
AFX

Client:

LumCAT: ARNS1318LAJD4LB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.030

LampCAT:

Current(A): 0.167

Lamp flux(lm): 1798.9

Power (W): 19.560

Number of Lamps: 1

PF: 0.974

Length(mm): 400

Width(mm): 200

Phm Type: C

Height(mm): 360

Photometric Results

Lumens(lm): 1798.86, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 91.97

Central intensity(cd): 166.876, Maximum intensity(cd): 168.670

Angle of maximum intensity: C=90.0 γ =45.0

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(%): 47.50%

Down flux rate of lamp(%): 52.50%

Up flux rate of LUM(%): 47.50%

Down flux rate of LUM(%): 52.50%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 27.088%

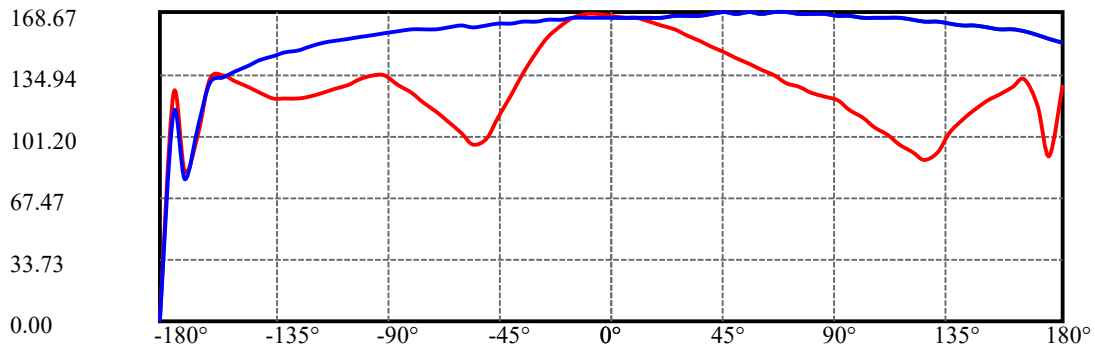
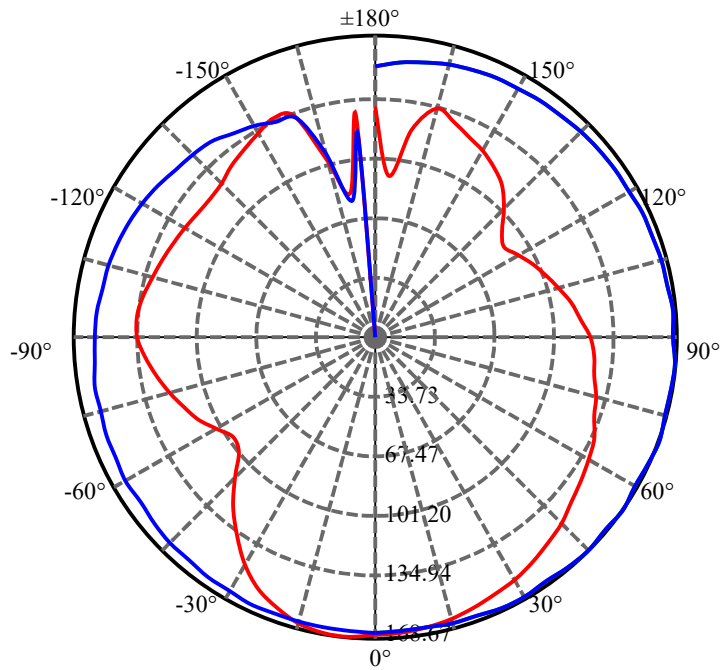
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	165.904	0.000	0	0.00%	0.00%
5.0	165.867	3.966	3.966	0.22%	0.22%
10.0	165.605	11.858	15.824	0.66%	0.88%
15.0	164.857	19.603	35.427	1.09%	1.97%
20.0	163.511	27.062	62.489	1.50%	3.47%
25.0	161.867	34.126	96.615	1.90%	5.37%
30.0	159.736	40.699	137.314	2.26%	7.63%
35.0	157.306	46.687	184.001	2.60%	10.23%
40.0	154.764	52.066	236.067	2.89%	13.12%
45.0	152.334	56.862	292.929	3.16%	16.28%
50.0	149.979	61.087	354.016	3.40%	19.68%
55.0	148.446	64.888	418.903	3.61%	23.29%
60.0	147.325	68.367	487.27	3.80%	27.09%
65.0	146.540	71.439	558.709	3.97%	31.06%
70.0	145.717	74.001	632.71	4.11%	35.17%
75.0	145.418	76.098	708.809	4.23%	39.40%
80.0	145.194	77.760	786.568	4.32%	43.73%
85.0	144.820	78.804	865.372	4.38%	48.11%
90.0	144.035	79.091	944.463	4.40%	52.50%
95.0	142.802	78.538	1023.001	4.37%	56.87%
100.0	141.269	77.189	1100.19	4.29%	61.16%
105.0	139.624	75.159	1175.349	4.18%	65.34%
110.0	138.241	72.629	1247.978	4.04%	69.38%
115.0	136.858	69.657	1317.635	3.87%	73.25%
120.0	135.923	66.314	1383.948	3.69%	76.93%
125.0	134.577	62.525	1446.474	3.48%	80.41%
130.0	133.718	58.336	1504.81	3.24%	83.65%
135.0	133.045	53.903	1558.713	3.00%	86.65%
140.0	132.372	49.144	1607.857	2.73%	89.38%
145.0	132.185	44.139	1651.996	2.45%	91.84%
150.0	131.923	38.892	1690.888	2.16%	94.00%
155.0	132.222	33.428	1724.316	1.86%	95.86%
160.0	130.989	27.606	1751.922	1.53%	97.39%
165.0	124.035	21.018	1772.94	1.17%	98.56%
170.0	120.708	14.518	1787.458	0.81%	99.37%
175.0	131.475	9.021	1796.479	0.50%	99.87%
180.0	67.513	2.379	1798.858	0.13%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	137.31	7.63%	7.63%
0-40	236.07	13.12%	13.12%
0-60	487.27	27.09%	27.09%
0-90	944.46	52.50%	52.50%
0-120	1383.95	76.93%	76.93%
0-180	1798.86	100.00%	100.00%
60-90	457.19	25.42%	25.42%
90-120	439.49	24.43%	24.43%
90-130	560.35	31.15%	31.15%
90-150	746.43	41.49%	41.49%
90-180	852.02	47.36%	47.36%
0-124.41	1439.09	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	15.82
10-20	46.66
20-30	74.83
30-40	98.75
40-50	117.95
50-60	133.25
60-70	145.44
70-80	153.86
80-90	157.89
90-100	155.73
100-110	147.79
110-120	135.97
120-130	120.86
130-140	103.05
140-150	83.03
150-160	61.03
160-170	35.54
170-180	9.02



C90(Max): —————

C0/C180: —————

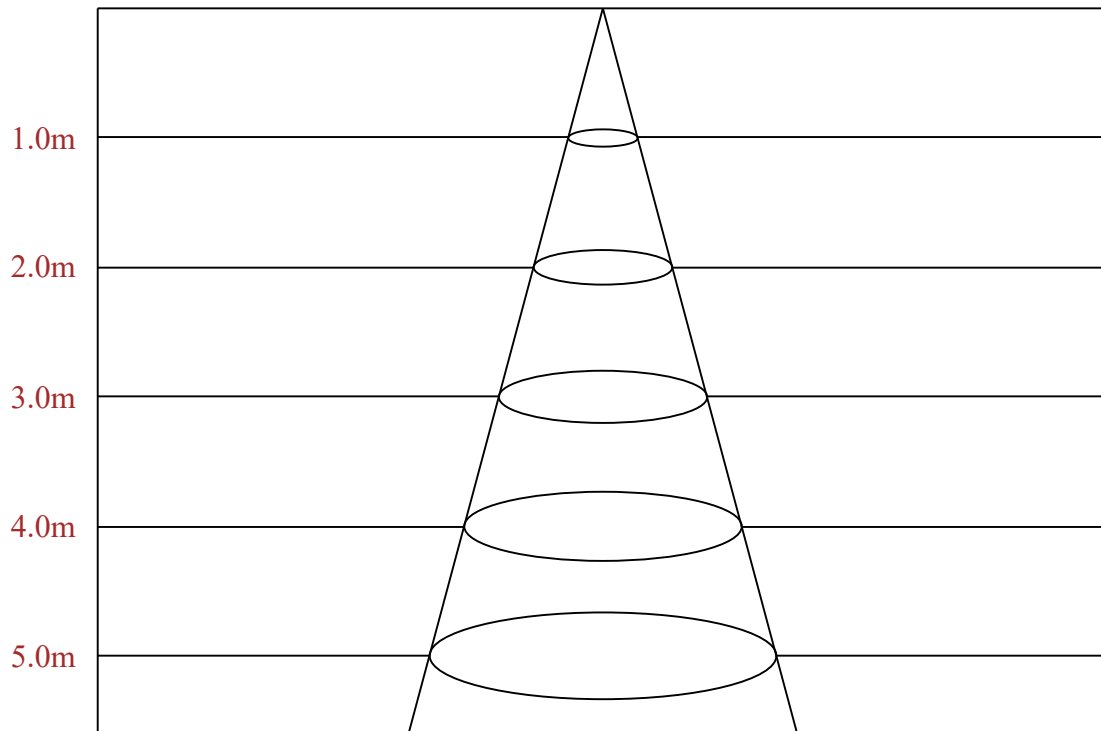
C90/C270: —————

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

:C90/270Left:0.0 Right:0.0

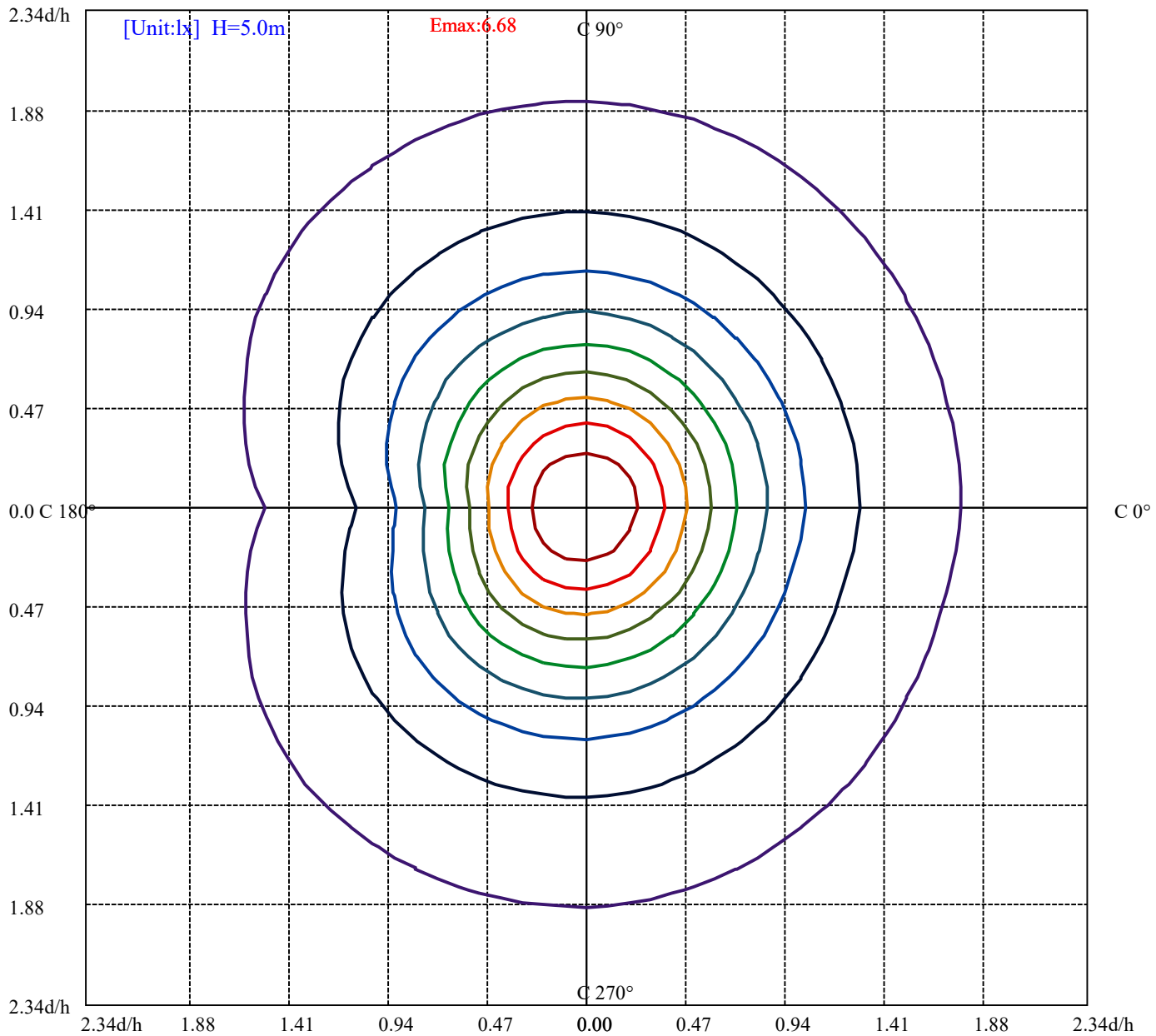
Beam Angle(50%Imax):C0/180Left:0.0 Right:0.0

:C90/270Left:0.0 Right:0.0

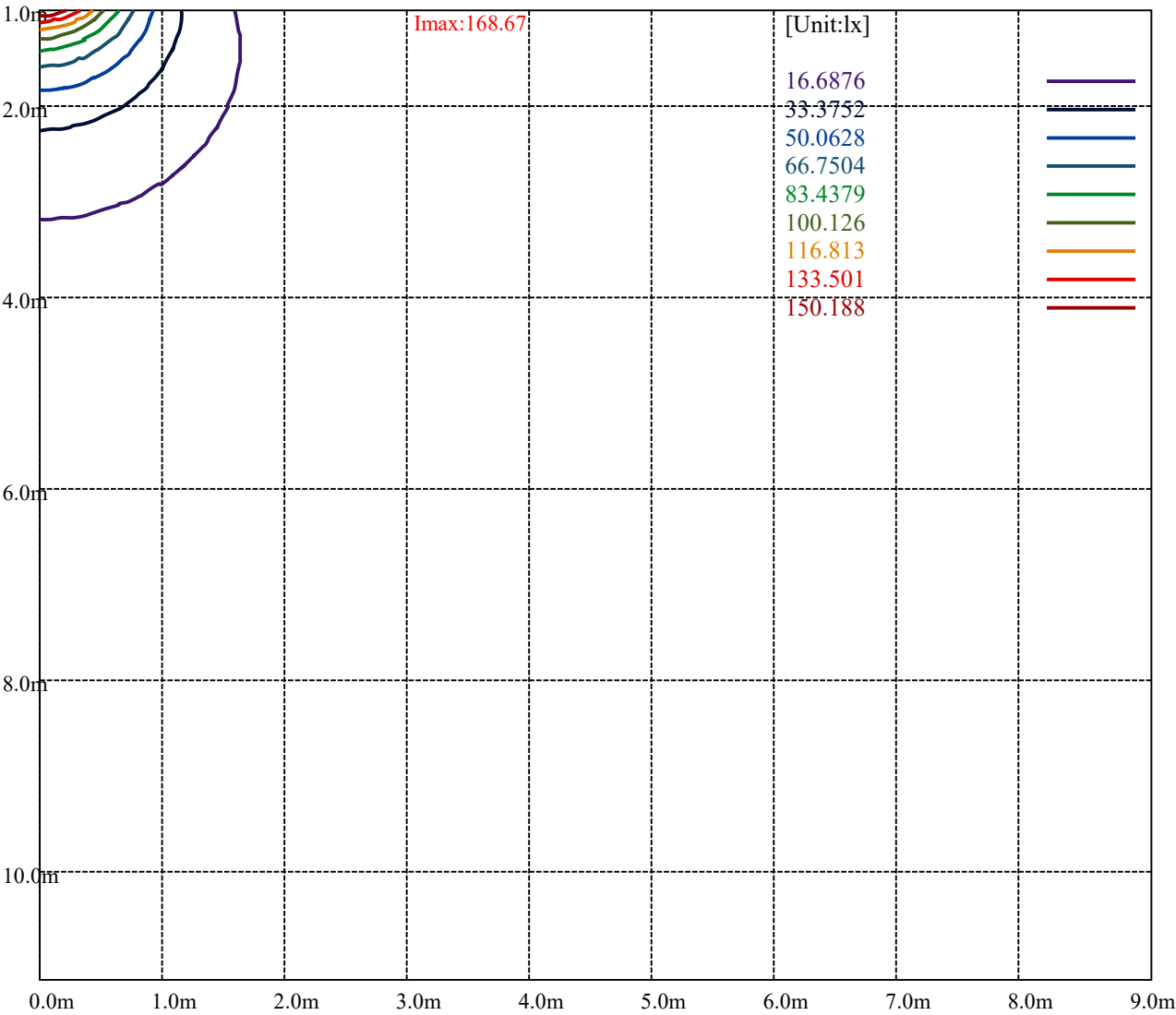


Max , Ave

Beam angle of C90 plane 349.09



(10%Emax) 0.667504	—
(20%Emax) 1.335004	—
(30%Emax) 2.002508	—
(40%Emax) 2.670012	—
(50%Emax) 3.337512	—
(60%Emax) 4.005	—
(70%Emax) 4.67252	—
(80%Emax) 5.34004	—
(90%Emax) 6.00752	—



Luminance Table

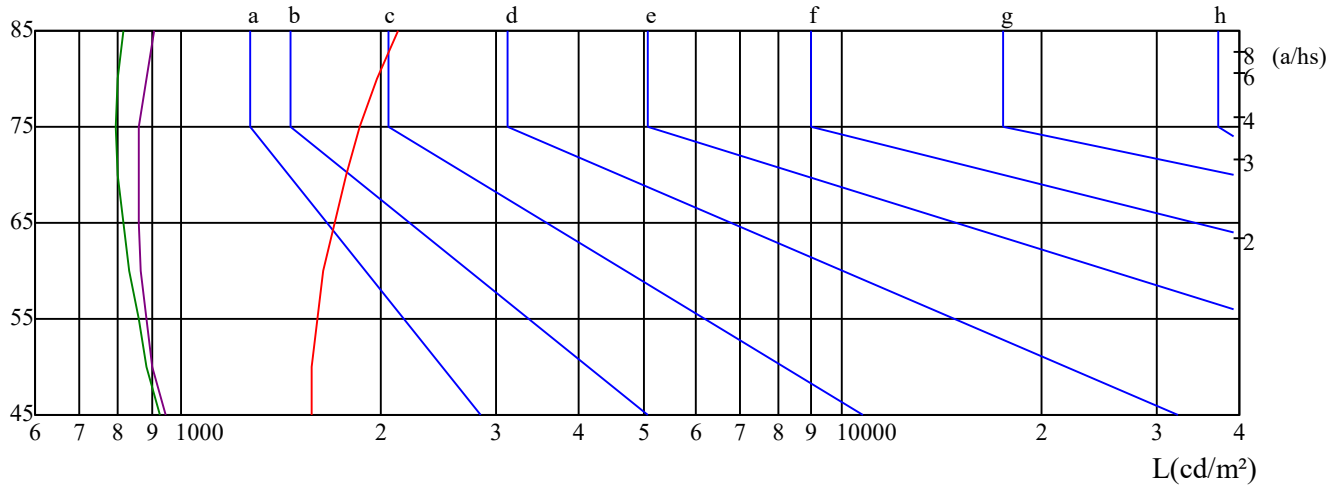
γ	45	50	55	60	65	70	75	80	85
C0	929	888	860	833	819	800	797	801	817
C45	943	906	887	870	859	861	864	885	908
C90	1569	1574	1608	1639	1703	1775	1859	1979	2132

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3596	4869	4451	5958	7886	7150	18079	23355	20910

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

 $\gamma(^{\circ})$ 

C0 ———

C45 ———

C90 ———

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)

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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	166.88	165.98	165.08	163.29	161.49	158.80	156.11	153.42	149.83
15.0	166.88	165.98	165.08	163.29	161.49	158.80	157.01	153.42	150.73
30.0	166.88	165.98	165.08	164.18	162.39	160.60	157.90	156.11	153.42
45.0	166.88	165.98	165.98	164.18	163.29	162.39	160.60	158.80	157.01
60.0	165.98	165.98	165.98	165.08	165.08	164.18	163.29	162.39	161.49
75.0	165.98	165.98	165.98	165.98	165.98	165.98	165.98	165.98	165.98
90.0	165.08	165.08	165.08	165.98	165.98	166.88	166.88	166.88	167.77
105.0	165.08	165.98	165.98	165.98	165.98	166.88	167.77	167.77	167.77
120.0	165.08	165.98	165.98	166.88	165.98	166.88	166.88	166.88	165.98
135.0	165.98	165.98	166.88	166.88	165.98	164.18	163.29	162.39	162.39
150.0	165.08	165.98	166.88	165.98	163.29	162.39	159.70	155.21	151.62
165.0	165.08	165.98	166.88	165.98	164.18	160.60	155.21	148.93	140.86
180.0	166.88	167.77	167.77	165.98	161.49	155.21	146.24	135.47	123.81
195.0	166.88	166.88	166.88	165.98	162.39	157.01	150.73	142.65	133.68
210.0	166.88	167.77	166.88	165.98	164.18	159.70	156.11	151.62	148.93
225.0	166.88	166.88	166.88	165.98	165.08	163.29	162.39	161.49	159.70
240.0	165.98	166.88	165.98	166.88	165.98	165.98	165.08	164.18	164.18
255.0	165.98	165.98	165.98	165.98	165.08	165.08	165.08	164.18	163.29
270.0	165.08	165.08	165.08	165.08	164.18	164.18	163.29	163.29	162.39
285.0	165.08	165.08	165.08	164.18	163.29	163.29	161.49	160.60	160.60
300.0	165.08	165.08	164.18	163.29	163.29	160.60	158.80	157.90	156.11
315.0	165.98	164.18	163.29	161.49	160.60	158.80	157.01	154.32	152.52
330.0	165.08	164.18	163.29	161.49	159.70	157.01	154.32	151.62	148.04
345.0	165.08	164.18	162.39	160.60	157.90	156.11	152.52	149.83	146.24
360.0	166.88	165.98	165.08	163.29	161.49	158.80	156.11	153.42	149.83
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	147.14	143.55	140.86	137.27	134.58	130.09	127.40	124.71	122.91
15.0	148.04	144.45	141.75	138.17	135.47	131.89	129.19	127.40	125.61
30.0	150.73	148.04	145.34	142.65	139.96	137.27	135.47	133.68	132.78
45.0	155.21	152.52	151.62	149.83	148.04	147.14	145.34	145.34	144.45
60.0	160.60	159.70	158.80	157.90	157.01	156.11	155.21	155.21	155.21
75.0	165.08	165.08	165.08	164.18	164.18	164.18	164.18	164.18	163.29
90.0	168.67	167.77	168.67	167.77	168.67	168.67	167.77	167.77	167.77
105.0	167.77	168.67	168.67	168.67	168.67	167.77	167.77	167.77	166.88
120.0	165.98	165.98	165.98	165.08	165.08	164.18	163.29	163.29	162.39
135.0	160.60	159.70	159.70	158.80	157.90	157.01	156.11	155.21	154.32
150.0	148.93	147.14	145.34	143.55	142.65	141.75	142.65	142.65	143.55
165.0	133.68	127.40	122.91	120.22	119.33	120.22	122.91	126.50	130.09
180.0	111.25	99.59	96.90	102.28	108.56	113.94	119.33	124.71	129.19
195.0	127.40	122.91	120.22	119.33	121.12	123.81	126.50	130.09	132.78
210.0	146.24	143.55	142.65	141.75	140.86	140.86	141.75	141.75	139.96
225.0	158.80	157.01	156.11	156.11	155.21	153.42	152.52	150.73	148.04
240.0	163.29	162.39	161.49	160.60	159.70	158.80	157.90	156.11	154.32
255.0	163.29	163.29	162.39	162.39	161.49	160.60	160.60	159.70	157.90
270.0	162.39	161.49	160.60	161.49	160.60	159.70	158.80	158.80	157.90
285.0	158.80	157.90	157.90	157.01	156.11	155.21	155.21	154.32	154.32
300.0	154.32	153.42	151.62	149.83	148.93	148.04	147.14	147.14	146.24
315.0	149.83	147.14	144.45	142.65	140.86	139.06	138.17	137.27	136.37
330.0	145.34	141.75	138.17	135.47	132.78	130.99	129.19	127.40	127.40
345.0	142.65	139.06	135.47	132.78	129.19	126.50	124.71	122.91	122.02
360.0	147.14	143.55	140.86	137.27	134.58	130.09	127.40	124.71	122.91

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	120.22	115.74	111.25	105.87	101.38	96.90	92.41	87.92	92.41
15.0	124.71	122.02	118.43	114.84	112.15	109.46	108.56	109.46	113.04
30.0	131.89	131.89	131.89	130.99	130.09	129.19	130.09	130.99	132.78
45.0	143.55	144.45	144.45	144.45	145.34	145.34	146.24	146.24	147.14
60.0	154.32	155.21	154.32	154.32	154.32	155.21	155.21	155.21	155.21
75.0	163.29	162.39	162.39	162.39	161.49	161.49	161.49	160.60	160.60
90.0	166.88	166.88	165.98	165.98	165.08	165.08	164.18	163.29	163.29
105.0	166.88	165.98	165.98	165.08	165.08	164.18	164.18	163.29	162.39
120.0	161.49	161.49	160.60	160.60	159.70	159.70	159.70	159.70	159.70
135.0	153.42	153.42	152.52	151.62	152.52	152.52	151.62	152.52	152.52
150.0	143.55	142.65	142.65	142.65	141.75	142.65	143.55	144.45	144.45
165.0	133.68	136.37	135.47	136.37	135.47	134.58	133.68	133.68	133.68
180.0	133.68	133.68	131.89	129.19	126.50	124.71	122.91	121.12	121.12
195.0	132.78	129.19	125.61	121.12	116.63	113.04	109.46	105.87	104.07
210.0	135.47	130.09	124.71	119.33	113.94	109.46	104.97	100.48	96.90
225.0	144.45	139.96	135.47	130.99	127.40	122.91	121.12	113.94	109.46
240.0	151.62	148.93	148.04	142.65	139.96	136.37	133.68	128.30	124.71
255.0	157.01	155.21	153.42	151.62	148.93	147.14	144.45	140.86	138.17
270.0	157.01	156.11	155.21	154.32	153.42	151.62	149.83	148.04	146.24
285.0	153.42	152.52	152.52	151.62	151.62	150.73	149.83	148.93	148.04
300.0	146.24	145.34	145.34	145.34	146.24	145.34	145.34	145.34	142.65
315.0	136.37	136.37	136.37	137.27	138.17	138.17	138.17	138.17	132.78
330.0	126.50	126.50	124.71	123.81	123.81	123.81	124.71	123.81	120.22
345.0	118.43	114.84	111.25	108.56	106.76	104.97	106.76	107.66	107.66
360.0	120.22	115.74	111.25	105.87	101.38	96.90	92.41	87.92	92.41
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	102.28	110.35	115.74	120.22	123.81	128.30	131.89	117.53	90.62
15.0	117.53	123.81	130.99	134.58	137.27	140.86	142.65	139.06	107.66
30.0	135.47	138.17	141.75	145.34	148.04	149.83	149.83	150.73	130.09
45.0	148.04	149.83	151.62	152.52	154.32	155.21	154.32	155.21	148.93
60.0	156.11	156.11	157.01	157.01	157.90	157.90	157.01	156.11	155.21
75.0	160.60	159.70	159.70	159.70	158.80	157.90	157.01	156.11	154.32
90.0	162.39	161.49	161.49	160.60	159.70	158.80	157.90	156.11	154.32
105.0	162.39	161.49	160.60	160.60	159.70	158.80	157.90	156.11	155.21
120.0	158.80	158.80	159.70	159.70	159.70	158.80	157.90	156.11	155.21
135.0	153.42	153.42	154.32	154.32	154.32	155.21	155.21	155.21	154.32
150.0	144.45	145.34	145.34	147.14	148.93	149.83	150.73	151.62	151.62
165.0	133.68	135.47	137.27	139.06	141.75	143.55	145.34	148.04	148.04
180.0	122.02	124.71	128.30	130.99	134.58	131.89	102.28	81.64	123.81
195.0	105.87	107.66	111.25	115.74	122.91	122.91	86.13	89.72	130.09
210.0	94.20	93.31	95.10	100.48	105.87	93.31	80.75	95.10	120.22
225.0	103.18	97.79	94.20	94.20	97.79	89.72	84.34	96.90	98.69
240.0	119.33	114.84	112.15	111.25	109.46	103.18	99.59	88.82	86.13
255.0	135.47	130.99	129.19	127.40	126.50	121.12	108.56	79.85	94.20
270.0	144.45	142.65	139.06	136.37	132.78	130.09	106.76	77.16	113.04
285.0	146.24	141.75	137.27	130.99	125.61	122.91	96.90	78.05	125.61
300.0	138.17	132.78	126.50	117.53	110.35	104.97	87.92	86.13	135.47
315.0	125.61	119.33	113.04	104.07	95.10	91.51	86.13	96.00	138.17
330.0	113.94	107.66	102.28	97.79	96.90	99.59	101.38	107.66	141.75
345.0	109.46	109.46	108.56	108.56	111.25	117.53	118.43	122.02	142.65
360.0	102.28	110.35	115.74	120.22	123.81	128.30	131.89	117.53	90.62

Intensity data(cd)

C/ γ (°)	180.0
0.0	129.19
15.0	104.07
30.0	95.10
45.0	110.35
60.0	130.99
75.0	144.45
90.0	151.62
105.0	151.62
120.0	151.62
135.0	151.62
150.0	150.73
165.0	148.93
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	129.19