

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: P520580

Luminaire Tested: **4WSLA-50-L830-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: P520580  
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-L830-UPL15-UNV-U  
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 80 CRI  
LEDS WITH 15% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

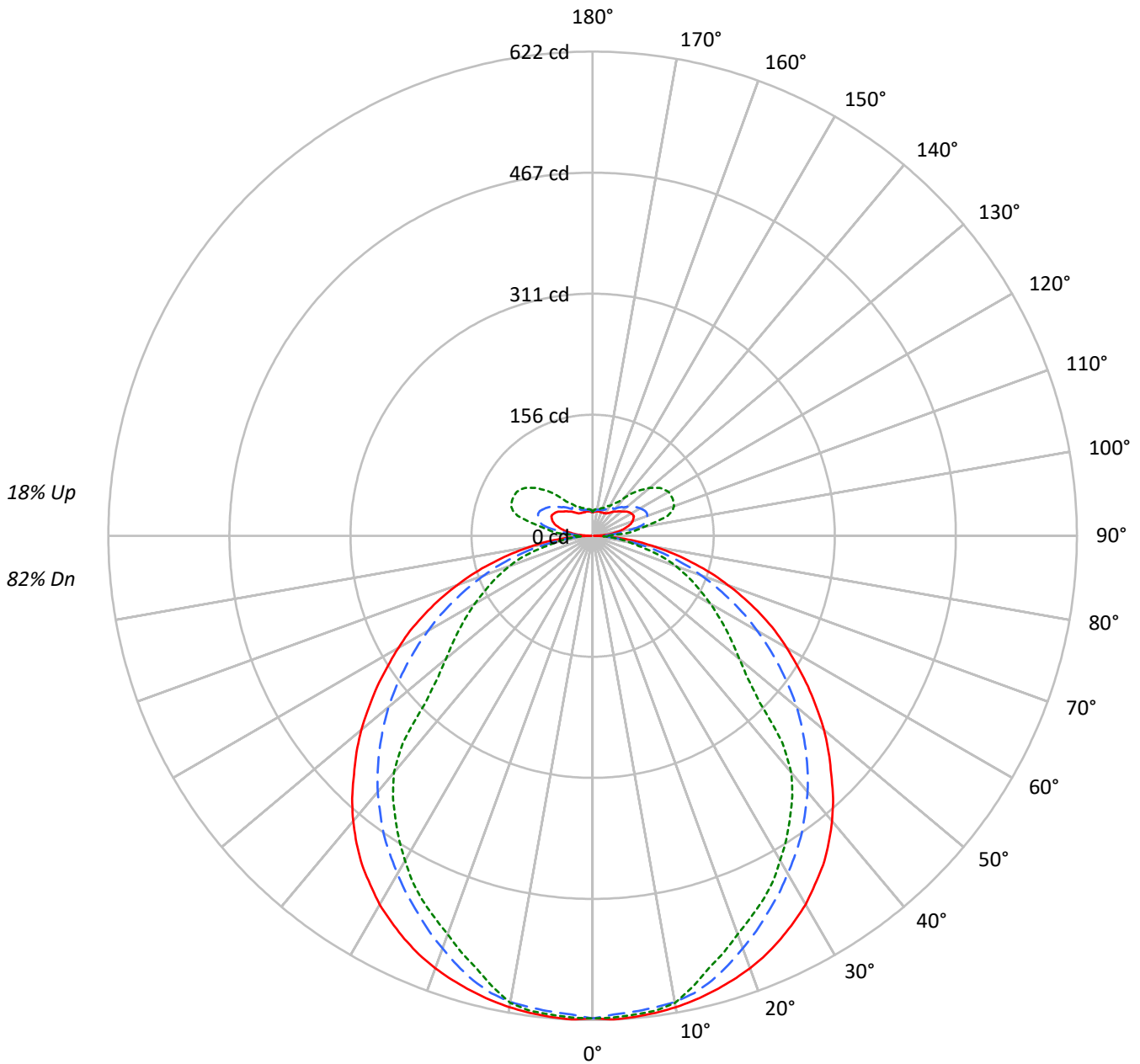
Lumens per Lamp: N/A  
Luminaire Lumens: 2008.0 lumens  
Efficiency: N/A  
Efficacy: 128.7 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Semi-Direct

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: P520580

CATALOG NUMBER: 4WSLA-50-L830-UPL15-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	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°	3337	3337	3337
5°	3353	3316	3336
10°	3361	3323	3330
15°	3370	3297	3206
20°	3385	3230	3119
25°	3394	3166	3070
30°	3400	3115	2994
35°	3392	3074	2905
40°	3362	3018	2788
45°	3298	2943	2312
50°	3249	2864	2059
55°	3169	2749	1959
60°	3100	2626	1882
65°	3027	2482	1826
70°	2910	2326	1791
75°	2747	2131	1647
80°	2514	1795	1463
85°	2254	1556	1476



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.8	2.9
10°-20°	166.9	8.3
20°-30°	249.1	12.4
30°-40°	296.8	14.8
40°-50°	295.2	14.7
50°-60°	253.0	12.6
60°-70°	190.6	9.5
70°-80°	110.4	5.5
80°-90°	33.2	1.7
90°-100°	35.6	1.8
100°-110°	73.1	3.6
110°-120°	77.3	3.9
120°-130°	64.5	3.2
130°-140°	45.1	2.2
140°-150°	28.0	1.4
150°-160°	17.4	0.9
160°-170°	9.8	0.5
170°-180°	3.2	0.2
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0°-30°	474.8	23.6
0°-40°	771.6	38.4
0°-60°	1319.9	65.7
0°-90°	1654.0	82.4
90°-120°	186.1	9.3
90°-150°	323.7	16.1
90°-180°	354.0	17.6
0°-180°	2008.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	621	619	614	618	618	59
15°	605	604	592	582	575	171
25°	572	563	533	520	517	264
35°	516	502	468	450	442	322
45°	433	423	387	348	304	335
55°	338	333	293	233	209	302
65°	238	232	195	152	143	235
75°	132	128	102	82	79	140
85°	36	32	25	24	24	39
90°	2	9	15	19	20	4
95°	20	27	31	45	49	19
105°	47	49	70	94	100	49
115°	58	50	75	103	113	57
125°	54	48	65	95	107	48
135°	44	48	52	70	81	34
145°	36	42	45	48	52	23
155°	33	35	37	40	41	15
165°	32	33	35	36	36	9
175°	31	32	33	33	34	3
180°	31	31	31	31	31	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	620.0	620.0	620.0	620.0	620.0
2.5°	621.9	620.6	615.6	620.6	619.4
5°	620.6	618.8	613.7	618.1	617.5
7.5°	618.1	616.9	611.2	616.2	615.6
10°	615.0	613.1	608.1	611.8	609.3
12.5°	610.6	609.3	601.8	598.6	593.6
15°	604.9	604.3	591.7	581.7	575.4
17.5°	598.6	596.1	578.5	566.6	560.9
20°	591.1	587.3	564.0	550.2	544.6
22.5°	582.3	576.6	549.6	536.4	530.7
25°	571.6	563.4	533.2	520.0	516.9
27.5°	559.6	550.2	518.1	504.9	501.2
30°	547.1	535.1	501.2	488.6	481.7
32.5°	531.4	520.0	484.8	470.4	462.8
35°	516.3	502.4	467.8	449.6	442.1
37.5°	498.0	484.2	448.3	430.1	421.3
40°	478.5	464.7	429.5	408.1	396.8
42.5°	457.2	444.6	408.7	383.0	360.9
45°	433.3	422.6	386.7	348.4	303.7
47.5°	411.2	401.2	364.7	315.0	269.1
50°	388.0	378.5	342.1	283.6	245.9
52.5°	362.2	355.3	317.6	256.6	226.4
55°	337.7	332.6	293.0	232.7	208.8
57.5°	311.9	306.9	268.5	210.0	191.2
60°	288.0	283.0	244.0	189.9	174.8
62.5°	264.1	257.2	220.1	170.4	157.8
65°	237.7	232.0	194.9	151.5	143.4
67.5°	211.3	206.3	171.7	133.9	128.3
70°	184.9	180.5	147.8	117.0	113.8
72.5°	159.1	153.4	126.4	100.0	98.7
75°	132.1	127.7	102.5	81.7	79.2
77.5°	106.3	102.5	80.5	62.3	60.4
80°	81.1	77.3	57.9	45.3	47.2
82.5°	59.7	54.7	39.0	35.2	37.1
85°	36.5	32.1	25.2	23.9	23.9
87.5°	12.6	11.9	11.3	13.2	13.8
90°	1.9	8.8	15.1	18.9	20.1
92.5°	10.7	15.7	20.8	24.5	25.8
95°	20.1	27.0	30.8	45.3	49.0
97.5°	27.7	35.8	40.2	53.4	57.2
100°	35.2	42.8	56.6	63.5	67.9
102.5°	41.5	47.2	66.7	80.5	83.0
105°	47.2	49.0	70.4	94.3	100.0



TEST NUMBER: P520580

CATALOG NUMBER: 4WSLA-50-L830-UPL15-UNV-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	56.6	50.3	75.5	102.5	112.6
115°	58.5	49.7	74.8	103.1	113.2
117.5°	58.5	49.7	72.9	103.1	113.2
120°	57.2	50.3	70.4	101.9	112.6
122.5°	56.0	49.0	67.9	99.4	110.0
125°	54.1	47.8	64.8	95.0	106.9
127.5°	50.9	49.0	61.6	89.3	101.2
130°	48.4	49.7	57.9	83.6	95.6
132.5°	46.5	48.4	54.1	77.3	88.0
135°	44.0	47.8	52.2	70.4	81.1
137.5°	42.1	45.9	49.0	64.1	72.9
140°	40.2	44.6	45.9	56.0	63.5
142.5°	37.7	42.8	43.4	52.2	55.3
145°	35.8	41.5	45.3	48.4	51.6
147.5°	34.0	39.0	44.0	44.6	47.8
150°	33.3	36.5	42.1	42.8	44.0
152.5°	32.7	35.2	39.0	42.8	43.4
155°	32.7	34.6	37.1	40.2	40.9
157.5°	32.1	34.6	35.8	38.4	39.0
160°	32.1	34.0	35.2	37.1	37.7
162.5°	32.1	34.0	34.6	36.5	37.1
165°	32.1	33.3	34.6	35.8	35.8
167.5°	32.1	33.3	34.0	35.2	35.2
170°	32.1	32.7	34.0	34.6	34.6
172.5°	31.4	32.7	33.3	34.6	34.6
175°	31.4	32.1	32.7	33.3	34.0
177.5°	30.2	32.1	32.7	33.3	32.7
180°	30.8	30.8	30.8	30.8	30.8



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	51.6	49.7	72.9	99.4	107.5
110°	54.7	50.3	74.8	101.2	111.3



(END OF REPORT)