

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: P520468

Luminaire Tested: **4WSLA-100-L850-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: P520468  
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-100-L850-UNV-U  
Description: 4 FOOT, 1000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 5000K, 80 CRI  
LEDS WITH NO UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

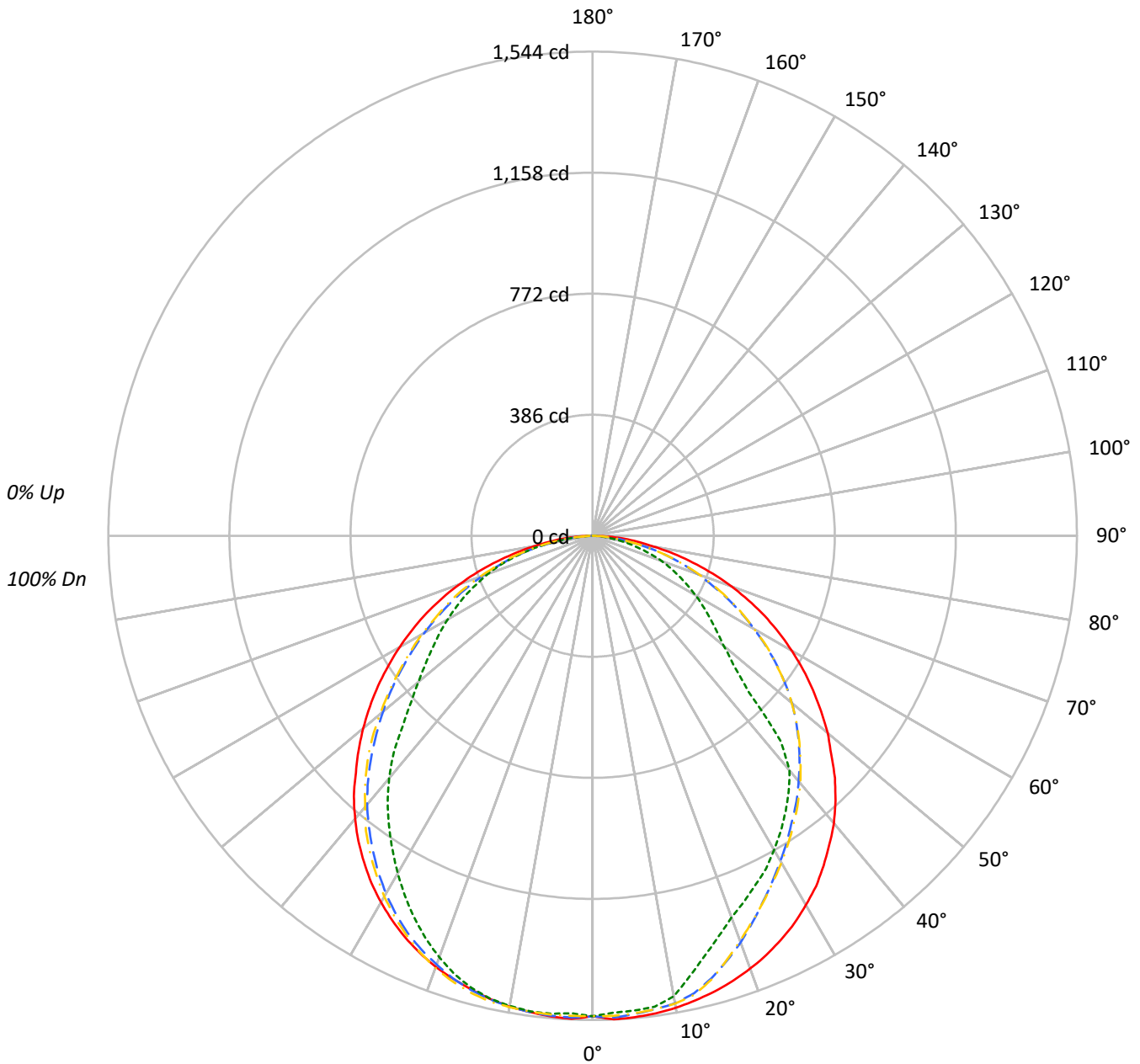
Lumens per Lamp: N/A  
Luminaire Lumens: 4110.0 lumens  
Efficiency: N/A  
Efficacy: 130.1 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 31.6  
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°	8246	8246	8246	8246
5°	8326	8210	8312	8264
10°	8355	8148	8332	8319
15°	8381	7716	8344	8316
20°	8412	7414	8379	8191
25°	8439	7292	8395	7985
30°	8449	7187	8387	7723
35°	8435	7047	8349	7436
40°	8408	6860	8275	7091
45°	8314	5330	8127	6506
50°	8189	4562	7990	6069
55°	8044	4272	7836	5838
60°	7892	4078	7653	5741
65°	7703	3862	7442	5673
70°	7397	3673	7087	5588
75°	6887	3229	6563	5315
80°	6115	2700	5731	4510
85°	5786	1927	5076	2587



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	145.6	3.5
10°-20°	415.2	10.1
20°-30°	620.4	15.1
30°-40°	738.5	18.0
40°-50°	738.2	18.0
50°-60°	635.2	15.5
60°-70°	478.1	11.6
70°-80°	272.4	6.6
80°-90°	66.3	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°	1181.2	28.7
0°-40°	1919.7	46.7
0°-60°	3293.2	80.1
0°-90°	4110.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4110.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1532	1532	1532	1532	1532	
5°	1541	1520	1539	1530	1541	147
15°	1504	1385	1498	1493	1504	425
25°	1421	1228	1414	1345	1421	655
35°	1284	1073	1271	1132	1284	803
45°	1092	700	1068	855	1092	841
55°	857	455	835	622	857	766
65°	605	303	584	446	605	597
75°	331	155	316	256	331	351
85°	94	31	82	42	94	102
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°	1532.1	1532.1	1532.1	1532.1	1532.1	1532.1	1532.1	1532.1	1532.1	1532.1	1532.1
2.5°	1543.6	1529.6	1537.8	1535.4	1522.2	1527.1	1532.1	1527.1	1541.9	1528.8	1537.8
5°	1541.1	1526.3	1531.3	1526.3	1519.7	1521.4	1528.8	1523.9	1538.6	1524.7	1536.2
7.5°	1536.2	1518.1	1523.0	1520.6	1514.8	1515.6	1523.0	1518.9	1532.1	1518.9	1532.1
10°	1528.8	1509.9	1514.0	1503.3	1491.0	1500.0	1514.8	1510.7	1524.7	1509.9	1524.7
12.5°	1517.3	1498.4	1494.3	1458.9	1436.7	1454.0	1499.2	1499.2	1512.3	1498.4	1514.0
15°	1504.1	1483.6	1461.4	1408.0	1384.9	1402.2	1464.7	1486.0	1497.6	1483.6	1499.2
17.5°	1488.5	1464.7	1421.9	1359.5	1338.1	1355.4	1419.5	1466.3	1481.1	1466.3	1480.3
20°	1468.8	1440.8	1380.0	1308.5	1294.5	1310.2	1374.3	1442.5	1463.0	1444.9	1454.8
22.5°	1447.4	1413.7	1333.2	1269.1	1262.5	1272.3	1330.7	1412.9	1440.0	1421.1	1427.7
25°	1421.1	1381.7	1286.3	1232.9	1228.0	1233.7	1288.0	1378.4	1413.7	1394.0	1396.5
27.5°	1393.2	1350.4	1241.9	1202.5	1197.5	1200.0	1245.2	1339.7	1383.3	1363.6	1359.5
30°	1359.5	1313.4	1197.5	1161.4	1156.5	1165.5	1204.1	1300.3	1349.6	1329.9	1317.5
32.5°	1325.8	1273.2	1154.0	1126.0	1116.2	1124.4	1161.4	1259.2	1312.6	1292.1	1271.5
35°	1283.9	1230.4	1108.8	1080.8	1072.6	1081.7	1118.6	1216.5	1270.7	1250.2	1222.2
37.5°	1240.3	1185.2	1067.7	1042.2	1027.4	1038.1	1075.1	1172.1	1227.1	1205.8	1171.2
40°	1196.7	1137.5	1021.7	995.4	976.4	992.1	1029.9	1125.2	1177.8	1158.1	1118.6
42.5°	1145.8	1089.9	976.4	939.5	886.0	936.2	981.4	1078.4	1126.9	1108.0	1060.3
45°	1092.3	1038.9	928.8	839.2	700.3	847.4	932.1	1029.1	1067.7	1049.6	997.8
47.5°	1031.5	986.3	880.3	743.8	609.0	752.1	881.9	982.2	1011.8	992.1	934.5
50°	978.1	933.7	829.3	663.3	544.9	672.3	828.5	929.6	954.3	936.2	872.1
52.5°	917.3	878.6	774.3	591.8	497.3	600.8	772.6	875.4	895.1	873.7	809.6
55°	857.3	822.7	715.9	528.5	455.3	536.7	714.3	819.5	835.1	810.4	743.8
57.5°	796.4	765.2	655.9	471.8	416.7	480.8	660.0	761.9	772.6	741.4	680.6
60°	733.2	706.9	595.1	421.6	378.9	429.0	593.4	704.4	711.0	677.3	618.9
62.5°	669.9	646.0	534.3	375.6	340.3	380.6	538.4	643.6	647.7	615.6	555.6
65°	604.9	582.7	475.1	327.1	303.3	335.3	479.2	580.3	584.4	548.2	494.0
67.5°	537.5	519.5	411.8	290.1	267.9	292.6	420.0	516.2	518.6	483.3	434.0
70°	470.1	454.5	355.9	249.9	233.4	250.7	361.6	445.5	450.4	412.6	373.2
72.5°	401.1	388.8	301.6	207.9	193.2	207.9	304.9	380.6	383.8	352.6	314.0
75°	331.2	322.2	246.6	166.9	155.3	166.0	248.2	315.6	315.6	286.0	255.6
77.5°	263.8	257.3	189.0	128.2	120.0	126.6	189.9	249.9	248.2	225.2	201.4
80°	197.3	192.3	135.6	92.9	87.1	90.4	135.6	184.9	184.9	168.5	139.7
82.5°	141.4	135.6	89.6	60.8	57.5	59.2	87.9	129.0	131.5	119.2	94.5
85°	93.7	80.5	48.5	33.7	31.2	32.1	46.0	74.8	82.2	69.0	49.3
87.5°	41.1	27.1	12.3	4.9	2.5	3.3	9.9	23.8	31.2	20.5	6.6
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°	1532.1	1532.1	1532.1	1532.1	1532.1	1532.1
2.5°	1537.0	1523.9	1528.8	1532.1	1528.8	1543.6
5°	1535.4	1529.6	1528.8	1532.9	1526.3	1541.1
7.5°	1532.9	1529.6	1528.8	1530.4	1522.2	1536.2
10°	1527.1	1522.2	1523.9	1526.3	1515.6	1528.8
12.5°	1516.5	1511.5	1512.3	1520.6	1505.8	1517.3
15°	1498.4	1492.6	1498.4	1507.4	1494.3	1504.1
17.5°	1474.5	1465.5	1475.4	1489.3	1479.5	1488.5
20°	1444.1	1430.2	1440.8	1466.3	1457.3	1468.8
22.5°	1407.1	1389.9	1400.6	1437.6	1435.1	1447.4
25°	1365.2	1344.7	1359.5	1404.7	1409.6	1421.1
27.5°	1318.4	1295.4	1315.1	1368.5	1380.0	1393.2
30°	1267.4	1242.8	1265.8	1328.2	1345.5	1359.5
32.5°	1214.8	1187.7	1214.0	1283.0	1307.7	1325.8
35°	1159.7	1131.8	1161.4	1236.2	1265.8	1283.9
37.5°	1100.6	1073.4	1105.5	1186.9	1222.2	1240.3
40°	1039.7	1009.3	1045.5	1128.5	1175.4	1196.7
42.5°	977.3	939.5	983.8	1073.4	1124.4	1145.8
45°	907.4	854.8	914.8	1015.1	1068.5	1092.3
47.5°	837.5	784.9	845.8	952.6	1010.1	1031.5
50°	770.1	724.9	773.4	884.4	951.0	978.1
52.5°	708.5	671.5	712.6	817.8	890.1	917.3
55°	651.0	622.2	655.9	752.1	826.0	857.3
57.5°	596.7	578.6	601.7	689.6	766.9	796.4
60°	545.8	533.4	549.9	628.0	697.0	733.2
62.5°	495.6	489.0	501.4	563.0	632.1	669.9
65°	447.1	445.5	452.1	506.3	563.8	604.9
67.5°	398.6	397.8	401.9	446.3	497.3	537.5
70°	350.1	355.1	352.6	381.4	430.7	470.1
72.5°	300.8	308.2	304.1	322.2	369.9	401.1
75°	245.8	255.6	247.4	267.9	297.5	331.2
77.5°	189.0	199.7	189.9	207.9	240.0	263.8
80°	135.6	145.5	137.3	151.2	179.2	197.3
82.5°	85.5	92.9	86.3	100.3	128.2	141.4
85°	37.8	41.9	43.6	54.2	78.9	93.7
87.5°	1.6	0.8	1.6	10.7	27.9	41.1
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)