

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: P520567

Luminaire Tested: **4WSLA-200-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: P520567  
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-L930-UNV-U  
Description: 4 FOOT, 2000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 90 CRI  
LEDS WITH NO UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

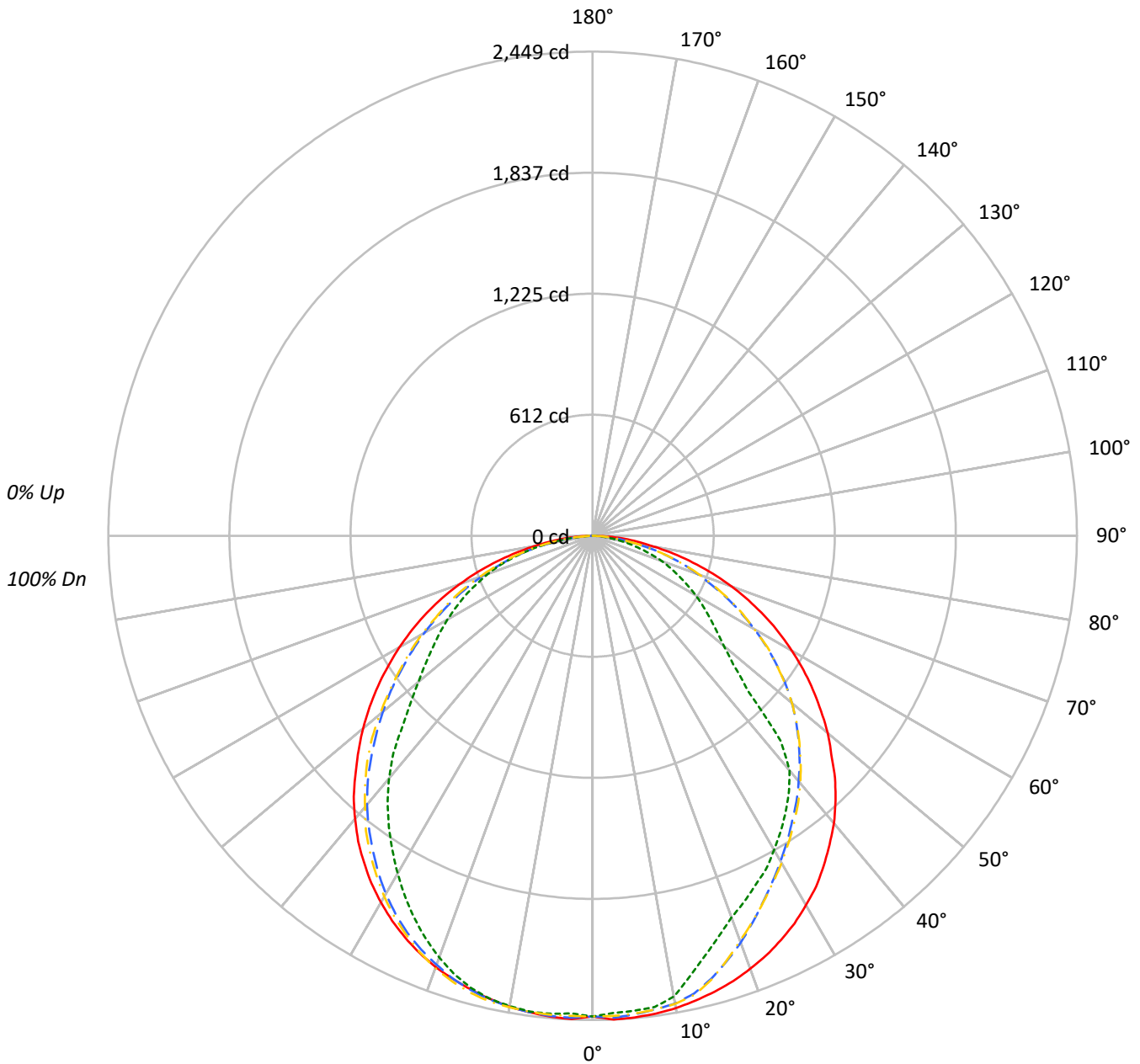
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6522.0 lumens  
Efficiency: N/A  
Efficacy: 85.5 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): 76.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	13085	13085	13085	13085
5°	13212	13029	13191	13114
10°	13258	12930	13222	13201
15°	13299	12245	13241	13197
20°	13349	11765	13297	12998
25°	13392	11571	13322	12671
30°	13407	11404	13309	12256
35°	13385	11183	13248	11800
40°	13342	10886	13131	11253
45°	13193	8458	12896	10325
50°	12995	7240	12679	9632
55°	12765	6780	12435	9264
60°	12523	6472	12144	9112
65°	12225	6129	11809	9002
70°	11740	5829	11246	8867
75°	10929	5126	10414	8434
80°	9701	4286	9097	7156
85°	9182	3063	8052	4106



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	231.0	3.5
10°-20°	658.9	10.1
20°-30°	984.5	15.1
30°-40°	1171.9	18.0
40°-50°	1171.4	18.0
50°-60°	1008.0	15.5
60°-70°	758.7	11.6
70°-80°	432.3	6.6
80°-90°	105.2	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°	1874.4	28.7
0°-40°	3046.3	46.7
0°-60°	5225.8	80.1
0°-90°	6522.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6522.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	2431	2431	2431	2431	2431	
5°	2446	2412	2442	2427	2446	233
15°	2387	2198	2376	2369	2387	674
25°	2255	1949	2243	2134	2255	1040
35°	2037	1702	2016	1796	2037	1275
45°	1733	1111	1694	1356	1733	1335
55°	1360	723	1325	987	1360	1216
65°	960	481	927	707	960	948
75°	526	246	501	406	526	556
85°	149	50	130	66	149	162
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°	2431.2	2431.2	2431.2	2431.2	2431.2	2431.2	2431.2	2431.2	2431.2	2431.2	2431.2
2.5°	2449.4	2427.3	2440.3	2436.4	2415.5	2423.4	2431.2	2423.4	2446.8	2426.0	2440.3
5°	2445.5	2422.1	2429.9	2422.1	2411.6	2414.2	2426.0	2418.1	2441.6	2419.4	2437.7
7.5°	2437.7	2409.0	2416.8	2412.9	2403.8	2405.1	2416.8	2410.3	2431.2	2410.3	2431.2
10°	2426.0	2396.0	2402.5	2385.5	2366.0	2380.3	2403.8	2397.3	2419.4	2396.0	2419.4
12.5°	2407.7	2377.7	2371.2	2315.1	2279.9	2307.3	2379.0	2379.0	2399.9	2377.7	2402.5
15°	2386.8	2354.2	2319.0	2234.2	2197.7	2225.1	2324.2	2358.1	2376.4	2354.2	2379.0
17.5°	2362.1	2324.2	2256.4	2157.3	2123.4	2150.8	2252.5	2326.8	2350.3	2326.8	2349.0
20°	2330.8	2286.4	2189.9	2076.4	2054.2	2079.0	2180.8	2289.0	2321.6	2292.9	2308.6
22.5°	2296.8	2243.4	2115.5	2013.8	2003.4	2019.0	2111.6	2242.1	2285.1	2255.1	2265.5
25°	2255.1	2192.5	2041.2	1956.4	1948.6	1957.7	2043.8	2187.3	2243.4	2212.1	2216.0
27.5°	2210.8	2142.9	1970.8	1908.2	1900.3	1904.3	1976.0	2126.0	2195.1	2163.8	2157.3
30°	2157.3	2084.2	1900.3	1843.0	1835.1	1849.5	1910.8	2063.4	2141.6	2110.3	2090.8
32.5°	2103.8	2020.3	1831.2	1786.9	1771.2	1784.3	1843.0	1998.2	2082.9	2050.3	2017.7
35°	2037.3	1952.5	1759.5	1715.1	1702.1	1716.4	1775.1	1930.3	2016.4	1983.8	1939.5
37.5°	1968.2	1880.8	1694.3	1653.8	1630.4	1647.3	1706.0	1859.9	1947.3	1913.4	1858.6
40°	1899.0	1805.1	1621.2	1579.5	1549.5	1574.3	1634.3	1785.6	1869.0	1837.7	1775.1
42.5°	1818.2	1729.5	1549.5	1490.8	1406.0	1485.6	1557.3	1711.2	1788.2	1758.2	1682.5
45°	1733.4	1648.6	1473.8	1331.7	1111.3	1344.7	1479.1	1633.0	1694.3	1665.6	1583.4
47.5°	1636.9	1565.1	1396.9	1180.4	966.5	1193.4	1399.5	1558.6	1605.6	1574.3	1483.0
50°	1552.1	1481.7	1316.0	1052.6	864.7	1066.9	1314.7	1475.1	1514.3	1485.6	1383.8
52.5°	1455.6	1394.3	1228.6	939.1	789.1	953.4	1226.0	1389.1	1420.4	1386.5	1284.7
55°	1360.4	1305.6	1136.0	838.7	722.6	851.7	1133.4	1300.4	1325.2	1286.0	1180.4
57.5°	1263.9	1214.3	1040.8	748.7	661.3	763.0	1047.3	1209.1	1226.0	1176.5	1079.9
60°	1163.4	1121.7	944.3	669.1	601.3	680.8	941.7	1117.8	1128.2	1074.7	982.1
62.5°	1063.0	1025.2	847.8	596.1	540.0	603.9	854.3	1021.3	1027.8	976.9	881.7
65°	960.0	924.7	753.9	519.1	481.3	532.1	760.4	920.8	927.3	870.0	783.9
67.5°	853.0	824.3	653.4	460.4	425.2	464.3	666.5	819.1	823.0	766.9	688.7
70°	746.1	721.3	564.8	396.5	370.4	397.8	573.9	706.9	714.7	654.8	592.1
72.5°	636.5	616.9	478.7	330.0	306.5	330.0	483.9	603.9	609.1	559.5	498.2
75°	525.6	511.3	391.3	264.8	246.5	263.5	393.9	500.8	500.8	453.9	405.6
77.5°	418.7	408.2	300.0	203.5	190.4	200.9	301.3	396.5	393.9	357.4	319.5
80°	313.0	305.2	215.2	147.4	138.3	143.5	215.2	293.5	293.5	267.4	221.7
82.5°	224.3	215.2	142.2	96.5	91.3	93.9	139.6	204.8	208.7	189.1	150.0
85°	148.7	127.8	77.0	53.5	49.6	50.9	73.0	118.7	130.4	109.6	78.3
87.5°	65.2	43.0	19.6	7.8	3.9	5.2	15.7	37.8	49.6	32.6	10.4
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°	2431.2	2431.2	2431.2	2431.2	2431.2	2431.2
2.5°	2439.0	2418.1	2426.0	2431.2	2426.0	2449.4
5°	2436.4	2427.3	2426.0	2432.5	2422.1	2445.5
7.5°	2432.5	2427.3	2426.0	2428.6	2415.5	2437.7
10°	2423.4	2415.5	2418.1	2422.1	2405.1	2426.0
12.5°	2406.4	2398.6	2399.9	2412.9	2389.4	2407.7
15°	2377.7	2368.6	2377.7	2392.1	2371.2	2386.8
17.5°	2339.9	2325.5	2341.2	2363.4	2347.7	2362.1
20°	2291.6	2269.5	2286.4	2326.8	2312.5	2330.8
22.5°	2232.9	2205.5	2222.5	2281.2	2277.3	2296.8
25°	2166.4	2133.8	2157.3	2229.0	2236.8	2255.1
27.5°	2092.1	2055.6	2086.9	2171.6	2189.9	2210.8
30°	2011.2	1972.1	2008.6	2107.7	2135.1	2157.3
32.5°	1927.7	1884.7	1926.4	2036.0	2075.1	2103.8
35°	1840.3	1796.0	1843.0	1961.6	2008.6	2037.3
37.5°	1746.4	1703.4	1754.3	1883.4	1939.5	1968.2
40°	1649.9	1601.7	1659.0	1790.8	1865.1	1899.0
42.5°	1550.8	1490.8	1561.2	1703.4	1784.3	1818.2
45°	1439.9	1356.5	1451.7	1610.8	1695.6	1733.4
47.5°	1329.1	1245.6	1342.1	1511.7	1603.0	1636.9
50°	1222.1	1150.4	1227.3	1403.4	1509.1	1552.1
52.5°	1124.3	1065.6	1130.8	1297.8	1412.5	1455.6
55°	1033.0	987.3	1040.8	1193.4	1310.8	1360.4
57.5°	946.9	918.2	954.7	1094.3	1216.9	1263.9
60°	866.0	846.5	872.6	996.5	1106.0	1163.4
62.5°	786.5	776.0	795.6	893.4	1003.0	1063.0
65°	709.5	706.9	717.4	803.4	894.7	960.0
67.5°	632.6	631.3	637.8	708.2	789.1	853.0
70°	555.6	563.5	559.5	605.2	683.4	746.1
72.5°	477.4	489.1	482.6	511.3	586.9	636.5
75°	390.0	405.6	392.6	425.2	472.2	525.6
77.5°	300.0	316.9	301.3	330.0	380.9	418.7
80°	215.2	230.9	217.8	240.0	284.3	313.0
82.5°	135.6	147.4	136.9	159.1	203.5	224.3
85°	60.0	66.5	69.1	86.1	125.2	148.7
87.5°	2.6	1.3	2.6	17.0	44.3	65.2
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)