

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P520638

Luminaire Tested: **8WSLA-100-L850-UPL8-UNV-U**

Issue Date: 5/3/2021

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P520638  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-174-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/3/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 8WSLA-100-L850-UPL8-UNV-U  
Description: 8 FOOT, 2000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 5000K, 80 CRI  
LEDS WITH 8% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

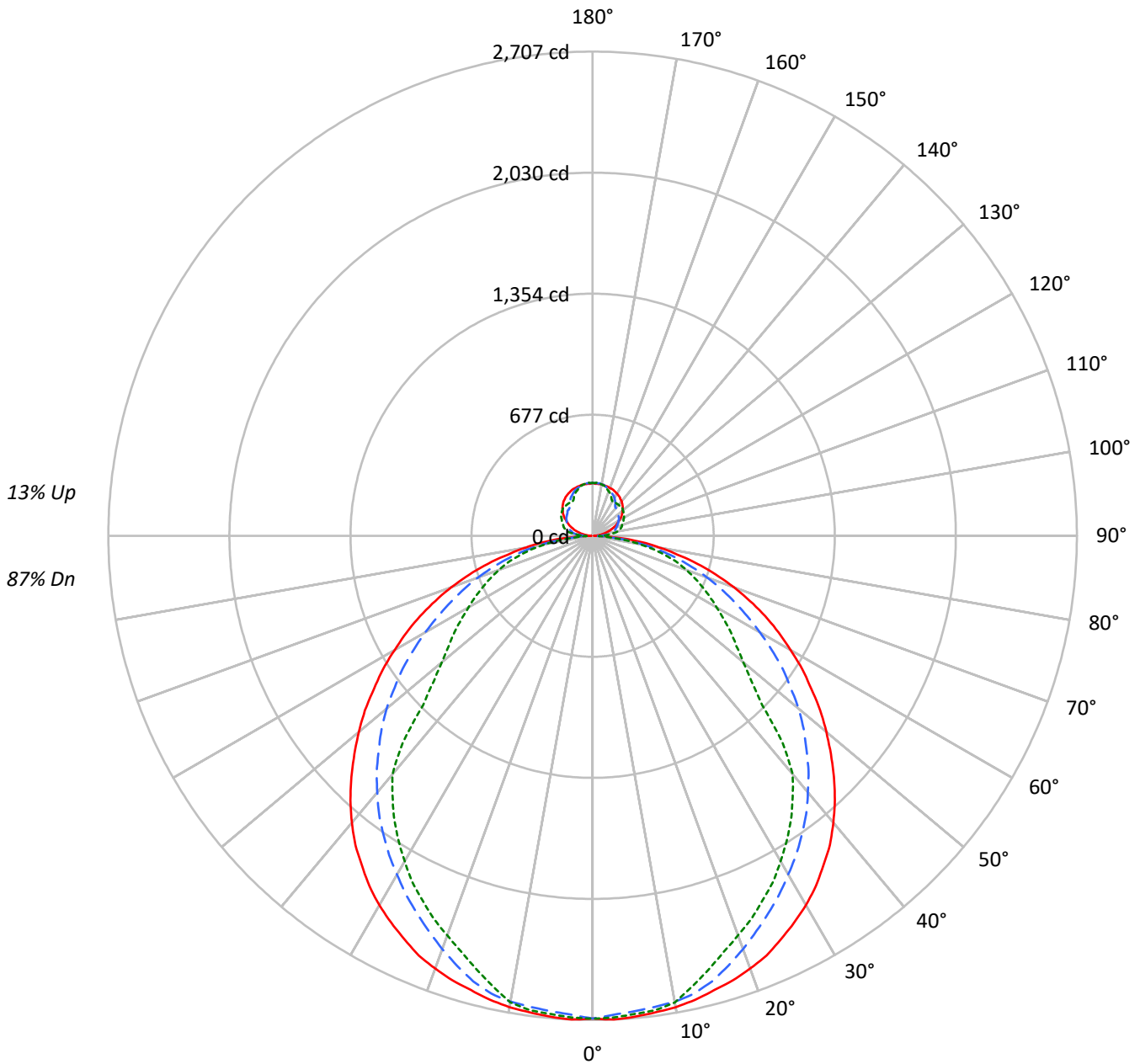
Lumens per Lamp: N/A  
Luminaire Lumens: 8401.0 lumens  
Efficiency: N/A  
Efficacy: 132.5 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 8' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 63.4  
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

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87																			
1	106	101	97	93	102	98	94	90	91	88	85	85	83	80	79	78	76	73																			
2	96	88	82	76	92	85	79	74	80	75	70	74	70	67	70	66	64	61																			
3	88	78	70	63	84	75	68	62	70	64	59	66	61	56	62	58	54	51																			
4	80	69	60	54	77	67	59	53	62	56	50	59	53	48	55	50	46	44																			
5	74	61	53	46	71	60	51	45	56	49	44	53	47	42	50	45	40	38																			
6	68	55	47	40	66	54	46	40	51	44	38	48	42	37	45	40	36	33																			
7	63	50	42	36	61	49	41	35	46	39	34	43	37	33	41	36	32	30																			
8	59	46	37	32	57	44	37	31	42	35	30	40	34	29	38	32	28	26																			
9	55	42	34	28	53	41	33	28	39	32	27	37	31	26	35	30	26	24																			
10	52	39	31	26	50	38	30	25	36	29	25	34	28	24	32	27	23	22																			

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

	0°	45°	90°
0°	7264	7264	7264
5°	7292	7208	7250
10°	7312	7228	7238
15°	7326	7185	6990
20°	7374	7041	6807
25°	7392	6908	6677
30°	7410	6795	6529
35°	7388	6699	6354
40°	7354	6576	6113
45°	7258	6430	5100
50°	7138	6293	4602
55°	6997	6086	4428
60°	6878	5811	4306
65°	6776	5564	4303
70°	6601	5348	4370
75°	6300	5088	4402
80°	5898	4575	4093
85°	5397	3239	2757



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	255.6	3.0
10°-20°	726.5	8.6
20°-30°	1085.6	12.9
30°-40°	1295.9	15.4
40°-50°	1296.0	15.4
50°-60°	1121.6	13.4
60°-70°	860.9	10.2
70°-80°	527.5	6.3
80°-90°	148.5	1.8
90°-100°	83.9	1.0
100°-110°	133.2	1.6
110°-120°	155.8	1.9
120°-130°	168.2	2.0
130°-140°	165.7	2.0
140°-150°	146.6	1.7
150°-160°	120.6	1.4
160°-170°	80.7	1.0
170°-180°	28.1	0.3
0°-30°	2067.7	24.6
0°-40°	3363.6	40.0
0°-60°	5781.2	68.8
0°-90°	7318.2	87.1
90°-120°	372.9	4.4
90°-150°	853.3	10.2
90°-180°	1083.0	12.9
0°-180°	8401.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2699	2699	2699	2699	2699	
5°	2699	2692	2668	2688	2684	257
15°	2630	2626	2579	2532	2509	744
25°	2490	2459	2327	2264	2249	1149
35°	2249	2191	2039	1965	1934	1408
45°	1907	1853	1690	1538	1340	1471
55°	1492	1456	1297	1037	944	1337
65°	1064	1025	874	703	676	1051
75°	606	575	489	423	423	639
85°	175	144	105	89	89	183
90°	8	27	43	54	58	12
95°	31	66	89	93	93	31
105°	89	93	132	155	163	94
115°	148	124	155	179	190	144
125°	198	159	179	206	214	176
135°	237	214	198	218	229	183
145°	264	252	221	218	225	165
155°	280	276	260	249	245	129
165°	287	291	284	284	284	82
175°	291	295	295	299	299	28
180°	295	295	295	295	295	



TEST NUMBER: P520638

CATALOG NUMBER: 8WSLA-100-L850-UPL8-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2699.4	2699.4	2699.4	2699.4	2699.4
2.5°	2707.2	2699.4	2680.0	2699.4	2695.6
5°	2699.4	2691.7	2668.4	2687.8	2683.9
7.5°	2687.8	2680.0	2656.7	2680.0	2676.1
10°	2676.1	2668.4	2645.1	2660.6	2648.9
12.5°	2656.7	2648.9	2621.8	2602.3	2579.0
15°	2629.5	2625.6	2579.0	2532.4	2509.1
17.5°	2606.2	2594.6	2520.8	2466.4	2439.2
20°	2575.1	2555.7	2458.6	2396.5	2377.1
22.5°	2540.2	2509.1	2392.6	2334.3	2318.8
25°	2489.7	2458.6	2326.6	2264.4	2248.9
27.5°	2439.2	2400.4	2260.5	2198.4	2182.9
30°	2384.8	2330.5	2186.7	2128.5	2101.3
32.5°	2322.7	2268.3	2116.8	2050.8	2019.7
35°	2248.9	2190.6	2039.1	1965.3	1934.3
37.5°	2179.0	2116.8	1961.5	1879.9	1837.2
40°	2093.5	2031.4	1872.1	1782.8	1740.1
42.5°	2004.2	1945.9	1786.7	1677.9	1573.1
45°	1907.1	1852.7	1689.6	1538.1	1340.0
47.5°	1806.1	1759.5	1600.2	1394.4	1204.1
50°	1705.1	1658.5	1503.1	1258.4	1099.2
52.5°	1604.1	1565.3	1394.4	1145.8	1013.7
55°	1491.5	1456.5	1297.3	1037.1	943.8
57.5°	1390.5	1355.5	1184.6	947.7	870.0
60°	1277.9	1246.8	1079.8	858.4	800.1
62.5°	1173.0	1138.0	974.9	780.7	738.0
65°	1064.2	1025.4	873.9	703.0	675.8
67.5°	951.6	912.8	776.8	633.1	617.6
70°	839.0	807.9	679.7	563.2	555.4
72.5°	722.4	687.5	582.6	497.2	497.2
75°	605.9	574.8	489.4	423.4	423.4
77.5°	485.5	470.0	392.3	345.7	349.6
80°	380.6	361.2	295.2	264.1	264.1
82.5°	279.7	256.3	198.1	174.8	182.6
85°	174.8	143.7	104.9	89.3	89.3
87.5°	54.4	42.7	31.1	35.0	35.0
90°	7.8	27.2	42.7	54.4	58.3
92.5°	19.4	50.5	62.1	73.8	77.7
95°	31.1	66.0	89.3	93.2	93.2
97.5°	42.7	73.8	108.8	124.3	124.3
100°	58.3	77.7	116.5	139.8	143.7
102.5°	73.8	85.4	124.3	147.6	155.4
105°	89.3	93.2	132.1	155.4	163.1



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CATALOG NUMBER: 8WSLA-100-L850-UPL8-UNV-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	132.1	116.5	147.6	174.8	182.6
115°	147.6	124.3	155.4	178.7	190.3
117.5°	159.2	135.9	163.1	186.4	194.2
120°	170.9	143.7	167.0	194.2	202.0
122.5°	186.4	151.5	174.8	198.1	209.7
125°	198.1	159.2	178.7	205.9	213.6
127.5°	209.7	174.8	182.6	209.7	217.5
130°	217.5	190.3	186.4	213.6	221.4
132.5°	229.2	202.0	190.3	217.5	225.3
135°	236.9	213.6	198.1	217.5	229.2
137.5°	244.7	225.3	198.1	217.5	225.3
140°	252.5	236.9	202.0	217.5	225.3
142.5°	256.3	244.7	205.9	217.5	225.3
145°	264.1	252.5	221.4	217.5	225.3
147.5°	268.0	260.2	233.0	217.5	225.3
150°	271.9	268.0	244.7	221.4	221.4
152.5°	275.8	271.9	252.5	236.9	229.2
155°	279.7	275.8	260.2	248.6	244.7
157.5°	283.5	283.5	268.0	260.2	256.3
160°	283.5	287.4	275.8	268.0	264.1
162.5°	287.4	291.3	279.7	275.8	271.9
165°	287.4	291.3	283.5	283.5	283.5
167.5°	291.3	295.2	291.3	287.4	287.4
170°	291.3	295.2	291.3	291.3	291.3
172.5°	291.3	295.2	295.2	295.2	295.2
175°	291.3	295.2	295.2	299.1	299.1
177.5°	291.3	295.2	295.2	295.2	295.2
180°	295.2	295.2	295.2	295.2	295.2



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°







107.5°	104.9	101.0	135.9	163.1	170.9
110°	116.5	108.8	143.7	167.0	174.8



(END OF REPORT)