

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: P520592

Luminaire Tested: **4WSLA-50-L930-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: P520592
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-L930-UPL15-UNV-U
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 90 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

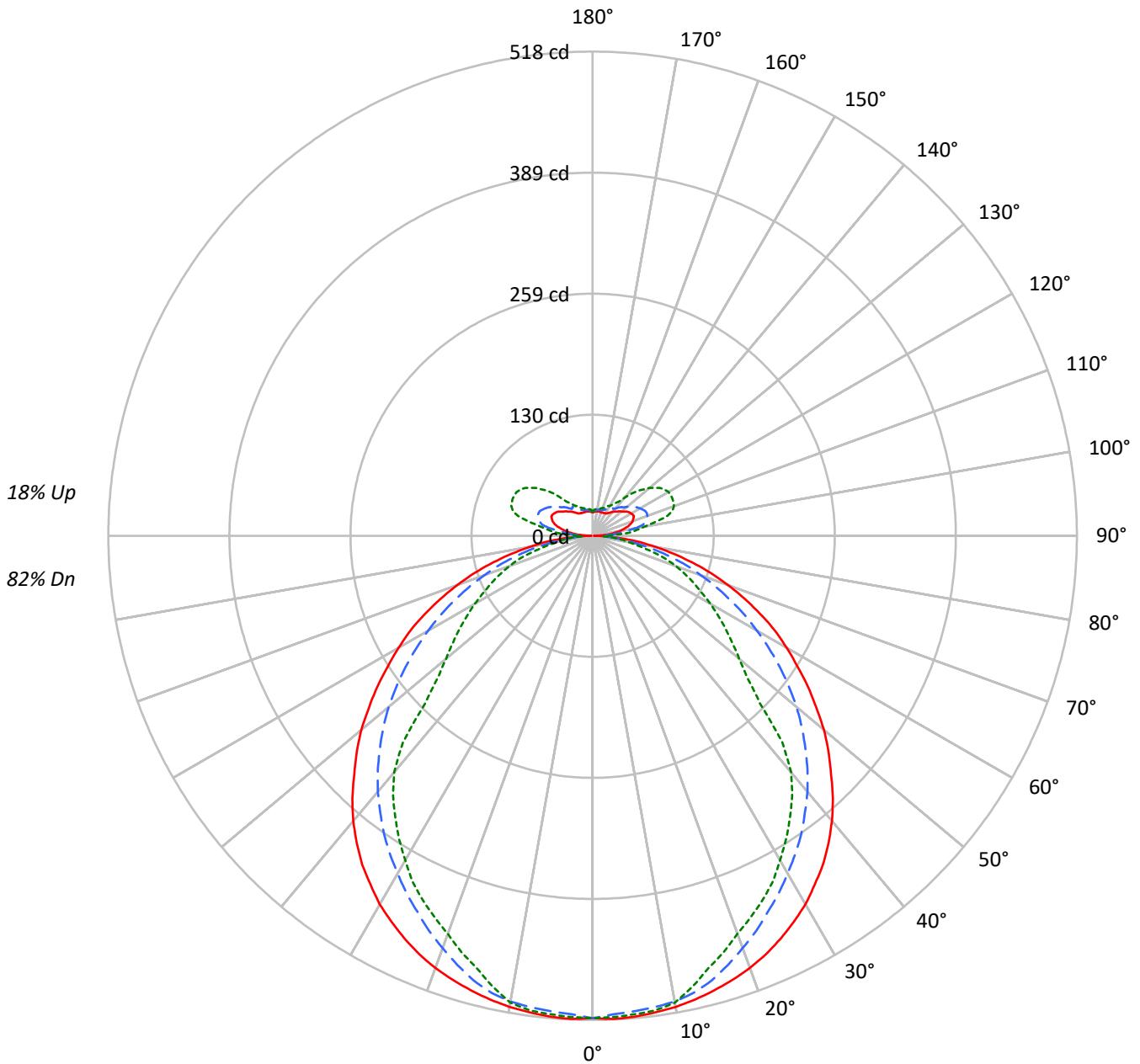
Lumens per Lamp: N/A
Luminaire Lumens: 1671.0 lumens
Efficiency: N/A
Efficacy: 107.1 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 15.6
Input Voltage (V): NR
Input Current (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	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°	2777	2777	2777
5°	2790	2759	2776
10°	2797	2765	2771
15°	2805	2744	2668
20°	2817	2688	2596
25°	2825	2635	2554
30°	2829	2592	2491
35°	2823	2558	2417
40°	2798	2511	2320
45°	2744	2449	1923
50°	2704	2384	1713
55°	2637	2289	1630
60°	2580	2185	1566
65°	2519	2066	1519
70°	2420	1936	1490
75°	2285	1774	1370
80°	2092	1491	1215
85°	1877	1291	1229



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.9	2.9
10°-20°	138.9	8.3
20°-30°	207.3	12.4
30°-40°	247.0	14.8
40°-50°	245.7	14.7
50°-60°	210.6	12.6
60°-70°	158.6	9.5
70°-80°	91.8	5.5
80°-90°	27.6	1.7
90°-100°	29.6	1.8
100°-110°	60.9	3.6
110°-120°	64.3	3.9
120°-130°	53.7	3.2
130°-140°	37.5	2.2
140°-150°	23.3	1.4
150°-160°	14.5	0.9
160°-170°	8.2	0.5
170°-180°	2.6	0.2
0°-30°	395.1	23.6
0°-40°	642.1	38.4
0°-60°	1098.4	65.7
0°-90°	1376.4	82.4
90°-120°	154.8	9.3
90°-150°	269.4	16.1
90°-180°	295.0	17.7
0°-180°	1671.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	516	516	516	516	516	
5°	516	515	511	514	514	49
15°	503	503	492	484	479	142
25°	476	469	444	433	430	219
35°	430	418	389	374	368	268
45°	360	352	322	290	253	279
55°	281	277	244	194	174	251
65°	198	193	162	126	119	196
75°	110	106	85	68	66	116
85°	30	27	21	20	20	32
90°	2	7	13	16	17	3
95°	17	22	26	38	41	16
105°	39	41	59	78	83	41
115°	49	41	62	86	94	47
125°	45	40	54	79	89	40
135°	37	40	43	59	68	29
145°	30	34	38	40	43	19
155°	27	29	31	34	34	13
165°	27	28	29	30	30	8
175°	26	27	27	28	28	2
180°	26	26	26	26	26	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	516.0	516.0	516.0	516.0	516.0
2.5°	517.5	516.5	512.3	516.5	515.4
5°	516.5	514.9	510.7	514.4	513.9
7.5°	514.4	513.3	508.6	512.8	512.3
10°	511.8	510.2	506.0	509.2	507.1
12.5°	508.1	507.1	500.8	498.2	494.0
15°	503.4	502.9	492.4	484.0	478.8
17.5°	498.2	496.1	481.4	471.5	466.8
20°	491.9	488.7	469.4	457.9	453.2
22.5°	484.6	479.9	457.4	446.4	441.7
25°	475.7	468.9	443.7	432.8	430.1
27.5°	465.7	457.9	431.2	420.2	417.1
30°	455.3	445.3	417.1	406.6	400.8
32.5°	442.2	432.8	403.5	391.4	385.1
35°	429.6	418.1	389.3	374.1	367.9
37.5°	414.4	402.9	373.1	357.9	350.6
40°	398.2	386.7	357.4	339.6	330.2
42.5°	380.4	370.0	340.1	318.7	300.4
45°	360.5	351.6	321.8	289.9	252.7
47.5°	342.2	333.9	303.5	262.2	224.0
50°	322.9	315.0	284.7	236.0	204.6
52.5°	301.4	295.7	264.3	213.5	188.4
55°	281.0	276.8	243.9	193.6	173.7
57.5°	259.5	255.4	223.4	174.8	159.1
60°	239.7	235.5	203.0	158.0	145.5
62.5°	219.8	214.0	183.1	141.8	131.3
65°	197.8	193.1	162.2	126.1	119.3
67.5°	175.8	171.6	142.9	111.5	106.8
70°	153.8	150.2	123.0	97.3	94.7
72.5°	132.4	127.7	105.2	83.2	82.2
75°	109.9	106.2	85.3	68.0	65.9
77.5°	88.4	85.3	67.0	51.8	50.2
80°	67.5	64.4	48.1	37.7	39.2
82.5°	49.7	45.5	32.4	29.3	30.9
85°	30.4	26.7	20.9	19.9	19.9
87.5°	10.5	9.9	9.4	11.0	11.5
90°	1.6	7.3	12.6	15.7	16.7
92.5°	8.9	13.1	17.3	20.4	21.5
95°	16.7	22.5	25.6	37.7	40.8
97.5°	23.0	29.8	33.5	44.5	47.6
100°	29.3	35.6	47.1	52.9	56.5
102.5°	34.5	39.2	55.5	67.0	69.1
105°	39.2	40.8	58.6	78.5	83.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	47.1	41.9	62.8	85.3	93.7
115°	48.7	41.3	62.3	85.8	94.2
117.5°	48.7	41.3	60.7	85.8	94.2
120°	47.6	41.9	58.6	84.8	93.7
122.5°	46.6	40.8	56.5	82.7	91.6
125°	45.0	39.8	53.9	79.0	89.0
127.5°	42.4	40.8	51.3	74.3	84.2
130°	40.3	41.3	48.1	69.6	79.5
132.5°	38.7	40.3	45.0	64.4	73.3
135°	36.6	39.8	43.4	58.6	67.5
137.5°	35.1	38.2	40.8	53.4	60.7
140°	33.5	37.2	38.2	46.6	52.9
142.5°	31.4	35.6	36.1	43.4	46.0
145°	29.8	34.5	37.7	40.3	42.9
147.5°	28.3	32.4	36.6	37.2	39.8
150°	27.7	30.4	35.1	35.6	36.6
152.5°	27.2	29.3	32.4	35.6	36.1
155°	27.2	28.8	30.9	33.5	34.0
157.5°	26.7	28.8	29.8	31.9	32.4
160°	26.7	28.3	29.3	30.9	31.4
162.5°	26.7	28.3	28.8	30.4	30.9
165°	26.7	27.7	28.8	29.8	29.8
167.5°	26.7	27.7	28.3	29.3	29.3
170°	26.7	27.2	28.3	28.8	28.8
172.5°	26.2	27.2	27.7	28.8	28.8
175°	26.2	26.7	27.2	27.7	28.3
177.5°	25.1	26.7	27.2	27.7	27.2
180°	25.6	25.6	25.6	25.6	25.6



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	42.9	41.3	60.7	82.7	89.5
110°	45.5	41.9	62.3	84.2	92.6



(END OF REPORT)