

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: P639476

Luminaire Tested: RL4LS9FSD2W1EWH -900LM -3500K

Issue Date: 1/25/2023

Test Information

Test Method: LM-79-2019
Report Number: P639476
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: RL4LS9FSD2W1EWH -900LM -3500K
Description: 4IN RETROFIT, SELECTABLE LUMEN AND CCT, MATTE WHITE BAFFLE
Light Source: (1) SELECTABLE LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

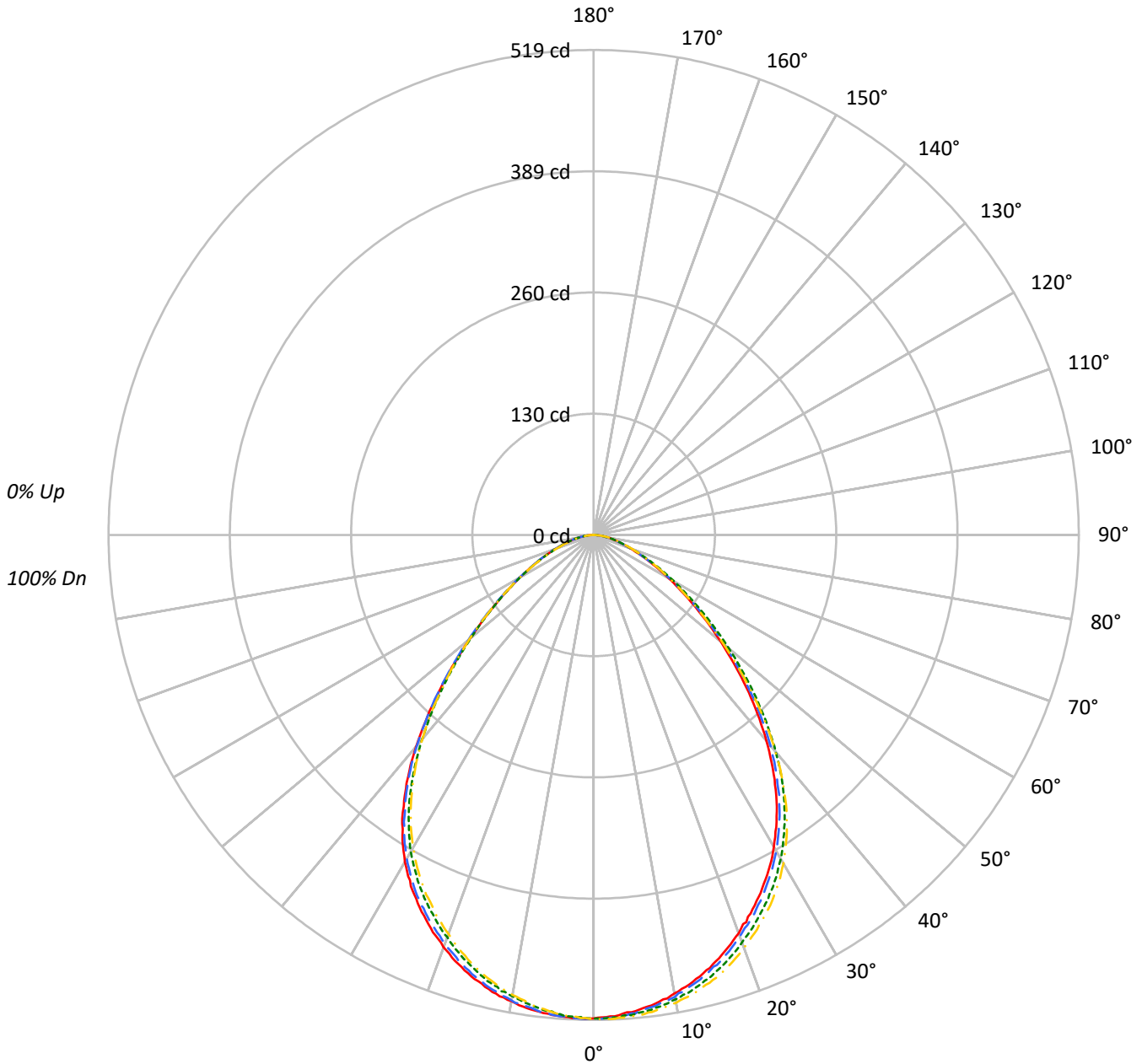
Lumens per Lamp: N/A
Luminaire Lumens: 1000.0 lumens
Efficiency: N/A
Efficacy: 91.7 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.2
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 10.9
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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0					
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				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°	63971	63971	63971	63971
5°	63471	63831	63980	63509
10°	62511	63339	63603	62888
15°	61417	62492	62978	61852
20°	59646	61054	61764	60225
25°	57657	59362	60002	58475
30°	55030	57128	57670	55815
35°	51419	53683	53441	51721
40°	46369	48918	47659	46030
45°	40358	42858	40376	39467
50°	34090	36282	33283	32918
55°	28055	30059	27258	27215
60°	22889	24496	22494	22420
65°	18512	19682	18716	18512
70°	14924	15647	15611	15358
75°	12511	12702	13180	13036
80°	10605	10747	11673	11530
85°	7232	7516	9359	9217

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 42858 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.7	4.9
10°-20°	136.8	13.7
20°-30°	198.4	19.8
30°-40°	216.9	21.7
40°-50°	180.2	18.0
50°-60°	117.9	11.8
60°-70°	64.8	6.5
70°-80°	29.3	2.9
80°-90°	7.0	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°	383.9	38.4
0°-40°	600.8	60.1
0°-60°	898.9	89.9
0°-90°	1000.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1000.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	518	518	518	518	518	
5°	512	514	516	512	512	48
15°	480	488	492	483	480	135
25°	423	435	440	429	423	194
35°	341	356	354	343	341	212
45°	231	245	231	226	231	178
55°	130	140	126	126	130	118
65°	63	67	64	63	63	64
75°	26	27	28	27	26	28
85°	5	5	7	6	5	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	517.6	517.6	517.6	517.6	517.6	517.6	517.6	517.6	517.6	517.6	517.6
0.5°	516.8	516.6	518.0	517.8	517.5	518.1	518.2	517.8	517.6	516.6	518.0
1°	516.5	515.8	517.8	518.1	517.5	518.5	518.6	518.0	518.2	516.7	518.0
1.5°	516.3	516.5	516.9	517.1	517.4	518.3	518.2	518.2	517.5	516.8	518.1
2°	515.4	515.4	517.2	516.8	517.1	517.3	518.4	517.8	517.4	516.8	517.5
2.5°	515.8	514.5	516.3	516.3	516.9	517.6	518.4	517.9	517.7	517.6	517.5
3°	514.7	514.3	515.8	516.0	517.3	518.0	517.5	518.1	516.8	516.2	516.9
3.5°	513.3	514.6	515.2	515.0	515.6	517.0	517.7	517.5	516.8	515.9	516.3
4°	512.1	513.4	514.9	514.8	515.0	516.8	517.4	517.2	516.3	515.8	516.4
4.5°	512.6	512.6	513.5	514.6	515.6	517.1	517.1	516.6	515.9	515.0	515.9
5°	511.6	511.3	514.0	514.5	514.5	515.3	516.4	517.0	515.7	515.3	515.3
5.5°	510.3	511.2	511.6	513.0	513.6	516.0	516.3	515.6	514.8	514.1	514.3
6°	509.1	509.0	511.1	511.9	513.1	514.3	515.6	515.4	514.5	513.9	514.2
6.5°	508.1	508.3	509.8	511.5	512.5	514.2	514.6	514.6	513.7	513.1	513.2
7°	507.3	507.2	509.1	510.8	511.8	513.3	514.3	514.0	513.0	512.5	511.7
7.5°	506.1	506.2	508.2	508.4	510.4	511.6	513.3	513.1	512.3	510.5	510.7
8°	504.4	504.3	506.5	507.4	509.8	511.3	511.4	512.8	511.6	510.0	509.7
8.5°	502.5	503.2	505.0	507.2	508.3	510.4	511.4	511.1	510.4	509.7	509.2
9°	502.4	502.1	504.6	505.6	507.7	509.1	510.3	510.6	509.6	507.6	508.0
9.5°	500.2	500.1	503.1	503.5	505.8	508.1	509.0	509.9	507.9	506.6	507.7
10°	498.1	499.3	502.1	503.1	504.7	506.8	508.4	508.3	506.8	506.9	505.8
10.5°	496.9	496.9	498.8	500.9	503.6	505.4	506.6	507.0	506.0	504.6	504.0
11°	494.7	495.1	498.5	499.3	501.2	504.6	505.5	506.4	504.4	503.8	503.0
11.5°	493.5	493.7	496.0	496.8	500.9	502.1	504.6	504.1	503.9	501.7	502.0
12°	491.9	492.5	494.2	496.7	499.2	501.5	502.5	503.0	501.8	500.8	499.8
12.5°	489.9	491.0	492.5	494.1	497.4	499.6	501.8	501.6	501.1	498.6	498.6
13°	487.6	488.2	490.7	492.6	495.7	498.2	499.8	500.2	498.8	497.6	497.0
13.5°	486.1	486.1	489.3	491.3	493.9	496.1	498.0	498.0	497.5	496.4	495.3
14°	483.8	484.3	486.1	489.5	491.6	494.3	496.3	496.9	495.0	493.2	492.9
14.5°	481.2	482.4	484.9	487.7	490.4	493.1	495.3	494.6	493.3	491.7	491.6
15°	480.0	480.0	482.3	485.3	488.4	491.1	492.9	493.6	492.2	490.4	489.3
15.5°	476.7	477.9	479.5	483.4	485.9	489.0	491.7	491.0	490.3	488.9	487.6
16°	474.6	474.8	478.8	479.4	484.1	487.2	489.6	489.5	488.0	486.9	484.9
16.5°	472.5	472.9	476.3	478.0	481.9	485.2	487.2	488.0	486.1	484.1	483.2
17°	469.5	470.6	473.0	475.3	479.6	482.4	484.9	485.1	483.6	481.2	480.5
17.5°	466.9	467.9	470.9	472.3	477.1	480.9	483.0	482.5	481.4	479.5	478.9
18°	464.5	465.9	468.4	470.7	474.5	477.8	480.5	481.1	479.4	476.9	475.4
18.5°	462.0	462.0	465.5	466.9	472.3	475.7	477.9	478.3	477.1	475.2	472.9
19°	458.9	460.0	462.9	465.2	469.7	473.3	475.5	475.5	474.1	472.0	470.7
19.5°	456.0	457.0	459.9	462.5	467.2	470.1	473.2	473.5	471.8	470.1	468.3
20°	453.5	454.5	457.2	459.6	464.2	467.9	470.3	470.5	469.6	467.6	465.5
20.5°	450.2	451.9	454.3	456.3	461.1	465.1	467.7	467.7	465.8	464.4	462.8
21°	446.0	447.6	450.7	453.6	458.8	462.3	465.0	465.1	463.5	460.9	459.4



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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°	438.5	439.7	442.6	445.5	450.5	453.9	456.9	457.5	455.4	453.6	451.5
23°	435.3	436.5	440.2	441.9	447.5	450.9	453.2	454.2	452.5	450.1	448.9
23.5°	432.4	433.5	436.4	439.7	444.5	448.6	451.3	451.0	449.5	448.0	445.6
24°	428.8	429.9	433.1	435.5	441.4	445.9	447.7	449.4	446.2	444.3	442.7
24.5°	425.7	426.8	430.4	433.1	438.7	442.5	444.5	445.2	443.5	441.7	438.9
25°	422.8	423.9	426.8	430.7	435.3	439.7	442.1	441.9	440.0	438.9	437.2
25.5°	418.8	420.2	423.8	426.1	432.7	436.5	438.9	438.5	437.1	434.8	432.9
26°	415.3	416.6	420.1	423.7	428.4	432.8	435.5	435.8	433.3	431.3	430.1
26.5°	412.1	413.9	416.3	420.3	425.5	430.8	432.2	431.9	430.1	428.5	427.0
27°	408.6	409.9	413.1	416.4	422.6	426.4	428.1	428.2	426.9	424.2	423.0
27.5°	404.9	406.4	409.5	413.1	418.7	422.9	424.9	424.9	423.8	421.3	419.5
28°	401.4	402.5	406.3	409.9	415.4	419.2	421.1	421.5	418.6	417.4	415.8
28.5°	397.8	398.9	402.2	405.5	411.8	415.5	417.9	417.5	415.8	413.7	411.6
29°	394.0	394.6	398.2	401.4	407.4	412.0	413.7	412.9	411.5	410.1	407.8
29.5°	389.6	391.3	394.4	397.9	403.9	407.9	409.5	409.4	407.6	404.9	404.0
30°	385.6	386.0	390.7	394.0	400.3	403.9	406.3	405.4	404.1	401.8	400.1
30.5°	381.2	382.9	386.5	390.1	396.2	400.1	401.1	401.3	399.3	397.5	395.5
31°	377.3	379.3	382.1	385.6	392.2	395.7	397.4	397.3	395.0	393.1	390.9
31.5°	372.2	374.9	377.6	381.3	387.7	391.7	393.0	392.3	390.3	388.6	387.0
32°	368.8	370.0	373.6	376.9	383.1	386.6	388.4	387.2	386.0	384.3	382.0
32.5°	363.9	366.3	369.2	372.8	379.4	383.0	384.1	382.3	380.7	379.0	377.3
33°	359.0	361.2	364.6	367.9	374.3	377.7	379.5	378.2	375.3	374.3	372.1
33.5°	355.0	356.5	360.4	364.2	370.3	373.4	374.2	372.7	371.1	369.3	368.0
34°	350.3	351.9	355.7	359.3	365.4	369.0	369.5	367.4	366.1	363.7	361.9
34.5°	345.7	347.1	350.8	354.1	360.8	364.2	364.5	362.3	360.5	359.5	356.1
35°	340.8	341.8	346.0	349.0	355.8	359.5	359.6	356.8	354.2	353.7	352.4
35.5°	335.4	337.2	341.8	344.7	351.2	354.0	354.2	351.8	349.2	348.2	346.5
36°	330.1	332.3	335.9	340.2	346.2	349.1	348.4	346.2	343.8	342.7	341.3
36.5°	325.6	326.8	330.4	334.7	341.1	343.5	343.2	340.6	337.6	336.6	335.0
37°	320.0	321.9	326.3	329.3	336.0	338.3	337.7	334.6	332.7	331.7	329.6
37.5°	314.8	317.1	320.8	323.5	330.7	333.2	332.1	328.9	326.2	325.6	324.2
38°	309.6	311.6	315.4	318.0	325.8	327.2	326.4	322.9	319.9	319.8	318.2
38.5°	303.8	306.4	310.4	313.3	319.7	322.1	320.6	316.7	314.5	313.9	312.7
39°	298.6	300.6	304.5	308.5	314.6	315.7	314.6	310.3	308.2	307.3	306.3
39.5°	293.1	295.9	298.8	302.8	308.5	310.5	308.7	304.3	301.4	301.6	300.1
40°	287.4	290.2	293.9	297.0	303.2	304.8	302.3	297.9	295.4	295.1	293.8
40.5°	282.0	284.0	288.2	291.2	297.5	298.6	296.8	291.7	288.7	289.1	288.0
41°	276.3	278.9	282.7	285.9	291.8	292.9	290.4	285.2	282.4	282.8	281.8
41.5°	270.6	272.6	277.0	279.9	285.8	287.2	284.4	278.5	276.2	276.4	275.1
42°	265.2	267.4	271.3	273.8	280.1	281.0	277.7	271.9	269.0	269.4	268.6
42.5°	259.2	261.8	265.3	268.9	274.5	275.2	271.7	266.0	263.2	263.8	262.9
43°	253.8	256.2	260.2	263.0	268.6	268.9	265.4	259.3	257.0	257.3	256.8
43.5°	248.0	250.5	253.9	257.2	262.6	263.2	259.2	252.8	249.9	251.0	250.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	230.9	233.7	236.6	240.1	245.2	244.8	240.3	233.5	231.0	232.1	232.1
45.5°	225.5	228.2	231.2	234.1	239.1	238.5	234.2	227.3	225.1	226.0	226.0
46°	219.7	222.1	225.9	228.6	233.4	233.0	227.5	221.2	218.5	220.2	220.3
46.5°	214.5	217.0	220.2	223.0	227.6	226.8	222.0	215.0	212.5	214.4	213.8
47°	208.7	211.6	214.6	217.4	221.6	221.1	215.5	208.8	206.9	208.2	208.4
47.5°	203.4	205.7	208.9	211.7	216.2	215.0	209.7	202.9	200.8	202.2	202.6
48°	198.2	200.5	203.6	206.0	210.5	209.2	204.0	197.3	195.0	196.4	196.8
48.5°	192.4	194.8	198.4	200.5	205.0	204.3	198.1	191.6	189.2	191.0	191.5
49°	187.4	189.7	192.7	195.6	199.8	197.9	192.4	186.0	183.8	185.3	186.3
49.5°	182.0	184.4	187.4	189.8	194.0	192.7	186.8	180.2	178.2	179.8	180.7
50°	177.3	179.4	182.0	184.5	188.7	187.2	181.3	175.2	173.1	174.5	175.2
50.5°	172.0	174.0	177.3	179.2	183.1	181.9	175.8	169.6	167.6	169.4	170.4
51°	167.1	169.1	171.9	174.0	178.3	176.6	170.9	164.5	162.5	164.4	165.1
51.5°	162.2	164.5	166.8	169.0	173.1	171.5	165.7	159.5	157.5	159.1	160.2
52°	157.4	159.3	161.8	164.0	168.0	166.3	160.5	154.8	152.9	154.4	155.4
52.5°	152.6	154.4	157.1	159.1	162.9	161.2	155.4	149.8	148.3	149.6	150.7
53°	147.6	149.8	152.5	154.1	158.2	156.4	150.6	145.3	143.5	144.7	146.0
53.5°	143.3	145.5	147.8	149.5	153.2	151.7	146.1	140.7	139.1	140.3	141.5
54°	138.8	140.8	142.7	144.6	148.6	146.7	141.2	136.4	134.8	135.9	137.0
54.5°	134.6	136.3	138.4	140.2	144.0	142.2	136.9	131.9	130.5	131.4	132.9
55°	130.2	132.2	134.2	136.2	139.5	138.1	132.6	128.1	126.5	127.4	128.6
55.5°	126.0	128.0	129.6	131.5	135.0	133.3	128.4	123.8	122.3	123.4	124.5
56°	122.1	123.7	125.6	127.4	130.6	129.0	124.2	120.1	118.5	119.4	120.7
56.5°	118.0	119.9	121.6	123.0	126.3	124.7	120.3	116.1	114.7	115.6	116.6
57°	114.2	115.9	117.4	119.0	122.2	120.7	116.3	112.5	110.8	111.7	112.9
57.5°	110.6	111.8	113.7	115.1	118.1	116.6	112.5	108.9	107.5	108.3	109.2
58°	106.7	108.3	109.9	111.2	114.1	112.9	109.0	105.2	103.7	104.6	105.6
58.5°	103.3	104.4	105.9	107.4	110.1	109.1	105.3	102.2	100.7	101.2	102.4
59°	99.6	100.9	102.2	103.5	106.5	105.1	101.7	98.6	97.3	97.8	98.8
59.5°	95.9	97.3	98.8	100.1	102.8	101.6	98.2	95.3	93.9	94.7	95.6
60°	92.6	93.9	95.4	96.4	99.1	98.1	94.9	92.1	91.0	91.4	92.2
60.5°	89.5	90.6	91.9	92.9	95.6	94.5	91.6	89.2	88.0	88.3	89.2
61°	86.0	87.2	88.4	89.8	92.2	91.2	88.6	86.0	85.0	85.2	86.3
61.5°	83.1	84.1	85.1	86.2	89.0	87.9	85.4	83.3	82.3	82.4	83.5
62°	80.1	80.9	82.2	83.2	85.5	84.8	82.5	80.4	79.4	79.5	80.7
62.5°	77.1	77.8	78.9	79.9	82.5	81.7	79.6	77.7	76.7	76.7	77.9
63°	74.0	75.0	76.0	76.9	79.3	78.6	76.7	74.9	73.8	73.9	75.1
63.5°	71.3	72.0	72.9	73.9	76.3	75.6	73.7	72.1	71.4	71.5	72.2
64°	68.6	69.2	70.1	71.1	73.2	72.5	71.1	69.7	69.0	69.0	69.6
64.5°	65.8	66.5	67.4	68.2	70.3	69.8	68.4	67.1	66.4	66.5	67.1
65°	63.3	63.9	64.8	65.3	67.3	66.9	65.8	64.7	64.0	64.1	64.7
65.5°	60.7	61.4	62.1	62.8	64.7	64.4	63.4	62.4	61.7	61.7	62.3
66°	58.2	58.7	59.5	60.1	62.0	61.7	60.9	60.0	59.4	59.4	59.9



TEST NUMBER: P639476

CATALOG NUMBER: RL4LS9FSD2W1EWH -900LM -3500K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	51.4	51.7	52.3	52.8	54.4	54.2	53.9	53.3	52.9	53.0	53.3
68°	49.2	49.6	50.0	50.6	52.0	52.0	51.8	51.2	50.8	51.0	51.2
68.5°	47.1	47.4	47.9	48.2	49.8	49.8	49.7	49.3	48.9	49.0	49.2
69°	45.2	45.4	45.8	46.1	47.5	47.5	47.6	47.2	47.0	47.0	47.2
69.5°	43.3	43.5	43.8	44.1	45.4	45.5	45.6	45.3	45.0	45.1	45.3
70°	41.3	41.5	41.7	42.0	43.3	43.5	43.6	43.5	43.2	43.4	43.5
70.5°	39.6	39.7	40.0	40.2	41.3	41.5	41.8	41.6	41.4	41.5	41.7
71°	37.8	38.0	38.1	38.3	39.4	39.7	40.0	39.9	39.6	39.8	40.0
71.5°	36.2	36.3	36.4	36.5	37.6	37.8	38.2	38.2	38.0	38.1	38.3
72°	35.1	34.8	34.8	34.6	35.9	36.1	36.5	36.5	36.5	36.6	36.7
72.5°	33.5	33.3	33.3	33.1	34.1	34.4	34.8	34.9	34.8	34.9	35.0
73°	32.0	31.8	31.8	31.7	32.4	32.8	33.3	33.3	33.3	33.4	33.5
73.5°	30.4	30.3	30.3	30.2	30.9	31.2	31.7	31.8	31.8	32.0	32.0
74°	28.8	28.7	28.7	28.6	29.5	29.8	30.2	30.4	30.4	30.5	30.6
74.5°	27.4	27.4	27.3	27.2	28.0	28.3	28.7	28.9	28.9	29.1	29.3
75°	26.2	26.1	26.0	25.9	26.6	27.0	27.4	27.6	27.6	27.7	27.8
75.5°	25.0	24.9	24.8	24.8	25.4	25.7	26.1	26.3	26.3	26.4	26.5
76°	23.8	23.7	23.6	23.6	24.3	24.5	24.9	25.0	25.0	25.2	25.3
76.5°	22.7	22.5	22.4	22.4	23.2	23.3	23.7	23.8	23.9	24.0	24.2
77°	21.5	21.4	21.3	21.3	21.9	22.2	22.5	22.7	22.8	23.0	23.1
77.5°	20.5	20.3	20.2	20.2	20.8	21.1	21.5	21.6	21.7	21.9	22.0
78°	19.3	19.2	19.1	19.1	19.7	20.0	20.4	20.6	20.6	20.9	21.0
78.5°	18.2	18.1	18.0	17.9	18.6	18.9	19.3	19.4	19.6	19.8	19.9
79°	17.1	17.0	16.8	16.8	17.5	17.8	18.2	18.3	18.5	18.7	18.8
79.5°	15.9	15.8	15.7	15.6	16.4	16.7	17.1	17.3	17.4	17.7	17.7
80°	14.9	14.7	14.6	14.5	15.1	15.5	15.9	16.3	16.4	16.7	16.8
80.5°	13.8	13.7	13.6	13.5	14.1	14.4	14.8	15.1	15.3	15.5	15.7
81°	12.9	12.7	12.5	12.4	13.1	13.4	13.8	14.1	14.2	14.5	14.6
81.5°	11.8	11.6	11.5	11.3	12.0	12.4	12.8	13.1	13.2	13.5	13.6
82°	10.8	10.7	10.5	10.4	11.0	11.3	11.8	12.0	12.2	12.5	12.6
82.5°	9.9	9.6	9.4	9.3	10.1	10.4	10.8	11.0	11.2	11.5	11.6
83°	8.7	8.6	8.4	8.4	9.0	9.3	9.9	10.1	10.3	10.5	10.7
83.5°	7.8	7.7	7.5	7.4	8.1	8.4	8.9	9.1	9.3	9.6	9.8
84°	7.0	6.8	6.6	6.6	7.2	7.5	7.9	8.2	8.4	8.7	8.8
84.5°	6.1	5.9	5.7	5.6	6.2	6.6	7.0	7.3	7.5	7.8	7.9
85°	5.1	5.0	4.8	4.8	5.3	5.7	6.1	6.4	6.6	6.9	7.0
85.5°	4.4	4.2	4.0	4.0	4.5	4.8	5.2	5.5	5.7	5.9	6.1
86°	3.6	3.4	3.4	3.3	3.7	4.0	4.4	4.6	4.8	5.0	5.2
86.5°	2.8	2.6	2.6	2.4	2.8	3.1	3.6	3.9	4.1	4.2	4.3
87°	2.1	2.0	1.9	1.7	2.0	2.3	2.7	3.0	3.3	3.5	3.6
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: P639476

CATALOG NUMBER: RL4LS9FSD2W1EWH -900LM -3500K

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: P639476

CATALOG NUMBER: RL4LS9FSD2W1EWH -900LM -3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	517.6	517.6	517.6	517.6	517.6	517.6
0.5°	517.1	517.6	517.9	517.8	517.3	516.8
1°	517.5	517.0	516.8	517.1	517.5	516.5
1.5°	518.7	516.3	517.3	517.4	517.2	516.3
2°	516.6	516.4	516.7	516.2	516.1	515.4
2.5°	517.8	515.9	515.9	516.0	516.2	515.8
3°	516.8	516.0	515.5	515.4	515.6	514.7
3.5°	515.6	515.7	515.1	515.2	514.4	513.3
4°	515.6	514.2	514.5	514.3	513.6	512.1
4.5°	515.3	514.2	513.7	513.6	512.5	512.6
5°	514.3	511.9	512.6	512.5	511.9	511.6
5.5°	513.3	512.0	511.2	511.5	510.8	510.3
6°	513.0	511.3	510.9	510.1	509.9	509.1
6.5°	512.0	510.2	510.0	509.4	509.5	508.1
7°	511.2	508.8	508.1	508.8	507.3	507.3
7.5°	509.8	507.9	507.5	506.9	506.7	506.1
8°	508.8	506.7	506.0	505.8	505.1	504.4
8.5°	508.2	505.8	504.7	503.7	503.3	502.5
9°	505.6	503.9	503.4	502.5	502.7	502.4
9.5°	504.2	502.9	501.8	501.1	500.6	500.2
10°	504.0	501.1	500.7	500.1	498.7	498.1
10.5°	503.2	500.1	498.8	497.9	496.5	496.9
11°	502.3	498.1	497.2	496.6	495.7	494.7
11.5°	499.3	498.3	495.7	495.1	494.0	493.5
12°	498.5	494.5	494.0	493.2	491.8	491.9
12.5°	495.6	493.7	491.7	490.9	490.0	489.9
13°	495.1	491.6	489.4	489.0	488.9	487.6
13.5°	493.7	490.6	488.1	487.4	486.0	486.1
14°	491.2	487.8	486.5	485.3	484.2	483.8
14.5°	488.9	485.9	484.1	483.5	482.5	481.2
15°	487.9	483.4	481.3	480.9	479.6	480.0
15.5°	484.9	481.0	479.6	477.8	477.0	476.7
16°	482.9	479.0	477.4	476.2	475.4	474.6
16.5°	480.6	476.5	474.8	473.9	472.7	472.5
17°	478.6	474.7	472.7	470.9	469.9	469.5
17.5°	476.0	472.0	470.5	468.5	467.6	466.9
18°	473.5	469.2	467.4	466.0	465.2	464.5
18.5°	471.5	466.9	465.0	463.2	461.9	462.0
19°	468.9	463.9	462.1	460.4	458.9	458.9
19.5°	465.2	461.3	459.2	457.5	456.6	456.0
20°	463.3	457.9	457.0	454.3	453.6	453.5
20.5°	460.0	455.9	453.5	451.8	450.9	450.2
21°	457.5	453.3	450.8	448.9	447.7	446.0

TEST NUMBER: P639476

CATALOG NUMBER: RL4LS9FSD2W1EWH -900LM -3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	449.9	443.9	441.7	440.3	438.5	438.5
23°	445.8	440.5	438.4	436.6	435.8	435.3
23.5°	442.7	438.2	435.5	433.0	432.4	432.4
24°	439.1	434.9	432.8	430.1	429.2	428.8
24.5°	437.1	431.6	429.6	426.8	425.8	425.7
25°	432.8	428.8	425.9	424.3	423.3	422.8
25.5°	429.4	424.9	423.0	420.0	419.3	418.8
26°	427.3	421.6	419.6	417.1	415.4	415.3
26.5°	422.9	418.6	416.1	413.2	412.5	412.1
27°	419.7	414.8	412.2	410.1	408.6	408.6
27.5°	416.6	410.7	408.0	406.1	405.1	404.9
28°	412.4	406.9	404.1	402.7	401.6	401.4
28.5°	408.9	403.2	400.5	398.5	397.4	397.8
29°	404.1	399.0	396.1	394.6	393.8	394.0
29.5°	400.5	395.6	392.7	390.2	389.5	389.6
30°	396.7	391.1	388.7	386.4	386.2	385.6
30.5°	392.4	387.0	384.2	382.1	381.5	381.2
31°	388.2	381.9	379.7	377.8	376.8	377.3
31.5°	384.2	377.9	375.6	373.5	372.6	372.2
32°	378.5	373.1	370.9	368.9	368.0	368.8
32.5°	373.6	368.0	366.0	364.2	363.9	363.9
33°	369.1	363.4	361.4	359.3	359.0	359.0
33.5°	363.6	358.5	356.3	354.9	354.5	355.0
34°	359.8	353.4	351.0	349.7	349.8	350.3
34.5°	353.8	348.5	346.0	344.9	344.3	345.7
35°	348.6	342.8	340.7	339.7	339.6	340.8
35.5°	343.4	337.5	335.4	334.1	334.7	335.4
36°	337.6	331.7	330.2	329.4	329.6	330.1
36.5°	332.7	326.6	324.6	324.1	324.2	325.6
37°	326.4	320.7	319.2	318.3	318.7	320.0
37.5°	321.2	315.2	313.6	313.4	313.7	314.8
38°	315.3	309.2	307.9	307.7	308.2	309.6
38.5°	309.4	303.1	302.4	301.9	302.6	303.8
39°	303.1	297.6	296.1	296.3	297.7	298.6
39.5°	297.4	291.5	290.9	291.0	291.7	293.1
40°	291.6	285.3	284.4	284.9	285.9	287.4
40.5°	285.0	279.5	279.0	279.4	281.1	282.0
41°	279.1	273.2	272.9	273.4	274.7	276.3
41.5°	273.0	267.4	267.0	267.8	268.9	270.6
42°	266.5	262.0	261.4	262.3	263.3	265.2
42.5°	260.3	255.4	255.4	256.5	257.8	259.2
43°	254.0	249.4	249.5	250.2	251.8	253.8
43.5°	247.9	243.5	243.6	244.5	246.3	248.0



TEST NUMBER: P639476

CATALOG NUMBER: RL4LS9FSD2W1EWH -900LM -3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	229.8	225.8	226.3	227.0	229.1	230.9
45.5°	223.6	219.9	220.4	221.8	223.6	225.5
46°	218.2	214.4	215.0	215.8	217.8	219.7
46.5°	212.5	208.4	209.7	210.6	212.3	214.5
47°	206.6	203.1	203.8	205.2	206.7	208.7
47.5°	200.9	197.5	198.1	199.4	201.5	203.4
48°	195.5	192.2	193.2	193.8	195.9	198.2
48.5°	190.2	186.7	187.6	188.8	190.6	192.4
49°	184.9	181.6	182.6	183.6	185.3	187.4
49.5°	179.6	176.4	177.1	178.3	180.2	182.0
50°	174.1	171.2	172.1	173.4	175.1	177.3
50.5°	169.1	166.4	167.1	168.0	169.8	172.0
51°	164.4	161.4	162.3	163.4	165.1	167.1
51.5°	159.5	156.9	157.6	158.6	160.3	162.2
52°	154.8	152.1	152.8	153.8	155.4	157.4
52.5°	149.8	147.4	148.3	149.2	150.4	152.6
53°	145.4	143.0	143.8	144.5	146.1	147.6
53.5°	141.1	138.8	139.3	140.3	141.4	143.3
54°	136.8	134.1	135.0	135.7	137.2	138.8
54.5°	132.7	130.2	130.8	131.4	132.8	134.6
55°	128.2	126.3	126.6	127.4	128.5	130.2
55.5°	124.4	122.3	122.7	123.2	124.5	126.0
56°	120.7	118.4	118.6	119.4	120.6	122.1
56.5°	116.5	114.6	115.0	115.4	116.3	118.0
57°	113.0	111.2	111.2	111.6	112.6	114.2
57.5°	109.6	107.4	107.6	108.0	108.8	110.6
58°	105.9	104.0	104.0	104.5	105.3	106.7
58.5°	102.6	100.6	100.6	100.9	101.6	103.3
59°	99.1	97.2	97.4	97.3	98.2	99.6
59.5°	95.8	94.1	94.0	94.1	94.8	95.9
60°	92.7	90.7	90.9	90.9	91.6	92.6
60.5°	89.7	87.8	87.5	87.7	88.5	89.5
61°	86.6	84.7	84.7	84.5	85.1	86.0
61.5°	83.8	81.9	81.7	81.6	82.1	83.1
62°	81.0	79.0	78.5	78.7	79.1	80.1
62.5°	78.1	76.0	75.9	75.8	76.4	77.1
63°	75.3	73.4	73.1	72.9	73.4	74.0
63.5°	72.4	70.8	70.5	70.3	70.6	71.3
64°	69.9	68.2	67.9	67.8	68.0	68.6
64.5°	67.3	65.7	65.4	65.1	65.4	65.8
65°	64.8	63.3	62.9	62.8	62.8	63.3
65.5°	62.5	60.9	60.4	60.2	60.3	60.7
66°	60.2	58.6	58.2	57.8	57.9	58.2



TEST NUMBER: P639476

CATALOG NUMBER: RL4LS9FSD2W1EWH -900LM -3500K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	53.5	52.0	51.6	51.3	51.1	51.4
68°	51.3	50.1	49.6	49.2	49.0	49.2
68.5°	49.3	47.9	47.5	47.1	46.9	47.1
69°	47.4	46.1	45.6	45.2	45.1	45.2
69.5°	45.5	44.3	43.7	43.3	43.1	43.3
70°	43.6	42.5	42.0	41.5	41.2	41.3
70.5°	41.8	40.6	40.2	39.7	39.5	39.6
71°	40.1	39.0	38.5	38.1	37.8	37.8
71.5°	38.3	37.3	36.9	36.5	36.3	36.2
72°	36.8	35.8	35.3	34.6	35.0	35.1
72.5°	35.1	34.3	33.8	33.3	33.4	33.5
73°	33.6	32.9	32.4	31.9	31.9	32.0
73.5°	32.1	31.5	31.0	30.5	30.4	30.4
74°	30.7	30.0	29.6	29.1	28.8	28.8
74.5°	29.4	28.5	28.1	27.7	27.5	27.4
75°	28.0	27.3	26.9	26.5	26.2	26.2
75.5°	26.7	26.0	25.7	25.3	25.0	25.0
76°	25.5	24.8	24.5	24.1	23.9	23.8
76.5°	24.3	23.7	23.4	23.1	22.9	22.7
77°	23.2	22.5	22.2	21.9	21.7	21.5
77.5°	22.1	21.5	21.2	20.9	20.7	20.5
78°	21.0	20.4	20.1	19.8	19.5	19.3
78.5°	20.0	19.4	19.1	18.7	18.4	18.2
79°	18.9	18.3	18.0	17.6	17.3	17.1
79.5°	17.9	17.2	16.9	16.6	16.3	15.9
80°	16.8	16.2	15.8	15.4	15.1	14.9
80.5°	15.7	15.1	14.8	14.4	14.1	13.8
81°	14.6	14.1	13.7	13.4	13.0	12.9
81.5°	13.7	13.1	12.8	12.4	12.0	11.8
82°	12.7	12.1	11.7	11.3	11.0	10.8
82.5°	11.7	11.1	10.8	10.4	10.1	9.9
83°	10.7	10.2	9.9	9.4	9.0	8.7
83.5°	9.8	9.2	8.8	8.4	8.0	7.8
84°	8.8	8.2	7.9	7.5	7.2	7.0
84.5°	7.9	7.3	7.0	6.7	6.3	6.1
85°	7.0	6.5	6.1	5.8	5.4	5.1
85.5°	6.1	5.6	5.2	4.9	4.5	4.4
86°	5.2	4.7	4.4	4.1	3.8	3.6
86.5°	4.4	4.0	3.7	3.4	3.0	2.8
87°	3.7	3.3	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: P639476

CATALOG NUMBER: RL4LS9FSD2W1EWH -900LM -3500K

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

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Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



Report Generated By 670245859 / DESKTOP-T8S5UU9

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

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21.5°	445.3	445.4	448.9	451.8	456.2	459.9	461.9	462.2	460.9	458.5	457.2
22°	440.9	442.5	445.7	448.6	453.5	456.6	459.5	459.3	458.7	456.8	454.0



44°	242.3	245.1	248.7	251.7	256.4	256.5	252.9	246.1	243.8	244.6	244.8
44.5°	237.0	239.0	243.0	246.0	250.7	251.0	246.5	239.9	237.0	238.7	237.9



66.5°	55.9	56.4	57.1	57.7	59.4	59.1	58.5	57.8	57.3	57.2	57.6
67°	53.6	54.0	54.5	55.2	56.9	56.7	56.2	55.5	55.1	55.3	55.5



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

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21.5°	454.7	450.0	448.1	445.8	445.0	445.3
22°	450.9	447.1	444.8	442.4	441.8	440.9



44°	242.0	237.7	237.6	238.8	240.5	242.3
44.5°	236.0	231.7	232.2	233.1	234.7	237.0



66.5°	57.8	56.4	55.9	55.6	55.6	55.9
67°	55.7	54.2	53.6	53.3	53.2	53.6



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

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(END OF REPORT)