
AFX

Client:

LumCAT: VRNV2207LAJUDSN

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.000

LampCAT:

Current(A): 0.245

Lamp flux(lm): 2702.1

Power (W): 29.100

Number of Lamps: 1

PF: 0.991

Length(mm): 540

Width(mm): 120

Phm Type: C

Height(mm): 120

Photometric Results

Lumens(lm): 2702.07, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 92.85

Central intensity(cd): 333.303, Maximum intensity(cd): 333.303

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(%): 49.21%

Down flux rate of lamp(%): 50.79%

Up flux rate of LUM(%): 49.21%

Down flux rate of LUM(%): 50.79%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 30.131%

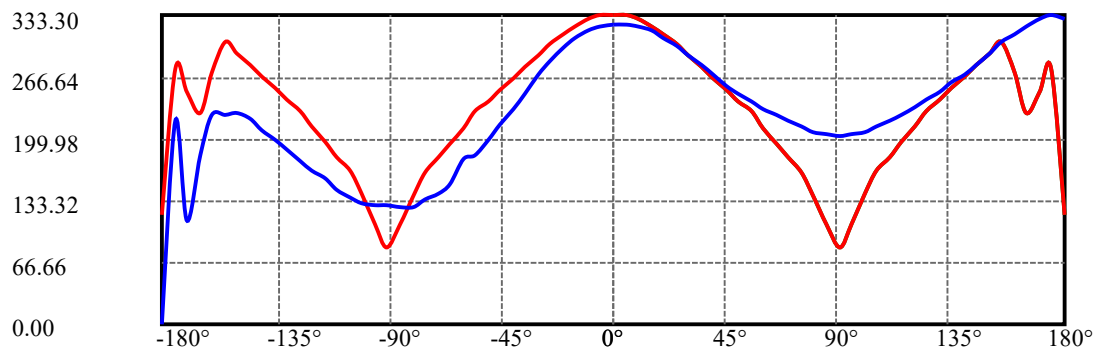
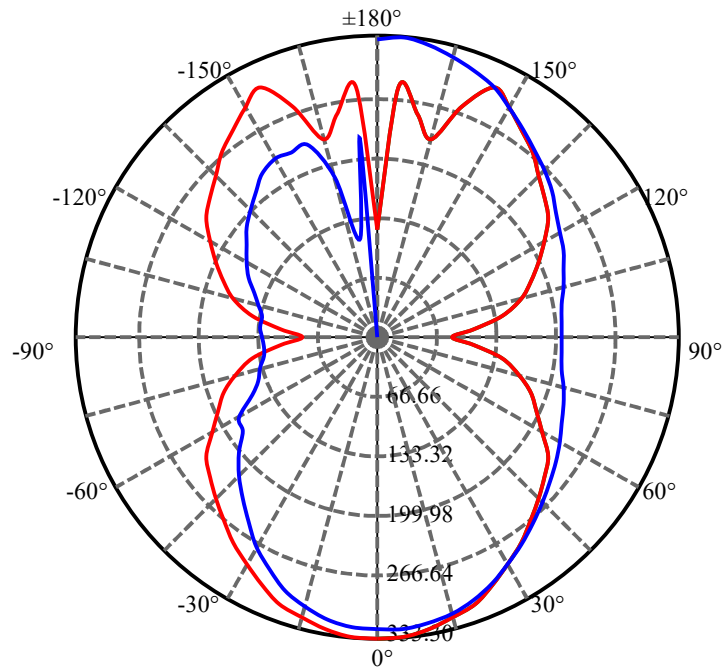
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	327.046	0.000	0	0.00%	0.00%
5.0	325.825	7.805	7.805	0.29%	0.29%
10.0	322.124	23.179	30.984	0.86%	1.15%
15.0	315.905	37.847	68.832	1.40%	2.55%
20.0	307.359	51.366	120.197	1.90%	4.45%
25.0	296.371	63.320	183.517	2.34%	6.79%
30.0	284.010	73.448	256.965	2.72%	9.51%
35.0	270.313	81.628	338.593	3.02%	12.53%
40.0	257.608	88.080	426.672	3.26%	15.79%
45.0	244.598	92.987	519.66	3.44%	19.23%
50.0	232.580	96.421	616.081	3.57%	22.80%
55.0	220.790	98.578	714.658	3.65%	26.45%
60.0	209.726	99.513	814.171	3.68%	30.13%
65.0	198.356	99.206	913.377	3.67%	33.80%
70.0	187.483	97.697	1011.074	3.62%	37.42%
75.0	176.152	95.048	1106.122	3.52%	40.94%
80.0	166.270	91.622	1197.744	3.39%	44.33%
85.0	159.402	88.493	1286.237	3.28%	47.60%
90.0	155.129	86.121	1372.359	3.19%	50.79%
95.0	159.479	86.142	1458.501	3.19%	53.98%
100.0	167.720	88.908	1547.408	3.29%	57.27%
105.0	177.525	92.378	1639.786	3.42%	60.69%
110.0	186.911	95.258	1735.044	3.53%	64.21%
115.0	196.678	97.127	1832.171	3.59%	67.81%
120.0	206.674	98.056	1930.227	3.63%	71.44%
125.0	217.738	98.102	2028.328	3.63%	75.07%
130.0	228.497	97.026	2125.355	3.59%	78.66%
135.0	239.562	94.578	2219.933	3.50%	82.16%
140.0	249.634	90.579	2310.511	3.35%	85.51%
145.0	259.783	84.992	2395.504	3.15%	88.65%
150.0	272.068	78.319	2473.822	2.90%	91.55%
155.0	280.576	69.938	2543.76	2.59%	94.14%
160.0	274.548	58.222	2601.982	2.15%	96.30%
165.0	262.682	44.275	2646.257	1.64%	97.93%
170.0	264.590	31.277	2677.535	1.16%	99.09%
175.0	278.554	19.430	2696.965	0.72%	99.81%
180.0	148.338	5.103	2702.068	0.19%	100.00%

Zonal flux distribution table

ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	256.97	9.51%	9.51%
0-40	426.67	15.79%	15.79%
0-60	814.17	30.13%	30.13%
0-90	1372.36	50.79%	50.79%
0-120	1930.23	71.44%	71.44%
0-180	2702.07	100.00%	100.00%
60-90	558.19	20.66%	20.66%
90-120	557.87	20.65%	20.65%
90-130	753.00	27.87%	27.87%
90-150	1101.46	40.76%	40.76%
90-180	1324.61	49.02%	49.02%
0-131.92	2161.65	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	30.98
10-20	89.21
20-30	136.77
30-40	169.71
40-50	189.41
50-60	198.09
60-70	196.90
70-80	186.67
80-90	174.61
90-100	175.05
100-110	187.64
110-120	195.18
120-130	195.13
130-140	185.16
140-150	163.31
150-160	128.16
160-170	75.55
170-180	19.43

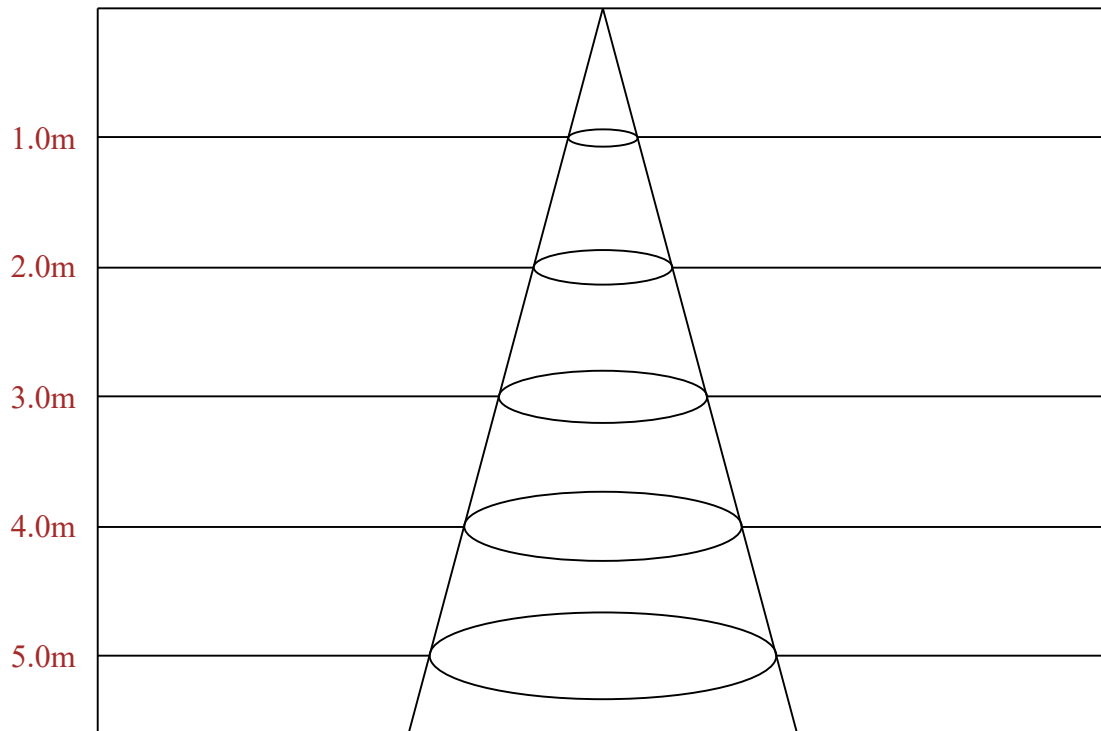
C0(Max): —————C0/C180: —————C90/C270: —————

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

:C90/270Left:0.0 Right:0.0

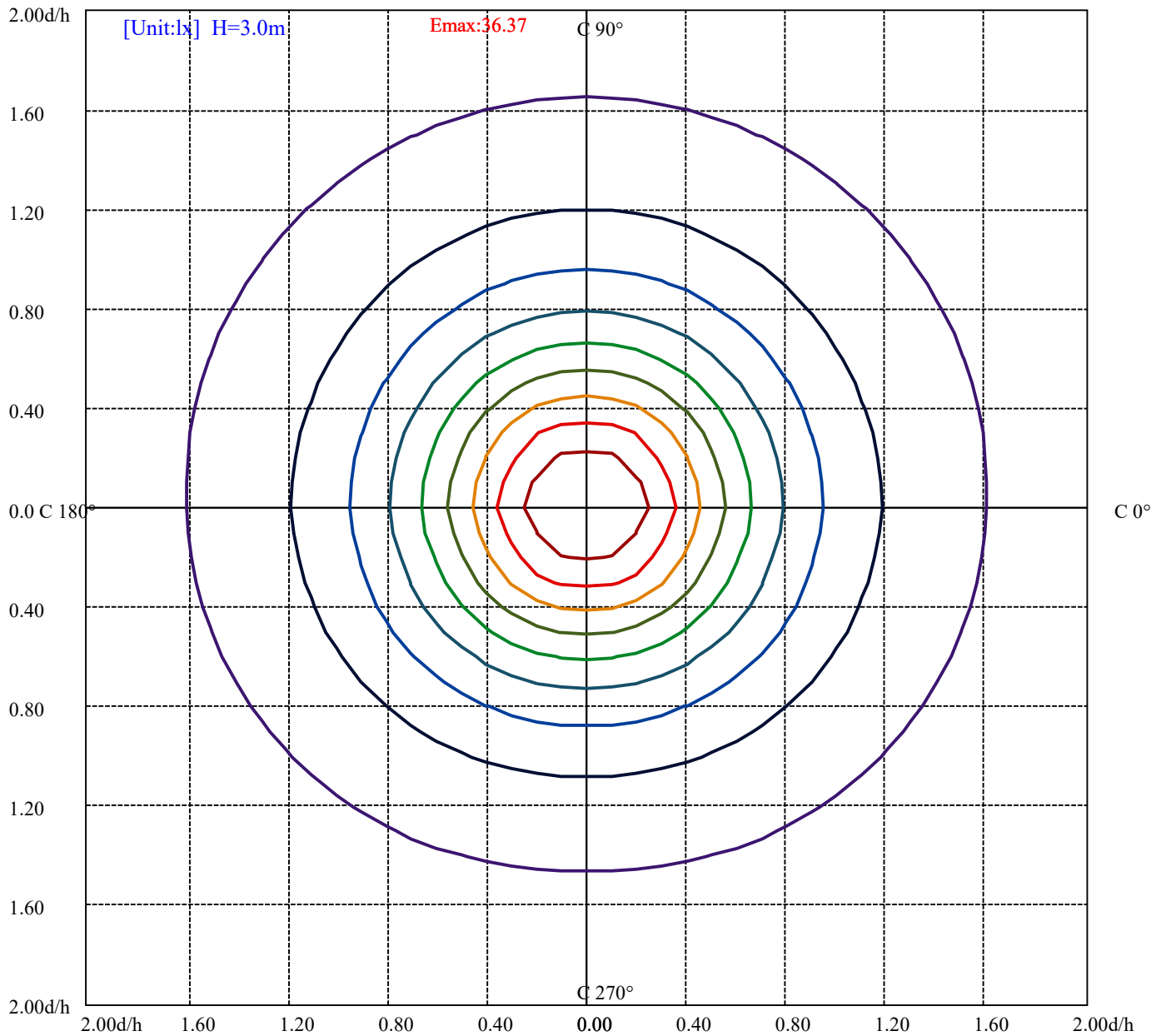
Beam Angle(50%Imax):C0/180Left:178.5 Right:178.5

:C90/270Left:0.0 Right:0.0

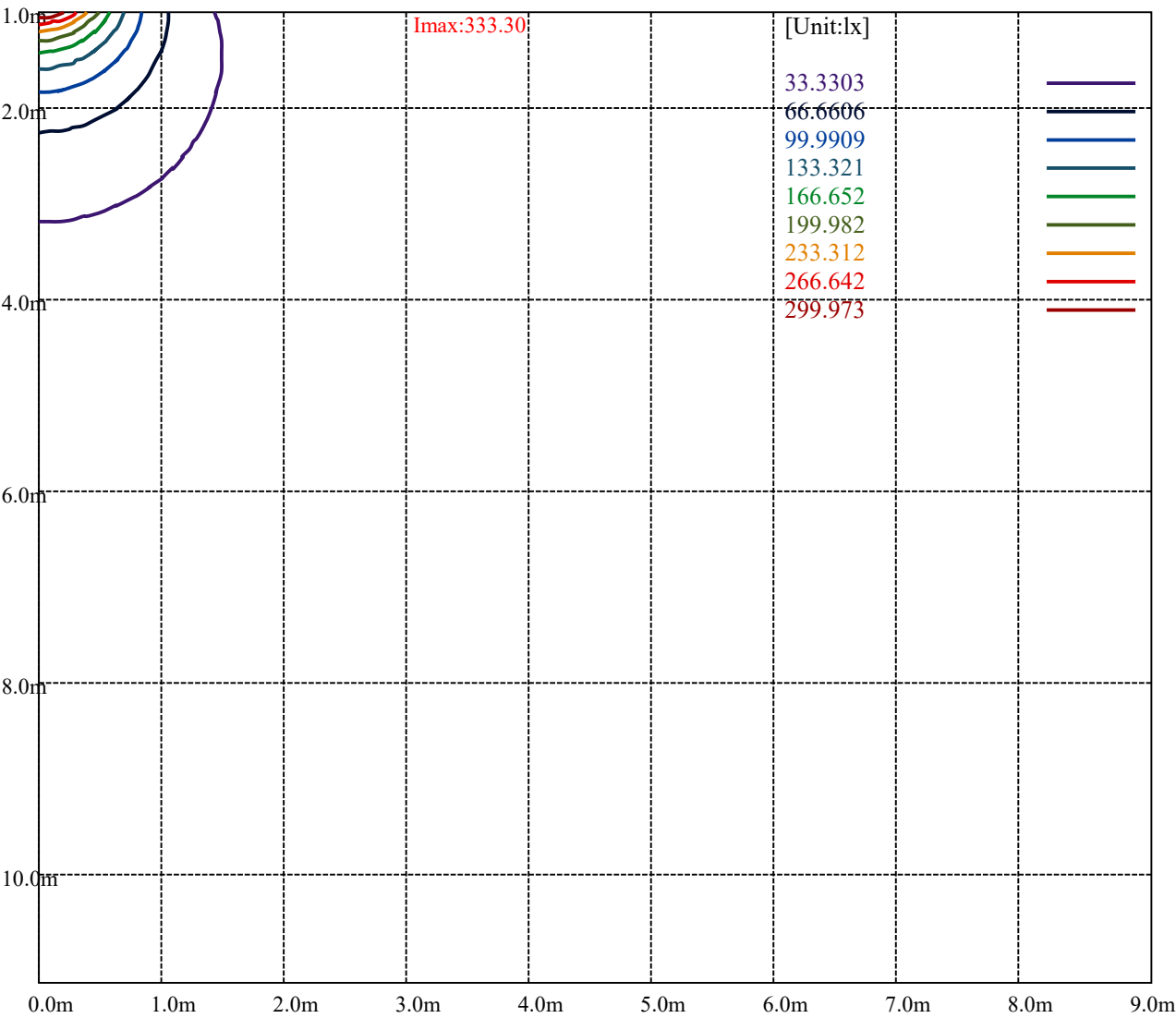


Max , Ave

Beam angle of C0 plane 252.56



(10%Emax) 3.637233	—
(20%Emax) 7.274467	—
(30%Emax) 10.91171	—
(40%Emax) 14.54889	—
(50%Emax) 18.18622	—
(60%Emax) 21.82344	—
(70%Emax) 25.46067	—
(80%Emax) 29.09789	—
(90%Emax) 32.73511	—



Luminance Limiting Curve(no luminous side)

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Luminance Table

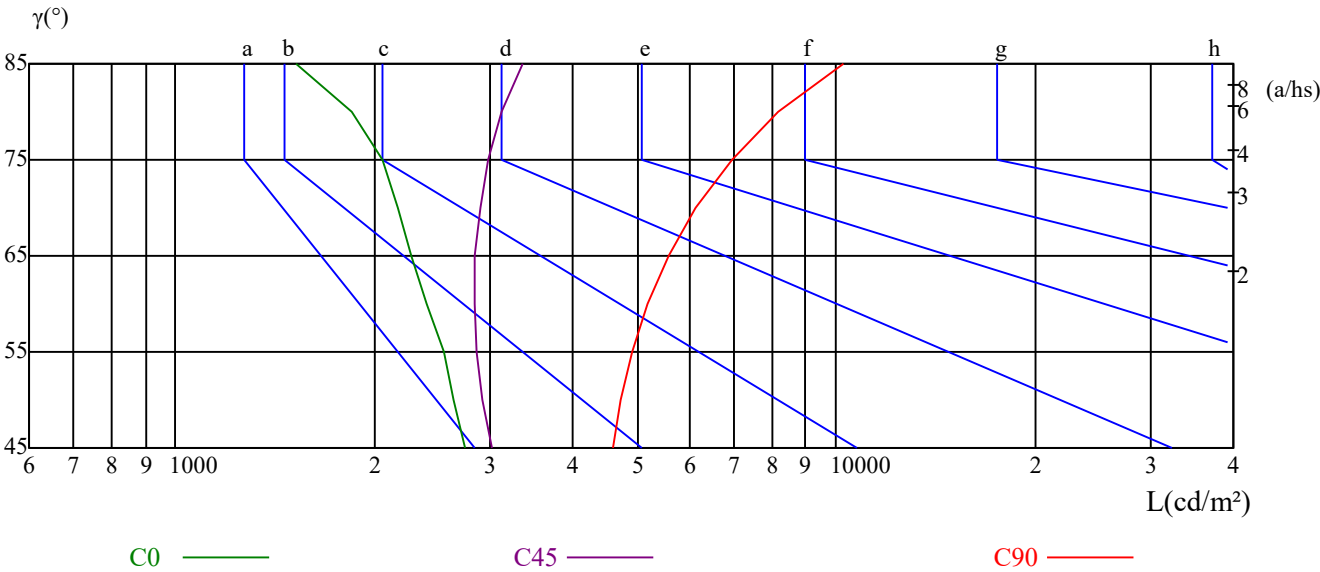
γ	45	50	55	60	65	70	75	80	85
C0	2753	2638	2542	2395	2270	2172	2054	1854	1526
C45	3018	2924	2861	2835	2842	2896	2978	3116	3346
C90	4594	4727	4918	5183	5571	6131	6954	8173	10259

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7139	6888	7389	9718	10346	10919	18969	29346	31210

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	0.89	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	333.30	333.30	329.64	324.15	315.91	305.83	293.01	280.19	266.46
15.0	331.47	330.56	327.81	322.31	314.07	304.00	293.01	279.28	266.46
30.0	330.56	329.64	326.89	322.31	314.07	304.92	293.01	280.19	268.29
45.0	330.56	330.56	327.81	322.31	314.99	305.83	294.84	282.94	270.12
60.0	329.64	329.64	325.98	321.40	314.99	305.83	294.84	282.94	271.04
75.0	325.98	325.06	323.23	318.65	311.33	303.09	292.10	280.19	269.21
90.0	323.23	323.23	320.48	315.91	308.58	300.34	290.27	279.28	268.29
105.0	324.15	323.23	321.40	315.91	309.50	300.34	290.27	278.36	267.37
120.0	325.06	325.06	323.23	317.74	311.33	301.25	291.18	279.28	267.37
135.0	324.15	324.15	321.40	315.91	309.50	300.34	289.35	278.36	265.54
150.0	323.23	322.31	319.57	314.99	300.34	297.59	287.52	275.62	262.80
165.0	323.23	323.23	320.48	314.99	307.66	297.59	286.60	273.78	260.05
180.0	333.30	331.47	326.89	319.57	311.33	299.42	287.52	273.78	261.88
195.0	331.47	329.64	325.06	318.65	309.50	298.51	285.69	271.95	260.05
210.0	330.56	327.81	323.23	316.82	307.66	295.76	282.94	269.21	256.39
225.0	330.56	328.72	324.15	316.82	306.75	293.93	280.19	264.63	249.98
240.0	329.64	327.81	322.31	314.99	304.00	291.18	275.62	259.13	242.65
255.0	325.98	324.15	319.57	311.33	300.34	286.60	270.12	252.72	236.24
270.0	323.23	321.40	316.82	308.58	297.59	282.94	268.29	249.06	232.58
285.0	324.15	321.40	316.82	309.50	298.51	284.77	269.21	251.81	248.15
300.0	325.06	323.23	318.65	310.41	307.66	285.69	271.95	256.39	241.74
315.0	324.15	322.31	316.82	309.50	300.34	288.44	274.70	260.97	246.31
330.0	323.23	320.48	315.91	308.58	300.34	288.44	276.53	262.80	250.89
345.0	323.23	321.40	316.82	310.41	300.34	290.27	277.45	264.63	252.72
360.0	333.30	333.30	329.64	324.15	315.91	305.83	293.01	280.19	266.46
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	254.56	242.65	231.66	216.10	198.70	183.13	167.57	145.59	117.21
15.0	254.56	243.57	232.58	223.42	211.52	198.70	186.80	173.98	162.99
30.0	256.39	246.31	236.24	228.00	220.68	214.27	207.86	203.28	199.62
45.0	260.05	249.06	239.90	231.66	224.34	218.84	213.35	208.77	207.86
60.0	260.05	249.98	241.74	233.50	227.09	220.68	215.18	212.43	210.60
75.0	259.13	249.98	241.74	233.50	226.17	220.68	214.27	209.69	207.86
90.0	257.30	249.06	240.82	232.58	225.25	218.84	213.35	207.86	205.11
105.0	257.30	248.15	238.99	231.66	224.34	218.84	214.27	210.60	206.94
120.0	256.39	246.31	238.99	229.83	224.34	217.01	212.43	209.69	207.86
135.0	255.47	245.40	235.33	227.09	219.76	214.27	208.77	205.11	203.28
150.0	251.81	240.82	231.66	223.42	217.01	209.69	202.36	196.87	193.21
165.0	249.98	238.07	228.00	217.93	205.11	191.37	178.56	162.07	147.42
180.0	249.98	238.99	227.09	207.86	192.29	177.64	158.41	132.77	97.06
195.0	248.15	238.07	224.34	211.52	195.04	176.72	156.58	134.60	119.04
210.0	243.57	229.83	216.10	203.28	188.63	171.23	148.34	132.77	131.86
225.0	236.24	222.51	206.94	193.21	183.13	169.40	155.66	144.68	145.59
240.0	227.09	211.52	196.87	184.05	173.06	162.07	151.09	143.76	136.43
255.0	218.84	202.36	186.80	172.15	158.41	147.42	131.86	130.94	122.70
270.0	215.18	198.70	181.30	177.64	152.00	141.01	133.69	127.28	126.36
285.0	218.84	202.36	186.80	172.15	160.24	150.17	141.93	138.27	135.52
300.0	225.25	211.52	197.78	185.88	174.89	165.74	157.49	151.09	150.17
315.0	233.50	219.76	205.11	192.29	182.22	170.31	154.75	143.76	148.34
330.0	239.90	226.17	213.35	200.53	187.71	169.40	149.25	131.86	126.36
345.0	240.82	230.75	218.84	204.19	188.63	172.15	153.83	132.77	116.29
360.0	254.56	242.65	231.66	216.10	198.70	183.13	167.57	145.59	117.21

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	81.49	97.06	131.86	158.41	175.81	191.37	206.94	226.17	238.99
15.0	154.75	157.49	168.48	181.30	192.29	205.11	218.84	229.83	238.99
30.0	196.87	197.78	201.45	206.03	211.52	217.01	224.34	232.58	242.65
45.0	206.94	207.86	208.77	211.52	217.01	222.51	229.83	237.16	246.31
60.0	209.69	209.69	211.52	214.27	219.76	225.25	231.66	238.99	247.23
75.0	206.03	206.94	209.69	214.27	219.76	226.17	233.50	241.74	249.98
90.0	203.28	204.19	207.86	213.35	218.84	226.17	233.50	241.74	250.89
105.0	206.03	206.94	209.69	213.35	217.93	224.34	231.66	240.82	249.06
120.0	206.94	207.86	209.69	212.43	216.10	222.51	228.92	237.16	245.40
135.0	202.36	202.36	204.19	206.94	211.52	217.93	224.34	232.58	241.74
150.0	191.37	192.29	194.12	198.70	205.11	213.35	219.76	227.09	237.16
165.0	136.43	141.01	153.83	169.40	183.13	196.87	210.60	224.34	233.50
180.0	84.24	118.12	149.25	171.23	185.88	201.45	219.76	235.33	245.40
195.0	115.37	128.19	152.00	172.15	186.80	201.45	216.10	228.00	238.07
210.0	131.86	134.60	141.93	154.75	163.90	171.23	182.22	192.29	203.28
225.0	144.68	150.17	152.92	161.16	171.23	182.22	183.13	199.62	213.35
240.0	130.94	131.86	131.86	141.01	156.58	170.31	183.13	196.87	213.35
255.0	124.53	125.45	126.36	133.69	148.34	160.24	173.06	185.88	197.78
270.0	128.19	129.11	130.02	137.35	144.68	156.58	166.65	176.72	188.63
285.0	133.69	135.52	141.01	148.34	154.75	161.16	170.31	180.39	195.04
300.0	143.76	141.01	144.68	156.58	167.57	178.56	190.46	204.19	219.76
315.0	144.68	149.25	155.66	163.90	173.06	183.13	192.29	204.19	217.01
330.0	126.36	128.19	139.18	151.09	160.24	166.65	173.98	184.96	193.21
345.0	112.63	124.53	149.25	169.40	184.05	198.70	215.18	227.09	237.16
360.0	81.49	97.06	131.86	158.41	175.81	191.37	206.94	226.17	238.99
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	250.89	262.80	275.62	289.35	303.09	300.34	229.83	224.34	298.51
15.0	250.89	262.80	275.62	289.35	302.17	313.16	278.36	225.25	273.78
30.0	253.64	264.63	276.53	290.27	303.09	314.07	322.31	264.63	228.92
45.0	255.47	266.46	278.36	292.10	304.00	313.16	321.40	325.98	251.81
60.0	257.30	267.37	279.28	292.10	304.00	314.07	321.40	327.81	327.81
75.0	260.05	269.21	281.11	293.01	304.00	314.07	321.40	327.81	332.39
90.0	260.05	270.12	280.19	292.10	304.00	313.16	320.48	328.72	333.30
105.0	257.30	268.29	279.28	292.10	303.09	312.24	320.48	326.89	330.56
120.0	255.47	264.63	277.45	288.44	300.34	310.41	320.48	325.98	328.72
135.0	250.89	261.88	273.78	286.60	299.42	310.41	318.65	325.06	327.81
150.0	247.23	259.13	271.04	284.77	296.68	308.58	316.82	323.23	325.98
165.0	244.48	256.39	269.21	282.94	294.84	305.83	314.99	320.48	325.06
180.0	256.39	270.12	282.03	295.76	306.75	243.57	224.34	277.45	253.64
195.0	248.15	250.89	252.72	263.71	260.97	248.15	219.76	263.71	224.34
210.0	212.43	211.52	206.03	218.84	228.00	215.18	219.76	235.33	223.42
225.0	227.09	233.50	241.74	260.05	279.28	272.87	255.47	217.93	234.41
240.0	229.83	245.40	260.97	276.53	282.03	284.77	261.88	219.76	191.37
255.0	211.52	224.34	237.16	246.31	249.06	251.81	230.75	165.74	161.16
270.0	198.70	209.69	220.68	227.09	225.25	225.25	182.22	110.80	219.76
285.0	207.86	219.76	232.58	240.82	241.74	228.92	148.34	145.59	270.12
300.0	235.33	249.98	263.71	277.45	280.19	217.01	179.47	214.27	282.94
315.0	229.83	238.07	249.98	265.54	264.63	211.52	206.03	263.71	302.17
330.0	201.45	206.03	206.94	217.01	223.42	205.11	210.60	287.52	315.91
345.0	247.23	258.22	262.80	267.37	273.78	255.47	259.13	302.17	321.40
360.0	250.89	262.80	275.62	289.35	303.09	300.34	229.83	224.34	298.51

Intensity data(cd)

C/ γ (°)	180.0
0.0	236.24
15.0	272.87
30.0	296.68
45.0	249.06
60.0	244.48
75.0	316.82
90.0	328.72
105.0	326.89
120.0	324.15
135.0	322.31
150.0	321.40
165.0	320.48
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	236.24