

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: P520546

Luminaire Tested: **4WSLA-175-L935-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: P520546
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-L935-UNV-U
Description: 4 FOOT, 1750 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 90 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

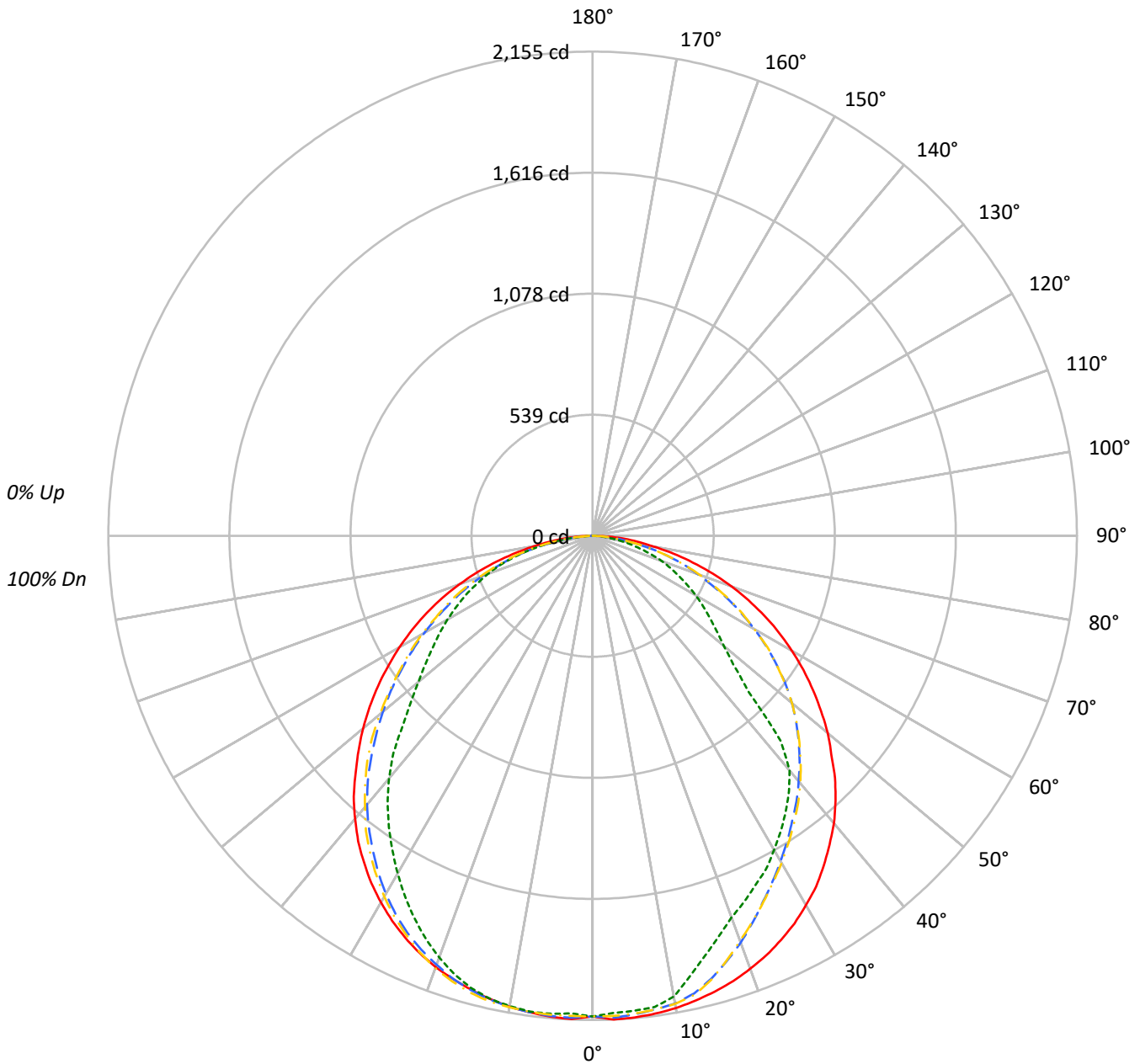
Lumens per Lamp: N/A
Luminaire Lumens: 5739.0 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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

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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°	11514	11514	11514	11514
5°	11626	11465	11607	11539
10°	11666	11378	11635	11616
15°	11702	10775	11651	11613
20°	11746	10353	11700	11438
25°	11784	10182	11722	11150
30°	11797	10035	11711	10784
35°	11778	9840	11657	10383
40°	11740	9579	11555	9902
45°	11609	7442	11348	9085
50°	11436	6371	11157	8476
55°	11232	5966	10942	8152
60°	11019	5695	10686	8018
65°	10757	5393	10392	7922
70°	10331	5128	9896	7802
75°	9617	4510	9164	7421
80°	8536	3772	8003	6295
85°	8077	2692	7089	3612



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.3	3.5
10°-20°	579.8	10.1
20°-30°	866.3	15.1
30°-40°	1031.2	18.0
40°-50°	1030.8	18.0
50°-60°	887.0	15.5
60°-70°	667.6	11.6
70°-80°	380.4	6.6
80°-90°	92.6	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°	1649.4	28.7
0°-40°	2680.6	46.7
0°-60°	4598.4	80.1
0°-90°	5739.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5739.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2139	2139	2139	2139	2139	
5°	2152	2122	2148	2136	2152	205
15°	2100	1934	2091	2084	2100	593
25°	1984	1715	1974	1878	1984	915
35°	1793	1498	1774	1580	1793	1122
45°	1525	978	1491	1194	1525	1175
55°	1197	636	1166	869	1197	1070
65°	845	424	816	622	845	834
75°	462	217	441	357	462	490
85°	131	44	115	58	131	142
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°	2139.3	2139.3	2139.3	2139.3	2139.3	2139.3	2139.3	2139.3	2139.3	2139.3	2139.3
2.5°	2155.4	2135.9	2147.3	2143.9	2125.5	2132.4	2139.3	2132.4	2153.1	2134.7	2147.3
5°	2151.9	2131.3	2138.2	2131.3	2122.1	2124.4	2134.7	2127.8	2148.5	2129.0	2145.0
7.5°	2145.0	2119.8	2126.7	2123.2	2115.2	2116.4	2126.7	2120.9	2139.3	2120.9	2139.3
10°	2134.7	2108.3	2114.1	2099.1	2081.9	2094.5	2115.2	2109.5	2129.0	2108.3	2129.0
12.5°	2118.7	2092.3	2086.5	2037.2	2006.2	2030.3	2093.4	2093.4	2111.8	2092.3	2114.1
15°	2100.3	2071.6	2040.6	1966.0	1933.9	1958.0	2045.2	2075.0	2091.1	2071.6	2093.4
17.5°	2078.5	2045.2	1985.5	1898.3	1868.5	1892.6	1982.1	2047.5	2068.2	2047.5	2067.0
20°	2050.9	2011.9	1927.0	1827.1	1807.6	1829.4	1919.0	2014.2	2042.9	2017.7	2031.4
22.5°	2021.1	1974.0	1861.6	1772.0	1762.9	1776.6	1858.1	1972.9	2010.8	1984.4	1993.6
25°	1984.4	1929.3	1796.1	1721.5	1714.7	1722.7	1798.4	1924.7	1974.0	1946.5	1949.9
27.5°	1945.3	1885.7	1734.2	1679.1	1672.2	1675.6	1738.8	1870.7	1931.6	1904.0	1898.3
30°	1898.3	1834.0	1672.2	1621.7	1614.8	1627.4	1681.4	1815.7	1884.5	1857.0	1839.8
32.5°	1851.2	1777.8	1611.4	1572.3	1558.6	1570.1	1621.7	1758.3	1832.9	1804.2	1775.5
35°	1792.7	1718.1	1548.2	1509.2	1497.7	1510.4	1562.0	1698.6	1774.3	1745.6	1706.6
37.5°	1731.9	1655.0	1490.9	1455.3	1434.6	1449.5	1501.2	1636.6	1713.5	1683.7	1635.5
40°	1671.0	1588.4	1426.6	1389.9	1363.5	1385.3	1438.1	1571.2	1644.7	1617.1	1562.0
42.5°	1599.9	1521.8	1363.5	1311.8	1237.2	1307.2	1370.4	1505.8	1573.5	1547.1	1480.5
45°	1525.3	1450.7	1296.9	1171.8	977.8	1183.3	1301.5	1436.9	1490.9	1465.6	1393.3
47.5°	1440.4	1377.2	1229.2	1038.7	850.4	1050.1	1231.5	1371.5	1412.8	1385.3	1304.9
50°	1365.8	1303.8	1158.0	926.2	760.9	938.8	1156.9	1298.0	1332.5	1307.2	1217.7
52.5°	1280.8	1226.9	1081.1	826.3	694.4	839.0	1078.8	1222.3	1249.8	1220.0	1130.5
55°	1197.0	1148.8	999.6	738.0	635.8	749.4	997.3	1144.3	1166.1	1131.6	1038.7
57.5°	1112.1	1068.5	915.9	658.8	581.9	671.4	921.6	1063.9	1078.8	1035.2	950.3
60°	1023.7	987.0	830.9	588.8	529.1	599.1	828.6	983.6	992.8	945.7	864.2
62.5°	935.4	902.1	746.0	524.5	475.1	531.4	751.7	898.6	904.4	859.6	775.8
65°	844.7	813.7	663.4	456.8	423.5	468.3	669.1	810.3	816.0	765.5	689.8
67.5°	750.6	725.3	575.0	405.1	374.1	408.6	586.5	720.8	724.2	674.8	606.0
70°	656.5	634.7	497.0	348.9	325.9	350.0	505.0	622.1	628.9	576.1	521.1
72.5°	560.1	542.9	421.2	290.4	269.7	290.4	425.8	531.4	536.0	492.4	438.4
75°	462.5	449.9	344.3	233.0	216.9	231.8	346.6	440.7	440.7	399.4	356.9
77.5°	368.4	359.2	264.0	179.0	167.6	176.7	265.1	348.9	346.6	314.5	281.2
80°	275.4	268.6	189.4	129.7	121.7	126.2	189.4	258.2	258.2	235.3	195.1
82.5°	197.4	189.4	125.1	84.9	80.3	82.6	122.8	180.2	183.6	166.4	132.0
85°	130.8	112.5	67.7	47.1	43.6	44.8	64.3	104.4	114.8	96.4	68.9
87.5°	57.4	37.9	17.2	6.9	3.4	4.6	13.8	33.3	43.6	28.7	9.2
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°	2139.3	2139.3	2139.3	2139.3	2139.3	2139.3
2.5°	2146.2	2127.8	2134.7	2139.3	2134.7	2155.4
5°	2143.9	2135.9	2134.7	2140.5	2131.3	2151.9
7.5°	2140.5	2135.9	2134.7	2137.0	2125.5	2145.0
10°	2132.4	2125.5	2127.8	2131.3	2116.4	2134.7
12.5°	2117.5	2110.6	2111.8	2123.2	2102.6	2118.7
15°	2092.3	2084.2	2092.3	2104.9	2086.5	2100.3
17.5°	2059.0	2046.3	2060.1	2079.6	2065.9	2078.5
20°	2016.5	1997.0	2011.9	2047.5	2034.9	2050.9
22.5°	1964.9	1940.8	1955.7	2007.3	2003.9	2021.1
25°	1906.3	1877.6	1898.3	1961.4	1968.3	1984.4
27.5°	1840.9	1808.8	1836.3	1910.9	1927.0	1945.3
30°	1769.8	1735.3	1767.5	1854.7	1878.8	1898.3
32.5°	1696.3	1658.4	1695.2	1791.6	1826.0	1851.2
35°	1619.4	1580.4	1621.7	1726.1	1767.5	1792.7
37.5°	1536.8	1498.9	1543.7	1657.3	1706.6	1731.9
40°	1451.8	1409.4	1459.9	1575.8	1641.2	1671.0
42.5°	1364.6	1311.8	1373.8	1498.9	1570.1	1599.9
45°	1267.1	1193.6	1277.4	1417.4	1492.0	1525.3
47.5°	1169.5	1096.1	1181.0	1330.2	1410.5	1440.4
50°	1075.4	1012.3	1080.0	1234.9	1327.9	1365.8
52.5°	989.3	937.7	995.1	1142.0	1243.0	1280.8
55°	909.0	868.8	915.9	1050.1	1153.4	1197.0
57.5°	833.2	808.0	840.1	962.9	1070.8	1112.1
60°	762.1	744.9	767.8	876.8	973.2	1023.7
62.5°	692.1	682.9	700.1	786.2	882.6	935.4
65°	624.3	622.1	631.2	707.0	787.3	844.7
67.5°	556.6	555.5	561.2	623.2	694.4	750.6
70°	488.9	495.8	492.4	532.5	601.4	656.5
72.5°	420.1	430.4	424.6	449.9	516.5	560.1
75°	343.2	356.9	345.5	374.1	415.5	462.5
77.5°	264.0	278.9	265.1	290.4	335.1	368.4
80°	189.4	203.1	191.7	211.2	250.2	275.4
82.5°	119.4	129.7	120.5	140.0	179.0	197.4
85°	52.8	58.5	60.8	75.7	110.2	130.8
87.5°	2.3	1.1	2.3	14.9	39.0	57.4
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)