

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: P520462

Luminaire Tested: **4WSLA-100-L835-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: P520462
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-L835-UNV-U
Description: 4 FOOT, 1000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 80 CRI
LEDS WITH NO UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

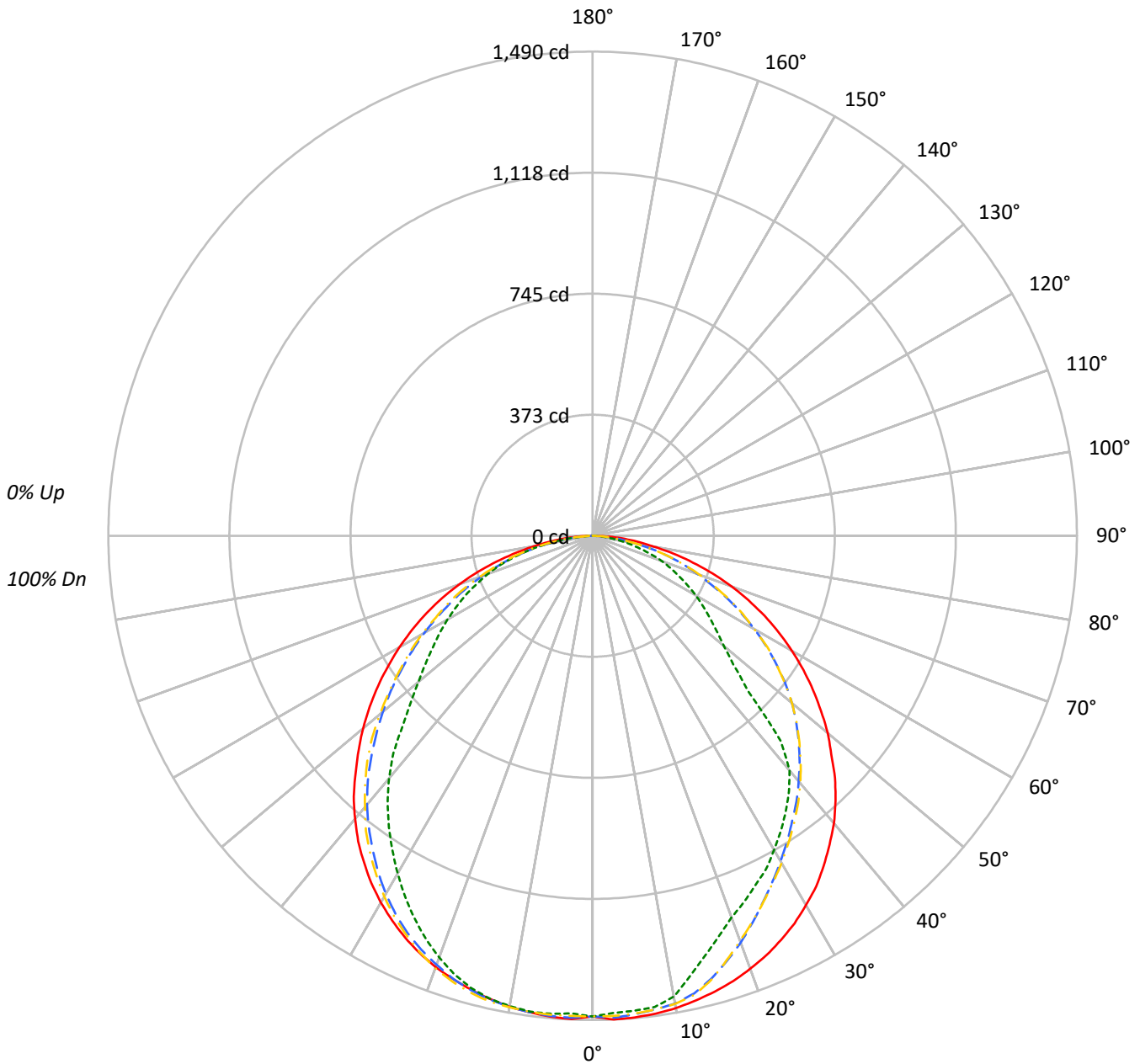
Lumens per Lamp: N/A
Luminaire Lumens: 3968.0 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.6
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

TEST NUMBER: P520462

CATALOG NUMBER: 4WSLA-100-L835-UNV-U

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°	7960	7960	7960	7960
5°	8038	7927	8025	7978
10°	8066	7867	8044	8031
15°	8091	7450	8056	8029
20°	8121	7158	8090	7908
25°	8147	7040	8105	7709
30°	8157	6939	8098	7456
35°	8144	6804	8060	7179
40°	8117	6623	7989	6846
45°	8027	5146	7846	6282
50°	7906	4405	7714	5860
55°	7766	4125	7565	5636
60°	7619	3937	7388	5543
65°	7437	3729	7185	5477
70°	7142	3547	6843	5394
75°	6650	3119	6336	5132
80°	5901	2607	5532	4355
85°	5588	1865	4903	2501



TEST NUMBER: P520462

CATALOG NUMBER: 4WSLA-100-L835-UNV-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.5	3.5
10°-20°	400.9	10.1
20°-30°	599.0	15.1
30°-40°	713.0	18.0
40°-50°	712.7	18.0
50°-60°	613.3	15.5
60°-70°	461.6	11.6
70°-80°	263.0	6.6
80°-90°	64.0	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°	1140.4	28.7
0°-40°	1853.4	46.7
0°-60°	3179.4	80.1
0°-90°	3968.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3968.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1479	1479	1479	1479	1479	
5°	1488	1467	1486	1477	1488	142
15°	1452	1337	1446	1441	1452	410
25°	1372	1186	1365	1298	1372	633
35°	1240	1036	1227	1093	1240	776
45°	1055	676	1031	825	1055	812
55°	828	440	806	601	828	740
65°	584	293	564	430	584	577
75°	320	150	305	247	320	339
85°	90	30	79	40	90	98
90°	0	0	0	0	0	



TEST NUMBER: P520462

CATALOG NUMBER: 4WSLA-100-L835-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1479.1	1479.1	1479.1	1479.1	1479.1	1479.1	1479.1	1479.1	1479.1	1479.1	1479.1
2.5°	1490.2	1476.8	1484.7	1482.3	1469.6	1474.4	1479.1	1474.4	1488.7	1476.0	1484.7
5°	1487.9	1473.6	1478.3	1473.6	1467.2	1468.8	1476.0	1471.2	1485.5	1472.0	1483.1
7.5°	1483.1	1465.6	1470.4	1468.0	1462.5	1463.3	1470.4	1466.4	1479.1	1466.4	1479.1
10°	1476.0	1457.7	1461.7	1451.4	1439.5	1448.2	1462.5	1458.5	1472.0	1457.7	1472.0
12.5°	1464.9	1446.6	1442.6	1408.5	1387.1	1403.8	1447.4	1447.4	1460.1	1446.6	1461.7
15°	1452.2	1432.3	1410.9	1359.3	1337.1	1353.8	1414.1	1434.7	1445.8	1432.3	1447.4
17.5°	1437.1	1414.1	1372.8	1312.5	1291.9	1308.5	1370.4	1415.7	1429.9	1415.7	1429.1
20°	1418.0	1391.1	1332.3	1263.3	1249.8	1264.9	1326.8	1392.6	1412.5	1395.0	1404.5
22.5°	1397.4	1364.9	1287.1	1225.2	1218.9	1228.4	1284.7	1364.1	1390.3	1372.0	1378.4
25°	1372.0	1333.9	1241.9	1190.3	1185.5	1191.1	1243.5	1330.7	1364.9	1345.8	1348.2
27.5°	1345.0	1303.8	1199.0	1160.9	1156.2	1158.6	1202.2	1293.5	1335.5	1316.5	1312.5
30°	1312.5	1268.1	1156.2	1121.3	1116.5	1125.2	1162.5	1255.4	1303.0	1283.9	1272.0
32.5°	1280.0	1229.2	1114.1	1087.1	1077.6	1085.5	1121.3	1215.7	1267.3	1247.4	1227.6
35°	1239.5	1187.9	1070.5	1043.5	1035.6	1044.3	1080.0	1174.4	1226.8	1207.0	1180.0
37.5°	1197.4	1144.3	1030.8	1006.2	991.9	1002.2	1037.9	1131.6	1184.7	1164.1	1130.8
40°	1155.4	1098.2	986.4	961.0	942.7	957.8	994.3	1086.3	1137.1	1118.1	1080.0
42.5°	1106.2	1052.2	942.7	907.0	855.4	903.8	947.5	1041.1	1087.9	1069.7	1023.7
45°	1054.6	1003.0	896.7	810.2	676.1	818.1	899.9	993.5	1030.8	1013.3	963.3
47.5°	995.9	952.2	849.9	718.1	588.0	726.1	851.5	948.3	976.8	957.8	902.2
50°	944.3	901.4	800.7	640.4	526.1	649.1	799.9	897.5	921.3	903.8	841.9
52.5°	885.6	848.3	747.5	571.3	480.1	580.1	745.9	845.1	864.2	843.5	781.6
55°	827.7	794.3	691.2	510.2	439.6	518.2	689.6	791.1	806.2	782.4	718.1
57.5°	768.9	738.8	633.2	455.5	402.3	464.2	637.2	735.6	745.9	715.8	657.0
60°	707.8	682.4	574.5	407.1	365.8	414.2	572.9	680.1	686.4	653.9	597.5
62.5°	646.7	623.7	515.8	362.6	328.5	367.4	519.8	621.3	625.3	594.4	536.4
65°	584.0	562.6	458.7	315.8	292.8	323.8	462.6	560.2	564.2	529.3	476.9
67.5°	519.0	501.5	397.6	280.1	258.7	282.5	405.5	498.3	500.7	466.6	419.0
70°	453.9	438.8	343.6	241.2	225.4	242.0	349.2	430.1	434.9	398.4	360.3
72.5°	387.2	375.3	291.2	200.8	186.5	200.8	294.4	367.4	370.6	340.4	303.1
75°	319.8	311.1	238.1	161.1	150.0	160.3	239.6	304.7	304.7	276.1	246.8
77.5°	254.7	248.4	182.5	123.8	115.9	122.2	183.3	241.2	239.6	217.4	194.4
80°	190.4	185.7	130.9	89.7	84.1	87.3	130.9	178.5	178.5	162.7	134.9
82.5°	136.5	130.9	86.5	58.7	55.5	57.1	84.9	124.6	127.0	115.1	91.3
85°	90.5	77.8	46.8	32.5	30.2	30.9	44.4	72.2	79.4	66.7	47.6
87.5°	39.7	26.2	11.9	4.8	2.4	3.2	9.5	23.0	30.2	19.8	6.3
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: P520462

CATALOG NUMBER: 4WSLA-100-L835-UNV-U

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1479.1	1479.1	1479.1	1479.1	1479.1	1479.1
2.5°	1483.9	1471.2	1476.0	1479.1	1476.0	1490.2
5°	1482.3	1476.8	1476.0	1479.9	1473.6	1487.9
7.5°	1479.9	1476.8	1476.0	1477.6	1469.6	1483.1
10°	1474.4	1469.6	1471.2	1473.6	1463.3	1476.0
12.5°	1464.1	1459.3	1460.1	1468.0	1453.7	1464.9
15°	1446.6	1441.0	1446.6	1455.3	1442.6	1452.2
17.5°	1423.6	1414.9	1424.4	1437.9	1428.4	1437.1
20°	1394.2	1380.7	1391.1	1415.7	1406.9	1418.0
22.5°	1358.5	1341.9	1352.2	1387.9	1385.5	1397.4
25°	1318.1	1298.2	1312.5	1356.1	1360.9	1372.0
27.5°	1272.8	1250.6	1269.6	1321.2	1332.3	1345.0
30°	1223.6	1199.8	1222.0	1282.3	1299.0	1312.5
32.5°	1172.8	1146.7	1172.0	1238.7	1262.5	1280.0
35°	1119.7	1092.7	1121.3	1193.5	1222.0	1239.5
37.5°	1062.5	1036.3	1067.3	1145.9	1180.0	1197.4
40°	1003.8	974.5	1009.4	1089.5	1134.7	1155.4
42.5°	943.5	907.0	949.9	1036.3	1085.5	1106.2
45°	876.1	825.3	883.2	980.0	1031.6	1054.6
47.5°	808.6	757.8	816.5	919.7	975.2	995.9
50°	743.5	699.9	746.7	853.8	918.1	944.3
52.5°	684.0	648.3	688.0	789.6	859.4	885.6
55°	628.5	600.7	633.2	726.1	797.5	827.7
57.5°	576.1	558.6	580.9	665.8	740.4	768.9
60°	526.9	515.0	530.9	606.3	672.9	707.8
62.5°	478.5	472.2	484.1	543.6	610.2	646.7
65°	431.7	430.1	436.4	488.8	544.4	584.0
67.5°	384.9	384.1	388.0	430.9	480.1	519.0
70°	338.0	342.8	340.4	368.2	415.8	453.9
72.5°	290.4	297.6	293.6	311.1	357.1	387.2
75°	237.3	246.8	238.9	258.7	287.3	319.8
77.5°	182.5	192.8	183.3	200.8	231.7	254.7
80°	130.9	140.5	132.5	146.0	173.0	190.4
82.5°	82.5	89.7	83.3	96.8	123.8	136.5
85°	36.5	40.5	42.1	52.4	76.2	90.5
87.5°	1.6	0.8	1.6	10.3	27.0	39.7
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)