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Nata

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LumCAT: 3-1547-A3  
Luminaire: TE 2213401-1+92.76.365.00  
Report No: GC2015051306  
Test No: NT-0010  
LampCAT: CREE CXA1816  
Lamp flux(lm): 2259.6  
Number of Lamps: 1  
Length(mm): 84  
Phm Type: C

Voltage(V): 40.0000  
Current(A): 0.7300  
Power (W): 29.2000  
PF: 0.0000  
Ballast type: DC  
Width(mm): 84  
Height(mm): 0

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Photometric Results

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Lumens(lm): 2077.41  
Efficiency(%): 91.94%  
Lumens(lm)/Power(W): 71.14  
Central intensity(cd): 4346.674  
Maximum intensity(cd): 4346.674  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=38.5  
                                  [C90/270]Total=38.5  
Field angle(10%Imax): [C0/180]Total=70.9  
                                  [C90/270]Total=70.9  
Maximum s/h(1/2): C0\_180=0.64 C90\_270=0.64  
Maximum s/h(1/4): C0\_180=0.62 C90\_270=0.62  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 91.94%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 99.372%

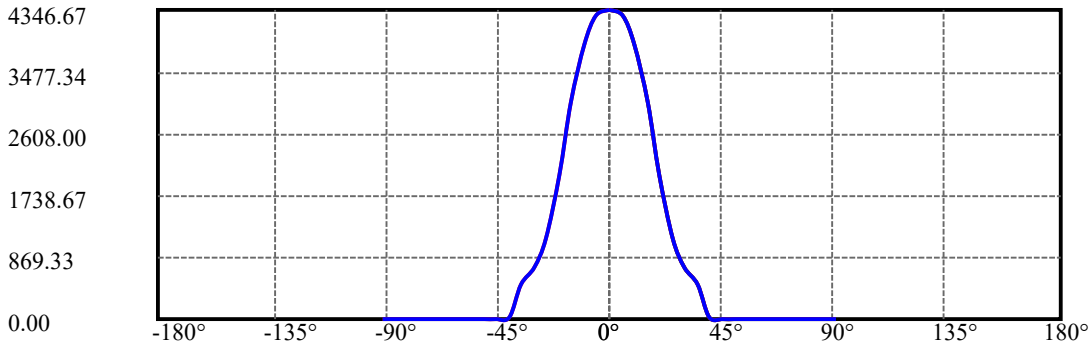
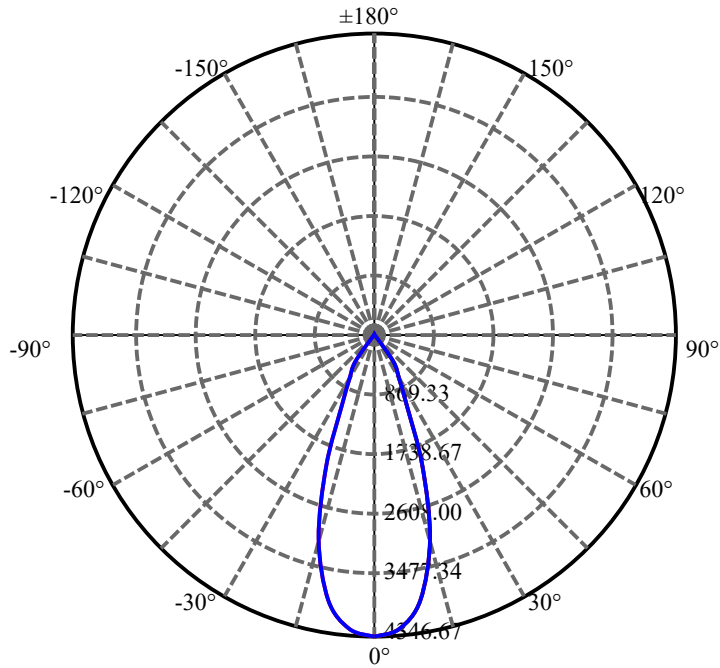
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4346.675	0.000	0	.000%	.000%
5.0	4264.819	102.948	102.948	4.556%	4.956%
10.0	3871.488	291.061	394.009	12.881%	18.966%
15.0	3051.871	410.689	804.698	18.175%	38.736%
20.0	2016.341	417.692	1222.39	18.485%	58.842%
25.0	1133.443	330.354	1552.744	14.620%	74.744%
30.0	739.217	236.987	1789.731	10.488%	86.152%
35.0	474.907	178.788	1968.519	7.912%	94.758%
40.0	23.723	83.193	2051.712	3.682%	98.763%
45.0	6.714	5.636	2057.347	.249%	99.034%
50.0	5.539	2.476	2059.823	.110%	99.153%
55.0	5.036	2.299	2062.123	.102%	99.264%
60.0	4.644	2.237	2064.36	.099%	99.372%
65.0	4.420	2.203	2066.563	.098%	99.478%
70.0	4.196	2.182	2068.745	.097%	99.583%
75.0	4.084	2.164	2070.91	.096%	99.687%
80.0	4.028	2.171	2073.08	.096%	99.791%
85.0	3.972	2.174	2075.254	.096%	99.896%
90.0	3.917	2.160	2077.414	.096%	100.000%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1789.73	79.20%	86.15%
0-40	2051.71	90.80%	98.76%
0-60	2064.36	91.36%	99.37%
0-90	2075.25	91.84%	99.90%
0-120	2075.25	91.84%	99.90%
0-180	2077.41	91.94%	100.00%
60-90	13.13	0.58%	0.63%
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%
0-27.30	1661.93	73.55%	80.00%

## ZONAL LUMEN SUMMARY

0-10	394.01
10-20	828.38
20-30	567.34
30-40	261.98
40-50	8.11
50-60	4.54
60-70	4.39
70-80	4.34
80-90	2.17
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

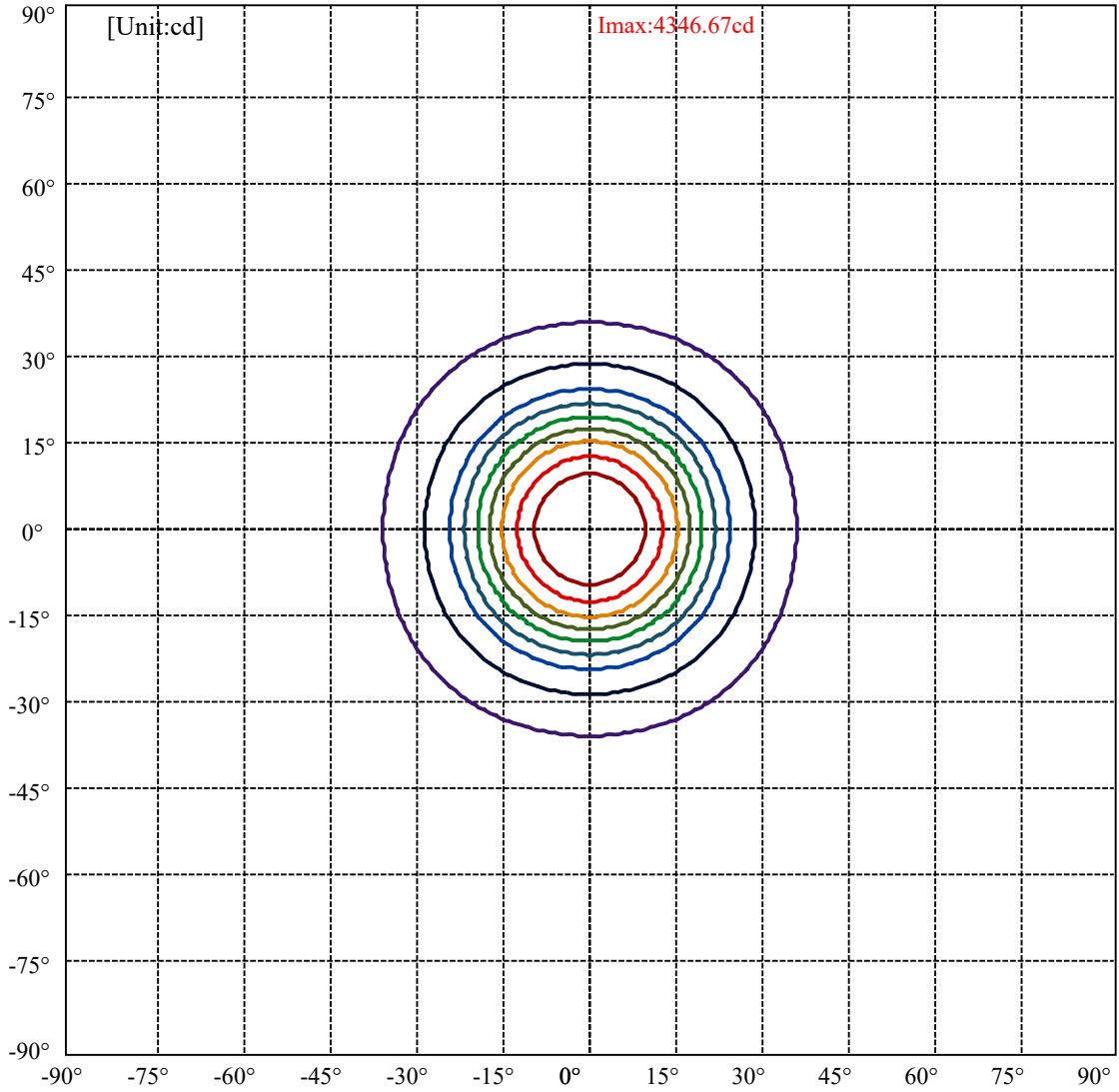


C0(Max): —————  
C0/C180: —————  
C90/C270: —————

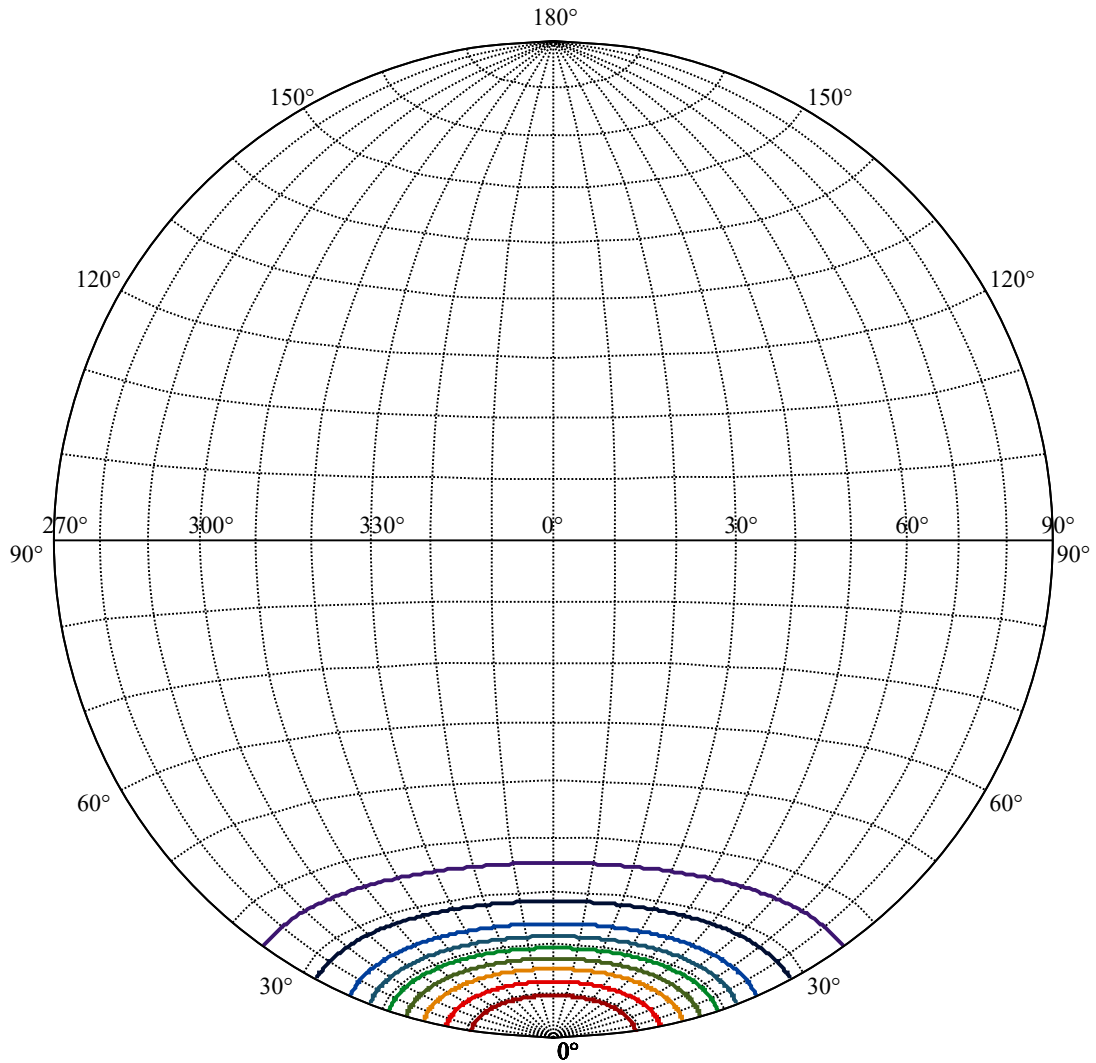
Field angle(10%Imax):C0/180Left:35.4 Right:35.4  
:C90/270Left:35.4 Right:35.4

Beam Angle(50%Imax):C0/180Left:19.2 Right:19.2  
:C90/270Left:19.2 Right:19.2





(10%Imax) 434.667	—
(20%Imax) 869.335	—
(30%Imax) 1304	—
(40%Imax) 1738.67	—
(50%Imax) 2173.34	—
(60%Imax) 2608	—
(70%Imax) 3042.67	—
(80%Imax) 3477.34	—
(90%Imax) 3912.01	—



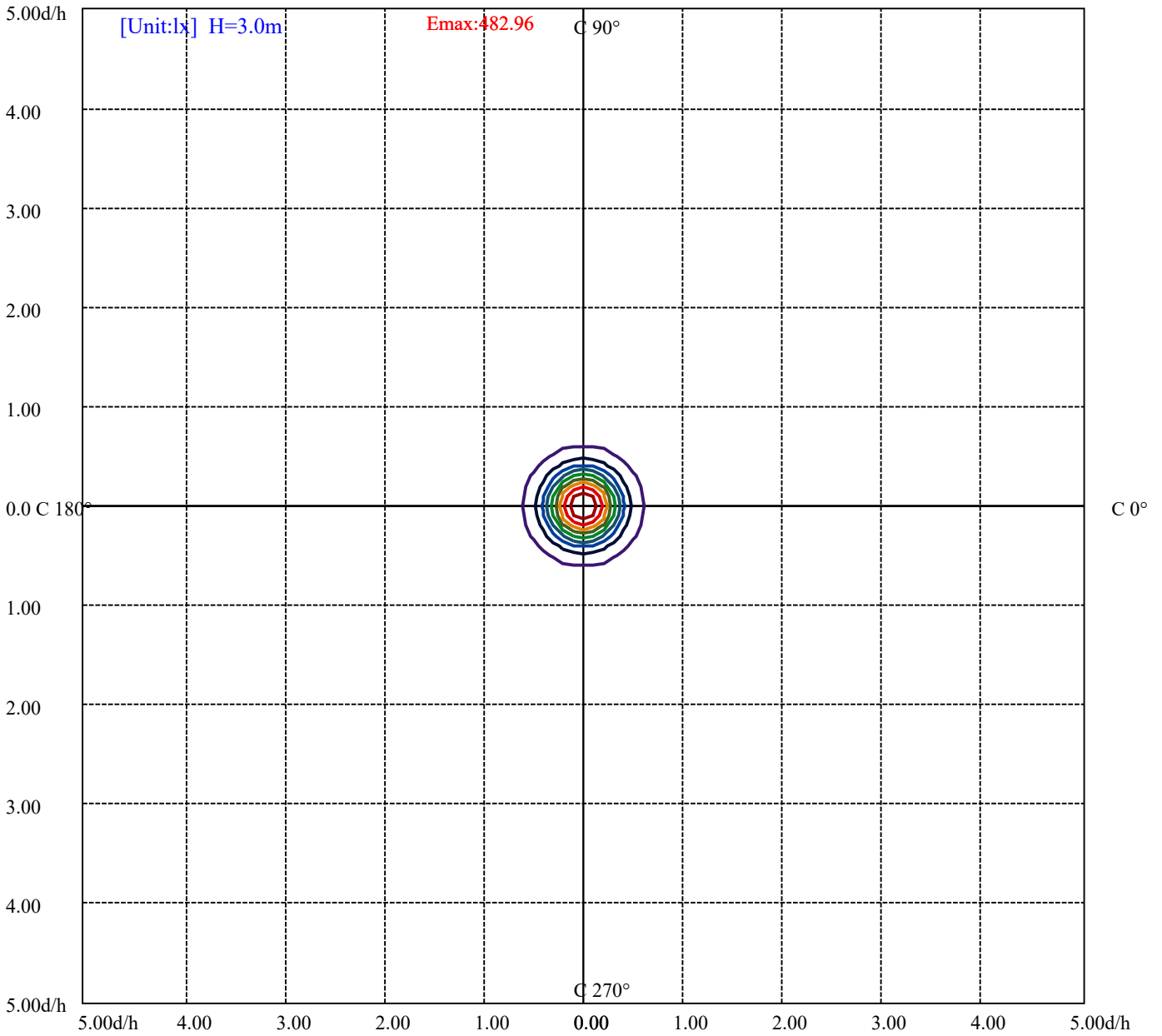
House

[Unit:cd]

Road

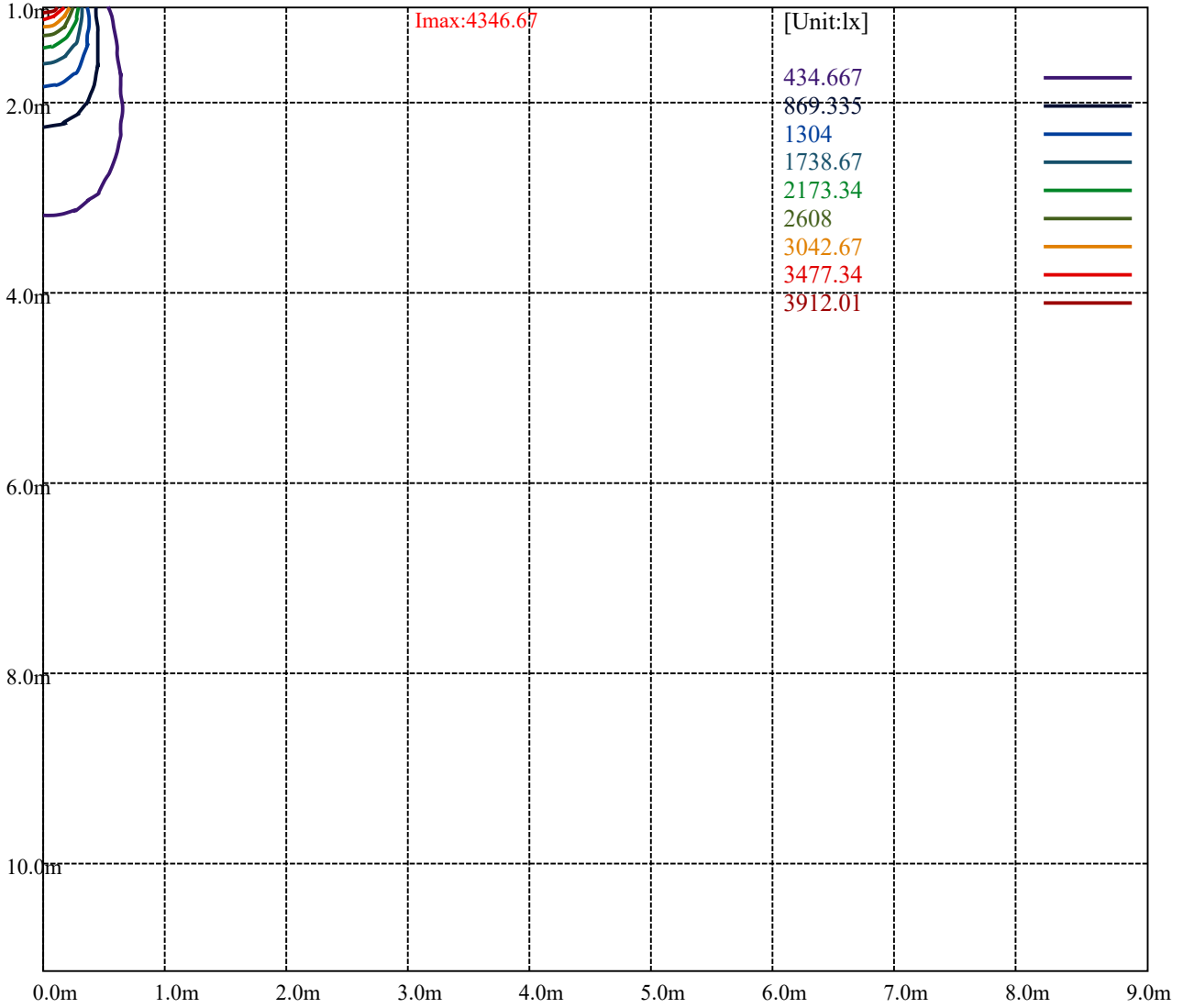
Imax:4346.67

(10%Imax)	434.667	—
(20%Imax)	869.335	—
(30%Imax)	1304	—
(40%Imax)	1738.67	—
(50%Imax)	2173.34	—
(60%Imax)	2608	—
(70%Imax)	3042.67	—
(80%Imax)	3477.34	—
(90%Imax)	3912.01	—



- (10%Emax) 48.29633
- (20%Emax) 96.59267
- (30%Emax) 144.8889
- (40%Emax) 193.1856
- (50%Emax) 241.4822
- (60%Emax) 289.7778
- (70%Emax) 338.0744
- (80%Emax) 386.3711
- (90%Emax) 434.6667





Luminance Table

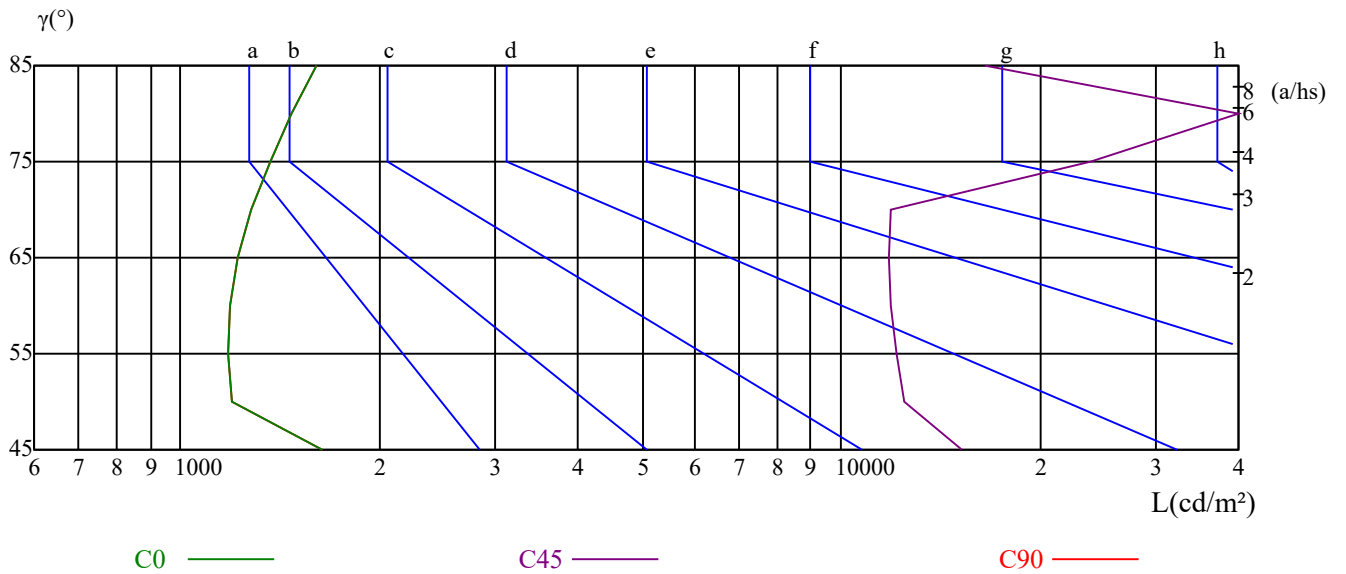
$\gamma$	45	50	55	60	65	70	75	80	85
C0	1637	1200	1183	1191	1224	1281	1364	1469	1602
C45	15234	12442	12145	11868	11846	11939	23865	53090	16482
C90	1637	1200	1183	1191	1224	1281	1364	1469	1602

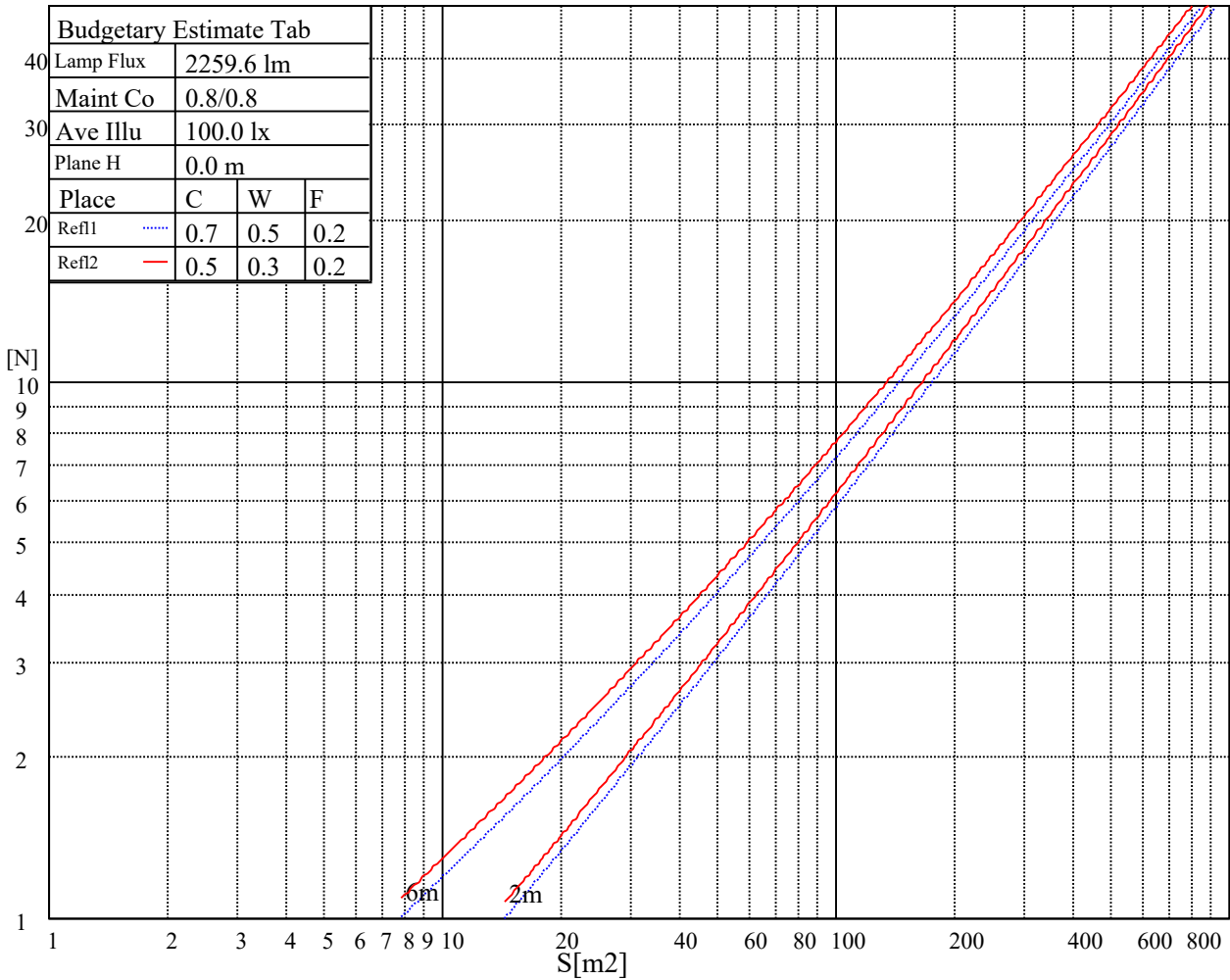
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3016	3016	36360	4836	4836	109813	14099	14099	198276

Glare Table

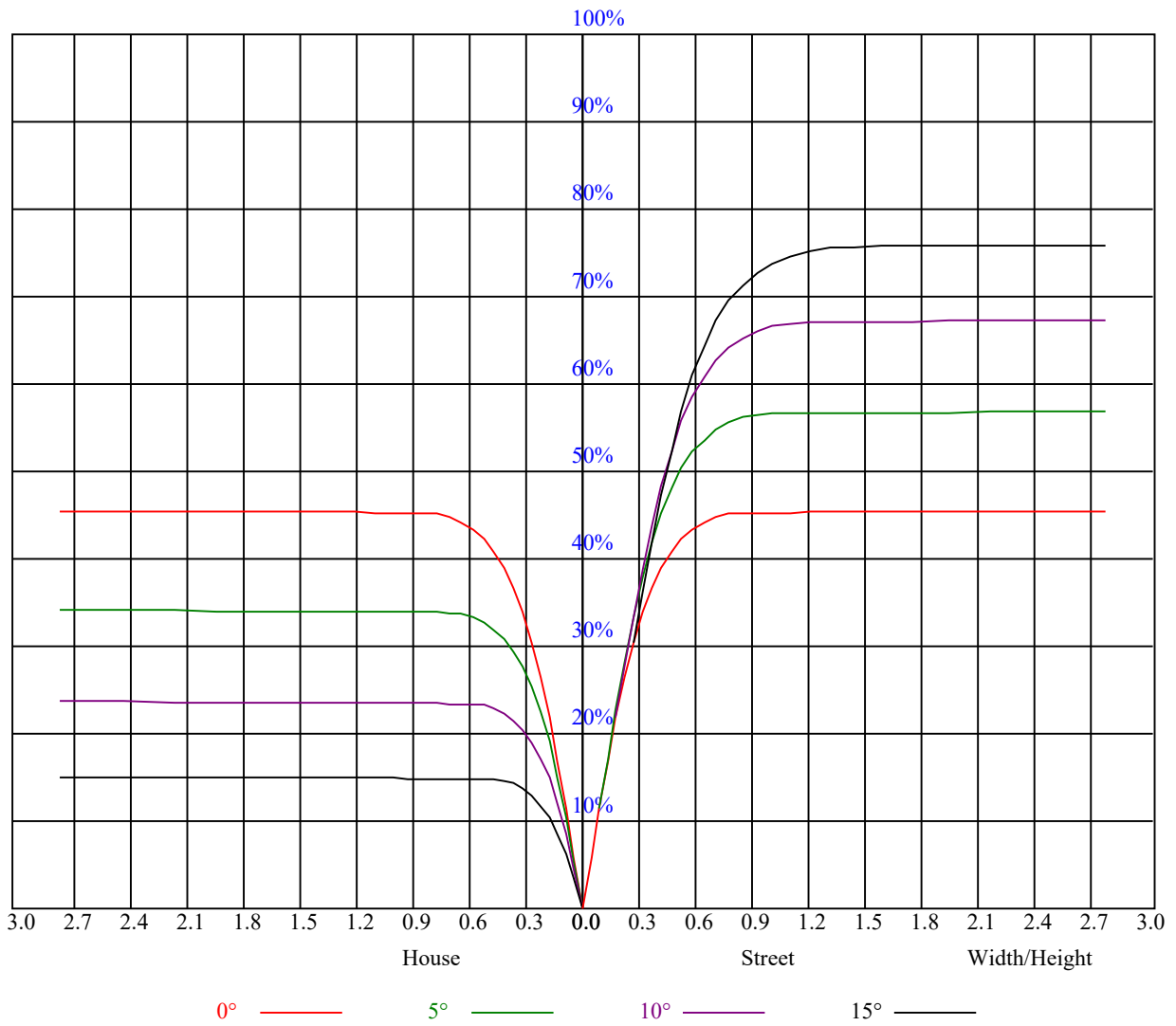
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.09	1.09	1.09	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.03	1.01	0.99	1.01	0.99	0.97	0.97	0.96	0.94	0.94	0.93	0.91	0.91	0.90	0.89	0.87
2	0.97	0.94	0.91	0.95	0.92	0.90	0.92	0.90	0.88	0.90	0.88	0.86	0.87	0.86	0.84	0.83
3	0.92	0.88	0.84	0.90	0.87	0.84	0.88	0.85	0.82	0.86	0.83	0.81	0.84	0.82	0.80	0.79
4	0.87	0.82	0.79	0.86	0.82	0.79	0.84	0.80	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	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.73	0.77	0.75	0.72	0.71
6	0.79	0.74	0.71	0.78	0.74	0.70	0.77	0.73	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.68
7	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.71	0.68	0.66	0.65
8	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.69	0.65	0.63	0.62
9	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.67	0.63	0.61	0.66	0.63	0.60	0.59
10	0.66	0.61	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.64	0.60	0.58	0.57



Intensity data(cd)

<b>C/γ(°)</b>	<b>0.0</b>	<b>5.0</b>	<b>10.0</b>	<b>15.0</b>	<b>20.0</b>	<b>25.0</b>	<b>30.0</b>	<b>35.0</b>	<b>40.0</b>
<b>0.0</b>	4346.67	4264.82	3871.49	3051.87	2016.34	1133.44	739.22	474.91	23.72
<b>45.0</b>	4346.67	4264.82	3871.49	3051.87	2016.34	1133.44	739.22	474.91	23.72
<b>90.0</b>	4346.67	4264.82	3871.49	3051.87	2016.34	1133.44	739.22	474.91	23.72
<b>135.0</b>	4346.67	4264.82	3871.49	3051.87	2016.34	1133.44	739.22	474.91	23.72
<b>180.0</b>	4346.67	4264.82	3871.49	3051.87	2016.34	1133.44	739.22	474.91	23.72
<b>225.0</b>	4346.67	4264.82	3871.49	3051.87	2016.34	1133.44	739.22	474.91	23.72
<b>270.0</b>	4346.67	4264.82	3871.49	3051.87	2016.34	1133.44	739.22	474.91	23.72
<b>315.0</b>	4346.67	4264.82	3871.49	3051.87	2016.34	1133.44	739.22	474.91	23.72
<b>360.0</b>	4346.67	4264.82	3871.49	3051.87	2016.34	1133.44	739.22	474.91	23.72
<b>C/γ(°)</b>	<b>45.0</b>	<b>50.0</b>	<b>55.0</b>	<b>60.0</b>	<b>65.0</b>	<b>70.0</b>	<b>75.0</b>	<b>80.0</b>	<b>85.0</b>
<b>0.0</b>	6.71	5.54	5.04	4.64	4.42	4.20	4.08	4.03	3.97
<b>45.0</b>	6.71	5.54	5.04	4.64	4.42	4.20	4.08	4.03	3.97
<b>90.0</b>	6.71	5.54	5.04	4.64	4.42	4.20	4.08	4.03	3.97
<b>135.0</b>	6.71	5.54	5.04	4.64	4.42	4.20	4.08	4.03	3.97
<b>180.0</b>	6.71	5.54	5.04	4.64	4.42	4.20	4.08	4.03	3.97
<b>225.0</b>	6.71	5.54	5.04	4.64	4.42	4.20	4.08	4.03	3.97
<b>270.0</b>	6.71	5.54	5.04	4.64	4.42	4.20	4.08	4.03	3.97
<b>315.0</b>	6.71	5.54	5.04	4.64	4.42	4.20	4.08	4.03	3.97
<b>360.0</b>	6.71	5.54	5.04	4.64	4.42	4.20	4.08	4.03	3.97
<b>C/γ(°)</b>	<b>90.0</b>								
<b>0.0</b>	3.92								
<b>45.0</b>	3.92								
<b>90.0</b>	3.92								
<b>135.0</b>	3.92								
<b>180.0</b>	3.92								
<b>225.0</b>	3.92								
<b>270.0</b>	3.92								
<b>315.0</b>	3.92								
<b>360.0</b>	3.92								