
AFX

Client:

LumCAT: ARNS1318LAJD4LB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.030

LampCAT:

Current(A): 0.168

Lamp flux(lm): 1843.1

Power (W): 19.610

Number of Lamps: 1

PF: 0.974

Length(mm): 400

Width(mm): 200

Phm Type: C

Height(mm): 360

Photometric Results

Lumens(lm): 1843.07, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 93.99

Central intensity(cd): 171.362, Maximum intensity(cd): 173.156

Angle of maximum intensity: C=105.0 γ =50.0

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=1.29 C90_270=1.55

Maximum s/h(1/4): C0_180=1.38 C90_270=1.76

Up flux rate of lamp(%): 47.49%

Down flux rate of lamp(%): 52.51%

Up flux rate of LUM(%): 47.49%

Down flux rate of LUM(%): 52.51%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 27.094%

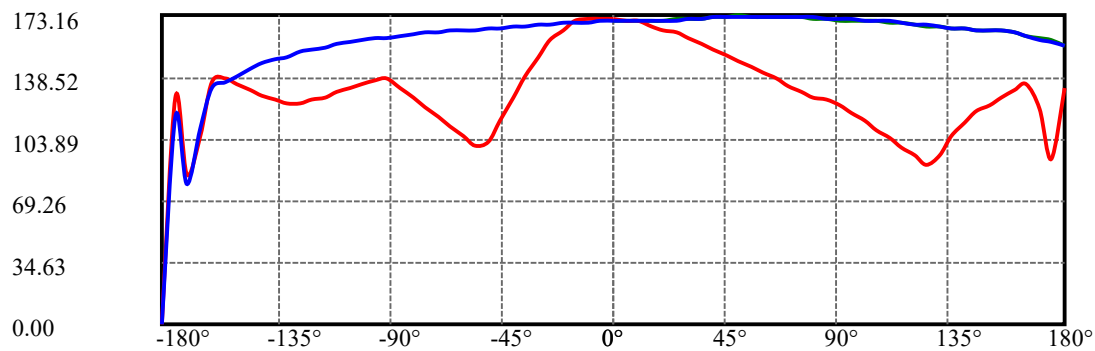
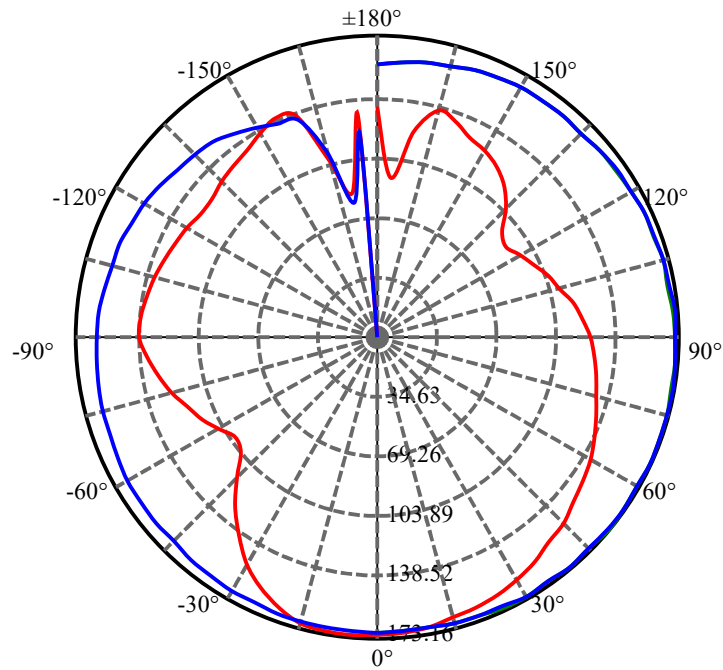
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	170.091	0.000	0	0.00%	0.00%
5.0	169.904	4.065	4.065	0.22%	0.22%
10.0	169.567	12.144	16.208	0.66%	0.88%
15.0	168.782	20.071	36.279	1.09%	1.97%
20.0	167.586	27.721	64.001	1.50%	3.47%
25.0	165.904	34.977	98.978	1.90%	5.37%
30.0	163.736	41.716	140.694	2.26%	7.63%
35.0	161.156	47.843	188.536	2.60%	10.23%
40.0	158.652	53.358	241.894	2.90%	13.12%
45.0	156.110	58.281	300.175	3.16%	16.29%
50.0	153.792	62.620	362.795	3.40%	19.68%
55.0	152.110	66.513	429.308	3.61%	23.29%
60.0	150.951	70.052	499.36	3.80%	27.09%
65.0	150.091	73.184	572.543	3.97%	31.06%
70.0	149.306	75.809	648.353	4.11%	35.18%
75.0	148.970	77.964	726.317	4.23%	39.41%
80.0	148.820	79.680	805.997	4.32%	43.73%
85.0	148.334	80.744	886.741	4.38%	48.11%
90.0	147.586	81.025	967.767	4.40%	52.51%
95.0	146.241	80.452	1048.219	4.37%	56.87%
100.0	144.783	79.078	1127.297	4.29%	61.16%
105.0	143.026	77.010	1204.307	4.18%	65.34%
110.0	141.680	74.418	1278.724	4.04%	69.38%
115.0	140.147	71.360	1350.085	3.87%	73.25%
120.0	139.213	67.913	1417.998	3.68%	76.94%
125.0	137.942	64.063	1482.061	3.48%	80.41%
130.0	136.895	59.759	1541.82	3.24%	83.66%
135.0	136.260	55.195	1597.015	2.99%	86.65%
140.0	135.811	50.376	1647.391	2.73%	89.38%
145.0	135.288	45.231	1692.621	2.45%	91.84%
150.0	135.213	39.833	1732.454	2.16%	94.00%
155.0	135.437	34.251	1766.705	1.86%	95.86%
160.0	134.278	28.288	1794.994	1.53%	97.39%
165.0	126.951	21.529	1816.523	1.17%	98.56%
170.0	123.662	14.866	1831.389	0.81%	99.37%
175.0	134.652	9.241	1840.629	0.50%	99.87%
180.0	69.270	2.438	1843.067	0.13%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	140.69	7.63%	7.63%
0-40	241.89	13.12%	13.12%
0-60	499.36	27.09%	27.09%
0-90	967.77	52.51%	52.51%
0-120	1418.00	76.94%	76.94%
0-180	1843.07	100.00%	100.00%
60-90	468.41	25.41%	25.41%
90-120	450.23	24.43%	24.43%
90-130	574.05	31.15%	31.15%
90-150	764.69	41.49%	41.49%
90-180	872.86	47.36%	47.36%
0-124.41	1474.45	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	16.21
10-20	47.79
20-30	76.69
30-40	101.20
40-50	120.90
50-60	136.56
60-70	148.99
70-80	157.64
80-90	161.77
90-100	159.53
100-110	151.43
110-120	139.27
120-130	123.82
130-140	105.57
140-150	85.06
150-160	62.54
160-170	36.40
170-180	9.24

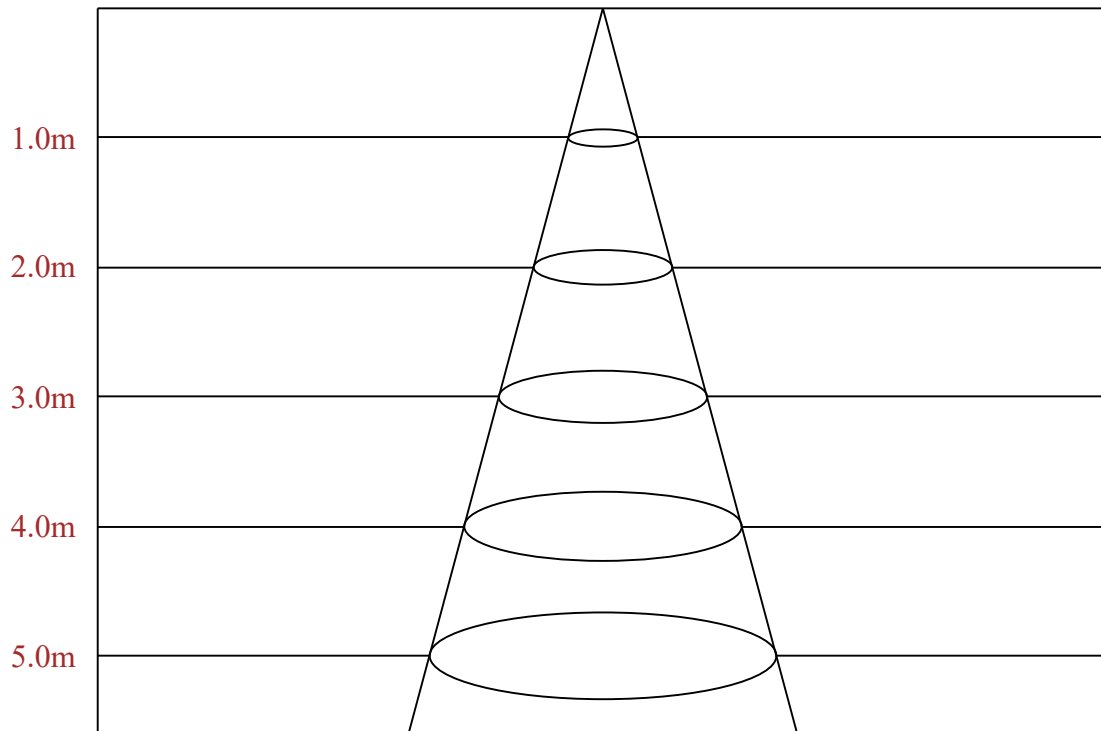
C105(Max): —————C0/C180: —————C90/C270: —————

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

:C90/270Left:0.0 Right:0.0

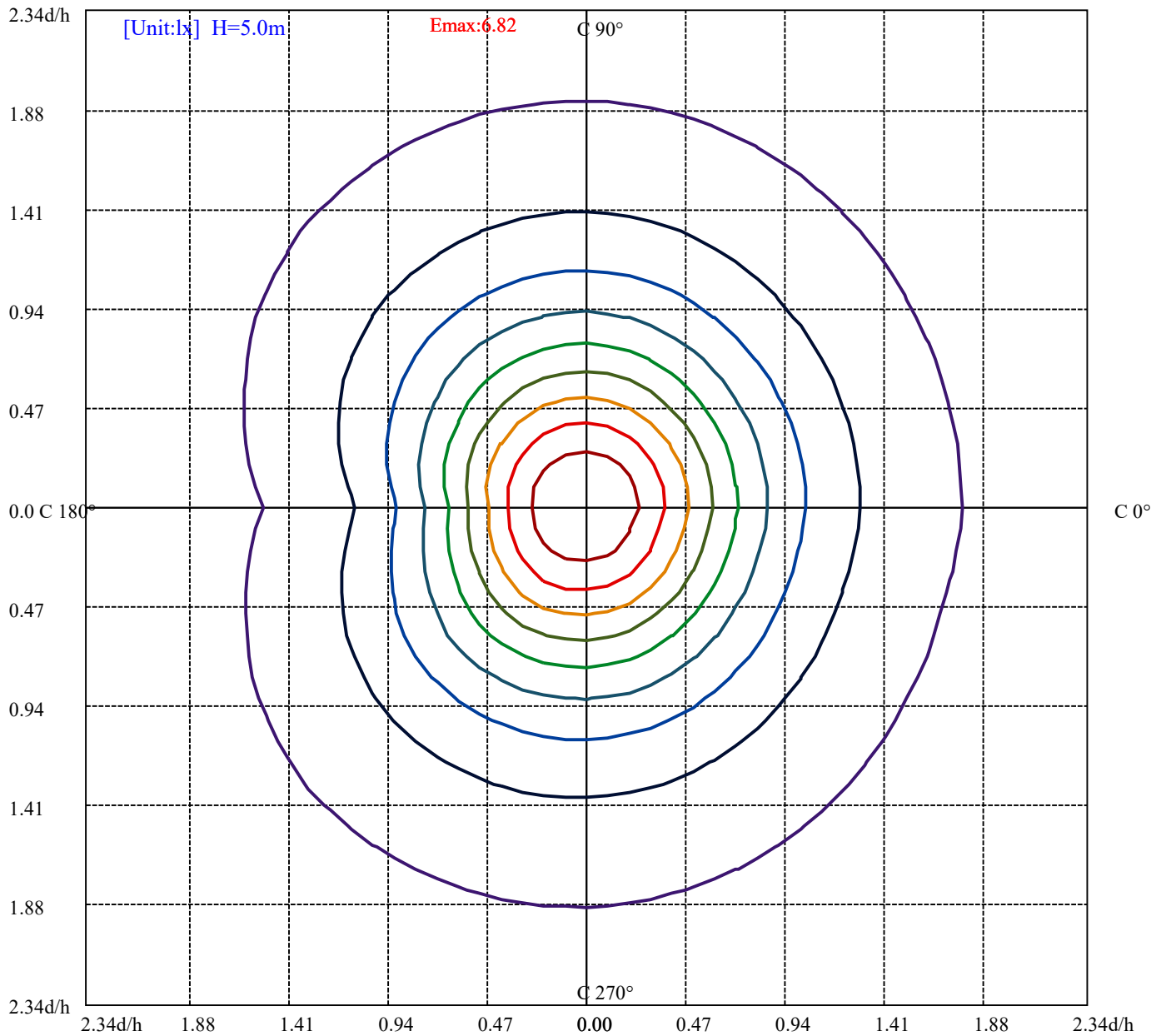
Beam Angle(50%Imax):C0/180Left:0.0 Right:0.0

:C90/270Left:0.0 Right:0.0

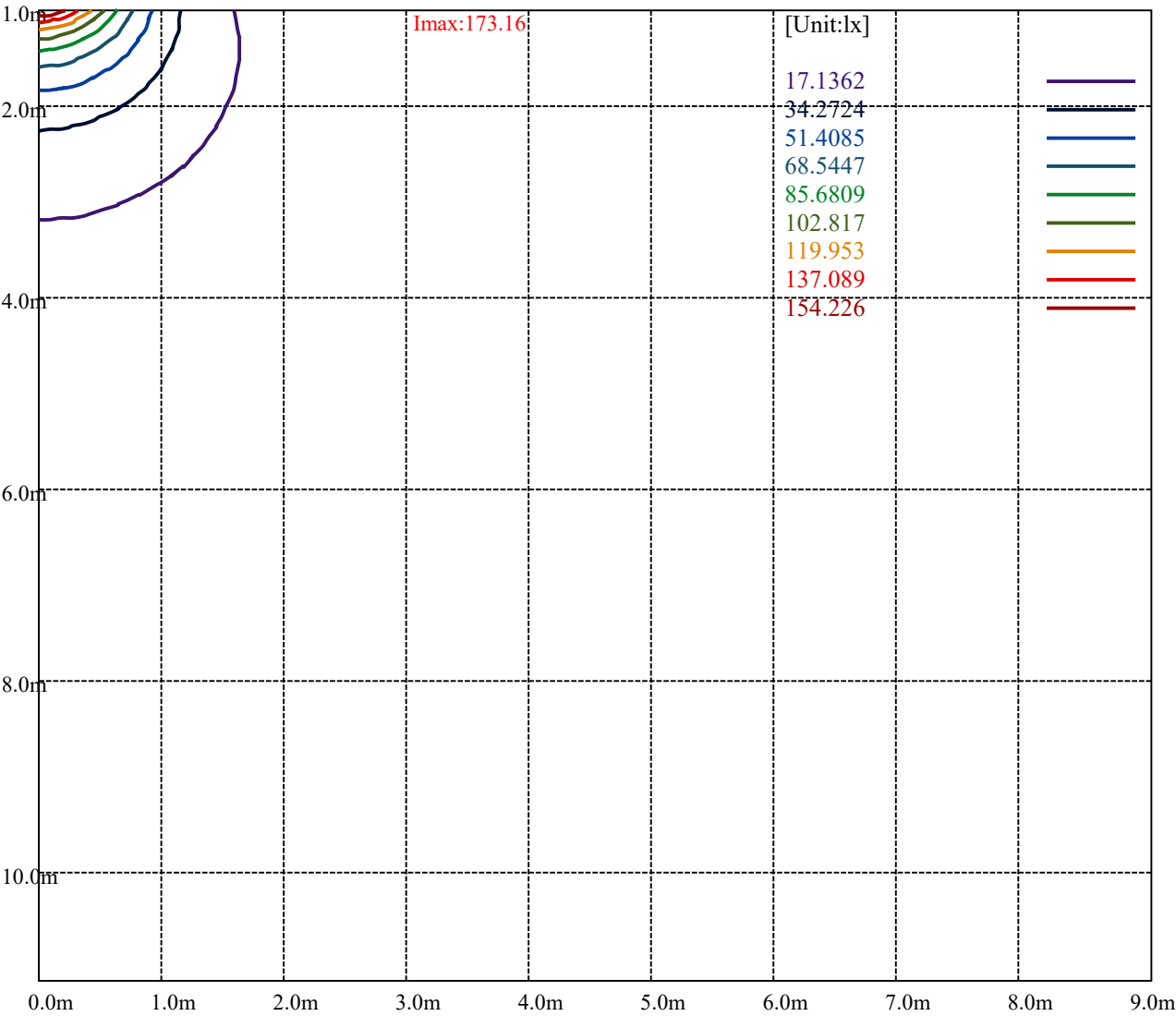


Max , Ave

Beam angle of C105 plane 348.81



(10%Emax) 0.68186	—
(20%Emax) 1.363716	—
(30%Emax) 2.045576	—
(40%Emax) 2.727432	—
(50%Emax) 3.409292	—
(60%Emax) 4.09116	—
(70%Emax) 4.773	—
(80%Emax) 5.45488	—
(90%Emax) 6.13672	—



Luminance Table

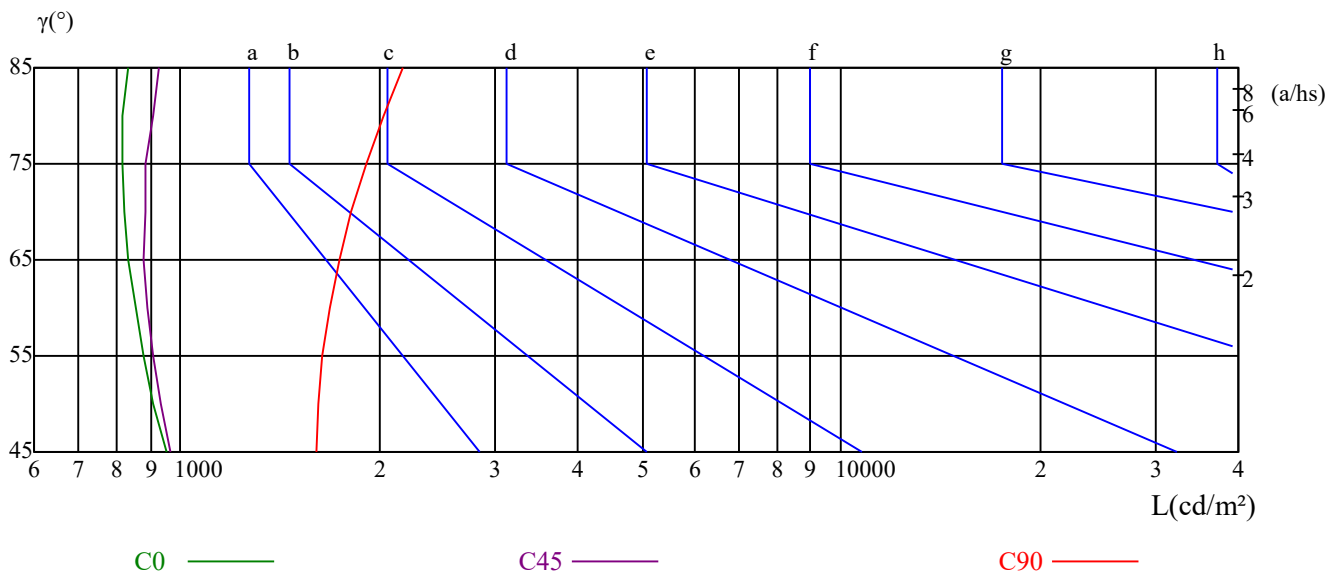
γ	45	50	55	60	65	70	75	80	85
C0	952	910	882	855	835	822	814	818	835
C45	965	932	908	891	880	882	885	906	930
C90	1603	1616	1643	1683	1739	1813	1909	2031	2177

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3675	4976	4564	6088	8103	7323	18529	23869	21424

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	0.53
1	0.88	0.82	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	0.36
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	0.32	0.27
3	0.64	0.56	0.48	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	0.40	0.34	0.46	0.37	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	0.27	0.22	0.33	0.26	0.20	0.28	0.22	0.17	0.23	0.18	0.14	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	0.23	0.18	0.14	0.20	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	171.36	170.46	169.57	166.88	165.08	163.29	160.60	157.01	153.42
15.0	170.46	170.46	168.67	167.77	165.98	163.29	160.60	157.01	154.32
30.0	171.36	169.57	169.57	167.77	165.98	164.18	162.39	159.70	157.01
45.0	170.46	169.57	169.57	168.67	167.77	165.98	164.18	162.39	160.60
60.0	170.46	170.46	169.57	169.57	168.67	168.67	167.77	166.88	165.98
75.0	169.57	169.57	169.57	169.57	169.57	169.57	170.46	170.46	169.57
90.0	169.57	169.57	169.57	169.57	170.46	170.46	171.36	171.36	172.26
105.0	169.57	169.57	169.57	170.46	170.46	171.36	171.36	171.36	172.26
120.0	169.57	170.46	170.46	170.46	170.46	170.46	170.46	170.46	170.46
135.0	170.46	169.57	170.46	170.46	169.57	168.67	167.77	166.88	165.98
150.0	169.57	170.46	170.46	170.46	167.77	166.88	163.29	158.80	155.21
165.0	168.67	169.57	170.46	170.46	168.67	165.08	159.70	152.52	144.45
180.0	171.36	171.36	171.36	169.57	165.08	158.80	149.83	139.06	126.50
195.0	170.46	171.36	171.36	170.46	166.88	160.60	154.32	146.24	137.27
210.0	171.36	171.36	171.36	170.46	167.77	164.18	159.70	155.21	152.52
225.0	170.46	171.36	171.36	169.57	168.67	167.77	165.98	165.08	164.18
240.0	170.46	171.36	170.46	170.46	170.46	170.46	169.57	168.67	167.77
255.0	169.57	169.57	169.57	169.57	169.57	169.57	168.67	168.67	167.77
270.0	169.57	169.57	168.67	168.67	168.67	167.77	167.77	166.88	166.88
285.0	169.57	168.67	168.67	167.77	167.77	166.88	165.98	165.08	165.08
300.0	169.57	168.67	168.67	166.88	166.88	165.08	163.29	161.49	160.60
315.0	170.46	168.67	167.77	165.98	165.08	162.39	160.60	157.90	156.11
330.0	169.57	168.67	166.88	165.08	163.29	160.60	157.90	155.21	151.62
345.0	168.67	167.77	165.98	164.18	161.49	159.70	156.11	153.42	149.83
360.0	171.36	170.46	169.57	166.88	165.08	163.29	160.60	157.01	153.42
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	150.73	147.14	144.45	140.86	137.27	133.68	130.09	127.40	125.61
15.0	151.62	148.04	145.34	141.75	139.06	135.47	132.78	130.99	129.19
30.0	154.32	151.62	148.93	146.24	143.55	140.86	139.06	137.27	135.47
45.0	158.80	157.01	155.21	153.42	151.62	150.73	148.93	148.93	148.04
60.0	164.18	163.29	162.39	162.39	160.60	159.70	159.70	159.70	158.80
75.0	169.57	169.57	168.67	168.67	168.67	168.67	167.77	167.77	166.88
90.0	172.26	172.26	172.26	172.26	172.26	172.26	172.26	172.26	171.36
105.0	172.26	173.16	172.26	172.26	172.26	172.26	172.26	171.36	171.36
120.0	170.46	169.57	169.57	169.57	168.67	168.67	167.77	166.88	165.98
135.0	165.08	164.18	163.29	162.39	162.39	160.60	159.70	158.80	157.90
150.0	152.52	150.73	148.93	147.14	146.24	145.34	145.34	146.24	147.14
165.0	136.37	130.09	126.50	122.91	122.02	122.91	126.50	129.19	133.68
180.0	113.94	102.28	99.59	104.97	111.25	116.63	122.02	127.40	132.78
195.0	130.99	126.50	123.81	122.02	123.81	126.50	130.09	133.68	136.37
210.0	149.83	147.14	145.34	144.45	144.45	144.45	145.34	145.34	142.65
225.0	162.39	161.49	160.60	159.70	158.80	157.01	156.11	154.32	151.62
240.0	166.88	165.98	165.98	165.08	163.29	162.39	161.49	160.60	158.80
255.0	167.77	166.88	166.88	165.98	165.98	165.08	164.18	164.18	162.39
270.0	165.98	165.98	165.08	165.08	164.18	163.29	163.29	162.39	161.49
285.0	163.29	162.39	161.49	160.60	159.70	158.80	158.80	157.90	157.90
300.0	158.80	157.01	155.21	154.32	152.52	151.62	150.73	150.73	149.83
315.0	153.42	150.73	148.04	146.24	144.45	142.65	141.75	140.86	139.96
330.0	148.93	145.34	141.75	139.06	136.37	133.68	131.89	130.99	130.09
345.0	146.24	142.65	139.06	135.47	132.78	130.09	127.40	126.50	124.71
360.0	150.73	147.14	144.45	140.86	137.27	133.68	130.09	127.40	125.61

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	122.91	118.43	113.94	108.56	104.07	98.69	94.20	89.72	94.20
15.0	127.40	124.71	121.12	117.53	114.84	112.15	111.25	112.15	115.74
30.0	135.47	134.58	134.58	133.68	132.78	132.78	132.78	134.58	136.37
45.0	147.14	148.04	148.04	148.04	148.93	148.93	149.83	149.83	150.73
60.0	157.90	158.80	158.80	158.80	158.80	158.80	158.80	158.80	159.70
75.0	166.88	166.88	165.98	165.98	165.98	165.08	165.08	165.08	164.18
90.0	171.36	171.36	170.46	169.57	169.57	168.67	167.77	167.77	166.88
105.0	170.46	170.46	169.57	169.57	168.67	168.67	167.77	166.88	166.88
120.0	165.98	165.08	165.08	164.18	164.18	163.29	163.29	163.29	163.29
135.0	157.01	157.01	156.11	156.11	156.11	156.11	155.21	156.11	156.11
150.0	147.14	146.24	146.24	145.34	145.34	146.24	147.14	148.04	148.04
165.0	137.27	139.06	139.06	139.06	139.06	138.17	137.27	137.27	137.27
180.0	137.27	136.37	134.58	131.89	130.09	127.40	125.61	123.81	123.81
195.0	135.47	131.89	128.30	123.81	120.22	115.74	112.15	108.56	106.76
210.0	138.17	133.68	128.30	122.91	117.53	112.15	107.66	102.28	98.69
225.0	148.04	143.55	139.06	134.58	130.09	125.61	124.71	116.63	112.15
240.0	156.11	152.52	152.52	146.24	142.65	139.96	136.37	131.89	127.40
255.0	160.60	158.80	157.01	155.21	152.52	150.73	148.04	144.45	140.86
270.0	160.60	160.60	158.80	157.90	157.01	155.21	154.32	152.52	149.83
285.0	157.01	156.11	156.11	155.21	155.21	154.32	153.42	152.52	151.62
300.0	149.83	148.93	148.93	148.93	149.83	148.93	148.93	148.93	146.24
315.0	139.96	139.96	139.96	140.86	140.86	140.86	141.75	141.75	135.47
330.0	130.09	129.19	128.30	127.40	126.50	127.40	128.30	127.40	122.91
345.0	122.02	117.53	113.94	111.25	109.46	107.66	109.46	110.35	110.35
360.0	122.91	118.43	113.94	108.56	104.07	98.69	94.20	89.72	94.20
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	104.97	113.04	119.33	122.91	126.50	130.99	134.58	120.22	92.41
15.0	120.22	126.50	133.68	138.17	140.86	144.45	145.34	142.65	110.35
30.0	139.06	141.75	144.45	148.04	151.62	153.42	153.42	154.32	133.68
45.0	151.62	153.42	155.21	156.11	157.90	158.80	157.90	158.80	152.52
60.0	159.70	160.60	160.60	161.49	161.49	162.39	160.60	160.60	158.80
75.0	164.18	164.18	163.29	163.29	163.29	162.39	160.60	159.70	158.80
90.0	165.98	165.98	165.08	165.08	164.18	163.29	161.49	159.70	157.90
105.0	165.98	165.98	165.08	165.08	164.18	163.29	161.49	160.60	158.80
120.0	163.29	163.29	163.29	163.29	163.29	162.39	161.49	159.70	158.80
135.0	157.01	157.01	157.90	158.80	158.80	158.80	158.80	158.80	157.90
150.0	148.04	148.93	148.93	150.73	152.52	153.42	154.32	156.11	155.21
165.0	137.27	139.06	140.86	142.65	144.45	147.14	148.93	151.62	151.62
180.0	125.61	128.30	130.99	134.58	138.17	135.47	104.97	83.44	127.40
195.0	107.66	110.35	113.94	119.33	125.61	126.50	87.92	91.51	133.68
210.0	96.00	96.00	97.79	102.28	107.66	96.00	82.54	97.79	122.91
225.0	105.87	100.48	96.00	96.90	100.48	91.51	86.13	99.59	101.38
240.0	122.02	118.43	114.84	113.94	112.15	105.87	102.28	90.62	87.92
255.0	138.17	134.58	131.89	130.09	130.09	123.81	111.25	81.64	96.90
270.0	148.04	146.24	142.65	139.06	135.47	132.78	109.46	78.95	115.74
285.0	149.83	145.34	140.86	134.58	129.19	125.61	98.69	79.85	128.30
300.0	141.75	135.47	129.19	120.22	113.04	107.66	90.62	87.92	138.17
315.0	129.19	122.02	115.74	106.76	96.90	94.20	88.82	98.69	141.75
330.0	116.63	110.35	104.97	100.48	98.69	102.28	104.07	110.35	145.34
345.0	112.15	112.15	110.35	111.25	113.94	120.22	121.12	124.71	145.34
360.0	104.97	113.04	119.33	122.91	126.50	130.99	134.58	120.22	92.41

Intensity data(cd)

C/ γ (°)	180.0
0.0	132.78
15.0	105.87
30.0	97.79
45.0	113.04
60.0	133.68
75.0	148.04
90.0	156.11
105.0	156.11
120.0	156.11
135.0	156.11
150.0	154.32
165.0	152.52
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	132.78