

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: P520596

Luminaire Tested: **4WSLA-50-L935-UPL8-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: P520596
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-174-3)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4WSLA-50-L935-UPL8-UNV-U
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 90 CRI
LEDS WITH 8% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

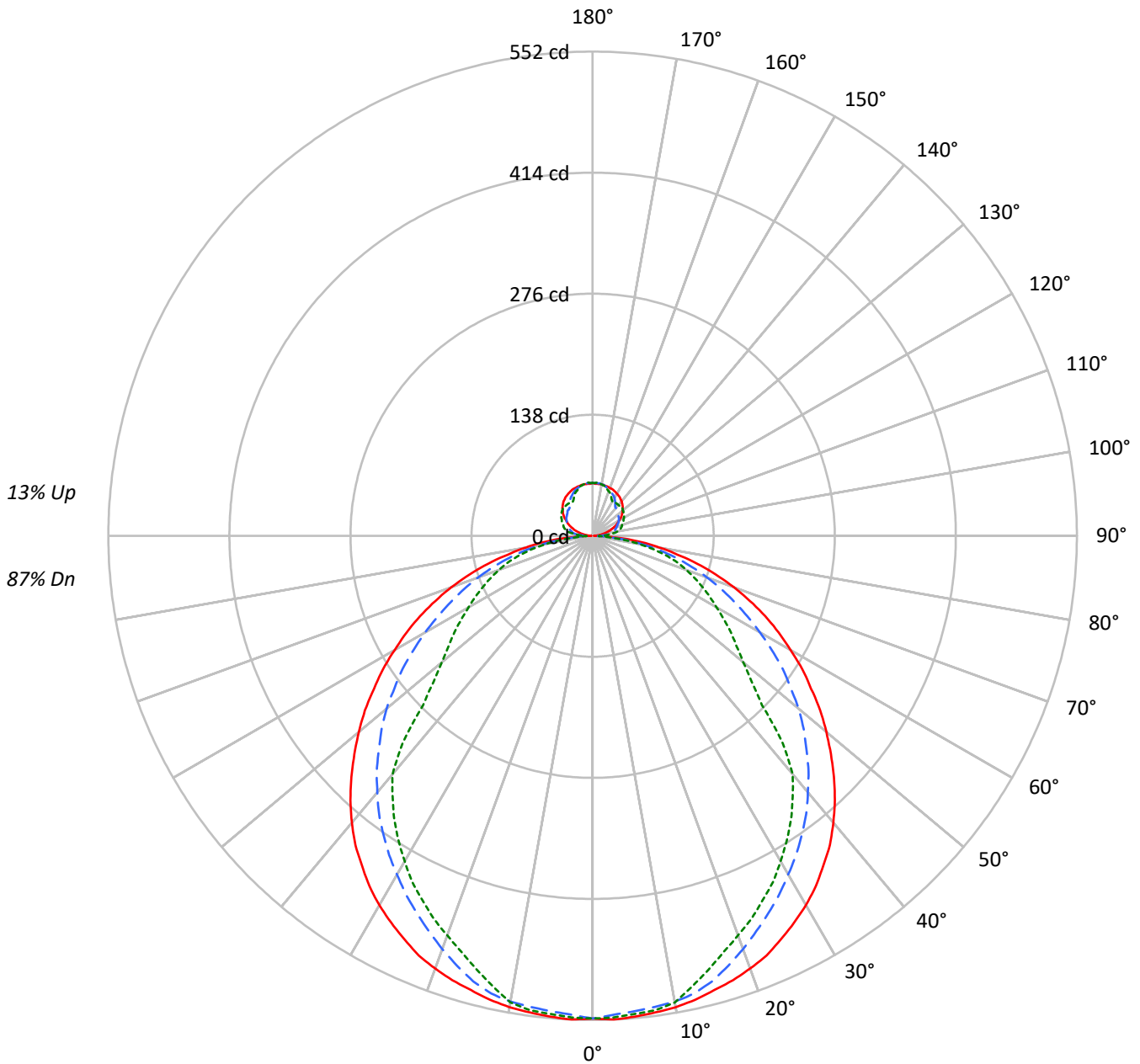
Lumens per Lamp: N/A
Luminaire Lumens: 1713.0 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 15.6
Input Voltage (V): NR
Input Current (A_{in}): 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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87																			
1	106	101	97	93	102	98	94	90	91	88	85	85	83	80	79	78	76	73																			
2	96	88	82	76	92	85	79	74	80	75	70	74	70	67	70	66	64	61																			
3	88	78	70	63	84	75	68	62	70	64	59	66	61	56	62	58	54	51																			
4	80	69	60	54	77	67	59	53	62	56	50	59	53	48	55	50	46	44																			
5	74	61	53	46	71	60	51	45	56	49	44	53	47	42	50	45	40	38																			
6	68	55	47	40	66	54	46	40	51	44	38	48	42	37	45	40	36	33																			
7	63	50	42	36	61	49	41	35	46	39	34	43	37	33	41	36	32	30																			
8	59	46	37	32	57	44	37	31	42	35	30	40	34	29	38	32	28	26																			
9	55	42	34	28	53	41	33	28	39	32	27	37	31	26	35	30	26	24																			
10	52	39	31	26	50	38	30	25	36	29	25	34	28	24	32	27	23	22																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2962	2962	2962
5°	2974	2940	2957
10°	2982	2947	2952
15°	2988	2930	2851
20°	3007	2871	2776
25°	3015	2817	2723
30°	3022	2771	2663
35°	3013	2732	2591
40°	2999	2682	2493
45°	2960	2622	2079
50°	2911	2566	1876
55°	2853	2482	1806
60°	2805	2370	1756
65°	2763	2269	1755
70°	2692	2181	1783
75°	2568	2075	1795
80°	2405	1866	1671
85°	2198	1321	1124



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	3.0
10°-20°	148.1	8.6
20°-30°	221.4	12.9
30°-40°	264.2	15.4
40°-50°	264.3	15.4
50°-60°	228.7	13.4
60°-70°	175.5	10.2
70°-80°	107.6	6.3
80°-90°	30.3	1.8
90°-100°	17.1	1.0
100°-110°	27.2	1.6
110°-120°	31.8	1.9
120°-130°	34.3	2.0
130°-140°	33.8	2.0
140°-150°	29.9	1.7
150°-160°	24.6	1.4
160°-170°	16.5	1.0
170°-180°	5.7	0.3
0°-30°	421.6	24.6
0°-40°	685.8	40.0
0°-60°	1178.8	68.8
0°-90°	1492.2	87.1
90°-120°	76.0	4.4
90°-150°	174.0	10.2
90°-180°	221.0	12.9
0°-180°	1713.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	550	549	544	548	547	52
15°	536	535	526	516	512	152
25°	508	501	474	462	459	234
35°	459	447	416	401	394	287
45°	389	378	344	314	273	300
55°	304	297	264	212	192	273
65°	217	209	178	143	138	214
75°	124	117	100	86	86	130
85°	36	29	21	18	18	37
90°	2	6	9	11	12	3
95°	6	14	18	19	19	6
105°	18	19	27	32	33	19
115°	30	25	32	36	39	29
125°	40	32	36	42	44	36
135°	48	44	40	44	47	37
145°	54	52	45	44	46	34
155°	57	56	53	51	50	26
165°	59	59	58	58	58	17
175°	59	60	60	61	61	6
180°	60	60	60	60	60	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	550.4	550.4	550.4	550.4	550.4
2.5°	552.0	550.4	546.5	550.4	549.6
5°	550.4	548.8	544.1	548.1	547.3
7.5°	548.1	546.5	541.7	546.5	545.7
10°	545.7	544.1	539.3	542.5	540.1
12.5°	541.7	540.1	534.6	530.6	525.9
15°	536.2	535.4	525.9	516.4	511.6
17.5°	531.4	529.0	514.0	502.9	497.4
20°	525.1	521.1	501.3	488.7	484.7
22.5°	518.0	511.6	487.9	476.0	472.8
25°	507.7	501.3	474.4	461.7	458.6
27.5°	497.4	489.4	460.9	448.3	445.1
30°	486.3	475.2	445.9	434.0	428.5
32.5°	473.6	462.5	431.6	418.2	411.8
35°	458.6	446.7	415.8	400.7	394.4
37.5°	444.3	431.6	400.0	383.3	374.6
40°	426.9	414.2	381.7	363.5	354.8
42.5°	408.7	396.8	364.3	342.1	320.8
45°	388.9	377.8	344.5	313.6	273.2
47.5°	368.3	358.8	326.3	284.3	245.5
50°	347.7	338.2	306.5	256.6	224.1
52.5°	327.1	319.2	284.3	233.6	206.7
55°	304.1	297.0	264.5	211.5	192.5
57.5°	283.5	276.4	241.6	193.2	177.4
60°	260.6	254.2	220.2	175.0	163.1
62.5°	239.2	232.1	198.8	159.2	150.5
65°	217.0	209.1	178.2	143.3	137.8
67.5°	194.0	186.1	158.4	129.1	125.9
70°	171.1	164.7	138.6	114.8	113.3
72.5°	147.3	140.2	118.8	101.4	101.4
75°	123.5	117.2	99.8	86.3	86.3
77.5°	99.0	95.8	80.0	70.5	71.3
80°	77.6	73.7	60.2	53.9	53.9
82.5°	57.0	52.3	40.4	35.6	37.2
85°	35.6	29.3	21.4	18.2	18.2
87.5°	11.1	8.7	6.3	7.1	7.1
90°	1.6	5.5	8.7	11.1	11.9
92.5°	4.0	10.3	12.7	15.0	15.8
95°	6.3	13.5	18.2	19.0	19.0
97.5°	8.7	15.0	22.2	25.3	25.3
100°	11.9	15.8	23.8	28.5	29.3
102.5°	15.0	17.4	25.3	30.1	31.7
105°	18.2	19.0	26.9	31.7	33.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	26.9	23.8	30.1	35.6	37.2
115°	30.1	25.3	31.7	36.4	38.8
117.5°	32.5	27.7	33.3	38.0	39.6
120°	34.8	29.3	34.1	39.6	41.2
122.5°	38.0	30.9	35.6	40.4	42.8
125°	40.4	32.5	36.4	42.0	43.6
127.5°	42.8	35.6	37.2	42.8	44.4
130°	44.4	38.8	38.0	43.6	45.1
132.5°	46.7	41.2	38.8	44.4	45.9
135°	48.3	43.6	40.4	44.4	46.7
137.5°	49.9	45.9	40.4	44.4	45.9
140°	51.5	48.3	41.2	44.4	45.9
142.5°	52.3	49.9	42.0	44.4	45.9
145°	53.9	51.5	45.1	44.4	45.9
147.5°	54.6	53.1	47.5	44.4	45.9
150°	55.4	54.6	49.9	45.1	45.1
152.5°	56.2	55.4	51.5	48.3	46.7
155°	57.0	56.2	53.1	50.7	49.9
157.5°	57.8	57.8	54.6	53.1	52.3
160°	57.8	58.6	56.2	54.6	53.9
162.5°	58.6	59.4	57.0	56.2	55.4
165°	58.6	59.4	57.8	57.8	57.8
167.5°	59.4	60.2	59.4	58.6	58.6
170°	59.4	60.2	59.4	59.4	59.4
172.5°	59.4	60.2	60.2	60.2	60.2
175°	59.4	60.2	60.2	61.0	61.0
177.5°	59.4	60.2	60.2	60.2	60.2
180°	60.2	60.2	60.2	60.2	60.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	21.4	20.6	27.7	33.3	34.8
110°	23.8	22.2	29.3	34.1	35.6



(END OF REPORT)