
乐达凯

Client:

LumCAT: LEMW0524LAJUD**

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 119.960

LampCAT:

Current(A): 0.197

Lamp flux(lm): 1424.3

Power (W): 23.510

Number of Lamps: 1

PF: 0.993

Length(mm): 50

Width(mm): 20

Phm Type: C

Height(mm): 560

Photometric Results

Lumens(lm): 1424.30, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 60.58

Central intensity(cd): 1.840, Maximum intensity(cd): 426.406

Angle of maximum intensity: C=60.0 γ =90.0

Beam Angle(50%Imax): [C0/180]Total=300.0

[C90/270]Total=150.0

Field angle(10%Imax): [C0/180]Total=345.4

[C90/270]Total=332.0

Maximum s/h(1/2): C0_180=4.14 C90_270=3.28

Maximum s/h(1/4): C0_180=3.84 C90_270=3.30

Up flux rate of lamp(%): 48.46%

Down flux rate of lamp(%): 51.54%

Up flux rate of LUM(%): 48.46%

Down flux rate of LUM(%): 51.54%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 18.738%

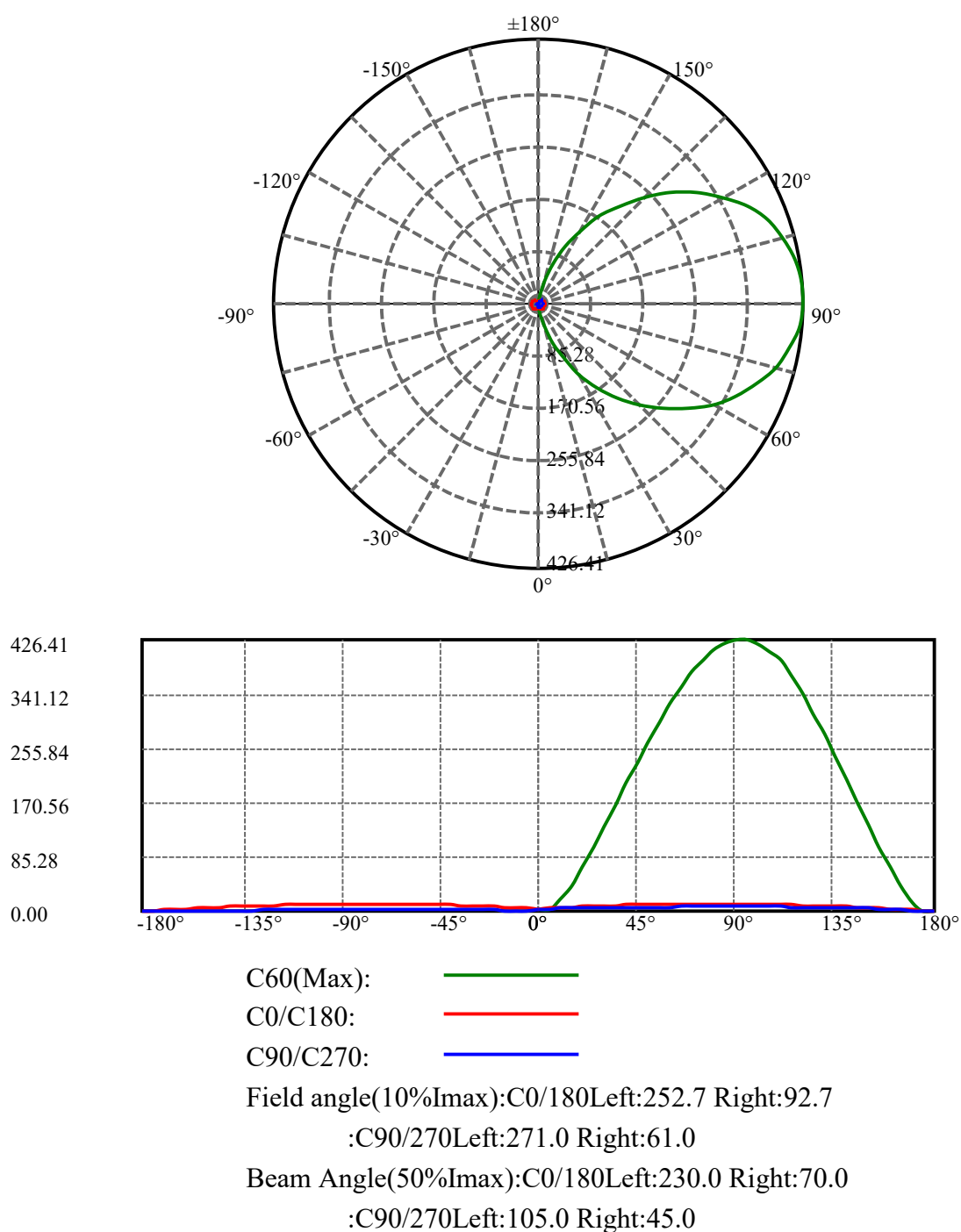
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2.300	0.000	0	0.00%	0.00%
5.0	5.673	0.095	0.095	0.01%	0.01%
10.0	14.451	0.720	0.815	0.05%	0.06%
15.0	25.529	2.372	3.187	0.17%	0.22%
20.0	38.064	5.241	8.428	0.37%	0.59%
25.0	51.212	9.363	17.791	0.66%	1.25%
30.0	63.976	14.577	32.368	1.02%	2.27%
35.0	76.549	20.693	53.062	1.45%	3.73%
40.0	88.432	27.526	80.587	1.93%	5.66%
45.0	99.970	34.884	115.472	2.45%	8.11%
50.0	111.086	42.647	158.119	2.99%	11.10%
55.0	121.359	50.541	208.66	3.55%	14.65%
60.0	130.559	58.230	266.89	4.09%	18.74%
65.0	138.455	65.398	332.288	4.59%	23.33%
70.0	145.355	71.863	404.151	5.05%	28.38%
75.0	150.722	77.390	481.541	5.43%	33.81%
80.0	154.670	81.714	563.255	5.74%	39.55%
85.0	157.085	84.711	647.966	5.95%	45.49%
90.0	157.621	86.169	734.135	6.05%	51.54%
95.0	156.280	85.949	820.084	6.03%	57.58%
100.0	153.367	84.138	904.222	5.91%	63.49%
105.0	148.230	80.699	984.921	5.67%	69.15%
110.0	142.135	75.897	1060.818	5.33%	74.48%
115.0	133.396	69.766	1130.584	4.90%	79.38%
120.0	123.583	62.472	1193.056	4.39%	83.76%
125.0	111.585	54.358	1247.414	3.82%	87.58%
130.0	100.277	46.066	1293.48	3.23%	90.82%
135.0	88.355	38.116	1331.596	2.68%	93.49%
140.0	76.434	30.512	1362.108	2.14%	95.63%
145.0	63.516	23.350	1385.458	1.64%	97.27%
150.0	50.368	16.770	1402.228	1.18%	98.45%
155.0	37.220	11.084	1413.312	0.78%	99.23%
160.0	25.299	6.557	1419.869	0.46%	99.69%
165.0	13.608	3.206	1423.076	0.23%	99.91%
170.0	4.178	1.055	1424.131	0.07%	99.99%
175.0	0.422	0.165	1424.295	0.01%	100.00%
180.0	0.000	0.005	1424.301	0.00%	100.00%

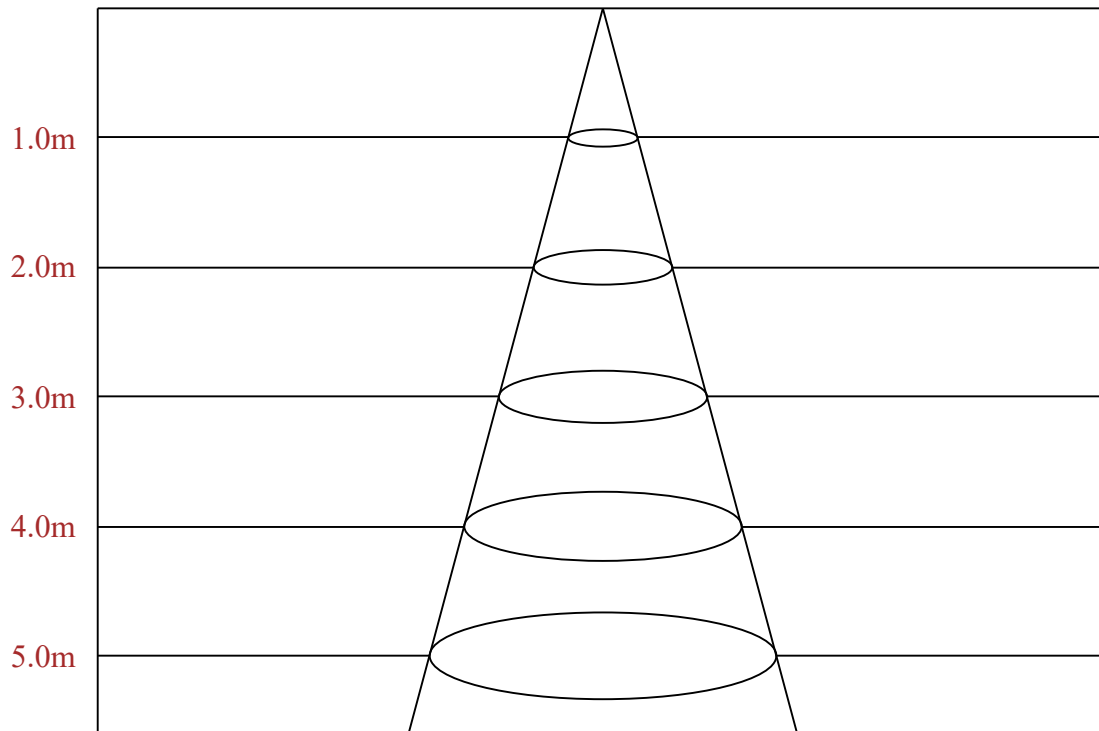
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	32.37	2.27%	2.27%
0-40	80.59	5.66%	5.66%
0-60	266.89	18.74%	18.74%
0-90	734.14	51.54%	51.54%
0-120	1193.06	83.76%	83.76%
0-180	1424.30	100.00%	100.00%
60-90	467.24	32.81%	32.81%
90-120	458.92	32.22%	32.22%
90-130	559.34	39.27%	39.27%
90-150	668.09	46.91%	46.91%
90-180	690.16	48.46%	48.46%
0-115.71	1139.44	80.00%	80.00%

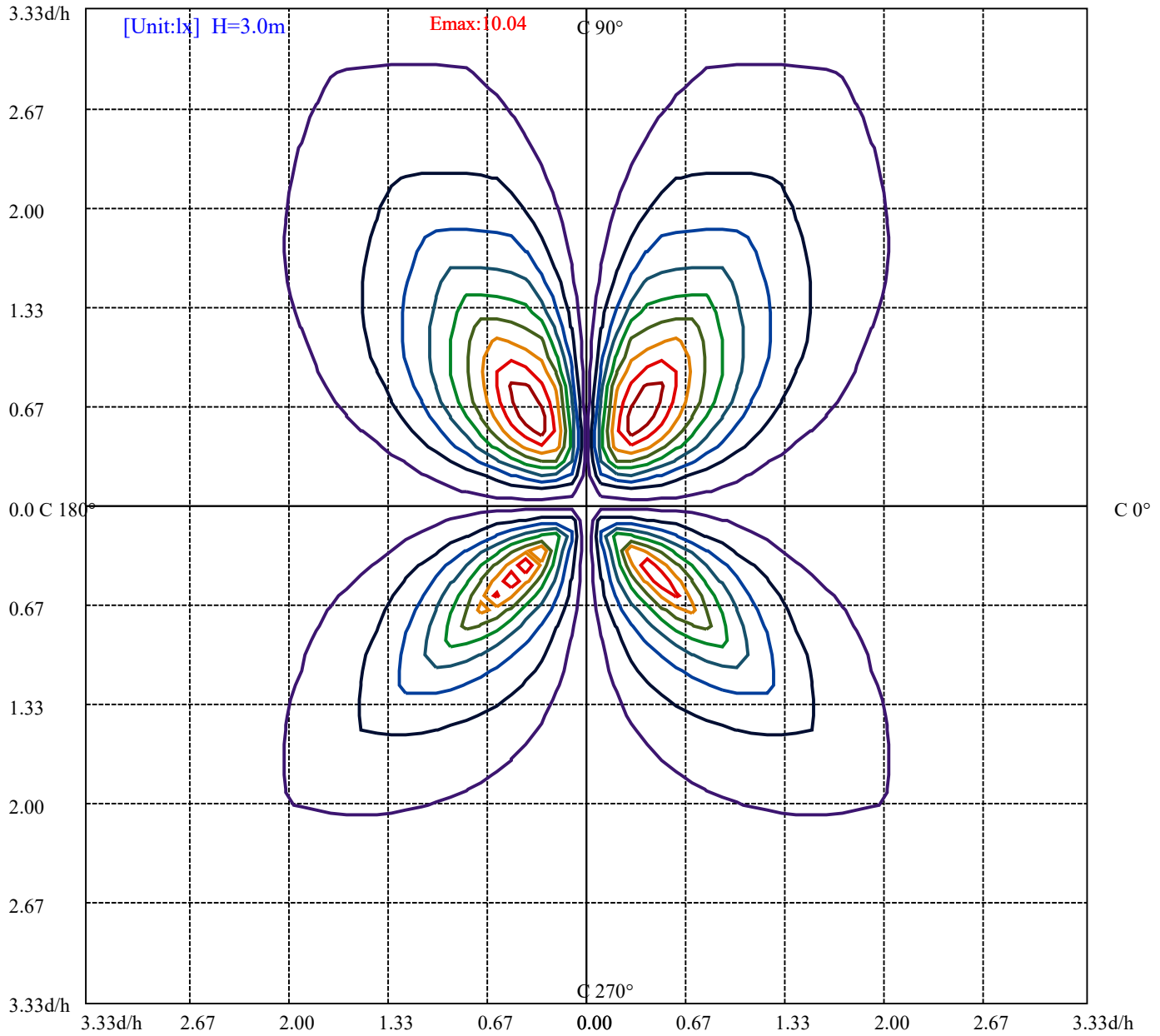
ZONAL LUMEN SUMMARY

0-10	0.82
10-20	7.61
20-30	23.94
30-40	48.22
40-50	77.53
50-60	108.77
60-70	137.26
70-80	159.10
80-90	170.88
90-100	170.09
100-110	156.60
110-120	132.24
120-130	100.42
130-140	68.63
140-150	40.12
150-160	17.64
160-170	4.26
170-180	0.16

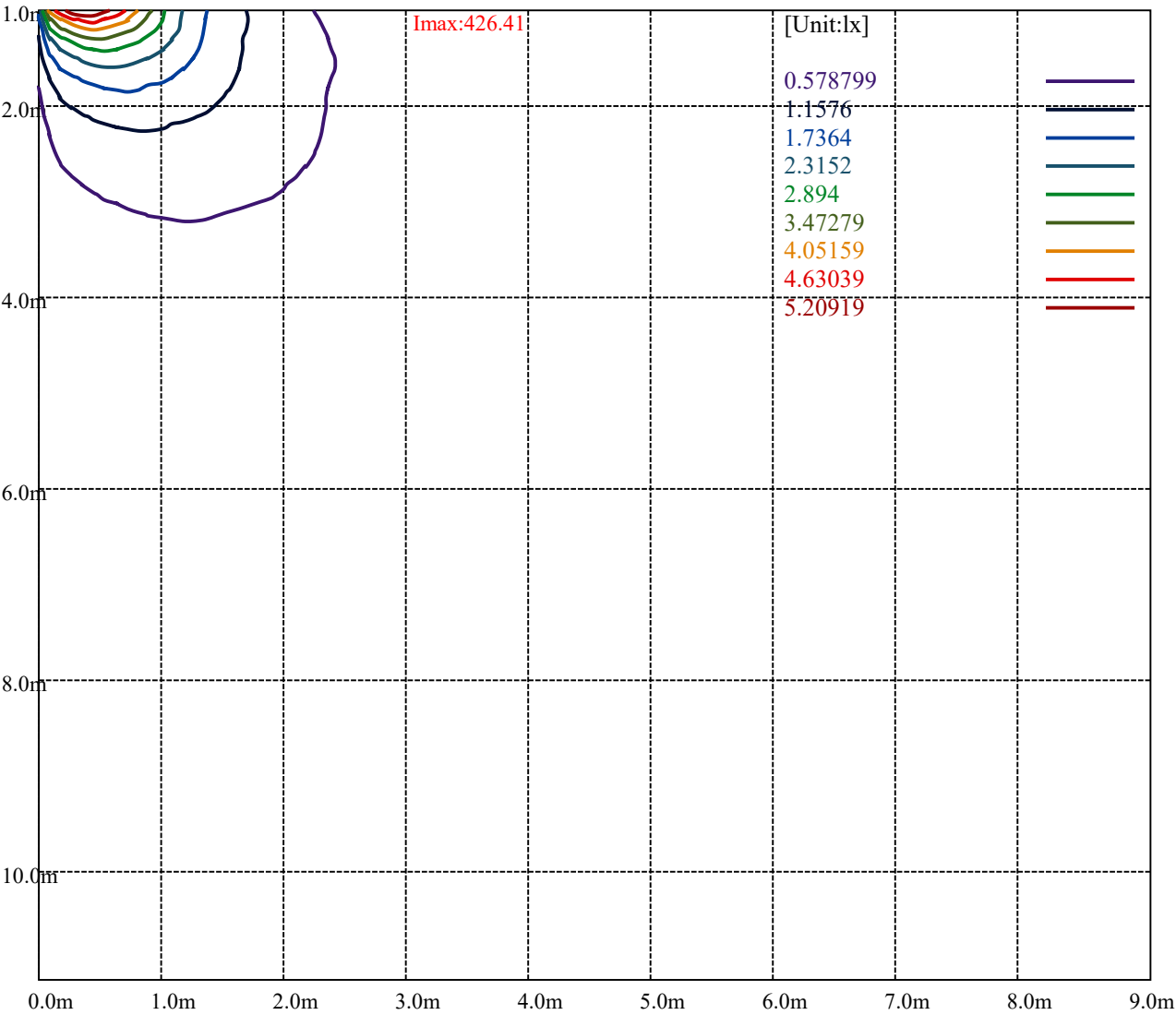




Max , Ave Beam angle of C60 plane 340.52



(10%Emax) 1.004157	—
(20%Emax) 2.008311	—
(30%Emax) 3.012467	—
(40%Emax) 4.016634	—
(50%Emax) 5.020789	—
(60%Emax) 6.024944	—
(70%Emax) 7.0291	—
(80%Emax) 8.033256	—
(90%Emax) 9.037411	—



Luminance Table

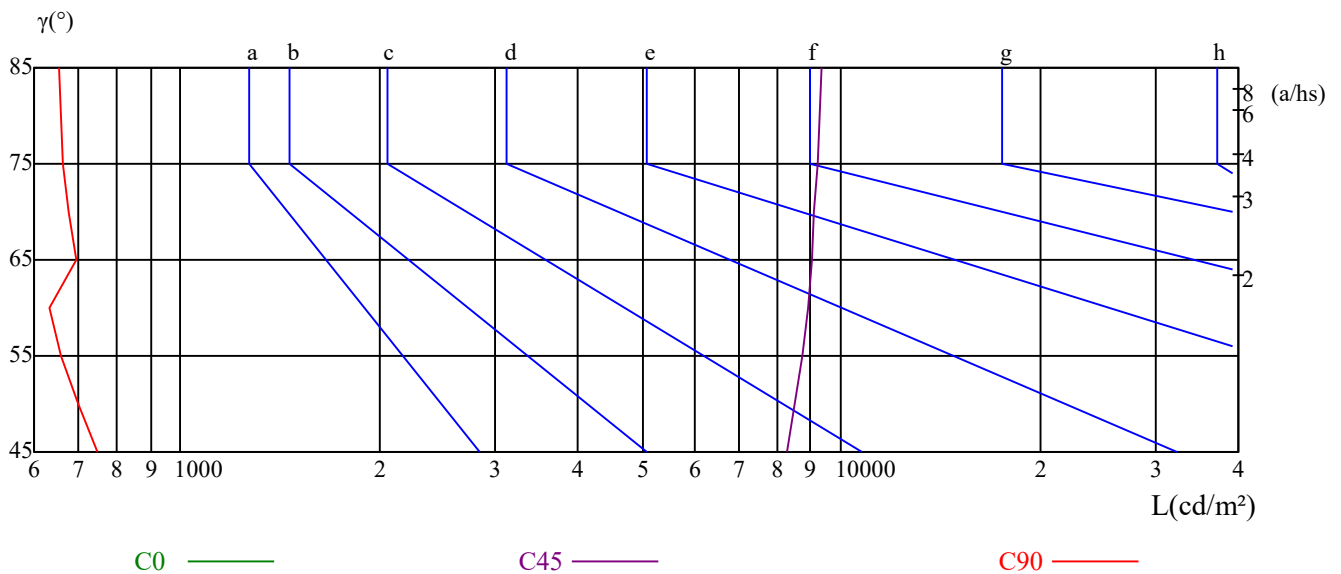
γ	45	50	55	60	65	70	75	80	85
C0	493	458	430	446	428	414	404	398	378
C45	8268	8537	8734	8897	9022	9116	9206	9276	9366
C90	746	698	661	631	696	677	664	657	655

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
26122	11973	549106	42654	19550	953492	121388	58055	2905392

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 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	0.85	0.79	0.73	0.78	0.72	0.67	0.65	0.60	0.56	0.52	0.49	0.46	0.41	0.39	0.36	0.31
2	0.71	0.62	0.55	0.65	0.57	0.50	0.53	0.47	0.42	0.42	0.38	0.34	0.33	0.29	0.26	0.21
3	0.60	0.51	0.43	0.55	0.46	0.39	0.45	0.38	0.32	0.36	0.30	0.26	0.27	0.23	0.19	0.15
4	0.52	0.42	0.34	0.47	0.38	0.32	0.39	0.32	0.26	0.31	0.25	0.20	0.23	0.19	0.15	0.11
5	0.46	0.36	0.28	0.41	0.33	0.26	0.34	0.27	0.21	0.27	0.21	0.17	0.20	0.16	0.12	0.09
6	0.40	0.31	0.24	0.37	0.28	0.22	0.30	0.23	0.18	0.24	0.18	0.14	0.18	0.13	0.10	0.07
7	0.36	0.27	0.20	0.33	0.24	0.18	0.27	0.20	0.15	0.21	0.16	0.12	0.16	0.12	0.08	0.05
8	0.32	0.23	0.17	0.29	0.21	0.16	0.24	0.18	0.13	0.19	0.14	0.10	0.14	0.10	0.07	0.04
9	0.29	0.21	0.15	0.27	0.19	0.14	0.22	0.16	0.11	0.17	0.12	0.09	0.13	0.09	0.06	0.04
10	0.27	0.18	0.13	0.24	0.17	0.12	0.20	0.14	0.10	0.16	0.11	0.08	0.12	0.08	0.05	0.03

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	1.84	3.68	4.60	5.52	6.44	7.36	7.36	8.28	9.20
15.0	2.76	3.68	7.36	11.96	17.48	23.92	29.44	34.96	40.48
30.0	1.84	4.60	11.96	23.92	37.72	53.36	68.08	81.88	93.84
45.0	2.76	4.60	17.48	36.80	59.80	82.80	107.64	131.56	153.63
60.0	2.76	3.68	17.48	41.40	69.92	102.12	135.24	168.35	203.31
75.0	1.84	2.76	8.28	20.24	32.20	44.16	56.12	69.00	82.80
90.0	1.84	3.68	4.60	5.52	5.52	6.44	6.44	6.44	6.44
105.0	1.84	2.76	11.04	34.04	63.48	96.60	130.64	167.43	207.91
120.0	1.84	3.68	17.48	39.56	68.08	98.44	130.64	163.75	196.87
135.0	2.76	4.60	14.72	31.28	52.44	74.52	96.60	118.68	139.84
150.0	2.76	3.68	9.20	18.40	39.56	42.32	54.28	66.24	76.36
165.0	2.76	3.68	5.52	7.36	11.04	14.72	17.48	21.16	24.84
180.0	1.84	4.60	5.52	6.44	7.36	8.28	9.20	10.12	10.12
195.0	2.76	7.36	12.88	21.16	28.52	35.88	43.24	48.76	53.36
210.0	1.84	10.12	23.00	39.56	57.04	74.52	91.08	104.88	116.84
225.0	2.76	11.96	32.20	56.12	81.88	110.40	137.08	162.83	187.67
240.0	2.76	7.36	28.52	39.56	49.68	60.72	69.92	78.20	85.56
255.0	1.84	0.92	2.76	5.52	7.36	10.12	12.88	14.72	16.56
270.0	1.84	0.92	0.92	0.92	1.84	1.84	1.84	1.84	1.84
285.0	1.84	8.28	23.00	32.20	41.40	50.60	58.88	68.08	69.92
300.0	1.84	12.88	32.20	44.16	46.00	65.32	74.52	83.72	92.92
315.0	2.76	11.96	28.52	48.76	69.92	92.00	109.48	126.96	143.52
330.0	2.76	9.20	18.40	29.44	42.32	53.36	64.40	73.60	80.96
345.0	2.76	5.52	9.20	12.88	16.56	19.32	23.00	25.76	27.60
360.0	1.84	3.68	4.60	5.52	6.44	7.36	7.36	8.28	9.20
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	9.20	9.20	9.20	10.12	10.12	10.12	10.12	10.12	10.12
15.0	44.16	47.84	51.52	54.28	57.04	58.88	59.80	61.64	62.56
30.0	103.04	112.24	118.68	124.20	128.80	133.40	137.08	139.84	141.68
45.0	175.71	195.95	212.51	229.07	242.87	253.91	263.11	269.55	275.07
60.0	235.51	268.63	301.75	333.03	359.71	385.47	405.71	421.35	432.39
75.0	96.60	109.48	122.36	133.40	142.60	149.96	154.55	158.23	159.15
90.0	6.44	6.44	6.44	6.44	7.36	7.36	7.36	7.36	7.36
105.0	249.31	291.63	331.19	367.07	400.19	431.47	453.54	473.78	486.66
120.0	229.07	259.43	289.79	317.39	343.15	366.15	385.47	400.19	410.31
135.0	160.07	177.55	194.11	206.99	218.03	227.23	234.59	240.11	243.79
150.0	84.64	92.00	97.52	102.12	106.72	109.48	113.16	115.00	116.84
165.0	26.68	29.44	31.28	33.12	34.04	35.88	36.80	37.72	38.64
180.0	11.04	11.04	11.04	11.96	11.96	11.96	11.96	11.96	11.04
195.0	57.96	60.72	63.48	65.32	67.16	68.08	69.92	69.92	69.92
210.0	126.96	136.16	143.52	149.04	152.71	155.47	157.31	158.23	158.23
225.0	210.67	231.83	250.23	265.87	278.75	288.87	297.15	300.83	302.67
240.0	91.08	99.36	112.24	126.96	138.00	148.12	155.47	160.99	163.75
255.0	18.40	22.08	25.76	29.44	32.20	34.96	36.80	37.72	39.56
270.0	1.84	1.84	1.84	2.76	2.76	2.76	2.76	2.76	2.76
285.0	83.72	94.76	103.96	109.48	114.08	120.52	126.96	131.56	135.24
300.0	103.04	116.84	130.64	142.60	153.63	161.91	169.27	173.87	174.79
315.0	158.23	170.19	178.47	183.99	188.59	191.35	192.27	192.27	191.35
330.0	86.48	90.16	92.92	95.68	98.44	100.28	101.20	102.12	102.12
345.0	29.44	31.28	32.20	33.12	34.04	34.96	34.96	34.96	34.04
360.0	9.20	9.20	9.20	10.12	10.12	10.12	10.12	10.12	10.12

Intensity data(cd)

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	10.12	10.12	10.12	10.12	10.12	10.12	9.20	9.20	9.20
15.0	62.56	62.56	62.56	60.72	59.80	57.96	55.20	52.44	48.76
30.0	142.60	142.60	141.68	139.84	137.08	133.40	127.88	121.44	115.00
45.0	277.83	276.91	275.07	269.55	263.11	252.07	238.27	219.87	200.55
60.0	437.91	436.07	430.55	419.51	403.87	379.03	349.59	316.47	281.51
75.0	157.31	153.63	149.04	140.76	131.56	120.52	108.56	96.60	83.72
90.0	7.36	7.36	7.36	7.36	7.36	6.44	6.44	6.44	6.44
105.0	494.02	492.18	482.98	466.42	444.35	417.67	383.63	345.91	304.51
120.0	414.91	415.83	408.47	398.35	384.55	363.39	334.87	305.43	272.31
135.0	245.63	246.55	246.55	241.95	237.35	229.07	217.11	202.39	186.75
150.0	117.76	117.76	117.76	115.92	115.00	112.24	108.56	103.04	97.52
165.0	38.64	39.56	39.56	38.64	38.64	37.72	35.88	34.96	33.12
180.0	11.04	11.04	11.04	10.12	10.12	9.20	9.20	8.28	7.36
195.0	69.00	68.08	67.16	65.32	62.56	60.72	57.04	52.44	47.84
210.0	157.31	155.47	152.71	149.04	145.36	138.00	129.72	119.60	108.56
225.0	300.83	297.15	289.79	279.67	267.71	248.39	243.79	204.23	180.31
240.0	162.83	158.23	155.47	141.68	129.72	113.16	94.76	78.20	69.00
255.0	39.56	39.56	37.72	35.88	33.12	29.44	24.84	20.24	17.48
270.0	2.76	2.76	2.76	2.76	2.76	2.76	1.84	1.84	0.92
285.0	134.32	129.72	122.36	113.16	101.20	86.48	71.76	59.80	52.44
300.0	173.87	168.35	160.07	149.96	137.08	122.36	105.80	90.16	75.44
315.0	188.59	184.91	179.39	173.87	167.43	156.39	144.44	130.64	116.84
330.0	102.12	101.20	98.44	95.68	92.00	87.40	81.88	75.44	69.92
345.0	34.04	33.12	32.20	31.28	29.44	27.60	25.76	23.00	21.16
360.0	10.12	10.12	10.12	10.12	10.12	10.12	9.20	9.20	9.20
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	8.28	8.28	7.36	6.44	5.52	4.60	3.68	2.76	0.92
15.0	45.08	41.40	35.88	30.36	23.92	17.48	10.12	4.60	0.92
30.0	105.80	94.76	82.80	68.08	52.44	36.80	22.08	8.28	0.92
45.0	179.39	155.47	131.56	106.72	80.96	55.20	31.28	10.12	0.92
60.0	247.47	207.91	172.95	137.08	102.12	68.08	38.64	11.96	0.92
75.0	70.84	58.88	47.84	36.80	25.76	16.56	8.28	1.84	0.92
90.0	5.52	5.52	4.60	4.60	3.68	2.76	1.84	0.92	0.00
105.0	261.27	219.87	181.23	141.68	102.12	69.00	36.80	11.04	0.92
120.0	238.27	204.23	171.11	134.32	101.20	69.92	38.64	13.80	0.92
135.0	168.35	147.20	124.20	100.28	78.20	54.28	31.28	12.88	0.92
150.0	90.16	81.88	71.76	59.80	46.92	33.12	21.16	9.20	0.92
165.0	30.36	28.52	25.76	22.08	18.40	13.80	9.20	4.60	0.92
180.0	7.36	6.44	5.52	4.60	3.68	2.76	1.84	0.92	0.00
195.0	43.24	37.72	31.28	24.84	17.48	16.56	5.52	1.84	0.00
210.0	96.60	92.92	69.00	53.36	37.72	23.92	11.04	1.84	0.00
225.0	156.39	131.56	105.80	81.88	57.04	34.04	14.72	0.92	0.00
240.0	59.80	50.60	42.32	34.04	25.76	18.40	11.04	0.00	0.00
255.0	15.64	13.80	11.96	9.20	7.36	5.52	2.76	0.00	0.00
270.0	0.92	0.92	0.92	0.92	0.92	0.92	0.00	0.00	0.00
285.0	46.00	40.48	34.04	26.68	19.32	12.88	5.52	0.00	0.00
300.0	62.56	52.44	42.32	32.20	22.08	14.72	7.36	0.00	0.00
315.0	101.20	84.64	67.16	48.76	31.28	17.48	5.52	0.92	0.00
330.0	61.64	53.36	44.16	34.04	23.00	13.80	5.52	0.92	0.00
345.0	18.40	15.64	12.88	10.12	6.44	4.60	2.76	0.92	0.00
360.0	8.28	8.28	7.36	6.44	5.52	4.60	3.68	2.76	0.92

Intensity data(cd)

Appendix Page: 12 Total:12

C/ γ (°)	180.0
0.0	0.00
15.0	0.00
30.0	0.00
45.0	0.00
60.0	0.00
75.0	0.00
90.0	0.00
105.0	0.00
120.0	0.00
135.0	0.00
150.0	0.00
165.0	0.00
180.0	0.00
195.0	0.00
210.0	0.00
225.0	0.00
240.0	0.00
255.0	0.00
270.0	0.00
285.0	0.00
300.0	0.00
315.0	0.00
330.0	0.00
345.0	0.00
360.0	0.00