

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: P520552

Luminaire Tested: **4WSLA-175-L950-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: P520552  
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-L950-UNV-U  
Description: 4 FOOT, 1750 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 5000K, 90 CRI  
LEDS WITH NO UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

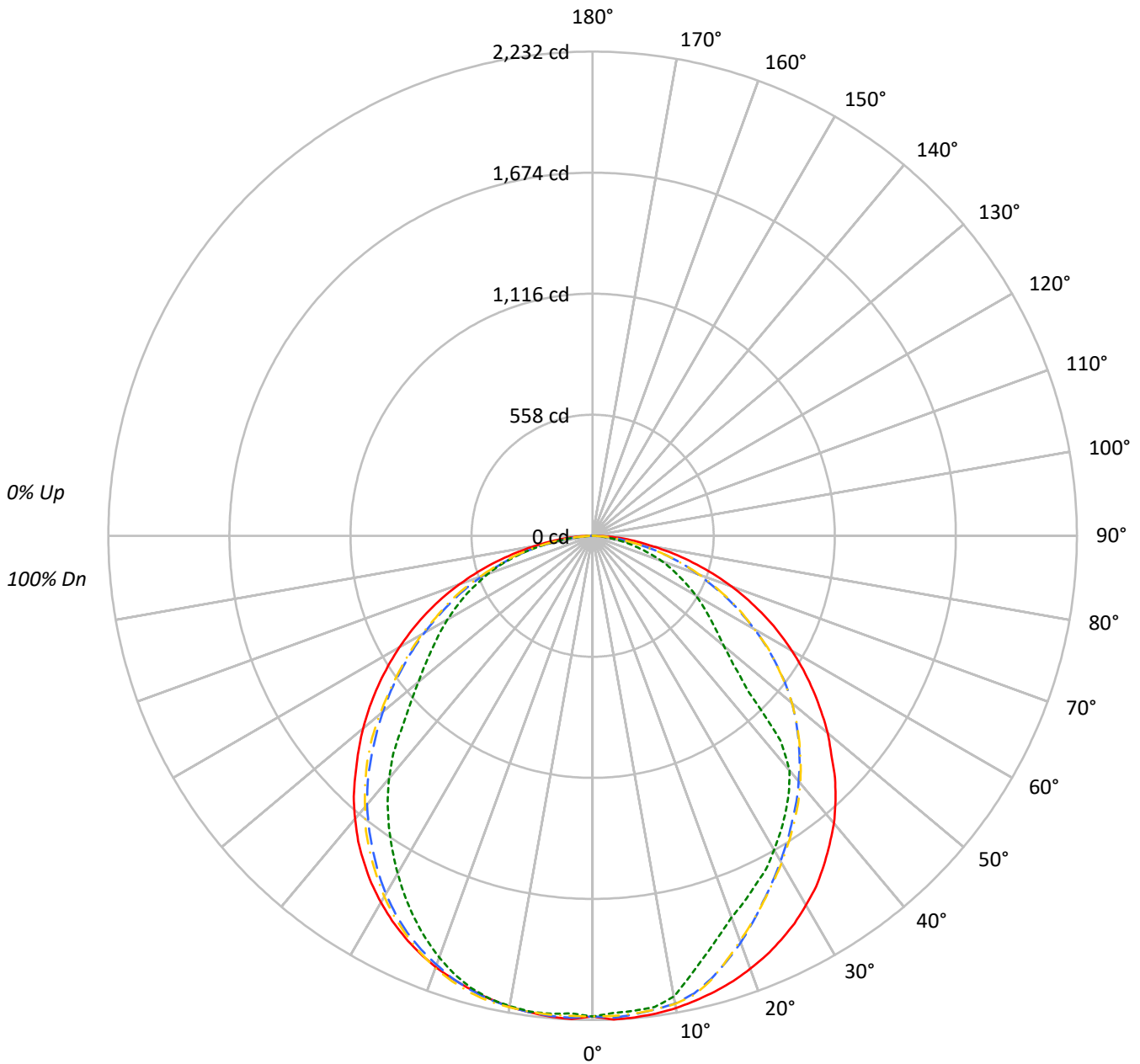
Lumens per Lamp: N/A  
Luminaire Lumens: 5944.0 lumens  
Efficiency: N/A  
Efficacy: 99.9 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 59.5  
Input Voltage (V): NR  
Input Current (Ain): 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°	11925	11925	11925	11925
5°	12041	11874	12022	11951
10°	12083	11784	12050	12031
15°	12120	11160	12067	12028
20°	12166	10723	12119	11846
25°	12205	10546	12142	11548
30°	12218	10394	12130	11169
35°	12199	10192	12074	10754
40°	12159	9922	11967	10255
45°	12024	7709	11753	9409
50°	11843	6599	11555	8778
55°	11633	6179	11332	8443
60°	11413	5899	11067	8304
65°	11142	5585	10763	8205
70°	10699	5312	10250	8080
75°	9960	4672	9493	7688
80°	8842	3905	8291	6521
85°	8367	2791	7342	3742



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	210.5	3.5
10°-20°	600.5	10.1
20°-30°	897.3	15.1
30°-40°	1068.1	18.0
40°-50°	1067.6	18.0
50°-60°	918.7	15.5
60°-70°	691.4	11.6
70°-80°	394.0	6.6
80°-90°	95.9	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°	1708.3	28.7
0°-40°	2776.4	46.7
0°-60°	4762.6	80.1
0°-90°	5944.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5944.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2216	2216	2216	2216	2216	
5°	2229	2198	2225	2212	2229	212
15°	2175	2003	2166	2159	2175	615
25°	2055	1776	2045	1945	2055	948
35°	1857	1551	1838	1637	1857	1162
45°	1580	1013	1544	1236	1580	1217
55°	1240	658	1208	900	1240	1108
65°	875	439	845	644	875	864
75°	479	225	456	370	479	507
85°	136	45	119	61	136	147
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°	2215.7	2215.7	2215.7	2215.7	2215.7	2215.7	2215.7	2215.7	2215.7	2215.7	2215.7
2.5°	2232.4	2212.2	2224.0	2220.5	2201.5	2208.6	2215.7	2208.6	2230.0	2211.0	2224.0
5°	2228.8	2207.4	2214.5	2207.4	2197.9	2200.3	2211.0	2203.8	2225.2	2205.0	2221.7
7.5°	2221.7	2195.5	2202.7	2199.1	2190.8	2192.0	2202.7	2196.7	2215.7	2196.7	2215.7
10°	2211.0	2183.6	2189.6	2174.1	2156.3	2169.4	2190.8	2184.8	2205.0	2183.6	2205.0
12.5°	2194.3	2167.0	2161.0	2109.9	2077.8	2102.8	2168.2	2168.2	2187.2	2167.0	2189.6
15°	2175.3	2145.6	2113.5	2036.2	2003.0	2027.9	2118.3	2149.2	2165.8	2145.6	2168.2
17.5°	2152.7	2118.3	2056.4	1966.1	1935.2	1960.2	2052.9	2120.6	2142.0	2120.6	2140.8
20°	2124.2	2083.8	1995.8	1892.4	1872.2	1894.8	1987.5	2086.2	2115.9	2089.7	2104.0
22.5°	2093.3	2044.6	1928.1	1835.3	1825.8	1840.1	1924.5	2043.4	2082.6	2055.3	2064.8
25°	2055.3	1998.2	1860.3	1783.0	1775.9	1784.2	1862.7	1993.4	2044.6	2016.0	2019.6
27.5°	2014.8	1953.0	1796.1	1739.1	1731.9	1735.5	1800.9	1937.6	2000.6	1972.0	1966.1
30°	1966.1	1899.5	1731.9	1679.6	1672.5	1685.6	1741.4	1880.5	1951.8	1923.3	1905.5
32.5°	1917.4	1841.3	1668.9	1628.5	1614.2	1626.1	1679.6	1821.1	1898.3	1868.6	1838.9
35°	1856.7	1779.5	1603.5	1563.1	1551.2	1564.3	1617.8	1759.3	1837.7	1808.0	1767.6
37.5°	1793.7	1714.1	1544.1	1507.3	1485.9	1501.3	1554.8	1695.1	1774.7	1743.8	1693.9
40°	1730.7	1645.2	1477.5	1439.5	1412.2	1434.8	1489.4	1627.3	1703.4	1674.9	1617.8
42.5°	1657.0	1576.2	1412.2	1358.7	1281.4	1353.9	1419.3	1559.6	1629.7	1602.4	1533.4
45°	1579.8	1502.5	1343.2	1213.7	1012.8	1225.5	1348.0	1488.2	1544.1	1518.0	1443.1
47.5°	1491.8	1426.4	1273.1	1075.8	880.8	1087.7	1275.5	1420.5	1463.3	1434.8	1351.5
50°	1414.5	1350.4	1199.4	959.3	788.1	972.4	1198.2	1344.4	1380.1	1353.9	1261.2
52.5°	1326.6	1270.7	1119.8	855.9	719.2	868.9	1117.4	1266.0	1294.5	1263.6	1170.9
55°	1239.8	1189.9	1035.4	764.3	658.5	776.2	1033.0	1185.1	1207.7	1172.1	1075.8
57.5°	1151.8	1106.7	948.6	682.3	602.7	695.4	954.5	1101.9	1117.4	1072.2	984.2
60°	1060.3	1022.3	860.6	609.8	548.0	620.5	858.2	1018.7	1028.2	979.5	895.1
62.5°	968.8	934.3	772.7	543.2	492.1	550.4	778.6	930.7	936.7	890.3	803.6
65°	874.9	842.8	687.1	473.1	438.6	485.0	693.0	839.2	845.2	792.9	714.4
67.5°	777.4	751.3	595.5	419.6	387.5	423.2	607.4	746.5	750.1	699.0	627.6
70°	679.9	657.3	514.7	361.4	337.6	362.6	523.0	644.3	651.4	596.7	539.7
72.5°	580.1	562.3	436.3	300.7	279.3	300.7	441.0	550.4	555.1	510.0	454.1
75°	479.0	466.0	356.6	241.3	224.7	240.1	359.0	456.5	456.5	413.7	369.7
77.5°	381.6	372.1	273.4	185.4	173.5	183.1	274.6	361.4	359.0	325.7	291.2
80°	285.3	278.2	196.1	134.3	126.0	130.8	196.1	267.5	267.5	243.7	202.1
82.5°	204.5	196.1	129.6	88.0	83.2	85.6	127.2	186.6	190.2	172.4	136.7
85°	135.5	116.5	70.1	48.7	45.2	46.4	66.6	108.2	118.9	99.9	71.3
87.5°	59.4	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°	2215.7	2215.7	2215.7	2215.7	2215.7	2215.7
2.5°	2222.9	2203.8	2211.0	2215.7	2211.0	2232.4
5°	2220.5	2212.2	2211.0	2216.9	2207.4	2228.8
7.5°	2216.9	2212.2	2211.0	2213.3	2201.5	2221.7
10°	2208.6	2201.5	2203.8	2207.4	2192.0	2211.0
12.5°	2193.1	2186.0	2187.2	2199.1	2177.7	2194.3
15°	2167.0	2158.7	2167.0	2180.1	2161.0	2175.3
17.5°	2132.5	2119.4	2133.7	2153.9	2139.7	2152.7
20°	2088.5	2068.3	2083.8	2120.6	2107.6	2124.2
22.5°	2035.0	2010.1	2025.5	2079.0	2075.5	2093.3
25°	1974.4	1944.7	1966.1	2031.5	2038.6	2055.3
27.5°	1906.7	1873.4	1901.9	1979.2	1995.8	2014.8
30°	1833.0	1797.3	1830.6	1920.9	1945.9	1966.1
32.5°	1756.9	1717.7	1755.7	1855.6	1891.2	1917.4
35°	1677.2	1636.8	1679.6	1787.8	1830.6	1856.7
37.5°	1591.7	1552.4	1598.8	1716.5	1767.6	1793.7
40°	1503.7	1459.7	1512.0	1632.1	1699.8	1730.7
42.5°	1413.4	1358.7	1422.9	1552.4	1626.1	1657.0
45°	1312.3	1236.2	1323.0	1468.0	1545.3	1579.8
47.5°	1211.3	1135.2	1223.2	1377.7	1460.9	1491.8
50°	1113.8	1048.4	1118.6	1279.0	1375.3	1414.5
52.5°	1024.7	971.2	1030.6	1182.8	1287.4	1326.6
55°	941.4	899.8	948.6	1087.7	1194.6	1239.8
57.5°	863.0	836.8	870.1	997.3	1109.1	1151.8
60°	789.3	771.5	795.2	908.2	1008.0	1060.3
62.5°	716.8	707.3	725.1	814.3	914.1	968.8
65°	646.6	644.3	653.8	732.2	815.4	874.9
67.5°	576.5	575.3	581.3	645.5	719.2	777.4
70°	506.4	513.5	510.0	551.6	622.9	679.9
72.5°	435.1	445.8	439.8	466.0	534.9	580.1
75°	355.4	369.7	357.8	387.5	430.3	479.0
77.5°	273.4	288.9	274.6	300.7	347.1	381.6
80°	196.1	210.4	198.5	218.7	259.1	285.3
82.5°	123.6	134.3	124.8	145.0	185.4	204.5
85°	54.7	60.6	63.0	78.5	114.1	135.5
87.5°	2.4	1.2	2.4	15.5	40.4	59.4
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)