

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: P851816

Luminaire Tested: RLFRC4FS-5000K

Issue Date: 7/3/2024

**Test Information**

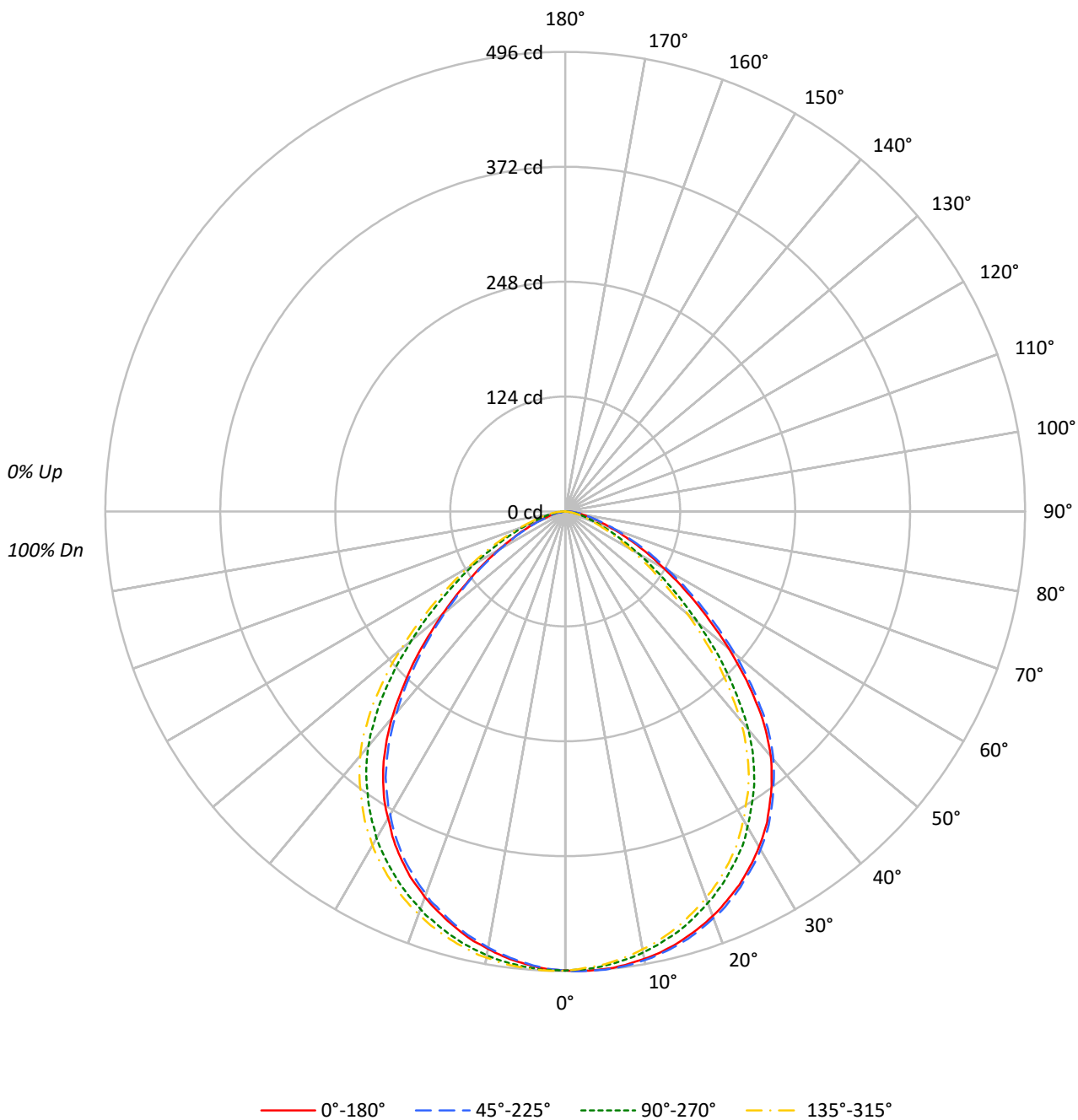
Test Method: LM-79-2019  
Report Number: P851816  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( UTC2404001E-A1)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/3/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: RLFRC4FS-5000K  
Description: 4" Fire Rated Canless, 5000K CCT 900lms,WH  
Light Source: -  
Ballast/Driver:

**Summary**

Lumens per Lamp: 1009.3 (1 lamp)  
Luminaire Lumens: 1041.0 lumens  
Efficiency: 103.1%  
Efficacy: 98.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.2 / 1.26  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 10.6  
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: P851816  
CATALOG NUMBER: RLFRC4FS-5000K

### 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	123	123	123	123	120	120	120	120	115	115	115	110	110	110	105	105	105	103
1	114	110	107	103	112	108	105	102	104	101	98	100	97	95	96	94	93	91
2	106	98	92	87	103	96	91	86	93	88	84	90	86	83	87	84	81	79
3	97	88	81	75	95	86	80	74	84	78	73	81	76	72	78	74	71	69
4	90	79	71	65	88	78	70	65	75	69	64	73	68	63	71	66	62	60
5	83	72	63	57	81	71	63	57	68	62	56	66	60	56	65	59	55	53
6	78	65	57	51	76	64	56	51	62	55	50	61	54	50	59	54	49	47
7	72	59	51	45	71	59	51	45	57	50	45	56	49	45	54	49	44	42
8	67	55	46	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
9	63	50	42	37	62	50	42	37	49	42	37	48	41	37	47	41	37	35
10	59	47	39	34	58	46	39	34	45	38	34	44	38	34	43	38	33	32

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

	0°	90°	180°	270°
0°	62359	62359	62359	62359
5°	62622	62155	61927	62319
10°	62656	61762	61250	62145
15°	62578	61171	60376	61757
20°	62236	60227	59329	61151
25°	61723	58988	57780	60279
30°	60743	57110	55512	59159
35°	59103	54648	52604	57044
40°	56695	50419	47708	54198
45°	51774	44050	41291	49086
50°	45051	36808	33910	42310
55°	37914	29313	26900	35062
60°	30984	23232	20816	28417
65°	25371	17659	15664	22215
70°	19907	13504	11002	17147
75°	16143	10163	8461	12983
80°	13698	8479	6378	11306
85°	12996	4332	0	9530

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 55405 cd/sqm



TEST NUMBER: P851816  
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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	46.8	4.5	4.6
10°-20°	133.0	12.8	13.2
20°-30°	197.7	19.0	19.6
30°-40°	226.2	21.7	22.4
40°-50°	200.9	19.3	19.9
50°-60°	133.5	12.8	13.2
60°-70°	68.9	6.6	6.8
70°-80°	27.3	2.6	2.7
80°-90°	6.6	0.6	0.7
90°-100°	0.1	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°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-30°	377.5	36.3	37.4
0°-40°	603.8	58.0	59.8
0°-60°	938.1	90.1	93.0
0°-90°	1040.9	100.0	103.1
90°-120°	0.1	0.0	0.0
90°-150°	0.1	0.0	0.0
90°-180°	0.0	0.0	0.0
0°-180°	1041.0	100.0	103.1

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	496	496	496	496	496	
5°	496	492	490	493	496	47
15°	480	470	463	474	480	135
25°	444	425	416	434	444	205
35°	385	356	342	371	385	240
45°	291	248	232	276	291	223
55°	173	134	123	160	173	155
65°	85	59	53	75	85	85
75°	33	21	17	27	33	36
85°	9	3	0	7	9	10
90°	2	0	0	0	2	1
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: P851816  
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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	495.5	495.5	495.5	495.5	495.5	495.5	495.5	495.5	495.5	495.5	495.5
1°	495.8	496.0	496.3	496.8	495.0	495.3	494.9	495.0	495.0	494.6	494.7
2°	496.2	496.0	496.4	497.3	494.6	494.4	493.7	494.2	494.6	494.0	493.9
3°	496.3	496.1	496.4	497.4	494.2	493.9	492.7	493.2	493.4	493.4	492.6
4°	495.9	495.9	496.2	497.5	493.3	492.6	491.8	492.0	491.8	492.2	491.2
5°	495.7	495.2	496.3	498.1	492.0	491.8	490.6	490.5	490.2	490.4	489.3
6°	495.4	495.1	495.9	497.4	490.8	490.1	488.6	489.5	488.6	489.0	487.4
7°	494.2	494.2	495.3	497.2	489.0	488.5	486.7	487.4	486.9	487.1	485.3
8°	493.1	493.0	494.4	496.6	487.5	486.5	484.8	485.9	484.6	485.0	483.0
9°	491.5	491.6	493.2	495.7	485.7	484.6	482.6	483.4	482.1	482.5	480.6
10°	490.3	489.9	491.8	494.4	483.3	482.3	479.8	480.7	479.3	480.5	478.0
11°	488.9	488.2	490.5	493.0	481.0	479.7	477.5	478.6	476.4	477.2	474.7
12°	487.2	486.6	488.6	491.4	478.3	477.0	474.8	475.6	474.2	474.2	471.6
13°	484.8	484.4	486.7	490.1	475.2	473.8	471.6	472.8	471.0	471.4	468.8
14°	483.0	482.1	484.7	487.8	472.6	470.4	468.2	469.1	467.1	467.9	465.0
15°	480.3	479.5	482.4	485.4	469.5	467.6	464.8	465.6	463.4	464.5	461.2
16°	477.3	476.9	479.8	483.6	466.2	463.6	461.2	461.7	459.9	460.5	457.2
17°	474.7	473.6	477.0	481.0	462.2	460.1	456.7	458.1	455.4	456.4	453.1
18°	471.5	470.7	473.7	478.1	458.0	455.6	452.8	454.2	451.5	452.5	448.5
19°	468.4	467.5	470.7	474.8	453.9	451.2	448.5	450.1	447.3	448.1	444.9
20°	464.7	463.7	467.2	471.9	449.7	446.5	443.8	445.7	443.0	443.3	439.3
21°	461.3	460.0	464.0	468.3	445.5	442.2	439.3	441.0	437.5	438.7	434.2
22°	457.1	456.1	460.3	465.0	440.4	437.6	434.2	435.8	433.0	433.7	429.3
23°	452.9	451.8	455.9	461.0	435.8	432.8	429.4	430.8	428.0	428.8	423.4
24°	448.6	447.6	451.8	456.6	430.4	427.2	423.1	425.2	422.1	423.5	418.2
25°	444.5	442.8	447.3	452.8	424.8	422.0	418.0	419.4	416.1	417.1	412.3
26°	439.5	437.7	441.8	448.2	419.5	415.6	411.9	413.7	410.1	412.2	405.9
27°	434.4	433.0	437.3	443.7	413.3	409.7	406.0	408.1	403.7	405.1	399.3
28°	429.3	427.7	432.4	438.7	407.8	403.2	398.9	400.6	397.1	397.9	392.1
29°	423.8	422.4	427.3	433.4	401.1	396.5	391.6	394.1	389.2	391.6	385.3
30°	418.0	416.8	421.3	428.2	393.0	388.4	384.3	386.8	382.0	383.8	377.4
31°	412.4	410.5	415.6	422.0	386.1	381.8	376.9	379.6	375.5	376.8	370.4
32°	406.0	403.6	409.5	416.5	378.1	373.8	368.6	372.0	368.0	369.7	362.3
33°	399.8	396.7	403.2	410.5	371.2	367.0	362.0	364.6	359.7	361.1	354.0
34°	392.0	389.7	395.7	404.1	363.5	358.7	353.3	357.5	351.1	353.5	346.4
35°	384.7	381.7	388.3	397.2	355.7	350.3	345.2	347.9	342.4	344.2	336.1
36°	377.5	374.2	381.1	389.4	346.5	341.2	335.8	339.3	333.2	335.5	326.5
37°	370.0	366.5	373.0	382.1	337.4	331.2	325.8	329.0	322.8	325.3	316.5
38°	361.5	359.0	365.6	374.5	328.2	321.9	315.9	319.4	312.6	314.4	305.4
39°	353.8	350.4	357.7	366.5	317.8	312.0	305.8	309.4	301.5	303.2	294.3
40°	345.1	341.7	349.5	358.4	306.9	300.5	293.4	298.3	290.4	292.3	282.2
41°	335.1	332.4	340.3	350.2	295.7	288.9	281.9	286.8	278.8	280.1	271.1
42°	325.4	321.3	330.6	341.8	283.8	276.3	269.5	274.4	266.4	268.6	259.5
43°	314.5	310.5	320.5	331.6	271.4	264.8	258.0	262.9	254.4	257.8	248.3
44°	303.7	299.3	309.5	321.7	259.5	251.7	245.6	250.7	243.4	245.3	235.4



TEST NUMBER: P851816  
 CATALOG NUMBER: RLFRC4FS-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	290.9	287.8	297.7	311.3	247.5	241.0	233.7	238.8	232.0	234.0	223.7
46°	279.3	275.2	285.8	299.9	235.4	227.5	221.8	225.4	219.4	222.0	212.7
47°	267.5	263.8	274.5	287.2	223.8	215.7	207.7	213.7	207.3	209.7	200.9
48°	254.5	251.9	262.0	276.1	210.4	202.6	196.4	202.1	194.5	198.5	190.1
49°	242.5	240.1	250.5	264.2	198.2	190.5	184.2	190.1	184.3	187.9	179.0
50°	230.1	226.7	238.5	251.1	188.0	180.1	172.9	178.9	173.2	177.7	168.6
51°	218.5	215.2	226.9	239.6	175.8	168.7	162.1	167.5	162.6	166.1	157.3
52°	205.9	204.0	214.2	228.3	165.3	156.9	151.6	156.5	151.9	154.9	147.6
53°	194.2	193.2	203.6	216.0	154.6	146.7	140.8	146.0	142.0	146.0	137.5
54°	183.9	181.7	192.1	204.0	143.7	136.2	131.6	136.7	131.3	136.3	128.8
55°	172.8	170.7	180.8	192.7	133.6	127.1	121.4	126.2	122.6	127.4	119.7
56°	162.2	160.4	170.4	181.6	124.9	117.5	113.1	118.2	114.8	117.8	110.6
57°	151.6	149.6	159.4	171.1	115.3	109.0	104.6	109.5	106.0	108.9	102.6
58°	142.3	140.3	150.1	159.4	108.1	101.2	95.9	100.9	97.4	101.4	94.2
59°	131.9	131.1	139.7	149.3	99.6	92.8	88.5	92.7	90.1	93.2	87.6
60°	123.1	121.9	130.7	138.9	92.3	85.8	81.8	85.0	82.7	85.8	80.4
61°	115.1	114.0	121.9	130.2	84.3	78.7	74.6	78.6	76.3	79.1	73.2
62°	107.0	105.7	113.6	121.7	76.8	71.9	68.1	71.9	69.9	72.3	66.8
63°	99.4	98.4	106.1	113.2	70.7	65.3	62.5	65.6	62.1	65.6	61.0
64°	91.9	90.7	98.0	104.8	65.4	60.4	55.8	58.9	57.5	59.2	54.9
65°	85.2	83.3	90.6	96.3	59.3	54.8	52.0	53.8	52.6	54.1	49.8
66°	78.4	77.1	83.2	89.7	54.1	50.8	46.6	49.8	46.3	49.2	45.4
67°	71.1	71.5	76.3	82.6	49.4	44.4	41.9	44.2	42.0	43.8	40.5
68°	65.8	65.2	70.1	76.0	43.3	40.6	38.3	40.1	37.9	40.2	36.1
69°	60.4	59.2	64.8	69.2	40.0	36.8	34.2	35.9	33.5	35.3	31.9
70°	54.1	54.5	58.6	63.6	36.7	33.3	30.3	31.5	29.9	31.2	28.3
71°	50.3	49.7	53.8	58.0	32.4	29.5	27.3	28.6	26.4	27.8	24.8
72°	45.1	44.4	48.9	52.8	28.6	26.2	24.0	25.1	23.2	24.3	22.2
73°	41.0	39.9	43.8	48.0	25.8	23.4	21.6	22.5	20.5	21.8	19.7
74°	36.7	35.9	39.3	43.1	23.0	21.2	19.7	20.3	19.0	19.5	18.0
75°	33.2	32.6	35.5	38.7	20.9	19.1	17.5	18.7	17.4	17.7	16.1
76°	29.6	29.3	31.6	34.8	19.1	17.5	16.7	17.0	15.2	15.9	14.3
77°	26.1	25.6	28.4	31.1	17.6	15.9	14.7	14.5	13.9	13.4	13.2
78°	22.7	22.3	24.3	28.2	14.8	13.5	11.8	13.0	12.0	12.1	10.5
79°	20.5	20.7	21.9	24.8	13.5	12.1	10.7	11.0	10.1	10.6	9.2
80°	18.9	18.2	20.3	22.5	11.7	9.4	9.7	9.4	8.8	9.1	4.5
81°	17.2	17.1	18.4	20.0	9.9	8.5	7.5	7.8	6.6	7.8	5.6
82°	15.8	15.1	16.6	19.0	8.7	7.1	5.7	6.6	5.4	5.4	3.8
83°	13.4	14.1	15.1	16.3	6.4	5.6	3.4	5.2	3.9	3.7	2.1
84°	10.7	11.0	12.7	14.3	4.5	3.6	2.4	3.4	2.1	2.3	0.0
85°	9.0	9.7	11.4	12.8	3.0	1.8	1.2	2.2	0.0	1.1	0.0
86°	8.2	8.1	9.0	11.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87°	7.1	6.8	7.6	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	5.7	5.0	6.6	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89°	4.5	3.3	4.7	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P851816  
 CATALOG NUMBER: RLFRC4FS-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	2.4	2.1	2.7	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91°	0.0	0.0	1.1	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92°	0.0	0.0	0.0	1.2	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	0.0	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°	0.0	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	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P851816  
 CATALOG NUMBER: RLFRC4FS-5000K

**CANDELA DISTRIBUTION (continued):**

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



TEST NUMBER: P851816  
CATALOG NUMBER: RLFRC4FS-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P851816  
 CATALOG NUMBER: RLFRC4FS-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	495.5	495.5	495.5	495.5	495.5	495.5
1°	494.7	495.3	496.0	495.8	496.0	495.8
2°	493.3	495.2	496.1	495.9	495.5	496.2
3°	492.0	495.2	495.9	495.7	495.3	496.3
4°	490.4	494.2	495.1	495.4	495.1	495.9
5°	488.4	493.3	494.7	494.6	494.6	495.7
6°	486.3	492.3	493.5	493.9	494.0	495.4
7°	483.6	491.2	492.5	493.1	492.6	494.2
8°	481.2	489.8	491.2	492.1	491.9	493.1
9°	478.5	488.3	489.8	490.5	490.2	491.5
10°	475.9	486.3	488.1	489.0	488.5	490.3
11°	472.6	484.2	486.5	487.7	486.8	488.9
12°	469.4	482.0	484.1	485.6	484.7	487.2
13°	466.1	479.7	482.1	482.8	482.5	484.8
14°	462.4	476.9	479.0	480.8	480.2	483.0
15°	458.4	474.0	476.4	478.2	477.5	480.3
16°	453.8	470.8	473.3	475.5	474.9	477.3
17°	449.5	467.7	470.7	472.3	471.6	474.7
18°	445.1	463.9	467.3	469.6	468.4	471.5
19°	440.3	460.9	463.6	466.1	465.0	468.4
20°	435.0	456.6	459.9	462.4	461.7	464.7
21°	430.2	452.4	456.0	459.0	457.5	461.3
22°	424.4	448.5	451.9	455.0	453.7	457.1
23°	419.1	443.9	447.8	451.1	449.4	452.9
24°	413.4	439.3	443.3	446.4	445.3	448.6
25°	406.7	434.1	438.8	441.9	440.8	444.5
26°	400.1	428.8	433.3	437.1	435.4	439.5
27°	392.7	423.8	428.4	431.9	431.0	434.4
28°	385.4	418.5	423.5	426.9	425.3	429.3
29°	378.0	412.8	417.9	421.9	419.7	423.8
30°	370.6	407.1	411.7	415.9	414.3	418.0
31°	363.3	399.8	405.9	409.5	408.1	412.4
32°	355.2	393.4	399.8	403.7	401.5	406.0
33°	345.8	386.5	392.2	397.2	394.5	399.8
34°	337.1	379.6	385.3	390.0	387.3	392.0
35°	327.3	371.3	378.0	382.5	380.0	384.7
36°	317.4	364.1	370.8	375.1	372.5	377.5
37°	306.7	356.5	362.6	368.1	364.7	370.0
38°	294.3	348.3	354.6	360.5	356.9	361.5
39°	284.0	339.4	347.1	352.3	349.2	353.8
40°	271.6	329.9	337.2	343.9	339.5	345.1
41°	261.0	320.3	328.1	334.7	329.5	335.1
42°	248.3	309.0	318.1	325.4	319.9	325.4
43°	236.1	298.6	308.2	313.7	308.8	314.5
44°	223.8	288.0	296.0	303.6	296.8	303.7



TEST NUMBER: P851816  
 CATALOG NUMBER: RLFRC4FS-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	211.6	275.8	285.2	292.6	285.7	290.9
46°	200.8	263.8	273.6	280.0	272.9	279.3
47°	190.2	252.1	262.0	268.3	260.8	267.5
48°	178.0	240.7	249.0	256.3	249.0	254.5
49°	167.5	227.6	237.2	244.3	236.7	242.5
50°	157.1	216.1	224.9	231.1	224.3	230.1
51°	146.5	204.4	212.0	219.2	211.9	218.5
52°	136.9	193.3	200.4	207.9	200.0	205.9
53°	127.7	181.5	189.2	194.9	188.4	194.2
54°	119.1	170.1	178.1	183.6	177.4	183.9
55°	110.7	159.8	166.2	172.3	165.9	172.8
56°	102.4	149.2	155.4	161.8	155.3	162.2
57°	93.9	139.2	145.7	150.4	145.4	151.6
58°	86.8	130.3	135.6	140.1	135.3	142.3
59°	80.0	121.4	126.4	131.3	126.4	131.9
60°	73.1	112.9	117.5	121.5	118.1	123.1
61°	66.6	104.5	109.1	113.0	109.7	115.1
62°	60.7	96.3	100.4	104.6	101.0	107.0
63°	54.3	88.2	92.9	97.5	93.5	99.4
64°	50.0	81.8	85.3	89.7	86.8	91.9
65°	44.8	74.6	78.0	82.2	80.0	85.2
66°	40.2	68.8	72.1	76.1	73.4	78.4
67°	35.7	62.2	65.9	69.9	67.2	71.1
68°	31.3	56.4	60.5	62.8	61.5	65.8
69°	28.6	51.4	54.5	57.9	55.8	60.4
70°	24.8	46.6	49.6	53.0	51.5	54.1
71°	22.0	42.3	45.0	48.2	45.6	50.3
72°	19.8	37.6	40.6	42.6	42.1	45.1
73°	17.9	33.8	36.1	38.7	37.7	41.0
74°	16.0	29.5	32.6	35.6	34.5	36.7
75°	14.0	26.7	29.0	31.3	30.8	33.2
76°	12.6	23.8	25.4	28.5	27.2	29.6
77°	10.3	20.8	22.3	25.2	24.8	26.1
78°	9.7	18.8	20.3	22.2	21.2	22.7
79°	7.6	17.0	18.3	20.2	19.5	20.5
80°	5.7	15.6	16.9	18.1	17.6	18.9
81°	3.5	13.4	15.0	16.3	15.8	17.2
82°	2.4	11.6	13.2	15.3	14.2	15.8
83°	1.0	9.6	11.5	12.0	12.3	13.4
84°	0.0	7.8	9.7	11.0	10.4	10.7
85°	0.0	6.6	7.4	9.4	9.3	9.0
86°	0.0	4.6	5.2	7.3	7.3	8.2
87°	0.0	2.8	4.7	6.6	5.4	7.1
88°	0.0	1.4	3.6	4.7	4.4	5.7
89°	0.0	0.0	1.8	3.4	3.0	4.5



TEST NUMBER: P851816  
 CATALOG NUMBER: RLFRC4FS-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	1.9	1.6	2.4
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	0.0	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°	0.0	0.0	0.0	0.0	0.0	0.0
121°	0.0	0.0	0.0	0.0	0.0	0.0
122°	0.0	0.0	0.0	0.0	0.0	0.0
123°	0.0	0.0	0.0	0.0	0.0	0.0
124°	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0
126°	0.0	0.0	0.0	0.0	0.0	0.0
127°	0.0	0.0	0.0	0.0	0.0	0.0
128°	0.0	0.0	0.0	0.0	0.0	0.0
129°	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0
131°	0.0	0.0	0.0	0.0	0.0	0.0
132°	0.0	0.0	0.0	0.0	0.0	0.0
133°	0.0	0.0	0.0	0.0	0.0	0.0
134°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P851816  
CATALOG NUMBER: RLFRC4FS-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
135°	0.0	0.0	0.0	0.0	0.0	0.0
136°	0.0	0.0	0.0	0.0	0.0	0.0
137°	0.0	0.0	0.0	0.0	0.0	0.0
138°	0.0	0.0	0.0	0.0	0.0	0.0
139°	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0
141°	0.0	0.0	0.0	0.0	0.0	0.0
142°	0.0	0.0	0.0	0.0	0.0	0.0
143°	0.0	0.0	0.0	0.0	0.0	0.0
144°	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0
146°	0.0	0.0	0.0	0.0	0.0	0.0
147°	0.0	0.0	0.0	0.0	0.0	0.0
148°	0.0	0.0	0.0	0.0	0.0	0.0
149°	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0
151°	0.0	0.0	0.0	0.0	0.0	0.0
152°	0.0	0.0	0.0	0.0	0.0	0.0
153°	0.0	0.0	0.0	0.0	0.0	0.0
154°	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0
156°	0.0	0.0	0.0	0.0	0.0	0.0
157°	0.0	0.0	0.0	0.0	0.0	0.0
158°	0.0	0.0	0.0	0.0	0.0	0.0
159°	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0
161°	0.0	0.0	0.0	0.0	0.0	0.0
162°	0.0	0.0	0.0	0.0	0.0	0.0
163°	0.0	0.0	0.0	0.0	0.0	0.0
164°	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0
166°	0.0	0.0	0.0	0.0	0.0	0.0
167°	0.0	0.0	0.0	0.0	0.0	0.0
168°	0.0	0.0	0.0	0.0	0.0	0.0
169°	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0
171°	0.0	0.0	0.0	0.0	0.0	0.0
172°	0.0	0.0	0.0	0.0	0.0	0.0
173°	0.0	0.0	0.0	0.0	0.0	0.0
174°	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0
176°	0.0	0.0	0.0	0.0	0.0	0.0
177°	0.0	0.0	0.0	0.0	0.0	0.0
178°	0.0	0.0	0.0	0.0	0.0	0.0
179°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P851816  
CATALOG NUMBER: RLFRC4FS-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
180°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)