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AFX

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Client:

LumCAT: ARNC17LAJD4LB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.030

LampCAT:

Current(A): 0.237

Lamp flux(lm): 2494.1

Power (W): 27.850

Number of Lamps: 1

PF: 0.979

Length(mm): 400

Width(mm): 360

Phm Type: C

Height(mm): 360

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Photometric Results

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Lumens(lm): 2494.12, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 89.56

Central intensity(cd): 239.548, Maximum intensity(cd): 239.548

Angle of maximum intensity: C=0.0  $\gamma$ =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=1.43 C90\_270=1.53

Maximum s/h(1/4): C0\_180=1.59 C90\_270=1.73

Up flux rate of lamp(%): 48.07%

Down flux rate of lamp(%): 51.93%

Up flux rate of LUM(%): 48.07%

Down flux rate of LUM(%): 51.93%

CIE Type : General diffuse lighting

Output flux ratio in  $\pi$  solid angle : 27.326%

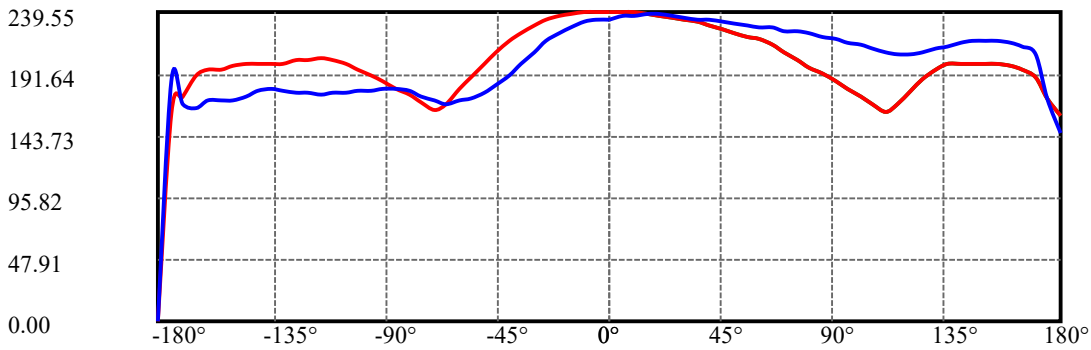
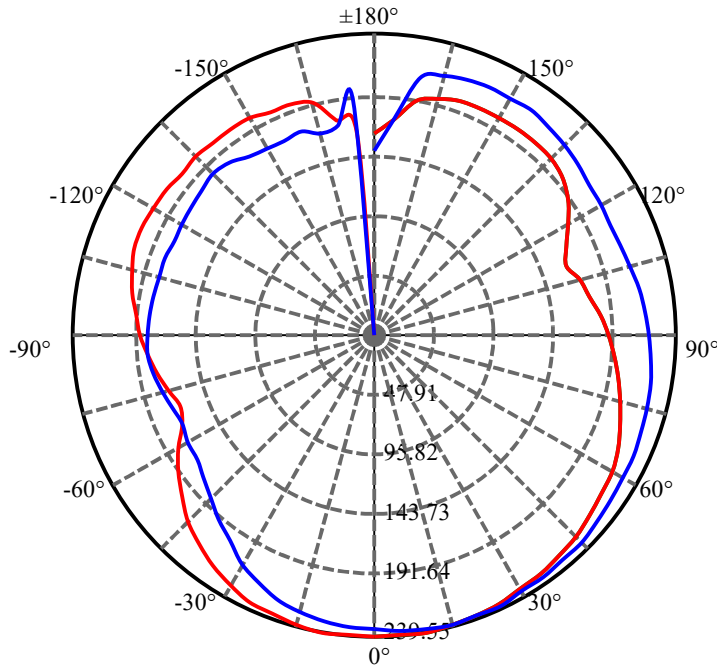
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	235.585	0.000	0	0.00%	0.00%
5.0	235.660	5.634	5.634	0.23%	0.23%
10.0	235.436	16.853	22.486	0.68%	0.90%
15.0	234.426	27.872	50.358	1.12%	2.02%
20.0	232.482	38.480	88.838	1.54%	3.56%
25.0	229.641	48.468	137.306	1.94%	5.51%
30.0	225.940	57.654	194.96	2.31%	7.82%
35.0	221.754	65.926	260.886	2.64%	10.46%
40.0	217.455	73.279	334.165	2.94%	13.40%
45.0	212.520	79.613	413.778	3.19%	16.59%
50.0	207.847	84.941	498.72	3.41%	20.00%
55.0	203.660	89.475	588.195	3.59%	23.58%
60.0	200.221	93.356	681.551	3.74%	27.33%
65.0	197.118	96.594	778.145	3.87%	31.20%
70.0	195.100	99.312	877.457	3.98%	35.18%
75.0	194.576	101.855	979.312	4.08%	39.26%
80.0	194.203	104.026	1083.339	4.17%	43.44%
85.0	194.389	105.590	1188.928	4.23%	47.67%
90.0	193.829	106.297	1295.226	4.26%	51.93%
95.0	192.446	105.765	1400.991	4.24%	56.17%
100.0	190.950	104.178	1505.168	4.18%	60.35%
105.0	189.343	101.756	1606.924	4.08%	64.43%
110.0	188.446	98.748	1705.672	3.96%	68.39%
115.0	188.633	95.479	1801.151	3.83%	72.22%
120.0	189.455	91.914	1893.064	3.69%	75.90%
125.0	190.689	87.869	1980.934	3.52%	79.42%
130.0	192.109	83.233	2064.167	3.34%	82.76%
135.0	193.717	77.962	2142.128	3.13%	85.89%
140.0	194.576	71.896	2214.024	2.88%	88.77%
145.0	194.726	64.952	2278.976	2.60%	91.37%
150.0	194.726	57.350	2336.326	2.30%	93.67%
155.0	194.352	49.238	2385.564	1.97%	95.65%
160.0	192.782	40.603	2426.167	1.63%	97.28%
165.0	187.025	31.301	2457.468	1.26%	98.53%
170.0	174.502	21.446	2478.914	0.86%	99.39%
175.0	166.539	12.200	2491.114	0.49%	99.88%
180.0	84.672	3.003	2494.117	0.12%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	194.96	7.82%	7.82%
0-40	334.16	13.40%	13.40%
0-60	681.55	27.33%	27.33%
0-90	1295.23	51.93%	51.93%
0-120	1893.06	75.90%	75.90%
0-180	2494.12	100.00%	100.00%
60-90	613.67	24.60%	24.60%
90-120	597.84	23.97%	23.97%
90-130	768.94	30.83%	30.83%
90-150	1041.10	41.74%	41.74%
90-180	1195.89	47.95%	47.95%
0-125.86	1995.29	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	22.49
10-20	66.35
20-30	106.12
30-40	139.20
40-50	164.55
50-60	182.83
60-70	195.91
70-80	205.88
80-90	211.89
90-100	209.94
100-110	200.50
110-120	187.39
120-130	171.10
130-140	149.86
140-150	122.30
150-160	89.84
160-170	52.75
170-180	12.20



C0(Max): —————

C0/C180: —————

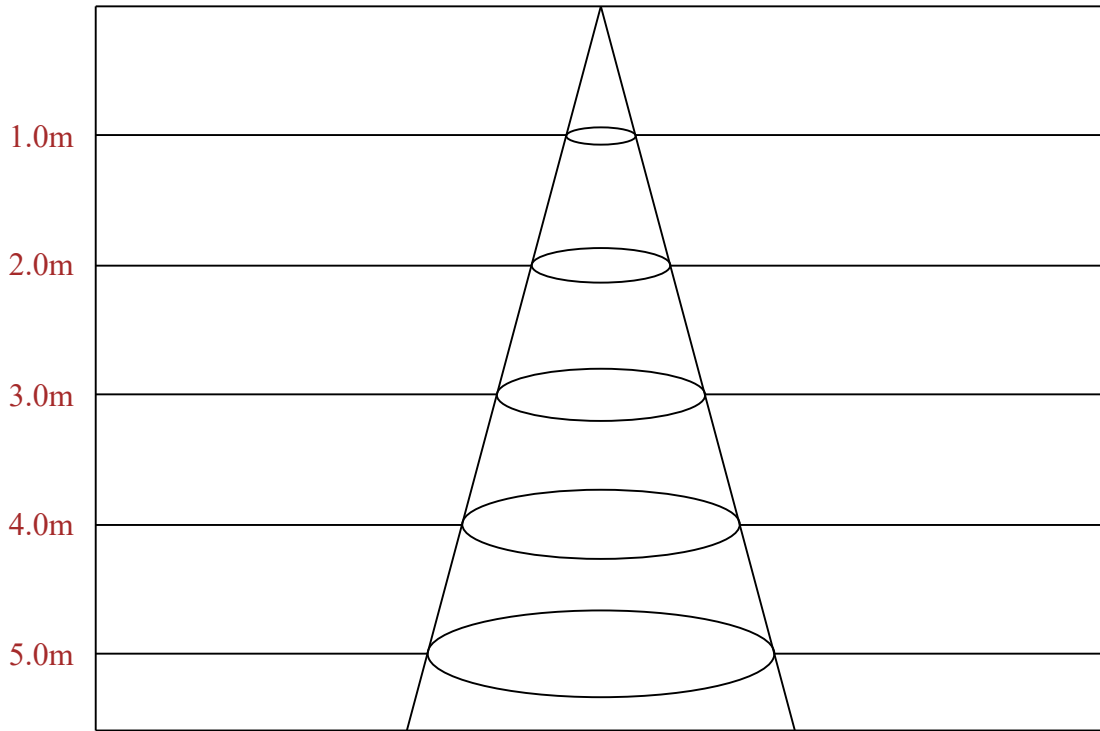
C90/C270: —————

Field angle(10%Imax):C0/180Left:0.0 Right:0.0

:C90/270Left:0.0 Right:0.0

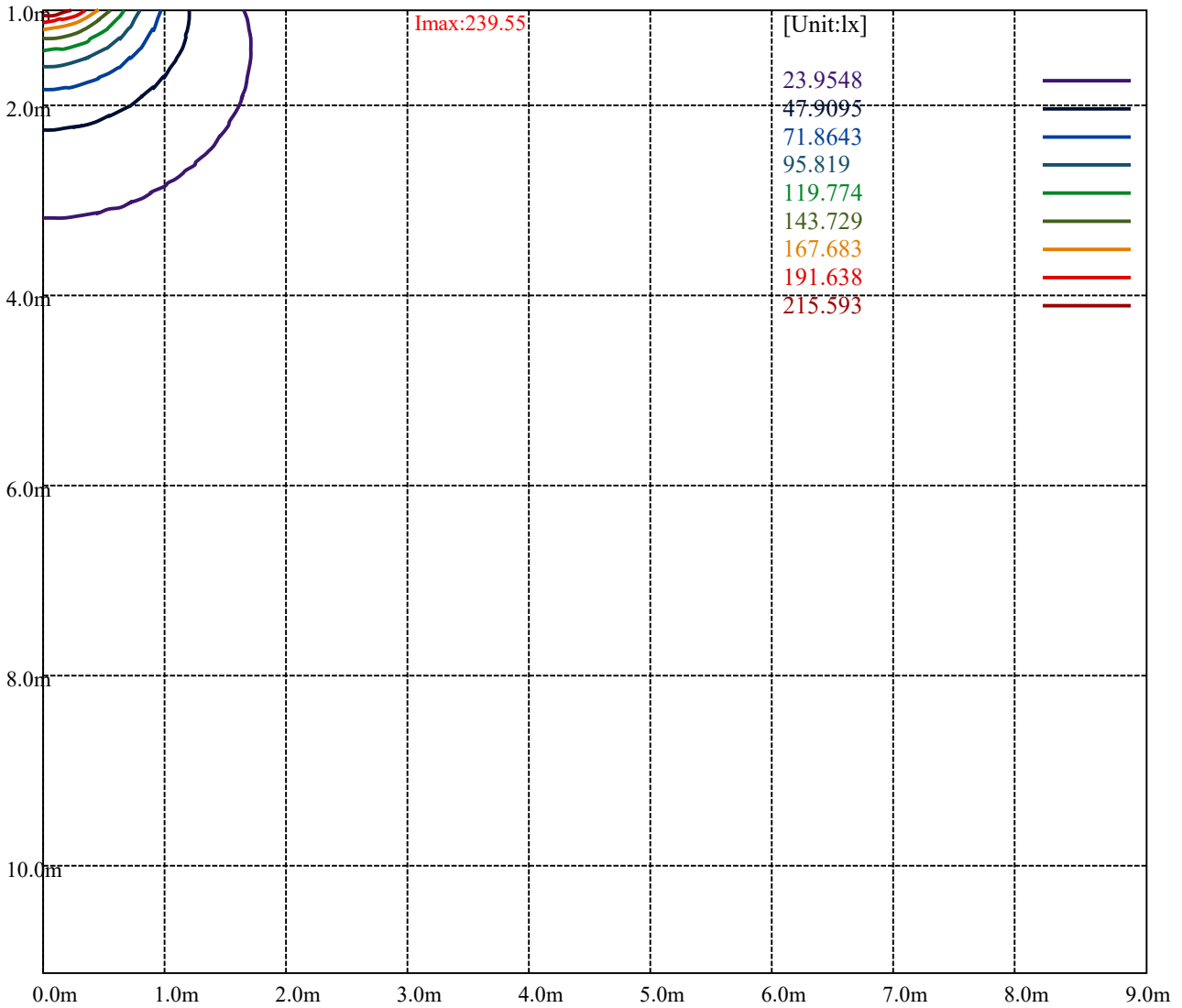
Beam Angle(50%Imax):C0/180Left:0.0 Right:0.0

:C90/270Left:0.0 Right:0.0



Max , Ave      Beam angle of C0 plane 180.00





Luminance Table

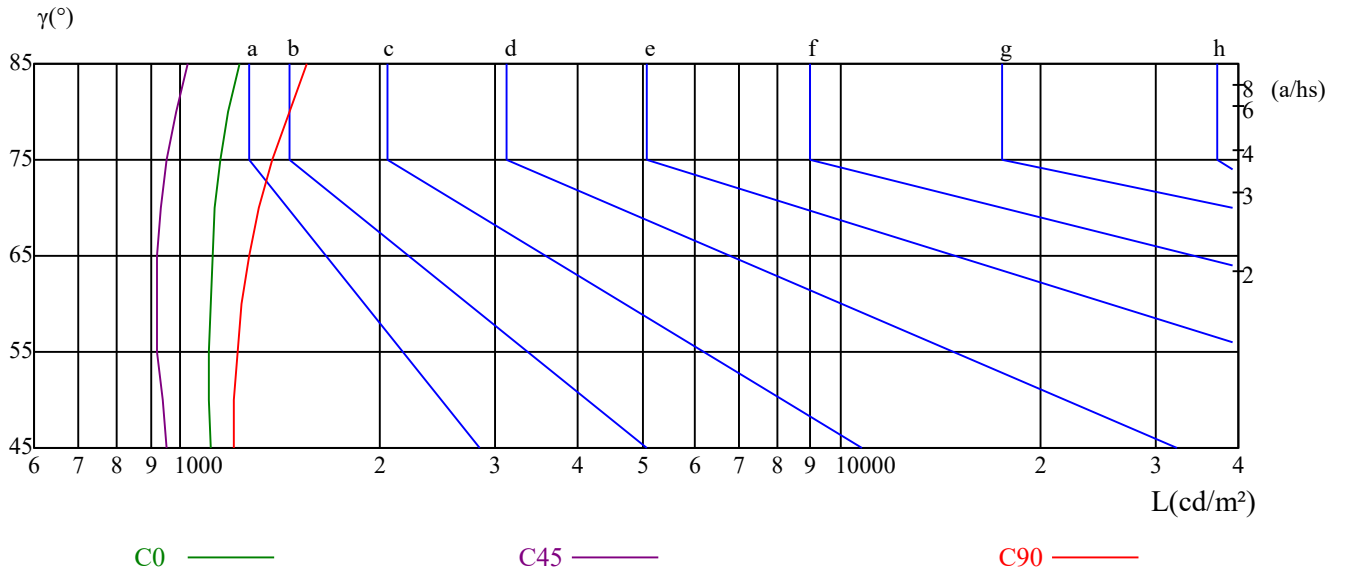
$\gamma$	45	50	55	60	65	70	75	80	85
C0	1110	1101	1100	1108	1116	1128	1150	1178	1231
C45	955	939	923	921	923	932	953	982	1023
C90	1201	1202	1217	1237	1273	1317	1381	1458	1558

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	3243	3280	4995	5344	5314	14833	15977	15745

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



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	1.00	1.00	1.00	0.84	0.84	0.84	0.71	0.71	0.71	0.58	0.58	0.58	0.52
1	0.88	0.83	0.78	0.81	0.76	0.72	0.68	0.64	0.61	0.56	0.53	0.51	0.45	0.43	0.41	0.35
2	0.75	0.67	0.61	0.69	0.62	0.56	0.57	0.52	0.48	0.47	0.43	0.39	0.37	0.34	0.32	0.27
3	0.65	0.56	0.49	0.59	0.52	0.45	0.50	0.43	0.38	0.40	0.36	0.32	0.32	0.28	0.25	0.21
4	0.57	0.47	0.40	0.52	0.44	0.37	0.43	0.37	0.32	0.35	0.30	0.26	0.28	0.24	0.21	0.17
5	0.50	0.41	0.34	0.46	0.38	0.32	0.38	0.32	0.27	0.31	0.26	0.22	0.25	0.21	0.18	0.14
6	0.45	0.36	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	0.25	0.20	0.25	0.20	0.17	0.20	0.16	0.13	0.11
8	0.36	0.28	0.22	0.33	0.26	0.20	0.28	0.22	0.18	0.23	0.18	0.15	0.19	0.15	0.12	0.09
9	0.33	0.25	0.19	0.30	0.23	0.18	0.26	0.20	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	0.24	0.18	0.14	0.20	0.15	0.12	0.16	0.12	0.09	0.07

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	239.55	239.55	239.55	238.65	236.86	235.06	233.27	231.47	228.78
15.0	238.65	238.65	238.65	237.75	236.86	235.06	233.27	231.47	229.68
30.0	237.75	237.75	238.65	237.75	236.86	235.06	234.16	231.47	229.68
45.0	235.96	236.86	237.75	238.65	237.75	235.96	235.06	233.27	231.47
60.0	235.06	236.86	237.75	238.65	237.75	236.86	235.06	233.27	231.47
75.0	234.16	235.96	237.75	238.65	237.75	236.86	235.06	234.16	232.37
90.0	234.16	235.96	236.86	238.65	237.75	236.86	235.06	234.16	233.27
105.0	234.16	235.96	237.75	237.75	237.75	236.86	235.06	234.16	232.37
120.0	234.16	235.96	236.86	237.75	237.75	236.86	235.06	232.37	230.58
135.0	235.06	235.06	235.96	236.86	236.86	235.96	234.16	231.47	227.88
150.0	234.16	235.06	235.96	235.96	234.16	233.27	231.47	228.78	224.30
165.0	234.16	234.16	235.06	235.06	233.27	231.47	228.78	225.19	219.81
180.0	239.55	239.55	239.55	237.75	235.96	233.27	228.78	223.40	217.12
195.0	238.65	238.65	236.86	235.96	234.16	231.47	226.99	222.50	217.12
210.0	237.75	236.86	235.96	234.16	231.47	228.78	224.30	218.02	212.63
225.0	235.96	235.96	234.16	231.47	227.88	221.60	215.32	207.25	199.17
240.0	235.06	234.16	233.27	230.58	225.19	218.02	208.15	197.38	185.72
255.0	234.16	233.27	232.37	228.78	223.40	216.22	207.25	196.48	186.61
270.0	234.16	233.27	231.47	227.88	223.40	217.12	209.04	200.07	191.10
285.0	234.16	233.27	231.47	228.78	225.19	219.81	212.63	205.45	203.66
300.0	234.16	233.27	231.47	228.78	227.88	220.71	215.32	209.04	203.66
315.0	235.06	233.27	231.47	229.68	227.88	225.19	221.60	217.12	212.63
330.0	234.16	233.27	231.47	229.68	227.88	226.09	223.40	221.60	218.02
345.0	234.16	233.27	232.37	230.58	227.88	226.99	224.30	222.50	219.81
360.0	239.55	239.55	239.55	238.65	236.86	235.06	233.27	231.47	228.78

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	226.09	223.40	220.71	218.02	213.53	208.15	202.76	196.48	192.00
15.0	226.99	225.19	221.60	217.12	213.53	208.15	202.76	197.38	192.89
30.0	227.88	225.19	220.71	218.02	214.43	211.74	208.15	205.45	201.87
45.0	227.88	226.09	222.50	220.71	218.02	215.32	213.53	211.74	209.94
60.0	229.68	227.88	226.09	223.40	221.60	220.71	218.91	217.12	217.12
75.0	230.58	229.68	227.88	226.09	225.19	223.40	222.50	222.50	221.60
90.0	232.37	230.58	229.68	227.88	226.99	225.19	224.30	222.50	220.71
105.0	230.58	229.68	227.88	226.99	225.19	221.60	218.91	215.32	210.84
120.0	227.88	224.30	221.60	219.81	217.12	213.53	209.94	204.56	199.17
135.0	224.30	219.81	216.22	211.74	208.15	204.56	200.07	195.59	192.00
150.0	218.91	213.53	206.35	200.97	194.69	189.31	186.61	184.82	183.92
165.0	215.32	207.25	199.17	189.31	181.23	174.05	170.46	170.46	173.16
180.0	209.04	200.07	189.31	179.44	168.67	164.18	169.57	174.95	180.33
195.0	212.63	205.45	198.28	191.10	186.61	184.82	184.82	187.51	190.20
210.0	207.25	203.66	200.07	197.38	195.59	195.59	196.48	198.28	200.07
225.0	191.10	185.72	183.03	183.03	184.82	187.51	191.10	194.69	197.38
240.0	174.05	163.29	161.49	165.08	169.57	174.05	179.44	183.03	187.51
255.0	177.64	170.46	167.77	166.88	168.67	171.36	174.95	175.85	184.82
270.0	183.03	176.74	172.26	171.36	167.77	170.46	174.05	178.54	180.33
285.0	190.20	183.03	176.74	172.26	166.88	165.98	166.88	169.57	173.16
300.0	196.48	188.41	180.33	171.36	164.18	163.29	168.67	173.16	177.64
315.0	207.25	200.97	194.69	190.20	187.51	185.72	187.51	188.41	191.10
330.0	215.32	211.74	209.04	206.35	203.66	200.97	199.17	198.28	197.38
345.0	218.02	216.22	214.43	210.84	207.25	202.76	198.28	194.69	190.20
360.0	226.09	223.40	220.71	218.02	213.53	208.15	202.76	196.48	192.00

## Intensity data(cd)

C/ $\gamma$ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	185.72	180.33	174.05	168.67	162.39	167.77	178.54	187.51	195.59
15.0	187.51	183.92	179.44	176.74	174.05	175.85	179.44	183.92	187.51
30.0	198.28	195.59	190.20	184.82	179.44	176.74	176.74	179.44	180.33
45.0	208.15	201.87	194.69	188.41	182.13	177.64	174.95	174.05	174.05
60.0	213.53	208.15	201.87	195.59	189.31	183.03	175.85	169.57	172.26
75.0	220.71	217.12	213.53	208.15	203.66	200.07	197.38	196.48	198.28
90.0	218.91	216.22	214.43	210.84	208.15	207.25	207.25	208.15	210.84
105.0	206.35	200.97	195.59	191.10	188.41	187.51	191.10	195.59	200.07
120.0	193.79	187.51	180.33	173.16	166.88	166.88	172.26	177.64	182.13
135.0	187.51	183.92	181.23	177.64	175.85	174.95	174.95	174.95	174.95
150.0	183.03	183.03	182.13	183.03	183.92	183.03	181.23	179.44	176.74
165.0	175.85	178.54	182.13	185.72	189.31	192.00	191.10	189.31	186.61
180.0	185.72	190.20	195.59	199.17	202.76	203.66	202.76	201.87	200.07
195.0	193.79	196.48	200.07	202.76	205.45	207.25	207.25	206.35	205.45
210.0	200.97	201.87	202.76	202.76	203.66	203.66	204.56	205.45	206.35
225.0	199.17	199.17	198.28	197.38	197.38	197.38	196.48	199.17	200.97
240.0	191.10	192.00	191.10	189.31	189.31	189.31	189.31	190.20	191.10
255.0	186.61	184.82	183.03	180.33	180.33	179.44	179.44	179.44	180.33
270.0	180.33	178.54	178.54	176.74	176.74	175.85	176.74	177.64	178.54
285.0	175.85	177.64	179.44	181.23	183.03	184.82	185.72	185.72	186.61
300.0	181.23	184.82	188.41	192.00	194.69	197.38	198.28	199.17	199.17
315.0	192.89	195.59	197.38	200.07	202.76	205.45	206.35	207.25	208.15
330.0	197.38	196.48	197.38	198.28	200.07	202.76	205.45	208.15	209.04
345.0	187.51	183.92	181.23	180.33	183.03	187.51	193.79	200.07	205.45
360.0	185.72	180.33	174.05	168.67	162.39	167.77	178.54	187.51	195.59
C/ $\gamma$ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	199.17	199.17	199.17	199.17	199.17	197.38	194.69	189.31	172.26
15.0	188.41	187.51	185.72	184.82	183.03	181.23	178.54	172.26	165.98
30.0	178.54	176.74	175.85	175.85	176.74	173.16	168.67	162.39	154.32
45.0	175.85	176.74	178.54	181.23	183.92	182.13	179.44	167.77	150.73
60.0	179.44	185.72	192.00	195.59	198.28	197.38	195.59	182.13	153.42
75.0	201.87	205.45	208.15	209.94	209.94	210.84	207.25	195.59	160.60
90.0	212.63	215.32	217.12	217.12	217.12	216.22	212.63	207.25	172.26
105.0	203.66	207.25	209.04	211.74	211.74	209.94	207.25	203.66	179.44
120.0	186.61	190.20	193.79	196.48	196.48	195.59	193.79	190.20	181.23
135.0	175.85	177.64	180.33	181.23	180.33	178.54	176.74	173.16	170.46
150.0	174.95	174.95	176.74	178.54	174.95	169.57	168.67	161.49	156.11
165.0	183.92	183.03	183.03	183.03	180.33	176.74	175.85	165.08	152.52
180.0	200.07	200.07	200.07	198.28	195.59	194.69	191.10	174.05	160.60
195.0	205.45	206.35	205.45	206.35	204.56	202.76	197.38	169.57	152.52
210.0	207.25	206.35	207.25	207.25	206.35	204.56	191.10	162.39	164.18
225.0	202.76	204.56	202.76	200.07	200.07	200.97	179.44	157.01	179.44
240.0	192.89	192.89	191.10	189.31	190.20	188.41	169.57	156.11	191.10
255.0	183.03	182.13	179.44	176.74	177.64	174.95	162.39	159.70	193.79
270.0	180.33	178.54	174.05	170.46	170.46	171.36	165.08	168.67	186.61
285.0	187.51	186.61	184.82	183.03	183.92	183.92	180.33	181.23	173.16
300.0	200.07	200.97	199.17	198.28	199.17	198.28	194.69	182.13	157.01
315.0	209.94	210.84	211.74	209.94	208.15	208.15	204.56	178.54	146.24
330.0	211.74	213.53	212.63	213.53	211.74	208.15	203.66	169.57	152.52
345.0	207.25	207.25	205.45	205.45	204.56	201.87	190.20	158.80	170.46
360.0	199.17	199.17	199.17	199.17	199.17	197.38	194.69	189.31	172.26

Intensity data(cd)

C/ $\gamma$ (°)	180.0
0.0	159.70
15.0	174.95
30.0	183.92
45.0	185.72
60.0	177.64
75.0	159.70
90.0	146.24
105.0	145.34
120.0	158.80
135.0	172.26
150.0	182.13
165.0	185.72
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	159.70