
乐达凯

Client:

LumCAT: LEMW0524LAJUD**

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 119.960

LampCAT:

Current(A): 0.199

Lamp flux(lm): 1355.0

Power (W): 23.700

Number of Lamps: 1

PF: 0.993

Length(mm): 50

Width(mm): 20

Phm Type: C

Height(mm): 560

Photometric Results

Lumens(lm): 1354.97, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 57.17

Central intensity(cd): 1.840, Maximum intensity(cd): 405.707

Angle of maximum intensity: C=60.0 γ =90.0

Beam Angle(50%Imax): [C0/180]Total=305.0

[C90/270]Total=147.5

Field angle(10%Imax): [C0/180]Total=344.0

[C90/270]Total=332.0

Maximum s/h(1/2): C0_180=4.00 C90_270=3.28

Maximum s/h(1/4): C0_180=3.73 C90_270=3.13

Up flux rate of lamp(%): 48.45%

Down flux rate of lamp(%): 51.55%

Up flux rate of LUM(%): 48.45%

Down flux rate of LUM(%): 51.55%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 18.733%

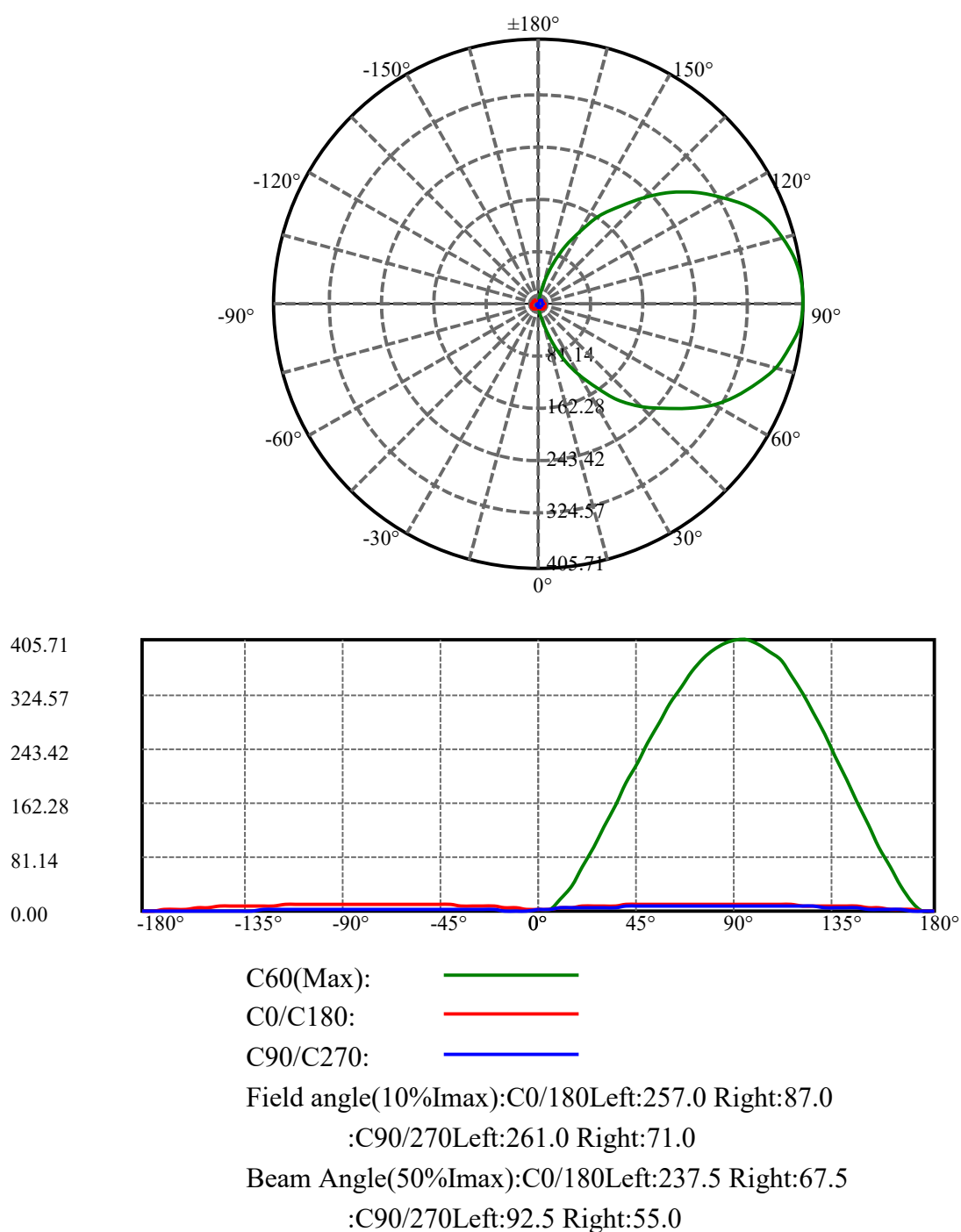
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1.917	0.000	0	0.00%	0.00%
5.0	5.290	0.086	0.086	0.01%	0.01%
10.0	13.761	0.682	0.768	0.05%	0.06%
15.0	24.303	2.258	3.026	0.17%	0.22%
20.0	36.224	4.988	8.014	0.37%	0.59%
25.0	48.682	8.905	16.919	0.66%	1.25%
30.0	60.795	13.854	30.773	1.02%	2.27%
35.0	72.793	19.672	50.445	1.45%	3.72%
40.0	84.139	26.183	76.628	1.93%	5.66%
45.0	95.102	33.188	109.816	2.45%	8.10%
50.0	105.605	40.556	150.371	2.99%	11.10%
55.0	115.418	48.058	198.429	3.55%	14.64%
60.0	124.234	55.395	253.824	4.09%	18.73%
65.0	131.709	62.220	316.044	4.59%	23.32%
70.0	138.379	68.388	384.432	5.05%	28.37%
75.0	143.477	73.673	458.105	5.44%	33.81%
80.0	147.080	77.745	535.85	5.74%	39.55%
85.0	149.495	80.587	616.436	5.95%	45.49%
90.0	149.955	81.992	698.428	6.05%	51.55%
95.0	148.690	81.771	780.199	6.03%	57.58%
100.0	145.777	80.014	860.213	5.91%	63.49%
105.0	140.985	76.730	936.943	5.66%	69.15%
110.0	135.121	72.170	1009.112	5.33%	74.47%
115.0	126.917	66.350	1075.462	4.90%	79.37%
120.0	117.718	59.471	1134.933	4.39%	83.76%
125.0	106.218	51.762	1186.695	3.82%	87.58%
130.0	95.370	43.832	1230.527	3.23%	90.82%
135.0	84.101	36.265	1266.792	2.68%	93.49%
140.0	72.678	29.029	1295.821	2.14%	95.63%
145.0	60.258	22.179	1318	1.64%	97.27%
150.0	47.953	15.935	1333.935	1.18%	98.45%
155.0	35.457	10.556	1344.491	0.78%	99.23%
160.0	24.111	6.248	1350.738	0.46%	99.69%
165.0	13.033	3.061	1353.799	0.23%	99.91%
170.0	3.948	1.007	1354.807	0.07%	99.99%
175.0	0.422	0.156	1354.963	0.01%	100.00%
180.0	0.000	0.005	1354.968	0.00%	100.00%

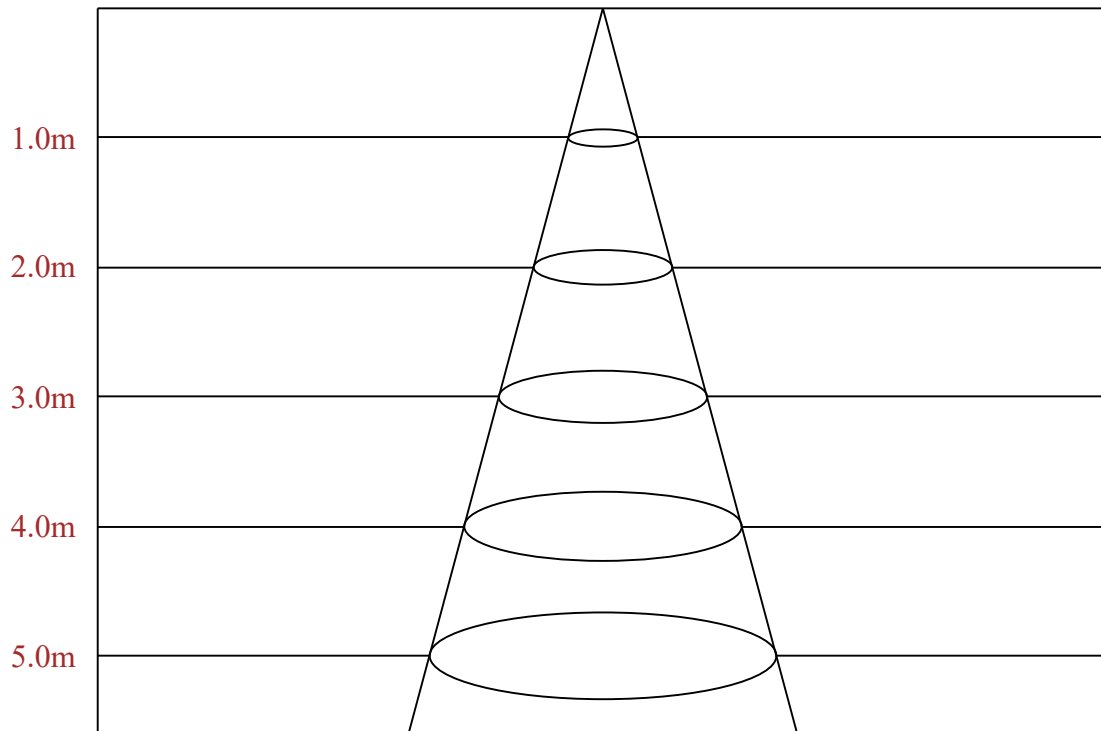
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	30.77	2.27%	2.27%
0-40	76.63	5.66%	5.66%
0-60	253.82	18.73%	18.73%
0-90	698.43	51.55%	51.55%
0-120	1134.93	83.76%	83.76%
0-180	1354.97	100.00%	100.00%
60-90	444.60	32.81%	32.81%
90-120	436.51	32.22%	32.22%
90-130	532.10	39.27%	39.27%
90-150	635.51	46.90%	46.90%
90-180	656.54	48.45%	48.45%
0-115.72	1083.97	80.00%	80.00%

ZONAL LUMEN SUMMARY

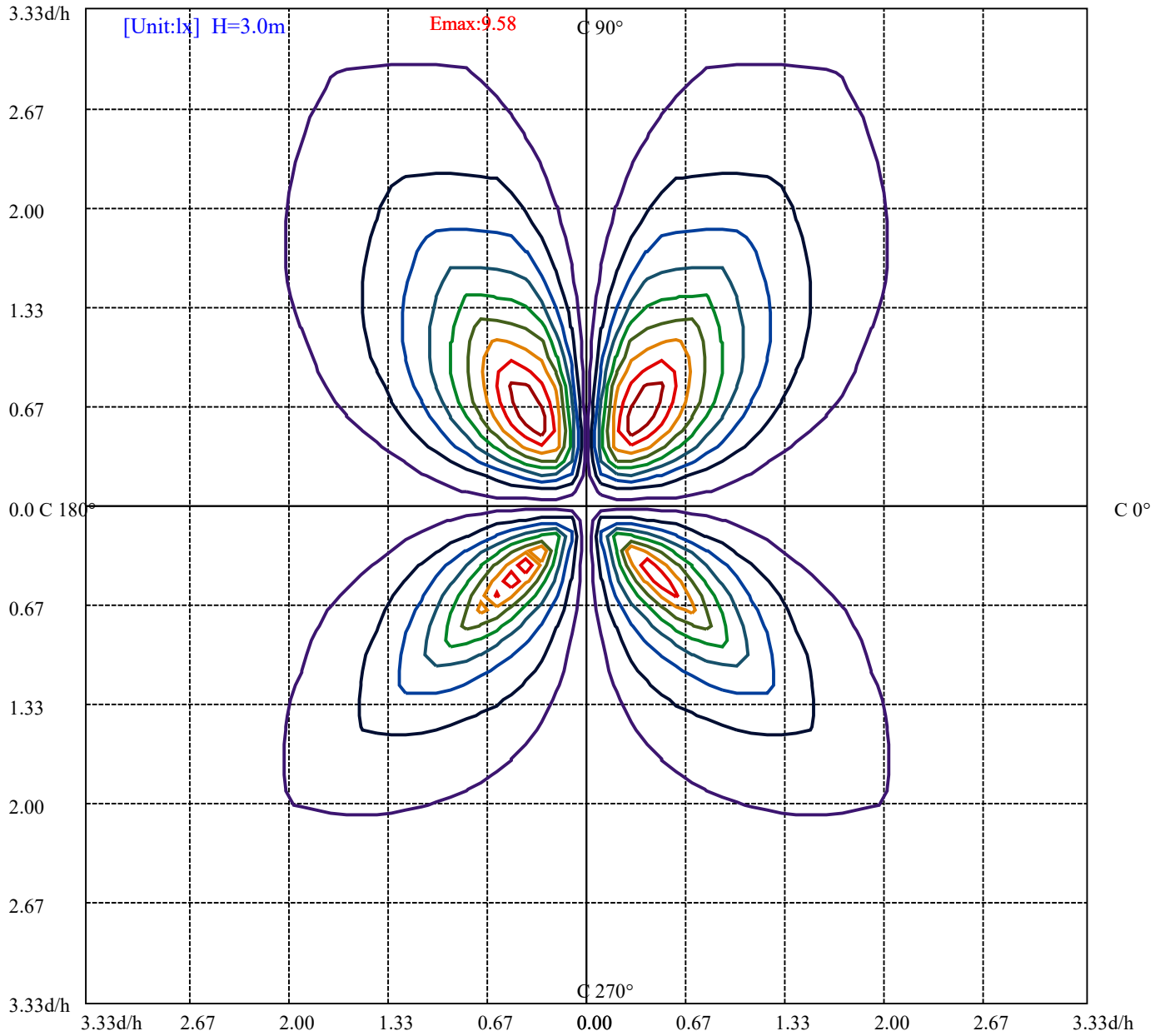
0-10	0.77
10-20	7.25
20-30	22.76
30-40	45.85
40-50	73.74
50-60	103.45
60-70	130.61
70-80	151.42
80-90	162.58
90-100	161.79
100-110	148.90
110-120	125.82
120-130	95.59
130-140	65.29
140-150	38.11
150-160	16.80
160-170	4.07
170-180	0.16



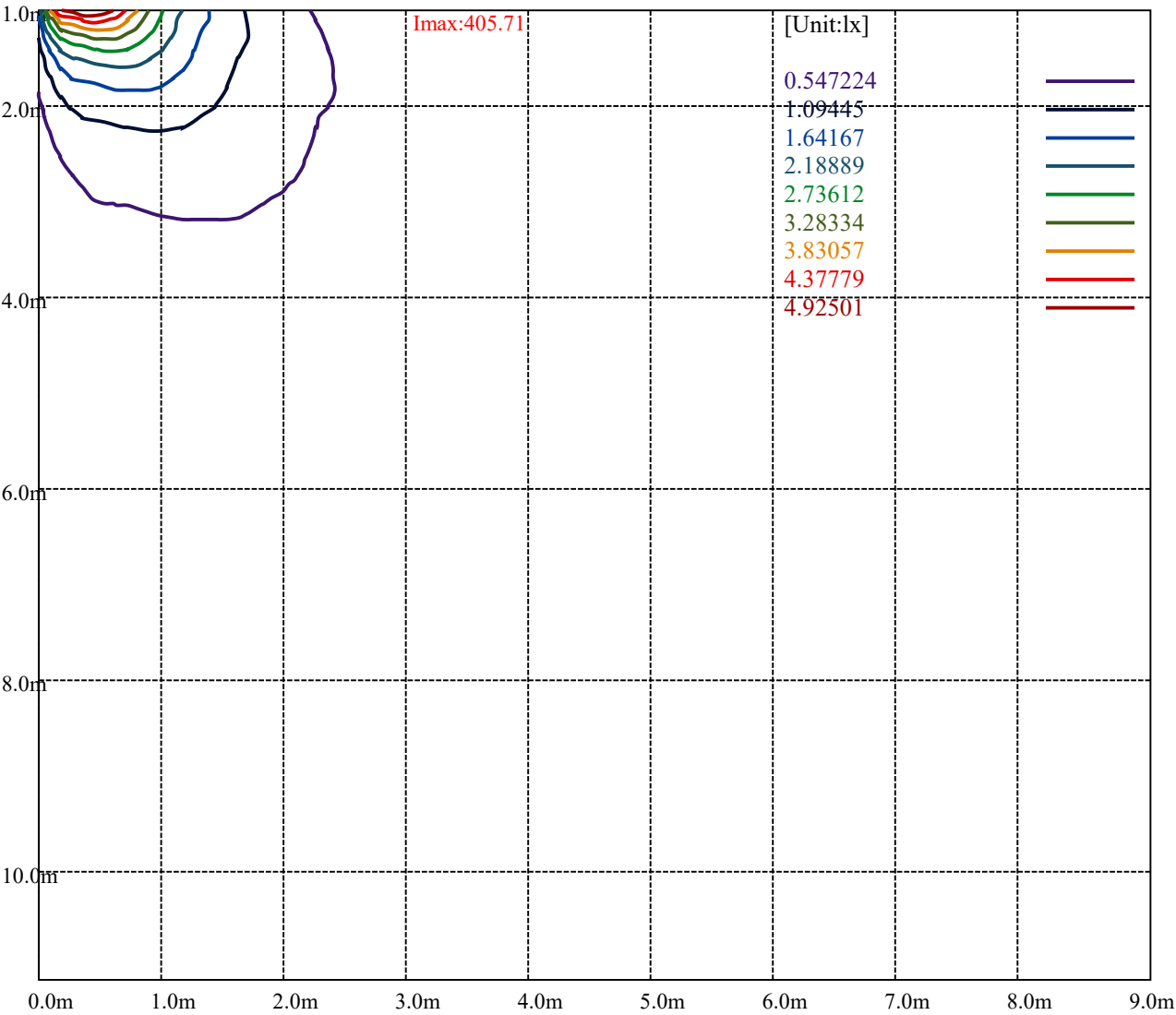


Max , Ave

Beam angle of C60 plane 340.47



(10%Emax) 0.9577488	—
(20%Emax) 1.9155	—
(30%Emax) 2.873244	—
(40%Emax) 3.831	—
(50%Emax) 4.788744	—
(60%Emax) 5.7465	—
(70%Emax) 6.704245	—
(80%Emax) 7.662	—
(90%Emax) 8.619744	—



Luminance Table

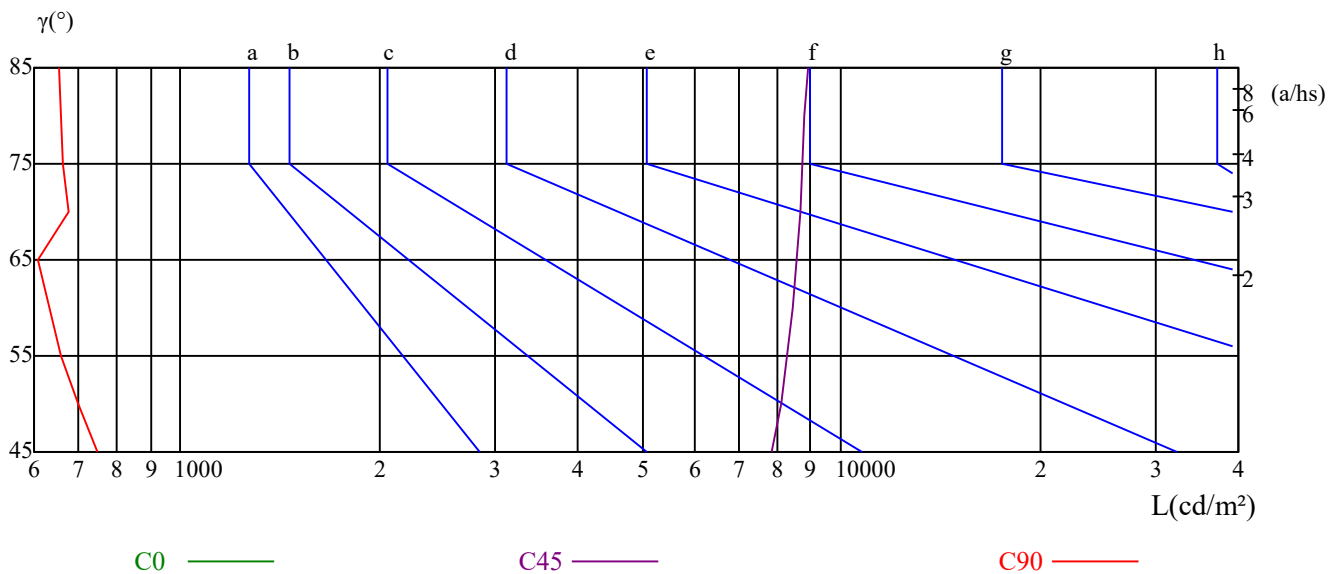
γ	45	50	55	60	65	70	75	80	85
C0	449	416	430	409	392	380	371	365	362
C45	7837	8116	8299	8466	8572	8681	8763	8824	8901
C90	746	698	661	631	609	677	664	657	655

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
23945	10884	521896	39099	19550	907283	116110	58055	2762893

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	0.07	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	4.60	5.52	6.44	7.36	8.28	8.28
15.0	1.84	3.68	7.36	11.96	16.56	23.00	27.60	33.12	38.64
30.0	1.84	4.60	11.96	23.00	35.88	50.60	64.40	77.28	89.24
45.0	1.84	4.60	16.56	34.96	56.12	78.20	102.12	125.12	146.28
60.0	1.84	3.68	16.56	39.56	67.16	97.52	128.80	160.07	194.11
75.0	1.84	2.76	8.28	19.32	30.36	42.32	53.36	65.32	79.12
90.0	1.84	2.76	4.60	5.52	5.52	5.52	5.52	5.52	6.44
105.0	1.84	2.76	10.12	32.20	60.72	92.00	124.20	159.15	197.79
120.0	1.84	3.68	16.56	37.72	64.40	93.84	124.20	156.39	187.67
135.0	2.76	3.68	13.80	30.36	49.68	70.84	92.00	113.16	133.40
150.0	1.84	3.68	9.20	17.48	36.80	40.48	52.44	62.56	72.68
165.0	1.84	2.76	5.52	7.36	10.12	13.80	16.56	20.24	23.00
180.0	1.84	3.68	5.52	6.44	7.36	8.28	9.20	9.20	10.12
195.0	1.84	6.44	12.88	19.32	27.60	34.04	40.48	46.00	50.60
210.0	1.84	10.12	22.08	37.72	54.28	70.84	86.48	100.28	111.32
225.0	1.84	11.04	30.36	53.36	78.20	104.88	130.64	155.47	178.47
240.0	1.84	7.36	26.68	37.72	47.84	57.04	66.24	74.52	80.96
255.0	1.84	0.92	1.84	5.52	7.36	10.12	11.96	13.80	15.64
270.0	1.84	0.92	0.92	0.92	1.84	1.84	1.84	1.84	1.84
285.0	1.84	7.36	21.16	30.36	39.56	47.84	56.12	64.40	66.24
300.0	1.84	11.96	31.28	41.40	44.16	61.64	70.84	80.04	88.32
315.0	2.76	11.04	26.68	46.00	67.16	87.40	103.96	120.52	136.16
330.0	1.84	8.28	17.48	28.52	39.56	51.52	60.72	69.92	76.36
345.0	1.84	5.52	8.28	11.96	15.64	18.40	22.08	24.84	26.68
360.0	1.84	3.68	4.60	4.60	5.52	6.44	7.36	8.28	8.28
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	8.28	8.28	9.20	9.20	9.20	9.20	9.20	9.20	9.20
15.0	42.32	46.00	48.76	51.52	54.28	56.12	57.04	57.96	59.80
30.0	98.44	106.72	113.16	118.68	123.28	126.96	130.64	132.48	134.32
45.0	166.51	185.83	202.39	218.03	230.91	241.95	250.23	256.67	261.27
60.0	224.47	255.75	287.03	316.47	342.23	367.07	386.39	401.11	411.23
75.0	92.00	103.96	115.92	126.96	135.24	142.60	147.20	149.96	150.88
90.0	6.44	6.44	6.44	6.44	6.44	7.36	7.36	7.36	7.36
105.0	237.35	276.91	314.63	349.59	380.87	410.31	431.47	450.79	462.74
120.0	218.03	246.55	275.07	302.67	326.59	347.75	367.07	380.87	390.99
135.0	151.79	169.27	183.99	196.87	206.99	216.19	223.55	228.15	231.83
150.0	80.96	87.40	92.92	97.52	101.20	104.88	107.64	109.48	110.40
165.0	25.76	27.60	29.44	31.28	33.12	34.04	34.96	35.88	36.80
180.0	10.12	10.12	11.04	11.04	11.04	11.04	11.04	11.04	11.04
195.0	55.20	57.96	60.72	62.56	64.40	65.32	66.24	66.24	66.24
210.0	121.44	129.72	136.16	141.68	145.36	148.12	149.96	150.88	150.88
225.0	200.55	219.87	237.35	252.99	264.95	275.07	282.43	286.11	287.95
240.0	86.48	94.76	106.72	120.52	131.56	140.76	148.12	152.71	156.39
255.0	17.48	21.16	24.84	28.52	30.36	33.12	34.96	35.88	37.72
270.0	1.84	1.84	1.84	1.84	2.76	2.76	2.76	2.76	2.76
285.0	79.12	90.16	98.44	103.96	108.56	115.00	121.44	125.12	128.80
300.0	97.52	111.32	124.20	135.24	146.28	154.55	160.99	165.59	166.51
315.0	149.96	161.91	170.19	175.71	179.39	182.15	183.07	183.07	182.15
330.0	81.88	85.56	89.24	91.08	93.84	95.68	96.60	97.52	97.52
345.0	28.52	29.44	30.36	31.28	32.20	33.12	33.12	33.12	33.12
360.0	8.28	8.28	9.20	9.20	9.20	9.20	9.20	9.20	9.20

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	9.20	9.20	9.20	9.20	9.20	9.20	9.20	8.28	8.28
15.0	59.80	59.80	58.88	57.96	57.04	55.20	52.44	49.68	46.92
30.0	135.24	135.24	134.32	132.48	130.64	126.96	122.36	115.92	109.48
45.0	264.03	264.03	261.27	256.67	250.23	240.11	226.31	208.83	191.35
60.0	415.83	415.83	409.39	399.27	384.55	360.63	333.03	301.75	267.71
75.0	149.96	146.28	141.68	133.40	125.12	115.00	103.96	92.00	79.12
90.0	7.36	7.36	7.36	6.44	6.44	6.44	6.44	6.44	5.52
105.0	470.10	468.26	459.98	443.43	423.19	397.43	365.23	328.43	289.79
120.0	395.59	395.59	389.15	379.03	365.23	345.91	319.23	290.71	259.43
135.0	233.67	234.59	234.59	230.91	225.39	218.03	206.99	192.27	177.55
150.0	111.32	112.24	111.32	110.40	109.48	106.72	103.04	98.44	92.92
165.0	36.80	36.80	36.80	36.80	36.80	35.88	34.04	33.12	31.28
180.0	10.12	10.12	10.12	10.12	9.20	9.20	8.28	8.28	7.36
195.0	66.24	65.32	63.48	61.64	59.80	57.04	54.28	49.68	45.08
210.0	149.96	148.12	145.36	141.68	138.00	131.56	123.28	114.08	103.04
225.0	287.03	282.43	275.99	265.87	253.91	236.43	231.83	195.03	172.03
240.0	154.55	150.88	148.12	135.24	123.28	107.64	90.16	74.52	65.32
255.0	37.72	37.72	35.88	34.04	31.28	27.60	23.92	19.32	16.56
270.0	2.76	2.76	2.76	2.76	1.84	1.84	1.84	1.84	0.92
285.0	127.88	123.28	115.92	107.64	96.60	82.80	68.08	56.12	49.68
300.0	165.59	160.07	151.79	142.60	130.64	115.92	101.20	85.56	71.76
315.0	179.39	175.71	171.11	165.59	159.15	149.04	137.08	125.12	111.32
330.0	96.60	95.68	93.84	91.08	87.40	82.80	78.20	71.76	66.24
345.0	32.20	31.28	30.36	29.44	28.52	26.68	24.84	22.08	20.24
360.0	9.20	9.20	9.20	9.20	9.20	9.20	9.20	8.28	8.28
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	8.28	7.36	7.36	6.44	5.52	4.60	3.68	1.84	0.92
15.0	43.24	39.56	34.04	29.44	23.00	16.56	10.12	4.60	0.92
30.0	100.28	90.16	78.20	64.40	49.68	34.96	21.16	8.28	0.92
45.0	171.11	148.12	125.12	101.20	77.28	52.44	29.44	9.20	0.92
60.0	235.51	197.79	164.67	130.64	96.60	64.40	36.80	11.04	0.92
75.0	67.16	56.12	45.08	34.96	24.84	15.64	7.36	1.84	0.92
90.0	5.52	5.52	4.60	3.68	3.68	2.76	1.84	0.92	0.00
105.0	248.39	209.75	172.03	135.24	97.52	66.24	34.96	11.04	0.92
120.0	226.31	194.11	162.83	127.88	95.68	67.16	36.80	12.88	0.92
135.0	160.07	139.84	118.68	95.68	73.60	51.52	30.36	11.96	0.92
150.0	86.48	78.20	68.08	57.04	44.16	31.28	20.24	8.28	0.92
165.0	29.44	26.68	23.92	21.16	17.48	12.88	9.20	4.60	0.92
180.0	6.44	5.52	5.52	4.60	3.68	2.76	1.84	0.92	0.00
195.0	40.48	35.88	29.44	23.92	16.56	15.64	5.52	1.84	0.00
210.0	92.00	88.32	65.32	50.60	35.88	23.00	11.04	1.84	0.00
225.0	149.04	125.12	100.28	77.28	54.28	33.12	13.80	0.92	0.00
240.0	57.04	48.76	40.48	32.20	24.84	17.48	11.04	0.00	0.00
255.0	14.72	12.88	11.04	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	44.16	38.64	32.20	25.76	18.40	11.96	5.52	0.00	0.00
300.0	59.80	49.68	39.56	30.36	21.16	13.80	6.44	0.00	0.00
315.0	95.68	80.04	63.48	46.92	30.36	16.56	5.52	0.92	0.00
330.0	58.88	50.60	41.40	32.20	22.08	12.88	5.52	0.92	0.00
345.0	17.48	14.72	11.96	9.20	6.44	4.60	1.84	0.92	0.00
360.0	8.28	7.36	7.36	6.44	5.52	4.60	3.68	1.84	0.92

Intensity data(cd)

Appendix Page: 12 Total:12

C/ $\gamma(^{\circ})$	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