

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: P520531

Luminaire Tested: **4WSLA-175-L830-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: P520531
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-L830-UNV-U
Description: 4 FOOT, 1750 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 80 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

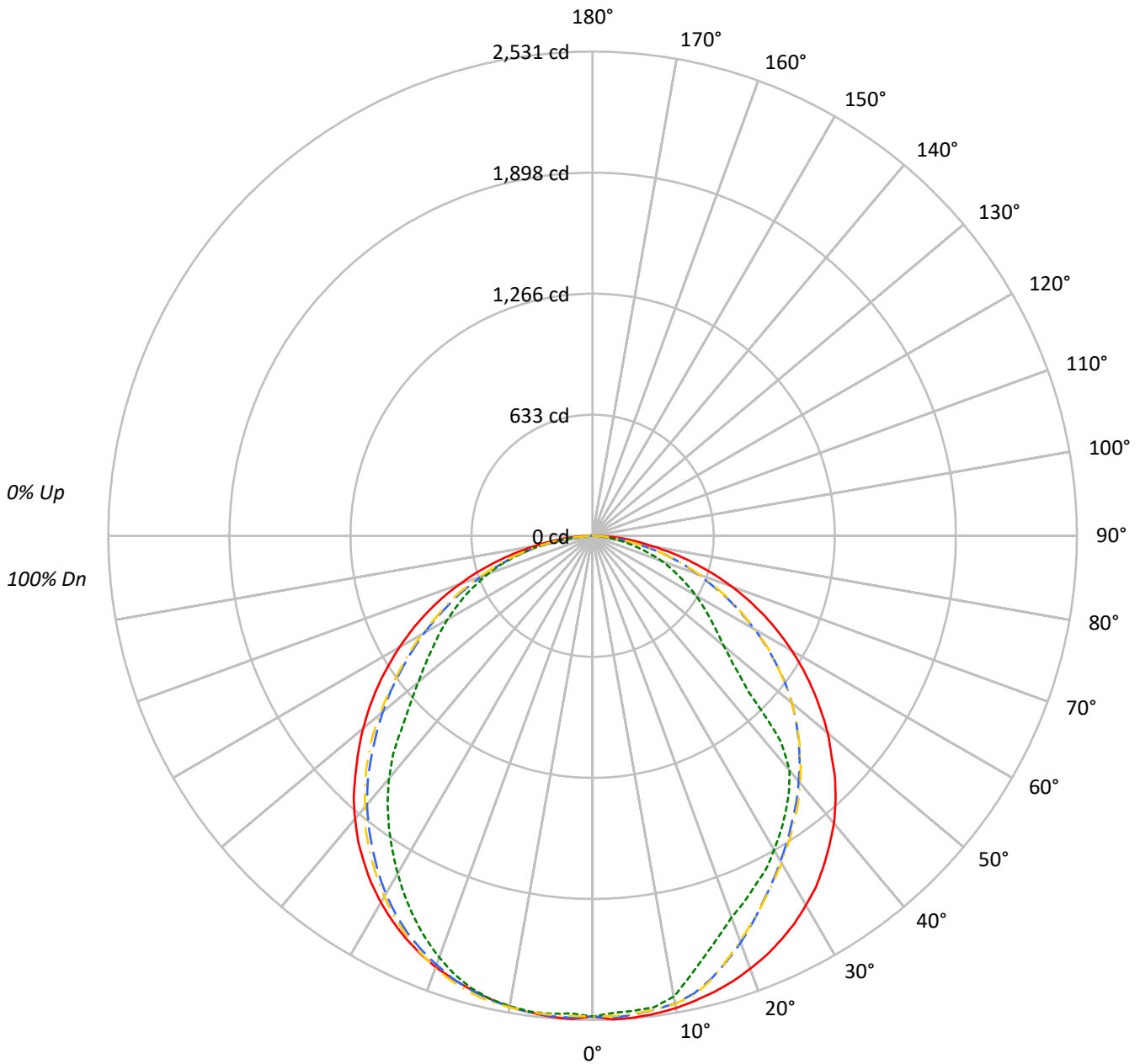
Lumens per Lamp: N/A
Luminaire Lumens: 6740.0 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	13522	13522	13522	13522
5°	13654	13464	13632	13552
10°	13701	13362	13664	13642
15°	13743	12655	13683	13639
20°	13795	12159	13741	13432
25°	13839	11958	13767	13095
30°	13855	11786	13754	12665
35°	13833	11557	13691	12194
40°	13788	11250	13570	11629
45°	13634	8741	13327	10669
50°	13430	7482	13103	9954
55°	13191	7006	12849	9574
60°	12941	6689	12550	9416
65°	12633	6334	12204	9304
70°	12132	6024	11622	9163
75°	11295	5296	10763	8717
80°	10026	4429	9400	7395
85°	9491	3162	8324	4242



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.7	3.5
10°-20°	680.9	10.1
20°-30°	1017.4	15.1
30°-40°	1211.1	18.0
40°-50°	1210.6	18.0
50°-60°	1041.7	15.5
60°-70°	784.0	11.6
70°-80°	446.8	6.6
80°-90°	108.7	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°	1937.1	28.7
0°-40°	3148.2	46.7
0°-60°	5400.4	80.1
0°-90°	6740.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6740.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2512	2512	2512	2512	2512	
5°	2527	2492	2523	2508	2527	241
15°	2467	2271	2456	2448	2467	697
25°	2330	2014	2318	2205	2330	1075
35°	2105	1759	2084	1856	2105	1317
45°	1791	1148	1751	1402	1791	1380
55°	1406	747	1369	1020	1406	1257
65°	992	497	958	731	992	980
75°	543	255	518	419	543	575
85°	154	51	135	69	154	167
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°	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4
2.5°	2531.3	2508.4	2521.9	2517.8	2496.3	2504.4	2512.4	2504.4	2528.6	2507.1	2521.9
5°	2527.3	2503.0	2511.1	2503.0	2492.2	2494.9	2507.1	2499.0	2523.2	2500.3	2519.2
7.5°	2519.2	2489.5	2497.6	2493.6	2484.1	2485.5	2497.6	2490.9	2512.4	2490.9	2512.4
10°	2507.1	2476.1	2482.8	2465.3	2445.1	2459.9	2484.1	2477.4	2500.3	2476.1	2500.3
12.5°	2488.2	2457.2	2450.4	2392.5	2356.1	2384.4	2458.5	2458.5	2480.1	2457.2	2482.8
15°	2466.6	2432.9	2396.5	2308.9	2271.2	2299.5	2401.9	2437.0	2455.8	2432.9	2458.5
17.5°	2441.0	2401.9	2331.8	2229.4	2194.3	2222.7	2327.8	2404.6	2428.9	2404.6	2427.5
20°	2408.7	2362.8	2263.1	2145.8	2122.9	2148.5	2253.7	2365.5	2399.2	2369.6	2385.7
22.5°	2373.6	2318.4	2186.3	2081.1	2070.3	2086.5	2182.2	2317.0	2361.5	2330.5	2341.3
25°	2330.5	2265.8	2109.4	2021.8	2013.7	2023.2	2112.1	2260.4	2318.4	2286.0	2290.0
27.5°	2284.7	2214.6	2036.6	1971.9	1963.9	1967.9	2042.0	2197.0	2268.5	2236.1	2229.4
30°	2229.4	2153.9	1963.9	1904.6	1896.5	1911.3	1974.6	2132.3	2213.2	2180.9	2160.7
32.5°	2174.1	2087.9	1892.4	1846.6	1830.4	1843.9	1904.6	2065.0	2152.6	2118.9	2085.2
35°	2105.4	2017.8	1818.3	1772.5	1759.0	1773.8	1834.5	1994.9	2083.8	2050.1	2004.3
37.5°	2034.0	1943.6	1750.9	1709.1	1684.9	1702.4	1763.0	1922.1	2012.4	1977.3	1920.7
40°	1962.5	1865.5	1675.4	1632.3	1601.3	1626.9	1688.9	1845.2	1931.5	1899.2	1834.5
42.5°	1878.9	1787.3	1601.3	1540.6	1453.0	1535.2	1609.4	1768.4	1847.9	1816.9	1738.8
45°	1791.3	1703.7	1523.1	1376.2	1148.4	1389.7	1528.5	1687.5	1750.9	1721.2	1636.3
47.5°	1691.6	1617.5	1443.6	1219.8	998.8	1233.3	1446.3	1610.7	1659.2	1626.9	1532.5
50°	1604.0	1531.2	1360.0	1087.7	893.6	1102.6	1358.7	1524.5	1564.9	1535.2	1430.1
52.5°	1504.2	1440.9	1269.7	970.5	815.5	985.3	1267.0	1435.5	1467.8	1432.8	1327.7
55°	1405.8	1349.2	1174.0	866.7	746.7	880.2	1171.3	1343.8	1369.4	1329.0	1219.8
57.5°	1306.1	1254.9	1075.6	773.7	683.4	788.5	1082.3	1249.5	1267.0	1215.8	1116.0
60°	1202.3	1159.2	975.9	691.5	621.4	703.6	973.2	1155.1	1165.9	1110.7	1015.0
62.5°	1098.5	1059.4	876.1	616.0	558.0	624.1	882.9	1055.4	1062.1	1009.6	911.2
65°	992.0	955.6	779.1	536.5	497.4	549.9	785.8	951.6	958.3	899.0	810.1
67.5°	881.5	851.9	675.3	475.8	439.4	479.8	688.8	846.5	850.5	792.6	711.7
70°	771.0	745.4	583.6	409.8	382.8	411.1	593.1	730.6	738.6	676.6	611.9
72.5°	657.8	637.5	494.7	341.0	316.8	341.0	500.1	624.1	629.5	578.2	514.9
75°	543.2	528.4	404.4	273.6	254.7	272.3	407.1	517.6	517.6	469.1	419.2
77.5°	432.7	421.9	310.0	210.3	196.8	207.6	311.4	409.8	407.1	369.3	330.2
80°	323.5	315.4	222.4	152.3	142.9	148.3	222.4	303.3	303.3	276.3	229.1
82.5°	231.8	222.4	146.9	99.7	94.4	97.0	144.2	211.6	215.7	195.4	155.0
85°	153.7	132.1	79.5	55.3	51.2	52.6	75.5	122.7	134.8	113.2	80.9
87.5°	67.4	44.5	20.2	8.1	4.0	5.4	16.2	39.1	51.2	33.7	10.8
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°	2512.4	2512.4	2512.4	2512.4	2512.4	2512.4
2.5°	2520.5	2499.0	2507.1	2512.4	2507.1	2531.3
5°	2517.8	2508.4	2507.1	2513.8	2503.0	2527.3
7.5°	2513.8	2508.4	2507.1	2509.8	2496.3	2519.2
10°	2504.4	2496.3	2499.0	2503.0	2485.5	2507.1
12.5°	2486.8	2478.8	2480.1	2493.6	2469.3	2488.2
15°	2457.2	2447.8	2457.2	2472.0	2450.4	2466.6
17.5°	2418.1	2403.3	2419.4	2442.4	2426.2	2441.0
20°	2368.2	2345.3	2362.8	2404.6	2389.8	2408.7
22.5°	2307.6	2279.3	2296.8	2357.4	2353.4	2373.6
25°	2238.8	2205.1	2229.4	2303.5	2311.6	2330.5
27.5°	2162.0	2124.3	2156.6	2244.2	2263.1	2284.7
30°	2078.4	2038.0	2075.7	2178.2	2206.5	2229.4
32.5°	1992.2	1947.7	1990.8	2104.0	2144.5	2174.1
35°	1901.9	1856.0	1904.6	2027.2	2075.7	2105.4
37.5°	1804.8	1760.3	1812.9	1946.3	2004.3	2034.0
40°	1705.1	1655.2	1714.5	1850.6	1927.5	1962.5
42.5°	1602.6	1540.6	1613.4	1760.3	1843.9	1878.9
45°	1488.1	1401.8	1500.2	1664.6	1752.2	1791.3
47.5°	1373.5	1287.2	1387.0	1562.2	1656.5	1691.6
50°	1263.0	1188.8	1268.4	1450.3	1559.5	1604.0
52.5°	1161.9	1101.2	1168.6	1341.1	1459.8	1504.2
55°	1067.5	1020.3	1075.6	1233.3	1354.6	1405.8
57.5°	978.6	948.9	986.6	1130.9	1257.6	1306.1
60°	895.0	874.8	901.7	1029.8	1143.0	1202.3
62.5°	812.8	802.0	822.2	923.3	1036.5	1098.5
65°	733.2	730.6	741.3	830.3	924.6	992.0
67.5°	653.7	652.4	659.1	731.9	815.5	881.5
70°	574.2	582.3	578.2	625.4	706.3	771.0
72.5°	493.3	505.5	498.7	528.4	606.5	657.8
75°	403.0	419.2	405.7	439.4	487.9	543.2
77.5°	310.0	327.5	311.4	341.0	393.6	432.7
80°	222.4	238.6	225.1	248.0	293.8	323.5
82.5°	140.2	152.3	141.5	164.4	210.3	231.8
85°	62.0	68.7	71.4	89.0	129.4	153.7
87.5°	2.7	1.3	2.7	17.5	45.8	67.4
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)