

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: P851818

Luminaire Tested: RLFRC4FSMBB-3000K

Issue Date: 7/3/2024

Test Information

Test Method: LM-79-2019
Report Number: P851818
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-3000K
Description: 4" Fire Rated Canless, 3000K CCT 900lms,BLK
Light Source: -
Ballast/Driver:

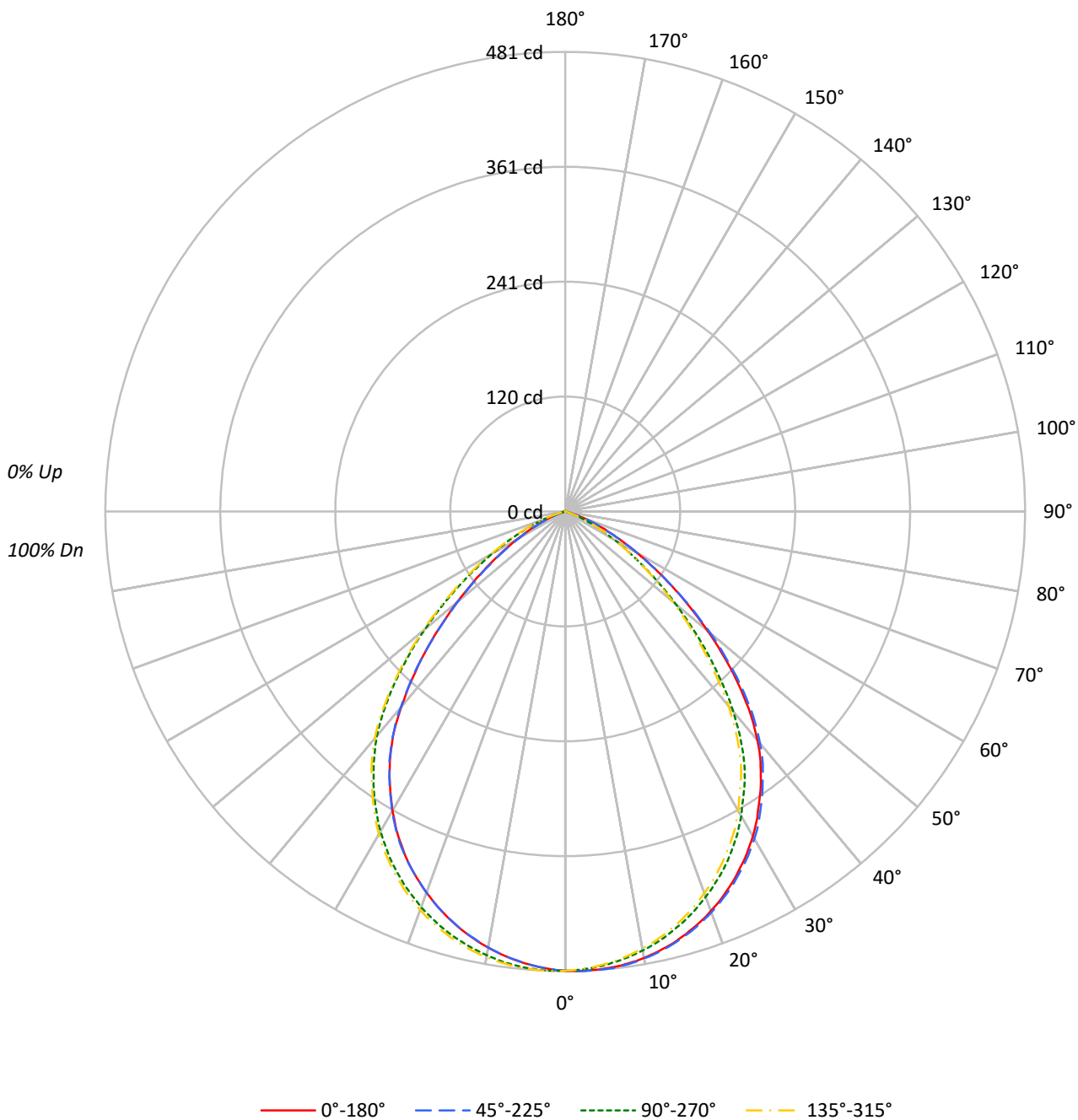
Summary

Lumens per Lamp: 907.9 (1 lamp)
Luminaire Lumens: 902.0 lumens
Efficiency: 99.4%
Efficacy: 82.0 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: P851818
CATALOG NUMBER: RLFRC4FSMBB-3000K

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	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																		
0	118	118	118	118	116	116	116	116	110	110	110	106	106	106	101	101	101	99
1	111	107	104	101	108	105	102	100	101	99	97	97	95	94	94	92	91	89
2	103	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79
3	96	87	81	76	94	86	80	75	83	78	74	80	76	72	78	74	71	69
4	89	79	72	66	87	78	71	66	75	70	65	73	68	64	71	67	63	61
5	83	72	64	59	81	71	64	58	69	62	58	67	61	57	65	60	57	55
6	77	65	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	52	47	70	59	52	47	58	51	46	56	51	46	55	50	46	44
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42	40
9	63	51	44	39	62	50	43	39	49	43	38	48	42	38	47	42	38	36
10	59	47	40	35	58	47	40	35	46	40	35	45	39	35	44	39	35	33

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	60496	60496	60496	60496
5°	60664	60222	60007	60550
10°	60637	59627	59244	60266
15°	60285	58721	58226	59790
20°	59611	57495	56825	59021
25°	58599	55905	55044	57793
30°	57038	53492	52518	56166
35°	54694	50254	49132	53711
40°	51372	44916	43782	50304
45°	45687	37678	36557	44726
50°	38179	29642	28781	37356
55°	29818	21853	21195	29621
60°	22024	15026	14498	22074
65°	14681	8963	8606	14889
70°	8169	3753	3643	8426
75°	2480	292	340	2626
80°	362	72	0	290
85°	289	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 48090 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	45.3	5.0	5.0
10°-20°	128.2	14.2	14.1
20°-30°	188.1	20.9	20.7
30°-40°	210.3	23.3	23.2
40°-50°	177.6	19.7	19.6
50°-60°	105.8	11.7	11.7
60°-70°	40.9	4.5	4.5
70°-80°	5.2	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°	361.6	40.1	39.8
0°-40°	571.9	63.4	63.0
0°-60°	855.3	94.8	94.2
0°-90°	901.5	99.9	99.3
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°	902.0	100.0	99.4

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	481	481	481	481	481	
5°	480	477	475	479	480	46
15°	463	451	447	459	463	130
25°	422	403	396	416	422	194
35°	356	327	320	350	356	222
45°	257	212	205	251	257	197
55°	136	100	97	135	136	123
65°	49	30	29	50	49	51
75°	5	1	1	5	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: P851818
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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7	480.7
1°	481.1	481.2	481.2	481.3	480.4	480.3	480.3	480.2	480.1	480.1	480.1
2°	481.3	481.5	481.4	481.7	479.8	479.6	479.3	479.5	479.2	479.0	478.9
3°	481.0	481.6	481.4	481.9	478.9	478.7	478.3	478.6	477.9	477.8	477.9
4°	480.7	481.6	481.3	481.8	477.8	477.7	477.1	477.2	476.5	476.1	476.5
5°	480.2	481.2	480.8	481.5	476.7	476.6	475.6	476.0	475.0	474.3	474.7
6°	479.6	480.6	480.5	481.0	474.8	475.0	473.9	474.0	473.1	472.7	472.8
7°	478.8	480.0	479.4	480.3	473.1	473.2	471.9	472.2	471.1	470.4	470.9
8°	477.4	478.9	478.4	479.3	471.2	471.3	469.7	470.1	468.9	468.1	468.7
9°	476.2	477.6	477.0	478.1	468.9	468.8	467.2	467.9	466.4	465.3	466.1
10°	474.5	476.1	475.1	476.7	466.6	466.2	464.5	465.1	463.6	462.3	463.4
11°	472.5	474.5	473.5	475.0	464.0	463.7	461.7	462.4	460.8	459.4	460.4
12°	470.5	472.4	471.4	472.9	461.1	460.8	458.7	459.2	457.5	456.2	457.1
13°	468.2	470.2	469.1	470.8	458.0	457.8	455.2	456.2	454.1	452.7	454.0
14°	465.8	467.6	466.6	468.5	454.4	454.3	451.5	452.8	450.6	449.4	450.6
15°	462.7	465.0	463.6	465.9	450.7	450.7	447.6	448.9	446.9	445.3	446.5
16°	459.7	462.2	460.7	463.4	447.2	446.8	444.0	445.0	442.9	441.3	442.7
17°	456.4	458.9	457.7	460.1	443.1	442.8	439.5	441.1	438.3	437.0	438.6
18°	452.9	455.6	454.2	457.0	438.9	438.5	435.2	436.3	433.9	432.4	434.2
19°	449.3	452.1	450.5	453.5	434.1	433.8	430.3	431.6	429.1	427.5	429.2
20°	445.1	448.3	446.8	449.6	429.3	429.1	425.2	427.1	424.3	422.8	424.6
21°	441.1	443.9	442.8	445.6	424.6	424.0	420.3	422.2	419.3	417.5	419.0
22°	436.7	439.7	438.1	441.8	419.2	419.1	414.8	416.7	413.9	411.6	413.7
23°	431.7	435.5	433.7	437.1	414.1	413.7	409.0	411.0	408.4	405.9	408.6
24°	427.0	430.4	429.1	432.6	408.5	407.9	403.1	405.4	402.6	400.4	403.1
25°	422.0	425.6	423.8	427.8	402.6	401.8	396.8	399.1	396.4	393.9	397.0
26°	416.1	420.5	418.6	423.0	396.3	396.0	390.8	392.8	389.8	387.8	390.9
27°	410.8	415.3	413.4	417.8	389.5	389.3	384.0	386.7	383.4	381.1	384.3
28°	405.1	409.5	407.9	411.9	383.2	382.2	377.5	379.8	376.5	373.5	377.1
29°	398.7	403.8	401.7	406.4	375.7	375.4	369.3	372.6	368.7	365.6	369.8
30°	392.5	397.9	395.6	400.0	368.1	367.9	361.6	365.1	361.4	358.1	362.0
31°	385.7	391.4	389.2	393.9	359.3	359.5	353.1	356.7	353.0	350.7	353.6
32°	378.8	384.0	382.4	387.4	351.8	351.8	345.0	348.9	345.4	342.2	346.0
33°	370.8	377.0	374.5	380.4	344.0	342.9	337.0	340.6	336.9	333.9	337.6
34°	363.4	369.7	367.1	373.2	335.9	335.6	329.1	332.1	328.5	324.5	328.7
35°	356.0	361.6	359.5	365.1	327.1	327.0	320.2	323.4	319.8	316.3	320.8
36°	348.3	354.1	351.4	357.4	317.6	317.7	309.6	314.4	310.2	306.3	310.9
37°	339.8	346.4	343.6	349.7	307.1	307.4	299.6	305.1	300.6	297.3	301.8
38°	331.8	338.5	335.6	341.8	296.6	296.1	288.8	293.7	290.3	286.0	290.8
39°	323.1	329.5	327.2	332.9	284.6	285.4	277.1	283.2	278.5	274.5	280.3
40°	312.7	320.5	317.1	324.4	273.4	273.7	265.7	270.8	266.5	262.6	267.6
41°	302.6	310.8	307.1	314.1	261.8	262.3	253.1	259.6	254.3	249.8	255.6
42°	292.1	299.4	296.7	303.9	248.8	249.7	240.5	247.0	242.7	238.0	243.2
43°	281.0	288.7	285.7	293.2	235.8	236.9	227.5	234.0	229.6	226.4	231.5
44°	268.5	277.4	273.1	282.0	223.6	225.0	215.7	222.4	218.4	213.3	218.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	256.7	265.9	261.3	270.2	211.7	211.7	203.9	210.5	205.4	200.2	206.5
46°	244.8	252.9	249.4	257.1	198.6	200.8	192.3	198.8	193.9	187.2	193.5
47°	231.6	240.8	235.8	245.1	186.2	188.0	179.9	186.5	181.5	175.9	180.8
48°	219.3	228.5	223.4	233.0	174.3	176.5	169.1	174.4	169.2	163.3	169.4
49°	207.0	216.0	211.0	219.5	162.0	164.5	157.4	162.7	158.4	152.3	156.8
50°	195.0	202.2	198.5	207.1	151.4	152.8	146.4	152.5	147.0	140.4	146.3
51°	182.1	189.7	184.9	194.8	140.2	142.8	136.3	141.9	136.4	129.2	134.3
52°	170.3	177.6	172.8	182.6	129.7	131.7	126.4	131.7	125.7	118.8	123.4
53°	158.8	165.5	160.7	169.7	118.9	121.8	116.0	121.5	115.7	109.2	113.1
54°	147.7	152.7	148.0	157.8	109.4	111.5	107.1	111.4	105.4	99.1	103.9
55°	135.9	141.5	136.9	146.6	99.6	102.7	97.6	102.6	96.6	91.3	94.0
56°	125.6	130.5	126.2	135.7	90.0	93.2	89.9	93.3	88.3	82.4	86.0
57°	115.7	119.2	115.9	124.3	81.9	85.4	81.4	85.7	79.6	74.1	77.2
58°	105.3	109.4	105.2	114.2	74.2	77.7	74.3	77.2	71.7	66.4	69.9
59°	96.1	100.0	96.0	104.6	66.7	70.1	66.3	69.9	64.8	59.8	62.4
60°	87.5	90.0	87.1	94.6	59.7	62.4	59.2	62.5	57.6	52.9	55.1
61°	79.1	81.5	78.8	85.9	52.7	56.1	53.2	55.5	50.9	47.1	49.0
62°	71.3	73.4	70.0	77.8	46.3	49.5	46.9	49.7	45.3	41.0	43.1
63°	63.4	65.8	62.7	70.0	40.9	43.5	41.2	43.8	39.8	35.5	37.6
64°	56.4	58.2	55.9	62.0	35.5	38.0	35.9	38.3	34.4	30.3	32.0
65°	49.3	51.5	48.7	55.3	30.1	32.9	30.6	32.9	28.9	25.9	27.1
66°	43.2	45.2	42.6	48.9	25.1	27.8	25.7	27.7	24.5	21.4	22.9
67°	37.4	39.4	37.0	42.4	21.0	23.5	21.5	23.4	20.1	17.5	18.6
68°	32.1	33.9	31.7	36.8	16.8	19.0	17.2	19.0	16.7	14.1	15.1
69°	26.7	28.4	26.4	31.6	13.3	15.4	13.9	15.3	13.0	10.9	11.5
70°	22.2	23.8	22.1	26.8	10.2	12.1	10.7	11.8	9.9	7.8	8.5
71°	17.8	19.5	18.0	22.0	7.4	9.0	7.6	8.7	7.1	5.5	5.9
72°	14.2	15.2	14.3	18.0	4.8	6.2	5.1	6.2	4.6	3.3	4.0
73°	10.8	11.9	10.7	14.3	2.9	3.9	2.9	3.9	2.9	1.9	2.2
74°	7.5	8.8	7.8	11.0	1.4	2.3	1.5	2.1	1.5	0.8	1.1
75°	5.1	6.2	5.5	7.9	0.6	0.8	0.6	0.9	0.7	0.4	0.4
76°	3.1	4.0	3.4	5.6	0.4	0.5	0.4	0.4	0.2	0.2	0.3
77°	1.5	2.3	1.8	3.6	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	0.7	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	0.4	0.3	0.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0
82°	0.3	0.3	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.2	0.3	0.2	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: P851818
 CATALOG NUMBER: RLFRC4FSMBB-3000K

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	0.2	0.2	0.2	0.2
144°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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	0.2	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°	0.2	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	0.2	0.2	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	0.2	0.3	0.3	0.2	0.3	0.3
154°	0.3	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3
155°	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.3
156°	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.2
157°	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3
158°	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3
159°	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
160°	0.2	0.3	0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.2
161°	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	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°	0.2	0.3	0.3	0.2	0.2	0.2	0.4	0.3	0.3	0.2	0.3
165°	0.2	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	0.3	0.2	0.3	0.3	0.3
167°	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3
168°	0.3	0.3	0.3	0.2	0.2	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	0.2	0.3	0.3	0.2
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	0.2
172°	0.3	0.3	0.3	0.3	0.2	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°	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.3
176°	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2
177°	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2
178°	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2
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: P851818
CATALOG NUMBER: RLFRC4FSMBB-3000K

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: P851818
 CATALOG NUMBER: RLFRC4FSMBB-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	480.7	480.7	480.7	480.7	480.7	480.7
1°	479.6	480.9	481.0	481.2	481.1	481.1
2°	478.5	480.9	480.7	481.2	481.2	481.3
3°	477.3	480.6	480.4	481.1	481.0	481.0
4°	475.7	480.0	479.8	480.6	480.7	480.7
5°	474.0	479.3	479.1	480.0	480.1	480.2
6°	472.0	478.2	478.0	479.2	479.2	479.6
7°	469.7	477.1	476.8	478.2	477.9	478.8
8°	467.1	475.7	475.5	476.9	476.6	477.4
9°	464.5	473.7	473.9	475.5	475.0	476.2
10°	461.5	471.6	471.8	473.8	473.2	474.5
11°	458.4	469.5	469.6	471.9	471.3	472.5
12°	455.0	467.3	467.1	469.6	469.0	470.5
13°	451.7	464.7	464.5	467.1	466.5	468.2
14°	447.6	461.8	461.6	464.5	463.8	465.8
15°	443.7	458.9	458.7	461.7	460.8	462.7
16°	439.5	455.7	455.5	458.3	457.7	459.7
17°	435.3	452.4	451.9	455.1	454.0	456.4
18°	430.9	448.3	447.9	451.6	450.4	452.9
19°	425.9	444.6	444.2	447.8	446.5	449.3
20°	420.8	440.7	440.0	443.5	442.4	445.1
21°	415.6	435.9	435.5	439.3	437.7	441.1
22°	410.0	431.4	430.4	435.0	433.5	436.7
23°	404.1	426.7	425.5	430.2	428.8	431.7
24°	398.5	421.7	420.6	424.7	423.8	427.0
25°	392.4	416.2	415.0	419.7	418.1	422.0
26°	385.2	410.9	409.6	414.5	412.8	416.1
27°	378.5	405.4	403.9	408.4	406.6	410.8
28°	371.0	398.9	397.9	402.6	400.8	405.1
29°	363.7	392.9	391.2	396.5	394.7	398.7
30°	355.5	386.5	384.7	390.2	388.2	392.5
31°	347.8	379.9	377.7	383.0	381.2	385.7
32°	339.6	372.1	369.8	375.8	373.5	378.8
33°	330.9	364.8	362.3	368.4	365.9	370.8
34°	322.0	357.2	354.7	360.0	357.8	363.4
35°	313.4	349.6	346.9	352.3	350.1	356.0
36°	303.5	340.9	339.2	344.6	342.4	348.3
37°	293.7	333.1	330.5	336.8	334.4	339.8
38°	282.5	324.2	322.1	328.1	325.4	331.8
39°	270.8	315.7	312.3	319.3	316.0	323.1
40°	258.4	306.2	302.4	309.8	306.3	312.7
41°	246.9	296.1	292.0	299.7	295.8	302.6
42°	234.2	285.6	281.4	289.0	284.9	292.1
43°	222.4	273.7	270.6	276.9	272.5	281.0
44°	209.6	262.6	258.4	265.8	261.1	268.5



TEST NUMBER: P851818
 CATALOG NUMBER: RLFRC4FSMBB-3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	196.9	251.3	247.0	253.3	249.4	256.7
46°	184.2	238.5	235.6	241.8	236.4	244.8
47°	173.0	226.7	224.0	230.2	224.5	231.6
48°	160.9	215.1	211.3	218.6	212.6	219.3
49°	149.8	203.6	199.9	205.8	200.8	207.0
50°	138.5	190.8	188.4	194.5	188.3	195.0
51°	127.9	179.4	176.2	183.1	176.8	182.1
52°	116.9	168.2	165.1	171.0	164.5	170.3
53°	107.4	157.1	154.3	160.1	154.7	158.8
54°	98.5	145.4	143.8	149.4	143.0	147.7
55°	89.9	135.0	132.6	139.1	132.6	135.9
56°	81.2	125.2	123.0	128.1	122.8	125.6
57°	72.9	114.4	112.4	118.6	112.3	115.7
58°	65.0	105.1	103.3	109.1	103.1	105.3
59°	58.4	96.2	94.4	100.2	94.2	96.1
60°	51.5	87.7	86.1	91.5	85.8	87.5
61°	45.5	79.0	77.6	82.5	77.0	79.1
62°	39.5	71.3	70.0	74.8	69.6	71.3
63°	33.8	64.0	62.8	67.4	62.3	63.4
64°	28.4	56.5	56.1	59.6	54.8	56.4
65°	23.9	50.0	49.5	53.0	48.4	49.3
66°	19.9	43.9	42.9	46.7	42.3	43.2
67°	15.8	38.3	37.3	40.7	36.6	37.4
68°	12.2	32.4	32.0	34.7	30.9	32.1
69°	8.9	27.4	26.4	29.4	25.9	26.7
70°	6.3	22.9	21.8	24.5	21.2	22.2
71°	4.0	18.7	17.7	19.7	16.8	17.8
72°	2.3	14.5	13.9	15.7	13.0	14.2
73°	1.1	11.2	10.2	12.0	9.7	10.8
74°	0.6	8.1	7.3	8.6	6.7	7.5
75°	0.4	5.4	4.7	5.8	4.2	5.1
76°	0.3	3.0	2.7	3.6	2.3	3.1
77°	0.3	1.5	1.2	1.8	1.1	1.5
78°	0.2	0.6	0.7	0.9	0.7	0.8
79°	0.1	0.5	0.6	0.6	0.5	0.7
80°	0.1	0.4	0.5	0.4	0.3	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	0.2	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: P851818
 CATALOG NUMBER: RLFRC4FSMBB-3000K

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: P851818
 CATALOG NUMBER: RLFRC4FSMBB-3000K

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°	0.2	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	0.2	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	0.2	0.2	0.1	0.2	0.2
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	0.2	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	0.2	0.3
158°	0.3	0.2	0.2	0.2	0.2	0.2
159°	0.4	0.3	0.2	0.3	0.2	0.2
160°	0.2	0.2	0.2	0.2	0.3	0.2
161°	0.3	0.3	0.3	0.2	0.2	0.2
162°	0.3	0.2	0.2	0.2	0.2	0.3
163°	0.2	0.3	0.3	0.3	0.2	0.3
164°	0.3	0.3	0.3	0.3	0.2	0.2
165°	0.3	0.3	0.3	0.2	0.3	0.2
166°	0.3	0.3	0.3	0.2	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	0.2	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	0.2
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: P851818
CATALOG NUMBER: RLFRC4FSMBB-3000K

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)