
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): 2487.1

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): 2487.06, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 89.82

Central intensity(cd): 233.267, Maximum intensity(cd): 233.267

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=1.48

Maximum s/h(1/4): C0_180=1.71 C90_270=1.66

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 : 26.443%

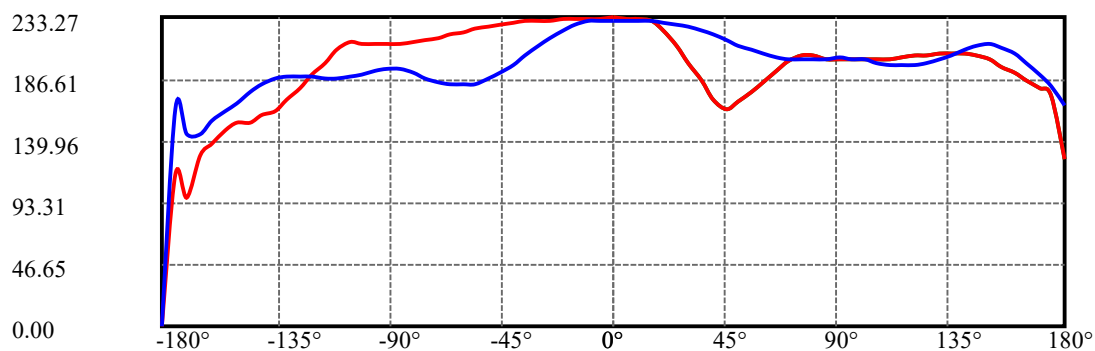
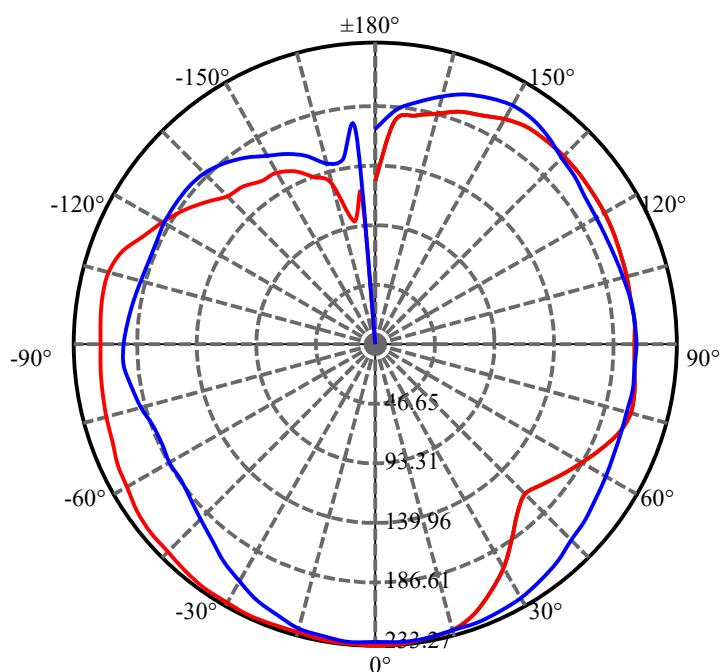
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	230.576	0.000	0	0.00%	0.00%
5.0	230.389	5.511	5.511	0.22%	0.22%
10.0	229.828	16.463	21.974	0.66%	0.88%
15.0	228.445	27.184	49.159	1.09%	1.98%
20.0	225.903	37.445	86.603	1.51%	3.48%
25.0	221.866	46.963	133.566	1.89%	5.37%
30.0	217.006	55.540	189.105	2.23%	7.60%
35.0	212.071	63.185	252.29	2.54%	10.14%
40.0	207.473	69.998	322.288	2.81%	12.96%
45.0	203.025	76.007	398.295	3.06%	16.01%
50.0	200.221	81.482	479.777	3.28%	19.29%
55.0	197.903	86.566	566.342	3.48%	22.77%
60.0	197.118	91.308	657.651	3.67%	26.44%
65.0	197.006	95.812	753.463	3.85%	30.30%
70.0	197.642	99.927	853.39	4.02%	34.31%
75.0	198.203	103.467	956.858	4.16%	38.47%
80.0	198.651	106.187	1063.045	4.27%	42.74%
85.0	198.913	108.028	1171.072	4.34%	47.09%
90.0	198.913	108.928	1280	4.38%	51.47%
95.0	198.651	108.856	1388.856	4.38%	55.84%
100.0	198.053	107.794	1496.65	4.33%	60.18%
105.0	197.081	105.727	1602.377	4.25%	64.43%
110.0	195.773	102.686	1705.063	4.13%	68.56%
115.0	194.427	98.801	1803.864	3.97%	72.53%
120.0	193.492	94.304	1898.167	3.79%	76.32%
125.0	193.081	89.355	1987.523	3.59%	79.91%
130.0	193.006	83.948	2071.471	3.38%	83.29%
135.0	192.632	77.924	2149.395	3.13%	86.42%
140.0	192.782	71.363	2220.758	2.87%	89.29%
145.0	191.212	64.066	2284.824	2.58%	91.87%
150.0	188.408	55.902	2340.726	2.25%	94.12%
155.0	183.922	47.119	2387.845	1.89%	96.01%
160.0	177.081	37.863	2425.707	1.52%	97.53%
165.0	165.007	28.193	2453.9	1.13%	98.67%
170.0	155.213	18.995	2472.895	0.76%	99.43%
175.0	160.334	11.288	2484.183	0.45%	99.88%
180.0	80.522	2.879	2487.063	0.12%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	189.11	7.60%	7.60%
0-40	322.29	12.96%	12.96%
0-60	657.65	26.44%	26.44%
0-90	1280.00	51.47%	51.47%
0-120	1898.17	76.32%	76.32%
0-180	2487.06	100.00%	100.00%
60-90	622.35	25.02%	25.02%
90-120	618.17	24.86%	24.86%
90-130	791.47	31.82%	31.82%
90-150	1060.73	42.65%	42.65%
90-180	1204.18	48.42%	48.42%
0-125.13	1989.65	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	21.97
10-20	64.63
20-30	102.50
30-40	133.18
40-50	157.49
50-60	177.87
60-70	195.74
70-80	209.65
80-90	216.96
90-100	216.65
100-110	208.41
110-120	193.10
120-130	173.30
130-140	149.29
140-150	119.97
150-160	84.98
160-170	47.19
170-180	11.29



C0(Max):

C0/C180:

C90/C270:

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

:C90/270Left:0.0 Right:0.0

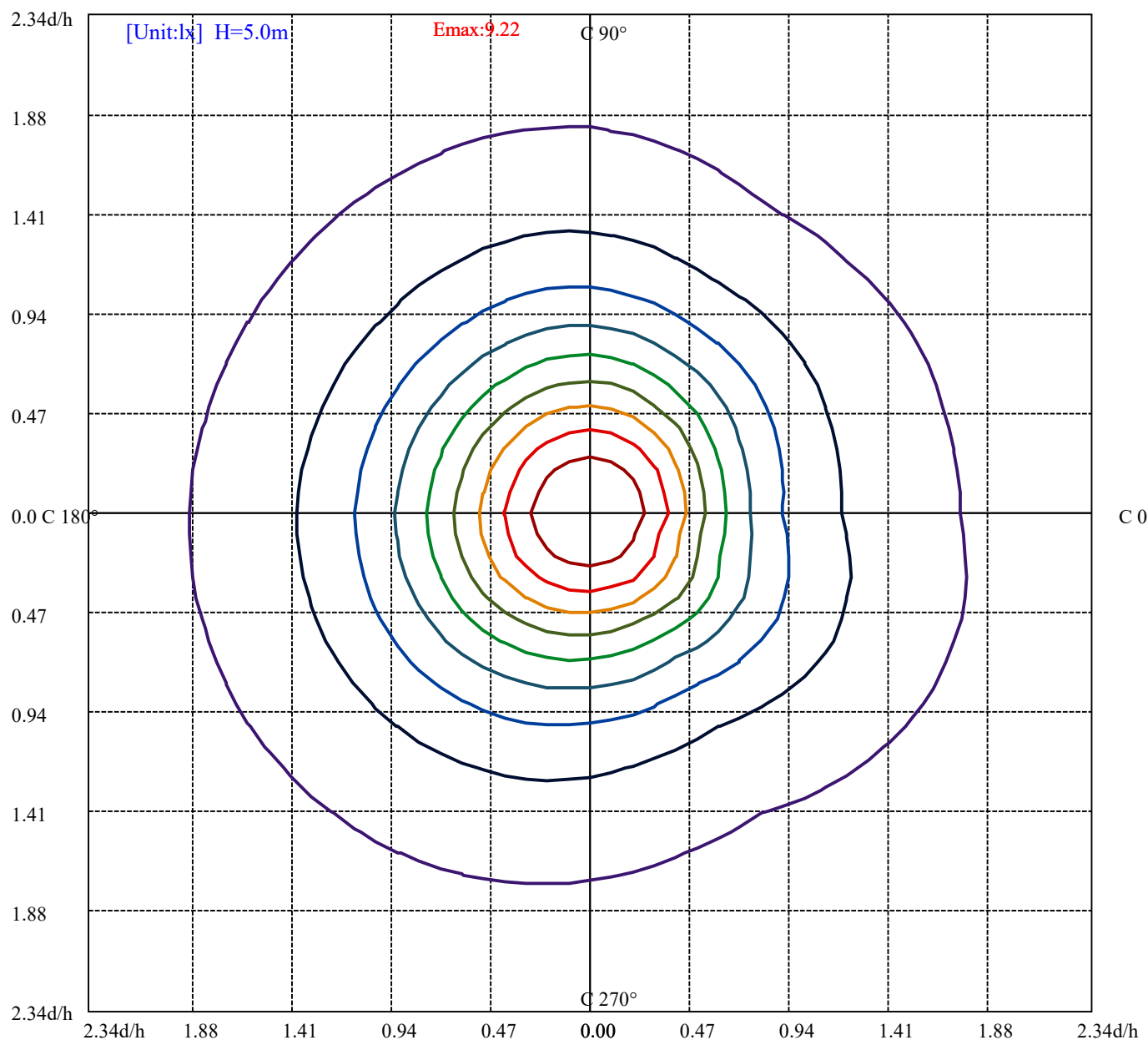
Beam Angle(50%Imax):C0/180Left:0.0 Right:0.0

:C90/270Left:0.0 Right:0.0

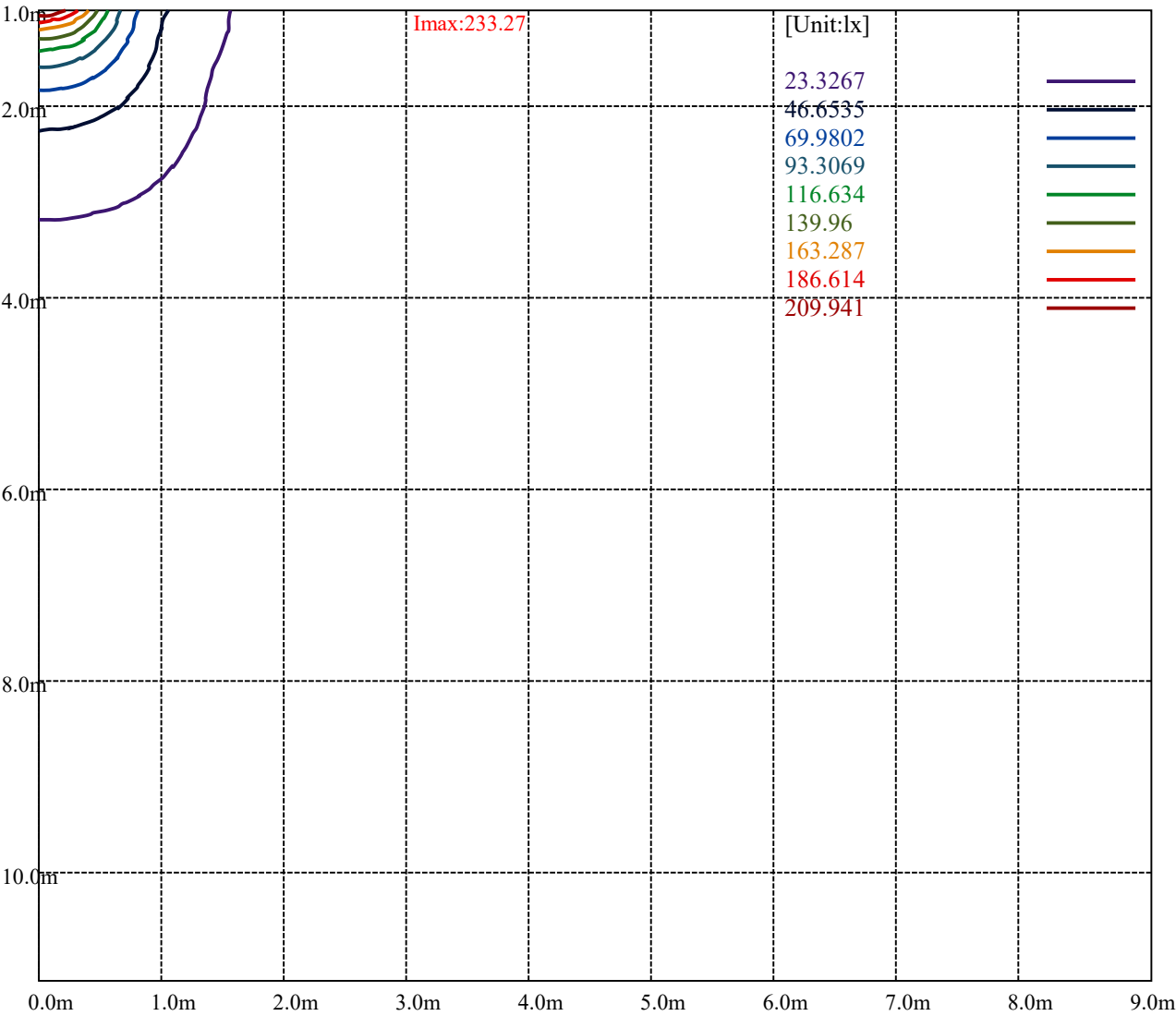


Max , Ave

Beam angle of C0 plane 347.01



(10%Emax) 0.922304	
(20%Emax) 1.844608	
(30%Emax) 2.766908	
(40%Emax) 3.689212	
(50%Emax) 4.61152	
(60%Emax) 5.5338	
(70%Emax) 6.45612	
(80%Emax) 7.37844	
(90%Emax) 8.30072	



Luminance Table

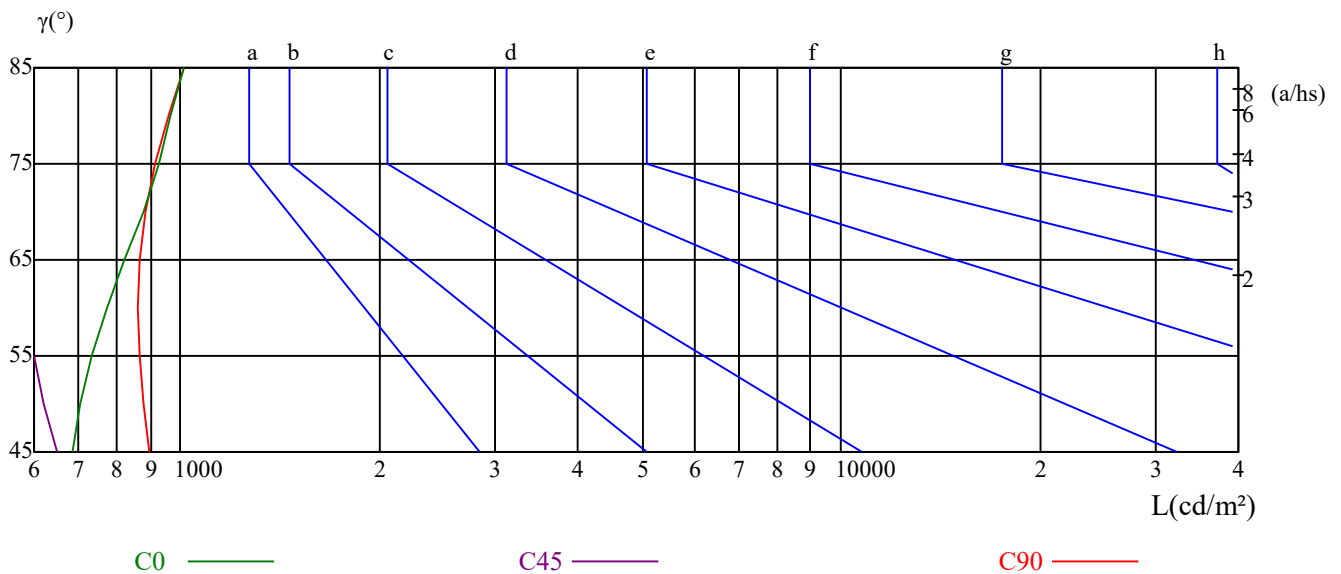
γ	45	50	55	60	65	70	75	80	85
C0	684	703	735	772	821	878	929	966	1011
C45	651	621	587	567	557	567	587	616	654
C90	897	878	865	863	867	886	913	958	1011

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3203	2994	3022	5333	4934	4957	15668	14957	14822

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	1.07	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)

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	233.27	232.37	231.47	229.68	223.40	211.74	198.28	184.82	170.46
15.0	231.47	230.58	230.58	228.78	221.60	212.63	200.07	186.61	176.74
30.0	231.47	230.58	230.58	228.78	224.30	216.22	206.35	195.59	187.51
45.0	230.58	230.58	230.58	228.78	226.09	220.71	213.53	205.45	198.28
60.0	230.58	230.58	230.58	228.78	226.99	222.50	217.12	211.74	204.56
75.0	229.68	230.58	229.68	229.68	228.78	226.99	224.30	219.81	213.53
90.0	230.58	230.58	230.58	229.68	228.78	227.88	226.09	223.40	219.81
105.0	230.58	230.58	229.68	229.68	228.78	227.88	226.09	225.19	222.50
120.0	229.68	229.68	229.68	228.78	227.88	227.88	226.09	224.30	221.60
135.0	229.68	229.68	229.68	229.68	228.78	227.88	226.09	224.30	221.60
150.0	229.68	229.68	229.68	229.68	227.88	226.99	226.09	225.19	222.50
165.0	229.68	229.68	229.68	228.78	228.78	226.99	226.09	226.09	224.30
180.0	233.27	232.37	232.37	231.47	231.47	230.58	230.58	229.68	228.78
195.0	231.47	231.47	230.58	230.58	229.68	229.68	229.68	228.78	228.78
210.0	231.47	230.58	230.58	230.58	230.58	230.58	229.68	228.78	227.88
225.0	230.58	231.47	230.58	229.68	227.88	227.88	226.99	226.09	224.30
240.0	230.58	229.68	229.68	227.88	226.09	223.40	220.71	217.12	215.32
255.0	229.68	230.58	229.68	227.88	225.19	220.71	216.22	211.74	207.25
270.0	230.58	230.58	229.68	226.99	223.40	218.02	211.74	204.56	197.38
285.0	230.58	230.58	228.78	226.99	222.50	215.32	207.25	198.28	196.48
300.0	229.68	229.68	228.78	226.09	226.09	216.22	206.35	196.48	186.61
315.0	229.68	228.78	227.88	226.99	222.50	218.02	211.74	204.56	198.28
330.0	229.68	229.68	227.88	225.19	220.71	214.43	208.15	203.66	200.07
345.0	229.68	228.78	226.99	221.60	213.53	203.66	192.89	187.51	184.82
360.0	233.27	232.37	231.47	229.68	223.40	211.74	198.28	184.82	170.46
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	164.18	169.57	176.74	183.92	192.00	200.07	204.56	203.66	201.87
15.0	172.26	172.26	175.85	182.13	188.41	195.59	197.38	197.38	198.28
30.0	182.13	180.33	180.33	183.03	184.82	183.92	184.82	186.61	189.31
45.0	192.00	186.61	178.54	173.16	169.57	170.46	173.16	176.74	181.23
60.0	196.48	186.61	175.85	166.88	163.29	166.88	172.26	177.64	182.13
75.0	206.35	199.17	192.89	188.41	186.61	186.61	187.51	190.20	192.89
90.0	215.32	211.74	208.15	205.45	202.76	201.87	200.97	201.87	201.87
105.0	219.81	217.12	213.53	210.84	208.15	206.35	204.56	203.66	200.97
120.0	218.91	215.32	212.63	209.04	206.35	203.66	200.97	199.17	194.69
135.0	218.91	215.32	211.74	209.04	205.45	202.76	200.07	198.28	196.48
150.0	220.71	218.02	214.43	210.84	207.25	204.56	201.87	200.07	199.17
165.0	222.50	220.71	218.02	215.32	211.74	209.04	206.35	203.66	201.87
180.0	226.99	226.09	224.30	221.60	219.81	217.12	215.32	214.43	213.53
195.0	226.99	226.09	225.19	223.40	222.50	220.71	219.81	218.02	218.02
210.0	226.99	226.09	225.19	223.40	222.50	221.60	220.71	219.81	218.91
225.0	223.40	221.60	219.81	218.02	217.12	216.22	215.32	212.63	209.94
240.0	213.53	212.63	210.84	209.94	209.04	208.15	206.35	201.87	198.28
255.0	203.66	200.97	199.17	198.28	198.28	199.17	200.07	200.07	195.59
270.0	191.10	186.61	183.03	183.03	182.13	183.92	187.51	191.10	194.69
285.0	180.33	173.16	168.67	167.77	168.67	172.26	176.74	182.13	186.61
300.0	174.95	165.08	157.01	160.60	167.77	173.16	178.54	183.92	189.31
315.0	191.10	184.82	182.13	183.03	184.82	188.41	192.00	195.59	198.28
330.0	198.28	199.17	200.07	201.87	202.76	203.66	204.56	204.56	205.45
345.0	185.72	190.20	195.59	201.87	206.35	207.25	205.45	204.56	204.56
360.0	164.18	169.57	176.74	183.92	192.00	200.07	204.56	203.66	201.87

Intensity data(cd)

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	200.97	201.87	200.97	200.97	201.87	202.76	203.66	204.56	205.45
15.0	198.28	198.28	197.38	197.38	197.38	198.28	199.17	200.07	200.97
30.0	192.89	195.59	196.48	196.48	196.48	196.48	196.48	196.48	198.28
45.0	185.72	189.31	193.79	196.48	196.48	196.48	197.38	198.28	199.17
60.0	187.51	192.00	195.59	199.17	200.07	200.07	200.97	201.87	203.66
75.0	196.48	199.17	201.87	202.76	203.66	203.66	204.56	205.45	207.25
90.0	202.76	201.87	200.97	199.17	197.38	196.48	197.38	198.28	201.87
105.0	197.38	192.89	189.31	185.72	182.13	178.54	177.64	178.54	182.13
120.0	190.20	184.82	179.44	174.05	167.77	162.39	157.01	156.11	165.08
135.0	191.10	185.72	181.23	175.85	172.26	169.57	167.77	169.57	174.05
150.0	197.38	194.69	191.10	187.51	185.72	183.92	183.92	182.13	178.54
165.0	200.97	201.87	200.97	200.97	200.97	199.17	192.00	183.03	175.85
180.0	212.63	213.53	213.53	214.43	208.15	198.28	189.31	180.33	171.36
195.0	217.12	218.02	218.91	219.81	218.02	210.84	203.66	198.28	192.89
210.0	217.12	216.22	214.43	213.53	212.63	211.74	209.94	207.25	204.56
225.0	206.35	201.87	198.28	193.79	190.20	188.41	187.51	190.20	187.51
240.0	193.79	188.41	186.61	177.64	171.36	166.88	166.88	168.67	167.77
255.0	191.10	186.61	182.13	179.44	176.74	175.85	175.85	176.74	175.85
270.0	194.69	192.89	190.20	188.41	186.61	187.51	188.41	188.41	188.41
285.0	192.00	196.48	198.28	199.17	199.17	200.07	200.97	202.76	203.66
300.0	194.69	199.17	202.76	204.56	206.35	207.25	208.15	209.94	210.84
315.0	201.87	204.56	206.35	208.15	209.94	211.74	213.53	215.32	215.32
330.0	206.35	207.25	207.25	209.04	209.94	211.74	212.63	213.53	213.53
345.0	204.56	204.56	205.45	205.45	207.25	208.15	209.04	208.15	208.15
360.0	200.97	201.87	200.97	200.97	201.87	202.76	203.66	204.56	205.45
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	205.45	206.35	204.56	200.97	195.59	191.10	184.82	179.44	173.16
15.0	201.87	202.76	200.97	196.48	191.10	184.82	177.64	174.05	169.57
30.0	198.28	200.07	199.17	194.69	190.20	184.82	179.44	173.16	165.98
45.0	200.07	200.97	200.97	198.28	193.79	189.31	183.03	177.64	166.88
60.0	204.56	206.35	206.35	204.56	200.97	194.69	189.31	183.92	172.26
75.0	209.04	211.74	212.63	209.94	206.35	200.97	194.69	187.51	178.54
90.0	204.56	209.04	211.74	212.63	209.94	205.45	198.28	190.20	181.23
105.0	189.31	198.28	205.45	209.04	209.04	205.45	200.07	191.10	180.33
120.0	176.74	187.51	196.48	201.87	202.76	200.97	192.00	183.03	173.16
135.0	181.23	186.61	191.10	192.89	192.00	185.72	177.64	167.77	157.90
150.0	175.85	176.74	178.54	178.54	174.95	167.77	157.90	147.14	138.17
165.0	169.57	168.67	167.77	164.18	158.80	148.93	139.06	126.50	118.43
180.0	162.39	159.70	153.42	153.42	147.14	138.17	129.19	96.90	114.84
195.0	187.51	180.33	174.95	174.95	165.98	164.18	130.99	92.41	133.68
210.0	199.17	197.38	192.89	189.31	180.33	165.98	129.19	97.79	148.04
225.0	183.92	182.13	179.44	174.95	171.36	157.90	125.61	115.74	157.90
240.0	163.29	159.70	156.11	152.52	151.62	141.75	117.53	122.91	165.08
255.0	172.26	166.88	157.90	148.93	146.24	139.06	124.71	133.68	165.98
270.0	186.61	183.03	176.74	168.67	162.39	154.32	144.45	144.45	164.18
285.0	202.76	200.07	194.69	187.51	180.33	174.05	163.29	156.11	163.29
300.0	211.74	209.94	207.25	201.87	193.79	186.61	176.74	167.77	163.29
315.0	215.32	213.53	209.94	205.45	200.07	192.00	183.03	174.05	165.98
330.0	213.53	212.63	208.15	202.76	197.38	190.20	183.03	173.16	165.08
345.0	208.15	206.35	201.87	197.38	192.00	185.72	178.54	168.67	165.08
360.0	205.45	206.35	204.56	200.97	195.59	191.10	184.82	179.44	173.16

Intensity data(cd)

C/ γ (°)	180.0
0.0	126.50
15.0	164.18
30.0	165.08
45.0	163.29
60.0	163.29
75.0	163.29
90.0	166.88
105.0	170.46
120.0	166.88
135.0	164.18
150.0	160.60
165.0	157.90
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	126.50