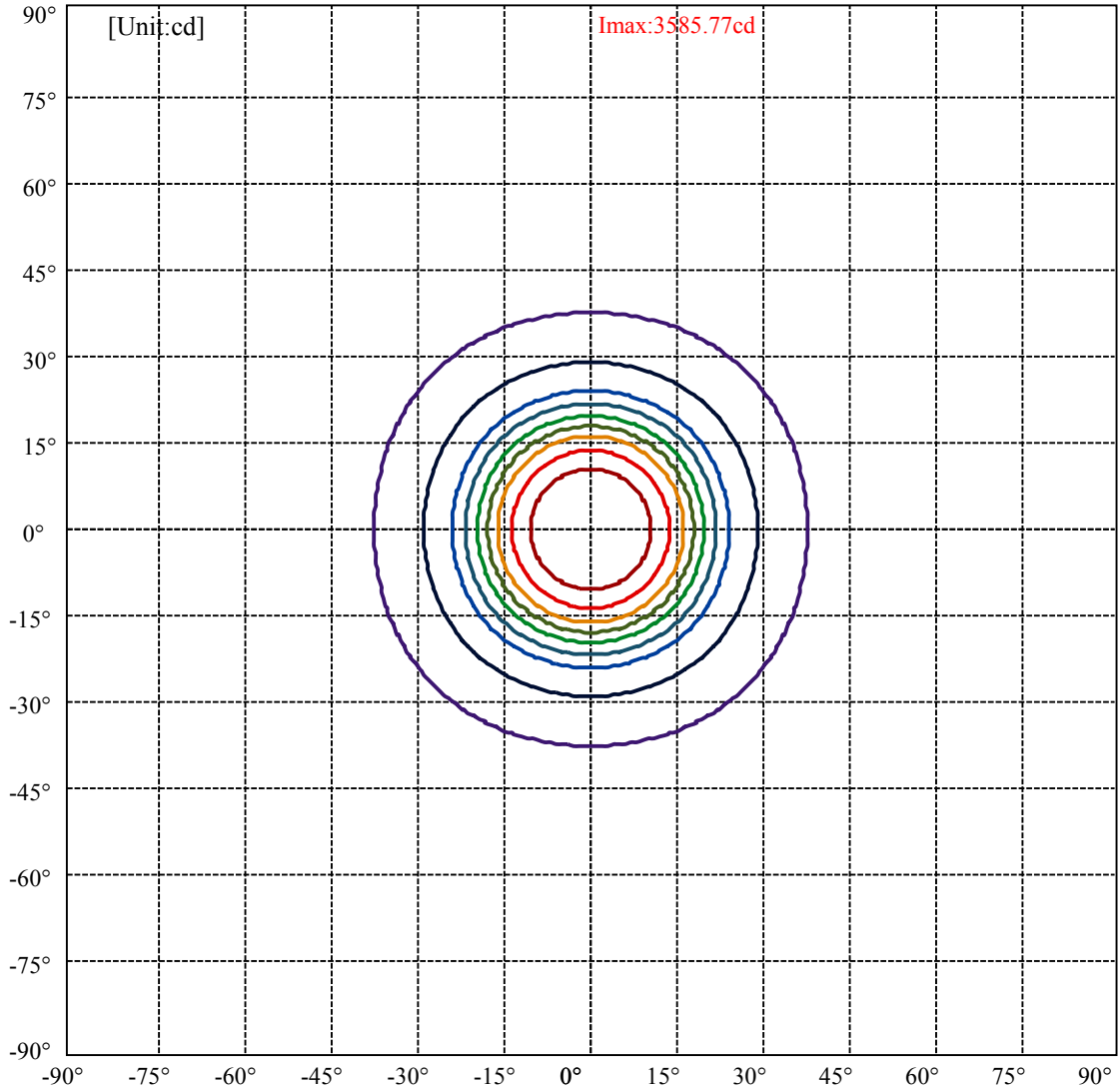


C0(Max): —————  
C0/C180: —————  
C90/C270: —————

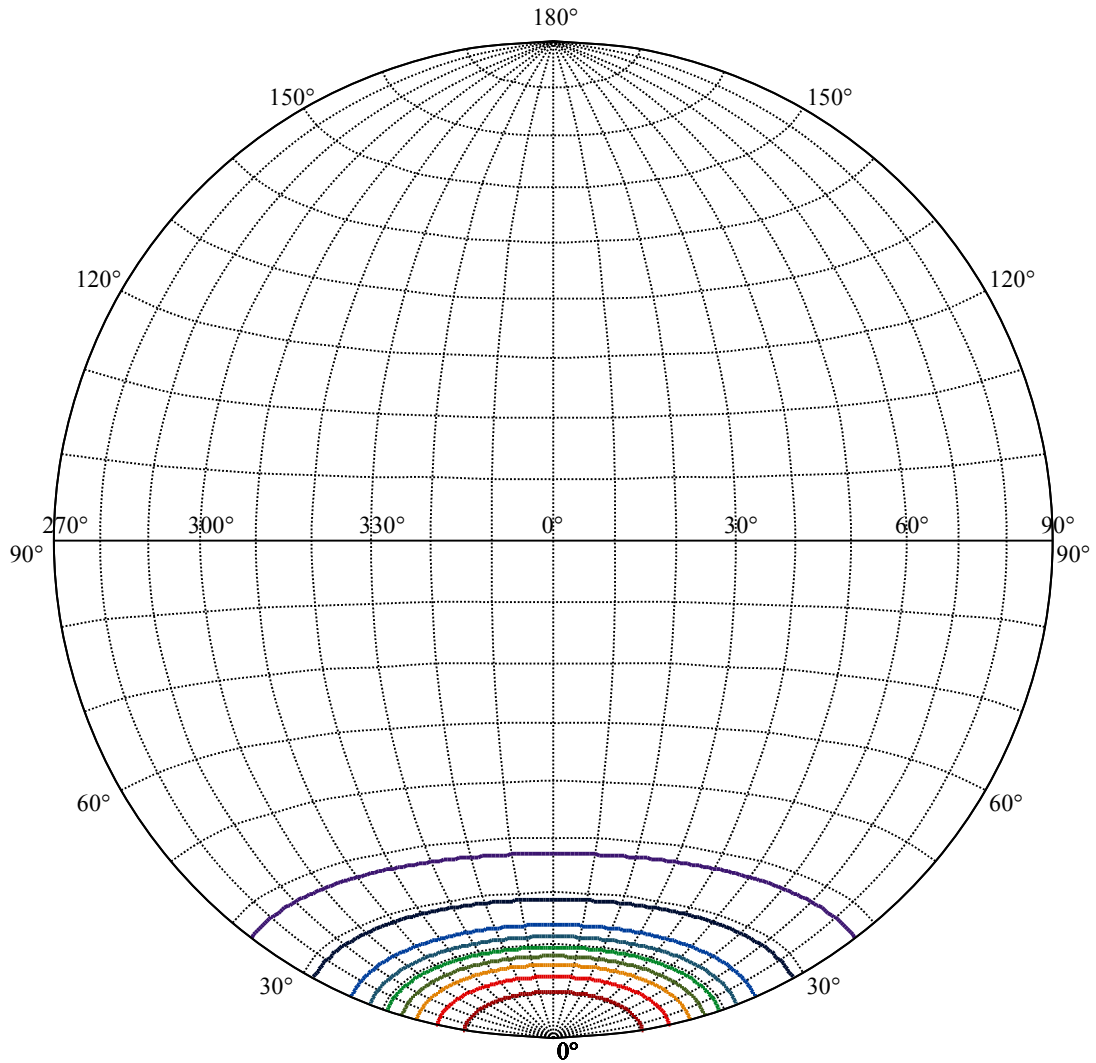
Field angle(10%Imax):C0/180Left:37.2 Right:37.2  
:C90/270Left:37.2 Right:37.2

Beam Angle(50%Imax):C0/180Left:19.4 Right:19.4  
:C90/270Left:19.4 Right:19.4





(10%Imax) 358.577	—
(20%Imax) 717.154	—
(30%Imax) 1075.73	—
(40%Imax) 1434.31	—
(50%Imax) 1792.89	—
(60%Imax) 2151.46	—
(70%Imax) 2510.04	—
(80%Imax) 2868.62	—
(90%Imax) 3227.19	—



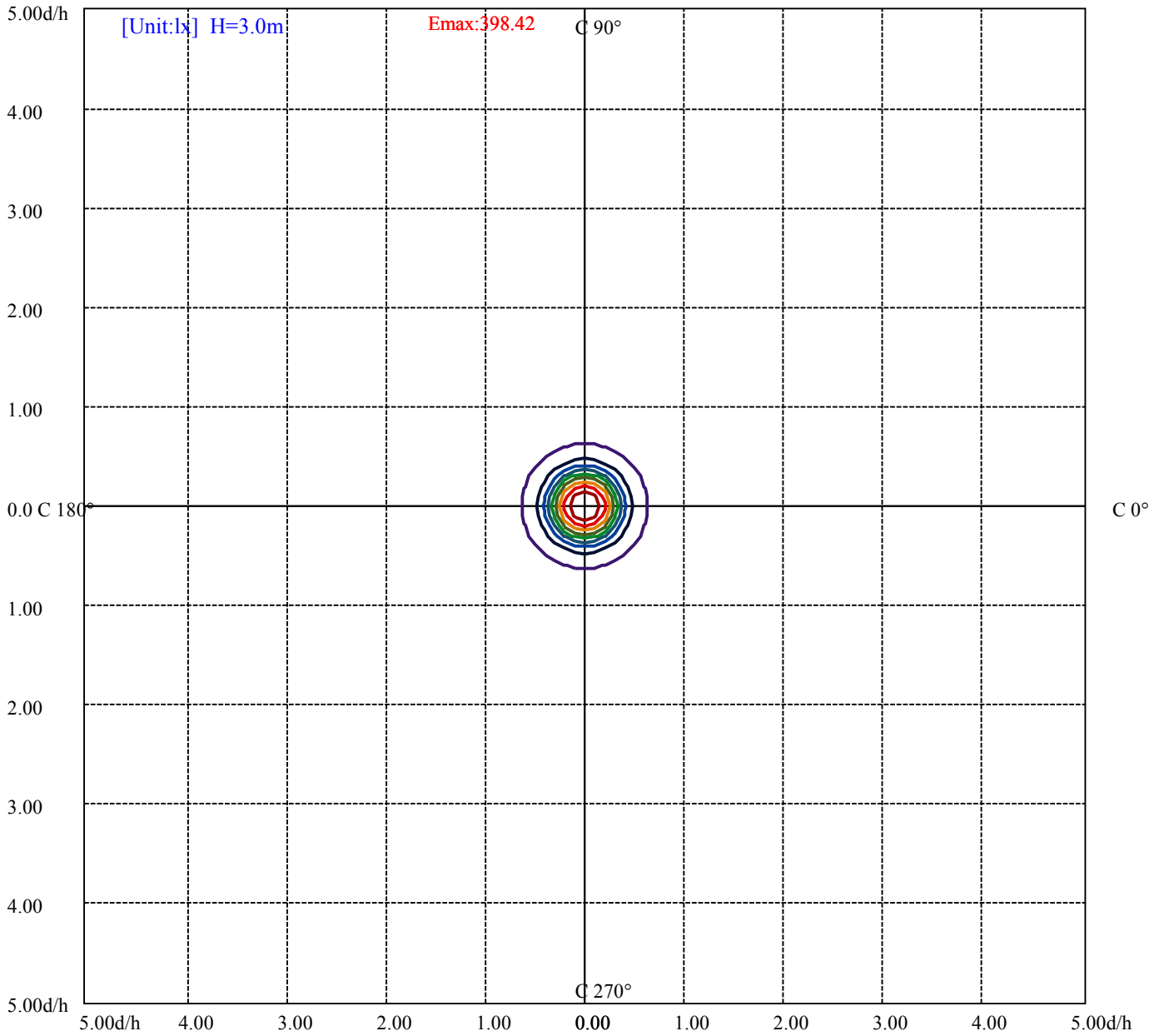
House

[Unit:cd]

Road

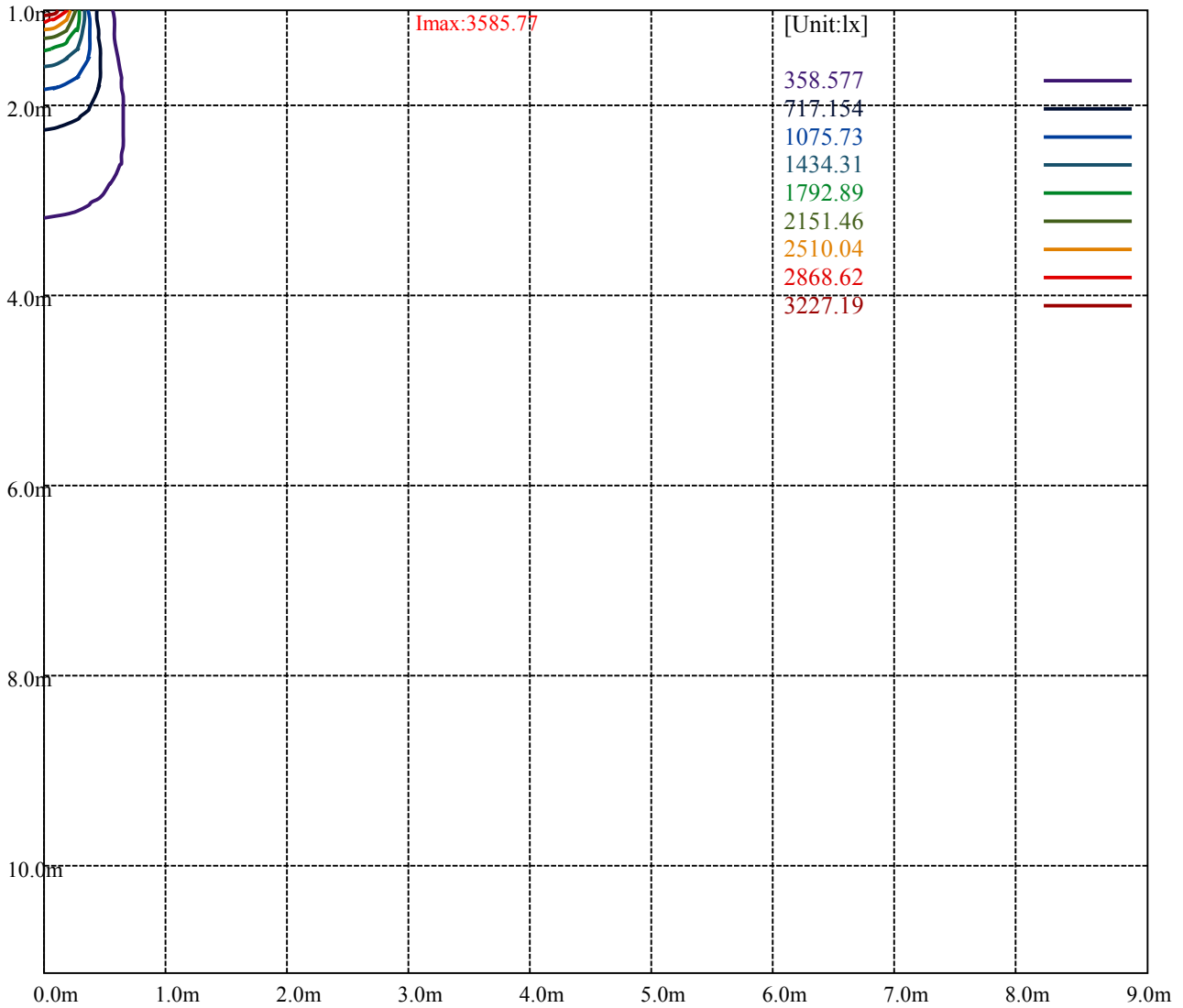
Imax:3585.77

(10%Imax)	358.577	—
(20%Imax)	717.154	—
(30%Imax)	1075.73	—
(40%Imax)	1434.31	—
(50%Imax)	1792.89	—
(60%Imax)	2151.46	—
(70%Imax)	2510.04	—
(80%Imax)	2868.62	—
(90%Imax)	3227.19	—



(10%Emax) 39.84189	—
(20%Emax) 79.68378	—
(30%Emax) 119.5256	—
(40%Emax) 159.3678	—
(50%Emax) 199.2089	—
(60%Emax) 239.0511	—
(70%Emax) 278.8933	—
(80%Emax) 318.7345	—
(90%Emax) 358.5767	—





Luminance Table

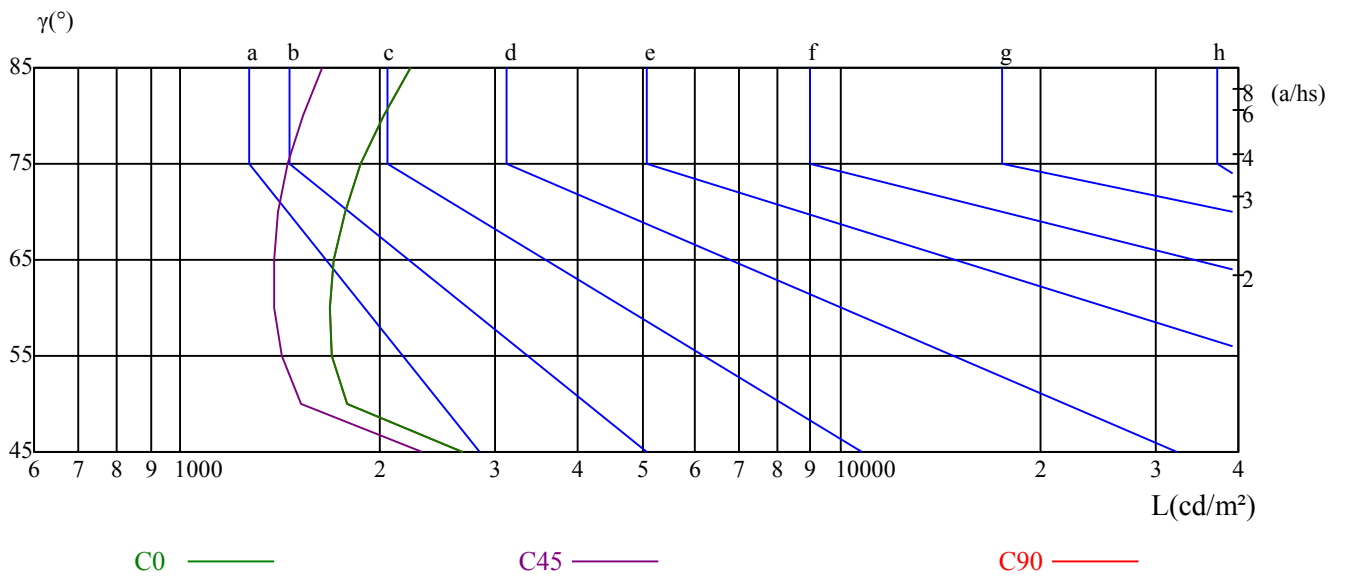
$\gamma$	45	50	55	60	65	70	75	80	85
C0	2680	1793	1700	1684	1711	1773	1874	2024	2234
C45	2315	1526	1424	1388	1385	1407	1455	1531	1639
C90	2680	1793	1700	1684	1711	1773	1874	2024	2234

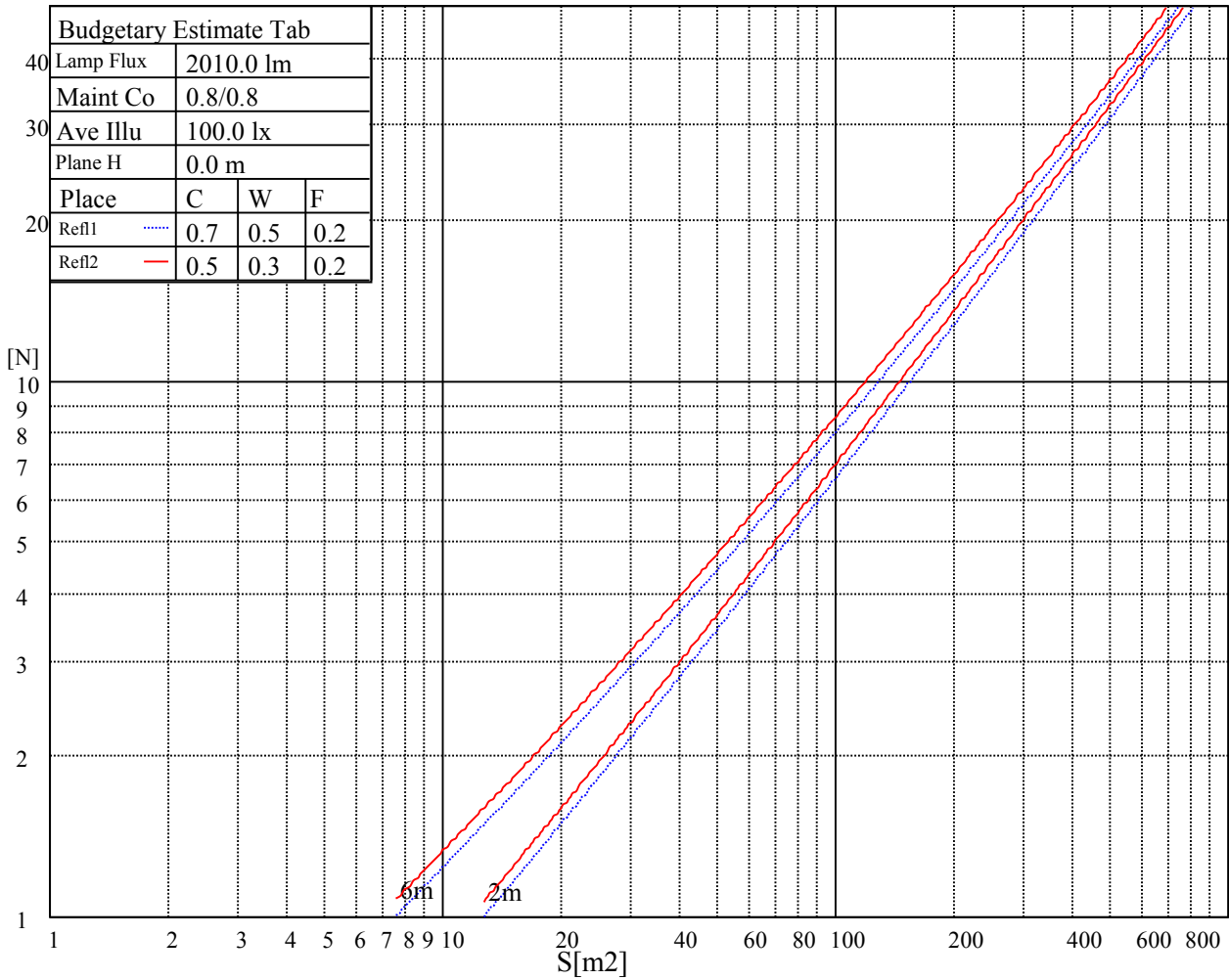
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3964	3964	3964	6171	6171	6171	17918	17918	17918

Glare Table

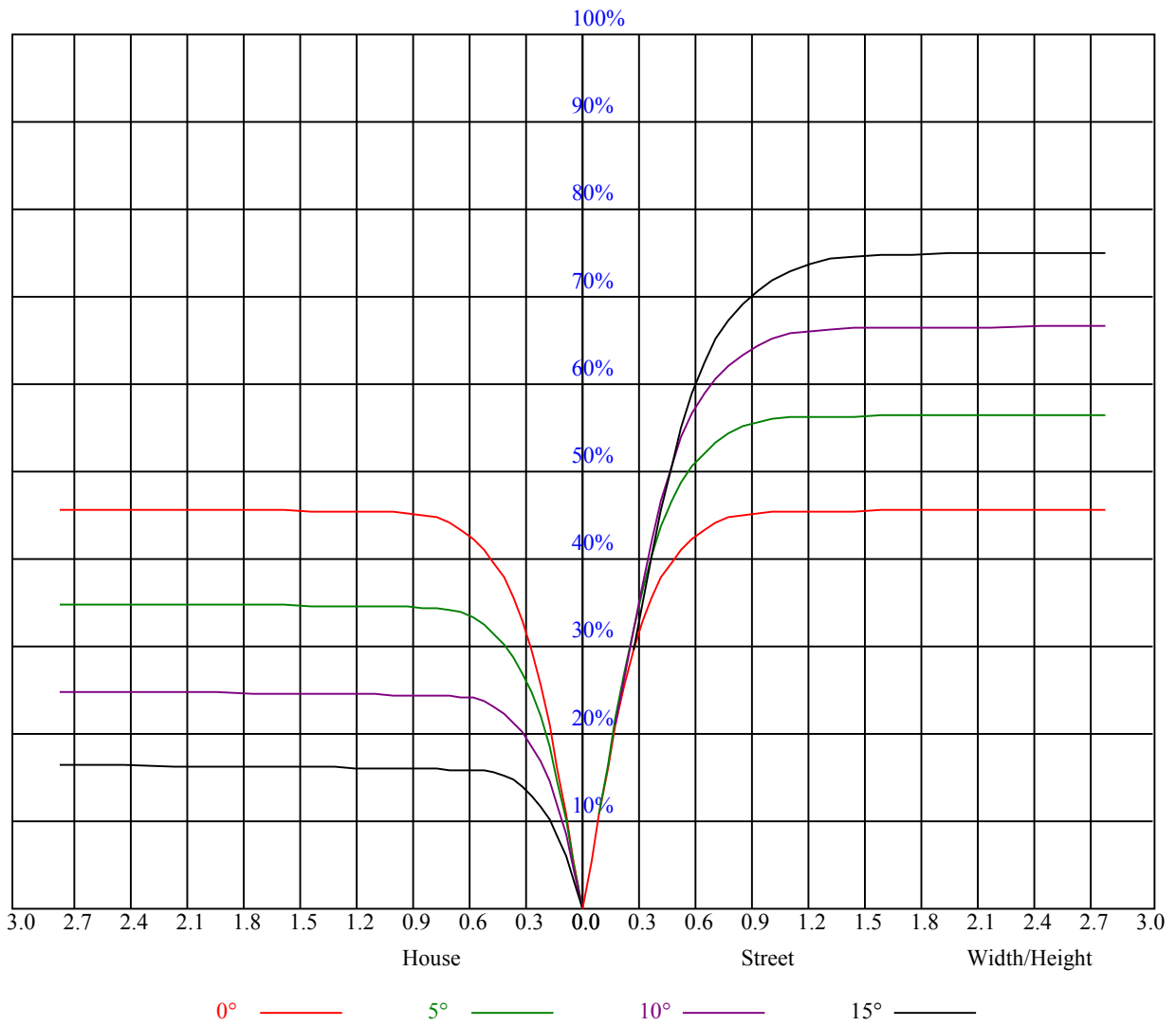
Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.10	1.10	1.10	1.08	1.08	1.08	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.02	1.00	0.98	1.00	0.98	0.96	0.97	0.95	0.93	0.93	0.92	0.90	0.90	0.89	0.88	0.86
2	0.97	0.93	0.90	0.95	0.92	0.89	0.92	0.89	0.87	0.89	0.87	0.85	0.87	0.85	0.84	0.82
3	0.92	0.87	0.84	0.90	0.87	0.83	0.88	0.85	0.82	0.86	0.83	0.81	0.84	0.82	0.80	0.78
4	0.87	0.83	0.79	0.86	0.82	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.81	0.78	0.76	0.75
5	0.83	0.78	0.75	0.82	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.72
6	0.79	0.75	0.71	0.79	0.74	0.71	0.77	0.74	0.71	0.76	0.73	0.70	0.75	0.72	0.70	0.69
7	0.76	0.72	0.68	0.76	0.71	0.68	0.75	0.71	0.68	0.73	0.70	0.67	0.73	0.69	0.67	0.66
8	0.73	0.69	0.65	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.65	0.70	0.67	0.65	0.63
9	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.68	0.65	0.62	0.61
10	0.68	0.63	0.60	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.66	0.62	0.60	0.59



Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	3580.07	3475.44	3267.31	2737.50	1817.58	941.07	665.04	542.60	299.41
45.0	3585.63	3464.31	3242.26	2631.76	1525.97	849.80	642.78	461.91	95.44
90.0	3586.75	3474.33	3207.76	2549.96	1322.28	808.73	635.93	455.90	83.70
135.0	3590.64	3508.28	3321.84	2860.49	1816.47	958.88	666.71	528.69	291.61
180.0	3580.07	3471.55	3258.40	2593.92	1649.51	859.93	630.98	468.86	101.29
225.0	3585.63	3505.49	3312.38	2781.47	1799.77	920.92	670.55	545.44	152.99
270.0	3586.75	3506.05	3314.05	2819.31	1899.39	981.69	682.29	561.52	300.52
315.0	3590.64	3437.60	3195.51	2601.71	1582.73	841.62	647.45	455.06	83.31
360.0	3580.07	3475.44	3267.31	2737.50	1817.58	941.07	665.04	542.60	299.41
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	15.58	10.02	9.02	8.57	8.18	7.96	7.79	7.74	7.62
45.0	14.19	9.74	9.07	8.63	8.35	8.01	7.90	7.74	7.68
90.0	13.02	9.74	8.96	8.57	8.24	8.07	7.85	7.74	7.62
135.0	16.03	9.79	9.07	8.51	8.24	7.96	7.85	7.68	7.62
180.0	14.08	9.57	8.85	8.40	8.13	7.90	7.74	7.68	7.57
225.0	16.64	9.96	9.02	8.51	8.24	7.96	7.85	7.74	7.74
270.0	16.58	9.85	8.96	8.51	8.18	8.07	7.85	7.79	7.74
315.0	13.80	9.57	8.79	8.40	8.13	7.96	7.79	7.68	7.62
360.0	15.58	10.02	9.02	8.57	8.18	7.96	7.79	7.74	7.62
C/ $\gamma$ (°)	90.0								
0.0	7.62								
45.0	7.62								
90.0	7.57								
135.0	7.57								
180.0	7.51								
225.0	7.62								
270.0	7.62								
315.0	7.57								
360.0	7.62								