
乐达凯

Client:

LumCAT: LEMW0524LAJUD**

Luminaire: LED lamp

Report No:

Ballast type:

Test No: LCZP23120166

Voltage(V): 120.010

LampCAT:

Current(A): 0.197

Lamp flux(lm): 1251.8

Power (W): 23.420

Number of Lamps: 1

PF: 0.992

Length(mm): 50

Width(mm): 20

Phm Type: C

Height(mm): 560

Photometric Results

Lumens(lm): 1251.75, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 53.45

Central intensity(cd): 1.932, Maximum intensity(cd): 434.226

Angle of maximum intensity: C=105.0 γ =90.0

Beam Angle(50%Imax): [C0/180]Total=296.0

[C90/270]Total=146.2

Field angle(10%Imax): [C0/180]Total=344.2

[C90/270]Total=313.9

Maximum s/h(1/2): C0_180=3.92 C90_270=3.32

Maximum s/h(1/4): C0_180=3.68 C90_270=3.23

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 : 18.737%

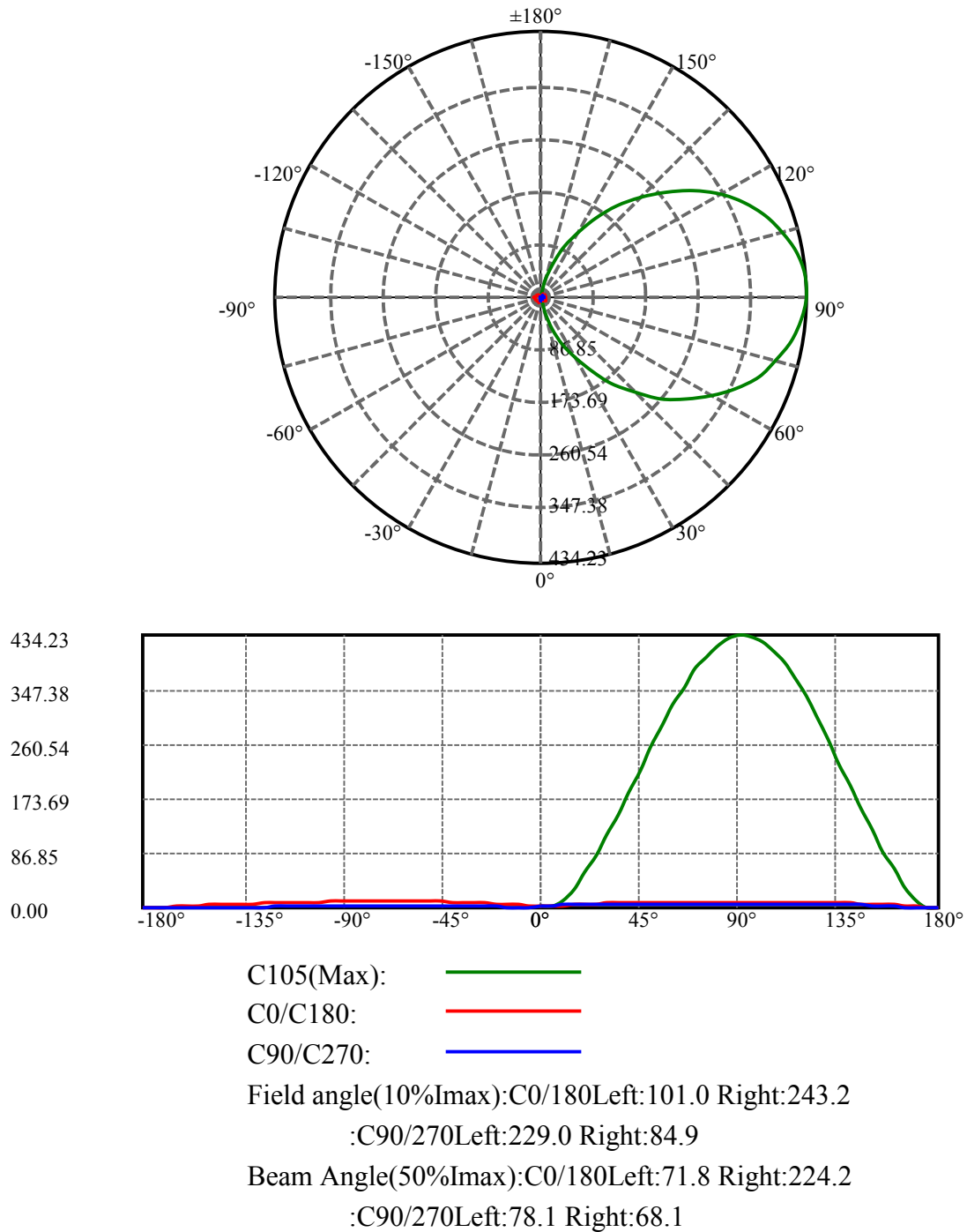
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1.978	0.000	0	0.00%	0.00%
5.0	4.983	0.083	0.083	0.01%	0.01%
10.0	12.692	0.632	0.716	0.05%	0.06%
15.0	22.474	2.086	2.802	0.17%	0.22%
20.0	33.518	4.614	7.416	0.37%	0.59%
25.0	44.990	8.234	15.65	0.66%	1.25%
30.0	56.199	12.806	28.456	1.02%	2.27%
35.0	67.292	18.185	46.64	1.45%	3.73%
40.0	77.749	24.199	70.839	1.93%	5.66%
45.0	87.869	30.665	101.505	2.45%	8.11%
50.0	97.593	37.475	138.98	2.99%	11.10%
55.0	106.621	44.403	183.383	3.55%	14.65%
60.0	114.701	51.158	234.541	4.09%	18.74%
65.0	121.643	57.456	291.997	4.59%	23.33%
70.0	127.742	63.146	355.142	5.04%	28.37%
75.0	132.495	68.022	423.164	5.43%	33.81%
80.0	135.949	71.828	494.992	5.74%	39.54%
85.0	138.103	74.466	569.458	5.95%	45.49%
90.0	138.567	75.754	645.213	6.05%	51.54%
95.0	137.359	75.551	720.763	6.04%	57.58%
100.0	134.745	73.937	794.7	5.91%	63.49%
105.0	130.310	70.921	865.622	5.67%	69.15%
110.0	124.821	66.687	932.309	5.33%	74.48%
115.0	117.204	61.282	993.591	4.90%	79.38%
120.0	108.671	54.911	1048.502	4.39%	83.76%
125.0	98.084	47.791	1096.293	3.82%	87.58%
130.0	88.102	40.483	1136.776	3.23%	90.81%
135.0	77.695	33.502	1170.278	2.68%	93.49%
140.0	67.158	26.821	1197.098	2.14%	95.63%
145.0	55.742	20.505	1217.603	1.64%	97.27%
150.0	44.239	14.723	1232.326	1.18%	98.45%
155.0	32.782	9.747	1242.073	0.78%	99.23%
160.0	22.240	5.771	1247.844	0.46%	99.69%
165.0	11.983	2.820	1250.664	0.23%	99.91%
170.0	3.711	0.931	1251.595	0.07%	99.99%
175.0	0.448	0.149	1251.744	0.01%	100.00%
180.0	0.149	0.007	1251.751	0.00%	100.00%

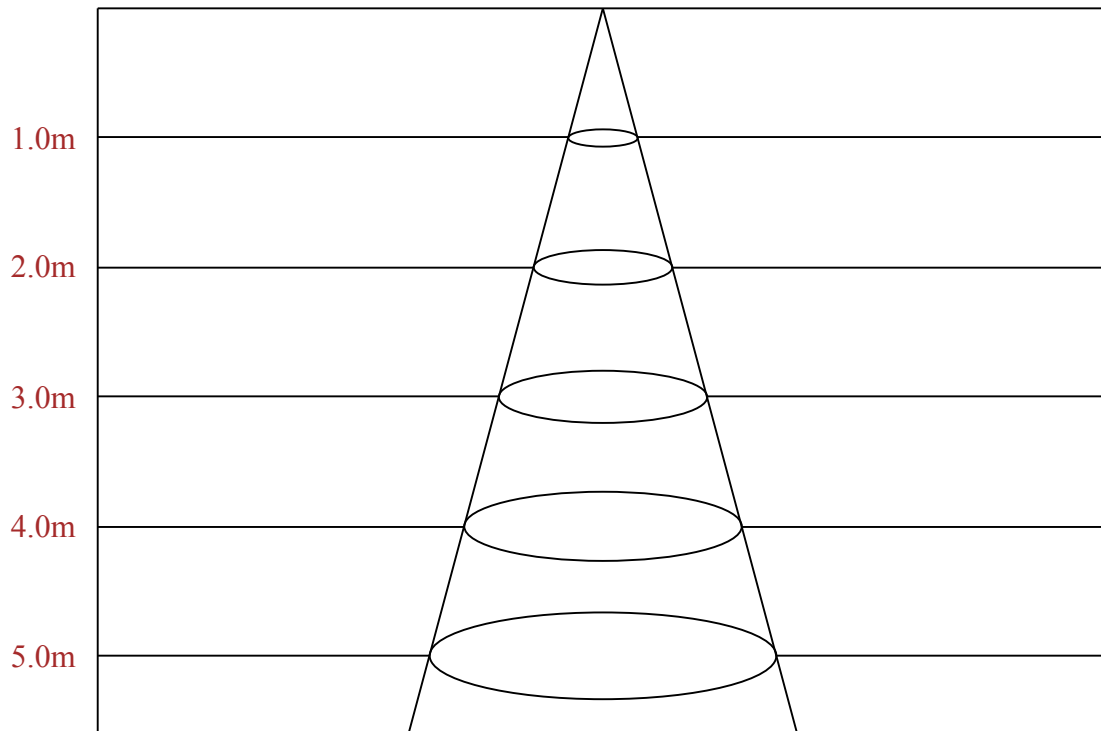
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	28.46	2.27%	2.27%
0-40	70.84	5.66%	5.66%
0-60	234.54	18.74%	18.74%
0-90	645.21	51.54%	51.54%
0-120	1048.50	83.76%	83.76%
0-180	1251.75	100.00%	100.00%
60-90	410.67	32.81%	32.81%
90-120	403.29	32.22%	32.22%
90-130	491.56	39.27%	39.27%
90-150	587.11	46.90%	46.90%
90-180	606.53	48.45%	48.45%
0-115.71	1001.40	80.00%	80.00%

ZONAL LUMEN SUMMARY

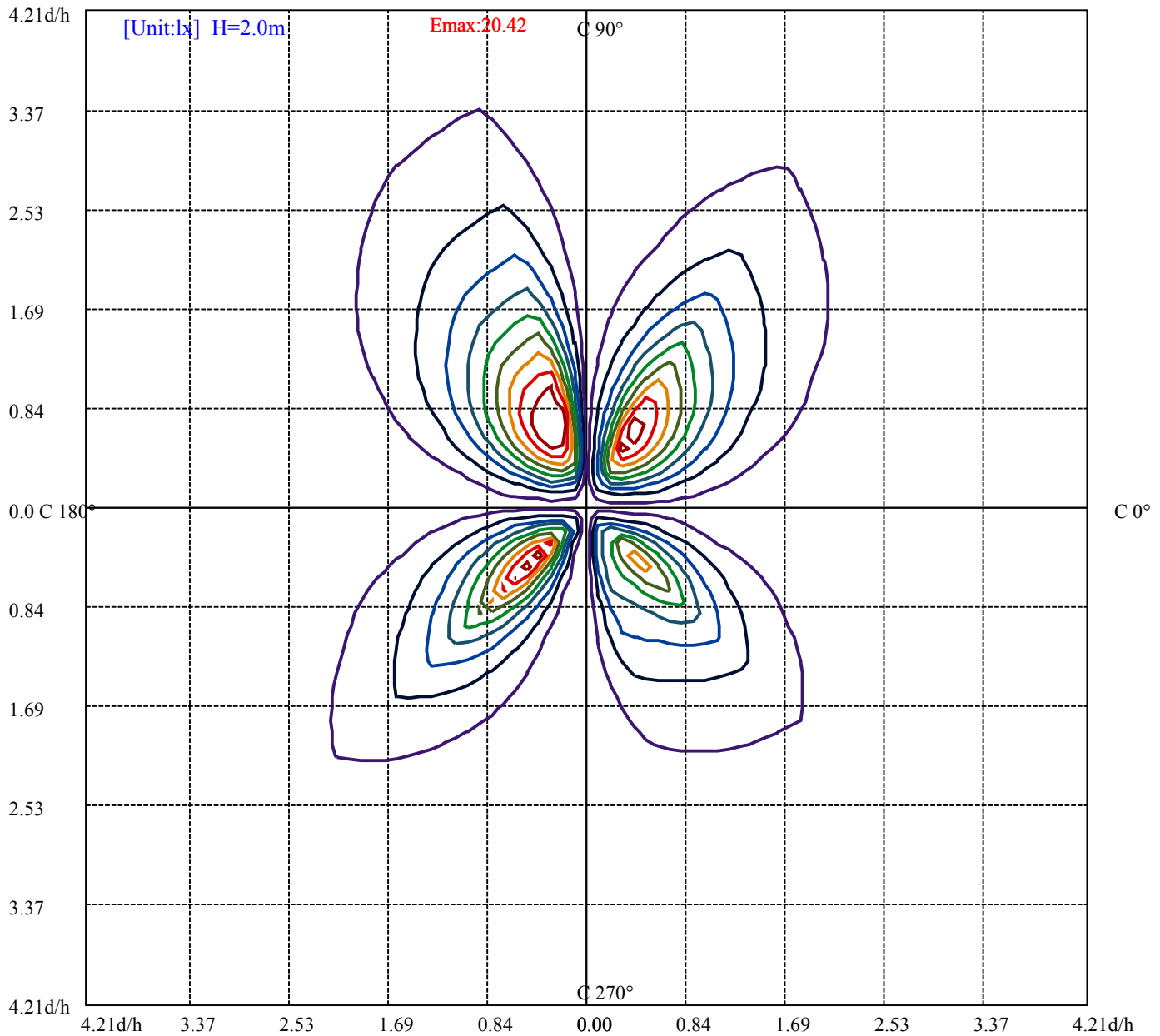
0-10	0.72
10-20	6.70
20-30	21.04
30-40	42.38
40-50	68.14
50-60	95.56
60-70	120.60
70-80	139.85
80-90	150.22
90-100	149.49
100-110	137.61
110-120	116.19
120-130	88.27
130-140	60.32
140-150	35.23
150-160	15.52
160-170	3.75
170-180	0.15



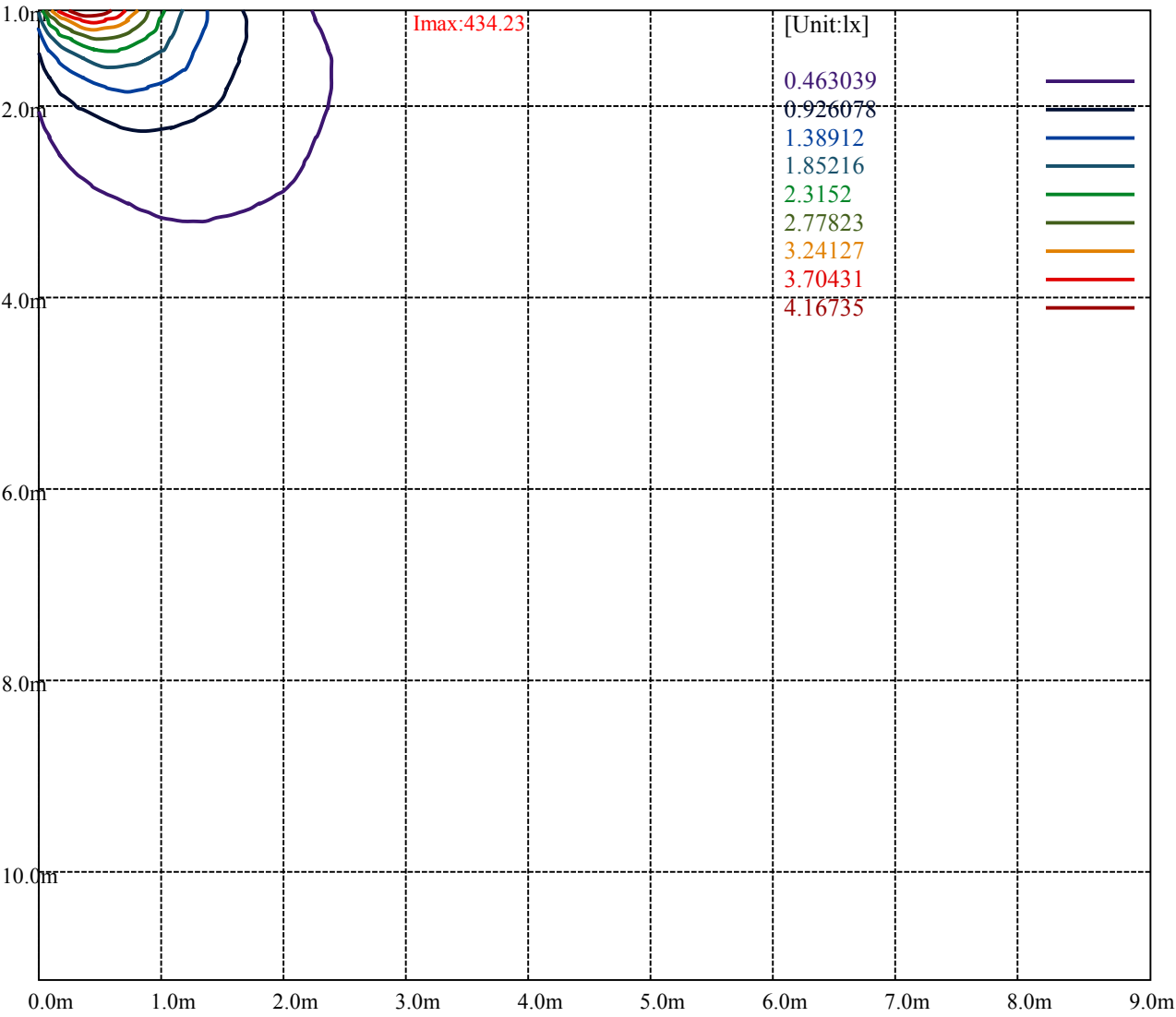


Max , Ave

Beam angle of C105 plane 339.84



(10%Emax) 2.041785	—
(20%Emax) 4.083575	—
(30%Emax) 6.12535	—
(40%Emax) 8.167125	—
(50%Emax) 10.20893	—
(60%Emax) 12.2507	—
(70%Emax) 14.29247	—
(80%Emax) 16.33427	—
(90%Emax) 18.37605	—



Luminance Table

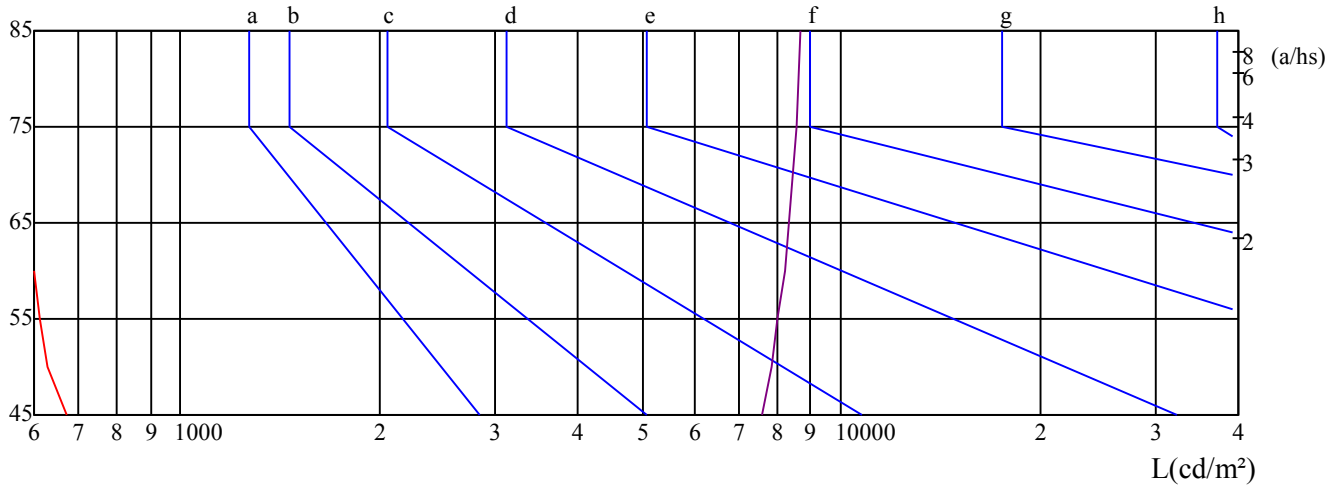
γ	45	50	55	60	65	70	75	80	85
C0	381	362	356	346	332	324	320	318	316
C45	7593	7855	8022	8218	8345	8454	8556	8633	8715
C90	672	628	613	586	592	593	581	591	589

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
22095	10013	482441	36434	17062	838504	107666	53305	2552575

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

 $\gamma(^{\circ})$ 

C0 ———

C45 ———

C90 ———

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	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	1.93	3.04	3.86	4.60	5.52	6.26	6.81	7.36	7.82
15.0	2.02	3.31	6.53	10.67	15.64	21.07	25.85	31.00	35.42
30.0	1.93	4.05	10.67	21.07	33.49	46.73	59.71	71.67	82.25
45.0	2.12	4.23	15.00	32.11	52.16	72.40	94.30	115.46	135.33
60.0	2.02	3.59	15.55	36.71	61.82	89.70	118.68	148.30	178.93
75.0	1.84	2.76	7.36	17.76	28.24	39.01	49.40	60.72	72.86
90.0	1.66	2.85	4.05	4.88	5.15	5.34	5.34	5.43	5.70
105.0	1.75	2.67	9.57	29.99	55.93	84.91	114.63	147.38	182.80
120.0	1.75	3.22	15.64	34.96	59.61	86.75	114.81	144.07	173.23
135.0	2.67	3.77	12.97	27.78	46.00	65.78	85.19	104.69	123.18
150.0	2.02	3.40	8.46	16.28	34.41	37.07	48.11	58.14	67.25
165.0	2.02	2.85	4.69	6.81	9.75	12.60	15.64	18.68	21.62
180.0	1.93	3.68	4.97	5.80	6.72	7.54	8.28	8.83	9.29
195.0	2.02	6.07	11.50	18.22	25.21	31.55	37.72	42.78	47.10
210.0	1.93	9.02	20.33	34.87	50.41	65.50	79.67	92.27	103.04
225.0	2.12	10.12	28.15	49.59	72.31	96.87	120.88	143.24	165.04
240.0	2.02	6.72	25.02	35.05	44.07	53.08	61.09	68.54	74.98
255.0	1.84	1.20	2.12	4.69	6.81	9.20	11.13	12.97	14.81
270.0	1.66	1.10	0.83	1.20	1.47	1.47	1.56	1.66	1.66
285.0	1.75	7.18	19.96	28.24	36.25	44.34	51.43	59.52	61.09
300.0	1.75	11.13	28.70	38.55	40.66	57.31	65.69	73.69	81.42
315.0	2.67	10.49	24.84	42.50	61.73	80.77	96.04	111.50	125.94
330.0	2.02	8.00	15.92	26.04	36.89	47.19	56.49	64.58	70.93
345.0	2.02	5.15	7.91	11.04	14.17	17.30	20.33	22.54	24.29
360.0	1.93	3.04	3.86	4.60	5.52	6.26	6.81	7.36	7.82
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	7.82	8.00	8.37	8.56	8.56	8.65	8.74	8.83	8.83
15.0	39.10	42.32	45.26	47.65	49.86	51.61	52.71	53.91	54.92
30.0	90.80	98.34	104.32	109.38	113.62	117.30	120.33	122.54	124.20
45.0	154.19	171.85	186.75	201.38	213.16	223.09	231.28	237.17	241.40
60.0	207.27	236.43	265.23	292.46	316.29	338.73	356.67	370.66	380.13
75.0	84.73	96.32	107.27	117.30	125.12	131.56	136.25	138.82	139.56
90.0	5.80	5.80	5.98	5.98	6.26	6.44	6.44	6.62	6.62
105.0	218.95	256.12	291.08	322.63	351.61	379.03	398.81	416.29	427.88
120.0	201.66	228.06	254.46	279.21	301.75	321.62	338.92	352.07	360.81
135.0	140.39	156.12	170.29	181.88	191.35	199.91	206.35	210.95	213.98
150.0	74.79	80.96	85.74	89.88	93.56	96.50	99.26	101.01	102.39
165.0	23.55	25.48	27.14	28.80	30.27	31.46	32.47	33.30	33.95
180.0	9.57	9.75	9.94	10.12	10.12	10.21	10.12	10.12	9.94
195.0	50.60	53.36	55.75	57.41	59.25	60.07	61.09	61.45	61.18
210.0	111.87	119.78	125.76	130.64	134.13	136.62	138.27	139.10	139.10
225.0	185.19	203.50	219.69	233.58	245.17	254.19	261.09	264.49	266.06
240.0	80.22	87.21	98.80	111.32	121.25	129.99	136.43	141.49	144.34
255.0	16.56	19.32	22.54	25.94	28.24	30.63	32.47	33.39	35.14
270.0	1.56	1.84	1.93	2.02	2.21	2.30	2.39	2.58	2.67
285.0	73.51	83.26	91.08	95.95	100.28	106.26	111.87	115.46	118.77
300.0	90.34	103.04	114.44	125.30	135.14	142.69	148.58	152.62	153.73
315.0	138.82	149.31	156.85	162.01	165.87	168.17	169.37	169.18	168.45
330.0	75.62	78.93	82.06	84.36	86.57	88.32	89.33	90.07	90.16
345.0	25.94	27.14	28.15	29.07	29.81	30.45	30.63	30.63	30.27
360.0	7.82	8.00	8.37	8.56	8.56	8.65	8.74	8.83	8.83

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	8.83	8.83	8.83	8.74	8.65	8.56	8.19	8.00	7.73
15.0	55.20	55.20	54.74	53.73	52.44	50.87	48.48	46.09	43.24
30.0	125.02	125.02	124.47	122.72	120.79	117.57	112.79	107.08	100.83
45.0	243.88	243.70	241.40	236.89	231.28	221.62	209.20	193.10	176.54
60.0	384.55	383.72	378.48	368.45	354.92	332.84	307.36	278.38	247.10
75.0	138.36	134.87	130.73	123.64	115.36	105.98	95.77	84.73	73.23
90.0	6.53	6.44	6.44	6.26	6.16	5.89	5.80	5.61	5.34
105.0	434.23	432.39	424.57	409.94	390.99	367.07	337.35	303.68	267.53
120.0	365.04	365.14	359.25	350.42	337.63	319.32	294.67	268.26	239.38
135.0	216.28	217.02	216.38	213.06	208.37	201.11	190.80	177.83	164.03
150.0	103.22	103.40	103.13	102.02	100.74	98.53	95.22	90.62	85.74
165.0	34.31	34.41	34.41	34.13	33.58	32.93	31.83	30.45	28.89
180.0	9.66	9.48	9.38	9.02	8.65	8.19	7.73	7.27	6.62
195.0	60.81	60.07	58.79	57.31	55.38	53.08	49.95	46.00	42.04
210.0	138.64	136.98	134.32	131.28	127.51	121.53	113.89	105.24	95.58
225.0	264.77	260.90	255.02	245.91	234.96	218.40	213.98	179.76	158.88
240.0	142.78	139.38	136.98	124.75	113.71	99.45	83.63	68.72	60.53
255.0	35.05	34.59	33.39	31.46	29.07	25.58	21.90	18.03	15.64
270.0	2.67	2.67	2.48	2.30	2.12	2.02	1.56	1.29	1.10
285.0	117.85	114.17	107.27	99.45	89.24	76.08	63.11	52.25	46.09
300.0	152.62	148.30	140.57	131.83	120.33	107.36	93.19	79.21	66.15
315.0	165.96	162.37	158.05	152.90	146.83	137.72	126.86	115.18	102.76
330.0	89.61	88.59	86.66	84.09	81.05	76.91	72.31	66.61	61.09
345.0	29.72	28.98	28.15	27.14	25.94	24.29	22.54	20.61	18.40
360.0	8.83	8.83	8.83	8.74	8.65	8.56	8.19	8.00	7.73
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	7.36	6.99	6.44	5.80	4.97	4.23	3.22	2.02	0.46
15.0	39.93	36.15	31.65	26.77	21.16	15.00	9.20	4.05	0.55
30.0	92.73	83.63	72.59	59.71	46.18	32.29	19.41	7.54	0.74
45.0	157.77	136.98	115.27	93.47	71.21	48.85	27.14	8.56	0.55
60.0	217.66	182.80	152.35	120.70	89.61	59.80	33.76	10.30	0.55
75.0	62.37	51.70	41.67	32.01	23.00	14.72	7.18	1.84	0.46
90.0	5.06	4.88	4.42	3.77	3.04	2.21	1.29	0.64	0.37
105.0	229.53	193.47	159.06	124.56	90.07	60.81	32.66	9.84	0.55
120.0	209.11	179.67	150.51	118.03	88.78	61.64	33.85	12.14	0.55
135.0	147.66	129.26	109.38	88.23	68.35	47.56	27.88	10.95	1.10
150.0	79.58	71.94	63.20	52.44	41.12	29.16	18.31	7.73	0.92
165.0	27.05	24.84	22.45	19.23	15.92	11.87	8.10	4.42	1.01
180.0	6.07	5.34	4.69	4.05	3.22	2.58	1.75	1.20	0.28
195.0	37.81	32.84	27.42	21.71	15.64	14.26	5.24	1.47	0.28
210.0	84.91	81.79	60.26	47.01	33.30	21.25	9.84	1.75	0.18
225.0	137.44	115.27	92.92	71.76	50.14	30.27	12.88	1.20	0.28
240.0	52.44	44.71	37.35	29.99	22.54	16.47	9.94	0.28	0.18
255.0	13.89	12.24	10.21	8.46	6.62	4.88	2.67	0.37	0.09
270.0	0.92	0.74	0.64	0.55	0.46	0.46	0.37	0.18	0.28
285.0	40.75	35.60	29.81	23.74	17.30	11.22	4.97	0.28	0.28
300.0	55.29	45.72	36.80	28.06	19.78	13.16	6.26	0.28	0.37
315.0	88.59	74.15	58.88	43.24	27.88	15.18	4.78	0.46	0.28
330.0	54.55	47.10	38.45	29.72	20.52	12.05	4.88	0.74	0.18
345.0	16.19	13.98	11.41	8.74	5.98	3.86	2.02	0.83	0.28
360.0	7.36	6.99	6.44	5.80	4.97	4.23	3.22	2.02	0.46

Intensity data(cd)

Appendix Page: 12 Total:12

C/ $\gamma(^{\circ})$	180.0
0.0	0.28
15.0	0.28
30.0	0.28
45.0	0.37
60.0	0.28
75.0	0.28
90.0	0.28
105.0	0.28
120.0	0.37
135.0	0.37
150.0	0.37
165.0	0.18
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	0.28