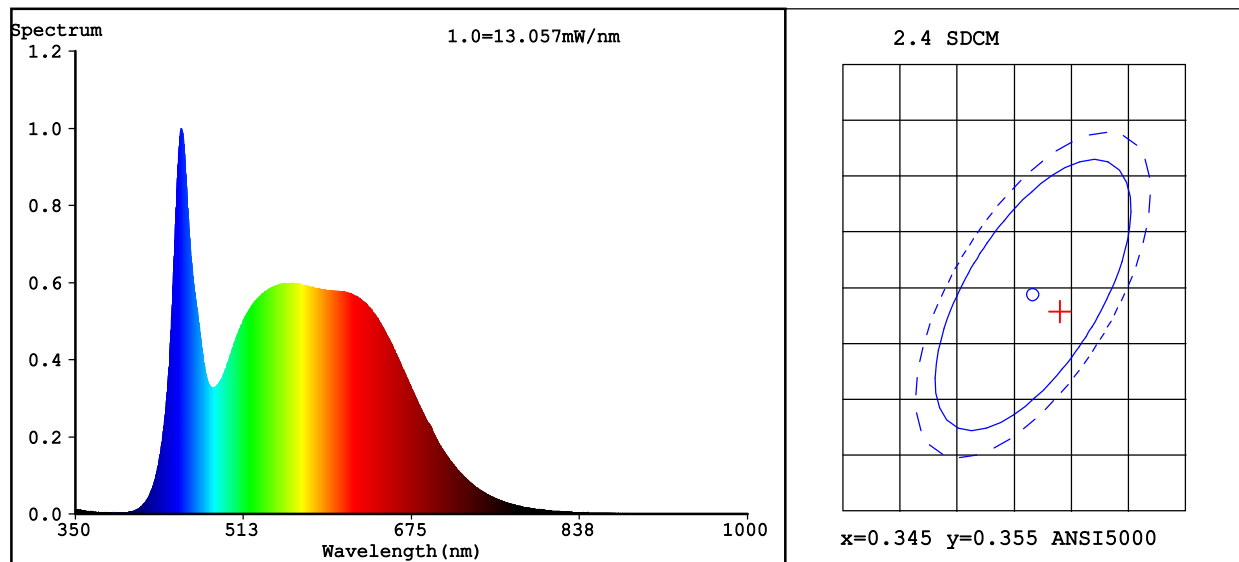


Spectrum Test Report



Color Parameters:

Chromaticity Coordinate: $x=0.3471$ $y=0.3538$ $u'=0.2119$ $v'=0.4860$

CCT=4932K (Duv=0.0003) Dominant WL: $\lambda_d = 573.3\text{nm}$ Purity=10.3%

Ratio: R=17.3% G=77.6% B=5.1% Peak WL: $\lambda_p = 452.5\text{nm}$ FWHM=26.3nm

Render Index: $R_a = 92.3$

R1 =93	R2 =95	R3 =95	R4 =91	R5 =91	R6 =90	R7 =95
R8 =89	R9 =69	R10=86	R11=90	R12=65	R13=94	R14=97
						R15=91

Photo Parameters:

Flux = 530.9 lm Eff. : 138.87 lm/W $\Phi_e = 1.861\text{ W}$

Electrical parameters:

V = 119.94 V I = 0.05080 A P = 4.823 W PF = 0.7916

Status: Integral T = 1597 ms $I_p = 49526$ (76%)

Model: A19-5-E26-950-F-F
 Tester: XCJ
 Temperature: 24.9Deg
 Manufacturer: RAB Lighting Inc.

Number: 1
 Date: 2018-10-07
 Humidity: 65.0%
 Remarks:

RAB Lighting Inc.

Client:

LumCAT: A19-5-E26-950-F-F

Luminaire:

Report No:

Voltage(V): 120.1100

Test No: 255203-01-001

Current(A): 0.0500

LampCAT:

Power (W): 4.6550

Lamp flux(lm)

PF: 0.7775

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 500.38

Lumens(lm)/Power(W): 107.49

Central intensity(cd): 43.587

Maximum intensity(cd): 50.954

Angle of maximum intensity: C=22.5 γ =100.0

Beam Angle(50%Imax): [C0/180]Total=304.8

[C90/270]Total=295.6

Field angle(10%Imax): [C0/180]Total=341.9

[C90/270]Total=343.6

Maximum s/h(1/2): C0_180=1.53 C90_270=1.59

Maximum s/h(1/4): C0_180=1.76 C90_270=1.74

Up flux rate of LUM(%): 42.43%

Down flux rate of LUM(%): 55.10%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 28.884%

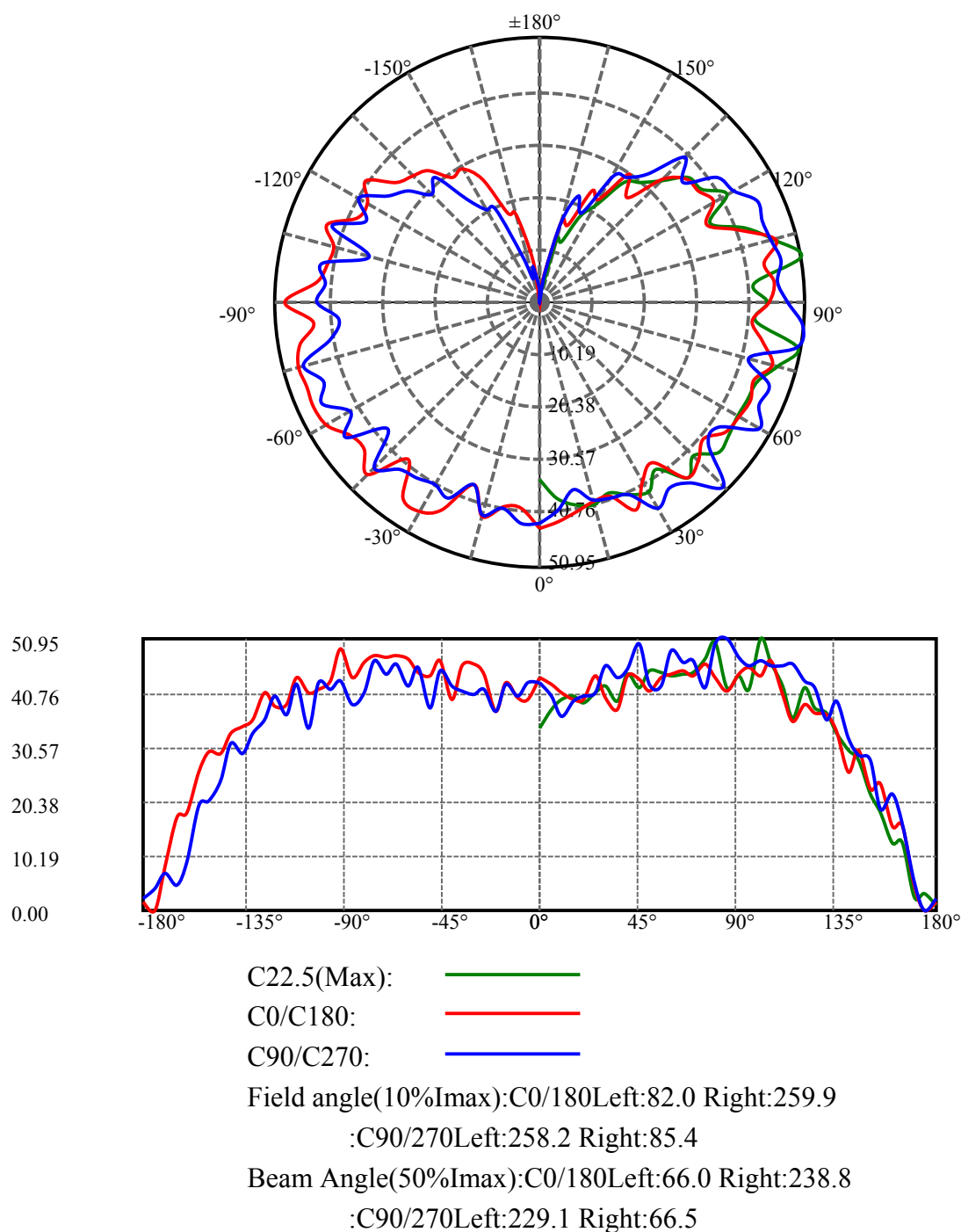
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	41.285	0.247	0.247	.049%	.049%
5.0	40.709	1.945	2.192	.389%	.438%
10.0	39.462	3.756	5.948	.751%	1.189%
15.0	40.383	5.729	11.677	1.145%	2.334%
20.0	40.172	7.531	19.208	1.505%	3.839%
25.0	40.767	9.444	28.652	1.887%	5.726%
30.0	41.784	11.452	40.104	2.289%	8.015%
35.0	41.553	13.064	53.168	2.611%	10.625%
40.0	42.647	15.026	68.194	3.003%	13.628%
45.0	43.664	16.924	85.118	3.382%	17.010%
50.0	42.877	18.004	103.122	3.598%	20.609%
55.0	44.278	19.881	123.003	3.973%	24.582%
60.0	45.218	21.465	144.467	4.290%	28.871%
65.0	44.680	22.196	166.664	4.436%	33.307%
70.0	45.505	23.439	190.103	4.684%	37.991%
75.0	45.582	24.134	214.237	4.823%	42.815%
80.0	46.369	25.030	239.267	5.002%	47.817%
85.0	43.951	24.000	263.267	4.796%	52.613%
90.0	45.064	24.701	287.968	4.936%	57.550%
95.0	44.354	24.220	312.188	4.840%	62.390%
100.0	43.836	23.663	335.851	4.729%	67.119%
105.0	43.069	22.803	358.654	4.557%	71.676%
110.0	42.359	21.818	380.473	4.360%	76.036%
115.0	39.693	19.718	400.191	3.941%	79.977%
120.0	40.575	19.261	419.452	3.849%	83.826%
125.0	37.045	16.634	436.086	3.324%	87.150%
130.0	36.239	15.217	451.303	3.041%	90.191%
135.0	32.920	12.760	464.062	2.550%	92.741%
140.0	30.100	10.605	474.668	2.119%	94.861%
145.0	28.009	8.806	483.474	1.760%	96.621%
150.0	24.671	6.762	490.235	1.351%	97.972%
155.0	21.007	4.866	495.102	.973%	98.945%
160.0	16.403	3.075	498.177	.615%	99.559%
165.0	11.280	1.600	499.777	.320%	99.879%
170.0	5.122	0.488	500.265	.097%	99.976%
175.0	2.168	0.104	500.368	.021%	99.997%
180.0	2.456	0.015	500.383	.003%	100.000%

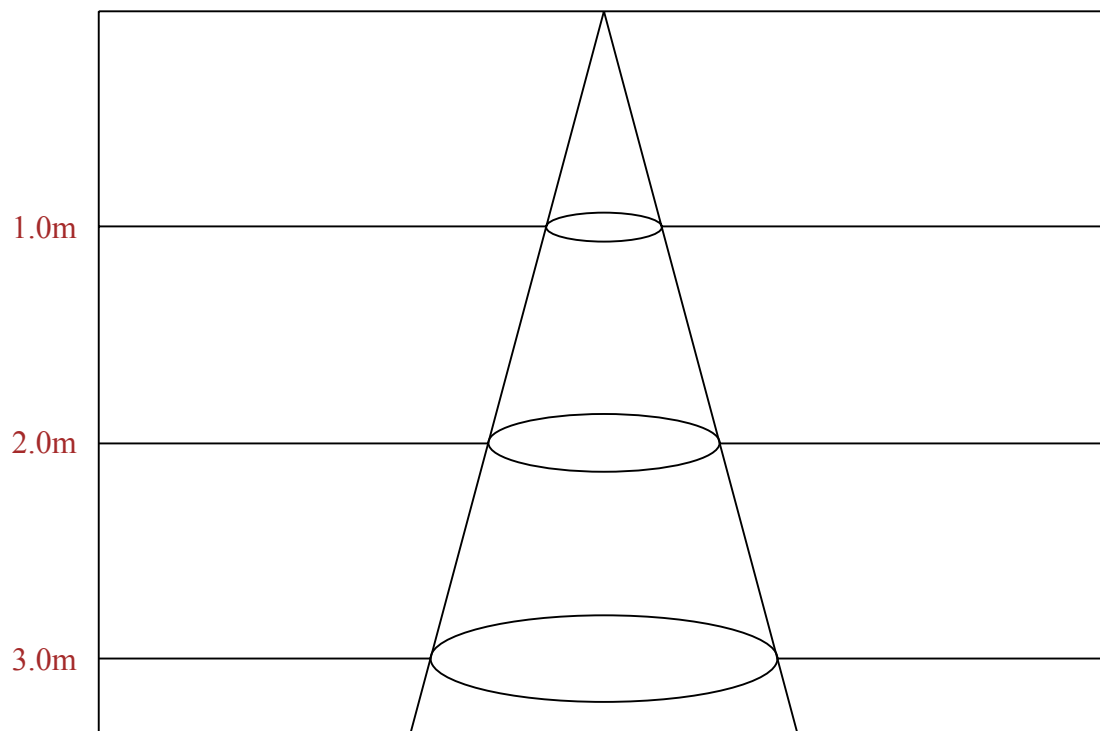
ZONAL LUMEN SUMMARY

Zone	Lumens	%Fixt
0-30	40.10	8.01%
0-40	68.19	13.63%
0-60	144.47	28.87%
0-90	287.97	57.55%
0-120	419.45	83.83%
0-180	500.38	100.00%
60-90	164.97	32.97%
90-120	156.19	31.21%
90-130	188.04	37.58%
90-150	226.97	45.36%
90-180	237.10	47.38%
0-115.03	400.31	80.00%

ZONAL LUMEN SUMMARY

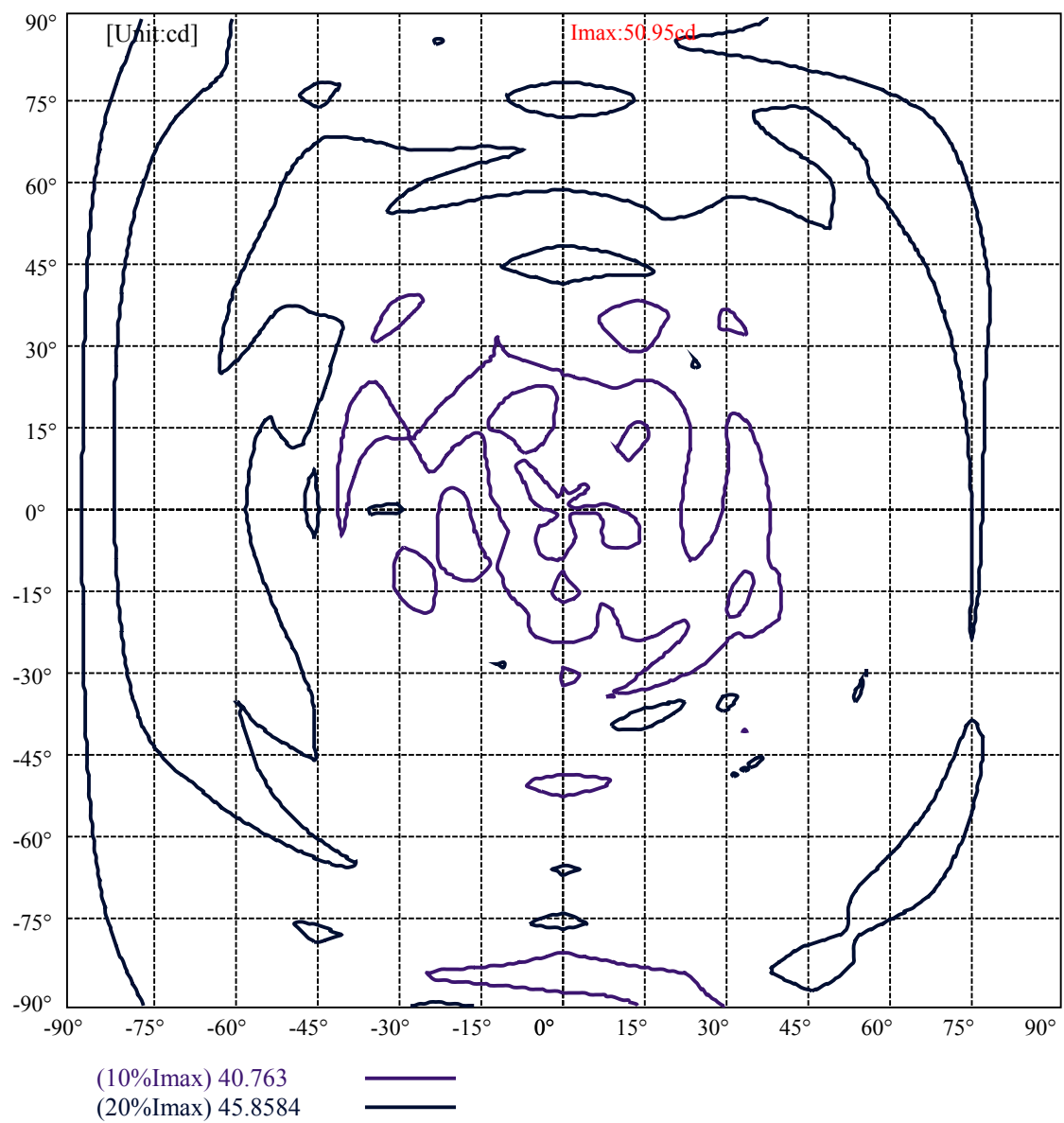
0-10	5.95
10-20	13.26
20-30	20.90
30-40	28.09
40-50	34.93
50-60	41.35
60-70	45.64
70-80	49.16
80-90	48.70
90-100	47.88
100-110	44.62
110-120	38.98
120-130	31.85
130-140	23.37
140-150	15.57
150-160	7.94
160-170	2.09
170-180	0.10

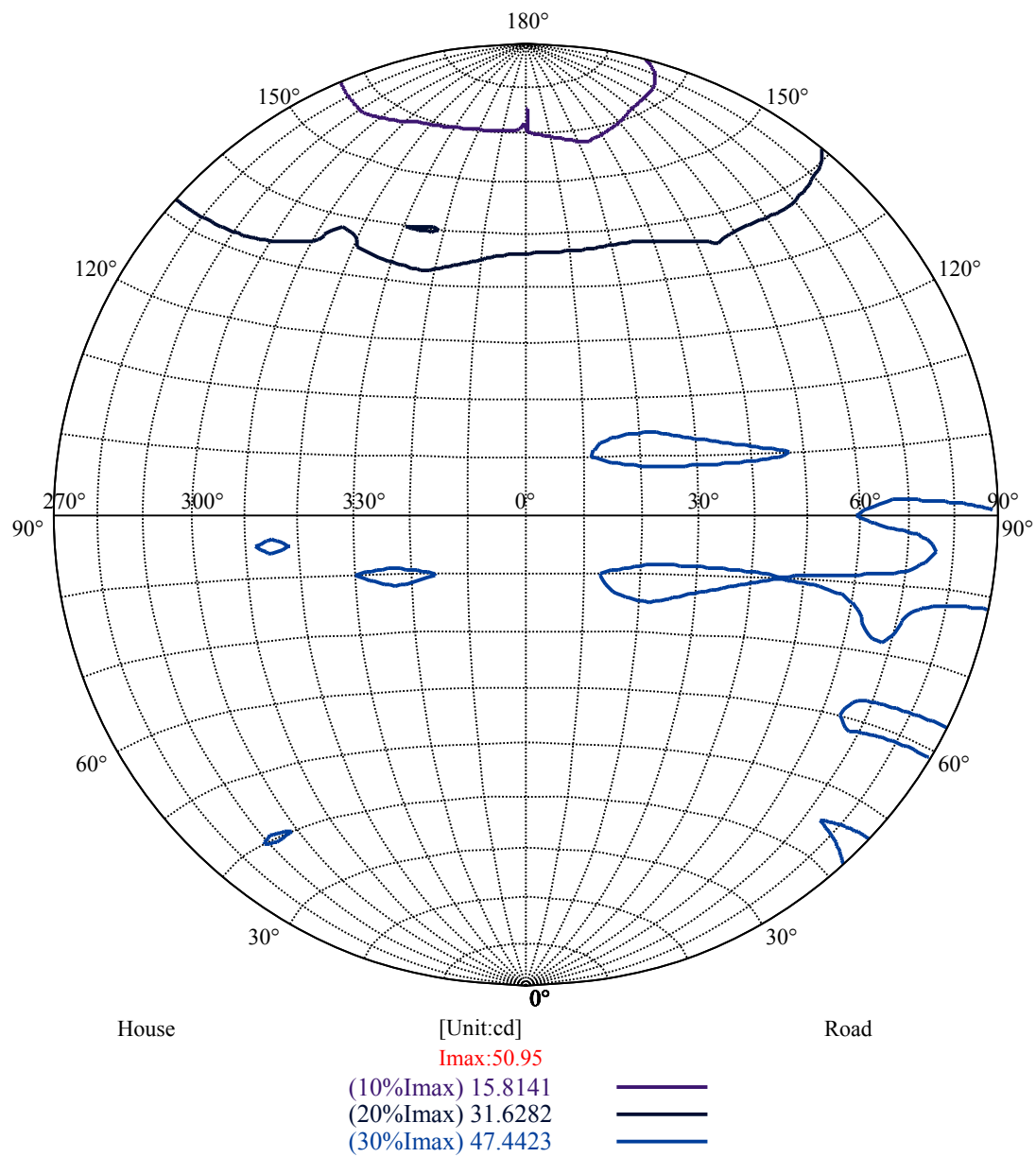


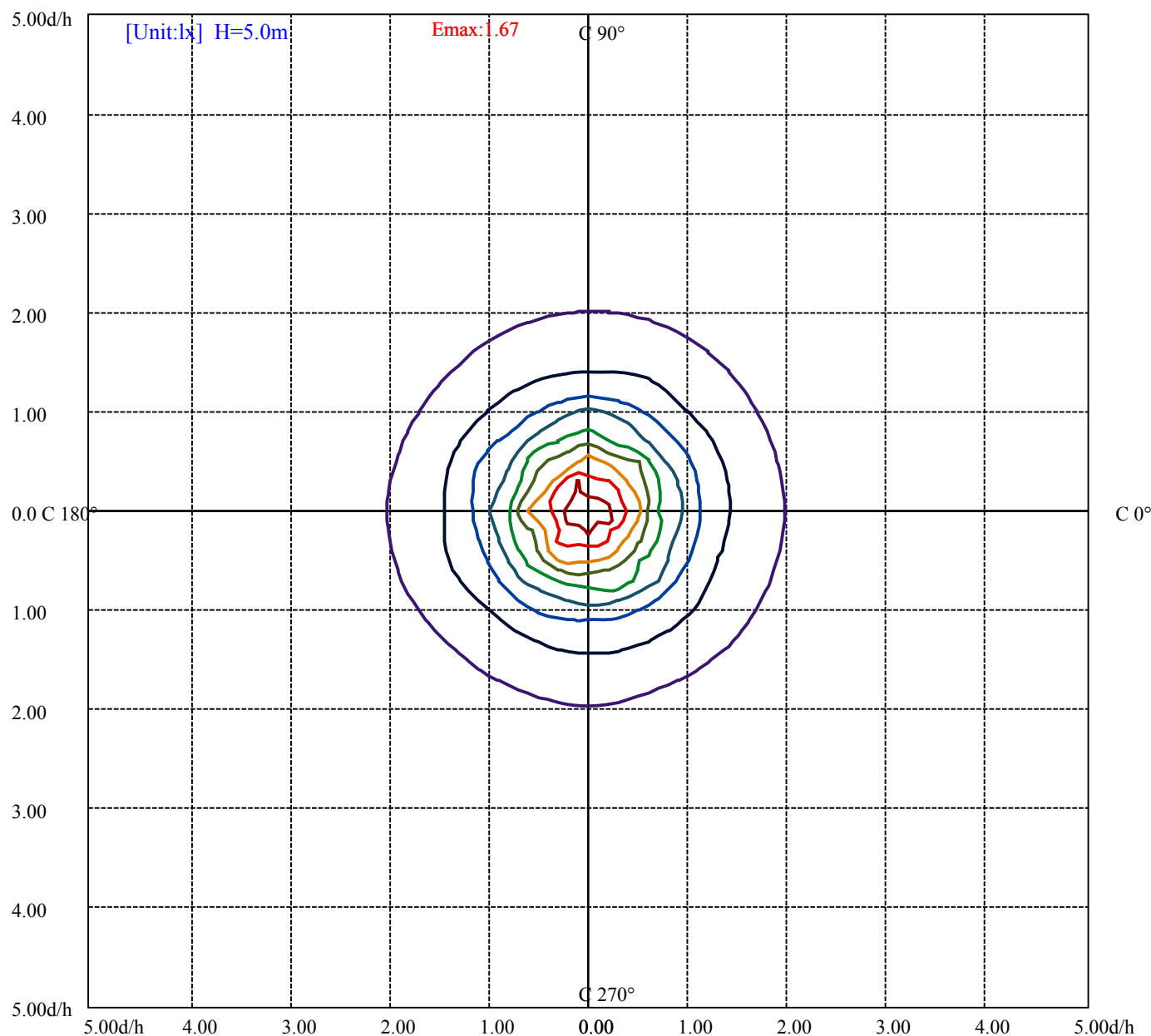


Max , Ave

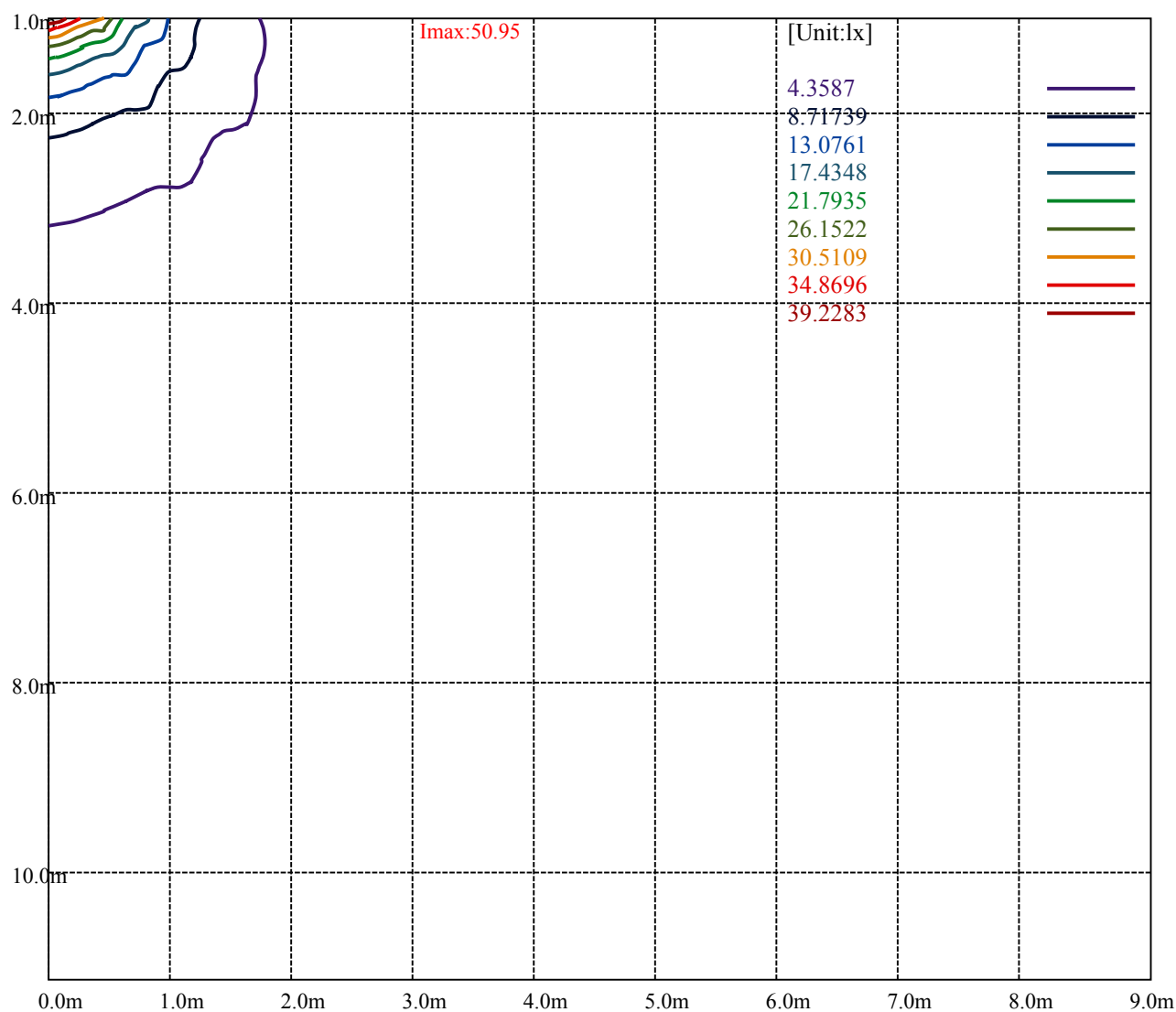
Beam angle of C22.5 plane 308.18







(10%Emax) 0.1667596	—
(20%Emax) 0.3335192	—
(30%Emax) 0.50028	—
(40%Emax) 0.6670401	—
(50%Emax) 0.8338	—
(60%Emax) 1.000556	—
(70%Emax) 1.167316	—
(80%Emax) 1.334076	—
(90%Emax) 1.500836	—



Luminance Table

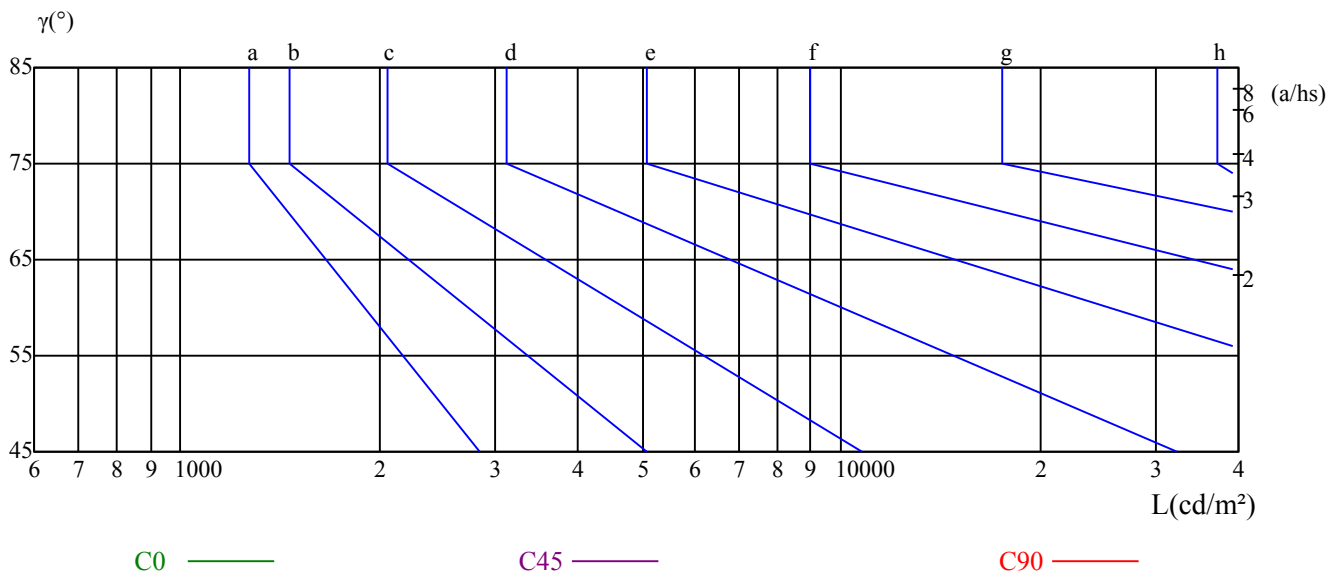
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

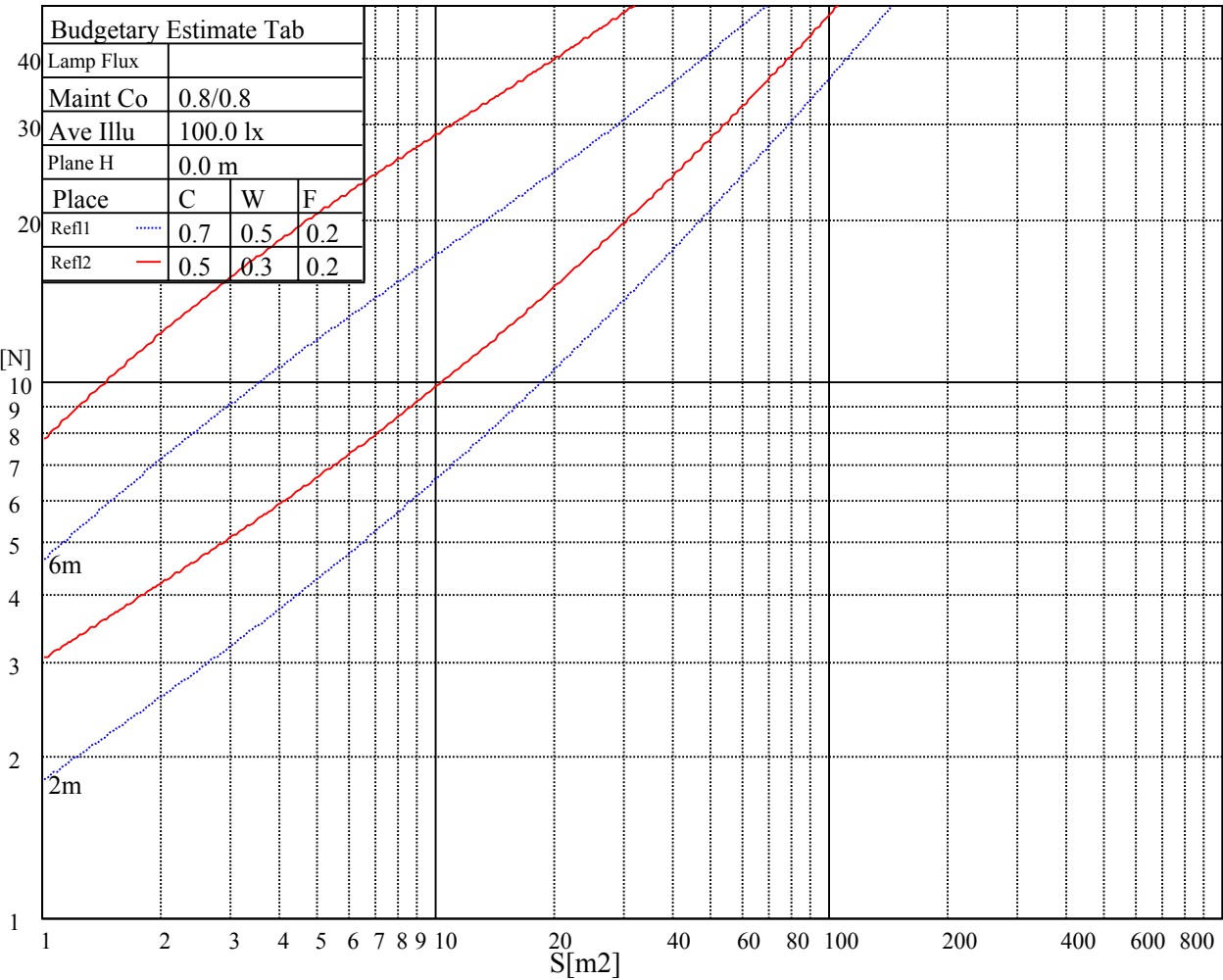
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

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





RHOC	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	1.08	1.08	1.08	1.01	1.01	1.01	0.86	0.86	0.86	0.73	0.73	0.73	0.61	0.61	0.61	0.55
1	0.89	0.84	0.79	0.82	0.78	0.73	0.70	0.66	0.63	0.58	0.56	0.53	0.48	0.46	0.44	0.39
2	0.75	0.68	0.61	0.70	0.63	0.57	0.59	0.53	0.49	0.49	0.45	0.41	0.39	0.36	0.34	0.29
3	0.65	0.56	0.49	0.60	0.52	0.45	0.50	0.44	0.39	0.42	0.37	0.33	0.34	0.30	0.27	0.23
4	0.57	0.47	0.40	0.52	0.44	0.37	0.44	0.37	0.32	0.36	0.31	0.27	0.29	0.25	0.22	0.18
5	0.50	0.41	0.34	0.46	0.38	0.31	0.39	0.32	0.27	0.32	0.27	0.23	0.26	0.22	0.18	0.15
6	0.44	0.35	0.29	0.41	0.33	0.27	0.35	0.28	0.23	0.29	0.23	0.19	0.23	0.19	0.16	0.13
7	0.40	0.31	0.25	0.37	0.29	0.23	0.31	0.25	0.20	0.26	0.21	0.17	0.21	0.17	0.14	0.11
8	0.36	0.28	0.22	0.33	0.26	0.20	0.28	0.22	0.18	0.24	0.19	0.15	0.19	0.15	0.12	0.10
9	0.33	0.25	0.19	0.30	0.23	0.18	0.26	0.20	0.16	0.22	0.17	0.13	0.18	0.14	0.11	0.09
10	0.30	0.22	0.17	0.28	0.21	0.16	0.24	0.18	0.14	0.20	0.15	0.12	0.16	0.13	0.10	0.08

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	43.59	42.36	40.82	39.60	39.60	43.89	39.90	37.75	43.89
22.5	34.07	37.75	39.60	40.21	38.98	40.82	42.05	39.29	44.20
45.0	41.13	42.05	37.45	41.13	41.44	38.68	41.44	46.66	41.13
67.5	43.89	38.98	38.37	38.98	38.68	41.44	41.44	37.45	40.52
90.0	42.67	40.21	36.53	39.29	40.21	40.82	45.74	43.59	45.12
112.5	41.75	38.98	38.37	44.51	44.51	38.06	40.52	40.82	41.75
135.0	42.67	43.59	42.05	38.37	40.52	37.45	42.05	43.89	45.12
157.5	40.52	42.05	37.45	41.13	44.20	38.98	40.82	39.90	38.37
180.0	43.59	39.60	39.90	42.67	37.45	44.20	46.35	46.04	39.60
202.5	34.07	39.29	40.52	42.36	35.91	41.44	35.91	42.97	43.59
225.0	41.13	41.75	38.68	40.21	42.97	43.59	44.20	42.97	44.81
247.5	43.89	46.35	39.90	37.45	41.44	41.13	46.35	41.75	40.82
270.0	42.67	42.67	40.21	42.36	37.45	41.44	40.52	41.13	42.05
292.5	41.75	41.44	37.14	39.29	41.44	41.13	41.44	40.52	48.50
315.0	42.67	37.75	39.90	37.75	38.06	38.68	41.75	38.06	44.20
337.5	40.52	36.53	44.51	40.82	39.90	40.52	38.06	42.05	38.68
360.0	43.59	42.36	40.82	39.60	39.60	43.89	39.90	37.75	43.89
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	43.28	41.13	43.59	44.20	44.81	43.89	46.35	43.59	41.13
22.5	41.75	44.81	44.51	43.89	44.20	44.51	47.27	50.34	41.75
45.0	40.21	43.59	42.97	42.97	47.27	46.66	43.89	47.58	44.20
67.5	46.35	42.97	46.04	48.19	46.96	46.96	48.50	48.50	45.12
90.0	50.03	42.36	42.05	48.81	46.66	46.96	41.75	50.03	50.95
112.5	44.20	41.75	42.97	48.81	44.20	48.50	50.03	49.11	45.43
135.0	38.68	43.28	43.59	44.51	43.89	43.59	46.66	45.12	48.81
157.5	43.59	48.50	46.96	46.04	44.20	47.88	47.58	49.42	44.81
180.0	46.96	43.89	44.51	47.27	47.88	47.58	47.88	46.66	43.59
202.5	42.67	42.36	47.58	47.88	45.43	47.88	45.43	44.20	43.59
225.0	44.20	42.97	42.67	44.51	41.13	46.96	41.75	46.35	45.12
247.5	42.05	44.51	42.97	44.51	41.13	42.97	43.28	43.89	39.90
270.0	44.81	38.06	45.43	42.05	46.35	44.20	46.96	40.82	38.68
292.5	41.13	42.97	45.12	41.75	42.97	42.97	41.44	42.97	40.52
315.0	46.66	40.52	46.35	41.75	45.74	43.28	45.74	44.20	48.50
337.5	42.05	42.36	41.13	46.35	42.05	43.28	44.81	49.11	41.13
360.0	43.28	41.13	43.59	44.20	44.81	43.89	46.35	43.59	41.13
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	44.20	45.43	43.89	46.96	40.52	35.30	38.68	37.14	36.83
22.5	43.89	41.44	50.95	46.66	42.05	36.22	41.75	38.06	37.14
45.0	44.51	44.81	47.88	42.97	46.04	44.81	41.75	37.45	36.22
67.5	49.11	45.43	43.59	42.97	46.35	41.75	40.21	34.38	35.91
90.0	47.58	46.04	46.96	46.04	45.74	46.35	42.97	41.75	35.91
112.5	48.81	43.59	45.12	46.96	45.43	44.20	44.51	37.45	43.89
135.0	49.73	46.04	45.43	43.89	41.13	41.44	43.89	34.69	40.21
157.5	43.89	42.36	45.12	40.82	46.04	44.20	44.51	39.90	35.91
180.0	49.11	42.97	41.44	40.82	43.59	38.68	38.37	40.82	35.91
202.5	43.89	44.51	39.60	44.20	35.91	41.13	40.52	35.91	32.84
225.0	42.05	44.81	41.13	41.75	40.52	35.30	38.98	32.54	35.91
247.5	46.96	47.27	38.06	42.97	38.37	36.22	39.29	36.83	35.30
270.0	42.97	41.44	42.67	34.07	42.36	36.83	40.21	35.61	33.15
292.5	39.29	43.28	45.12	40.82	39.90	36.53	39.90	34.38	35.61
315.0	44.20	43.59	40.82	42.36	40.21	38.68	35.30	38.68	35.30
337.5	40.82	46.66	43.59	44.81	43.59	37.45	38.37	37.14	33.76
360.0	44.20	45.43	43.89	46.96	40.52	35.30	38.68	37.14	36.83

RAB Lighting Inc. A19-5-E26-950-F-F

Intensity data(cd)										Appendix Page: 14 Total:14
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0	
0.0	33.46	26.09	30.08	22.71	23.64	15.96	15.96	4.60	0.00	
22.5	33.15	30.08	28.24	21.79	18.42	12.58	12.58	2.46	3.07	
45.0	31.62	30.39	30.70	22.71	22.10	16.27	11.66	5.83	6.45	
67.5	34.07	28.55	29.77	24.86	20.87	20.87	9.52	3.38	5.22	
90.0	39.29	32.23	29.16	28.24	19.03	21.79	16.27	5.53	0.00	
112.5	34.38	30.70	33.76	33.15	23.64	20.26	17.19	5.22	3.68	
135.0	40.52	32.54	30.39	25.48	24.56	22.71	10.13	2.76	0.00	
157.5	31.92	28.55	27.01	27.32	25.48	22.71	14.73	0.61	4.91	
180.0	34.38	33.15	29.47	29.77	26.09	18.42	17.50	8.29	0.00	
202.5	35.61	29.47	29.16	21.49	19.64	18.42	11.36	0.00	0.00	
225.0	29.16	29.16	29.77	22.41	18.72	11.05	1.53	5.22	0.31	
247.5	31.00	25.78	21.49	21.49	15.65	10.74	8.29	8.90	2.46	
270.0	29.47	31.31	24.25	20.57	19.64	9.21	4.60	7.06	3.99	
292.5	27.01	30.70	24.86	22.41	17.80	10.74	12.28	8.59	4.30	
315.0	32.54	31.00	23.64	24.86	20.26	14.73	8.90	7.06	0.31	
337.5	29.16	31.92	26.40	25.48	20.57	15.96	7.98	6.45	0.00	
360.0	33.46	26.09	30.08	22.71	23.64	15.96	15.96	4.60	0.00	
C/γ(°)	180.0									
0.0	1.53									
22.5	0.92									
45.0	3.07									
67.5	2.76									
90.0	2.15									
112.5	4.91									
135.0	4.30									
157.5	0.00									
180.0	1.53									
202.5	0.92									
225.0	3.07									
247.5	2.76									
270.0	2.15									
292.5	4.91									
315.0	4.30									
337.5	0.00									
360.0	1.53									