

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: P520549

Luminaire Tested: **4WSLA-175-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: P520549
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-L940-UNV-U
Description: 4 FOOT, 1750 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

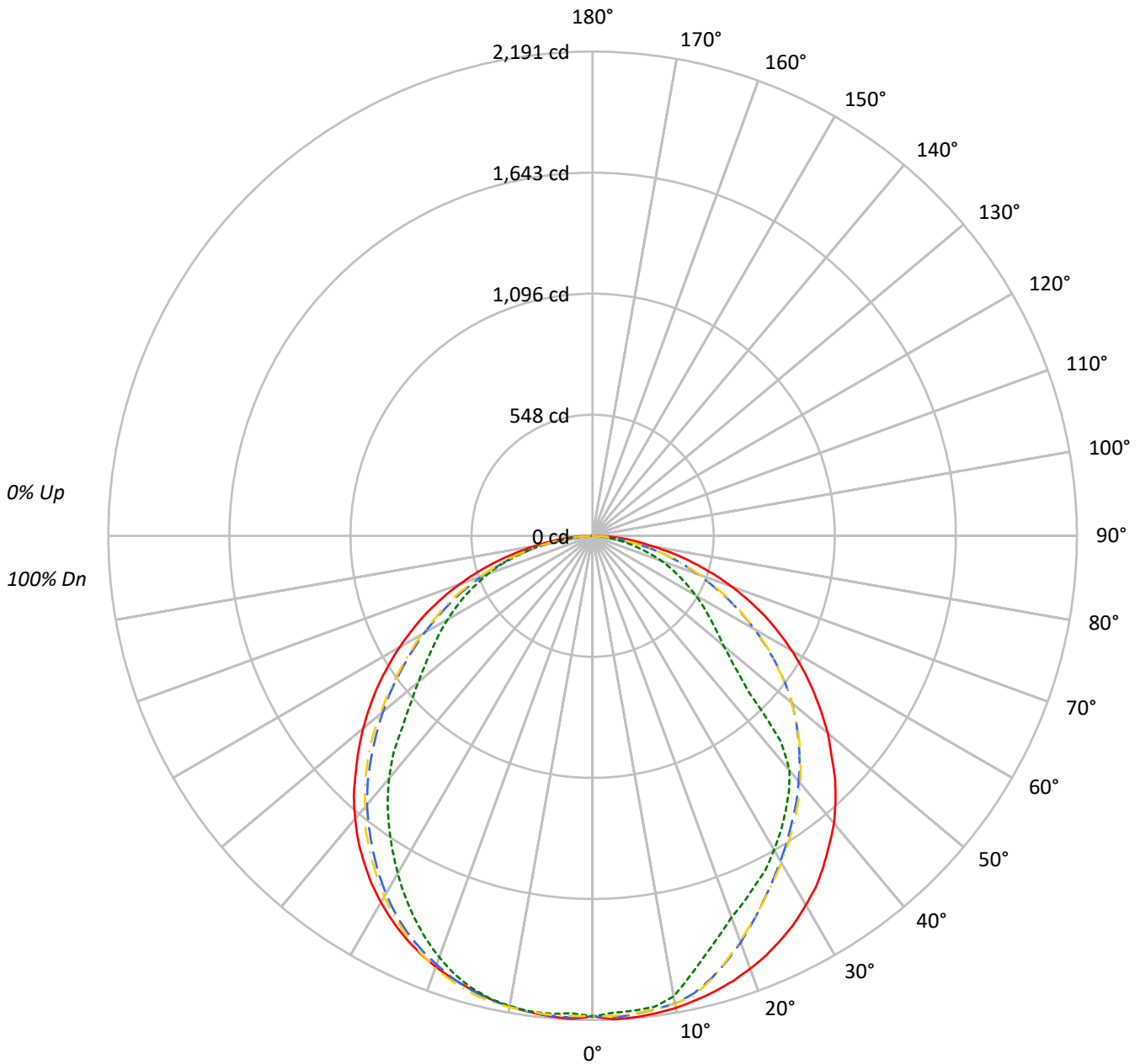
Lumens per Lamp: N/A
Luminaire Lumens: 5833.0 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

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				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			100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84			84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70			70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60			60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51			51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44			44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39			39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34			34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31			31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28			28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25			25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	11702	11702	11702	11702
5°	11816	11653	11797	11728
10°	11857	11564	11826	11807
15°	11894	10951	11842	11803
20°	11939	10522	11892	11625
25°	11977	10349	11915	11333
30°	11990	10200	11903	10961
35°	11971	10002	11849	10554
40°	11932	9736	11744	10064
45°	11800	7565	11533	9234
50°	11622	6476	11339	8615
55°	11416	6063	11121	8285
60°	11200	5789	10861	8149
65°	10933	5481	10562	8051
70°	10499	5213	10058	7929
75°	9775	4585	9314	7544
80°	8678	3831	8136	6400
85°	8213	2736	7200	3674



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.6	3.5
10°-20°	589.3	10.1
20°-30°	880.5	15.1
30°-40°	1048.1	18.0
40°-50°	1047.7	18.0
50°-60°	901.5	15.5
60°-70°	678.5	11.6
70°-80°	386.7	6.6
80°-90°	94.1	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°	1676.4	28.7
0°-40°	2724.5	46.7
0°-60°	4673.7	80.1
0°-90°	5833.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5833.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2174	2174	2174	2174	2174	
5°	2187	2157	2184	2171	2187	208
15°	2135	1966	2125	2118	2135	603
25°	2017	1743	2006	1908	2017	930
35°	1822	1522	1803	1606	1822	1140
45°	1550	994	1515	1213	1550	1194
55°	1217	646	1185	883	1217	1088
65°	858	430	829	632	858	848
75°	470	220	448	363	470	498
85°	133	44	117	60	133	145
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°	2174.3	2174.3	2174.3	2174.3	2174.3	2174.3	2174.3	2174.3	2174.3	2174.3	2174.3
2.5°	2190.7	2170.9	2182.5	2179.0	2160.4	2167.4	2174.3	2167.4	2188.3	2169.7	2182.5
5°	2187.2	2166.2	2173.2	2166.2	2156.9	2159.2	2169.7	2162.7	2183.7	2163.9	2180.2
7.5°	2180.2	2154.5	2161.5	2158.0	2149.9	2151.0	2161.5	2155.7	2174.3	2155.7	2174.3
10°	2169.7	2142.9	2148.7	2133.5	2116.0	2128.9	2149.9	2144.0	2163.9	2142.9	2163.9
12.5°	2153.4	2126.5	2120.7	2070.5	2039.0	2063.5	2127.7	2127.7	2146.4	2126.5	2148.7
15°	2134.7	2105.5	2074.0	1998.2	1965.5	1990.0	2078.7	2109.0	2125.4	2105.5	2127.7
17.5°	2112.5	2078.7	2018.0	1929.4	1899.1	1923.6	2014.5	2081.0	2102.0	2081.0	2100.9
20°	2084.5	2044.9	1958.5	1857.1	1837.2	1859.4	1950.4	2047.2	2076.4	2050.7	2064.7
22.5°	2054.2	2006.4	1892.1	1801.1	1791.7	1805.7	1888.6	2005.2	2043.7	2016.9	2026.2
25°	2016.9	1960.9	1825.6	1749.7	1742.7	1750.9	1827.9	1956.2	2006.4	1978.4	1981.9
27.5°	1977.2	1916.6	1762.6	1706.6	1699.6	1703.1	1767.2	1901.4	1963.2	1935.2	1929.4
30°	1929.4	1864.1	1699.6	1648.3	1641.3	1654.1	1708.9	1845.4	1915.4	1887.4	1869.9
32.5°	1881.6	1806.9	1637.8	1598.1	1584.1	1595.8	1648.3	1787.1	1862.9	1833.7	1804.6
35°	1822.1	1746.2	1573.6	1533.9	1522.3	1535.1	1587.6	1726.4	1803.4	1774.2	1734.6
37.5°	1760.2	1682.1	1515.3	1479.1	1458.1	1473.3	1525.8	1663.4	1741.6	1711.3	1662.3
40°	1698.4	1614.4	1450.0	1412.6	1385.8	1408.0	1461.6	1596.9	1671.6	1643.6	1587.6
42.5°	1626.1	1546.8	1385.8	1333.3	1257.5	1328.6	1392.8	1530.4	1599.3	1572.4	1504.8
45°	1550.3	1474.5	1318.1	1191.0	993.9	1202.7	1322.8	1460.5	1515.3	1489.6	1416.1
47.5°	1464.0	1399.8	1249.3	1055.7	864.4	1067.3	1251.7	1394.0	1436.0	1408.0	1326.3
50°	1388.1	1325.1	1177.0	941.4	773.4	954.2	1175.8	1319.3	1354.3	1328.6	1237.7
52.5°	1301.8	1247.0	1098.8	839.9	705.7	852.7	1096.5	1242.3	1270.3	1240.0	1149.0
55°	1216.7	1167.7	1016.0	750.1	646.2	761.7	1013.7	1163.0	1185.2	1150.2	1055.7
57.5°	1130.3	1086.0	930.9	669.6	591.4	682.4	936.7	1081.3	1096.5	1052.2	965.9
60°	1040.5	1003.2	844.5	598.4	537.8	608.9	842.2	999.7	1009.0	961.2	878.4
62.5°	950.7	916.9	758.2	533.1	482.9	540.1	764.1	913.4	919.2	873.7	788.6
65°	858.5	827.0	674.2	464.3	430.4	475.9	680.1	823.5	829.4	778.1	701.1
67.5°	762.9	737.2	584.4	411.8	380.3	415.3	596.1	732.6	736.1	685.9	615.9
70°	667.2	645.1	505.1	354.6	331.3	355.8	513.3	632.2	639.2	585.6	529.6
72.5°	569.3	551.8	428.1	295.1	274.1	295.1	432.8	540.1	544.8	500.4	445.6
75°	470.1	457.3	349.9	236.8	220.5	235.6	352.3	447.9	447.9	405.9	362.8
77.5°	374.4	365.1	268.3	182.0	170.3	179.6	269.5	354.6	352.3	319.6	285.8
80°	280.0	273.0	192.5	131.8	123.6	128.3	192.5	262.5	262.5	239.1	198.3
82.5°	200.6	192.5	127.1	86.3	81.7	84.0	124.8	183.1	186.6	169.1	134.1
85°	133.0	114.3	68.8	47.8	44.3	45.5	65.3	106.2	116.6	98.0	70.0
87.5°	58.3	38.5	17.5	7.0	3.5	4.7	14.0	33.8	44.3	29.2	9.3
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°	2174.3	2174.3	2174.3	2174.3	2174.3	2174.3
2.5°	2181.3	2162.7	2169.7	2174.3	2169.7	2190.7
5°	2179.0	2170.9	2169.7	2175.5	2166.2	2187.2
7.5°	2175.5	2170.9	2169.7	2172.0	2160.4	2180.2
10°	2167.4	2160.4	2162.7	2166.2	2151.0	2169.7
12.5°	2152.2	2145.2	2146.4	2158.0	2137.0	2153.4
15°	2126.5	2118.4	2126.5	2139.4	2120.7	2134.7
17.5°	2092.7	2079.9	2093.9	2113.7	2099.7	2112.5
20°	2049.5	2029.7	2044.9	2081.0	2068.2	2084.5
22.5°	1997.0	1972.5	1987.7	2040.2	2036.7	2054.2
25°	1937.6	1908.4	1929.4	1993.5	2000.5	2016.9
27.5°	1871.1	1838.4	1866.4	1942.2	1958.5	1977.2
30°	1798.7	1763.7	1796.4	1885.1	1909.6	1929.4
32.5°	1724.1	1685.6	1722.9	1820.9	1855.9	1881.6
35°	1645.9	1606.3	1648.3	1754.4	1796.4	1822.1
37.5°	1561.9	1523.4	1568.9	1684.4	1734.6	1760.2
40°	1475.6	1432.5	1483.8	1601.6	1668.1	1698.4
42.5°	1387.0	1333.3	1396.3	1523.4	1595.8	1626.1
45°	1287.8	1213.2	1298.3	1440.6	1516.4	1550.3
47.5°	1188.7	1114.0	1200.3	1352.0	1433.6	1464.0
50°	1093.0	1028.9	1097.7	1255.2	1349.6	1388.1
52.5°	1005.5	953.0	1011.4	1160.7	1263.3	1301.8
55°	923.9	883.0	930.9	1067.3	1172.3	1216.7
57.5°	846.9	821.2	853.9	978.7	1088.3	1130.3
60°	774.6	757.1	780.4	891.2	989.2	1040.5
62.5°	703.4	694.1	711.6	799.1	897.0	950.7
65°	634.6	632.2	641.6	718.6	800.2	858.5
67.5°	565.8	564.6	570.4	633.4	705.7	762.9
70°	496.9	503.9	500.4	541.3	611.2	667.2
72.5°	426.9	437.4	431.6	457.3	524.9	569.3
75°	348.8	362.8	351.1	380.3	422.3	470.1
77.5°	268.3	283.5	269.5	295.1	340.6	374.4
80°	192.5	206.5	194.8	214.6	254.3	280.0
82.5°	121.3	131.8	122.5	142.3	182.0	200.6
85°	53.7	59.5	61.8	77.0	112.0	133.0
87.5°	2.3	1.2	2.3	15.2	39.7	58.3
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)