
AFX

Client:

LumCAT: VRNV2207LAJUDSN

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.000

LampCAT:

Current(A): 0.242

Lamp flux(lm): 2879.0

Power (W): 28.830

Number of Lamps: 1

PF: 0.991

Length(mm): 540

Width(mm): 120

Phm Type: C

Height(mm): 120

Photometric Results

Lumens(lm): 2878.99, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 99.86

Central intensity(cd): 355.279, Maximum intensity(cd): 355.279

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=1.30 C90_270=1.34

Maximum s/h(1/4): C0_180=1.47 C90_270=1.52

Up flux rate of lamp(%): 49.22%

Down flux rate of lamp(%): 50.78%

Up flux rate of LUM(%): 49.22%

Down flux rate of LUM(%): 50.78%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 30.130%

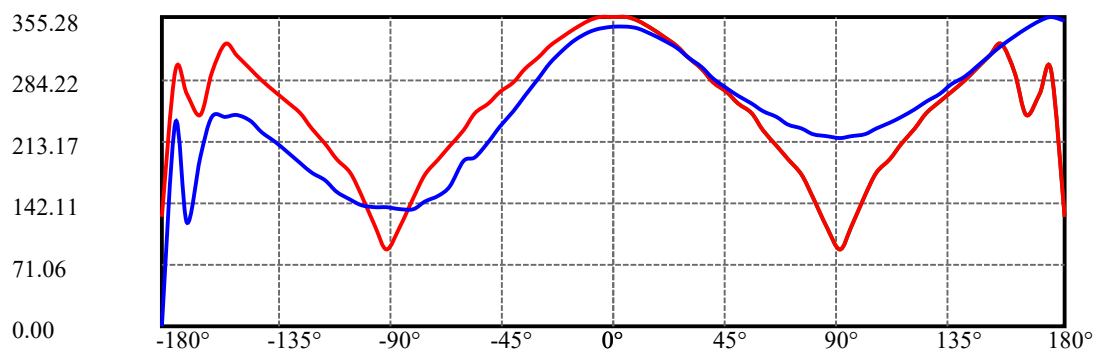
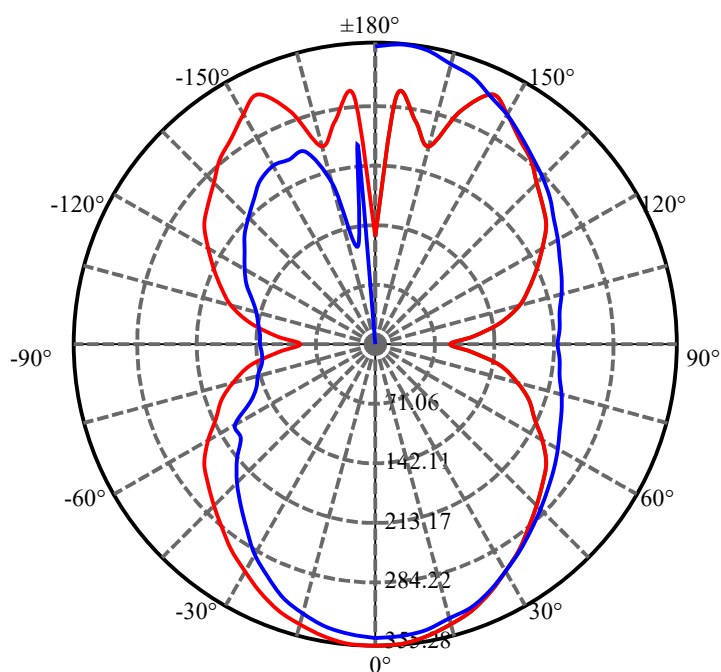
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	348.640	0.000	0	0.00%	0.00%
5.0	347.267	8.319	8.319	0.29%	0.29%
10.0	343.337	24.705	33.024	0.86%	1.15%
15.0	336.546	40.330	73.355	1.40%	2.55%
20.0	327.427	54.721	128.075	1.90%	4.45%
25.0	315.867	67.470	195.545	2.34%	6.79%
30.0	302.552	78.261	273.807	2.72%	9.51%
35.0	288.016	86.965	360.772	3.02%	12.53%
40.0	274.281	93.815	454.587	3.26%	15.79%
45.0	260.584	99.034	553.621	3.44%	19.23%
50.0	247.841	102.735	656.356	3.57%	22.80%
55.0	235.250	105.040	761.396	3.65%	26.45%
60.0	223.576	106.056	867.452	3.68%	30.13%
65.0	211.252	105.707	973.159	3.67%	33.80%
70.0	199.768	104.073	1077.232	3.61%	37.42%
75.0	187.674	101.271	1178.504	3.52%	40.93%
80.0	177.105	97.605	1276.108	3.39%	44.32%
85.0	169.742	94.247	1370.355	3.27%	47.60%
90.0	165.278	91.731	1462.086	3.19%	50.78%
95.0	170.047	91.815	1553.901	3.19%	53.97%
100.0	178.746	94.775	1648.676	3.29%	57.27%
105.0	189.238	98.462	1747.138	3.42%	60.69%
110.0	199.272	101.550	1848.689	3.53%	64.21%
115.0	209.573	103.522	1952.211	3.60%	67.81%
120.0	220.218	104.483	2056.694	3.63%	71.44%
125.0	231.969	104.522	2161.216	3.63%	75.07%
130.0	243.377	103.356	2264.572	3.59%	78.66%
135.0	255.242	100.753	2365.325	3.50%	82.16%
140.0	265.887	96.491	2461.817	3.35%	85.51%
145.0	276.799	90.543	2552.36	3.14%	88.65%
150.0	289.732	83.426	2635.785	2.90%	91.55%
155.0	299.004	74.505	2710.29	2.59%	94.14%
160.0	292.594	62.048	2772.338	2.16%	96.30%
165.0	279.851	47.177	2819.515	1.64%	97.93%
170.0	282.064	33.332	2852.848	1.16%	99.09%
175.0	296.753	20.706	2873.554	0.72%	99.81%
180.0	158.029	5.437	2878.991	0.19%	100.00%

Zonal flux distribution table

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	273.81	9.51%	9.51%
0-40	454.59	15.79%	15.79%
0-60	867.45	30.13%	30.13%
0-90	1462.09	50.78%	50.78%
0-120	2056.69	71.44%	71.44%
0-180	2878.99	100.00%	100.00%
60-90	594.63	20.65%	20.65%
90-120	594.61	20.65%	20.65%
90-130	802.49	27.87%	27.87%
90-150	1173.70	40.77%	40.77%
90-180	1411.47	49.03%	49.03%
0-131.92	2303.19	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	33.02
10-20	95.05
20-30	145.73
30-40	180.78
40-50	201.77
50-60	211.10
60-70	209.78
70-80	198.88
80-90	185.98
90-100	186.59
100-110	200.01
110-120	208.01
120-130	207.88
130-140	197.24
140-150	173.97
150-160	136.55
160-170	80.51
170-180	20.71

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

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

:C90/270Left:0.0 Right:0.0

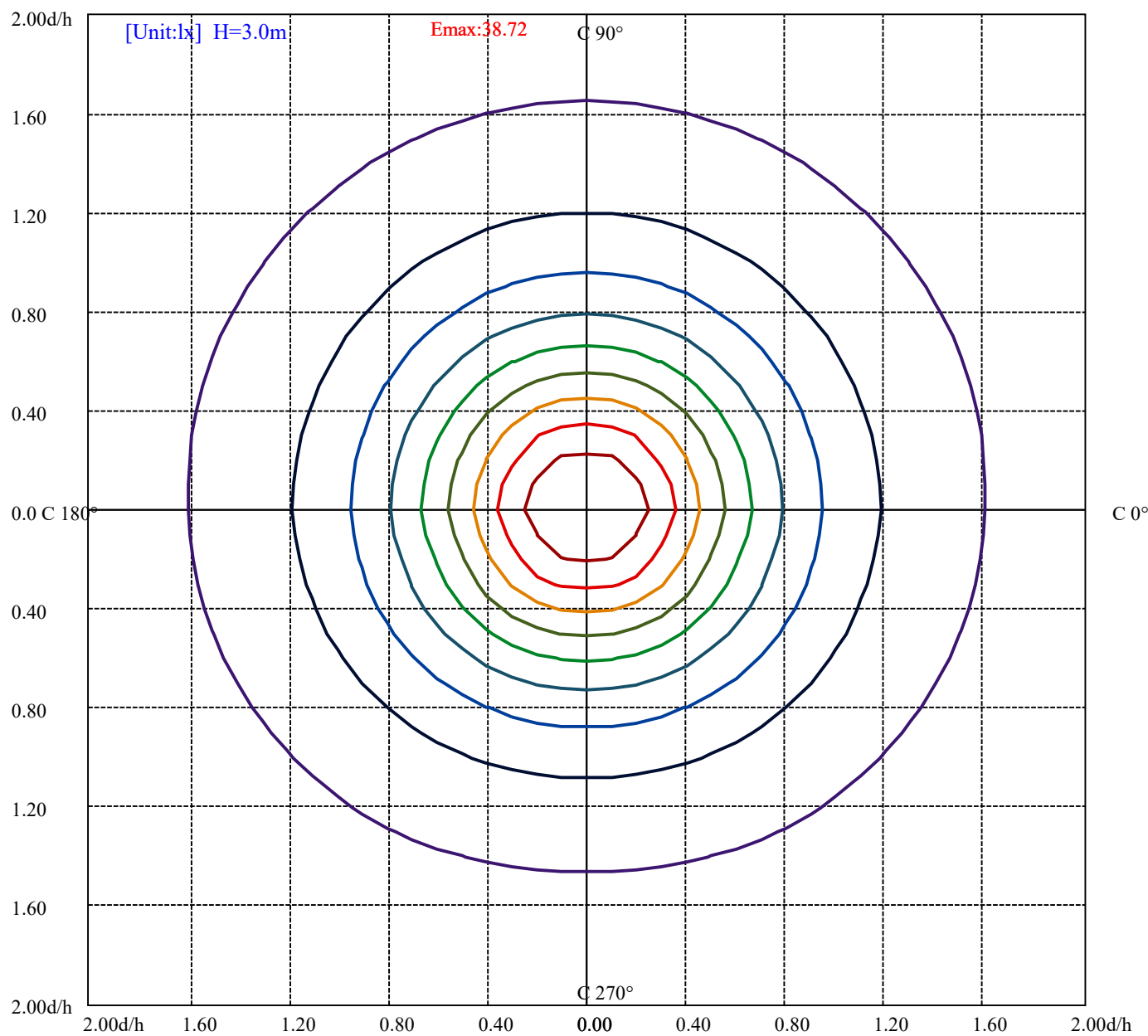
Beam Angle(50%Imax):C0/180Left:178.5 Right:178.5

:C90/270Left:0.0 Right:0.0

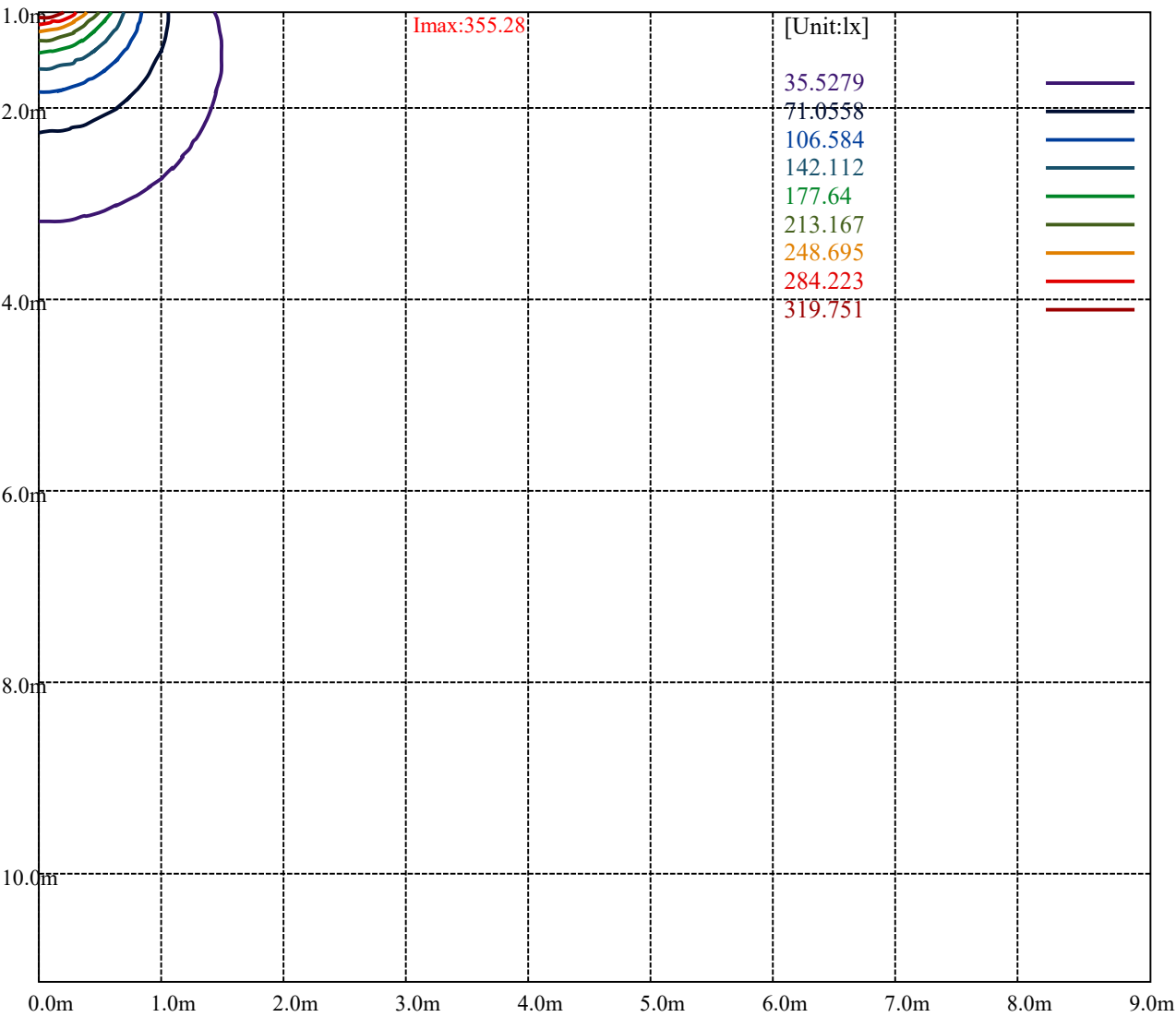


Max , Ave

Beam angle of C0 plane 252.60



(10%Emax) 3.8719	
(20%Emax) 7.743789	
(30%Emax) 11.61567	
(40%Emax) 15.48756	
(50%Emax) 19.35944	
(60%Emax) 23.23133	
(70%Emax) 27.10333	
(80%Emax) 30.97522	
(90%Emax) 34.84711	



Luminance Table

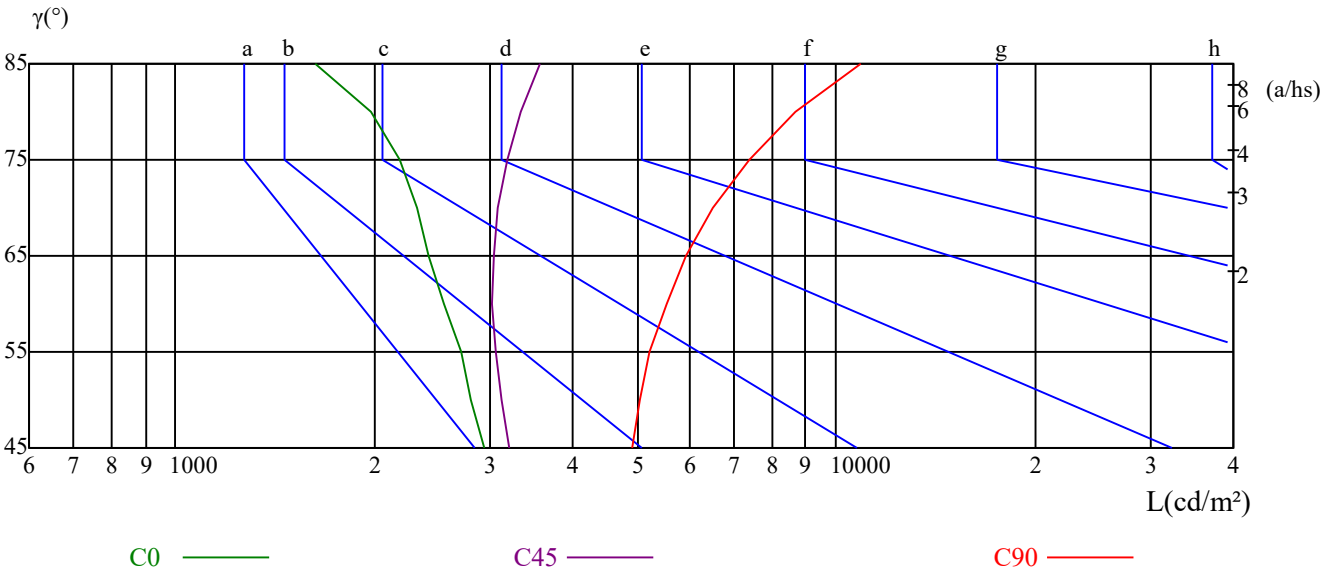
γ	45	50	55	60	65	70	75	80	85
C0	2933	2808	2709	2555	2414	2315	2192	1976	1624
C45	3210	3113	3049	3022	3029	3085	3172	3323	3570
C90	4905	5040	5236	5530	5933	6516	7402	8713	10900

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7590	7322	7874	10373	11029	11629	20185	31210	33277

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



RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFCIENTS 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	0.89	0.84	0.80	0.82	0.78	0.74	0.69	0.66	0.63	0.57	0.54	0.52	0.46	0.44	0.42	0.37
2	0.77	0.69	0.63	0.70	0.64	0.59	0.59	0.54	0.50	0.48	0.45	0.41	0.39	0.36	0.33	0.29
3	0.66	0.58	0.51	0.61	0.54	0.48	0.51	0.45	0.41	0.42	0.38	0.34	0.33	0.30	0.27	0.23
4	0.58	0.49	0.43	0.54	0.46	0.40	0.45	0.39	0.34	0.37	0.32	0.28	0.29	0.26	0.23	0.19
5	0.52	0.43	0.36	0.48	0.40	0.34	0.40	0.34	0.29	0.33	0.28	0.24	0.26	0.23	0.20	0.16
6	0.46	0.37	0.31	0.43	0.35	0.29	0.36	0.30	0.25	0.30	0.25	0.21	0.24	0.20	0.17	0.14
7	0.41	0.33	0.27	0.38	0.31	0.25	0.32	0.26	0.22	0.27	0.22	0.18	0.21	0.18	0.15	0.12
8	0.38	0.29	0.24	0.35	0.27	0.22	0.29	0.23	0.19	0.24	0.20	0.16	0.20	0.16	0.13	0.11
9	0.34	0.26	0.21	0.32	0.24	0.20	0.27	0.21	0.17	0.22	0.18	0.14	0.18	0.14	0.12	0.10
10	0.31	0.24	0.19	0.29	0.22	0.17	0.25	0.19	0.15	0.21	0.16	0.13	0.17	0.13	0.11	0.09

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	355.28	355.28	351.62	345.21	336.05	325.98	312.24	298.51	283.86
15.0	353.45	352.53	348.87	343.38	335.13	324.15	312.24	297.59	283.86
30.0	352.53	351.62	348.87	343.38	335.13	325.06	312.24	299.42	285.69
45.0	351.62	352.53	349.79	343.38	336.05	325.98	314.07	301.25	287.52
60.0	350.70	350.70	347.95	342.46	335.13	325.98	314.07	301.25	288.44
75.0	347.95	347.04	344.29	339.71	331.47	322.31	311.33	298.51	286.60
90.0	345.21	344.29	341.54	336.05	329.64	320.48	309.50	297.59	285.69
105.0	345.21	345.21	342.46	336.97	329.64	320.48	309.50	296.68	284.77
120.0	347.04	347.04	344.29	338.80	331.47	321.40	310.41	297.59	284.77
135.0	345.21	345.21	342.46	336.97	329.64	320.48	308.58	296.68	282.94
150.0	344.29	343.38	340.63	335.13	320.48	316.82	306.75	293.93	280.19
165.0	345.21	344.29	341.54	336.05	327.81	317.74	304.92	292.10	276.53
180.0	355.28	353.45	347.95	340.63	331.47	318.65	306.75	292.10	278.36
195.0	353.45	350.70	346.12	339.71	329.64	317.74	304.00	289.35	276.53
210.0	352.53	349.79	345.21	337.88	327.81	314.99	301.25	286.60	272.87
225.0	351.62	350.70	345.21	336.97	326.89	314.07	298.51	282.03	266.46
240.0	350.70	348.87	343.38	335.13	323.23	309.50	293.01	275.62	258.22
255.0	347.95	345.21	339.71	331.47	319.57	304.92	287.52	269.21	250.89
270.0	345.21	342.46	337.88	328.72	316.82	302.17	285.69	265.54	248.15
285.0	345.21	342.46	337.88	329.64	317.74	303.09	286.60	268.29	263.71
300.0	347.04	344.29	339.71	330.56	327.81	304.92	289.35	272.87	257.30
315.0	345.21	343.38	337.88	329.64	319.57	307.66	293.01	277.45	262.80
330.0	344.29	341.54	336.97	328.72	319.57	307.66	294.84	280.19	267.37
345.0	345.21	342.46	337.88	330.56	320.48	308.58	294.84	282.03	269.21
360.0	355.28	355.28	351.62	345.21	336.05	325.98	312.24	298.51	283.86
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	271.04	258.22	247.23	230.75	211.52	195.04	178.56	155.66	124.53
15.0	271.95	259.13	248.15	238.07	225.25	212.43	199.62	185.88	173.06
30.0	272.87	262.80	251.81	242.65	235.33	228.00	221.59	216.10	212.43
45.0	276.53	265.54	255.47	247.23	238.99	232.58	227.09	222.51	221.59
60.0	276.53	266.46	257.30	249.06	241.74	235.33	229.83	226.17	224.34
75.0	275.62	266.46	257.30	249.06	240.82	234.41	228.92	223.42	220.68
90.0	274.70	265.54	256.39	248.15	239.90	232.58	227.09	221.59	217.93
105.0	273.78	264.63	255.47	246.31	238.99	232.58	228.00	224.34	220.68
120.0	272.87	262.80	254.56	245.40	238.99	231.66	226.17	223.42	221.59
135.0	271.95	260.97	250.89	241.74	234.41	228.92	222.51	218.84	217.01
150.0	268.29	257.30	247.23	238.07	230.75	223.42	215.18	210.60	206.03
165.0	265.54	254.56	242.65	232.58	217.93	204.19	189.54	172.15	156.58
180.0	266.46	254.56	241.74	221.59	204.19	189.54	169.40	141.01	103.47
195.0	264.63	253.64	238.99	225.25	207.86	188.63	167.57	142.84	127.28
210.0	260.05	245.40	229.83	216.10	200.53	183.13	157.49	141.93	140.10
225.0	251.81	237.16	219.76	206.03	195.04	180.39	165.74	153.83	154.75
240.0	241.74	225.25	210.60	195.95	184.05	172.15	160.24	152.92	145.59
255.0	233.50	215.18	198.70	183.13	169.40	156.58	140.10	139.18	130.94
270.0	229.83	211.52	193.21	189.54	161.16	150.17	142.84	135.52	134.60
285.0	232.58	215.18	198.70	184.05	171.23	159.33	151.09	146.51	143.76
300.0	239.90	225.25	210.60	197.78	186.80	176.72	167.57	161.16	160.24
315.0	249.06	234.41	218.84	205.11	194.12	182.22	164.82	153.83	158.41
330.0	255.47	240.82	227.09	214.27	199.62	181.30	159.33	140.10	134.60
345.0	257.30	245.40	233.50	217.93	201.45	183.13	163.90	141.01	123.62
360.0	271.04	258.22	247.23	230.75	211.52	195.04	178.56	155.66	124.53

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	86.99	103.47	141.01	169.40	187.71	204.19	220.68	240.82	254.56
15.0	164.82	168.48	179.47	193.21	205.11	218.84	232.58	244.48	254.56
30.0	209.69	211.52	215.18	219.76	225.25	231.66	239.90	248.15	258.22
45.0	220.68	221.59	222.51	225.25	231.66	237.16	244.48	252.72	261.88
60.0	223.42	223.42	225.25	228.92	233.50	239.90	247.23	254.56	263.71
75.0	219.76	220.68	223.42	228.92	233.50	240.82	248.15	257.30	266.46
90.0	216.10	217.93	221.59	227.09	233.50	240.82	249.06	258.22	267.37
105.0	219.76	220.68	223.42	227.09	232.58	238.99	247.23	256.39	265.54
120.0	220.68	221.59	223.42	226.17	230.75	237.16	244.48	252.72	260.97
135.0	216.10	216.10	217.01	219.76	225.25	231.66	239.90	247.23	257.30
150.0	204.19	204.19	206.94	212.43	218.84	227.09	233.50	242.65	252.72
165.0	144.68	150.17	163.90	180.39	195.04	209.69	224.34	238.99	249.06
180.0	89.74	126.36	158.41	182.22	197.78	214.27	233.50	249.98	261.88
195.0	122.70	136.43	162.07	183.13	199.62	214.27	230.75	243.57	253.64
210.0	140.10	143.76	151.09	164.82	174.89	183.13	194.12	204.19	216.10
225.0	154.75	159.33	162.99	172.15	182.22	194.12	195.04	212.43	227.09
240.0	140.10	141.01	141.01	150.17	167.57	181.30	195.04	209.69	227.09
255.0	132.77	133.69	134.60	142.84	157.49	171.23	184.05	197.78	210.60
270.0	136.43	137.35	139.18	145.59	153.83	166.65	177.64	188.63	200.53
285.0	141.93	144.68	150.17	158.41	165.74	172.15	181.30	192.29	207.86
300.0	152.92	150.17	154.75	167.57	178.56	190.46	203.28	217.93	234.41
315.0	153.83	159.33	165.74	174.89	184.96	195.04	204.19	217.93	231.66
330.0	134.60	136.43	148.34	161.16	171.23	177.64	185.88	196.87	205.11
345.0	119.95	132.77	158.41	180.39	195.95	211.52	228.92	241.74	252.72
360.0	86.99	103.47	141.01	169.40	187.71	204.19	220.68	240.82	254.56
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	267.37	279.28	293.01	308.58	322.31	320.48	244.48	238.99	317.74
15.0	267.37	280.19	293.93	307.66	322.31	334.22	295.76	239.90	292.10
30.0	270.12	282.03	294.84	309.50	323.23	334.22	344.29	282.03	243.57
45.0	271.95	283.86	296.68	310.41	323.23	334.22	342.46	347.95	268.29
60.0	273.78	284.77	297.59	311.33	324.15	334.22	342.46	348.87	348.87
75.0	276.53	287.52	299.42	312.24	324.15	334.22	342.46	349.79	354.36
90.0	277.45	287.52	298.51	311.33	323.23	334.22	341.54	350.70	354.36
105.0	274.70	285.69	297.59	310.41	323.23	332.39	341.54	348.87	352.53
120.0	271.95	282.03	295.76	307.66	320.48	331.47	341.54	347.04	350.70
135.0	267.37	278.36	291.18	304.92	318.65	330.56	339.71	347.04	349.79
150.0	262.80	275.62	289.35	303.09	315.91	328.72	336.97	344.29	347.04
165.0	260.97	272.87	286.60	301.25	314.07	325.98	335.13	341.54	346.12
180.0	272.87	287.52	300.34	314.99	326.89	260.05	238.99	295.76	270.12
195.0	264.63	267.37	269.21	280.19	278.36	264.63	233.50	281.11	238.99
210.0	226.17	226.17	219.76	233.50	243.57	228.92	234.41	250.89	238.07
225.0	241.74	248.15	258.22	276.53	297.59	290.27	271.95	232.58	249.98
240.0	245.40	260.97	277.45	294.84	301.25	304.00	279.28	233.50	203.28
255.0	225.25	238.99	252.72	262.80	265.54	268.29	246.31	176.72	172.15
270.0	211.52	223.42	235.33	241.74	239.90	239.90	194.12	118.12	234.41
285.0	221.59	234.41	247.23	256.39	257.30	243.57	158.41	154.75	287.52
300.0	249.98	265.54	281.11	295.76	298.51	230.75	190.46	228.92	301.25
315.0	245.40	253.64	266.46	282.94	282.03	225.25	219.76	281.11	322.31
330.0	215.18	219.76	220.68	230.75	238.07	218.84	224.34	306.75	336.05
345.0	263.71	275.62	280.19	284.77	292.10	272.87	276.53	322.31	342.46
360.0	267.37	279.28	293.01	308.58	322.31	320.48	244.48	238.99	317.74

Intensity data(cd)

C/ γ (°)	180.0
0.0	251.81
15.0	290.27
30.0	315.91
45.0	264.63
60.0	260.97
75.0	337.88
90.0	349.79
105.0	348.87
120.0	345.21
135.0	343.38
150.0	342.46
165.0	341.54
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	251.81