

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: P520537

Luminaire Tested: **4WSLA-175-L840-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: P520537
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-689-5)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4WSLA-175-L840-UNV-U
Description: 4 FOOT, 1750 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 80 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

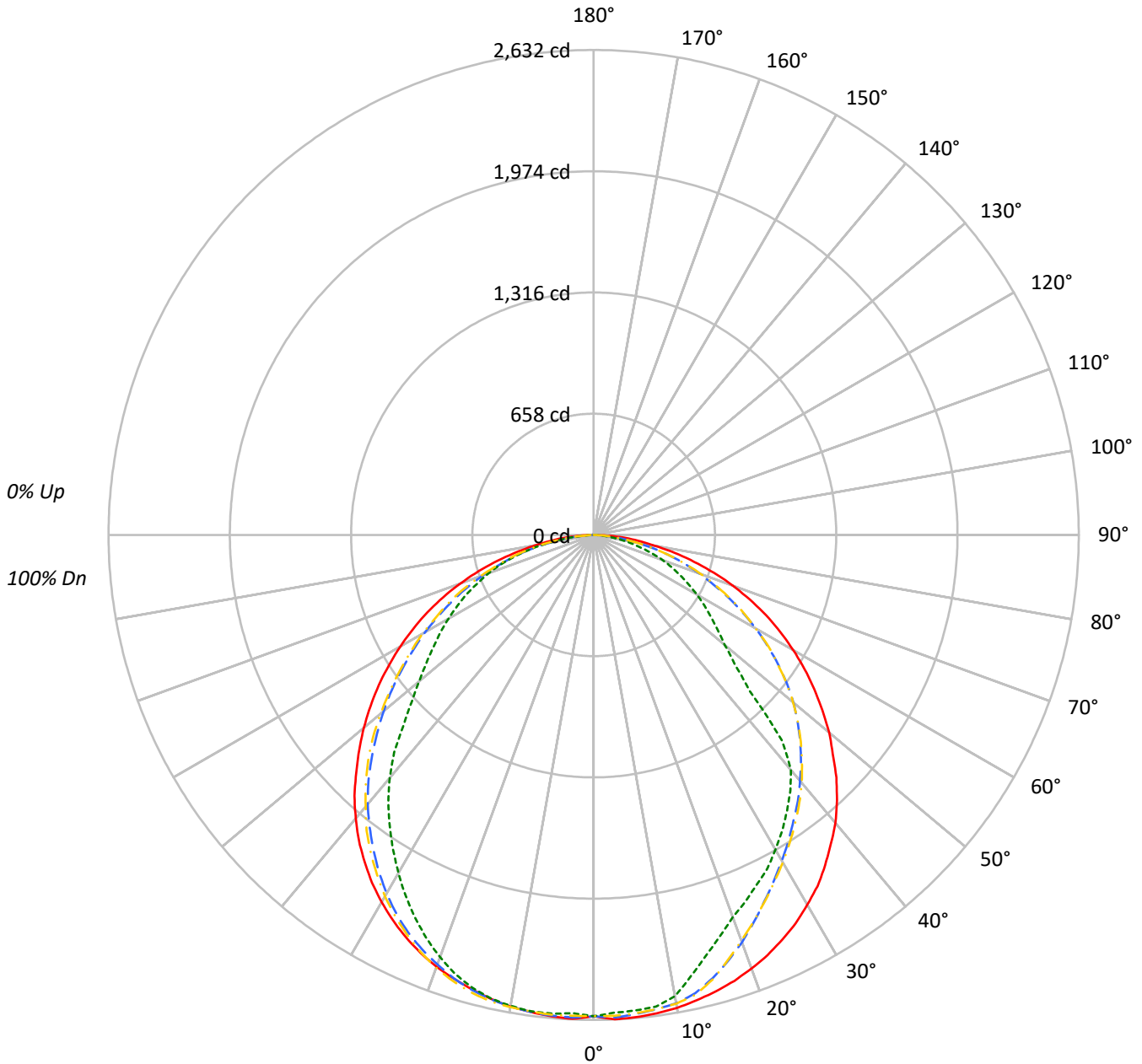
Lumens per Lamp: N/A
Luminaire Lumens: 7007.0 lumens
Efficiency: N/A
Efficacy: 117.8 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

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									
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	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	95	98	95	92	94	91	89	90	88	86	84																			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70																			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60																			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51																			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44																			
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39																			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34																			
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31																			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28																			
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25																			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	14058	14058	14058	14058
5°	14195	13998	14172	14089
10°	14244	13891	14206	14183
15°	14288	13156	14225	14179
20°	14342	12640	14286	13964
25°	14387	12432	14313	13614
30°	14403	12253	14299	13167
35°	14381	12015	14234	12678
40°	14334	11696	14107	12090
45°	14174	9087	13855	11092
50°	13962	7778	13622	10348
55°	13713	7284	13359	9954
60°	13454	6953	13047	9789
65°	13133	6585	12688	9672
70°	12612	6263	12084	9526
75°	11743	5506	11189	9062
80°	10423	4603	9772	7686
85°	9862	3285	8651	4415



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	248.2	3.5
10°-20°	707.9	10.1
20°-30°	1057.7	15.1
30°-40°	1259.1	18.0
40°-50°	1258.5	18.0
50°-60°	1083.0	15.5
60°-70°	815.1	11.6
70°-80°	464.5	6.6
80°-90°	113.0	1.6
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°	2013.8	28.7
0°-40°	3272.9	46.7
0°-60°	5614.4	80.1
0°-90°	7007.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7007.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2612	2612	2612	2612	2612	
5°	2627	2591	2623	2608	2627	250
15°	2564	2361	2553	2545	2564	725
25°	2423	2094	2410	2292	2423	1117
35°	2189	1829	2166	1930	2189	1370
45°	1862	1194	1820	1457	1862	1434
55°	1462	776	1424	1061	1462	1307
65°	1031	517	996	760	1031	1018
75°	565	265	538	436	565	598
85°	160	53	140	72	160	174
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°	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0
2.5°	2631.6	2607.8	2621.8	2617.6	2595.2	2603.6	2612.0	2603.6	2628.8	2606.4	2621.8
5°	2627.4	2602.2	2610.6	2602.2	2591.0	2593.8	2606.4	2598.0	2623.2	2599.4	2619.0
7.5°	2619.0	2588.2	2596.6	2592.4	2582.6	2584.0	2596.6	2589.6	2612.0	2589.6	2612.0
10°	2606.4	2574.1	2581.2	2562.9	2541.9	2557.3	2582.6	2575.5	2599.4	2574.1	2599.4
12.5°	2586.8	2554.5	2547.5	2487.3	2449.4	2478.9	2555.9	2555.9	2578.3	2554.5	2581.2
15°	2564.3	2529.3	2491.5	2400.4	2361.1	2390.6	2497.1	2533.5	2553.1	2529.3	2555.9
17.5°	2537.7	2497.1	2424.2	2317.7	2281.3	2310.7	2420.0	2499.9	2525.1	2499.9	2523.7
20°	2504.1	2456.4	2352.7	2230.8	2207.0	2233.6	2342.9	2459.2	2494.3	2463.4	2480.3
22.5°	2467.6	2410.2	2272.9	2163.6	2152.4	2169.2	2268.7	2408.8	2455.0	2422.8	2434.0
25°	2422.8	2355.5	2193.0	2101.9	2093.5	2103.3	2195.8	2349.9	2410.2	2376.6	2380.8
27.5°	2375.2	2302.3	2117.3	2050.1	2041.7	2045.9	2122.9	2284.1	2358.3	2324.7	2317.7
30°	2317.7	2239.2	2041.7	1980.0	1971.6	1987.0	2052.9	2216.8	2300.9	2267.3	2246.2
32.5°	2260.3	2170.6	1967.4	1919.7	1902.9	1916.9	1980.0	2146.8	2237.8	2202.8	2167.8
35°	2188.8	2097.7	1890.3	1842.7	1828.7	1844.1	1907.1	2073.9	2166.4	2131.3	2083.7
37.5°	2114.5	2020.6	1820.3	1776.8	1751.6	1769.8	1832.9	1998.2	2092.1	2055.7	1996.8
40°	2040.3	1939.4	1741.8	1696.9	1664.7	1691.3	1755.8	1918.3	2008.0	1974.4	1907.1
42.5°	1953.4	1858.1	1664.7	1601.7	1510.6	1596.1	1673.1	1838.5	1921.1	1888.9	1807.6
45°	1862.3	1771.2	1583.4	1430.7	1193.9	1444.7	1589.0	1754.4	1820.3	1789.4	1701.1
47.5°	1758.6	1681.5	1500.8	1268.2	1038.3	1282.2	1503.6	1674.5	1725.0	1691.3	1593.3
50°	1667.5	1591.8	1413.9	1130.8	929.0	1146.2	1412.5	1584.8	1626.9	1596.1	1486.8
52.5°	1563.8	1498.0	1320.0	1008.9	847.8	1024.3	1317.2	1492.4	1526.0	1489.6	1380.3
55°	1461.5	1402.7	1220.5	901.0	776.3	915.0	1217.7	1397.1	1423.7	1381.7	1268.2
57.5°	1357.8	1304.6	1118.2	804.3	710.4	819.7	1125.2	1299.0	1317.2	1264.0	1160.3
60°	1249.9	1205.1	1014.5	718.9	646.0	731.5	1011.7	1200.9	1212.1	1154.7	1055.2
62.5°	1142.0	1101.4	910.8	640.4	580.1	648.8	917.8	1097.2	1104.2	1049.6	947.3
65°	1031.3	993.5	809.9	557.7	517.1	571.7	816.9	989.3	996.3	934.7	842.2
67.5°	916.4	885.6	702.0	494.7	456.8	498.9	716.1	880.0	884.2	824.0	739.9
70°	801.5	774.9	606.8	426.0	398.0	427.4	616.6	759.5	767.9	703.4	636.2
72.5°	683.8	662.8	514.3	354.5	329.3	354.5	519.9	648.8	654.4	601.1	535.3
75°	564.7	549.3	420.4	284.5	264.8	283.1	423.2	538.1	538.1	487.6	435.8
77.5°	449.8	438.6	322.3	218.6	204.6	215.8	323.7	426.0	423.2	383.9	343.3
80°	336.3	327.9	231.2	158.3	148.5	154.1	231.2	315.3	315.3	287.3	238.2
82.5°	241.0	231.2	152.7	103.7	98.1	100.9	149.9	220.0	224.2	203.2	161.1
85°	159.7	137.3	82.7	57.5	53.2	54.6	78.5	127.5	140.1	117.7	84.1
87.5°	70.1	46.2	21.0	8.4	4.2	5.6	16.8	40.6	53.2	35.0	11.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2612.0	2612.0	2612.0	2612.0	2612.0	2612.0
2.5°	2620.4	2598.0	2606.4	2612.0	2606.4	2631.6
5°	2617.6	2607.8	2606.4	2613.4	2602.2	2627.4
7.5°	2613.4	2607.8	2606.4	2609.2	2595.2	2619.0
10°	2603.6	2595.2	2598.0	2602.2	2584.0	2606.4
12.5°	2585.4	2576.9	2578.3	2592.4	2567.1	2586.8
15°	2554.5	2544.7	2554.5	2569.9	2547.5	2564.3
17.5°	2513.9	2498.5	2515.3	2539.1	2522.3	2537.7
20°	2462.0	2438.2	2456.4	2499.9	2484.5	2504.1
22.5°	2399.0	2369.6	2387.8	2450.8	2446.6	2467.6
25°	2327.5	2292.5	2317.7	2394.8	2403.2	2422.8
27.5°	2247.6	2208.4	2242.0	2333.1	2352.7	2375.2
30°	2160.8	2118.7	2158.0	2264.5	2293.9	2317.7
32.5°	2071.1	2024.8	2069.7	2187.4	2229.4	2260.3
35°	1977.2	1929.6	1980.0	2107.5	2158.0	2188.8
37.5°	1876.3	1830.1	1884.7	2023.4	2083.7	2114.5
40°	1772.6	1720.8	1782.4	1924.0	2003.8	2040.3
42.5°	1666.1	1601.7	1677.3	1830.1	1916.9	1953.4
45°	1547.0	1457.3	1559.6	1730.6	1821.7	1862.3
47.5°	1427.9	1338.2	1441.9	1624.1	1722.2	1758.6
50°	1313.0	1235.9	1318.6	1507.8	1621.3	1667.5
52.5°	1207.9	1144.8	1214.9	1394.3	1517.6	1563.8
55°	1109.8	1060.8	1118.2	1282.2	1408.3	1461.5
57.5°	1017.3	986.5	1025.7	1175.7	1307.4	1357.8
60°	930.4	909.4	937.5	1070.6	1188.3	1249.9
62.5°	845.0	833.8	854.8	959.9	1077.6	1142.0
65°	762.3	759.5	770.7	863.2	961.3	1031.3
67.5°	679.6	678.2	685.2	760.9	847.8	916.4
70°	596.9	605.4	601.1	650.2	734.3	801.5
72.5°	512.9	525.5	518.5	549.3	630.6	683.8
75°	419.0	435.8	421.8	456.8	507.3	564.7
77.5°	322.3	340.5	323.7	354.5	409.2	449.8
80°	231.2	248.0	234.0	257.8	305.5	336.3
82.5°	145.7	158.3	147.1	171.0	218.6	241.0
85°	64.5	71.5	74.3	92.5	134.5	159.7
87.5°	2.8	1.4	2.8	18.2	47.6	70.1
90°	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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









(END OF REPORT)