
AFX

Client:

LumCAT: JUNC18LAJUDBK

Luminaire: LED Lamp

Report No:

Ballast type:

Test No: LCZP25080173

Voltage(V): 120.060

LampCAT:

Current(A): 0.244

Lamp flux(lm): 2237.5

Power (W): 29.030

Number of Lamps: 1

PF: 0.991

Length(mm): -450

Width(mm): -450

Phm Type: C

Height(mm): 50

Photometric Results

Lumens(lm): 2237.48, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 77.07

Central intensity(cd): 514.265, Maximum intensity(cd): 514.265

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=123.4

[C90/270]Total=124.8

Field angle(10%Imax): [C0/180]Total=358.6

[C90/270]Total=358.8

Maximum s/h(1/2): C0_180=1.28 C90_270=1.28

Maximum s/h(1/4): C0_180=1.41 C90_270=1.41

Up flux rate of lamp(%): 22.88%

Down flux rate of lamp(%): 77.12%

Up flux rate of LUM(%): 22.88%

Down flux rate of LUM(%): 77.12%

CIE Type : Semidirect lighting

Output flux ratio in π solid angle : 53.856%

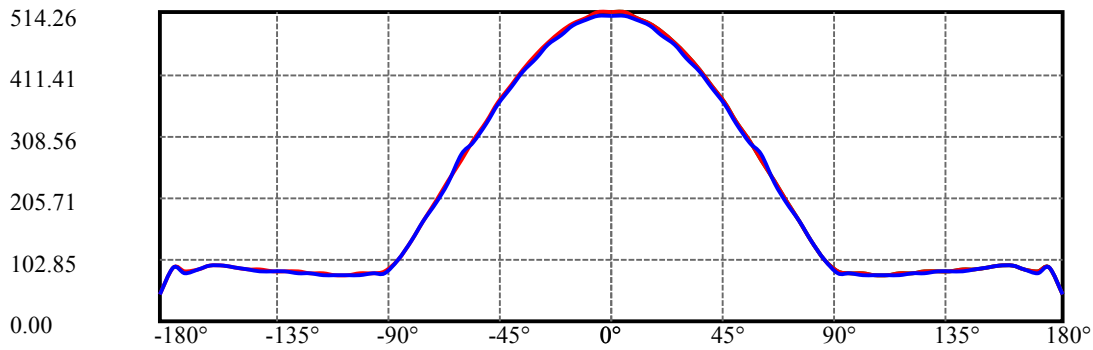
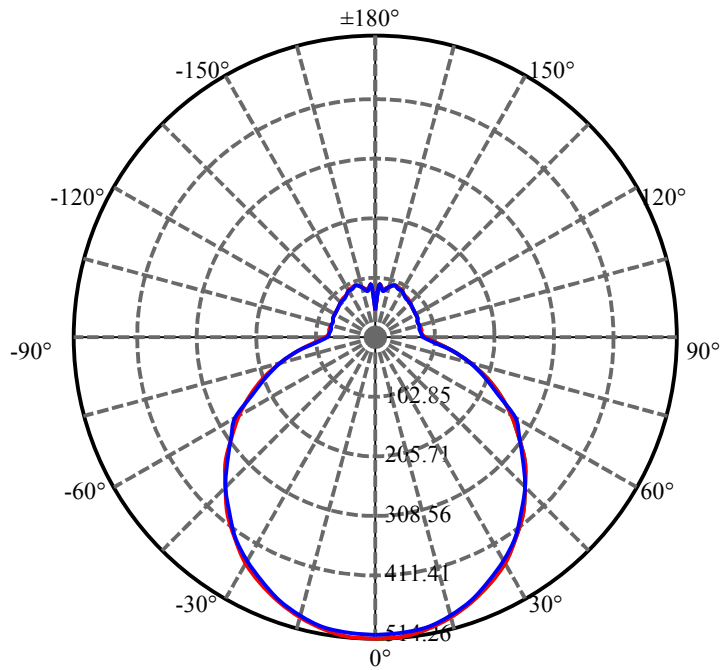
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	509.629	0.000	0	0.00%	0.00%
5.0	507.667	12.161	12.161	0.54%	0.54%
10.0	501.357	36.096	48.257	1.61%	2.16%
15.0	491.394	58.889	107.147	2.63%	4.79%
20.0	477.548	79.854	187.001	3.57%	8.36%
25.0	460.071	98.339	285.34	4.40%	12.75%
30.0	439.350	113.823	399.163	5.09%	17.84%
35.0	415.414	125.870	525.033	5.63%	23.47%
40.0	389.971	134.372	659.405	6.01%	29.47%
45.0	360.435	138.944	798.349	6.21%	35.68%
50.0	330.092	139.531	937.88	6.24%	41.92%
55.0	298.231	136.618	1074.498	6.11%	48.02%
60.0	266.388	130.510	1205.009	5.83%	53.86%
65.0	232.011	121.162	1326.17	5.42%	59.27%
70.0	198.602	109.034	1435.205	4.87%	64.14%
75.0	165.564	95.187	1530.392	4.25%	68.40%
80.0	134.398	80.261	1610.653	3.59%	71.99%
85.0	102.922	64.485	1675.139	2.88%	74.87%
90.0	81.090	50.384	1725.523	2.25%	77.12%
95.0	78.455	43.685	1769.207	1.95%	79.07%
100.0	77.730	42.439	1811.646	1.90%	80.97%
105.0	77.303	41.483	1853.129	1.85%	82.82%
110.0	77.307	40.413	1893.542	1.81%	84.63%
115.0	77.961	39.315	1932.857	1.76%	86.39%
120.0	79.128	38.189	1971.045	1.71%	88.09%
125.0	80.900	36.990	2008.035	1.65%	89.75%
130.0	82.316	35.489	2043.524	1.59%	91.33%
135.0	83.423	33.490	2077.014	1.50%	92.83%
140.0	84.761	31.141	2108.155	1.39%	94.22%
145.0	87.161	28.684	2136.839	1.28%	95.50%
150.0	89.662	26.038	2162.877	1.16%	96.67%
155.0	91.483	22.924	2185.801	1.02%	97.69%
160.0	92.428	19.289	2205.09	0.86%	98.55%
165.0	86.851	14.775	2219.865	0.66%	99.21%
170.0	81.072	9.961	2229.826	0.45%	99.66%
175.0	88.230	6.056	2235.883	0.27%	99.93%
180.0	45.457	1.598	2237.481	0.07%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	399.16	17.84%	17.84%
0-40	659.41	29.47%	29.47%
0-60	1205.01	53.86%	53.86%
0-90	1725.52	77.12%	77.12%
0-120	1971.05	88.09%	88.09%
0-180	2237.48	100.00%	100.00%
60-90	520.51	23.26%	23.26%
90-120	245.52	10.97%	10.97%
90-130	318.00	14.21%	14.21%
90-150	437.35	19.55%	19.55%
90-180	510.36	22.81%	22.81%
0-97.45	1789.99	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	48.26
10-20	138.74
20-30	212.16
30-40	260.24
40-50	278.48
50-60	267.13
60-70	230.20
70-80	175.45
80-90	114.87
90-100	86.12
100-110	81.90
110-120	77.50
120-130	72.48
130-140	64.63
140-150	54.72
150-160	42.21
160-170	24.74
170-180	6.06



C0(Max): ———

C0/C180: ———

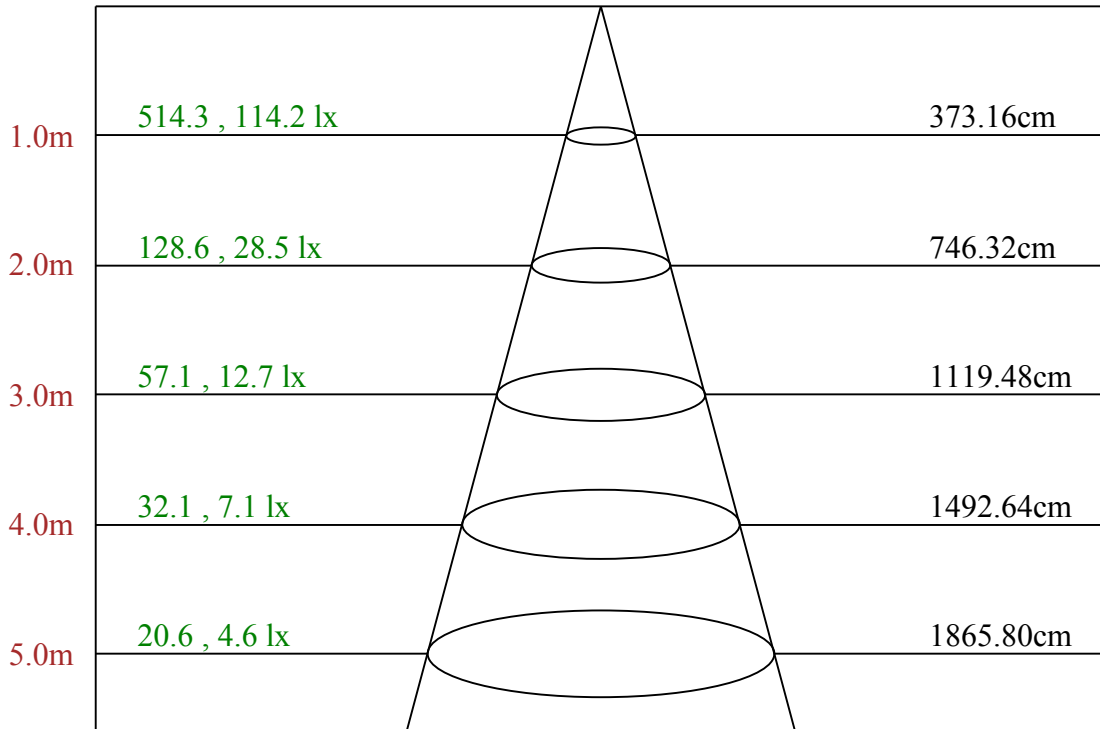
C90/C270: ———

Field angle(10%Imax):C0/180Left:179.3 Right:179.3

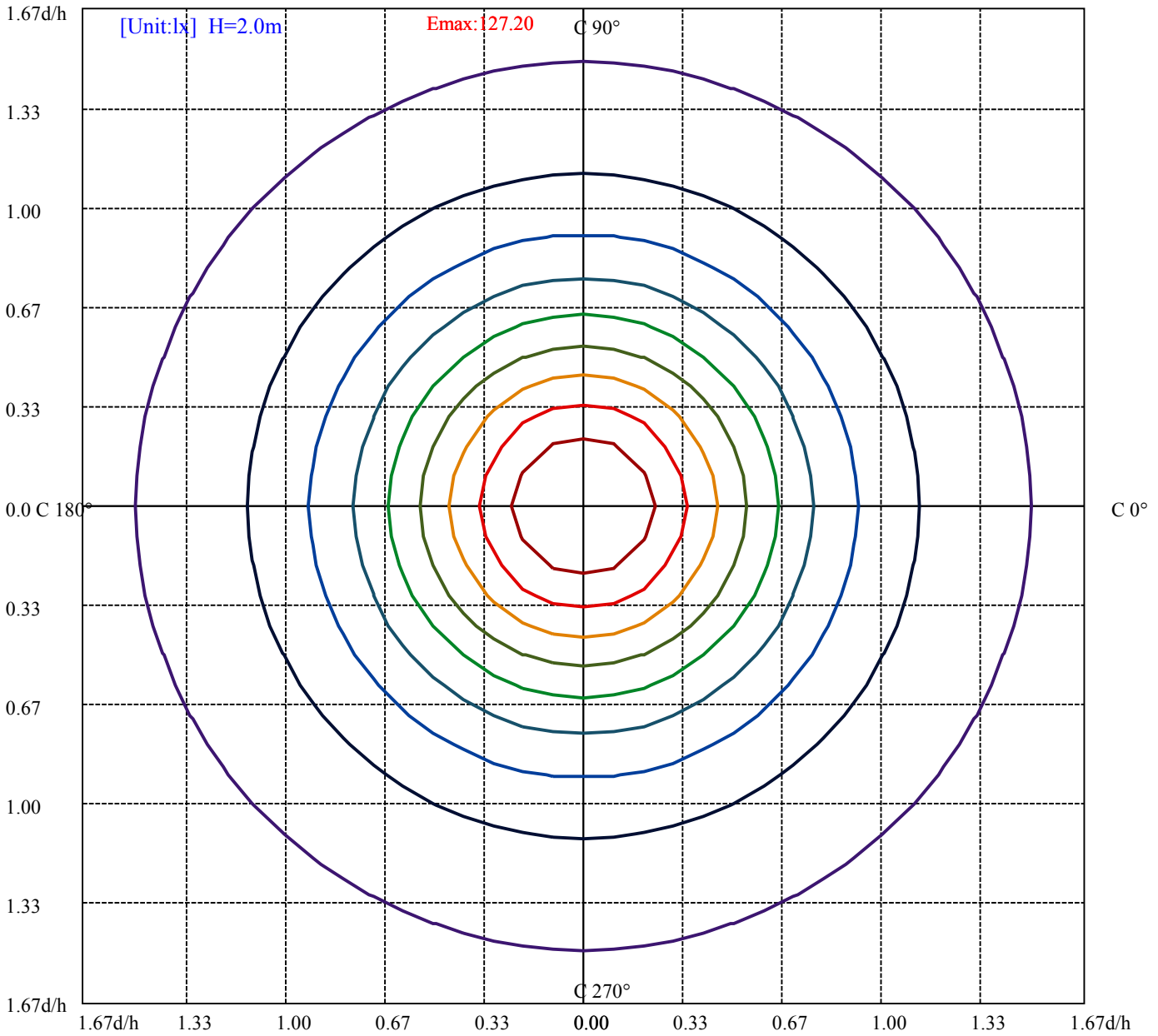
:C90/270Left:179.4 Right:179.4

Beam Angle(50%Imax):C0/180Left:61.7 Right:61.7

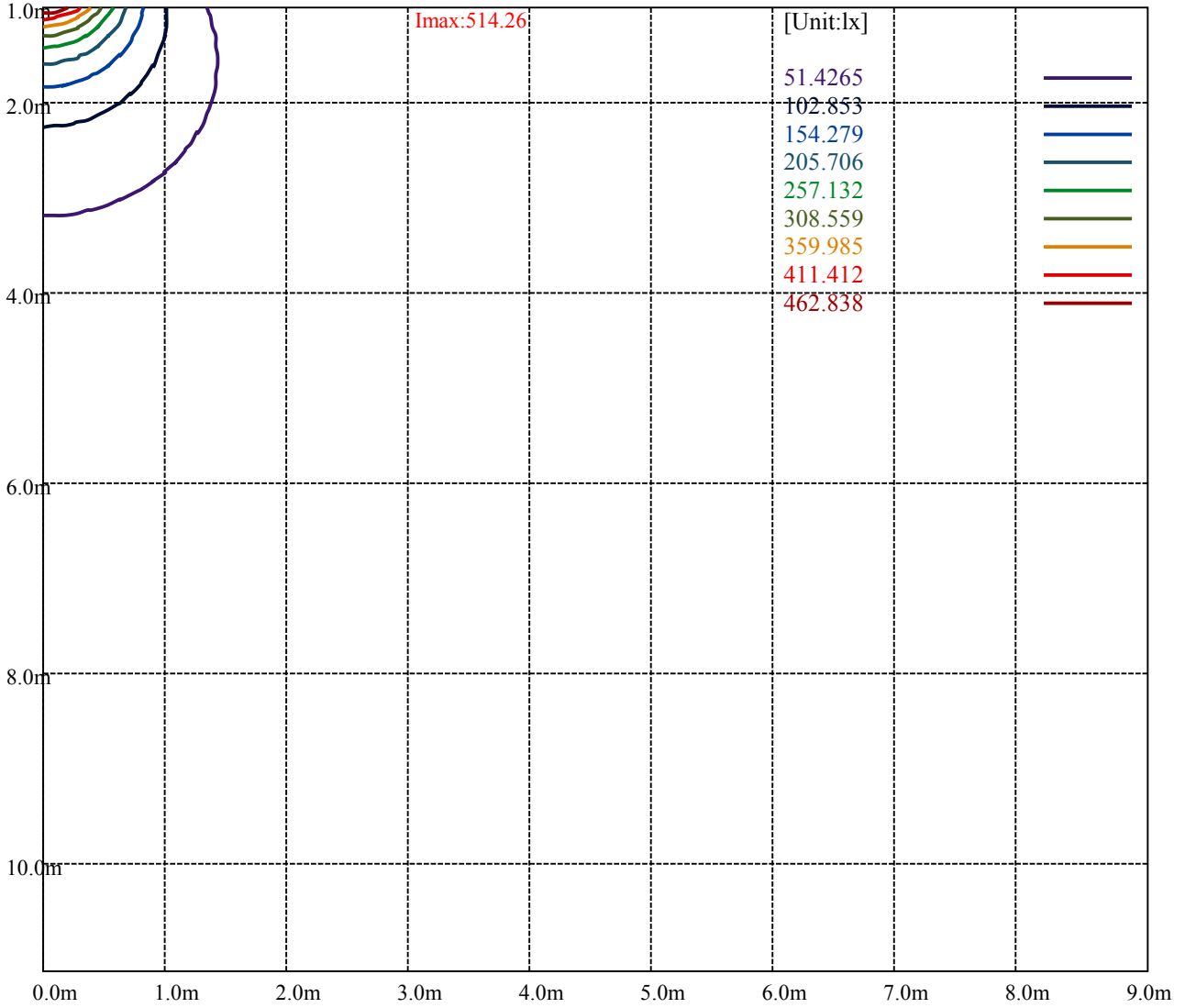
:C90/270Left:62.4 Right:62.4



Max , Ave Beam angle of C0 plane 123.62



- (10%Emax) 12.7198
- (20%Emax) 25.4395
- (30%Emax) 38.1595
- (40%Emax) 50.87925
- (50%Emax) 63.599
- (60%Emax) 76.31875
- (70%Emax) 89.0385
- (80%Emax) 101.7585
- (90%Emax) 114.4782



Luminance Table

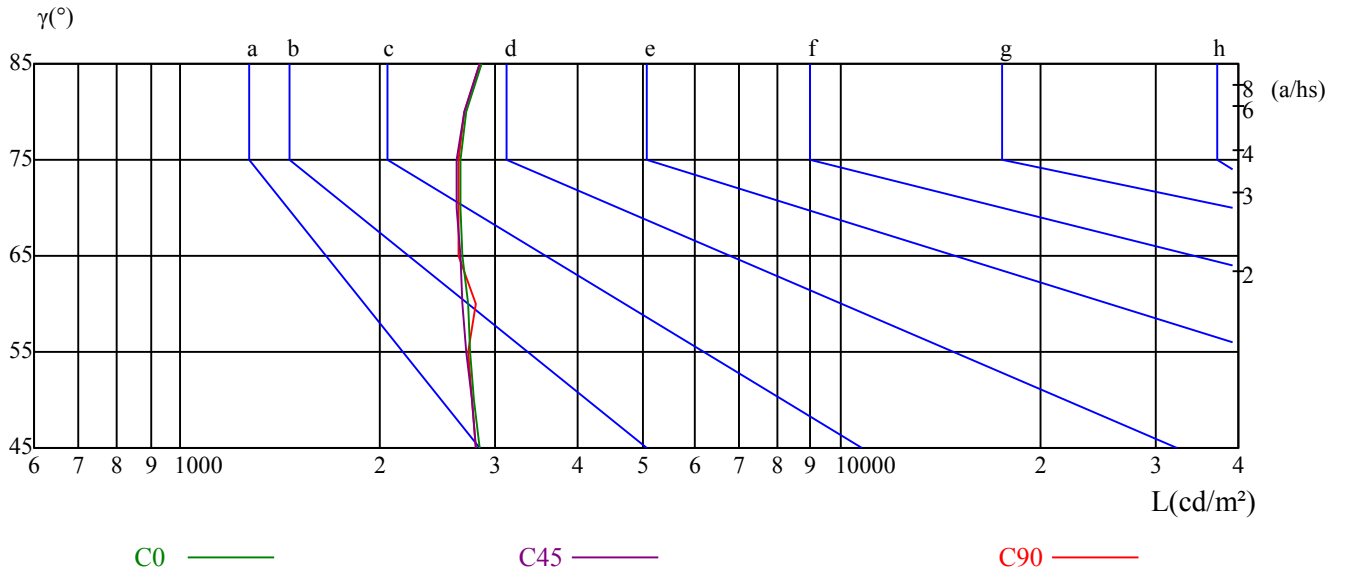
γ	45	50	55	60	65	70	75	80	85
C0	2833	2786	2740	2718	2671	2659	2660	2705	2860
C45	2805	2762	2714	2680	2647	2622	2627	2686	2829
C90	2805	2764	2719	2799	2638	2633	2637	2683	2834

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3481	3438	3450	4065	4030	4014	7485	7417	7404

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	0.77	0.75	0.73	0.70	0.68	0.66	0.64	0.60
2	0.83	0.76	0.69	0.79	0.72	0.67	0.72	0.66	0.62	0.65	0.61	0.57	0.59	0.55	0.52	0.49
3	0.72	0.64	0.57	0.69	0.61	0.55	0.63	0.56	0.51	0.57	0.52	0.47	0.51	0.47	0.44	0.40
4	0.64	0.54	0.48	0.61	0.52	0.46	0.55	0.48	0.43	0.50	0.45	0.40	0.46	0.41	0.37	0.34
5	0.56	0.47	0.41	0.54	0.46	0.39	0.49	0.42	0.37	0.45	0.39	0.34	0.41	0.36	0.32	0.29
6	0.51	0.42	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	0.36	0.30	0.40	0.33	0.28	0.37	0.31	0.26	0.34	0.28	0.25	0.22
8	0.42	0.33	0.27	0.40	0.32	0.26	0.37	0.30	0.25	0.34	0.28	0.23	0.31	0.26	0.22	0.20
9	0.38	0.30	0.24	0.36	0.29	0.24	0.34	0.27	0.22	0.31	0.25	0.21	0.28	0.23	0.20	0.18
10	0.35	0.27	0.22	0.34	0.26	0.21	0.31	0.25	0.20	0.29	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	514.26	514.44	509.60	501.08	489.05	472.64	452.72	431.19	405.53
15.0	512.74	512.29	507.89	499.01	487.80	471.38	451.46	428.58	402.75
30.0	511.21	511.39	506.82	498.29	485.47	469.14	450.83	426.34	402.12
45.0	511.21	510.41	505.11	496.41	484.48	468.15	448.41	425.44	399.69
60.0	509.69	508.97	503.86	495.33	482.59	466.18	446.26	423.47	397.63
75.0	509.06	507.81	503.14	493.54	480.89	464.20	444.02	420.51	394.58
90.0	509.33	507.72	502.06	492.73	479.54	462.50	442.31	420.06	392.52
105.0	508.70	507.00	501.26	491.75	478.74	461.69	441.59	417.82	391.35
120.0	507.81	506.55	500.36	490.76	477.39	460.25	439.44	415.66	389.92
135.0	506.37	506.10	500.00	489.86	476.40	459.45	438.63	414.59	388.39
150.0	507.45	505.11	498.74	488.96	462.23	458.01	437.29	413.42	388.84
165.0	507.72	504.75	499.82	489.68	476.13	458.64	437.74	414.50	385.16
180.0	514.26	511.12	502.33	491.21	475.33	455.95	433.25	407.77	380.23
195.0	512.74	508.70	500.63	488.87	473.26	455.50	431.72	407.95	380.23
210.0	511.21	508.25	500.00	488.52	473.35	454.51	432.44	407.14	379.78
225.0	511.21	507.72	499.82	488.78	473.71	454.42	433.16	408.40	381.30
240.0	509.69	506.91	498.56	488.96	473.89	455.50	433.61	408.58	382.65
255.0	509.06	506.19	498.65	487.62	474.16	454.51	434.68	410.01	382.92
270.0	509.33	505.83	499.28	488.43	473.62	455.50	434.42	410.10	384.62
285.0	508.70	506.28	499.64	488.70	474.34	456.93	434.86	411.45	405.53
300.0	507.81	505.11	499.28	489.41	484.75	455.86	436.30	410.28	385.70
315.0	506.37	505.29	498.56	488.34	474.34	456.58	435.67	411.54	385.16
330.0	507.45	505.11	498.65	488.52	474.79	456.93	436.57	412.52	385.97
345.0	507.72	504.93	498.47	488.70	474.88	457.29	437.02	412.61	386.78
360.0	514.26	514.44	509.60	501.08	489.05	472.64	452.72	431.19	405.53
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	377.09	347.21	315.09	284.05	247.98	215.59	181.68	148.39	116.27
15.0	374.57	344.61	314.91	281.63	247.80	213.62	179.71	146.51	116.10
30.0	374.12	344.07	312.31	279.11	246.64	211.20	178.90	146.06	114.12
45.0	372.51	341.47	310.69	277.59	243.76	209.85	176.48	145.07	111.70
60.0	369.37	339.58	307.82	274.54	240.80	208.77	173.60	142.38	110.71
75.0	366.32	336.17	306.66	271.31	239.64	205.90	172.62	139.69	109.99
90.0	365.78	335.55	303.52	270.32	236.68	204.56	171.27	138.70	107.48
105.0	363.09	332.68	300.91	268.80	235.33	201.96	168.67	136.19	106.67
120.0	361.74	331.33	299.39	266.37	234.61	199.35	167.77	135.30	104.34
135.0	359.95	329.62	297.51	266.10	232.37	199.00	165.71	135.21	102.73
150.0	358.51	329.62	297.42	264.49	231.02	197.47	166.16	133.86	103.09
165.0	359.50	328.73	298.40	263.50	231.83	198.19	165.08	132.78	103.36
180.0	350.17	318.50	285.84	254.17	219.99	186.17	152.97	120.85	91.24
195.0	350.53	318.86	286.11	252.92	219.00	187.15	152.16	121.93	92.14
210.0	350.35	319.13	287.64	254.26	220.35	186.70	153.69	121.66	92.05
225.0	351.79	320.65	288.26	254.80	222.23	187.51	155.75	123.63	93.93
240.0	352.23	322.63	288.71	257.13	223.49	189.84	156.74	124.53	96.00
255.0	353.94	323.25	290.78	257.49	223.94	192.18	159.16	149.83	96.00
270.0	354.48	324.87	292.75	283.96	225.55	193.25	160.51	128.39	98.15
285.0	356.54	324.51	293.92	261.17	227.62	193.97	161.04	129.10	98.87
300.0	356.81	326.31	294.28	261.17	229.50	194.33	163.20	130.99	100.48
315.0	356.09	327.92	293.83	262.96	229.32	196.03	162.93	130.81	102.19
330.0	357.35	327.02	294.90	262.25	228.96	197.29	164.18	132.15	101.56
345.0	357.62	327.92	295.89	263.23	229.86	196.57	163.56	131.53	100.93
360.0	377.09	347.21	315.09	284.05	247.98	215.59	181.68	148.39	116.27

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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	87.56	79.58	78.59	77.97	77.79	78.32	79.40	81.02	82.45
15.0	87.30	79.40	78.59	77.88	77.70	78.14	79.31	80.57	82.54
30.0	85.86	79.31	78.41	77.61	77.61	77.97	79.22	81.19	82.27
45.0	85.14	79.04	78.23	77.61	77.52	78.05	79.22	81.11	82.72
60.0	83.71	78.95	78.05	77.70	77.52	78.05	79.22	81.11	82.63
75.0	83.17	78.86	77.97	77.52	77.34	77.97	79.13	80.93	82.36
90.0	81.73	78.59	77.61	77.07	76.98	77.79	78.95	80.75	82.27
105.0	80.84	77.97	77.34	76.71	76.71	77.34	78.68	80.48	82.18
120.0	79.31	77.70	77.07	76.62	76.62	77.07	78.41	80.12	81.91
135.0	79.13	77.43	76.80	76.26	76.26	76.89	78.32	80.03	81.64
150.0	78.59	77.16	76.53	76.08	76.17	76.80	77.97	79.76	81.55
165.0	78.50	76.98	76.35	75.90	75.90	76.71	77.88	79.94	81.37
180.0	79.49	78.50	78.14	78.05	78.23	79.13	80.39	82.36	83.35
195.0	79.22	78.32	77.70	77.61	77.79	78.77	80.21	81.64	83.35
210.0	78.95	78.14	77.43	77.25	77.52	78.32	79.85	81.46	82.72
225.0	79.04	78.05	77.34	77.25	77.43	78.23	78.32	81.11	82.18
240.0	79.31	78.14	77.97	77.16	77.25	78.14	79.22	81.19	82.36
255.0	79.40	78.23	77.61	77.25	77.34	77.88	79.22	80.93	82.27
270.0	79.58	78.32	77.70	77.25	77.43	78.05	79.04	80.93	82.18
285.0	79.85	78.50	77.79	77.34	77.43	78.14	79.40	80.84	82.36
300.0	80.03	78.86	77.97	77.70	77.52	78.05	79.22	81.02	81.91
315.0	80.03	78.95	78.05	77.79	77.70	78.23	79.31	80.93	82.27
330.0	80.12	78.86	78.05	77.88	77.88	78.50	79.49	80.93	82.27
345.0	80.30	79.04	78.23	77.88	77.79	78.50	79.67	81.28	82.45
360.0	87.56	79.58	78.59	77.97	77.79	78.32	79.40	81.02	82.45

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	83.89	85.23	87.39	90.97	92.77	94.02	90.26	83.53	86.22
15.0	83.89	85.14	87.48	90.53	92.50	93.93	89.90	83.80	86.58
30.0	83.89	85.23	87.56	90.17	92.59	93.93	89.99	83.53	87.03
45.0	83.80	85.41	87.56	90.08	92.77	93.85	89.90	83.62	86.94
60.0	83.35	85.41	87.12	90.44	92.41	93.58	89.63	83.26	87.48
75.0	83.89	84.42	87.03	90.44	92.50	93.31	89.09	83.08	87.12
90.0	83.71	84.25	86.94	90.35	92.50	93.22	88.91	82.63	87.03
105.0	83.17	85.05	87.12	89.81	92.32	92.95	88.37	82.45	87.30
120.0	83.17	84.96	87.21	89.90	92.14	92.68	87.74	81.82	87.56
135.0	83.35	84.96	86.85	89.90	91.78	92.32	87.83	81.37	87.03
150.0	82.90	84.60	86.94	89.63	91.33	92.32	87.56	81.02	87.12
165.0	82.63	84.25	86.85	89.36	91.60	92.50	86.76	81.02	86.85
180.0	84.51	86.04	88.01	90.08	92.05	91.96	84.87	79.58	90.53
195.0	84.16	85.50	87.74	89.90	91.24	91.42	84.60	79.22	90.08
210.0	83.98	83.98	87.48	89.36	90.62	91.06	84.87	79.58	89.99
225.0	83.62	84.87	87.48	89.00	90.26	91.42	84.69	79.31	89.54
240.0	82.72	84.87	87.03	89.09	90.44	91.69	84.96	79.58	89.18
255.0	82.72	84.34	86.85	89.45	90.53	91.78	85.14	79.76	89.00
270.0	83.08	83.44	87.39	89.45	90.44	92.05	85.32	79.85	89.18
285.0	82.45	84.07	86.76	89.36	90.35	91.51	84.87	79.58	89.09
300.0	83.44	84.42	86.49	88.82	90.62	91.51	84.78	79.58	89.18
315.0	83.26	84.60	86.67	88.19	90.62	91.60	84.60	79.58	89.27
330.0	83.35	84.60	86.94	88.55	90.35	91.78	84.96	79.49	89.18
345.0	83.26	84.60	87.03	89.09	90.88	91.87	84.78	79.49	89.09
360.0	83.89	85.23	87.39	90.97	92.77	94.02	90.26	83.53	86.22

Intensity data(cd)

C/ γ (°)	180.0
0.0	90.88
15.0	91.24
30.0	90.97
45.0	90.88
60.0	90.79
75.0	90.88
90.0	90.97
105.0	90.88
120.0	90.97
135.0	90.88
150.0	90.79
165.0	90.79
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	90.88