

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: P520583

Luminaire Tested: **4WSLA-50-L835-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: P520583
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-L835-UPL15-UNV-U
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 80 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

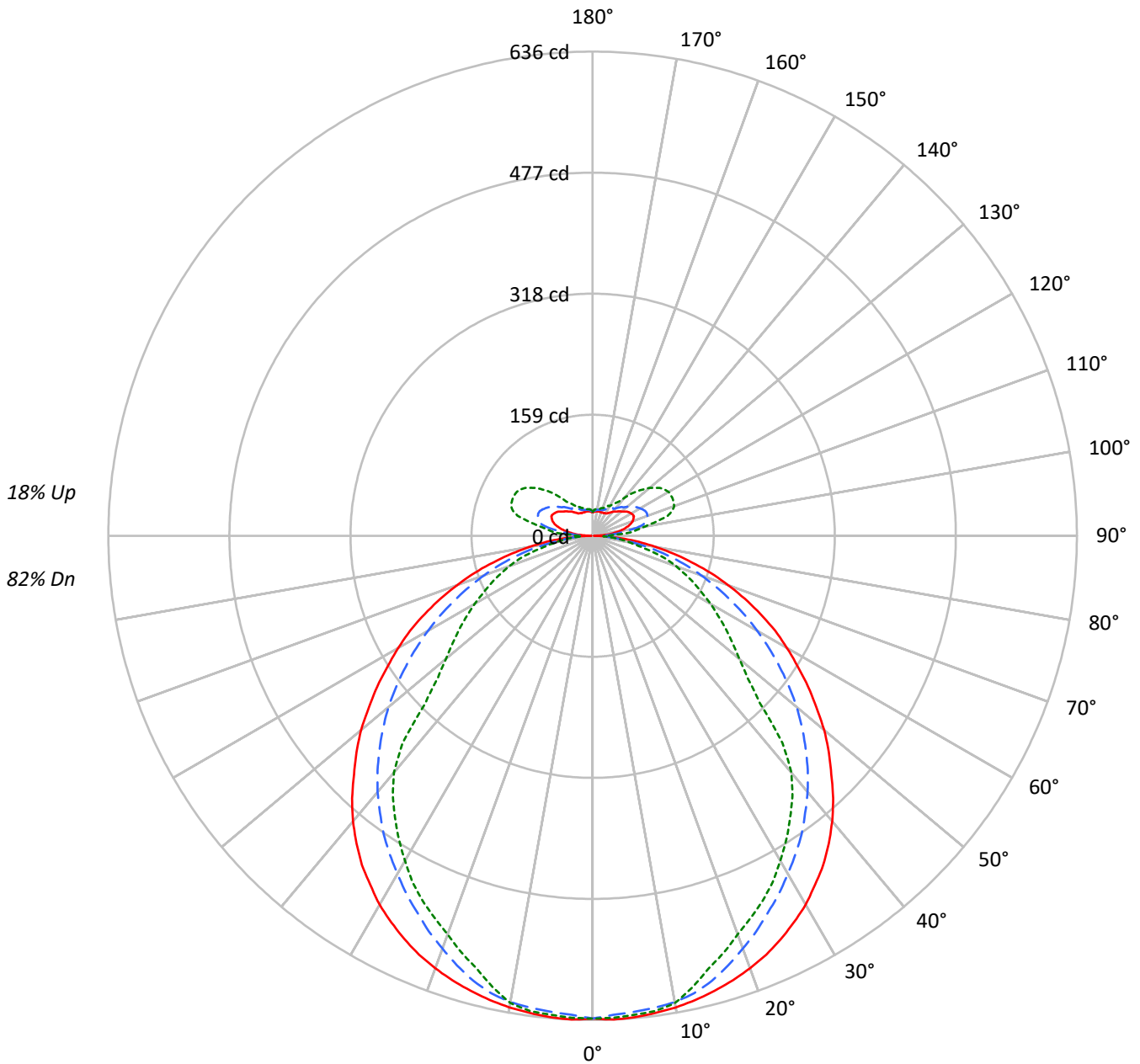
Lumens per Lamp: N/A
Luminaire Lumens: 2054.0 lumens
Efficiency: N/A
Efficacy: 131.7 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 15.6
Input Voltage (V): NR
Input Current (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

TEST NUMBER: P520583

CATALOG NUMBER: 4WSLA-50-L835-UPL15-UNV-U

Luminous Intensity Polar Plot





TEST NUMBER: P520583

CATALOG NUMBER: 4WSLA-50-L835-UPL15-UNV-U

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°	3413	3413	3413
5°	3430	3392	3412
10°	3438	3399	3406
15°	3448	3373	3279
20°	3463	3305	3190
25°	3472	3239	3140
30°	3478	3186	3062
35°	3470	3144	2971
40°	3439	3086	2852
45°	3373	3011	2365
50°	3323	2930	2106
55°	3241	2812	2004
60°	3171	2687	1925
65°	3096	2539	1868
70°	2976	2379	1832
75°	2809	2179	1684
80°	2572	1835	1494
85°	2303	1587	1507



TEST NUMBER: P520583

CATALOG NUMBER: 4WSLA-50-L835-UPL15-UNV-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.1	2.9
10°-20°	170.7	8.3
20°-30°	254.8	12.4
30°-40°	303.6	14.8
40°-50°	302.0	14.7
50°-60°	258.8	12.6
60°-70°	194.9	9.5
70°-80°	112.9	5.5
80°-90°	33.9	1.7
90°-100°	36.4	1.8
100°-110°	74.8	3.6
110°-120°	79.1	3.9
120°-130°	66.0	3.2
130°-140°	46.1	2.2
140°-150°	28.7	1.4
150°-160°	17.8	0.9
160°-170°	10.0	0.5
170°-180°	3.2	0.2
<hr/>		
0°-30°	485.7	23.6
0°-40°	789.3	38.4
0°-60°	1350.1	65.7
0°-90°	1691.9	82.4
90°-120°	190.3	9.3
90°-150°	331.1	16.1
90°-180°	362.0	17.6
0°-180°	2054.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	634	634	634	634	634	
5°	635	633	628	632	632	60
15°	619	618	605	595	588	175
25°	585	576	546	532	529	270
35°	528	514	479	460	452	330
45°	443	432	396	356	311	343
55°	345	340	300	238	214	309
65°	243	237	199	155	147	240
75°	135	131	105	84	81	143
85°	37	33	26	24	24	40
90°	2	9	15	19	21	4
95°	21	28	32	46	50	20
105°	48	50	72	96	102	50
115°	60	51	76	106	116	58
125°	55	49	66	97	109	49
135°	45	49	53	72	83	35
145°	37	42	46	50	53	23
155°	33	35	38	41	42	15
165°	33	34	35	37	37	9
175°	32	33	33	34	35	3
180°	32	32	32	32	32	



TEST NUMBER: P520583

CATALOG NUMBER: 4WSLA-50-L835-UPL15-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	634.2	634.2	634.2	634.2	634.2
2.5°	636.1	634.9	629.7	634.9	633.6
5°	634.9	632.9	627.8	632.3	631.6
7.5°	632.3	631.0	625.2	630.4	629.7
10°	629.1	627.1	622.0	625.9	623.3
12.5°	624.6	623.3	615.6	612.3	607.2
15°	618.8	618.1	605.3	595.0	588.5
17.5°	612.3	609.8	591.8	579.5	573.8
20°	604.6	600.8	577.0	562.8	557.0
22.5°	595.6	589.8	562.2	548.7	542.9
25°	584.7	576.3	545.5	531.9	528.7
27.5°	572.5	562.8	530.0	516.5	512.6
30°	559.6	547.4	512.6	499.8	492.7
32.5°	543.5	531.9	495.9	481.1	473.4
35°	528.1	513.9	478.6	459.9	452.2
37.5°	509.4	495.3	458.6	440.0	431.0
40°	489.5	475.3	439.3	417.5	405.9
42.5°	467.6	454.8	418.1	391.7	369.2
45°	443.2	432.2	395.6	356.3	310.7
47.5°	420.7	410.4	373.1	322.3	275.3
50°	396.9	387.2	349.9	290.1	251.5
52.5°	370.5	363.4	324.8	262.4	231.6
55°	345.4	340.3	299.7	238.0	213.6
57.5°	319.0	313.9	274.7	214.8	195.5
60°	294.6	289.5	249.6	194.3	178.8
62.5°	270.2	263.1	225.1	174.3	161.4
65°	243.1	237.3	199.4	155.0	146.7
67.5°	216.1	211.0	175.6	137.0	131.2
70°	189.1	184.6	151.2	119.6	116.4
72.5°	162.7	156.9	129.3	102.3	101.0
75°	135.1	130.6	104.8	83.6	81.0
77.5°	108.7	104.8	82.3	63.7	61.7
80°	83.0	79.1	59.2	46.3	48.2
82.5°	61.1	56.0	39.9	36.0	38.0
85°	37.3	32.8	25.7	24.4	24.4
87.5°	12.9	12.2	11.6	13.5	14.2
90°	1.9	9.0	15.4	19.3	20.6
92.5°	10.9	16.1	21.2	25.1	26.4
95°	20.6	27.7	31.5	46.3	50.2
97.5°	28.3	36.7	41.2	54.7	58.5
100°	36.0	43.7	57.9	65.0	69.5
102.5°	42.5	48.2	68.2	82.3	84.9
105°	48.2	50.2	72.0	96.5	102.3



TEST NUMBER: P520583

CATALOG NUMBER: 4WSLA-50-L835-UPL15-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	57.9	51.5	77.2	104.8	115.1
115°	59.8	50.8	76.5	105.5	115.8
117.5°	59.8	50.8	74.6	105.5	115.8
120°	58.5	51.5	72.0	104.2	115.1
122.5°	57.2	50.2	69.5	101.6	112.6
125°	55.3	48.9	66.3	97.1	109.3
127.5°	52.1	50.2	63.0	91.3	103.6
130°	49.5	50.8	59.2	85.5	97.8
132.5°	47.6	49.5	55.3	79.1	90.1
135°	45.0	48.9	53.4	72.0	83.0
137.5°	43.1	47.0	50.2	65.6	74.6
140°	41.2	45.7	47.0	57.2	65.0
142.5°	38.6	43.7	44.4	53.4	56.6
145°	36.7	42.5	46.3	49.5	52.7
147.5°	34.7	39.9	45.0	45.7	48.9
150°	34.1	37.3	43.1	43.7	45.0
152.5°	33.4	36.0	39.9	43.7	44.4
155°	33.4	35.4	38.0	41.2	41.8
157.5°	32.8	35.4	36.7	39.2	39.9
160°	32.8	34.7	36.0	38.0	38.6
162.5°	32.8	34.7	35.4	37.3	38.0
165°	32.8	34.1	35.4	36.7	36.7
167.5°	32.8	34.1	34.7	36.0	36.0
170°	32.8	33.4	34.7	35.4	35.4
172.5°	32.2	33.4	34.1	35.4	35.4
175°	32.2	32.8	33.4	34.1	34.7
177.5°	30.9	32.8	33.4	34.1	33.4
180°	31.5	31.5	31.5	31.5	31.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	52.7	50.8	74.6	101.6	110.0
110°	56.0	51.5	76.5	103.6	113.9



(END OF REPORT)