

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: P520595

Luminaire Tested: **4WSLA-50-L935-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: P520595
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-L935-UPL15-UNV-U
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 90 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

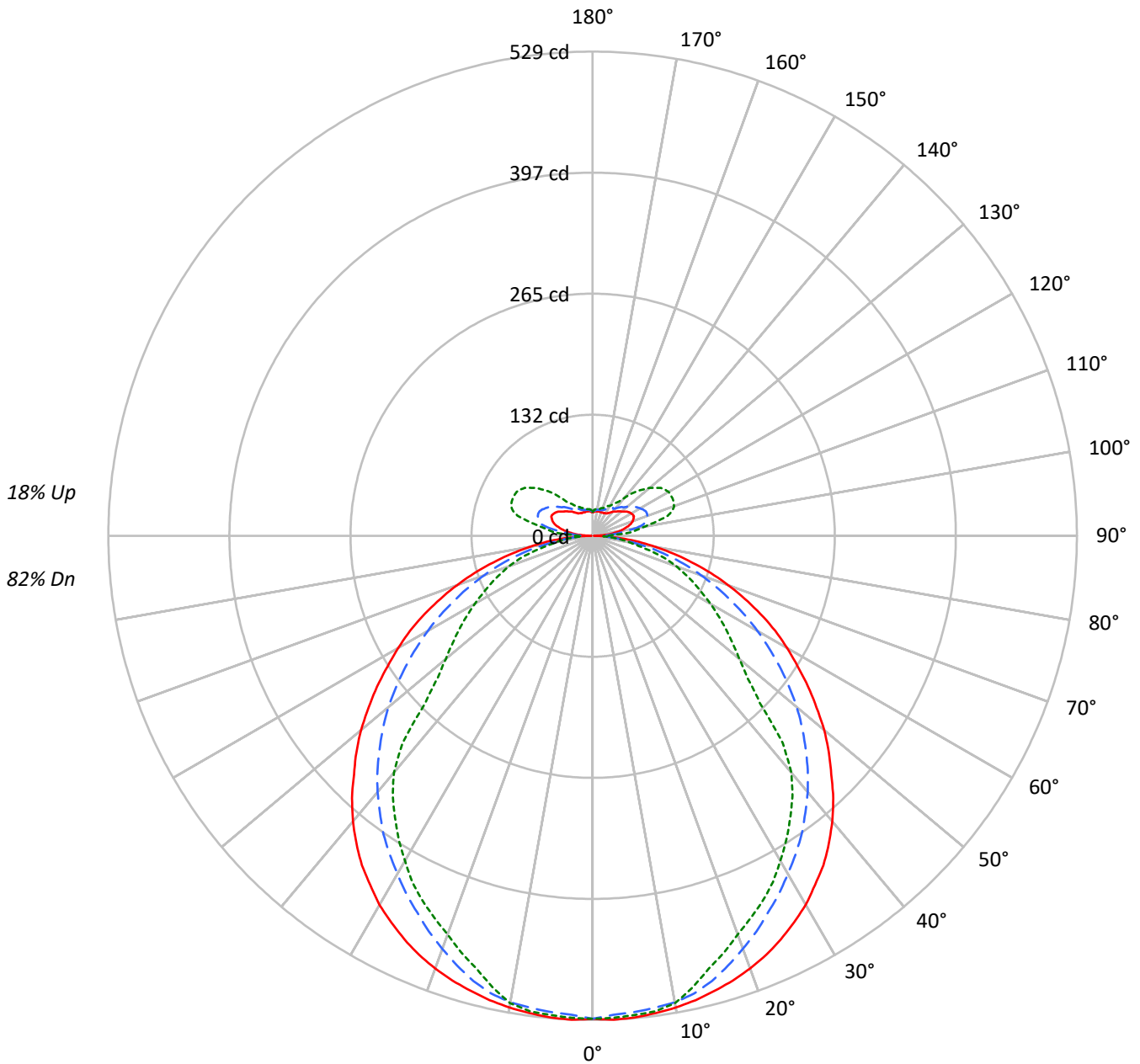
Lumens per Lamp: N/A
Luminaire Lumens: 1709.0 lumens
Efficiency: N/A
Efficacy: 109.5 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

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: P520595

CATALOG NUMBER: 4WSLA-50-L935-UPL15-UNV-U

Luminous Intensity Polar Plot





TEST NUMBER: P520595

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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°	2840	2840	2840
5°	2854	2822	2840
10°	2860	2828	2834
15°	2868	2806	2729
20°	2881	2750	2655
25°	2889	2695	2612
30°	2893	2651	2548
35°	2887	2616	2472
40°	2862	2568	2373
45°	2806	2505	1968
50°	2765	2437	1752
55°	2697	2340	1667
60°	2638	2236	1602
65°	2576	2113	1554
70°	2475	1980	1525
75°	2337	1813	1402
80°	2139	1525	1243
85°	1914	1321	1254



TEST NUMBER: P520595

CATALOG NUMBER: 4WSLA-50-L935-UPL15-UNV-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.0	2.9
10°-20°	142.1	8.3
20°-30°	212.0	12.4
30°-40°	252.6	14.8
40°-50°	251.3	14.7
50°-60°	215.4	12.6
60°-70°	162.2	9.5
70°-80°	93.9	5.5
80°-90°	28.2	1.7
90°-100°	30.3	1.8
100°-110°	62.2	3.6
110°-120°	65.8	3.9
120°-130°	54.9	3.2
130°-140°	38.3	2.2
140°-150°	23.9	1.4
150°-160°	14.8	0.9
160°-170°	8.3	0.5
170°-180°	2.7	0.2
0°-30°	404.1	23.6
0°-40°	656.7	38.4
0°-60°	1123.4	65.7
0°-90°	1407.7	82.4
90°-120°	158.4	9.3
90°-150°	275.5	16.1
90°-180°	301.0	17.6
0°-180°	1709.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	528	528	528	528	528	
5°	528	527	522	526	526	50
15°	515	514	504	495	490	145
25°	486	480	454	443	440	224
35°	439	428	398	383	376	274
45°	369	360	329	296	258	285
55°	287	283	249	198	178	257
65°	202	198	166	129	122	200
75°	112	109	87	70	67	119
85°	31	27	21	20	20	33
90°	2	8	13	16	17	3
95°	17	23	26	38	42	16
105°	40	42	60	80	85	42
115°	50	42	64	88	96	48
125°	46	41	55	81	91	41
135°	38	41	44	60	69	29
145°	30	35	38	41	44	19
155°	28	29	32	34	35	13
165°	27	28	29	30	30	8
175°	27	27	28	28	29	3
180°	26	26	26	26	26	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	527.7	527.7	527.7	527.7	527.7
2.5°	529.3	528.2	523.9	528.2	527.2
5°	528.2	526.6	522.3	526.1	525.6
7.5°	526.1	525.0	520.2	524.5	523.9
10°	523.4	521.8	517.5	520.7	518.6
12.5°	519.7	518.6	512.2	509.5	505.2
15°	514.8	514.3	503.6	495.0	489.7
17.5°	509.5	507.4	492.4	482.2	477.4
20°	503.1	499.9	480.1	468.3	463.5
22.5°	495.6	490.8	467.8	456.5	451.7
25°	486.5	479.5	453.8	442.6	439.9
27.5°	476.3	468.3	441.0	429.8	426.5
30°	465.6	455.4	426.5	415.8	410.0
32.5°	452.2	442.6	412.6	400.3	393.9
35°	439.4	427.6	398.2	382.7	376.2
37.5°	423.9	412.1	381.6	366.1	358.6
40°	407.3	395.5	365.5	347.3	337.7
42.5°	389.1	378.4	347.9	325.9	307.2
45°	368.7	359.6	329.1	296.5	258.5
47.5°	350.0	341.4	310.4	268.1	229.1
50°	330.2	322.2	291.1	241.4	209.3
52.5°	308.3	302.4	270.3	218.4	192.7
55°	287.4	283.1	249.4	198.0	177.7
57.5°	265.5	261.2	228.5	178.8	162.7
60°	245.1	240.8	207.7	161.6	148.8
62.5°	224.8	218.9	187.3	145.0	134.3
65°	202.3	197.5	165.9	129.0	122.0
67.5°	179.8	175.5	146.1	114.0	109.2
70°	157.3	153.6	125.8	99.5	96.9
72.5°	135.4	130.6	107.6	85.1	84.0
75°	112.4	108.6	87.2	69.6	67.4
77.5°	90.4	87.2	68.5	53.0	51.4
80°	69.0	65.8	49.2	38.5	40.1
82.5°	50.8	46.6	33.2	30.0	31.6
85°	31.0	27.3	21.4	20.3	20.3
87.5°	10.7	10.2	9.6	11.2	11.8
90°	1.6	7.5	12.8	16.1	17.1
92.5°	9.1	13.4	17.7	20.9	21.9
95°	17.1	23.0	26.2	38.5	41.7
97.5°	23.5	30.5	34.3	45.5	48.7
100°	30.0	36.4	48.2	54.1	57.8
102.5°	35.3	40.1	56.7	68.5	70.6
105°	40.1	41.7	59.9	80.3	85.1



TEST NUMBER: P520595

CATALOG NUMBER: 4WSLA-50-L935-UPL15-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	48.2	42.8	64.2	87.2	95.8
115°	49.8	42.3	63.7	87.8	96.3
117.5°	49.8	42.3	62.1	87.8	96.3
120°	48.7	42.8	59.9	86.7	95.8
122.5°	47.6	41.7	57.8	84.6	93.7
125°	46.0	40.7	55.1	80.8	91.0
127.5°	43.3	41.7	52.4	76.0	86.2
130°	41.2	42.3	49.2	71.2	81.3
132.5°	39.6	41.2	46.0	65.8	74.9
135°	37.5	40.7	44.4	59.9	69.0
137.5°	35.9	39.1	41.7	54.6	62.1
140°	34.3	38.0	39.1	47.6	54.1
142.5°	32.1	36.4	36.9	44.4	47.1
145°	30.5	35.3	38.5	41.2	43.9
147.5°	28.9	33.2	37.5	38.0	40.7
150°	28.4	31.0	35.9	36.4	37.5
152.5°	27.8	30.0	33.2	36.4	36.9
155°	27.8	29.4	31.6	34.3	34.8
157.5°	27.3	29.4	30.5	32.6	33.2
160°	27.3	28.9	30.0	31.6	32.1
162.5°	27.3	28.9	29.4	31.0	31.6
165°	27.3	28.4	29.4	30.5	30.5
167.5°	27.3	28.4	28.9	30.0	30.0
170°	27.3	27.8	28.9	29.4	29.4
172.5°	26.8	27.8	28.4	29.4	29.4
175°	26.8	27.3	27.8	28.4	28.9
177.5°	25.7	27.3	27.8	28.4	27.8
180°	26.2	26.2	26.2	26.2	26.2



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	43.9	42.3	62.1	84.6	91.5
110°	46.6	42.8	63.7	86.2	94.7



(END OF REPORT)