

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: P520510

Luminaire Tested: **4WSLA-150-L835-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: P520510
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-L835-UNV-U
Description: 4 FOOT, 1500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 80 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

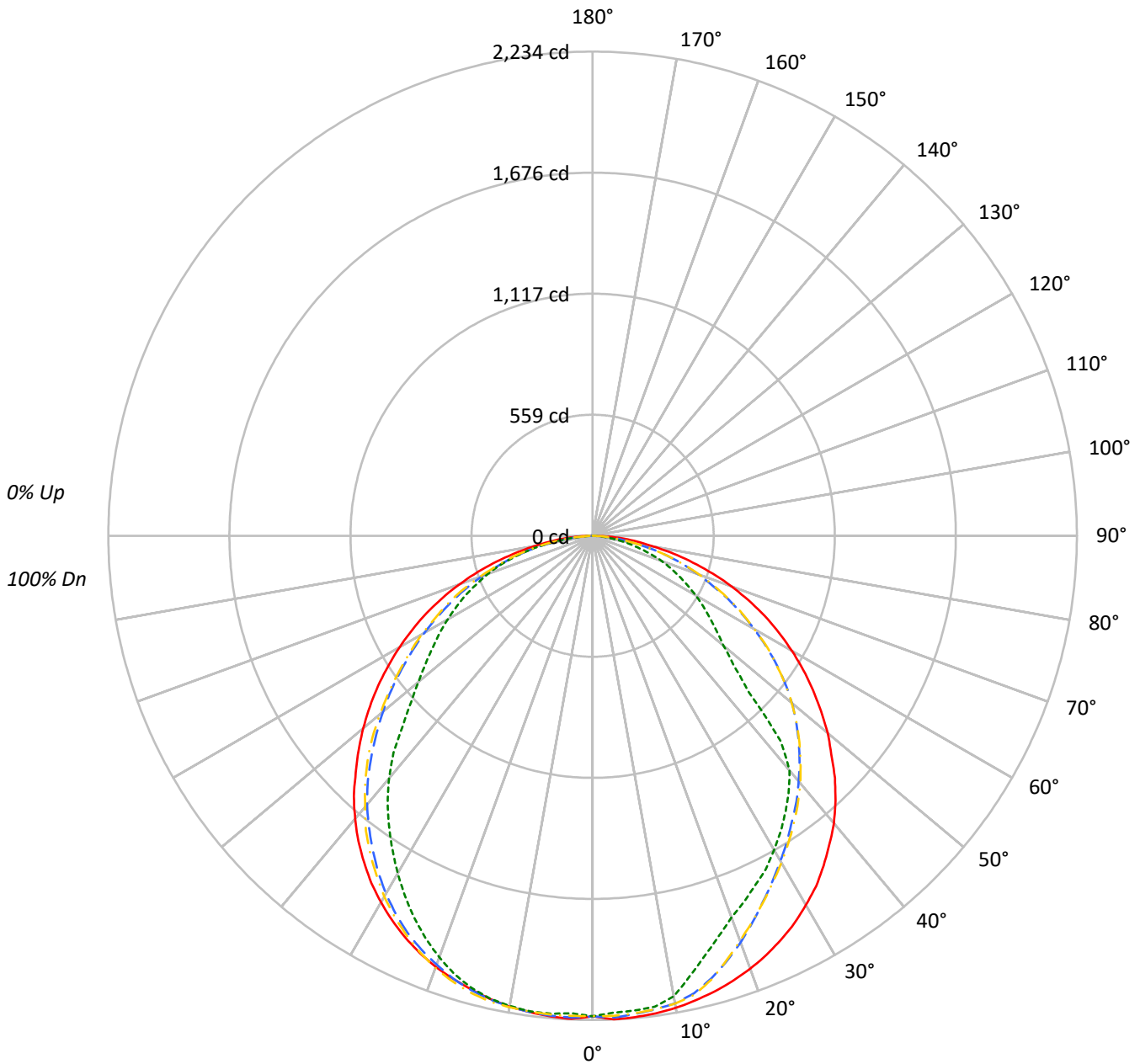
Lumens per Lamp: N/A
Luminaire Lumens: 5947.0 lumens
Efficiency: N/A
Efficacy: 124.7 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

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°	11931	11931	11931	11931
5°	12047	11880	12028	11957
10°	12089	11790	12056	12037
15°	12126	11166	12074	12034
20°	12172	10728	12124	11852
25°	12211	10551	12147	11554
30°	12225	10399	12136	11175
35°	12205	10197	12080	10760
40°	12166	9927	11974	10261
45°	12030	7712	11759	9414
50°	11850	6602	11561	8783
55°	11639	6183	11338	8448
60°	11419	5902	11073	8309
65°	11147	5588	10769	8209
70°	10705	5316	10255	8085
75°	9967	4675	9497	7692
80°	8846	3908	8294	6524
85°	8373	2791	7342	3748



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.6	3.5
10°-20°	600.8	10.1
20°-30°	897.7	15.1
30°-40°	1068.6	18.0
40°-50°	1068.2	18.0
50°-60°	919.1	15.5
60°-70°	691.8	11.6
70°-80°	394.2	6.6
80°-90°	96.0	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°	1709.2	28.7
0°-40°	2777.8	46.7
0°-60°	4765.1	80.1
0°-90°	5947.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5947.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2217	2217	2217	2217	2217	
5°	2230	2199	2226	2213	2230	212
15°	2176	2004	2167	2160	2176	615
25°	2056	1777	2046	1946	2056	948
35°	1858	1552	1839	1638	1858	1162
45°	1581	1013	1545	1237	1581	1217
55°	1240	659	1208	900	1240	1109
65°	875	439	846	645	875	864
75°	479	225	457	370	479	507
85°	136	45	119	61	136	148
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°	2216.8	2216.8	2216.8	2216.8	2216.8	2216.8	2216.8	2216.8	2216.8	2216.8	2216.8
2.5°	2233.5	2213.3	2225.2	2221.6	2202.6	2209.7	2216.8	2209.7	2231.1	2212.1	2225.2
5°	2229.9	2208.5	2215.7	2208.5	2199.0	2201.4	2212.1	2205.0	2226.4	2206.1	2222.8
7.5°	2222.8	2196.6	2203.8	2200.2	2191.9	2193.1	2203.8	2197.8	2216.8	2197.8	2216.8
10°	2212.1	2184.7	2190.7	2175.2	2157.4	2170.5	2191.9	2185.9	2206.1	2184.7	2206.1
12.5°	2195.4	2168.1	2162.1	2111.0	2078.9	2103.9	2169.3	2169.3	2188.3	2168.1	2190.7
15°	2176.4	2146.7	2114.6	2037.3	2004.0	2028.9	2119.3	2150.2	2166.9	2146.7	2169.3
17.5°	2153.8	2119.3	2057.5	1967.1	1936.2	1961.1	2053.9	2121.7	2143.1	2121.7	2141.9
20°	2125.3	2084.8	1996.8	1893.4	1873.1	1895.7	1988.5	2087.2	2116.9	2090.8	2105.1
22.5°	2094.3	2045.6	1929.0	1836.3	1826.8	1841.0	1925.5	2044.4	2083.6	2056.3	2065.8
25°	2056.3	1999.2	1861.2	1783.9	1776.8	1785.1	1863.6	1994.4	2045.6	2017.0	2020.6
27.5°	2015.9	1954.0	1797.0	1739.9	1732.8	1736.4	1801.8	1938.6	2001.6	1973.0	1967.1
30°	1967.1	1900.5	1732.8	1680.5	1673.3	1686.4	1742.3	1881.5	1952.8	1924.3	1906.4
32.5°	1918.3	1842.2	1669.8	1629.3	1615.1	1627.0	1680.5	1822.0	1899.3	1869.6	1839.8
35°	1857.7	1780.4	1604.4	1563.9	1552.0	1565.1	1618.6	1760.2	1838.6	1808.9	1768.5
37.5°	1794.6	1715.0	1544.9	1508.0	1486.6	1502.1	1555.6	1695.9	1775.6	1744.7	1694.7
40°	1731.6	1646.0	1478.3	1440.2	1412.9	1435.5	1490.2	1628.1	1704.3	1675.7	1618.6
42.5°	1657.9	1577.0	1412.9	1359.4	1282.1	1354.6	1420.0	1560.4	1630.5	1603.2	1534.2
45°	1580.6	1503.3	1343.9	1214.3	1013.3	1226.2	1348.7	1489.0	1544.9	1518.7	1443.8
47.5°	1492.6	1427.2	1273.7	1076.3	881.3	1088.2	1276.1	1421.2	1464.0	1435.5	1352.2
50°	1415.3	1351.0	1200.0	959.8	788.5	972.8	1198.8	1345.1	1380.8	1354.6	1261.8
52.5°	1327.3	1271.4	1120.3	856.3	719.5	869.4	1117.9	1266.6	1295.1	1264.2	1171.5
55°	1240.4	1190.5	1035.9	764.7	658.9	776.6	1033.5	1185.7	1208.3	1172.6	1076.3
57.5°	1152.4	1107.2	949.1	682.7	603.0	695.7	955.0	1102.5	1117.9	1072.7	984.7
60°	1060.9	1022.8	861.0	610.1	548.3	620.8	858.7	1019.2	1028.7	980.0	895.5
62.5°	969.3	934.8	773.0	543.5	492.4	550.6	779.0	931.2	937.2	890.8	804.0
65°	875.3	843.2	687.4	473.3	438.8	485.2	693.4	839.6	845.6	793.3	714.8
67.5°	777.8	751.6	595.8	419.8	387.7	423.4	607.7	746.9	750.4	699.3	627.9
70°	680.3	657.7	515.0	361.5	337.8	362.7	523.3	644.6	651.7	597.0	539.9
72.5°	580.4	562.5	436.5	300.9	279.5	300.9	441.2	550.6	555.4	510.2	454.3
75°	479.3	466.2	356.8	241.4	224.8	240.2	359.2	456.7	456.7	413.9	369.9
77.5°	381.8	372.2	273.5	185.5	173.6	183.2	274.7	361.5	359.2	325.9	291.4
80°	285.4	278.3	196.2	134.4	126.1	130.8	196.2	267.6	267.6	243.8	202.2
82.5°	204.6	196.2	129.6	88.0	83.3	85.6	127.3	186.7	190.3	172.4	136.8
85°	135.6	116.6	70.2	48.8	45.2	46.4	66.6	108.2	118.9	99.9	71.4
87.5°	59.5	39.2	17.8	7.1	3.6	4.8	14.3	34.5	45.2	29.7	9.5
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°	2216.8	2216.8	2216.8	2216.8	2216.8	2216.8
2.5°	2224.0	2205.0	2212.1	2216.8	2212.1	2233.5
5°	2221.6	2213.3	2212.1	2218.0	2208.5	2229.9
7.5°	2218.0	2213.3	2212.1	2214.5	2202.6	2222.8
10°	2209.7	2202.6	2205.0	2208.5	2193.1	2212.1
12.5°	2194.2	2187.1	2188.3	2200.2	2178.8	2195.4
15°	2168.1	2159.8	2168.1	2181.2	2162.1	2176.4
17.5°	2133.6	2120.5	2134.8	2155.0	2140.7	2153.8
20°	2089.6	2069.4	2084.8	2121.7	2108.6	2125.3
22.5°	2036.1	2011.1	2026.6	2080.1	2076.5	2094.3
25°	1975.4	1945.7	1967.1	2032.5	2039.6	2056.3
27.5°	1907.6	1874.3	1902.9	1980.2	1996.8	2015.9
30°	1833.9	1798.2	1831.5	1921.9	1946.9	1967.1
32.5°	1757.8	1718.5	1756.6	1856.5	1892.2	1918.3
35°	1678.1	1637.7	1680.5	1788.7	1831.5	1857.7
37.5°	1592.5	1553.2	1599.6	1717.3	1768.5	1794.6
40°	1504.5	1460.5	1512.8	1632.9	1700.7	1731.6
42.5°	1414.1	1359.4	1423.6	1553.2	1627.0	1657.9
45°	1313.0	1236.9	1323.7	1468.8	1546.1	1580.6
47.5°	1211.9	1135.8	1223.8	1378.4	1461.6	1492.6
50°	1114.4	1049.0	1119.1	1279.7	1376.0	1415.3
52.5°	1025.2	971.7	1031.1	1183.3	1288.0	1327.3
55°	941.9	900.3	949.1	1088.2	1195.2	1240.4
57.5°	863.4	837.3	870.6	997.8	1109.6	1152.4
60°	789.7	771.9	795.6	908.6	1008.5	1060.9
62.5°	717.1	707.6	725.5	814.7	914.6	969.3
65°	647.0	644.6	654.1	732.6	815.9	875.3
67.5°	576.8	575.6	581.6	645.8	719.5	777.8
70°	506.6	513.8	510.2	551.8	623.2	680.3
72.5°	435.3	446.0	440.0	466.2	535.2	580.4
75°	355.6	369.9	358.0	387.7	430.5	479.3
77.5°	273.5	289.0	274.7	300.9	347.3	381.8
80°	196.2	210.5	198.6	218.8	259.3	285.4
82.5°	123.7	134.4	124.9	145.1	185.5	204.6
85°	54.7	60.7	63.0	78.5	114.2	135.6
87.5°	2.4	1.2	2.4	15.5	40.4	59.5
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)