

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: P520541

Luminaire Tested: **4WSLA-175-L850-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: P520541
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-L850-UPL15-UNV-U
Description: 4 FOOT, 1750 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 5000K, 80 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

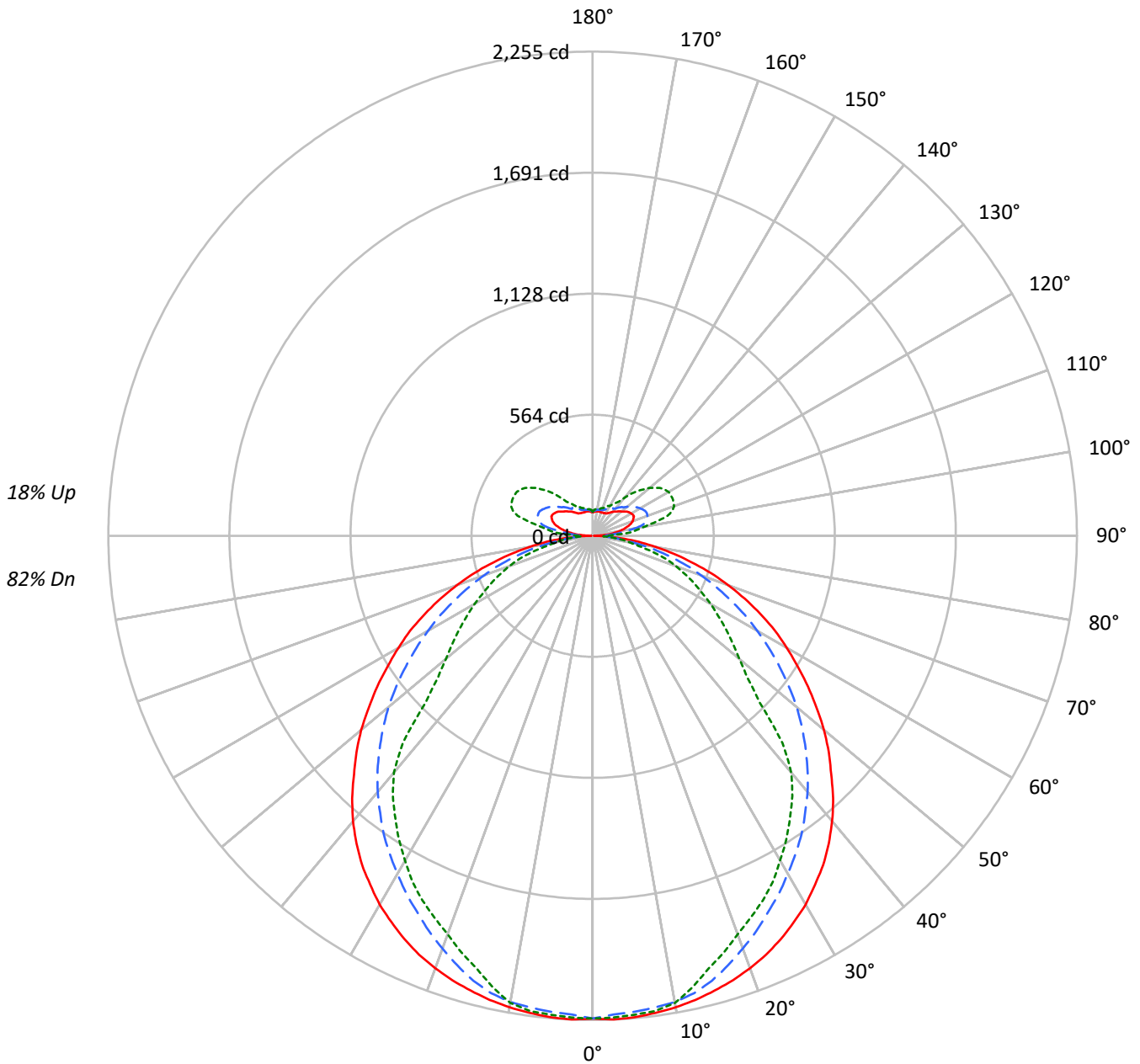
Lumens per Lamp: N/A
Luminaire Lumens: 7281.0 lumens
Efficiency: N/A
Efficacy: 122.4 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

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°	12100	12100	12100
5°	12158	12023	12097
10°	12186	12049	12074
15°	12221	11955	11624
20°	12275	11714	11309
25°	12308	11482	11130
30°	12328	11293	10854
35°	12299	11146	10531
40°	12191	10941	10108
45°	11957	10673	8382
50°	11779	10386	7464
55°	11489	9970	7103
60°	11241	9523	6823
65°	10976	9001	6621
70°	10548	8431	6494
75°	9956	7729	5974
80°	9115	6502	5300
85°	8163	5632	5348



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.1	2.9
10°-20°	605.2	8.3
20°-30°	903.3	12.4
30°-40°	1076.3	14.8
40°-50°	1070.5	14.7
50°-60°	917.5	12.6
60°-70°	691.0	9.5
70°-80°	400.2	5.5
80°-90°	120.3	1.7
90°-100°	129.1	1.8
100°-110°	265.2	3.6
110°-120°	280.4	3.9
120°-130°	233.9	3.2
130°-140°	163.4	2.2
140°-150°	101.7	1.4
150°-160°	63.0	0.9
160°-170°	35.5	0.5
170°-180°	11.4	0.2
0°-30°	1721.6	23.6
0°-40°	2797.9	38.4
0°-60°	4785.9	65.7
0°-90°	5997.4	82.4
90°-120°	674.6	9.3
90°-150°	1173.6	16.1
90°-180°	1284.0	17.6
0°-180°	7281.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2248	2248	2248	2248	2248	
5°	2250	2244	2225	2241	2239	214
15°	2193	2191	2146	2109	2086	620
25°	2073	2043	1934	1886	1874	956
35°	1872	1822	1696	1630	1603	1169
45°	1571	1532	1402	1263	1101	1214
55°	1224	1206	1062	844	757	1095
65°	862	841	707	550	520	852
75°	479	463	372	296	287	507
85°	132	116	91	87	87	141
90°	7	32	55	68	73	13
95°	73	98	112	164	178	70
105°	171	178	255	342	362	177
115°	212	180	271	374	410	206
125°	196	173	235	344	388	174
135°	160	173	189	255	294	125
145°	130	150	164	176	187	82
155°	119	125	134	146	148	55
165°	116	121	125	130	130	33
175°	114	116	119	121	123	11
180°	112	112	112	112	112	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2248.2	2248.2	2248.2	2248.2	2248.2
2.5°	2255.0	2250.5	2232.2	2250.5	2245.9
5°	2250.5	2243.6	2225.4	2241.3	2239.1
7.5°	2241.3	2236.8	2216.2	2234.5	2232.2
10°	2229.9	2223.1	2204.8	2218.5	2209.4
12.5°	2214.0	2209.4	2182.0	2170.6	2152.4
15°	2193.4	2191.2	2145.6	2109.1	2086.3
17.5°	2170.6	2161.5	2097.7	2054.4	2033.8
20°	2143.3	2129.6	2045.2	1995.1	1974.6
22.5°	2111.4	2090.8	1992.8	1944.9	1924.4
25°	2072.6	2043.0	1933.5	1885.6	1874.2
27.5°	2029.3	1995.1	1878.8	1830.9	1817.2
30°	1983.7	1940.4	1817.2	1771.6	1746.6
32.5°	1926.7	1885.6	1758.0	1705.5	1678.1
35°	1872.0	1821.8	1696.4	1630.3	1602.9
37.5°	1805.8	1755.7	1625.7	1559.6	1527.7
40°	1735.2	1685.0	1557.3	1479.8	1438.7
42.5°	1657.6	1612.0	1482.1	1388.6	1308.8
45°	1571.0	1532.2	1402.3	1263.2	1101.3
47.5°	1491.2	1454.7	1322.5	1142.3	975.9
50°	1406.8	1372.6	1240.4	1028.3	891.5
52.5°	1313.3	1288.3	1151.4	930.3	820.8
55°	1224.4	1206.2	1062.5	843.6	757.0
57.5°	1130.9	1112.7	973.6	761.6	693.1
60°	1044.3	1026.0	884.7	688.6	633.9
62.5°	957.6	932.6	798.0	617.9	572.3
65°	861.9	841.4	706.8	549.5	519.9
67.5°	766.1	747.9	622.5	485.7	465.1
70°	670.3	654.4	535.8	424.1	412.7
72.5°	576.9	556.3	458.3	362.5	358.0
75°	478.8	462.9	371.7	296.4	287.3
77.5°	385.3	371.7	291.9	225.7	218.9
80°	294.1	280.5	209.8	164.2	171.0
82.5°	216.6	198.4	141.4	127.7	134.5
85°	132.2	116.3	91.2	86.6	86.6
87.5°	45.6	43.3	41.0	47.9	50.2
90°	6.8	31.9	54.7	68.4	73.0
92.5°	38.8	57.0	75.2	88.9	93.5
95°	73.0	98.0	111.7	164.2	177.8
97.5°	100.3	130.0	145.9	193.8	207.5
100°	127.7	155.0	205.2	230.3	246.2
102.5°	150.5	171.0	241.7	291.9	301.0
105°	171.0	177.8	255.4	342.0	362.5



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CATALOG NUMBER: 4WSLA-175-L850-UPL15-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	205.2	182.4	273.6	371.7	408.1
115°	212.0	180.1	271.3	373.9	410.4
117.5°	212.0	180.1	264.5	373.9	410.4
120°	207.5	182.4	255.4	369.4	408.1
122.5°	202.9	177.8	246.2	360.3	399.0
125°	196.1	173.3	234.8	344.3	387.6
127.5°	184.7	177.8	223.4	323.8	367.1
130°	175.6	180.1	209.8	303.3	346.6
132.5°	168.7	175.6	196.1	280.5	319.2
135°	159.6	173.3	189.2	255.4	294.1
137.5°	152.8	166.4	177.8	232.6	264.5
140°	145.9	161.9	166.4	202.9	230.3
142.5°	136.8	155.0	157.3	189.2	200.6
145°	130.0	150.5	164.2	175.6	187.0
147.5°	123.1	141.4	159.6	161.9	173.3
150°	120.8	132.2	152.8	155.0	159.6
152.5°	118.6	127.7	141.4	155.0	157.3
155°	118.6	125.4	134.5	145.9	148.2
157.5°	116.3	125.4	130.0	139.1	141.4
160°	116.3	123.1	127.7	134.5	136.8
162.5°	116.3	123.1	125.4	132.2	134.5
165°	116.3	120.8	125.4	130.0	130.0
167.5°	116.3	120.8	123.1	127.7	127.7
170°	116.3	118.6	123.1	125.4	125.4
172.5°	114.0	118.6	120.8	125.4	125.4
175°	114.0	116.3	118.6	120.8	123.1
177.5°	109.4	116.3	118.6	120.8	118.6
180°	111.7	111.7	111.7	111.7	111.7



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	187.0	180.1	264.5	360.3	389.9
110°	198.4	182.4	271.3	367.1	403.6



(END OF REPORT)