

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: P520550

Luminaire Tested: **4WSLA-175-L940-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: P520550
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-L940-UPL15-UNV-U
Description: 4 FOOT, 1750 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 90 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

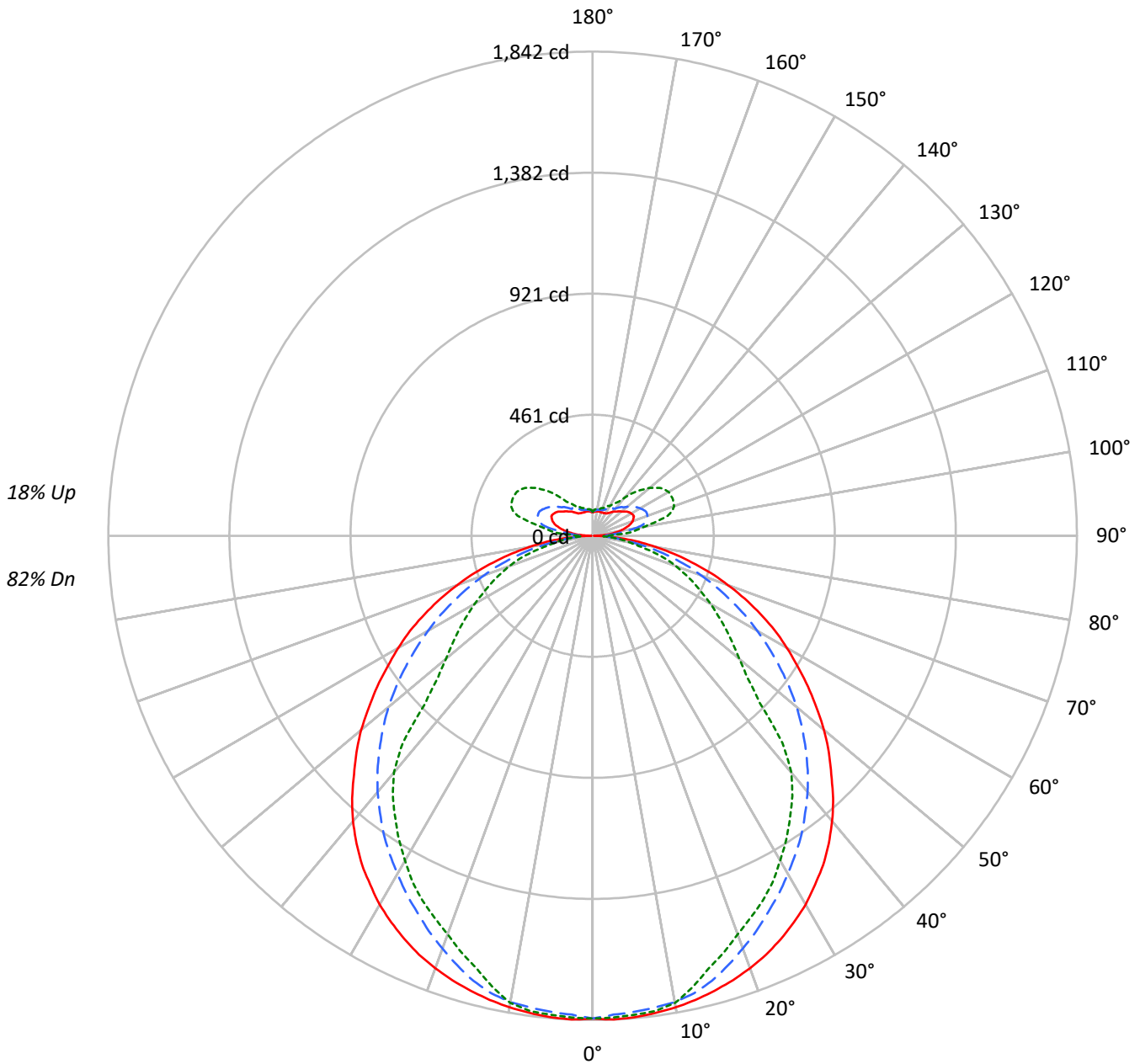
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5948.0 lumens
Efficiency: N/A
Efficacy: 100.0 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_{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									
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°	9885	9885	9885
5°	9932	9822	9882
10°	9956	9844	9864
15°	9984	9766	9496
20°	10028	9569	9239
25°	10055	9380	9092
30°	10071	9225	8867
35°	10047	9105	8603
40°	9959	8938	8257
45°	9768	8719	6848
50°	9623	8484	6098
55°	9385	8145	5803
60°	9183	7779	5574
65°	8967	7353	5408
70°	8617	6888	5305
75°	8135	6313	4880
80°	7448	5312	4330
85°	6669	4600	4372



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.1	2.9
10°-20°	494.4	8.3
20°-30°	737.9	12.4
30°-40°	879.2	14.8
40°-50°	874.5	14.7
50°-60°	749.5	12.6
60°-70°	564.5	9.5
70°-80°	326.9	5.5
80°-90°	98.3	1.7
90°-100°	105.5	1.8
100°-110°	216.6	3.6
110°-120°	229.0	3.9
120°-130°	191.1	3.2
130°-140°	133.5	2.2
140°-150°	83.1	1.4
150°-160°	51.5	0.9
160°-170°	29.0	0.5
170°-180°	9.4	0.2
0°-30°	1406.4	23.6
0°-40°	2285.6	38.4
0°-60°	3909.7	65.7
0°-90°	4899.4	82.4
90°-120°	551.1	9.3
90°-150°	958.8	16.1
90°-180°	1049.0	17.6
0°-180°	5948.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1837	1837	1837	1837	1837	
5°	1838	1833	1818	1831	1829	175
15°	1792	1790	1753	1723	1704	506
25°	1693	1669	1580	1540	1531	781
35°	1529	1488	1386	1332	1309	955
45°	1283	1252	1146	1032	900	992
55°	1000	985	868	689	618	894
65°	704	687	577	449	425	696
75°	391	378	304	242	235	414
85°	108	95	74	71	71	115
90°	6	26	45	56	60	11
95°	60	80	91	134	145	57
105°	140	145	209	279	296	145
115°	173	147	222	306	335	169
125°	160	142	192	281	317	142
135°	130	142	155	209	240	102
145°	106	123	134	143	153	67
155°	97	102	110	119	121	45
165°	95	99	102	106	106	27
175°	93	95	97	99	101	9
180°	91	91	91	91	91	



TEST NUMBER: P520550

CATALOG NUMBER: 4WSLA-175-L940-UPL15-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1836.6	1836.6	1836.6	1836.6	1836.6
2.5°	1842.2	1838.4	1823.5	1838.4	1834.7
5°	1838.4	1832.9	1818.0	1831.0	1829.1
7.5°	1831.0	1827.3	1810.5	1825.4	1823.5
10°	1821.7	1816.1	1801.2	1812.4	1804.9
12.5°	1808.6	1804.9	1782.6	1773.2	1758.3
15°	1791.9	1790.0	1752.8	1723.0	1704.3
17.5°	1773.2	1765.8	1713.6	1678.3	1661.5
20°	1750.9	1739.7	1670.8	1629.8	1613.1
22.5°	1724.8	1708.1	1628.0	1588.8	1572.1
25°	1693.2	1668.9	1579.5	1540.4	1531.1
27.5°	1657.8	1629.8	1534.8	1495.7	1484.5
30°	1620.5	1585.1	1484.5	1447.3	1426.8
32.5°	1573.9	1540.4	1436.1	1393.3	1370.9
35°	1529.2	1488.3	1385.8	1331.8	1309.4
37.5°	1475.2	1434.2	1328.1	1274.1	1248.0
40°	1417.5	1376.5	1272.2	1208.9	1175.3
42.5°	1354.1	1316.9	1210.7	1134.4	1069.2
45°	1283.4	1251.7	1145.5	1031.9	899.7
47.5°	1218.2	1188.4	1080.3	933.2	797.2
50°	1149.3	1121.3	1013.3	840.1	728.3
52.5°	1072.9	1052.4	940.6	760.0	670.6
55°	1000.2	985.3	868.0	689.2	618.4
57.5°	923.9	909.0	795.4	622.1	566.2
60°	853.1	838.2	722.7	562.5	517.8
62.5°	782.3	761.8	651.9	504.8	467.5
65°	704.1	687.3	577.4	448.9	424.7
67.5°	625.9	611.0	508.5	396.7	380.0
70°	547.6	534.6	437.7	346.5	337.1
72.5°	471.3	454.5	374.4	296.2	292.4
75°	391.2	378.1	303.6	242.1	234.7
77.5°	314.8	303.6	238.4	184.4	178.8
80°	240.3	229.1	171.4	134.1	139.7
82.5°	177.0	162.1	115.5	104.3	109.9
85°	108.0	95.0	74.5	70.8	70.8
87.5°	37.3	35.4	33.5	39.1	41.0
90°	5.6	26.1	44.7	55.9	59.6
92.5°	31.7	46.6	61.5	72.6	76.4
95°	59.6	80.1	91.3	134.1	145.3
97.5°	82.0	106.2	119.2	158.3	169.5
100°	104.3	126.7	167.6	188.1	201.2
102.5°	122.9	139.7	197.4	238.4	245.9
105°	139.7	145.3	208.6	279.4	296.2



TEST NUMBER: P520550

CATALOG NUMBER: 4WSLA-175-L940-UPL15-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	167.6	149.0	223.5	303.6	333.4
115°	173.2	147.1	221.7	305.5	335.3
117.5°	173.2	147.1	216.1	305.5	335.3
120°	169.5	149.0	208.6	301.8	333.4
122.5°	165.8	145.3	201.2	294.3	326.0
125°	160.2	141.6	191.9	281.3	316.7
127.5°	150.9	145.3	182.5	264.5	299.9
130°	143.4	147.1	171.4	247.7	283.1
132.5°	137.8	143.4	160.2	229.1	260.8
135°	130.4	141.6	154.6	208.6	240.3
137.5°	124.8	136.0	145.3	190.0	216.1
140°	119.2	132.2	136.0	165.8	188.1
142.5°	111.8	126.7	128.5	154.6	163.9
145°	106.2	122.9	134.1	143.4	152.7
147.5°	100.6	115.5	130.4	132.2	141.6
150°	98.7	108.0	124.8	126.7	130.4
152.5°	96.9	104.3	115.5	126.7	128.5
155°	96.9	102.4	109.9	119.2	121.1
157.5°	95.0	102.4	106.2	113.6	115.5
160°	95.0	100.6	104.3	109.9	111.8
162.5°	95.0	100.6	102.4	108.0	109.9
165°	95.0	98.7	102.4	106.2	106.2
167.5°	95.0	98.7	100.6	104.3	104.3
170°	95.0	96.9	100.6	102.4	102.4
172.5°	93.1	96.9	98.7	102.4	102.4
175°	93.1	95.0	96.9	98.7	100.6
177.5°	89.4	95.0	96.9	98.7	96.9
180°	91.3	91.3	91.3	91.3	91.3



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	152.7	147.1	216.1	294.3	318.5
110°	162.1	149.0	221.7	299.9	329.7



(END OF REPORT)