

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: P869699

Luminaire Tested: **SMX18RLSFS010-1500LM-4000K**

Issue Date: 8/29/2024

Tested By:

Approved By:



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**Test Information**

Test Method: LM-79-08  
 Report Number: P869699  
 Test Lab:  
 Issue Date: 8/29/2024  
 Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
 Product Line: HALO  
 Catalog Number: SMX18RLSFS010-1500LM-4000K  
 Description: 18IN ROUND, 90CRI, DIMMING TO 10%, DAMP LOCATION  
 Light Source: SELECTABLE CCT 90CRI / 4000K CCT  
 Ballast/Driver: -

**Summary**

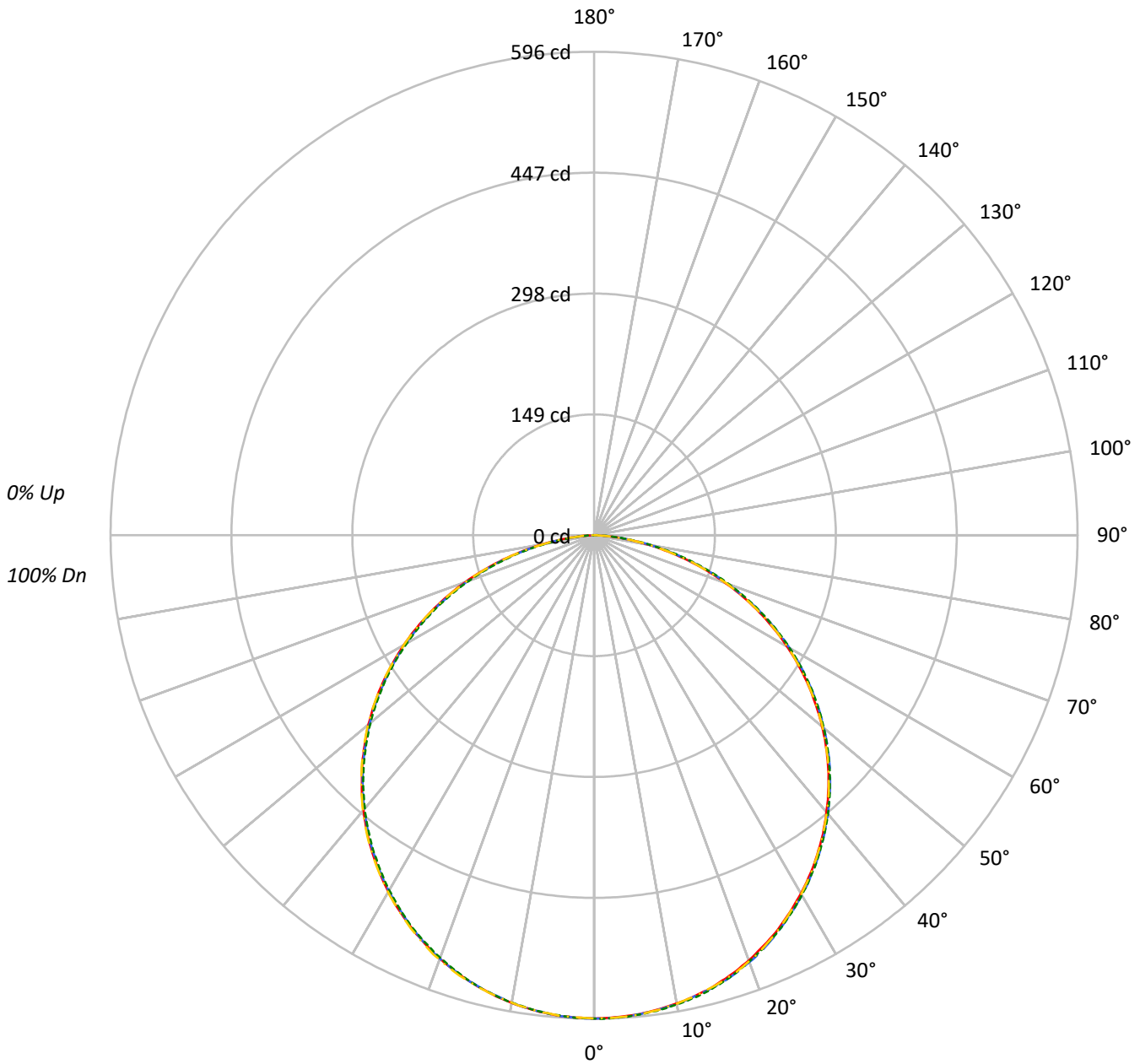
Lumens per Lamp: N/A  
 Luminaire Lumens: 1739.3 lumens  
 Efficiency: N/A  
 Efficacy: 106.7 lumens/watt  
 Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.39  
 Luminous Opening: Circular (Dia: 1.5' x H: 0')  
 CIE Type: Direct

Input Watts (W): 16.3  
 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					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	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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84					84			
2	99	90	83	78	96	88	82	77	85	80	75	82	77	73	79	75	72	69					69			
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50					50			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	48	41	35	47	40	35	46	40	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

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

	0°	90°	180°	270°
0°	3630	3630	3630	3630
5°	3629	3631	3626	3626
10°	3625	3634	3621	3618
15°	3623	3634	3611	3611
20°	3615	3625	3601	3593
25°	3604	3614	3585	3578
30°	3587	3602	3567	3554
35°	3568	3585	3545	3528
40°	3542	3565	3518	3496
45°	3516	3540	3483	3458
50°	3478	3503	3440	3407
55°	3422	3459	3381	3342
60°	3349	3393	3301	3249
65°	3243	3299	3185	3122
70°	3076	3156	3008	2923
75°	2817	2930	2732	2619
80°	2403	2561	2284	2129
85°	1733	1985	1538	1342

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.4	3.2
10°-20°	162.1	9.3
20°-30°	246.7	14.2
30°-40°	299.6	17.2
40°-50°	313.6	18.0
50°-60°	286.5	16.5
60°-70°	220.4	12.7
70°-80°	124.6	7.2
80°-90°	29.4	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
<b>0°-30°</b>	<b>465.2</b>	<b>26.7</b>
<b>0°-40°</b>	<b>764.8</b>	<b>44.0</b>
<b>0°-60°</b>	<b>1364.9</b>	<b>78.5</b>
<b>0°-90°</b>	<b>1739.3</b>	<b>100.0</b>
90°-120°	0.0	0.0
90°-150°	0.0	0.0
<b>90°-180°</b>	<b>0.0</b>	<b>0.0</b>
<b>0°-180°</b>	<b>1739.3</b>	<b>100.0</b>

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	596	596	596	596	596	
5°	594	594	593	593	594	56
15°	575	576	573	573	575	162
25°	536	538	533	532	536	247
35°	480	482	477	474	480	300
45°	408	411	404	401	408	315
55°	322	326	318	315	322	288
65°	225	229	221	217	225	222
75°	120	124	116	111	120	127
85°	25	28	22	19	25	31
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°	595.9	595.9	595.9	595.9	595.9	595.9	595.9	595.9	595.9	595.9	595.9
0.5°	595.4	595.8	595.8	595.8	596.2	596.6	595.8	596.0	595.3	595.8	595.9
1°	595.4	595.9	595.7	596.0	596.3	596.4	595.4	595.7	595.4	595.6	595.7
1.5°	595.4	596.1	595.6	595.6	596.1	596.1	595.7	595.5	595.1	595.6	595.6
2°	595.2	595.8	595.5	595.4	595.8	596.1	595.6	595.3	595.0	595.3	595.1
2.5°	594.8	595.7	595.4	595.3	595.8	595.8	595.3	594.8	595.0	595.2	595.1
3°	594.5	595.4	595.4	595.0	595.4	595.1	595.0	594.6	594.3	595.3	594.6
3.5°	594.2	595.0	595.1	595.0	595.0	594.8	595.0	594.5	594.5	594.9	594.5
4°	594.0	594.6	594.6	594.5	595.0	594.6	594.5	594.2	594.2	594.1	594.1
4.5°	593.7	594.0	594.1	594.4	594.3	594.5	594.2	593.8	593.7	593.7	593.7
5°	593.5	593.5	593.5	593.9	593.8	594.0	593.8	593.0	593.0	593.2	593.3
5.5°	592.7	593.3	593.3	593.7	593.5	593.8	593.4	592.7	592.5	592.5	592.6
6°	592.0	592.8	592.3	593.0	593.1	593.2	592.6	592.3	591.7	591.8	591.4
6.5°	591.5	592.1	591.9	592.3	592.3	592.7	591.8	591.8	591.5	591.0	590.8
7°	590.9	591.3	591.4	591.5	591.6	592.0	591.1	590.9	590.6	590.6	590.4
7.5°	590.1	590.5	590.7	591.0	591.4	591.1	590.8	589.9	589.9	589.9	589.6
8°	589.4	589.9	589.8	590.1	590.6	590.5	590.2	589.5	589.0	588.9	588.8
8.5°	588.6	589.3	589.2	589.4	589.8	589.9	588.9	588.6	588.4	588.1	588.1
9°	587.8	588.6	588.2	588.7	588.9	589.1	588.1	587.8	587.3	587.2	587.1
9.5°	586.8	587.7	587.6	587.9	588.1	588.4	587.5	586.9	586.5	586.1	586.1
10°	586.1	586.7	586.6	586.9	587.5	587.4	586.4	585.7	585.5	584.9	584.8
10.5°	585.4	585.8	585.7	586.3	586.7	586.4	585.3	584.9	584.1	583.9	583.8
11°	584.4	584.7	584.8	585.3	585.6	585.4	584.3	583.8	583.1	583.2	582.5
11.5°	583.1	583.7	583.7	584.4	584.8	584.5	583.3	582.4	582.0	582.3	581.5
12°	582.2	582.8	582.6	583.5	583.6	583.4	582.4	581.3	581.0	580.7	580.3
12.5°	581.0	581.5	581.3	582.3	582.9	582.3	581.3	580.0	579.4	579.3	579.3
13°	579.8	580.6	580.3	581.4	581.8	581.3	580.0	578.7	578.3	578.0	577.9
13.5°	578.5	579.2	579.3	580.0	580.4	580.0	578.8	577.8	576.9	576.5	576.8
14°	577.9	578.0	578.2	579.2	579.2	578.8	577.3	576.5	575.5	575.4	575.5
14.5°	576.4	576.5	577.0	577.9	577.9	577.6	576.3	574.9	574.3	573.6	573.7
15°	574.6	575.1	575.7	576.1	576.2	576.1	575.1	573.6	572.6	572.4	572.4
15.5°	573.1	573.9	574.3	574.9	575.2	574.7	573.6	571.8	571.1	571.0	571.1
16°	571.4	572.8	573.2	573.4	573.3	573.4	572.3	570.3	569.7	569.5	569.6
16.5°	570.3	571.3	572.0	571.9	571.8	571.8	570.5	569.1	568.1	567.9	567.8
17°	568.5	569.5	570.5	570.3	570.4	570.2	569.0	567.5	566.3	566.1	565.9
17.5°	566.7	567.9	568.8	568.8	568.6	568.5	567.7	565.7	565.0	564.3	564.4
18°	565.2	566.2	567.2	566.7	566.8	566.7	566.4	564.0	563.1	562.6	562.8
18.5°	563.2	564.3	565.7	565.0	564.7	564.9	564.4	562.0	561.1	560.8	560.9
19°	561.2	562.7	563.9	563.2	563.0	562.9	562.9	560.4	559.4	558.8	559.3
19.5°	559.6	560.8	561.9	561.2	561.4	561.2	560.7	558.6	557.4	556.7	557.5
20°	557.7	559.1	560.1	559.0	559.2	559.3	558.9	556.5	555.5	555.0	555.5
20.5°	555.8	556.8	558.4	557.3	557.2	557.0	556.8	554.5	553.8	553.0	553.5
21°	553.8	554.7	556.5	555.3	555.4	554.7	555.3	552.5	551.9	551.0	551.5
21.5°	551.4	552.6	554.4	553.4	553.1	553.0	553.0	550.7	549.4	548.7	549.5
22°	549.3	550.6	552.4	551.2	551.2	550.8	551.0	548.7	547.1	546.5	547.4

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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°	547.3	548.5	550.1	549.0	549.0	548.6	548.7	546.6	545.0	544.1	544.8
23°	545.4	546.6	547.6	547.1	546.8	546.6	546.2	544.1	542.8	542.2	542.4
23.5°	543.0	544.6	545.6	545.0	544.7	544.6	544.1	542.0	540.4	540.2	539.9
24°	540.8	542.3	543.2	542.6	542.5	541.9	541.8	540.0	538.4	537.4	537.5
24.5°	538.6	540.0	540.6	540.2	540.4	539.3	539.3	537.6	535.9	535.1	535.4
25°	536.2	537.6	538.2	538.0	537.8	537.4	536.9	535.4	533.4	532.6	532.5
25.5°	533.4	535.0	535.7	535.8	535.6	535.3	534.4	533.2	531.1	530.3	529.9
26°	531.1	532.8	533.2	533.3	533.1	532.5	531.8	530.6	528.5	527.9	527.8
26.5°	528.3	530.3	530.7	530.6	530.7	530.0	529.2	528.2	526.1	525.4	524.9
27°	525.9	527.9	528.0	528.3	527.8	527.7	526.5	525.5	523.4	523.0	522.3
27.5°	523.4	525.5	525.6	526.2	525.5	524.9	523.7	523.1	520.8	520.6	519.8
28°	520.8	522.7	523.2	523.5	523.1	522.5	521.1	520.3	518.5	518.0	517.2
28.5°	517.9	520.3	520.2	520.7	520.4	520.0	518.8	517.9	515.8	515.2	514.6
29°	515.2	517.8	517.5	518.0	517.8	517.2	516.0	515.3	513.0	512.3	511.7
29.5°	512.7	515.1	515.1	515.5	514.9	514.4	513.3	512.7	510.1	509.5	509.1
30°	510.0	512.3	512.4	512.8	512.1	511.6	510.7	509.8	507.2	506.8	505.9
30.5°	507.2	509.7	509.6	510.0	509.3	508.9	508.0	507.1	504.3	504.0	503.3
31°	504.2	506.8	506.8	507.0	506.7	506.1	504.9	504.2	501.5	500.8	500.4
31.5°	501.6	503.7	503.8	504.3	503.7	503.0	502.1	501.0	498.6	497.8	497.4
32°	498.5	500.5	500.9	501.6	500.6	499.9	499.1	498.1	495.6	495.2	494.2
32.5°	495.4	497.7	497.7	498.7	497.6	497.3	495.9	495.3	492.5	492.2	491.3
33°	492.6	494.7	494.6	495.6	494.8	494.2	493.0	492.0	489.4	489.3	488.2
33.5°	489.5	491.7	491.8	492.4	492.1	491.3	489.8	488.9	486.2	486.1	485.0
34°	486.3	488.8	488.8	489.4	488.8	488.2	486.5	486.2	483.4	482.9	481.6
34.5°	483.1	485.6	485.5	486.2	485.4	485.1	483.6	483.0	480.3	479.6	478.5
35°	479.8	482.4	482.1	483.1	482.1	481.9	480.2	479.5	476.8	476.4	475.3
35.5°	476.3	479.2	479.1	480.0	479.0	478.7	477.0	476.3	473.6	473.3	472.1
36°	473.4	476.0	475.7	476.7	475.7	475.4	473.7	472.9	470.3	469.9	468.7
36.5°	470.1	472.7	472.5	473.3	472.2	472.1	470.4	469.7	467.0	466.8	465.5
37°	466.8	469.4	469.3	469.8	469.2	469.0	467.1	466.4	463.5	463.2	461.8
37.5°	463.5	465.8	465.8	466.6	466.0	465.5	463.9	463.1	460.1	459.4	458.3
38°	459.6	462.4	462.4	463.2	462.4	462.0	460.3	459.7	456.6	456.0	454.9
38.5°	456.2	458.8	459.0	459.9	458.9	458.4	456.9	456.4	453.0	452.2	451.5
39°	452.8	455.6	455.5	456.4	455.5	455.2	453.2	452.7	449.6	448.9	448.0
39.5°	449.4	451.7	452.0	452.8	452.0	451.5	449.7	449.2	445.9	445.4	444.5
40°	445.5	448.1	448.5	449.0	448.3	448.0	446.3	445.4	442.4	441.6	440.7
40.5°	442.0	444.4	444.8	445.5	444.8	444.6	443.0	441.5	438.8	437.7	437.2
41°	438.6	440.8	441.1	441.8	441.0	440.8	439.1	437.6	435.1	434.2	433.3
41.5°	435.0	437.0	437.6	438.1	437.5	437.0	435.6	434.1	431.6	430.4	429.8
42°	431.1	433.2	434.0	434.4	433.8	433.4	431.8	430.2	427.7	426.5	425.8
42.5°	427.3	429.6	430.4	430.6	430.0	429.6	428.2	426.2	423.9	422.9	422.0
43°	423.5	425.6	426.5	426.7	426.2	425.8	424.1	422.6	419.9	419.2	418.3
43.5°	419.6	421.9	422.5	423.0	422.4	421.9	420.1	418.6	416.0	415.4	414.5
44°	416.0	418.2	418.9	419.0	418.6	418.3	416.3	414.9	412.1	411.6	410.5
44.5°	412.4	414.3	415.1	415.3	414.8	414.3	412.4	410.8	408.3	407.6	406.6

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	408.2	410.1	411.3	411.5	410.9	410.4	408.6	406.8	404.3	403.5	402.5
45.5°	404.0	406.3	407.3	407.4	406.7	406.4	404.7	403.0	400.4	399.2	398.7
46°	400.3	402.3	403.1	403.3	402.7	402.4	400.7	399.0	396.3	395.2	394.6
46.5°	396.2	398.3	399.4	399.1	398.8	398.4	396.8	394.8	392.0	391.1	390.6
47°	392.3	394.3	395.2	395.3	394.7	394.4	392.6	391.0	388.1	387.2	386.5
47.5°	387.8	390.1	391.2	391.3	390.8	390.3	388.3	387.0	383.9	383.0	382.1
48°	383.9	386.1	386.9	387.0	386.5	386.4	384.4	382.7	379.9	378.8	377.9
48.5°	379.9	382.0	382.9	382.7	382.3	382.0	380.3	378.2	375.5	374.5	373.9
49°	375.5	377.6	378.5	378.7	378.1	377.8	375.8	374.0	371.6	370.3	369.4
49.5°	371.2	373.3	374.3	374.5	373.9	373.7	371.7	369.8	367.4	366.1	365.4
50°	367.0	369.3	369.9	370.1	369.7	369.4	367.5	365.6	363.0	362.0	361.0
50.5°	362.7	365.1	365.8	366.0	365.6	365.0	363.2	361.3	358.6	357.4	356.7
51°	358.2	360.7	361.4	361.5	361.3	360.7	358.7	357.1	354.1	352.9	352.1
51.5°	354.0	356.4	357.1	357.2	356.8	356.4	354.2	352.7	349.9	348.7	347.8
52°	349.5	351.9	352.8	352.9	352.5	351.9	350.0	348.4	345.7	344.1	343.5
52.5°	344.9	347.4	348.2	348.3	347.9	347.7	345.7	344.0	341.1	339.8	338.9
53°	340.1	342.9	343.8	343.8	343.3	343.2	341.3	339.3	336.5	335.2	334.4
53.5°	336.0	338.4	339.3	339.5	339.1	338.7	336.7	334.9	331.9	330.7	330.0
54°	331.6	333.8	334.7	334.8	334.7	334.0	332.2	330.2	327.7	326.0	325.3
54.5°	327.1	329.2	330.3	330.2	330.3	329.7	327.7	325.8	323.1	321.3	320.6
55°	322.2	324.8	325.7	325.6	325.7	325.0	323.2	321.2	318.4	316.9	316.3
55.5°	317.8	320.1	321.2	320.9	321.1	320.5	318.6	316.9	313.7	312.6	311.4
56°	313.3	315.5	316.5	316.4	316.6	315.8	313.8	312.0	309.0	307.7	306.6
56.5°	308.5	310.7	311.8	311.7	312.0	311.0	309.0	307.5	304.3	302.9	301.9
57°	303.6	306.0	307.2	307.1	307.3	306.4	304.5	302.7	299.8	298.2	297.0
57.5°	299.0	301.3	302.5	302.3	302.6	301.6	299.6	297.9	294.9	293.3	292.4
58°	294.3	296.7	297.7	297.6	297.7	296.9	294.9	293.1	290.2	288.6	287.7
58.5°	289.6	292.1	293.1	292.8	292.9	292.2	290.2	288.4	285.5	283.9	282.9
59°	284.6	287.1	288.1	287.9	288.3	287.2	285.4	283.4	280.7	279.2	278.1
59.5°	279.8	282.2	283.3	283.1	283.5	282.4	280.4	278.5	275.8	273.9	273.1
60°	274.9	277.3	278.3	278.1	278.5	277.5	275.4	273.5	271.0	269.1	268.2
60.5°	270.1	272.3	273.4	273.3	273.7	272.8	270.7	268.8	266.1	264.3	263.4
61°	265.3	267.5	268.6	268.4	268.9	267.7	265.8	264.0	261.2	259.4	258.5
61.5°	260.2	262.5	263.6	263.6	264.1	262.8	260.8	259.0	256.2	254.4	253.5
62°	255.2	257.5	258.8	258.7	259.2	258.0	255.9	254.0	251.4	249.3	248.3
62.5°	250.1	252.6	253.6	253.6	254.1	252.9	250.8	248.9	246.2	244.4	243.3
63°	245.2	247.6	248.5	248.6	249.1	248.0	245.8	243.9	241.2	239.3	238.3
63.5°	240.1	242.4	243.4	243.6	244.2	243.1	240.9	239.0	236.1	234.2	233.2
64°	235.2	237.5	238.4	238.4	239.0	237.8	235.8	233.8	231.1	229.1	228.1
64.5°	230.1	232.5	233.4	233.6	234.1	232.9	230.7	228.6	226.0	224.0	222.8
65°	225.0	227.3	228.3	228.5	228.9	227.8	225.5	223.5	221.0	218.9	217.9
65.5°	219.8	222.1	223.1	223.2	223.7	222.7	220.5	218.4	215.9	213.8	212.8
66°	214.8	217.0	217.9	218.0	218.6	217.4	215.2	213.1	210.6	208.8	207.9
66.5°	209.5	211.8	212.8	212.9	213.6	212.2	210.2	208.0	205.6	203.5	202.5
67°	204.3	206.7	207.7	207.8	208.5	207.3	205.1	202.8	200.3	198.3	197.2



TEST NUMBER: P869699  
 CATALOG NUMBER: SMX18RLSFS010-1500LM-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	199.1	201.4	202.3	202.5	203.4	201.9	200.0	197.6	195.2	193.0	192.0
68°	193.8	196.0	197.0	197.1	198.0	196.6	194.7	192.3	189.9	188.0	186.8
68.5°	188.6	191.0	191.9	192.2	193.1	191.4	189.4	187.0	184.8	182.9	181.7
69°	183.5	185.8	186.5	187.0	187.9	186.3	184.0	181.9	179.5	177.4	176.4
69.5°	177.9	180.4	181.4	181.4	182.5	181.0	178.9	176.8	174.3	172.2	171.0
70°	172.7	175.1	176.0	176.1	177.2	175.8	173.5	171.3	168.9	167.0	165.7
70.5°	167.6	169.7	170.6	171.0	172.1	170.5	168.3	166.1	163.8	161.6	160.5
71°	162.1	164.6	165.4	165.7	166.9	165.4	163.2	160.7	158.5	156.4	155.3
71.5°	156.8	159.3	160.1	160.4	161.5	160.0	157.8	155.4	153.1	151.1	150.0
72°	151.6	153.9	154.7	155.1	156.3	154.9	152.5	150.1	147.8	145.6	144.5
72.5°	146.3	148.5	149.4	149.6	151.0	149.5	147.3	144.7	142.4	140.4	139.3
73°	140.9	143.1	144.0	144.3	145.5	144.0	141.7	139.3	137.2	135.1	134.0
73.5°	135.7	137.8	138.8	138.9	140.4	138.8	136.5	134.0	132.0	129.7	128.7
74°	130.4	132.6	133.5	133.7	135.1	133.6	131.3	128.7	126.6	124.5	123.5
74.5°	125.1	127.4	128.3	128.4	129.7	128.4	126.1	123.4	121.3	119.2	118.1
75°	119.7	121.9	122.8	123.0	124.5	123.0	120.8	118.0	116.1	113.9	112.8
75.5°	114.6	116.7	117.7	117.6	119.3	117.7	115.4	113.1	110.8	108.8	107.7
76°	109.3	111.5	112.5	112.4	113.9	112.5	110.2	107.8	105.7	103.6	102.4
76.5°	104.1	106.2	107.2	107.1	108.8	107.2	104.9	102.7	100.4	98.1	97.1
77°	98.9	101.1	102.1	102.0	103.5	102.1	99.8	97.5	95.2	93.1	92.0
77.5°	93.7	95.8	96.8	96.8	98.4	96.9	94.7	92.2	90.2	88.0	87.0
78°	88.6	90.8	91.6	91.8	93.2	91.8	89.5	87.2	84.8	83.1	81.9
78.5°	83.5	85.6	86.6	86.8	88.1	86.6	84.3	81.9	79.9	77.8	76.9
79°	78.6	80.7	81.7	81.7	83.0	81.5	79.4	77.0	74.8	72.9	72.1
79.5°	73.5	75.5	76.6	76.7	77.9	76.6	74.4	72.0	69.9	68.0	67.0
80°	68.5	70.5	71.5	71.6	73.0	71.8	69.3	67.0	65.1	63.4	62.3
80.5°	63.8	65.7	66.7	66.9	68.1	66.9	64.7	62.4	60.3	58.6	57.7
81°	59.0	61.0	61.9	62.1	63.6	62.3	60.0	57.7	55.7	53.9	53.1
81.5°	54.4	56.2	57.2	57.3	58.5	57.4	55.3	53.0	51.0	49.4	48.6
82°	49.6	51.6	52.4	52.4	53.8	52.7	50.9	48.5	46.4	44.8	44.0
82.5°	45.1	47.0	47.8	47.9	49.3	48.2	46.3	44.0	42.0	40.4	39.7
83°	40.9	42.6	43.4	43.5	45.0	43.8	41.9	39.7	37.8	36.3	35.6
83.5°	36.6	38.3	39.1	39.2	40.6	39.4	37.6	35.4	33.6	32.2	31.4
84°	32.5	34.2	34.9	35.0	36.2	35.2	33.4	31.3	29.5	28.3	27.5
84.5°	28.6	30.2	30.8	31.0	32.2	31.2	29.4	27.5	25.7	24.4	23.8
85°	24.8	26.4	27.0	27.0	28.4	27.3	25.6	23.6	22.0	20.7	20.2
85.5°	21.3	22.7	23.3	23.3	24.4	23.4	21.8	20.0	18.5	17.4	16.8
86°	18.0	19.3	19.8	19.9	20.8	19.8	18.3	16.7	15.5	14.3	13.8
86.5°	15.1	16.3	16.8	16.8	17.3	16.5	15.2	13.6	12.4	11.6	11.3
87°	12.2	13.4	13.8	13.8	14.4	13.6	12.4	11.1	10.0	9.1	8.8
87.5°	9.7	10.8	11.1	11.1	11.6	11.1	10.0	8.6	7.6	6.9	6.5
88°	7.3	8.2	8.6	8.6	9.2	8.5	7.5	6.3	5.5	4.8	4.7
88.5°	4.9	5.8	6.2	6.2	6.8	6.3	5.4	4.4	3.6	3.2	2.9
89°	3.4	4.0	4.3	4.2	4.9	4.4	3.5	2.7	2.1	1.7	1.6
89.5°	2.2	2.7	2.9	2.7	3.1	2.7	2.1	1.4	1.0	0.7	0.6

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



TEST NUMBER: P869699  
CATALOG NUMBER: SMX18RLSFS010-1500LM-4000K

**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: P869699  
 CATALOG NUMBER: SMX18RLSFS010-1500LM-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	595.9	595.9	595.9	595.9	595.9	595.9
0.5°	595.8	595.7	596.3	595.6	595.6	595.4
1°	595.3	595.3	596.0	595.1	595.5	595.4
1.5°	595.2	595.6	595.8	595.1	595.4	595.4
2°	595.0	595.6	595.5	594.9	595.4	595.2
2.5°	594.8	595.1	595.3	594.8	595.2	594.8
3°	594.4	594.6	595.3	594.3	595.1	594.5
3.5°	594.1	594.1	594.8	594.1	594.6	594.2
4°	594.1	593.5	594.3	594.1	594.1	594.0
4.5°	593.5	593.3	593.8	593.3	593.4	593.7
5°	593.1	593.1	593.5	592.7	592.8	593.5
5.5°	592.0	592.2	592.7	591.9	592.4	592.7
6°	591.4	591.5	592.0	591.8	592.2	592.0
6.5°	590.9	590.9	591.5	591.3	591.5	591.5
7°	590.4	590.1	590.8	590.5	591.0	590.9
7.5°	589.2	589.5	589.7	589.8	590.4	590.1
8°	588.6	588.4	589.0	588.9	589.4	589.4
8.5°	587.7	587.7	588.4	587.9	588.6	588.6
9°	586.6	586.6	587.6	587.2	587.6	587.8
9.5°	585.9	585.8	586.1	586.3	586.6	586.8
10°	585.1	585.0	585.1	584.9	585.8	586.1
10.5°	583.9	584.1	584.0	583.6	584.8	585.4
11°	582.6	582.8	583.0	582.9	584.0	584.4
11.5°	581.7	581.7	582.1	581.8	583.2	583.1
12°	580.5	580.4	581.3	580.6	582.0	582.2
12.5°	579.2	579.2	579.6	579.4	580.8	581.0
13°	577.9	578.1	578.7	578.5	579.6	579.8
13.5°	576.8	577.0	577.3	577.1	578.5	578.5
14°	575.2	575.5	576.1	576.0	577.4	577.9
14.5°	574.1	574.1	574.7	574.7	576.2	576.4
15°	572.7	572.7	573.3	573.1	574.7	574.6
15.5°	571.4	571.0	571.8	571.8	573.0	573.1
16°	570.0	569.3	570.4	570.1	571.4	571.4
16.5°	568.3	567.6	568.6	569.0	569.8	570.3
17°	566.7	565.7	566.7	567.7	568.2	568.5
17.5°	564.7	563.8	565.1	565.9	566.5	566.7
18°	563.0	562.1	563.1	564.2	564.7	565.2
18.5°	560.8	560.3	560.8	562.4	562.8	563.2
19°	558.8	558.4	558.8	560.9	560.9	561.2
19.5°	556.8	556.1	557.0	558.8	559.1	559.6
20°	554.9	554.3	555.5	556.8	557.4	557.7
20.5°	552.8	552.4	553.3	555.1	555.2	555.8
21°	550.8	550.3	551.4	553.2	553.1	553.8
21.5°	548.7	547.9	549.2	550.9	550.8	551.4
22°	546.6	545.7	546.7	548.6	548.6	549.3

TEST NUMBER: P869699  
 CATALOG NUMBER: SMX18RLSFS010-1500LM-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	544.3	543.6	544.8	546.4	546.8	547.3
23°	542.3	541.5	542.7	544.2	545.0	545.4
23.5°	539.7	539.3	540.1	541.8	542.4	543.0
24°	537.5	537.0	537.7	539.2	539.8	540.8
24.5°	534.9	534.6	535.3	536.8	537.7	538.6
25°	532.6	532.4	533.4	534.5	535.6	536.2
25.5°	530.2	529.7	531.0	532.0	533.1	533.4
26°	527.6	527.2	528.5	529.5	530.8	531.1
26.5°	524.9	524.2	526.0	526.9	528.2	528.3
27°	522.4	521.8	523.4	524.4	525.5	525.9
27.5°	519.8	518.9	520.7	521.8	522.9	523.4
28°	517.2	516.4	518.3	519.1	520.6	520.8
28.5°	514.4	513.7	515.3	516.2	518.0	517.9
29°	511.8	510.8	512.5	513.5	515.2	515.2
29.5°	508.8	507.9	509.5	510.7	512.2	512.7
30°	505.9	505.3	506.8	507.9	509.5	510.0
30.5°	503.3	502.3	503.8	504.8	506.8	507.2
31°	500.2	499.4	500.9	502.0	504.1	504.2
31.5°	497.1	496.3	497.9	499.1	500.9	501.6
32°	494.1	493.1	495.2	496.3	498.1	498.5
32.5°	491.2	490.1	492.2	493.2	495.1	495.4
33°	488.1	487.3	489.2	490.2	492.3	492.6
33.5°	485.0	483.9	485.9	487.0	489.4	489.5
34°	482.0	480.6	482.8	483.9	486.2	486.3
34.5°	478.4	477.5	479.5	480.8	483.1	483.1
35°	475.1	474.4	476.4	477.3	479.8	479.8
35.5°	471.9	471.1	472.7	474.1	476.4	476.3
36°	468.6	467.8	469.6	471.0	473.3	473.4
36.5°	465.6	464.3	466.3	467.8	470.2	470.1
37°	462.3	460.9	462.9	464.3	466.7	466.8
37.5°	458.8	457.7	459.2	461.1	463.4	463.5
38°	454.9	454.1	455.7	457.4	459.7	459.6
38.5°	451.8	450.5	452.2	453.8	456.2	456.2
39°	448.2	447.1	448.6	450.5	452.7	452.8
39.5°	444.4	443.5	444.8	446.7	448.9	449.4
40°	440.8	439.7	441.6	443.2	445.3	445.5
40.5°	437.0	436.0	437.7	439.6	441.8	442.0
41°	433.2	432.4	433.9	435.6	437.6	438.6
41.5°	429.7	428.5	430.1	432.1	434.1	435.0
42°	425.8	424.7	426.5	428.3	430.1	431.1
42.5°	421.9	421.1	422.5	424.4	426.4	427.3
43°	418.4	417.4	418.8	420.6	422.6	423.5
43.5°	414.5	413.5	414.8	417.0	419.1	419.6
44°	410.3	409.4	410.9	413.1	415.3	416.0
44.5°	406.5	405.5	407.1	409.0	411.4	412.4

TEST NUMBER: P869699  
 CATALOG NUMBER: SMX18RLSFS010-1500LM-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	402.6	401.4	403.1	405.3	407.3	408.2
45.5°	398.8	397.4	399.2	401.3	403.0	404.0
46°	394.4	393.2	395.2	397.1	399.0	400.3
46.5°	390.3	389.3	391.0	393.1	395.1	396.2
47°	386.3	384.9	386.7	388.8	391.0	392.3
47.5°	381.9	380.9	382.7	384.9	386.9	387.8
48°	377.7	376.5	378.3	380.6	382.6	383.9
48.5°	373.5	372.4	374.1	376.5	378.7	379.9
49°	369.3	368.4	369.9	372.1	374.6	375.5
49.5°	365.0	364.0	365.6	368.0	370.2	371.2
50°	360.7	359.5	361.2	363.6	366.0	367.0
50.5°	356.3	355.3	356.9	359.4	361.6	362.7
51°	351.9	351.0	352.5	355.1	357.3	358.2
51.5°	347.6	346.5	347.9	350.5	352.8	354.0
52°	343.0	341.9	343.6	345.9	348.4	349.5
52.5°	338.4	337.6	339.3	341.6	343.8	344.9
53°	334.2	333.0	334.7	337.0	339.5	340.1
53.5°	329.6	328.4	330.2	332.6	334.9	336.0
54°	324.9	323.8	325.5	327.9	330.2	331.6
54.5°	320.3	319.2	320.9	323.4	325.7	327.1
55°	316.0	314.7	316.5	318.8	320.9	322.2
55.5°	311.2	310.1	312.0	314.1	316.7	317.8
56°	306.4	305.5	307.1	309.7	312.0	313.3
56.5°	301.7	300.7	302.5	304.9	307.2	308.5
57°	297.2	295.9	297.7	300.2	302.3	303.6
57.5°	292.3	291.3	292.9	295.2	297.6	299.0
58°	287.5	286.3	288.1	290.5	292.8	294.3
58.5°	282.7	281.4	283.4	285.7	288.1	289.6
59°	277.9	276.6	278.5	280.7	283.2	284.6
59.5°	272.9	271.6	273.5	275.9	278.2	279.8
60°	268.1	266.7	268.7	271.0	273.3	274.9
60.5°	263.2	262.0	263.5	266.2	268.4	270.1
61°	258.2	257.0	258.8	261.2	263.5	265.3
61.5°	253.2	252.0	253.9	256.3	258.7	260.2
62°	248.2	247.0	248.8	251.2	253.6	255.2
62.5°	243.3	242.1	243.8	246.2	248.5	250.1
63°	238.1	236.9	238.6	240.9	243.5	245.2
63.5°	233.2	231.9	233.6	235.8	238.4	240.1
64°	227.9	226.6	228.4	230.9	233.4	235.2
64.5°	222.8	221.6	223.3	225.6	228.2	230.1
65°	217.8	216.6	218.2	220.4	223.2	225.0
65.5°	212.6	211.3	213.2	215.3	217.9	219.8
66°	207.4	206.3	207.9	210.2	212.8	214.8
66.5°	202.3	200.8	202.8	204.9	207.5	209.5
67°	196.9	195.7	197.4	199.6	202.4	204.3

TEST NUMBER: P869699  
 CATALOG NUMBER: SMX18RLSFS010-1500LM-4000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	191.9	190.6	192.2	194.5	197.2	199.1
68°	186.7	185.1	187.0	189.3	192.1	193.8
68.5°	181.4	180.0	181.6	183.9	186.6	188.6
69°	176.1	174.6	176.3	178.6	181.4	183.5
69.5°	170.8	169.3	171.1	173.3	176.0	177.9
70°	165.6	164.1	166.0	168.2	170.7	172.7
70.5°	160.5	158.8	160.6	162.8	165.6	167.6
71°	155.1	153.5	155.4	157.7	160.2	162.1
71.5°	149.8	148.1	149.9	152.1	154.9	156.8
72°	144.5	143.0	144.5	146.8	149.5	151.6
72.5°	139.1	137.6	139.3	141.6	144.2	146.3
73°	133.8	132.3	133.9	136.2	138.8	140.9
73.5°	128.6	127.0	128.6	130.9	133.6	135.7
74°	123.4	121.7	123.3	125.6	128.1	130.4
74.5°	118.0	116.5	118.0	120.2	122.8	125.1
75°	112.8	111.3	112.8	115.1	117.5	119.7
75.5°	107.8	106.1	107.5	109.9	112.4	114.6
76°	102.4	100.8	102.3	104.5	107.0	109.3
76.5°	97.2	95.7	97.1	99.4	102.0	104.1
77°	91.9	90.5	92.0	94.3	96.8	98.9
77.5°	86.9	85.4	86.9	89.3	91.7	93.7
78°	81.8	80.4	81.9	84.1	86.6	88.6
78.5°	76.8	75.4	76.9	79.0	81.6	83.5
79°	71.9	70.3	71.9	74.1	76.6	78.6
79.5°	67.0	65.4	66.9	69.1	71.6	73.5
80°	62.3	60.7	62.1	64.3	66.6	68.5
80.5°	57.6	56.0	57.4	59.5	61.7	63.8
81°	53.1	51.3	52.7	54.8	57.0	59.0
81.5°	48.4	46.8	48.1	50.2	52.5	54.4
82°	43.8	42.4	43.6	45.7	47.8	49.6
82.5°	39.6	38.1	39.4	41.2	43.4	45.1
83°	35.5	34.0	35.3	37.1	39.2	40.9
83.5°	31.3	30.0	31.0	32.9	35.0	36.6
84°	27.4	26.1	27.2	29.0	30.9	32.5
84.5°	23.7	22.6	23.6	25.3	27.1	28.6
85°	20.0	19.2	20.2	21.7	23.4	24.8
85.5°	16.7	16.1	17.0	18.3	20.0	21.3
86°	13.7	13.1	14.0	15.3	16.9	18.0
86.5°	11.2	10.4	11.2	12.4	13.9	15.1
87°	8.8	8.0	8.7	9.8	11.1	12.2
87.5°	6.5	5.5	6.3	7.5	8.6	9.7
88°	4.5	3.9	4.3	5.2	6.2	7.3
88.5°	2.9	2.5	2.9	3.5	4.3	4.9
89°	1.6	1.5	1.8	2.4	2.9	3.4
89.5°	0.7	0.9	1.2	1.5	1.9	2.2

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

  
NVLAP Lab Code: 200050-0



TEST NUMBER: P869699  
CATALOG NUMBER: SMX18RLSFS010-1500LM-4000K

**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)