
AFX

Client:

LumCAT: JUNC18LAJUDSN-2700K

Luminaire: LED Lamp

Report No:

Ballast type:

Test No: LCZP25080170

Voltage(V): 120.010

LampCAT:

Current(A): 0.245

Lamp flux(lm): 2000.6

Power (W): 29.140

Number of Lamps: 1

PF: 0.991

Length(mm): -450

Width(mm): -450

Phm Type: C

Height(mm): 50

Photometric Results

Lumens(lm): 2000.58, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 68.65

Central intensity(cd): 449.017, Maximum intensity(cd): 449.017

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=124.6

[C90/270]Total=126.0

Field angle(10%Imax): [C0/180]Total=358.4

[C90/270]Total=358.4

Maximum s/h(1/2): C0_180=1.29 C90_270=1.29

Maximum s/h(1/4): C0_180=1.42 C90_270=1.42

Up flux rate of lamp(%): 22.99%

Down flux rate of lamp(%): 77.01%

Up flux rate of LUM(%): 22.99%

Down flux rate of LUM(%): 77.01%

CIE Type : Semidirect lighting

Output flux ratio in π solid angle : 53.403%

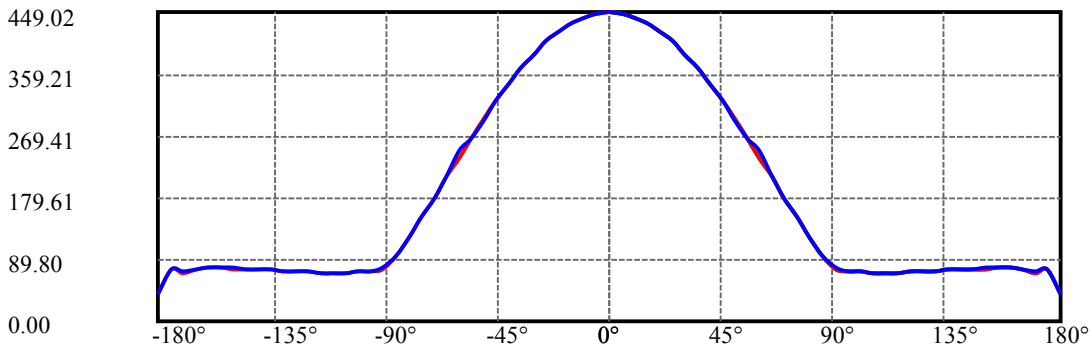
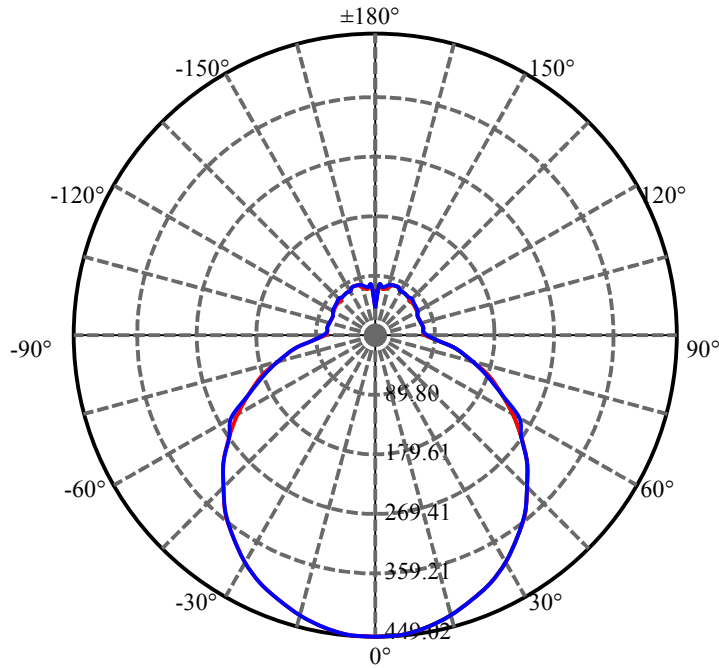
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	449.017	0.000	0	0.00%	0.00%
5.0	447.036	10.712	10.712	0.54%	0.54%
10.0	441.795	31.796	42.508	1.59%	2.12%
15.0	433.051	51.895	94.404	2.59%	4.72%
20.0	421.372	70.416	164.82	3.52%	8.24%
25.0	406.267	86.804	251.624	4.34%	12.58%
30.0	388.364	100.561	352.185	5.03%	17.60%
35.0	367.826	111.354	463.54	5.57%	23.17%
40.0	345.702	119.047	582.586	5.95%	29.12%
45.0	320.354	123.326	705.912	6.16%	35.29%
50.0	293.756	124.090	830.002	6.20%	41.49%
55.0	266.210	121.755	951.757	6.09%	47.57%
60.0	238.324	116.622	1068.379	5.83%	53.40%
65.0	208.365	108.591	1176.97	5.43%	58.83%
70.0	178.914	98.061	1275.031	4.90%	63.73%
75.0	150.126	86.006	1361.037	4.30%	68.03%
80.0	122.664	72.991	1434.028	3.65%	71.68%
85.0	95.250	59.212	1493.241	2.96%	74.64%
90.0	77.854	47.397	1540.638	2.37%	77.01%
95.0	72.322	41.119	1581.757	2.06%	79.06%
100.0	71.357	39.041	1620.798	1.95%	81.02%
105.0	70.661	38.000	1658.798	1.90%	82.92%
110.0	70.422	36.877	1695.675	1.84%	84.76%
115.0	70.781	35.754	1731.429	1.79%	86.55%
120.0	71.563	34.604	1766.033	1.73%	88.28%
125.0	72.542	33.309	1799.342	1.66%	89.94%
130.0	73.615	31.779	1831.122	1.59%	91.53%
135.0	74.545	29.938	1861.059	1.50%	93.03%
140.0	74.997	27.689	1888.748	1.38%	94.41%
145.0	75.565	25.120	1913.868	1.26%	95.67%
150.0	76.810	22.438	1936.307	1.12%	96.79%
155.0	78.612	19.669	1955.976	0.98%	97.77%
160.0	78.986	16.529	1972.505	0.83%	98.60%
165.0	75.646	12.744	1985.249	0.64%	99.23%
170.0	71.648	8.737	1993.986	0.44%	99.67%
175.0	74.723	5.236	1999.222	0.26%	99.93%
180.0	39.271	1.363	2000.585	0.07%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	352.19	17.60%	17.60%
0-40	582.59	29.12%	29.12%
0-60	1068.38	53.40%	53.40%
0-90	1540.64	77.01%	77.01%
0-120	1766.03	88.28%	88.28%
0-180	2000.58	100.00%	100.00%
60-90	472.26	23.61%	23.61%
90-120	225.40	11.27%	11.27%
90-130	290.48	14.52%	14.52%
90-150	395.67	19.78%	19.78%
90-180	458.58	22.92%	22.92%
0-97.40	1600.47	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	42.51
10-20	122.31
20-30	187.37
30-40	230.40
40-50	247.42
50-60	238.38
60-70	206.65
70-80	159.00
80-90	106.61
90-100	80.16
100-110	74.88
110-120	70.36
120-130	65.09
130-140	57.63
140-150	47.56
150-160	36.20
160-170	21.48
170-180	5.24



C0(Max): —————

C0/C180: —————

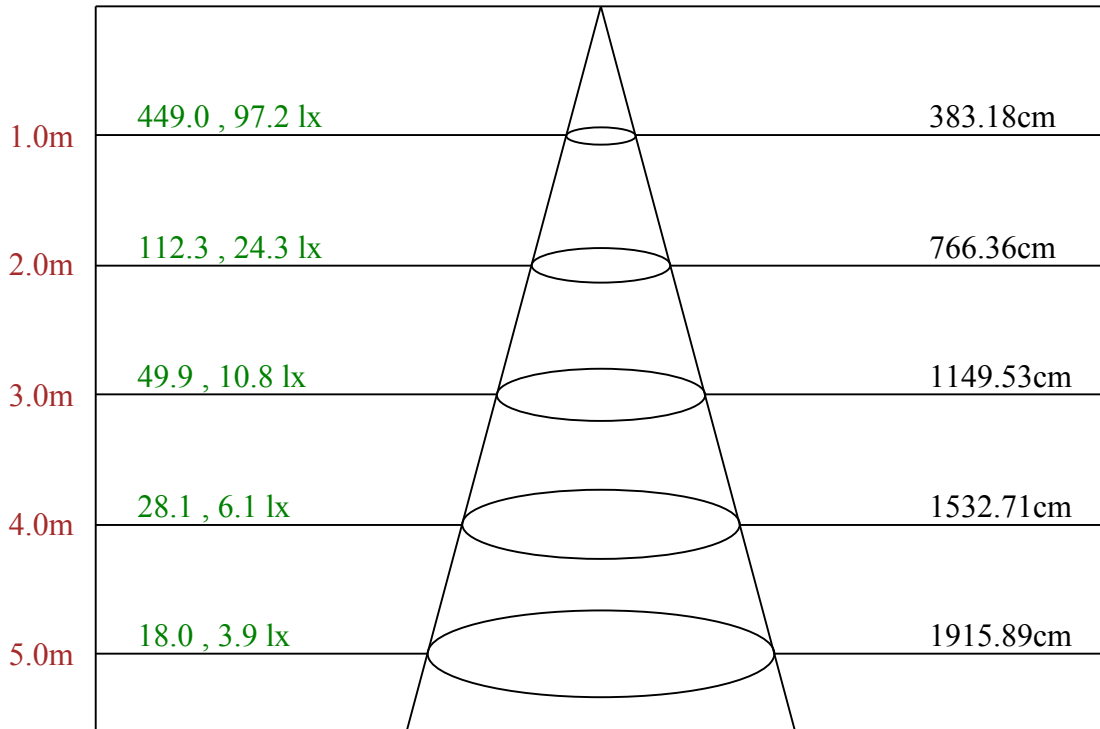
C90/C270: —————

Field angle(10%Imax):C0/180Left:179.2 Right:179.2

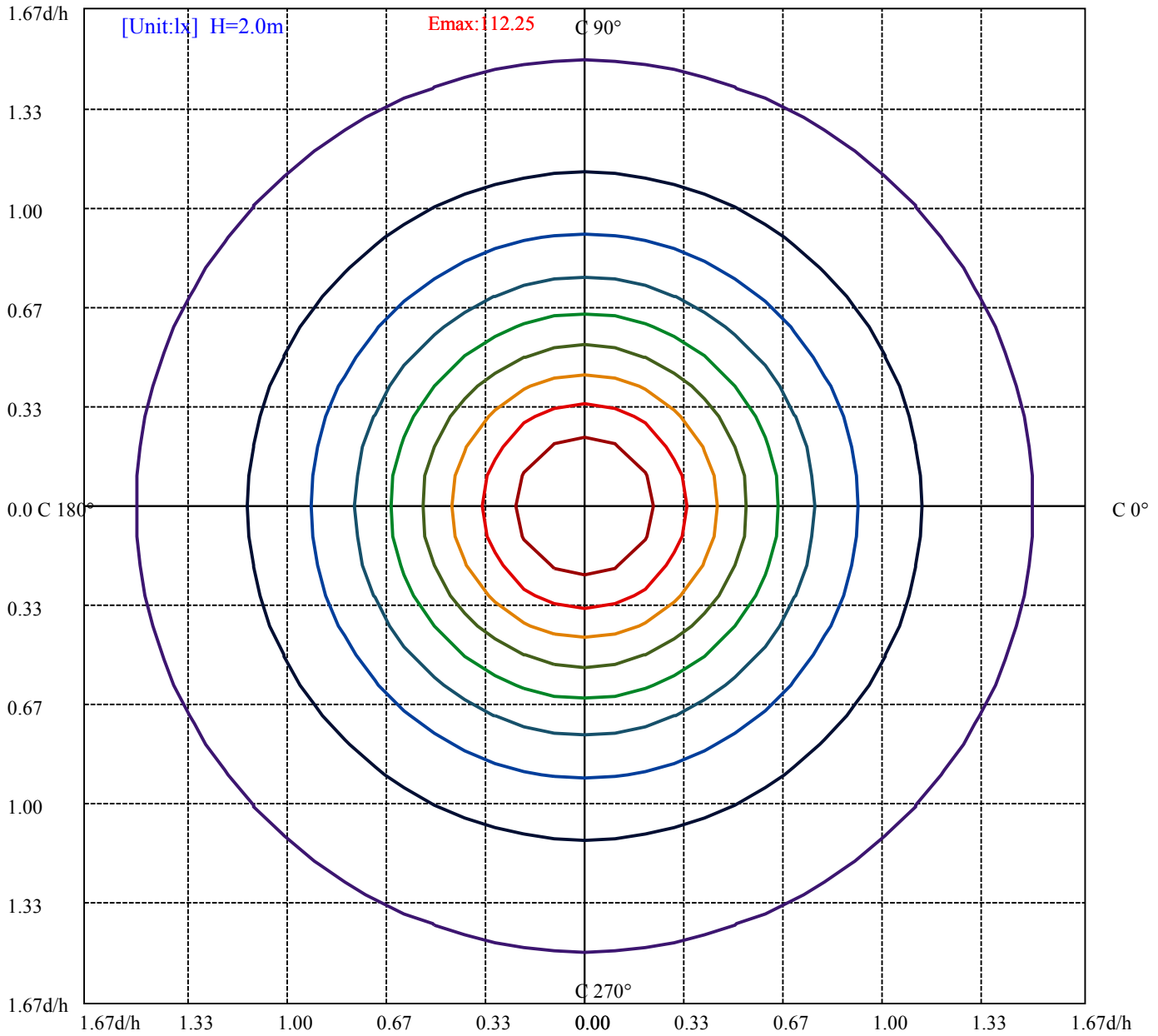
:C90/270Left:179.2 Right:179.2

Beam Angle(50%Imax):C0/180Left:62.3 Right:62.3

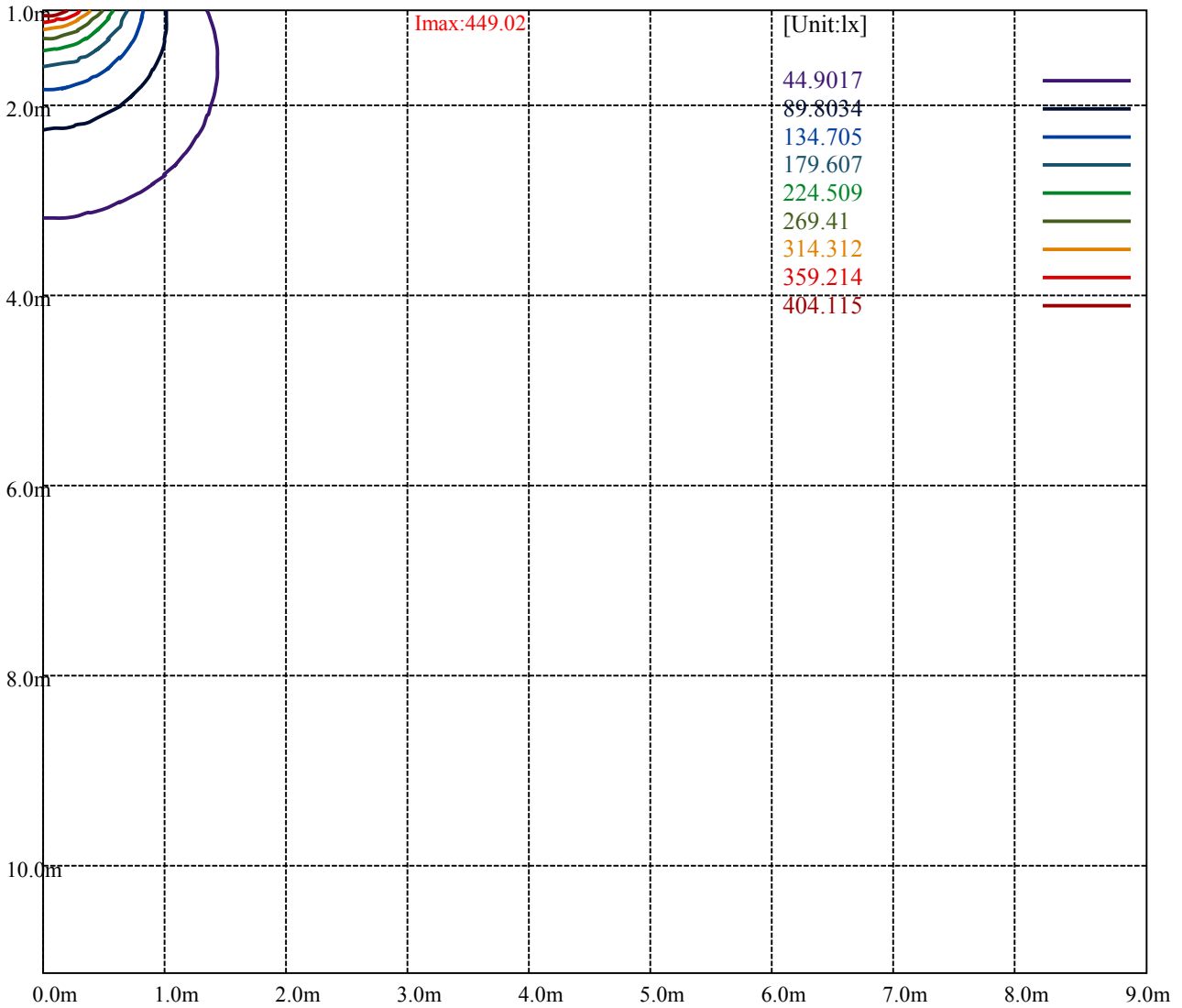
:C90/270Left:63.0 Right:63.0



Max , Ave Beam angle of C0 plane 124.88



(10%Emax) 11.22542	—
(20%Emax) 22.45085	—
(30%Emax) 33.67625	—
(40%Emax) 44.90175	—
(50%Emax) 56.12725	—
(60%Emax) 67.3525	—
(70%Emax) 78.578	—
(80%Emax) 89.8035	—
(90%Emax) 101.0287	—



Luminance Table

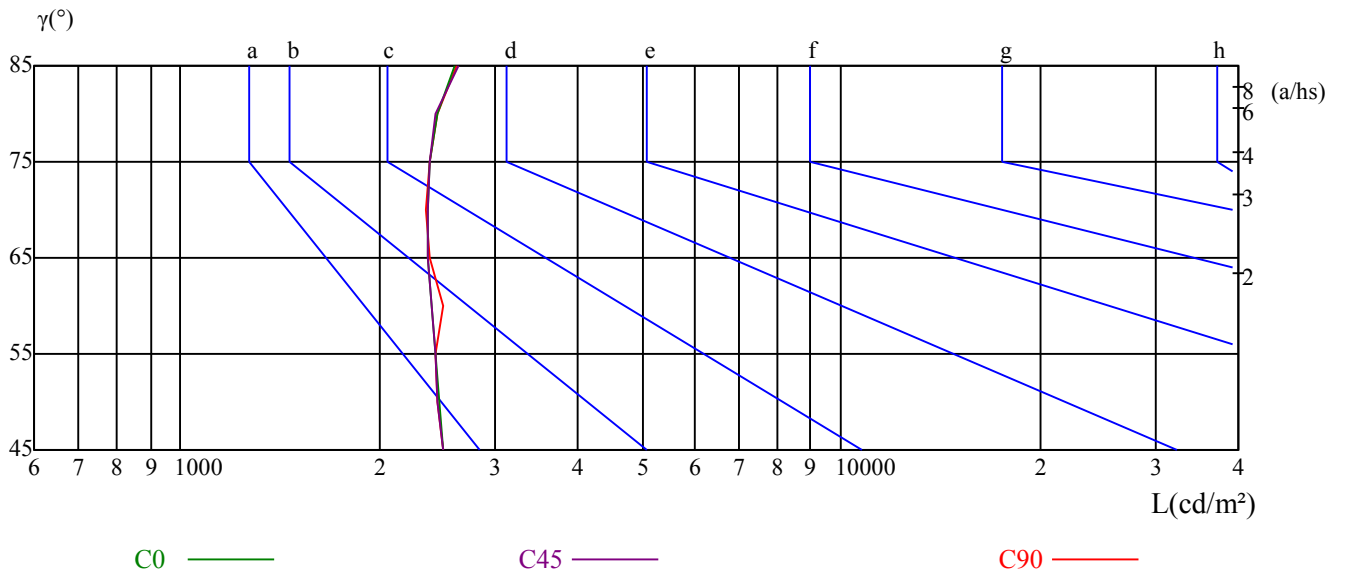
γ	45	50	55	60	65	70	75	80	85
C0	2501	2467	2425	2407	2376	2375	2387	2443	2604
C45	2494	2456	2426	2395	2375	2364	2382	2440	2632
C90	2498	2456	2428	2501	2385	2356	2392	2450	2624

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3096	3109	3096	3647	3655	3639	6814	6868	6887

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	1.14	1.14	1.14	1.08	1.08	1.08	0.98	0.98	0.98	0.89	0.89	0.89	0.81	0.81	0.81	0.77
1	0.96	0.91	0.87	0.92	0.87	0.83	0.83	0.80	0.76	0.75	0.72	0.70	0.68	0.66	0.64	0.60
2	0.83	0.75	0.69	0.79	0.72	0.66	0.71	0.66	0.61	0.65	0.60	0.57	0.59	0.55	0.52	0.49
3	0.72	0.63	0.57	0.69	0.61	0.55	0.62	0.56	0.51	0.57	0.51	0.47	0.51	0.47	0.43	0.40
4	0.63	0.54	0.47	0.60	0.52	0.46	0.55	0.48	0.43	0.50	0.44	0.40	0.45	0.41	0.37	0.34
5	0.56	0.47	0.40	0.54	0.45	0.39	0.49	0.42	0.37	0.45	0.39	0.34	0.41	0.36	0.32	0.29
6	0.50	0.41	0.35	0.48	0.40	0.34	0.44	0.37	0.32	0.40	0.34	0.30	0.37	0.32	0.28	0.25
7	0.46	0.37	0.31	0.44	0.35	0.30	0.40	0.33	0.28	0.37	0.31	0.26	0.33	0.28	0.24	0.22
8	0.41	0.33	0.27	0.40	0.32	0.26	0.36	0.30	0.25	0.33	0.28	0.23	0.31	0.26	0.22	0.20
9	0.38	0.30	0.24	0.36	0.29	0.23	0.33	0.27	0.22	0.31	0.25	0.21	0.28	0.23	0.20	0.17
10	0.35	0.27	0.22	0.33	0.26	0.21	0.31	0.24	0.20	0.28	0.23	0.19	0.26	0.21	0.18	0.16

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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	449.02	448.04	443.44	435.56	424.49	409.96	394.02	373.83	351.51
15.0	449.02	448.22	444.39	435.41	425.72	411.67	394.32	374.23	351.64
30.0	449.02	448.39	443.94	436.54	425.66	411.40	393.93	375.21	352.83
45.0	449.02	448.30	444.01	436.50	426.05	412.28	395.57	375.73	353.57
60.0	449.02	448.39	444.72	437.46	426.79	413.17	397.05	376.79	355.65
75.0	449.02	449.02	445.60	438.86	428.53	414.87	398.25	378.66	356.82
90.0	449.02	449.38	445.96	439.39	429.04	415.54	400.52	379.46	359.21
105.0	449.02	449.47	446.13	439.56	430.73	417.21	400.91	381.72	360.01
120.0	449.02	449.92	446.94	440.36	430.71	417.73	401.23	382.66	361.29
135.0	449.02	449.38	446.31	439.74	430.09	417.12	401.44	382.52	360.98
150.0	449.02	450.19	446.94	440.43	422.07	418.36	403.17	383.45	362.83
165.0	449.02	449.38	446.85	440.43	430.85	417.83	401.56	384.11	360.24
180.0	449.02	446.36	440.34	430.95	418.11	402.43	383.92	362.76	339.38
195.0	449.02	446.17	439.95	430.43	417.80	401.88	383.21	362.40	338.21
210.0	449.02	445.90	439.21	429.49	416.84	401.06	382.16	360.59	337.14
225.0	449.02	445.26	438.83	428.82	415.77	399.06	379.75	358.12	336.05
240.0	449.02	444.81	438.62	428.77	415.24	398.57	379.12	357.53	333.43
255.0	449.02	445.24	438.14	427.45	413.79	398.34	377.58	356.91	333.10
270.0	449.02	444.79	437.86	427.15	413.38	396.47	376.58	354.62	330.51
285.0	449.02	444.96	437.40	426.58	412.71	395.59	376.40	354.15	347.66
300.0	449.02	444.51	436.85	426.75	423.23	394.38	375.89	353.53	329.28
315.0	449.02	443.34	436.49	424.42	411.26	394.23	374.05	352.06	327.73
330.0	449.02	444.86	437.08	426.05	411.94	396.11	374.77	353.97	329.37
345.0	449.02	444.59	437.08	426.15	412.13	395.14	375.34	352.83	328.42
360.0	449.02	448.04	443.44	435.56	424.49	409.96	394.02	373.83	351.51
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	328.04	300.76	272.86	245.50	214.59	186.60	157.20	128.51	100.87
15.0	327.27	300.86	275.78	245.90	216.64	187.02	158.74	128.77	102.45
30.0	328.58	302.55	275.10	246.30	218.13	188.54	159.39	130.42	102.87
45.0	329.34	304.41	275.72	248.28	219.06	189.38	160.07	132.72	105.19
60.0	331.27	305.47	277.96	249.37	221.87	190.59	162.90	133.96	106.09
75.0	332.83	308.57	279.55	252.41	223.30	193.55	164.17	135.06	108.73
90.0	335.37	309.54	282.10	253.57	225.86	194.72	166.83	137.67	109.69
105.0	335.95	310.37	284.42	256.04	226.76	197.21	167.66	139.73	110.45
120.0	337.39	312.15	286.18	256.61	227.21	198.81	169.42	140.12	111.89
135.0	337.55	312.05	285.83	256.27	228.34	198.87	169.32	140.03	113.18
150.0	338.78	313.36	286.41	257.83	230.25	198.87	170.65	141.44	113.23
165.0	338.19	312.60	287.20	258.54	229.25	199.33	169.86	140.48	113.63
180.0	314.05	288.63	258.96	231.15	201.66	172.17	143.03	114.69	88.03
195.0	313.75	286.72	258.53	229.36	199.65	171.64	141.31	114.19	87.60
210.0	311.56	284.37	257.18	226.96	198.52	169.19	140.13	112.05	85.67
225.0	310.31	283.14	254.99	225.67	196.18	166.77	139.07	109.75	85.00
240.0	307.62	280.38	251.97	224.55	194.80	165.50	136.74	108.69	82.89
255.0	307.04	279.46	251.06	221.77	192.12	163.09	135.86	127.78	81.41
270.0	305.94	277.24	250.33	241.70	192.02	161.16	134.08	106.18	80.72
285.0	303.52	276.94	247.39	219.37	189.91	160.72	132.25	104.60	80.54
300.0	303.40	275.81	247.23	217.93	188.62	160.76	130.74	104.50	79.43
315.0	303.31	274.20	247.35	218.07	188.69	159.31	130.75	103.27	78.49
330.0	303.41	275.65	247.07	219.31	188.20	160.34	131.86	104.27	79.22
345.0	304.02	274.91	247.88	217.32	189.12	159.74	130.99	105.04	78.74
360.0	328.04	300.76	272.86	245.50	214.59	186.60	157.20	128.51	100.87

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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	76.52	72.44	71.56	70.85	70.41	70.59	71.29	72.18	73.33
15.0	77.64	72.75	71.68	70.97	70.43	70.79	71.32	72.39	73.64
30.0	78.98	72.74	71.67	70.87	70.60	70.69	71.49	72.47	73.72
45.0	79.72	72.66	71.59	70.87	70.43	70.61	71.41	72.48	73.56
60.0	80.56	72.94	71.77	70.88	70.34	70.43	71.33	72.40	73.39
75.0	82.76	72.96	71.80	70.81	70.36	70.36	71.17	72.25	73.41
90.0	83.59	72.89	71.72	70.73	70.28	70.37	70.91	72.08	73.25
105.0	85.32	72.79	71.62	70.54	70.00	70.09	70.81	71.80	73.06
120.0	85.66	72.76	71.32	70.42	69.97	69.97	70.69	71.86	73.03
135.0	86.69	72.54	71.37	70.29	69.75	69.93	70.47	71.64	72.54
150.0	86.55	72.71	71.54	70.63	70.00	70.09	70.72	71.81	72.71
165.0	86.96	72.59	71.42	70.42	69.79	69.70	70.42	71.42	72.41
180.0	72.98	71.83	70.85	70.41	70.14	70.67	71.56	72.09	72.98
195.0	72.92	71.59	70.70	70.08	70.08	70.61	70.97	72.12	73.28
210.0	72.65	71.40	70.51	69.98	69.98	70.42	71.49	72.38	73.45
225.0	72.57	71.41	70.52	70.07	69.89	70.52	70.52	72.39	73.56
240.0	72.58	71.42	71.06	70.16	70.07	70.79	71.86	72.85	74.01
255.0	72.69	71.62	70.72	70.45	70.45	71.17	72.25	72.96	74.31
270.0	72.98	71.63	71.00	70.46	70.73	71.36	72.35	73.34	74.42
285.0	73.24	71.98	71.26	70.81	70.72	71.53	72.43	73.42	74.51
300.0	73.48	72.22	71.50	71.05	71.05	71.68	72.40	73.21	74.66
315.0	73.44	72.27	71.55	71.10	71.28	71.82	72.99	73.08	73.53
330.0	73.98	72.71	71.90	71.63	71.72	72.26	73.43	74.25	74.79
345.0	74.04	72.86	71.96	71.42	71.69	72.32	73.22	74.13	75.21
360.0	76.52	72.44	71.56	70.85	70.41	70.59	71.29	72.18	73.33

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	74.57	75.46	75.99	76.34	77.67	79.62	78.02	71.56	70.14
15.0	74.88	75.86	76.39	76.84	77.99	79.24	78.08	71.59	70.17
30.0	74.97	75.95	76.40	77.29	78.71	79.34	78.71	71.58	69.44
45.0	74.90	75.97	76.50	77.49	79.01	79.99	79.72	72.93	70.34
60.0	74.73	75.99	76.52	77.33	78.94	80.11	79.93	73.30	70.97
75.0	74.67	75.75	76.38	77.46	78.98	79.79	79.97	73.50	70.90
90.0	74.60	75.59	76.49	77.39	78.74	79.28	79.46	73.52	71.45
105.0	74.15	75.68	76.49	76.94	78.02	78.92	79.28	73.70	71.35
120.0	74.21	75.56	76.01	76.10	77.27	79.16	79.07	73.84	71.77
135.0	73.89	74.79	74.70	75.69	77.40	78.94	78.85	73.44	71.28
150.0	73.16	74.61	75.51	76.06	77.05	80.13	79.58	73.71	71.99
165.0	73.50	74.49	74.58	75.30	78.11	80.55	79.37	73.86	71.87
180.0	73.77	73.86	74.66	76.43	78.82	78.47	72.27	69.88	78.56
195.0	74.08	74.08	74.88	76.48	78.62	78.53	71.95	69.63	78.08
210.0	73.99	73.72	74.79	76.22	78.27	78.09	71.67	69.44	78.27
225.0	74.45	74.00	74.99	76.59	78.29	78.11	71.50	70.07	78.29
240.0	75.00	74.64	74.91	76.70	78.50	78.41	71.51	69.98	78.32
255.0	75.30	74.94	75.21	77.19	79.16	78.36	72.07	70.81	78.18
270.0	75.32	75.23	75.59	77.03	79.73	77.93	72.35	70.37	78.38
285.0	75.23	75.32	75.77	77.30	79.64	78.29	72.25	70.00	78.47
300.0	75.11	75.38	75.83	77.63	79.61	78.44	72.40	70.33	78.53
315.0	74.52	74.61	75.69	77.67	79.66	78.67	72.27	70.74	78.67
330.0	74.52	73.89	75.15	77.32	79.67	78.77	72.71	70.54	79.04
345.0	75.57	74.58	74.13	76.66	78.83	78.56	72.50	71.24	78.92
360.0	74.57	75.46	75.99	76.34	77.67	79.62	78.02	71.56	70.14

Intensity data(cd)

C/γ(°)	180.0
0.0	78.47
15.0	78.62
30.0	78.36
45.0	78.20
60.0	78.05
75.0	78.27
90.0	78.38
105.0	78.74
120.0	78.80
135.0	78.85
150.0	78.86
165.0	78.92
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	78.47