
AFX

Client:

LumCAT: BAYF12LAJUDSN

Luminaire: LED Lamp

Report No:

Ballast type:

Test No:

Voltage(V): 119.940

LampCAT:

Current(A): 0.184

Lamp flux(lm): 1522.9

Power (W): 21.860

Number of Lamps: 1

PF: 0.992

Length(mm): -280

Width(mm): -280

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1522.94, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 69.67

Central intensity(cd): 556.776, Maximum intensity(cd): 556.776

Angle of maximum intensity: C=15.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=107.6

[C90/270]Total=107.4

Field angle(10%Imax): [C0/180]Total=161.0

[C90/270]Total=161.4

Maximum s/h(1/2): C0_180=1.22 C90_270=1.22

Maximum s/h(1/4): C0_180=1.34 C90_270=1.34

Up flux rate of lamp(%): 0.48%

Down flux rate of lamp(%): 99.52%

Up flux rate of LUM(%): 0.48%

Down flux rate of LUM(%): 99.52%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 78.753%

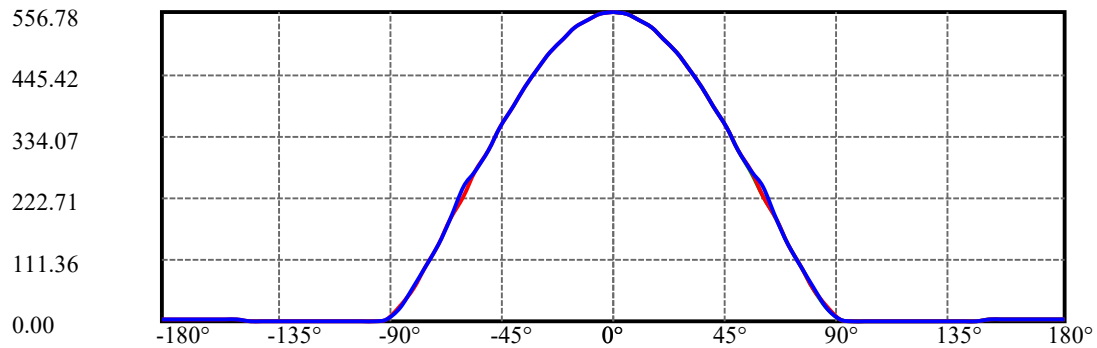
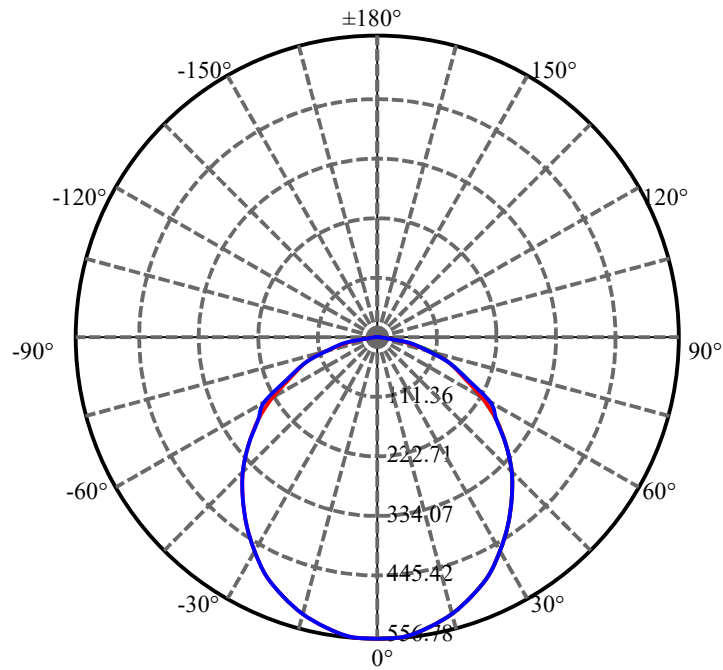
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	556.776	0.000	0	0.00%	0.00%
5.0	553.748	13.276	13.276	0.87%	0.87%
10.0	544.628	39.292	52.568	2.58%	3.45%
15.0	529.712	63.729	116.297	4.18%	7.64%
20.0	509.523	85.647	201.945	5.62%	13.26%
25.0	484.480	104.252	306.197	6.85%	20.11%
30.0	455.394	118.942	425.139	7.81%	27.92%
35.0	422.910	129.337	554.476	8.49%	36.41%
40.0	388.521	135.381	689.857	8.89%	45.30%
45.0	349.301	136.614	826.471	8.97%	54.27%
50.0	309.229	133.066	959.537	8.74%	63.01%
55.0	268.069	125.524	1085.06	8.24%	71.25%
60.0	226.432	114.303	1199.363	7.51%	78.75%
65.0	182.501	99.412	1298.775	6.53%	85.28%
70.0	138.876	81.375	1380.15	5.34%	90.62%
75.0	97.755	61.852	1442.002	4.06%	94.69%
80.0	60.672	42.391	1484.393	2.78%	97.47%
85.0	25.269	23.352	1507.745	1.53%	99.00%
90.0	3.287	7.819	1515.563	0.51%	99.52%
95.0	0.635	1.074	1516.637	0.07%	99.59%
100.0	0.486	0.305	1516.942	0.02%	99.61%
105.0	0.523	0.270	1517.212	0.02%	99.62%
110.0	0.672	0.312	1517.524	0.02%	99.64%
115.0	0.711	0.350	1517.875	0.02%	99.67%
120.0	0.860	0.382	1518.257	0.03%	99.69%
125.0	0.897	0.406	1518.663	0.03%	99.72%
130.0	0.897	0.390	1519.053	0.03%	99.74%
135.0	0.897	0.363	1519.416	0.02%	99.77%
140.0	0.972	0.346	1519.762	0.02%	99.79%
145.0	1.346	0.387	1520.148	0.03%	99.82%
150.0	2.093	0.506	1520.655	0.03%	99.85%
155.0	2.243	0.549	1521.203	0.04%	99.89%
160.0	2.990	0.549	1521.752	0.04%	99.92%
165.0	3.140	0.505	1522.258	0.03%	99.96%
170.0	3.178	0.375	1522.632	0.02%	99.98%
175.0	3.589	0.242	1522.874	0.02%	100.00%
180.0	1.794	0.064	1522.939	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	425.14	27.92%	27.92%
0-40	689.86	45.30%	45.30%
0-60	1199.36	78.75%	78.75%
0-90	1515.56	99.52%	99.52%
0-120	1518.26	99.69%	99.69%
0-180	1522.94	100.00%	100.00%
60-90	316.20	20.76%	20.76%
90-120	2.69	0.18%	0.18%
90-130	3.49	0.23%	0.23%
90-150	5.09	0.33%	0.33%
90-180	7.31	0.48%	0.48%
0-60.96	1218.35	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	52.57
10-20	149.38
20-30	223.19
30-40	264.72
40-50	269.68
50-60	239.83
60-70	180.79
70-80	104.24
80-90	31.17
90-100	1.38
100-110	0.58
110-120	0.73
120-130	0.80
130-140	0.71
140-150	0.89
150-160	1.10
160-170	0.88
170-180	0.24



C15(Max): —————

C0/C180: —————

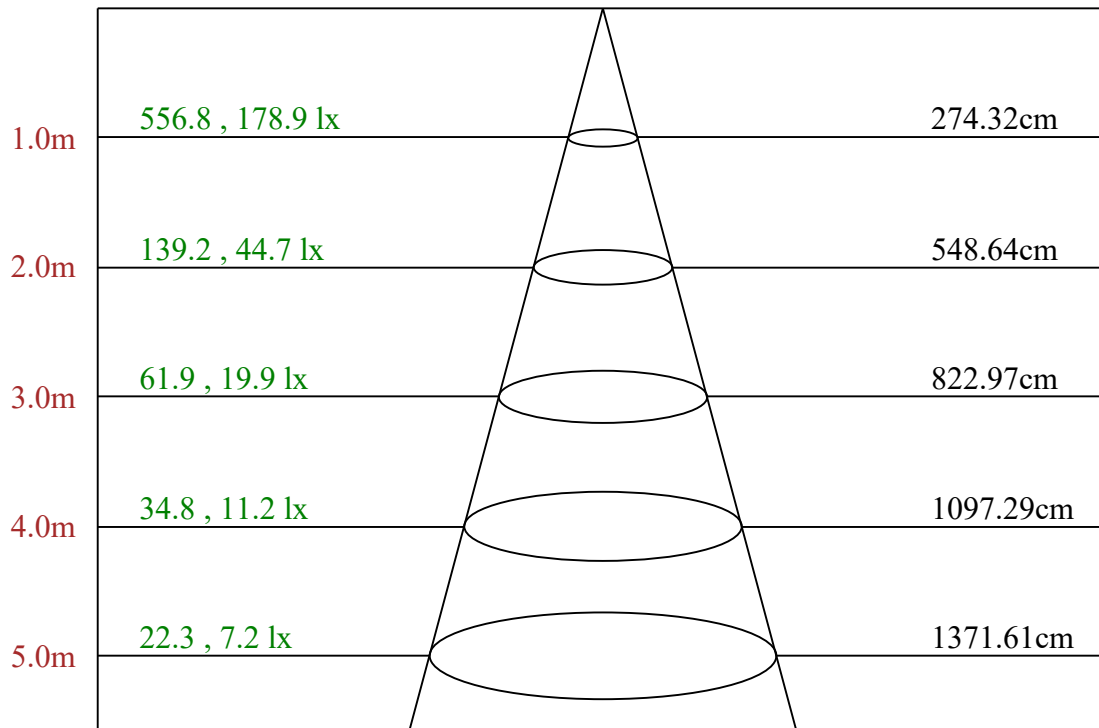
C90/C270: —————

Field angle(10%Imax):C0/180Left:80.5 Right:80.5

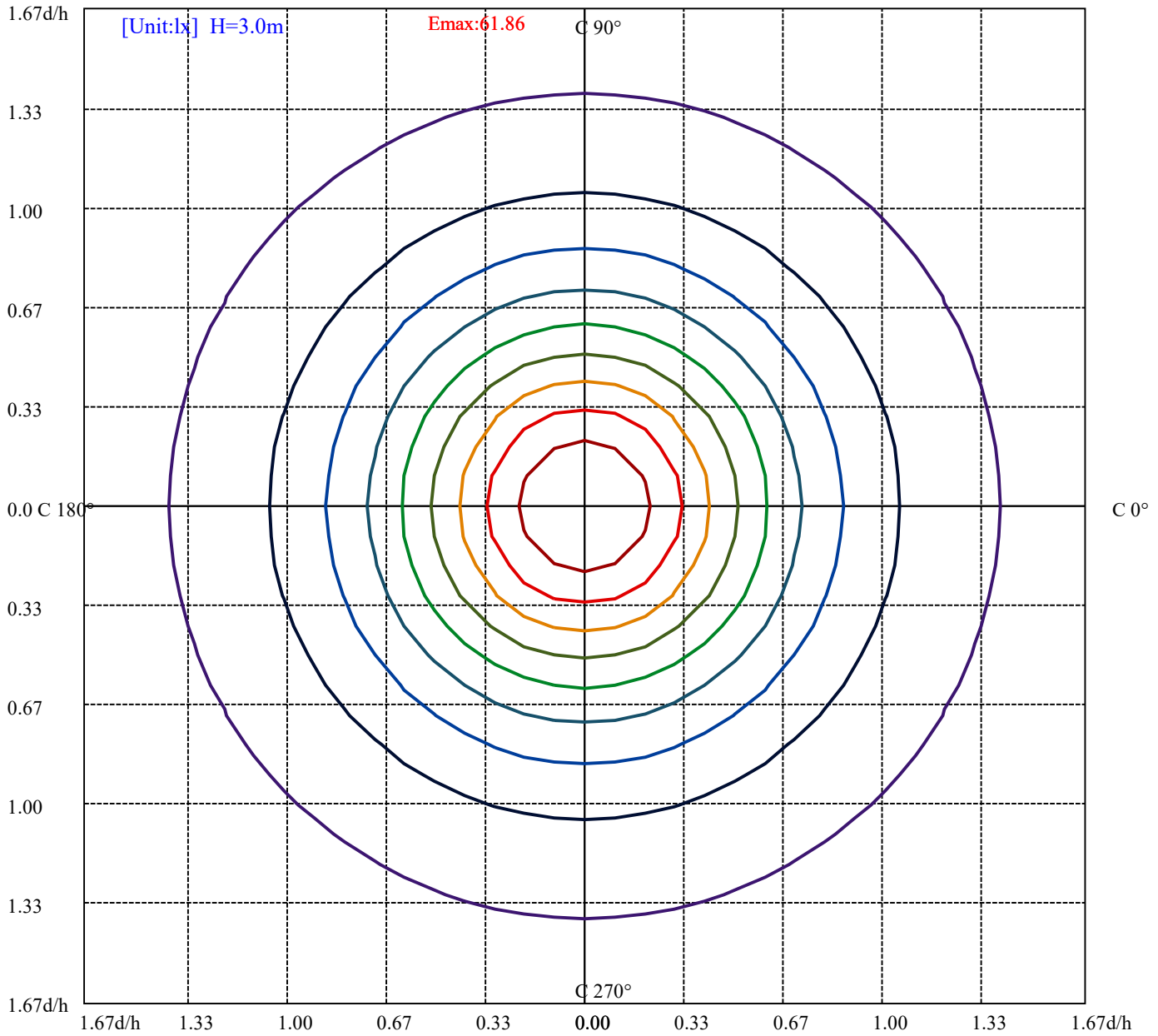
:C90/270Left:80.7 Right:80.7

Beam Angle(50%Imax):C0/180Left:53.8 Right:53.8

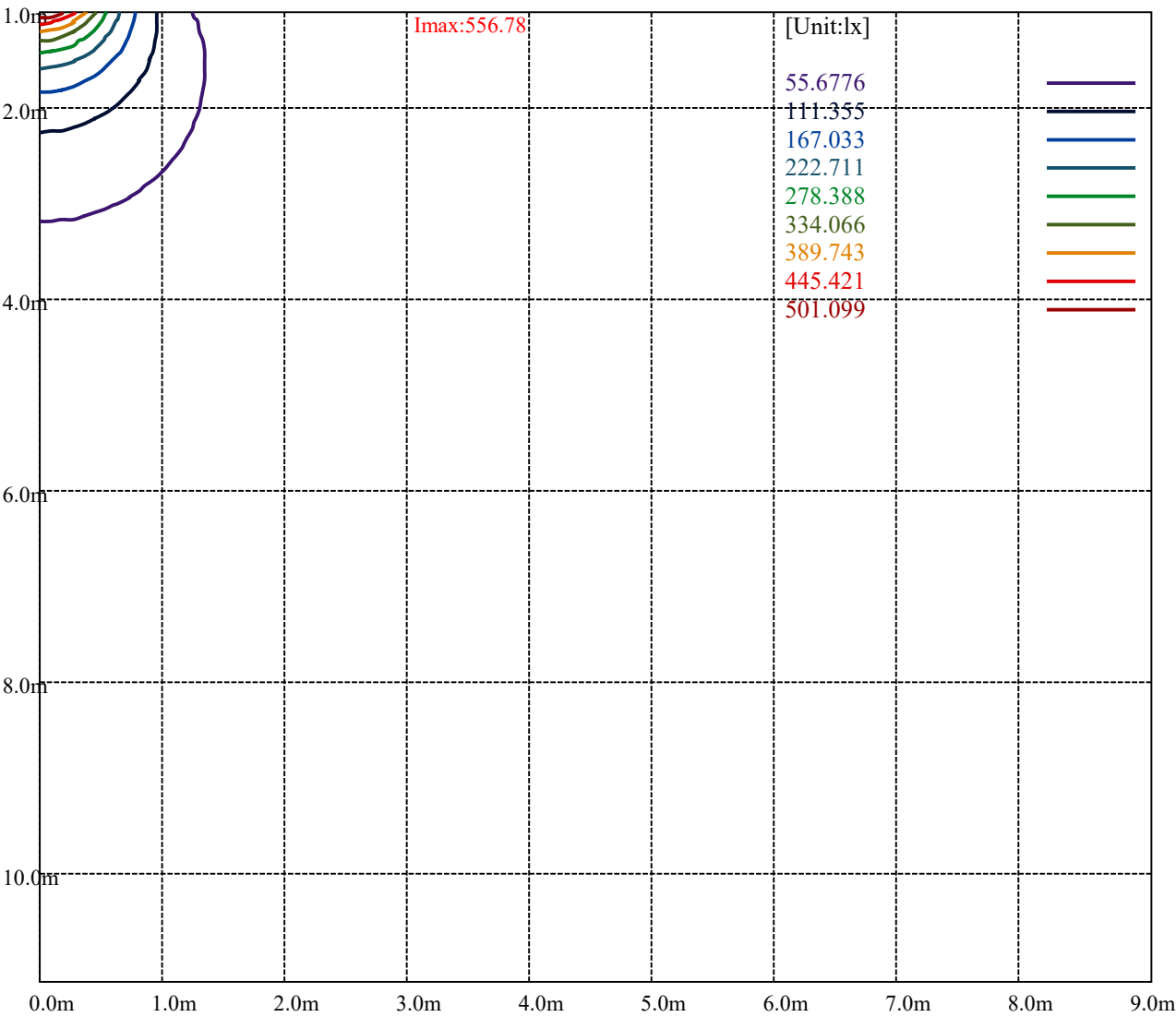
:C90/270Left:53.7 Right:53.7



Max , Ave Beam angle of C15 plane 107.81



(10%Emax) 6.1864	—
(20%Emax) 12.37278	—
(30%Emax) 18.55922	—
(40%Emax) 24.74567	—
(50%Emax) 30.932	—
(60%Emax) 37.11845	—
(70%Emax) 43.30478	—
(80%Emax) 49.49122	—
(90%Emax) 55.67767	—



Luminance Table

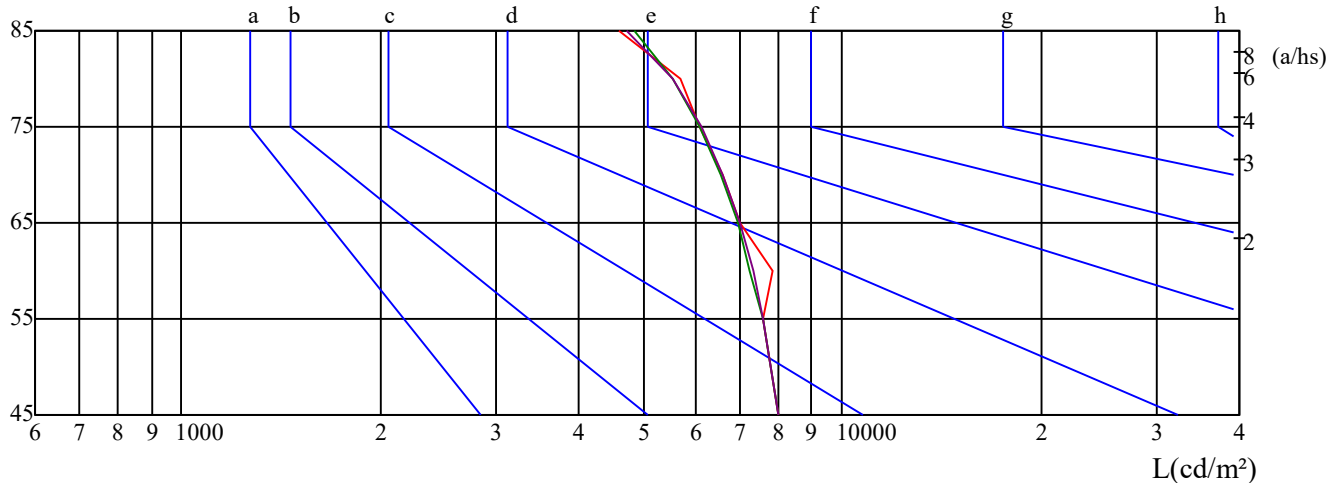
γ	45	50	55	60	65	70	75	80	85
C0	8035	7803	7595	7265	6985	6578	6090	5529	4850
C45	8041	7812	7589	7333	6999	6620	6138	5552	4735
C90	8016	7806	7589	7844	6999	6620	6096	5678	4609

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6985	6999	6999	6090	6096	6138	4850	4609	4735

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

 $\gamma(^{\circ})$ 

C0 ———

C45 ———

C90 ———

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	1.19	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	1.00
1	1.04	1.00	0.96	1.01	0.98	0.94	0.97	0.94	0.91	0.93	0.91	0.88	0.89	0.87	0.85	0.83
2	0.91	0.84	0.78	0.89	0.82	0.77	0.85	0.80	0.75	0.82	0.77	0.73	0.78	0.75	0.72	0.69
3	0.80	0.71	0.65	0.78	0.70	0.64	0.75	0.68	0.63	0.72	0.67	0.62	0.69	0.65	0.61	0.59
4	0.71	0.62	0.55	0.69	0.61	0.55	0.67	0.59	0.54	0.64	0.58	0.53	0.62	0.57	0.52	0.50
5	0.63	0.54	0.47	0.62	0.53	0.47	0.60	0.52	0.47	0.58	0.51	0.46	0.56	0.50	0.45	0.43
6	0.57	0.48	0.41	0.56	0.47	0.41	0.54	0.46	0.41	0.52	0.46	0.40	0.51	0.45	0.40	0.38
7	0.52	0.43	0.37	0.51	0.42	0.36	0.49	0.42	0.36	0.48	0.41	0.36	0.46	0.40	0.36	0.34
8	0.47	0.39	0.33	0.46	0.38	0.33	0.45	0.38	0.32	0.44	0.37	0.32	0.42	0.36	0.32	0.30
9	0.43	0.35	0.29	0.43	0.35	0.29	0.41	0.34	0.29	0.40	0.34	0.29	0.39	0.33	0.29	0.27
10	0.40	0.32	0.27	0.39	0.32	0.27	0.38	0.31	0.27	0.37	0.31	0.26	0.36	0.31	0.26	0.24

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Intensity data(cd)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	556.78	555.01	547.07	532.95	515.30	490.60	462.36	430.60	395.30
15.0	556.78	555.89	547.90	534.58	515.93	491.95	463.54	433.34	397.82
30.0	556.78	555.88	547.85	535.36	517.52	493.43	465.76	433.64	398.84
45.0	556.78	555.88	548.72	536.19	517.39	494.12	465.47	434.14	399.23
60.0	556.78	555.88	548.71	535.26	517.33	494.91	467.12	435.74	400.77
75.0	556.78	555.88	548.69	536.12	518.16	493.91	466.08	436.44	401.42
90.0	556.78	555.88	548.68	536.09	518.10	494.71	466.83	435.35	400.27
105.0	556.78	555.88	549.57	536.05	517.14	493.71	465.78	434.25	400.01
120.0	556.78	555.87	548.65	535.12	516.17	493.61	465.63	433.15	398.86
135.0	556.78	555.87	548.64	535.08	516.10	492.60	463.68	432.04	397.70
150.0	556.78	554.97	547.74	534.18	497.12	489.89	462.78	431.14	394.99
165.0	556.78	554.97	546.83	532.37	513.39	490.79	460.06	429.33	390.47
180.0	556.78	552.36	541.78	525.01	503.83	477.36	448.24	414.71	378.54
195.0	556.78	552.34	540.79	525.70	503.50	476.86	446.66	412.92	378.29
210.0	556.78	551.42	540.72	524.65	502.35	475.58	447.03	411.34	376.54
225.0	556.78	551.41	541.56	523.66	502.17	475.32	444.88	410.87	374.17
240.0	556.78	551.40	539.74	523.60	501.19	474.29	444.70	409.74	374.77
255.0	556.78	551.39	539.71	523.55	501.10	474.16	443.63	410.40	375.38
270.0	556.78	551.38	540.59	523.50	501.91	474.02	444.34	409.26	374.18
285.0	556.78	551.37	540.56	524.34	501.82	474.79	444.16	412.63	401.82
300.0	556.78	552.26	540.53	524.29	518.88	475.56	444.88	411.49	377.20
315.0	556.78	552.26	541.41	524.24	502.54	478.14	447.41	413.97	377.81
330.0	556.78	552.26	542.31	525.14	504.35	478.14	448.31	416.68	378.72
345.0	556.78	552.26	542.31	526.05	505.26	479.04	450.12	416.68	381.43
360.0	556.78	555.01	547.07	532.95	515.30	490.60	462.36	430.60	395.30
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	360.01	318.54	279.71	234.71	194.12	150.89	108.53	68.82	35.29
15.0	360.53	321.46	280.61	237.98	197.14	151.85	111.00	71.04	35.52
30.0	361.37	322.11	282.85	240.91	197.19	154.36	111.53	74.06	35.69
45.0	364.32	324.04	282.86	240.79	199.62	153.96	113.68	73.40	37.60
60.0	363.12	323.67	284.22	242.08	199.04	155.11	112.97	74.42	36.76
75.0	364.60	325.09	283.78	240.67	199.36	154.46	113.15	73.64	36.82
90.0	362.49	322.91	283.34	241.06	197.88	154.71	111.54	73.76	35.98
105.0	363.08	323.43	281.99	238.75	197.30	152.26	111.72	69.37	35.14
120.0	360.96	321.25	281.55	239.13	194.92	151.60	109.19	71.29	33.39
135.0	359.74	319.97	278.39	235.91	191.62	150.04	105.75	67.79	32.54
150.0	357.02	317.25	277.48	232.29	190.71	147.33	104.85	65.08	29.83
165.0	354.31	316.35	274.77	231.39	188.00	143.71	103.94	62.37	28.92
180.0	339.71	299.12	256.77	212.65	169.42	126.18	85.59	49.41	16.77
195.0	337.44	296.59	255.74	210.46	168.72	126.10	85.25	47.06	15.10
210.0	337.28	296.23	254.30	210.58	168.64	124.03	84.77	47.29	15.17
225.0	337.47	294.50	254.22	210.36	167.39	124.42	83.25	45.65	13.43
240.0	335.32	294.97	251.94	208.90	167.66	122.83	83.38	46.62	14.35
255.0	334.07	295.45	253.24	210.14	166.13	123.93	82.62	73.64	14.37
270.0	335.50	295.03	252.75	241.96	166.40	124.13	82.75	47.67	13.49
285.0	336.05	295.51	253.16	209.92	168.47	123.43	84.69	47.75	15.32
300.0	335.69	297.79	253.57	212.96	169.65	126.33	85.73	47.83	17.15
315.0	338.95	298.27	256.70	216.02	169.93	129.25	88.58	50.62	18.08
330.0	341.66	299.18	259.41	216.93	173.54	130.16	89.48	53.33	18.98
345.0	342.56	302.79	260.31	217.83	177.16	131.96	92.19	54.23	20.79
360.0	360.01	318.54	279.71	234.71	194.12	150.89	108.53	68.82	35.29

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Intensity data(cd)

Appendix Page: 11 Total:12

C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	5.29	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88
15.0	6.22	0.89	0.00	0.89	0.89	0.00	0.89	0.89	0.89
30.0	7.14	0.89	0.00	0.00	0.89	0.00	0.89	0.89	0.89
45.0	7.16	0.90	0.00	0.00	0.90	0.90	0.90	0.90	0.90
60.0	8.07	0.90	0.00	0.00	0.90	0.00	0.90	0.90	0.90
75.0	7.18	0.90	0.00	0.00	0.90	0.90	0.90	0.90	0.90
90.0	7.20	0.00	0.90	0.90	0.90	0.90	0.90	0.90	0.90
105.0	6.31	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.90
120.0	5.41	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.90
135.0	3.62	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.90
150.0	2.71	0.00	0.00	0.00	0.00	0.90	0.90	0.90	0.90
165.0	1.81	0.00	0.00	0.00	0.00	0.00	0.90	0.90	0.90
180.0	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
195.0	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
210.0	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
225.0	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
240.0	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	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	5.29	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88
C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.88	0.88	1.76	2.65	2.65	3.53	3.53	3.53	3.53
15.0	0.89	0.89	1.78	2.66	2.66	3.55	3.55	3.55	3.55
30.0	0.89	1.78	1.78	2.68	2.68	3.57	3.57	3.57	3.57
45.0	0.90	1.79	1.79	2.69	2.69	3.58	3.58	3.58	3.58
60.0	0.90	0.90	1.79	2.69	2.69	3.59	3.59	3.59	3.59
75.0	0.90	0.90	1.80	2.69	2.69	3.59	3.59	3.59	3.59
90.0	0.90	0.90	1.80	1.80	2.70	3.60	3.60	3.60	3.60
105.0	0.90	0.90	1.80	2.70	2.70	2.70	3.60	3.60	3.60
120.0	0.90	0.90	1.80	2.71	2.71	3.61	3.61	3.61	3.61
135.0	0.90	0.90	1.81	1.81	2.71	3.62	3.62	3.62	3.62
150.0	0.90	0.90	1.81	1.81	2.71	2.71	3.62	3.62	3.62
165.0	0.90	0.90	1.81	1.81	2.71	2.71	3.62	3.62	3.62
180.0	0.88	0.88	0.88	1.76	1.76	2.65	2.65	2.65	3.53
195.0	0.89	0.89	0.89	1.78	1.78	1.78	2.66	2.66	3.55
210.0	0.89	0.89	0.89	1.78	1.78	2.68	2.68	2.68	3.57
225.0	0.90	0.90	0.90	1.79	1.79	2.69	2.69	2.69	3.58
240.0	0.90	0.90	0.90	1.79	1.79	2.69	2.69	2.69	3.59
255.0	0.90	0.90	0.90	1.80	1.80	2.69	2.69	2.69	3.59
270.0	0.90	0.90	0.90	1.80	1.80	2.70	2.70	2.70	3.60
285.0	0.90	0.90	0.90	1.80	1.80	2.70	2.70	2.70	3.60
300.0	0.90	0.90	0.90	1.80	1.80	2.71	2.71	2.71	3.61
315.0	0.90	0.90	0.90	1.81	1.81	2.71	2.71	2.71	3.62
330.0	0.90	0.90	0.90	1.81	1.81	2.71	2.71	2.71	3.62
345.0	0.90	0.90	0.90	1.81	1.81	2.71	2.71	3.62	3.62
360.0	0.88	0.88	1.76	2.65	2.65	3.53	3.53	3.53	3.53

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	3.53
15.0	3.55
30.0	3.57
45.0	3.58
60.0	3.59
75.0	3.59
90.0	3.60
105.0	3.60
120.0	3.61
135.0	3.62
150.0	3.62
165.0	3.62
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	3.53