
AFX

Client:

LumCAT: BAYF19LAJUDSN

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 119.990

LampCAT:

Current(A): 0.260

Lamp flux(lm): 1876.6

Power (W): 30.980

Number of Lamps: 1

PF: 0.992

Length(mm): -460

Width(mm): -460

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1876.55, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 60.57

Central intensity(cd): 640.588, Maximum intensity(cd): 640.588

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=113.4

[C90/270]Total=115.2

Field angle(10%Imax): [C0/180]Total=163.2

[C90/270]Total=163.4

Maximum s/h(1/2): C0_180=1.27 C90_270=1.27

Maximum s/h(1/4): C0_180=1.39 C90_270=1.38

Up flux rate of lamp(%): 0.55%

Down flux rate of lamp(%): 99.45%

Up flux rate of LUM(%): 0.55%

Down flux rate of LUM(%): 99.45%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 77.604%

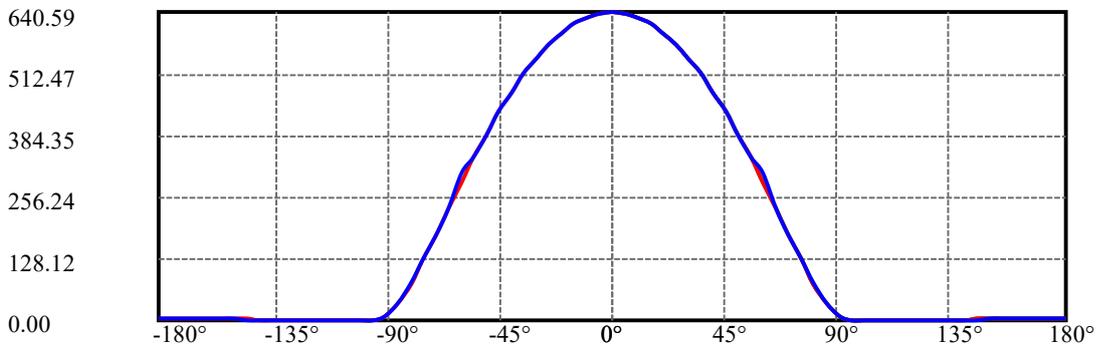
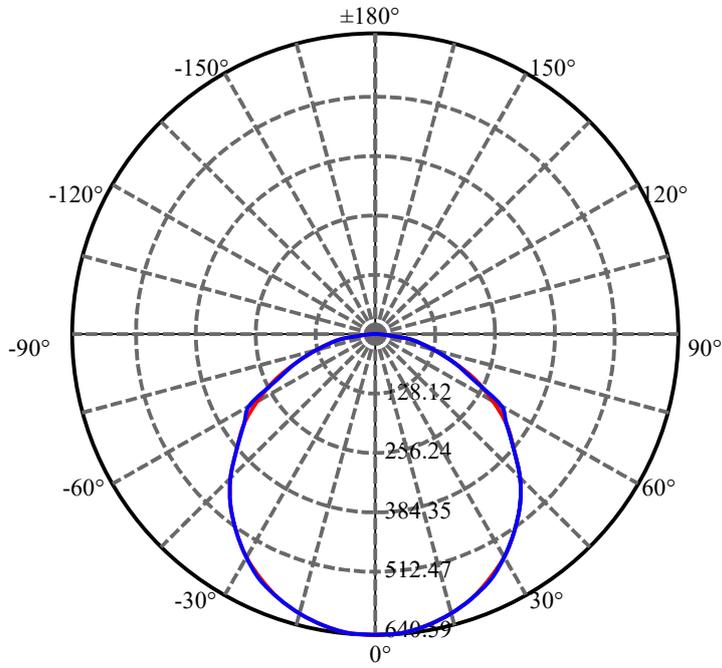
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	640.588	0.000	0	0.00%	0.00%
5.0	637.972	15.285	15.285	0.81%	0.81%
10.0	630.122	45.364	60.649	2.42%	3.23%
15.0	616.889	73.972	134.62	3.94%	7.17%
20.0	598.795	100.189	234.81	5.34%	12.51%
25.0	575.095	123.119	357.929	6.56%	19.07%
30.0	546.795	141.976	499.905	7.57%	26.64%
35.0	512.852	156.041	655.946	8.32%	34.95%
40.0	476.035	164.988	820.934	8.79%	43.75%
45.0	432.515	168.226	989.16	8.96%	52.71%
50.0	385.937	165.380	1154.54	8.81%	61.52%
55.0	337.451	157.289	1311.829	8.38%	69.91%
60.0	287.437	144.441	1456.27	7.70%	77.60%
65.0	233.042	126.529	1582.799	6.74%	84.35%
70.0	179.659	104.499	1687.298	5.57%	89.91%
75.0	127.810	80.367	1767.665	4.28%	94.20%
80.0	80.187	55.654	1823.319	2.97%	97.16%
85.0	35.401	31.408	1854.727	1.67%	98.84%
90.0	6.913	11.586	1866.313	0.62%	99.45%
95.0	0.935	2.149	1868.462	0.11%	99.57%
100.0	0.823	0.478	1868.94	0.03%	99.59%
105.0	0.823	0.441	1869.38	0.02%	99.62%
110.0	0.748	0.411	1869.791	0.02%	99.64%
115.0	0.972	0.436	1870.227	0.02%	99.66%
120.0	1.046	0.490	1870.717	0.03%	99.69%
125.0	0.935	0.458	1871.175	0.02%	99.71%
130.0	1.085	0.439	1871.614	0.02%	99.74%
135.0	1.384	0.499	1872.112	0.03%	99.76%
140.0	1.607	0.554	1872.666	0.03%	99.79%
145.0	2.168	0.630	1873.296	0.03%	99.83%
150.0	2.243	0.650	1873.946	0.03%	99.86%
155.0	3.103	0.677	1874.622	0.04%	99.90%
160.0	3.140	0.655	1875.277	0.03%	99.93%
165.0	3.252	0.527	1875.804	0.03%	99.96%
170.0	3.627	0.408	1876.212	0.02%	99.98%
175.0	3.887	0.269	1876.481	0.01%	100.00%
180.0	2.056	0.071	1876.552	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	499.91	26.64%	26.64%
0-40	820.93	43.75%	43.75%
0-60	1456.27	77.60%	77.60%
0-90	1866.31	99.45%	99.45%
0-120	1870.72	99.69%	99.69%
0-180	1876.55	100.00%	100.00%
60-90	410.04	21.85%	21.85%
90-120	4.40	0.23%	0.23%
90-130	5.30	0.28%	0.28%
90-150	7.63	0.41%	0.41%
90-180	10.17	0.54%	0.54%
0-61.78	1501.24	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	60.65
10-20	174.16
20-30	265.10
30-40	321.03
40-50	333.61
50-60	301.73
60-70	231.03
70-80	136.02
80-90	42.99
90-100	2.63
100-110	0.85
110-120	0.93
120-130	0.90
130-140	1.05
140-150	1.28
150-160	1.33
160-170	0.93
170-180	0.27



C0(Max): ———

C0/C180: ———

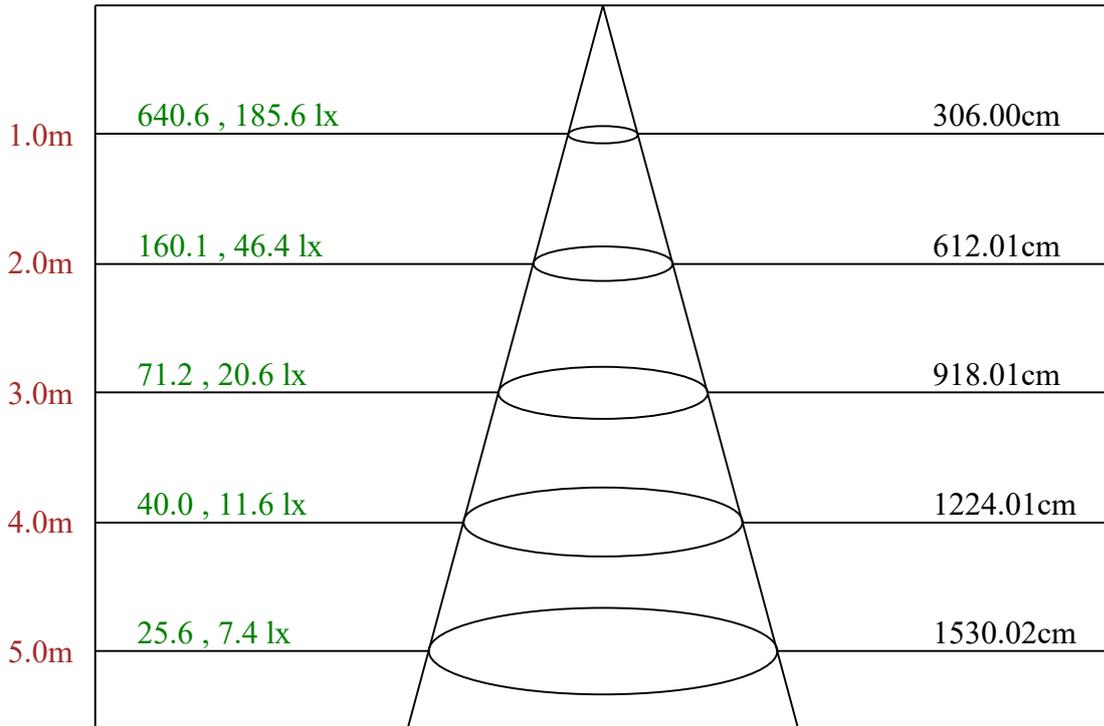
C90/C270: ———

Field angle(10%Imax):C0/180Left:81.6 Right:81.6

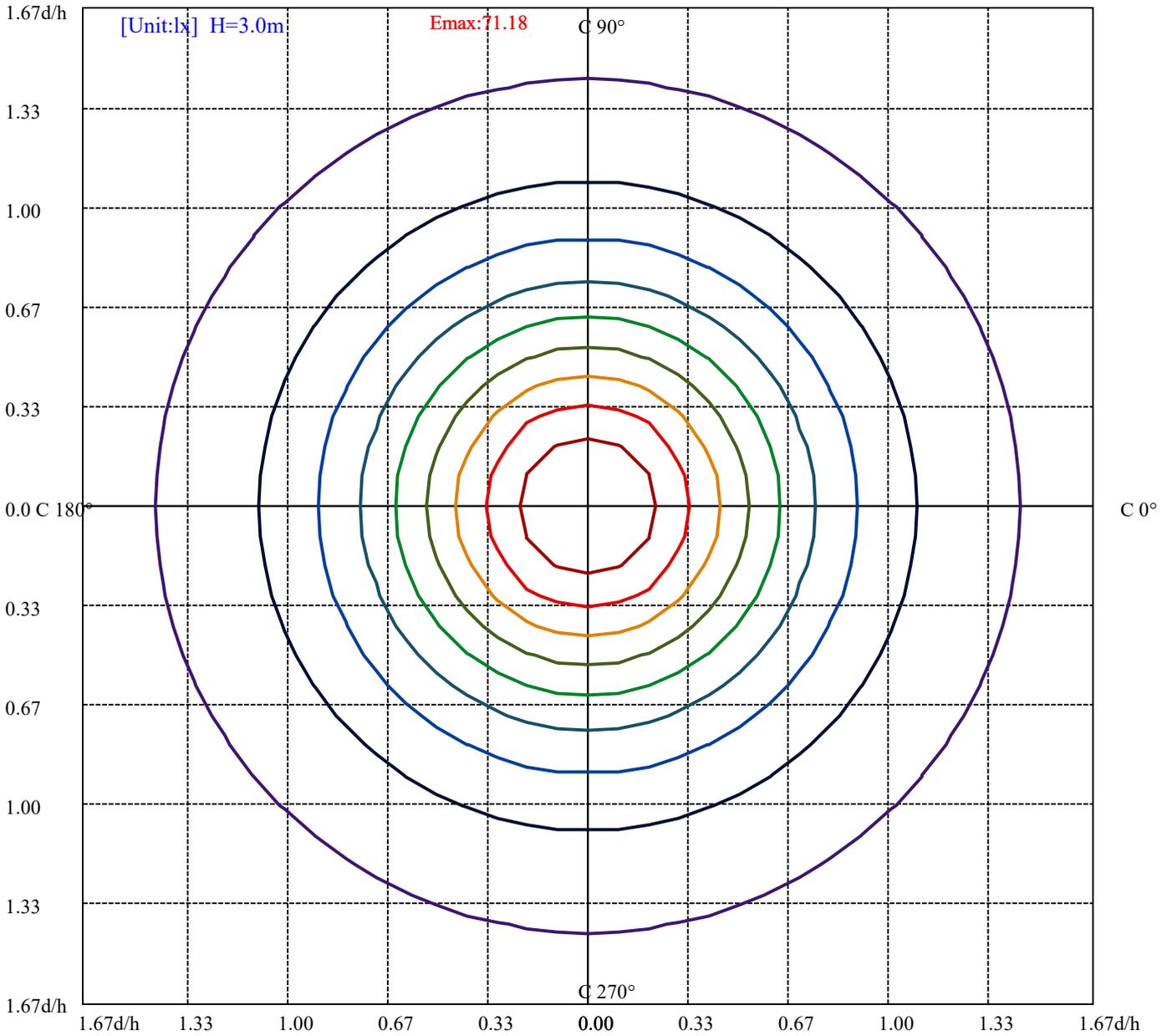
:C90/270Left:81.7 Right:81.7

Beam Angle(50%Imax):C0/180Left:56.7 Right:56.7

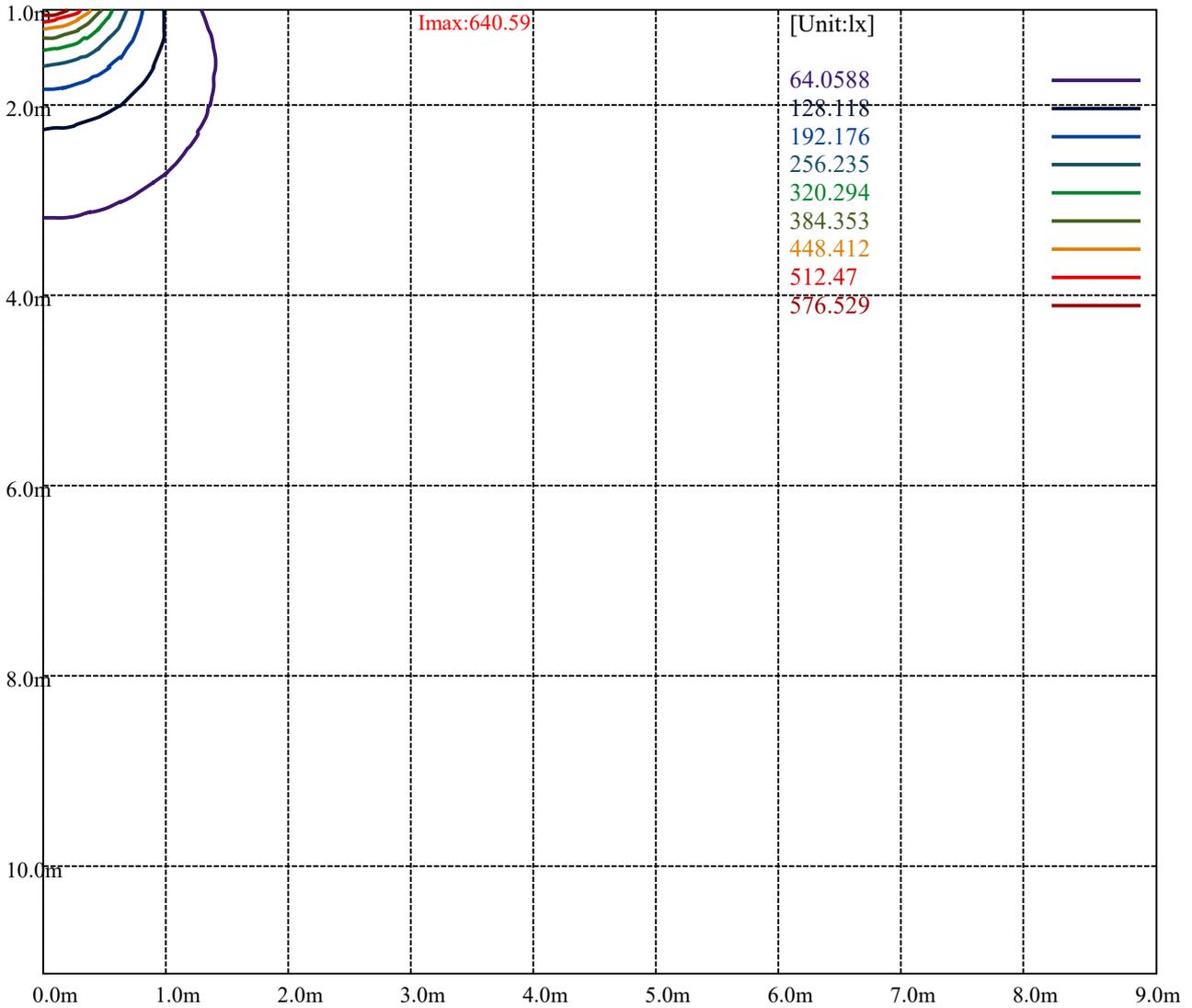
:C90/270Left:57.6 Right:57.6



Max , Ave Beam angle of C0 plane 113.66



- (10%Emax) 7.117644
- (20%Emax) 14.23533
- (30%Emax) 21.35289
- (40%Emax) 28.47055
- (50%Emax) 35.58822
- (60%Emax) 42.70589
- (70%Emax) 49.82355
- (80%Emax) 56.94111
- (90%Emax) 64.05878



Luminance Table

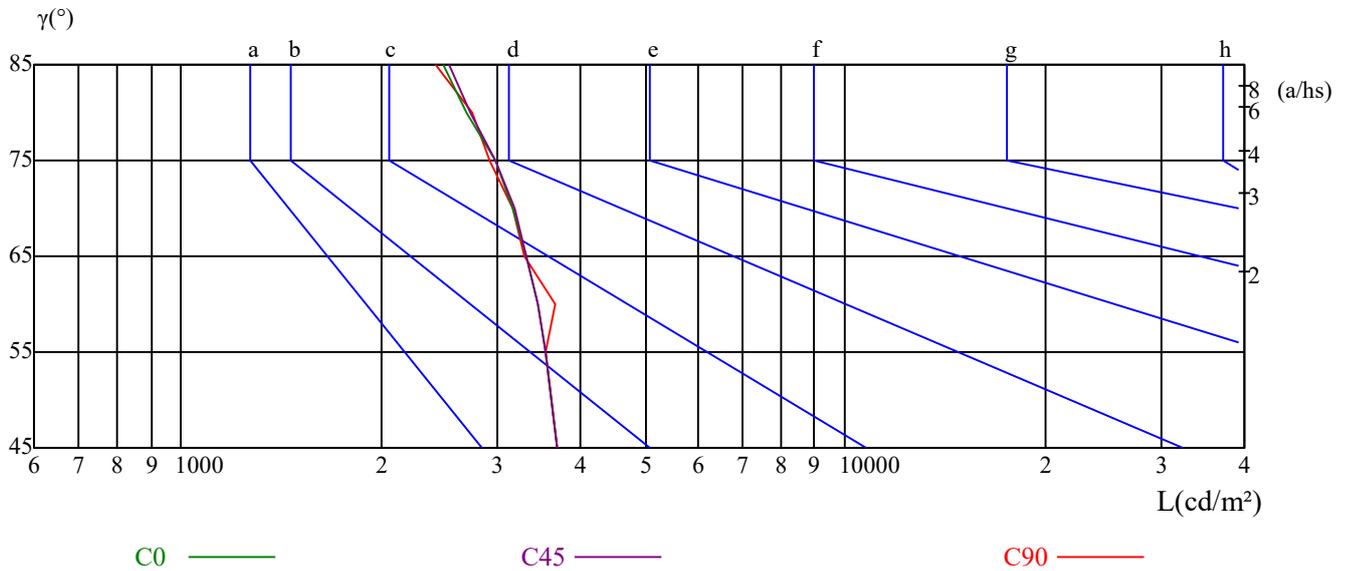
γ	45	50	55	60	65	70	75	80	85
C0	3683	3608	3541	3444	3311	3149	2977	2686	2477
C45	3683	3610	3539	3446	3320	3173	2976	2724	2528
C90	3674	3608	3539	3665	3294	3153	2924	2740	2419

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3311	3294	3320	2977	2924	2976	2477	2419	2528

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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	0.99
1	1.03	0.99	0.95	1.01	0.97	0.93	0.97	0.93	0.90	0.93	0.90	0.88	0.89	0.87	0.85	0.83
2	0.90	0.83	0.77	0.88	0.82	0.76	0.84	0.79	0.74	0.81	0.76	0.73	0.78	0.74	0.71	0.69
3	0.79	0.71	0.64	0.77	0.70	0.63	0.74	0.68	0.62	0.71	0.66	0.61	0.69	0.64	0.60	0.58
4	0.70	0.61	0.54	0.68	0.60	0.54	0.66	0.59	0.53	0.63	0.57	0.52	0.61	0.56	0.51	0.49
5	0.62	0.53	0.46	0.61	0.53	0.46	0.59	0.51	0.46	0.57	0.50	0.45	0.55	0.49	0.44	0.42
6	0.56	0.47	0.40	0.55	0.46	0.40	0.53	0.46	0.40	0.51	0.45	0.39	0.50	0.44	0.39	0.37
7	0.51	0.42	0.36	0.50	0.42	0.36	0.48	0.41	0.35	0.47	0.40	0.35	0.45	0.39	0.35	0.33
8	0.46	0.38	0.32	0.46	0.37	0.32	0.44	0.37	0.31	0.43	0.36	0.31	0.42	0.36	0.31	0.29
9	0.42	0.34	0.29	0.42	0.34	0.28	0.41	0.33	0.28	0.40	0.33	0.28	0.38	0.32	0.28	0.26
10	0.39	0.31	0.26	0.39	0.31	0.26	0.38	0.31	0.26	0.37	0.30	0.26	0.36	0.30	0.25	0.24

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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	640.59	640.59	634.39	623.75	607.81	586.54	562.62	528.95	494.40
15.0	640.59	640.59	635.25	624.57	610.34	588.99	563.18	532.04	495.57
30.0	640.59	640.59	636.13	625.42	609.36	588.84	562.08	530.85	496.95
45.0	640.59	640.59	636.11	625.38	611.96	588.70	564.54	533.23	497.44
60.0	640.59	641.48	636.11	626.25	611.02	590.42	563.54	533.08	495.45
75.0	640.59	641.49	636.10	626.21	610.04	591.17	565.12	532.78	496.84
90.0	640.59	641.49	636.10	625.31	610.04	588.48	562.42	530.98	495.04
105.0	640.59	640.59	636.08	625.27	610.86	588.33	563.10	530.67	494.63
120.0	640.59	640.59	636.98	626.15	609.91	588.26	562.09	529.61	494.43
135.0	640.59	640.59	635.17	624.35	608.11	587.36	561.19	528.71	492.62
150.0	640.59	640.59	634.26	623.42	590.90	587.28	560.18	527.65	490.61
165.0	640.59	638.78	633.37	621.64	605.40	583.75	556.68	525.10	486.31
180.0	640.59	634.39	624.64	608.69	587.43	561.73	530.72	496.17	453.64
195.0	640.59	635.25	624.57	607.67	587.21	560.51	530.26	493.79	453.75
210.0	640.59	635.23	624.53	608.47	587.06	561.18	529.96	493.38	454.12
225.0	640.59	635.22	624.48	607.49	587.80	561.86	530.54	493.86	453.60
240.0	640.59	635.21	624.46	608.33	586.83	560.85	530.39	492.76	452.44
255.0	640.59	635.20	624.42	610.04	586.68	562.42	530.98	495.04	454.61
270.0	640.59	635.20	623.52	608.24	586.68	560.63	529.18	493.24	454.61
285.0	640.59	635.18	624.37	609.05	589.23	563.10	531.57	495.53	486.52
300.0	640.59	636.08	625.25	609.91	605.40	561.19	532.32	496.23	456.53
315.0	640.59	634.27	624.35	609.01	588.26	562.09	531.42	496.23	455.63
330.0	640.59	636.07	626.13	609.87	591.80	563.79	534.88	499.64	458.98
345.0	640.59	636.08	626.15	610.81	590.97	564.80	534.12	498.94	460.14
360.0	640.59	640.59	634.39	623.75	607.81	586.54	562.62	528.95	494.40
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	453.64	409.34	361.49	310.99	257.83	203.78	153.28	99.23	54.93
15.0	454.64	410.15	363.89	310.51	260.68	206.41	153.03	101.43	54.27
30.0	455.91	411.30	364.01	312.26	259.63	205.20	151.67	103.49	55.32
45.0	456.28	411.55	365.92	311.35	261.25	207.56	153.88	101.99	56.36
60.0	456.03	412.13	363.75	312.68	259.82	207.86	152.31	103.03	56.44
75.0	455.51	410.59	362.07	313.56	260.55	206.64	152.73	101.52	55.70
90.0	454.61	409.69	362.07	310.86	257.85	203.95	150.04	101.52	53.91
105.0	453.19	408.14	363.09	309.03	258.58	204.52	150.46	99.11	52.26
120.0	453.83	408.71	360.89	309.47	258.04	202.10	150.67	99.25	55.94
135.0	451.12	406.01	357.29	309.47	256.24	202.10	148.87	97.44	55.94
150.0	451.75	404.77	357.79	307.19	253.89	199.68	149.08	97.58	50.60
165.0	448.41	404.20	355.48	306.76	253.53	199.39	146.16	95.64	48.72
180.0	412.00	361.49	313.65	261.37	207.33	154.17	102.78	55.82	16.83
195.0	410.15	362.11	311.40	258.90	208.19	154.81	104.10	56.94	15.12
210.0	410.40	363.12	312.26	260.52	206.99	153.46	105.28	55.32	16.06
225.0	409.76	361.45	310.45	261.25	204.88	154.78	103.78	56.36	15.21
240.0	410.33	360.16	311.78	259.82	206.06	153.20	102.14	57.34	14.33
255.0	409.69	362.07	311.76	258.75	205.74	155.43	104.22	89.84	14.38
270.0	408.79	361.17	312.66	298.28	204.84	154.53	101.52	56.60	16.17
285.0	409.04	361.29	313.54	261.28	207.22	154.07	103.61	56.76	15.32
300.0	412.32	363.60	313.08	260.75	210.22	154.28	105.56	58.65	17.14
315.0	414.13	363.60	315.78	263.45	210.22	156.99	105.56	58.65	18.95
330.0	414.71	366.82	316.23	263.82	210.52	157.21	108.42	60.54	18.97
345.0	414.13	369.01	318.49	266.16	212.93	159.70	108.27	60.45	20.75
360.0	453.64	409.34	361.49	310.99	257.83	203.78	153.28	99.23	54.93

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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	14.18	0.89	0.00	0.00	0.00	0.00	0.89	0.89	0.89
15.0	15.12	0.89	0.00	0.00	0.00	0.89	0.89	0.89	0.89
30.0	14.27	0.89	0.89	0.89	0.00	0.89	0.89	0.89	0.89
45.0	13.42	0.89	0.89	0.89	0.89	0.89	0.89	0.89	1.79
60.0	13.44	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
75.0	12.58	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
90.0	13.48	1.80	0.90	0.90	0.90	0.90	0.90	0.90	1.80
105.0	11.71	0.90	0.90	0.90	0.90	0.90	0.90	0.90	1.80
120.0	11.73	0.90	0.90	0.90	0.90	0.90	0.90	0.90	1.80
135.0	13.53	0.90	0.90	0.90	0.90	0.90	0.90	0.90	1.80
150.0	10.84	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
165.0	10.83	0.90	0.90	0.90	0.00	0.90	0.90	0.90	0.90
180.0	0.89	0.89	0.89	0.89	0.89	1.77	1.77	0.89	0.89
195.0	0.89	0.89	0.89	0.89	0.89	0.89	1.78	0.89	0.89
210.0	0.89	0.89	0.89	0.89	0.89	1.78	1.78	0.89	0.89
225.0	0.89	0.89	0.89	0.89	0.89	1.79	1.79	0.89	0.89
240.0	0.90	0.90	0.90	0.90	0.90	0.90	0.90	1.79	0.90
255.0	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
270.0	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
285.0	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
300.0	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
315.0	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
330.0	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
345.0	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
360.0	14.18	0.89	0.00	0.00	0.00	0.00	0.89	0.89	0.89

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.89	1.77	2.66	2.66	3.54	3.54	3.54	3.54	3.54
15.0	1.78	1.78	2.67	2.67	3.56	3.56	3.56	3.56	3.56
30.0	1.78	1.78	2.68	2.68	3.57	3.57	3.57	3.57	3.57
45.0	1.79	1.79	2.68	2.68	3.58	3.58	3.58	3.58	4.47
60.0	1.79	1.79	2.69	2.69	3.58	3.58	3.58	3.58	4.48
75.0	1.80	1.80	1.80	2.70	3.59	3.59	3.59	3.59	3.59
90.0	1.80	1.80	1.80	2.70	3.59	3.59	3.59	3.59	3.59
105.0	1.80	1.80	2.70	2.70	3.60	3.60	3.60	3.60	4.50
120.0	1.80	1.80	2.71	2.71	3.61	3.61	3.61	3.61	3.61
135.0	1.80	1.80	2.71	2.71	3.61	3.61	3.61	3.61	3.61
150.0	1.81	1.81	2.71	2.71	3.61	3.61	3.61	4.52	3.61
165.0	1.80	1.80	2.71	2.71	3.61	3.61	3.61	3.61	4.51
180.0	0.89	1.77	1.77	1.77	2.66	2.66	2.66	3.54	4.43
195.0	0.89	0.89	1.78	1.78	2.67	2.67	2.67	3.56	4.45
210.0	0.89	0.89	1.78	1.78	2.68	2.68	2.68	3.57	3.57
225.0	0.89	1.79	1.79	1.79	2.68	2.68	3.58	3.58	4.47
240.0	1.79	1.79	1.79	1.79	2.69	2.69	3.58	3.58	3.58
255.0	1.80	1.80	1.80	1.80	2.70	2.70	3.59	3.59	3.59
270.0	0.90	1.80	1.80	1.80	2.70	2.70	2.70	3.59	4.49
285.0	0.90	1.80	1.80	1.80	2.70	2.70	2.70	3.60	3.60
300.0	0.90	0.90	1.80	1.80	2.71	2.71	2.71	3.61	3.61
315.0	0.90	0.90	1.80	1.80	1.80	2.71	2.71	3.61	3.61
330.0	0.90	0.90	1.81	1.81	2.71	2.71	2.71	3.61	3.61
345.0	0.90	1.80	1.80	1.80	2.71	2.71	2.71	3.61	3.61
360.0	0.89	1.77	2.66	2.66	3.54	3.54	3.54	3.54	3.54

Intensity data(cd)

C/ γ (°)	180.0
0.0	4.43
15.0	4.45
30.0	3.57
45.0	3.58
60.0	4.48
75.0	4.49
90.0	4.49
105.0	4.50
120.0	3.61
135.0	4.51
150.0	3.61
165.0	3.61
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	4.43