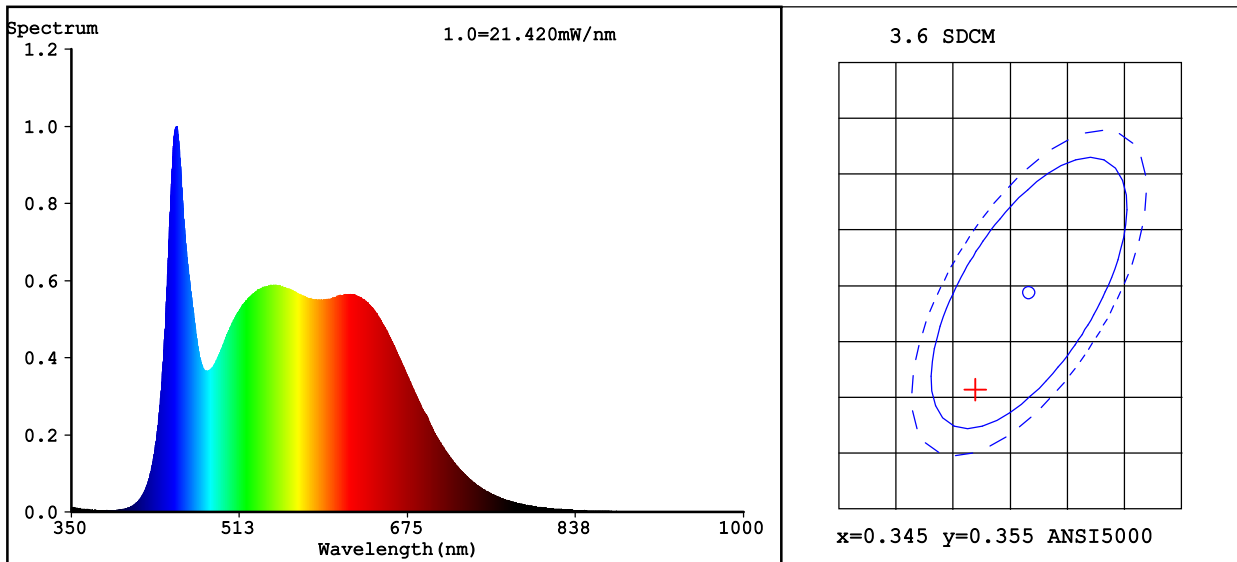


Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3400$ $y=0.3466$ $u'=0.2099$ $v'=0.4814$
 CCT=5186K (Duv=-0.0005) Dominant WL:Ld =570.1nm Purity=6.0%
 Ratio:R=17.4% G=77.1% B=5.5% Peak WL:Lp=451.5nm FWHM=27.7nm
 Render Index:Ra=95.8
 R1 =97 R2 =97 R3 =94 R4 =97 R5 =96 R6 =93 R7 =97
 R8 =95 R9 =87 R10=91 R11=96 R12=76 R13=97 R14=96 R15=98

Photo Parameters:

Flux = 860.9 lm Eff. : 99.16 lm/W Fe = 3.137 W

Electrical parameters:

V = 119.99 V I = 0.09643 A P = 8.682 W PF = 0.7507

Status: Integral T = 987 ms Ip = 49307 (75%)

Model:A19-9-E26-950-F-C	Number:1
Tester:XCJ	Date:2018-09-29
Temperature:25.0Deg	Humidity:65.0%
Manufacturer:RAB Lighting Inc.	Remarks:

RAB Lighting Inc

Client:

LumCAT: A19-9-E26-950-F-C

Luminaire:

Report No:

Voltage(V): 120.1100

Test No: 258515-01-001

Current(A): 0.0901

LampCAT:

Power (W): 8.4420

Lamp flux(lm)

PF: 0.7806

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 881.20

Lumens(lm)/Power(W): 104.73

Central intensity(cd): 58.321

Maximum intensity(cd): 102.521

Angle of maximum intensity: C=0.0 γ =70.0

Beam Angle(50%Imax): [C0/180]Total=272.2

[C90/270]Total=278.9

Field angle(10%Imax): [C0/180]Total=312.0

[C90/270]Total=315.1

Maximum s/h(1/2): C0_180=2.03 C90_270=1.80

Maximum s/h(1/4): C0_180=2.16 C90_270=1.99

Up flux rate of LUM(%): 39.77%

Down flux rate of LUM(%): 57.49%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 28.486%

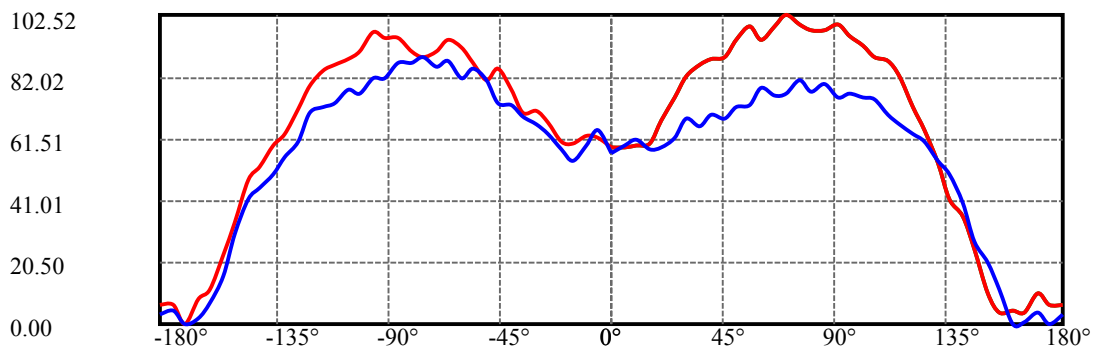
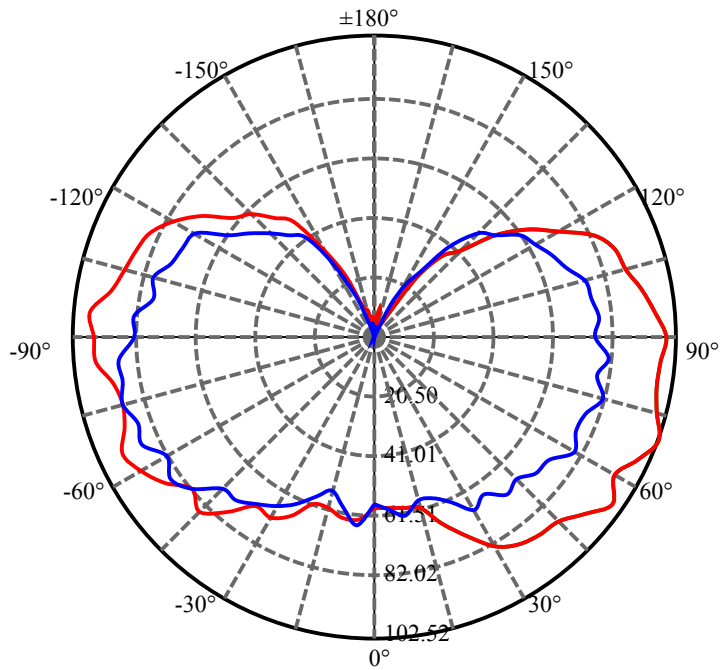
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	57.592	0.344	0.344	.039%	.039%
5.0	58.723	2.805	3.15	.318%	.357%
10.0	58.340	5.553	8.703	.630%	.988%
15.0	57.822	8.203	16.906	.931%	1.919%
20.0	58.570	10.980	27.886	1.246%	3.165%
25.0	61.812	14.319	42.205	1.625%	4.790%
30.0	66.455	18.213	60.418	2.067%	6.856%
35.0	69.793	21.943	82.361	2.490%	9.347%
40.0	74.320	26.186	108.547	2.972%	12.318%
45.0	76.507	29.654	138.2	3.365%	15.683%
50.0	81.860	34.373	172.573	3.901%	19.584%
55.0	82.550	37.066	209.639	4.206%	23.790%
60.0	86.886	41.245	250.884	4.681%	28.471%
65.0	87.538	43.487	294.371	4.935%	33.406%
70.0	87.673	45.159	339.53	5.125%	38.531%
75.0	88.555	46.886	386.416	5.321%	43.851%
80.0	88.383	47.710	434.126	5.414%	49.265%
85.0	88.517	48.335	482.461	5.485%	54.751%
90.0	87.538	47.983	530.444	5.445%	60.196%
95.0	85.313	46.585	577.029	5.287%	65.482%
100.0	82.646	44.613	621.643	5.063%	70.545%
105.0	80.958	42.864	664.507	4.864%	75.410%
110.0	77.735	40.040	704.547	4.544%	79.953%
115.0	74.685	37.102	741.649	4.210%	84.164%
120.0	69.908	33.185	774.834	3.766%	87.930%
125.0	62.426	28.030	802.864	3.181%	91.111%
130.0	57.764	24.255	827.119	2.753%	93.863%
135.0	49.918	19.348	846.467	2.196%	96.059%
140.0	42.321	14.911	861.378	1.692%	97.751%
145.0	30.829	9.693	871.07	1.100%	98.851%
150.0	19.817	5.431	876.502	.616%	99.467%
155.0	10.686	2.475	878.977	.281%	99.748%
160.0	5.794	1.086	880.063	.123%	99.871%
165.0	4.508	0.640	880.703	.073%	99.944%
170.0	3.108	0.296	880.999	.034%	99.977%
175.0	3.760	0.180	881.178	.020%	99.998%
180.0	3.146	0.019	881.197	.002%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	60.42	6.86%
0-40	108.55	12.32%
0-60	250.88	28.47%
0-90	530.44	60.20%
0-120	774.83	87.93%
0-180	881.20	100.00%
60-90	320.80	36.41%
90-120	292.37	33.18%
90-130	344.66	39.11%
90-150	394.04	44.72%
90-180	398.72	45.25%
0-110.06	704.96	80.00%

ZONAL LUMEN SUMMARY

0-10	8.70
10-20	19.18
20-30	32.53
30-40	48.13
40-50	64.03
50-60	78.31
60-70	88.65
70-80	94.60
80-90	96.32
90-100	91.20
100-110	82.90
110-120	70.29
120-130	52.28
130-140	34.26
140-150	15.12
150-160	3.56
160-170	0.94
170-180	0.18



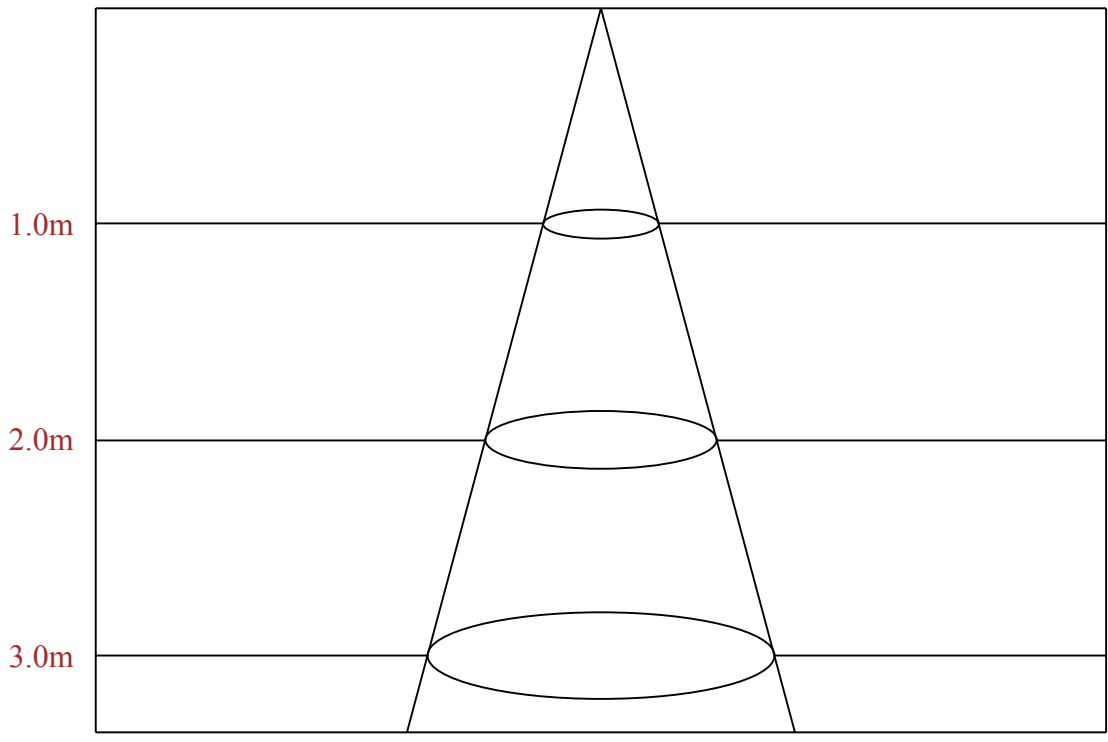
C0(Max): —————

C0/C180: —————

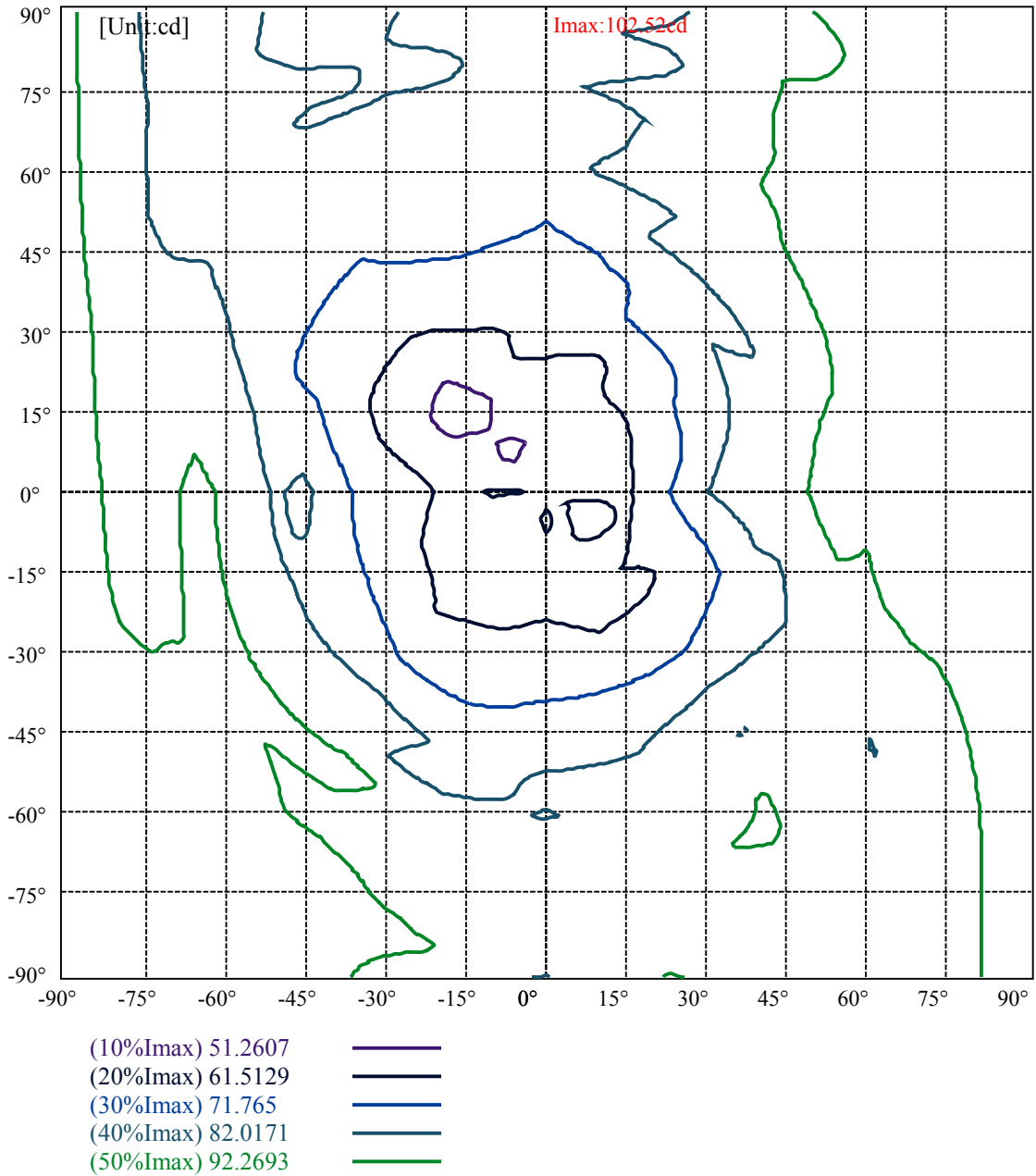
C90/C270: —————

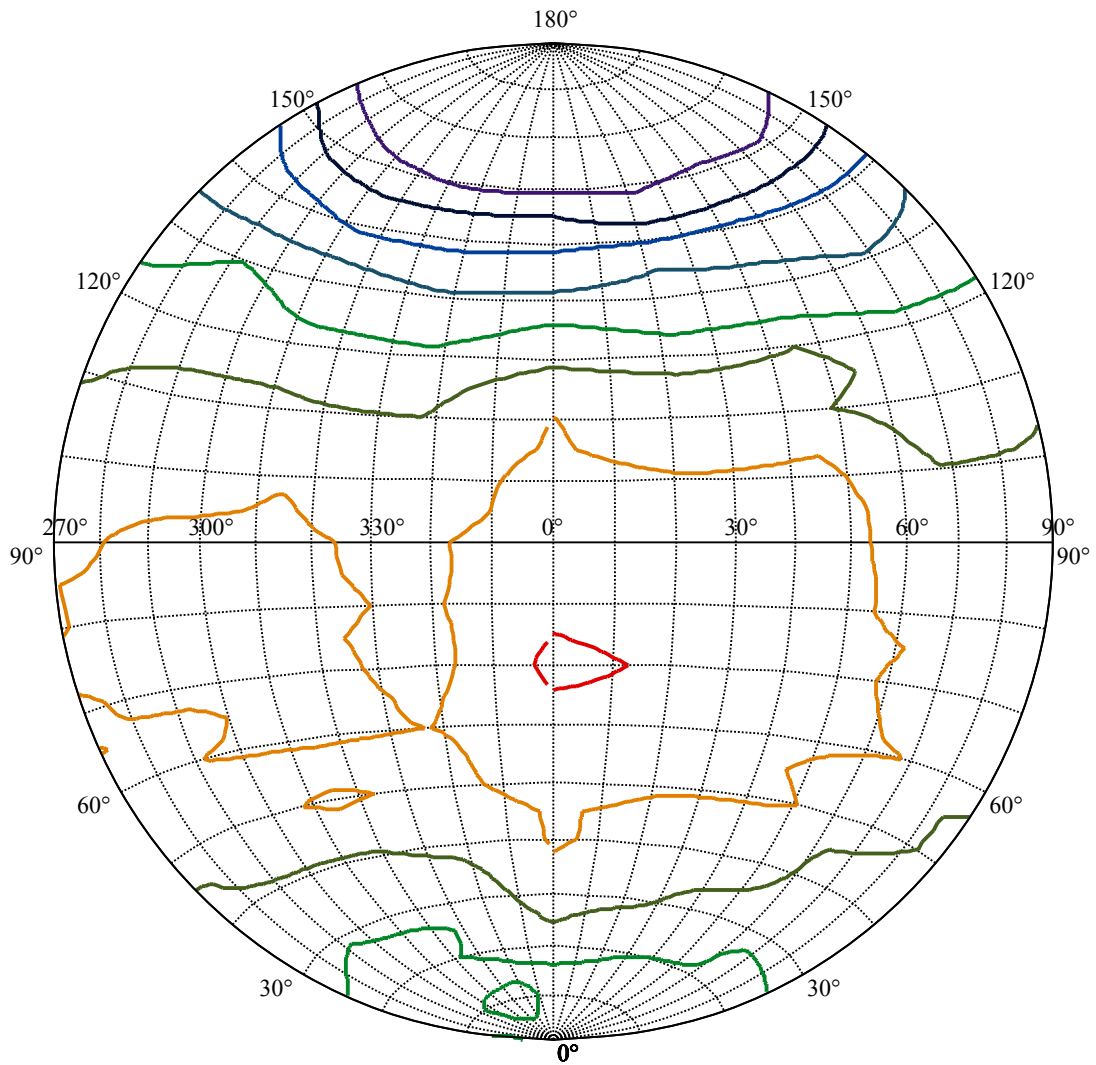
Field angle(10%Imax):C0/180Left:232.0 Right:80.0
:C90/270Left:83.9 Right:231.2

Beam Angle(50%Imax):C0/180Left:211.3 Right:60.9
:C90/270Left:66.3 Right:212.7



Max , Ave Beam angle of C0 plane 293.43





House

[Unit:cd]

Road

I_{max}:102.52

(10%I_{max}) 12.4254

(20%I_{max}) 24.8507

(30%I_{max}) 37.2761

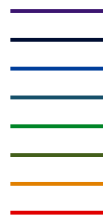
(40%I_{max}) 49.7014

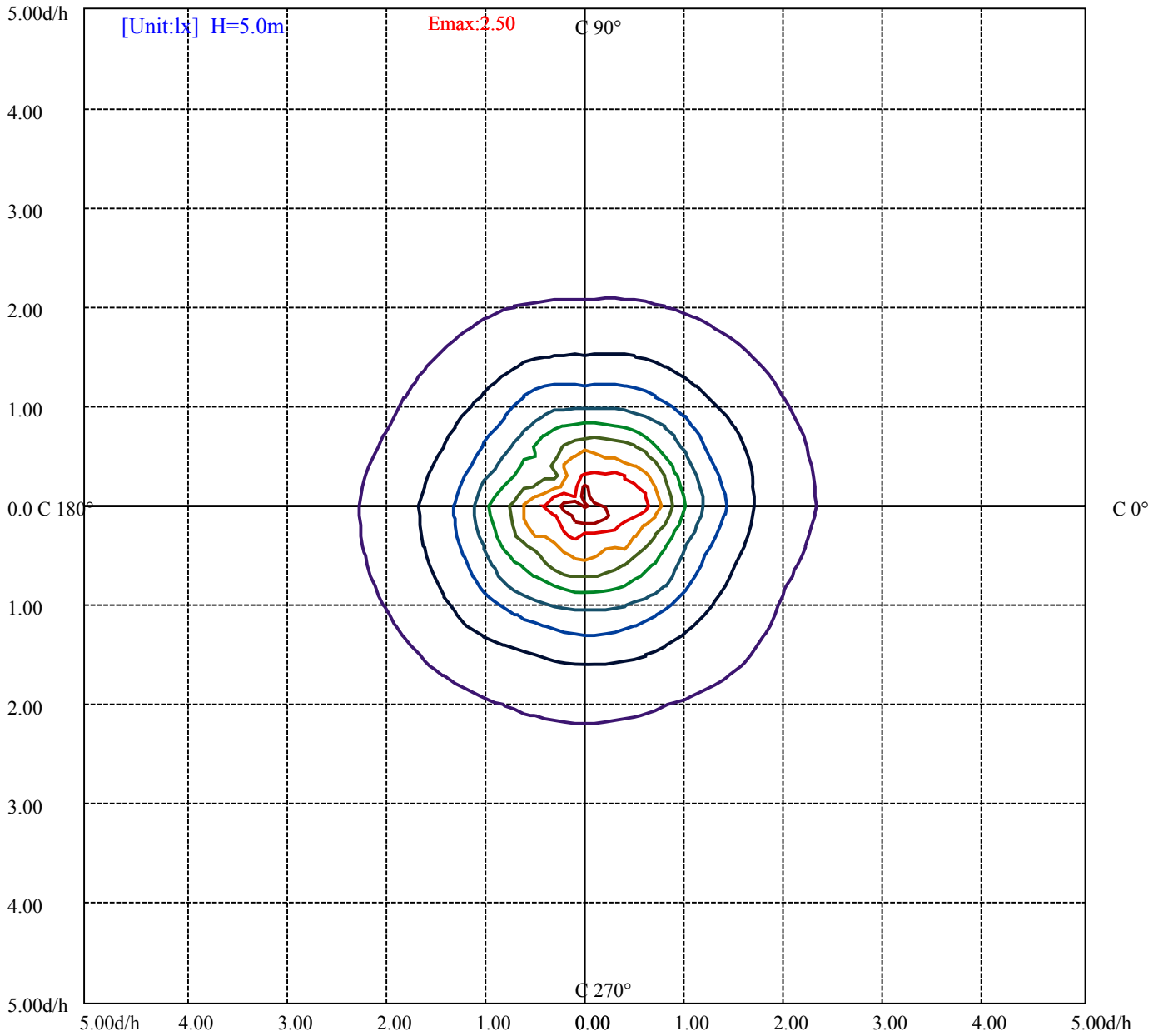
(50%I_{max}) 62.1268

(60%I_{max}) 74.5521

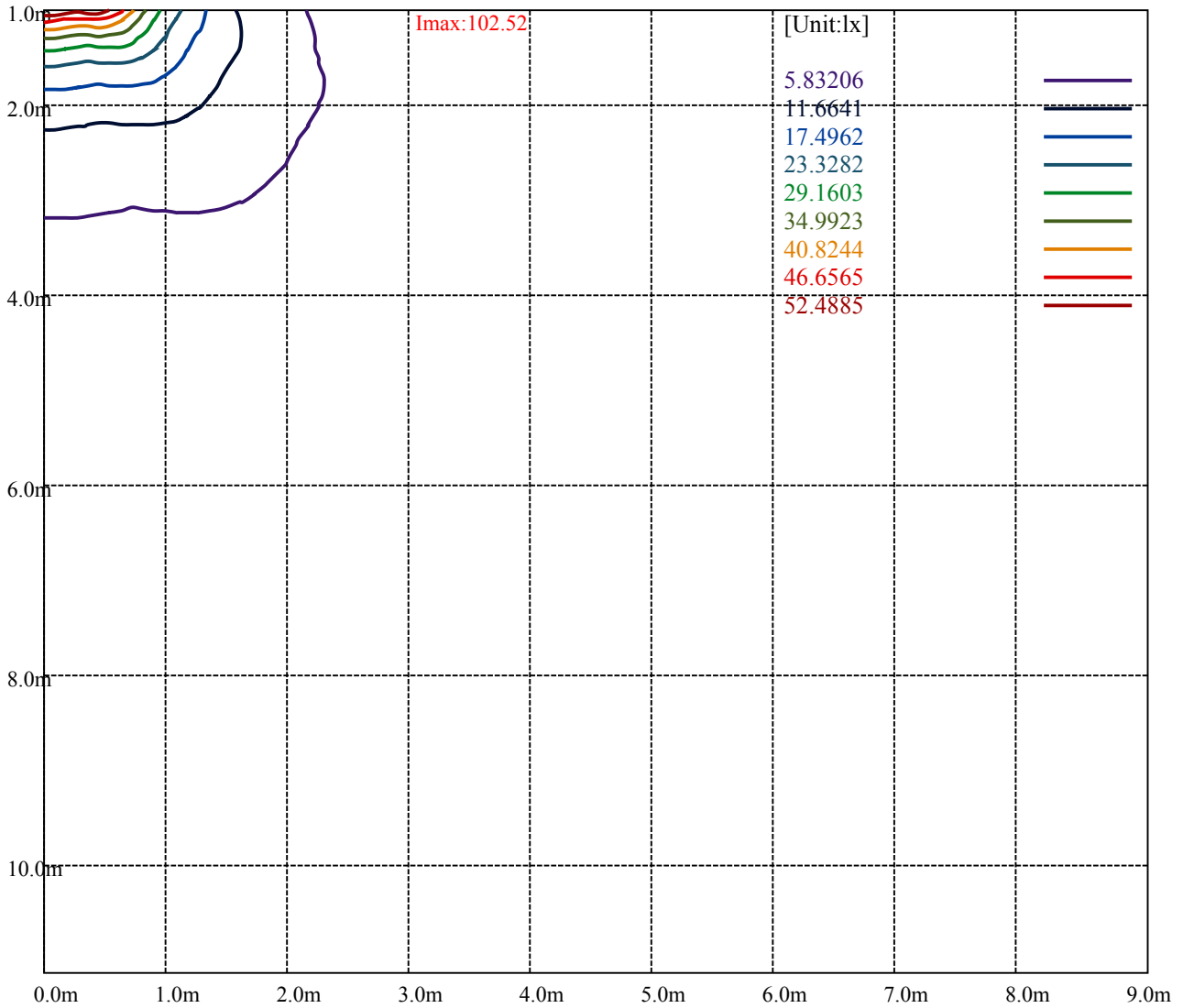
(70%I_{max}) 86.9775

(80%I_{max}) 99.4028





- (10%Emax) 0.250056
- (20%Emax) 0.500112
- (30%Emax) 0.750168
- (40%Emax) 1.000224
- (50%Emax) 1.25028
- (60%Emax) 1.500336
- (70%Emax) 1.750392
- (80%Emax) 2.000448
- (90%Emax) 2.250504



Luminance Table

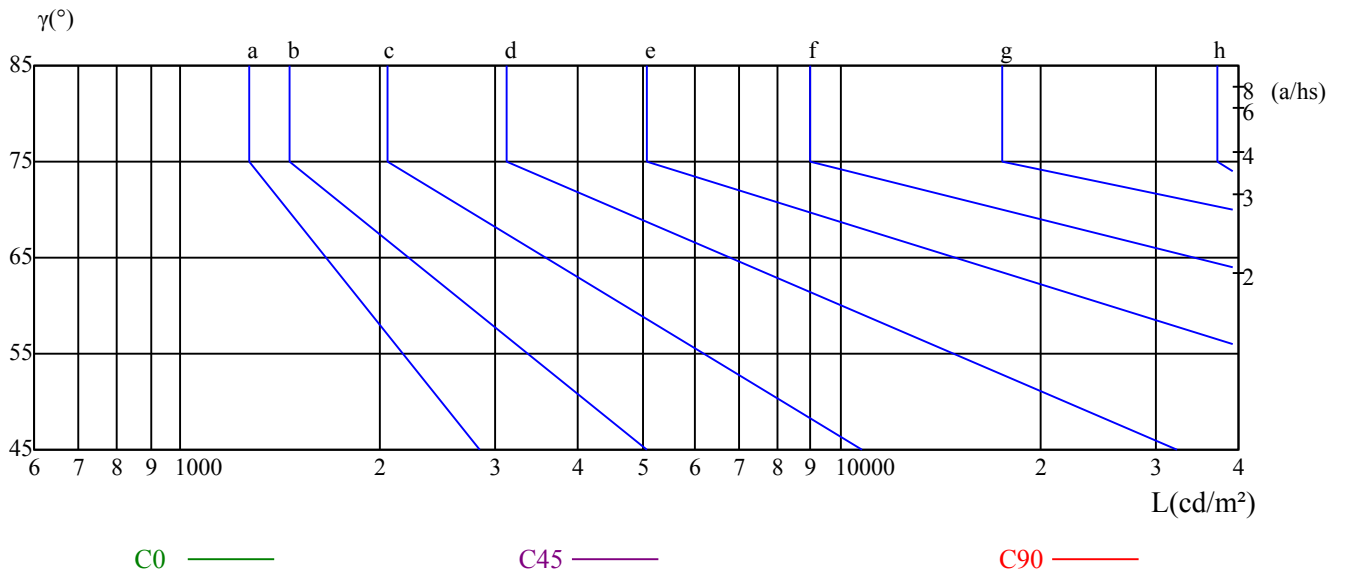
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

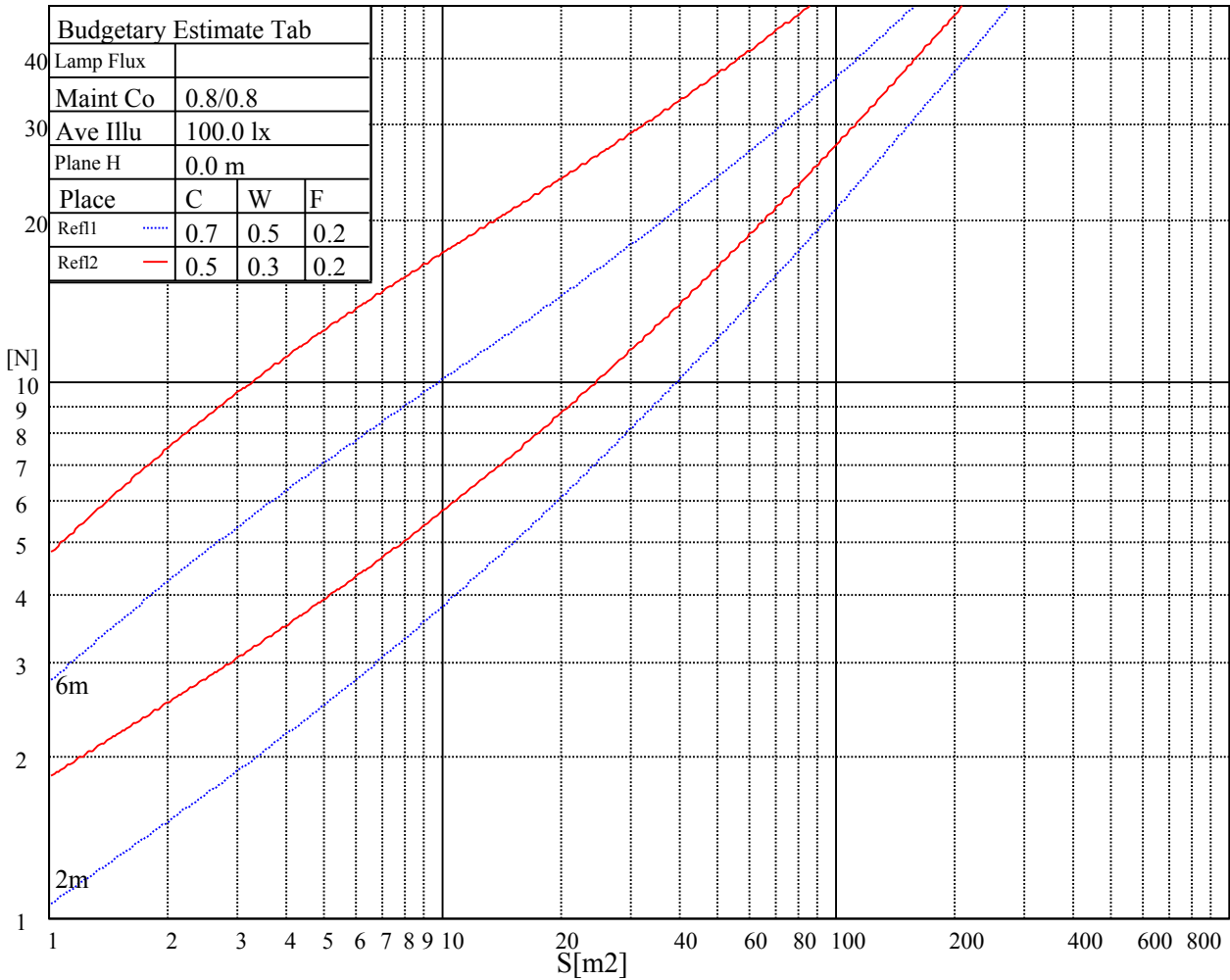
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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





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 RHOF=20 CU															
0	1.09	1.09	1.09	1.01	1.01	1.01	0.87	0.87	0.87	0.75	0.75	0.75	0.63	0.63	0.63	0.57
1	0.89	0.83	0.78	0.82	0.77	0.73	0.70	0.66	0.63	0.59	0.56	0.53	0.49	0.47	0.45	0.39
2	0.75	0.67	0.60	0.69	0.62	0.56	0.59	0.53	0.48	0.49	0.44	0.41	0.40	0.37	0.34	0.29
3	0.64	0.55	0.47	0.59	0.51	0.44	0.50	0.43	0.38	0.42	0.36	0.32	0.34	0.30	0.26	0.22
4	0.56	0.46	0.39	0.51	0.43	0.36	0.43	0.37	0.31	0.36	0.31	0.26	0.29	0.25	0.21	0.18
5	0.49	0.39	0.32	0.45	0.37	0.30	0.38	0.31	0.26	0.32	0.26	0.22	0.26	0.21	0.18	0.14
6	0.43	0.34	0.27	0.40	0.32	0.26	0.34	0.27	0.22	0.28	0.23	0.19	0.23	0.19	0.15	0.12
7	0.39	0.30	0.24	0.36	0.28	0.22	0.31	0.24	0.19	0.26	0.20	0.16	0.21	0.16	0.13	0.10
8	0.35	0.26	0.20	0.33	0.25	0.19	0.28	0.21	0.17	0.23	0.18	0.14	0.19	0.15	0.11	0.09
9	0.32	0.24	0.18	0.30	0.22	0.17	0.25	0.19	0.15	0.21	0.16	0.12	0.17	0.13	0.10	0.08
10	0.29	0.21	0.16	0.27	0.20	0.15	0.23	0.17	0.13	0.20	0.15	0.11	0.16	0.12	0.09	0.07

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	58.32	58.63	58.93	60.16	67.22	75.20	81.96	85.95	87.79
22.5	61.39	58.32	55.25	60.16	63.23	66.92	77.97	80.11	84.41
45.0	55.25	53.72	56.48	57.40	61.39	70.29	66.92	75.51	81.03
67.5	56.17	59.24	58.63	59.55	60.78	58.93	65.99	70.91	70.91
90.0	56.79	58.93	61.39	57.71	58.32	61.70	68.14	65.38	69.68
112.5	58.32	54.64	51.26	54.33	56.17	61.39	57.71	66.61	68.45
135.0	54.64	54.64	49.11	52.49	44.20	48.19	54.33	56.79	67.22
157.5	59.86	56.79	54.64	59.55	54.02	53.10	55.56	61.08	63.85
180.0	58.32	62.00	62.31	59.86	60.47	66.92	70.91	70.29	77.66
202.5	61.39	58.32	58.93	56.48	57.09	61.39	71.83	69.06	79.50
225.0	55.25	59.86	58.93	57.40	58.01	58.93	61.39	65.99	71.52
247.5	56.17	58.32	58.63	60.47	59.55	59.55	64.77	69.98	70.29
270.0	56.79	64.15	59.24	54.33	57.71	62.92	65.99	69.06	72.75
292.5	58.32	58.93	59.86	56.17	54.02	59.86	62.92	69.06	73.36
315.0	54.64	61.08	64.15	58.63	61.70	58.32	69.37	69.37	73.05
337.5	59.86	62.00	65.69	60.47	63.23	65.38	67.53	71.52	77.66
360.0	58.32	58.63	58.93	60.16	67.22	75.20	81.96	85.95	87.79
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	88.40	93.93	98.53	94.23	98.84	102.52	99.45	97.30	97.61
22.5	83.18	88.40	87.79	97.92	97.00	97.00	95.15	93.62	95.15
45.0	77.97	89.02	87.17	89.32	92.39	92.09	92.70	92.39	89.63
67.5	73.98	81.34	79.50	87.17	84.41	82.88	85.03	80.11	83.49
90.0	68.14	71.83	72.75	78.58	75.51	76.43	80.73	76.74	79.81
112.5	70.60	79.81	80.42	78.27	81.65	79.81	81.34	84.41	80.11
135.0	64.46	69.68	73.36	77.04	79.81	79.19	82.88	80.11	85.95
157.5	68.45	70.29	75.82	77.04	79.19	80.73	78.58	75.82	76.12
180.0	84.41	80.73	86.56	91.47	94.54	90.24	88.40	90.24	94.85
202.5	78.27	83.18	83.80	92.39	92.70	94.23	98.22	100.37	94.54
225.0	79.50	86.25	85.33	96.08	91.16	91.16	97.00	97.30	95.46
247.5	76.12	80.73	76.12	86.25	84.10	85.03	85.64	90.86	93.01
270.0	73.36	80.73	84.41	81.34	87.17	85.64	88.71	86.56	86.87
292.5	78.89	81.65	84.72	87.17	84.41	90.86	90.24	92.09	90.55
315.0	80.73	89.63	81.65	89.02	92.70	93.31	90.24	91.78	89.94
337.5	77.66	82.57	82.88	86.87	85.03	81.65	82.57	84.41	83.18
360.0	88.40	93.93	98.53	94.23	98.84	102.52	99.45	97.30	97.61
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	99.14	95.77	92.39	88.40	87.17	82.26	71.83	64.15	53.41
22.5	95.46	90.55	88.40	79.81	79.19	78.89	67.84	59.86	55.56
45.0	91.78	91.47	89.94	85.03	75.82	79.50	74.28	60.78	59.86
67.5	79.19	78.89	74.90	70.29	68.45	68.76	65.99	56.79	50.95
90.0	75.20	76.43	75.20	74.28	69.37	65.99	63.23	60.47	54.02
112.5	81.34	75.82	77.35	76.12	73.05	62.31	59.86	53.72	54.64
135.0	85.33	81.96	77.04	75.51	75.82	72.75	70.60	61.39	55.25
157.5	74.90	78.27	68.76	69.98	68.76	65.38	62.92	58.01	57.71
180.0	95.15	96.69	90.55	88.09	85.95	84.10	78.89	71.52	63.23
202.5	94.54	91.16	85.64	85.33	86.87	81.65	78.27	67.84	63.54
225.0	97.00	91.47	90.86	94.23	92.09	86.56	80.11	73.05	69.68
247.5	84.72	86.56	86.56	84.72	78.27	77.97	76.12	67.53	61.08
270.0	81.65	81.65	76.43	77.66	73.36	71.83	70.29	60.47	55.25
292.5	92.70	83.80	84.41	82.57	79.81	72.75	66.61	67.53	62.00
315.0	89.63	88.09	85.64	85.64	75.20	73.67	67.22	58.93	56.79
337.5	82.88	76.43	78.27	77.66	74.59	70.60	64.46	56.79	51.26
360.0	99.14	95.77	92.39	88.40	87.17	82.26	71.83	64.15	53.41

Intensity data(cd)

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	41.44	35.61	24.86	10.13	3.68	4.30	3.68	10.13	6.45
22.5	49.42	36.22	16.58	10.74	3.68	7.37	1.53	2.46	4.60
45.0	45.43	40.21	22.71	15.04	5.83	1.23	4.60	3.38	0.00
67.5	43.28	39.60	26.09	14.12	5.53	2.46	8.90	1.84	8.59
90.0	49.73	39.90	27.32	20.26	11.66	0.00	0.92	3.99	0.00
112.5	46.35	37.14	26.40	16.58	6.45	7.37	6.45	0.00	3.68
135.0	50.95	42.67	34.38	20.26	14.43	8.29	3.68	9.21	6.75
157.5	46.35	45.12	31.62	29.77	14.43	14.43	10.13	6.14	2.46
180.0	58.93	52.49	47.88	33.76	23.02	11.36	8.59	0.00	6.45
202.5	58.63	55.25	45.12	27.93	20.57	4.91	8.59	0.00	4.60
225.0	62.62	49.11	31.92	16.58	13.51	8.59	0.31	3.07	3.68
247.5	56.48	46.66	36.53	27.32	5.53	0.31	3.07	1.53	0.92
270.0	49.42	45.43	41.13	30.08	15.65	7.06	2.15	0.00	4.30
292.5	50.03	44.20	30.70	19.64	11.97	5.53	3.07	4.60	2.15
315.0	47.27	33.76	25.48	14.73	5.53	2.15	2.46	0.92	2.46
337.5	42.36	33.76	24.56	10.13	9.52	7.37	3.99	2.46	3.07
360.0	41.44	35.61	24.86	10.13	3.68	4.30	3.68	10.13	6.45
C/γ(°)	180.0								
0.0	6.14								
22.5	0.61								
45.0	3.38								
67.5	1.84								
90.0	3.38								
112.5	4.30								
135.0	1.84								
157.5	3.68								
180.0	6.14								
202.5	0.61								
225.0	3.38								
247.5	1.84								
270.0	3.38								
292.5	4.30								
315.0	1.84								
337.5	3.68								
360.0	6.14								