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## SOTEN

LumCAT: D1040

Luminaire: 2-1420-EF

Report No:

Test No:

LampCAT: Lumileds-1203-3090-F

Lamp flux(lm): 1542.0

Number of Lamps: 1

Length(mm): 80

Phm Type: C

Voltage(V): 220.7000

Current(A): 0.0710

Power (W): 14.8200

PF: 0.9370

Ballast type: PHILIPS CertaDrive 15W 0.3A 40V LPF I 230V

Width(mm): 80

Height(mm): 68

## Photometric Results

Lumens(lm): 1262.33

Efficiency(%): 81.86%

Lumens(lm)/Power(W): 85.18

Central intensity(cd): 2628.100

Maximum intensity(cd): 2628.100

Angle of maximum intensity:  $C=0.0$   $\gamma=0.0$

Beam Angle(50%Imax): [C0/180]Total=35.8

[C90/270]Total=35.8

Field angle(10%Imax): [C0/180]Total=68.7

[C90/270]Total=68.7

Maximum s/h(1/2): C0\_180=0.60 C90\_270=0.60

Maximum s/h(1/4): C0\_180=0.86 C90\_270=0.64

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 81.86%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 98.059%



Equipment: GMS 1800  
Temperature(°C): 25.0

Date: 2022/1/22  
Humidity(%): 60.0%

Operator: New  
Distance(m): 6.81

## SOTEN D1040

## Zonal flux distribution table

Page: 2 Total:15

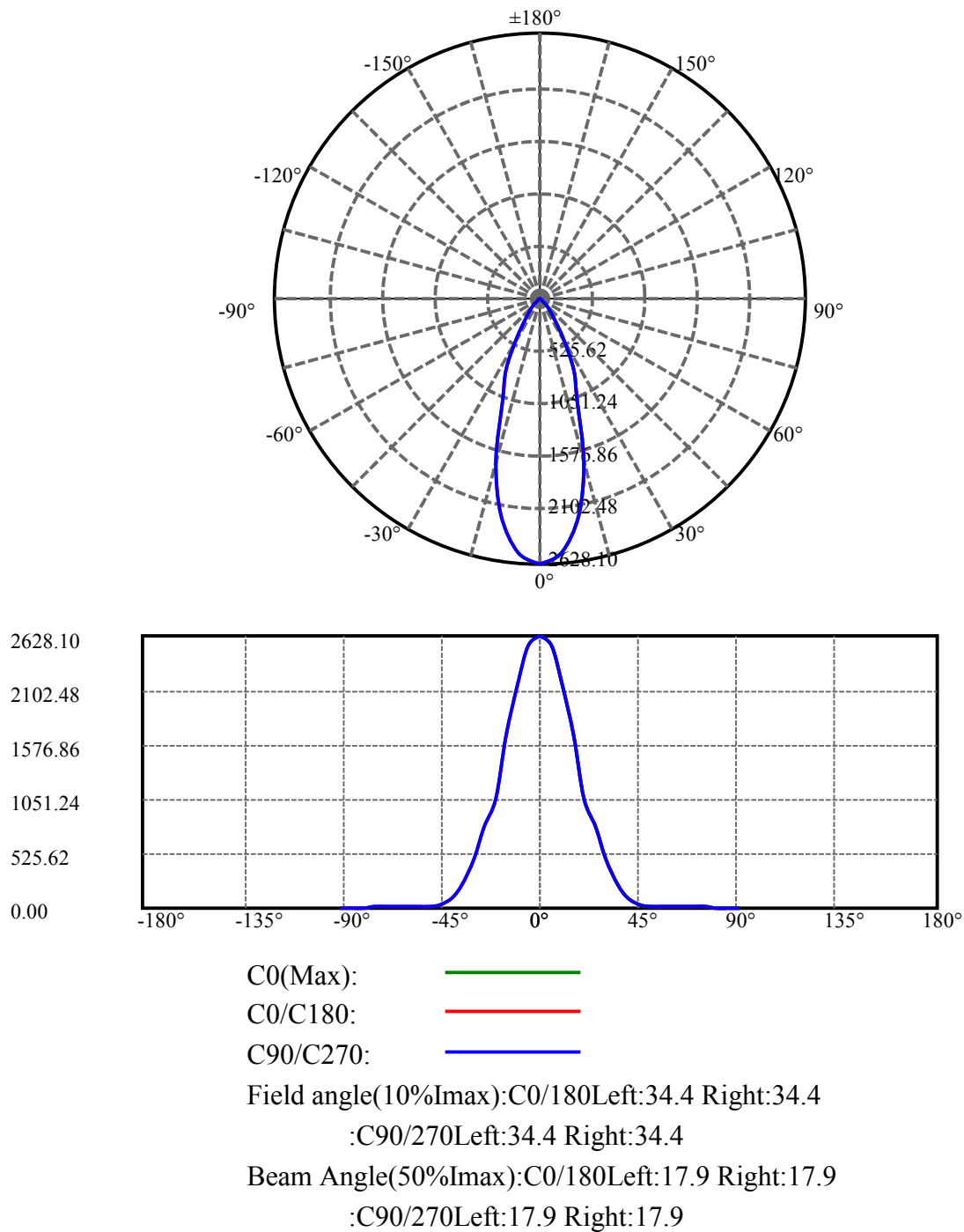
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2628.100	.000	.000	.000%	.000%
5.0	2524.342	61.596	61.596	3.995%	3.995%
10.0	2177.430	168.197	229.793	10.908%	14.902%
15.0	1657.063	227.460	457.253	14.751%	29.653%
20.0	1068.437	224.620	681.872	14.567%	44.220%
25.0	782.128	194.090	875.962	12.587%	56.807%
30.0	468.627	158.284	1034.246	10.265%	67.072%
35.0	232.110	103.188	1137.435	6.692%	73.764%
40.0	96.519	54.829	1192.264	3.556%	77.319%
45.0	25.197	22.537	1214.801	1.462%	78.781%
50.0	19.350	9.001	1223.802	.584%	79.365%
55.0	15.174	7.507	1231.309	.487%	79.851%
60.0	13.039	6.521	1237.830	.423%	80.274%
65.0	11.926	6.069	1243.899	.394%	80.668%
70.0	10.487	5.675	1249.574	.368%	81.036%
75.0	8.492	4.961	1254.535	.322%	81.358%
80.0	6.032	3.886	1258.422	.252%	81.610%
85.0	3.480	2.585	1261.006	.168%	81.777%
90.0	1.346	1.321	1262.328	.086%	81.863%

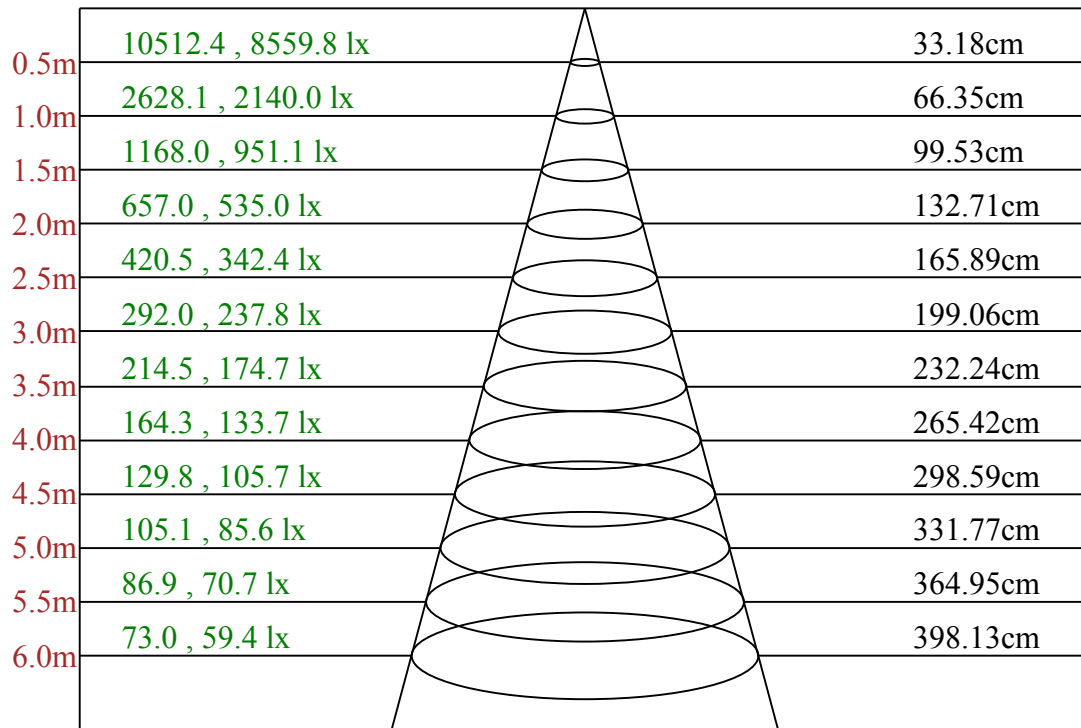
## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1034.25	67.07%	81.93%
0-40	1192.26	77.32%	94.45%
0-60	1237.83	80.27%	98.06%
0-90	1261.01	81.78%	99.90%
0-120	1261.01	81.78%	99.90%
0-180	1262.33	81.86%	100.00%
60-90	29.70	1.93%	2.35%
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%
0-29.23	1009.86	65.49%	80.00%

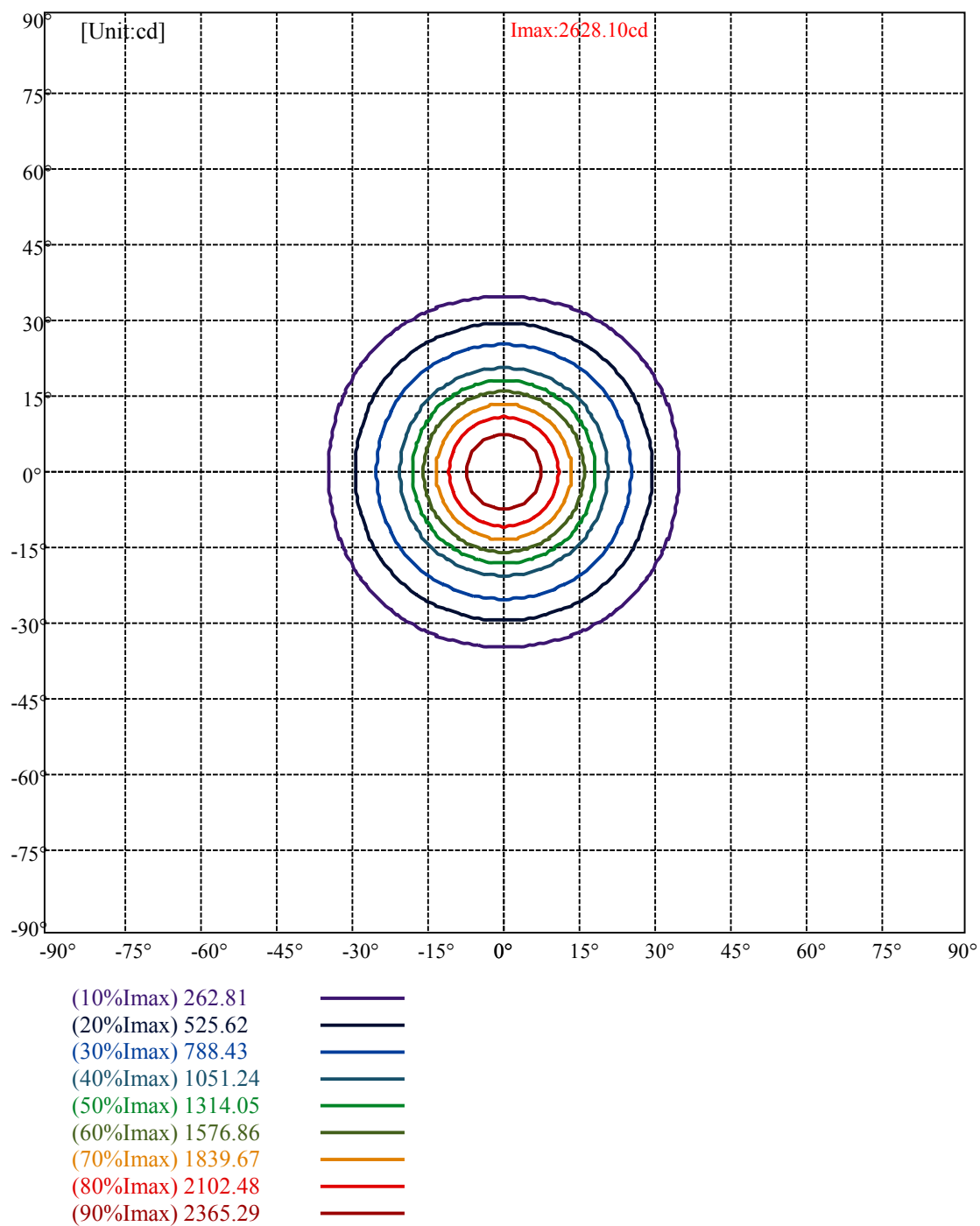
## ZONAL LUMEN SUMMARY

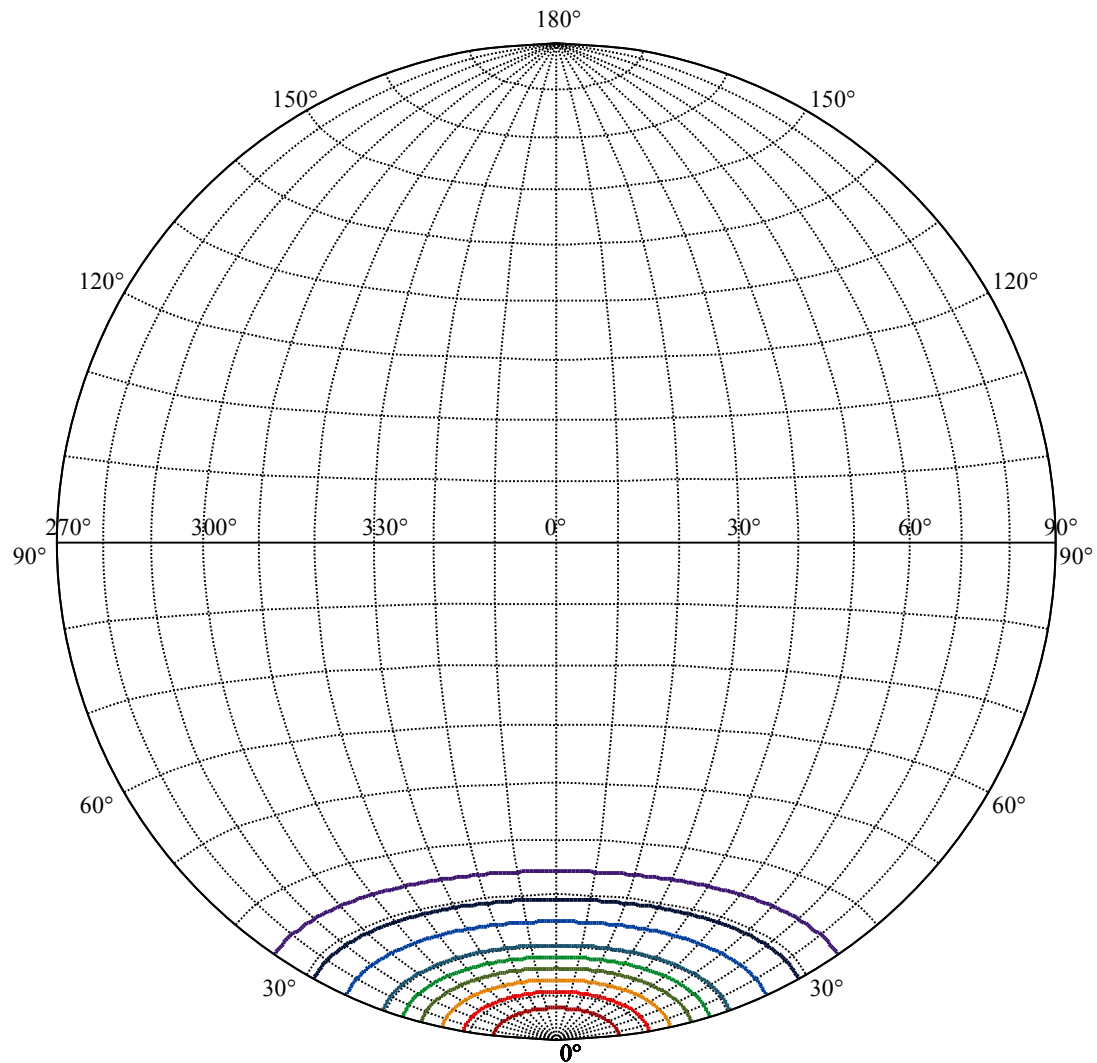
0-10	229.79
10-20	452.08
20-30	352.37
30-40	158.02
40-50	31.54
50-60	14.03
60-70	11.74
70-80	8.85
80-90	2.58
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00





Max , Ave      Beam angle of C0plane36.71














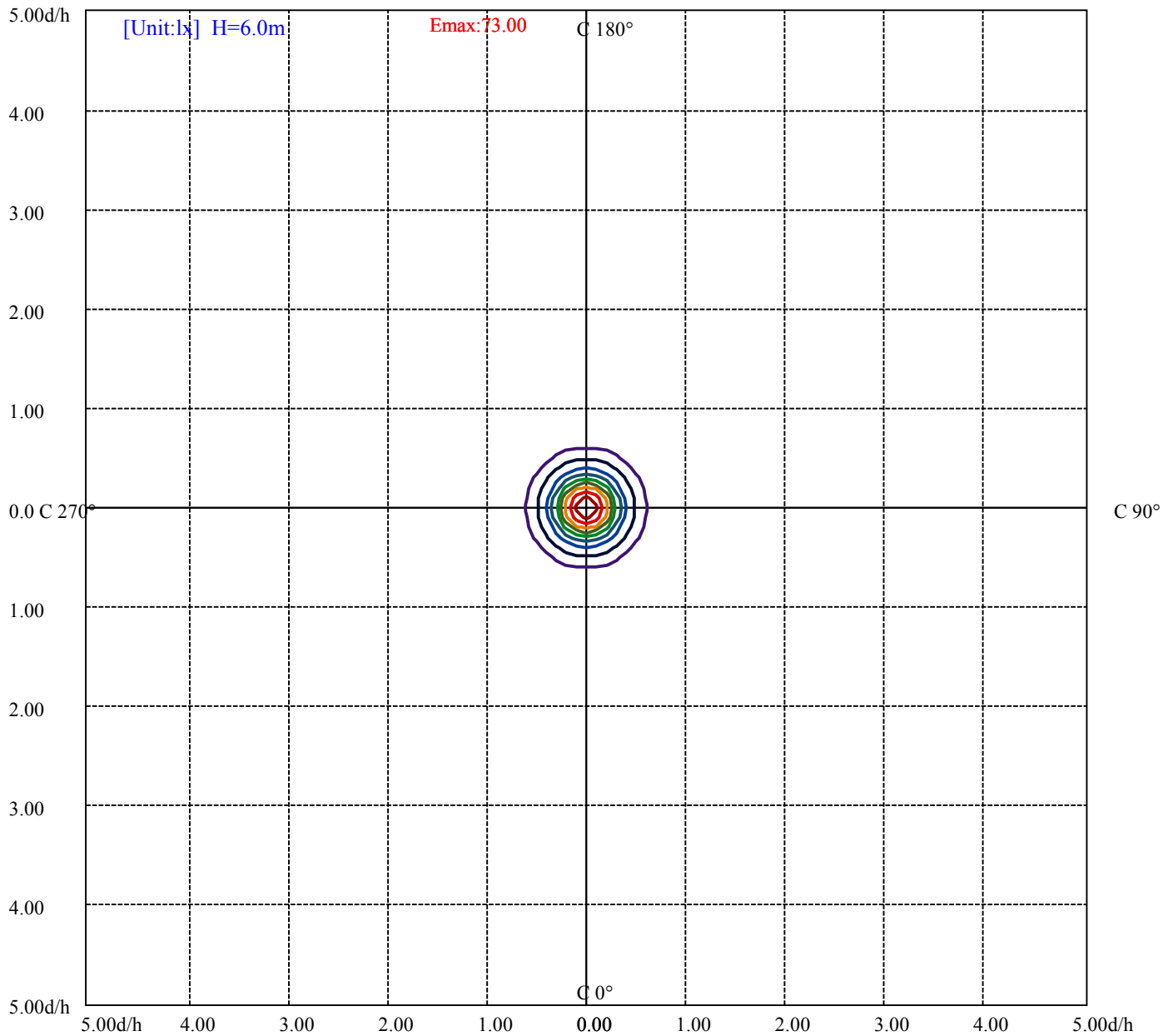
House










[Unit:cd]

Road

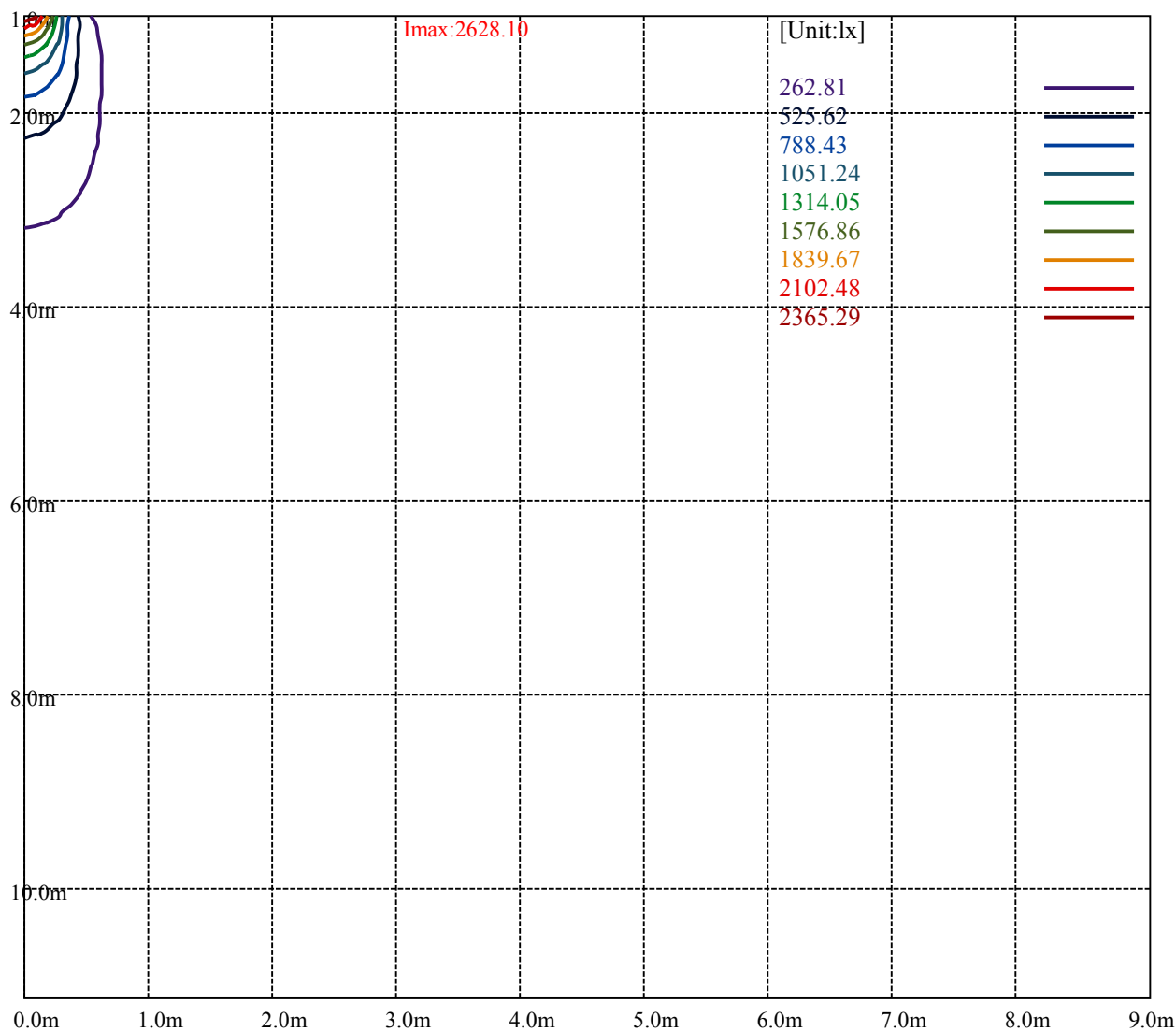
**Imax:2628.10**

(10%Imax)	262.81	
(20%Imax)	525.62	
(30%Imax)	788.43	
(40%Imax)	1051.24	
(50%Imax)	1314.05	
(60%Imax)	1576.86	
(70%Imax)	1839.67	
(80%Imax)	2102.48	
(90%Imax)	2365.29	



(10%Emax)	7.300278	
(20%Emax)	14.60053	
(30%Emax)	21.90081	
(40%Emax)	29.20111	
(50%Emax)	36.50139	
(60%Emax)	43.80167	
(70%Emax)	51.10194	
(80%Emax)	58.40222	
(90%Emax)	65.7025	





Luminance Table

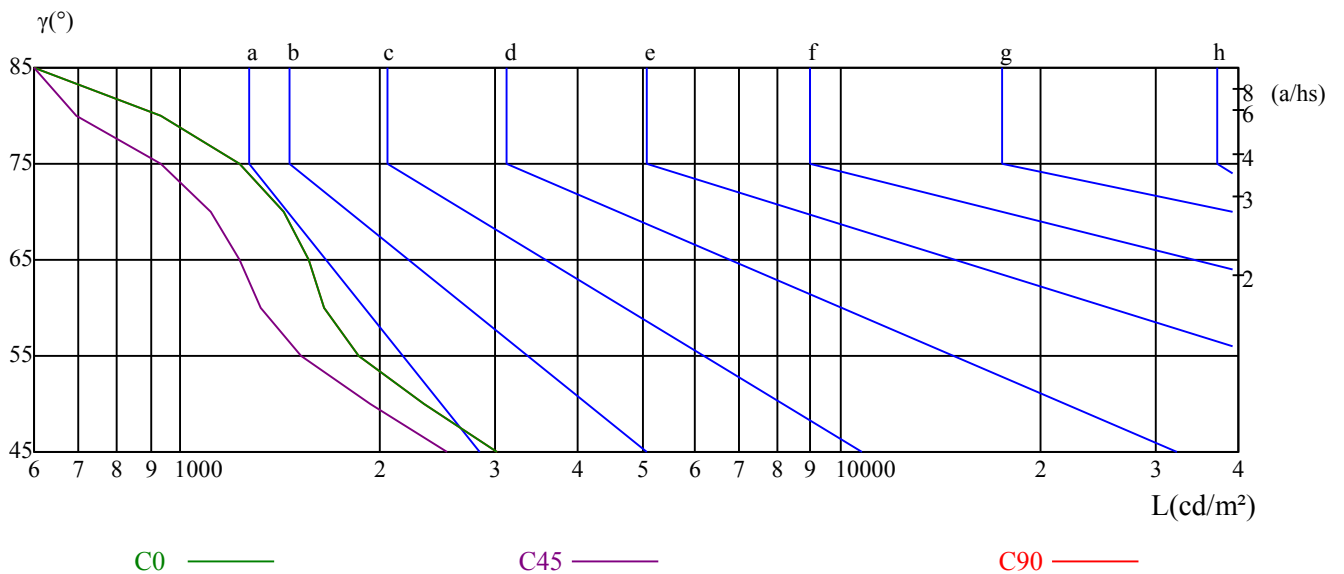
$\gamma$	45	50	55	60	65	70	75	80	85
C0	3010	2337	1867	1648	1562	1436	1229	933	582
C45	2528	1934	1522	1322	1232	1113	934	694	423
C90	3010	2337	1867	1648	1562	1436	1229	933	582

L横(65)	L纵(65)	L45(65)	L横(75)	L纵(75)	L45(75)	L横(85)	L纵(85)	L45(85)
4409	4409	4409	5127	5127	5127	6239	6239	6239

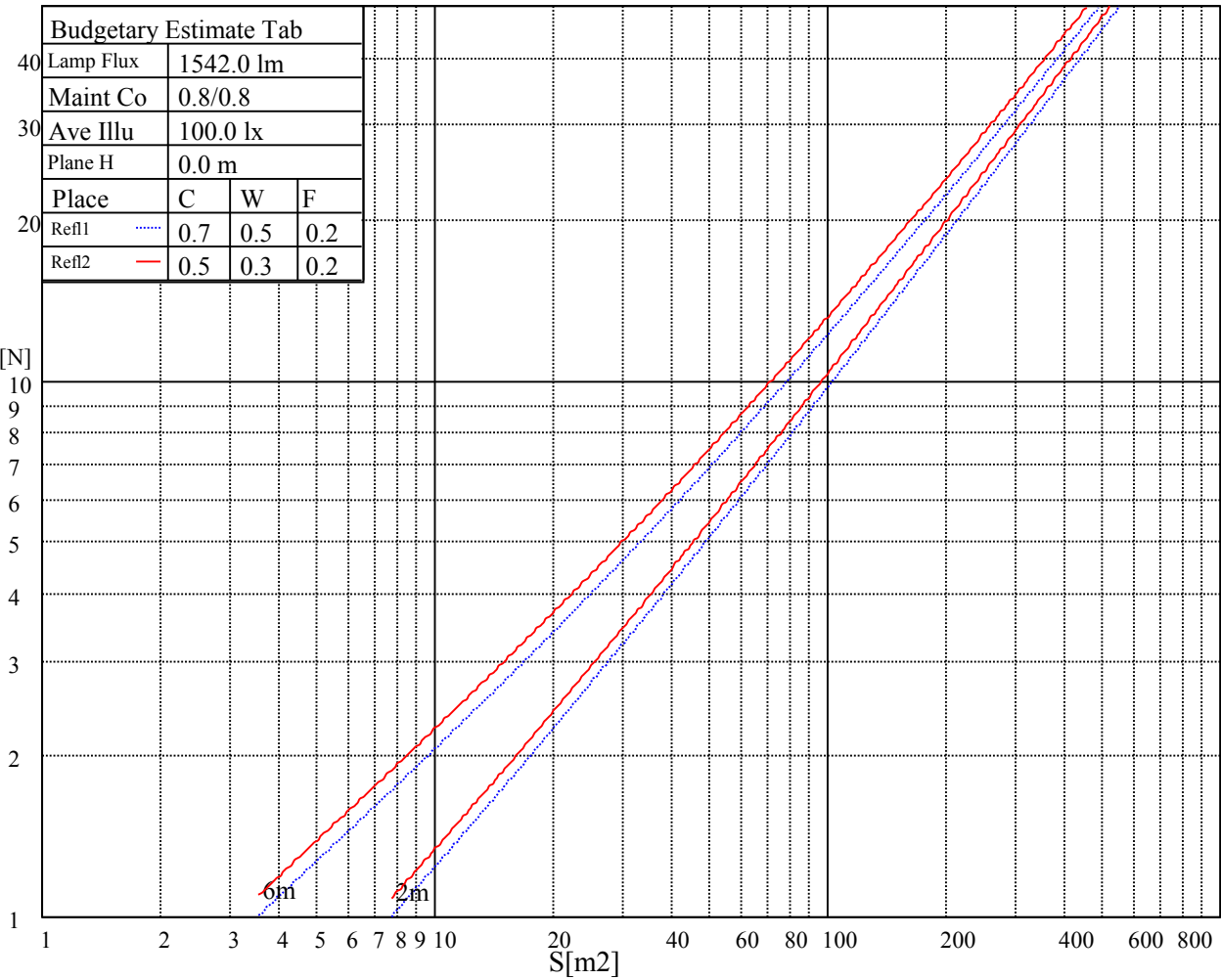
Glare Table

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

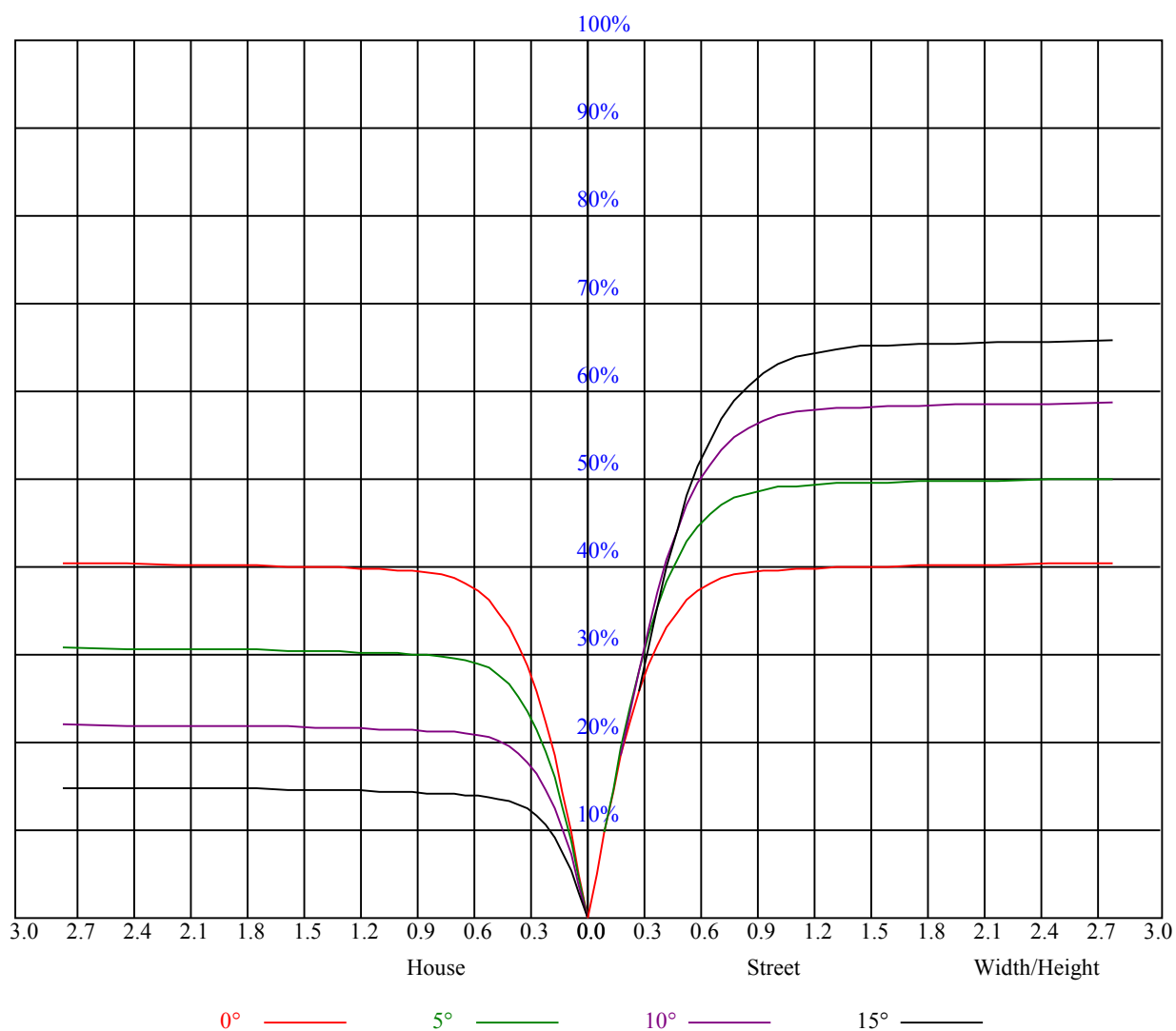
Luminance Limiting Curve



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	7.1	7.9	7.4	8.1	8.3	7.1	7.9	7.4	8.1	8.3
	3H	7.3	8.0	7.6	8.2	8.5	7.3	8.0	7.6	8.2	8.5
	4H	7.3	7.9	7.6	8.2	8.5	7.3	7.9	7.6	8.2	8.5
	6H	7.5	8.1	7.8	8.4	8.7	7.5	8.1	7.8	8.4	8.7
	8H	7.6	8.2	7.9	8.5	8.8	7.6	8.2	7.9	8.5	8.8
	12H	7.4	7.9	7.8	8.2	8.6	7.4	7.9	7.8	8.2	8.6
4H	2H	6.9	7.5	7.2	7.8	8.1	6.9	7.5	7.2	7.8	8.1
	3H	7.2	7.6	7.6	8.0	8.4	7.2	7.6	7.6	8.0	8.4
	4H	7.5	7.9	7.9	8.3	8.7	7.5	7.9	7.9	8.3	8.7
	6H	7.8	8.2	8.2	8.6	9.0	7.8	8.2	8.2	8.6	9.0
	8H	7.7	7.9	8.1	8.4	8.9	7.7	7.9	8.1	8.4	8.9
	12H	7.7	8.0	8.2	8.5	9.0	7.7	8.0	8.2	8.5	9.0
8H	4H	7.4	7.6	7.9	8.1	8.6	7.4	7.6	7.9	8.1	8.6
	6H	7.8	8.0	8.3	8.5	9.0	7.8	8.0	8.3	8.5	9.0
	8H	7.9	8.2	8.4	8.7	9.2	7.9	8.2	8.4	8.7	9.2
	12H	8.1	8.3	8.6	8.8	9.3	8.1	8.3	8.6	8.8	9.3
12H	4H	7.4	7.7	7.9	8.1	8.6	7.4	7.7	7.9	8.1	8.6
	6H	7.8	8.1	8.3	8.5	9.0	7.8	8.1	8.3	8.5	9.0
	8H	8.0	8.3	8.5	8.7	9.2	8.0	8.3	8.5	8.7	9.2
Variation with the observer position at spacings:											
S = 1.0H		4.6/-4.2					4.6/-4.2				
S = 1.5H		6.8/-3.7					6.8/-3.7				
S = 2.0H		8.6/-3.4					8.6/-3.4				
Standard tables:		BK2					BK2				
Uncorrected UGR		-5.0					-5.0				



RHOC	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	0.97	0.97	0.97	0.95	0.95	0.95	0.91	0.91	0.91	0.87	0.87	0.87	0.84	0.84	0.84	0.82
1	0.91	0.89	0.87	0.89	0.88	0.86	0.86	0.85	0.83	0.83	0.82	0.81	0.80	0.79	0.78	0.77
2	0.85	0.82	0.80	0.84	0.81	0.79	0.81	0.79	0.77	0.79	0.77	0.75	0.77	0.75	0.74	0.73
3	0.80	0.77	0.74	0.79	0.76	0.73	0.77	0.74	0.72	0.75	0.73	0.71	0.73	0.71	0.70	0.68
4	0.76	0.72	0.69	0.75	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.70	0.68	0.66	0.65
5	0.72	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.68	0.65	0.63	0.67	0.65	0.62	0.61
6	0.68	0.64	0.61	0.68	0.63	0.60	0.66	0.63	0.60	0.65	0.62	0.60	0.64	0.61	0.59	0.58
7	0.65	0.61	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.62	0.59	0.57	0.62	0.59	0.56	0.55
8	0.62	0.58	0.55	0.61	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.54	0.53
9	0.59	0.55	0.52	0.59	0.55	0.52	0.58	0.54	0.52	0.57	0.54	0.52	0.57	0.54	0.51	0.50
10	0.57	0.52	0.50	0.56	0.52	0.50	0.56	0.52	0.49	0.55	0.52	0.49	0.55	0.51	0.49	0.48



## SOTEN D1040

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	2628.10	2524.34	2177.43	1657.06	1068.44	782.13	468.63	232.11	96.52		
45.0	2628.10	2524.34	2177.43	1657.06	1068.44	782.13	468.63	232.11	96.52		
90.0	2628.10	2524.34	2177.43	1657.06	1068.44	782.13	468.63	232.11	96.52		
135.0	2628.10	2524.34	2177.43	1657.06	1068.44	782.13	468.63	232.11	96.52		
180.0	2628.10	2524.34	2177.43	1657.06	1068.44	782.13	468.63	232.11	96.52		
225.0	2628.10	2524.34	2177.43	1657.06	1068.44	782.13	468.63	232.11	96.52		
270.0	2628.10	2524.34	2177.43	1657.06	1068.44	782.13	468.63	232.11	96.52		
315.0	2628.10	2524.34	2177.43	1657.06	1068.44	782.13	468.63	232.11	96.52		
360.0	2628.10	2524.34	2177.43	1657.06	1068.44	782.13	468.63	232.11	96.52		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	25.20	19.35	15.17	13.04	11.93	10.49	8.49	6.03	3.48		
45.0	25.20	19.35	15.17	13.04	11.93	10.49	8.49	6.03	3.48		
90.0	25.20	19.35	15.17	13.04	11.93	10.49	8.49	6.03	3.48		
135.0	25.20	19.35	15.17	13.04	11.93	10.49	8.49	6.03	3.48		
180.0	25.20	19.35	15.17	13.04	11.93	10.49	8.49	6.03	3.48		
225.0	25.20	19.35	15.17	13.04	11.93	10.49	8.49	6.03	3.48		
270.0	25.20	19.35	15.17	13.04	11.93	10.49	8.49	6.03	3.48		
315.0	25.20	19.35	15.17	13.04	11.93	10.49	8.49	6.03	3.48		
360.0	25.20	19.35	15.17	13.04	11.93	10.49	8.49	6.03	3.48		
C/γ(°)	90.0										
0.0	1.35										
45.0	1.35										
90.0	1.35										
135.0	1.35										
180.0	1.35										
225.0	1.35										
270.0	1.35										
315.0	1.35										
360.0	1.35										