

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: P851820

Luminaire Tested: RLFRC4FSMBB-4000K

Issue Date: 7/3/2024

Test Information

Test Method: LM-79-2019
Report Number: P851820
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: RLFRC4FSMBB-4000K
Description: 4" Fire Rated Canless, 4000K CCT 900lms,BLK
Light Source: -
Ballast/Driver:

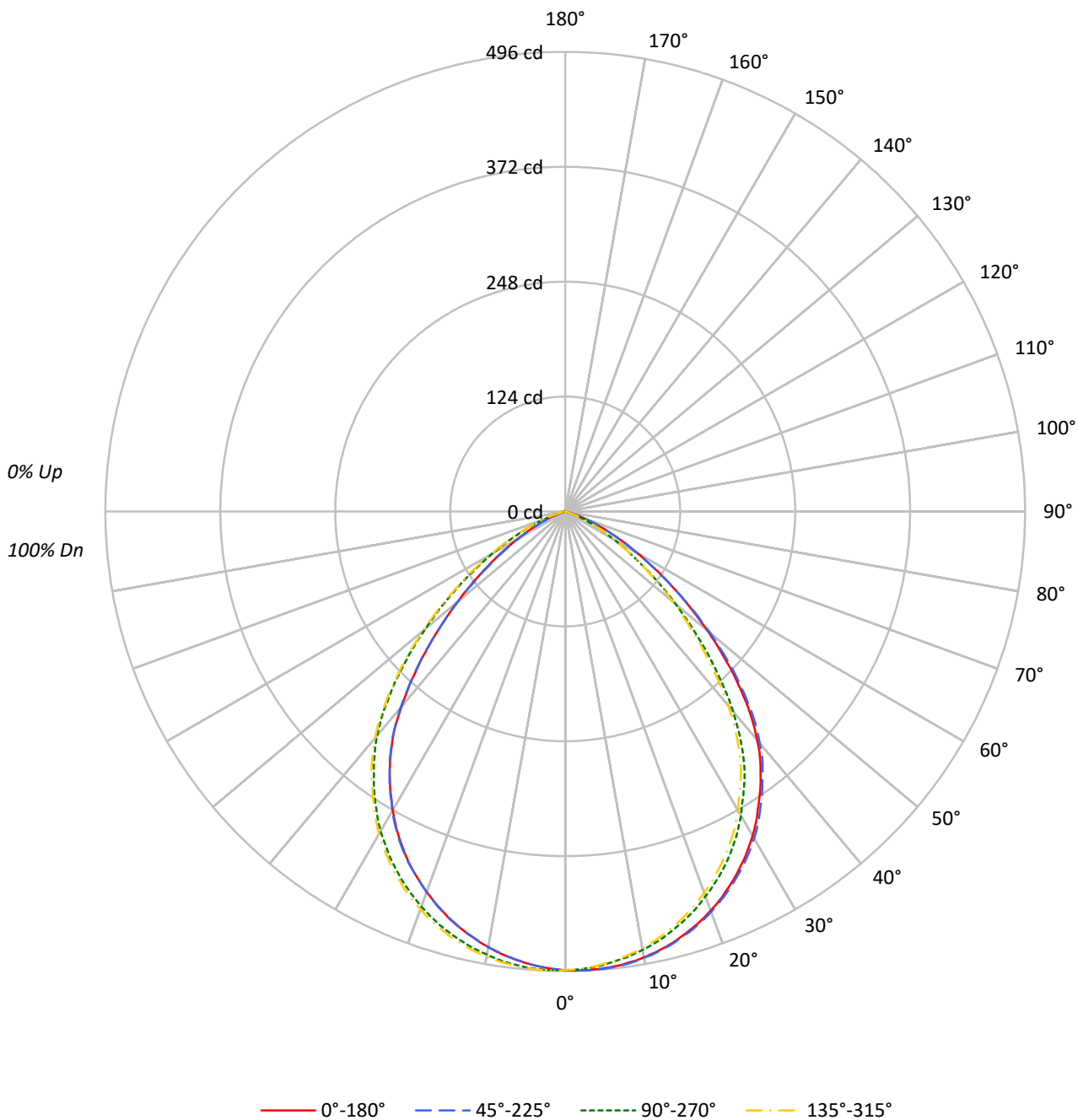
Summary

Lumens per Lamp: 907.9 (1 lamp)
Luminaire Lumens: 929.0 lumens
Efficiency: 102.3%
Efficacy: 84.5 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: P851820
CATALOG NUMBER: RLFRC4FSMBB-4000K

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	0
RCR																		
0	122	122	122	122	119	119	119	119	114	114	114	109	109	109	104	104	104	102
1	114	111	107	104	112	108	105	103	104	102	100	100	98	97	97	95	94	92
2	106	100	94	90	104	98	93	89	94	90	87	91	88	85	88	85	83	81
3	99	90	83	78	96	88	82	77	86	80	76	83	78	75	80	77	73	72
4	92	81	74	68	89	80	73	68	78	72	67	75	70	66	73	69	65	63
5	85	74	66	60	83	73	66	60	71	64	59	69	63	59	67	62	58	56
6	79	67	59	54	77	66	59	54	65	58	53	63	57	53	62	56	52	50
7	74	62	54	48	72	61	53	48	59	53	48	58	52	48	57	51	47	45
8	69	57	49	44	68	56	49	44	55	48	43	54	48	43	53	47	43	41
9	65	52	45	40	63	52	45	40	51	44	40	50	44	39	49	43	39	38
10	61	49	41	36	60	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	62308	62308	62308	62308
5°	62483	62016	61801	62369
10°	62452	61404	61008	62068
15°	62096	60480	59972	61575
20°	61392	59209	58526	60776
25°	60349	57571	56683	59515
30°	58752	55090	54088	57851
35°	56322	51759	50607	55308
40°	52916	46246	45096	51816
45°	47058	38799	37660	46061
50°	39314	30523	29642	38472
55°	30696	22512	21832	30520
60°	22678	15480	14951	22728
65°	15098	9231	8844	15336
70°	8389	3864	3753	8684
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: 49531 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	46.7	5.0	5.1
10°-20°	132.0	14.2	14.5
20°-30°	193.8	20.9	21.3
30°-40°	216.6	23.3	23.9
40°-50°	182.9	19.7	20.2
50°-60°	109.0	11.7	12.0
60°-70°	42.1	4.5	4.6
70°-80°	5.4	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°	372.4	40.1	41.0
0°-40°	589.0	63.4	64.9
0°-60°	880.9	94.8	97.0
0°-90°	928.5	99.9	102.3
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°	929.0	100.0	102.3

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	495	495	495	495	495	
5°	495	491	489	494	495	47
15°	477	464	460	473	477	134
25°	435	415	408	429	435	200
35°	367	337	329	360	367	229
45°	264	218	212	259	264	203
55°	140	103	100	139	140	126
65°	51	31	30	52	51	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



TEST NUMBER: P851820
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	495.1	495.1	495.1	495.1	495.1	495.1	495.1	495.1	495.1	495.1	495.1
1°	495.5	495.6	495.6	495.7	494.8	494.7	494.7	494.6	494.4	494.4	494.4
2°	495.7	495.9	495.8	496.1	494.2	494.0	493.7	493.9	493.5	493.3	493.3
3°	495.4	496.0	495.8	496.3	493.3	493.0	492.7	492.9	492.2	492.1	492.2
4°	495.1	496.0	495.7	496.2	492.1	492.0	491.4	491.5	490.8	490.4	490.8
5°	494.6	495.6	495.2	495.9	490.9	490.9	489.8	490.2	489.2	488.5	488.9
6°	493.9	495.0	494.8	495.4	489.0	489.2	488.1	488.1	487.2	486.8	487.0
7°	493.1	494.3	493.8	494.7	487.2	487.3	486.0	486.3	485.2	484.4	485.0
8°	491.7	493.2	492.7	493.6	485.3	485.4	483.8	484.2	482.9	482.1	482.8
9°	490.5	491.9	491.2	492.4	482.9	482.8	481.2	481.9	480.4	479.3	480.0
10°	488.7	490.3	489.3	491.0	480.5	480.2	478.4	479.1	477.4	476.2	477.3
11°	486.7	488.7	487.6	489.2	477.9	477.6	475.5	476.2	474.6	473.2	474.2
12°	484.6	486.6	485.5	487.1	474.9	474.6	472.5	473.0	471.2	469.9	470.8
13°	482.2	484.3	483.2	484.9	471.7	471.5	468.8	469.8	467.7	466.3	467.6
14°	479.8	481.6	480.5	482.5	468.0	467.9	465.0	466.3	464.1	462.9	464.0
15°	476.6	478.9	477.4	479.9	464.2	464.2	461.0	462.4	460.3	458.7	459.9
16°	473.4	476.1	474.5	477.2	460.5	460.2	457.3	458.3	456.2	454.5	455.9
17°	470.0	472.7	471.4	473.9	456.4	456.1	452.6	454.3	451.5	450.1	451.7
18°	466.5	469.2	467.8	470.7	452.1	451.6	448.2	449.3	446.9	445.3	447.2
19°	462.8	465.6	464.0	467.1	447.1	446.8	443.2	444.5	442.0	440.3	442.1
20°	458.4	461.7	460.1	463.0	442.1	441.9	438.0	439.8	437.0	435.5	437.3
21°	454.3	457.2	456.0	459.0	437.3	436.7	432.9	434.9	431.8	430.0	431.6
22°	449.8	452.9	451.2	455.0	431.8	431.7	427.2	429.2	426.2	423.9	426.1
23°	444.6	448.5	446.7	450.1	426.5	426.1	421.2	423.3	420.6	418.0	420.8
24°	439.7	443.2	441.9	445.6	420.7	420.1	415.2	417.5	414.7	412.4	415.2
25°	434.6	438.3	436.5	440.6	414.6	413.8	408.7	411.1	408.2	405.7	408.9
26°	428.6	433.1	431.1	435.7	408.2	407.9	402.5	404.6	401.5	399.4	402.6
27°	423.1	427.7	425.8	430.4	401.2	400.9	395.5	398.3	394.9	392.5	395.8
28°	417.2	421.8	420.1	424.3	394.6	393.6	388.8	391.2	387.7	384.6	388.4
29°	410.6	415.9	413.7	418.5	386.9	386.7	380.4	383.8	379.7	376.6	380.9
30°	404.3	409.8	407.5	412.0	379.1	378.9	372.4	376.0	372.2	368.8	372.8
31°	397.3	403.1	400.8	405.7	370.1	370.2	363.6	367.4	363.5	361.2	364.2
32°	390.1	395.5	393.8	399.0	362.4	362.4	355.3	359.3	355.8	352.4	356.4
33°	381.9	388.3	385.7	391.8	354.3	353.2	347.1	350.8	347.0	343.9	347.7
34°	374.2	380.8	378.1	384.4	346.0	345.7	339.0	342.1	338.3	334.2	338.6
35°	366.6	372.4	370.3	376.0	336.9	336.8	329.8	333.1	329.4	325.8	330.4
36°	358.7	364.7	361.9	368.1	327.1	327.2	318.8	323.8	319.5	315.4	320.2
37°	350.0	356.7	353.9	360.2	316.2	316.6	308.5	314.2	309.6	306.2	310.8
38°	341.8	348.6	345.7	352.1	305.4	305.0	297.5	302.5	299.0	294.5	299.5
39°	332.8	339.3	337.0	342.9	293.1	294.0	285.4	291.6	286.8	282.7	288.7
40°	322.1	330.0	326.6	334.1	281.5	281.9	273.7	278.9	274.5	270.5	275.7
41°	311.7	320.1	316.3	323.5	269.6	270.1	260.7	267.3	262.0	257.3	263.3
42°	300.8	308.4	305.6	313.0	256.2	257.2	247.7	254.4	249.9	245.1	250.5
43°	289.4	297.3	294.3	301.9	242.8	244.0	234.3	241.0	236.5	233.2	238.4
44°	276.5	285.7	281.2	290.4	230.3	231.8	222.2	229.1	224.9	219.6	225.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	264.4	273.8	269.1	278.3	218.0	218.0	210.0	216.8	211.6	206.2	212.7
46°	252.2	260.5	256.8	264.8	204.6	206.8	198.1	204.8	199.7	192.9	199.3
47°	238.5	248.0	242.9	252.4	191.7	193.7	185.3	192.1	186.9	181.1	186.3
48°	225.8	235.4	230.1	239.9	179.5	181.8	174.2	179.7	174.3	168.1	174.5
49°	213.2	222.5	217.3	226.0	166.9	169.4	162.2	167.5	163.2	156.9	161.5
50°	200.8	208.2	204.4	213.3	155.9	157.3	150.8	157.1	151.4	144.6	150.7
51°	187.5	195.4	190.4	200.6	144.4	147.1	140.4	146.1	140.5	133.1	138.3
52°	175.4	183.0	178.0	188.1	133.6	135.7	130.1	135.7	129.5	122.3	127.1
53°	163.6	170.4	165.5	174.7	122.5	125.5	119.5	125.1	119.1	112.5	116.4
54°	152.2	157.3	152.4	162.6	112.7	114.8	110.3	114.8	108.5	102.1	107.0
55°	139.9	145.7	141.0	151.0	102.6	105.8	100.6	105.6	99.5	94.0	96.8
56°	129.3	134.4	130.0	139.7	92.7	96.0	92.6	96.1	90.9	84.8	88.6
57°	119.1	122.8	119.4	128.0	84.4	88.0	83.8	88.3	82.0	76.4	79.5
58°	108.4	112.6	108.4	117.6	76.4	80.0	76.5	79.5	73.8	68.4	72.0
59°	99.0	102.9	98.9	107.7	68.6	72.2	68.3	72.0	66.8	61.5	64.2
60°	90.1	92.7	89.7	97.5	61.5	64.2	61.0	64.4	59.4	54.5	56.8
61°	81.5	83.9	81.1	88.5	54.3	57.7	54.7	57.2	52.4	48.5	50.4
62°	73.4	75.6	72.1	80.1	47.6	50.9	48.3	51.2	46.6	42.2	44.4
63°	65.3	67.8	64.5	72.1	42.1	44.8	42.5	45.1	41.0	36.5	38.7
64°	58.1	59.9	57.6	63.8	36.6	39.2	37.0	39.4	35.4	31.2	33.0
65°	50.7	53.0	50.1	57.0	31.0	33.9	31.6	33.8	29.7	26.7	27.9
66°	44.5	46.6	43.9	50.4	25.9	28.6	26.4	28.6	25.2	22.1	23.6
67°	38.5	40.6	38.1	43.6	21.6	24.2	22.2	24.1	20.7	18.0	19.1
68°	33.1	35.0	32.7	37.9	17.3	19.6	17.7	19.6	17.2	14.6	15.6
69°	27.5	29.2	27.2	32.5	13.7	15.9	14.3	15.7	13.4	11.2	11.9
70°	22.8	24.6	22.7	27.6	10.5	12.4	11.0	12.2	10.2	8.0	8.8
71°	18.4	20.1	18.5	22.7	7.6	9.2	7.8	9.0	7.3	5.6	6.1
72°	14.6	15.7	14.7	18.5	5.0	6.4	5.2	6.4	4.8	3.4	4.1
73°	11.1	12.2	11.0	14.7	3.0	4.0	3.0	4.1	3.0	2.0	2.2
74°	7.7	9.1	8.1	11.4	1.4	2.3	1.6	2.1	1.5	0.8	1.1
75°	5.2	6.4	5.6	8.2	0.6	0.8	0.6	1.0	0.7	0.4	0.5
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	2.4	1.9	3.7	0.3	0.3	0.2	0.3	0.2	0.2	0.2
78°	0.8	1.2	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	0.6	0.1	0.0	0.1	0.1	0.0	0.1	0.0
81°	0.4	0.5	0.4	0.5	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: P851820
 CATALOG NUMBER: RLFRC4FSMBB-4000K

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: P851820
CATALOG NUMBER: RLFRC4FSMBB-4000K

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: P851820
 CATALOG NUMBER: RLFRC4FSMBB-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	495.1	495.1	495.1	495.1	495.1	495.1
1°	494.0	495.3	495.4	495.6	495.5	495.5
2°	492.8	495.3	495.1	495.6	495.6	495.7
3°	491.6	495.0	494.8	495.5	495.4	495.4
4°	489.9	494.4	494.1	495.0	495.0	495.1
5°	488.2	493.7	493.4	494.3	494.4	494.6
6°	486.2	492.5	492.4	493.6	493.6	493.9
7°	483.7	491.4	491.1	492.5	492.2	493.1
8°	481.1	489.9	489.7	491.2	490.9	491.7
9°	478.4	487.8	488.1	489.7	489.2	490.5
10°	475.3	485.7	485.9	488.0	487.3	488.7
11°	472.1	483.6	483.6	486.1	485.4	486.7
12°	468.6	481.3	481.1	483.7	483.1	484.6
13°	465.2	478.6	478.4	481.1	480.5	482.2
14°	461.0	475.6	475.4	478.4	477.7	479.8
15°	457.0	472.6	472.4	475.5	474.6	476.6
16°	452.7	469.4	469.1	472.0	471.4	473.4
17°	448.3	466.0	465.5	468.7	467.6	470.0
18°	443.8	461.7	461.3	465.1	463.9	466.5
19°	438.6	457.9	457.5	461.2	459.9	462.8
20°	433.4	453.8	453.1	456.8	455.7	458.4
21°	428.0	448.9	448.5	452.5	450.9	454.3
22°	422.3	444.4	443.3	448.0	446.4	449.8
23°	416.2	439.5	438.3	443.1	441.6	444.6
24°	410.5	434.3	433.2	437.5	436.5	439.7
25°	404.2	428.6	427.4	432.3	430.6	434.6
26°	396.8	423.2	421.9	426.9	425.2	428.6
27°	389.8	417.6	416.0	420.6	418.8	423.1
28°	382.1	410.8	409.9	414.7	412.8	417.2
29°	374.6	404.7	402.9	408.3	406.5	410.6
30°	366.2	398.1	396.2	401.9	399.8	404.3
31°	358.2	391.3	389.0	394.4	392.6	397.3
32°	349.8	383.3	380.8	387.1	384.6	390.1
33°	340.8	375.8	373.2	379.4	376.9	381.9
34°	331.7	367.9	365.3	370.8	368.5	374.2
35°	322.7	360.0	357.3	362.9	360.5	366.6
36°	312.6	351.1	349.3	354.9	352.6	358.7
37°	302.5	343.0	340.4	346.9	344.4	350.0
38°	290.9	333.9	331.8	337.9	335.1	341.8
39°	278.9	325.2	321.7	328.9	325.5	332.8
40°	266.1	315.4	311.5	319.1	315.4	322.1
41°	254.3	305.0	300.8	308.6	304.7	311.7
42°	241.2	294.2	289.8	297.6	293.4	300.8
43°	229.0	281.9	278.7	285.2	280.7	289.4
44°	215.9	270.5	266.1	273.8	268.9	276.5



TEST NUMBER: P851820
 CATALOG NUMBER: RLFRC4FSMBB-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	202.8	258.8	254.4	260.9	256.9	264.4
46°	189.7	245.6	242.7	249.0	243.4	252.2
47°	178.2	233.5	230.7	237.1	231.2	238.5
48°	165.7	221.6	217.6	225.1	218.9	225.8
49°	154.3	209.7	205.9	212.0	206.8	213.2
50°	142.7	196.5	194.1	200.3	193.9	200.8
51°	131.7	184.8	181.5	188.6	182.1	187.5
52°	120.4	173.3	170.1	176.1	169.4	175.4
53°	110.6	161.8	158.9	164.9	159.3	163.6
54°	101.4	149.8	148.1	153.9	147.2	152.2
55°	92.6	139.1	136.6	143.3	136.6	139.9
56°	83.6	129.0	126.7	132.0	126.5	129.3
57°	75.1	117.8	115.8	122.1	115.6	119.1
58°	67.0	108.3	106.4	112.4	106.2	108.4
59°	60.2	99.1	97.3	103.2	97.1	99.0
60°	53.1	90.3	88.7	94.2	88.3	90.1
61°	46.8	81.3	79.9	84.9	79.3	81.5
62°	40.6	73.4	72.1	77.1	71.6	73.4
63°	34.9	65.9	64.7	69.4	64.2	65.3
64°	29.2	58.2	57.7	61.4	56.4	58.1
65°	24.6	51.5	51.0	54.6	49.8	50.7
66°	20.5	45.2	44.2	48.1	43.6	44.5
67°	16.2	39.5	38.5	42.0	37.7	38.5
68°	12.5	33.4	32.9	35.7	31.8	33.1
69°	9.1	28.2	27.2	30.3	26.7	27.5
70°	6.5	23.6	22.5	25.3	21.8	22.8
71°	4.1	19.3	18.3	20.3	17.3	18.4
72°	2.4	14.9	14.3	16.2	13.4	14.6
73°	1.1	11.5	10.5	12.3	10.0	11.1
74°	0.6	8.3	7.5	8.8	6.9	7.7
75°	0.5	5.5	4.9	5.9	4.3	5.2
76°	0.4	3.1	2.8	3.7	2.4	3.2
77°	0.3	1.5	1.3	1.9	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: P851820
 CATALOG NUMBER: RLFRC4FSMBB-4000K

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: P851820
 CATALOG NUMBER: RLFRC4FSMBB-4000K

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: P851820
CATALOG NUMBER: RLFRC4FSMBB-4000K

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)