

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: P520478

Luminaire Tested: **4WSLA-100-L940-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: P520478  
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-L940-UPL15-UNV-U  
Description: 4 FOOT, 1000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 90 CRI  
LEDS WITH 15% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

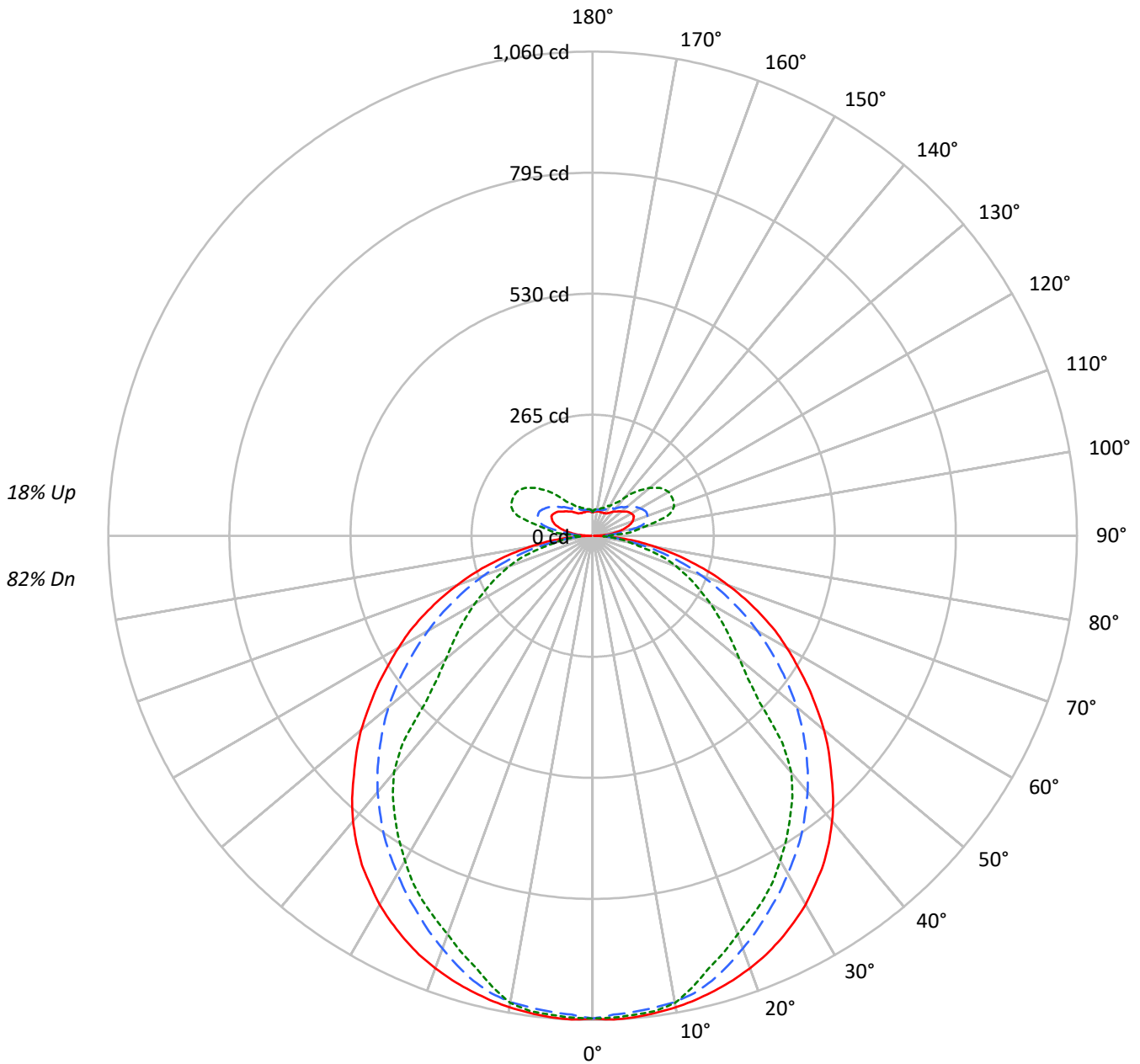
Lumens per Lamp: N/A  
Luminaire Lumens: 3423.0 lumens  
Efficiency: N/A  
Efficacy: 108.3 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Semi-Direct

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

TEST NUMBER: P520478

CATALOG NUMBER: 4WSLA-100-L940-UPL15-UNV-U

### Luminous Intensity Polar Plot





TEST NUMBER: P520478

CATALOG NUMBER: 4WSLA-100-L940-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°	5688	5688	5688
5°	5716	5652	5687
10°	5729	5665	5676
15°	5746	5620	5465
20°	5771	5507	5317
25°	5786	5398	5232
30°	5796	5309	5103
35°	5782	5240	4951
40°	5731	5143	4752
45°	5622	5017	3940
50°	5538	4882	3509
55°	5401	4687	3339
60°	5284	4477	3208
65°	5160	4232	3112
70°	4958	3964	3053
75°	4681	3633	2809
80°	4286	3056	2492
85°	3841	2649	2513



TEST NUMBER: P520478

CATALOG NUMBER: 4WSLA-100-L940-UPL15-UNV-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.2	2.9
10°-20°	284.5	8.3
20°-30°	424.7	12.4
30°-40°	506.0	14.8
40°-50°	503.3	14.7
50°-60°	431.3	12.6
60°-70°	324.8	9.5
70°-80°	188.1	5.5
80°-90°	56.5	1.7
90°-100°	60.7	1.8
100°-110°	124.7	3.6
110°-120°	131.8	3.9
120°-130°	110.0	3.2
130°-140°	76.8	2.2
140°-150°	47.8	1.4
150°-160°	29.6	0.9
160°-170°	16.7	0.5
170°-180°	5.4	0.2
0°-30°	809.4	23.6
0°-40°	1315.4	38.4
0°-60°	2250.0	65.7
0°-90°	2819.5	82.4
90°-120°	317.2	9.3
90°-150°	551.8	16.1
90°-180°	603.0	17.6
0°-180°	3423.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1057	1057	1057	1057	1057	
5°	1058	1055	1046	1054	1053	101
15°	1031	1030	1009	992	981	291
25°	974	960	909	886	881	449
35°	880	856	798	766	754	550
45°	739	720	659	594	518	571
55°	576	567	500	397	356	515
65°	405	396	332	258	244	401
75°	225	218	175	139	135	238
85°	62	55	43	41	41	66
90°	3	15	26	32	34	6
95°	34	46	52	77	84	33
105°	80	84	120	161	170	83
115°	100	85	128	176	193	97
125°	92	82	110	162	182	82
135°	75	82	89	120	138	59
145°	61	71	77	82	88	39
155°	56	59	63	69	70	26
165°	55	57	59	61	61	16
175°	54	55	56	57	58	5
180°	52	52	52	52	52	



TEST NUMBER: P520478

CATALOG NUMBER: 4WSLA-100-L940-UPL15-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1056.9	1056.9	1056.9	1056.9	1056.9
2.5°	1060.1	1058.0	1049.4	1058.0	1055.9
5°	1058.0	1054.8	1046.2	1053.7	1052.6
7.5°	1053.7	1051.6	1041.9	1050.5	1049.4
10°	1048.4	1045.1	1036.6	1043.0	1038.7
12.5°	1040.8	1038.7	1025.8	1020.5	1011.9
15°	1031.2	1030.1	1008.7	991.5	980.8
17.5°	1020.5	1016.2	986.2	965.8	956.2
20°	1007.6	1001.2	961.5	937.9	928.3
22.5°	992.6	983.0	936.9	914.4	904.7
25°	974.4	960.5	909.0	886.5	881.1
27.5°	954.0	937.9	883.3	860.8	854.3
30°	932.6	912.2	854.3	832.9	821.1
32.5°	905.8	886.5	826.5	801.8	788.9
35°	880.1	856.5	797.5	766.4	753.6
37.5°	849.0	825.4	764.3	733.2	718.2
40°	815.7	792.2	732.1	695.7	676.4
42.5°	779.3	757.9	696.8	652.8	615.3
45°	738.6	720.3	659.2	593.9	517.7
47.5°	701.0	683.9	621.7	537.0	458.8
50°	661.4	645.3	583.1	483.4	419.1
52.5°	617.4	605.6	541.3	437.3	385.9
55°	575.6	567.1	499.5	396.6	355.9
57.5°	531.7	523.1	457.7	358.0	325.9
60°	490.9	482.4	415.9	323.7	298.0
62.5°	450.2	438.4	375.2	290.5	269.1
65°	405.2	395.5	332.3	258.3	244.4
67.5°	360.2	351.6	292.6	228.3	218.7
70°	315.1	307.6	251.9	199.4	194.0
72.5°	271.2	261.6	215.5	170.4	168.3
75°	225.1	217.6	174.7	139.4	135.1
77.5°	181.2	174.7	137.2	106.1	102.9
80°	138.3	131.8	98.6	77.2	80.4
82.5°	101.8	93.3	66.5	60.0	63.2
85°	62.2	54.7	42.9	40.7	40.7
87.5°	21.4	20.4	19.3	22.5	23.6
90°	3.2	15.0	25.7	32.2	34.3
92.5°	18.2	26.8	35.4	41.8	43.9
95°	34.3	46.1	52.5	77.2	83.6
97.5°	47.2	61.1	68.6	91.1	97.5
100°	60.0	72.9	96.5	108.3	115.8
102.5°	70.7	80.4	113.6	137.2	141.5
105°	80.4	83.6	120.1	160.8	170.4



TEST NUMBER: P520478

CATALOG NUMBER: 4WSLA-100-L940-UPL15-UNV-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	96.5	85.8	128.6	174.7	191.9
115°	99.7	84.7	127.6	175.8	192.9
117.5°	99.7	84.7	124.3	175.8	192.9
120°	97.5	85.8	120.1	173.7	191.9
122.5°	95.4	83.6	115.8	169.4	187.6
125°	92.2	81.5	110.4	161.9	182.2
127.5°	86.8	83.6	105.0	152.2	172.6
130°	82.5	84.7	98.6	142.6	162.9
132.5°	79.3	82.5	92.2	131.8	150.1
135°	75.0	81.5	89.0	120.1	138.3
137.5°	71.8	78.3	83.6	109.3	124.3
140°	68.6	76.1	78.3	95.4	108.3
142.5°	64.3	72.9	74.0	89.0	94.3
145°	61.1	70.7	77.2	82.5	87.9
147.5°	57.9	66.5	75.0	76.1	81.5
150°	56.8	62.2	71.8	72.9	75.0
152.5°	55.7	60.0	66.5	72.9	74.0
155°	55.7	59.0	63.2	68.6	69.7
157.5°	54.7	59.0	61.1	65.4	66.5
160°	54.7	57.9	60.0	63.2	64.3
162.5°	54.7	57.9	59.0	62.2	63.2
165°	54.7	56.8	59.0	61.1	61.1
167.5°	54.7	56.8	57.9	60.0	60.0
170°	54.7	55.7	57.9	59.0	59.0
172.5°	53.6	55.7	56.8	59.0	59.0
175°	53.6	54.7	55.7	56.8	57.9
177.5°	51.5	54.7	55.7	56.8	55.7
180°	52.5	52.5	52.5	52.5	52.5



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	87.9	84.7	124.3	169.4	183.3
110°	93.3	85.8	127.6	172.6	189.7



(END OF REPORT)