

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: P520590

Luminaire Tested: **4WSLA-50-L850-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: P520590
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-L850-UPL8-UNV-U
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 5000K, 80 CRI
LEDS WITH 8% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

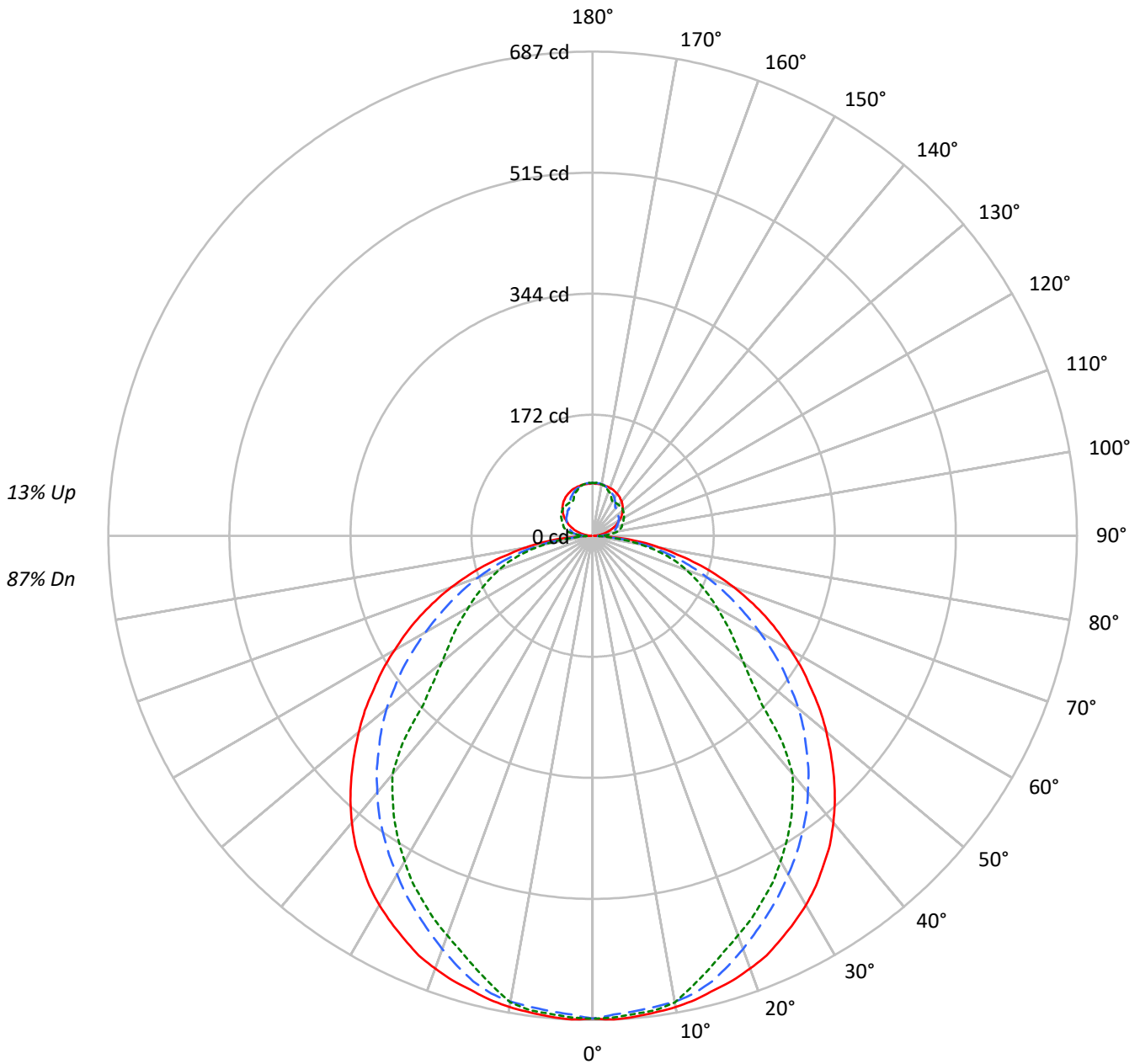
Lumens per Lamp: N/A
Luminaire Lumens: 2132.0 lumens
Efficiency: N/A
Efficacy: 136.7 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	3687	3687	3687
5°	3701	3659	3680
10°	3711	3669	3674
15°	3718	3647	3548
20°	3743	3573	3455
25°	3752	3506	3389
30°	3761	3448	3314
35°	3750	3400	3225
40°	3733	3338	3103
45°	3684	3264	2589
50°	3623	3194	2336
55°	3552	3089	2247
60°	3491	2949	2186
65°	3440	2825	2184
70°	3350	2714	2219
75°	3198	2583	2233
80°	2994	2321	2077
85°	2742	1643	1402



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.9	3.0
10°-20°	184.4	8.6
20°-30°	275.5	12.9
30°-40°	328.9	15.4
40°-50°	328.9	15.4
50°-60°	284.6	13.4
60°-70°	218.5	10.2
70°-80°	133.9	6.3
80°-90°	37.7	1.8
90°-100°	21.3	1.0
100°-110°	33.8	1.6
110°-120°	39.5	1.9
120°-130°	42.7	2.0
130°-140°	42.1	2.0
140°-150°	37.2	1.7
150°-160°	30.6	1.4
160°-170°	20.5	1.0
170°-180°	7.1	0.3
0°-30°	524.7	24.6
0°-40°	853.6	40.0
0°-60°	1467.1	68.8
0°-90°	1857.2	87.1
90°-120°	94.6	4.4
90°-150°	216.6	10.2
90°-180°	275.0	12.9
0°-180°	2132.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	685	685	685	685	685	
5°	685	683	677	682	681	65
15°	667	666	654	643	637	189
25°	632	624	590	575	571	291
35°	571	556	518	499	491	357
45°	484	470	429	390	340	373
55°	378	370	329	263	240	339
65°	270	260	222	178	172	267
75°	154	146	124	107	107	162
85°	44	36	27	23	23	46
90°	2	7	11	14	15	3
95°	8	17	23	24	24	8
105°	23	24	34	39	41	24
115°	38	32	39	45	48	37
125°	50	40	45	52	54	45
135°	60	54	50	55	58	46
145°	67	64	56	55	57	42
155°	71	70	66	63	62	33
165°	73	74	72	72	72	21
175°	74	75	75	76	76	7
180°	75	75	75	75	75	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	685.1	685.1	685.1	685.1	685.1
2.5°	687.0	685.1	680.1	685.1	684.1
5°	685.1	683.1	677.2	682.1	681.1
7.5°	682.1	680.1	674.2	680.1	679.1
10°	679.1	677.2	671.3	675.2	672.2
12.5°	674.2	672.2	665.3	660.4	654.5
15°	667.3	666.3	654.5	642.7	636.8
17.5°	661.4	658.4	639.7	625.9	619.0
20°	653.5	648.6	623.9	608.2	603.2
22.5°	644.6	636.8	607.2	592.4	588.5
25°	631.8	623.9	590.4	574.7	570.7
27.5°	619.0	609.2	573.7	557.9	554.0
30°	605.2	591.4	554.9	540.2	533.3
32.5°	589.4	575.6	537.2	520.4	512.6
35°	570.7	555.9	517.5	498.8	490.9
37.5°	553.0	537.2	497.8	477.1	466.2
40°	531.3	515.5	475.1	452.4	441.6
42.5°	508.6	493.8	453.4	425.8	399.2
45°	484.0	470.2	428.8	390.3	340.1
47.5°	458.4	446.5	406.1	353.9	305.6
50°	432.7	420.9	381.5	319.4	279.0
52.5°	407.1	397.2	353.9	290.8	257.3
55°	378.5	369.6	329.2	263.2	239.5
57.5°	352.9	344.0	300.6	240.5	220.8
60°	324.3	316.4	274.0	217.8	203.1
62.5°	297.7	288.8	247.4	198.1	187.3
65°	270.1	260.2	221.8	178.4	171.5
67.5°	241.5	231.6	197.1	160.7	156.7
70°	212.9	205.0	172.5	142.9	141.0
72.5°	183.3	174.5	147.9	126.2	126.2
75°	153.8	145.9	124.2	107.4	107.4
77.5°	123.2	119.3	99.6	87.7	88.7
80°	96.6	91.7	74.9	67.0	67.0
82.5°	71.0	65.1	50.3	44.4	46.3
85°	44.4	36.5	26.6	22.7	22.7
87.5°	13.8	10.8	7.9	8.9	8.9
90°	2.0	6.9	10.8	13.8	14.8
92.5°	4.9	12.8	15.8	18.7	19.7
95°	7.9	16.8	22.7	23.7	23.7
97.5°	10.8	18.7	27.6	31.5	31.5
100°	14.8	19.7	29.6	35.5	36.5
102.5°	18.7	21.7	31.5	37.5	39.4
105°	22.7	23.7	33.5	39.4	41.4



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CATALOG NUMBER: 4WSLA-50-L850-UPL8-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	33.5	29.6	37.5	44.4	46.3
115°	37.5	31.5	39.4	45.3	48.3
117.5°	40.4	34.5	41.4	47.3	49.3
120°	43.4	36.5	42.4	49.3	51.3
122.5°	47.3	38.4	44.4	50.3	53.2
125°	50.3	40.4	45.3	52.2	54.2
127.5°	53.2	44.4	46.3	53.2	55.2
130°	55.2	48.3	47.3	54.2	56.2
132.5°	58.2	51.3	48.3	55.2	57.2
135°	60.1	54.2	50.3	55.2	58.2
137.5°	62.1	57.2	50.3	55.2	57.2
140°	64.1	60.1	51.3	55.2	57.2
142.5°	65.1	62.1	52.2	55.2	57.2
145°	67.0	64.1	56.2	55.2	57.2
147.5°	68.0	66.0	59.1	55.2	57.2
150°	69.0	68.0	62.1	56.2	56.2
152.5°	70.0	69.0	64.1	60.1	58.2
155°	71.0	70.0	66.0	63.1	62.1
157.5°	72.0	72.0	68.0	66.0	65.1
160°	72.0	72.9	70.0	68.0	67.0
162.5°	72.9	73.9	71.0	70.0	69.0
165°	72.9	73.9	72.0	72.0	72.0
167.5°	73.9	74.9	73.9	72.9	72.9
170°	73.9	74.9	73.9	73.9	73.9
172.5°	73.9	74.9	74.9	74.9	74.9
175°	73.9	74.9	74.9	75.9	75.9
177.5°	73.9	74.9	74.9	74.9	74.9
180°	74.9	74.9	74.9	74.9	74.9



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	26.6	25.6	34.5	41.4	43.4
110°	29.6	27.6	36.5	42.4	44.4



(END OF REPORT)