

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: P639487

Luminaire Tested: RL4LS9FSD2W1EWHDM -900LM -4000K

Issue Date: 1/25/2023

Test Information

Test Method: LM-79-2019
Report Number: P639487
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2206549A001)
Test Lab:
Issue Date: 1/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO
Catalog Number: RL4LS9FSD2W1EWHDM -900LM -4000K
Description: 4IN DIRECT MOUNT, SELECTABLE LUMEN AND CCT, MATTE WHITE BAFFLE
Light Source: (1) SELECTABLE LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 980.0 lumens
Efficiency: N/A
Efficacy: 85.2 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.2
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

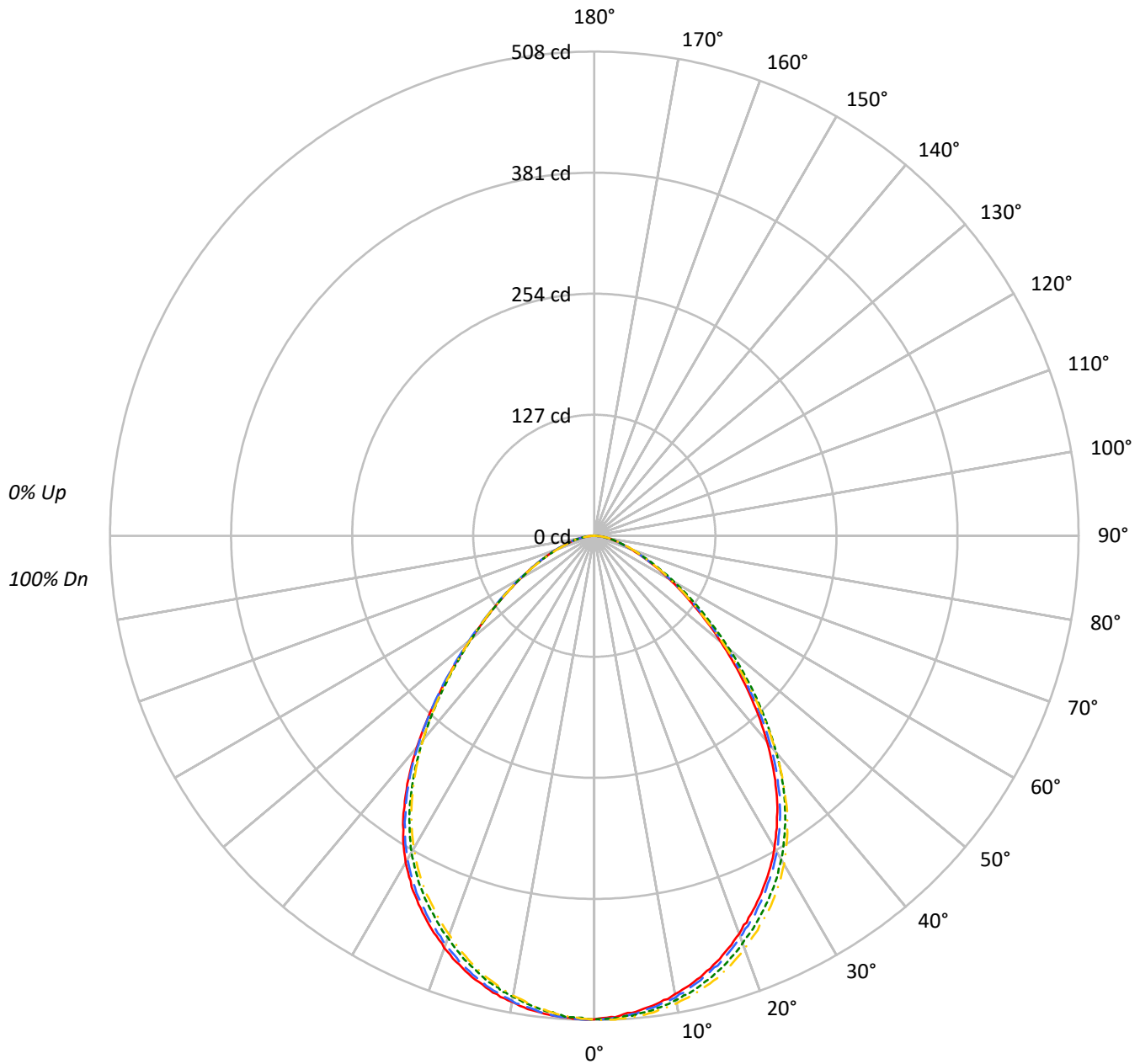
Input Watts (W): 11.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	111	107	103	100	108	105	101	99		101	98	96			97	95	93			93
2	102	96	90	85	100	94	89	84		90	86	82			87	84	80			84
3	95	86	79	73	92	84	78	73		81	76	71			79	74	70			76
4	88	77	70	64	86	76	69	63		74	68	63			71	66	62			69
5	81	70	62	56	80	69	62	56		67	60	55			65	59	55			63
6	76	64	56	50	74	63	55	50		61	55	50			60	54	49			58
7	71	59	51	45	69	58	50	45		56	50	45			55	49	44			54
8	66	54	46	41	65	53	46	41		52	45	40			51	45	40			50
9	62	50	42	37	61	49	42	37		48	41	37			47	41	37			46
10	58	46	39	34	57	46	39	34		45	38	34			44	38	34			43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	62698	62698	62698	62698
5°	62206	62553	62702	62243
10°	61269	62072	62323	61633
15°	60189	61238	61724	60611
20°	58463	59830	60527	59015
25°	56498	58161	58802	57302
30°	53931	55986	56514	54687
35°	50393	52611	52370	50695
40°	45433	47934	46707	45110
45°	39554	42001	39572	38680
50°	33398	35571	32610	32245
55°	27495	29456	26698	26654
60°	22444	24026	22049	21975
65°	18132	19301	18336	18132
70°	14635	15322	15286	15033
75°	12272	12463	12941	12798
80°	10391	10534	11388	11246
85°	7090	7374	9217	9076

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 42001 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.7	4.9
10°-20°	134.1	13.7
20°-30°	194.5	19.8
30°-40°	212.5	21.7
40°-50°	176.6	18.0
50°-60°	115.6	11.8
60°-70°	63.5	6.5
70°-80°	28.7	2.9
80°-90°	6.9	0.7
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	376.3	38.4
0°-40°	588.8	60.1
0°-60°	880.9	89.9
0°-90°	980.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	980.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	507	507	507	507	507	
5°	501	504	505	502	501	47
15°	470	479	482	474	470	132
25°	414	426	431	420	414	190
35°	334	349	347	336	334	208
45°	226	240	226	221	226	174
55°	128	137	124	124	128	115
65°	62	66	63	62	62	62
75°	26	26	27	27	26	28
85°	5	5	6	6	5	6
90°	0	0	0	0	0	

TEST NUMBER: P639487

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3	507.3
0.5°	506.5	506.3	507.7	507.5	507.2	507.8	507.9	507.5	507.3	506.3	507.7
1°	506.2	505.5	507.5	507.8	507.2	508.2	508.3	507.7	507.9	506.4	507.7
1.5°	506.0	506.2	506.6	506.8	507.1	508.0	507.9	507.9	507.2	506.5	507.8
2°	505.1	505.1	506.9	506.5	506.8	507.0	508.1	507.5	507.1	506.5	507.2
2.5°	505.5	504.2	506.0	506.0	506.6	507.3	508.1	507.6	507.4	507.3	507.2
3°	504.4	504.0	505.5	505.7	507.0	507.7	507.2	507.8	506.5	505.9	506.6
3.5°	503.0	504.3	504.9	504.7	505.3	506.7	507.4	507.2	506.5	505.6	506.0
4°	501.9	503.1	504.6	504.5	504.7	506.5	507.1	506.9	506.0	505.5	506.1
4.5°	502.3	502.3	503.2	504.3	505.3	506.8	506.8	506.3	505.6	504.7	505.6
5°	501.4	501.1	503.7	504.2	504.2	505.0	506.1	506.7	505.4	505.0	505.0
5.5°	500.1	501.0	501.4	502.7	503.3	505.7	506.0	505.3	504.5	503.8	504.0
6°	498.9	498.8	500.9	501.7	502.8	504.0	505.3	505.1	504.2	503.6	503.9
6.5°	497.9	498.1	499.6	501.3	502.2	503.9	504.3	504.3	503.4	502.8	502.9
7°	497.1	497.0	498.9	500.6	501.6	503.0	504.0	503.7	502.7	502.2	501.5
7.5°	495.9	496.0	498.0	498.2	500.2	501.4	503.0	502.8	502.1	500.3	500.5
8°	494.3	494.2	496.3	497.2	499.6	501.1	501.2	502.5	501.4	499.8	499.5
8.5°	492.4	493.1	494.9	497.0	498.1	500.2	501.2	500.9	500.2	499.5	499.0
9°	492.3	492.0	494.5	495.5	497.5	498.9	500.1	500.4	499.4	497.4	497.8
9.5°	490.2	490.1	493.0	493.4	495.7	497.9	498.8	499.7	497.7	496.4	497.5
10°	488.2	489.4	492.0	493.0	494.6	496.6	498.2	498.1	496.6	496.7	495.7
10.5°	487.0	487.0	488.9	490.9	493.5	495.3	496.4	496.8	495.8	494.5	493.9
11°	484.8	485.2	488.6	489.4	491.2	494.5	495.4	496.2	494.3	493.7	492.9
11.5°	483.6	483.8	486.1	486.9	490.9	492.0	494.5	494.0	493.8	491.7	491.9
12°	482.1	482.7	484.3	486.8	489.3	491.5	492.4	492.9	491.7	490.8	489.8
12.5°	480.1	481.2	482.7	484.2	487.5	489.6	491.7	491.6	491.1	488.7	488.7
13°	477.8	478.4	480.9	482.8	485.8	488.3	489.8	490.2	488.9	487.7	487.1
13.5°	476.4	476.4	479.5	481.5	484.0	486.2	488.1	488.1	487.6	486.5	485.4
14°	474.1	474.6	476.4	479.7	481.8	484.4	486.4	487.0	485.1	483.3	483.1
14.5°	471.5	472.7	475.2	477.9	480.6	483.2	485.4	484.7	483.4	481.9	481.8
15°	470.4	470.4	472.6	475.6	478.6	481.3	483.1	483.7	482.4	480.6	479.5
15.5°	467.2	468.4	469.9	473.7	476.2	479.2	481.9	481.2	480.5	479.1	477.8
16°	465.1	465.3	469.3	469.9	474.4	477.4	479.8	479.7	478.2	477.1	475.2
16.5°	463.1	463.5	466.8	468.5	472.2	475.5	477.4	478.2	476.4	474.4	473.5
17°	460.1	461.2	463.6	465.8	470.0	472.7	475.2	475.4	473.9	471.5	470.8
17.5°	457.6	458.5	461.5	462.9	467.6	471.2	473.3	472.8	471.7	469.9	469.4
18°	455.2	456.6	459.0	461.3	465.0	468.3	470.8	471.4	469.9	467.4	465.9
18.5°	452.7	452.7	456.2	457.6	462.9	466.2	468.4	468.8	467.6	465.7	463.5
19°	449.7	450.8	453.6	455.9	460.3	463.9	466.0	466.0	464.6	462.6	461.3
19.5°	446.9	447.9	450.7	453.2	457.9	460.7	463.8	464.1	462.4	460.7	458.9
20°	444.5	445.4	448.0	450.4	454.9	458.5	460.9	461.1	460.2	458.2	456.2
20.5°	441.2	442.9	445.3	447.2	451.8	455.8	458.3	458.3	456.5	455.1	453.5
21°	437.1	438.7	441.7	444.6	449.6	453.0	455.7	455.8	454.2	451.6	450.2

TEST NUMBER: P639487

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	429.7	430.9	433.7	436.6	441.5	444.9	447.8	448.3	446.3	444.6	442.5
23°	426.5	427.7	431.4	433.0	438.6	441.9	444.2	445.2	443.5	441.1	439.9
23.5°	423.8	424.9	427.6	430.9	435.6	439.6	442.3	442.0	440.5	439.0	436.7
24°	420.2	421.3	424.5	426.7	432.6	437.0	438.8	440.4	437.3	435.4	433.8
24.5°	417.2	418.3	421.8	424.5	429.9	433.6	435.6	436.3	434.6	432.8	430.1
25°	414.3	415.4	418.3	422.1	426.5	430.9	433.2	433.0	431.2	430.1	428.4
25.5°	410.4	411.8	415.3	417.6	424.1	427.7	430.1	429.7	428.3	426.2	424.3
26°	407.0	408.2	411.7	415.2	419.9	424.2	426.7	427.0	424.7	422.7	421.5
26.5°	403.9	405.6	407.9	411.9	417.0	422.2	423.6	423.3	421.5	420.0	418.5
27°	400.5	401.7	404.8	408.0	414.1	417.9	419.6	419.7	418.4	415.7	414.5
27.5°	396.8	398.3	401.3	404.8	410.3	414.4	416.4	416.4	415.3	412.9	411.1
28°	393.4	394.5	398.2	401.7	407.1	410.8	412.7	413.1	410.2	409.0	407.4
28.5°	389.8	390.9	394.2	397.4	403.6	407.2	409.5	409.1	407.4	405.4	403.4
29°	386.1	386.7	390.2	393.4	399.3	403.8	405.4	404.6	403.3	401.9	399.7
29.5°	381.9	383.4	386.5	389.9	395.8	399.8	401.3	401.2	399.5	396.8	395.9
30°	377.9	378.3	382.8	386.1	392.3	395.8	398.2	397.3	396.0	393.8	392.1
30.5°	373.6	375.3	378.8	382.3	388.3	392.1	393.1	393.3	391.3	389.5	387.6
31°	369.7	371.7	374.5	377.9	384.3	387.8	389.4	389.3	387.1	385.2	383.0
31.5°	364.7	367.4	370.0	373.7	380.0	383.8	385.1	384.4	382.5	380.9	379.3
32°	361.4	362.6	366.1	369.4	375.5	378.9	380.7	379.5	378.3	376.6	374.4
32.5°	356.7	359.0	361.8	365.3	371.8	375.4	376.4	374.7	373.1	371.4	369.7
33°	351.8	354.0	357.3	360.6	366.8	370.1	371.9	370.6	367.8	366.8	364.6
33.5°	347.9	349.4	353.2	356.9	362.9	365.9	366.7	365.2	363.6	361.9	360.6
34°	343.3	344.8	348.6	352.1	358.1	361.6	362.1	360.1	358.8	356.5	354.7
34.5°	338.8	340.1	343.8	347.0	353.6	356.9	357.2	355.1	353.3	352.3	349.0
35°	334.0	335.0	339.0	342.0	348.7	352.3	352.4	349.7	347.1	346.6	345.3
35.5°	328.7	330.5	335.0	337.9	344.2	346.9	347.1	344.7	342.2	341.2	339.5
36°	323.5	325.6	329.2	333.4	339.2	342.1	341.4	339.2	337.0	335.9	334.5
36.5°	319.0	320.2	323.8	328.0	334.3	336.7	336.4	333.8	330.9	329.9	328.3
37°	313.6	315.5	319.7	322.7	329.3	331.6	331.0	327.9	326.0	325.1	323.0
37.5°	308.5	310.8	314.4	317.0	324.1	326.5	325.4	322.3	319.6	319.0	317.7
38°	303.4	305.4	309.1	311.7	319.2	320.6	319.8	316.5	313.5	313.4	311.9
38.5°	297.7	300.2	304.2	307.0	313.3	315.7	314.2	310.4	308.2	307.6	306.4
39°	292.7	294.6	298.4	302.3	308.3	309.4	308.3	304.1	302.0	301.1	300.1
39.5°	287.3	290.0	292.9	296.7	302.3	304.3	302.5	298.2	295.3	295.5	294.1
40°	281.6	284.4	288.0	291.1	297.1	298.7	296.2	292.0	289.5	289.2	287.9
40.5°	276.3	278.3	282.4	285.4	291.6	292.7	290.9	285.9	282.9	283.3	282.2
41°	270.8	273.3	277.0	280.2	286.0	287.1	284.6	279.5	276.7	277.1	276.1
41.5°	265.2	267.2	271.5	274.3	280.1	281.4	278.7	273.0	270.7	270.9	269.6
42°	259.9	262.1	265.9	268.4	274.5	275.3	272.2	266.5	263.6	264.0	263.2
42.5°	254.0	256.5	260.0	263.5	269.0	269.7	266.3	260.7	257.9	258.5	257.6
43°	248.8	251.1	255.0	257.7	263.2	263.5	260.1	254.1	251.8	252.1	251.6
43.5°	243.1	245.5	248.9	252.0	257.3	257.9	254.0	247.8	244.9	246.0	245.2

TEST NUMBER: P639487

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	226.3	229.1	231.8	235.3	240.3	239.9	235.5	228.9	226.4	227.5	227.5
45.5°	221.0	223.7	226.6	229.5	234.3	233.7	229.5	222.8	220.6	221.5	221.5
46°	215.3	217.7	221.4	224.1	228.8	228.4	223.0	216.8	214.1	215.8	215.9
46.5°	210.2	212.6	215.8	218.5	223.1	222.3	217.6	210.7	208.2	210.1	209.5
47°	204.6	207.4	210.3	213.0	217.2	216.7	211.2	204.7	202.8	204.1	204.3
47.5°	199.3	201.6	204.8	207.5	211.8	210.7	205.5	198.9	196.8	198.2	198.6
48°	194.2	196.5	199.5	201.9	206.3	205.1	199.9	193.3	191.1	192.5	192.8
48.5°	188.5	190.9	194.4	196.5	200.9	200.2	194.1	187.7	185.5	187.1	187.6
49°	183.7	185.9	188.8	191.7	195.8	193.9	188.5	182.3	180.1	181.6	182.6
49.5°	178.4	180.7	183.7	186.0	190.1	188.8	183.1	176.6	174.6	176.2	177.1
50°	173.7	175.8	178.4	180.8	185.0	183.5	177.7	171.7	169.6	171.0	171.7
50.5°	168.5	170.5	173.7	175.6	179.5	178.3	172.3	166.2	164.2	166.0	167.0
51°	163.8	165.7	168.4	170.5	174.7	173.1	167.4	161.2	159.3	161.1	161.8
51.5°	159.0	161.2	163.5	165.6	169.6	168.0	162.4	156.3	154.4	155.9	157.0
52°	154.3	156.1	158.6	160.8	164.6	163.0	157.3	151.7	149.8	151.3	152.3
52.5°	149.5	151.3	154.0	155.9	159.7	158.0	152.3	146.8	145.3	146.6	147.7
53°	144.6	146.8	149.4	151.0	155.0	153.3	147.6	142.3	140.7	141.9	143.0
53.5°	140.5	142.5	144.8	146.5	150.1	148.6	143.1	137.9	136.3	137.5	138.7
54°	136.0	138.0	139.9	141.8	145.6	143.7	138.4	133.7	132.1	133.2	134.3
54.5°	131.9	133.6	135.7	137.4	141.2	139.4	134.2	129.3	127.9	128.8	130.2
55°	127.6	129.5	131.5	133.5	136.7	135.4	129.9	125.5	123.9	124.8	126.0
55.5°	123.4	125.4	127.0	128.9	132.3	130.6	125.8	121.3	119.9	120.9	122.0
56°	119.7	121.2	123.1	124.8	128.0	126.4	121.7	117.7	116.2	117.0	118.3
56.5°	115.7	117.5	119.2	120.5	123.7	122.2	117.9	113.8	112.4	113.3	114.3
57°	111.9	113.6	115.1	116.7	119.8	118.3	114.0	110.3	108.6	109.5	110.6
57.5°	108.4	109.6	111.4	112.8	115.8	114.3	110.3	106.7	105.3	106.1	107.0
58°	104.5	106.1	107.7	109.0	111.8	110.6	106.8	103.1	101.6	102.5	103.5
58.5°	101.2	102.3	103.8	105.2	107.9	106.9	103.2	100.1	98.6	99.1	100.3
59°	97.7	98.8	100.1	101.4	104.3	103.0	99.6	96.7	95.4	95.9	96.9
59.5°	94.0	95.4	96.9	98.1	100.7	99.5	96.3	93.4	92.0	92.8	93.7
60°	90.8	92.0	93.5	94.5	97.2	96.2	93.0	90.3	89.2	89.6	90.4
60.5°	87.7	88.8	90.1	91.1	93.7	92.6	89.8	87.4	86.2	86.5	87.4
61°	84.3	85.4	86.6	88.0	90.4	89.4	86.8	84.3	83.3	83.5	84.6
61.5°	81.4	82.4	83.4	84.5	87.2	86.1	83.7	81.6	80.6	80.7	81.8
62°	78.5	79.2	80.5	81.5	83.8	83.1	80.8	78.8	77.8	77.9	79.0
62.5°	75.6	76.3	77.3	78.3	80.8	80.0	78.0	76.2	75.2	75.2	76.4
63°	72.6	73.5	74.5	75.4	77.7	77.0	75.2	73.4	72.4	72.5	73.6
63.5°	69.9	70.6	71.5	72.5	74.8	74.1	72.3	70.7	70.0	70.1	70.8
64°	67.2	67.8	68.7	69.7	71.8	71.1	69.7	68.3	67.6	67.6	68.2
64.5°	64.5	65.2	66.1	66.8	68.9	68.4	67.0	65.8	65.1	65.2	65.8
65°	62.0	62.6	63.5	64.0	66.0	65.6	64.5	63.4	62.7	62.8	63.4
65.5°	59.5	60.1	60.8	61.5	63.4	63.1	62.1	61.1	60.4	60.4	61.0
66°	57.0	57.5	58.3	58.9	60.7	60.4	59.7	58.8	58.2	58.2	58.7

TEST NUMBER: P639487

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	50.4	50.7	51.3	51.8	53.4	53.2	52.9	52.3	51.9	52.0	52.3
68°	48.2	48.6	49.0	49.6	51.0	51.0	50.8	50.2	49.8	50.0	50.2
68.5°	46.2	46.5	47.0	47.3	48.8	48.8	48.7	48.3	47.9	48.0	48.2
69°	44.3	44.5	44.9	45.2	46.6	46.6	46.7	46.3	46.1	46.1	46.3
69.5°	42.4	42.6	42.9	43.2	44.5	44.6	44.7	44.4	44.1	44.2	44.4
70°	40.5	40.7	40.9	41.1	42.4	42.6	42.7	42.6	42.3	42.5	42.6
70.5°	38.8	38.9	39.2	39.4	40.5	40.7	41.0	40.8	40.6	40.7	40.9
71°	37.0	37.2	37.3	37.5	38.6	38.9	39.2	39.1	38.8	39.0	39.2
71.5°	35.4	35.5	35.6	35.7	36.8	37.0	37.4	37.4	37.2	37.3	37.5
72°	34.4	34.1	34.1	33.9	35.1	35.3	35.7	35.7	35.7	35.8	35.9
72.5°	32.8	32.7	32.7	32.5	33.4	33.7	34.1	34.2	34.1	34.2	34.3
73°	31.4	31.2	31.2	31.1	31.8	32.2	32.7	32.7	32.7	32.8	32.8
73.5°	29.8	29.7	29.7	29.6	30.3	30.6	31.1	31.2	31.2	31.4	31.4
74°	28.3	28.2	28.2	28.1	28.9	29.2	29.6	29.8	29.8	29.9	30.0
74.5°	26.9	26.9	26.8	26.7	27.5	27.8	28.2	28.4	28.4	28.5	28.7
75°	25.7	25.6	25.5	25.4	26.1	26.5	26.9	27.1	27.1	27.2	27.3
75.5°	24.5	24.4	24.3	24.3	24.9	25.2	25.6	25.8	25.8	25.9	26.0
76°	23.3	23.2	23.1	23.1	23.8	24.0	24.4	24.5	24.5	24.7	24.8
76.5°	22.2	22.1	22.0	22.0	22.7	22.8	23.2	23.3	23.4	23.5	23.7
77°	21.1	21.0	20.9	20.9	21.5	21.8	22.1	22.2	22.3	22.5	22.6
77.5°	20.1	19.9	19.8	19.8	20.4	20.7	21.1	21.2	21.3	21.5	21.6
78°	18.9	18.8	18.7	18.7	19.3	19.6	20.0	20.2	20.2	20.5	20.6
78.5°	17.8	17.7	17.6	17.5	18.2	18.5	18.9	19.0	19.2	19.4	19.5
79°	16.7	16.6	16.4	16.4	17.1	17.4	17.8	17.9	18.1	18.3	18.4
79.5°	15.6	15.5	15.4	15.3	16.0	16.3	16.7	16.9	17.0	17.3	17.3
80°	14.6	14.4	14.3	14.2	14.8	15.2	15.6	15.9	16.0	16.3	16.4
80.5°	13.5	13.4	13.3	13.2	13.8	14.1	14.5	14.8	15.0	15.2	15.4
81°	12.6	12.4	12.2	12.1	12.8	13.1	13.5	13.8	13.9	14.2	14.3
81.5°	11.5	11.3	11.2	11.0	11.7	12.1	12.5	12.8	12.9	13.2	13.3
82°	10.6	10.5	10.3	10.2	10.8	11.0	11.5	11.7	11.9	12.2	12.3
82.5°	9.7	9.5	9.3	9.2	9.9	10.2	10.6	10.8	10.9	11.2	11.3
83°	8.6	8.5	8.3	8.3	8.9	9.2	9.7	9.9	10.1	10.3	10.5
83.5°	7.7	7.6	7.4	7.3	8.0	8.3	8.8	9.0	9.2	9.5	9.6
84°	6.9	6.7	6.5	6.5	7.1	7.4	7.8	8.1	8.3	8.6	8.7
84.5°	6.0	5.8	5.6	5.5	6.1	6.5	6.9	7.2	7.4	7.7	7.8
85°	5.0	4.9	4.7	4.7	5.2	5.6	6.0	6.3	6.5	6.8	6.9
85.5°	4.3	4.1	3.9	3.9	4.4	4.7	5.1	5.4	5.6	5.8	6.0
86°	3.5	3.3	3.3	3.2	3.6	3.9	4.3	4.5	4.7	4.9	5.1
86.5°	2.8	2.6	2.6	2.4	2.8	3.1	3.5	3.8	4.0	4.1	4.2
87°	2.1	2.0	1.9	1.7	2.0	2.3	2.7	3.0	3.2	3.4	3.5
87.5°	1.4	1.3	1.2	1.0	1.4	1.6	1.9	2.2	2.4	2.6	2.7
88°	0.7	0.6	0.5	0.5	0.8	1.0	1.4	1.6	1.7	1.9	2.0
88.5°	0.3	0.4	0.3	0.2	0.3	0.5	0.8	1.0	1.1	1.3	1.4



TEST NUMBER: P639487
CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2

TEST NUMBER: P639487

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	507.3	507.3	507.3	507.3	507.3	507.3
0.5°	506.8	507.3	507.6	507.5	507.0	506.5
1°	507.2	506.7	506.5	506.8	507.2	506.2
1.5°	508.4	506.0	507.0	507.1	506.9	506.0
2°	506.3	506.1	506.4	505.9	505.8	505.1
2.5°	507.5	505.6	505.6	505.7	505.9	505.5
3°	506.5	505.7	505.2	505.1	505.3	504.4
3.5°	505.3	505.4	504.8	504.9	504.1	503.0
4°	505.3	503.9	504.2	504.0	503.3	501.9
4.5°	505.0	503.9	503.4	503.3	502.2	502.3
5°	504.0	501.7	502.3	502.2	501.7	501.4
5.5°	503.0	501.8	501.0	501.3	500.6	500.1
6°	502.7	501.1	500.7	499.9	499.7	498.9
6.5°	501.8	500.0	499.8	499.2	499.3	497.9
7°	501.0	498.6	497.9	498.6	497.1	497.1
7.5°	499.6	497.7	497.3	496.7	496.5	495.9
8°	498.6	496.5	495.8	495.7	495.0	494.3
8.5°	498.0	495.7	494.6	493.6	493.2	492.4
9°	495.5	493.8	493.3	492.4	492.6	492.3
9.5°	494.1	492.8	491.7	491.1	490.6	490.2
10°	493.9	491.1	490.7	490.1	488.8	488.2
10.5°	493.1	490.1	488.9	488.0	486.6	487.0
11°	492.2	488.2	487.3	486.7	485.8	484.8
11.5°	489.4	488.4	485.8	485.2	484.1	483.6
12°	488.6	484.6	484.1	483.3	482.0	482.1
12.5°	485.7	483.8	481.9	481.1	480.2	480.1
13°	485.2	481.8	479.6	479.2	479.1	477.8
13.5°	483.8	480.8	478.3	477.6	476.3	476.4
14°	481.4	478.0	476.8	475.6	474.5	474.1
14.5°	479.1	476.2	474.4	473.8	472.8	471.5
15°	478.1	473.7	471.6	471.2	470.0	470.4
15.5°	475.2	471.3	470.0	468.3	467.5	467.2
16°	473.2	469.5	467.9	466.7	465.9	465.1
16.5°	470.9	467.0	465.3	464.4	463.3	463.1
17°	469.1	465.2	463.3	461.5	460.5	460.1
17.5°	466.5	462.6	461.1	459.1	458.2	457.6
18°	464.1	459.8	458.0	456.7	455.9	455.2
18.5°	462.1	457.6	455.7	453.9	452.6	452.7
19°	459.5	454.6	452.8	451.2	449.7	449.7
19.5°	455.9	452.0	450.0	448.3	447.5	446.9
20°	454.0	448.7	447.9	445.3	444.6	444.5
20.5°	450.8	446.8	444.5	442.8	441.9	441.2
21°	448.3	444.3	441.8	439.9	438.8	437.1

TEST NUMBER: P639487

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	440.9	435.0	432.8	431.5	429.7	429.7
23°	436.9	431.7	429.6	427.8	427.0	426.5
23.5°	433.8	429.4	426.7	424.4	423.8	423.8
24°	430.3	426.2	424.2	421.5	420.6	420.2
24.5°	428.3	423.0	421.0	418.3	417.3	417.2
25°	424.2	420.2	417.4	415.8	414.8	414.3
25.5°	420.8	416.4	414.5	411.6	410.9	410.4
26°	418.8	413.2	411.2	408.7	407.1	407.0
26.5°	414.4	410.2	407.7	404.9	404.3	403.9
27°	411.3	406.5	404.0	401.9	400.5	400.5
27.5°	408.2	402.5	399.9	398.0	397.0	396.8
28°	404.2	398.8	396.0	394.7	393.6	393.4
28.5°	400.8	395.1	392.5	390.5	389.4	389.8
29°	396.0	391.0	388.2	386.7	385.9	386.1
29.5°	392.5	387.7	384.8	382.4	381.8	381.9
30°	388.7	383.2	381.0	378.7	378.5	377.9
30.5°	384.5	379.3	376.5	374.5	373.9	373.6
31°	380.5	374.3	372.1	370.2	369.3	369.7
31.5°	376.5	370.3	368.1	366.0	365.1	364.7
32°	370.9	365.6	363.4	361.5	360.6	361.4
32.5°	366.1	360.6	358.7	356.9	356.7	356.7
33°	361.7	356.2	354.2	352.1	351.8	351.8
33.5°	356.4	351.3	349.2	347.8	347.4	347.9
34°	352.6	346.3	344.0	342.7	342.8	343.3
34.5°	346.7	341.5	339.0	338.0	337.5	338.8
35°	341.6	336.0	333.9	332.9	332.8	334.0
35.5°	336.6	330.8	328.7	327.4	328.0	328.7
36°	330.9	325.1	323.6	322.8	323.0	323.5
36.5°	326.0	320.0	318.1	317.6	317.7	319.0
37°	319.8	314.3	312.8	312.0	312.4	313.6
37.5°	314.8	308.9	307.3	307.1	307.4	308.5
38°	309.0	303.0	301.7	301.5	302.0	303.4
38.5°	303.2	297.0	296.3	295.8	296.5	297.7
39°	297.0	291.7	290.2	290.4	291.8	292.7
39.5°	291.5	285.7	285.1	285.2	285.9	287.3
40°	285.8	279.6	278.7	279.2	280.2	281.6
40.5°	279.3	273.9	273.4	273.8	275.4	276.3
41°	273.5	267.8	267.5	268.0	269.2	270.8
41.5°	267.6	262.1	261.7	262.4	263.5	265.2
42°	261.2	256.7	256.1	257.0	258.0	259.9
42.5°	255.1	250.3	250.3	251.3	252.6	254.0
43°	249.0	244.4	244.5	245.2	246.8	248.8
43.5°	243.0	238.6	238.7	239.6	241.4	243.1

TEST NUMBER: P639487

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	225.2	221.3	221.8	222.5	224.5	226.3
45.5°	219.1	215.5	216.0	217.4	219.1	221.0
46°	213.8	210.1	210.7	211.5	213.4	215.3
46.5°	208.2	204.3	205.5	206.4	208.0	210.2
47°	202.5	199.0	199.7	201.1	202.6	204.6
47.5°	196.9	193.5	194.1	195.4	197.5	199.3
48°	191.6	188.3	189.3	189.9	192.0	194.2
48.5°	186.3	183.0	183.9	185.1	186.7	188.5
49°	181.2	178.0	179.0	180.0	181.6	183.7
49.5°	176.0	172.9	173.6	174.7	176.6	178.4
50°	170.6	167.7	168.6	169.9	171.6	173.7
50.5°	165.7	163.1	163.8	164.6	166.4	168.5
51°	161.1	158.2	159.1	160.2	161.8	163.8
51.5°	156.3	153.8	154.5	155.4	157.1	159.0
52°	151.7	149.0	149.7	150.7	152.3	154.3
52.5°	146.8	144.4	145.3	146.2	147.4	149.5
53°	142.4	140.2	141.0	141.7	143.1	144.6
53.5°	138.3	136.0	136.5	137.5	138.6	140.5
54°	134.1	131.4	132.3	133.0	134.5	136.0
54.5°	130.0	127.6	128.2	128.8	130.1	131.9
55°	125.6	123.7	124.0	124.8	125.9	127.6
55.5°	121.9	119.9	120.2	120.7	122.0	123.4
56°	118.3	116.1	116.3	117.0	118.2	119.7
56.5°	114.2	112.3	112.7	113.1	114.0	115.7
57°	110.7	109.0	109.0	109.4	110.4	111.9
57.5°	107.4	105.2	105.4	105.8	106.6	108.4
58°	103.8	101.9	101.9	102.4	103.2	104.5
58.5°	100.5	98.5	98.5	98.8	99.5	101.2
59°	97.2	95.3	95.5	95.4	96.3	97.7
59.5°	93.9	92.2	92.1	92.2	92.9	94.0
60°	90.9	88.9	89.1	89.1	89.8	90.8
60.5°	87.9	86.0	85.7	85.9	86.7	87.7
61°	84.9	83.0	83.0	82.8	83.4	84.3
61.5°	82.1	80.2	80.0	79.9	80.4	81.4
62°	79.3	77.4	76.9	77.1	77.5	78.5
62.5°	76.5	74.5	74.4	74.3	74.9	75.6
63°	73.8	72.0	71.7	71.5	72.0	72.6
63.5°	71.0	69.4	69.1	68.9	69.2	69.9
64°	68.5	66.8	66.5	66.4	66.6	67.2
64.5°	66.0	64.4	64.1	63.8	64.1	64.5
65°	63.5	62.0	61.6	61.5	61.5	62.0
65.5°	61.2	59.7	59.2	59.0	59.1	59.5
66°	59.0	57.4	57.0	56.6	56.7	57.0



TEST NUMBER: P639487

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	52.5	51.0	50.6	50.3	50.1	50.4
68°	50.3	49.1	48.6	48.2	48.0	48.2
68.5°	48.3	47.0	46.6	46.2	46.0	46.2
69°	46.5	45.2	44.7	44.3	44.2	44.3
69.5°	44.6	43.4	42.8	42.4	42.2	42.4
70°	42.7	41.6	41.1	40.7	40.4	40.5
70.5°	41.0	39.8	39.4	38.9	38.7	38.8
71°	39.3	38.2	37.7	37.3	37.0	37.0
71.5°	37.5	36.5	36.1	35.7	35.5	35.4
72°	36.0	35.0	34.6	33.9	34.3	34.4
72.5°	34.4	33.6	33.1	32.7	32.8	32.8
73°	32.9	32.3	31.8	31.3	31.3	31.4
73.5°	31.5	30.9	30.4	29.9	29.8	29.8
74°	30.1	29.4	29.0	28.5	28.3	28.3
74.5°	28.8	28.0	27.6	27.2	27.0	26.9
75°	27.5	26.8	26.4	26.0	25.7	25.7
75.5°	26.2	25.5	25.2	24.8	24.5	24.5
76°	25.0	24.3	24.0	23.6	23.4	23.3
76.5°	23.8	23.2	22.9	22.6	22.4	22.2
77°	22.7	22.1	21.8	21.5	21.3	21.1
77.5°	21.7	21.1	20.8	20.5	20.3	20.1
78°	20.6	20.0	19.7	19.4	19.1	18.9
78.5°	19.6	19.0	18.7	18.3	18.0	17.8
79°	18.5	17.9	17.6	17.2	16.9	16.7
79.5°	17.5	16.8	16.5	16.2	15.9	15.6
80°	16.4	15.8	15.5	15.1	14.8	14.6
80.5°	15.4	14.8	14.5	14.1	13.8	13.5
81°	14.3	13.8	13.4	13.1	12.7	12.6
81.5°	13.4	12.8	12.5	12.1	11.7	11.5
82°	12.4	11.8	11.4	11.0	10.8	10.6
82.5°	11.4	10.9	10.6	10.2	9.9	9.7
83°	10.5	10.0	9.7	9.3	8.9	8.6
83.5°	9.6	9.1	8.7	8.3	7.9	7.7
84°	8.7	8.1	7.8	7.4	7.1	6.9
84.5°	7.8	7.2	6.9	6.6	6.2	6.0
85°	6.9	6.4	6.0	5.7	5.3	5.0
85.5°	6.0	5.5	5.1	4.8	4.4	4.3
86°	5.1	4.6	4.3	4.0	3.7	3.5
86.5°	4.3	3.9	3.6	3.3	3.0	2.8
87°	3.6	3.2	2.9	2.6	2.3	2.1
87.5°	2.8	2.5	2.2	1.9	1.6	1.4
88°	2.0	1.8	1.5	1.2	0.8	0.7
88.5°	1.4	1.1	0.8	0.5	0.3	0.3



TEST NUMBER: P639487
CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.3	0.3	0.2	0.2	0.2	0.2



Report Generated By 670245859 / DESKTOP-T8S5UU9





— 0°-180° - - 45°-225° - - - - 90°-270° - · - 135°-315°







21.5°	436.4	436.5	439.9	442.8	447.1	450.7	452.6	452.9	451.6	449.3	448.0
22°	432.1	433.6	436.8	439.6	444.5	447.5	450.3	450.1	449.5	447.7	445.0



44°	237.4	240.2	243.7	246.7	251.3	251.3	247.9	241.2	238.9	239.7	239.9
44.5°	232.2	234.2	238.1	241.1	245.7	246.0	241.6	235.1	232.2	233.9	233.1



66.5°	54.7	55.2	55.9	56.5	58.2	57.9	57.3	56.6	56.1	56.0	56.4
67°	52.6	53.0	53.5	54.1	55.7	55.5	55.0	54.4	54.0	54.2	54.4



89°	0.3	0.3	0.2	0.2	0.2	0.2	0.4	0.4	0.5	0.7	0.8
89.5°	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.3





21.5°	445.6	441.0	439.1	436.9	436.1	436.4
22°	441.9	438.2	435.9	433.5	432.9	432.1



44°	237.1	232.9	232.8	234.0	235.7	237.4
44.5°	231.2	227.1	227.6	228.5	230.0	232.2



66.5°	56.6	55.2	54.7	54.5	54.5	54.7
67°	54.6	53.2	52.6	52.3	52.2	52.6



89°	0.8	0.5	0.3	0.2	0.2	0.3
89.5°	0.4	0.3	0.2	0.2	0.2	0.2



(END OF REPORT)