

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: P639485

Luminaire Tested: RL4LS9FSD2W1EWHDM -900LM -3000K

Issue Date: 1/25/2023

Test Information

Test Method: LM-79-2019
Report Number: P639485
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 -3000K
Description: 4IN DIRECT MOUNT, SELECTABLE LUMEN AND CCT, MATTE WHITE BAFFLE
Light Source: (1) SELECTABLE LUMEN LED 90CRI / 3000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 955.0 lumens
Efficiency: N/A
Efficacy: 83.0 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

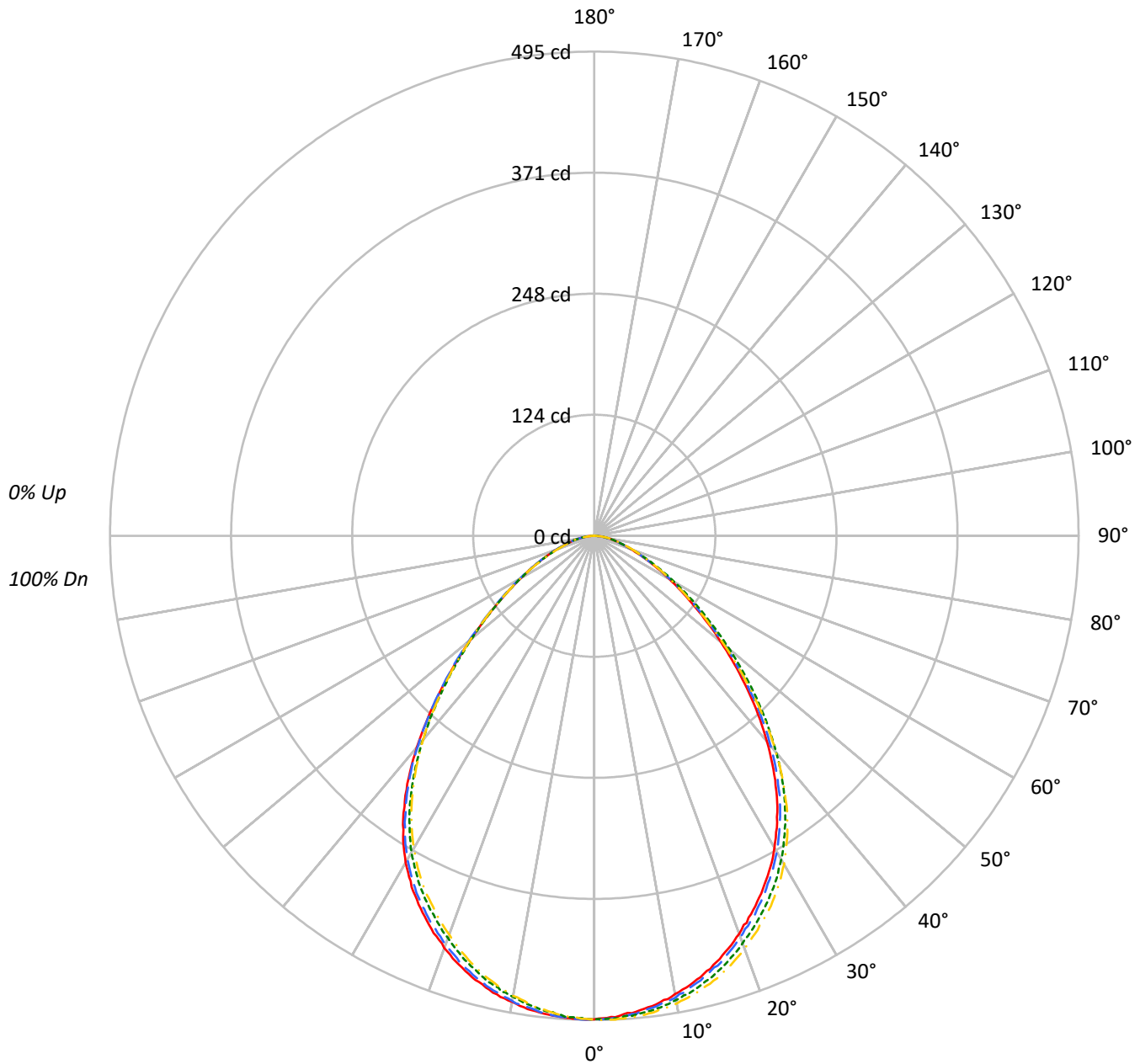
Input Watts (W): 11.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P639485

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -3000K

Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	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°	61092	61092	61092	61092
5°	60618	60953	61102	60655
10°	59700	60491	60742	60051
15°	58653	59677	60150	59063
20°	56963	58305	58989	57516
25°	55052	56689	57302	55843
30°	52547	54559	55073	53303
35°	49111	51269	51042	49398
40°	44271	46724	45514	43965
45°	38540	40935	38558	37684
50°	32552	34648	31783	31437
55°	26805	28702	26030	25987
60°	21876	23408	21480	21406
65°	17664	18804	17868	17664
70°	14274	14924	14888	14635
75°	11938	12129	12607	12463
80°	10178	10320	11103	10961
85°	6949	7090	8934	8792

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 40935 cd/sqm

TEST NUMBER: P639485

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.5	4.9
10°-20°	130.6	13.7
20°-30°	189.5	19.8
30°-40°	207.1	21.7
40°-50°	172.1	18.0
50°-60°	112.6	11.8
60°-70°	61.9	6.5
70°-80°	27.9	2.9
80°-90°	6.7	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°	366.7	38.4
0°-40°	573.8	60.1
0°-60°	858.4	89.9
0°-90°	955.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	955.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	494	494	494	494	494	
5°	489	491	492	489	489	46
15°	458	466	470	462	458	129
25°	404	416	420	410	404	185
35°	326	340	338	327	326	202
45°	220	234	221	216	220	170
55°	124	133	121	121	124	112
65°	60	64	61	60	60	61
75°	25	25	26	26	25	27
85°	5	5	6	6	5	6
90°	0	0	0	0	0	

TEST NUMBER: P639485

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	494.3	494.3	494.3	494.3	494.3	494.3	494.3	494.3	494.3	494.3	494.3
0.5°	493.6	493.4	494.7	494.5	494.2	494.8	494.9	494.5	494.3	493.4	494.7
1°	493.3	492.6	494.5	494.8	494.2	495.2	495.3	494.7	494.9	493.5	494.7
1.5°	493.1	493.3	493.7	493.9	494.1	495.0	494.9	494.9	494.2	493.6	494.8
2°	492.2	492.2	494.0	493.6	493.9	494.0	495.1	494.5	494.1	493.6	494.2
2.5°	492.6	491.3	493.1	493.1	493.7	494.3	495.1	494.6	494.4	494.3	494.2
3°	491.5	491.1	492.6	492.8	494.0	494.7	494.2	494.8	493.6	493.0	493.7
3.5°	490.2	491.4	492.0	491.8	492.4	493.8	494.4	494.2	493.6	492.7	493.1
4°	489.1	490.3	491.7	491.6	491.8	493.6	494.1	494.0	493.1	492.6	493.2
4.5°	489.5	489.5	490.4	491.4	492.4	493.9	493.9	493.4	492.7	491.8	492.7
5°	488.6	488.3	490.8	491.3	491.3	492.1	493.2	493.8	492.5	492.1	492.1
5.5°	487.4	488.2	488.6	489.9	490.5	492.8	493.1	492.4	491.6	490.9	491.1
6°	486.2	486.1	488.1	488.9	490.0	491.1	492.4	492.2	491.3	490.7	491.0
6.5°	485.2	485.4	486.9	488.5	489.4	491.0	491.4	491.4	490.6	490.0	490.1
7°	484.4	484.3	486.2	487.8	488.8	490.2	491.1	490.8	489.9	489.4	488.7
7.5°	483.3	483.4	485.3	485.5	487.5	488.6	490.2	490.0	489.3	487.5	487.7
8°	481.7	481.6	483.7	484.5	486.9	488.3	488.4	489.7	488.6	487.1	486.8
8.5°	479.9	480.6	482.3	484.3	485.4	487.5	488.4	488.1	487.5	486.8	486.3
9°	479.8	479.5	481.9	482.9	484.8	486.2	487.4	487.6	486.7	484.7	485.1
9.5°	477.7	477.6	480.5	480.9	483.1	485.2	486.1	487.0	485.0	483.8	484.8
10°	475.7	476.9	479.5	480.5	482.0	484.0	485.5	485.4	484.0	484.1	483.1
10.5°	474.5	474.5	476.4	478.3	481.0	482.7	483.8	484.2	483.2	481.9	481.3
11°	472.4	472.8	476.1	476.9	478.6	481.9	482.8	483.6	481.7	481.1	480.4
11.5°	471.3	471.4	473.7	474.5	478.3	479.5	481.9	481.4	481.2	479.1	479.4
12°	469.8	470.4	471.9	474.4	476.8	478.9	479.9	480.4	479.2	478.2	477.3
12.5°	467.9	468.9	470.4	471.8	475.0	477.1	479.2	479.0	478.5	476.2	476.2
13°	465.6	466.2	468.6	470.5	473.4	475.8	477.3	477.7	476.4	475.2	474.6
13.5°	464.3	464.3	467.3	469.2	471.6	473.8	475.6	475.6	475.1	474.1	473.0
14°	462.0	462.5	464.3	467.5	469.5	472.0	474.0	474.5	472.7	471.0	470.8
14.5°	459.5	460.7	463.1	465.7	468.3	470.9	473.0	472.3	471.1	469.6	469.5
15°	458.4	458.4	460.6	463.5	466.4	469.0	470.8	471.3	470.1	468.3	467.3
15.5°	455.2	456.4	458.0	461.6	464.1	467.0	469.6	468.9	468.2	466.9	465.6
16°	453.2	453.4	457.3	457.9	462.3	465.2	467.6	467.5	466.0	464.9	463.1
16.5°	451.3	451.7	454.9	456.5	460.2	463.4	465.2	466.0	464.3	462.3	461.5
17°	448.4	449.4	451.8	453.9	458.1	460.7	463.1	463.3	461.8	459.5	458.8
17.5°	445.9	446.8	449.7	451.1	455.6	459.2	461.3	460.8	459.7	458.0	457.4
18°	443.6	445.0	447.3	449.5	453.1	456.3	458.8	459.4	457.9	455.4	454.0
18.5°	441.2	441.2	444.6	445.9	451.1	454.3	456.4	456.8	455.6	453.8	451.7
19°	438.3	439.3	442.1	444.3	448.6	452.0	454.1	454.1	452.7	450.8	449.5
19.5°	435.5	436.4	439.2	441.7	446.2	448.9	451.9	452.2	450.6	448.9	447.2
20°	433.1	434.0	436.6	438.9	443.3	446.8	449.1	449.3	448.5	446.5	444.6
20.5°	429.9	431.6	433.9	435.7	440.3	444.2	446.6	446.6	444.9	443.5	442.0
21°	425.9	427.5	430.4	433.2	438.2	441.5	444.1	444.2	442.6	440.1	438.8

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CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	418.8	419.9	422.7	425.5	430.2	433.5	436.3	436.9	434.9	433.2	431.2
23°	415.7	416.8	420.4	422.0	427.4	430.6	432.8	433.8	432.2	429.8	428.7
23.5°	413.0	414.0	416.7	419.9	424.5	428.4	431.0	430.7	429.2	427.8	425.6
24°	409.5	410.5	413.6	415.9	421.6	425.9	427.6	429.2	426.1	424.3	422.7
24.5°	406.5	407.6	411.0	413.6	419.0	422.6	424.5	425.2	423.5	421.8	419.2
25°	403.7	404.8	407.6	411.3	415.7	419.9	422.2	422.0	420.2	419.2	417.5
25.5°	400.0	401.3	404.7	406.9	413.2	416.8	419.2	418.8	417.4	415.3	413.4
26°	396.7	397.8	401.2	404.6	409.2	413.3	415.9	416.2	413.8	411.9	410.7
26.5°	393.5	395.3	397.5	401.4	406.4	411.4	412.8	412.5	410.7	409.3	407.8
27°	390.3	391.4	394.5	397.6	403.5	407.2	408.9	409.0	407.7	405.1	403.9
27.5°	386.7	388.1	391.0	394.5	399.9	403.8	405.8	405.8	404.7	402.4	400.6
28°	383.4	384.4	388.0	391.4	396.8	400.3	402.2	402.6	399.8	398.6	397.0
28.5°	379.9	380.9	384.1	387.2	393.3	396.8	399.1	398.7	397.0	395.1	393.1
29°	376.3	376.9	380.3	383.4	389.1	393.5	395.1	394.3	393.0	391.6	389.5
29.5°	372.1	373.7	376.7	380.0	385.7	389.6	391.0	390.9	389.3	386.7	385.8
30°	368.2	368.6	373.1	376.3	382.3	385.7	388.0	387.1	385.9	383.8	382.1
30.5°	364.1	365.7	369.1	372.5	378.4	382.1	383.1	383.3	381.3	379.6	377.7
31°	360.3	362.2	364.9	368.2	374.5	377.9	379.5	379.4	377.3	375.4	373.3
31.5°	355.4	358.0	360.6	364.2	370.3	374.1	375.3	374.6	372.7	371.1	369.6
32°	352.2	353.4	356.8	360.0	365.9	369.2	370.9	369.8	368.6	367.0	364.8
32.5°	347.6	349.8	352.6	356.0	362.3	365.8	366.8	365.1	363.6	361.9	360.3
33°	342.8	345.0	348.2	351.4	357.5	360.7	362.4	361.2	358.4	357.5	355.3
33.5°	339.0	340.5	344.2	347.8	353.7	356.6	357.4	355.9	354.4	352.7	351.4
34°	334.6	336.0	339.7	343.1	348.9	352.4	352.9	350.9	349.6	347.4	345.6
34.5°	330.1	331.5	335.1	338.2	344.6	347.8	348.1	346.0	344.3	343.3	340.1
35°	325.5	326.4	330.4	333.3	339.8	343.3	343.4	340.8	338.3	337.8	336.5
35.5°	320.3	322.1	326.4	329.2	335.4	338.1	338.3	335.9	333.5	332.5	330.9
36°	315.3	317.3	320.8	324.9	330.6	333.4	332.7	330.6	328.4	327.3	325.9
36.5°	310.9	312.1	315.6	319.6	325.7	328.1	327.8	325.3	322.4	321.5	319.9
37°	305.6	307.4	311.6	314.5	320.9	323.1	322.5	319.5	317.7	316.8	314.8
37.5°	300.6	302.8	306.3	309.0	315.8	318.2	317.1	314.1	311.5	310.9	309.6
38°	295.7	297.6	301.2	303.7	311.1	312.5	311.7	308.4	305.5	305.4	303.9
38.5°	290.1	292.6	296.4	299.2	305.3	307.6	306.1	302.5	300.3	299.7	298.6
39°	285.2	287.0	290.8	294.6	300.4	301.5	300.4	296.4	294.3	293.4	292.5
39.5°	280.0	282.6	285.4	289.2	294.6	296.5	294.8	290.6	287.8	288.0	286.6
40°	274.4	277.1	280.6	283.6	289.6	291.1	288.7	284.5	282.1	281.8	280.5
40.5°	269.3	271.2	275.2	278.1	284.1	285.2	283.4	278.6	275.7	276.1	275.0
41°	263.9	266.4	270.0	273.1	278.7	279.8	277.3	272.4	269.7	270.1	269.1
41.5°	258.4	260.4	264.5	267.3	273.0	274.2	271.6	266.0	263.8	264.0	262.7
42°	253.3	255.4	259.1	261.5	267.5	268.3	265.2	259.7	256.9	257.3	256.5
42.5°	247.6	250.0	253.4	256.8	262.1	262.8	259.5	254.1	251.3	251.9	251.0
43°	242.4	244.6	248.5	251.1	256.5	256.8	253.5	247.7	245.4	245.7	245.2
43.5°	236.9	239.2	242.5	245.6	250.8	251.3	247.6	241.4	238.6	239.7	238.9

TEST NUMBER: P639485

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	220.5	223.2	225.9	229.3	234.2	233.8	229.5	223.0	220.6	221.7	221.7
45.5°	215.4	218.0	220.8	223.6	228.4	227.8	223.7	217.1	215.0	215.8	215.8
46°	209.8	212.2	215.7	218.4	222.9	222.5	217.3	211.3	208.7	210.3	210.4
46.5°	204.9	207.2	210.3	212.9	217.4	216.6	212.1	205.4	202.9	204.8	204.2
47°	199.3	202.1	205.0	207.6	211.7	211.2	205.8	199.4	197.6	198.9	199.1
47.5°	194.2	196.4	199.5	202.2	206.4	205.4	200.2	193.8	191.8	193.1	193.5
48°	189.3	191.5	194.4	196.7	201.0	199.8	194.8	188.4	186.2	187.6	187.9
48.5°	183.7	186.1	189.5	191.5	195.8	195.1	189.2	183.0	180.7	182.4	182.9
49°	179.0	181.2	184.0	186.8	190.8	189.0	183.7	177.6	175.5	176.9	177.9
49.5°	173.8	176.1	179.0	181.3	185.3	184.0	178.4	172.1	170.1	171.7	172.6
50°	169.3	171.3	173.8	176.2	180.2	178.8	173.2	167.3	165.3	166.7	167.3
50.5°	164.2	166.2	169.3	171.1	174.9	173.7	167.9	162.0	160.1	161.8	162.8
51°	159.6	161.5	164.1	166.2	170.2	168.7	163.2	157.1	155.2	157.0	157.6
51.5°	154.9	157.1	159.3	161.4	165.3	163.7	158.2	152.3	150.5	151.9	153.0
52°	150.4	152.1	154.5	156.7	160.4	158.8	153.3	147.8	146.0	147.4	148.4
52.5°	145.7	147.4	150.1	151.9	155.6	153.9	148.4	143.1	141.6	142.9	144.0
53°	140.9	143.1	145.6	147.2	151.0	149.4	143.9	138.7	137.1	138.2	139.4
53.5°	136.9	138.9	141.1	142.8	146.3	144.8	139.5	134.4	132.8	134.0	135.1
54°	132.5	134.4	136.3	138.1	141.9	140.1	134.8	130.3	128.7	129.8	130.9
54.5°	128.5	130.2	132.2	133.9	137.6	135.8	130.8	126.0	124.7	125.5	126.9
55°	124.4	126.2	128.1	130.1	133.2	131.9	126.6	122.3	120.8	121.6	122.8
55.5°	120.3	122.2	123.8	125.6	128.9	127.3	122.6	118.2	116.8	117.9	118.9
56°	116.6	118.2	120.0	121.6	124.7	123.2	118.6	114.7	113.2	114.0	115.2
56.5°	112.7	114.5	116.1	117.5	120.6	119.1	114.9	110.9	109.5	110.4	111.4
57°	109.0	110.7	112.1	113.7	116.7	115.2	111.1	107.5	105.8	106.7	107.8
57.5°	105.6	106.8	108.5	109.9	112.8	111.4	107.5	104.0	102.6	103.4	104.3
58°	101.9	103.4	105.0	106.2	108.9	107.8	104.1	100.5	99.0	99.9	100.9
58.5°	98.7	99.7	101.2	102.5	105.2	104.2	100.6	97.6	96.1	96.6	97.8
59°	95.2	96.3	97.6	98.8	101.7	100.4	97.1	94.2	92.9	93.4	94.4
59.5°	91.6	92.9	94.4	95.6	98.2	97.0	93.8	91.0	89.6	90.4	91.3
60°	88.5	89.6	91.1	92.1	94.7	93.7	90.6	88.0	86.9	87.3	88.1
60.5°	85.5	86.5	87.8	88.8	91.3	90.2	87.5	85.2	84.0	84.3	85.2
61°	82.2	83.2	84.4	85.8	88.1	87.1	84.6	82.2	81.2	81.4	82.5
61.5°	79.4	80.3	81.3	82.4	85.0	83.9	81.6	79.5	78.6	78.7	79.7
62°	76.5	77.2	78.5	79.4	81.7	81.0	78.8	76.8	75.9	76.0	77.0
62.5°	73.6	74.3	75.4	76.3	78.8	78.0	76.1	74.2	73.2	73.2	74.4
63°	70.7	71.6	72.6	73.4	75.8	75.1	73.2	71.5	70.5	70.6	71.7
63.5°	68.1	68.8	69.6	70.6	72.9	72.2	70.4	68.9	68.2	68.3	69.0
64°	65.5	66.1	66.9	67.9	69.9	69.3	67.9	66.5	65.9	65.9	66.4
64.5°	62.9	63.5	64.4	65.1	67.1	66.6	65.3	64.1	63.4	63.5	64.1
65°	60.4	61.0	61.9	62.4	64.3	63.9	62.9	61.8	61.1	61.2	61.8
65.5°	58.0	58.6	59.3	59.9	61.8	61.5	60.5	59.6	58.9	58.9	59.5
66°	55.6	56.1	56.8	57.4	59.2	58.9	58.2	57.3	56.7	56.7	57.2

TEST NUMBER: P639485

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -3000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	49.1	49.4	50.0	50.4	52.0	51.8	51.5	50.9	50.5	50.6	50.9
68°	47.0	47.3	47.7	48.3	49.7	49.7	49.5	48.9	48.5	48.7	48.9
68.5°	45.0	45.3	45.8	46.1	47.5	47.5	47.4	47.0	46.7	46.8	47.0
69°	43.2	43.4	43.7	44.0	45.4	45.4	45.5	45.1	44.9	44.9	45.1
69.5°	41.3	41.5	41.8	42.1	43.4	43.5	43.6	43.3	43.0	43.1	43.3
70°	39.5	39.7	39.9	40.1	41.3	41.5	41.6	41.5	41.2	41.4	41.5
70.5°	37.8	37.9	38.2	38.4	39.5	39.7	40.0	39.8	39.6	39.7	39.9
71°	36.1	36.3	36.4	36.6	37.6	37.9	38.2	38.1	37.8	38.0	38.2
71.5°	34.5	34.6	34.7	34.8	35.9	36.1	36.5	36.5	36.3	36.4	36.6
72°	33.6	33.3	33.3	33.1	34.2	34.4	34.8	34.8	34.8	34.9	35.0
72.5°	32.0	31.8	31.8	31.6	32.6	32.9	33.3	33.4	33.3	33.4	33.5
73°	30.6	30.4	30.4	30.3	30.9	31.3	31.8	31.8	31.8	31.9	32.0
73.5°	29.0	28.9	28.9	28.8	29.5	29.8	30.3	30.4	30.4	30.6	30.6
74°	27.5	27.5	27.5	27.4	28.1	28.4	28.8	29.0	29.0	29.1	29.2
74.5°	26.2	26.2	26.1	26.0	26.8	27.1	27.5	27.6	27.6	27.7	27.9
75°	25.0	24.9	24.8	24.7	25.4	25.8	26.2	26.4	26.4	26.5	26.6
75.5°	23.9	23.8	23.7	23.7	24.3	24.5	24.9	25.1	25.1	25.2	25.3
76°	22.7	22.6	22.5	22.5	23.2	23.4	23.8	23.9	23.9	24.1	24.2
76.5°	21.6	21.5	21.4	21.4	22.1	22.2	22.6	22.7	22.8	22.9	23.1
77°	20.6	20.5	20.4	20.4	21.0	21.2	21.5	21.6	21.7	21.9	22.0
77.5°	19.6	19.4	19.3	19.3	19.9	20.2	20.6	20.7	20.8	21.0	21.1
78°	18.4	18.3	18.2	18.2	18.8	19.1	19.5	19.7	19.7	20.0	20.1
78.5°	17.4	17.3	17.2	17.1	17.8	18.0	18.4	18.5	18.7	18.9	19.0
79°	16.3	16.2	16.0	16.0	16.7	17.0	17.4	17.5	17.7	17.8	17.9
79.5°	15.2	15.1	15.0	14.9	15.6	15.9	16.3	16.5	16.6	16.9	16.9
80°	14.3	14.1	14.0	13.9	14.5	14.8	15.2	15.5	15.6	15.9	16.0
80.5°	13.2	13.1	13.0	12.9	13.5	13.8	14.2	14.5	14.6	14.8	15.0
81°	12.3	12.1	11.9	11.8	12.5	12.8	13.2	13.5	13.6	13.9	14.0
81.5°	11.3	11.1	11.0	10.8	11.4	11.8	12.2	12.5	12.6	12.9	13.0
82°	10.3	10.2	10.0	9.9	10.5	10.8	11.3	11.4	11.6	11.9	12.0
82.5°	9.4	9.2	9.0	8.9	9.6	9.9	10.3	10.5	10.7	11.0	11.1
83°	8.3	8.2	8.1	8.1	8.6	8.9	9.4	9.6	9.8	10.0	10.2
83.5°	7.5	7.4	7.2	7.1	7.8	8.1	8.5	8.7	8.9	9.2	9.3
84°	6.7	6.5	6.3	6.3	6.9	7.2	7.6	7.9	8.1	8.3	8.4
84.5°	5.8	5.6	5.4	5.3	5.9	6.3	6.7	7.0	7.2	7.5	7.6
85°	4.9	4.8	4.6	4.6	5.0	5.4	5.8	6.1	6.3	6.6	6.7
85.5°	4.2	4.0	3.8	3.8	4.3	4.6	4.9	5.2	5.4	5.6	5.8
86°	3.4	3.2	3.2	3.1	3.5	3.8	4.2	4.4	4.6	4.8	4.9
86.5°	2.7	2.5	2.5	2.3	2.7	3.0	3.4	3.7	3.9	4.0	4.1
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°	1.4	1.3	1.2	1.0	1.4	1.6	1.8	2.1	2.3	2.5	2.6
88°	0.7	0.6	0.5	0.5	0.8	1.0	1.4	1.6	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	1.3	1.4



TEST NUMBER: P639485
CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -3000K

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: P639485

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	494.3	494.3	494.3	494.3	494.3	494.3
0.5°	493.9	494.3	494.6	494.5	494.0	493.6
1°	494.2	493.8	493.6	493.9	494.2	493.3
1.5°	495.4	493.1	494.0	494.1	494.0	493.1
2°	493.4	493.2	493.5	493.0	492.9	492.2
2.5°	494.5	492.7	492.7	492.8	493.0	492.6
3°	493.6	492.8	492.3	492.2	492.4	491.5
3.5°	492.4	492.5	491.9	492.0	491.2	490.2
4°	492.4	491.0	491.3	491.1	490.5	489.1
4.5°	492.1	491.0	490.6	490.5	489.4	489.5
5°	491.1	488.9	489.5	489.4	488.9	488.6
5.5°	490.2	489.0	488.2	488.5	487.8	487.4
6°	489.9	488.3	487.9	487.2	487.0	486.2
6.5°	489.0	487.3	487.1	486.5	486.6	485.2
7°	488.2	485.9	485.2	485.9	484.4	484.4
7.5°	486.9	485.0	484.6	484.1	483.9	483.3
8°	485.9	483.9	483.2	483.1	482.4	481.7
8.5°	485.3	483.1	482.0	481.0	480.7	479.9
9°	482.9	481.2	480.8	479.9	480.1	479.8
9.5°	481.5	480.3	479.2	478.5	478.0	477.7
10°	481.3	478.5	478.1	477.6	476.3	475.7
10.5°	480.6	477.6	476.4	475.5	474.2	474.5
11°	479.7	475.7	474.8	474.3	473.4	472.4
11.5°	476.9	475.9	473.4	472.8	471.7	471.3
12°	476.1	472.2	471.7	471.0	469.7	469.8
12.5°	473.3	471.4	469.6	468.8	468.0	467.9
13°	472.8	469.5	467.4	467.0	466.9	465.6
13.5°	471.4	468.5	466.1	465.4	464.2	464.3
14°	469.1	465.8	464.7	463.5	462.4	462.0
14.5°	466.9	464.1	462.3	461.7	460.8	459.5
15°	465.9	461.6	459.6	459.2	458.1	458.4
15.5°	463.1	459.3	458.1	456.3	455.5	455.2
16°	461.2	457.5	455.9	454.8	454.0	453.2
16.5°	458.9	455.1	453.4	452.5	451.5	451.3
17°	457.1	453.3	451.5	449.7	448.7	448.4
17.5°	454.6	450.8	449.3	447.4	446.5	445.9
18°	452.2	448.1	446.3	445.1	444.3	443.6
18.5°	450.3	445.9	444.1	442.3	441.1	441.2
19°	447.8	443.0	441.3	439.7	438.3	438.3
19.5°	444.3	440.5	438.6	436.9	436.0	435.5
20°	442.4	437.3	436.4	433.9	433.2	433.1
20.5°	439.3	435.4	433.1	431.5	430.6	429.9
21°	436.9	432.9	430.5	428.7	427.6	425.9



TEST NUMBER: P639485

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	429.6	423.9	421.8	420.5	418.8	418.8
23°	425.8	420.7	418.7	416.9	416.2	415.7
23.5°	422.7	418.5	415.9	413.5	413.0	413.0
24°	419.4	415.4	413.3	410.7	409.8	409.5
24.5°	417.4	412.2	410.2	407.6	406.6	406.5
25°	413.3	409.5	406.7	405.2	404.2	403.7
25.5°	410.0	405.8	403.9	401.1	400.4	400.0
26°	408.1	402.7	400.7	398.3	396.8	396.7
26.5°	403.8	399.8	397.3	394.6	393.9	393.5
27°	400.8	396.2	393.6	391.6	390.3	390.3
27.5°	397.8	392.2	389.7	387.8	386.9	386.7
28°	393.8	388.6	385.9	384.6	383.6	383.4
28.5°	390.5	385.0	382.5	380.6	379.5	379.9
29°	385.9	381.0	378.3	376.9	376.1	376.3
29.5°	382.5	377.8	375.0	372.6	372.0	372.1
30°	378.8	373.5	371.2	369.0	368.8	368.2
30.5°	374.7	369.6	366.9	364.9	364.4	364.1
31°	370.8	364.7	362.6	360.8	359.9	360.3
31.5°	366.9	360.9	358.7	356.7	355.8	355.4
32°	361.4	356.3	354.2	352.3	351.4	352.2
32.5°	356.8	351.4	349.5	347.8	347.6	347.6
33°	352.5	347.1	345.1	343.1	342.8	342.8
33.5°	347.3	342.3	340.3	338.9	338.5	339.0
34°	343.6	337.5	335.2	334.0	334.1	334.6
34.5°	337.9	332.8	330.4	329.3	328.8	330.1
35°	332.9	327.4	325.4	324.4	324.3	325.5
35.5°	328.0	322.3	320.3	319.0	319.6	320.3
36°	322.4	316.8	315.4	314.6	314.8	315.3
36.5°	317.7	311.9	310.0	309.5	309.6	310.9
37°	311.7	306.2	304.8	304.0	304.4	305.6
37.5°	306.7	301.0	299.5	299.3	299.6	300.6
38°	301.1	295.3	294.0	293.8	294.3	295.7
38.5°	295.5	289.5	288.8	288.3	289.0	290.1
39°	289.5	284.2	282.8	283.0	284.3	285.2
39.5°	284.0	278.4	277.8	277.9	278.6	280.0
40°	278.5	272.5	271.6	272.1	273.1	274.4
40.5°	272.2	267.0	266.5	266.9	268.4	269.3
41°	266.6	260.9	260.7	261.1	262.3	263.9
41.5°	260.7	255.4	255.0	255.7	256.8	258.4
42°	254.5	250.2	249.6	250.5	251.4	253.3
42.5°	248.6	243.9	243.9	244.9	246.2	247.6
43°	242.6	238.1	238.2	238.9	240.5	242.4
43.5°	236.8	232.5	232.6	233.5	235.2	236.9

TEST NUMBER: P639485

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	219.4	215.6	216.1	216.8	218.7	220.5
45.5°	213.5	210.0	210.5	211.9	213.5	215.4
46°	208.4	204.8	205.4	206.1	208.0	209.8
46.5°	202.9	199.1	200.2	201.1	202.7	204.9
47°	197.3	193.9	194.6	196.0	197.4	199.3
47.5°	191.9	188.6	189.2	190.4	192.5	194.2
48°	186.7	183.5	184.5	185.1	187.1	189.3
48.5°	181.6	178.3	179.2	180.3	182.0	183.7
49°	176.5	173.4	174.4	175.4	176.9	179.0
49.5°	171.5	168.5	169.2	170.2	172.1	173.8
50°	166.3	163.5	164.3	165.6	167.2	169.3
50.5°	161.5	158.9	159.6	160.4	162.2	164.2
51°	157.0	154.1	155.0	156.1	157.6	159.6
51.5°	152.3	149.9	150.6	151.4	153.1	154.9
52°	147.8	145.2	145.9	146.9	148.4	150.4
52.5°	143.1	140.8	141.6	142.5	143.7	145.7
53°	138.8	136.6	137.4	138.0	139.5	140.9
53.5°	134.7	132.5	133.0	134.0	135.0	136.9
54°	130.7	128.0	128.9	129.6	131.1	132.5
54.5°	126.7	124.4	124.9	125.5	126.8	128.5
55°	122.4	120.6	120.9	121.6	122.7	124.4
55.5°	118.8	116.8	117.2	117.7	118.9	120.3
56°	115.2	113.1	113.3	114.0	115.1	116.6
56.5°	111.3	109.4	109.8	110.2	111.1	112.7
57°	107.9	106.2	106.2	106.6	107.6	109.0
57.5°	104.7	102.5	102.7	103.1	103.9	105.6
58°	101.2	99.3	99.3	99.8	100.6	101.9
58.5°	98.0	96.0	96.0	96.3	97.0	98.7
59°	94.7	92.8	93.0	92.9	93.8	95.2
59.5°	91.5	89.8	89.7	89.8	90.5	91.6
60°	88.6	86.6	86.8	86.8	87.5	88.5
60.5°	85.7	83.8	83.5	83.7	84.5	85.5
61°	82.7	80.9	80.9	80.7	81.3	82.2
61.5°	80.0	78.2	78.0	77.9	78.4	79.4
62°	77.3	75.5	75.0	75.2	75.6	76.5
62.5°	74.6	72.6	72.5	72.4	72.9	73.6
63°	71.9	70.1	69.8	69.6	70.1	70.7
63.5°	69.2	67.6	67.3	67.1	67.4	68.1
64°	66.7	65.1	64.8	64.7	64.9	65.5
64.5°	64.3	62.8	62.5	62.2	62.5	62.9
65°	61.9	60.4	60.0	59.9	59.9	60.4
65.5°	59.7	58.2	57.7	57.5	57.6	58.0
66°	57.5	56.0	55.6	55.2	55.3	55.6



TEST NUMBER: P639485

CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -3000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	51.1	49.7	49.3	49.0	48.8	49.1
68°	49.0	47.8	47.3	47.0	46.8	47.0
68.5°	47.0	45.8	45.4	45.0	44.8	45.0
69°	45.3	44.0	43.6	43.2	43.1	43.2
69.5°	43.5	42.3	41.7	41.3	41.1	41.3
70°	41.6	40.5	40.1	39.7	39.4	39.5
70.5°	40.0	38.8	38.4	37.9	37.7	37.8
71°	38.3	37.2	36.8	36.4	36.1	36.1
71.5°	36.6	35.6	35.2	34.8	34.6	34.5
72°	35.1	34.1	33.8	33.1	33.5	33.6
72.5°	33.6	32.8	32.3	31.8	31.9	32.0
73°	32.1	31.4	30.9	30.5	30.5	30.6
73.5°	30.7	30.1	29.6	29.1	29.0	29.0
74°	29.3	28.6	28.2	27.7	27.5	27.5
74.5°	28.0	27.3	26.9	26.5	26.3	26.2
75°	26.8	26.1	25.7	25.3	25.0	25.0
75.5°	25.5	24.8	24.5	24.2	23.9	23.9
76°	24.3	23.7	23.4	23.0	22.8	22.7
76.5°	23.2	22.6	22.3	22.0	21.8	21.6
77°	22.1	21.5	21.2	21.0	20.8	20.6
77.5°	21.1	20.6	20.3	20.0	19.8	19.6
78°	20.1	19.5	19.2	18.9	18.6	18.4
78.5°	19.1	18.5	18.2	17.8	17.6	17.4
79°	18.0	17.5	17.2	16.8	16.5	16.3
79.5°	17.1	16.4	16.1	15.8	15.5	15.2
80°	16.0	15.4	15.1	14.7	14.5	14.3
80.5°	15.0	14.5	14.2	13.8	13.5	13.2
81°	14.0	13.5	13.1	12.8	12.4	12.3
81.5°	13.1	12.5	12.2	11.8	11.4	11.3
82°	12.1	11.5	11.2	10.8	10.5	10.3
82.5°	11.2	10.6	10.3	9.9	9.6	9.4
83°	10.2	9.7	9.4	9.0	8.6	8.3
83.5°	9.3	8.8	8.4	8.1	7.7	7.5
84°	8.4	7.9	7.6	7.2	6.9	6.7
84.5°	7.6	7.0	6.7	6.4	6.0	5.8
85°	6.7	6.2	5.8	5.5	5.1	4.9
85.5°	5.8	5.3	4.9	4.7	4.3	4.2
86°	4.9	4.5	4.2	3.9	3.6	3.4
86.5°	4.2	3.8	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	1.6	1.4
88°	1.9	1.7	1.5	1.2	0.8	0.7
88.5°	1.4	1.1	0.8	0.5	0.3	0.3



TEST NUMBER: P639485
CATALOG NUMBER: RL4LS9FSD2W1EWHDM -900LM -3000K

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°	425.3	425.4	428.7	431.5	435.6	439.2	441.1	441.4	440.1	437.9	436.6
22°	421.1	422.6	425.7	428.4	433.1	436.0	438.9	438.7	438.1	436.2	433.6



44°	231.4	234.1	237.5	240.4	244.8	244.9	241.5	235.0	232.8	233.6	233.8
44.5°	226.3	228.3	232.0	234.9	239.4	239.7	235.4	229.1	226.3	228.0	227.2



66.5°	53.4	53.8	54.5	55.1	56.7	56.5	55.9	55.2	54.7	54.6	55.0
67°	51.2	51.6	52.1	52.7	54.3	54.1	53.6	53.0	52.6	52.8	53.0



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°	434.2	429.7	427.9	425.8	425.0	425.3
22°	430.6	427.0	424.8	422.5	421.9	421.1



44°	231.1	227.0	226.9	228.1	229.7	231.4
44.5°	225.3	221.3	221.8	222.6	224.2	226.3



66.5°	55.2	53.8	53.4	53.1	53.1	53.4
67°	53.2	51.8	51.2	50.9	50.8	51.2



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)