
乐达凯

Client:

LumCAT: CRNW0616LAJUDBK

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 120.000

LampCAT:

Current(A): 0.178

Lamp flux(lm): 1681.9

Power (W): 21.200

Number of Lamps: 1

PF: 0.991

Length(mm): 570

Width(mm): 100

Phm Type: C

Height(mm): 120

Photometric Results

Lumens(lm): 1681.89, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 79.33

Central intensity(cd): 216.193, Maximum intensity(cd): 284.271

Angle of maximum intensity: C=90.0 γ =125.0

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=1.28 C90_270=1.84

Maximum s/h(1/4): C0_180=1.39 C90_270=2.00

Up flux rate of lamp(%): 49.77%

Down flux rate of lamp(%): 50.23%

Up flux rate of LUM(%): 49.77%

Down flux rate of LUM(%): 50.23%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 31.459%

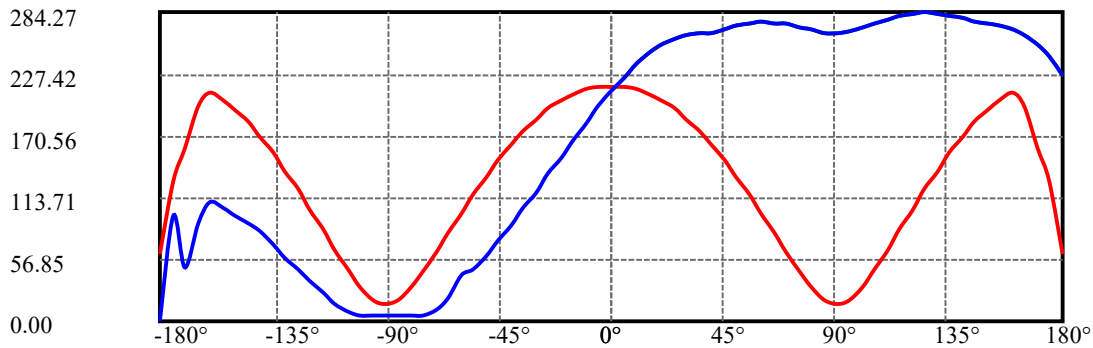
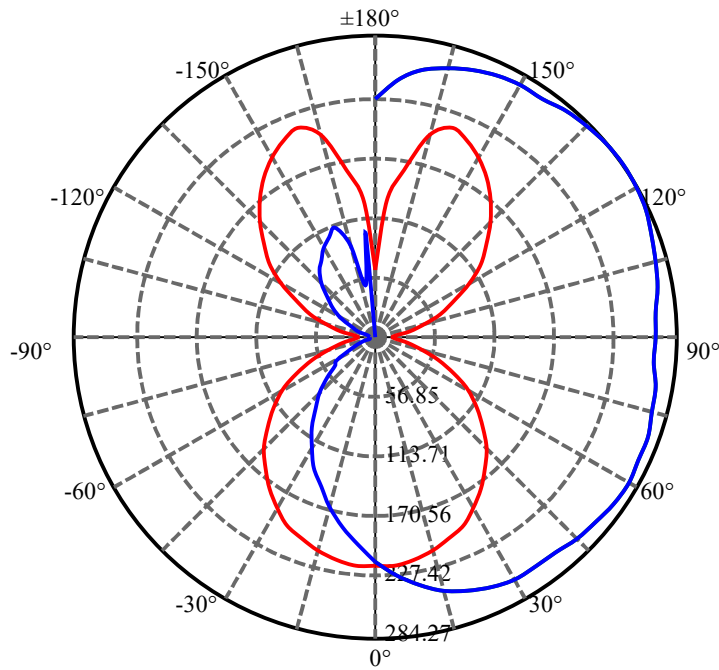
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	213.970	0.000	0	0.00%	0.00%
5.0	212.705	5.101	5.101	0.30%	0.30%
10.0	210.865	15.152	20.253	0.90%	1.20%
15.0	207.415	24.812	45.065	1.48%	2.68%
20.0	203.007	33.824	78.89	2.01%	4.69%
25.0	196.107	41.860	120.749	2.49%	7.18%
30.0	188.402	48.660	169.409	2.89%	10.07%
35.0	179.279	54.144	223.553	3.22%	13.29%
40.0	169.696	58.224	281.777	3.46%	16.75%
45.0	159.346	60.925	342.702	3.62%	20.38%
50.0	148.997	62.305	405.007	3.70%	24.08%
55.0	138.455	62.502	467.509	3.72%	27.80%
60.0	128.029	61.597	529.106	3.66%	31.46%
65.0	117.028	59.574	588.679	3.54%	35.00%
70.0	106.563	56.615	645.294	3.37%	38.37%
75.0	97.593	53.363	698.657	3.17%	41.54%
80.0	90.962	50.452	749.11	3.00%	44.54%
85.0	86.937	48.339	797.449	2.87%	47.41%
90.0	85.825	47.304	844.753	2.81%	50.23%
95.0	86.975	47.314	892.067	2.81%	53.04%
100.0	91.537	48.506	940.573	2.88%	55.92%
105.0	99.587	51.139	991.713	3.04%	58.96%
110.0	109.553	54.666	1046.378	3.25%	62.21%
115.0	120.171	58.168	1104.546	3.46%	65.67%
120.0	130.636	60.972	1165.517	3.63%	69.30%
125.0	141.599	62.926	1228.444	3.74%	73.04%
130.0	151.833	63.802	1292.246	3.79%	76.83%
135.0	161.455	63.304	1355.55	3.76%	80.60%
140.0	169.389	61.258	1416.808	3.64%	84.24%
145.0	177.017	57.795	1474.604	3.44%	87.68%
150.0	183.534	53.094	1527.698	3.16%	90.83%
155.0	188.862	47.127	1574.825	2.80%	93.63%
160.0	191.660	39.910	1614.734	2.37%	96.01%
165.0	184.876	31.032	1645.766	1.85%	97.85%
170.0	167.856	20.924	1666.69	1.24%	99.10%
175.0	169.159	12.056	1678.746	0.72%	99.81%
180.0	93.875	3.145	1681.891	0.19%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	169.41	10.07%	10.07%
0-40	281.78	16.75%	16.75%
0-60	529.11	31.46%	31.46%
0-90	844.75	50.23%	50.23%
0-120	1165.52	69.30%	69.30%
0-180	1681.89	100.00%	100.00%
60-90	315.65	18.77%	18.77%
90-120	320.76	19.07%	19.07%
90-130	447.49	26.61%	26.61%
90-150	682.94	40.61%	40.61%
90-180	833.99	49.59%	49.59%
0-134.21	1345.51	80.00%	80.00%

ZONAL LUMEN SUMMARY

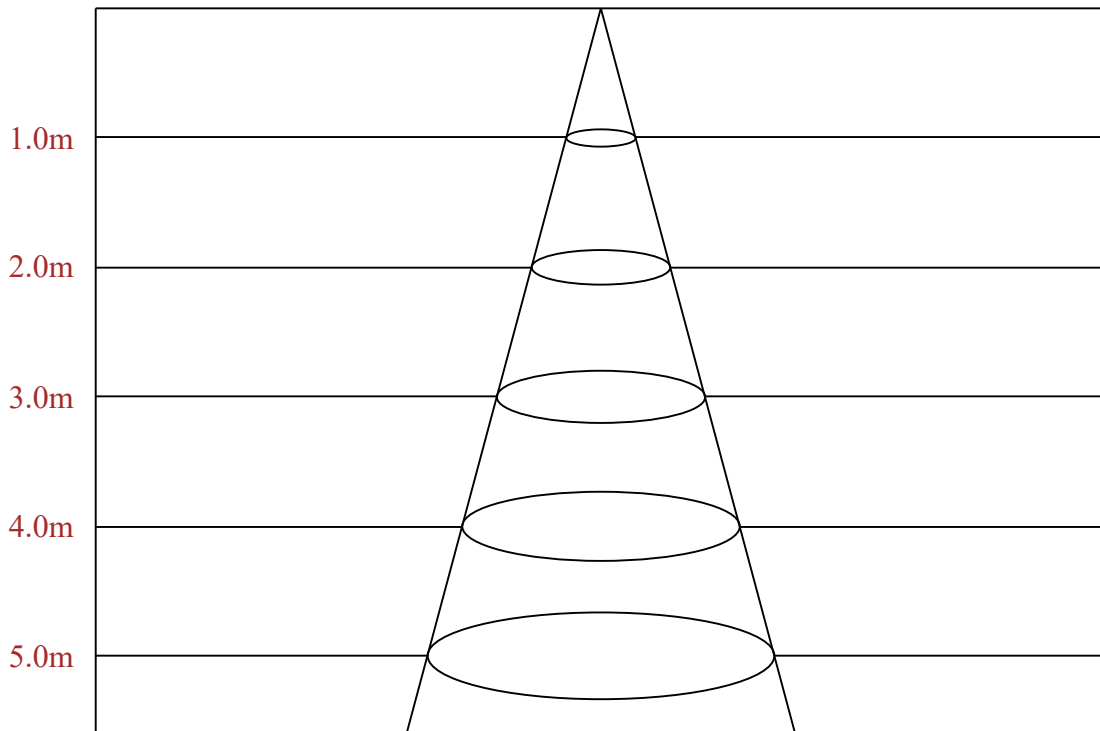
0-10	20.25
10-20	58.64
20-30	90.52
30-40	112.37
40-50	123.23
50-60	124.10
60-70	116.19
70-80	103.82
80-90	95.64
90-100	95.82
100-110	105.81
110-120	119.14
120-130	126.73
130-140	124.56
140-150	110.89
150-160	87.04
160-170	51.96
170-180	12.06



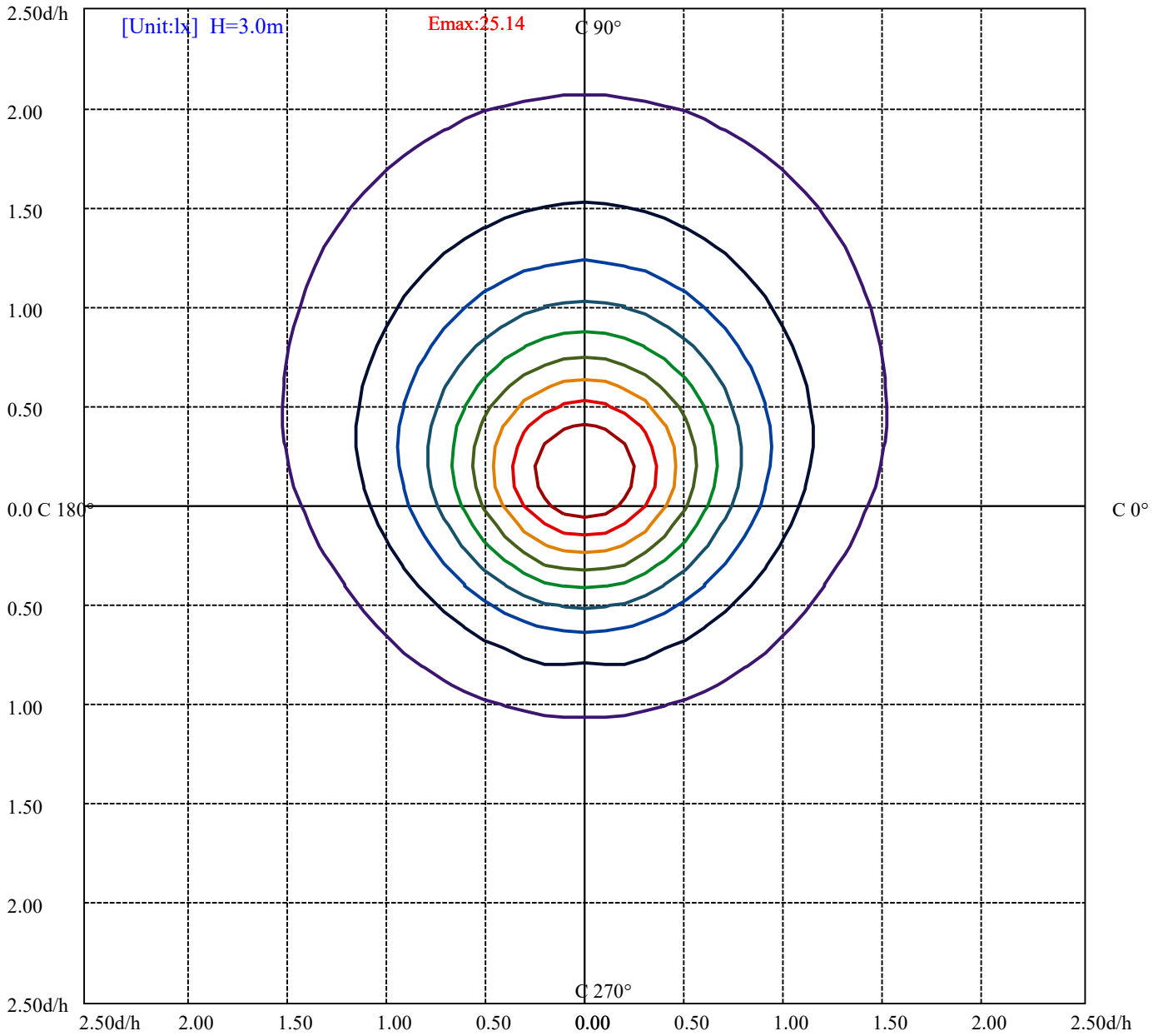
C90(Max): —————
 C0/C180: —————
 C90/C270: —————

Field angle(10%Imax):C0/180Left:0.0 Right:0.0
 :C90/270Left:0.0 Right:0.0

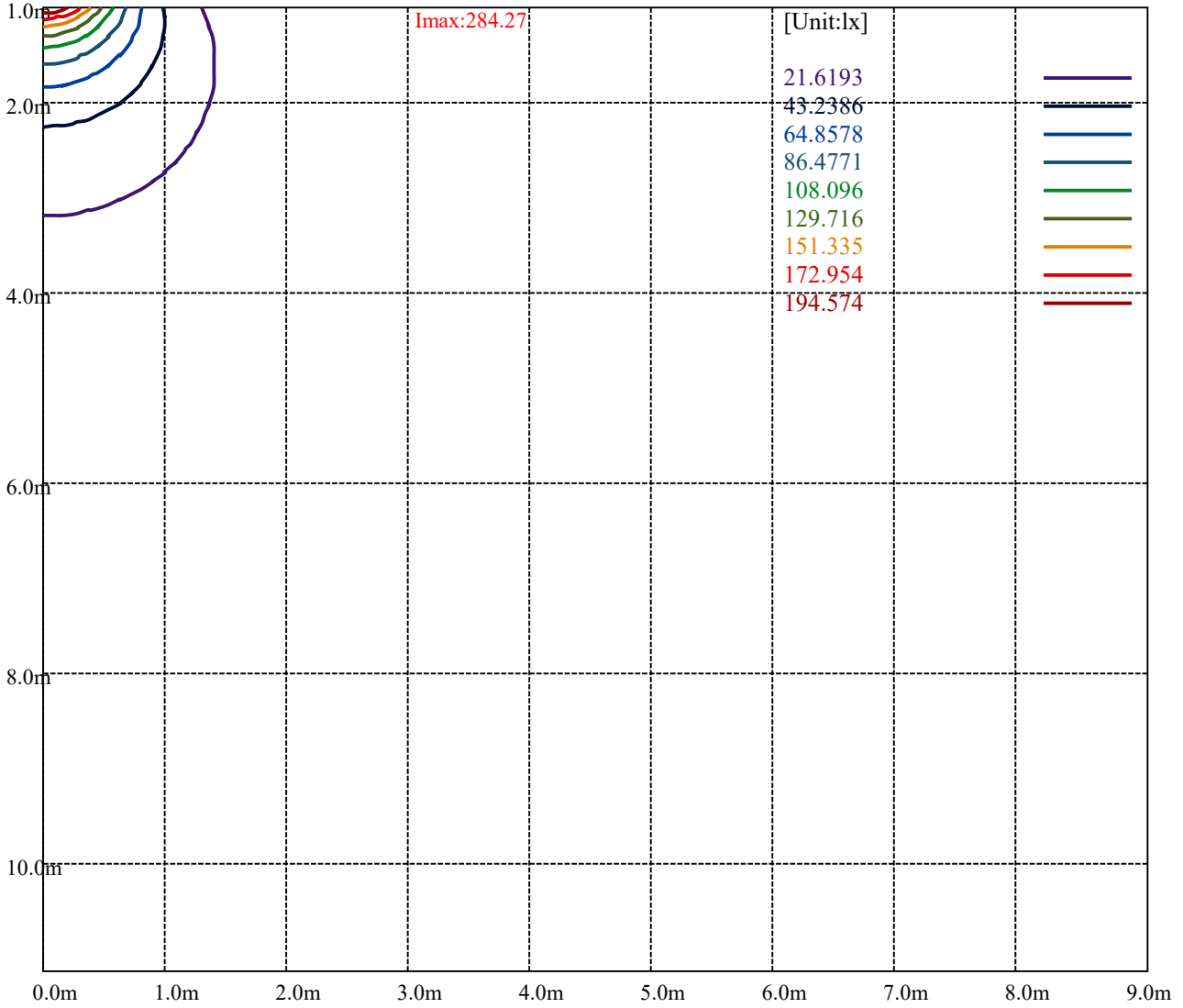
Beam Angle(50%Imax):C0/180Left:176.6 Right:176.6
 :C90/270Left:0.0 Right:0.0



Max , Ave Beam angle of C90 plane 216.76



- (10%Emax) 2.514333
- (20%Emax) 5.028677
- (30%Emax) 7.543011
- (40%Emax) 10.05734
- (50%Emax) 12.57167
- (60%Emax) 15.086
- (70%Emax) 17.60033
- (80%Emax) 20.11467
- (90%Emax) 22.629



Luminance Table

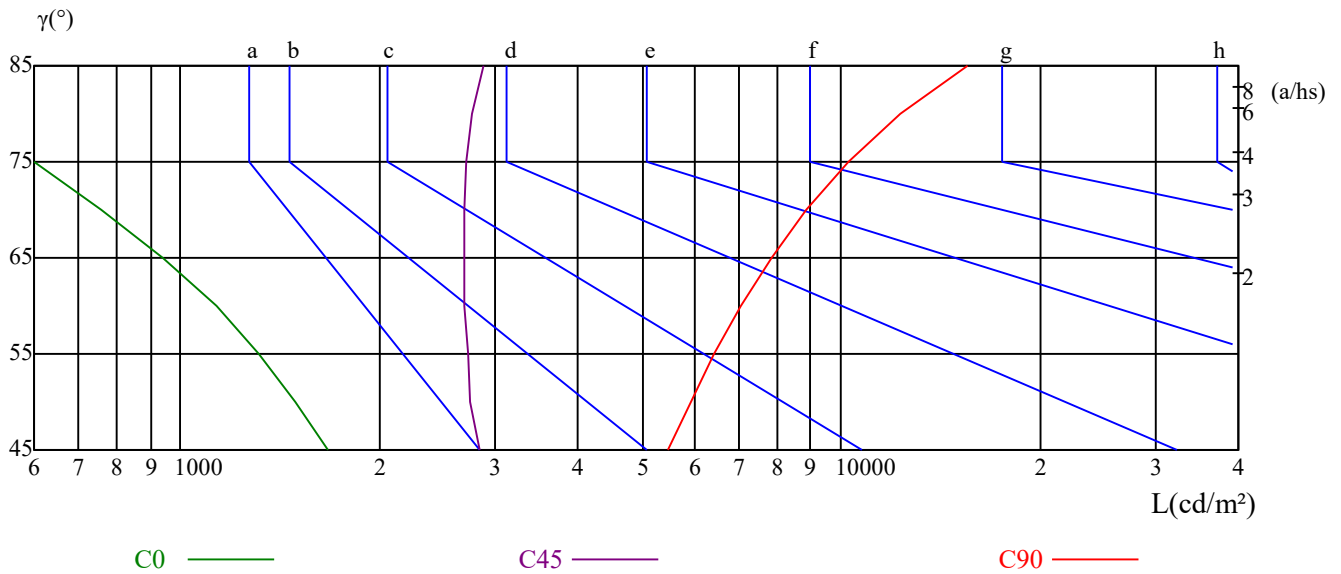
γ	45	50	55	60	65	70	75	80	85
C0	1670	1493	1312	1132	940	758	575	405	271
C45	2834	2753	2722	2698	2689	2694	2707	2758	2867
C90	5487	5922	6425	7073	7841	8879	10267	12328	15603

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3361	6130	4965	3149	9354	6953	3981	27037	19074

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	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.07	1.07	1.07	0.99	0.99	0.99	0.83	0.83	0.83	0.69	0.69	0.69	0.56	0.56	0.56	0.50
1	0.90	0.85	0.81	0.83	0.79	0.75	0.69	0.66	0.63	0.57	0.55	0.53	0.46	0.44	0.43	0.37
2	0.77	0.70	0.64	0.71	0.65	0.60	0.60	0.55	0.51	0.49	0.45	0.42	0.39	0.36	0.34	0.29
3	0.67	0.59	0.52	0.62	0.55	0.49	0.52	0.46	0.42	0.43	0.38	0.35	0.34	0.31	0.28	0.24
4	0.59	0.50	0.44	0.54	0.47	0.41	0.46	0.40	0.35	0.37	0.33	0.29	0.30	0.27	0.24	0.20
5	0.52	0.44	0.37	0.48	0.40	0.35	0.41	0.34	0.30	0.33	0.29	0.25	0.27	0.23	0.20	0.17
6	0.47	0.38	0.32	0.43	0.35	0.30	0.36	0.30	0.26	0.30	0.25	0.22	0.24	0.20	0.18	0.15
7	0.42	0.34	0.28	0.39	0.31	0.26	0.33	0.27	0.22	0.27	0.22	0.19	0.22	0.18	0.16	0.13
8	0.38	0.30	0.24	0.35	0.28	0.23	0.30	0.24	0.20	0.25	0.20	0.17	0.20	0.16	0.14	0.11
9	0.35	0.27	0.22	0.32	0.25	0.20	0.27	0.22	0.18	0.23	0.18	0.15	0.19	0.15	0.12	0.10
10	0.32	0.24	0.19	0.29	0.23	0.18	0.25	0.20	0.16	0.21	0.17	0.13	0.17	0.14	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	216.19	216.19	214.35	210.67	205.15	198.71	188.59	178.47	165.59
15.0	215.27	218.95	220.79	220.79	218.95	215.27	208.83	201.47	191.35
30.0	215.27	221.71	226.31	229.99	231.83	230.91	228.15	222.63	216.19
45.0	213.43	223.55	231.83	238.27	241.95	243.79	243.79	241.03	235.51
60.0	213.43	224.47	234.59	243.79	249.31	253.91	254.83	253.91	251.15
75.0	211.59	225.39	237.35	246.55	253.91	258.51	261.27	261.27	261.27
90.0	211.59	224.47	237.35	247.47	254.83	260.35	263.11	264.03	264.03
105.0	211.59	224.47	236.43	245.63	252.99	257.59	260.35	260.35	259.43
120.0	211.59	223.55	233.67	241.95	247.47	251.15	252.99	252.07	248.39
135.0	219.87	221.71	229.99	235.51	240.11	241.03	241.03	238.27	233.67
150.0	213.43	219.87	224.47	227.23	228.15	228.15	225.39	219.87	213.43
165.0	214.35	217.11	218.95	218.03	216.19	211.59	206.07	198.71	188.59
180.0	216.19	215.27	211.59	206.99	200.55	192.27	183.07	171.11	158.23
195.0	215.27	210.67	204.23	195.95	186.75	175.71	163.75	149.96	136.16
210.0	215.27	206.07	196.87	186.75	174.79	161.91	147.20	131.56	115.00
225.0	213.43	202.39	191.35	178.47	164.67	149.04	133.40	117.76	103.04
240.0	213.43	199.63	186.75	172.03	156.39	140.76	125.12	109.48	94.76
255.0	211.59	197.79	183.07	167.43	150.88	135.24	119.60	105.80	90.16
270.0	211.59	196.87	182.15	165.59	150.88	135.24	118.68	103.96	88.32
285.0	211.59	197.79	183.07	167.43	152.71	136.16	122.36	106.72	102.12
300.0	211.59	199.63	185.83	172.03	168.35	142.60	127.88	112.24	97.52
315.0	219.87	202.39	190.43	177.55	164.67	149.96	136.16	120.52	105.80
330.0	213.43	205.15	195.95	185.83	173.87	160.99	147.20	132.48	117.76
345.0	214.35	209.75	203.31	195.95	186.75	175.71	162.83	149.04	135.24
360.0	216.19	216.19	214.35	210.67	205.15	198.71	188.59	178.47	165.59
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	151.79	137.08	120.52	103.96	84.64	67.16	49.68	34.04	21.16
15.0	180.31	168.35	153.63	137.08	119.60	102.12	84.64	70.84	59.80
30.0	206.99	195.95	183.99	172.03	160.99	149.96	138.92	128.80	122.36
45.0	229.07	222.63	218.03	212.51	206.07	199.63	192.27	185.83	181.23
60.0	249.31	248.39	247.47	245.63	243.79	240.11	235.51	230.91	227.23
75.0	263.11	265.87	267.71	267.71	267.71	264.95	262.19	258.51	255.75
90.0	267.71	271.39	273.23	275.07	274.15	273.23	270.47	267.71	264.03
105.0	262.19	264.03	264.95	264.95	264.95	262.19	259.43	254.83	252.07
120.0	246.55	245.63	243.79	241.95	238.27	234.59	229.07	224.47	220.79
135.0	227.23	218.95	213.43	206.99	200.55	193.19	184.91	177.55	172.03
150.0	204.23	194.11	181.23	167.43	156.39	143.52	131.56	120.52	112.24
165.0	177.55	164.67	150.88	135.24	117.76	99.36	80.96	65.32	52.44
180.0	144.44	128.80	112.24	94.76	77.28	59.80	43.24	28.52	18.40
195.0	119.60	103.96	87.40	70.84	56.12	41.40	29.44	20.24	16.56
210.0	99.36	84.64	69.92	57.04	44.16	31.28	22.08	15.64	14.72
225.0	89.24	74.52	60.72	47.84	35.88	23.92	16.56	11.96	12.88
240.0	80.96	67.16	53.36	40.48	28.52	18.40	11.04	9.20	9.20
255.0	76.36	61.64	47.84	34.96	23.00	12.88	7.36	6.44	6.44
270.0	74.52	59.80	46.92	42.32	21.16	11.04	5.52	4.60	4.60
285.0	76.36	62.56	48.76	35.88	23.92	13.80	8.28	7.36	7.36
300.0	82.80	68.08	54.28	40.48	28.52	18.40	11.96	10.12	10.12
315.0	91.08	76.36	62.56	48.76	35.88	24.84	16.56	12.88	12.88
330.0	103.04	87.40	72.68	57.96	44.16	31.28	22.08	16.56	15.64
345.0	120.52	103.96	87.40	70.84	55.20	40.48	28.52	20.24	16.56
360.0	151.79	137.08	120.52	103.96	84.64	67.16	49.68	34.04	21.16

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	16.56	20.24	32.20	47.84	66.24	85.56	103.04	122.36	138.92
15.0	55.20	58.88	69.00	83.72	100.28	117.76	136.16	153.63	170.19
30.0	119.60	122.36	129.72	139.84	150.88	162.83	174.79	185.83	197.79
45.0	180.31	183.07	187.67	195.03	203.31	210.67	218.03	224.47	229.99
60.0	227.23	229.07	232.75	238.27	244.71	249.31	253.91	257.59	259.43
75.0	255.75	257.59	261.27	265.87	270.47	274.15	276.91	277.83	277.83
90.0	264.95	265.87	269.55	274.15	277.83	281.51	283.35	284.27	283.35
105.0	252.07	252.99	256.67	261.27	265.87	270.47	272.31	273.23	274.15
120.0	219.87	220.79	224.47	229.99	235.51	241.03	245.63	249.31	252.07
135.0	170.19	171.11	175.71	183.07	191.35	199.63	206.99	214.35	221.71
150.0	108.56	109.48	115.92	126.04	138.00	149.96	162.83	175.71	188.59
165.0	46.00	46.92	56.12	70.84	88.32	106.72	126.04	143.52	160.07
180.0	16.56	20.24	32.20	47.84	65.32	83.72	102.12	120.52	137.08
195.0	16.56	17.48	23.92	34.04	47.84	63.48	80.04	96.60	113.16
210.0	14.72	14.72	18.40	25.76	35.88	47.84	61.64	74.52	88.32
225.0	12.88	11.96	13.80	19.32	27.60	37.72	39.56	59.80	71.76
240.0	9.20	9.20	9.20	14.72	23.00	32.20	43.24	54.28	66.24
255.0	6.44	5.52	5.52	10.12	18.40	27.60	37.72	48.76	60.72
270.0	4.60	4.60	4.60	8.28	16.56	25.76	36.80	47.84	58.88
285.0	7.36	7.36	6.44	11.04	19.32	28.52	38.64	49.68	60.72
300.0	10.12	10.12	10.12	15.64	23.92	33.12	43.24	53.36	65.32
315.0	12.88	12.88	14.72	21.16	28.52	38.64	47.84	58.88	69.92
330.0	15.64	15.64	20.24	27.60	37.72	48.76	60.72	73.60	84.64
345.0	16.56	19.32	26.68	38.64	52.44	67.16	83.72	98.44	113.16
360.0	16.56	20.24	32.20	47.84	66.24	85.56	103.04	122.36	138.92
C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	155.47	170.19	183.99	195.03	204.23	210.67	203.31	167.43	133.40
15.0	183.07	196.87	207.91	217.11	223.55	229.07	228.15	200.55	152.71
30.0	210.67	220.79	229.99	236.43	241.03	242.87	243.79	230.91	181.23
45.0	235.51	241.95	248.39	252.99	254.83	254.83	252.99	247.47	218.95
60.0	260.35	260.35	262.19	264.95	264.95	263.11	258.51	252.07	240.11
75.0	276.91	274.15	272.31	272.31	271.39	267.71	262.19	253.91	243.79
90.0	281.51	278.75	275.07	274.15	272.31	268.63	263.11	254.83	243.79
105.0	273.23	271.39	268.63	269.55	269.55	265.87	260.35	252.99	243.79
120.0	253.91	254.83	257.59	261.27	261.27	260.35	256.67	250.23	241.95
135.0	227.23	234.59	241.95	246.55	250.23	250.23	248.39	244.71	238.27
150.0	202.39	212.51	221.71	229.07	234.59	237.35	238.27	237.35	232.75
165.0	174.79	188.59	199.63	209.75	217.11	223.55	227.23	228.15	226.31
180.0	153.63	168.35	182.15	193.19	203.31	208.83	190.43	150.88	124.20
195.0	129.72	144.44	158.23	167.43	178.47	180.31	161.91	126.04	113.16
210.0	102.12	104.88	124.20	131.56	140.76	145.36	136.16	104.88	100.28
225.0	82.80	92.92	103.04	108.56	113.16	119.60	114.08	81.88	77.28
240.0	78.20	86.48	93.84	102.12	106.72	112.24	106.72	64.40	66.24
255.0	72.68	83.72	90.16	99.36	105.80	111.32	103.04	47.84	64.40
270.0	70.84	82.80	89.24	96.60	103.96	109.48	90.16	49.68	97.52
285.0	72.68	81.88	88.32	94.76	102.12	110.40	81.88	66.24	122.36
300.0	74.52	81.88	89.24	95.68	102.12	104.88	89.24	85.56	149.96
315.0	79.12	86.48	93.84	102.12	108.56	110.40	105.80	110.40	165.59
330.0	96.60	106.72	115.92	123.28	132.48	136.16	136.16	140.76	183.07
345.0	126.96	139.84	150.88	160.99	170.19	176.63	178.47	179.39	198.71
360.0	155.47	170.19	183.99	195.03	204.23	210.67	203.31	167.43	133.40

Intensity data(cd)

C/γ(°)	180.0
0.0	125.12
15.0	129.72
30.0	132.48
45.0	144.44
60.0	175.71
75.0	210.67
90.0	225.39
105.0	226.31
120.0	223.55
135.0	222.63
150.0	218.95
165.0	218.03
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	125.12