
AFX

Client:

LumCAT: ARNS1318LAJD4BKLB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 119.990

LampCAT:

Current(A): 0.167

Lamp flux(lm): 1834.1

Power (W): 19.520

Number of Lamps: 1

PF: 0.974

Length(mm): 400

Width(mm): 200

Phm Type: C

Height(mm): 360

Photometric Results

Lumens(lm): 1834.11, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 93.96

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

Angle of maximum intensity: C=0.0 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=1.20 C90_270=1.53

Maximum s/h(1/4): C0_180=1.30 C90_270=1.75

Up flux rate of lamp(%): 47.41%

Down flux rate of lamp(%): 52.59%

Up flux rate of LUM(%): 47.41%

Down flux rate of LUM(%): 52.59%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 27.123%

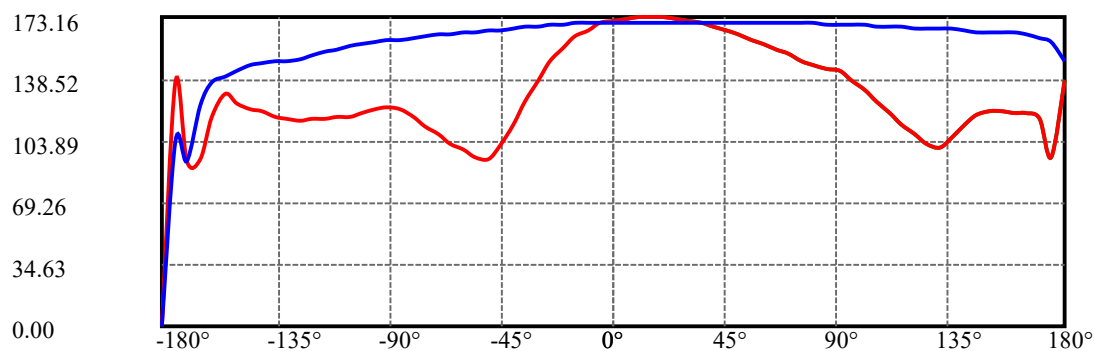
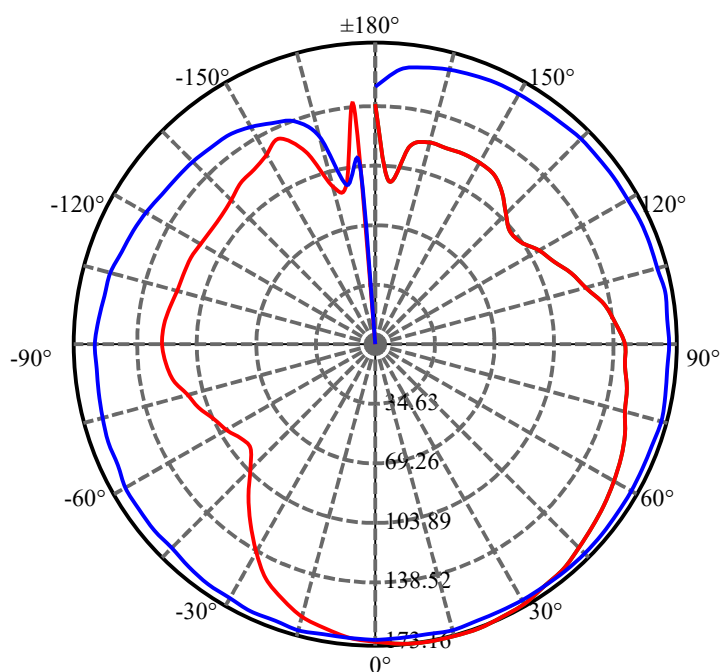
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	170.240	0.000	0	0.00%	0.00%
5.0	169.904	4.066	4.066	0.22%	0.22%
10.0	169.455	12.140	16.206	0.66%	0.88%
15.0	168.521	20.049	36.255	1.09%	1.98%
20.0	166.764	27.632	63.887	1.51%	3.48%
25.0	165.007	34.797	98.684	1.90%	5.38%
30.0	162.652	41.465	140.149	2.26%	7.64%
35.0	160.184	47.540	187.689	2.59%	10.23%
40.0	157.680	53.033	240.722	2.89%	13.12%
45.0	155.399	57.969	298.691	3.16%	16.29%
50.0	153.381	62.394	361.085	3.40%	19.69%
55.0	151.923	66.383	427.468	3.62%	23.31%
60.0	150.914	70.000	497.468	3.82%	27.12%
65.0	149.792	73.102	570.57	3.99%	31.11%
70.0	149.194	75.705	646.275	4.13%	35.24%
75.0	148.596	77.837	724.112	4.24%	39.48%
80.0	148.297	79.440	803.553	4.33%	43.81%
85.0	147.624	80.409	883.961	4.38%	48.20%
90.0	146.801	80.616	964.577	4.40%	52.59%
95.0	145.418	80.012	1044.589	4.36%	56.95%
100.0	143.736	78.570	1123.159	4.28%	61.24%
105.0	141.942	76.439	1199.599	4.17%	65.40%
110.0	140.372	73.792	1273.391	4.02%	69.43%
115.0	139.063	70.755	1344.146	3.86%	73.29%
120.0	138.091	67.377	1411.522	3.67%	76.96%
125.0	137.007	63.588	1475.111	3.47%	80.43%
130.0	136.297	59.425	1534.536	3.24%	83.67%
135.0	135.624	54.946	1589.482	3.00%	86.66%
140.0	135.288	50.161	1639.643	2.73%	89.40%
145.0	135.026	45.100	1684.743	2.46%	91.86%
150.0	135.026	39.767	1724.51	2.17%	94.02%
155.0	134.503	34.109	1758.619	1.86%	95.88%
160.0	131.774	27.927	1786.547	1.52%	97.41%
165.0	126.540	21.289	1807.835	1.16%	98.57%
170.0	123.400	14.826	1822.661	0.81%	99.38%
175.0	130.652	9.088	1831.75	0.50%	99.87%
180.0	66.691	2.359	1834.109	0.13%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	140.15	7.64%	7.64%
0-40	240.72	13.12%	13.12%
0-60	497.47	27.12%	27.12%
0-90	964.58	52.59%	52.59%
0-120	1411.52	76.96%	76.96%
0-180	1834.11	100.00%	100.00%
60-90	467.11	25.47%	25.47%
90-120	446.95	24.37%	24.37%
90-130	569.96	31.08%	31.08%
90-150	759.93	41.43%	41.43%
90-180	867.17	47.28%	47.28%
0-124.38	1467.29	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	16.21
10-20	47.68
20-30	76.26
30-40	100.57
40-50	120.36
50-60	136.38
60-70	148.81
70-80	157.28
80-90	161.02
90-100	158.58
100-110	150.23
110-120	138.13
120-130	123.01
130-140	105.11
140-150	84.87
150-160	62.04
160-170	36.11
170-180	9.09

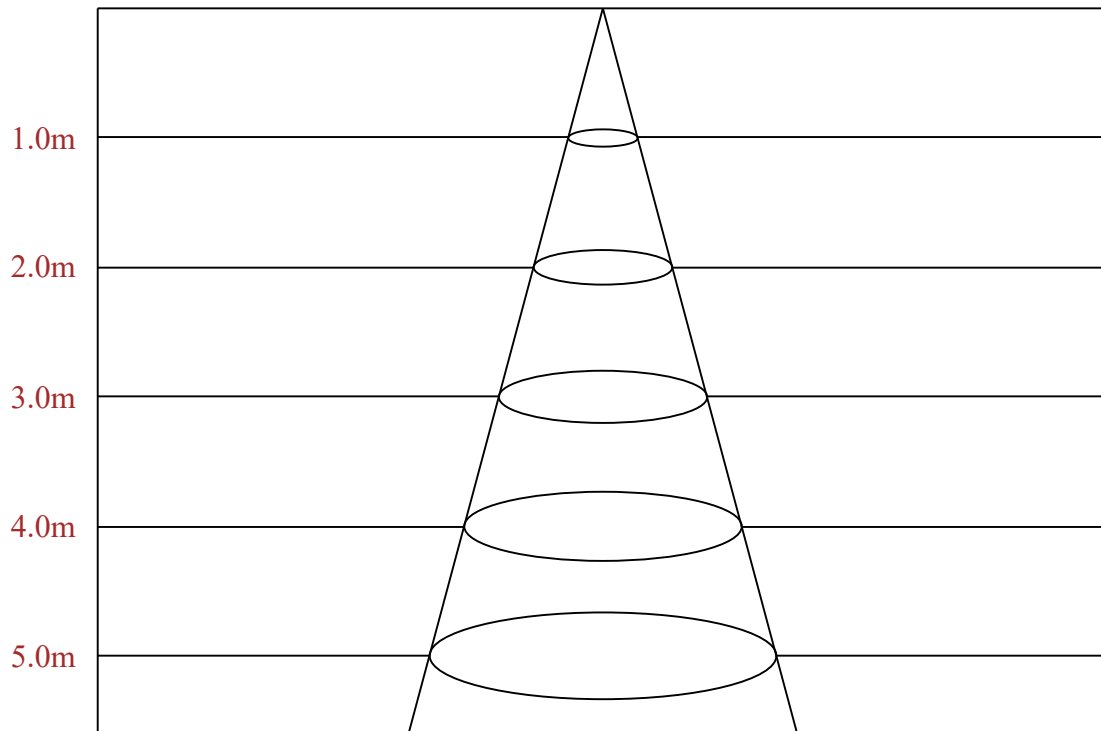
C0(Max): —————C0/C180: —————C90/C270: —————

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

:C90/270Left:0.0 Right:0.0

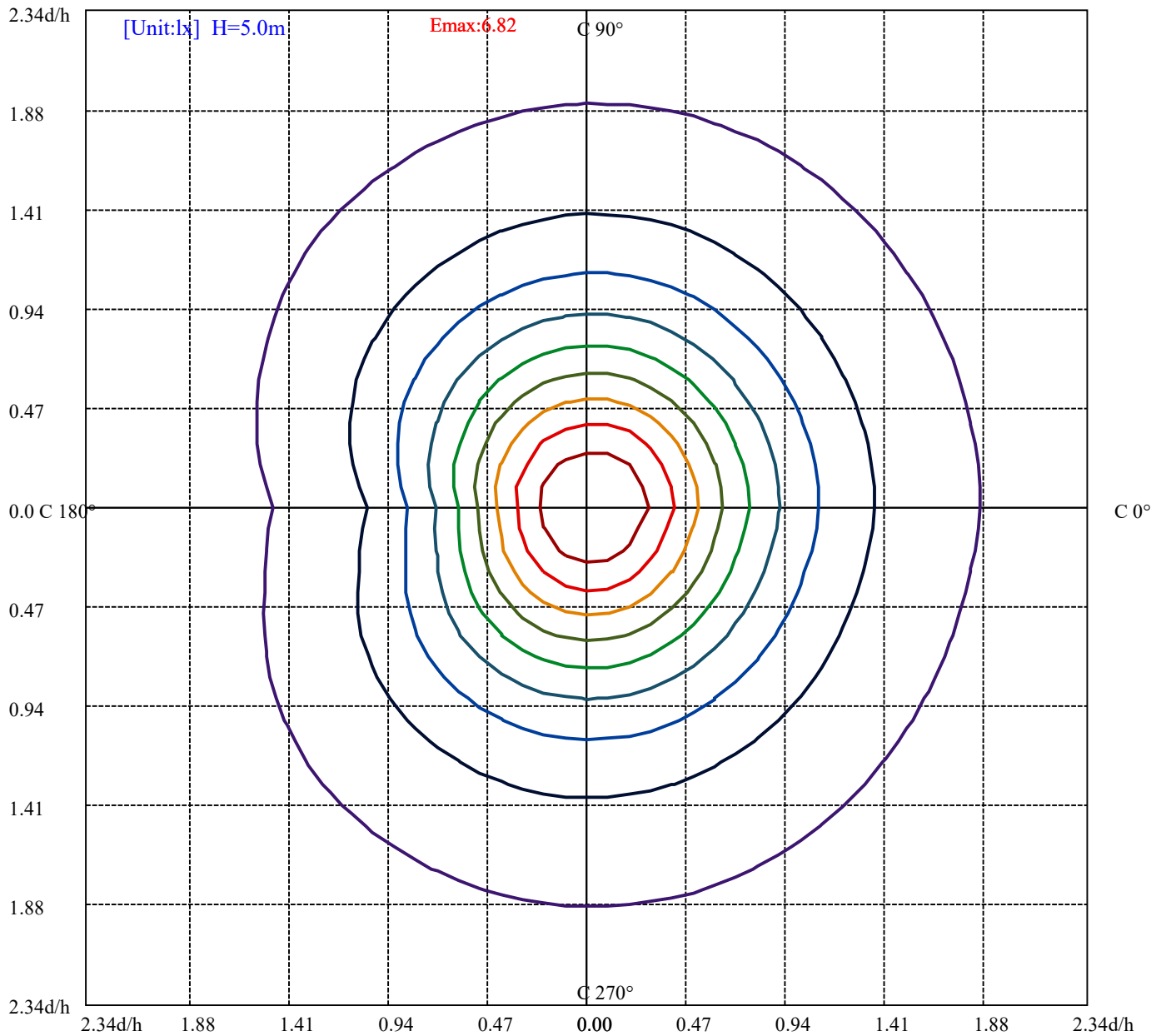
Beam Angle(50%Imax):C0/180Left:0.0 Right:0.0

:C90/270Left:0.0 Right:0.0

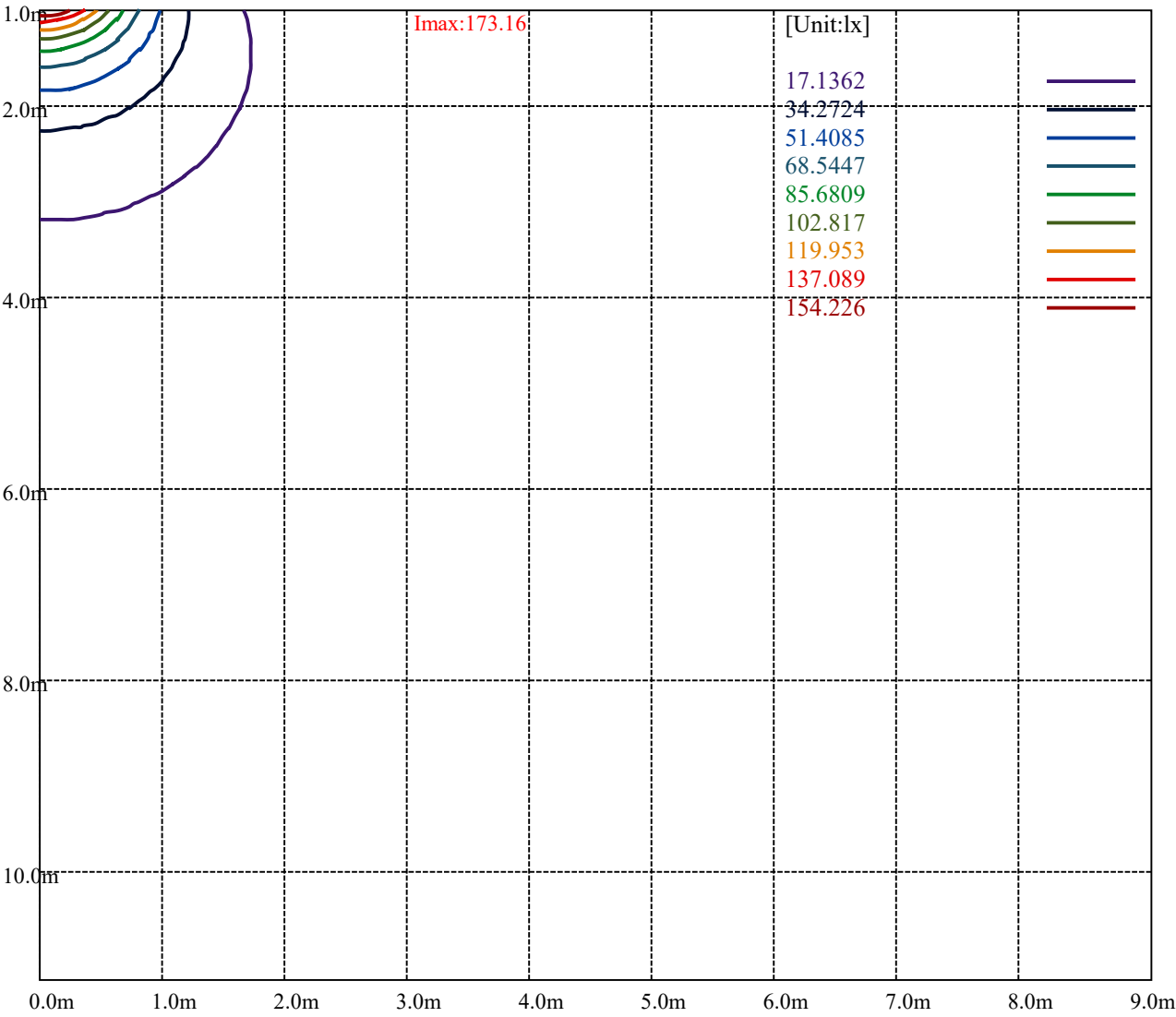


Max , Ave

Beam angle of C0 plane 180.00



(10%Emax)	0.68186	
(20%Emax)	1.363716	
(30%Emax)	2.045576	
(40%Emax)	2.727436	
(50%Emax)	3.409292	
(60%Emax)	4.09116	
(70%Emax)	4.773	
(80%Emax)	5.45488	
(90%Emax)	6.13672	



Luminance Table

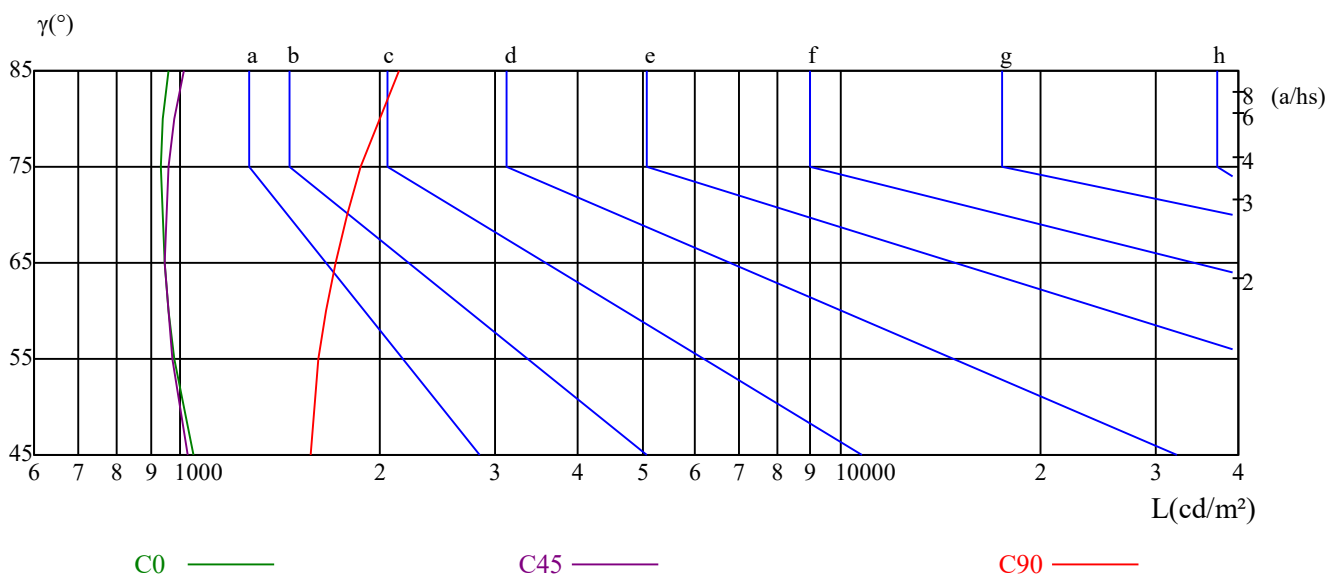
γ	45	50	55	60	65	70	75	80	85
C0	1048	1010	980	959	945	938	932	939	960
C45	1025	996	971	958	948	950	960	977	1009
C90	1578	1591	1617	1657	1712	1785	1879	2000	2143

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3808	4923	4518	6305	8016	7247	19044	23612	21231

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	0.59	0.59	0.59	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	172.26	173.16	173.16	173.16	172.26	171.36	169.57	167.77
15.0	170.46	171.36	173.16	173.16	172.26	172.26	170.46	169.57	167.77
30.0	170.46	171.36	172.26	172.26	172.26	171.36	171.36	169.57	168.67
45.0	170.46	171.36	172.26	172.26	172.26	172.26	171.36	171.36	169.57
60.0	170.46	171.36	171.36	172.26	172.26	173.16	172.26	171.36	171.36
75.0	170.46	170.46	170.46	171.36	171.36	171.36	171.36	171.36	171.36
90.0	169.57	169.57	169.57	169.57	169.57	169.57	169.57	169.57	169.57
105.0	170.46	169.57	169.57	168.67	167.77	167.77	166.88	166.88	165.98
120.0	170.46	169.57	168.67	167.77	166.88	165.08	164.18	163.29	161.49
135.0	169.57	168.67	167.77	165.98	163.29	161.49	159.70	157.01	155.21
150.0	169.57	168.67	167.77	165.08	158.80	157.90	152.52	148.04	144.45
165.0	169.57	168.67	166.88	164.18	160.60	155.21	148.04	140.86	131.89
180.0	171.36	169.57	165.98	162.39	156.11	148.04	137.27	125.61	113.04
195.0	170.46	168.67	165.98	162.39	156.11	148.93	139.96	130.99	121.12
210.0	170.46	168.67	166.88	163.29	158.80	154.32	148.04	141.75	138.17
225.0	170.46	168.67	166.88	165.08	162.39	158.80	156.11	153.42	151.62
240.0	170.46	169.57	168.67	166.88	165.08	164.18	163.29	161.49	160.60
255.0	170.46	169.57	168.67	168.67	167.77	166.88	165.98	165.98	164.18
270.0	169.57	169.57	169.57	169.57	168.67	168.67	167.77	167.77	166.88
285.0	170.46	170.46	170.46	170.46	170.46	169.57	168.67	168.67	168.67
300.0	170.46	170.46	170.46	170.46	170.46	168.67	168.67	166.88	165.98
315.0	169.57	170.46	170.46	170.46	168.67	167.77	166.88	165.08	164.18
330.0	169.57	169.57	170.46	169.57	168.67	167.77	165.98	164.18	162.39
345.0	169.57	169.57	169.57	169.57	168.67	166.88	165.98	164.18	162.39
360.0	171.36	172.26	173.16	173.16	173.16	172.26	171.36	169.57	167.77
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	165.98	163.29	160.60	157.90	155.21	152.52	148.93	146.24	144.45
15.0	165.98	163.29	160.60	157.90	155.21	152.52	149.83	148.04	146.24
30.0	166.88	165.08	162.39	160.60	158.80	156.11	154.32	152.52	150.73
45.0	168.67	167.77	165.98	165.08	163.29	162.39	161.49	160.60	160.60
60.0	170.46	170.46	169.57	169.57	168.67	168.67	167.77	167.77	166.88
75.0	171.36	171.36	171.36	171.36	170.46	170.46	170.46	170.46	170.46
90.0	169.57	169.57	169.57	169.57	169.57	169.57	169.57	169.57	168.67
105.0	165.98	165.08	165.08	164.18	164.18	163.29	163.29	163.29	163.29
120.0	160.60	159.70	157.90	157.01	156.11	155.21	155.21	154.32	154.32
135.0	152.52	150.73	149.83	148.04	146.24	145.34	143.55	143.55	142.65
150.0	140.86	137.27	134.58	131.89	130.99	130.09	130.09	130.09	130.09
165.0	124.71	119.33	115.74	112.15	111.25	112.15	113.94	116.63	119.33
180.0	101.38	93.31	94.20	98.69	102.28	107.66	112.15	117.53	121.12
195.0	113.94	110.35	107.66	108.56	110.35	113.94	117.53	120.22	122.02
210.0	135.47	132.78	130.99	130.09	129.19	129.19	129.19	129.19	126.50
225.0	150.73	148.93	148.04	147.14	145.34	143.55	141.75	139.96	137.27
240.0	159.70	157.90	157.01	156.11	154.32	152.52	150.73	148.93	148.04
255.0	164.18	163.29	162.39	161.49	160.60	159.70	158.80	158.80	156.11
270.0	165.98	165.98	165.08	165.08	163.29	163.29	162.39	161.49	160.60
285.0	166.88	165.98	165.08	165.08	164.18	163.29	162.39	161.49	160.60
300.0	165.08	164.18	162.39	162.39	160.60	159.70	158.80	158.80	157.01
315.0	162.39	160.60	159.70	157.01	156.11	154.32	153.42	151.62	151.62
330.0	160.60	157.90	156.11	153.42	150.73	148.93	147.14	145.34	143.55
345.0	159.70	157.01	154.32	151.62	148.04	146.24	143.55	141.75	140.86
360.0	165.98	163.29	160.60	157.90	155.21	152.52	148.93	146.24	144.45

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	143.55	138.17	132.78	125.61	119.33	113.04	107.66	102.28	100.48
15.0	145.34	142.65	137.27	131.89	126.50	122.02	117.53	115.74	116.63
30.0	149.83	149.83	148.93	146.24	143.55	142.65	140.86	139.96	139.96
45.0	159.70	159.70	158.80	159.70	158.80	158.80	158.80	157.90	157.90
60.0	166.88	166.88	166.88	165.98	165.98	165.98	165.98	165.98	165.98
75.0	170.46	170.46	169.57	169.57	169.57	168.67	168.67	168.67	167.77
90.0	168.67	168.67	168.67	167.77	167.77	167.77	166.88	166.88	166.88
105.0	163.29	162.39	162.39	162.39	162.39	162.39	162.39	162.39	162.39
120.0	153.42	153.42	153.42	153.42	153.42	154.32	154.32	155.21	156.11
135.0	141.75	141.75	141.75	142.65	142.65	143.55	144.45	145.34	147.14
150.0	130.09	130.09	130.09	130.99	131.89	132.78	134.58	135.47	137.27
165.0	122.02	122.91	122.91	122.91	122.91	122.02	123.81	124.71	125.61
180.0	122.91	122.02	119.33	117.53	117.53	116.63	115.74	114.84	115.74
195.0	120.22	115.74	112.15	107.66	104.97	103.18	101.38	98.69	98.69
210.0	122.02	117.53	113.04	108.56	104.97	101.38	98.69	96.00	94.20
225.0	133.68	130.09	125.61	122.02	118.43	115.74	113.94	109.46	107.66
240.0	145.34	142.65	141.75	136.37	133.68	130.99	128.30	126.50	124.71
255.0	154.32	153.42	151.62	149.83	147.14	144.45	142.65	140.86	139.06
270.0	160.60	159.70	157.90	157.01	155.21	153.42	151.62	149.83	148.93
285.0	160.60	159.70	158.80	157.90	157.01	156.11	155.21	154.32	152.52
300.0	157.01	156.11	155.21	155.21	154.32	154.32	154.32	152.52	150.73
315.0	150.73	149.83	149.83	149.83	149.83	149.83	148.93	147.14	143.55
330.0	142.65	142.65	141.75	139.96	139.06	138.17	138.17	136.37	131.89
345.0	138.17	133.68	129.19	125.61	122.02	119.33	119.33	121.12	119.33
360.0	143.55	138.17	132.78	125.61	119.33	113.04	107.66	102.28	100.48
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	105.87	113.04	118.43	120.22	120.22	119.33	119.33	115.74	94.20
15.0	119.33	124.71	130.99	134.58	135.47	136.37	136.37	134.58	109.46
30.0	141.75	142.65	146.24	148.93	149.83	149.83	148.93	148.04	127.40
45.0	157.90	157.90	157.90	158.80	158.80	158.80	157.01	155.21	143.55
60.0	165.98	165.98	165.98	165.08	164.18	163.29	161.49	159.70	156.11
75.0	167.77	166.88	166.88	166.88	165.98	165.08	164.18	161.49	157.90
90.0	166.88	165.98	165.08	165.08	165.08	164.18	163.29	161.49	158.80
105.0	162.39	162.39	162.39	163.29	163.29	162.39	161.49	160.60	158.80
120.0	157.01	157.01	157.90	158.80	159.70	159.70	159.70	158.80	157.90
135.0	148.04	149.83	150.73	152.52	153.42	154.32	155.21	156.11	156.11
150.0	138.17	139.96	142.65	144.45	146.24	147.14	148.93	150.73	152.52
165.0	127.40	129.19	131.89	134.58	135.47	139.06	141.75	143.55	145.34
180.0	117.53	120.22	122.02	124.71	130.09	117.53	93.31	92.41	136.37
195.0	98.69	100.48	103.18	109.46	113.04	111.25	85.23	100.48	134.58
210.0	93.31	92.41	90.62	95.10	100.48	89.72	83.44	106.76	121.12
225.0	104.07	102.28	101.38	104.07	105.87	99.59	96.90	109.46	102.28
240.0	122.02	121.12	121.12	122.91	125.61	118.43	115.74	104.07	89.72
255.0	138.17	137.27	136.37	136.37	137.27	133.68	128.30	97.79	88.82
270.0	148.04	147.14	146.24	143.55	139.96	136.37	123.81	92.41	103.18
285.0	150.73	148.04	144.45	139.06	132.78	127.40	109.46	84.34	114.84
300.0	146.24	141.75	135.47	128.30	120.22	113.94	97.79	80.75	125.61
315.0	137.27	130.09	123.81	115.74	106.76	100.48	88.82	83.44	131.89
330.0	124.71	118.43	111.25	104.07	97.79	92.41	91.51	94.20	133.68
345.0	115.74	112.15	107.66	104.07	100.48	102.28	104.97	109.46	135.47
360.0	105.87	113.04	118.43	120.22	120.22	119.33	119.33	115.74	94.20

Intensity data(cd)

C/ γ (°)	180.0
0.0	138.17
15.0	95.10
30.0	92.41
45.0	104.97
60.0	122.91
75.0	138.17
90.0	148.04
105.0	153.42
120.0	154.32
135.0	153.42
150.0	151.62
165.0	148.04
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	138.17