

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: P520535

Luminaire Tested: **4WSLA-175-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: P520535  
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-L835-UPL15-UNV-U  
Description: 4 FOOT, 1750 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 80 CRI  
LEDS WITH 15% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

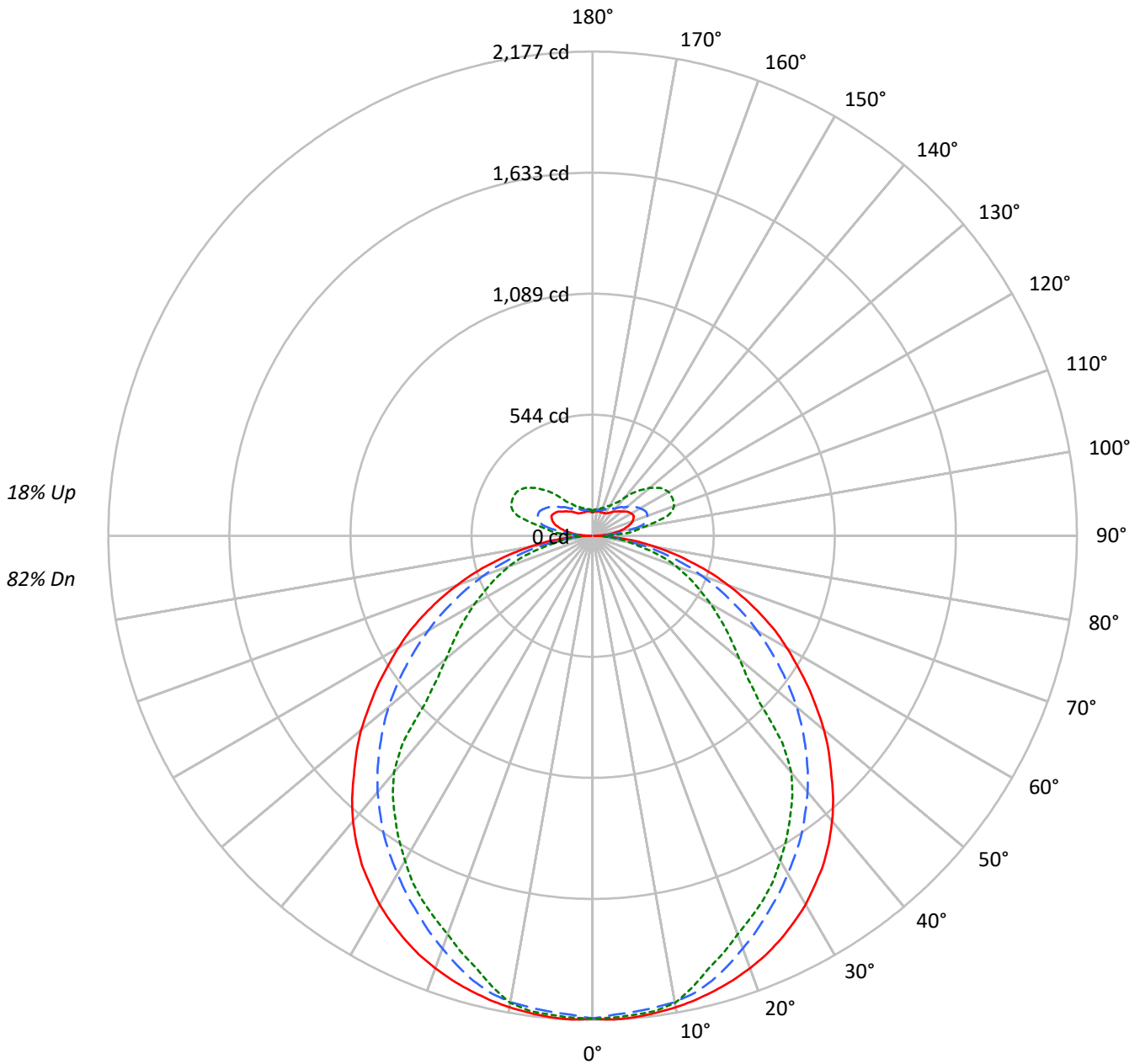
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7030.0 lumens  
Efficiency: N/A  
Efficacy: 118.2 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 (A<sub>in</sub>): 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°	11683	11683	11683
5°	11739	11608	11680
10°	11767	11634	11658
15°	11800	11543	11224
20°	11852	11310	10919
25°	11884	11086	10746
30°	11903	10904	10480
35°	11875	10761	10168
40°	11770	10564	9759
45°	11545	10305	8093
50°	11373	10027	7207
55°	11093	9626	6858
60°	10853	9195	6588
65°	10598	8691	6392
70°	10184	8142	6271
75°	9613	7461	5768
80°	8802	6276	5117
85°	7886	5440	5169



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	205.7	2.9
10°-20°	584.4	8.3
20°-30°	872.1	12.4
30°-40°	1039.2	14.8
40°-50°	1033.6	14.7
50°-60°	885.9	12.6
60°-70°	667.2	9.5
70°-80°	386.4	5.5
80°-90°	116.1	1.7
90°-100°	124.7	1.8
100°-110°	256.0	3.6
110°-120°	270.7	3.9
120°-130°	225.8	3.2
130°-140°	157.8	2.2
140°-150°	98.2	1.4
150°-160°	60.9	0.9
160°-170°	34.3	0.5
170°-180°	11.1	0.2
0°-30°	1662.3	23.6
0°-40°	2701.4	38.4
0°-60°	4620.9	65.7
0°-90°	5790.6	82.4
90°-120°	651.4	9.3
90°-150°	1133.2	16.1
90°-180°	1239.0	17.6
0°-180°	7030.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2171	2171	2171	2171	2171	
5°	2173	2166	2149	2164	2162	207
15°	2118	2116	2072	2036	2014	598
25°	2001	1972	1867	1821	1810	923
35°	1807	1759	1638	1574	1548	1129
45°	1517	1479	1354	1220	1063	1173
55°	1182	1165	1026	815	731	1057
65°	832	812	682	531	502	823
75°	462	447	359	286	277	490
85°	128	112	88	84	84	136
90°	7	31	53	66	70	13
95°	70	95	108	158	172	67
105°	165	172	247	330	350	171
115°	205	174	262	361	396	199
125°	189	167	227	332	374	168
135°	154	167	183	247	284	120
145°	126	145	158	170	180	80
155°	114	121	130	141	143	53
165°	112	117	121	126	126	32
175°	110	112	114	117	119	10
180°	108	108	108	108	108	



TEST NUMBER: P520535

CATALOG NUMBER: 4WSLA-175-L835-UPL15-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2170.7	2170.7	2170.7	2170.7	2170.7
2.5°	2177.3	2172.9	2155.3	2172.9	2168.5
5°	2172.9	2166.3	2148.7	2164.1	2161.9
7.5°	2164.1	2159.7	2139.8	2157.5	2155.3
10°	2153.1	2146.5	2128.8	2142.0	2133.2
12.5°	2137.6	2133.2	2106.8	2095.8	2078.2
15°	2117.8	2115.6	2071.6	2036.4	2014.4
17.5°	2095.8	2087.0	2025.4	1983.5	1963.7
20°	2069.4	2056.2	1974.7	1926.3	1906.5
22.5°	2038.6	2018.8	1924.1	1877.9	1858.1
25°	2001.2	1972.5	1866.9	1820.6	1809.6
27.5°	1959.3	1926.3	1814.0	1767.8	1754.6
30°	1915.3	1873.5	1754.6	1710.6	1686.3
32.5°	1860.3	1820.6	1697.3	1646.7	1620.3
35°	1807.4	1759.0	1637.9	1574.1	1547.6
37.5°	1743.6	1695.1	1569.7	1505.8	1475.0
40°	1675.3	1626.9	1503.6	1428.8	1389.1
42.5°	1600.5	1556.5	1431.0	1340.7	1263.7
45°	1516.8	1479.4	1353.9	1219.6	1063.3
47.5°	1439.8	1404.6	1276.9	1102.9	942.2
50°	1358.3	1325.3	1197.6	992.9	860.8
52.5°	1268.1	1243.8	1111.8	898.2	792.5
55°	1182.2	1164.6	1025.9	814.6	730.9
57.5°	1091.9	1074.3	940.0	735.3	669.3
60°	1008.3	990.7	854.2	664.8	612.0
62.5°	924.6	900.4	770.5	596.6	552.6
65°	832.2	812.3	682.5	530.6	501.9
67.5°	739.7	722.1	601.0	468.9	449.1
70°	647.2	631.8	517.4	409.5	398.5
72.5°	557.0	537.2	442.5	350.0	345.6
75°	462.3	446.9	358.8	286.2	277.4
77.5°	372.1	358.8	281.8	217.9	211.3
80°	284.0	270.8	202.5	158.5	165.1
82.5°	209.1	191.5	136.5	123.3	129.9
85°	127.7	112.3	88.1	83.7	83.7
87.5°	44.0	41.8	39.6	46.2	48.4
90°	6.6	30.8	52.8	66.0	70.4
92.5°	37.4	55.0	72.6	85.9	90.3
95°	70.4	94.7	107.9	158.5	171.7
97.5°	96.9	125.5	140.9	187.1	200.3
100°	123.3	149.7	198.1	222.4	237.8
102.5°	145.3	165.1	233.4	281.8	290.6
105°	165.1	171.7	246.6	330.2	350.0



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CATALOG NUMBER: 4WSLA-175-L835-UPL15-UNV-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	198.1	176.1	264.2	358.8	394.1
115°	204.7	173.9	262.0	361.0	396.3
117.5°	204.7	173.9	255.4	361.0	396.3
120°	200.3	176.1	246.6	356.6	394.1
122.5°	195.9	171.7	237.8	347.8	385.3
125°	189.3	167.3	226.8	332.4	374.3
127.5°	178.3	171.7	215.7	312.6	354.4
130°	169.5	173.9	202.5	292.8	334.6
132.5°	162.9	169.5	189.3	270.8	308.2
135°	154.1	167.3	182.7	246.6	284.0
137.5°	147.5	160.7	171.7	224.6	255.4
140°	140.9	156.3	160.7	195.9	222.4
142.5°	132.1	149.7	151.9	182.7	193.7
145°	125.5	145.3	158.5	169.5	180.5
147.5°	118.9	136.5	154.1	156.3	167.3
150°	116.7	127.7	147.5	149.7	154.1
152.5°	114.5	123.3	136.5	149.7	151.9
155°	114.5	121.1	129.9	140.9	143.1
157.5°	112.3	121.1	125.5	134.3	136.5
160°	112.3	118.9	123.3	129.9	132.1
162.5°	112.3	118.9	121.1	127.7	129.9
165°	112.3	116.7	121.1	125.5	125.5
167.5°	112.3	116.7	118.9	123.3	123.3
170°	112.3	114.5	118.9	121.1	121.1
172.5°	110.1	114.5	116.7	121.1	121.1
175°	110.1	112.3	114.5	116.7	118.9
177.5°	105.7	112.3	114.5	116.7	114.5
180°	107.9	107.9	107.9	107.9	107.9



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	180.5	173.9	255.4	347.8	376.5
110°	191.5	176.1	262.0	354.4	389.7



(END OF REPORT)