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SOTEN

LumCAT: D1081

Luminaire:

Report No:

Voltage(V): 220.4000

Test No:

Current(A): 0.0900

LampCAT: Lumileds 3030 4000K Ra80

Power (W): 19.1700

Lamp flux(lm): 2464.0

PF: 0.9670

Number of Lamps: 1

Ballast type: Hua Tianwieye 500mA

Length(mm): 139

Width(mm): 139

Phm Type: C

Height(mm): 82

Photometric Results

Lumens(lm): 1819.10

Efficiency(%): 73.83%

Lumens(lm)/Power(W): 94.89

Central intensity(cd): 2094.229

Maximum intensity(cd): 2094.229

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=58.2

[C90/270]Total=58.2

Field angle(10%Imax): [C0/180]Total=87.7

[C90/270]Total=87.7

Maximum s/h(1/2): C0_180=0.88 C90_270=0.88

Maximum s/h(1/4): C0_180=1.26 C90_270=0.91

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 73.83%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.754%

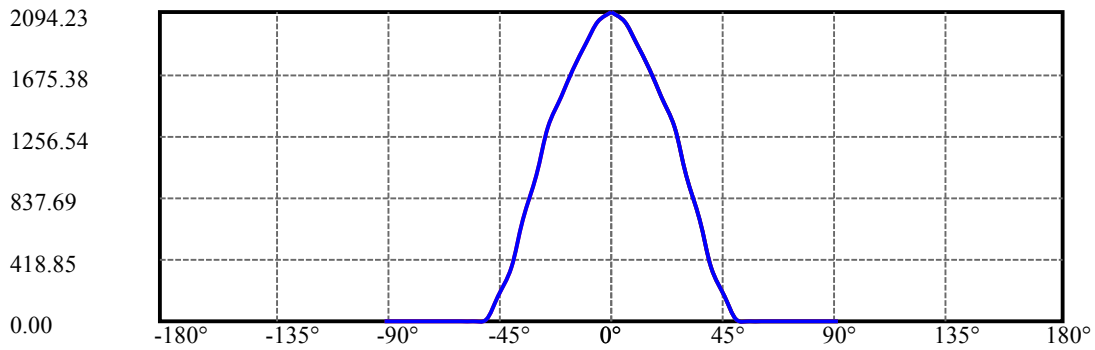
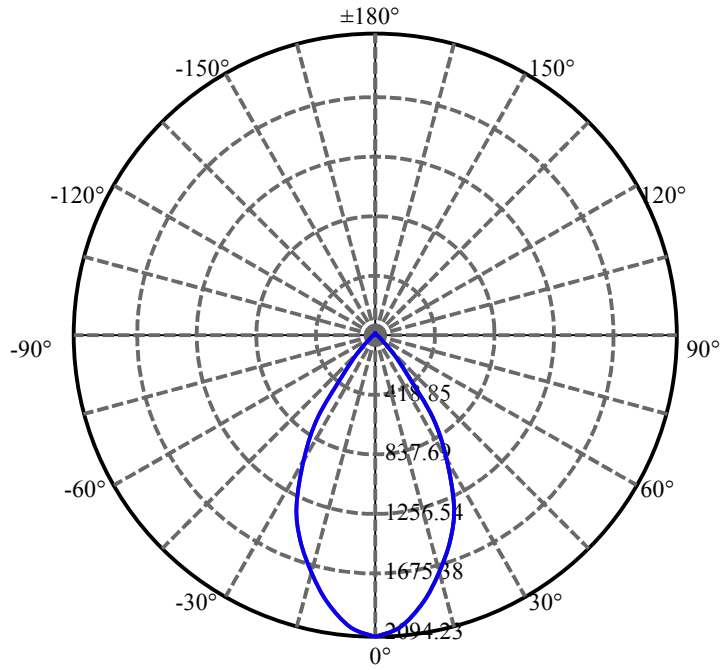
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2094.229	.000	.000	.000%	.000%
5.0	2034.601	49.359	49.359	2.003%	2.003%
10.0	1884.440	140.196	189.555	5.690%	7.693%
15.0	1707.225	213.055	402.611	8.647%	16.340%
20.0	1516.415	265.673	668.284	10.782%	27.122%
25.0	1308.760	296.309	964.592	12.026%	39.147%
30.0	988.298	290.695	1255.287	11.798%	50.945%
35.0	694.333	247.779	1503.066	10.056%	61.001%
40.0	359.858	175.884	1678.950	7.138%	68.139%
45.0	163.804	96.960	1775.910	3.935%	72.074%
50.0	9.466	35.012	1810.922	1.421%	73.495%
55.0	2.645	2.633	1813.555	.107%	73.602%
60.0	1.995	1.073	1814.628	.044%	73.646%
65.0	1.578	.869	1815.497	.035%	73.681%
70.0	1.439	.764	1816.260	.031%	73.712%
75.0	1.346	.728	1816.988	.030%	73.741%
80.0	1.299	.708	1817.696	.029%	73.770%
85.0	1.299	.706	1818.402	.029%	73.799%
90.0	1.253	.699	1819.101	.028%	73.827%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1255.29	50.95%	69.01%
0-40	1678.95	68.14%	92.30%
0-60	1814.63	73.65%	99.75%
0-90	1818.40	73.80%	99.96%
0-120	1818.40	73.80%	99.96%
0-180	1819.10	73.83%	100.00%
60-90	4.85	0.20%	0.27%
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%
0-34.04	1455.28	59.06%	80.00%

ZONAL LUMEN SUMMARY

0-10	189.56
10-20	478.73
20-30	587.00
30-40	423.66
40-50	131.97
50-60	3.71
60-70	1.63
70-80	1.44
80-90	0.71
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: —————

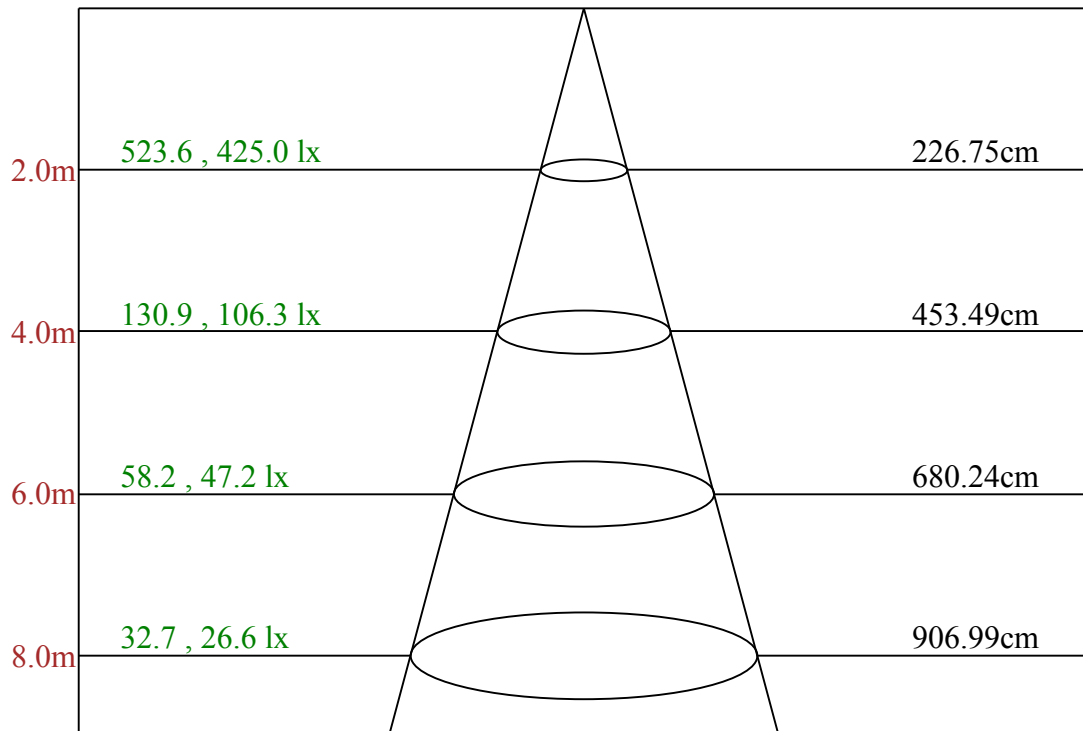
C90/C270: —————

Field angle(10%Imax):C0/180Left:43.8 Right:43.8

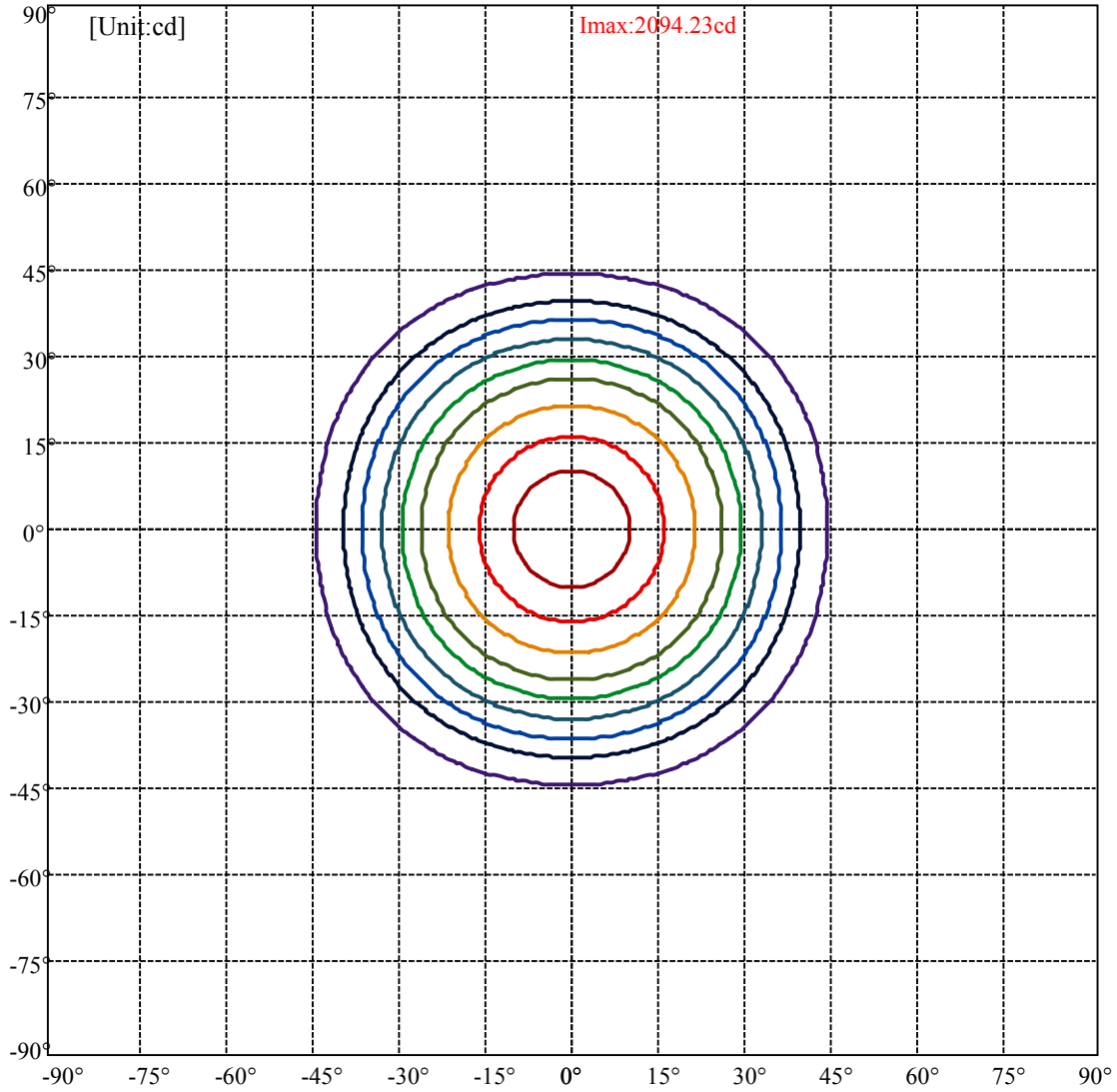
:C90/270Left:43.8 Right:43.8

Beam Angle(50%Imax):C0/180Left:29.1 Right:29.1

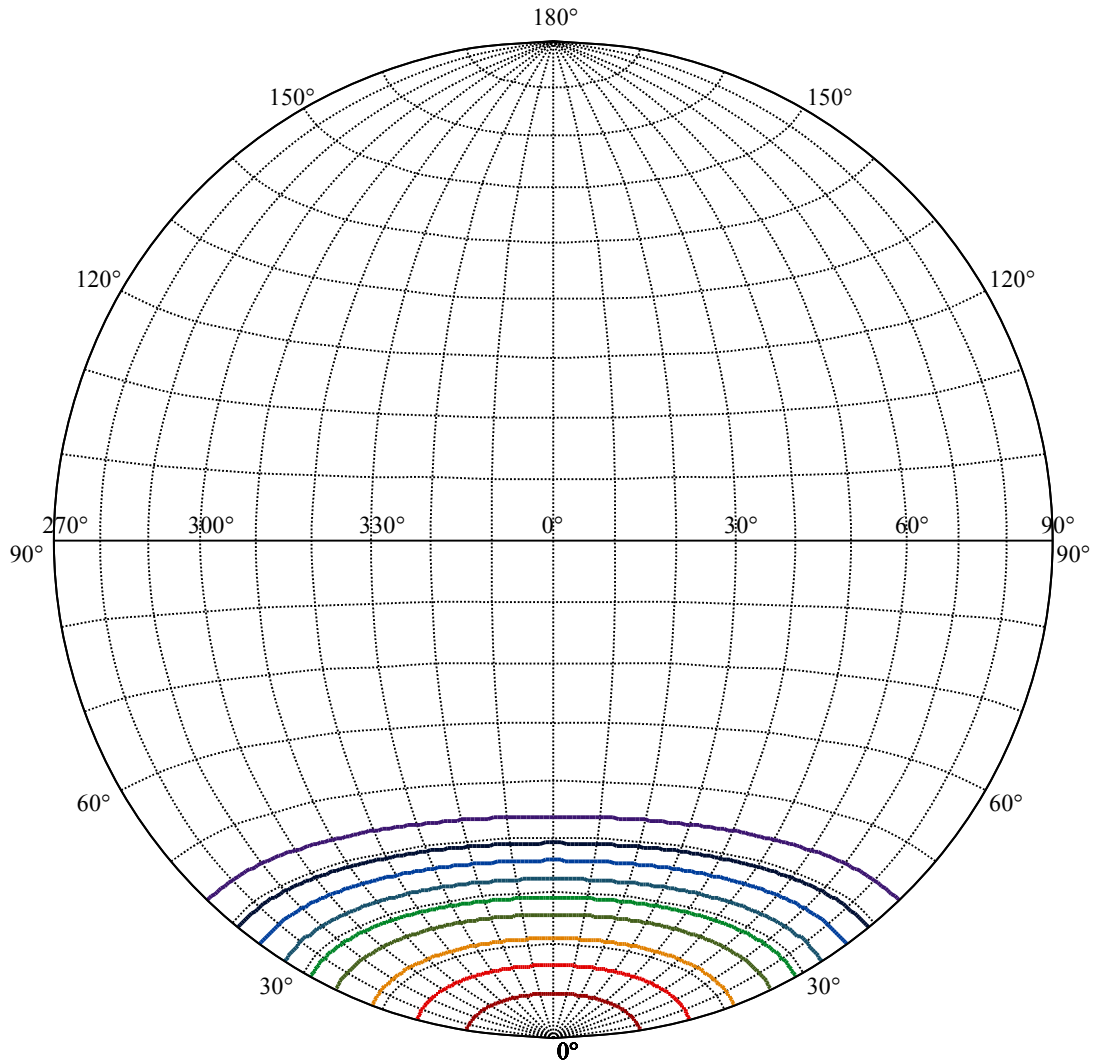
:C90/270Left:29.1 Right:29.1



Max , Ave Beam angle of C0plane59.09



(10%Imax) 209.423	—
(20%Imax) 418.846	—
(30%Imax) 628.269	—
(40%Imax) 837.692	—
(50%Imax) 1047.11	—
(60%Imax) 1256.54	—
(70%Imax) 1465.96	—
(80%Imax) 1675.38	—
(90%Imax) 1884.81	—



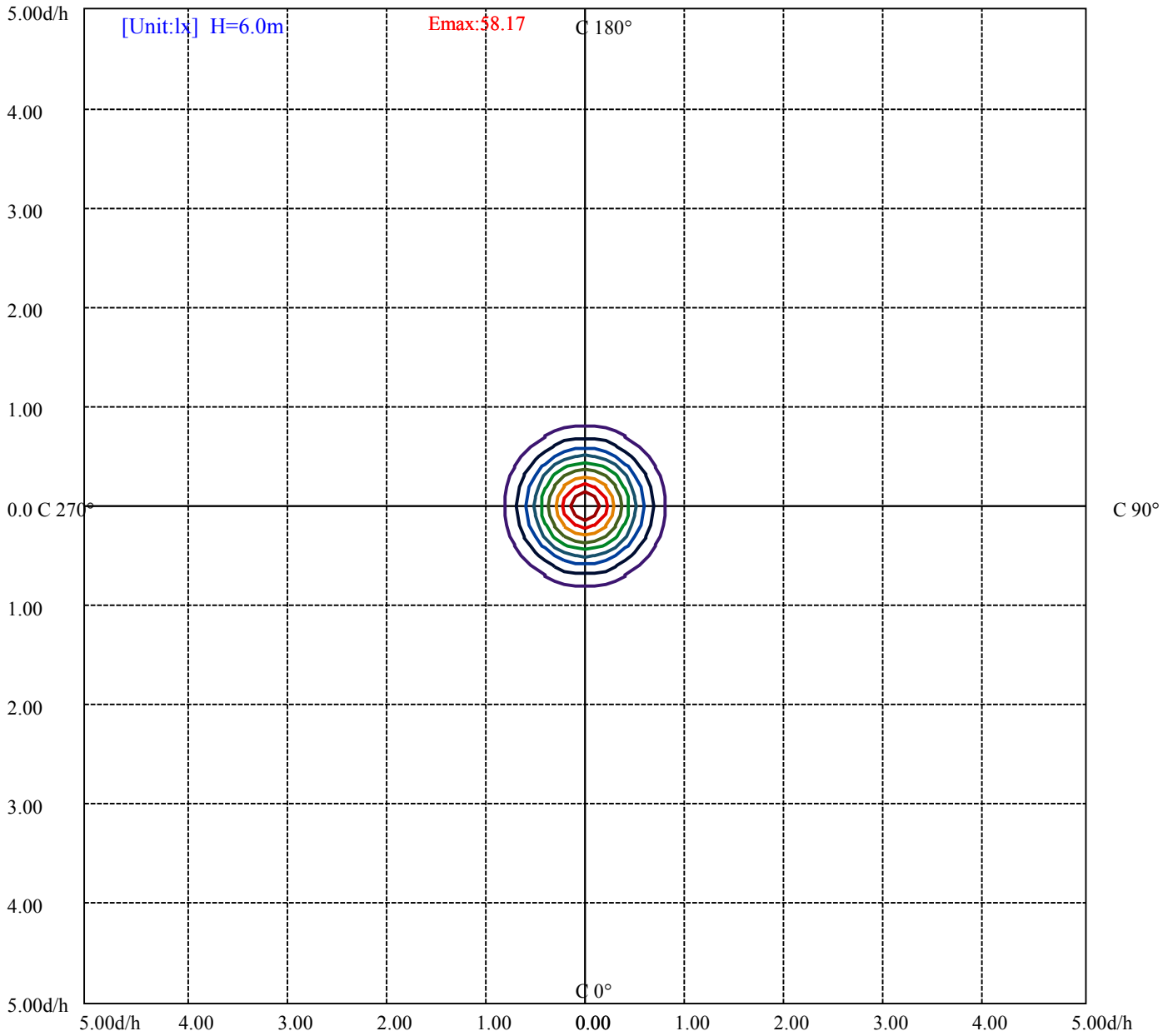
House

[Unit:cd]

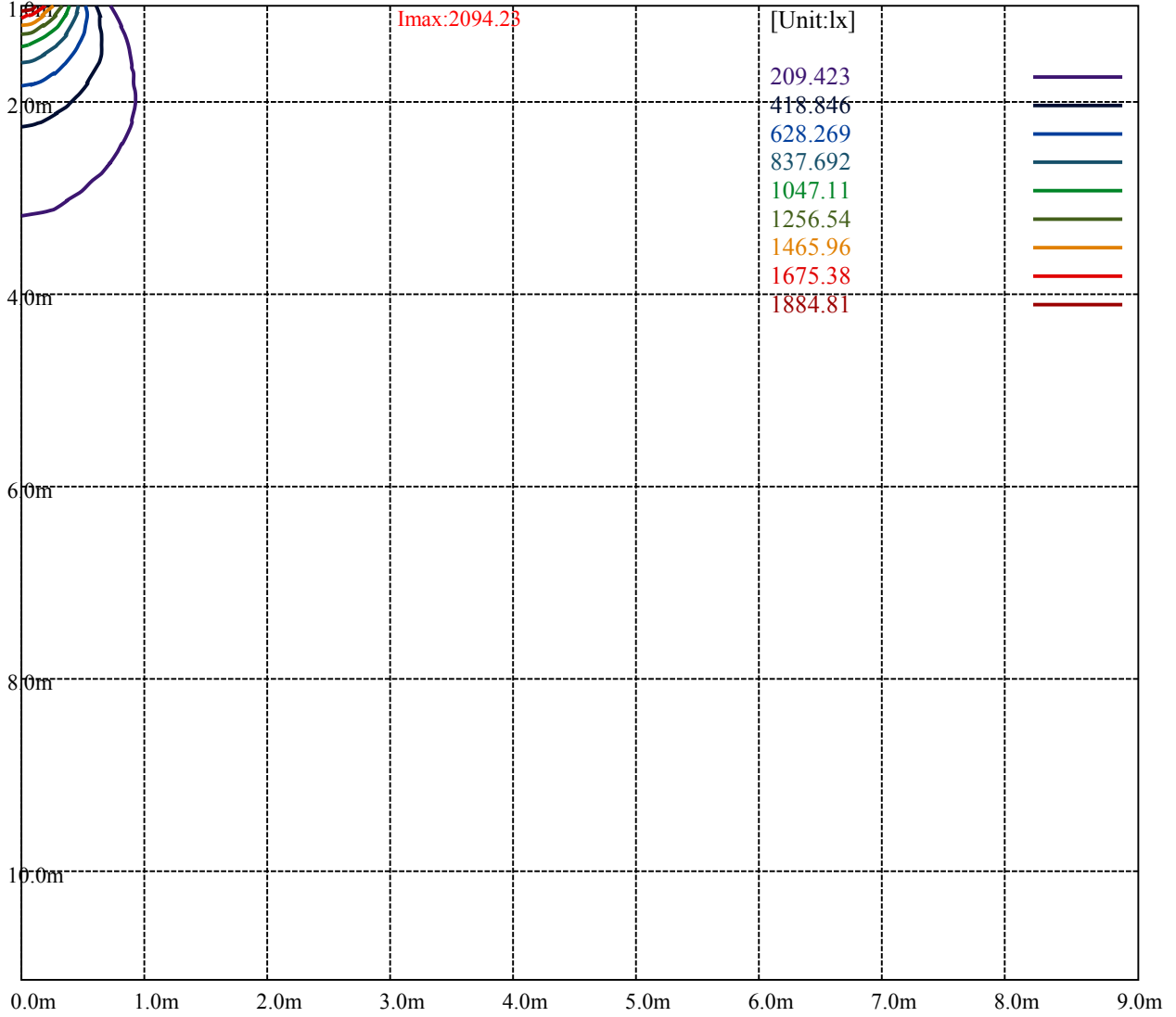
Road

Imax:2094.23

(10%Imax) 209.423	—
(20%Imax) 418.846	—
(30%Imax) 628.269	—
(40%Imax) 837.692	—
(50%Imax) 1047.11	—
(60%Imax) 1256.54	—
(70%Imax) 1465.96	—
(80%Imax) 1675.38	—
(90%Imax) 1884.81	—



- (10%Emax) 5.817306
- (20%Emax) 11.63461
- (30%Emax) 17.45189
- (40%Emax) 23.26919
- (50%Emax) 29.08639
- (60%Emax) 34.90389
- (70%Emax) 40.72111
- (80%Emax) 46.53833
- (90%Emax) 52.35556



Luminance Table

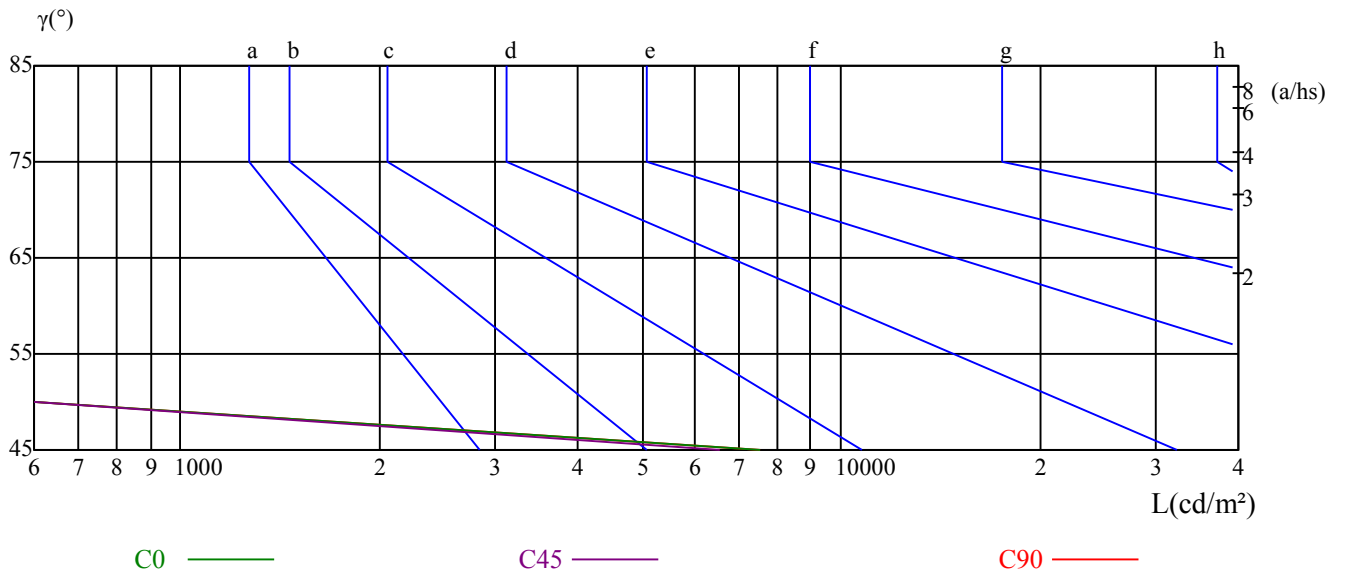
γ	45	50	55	60	65	70	75	80	85
C0	7541	448	130	102	85	83	84	89	100
C45	6536	382	109	84	69	66	65	68	73
C90	7541	448	130	102	85	83	84	89	100

L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
193	193	193	269	269	269	772	772	772

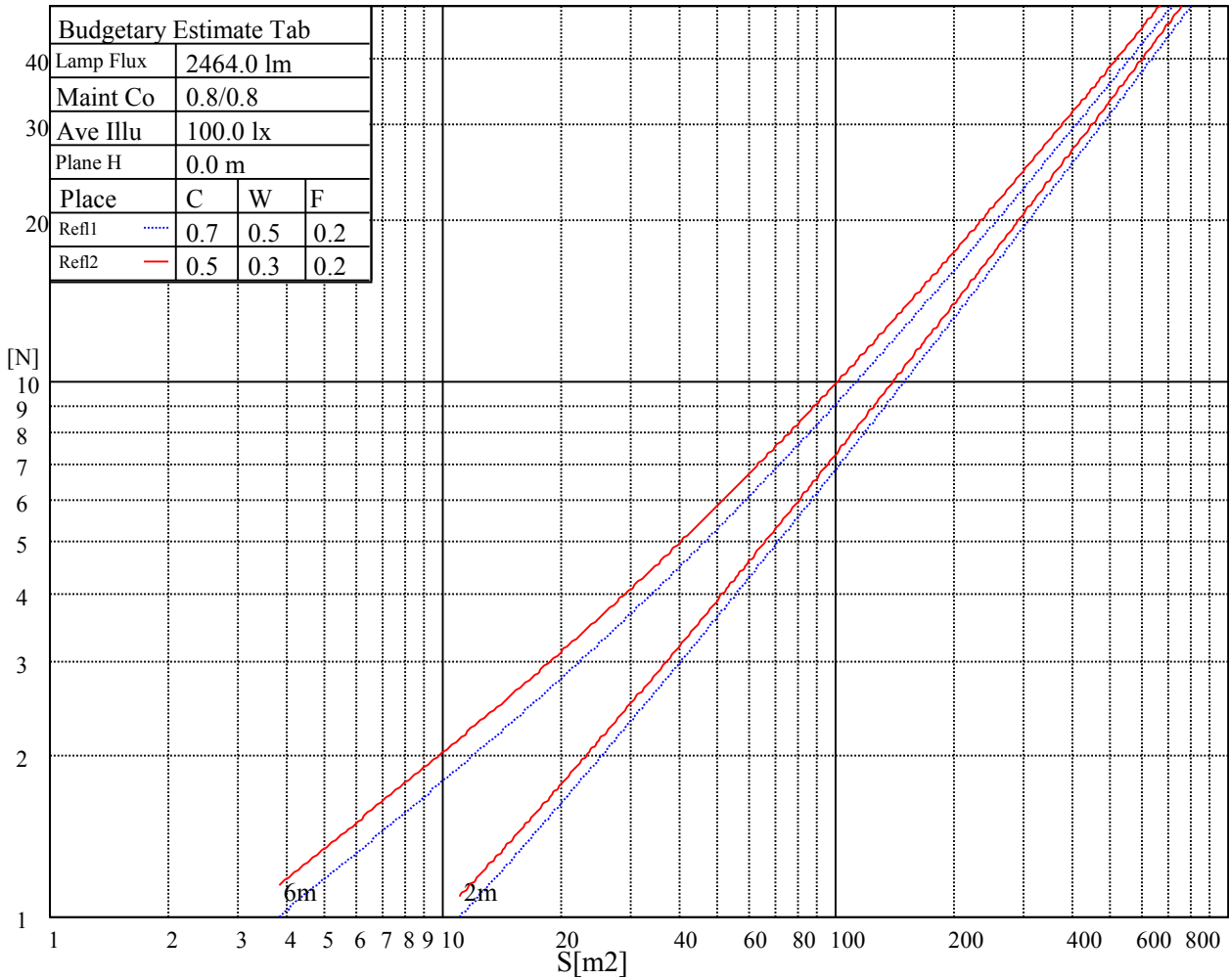
Glare Table

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

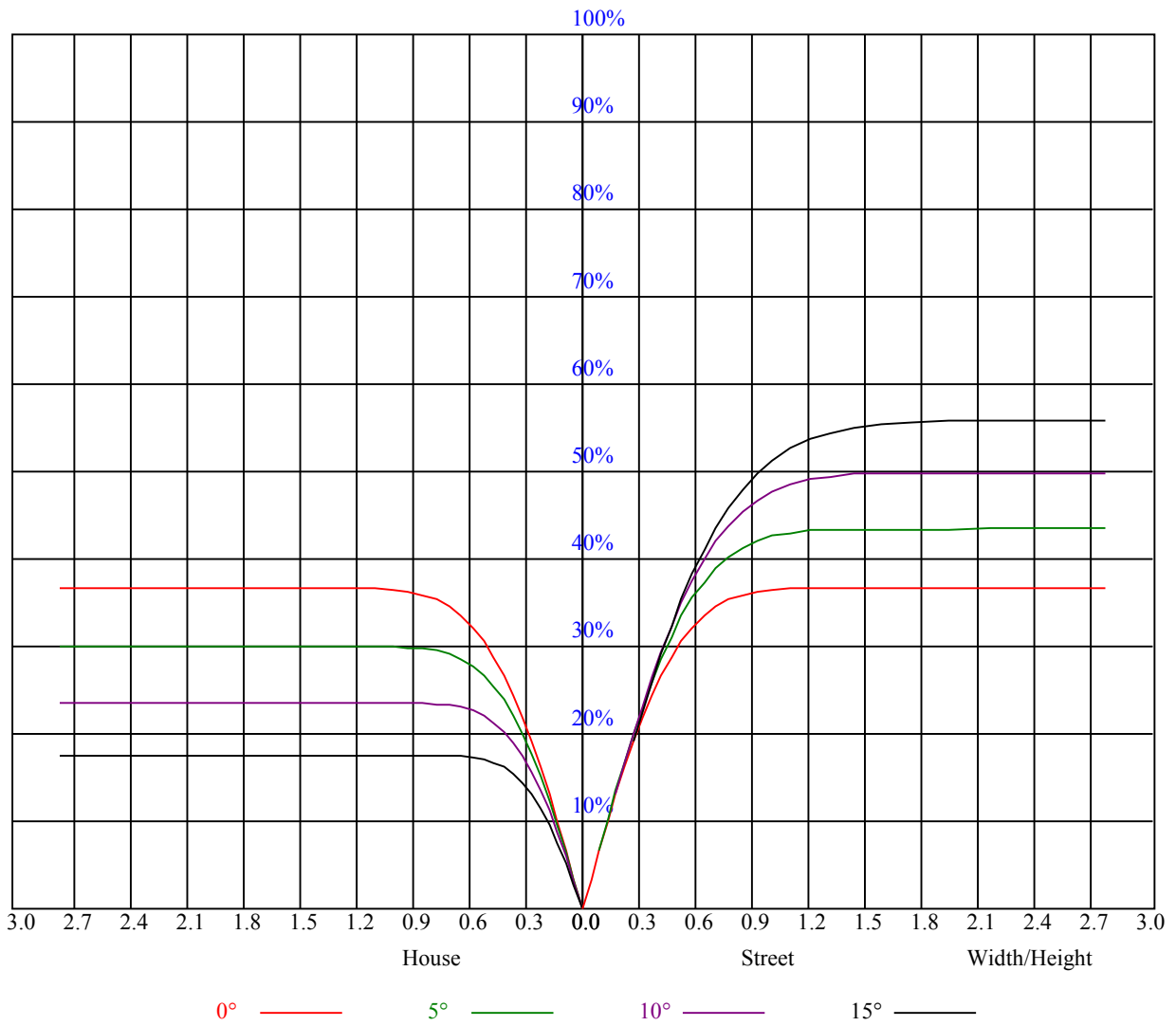
Luminance Limiting Curve



Illuminatin assessment according UGR											
Rf of Ceiling	70	70	50	50	30	70	70	50	50	30	
Rf of Wall	50	30	50	30	30	50	30	50	30	30	
Rf of Floor	20	20	20	20	20	20	20	20	20	20	
Room dimensions		Viewed crosswise					Viewed endwise				
X	Y										
2H	2H	10.0	10.9	10.2	11.1	11.3	10.0	10.9	10.2	11.1	11.3
	3H	9.8	10.6	10.1	10.8	11.1	9.8	10.6	10.1	10.8	11.1
	4H	9.6	10.3	10.0	10.6	10.9	9.6	10.3	10.0	10.6	10.9
	6H	9.6	10.3	10.0	10.6	10.9	9.6	10.3	10.0	10.6	10.9
	8H	9.6	10.3	10.0	10.6	10.9	9.6	10.3	10.0	10.6	10.9
	12H	9.4	9.9	9.9	10.3	10.7	9.4	9.9	9.9	10.3	10.7
4H	2H	9.6	10.3	10.0	10.6	10.9	9.6	10.3	10.0	10.6	10.9
	3H	9.4	9.9	9.8	10.3	10.7	9.4	9.9	9.8	10.3	10.7
	4H	9.4	9.9	9.8	10.3	10.7	9.4	9.9	9.8	10.3	10.7
	6H	9.4	9.9	9.9	10.3	10.7	9.4	9.9	9.9	10.3	10.7
	8H	9.2	9.5	9.7	10.0	10.5	9.2	9.5	9.7	10.0	10.5
	12H	9.2	9.5	9.7	10.0	10.5	9.2	9.5	9.7	10.0	10.5
8H	4H	9.2	9.5	9.7	10.0	10.5	9.2	9.5	9.7	10.0	10.5
	6H	9.2	9.5	9.7	10.0	10.5	9.2	9.5	9.7	10.0	10.5
	8H	9.2	9.5	9.7	10.0	10.5	9.2	9.5	9.7	10.0	10.5
	12H	9.2	9.5	9.7	10.0	10.5	9.2	9.5	9.7	10.0	10.5
12H	4H	9.2	9.5	9.7	10.0	10.5	9.2	9.5	9.7	10.0	10.5
	6H	9.2	9.5	9.7	10.0	10.5	9.2	9.5	9.7	10.0	10.5
	8H	9.2	9.5	9.7	10.0	10.5	9.2	9.5	9.7	10.0	10.5
Variation with the observer position at spacings:											
S = 1.0H		4.4/-22.9					4.4/-22.9				
S = 1.5H		7.2/-21.8					7.2/-21.8				
S = 2.0H		9.2/-20.7					9.2/-20.7				
Standard tables:		BK0					BK0				
Uncorrected UGR		-4.1					-4.1				



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	0.88	0.88	0.88	0.86	0.86	0.86	0.82	0.82	0.82	0.79	0.79	0.79	0.75	0.75	0.75	0.74
1	0.82	0.80	0.78	0.80	0.78	0.77	0.77	0.76	0.75	0.74	0.73	0.72	0.72	0.71	0.70	0.69
2	0.76	0.73	0.71	0.75	0.72	0.70	0.72	0.70	0.68	0.70	0.68	0.67	0.68	0.67	0.65	0.64
3	0.71	0.67	0.64	0.70	0.66	0.64	0.68	0.65	0.63	0.66	0.64	0.62	0.64	0.62	0.61	0.60
4	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.60	0.58	0.62	0.59	0.57	0.61	0.58	0.57	0.55
5	0.62	0.58	0.54	0.61	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.53	0.57	0.55	0.53	0.52
6	0.58	0.54	0.50	0.57	0.53	0.50	0.56	0.53	0.50	0.55	0.52	0.49	0.54	0.51	0.49	0.48
7	0.54	0.50	0.47	0.54	0.50	0.47	0.53	0.49	0.46	0.52	0.49	0.46	0.51	0.48	0.46	0.45
8	0.51	0.47	0.44	0.51	0.47	0.44	0.50	0.46	0.43	0.49	0.46	0.43	0.48	0.45	0.43	0.42
9	0.48	0.44	0.41	0.48	0.44	0.41	0.47	0.43	0.41	0.47	0.43	0.41	0.46	0.43	0.40	0.39
10	0.46	0.41	0.38	0.45	0.41	0.38	0.45	0.41	0.38	0.44	0.41	0.38	0.44	0.40	0.38	0.37



SOTEN D1081

Intensity data(cd)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	2094.23	2034.60	1884.44	1707.23	1516.42	1308.76	988.30	694.33	359.86
45.0	2094.23	2034.60	1884.44	1707.23	1516.42	1308.76	988.30	694.33	359.86
90.0	2094.23	2034.60	1884.44	1707.23	1516.42	1308.76	988.30	694.33	359.86
135.0	2094.23	2034.60	1884.44	1707.23	1516.42	1308.76	988.30	694.33	359.86
180.0	2094.23	2034.60	1884.44	1707.23	1516.42	1308.76	988.30	694.33	359.86
225.0	2094.23	2034.60	1884.44	1707.23	1516.42	1308.76	988.30	694.33	359.86
270.0	2094.23	2034.60	1884.44	1707.23	1516.42	1308.76	988.30	694.33	359.86
315.0	2094.23	2034.60	1884.44	1707.23	1516.42	1308.76	988.30	694.33	359.86
360.0	2094.23	2034.60	1884.44	1707.23	1516.42	1308.76	988.30	694.33	359.86

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	163.80	9.47	2.64	2.00	1.58	1.44	1.35	1.30	1.30
45.0	163.80	9.47	2.64	2.00	1.58	1.44	1.35	1.30	1.30
90.0	163.80	9.47	2.64	2.00	1.58	1.44	1.35	1.30	1.30
135.0	163.80	9.47	2.64	2.00	1.58	1.44	1.35	1.30	1.30
180.0	163.80	9.47	2.64	2.00	1.58	1.44	1.35	1.30	1.30
225.0	163.80	9.47	2.64	2.00	1.58	1.44	1.35	1.30	1.30
270.0	163.80	9.47	2.64	2.00	1.58	1.44	1.35	1.30	1.30
315.0	163.80	9.47	2.64	2.00	1.58	1.44	1.35	1.30	1.30
360.0	163.80	9.47	2.64	2.00	1.58	1.44	1.35	1.30	1.30

C/γ(°)	90.0
0.0	1.25
45.0	1.25
90.0	1.25
135.0	1.25
180.0	1.25
225.0	1.25
270.0	1.25
315.0	1.25
360.0	1.25