

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: P520586

Luminaire Tested: **4WSLA-50-L840-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: P520586  
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-L840-UPL15-UNV-U  
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 80 CRI  
LEDS WITH 15% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

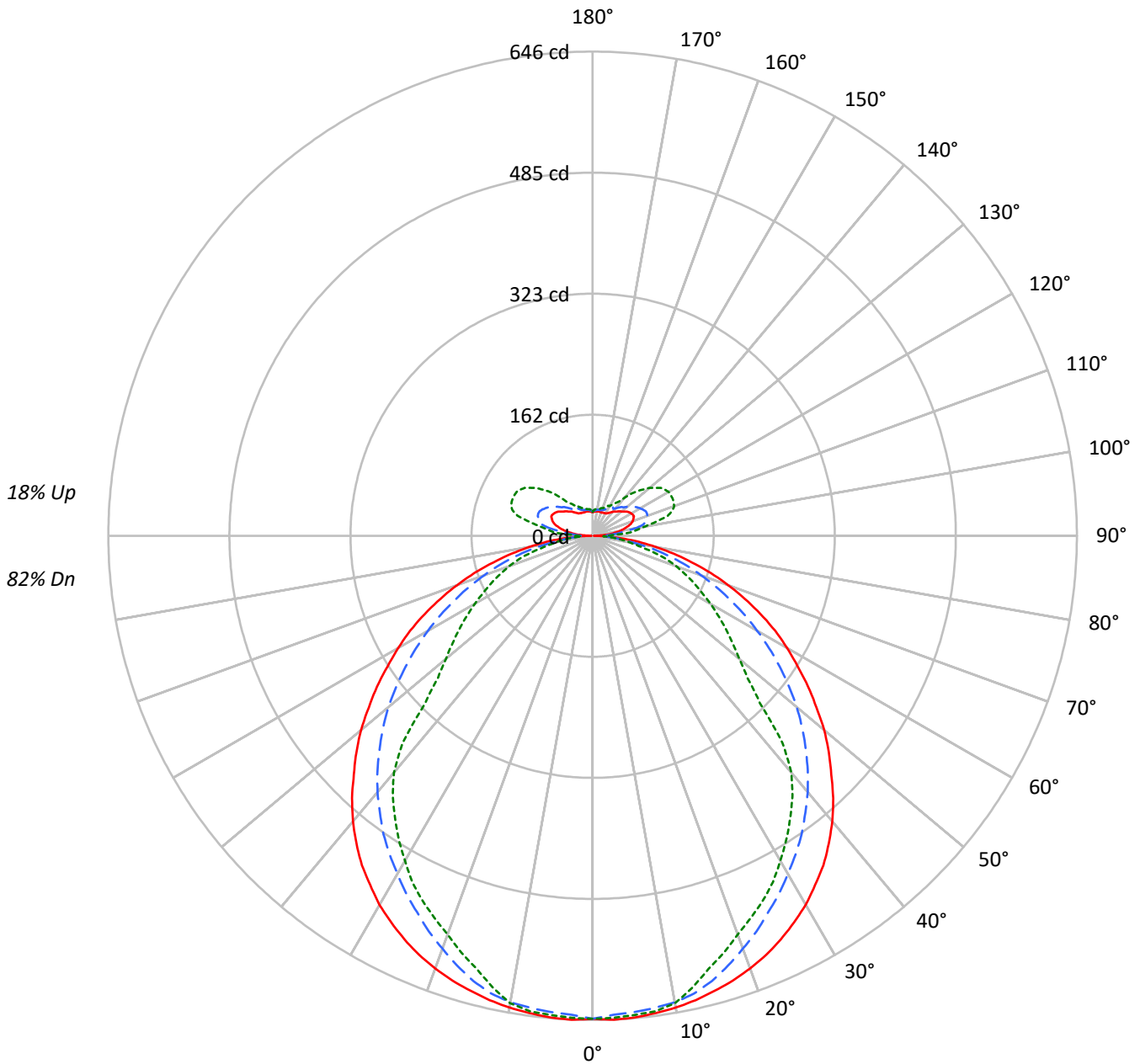
Lumens per Lamp: N/A  
Luminaire Lumens: 2087.0 lumens  
Efficiency: N/A  
Efficacy: 133.8 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Semi-Direct

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

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### 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	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°	3468	3468	3468
5°	3485	3446	3467
10°	3493	3454	3461
15°	3503	3427	3332
20°	3518	3357	3242
25°	3528	3291	3190
30°	3534	3237	3111
35°	3526	3194	3019
40°	3495	3136	2897
45°	3427	3059	2403
50°	3376	2977	2139
55°	3293	2858	2036
60°	3222	2730	1956
65°	3145	2580	1897
70°	3023	2417	1862
75°	2853	2215	1711
80°	2613	1863	1519
85°	2340	1612	1531



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.1	2.9
10°-20°	173.5	8.3
20°-30°	258.9	12.4
30°-40°	308.5	14.8
40°-50°	306.9	14.7
50°-60°	263.0	12.6
60°-70°	198.1	9.5
70°-80°	114.7	5.5
80°-90°	34.5	1.7
90°-100°	37.0	1.8
100°-110°	76.0	3.6
110°-120°	80.4	3.9
120°-130°	67.0	3.2
130°-140°	46.8	2.2
140°-150°	29.1	1.4
150°-160°	18.1	0.9
160°-170°	10.2	0.5
170°-180°	3.3	0.2
0°-30°	493.5	23.6
0°-40°	802.0	38.4
0°-60°	1371.8	65.7
0°-90°	1719.1	82.4
90°-120°	193.4	9.3
90°-150°	336.4	16.1
90°-180°	368.0	17.6
0°-180°	2087.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	644	644	644	644	644	
5°	645	643	638	642	642	61
15°	629	628	615	604	598	178
25°	594	586	554	540	537	274
35°	537	522	486	467	460	335
45°	450	439	402	362	316	348
55°	351	346	305	242	217	314
65°	247	241	203	158	149	244
75°	137	133	106	85	82	145
85°	38	33	26	25	25	40
90°	2	9	16	20	21	4
95°	21	28	32	47	51	20
105°	49	51	73	98	104	51
115°	61	52	78	107	118	59
125°	56	50	67	99	111	50
135°	46	50	54	73	84	36
145°	37	43	47	50	54	24
155°	34	36	39	42	42	16
165°	33	35	36	37	37	9
175°	33	33	34	35	35	3
180°	32	32	32	32	32	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	644.4	644.4	644.4	644.4	644.4
2.5°	646.4	645.1	639.8	645.1	643.8
5°	645.1	643.1	637.9	642.4	641.8
7.5°	642.4	641.1	635.3	640.5	639.8
10°	639.2	637.2	632.0	635.9	633.3
12.5°	634.6	633.3	625.5	622.2	617.0
15°	628.7	628.1	615.0	604.5	598.0
17.5°	622.2	619.6	601.3	588.9	583.0
20°	614.3	610.4	586.2	571.9	566.0
22.5°	605.2	599.3	571.2	557.5	551.6
25°	594.1	585.6	554.2	540.5	537.2
27.5°	581.7	571.9	538.5	524.8	520.9
30°	568.6	556.2	520.9	507.8	500.6
32.5°	552.3	540.5	503.9	488.9	481.0
35°	536.6	522.2	486.2	467.3	459.5
37.5°	517.6	503.2	466.0	447.0	437.9
40°	497.4	483.0	446.4	424.2	412.4
42.5°	475.1	462.1	424.8	398.0	375.1
45°	450.3	439.2	401.9	362.1	315.7
47.5°	427.4	417.0	379.1	327.4	279.7
50°	403.2	393.4	355.5	294.8	255.5
52.5°	376.4	369.3	330.0	266.7	235.3
55°	351.0	345.7	304.6	241.8	217.0
57.5°	324.2	318.9	279.1	218.3	198.7
60°	299.3	294.1	253.6	197.4	181.7
62.5°	274.5	267.3	228.7	177.1	164.0
65°	247.0	241.2	202.6	157.5	149.0
67.5°	219.6	214.4	178.4	139.2	133.3
70°	192.1	187.6	153.6	121.6	118.3
72.5°	165.4	159.5	131.4	103.9	102.6
75°	137.2	132.7	106.5	85.0	82.3
77.5°	110.5	106.5	83.7	64.7	62.7
80°	84.3	80.4	60.1	47.1	49.0
82.5°	62.1	56.9	40.5	36.6	38.6
85°	37.9	33.3	26.1	24.8	24.8
87.5°	13.1	12.4	11.8	13.7	14.4
90°	2.0	9.1	15.7	19.6	20.9
92.5°	11.1	16.3	21.6	25.5	26.8
95°	20.9	28.1	32.0	47.1	51.0
97.5°	28.8	37.3	41.8	55.6	59.5
100°	36.6	44.4	58.8	66.0	70.6
102.5°	43.1	49.0	69.3	83.7	86.3
105°	49.0	51.0	73.2	98.0	103.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	58.8	52.3	78.4	106.5	117.0
115°	60.8	51.6	77.8	107.2	117.6
117.5°	60.8	51.6	75.8	107.2	117.6
120°	59.5	52.3	73.2	105.9	117.0
122.5°	58.2	51.0	70.6	103.3	114.4
125°	56.2	49.7	67.3	98.7	111.1
127.5°	52.9	51.0	64.0	92.8	105.2
130°	50.3	51.6	60.1	86.9	99.3
132.5°	48.4	50.3	56.2	80.4	91.5
135°	45.7	49.7	54.2	73.2	84.3
137.5°	43.8	47.7	51.0	66.7	75.8
140°	41.8	46.4	47.7	58.2	66.0
142.5°	39.2	44.4	45.1	54.2	57.5
145°	37.3	43.1	47.1	50.3	53.6
147.5°	35.3	40.5	45.7	46.4	49.7
150°	34.6	37.9	43.8	44.4	45.7
152.5°	34.0	36.6	40.5	44.4	45.1
155°	34.0	35.9	38.6	41.8	42.5
157.5°	33.3	35.9	37.3	39.9	40.5
160°	33.3	35.3	36.6	38.6	39.2
162.5°	33.3	35.3	35.9	37.9	38.6
165°	33.3	34.6	35.9	37.3	37.3
167.5°	33.3	34.6	35.3	36.6	36.6
170°	33.3	34.0	35.3	35.9	35.9
172.5°	32.7	34.0	34.6	35.9	35.9
175°	32.7	33.3	34.0	34.6	35.3
177.5°	31.4	33.3	34.0	34.6	34.0
180°	32.0	32.0	32.0	32.0	32.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	53.6	51.6	75.8	103.3	111.8
110°	56.9	52.3	77.8	105.2	115.7



(END OF REPORT)