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SOTEN

LumCAT: D1080

Luminaire:

Report No:

Voltage(V): 220.4000

Test No:

Current(A): 0.0640

LampCAT: Lumileds 3030 4000K Ra80

Power (W): 13.8200

Lamp flux(lm): 1730.0

PF: 0.9700

Number of Lamps: 1

Ballast type: Hua Tianwieye 350mA

Length(mm): 110

Width(mm): 110

Phm Type: C

Height(mm): 62

Photometric Results

Lumens(lm): 1308.24

Efficiency(%): 75.62%

Lumens(lm)/Power(W): 94.66

Central intensity(cd): 1576.600

Maximum intensity(cd): 1576.600

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=56.4

[C90/270]Total=56.4

Field angle(10%Imax): [C0/180]Total=84.0

[C90/270]Total=84.0

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

Maximum s/h(1/4): C0_180=1.26 C90_270=0.88

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 75.62%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.692%

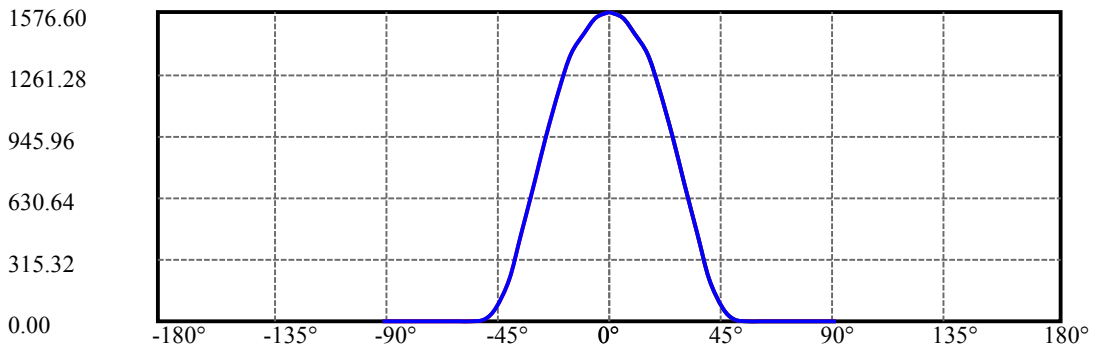
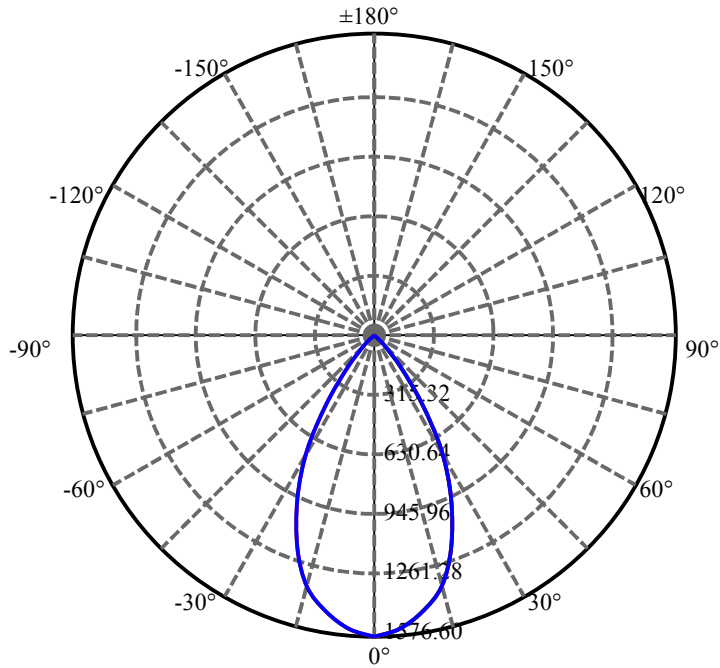
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1576.600	.000	.000	.000%	.000%
5.0	1546.484	37.336	37.336	2.158%	2.158%
10.0	1471.032	107.946	145.282	6.240%	8.398%
15.0	1357.251	167.772	313.054	9.698%	18.096%
20.0	1185.884	209.590	522.644	12.115%	30.211%
25.0	943.798	223.364	746.008	12.911%	43.122%
30.0	701.479	208.211	954.219	12.035%	55.157%
35.0	441.574	168.323	1122.542	9.730%	64.887%
40.0	219.117	110.231	1232.773	6.372%	71.259%
45.0	65.336	52.669	1285.442	3.044%	74.303%
50.0	9.977	15.218	1300.660	.880%	75.183%
55.0	2.274	2.664	1303.323	.154%	75.337%
60.0	1.531	.880	1304.203	.051%	75.387%
65.0	1.346	.699	1304.902	.040%	75.428%
70.0	1.299	.670	1305.572	.039%	75.467%
75.0	1.253	.667	1306.239	.039%	75.505%
80.0	1.253	.670	1306.910	.039%	75.544%
85.0	1.206	.668	1307.578	.039%	75.583%
90.0	1.206	.661	1308.238	.038%	75.621%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	954.22	55.16%	72.94%
0-40	1232.77	71.26%	94.23%
0-60	1304.20	75.39%	99.69%
0-90	1307.58	75.58%	99.95%
0-120	1307.58	75.58%	99.95%
0-180	1308.24	75.62%	100.00%
60-90	4.25	0.25%	0.33%
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%
0-32.74	1046.59	60.50%	80.00%

ZONAL LUMEN SUMMARY

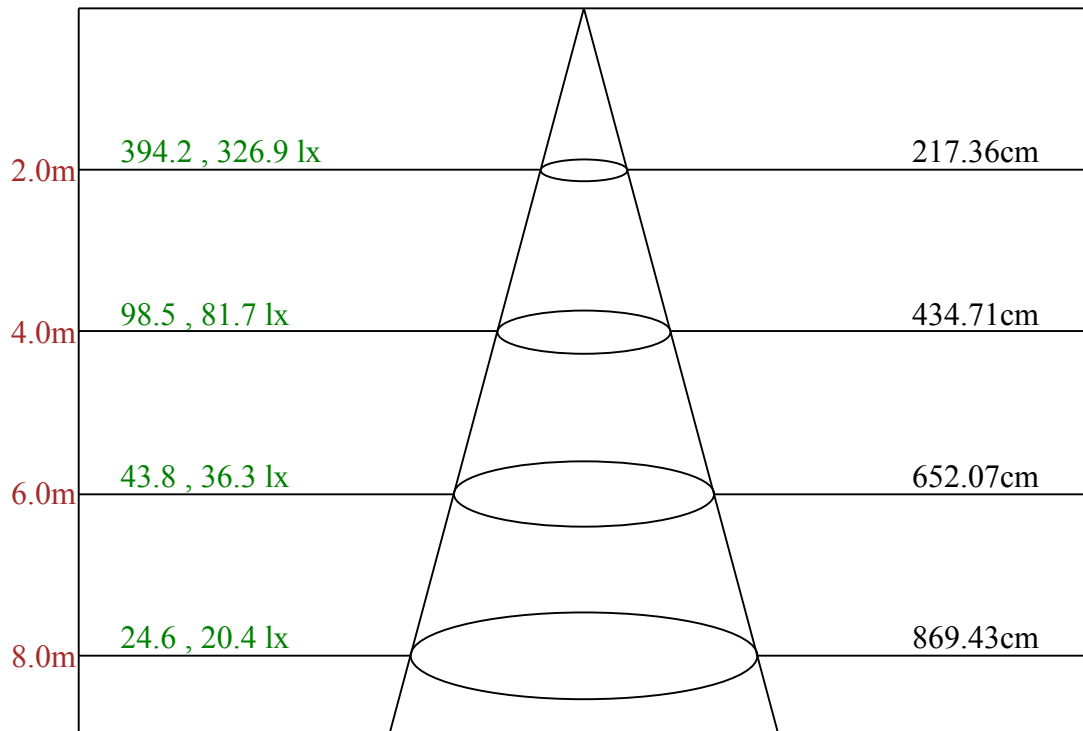
0-10	145.28
10-20	377.36
20-30	431.58
30-40	278.55
40-50	67.89
50-60	3.54
60-70	1.37
70-80	1.34
80-90	0.67
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



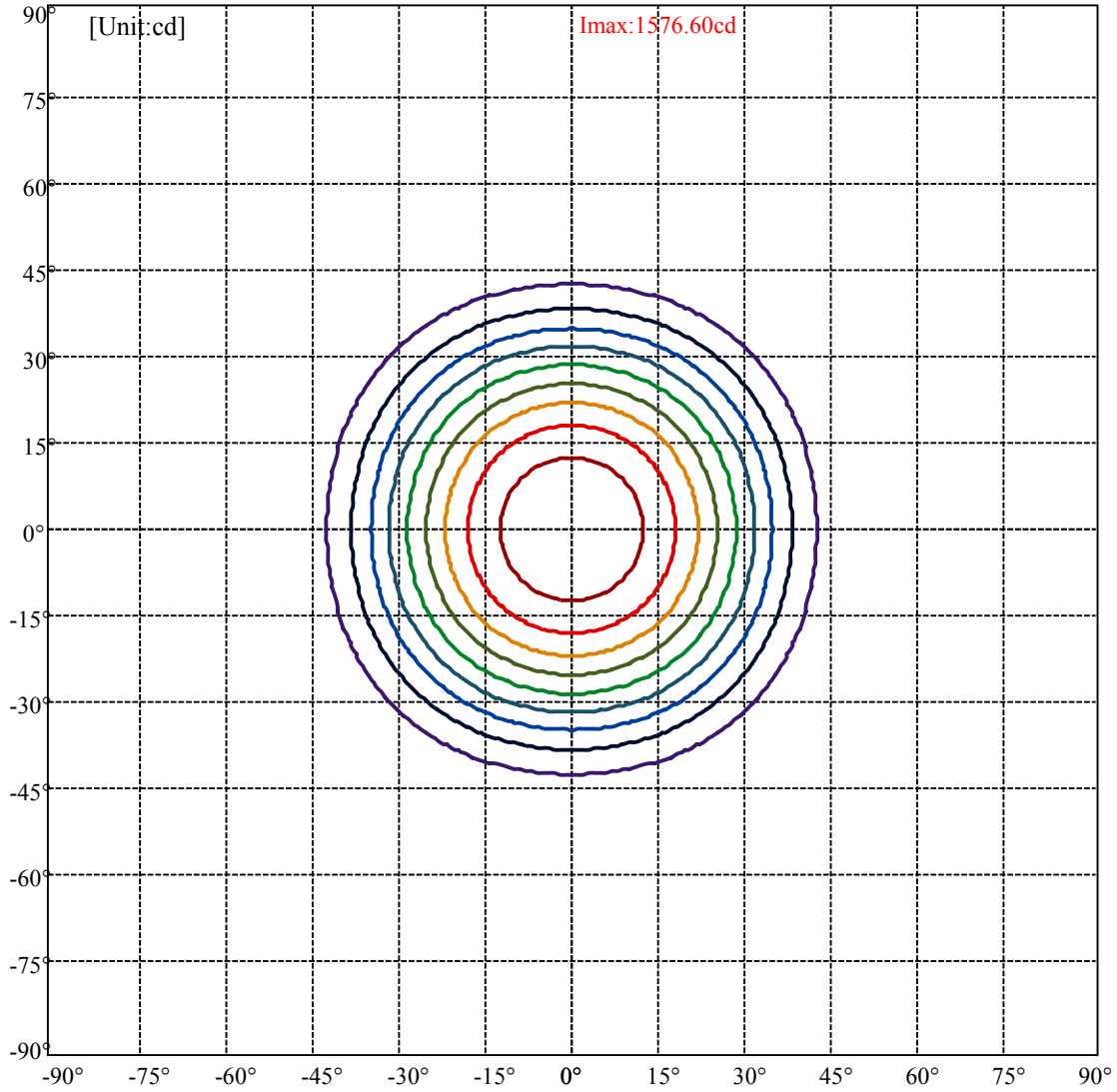
C0(Max): ———
C0/C180: ———
C90/C270: ———

Field angle(10%Imax):C0/180Left:42.0 Right:42.0
:C90/270Left:42.0 Right:42.0

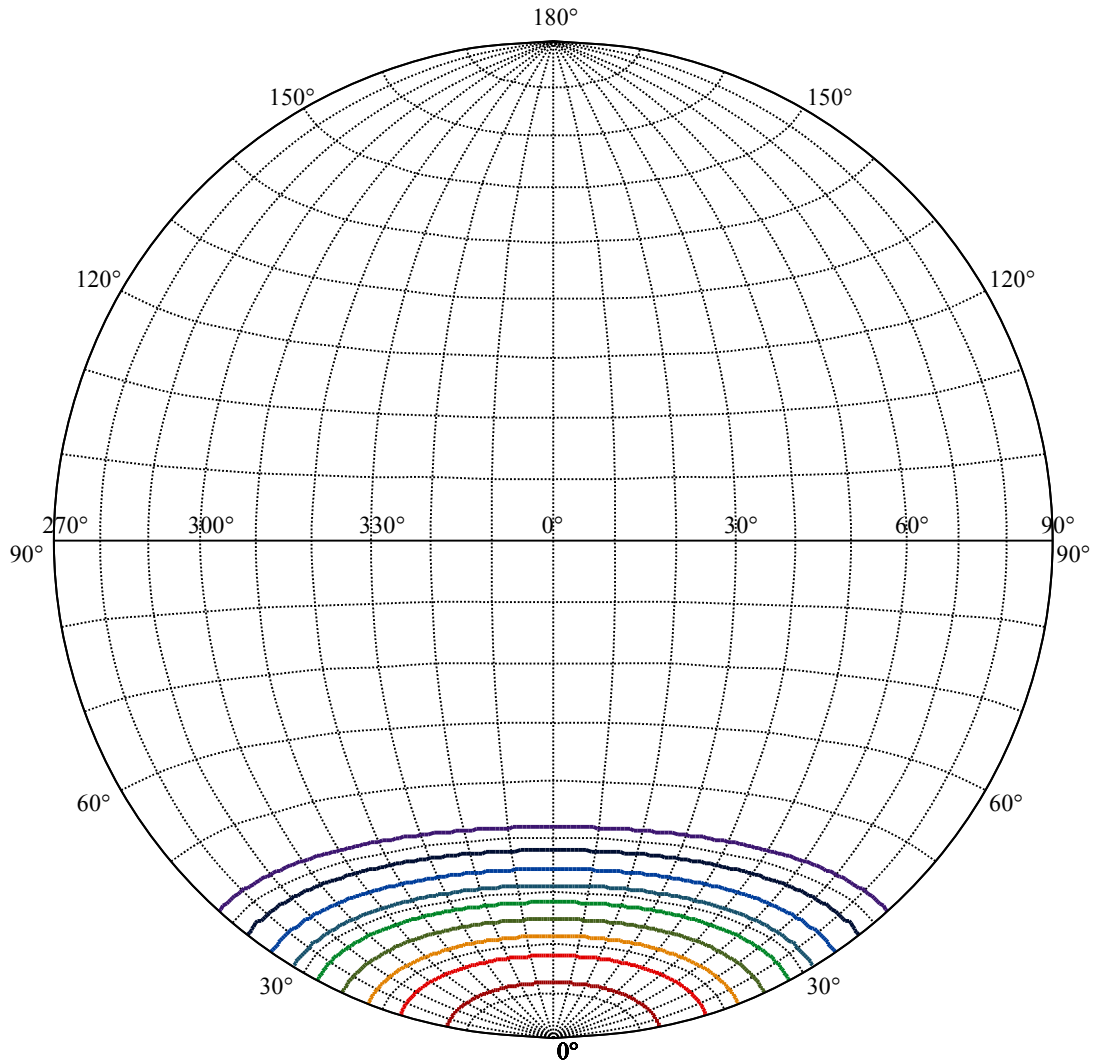
Beam Angle(50%Imax):C0/180Left:28.2 Right:28.2
:C90/270Left:28.2 Right:28.2



Max , Ave Beam angle of C0plane57.04



(10%Imax) 157.66	—
(20%Imax) 315.32	—
(30%Imax) 472.98	—
(40%Imax) 630.64	—
(50%Imax) 788.3	—
(60%Imax) 945.96	—
(70%Imax) 1103.62	—
(80%Imax) 1261.28	—
(90%Imax) 1418.94	—



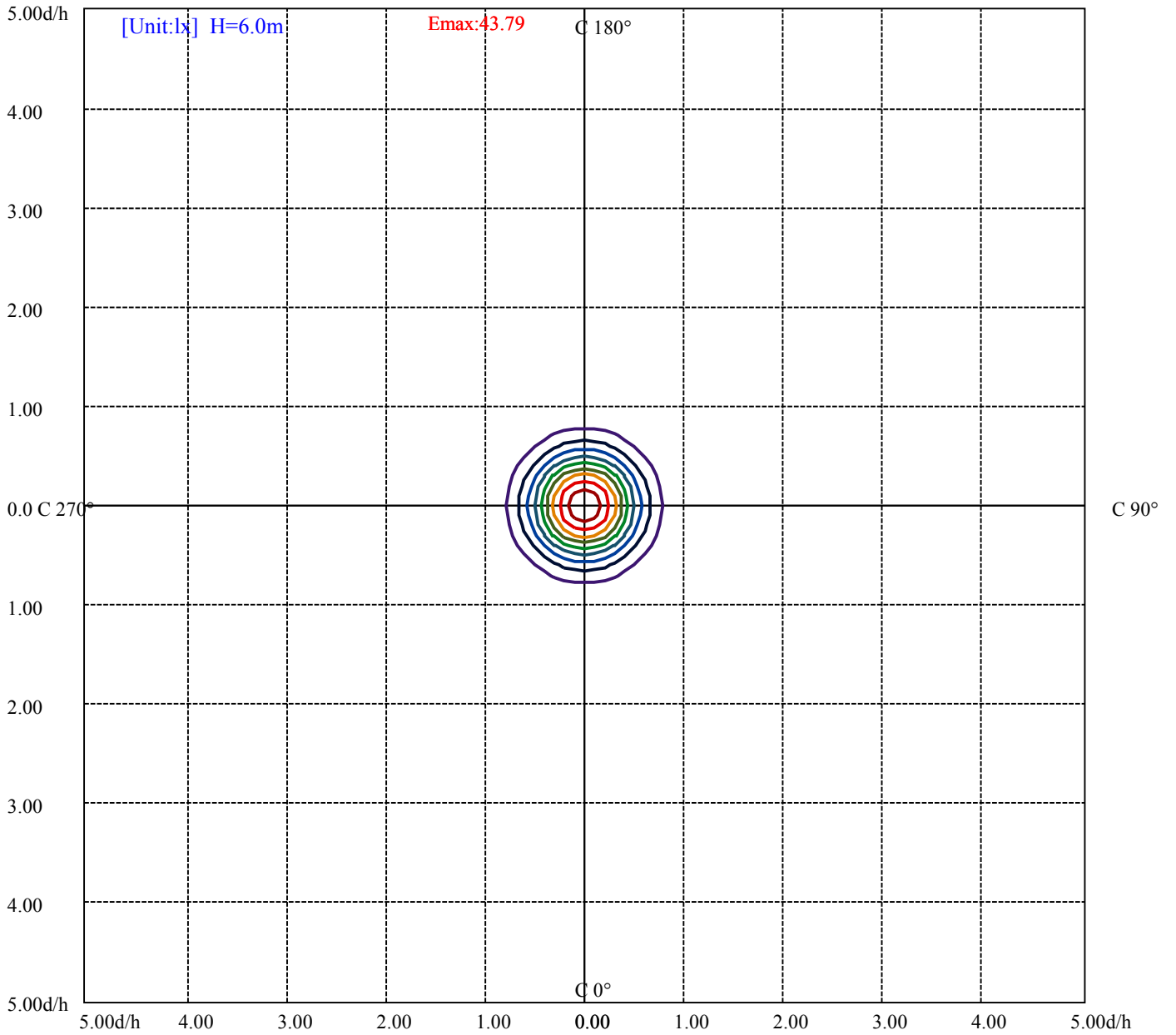
House

[Unit:cd]

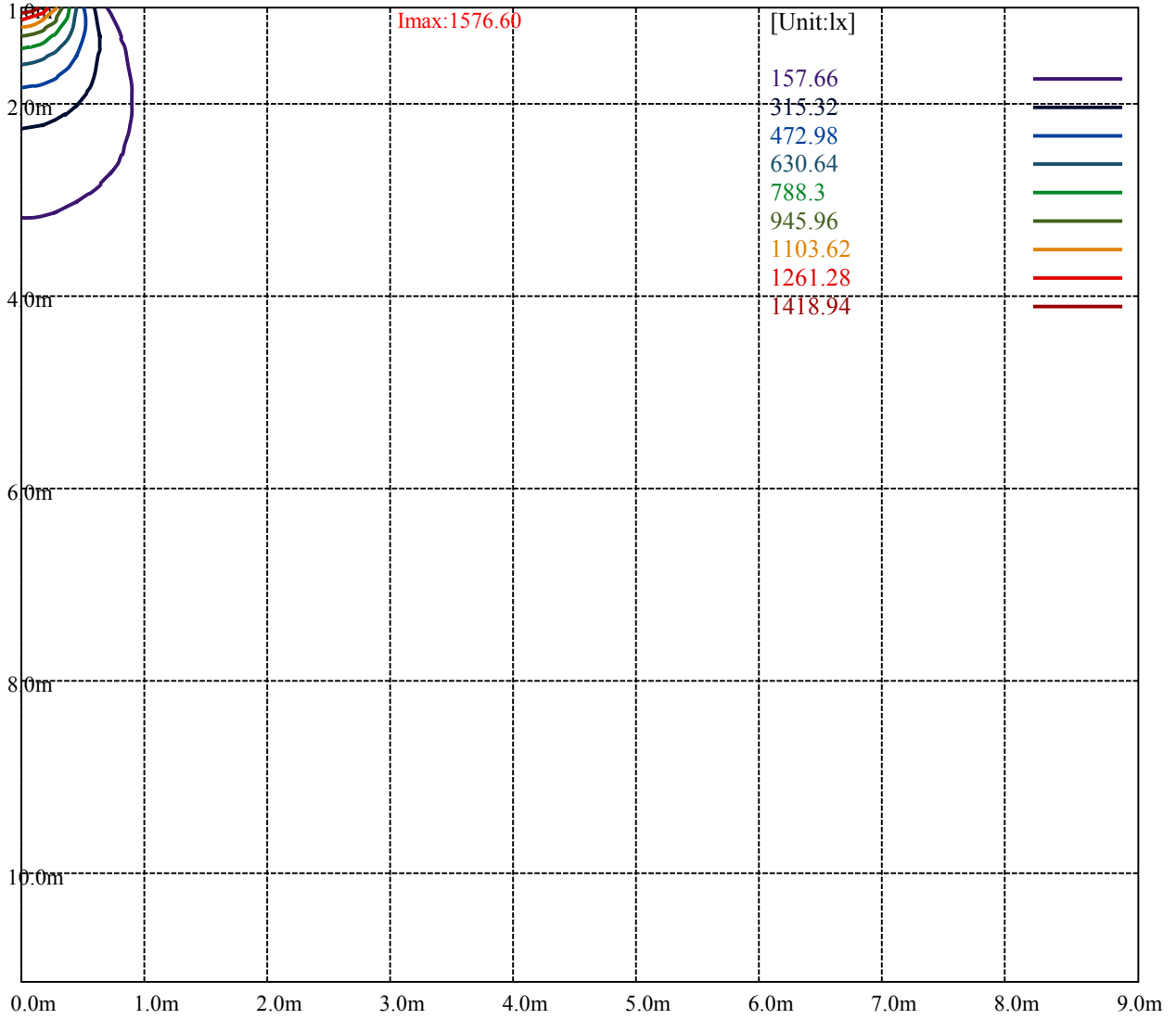
Road

Imax:1576.60

(10%Imax)	157.66	—
(20%Imax)	315.32	—
(30%Imax)	472.98	—
(40%Imax)	630.64	—
(50%Imax)	788.3	—
(60%Imax)	945.96	—
(70%Imax)	1103.62	—
(80%Imax)	1261.28	—
(90%Imax)	1418.94	—



(10%Emax) 4.379445	—
(20%Emax) 8.758889	—
(30%Emax) 13.13833	—
(40%Emax) 17.51778	—
(50%Emax) 21.89722	—
(60%Emax) 26.27664	—
(70%Emax) 30.65611	—
(80%Emax) 35.03556	—
(90%Emax) 39.415	—



Luminance Table

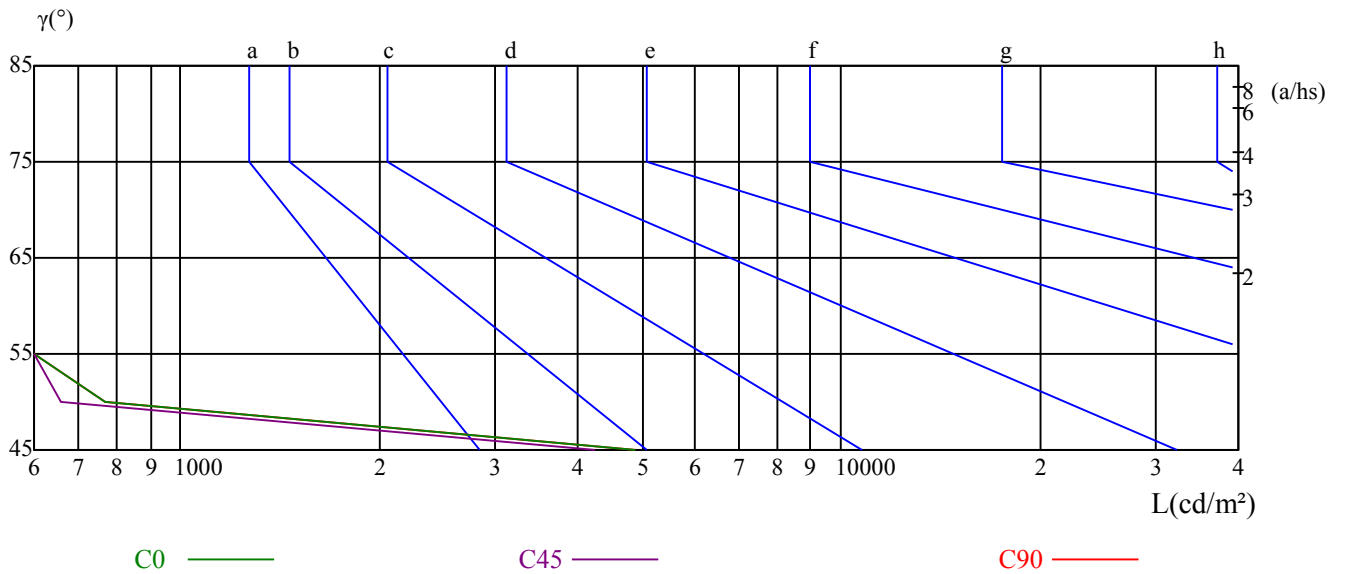
γ	45	50	55	60	65	70	75	80	85
C0	4884	767	182	128	119	123	129	142	154
C45	4249	658	153	106	97	98	101	108	113
C90	4884	767	182	128	119	123	129	142	154

L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
263	263	263	400	400	400	1144	1144	1144

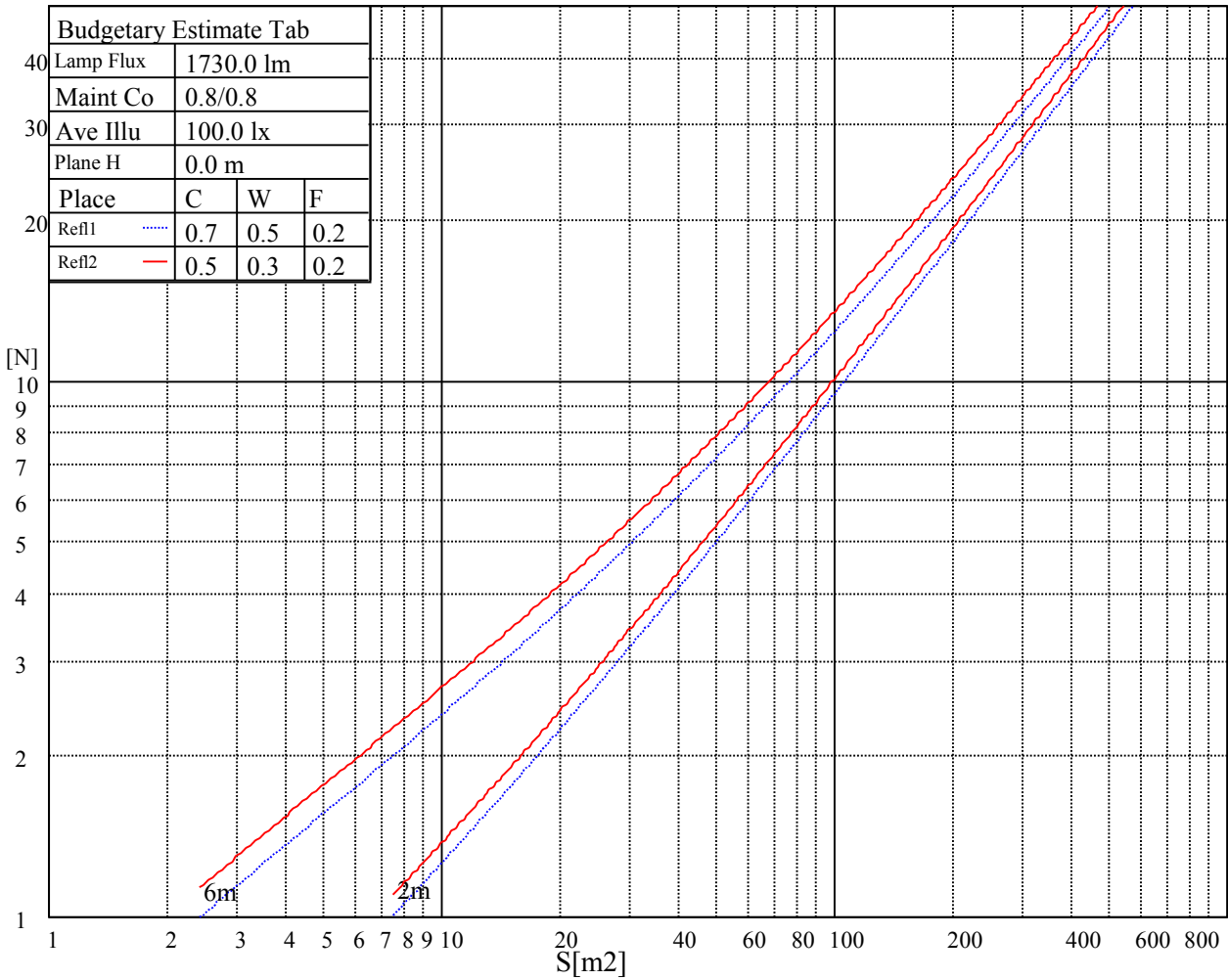
Glare Table

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

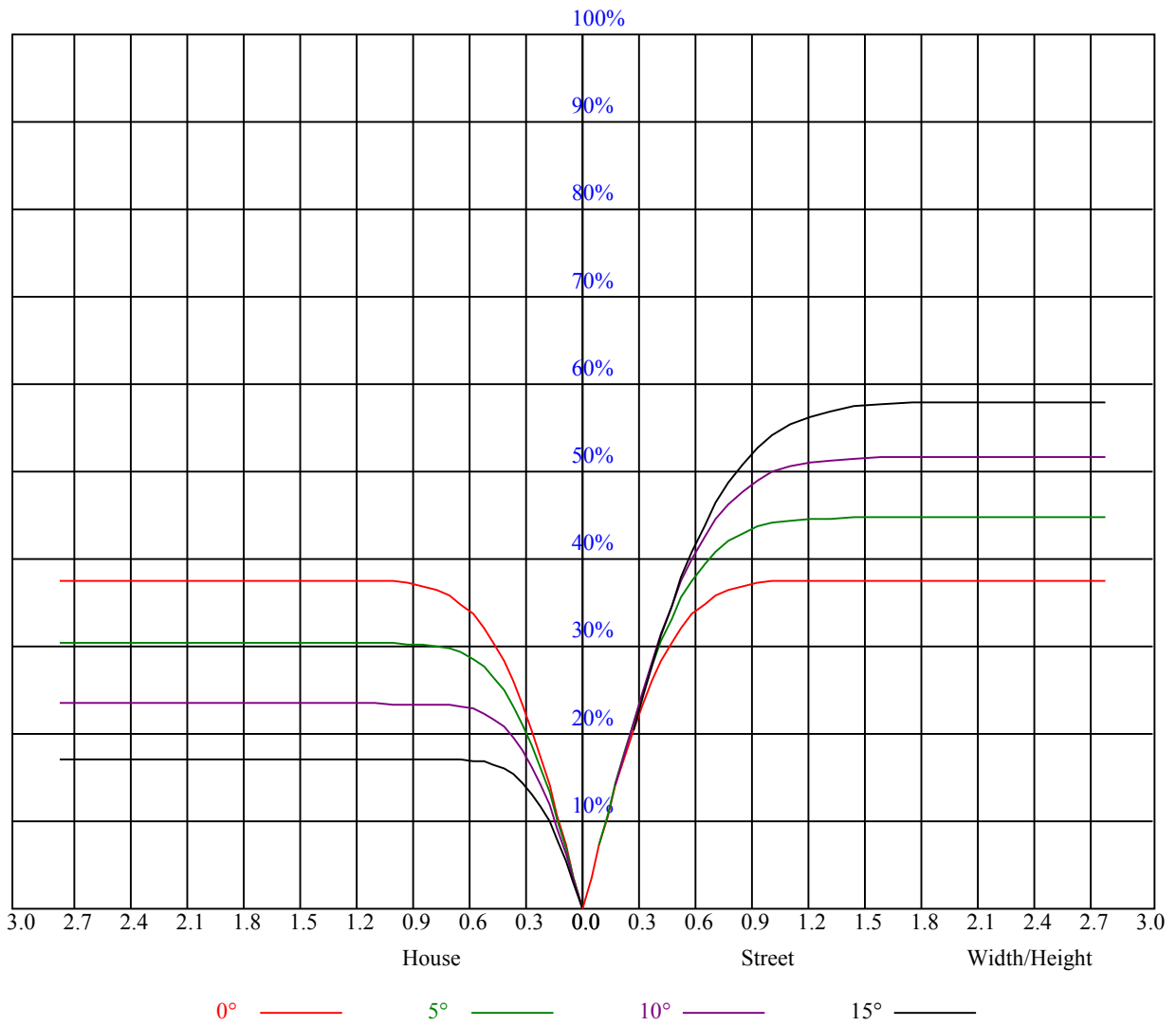
Luminance Limiting Curve



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	9.5	10.4	9.8	10.6	10.8	9.5	10.4	9.8	10.6	10.8
	3H	9.4	10.1	9.7	10.4	10.6	9.4	10.1	9.7	10.4	10.6
	4H	9.2	9.8	9.5	10.1	10.4	9.2	9.8	9.5	10.1	10.4
	6H	9.2	9.8	9.5	10.1	10.4	9.2	9.8	9.5	10.1	10.4
	8H	9.2	9.8	9.5	10.1	10.4	9.2	9.8	9.5	10.1	10.4
	12H	9.0	9.5	9.4	9.8	10.2	9.0	9.5	9.4	9.8	10.2
4H	2H	9.2	9.8	9.5	10.1	10.4	9.2	9.8	9.5	10.1	10.4
	3H	9.0	9.5	9.4	9.8	10.2	9.0	9.5	9.4	9.8	10.2
	4H	9.0	9.5	9.4	9.8	10.2	9.0	9.5	9.4	9.8	10.2
	6H	9.0	9.5	9.4	9.8	10.2	9.0	9.5	9.4	9.8	10.2
	8H	8.8	9.0	9.3	9.5	10.0	8.8	9.0	9.3	9.5	10.0
	12H	8.8	9.1	9.3	9.5	10.0	8.8	9.1	9.3	9.5	10.0
8H	4H	8.8	9.0	9.3	9.5	10.0	8.8	9.0	9.3	9.5	10.0
	6H	8.8	9.0	9.3	9.5	10.0	8.8	9.0	9.3	9.5	10.0
	8H	8.8	9.1	9.3	9.5	10.0	8.8	9.1	9.3	9.5	10.0
	12H	8.8	9.1	9.3	9.5	10.0	8.8	9.1	9.3	9.5	10.0
12H	4H	8.8	9.0	9.3	9.5	10.0	8.8	9.0	9.3	9.5	10.0
	6H	8.8	9.0	9.3	9.5	10.0	8.8	9.0	9.3	9.5	10.0
	8H	8.8	9.1	9.3	9.5	10.0	8.8	9.1	9.3	9.5	10.0
Variation with the observer position at spacings:											
S = 1.0H		4.9/-20.5					4.9/-20.5				
S = 1.5H		7.7/-19.2					7.7/-19.2				
S = 2.0H		9.7/-18.0					9.7/-18.0				
Standard tables:		BK0					BK0				
Uncorrected UGR		-4.5					-4.5				



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



SOTEN D1080

Intensity data(cd)										Page: 15 Total:15
C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	
0.0	1576.60	1546.48	1471.03	1357.25	1185.88	943.80	701.48	441.57	219.12	
45.0	1576.60	1546.48	1471.03	1357.25	1185.88	943.80	701.48	441.57	219.12	
90.0	1576.60	1546.48	1471.03	1357.25	1185.88	943.80	701.48	441.57	219.12	
135.0	1576.60	1546.48	1471.03	1357.25	1185.88	943.80	701.48	441.57	219.12	
180.0	1576.60	1546.48	1471.03	1357.25	1185.88	943.80	701.48	441.57	219.12	
225.0	1576.60	1546.48	1471.03	1357.25	1185.88	943.80	701.48	441.57	219.12	
270.0	1576.60	1546.48	1471.03	1357.25	1185.88	943.80	701.48	441.57	219.12	
315.0	1576.60	1546.48	1471.03	1357.25	1185.88	943.80	701.48	441.57	219.12	
360.0	1576.60	1546.48	1471.03	1357.25	1185.88	943.80	701.48	441.57	219.12	
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	
0.0	65.34	9.98	2.27	1.53	1.35	1.30	1.25	1.25	1.21	
45.0	65.34	9.98	2.27	1.53	1.35	1.30	1.25	1.25	1.21	
90.0	65.34	9.98	2.27	1.53	1.35	1.30	1.25	1.25	1.21	
135.0	65.34	9.98	2.27	1.53	1.35	1.30	1.25	1.25	1.21	
180.0	65.34	9.98	2.27	1.53	1.35	1.30	1.25	1.25	1.21	
225.0	65.34	9.98	2.27	1.53	1.35	1.30	1.25	1.25	1.21	
270.0	65.34	9.98	2.27	1.53	1.35	1.30	1.25	1.25	1.21	
315.0	65.34	9.98	2.27	1.53	1.35	1.30	1.25	1.25	1.21	
360.0	65.34	9.98	2.27	1.53	1.35	1.30	1.25	1.25	1.21	
C/ γ (°)	90.0									
0.0	1.21									
45.0	1.21									
90.0	1.21									
135.0	1.21									
180.0	1.21									
225.0	1.21									
270.0	1.21									
315.0	1.21									
360.0	1.21									