

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: P520594

Luminaire Tested: **4WSLA-50-L935-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: P520594  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-689-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/3/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 4WSLA-50-L935-UNV-U  
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 90 CRI  
LEDS WITH NO UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

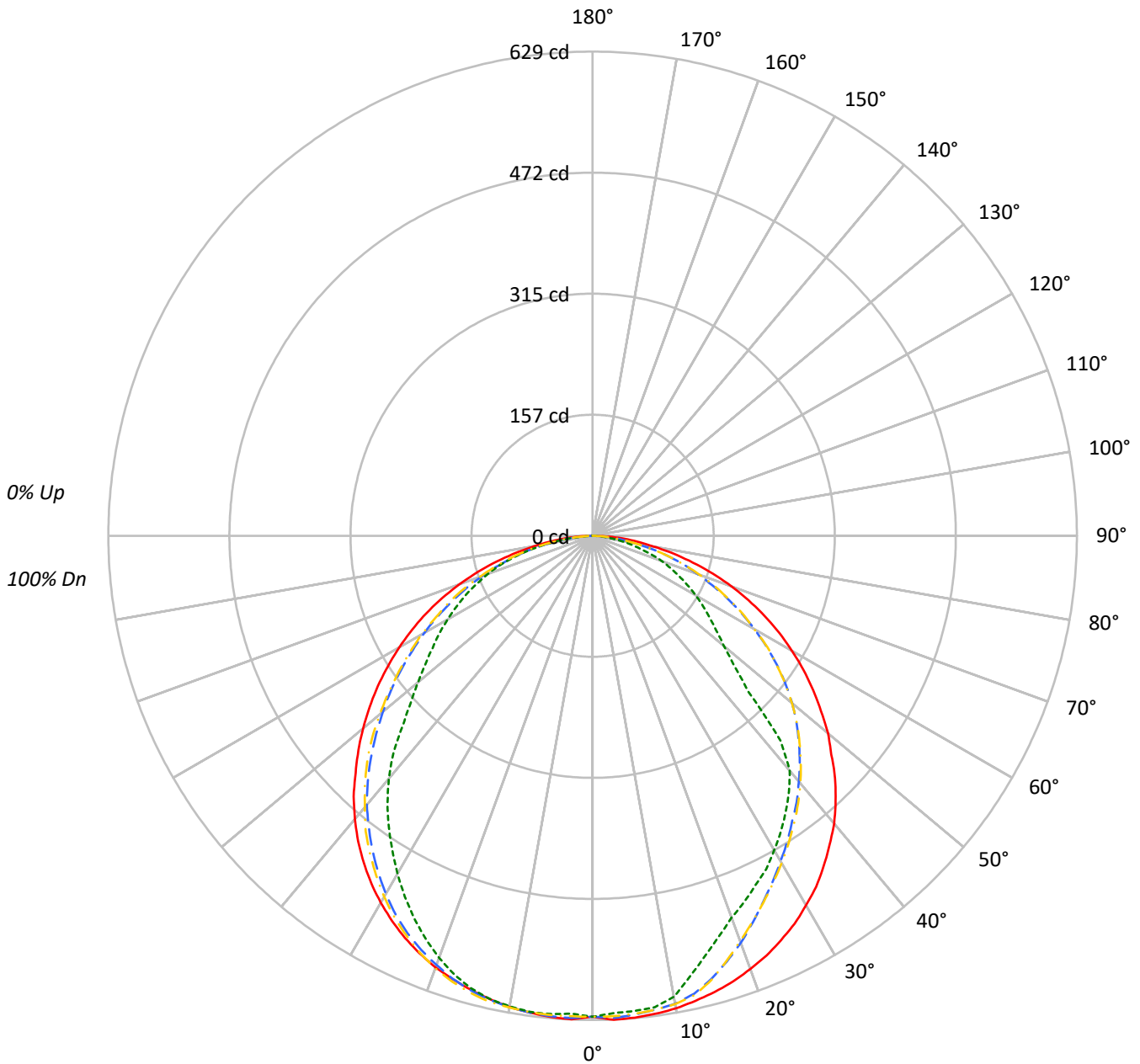
Lumens per Lamp: N/A  
Luminaire Lumens: 1676.0 lumens  
Efficiency: N/A  
Efficacy: 107.4 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Direct

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				20				
RC	80				70				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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84			84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70			70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60			60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51			51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44			44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39			39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34			34
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31			31
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28			28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25			25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°	270°
0°	3363	3363	3363	3363
5°	3395	3348	3390	3370
10°	3407	3323	3398	3392
15°	3418	3147	3403	3392
20°	3430	3023	3417	3340
25°	3441	2973	3423	3256
30°	3445	2931	3420	3150
35°	3439	2874	3405	3032
40°	3429	2798	3374	2892
45°	3390	2174	3314	2653
50°	3340	1860	3258	2475
55°	3280	1742	3195	2381
60°	3218	1663	3120	2341
65°	3142	1575	3035	2314
70°	3017	1498	2891	2279
75°	2809	1316	2676	2167
80°	2492	1100	2337	1838
85°	2359	784	2069	1056



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.4	3.5
10°-20°	169.3	10.1
20°-30°	253.0	15.1
30°-40°	301.2	18.0
40°-50°	301.0	18.0
50°-60°	259.0	15.5
60°-70°	195.0	11.6
70°-80°	111.1	6.6
80°-90°	27.0	1.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	481.7	28.7
0°-40°	782.8	46.7
0°-60°	1342.9	80.1
0°-90°	1676.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1676.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	625	625	625	625	625	
5°	628	620	627	624	628	60
15°	613	565	611	609	613	173
25°	580	501	576	548	580	267
35°	524	437	518	462	524	328
45°	445	286	435	349	445	343
55°	350	186	340	254	350	313
65°	247	124	238	182	247	244
75°	135	63	129	104	135	143
85°	38	13	34	17	38	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	624.8	624.8	624.8	624.8	624.8	624.8	624.8	624.8	624.8	624.8	624.8
2.5°	629.4	623.8	627.1	626.1	620.7	622.7	624.8	622.7	628.8	623.4	627.1
5°	628.4	622.4	624.4	622.4	619.7	620.4	623.4	621.4	627.4	621.7	626.4
7.5°	626.4	619.1	621.1	620.1	617.7	618.1	621.1	619.4	624.8	619.4	624.8
10°	623.4	615.7	617.4	613.0	608.0	611.7	617.7	616.0	621.7	615.7	621.7
12.5°	618.7	611.0	609.3	594.9	585.9	592.9	611.4	611.4	616.7	611.0	617.4
15°	613.4	605.0	595.9	574.1	564.8	571.8	597.3	606.0	610.7	605.0	611.4
17.5°	607.0	597.3	579.8	554.4	545.7	552.7	578.8	597.9	604.0	597.9	603.6
20°	598.9	587.6	562.8	533.6	527.9	534.3	560.4	588.2	596.6	589.2	593.3
22.5°	590.2	576.5	543.6	517.5	514.8	518.8	542.6	576.2	587.2	579.5	582.2
25°	579.5	563.4	524.5	502.8	500.7	503.1	525.2	562.1	576.5	568.4	569.5
27.5°	568.1	550.7	506.4	490.4	488.3	489.3	507.8	546.3	564.1	556.0	554.4
30°	554.4	535.6	488.3	473.6	471.6	475.3	491.0	530.2	550.3	542.3	537.3
32.5°	540.6	519.2	470.6	459.2	455.2	458.5	473.6	513.5	535.3	526.9	518.5
35°	523.5	501.7	452.1	440.7	437.4	441.1	456.2	496.1	518.2	509.8	498.4
37.5°	505.8	483.3	435.4	425.0	419.0	423.3	438.4	478.0	500.4	491.7	477.6
40°	488.0	463.9	416.6	405.9	398.2	404.6	420.0	458.8	480.3	472.3	456.2
42.5°	467.2	444.4	398.2	383.1	361.3	381.8	400.2	439.7	459.5	451.8	432.4
45°	445.4	423.7	378.7	342.2	285.6	345.6	380.1	419.6	435.4	428.0	406.9
47.5°	420.6	402.2	359.0	303.3	248.4	306.7	359.6	400.5	412.6	404.6	381.1
50°	398.9	380.8	338.2	270.5	222.2	274.2	337.9	379.1	389.1	381.8	355.6
52.5°	374.1	358.3	315.7	241.3	202.8	245.0	315.1	357.0	365.0	356.3	330.1
55°	349.6	335.5	291.9	215.5	185.7	218.9	291.3	334.2	340.5	330.5	303.3
57.5°	324.8	312.0	267.5	192.4	169.9	196.1	269.1	310.7	315.1	302.3	277.5
60°	299.0	288.2	242.7	171.9	154.5	175.0	242.0	287.2	289.9	276.2	252.4
62.5°	273.2	263.4	217.9	153.2	138.8	155.2	219.5	262.4	264.1	251.0	226.6
65°	246.7	237.6	193.7	133.4	123.7	136.7	195.4	236.6	238.3	223.6	201.4
67.5°	219.2	211.8	167.9	118.3	109.3	119.3	171.3	210.5	211.5	197.1	177.0
70°	191.7	185.3	145.1	101.9	95.2	102.2	147.5	181.7	183.7	168.3	152.2
72.5°	163.6	158.5	123.0	84.8	78.8	84.8	124.3	155.2	156.5	143.8	128.0
75°	135.1	131.4	100.6	68.0	63.3	67.7	101.2	128.7	128.7	116.6	104.2
77.5°	107.6	104.9	77.1	52.3	48.9	51.6	77.4	101.9	101.2	91.8	82.1
80°	80.4	78.4	55.3	37.9	35.5	36.9	55.3	75.4	75.4	68.7	57.0
82.5°	57.6	55.3	36.5	24.8	23.5	24.1	35.9	52.6	53.6	48.6	38.5
85°	38.2	32.8	19.8	13.7	12.7	13.1	18.8	30.5	33.5	28.2	20.1
87.5°	16.8	11.1	5.0	2.0	1.0	1.3	4.0	9.7	12.7	8.4	2.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	624.8	624.8	624.8	624.8	624.8	624.8
2.5°	626.8	621.4	623.4	624.8	623.4	629.4
5°	626.1	623.8	623.4	625.1	622.4	628.4
7.5°	625.1	623.8	623.4	624.1	620.7	626.4
10°	622.7	620.7	621.4	622.4	618.1	623.4
12.5°	618.4	616.4	616.7	620.1	614.0	618.7
15°	611.0	608.7	611.0	614.7	609.3	613.4
17.5°	601.3	597.6	601.6	607.3	603.3	607.0
20°	588.9	583.2	587.6	597.9	594.3	598.9
22.5°	573.8	566.8	571.1	586.2	585.2	590.2
25°	556.7	548.3	554.4	572.8	574.8	579.5
27.5°	537.6	528.2	536.3	558.1	562.8	568.1
30°	516.8	506.8	516.2	541.6	548.7	554.4
32.5°	495.4	484.3	495.0	523.2	533.3	540.6
35°	472.9	461.5	473.6	504.1	516.2	523.5
37.5°	448.8	437.7	450.8	484.0	498.4	505.8
40°	424.0	411.6	426.3	460.2	479.3	488.0
42.5°	398.5	383.1	401.2	437.7	458.5	467.2
45°	370.0	348.6	373.0	413.9	435.7	445.4
47.5°	341.5	320.1	344.9	388.5	411.9	420.6
50°	314.1	295.6	315.4	360.6	387.8	398.9
52.5°	288.9	273.8	290.6	333.5	363.0	374.1
55°	265.5	253.7	267.5	306.7	336.8	349.6
57.5°	243.3	236.0	245.3	281.2	312.7	324.8
60°	222.6	217.5	224.2	256.1	284.2	299.0
62.5°	202.1	199.4	204.5	229.6	257.7	273.2
65°	182.3	181.7	184.3	206.5	229.9	246.7
67.5°	162.6	162.2	163.9	182.0	202.8	219.2
70°	142.8	144.8	143.8	155.5	175.6	191.7
72.5°	122.7	125.7	124.0	131.4	150.8	163.6
75°	100.2	104.2	100.9	109.3	121.3	135.1
77.5°	77.1	81.4	77.4	84.8	97.9	107.6
80°	55.3	59.3	56.0	61.7	73.1	80.4
82.5°	34.9	37.9	35.2	40.9	52.3	57.6
85°	15.4	17.1	17.8	22.1	32.2	38.2
87.5°	0.7	0.3	0.7	4.4	11.4	16.8
90°	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







— 0°-180°    - - 45°-225°    - - - - 90°-270°    - · - · 135°-315°









(END OF REPORT)