
AFX

Client:

LumCAT: ARNP17LAJD4BKLB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.000

LampCAT:

Current(A): 0.240

Lamp flux(lm): 2480.9

Power (W): 28.180

Number of Lamps: 1

PF: 0.979

Length(mm): 390

Width(mm): 390

Phm Type: C

Height(mm): 480

Photometric Results

Lumens(lm): 2480.92, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 88.04

Central intensity(cd): 240.445, Maximum intensity(cd): 242.239

Angle of maximum intensity: C=180.0 γ =10.0

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=1.52 C90_270=1.48

Maximum s/h(1/4): C0_180=1.72 C90_270=1.66

Up flux rate of lamp(%): 47.87%

Down flux rate of lamp(%): 52.13%

Up flux rate of LUM(%): 47.87%

Down flux rate of LUM(%): 52.13%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 26.928%

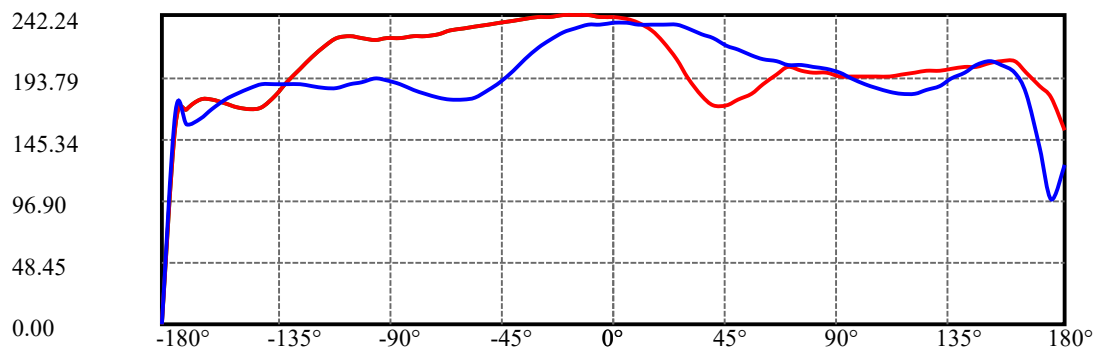
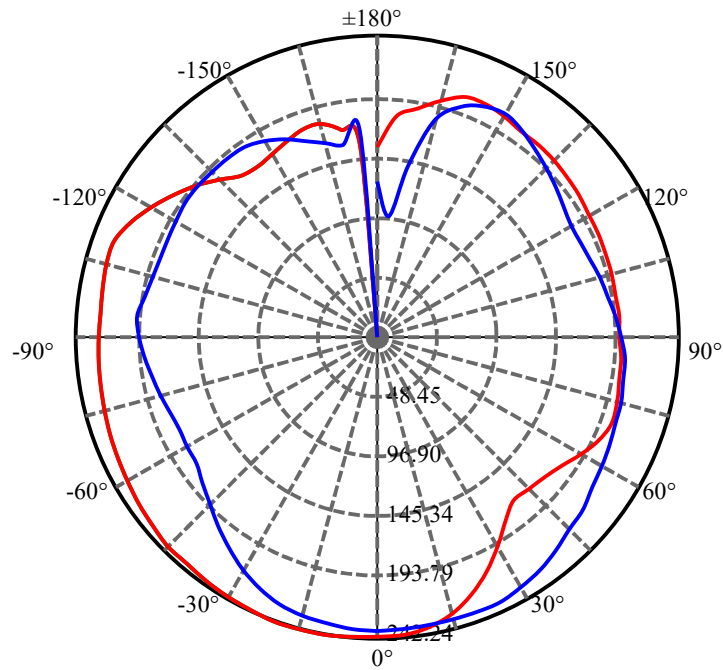
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	236.707	0.000	0	0.00%	0.00%
5.0	236.258	5.654	5.654	0.23%	0.23%
10.0	235.323	16.870	22.524	0.68%	0.91%
15.0	233.118	27.788	50.312	1.12%	2.03%
20.0	229.903	38.159	88.471	1.54%	3.57%
25.0	225.155	47.727	136.198	1.92%	5.49%
30.0	219.884	56.320	192.518	2.27%	7.76%
35.0	214.875	64.021	256.54	2.58%	10.34%
40.0	210.800	71.021	327.561	2.86%	13.20%
45.0	206.389	77.246	404.807	3.11%	16.32%
50.0	203.249	82.773	487.58	3.34%	19.65%
55.0	200.857	87.866	575.446	3.54%	23.19%
60.0	199.773	92.604	668.05	3.73%	26.93%
65.0	199.287	97.012	765.062	3.91%	30.84%
70.0	199.212	100.902	865.965	4.07%	34.91%
75.0	199.062	104.102	970.067	4.20%	39.10%
80.0	199.100	106.537	1076.604	4.29%	43.40%
85.0	198.726	108.099	1184.703	4.36%	47.75%
90.0	197.679	108.539	1293.242	4.37%	52.13%
95.0	196.595	107.955	1401.197	4.35%	56.48%
100.0	195.324	106.494	1507.691	4.29%	60.77%
105.0	193.679	104.086	1611.777	4.20%	64.97%
110.0	192.109	100.839	1712.616	4.06%	69.03%
115.0	190.950	96.993	1809.609	3.91%	72.94%
120.0	190.203	92.659	1902.268	3.73%	76.68%
125.0	190.090	87.904	1990.172	3.54%	80.22%
130.0	189.754	82.591	2072.763	3.33%	83.55%
135.0	188.894	76.511	2149.274	3.08%	86.63%
140.0	187.212	69.639	2218.913	2.81%	89.44%
145.0	185.829	62.239	2281.153	2.51%	91.95%
150.0	185.006	54.608	2335.761	2.20%	94.15%
155.0	183.586	46.646	2382.406	1.88%	96.03%
160.0	179.025	38.031	2420.437	1.53%	97.56%
165.0	167.437	28.553	2448.991	1.15%	98.71%
170.0	150.652	18.869	2467.86	0.76%	99.47%
175.0	142.540	10.488	2478.348	0.42%	99.90%
180.0	72.373	2.569	2480.917	0.10%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	192.52	7.76%	7.76%
0-40	327.56	13.20%	13.20%
0-60	668.05	26.93%	26.93%
0-90	1293.24	52.13%	52.13%
0-120	1902.27	76.68%	76.68%
0-180	2480.92	100.00%	100.00%
60-90	625.19	25.20%	25.20%
90-120	609.03	24.55%	24.55%
90-130	779.52	31.42%	31.42%
90-150	1042.52	42.02%	42.02%
90-180	1185.11	47.77%	47.77%
0-124.69	1984.73	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	22.52
10-20	65.95
20-30	104.05
30-40	135.04
40-50	160.02
50-60	180.47
60-70	197.91
70-80	210.64
80-90	216.64
90-100	214.45
100-110	204.93
110-120	189.65
120-130	170.49
130-140	146.15
140-150	116.85
150-160	84.68
160-170	47.42
170-180	10.49

C180(Max): C0/C180: C90/C270: 

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

:C90/270Left:0.0 Right:0.0

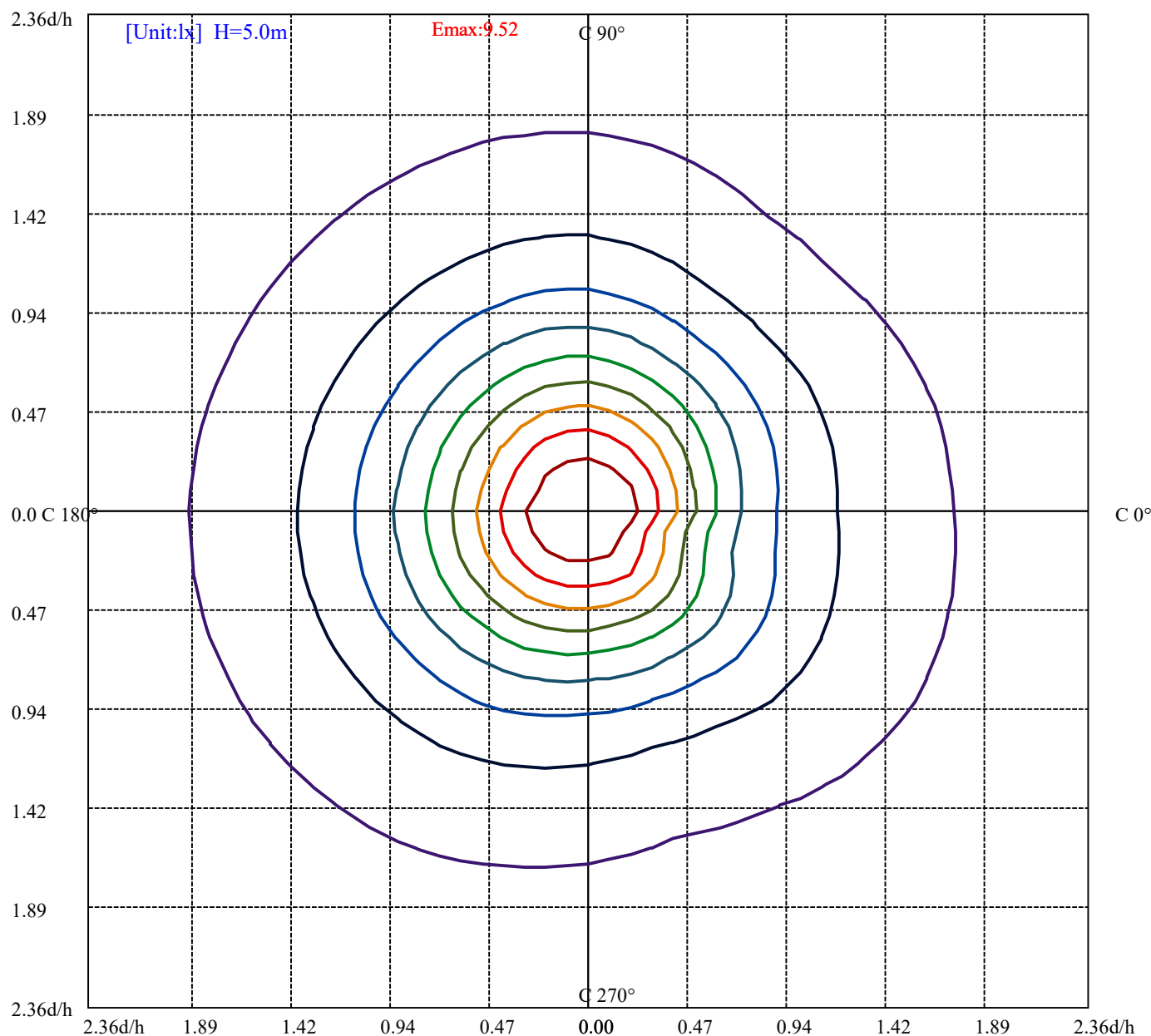
Beam Angle(50%Imax):C0/180Left:0.0 Right:0.0

:C90/270Left:0.0 Right:0.0

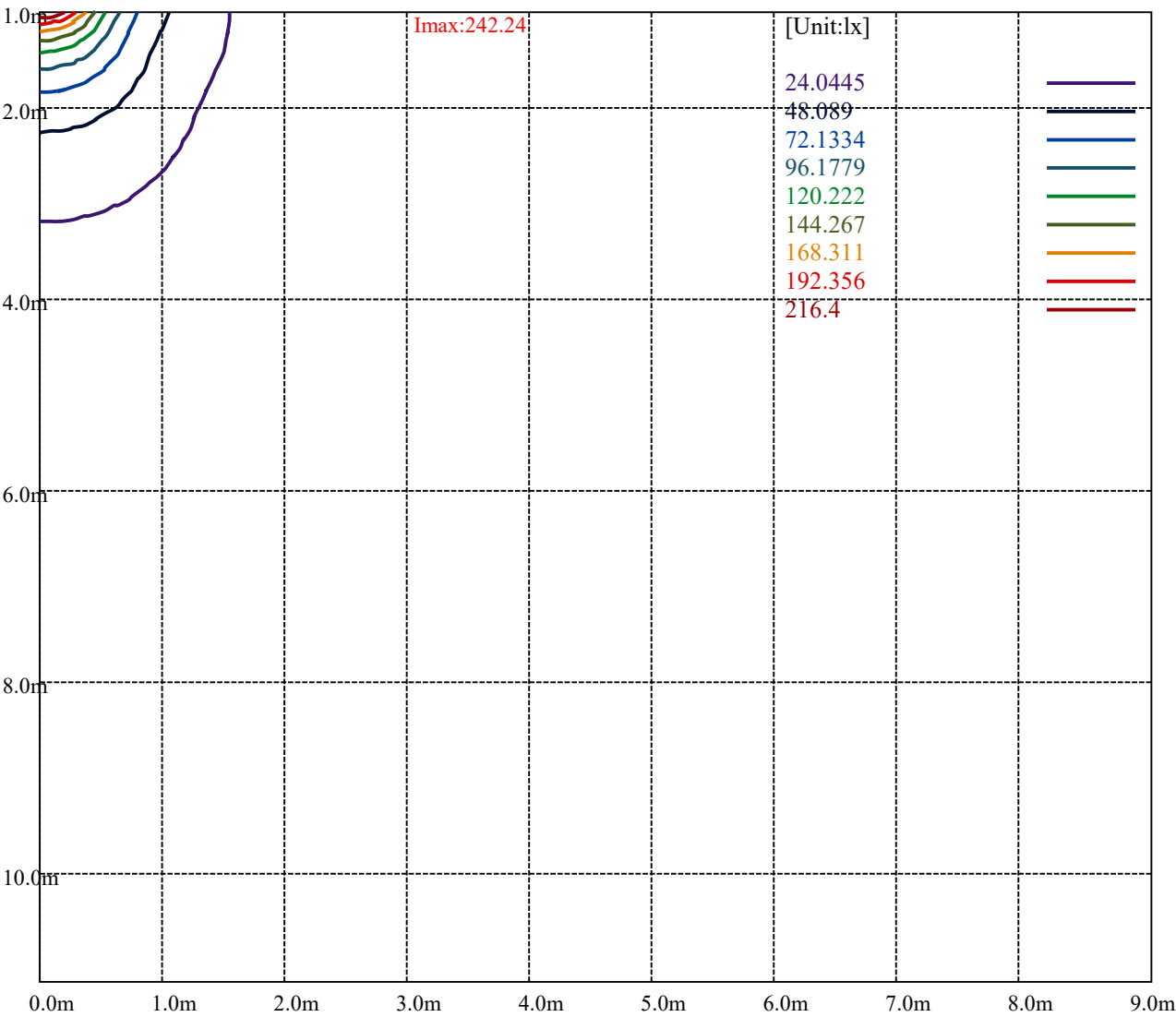


Max , Ave

Beam angle of C180 plane 328.64



(10%Emax) 0.951568	—
(20%Emax) 1.903132	—
(30%Emax) 2.8547	—
(40%Emax) 3.806264	—
(50%Emax) 4.75784	—
(60%Emax) 5.7094	—
(70%Emax) 6.66096	—
(80%Emax) 7.61252	—
(90%Emax) 8.56408	—



Luminance Table

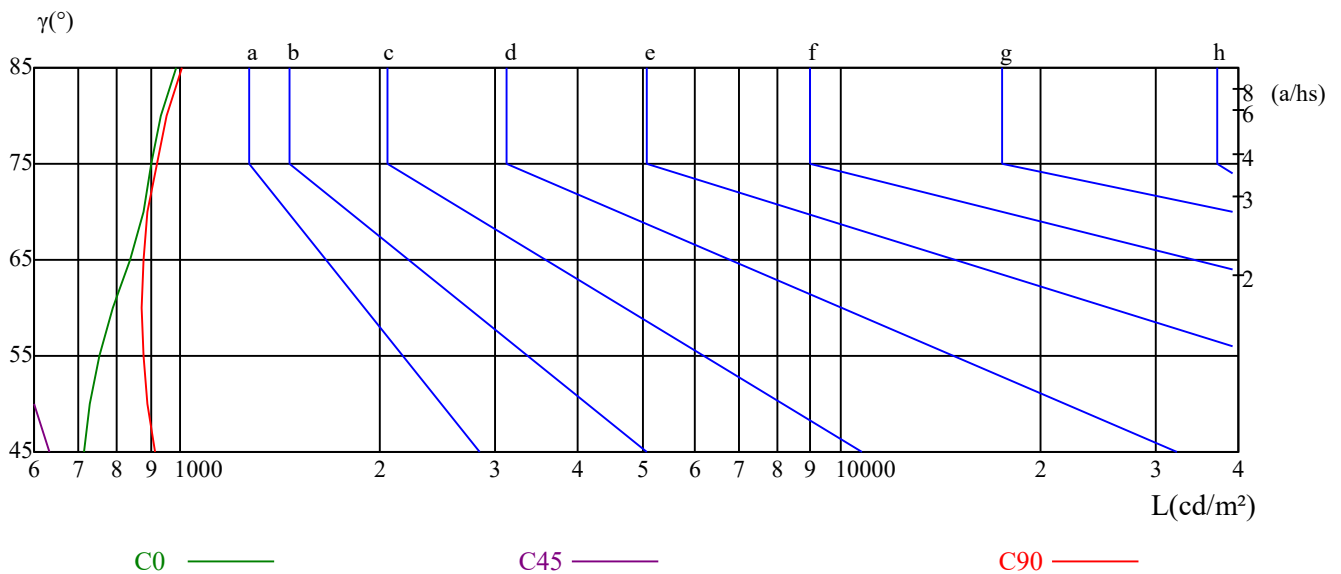
γ	45	50	55	60	65	70	75	80	85
C0	714	729	753	791	836	882	905	936	984
C45	633	588	552	532	534	549	572	597	625
C90	912	893	876	874	878	894	921	954	1002

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3308	2966	3067	5401	4866	5008	15871	14619	14856

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	1.00	1.00	1.00	0.85	0.85	0.85	0.71	0.71	0.71	0.58	0.58	0.58	0.52
1	0.88	0.82	0.78	0.81	0.76	0.72	0.68	0.64	0.61	0.56	0.53	0.50	0.45	0.43	0.41	0.35
2	0.75	0.67	0.60	0.69	0.62	0.56	0.57	0.52	0.47	0.47	0.43	0.39	0.37	0.34	0.31	0.27
3	0.64	0.56	0.49	0.59	0.51	0.45	0.49	0.43	0.38	0.40	0.36	0.32	0.32	0.28	0.25	0.21
4	0.56	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	0.31	0.38	0.32	0.27	0.31	0.26	0.22	0.25	0.21	0.18	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	0.15	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)

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	240.44	239.55	236.86	230.58	220.71	207.25	192.89	179.44	171.36
15.0	239.55	237.75	235.96	230.58	220.71	209.04	195.59	185.72	179.44
30.0	238.65	236.86	235.06	230.58	222.50	212.63	202.76	193.79	188.41
45.0	237.75	235.96	234.16	231.47	225.19	218.91	210.84	203.66	195.59
60.0	235.96	235.96	234.16	230.58	226.99	222.50	217.12	210.84	201.87
75.0	235.96	235.06	234.16	233.27	231.47	229.68	226.99	219.81	213.53
90.0	235.96	235.96	235.06	235.06	234.16	234.16	231.47	227.88	224.30
105.0	235.96	235.96	235.96	235.96	235.96	235.96	234.16	231.47	227.88
120.0	235.96	235.96	236.86	236.86	236.86	235.96	234.16	232.37	229.68
135.0	235.96	235.06	236.86	236.86	236.86	235.96	234.16	232.37	230.58
150.0	234.16	235.06	235.96	235.96	236.86	235.96	235.06	233.27	231.47
165.0	234.16	235.06	235.96	236.86	236.86	236.86	235.96	235.06	233.27
180.0	240.44	241.34	242.24	242.24	242.24	241.34	240.44	239.55	237.75
195.0	239.55	240.44	241.34	241.34	241.34	240.44	239.55	238.65	236.86
210.0	238.65	239.55	240.44	240.44	240.44	239.55	237.75	236.86	235.06
225.0	237.75	238.65	238.65	238.65	237.75	235.06	231.47	229.68	227.88
240.0	235.96	236.86	237.75	235.96	235.06	231.47	228.78	224.30	220.71
255.0	235.96	235.96	235.06	234.16	231.47	226.99	221.60	215.32	209.04
270.0	235.96	235.06	234.16	232.37	228.78	222.50	216.22	207.25	198.28
285.0	235.96	235.06	233.27	231.47	226.99	220.71	211.74	201.87	200.07
300.0	235.96	235.06	233.27	230.58	229.68	220.71	213.53	205.45	195.59
315.0	235.96	234.16	231.47	226.99	222.50	216.22	210.84	206.35	202.76
330.0	234.16	232.37	227.88	221.60	213.53	204.56	197.38	194.69	193.79
345.0	234.16	231.47	225.19	214.43	202.76	189.31	176.74	171.36	174.05
360.0	240.44	239.55	236.86	230.58	220.71	207.25	192.89	179.44	171.36
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	171.36	175.85	181.23	188.41	195.59	200.97	199.17	197.38	196.48
15.0	176.74	178.54	182.13	186.61	188.41	188.41	188.41	190.20	190.20
30.0	183.92	181.23	178.54	175.85	174.95	174.95	176.74	177.64	180.33
45.0	186.61	176.74	167.77	162.39	162.39	165.08	168.67	171.36	173.16
60.0	192.00	181.23	172.26	167.77	167.77	171.36	174.95	176.74	177.64
75.0	206.35	200.07	195.59	192.00	190.20	190.20	190.20	189.31	189.31
90.0	218.91	215.32	210.84	208.15	205.45	203.66	202.76	200.97	200.07
105.0	224.30	220.71	217.12	213.53	210.84	208.15	205.45	203.66	200.07
120.0	225.19	221.60	218.02	214.43	210.84	208.15	205.45	203.66	199.17
135.0	226.09	223.40	219.81	216.22	213.53	209.94	207.25	206.35	204.56
150.0	228.78	226.09	223.40	220.71	217.12	213.53	211.74	209.94	209.04
165.0	232.37	229.68	227.88	225.19	222.50	219.81	217.12	215.32	212.63
180.0	236.86	235.06	233.27	231.47	229.68	227.88	226.09	225.19	224.30
195.0	235.96	234.16	233.27	231.47	230.58	228.78	226.99	226.99	226.09
210.0	234.16	232.37	229.68	228.78	226.99	225.19	224.30	223.40	221.60
225.0	226.09	224.30	222.50	221.60	218.91	217.12	216.22	214.43	210.84
240.0	217.12	214.43	212.63	210.84	209.04	208.15	206.35	203.66	199.17
255.0	202.76	198.28	195.59	192.89	192.00	192.89	194.69	194.69	195.59
270.0	189.31	183.03	177.64	176.74	175.85	177.64	180.33	183.92	187.51
285.0	179.44	169.57	161.49	160.60	164.18	168.67	173.16	178.54	183.03
300.0	185.72	176.74	171.36	170.46	174.05	178.54	182.13	185.72	189.31
315.0	199.17	197.38	195.59	193.79	193.79	195.59	196.48	197.38	199.17
330.0	194.69	197.38	200.97	205.45	205.45	204.56	202.76	202.76	201.87
345.0	179.44	184.82	192.00	199.17	202.76	201.87	200.07	199.17	198.28
360.0	171.36	175.85	181.23	188.41	195.59	200.97	199.17	197.38	196.48

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	194.69	194.69	194.69	194.69	194.69	195.59	196.48	198.28	199.17
15.0	189.31	188.41	187.51	185.72	183.92	183.03	182.13	183.03	183.92
30.0	181.23	182.13	181.23	179.44	177.64	176.74	175.85	175.85	175.85
45.0	174.95	176.74	177.64	177.64	175.85	174.95	175.85	176.74	176.74
60.0	177.64	177.64	176.74	178.54	178.54	180.33	183.03	185.72	186.61
75.0	188.41	187.51	185.72	184.82	184.82	185.72	186.61	190.20	192.89
90.0	196.48	192.00	187.51	184.82	182.13	180.33	180.33	183.03	186.61
105.0	194.69	189.31	184.82	178.54	173.16	168.67	165.08	165.08	171.36
120.0	192.89	187.51	182.13	176.74	171.36	167.77	165.08	165.08	170.46
135.0	200.07	195.59	191.10	187.51	183.92	182.13	181.23	182.13	181.23
150.0	207.25	206.35	204.56	202.76	200.07	198.28	197.38	191.10	183.03
165.0	211.74	210.84	211.74	211.74	212.63	212.63	207.25	197.38	185.72
180.0	224.30	223.40	224.30	225.19	224.30	218.02	209.04	200.07	189.31
195.0	225.19	225.19	225.19	225.19	225.19	223.40	218.02	212.63	204.56
210.0	219.81	218.02	216.22	213.53	210.84	208.15	208.15	209.04	206.35
225.0	206.35	202.76	197.38	192.89	187.51	183.03	181.23	183.03	187.51
240.0	193.79	189.31	187.51	178.54	173.16	168.67	167.77	172.26	178.54
255.0	192.00	187.51	183.03	179.44	177.64	175.85	176.74	179.44	183.03
270.0	191.10	192.89	190.20	187.51	185.72	185.72	186.61	187.51	188.41
285.0	187.51	192.00	195.59	196.48	196.48	197.38	198.28	197.38	194.69
300.0	193.79	196.48	198.28	199.17	200.97	201.87	203.66	203.66	201.87
315.0	200.07	200.97	201.87	202.76	203.66	205.45	207.25	209.04	209.04
330.0	201.87	201.87	202.76	203.66	204.56	205.45	207.25	209.04	209.94
345.0	199.17	199.17	200.07	200.97	201.87	203.66	204.56	205.45	207.25
360.0	194.69	194.69	194.69	194.69	194.69	195.59	196.48	198.28	199.17
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	200.07	200.97	201.87	204.56	206.35	205.45	196.48	186.61	177.64
15.0	183.92	183.03	184.82	187.51	190.20	187.51	179.44	167.77	170.46
30.0	173.16	169.57	167.77	170.46	175.85	174.05	159.70	148.93	160.60
45.0	174.95	174.05	174.95	177.64	182.13	178.54	158.80	140.86	150.73
60.0	187.51	188.41	191.10	194.69	199.17	197.38	170.46	138.17	134.58
75.0	196.48	200.07	203.66	207.25	209.04	206.35	178.54	139.06	109.46
90.0	192.00	197.38	202.76	206.35	203.66	196.48	181.23	139.06	97.79
105.0	179.44	183.03	185.72	187.51	184.82	176.74	164.18	139.96	100.48
120.0	174.05	170.46	168.67	168.67	166.88	161.49	150.73	137.27	109.46
135.0	175.85	168.67	161.49	158.80	157.01	155.21	150.73	140.86	122.02
150.0	175.85	169.57	162.39	158.80	158.80	158.80	158.80	150.73	123.81
165.0	174.95	165.08	157.01	157.01	161.49	165.08	166.88	164.18	133.68
180.0	178.54	169.57	167.77	169.57	173.16	176.74	176.74	168.67	154.32
195.0	196.48	190.20	184.82	181.23	179.44	178.54	178.54	165.08	152.52
210.0	202.76	200.97	193.79	187.51	182.13	178.54	176.74	162.39	155.21
225.0	190.20	190.20	189.31	186.61	181.23	175.85	170.46	159.70	162.39
240.0	182.13	183.92	183.92	181.23	176.74	172.26	165.08	157.90	170.46
255.0	184.82	184.82	183.92	179.44	174.95	168.67	162.39	157.01	172.26
270.0	188.41	187.51	185.72	181.23	175.85	167.77	160.60	157.01	165.08
285.0	193.79	192.00	189.31	185.72	179.44	172.26	164.18	158.80	148.93
300.0	200.07	197.38	195.59	191.10	185.72	178.54	172.26	149.83	126.50
315.0	208.15	206.35	204.56	200.97	194.69	188.41	173.16	135.47	122.91
330.0	210.84	210.84	209.94	208.15	202.76	193.79	158.80	122.91	140.86
345.0	209.04	209.04	209.04	208.15	204.56	182.13	143.55	127.40	158.80
360.0	200.07	200.97	201.87	204.56	206.35	205.45	196.48	186.61	177.64

Intensity data(cd)

C/ γ (°)	180.0
0.0	152.52
15.0	174.05
30.0	180.33
45.0	179.44
60.0	167.77
75.0	150.73
90.0	124.71
105.0	105.87
120.0	111.25
135.0	127.40
150.0	134.58
165.0	128.30
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	152.52