
AFX

Client:

LumCAT: ARNP17LAJD4BKLB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.000

LampCAT:

Current(A): 0.242

Lamp flux(lm): 2658.9

Power (W): 28.410

Number of Lamps: 1

PF: 0.980

Length(mm): 390

Width(mm): 390

Phm Type: C

Height(mm): 480

Photometric Results

Lumens(lm): 2658.87, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 93.59

Central intensity(cd): 257.491, Maximum intensity(cd): 259.286

Angle of maximum intensity: C=180.0 γ =5.0

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=1.49

Maximum s/h(1/4): C0_180=1.73 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 : 26.929%

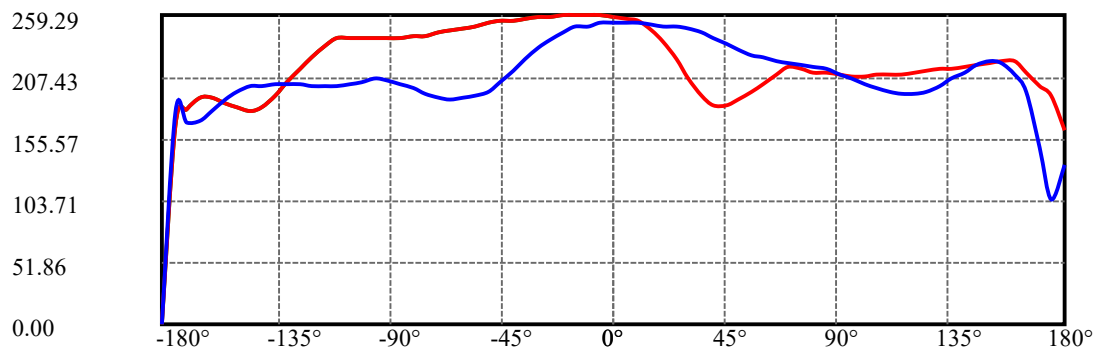
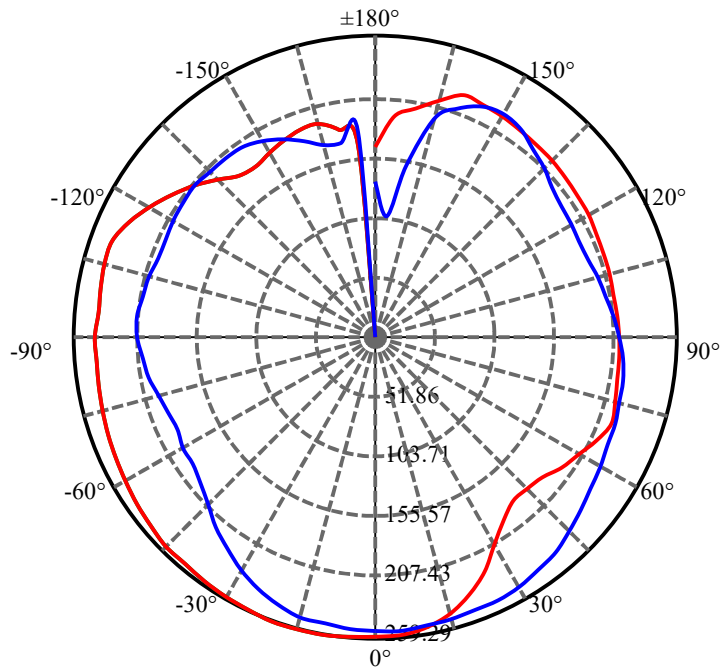
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	253.454	0.000	0	0.00%	0.00%
5.0	253.304	6.058	6.058	0.23%	0.23%
10.0	252.146	18.082	24.14	0.68%	0.91%
15.0	249.790	29.775	53.914	1.12%	2.03%
20.0	246.277	40.883	94.797	1.54%	3.57%
25.0	241.267	51.134	145.931	1.92%	5.49%
30.0	235.735	60.365	206.296	2.27%	7.76%
35.0	230.277	68.623	274.92	2.58%	10.34%
40.0	225.866	76.104	351.024	2.86%	13.20%
45.0	221.305	82.797	433.821	3.11%	16.32%
50.0	217.903	88.748	522.569	3.34%	19.65%
55.0	215.324	94.198	616.767	3.54%	23.20%
60.0	214.015	99.241	716.008	3.73%	26.93%
65.0	213.716	103.982	819.99	3.91%	30.84%
70.0	213.380	108.143	928.134	4.07%	34.91%
75.0	213.417	111.558	1039.692	4.20%	39.10%
80.0	213.455	114.219	1153.911	4.30%	43.40%
85.0	212.931	115.859	1269.77	4.36%	47.76%
90.0	211.922	116.328	1386.098	4.38%	52.13%
95.0	210.726	115.724	1501.822	4.35%	56.48%
100.0	209.230	114.112	1615.934	4.29%	60.78%
105.0	207.660	111.548	1727.483	4.20%	64.97%
110.0	205.941	108.109	1835.591	4.07%	69.04%
115.0	204.670	103.969	1939.56	3.91%	72.95%
120.0	203.810	99.302	2038.863	3.73%	76.68%
125.0	203.548	94.160	2133.022	3.54%	80.22%
130.0	203.399	88.484	2221.506	3.33%	83.55%
135.0	202.427	82.003	2303.509	3.08%	86.63%
140.0	200.632	74.630	2378.139	2.81%	89.44%
145.0	199.174	66.705	2444.843	2.51%	91.95%
150.0	198.165	58.511	2503.354	2.20%	94.15%
155.0	196.782	49.981	2553.335	1.88%	96.03%
160.0	191.735	40.748	2594.084	1.53%	97.56%
165.0	179.362	30.584	2624.667	1.15%	98.71%
170.0	161.418	20.215	2644.882	0.76%	99.47%
175.0	152.671	11.236	2656.118	0.42%	99.90%
180.0	77.531	2.752	2658.87	0.10%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	206.30	7.76%	7.76%
0-40	351.02	13.20%	13.20%
0-60	716.01	26.93%	26.93%
0-90	1386.10	52.13%	52.13%
0-120	2038.86	76.68%	76.68%
0-180	2658.87	100.00%	100.00%
60-90	670.09	25.20%	25.20%
90-120	652.76	24.55%	24.55%
90-130	835.41	31.42%	31.42%
90-150	1117.26	42.02%	42.02%
90-180	1270.02	47.77%	47.77%
0-124.69	2127.10	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	24.14
10-20	70.66
20-30	111.50
30-40	144.73
40-50	171.55
50-60	193.44
60-70	212.13
70-80	225.78
80-90	232.19
90-100	229.84
100-110	219.66
110-120	203.27
120-130	182.64
130-140	156.63
140-150	125.22
150-160	90.73
160-170	50.80
170-180	11.24

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

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

:C90/270Left:0.0 Right:0.0

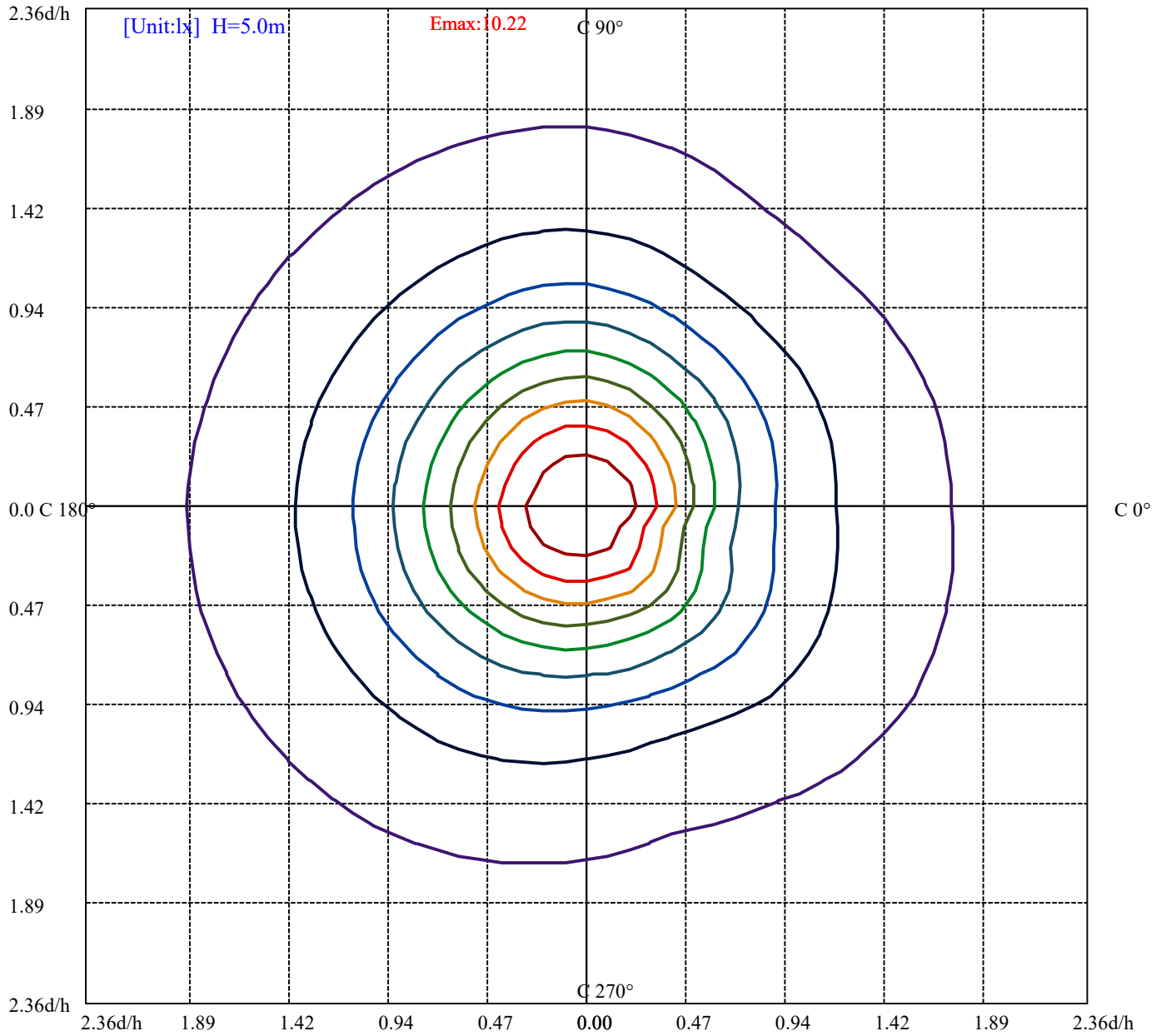
Beam Angle(50%Imax):C0/180Left:0.0 Right:0.0

:C90/270Left:0.0 Right:0.0

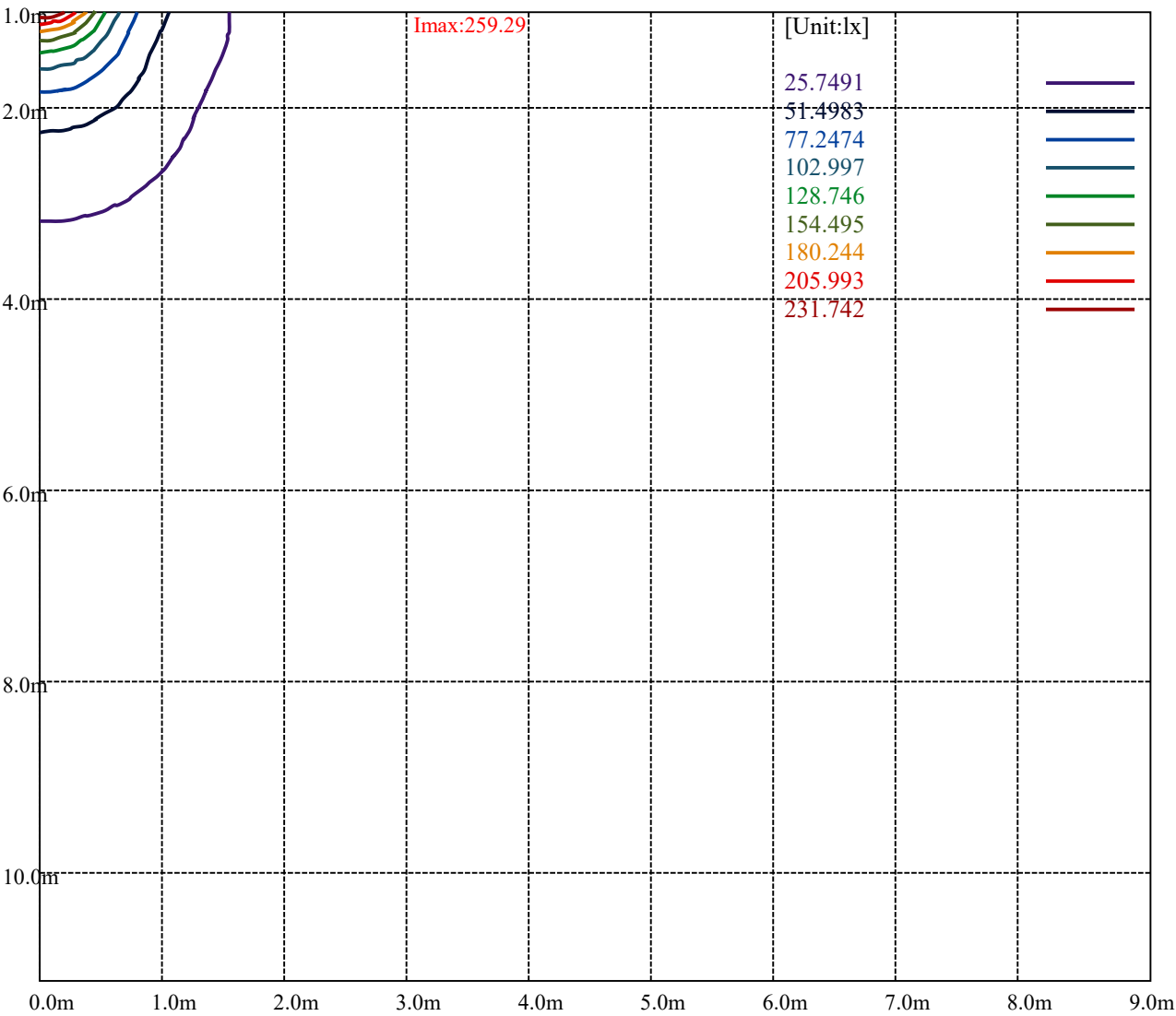


Max , Ave

Beam angle of C180 plane 339.40



(10%Emax) 1.021776	—
(20%Emax) 2.043548	—
(30%Emax) 3.065324	—
(40%Emax) 4.08708	—
(50%Emax) 5.10888	—
(60%Emax) 6.13064	—
(70%Emax) 7.15244	—
(80%Emax) 8.1742	—
(90%Emax) 9.19596	—



Luminance Table

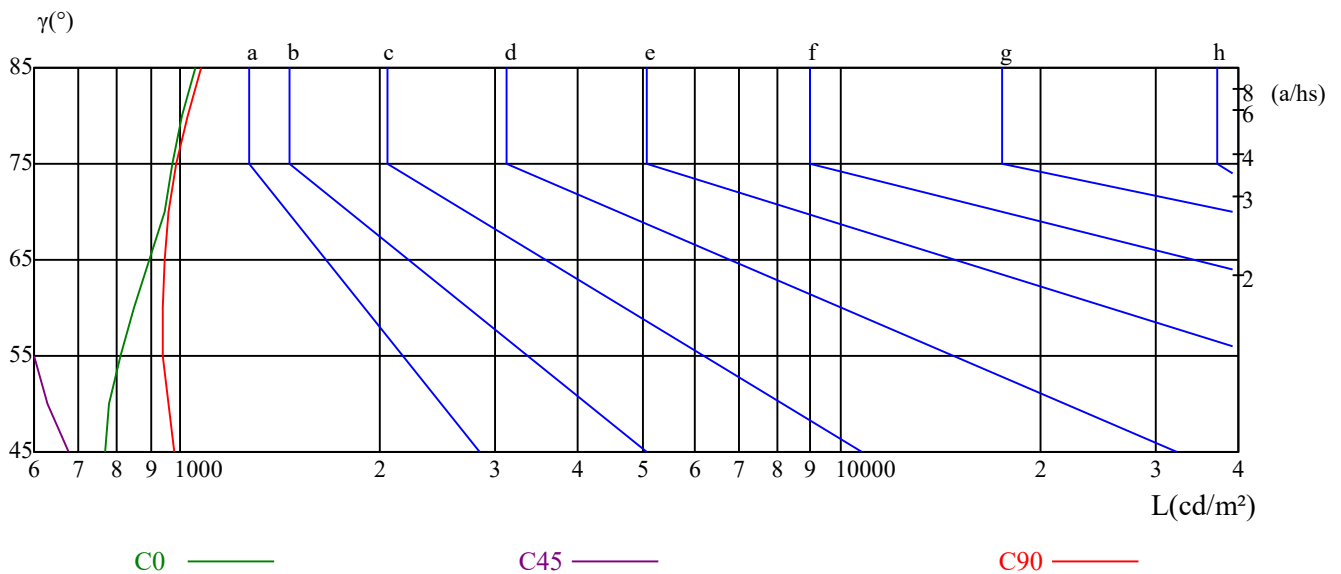
γ	45	50	55	60	65	70	75	80	85
C0	767	781	809	848	897	945	970	1005	1056
C45	679	630	590	570	572	588	611	641	670
C90	980	956	940	938	943	960	986	1026	1074

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3552	3182	3290	5789	5208	5373	17021	15668	15922

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)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	257.49	256.59	253.90	246.73	235.96	222.50	206.35	192.00	183.92
15.0	256.59	254.80	253.01	246.73	236.86	224.30	209.94	199.17	192.00
30.0	255.70	253.90	252.11	246.73	238.65	227.88	217.12	208.15	201.87
45.0	254.80	253.01	251.21	247.62	241.34	234.16	226.09	218.02	209.94
60.0	253.01	253.01	250.31	247.62	244.03	238.65	233.27	225.19	216.22
75.0	252.11	252.11	251.21	249.42	247.62	245.83	243.14	235.96	228.78
90.0	252.11	253.01	252.11	251.21	250.31	250.31	248.52	244.93	240.44
105.0	252.11	253.01	253.01	253.01	253.01	253.01	250.31	248.52	244.93
120.0	253.01	253.01	253.90	253.90	253.90	253.01	251.21	248.52	245.83
135.0	253.01	252.11	253.90	253.90	253.90	253.01	251.21	249.42	246.73
150.0	251.21	252.11	253.01	253.01	253.90	253.01	252.11	249.42	247.62
165.0	250.31	252.11	253.01	253.90	253.90	253.90	253.01	252.11	250.31
180.0	257.49	259.29	259.29	259.29	259.29	258.39	257.49	256.59	254.80
195.0	256.59	258.39	258.39	258.39	258.39	257.49	256.59	255.70	253.90
210.0	255.70	256.59	257.49	257.49	257.49	256.59	254.80	253.90	252.11
225.0	254.80	255.70	255.70	255.70	254.80	252.11	248.52	245.83	244.03
240.0	253.01	253.90	253.90	253.01	251.21	248.52	244.93	240.44	235.96
255.0	252.11	253.01	252.11	250.31	247.62	243.14	237.75	230.58	223.40
270.0	252.11	252.11	250.31	249.42	244.93	238.65	231.47	222.50	212.63
285.0	252.11	252.11	250.31	247.62	243.14	235.96	226.99	216.22	214.43
300.0	253.01	251.21	250.31	247.62	246.73	236.86	228.78	219.81	209.94
315.0	253.01	251.21	247.62	244.03	237.75	231.47	226.09	221.60	217.12
330.0	251.21	249.42	244.03	237.75	228.78	218.91	211.74	208.15	207.25
345.0	250.31	247.62	241.34	230.58	217.12	202.76	190.20	183.92	186.61
360.0	257.49	256.59	253.90	246.73	235.96	222.50	206.35	192.00	183.92
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	183.92	188.41	194.69	201.87	209.94	215.32	213.53	211.74	210.84
15.0	189.31	191.10	195.59	200.07	202.76	201.87	202.76	203.66	203.66
30.0	197.38	193.79	192.00	188.41	187.51	187.51	189.31	191.10	192.89
45.0	200.07	189.31	179.44	174.05	174.05	176.74	180.33	183.92	185.72
60.0	205.45	194.69	184.82	179.44	180.33	183.03	187.51	190.20	190.20
75.0	221.60	214.43	209.04	205.45	203.66	203.66	203.66	202.76	202.76
90.0	235.06	230.58	226.09	223.40	220.71	218.91	217.12	216.22	214.43
105.0	240.44	236.86	232.37	228.78	225.19	222.50	220.71	218.91	214.43
120.0	241.34	237.75	233.27	230.58	226.09	223.40	219.81	218.02	212.63
135.0	243.14	239.55	235.96	231.47	228.78	225.19	222.50	220.71	218.91
150.0	245.83	243.14	239.55	235.96	232.37	228.78	226.99	225.19	223.40
165.0	248.52	246.73	244.03	241.34	238.65	235.96	232.37	230.58	227.88
180.0	253.90	252.11	250.31	247.62	246.73	244.03	242.24	241.34	240.44
195.0	253.01	251.21	249.42	247.62	246.73	244.93	243.14	243.14	242.24
210.0	251.21	249.42	246.73	244.93	243.14	241.34	240.44	239.55	237.75
225.0	242.24	240.44	238.65	236.86	235.06	233.27	232.37	229.68	226.09
240.0	232.37	229.68	227.88	225.19	224.30	222.50	221.60	218.02	213.53
255.0	217.12	212.63	209.94	207.25	206.35	206.35	208.15	208.15	209.94
270.0	202.76	195.59	191.10	190.20	188.41	190.20	192.89	197.38	200.97
285.0	192.89	181.23	172.26	172.26	175.85	180.33	185.72	191.10	195.59
300.0	199.17	189.31	183.92	183.03	186.61	191.10	195.59	199.17	203.66
315.0	213.53	211.74	209.94	208.15	208.15	209.04	210.84	211.74	213.53
330.0	209.04	211.74	215.32	219.81	219.81	218.91	218.02	217.12	216.22
345.0	192.00	198.28	205.45	212.63	218.02	216.22	214.43	213.53	212.63
360.0	183.92	188.41	194.69	201.87	209.94	215.32	213.53	211.74	210.84

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	209.04	208.15	208.15	209.04	209.04	209.94	210.84	212.63	213.53
15.0	202.76	201.87	200.07	199.17	197.38	196.48	195.59	196.48	197.38
30.0	194.69	195.59	193.79	192.00	190.20	189.31	188.41	189.31	188.41
45.0	187.51	189.31	190.20	191.10	188.41	187.51	188.41	189.31	189.31
60.0	191.10	190.20	189.31	191.10	191.10	193.79	195.59	198.28	200.07
75.0	202.76	200.97	199.17	198.28	198.28	198.28	200.07	203.66	206.35
90.0	209.94	205.45	200.97	198.28	194.69	193.79	193.79	195.59	199.17
105.0	209.04	203.66	198.28	192.00	185.72	180.33	176.74	176.74	183.03
120.0	206.35	200.97	194.69	190.20	183.92	179.44	176.74	176.74	183.03
135.0	214.43	209.94	204.56	200.97	197.38	194.69	193.79	194.69	193.79
150.0	222.50	221.60	219.81	217.12	214.43	212.63	211.74	204.56	196.48
165.0	226.99	226.09	226.99	226.99	227.88	227.88	221.60	210.84	199.17
180.0	240.44	239.55	240.44	240.44	240.44	233.27	223.40	213.53	202.76
195.0	241.34	241.34	241.34	241.34	241.34	239.55	233.27	227.88	219.81
210.0	235.96	233.27	231.47	228.78	225.19	223.40	223.40	224.30	221.60
225.0	220.71	217.12	211.74	206.35	200.97	195.59	194.69	195.59	200.97
240.0	208.15	202.76	200.97	191.10	185.72	181.23	179.44	184.82	192.00
255.0	206.35	200.97	196.48	192.89	190.20	188.41	189.31	192.89	196.48
270.0	204.56	206.35	203.66	200.97	199.17	199.17	200.07	200.97	201.87
285.0	200.97	205.45	209.04	210.84	210.84	211.74	212.63	210.84	209.04
300.0	207.25	210.84	212.63	213.53	215.32	217.12	218.02	218.02	216.22
315.0	214.43	216.22	216.22	218.02	218.02	219.81	222.50	223.40	223.40
330.0	216.22	216.22	217.12	218.02	219.81	220.71	222.50	223.40	225.19
345.0	212.63	213.53	214.43	215.32	217.12	218.02	218.91	220.71	222.50
360.0	209.04	208.15	208.15	209.04	209.04	209.94	210.84	212.63	213.53
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	214.43	215.32	217.12	218.91	220.71	220.71	210.84	200.07	191.10
15.0	196.48	196.48	198.28	200.97	204.56	200.97	192.00	180.33	183.03
30.0	185.72	181.23	180.33	182.13	188.41	185.72	170.46	158.80	171.36
45.0	187.51	186.61	187.51	190.20	194.69	191.10	169.57	150.73	161.49
60.0	200.07	201.87	204.56	209.04	213.53	210.84	182.13	148.93	143.55
75.0	209.94	214.43	218.02	222.50	224.30	220.71	191.10	148.93	117.53
90.0	205.45	211.74	218.02	220.71	218.91	209.94	194.69	148.93	104.97
105.0	192.89	196.48	199.17	200.97	198.28	190.20	175.85	149.83	107.66
120.0	186.61	183.03	181.23	180.33	178.54	173.16	161.49	147.14	116.63
135.0	188.41	180.33	173.16	169.57	167.77	165.98	162.39	150.73	130.09
150.0	188.41	181.23	174.05	170.46	169.57	169.57	169.57	161.49	132.78
165.0	187.51	176.74	167.77	167.77	173.16	177.64	178.54	175.85	142.65
180.0	191.10	182.13	179.44	182.13	185.72	189.31	189.31	180.33	165.08
195.0	210.84	203.66	198.28	193.79	192.89	191.10	192.00	176.74	163.29
210.0	217.12	215.32	207.25	200.97	195.59	191.10	190.20	173.16	166.88
225.0	203.66	203.66	202.76	200.07	194.69	188.41	183.03	171.36	173.16
240.0	195.59	197.38	196.48	193.79	190.20	184.82	176.74	169.57	182.13
255.0	198.28	198.28	196.48	192.89	187.51	181.23	174.05	168.67	184.82
270.0	201.87	200.07	199.17	194.69	188.41	179.44	171.36	168.67	177.64
285.0	208.15	205.45	202.76	199.17	192.00	183.92	175.85	169.57	159.70
300.0	214.43	211.74	209.04	204.56	198.28	191.10	184.82	160.60	135.47
315.0	223.40	221.60	219.81	215.32	208.15	201.87	184.82	145.34	131.89
330.0	226.09	226.09	225.19	222.50	217.12	207.25	170.46	131.89	150.73
345.0	224.30	224.30	224.30	222.50	219.81	195.59	153.42	136.37	170.46
360.0	214.43	215.32	217.12	218.91	220.71	220.71	210.84	200.07	191.10

Intensity data(cd)

C/ γ (°)	180.0
0.0	163.29
15.0	186.61
30.0	193.79
45.0	192.00
60.0	179.44
75.0	161.49
90.0	133.68
105.0	113.04
120.0	119.33
135.0	136.37
150.0	144.45
165.0	137.27
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	163.29