

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: P520523

Luminaire Tested: **4WSLA-150-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: P520523
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-150-L935-UPL15-UNV-U
Description: 4 FOOT, 1500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 90 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

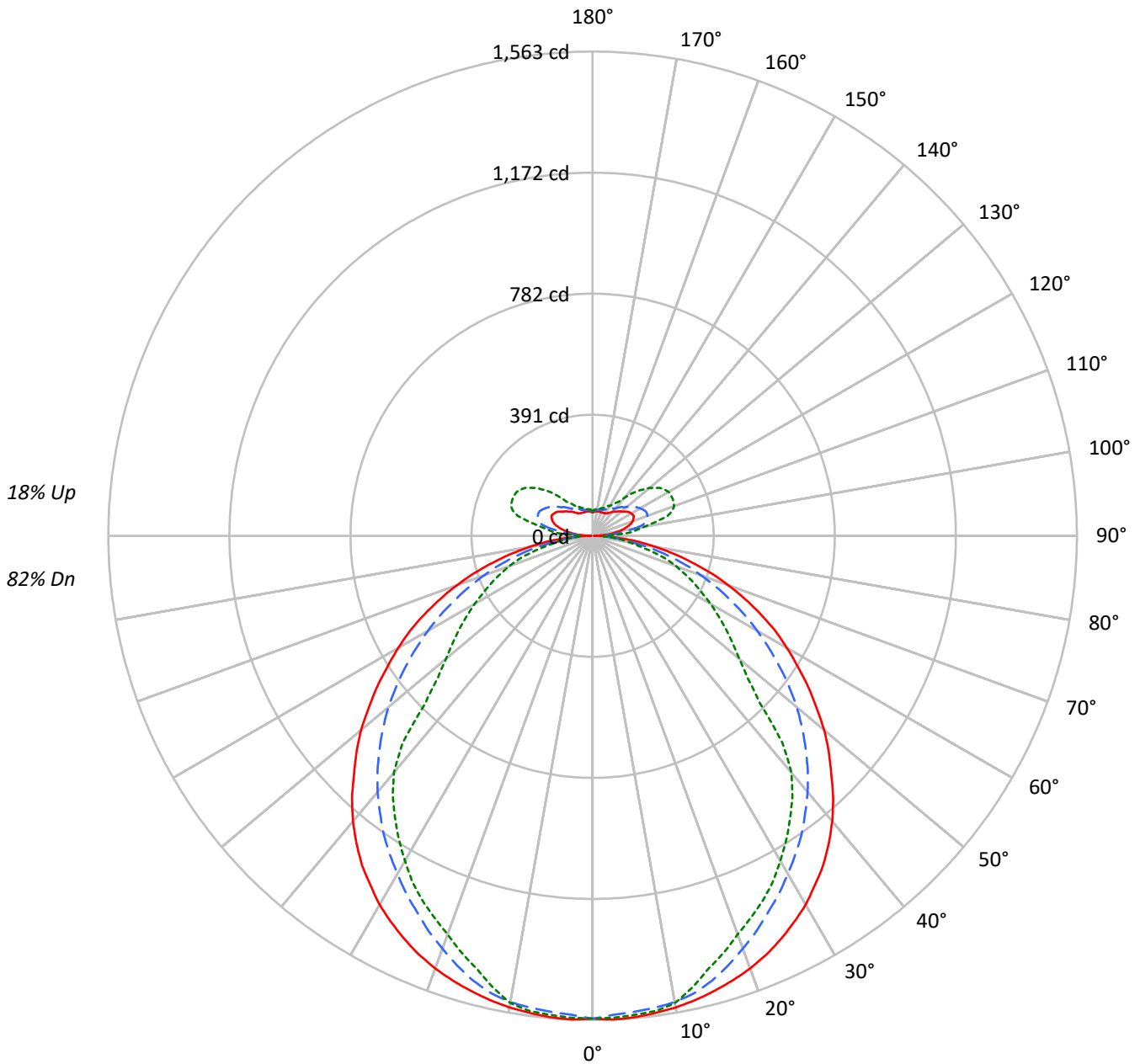
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5048.0 lumens
Efficiency: N/A
Efficacy: 105.8 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): 47.7
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				20				20
RC	80				70				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	86	86	86	82
1	105	100	96	92	100	96	93	89	89	86	83	82	80	78	76	74	72	72	72	72	69
2	96	88	81	76	91	84	78	73	78	73	69	72	68	65	67	64	61	61	61	61	58
3	87	77	69	63	83	74	67	61	69	63	58	64	59	55	59	55	52	52	52	52	49
4	80	68	60	53	76	66	58	52	61	55	50	57	51	47	53	48	45	45	45	45	42
5	73	61	52	46	70	59	51	45	55	48	43	51	45	41	48	43	39	39	39	39	36
6	68	55	46	40	65	53	45	39	50	43	38	46	40	36	43	38	34	34	34	34	32
7	63	50	41	35	60	48	40	35	45	38	33	42	36	32	39	34	30	30	30	30	28
8	58	45	37	32	56	44	36	31	41	35	30	39	33	29	36	31	27	27	27	27	25
9	55	42	34	28	52	40	33	28	38	31	27	36	30	26	33	28	25	25	25	25	23
10	51	38	31	26	49	37	30	25	35	29	24	33	27	23	31	26	23	23	23	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8389	8389	8389
5°	8430	8336	8387
10°	8449	8354	8371
15°	8473	8288	8059
20°	8511	8121	7841
25°	8533	7960	7716
30°	8547	7830	7525
35°	8527	7727	7301
40°	8452	7586	7008
45°	8290	7400	5811
50°	8167	7201	5175
55°	7965	6913	4924
60°	7793	6603	4731
65°	7609	6241	4590
70°	7314	5846	4502
75°	6904	5359	4142
80°	6320	4506	3676
85°	5663	3903	3711



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.7	2.9
10°-20°	419.6	8.3
20°-30°	626.2	12.4
30°-40°	746.2	14.8
40°-50°	742.2	14.7
50°-60°	636.1	12.6
60°-70°	479.1	9.5
70°-80°	277.4	5.5
80°-90°	83.4	1.7
90°-100°	89.5	1.8
100°-110°	183.8	3.6
110°-120°	194.4	3.9
120°-130°	162.2	3.2
130°-140°	113.3	2.2
140°-150°	70.5	1.4
150°-160°	43.7	0.9
160°-170°	24.6	0.5
170°-180°	7.9	0.2
0°-30°	1193.6	23.6
0°-40°	1939.8	38.4
0°-60°	3318.1	65.7
0°-90°	4158.0	82.4
90°-120°	467.8	9.3
90°-150°	813.7	16.1
90°-180°	890.0	17.6
0°-180°	5048.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1559	1559	1559	1559	1559	
5°	1560	1556	1543	1554	1552	148
15°	1521	1519	1488	1462	1446	430
25°	1437	1416	1340	1307	1299	663
35°	1298	1263	1176	1130	1111	811
45°	1089	1062	972	876	764	842
55°	849	836	737	585	525	759
65°	598	583	490	381	360	591
75°	332	321	258	206	199	352
85°	92	81	63	60	60	98
90°	5	22	38	47	51	9
95°	51	68	78	114	123	48
105°	119	123	177	237	251	123
115°	147	125	188	259	284	143
125°	136	120	163	239	269	121
135°	111	120	131	177	204	86
145°	90	104	114	122	130	57
155°	82	87	93	101	103	38
165°	81	84	87	90	90	23
175°	79	81	82	84	85	8
180°	78	78	78	78	78	



TEST NUMBER: P520523

CATALOG NUMBER: 4WSLA-150-L935-UPL15-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1558.7	1558.7	1558.7	1558.7	1558.7
2.5°	1563.4	1560.3	1547.6	1560.3	1557.1
5°	1560.3	1555.5	1542.9	1553.9	1552.4
7.5°	1553.9	1550.8	1536.6	1549.2	1547.6
10°	1546.0	1541.3	1528.6	1538.1	1531.8
12.5°	1535.0	1531.8	1512.8	1504.9	1492.3
15°	1520.7	1519.2	1487.5	1462.3	1446.4
17.5°	1504.9	1498.6	1454.3	1424.3	1410.1
20°	1486.0	1476.5	1418.0	1383.2	1369.0
22.5°	1463.8	1449.6	1381.6	1348.4	1334.2
25°	1437.0	1416.4	1340.5	1307.3	1299.4
27.5°	1406.9	1383.2	1302.6	1269.4	1259.9
30°	1375.3	1345.3	1259.9	1228.3	1210.9
32.5°	1335.8	1307.3	1218.8	1182.4	1163.5
35°	1297.8	1263.1	1176.1	1130.3	1111.3
37.5°	1252.0	1217.2	1127.1	1081.3	1059.1
40°	1203.0	1168.2	1079.7	1025.9	997.5
42.5°	1149.3	1117.6	1027.5	962.7	907.4
45°	1089.2	1062.3	972.2	875.8	763.5
47.5°	1033.9	1008.6	916.9	792.0	676.6
50°	975.4	951.6	860.0	712.9	618.1
52.5°	910.5	893.2	798.3	645.0	569.1
55°	848.9	836.3	736.7	584.9	524.8
57.5°	784.1	771.4	675.0	528.0	480.6
60°	724.0	711.4	613.4	477.4	439.5
62.5°	663.9	646.6	553.3	428.4	396.8
65°	597.5	583.3	490.1	381.0	360.4
67.5°	531.2	518.5	431.6	336.7	322.5
70°	464.8	453.7	371.5	294.0	286.1
72.5°	399.9	385.7	317.7	251.3	248.2
75°	332.0	320.9	257.7	205.5	199.2
77.5°	267.2	257.7	202.3	156.5	151.8
80°	203.9	194.4	145.4	113.8	118.6
82.5°	150.2	137.5	98.0	88.5	93.3
85°	91.7	80.6	63.2	60.1	60.1
87.5°	31.6	30.0	28.5	33.2	34.8
90°	4.7	22.1	37.9	47.4	50.6
92.5°	26.9	39.5	52.2	61.7	64.8
95°	50.6	68.0	77.5	113.8	123.3
97.5°	69.6	90.1	101.2	134.4	143.9
100°	88.5	107.5	142.3	159.7	170.7
102.5°	104.3	118.6	167.6	202.3	208.7
105°	118.6	123.3	177.1	237.1	251.3



TEST NUMBER: P520523

CATALOG NUMBER: 4WSLA-150-L935-UPL15-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	142.3	126.5	189.7	257.7	283.0
115°	147.0	124.9	188.1	259.3	284.5
117.5°	147.0	124.9	183.4	259.3	284.5
120°	143.9	126.5	177.1	256.1	283.0
122.5°	140.7	123.3	170.7	249.8	276.6
125°	135.9	120.1	162.8	238.7	268.7
127.5°	128.0	123.3	154.9	224.5	254.5
130°	121.7	124.9	145.4	210.2	240.3
132.5°	117.0	121.7	135.9	194.4	221.3
135°	110.7	120.1	131.2	177.1	203.9
137.5°	105.9	115.4	123.3	161.2	183.4
140°	101.2	112.2	115.4	140.7	159.7
142.5°	94.8	107.5	109.1	131.2	139.1
145°	90.1	104.3	113.8	121.7	129.6
147.5°	85.4	98.0	110.7	112.2	120.1
150°	83.8	91.7	105.9	107.5	110.7
152.5°	82.2	88.5	98.0	107.5	109.1
155°	82.2	86.9	93.3	101.2	102.8
157.5°	80.6	86.9	90.1	96.4	98.0
160°	80.6	85.4	88.5	93.3	94.8
162.5°	80.6	85.4	86.9	91.7	93.3
165°	80.6	83.8	86.9	90.1	90.1
167.5°	80.6	83.8	85.4	88.5	88.5
170°	80.6	82.2	85.4	86.9	86.9
172.5°	79.0	82.2	83.8	86.9	86.9
175°	79.0	80.6	82.2	83.8	85.4
177.5°	75.9	80.6	82.2	83.8	82.2
180°	77.5	77.5	77.5	77.5	77.5



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	129.6	124.9	183.4	249.8	270.3
110°	137.5	126.5	188.1	254.5	279.8



(END OF REPORT)