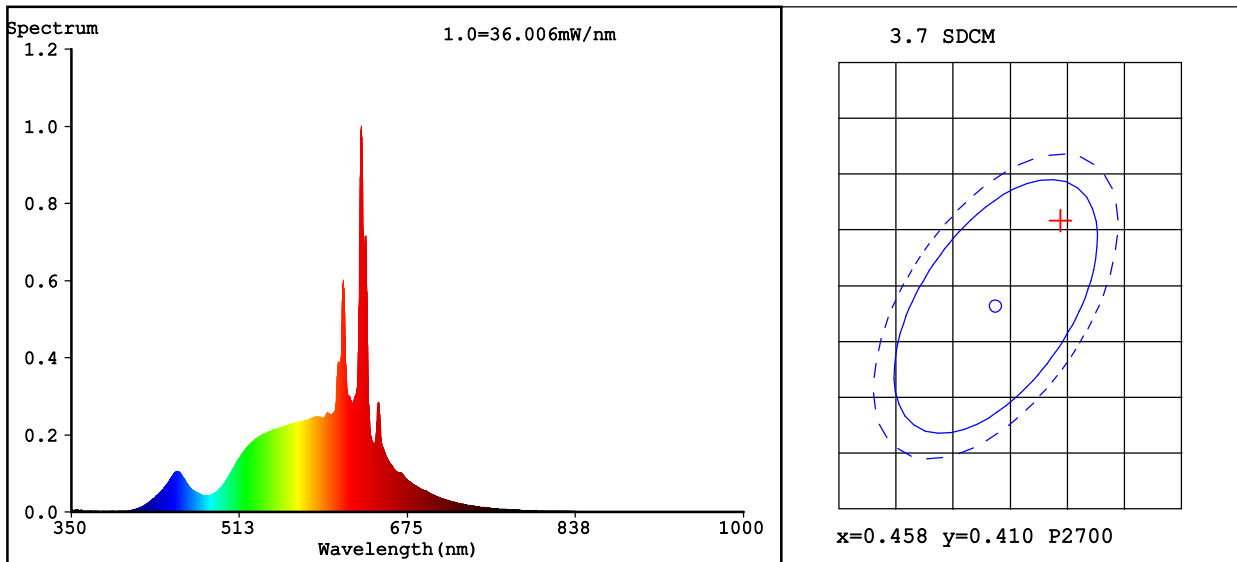


Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4635$ $y=0.4178$ / $u'=0.2616$ $v'=0.5306$
 CCT=2706K (Duv=0.0023) Dominant WL:Ld =583.5nm Purity=64.5%
 Ratio:R=27.5% G=70.7% B=1.7% Peak WL:Lp=630.3nm FWHM=8.1nm
 Render Index:Ra=94.0
 R1 =98 R2 =95 R3 =88 R4 =95 R5 =95 R6 =95 R7 =96
 R8 =90 R9 =71 R10=83 R11=95 R12=79 R13=97 R14=91 R15=94

Photo Parameters:

Flux = 586.4 lm Eff. : 110.52 lm/W Fe = 1.791 W

Electrical parameters:

V = 120.04 V I = 0.05612 A P = 5.306 W PF = 0.7883

Status: Integral T = 312 ms Ip = 39333 (60%)

Model:BA11-5-E12-927-F-F	Number:1
Tester:XCJ	Date:2018-10-30
Temperature:26.4Deg	Humidity:65.0%
Manufacturer:RAB Lighting Inc.	Remarks:

RAB Lighting Inc.

Client:

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

Luminaire:

Report No:

Voltage(V): 120.0100

Test No: 255157-01-001

Current(A): 0.0560

LampCAT:

Power (W): 5.3310

Lamp flux(lm)

PF: 0.7876

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 631.58

Lumens(lm)/Power(W): 118.47

Central intensity(cd): 16.268

Maximum intensity(cd): 75.203

Angle of maximum intensity: C=180.0 γ =90.0

Beam Angle(50%Imax): [C0/180]Total=279.3

[C90/270]Total=284.5

Field angle(10%Imax): [C0/180]Total=336.4

[C90/270]Total=333.1

Maximum s/h(1/2): C0_180=3.48 C90_270=2.73

Maximum s/h(1/4): C0_180=3.39 C90_270=2.77

Up flux rate of LUM(%): 45.39%

Down flux rate of LUM(%): 51.67%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 23.221%

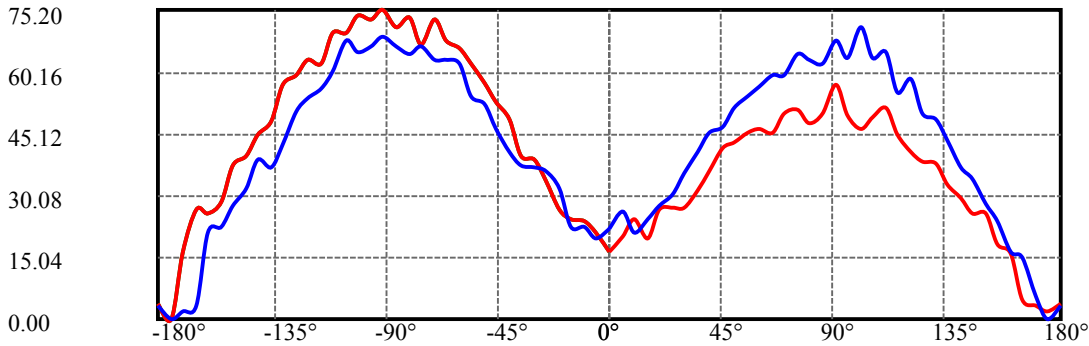
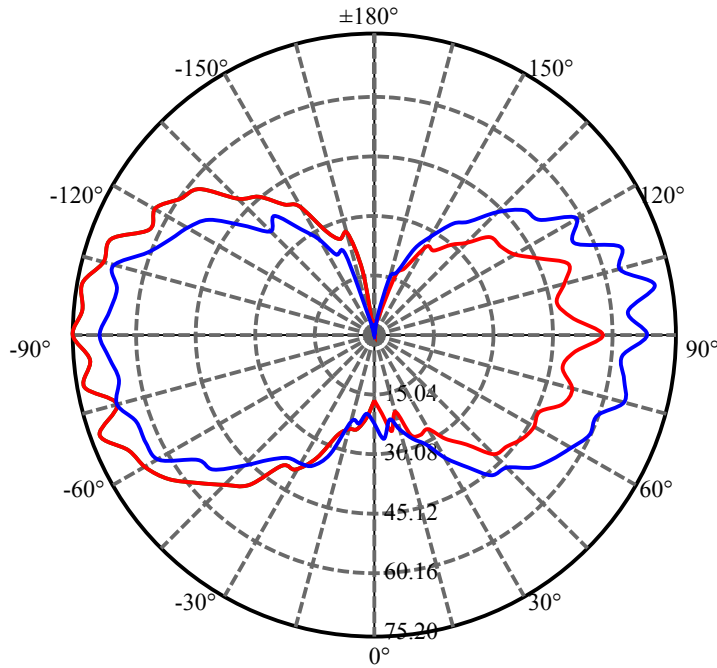
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	19.184	0.115	0.115	.018%	.018%
5.0	21.640	1.034	1.149	.164%	.182%
10.0	22.945	2.184	3.332	.346%	.528%
15.0	22.638	3.212	6.544	.508%	1.036%
20.0	28.086	5.265	11.809	.834%	1.870%
25.0	31.846	7.377	19.187	1.168%	3.038%
30.0	34.532	9.464	28.651	1.498%	4.536%
35.0	37.294	11.725	40.376	1.857%	6.393%
40.0	42.666	15.033	55.409	2.380%	8.773%
45.0	46.887	18.173	73.582	2.877%	11.650%
50.0	51.107	21.460	95.042	3.398%	15.048%
55.0	53.870	24.188	119.23	3.830%	18.878%
60.0	57.553	27.321	146.55	4.326%	23.204%
65.0	58.781	29.201	175.751	4.624%	27.827%
70.0	61.390	31.621	207.372	5.007%	32.834%
75.0	62.081	32.869	240.242	5.204%	38.038%
80.0	62.157	33.553	273.795	5.313%	43.351%
85.0	62.388	34.067	307.862	5.394%	48.745%
90.0	67.145	36.805	344.667	5.827%	54.572%
95.0	63.078	34.444	379.111	5.454%	60.026%
100.0	64.076	34.589	413.699	5.477%	65.503%
105.0	62.464	33.072	446.772	5.236%	70.739%
110.0	61.544	31.700	478.472	5.019%	75.758%
115.0	54.484	27.066	505.538	4.286%	80.044%
120.0	53.870	25.572	531.11	4.049%	84.093%
125.0	49.496	22.224	553.334	3.519%	87.611%
130.0	46.426	19.494	572.828	3.087%	90.698%
135.0	40.211	15.585	588.414	2.468%	93.166%
140.0	37.448	13.194	601.608	2.089%	95.255%
145.0	32.844	10.326	611.934	1.635%	96.890%
150.0	29.544	8.097	620.031	1.282%	98.172%
155.0	23.328	5.404	625.435	.856%	99.028%
160.0	19.798	3.712	629.147	.588%	99.615%
165.0	12.355	1.753	630.899	.278%	99.893%
170.0	6.676	0.635	631.535	.101%	99.993%
175.0	0.460	0.022	631.557	.003%	99.997%
180.0	3.376	0.020	631.577	.003%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	28.65	4.54%
0-40	55.41	8.77%
0-60	146.55	23.20%
0-90	344.67	54.57%
0-120	531.11	84.09%
0-180	631.58	100.00%
60-90	225.44	35.69%
90-120	223.25	35.35%
90-130	264.97	41.95%
90-150	312.17	49.43%
90-180	323.70	51.25%
0-114.95	505.26	80.00%

ZONAL LUMEN SUMMARY

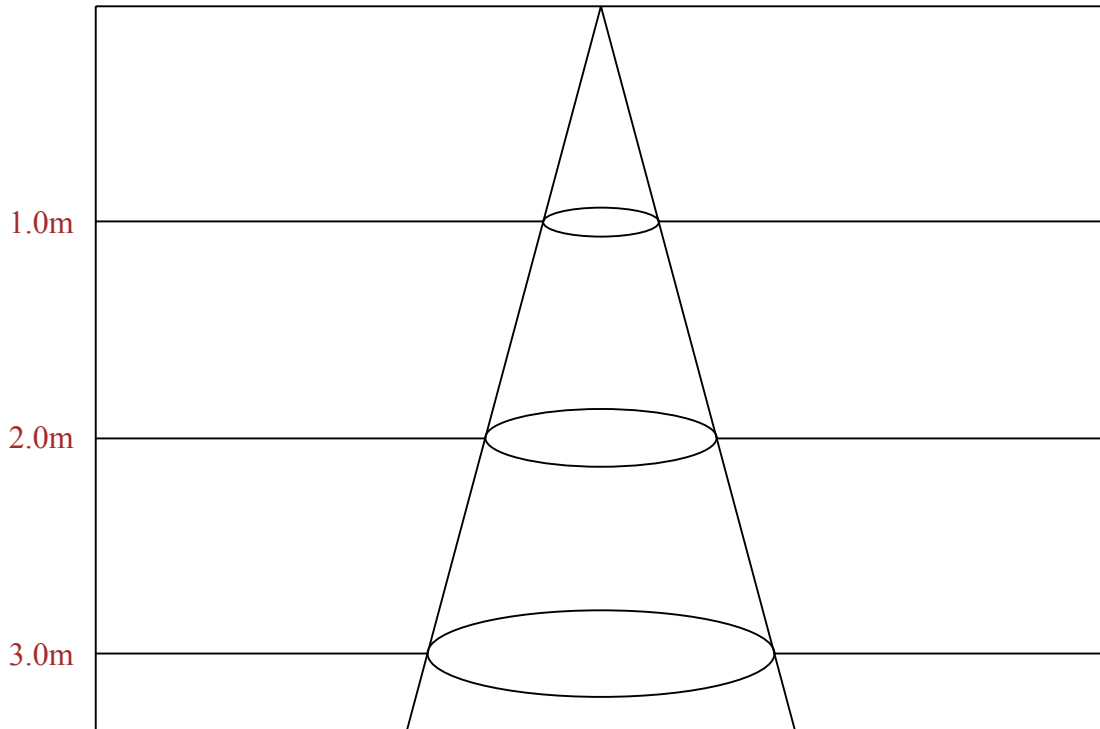
0-10	3.33
10-20	8.48
20-30	16.84
30-40	26.76
40-50	39.63
50-60	51.51
60-70	60.82
70-80	66.42
80-90	70.87
90-100	69.03
100-110	64.77
110-120	52.64
120-130	41.72
130-140	28.78
140-150	18.42
150-160	9.12
160-170	2.39
170-180	0.02



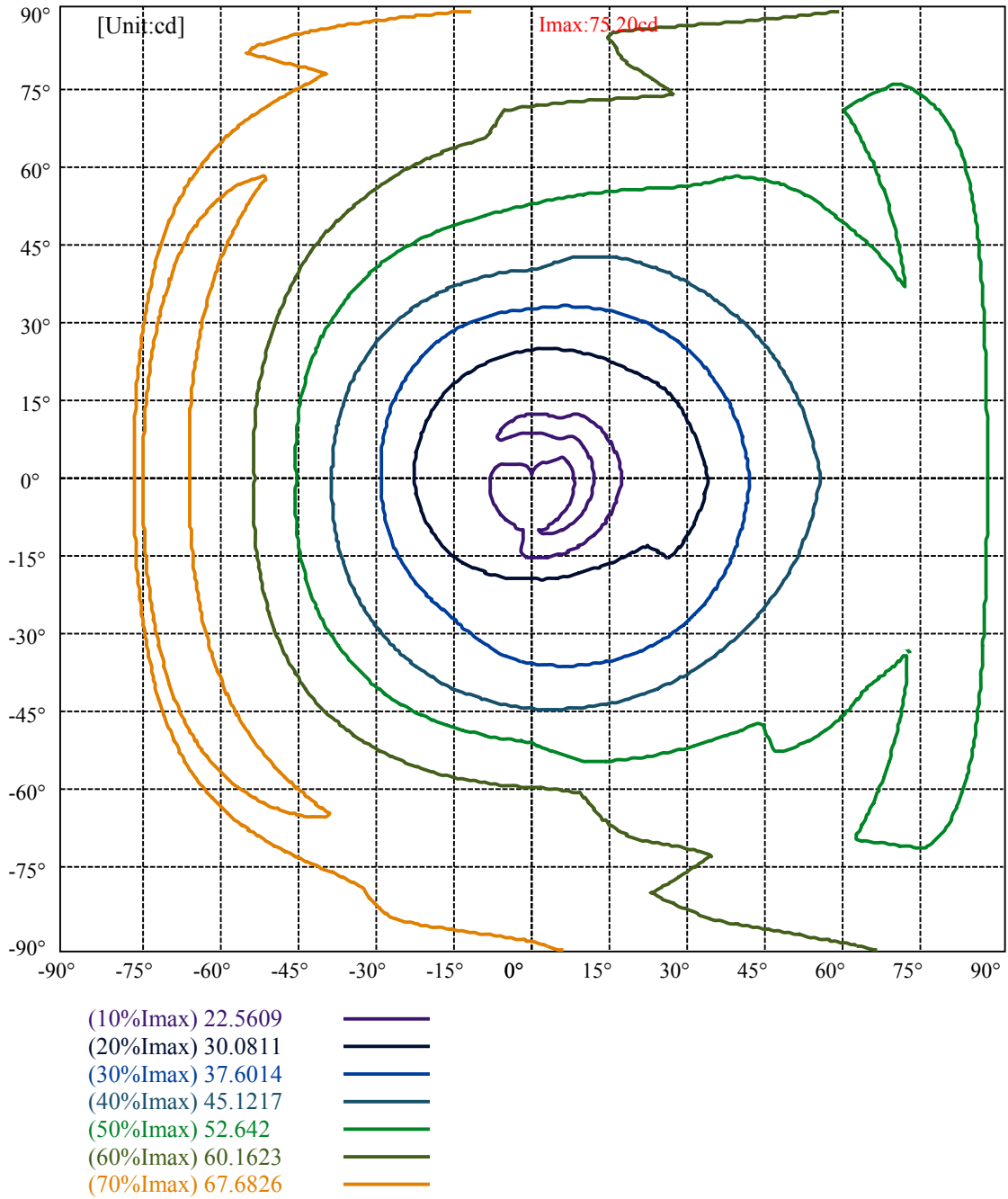
C180(Max): —————
 C0/C180: —————
 C90/C270: —————

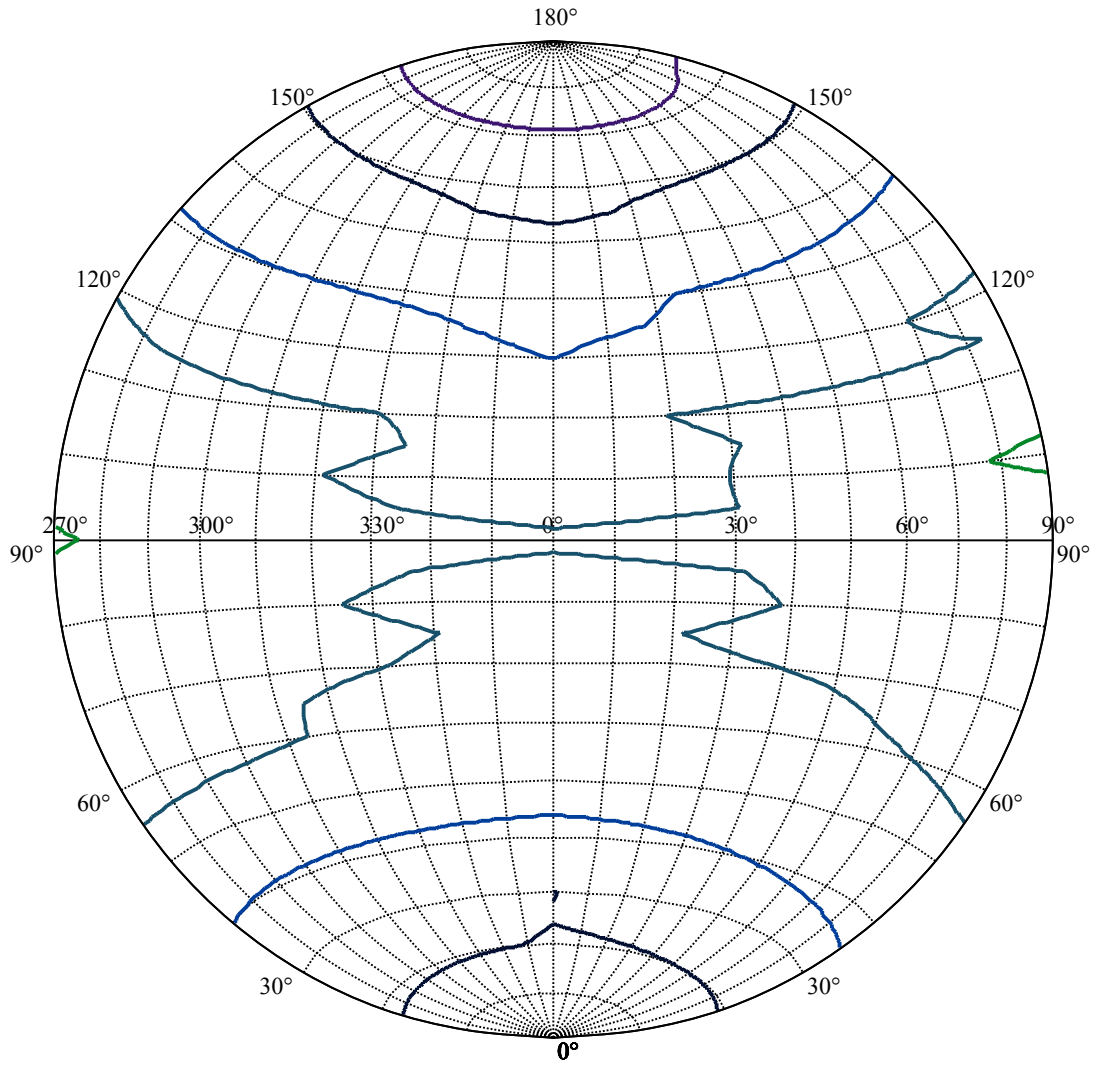
Field angle(10%Imax):C0/180Left:82.7 Right:253.7
 :C90/270Left:263.9 Right:69.2

Beam Angle(50%Imax):C0/180Left:59.1 Right:220.2
 :C90/270Left:242.3 Right:42.2



Max , Ave Beam angle of C180 plane 334.57





House

[Unit:cd]

Road

I_{max}:75.20

(10%I_{max}) 13.5549

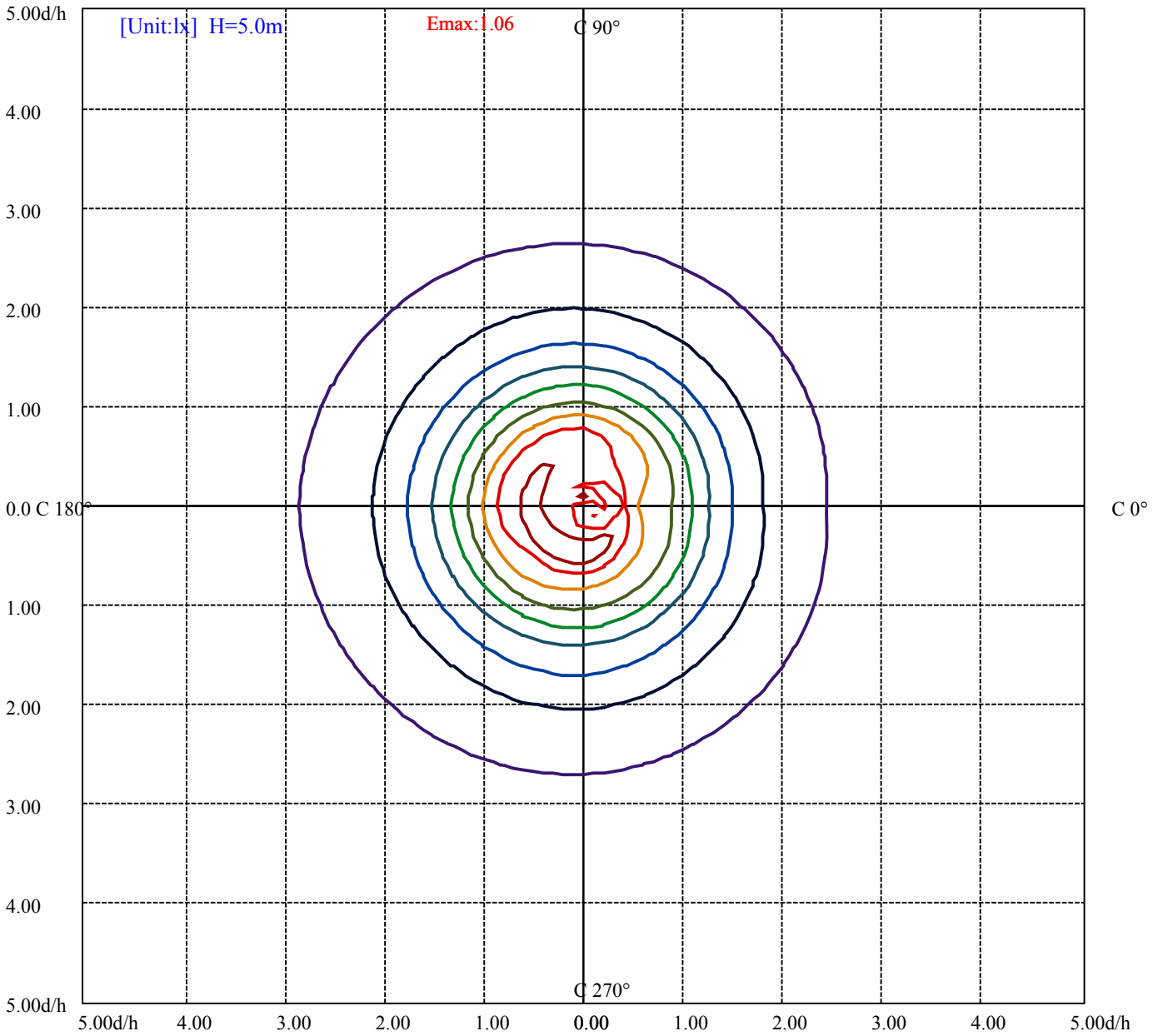
(20%I_{max}) 27.1099

(30%I_{max}) 40.6648

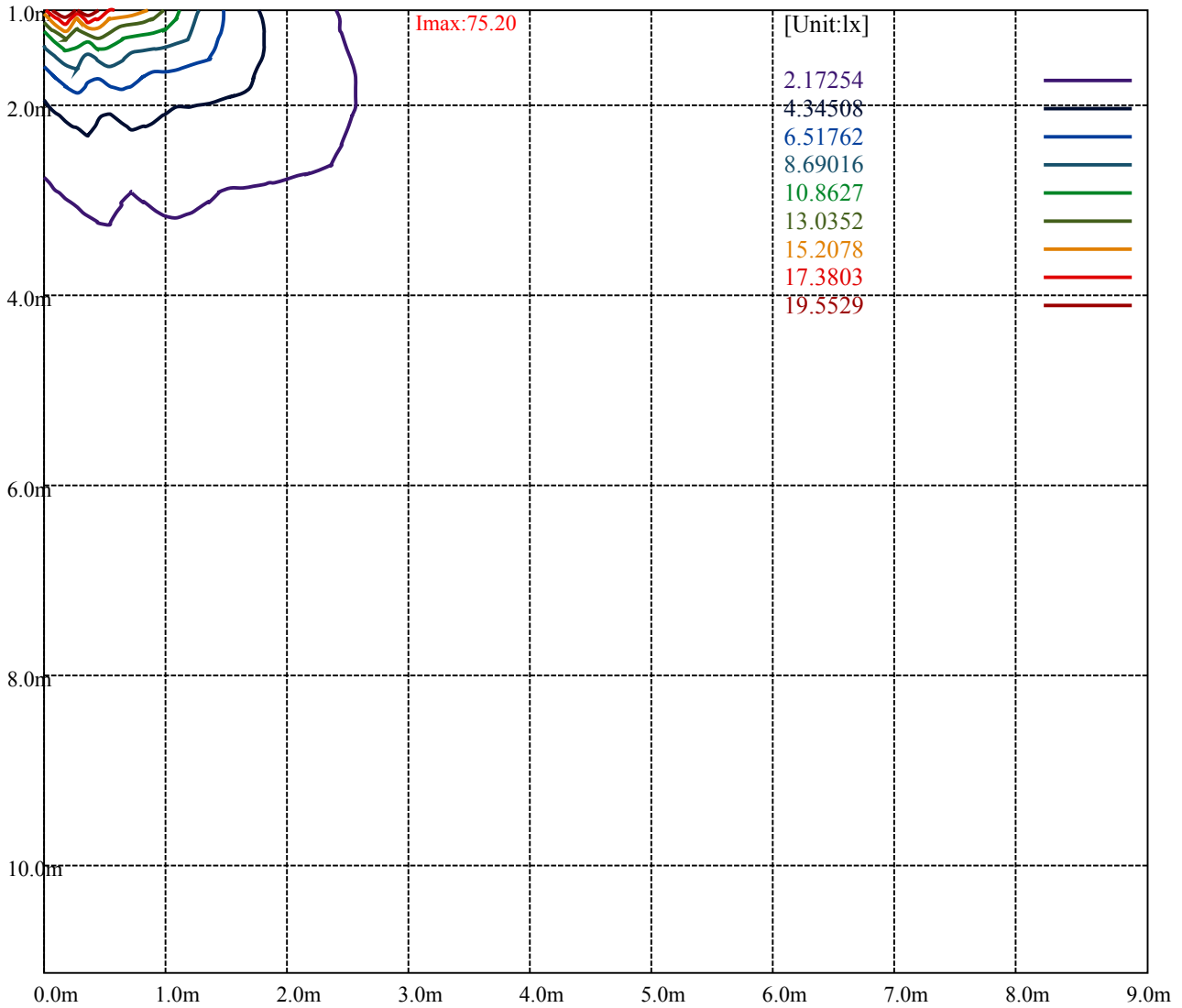
(40%I_{max}) 54.2197

(50%I_{max}) 67.7747





- (10%Emax) 0.1061804 ———
- (20%Emax) 0.2123608 ———
- (30%Emax) 0.3185416 ———
- (40%Emax) 0.42472 ———
- (50%Emax) 0.530904 ———
- (60%Emax) 0.637084 ———
- (70%Emax) 0.743264 ———
- (80%Emax) 0.849444 ———
- (90%Emax) 0.955624 ———



Luminance Table

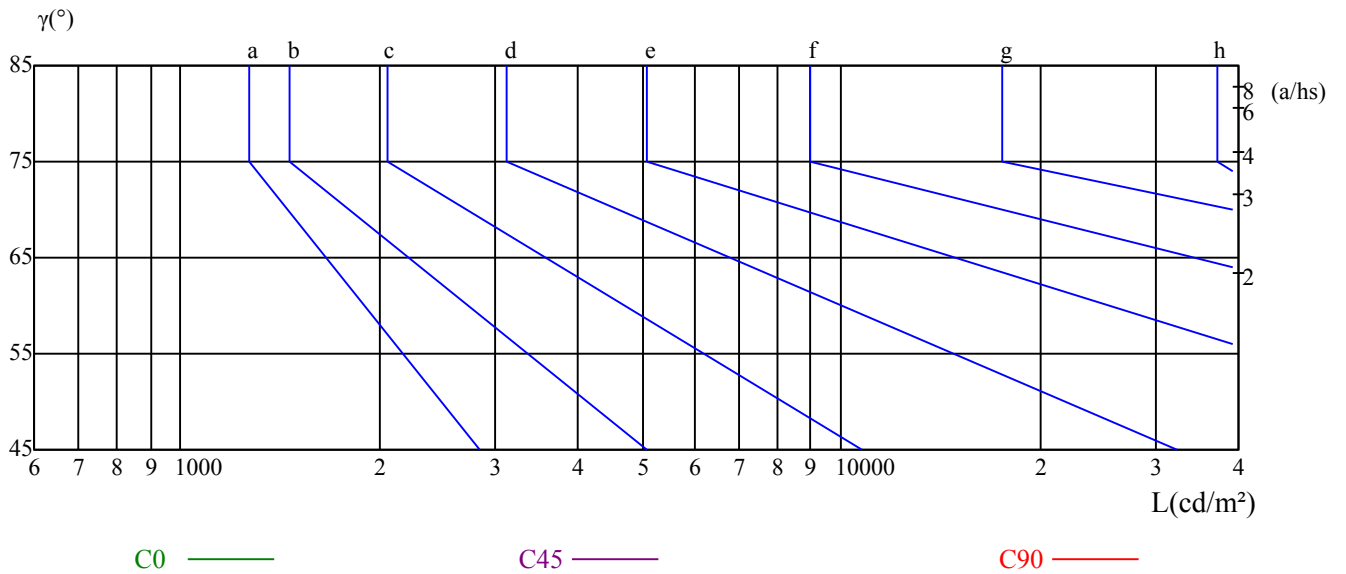
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

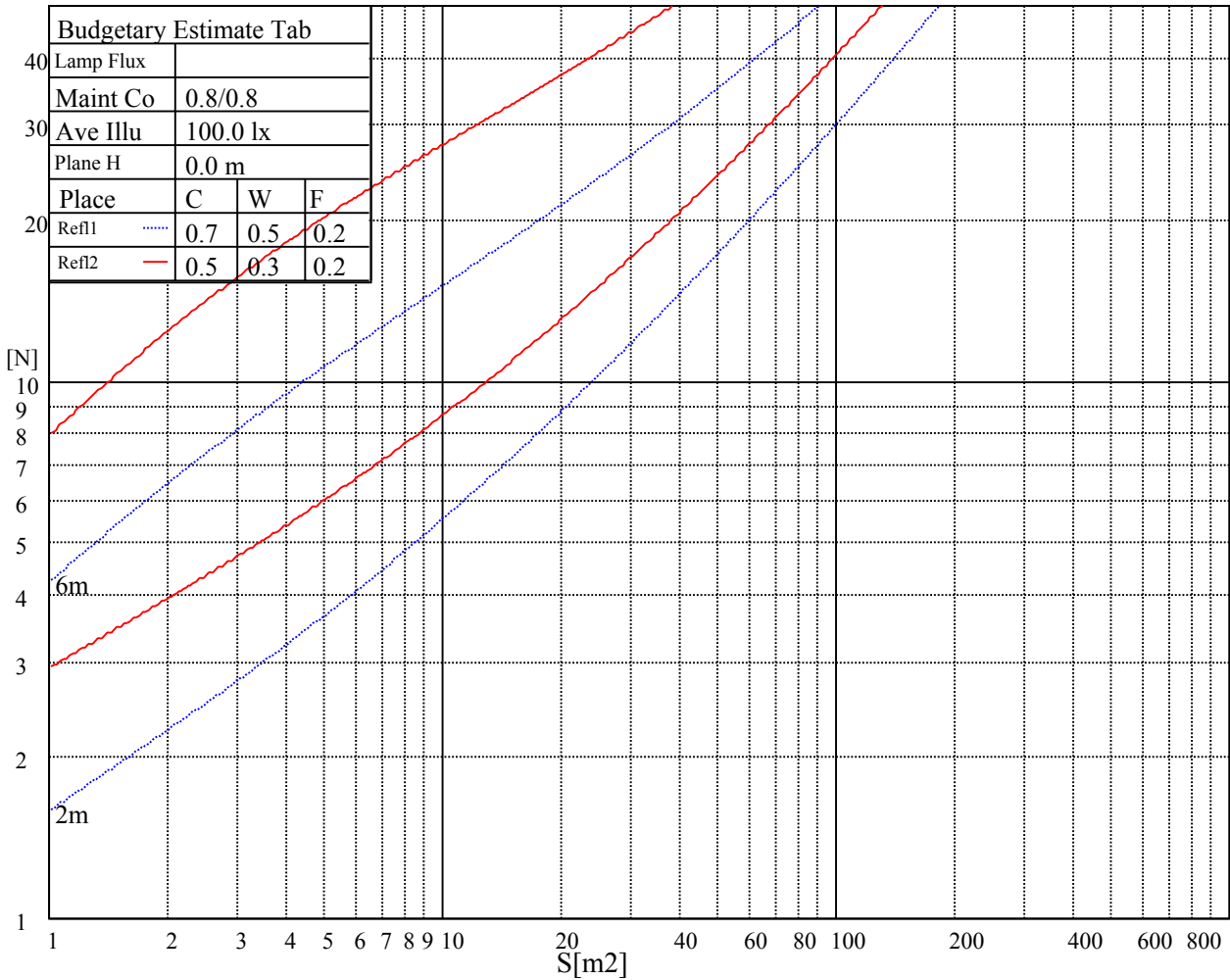
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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 RHOFC=20 CU															
0	1.08	1.08	1.08	0.99	0.99	0.99	0.84	0.84	0.84	0.70	0.70	0.70	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	0.50	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	0.63	0.53	0.46	0.57	0.49	0.43	0.47	0.41	0.36	0.38	0.33	0.29	0.30	0.26	0.23	0.18
4	0.54	0.45	0.37	0.50	0.41	0.35	0.41	0.34	0.29	0.33	0.28	0.23	0.25	0.21	0.18	0.14
5	0.48	0.38	0.31	0.44	0.35	0.29	0.36	0.29	0.24	0.29	0.24	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	0.11	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	0.23	0.17	0.28	0.21	0.16	0.24	0.17	0.13	0.19	0.14	0.11	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	0.12	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	16.27	19.95	24.25	19.64	26.40	27.32	27.01	31.31	35.91
90.0	22.10	26.09	21.18	24.25	27.63	30.39	35.30	40.52	45.43
180.0	16.27	20.87	23.94	24.25	26.70	33.76	38.98	39.90	48.50
270.0	22.10	19.64	22.41	22.41	31.62	35.91	36.83	37.45	40.82
360.0	16.27	19.95	24.25	19.64	26.40	27.32	27.01	31.31	35.91
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	41.75	42.97	45.12	46.04	45.43	50.03	50.95	47.58	50.03
90.0	46.66	51.57	54.02	56.48	59.24	59.24	64.46	63.23	62.00
180.0	52.80	57.40	62.31	65.69	67.53	73.05	66.61	73.36	71.21
270.0	46.35	52.49	54.02	62.00	62.92	63.23	66.30	64.46	66.30
360.0	41.75	42.97	45.12	46.04	45.43	50.03	50.95	47.58	50.03
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	57.09	49.42	46.04	49.11	51.26	44.81	40.52	38.37	37.75
90.0	67.84	63.54	71.21	63.54	65.07	54.94	58.32	50.03	48.50
180.0	75.20	73.05	73.98	69.68	69.68	62.00	62.92	59.24	56.79
270.0	68.45	66.30	65.07	67.53	60.16	56.17	53.72	50.34	42.67
360.0	57.09	49.42	46.04	49.11	51.26	44.81	40.52	38.37	37.75
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	32.84	29.47	25.78	25.48	18.42	15.96	4.60	3.07	1.84
90.0	43.28	36.83	34.07	27.93	23.94	16.58	15.04	5.53	0.00
180.0	47.88	44.81	39.60	37.14	28.55	25.48	26.40	16.27	0.00
270.0	36.83	38.68	31.92	27.63	22.41	21.18	3.38	1.84	0.00
360.0	32.84	29.47	25.78	25.48	18.42	15.96	4.60	3.07	1.84
C/γ(°)	180.0								
0.0	3.68								
90.0	3.07								
180.0	3.68								
270.0	3.07								
360.0	3.68								