

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: P520469

Luminaire Tested: **4WSLA-100-L850-UPL15-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: P520469
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-174-4)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4WSLA-100-L850-UPL15-UNV-U
Description: 4 FOOT, 1000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 5000K, 80 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

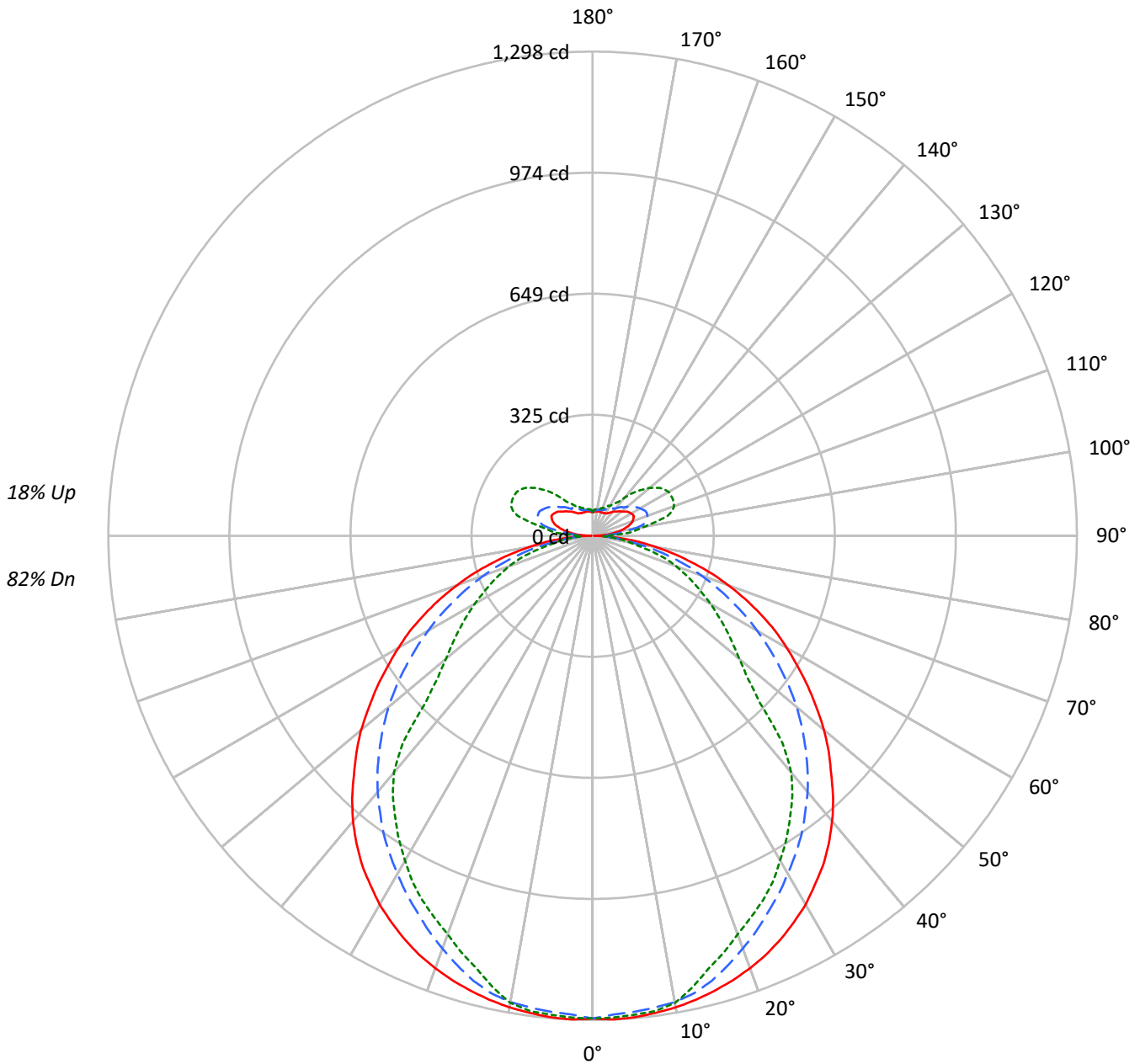
Lumens per Lamp: N/A
Luminaire Lumens: 4191.0 lumens
Efficiency: N/A
Efficacy: 132.6 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

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: P520469

CATALOG NUMBER: 4WSLA-100-L850-UPL15-UNV-U

Luminous Intensity Polar Plot





TEST NUMBER: P520469

CATALOG NUMBER: 4WSLA-100-L850-UPL15-UNV-U

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	115	115	115	115	110	110	110	110	101	101	101	93	93	93	86	86	86	82																			
1	105	100	96	92	100	96	93	89	89	86	83	82	80	78	76	74	72	69																			
2	96	88	81	76	91	84	78	73	78	73	69	72	68	65	67	64	61	58																			
3	87	77	69	63	83	74	67	61	69	63	58	64	59	55	59	55	52	49																			
4	80	68	60	53	76	66	58	52	61	55	50	57	51	47	53	48	45	42																			
5	73	61	52	46	70	59	51	45	55	48	43	51	45	41	48	43	39	36																			
6	68	55	46	40	65	53	45	39	50	43	38	46	40	36	43	38	34	32																			
7	63	50	41	35	60	48	40	35	45	38	33	42	36	32	39	34	30	28																			
8	58	45	37	32	56	44	36	31	41	35	30	39	33	29	36	31	27	25																			
9	55	42	34	28	52	40	33	28	38	31	27	36	30	26	33	28	25	23																			
10	51	38	31	26	49	37	30	25	35	29	24	33	27	23	31	26	23	21																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6965	6965	6965
5°	6998	6920	6963
10°	7015	6936	6950
15°	7035	6881	6691
20°	7066	6743	6510
25°	7084	6609	6406
30°	7096	6500	6247
35°	7079	6416	6062
40°	7017	6298	5818
45°	6883	6143	4825
50°	6780	5978	4297
55°	6613	5739	4088
60°	6470	5481	3928
65°	6318	5182	3810
70°	6072	4853	3739
75°	5731	4448	3439
80°	5247	3741	3050
85°	4699	3242	3081



TEST NUMBER: P520469

CATALOG NUMBER: 4WSLA-100-L850-UPL15-UNV-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.6	2.9
10°-20°	348.4	8.3
20°-30°	519.9	12.4
30°-40°	619.5	14.8
40°-50°	616.2	14.7
50°-60°	528.1	12.6
60°-70°	397.7	9.5
70°-80°	230.3	5.5
80°-90°	69.2	1.7
90°-100°	74.3	1.8
100°-110°	152.6	3.6
110°-120°	161.4	3.9
120°-130°	134.6	3.2
130°-140°	94.0	2.2
140°-150°	58.5	1.4
150°-160°	36.3	0.9
160°-170°	20.4	0.5
170°-180°	6.6	0.2
0°-30°	991.0	23.6
0°-40°	1610.5	38.4
0°-60°	2754.8	65.7
0°-90°	3452.1	82.4
90°-120°	388.3	9.3
90°-150°	675.6	16.1
90°-180°	739.0	17.6
0°-180°	4191.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1294	1294	1294	1294	1294	
5°	1295	1291	1281	1290	1289	123
15°	1263	1261	1235	1214	1201	357
25°	1193	1176	1113	1085	1079	550
35°	1078	1049	976	938	923	673
45°	904	882	807	727	634	699
55°	705	694	612	486	436	630
65°	496	484	407	316	299	490
75°	276	266	214	171	165	292
85°	76	67	52	50	50	81
90°	4	18	32	39	42	8
95°	42	56	64	94	102	40
105°	98	102	147	197	209	102
115°	122	104	156	215	236	119
125°	113	100	135	198	223	100
135°	92	100	109	147	169	72
145°	75	87	94	101	108	47
155°	68	72	77	84	85	31
165°	67	70	72	75	75	19
175°	66	67	68	70	71	6
180°	64	64	64	64	64	



TEST NUMBER: P520469

CATALOG NUMBER: 4WSLA-100-L850-UPL15-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1294.1	1294.1	1294.1	1294.1	1294.1
2.5°	1298.0	1295.4	1284.9	1295.4	1292.8
5°	1295.4	1291.4	1280.9	1290.1	1288.8
7.5°	1290.1	1287.5	1275.7	1286.2	1284.9
10°	1283.6	1279.6	1269.1	1277.0	1271.8
12.5°	1274.4	1271.8	1256.0	1249.4	1238.9
15°	1262.6	1261.3	1235.0	1214.0	1200.9
17.5°	1249.4	1244.2	1207.4	1182.5	1170.7
20°	1233.7	1225.8	1177.3	1148.4	1136.6
22.5°	1215.3	1203.5	1147.1	1119.5	1107.7
25°	1193.0	1175.9	1112.9	1085.4	1078.8
27.5°	1168.1	1148.4	1081.4	1053.9	1046.0
30°	1141.8	1116.9	1046.0	1019.8	1005.3
32.5°	1109.0	1085.4	1011.9	981.7	966.0
35°	1077.5	1048.6	976.5	938.4	922.6
37.5°	1039.5	1010.6	935.8	897.7	879.3
40°	998.8	969.9	896.4	851.8	828.1
42.5°	954.1	927.9	853.1	799.3	753.3
45°	904.3	882.0	807.1	727.1	633.9
47.5°	858.3	837.3	761.2	657.5	561.7
50°	809.8	790.1	714.0	591.9	513.2
52.5°	756.0	741.5	662.8	535.5	472.5
55°	704.8	694.3	611.6	485.6	435.7
57.5°	651.0	640.5	560.4	438.4	399.0
60°	601.1	590.6	509.2	396.4	364.9
62.5°	551.2	536.8	459.4	355.7	329.4
65°	496.1	484.3	406.9	316.3	299.2
67.5°	441.0	430.5	358.3	279.5	267.7
70°	385.9	376.7	308.4	244.1	237.6
72.5°	332.0	320.2	263.8	208.7	206.1
75°	275.6	266.4	213.9	170.6	165.4
77.5°	221.8	213.9	168.0	129.9	126.0
80°	169.3	161.4	120.7	94.5	98.4
82.5°	124.7	114.2	81.4	73.5	77.4
85°	76.1	66.9	52.5	49.9	49.9
87.5°	26.2	24.9	23.6	27.6	28.9
90°	3.9	18.4	31.5	39.4	42.0
92.5°	22.3	32.8	43.3	51.2	53.8
95°	42.0	56.4	64.3	94.5	102.4
97.5°	57.7	74.8	84.0	111.6	119.4
100°	73.5	89.2	118.1	132.6	141.7
102.5°	86.6	98.4	139.1	168.0	173.2
105°	98.4	102.4	147.0	196.9	208.7



TEST NUMBER: P520469

CATALOG NUMBER: 4WSLA-100-L850-UPL15-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	118.1	105.0	157.5	213.9	234.9
115°	122.1	103.7	156.2	215.2	236.2
117.5°	122.1	103.7	152.2	215.2	236.2
120°	119.4	105.0	147.0	212.6	234.9
122.5°	116.8	102.4	141.7	207.4	229.7
125°	112.9	99.7	135.2	198.2	223.1
127.5°	106.3	102.4	128.6	186.4	211.3
130°	101.1	103.7	120.7	174.6	199.5
132.5°	97.1	101.1	112.9	161.4	183.7
135°	91.9	99.7	108.9	147.0	169.3
137.5°	87.9	95.8	102.4	133.9	152.2
140°	84.0	93.2	95.8	116.8	132.6
142.5°	78.7	89.2	90.6	108.9	115.5
145°	74.8	86.6	94.5	101.1	107.6
147.5°	70.9	81.4	91.9	93.2	99.7
150°	69.6	76.1	87.9	89.2	91.9
152.5°	68.2	73.5	81.4	89.2	90.6
155°	68.2	72.2	77.4	84.0	85.3
157.5°	66.9	72.2	74.8	80.1	81.4
160°	66.9	70.9	73.5	77.4	78.7
162.5°	66.9	70.9	72.2	76.1	77.4
165°	66.9	69.6	72.2	74.8	74.8
167.5°	66.9	69.6	70.9	73.5	73.5
170°	66.9	68.2	70.9	72.2	72.2
172.5°	65.6	68.2	69.6	72.2	72.2
175°	65.6	66.9	68.2	69.6	70.9
177.5°	63.0	66.9	68.2	69.6	68.2
180°	64.3	64.3	64.3	64.3	64.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





— 0°-180° - - 45°-225° - - - - 90°-270°







107.5°	107.6	103.7	152.2	207.4	224.4
110°	114.2	105.0	156.2	211.3	232.3



(END OF REPORT)