
AFX

Client:

LumCAT: ARNP17LAJD4LB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.010

LampCAT:

Current(A): 0.235

Lamp flux(lm): 2442.0

Power (W): 27.690

Number of Lamps: 1

PF: 0.981

Length(mm): 390

Width(mm): 390

Phm Type: C

Height(mm): 480

Photometric Results

Lumens(lm): 2441.97, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 88.19

Central intensity(cd): 228.781, Maximum intensity(cd): 228.781

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=N.A.

[C90/270]Total=N.A.

Field angle(10%Imax): [C0/180]Total=N.A.

[C90/270]Total=N.A.

Maximum s/h(1/2): C0_180=1.51 C90_270=1.49

Maximum s/h(1/4): C0_180=1.71 C90_270=1.67

Up flux rate of lamp(%): 48.53%

Down flux rate of lamp(%): 51.47%

Up flux rate of LUM(%): 48.53%

Down flux rate of LUM(%): 51.47%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 26.444%

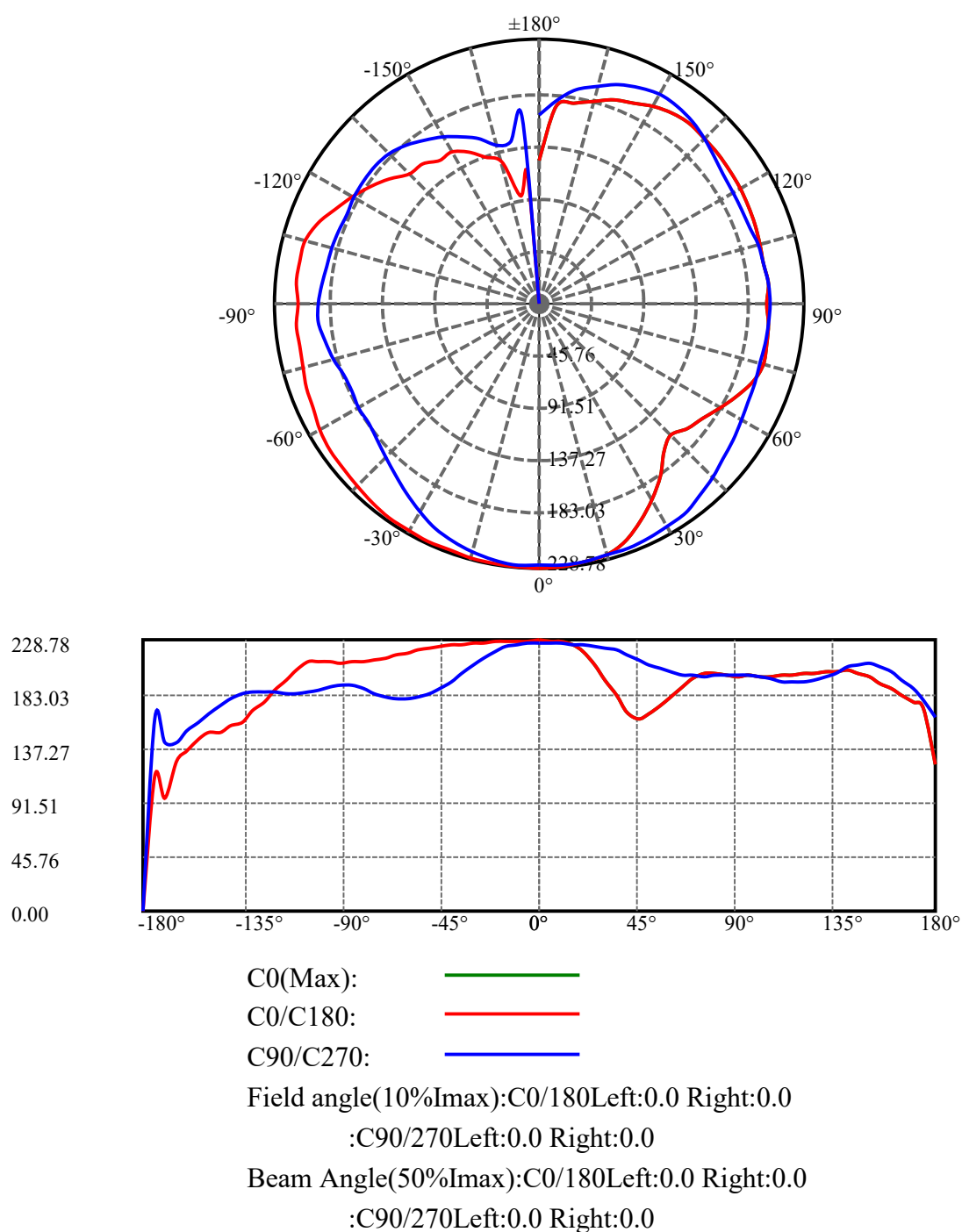
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	226.239	0.000	0	0.00%	0.00%
5.0	226.202	5.409	5.409	0.22%	0.22%
10.0	225.529	16.160	21.569	0.66%	0.88%
15.0	224.258	26.681	48.25	1.09%	1.98%
20.0	221.716	36.755	85.004	1.51%	3.48%
25.0	217.828	46.100	131.104	1.89%	5.37%
30.0	213.081	54.532	185.636	2.23%	7.60%
35.0	208.221	62.040	247.676	2.54%	10.14%
40.0	203.847	68.750	316.426	2.82%	12.96%
45.0	199.361	74.657	391.084	3.06%	16.02%
50.0	196.520	79.994	471.077	3.28%	19.29%
55.0	194.352	84.989	556.066	3.48%	22.77%
60.0	193.642	89.684	645.75	3.67%	26.44%
65.0	193.418	94.095	739.845	3.85%	30.30%
70.0	194.016	98.101	837.945	4.02%	34.31%
75.0	194.614	101.581	939.527	4.16%	38.47%
80.0	195.025	104.256	1043.783	4.27%	42.74%
85.0	195.249	106.047	1149.83	4.34%	47.09%
90.0	195.287	106.932	1256.762	4.38%	51.47%
95.0	194.988	106.860	1363.622	4.38%	55.84%
100.0	194.576	105.854	1469.476	4.33%	60.18%
105.0	193.530	103.846	1573.322	4.25%	64.43%
110.0	192.184	100.819	1674.141	4.13%	68.56%
115.0	190.801	96.974	1771.116	3.97%	72.53%
120.0	189.978	92.568	1863.684	3.79%	76.32%
125.0	189.642	87.748	1951.432	3.59%	79.91%
130.0	189.492	82.436	2033.868	3.38%	83.29%
135.0	189.268	76.534	2110.402	3.13%	86.42%
140.0	189.268	70.089	2180.491	2.87%	89.29%
145.0	187.810	62.913	2243.404	2.58%	91.87%
150.0	185.006	54.900	2298.304	2.25%	94.12%
155.0	180.633	46.272	2344.576	1.89%	96.01%
160.0	173.829	37.176	2381.752	1.52%	97.53%
165.0	161.904	27.669	2409.421	1.13%	98.67%
170.0	152.334	18.640	2428.062	0.76%	99.43%
175.0	157.381	11.079	2439.141	0.45%	99.88%
180.0	79.102	2.827	2441.968	0.12%	100.00%

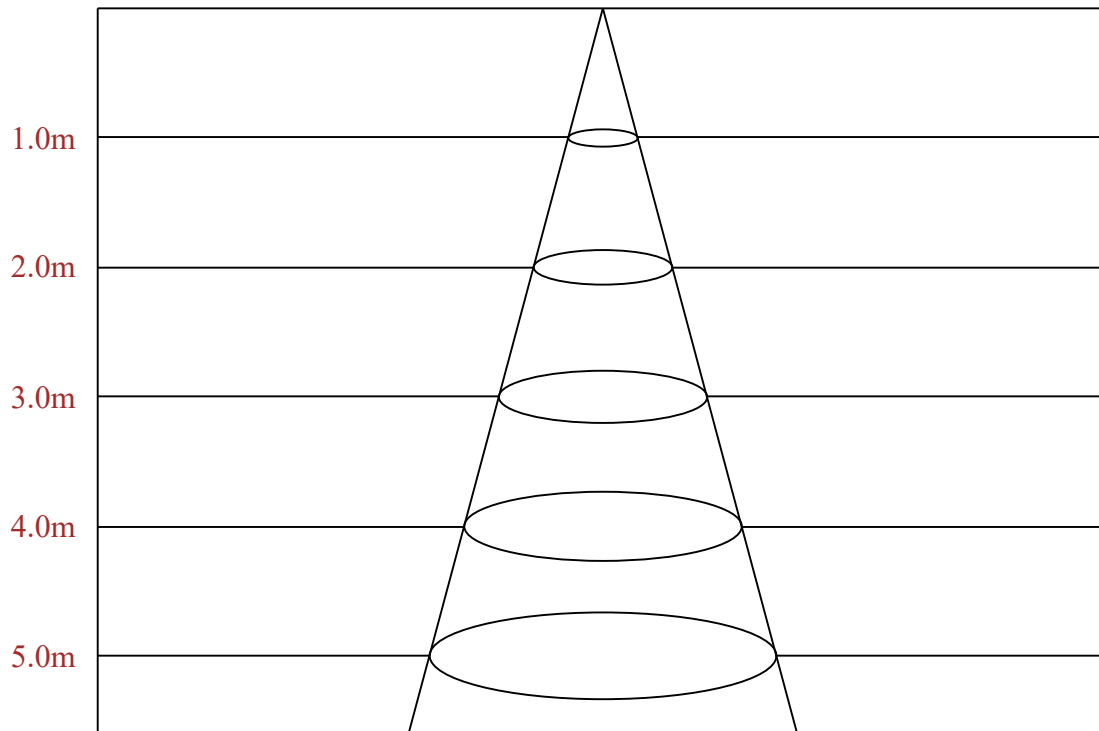
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	185.64	7.60%	7.60%
0-40	316.43	12.96%	12.96%
0-60	645.75	26.44%	26.44%
0-90	1256.76	51.47%	51.47%
0-120	1863.68	76.32%	76.32%
0-180	2441.97	100.00%	100.00%
60-90	611.01	25.02%	25.02%
90-120	606.92	24.85%	24.85%
90-130	777.11	31.82%	31.82%
90-150	1041.54	42.65%	42.65%
90-180	1182.38	48.42%	48.42%
0-125.13	1953.58	80.00%	80.00%

ZONAL LUMEN SUMMARY

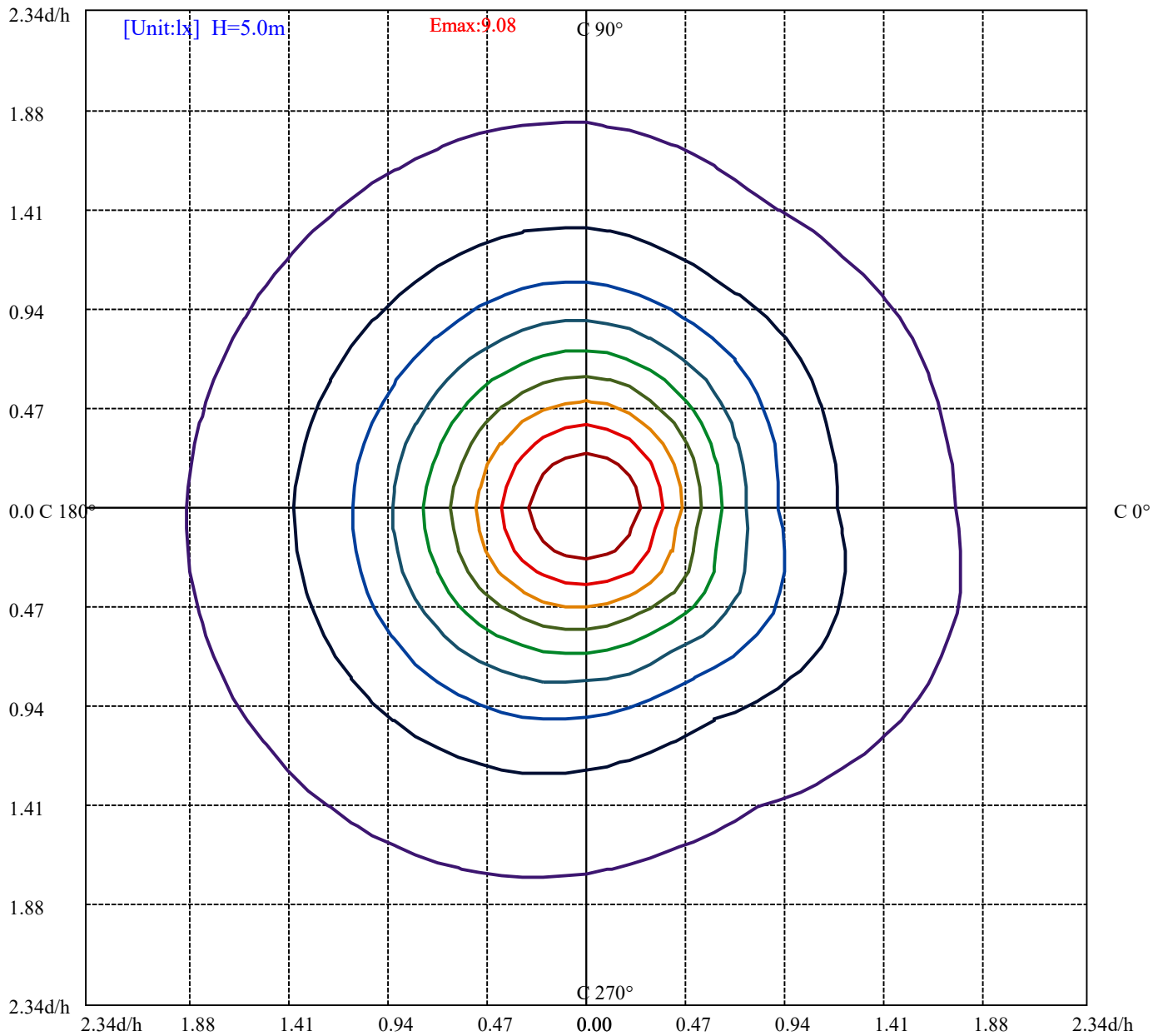
0-10	21.57
10-20	63.44
20-30	100.63
30-40	130.79
40-50	154.65
50-60	174.67
60-70	192.20
70-80	205.84
80-90	212.98
90-100	212.71
100-110	204.67
110-120	189.54
120-130	170.18
130-140	146.62
140-150	117.81
150-160	83.45
160-170	46.31
170-180	11.08



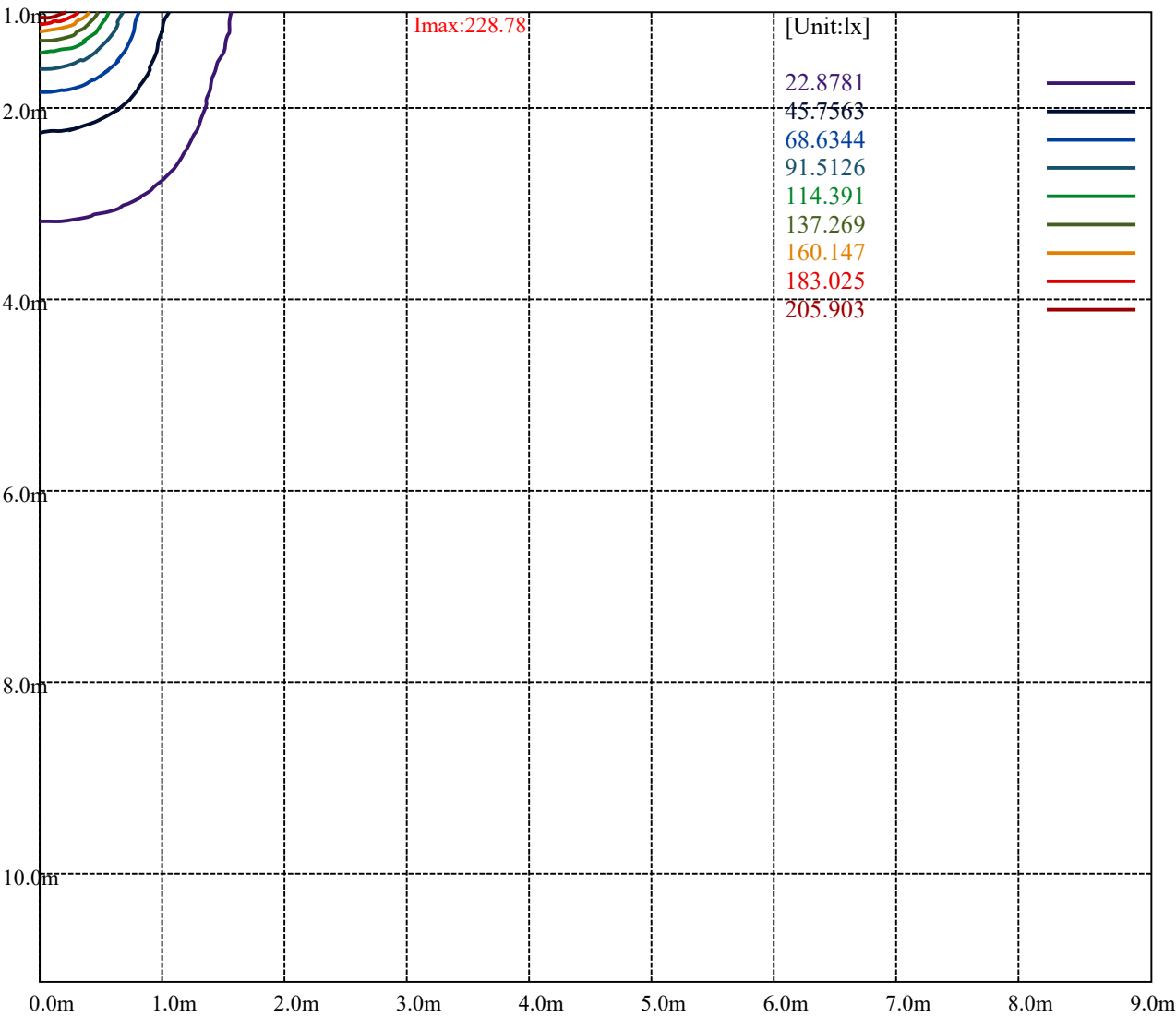


Max , Ave

Beam angle of C0 plane 347.00



(10%Emax)	0.907948	
(20%Emax)	1.815896	
(30%Emax)	2.723844	
(40%Emax)	3.631792	
(50%Emax)	4.53972	
(60%Emax)	5.44768	
(70%Emax)	6.35564	
(80%Emax)	7.2636	
(90%Emax)	8.17152	



Luminance Table

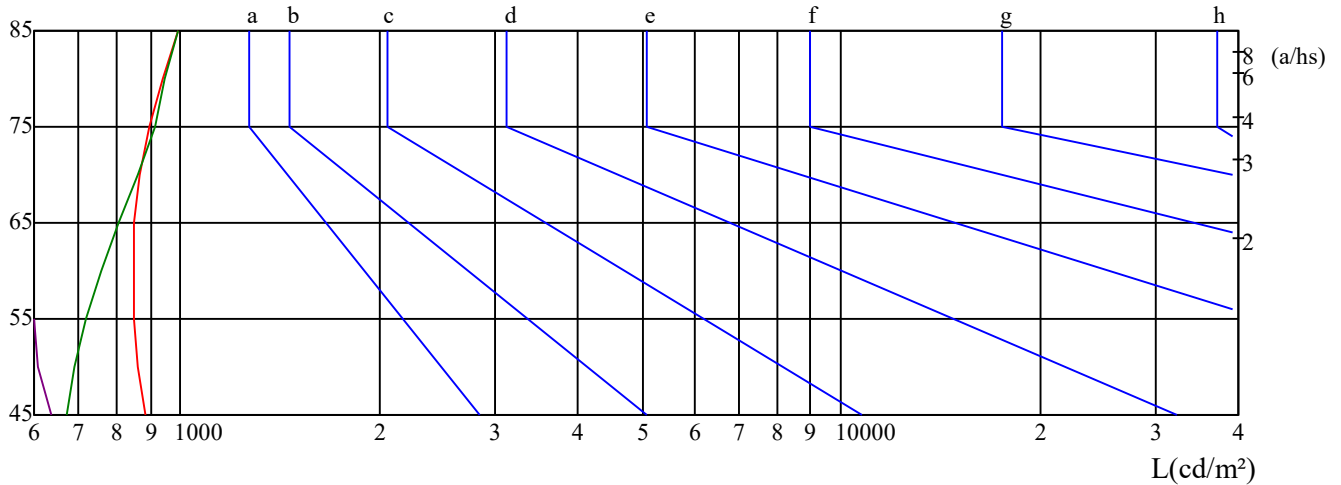
γ	45	50	55	60	65	70	75	80	85
C0	673	692	720	757	805	862	913	949	993
C45	639	609	575	558	549	558	575	603	641
C90	883	863	850	848	851	870	896	941	993

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3140	2938	2969	5242	4843	4866	15397	14686	14551

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 ———

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	1.07	1.07	1.07	0.99	0.99	0.99	0.84	0.84	0.84	0.70	0.70	0.70	0.57	0.57	0.57	0.51
1	0.88	0.82	0.77	0.81	0.76	0.72	0.68	0.64	0.60	0.55	0.53	0.50	0.44	0.42	0.40	0.35
2	0.75	0.67	0.60	0.68	0.62	0.56	0.57	0.52	0.47	0.46	0.42	0.39	0.37	0.34	0.31	0.26
3	0.64	0.56	0.48	0.59	0.51	0.45	0.49	0.43	0.38	0.40	0.35	0.31	0.31	0.28	0.25	0.21
4	0.56	0.47	0.40	0.52	0.43	0.37	0.43	0.37	0.31	0.35	0.30	0.26	0.28	0.24	0.21	0.17
5	0.50	0.41	0.34	0.46	0.37	0.31	0.38	0.32	0.27	0.31	0.26	0.22	0.24	0.21	0.17	0.14
6	0.44	0.35	0.29	0.41	0.33	0.27	0.34	0.28	0.23	0.28	0.23	0.19	0.22	0.18	0.15	0.12
7	0.40	0.31	0.25	0.37	0.29	0.23	0.31	0.24	0.20	0.25	0.20	0.16	0.20	0.16	0.13	0.10
8	0.36	0.28	0.22	0.33	0.26	0.20	0.28	0.22	0.17	0.23	0.18	0.14	0.18	0.14	0.11	0.09
9	0.33	0.25	0.19	0.30	0.23	0.18	0.25	0.19	0.15	0.21	0.16	0.13	0.17	0.13	0.10	0.08
10	0.30	0.22	0.17	0.28	0.21	0.16	0.23	0.18	0.14	0.19	0.15	0.11	0.16	0.12	0.09	0.07

Intensity data(cd)

Appendix Page: 10 Total:12

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	228.78	227.88	226.99	225.19	218.91	208.15	194.69	182.13	167.77
15.0	226.99	226.99	226.09	224.30	218.02	209.04	196.48	183.03	173.16
30.0	226.99	226.99	226.09	224.30	219.81	212.63	202.76	192.00	183.92
45.0	226.99	226.99	226.09	224.30	222.50	216.22	209.94	200.97	194.69
60.0	226.09	226.09	226.09	225.19	222.50	218.02	213.53	208.15	200.97
75.0	226.09	226.09	226.09	225.19	224.30	222.50	219.81	215.32	209.94
90.0	226.09	226.09	226.09	225.19	225.19	223.40	221.60	219.81	216.22
105.0	226.09	226.09	225.19	225.19	225.19	223.40	222.50	220.71	218.91
120.0	225.19	225.19	225.19	225.19	224.30	223.40	221.60	220.71	218.02
135.0	225.19	225.19	225.19	225.19	224.30	223.40	222.50	220.71	218.02
150.0	225.19	226.09	225.19	225.19	223.40	223.40	221.60	220.71	218.91
165.0	225.19	225.19	225.19	225.19	224.30	223.40	222.50	221.60	219.81
180.0	228.78	227.88	227.88	227.88	226.99	226.09	226.09	225.19	224.30
195.0	226.99	226.99	226.09	226.09	226.09	225.19	225.19	225.19	224.30
210.0	226.99	226.99	226.99	226.09	226.09	226.09	226.09	225.19	224.30
225.0	226.99	226.99	226.09	225.19	223.40	224.30	222.50	221.60	220.71
240.0	226.09	226.09	225.19	224.30	221.60	219.81	216.22	213.53	211.74
255.0	226.09	226.09	225.19	223.40	220.71	217.12	212.63	208.15	203.66
270.0	226.09	226.09	225.19	222.50	218.91	213.53	207.25	200.07	193.79
285.0	226.09	226.09	225.19	222.50	218.02	211.74	203.66	194.69	192.89
300.0	225.19	225.19	224.30	222.50	221.60	212.63	202.76	192.89	183.03
315.0	225.19	225.19	224.30	222.50	218.91	213.53	208.15	200.97	194.69
330.0	225.19	225.19	224.30	221.60	216.22	210.84	204.56	200.07	196.48
345.0	225.19	225.19	222.50	218.02	209.94	200.07	189.31	183.92	182.13
360.0	228.78	227.88	226.99	225.19	218.91	208.15	194.69	182.13	167.77
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	161.49	166.88	173.16	180.33	188.41	196.48	200.97	200.07	198.28
15.0	168.67	168.67	172.26	178.54	185.72	192.00	193.79	193.79	194.69
30.0	178.54	176.74	177.64	179.44	181.23	180.33	181.23	183.03	185.72
45.0	188.41	183.03	174.95	170.46	166.88	167.77	169.57	173.16	177.64
60.0	192.89	183.03	172.26	164.18	159.70	164.18	169.57	174.05	178.54
75.0	201.87	195.59	189.31	185.72	183.03	183.03	183.92	186.61	189.31
90.0	211.74	208.15	204.56	201.87	199.17	198.28	197.38	198.28	198.28
105.0	216.22	212.63	209.94	207.25	204.56	202.76	200.97	199.17	197.38
120.0	214.43	211.74	209.04	205.45	202.76	200.07	197.38	195.59	191.10
135.0	214.43	211.74	208.15	204.56	201.87	199.17	196.48	194.69	192.89
150.0	216.22	213.53	210.84	207.25	203.66	200.97	198.28	196.48	195.59
165.0	218.91	216.22	214.43	211.74	208.15	205.45	201.87	200.07	198.28
180.0	223.40	221.60	219.81	218.02	215.32	213.53	211.74	210.84	209.94
195.0	223.40	221.60	220.71	219.81	218.02	216.22	215.32	214.43	213.53
210.0	223.40	222.50	220.71	219.81	218.02	217.12	216.22	215.32	214.43
225.0	218.91	218.02	216.22	214.43	213.53	212.63	211.74	209.04	206.35
240.0	209.94	209.04	207.25	206.35	205.45	203.66	202.76	198.28	194.69
255.0	200.07	197.38	195.59	194.69	194.69	195.59	196.48	196.48	192.00
270.0	187.51	183.03	180.33	179.44	178.54	180.33	183.92	187.51	191.10
285.0	176.74	169.57	165.08	164.18	165.98	169.57	174.05	178.54	183.03
300.0	172.26	161.49	154.32	157.90	164.18	169.57	175.85	181.23	185.72
315.0	187.51	182.13	179.44	179.44	181.23	184.82	188.41	192.00	194.69
330.0	194.69	195.59	196.48	198.28	199.17	200.07	200.97	200.97	201.87
345.0	183.03	186.61	192.00	198.28	202.76	202.76	201.87	200.97	200.97
360.0	161.49	166.88	173.16	180.33	188.41	196.48	200.97	200.07	198.28

Intensity data(cd)

Appendix Page: 11 Total:12

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	197.38	198.28	197.38	197.38	198.28	199.17	200.07	200.97	201.87
15.0	194.69	194.69	193.79	193.79	193.79	194.69	195.59	196.48	197.38
30.0	189.31	192.00	192.89	192.89	192.89	192.89	192.89	193.79	194.69
45.0	182.13	185.72	190.20	192.89	192.89	192.89	193.79	194.69	195.59
60.0	183.92	188.41	192.00	195.59	196.48	196.48	197.38	198.28	199.17
75.0	192.89	195.59	198.28	199.17	200.07	200.07	200.97	201.87	203.66
90.0	199.17	198.28	197.38	195.59	193.79	192.89	193.79	194.69	197.38
105.0	193.79	190.20	185.72	182.13	178.54	174.95	174.05	174.95	179.44
120.0	186.61	181.23	176.74	170.46	165.08	159.70	154.32	153.42	161.49
135.0	187.51	182.13	177.64	173.16	168.67	165.98	165.08	166.88	171.36
150.0	193.79	191.10	187.51	184.82	182.13	180.33	181.23	178.54	174.95
165.0	197.38	197.38	197.38	197.38	197.38	195.59	189.31	180.33	172.26
180.0	209.04	209.94	209.94	209.94	203.66	194.69	185.72	176.74	168.67
195.0	213.53	213.53	215.32	216.22	213.53	206.35	200.07	194.69	189.31
210.0	213.53	212.63	210.84	209.94	208.15	207.25	205.45	203.66	200.97
225.0	202.76	198.28	194.69	190.20	186.61	184.82	183.92	186.61	183.92
240.0	190.20	184.82	183.92	174.05	168.67	163.29	163.29	165.98	165.08
255.0	187.51	183.03	179.44	175.85	174.05	173.16	173.16	174.05	172.26
270.0	191.10	189.31	186.61	184.82	183.92	183.92	184.82	184.82	184.82
285.0	188.41	192.89	194.69	195.59	195.59	196.48	197.38	199.17	200.07
300.0	191.10	195.59	199.17	200.97	202.76	203.66	204.56	206.35	207.25
315.0	198.28	200.97	202.76	204.56	206.35	207.25	209.04	210.84	211.74
330.0	201.87	202.76	203.66	205.45	206.35	208.15	209.04	209.04	209.94
345.0	200.97	200.97	201.87	201.87	202.76	204.56	204.56	204.56	204.56
360.0	197.38	198.28	197.38	197.38	198.28	199.17	200.07	200.97	201.87
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	201.87	202.76	200.97	197.38	192.00	187.51	181.23	176.74	170.46
15.0	198.28	199.17	197.38	192.89	188.41	181.23	174.05	170.46	165.98
30.0	194.69	196.48	195.59	191.10	186.61	181.23	176.74	170.46	163.29
45.0	196.48	197.38	197.38	194.69	190.20	185.72	179.44	174.05	164.18
60.0	200.97	201.87	202.76	200.97	197.38	191.10	185.72	180.33	169.57
75.0	205.45	207.25	209.04	206.35	201.87	197.38	191.10	184.82	174.95
90.0	200.97	205.45	208.15	209.04	206.35	201.87	194.69	187.51	177.64
105.0	186.61	194.69	201.87	205.45	205.45	201.87	196.48	187.51	177.64
120.0	173.16	184.82	192.89	197.38	199.17	196.48	188.41	179.44	169.57
135.0	177.64	183.03	187.51	189.31	188.41	182.13	174.05	165.08	155.21
150.0	173.16	173.16	174.95	174.95	172.26	164.18	155.21	144.45	135.47
165.0	166.88	165.08	165.08	161.49	156.11	146.24	136.37	123.81	115.74
180.0	159.70	157.01	150.73	150.73	144.45	135.47	126.50	95.10	113.04
195.0	183.92	177.64	172.26	171.36	163.29	161.49	128.30	90.62	130.99
210.0	195.59	193.79	189.31	186.61	176.74	163.29	126.50	96.00	145.34
225.0	180.33	178.54	176.74	171.36	168.67	155.21	122.91	113.04	155.21
240.0	160.60	156.11	153.42	149.83	148.93	139.06	115.74	120.22	161.49
255.0	169.57	164.18	154.32	146.24	143.55	137.27	122.91	130.99	163.29
270.0	183.03	179.44	173.16	165.98	159.70	151.62	141.75	141.75	161.49
285.0	199.17	196.48	191.10	183.92	176.74	170.46	160.60	153.42	160.60
300.0	208.15	206.35	203.66	198.28	190.20	183.03	173.16	165.08	159.70
315.0	211.74	209.94	206.35	201.87	196.48	188.41	179.44	170.46	162.39
330.0	209.94	209.04	204.56	199.17	193.79	186.61	179.44	169.57	161.49
345.0	204.56	202.76	198.28	193.79	188.41	183.03	174.95	165.08	162.39
360.0	201.87	202.76	200.97	197.38	192.00	187.51	181.23	176.74	170.46

Intensity data(cd)

C/ γ (°)	180.0
0.0	123.81
15.0	161.49
30.0	162.39
45.0	160.60
60.0	160.60
75.0	160.60
90.0	163.29
105.0	167.77
120.0	164.18
135.0	160.60
150.0	157.90
165.0	155.21
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	123.81