

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: HALO

Report Number: P869643

Luminaire Tested: **SMX14RLSFS010-1600LM-3500K**

Issue Date: 8/29/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-08  
 Report Number: P869643  
 Test Lab:  
 Issue Date: 8/29/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: HALO  
 Catalog Number: SMX14RLSFS010-1600LM-3500K  
 Description: 14IN ROUND, 90CRI, DIMMING TO 10%, DAMP LOCATION  
 Light Source: SELECTABLE CCT 90CRI / 3500K CCT  
 Ballast/Driver: -

**Summary**

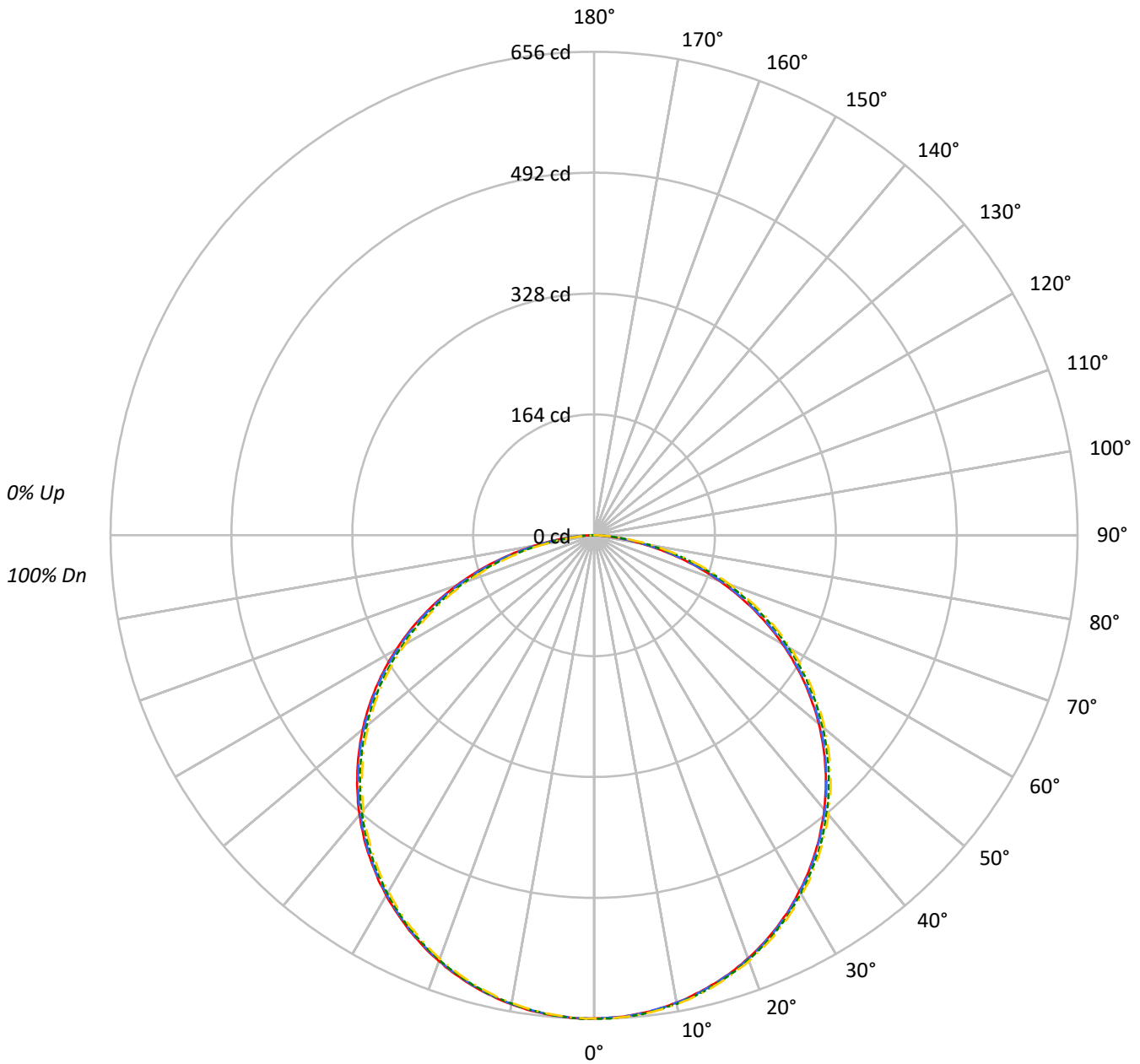
Lumens per Lamp: N/A  
 Luminaire Lumens: 1920.2 lumens  
 Efficiency: N/A  
 Efficacy: 93.2 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Circular (Dia: 1.17' x H: 0')  
 CIE Type: Direct

Input Watts (W): 20.6  
 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: 25 FT

Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	GONIO 1 IN0055	4/22/2021	10/22/2021
Power Meter	XITRON 2801 IN0197	12/1/2020	12/1/2021
AC Power Source	CHROMA 61505 IN0196	12/1/2020	12/1/2021
DC Power Supply	AGILENT E3634A IN0198	11/30/2020	11/30/2021
Room Thermometer	ONSET IN0143	12/1/2020	12/1/2021

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### Luminous Intensity Polar Plot



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

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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	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	86	86	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	79	75	72	72	72	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	60	60	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	62	56	52	52	52	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	49	45	45	45	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	39	39	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	35	35	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	31	31	31	29
9	56	42	34	29	55	42	34	29	41	33	28	40	33	28	39	33	28	28	28	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	25	25	25	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	6599	6599	6599	6599
5°	6590	6607	6604	6604
10°	6580	6597	6601	6593
15°	6565	6584	6599	6585
20°	6543	6564	6588	6569
25°	6518	6548	6578	6549
30°	6475	6521	6556	6519
35°	6435	6493	6531	6483
40°	6383	6453	6504	6442
45°	6315	6406	6465	6383
50°	6228	6337	6419	6308
55°	6113	6253	6344	6213
60°	5939	6120	6233	6058
65°	5696	5931	6077	5843
70°	5320	5640	5826	5508
75°	4740	5183	5424	4985
80°	3807	4422	4775	4132
85°	2321	3164	3695	2760

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.1	3.2
10°-20°	178.3	9.3
20°-30°	271.7	14.1
30°-40°	330.3	17.2
40°-50°	346.3	18.0
50°-60°	317.0	16.5
60°-70°	244.1	12.7
70°-80°	138.1	7.2
80°-90°	32.3	1.7
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
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0°-30°	512.1	26.7
0°-40°	842.4	43.9
0°-60°	1505.7	78.4
0°-90°	1920.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1920.2	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	656	656	656	656	656	
5°	652	654	654	654	652	62
15°	630	632	633	632	630	178
25°	587	590	592	590	587	270
35°	524	528	532	528	524	328
45°	444	450	454	448	444	342
55°	348	356	362	354	348	311
65°	239	249	255	245	239	236
75°	122	133	140	128	122	129
85°	20	27	32	24	20	26
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°	655.8	655.8	655.8	655.8	655.8	655.8	655.8	655.8	655.8	655.8	655.8
0.5°	655.5	655.3	655.4	656.1	656.2	656.5	656.0	655.7	655.6	655.4	655.6
1°	655.6	655.0	655.2	656.2	656.2	656.2	656.0	655.6	655.9	655.5	655.2
1.5°	655.3	655.2	655.1	655.6	656.1	656.2	656.0	655.8	656.1	655.2	655.3
2°	655.2	654.6	654.8	655.2	656.2	656.0	655.7	655.7	655.9	655.0	655.3
2.5°	654.6	654.5	654.9	655.4	655.7	655.7	655.5	655.5	655.7	655.0	655.1
3°	654.3	654.2	654.5	654.8	655.3	655.5	655.1	655.2	655.3	655.0	654.8
3.5°	654.3	653.8	654.3	654.5	655.3	655.3	655.0	655.0	654.8	654.7	654.5
4°	653.8	653.3	653.8	654.2	654.8	654.8	654.6	654.5	654.3	654.4	654.6
4.5°	653.1	652.7	653.3	653.4	654.3	654.4	654.2	654.3	654.0	654.0	653.7
5°	652.4	651.9	652.7	653.3	654.0	653.8	653.8	653.8	653.8	653.4	653.4
5.5°	651.6	651.3	652.1	652.2	653.2	653.3	653.1	653.1	653.2	653.1	652.9
6°	651.1	650.6	651.4	651.4	652.7	652.5	652.6	652.6	652.7	652.5	652.2
6.5°	650.6	650.0	651.0	651.0	651.9	651.9	652.3	652.1	652.0	652.0	651.5
7°	649.9	649.4	649.6	650.1	651.1	650.9	651.5	651.3	651.6	651.3	650.7
7.5°	649.2	648.6	648.7	649.3	650.2	650.1	650.6	650.5	651.1	650.5	649.8
8°	648.2	647.8	647.7	648.6	649.3	649.2	649.9	649.9	650.2	649.9	649.5
8.5°	647.2	646.7	647.3	647.7	648.6	648.3	648.7	648.7	648.9	648.9	648.4
9°	646.1	645.9	646.3	646.6	647.4	647.9	648.3	647.9	648.0	647.7	647.7
9.5°	644.9	644.8	645.1	645.8	646.5	646.5	647.0	646.9	647.3	647.0	646.5
10°	643.9	643.8	643.8	644.9	645.6	645.6	646.1	646.1	646.0	646.3	645.8
10.5°	642.6	642.8	643.0	643.6	644.4	644.6	644.8	645.1	645.3	645.1	644.6
11°	642.0	641.3	641.9	642.6	643.2	643.4	643.6	643.9	644.3	643.8	643.5
11.5°	640.2	640.0	641.1	641.1	642.0	642.0	642.9	642.8	643.1	642.5	642.2
12°	638.9	638.8	639.5	639.9	641.1	640.9	641.6	641.6	642.0	641.4	641.1
12.5°	637.3	637.7	638.1	638.6	639.4	639.9	640.0	640.6	640.2	640.5	639.9
13°	636.3	636.3	636.6	636.8	638.0	638.7	638.9	639.2	639.3	639.0	638.7
13.5°	634.6	634.6	635.3	635.8	636.7	637.2	637.5	637.8	638.0	637.3	637.3
14°	633.3	633.1	633.7	634.3	635.2	635.6	636.0	636.0	636.5	635.9	635.6
14.5°	631.2	631.4	632.0	633.1	633.6	634.0	634.7	635.0	635.0	634.9	634.2
15°	630.1	629.7	630.7	630.7	632.0	632.4	632.9	633.6	633.4	633.1	633.0
15.5°	628.3	628.0	628.6	629.3	630.3	630.7	631.3	631.8	632.0	631.5	631.0
16°	626.5	626.6	626.8	627.8	628.6	629.0	629.7	629.7	630.3	629.7	629.0
16.5°	624.8	625.0	625.0	626.0	626.6	627.1	627.9	627.9	628.5	628.2	627.5
17°	623.2	623.2	623.7	624.2	625.0	625.2	626.3	626.4	626.5	626.7	625.8
17.5°	621.2	621.3	621.8	622.7	623.0	623.8	624.6	624.6	625.0	624.5	624.2
18°	619.3	619.2	619.8	620.6	621.5	622.0	622.7	623.0	623.2	622.9	622.2
18.5°	617.1	617.0	617.9	618.3	619.3	620.0	620.5	620.9	621.0	621.1	620.4
19°	615.2	615.0	616.0	616.2	617.1	618.0	618.6	618.9	619.5	618.9	618.2
19.5°	612.9	613.0	613.8	614.6	615.2	615.7	617.0	617.0	616.9	617.2	616.2
20°	611.0	610.8	611.6	612.3	612.9	614.1	614.9	615.2	615.2	615.1	614.3
20.5°	608.8	608.5	609.3	610.4	610.9	611.9	612.7	613.2	612.9	613.0	612.4
21°	606.7	606.5	607.0	607.8	608.7	609.4	610.5	611.0	611.0	610.8	609.9
21.5°	604.4	604.0	604.9	605.8	606.7	607.5	608.3	608.9	609.1	608.5	607.8
22°	601.7	602.0	602.8	603.2	604.0	605.2	606.3	606.6	606.7	606.1	605.4

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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°	599.6	599.3	600.2	600.8	602.0	602.8	603.7	604.3	604.4	603.9	603.4
23°	597.1	596.9	597.4	598.7	599.6	600.3	601.6	602.2	601.7	601.7	600.8
23.5°	594.5	594.5	594.9	596.0	597.0	597.8	599.2	599.4	599.3	599.6	598.3
24°	592.0	592.0	592.7	593.5	594.7	595.7	596.9	597.1	597.0	597.2	595.9
24.5°	589.2	589.5	590.0	591.0	592.3	592.9	594.2	594.7	594.7	594.3	593.6
25°	587.0	586.6	587.6	588.3	589.7	590.4	591.7	592.2	592.4	592.2	590.8
25.5°	584.0	584.3	584.7	585.6	586.7	587.9	589.1	589.8	589.5	589.4	588.3
26°	581.3	581.7	581.9	583.1	584.3	585.6	586.3	587.0	586.6	587.0	585.8
26.5°	578.5	578.5	579.0	580.3	581.5	582.5	583.9	584.2	584.0	584.0	582.9
27°	576.0	575.8	576.5	577.1	579.2	579.6	581.1	581.8	581.3	581.4	579.9
27.5°	572.7	572.8	573.6	574.3	576.2	576.9	578.0	578.7	578.6	578.6	577.4
28°	569.6	569.9	570.7	571.5	572.9	574.3	575.5	576.0	575.8	575.7	574.5
28.5°	566.6	566.8	567.5	568.2	570.2	571.2	572.5	572.9	572.9	572.6	571.6
29°	563.6	564.1	564.5	565.5	567.2	568.2	569.8	570.2	570.2	569.7	568.8
29.5°	560.2	560.6	561.5	562.5	564.4	565.2	566.8	567.2	567.4	567.2	565.8
30°	557.2	557.5	558.3	559.6	561.2	562.3	563.9	564.3	564.2	564.1	562.6
30.5°	554.5	554.5	555.5	556.6	558.3	559.2	560.6	561.2	561.1	561.1	559.7
31°	551.2	551.8	551.9	553.1	555.5	555.9	557.4	558.6	557.9	558.1	556.8
31.5°	547.9	548.1	548.9	550.2	552.0	553.1	554.5	555.0	555.0	555.2	553.7
32°	544.9	545.1	545.8	547.0	548.8	549.9	551.7	552.1	552.2	552.2	550.4
32.5°	541.5	541.8	542.0	543.2	545.2	546.6	548.3	549.2	548.5	548.5	547.4
33°	537.9	538.6	538.7	540.0	542.2	543.0	544.9	545.6	544.9	545.3	544.1
33.5°	534.2	534.9	535.5	536.8	538.6	539.7	541.3	542.5	541.8	541.8	540.7
34°	531.0	531.5	531.8	533.4	535.6	536.6	538.1	539.1	538.5	538.5	537.2
34.5°	527.2	527.8	528.6	529.9	532.0	533.2	534.8	535.7	535.0	535.1	533.8
35°	523.8	524.4	525.1	526.2	528.5	529.6	531.4	531.9	531.6	531.6	530.5
35.5°	520.2	520.5	521.5	522.5	524.9	526.2	527.6	528.4	528.4	528.3	527.1
36°	516.6	516.9	517.5	518.9	521.4	522.7	524.4	525.0	525.0	524.6	523.5
36.5°	513.0	513.1	514.2	515.4	518.1	518.8	520.8	521.5	521.5	521.6	519.7
37°	509.3	509.4	510.3	511.7	514.2	515.5	517.1	518.1	517.8	517.8	516.4
37.5°	505.1	505.7	506.5	507.9	510.3	511.7	513.4	514.1	514.0	513.9	512.7
38°	501.2	502.0	502.8	504.1	506.6	508.3	510.0	510.5	510.1	509.9	509.1
38.5°	497.6	498.1	498.8	500.0	502.8	504.2	506.1	506.7	506.7	506.3	505.3
39°	493.8	493.9	495.0	496.3	498.8	500.3	502.3	503.2	502.9	502.6	501.3
39.5°	490.0	490.0	491.1	492.5	494.8	496.6	498.7	499.3	499.0	498.8	497.1
40°	485.9	486.5	487.2	488.7	491.2	492.9	494.4	495.5	495.1	495.0	493.3
40.5°	481.6	482.2	483.4	484.8	487.3	489.0	490.6	491.5	491.3	491.0	489.5
41°	477.7	478.5	479.2	480.9	483.5	485.2	486.7	487.7	487.6	487.1	485.7
41.5°	473.6	474.2	475.1	476.9	479.5	481.2	482.8	483.5	483.5	483.0	481.5
42°	469.4	470.1	470.8	472.7	475.3	477.0	478.6	479.4	479.2	478.9	477.6
42.5°	465.1	466.0	466.5	468.5	471.2	472.7	474.5	475.5	475.2	475.1	473.5
43°	460.8	461.6	462.3	464.2	467.0	468.8	470.6	471.6	471.1	470.8	469.4
43.5°	456.7	457.4	458.3	460.1	462.6	464.5	466.1	467.5	467.0	466.5	465.2
44°	452.7	452.9	453.8	455.7	458.5	460.4	462.2	463.0	462.8	462.3	461.1
44.5°	447.9	448.5	449.7	451.5	454.3	456.2	457.7	458.5	458.5	458.1	456.7

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	443.7	444.1	445.4	447.2	450.1	451.8	453.5	454.4	454.3	454.0	452.4
45.5°	439.5	439.6	440.9	442.8	445.7	447.3	449.2	449.8	450.1	449.6	448.0
46°	434.9	435.3	436.3	438.4	441.1	443.0	444.9	445.7	445.8	445.4	443.9
46.5°	430.5	430.8	431.7	433.6	436.6	438.6	440.6	441.1	441.2	440.9	439.3
47°	425.9	426.3	427.5	429.4	432.1	434.1	436.1	436.8	436.9	436.3	434.8
47.5°	421.4	421.6	423.1	424.9	427.8	429.7	431.6	432.4	432.3	432.0	430.5
48°	416.7	417.1	418.6	420.3	423.3	425.1	427.2	428.0	427.9	427.4	426.2
48.5°	412.1	412.4	413.8	415.7	418.8	420.6	422.6	423.6	423.6	422.9	421.6
49°	407.6	407.7	409.2	411.0	414.1	415.9	418.2	419.0	419.0	418.4	417.1
49.5°	402.8	403.1	404.4	406.5	409.4	411.4	413.4	414.1	414.5	413.9	412.4
50°	397.8	398.3	399.7	401.6	404.8	406.9	409.1	409.8	410.0	409.4	407.5
50.5°	393.1	393.4	395.0	397.1	400.0	402.2	404.3	405.0	405.0	404.5	402.9
51°	388.3	388.6	390.0	392.2	395.5	397.4	399.3	400.4	400.5	399.6	398.3
51.5°	383.3	383.8	385.2	387.4	390.5	392.7	394.7	395.6	395.7	395.0	393.4
52°	378.4	378.9	380.2	382.5	386.0	388.0	390.2	391.2	390.8	390.1	388.9
52.5°	373.4	374.0	375.5	377.6	381.0	383.0	385.2	386.2	385.9	385.3	383.7
53°	368.6	369.1	370.7	372.7	376.1	378.2	380.4	381.4	381.2	380.6	379.0
53.5°	363.5	363.8	365.6	367.6	371.3	373.4	375.2	376.4	376.2	375.7	374.2
54°	358.5	358.6	360.3	362.5	366.3	368.2	370.5	371.6	371.2	371.0	369.1
54.5°	353.6	354.1	355.5	357.4	361.1	363.5	365.6	366.4	366.3	365.8	364.0
55°	348.4	348.9	350.4	352.7	356.4	358.6	360.7	361.9	361.6	360.9	359.1
55.5°	343.3	343.6	345.4	347.4	351.3	353.6	355.6	356.9	356.6	355.8	354.3
56°	338.1	338.5	340.1	342.3	346.4	348.4	350.8	351.9	351.5	350.8	349.1
56.5°	332.7	333.3	335.1	337.0	341.1	343.3	345.5	346.5	346.5	345.4	344.2
57°	327.4	328.1	329.6	331.6	335.8	338.3	340.5	341.7	341.3	340.4	339.0
57.5°	322.1	322.6	324.3	326.4	330.6	332.9	335.2	336.2	336.2	335.3	333.7
58°	317.1	317.4	318.9	321.3	325.4	327.8	330.1	331.0	330.8	330.0	328.5
58.5°	311.6	311.8	313.7	316.0	320.2	322.5	324.7	325.8	325.9	324.7	323.3
59°	306.1	306.8	308.3	310.7	315.0	317.3	319.5	320.6	320.7	319.3	317.8
59.5°	300.5	301.3	302.8	305.1	309.5	312.0	314.1	315.3	315.0	314.2	312.6
60°	295.1	295.7	297.6	300.0	304.1	306.6	308.9	309.9	309.7	308.8	307.1
60.5°	289.9	290.3	291.8	294.3	298.5	301.4	303.5	304.6	304.4	303.5	301.8
61°	284.5	285.0	286.6	289.2	293.1	295.9	298.2	299.2	299.0	297.9	296.7
61.5°	278.8	279.3	281.1	283.6	287.7	290.5	292.5	293.7	293.8	292.6	291.1
62°	273.1	273.9	275.6	277.9	282.6	285.3	287.3	288.4	288.3	287.3	285.8
62.5°	267.3	268.2	269.7	272.2	277.0	279.7	282.1	283.0	282.9	281.8	280.2
63°	261.8	262.7	264.2	266.8	271.4	274.2	276.4	277.5	277.4	276.4	274.7
63.5°	256.2	257.1	258.7	261.1	265.8	268.6	271.0	271.9	271.9	270.8	269.1
64°	250.3	251.3	253.1	255.6	260.1	263.2	265.2	266.1	266.2	265.1	263.7
64.5°	244.9	245.8	247.4	250.0	254.7	257.3	259.7	260.6	260.6	259.6	257.7
65°	239.2	240.0	241.9	244.4	249.1	252.0	254.3	255.2	255.2	254.2	252.5
65.5°	233.4	234.4	236.0	238.8	243.6	246.3	248.6	249.6	249.6	248.7	246.6
66°	227.5	228.4	230.2	232.8	237.7	240.6	242.8	243.9	243.7	242.9	241.0
66.5°	221.9	222.8	224.3	227.0	232.0	234.7	236.9	238.1	237.9	236.9	235.2
67°	216.3	216.9	218.6	221.4	226.2	229.0	231.3	232.4	232.3	231.4	229.4



TEST NUMBER: P869643  
 CATALOG NUMBER: SMX14RLSFS010-1600LM-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	210.2	211.2	213.0	215.6	220.5	223.2	225.5	226.7	226.8	225.6	223.7
68°	204.4	205.2	207.2	209.8	214.8	217.6	220.1	220.9	221.0	219.9	218.1
68.5°	198.5	199.4	201.2	204.0	209.2	212.0	214.1	215.3	215.3	214.1	212.5
69°	192.6	193.4	195.4	198.1	203.3	206.1	208.5	209.5	209.5	208.3	206.8
69.5°	186.7	187.5	189.6	192.0	197.5	200.5	202.7	203.7	203.8	202.6	200.7
70°	180.8	181.7	183.7	186.2	191.7	194.5	196.9	197.9	198.0	196.8	194.8
70.5°	175.0	175.8	177.8	180.6	186.1	188.6	191.0	192.2	192.2	191.1	189.0
71°	169.1	169.7	171.9	174.4	180.1	183.1	185.5	186.5	186.5	185.2	183.3
71.5°	163.0	164.0	165.9	168.5	174.2	177.2	179.5	180.5	180.6	179.4	177.3
72°	157.3	158.0	160.0	162.6	168.2	171.3	173.8	174.6	174.8	173.5	171.5
72.5°	151.5	152.3	154.3	156.9	162.4	165.4	167.7	168.9	169.0	167.7	165.7
73°	145.5	146.4	148.5	150.8	156.5	159.5	161.9	162.8	163.0	161.7	159.6
73.5°	139.5	140.4	142.4	145.0	150.8	153.8	156.1	157.1	157.2	156.0	154.0
74°	133.6	134.6	136.6	139.1	145.0	148.0	150.4	151.3	151.4	150.1	148.2
74.5°	127.7	128.7	130.7	133.2	139.0	142.1	144.5	145.5	145.6	144.4	142.2
75°	121.9	122.8	124.9	127.4	133.3	136.2	138.5	139.5	139.5	138.4	136.4
75.5°	116.1	117.0	119.1	121.7	127.3	130.3	132.6	133.8	133.7	132.5	130.5
76°	110.3	111.2	113.2	115.8	121.5	124.5	126.7	127.8	128.0	126.7	124.6
76.5°	104.4	105.5	107.5	109.9	115.8	118.8	121.0	122.0	122.1	120.9	118.7
77°	98.6	99.6	101.8	104.3	109.9	112.9	115.2	116.3	116.1	115.1	113.2
77.5°	93.2	94.2	96.2	98.7	104.2	107.2	109.5	110.4	110.5	109.4	107.3
78°	87.5	88.5	90.5	92.9	98.6	101.5	103.8	104.7	104.7	103.5	101.6
78.5°	81.9	82.9	84.9	87.6	92.8	95.7	98.1	99.0	99.0	97.9	95.8
79°	76.5	77.4	79.5	82.0	87.4	90.1	92.3	93.3	93.3	92.2	90.3
79.5°	71.0	71.9	74.0	76.5	81.8	84.7	86.9	87.8	87.8	86.8	84.6
80°	65.7	66.5	68.6	71.0	76.3	79.2	81.3	82.3	82.4	81.2	79.3
80.5°	60.4	61.4	63.3	65.6	71.0	73.8	76.0	76.9	76.9	75.7	73.6
81°	55.3	56.2	58.1	60.5	65.6	68.3	70.4	71.5	71.5	70.4	68.5
81.5°	50.3	51.4	53.0	55.4	60.5	63.0	65.1	66.1	66.0	64.8	63.0
82°	45.4	46.3	48.1	50.2	55.2	57.9	59.8	60.8	60.9	59.7	57.8
82.5°	40.7	41.6	43.4	45.5	50.3	52.9	54.8	55.7	55.7	54.6	52.8
83°	36.1	37.0	38.7	40.7	45.4	48.0	49.9	51.0	50.8	49.8	47.9
83.5°	31.8	32.6	34.2	36.1	40.7	43.0	44.9	45.9	45.9	44.7	43.1
84°	27.5	28.5	30.0	31.8	35.9	38.4	40.2	41.1	41.1	39.9	38.3
84.5°	23.7	24.5	25.9	27.8	31.6	33.7	35.6	36.5	36.4	35.4	33.8
85°	20.1	20.9	22.3	23.8	27.4	29.5	31.3	32.1	32.0	31.0	29.6
85.5°	16.6	17.2	18.6	20.2	23.4	25.4	27.0	27.7	27.7	26.8	25.3
86°	13.4	13.9	15.2	16.7	20.0	21.6	23.0	23.8	23.7	22.8	21.5
86.5°	10.1	10.7	12.0	13.4	16.7	18.3	19.6	20.3	20.3	19.5	18.1
87°	7.3	7.8	8.7	10.2	13.5	15.1	16.4	17.1	17.0	16.2	14.9
87.5°	5.4	5.5	6.4	7.4	10.6	12.0	13.3	13.8	13.7	13.0	11.9
88°	3.3	3.7	4.3	5.4	7.8	9.1	10.2	10.8	10.7	10.1	9.1
88.5°	2.0	2.2	2.7	3.5	5.4	6.6	7.5	8.0	7.9	7.3	6.4
89°	1.2	1.3	1.6	2.1	3.4	4.5	5.2	5.6	5.5	5.0	4.4
89.5°	0.8	0.7	0.9	1.2	1.9	2.7	3.2	3.5	3.5	3.1	2.5

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



TEST NUMBER: P869643  
CATALOG NUMBER: SMX14RLSFS010-1600LM-3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P869643  
 CATALOG NUMBER: SMX14RLSFS010-1600LM-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	655.8	655.8	655.8	655.8	655.8	655.8
0.5°	655.8	656.4	656.2	655.8	656.0	655.5
1°	655.8	656.4	656.0	655.7	655.8	655.6
1.5°	655.9	656.3	655.9	655.2	655.2	655.3
2°	655.6	656.0	655.6	655.3	655.2	655.2
2.5°	655.2	655.7	655.4	655.0	654.7	654.6
3°	655.0	655.1	655.2	654.7	654.8	654.3
3.5°	654.9	654.9	654.7	654.4	654.6	654.3
4°	654.6	654.5	654.2	653.5	653.3	653.8
4.5°	653.9	654.1	654.0	653.1	653.3	653.1
5°	653.3	653.8	653.3	652.6	652.3	652.4
5.5°	653.2	652.9	653.0	652.2	652.2	651.6
6°	652.4	652.3	652.1	651.4	651.6	651.1
6.5°	651.5	651.3	651.4	650.6	650.8	650.6
7°	650.8	650.7	650.6	650.0	650.1	649.9
7.5°	650.0	650.0	649.9	649.2	649.6	649.2
8°	649.1	649.0	649.0	648.4	648.9	648.2
8.5°	648.6	648.2	647.8	647.5	647.7	647.2
9°	647.8	647.5	647.2	646.3	646.5	646.1
9.5°	646.7	646.5	646.2	645.1	645.4	644.9
10°	645.5	645.2	644.9	644.4	644.4	643.9
10.5°	644.5	644.3	643.9	643.0	642.7	642.6
11°	643.4	643.0	642.7	642.0	641.5	642.0
11.5°	642.1	641.8	641.5	640.6	640.5	640.2
12°	640.9	640.6	640.2	639.5	639.4	638.9
12.5°	639.7	639.4	639.0	637.8	637.8	637.3
13°	638.1	638.3	637.5	636.7	636.5	636.3
13.5°	636.7	636.6	636.0	635.1	635.1	634.6
14°	635.5	635.0	634.9	633.6	633.2	633.3
14.5°	633.6	633.6	633.1	632.1	631.9	631.2
15°	632.2	632.1	631.5	630.4	630.1	630.1
15.5°	630.9	630.4	629.8	628.7	628.5	628.3
16°	629.0	628.8	627.9	626.9	626.8	626.5
16.5°	627.4	627.0	626.1	625.0	624.8	624.8
17°	625.7	625.1	624.2	623.4	623.2	623.2
17.5°	624.2	623.2	622.7	621.5	621.5	621.2
18°	622.0	621.4	620.2	619.5	619.2	619.3
18.5°	620.3	619.7	618.8	617.6	617.6	617.1
19°	618.2	617.6	616.7	615.7	615.2	615.2
19.5°	616.1	615.4	614.9	613.8	613.3	612.9
20°	614.2	613.4	612.5	611.5	611.3	611.0
20.5°	612.1	611.0	610.3	609.2	609.1	608.8
21°	609.7	609.0	608.1	607.1	606.4	606.7
21.5°	607.3	606.7	605.8	604.8	604.3	604.4
22°	605.1	604.4	603.4	602.3	601.5	601.7

TEST NUMBER: P869643  
 CATALOG NUMBER: SMX14RLSFS010-1600LM-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	602.6	601.9	601.1	599.7	599.4	599.6
23°	600.4	599.8	598.7	597.3	596.9	597.1
23.5°	597.9	597.3	596.5	594.9	594.5	594.5
24°	595.5	594.9	593.6	592.2	591.8	592.0
24.5°	593.2	592.2	591.2	589.5	589.2	589.2
25°	590.8	589.8	588.7	587.5	586.9	587.0
25.5°	588.1	587.3	585.8	584.6	584.2	584.0
26°	585.2	584.6	583.2	582.2	581.3	581.3
26.5°	582.3	581.5	580.4	579.0	578.6	578.5
27°	579.7	578.8	577.7	576.1	575.7	576.0
27.5°	577.3	575.7	574.7	573.3	572.8	572.7
28°	573.8	572.9	571.9	570.0	569.4	569.6
28.5°	571.1	570.1	568.9	567.2	566.3	566.6
29°	568.4	567.1	565.7	564.2	563.5	563.6
29.5°	565.4	564.0	562.7	561.0	560.4	560.2
30°	562.4	561.0	559.9	557.9	557.5	557.2
30.5°	559.2	558.0	556.8	555.0	554.3	554.5
31°	556.3	554.7	553.1	551.9	551.2	551.2
31.5°	553.2	551.1	550.1	548.8	547.9	547.9
32°	549.8	548.3	546.8	545.4	544.4	544.9
32.5°	546.7	544.9	543.7	541.9	541.2	541.5
33°	543.2	541.5	540.3	538.6	537.9	537.9
33.5°	539.9	538.0	536.6	535.2	534.3	534.2
34°	536.4	534.9	533.0	531.5	530.9	531.0
34.5°	533.3	531.1	529.6	528.0	527.0	527.2
35°	529.5	527.7	525.8	524.5	523.7	523.8
35.5°	526.2	524.3	522.9	521.1	520.1	520.2
36°	522.4	520.7	519.1	517.2	516.5	516.6
36.5°	519.1	516.8	515.1	513.4	512.6	513.0
37°	515.1	513.2	511.2	510.1	509.2	509.3
37.5°	512.0	509.8	508.0	506.5	505.4	505.1
38°	507.8	505.7	503.9	502.3	501.3	501.2
38.5°	504.1	501.8	499.9	498.3	497.6	497.6
39°	500.0	498.0	496.0	494.8	493.9	493.8
39.5°	496.5	493.9	492.4	490.6	489.9	490.0
40°	492.3	490.4	488.6	486.8	486.0	485.9
40.5°	488.7	486.4	484.4	482.8	482.1	481.6
41°	484.4	482.4	480.2	478.7	477.8	477.7
41.5°	480.8	478.2	476.1	474.5	473.5	473.6
42°	476.5	474.0	472.1	470.1	469.5	469.4
42.5°	472.3	469.8	467.9	466.1	465.2	465.1
43°	468.3	465.5	463.7	461.8	461.0	460.8
43.5°	464.1	461.4	459.8	457.6	456.9	456.7
44°	459.7	457.2	455.2	453.2	452.4	452.7
44.5°	455.7	452.9	451.0	449.0	448.0	447.9

TEST NUMBER: P869643  
 CATALOG NUMBER: SMX14RLSFS010-1600LM-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	451.3	448.5	446.5	444.7	443.8	443.7
45.5°	446.9	444.0	442.1	440.0	439.6	439.5
46°	442.5	439.9	437.6	435.9	434.9	434.9
46.5°	438.1	435.0	433.1	431.3	430.1	430.5
47°	433.7	430.8	428.5	426.9	425.6	425.9
47.5°	429.1	426.2	424.0	422.4	421.1	421.4
48°	424.6	421.6	419.5	417.8	416.7	416.7
48.5°	420.3	417.1	414.9	413.1	412.4	412.1
49°	415.7	412.6	410.3	408.3	407.6	407.6
49.5°	410.8	407.8	405.7	403.6	402.5	402.8
50°	406.2	402.9	400.7	399.0	397.9	397.8
50.5°	401.3	398.2	396.1	394.2	393.2	393.1
51°	396.6	393.6	391.2	389.3	388.5	388.3
51.5°	392.2	388.8	386.5	384.5	383.4	383.3
52°	387.2	383.9	381.8	379.8	378.5	378.4
52.5°	382.3	378.8	376.7	374.8	373.7	373.4
53°	377.3	373.9	371.9	369.7	368.5	368.6
53.5°	372.4	369.0	366.6	364.5	363.5	363.5
54°	367.3	363.8	361.7	359.7	358.4	358.5
54.5°	362.5	358.9	356.8	354.7	353.7	353.6
55°	357.5	354.1	351.6	349.6	348.6	348.4
55.5°	352.6	348.7	346.4	344.7	343.4	343.3
56°	347.5	343.5	341.4	339.3	338.1	338.1
56.5°	342.3	338.5	336.0	333.9	333.1	332.7
57°	337.1	333.3	330.9	328.7	327.5	327.4
57.5°	331.9	327.9	325.4	323.3	322.1	322.1
58°	326.6	322.6	320.2	318.0	316.9	317.1
58.5°	321.5	317.4	314.8	312.6	311.5	311.6
59°	316.2	311.9	309.3	307.1	306.1	306.1
59.5°	310.6	306.7	304.2	301.5	300.4	300.5
60°	305.2	301.0	298.5	296.2	295.2	295.1
60.5°	299.9	295.6	293.0	290.6	289.7	289.9
61°	294.3	290.1	287.6	285.5	284.3	284.5
61.5°	289.1	284.6	282.1	279.8	278.8	278.8
62°	283.7	279.1	276.6	274.2	273.1	273.1
62.5°	278.1	273.4	270.9	268.4	267.3	267.3
63°	272.6	267.9	265.2	262.9	261.9	261.8
63.5°	267.0	262.0	259.6	257.4	256.2	256.2
64°	261.4	256.6	254.0	251.9	250.7	250.3
64.5°	255.7	251.0	248.3	246.2	244.9	244.9
65°	250.2	245.4	242.6	240.4	239.2	239.2
65.5°	244.6	239.5	236.9	234.6	233.6	233.4
66°	238.7	233.9	231.1	228.5	227.5	227.5
66.5°	232.8	228.0	225.2	222.9	221.9	221.9
67°	227.2	222.4	219.5	217.3	216.0	216.3

TEST NUMBER: P869643  
 CATALOG NUMBER: SMX14RLSFS010-1600LM-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	221.9	216.5	213.6	211.6	210.1	210.2
68°	215.9	210.7	207.7	205.5	204.4	204.4
68.5°	210.1	204.9	201.9	199.5	198.4	198.5
69°	204.1	198.9	196.0	193.9	192.4	192.6
69.5°	198.4	193.1	190.2	187.8	186.6	186.7
70°	192.7	187.2	184.4	181.9	181.0	180.8
70.5°	186.7	181.3	178.5	176.2	175.1	175.0
71°	180.9	175.2	172.5	170.1	168.9	169.1
71.5°	175.1	169.3	166.6	164.3	162.8	163.0
72°	169.2	163.5	160.7	158.3	157.3	157.3
72.5°	163.3	157.7	155.0	152.6	151.4	151.5
73°	157.2	151.7	148.9	146.5	145.6	145.5
73.5°	151.5	145.8	143.1	140.7	139.4	139.5
74°	145.7	140.0	137.0	134.8	133.5	133.6
74.5°	139.8	134.1	131.3	128.8	127.6	127.7
75°	133.8	128.2	125.4	123.0	122.1	121.9
75.5°	128.0	122.3	119.6	117.1	115.8	116.1
76°	122.1	116.4	113.6	111.3	110.3	110.3
76.5°	116.4	110.6	107.7	105.6	104.5	104.4
77°	110.5	105.0	102.2	99.9	98.6	98.6
77.5°	104.7	99.3	96.5	94.3	93.2	93.2
78°	99.0	93.4	90.7	88.7	87.5	87.5
78.5°	93.3	87.9	85.4	83.0	82.1	81.9
79°	87.8	82.4	79.8	77.6	76.5	76.5
79.5°	82.1	76.8	74.2	72.0	71.0	71.0
80°	76.8	71.3	68.6	66.6	65.6	65.7
80.5°	71.3	66.1	63.5	61.3	60.3	60.4
81°	66.0	60.7	58.1	56.2	55.3	55.3
81.5°	60.6	55.8	53.3	51.2	50.2	50.3
82°	55.5	50.7	48.2	46.3	45.4	45.4
82.5°	50.6	45.9	43.5	41.7	40.7	40.7
83°	45.7	41.0	38.8	37.0	36.2	36.1
83.5°	40.8	36.5	34.3	32.6	31.8	31.8
84°	36.1	32.2	30.0	28.4	27.5	27.5
84.5°	31.8	28.0	26.1	24.5	23.7	23.7
85°	27.5	23.9	22.3	20.9	20.2	20.1
85.5°	23.5	20.5	18.6	17.3	16.7	16.6
86°	20.0	16.9	15.3	13.9	13.4	13.4
86.5°	16.7	13.6	12.0	10.6	10.1	10.1
87°	13.5	10.4	8.8	7.8	7.3	7.3
87.5°	10.5	7.5	6.4	5.6	5.3	5.4
88°	7.8	5.4	4.5	3.7	3.4	3.3
88.5°	5.4	3.5	2.8	2.4	2.1	2.0
89°	3.5	2.2	1.7	1.3	1.2	1.2
89.5°	1.8	1.3	1.0	0.8	1.1	0.8

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

  
NVLAP Lab Code: 200050-0



TEST NUMBER: P869643  
CATALOG NUMBER: SMX14RLSFS010-1600LM-3500K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)