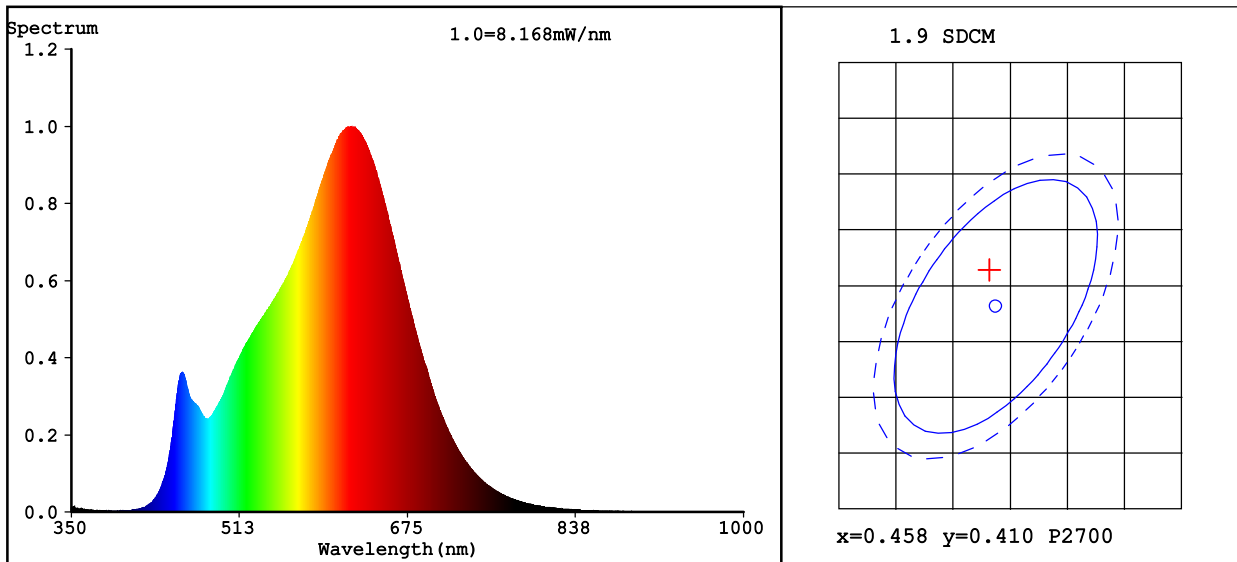


Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.4572$ $y=0.4134/u'=0.2596$ $v'=0.5280$
 CCT=2759K (Duv=0.0013) Dominant WL:Ld =583.5nm Purity=61.3%
 Ratio:R=25.9% G=71.3% B=2.8% Peak WL:Lp=621.1nm FWHM=146.3nm
 Render Index:Ra=92.4
 R1 =93 R2 =98 R3 =98 R4 =92 R5 =93 R6 =98 R7 =90
 R8 =79 R9 =55 R10=94 R11=93 R12=83 R13=95 R14=100 R15=88

Photo Parameters:

Flux = 380.6 lm Eff. : 102.61 lm/W Fe = 1.327 W

Electrical parameters:

V = 120.02 V I = 0.03977 A P = 3.709 W PF = 0.7749

Status: Integral T = 1743 ms Ip = 50415 (77%)

Model:G16.5-3-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: G16.5-3-E12-927-F-F

Luminaire:

Report No:

Voltage(V): 120.0200

Test No: 255150-01-001

Current(A): 0.0410

LampCAT:

Power (W): 3.7740

Lamp flux(lm)

PF: 0.7694

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 394.63

Lumens(lm)/Power(W): 104.57

Central intensity(cd): 26.091

Maximum intensity(cd): 39.597

Angle of maximum intensity: C=0.0 γ =100.0

Beam Angle(50%Imax): [C0/180]Total=305.7

[C90/270]Total=306.9

Field angle(10%Imax): [C0/180]Total=344.1

[C90/270]Total=340.7

Maximum s/h(1/2): C0_180=1.64 C90_270=1.40

Maximum s/h(1/4): C0_180=1.94 C90_270=1.89

Up flux rate of LUM(%): 44.19%

Down flux rate of LUM(%): 53.46%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 27.618%

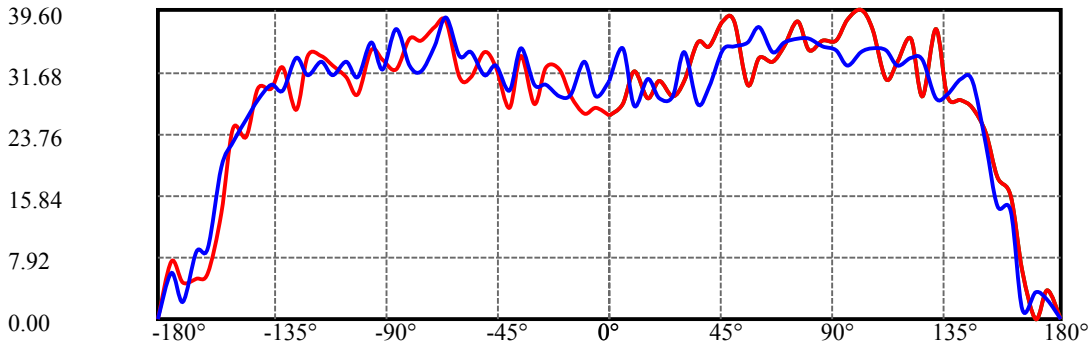
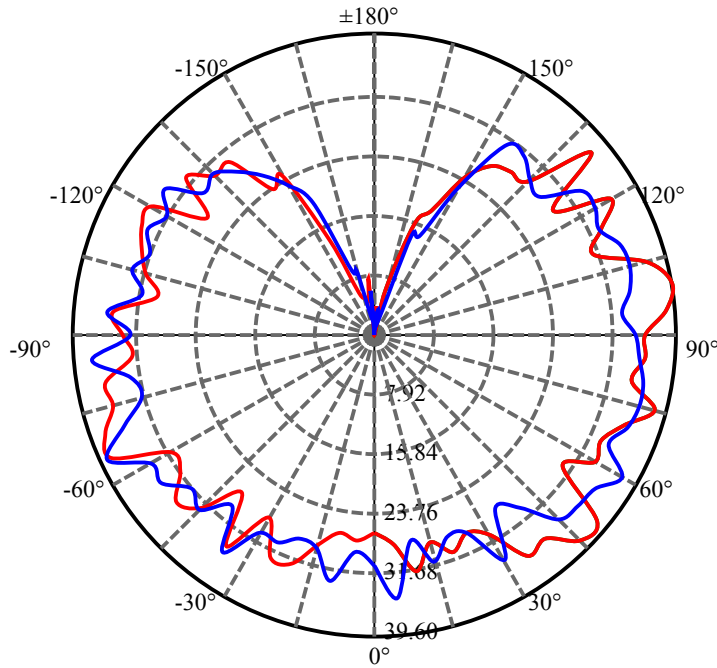
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	28.239	0.169	0.169	.043%	.043%
5.0	29.467	1.408	1.577	.357%	.400%
10.0	29.544	2.812	4.389	.713%	1.112%
15.0	29.084	4.126	8.515	1.046%	2.158%
20.0	29.774	5.582	14.097	1.414%	3.572%
25.0	29.851	6.915	21.012	1.752%	5.324%
30.0	30.542	8.370	29.382	2.121%	7.445%
35.0	32.844	10.326	39.708	2.617%	10.062%
40.0	30.235	10.653	50.361	2.699%	12.761%
45.0	34.302	13.295	63.656	3.369%	16.130%
50.0	34.609	14.532	78.188	3.682%	19.813%
55.0	32.613	14.644	92.832	3.711%	23.524%
60.0	33.918	16.101	108.933	4.080%	27.604%
65.0	35.913	17.841	126.774	4.521%	32.124%
70.0	35.683	18.380	145.153	4.657%	36.782%
75.0	35.299	18.690	163.843	4.736%	41.518%
80.0	34.685	18.724	182.566	4.745%	46.262%
85.0	34.916	19.066	201.632	4.831%	51.094%
90.0	33.765	18.508	220.14	4.690%	55.783%
95.0	35.146	19.191	239.331	4.863%	60.647%
100.0	33.381	18.019	257.35	4.566%	65.213%
105.0	33.918	17.958	275.309	4.551%	69.763%
110.0	32.230	16.601	291.91	4.207%	73.970%
115.0	32.997	16.392	308.302	4.154%	78.124%
120.0	33.611	15.955	324.257	4.043%	82.167%
125.0	30.465	13.679	337.936	3.466%	85.633%
130.0	31.693	13.308	351.244	3.372%	89.005%
135.0	29.237	11.332	362.576	2.872%	91.877%
140.0	29.007	10.220	372.796	2.590%	94.467%
145.0	26.551	8.348	381.144	2.115%	96.582%
150.0	23.328	6.394	387.537	1.620%	98.202%
155.0	16.345	3.786	391.324	.959%	99.161%
160.0	11.127	2.086	393.41	.529%	99.690%
165.0	5.295	0.751	394.161	.190%	99.880%
170.0	2.532	0.241	394.402	.061%	99.941%
175.0	4.834	0.231	394.633	.059%	100.000%
180.0	0.000	0.000	394.633	.000%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	29.38	7.45%
0-40	50.36	12.76%
0-60	108.93	27.60%
0-90	220.14	55.78%
0-120	324.26	82.17%
0-180	394.63	100.00%
60-90	127.31	32.26%
90-120	122.63	31.07%
90-130	149.61	37.91%
90-150	185.91	47.11%
90-180	193.00	48.91%
0-117.32	315.71	80.00%

ZONAL LUMEN SUMMARY

0-10	4.39
10-20	9.71
20-30	15.29
30-40	20.98
40-50	27.83
50-60	30.74
60-70	36.22
70-80	37.41
80-90	37.57
90-100	37.21
100-110	34.56
110-120	32.35
120-130	26.99
130-140	21.55
140-150	14.74
150-160	5.87
160-170	0.99
170-180	0.23



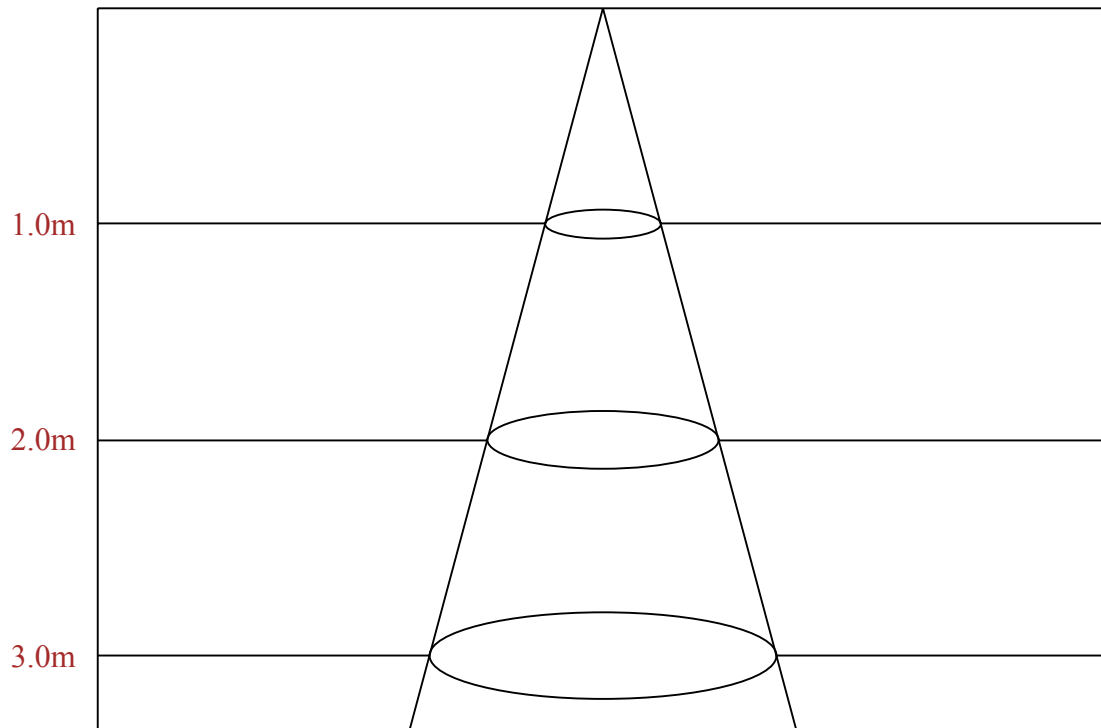
C0(Max): ———

C0/C180: ———

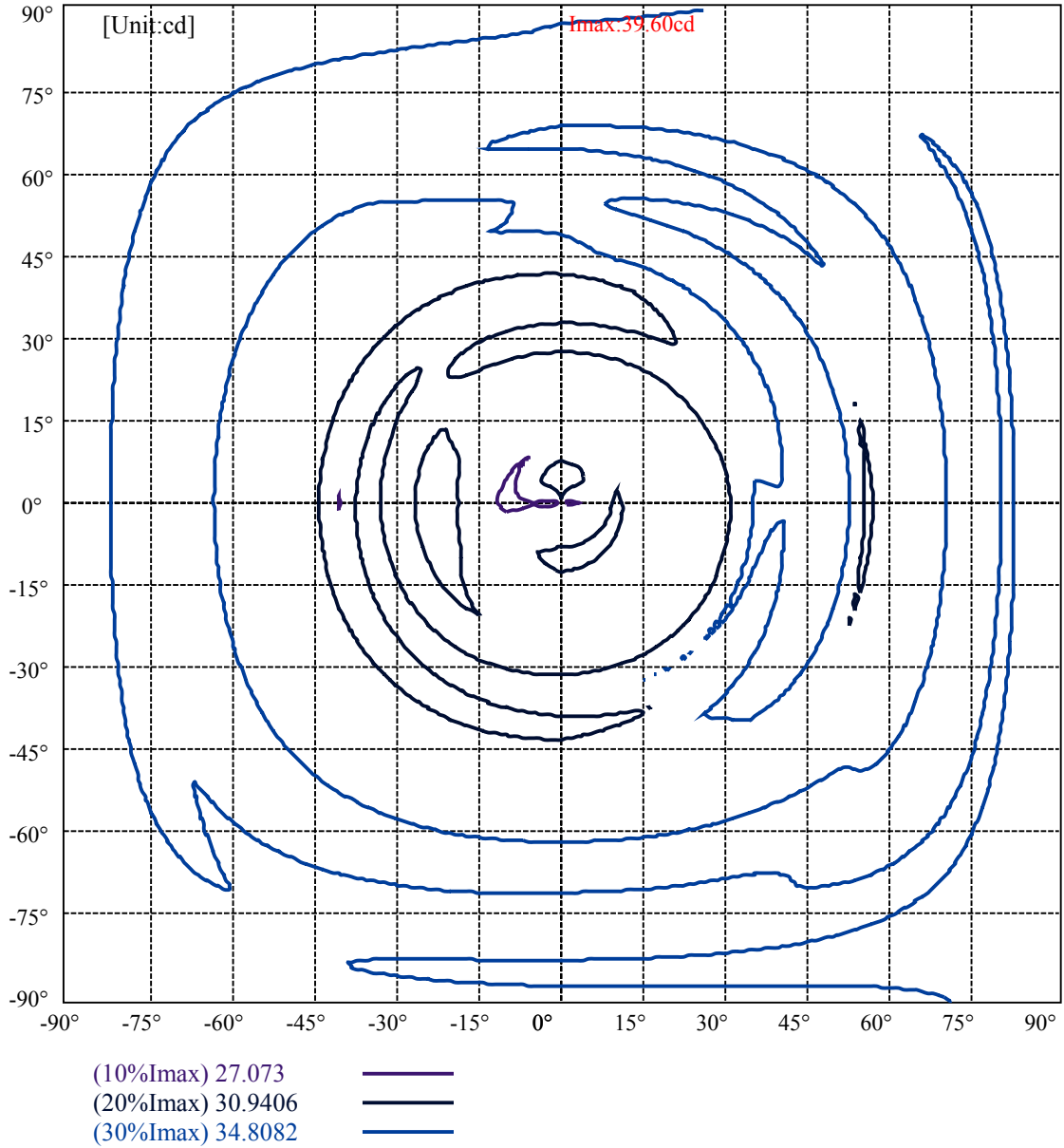
C90/C270: ———

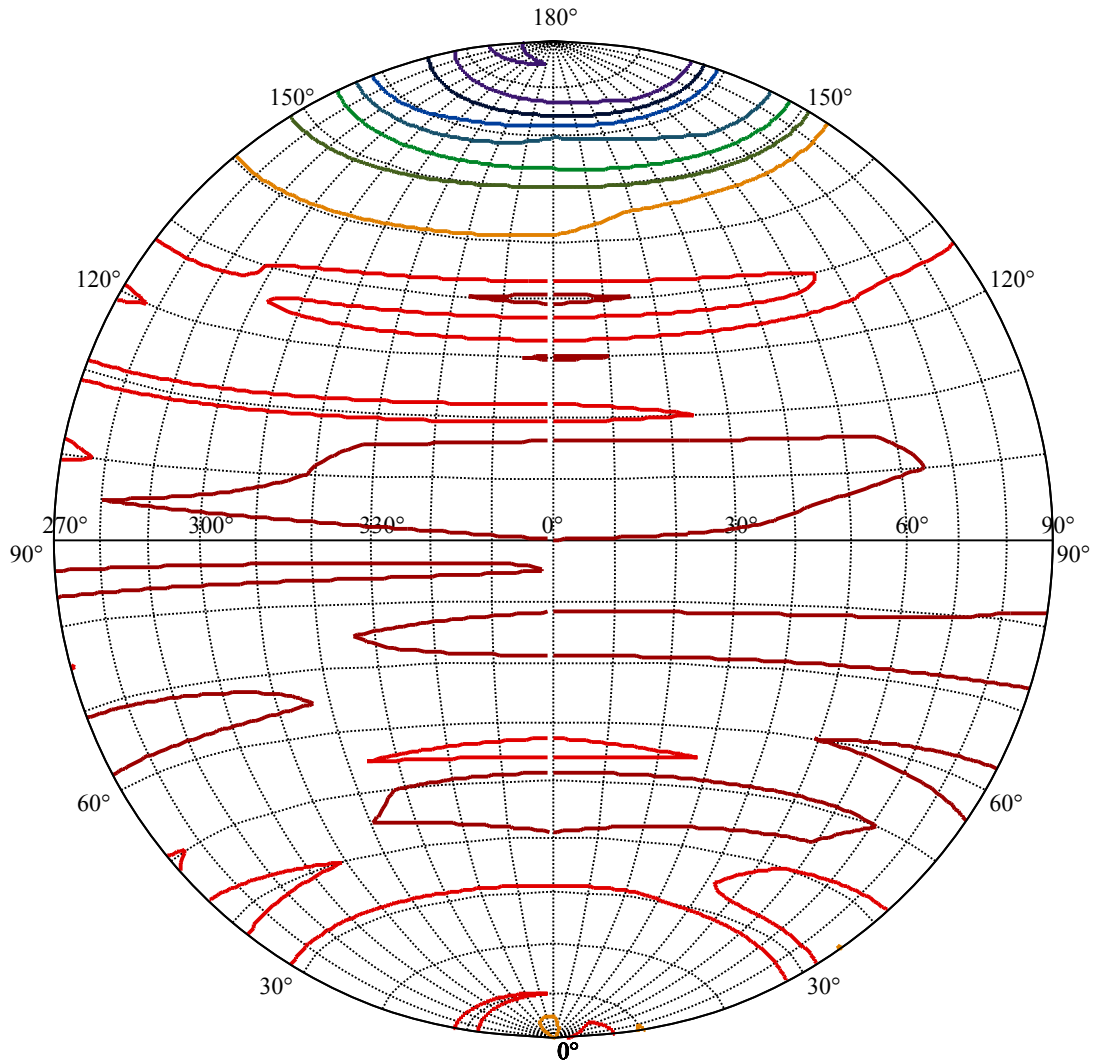
Field angle(10%Imax):C0/180Left:277.3 Right:66.8
:C90/270Left:111.7 Right:229.0

Beam Angle(50%Imax):C0/180Left:252.1 Right:53.6
:C90/270Left:90.0 Right:216.9



Max , Ave Beam angle of C0 plane 316.13





House

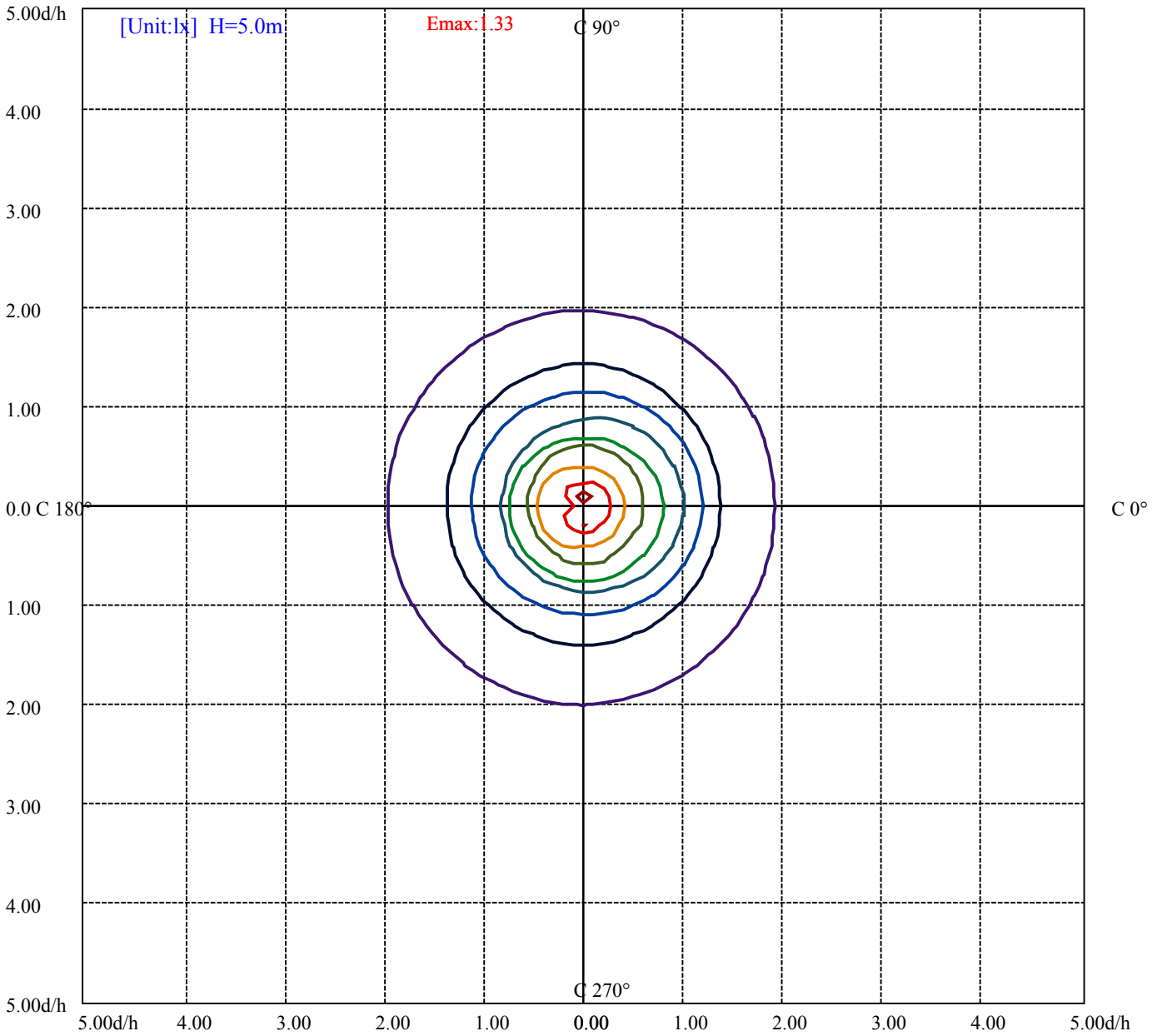
[Unit:cd]

Road

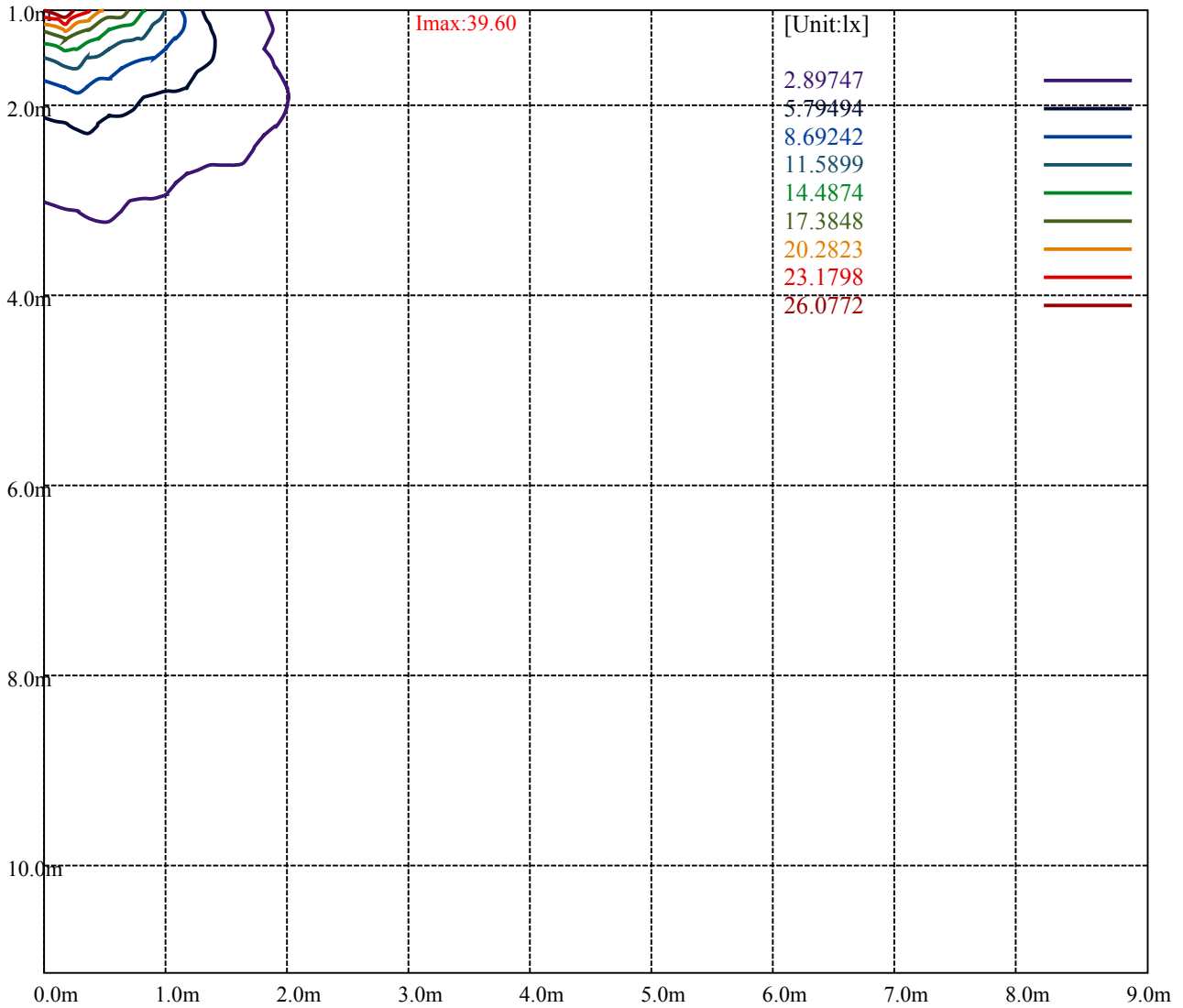
Imax:39.60

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





- (10%Emax) 0.1325552 ———
- (20%Emax) 0.2651104 ———
- (30%Emax) 0.397666 ———
- (40%Emax) 0.53022 ———
- (50%Emax) 0.6627761 ———
- (60%Emax) 0.795332 ———
- (70%Emax) 0.927888 ———
- (80%Emax) 1.060444 ———
- (90%Emax) 1.192996 ———



Luminance Table

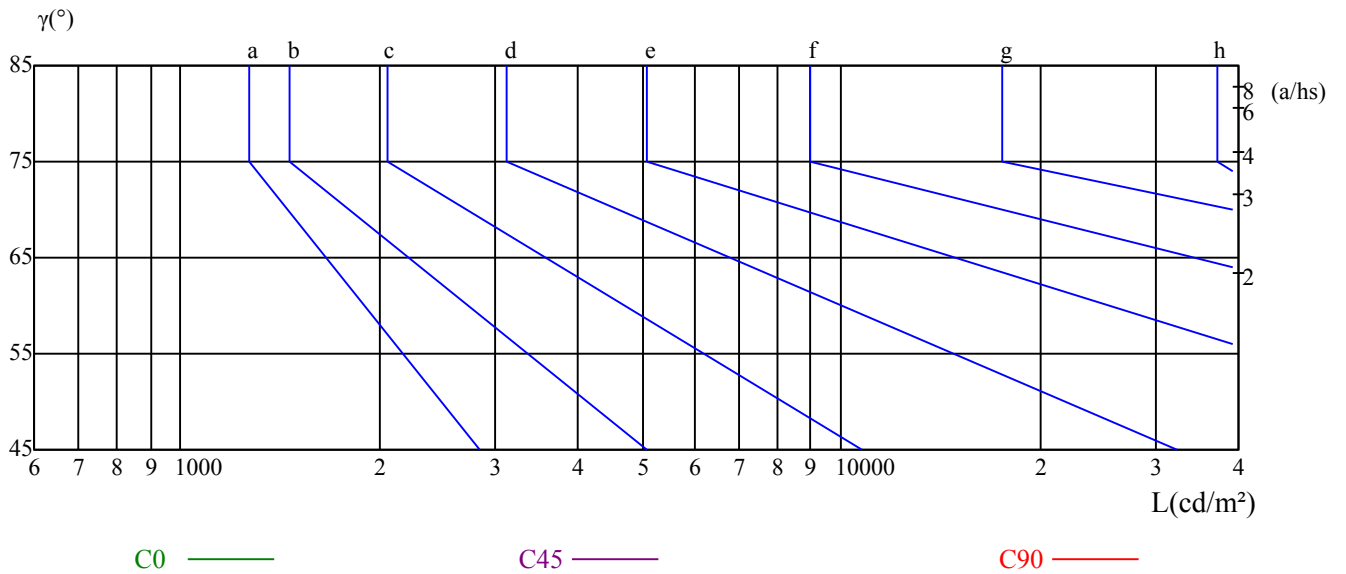
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

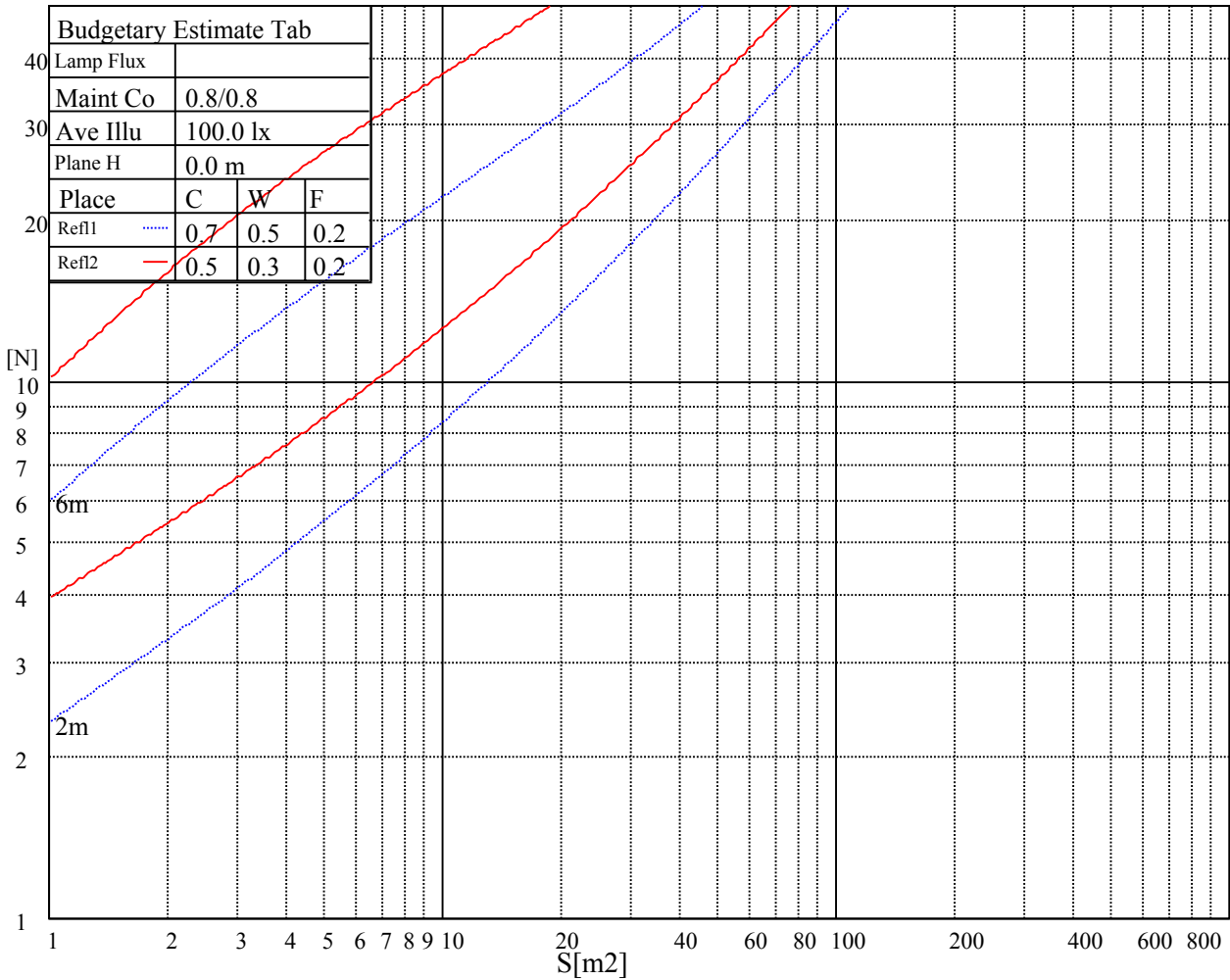
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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	1.00	1.00	1.00	0.85	0.85	0.85	0.72	0.72	0.72	0.59	0.59	0.59	0.53
1	0.89	0.84	0.79	0.82	0.77	0.73	0.69	0.66	0.62	0.57	0.55	0.52	0.47	0.45	0.43	0.37
2	0.75	0.67	0.61	0.69	0.62	0.56	0.58	0.53	0.48	0.48	0.44	0.40	0.38	0.35	0.33	0.28
3	0.65	0.56	0.49	0.59	0.52	0.45	0.50	0.44	0.39	0.41	0.36	0.32	0.33	0.29	0.26	0.22
4	0.56	0.47	0.40	0.52	0.44	0.37	0.43	0.37	0.32	0.36	0.31	0.26	0.28	0.24	0.21	0.17
5	0.50	0.40	0.34	0.46	0.37	0.31	0.38	0.32	0.27	0.32	0.26	0.22	0.25	0.21	0.18	0.14
6	0.44	0.35	0.29	0.41	0.33	0.27	0.34	0.28	0.23	0.28	0.23	0.19	0.23	0.18	0.15	0.12
7	0.40	0.31	0.25	0.37	0.29	0.23	0.31	0.24	0.20	0.25	0.20	0.16	0.20	0.16	0.13	0.10
8	0.36	0.27	0.22	0.33	0.25	0.20	0.28	0.22	0.17	0.23	0.18	0.14	0.19	0.15	0.12	0.09
9	0.33	0.24	0.19	0.30	0.23	0.18	0.26	0.19	0.15	0.21	0.16	0.13	0.17	0.13	0.10	0.08
10	0.30	0.22	0.17	0.28	0.21	0.16	0.23	0.18	0.14	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	26.09	27.63	31.62	28.24	30.39	28.55	30.39	35.30	34.99
90.0	30.39	34.69	27.32	30.70	28.24	28.55	34.07	27.63	29.77
180.0	26.09	27.01	26.40	28.55	31.92	32.23	27.63	33.76	27.01
270.0	30.39	28.55	32.84	28.85	28.55	30.08	30.08	34.69	29.16
360.0	26.09	27.63	31.62	28.24	30.39	28.55	30.39	35.30	34.99
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	38.06	38.06	30.08	33.46	32.84	34.99	38.06	34.38	35.61
90.0	34.38	34.99	35.30	37.45	34.07	35.30	35.91	35.91	34.99
180.0	32.23	34.07	31.00	31.00	38.06	37.45	35.61	35.91	31.92
270.0	32.54	31.31	34.07	33.76	38.68	34.99	31.62	32.54	37.14
360.0	38.06	38.06	30.08	33.46	32.84	34.99	38.06	34.38	35.61
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	35.61	38.37	39.60	37.14	30.70	32.84	35.91	28.55	37.14
90.0	34.38	32.54	34.07	34.69	34.38	32.54	33.46	33.15	28.24
180.0	33.15	34.38	28.85	31.00	32.54	33.76	33.76	26.70	32.23
270.0	31.92	35.30	31.00	32.84	31.31	32.84	31.31	33.46	29.16
360.0	35.61	38.37	39.60	37.14	30.70	32.84	35.91	28.55	37.14
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	28.55	27.93	27.01	23.94	18.11	15.65	6.14	0.00	3.68
90.0	28.85	30.70	30.39	22.41	14.43	13.81	1.23	3.38	2.46
180.0	29.47	29.47	23.33	24.25	13.51	5.83	5.22	4.60	7.37
270.0	30.08	27.93	25.48	22.71	19.34	9.21	8.59	2.15	5.83
360.0	28.55	27.93	27.01	23.94	18.11	15.65	6.14	0.00	3.68
C/γ(°)	180.0								
0.0	0.00								
90.0	0.00								
180.0	0.00								
270.0	0.00								
360.0	0.00								