

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: P520543

Luminaire Tested: **4WSLA-175-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: P520543
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-L930-UNV-U
Description: 4 FOOT, 1750 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

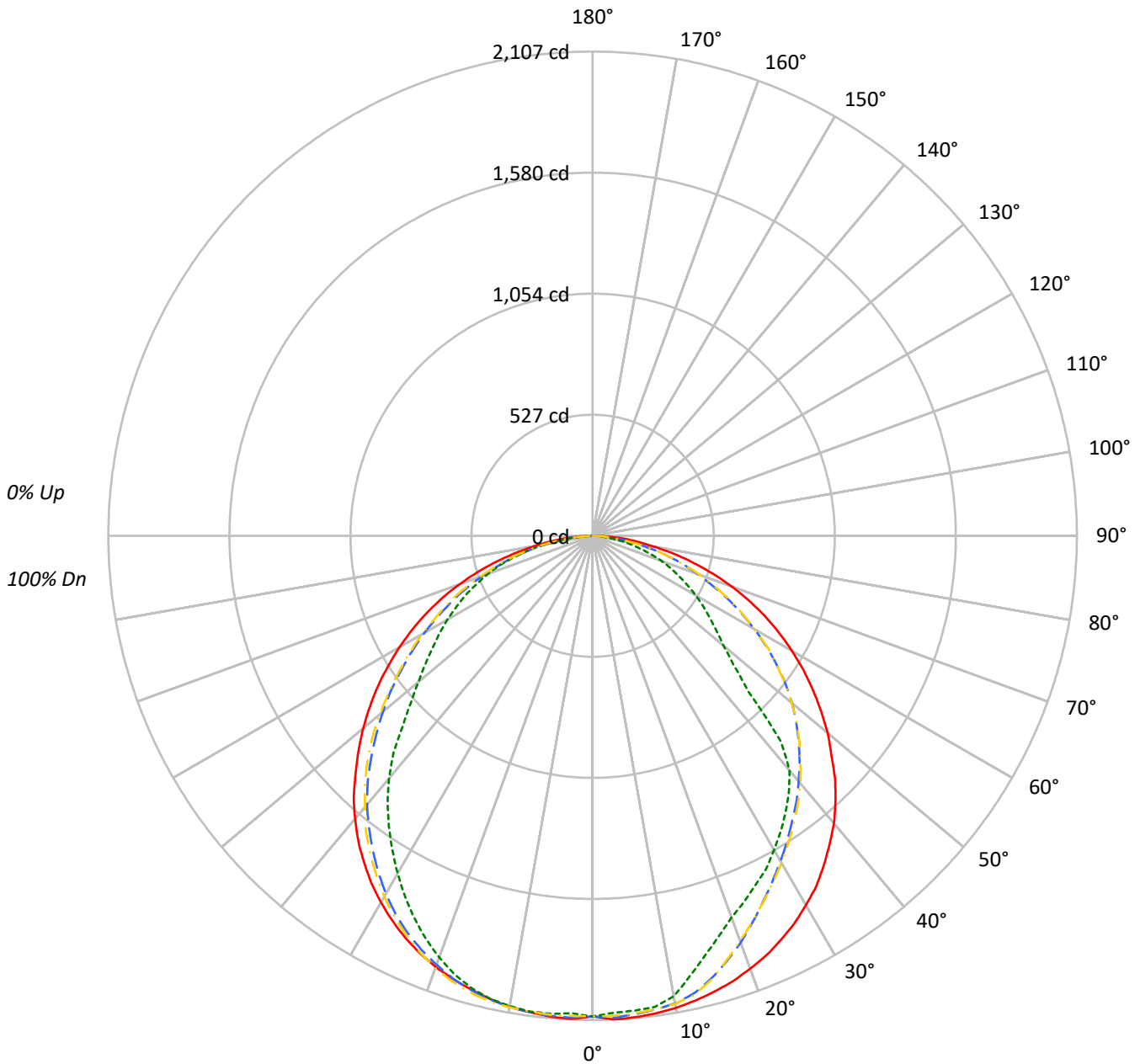
Lumens per Lamp: N/A
Luminaire Lumens: 5610.0 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 59.5
Input Voltage (V): NR
Input Current (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: P520543

CATALOG NUMBER: 4WSLA-175-L930-UNV-U

Luminous Intensity Polar Plot





TEST NUMBER: P520543

CATALOG NUMBER: 4WSLA-175-L930-UNV-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				
RC	80				70				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°	11255	11255	11255	11255
5°	11365	11207	11346	11280
10°	11404	11122	11373	11355
15°	11439	10533	11389	11352
20°	11482	10120	11438	11180
25°	11519	9953	11459	10899
30°	11532	9810	11448	10542
35°	11514	9619	11396	10150
40°	11476	9364	11295	9679
45°	11348	7276	11092	8881
50°	11179	6228	10906	8285
55°	10979	5832	10696	7969
60°	10771	5567	10445	7837
65°	10515	5272	10159	7744
70°	10098	5013	9674	7627
75°	9401	4408	8958	7255
80°	8347	3685	7823	6155
85°	7898	2631	6928	3532



TEST NUMBER: P520543

CATALOG NUMBER: 4WSLA-175-L930-UNV-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	198.7	3.5
10°-20°	566.7	10.1
20°-30°	846.9	15.1
30°-40°	1008.1	18.0
40°-50°	1007.6	18.0
50°-60°	867.0	15.5
60°-70°	652.6	11.6
70°-80°	371.9	6.6
80°-90°	90.5	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°	1612.3	28.7
0°-40°	2620.4	46.7
0°-60°	4495.0	80.1
0°-90°	5610.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5610.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2091	2091	2091	2091	2091	
5°	2104	2074	2100	2088	2104	200
15°	2053	1890	2044	2037	2053	580
25°	1940	1676	1930	1835	1940	894
35°	1752	1464	1734	1545	1752	1096
45°	1491	956	1457	1167	1491	1148
55°	1170	622	1140	849	1170	1046
65°	826	414	798	608	826	815
75°	452	212	431	349	452	479
85°	128	43	112	57	128	139
90°	0	0	0	0	0	



TEST NUMBER: P520543

CATALOG NUMBER: 4WSLA-175-L930-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	2091.2	2091.2	2091.2	2091.2	2091.2	2091.2	2091.2	2091.2	2091.2	2091.2	2091.2
2.5°	2106.9	2087.9	2099.1	2095.7	2077.8	2084.5	2091.2	2084.5	2104.7	2086.7	2099.1
5°	2103.6	2083.4	2090.1	2083.4	2074.4	2076.6	2086.7	2080.0	2100.2	2081.1	2096.8
7.5°	2096.8	2072.2	2078.9	2075.5	2067.7	2068.8	2078.9	2073.3	2091.2	2073.3	2091.2
10°	2086.7	2060.9	2066.5	2052.0	2035.1	2047.5	2067.7	2062.1	2081.1	2060.9	2081.1
12.5°	2071.0	2045.2	2039.6	1991.4	1961.1	1984.6	2046.3	2046.3	2064.3	2045.2	2066.5
15°	2053.1	2025.0	1994.7	1921.8	1890.4	1914.0	1999.2	2028.4	2044.1	2025.0	2046.3
17.5°	2031.8	1999.2	1940.9	1855.6	1826.5	1850.0	1937.5	2001.5	2021.7	2001.5	2020.5
20°	2004.8	1966.7	1883.7	1786.1	1767.0	1788.3	1875.8	1968.9	1997.0	1972.3	1985.8
22.5°	1975.7	1929.7	1819.7	1732.2	1723.2	1736.7	1816.4	1928.5	1965.6	1939.8	1948.7
25°	1939.8	1885.9	1755.8	1682.9	1676.1	1684.0	1758.0	1881.4	1929.7	1902.7	1906.1
27.5°	1901.6	1843.3	1695.2	1641.3	1634.6	1638.0	1699.7	1828.7	1888.2	1861.2	1855.6
30°	1855.6	1792.8	1634.6	1585.2	1578.5	1590.9	1643.6	1774.8	1842.2	1815.2	1798.4
32.5°	1809.6	1737.8	1575.1	1537.0	1523.5	1534.8	1585.2	1718.8	1791.7	1763.6	1735.6
35°	1752.4	1679.5	1513.4	1475.3	1464.1	1476.4	1526.9	1660.4	1734.5	1706.4	1668.3
37.5°	1692.9	1617.8	1457.3	1422.6	1402.4	1417.0	1467.4	1599.8	1675.0	1645.8	1598.7
40°	1633.5	1552.7	1394.5	1358.6	1332.8	1354.1	1405.7	1535.9	1607.7	1580.8	1526.9
42.5°	1563.9	1487.6	1332.8	1282.3	1209.4	1277.8	1339.5	1471.9	1538.1	1512.3	1447.3
45°	1491.0	1418.1	1267.7	1145.5	955.9	1156.7	1272.2	1404.6	1457.3	1432.7	1362.0
47.5°	1408.0	1346.3	1201.6	1015.3	831.3	1026.5	1203.8	1340.7	1381.1	1354.1	1275.6
50°	1335.1	1274.5	1132.0	905.4	743.8	917.7	1130.9	1268.9	1302.5	1277.8	1190.3
52.5°	1252.0	1199.3	1056.8	807.8	678.7	820.1	1054.6	1194.8	1221.7	1192.6	1105.1
55°	1170.1	1123.0	977.2	721.4	621.5	732.6	974.9	1118.5	1139.9	1106.2	1015.3
57.5°	1087.1	1044.5	895.3	644.0	568.8	656.3	900.9	1040.0	1054.6	1012.0	928.9
60°	1000.7	964.8	812.3	575.5	517.2	585.6	810.0	961.5	970.4	924.4	844.8
62.5°	914.3	881.8	729.2	512.7	464.5	519.4	734.8	878.4	884.1	840.3	758.4
65°	825.7	795.4	648.5	446.5	414.0	457.7	654.1	792.1	797.7	748.3	674.3
67.5°	733.7	709.0	562.1	396.0	365.7	399.4	573.3	704.6	707.9	659.7	592.4
70°	641.7	620.4	485.8	341.1	318.6	342.2	493.6	608.1	614.8	563.2	509.3
72.5°	547.5	530.7	411.7	283.8	263.6	283.8	416.2	519.4	523.9	481.3	428.6
75°	452.1	439.8	336.6	227.7	212.0	226.6	338.8	430.8	430.8	390.4	348.9
77.5°	360.1	351.2	258.0	175.0	163.8	172.8	259.2	341.1	338.8	307.4	274.9
80°	269.3	262.5	185.1	126.8	118.9	123.4	185.1	252.4	252.4	230.0	190.7
82.5°	193.0	185.1	122.3	83.0	78.5	80.8	120.0	176.1	179.5	162.7	129.0
85°	127.9	109.9	66.2	46.0	42.6	43.8	62.8	102.1	112.2	94.2	67.3
87.5°	56.1	37.0	16.8	6.7	3.4	4.5	13.5	32.5	42.6	28.0	9.0
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: P520543

CATALOG NUMBER: 4WSLA-175-L930-UNV-U

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	2091.2	2091.2	2091.2	2091.2	2091.2	2091.2
2.5°	2098.0	2080.0	2086.7	2091.2	2086.7	2106.9
5°	2095.7	2087.9	2086.7	2092.3	2083.4	2103.6
7.5°	2092.3	2087.9	2086.7	2089.0	2077.8	2096.8
10°	2084.5	2077.8	2080.0	2083.4	2068.8	2086.7
12.5°	2069.9	2063.2	2064.3	2075.5	2055.3	2071.0
15°	2045.2	2037.4	2045.2	2057.6	2039.6	2053.1
17.5°	2012.7	2000.3	2013.8	2032.9	2019.4	2031.8
20°	1971.2	1952.1	1966.7	2001.5	1989.1	2004.8
22.5°	1920.7	1897.1	1911.7	1962.2	1958.8	1975.7
25°	1863.5	1835.4	1855.6	1917.3	1924.1	1939.8
27.5°	1799.5	1768.1	1795.0	1868.0	1883.7	1901.6
30°	1730.0	1696.3	1727.7	1813.0	1836.6	1855.6
32.5°	1658.2	1621.1	1657.0	1751.3	1784.9	1809.6
35°	1583.0	1544.9	1585.2	1687.3	1727.7	1752.4
37.5°	1502.2	1465.2	1509.0	1620.0	1668.3	1692.9
40°	1419.2	1377.7	1427.1	1540.4	1604.3	1633.5
42.5°	1333.9	1282.3	1342.9	1465.2	1534.8	1563.9
45°	1238.6	1166.8	1248.7	1385.5	1458.5	1491.0
47.5°	1143.2	1071.4	1154.4	1300.3	1378.8	1408.0
50°	1051.2	989.5	1055.7	1207.2	1298.0	1335.1
52.5°	967.1	916.6	972.7	1116.3	1215.0	1252.0
55°	888.5	849.3	895.3	1026.5	1127.5	1170.1
57.5°	814.5	789.8	821.2	941.3	1046.7	1087.1
60°	744.9	728.1	750.6	857.1	951.4	1000.7
62.5°	676.5	667.5	684.4	768.5	862.7	914.3
65°	610.3	608.1	617.0	691.1	769.6	825.7
67.5°	544.1	543.0	548.6	609.2	678.7	733.7
70°	477.9	484.7	481.3	520.6	587.9	641.7
72.5°	410.6	420.7	415.1	439.8	504.9	547.5
75°	335.4	348.9	337.7	365.7	406.1	452.1
77.5°	258.0	272.6	259.2	283.8	327.6	360.1
80°	185.1	198.6	187.4	206.4	244.6	269.3
82.5°	116.7	126.8	117.8	136.9	175.0	193.0
85°	51.6	57.2	59.5	74.0	107.7	127.9
87.5°	2.2	1.1	2.2	14.6	38.1	56.1
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)