

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: P520519

Luminaire Tested: **4WSLA-150-L930-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: P520519
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-L930-UNV-U
Description: 4 FOOT, 1500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 90 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

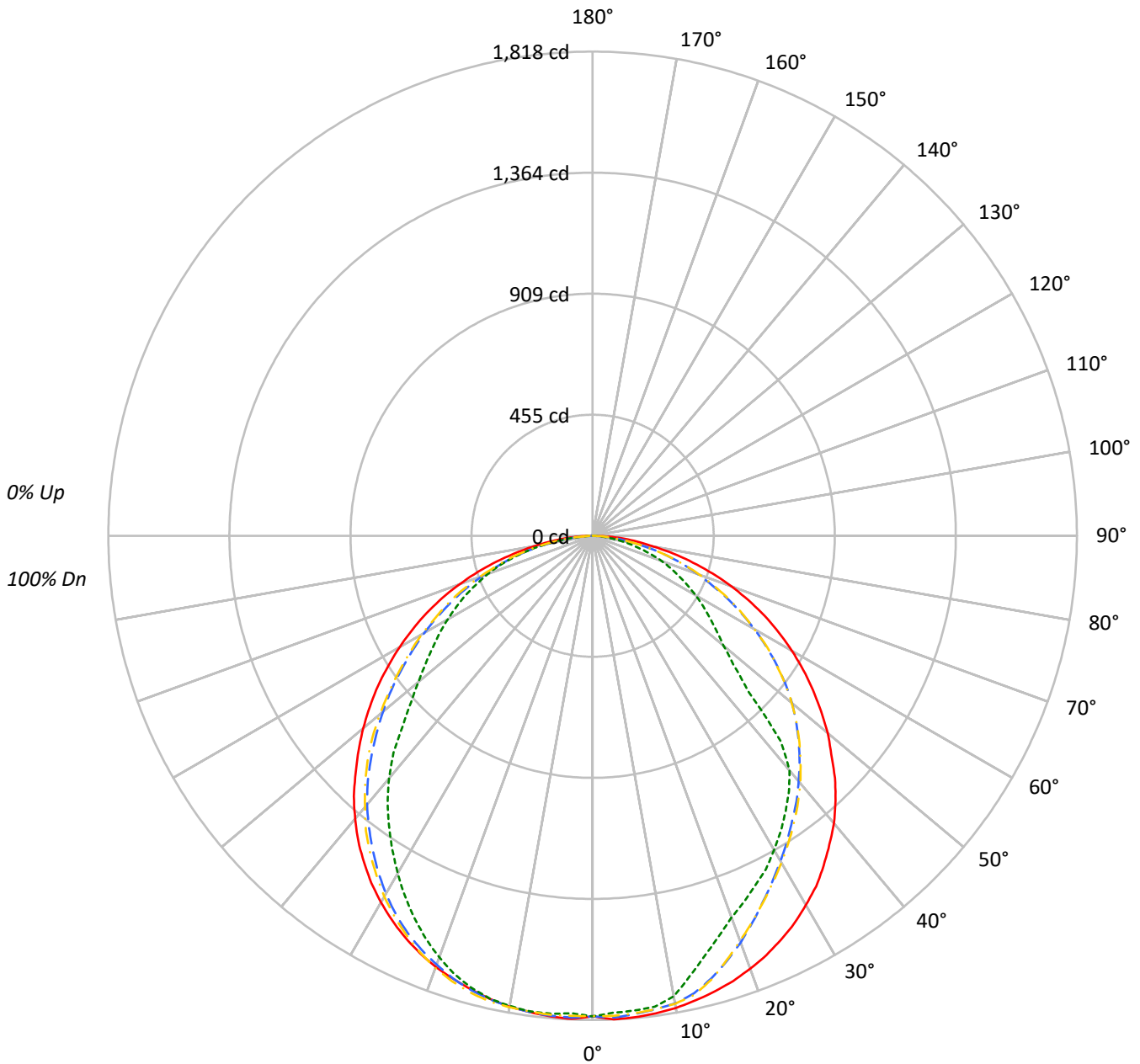
Lumens per Lamp: N/A
Luminaire Lumens: 4840.0 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

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

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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°	9710	9710	9710	9710
5°	9804	9669	9789	9732
10°	9839	9595	9812	9797
15°	9869	9087	9826	9794
20°	9907	8731	9868	9646
25°	9938	8587	9886	9403
30°	9949	8464	9877	9095
35°	9933	8299	9832	8757
40°	9901	8079	9745	8351
45°	9791	6277	9570	7661
50°	9644	5373	9409	7148
55°	9472	5031	9227	6875
60°	9294	4803	9012	6762
65°	9072	4549	8764	6681
70°	8711	4326	8346	6579
75°	8112	3803	7729	6259
80°	7200	3180	6750	5309
85°	6811	2272	5978	3051



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.4	3.5
10°-20°	488.9	10.1
20°-30°	730.6	15.1
30°-40°	869.7	18.0
40°-50°	869.3	18.0
50°-60°	748.0	15.5
60°-70°	563.0	11.6
70°-80°	320.8	6.6
80°-90°	78.1	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°	1391.0	28.7
0°-40°	2260.7	46.7
0°-60°	3878.1	80.1
0°-90°	4840.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4840.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1804	1804	1804	1804	1804	
5°	1815	1790	1812	1801	1815	173
15°	1771	1631	1764	1758	1771	500
25°	1674	1446	1665	1584	1674	772
35°	1512	1263	1496	1333	1512	946
45°	1286	825	1257	1007	1286	991
55°	1010	536	983	733	1010	903
65°	712	357	688	525	712	703
75°	390	183	372	301	390	413
85°	110	37	97	49	110	120
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°	1804.2	1804.2	1804.2	1804.2	1804.2	1804.2	1804.2	1804.2	1804.2	1804.2	1804.2
2.5°	1817.7	1801.3	1811.0	1808.1	1792.6	1798.4	1804.2	1798.4	1815.8	1800.3	1811.0
5°	1814.8	1797.4	1803.2	1797.4	1789.7	1791.6	1800.3	1794.5	1811.9	1795.5	1809.0
7.5°	1809.0	1787.7	1793.5	1790.6	1783.9	1784.8	1793.5	1788.7	1804.2	1788.7	1804.2
10°	1800.3	1778.1	1782.9	1770.3	1755.8	1766.4	1783.9	1779.0	1795.5	1778.1	1795.5
12.5°	1786.8	1764.5	1759.7	1718.0	1691.9	1712.2	1765.5	1765.5	1781.0	1764.5	1782.9
15°	1771.3	1747.1	1721.0	1658.0	1630.9	1651.3	1724.8	1750.0	1763.5	1747.1	1765.5
17.5°	1752.9	1724.8	1674.5	1600.9	1575.8	1596.1	1671.6	1726.8	1744.2	1726.8	1743.2
20°	1729.7	1696.8	1625.1	1540.9	1524.5	1542.9	1618.4	1698.7	1722.9	1701.6	1713.2
22.5°	1704.5	1664.8	1570.0	1494.5	1486.7	1498.3	1567.1	1663.8	1695.8	1673.5	1681.3
25°	1673.5	1627.1	1514.8	1451.9	1446.1	1452.8	1516.7	1623.2	1664.8	1641.6	1644.5
27.5°	1640.6	1590.3	1462.5	1416.1	1410.3	1413.2	1466.4	1577.7	1629.0	1605.8	1600.9
30°	1600.9	1546.7	1410.3	1367.7	1361.9	1372.5	1418.0	1531.2	1589.3	1566.1	1551.6
32.5°	1561.2	1499.3	1359.0	1326.0	1314.4	1324.1	1367.7	1482.8	1545.8	1521.6	1497.4
35°	1511.9	1449.0	1305.7	1272.8	1263.1	1273.8	1317.3	1432.5	1496.4	1472.2	1439.3
37.5°	1460.6	1395.7	1257.3	1227.3	1209.9	1222.5	1266.0	1380.2	1445.1	1419.9	1379.3
40°	1409.3	1339.6	1203.1	1172.1	1149.9	1168.3	1212.8	1325.1	1387.0	1363.8	1317.3
42.5°	1349.3	1283.5	1149.9	1106.3	1043.4	1102.5	1155.7	1269.9	1327.0	1304.7	1248.6
45°	1286.4	1223.4	1093.7	988.2	824.7	997.9	1097.6	1211.8	1257.3	1236.0	1175.0
47.5°	1214.7	1161.5	1036.6	876.0	717.2	885.6	1038.6	1156.7	1191.5	1168.3	1100.5
50°	1151.8	1099.6	976.6	781.1	641.7	791.8	975.7	1094.7	1123.7	1102.5	1027.0
52.5°	1080.2	1034.7	911.8	696.9	585.6	707.5	909.8	1030.8	1054.1	1028.9	953.4
55°	1009.5	968.9	843.1	622.4	536.2	632.0	841.1	965.0	983.4	954.4	876.0
57.5°	937.9	901.1	772.4	555.6	490.7	566.2	777.2	897.3	909.8	873.1	801.4
60°	863.4	832.4	700.8	496.5	446.2	505.3	698.8	829.5	837.2	797.6	728.8
62.5°	788.9	760.8	629.1	442.3	400.7	448.1	634.0	757.9	762.7	725.0	654.3
65°	712.4	686.3	559.5	385.2	357.2	394.9	564.3	683.3	688.2	645.6	581.7
67.5°	633.0	611.7	484.9	341.7	315.5	344.6	494.6	607.9	610.8	569.1	511.1
70°	553.6	535.3	419.1	294.2	274.9	295.2	425.9	524.6	530.4	485.9	439.4
72.5°	472.3	457.8	355.2	244.9	227.5	244.9	359.1	448.1	452.0	415.2	369.7
75°	390.1	379.4	290.4	196.5	182.9	195.5	292.3	371.7	371.7	336.8	301.0
77.5°	310.7	303.0	222.6	151.0	141.3	149.1	223.6	294.2	292.3	265.2	237.1
80°	232.3	226.5	159.7	109.4	102.6	106.5	159.7	217.8	217.8	198.4	164.5
82.5°	166.5	159.7	105.5	71.6	67.8	69.7	103.6	152.0	154.9	140.3	111.3
85°	110.3	94.9	57.1	39.7	36.8	37.7	54.2	88.1	96.8	81.3	58.1
87.5°	48.4	31.9	14.5	5.8	2.9	3.9	11.6	28.1	36.8	24.2	7.7
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°	1804.2	1804.2	1804.2	1804.2	1804.2	1804.2
2.5°	1810.0	1794.5	1800.3	1804.2	1800.3	1817.7
5°	1808.1	1801.3	1800.3	1805.2	1797.4	1814.8
7.5°	1805.2	1801.3	1800.3	1802.3	1792.6	1809.0
10°	1798.4	1792.6	1794.5	1797.4	1784.8	1800.3
12.5°	1785.8	1780.0	1781.0	1790.6	1773.2	1786.8
15°	1764.5	1757.7	1764.5	1775.2	1759.7	1771.3
17.5°	1736.4	1725.8	1737.4	1753.9	1742.2	1752.9
20°	1700.6	1684.2	1696.8	1726.8	1716.1	1729.7
22.5°	1657.1	1636.7	1649.3	1692.9	1690.0	1704.5
25°	1607.7	1583.5	1600.9	1654.2	1660.0	1673.5
27.5°	1552.5	1525.4	1548.7	1611.6	1625.1	1640.6
30°	1492.5	1463.5	1490.6	1564.1	1584.5	1600.9
32.5°	1430.6	1398.6	1429.6	1510.9	1540.0	1561.2
35°	1365.7	1332.8	1367.7	1455.7	1490.6	1511.9
37.5°	1296.0	1264.1	1301.8	1397.7	1439.3	1460.6
40°	1224.4	1188.6	1231.2	1328.9	1384.1	1409.3
42.5°	1150.8	1106.3	1158.6	1264.1	1324.1	1349.3
45°	1068.6	1006.6	1077.3	1195.4	1258.3	1286.4
47.5°	986.3	924.4	996.0	1121.8	1189.6	1214.7
50°	906.9	853.7	910.8	1041.5	1119.9	1151.8
52.5°	834.3	790.8	839.2	963.1	1048.3	1080.2
55°	766.6	732.7	772.4	885.6	972.8	1009.5
57.5°	702.7	681.4	708.5	812.1	903.1	937.9
60°	642.7	628.2	647.5	739.5	820.8	863.4
62.5°	583.7	575.9	590.4	663.0	744.3	788.9
65°	526.5	524.6	532.4	596.2	664.0	712.4
67.5°	469.4	468.5	473.3	525.6	585.6	633.0
70°	412.3	418.1	415.2	449.1	507.2	553.6
72.5°	354.3	363.0	358.1	379.4	435.6	472.3
75°	289.4	301.0	291.3	315.5	350.4	390.1
77.5°	222.6	235.2	223.6	244.9	282.6	310.7
80°	159.7	171.3	161.6	178.1	211.0	232.3
82.5°	100.7	109.4	101.6	118.1	151.0	166.5
85°	44.5	49.4	51.3	63.9	92.9	110.3
87.5°	1.9	1.0	1.9	12.6	32.9	48.4
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)