

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: P520528

Luminaire Tested: **4WSLA-150-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: P520528
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-L950-UNV-U
Description: 4 FOOT, 1500 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

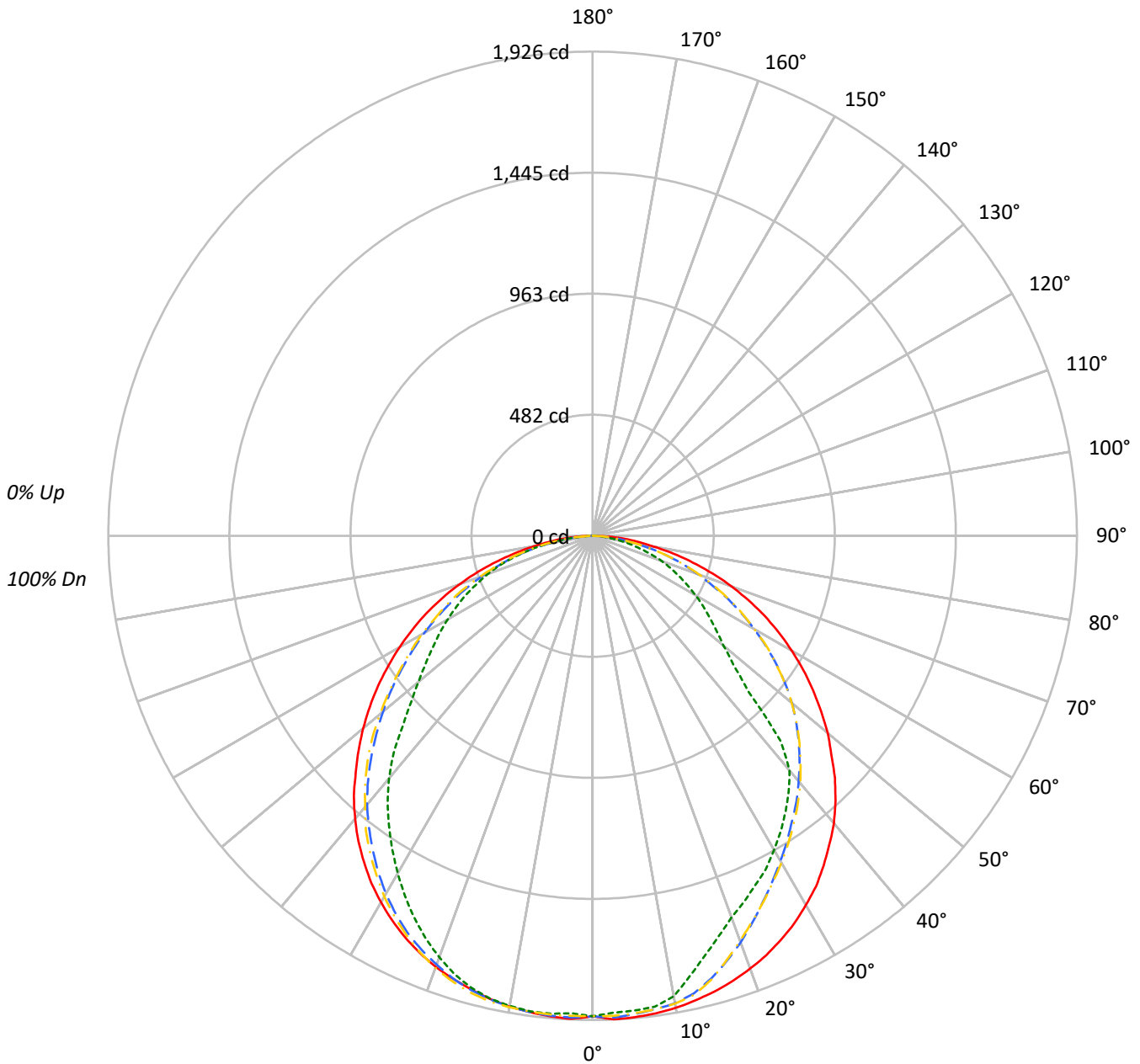
Lumens per Lamp: N/A
Luminaire Lumens: 5127.0 lumens
Efficiency: N/A
Efficacy: 107.5 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 47.7
Input Voltage (V): NR
Input Current (A_{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

TEST NUMBER: P520528

CATALOG NUMBER: 4WSLA-150-L950-UNV-U

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°	10286	10286	10286	10286
5°	10386	10242	10370	10309
10°	10422	10164	10394	10377
15°	10454	9626	10409	10375
20°	10494	9249	10453	10218
25°	10527	9096	10472	9961
30°	10539	8965	10463	9634
35°	10522	8791	10414	9276
40°	10489	8558	10323	8846
45°	10371	6649	10137	8116
50°	10216	5692	9967	7572
55°	10034	5330	9774	7283
60°	9845	5088	9547	7162
65°	9610	4818	9284	7077
70°	9229	4582	8842	6969
75°	8592	4030	8187	6631
80°	7627	3369	7150	5625
85°	7219	2408	6329	3230



TEST NUMBER: P520528

CATALOG NUMBER: 4WSLA-150-L950-UNV-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.6	3.5
10°-20°	517.9	10.1
20°-30°	774.0	15.1
30°-40°	921.3	18.0
40°-50°	920.9	18.0
50°-60°	792.4	15.5
60°-70°	596.4	11.6
70°-80°	339.9	6.6
80°-90°	82.7	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°	1473.5	28.7
0°-40°	2394.8	46.7
0°-60°	4108.0	80.1
0°-90°	5127.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5127.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1911	1911	1911	1911	1911	
5°	1922	1896	1919	1908	1922	183
15°	1876	1728	1868	1862	1876	530
25°	1773	1532	1764	1677	1773	817
35°	1602	1338	1585	1412	1602	1002
45°	1363	874	1332	1066	1363	1049
55°	1069	568	1042	776	1069	956
65°	755	378	729	556	755	745
75°	413	194	394	319	413	437
85°	117	39	102	52	117	127
90°	0	0	0	0	0	



TEST NUMBER: P520528

CATALOG NUMBER: 4WSLA-150-L950-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1911.2	1911.2	1911.2	1911.2	1911.2	1911.2	1911.2	1911.2	1911.2	1911.2	1911.2
2.5°	1925.5	1908.1	1918.4	1915.3	1898.9	1905.0	1911.2	1905.0	1923.5	1907.1	1918.4
5°	1922.5	1904.0	1910.2	1904.0	1895.8	1897.8	1907.1	1900.9	1919.4	1901.9	1916.3
7.5°	1916.3	1893.7	1899.9	1896.8	1889.6	1890.7	1899.9	1894.8	1911.2	1894.8	1911.2
10°	1907.1	1883.5	1888.6	1875.3	1859.9	1871.2	1889.6	1884.5	1901.9	1883.5	1901.9
12.5°	1892.7	1869.1	1864.0	1819.9	1792.2	1813.8	1870.2	1870.2	1886.6	1869.1	1888.6
15°	1876.3	1850.7	1823.0	1756.4	1727.6	1749.2	1827.1	1853.8	1868.1	1850.7	1870.2
17.5°	1856.8	1827.1	1773.8	1695.9	1669.2	1690.7	1770.7	1829.2	1847.6	1829.2	1846.6
20°	1832.2	1797.4	1721.5	1632.3	1614.9	1634.3	1714.3	1799.4	1825.1	1802.5	1814.8
22.5°	1805.6	1763.5	1663.1	1583.1	1574.9	1587.2	1660.0	1762.5	1796.3	1772.8	1781.0
25°	1772.8	1723.5	1604.6	1538.0	1531.8	1539.0	1606.7	1719.4	1763.5	1738.9	1742.0
27.5°	1737.9	1684.6	1549.2	1500.0	1493.9	1497.0	1553.3	1671.3	1725.6	1701.0	1695.9
30°	1695.9	1638.4	1493.9	1448.8	1442.6	1453.9	1502.1	1622.0	1683.6	1659.0	1643.6
32.5°	1653.8	1588.2	1439.5	1404.7	1392.4	1402.6	1448.8	1570.8	1637.4	1611.8	1586.2
35°	1601.5	1534.9	1383.1	1348.3	1338.0	1349.3	1395.4	1517.5	1585.1	1559.5	1524.6
37.5°	1547.2	1478.5	1331.9	1300.1	1281.6	1295.0	1341.1	1462.1	1530.8	1504.1	1461.1
40°	1492.9	1419.0	1274.5	1241.6	1218.1	1237.5	1284.7	1403.6	1469.3	1444.7	1395.4
42.5°	1429.3	1359.6	1218.1	1171.9	1105.3	1167.8	1224.2	1345.2	1405.7	1382.1	1322.6
45°	1362.6	1296.0	1158.6	1046.8	873.6	1057.1	1162.7	1283.7	1331.9	1309.3	1244.7
47.5°	1286.8	1230.4	1098.1	927.9	759.8	938.2	1100.2	1225.2	1262.2	1237.5	1165.8
50°	1220.1	1164.8	1034.5	827.4	679.8	838.7	1033.5	1159.6	1190.4	1167.8	1087.9
52.5°	1144.2	1096.1	965.8	738.2	620.3	749.5	963.8	1092.0	1116.6	1089.9	1009.9
55°	1069.4	1026.3	893.0	659.3	568.0	669.5	891.0	1022.2	1041.7	1011.0	927.9
57.5°	993.5	954.6	818.2	588.5	519.8	599.8	823.3	950.5	963.8	924.8	849.0
60°	914.6	881.8	742.3	526.0	472.7	535.2	740.3	878.7	886.9	844.9	772.1
62.5°	835.6	805.9	666.5	468.6	424.5	474.7	671.6	802.8	807.9	768.0	693.1
65°	754.6	726.9	592.6	408.1	378.3	418.3	597.8	723.9	729.0	683.9	616.2
67.5°	670.6	648.0	513.7	361.9	334.3	365.0	523.9	643.9	647.0	602.9	541.4
70°	586.5	567.0	444.0	311.7	291.2	312.7	451.1	555.7	561.9	514.7	465.5
72.5°	500.4	485.0	376.3	259.4	240.9	259.4	380.4	474.7	478.8	439.9	391.7
75°	413.2	401.9	307.6	208.1	193.8	207.1	309.6	393.7	393.7	356.8	318.9
77.5°	329.1	320.9	235.8	159.9	149.7	157.9	236.8	311.7	309.6	280.9	251.2
80°	246.1	239.9	169.2	115.9	108.7	112.8	169.2	230.7	230.7	210.2	174.3
82.5°	176.4	169.2	111.8	75.9	71.8	73.8	109.7	161.0	164.0	148.7	117.9
85°	116.9	100.5	60.5	42.0	39.0	40.0	57.4	93.3	102.5	86.1	61.5
87.5°	51.3	33.8	15.4	6.2	3.1	4.1	12.3	29.7	39.0	25.6	8.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P520528

CATALOG NUMBER: 4WSLA-150-L950-UNV-U

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1911.2	1911.2	1911.2	1911.2	1911.2	1911.2
2.5°	1917.3	1900.9	1907.1	1911.2	1907.1	1925.5
5°	1915.3	1908.1	1907.1	1912.2	1904.0	1922.5
7.5°	1912.2	1908.1	1907.1	1909.1	1898.9	1916.3
10°	1905.0	1898.9	1900.9	1904.0	1890.7	1907.1
12.5°	1891.7	1885.5	1886.6	1896.8	1878.4	1892.7
15°	1869.1	1862.0	1869.1	1880.4	1864.0	1876.3
17.5°	1839.4	1828.1	1840.4	1857.9	1845.6	1856.8
20°	1801.5	1784.0	1797.4	1829.2	1817.9	1832.2
22.5°	1755.3	1733.8	1747.1	1793.3	1790.2	1805.6
25°	1703.0	1677.4	1695.9	1752.3	1758.4	1772.8
27.5°	1644.6	1615.9	1640.5	1707.1	1721.5	1737.9
30°	1581.0	1550.3	1579.0	1656.9	1678.4	1695.9
32.5°	1515.4	1481.6	1514.4	1600.5	1631.3	1653.8
35°	1446.7	1411.9	1448.8	1542.1	1579.0	1601.5
37.5°	1372.9	1339.1	1379.0	1480.5	1524.6	1547.2
40°	1297.0	1259.1	1304.2	1407.7	1466.2	1492.9
42.5°	1219.1	1171.9	1227.3	1339.1	1402.6	1429.3
45°	1131.9	1066.3	1141.2	1266.3	1332.9	1362.6
47.5°	1044.8	979.2	1055.0	1188.3	1260.1	1286.8
50°	960.7	904.3	964.8	1103.2	1186.3	1220.1
52.5°	883.8	837.7	888.9	1020.2	1110.4	1144.2
55°	812.0	776.2	818.2	938.2	1030.4	1069.4
57.5°	744.4	721.8	750.5	860.2	956.6	993.5
60°	680.8	665.4	685.9	783.3	869.5	914.6
62.5°	618.3	610.1	625.4	702.3	788.5	835.6
65°	557.8	555.7	563.9	631.6	703.4	754.6
67.5°	497.3	496.2	501.4	556.7	620.3	670.6
70°	436.8	442.9	439.9	475.7	537.3	586.5
72.5°	375.3	384.5	379.4	401.9	461.4	500.4
75°	306.6	318.9	308.6	334.3	371.2	413.2
77.5°	235.8	249.2	236.8	259.4	299.4	329.1
80°	169.2	181.5	171.2	188.7	223.5	246.1
82.5°	106.6	115.9	107.7	125.1	159.9	176.4
85°	47.2	52.3	54.3	67.7	98.4	116.9
87.5°	2.1	1.0	2.1	13.3	34.9	51.3
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)