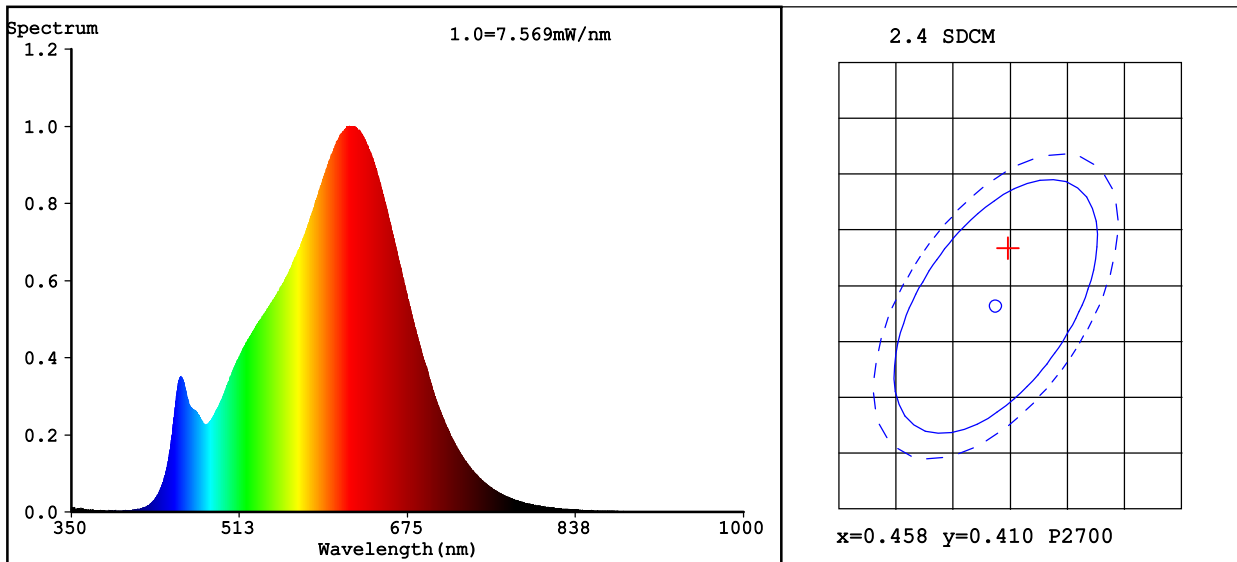


Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4589$ $y=0.4153$ / $u'=0.2597$ $v'=0.5290$
 CCT=2751K (Duv=0.0018) Dominant WL:Ld =583.4nm Purity=62.4%
 Ratio:R=26.0% G=71.4% B=2.7% Peak WL:Lp=620.1nm FWHM=146.7nm
 Render Index:Ra=92.6
 R1 =93 R2 =97 R3 =99 R4 =92 R5 =93 R6 =98 R7 =90
 R8 =79 R9 =55 R10=93 R11=93 R12=83 R13=94 R14=100 R15=87

Photo Parameters:

Flux = 352.6 lm Eff. : 108.74 lm/W Fe = 1.226 W

Electrical parameters:

V = 120.03 V I = 0.03540 A P = 3.242 W PF = 0.7645

Status: Integral T = 1743 ms Ip = 46630 (71%)

Model:BA11-3-E12-927-F-F Number:1
 Tester:XXL Date:2018-09-30
 Temperature:24.9Deg Humidity:65.0%
 Manufacturer:RAB Lighting Inc. Remarks:

RAB Lighting Inc.

Client:

LumCAT: BA11-3-E12-927-F-F

Luminaire:

Report No:

Voltage(V): 120.0300

Test No: 255142-01-001

Current(A): 0.0360

LampCAT:

Power (W): 3.2740

Lamp flux(lm)

PF: 0.7485

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 338.18

Lumens(lm)/Power(W): 103.29

Central intensity(cd): 8.902

Maximum intensity(cd): 39.597

Angle of maximum intensity: C=180.0 γ =105.0

Beam Angle(50%Imax): [C0/180]Total=277.9

[C90/270]Total=293.6

Field angle(10%Imax): [C0/180]Total=N.A.

[C90/270]Total=322.5

Maximum s/h(1/2): C0_180=3.25 C90_270=2.74

Maximum s/h(1/4): C0_180=3.16 C90_270=2.79

Up flux rate of LUM(%): 45.26%

Down flux rate of LUM(%): 51.85%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 22.785%

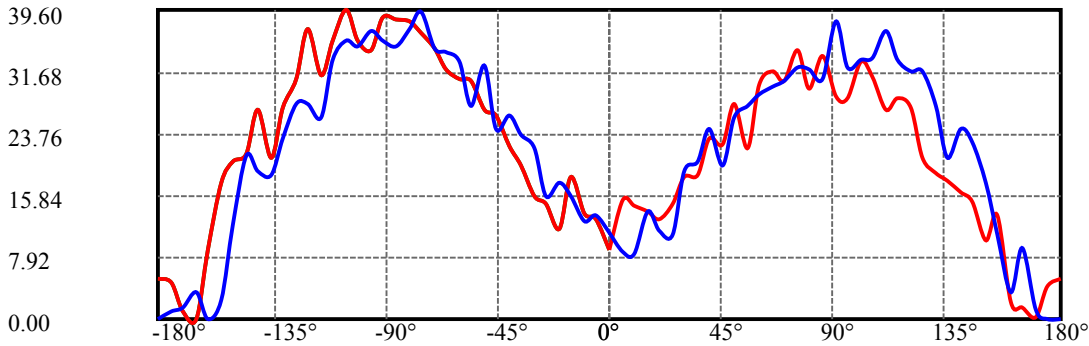
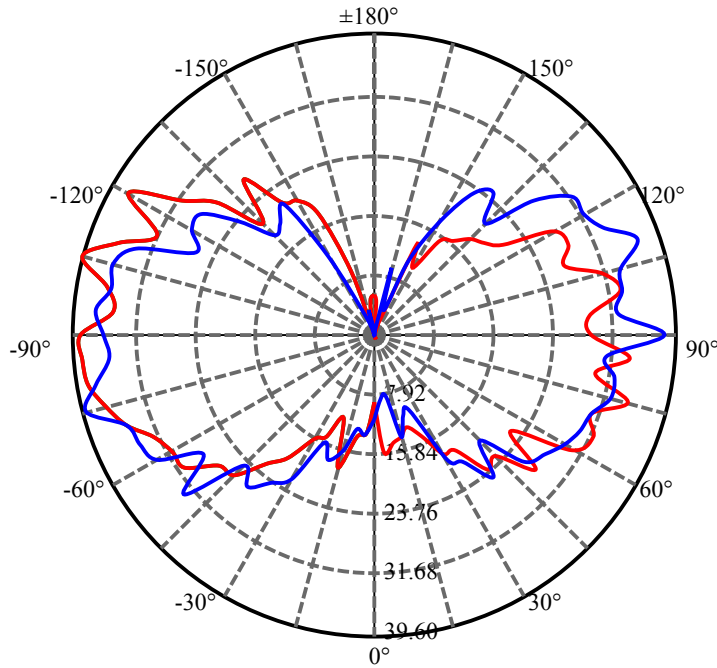
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	9.976	0.060	0.06	.018%	.018%
5.0	12.508	0.598	0.657	.177%	.194%
10.0	12.201	1.161	1.819	.343%	.538%
15.0	15.348	2.177	3.996	.644%	1.182%
20.0	13.352	2.503	6.499	.740%	1.922%
25.0	13.966	3.235	9.734	.957%	2.878%
30.0	18.647	5.111	14.845	1.511%	4.390%
35.0	20.489	6.442	21.287	1.905%	6.295%
40.0	23.865	8.409	29.695	2.486%	8.781%
45.0	23.098	8.953	38.648	2.647%	11.428%
50.0	28.163	11.825	50.473	3.497%	14.925%
55.0	26.705	11.991	62.464	3.546%	18.471%
60.0	30.618	14.535	76.999	4.298%	22.769%
65.0	31.846	15.821	92.819	4.678%	27.447%
70.0	32.537	16.759	109.578	4.956%	32.402%
75.0	35.606	18.852	128.43	5.575%	37.977%
80.0	34.148	18.434	146.864	5.451%	43.428%
85.0	34.455	18.814	165.678	5.563%	48.991%
90.0	35.223	19.307	184.985	5.709%	54.700%
95.0	32.920	17.976	202.961	5.316%	60.016%
100.0	34.148	18.434	221.395	5.451%	65.467%
105.0	34.916	18.486	239.881	5.466%	70.933%
110.0	33.074	17.036	256.917	5.037%	75.971%
115.0	29.621	14.715	271.632	4.351%	80.322%
120.0	30.849	14.644	286.276	4.330%	84.652%
125.0	27.626	12.404	298.68	3.668%	88.320%
130.0	24.019	10.085	308.765	2.982%	91.302%
135.0	19.338	7.495	316.26	2.216%	93.519%
140.0	21.563	7.598	323.858	2.247%	95.765%
145.0	19.952	6.273	330.131	1.855%	97.620%
150.0	14.964	4.101	334.232	1.213%	98.833%
155.0	10.973	2.542	336.774	.752%	99.585%
160.0	3.607	0.676	337.45	.200%	99.785%
165.0	3.530	0.501	337.951	.148%	99.933%
170.0	0.998	0.095	338.046	.028%	99.961%
175.0	2.456	0.117	338.163	.035%	99.995%
180.0	2.609	0.016	338.179	.005%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	14.85	4.39%
0-40	29.70	8.78%
0-60	77.00	22.77%
0-90	184.98	54.70%
0-120	286.28	84.65%
0-180	338.18	100.00%
60-90	122.52	36.23%
90-120	120.60	35.66%
90-130	143.09	42.31%
90-150	168.55	49.84%
90-180	172.49	51.00%
0-114.63	270.54	80.00%

ZONAL LUMEN SUMMARY

0-10	1.82
10-20	4.68
20-30	8.35
30-40	14.85
40-50	20.78
50-60	26.53
60-70	32.58
70-80	37.29
80-90	38.12
90-100	36.41
100-110	35.52
110-120	29.36
120-130	22.49
130-140	15.09
140-150	10.37
150-160	3.22
160-170	0.60
170-180	0.12



C180(Max): ———

C0/C180: ———

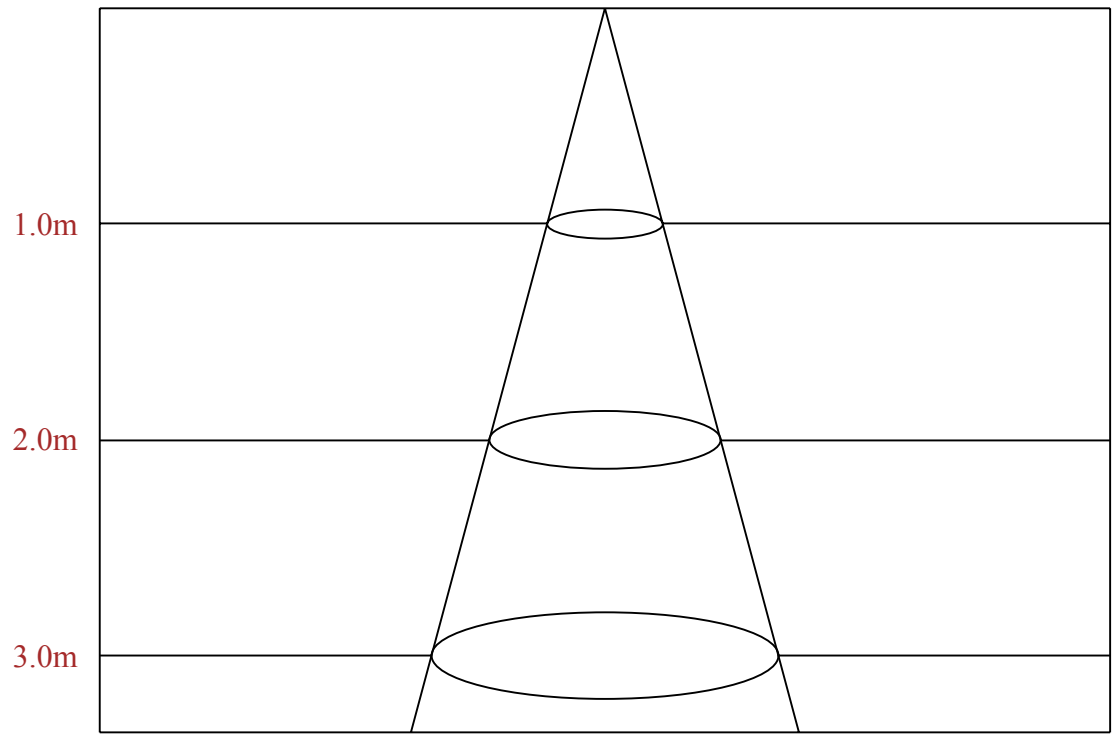
C90/C270: ———

Field angle(10%Imax):C0/180Left:0.0 Right:0.0

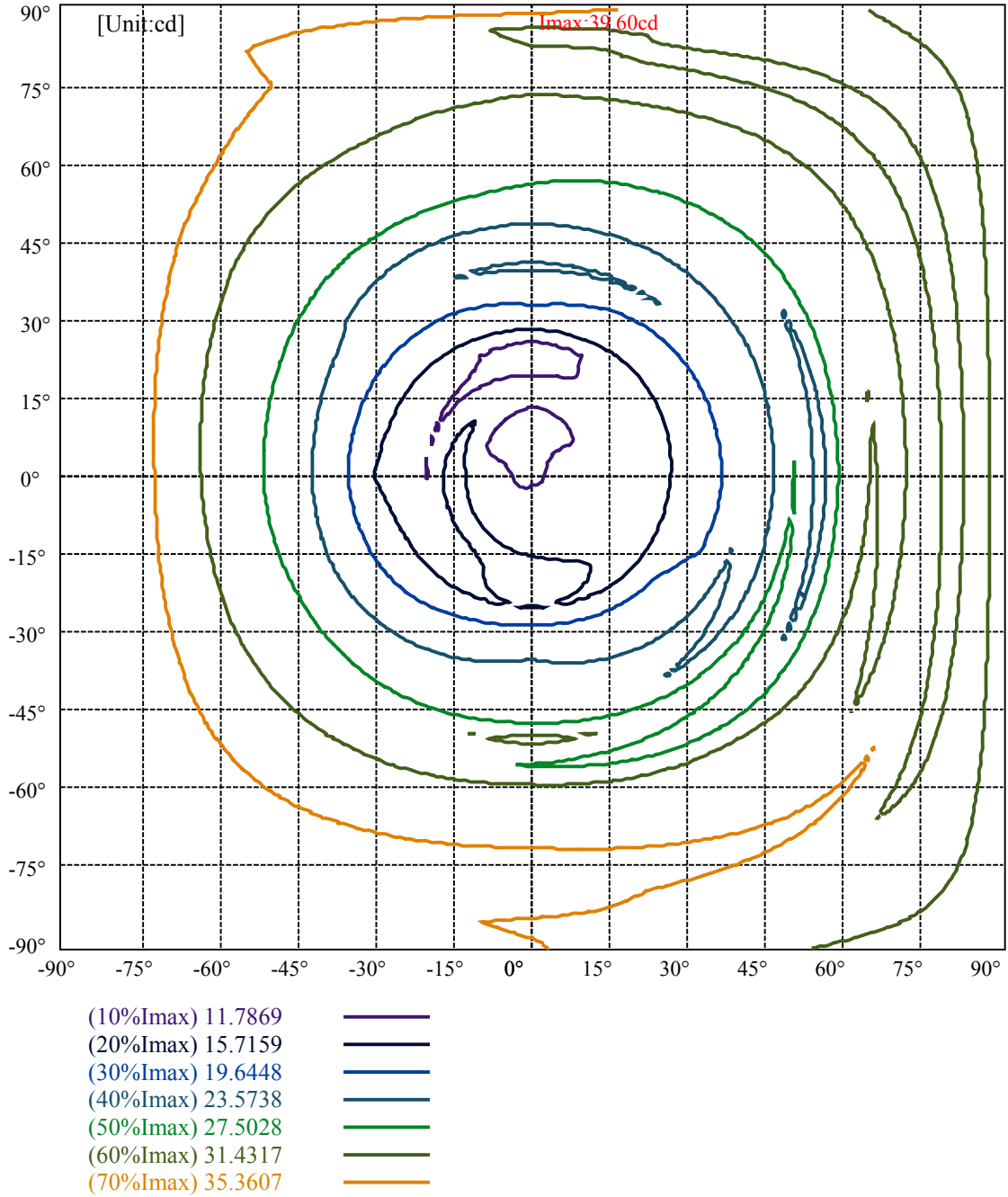
:C90/270Left:79.2 Right:243.3

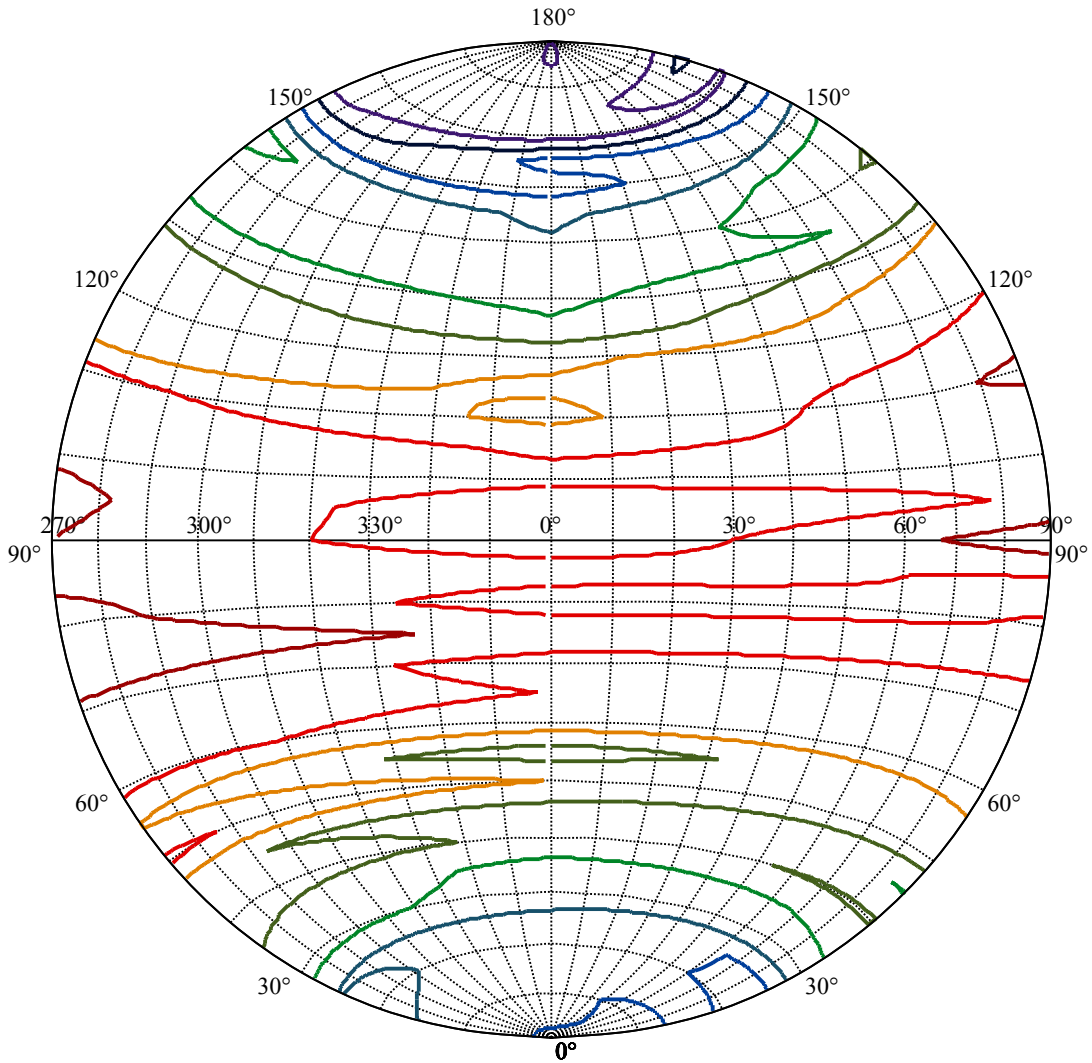
Beam Angle(50%Imax):C0/180Left:45.8 Right:232.1

:C90/270Left:70.7 Right:222.9



Max , Ave Beam angle of C180 plane 318.19





House

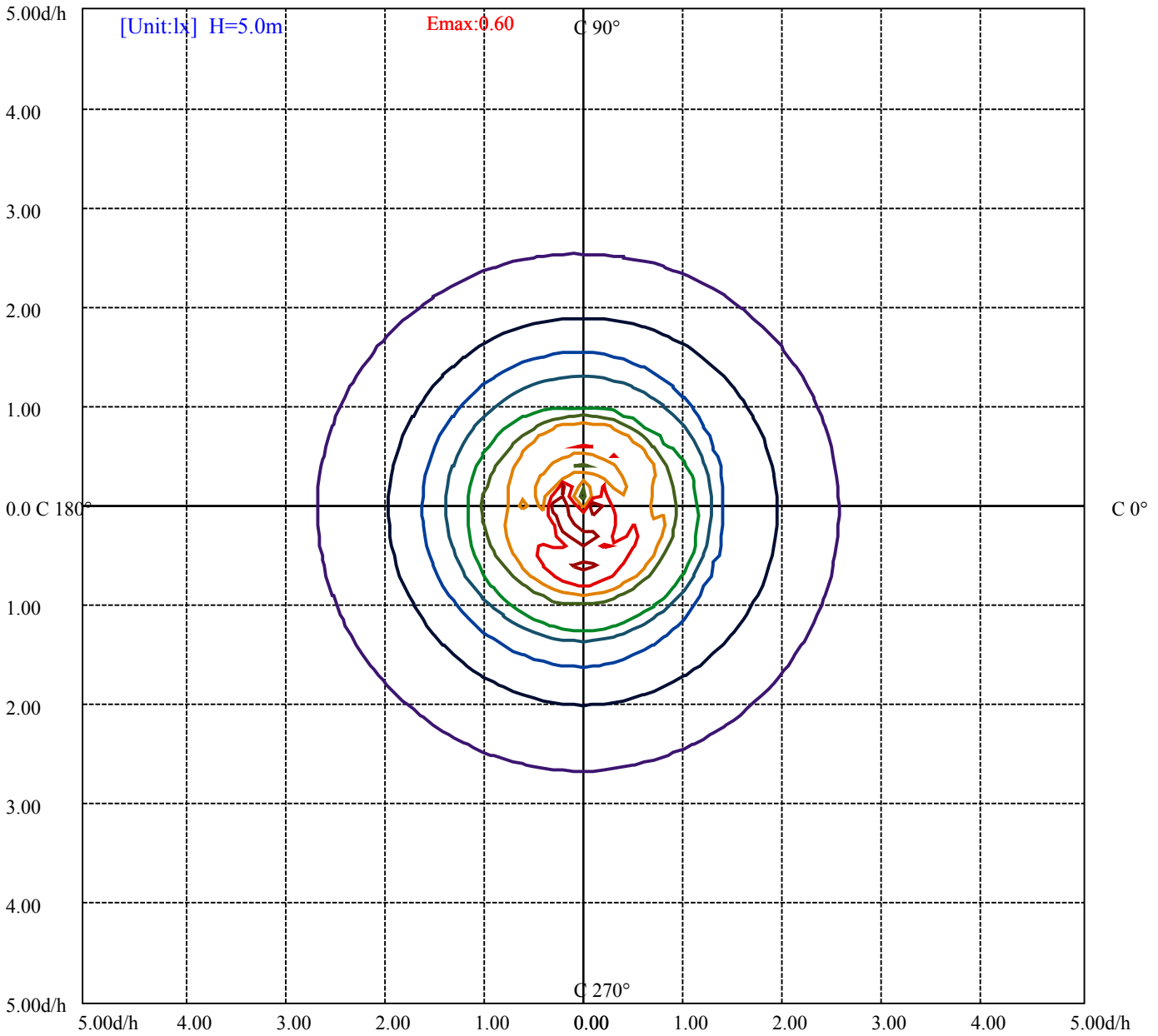
[Unit:cd]

Road

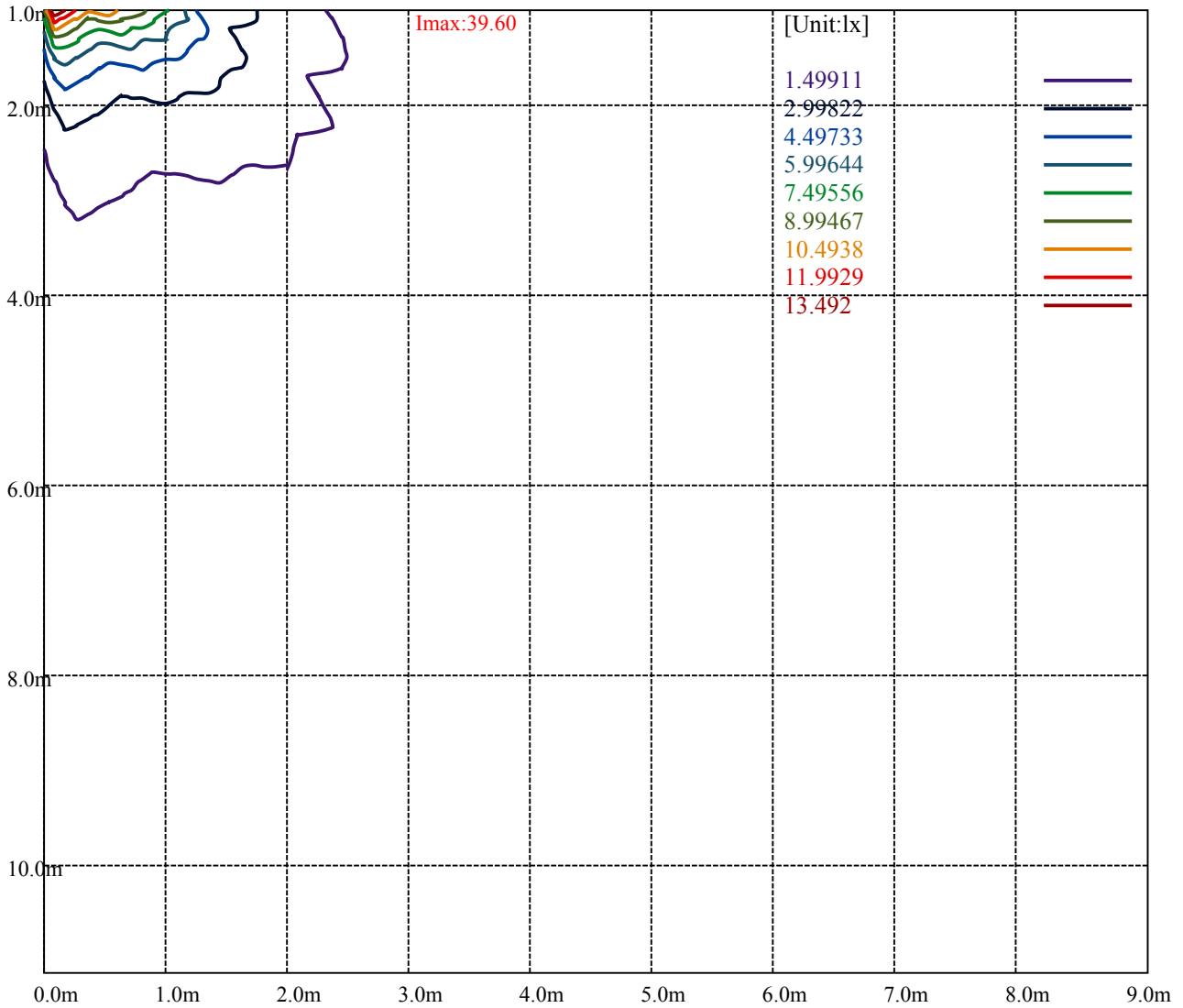
I_{max}:39.60

- (10%I_{max}) 3.95966
- (20%I_{max}) 7.91932
- (30%I_{max}) 11.879
- (40%I_{max}) 15.8386
- (50%I_{max}) 19.7983
- (60%I_{max}) 23.758
- (70%I_{max}) 27.7176
- (80%I_{max}) 31.6773
- (90%I_{max}) 35.6369





- (10%Emax) 0.059964
- (20%Emax) 0.119928
- (30%Emax) 0.179892
- (40%Emax) 0.239856
- (50%Emax) 0.29982
- (60%Emax) 0.359784
- (70%Emax) 0.419748
- (80%Emax) 0.479712
- (90%Emax) 0.539676



Luminance Table

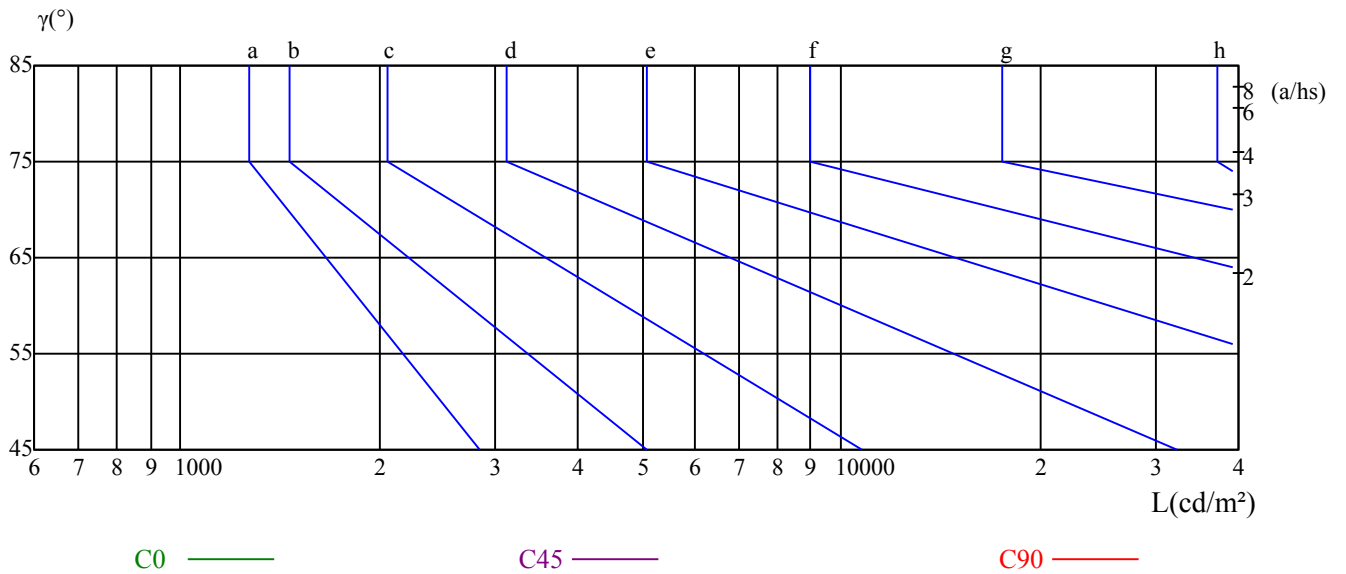
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

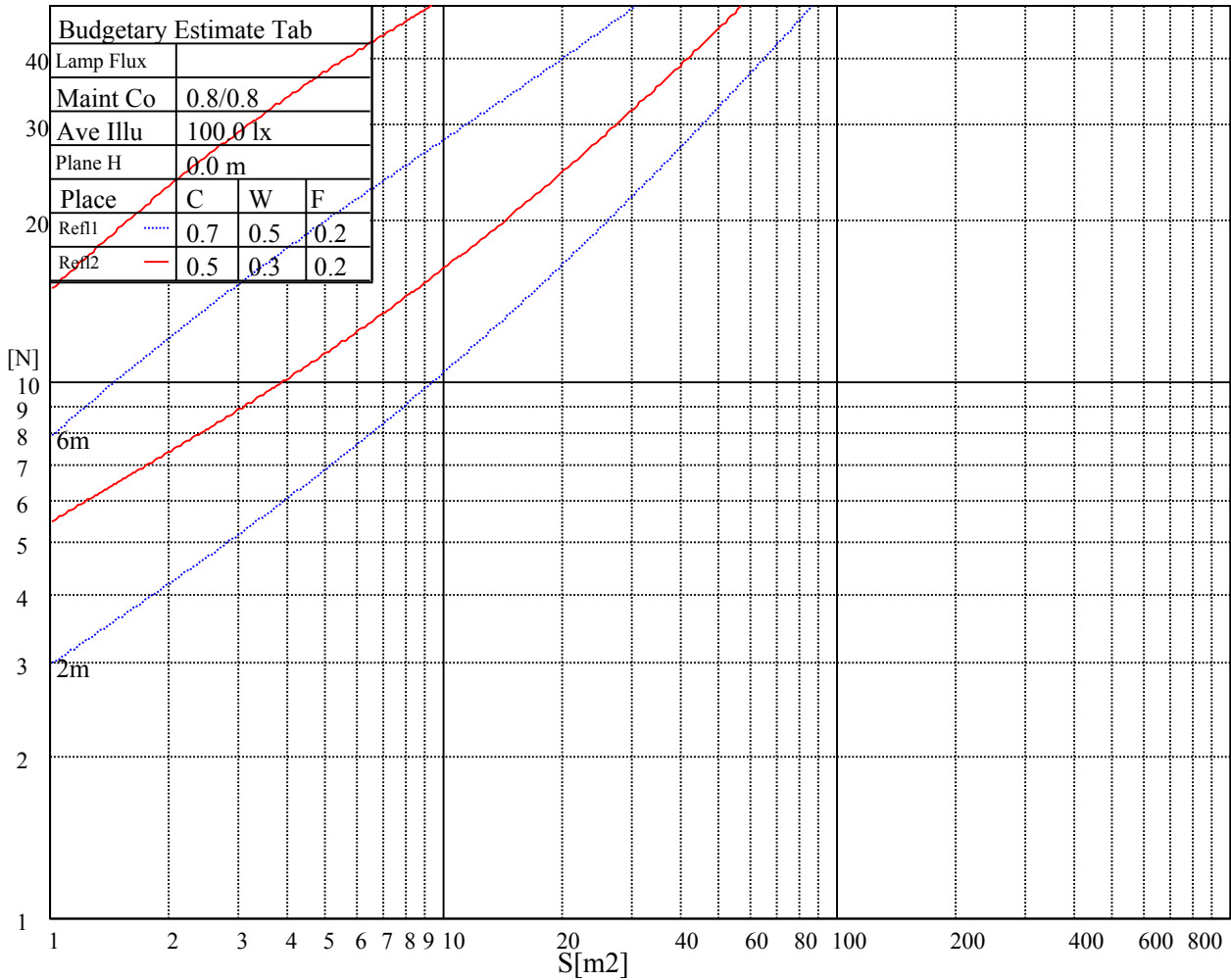
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
		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





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	1.08	1.08	1.08	0.99	0.99	0.99	0.84	0.84	0.84	0.71	0.71	0.71	0.58	0.58	0.58	0.52
1	0.87	0.82	0.77	0.80	0.75	0.71	0.67	0.63	0.60	0.55	0.52	0.49	0.44	0.42	0.40	0.34
2	0.73	0.65	0.58	0.67	0.60	0.54	0.56	0.50	0.45	0.45	0.41	0.37	0.35	0.32	0.29	0.24
3	0.62	0.53	0.46	0.57	0.49	0.42	0.47	0.41	0.35	0.38	0.33	0.29	0.30	0.26	0.22	0.18
4	0.54	0.45	0.37	0.50	0.41	0.34	0.41	0.34	0.29	0.33	0.28	0.23	0.25	0.21	0.18	0.14
5	0.47	0.38	0.31	0.43	0.35	0.28	0.36	0.29	0.24	0.29	0.23	0.19	0.22	0.18	0.15	0.11
6	0.42	0.33	0.26	0.39	0.30	0.24	0.32	0.25	0.20	0.26	0.20	0.16	0.20	0.16	0.12	0.09
7	0.38	0.29	0.22	0.35	0.26	0.21	0.29	0.22	0.17	0.23	0.18	0.14	0.18	0.14	0.10	0.08
8	0.34	0.25	0.19	0.31	0.23	0.18	0.26	0.19	0.15	0.21	0.16	0.12	0.16	0.12	0.09	0.07
9	0.31	0.22	0.17	0.28	0.21	0.16	0.24	0.17	0.13	0.19	0.14	0.10	0.15	0.11	0.08	0.06
10	0.28	0.20	0.15	0.26	0.19	0.14	0.22	0.16	0.11	0.18	0.13	0.09	0.14	0.10	0.07	0.05

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	8.90	15.35	14.43	13.81	12.89	14.73	18.11	18.42	23.02
90.0	11.05	8.59	8.29	13.81	11.36	10.74	19.03	20.26	24.25
180.0	8.90	12.89	13.51	18.11	11.66	14.73	15.65	19.64	22.10
270.0	11.05	13.20	12.58	15.65	17.50	15.65	21.79	23.64	26.09
360.0	8.90	15.35	14.43	13.81	12.89	14.73	18.11	18.42	23.02
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	22.41	27.63	21.79	30.08	31.62	30.39	34.38	29.47	33.76
90.0	19.64	25.78	27.32	28.85	29.77	30.39	32.23	31.92	30.70
180.0	26.09	26.70	30.39	30.70	31.92	34.69	36.53	38.06	38.37
270.0	24.25	32.54	27.32	32.84	34.07	34.69	39.29	37.14	34.99
360.0	22.41	27.63	21.79	30.08	31.62	30.39	34.38	29.47	33.76
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	28.55	28.24	32.84	31.00	26.70	28.24	27.01	20.57	18.72
90.0	38.06	32.23	33.15	33.46	36.83	33.15	31.62	31.62	27.32
180.0	38.68	34.38	35.61	39.60	35.61	31.31	37.14	30.70	27.01
270.0	35.61	36.83	34.99	35.61	33.15	25.78	27.63	27.63	23.02
360.0	28.55	28.24	32.84	31.00	26.70	28.24	27.01	20.57	18.72
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	17.80	16.27	15.04	10.13	13.20	2.15	1.53	0.31	4.30
90.0	20.57	24.25	22.71	17.50	10.74	3.38	9.21	1.23	0.00
180.0	20.57	26.70	21.18	20.26	17.50	8.90	0.00	0.92	4.60
270.0	18.42	19.03	20.87	11.97	2.46	0.00	3.38	1.53	0.92
360.0	17.80	16.27	15.04	10.13	13.20	2.15	1.53	0.31	4.30
C/γ(°)	180.0								
0.0	5.22								
90.0	0.00								
180.0	5.22								
270.0	0.00								
360.0	5.22								