

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: P851815

Luminaire Tested: RLFRC4FS-4000K

Issue Date: 7/3/2024

Test Information

Test Method: LM-79-2019
Report Number: P851815
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-4000K
Description: 4" Fire Rated Canless, 4000K CCT 900lms,WH
Light Source: -
Ballast/Driver:

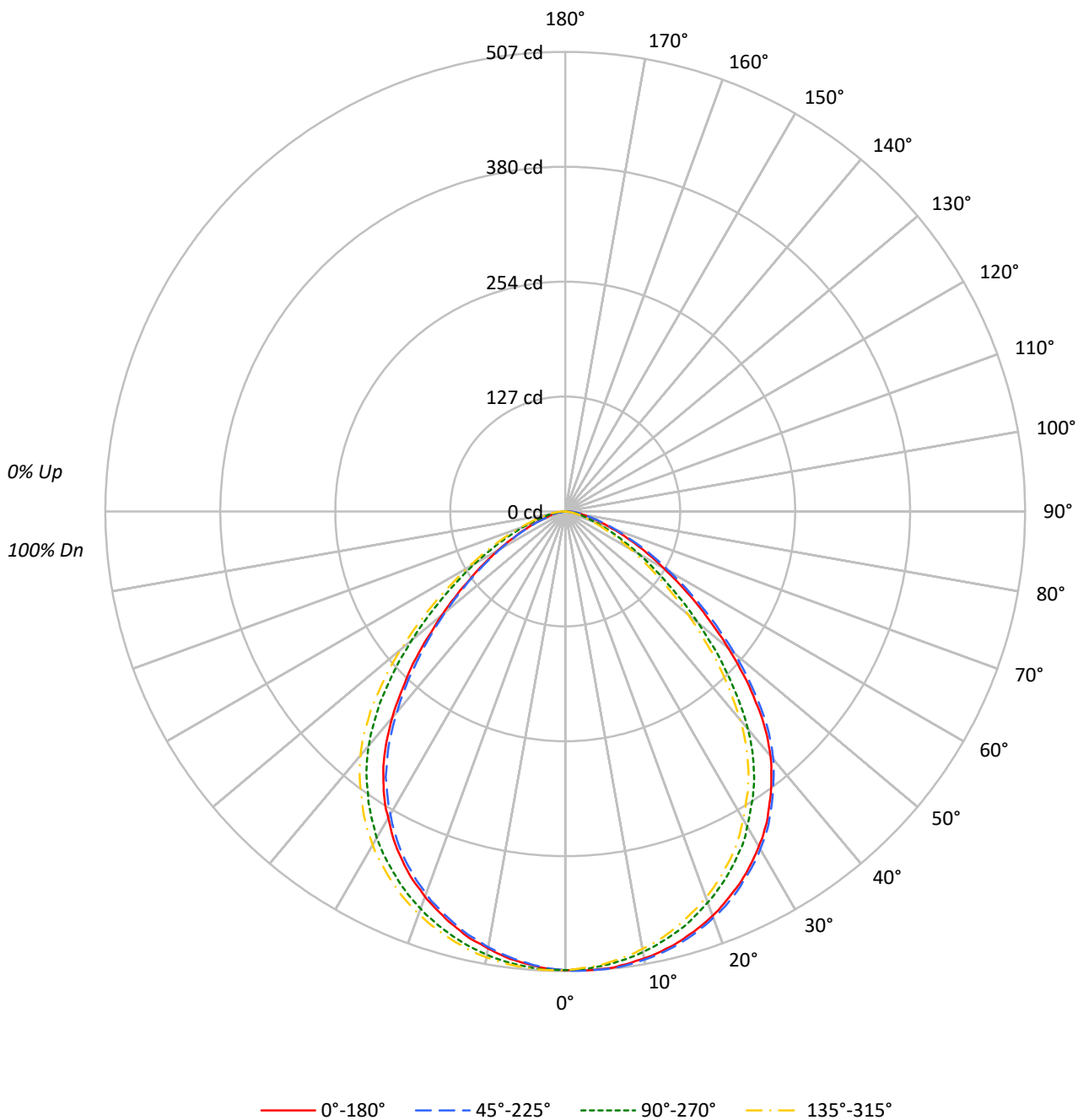
Summary

Lumens per Lamp: 1009.3 (1 lamp)
Luminaire Lumens: 1063.0 lumens
Efficiency: 105.3%
Efficacy: 100.3 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: P851815
CATALOG NUMBER: RLFRC4FS-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P851815
 CATALOG NUMBER: RLFRC4FS-4000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									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	50	30	10	0													
RCR																																					
0	125	125	125	125	122	122	122	122	117	117	117	112	112	112	107	107	107	105						105													
1	117	113	109	105	114	110	107	104	106	103	101	102	100	97	98	96	95	93						93													
2	108	100	94	89	105	99	93	88	95	90	86	92	88	84	88	85	82	80						80													
3	99	90	82	77	97	88	81	76	85	79	75	83	78	73	80	76	72	70						70													
4	92	81	73	67	90	80	72	66	77	70	65	75	69	64	72	68	64	61						61													
5	85	73	65	58	83	72	64	58	70	63	58	68	62	57	66	61	56	54						54													
6	79	66	58	52	77	66	57	52	64	57	51	62	56	51	60	55	50	48						48													
7	74	61	52	46	72	60	52	46	58	51	46	57	50	46	56	50	45	43						43													
8	69	56	47	42	67	55	47	42	54	47	41	52	46	41	51	45	41	39						39													
9	65	51	43	38	63	51	43	38	50	43	38	49	42	37	48	42	37	36						36													
10	61	48	40	35	59	47	40	35	46	39	34	45	39	34	44	38	34	32						32													

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	63680	63680	63680	63680
5°	63949	63468	63241	63645
10°	63985	63065	62541	63461
15°	63907	62461	61653	63060
20°	63562	61499	60575	62437
25°	63029	60237	59002	61543
30°	62022	58316	56689	60409
35°	60348	55800	53726	58243
40°	57894	51487	48727	55331
45°	52877	44975	42163	50119
50°	46010	37572	34615	43210
55°	38704	29928	27470	35808
60°	31639	23735	21243	29021
65°	25907	18016	15991	22662
70°	20311	13799	11223	17515
75°	16484	10406	8655	13226
80°	13987	8624	6523	11596
85°	13284	4476	0	9819

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 56562 cd/sqm



TEST NUMBER: P851815
 CATALOG NUMBER: RLFRC4FS-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	47.8	4.5	4.7
10°-20°	135.8	12.8	13.5
20°-30°	201.9	19.0	20.0
30°-40°	231.0	21.7	22.9
40°-50°	205.1	19.3	20.3
50°-60°	136.3	12.8	13.5
60°-70°	70.3	6.6	7.0
70°-80°	27.9	2.6	2.8
80°-90°	6.8	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°	385.5	36.3	38.2
0°-40°	616.6	58.0	61.1
0°-60°	958.0	90.1	94.9
0°-90°	1062.9	100.0	105.3
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°	1063.0	100.0	105.3

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	506	506	506	506	506	
5°	506	502	501	504	506	48
15°	490	479	473	484	490	138
25°	454	434	425	443	454	209
35°	393	363	350	379	393	245
45°	297	253	237	282	297	228
55°	176	136	125	163	176	158
65°	87	60	54	76	87	87
75°	34	21	18	27	34	37
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: P851815
 CATALOG NUMBER: RLFR4FS-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0	506.0
1°	506.3	506.5	506.8	507.3	505.5	505.8	505.3	505.4	505.5	505.1	505.2
2°	506.7	506.5	506.9	507.8	505.0	504.8	504.2	504.6	505.0	504.5	504.3
3°	506.8	506.6	506.9	507.9	504.7	504.3	503.2	503.6	503.8	503.9	503.0
4°	506.4	506.4	506.7	508.1	503.7	503.0	502.2	502.4	502.2	502.6	501.6
5°	506.2	505.7	506.8	508.6	502.4	502.2	500.9	500.8	500.6	500.8	499.6
6°	505.9	505.5	506.4	507.9	501.2	500.4	498.9	499.9	498.9	499.3	497.8
7°	504.6	504.7	505.8	507.7	499.4	498.8	497.0	497.7	497.2	497.4	495.6
8°	503.5	503.5	504.8	507.1	497.8	496.8	495.0	496.1	494.9	495.2	493.2
9°	501.9	501.9	503.6	506.2	496.0	494.9	492.8	493.6	492.3	492.7	490.7
10°	500.7	500.2	502.2	504.9	493.5	492.5	489.9	490.9	489.4	490.7	488.1
11°	499.3	498.5	500.8	503.4	491.1	489.9	487.6	488.7	486.4	487.3	484.8
12°	497.4	496.9	499.0	501.8	488.4	487.1	484.8	485.6	484.2	484.2	481.6
13°	495.1	494.6	497.0	500.4	485.3	483.8	481.6	482.8	481.0	481.3	478.8
14°	493.2	492.3	494.9	498.1	482.6	480.4	478.1	479.0	477.0	477.8	474.8
15°	490.5	489.6	492.6	495.7	479.4	477.5	474.6	475.4	473.2	474.3	471.0
16°	487.4	487.0	489.9	493.8	476.1	473.3	470.9	471.5	469.6	470.3	466.8
17°	484.7	483.6	487.1	491.2	472.0	469.9	466.3	467.8	465.0	466.0	462.6
18°	481.5	480.7	483.7	488.2	467.7	465.3	462.3	463.8	461.0	462.0	458.0
19°	478.3	477.4	480.7	484.8	463.5	460.8	458.0	459.6	456.7	457.6	454.3
20°	474.6	473.5	477.0	481.9	459.2	455.9	453.2	455.1	452.3	452.7	448.6
21°	471.1	469.7	473.8	478.2	454.9	451.6	448.6	450.3	446.7	447.9	443.4
22°	466.7	465.7	470.1	474.8	449.7	446.8	443.4	445.0	442.2	442.9	438.4
23°	462.4	461.3	465.5	470.8	445.0	441.9	438.4	440.0	437.0	437.9	432.3
24°	458.0	457.0	461.3	466.3	439.5	436.2	432.0	434.2	431.0	432.5	427.0
25°	453.9	452.2	456.7	462.4	433.8	430.9	426.8	428.3	424.9	425.9	421.0
26°	448.8	447.0	451.1	457.7	428.3	424.4	420.6	422.5	418.8	420.9	414.5
27°	443.6	442.1	446.6	453.1	422.0	418.3	414.6	416.7	412.3	413.7	407.8
28°	438.3	436.7	441.5	447.9	416.5	411.8	407.4	409.0	405.5	406.3	400.4
29°	432.8	431.4	436.3	442.5	409.5	404.9	399.9	402.4	397.5	399.9	393.4
30°	426.8	425.6	430.2	437.2	401.3	396.6	392.4	395.0	390.1	391.9	385.4
31°	421.2	419.1	424.4	430.9	394.2	389.9	384.9	387.6	383.5	384.8	378.3
32°	414.6	412.2	418.1	425.3	386.1	381.7	376.3	379.8	375.8	377.5	369.9
33°	408.3	405.1	411.7	419.2	379.1	374.7	369.6	372.3	367.3	368.8	361.5
34°	400.3	397.9	404.0	412.6	371.1	366.3	360.8	365.0	358.5	361.0	353.8
35°	392.8	389.8	396.5	405.6	363.2	357.8	352.5	355.2	349.7	351.4	343.2
36°	385.5	382.1	389.1	397.6	353.8	348.4	342.9	346.4	340.3	342.6	333.4
37°	377.8	374.2	380.9	390.1	344.6	338.2	332.7	335.9	329.7	332.1	323.2
38°	369.1	366.6	373.4	382.4	335.1	328.7	322.6	326.1	319.2	321.0	311.8
39°	361.3	357.8	365.2	374.3	324.5	318.6	312.2	316.0	307.9	309.6	300.6
40°	352.4	349.0	356.9	366.0	313.4	306.8	299.6	304.7	296.6	298.4	288.2
41°	342.2	339.4	347.5	357.6	301.9	295.0	287.9	292.9	284.7	286.0	276.9
42°	332.3	328.0	337.6	349.0	289.7	282.1	275.2	280.2	272.0	274.2	264.9
43°	321.1	317.0	327.3	338.6	277.1	270.4	263.5	268.4	259.7	263.2	253.6
44°	310.1	305.6	316.1	328.5	264.9	257.0	250.8	256.0	248.5	250.4	240.3



TEST NUMBER: P851815
 CATALOG NUMBER: RLFRC4FS-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	297.1	293.8	304.0	317.8	252.7	246.1	238.6	243.8	236.9	238.9	228.4
46°	285.3	281.0	291.9	306.2	240.3	232.3	226.5	230.2	224.0	226.7	217.2
47°	273.1	269.4	280.3	293.3	228.6	220.2	212.1	218.2	211.7	214.1	205.1
48°	259.9	257.2	267.6	281.9	214.8	206.9	200.5	206.4	198.6	202.7	194.2
49°	247.6	245.2	255.8	269.8	202.4	194.5	188.1	194.2	188.1	191.8	182.8
50°	235.0	231.5	243.5	256.4	191.9	183.9	176.6	182.7	176.8	181.5	172.2
51°	223.1	219.7	231.7	244.7	179.5	172.2	165.6	171.0	166.0	169.6	160.6
52°	210.2	208.3	218.7	233.2	168.8	160.2	154.8	159.8	155.1	158.2	150.7
53°	198.4	197.3	207.9	220.6	157.8	149.8	143.8	149.1	145.0	149.1	140.4
54°	187.8	185.5	196.2	208.3	146.8	139.1	134.4	139.6	134.1	139.1	131.6
55°	176.4	174.3	184.6	196.7	136.4	129.8	123.9	128.9	125.2	130.1	122.3
56°	165.6	163.8	174.0	185.4	127.5	120.0	115.5	120.7	117.3	120.3	112.9
57°	154.8	152.8	162.8	174.7	117.7	111.3	106.8	111.8	108.2	111.2	104.7
58°	145.3	143.3	153.3	162.8	110.4	103.3	98.0	103.1	99.5	103.6	96.2
59°	134.7	133.9	142.6	152.5	101.7	94.8	90.4	94.7	92.0	95.2	89.4
60°	125.7	124.5	133.4	141.9	94.3	87.6	83.6	86.8	84.4	87.6	82.1
61°	117.5	116.4	124.5	132.9	86.1	80.4	76.2	80.2	77.9	80.8	74.8
62°	109.2	107.9	116.0	124.2	78.5	73.4	69.5	73.4	71.3	73.8	68.3
63°	101.5	100.5	108.3	115.5	72.2	66.7	63.8	67.0	63.4	67.0	62.3
64°	93.8	92.6	100.1	107.0	66.8	61.7	57.0	60.1	58.7	60.5	56.1
65°	87.0	85.1	92.5	98.4	60.5	55.9	53.0	55.0	53.7	55.3	50.9
66°	80.1	78.8	84.9	91.6	55.3	51.9	47.6	50.9	47.3	50.3	46.3
67°	72.6	73.0	77.9	84.4	50.4	45.4	42.8	45.1	42.9	44.7	41.3
68°	67.1	66.6	71.6	77.6	44.2	41.5	39.1	40.9	38.7	41.0	36.9
69°	61.6	60.4	66.1	70.7	40.8	37.6	34.9	36.7	34.2	36.1	32.6
70°	55.2	55.6	59.9	64.9	37.5	34.0	31.0	32.2	30.5	31.8	28.9
71°	51.3	50.8	55.0	59.2	33.0	30.2	27.8	29.2	27.0	28.3	25.3
72°	46.1	45.3	49.9	53.9	29.2	26.7	24.5	25.7	23.7	24.8	22.6
73°	41.9	40.7	44.7	49.0	26.4	23.9	22.1	23.0	20.9	22.3	20.1
74°	37.5	36.6	40.1	44.0	23.5	21.6	20.1	20.7	19.4	19.9	18.4
75°	33.9	33.3	36.3	39.5	21.4	19.5	17.9	19.1	17.8	18.1	16.4
76°	30.2	29.9	32.3	35.6	19.5	17.8	17.1	17.4	15.5	16.3	14.6
77°	26.7	26.1	29.0	31.8	18.0	16.2	15.0	14.8	14.2	13.7	13.4
78°	23.2	22.8	24.8	28.8	15.2	13.8	12.0	13.2	12.2	12.4	10.7
79°	20.9	21.1	22.4	25.3	13.8	12.4	10.9	11.2	10.4	10.8	9.4
80°	19.3	18.6	20.7	23.0	11.9	9.6	9.9	9.6	9.0	9.3	4.6
81°	17.5	17.4	18.8	20.4	10.2	8.7	7.6	8.0	6.7	7.9	5.7
82°	16.1	15.4	16.9	19.4	8.9	7.2	5.8	6.7	5.5	5.5	3.9
83°	13.7	14.4	15.5	16.6	6.5	5.8	3.5	5.3	4.0	3.8	2.1
84°	10.9	11.2	13.0	14.6	4.6	3.7	2.5	3.4	2.2	2.4	0.0
85°	9.2	9.9	11.6	13.0	3.1	1.9	1.2	2.2	0.0	1.1	0.0
86°	8.4	8.2	9.2	11.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87°	7.2	7.0	7.8	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	5.9	5.1	6.7	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89°	4.6	3.4	4.8	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P851815
 CATALOG NUMBER: RLFRC4FS-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	2.4	2.1	2.8	4.6	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: P851815
 CATALOG NUMBER: RLFRC4FS-4000K

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: P851815
CATALOG NUMBER: RLFRC4FS-4000K

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: P851815
 CATALOG NUMBER: RLFRC4FS-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	506.0	506.0	506.0	506.0	506.0	506.0
1°	505.1	505.8	506.5	506.3	506.5	506.3
2°	503.7	505.7	506.6	506.4	506.0	506.7
3°	502.4	505.7	506.4	506.2	505.8	506.8
4°	500.7	504.7	505.6	505.9	505.6	506.4
5°	498.7	503.8	505.1	505.1	505.1	506.2
6°	496.6	502.7	503.9	504.3	504.4	505.9
7°	493.9	501.6	503.0	503.6	503.0	504.6
8°	491.4	500.2	501.6	502.5	502.3	503.5
9°	488.7	498.7	500.1	500.9	500.5	501.9
10°	485.9	496.6	498.5	499.4	498.8	500.7
11°	482.6	494.4	496.8	498.0	497.1	499.3
12°	479.3	492.2	494.4	495.9	495.0	497.4
13°	476.0	489.8	492.3	493.1	492.7	495.1
14°	472.2	487.0	489.1	490.9	490.4	493.2
15°	468.1	484.0	486.4	488.3	487.6	490.5
16°	463.4	480.8	483.3	485.5	484.9	487.4
17°	459.0	477.6	480.6	482.3	481.6	484.7
18°	454.5	473.7	477.2	479.5	478.3	481.5
19°	449.7	470.6	473.4	476.0	474.8	478.3
20°	444.2	466.2	469.6	472.2	471.5	474.6
21°	439.3	462.0	465.6	468.7	467.1	471.1
22°	433.4	458.0	461.4	464.7	463.3	466.7
23°	428.0	453.3	457.2	460.7	458.9	462.4
24°	422.1	448.6	452.7	455.8	454.8	458.0
25°	415.3	443.2	448.1	451.2	450.1	453.9
26°	408.5	437.9	442.4	446.4	444.6	448.8
27°	401.0	432.8	437.4	441.0	440.1	443.6
28°	393.6	427.4	432.5	435.9	434.3	438.3
29°	386.0	421.6	426.7	430.8	428.6	432.8
30°	378.5	415.7	420.4	424.7	423.1	426.8
31°	371.0	408.3	414.5	418.1	416.8	421.2
32°	362.8	401.7	408.2	412.2	410.0	414.6
33°	353.1	394.6	400.5	405.6	402.9	408.3
34°	344.3	387.6	393.5	398.3	395.5	400.3
35°	334.2	379.1	386.0	390.6	388.0	392.8
36°	324.1	371.8	378.7	383.0	380.3	385.5
37°	313.2	364.1	370.2	375.9	372.4	377.8
38°	300.5	355.6	362.1	368.2	364.5	369.1
39°	290.0	346.6	354.5	359.7	356.6	361.3
40°	277.3	336.8	344.4	351.2	346.6	352.4
41°	266.5	327.1	335.0	341.8	336.5	342.2
42°	253.5	315.5	324.9	332.3	326.6	332.3
43°	241.1	304.9	314.7	320.4	315.3	321.1
44°	228.5	294.1	302.3	310.0	303.0	310.1



TEST NUMBER: P851815
 CATALOG NUMBER: RLFRC4FS-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	216.1	281.6	291.3	298.8	291.7	297.1
46°	205.1	269.4	279.4	285.9	278.6	285.3
47°	194.2	257.4	267.5	273.9	266.3	273.1
48°	181.8	245.8	254.2	261.7	254.2	259.9
49°	171.0	232.4	242.2	249.5	241.7	247.6
50°	160.5	220.7	229.7	236.0	229.1	235.0
51°	149.6	208.7	216.5	223.8	216.4	223.1
52°	139.8	197.4	204.6	212.2	204.3	210.2
53°	130.4	185.3	193.2	199.1	192.4	198.4
54°	121.7	173.7	181.9	187.5	181.2	187.8
55°	113.0	163.2	169.7	175.9	169.4	176.4
56°	104.5	152.3	158.7	165.2	158.6	165.6
57°	95.9	142.1	148.8	153.5	148.5	154.8
58°	88.6	133.0	138.5	143.1	138.1	145.3
59°	81.7	124.0	129.0	134.0	129.1	134.7
60°	74.7	115.3	120.0	124.1	120.6	125.7
61°	68.0	106.7	111.4	115.3	112.0	117.5
62°	62.0	98.3	102.5	106.8	103.1	109.2
63°	55.4	90.1	94.9	99.6	95.4	101.5
64°	51.1	83.5	87.1	91.6	88.7	93.8
65°	45.7	76.1	79.7	83.9	81.7	87.0
66°	41.1	70.2	73.6	77.7	74.9	80.1
67°	36.5	63.5	67.3	71.4	68.6	72.6
68°	31.9	57.5	61.8	64.1	62.8	67.1
69°	29.2	52.5	55.6	59.1	56.9	61.6
70°	25.3	47.6	50.6	54.1	52.6	55.2
71°	22.5	43.2	45.9	49.2	46.6	51.3
72°	20.3	38.4	41.4	43.5	43.0	46.1
73°	18.2	34.5	36.9	39.5	38.5	41.9
74°	16.4	30.1	33.2	36.4	35.2	37.5
75°	14.3	27.2	29.6	32.0	31.5	33.9
76°	12.9	24.3	26.0	29.1	27.8	30.2
77°	10.6	21.2	22.8	25.8	25.3	26.7
78°	9.9	19.2	20.7	22.7	21.7	23.2
79°	7.8	17.4	18.7	20.6	19.9	20.9
80°	5.8	16.0	17.2	18.5	17.9	19.3
81°	3.5	13.7	15.3	16.6	16.2	17.5
82°	2.5	11.9	13.5	15.6	14.5	16.1
83°	1.0	9.8	11.8	12.3	12.5	13.7
84°	0.0	8.0	9.9	11.2	10.6	10.9
85°	0.0	6.8	7.6	9.6	9.5	9.2
86°	0.0	4.7	5.3	7.4	7.4	8.4
87°	0.0	2.9	4.8	6.7	5.5	7.2
88°	0.0	1.4	3.6	4.8	4.5	5.9
89°	0.0	0.0	1.9	3.5	3.1	4.6



TEST NUMBER: P851815
 CATALOG NUMBER: RLFRC4FS-4000K

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: P851815
CATALOG NUMBER: RLFRC4FS-4000K

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: P851815
CATALOG NUMBER: RLFRC4FS-4000K

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)