

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: P520459

Luminaire Tested: **4WSLA-100-L830-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: P520459
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-L830-UNV-U
Description: 4 FOOT, 1000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 80 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

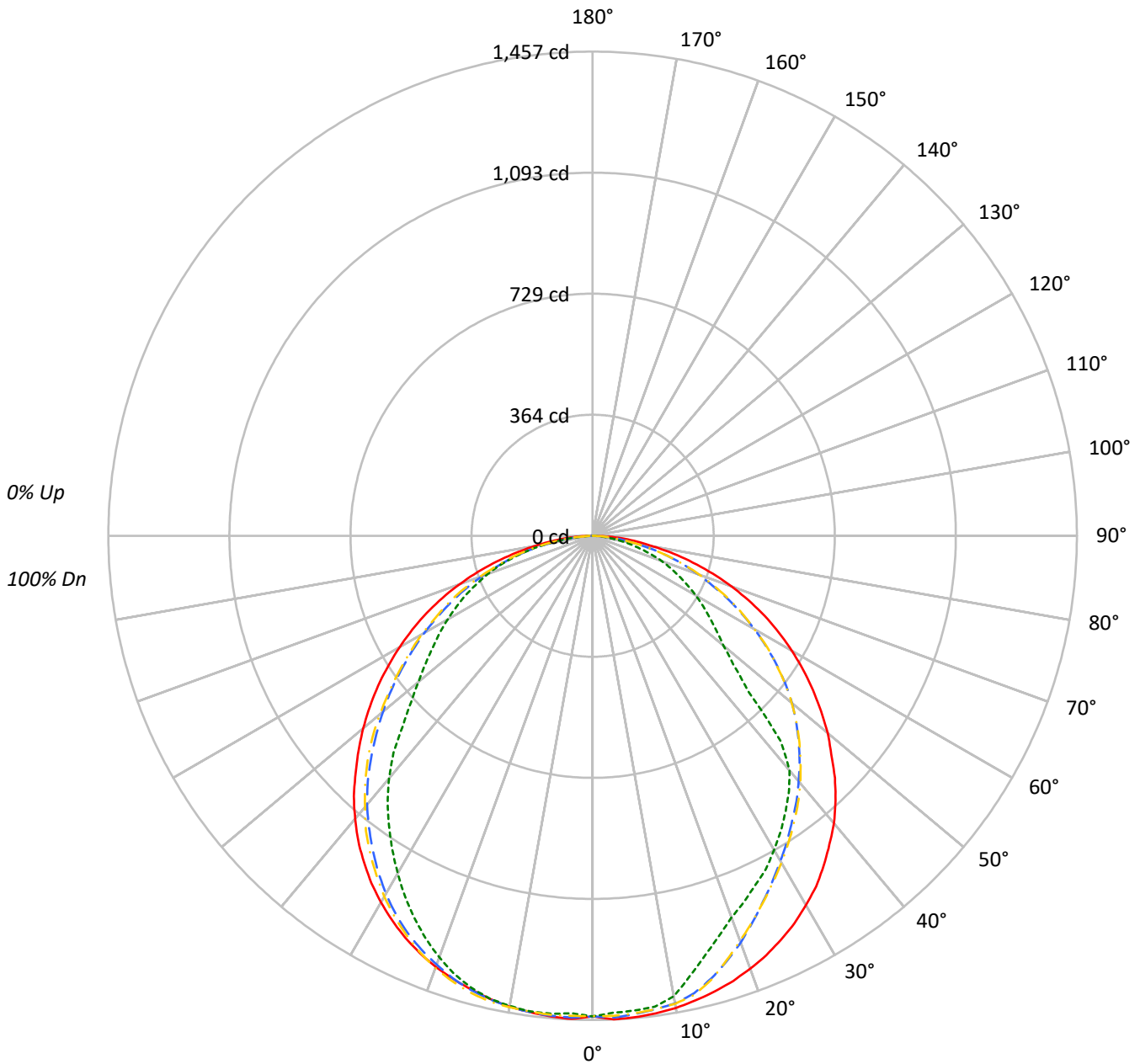
Lumens per Lamp: N/A
Luminaire Lumens: 3879.0 lumens
Efficiency: N/A
Efficacy: 122.8 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.6
Input Voltage (V): NR
Input Current (Ain): 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

TEST NUMBER: P520459

CATALOG NUMBER: 4WSLA-100-L830-UNV-U

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°	7782	7782	7782	7782
5°	7858	7749	7846	7799
10°	7885	7690	7864	7852
15°	7910	7283	7875	7849
20°	7939	6998	7908	7731
25°	7964	6882	7924	7536
30°	7974	6783	7916	7289
35°	7961	6651	7880	7018
40°	7935	6475	7810	6693
45°	7846	5030	7670	6141
50°	7729	4306	7541	5729
55°	7592	4033	7395	5510
60°	7449	3849	7223	5419
65°	7270	3645	7023	5354
70°	6982	3467	6689	5273
75°	6500	3048	6195	5018
80°	5771	2548	5408	4255
85°	5459	1822	4792	2445



TEST NUMBER: P520459

CATALOG NUMBER: 4WSLA-100-L830-UNV-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.4	3.5
10°-20°	391.9	10.1
20°-30°	585.6	15.1
30°-40°	697.0	18.0
40°-50°	696.7	18.0
50°-60°	599.5	15.5
60°-70°	451.2	11.6
70°-80°	257.1	6.6
80°-90°	62.6	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°	1114.8	28.7
0°-40°	1811.8	46.7
0°-60°	3108.1	80.1
0°-90°	3879.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3879.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1446	1446	1446	1446	1446	
5°	1454	1434	1452	1444	1454	138
15°	1420	1307	1413	1409	1420	401
25°	1341	1159	1334	1269	1341	618
35°	1212	1012	1199	1068	1212	758
45°	1031	661	1008	807	1031	794
55°	809	430	788	587	809	723
65°	571	286	552	420	571	564
75°	313	147	298	241	313	331
85°	88	30	78	40	88	96
90°	0	0	0	0	0	



TEST NUMBER: P520459

CATALOG NUMBER: 4WSLA-100-L830-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1446.0	1446.0	1446.0	1446.0	1446.0	1446.0	1446.0	1446.0	1446.0	1446.0	1446.0
2.5°	1456.8	1443.6	1451.4	1449.1	1436.7	1441.3	1446.0	1441.3	1455.3	1442.9	1451.4
5°	1454.5	1440.5	1445.2	1440.5	1434.3	1435.9	1442.9	1438.2	1452.2	1439.0	1449.8
7.5°	1449.8	1432.8	1437.4	1435.1	1429.7	1430.4	1437.4	1433.6	1446.0	1433.6	1446.0
10°	1442.9	1425.0	1428.9	1418.8	1407.2	1415.7	1429.7	1425.8	1439.0	1425.0	1439.0
12.5°	1432.0	1414.2	1410.3	1376.9	1356.0	1372.3	1414.9	1414.9	1427.3	1414.2	1428.9
15°	1419.6	1400.2	1379.3	1328.8	1307.1	1323.4	1382.4	1402.5	1413.4	1400.2	1414.9
17.5°	1404.8	1382.4	1342.0	1283.1	1262.9	1279.2	1339.7	1383.9	1397.9	1383.9	1397.1
20°	1386.2	1359.9	1302.5	1235.0	1221.8	1236.5	1297.0	1361.4	1380.8	1363.7	1373.0
22.5°	1366.1	1334.3	1258.2	1197.7	1191.5	1200.8	1255.9	1333.5	1359.1	1341.2	1347.4
25°	1341.2	1304.0	1214.0	1163.6	1158.9	1164.4	1215.6	1300.9	1334.3	1315.6	1318.0
27.5°	1314.9	1274.5	1172.1	1134.9	1130.2	1132.6	1175.2	1264.4	1305.6	1286.9	1283.1
30°	1283.1	1239.6	1130.2	1096.1	1091.5	1100.0	1136.4	1227.2	1273.8	1255.1	1243.5
32.5°	1251.3	1201.6	1089.1	1062.8	1053.4	1061.2	1096.1	1188.4	1238.8	1219.4	1200.1
35°	1211.7	1161.3	1046.5	1020.1	1012.3	1020.9	1055.8	1148.1	1199.3	1179.9	1153.5
37.5°	1170.6	1118.6	1007.7	983.6	969.7	979.7	1014.7	1106.2	1158.2	1138.0	1105.4
40°	1129.5	1073.6	964.2	939.4	921.6	936.3	972.0	1062.0	1111.6	1093.0	1055.8
42.5°	1081.4	1028.6	921.6	886.7	836.2	883.6	926.2	1017.8	1063.5	1045.7	1000.7
45°	1030.9	980.5	876.6	792.0	660.9	799.8	879.7	971.2	1007.7	990.6	941.7
47.5°	973.5	930.9	830.8	702.0	574.8	709.8	832.4	927.0	954.9	936.3	882.0
50°	923.1	881.2	782.7	626.0	514.3	634.5	781.9	877.4	900.6	883.6	823.1
52.5°	865.7	829.3	730.7	558.5	469.3	567.1	729.2	826.2	844.8	824.6	764.1
55°	809.1	776.5	675.7	498.8	429.8	506.6	674.1	773.4	788.1	764.9	702.0
57.5°	751.7	722.2	619.0	445.3	393.3	453.8	622.9	719.1	729.2	699.7	642.3
60°	692.0	667.1	561.6	398.0	357.6	404.9	560.1	664.8	671.0	639.2	584.1
62.5°	632.2	609.7	504.2	354.5	321.2	359.2	508.1	607.4	611.3	581.0	524.4
65°	570.9	550.0	448.4	308.7	286.2	316.5	452.3	547.7	551.5	517.4	466.2
67.5°	507.3	490.3	388.6	273.8	252.9	276.2	396.4	487.2	489.5	456.1	409.6
70°	443.7	429.0	335.9	235.8	220.3	236.6	341.3	420.4	425.1	389.4	352.2
72.5°	378.6	366.9	284.7	196.3	182.3	196.3	287.8	359.2	362.3	332.8	296.3
75°	312.6	304.1	232.7	157.5	146.6	156.7	234.3	297.9	297.9	270.0	241.3
77.5°	249.0	242.8	178.4	121.0	113.3	119.5	179.2	235.8	234.3	212.6	190.1
80°	186.2	181.5	128.0	87.7	82.2	85.3	128.0	174.5	174.5	159.0	131.9
82.5°	133.4	128.0	84.6	57.4	54.3	55.9	83.0	121.8	124.1	112.5	89.2
85°	88.4	76.0	45.8	31.8	29.5	30.3	43.4	70.6	77.6	65.2	46.5
87.5°	38.8	25.6	11.6	4.7	2.3	3.1	9.3	22.5	29.5	19.4	6.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P520459

CATALOG NUMBER: 4WSLA-100-L830-UNV-U

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1446.0	1446.0	1446.0	1446.0	1446.0	1446.0
2.5°	1450.6	1438.2	1442.9	1446.0	1442.9	1456.8
5°	1449.1	1443.6	1442.9	1446.7	1440.5	1454.5
7.5°	1446.7	1443.6	1442.9	1444.4	1436.7	1449.8
10°	1441.3	1436.7	1438.2	1440.5	1430.4	1442.9
12.5°	1431.2	1426.6	1427.3	1435.1	1421.1	1432.0
15°	1414.2	1408.7	1414.2	1422.7	1410.3	1419.6
17.5°	1391.7	1383.1	1392.4	1405.6	1396.3	1404.8
20°	1363.0	1349.8	1359.9	1383.9	1375.4	1386.2
22.5°	1328.1	1311.8	1321.8	1356.8	1354.4	1366.1
25°	1288.5	1269.1	1283.1	1325.7	1330.4	1341.2
27.5°	1244.3	1222.6	1241.2	1291.6	1302.5	1314.9
30°	1196.2	1172.9	1194.6	1253.6	1269.9	1283.1
32.5°	1146.5	1120.9	1145.8	1210.9	1234.2	1251.3
35°	1094.6	1068.2	1096.1	1166.7	1194.6	1211.7
37.5°	1038.7	1013.1	1043.4	1120.2	1153.5	1170.6
40°	981.3	952.6	986.7	1065.1	1109.3	1129.5
42.5°	922.3	886.7	928.6	1013.1	1061.2	1081.4
45°	856.4	806.8	863.4	958.0	1008.5	1030.9
47.5°	790.5	740.8	798.2	899.1	953.4	973.5
50°	726.9	684.2	730.0	834.7	897.5	923.1
52.5°	668.7	633.8	672.6	771.9	840.1	865.7
55°	614.4	587.2	619.0	709.8	779.6	809.1
57.5°	563.2	546.1	567.8	650.8	723.8	751.7
60°	515.1	503.4	519.0	592.7	657.8	692.0
62.5°	467.8	461.6	473.2	531.4	596.5	632.2
65°	422.0	420.4	426.7	477.9	532.2	570.9
67.5°	376.2	375.5	379.3	421.2	469.3	507.3
70°	330.5	335.1	332.8	359.9	406.5	443.7
72.5°	283.9	290.9	287.0	304.1	349.1	378.6
75°	231.9	241.3	233.5	252.9	280.8	312.6
77.5°	178.4	188.5	179.2	196.3	226.5	249.0
80°	128.0	137.3	129.5	142.7	169.1	186.2
82.5°	80.7	87.7	81.5	94.6	121.0	133.4
85°	35.7	39.6	41.1	51.2	74.5	88.4
87.5°	1.6	0.8	1.6	10.1	26.4	38.8
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)