

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: P520598

Luminaire Tested: **4WSLA-50-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: P520598  
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-50-L940-UPL15-UNV-U  
Description: 4 FOOT, 500 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**

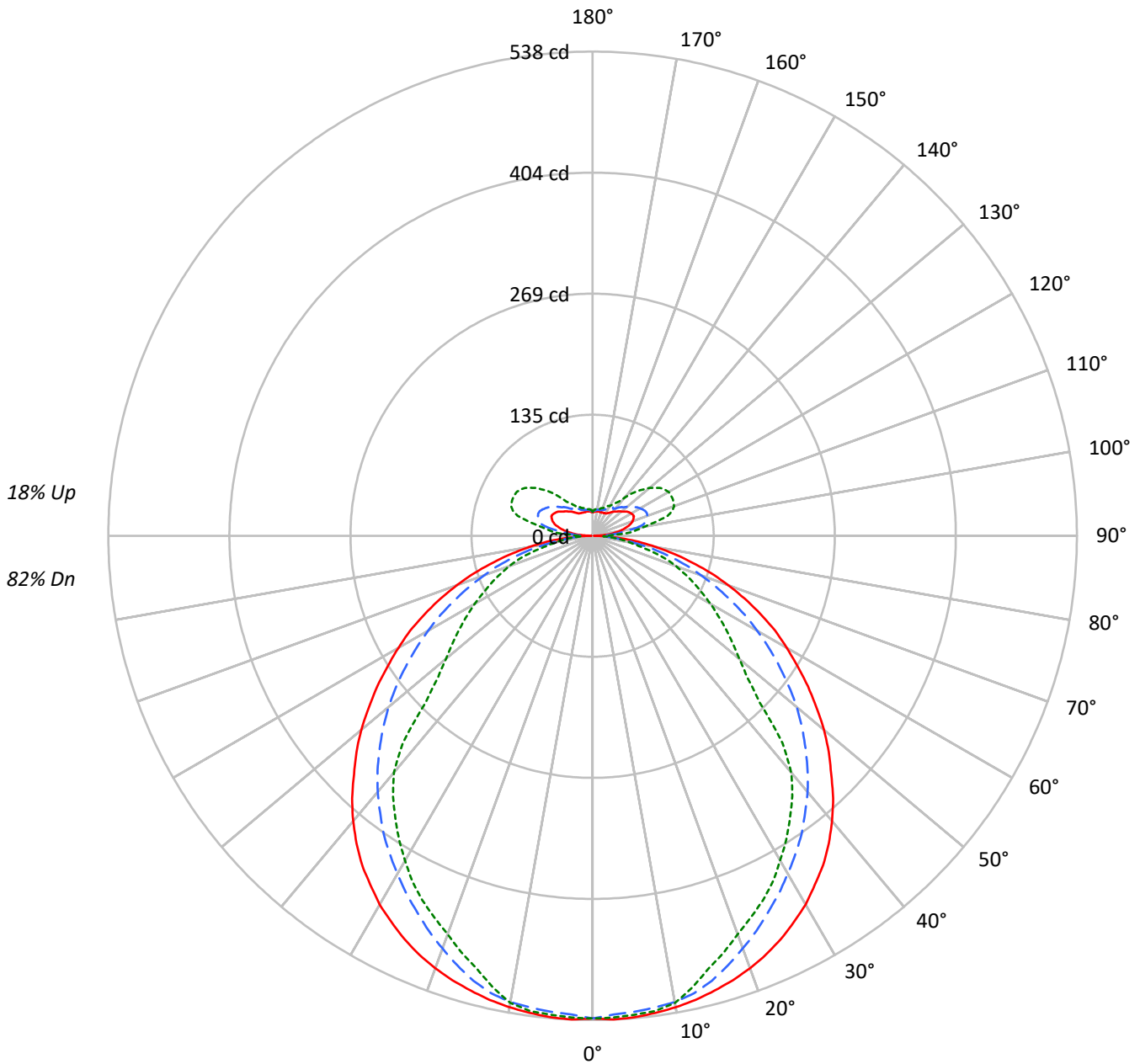
Lumens per Lamp: N/A  
Luminaire Lumens: 1737.0 lumens  
Efficiency: N/A  
Efficacy: 111.3 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 15.6  
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: P520598

CATALOG NUMBER: 4WSLA-50-L940-UPL15-UNV-U

### Luminous Intensity Polar Plot





TEST NUMBER: P520598

CATALOG NUMBER: 4WSLA-50-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°	2886	2886	2886
5°	2901	2868	2886
10°	2907	2875	2881
15°	2916	2852	2773
20°	2928	2794	2698
25°	2937	2739	2655
30°	2941	2694	2590
35°	2934	2659	2512
40°	2908	2610	2411
45°	2853	2546	1999
50°	2810	2478	1781
55°	2741	2379	1695
60°	2681	2272	1628
65°	2618	2147	1579
70°	2516	2011	1550
75°	2375	1844	1424
80°	2176	1550	1265
85°	1945	1346	1278



TEST NUMBER: P520598

CATALOG NUMBER: 4WSLA-50-L940-UPL15-UNV-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.8	2.9
10°-20°	144.4	8.3
20°-30°	215.5	12.4
30°-40°	256.8	14.8
40°-50°	255.4	14.7
50°-60°	218.9	12.6
60°-70°	164.9	9.5
70°-80°	95.5	5.5
80°-90°	28.7	1.7
90°-100°	30.8	1.8
100°-110°	63.3	3.6
110°-120°	66.9	3.9
120°-130°	55.8	3.2
130°-140°	39.0	2.2
140°-150°	24.3	1.4
150°-160°	15.0	0.9
160°-170°	8.5	0.5
170°-180°	2.7	0.2
<hr/>		
0°-30°	410.7	23.6
0°-40°	667.5	38.4
0°-60°	1141.7	65.7
0°-90°	1430.8	82.4
90°-120°	161.0	9.3
90°-150°	280.0	16.1
90°-180°	306.0	17.6
0°-180°	1737.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	536	536	536	536	536	
5°	537	535	531	535	534	51
15°	523	523	512	503	498	148
25°	494	487	461	450	447	228
35°	447	435	405	389	382	279
45°	375	366	334	301	263	290
55°	292	288	254	201	181	261
65°	206	201	169	131	124	203
75°	114	110	89	71	68	121
85°	32	28	22	21	21	34
90°	2	8	13	16	17	3
95°	17	23	27	39	42	17
105°	41	42	61	82	86	42
115°	51	43	65	89	98	49
125°	47	41	56	82	92	42
135°	38	41	45	61	70	30
145°	31	36	39	42	45	20
155°	28	30	32	35	35	13
165°	28	29	30	31	31	8
175°	27	28	28	29	29	3
180°	27	27	27	27	27	



TEST NUMBER: P520598

CATALOG NUMBER: 4WSLA-50-L940-UPL15-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	536.3	536.3	536.3	536.3	536.3
2.5°	538.0	536.9	532.5	536.9	535.8
5°	536.9	535.2	530.9	534.7	534.2
7.5°	534.7	533.6	528.7	533.1	532.5
10°	532.0	530.4	526.0	529.3	527.1
12.5°	528.2	527.1	520.6	517.8	513.5
15°	523.3	522.7	511.9	503.2	497.7
17.5°	517.8	515.7	500.4	490.1	485.2
20°	511.3	508.1	487.9	476.0	471.1
22.5°	503.7	498.8	475.4	464.0	459.1
25°	494.5	487.4	461.3	449.8	447.1
27.5°	484.1	476.0	448.2	436.8	433.5
30°	473.2	462.9	433.5	422.7	416.7
32.5°	459.6	449.8	419.4	406.9	400.3
35°	446.6	434.6	404.7	388.9	382.4
37.5°	430.8	418.8	387.8	372.1	364.4
40°	413.9	402.0	371.5	353.0	343.2
42.5°	395.5	384.6	353.6	331.3	312.2
45°	374.8	365.5	334.5	301.3	262.7
47.5°	355.7	347.0	315.5	272.5	232.8
50°	335.6	327.5	295.9	245.3	212.7
52.5°	313.3	307.3	274.7	221.9	195.8
55°	292.1	287.8	253.5	201.3	180.6
57.5°	269.8	265.4	232.3	181.7	165.4
60°	249.1	244.8	211.1	164.3	151.2
62.5°	228.5	222.5	190.4	147.4	136.5
65°	205.6	200.7	168.6	131.1	124.0
67.5°	182.8	178.4	148.5	115.9	111.0
70°	159.9	156.1	127.8	101.2	98.5
72.5°	137.6	132.7	109.3	86.5	85.4
75°	114.2	110.4	88.7	70.7	68.5
77.5°	91.9	88.7	69.6	53.9	52.2
80°	70.2	66.9	50.0	39.2	40.8
82.5°	51.7	47.3	33.7	30.5	32.1
85°	31.5	27.7	21.8	20.7	20.7
87.5°	10.9	10.3	9.8	11.4	12.0
90°	1.6	7.6	13.1	16.3	17.4
92.5°	9.2	13.6	18.0	21.2	22.3
95°	17.4	23.4	26.7	39.2	42.4
97.5°	23.9	31.0	34.8	46.2	49.5
100°	30.5	37.0	49.0	54.9	58.7
102.5°	35.9	40.8	57.7	69.6	71.8
105°	40.8	42.4	60.9	81.6	86.5



TEST NUMBER: P520598

CATALOG NUMBER: 4WSLA-50-L940-UPL15-UNV-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	49.0	43.5	65.3	88.7	97.4
115°	50.6	43.0	64.7	89.2	97.9
117.5°	50.6	43.0	63.1	89.2	97.9
120°	49.5	43.5	60.9	88.1	97.4
122.5°	48.4	42.4	58.7	85.9	95.2
125°	46.8	41.3	56.0	82.1	92.5
127.5°	44.1	42.4	53.3	77.2	87.6
130°	41.9	43.0	50.0	72.3	82.7
132.5°	40.3	41.9	46.8	66.9	76.2
135°	38.1	41.3	45.1	60.9	70.2
137.5°	36.4	39.7	42.4	55.5	63.1
140°	34.8	38.6	39.7	48.4	54.9
142.5°	32.6	37.0	37.5	45.1	47.9
145°	31.0	35.9	39.2	41.9	44.6
147.5°	29.4	33.7	38.1	38.6	41.3
150°	28.8	31.5	36.4	37.0	38.1
152.5°	28.3	30.5	33.7	37.0	37.5
155°	28.3	29.9	32.1	34.8	35.4
157.5°	27.7	29.9	31.0	33.2	33.7
160°	27.7	29.4	30.5	32.1	32.6
162.5°	27.7	29.4	29.9	31.5	32.1
165°	27.7	28.8	29.9	31.0	31.0
167.5°	27.7	28.8	29.4	30.5	30.5
170°	27.7	28.3	29.4	29.9	29.9
172.5°	27.2	28.3	28.8	29.9	29.9
175°	27.2	27.7	28.3	28.8	29.4
177.5°	26.1	27.7	28.3	28.8	28.3
180°	26.7	26.7	26.7	26.7	26.7



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	44.6	43.0	63.1	85.9	93.0
110°	47.3	43.5	64.7	87.6	96.3



(END OF REPORT)