

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: P520507

Luminaire Tested: **4WSLA-150-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: P520507
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-150-L830-UNV-U
Description: 4 FOOT, 1500 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

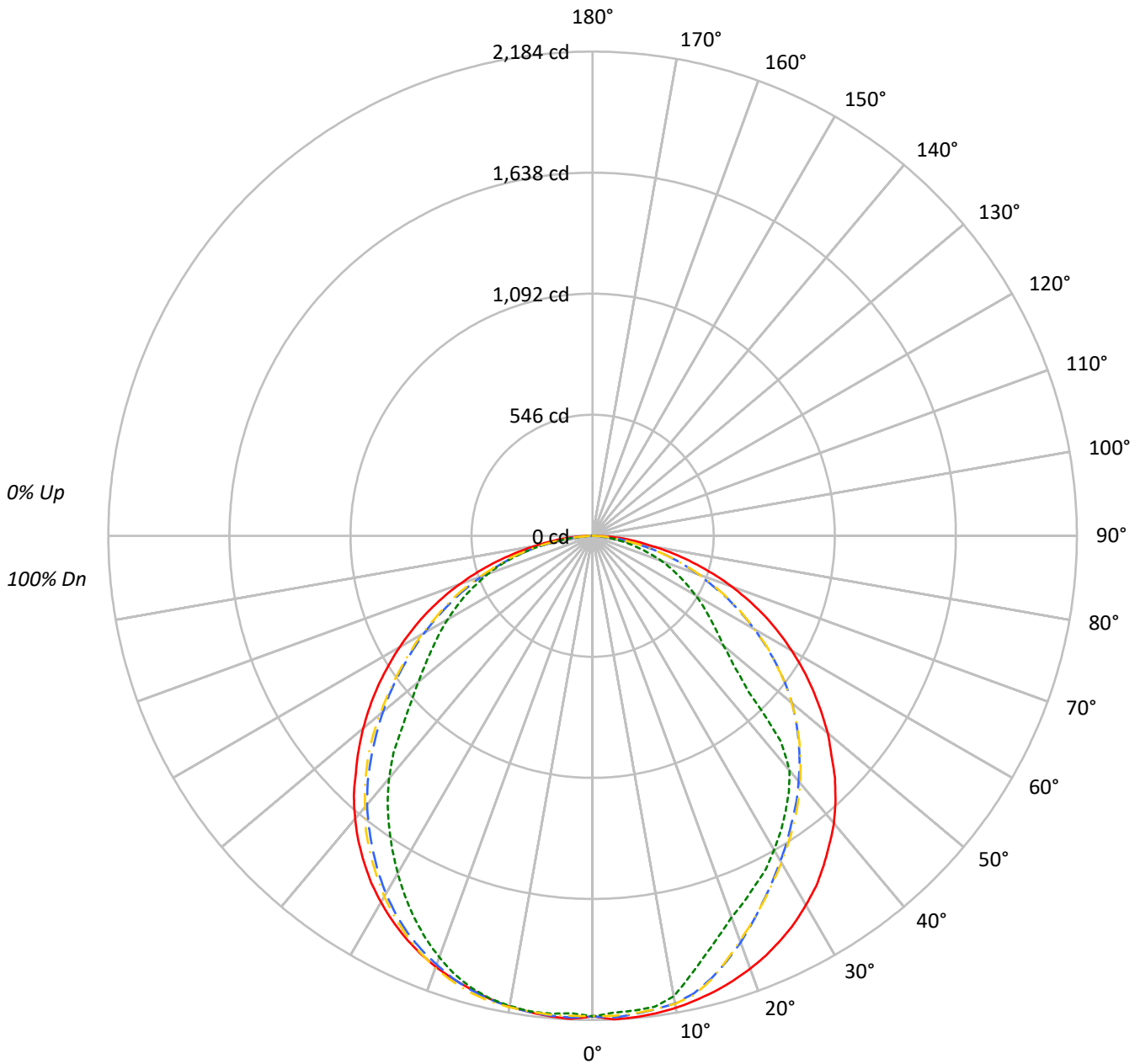
Lumens per Lamp: N/A
Luminaire Lumens: 5814.0 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 47.7
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°	11664	11664	11664	11664
5°	11778	11614	11759	11690
10°	11819	11526	11787	11768
15°	11855	10916	11803	11765
20°	11900	10488	11853	11587
25°	11938	10315	11875	11296
30°	11951	10166	11864	10925
35°	11932	9969	11810	10519
40°	11894	9705	11705	10031
45°	11761	7540	11495	9204
50°	11585	6455	11302	8586
55°	11379	6044	11084	8259
60°	11163	5769	10825	8122
65°	10897	5463	10528	8025
70°	10466	5196	10027	7904
75°	9744	4569	9285	7519
80°	8647	3818	8108	6378
85°	8182	2729	7182	3662



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.9	3.5
10°-20°	587.3	10.1
20°-30°	877.6	15.1
30°-40°	1044.7	18.0
40°-50°	1044.3	18.0
50°-60°	898.6	15.5
60°-70°	676.3	11.6
70°-80°	385.4	6.6
80°-90°	93.8	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°	1670.9	28.7
0°-40°	2715.6	46.7
0°-60°	4658.5	80.1
0°-90°	5814.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5814.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2167	2167	2167	2167	2167	
5°	2180	2150	2177	2164	2180	207
15°	2128	1959	2118	2112	2128	601
25°	2010	1737	2000	1902	2010	927
35°	1816	1517	1798	1601	1816	1136
45°	1545	991	1510	1209	1545	1190
55°	1213	644	1181	880	1213	1084
65°	856	429	827	630	856	845
75°	469	220	446	362	469	496
85°	132	44	116	59	132	144
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°	2167.3	2167.3	2167.3	2167.3	2167.3	2167.3	2167.3	2167.3	2167.3	2167.3	2167.3
2.5°	2183.5	2163.8	2175.4	2171.9	2153.3	2160.3	2167.3	2160.3	2181.2	2162.6	2175.4
5°	2180.1	2159.1	2166.1	2159.1	2149.8	2152.2	2162.6	2155.6	2176.6	2156.8	2173.1
7.5°	2173.1	2147.5	2154.5	2151.0	2142.9	2144.0	2154.5	2148.7	2167.3	2148.7	2167.3
10°	2162.6	2135.9	2141.7	2126.6	2109.1	2121.9	2142.9	2137.0	2156.8	2135.9	2156.8
12.5°	2146.3	2119.6	2113.8	2063.8	2032.4	2056.8	2120.8	2120.8	2139.4	2119.6	2141.7
15°	2127.7	2098.7	2067.3	1991.7	1959.1	1983.6	2071.9	2102.2	2118.4	2098.7	2120.8
17.5°	2105.6	2071.9	2011.5	1923.1	1892.9	1917.3	2008.0	2074.3	2095.2	2074.3	2094.0
20°	2077.7	2038.2	1952.2	1851.0	1831.2	1853.3	1944.0	2040.5	2069.6	2044.0	2058.0
22.5°	2047.5	1999.8	1885.9	1795.2	1785.9	1799.9	1882.4	1998.7	2037.0	2010.3	2019.6
25°	2010.3	1954.5	1819.6	1744.0	1737.1	1745.2	1821.9	1949.8	1999.8	1971.9	1975.4
27.5°	1970.8	1910.3	1756.8	1701.0	1694.0	1697.5	1761.5	1895.2	1956.8	1928.9	1923.1
30°	1923.1	1858.0	1694.0	1642.9	1635.9	1648.7	1703.4	1839.4	1909.1	1881.2	1863.8
32.5°	1875.4	1801.0	1632.4	1592.9	1578.9	1590.6	1642.9	1781.3	1856.8	1827.8	1798.7
35°	1816.1	1740.6	1568.5	1528.9	1517.3	1530.1	1582.4	1720.8	1797.5	1768.5	1728.9
37.5°	1754.5	1676.6	1510.3	1474.3	1453.4	1468.5	1520.8	1658.0	1735.9	1705.7	1656.8
40°	1692.9	1609.2	1445.2	1408.0	1381.3	1403.4	1456.9	1591.7	1666.1	1638.2	1582.4
42.5°	1620.8	1541.7	1381.3	1329.0	1253.4	1324.3	1388.3	1525.5	1594.1	1567.3	1499.9
45°	1545.2	1469.6	1313.8	1187.1	990.6	1198.7	1318.5	1455.7	1510.3	1484.8	1411.5
47.5°	1459.2	1395.2	1245.2	1052.2	861.6	1063.9	1247.6	1389.4	1431.3	1403.4	1322.0
50°	1383.6	1320.8	1173.2	938.3	770.9	951.1	1172.0	1315.0	1349.9	1324.3	1233.6
52.5°	1297.6	1242.9	1095.3	837.1	703.4	849.9	1092.9	1238.3	1266.2	1235.9	1145.3
55°	1212.7	1163.9	1012.7	747.6	644.1	759.2	1010.4	1159.2	1181.3	1146.4	1052.2
57.5°	1126.7	1082.5	927.8	667.4	589.5	680.2	933.6	1077.8	1092.9	1048.8	962.7
60°	1037.1	999.9	841.8	596.5	536.0	606.9	839.5	996.4	1005.7	958.1	875.5
62.5°	947.6	913.9	755.8	531.4	481.4	538.3	761.6	910.4	916.2	870.9	786.0
65°	855.7	824.4	672.0	462.8	429.0	474.4	677.9	820.9	826.7	775.5	698.8
67.5°	760.4	734.8	582.5	410.4	379.0	413.9	594.1	730.2	733.7	683.7	613.9
70°	665.1	643.0	503.4	353.5	330.2	354.6	511.6	630.2	637.2	583.7	527.9
72.5°	567.4	550.0	426.7	294.2	273.2	294.2	431.4	538.3	543.0	498.8	444.2
75°	468.6	455.8	348.8	236.0	219.7	234.9	351.1	446.5	446.5	404.6	361.6
77.5°	373.2	363.9	267.4	181.4	169.8	179.1	268.6	353.5	351.1	318.6	284.9
80°	279.0	272.1	191.8	131.4	123.2	127.9	191.8	261.6	261.6	238.4	197.7
82.5°	200.0	191.8	126.7	86.0	81.4	83.7	124.4	182.5	186.0	168.6	133.7
85°	132.5	113.9	68.6	47.7	44.2	45.3	65.1	105.8	116.3	97.7	69.8
87.5°	58.1	38.4	17.4	7.0	3.5	4.7	14.0	33.7	44.2	29.1	9.3
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°	2167.3	2167.3	2167.3	2167.3	2167.3	2167.3
2.5°	2174.2	2155.6	2162.6	2167.3	2162.6	2183.5
5°	2171.9	2163.8	2162.6	2168.4	2159.1	2180.1
7.5°	2168.4	2163.8	2162.6	2164.9	2153.3	2173.1
10°	2160.3	2153.3	2155.6	2159.1	2144.0	2162.6
12.5°	2145.2	2138.2	2139.4	2151.0	2130.1	2146.3
15°	2119.6	2111.5	2119.6	2132.4	2113.8	2127.7
17.5°	2085.9	2073.1	2087.0	2106.8	2092.9	2105.6
20°	2042.9	2023.1	2038.2	2074.3	2061.5	2077.7
22.5°	1990.5	1966.1	1981.2	2033.6	2030.1	2047.5
25°	1931.2	1902.2	1923.1	1987.0	1994.0	2010.3
27.5°	1865.0	1832.4	1860.3	1935.9	1952.2	1970.8
30°	1792.9	1758.0	1790.6	1878.9	1903.3	1923.1
32.5°	1718.5	1680.1	1717.3	1815.0	1849.9	1875.4
35°	1640.6	1601.0	1642.9	1748.7	1790.6	1816.1
37.5°	1556.9	1518.5	1563.8	1678.9	1728.9	1754.5
40°	1470.8	1427.8	1479.0	1596.4	1662.7	1692.9
42.5°	1382.4	1329.0	1391.7	1518.5	1590.6	1620.8
45°	1283.6	1209.2	1294.1	1435.9	1511.5	1545.2
47.5°	1184.8	1110.4	1196.4	1347.6	1429.0	1459.2
50°	1089.4	1025.5	1094.1	1251.1	1345.2	1383.6
52.5°	1002.2	949.9	1008.1	1156.9	1259.2	1297.6
55°	920.9	880.2	927.8	1063.9	1168.5	1212.7
57.5°	844.1	818.5	851.1	975.5	1084.8	1126.7
60°	772.0	754.6	777.8	888.3	986.0	1037.1
62.5°	701.1	691.8	709.2	796.4	894.1	947.6
65°	632.5	630.2	639.5	716.2	797.6	855.7
67.5°	563.9	562.7	568.6	631.3	703.4	760.4
70°	495.3	502.3	498.8	539.5	609.3	665.1
72.5°	425.5	436.0	430.2	455.8	523.2	567.4
75°	347.6	361.6	350.0	379.0	420.9	468.6
77.5°	267.4	282.5	268.6	294.2	339.5	373.2
80°	191.8	205.8	194.2	213.9	253.5	279.0
82.5°	120.9	131.4	122.1	141.8	181.4	200.0
85°	53.5	59.3	61.6	76.7	111.6	132.5
87.5°	2.3	1.2	2.3	15.1	39.5	58.1
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)