

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: HALO

Report Number: P851819

Luminaire Tested: RLFRC4FSMBB-3500K

Issue Date: 7/3/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P851819  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( UTC2404001E-B1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/3/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: RLFRC4FSM BB-3500K  
Description: 4" Fire Rated Canless, 3500K CCT 900lms,BLK  
Light Source: -  
Ballast/Driver:

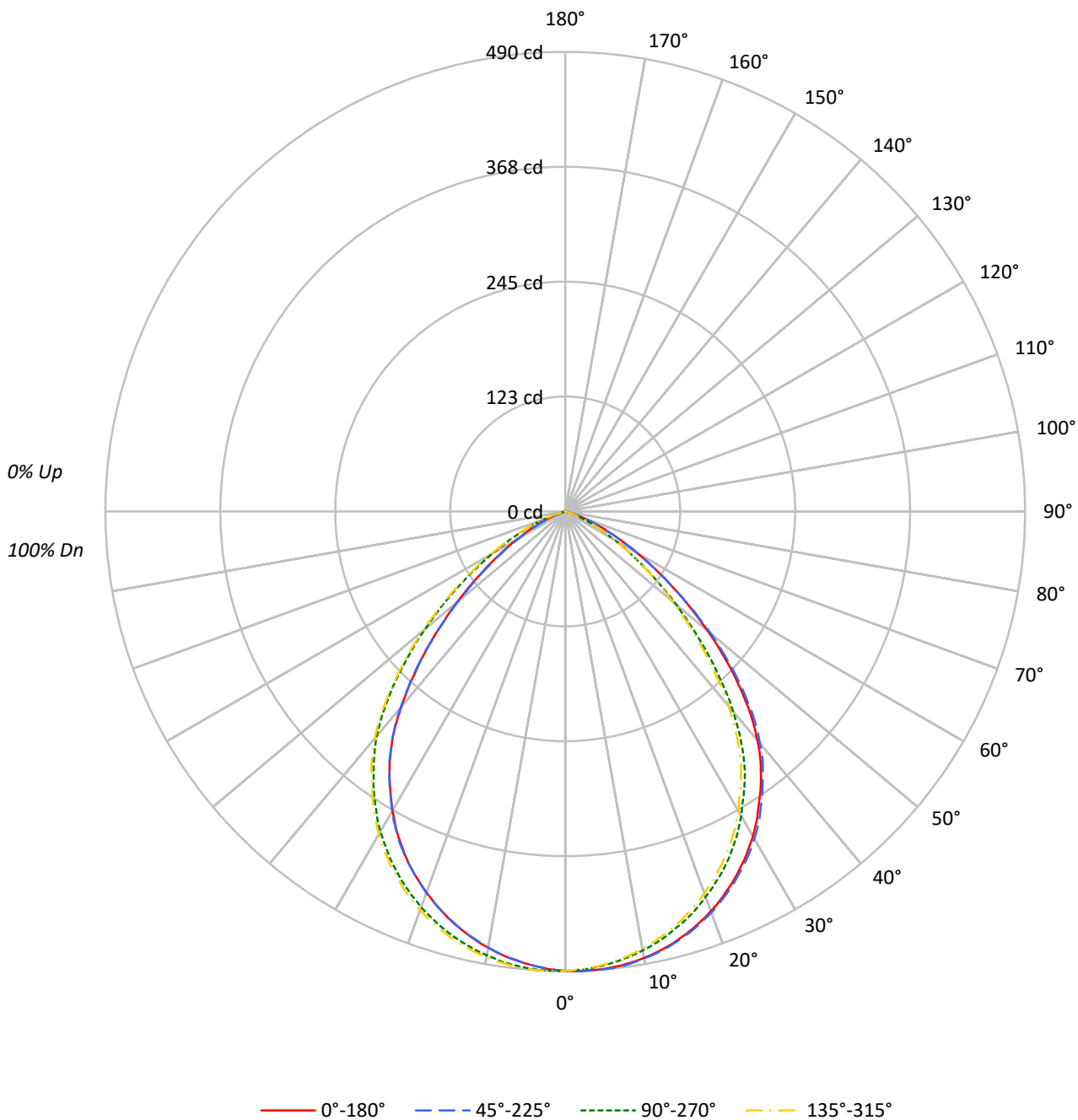
**Summary**

Lumens per Lamp: 907.9 (1 lamp)  
Luminaire Lumens: 919.0 lumens  
Efficiency: 101.2%  
Efficacy: 83.5 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.23  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 11  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P851819  
CATALOG NUMBER: RLFRC4FSMBB-3500K

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	120	120	120	120	118	118	118	118	112	112	112	108	108	108	103	103	103	101				
1	113	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91				
2	105	99	93	89	103	97	92	88	93	89	86	90	87	84	87	85	82	80				
3	98	89	82	77	95	87	81	76	85	79	75	82	78	74	80	76	73	71				
4	91	80	73	68	88	79	72	67	77	71	66	75	70	65	73	68	65	63				
5	84	73	65	60	82	72	65	59	70	64	59	68	63	58	66	62	58	56				
6	78	67	59	53	77	66	58	53	64	57	53	62	57	52	61	56	52	50				
7	73	61	53	48	71	60	53	48	59	52	47	57	52	47	56	51	47	45				
8	68	56	49	43	67	56	48	43	54	48	43	53	47	43	52	47	42	41				
9	64	52	44	39	63	51	44	39	50	44	39	49	43	39	48	43	39	37				
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	61641	61641	61641	61641
5°	61801	61346	61131	61687
10°	61774	60752	60356	61404
15°	61418	59829	59334	60910
20°	60736	58579	57896	60133
25°	59696	56960	56072	58877
30°	58113	54495	53506	57227
35°	55723	51206	50054	54725
40°	52341	45753	44603	51257
45°	46559	38372	37251	45562
50°	38883	30190	29309	38061
55°	30367	22270	21590	30191
60°	22426	15303	14775	22477
65°	14949	9142	8755	15157
70°	8316	3827	3716	8573
75°	2528	292	340	2674
80°	362	72	0	290
85°	289	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 48997 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	46.2	5.0	5.1
10°-20°	130.6	14.2	14.4
20°-30°	191.7	20.9	21.1
30°-40°	214.2	23.3	23.6
40°-50°	181.0	19.7	19.9
50°-60°	107.8	11.7	11.9
60°-70°	41.7	4.5	4.6
70°-80°	5.3	0.6	0.6
80°-90°	0.1	0.0	0.0
90°-100°	0.0	0.0	0.0
100°-110°	0.0	0.0	0.0
110°-120°	0.0	0.0	0.0
120°-130°	0.0	0.0	0.0
130°-140°	0.1	0.0	0.0
140°-150°	0.1	0.0	0.0
150°-160°	0.1	0.0	0.0
160°-170°	0.1	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	368.4	40.1	40.6
0°-40°	582.7	63.4	64.2
0°-60°	871.4	94.8	96.0
0°-90°	918.5	99.9	101.2
90°-120°	0.0	0.0	0.0
90°-150°	0.3	0.0	0.0
90°-180°	1.0	0.1	0.1
0°-180°	919.0	100.0	101.2

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	490	490	490	490	490	
5°	489	486	484	488	489	47
15°	471	459	455	468	471	133
25°	430	410	404	424	430	198
35°	363	333	326	356	363	226
45°	262	216	209	256	262	200
55°	138	102	98	138	138	125
65°	50	31	29	51	50	52
75°	5	1	1	6	5	8
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0
95°	0	0	0	0	0	0
105°	0	0	0	0	0	0
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8	489.8
1°	490.2	490.2	490.3	490.4	489.4	489.4	489.3	489.3	489.1	489.1	489.1
2°	490.4	490.6	490.5	490.8	488.8	488.6	488.3	488.5	488.2	488.0	488.0
3°	490.0	490.6	490.4	491.0	488.0	487.7	487.4	487.6	486.9	486.8	486.9
4°	489.8	490.6	490.4	490.9	486.8	486.7	486.1	486.2	485.5	485.1	485.5
5°	489.2	490.3	489.9	490.6	485.6	485.6	484.6	485.0	483.9	483.3	483.7
6°	488.6	489.6	489.5	490.1	483.8	484.0	482.8	482.9	482.0	481.6	481.7
7°	487.8	489.0	488.5	489.3	482.0	482.1	480.8	481.1	480.0	479.2	479.8
8°	486.4	487.9	487.4	488.3	480.1	480.1	478.6	479.0	477.7	476.9	477.6
9°	485.2	486.6	485.9	487.1	477.7	477.6	476.1	476.7	475.2	474.1	474.9
10°	483.4	485.0	484.0	485.7	475.4	475.0	473.2	473.9	472.3	471.1	472.2
11°	481.5	483.4	482.4	484.0	472.7	472.4	470.4	471.1	469.5	468.1	469.1
12°	479.4	481.3	480.3	481.8	469.8	469.5	467.4	467.9	466.2	464.8	465.7
13°	477.1	479.1	478.0	479.6	466.6	466.4	463.8	464.8	462.7	461.3	462.6
14°	474.6	476.4	475.4	477.3	462.9	462.9	460.0	461.3	459.1	457.9	459.0
15°	471.4	473.8	472.3	474.7	459.2	459.2	456.0	457.4	455.4	453.7	454.9
16°	468.3	470.9	469.4	472.1	455.6	455.2	452.4	453.4	451.3	449.7	451.0
17°	465.0	467.6	466.3	468.8	451.5	451.1	447.7	449.4	446.6	445.3	446.8
18°	461.5	464.2	462.7	465.6	447.2	446.7	443.4	444.5	442.1	440.5	442.4
19°	457.8	460.6	459.0	462.1	442.3	442.0	438.5	439.7	437.2	435.5	437.3
20°	453.5	456.7	455.2	458.0	437.4	437.2	433.3	435.1	432.3	430.8	432.6
21°	449.4	452.3	451.1	454.0	432.6	432.0	428.2	430.2	427.2	425.4	426.9
22°	445.0	448.0	446.3	450.1	427.1	427.0	422.6	424.6	421.7	419.4	421.5
23°	439.8	443.7	441.9	445.3	421.9	421.5	416.7	418.7	416.1	413.5	416.3
24°	435.0	438.5	437.1	440.8	416.2	415.6	410.7	413.0	410.2	407.9	410.7
25°	429.9	433.6	431.8	435.9	410.2	409.4	404.3	406.7	403.8	401.4	404.5
26°	424.0	428.4	426.5	431.0	403.8	403.5	398.2	400.2	397.2	395.1	398.2
27°	418.5	423.1	421.2	425.7	396.9	396.6	391.3	394.0	390.6	388.3	391.6
28°	412.7	417.2	415.6	419.7	390.4	389.4	384.6	387.0	383.6	380.5	384.2
29°	406.2	411.4	409.3	414.0	382.7	382.5	376.3	379.7	375.6	372.5	376.8
30°	399.9	405.4	403.1	407.6	375.0	374.8	368.4	372.0	368.2	364.8	368.8
31°	393.0	398.8	396.5	401.3	366.1	366.3	359.7	363.5	359.6	357.3	360.3
32°	385.9	391.2	389.6	394.7	358.5	358.5	351.5	355.4	351.9	348.6	352.5
33°	377.8	384.1	381.6	387.6	350.5	349.4	343.4	347.0	343.2	340.1	343.9
34°	370.2	376.7	374.0	380.3	342.3	341.9	335.3	338.4	334.7	330.6	334.9
35°	362.7	368.4	366.3	371.9	333.3	333.2	326.2	329.5	325.8	322.3	326.8
36°	354.9	360.7	358.0	364.2	323.5	323.7	315.4	320.3	316.1	312.0	316.8
37°	346.3	352.9	350.1	356.3	312.8	313.2	305.2	310.8	306.3	302.9	307.5
38°	338.1	344.9	342.0	348.3	302.2	301.7	294.3	299.3	295.8	291.4	296.2
39°	329.2	335.7	333.4	339.2	290.0	290.8	282.3	288.5	283.8	279.6	285.6
40°	318.6	326.5	323.0	330.5	278.5	278.8	270.7	275.9	271.5	267.6	272.7
41°	308.3	316.6	312.9	320.0	266.7	267.2	257.9	264.5	259.1	254.5	260.4
42°	297.6	305.0	302.3	309.6	253.5	254.4	245.1	251.7	247.3	242.5	247.8
43°	286.3	294.1	291.1	298.7	240.2	241.4	231.7	238.4	234.0	230.7	235.9
44°	273.5	282.6	278.2	287.3	227.8	229.3	219.8	226.6	222.5	217.3	222.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	261.6	270.9	266.2	275.3	215.6	215.7	207.7	214.4	209.3	204.0	210.4
46°	249.4	257.7	254.1	261.9	202.4	204.6	195.9	202.6	197.5	190.8	197.1
47°	235.9	245.3	240.3	249.7	189.7	191.6	183.3	190.0	184.9	179.2	184.2
48°	223.4	232.8	227.7	237.4	177.6	179.9	172.3	177.7	172.4	166.3	172.6
49°	210.9	220.1	214.9	223.6	165.1	167.6	160.4	165.7	161.4	155.2	159.8
50°	198.6	206.0	202.2	211.0	154.2	155.7	149.2	155.4	149.7	143.1	149.1
51°	185.5	193.3	188.3	198.4	142.9	145.5	138.9	144.6	139.0	131.7	136.8
52°	173.5	181.0	176.0	186.1	132.2	134.2	128.7	134.2	128.1	121.0	125.7
53°	161.8	168.6	163.8	172.8	121.1	124.1	118.2	123.7	117.8	111.3	115.2
54°	150.5	155.6	150.8	160.8	111.5	113.6	109.1	113.5	107.4	101.0	105.8
55°	138.4	144.1	139.4	149.4	101.5	104.6	99.5	104.5	98.4	93.0	95.8
56°	127.9	133.0	128.6	138.2	91.7	95.0	91.6	95.1	89.9	83.9	87.6
57°	117.8	121.5	118.1	126.6	83.5	87.1	82.9	87.4	81.1	75.5	78.7
58°	107.3	111.4	107.2	116.4	75.6	79.2	75.7	78.7	73.0	67.7	71.2
59°	97.9	101.8	97.8	106.6	67.9	71.4	67.6	71.3	66.1	60.9	63.5
60°	89.1	91.7	88.8	96.4	60.8	63.5	60.4	63.7	58.7	53.9	56.2
61°	80.6	83.0	80.2	87.6	53.7	57.1	54.2	56.6	51.9	48.0	49.9
62°	72.6	74.8	71.3	79.2	47.1	50.4	47.8	50.6	46.1	41.7	43.9
63°	64.6	67.1	63.8	71.3	41.7	44.3	42.0	44.6	40.6	36.1	38.3
64°	57.5	59.3	56.9	63.1	36.2	38.8	36.6	39.0	35.0	30.9	32.6
65°	50.2	52.4	49.6	56.4	30.7	33.6	31.2	33.5	29.4	26.4	27.6
66°	44.0	46.1	43.4	49.8	25.6	28.3	26.1	28.3	24.9	21.8	23.3
67°	38.1	40.2	37.7	43.2	21.4	23.9	21.9	23.8	20.4	17.8	18.9
68°	32.7	34.6	32.3	37.5	17.1	19.4	17.5	19.4	17.1	14.4	15.4
69°	27.2	28.9	26.9	32.2	13.6	15.7	14.2	15.5	13.3	11.1	11.8
70°	22.6	24.3	22.5	27.3	10.4	12.3	10.9	12.1	10.1	8.0	8.7
71°	18.2	19.9	18.3	22.4	7.5	9.1	7.8	8.9	7.2	5.6	6.0
72°	14.4	15.5	14.6	18.3	4.9	6.3	5.2	6.3	4.7	3.4	4.0
73°	11.0	12.1	10.9	14.6	2.9	3.9	3.0	4.0	2.9	2.0	2.2
74°	7.7	9.0	8.0	11.2	1.4	2.3	1.6	2.1	1.5	0.8	1.1
75°	5.2	6.3	5.6	8.1	0.6	0.8	0.6	1.0	0.7	0.4	0.4
76°	3.2	4.1	3.5	5.7	0.4	0.5	0.4	0.4	0.3	0.2	0.4
77°	1.6	2.3	1.9	3.7	0.3	0.3	0.2	0.3	0.2	0.2	0.2
78°	0.8	1.1	0.9	1.9	0.3	0.3	0.2	0.2	0.2	0.2	0.2
79°	0.7	0.6	0.6	0.8	0.2	0.2	0.1	0.2	0.1	0.1	0.1
80°	0.5	0.5	0.5	0.5	0.1	0.0	0.1	0.1	0.0	0.1	0.0
81°	0.4	0.5	0.4	0.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0
82°	0.3	0.4	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.2	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.3	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
122°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1
124°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
125°	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0
126°	0.0	0.1	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.1
127°	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
128°	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2
129°	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.2	0.1	0.1
130°	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.0	0.1	0.0	0.1
131°	0.1	0.1	0.0	0.1	0.2	0.0	0.1	0.1	0.0	0.0	0.1
132°	0.1	0.1	0.0	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2
133°	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2
134°	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2





TEST NUMBER: P851819  
 CATALOG NUMBER: RLFRC4FSMBB-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
135°	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2
136°	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1
137°	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2
138°	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2
139°	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
140°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
141°	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2
142°	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.2	0.2	0.2
143°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2
144°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
145°	0.2	0.2	0.2	0.1	0.2	0.2	0.3	0.3	0.3	0.2	0.2
146°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3
147°	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.2	0.2
148°	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3
149°	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3
150°	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.2
151°	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3
152°	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3
153°	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
154°	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
155°	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.2	0.3
156°	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2
157°	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
158°	0.2	0.2	0.3	0.3	0.3	0.2	0.4	0.3	0.3	0.3	0.3
159°	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
160°	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.2
161°	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3
162°	0.3	0.2	0.2	0.2	0.4	0.3	0.3	0.3	0.3	0.2	0.3
163°	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3
164°	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.3	0.3	0.2	0.3
165°	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
166°	0.3	0.3	0.2	0.3	0.2	0.4	0.4	0.2	0.3	0.4	0.3
167°	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3
168°	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
169°	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.3
170°	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.3	0.2
171°	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.3
172°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
173°	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3
174°	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.3
175°	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3
176°	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
177°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
178°	0.2	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3
179°	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.3	0.2	0.2	0.3



TEST NUMBER: P851819  
CATALOG NUMBER: RLFRC4FSMBB-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3



TEST NUMBER: P851819  
 CATALOG NUMBER: RLFRC4FSMBB-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	489.8	489.8	489.8	489.8	489.8	489.8
1°	488.7	490.0	490.0	490.2	490.2	490.2
2°	487.5	490.0	489.8	490.2	490.3	490.4
3°	486.3	489.6	489.5	490.1	490.1	490.0
4°	484.6	489.0	488.8	489.7	489.7	489.8
5°	482.9	488.3	488.1	489.0	489.1	489.2
6°	480.9	487.2	487.1	488.2	488.3	488.6
7°	478.5	486.1	485.8	487.2	486.9	487.8
8°	475.9	484.7	484.5	485.9	485.6	486.4
9°	473.3	482.6	482.8	484.4	483.9	485.2
10°	470.2	480.5	480.7	482.7	482.1	483.4
11°	467.1	478.4	478.4	480.8	480.1	481.5
12°	463.6	476.1	475.9	478.5	477.9	479.4
13°	460.2	473.4	473.3	475.9	475.3	477.1
14°	456.0	470.5	470.3	473.3	472.5	474.6
15°	452.1	467.5	467.3	470.4	469.5	471.4
16°	447.8	464.3	464.1	466.9	466.3	468.3
17°	443.5	460.9	460.4	463.7	462.6	465.0
18°	439.1	456.7	456.4	460.1	458.9	461.5
19°	433.9	453.0	452.5	456.3	454.9	457.8
20°	428.7	449.0	448.2	451.9	450.8	453.5
21°	423.4	444.1	443.7	447.6	446.0	449.4
22°	417.8	439.6	438.5	443.2	441.6	445.0
23°	411.8	434.7	433.5	438.3	436.9	439.8
24°	406.0	429.7	428.5	432.7	431.8	435.0
25°	399.8	424.0	422.8	427.6	426.0	429.9
26°	392.5	418.6	417.3	422.3	420.6	424.0
27°	385.6	413.1	411.5	416.1	414.3	418.5
28°	378.0	406.4	405.4	410.2	408.4	412.7
29°	370.6	400.3	398.6	403.9	402.1	406.2
30°	362.2	393.8	391.9	397.5	395.5	399.9
31°	354.4	387.1	384.8	390.2	388.4	393.0
32°	346.0	379.2	376.7	382.9	380.5	385.9
33°	337.1	371.7	369.1	375.4	372.8	377.8
34°	328.1	364.0	361.3	366.8	364.5	370.2
35°	319.3	356.2	353.5	358.9	356.6	362.7
36°	309.2	347.3	345.6	351.1	348.8	354.9
37°	299.2	339.3	336.7	343.2	340.7	346.3
38°	287.8	330.3	328.2	334.2	331.5	338.1
39°	275.9	321.7	318.2	325.4	322.0	329.2
40°	263.2	312.0	308.1	315.6	312.0	318.6
41°	251.5	301.7	297.5	305.3	301.4	308.3
42°	238.6	291.0	286.7	294.4	290.2	297.6
43°	226.5	278.9	275.7	282.2	277.7	286.3
44°	213.5	267.6	263.3	270.8	266.0	273.5



TEST NUMBER: P851819  
 CATALOG NUMBER: RLFRC4FSMBB-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	200.6	256.0	251.7	258.1	254.1	261.6
46°	187.6	243.0	240.0	246.4	240.8	249.4
47°	176.2	231.0	228.2	234.6	228.7	235.9
48°	163.9	219.2	215.3	222.7	216.6	223.4
49°	152.6	207.4	203.7	209.7	204.6	210.9
50°	141.2	194.4	192.0	198.2	191.8	198.6
51°	130.3	182.8	179.5	186.6	180.1	185.5
52°	119.1	171.4	168.3	174.2	167.6	173.5
53°	109.4	160.1	157.2	163.1	157.6	161.8
54°	100.3	148.1	146.5	152.2	145.7	150.5
55°	91.6	137.6	135.1	141.7	135.1	138.4
56°	82.7	127.6	125.3	130.5	125.1	127.9
57°	74.3	116.6	114.5	120.8	114.4	117.8
58°	66.3	107.1	105.2	111.2	105.0	107.3
59°	59.5	98.0	96.2	102.1	96.0	97.9
60°	52.5	89.3	87.7	93.2	87.4	89.1
61°	46.3	80.5	79.0	84.0	78.4	80.6
62°	40.2	72.6	71.3	76.2	70.9	72.6
63°	34.5	65.2	64.0	68.7	63.5	64.6
64°	28.9	57.5	57.1	60.7	55.8	57.5
65°	24.4	50.9	50.5	54.0	49.3	50.2
66°	20.3	44.7	43.7	47.5	43.1	44.0
67°	16.1	39.0	38.0	41.5	37.3	38.1
68°	12.4	33.0	32.6	35.3	31.4	32.7
69°	9.0	27.9	26.9	30.0	26.4	27.2
70°	6.4	23.3	22.3	25.0	21.6	22.6
71°	4.1	19.1	18.1	20.1	17.1	18.2
72°	2.3	14.7	14.1	16.0	13.2	14.4
73°	1.1	11.4	10.4	12.2	9.9	11.0
74°	0.6	8.2	7.4	8.7	6.8	7.7
75°	0.4	5.5	4.8	5.9	4.3	5.2
76°	0.4	3.1	2.8	3.6	2.3	3.2
77°	0.3	1.5	1.2	1.8	1.2	1.6
78°	0.2	0.6	0.7	0.9	0.7	0.8
79°	0.1	0.5	0.6	0.7	0.5	0.7
80°	0.1	0.4	0.5	0.5	0.4	0.5
81°	0.0	0.3	0.3	0.4	0.4	0.4
82°	0.0	0.3	0.3	0.3	0.4	0.3
83°	0.0	0.2	0.2	0.3	0.2	0.2
84°	0.0	0.1	0.2	0.2	0.2	0.3
85°	0.0	0.0	0.1	0.2	0.1	0.2
86°	0.0	0.0	0.0	0.1	0.2	0.1
87°	0.0	0.0	0.0	0.1	0.1	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0
89°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P851819  
 CATALOG NUMBER: RLFRC4FSMBB-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	0.0	0.0	0.0
93°	0.0	0.0	0.0	0.0	0.0	0.0
94°	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0
96°	0.0	0.0	0.0	0.0	0.0	0.0
97°	0.0	0.0	0.0	0.0	0.0	0.0
98°	0.0	0.0	0.0	0.0	0.0	0.0
99°	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0
101°	0.0	0.0	0.0	0.0	0.0	0.0
102°	0.0	0.0	0.0	0.0	0.0	0.0
103°	0.0	0.0	0.0	0.0	0.0	0.0
104°	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0
106°	0.0	0.0	0.0	0.0	0.0	0.0
107°	0.0	0.0	0.0	0.0	0.0	0.0
108°	0.0	0.0	0.0	0.0	0.0	0.0
109°	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0
111°	0.0	0.0	0.0	0.0	0.0	0.0
112°	0.0	0.0	0.0	0.0	0.0	0.0
113°	0.0	0.0	0.0	0.0	0.0	0.0
114°	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0
116°	0.0	0.0	0.0	0.1	0.0	0.0
117°	0.0	0.0	0.0	0.0	0.0	0.0
118°	0.0	0.0	0.0	0.0	0.0	0.0
119°	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.1	0.0	0.1	0.0	0.0	0.1
121°	0.0	0.1	0.1	0.0	0.0	0.0
122°	0.1	0.1	0.0	0.0	0.0	0.0
123°	0.0	0.1	0.0	0.0	0.1	0.0
124°	0.0	0.0	0.0	0.0	0.1	0.0
125°	0.0	0.1	0.0	0.0	0.0	0.0
126°	0.1	0.0	0.0	0.1	0.0	0.0
127°	0.2	0.1	0.1	0.0	0.1	0.0
128°	0.2	0.0	0.1	0.0	0.2	0.1
129°	0.2	0.1	0.2	0.1	0.1	0.0
130°	0.1	0.1	0.1	0.1	0.0	0.1
131°	0.1	0.1	0.2	0.2	0.0	0.1
132°	0.1	0.1	0.2	0.0	0.0	0.1
133°	0.2	0.1	0.1	0.1	0.2	0.1
134°	0.2	0.1	0.2	0.1	0.2	0.2



TEST NUMBER: P851819  
 CATALOG NUMBER: RLFRC4FSMBB-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
135°	0.2	0.2	0.2	0.2	0.1	0.2
136°	0.2	0.1	0.1	0.2	0.2	0.2
137°	0.2	0.1	0.2	0.2	0.1	0.2
138°	0.3	0.2	0.2	0.2	0.2	0.2
139°	0.2	0.2	0.2	0.2	0.1	0.1
140°	0.2	0.2	0.1	0.1	0.2	0.1
141°	0.2	0.2	0.2	0.2	0.2	0.2
142°	0.3	0.2	0.2	0.2	0.2	0.1
143°	0.2	0.2	0.2	0.1	0.2	0.2
144°	0.2	0.2	0.2	0.3	0.1	0.2
145°	0.3	0.2	0.2	0.2	0.2	0.2
146°	0.3	0.2	0.2	0.2	0.2	0.2
147°	0.3	0.2	0.2	0.2	0.2	0.2
148°	0.3	0.3	0.3	0.1	0.2	0.3
149°	0.2	0.2	0.2	0.2	0.2	0.2
150°	0.3	0.3	0.2	0.2	0.2	0.2
151°	0.3	0.2	0.2	0.2	0.1	0.2
152°	0.3	0.2	0.3	0.2	0.2	0.3
153°	0.3	0.3	0.2	0.2	0.2	0.3
154°	0.3	0.2	0.2	0.3	0.2	0.3
155°	0.3	0.2	0.2	0.2	0.3	0.2
156°	0.3	0.2	0.2	0.2	0.2	0.2
157°	0.3	0.2	0.2	0.3	0.3	0.3
158°	0.3	0.3	0.2	0.2	0.2	0.2
159°	0.4	0.3	0.2	0.3	0.3	0.2
160°	0.2	0.2	0.3	0.2	0.3	0.3
161°	0.3	0.3	0.3	0.2	0.2	0.2
162°	0.4	0.2	0.3	0.3	0.2	0.3
163°	0.3	0.3	0.3	0.3	0.2	0.3
164°	0.3	0.3	0.3	0.3	0.2	0.3
165°	0.3	0.3	0.3	0.2	0.3	0.3
166°	0.3	0.3	0.3	0.3	0.2	0.3
167°	0.3	0.3	0.3	0.2	0.3	0.3
168°	0.3	0.3	0.3	0.3	0.3	0.3
169°	0.3	0.3	0.3	0.3	0.3	0.3
170°	0.3	0.3	0.3	0.3	0.3	0.3
171°	0.3	0.3	0.3	0.3	0.3	0.3
172°	0.3	0.3	0.3	0.2	0.3	0.3
173°	0.3	0.3	0.3	0.3	0.2	0.3
174°	0.3	0.2	0.3	0.2	0.3	0.2
175°	0.2	0.3	0.3	0.2	0.3	0.3
176°	0.2	0.3	0.3	0.2	0.2	0.2
177°	0.2	0.3	0.2	0.2	0.3	0.3
178°	0.3	0.3	0.2	0.2	0.3	0.2
179°	0.3	0.2	0.2	0.3	0.3	0.3



TEST NUMBER: P851819  
CATALOG NUMBER: RLFRC4FSMBB-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
180°	0.3	0.3	0.3	0.3	0.3	0.3

(END OF REPORT)