

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: P520576

Luminaire Tested: **4WSLA-200-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: P520576
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-200-L950-UNV-U
Description: 4 FOOT, 2000 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

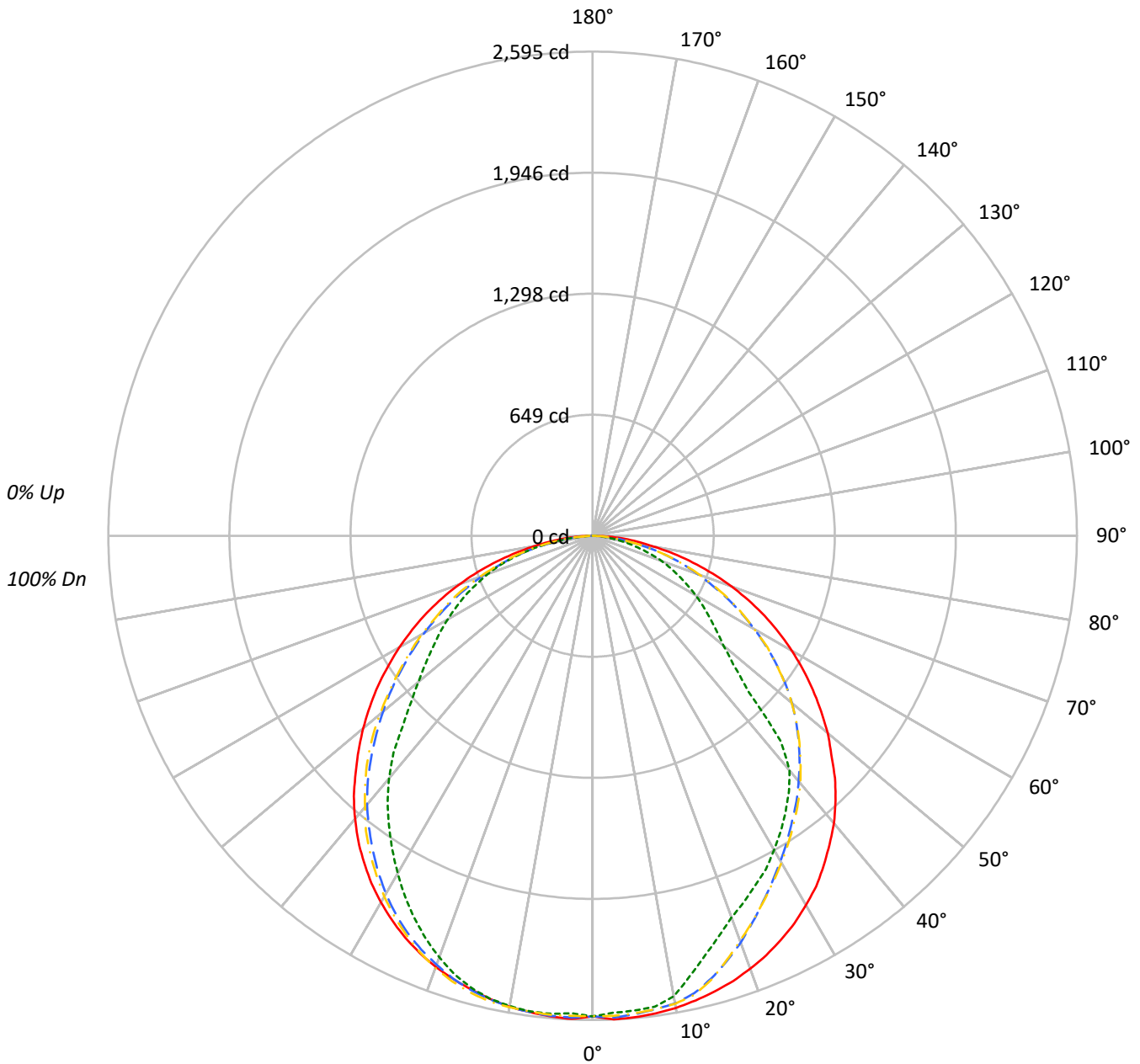
Lumens per Lamp: N/A
Luminaire Lumens: 6909.0 lumens
Efficiency: N/A
Efficacy: 90.6 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 76.3
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			
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°	13861	13861	13861	13861
5°	13996	13802	13974	13891
10°	14044	13697	14007	13984
15°	14088	12972	14026	13980
20°	14141	12463	14086	13769
25°	14186	12258	14112	13423
30°	14202	12081	14099	12983
35°	14180	11847	14035	12500
40°	14133	11532	13910	11920
45°	13976	8960	13661	10937
50°	13767	7670	13431	10203
55°	13522	7182	13172	9814
60°	13267	6857	12865	9652
65°	12950	6492	12511	9537
70°	12436	6175	11915	9393
75°	11578	5429	11033	8935
80°	10277	4541	9636	7581
85°	9726	3242	8534	4353



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.7	3.5
10°-20°	698.0	10.1
20°-30°	1042.9	15.1
30°-40°	1241.5	18.0
40°-50°	1240.9	18.0
50°-60°	1067.8	15.5
60°-70°	803.7	11.6
70°-80°	458.0	6.6
80°-90°	111.5	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°	1985.6	28.7
0°-40°	3227.1	46.7
0°-60°	5535.8	80.1
0°-90°	6909.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6909.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2575	2575	2575	2575	2575	
5°	2591	2555	2586	2571	2591	247
15°	2528	2328	2517	2509	2528	714
25°	2389	2064	2376	2260	2389	1102
35°	2158	1803	2136	1903	2158	1350
45°	1836	1177	1795	1437	1836	1414
55°	1441	765	1404	1046	1441	1288
65°	1017	510	982	749	1017	1004
75°	557	261	531	430	557	589
85°	158	52	138	70	158	171
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°	2575.4	2575.4	2575.4	2575.4	2575.4	2575.4	2575.4	2575.4	2575.4	2575.4	2575.4
2.5°	2594.8	2571.3	2585.1	2581.0	2558.9	2567.2	2575.4	2567.2	2592.0	2569.9	2585.1
5°	2590.6	2565.8	2574.1	2565.8	2554.7	2557.5	2569.9	2561.6	2586.5	2563.0	2582.4
7.5°	2582.4	2552.0	2560.2	2556.1	2546.4	2547.8	2560.2	2553.3	2575.4	2553.3	2575.4
10°	2569.9	2538.1	2545.1	2527.1	2506.4	2521.6	2546.4	2539.5	2563.0	2538.1	2563.0
12.5°	2550.6	2518.8	2511.9	2452.5	2415.2	2444.2	2520.2	2520.2	2542.3	2518.8	2545.1
15°	2528.5	2493.9	2456.6	2366.8	2328.1	2357.1	2462.1	2498.1	2517.4	2493.9	2520.2
17.5°	2502.2	2462.1	2390.3	2285.3	2249.4	2278.4	2386.2	2464.9	2489.8	2464.9	2488.4
20°	2469.1	2422.1	2319.8	2199.6	2176.1	2202.4	2310.2	2424.8	2459.4	2429.0	2445.6
22.5°	2433.1	2376.5	2241.1	2133.3	2122.3	2138.8	2236.9	2375.1	2420.7	2388.9	2400.0
25°	2388.9	2322.6	2162.3	2072.5	2064.2	2073.9	2165.1	2317.1	2376.5	2343.3	2347.5
27.5°	2341.9	2270.1	2087.7	2021.4	2013.1	2017.2	2093.2	2252.1	2325.4	2292.2	2285.3
30°	2285.3	2207.9	2013.1	1952.3	1944.0	1959.2	2024.2	2185.8	2268.7	2235.6	2214.8
32.5°	2228.6	2140.2	1939.9	1892.9	1876.3	1890.1	1952.3	2116.7	2206.5	2172.0	2137.5
35°	2158.2	2068.4	1863.9	1816.9	1803.1	1818.3	1880.5	2044.9	2136.1	2101.5	2054.6
37.5°	2085.0	1992.4	1794.8	1752.0	1727.1	1745.1	1807.2	1970.3	2062.8	2026.9	1968.9
40°	2011.7	1912.2	1717.4	1673.2	1641.4	1667.7	1731.2	1891.5	1979.9	1946.8	1880.5
42.5°	1926.1	1832.1	1641.4	1579.3	1489.4	1573.7	1649.7	1812.8	1894.3	1862.5	1782.4
45°	1836.2	1746.4	1561.3	1410.7	1177.2	1424.5	1566.8	1729.9	1794.8	1764.4	1677.4
47.5°	1734.0	1658.0	1479.8	1250.4	1023.8	1264.2	1482.5	1651.1	1700.8	1667.7	1571.0
50°	1644.2	1569.6	1394.1	1115.0	916.1	1130.2	1392.7	1562.7	1604.1	1573.7	1466.0
52.5°	1542.0	1477.0	1301.5	994.8	835.9	1010.0	1298.8	1471.5	1504.6	1468.7	1361.0
55°	1441.1	1383.1	1203.4	888.4	765.4	902.2	1200.7	1377.5	1403.8	1362.3	1250.4
57.5°	1338.8	1286.3	1102.6	793.1	700.5	808.3	1109.5	1280.8	1298.8	1246.3	1144.0
60°	1232.5	1188.2	1000.3	708.8	637.0	721.2	997.6	1184.1	1195.2	1138.5	1040.4
62.5°	1126.1	1086.0	898.1	631.4	572.0	639.7	905.0	1081.9	1088.8	1034.9	934.0
65°	1016.9	979.6	798.6	549.9	509.8	563.7	805.5	975.5	982.4	921.6	830.4
67.5°	903.6	873.2	692.2	487.7	450.4	491.9	706.0	867.7	871.8	812.4	729.5
70°	790.3	764.1	598.3	420.0	392.4	421.4	607.9	748.9	757.2	693.6	627.3
72.5°	674.3	653.5	507.1	349.6	324.7	349.6	512.6	639.7	645.2	592.7	527.8
75°	556.8	541.6	414.5	280.5	261.1	279.1	417.3	530.6	530.6	480.8	429.7
77.5°	443.5	432.5	317.8	215.5	201.7	212.8	319.2	420.0	417.3	378.6	338.5
80°	331.6	323.3	228.0	156.1	146.5	152.0	228.0	310.9	310.9	283.2	234.9
82.5°	237.6	228.0	150.6	102.2	96.7	99.5	147.8	216.9	221.1	200.3	158.9
85°	157.5	135.4	81.5	56.6	52.5	53.9	77.4	125.7	138.2	116.1	82.9
87.5°	69.1	45.6	20.7	8.3	4.1	5.5	16.6	40.1	52.5	34.5	11.1
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°	2575.4	2575.4	2575.4	2575.4	2575.4	2575.4
2.5°	2583.7	2561.6	2569.9	2575.4	2569.9	2594.8
5°	2581.0	2571.3	2569.9	2576.8	2565.8	2590.6
7.5°	2576.8	2571.3	2569.9	2572.7	2558.9	2582.4
10°	2567.2	2558.9	2561.6	2565.8	2547.8	2569.9
12.5°	2549.2	2540.9	2542.3	2556.1	2531.2	2550.6
15°	2518.8	2509.1	2518.8	2534.0	2511.9	2528.5
17.5°	2478.7	2463.5	2480.1	2503.6	2487.0	2502.2
20°	2427.6	2404.1	2422.1	2464.9	2449.7	2469.1
22.5°	2365.4	2336.4	2354.4	2416.6	2412.4	2433.1
25°	2295.0	2260.4	2285.3	2361.3	2369.6	2388.9
27.5°	2216.2	2177.5	2210.7	2300.5	2319.8	2341.9
30°	2130.5	2089.1	2127.8	2232.8	2261.8	2285.3
32.5°	2042.1	1996.5	2040.7	2156.8	2198.2	2228.6
35°	1949.5	1902.6	1952.3	2078.0	2127.8	2158.2
37.5°	1850.1	1804.5	1858.4	1995.1	2054.6	2085.0
40°	1747.8	1696.7	1757.5	1897.0	1975.8	2011.7
42.5°	1642.8	1579.3	1653.9	1804.5	1890.1	1926.1
45°	1525.4	1436.9	1537.8	1706.4	1796.2	1836.2
47.5°	1407.9	1319.5	1421.7	1601.4	1698.1	1734.0
50°	1294.6	1218.6	1300.2	1486.7	1598.6	1644.2
52.5°	1191.0	1128.8	1197.9	1374.8	1496.4	1542.0
55°	1094.3	1045.9	1102.6	1264.2	1388.6	1441.1
57.5°	1003.1	972.7	1011.4	1159.2	1289.1	1338.8
60°	917.4	896.7	924.3	1055.6	1171.7	1232.5
62.5°	833.2	822.1	842.8	946.4	1062.5	1126.1
65°	751.6	748.9	759.9	851.1	947.8	1016.9
67.5°	670.1	668.7	675.6	750.3	835.9	903.6
70°	588.6	596.9	592.7	641.1	724.0	790.3
72.5°	505.7	518.1	511.2	541.6	621.8	674.3
75°	413.1	429.7	415.9	450.4	500.2	556.8
77.5°	317.8	335.7	319.2	349.6	403.4	443.5
80°	228.0	244.6	230.7	254.2	301.2	331.6
82.5°	143.7	156.1	145.1	168.6	215.5	237.6
85°	63.6	70.5	73.2	91.2	132.6	157.5
87.5°	2.8	1.4	2.8	18.0	47.0	69.1
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)