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SOTEN

LumCAT: D1082

Luminaire:

Report No:

Voltage(V): 220.5000

Test No:

Current(A): 0.1350

LampCAT: Lumileds 3030 4000K Ra80

Power (W): 28.7800

Lamp flux(lm): 3591.0

PF: 0.9630

Number of Lamps: 1

Ballast type: Hua Tianwieye 750mA

Length(mm): 189

Width(mm): 189

Phm Type: C

Height(mm): 101

Photometric Results

Lumens(lm): 2703.91

Efficiency(%): 75.30%

Lumens(lm)/Power(W): 93.95

Central intensity(cd): 2908.376

Maximum intensity(cd): 2908.376

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=60.1

[C90/270]Total=60.1

Field angle(10%Imax): [C0/180]Total=87.6

[C90/270]Total=87.6

Maximum s/h(1/2): C0_180=0.94 C90_270=0.94

Maximum s/h(1/4): C0_180=1.34 C90_270=0.92

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 75.30%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.490%

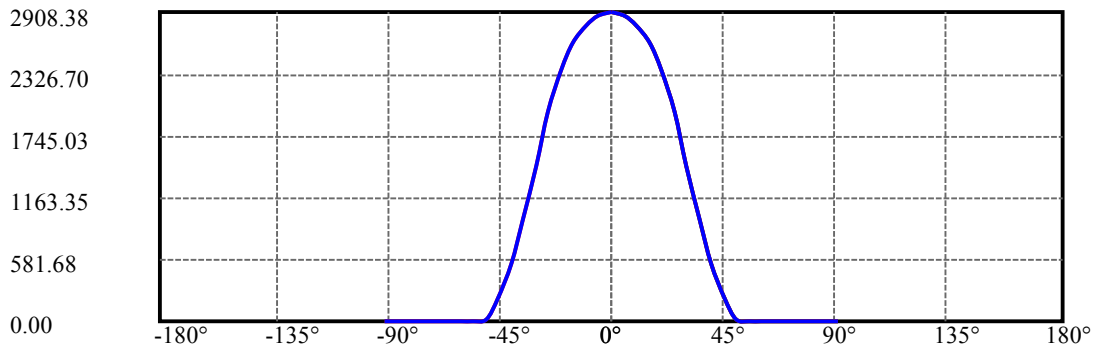
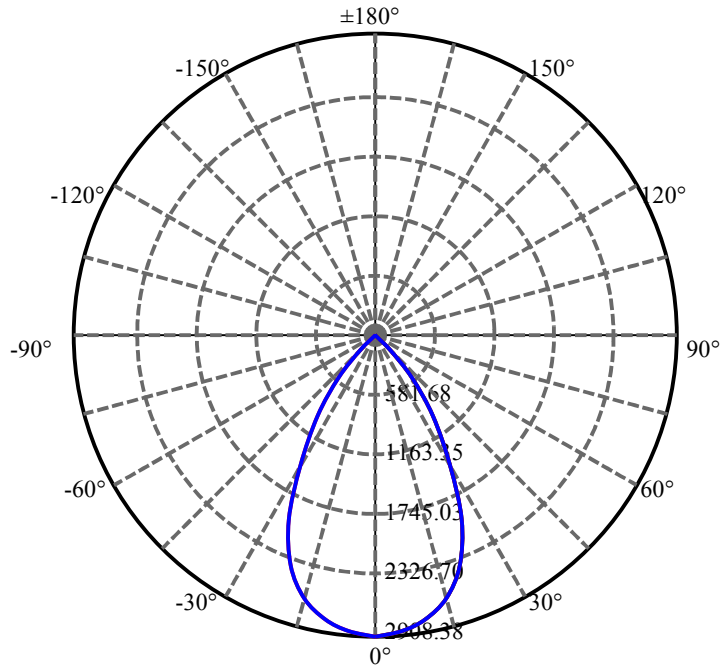
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2908.375	.000	.000	.000%	.000%
5.0	2872.692	69.111	69.111	1.925%	1.925%
10.0	2789.258	202.546	271.657	5.640%	7.565%
15.0	2622.902	321.046	592.703	8.940%	16.505%
20.0	2362.580	410.874	1003.576	11.442%	27.947%
25.0	1968.986	454.301	1457.878	12.651%	40.598%
30.0	1458.921	433.805	1891.682	12.080%	52.678%
35.0	958.183	355.935	2247.617	9.912%	62.590%
40.0	539.949	249.952	2497.569	6.961%	69.551%
45.0	210.114	138.880	2636.450	3.867%	73.418%
50.0	17.958	46.085	2682.535	1.283%	74.702%
55.0	5.754	5.156	2687.691	.144%	74.845%
60.0	4.780	2.435	2690.126	.068%	74.913%
65.0	4.362	2.222	2692.348	.062%	74.975%
70.0	4.269	2.185	2694.534	.061%	75.036%
75.0	6.125	2.717	2697.250	.076%	75.111%
80.0	3.898	2.682	2699.932	.075%	75.186%
85.0	3.619	2.043	2701.975	.057%	75.243%
90.0	3.434	1.931	2703.906	.054%	75.297%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1891.68	52.68%	69.96%
0-40	2497.57	69.55%	92.37%
0-60	2690.13	74.91%	99.49%
0-90	2701.98	75.24%	99.93%
0-120	2701.98	75.24%	99.93%
0-180	2703.91	75.30%	100.00%
60-90	14.28	0.40%	0.53%
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%
0-33.81	2163.13	60.24%	80.00%

ZONAL LUMEN SUMMARY

0-10	271.66
10-20	731.92
20-30	888.11
30-40	605.89
40-50	184.97
50-60	7.59
60-70	4.41
70-80	5.40
80-90	2.04
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: ———

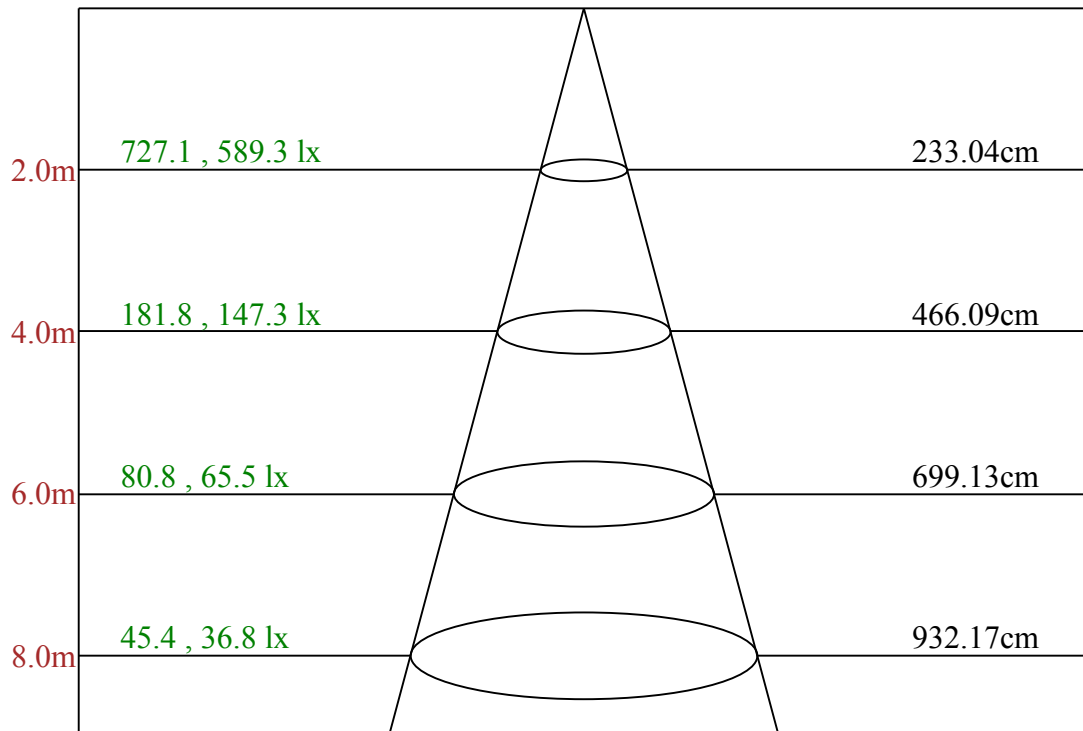
C90/C270: ———

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

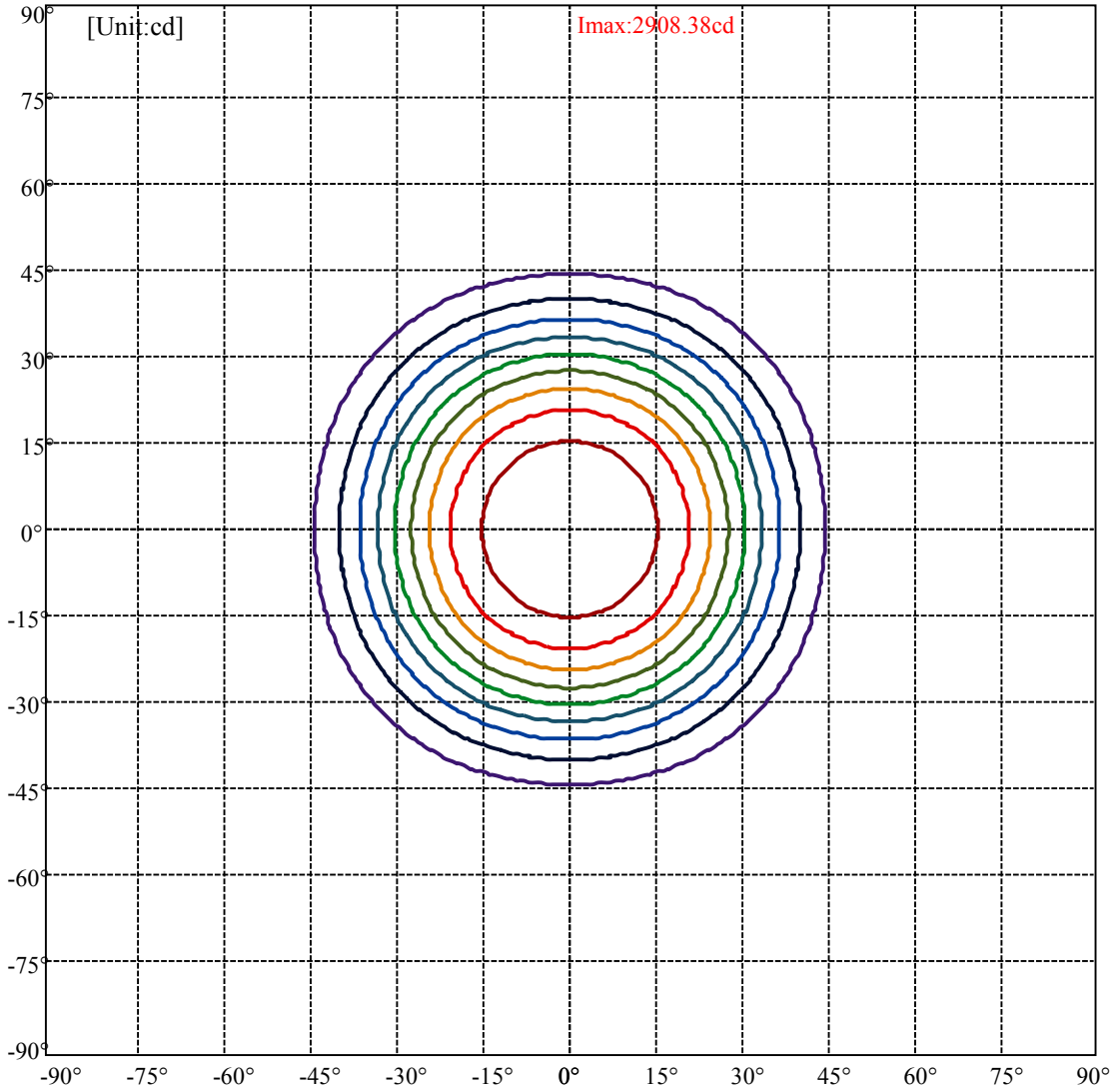
:C90/270Left:43.8 Right:43.8

Beam Angle(50%Imax):C0/180Left:30.0 Right:30.0

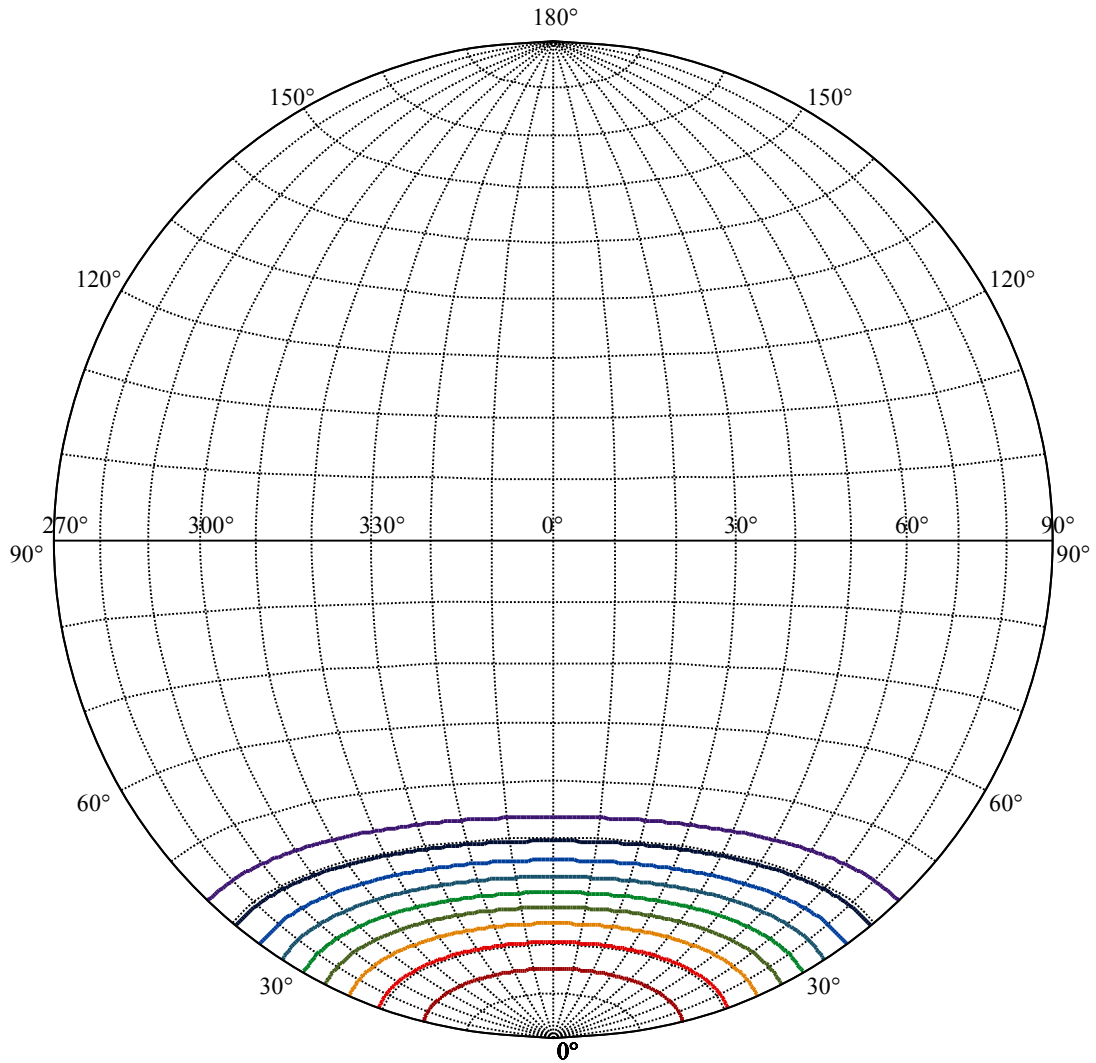
:C90/270Left:30.0 Right:30.0



Max , Ave Beam angle of C0plane60.45



(10%Imax) 290.838	—
(20%Imax) 581.675	—
(30%Imax) 872.513	—
(40%Imax) 1163.35	—
(50%Imax) 1454.19	—
(60%Imax) 1745.03	—
(70%Imax) 2035.86	—
(80%Imax) 2326.7	—
(90%Imax) 2617.54	—



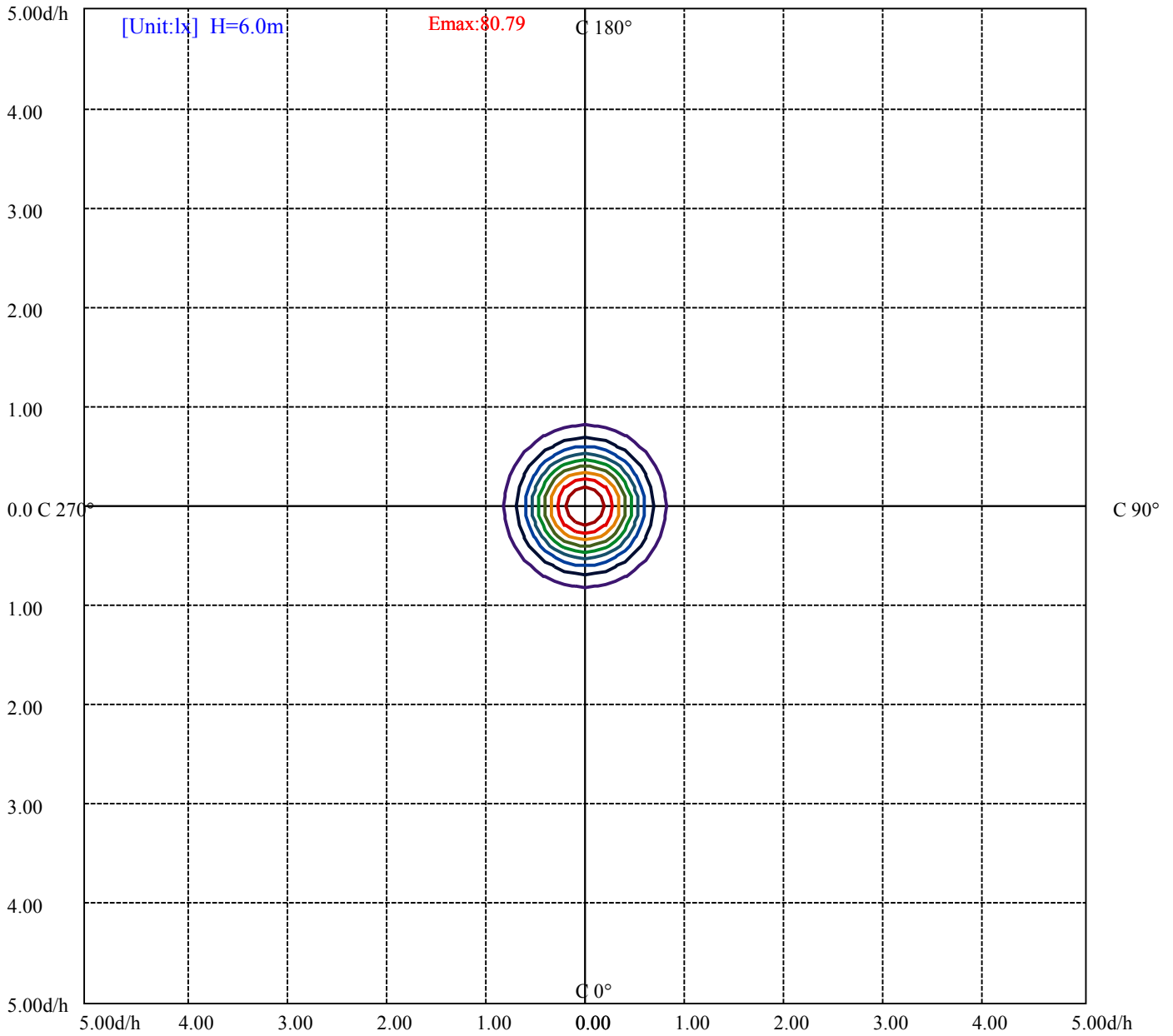
House

[Unit:cd]

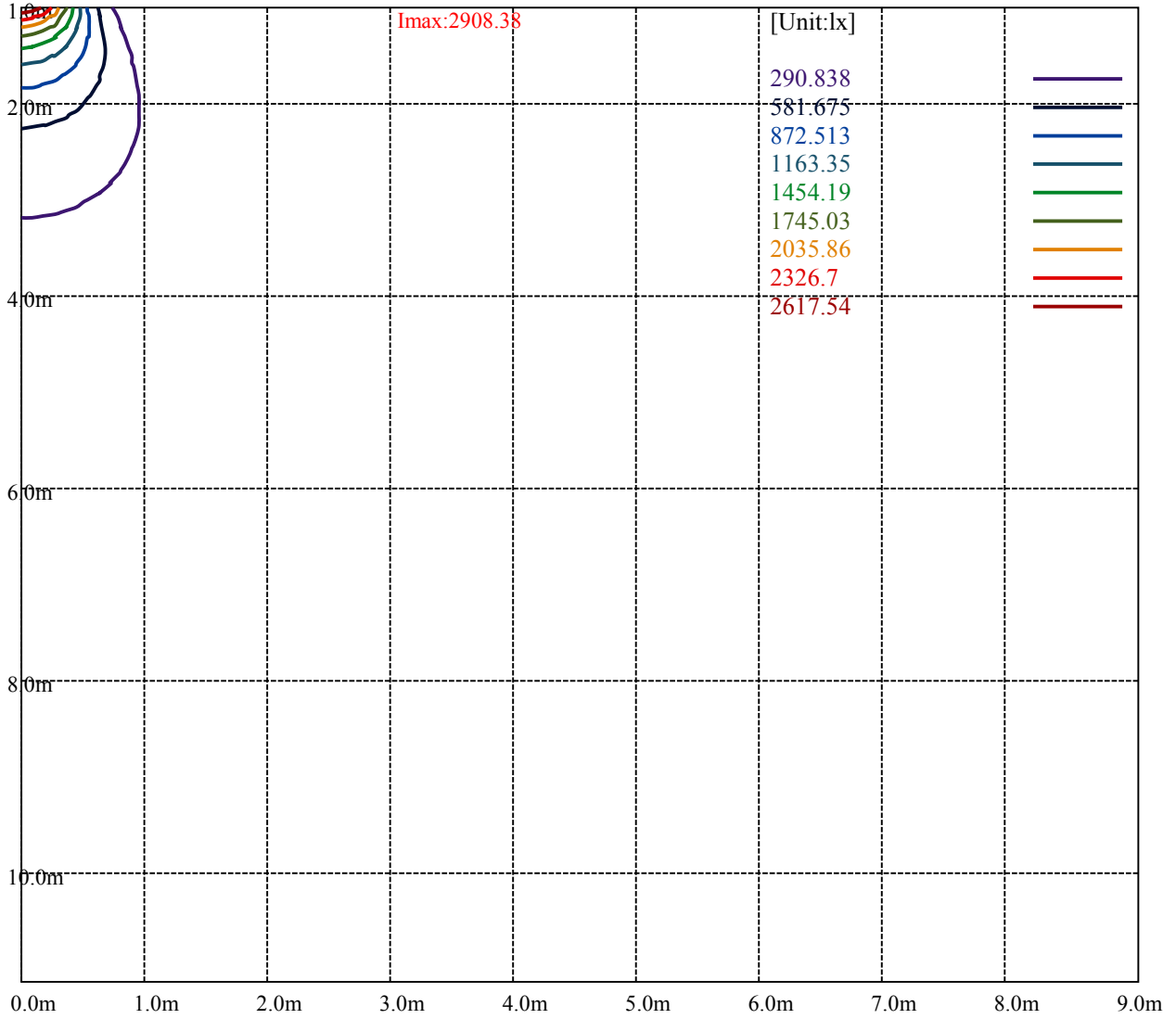
Road

Imax:2908.38

(10%Imax) 290.838	—
(20%Imax) 581.675	—
(30%Imax) 872.513	—
(40%Imax) 1163.35	—
(50%Imax) 1454.19	—
(60%Imax) 1745.03	—
(70%Imax) 2035.86	—
(80%Imax) 2326.7	—
(90%Imax) 2617.54	—



(10%Emax) 8.078806	—
(20%Emax) 16.15764	—
(30%Emax) 24.23644	—
(40%Emax) 32.31528	—
(50%Emax) 40.39417	—
(60%Emax) 48.47278	—
(70%Emax) 56.55167	—
(80%Emax) 64.63055	—
(90%Emax) 72.70944	—



Luminance Table

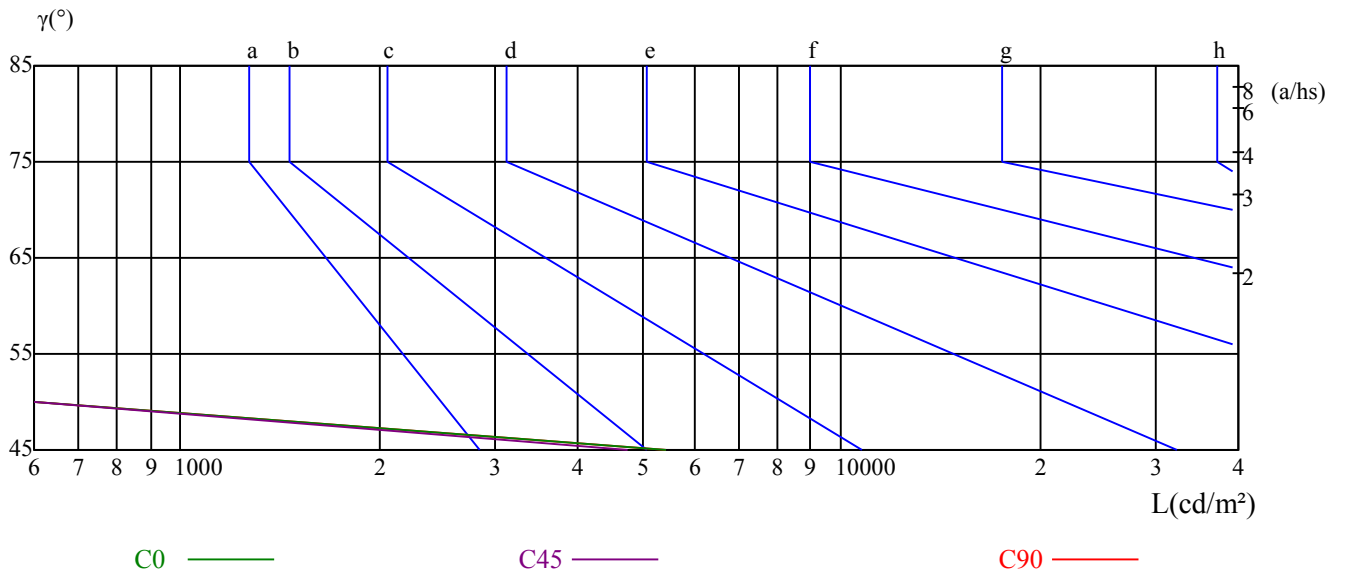
γ	45	50	55	60	65	70	75	80	85
C0	5421	478	159	139	135	142	221	156	164
C45	4738	411	135	116	110	114	173	119	121
C90	5421	478	159	139	135	142	221	156	164

L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
289	289	289	663	663	663	1163	1163	1163

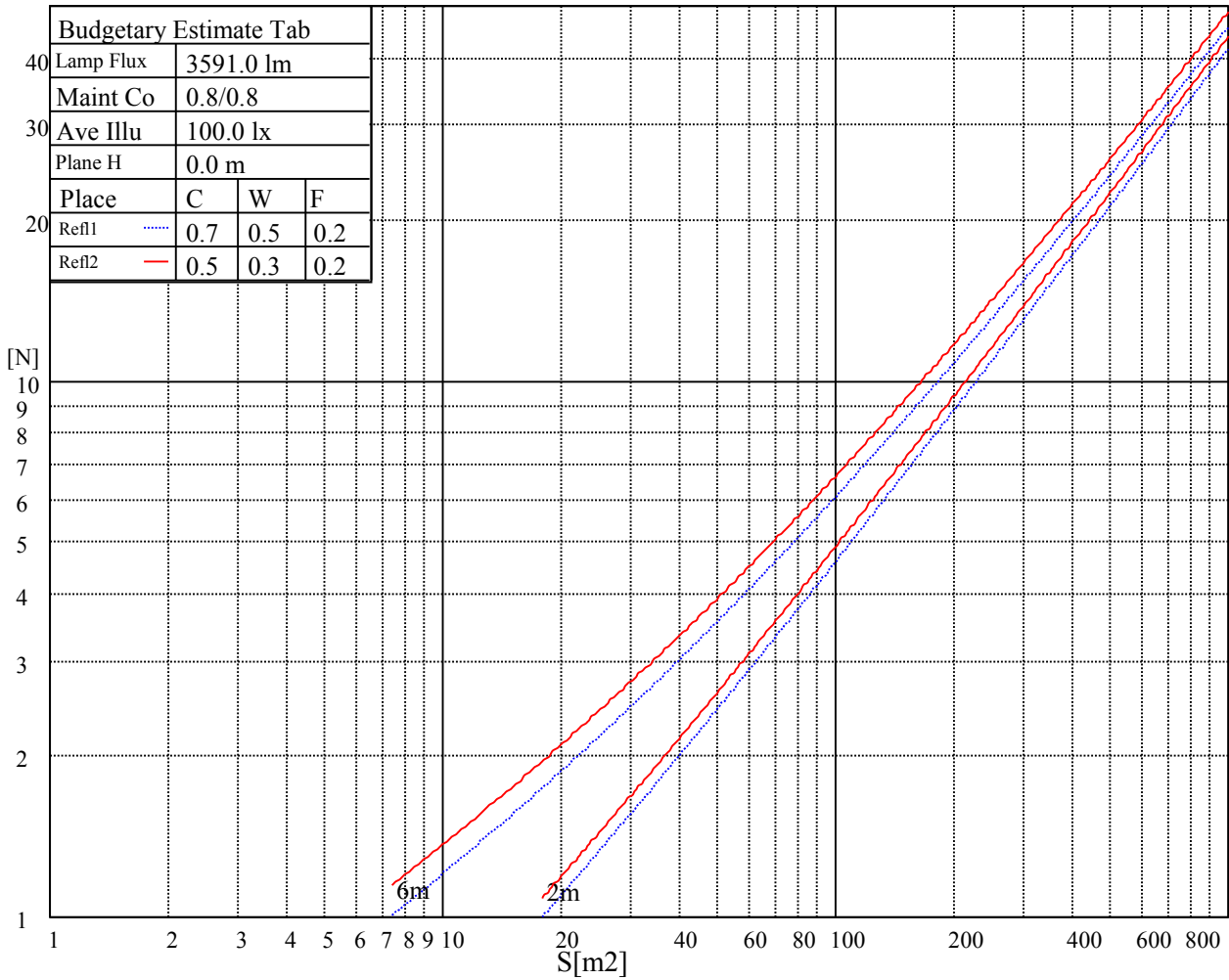
Glare Table

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

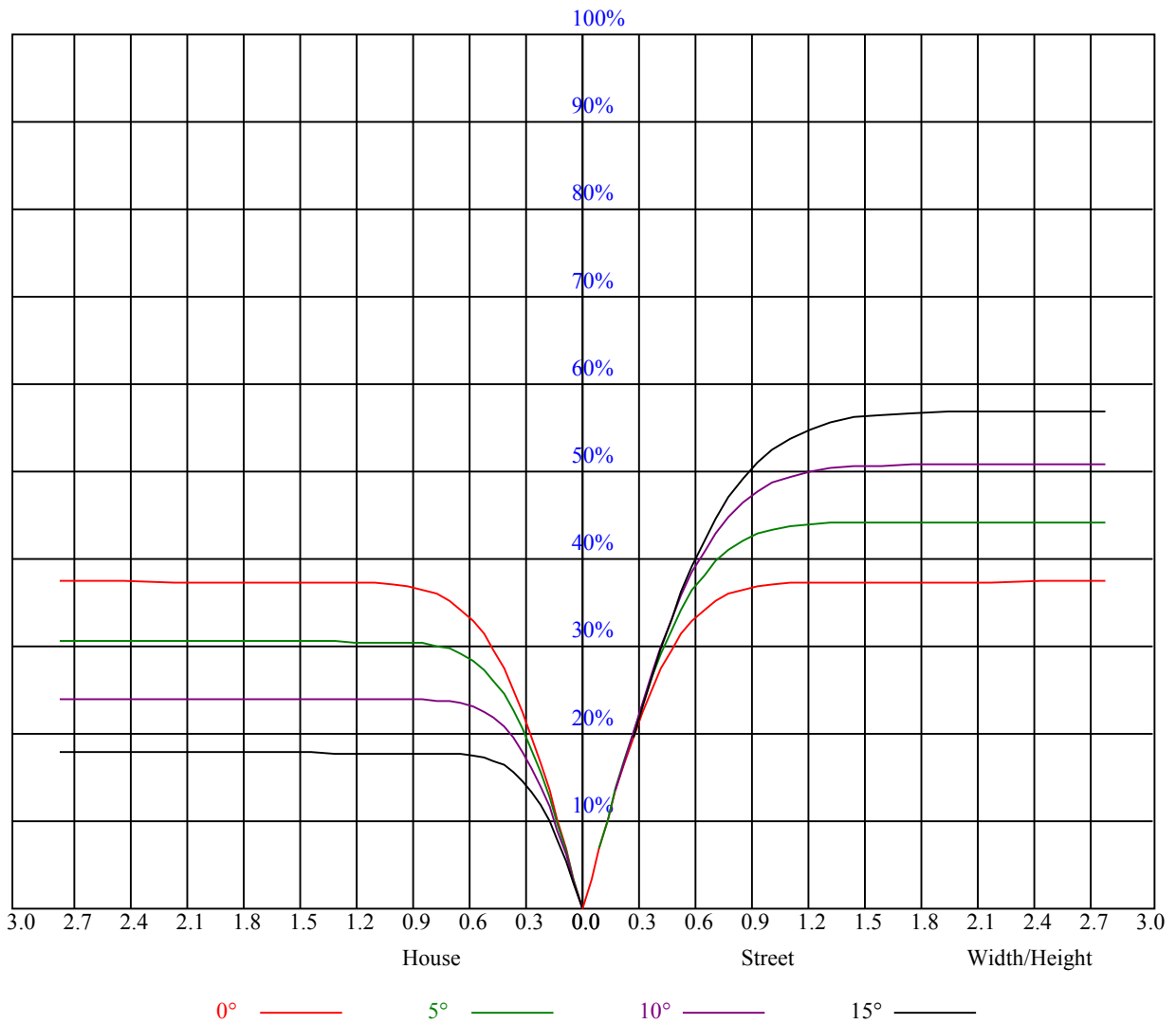
Luminance Limiting Curve



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	9.0	9.9	9.3	10.1	10.3	9.0	9.9	9.3	10.1	10.3
	3H	8.9	9.6	9.2	9.9	10.1	8.9	9.6	9.2	9.9	10.1
	4H	8.7	9.3	9.0	9.6	9.9	8.7	9.3	9.0	9.6	9.9
	6H	8.7	9.3	9.0	9.6	10.0	8.7	9.3	9.0	9.6	10.0
	8H	8.7	9.3	9.1	9.6	10.0	8.7	9.3	9.1	9.6	10.0
	12H	8.5	9.0	8.9	9.4	9.8	8.5	9.0	8.9	9.4	9.8
4H	2H	8.7	9.3	9.0	9.6	9.9	8.7	9.3	9.0	9.6	9.9
	3H	8.5	9.0	8.9	9.3	9.7	8.5	9.0	8.9	9.3	9.7
	4H	8.5	9.0	8.9	9.4	9.7	8.5	9.0	8.9	9.4	9.7
	6H	8.5	9.0	8.9	9.4	9.8	8.5	9.0	8.9	9.4	9.8
	8H	8.3	8.6	8.8	9.0	9.5	8.3	8.6	8.8	9.0	9.5
	12H	8.3	8.6	8.8	9.1	9.6	8.3	8.6	8.8	9.1	9.6
8H	4H	8.3	8.6	8.8	9.0	9.5	8.3	8.6	8.8	9.0	9.5
	6H	8.3	8.6	8.8	9.1	9.6	8.3	8.6	8.8	9.1	9.6
	8H	8.3	8.6	8.8	9.1	9.6	8.3	8.6	8.8	9.1	9.6
	12H	8.3	8.6	8.8	9.1	9.6	8.3	8.6	8.8	9.1	9.6
12H	4H	8.3	8.6	8.8	9.0	9.5	8.3	8.6	8.8	9.0	9.5
	6H	8.3	8.6	8.8	9.1	9.6	8.3	8.6	8.8	9.1	9.6
	8H	8.3	8.6	8.8	9.1	9.6	8.3	8.6	8.8	9.1	9.6
Variation with the observer position at spacings:											
S = 1.0H		4.4/-17.3					4.4/-17.3				
S = 1.5H		7.2/-15.6					7.2/-15.6				
S = 2.0H		9.2/-14.8					9.2/-14.8				
Standard tables:		BK0					BK0				
Uncorrected UGR		-5.0					-5.0				



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	0.90	0.90	0.90	0.88	0.88	0.88	0.84	0.84	0.84	0.80	0.80	0.80	0.77	0.77	0.77	0.75
1	0.83	0.81	0.80	0.82	0.80	0.78	0.79	0.77	0.76	0.76	0.75	0.74	0.73	0.72	0.72	0.70
2	0.77	0.74	0.72	0.76	0.73	0.71	0.74	0.71	0.70	0.72	0.70	0.68	0.69	0.68	0.67	0.65
3	0.72	0.68	0.65	0.71	0.68	0.65	0.69	0.66	0.64	0.67	0.65	0.63	0.66	0.64	0.62	0.61
4	0.67	0.63	0.60	0.67	0.63	0.60	0.65	0.62	0.59	0.63	0.61	0.58	0.62	0.60	0.58	0.56
5	0.63	0.59	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
6	0.59	0.55	0.51	0.59	0.54	0.51	0.57	0.54	0.51	0.56	0.53	0.50	0.55	0.52	0.50	0.49
7	0.56	0.51	0.48	0.55	0.51	0.48	0.54	0.50	0.47	0.53	0.50	0.47	0.52	0.49	0.47	0.46
8	0.52	0.48	0.45	0.52	0.48	0.45	0.51	0.47	0.44	0.50	0.47	0.44	0.50	0.46	0.44	0.43
9	0.49	0.45	0.42	0.49	0.45	0.42	0.48	0.44	0.42	0.48	0.44	0.41	0.47	0.44	0.41	0.40
10	0.47	0.42	0.39	0.46	0.42	0.39	0.46	0.42	0.39	0.45	0.41	0.39	0.44	0.41	0.39	0.38



SOTEN D1082

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	2908.38	2872.69	2789.26	2622.90	2362.58	1968.99	1458.92	958.18	539.95
45.0	2908.38	2872.69	2789.26	2622.90	2362.58	1968.99	1458.92	958.18	539.95
90.0	2908.38	2872.69	2789.26	2622.90	2362.58	1968.99	1458.92	958.18	539.95
135.0	2908.38	2872.69	2789.26	2622.90	2362.58	1968.99	1458.92	958.18	539.95
180.0	2908.38	2872.69	2789.26	2622.90	2362.58	1968.99	1458.92	958.18	539.95
225.0	2908.38	2872.69	2789.26	2622.90	2362.58	1968.99	1458.92	958.18	539.95
270.0	2908.38	2872.69	2789.26	2622.90	2362.58	1968.99	1458.92	958.18	539.95
315.0	2908.38	2872.69	2789.26	2622.90	2362.58	1968.99	1458.92	958.18	539.95
360.0	2908.38	2872.69	2789.26	2622.90	2362.58	1968.99	1458.92	958.18	539.95

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	210.11	17.96	5.75	4.78	4.36	4.27	6.13	3.90	3.62
45.0	210.11	17.96	5.75	4.78	4.36	4.27	6.13	3.90	3.62
90.0	210.11	17.96	5.75	4.78	4.36	4.27	6.13	3.90	3.62
135.0	210.11	17.96	5.75	4.78	4.36	4.27	6.13	3.90	3.62
180.0	210.11	17.96	5.75	4.78	4.36	4.27	6.13	3.90	3.62
225.0	210.11	17.96	5.75	4.78	4.36	4.27	6.13	3.90	3.62
270.0	210.11	17.96	5.75	4.78	4.36	4.27	6.13	3.90	3.62
315.0	210.11	17.96	5.75	4.78	4.36	4.27	6.13	3.90	3.62
360.0	210.11	17.96	5.75	4.78	4.36	4.27	6.13	3.90	3.62

C/γ(°)	90.0
0.0	3.43
45.0	3.43
90.0	3.43
135.0	3.43
180.0	3.43
225.0	3.43
270.0	3.43
315.0	3.43
360.0	3.43