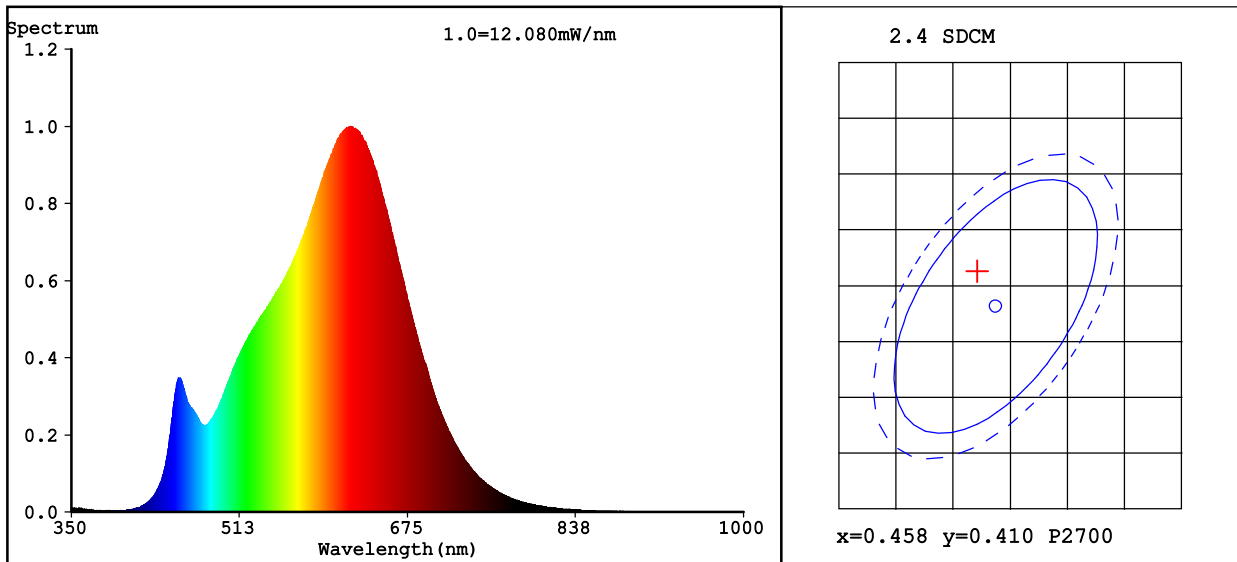


Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4562$ $y=0.4133$ / $u'=0.2589$ $v'=0.5278$
 CCT=2773K (Duv=0.0013) Dominant WL:Ld =583.4nm Purity=61.0%
 Ratio:R=25.8% G=71.6% B=2.7% Peak WL:Lp=620.1nm FWHM=148.2nm
 Render Index:Ra=92.5
 R1 =93 R2 =97 R3 =99 R4 =92 R5 =92 R6 =97 R7 =91
 R8 =79 R9 =55 R10=92 R11=93 R12=84 R13=94 R14=100 R15=87

Photo Parameters:

Flux = 566.7 lm Eff. : 105.96 lm/W Fe = 1.973 W

Electrical parameters:

V = 120.00 V I = 0.05677 A P = 5.349 W PF = 0.7860

Status: Integral T = 877 ms Ip = 37338 (57%)

Model:BA11-5-E12-927-F-C	Number:1
Tester:XCJ	Date:2018-10-12
Temperature:25.3Deg	Humidity:65.0%
Manufacturer:RAB Lighting Inc.	Remarks:

RAB Lighting Inc.

Client:

LumCAT: BA11-5-E12-927-F-C

Luminaire:

Report No:

Voltage(V): 120.0800

Test No: 255156-01-001

Current(A): 0.0570

LampCAT:

Power (W): 5.3650

Lamp flux(lm)

PF: 0.7834

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 504.83

Lumens(lm)/Power(W): 94.10

Central intensity(cd): 3.683

Maximum intensity(cd): 61.390

Angle of maximum intensity: C=0.0 γ =100.0

Beam Angle(50%Imax): [C0/180]Total=302.0

[C90/270]Total=291.5

Field angle(10%Imax): [C0/180]Total=337.7

[C90/270]Total=332.6

Maximum s/h(1/2): C0_180=5.63 C90_270=3.29

Maximum s/h(1/4): C0_180=5.16 C90_270=3.39

Up flux rate of LUM(%): 48.03%

Down flux rate of LUM(%): 49.26%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 21.790%

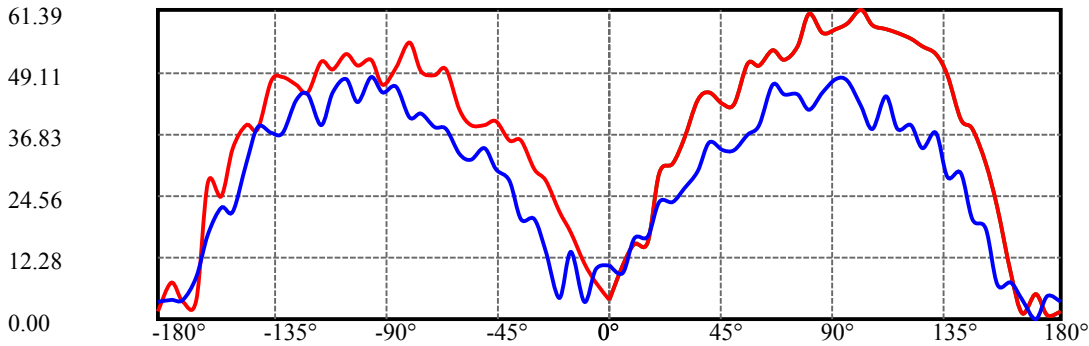
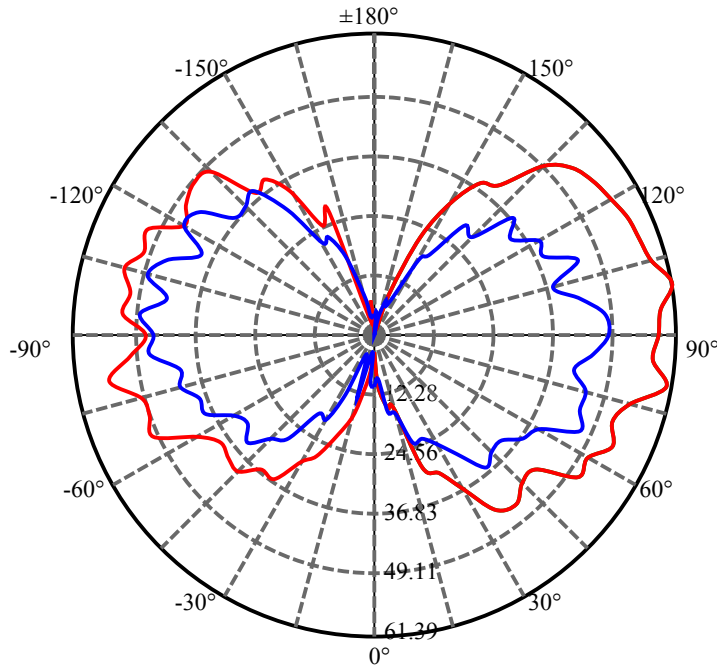
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7.213	0.043	0.043	.009%	.009%
5.0	9.285	0.444	0.487	.088%	.096%
10.0	11.357	1.081	1.568	.214%	.311%
15.0	15.578	2.210	3.778	.438%	.748%
20.0	19.491	3.654	7.432	.724%	1.472%
25.0	23.789	5.511	12.943	1.092%	2.564%
30.0	27.779	7.613	20.556	1.508%	4.072%
35.0	32.000	10.061	30.617	1.993%	6.065%
40.0	35.683	12.572	43.189	2.490%	8.555%
45.0	36.297	14.068	57.257	2.787%	11.342%
50.0	37.141	15.595	72.853	3.089%	14.431%
55.0	39.290	17.641	90.494	3.494%	17.925%
60.0	40.901	19.416	109.91	3.846%	21.771%
65.0	46.733	23.216	133.126	4.599%	26.370%
70.0	45.659	23.518	156.644	4.659%	31.029%
75.0	47.117	24.947	181.591	4.942%	35.970%
80.0	49.266	26.594	208.185	5.268%	41.238%
85.0	49.419	26.985	235.17	5.345%	46.584%
90.0	49.189	26.962	262.132	5.341%	51.924%
95.0	51.337	28.033	290.165	5.553%	57.477%
100.0	49.266	26.594	316.759	5.268%	62.745%
105.0	49.035	25.962	342.721	5.143%	67.888%
110.0	49.112	25.297	368.018	5.011%	72.899%
115.0	46.043	22.873	390.891	4.531%	77.429%
120.0	45.889	21.784	412.675	4.315%	81.744%
125.0	44.585	20.019	432.693	3.965%	85.710%
130.0	43.664	18.334	451.028	3.632%	89.342%
135.0	40.287	15.615	466.643	3.093%	92.435%
140.0	36.067	12.708	479.35	2.517%	94.952%
145.0	31.846	10.012	489.363	1.983%	96.935%
150.0	26.091	7.151	496.513	1.416%	98.352%
155.0	18.877	4.373	500.886	.866%	99.218%
160.0	15.117	2.834	503.721	.561%	99.779%
165.0	4.297	0.610	504.33	.121%	99.900%
170.0	3.070	0.292	504.622	.058%	99.958%
175.0	4.144	0.198	504.82	.039%	99.997%
180.0	2.456	0.015	504.835	.003%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	20.56	4.07%
0-40	43.19	8.56%
0-60	109.91	21.77%
0-90	262.13	51.92%
0-120	412.67	81.74%
0-180	504.83	100.00%
60-90	171.64	34.00%
90-120	177.50	35.16%
90-130	215.86	42.76%
90-150	261.34	51.77%
90-180	269.65	53.41%
0-117.98	403.87	80.00%

ZONAL LUMEN SUMMARY

0-10	1.57
10-20	5.86
20-30	13.12
30-40	22.63
40-50	29.66
50-60	37.06
60-70	46.73
70-80	51.54
80-90	53.95
90-100	54.63
100-110	51.26
110-120	44.66
120-130	38.35
130-140	28.32
140-150	17.16
150-160	7.21
160-170	0.90
170-180	0.20



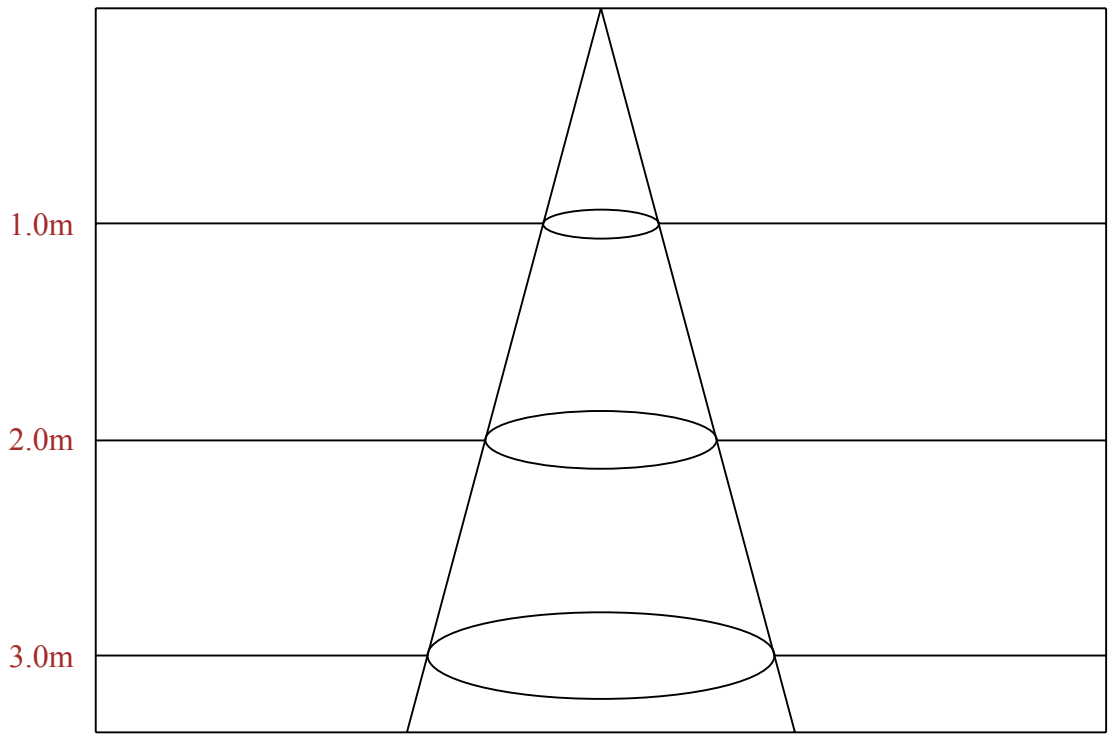
C0(Max): —————

C0/C180: —————

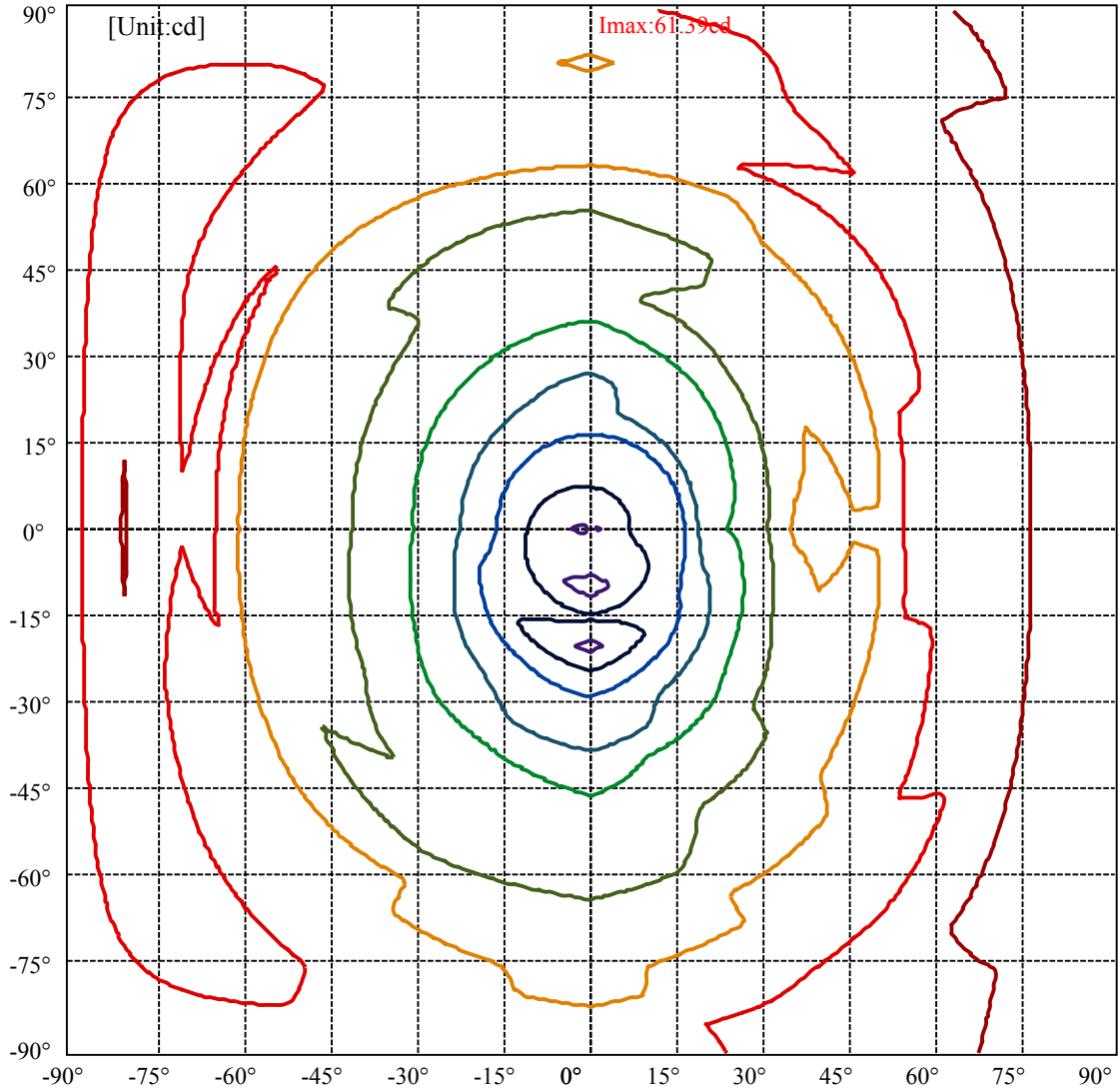
C90/C270: —————










Field angle(10%Imax):C0/180Left:275.8 Right:61.9
:C90/270Left:74.1 Right:258.5

Beam Angle(50%Imax):C0/180Left:251.8 Right:50.2
:C90/270Left:53.7 Right:237.8



Max , Ave Beam angle of C0 plane 339.04

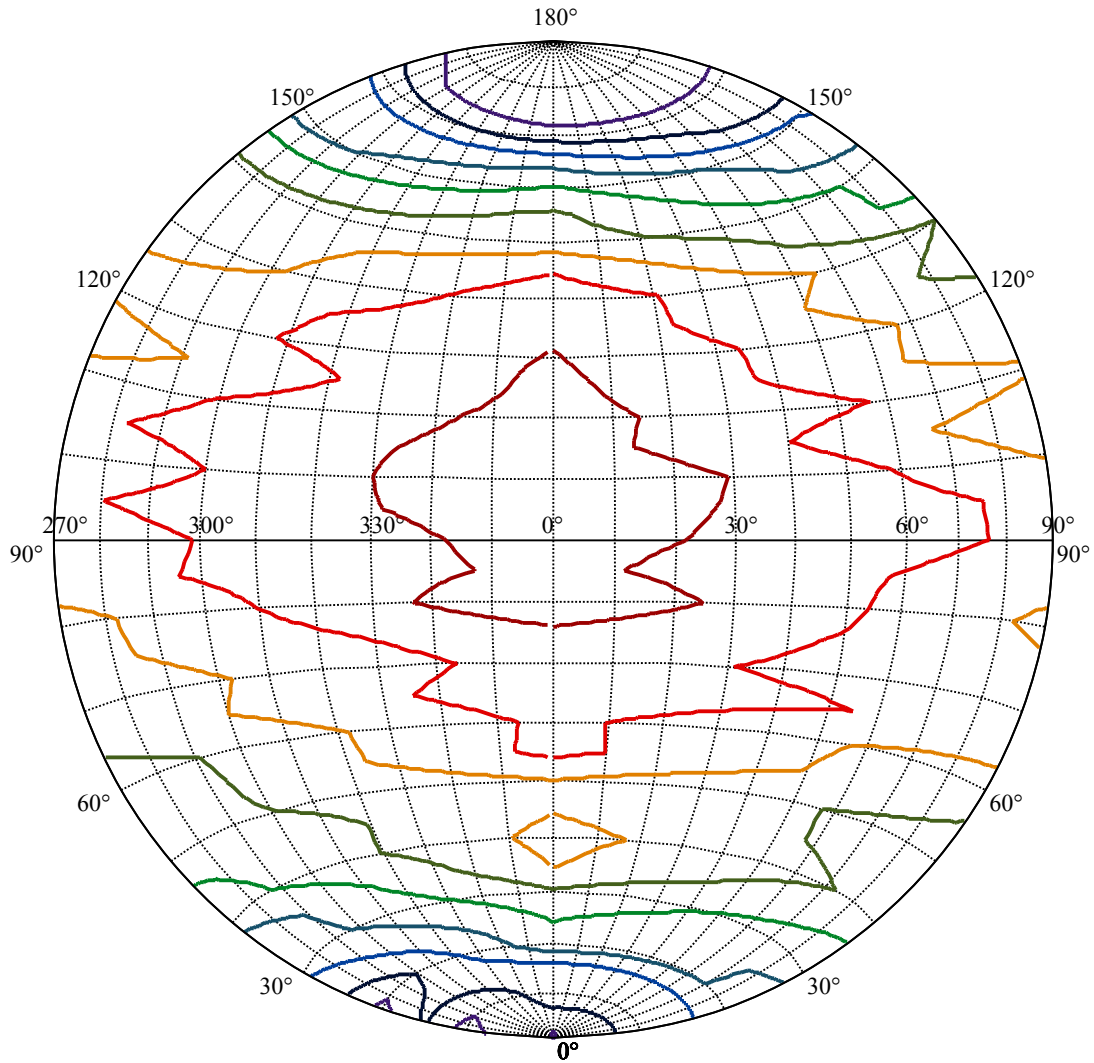


(10%Imax)	6.04692	
(20%Imax)	12.0938	
(30%Imax)	18.1408	
(40%Imax)	24.1877	
(50%Imax)	30.2346	
(60%Imax)	36.2815	
(70%Imax)	42.3285	
(80%Imax)	48.3754	
(90%Imax)	54.4223	

Equipment: Goniophotometer
Temperature(°C): 0.0

Date: 2018/10/10
Humidity(%): 0.0%

Operator: WU
Distance(m): 17.52



House

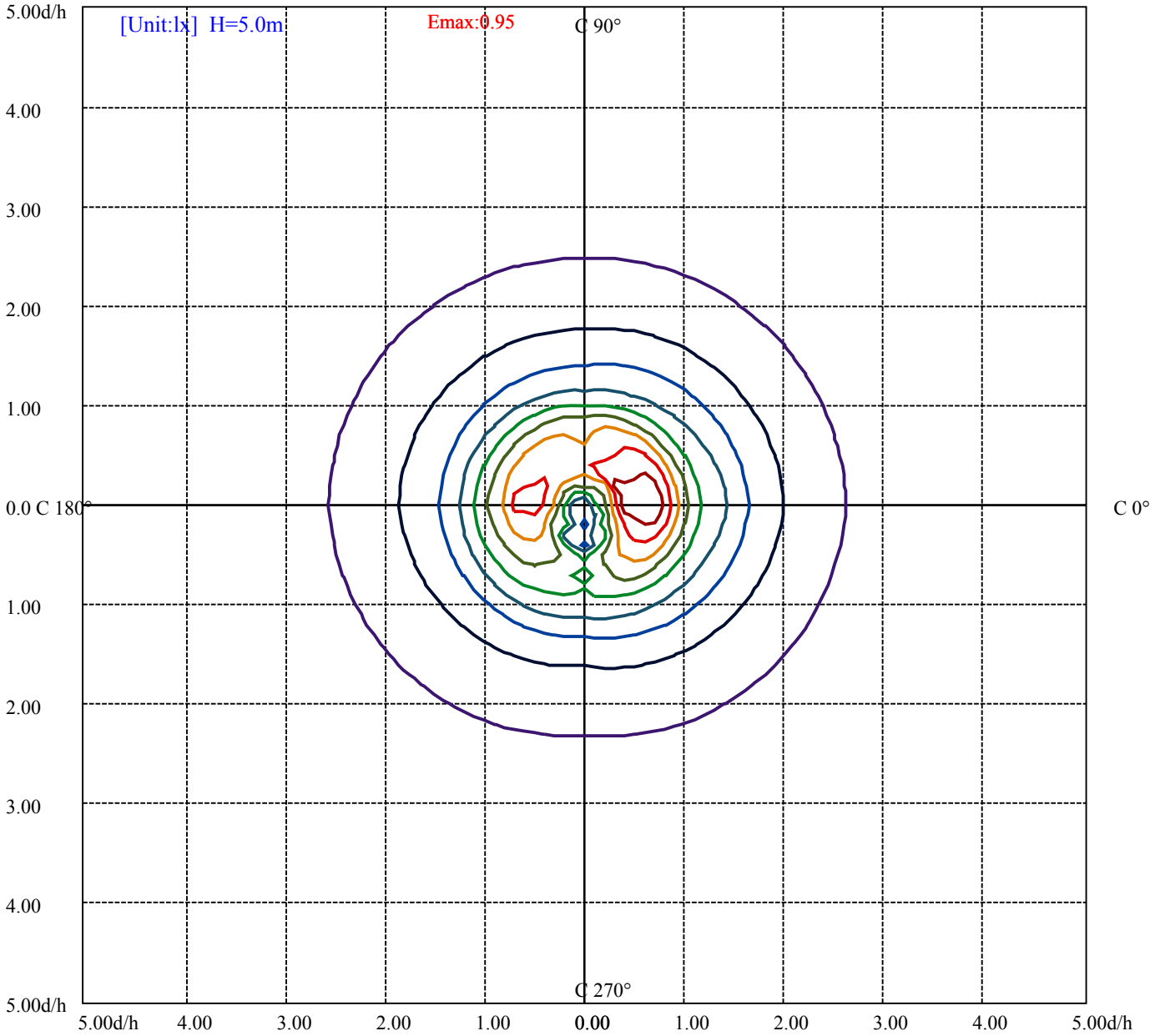
[Unit:cd]

Road

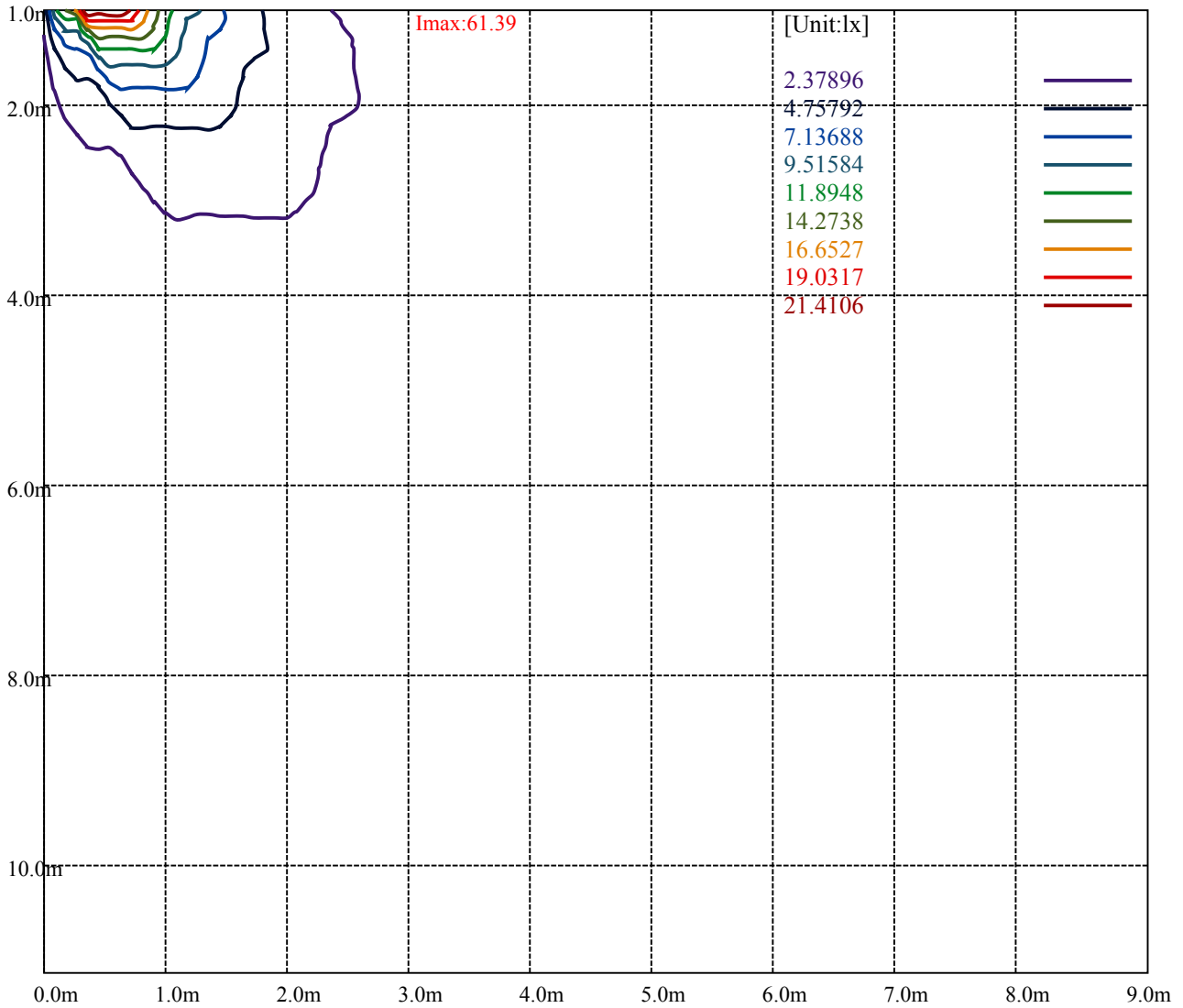
Imax:61.39

- (10%Imax) 6.13901
- (20%Imax) 12.278
- (30%Imax) 18.417
- (40%Imax) 24.556
- (50%Imax) 30.695
- (60%Imax) 36.834
- (70%Imax) 42.9731
- (80%Imax) 49.1121
- (90%Imax) 55.2511





- (10%Emax) 0.0951584 ———
- (20%Emax) 0.1903168 ———
- (30%Emax) 0.2854748 ———
- (40%Emax) 0.3806332 ———
- (50%Emax) 0.475792 ———
- (60%Emax) 0.570948 ———
- (70%Emax) 0.666108 ———
- (80%Emax) 0.761268 ———
- (90%Emax) 0.856424 ———



Luminance Table

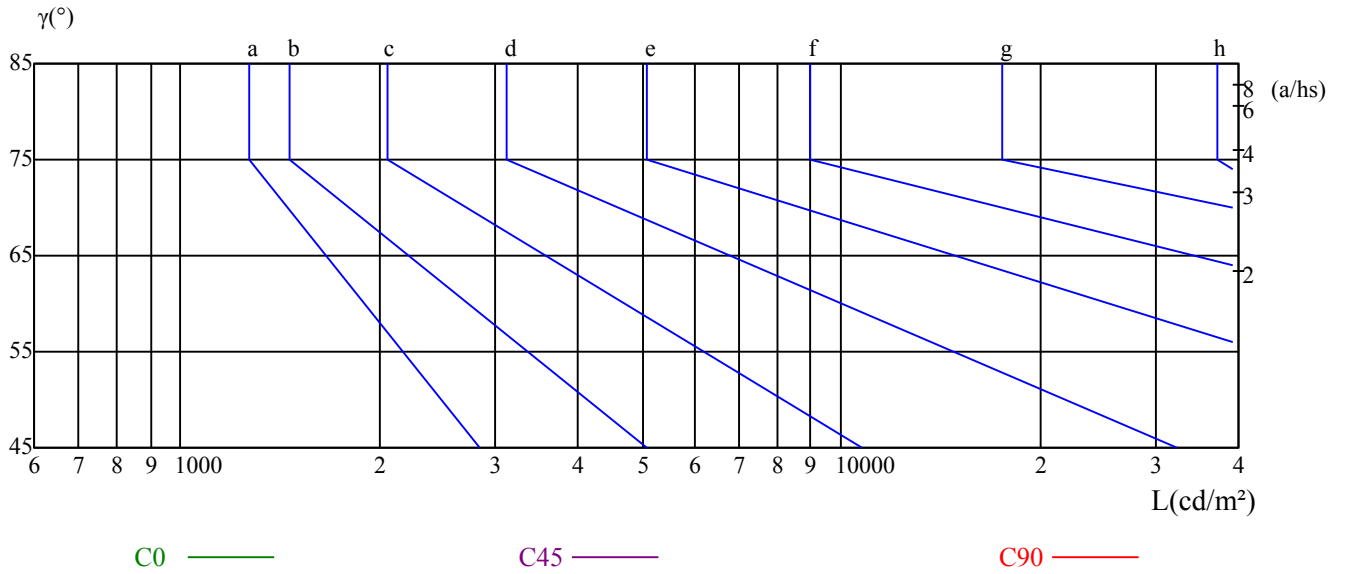
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

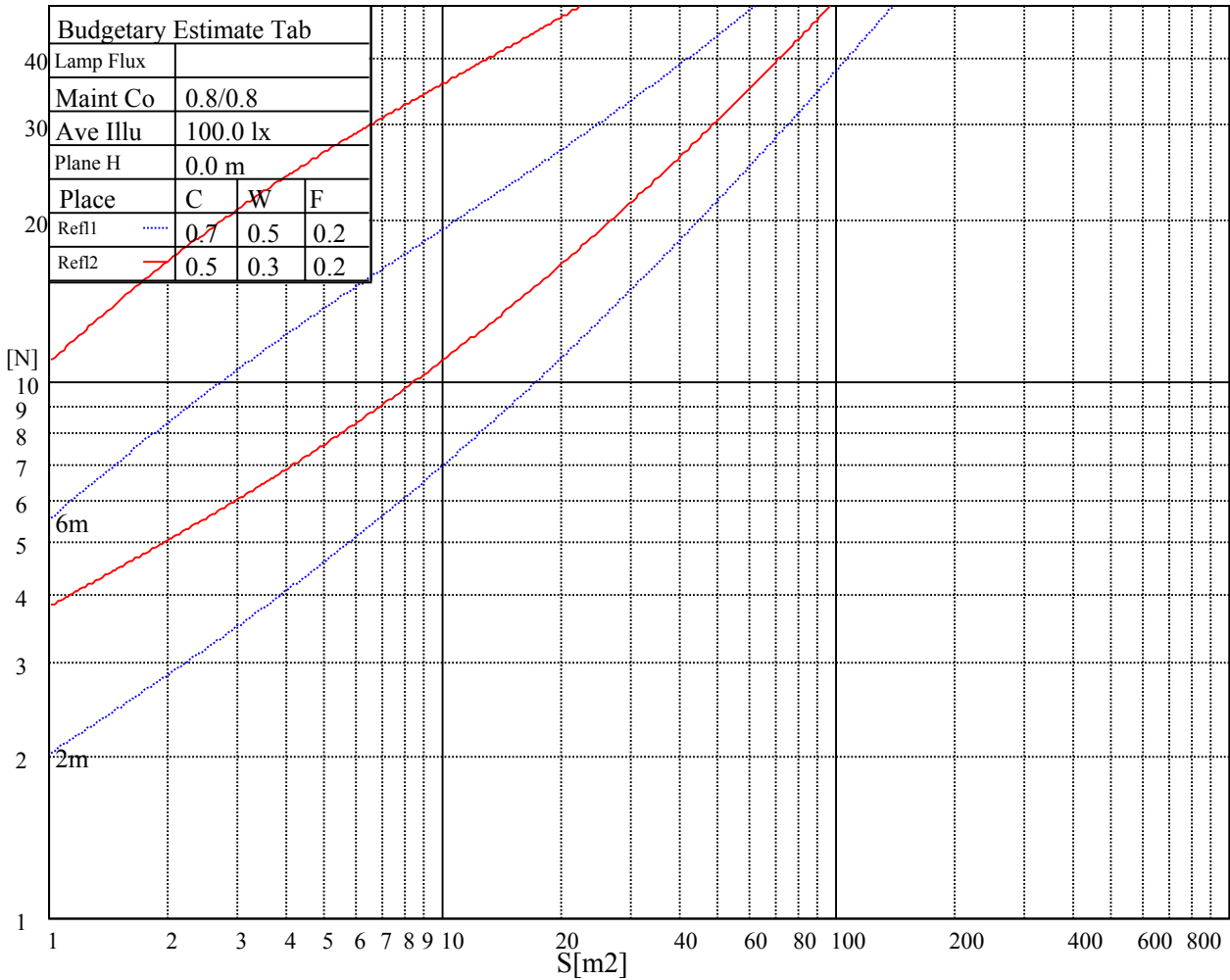
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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	1.07	1.07	1.07	0.99	0.99	0.99	0.83	0.83	0.83	0.69	0.69	0.69	0.55	0.55	0.55	0.49
1	0.87	0.82	0.77	0.80	0.75	0.71	0.66	0.62	0.59	0.54	0.51	0.48	0.42	0.40	0.38	0.33
2	0.73	0.65	0.58	0.67	0.60	0.54	0.55	0.50	0.45	0.44	0.40	0.36	0.34	0.31	0.28	0.23
3	0.63	0.53	0.46	0.57	0.49	0.42	0.47	0.40	0.35	0.37	0.32	0.28	0.28	0.25	0.22	0.17
4	0.54	0.45	0.38	0.49	0.41	0.35	0.41	0.34	0.29	0.32	0.27	0.23	0.24	0.21	0.17	0.13
5	0.48	0.38	0.31	0.43	0.35	0.29	0.36	0.29	0.24	0.28	0.23	0.19	0.21	0.17	0.14	0.11
6	0.42	0.33	0.26	0.39	0.30	0.24	0.32	0.25	0.20	0.25	0.20	0.16	0.19	0.15	0.12	0.09
7	0.38	0.29	0.22	0.34	0.26	0.21	0.28	0.22	0.17	0.23	0.17	0.14	0.17	0.13	0.10	0.07
8	0.34	0.25	0.19	0.31	0.23	0.18	0.26	0.19	0.15	0.20	0.15	0.12	0.16	0.12	0.09	0.06
9	0.31	0.22	0.17	0.28	0.21	0.16	0.23	0.17	0.13	0.19	0.14	0.10	0.14	0.10	0.08	0.05
10	0.28	0.20	0.15	0.26	0.19	0.14	0.21	0.15	0.11	0.17	0.12	0.09	0.13	0.09	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	3.68	10.74	15.04	15.35	28.85	31.00	35.91	43.28	44.81
90.0	10.74	9.21	15.96	16.58	23.33	23.33	25.78	29.47	34.99
180.0	3.68	7.37	11.05	17.19	21.49	27.32	29.77	35.61	35.61
270.0	10.74	9.82	3.38	13.20	4.30	13.51	19.64	19.64	27.32
360.0	3.68	10.74	15.04	15.35	28.85	31.00	35.91	43.28	44.81
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	42.67	42.67	50.65	50.34	53.41	51.57	54.02	60.47	56.79
90.0	33.46	33.46	36.53	38.68	46.35	44.51	44.51	41.44	44.81
180.0	39.29	38.68	38.37	41.75	49.42	48.50	49.11	54.94	50.03
270.0	29.77	33.76	31.62	32.84	37.75	38.06	40.82	40.21	46.04
360.0	42.67	42.67	50.65	50.34	53.41	51.57	54.02	60.47	56.79
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	57.71	58.63	61.39	58.32	57.40	56.79	55.56	54.33	52.80
90.0	47.58	47.27	42.36	37.75	44.20	37.75	38.68	33.76	36.83
180.0	46.35	51.57	50.34	52.49	49.73	50.95	44.81	46.66	47.88
270.0	45.12	47.88	42.97	47.58	45.12	38.68	44.51	43.59	37.14
360.0	57.71	58.63	61.39	58.32	57.40	56.79	55.56	54.33	52.80
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	48.50	39.60	37.75	31.00	22.10	9.21	1.23	4.91	0.92
90.0	28.24	28.85	19.95	17.80	6.75	7.37	3.68	0.00	4.60
180.0	47.27	37.75	38.68	34.07	24.56	27.01	3.99	3.38	7.06
270.0	37.14	38.06	31.00	21.49	22.10	16.88	8.29	3.99	3.99
360.0	48.50	39.60	37.75	31.00	22.10	9.21	1.23	4.91	0.92
C/γ(°)	180.0								
0.0	1.53								
90.0	3.38								
180.0	1.53								
270.0	3.38								
360.0	1.53								