

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: P520572

Luminaire Tested: **4WSLA-200-L935-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: P520572  
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-L935-UPL8-UNV-U  
Description: 4 FOOT, 2000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 90 CRI  
LEDS WITH 8% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

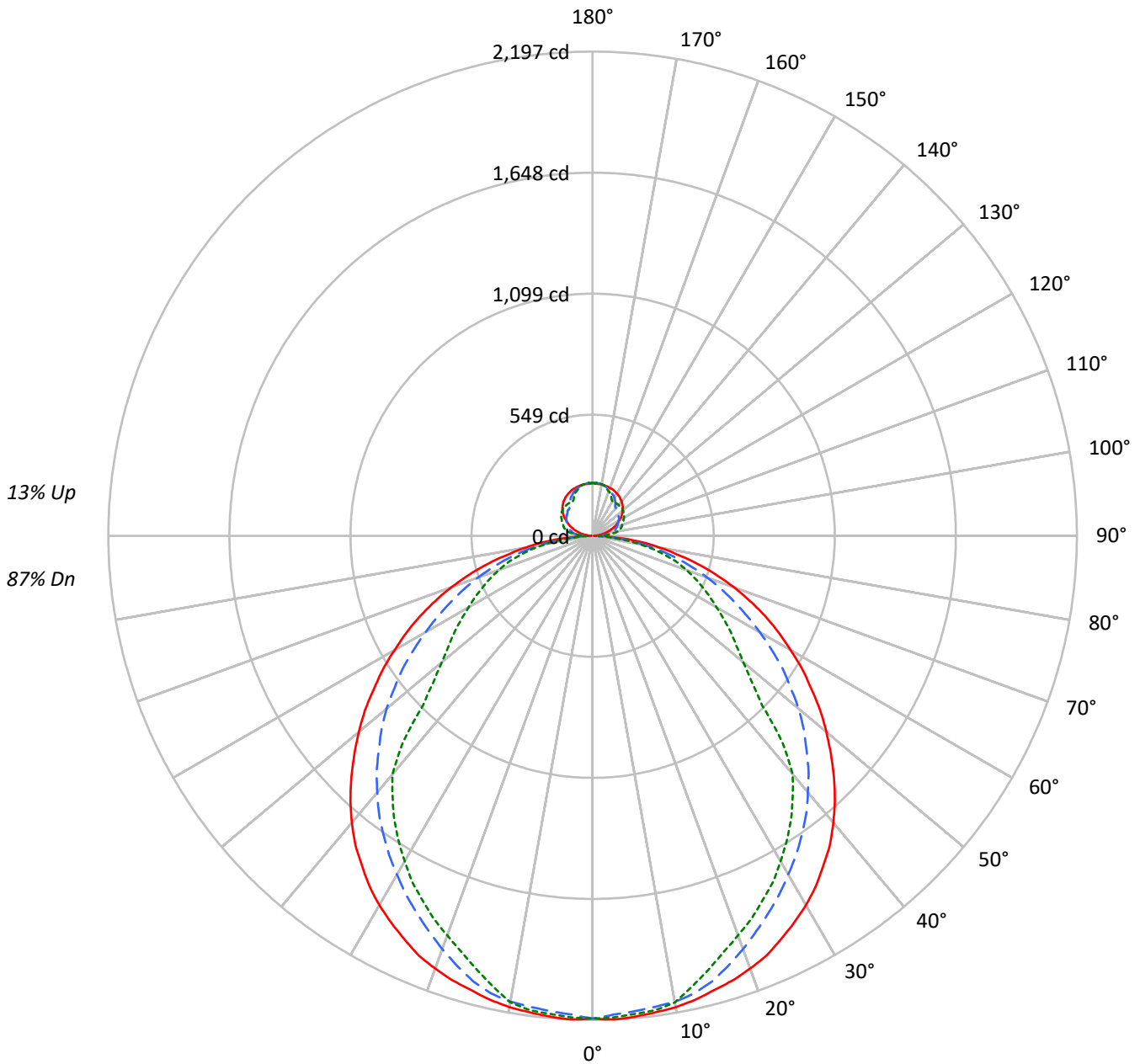
Lumens per Lamp: N/A  
Luminaire Lumens: 6818.0 lumens  
Efficiency: N/A  
Efficacy: 89.4 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 76.3  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	11791	11791	11791
5°	11836	11700	11768
10°	11869	11732	11749
15°	11890	11662	11346
20°	11970	11428	11049
25°	11999	11213	10838
30°	12028	11029	10598
35°	11991	10873	10314
40°	11937	10675	9922
45°	11780	10437	8277
50°	11586	10214	7469
55°	11357	9879	7187
60°	11163	9432	6990
65°	10999	9032	6985
70°	10715	8680	7094
75°	10225	8259	7145
80°	9574	7426	6645
85°	8756	5255	4477



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.4	3.0
10°-20°	589.6	8.6
20°-30°	881.0	12.9
30°-40°	1051.7	15.4
40°-50°	1051.8	15.4
50°-60°	910.3	13.4
60°-70°	698.7	10.2
70°-80°	428.1	6.3
80°-90°	120.5	1.8
90°-100°	68.1	1.0
100°-110°	108.1	1.6
110°-120°	126.4	1.9
120°-130°	136.5	2.0
130°-140°	134.5	2.0
140°-150°	119.0	1.7
150°-160°	97.9	1.4
160°-170°	65.5	1.0
170°-180°	22.8	0.3
0°-30°	1678.1	24.6
0°-40°	2729.8	40.0
0°-60°	4691.9	68.8
0°-90°	5939.2	87.1
90°-120°	302.7	4.4
90°-150°	692.6	10.2
90°-180°	879.0	12.9
0°-180°	6818.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2191	2191	2191	2191	2191	
5°	2191	2184	2166	2181	2178	208
15°	2134	2131	2093	2055	2036	604
25°	2021	1995	1888	1838	1825	932
35°	1825	1778	1655	1595	1570	1143
45°	1548	1504	1371	1248	1088	1193
55°	1210	1182	1053	842	766	1085
65°	864	832	709	570	548	853
75°	492	466	397	344	344	519
85°	142	117	85	72	72	148
90°	6	22	35	44	47	10
95°	25	54	72	76	76	25
105°	72	76	107	126	132	76
115°	120	101	126	145	154	117
125°	161	129	145	167	173	143
135°	192	173	161	176	186	148
145°	214	205	180	176	183	134
155°	227	224	211	202	199	105
165°	233	236	230	230	230	66
175°	236	240	240	243	243	23
180°	240	240	240	240	240	



TEST NUMBER: P520572

CATALOG NUMBER: 4WSLA-200-L935-UPL8-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2190.8	2190.8	2190.8	2190.8	2190.8
2.5°	2197.1	2190.8	2175.0	2190.8	2187.6
5°	2190.8	2184.5	2165.6	2181.3	2178.2
7.5°	2181.3	2175.0	2156.1	2175.0	2171.9
10°	2171.9	2165.6	2146.7	2159.3	2149.8
12.5°	2156.1	2149.8	2127.7	2112.0	2093.1
15°	2134.0	2130.9	2093.1	2055.2	2036.3
17.5°	2115.1	2105.7	2045.8	2001.7	1979.6
20°	2089.9	2074.2	1995.3	1944.9	1929.2
22.5°	2061.5	2036.3	1941.8	1894.5	1881.9
25°	2020.6	1995.3	1888.2	1837.7	1825.1
27.5°	1979.6	1948.1	1834.6	1784.1	1771.5
30°	1935.5	1891.3	1774.7	1727.4	1705.3
32.5°	1885.0	1840.9	1718.0	1664.4	1639.1
35°	1825.1	1777.8	1654.9	1595.0	1569.8
37.5°	1768.4	1718.0	1591.9	1525.7	1491.0
40°	1699.0	1648.6	1519.4	1446.9	1412.2
42.5°	1626.5	1579.3	1450.0	1361.8	1276.6
45°	1547.7	1503.6	1371.2	1248.3	1087.5
47.5°	1465.8	1427.9	1298.7	1131.6	977.2
50°	1383.8	1346.0	1219.9	1021.3	892.1
52.5°	1301.9	1270.3	1131.6	929.9	822.7
55°	1210.4	1182.1	1052.8	841.6	766.0
57.5°	1128.5	1100.1	961.4	769.1	706.1
60°	1037.1	1011.9	876.3	696.6	649.4
62.5°	952.0	923.6	791.2	633.6	598.9
65°	863.7	832.2	709.2	570.5	548.5
67.5°	772.3	740.8	630.4	513.8	501.2
70°	680.9	655.7	551.6	457.1	450.8
72.5°	586.3	557.9	472.8	403.5	403.5
75°	491.7	466.5	397.2	343.6	343.6
77.5°	394.0	381.4	318.4	280.5	283.7
80°	308.9	293.2	239.6	214.4	214.4
82.5°	227.0	208.0	160.8	141.8	148.2
85°	141.8	116.6	85.1	72.5	72.5
87.5°	44.1	34.7	25.2	28.4	28.4
90°	6.3	22.1	34.7	44.1	47.3
92.5°	15.8	41.0	50.4	59.9	63.0
95°	25.2	53.6	72.5	75.7	75.7
97.5°	34.7	59.9	88.3	100.9	100.9
100°	47.3	63.0	94.6	113.5	116.6
102.5°	59.9	69.3	100.9	119.8	126.1
105°	72.5	75.7	107.2	126.1	132.4



TEST NUMBER: P520572

CATALOG NUMBER: 4WSLA-200-L935-UPL8-UNV-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	107.2	94.6	119.8	141.8	148.2
115°	119.8	100.9	126.1	145.0	154.5
117.5°	129.2	110.3	132.4	151.3	157.6
120°	138.7	116.6	135.5	157.6	163.9
122.5°	151.3	122.9	141.8	160.8	170.2
125°	160.8	129.2	145.0	167.1	173.4
127.5°	170.2	141.8	148.2	170.2	176.5
130°	176.5	154.5	151.3	173.4	179.7
132.5°	186.0	163.9	154.5	176.5	182.8
135°	192.3	173.4	160.8	176.5	186.0
137.5°	198.6	182.8	160.8	176.5	182.8
140°	204.9	192.3	163.9	176.5	182.8
142.5°	208.0	198.6	167.1	176.5	182.8
145°	214.4	204.9	179.7	176.5	182.8
147.5°	217.5	211.2	189.1	176.5	182.8
150°	220.7	217.5	198.6	179.7	179.7
152.5°	223.8	220.7	204.9	192.3	186.0
155°	227.0	223.8	211.2	201.7	198.6
157.5°	230.1	230.1	217.5	211.2	208.0
160°	230.1	233.3	223.8	217.5	214.4
162.5°	233.3	236.4	227.0	223.8	220.7
165°	233.3	236.4	230.1	230.1	230.1
167.5°	236.4	239.6	236.4	233.3	233.3
170°	236.4	239.6	236.4	236.4	236.4
172.5°	236.4	239.6	239.6	239.6	239.6
175°	236.4	239.6	239.6	242.7	242.7
177.5°	236.4	239.6	239.6	239.6	239.6
180°	239.6	239.6	239.6	239.6	239.6



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	85.1	82.0	110.3	132.4	138.7
110°	94.6	88.3	116.6	135.5	141.8



(END OF REPORT)