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SAVEENERGYLIFE

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Client:

LumCAT: SE-350.189 120V

Luminaire:

Report No:

Voltage(V): 120.0000

Test No:

Current(A): 0.0600

LampCAT: 2835

Power (W): 5.7080

Lamp flux(lm): 500.0

PF: 0.7880

Number of Lamps: 1

Ballast type:

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 2

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Photometric Results

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Lumens(lm): 582.32

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 102.02

Central intensity(cd): 972.765

Maximum intensity(cd): 984.703

Angle of maximum intensity: C=30.0  $\gamma=0.0$

Beam Angle(50% I<sub>max</sub>): [C0/180]Total=33.9

[C90/270]Total=32.7

Field angle(10% I<sub>max</sub>): [C0/180]Total=82.0

[C90/270]Total=84.8

Maximum s/h(1/2): C0\_180=0.51 C90\_270=0.47

Maximum s/h(1/4): C0\_180=0.59 C90\_270=0.57

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 116.46%

Up flux rate of LUM(%): 0.00%

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 94.792%

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Zonal flux distribution table

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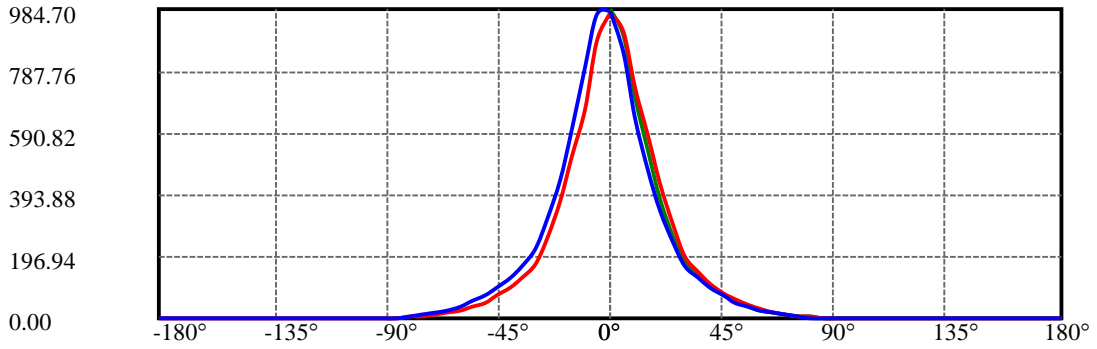
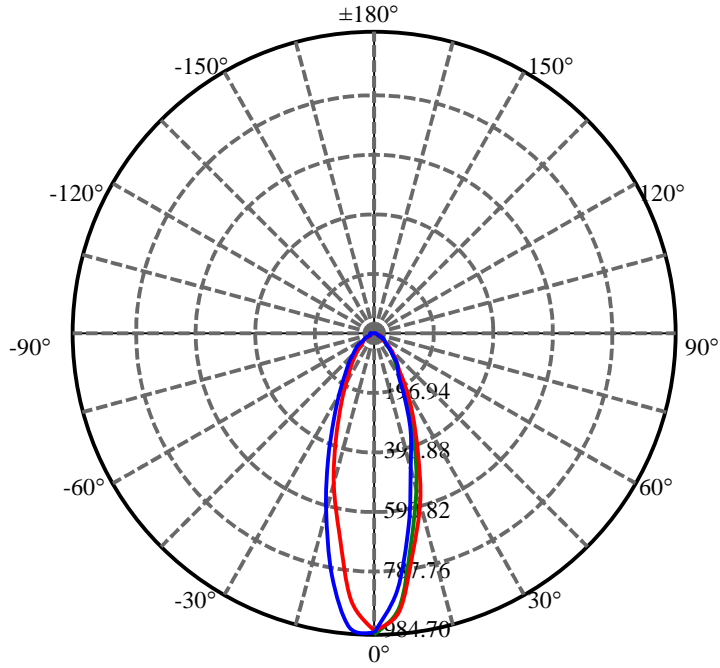
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	974.079	0.000	0	.000%	.000%
5.0	896.832	22.366	22.366	4.473%	3.841%
10.0	713.588	57.610	79.976	11.522%	13.734%
15.0	539.347	74.323	154.299	14.865%	26.497%
20.0	395.026	77.005	231.305	15.401%	39.721%
25.0	271.848	69.943	301.247	13.989%	51.732%
30.0	191.153	58.593	359.841	11.719%	61.794%
35.0	142.018	49.062	408.902	9.812%	70.219%
40.0	107.699	41.663	450.566	8.333%	77.374%
45.0	80.832	34.908	485.474	6.982%	83.369%
50.0	58.677	28.190	513.664	5.638%	88.209%
55.0	41.990	21.888	535.552	4.378%	91.968%
60.0	29.151	16.444	551.996	3.289%	94.792%
65.0	19.546	11.838	563.834	2.368%	96.825%
70.0	12.745	8.176	572.011	1.635%	98.229%
75.0	7.809	5.372	577.383	1.074%	99.152%
80.0	3.979	3.154	580.537	.631%	99.693%
85.0	1.220	1.413	581.95	.283%	99.936%
90.0	0.056	0.349	582.3	.070%	99.996%
95.0	0.000	0.015	582.315	.003%	99.999%
100.0	0.000	0.000	582.315	.000%	99.999%
105.0	0.000	0.000	582.315	.000%	99.999%
110.0	0.000	0.000	582.315	.000%	99.999%
115.0	0.000	0.000	582.315	.000%	99.999%
120.0	0.000	0.000	582.315	.000%	99.999%
125.0	0.000	0.000	582.315	.000%	99.999%
130.0	0.000	0.000	582.315	.000%	99.999%
135.0	0.000	0.000	582.315	.000%	99.999%
140.0	0.000	0.000	582.315	.000%	99.999%
145.0	0.000	0.000	582.315	.000%	99.999%
150.0	0.000	0.000	582.315	.000%	99.999%
155.0	0.000	0.000	582.315	.000%	99.999%
160.0	0.000	0.000	582.315	.000%	99.999%
165.0	0.031	0.003	582.318	.001%	99.999%
170.0	0.031	0.004	582.321	.001%	100.000%
175.0	0.006	0.001	582.323	.000%	100.000%
180.0	0.013	0.000	582.323	.000%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	359.84	71.97%	61.79%
0-40	450.57	90.11%	77.37%
0-60	552.00	110.40%	94.79%
0-90	582.30	116.46%	100.00%
0-120	582.31	116.46%	100.00%
0-180	582.32	116.46%	100.00%
60-90	46.75	9.35%	8.03%
90-120	0.36	0.07%	0.06%
90-130	0.36	0.07%	0.06%
90-150	0.36	0.07%	0.06%
90-180	0.37	0.07%	0.06%
0-42.19	465.86	93.17%	80.00%

ZONAL LUMEN SUMMARY

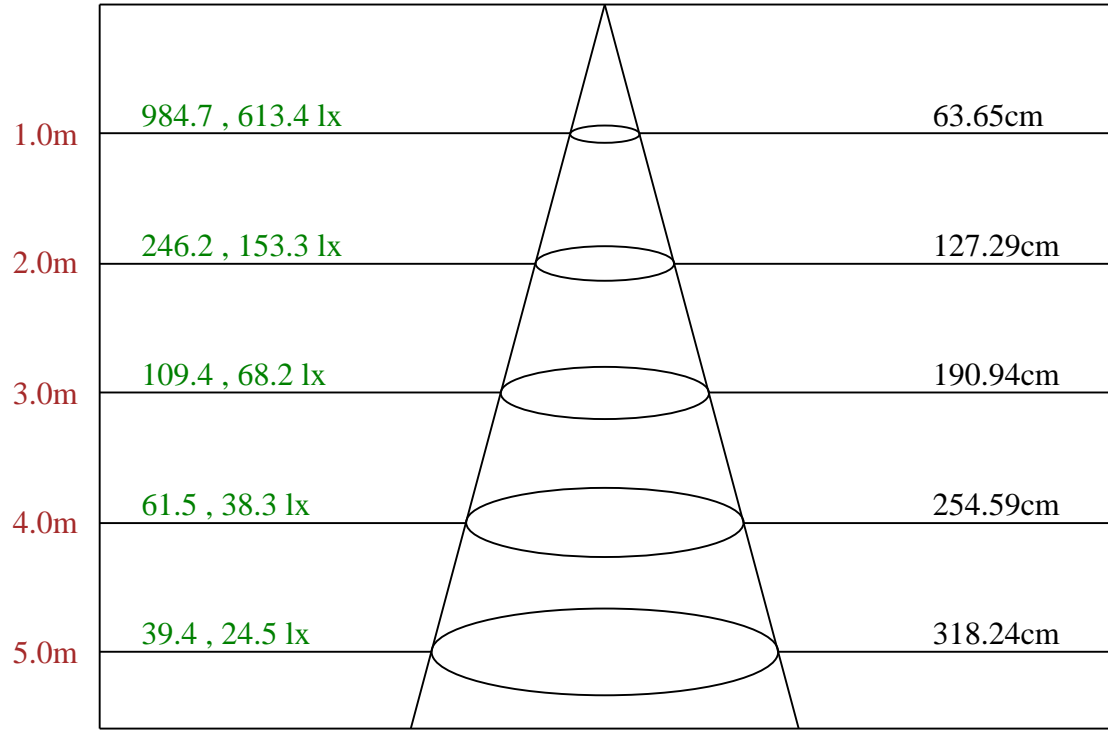
0-10	79.98
10-20	151.33
20-30	128.54
30-40	90.73
40-50	63.10
50-60	38.33
60-70	20.01
70-80	8.53
80-90	1.76
90-100	0.02
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.01
170-180	0.00



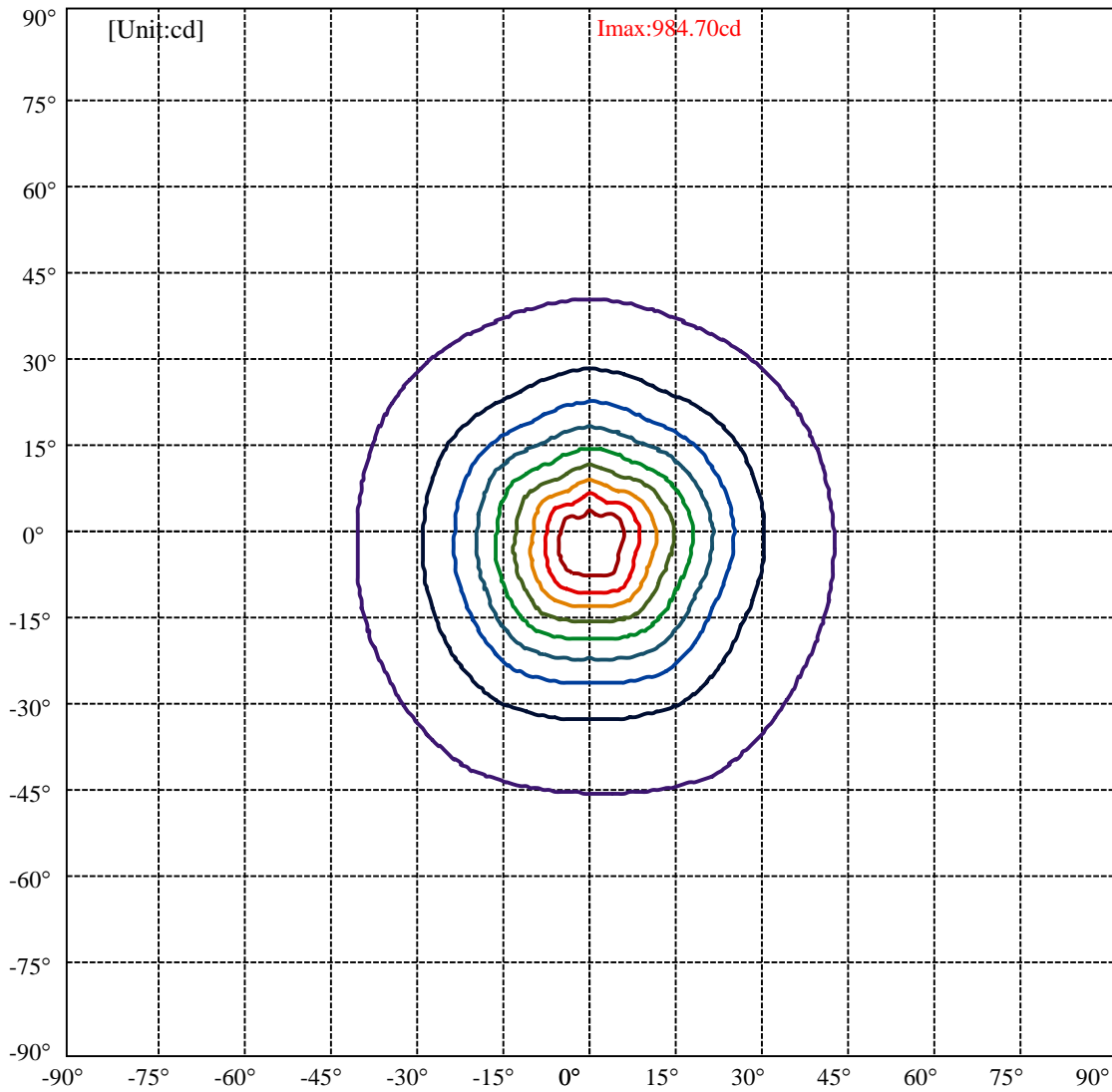
C30(Max): ———  
 C0/C180: ———  
 C90/C270: ———

Field angle(10% I<sub>max</sub>):C0/180Left:39.9 Right:42.1  
 :C90/270Left:44.9 Right:39.9

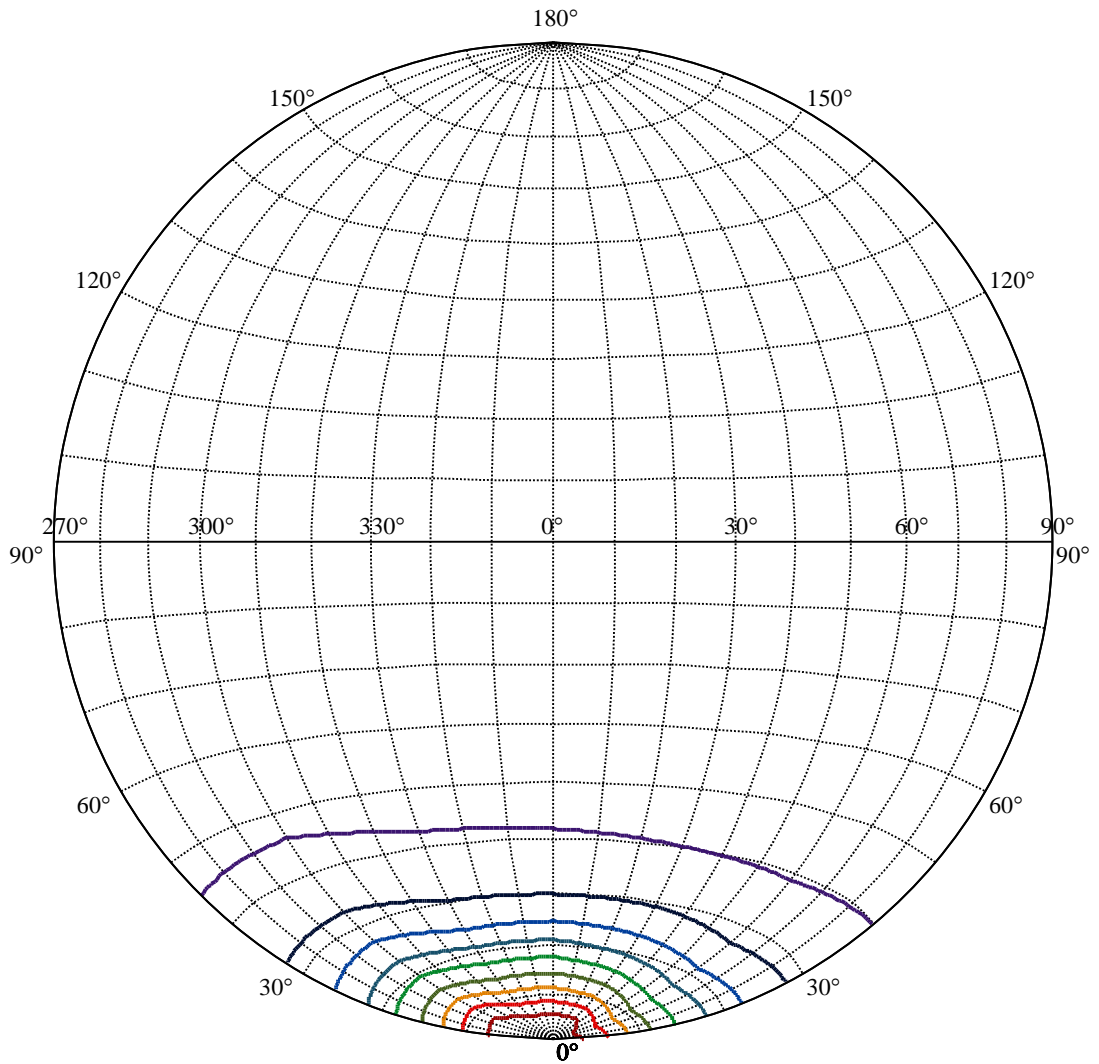
Beam Angle(50% I<sub>max</sub>):C0/180Left:16.0 Right:17.9  
 :C90/270Left:18.4 Right:14.3



Max , Ave      Beam angle of C30 plane 35.31



(10% I <sub>max</sub> ) 98.0123	—
(20% I <sub>max</sub> ) 196.025	—
(30% I <sub>max</sub> ) 294.037	—
(40% I <sub>max</sub> ) 392.049	—
(50% I <sub>max</sub> ) 490.062	—
(60% I <sub>max</sub> ) 588.074	—
(70% I <sub>max</sub> ) 686.086	—
(80% I <sub>max</sub> ) 784.099	—
(90% I <sub>max</sub> ) 882.111	—



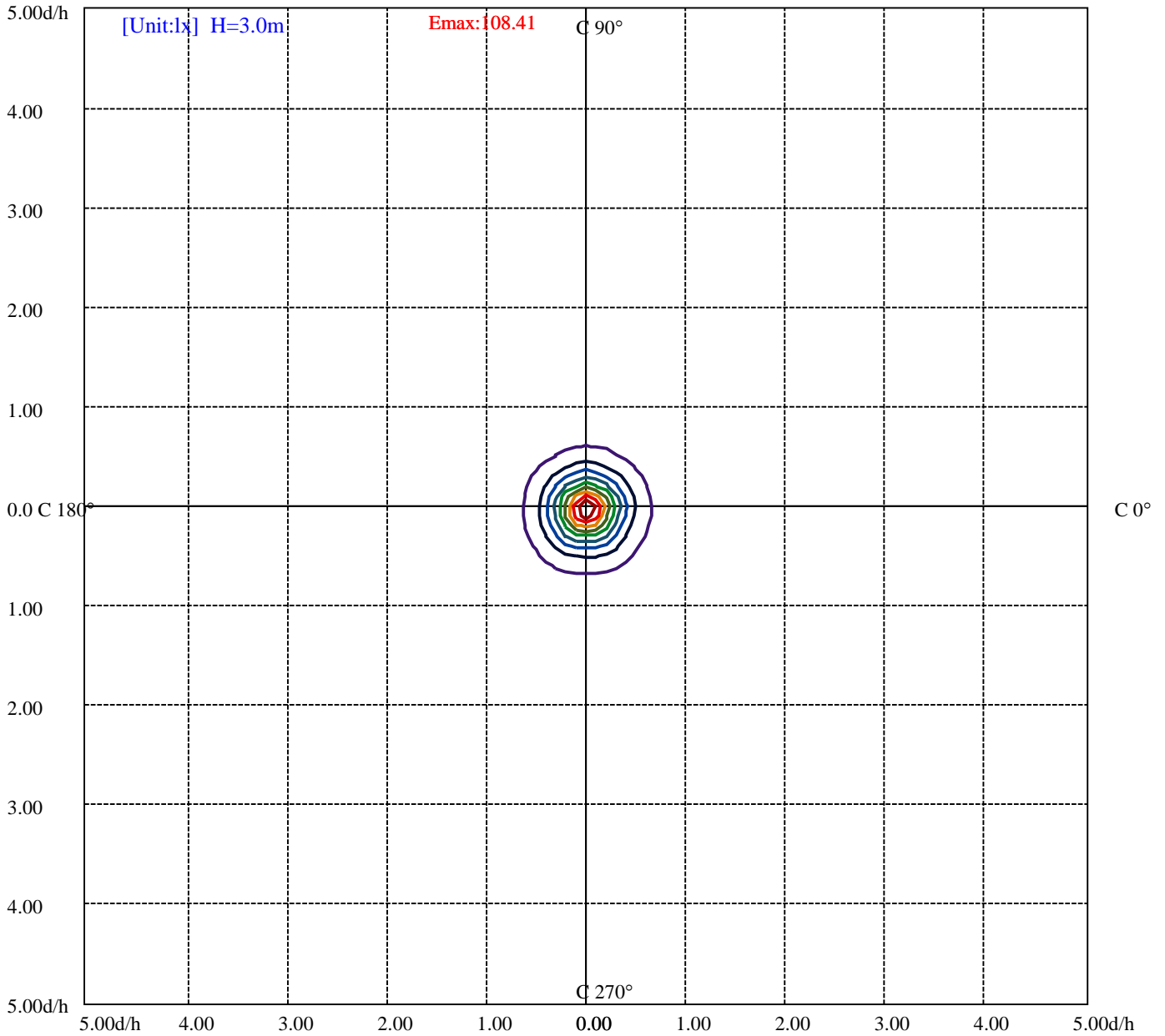
House

[Unit:cd]

Road

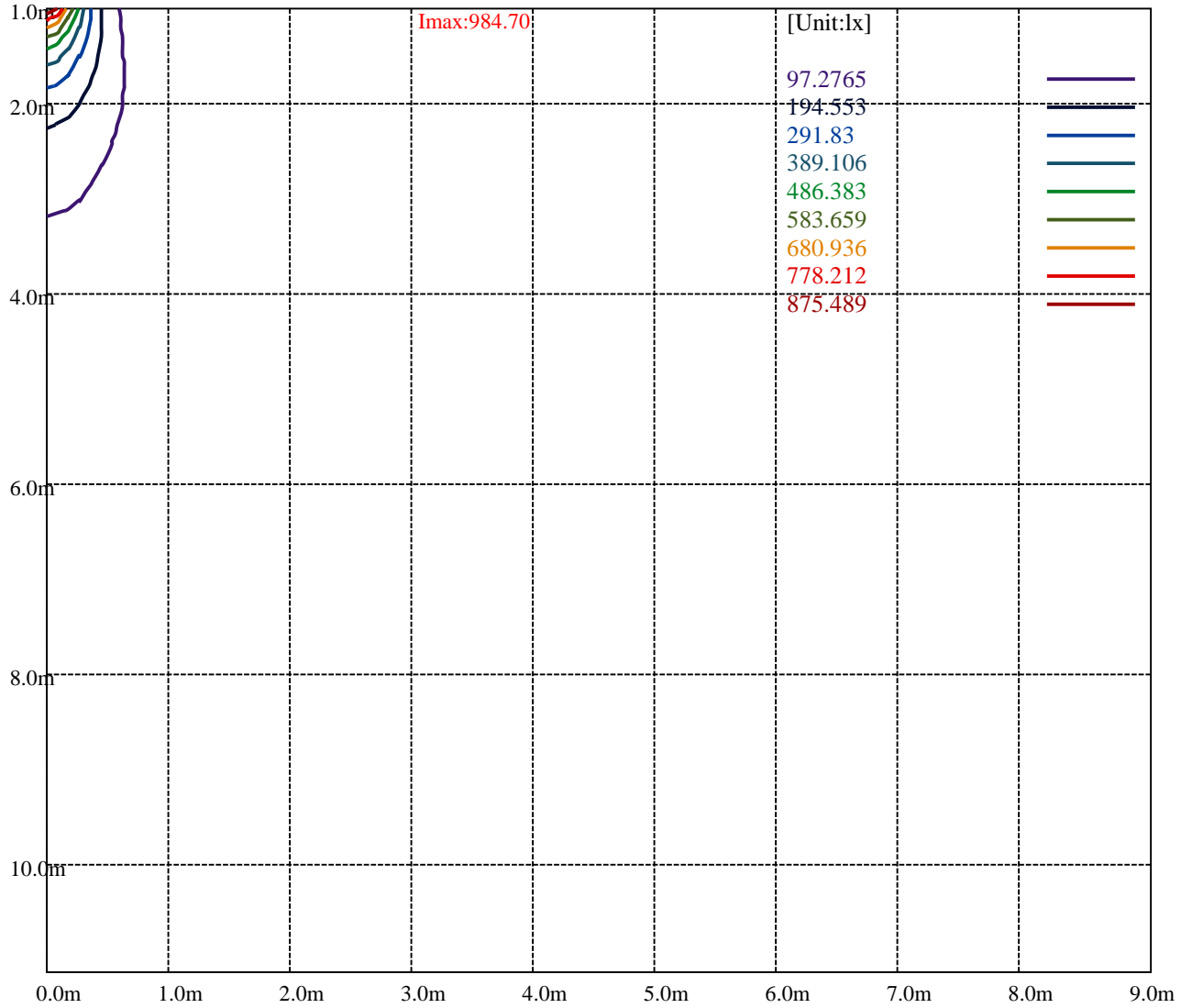
- Imax:984.70
- (10%Imax) 98.4703
- (20%Imax) 196.941
- (30%Imax) 295.411
- (40%Imax) 393.881
- (50%Imax) 492.352
- (60%Imax) 590.822
- (70%Imax) 689.292
- (80%Imax) 787.763
- (90%Imax) 886.233





- (10%Emax) 10.84056
- (20%Emax) 21.68111
- (30%Emax) 32.52167
- (40%Emax) 43.36222
- (50%Emax) 54.20278
- (60%Emax) 65.04333
- (70%Emax) 75.88389
- (80%Emax) 86.72445
- (90%Emax) 97.565





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Luminance Limiting Curve(no luminous side)

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Luminance Table

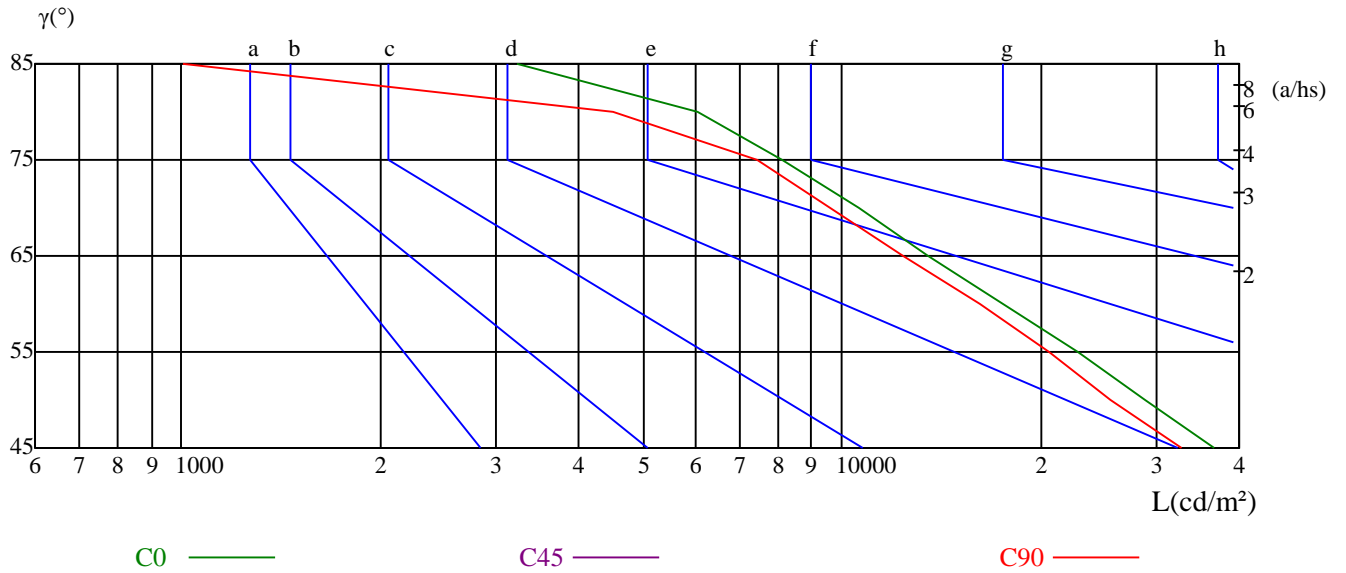
$\gamma$	45	50	55	60	65	70	75	80	85
C0	36681	28794	22831	17606	13512	10623	8106	6043	3219
C45	0	0	0	0	0	0	0	0	0
C90	32786	25574	20651	16205	12422	9633	7431	4503	1006

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
13860	16533	0	9110	10549	0	3845	4841	0

Glare Table

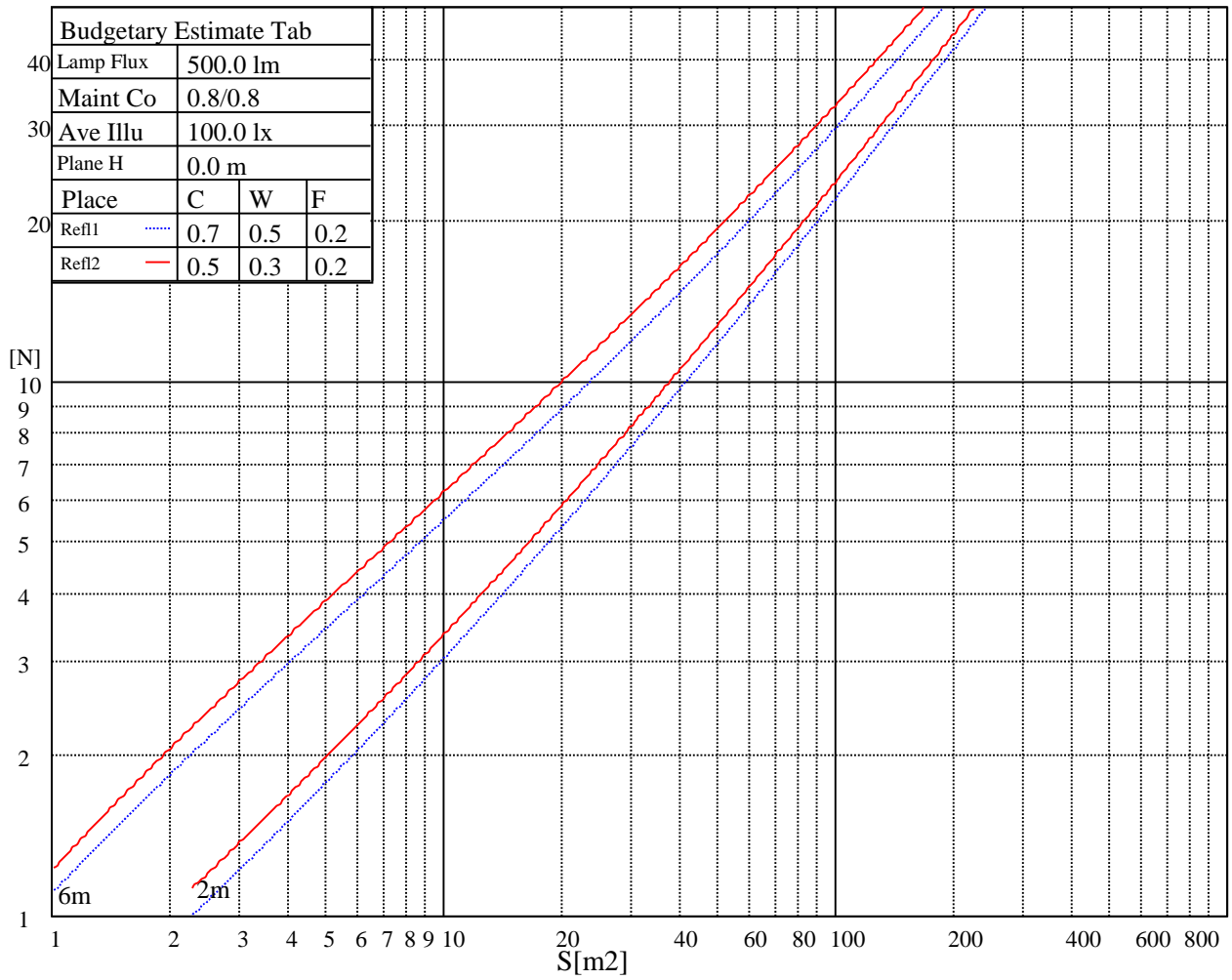
Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve



Illumination 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	21.04	22.24	21.40	22.56	22.87	20.35	21.56	20.71	21.87	22.18
	3H	21.49	22.57	21.88	22.90	23.25	20.80	21.87	21.19	22.21	22.56
	4H	21.61	22.61	22.01	22.96	23.33	20.91	21.91	21.31	22.26	22.63
	6H	21.68	22.59	22.09	22.96	23.36	20.95	21.87	21.37	22.24	22.64
	8H	21.65	22.52	22.07	22.91	23.31	20.91	21.78	21.32	22.16	22.57
4H	12H	21.60	22.44	22.03	22.83	23.24	20.85	21.68	21.27	22.07	22.49
	2H	21.13	22.12	21.53	22.48	22.84	20.52	21.51	20.91	21.86	22.23
	3H	21.67	22.50	22.10	22.90	23.31	21.04	21.87	21.46	22.26	22.68
	4H	21.89	22.62	22.33	23.04	23.48	21.24	21.96	21.67	22.38	22.82
	6H	21.97	22.60	22.44	23.05	23.50	21.26	21.90	21.73	22.35	22.80
8H	8H	21.98	22.57	22.46	23.02	23.49	21.24	21.84	21.73	22.29	22.76
	12H	21.96	22.51	22.45	22.96	23.47	21.21	21.76	21.69	22.20	22.72
	4H	21.83	22.42	22.31	22.88	23.35	21.20	21.79	21.68	22.24	22.71
	6H	21.93	22.42	22.44	22.90	23.41	21.24	21.72	21.74	22.20	22.71
	8H	22.01	22.43	22.54	22.95	23.44	21.27	21.69	21.80	22.21	22.70
12H	12H	22.00	22.34	22.54	22.86	23.37	21.23	21.57	21.77	22.09	22.60
	4H	21.79	22.34	22.28	22.79	23.30	21.17	21.71	21.65	22.16	22.68
	6H	21.94	22.36	22.47	22.88	23.37	21.25	21.67	21.78	22.19	22.68
	8H	21.98	22.32	22.52	22.83	23.35	21.25	21.58	21.78	22.10	22.62
Variation with the observer position at spacings:											
S = 1.0H		0.6/-1.2					0.7/-1.1				
S = 1.5H		1.5/-2.1					1.7/-2.1				
S = 2.0H		4.0/-2.9					4.1/-2.7				
Standard tables:		BK2					BK2				
Uncorrected UGR		3.3					4.0				

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25

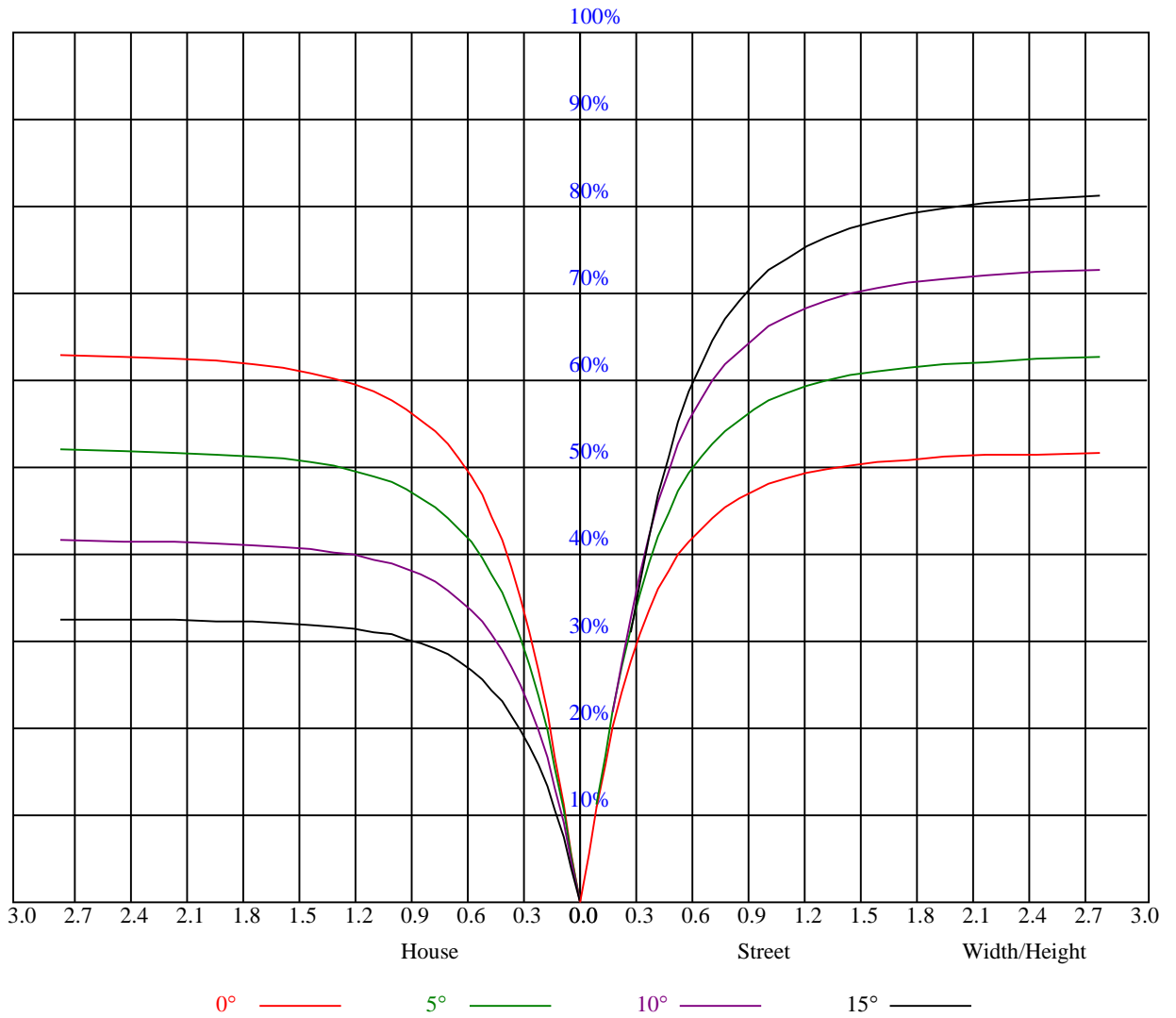


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Utilization factor table for indoor luminaire

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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	1.39	1.39	1.39	1.35	1.35	1.35	1.29	1.29	1.29	1.24	1.24	1.24	1.19	1.19	1.19	1.16
1	1.27	1.24	1.21	1.25	1.22	1.19	1.20	1.18	1.16	1.16	1.14	1.12	1.12	1.10	1.09	1.07
2	1.17	1.12	1.07	1.15	1.10	1.06	1.11	1.07	1.04	1.08	1.04	1.01	1.04	1.02	0.99	0.97
3	1.08	1.01	0.96	1.06	1.00	0.95	1.03	0.98	0.94	1.00	0.96	0.92	0.98	0.94	0.91	0.89
4	1.00	0.93	0.87	0.99	0.92	0.87	0.96	0.90	0.86	0.94	0.89	0.85	0.91	0.87	0.84	0.82
5	0.93	0.86	0.80	0.92	0.85	0.80	0.90	0.84	0.79	0.88	0.83	0.78	0.86	0.81	0.78	0.76
6	0.87	0.80	0.74	0.86	0.79	0.74	0.84	0.78	0.73	0.83	0.77	0.73	0.81	0.76	0.72	0.70
7	0.82	0.74	0.69	0.81	0.74	0.69	0.79	0.73	0.68	0.78	0.72	0.68	0.77	0.72	0.68	0.66
8	0.77	0.70	0.65	0.76	0.69	0.64	0.75	0.69	0.64	0.74	0.68	0.64	0.73	0.67	0.64	0.62
9	0.73	0.66	0.61	0.72	0.65	0.61	0.71	0.65	0.60	0.70	0.64	0.60	0.69	0.64	0.60	0.58
10	0.69	0.62	0.57	0.69	0.62	0.57	0.68	0.61	0.57	0.67	0.61	0.57	0.66	0.60	0.57	0.55



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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	972.77	910.90	735.58	573.70	425.27	290.72	196.04	145.58	109.02
30.0	984.70	900.99	703.82	525.28	380.22	259.86	184.10	135.00	99.48
60.0	966.61	811.86	614.70	453.95	323.98	220.07	159.25	121.18	91.83
90.0	980.12	844.45	634.14	464.83	342.45	238.69	165.71	125.76	97.46
120.0	970.66	801.43	600.58	441.86	318.27	213.61	155.27	119.83	92.13
150.0	969.61	884.09	669.88	510.48	366.78	241.46	171.86	127.87	96.41
180.0	972.77	878.09	668.16	515.74	371.58	249.72	173.82	129.22	96.78
210.0	984.70	925.39	732.73	561.99	404.32	280.13	197.92	146.26	108.27
240.0	966.61	963.61	818.40	624.76	469.79	332.46	231.70	169.54	129.22
270.0	980.12	964.13	802.25	598.11	440.21	310.84	222.47	164.28	125.76
300.0	970.66	963.91	839.57	630.77	473.62	340.80	236.43	171.19	132.07
330.0	969.61	913.15	743.24	570.70	423.84	283.81	199.27	148.51	113.97
360.0	972.77	910.90	735.58	573.70	425.27	290.72	196.04	145.58	109.02

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	81.31	58.41	41.67	28.31	18.62	12.09	7.21	3.83	1.20
30.0	73.88	52.63	36.79	26.35	17.34	11.19	6.83	3.45	0.83
60.0	66.90	47.98	33.34	22.52	15.09	9.99	5.56	2.33	0.23
90.0	72.68	51.88	37.69	26.05	17.12	10.96	6.61	2.85	0.38
120.0	69.08	48.73	34.39	23.28	15.84	9.99	5.86	2.33	0.15
150.0	72.53	51.96	37.54	25.68	17.42	11.79	7.36	3.45	0.75
180.0	70.88	50.08	35.59	24.70	16.82	11.26	7.06	3.38	0.83
210.0	77.64	57.36	40.84	29.06	19.37	12.69	7.96	4.20	1.35
240.0	97.53	71.10	51.43	35.89	24.10	15.99	10.59	6.08	2.63
270.0	97.61	71.78	52.48	36.72	25.15	16.44	9.91	5.41	2.18
300.0	103.61	77.56	57.06	40.17	27.25	17.49	10.81	6.16	2.70
330.0	86.34	64.65	45.05	31.08	20.42	13.06	7.96	4.28	1.43
360.0	81.31	58.41	41.67	28.31	18.62	12.09	7.21	3.83	1.20

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
210.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
240.0	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.0	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
330.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00
30.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
210.0	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.08
240.0	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00
300.0	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.00	0.00
330.0	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.00

Intensity data(cd)

C/γ(°)	180.0
0.0	0.00
30.0	0.00
60.0	0.00
90.0	0.00
120.0	0.00
150.0	0.08
180.0	0.00
210.0	0.00
240.0	0.00
270.0	0.00
300.0	0.00
330.0	0.08
360.0	0.00