

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: P520525

Luminaire Tested: **4WSLA-150-L940-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: P520525  
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-L940-UNV-U  
Description: 4 FOOT, 1500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 90 CRI  
LEDS WITH NO UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

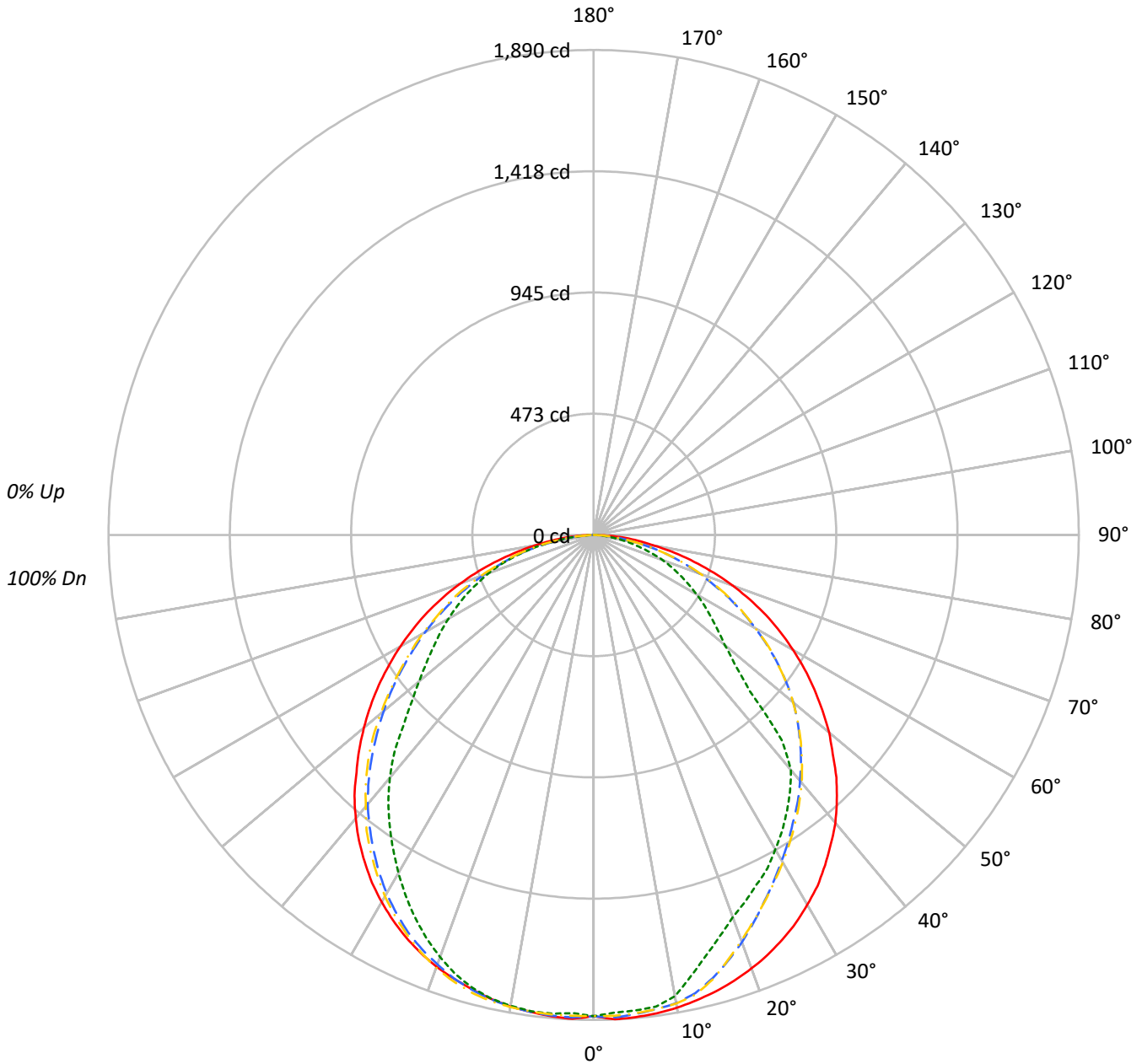
Lumens per Lamp: N/A  
Luminaire Lumens: 5031.0 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 47.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	10093	10093	10093	10093
5°	10192	10050	10175	10116
10°	10227	9974	10199	10183
15°	10259	9446	10214	10180
20°	10297	9076	10257	10026
25°	10330	8926	10276	9774
30°	10342	8797	10266	9454
35°	10325	8627	10219	9102
40°	10292	8398	10130	8680
45°	10177	6524	9947	7964
50°	10025	5586	9780	7430
55°	9847	5230	9591	7146
60°	9661	4992	9368	7029
65°	9430	4728	9109	6944
70°	9056	4496	8675	6839
75°	8432	3955	8033	6507
80°	7485	3304	7017	5520
85°	7083	2359	6212	3168



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	178.2	3.5
10°-20°	508.2	10.1
20°-30°	759.5	15.1
30°-40°	904.0	18.0
40°-50°	903.6	18.0
50°-60°	777.6	15.5
60°-70°	585.2	11.6
70°-80°	333.5	6.6
80°-90°	81.2	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°	1445.9	28.7
0°-40°	2349.9	46.7
0°-60°	4031.1	80.1
0°-90°	5031.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5031.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1875	1875	1875	1875	1875	
5°	1886	1860	1883	1872	1886	180
15°	1841	1695	1833	1827	1841	520
25°	1740	1503	1730	1646	1740	802
35°	1572	1313	1555	1385	1572	983
45°	1337	857	1307	1046	1337	1030
55°	1049	557	1022	762	1049	938
65°	740	371	715	545	740	731
75°	406	190	386	313	406	429
85°	115	38	101	51	115	125
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°	1875.4	1875.4	1875.4	1875.4	1875.4	1875.4	1875.4	1875.4	1875.4	1875.4	1875.4
2.5°	1889.5	1872.4	1882.4	1879.4	1863.3	1869.4	1875.4	1869.4	1887.5	1871.4	1882.4
5°	1886.5	1868.3	1874.4	1868.3	1860.3	1862.3	1871.4	1865.3	1883.4	1866.3	1880.4
7.5°	1880.4	1858.3	1864.3	1861.3	1854.3	1855.3	1864.3	1859.3	1875.4	1859.3	1875.4
10°	1871.4	1848.2	1853.3	1840.2	1825.1	1836.2	1854.3	1849.2	1866.3	1848.2	1866.3
12.5°	1857.3	1834.1	1829.1	1785.8	1758.7	1779.8	1835.1	1835.1	1851.2	1834.1	1853.3
15°	1841.2	1816.0	1788.9	1723.5	1695.3	1716.4	1792.9	1819.0	1833.1	1816.0	1835.1
17.5°	1822.1	1792.9	1740.6	1664.1	1637.9	1659.1	1737.6	1794.9	1813.0	1794.9	1812.0
20°	1797.9	1763.7	1689.3	1601.7	1584.6	1603.7	1682.2	1765.7	1790.9	1768.7	1780.8
22.5°	1771.8	1730.5	1631.9	1553.4	1545.4	1557.5	1628.9	1729.5	1762.7	1739.6	1747.6
25°	1739.6	1691.3	1574.6	1509.2	1503.1	1510.2	1576.6	1687.2	1730.5	1706.4	1709.4
27.5°	1705.4	1653.0	1520.2	1471.9	1465.9	1468.9	1524.3	1640.0	1693.3	1669.1	1664.1
30°	1664.1	1607.8	1465.9	1421.6	1415.6	1426.7	1474.0	1591.7	1652.0	1627.9	1612.8
32.5°	1622.9	1558.5	1412.6	1378.4	1366.3	1376.4	1421.6	1541.4	1606.8	1581.6	1556.5
35°	1571.5	1506.1	1357.2	1323.0	1313.0	1324.0	1369.3	1489.0	1555.4	1530.3	1496.1
37.5°	1518.2	1450.8	1306.9	1275.7	1257.6	1270.7	1316.0	1434.7	1502.1	1476.0	1433.7
40°	1464.9	1392.5	1250.6	1218.4	1195.3	1214.4	1260.7	1377.4	1441.8	1417.6	1369.3
42.5°	1402.5	1334.1	1195.3	1150.0	1084.6	1146.0	1201.3	1320.0	1379.4	1356.2	1297.9
45°	1337.1	1271.7	1136.9	1027.2	857.2	1037.3	1140.9	1259.7	1306.9	1284.8	1221.4
47.5°	1262.7	1207.3	1077.5	910.5	745.5	920.6	1079.6	1202.3	1238.5	1214.4	1143.9
50°	1197.3	1142.9	1015.2	811.9	667.1	823.0	1014.2	1137.9	1168.1	1146.0	1067.5
52.5°	1122.8	1075.5	947.8	724.4	608.7	735.5	945.7	1071.5	1095.7	1069.5	991.0
55°	1049.4	1007.1	876.3	646.9	557.4	657.0	874.3	1003.1	1022.2	992.0	910.5
57.5°	974.9	936.7	802.9	577.5	510.1	588.6	807.9	932.7	945.7	907.5	833.1
60°	897.5	865.3	728.4	516.1	463.8	525.2	726.4	862.2	870.3	829.0	757.6
62.5°	820.0	790.8	654.0	459.8	416.5	465.8	659.0	787.8	792.8	753.6	680.1
65°	740.5	713.3	581.5	400.4	371.3	410.5	586.6	710.3	715.3	671.1	604.7
67.5°	658.0	635.9	504.1	355.2	328.0	358.2	514.1	631.8	634.9	591.6	531.2
70°	575.5	556.4	435.6	305.9	285.7	306.9	442.7	545.3	551.3	505.1	456.8
72.5°	491.0	475.9	369.2	254.5	236.4	254.5	373.3	465.8	469.9	431.6	384.3
75°	405.5	394.4	301.8	204.2	190.2	203.2	303.8	386.3	386.3	350.1	312.9
77.5°	323.0	314.9	231.4	157.0	146.9	154.9	232.4	305.9	303.8	275.7	246.5
80°	241.5	235.4	166.0	113.7	106.6	110.7	166.0	226.4	226.4	206.3	171.0
82.5°	173.1	166.0	109.7	74.5	70.4	72.4	107.7	158.0	161.0	145.9	115.7
85°	114.7	98.6	59.4	41.3	38.2	39.2	56.3	91.6	100.6	84.5	60.4
87.5°	50.3	33.2	15.1	6.0	3.0	4.0	12.1	29.2	38.2	25.2	8.0
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°	1875.4	1875.4	1875.4	1875.4	1875.4	1875.4
2.5°	1881.4	1865.3	1871.4	1875.4	1871.4	1889.5
5°	1879.4	1872.4	1871.4	1876.4	1868.3	1886.5
7.5°	1876.4	1872.4	1871.4	1873.4	1863.3	1880.4
10°	1869.4	1863.3	1865.3	1868.3	1855.3	1871.4
12.5°	1856.3	1850.2	1851.2	1861.3	1843.2	1857.3
15°	1834.1	1827.1	1834.1	1845.2	1829.1	1841.2
17.5°	1805.0	1793.9	1806.0	1823.1	1811.0	1822.1
20°	1767.7	1750.6	1763.7	1794.9	1783.8	1797.9
22.5°	1722.5	1701.3	1714.4	1759.7	1756.7	1771.8
25°	1671.2	1646.0	1664.1	1719.4	1725.5	1739.6
27.5°	1613.8	1585.6	1609.8	1675.2	1689.3	1705.4
30°	1551.4	1521.2	1549.4	1625.9	1647.0	1664.1
32.5°	1487.0	1453.8	1486.0	1570.5	1600.7	1622.9
35°	1419.6	1385.4	1421.6	1513.2	1549.4	1571.5
37.5°	1347.2	1314.0	1353.2	1452.8	1496.1	1518.2
40°	1272.7	1235.5	1279.8	1381.4	1438.7	1464.9
42.5°	1196.3	1150.0	1204.3	1314.0	1376.4	1402.5
45°	1110.7	1046.4	1119.8	1242.5	1307.9	1337.1
47.5°	1025.2	960.8	1035.3	1166.1	1236.5	1262.7
50°	942.7	887.4	946.8	1082.6	1164.1	1197.3
52.5°	867.3	822.0	872.3	1001.1	1089.6	1122.8
55°	796.8	761.6	802.9	920.6	1011.1	1049.4
57.5°	730.4	708.3	736.5	844.1	938.7	974.9
60°	668.1	653.0	673.1	768.7	853.2	897.5
62.5°	606.7	598.6	613.7	689.2	773.7	820.0
65°	547.3	545.3	553.4	619.8	690.2	740.5
67.5°	488.0	487.0	492.0	546.3	608.7	658.0
70°	428.6	434.6	431.6	466.8	527.2	575.5
72.5°	368.2	377.3	372.3	394.4	452.7	491.0
75°	300.8	312.9	302.8	328.0	364.2	405.5
77.5°	231.4	244.5	232.4	254.5	293.8	323.0
80°	166.0	178.1	168.0	185.1	219.3	241.5
82.5°	104.6	113.7	105.6	122.7	157.0	173.1
85°	46.3	51.3	53.3	66.4	96.6	114.7
87.5°	2.0	1.0	2.0	13.1	34.2	50.3
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)