

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: P520574

Luminaire Tested: **4WSLA-200-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: P520574  
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-200-L940-UPL15-UNV-U  
Description: 4 FOOT, 2000 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**

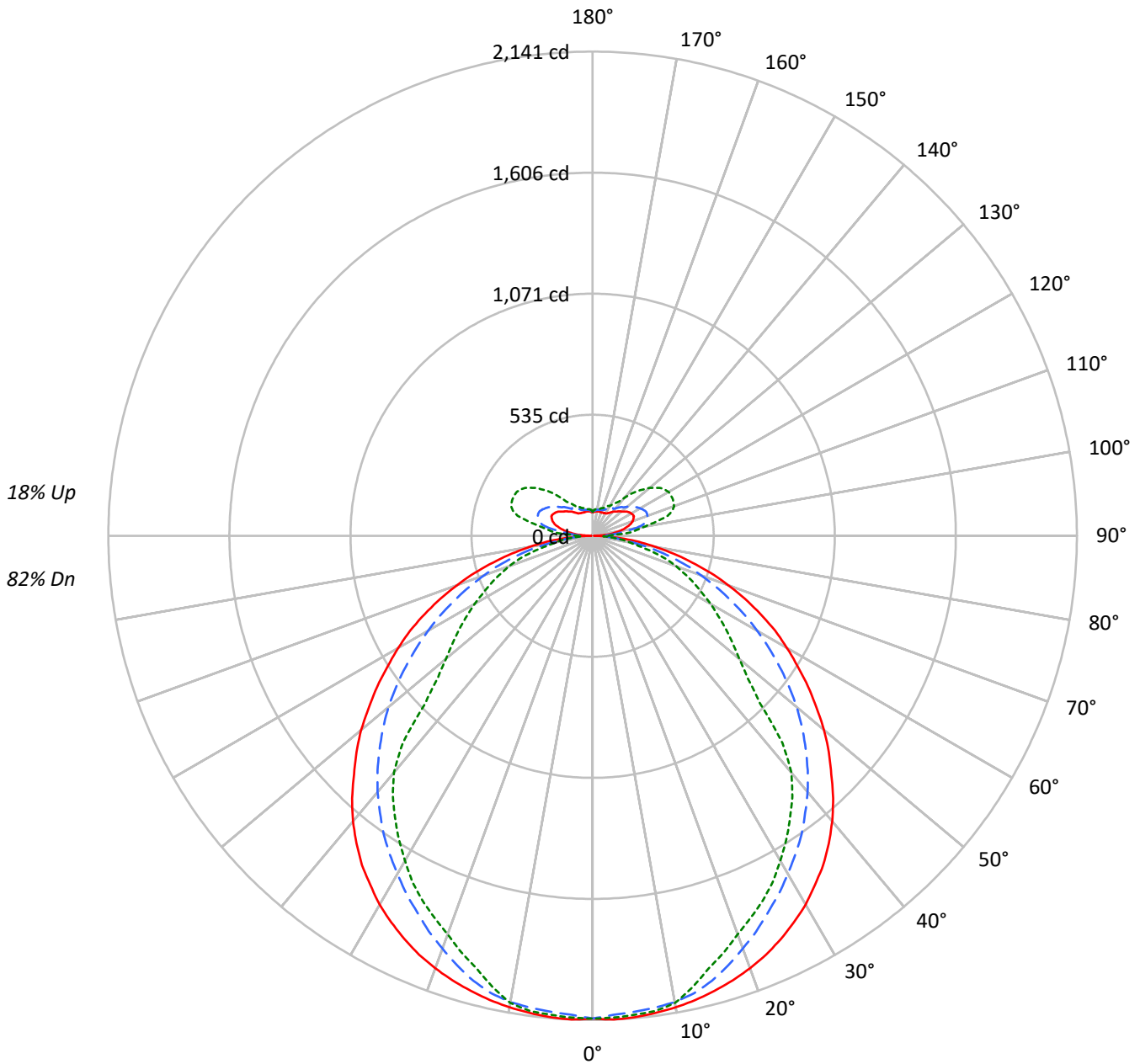
Lumens per Lamp: N/A  
Luminaire Lumens: 6914.0 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 76.3  
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°	11490	11490	11490
5°	11545	11417	11487
10°	11572	11442	11466
15°	11606	11352	11038
20°	11657	11124	10739
25°	11687	10903	10569
30°	11706	10724	10307
35°	11679	10584	10000
40°	11576	10390	9598
45°	11354	10135	7960
50°	11185	9862	7088
55°	10910	9468	6745
60°	10673	9043	6479
65°	10422	8548	6287
70°	10017	8006	6167
75°	9455	7338	5673
80°	8656	6174	5033
85°	7756	5348	5082



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.3	2.9
10°-20°	574.7	8.3
20°-30°	857.8	12.4
30°-40°	1022.0	14.8
40°-50°	1016.6	14.7
50°-60°	871.2	12.6
60°-70°	656.2	9.5
70°-80°	380.0	5.5
80°-90°	114.2	1.7
90°-100°	122.6	1.8
100°-110°	251.8	3.6
110°-120°	266.2	3.9
120°-130°	222.1	3.2
130°-140°	155.2	2.2
140°-150°	96.6	1.4
150°-160°	59.9	0.9
160°-170°	33.7	0.5
170°-180°	10.9	0.2
0°-30°	1634.8	23.6
0°-40°	2656.9	38.4
0°-60°	4544.7	65.7
0°-90°	5695.1	82.4
90°-120°	640.7	9.3
90°-150°	1114.5	16.1
90°-180°	1219.0	17.6
0°-180°	6914.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2135	2135	2135	2135	2135	
5°	2137	2130	2113	2128	2126	203
15°	2083	2081	2037	2003	1981	589
25°	1968	1940	1836	1791	1780	907
35°	1778	1730	1611	1548	1522	1110
45°	1492	1455	1332	1200	1046	1153
55°	1163	1145	1009	801	719	1039
65°	818	799	671	522	494	809
75°	455	440	353	282	273	482
85°	126	110	87	82	82	134
90°	6	30	52	65	69	13
95°	69	93	106	156	169	66
105°	162	169	242	325	344	168
115°	201	171	258	355	390	196
125°	186	165	223	327	368	165
135°	152	165	180	242	279	118
145°	123	143	156	167	178	78
155°	113	119	128	139	141	52
165°	110	115	119	123	123	31
175°	108	110	113	115	117	10
180°	106	106	106	106	106	



TEST NUMBER: P520574

CATALOG NUMBER: 4WSLA-200-L940-UPL15-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2134.9	2134.9	2134.9	2134.9	2134.9
2.5°	2141.3	2137.0	2119.7	2137.0	2132.7
5°	2137.0	2130.5	2113.2	2128.4	2126.2
7.5°	2128.4	2124.0	2104.5	2121.9	2119.7
10°	2117.5	2111.0	2093.7	2106.7	2098.0
12.5°	2102.4	2098.0	2072.1	2061.2	2043.9
15°	2082.9	2080.7	2037.4	2002.8	1981.1
17.5°	2061.2	2052.6	1992.0	1950.8	1931.3
20°	2035.3	2022.3	1942.2	1894.5	1875.0
22.5°	2004.9	1985.5	1892.4	1846.9	1827.4
25°	1968.1	1940.0	1836.1	1790.6	1779.8
27.5°	1927.0	1894.5	1784.1	1738.6	1725.6
30°	1883.7	1842.6	1725.6	1682.3	1658.5
32.5°	1829.6	1790.6	1669.3	1619.5	1593.6
35°	1777.6	1730.0	1610.9	1548.1	1522.1
37.5°	1714.8	1667.2	1543.8	1481.0	1450.7
40°	1647.7	1600.1	1478.8	1405.2	1366.2
42.5°	1574.1	1530.8	1407.4	1318.6	1242.8
45°	1491.8	1455.0	1331.6	1199.5	1045.8
47.5°	1416.0	1381.4	1255.8	1084.7	926.7
50°	1335.9	1303.4	1177.8	976.5	846.6
52.5°	1247.1	1223.3	1093.4	883.4	779.5
55°	1162.7	1145.4	1009.0	801.1	718.8
57.5°	1073.9	1056.6	924.5	723.2	658.2
60°	991.6	974.3	840.1	653.9	601.9
62.5°	909.4	885.6	757.8	586.8	543.5
65°	818.4	798.9	671.2	521.8	493.7
67.5°	727.5	710.2	591.1	461.2	441.7
70°	636.6	621.4	508.8	402.7	391.9
72.5°	547.8	528.3	435.2	344.3	339.9
75°	454.7	439.5	352.9	281.5	272.8
77.5°	365.9	352.9	277.1	214.4	207.9
80°	279.3	266.3	199.2	155.9	162.4
82.5°	205.7	188.4	134.2	121.2	127.7
85°	125.6	110.4	86.6	82.3	82.3
87.5°	43.3	41.1	39.0	45.5	47.6
90°	6.5	30.3	52.0	65.0	69.3
92.5°	36.8	54.1	71.5	84.4	88.8
95°	69.3	93.1	106.1	155.9	168.9
97.5°	95.3	123.4	138.6	184.0	197.0
100°	121.2	147.2	194.9	218.7	233.8
102.5°	142.9	162.4	229.5	277.1	285.8
105°	162.4	168.9	242.5	324.8	344.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	194.9	173.2	259.8	352.9	387.6
115°	201.4	171.0	257.7	355.1	389.7
117.5°	201.4	171.0	251.2	355.1	389.7
120°	197.0	173.2	242.5	350.8	387.6
122.5°	192.7	168.9	233.8	342.1	378.9
125°	186.2	164.6	223.0	326.9	368.1
127.5°	175.4	168.9	212.2	307.5	348.6
130°	166.7	171.0	199.2	288.0	329.1
132.5°	160.2	166.7	186.2	266.3	303.1
135°	151.6	164.6	179.7	242.5	279.3
137.5°	145.1	158.1	168.9	220.8	251.2
140°	138.6	153.7	158.1	192.7	218.7
142.5°	129.9	147.2	149.4	179.7	190.5
145°	123.4	142.9	155.9	166.7	177.5
147.5°	116.9	134.2	151.6	153.7	164.6
150°	114.8	125.6	145.1	147.2	151.6
152.5°	112.6	121.2	134.2	147.2	149.4
155°	112.6	119.1	127.7	138.6	140.7
157.5°	110.4	119.1	123.4	132.1	134.2
160°	110.4	116.9	121.2	127.7	129.9
162.5°	110.4	116.9	119.1	125.6	127.7
165°	110.4	114.8	119.1	123.4	123.4
167.5°	110.4	114.8	116.9	121.2	121.2
170°	110.4	112.6	116.9	119.1	119.1
172.5°	108.3	112.6	114.8	119.1	119.1
175°	108.3	110.4	112.6	114.8	116.9
177.5°	103.9	110.4	112.6	114.8	112.6
180°	106.1	106.1	106.1	106.1	106.1



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	177.5	171.0	251.2	342.1	370.2
110°	188.4	173.2	257.7	348.6	383.2



(END OF REPORT)