

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: P520547

Luminaire Tested: **4WSLA-175-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: P520547
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-175-L935-UPL15-UNV-U
Description: 4 FOOT, 1750 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

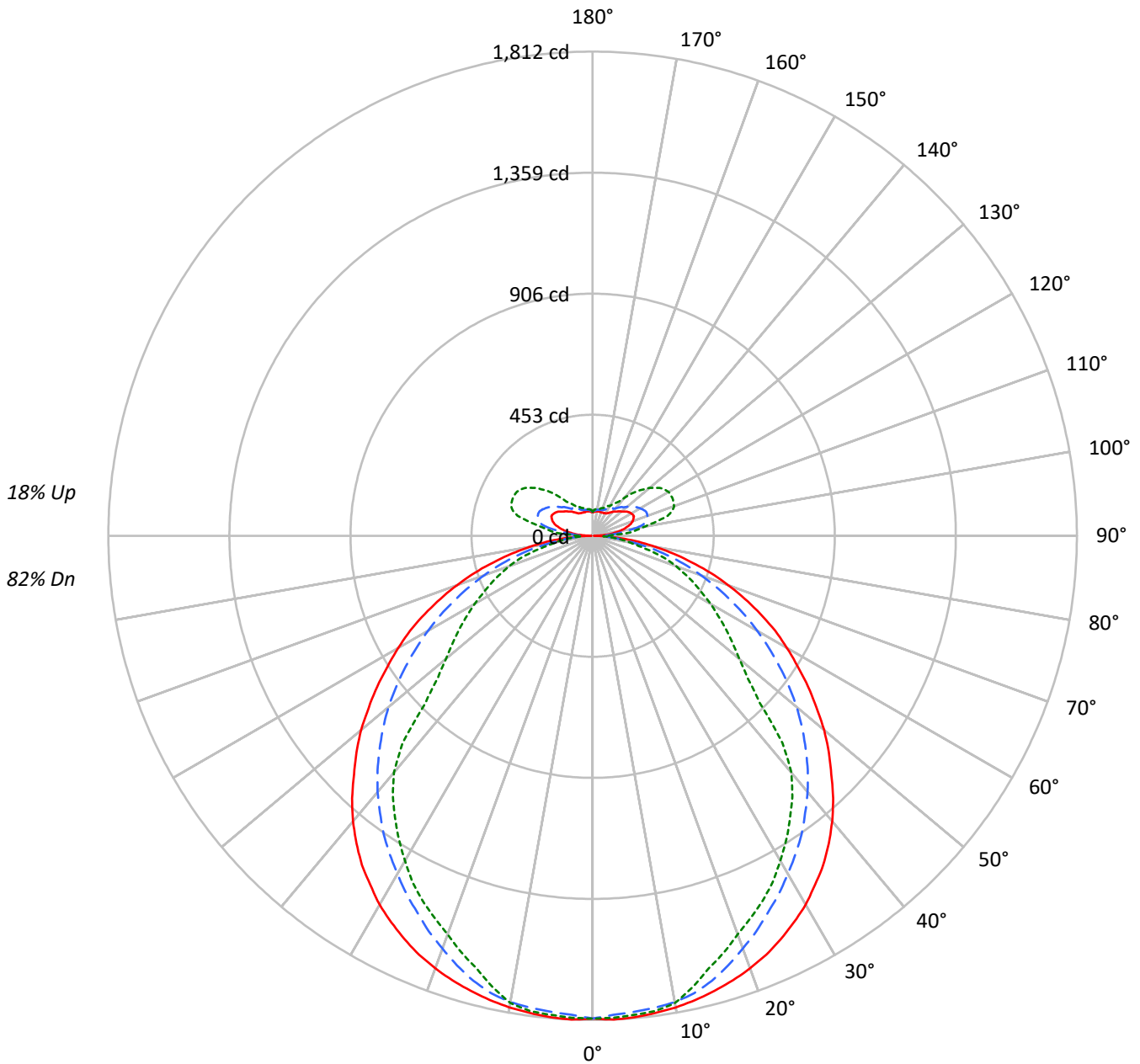
Lumens per Lamp: N/A
Luminaire Lumens: 5852.0 lumens
Efficiency: N/A
Efficacy: 98.4 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 59.5
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°	9725	9725	9725
5°	9772	9663	9722
10°	9795	9684	9705
15°	9823	9609	9343
20°	9866	9415	9089
25°	9892	9228	8946
30°	9908	9077	8724
35°	9885	8958	8464
40°	9798	8794	8124
45°	9611	8578	6737
50°	9467	8347	5999
55°	9234	8013	5709
60°	9034	7653	5484
65°	8821	7235	5321
70°	8478	6777	5220
75°	8002	6211	4801
80°	7327	5225	4259
85°	6564	4526	4298



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.3	2.9
10°-20°	486.5	8.3
20°-30°	726.0	12.4
30°-40°	865.0	14.8
40°-50°	860.4	14.7
50°-60°	737.4	12.6
60°-70°	555.4	9.5
70°-80°	321.6	5.5
80°-90°	96.7	1.7
90°-100°	103.8	1.8
100°-110°	213.1	3.6
110°-120°	225.3	3.9
120°-130°	188.0	3.2
130°-140°	131.3	2.2
140°-150°	81.7	1.4
150°-160°	50.7	0.9
160°-170°	28.5	0.5
170°-180°	9.2	0.2
0°-30°	1383.7	23.6
0°-40°	2248.7	38.4
0°-60°	3846.6	65.7
0°-90°	4820.3	82.4
90°-120°	542.3	9.3
90°-150°	943.3	16.1
90°-180°	1032.0	17.6
0°-180°	5852.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1807	1807	1807	1807	1807	
5°	1809	1803	1789	1801	1800	172
15°	1763	1761	1724	1695	1677	498
25°	1666	1642	1554	1516	1506	768
35°	1505	1464	1363	1310	1288	940
45°	1263	1232	1127	1015	885	976
55°	984	969	854	678	608	880
65°	693	676	568	442	418	685
75°	385	372	299	238	231	408
85°	106	94	73	70	70	113
90°	6	26	44	55	59	11
95°	59	79	90	132	143	56
105°	137	143	205	275	291	143
115°	170	145	218	300	330	166
125°	158	139	189	277	312	140
135°	128	139	152	205	236	100
145°	104	121	132	141	150	66
155°	95	101	108	117	119	44
165°	94	97	101	104	104	27
175°	92	94	95	97	99	9
180°	90	90	90	90	90	



TEST NUMBER: P520547

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1806.9	1806.9	1806.9	1806.9	1806.9
2.5°	1812.4	1808.8	1794.1	1808.8	1805.1
5°	1808.8	1803.3	1788.6	1801.4	1799.6
7.5°	1801.4	1797.8	1781.3	1795.9	1794.1
10°	1792.3	1786.8	1772.1	1783.1	1775.8
12.5°	1779.4	1775.8	1753.8	1744.6	1730.0
15°	1763.0	1761.1	1724.5	1695.1	1676.8
17.5°	1744.6	1737.3	1686.0	1651.2	1634.7
20°	1722.6	1711.6	1643.8	1603.5	1587.0
22.5°	1697.0	1680.5	1601.7	1563.2	1546.7
25°	1665.8	1642.0	1554.0	1515.6	1506.4
27.5°	1631.0	1603.5	1510.1	1471.6	1460.6
30°	1594.4	1559.5	1460.6	1423.9	1403.8
32.5°	1548.5	1515.6	1412.9	1370.8	1348.8
35°	1504.6	1464.2	1363.4	1310.3	1288.3
37.5°	1451.4	1411.1	1306.6	1253.5	1227.8
40°	1394.6	1354.3	1251.7	1189.4	1156.4
42.5°	1332.3	1295.6	1191.2	1116.0	1051.9
45°	1262.7	1231.5	1127.0	1015.3	885.1
47.5°	1198.5	1169.2	1062.9	918.1	784.3
50°	1130.7	1103.2	996.9	826.5	716.5
52.5°	1055.6	1035.4	925.5	747.7	659.7
55°	984.1	969.4	854.0	678.1	608.4
57.5°	909.0	894.3	782.5	612.1	557.1
60°	839.3	824.7	711.0	553.4	509.5
62.5°	769.7	749.5	641.4	496.6	460.0
65°	692.7	676.2	568.1	441.7	417.8
67.5°	615.8	601.1	500.3	390.3	373.8
70°	538.8	526.0	430.7	340.9	331.7
72.5°	463.6	447.2	368.4	291.4	287.7
75°	384.8	372.0	298.7	238.2	230.9
77.5°	309.7	298.7	234.6	181.4	175.9
80°	236.4	225.4	168.6	131.9	137.4
82.5°	174.1	159.4	113.6	102.6	108.1
85°	106.3	93.5	73.3	69.6	69.6
87.5°	36.7	34.8	33.0	38.5	40.3
90°	5.5	25.7	44.0	55.0	58.6
92.5°	31.2	45.8	60.5	71.5	75.1
95°	58.6	78.8	89.8	131.9	142.9
97.5°	80.6	104.5	117.3	155.8	166.8
100°	102.6	124.6	164.9	185.1	197.9
102.5°	121.0	137.4	194.3	234.6	241.9
105°	137.4	142.9	205.3	274.9	291.4



TEST NUMBER: P520547

CATALOG NUMBER: 4WSLA-175-L935-UPL15-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	164.9	146.6	219.9	298.7	328.0
115°	170.4	144.8	218.1	300.5	329.9
117.5°	170.4	144.8	212.6	300.5	329.9
120°	166.8	146.6	205.3	296.9	328.0
122.5°	163.1	142.9	197.9	289.5	320.7
125°	157.6	139.3	188.8	276.7	311.5
127.5°	148.4	142.9	179.6	260.2	295.0
130°	141.1	144.8	168.6	243.7	278.6
132.5°	135.6	141.1	157.6	225.4	256.6
135°	128.3	139.3	152.1	205.3	236.4
137.5°	122.8	133.8	142.9	186.9	212.6
140°	117.3	130.1	133.8	163.1	185.1
142.5°	110.0	124.6	126.4	152.1	161.3
145°	104.5	121.0	131.9	141.1	150.3
147.5°	99.0	113.6	128.3	130.1	139.3
150°	97.1	106.3	122.8	124.6	128.3
152.5°	95.3	102.6	113.6	124.6	126.4
155°	95.3	100.8	108.1	117.3	119.1
157.5°	93.5	100.8	104.5	111.8	113.6
160°	93.5	99.0	102.6	108.1	110.0
162.5°	93.5	99.0	100.8	106.3	108.1
165°	93.5	97.1	100.8	104.5	104.5
167.5°	93.5	97.1	99.0	102.6	102.6
170°	93.5	95.3	99.0	100.8	100.8
172.5°	91.6	95.3	97.1	100.8	100.8
175°	91.6	93.5	95.3	97.1	99.0
177.5°	88.0	93.5	95.3	97.1	95.3
180°	89.8	89.8	89.8	89.8	89.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	150.3	144.8	212.6	289.5	313.4
110°	159.4	146.6	218.1	295.0	324.4



(END OF REPORT)