

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: P520566

Luminaire Tested: **4WSLA-200-L850-UPL8-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: P520566
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2103-174-3)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 4WSLA-200-L850-UPL8-UNV-U
Description: 4 FOOT, 2000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 5000K, 80 CRI
LEDS WITH 8% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

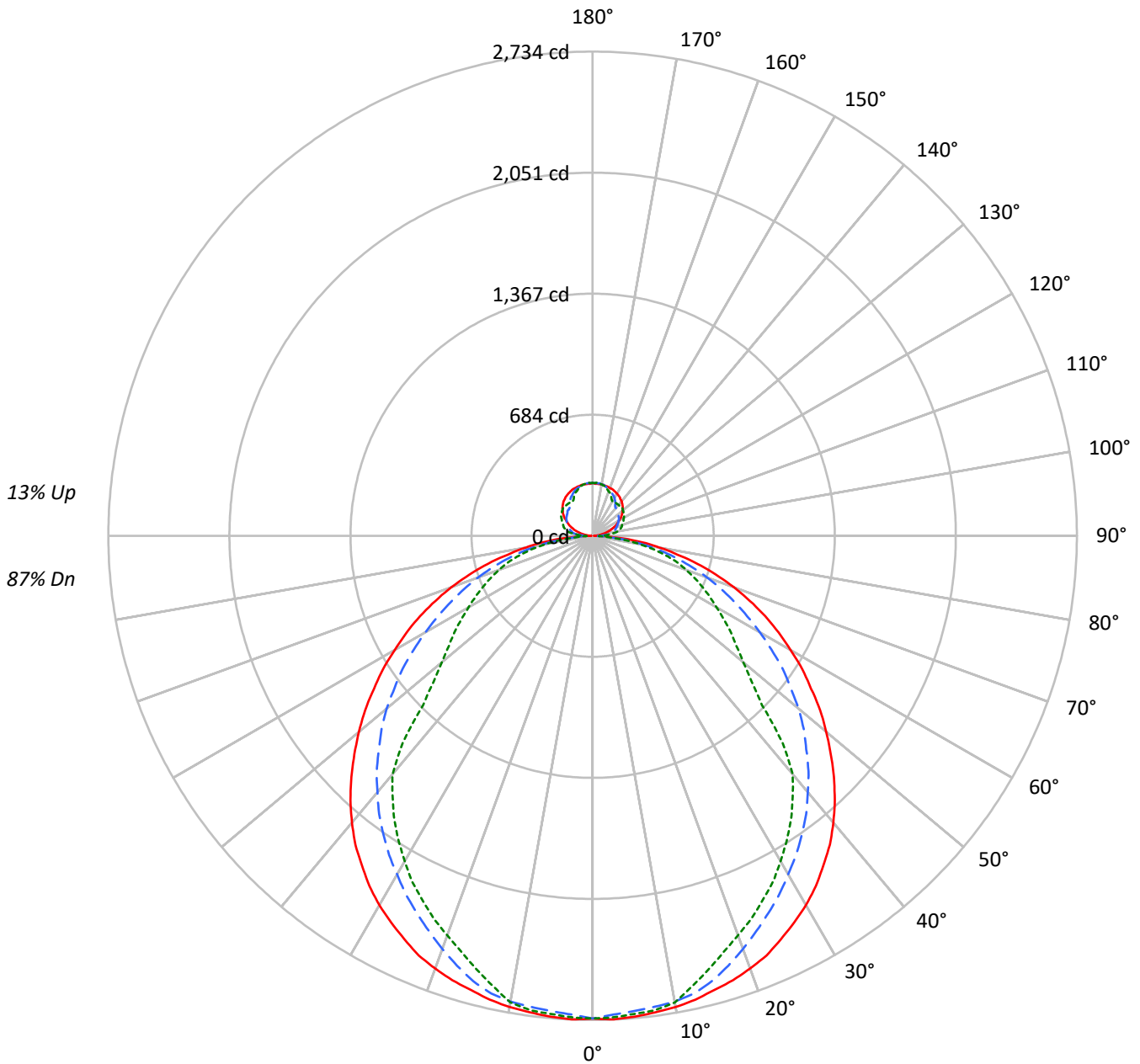
Lumens per Lamp: N/A
Luminaire Lumens: 8483.0 lumens
Efficiency: N/A
Efficacy: 111.2 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87																			
1	106	101	97	93	102	98	94	90	91	88	85	85	83	80	79	78	76	73																			
2	96	88	82	76	92	85	79	74	80	75	70	74	70	67	70	66	64	61																			
3	88	78	70	63	84	75	68	62	70	64	59	66	61	56	62	58	54	51																			
4	80	69	60	54	77	67	59	53	62	56	50	59	53	48	55	50	46	44																			
5	74	61	53	46	71	60	51	45	56	49	44	53	47	42	50	45	40	38																			
6	68	55	47	40	66	54	46	40	51	44	38	48	42	37	45	40	36	33																			
7	63	50	42	36	61	49	41	35	46	39	34	43	37	33	41	36	32	30																			
8	59	46	37	32	57	44	37	31	42	35	30	40	34	29	38	32	28	26																			
9	55	42	34	28	53	41	33	28	39	32	27	37	31	26	35	30	26	24																			
10	52	39	31	26	50	38	30	25	36	29	25	34	28	24	32	27	23	22																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14670	14670	14670
5°	14726	14557	14641
10°	14768	14596	14618
15°	14794	14510	14117
20°	14893	14219	13747
25°	14929	13951	13485
30°	14965	13722	13186
35°	14920	13528	12833
40°	14852	13281	12345
45°	14657	12986	10299
50°	14416	12708	9293
55°	14131	12291	8942
60°	13889	11736	8696
65°	13685	11237	8690
70°	13331	10799	8825
75°	12722	10277	8890
80°	11914	9239	8266
85°	10899	6539	5570



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.0	3.0
10°-20°	733.6	8.6
20°-30°	1096.2	12.9
30°-40°	1308.5	15.4
40°-50°	1308.7	15.4
50°-60°	1132.6	13.4
60°-70°	869.3	10.2
70°-80°	532.7	6.3
80°-90°	150.0	1.8
90°-100°	84.7	1.0
100°-110°	134.5	1.6
110°-120°	157.3	1.9
120°-130°	169.8	2.0
130°-140°	167.3	2.0
140°-150°	148.0	1.7
150°-160°	121.8	1.4
160°-170°	81.5	1.0
170°-180°	28.4	0.3
0°-30°	2087.9	24.6
0°-40°	3396.4	40.0
0°-60°	5837.7	68.8
0°-90°	7389.6	87.1
90°-120°	376.5	4.4
90°-150°	861.7	10.2
90°-180°	1093.0	12.9
0°-180°	8483.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2726	2726	2726	2726	2726	
5°	2726	2718	2694	2714	2710	259
15°	2655	2651	2604	2557	2534	751
25°	2514	2483	2349	2286	2271	1160
35°	2271	2212	2059	1984	1953	1422
45°	1926	1871	1706	1553	1353	1485
55°	1506	1471	1310	1047	953	1350
65°	1075	1035	882	710	682	1061
75°	612	580	494	428	428	645
85°	176	145	106	90	90	185
90°	8	28	43	55	59	12
95°	31	67	90	94	94	31
105°	90	94	133	157	165	95
115°	149	126	157	180	192	146
125°	200	161	180	208	216	178
135°	239	216	200	220	231	185
145°	267	255	224	220	228	166
155°	282	278	263	251	247	130
165°	290	294	286	286	286	82
175°	294	298	298	302	302	28
180°	298	298	298	298	298	



TEST NUMBER: P520566

CATALOG NUMBER: 4WSLA-200-L850-UPL8-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2725.8	2725.8	2725.8	2725.8	2725.8
2.5°	2733.6	2725.8	2706.2	2725.8	2721.9
5°	2725.8	2717.9	2694.4	2714.0	2710.1
7.5°	2714.0	2706.2	2682.6	2706.2	2702.3
10°	2702.3	2694.4	2670.9	2686.6	2674.8
12.5°	2682.6	2674.8	2647.3	2627.7	2604.2
15°	2655.2	2651.3	2604.2	2557.1	2533.6
17.5°	2631.7	2619.9	2545.4	2490.5	2463.0
20°	2600.3	2580.7	2482.6	2419.9	2400.3
22.5°	2565.0	2533.6	2415.9	2357.1	2341.4
25°	2514.0	2482.6	2349.3	2286.5	2270.8
27.5°	2463.0	2423.8	2282.6	2219.9	2204.2
30°	2408.1	2353.2	2208.1	2149.3	2121.8
32.5°	2345.4	2290.4	2137.5	2070.8	2039.4
35°	2270.8	2212.0	2059.0	1984.5	1953.2
37.5°	2200.2	2137.5	1980.6	1898.2	1855.1
40°	2114.0	2051.2	1890.4	1800.2	1757.1
42.5°	2023.8	1964.9	1804.1	1694.3	1588.4
45°	1925.7	1870.8	1706.1	1553.1	1353.1
47.5°	1823.7	1776.7	1615.9	1408.0	1215.8
50°	1721.8	1674.7	1517.8	1270.7	1109.9
52.5°	1619.8	1580.6	1408.0	1157.0	1023.6
55°	1506.0	1470.7	1309.9	1047.2	953.0
57.5°	1404.1	1368.8	1196.2	957.0	878.5
60°	1290.3	1259.0	1090.3	866.8	807.9
62.5°	1184.4	1149.1	984.4	788.3	745.2
65°	1074.6	1035.4	882.4	709.9	682.4
67.5°	960.9	921.7	784.4	639.3	623.6
70°	847.2	815.8	686.3	568.7	560.8
72.5°	729.5	694.2	588.3	502.0	502.0
75°	611.8	580.5	494.2	427.5	427.5
77.5°	490.2	474.6	396.1	349.1	353.0
80°	384.4	364.7	298.1	266.7	266.7
82.5°	282.4	258.9	200.0	176.5	184.3
85°	176.5	145.1	105.9	90.2	90.2
87.5°	54.9	43.1	31.4	35.3	35.3
90°	7.8	27.5	43.1	54.9	58.8
92.5°	19.6	51.0	62.8	74.5	78.4
95°	31.4	66.7	90.2	94.1	94.1
97.5°	43.1	74.5	109.8	125.5	125.5
100°	58.8	78.4	117.7	141.2	145.1
102.5°	74.5	86.3	125.5	149.0	156.9
105°	90.2	94.1	133.3	156.9	164.7



TEST NUMBER: P520566

CATALOG NUMBER: 4WSLA-200-L850-UPL8-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	133.3	117.7	149.0	176.5	184.3
115°	149.0	125.5	156.9	180.4	192.2
117.5°	160.8	137.3	164.7	188.3	196.1
120°	172.6	145.1	168.6	196.1	203.9
122.5°	188.3	153.0	176.5	200.0	211.8
125°	200.0	160.8	180.4	207.9	215.7
127.5°	211.8	176.5	184.3	211.8	219.6
130°	219.6	192.2	188.3	215.7	223.6
132.5°	231.4	203.9	192.2	219.6	227.5
135°	239.2	215.7	200.0	219.6	231.4
137.5°	247.1	227.5	200.0	219.6	227.5
140°	254.9	239.2	203.9	219.6	227.5
142.5°	258.9	247.1	207.9	219.6	227.5
145°	266.7	254.9	223.6	219.6	227.5
147.5°	270.6	262.8	235.3	219.6	227.5
150°	274.5	270.6	247.1	223.6	223.6
152.5°	278.5	274.5	254.9	239.2	231.4
155°	282.4	278.5	262.8	251.0	247.1
157.5°	286.3	286.3	270.6	262.8	258.9
160°	286.3	290.2	278.5	270.6	266.7
162.5°	290.2	294.1	282.4	278.5	274.5
165°	290.2	294.1	286.3	286.3	286.3
167.5°	294.1	298.1	294.1	290.2	290.2
170°	294.1	298.1	294.1	294.1	294.1
172.5°	294.1	298.1	298.1	298.1	298.1
175°	294.1	298.1	298.1	302.0	302.0
177.5°	294.1	298.1	298.1	298.1	298.1
180°	298.1	298.1	298.1	298.1	298.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	105.9	102.0	137.3	164.7	172.6
110°	117.7	109.8	145.1	168.6	176.5



(END OF REPORT)