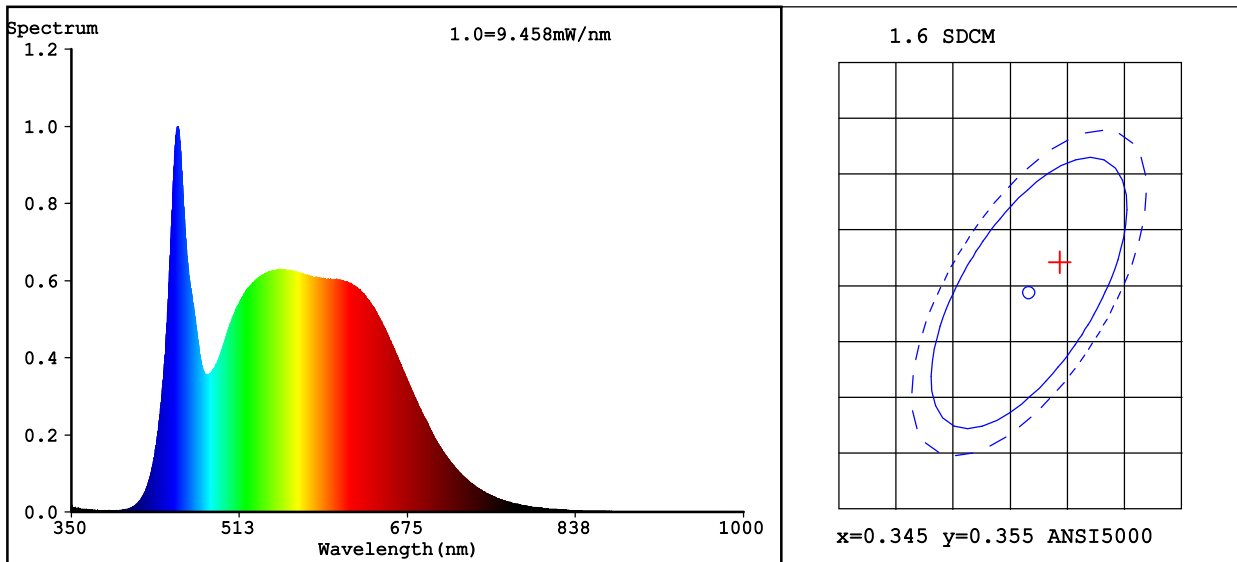


Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3474$ $y=0.3580$ / $u'=0.2105$ $v'=0.4881$
 CCT=4935K (Duv=0.0023) Dominant WL:Ld =571.4nm Purity=11.7%
 Ratio:R=17.1% G=77.7% B=5.1% Peak WL:Lp=453.2nm FWHM=27.0nm
 Render Index:Ra=92.3
 R1 =92 R2 =95 R3 =95 R4 =91 R5 =91 R6 =91 R7 =96
 R8 =88 R9 =68 R10=86 R11=91 R12=66 R13=93 R14=97 R15=90

Photo Parameters:

Flux = 405.4 lm Eff. : 111.58 lm/W Fe = 1.413 W

Electrical parameters:

V = 120.03 V I = 0.03922 A P = 3.633 W PF = 0.7699

Status: Integral T = 2145 ms Ip = 48250 (74%)

Model:G16.5-3-E12-950-F-C	Number:1
Tester:SY	Date:2018-09-15
Temperature:24.9Deg	Humidity:65.0%
Manufacturer:RAB Lighting Inc.	Remarks:

RAB Lighting Inc.

Client:

LumCAT: G16.5-3-E12-950-F-C

Luminaire:

Report No:

Voltage(V): 120.1200

Test No: 255146-01-001

Current(A): 0.0390

LampCAT:

Power (W): 3.6350

Lamp flux(lm)

PF: 0.7688

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 387.38

Lumens(lm)/Power(W): 106.57

Central intensity(cd): 8.288

Maximum intensity(cd): 49.112

Angle of maximum intensity: C=90.0 γ =95.0

Beam Angle(50%Imax): [C0/180]Total=293.1

[C90/270]Total=291.5

Field angle(10%Imax): [C0/180]Total=342.8

[C90/270]Total=334.8

Maximum s/h(1/2): C0_180=3.42 C90_270=180.00

Maximum s/h(1/4): C0_180=3.21 C90_270=127.28

Up flux rate of LUM(%): 50.15%

Down flux rate of LUM(%): 49.85%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 19.797%

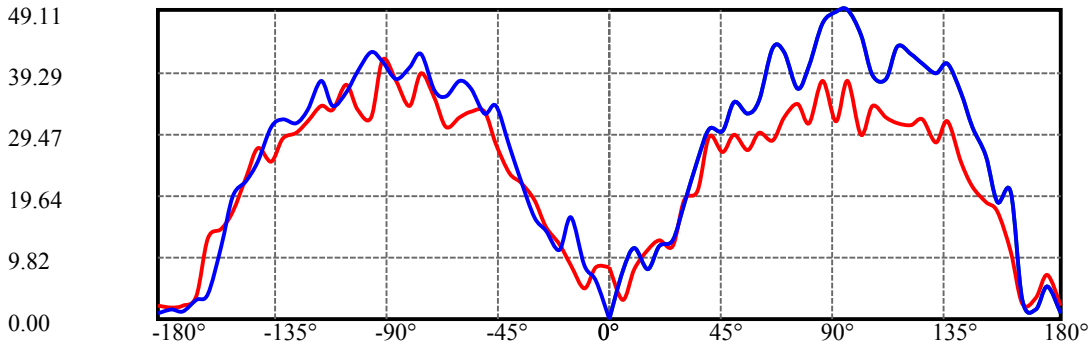
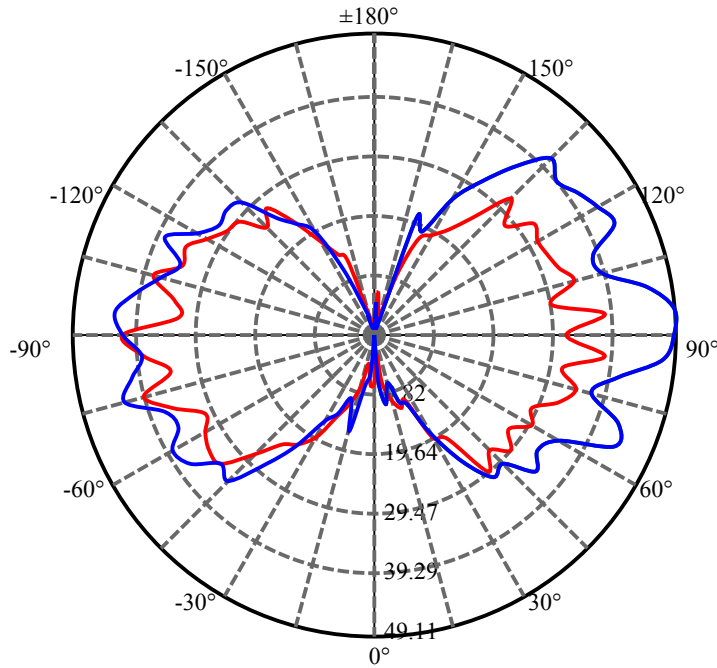
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4.144	0.000	0	.000%	.000%
5.0	6.292	0.125	0.125	.032%	.032%
10.0	8.211	0.519	0.644	.134%	.166%
15.0	10.973	1.138	1.782	.294%	.460%
20.0	11.818	1.878	3.66	.485%	.945%
25.0	13.276	2.632	6.292	.679%	1.624%
30.0	18.187	3.982	10.273	1.028%	2.652%
35.0	22.407	5.978	16.251	1.543%	4.195%
40.0	27.395	8.309	24.56	2.145%	6.340%
45.0	29.391	10.514	35.075	2.714%	9.054%
50.0	32.230	12.451	47.526	3.214%	12.269%
55.0	32.153	13.999	61.525	3.614%	15.882%
60.0	33.458	15.166	76.691	3.915%	19.797%
65.0	34.225	16.454	93.144	4.247%	24.045%
70.0	36.374	17.876	111.02	4.615%	28.659%
75.0	37.908	19.416	130.437	5.012%	33.671%
80.0	36.220	19.835	150.271	5.120%	38.792%
85.0	40.134	20.747	171.018	5.356%	44.147%
90.0	40.517	22.083	193.101	5.701%	49.848%
95.0	40.287	22.125	215.226	5.711%	55.559%
100.0	36.681	20.914	236.14	5.399%	60.958%
105.0	36.374	19.547	255.688	5.046%	66.004%
110.0	34.225	18.453	274.141	4.764%	70.768%
115.0	36.450	17.895	292.036	4.620%	75.387%
120.0	34.302	17.200	309.236	4.440%	79.827%
125.0	33.151	15.591	324.828	4.025%	83.852%
130.0	31.769	14.116	338.944	3.644%	87.496%
135.0	31.769	12.839	351.782	3.314%	90.810%
140.0	28.163	11.097	362.879	2.865%	93.675%
145.0	24.096	8.719	371.598	2.251%	95.926%
150.0	20.335	6.543	378.141	1.689%	97.615%
155.0	15.501	4.535	382.676	1.171%	98.785%
160.0	11.971	2.881	385.558	.744%	99.529%
165.0	3.070	1.240	386.797	.320%	99.849%
170.0	2.072	0.305	387.102	.079%	99.928%
175.0	3.914	0.214	387.316	.055%	99.983%
180.0	1.535	0.065	387.381	.017%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	10.27	2.65%
0-40	24.56	6.34%
0-60	76.69	19.80%
0-90	193.10	49.85%
0-120	309.24	79.83%
0-180	387.38	100.00%
60-90	131.58	33.97%
90-120	138.22	35.68%
90-130	167.93	43.35%
90-150	207.12	53.47%
90-180	216.30	55.84%
0-120.21	309.91	80.00%

ZONAL LUMEN SUMMARY

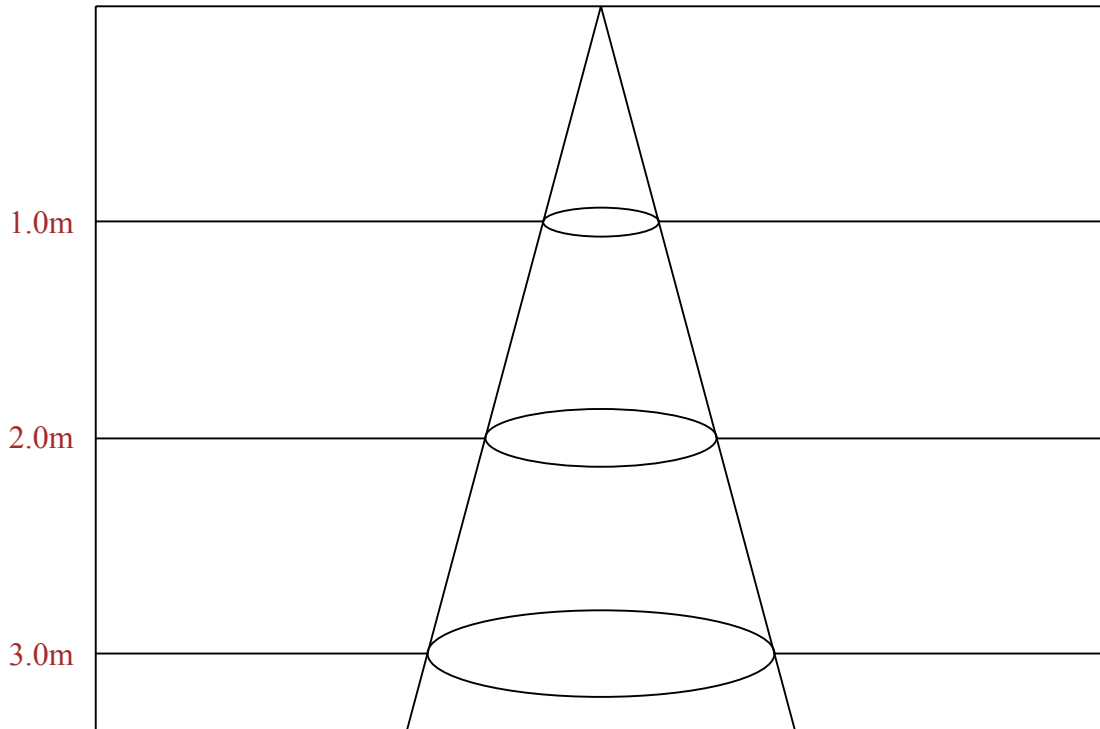
0-10	0.64
10-20	3.02
20-30	6.61
30-40	14.29
40-50	22.97
50-60	29.16
60-70	34.33
70-80	39.25
80-90	42.83
90-100	43.04
100-110	38.00
110-120	35.10
120-130	29.71
130-140	23.94
140-150	15.26
150-160	7.42
160-170	1.54
170-180	0.21



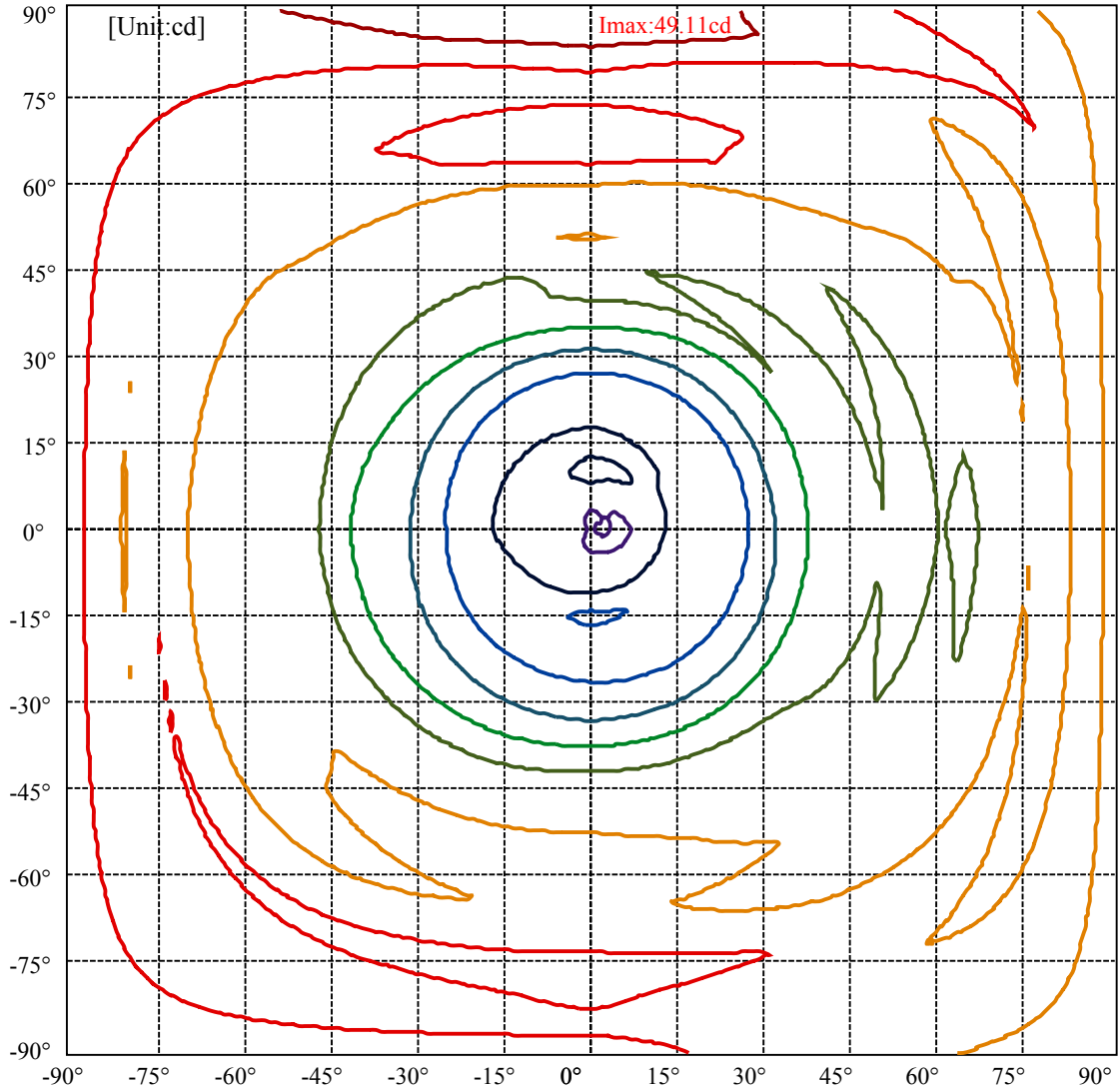
C90(Max): ———
 C0/C180: ———
 C90/C270: ———










Field angle(10%Imax):C0/180Left:0.0 Right:0.0
 :C90/270Left:0.0 Right:0.0

Beam Angle(50%Imax):C0/180Left:164.8 Right:178.0
 :C90/270Left:56.7 Right:56.7



Max , Ave Beam angle of C90 plane 342.50

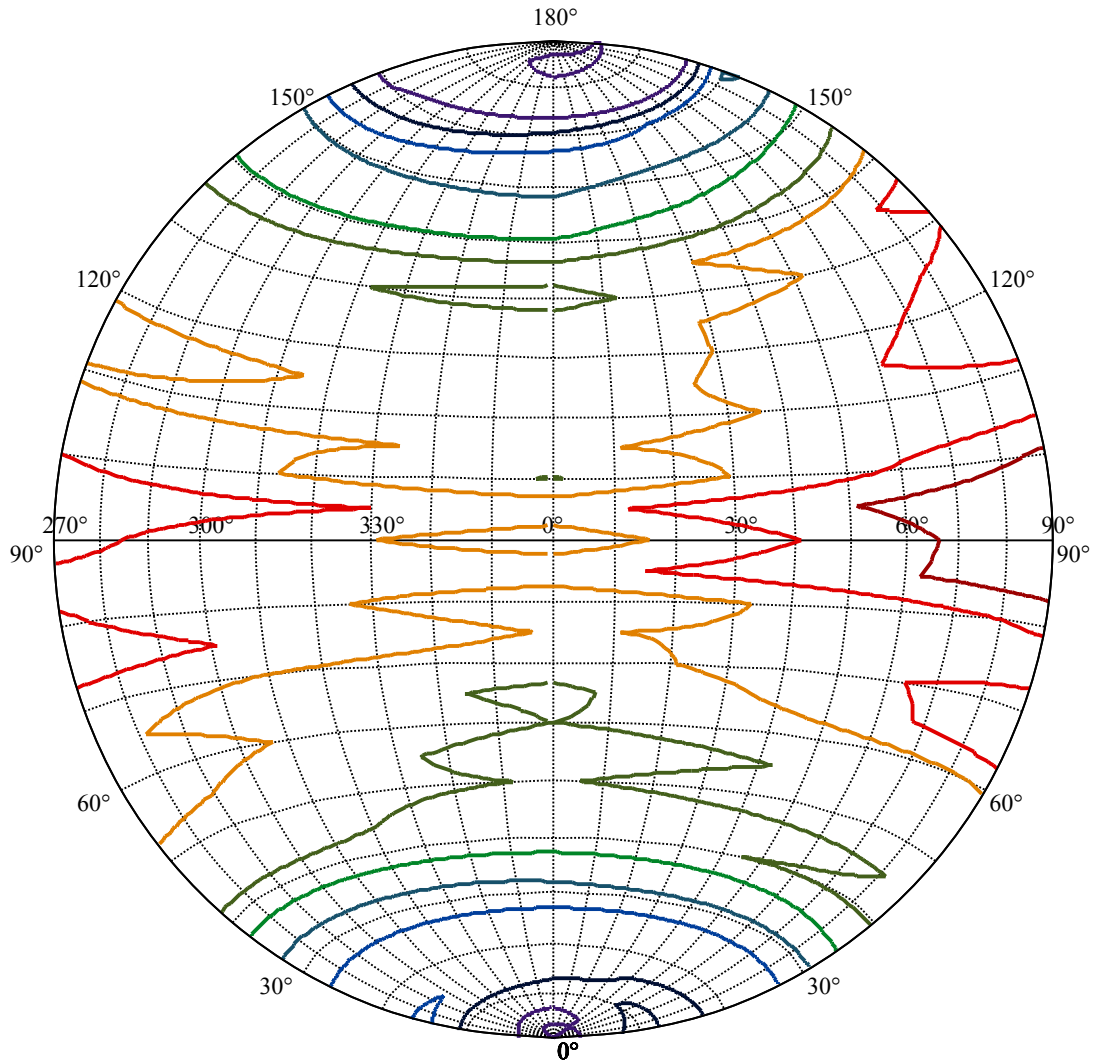


(10%I _{max}) 4.88051	
(20%I _{max}) 9.76102	
(30%I _{max}) 14.6415	
(40%I _{max}) 19.522	
(50%I _{max}) 24.4026	
(60%I _{max}) 29.2831	
(70%I _{max}) 34.1636	
(80%I _{max}) 39.0441	
(90%I _{max}) 43.9246	

Equipment: Goniophotometer
Temperature(°C): 0.0

Date: 2018/9/20
Humidity(%): 0.0%

Operator: WANG
Distance(m): 17.52



House

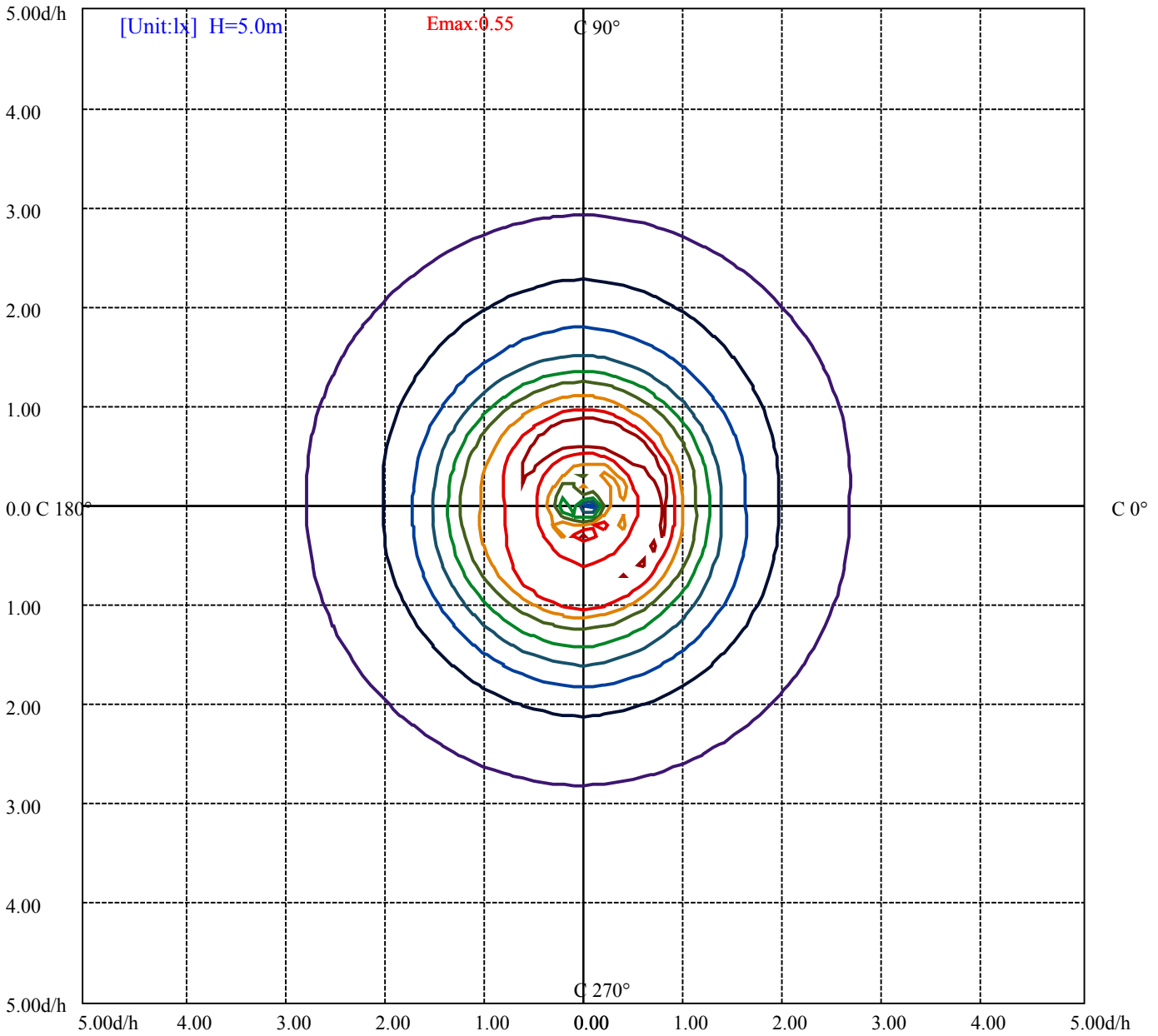
[Unit:cd]

Road

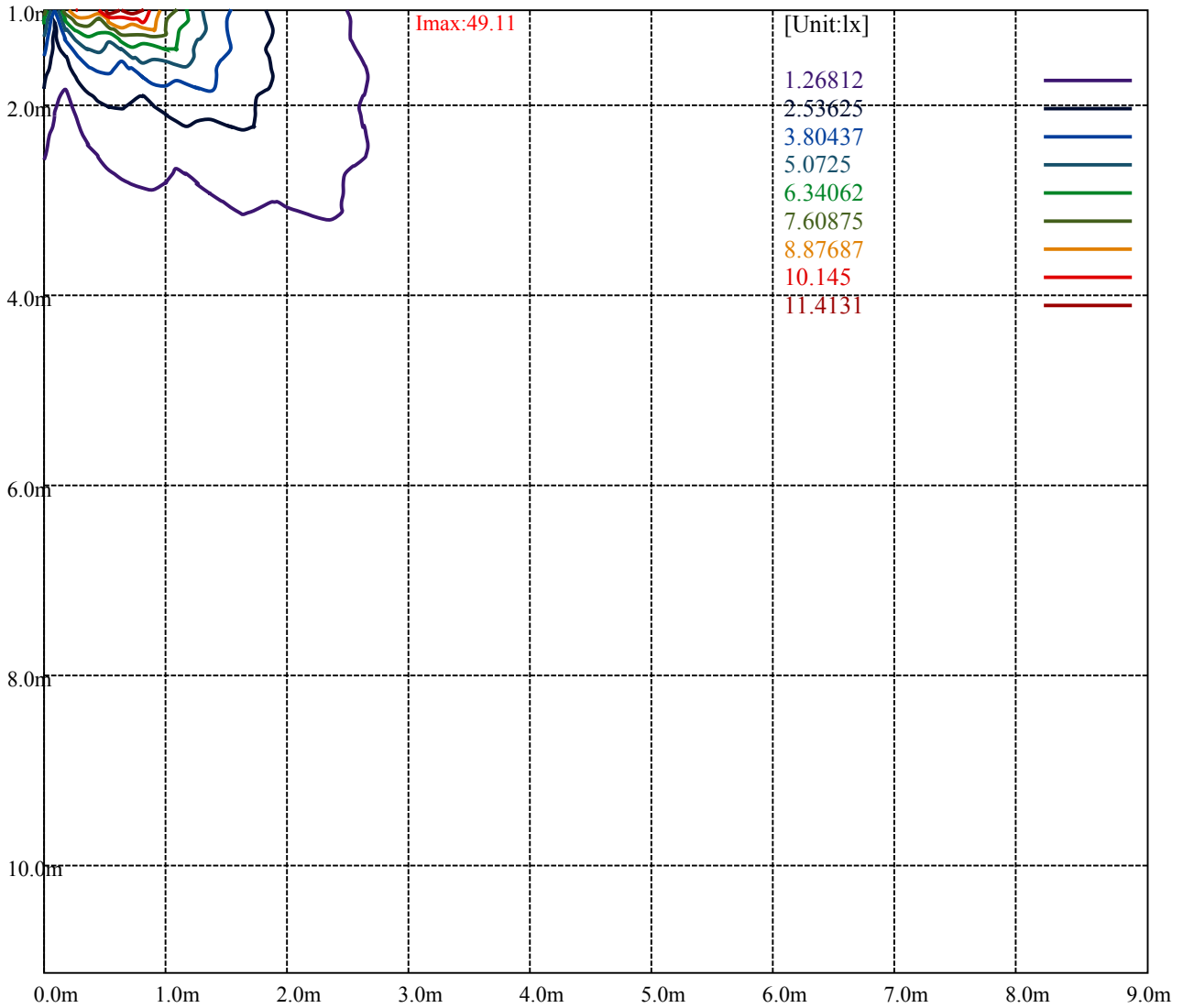
Imax:49.11

- (10%Imax) 4.91121
- (20%Imax) 9.82241
- (30%Imax) 14.7336
- (40%Imax) 19.6448
- (50%Imax) 24.556
- (60%Imax) 29.4672
- (70%Imax) 34.3784
- (80%Imax) 39.2896
- (90%Imax) 44.2009





- (10%Emax) 0.055334
- (20%Emax) 0.110668
- (30%Emax) 0.166002
- (40%Emax) 0.221336
- (50%Emax) 0.27667
- (60%Emax) 0.332004
- (70%Emax) 0.387338
- (80%Emax) 0.442672
- (90%Emax) 0.498004



Luminance Table

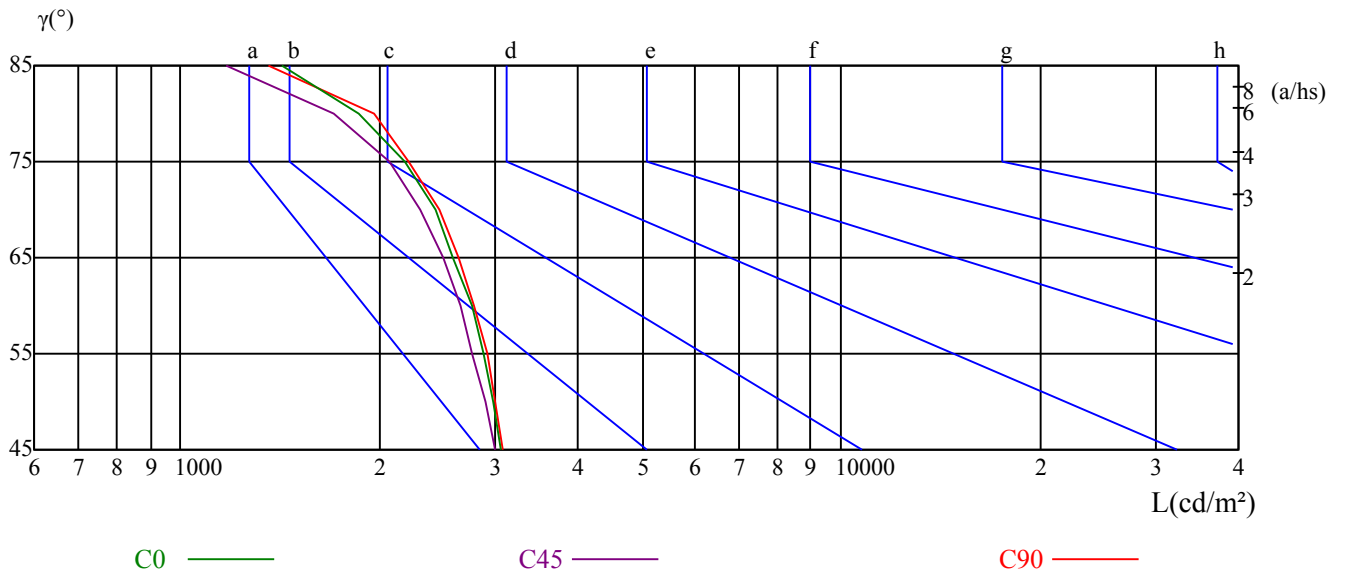
γ	45	50	55	60	65	70	75	80	85
C0	3054	2977	2886	2755	2590	2435	2183	1865	1422
C45	2993	2903	2772	2649	2500	2301	2067	1709	1171
C90	3083	3001	2908	2790	2645	2473	2213	1960	1355

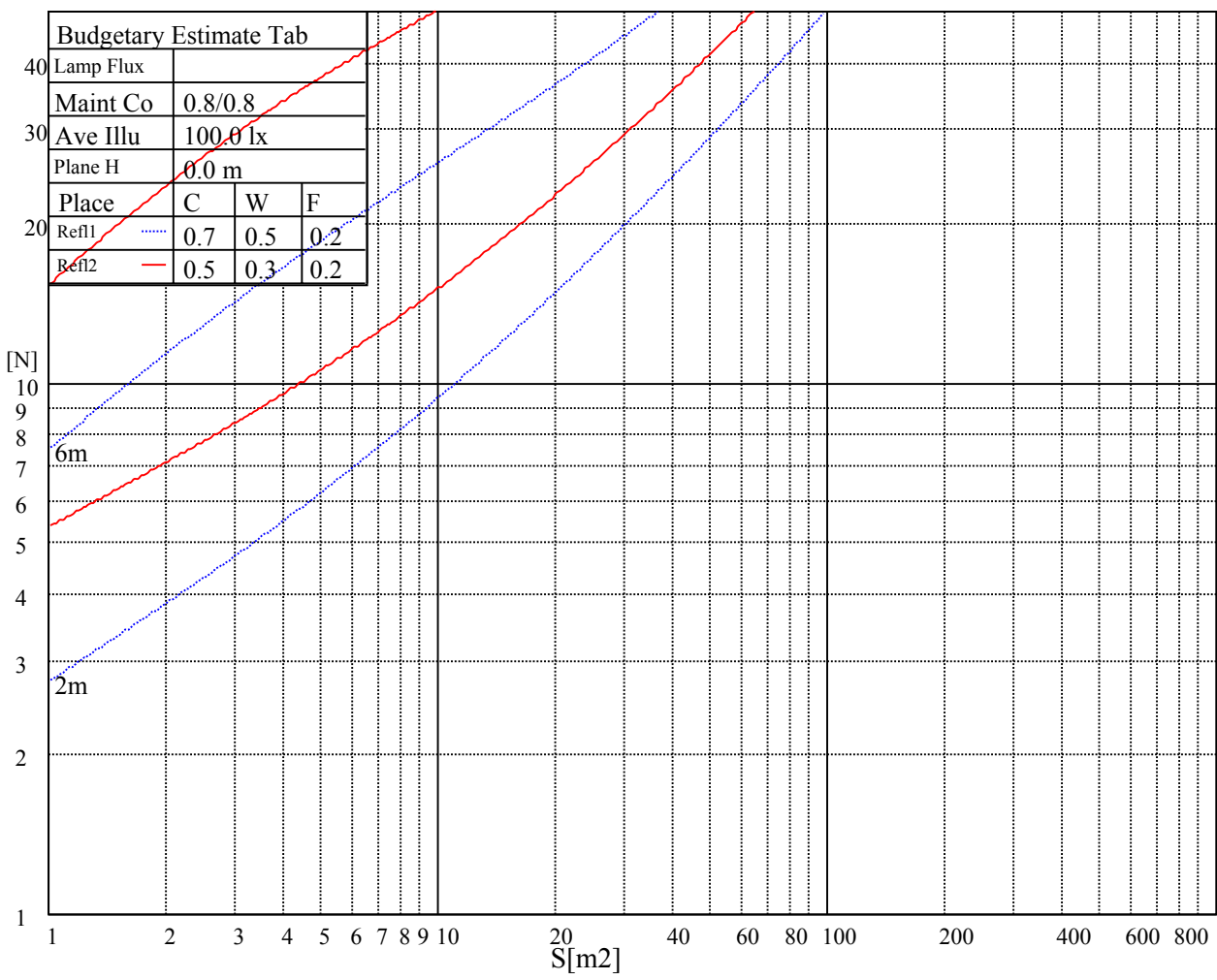
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2891	2953	2912	2625	2662	2660	2306	2196	2199

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 RHOF=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	0.56	0.56	0.56	0.50
1	0.85	0.79	0.74	0.78	0.73	0.68	0.65	0.60	0.57	0.52	0.49	0.46	0.41	0.38	0.36	0.30
2	0.71	0.63	0.56	0.65	0.58	0.51	0.53	0.48	0.43	0.43	0.38	0.34	0.33	0.29	0.26	0.21
3	0.61	0.52	0.44	0.56	0.47	0.40	0.45	0.39	0.33	0.36	0.31	0.27	0.27	0.23	0.20	0.15
4	0.53	0.43	0.36	0.48	0.39	0.33	0.39	0.32	0.27	0.31	0.26	0.21	0.23	0.19	0.16	0.12
5	0.46	0.37	0.30	0.42	0.34	0.27	0.34	0.27	0.22	0.27	0.22	0.17	0.20	0.16	0.13	0.09
6	0.41	0.32	0.25	0.37	0.29	0.23	0.30	0.24	0.19	0.24	0.19	0.15	0.18	0.14	0.11	0.07
7	0.37	0.27	0.21	0.33	0.25	0.19	0.27	0.21	0.16	0.22	0.16	0.12	0.16	0.12	0.09	0.06
8	0.33	0.24	0.18	0.30	0.22	0.17	0.25	0.18	0.14	0.19	0.14	0.11	0.15	0.11	0.08	0.05
9	0.30	0.21	0.16	0.27	0.20	0.14	0.22	0.16	0.12	0.18	0.13	0.09	0.13	0.09	0.07	0.04
10	0.27	0.19	0.14	0.25	0.18	0.13	0.20	0.14	0.10	0.16	0.11	0.08	0.12	0.08	0.06	0.04

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	8.29	3.07	7.98	11.05	12.58	11.66	19.03	20.57	28.85
90.0	0.00	7.67	11.36	7.98	11.66	12.58	18.42	25.17	30.08
180.0	8.29	8.29	4.91	8.59	11.97	14.73	19.03	21.79	23.33
270.0	0.00	6.14	8.59	16.27	11.05	14.12	16.27	22.10	27.32
360.0	8.29	3.07	7.98	11.05	12.58	11.66	19.03	20.57	28.85
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	26.40	29.16	26.70	29.47	28.24	31.92	34.07	31.00	37.75
90.0	29.77	34.38	32.54	34.69	42.97	42.36	36.53	40.21	46.96
180.0	27.63	32.84	32.84	31.92	30.39	34.99	38.98	33.76	37.75
270.0	33.76	32.54	36.53	37.75	35.30	36.22	42.05	39.90	38.06
360.0	26.40	29.16	26.70	29.47	28.24	31.92	34.07	31.00	37.75
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	31.31	37.75	29.16	33.76	31.92	31.00	30.70	31.62	27.93
90.0	48.81	49.11	45.12	38.68	38.06	43.28	42.05	40.52	38.98
180.0	41.13	31.92	33.15	37.14	33.15	33.76	31.31	29.47	28.55
270.0	40.82	42.36	39.29	35.91	33.76	37.75	33.15	31.00	31.62
360.0	31.31	37.75	29.16	33.76	31.92	31.00	30.70	31.62	27.93
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	31.31	24.86	21.18	18.72	17.19	10.74	2.46	3.38	7.06
90.0	40.52	35.91	30.39	25.78	18.72	20.26	3.07	1.53	5.22
180.0	24.86	27.01	22.71	17.19	14.43	12.89	3.68	2.15	1.84
270.0	30.39	24.86	22.10	19.64	11.66	3.99	3.07	1.23	1.53
360.0	31.31	24.86	21.18	18.72	17.19	10.74	2.46	3.38	7.06
C/γ(°)	180.0								
0.0	2.15								
90.0	0.92								
180.0	2.15								
270.0	0.92								
360.0	2.15								