

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: P520565

Luminaire Tested: **4WSLA-200-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: P520565  
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-L850-UPL15-UNV-U  
Description: 4 FOOT, 2000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 5000K, 80 CRI  
LEDS WITH 15% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

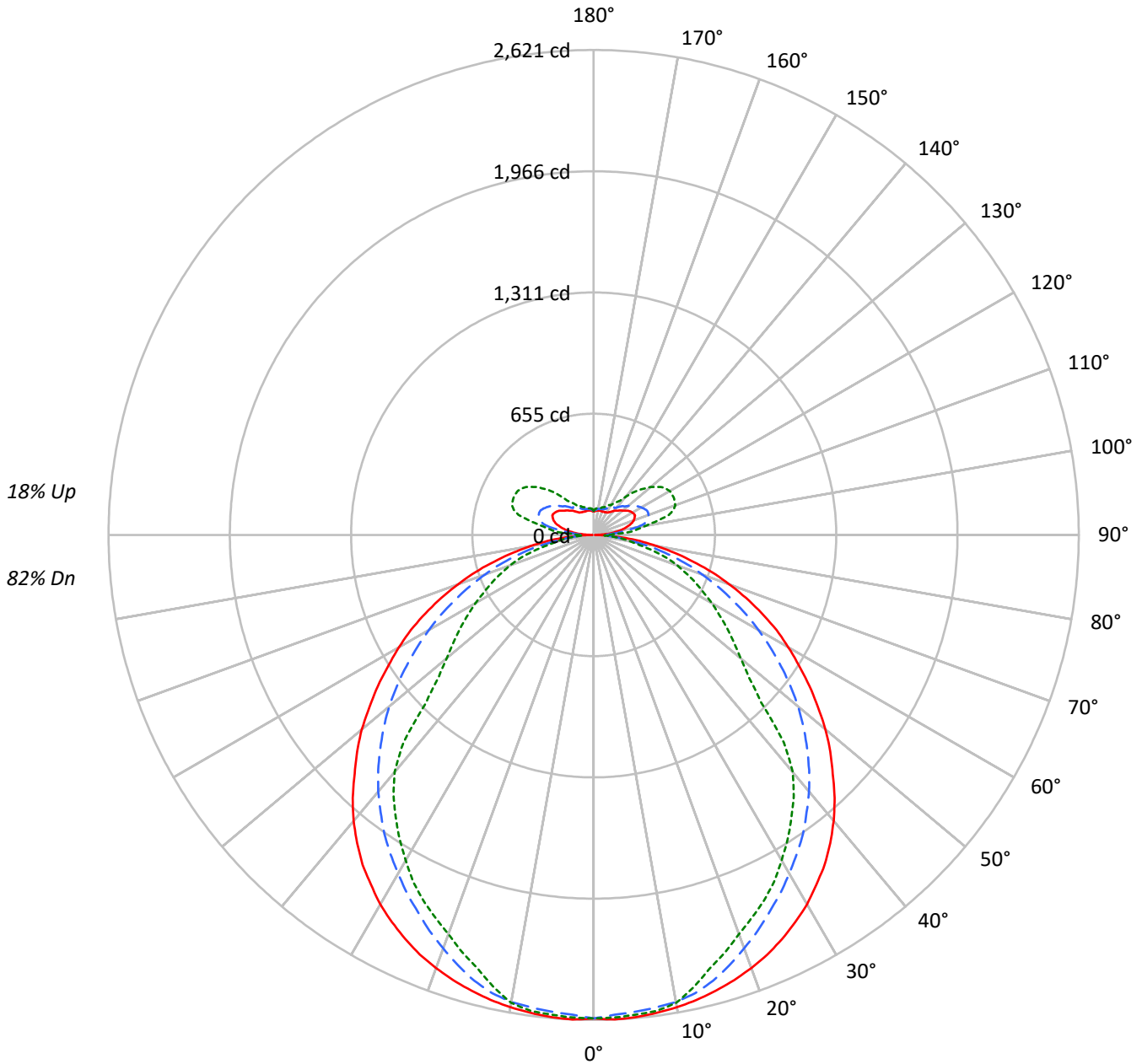
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8464.0 lumens  
Efficiency: N/A  
Efficacy: 110.9 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

TEST NUMBER: P520565  
CATALOG NUMBER: 4WSLA-200-L850-UPL15-UNV-U

### 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°	14065	14065	14065
5°	14134	13976	14062
10°	14166	14007	14036
15°	14207	13897	13513
20°	14270	13617	13147
25°	14308	13348	12938
30°	14331	13128	12617
35°	14297	12956	12242
40°	14171	12719	11750
45°	13900	12407	9744
50°	13693	12073	8678
55°	13355	11590	8257
60°	13067	11070	7932
65°	12759	10464	7696
70°	12263	9802	7550
75°	11574	8983	6945
80°	10597	7559	6161
85°	9491	6546	6218



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	247.7	2.9
10°-20°	703.6	8.3
20°-30°	1050.0	12.4
30°-40°	1251.1	14.8
40°-50°	1244.5	14.7
50°-60°	1066.6	12.6
60°-70°	803.3	9.5
70°-80°	465.2	5.5
80°-90°	139.8	1.7
90°-100°	150.1	1.8
100°-110°	308.3	3.6
110°-120°	325.9	3.9
120°-130°	271.9	3.2
130°-140°	189.9	2.2
140°-150°	118.2	1.4
150°-160°	73.3	0.9
160°-170°	41.3	0.5
170°-180°	13.3	0.2
0°-30°	2001.3	23.6
0°-40°	3252.5	38.4
0°-60°	5563.5	65.7
0°-90°	6971.8	82.4
90°-120°	784.3	9.3
90°-150°	1364.3	16.1
90°-180°	1492.0	17.6
0°-180°	8464.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2613	2613	2613	2613	2613	
5°	2616	2608	2587	2606	2603	249
15°	2550	2547	2494	2452	2425	721
25°	2409	2375	2248	2192	2179	1111
35°	2176	2118	1972	1895	1863	1359
45°	1826	1781	1630	1468	1280	1412
55°	1423	1402	1235	981	880	1272
65°	1002	978	822	639	604	990
75°	557	538	432	345	334	590
85°	154	135	106	101	101	164
90°	8	37	64	80	85	16
95°	85	114	130	191	207	81
105°	199	207	297	398	421	206
115°	246	209	315	435	477	240
125°	228	201	273	400	451	202
135°	186	201	220	297	342	145
145°	151	175	191	204	217	96
155°	138	146	156	170	172	64
165°	135	140	146	151	151	38
175°	132	135	138	140	143	13
180°	130	130	130	130	130	



TEST NUMBER: P520565

CATALOG NUMBER: 4WSLA-200-L850-UPL15-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2613.4	2613.4	2613.4	2613.4	2613.4
2.5°	2621.4	2616.1	2594.9	2616.1	2610.8
5°	2616.1	2608.1	2586.9	2605.5	2602.8
7.5°	2605.5	2600.2	2576.3	2597.5	2594.9
10°	2592.2	2584.3	2563.1	2579.0	2568.4
12.5°	2573.7	2568.4	2536.6	2523.3	2502.1
15°	2549.8	2547.2	2494.2	2451.8	2425.3
17.5°	2523.3	2512.7	2438.5	2388.2	2364.3
20°	2491.5	2475.6	2377.5	2319.2	2295.4
22.5°	2454.4	2430.6	2316.6	2260.9	2237.1
25°	2409.4	2374.9	2247.7	2192.0	2178.8
27.5°	2359.0	2319.2	2184.1	2128.4	2112.5
30°	2306.0	2255.6	2112.5	2059.5	2030.3
32.5°	2239.7	2192.0	2043.6	1982.6	1950.8
35°	2176.1	2117.8	1972.0	1895.1	1863.3
37.5°	2099.2	2040.9	1889.8	1813.0	1775.9
40°	2017.1	1958.8	1810.3	1720.2	1672.5
42.5°	1927.0	1873.9	1722.9	1614.2	1521.4
45°	1826.2	1781.2	1630.1	1468.4	1280.2
47.5°	1733.5	1691.1	1537.3	1327.9	1134.4
50°	1635.4	1595.6	1441.9	1195.4	1036.4
52.5°	1526.7	1497.6	1338.5	1081.4	954.2
55°	1423.3	1402.1	1235.2	980.7	880.0
57.5°	1314.7	1293.5	1131.8	885.3	805.8
60°	1214.0	1192.8	1028.4	800.5	736.9
62.5°	1113.2	1084.1	927.7	718.3	665.3
65°	1001.9	978.1	821.7	638.8	604.3
67.5°	890.6	869.4	723.6	564.6	540.7
70°	779.3	760.7	622.9	493.0	479.8
72.5°	670.6	646.7	532.8	421.4	416.1
75°	556.6	538.1	432.0	344.6	334.0
77.5°	447.9	432.0	339.3	262.4	254.5
80°	341.9	326.0	243.9	190.8	198.8
82.5°	251.8	230.6	164.3	148.4	156.4
85°	153.7	135.2	106.0	100.7	100.7
87.5°	53.0	50.4	47.7	55.7	58.3
90°	8.0	37.1	63.6	79.5	84.8
92.5°	45.1	66.3	87.5	103.4	108.7
95°	84.8	114.0	129.9	190.8	206.7
97.5°	116.6	151.1	169.6	225.3	241.2
100°	148.4	180.2	238.6	267.7	286.3
102.5°	174.9	198.8	281.0	339.3	349.9
105°	198.8	206.7	296.9	397.6	421.4



TEST NUMBER: P520565

CATALOG NUMBER: 4WSLA-200-L850-UPL15-UNV-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	238.6	212.0	318.1	432.0	474.4
115°	246.5	209.4	315.4	434.7	477.1
117.5°	246.5	209.4	307.5	434.7	477.1
120°	241.2	212.0	296.9	429.4	474.4
122.5°	235.9	206.7	286.3	418.8	463.8
125°	227.9	201.4	273.0	400.2	450.6
127.5°	214.7	206.7	259.8	376.4	426.7
130°	204.1	209.4	243.9	352.5	402.9
132.5°	196.1	204.1	227.9	326.0	371.1
135°	185.5	201.4	220.0	296.9	341.9
137.5°	177.6	193.5	206.7	270.4	307.5
140°	169.6	188.2	193.5	235.9	267.7
142.5°	159.0	180.2	182.9	220.0	233.2
145°	151.1	174.9	190.8	204.1	217.3
147.5°	143.1	164.3	185.5	188.2	201.4
150°	140.5	153.7	177.6	180.2	185.5
152.5°	137.8	148.4	164.3	180.2	182.9
155°	137.8	145.8	156.4	169.6	172.3
157.5°	135.2	145.8	151.1	161.7	164.3
160°	135.2	143.1	148.4	156.4	159.0
162.5°	135.2	143.1	145.8	153.7	156.4
165°	135.2	140.5	145.8	151.1	151.1
167.5°	135.2	140.5	143.1	148.4	148.4
170°	135.2	137.8	143.1	145.8	145.8
172.5°	132.5	137.8	140.5	145.8	145.8
175°	132.5	135.2	137.8	140.5	143.1
177.5°	127.2	135.2	137.8	140.5	137.8
180°	129.9	129.9	129.9	129.9	129.9



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	217.3	209.4	307.5	418.8	453.2
110°	230.6	212.0	315.4	426.7	469.1



(END OF REPORT)