

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: P869642

Luminaire Tested: **SMX14RLSFS010-1600LM-3000K**

Issue Date: 8/29/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-08  
 Report Number: P869642  
 Test Lab:  
 Issue Date: 8/29/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: HALO  
 Catalog Number: SMX14RLSFS010-1600LM-3000K  
 Description: 14IN ROUND, 90CRI, DIMMING TO 10%, DAMP LOCATION  
 Light Source: SELECTABLE CCT 90CRI / 3000K CCT  
 Ballast/Driver: -

**Summary**

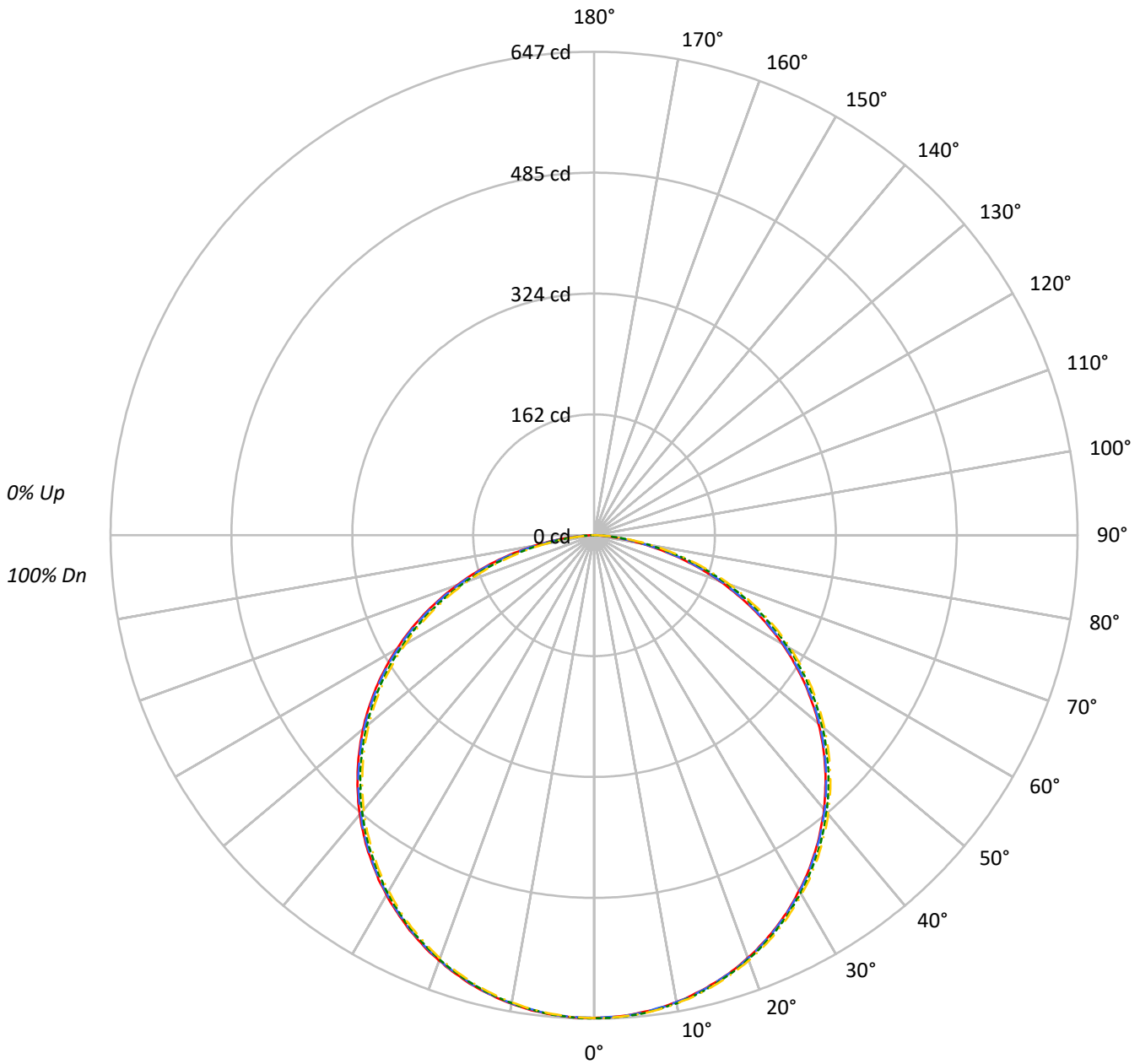
Lumens per Lamp: N/A  
 Luminaire Lumens: 1891.6 lumens  
 Efficiency: N/A  
 Efficacy: 91.8 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Circular (Dia: 1.17' x H: 0')  
 CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	79	75	72	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	62	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	42	34	29	55	42	34	29	41	33	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

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

	0°	90°	180°	270°
0°	6501	6501	6501	6501
5°	6491	6508	6507	6507
10°	6482	6499	6503	6495
15°	6467	6486	6500	6486
20°	6445	6466	6491	6472
25°	6420	6450	6480	6451
30°	6378	6424	6458	6421
35°	6339	6396	6434	6387
40°	6289	6357	6407	6346
45°	6221	6310	6370	6288
50°	6134	6242	6323	6214
55°	6021	6160	6249	6120
60°	5851	6028	6141	5968
65°	5610	5843	5986	5755
70°	5240	5555	5740	5426
75°	4670	5105	5346	4907
80°	3749	4352	4706	4068
85°	2286	3117	3637	2725

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.2	3.2
10°-20°	175.7	9.3
20°-30°	267.6	14.1
30°-40°	325.3	17.2
40°-50°	341.2	18.0
50°-60°	312.3	16.5
60°-70°	240.5	12.7
70°-80°	136.0	7.2
80°-90°	31.8	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
0°-30°	504.5	26.7
0°-40°	829.8	43.9
0°-60°	1483.2	78.4
0°-90°	1891.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1891.6	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	646	646	646	646	646	
5°	643	644	644	644	643	61
15°	621	623	624	623	621	175
25°	578	581	584	581	578	266
35°	516	521	524	520	516	323
45°	437	443	448	442	437	337
55°	343	351	356	349	343	306
65°	236	245	251	242	236	233
75°	120	131	138	126	120	127
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°	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0	646.0
0.5°	645.7	645.5	645.6	646.3	646.4	646.7	646.2	646.0	645.8	645.6	645.8
1°	645.8	645.2	645.5	646.4	646.4	646.4	646.2	645.8	646.1	645.7	645.5
1.5°	645.5	645.4	645.3	645.8	646.3	646.4	646.2	646.0	646.3	645.4	645.5
2°	645.4	644.8	645.1	645.4	646.4	646.2	645.9	646.0	646.1	645.2	645.5
2.5°	644.8	644.7	645.1	645.6	645.9	646.0	645.7	645.7	645.9	645.2	645.3
3°	644.6	644.4	644.7	645.1	645.5	645.7	645.3	645.4	645.5	645.2	645.1
3.5°	644.5	644.1	644.6	644.7	645.5	645.5	645.2	645.2	645.1	644.9	644.7
4°	644.1	643.6	644.1	644.4	645.1	645.1	644.8	644.7	644.6	644.7	644.8
4.5°	643.4	642.9	643.5	643.7	644.5	644.7	644.4	644.5	644.2	644.2	643.9
5°	642.6	642.1	642.9	643.6	644.2	644.0	644.0	644.1	644.1	643.7	643.7
5.5°	641.9	641.6	642.4	642.5	643.4	643.5	643.4	643.4	643.4	643.4	643.2
6°	641.4	640.9	641.7	641.7	642.9	642.8	642.9	642.9	642.9	642.8	642.5
6.5°	640.9	640.3	641.2	641.2	642.1	642.2	642.5	642.4	642.3	642.3	641.8
7°	640.2	639.7	639.9	640.4	641.4	641.2	641.8	641.6	641.9	641.6	641.0
7.5°	639.5	638.9	639.0	639.6	640.5	640.4	640.9	640.8	641.4	640.8	640.1
8°	638.6	638.2	638.1	638.9	639.6	639.5	640.2	640.2	640.5	640.2	639.8
8.5°	637.5	637.1	637.7	638.1	638.9	638.6	639.0	639.0	639.2	639.2	638.7
9°	636.4	636.3	636.6	636.9	637.7	638.2	638.6	638.2	638.3	638.0	638.1
9.5°	635.2	635.1	635.5	636.1	636.9	636.9	637.3	637.3	637.7	637.3	636.9
10°	634.3	634.2	634.2	635.2	636.0	636.0	636.4	636.4	636.4	636.6	636.1
10.5°	633.0	633.2	633.4	634.0	634.8	635.0	635.1	635.5	635.6	635.5	635.0
11°	632.4	631.7	632.3	633.0	633.6	633.8	634.0	634.3	634.7	634.2	633.9
11.5°	630.7	630.4	631.5	631.6	632.5	632.5	633.3	633.2	633.5	632.9	632.6
12°	629.4	629.3	629.9	630.4	631.5	631.3	632.1	632.0	632.4	631.8	631.5
12.5°	627.8	628.2	628.6	629.1	629.9	630.4	630.4	631.0	630.6	630.9	630.4
13°	626.8	626.8	627.1	627.3	628.5	629.1	629.4	629.6	629.8	629.5	629.2
13.5°	625.2	625.2	625.8	626.3	627.2	627.7	628.0	628.2	628.5	627.8	627.8
14°	623.9	623.6	624.3	624.8	625.7	626.1	626.5	626.5	627.0	626.5	626.1
14.5°	621.8	622.0	622.6	623.6	624.1	624.5	625.2	625.5	625.6	625.4	624.7
15°	620.7	620.3	621.3	621.3	622.6	623.0	623.4	624.2	623.9	623.6	623.5
15.5°	618.9	618.7	619.2	619.9	620.8	621.3	621.9	622.4	622.6	622.1	621.6
16°	617.1	617.3	617.4	618.4	619.2	619.6	620.3	620.3	620.9	620.3	619.6
16.5°	615.5	615.6	615.6	616.6	617.3	617.8	618.6	618.6	619.1	618.8	618.1
17°	613.9	613.9	614.3	614.9	615.6	615.9	616.9	617.0	617.1	617.4	616.5
17.5°	611.9	612.0	612.6	613.5	613.7	614.5	615.3	615.3	615.6	615.2	614.9
18°	610.0	610.0	610.5	611.3	612.2	612.7	613.5	613.7	613.9	613.6	612.9
18.5°	607.9	607.8	608.7	609.1	610.0	610.8	611.3	611.7	611.7	611.8	611.2
19°	606.0	605.8	606.8	607.0	607.8	608.8	609.4	609.6	610.2	609.6	609.0
19.5°	603.8	603.9	604.6	605.4	606.1	606.5	607.8	607.8	607.7	608.0	607.0
20°	601.8	601.7	602.5	603.1	603.8	604.9	605.7	606.1	606.1	605.9	605.2
20.5°	599.7	599.4	600.2	601.3	601.8	602.7	603.5	604.0	603.8	603.9	603.2
21°	597.7	597.4	597.9	598.7	599.6	600.3	601.4	601.9	601.9	601.7	600.8
21.5°	595.3	595.0	595.9	596.7	597.6	598.4	599.2	599.8	600.0	599.4	598.7
22°	592.7	593.1	593.8	594.2	595.0	596.2	597.3	597.5	597.6	597.0	596.4

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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°	590.6	590.4	591.3	591.8	593.0	593.8	594.7	595.3	595.4	594.9	594.4
23°	588.2	588.0	588.5	589.8	590.6	591.4	592.6	593.2	592.7	592.7	591.8
23.5°	585.6	585.6	586.0	587.1	588.1	588.8	590.3	590.5	590.4	590.6	589.3
24°	583.2	583.2	583.9	584.6	585.8	586.8	588.0	588.2	588.1	588.3	587.1
24.5°	580.4	580.7	581.2	582.2	583.5	584.0	585.3	585.8	585.8	585.4	584.7
25°	578.2	577.9	578.8	579.5	580.9	581.6	582.9	583.3	583.6	583.3	582.0
25.5°	575.3	575.6	576.0	576.9	578.0	579.2	580.3	581.0	580.7	580.6	579.5
26°	572.6	573.0	573.2	574.4	575.6	576.8	577.5	578.2	577.9	578.2	577.1
26.5°	569.8	569.8	570.3	571.6	572.8	573.8	575.2	575.5	575.3	575.3	574.2
27°	567.4	567.2	567.9	568.5	570.6	571.0	572.4	573.1	572.6	572.8	571.3
27.5°	564.1	564.2	565.0	565.7	567.6	568.3	569.4	570.1	570.0	570.0	568.8
28°	561.1	561.4	562.2	563.0	564.4	565.8	566.9	567.4	567.2	567.1	565.9
28.5°	558.1	558.4	559.0	559.8	561.7	562.7	564.0	564.4	564.4	564.1	563.1
29°	555.2	555.7	556.1	557.1	558.7	559.8	561.3	561.7	561.7	561.2	560.3
29.5°	551.8	552.2	553.1	554.1	556.0	556.7	558.4	558.8	558.9	558.7	557.4
30°	548.9	549.2	549.9	551.2	552.8	553.9	555.4	555.9	555.8	555.7	554.2
30.5°	546.3	546.3	547.2	548.3	550.0	550.8	552.2	552.8	552.7	552.8	551.4
31°	543.0	543.6	543.7	544.9	547.2	547.6	549.1	550.2	549.6	549.8	548.5
31.5°	539.8	539.9	540.7	542.0	543.7	544.9	546.3	546.8	546.8	546.9	545.5
32°	536.8	536.9	537.7	538.8	540.6	541.7	543.5	543.8	543.9	543.9	542.2
32.5°	533.4	533.8	533.9	535.1	537.1	538.5	540.1	541.0	540.3	540.3	539.2
33°	529.9	530.6	530.7	532.0	534.1	534.9	536.8	537.5	536.8	537.2	536.0
33.5°	526.2	526.9	527.5	528.8	530.6	531.6	533.3	534.4	533.8	533.8	532.6
34°	523.0	523.6	523.8	525.5	527.6	528.6	530.0	531.1	530.4	530.5	529.2
34.5°	519.3	519.9	520.8	522.0	524.1	525.2	526.8	527.7	527.0	527.1	525.9
35°	516.0	516.5	517.3	518.3	520.6	521.7	523.4	524.0	523.7	523.7	522.6
35.5°	512.4	512.7	513.7	514.7	517.1	518.3	519.7	520.5	520.5	520.4	519.2
36°	508.9	509.1	509.8	511.2	513.6	514.9	516.6	517.2	517.2	516.8	515.6
36.5°	505.3	505.5	506.5	507.7	510.4	511.1	513.0	513.7	513.7	513.8	512.0
37°	501.7	501.8	502.6	504.0	506.5	507.8	509.4	510.4	510.0	510.0	508.7
37.5°	497.6	498.2	498.9	500.4	502.6	504.0	505.7	506.5	506.3	506.2	505.1
38°	493.7	494.5	495.3	496.5	499.1	500.7	502.4	502.9	502.5	502.3	501.5
38.5°	490.2	490.7	491.3	492.6	495.3	496.7	498.6	499.1	499.1	498.7	497.8
39°	486.4	486.6	487.6	488.9	491.3	492.8	494.8	495.7	495.4	495.1	493.8
39.5°	482.7	482.7	483.8	485.2	487.4	489.2	491.3	491.8	491.6	491.3	489.7
40°	478.7	479.2	480.0	481.4	483.9	485.6	487.0	488.1	487.7	487.6	485.9
40.5°	474.5	475.0	476.2	477.5	480.1	481.7	483.3	484.2	484.0	483.7	482.2
41°	470.6	471.4	472.1	473.7	476.2	477.9	479.4	480.4	480.3	479.8	478.4
41.5°	466.5	467.1	468.0	469.8	472.3	474.0	475.6	476.2	476.3	475.8	474.3
42°	462.4	463.1	463.7	465.7	468.2	469.9	471.4	472.3	472.1	471.8	470.5
42.5°	458.1	459.0	459.6	461.5	464.2	465.7	467.5	468.4	468.1	468.0	466.4
43°	453.9	454.7	455.4	457.3	460.1	461.8	463.6	464.5	464.1	463.7	462.4
43.5°	449.9	450.6	451.5	453.2	455.7	457.6	459.2	460.5	460.1	459.5	458.3
44°	445.9	446.2	447.1	448.9	451.6	453.5	455.3	456.1	455.8	455.4	454.2
44.5°	441.2	441.8	443.0	444.7	447.6	449.3	450.9	451.7	451.6	451.2	449.9

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	437.1	437.5	438.7	440.6	443.4	445.0	446.7	447.6	447.6	447.2	445.7
45.5°	432.9	433.0	434.3	436.2	439.0	440.7	442.5	443.1	443.4	442.8	441.3
46°	428.4	428.8	429.8	431.9	434.5	436.3	438.3	439.0	439.2	438.8	437.2
46.5°	424.1	424.3	425.3	427.2	430.1	432.0	434.0	434.6	434.6	434.3	432.8
47°	419.5	419.9	421.1	423.0	425.6	427.7	429.6	430.3	430.3	429.8	428.3
47.5°	415.1	415.3	416.8	418.6	421.4	423.3	425.1	425.9	425.9	425.5	424.1
48°	410.5	410.8	412.4	414.0	417.0	418.8	420.8	421.6	421.6	421.0	419.9
48.5°	406.0	406.3	407.7	409.5	412.5	414.3	416.3	417.3	417.3	416.6	415.3
49°	401.5	401.7	403.1	404.9	407.9	409.7	412.0	412.8	412.7	412.1	410.8
49.5°	396.8	397.1	398.4	400.4	403.3	405.2	407.3	407.9	408.3	407.8	406.3
50°	391.8	392.3	393.7	395.6	398.7	400.8	403.0	403.7	403.9	403.3	401.4
50.5°	387.2	387.5	389.1	391.2	394.0	396.2	398.2	399.0	399.0	398.5	396.9
51°	382.5	382.8	384.2	386.3	389.6	391.5	393.4	394.4	394.5	393.6	392.4
51.5°	377.6	378.1	379.5	381.6	384.7	386.9	388.8	389.7	389.8	389.1	387.5
52°	372.7	373.2	374.5	376.8	380.2	382.2	384.4	385.3	385.0	384.3	383.1
52.5°	367.8	368.4	369.9	371.9	375.3	377.3	379.5	380.5	380.1	379.6	378.0
53°	363.1	363.6	365.2	367.1	370.5	372.6	374.7	375.7	375.5	374.9	373.3
53.5°	358.1	358.4	360.1	362.1	365.7	367.9	369.6	370.8	370.5	370.1	368.6
54°	353.2	353.2	354.9	357.1	360.9	362.7	364.9	366.1	365.7	365.4	363.6
54.5°	348.3	348.8	350.2	352.1	355.8	358.0	360.1	361.0	360.9	360.4	358.5
55°	343.2	343.7	345.2	347.5	351.1	353.2	355.4	356.5	356.2	355.5	353.7
55.5°	338.2	338.5	340.2	342.2	346.1	348.4	350.3	351.5	351.3	350.5	349.0
56°	333.1	333.4	335.0	337.2	341.2	343.2	345.6	346.7	346.3	345.5	343.9
56.5°	327.7	328.3	330.1	332.0	336.0	338.1	340.3	341.3	341.4	340.2	339.0
57°	322.5	323.2	324.7	326.7	330.8	333.3	335.4	336.6	336.2	335.4	333.9
57.5°	317.3	317.8	319.4	321.6	325.7	327.9	330.2	331.1	331.1	330.3	328.7
58°	312.4	312.7	314.2	316.5	320.6	322.9	325.2	326.1	325.9	325.0	323.6
58.5°	306.9	307.2	309.0	311.2	315.4	317.7	319.8	321.0	321.1	319.8	318.5
59°	301.6	302.2	303.7	306.0	310.3	312.5	314.7	315.8	315.9	314.5	313.1
59.5°	296.0	296.8	298.3	300.6	304.9	307.3	309.4	310.6	310.3	309.5	307.9
60°	290.7	291.3	293.2	295.5	299.5	302.1	304.2	305.3	305.1	304.2	302.5
60.5°	285.6	286.0	287.4	290.0	294.0	296.9	299.0	300.0	299.9	299.0	297.3
61°	280.3	280.8	282.3	284.9	288.7	291.5	293.8	294.7	294.5	293.4	292.2
61.5°	274.6	275.2	276.9	279.4	283.4	286.1	288.2	289.3	289.4	288.2	286.8
62°	269.0	269.8	271.5	273.8	278.4	281.0	283.0	284.1	284.0	283.0	281.5
62.5°	263.3	264.2	265.7	268.2	272.9	275.6	277.8	278.7	278.7	277.6	276.0
63°	257.9	258.8	260.3	262.8	267.4	270.1	272.2	273.4	273.2	272.2	270.6
63.5°	252.3	253.2	254.9	257.2	261.8	264.6	267.0	267.9	267.9	266.8	265.1
64°	246.6	247.5	249.3	251.8	256.2	259.2	261.3	262.2	262.2	261.2	259.7
64.5°	241.3	242.1	243.7	246.2	250.9	253.5	255.8	256.7	256.7	255.7	253.9
65°	235.6	236.4	238.3	240.8	245.4	248.2	250.5	251.4	251.4	250.4	248.8
65.5°	229.9	230.9	232.5	235.3	240.0	242.6	244.9	245.8	245.9	244.9	242.9
66°	224.1	225.0	226.7	229.3	234.1	237.0	239.2	240.2	240.1	239.3	237.4
66.5°	218.5	219.5	221.0	223.6	228.5	231.2	233.4	234.5	234.4	233.3	231.7
67°	213.1	213.7	215.4	218.1	222.8	225.6	227.8	228.9	228.9	228.0	225.9



TEST NUMBER: P869642  
 CATALOG NUMBER: SMX14RLSFS010-1600LM-3000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	207.1	208.1	209.8	212.4	217.2	219.8	222.1	223.3	223.4	222.3	220.3
68°	201.4	202.1	204.1	206.7	211.6	214.4	216.8	217.6	217.7	216.6	214.9
68.5°	195.5	196.4	198.2	200.9	206.0	208.8	210.9	212.0	212.0	210.9	209.4
69°	189.7	190.5	192.5	195.1	200.3	203.0	205.4	206.4	206.4	205.2	203.8
69.5°	183.9	184.7	186.8	189.1	194.6	197.5	199.7	200.7	200.7	199.5	197.7
70°	178.1	179.0	180.9	183.4	188.8	191.6	193.9	194.9	195.1	193.8	191.9
70.5°	172.4	173.2	175.2	177.9	183.3	185.8	188.2	189.3	189.3	188.2	186.2
71°	166.5	167.2	169.3	171.8	177.4	180.4	182.7	183.7	183.7	182.5	180.6
71.5°	160.5	161.5	163.4	166.0	171.6	174.6	176.8	177.8	177.9	176.7	174.7
72°	154.9	155.7	157.6	160.2	165.7	168.7	171.2	172.0	172.2	170.9	168.9
72.5°	149.2	150.1	152.0	154.6	160.0	163.0	165.2	166.4	166.5	165.2	163.2
73°	143.3	144.2	146.2	148.6	154.1	157.1	159.5	160.4	160.5	159.3	157.2
73.5°	137.5	138.3	140.3	142.8	148.6	151.5	153.8	154.8	154.8	153.6	151.7
74°	131.6	132.6	134.5	137.1	142.8	145.7	148.2	149.0	149.2	147.9	146.0
74.5°	125.8	126.7	128.8	131.2	137.0	140.0	142.3	143.3	143.4	142.3	140.1
75°	120.1	121.0	123.0	125.5	131.3	134.1	136.4	137.5	137.5	136.3	134.4
75.5°	114.4	115.3	117.3	119.9	125.4	128.4	130.6	131.8	131.7	130.6	128.5
76°	108.6	109.5	111.5	114.1	119.7	122.6	124.8	125.9	126.1	124.8	122.8
76.5°	102.9	103.9	105.9	108.3	114.1	117.1	119.2	120.2	120.2	119.1	116.9
77°	97.2	98.1	100.3	102.8	108.3	111.2	113.5	114.6	114.4	113.4	111.5
77.5°	91.8	92.8	94.7	97.2	102.7	105.6	107.9	108.8	108.9	107.7	105.7
78°	86.2	87.2	89.1	91.5	97.1	100.0	102.3	103.1	103.2	102.0	100.1
78.5°	80.7	81.6	83.7	86.3	91.4	94.2	96.6	97.5	97.6	96.4	94.4
79°	75.3	76.3	78.3	80.8	86.1	88.7	90.9	91.9	91.9	90.8	89.0
79.5°	69.9	70.8	72.9	75.3	80.6	83.4	85.6	86.5	86.5	85.5	83.4
80°	64.7	65.5	67.6	69.9	75.1	78.0	80.1	81.1	81.2	80.0	78.2
80.5°	59.5	60.4	62.3	64.7	69.9	72.7	74.8	75.7	75.7	74.6	72.5
81°	54.5	55.4	57.2	59.6	64.7	67.3	69.4	70.4	70.4	69.4	67.4
81.5°	49.6	50.6	52.2	54.6	59.6	62.1	64.1	65.1	65.0	63.9	62.1
82°	44.7	45.6	47.4	49.5	54.4	57.0	58.9	59.9	60.0	58.8	57.0
82.5°	40.1	41.0	42.7	44.8	49.6	52.1	53.9	54.8	54.8	53.8	52.0
83°	35.6	36.5	38.1	40.1	44.8	47.3	49.2	50.2	50.0	49.1	47.2
83.5°	31.4	32.1	33.7	35.6	40.1	42.3	44.3	45.3	45.2	44.0	42.4
84°	27.1	28.0	29.6	31.4	35.3	37.9	39.6	40.5	40.5	39.3	37.7
84.5°	23.3	24.1	25.5	27.4	31.1	33.2	35.1	35.9	35.8	34.9	33.3
85°	19.8	20.6	21.9	23.4	27.0	29.1	30.8	31.6	31.5	30.5	29.2
85.5°	16.3	16.9	18.3	19.9	23.1	25.0	26.6	27.3	27.3	26.4	24.9
86°	13.2	13.6	14.9	16.4	19.7	21.3	22.7	23.4	23.3	22.4	21.2
86.5°	10.0	10.6	11.8	13.2	16.5	18.0	19.3	20.0	20.0	19.2	17.8
87°	7.2	7.6	8.6	10.1	13.3	14.9	16.2	16.8	16.7	16.0	14.7
87.5°	5.3	5.4	6.3	7.3	10.4	11.9	13.1	13.6	13.5	12.8	11.7
88°	3.2	3.7	4.2	5.3	7.7	8.9	10.1	10.6	10.6	9.9	8.9
88.5°	1.9	2.2	2.7	3.4	5.4	6.5	7.4	7.9	7.8	7.2	6.3
89°	1.2	1.3	1.6	2.0	3.3	4.4	5.1	5.5	5.4	5.0	4.3
89.5°	0.8	0.7	0.9	1.1	1.9	2.7	3.2	3.5	3.5	3.1	2.4

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

  
NVLAP Lab Code: 200050-0



TEST NUMBER: P869642  
CATALOG NUMBER: SMX14RLSFS010-1600LM-3000K

**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: P869642  
 CATALOG NUMBER: SMX14RLSFS010-1600LM-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	646.0	646.0	646.0	646.0	646.0	646.0
0.5°	646.0	646.6	646.4	646.0	646.2	645.7
1°	646.0	646.6	646.2	645.9	646.0	645.8
1.5°	646.1	646.5	646.1	645.5	645.4	645.5
2°	645.8	646.2	645.8	645.5	645.4	645.4
2.5°	645.5	645.9	645.6	645.2	645.0	644.8
3°	645.2	645.3	645.5	645.0	645.1	644.6
3.5°	645.1	645.1	645.0	644.7	644.8	644.5
4°	644.8	644.7	644.4	643.8	643.6	644.1
4.5°	644.2	644.3	644.2	643.4	643.5	643.4
5°	643.6	644.1	643.5	642.9	642.5	642.6
5.5°	643.4	643.1	643.3	642.5	642.5	641.9
6°	642.7	642.5	642.4	641.7	641.9	641.4
6.5°	641.8	641.6	641.6	640.9	641.1	640.9
7°	641.1	641.0	640.9	640.3	640.4	640.2
7.5°	640.3	640.3	640.2	639.5	639.9	639.5
8°	639.5	639.3	639.3	638.7	639.2	638.6
8.5°	638.9	638.5	638.2	637.8	638.0	637.5
9°	638.2	637.8	637.6	636.6	636.9	636.4
9.5°	637.1	636.9	636.5	635.5	635.8	635.2
10°	635.9	635.6	635.3	634.8	634.7	634.3
10.5°	634.9	634.7	634.3	633.4	633.1	633.0
11°	633.8	633.4	633.1	632.5	631.9	632.4
11.5°	632.5	632.2	631.9	631.1	630.9	630.7
12°	631.3	631.0	630.6	629.9	629.9	629.4
12.5°	630.1	629.9	629.5	628.3	628.2	627.8
13°	628.6	628.7	628.0	627.2	627.0	626.8
13.5°	627.2	627.1	626.5	625.6	625.6	625.2
14°	626.0	625.6	625.4	624.1	623.8	623.9
14.5°	624.2	624.1	623.7	622.6	622.5	621.8
15°	622.8	622.6	622.1	621.0	620.7	620.7
15.5°	621.5	621.0	620.4	619.3	619.1	618.9
16°	619.6	619.4	618.6	617.5	617.4	617.1
16.5°	618.0	617.7	616.8	615.6	615.5	615.5
17°	616.4	615.8	614.9	614.1	613.9	613.9
17.5°	614.8	613.9	613.4	612.2	612.2	611.9
18°	612.7	612.2	610.9	610.3	610.0	610.0
18.5°	611.0	610.4	609.6	608.3	608.3	607.9
19°	609.0	608.3	607.5	606.5	606.1	606.0
19.5°	606.9	606.2	605.7	604.7	604.1	603.8
20°	605.0	604.3	603.4	602.4	602.2	601.8
20.5°	603.0	601.9	601.2	600.1	600.0	599.7
21°	600.6	599.9	599.0	598.0	597.4	597.7
21.5°	598.3	597.7	596.7	595.7	595.3	595.3
22°	596.1	595.4	594.4	593.3	592.5	592.7

TEST NUMBER: P869642  
 CATALOG NUMBER: SMX14RLSFS010-1600LM-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	593.6	592.9	592.1	590.8	590.5	590.6
23°	591.4	590.9	589.8	588.4	587.9	588.2
23.5°	589.0	588.4	587.6	586.0	585.7	585.6
24°	586.6	586.0	584.8	583.4	583.0	583.2
24.5°	584.4	583.3	582.4	580.7	580.4	580.4
25°	582.0	581.0	579.9	578.7	578.1	578.2
25.5°	579.3	578.5	577.1	575.8	575.5	575.3
26°	576.5	575.9	574.5	573.5	572.7	572.6
26.5°	573.6	572.8	571.7	570.4	570.0	569.8
27°	571.0	570.2	569.1	567.5	567.1	567.4
27.5°	568.7	567.1	566.1	564.8	564.2	564.1
28°	565.3	564.4	563.4	561.5	560.9	561.1
28.5°	562.6	561.6	560.4	558.7	557.8	558.1
29°	559.9	558.6	557.2	555.8	555.0	555.2
29.5°	557.0	555.6	554.3	552.6	552.0	551.8
30°	554.0	552.6	551.5	549.6	549.2	548.9
30.5°	550.8	549.7	548.5	546.8	546.0	546.3
31°	548.0	546.4	544.8	543.7	542.9	543.0
31.5°	545.0	542.9	541.9	540.6	539.8	539.8
32°	541.6	540.1	538.6	537.2	536.3	536.8
32.5°	538.5	536.8	535.6	533.8	533.1	533.4
33°	535.1	533.4	532.2	530.6	529.9	529.9
33.5°	531.8	529.9	528.6	527.2	526.4	526.2
34°	528.4	526.9	525.1	523.5	523.0	523.0
34.5°	525.3	523.2	521.7	520.1	519.1	519.3
35°	521.6	519.9	518.0	516.7	515.9	516.0
35.5°	518.3	516.5	515.1	513.3	512.3	512.4
36°	514.6	513.0	511.3	509.5	508.8	508.9
36.5°	511.3	509.1	507.4	505.7	505.0	505.3
37°	507.4	505.6	503.5	502.5	501.6	501.7
37.5°	504.3	502.2	500.4	498.9	497.8	497.6
38°	500.2	498.2	496.4	494.8	493.8	493.7
38.5°	496.5	494.4	492.5	490.9	490.2	490.2
39°	492.6	490.5	488.6	487.4	486.6	486.4
39.5°	489.1	486.6	485.0	483.3	482.6	482.7
40°	484.9	483.1	481.3	479.5	478.8	478.7
40.5°	481.4	479.2	477.1	475.6	474.9	474.5
41°	477.2	475.2	473.0	471.5	470.7	470.6
41.5°	473.6	471.0	469.0	467.4	466.4	466.5
42°	469.4	466.9	465.0	463.1	462.5	462.4
42.5°	465.3	462.8	461.0	459.1	458.3	458.1
43°	461.3	458.5	456.8	455.0	454.1	453.9
43.5°	457.1	454.5	452.9	450.7	450.1	449.9
44°	452.8	450.4	448.5	446.4	445.7	445.9
44.5°	448.9	446.1	444.2	442.3	441.3	441.2

TEST NUMBER: P869642  
 CATALOG NUMBER: SMX14RLSFS010-1600LM-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	444.6	441.8	439.8	438.1	437.2	437.1
45.5°	440.2	437.4	435.5	433.4	433.0	432.9
46°	435.9	433.3	431.1	429.4	428.4	428.4
46.5°	431.6	428.5	426.7	424.9	423.7	424.1
47°	427.2	424.4	422.1	420.5	419.2	419.5
47.5°	422.7	419.9	417.7	416.1	414.8	415.1
48°	418.2	415.3	413.3	411.6	410.4	410.5
48.5°	414.0	410.8	408.7	406.9	406.2	406.0
49°	409.5	406.5	404.2	402.2	401.5	401.5
49.5°	404.7	401.7	399.6	397.6	396.5	396.8
50°	400.1	396.9	394.8	393.0	392.0	391.8
50.5°	395.3	392.2	390.2	388.3	387.4	387.2
51°	390.7	387.7	385.4	383.5	382.7	382.5
51.5°	386.4	383.0	380.8	378.7	377.7	377.6
52°	381.4	378.2	376.1	374.1	372.8	372.7
52.5°	376.6	373.1	371.1	369.2	368.1	367.8
53°	371.7	368.3	366.3	364.2	363.0	363.1
53.5°	366.9	363.5	361.1	359.1	358.0	358.1
54°	361.8	358.4	356.3	354.3	353.1	353.2
54.5°	357.1	353.6	351.5	349.4	348.4	348.3
55°	352.2	348.8	346.3	344.4	343.4	343.2
55.5°	347.3	343.5	341.2	339.5	338.3	338.2
56°	342.3	338.4	336.3	334.2	333.0	333.1
56.5°	337.2	333.4	331.0	328.9	328.1	327.7
57°	332.0	328.3	325.9	323.7	322.6	322.5
57.5°	326.9	323.0	320.6	318.5	317.3	317.3
58°	321.7	317.8	315.4	313.3	312.2	312.4
58.5°	316.7	312.6	310.1	307.9	306.8	306.9
59°	311.5	307.3	304.7	302.5	301.6	301.6
59.5°	306.0	302.1	299.6	297.0	296.0	296.0
60°	300.7	296.5	294.0	291.7	290.8	290.7
60.5°	295.4	291.2	288.7	286.2	285.4	285.6
61°	290.0	285.8	283.3	281.3	280.0	280.3
61.5°	284.8	280.4	277.9	275.7	274.6	274.6
62°	279.5	274.9	272.5	270.1	269.1	269.0
62.5°	273.9	269.3	266.9	264.4	263.3	263.3
63°	268.5	263.9	261.3	259.0	258.0	257.9
63.5°	263.0	258.1	255.7	253.6	252.4	252.3
64°	257.5	252.7	250.2	248.1	247.0	246.6
64.5°	251.8	247.3	244.6	242.5	241.3	241.3
65°	246.5	241.7	238.9	236.8	235.6	235.6
65.5°	241.0	235.9	233.4	231.1	230.1	229.9
66°	235.1	230.4	227.6	225.1	224.1	224.1
66.5°	229.3	224.6	221.9	219.6	218.5	218.5
67°	223.8	219.1	216.3	214.1	212.8	213.1

TEST NUMBER: P869642  
 CATALOG NUMBER: SMX14RLSFS010-1600LM-3000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	218.5	213.3	210.4	208.5	206.9	207.1
68°	212.7	207.6	204.6	202.5	201.4	201.4
68.5°	206.9	201.8	198.9	196.5	195.5	195.5
69°	201.1	196.0	193.0	191.0	189.5	189.7
69.5°	195.5	190.2	187.3	185.0	183.8	183.9
70°	189.8	184.4	181.7	179.1	178.3	178.1
70.5°	183.9	178.6	175.8	173.6	172.5	172.4
71°	178.2	172.6	170.0	167.6	166.4	166.5
71.5°	172.5	166.8	164.1	161.8	160.4	160.5
72°	166.6	161.1	158.3	156.0	154.9	154.9
72.5°	160.9	155.3	152.7	150.3	149.2	149.2
73°	154.8	149.5	146.6	144.3	143.4	143.3
73.5°	149.2	143.6	141.0	138.6	137.3	137.5
74°	143.6	137.9	134.9	132.7	131.5	131.6
74.5°	137.7	132.1	129.3	126.9	125.7	125.8
75°	131.8	126.2	123.5	121.2	120.2	120.1
75.5°	126.1	120.5	117.8	115.4	114.1	114.4
76°	120.2	114.6	112.0	109.7	108.6	108.6
76.5°	114.6	108.9	106.1	104.0	102.9	102.9
77°	108.9	103.4	100.7	98.4	97.2	97.2
77.5°	103.2	97.8	95.1	92.9	91.8	91.8
78°	97.6	92.0	89.4	87.3	86.2	86.2
78.5°	91.9	86.6	84.1	81.8	80.8	80.7
79°	86.4	81.2	78.6	76.4	75.4	75.3
79.5°	80.9	75.6	73.1	70.9	69.9	69.9
80°	75.6	70.2	67.6	65.6	64.6	64.7
80.5°	70.3	65.1	62.6	60.4	59.4	59.5
81°	65.0	59.8	57.3	55.4	54.5	54.5
81.5°	59.7	54.9	52.5	50.5	49.5	49.6
82°	54.7	50.0	47.5	45.6	44.7	44.7
82.5°	49.9	45.3	42.9	41.1	40.1	40.1
83°	45.0	40.4	38.3	36.5	35.7	35.6
83.5°	40.2	35.9	33.8	32.1	31.3	31.4
84°	35.6	31.7	29.6	27.9	27.1	27.1
84.5°	31.4	27.5	25.7	24.1	23.3	23.3
85°	27.1	23.6	21.9	20.6	19.9	19.8
85.5°	23.2	20.1	18.4	17.1	16.4	16.3
86°	19.7	16.7	15.0	13.7	13.2	13.2
86.5°	16.5	13.4	11.8	10.5	10.0	10.0
87°	13.3	10.2	8.7	7.7	7.1	7.2
87.5°	10.3	7.4	6.3	5.5	5.2	5.3
88°	7.7	5.3	4.4	3.7	3.3	3.2
88.5°	5.3	3.4	2.8	2.4	2.0	1.9
89°	3.4	2.2	1.7	1.3	1.1	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: P869642  
CATALOG NUMBER: SMX14RLSFS010-1600LM-3000K

**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)