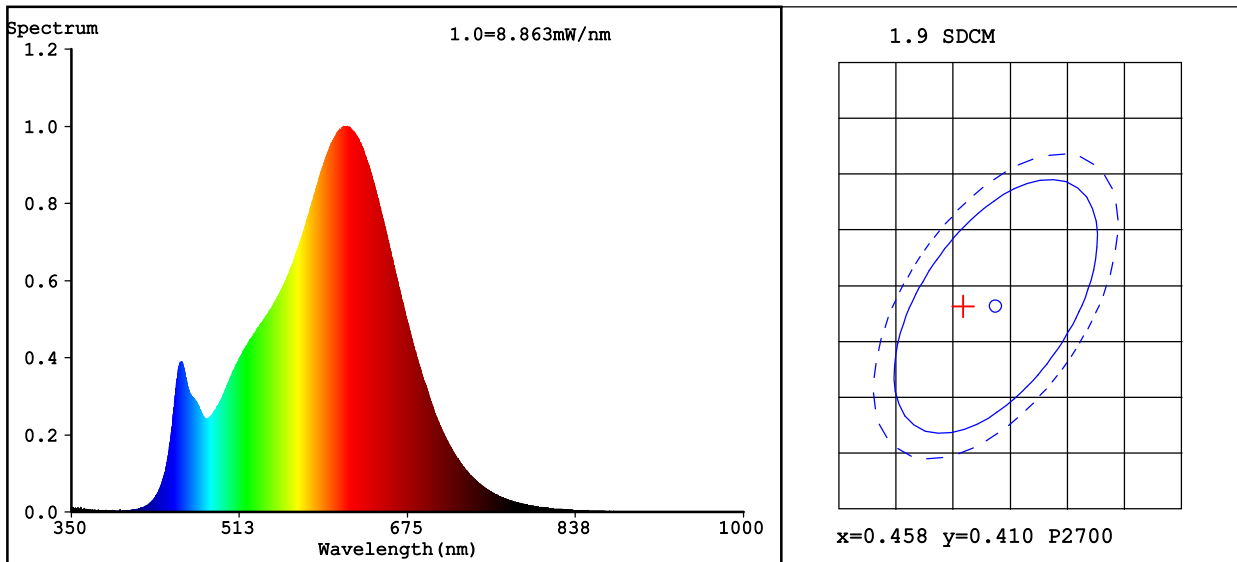


**Spectrum Test Report**



**Color Parameters:**

Chromaticity Coordinate:  $x=0.4549$   $y=0.4101$  /  $u'=0.2595$   $v'=0.5264$   
 CCT=2767K (Duv=0.0002) Dominant WL:Ld =583.8nm Purity=59.6%  
 Ratio:R=25.7% G=71.5% B=2.8% Peak WL:Lp=615.2nm FWHM=137.5nm  
 Render Index:Ra=90.2  
 R1 =91 R2 =97 R3 =96 R4 =89 R5 =91 R6 =97 R7 =87  
 R8 =73 R9 =44 R10=94 R11=90 R12=83 R13=93 R14=99 R15=85

**Photo Parameters:**

Flux = 378.8 lm Eff. : 101.02 lm/W Fe = 1.401 W

**Electrical parameters:**

V = 120.01 V I = 0.03986 A P = 3.713 W PF = 0.7773

Status: Integral T = 1573 ms Ip = 49208 (75%)

Model:ST19-3-E26-927-F-C	Number:1
Tester:XXL	Date:2018-09-30
Temperature:25.2Deg	Humidity:65.0%
Manufacturer:RAB Lighting Inc.	Remarks:

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RAB Lighting Inc.

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Client:

LumCAT: ST19-3-E26-927-F-C

Luminaire:

Report No:

Voltage(V): 120.0500

Test No: 255192-01-001

Current(A): 0.0400

LampCAT:

Power (W): 3.6310

Lamp flux(lm)

PF: 0.7615

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

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Photometric Results

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Lumens(lm): 288.46

Lumens(lm)/Power(W): 79.44

Central intensity(cd): 6.446

Maximum intensity(cd): 41.745

Angle of maximum intensity: C=90.0  $\gamma$ =100.0

Beam Angle(50%Imax): [C0/180]Total=274.1

[C90/270]Total=284.0

Field angle(10%Imax): [C0/180]Total=331.2

[C90/270]Total=329.5

Maximum s/h(1/2): C0\_180=115.87 C90\_270=4.09

Maximum s/h(1/4): C0\_180=2.89 C90\_270=4.01

Up flux rate of LUM(%): 44.51%

Down flux rate of LUM(%): 52.65%

CIE Type : General diffuse lighting

Output flux ratio in  $\pi$  solid angle : 24.171%

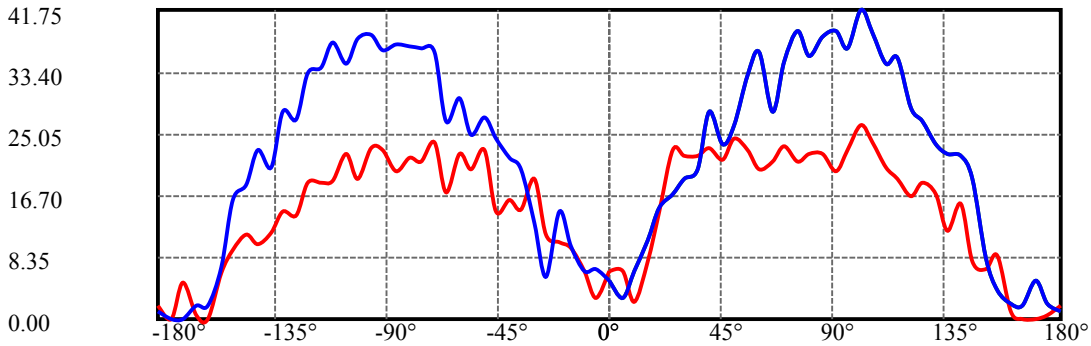
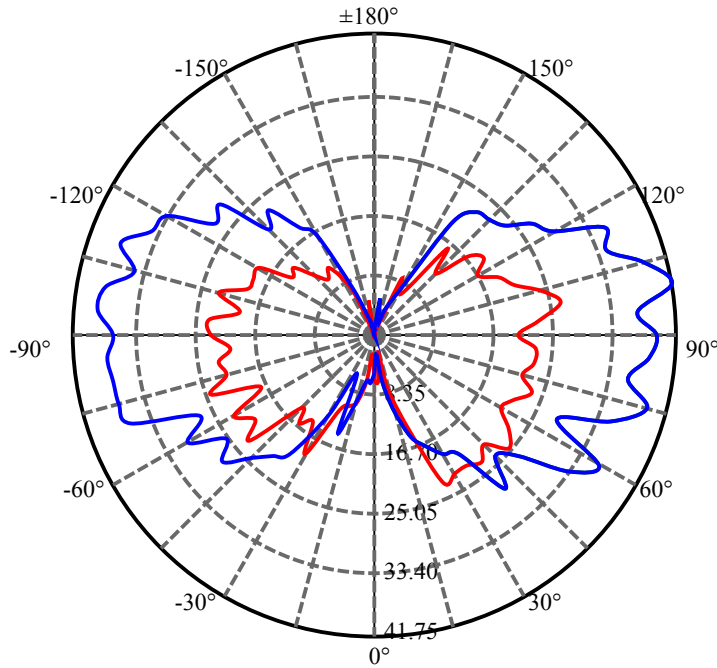
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5.832	0.035	0.035	.012%	.012%
5.0	4.681	0.224	0.259	.078%	.090%
10.0	5.448	0.519	0.777	.180%	.269%
15.0	9.439	1.339	2.116	.464%	.734%
20.0	13.583	2.546	4.663	.883%	1.616%
25.0	14.196	3.289	7.951	1.140%	2.756%
30.0	18.264	5.005	12.957	1.735%	4.492%
35.0	19.338	6.080	19.036	2.108%	6.599%
40.0	22.177	7.814	26.85	2.709%	9.308%
45.0	20.949	8.120	34.97	2.815%	12.123%
50.0	25.093	10.537	45.507	3.653%	15.776%
55.0	25.170	11.301	56.808	3.918%	19.693%
60.0	27.088	12.859	69.667	4.458%	24.151%
65.0	23.251	11.551	81.218	4.004%	28.155%
70.0	29.467	15.178	96.396	5.262%	33.417%
75.0	29.467	15.602	111.998	5.409%	38.826%
80.0	29.160	15.741	127.739	5.457%	44.283%
85.0	29.391	16.049	143.787	5.564%	49.846%
90.0	29.467	16.152	159.939	5.599%	55.445%
95.0	30.158	16.468	176.407	5.709%	61.154%
100.0	31.155	16.818	193.225	5.830%	66.984%
105.0	29.851	15.805	209.03	5.479%	72.463%
110.0	27.779	14.308	223.339	4.960%	77.424%
115.0	26.705	13.266	236.605	4.599%	82.023%
120.0	24.172	11.475	248.08	3.978%	86.001%
125.0	21.563	9.682	257.762	3.356%	89.357%
130.0	20.719	8.700	266.462	3.016%	92.373%
135.0	16.652	6.454	272.916	2.237%	94.610%
140.0	17.650	6.219	279.134	2.156%	96.766%
145.0	14.043	4.415	283.549	1.531%	98.297%
150.0	10.053	2.755	286.305	.955%	99.252%
155.0	6.446	1.493	287.798	.518%	99.770%
160.0	1.228	0.230	288.028	.080%	99.849%
165.0	1.074	0.152	288.18	.053%	99.902%
170.0	2.532	0.241	288.421	.084%	99.986%
175.0	0.691	0.033	288.454	.011%	99.997%
180.0	1.381	0.008	288.463	.003%	100.000%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	12.96	4.49%
0-40	26.85	9.31%
0-60	69.67	24.15%
0-90	159.94	55.45%
0-120	248.08	86.00%
0-180	288.46	100.00%
60-90	103.13	35.75%
90-120	104.29	36.15%
90-130	122.67	42.53%
90-150	142.52	49.41%
90-180	144.67	50.15%
0-112.80	230.77	80.00%

## ZONAL LUMEN SUMMARY

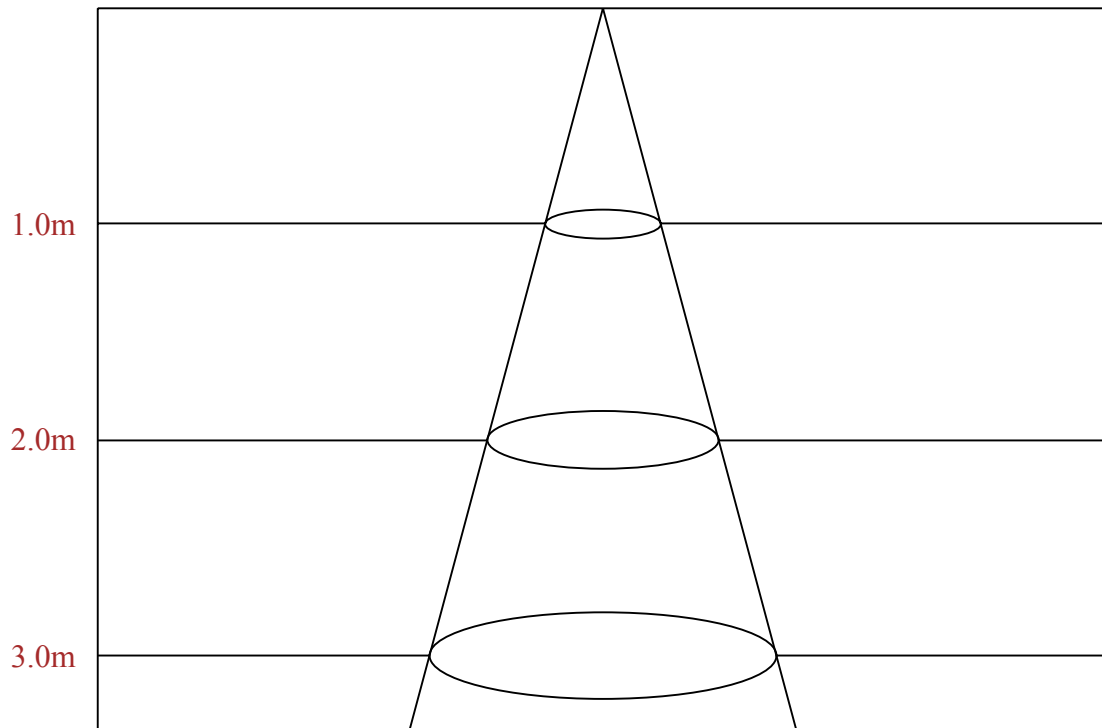
0-10	0.78
10-20	3.89
20-30	8.29
30-40	13.89
40-50	18.66
50-60	24.16
60-70	26.73
70-80	31.34
80-90	32.20
90-100	33.29
100-110	30.11
110-120	24.74
120-130	18.38
130-140	12.67
140-150	7.17
150-160	1.72
160-170	0.39
170-180	0.03



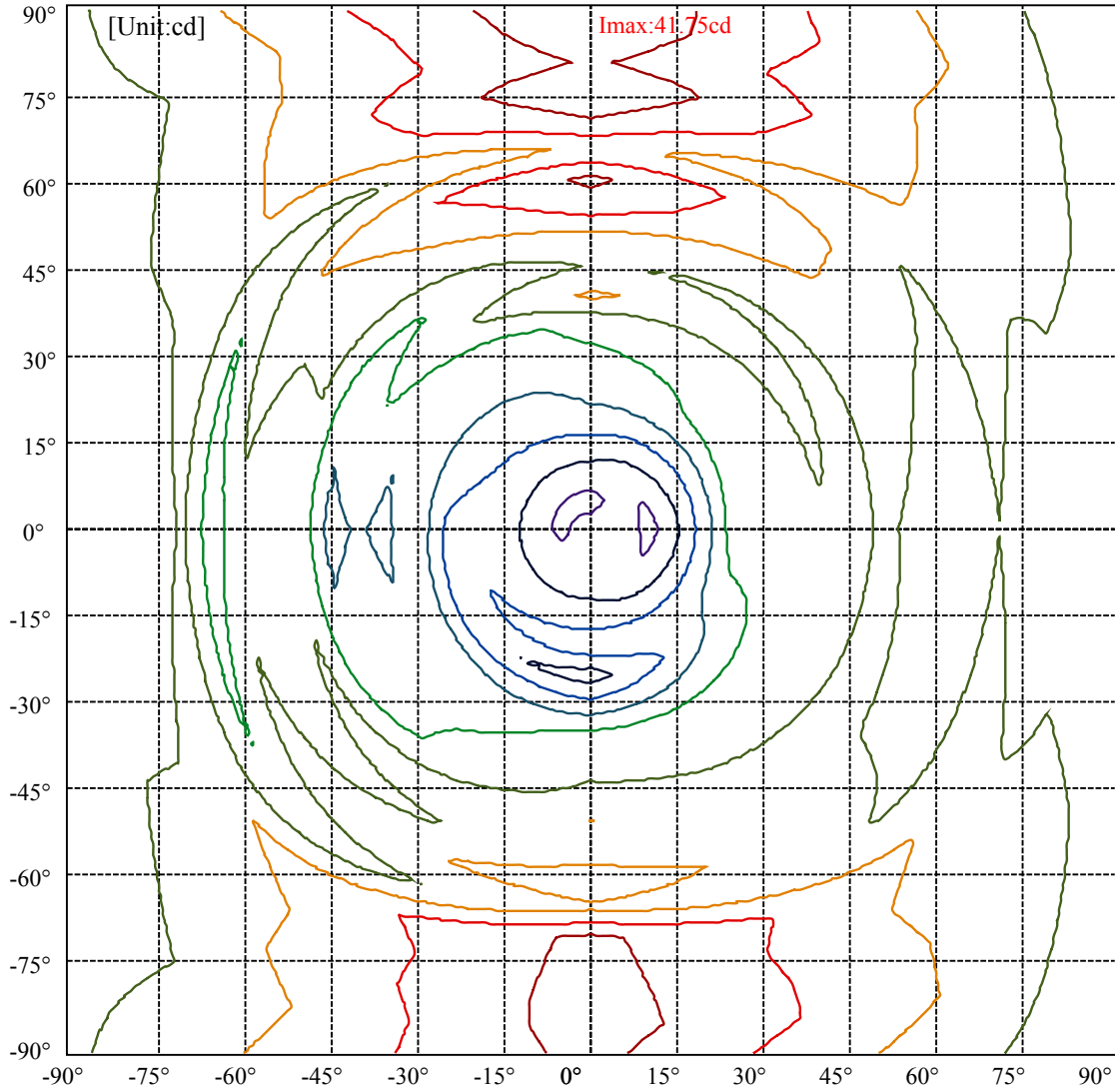
C90(Max): ———  
C0/C180: ———  
C90/C270: ———

Field angle(10%I<sub>max</sub>):C0/180Left:272.3 Right:58.9  
:C90/270Left:257.8 Right:71.7

Beam Angle(50%I<sub>max</sub>):C0/180Left:232.5 Right:41.6  
:C90/270Left:242.0 Right:42.0



Max , Ave      Beam angle of C90 plane 331.53

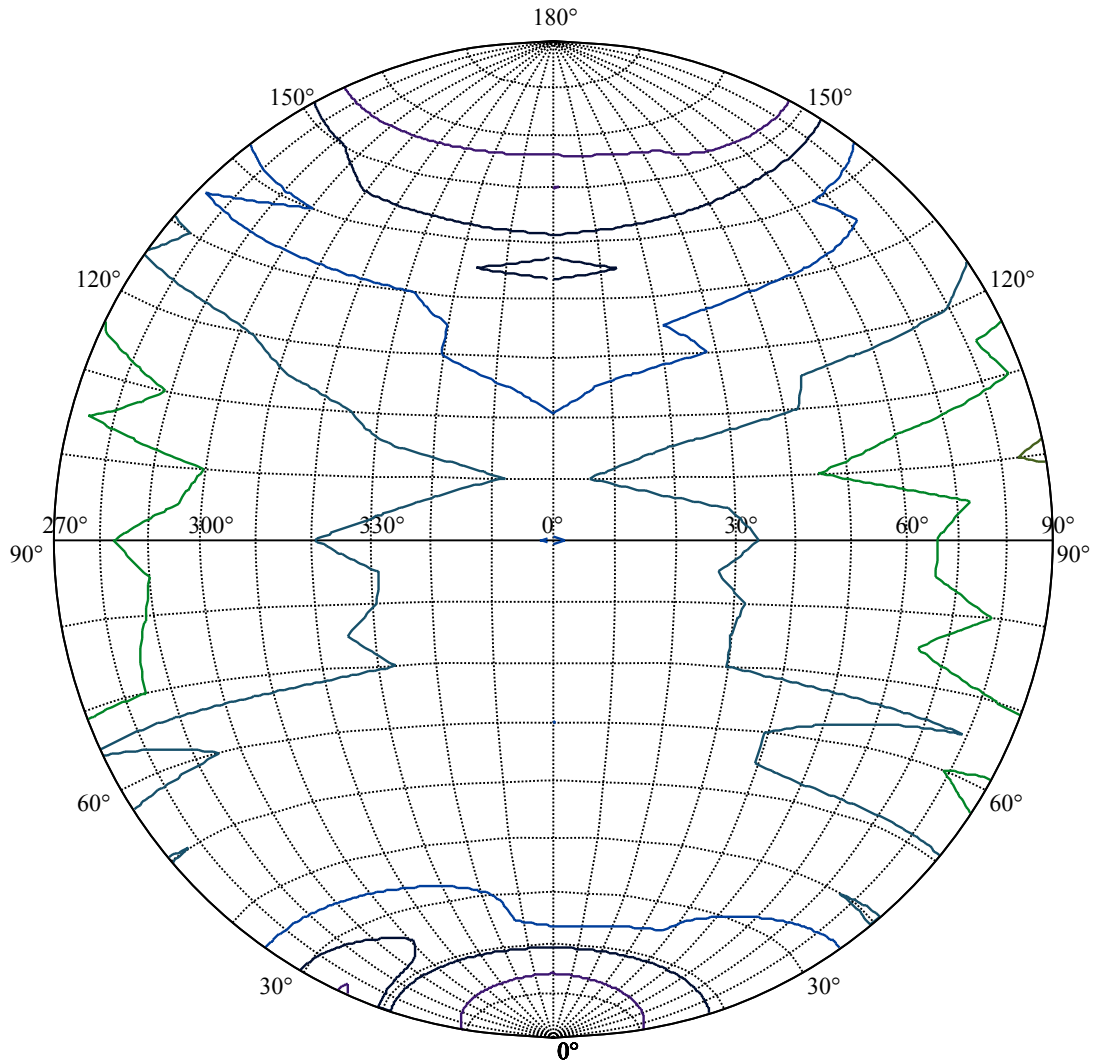


(10%Imax) 3.89827	—
(20%Imax) 7.79654	—
(30%Imax) 11.6948	—
(40%Imax) 15.5931	—
(50%Imax) 19.4914	—
(60%Imax) 23.3896	—
(70%Imax) 27.2879	—
(80%Imax) 31.1862	—
(90%Imax) 35.0844	—

Equipment: Goniophotometer  
Temperature(°C): 0.0

Date: 2018/9/30  
Humidity(%): 0.0%

Operator: WANG  
Distance(m): 17.52



House

[Unit:cd]

Road

**Imax:41.75**

(10%Imax) 6.77746

(20%Imax) 13.5549

(30%Imax) 20.3324

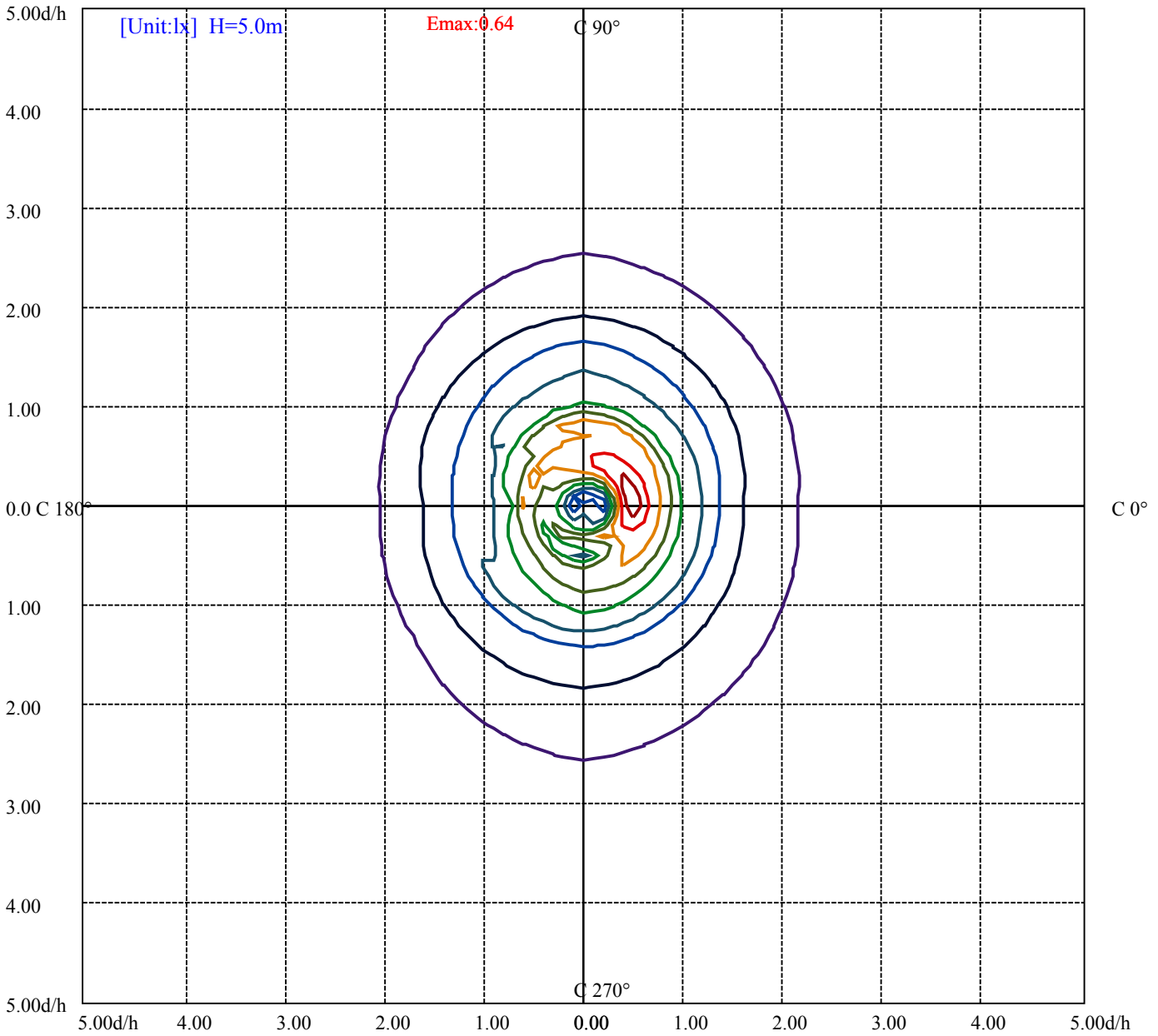
(40%Imax) 27.1099

(50%Imax) 33.8873

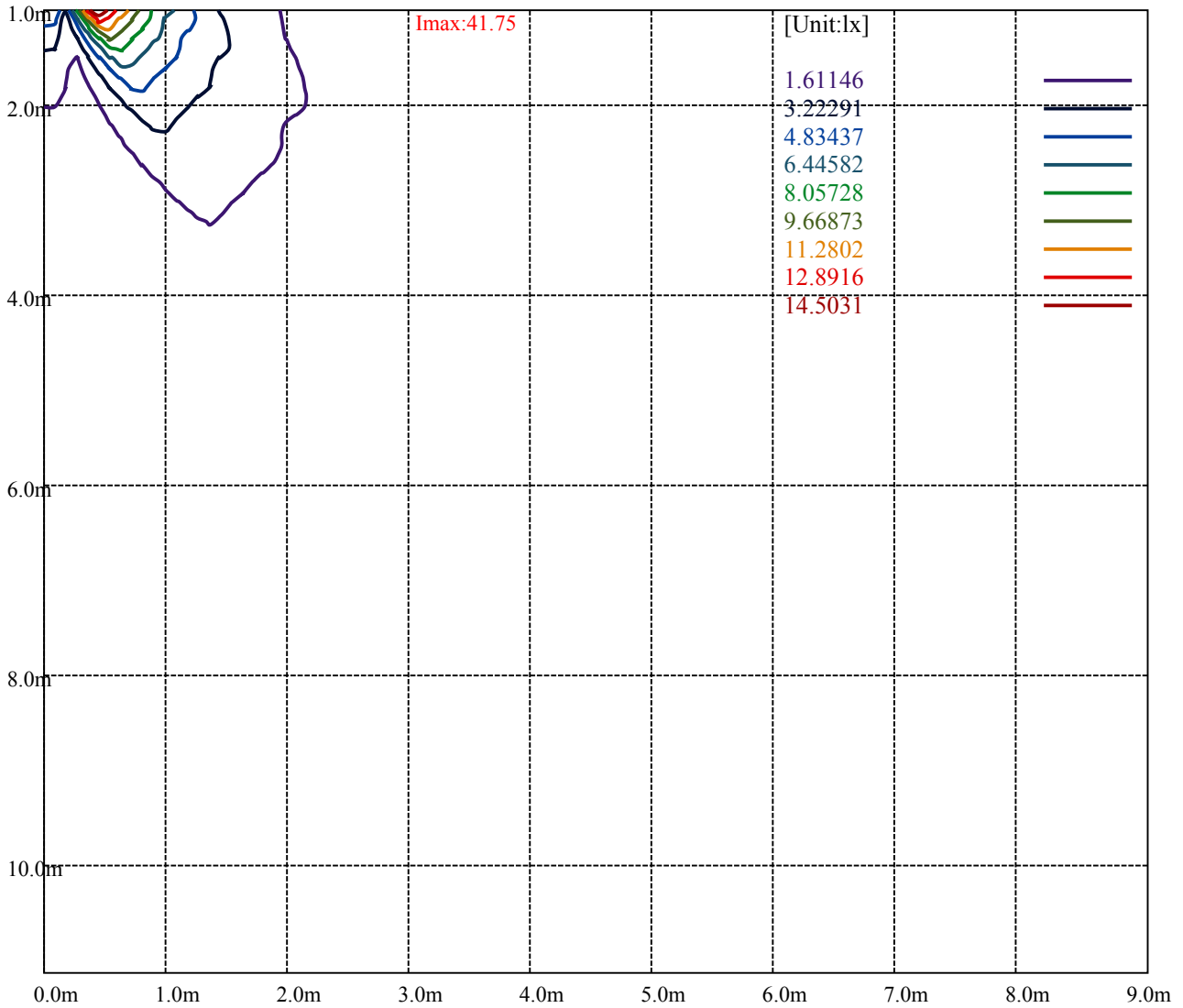
(60%Imax) 40.6648







(10%Emax) 0.064458	—
(20%Emax) 0.128916	—
(30%Emax) 0.193374	—
(40%Emax) 0.257832	—
(50%Emax) 0.32229	—
(60%Emax) 0.386748	—
(70%Emax) 0.451208	—
(80%Emax) 0.515664	—
(90%Emax) 0.580124	—



Luminance Table

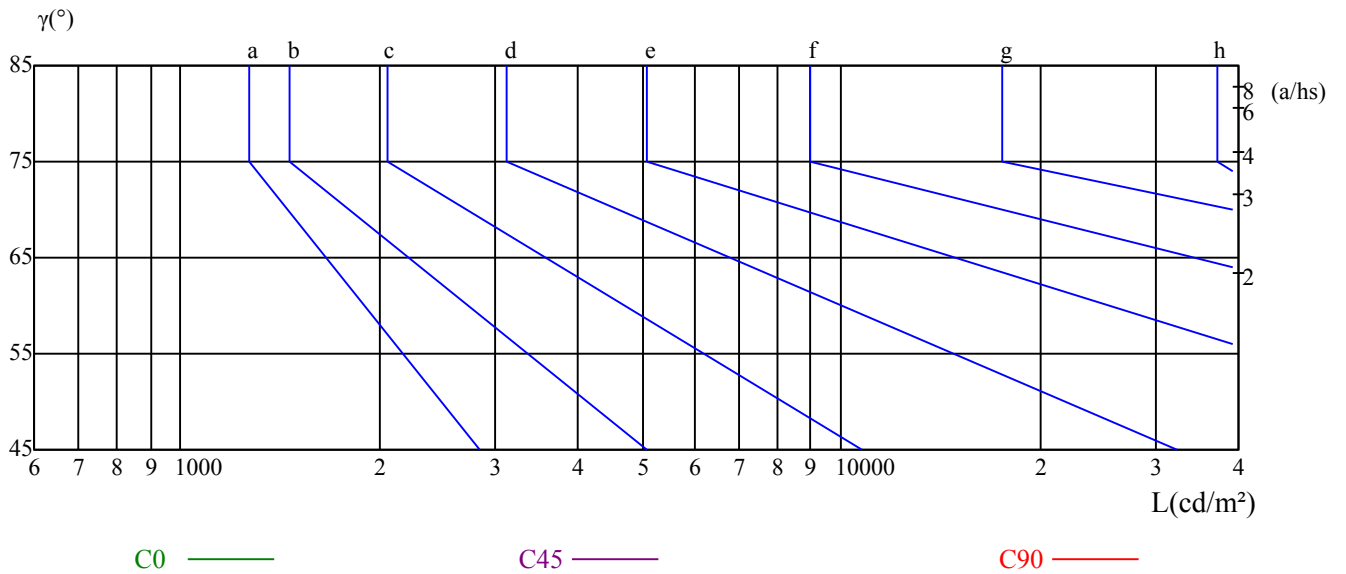
$\gamma$	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

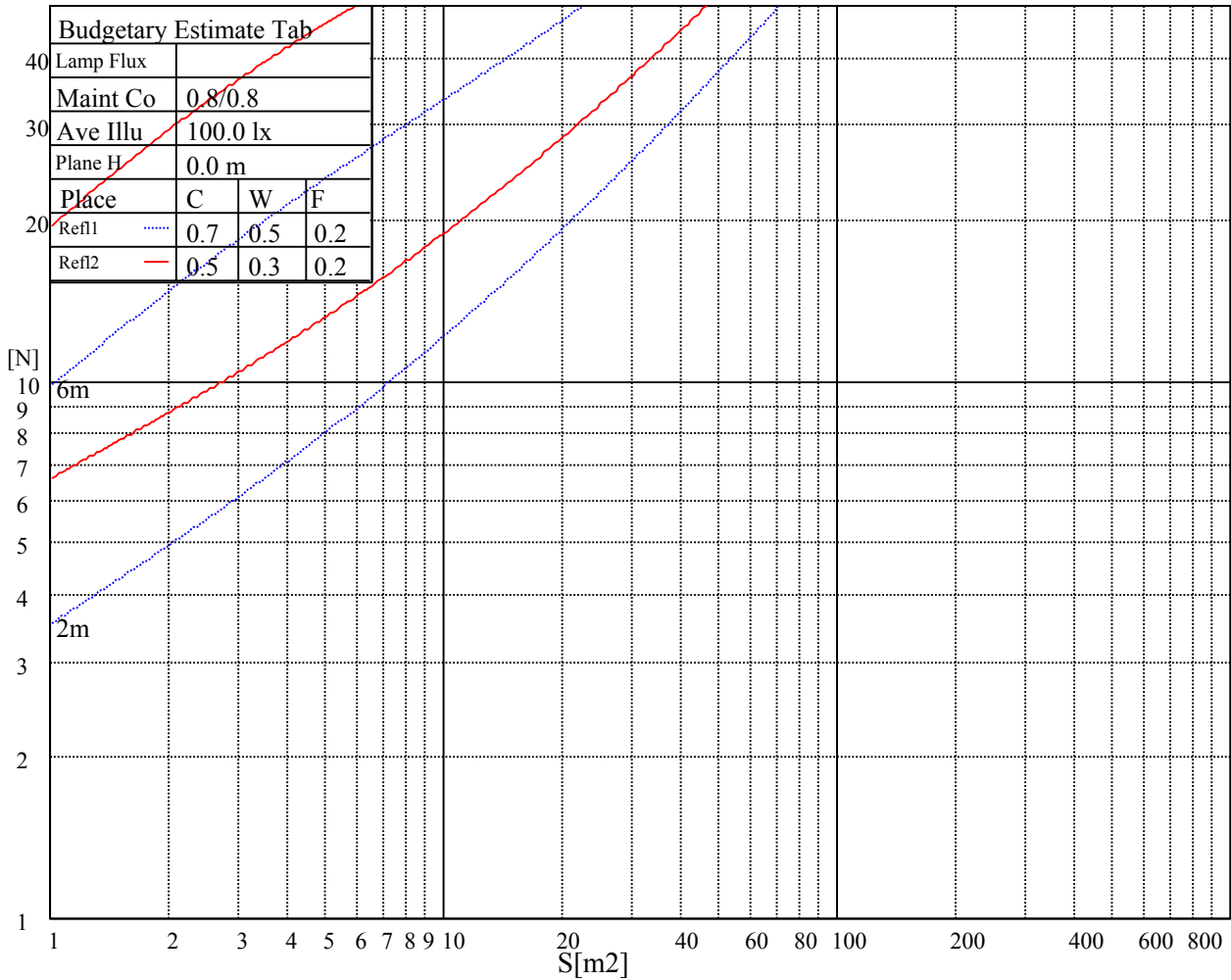
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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	1.00	1.00	1.00	0.85	0.85	0.85	0.71	0.71	0.71	0.59	0.59	0.59	0.53
1	0.88	0.82	0.77	0.81	0.76	0.71	0.68	0.64	0.60	0.56	0.53	0.50	0.45	0.42	0.40	0.35
2	0.73	0.65	0.58	0.67	0.60	0.54	0.56	0.50	0.46	0.46	0.41	0.38	0.36	0.33	0.30	0.25
3	0.63	0.53	0.46	0.57	0.49	0.43	0.48	0.41	0.36	0.39	0.34	0.29	0.30	0.26	0.23	0.19
4	0.54	0.45	0.37	0.50	0.41	0.35	0.41	0.34	0.29	0.33	0.28	0.24	0.26	0.22	0.18	0.15
5	0.48	0.38	0.31	0.44	0.35	0.29	0.36	0.29	0.24	0.29	0.24	0.20	0.23	0.19	0.15	0.12
6	0.42	0.33	0.26	0.39	0.30	0.24	0.32	0.25	0.20	0.26	0.21	0.16	0.20	0.16	0.13	0.10
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	0.20	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	0.11	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	0.11	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	6.45	6.45	2.46	7.67	14.43	22.71	22.10	22.10	23.02
90.0	5.22	2.76	6.45	10.74	15.04	16.88	19.03	20.26	27.93
180.0	6.45	2.76	6.45	9.52	10.44	11.36	19.03	14.73	15.96
270.0	5.22	6.75	6.45	9.82	14.43	5.83	12.89	20.26	21.79
360.0	6.45	6.45	2.46	7.67	14.43	22.71	22.10	22.10	23.02
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	21.49	24.25	22.71	20.26	21.18	23.33	21.18	22.41	22.41
90.0	23.64	26.09	32.84	35.91	27.93	34.69	38.98	35.61	38.06
180.0	14.43	22.71	20.26	22.41	17.19	23.94	21.18	21.79	19.95
270.0	24.25	27.32	24.86	29.77	26.70	35.91	36.53	36.83	37.14
360.0	21.49	24.25	22.71	20.26	21.18	23.33	21.18	22.41	22.41
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	19.95	22.71	26.09	23.94	20.57	19.03	16.58	18.42	16.88
90.0	38.98	36.53	41.75	38.68	34.38	35.30	28.55	26.70	23.64
180.0	22.71	23.02	19.03	22.41	18.72	18.42	18.42	14.12	14.43
270.0	36.22	38.37	37.75	34.38	37.45	34.07	33.15	27.01	27.93
360.0	19.95	22.71	26.09	23.94	20.57	19.03	16.58	18.42	16.88
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	11.97	15.65	7.67	6.75	8.59	0.92	0.00	0.00	0.61
90.0	22.41	22.10	19.03	8.29	3.99	2.15	1.84	5.22	2.15
180.0	11.66	10.13	11.36	9.21	6.14	0.00	0.61	4.91	0.00
270.0	20.57	22.71	18.11	15.96	7.06	1.84	1.84	0.00	0.00
360.0	11.97	15.65	7.67	6.75	8.59	0.92	0.00	0.00	0.61
C/γ(°)	180.0								
0.0	1.84								
90.0	0.92								
180.0	1.84								
270.0	0.92								
360.0	1.84								