

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: P520513

Luminaire Tested: **4WSLA-150-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: P520513
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-L840-UNV-U
Description: 4 FOOT, 1500 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

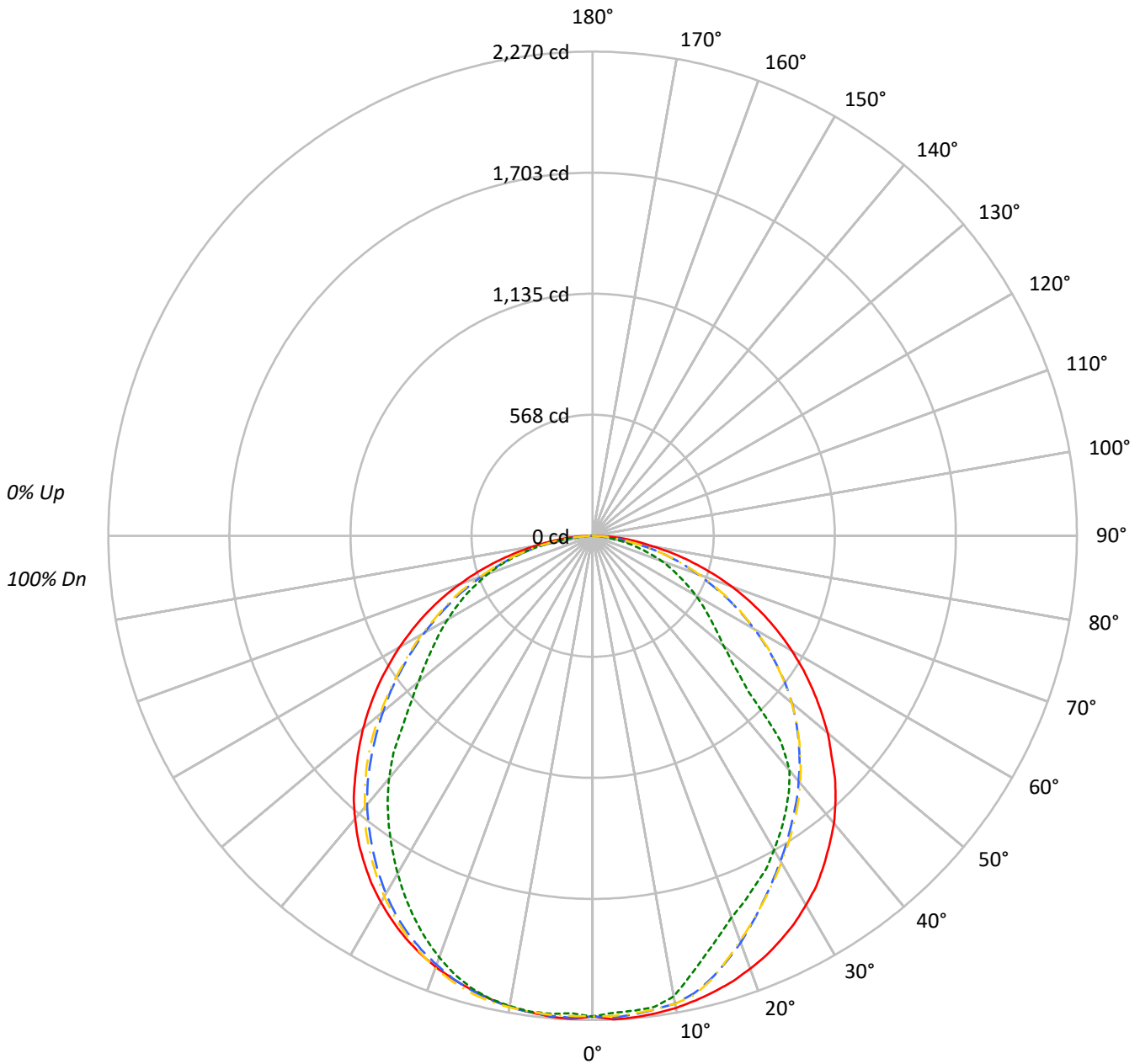
Lumens per Lamp: N/A
Luminaire Lumens: 6044.0 lumens
Efficiency: N/A
Efficacy: 126.7 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

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°	12126	12126	12126	12126
5°	12244	12074	12224	12152
10°	12286	11983	12253	12233
15°	12324	11348	12270	12230
20°	12371	10903	12322	12045
25°	12410	10723	12346	11742
30°	12424	10568	12334	11357
35°	12404	10363	12277	10935
40°	12364	10088	12169	10428
45°	12227	7838	11950	9567
50°	12043	6710	11750	8926
55°	11829	6283	11523	8586
60°	11606	5998	11254	8443
65°	11329	5680	10944	8343
70°	10880	5402	10423	8217
75°	10129	4749	9651	7817
80°	8991	3970	8430	6630
85°	8509	2834	7466	3804



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	214.1	3.5
10°-20°	610.6	10.1
20°-30°	912.4	15.1
30°-40°	1086.0	18.0
40°-50°	1085.6	18.0
50°-60°	934.1	15.5
60°-70°	703.1	11.6
70°-80°	400.6	6.6
80°-90°	97.5	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°	1737.0	28.7
0°-40°	2823.1	46.7
0°-60°	4842.8	80.1
0°-90°	6044.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6044.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2253	2253	2253	2253	2253	
5°	2266	2235	2263	2249	2266	216
15°	2212	2037	2202	2195	2212	625
25°	2090	1806	2079	1977	2090	964
35°	1888	1577	1869	1664	1888	1181
45°	1606	1030	1570	1257	1606	1237
55°	1261	670	1228	915	1261	1127
65°	890	446	859	655	890	878
75°	487	228	464	376	487	516
85°	138	46	121	62	138	150
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°	2253.0	2253.0	2253.0	2253.0	2253.0	2253.0	2253.0	2253.0	2253.0	2253.0	2253.0
2.5°	2269.9	2249.4	2261.5	2257.8	2238.5	2245.8	2253.0	2245.8	2267.5	2248.2	2261.5
5°	2266.3	2244.5	2251.8	2244.5	2234.9	2237.3	2248.2	2240.9	2262.7	2242.1	2259.0
7.5°	2259.0	2232.5	2239.7	2236.1	2227.6	2228.8	2239.7	2233.7	2253.0	2233.7	2253.0
10°	2248.2	2220.4	2226.4	2210.7	2192.6	2205.9	2227.6	2221.6	2242.1	2220.4	2242.1
12.5°	2231.2	2203.4	2197.4	2145.4	2112.8	2138.2	2204.7	2204.7	2224.0	2203.4	2226.4
15°	2211.9	2181.7	2149.1	2070.5	2036.6	2062.0	2153.9	2185.3	2202.2	2181.7	2204.7
17.5°	2188.9	2153.9	2091.0	1999.2	1967.8	1993.1	2087.4	2156.3	2178.1	2156.3	2176.9
20°	2159.9	2118.8	2029.4	1924.2	1903.7	1926.7	2020.9	2121.3	2151.5	2124.9	2139.4
22.5°	2128.5	2079.0	1960.5	1866.2	1856.6	1871.1	1956.9	2077.7	2117.6	2089.8	2099.5
25°	2089.8	2031.8	1891.6	1813.0	1805.8	1814.2	1894.0	2027.0	2079.0	2049.9	2053.6
27.5°	2048.7	1985.9	1826.3	1768.3	1761.1	1764.7	1831.2	1970.2	2034.2	2005.2	1999.2
30°	1999.2	1931.5	1761.1	1707.9	1700.6	1713.9	1770.7	1912.2	1984.7	1955.7	1937.5
32.5°	1949.6	1872.3	1697.0	1655.9	1641.4	1653.5	1707.9	1851.7	1930.3	1900.1	1869.8
35°	1888.0	1809.4	1630.5	1589.4	1577.3	1590.6	1645.0	1788.9	1868.6	1838.4	1797.3
37.5°	1823.9	1742.9	1570.1	1532.6	1510.9	1526.6	1581.0	1723.6	1804.6	1773.2	1722.4
40°	1759.9	1672.8	1502.4	1463.7	1435.9	1458.9	1514.5	1654.7	1732.1	1703.0	1645.0
42.5°	1684.9	1602.7	1435.9	1381.5	1303.0	1376.7	1443.2	1585.8	1657.1	1629.3	1559.2
45°	1606.4	1527.8	1365.8	1234.1	1029.8	1246.2	1370.7	1513.3	1570.1	1543.5	1467.4
47.5°	1516.9	1450.4	1294.5	1093.9	895.6	1106.0	1296.9	1444.4	1487.9	1458.9	1374.3
50°	1438.3	1373.1	1219.6	975.4	801.4	988.7	1218.4	1367.0	1403.3	1376.7	1282.4
52.5°	1348.9	1292.1	1138.6	870.3	731.3	883.6	1136.2	1287.3	1316.3	1284.8	1190.6
55°	1260.7	1209.9	1052.8	777.2	669.6	789.3	1050.4	1205.1	1228.0	1191.8	1093.9
57.5°	1171.2	1125.3	964.5	693.8	612.8	707.1	970.6	1120.5	1136.2	1090.2	1000.8
60°	1078.2	1039.5	875.1	620.1	557.2	630.9	872.7	1035.8	1045.5	996.0	910.1
62.5°	985.1	950.0	785.7	552.4	500.4	559.6	791.7	946.4	952.4	905.3	817.1
65°	889.6	857.0	698.6	481.1	446.0	493.1	704.7	853.3	859.4	806.2	726.4
67.5°	790.5	763.9	605.6	426.7	394.0	430.3	617.6	759.1	762.7	710.7	638.2
70°	691.4	668.4	523.4	367.4	343.3	368.7	531.8	655.1	662.4	606.8	548.7
72.5°	589.8	571.7	443.6	305.8	284.0	305.8	448.4	559.6	564.5	518.5	461.7
75°	487.1	473.8	362.6	245.4	228.4	244.2	365.0	464.1	464.1	420.6	375.9
77.5°	388.0	378.3	278.0	188.6	176.5	186.1	279.2	367.4	365.0	331.2	296.1
80°	290.1	282.8	199.4	136.6	128.1	133.0	199.4	272.0	272.0	247.8	205.5
82.5°	207.9	199.4	131.7	89.4	84.6	87.0	129.3	189.8	193.4	175.3	139.0
85°	137.8	118.5	71.3	49.6	45.9	47.1	67.7	110.0	120.9	101.5	72.5
87.5°	60.4	39.9	18.1	7.3	3.6	4.8	14.5	35.1	45.9	30.2	9.7
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°	2253.0	2253.0	2253.0	2253.0	2253.0	2253.0
2.5°	2260.3	2240.9	2248.2	2253.0	2248.2	2269.9
5°	2257.8	2249.4	2248.2	2254.2	2244.5	2266.3
7.5°	2254.2	2249.4	2248.2	2250.6	2238.5	2259.0
10°	2245.8	2238.5	2240.9	2244.5	2228.8	2248.2
12.5°	2230.0	2222.8	2224.0	2236.1	2214.3	2231.2
15°	2203.4	2195.0	2203.4	2216.7	2197.4	2211.9
17.5°	2168.4	2155.1	2169.6	2190.2	2175.6	2188.9
20°	2123.7	2103.1	2118.8	2156.3	2143.0	2159.9
22.5°	2069.3	2043.9	2059.6	2114.0	2110.4	2128.5
25°	2007.6	1977.4	1999.2	2065.7	2072.9	2089.8
27.5°	1938.7	1904.9	1933.9	2012.5	2029.4	2048.7
30°	1863.8	1827.5	1861.4	1953.2	1978.6	1999.2
32.5°	1786.4	1746.6	1785.2	1886.8	1923.0	1949.6
35°	1705.5	1664.4	1707.9	1817.9	1861.4	1888.0
37.5°	1618.4	1578.6	1625.7	1745.4	1797.3	1823.9
40°	1529.0	1484.3	1537.5	1659.5	1728.4	1759.9
42.5°	1437.1	1381.5	1446.8	1578.6	1653.5	1684.9
45°	1334.4	1257.0	1345.3	1492.7	1571.3	1606.4
47.5°	1231.7	1154.3	1243.7	1400.9	1485.5	1516.9
50°	1132.5	1066.1	1137.4	1300.6	1398.5	1438.3
52.5°	1041.9	987.5	1047.9	1202.6	1309.0	1348.9
55°	957.3	915.0	964.5	1106.0	1214.7	1260.7
57.5°	877.5	850.9	884.8	1014.1	1127.7	1171.2
60°	802.6	784.4	808.6	923.4	1025.0	1078.2
62.5°	728.8	719.2	737.3	828.0	929.5	985.1
65°	657.5	655.1	664.8	744.6	829.2	889.6
67.5°	586.2	585.0	591.1	656.3	731.3	790.5
70°	514.9	522.2	518.5	560.8	633.4	691.4
72.5°	442.4	453.3	447.2	473.8	543.9	589.8
75°	361.4	375.9	363.8	394.0	437.5	487.1
77.5°	278.0	293.7	279.2	305.8	352.9	388.0
80°	199.4	213.9	201.9	222.4	263.5	290.1
82.5°	125.7	136.6	126.9	147.5	188.6	207.9
85°	55.6	61.6	64.1	79.8	116.0	137.8
87.5°	2.4	1.2	2.4	15.7	41.1	60.4
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)