
AFX

Client:

LumCAT: ARNP17LAJD4BKLB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.010

LampCAT:

Current(A): 0.241

Lamp flux(lm): 2588.0

Power (W): 28.350

Number of Lamps: 1

PF: 0.979

Length(mm): 390

Width(mm): 390

Phm Type: C

Height(mm): 480

Photometric Results

Lumens(lm): 2587.97, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 91.29

Central intensity(cd): 251.211, Maximum intensity(cd): 253.005

Angle of maximum intensity: C=180.0 γ =15.0

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 : 26.929%

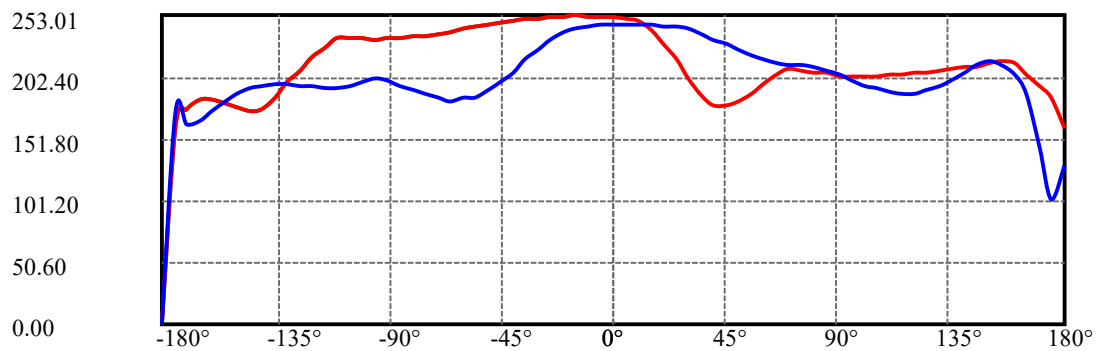
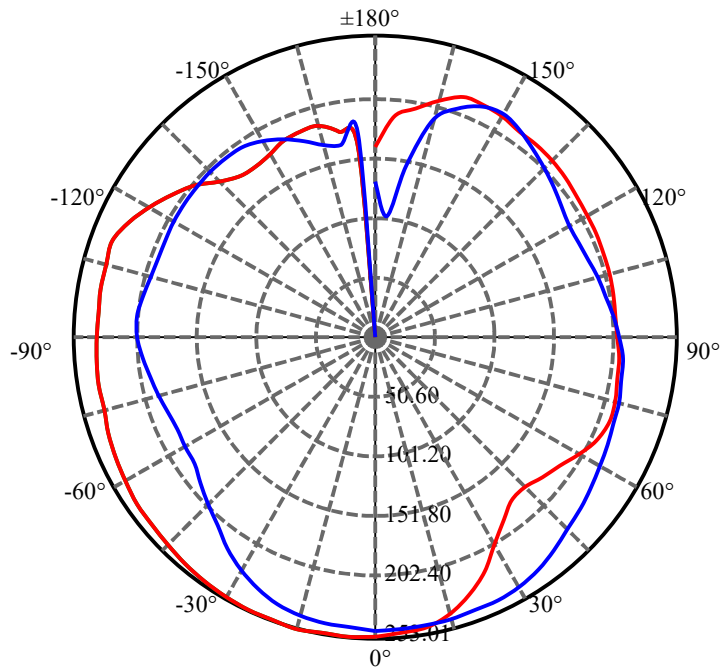
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	246.875	0.000	0	0.00%	0.00%
5.0	246.426	5.897	5.897	0.23%	0.23%
10.0	245.454	17.596	23.493	0.68%	0.91%
15.0	243.249	28.990	52.483	1.12%	2.03%
20.0	239.735	39.805	92.287	1.54%	3.57%
25.0	234.950	49.786	142.073	1.92%	5.49%
30.0	229.529	58.780	200.853	2.27%	7.76%
35.0	224.034	66.790	267.644	2.58%	10.34%
40.0	219.810	74.052	341.695	2.86%	13.20%
45.0	215.249	80.555	422.25	3.11%	16.32%
50.0	212.071	86.346	508.596	3.34%	19.65%
55.0	209.604	91.686	600.283	3.54%	23.20%
60.0	208.408	96.622	696.905	3.73%	26.93%
65.0	207.959	101.220	798.125	3.91%	30.84%
70.0	207.772	105.266	903.391	4.07%	34.91%
75.0	207.772	108.617	1012.007	4.20%	39.10%
80.0	207.772	111.188	1123.196	4.30%	43.40%
85.0	207.249	112.771	1235.967	4.36%	47.76%
90.0	206.202	113.206	1349.173	4.37%	52.13%
95.0	205.081	112.613	1461.786	4.35%	56.48%
100.0	203.810	111.105	1572.891	4.29%	60.78%
105.0	201.941	108.568	1681.459	4.20%	64.97%
110.0	200.483	105.187	1786.646	4.06%	69.04%
115.0	199.137	101.186	1887.832	3.91%	72.95%
120.0	198.389	96.639	1984.472	3.73%	76.68%
125.0	198.203	91.671	2076.143	3.54%	80.22%
130.0	197.978	86.143	2162.286	3.33%	83.55%
135.0	197.006	79.812	2242.098	3.08%	86.64%
140.0	195.287	72.636	2314.734	2.81%	89.44%
145.0	193.866	64.927	2379.661	2.51%	91.95%
150.0	192.857	56.948	2436.609	2.20%	94.15%
155.0	191.548	48.647	2485.256	1.88%	96.03%
160.0	186.614	39.662	2524.918	1.53%	97.56%
165.0	174.539	29.764	2554.682	1.15%	98.71%
170.0	157.044	19.669	2574.351	0.76%	99.47%
175.0	148.633	10.935	2585.286	0.42%	99.90%
180.0	75.475	2.679	2587.966	0.10%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	200.85	7.76%	7.76%
0-40	341.70	13.20%	13.20%
0-60	696.91	26.93%	26.93%
0-90	1349.17	52.13%	52.13%
0-120	1984.47	76.68%	76.68%
0-180	2587.97	100.00%	100.00%
60-90	652.27	25.20%	25.20%
90-120	635.30	24.55%	24.55%
90-130	813.11	31.42%	31.42%
90-150	1087.44	42.02%	42.02%
90-180	1236.11	47.76%	47.76%
0-124.69	2070.37	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	23.49
10-20	68.79
20-30	108.57
30-40	140.84
40-50	166.90
50-60	188.31
60-70	206.49
70-80	219.80
80-90	225.98
90-100	223.72
100-110	213.75
110-120	197.83
120-130	177.81
130-140	152.45
140-150	121.87
150-160	88.31
160-170	49.43
170-180	10.94

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

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

:C90/270Left:0.0 Right:0.0

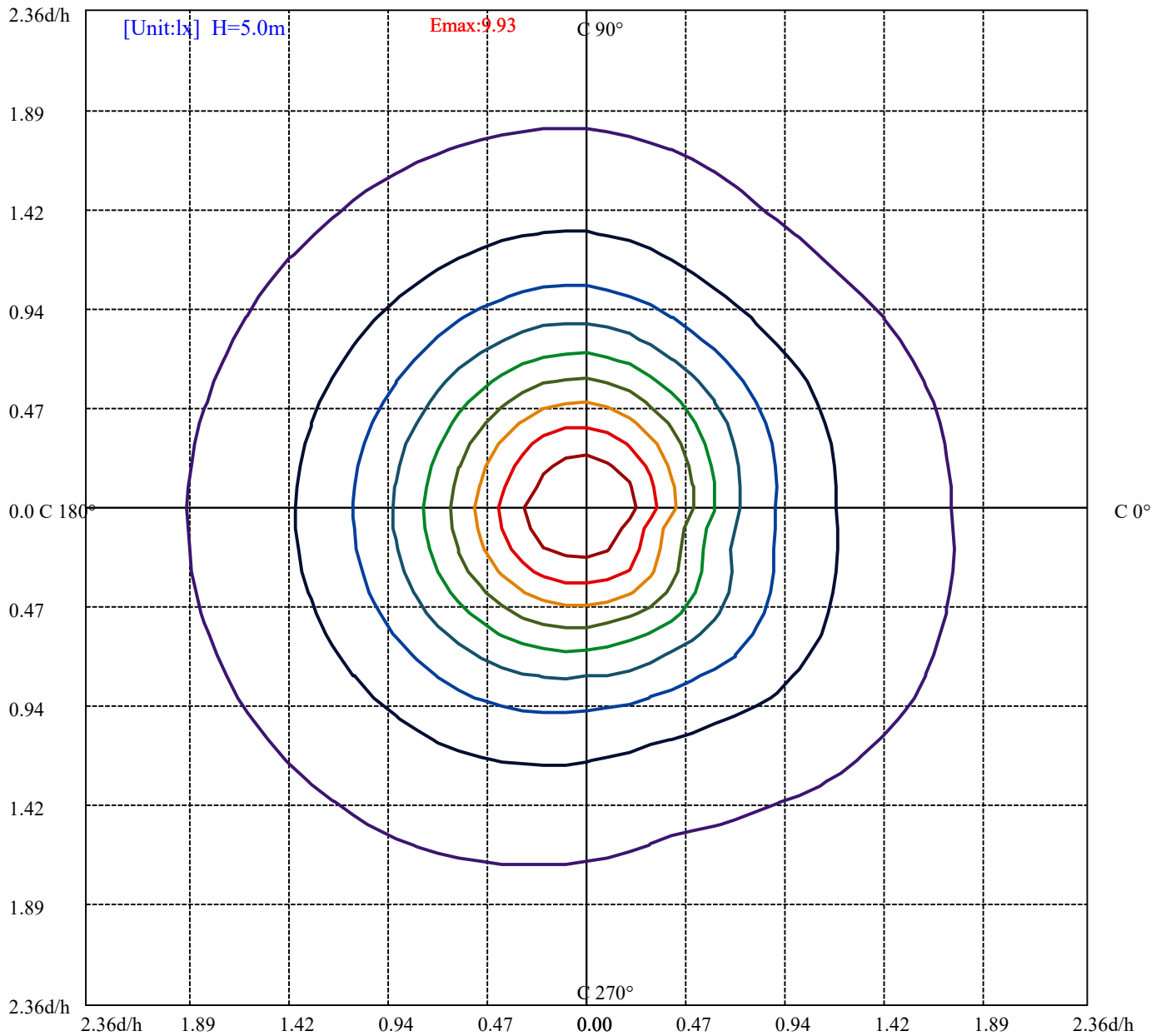
Beam Angle(50%Imax):C0/180Left:0.0 Right:0.0

:C90/270Left:0.0 Right:0.0

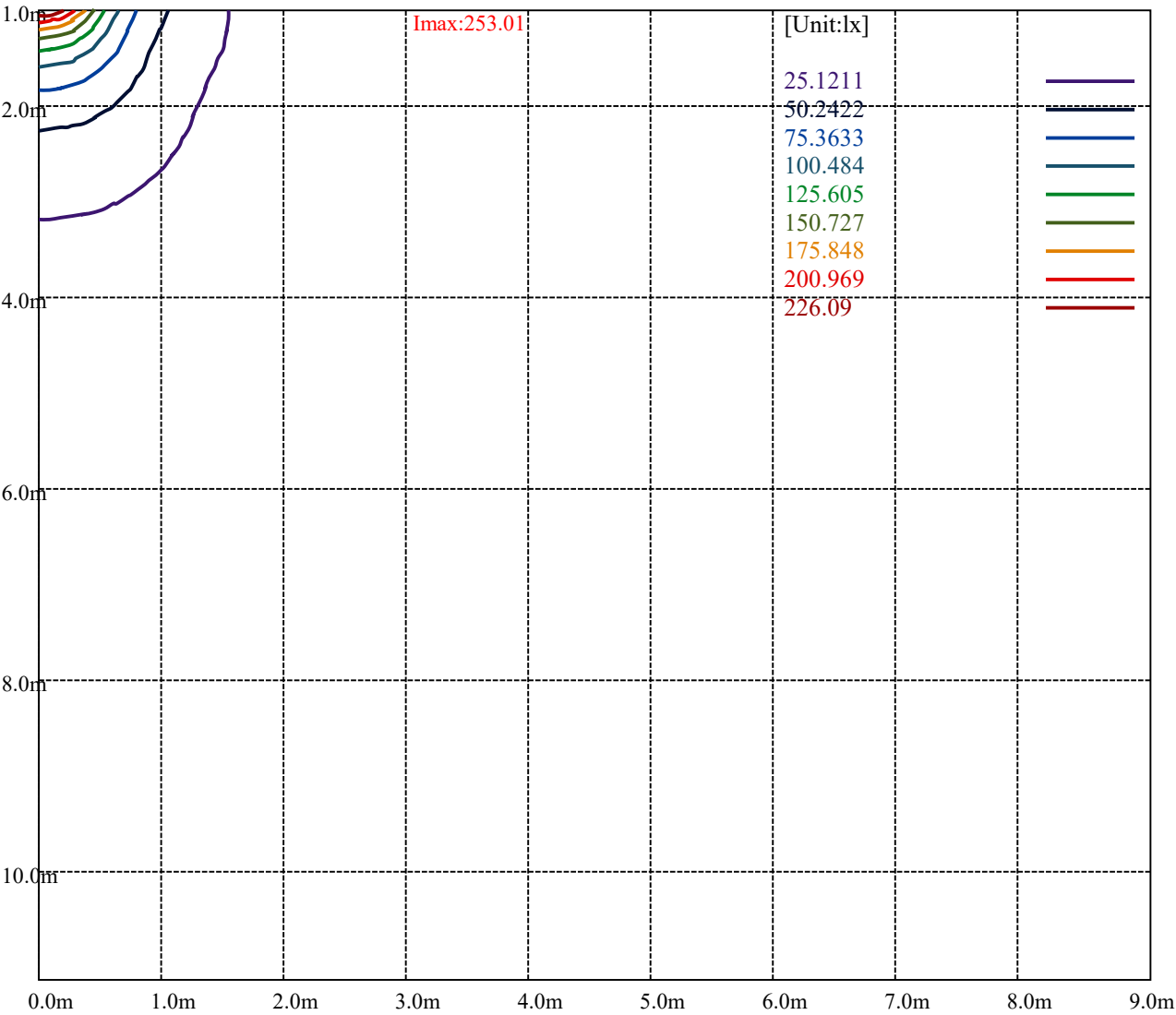


Max , Ave

Beam angle of C180 plane 335.82



(10%Emax) 0.9934919	
(20%Emax) 1.98698	
(30%Emax) 2.980472	
(40%Emax) 3.97396	
(50%Emax) 4.96744	
(60%Emax) 5.96096	
(70%Emax) 6.95444	
(80%Emax) 7.94792	
(90%Emax) 8.941401	



Luminance Table

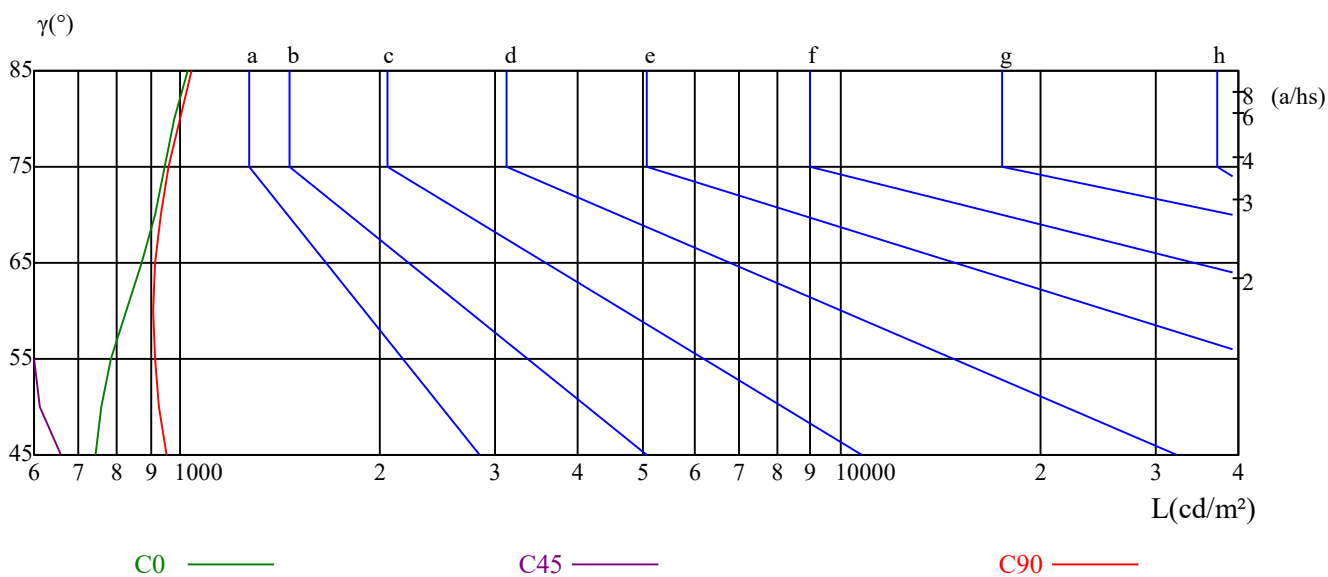
γ	45	50	55	60	65	70	75	80	85
C0	744	759	787	825	874	917	945	979	1029
C45	661	612	575	552	557	573	596	622	654
C90	954	930	917	912	917	933	962	996	1042

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3454	3092	3203	5641	5082	5230	16581	15228	15499

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	251.21	249.42	247.62	240.44	229.68	216.22	200.97	187.51	178.54
15.0	250.31	248.52	245.83	240.44	230.58	218.02	204.56	193.79	186.61
30.0	249.42	247.62	244.93	240.44	232.37	222.50	211.74	202.76	196.48
45.0	247.62	246.73	244.93	241.34	235.06	227.88	220.71	212.63	204.56
60.0	246.73	245.83	244.03	241.34	236.86	232.37	226.99	219.81	210.84
75.0	245.83	244.93	244.03	243.14	241.34	239.55	236.86	229.68	223.40
90.0	245.83	245.83	245.83	244.93	244.03	244.03	241.34	237.75	233.27
105.0	245.83	245.83	245.83	245.83	245.83	245.83	244.03	241.34	237.75
120.0	245.83	246.73	246.73	246.73	246.73	246.73	244.93	242.24	239.55
135.0	245.83	245.83	246.73	246.73	247.62	246.73	244.03	242.24	240.44
150.0	244.03	244.93	245.83	246.73	246.73	246.73	245.83	243.14	241.34
165.0	244.03	244.93	245.83	246.73	247.62	247.62	246.73	244.93	243.14
180.0	251.21	252.11	252.11	253.01	252.11	252.11	250.31	249.42	248.52
195.0	250.31	251.21	252.11	252.11	252.11	251.21	249.42	248.52	247.62
210.0	249.42	250.31	250.31	251.21	250.31	249.42	248.52	246.73	244.93
225.0	247.62	248.52	249.42	249.42	247.62	244.93	242.24	239.55	237.75
240.0	246.73	246.73	247.62	246.73	244.93	242.24	238.65	234.16	229.68
255.0	245.83	245.83	245.83	244.03	241.34	236.86	231.47	224.30	218.02
270.0	245.83	244.93	244.03	242.24	238.65	232.37	225.19	216.22	206.35
285.0	245.83	244.93	244.03	241.34	236.86	229.68	220.71	209.94	209.04
300.0	245.83	244.93	243.14	240.44	239.55	230.58	222.50	213.53	203.66
315.0	245.83	244.03	241.34	236.86	231.47	225.19	220.71	215.32	210.84
330.0	244.03	242.24	237.75	231.47	222.50	212.63	205.45	202.76	201.87
345.0	244.03	241.34	235.06	224.30	211.74	197.38	184.82	178.54	181.23
360.0	251.21	249.42	247.62	240.44	229.68	216.22	200.97	187.51	178.54
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	178.54	183.03	189.31	196.48	204.56	209.04	208.15	206.35	205.45
15.0	183.92	185.72	190.20	194.69	197.38	196.48	197.38	198.28	198.28
30.0	192.00	189.31	186.61	183.92	183.03	183.03	183.92	185.72	187.51
45.0	194.69	183.92	174.95	168.67	169.57	172.26	175.85	178.54	181.23
60.0	200.07	189.31	180.33	174.95	174.95	178.54	182.13	184.82	185.72
75.0	215.32	208.15	203.66	200.07	198.28	198.28	198.28	197.38	197.38
90.0	228.78	224.30	220.71	217.12	214.43	212.63	211.74	209.94	208.15
105.0	234.16	230.58	226.09	222.50	219.81	217.12	214.43	212.63	208.15
120.0	235.06	231.47	226.99	224.30	219.81	217.12	214.43	211.74	207.25
135.0	235.96	233.27	229.68	225.19	222.50	218.91	216.22	215.32	213.53
150.0	238.65	235.96	233.27	229.68	226.09	223.40	220.71	219.81	218.02
165.0	242.24	239.55	237.75	235.06	232.37	229.68	226.09	224.30	222.50
180.0	246.73	244.93	243.14	241.34	239.55	237.75	235.96	235.06	234.16
195.0	245.83	244.03	243.14	241.34	240.44	238.65	236.86	236.86	235.96
210.0	244.03	242.24	240.44	238.65	236.86	235.06	234.16	233.27	231.47
225.0	235.96	234.16	232.37	230.58	228.78	226.99	226.09	223.40	219.81
240.0	226.09	224.30	221.60	219.81	218.02	217.12	215.32	212.63	207.25
255.0	210.84	207.25	203.66	201.87	200.07	200.97	202.76	202.76	203.66
270.0	197.38	191.10	185.72	184.82	183.03	185.72	188.41	192.00	195.59
285.0	187.51	176.74	167.77	167.77	171.36	175.85	181.23	185.72	190.20
300.0	193.79	184.82	178.54	178.54	181.23	185.72	190.20	193.79	197.38
315.0	208.15	206.35	204.56	202.76	202.76	203.66	205.45	206.35	207.25
330.0	203.66	206.35	209.94	214.43	214.43	212.63	211.74	211.74	210.84
345.0	186.61	192.89	200.07	207.25	211.74	209.94	209.04	208.15	207.25
360.0	178.54	183.03	189.31	196.48	204.56	209.04	208.15	206.35	205.45

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	202.76	202.76	202.76	202.76	203.66	204.56	205.45	206.35	208.15
15.0	197.38	196.48	195.59	193.79	192.00	191.10	190.20	191.10	192.00
30.0	189.31	190.20	188.41	186.61	184.82	183.92	183.92	183.92	183.03
45.0	182.13	183.92	185.72	185.72	183.03	182.13	183.03	184.82	183.92
60.0	185.72	184.82	184.82	185.72	186.61	188.41	190.20	192.89	194.69
75.0	197.38	195.59	193.79	192.89	192.89	192.89	194.69	198.28	200.97
90.0	204.56	200.07	195.59	192.89	190.20	188.41	188.41	191.10	194.69
105.0	203.66	198.28	192.89	186.61	181.23	175.85	172.26	172.26	178.54
120.0	200.97	195.59	190.20	184.82	178.54	174.95	171.36	172.26	177.64
135.0	209.04	204.56	199.17	195.59	192.00	189.31	189.31	189.31	189.31
150.0	216.22	215.32	213.53	211.74	209.04	207.25	206.35	199.17	191.10
165.0	220.71	220.71	220.71	220.71	221.60	221.60	216.22	205.45	193.79
180.0	234.16	233.27	234.16	234.16	234.16	226.99	218.02	208.15	197.38
195.0	235.06	235.06	235.06	235.06	235.06	233.27	226.99	221.60	213.53
210.0	229.68	226.99	225.19	222.50	219.81	217.12	217.12	218.02	215.32
225.0	215.32	210.84	206.35	200.97	195.59	190.20	189.31	190.20	195.59
240.0	201.87	197.38	195.59	185.72	180.33	175.85	174.95	180.33	186.61
255.0	200.07	195.59	191.10	187.51	184.82	183.92	184.82	187.51	191.10
270.0	199.17	200.97	198.28	195.59	193.79	193.79	194.69	195.59	196.48
285.0	195.59	200.07	203.66	204.56	205.45	206.35	207.25	205.45	203.66
300.0	201.87	204.56	207.25	208.15	209.94	210.84	211.74	212.63	210.84
315.0	209.04	209.94	210.84	211.74	212.63	214.43	216.22	218.02	218.02
330.0	209.94	210.84	211.74	211.74	213.53	214.43	216.22	218.02	218.91
345.0	207.25	208.15	209.04	209.04	210.84	211.74	212.63	214.43	216.22
360.0	202.76	202.76	202.76	202.76	203.66	204.56	205.45	206.35	208.15
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	209.04	209.94	210.84	213.53	215.32	214.43	204.56	194.69	185.72
15.0	191.10	191.10	192.89	195.59	199.17	195.59	186.61	174.95	178.54
30.0	180.33	176.74	175.85	177.64	183.03	181.23	165.98	155.21	166.88
45.0	183.03	181.23	182.13	185.72	190.20	186.61	165.08	147.14	157.01
60.0	195.59	196.48	199.17	202.76	208.15	205.45	177.64	144.45	139.96
75.0	204.56	208.15	212.63	216.22	218.02	214.43	185.72	144.45	114.84
90.0	200.07	206.35	211.74	215.32	212.63	204.56	189.31	145.34	102.28
105.0	187.51	191.10	193.79	195.59	192.89	184.82	171.36	145.34	104.97
120.0	181.23	177.64	176.74	175.85	174.05	167.77	157.01	142.65	113.94
135.0	183.92	175.85	168.67	165.08	163.29	161.49	157.90	147.14	126.50
150.0	183.92	176.74	169.57	165.08	165.08	165.08	165.08	157.01	129.19
165.0	183.03	172.26	163.29	163.29	168.67	172.26	174.05	170.46	139.06
180.0	185.72	176.74	174.95	177.64	181.23	183.92	183.92	175.85	160.60
195.0	205.45	198.28	192.89	188.41	187.51	186.61	186.61	171.36	158.80
210.0	210.84	209.94	201.87	195.59	190.20	186.61	184.82	168.67	162.39
225.0	198.28	198.28	197.38	194.69	189.31	183.03	178.54	166.88	168.67
240.0	190.20	192.00	191.10	189.31	184.82	179.44	172.26	165.08	177.64
255.0	192.89	192.89	192.00	187.51	182.13	175.85	169.57	164.18	179.44
270.0	196.48	195.59	193.79	189.31	183.03	174.95	166.88	164.18	172.26
285.0	201.87	200.07	197.38	193.79	186.61	179.44	171.36	165.08	155.21
300.0	208.15	206.35	203.66	199.17	193.79	186.61	179.44	156.11	131.89
315.0	217.12	215.32	213.53	209.04	202.76	196.48	180.33	141.75	128.30
330.0	219.81	219.81	218.91	216.22	211.74	201.87	165.98	128.30	147.14
345.0	218.02	218.02	218.02	216.22	213.53	190.20	148.93	132.78	165.98
360.0	209.04	209.94	210.84	213.53	215.32	214.43	204.56	194.69	185.72

Intensity data(cd)

C/ γ (°)	180.0
0.0	159.70
15.0	181.23
30.0	188.41
45.0	186.61
60.0	174.95
75.0	157.01
90.0	130.09
105.0	110.35
120.0	115.74
135.0	132.78
150.0	140.86
165.0	133.68
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