

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: P639484

Luminaire Tested: RL4LS9FSD2W1EWHDM -900LM -2700K

Issue Date: 1/25/2023

Test Information

Test Method: LM-79-2019
Report Number: P639484
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 -2700K
Description: 4IN DIRECT MOUNT, SELECTABLE LUMEN AND CCT, MATTE WHITE BAFFLE
Light Source: (1) SELECTABLE LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 945.0 lumens
Efficiency: N/A
Efficacy: 82.2 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

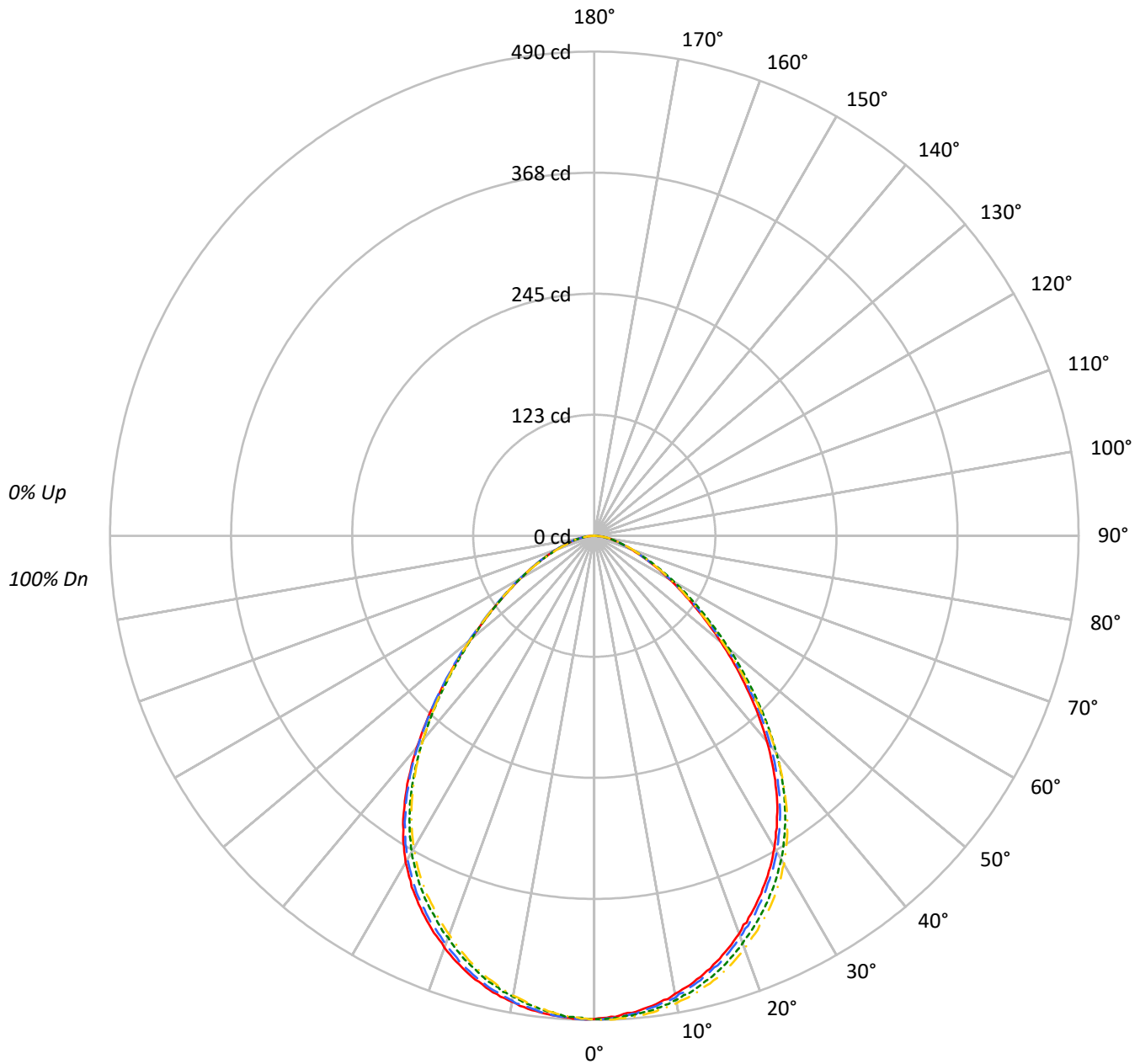
Input Watts (W): 11.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P639484

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -2700K

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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	107	103	100	108	105	101	99	101	98	96	97	95	93	93	91	90	88		
2	102	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77		
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67		
4	88	77	70	64	86	76	69	63	74	68	63	71	66	62	69	65	61	59		
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52		
6	76	64	56	50	74	63	55	50	61	55	50	60	54	49	58	53	49	47		
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42		
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38		
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35		
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	60461	60461	60461	60461
5°	59985	60320	60457	60022
10°	59072	59863	60101	59424
15°	58039	59050	59523	58449
20°	56371	57700	58370	56911
25°	54479	56089	56702	55257
30°	52004	53988	54488	52746
35°	48583	50740	50499	48885
40°	43820	46223	45030	43497
45°	38138	40498	38156	37299
50°	32206	34283	31456	31091
55°	26525	28400	25749	25706
60°	21629	23161	21258	21184
65°	17488	18599	17693	17488
70°	14129	14780	14743	14491
75°	11843	11986	12463	12320
80°	10036	10178	11032	10890
85°	6807	7090	8792	8650

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 40498 cd/sqm



TEST NUMBER: P639484

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.0	4.9
10°-20°	129.3	13.7
20°-30°	187.5	19.8
30°-40°	204.9	21.7
40°-50°	170.3	18.0
50°-60°	111.4	11.8
60°-70°	61.3	6.5
70°-80°	27.6	2.9
80°-90°	6.6	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°	362.8	38.4
0°-40°	567.8	60.1
0°-60°	849.5	89.9
0°-90°	945.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	945.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	489	489	489	489	489	
5°	484	486	487	484	484	46
15°	454	462	465	457	454	127
25°	400	411	416	405	400	183
35°	322	336	335	324	322	200
45°	218	232	218	213	218	168
55°	123	132	120	119	123	111
65°	60	64	60	60	60	60
75°	25	25	26	26	25	27
85°	5	5	6	6	5	6
90°	0	0	0	0	0	

TEST NUMBER: P639484

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	489.2	489.2	489.2	489.2	489.2	489.2	489.2	489.2	489.2	489.2	489.2
0.5°	488.4	488.2	489.5	489.4	489.1	489.6	489.7	489.4	489.2	488.2	489.5
1°	488.1	487.4	489.4	489.6	489.1	490.0	490.1	489.5	489.7	488.3	489.5
1.5°	487.9	488.1	488.5	488.7	489.0	489.8	489.7	489.7	489.1	488.4	489.6
2°	487.1	487.1	488.8	488.4	488.7	488.9	489.9	489.4	489.0	488.4	489.1
2.5°	487.4	486.2	487.9	487.9	488.5	489.2	489.9	489.4	489.3	489.2	489.1
3°	486.4	486.0	487.4	487.6	488.9	489.5	489.1	489.6	488.4	487.8	488.5
3.5°	485.0	486.3	486.9	486.7	487.2	488.6	489.3	489.1	488.4	487.5	487.9
4°	484.0	485.1	486.6	486.5	486.7	488.4	489.0	488.8	487.9	487.4	488.0
4.5°	484.4	484.4	485.2	486.3	487.2	488.7	488.7	488.2	487.5	486.7	487.5
5°	483.5	483.2	485.7	486.2	486.2	487.0	488.0	488.6	487.3	487.0	487.0
5.5°	482.3	483.1	483.5	484.7	485.3	487.6	487.9	487.2	486.5	485.8	486.0
6°	481.1	481.0	483.0	483.8	484.8	486.0	487.2	487.1	486.2	485.6	485.9
6.5°	480.1	480.3	481.8	483.4	484.3	485.9	486.3	486.3	485.4	484.8	484.9
7°	479.4	479.3	481.1	482.7	483.7	485.0	486.0	485.7	484.7	484.3	483.6
7.5°	478.2	478.3	480.2	480.4	482.3	483.5	485.0	484.8	484.2	482.4	482.6
8°	476.7	476.6	478.6	479.5	481.8	483.2	483.3	484.6	483.5	482.0	481.7
8.5°	474.9	475.5	477.3	479.3	480.3	482.3	483.3	483.0	482.3	481.7	481.2
9°	474.8	474.5	476.9	477.8	479.8	481.1	482.3	482.5	481.6	479.7	480.0
9.5°	472.7	472.6	475.4	475.8	478.0	480.1	481.0	481.9	479.9	478.7	479.8
10°	470.7	471.9	474.5	475.4	477.0	478.9	480.4	480.3	478.9	479.0	478.0
10.5°	469.6	469.6	471.4	473.3	475.9	477.6	478.7	479.1	478.1	476.9	476.3
11°	467.5	467.9	471.1	471.9	473.6	476.9	477.7	478.5	476.7	476.1	475.3
11.5°	466.3	466.5	468.7	469.5	473.3	474.5	476.9	476.4	476.2	474.1	474.4
12°	464.9	465.5	467.0	469.4	471.8	473.9	474.9	475.3	474.2	473.2	472.3
12.5°	463.0	464.0	465.5	466.9	470.1	472.1	474.2	474.0	473.5	471.2	471.2
13°	460.7	461.3	463.7	465.5	468.4	470.8	472.3	472.7	471.4	470.3	469.7
13.5°	459.4	459.4	462.4	464.3	466.7	468.8	470.6	470.6	470.2	469.1	468.0
14°	457.2	457.7	459.4	462.6	464.6	467.1	469.0	469.6	467.8	466.0	465.8
14.5°	454.7	455.9	458.3	460.8	463.4	465.9	468.0	467.4	466.1	464.7	464.6
15°	453.6	453.6	455.8	458.6	461.5	464.1	465.8	466.4	465.2	463.4	462.4
15.5°	450.5	451.6	453.2	456.8	459.2	462.1	464.7	464.0	463.3	462.0	460.7
16°	448.5	448.7	452.5	453.1	457.5	460.4	462.7	462.6	461.1	460.1	458.3
16.5°	446.5	446.9	450.1	451.7	455.4	458.5	460.4	461.1	459.4	457.5	456.6
17°	443.7	444.7	447.0	449.1	453.3	455.9	458.3	458.4	457.0	454.7	454.0
17.5°	441.3	442.1	445.0	446.4	450.9	454.4	456.4	455.9	454.9	453.2	452.6
18°	439.0	440.3	442.6	444.8	448.4	451.5	454.0	454.6	453.1	450.7	449.2
18.5°	436.6	436.6	439.9	441.3	446.4	449.5	451.6	452.0	450.9	449.0	446.9
19°	433.7	434.7	437.4	439.6	443.9	447.3	449.3	449.3	448.0	446.1	444.8
19.5°	430.9	431.9	434.6	437.0	441.6	444.2	447.2	447.5	445.9	444.2	442.5
20°	428.6	429.5	432.0	434.4	438.7	442.1	444.4	444.6	443.8	441.8	439.9
20.5°	425.4	427.1	429.4	431.2	435.7	439.5	441.9	441.9	440.2	438.9	437.3
21°	421.5	423.0	425.9	428.7	433.6	436.8	439.4	439.5	438.0	435.5	434.2

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	414.4	415.5	418.2	421.0	425.7	429.0	431.8	432.3	430.3	428.7	426.7
23°	411.3	412.5	416.0	417.6	422.9	426.1	428.3	429.3	427.6	425.3	424.2
23.5°	408.6	409.7	412.4	415.5	420.0	423.9	426.5	426.2	424.8	423.3	421.1
24°	405.2	406.2	409.3	411.5	417.2	421.4	423.1	424.7	421.7	419.9	418.3
24.5°	402.3	403.3	406.7	409.3	414.6	418.1	420.0	420.7	419.1	417.4	414.8
25°	399.5	400.6	403.3	407.0	411.3	415.5	417.7	417.6	415.8	414.8	413.1
25.5°	395.8	397.1	400.5	402.7	408.9	412.5	414.8	414.4	413.0	410.9	409.1
26°	392.5	393.7	397.0	400.4	404.9	409.0	411.5	411.8	409.5	407.6	406.4
26.5°	389.4	391.2	393.4	397.2	402.1	407.1	408.4	408.1	406.4	405.0	403.5
27°	386.2	387.3	390.4	393.5	399.3	403.0	404.6	404.7	403.4	400.9	399.7
27.5°	382.6	384.1	386.9	390.4	395.7	399.6	401.5	401.5	400.5	398.2	396.4
28°	379.3	380.4	384.0	387.3	392.6	396.1	398.0	398.4	395.6	394.4	392.9
28.5°	375.9	377.0	380.1	383.2	389.1	392.7	394.9	394.5	392.9	391.0	388.9
29°	372.3	372.9	376.3	379.3	385.0	389.3	391.0	390.2	388.9	387.5	385.4
29.5°	368.2	369.8	372.7	376.0	381.7	385.5	386.9	386.8	385.2	382.6	381.7
30°	364.4	364.8	369.2	372.3	378.3	381.7	384.0	383.1	381.8	379.7	378.1
30.5°	360.2	361.9	365.2	368.6	374.5	378.1	379.1	379.3	377.3	375.6	373.8
31°	356.5	358.4	361.1	364.4	370.6	374.0	375.5	375.4	373.3	371.5	369.4
31.5°	351.7	354.3	356.8	360.3	366.4	370.1	371.4	370.7	368.8	367.3	365.7
32°	348.5	349.7	353.0	356.2	362.1	365.3	367.1	365.9	364.8	363.1	361.0
32.5°	343.9	346.1	348.9	352.3	358.5	362.0	362.9	361.3	359.8	358.1	356.5
33°	339.2	341.3	344.5	347.7	353.7	356.9	358.6	357.4	354.7	353.7	351.6
33.5°	335.5	336.9	340.6	344.1	350.0	352.9	353.6	352.2	350.6	349.0	347.8
34°	331.1	332.5	336.2	339.5	345.3	348.7	349.2	347.2	345.9	343.7	342.0
34.5°	326.7	328.0	331.5	334.6	341.0	344.1	344.4	342.4	340.7	339.7	336.5
35°	322.0	323.0	326.9	329.8	336.3	339.7	339.8	337.2	334.7	334.2	333.0
35.5°	317.0	318.7	323.0	325.8	331.9	334.5	334.7	332.4	330.0	329.1	327.4
36°	312.0	314.0	317.4	321.5	327.1	329.9	329.2	327.1	324.9	323.9	322.5
36.5°	307.6	308.8	312.3	316.3	322.3	324.6	324.3	321.9	319.1	318.1	316.6
37°	302.4	304.2	308.3	311.2	317.5	319.7	319.2	316.2	314.4	313.5	311.5
37.5°	297.5	299.7	303.1	305.7	312.5	314.8	313.8	310.8	308.2	307.6	306.4
38°	292.6	294.5	298.0	300.5	307.8	309.2	308.4	305.2	302.3	302.2	300.7
38.5°	287.1	289.5	293.3	296.0	302.1	304.4	302.9	299.3	297.2	296.6	295.5
39°	282.2	284.0	287.8	291.5	297.3	298.3	297.3	293.2	291.2	290.4	289.4
39.5°	277.0	279.6	282.4	286.1	291.5	293.4	291.7	287.6	284.8	285.0	283.6
40°	271.6	274.2	277.7	280.7	286.5	288.1	285.7	281.5	279.1	278.8	277.6
40.5°	266.5	268.4	272.3	275.2	281.2	282.2	280.5	275.7	272.8	273.2	272.1
41°	261.1	263.6	267.1	270.2	275.8	276.8	274.4	269.5	266.9	267.2	266.3
41.5°	255.7	257.6	261.8	264.5	270.1	271.4	268.8	263.2	261.0	261.2	259.9
42°	250.6	252.7	256.4	258.8	264.7	265.5	262.4	257.0	254.2	254.6	253.8
42.5°	245.0	247.4	250.7	254.1	259.4	260.0	256.8	251.4	248.7	249.3	248.4
43°	239.9	242.1	245.9	248.5	253.8	254.1	250.8	245.1	242.9	243.1	242.7
43.5°	234.4	236.7	240.0	243.0	248.1	248.7	245.0	238.9	236.1	237.2	236.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	218.2	220.9	223.6	226.9	231.7	231.3	227.1	220.7	218.3	219.3	219.3
45.5°	213.1	215.7	218.5	221.3	226.0	225.4	221.4	214.8	212.7	213.6	213.6
46°	207.6	209.9	213.5	216.1	220.6	220.2	215.0	209.1	206.5	208.1	208.2
46.5°	202.7	205.0	208.1	210.7	215.1	214.3	209.8	203.2	200.8	202.6	202.1
47°	197.3	199.9	202.8	205.4	209.4	209.0	203.7	197.4	195.5	196.8	197.0
47.5°	192.2	194.4	197.5	200.0	204.3	203.2	198.1	191.8	189.8	191.1	191.5
48°	187.3	189.5	192.4	194.7	198.9	197.7	192.7	186.4	184.3	185.6	185.9
48.5°	181.8	184.1	187.5	189.5	193.7	193.0	187.2	181.0	178.8	180.5	180.9
49°	177.1	179.3	182.1	184.9	188.8	187.0	181.8	175.8	173.6	175.1	176.0
49.5°	172.0	174.2	177.1	179.4	183.3	182.1	176.5	170.3	168.4	169.9	170.8
50°	167.5	169.5	172.0	174.3	178.3	176.9	171.3	165.6	163.6	164.9	165.6
50.5°	162.5	164.4	167.5	169.3	173.1	171.9	166.2	160.3	158.4	160.1	161.1
51°	157.9	159.8	162.4	164.4	168.5	166.9	161.5	155.4	153.6	155.3	156.0
51.5°	153.3	155.4	157.6	159.7	163.6	162.0	156.6	150.7	148.9	150.3	151.4
52°	148.8	150.5	152.9	155.0	158.8	157.1	151.7	146.3	144.5	145.9	146.9
52.5°	144.2	145.9	148.5	150.3	154.0	152.3	146.9	141.6	140.1	141.4	142.4
53°	139.5	141.6	144.1	145.6	149.5	147.8	142.4	137.3	135.6	136.8	137.9
53.5°	135.4	137.5	139.7	141.3	144.8	143.3	138.0	132.9	131.4	132.6	133.7
54°	131.1	133.0	134.9	136.7	140.4	138.6	133.4	128.9	127.4	128.4	129.5
54.5°	127.2	128.8	130.8	132.5	136.1	134.4	129.4	124.7	123.3	124.2	125.6
55°	123.1	124.9	126.8	128.7	131.8	130.5	125.3	121.0	119.5	120.4	121.5
55.5°	119.0	120.9	122.5	124.3	127.6	125.9	121.3	117.0	115.6	116.6	117.7
56°	115.4	116.9	118.7	120.4	123.4	121.9	117.4	113.5	112.0	112.8	114.0
56.5°	111.5	113.3	114.9	116.2	119.3	117.9	113.7	109.7	108.4	109.2	110.2
57°	107.9	109.5	111.0	112.5	115.5	114.0	109.9	106.4	104.7	105.6	106.6
57.5°	104.5	105.7	107.4	108.8	111.6	110.2	106.4	102.9	101.6	102.3	103.2
58°	100.8	102.3	103.9	105.1	107.8	106.6	103.0	99.4	98.0	98.9	99.8
58.5°	97.6	98.7	100.1	101.5	104.1	103.1	99.5	96.6	95.1	95.6	96.8
59°	94.2	95.3	96.6	97.8	100.6	99.3	96.1	93.2	92.0	92.4	93.4
59.5°	90.6	92.0	93.4	94.5	97.1	96.0	92.8	90.0	88.7	89.5	90.3
60°	87.5	88.7	90.1	91.1	93.7	92.7	89.7	87.1	86.0	86.4	87.2
60.5°	84.6	85.6	86.9	87.8	90.3	89.3	86.6	84.3	83.1	83.4	84.3
61°	81.3	82.4	83.5	84.9	87.2	86.2	83.7	81.3	80.3	80.5	81.6
61.5°	78.5	79.5	80.4	81.5	84.1	83.0	80.7	78.7	77.8	77.8	78.9
62°	75.7	76.4	77.7	78.6	80.8	80.2	77.9	76.0	75.1	75.2	76.2
62.5°	72.9	73.5	74.6	75.5	77.9	77.2	75.3	73.4	72.5	72.5	73.6
63°	70.0	70.8	71.8	72.7	75.0	74.3	72.5	70.7	69.8	69.9	70.9
63.5°	67.4	68.1	68.9	69.9	72.1	71.4	69.7	68.2	67.5	67.6	68.2
64°	64.8	65.4	66.2	67.2	69.2	68.5	67.2	65.8	65.2	65.2	65.8
64.5°	62.2	62.9	63.7	64.4	66.4	65.9	64.6	63.4	62.8	62.9	63.4
65°	59.8	60.4	61.2	61.7	63.6	63.3	62.2	61.1	60.5	60.6	61.1
65.5°	57.4	58.0	58.6	59.3	61.1	60.9	59.9	58.9	58.3	58.3	58.8
66°	55.0	55.5	56.2	56.8	58.6	58.3	57.6	56.7	56.2	56.2	56.6

TEST NUMBER: P639484

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -2700K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	48.6	48.9	49.4	49.9	51.5	51.3	51.0	50.4	50.0	50.1	50.4
68°	46.5	46.8	47.2	47.8	49.1	49.1	49.0	48.4	48.0	48.2	48.4
68.5°	44.5	44.8	45.3	45.6	47.0	47.0	46.9	46.6	46.2	46.3	46.5
69°	42.7	42.9	43.3	43.6	44.9	44.9	45.0	44.6	44.4	44.4	44.6
69.5°	40.9	41.1	41.4	41.7	42.9	43.0	43.1	42.8	42.5	42.6	42.8
70°	39.1	39.3	39.5	39.6	40.9	41.1	41.2	41.1	40.8	41.0	41.1
70.5°	37.4	37.5	37.8	38.0	39.1	39.3	39.5	39.4	39.2	39.3	39.5
71°	35.7	35.9	36.0	36.2	37.2	37.5	37.8	37.7	37.4	37.6	37.8
71.5°	34.2	34.3	34.4	34.5	35.5	35.7	36.1	36.1	35.9	36.0	36.2
72°	33.2	32.9	32.9	32.7	33.9	34.1	34.5	34.5	34.5	34.6	34.7
72.5°	31.7	31.5	31.5	31.3	32.3	32.5	32.9	33.0	32.9	33.0	33.1
73°	30.2	30.0	30.0	29.9	30.6	31.0	31.5	31.5	31.5	31.6	31.7
73.5°	28.7	28.6	28.6	28.5	29.2	29.5	29.9	30.0	30.0	30.2	30.2
74°	27.3	27.2	27.2	27.1	27.8	28.1	28.5	28.7	28.7	28.8	28.9
74.5°	25.9	25.9	25.8	25.7	26.5	26.8	27.2	27.4	27.4	27.5	27.6
75°	24.8	24.7	24.6	24.5	25.1	25.5	25.9	26.1	26.1	26.2	26.3
75.5°	23.6	23.5	23.4	23.4	24.0	24.3	24.7	24.9	24.9	25.0	25.1
76°	22.5	22.4	22.3	22.3	22.9	23.1	23.5	23.6	23.6	23.8	23.9
76.5°	21.4	21.3	21.2	21.2	21.9	22.0	22.4	22.5	22.6	22.7	22.8
77°	20.3	20.3	20.2	20.2	20.7	21.0	21.3	21.4	21.5	21.7	21.8
77.5°	19.4	19.2	19.1	19.1	19.7	20.0	20.3	20.4	20.5	20.7	20.8
78°	18.2	18.1	18.0	18.0	18.6	18.9	19.3	19.5	19.5	19.8	19.9
78.5°	17.2	17.1	17.0	16.9	17.6	17.9	18.2	18.3	18.5	18.7	18.8
79°	16.1	16.0	15.8	15.8	16.5	16.8	17.2	17.3	17.5	17.7	17.8
79.5°	15.1	15.0	14.9	14.8	15.5	15.7	16.1	16.3	16.4	16.7	16.7
80°	14.1	13.9	13.8	13.7	14.3	14.7	15.1	15.4	15.5	15.7	15.8
80.5°	13.1	13.0	12.9	12.8	13.3	13.6	14.0	14.3	14.5	14.7	14.9
81°	12.2	12.0	11.8	11.7	12.4	12.7	13.1	13.3	13.4	13.7	13.8
81.5°	11.1	10.9	10.8	10.7	11.3	11.7	12.1	12.4	12.5	12.8	12.9
82°	10.2	10.1	9.9	9.8	10.4	10.7	11.1	11.3	11.5	11.8	11.9
82.5°	9.3	9.1	8.9	8.8	9.5	9.8	10.2	10.4	10.6	10.8	10.9
83°	8.3	8.2	8.0	8.0	8.5	8.8	9.3	9.5	9.7	9.9	10.1
83.5°	7.4	7.3	7.1	7.0	7.7	8.0	8.4	8.6	8.8	9.1	9.2
84°	6.6	6.4	6.2	6.2	6.8	7.1	7.5	7.8	8.0	8.3	8.4
84.5°	5.8	5.6	5.4	5.3	5.9	6.2	6.6	6.9	7.1	7.4	7.5
85°	4.8	4.7	4.5	4.5	5.0	5.4	5.8	6.0	6.2	6.5	6.6
85.5°	4.1	3.9	3.7	3.7	4.2	4.5	4.9	5.2	5.4	5.6	5.8
86°	3.4	3.2	3.2	3.1	3.5	3.7	4.1	4.3	4.5	4.7	4.9
86.5°	2.7	2.5	2.5	2.3	2.7	3.0	3.4	3.6	3.8	3.9	4.0
87°	2.0	1.9	1.8	1.6	1.9	2.2	2.6	2.9	3.1	3.3	3.4
87.5°	1.3	1.2	1.2	1.0	1.3	1.5	1.8	2.1	2.3	2.5	2.6
88°	0.7	0.6	0.5	0.5	0.8	1.0	1.3	1.5	1.6	1.8	1.9
88.5°	0.3	0.4	0.3	0.2	0.3	0.5	0.8	1.0	1.1	1.2	1.3



TEST NUMBER: P639484
CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -2700K

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: P639484

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	489.2	489.2	489.2	489.2	489.2	489.2
0.5°	488.7	489.2	489.4	489.4	488.9	488.4
1°	489.1	488.6	488.4	488.7	489.1	488.1
1.5°	490.2	487.9	488.9	489.0	488.8	487.9
2°	488.2	488.0	488.3	487.8	487.7	487.1
2.5°	489.4	487.5	487.5	487.6	487.8	487.4
3°	488.4	487.6	487.1	487.1	487.2	486.4
3.5°	487.2	487.3	486.8	486.9	486.1	485.0
4°	487.2	485.9	486.2	486.0	485.3	484.0
4.5°	487.0	485.9	485.4	485.3	484.3	484.4
5°	486.0	483.8	484.4	484.3	483.8	483.5
5.5°	485.0	483.9	483.1	483.4	482.7	482.3
6°	484.7	483.2	482.8	482.1	481.9	481.1
6.5°	483.9	482.2	482.0	481.4	481.5	480.1
7°	483.1	480.8	480.1	480.8	479.4	479.4
7.5°	481.8	479.9	479.6	479.0	478.8	478.2
8°	480.8	478.8	478.1	478.0	477.4	476.7
8.5°	480.2	478.0	477.0	476.0	475.6	474.9
9°	477.8	476.2	475.7	474.9	475.1	474.8
9.5°	476.5	475.2	474.2	473.5	473.0	472.7
10°	476.3	473.5	473.1	472.6	471.3	470.7
10.5°	475.5	472.6	471.4	470.5	469.2	469.6
11°	474.7	470.7	469.9	469.3	468.4	467.5
11.5°	471.9	470.9	468.4	467.9	466.8	466.3
12°	471.1	467.3	466.8	466.0	464.8	464.9
12.5°	468.3	466.5	464.7	463.9	463.1	463.0
13°	467.9	464.6	462.5	462.1	462.0	460.7
13.5°	466.5	463.6	461.2	460.6	459.3	459.4
14°	464.2	460.9	459.8	458.6	457.6	457.2
14.5°	462.0	459.2	457.5	456.9	455.9	454.7
15°	461.0	456.8	454.8	454.4	453.3	453.6
15.5°	458.3	454.5	453.3	451.5	450.8	450.5
16°	456.3	452.7	451.1	450.0	449.2	448.5
16.5°	454.1	450.3	448.7	447.8	446.7	446.5
17°	452.3	448.6	446.7	445.0	444.0	443.7
17.5°	449.8	446.1	444.6	442.7	441.8	441.3
18°	447.5	443.4	441.6	440.4	439.6	439.0
18.5°	445.6	441.3	439.4	437.7	436.5	436.6
19°	443.1	438.4	436.7	435.1	433.7	433.7
19.5°	439.6	435.9	434.0	432.3	431.5	430.9
20°	437.8	432.7	431.9	429.4	428.7	428.6
20.5°	434.7	430.8	428.6	427.0	426.1	425.4
21°	432.3	428.4	426.0	424.2	423.1	421.5



TEST NUMBER: P639484

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	425.1	419.5	417.4	416.1	414.4	414.4
23°	421.3	416.3	414.3	412.6	411.8	411.3
23.5°	418.3	414.1	411.5	409.2	408.6	408.6
24°	415.0	411.0	409.0	406.4	405.6	405.2
24.5°	413.0	407.9	405.9	403.3	402.4	402.3
25°	409.0	405.2	402.5	400.9	400.0	399.5
25.5°	405.7	401.5	399.7	396.9	396.2	395.8
26°	403.8	398.5	396.5	394.1	392.6	392.5
26.5°	399.6	395.6	393.2	390.5	389.8	389.4
27°	396.6	392.0	389.5	387.5	386.2	386.2
27.5°	393.7	388.1	385.6	383.8	382.8	382.6
28°	389.7	384.5	381.8	380.6	379.5	379.3
28.5°	386.5	381.0	378.5	376.6	375.5	375.9
29°	381.8	377.0	374.4	372.9	372.2	372.3
29.5°	378.5	373.9	371.1	368.7	368.1	368.2
30°	374.8	369.6	367.4	365.1	365.0	364.4
30.5°	370.8	365.7	363.0	361.1	360.5	360.2
31°	366.9	360.9	358.8	357.0	356.1	356.5
31.5°	363.0	357.1	355.0	353.0	352.1	351.7
32°	357.7	352.6	350.5	348.6	347.8	348.5
32.5°	353.0	347.8	345.8	344.1	343.9	343.9
33°	348.8	343.4	341.5	339.5	339.2	339.2
33.5°	343.6	338.7	336.7	335.4	335.0	335.5
34°	340.0	333.9	331.7	330.5	330.6	331.1
34.5°	334.3	329.3	326.9	325.9	325.4	326.7
35°	329.4	324.0	321.9	321.0	320.9	322.0
35.5°	324.5	319.0	317.0	315.7	316.3	317.0
36°	319.1	313.5	312.1	311.3	311.5	312.0
36.5°	314.4	308.6	306.8	306.3	306.4	307.6
37°	308.4	303.0	301.6	300.8	301.2	302.4
37.5°	303.5	297.9	296.3	296.1	296.4	297.5
38°	298.0	292.2	290.9	290.8	291.2	292.6
38.5°	292.4	286.4	285.8	285.3	286.0	287.1
39°	286.4	281.2	279.8	280.0	281.3	282.2
39.5°	281.1	275.5	274.9	275.0	275.7	277.0
40°	275.6	269.6	268.8	269.3	270.2	271.6
40.5°	269.3	264.2	263.7	264.1	265.6	266.5
41°	263.8	258.2	257.9	258.4	259.6	261.1
41.5°	258.0	252.7	252.4	253.0	254.1	255.7
42°	251.9	247.6	247.0	247.8	248.8	250.6
42.5°	246.0	241.3	241.3	242.4	243.6	245.0
43°	240.1	235.7	235.7	236.4	238.0	239.9
43.5°	234.3	230.1	230.2	231.0	232.8	234.4

TEST NUMBER: P639484

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	217.1	213.4	213.9	214.5	216.5	218.2
45.5°	211.3	207.8	208.3	209.6	211.3	213.1
46°	206.2	202.6	203.2	204.0	205.8	207.6
46.5°	200.8	197.0	198.1	199.0	200.6	202.7
47°	195.2	191.9	192.6	193.9	195.3	197.3
47.5°	189.9	186.6	187.2	188.4	190.4	192.2
48°	184.8	181.6	182.6	183.1	185.2	187.3
48.5°	179.7	176.4	177.3	178.4	180.1	181.8
49°	174.7	171.6	172.6	173.5	175.1	177.1
49.5°	169.7	166.7	167.4	168.5	170.3	172.0
50°	164.5	161.7	162.6	163.9	165.5	167.5
50.5°	159.8	157.2	157.9	158.8	160.5	162.5
51°	155.3	152.5	153.4	154.4	156.0	157.9
51.5°	150.7	148.3	149.0	149.8	151.5	153.3
52°	146.3	143.7	144.4	145.3	146.9	148.8
52.5°	141.6	139.3	140.1	141.0	142.2	144.2
53°	137.4	135.2	135.9	136.6	138.0	139.5
53.5°	133.3	131.1	131.6	132.6	133.6	135.4
54°	129.3	126.7	127.6	128.2	129.7	131.1
54.5°	125.4	123.1	123.6	124.2	125.5	127.2
55°	121.1	119.3	119.6	120.4	121.4	123.1
55.5°	117.6	115.6	116.0	116.4	117.7	119.0
56°	114.0	111.9	112.1	112.8	113.9	115.4
56.5°	110.1	108.3	108.7	109.0	109.9	111.5
57°	106.7	105.1	105.1	105.5	106.5	107.9
57.5°	103.6	101.5	101.7	102.0	102.8	104.5
58°	100.1	98.3	98.3	98.8	99.5	100.8
58.5°	96.9	95.0	95.0	95.3	96.0	97.6
59°	93.7	91.9	92.1	92.0	92.8	94.2
59.5°	90.5	88.9	88.8	88.9	89.6	90.6
60°	87.6	85.7	85.9	85.9	86.6	87.5
60.5°	84.8	82.9	82.6	82.8	83.6	84.6
61°	81.9	80.1	80.1	79.9	80.4	81.3
61.5°	79.2	77.4	77.2	77.1	77.6	78.5
62°	76.5	74.7	74.2	74.4	74.8	75.7
62.5°	73.8	71.8	71.7	71.6	72.2	72.9
63°	71.1	69.4	69.1	68.9	69.4	70.0
63.5°	68.4	66.9	66.6	66.4	66.7	67.4
64°	66.0	64.4	64.1	64.0	64.2	64.8
64.5°	63.6	62.1	61.8	61.5	61.8	62.2
65°	61.2	59.8	59.4	59.3	59.3	59.8
65.5°	59.0	57.6	57.1	56.9	57.0	57.4
66°	56.9	55.4	55.0	54.6	54.7	55.0



TEST NUMBER: P639484

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -2700K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	50.6	49.1	48.8	48.5	48.3	48.6
68°	48.5	47.3	46.8	46.5	46.3	46.5
68.5°	46.6	45.3	44.9	44.5	44.3	44.5
69°	44.8	43.6	43.1	42.7	42.6	42.7
69.5°	43.0	41.9	41.3	40.9	40.7	40.9
70°	41.2	40.1	39.6	39.3	39.0	39.1
70.5°	39.5	38.4	38.0	37.5	37.3	37.4
71°	37.9	36.9	36.4	36.0	35.7	35.7
71.5°	36.2	35.2	34.8	34.5	34.3	34.2
72°	34.7	33.8	33.4	32.7	33.1	33.2
72.5°	33.2	32.4	32.0	31.5	31.6	31.7
73°	31.8	31.1	30.6	30.1	30.1	30.2
73.5°	30.3	29.8	29.3	28.8	28.7	28.7
74°	29.0	28.3	27.9	27.5	27.3	27.3
74.5°	27.7	27.0	26.6	26.2	26.0	25.9
75°	26.5	25.8	25.4	25.1	24.8	24.8
75.5°	25.2	24.6	24.3	23.9	23.6	23.6
76°	24.1	23.4	23.1	22.7	22.6	22.5
76.5°	22.9	22.4	22.1	21.8	21.6	21.4
77°	21.9	21.3	21.0	20.7	20.5	20.3
77.5°	20.9	20.3	20.1	19.8	19.6	19.4
78°	19.9	19.3	19.0	18.7	18.4	18.2
78.5°	18.9	18.3	18.0	17.7	17.4	17.2
79°	17.9	17.3	17.0	16.6	16.3	16.1
79.5°	16.9	16.2	15.9	15.6	15.4	15.1
80°	15.8	15.3	15.0	14.6	14.3	14.1
80.5°	14.9	14.3	14.0	13.6	13.3	13.1
81°	13.8	13.3	13.0	12.7	12.3	12.2
81.5°	13.0	12.4	12.1	11.7	11.3	11.1
82°	12.0	11.4	11.0	10.7	10.4	10.2
82.5°	11.0	10.5	10.2	9.8	9.5	9.3
83°	10.1	9.6	9.3	8.9	8.5	8.3
83.5°	9.2	8.7	8.4	8.0	7.6	7.4
84°	8.4	7.8	7.5	7.1	6.8	6.6
84.5°	7.5	6.9	6.6	6.3	6.0	5.8
85°	6.6	6.1	5.8	5.5	5.1	4.8
85.5°	5.8	5.3	4.9	4.6	4.2	4.1
86°	4.9	4.4	4.1	3.8	3.6	3.4
86.5°	4.1	3.7	3.5	3.2	2.9	2.7
87°	3.5	3.1	2.8	2.5	2.2	2.0
87.5°	2.7	2.4	2.1	1.8	1.5	1.3
88°	1.9	1.7	1.4	1.2	0.8	0.7
88.5°	1.3	1.1	0.8	0.5	0.3	0.3



TEST NUMBER: P639484
CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -2700K

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°	420.8	420.9	424.2	427.0	431.1	434.6	436.5	436.8	435.5	433.3	432.0
22°	416.7	418.1	421.2	423.9	428.6	431.5	434.3	434.1	433.5	431.7	429.1



44°	228.9	231.6	235.0	237.9	242.3	242.4	239.0	232.6	230.4	231.1	231.3
44.5°	223.9	225.9	229.6	232.5	236.9	237.2	233.0	226.7	223.9	225.6	224.8



66.5°	52.8	53.3	53.9	54.5	56.2	55.9	55.3	54.6	54.1	54.0	54.4
67°	50.7	51.1	51.5	52.1	53.8	53.6	53.1	52.4	52.0	52.2	52.4



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°	429.6	425.2	423.4	421.3	420.5	420.8
22°	426.1	422.5	420.3	418.0	417.5	416.7



44°	228.6	224.6	224.5	225.7	227.3	228.9
44.5°	223.0	219.0	219.4	220.3	221.8	223.9



66.5°	54.6	53.3	52.8	52.5	52.5	52.8
67°	52.6	51.3	50.7	50.4	50.3	50.7



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)