

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: P520568

Luminaire Tested: **4WSLA-200-L930-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: P520568  
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-L930-UPL15-UNV-U  
Description: 4 FOOT, 2000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 90 CRI  
LEDS WITH 15% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

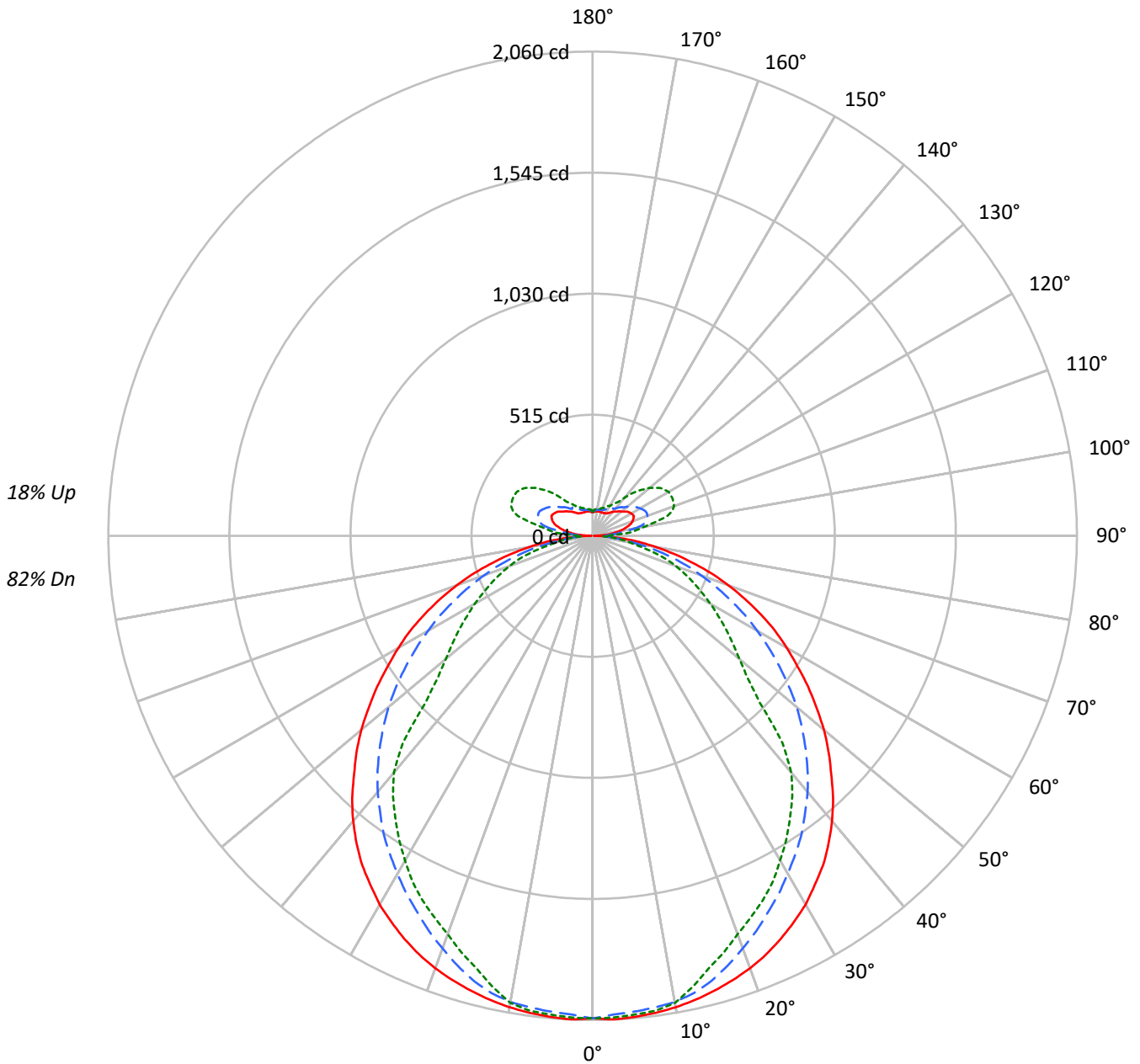
Lumens per Lamp: N/A  
Luminaire Lumens: 6649.9 lumens  
Efficiency: N/A  
Efficacy: 87.2 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 76.3  
Input Voltage (V): NR  
Input Current (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	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°	11051	11051	11051
5°	11104	10981	11048
10°	11131	11005	11028
15°	11163	10919	10617
20°	11211	10699	10329
25°	11241	10487	10165
30°	11260	10314	9913
35°	11233	10180	9619
40°	11134	9993	9232
45°	10921	9748	7655
50°	10758	9486	6818
55°	10493	9105	6488
60°	10267	8697	6231
65°	10025	8222	6046
70°	9635	7701	5931
75°	9093	7058	5456
80°	8325	5938	4841
85°	7460	5144	4885



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	194.6	2.9
10°-20°	552.8	8.3
20°-30°	825.0	12.4
30°-40°	983.0	14.8
40°-50°	977.7	14.7
50°-60°	838.0	12.6
60°-70°	631.1	9.5
70°-80°	365.5	5.5
80°-90°	109.8	1.7
90°-100°	117.9	1.8
100°-110°	242.2	3.6
110°-120°	256.1	3.9
120°-130°	213.6	3.2
130°-140°	149.2	2.2
140°-150°	92.9	1.4
150°-160°	57.6	0.9
160°-170°	32.4	0.5
170°-180°	10.5	0.2
0°-30°	1572.4	23.6
0°-40°	2555.4	38.4
0°-60°	4371.1	65.7
0°-90°	5477.6	82.4
90°-120°	616.2	9.3
90°-150°	1071.9	16.1
90°-180°	1172.0	17.6
0°-180°	6649.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2053	2053	2053	2053	2053	
5°	2055	2049	2032	2047	2045	196
15°	2003	2001	1960	1926	1906	566
25°	1893	1866	1766	1722	1712	873
35°	1710	1664	1549	1489	1464	1068
45°	1435	1399	1281	1154	1006	1109
55°	1118	1102	970	770	691	1000
65°	787	768	646	502	475	778
75°	437	423	339	271	262	463
85°	121	106	83	79	79	129
90°	6	29	50	62	67	12
95°	67	90	102	150	162	64
105°	156	162	233	312	331	162
115°	194	164	248	342	375	189
125°	179	158	214	314	354	159
135°	146	158	173	233	269	114
145°	119	137	150	160	171	75
155°	108	114	123	133	135	50
165°	106	110	114	119	119	30
175°	104	106	108	110	112	10
180°	102	102	102	102	102	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2053.3	2053.3	2053.3	2053.3	2053.3
2.5°	2059.6	2055.4	2038.8	2055.4	2051.3
5°	2055.4	2049.2	2032.5	2047.1	2045.0
7.5°	2047.1	2042.9	2024.2	2040.8	2038.8
10°	2036.7	2030.4	2013.8	2026.3	2017.9
12.5°	2022.1	2017.9	1992.9	1982.5	1965.9
15°	2003.4	2001.3	1959.6	1926.3	1905.5
17.5°	1982.5	1974.2	1915.9	1876.3	1857.6
20°	1957.5	1945.0	1868.0	1822.2	1803.4
22.5°	1928.4	1909.6	1820.1	1776.4	1757.6
25°	1893.0	1865.9	1766.0	1722.2	1711.8
27.5°	1853.4	1822.2	1716.0	1672.2	1659.7
30°	1811.8	1772.2	1659.7	1618.1	1595.2
32.5°	1759.7	1722.2	1605.6	1557.7	1532.7
35°	1709.7	1663.9	1549.4	1489.0	1464.0
37.5°	1649.3	1603.5	1484.8	1424.4	1395.3
40°	1584.8	1539.0	1422.3	1351.5	1314.1
42.5°	1514.0	1472.3	1353.6	1268.2	1195.3
45°	1434.8	1399.4	1280.7	1153.7	1005.8
47.5°	1361.9	1328.6	1207.8	1043.3	891.3
50°	1284.9	1253.7	1132.9	939.2	814.3
52.5°	1199.5	1176.6	1051.7	849.7	749.7
55°	1118.3	1101.6	970.4	770.5	691.4
57.5°	1032.9	1016.3	889.2	695.6	633.1
60°	953.8	937.1	808.0	628.9	578.9
62.5°	874.6	851.7	728.9	564.4	522.7
65°	787.2	768.4	645.6	501.9	474.8
67.5°	699.7	683.1	568.5	443.6	424.8
70°	612.3	597.7	489.4	387.3	376.9
72.5°	526.9	508.1	418.6	331.1	327.0
75°	437.3	422.7	339.4	270.7	262.4
77.5°	351.9	339.4	266.6	206.2	199.9
80°	268.6	256.1	191.6	149.9	156.2
82.5°	197.8	181.2	129.1	116.6	122.9
85°	120.8	106.2	83.3	79.1	79.1
87.5°	41.6	39.6	37.5	43.7	45.8
90°	6.2	29.2	50.0	62.5	66.6
92.5°	35.4	52.1	68.7	81.2	85.4
95°	66.6	89.5	102.0	149.9	162.4
97.5°	91.6	118.7	133.3	177.0	189.5
100°	116.6	141.6	187.4	210.3	224.9
102.5°	137.4	156.2	220.7	266.6	274.9
105°	156.2	162.4	233.2	312.4	331.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	187.4	166.6	249.9	339.4	372.8
115°	193.7	164.5	247.8	341.5	374.8
117.5°	193.7	164.5	241.6	341.5	374.8
120°	189.5	166.6	233.2	337.4	372.8
122.5°	185.3	162.4	224.9	329.0	364.4
125°	179.1	158.3	214.5	314.5	354.0
127.5°	168.7	162.4	204.1	295.7	335.3
130°	160.4	164.5	191.6	277.0	316.5
132.5°	154.1	160.4	179.1	256.1	291.5
135°	145.8	158.3	172.8	233.2	268.6
137.5°	139.5	152.0	162.4	212.4	241.6
140°	133.3	147.9	152.0	185.3	210.3
142.5°	124.9	141.6	143.7	172.8	183.3
145°	118.7	137.4	149.9	160.4	170.8
147.5°	112.5	129.1	145.8	147.9	158.3
150°	110.4	120.8	139.5	141.6	145.8
152.5°	108.3	116.6	129.1	141.6	143.7
155°	108.3	114.5	122.9	133.3	135.4
157.5°	106.2	114.5	118.7	127.0	129.1
160°	106.2	112.5	116.6	122.9	124.9
162.5°	106.2	112.5	114.5	120.8	122.9
165°	106.2	110.4	114.5	118.7	118.7
167.5°	106.2	110.4	112.5	116.6	116.6
170°	106.2	108.3	112.5	114.5	114.5
172.5°	104.1	108.3	110.4	114.5	114.5
175°	104.1	106.2	108.3	110.4	112.5
177.5°	100.0	106.2	108.3	110.4	108.3
180°	102.0	102.0	102.0	102.0	102.0



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	170.8	164.5	241.6	329.0	356.1
110°	181.2	166.6	247.8	335.3	368.6



(END OF REPORT)