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## Nata

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LumCAT: 1-0915-S	
Luminaire: 92.70.185.00	
Report No: 220525-B011	Voltage(V): 34.4300
Test No: 220525-C011	Current(A): 0.2280
LampCAT: CREE CXA1512	Power (W): 7.8500
Lamp flux(lm): 1143.1	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 43	Width(mm): 43
Phm Type: C	Height(mm): 0

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## Photometric Results

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Lumens(lm): 879.45  
Efficiency(%): 76.94%  
Lumens(lm)/Power(W): 112.03  
Central intensity(cd): 1198.270  
Maximum intensity(cd): 1198.270  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=53.2  
                                  [C90/270]Total=53.2  
Field angle(10%Imax): [C0/180]Total=71.7  
                                  [C90/270]Total=71.7  
Maximum s/h(1/2): C0\_180=0.86 C90\_270=0.86  
Maximum s/h(1/4): C0\_180=0.79 C90\_270=0.79  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 76.94%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 97.448%

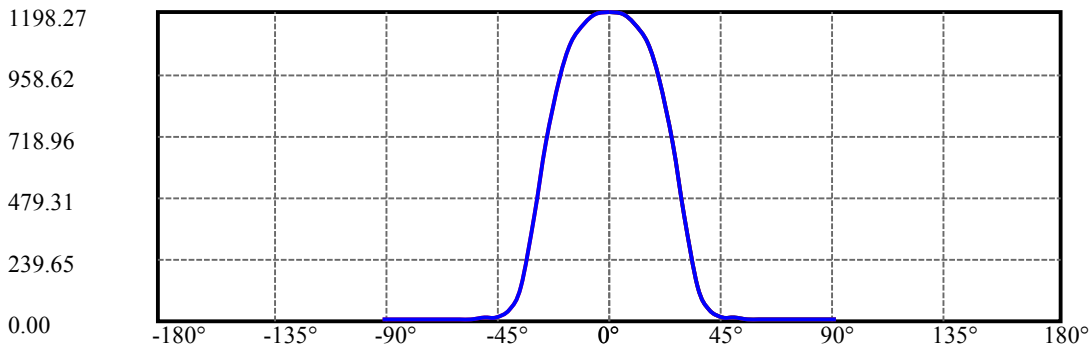
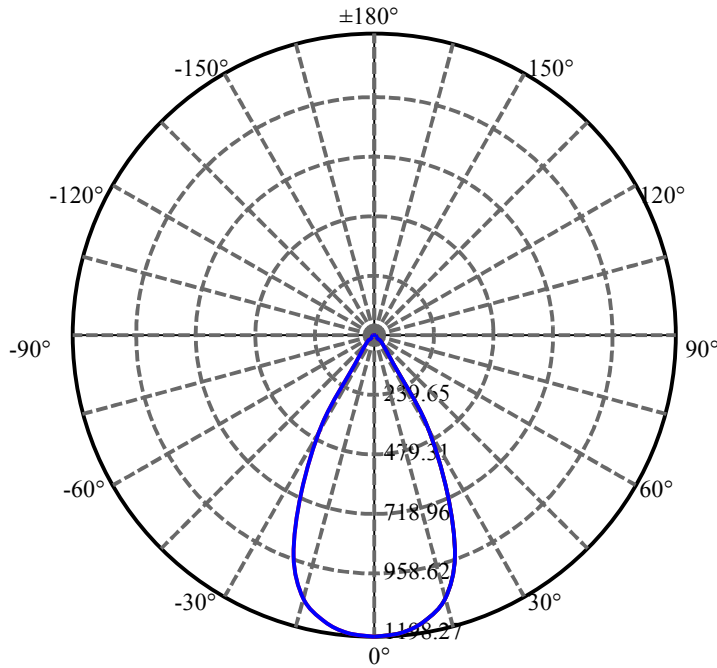
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1198.270	0.000	0	.000%	.000%
5.0	1190.816	28.561	28.561	2.499%	3.248%
10.0	1155.419	83.932	112.493	7.343%	12.791%
15.0	1082.035	132.724	245.217	11.611%	27.883%
20.0	936.948	166.393	411.61	14.557%	46.803%
25.0	689.451	170.579	582.189	14.923%	66.199%
30.0	407.022	138.760	720.949	12.139%	81.977%
35.0	135.833	79.939	800.888	6.993%	91.067%
40.0	42.768	29.798	830.686	2.607%	94.455%
45.0	18.187	11.286	841.973	.987%	95.738%
50.0	11.644	6.028	848.001	.527%	96.424%
55.0	9.687	4.638	852.639	.406%	96.951%
60.0	9.217	4.370	857.009	.382%	97.448%
65.0	8.791	4.378	861.386	.383%	97.946%
70.0	8.246	4.314	865.7	.377%	98.436%
75.0	7.551	4.129	869.829	.361%	98.906%
80.0	6.842	3.851	873.681	.337%	99.344%
85.0	5.296	3.298	876.979	.289%	99.719%
90.0	3.742	2.475	879.453	.216%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	720.95	63.07%	81.98%
0-40	830.69	72.67%	94.45%
0-60	857.01	74.97%	97.45%
0-90	876.98	76.72%	99.72%
0-120	876.98	76.72%	99.72%
0-180	879.45	76.94%	100.00%
60-90	24.34	2.13%	2.77%
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%
0-29.37	703.56	61.55%	80.00%

ZONAL LUMEN SUMMARY

0-10	112.49
10-20	299.12
20-30	309.34
30-40	109.74
40-50	17.31
50-60	9.01
60-70	8.69
70-80	7.98
80-90	3.30
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



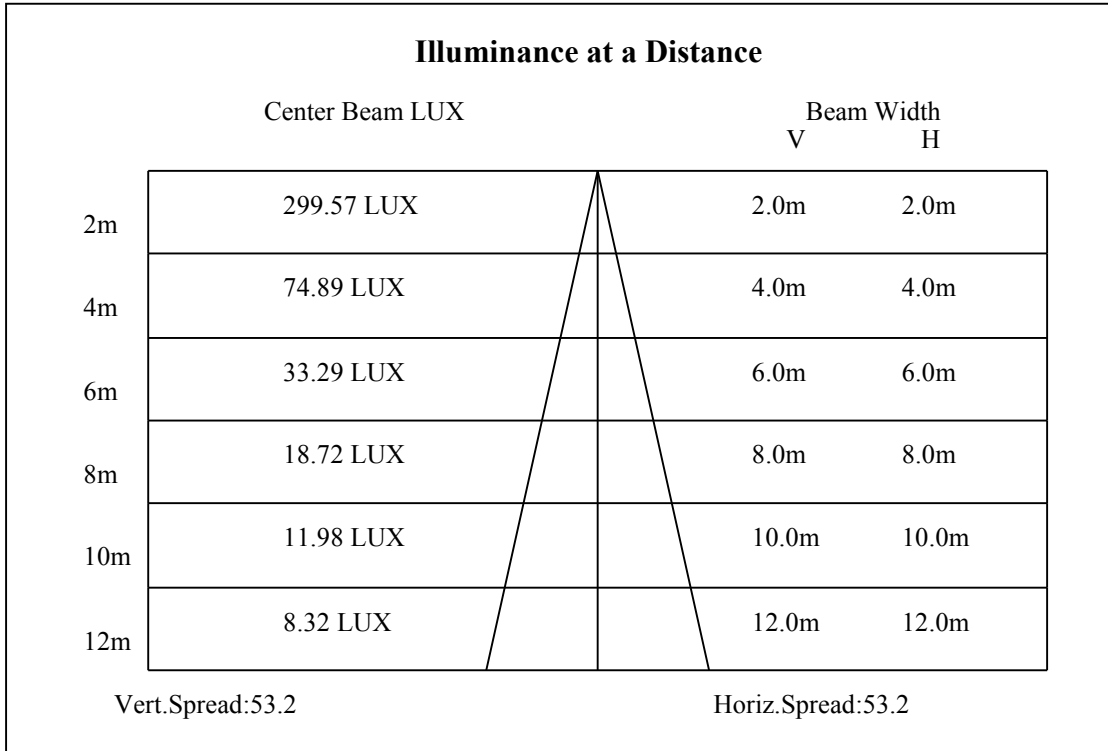
C0(Max): —————

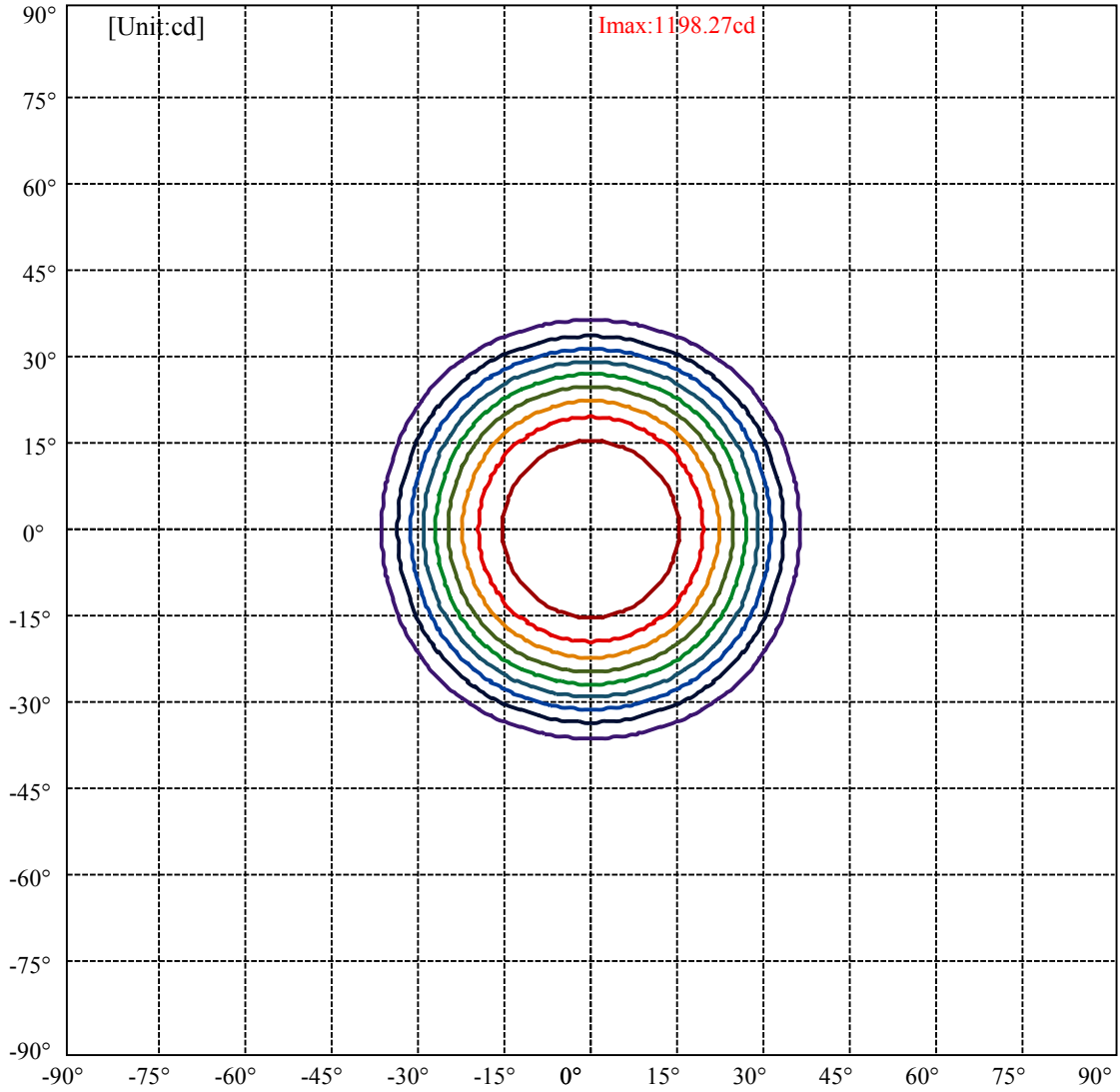
C0/C180: —————

C90/C270: —————

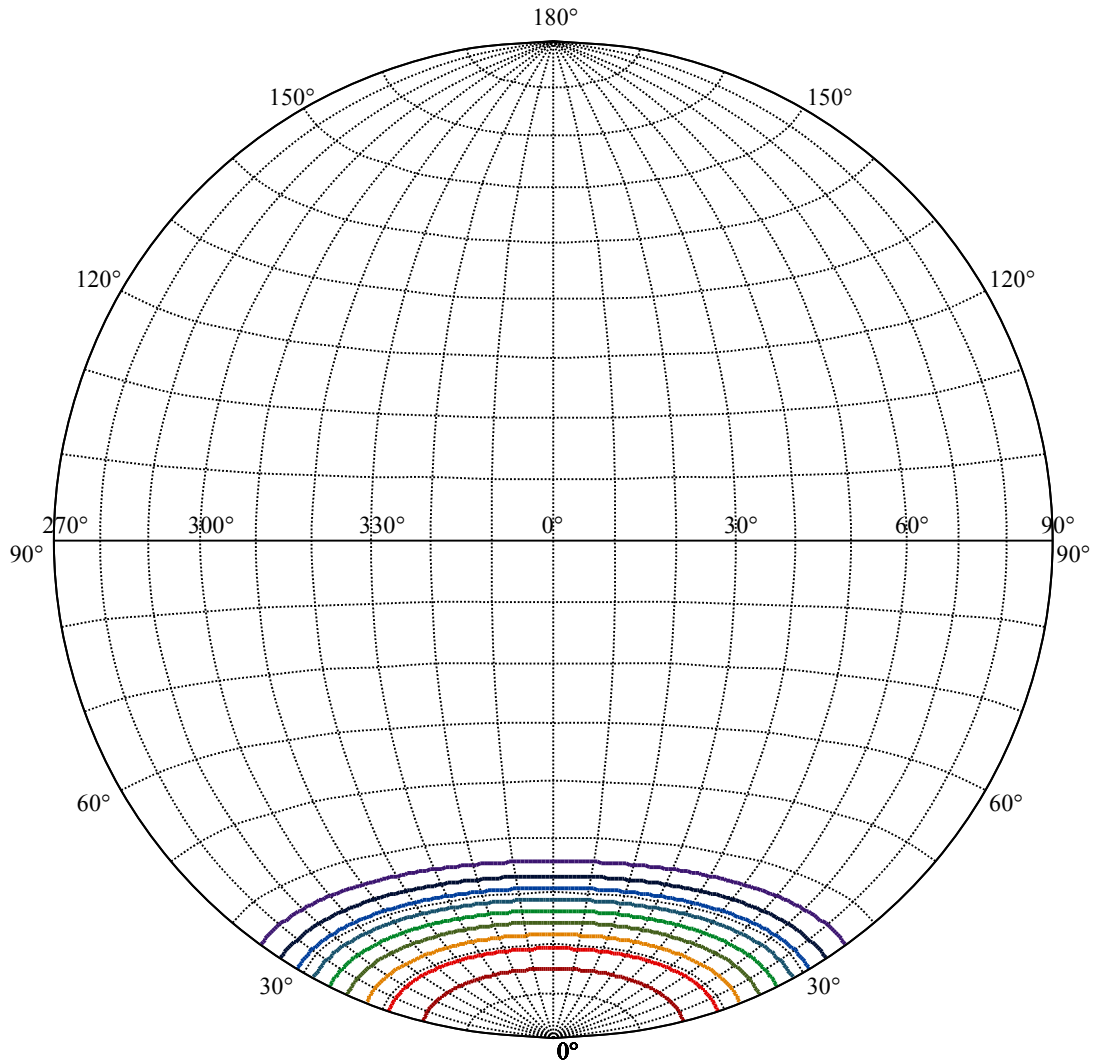
Field angle(10%Imax):C0/180Left:35.9 Right:35.9  
:C90/270Left:35.9 Right:35.9

Beam Angle(50%Imax):C0/180Left:26.6 Right:26.6  
:C90/270Left:26.6 Right:26.6





(10%Imax) 119.827	—
(20%Imax) 239.654	—
(30%Imax) 359.481	—
(40%Imax) 479.308	—
(50%Imax) 599.135	—
(60%Imax) 718.962	—
(70%Imax) 838.789	—
(80%Imax) 958.616	—
(90%Imax) 1078.44	—



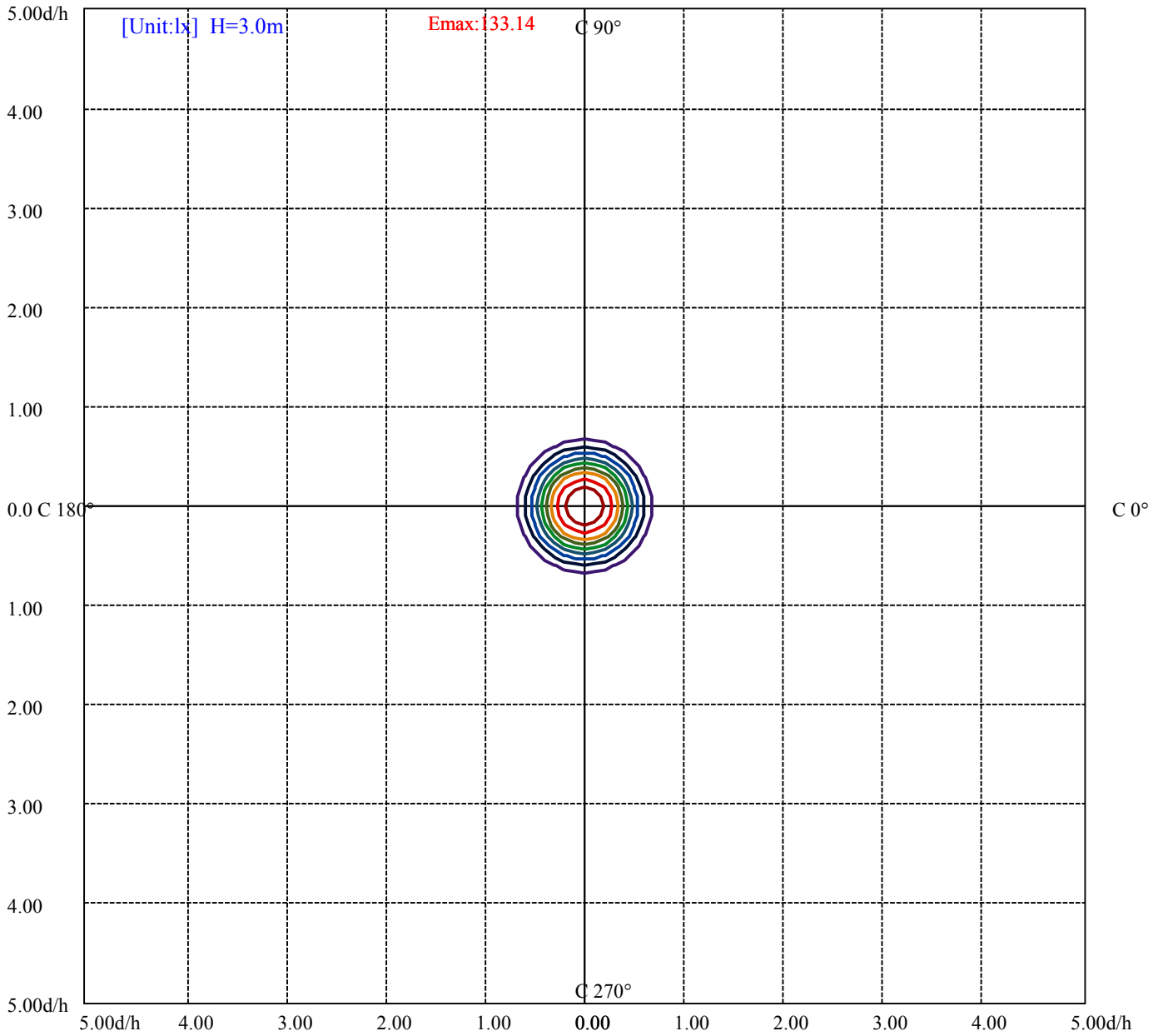
House

[Unit:cd]

Road

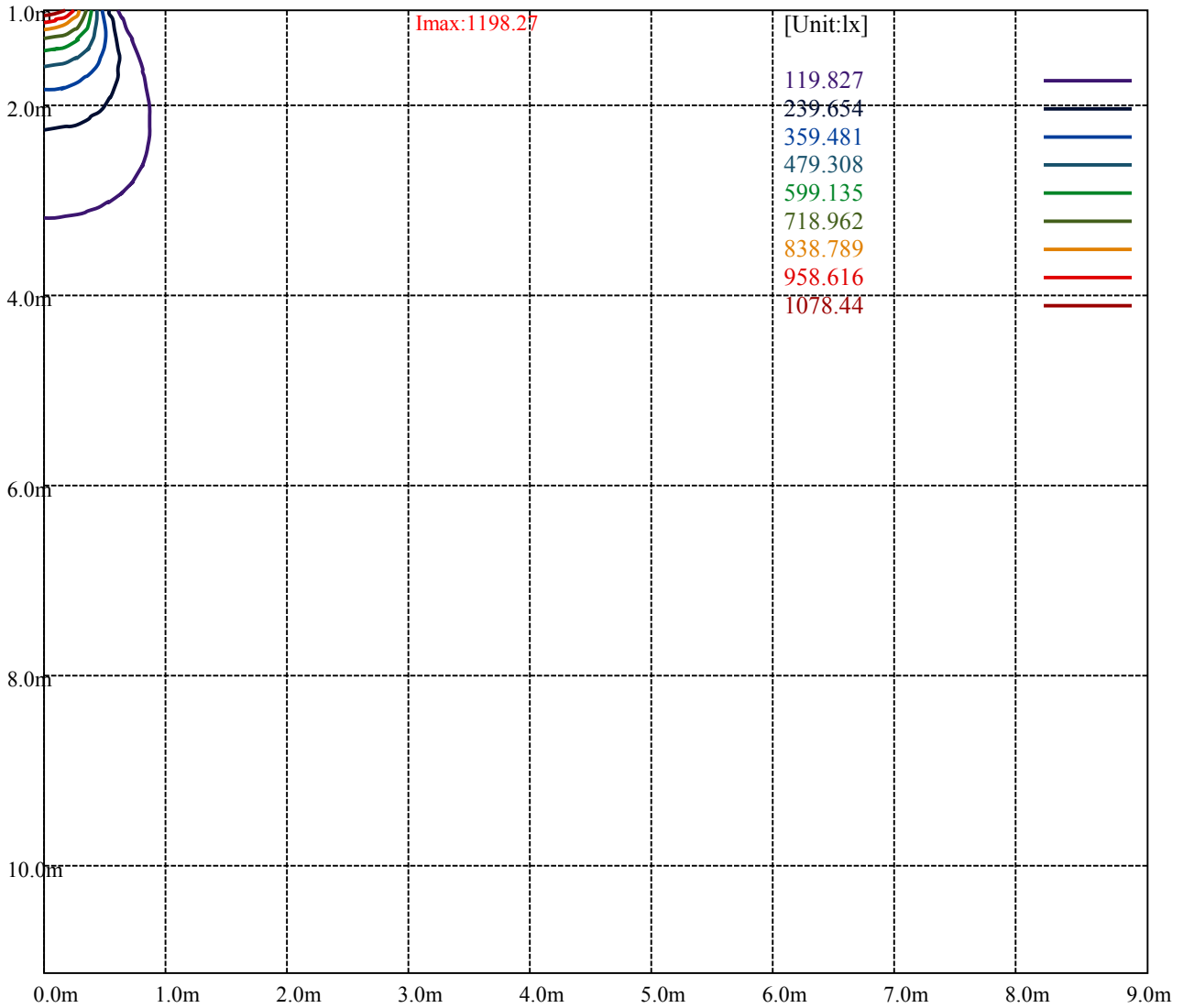
Imax:1198.27

(10%Imax)	119.827	—
(20%Imax)	239.654	—
(30%Imax)	359.481	—
(40%Imax)	479.308	—
(50%Imax)	599.135	—
(60%Imax)	718.962	—
(70%Imax)	838.789	—
(80%Imax)	958.616	—
(90%Imax)	1078.44	—



(10%Emax) 13.31411	—
(20%Emax) 26.62822	—
(30%Emax) 39.94233	—
(40%Emax) 53.25645	—
(50%Emax) 66.57056	—
(60%Emax) 79.88467	—
(70%Emax) 93.19878	—
(80%Emax) 106.5129	—
(90%Emax) 119.8267	—





Luminance Table

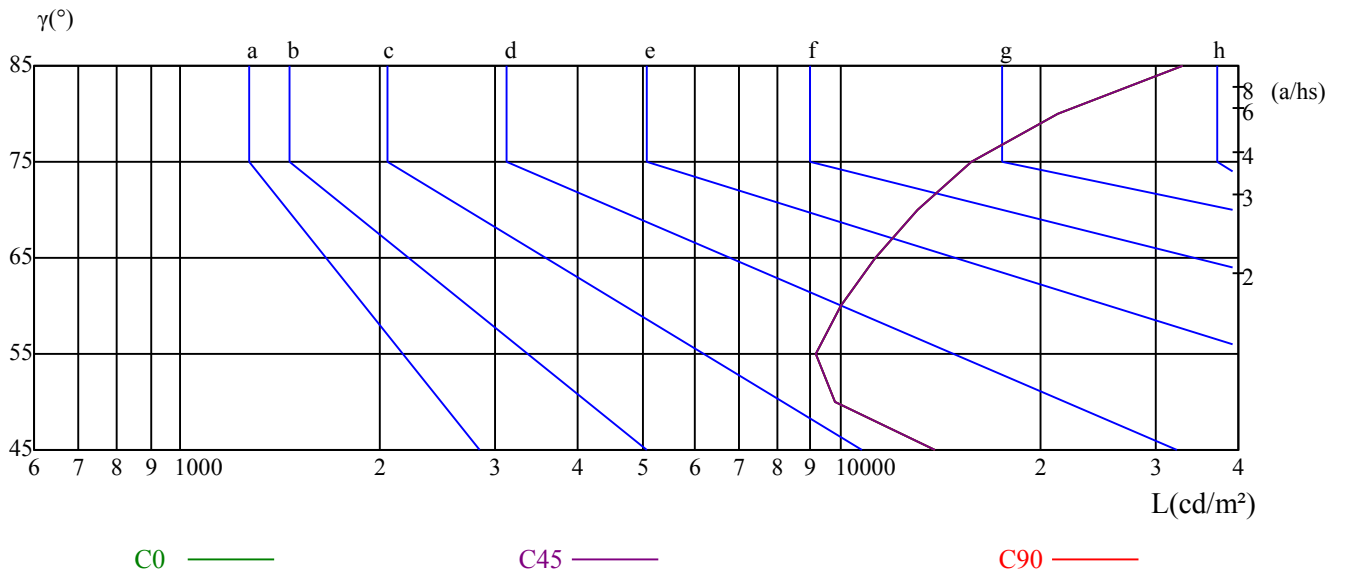
$\gamma$	45	50	55	60	65	70	75	80	85
C0	13911	9797	9134	9970	11250	13039	15779	21309	32861
C45	13911	9797	9134	9970	11250	13039	15779	21309	32861
C90	13911	9797	9134	9970	11250	13039	15779	21309	32861

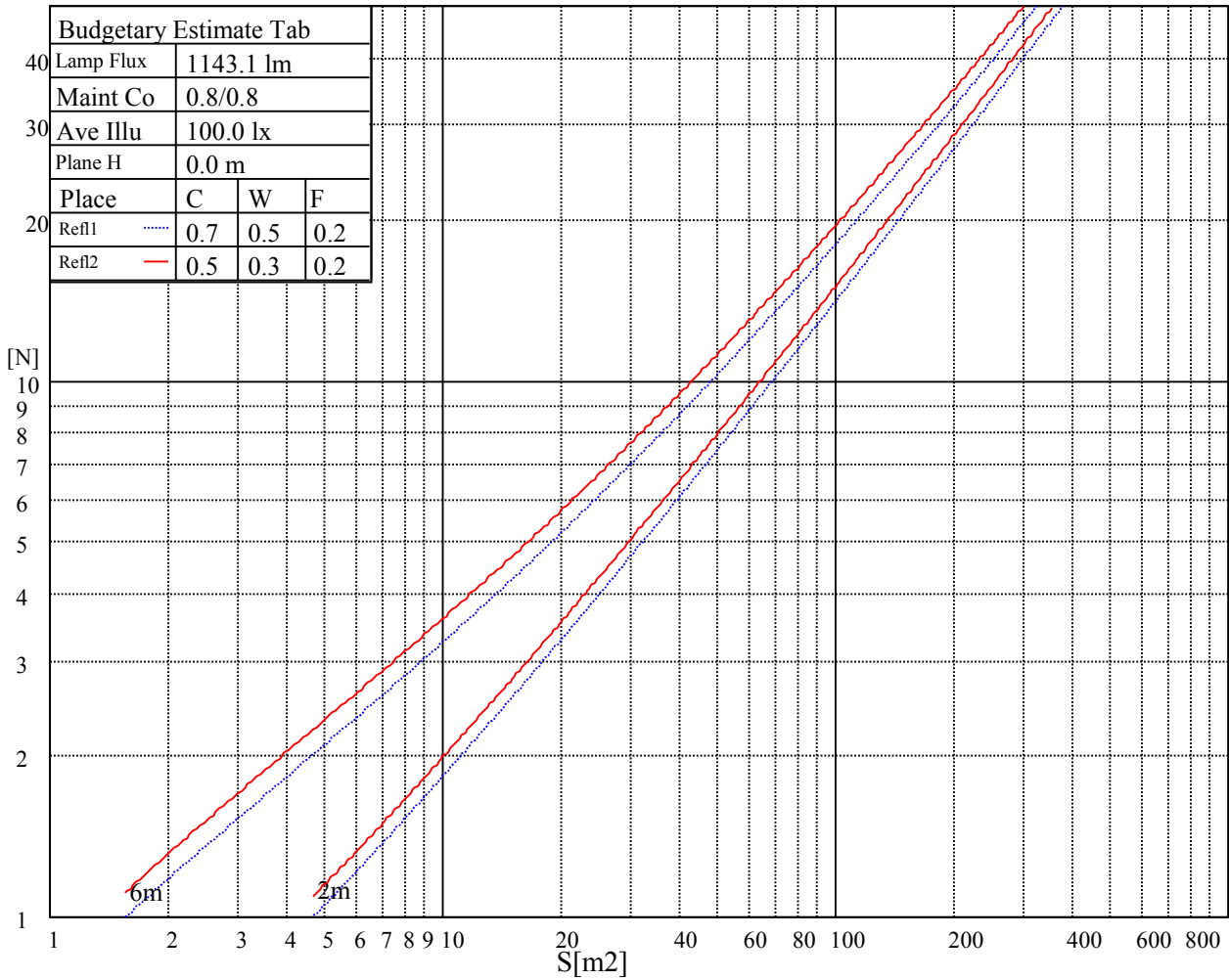
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
11250	11250	11250	15779	15779	15779	32861	32861	32861

Glare Table

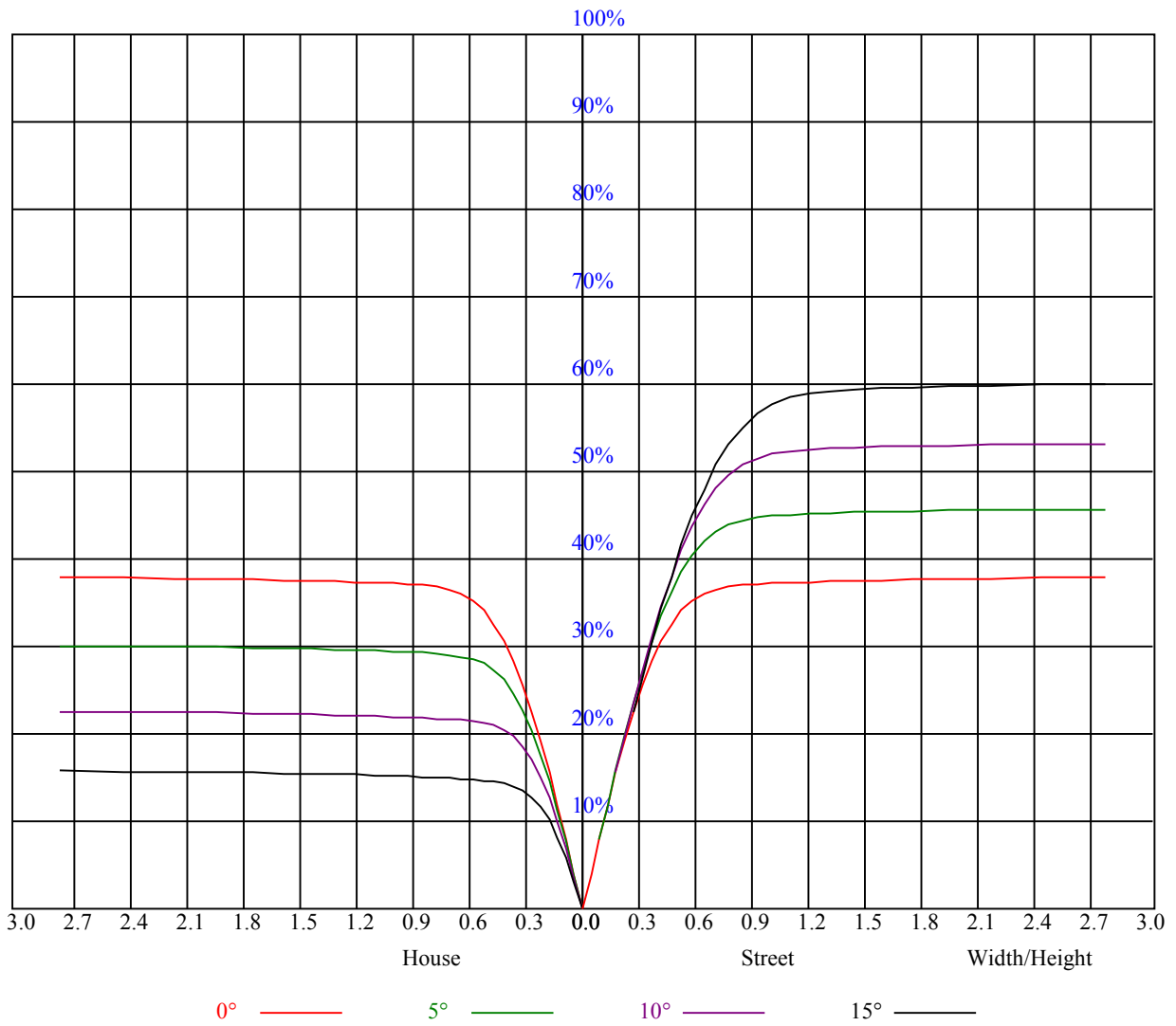
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.92	0.92	0.92	0.89	0.89	0.89	0.85	0.85	0.85	0.82	0.82	0.82	0.79	0.79	0.79	0.77
1	0.85	0.83	0.81	0.83	0.82	0.80	0.80	0.79	0.78	0.77	0.76	0.75	0.75	0.74	0.73	0.72
2	0.80	0.76	0.74	0.78	0.75	0.73	0.76	0.73	0.71	0.73	0.72	0.70	0.71	0.70	0.69	0.67
3	0.75	0.71	0.68	0.74	0.70	0.67	0.72	0.69	0.66	0.70	0.67	0.65	0.68	0.66	0.64	0.63
4	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.64	0.62	0.66	0.63	0.61	0.65	0.62	0.60	0.59
5	0.66	0.62	0.59	0.65	0.62	0.59	0.64	0.61	0.58	0.63	0.60	0.58	0.62	0.59	0.57	0.56
6	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.54	0.59	0.56	0.54	0.53
7	0.59	0.55	0.52	0.59	0.55	0.52	0.58	0.54	0.52	0.57	0.54	0.51	0.56	0.53	0.51	0.50
8	0.56	0.52	0.49	0.56	0.52	0.49	0.55	0.51	0.49	0.54	0.51	0.49	0.54	0.51	0.48	0.47
9	0.54	0.49	0.46	0.53	0.49	0.46	0.52	0.49	0.46	0.52	0.48	0.46	0.51	0.48	0.46	0.45
10	0.51	0.47	0.44	0.51	0.47	0.44	0.50	0.46	0.44	0.49	0.46	0.44	0.49	0.46	0.44	0.43



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	1191.47	1211.19	1182.51	1142.48	1054.64	849.09	570.64	304.74	70.69
45.0	1204.62	1193.27	1163.99	1107.22	984.73	731.97	472.05	142.75	48.10
90.0	1189.98	1174.62	1138.77	1043.41	868.93	617.96	322.61	90.88	34.66
135.0	1207.01	1185.50	1144.27	1074.95	910.04	648.92	356.13	91.36	32.33
180.0	1191.47	1177.61	1139.07	1046.51	843.17	558.21	262.32	65.55	25.39
225.0	1204.62	1191.83	1153.53	1075.31	936.09	669.29	370.35	91.72	35.13
270.0	1189.98	1201.03	1164.58	1085.71	948.28	705.68	446.35	152.55	46.49
315.0	1207.01	1191.47	1156.64	1080.69	949.71	734.48	455.74	147.11	49.36
360.0	1191.47	1211.19	1182.51	1142.48	1054.64	849.09	570.64	304.74	70.69
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	24.74	13.27	9.74	8.72	8.01	7.47	6.99	6.57	6.04
45.0	19.24	12.01	9.74	8.84	8.13	7.59	7.11	6.63	5.32
90.0	15.83	10.76	9.08	8.37	8.13	7.89	7.53	7.05	4.12
135.0	15.89	11.05	9.44	8.84	8.19	7.71	7.23	6.87	4.18
180.0	13.98	10.64	9.68	9.50	9.14	8.31	7.35	6.57	4.00
225.0	17.27	12.31	11.17	11.77	11.65	10.70	9.08	7.35	6.39
270.0	19.72	11.65	9.50	9.50	9.56	9.20	8.37	7.29	6.57
315.0	18.82	11.47	9.14	8.19	7.53	7.11	6.75	6.39	5.74
360.0	24.74	13.27	9.74	8.72	8.01	7.47	6.99	6.57	6.04
C/γ(°)	90.0								
0.0	3.88								
45.0	3.70								
90.0	3.70								
135.0	3.64								
180.0	3.76								
225.0	3.70								
270.0	3.70								
315.0	3.82								
360.0	3.88								