

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: P520542

Luminaire Tested: **4WSLA-175-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: P520542
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: 4WSLA-175-L850-UPL8-UNV-U
Description: 4 FOOT, 1750 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

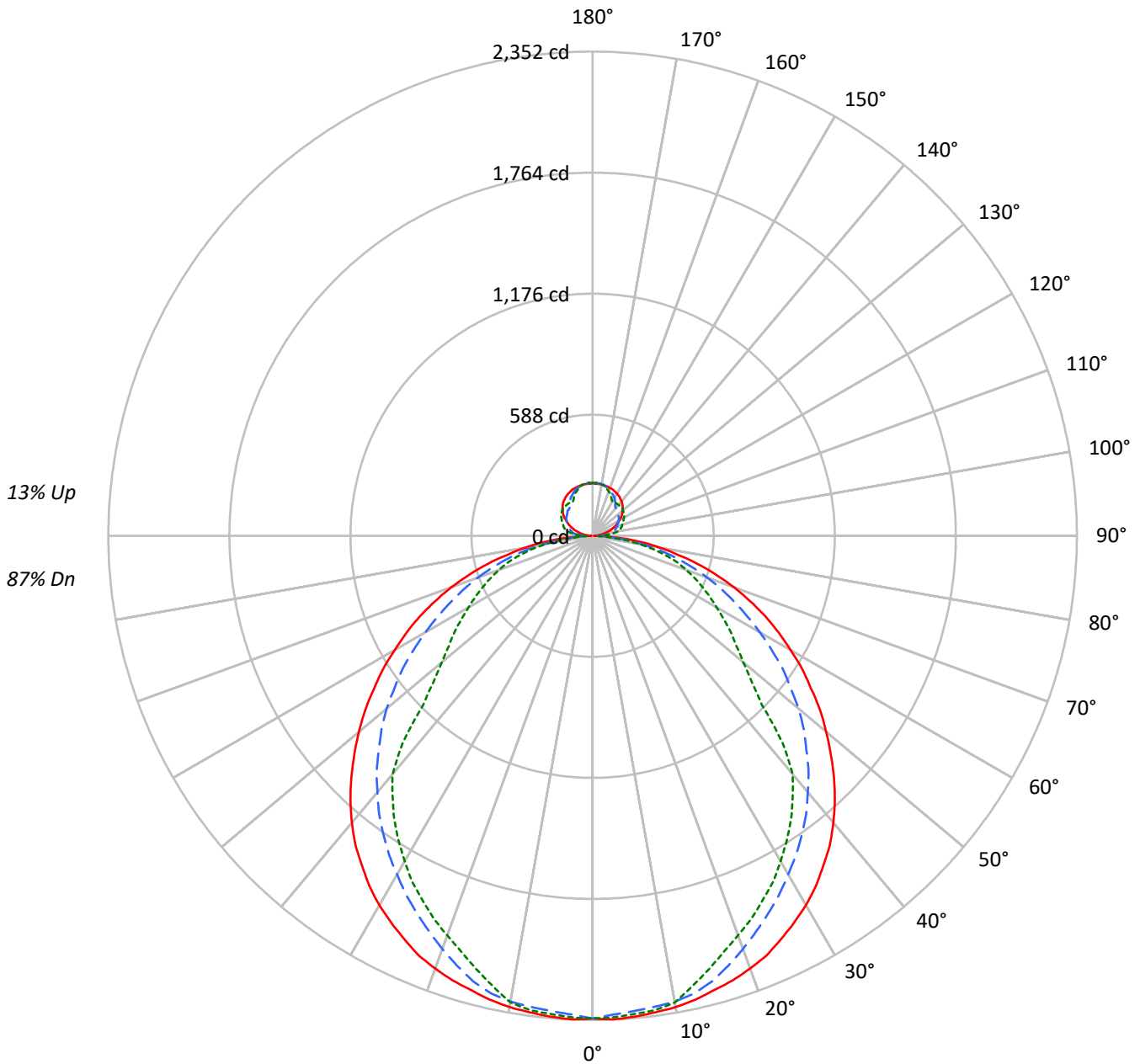
Lumens per Lamp: N/A
Luminaire Lumens: 7298.0 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 59.5
Input Voltage (V): NR
Input Current (A_{in}): 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				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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87			87
1	106	101	97	93	102	98	94	90	91	88	85	85	83	80	79	78	76	73			73
2	96	88	82	76	92	85	79	74	80	75	70	74	70	67	70	66	64	61			61
3	88	78	70	63	84	75	68	62	70	64	59	66	61	56	62	58	54	51			51
4	80	69	60	54	77	67	59	53	62	56	50	59	53	48	55	50	46	44			44
5	74	61	53	46	71	60	51	45	56	49	44	53	47	42	50	45	40	38			38
6	68	55	47	40	66	54	46	40	51	44	38	48	42	37	45	40	36	33			33
7	63	50	42	36	61	49	41	35	46	39	34	43	37	33	41	36	32	30			30
8	59	46	37	32	57	44	37	31	42	35	30	40	34	29	38	32	28	26			26
9	55	42	34	28	53	41	33	28	39	32	27	37	31	26	35	30	26	24			24
10	52	39	31	26	50	38	30	25	36	29	25	34	28	24	32	27	23	22			22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12621	12621	12621
5°	12669	12523	12596
10°	12705	12557	12576
15°	12728	12483	12145
20°	12812	12232	11827
25°	12843	12002	11601
30°	12875	11805	11344
35°	12835	11638	11040
40°	12778	11426	10620
45°	12610	11171	8860
50°	12402	10933	7995
55°	12158	10575	7693
60°	11949	10097	7482
65°	11773	9668	7477
70°	11468	9292	7593
75°	10946	8840	7648
80°	10250	7947	7110
85°	9374	5626	4792



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	222.0	3.0
10°-20°	631.2	8.6
20°-30°	943.1	12.9
30°-40°	1125.7	15.4
40°-50°	1125.9	15.4
50°-60°	974.4	13.4
60°-70°	747.9	10.2
70°-80°	458.3	6.3
80°-90°	129.0	1.8
90°-100°	72.9	1.0
100°-110°	115.7	1.6
110°-120°	135.3	1.9
120°-130°	146.1	2.0
130°-140°	144.0	2.0
140°-150°	127.3	1.7
150°-160°	104.8	1.4
160°-170°	70.1	1.0
170°-180°	24.4	0.3
0°-30°	1796.2	24.6
0°-40°	2922.0	40.0
0°-60°	5022.2	68.8
0°-90°	6357.3	87.1
90°-120°	324.0	4.4
90°-150°	741.3	10.2
90°-180°	941.0	12.9
0°-180°	7298.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2345	2345	2345	2345	2345	
5°	2345	2338	2318	2335	2332	223
15°	2284	2281	2240	2200	2180	646
25°	2163	2136	2021	1967	1954	998
35°	1954	1903	1771	1707	1680	1223
45°	1657	1610	1468	1336	1164	1277
55°	1296	1265	1127	901	820	1162
65°	924	891	759	611	587	913
75°	526	499	425	368	368	555
85°	152	125	91	78	78	159
90°	7	24	37	47	51	11
95°	27	57	78	81	81	27
105°	78	81	115	135	142	81
115°	128	108	135	155	165	125
125°	172	138	155	179	186	153
135°	206	186	172	189	199	159
145°	229	219	192	189	196	143
155°	243	240	226	216	213	112
165°	250	253	246	246	246	71
175°	253	256	256	260	260	24
180°	256	256	256	256	256	



TEST NUMBER: P520542

CATALOG NUMBER: 4WSLA-175-L850-UPL8-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2345.0	2345.0	2345.0	2345.0	2345.0
2.5°	2351.8	2345.0	2328.1	2345.0	2341.6
5°	2345.0	2338.3	2318.0	2334.9	2331.5
7.5°	2334.9	2328.1	2307.9	2328.1	2324.8
10°	2324.8	2318.0	2297.8	2311.3	2301.2
12.5°	2307.9	2301.2	2277.5	2260.7	2240.4
15°	2284.3	2280.9	2240.4	2199.9	2179.7
17.5°	2264.0	2253.9	2189.8	2142.6	2119.0
20°	2237.0	2220.2	2135.8	2081.8	2065.0
22.5°	2206.7	2179.7	2078.5	2027.9	2014.4
25°	2162.8	2135.8	2021.1	1967.1	1953.6
27.5°	2119.0	2085.2	1963.7	1909.8	1896.3
30°	2071.7	2024.5	1899.6	1849.0	1825.4
32.5°	2017.7	1970.5	1838.9	1781.5	1754.5
35°	1953.6	1903.0	1771.4	1707.3	1680.3
37.5°	1892.9	1838.9	1703.9	1633.1	1596.0
40°	1818.7	1764.7	1626.3	1548.7	1511.6
42.5°	1741.1	1690.4	1552.1	1457.6	1366.5
45°	1656.7	1609.5	1467.7	1336.2	1164.1
47.5°	1569.0	1528.5	1390.1	1211.3	1046.0
50°	1481.2	1440.8	1305.8	1093.2	954.9
52.5°	1393.5	1359.8	1211.3	995.4	880.6
55°	1295.7	1265.3	1127.0	900.9	819.9
57.5°	1207.9	1177.6	1029.1	823.3	755.8
60°	1110.1	1083.1	938.0	745.7	695.1
62.5°	1019.0	988.6	846.9	678.2	641.1
65°	924.5	890.8	759.2	610.7	587.1
67.5°	826.7	792.9	674.8	550.0	536.5
70°	728.8	701.8	590.5	489.2	482.5
72.5°	627.6	597.2	506.1	431.9	431.9
75°	526.4	499.4	425.1	367.8	367.8
77.5°	421.8	408.3	340.8	300.3	303.7
80°	330.7	313.8	256.4	229.4	229.4
82.5°	242.9	222.7	172.1	151.8	158.6
85°	151.8	124.8	91.1	77.6	77.6
87.5°	47.2	37.1	27.0	30.4	30.4
90°	6.7	23.6	37.1	47.2	50.6
92.5°	16.9	43.9	54.0	64.1	67.5
95°	27.0	57.4	77.6	81.0	81.0
97.5°	37.1	64.1	94.5	108.0	108.0
100°	50.6	67.5	101.2	121.5	124.8
102.5°	64.1	74.2	108.0	128.2	135.0
105°	77.6	81.0	114.7	135.0	141.7



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CATALOG NUMBER: 4WSLA-175-L850-UPL8-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	114.7	101.2	128.2	151.8	158.6
115°	128.2	108.0	135.0	155.2	165.3
117.5°	138.3	118.1	141.7	162.0	168.7
120°	148.5	124.8	145.1	168.7	175.5
122.5°	162.0	131.6	151.8	172.1	182.2
125°	172.1	138.3	155.2	178.8	185.6
127.5°	182.2	151.8	158.6	182.2	189.0
130°	189.0	165.3	162.0	185.6	192.3
132.5°	199.1	175.5	165.3	189.0	195.7
135°	205.8	185.6	172.1	189.0	199.1
137.5°	212.6	195.7	172.1	189.0	195.7
140°	219.3	205.8	175.5	189.0	195.7
142.5°	222.7	212.6	178.8	189.0	195.7
145°	229.4	219.3	192.3	189.0	195.7
147.5°	232.8	226.1	202.4	189.0	195.7
150°	236.2	232.8	212.6	192.3	192.3
152.5°	239.6	236.2	219.3	205.8	199.1
155°	242.9	239.6	226.1	215.9	212.6
157.5°	246.3	246.3	232.8	226.1	222.7
160°	246.3	249.7	239.6	232.8	229.4
162.5°	249.7	253.1	242.9	239.6	236.2
165°	249.7	253.1	246.3	246.3	246.3
167.5°	253.1	256.4	253.1	249.7	249.7
170°	253.1	256.4	253.1	253.1	253.1
172.5°	253.1	256.4	256.4	256.4	256.4
175°	253.1	256.4	256.4	259.8	259.8
177.5°	253.1	256.4	256.4	256.4	256.4
180°	256.4	256.4	256.4	256.4	256.4



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	91.1	87.7	118.1	141.7	148.5
110°	101.2	94.5	124.8	145.1	151.8



(END OF REPORT)