

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: P520587

Luminaire Tested: **4WSLA-50-L840-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: P520587
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-L840-UPL8-UNV-U
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 80 CRI
LEDS WITH 8% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

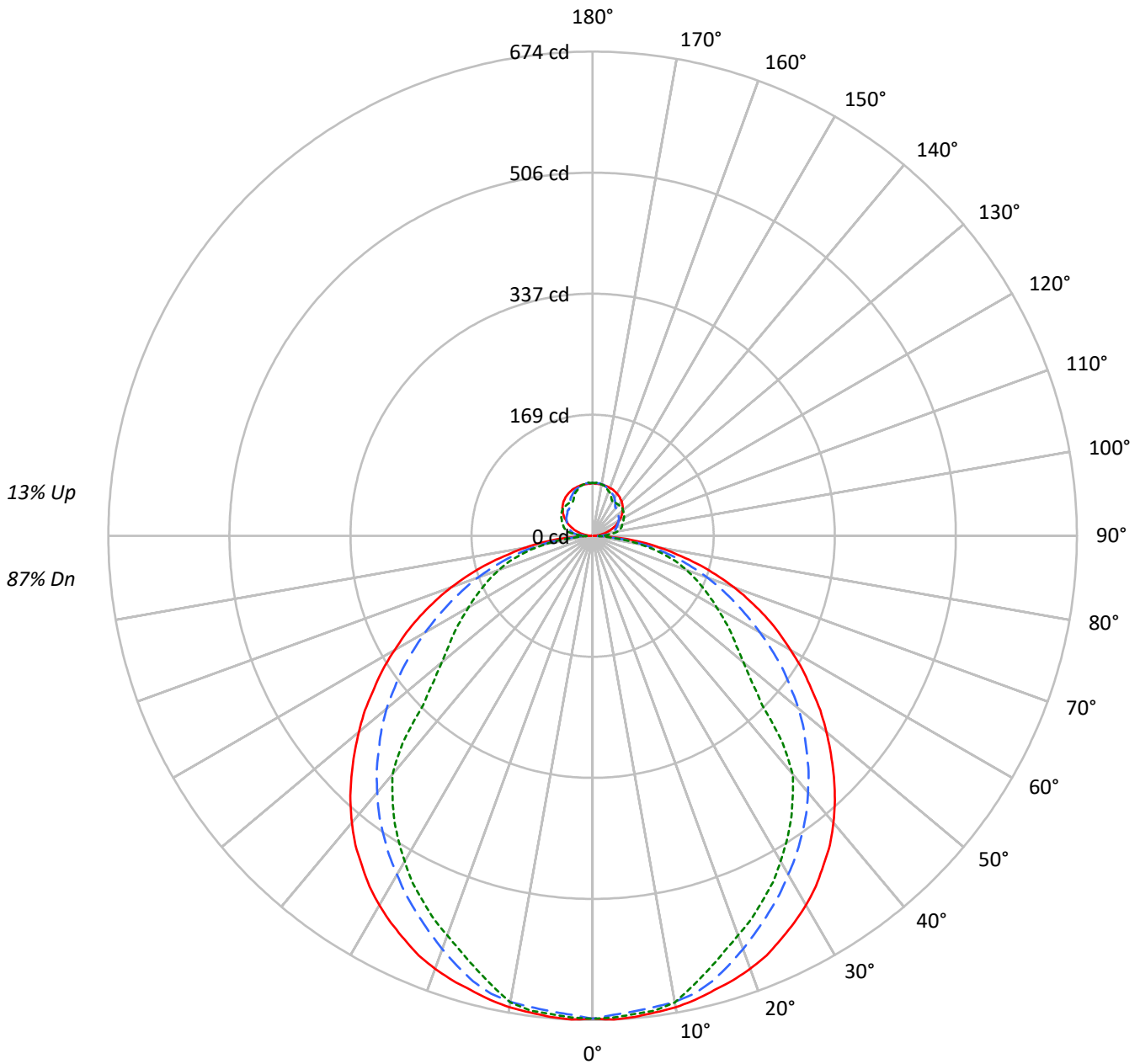
Lumens per Lamp: N/A
Luminaire Lumens: 2092.0 lumens
Efficiency: N/A
Efficacy: 134.1 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 15.6
Input Voltage (V): NR
Input Current (Ain): 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°	3618	3618	3618
5°	3632	3590	3611
10°	3642	3600	3605
15°	3648	3578	3481
20°	3673	3506	3390
25°	3682	3441	3325
30°	3691	3384	3252
35°	3679	3336	3165
40°	3662	3275	3044
45°	3615	3202	2540
50°	3555	3134	2292
55°	3485	3031	2205
60°	3425	2894	2144
65°	3375	2771	2143
70°	3287	2664	2176
75°	3138	2535	2192
80°	2938	2278	2039
85°	2686	1612	1371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.6	3.0
10°-20°	180.9	8.6
20°-30°	270.3	12.9
30°-40°	322.7	15.4
40°-50°	322.7	15.4
50°-60°	279.3	13.4
60°-70°	214.4	10.2
70°-80°	131.4	6.3
80°-90°	37.0	1.8
90°-100°	20.9	1.0
100°-110°	33.2	1.6
110°-120°	38.8	1.9
120°-130°	41.9	2.0
130°-140°	41.3	2.0
140°-150°	36.5	1.7
150°-160°	30.0	1.4
160°-170°	20.1	1.0
170°-180°	7.0	0.3
0°-30°	514.9	24.6
0°-40°	837.6	40.0
0°-60°	1439.6	68.8
0°-90°	1822.3	87.1
90°-120°	92.9	4.4
90°-150°	212.5	10.2
90°-180°	270.0	12.9
0°-180°	2092.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	672	672	672	672	672	
5°	672	670	664	669	668	64
15°	655	654	642	631	625	185
25°	620	612	579	564	560	286
35°	560	546	508	489	482	351
45°	475	461	421	383	334	366
55°	371	363	323	258	235	333
65°	265	255	218	175	168	262
75°	151	143	122	105	105	159
85°	44	36	26	22	22	45
90°	2	7	11	14	14	3
95°	8	16	22	23	23	8
105°	22	23	33	39	41	23
115°	37	31	39	44	47	36
125°	49	40	44	51	53	44
135°	59	53	49	54	57	46
145°	66	63	55	54	56	41
155°	70	69	65	62	61	32
165°	72	72	71	71	71	20
175°	72	74	74	74	74	7
180°	74	74	74	74	74	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	672.2	672.2	672.2	672.2	672.2
2.5°	674.1	672.2	667.4	672.2	671.2
5°	672.2	670.3	664.5	669.3	668.3
7.5°	669.3	667.4	661.6	667.4	666.4
10°	666.4	664.5	658.7	662.5	659.6
12.5°	661.6	659.6	652.9	648.0	642.2
15°	654.8	653.8	642.2	630.6	624.8
17.5°	649.0	646.1	627.7	614.2	607.4
20°	641.3	636.4	612.2	596.8	591.9
22.5°	632.6	624.8	595.8	581.3	577.4
25°	620.0	612.2	579.4	563.9	560.0
27.5°	607.4	597.7	562.9	547.4	543.6
30°	593.9	580.3	544.5	530.0	523.3
32.5°	578.4	564.8	527.1	510.7	502.9
35°	560.0	545.5	507.8	489.4	481.7
37.5°	542.6	527.1	488.4	468.1	457.5
40°	521.3	505.8	466.2	443.9	433.3
42.5°	499.1	484.6	444.9	417.8	391.7
45°	474.9	461.4	420.7	383.0	333.7
47.5°	449.8	438.1	398.5	347.2	299.8
50°	424.6	413.0	374.3	313.4	273.7
52.5°	399.5	389.8	347.2	285.3	252.4
55°	371.4	362.7	323.0	258.2	235.0
57.5°	346.3	337.6	295.0	236.0	216.7
60°	318.2	310.5	268.9	213.8	199.2
62.5°	292.1	283.4	242.8	194.4	183.8
65°	265.0	255.3	217.6	175.1	168.3
67.5°	237.0	227.3	193.4	157.7	153.8
70°	208.9	201.2	169.3	140.2	138.3
72.5°	179.9	171.2	145.1	123.8	123.8
75°	150.9	143.1	121.9	105.4	105.4
77.5°	120.9	117.0	97.7	86.1	87.0
80°	94.8	90.0	73.5	65.8	65.8
82.5°	69.6	63.8	49.3	43.5	45.5
85°	43.5	35.8	26.1	22.2	22.2
87.5°	13.5	10.6	7.7	8.7	8.7
90°	1.9	6.8	10.6	13.5	14.5
92.5°	4.8	12.6	15.5	18.4	19.3
95°	7.7	16.4	22.2	23.2	23.2
97.5°	10.6	18.4	27.1	31.0	31.0
100°	14.5	19.3	29.0	34.8	35.8
102.5°	18.4	21.3	31.0	36.8	38.7
105°	22.2	23.2	32.9	38.7	40.6



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CATALOG NUMBER: 4WSLA-50-L840-UPL8-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	32.9	29.0	36.8	43.5	45.5
115°	36.8	31.0	38.7	44.5	47.4
117.5°	39.7	33.9	40.6	46.4	48.4
120°	42.6	35.8	41.6	48.4	50.3
122.5°	46.4	37.7	43.5	49.3	52.2
125°	49.3	39.7	44.5	51.3	53.2
127.5°	52.2	43.5	45.5	52.2	54.2
130°	54.2	47.4	46.4	53.2	55.1
132.5°	57.1	50.3	47.4	54.2	56.1
135°	59.0	53.2	49.3	54.2	57.1
137.5°	60.9	56.1	49.3	54.2	56.1
140°	62.9	59.0	50.3	54.2	56.1
142.5°	63.8	60.9	51.3	54.2	56.1
145°	65.8	62.9	55.1	54.2	56.1
147.5°	66.7	64.8	58.0	54.2	56.1
150°	67.7	66.7	60.9	55.1	55.1
152.5°	68.7	67.7	62.9	59.0	57.1
155°	69.6	68.7	64.8	61.9	60.9
157.5°	70.6	70.6	66.7	64.8	63.8
160°	70.6	71.6	68.7	66.7	65.8
162.5°	71.6	72.5	69.6	68.7	67.7
165°	71.6	72.5	70.6	70.6	70.6
167.5°	72.5	73.5	72.5	71.6	71.6
170°	72.5	73.5	72.5	72.5	72.5
172.5°	72.5	73.5	73.5	73.5	73.5
175°	72.5	73.5	73.5	74.5	74.5
177.5°	72.5	73.5	73.5	73.5	73.5
180°	73.5	73.5	73.5	73.5	73.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	26.1	25.1	33.9	40.6	42.6
110°	29.0	27.1	35.8	41.6	43.5



(END OF REPORT)