

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: P520482

Luminaire Tested: **4WSLA-100-L950-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: P520482  
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-100-L950-UPL8-UNV-U  
Description: 4 FOOT, 1000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 5000K, 90 CRI  
LEDS WITH 8% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

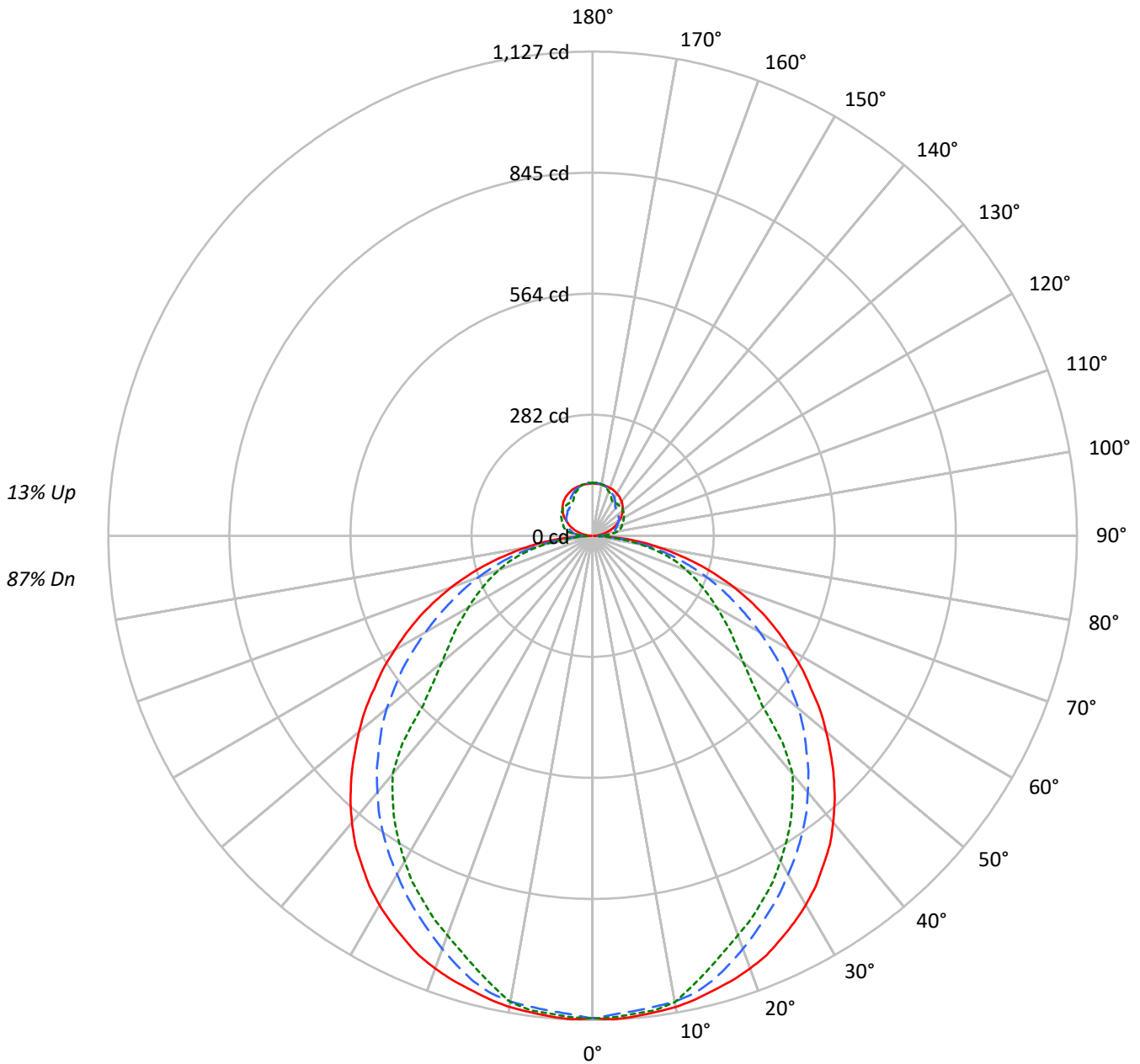
Lumens per Lamp: N/A  
Luminaire Lumens: 3496.0 lumens  
Efficiency: N/A  
Efficacy: 110.6 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 31.6  
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°	6046	6046	6046
5°	6069	5999	6034
10°	6086	6015	6024
15°	6097	5980	5818
20°	6137	5860	5666
25°	6153	5749	5558
30°	6167	5655	5434
35°	6149	5575	5288
40°	6121	5474	5087
45°	6040	5351	4244
50°	5941	5237	3830
55°	5824	5066	3686
60°	5724	4836	3584
65°	5640	4632	3581
70°	5493	4452	3637
75°	5242	4236	3664
80°	4909	3806	3406
85°	4489	2692	2297



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.3	3.0
10°-20°	302.3	8.6
20°-30°	451.8	12.9
30°-40°	539.3	15.4
40°-50°	539.3	15.4
50°-60°	466.8	13.4
60°-70°	358.3	10.2
70°-80°	219.5	6.3
80°-90°	61.8	1.8
90°-100°	34.9	1.0
100°-110°	55.4	1.6
110°-120°	64.8	1.9
120°-130°	70.0	2.0
130°-140°	68.9	2.0
140°-150°	61.0	1.7
150°-160°	50.2	1.4
160°-170°	33.6	1.0
170°-180°	11.7	0.3
0°-30°	860.4	24.6
0°-40°	1399.7	40.0
0°-60°	2405.8	68.8
0°-90°	3045.4	87.1
90°-120°	155.2	4.4
90°-150°	355.1	10.2
90°-180°	451.0	12.9
0°-180°	3496.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1123	1120	1110	1118	1117	107
15°	1094	1093	1073	1054	1044	310
25°	1036	1023	968	942	936	478
35°	936	912	849	818	805	586
45°	794	771	703	640	558	612
55°	621	606	540	432	393	556
65°	443	427	364	293	281	437
75°	252	239	204	176	176	266
85°	73	60	44	37	37	76
90°	3	11	18	23	24	5
95°	13	28	37	39	39	13
105°	37	39	55	65	68	39
115°	61	52	65	74	79	60
125°	82	66	74	86	89	73
135°	99	89	82	90	95	76
145°	110	105	92	90	94	69
155°	116	115	108	103	102	54
165°	120	121	118	118	118	34
175°	121	123	123	124	124	12
180°	123	123	123	123	123	



TEST NUMBER: P520482

CATALOG NUMBER: 4WSLA-100-L950-UPL8-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1123.3	1123.3	1123.3	1123.3	1123.3
2.5°	1126.6	1123.3	1115.3	1123.3	1121.7
5°	1123.3	1120.1	1110.4	1118.5	1116.9
7.5°	1118.5	1115.3	1105.6	1115.3	1113.6
10°	1113.6	1110.4	1100.7	1107.2	1102.3
12.5°	1105.6	1102.3	1091.0	1082.9	1073.2
15°	1094.3	1092.6	1073.2	1053.8	1044.1
17.5°	1084.6	1079.7	1049.0	1026.4	1015.1
20°	1071.6	1063.5	1023.1	997.3	989.2
22.5°	1057.1	1044.1	995.7	971.4	964.9
25°	1036.1	1023.1	968.2	942.3	935.9
27.5°	1015.1	998.9	940.7	914.8	908.4
30°	992.4	969.8	910.0	885.7	874.4
32.5°	966.6	943.9	880.9	853.4	840.5
35°	935.9	911.6	848.6	817.9	804.9
37.5°	906.8	880.9	816.2	782.3	764.5
40°	871.2	845.3	779.1	741.9	724.1
42.5°	834.0	809.8	743.5	698.3	654.6
45°	793.6	771.0	703.1	640.1	557.6
47.5°	751.6	732.2	665.9	580.3	501.1
50°	709.6	690.2	625.5	523.7	457.4
52.5°	667.5	651.4	580.3	476.8	421.9
55°	620.7	606.1	539.9	431.6	392.8
57.5°	578.6	564.1	493.0	394.4	362.1
60°	531.8	518.8	449.3	357.2	333.0
62.5°	488.1	473.6	405.7	324.9	307.1
65°	442.9	426.7	363.7	292.6	281.2
67.5°	396.0	379.8	323.3	263.5	257.0
70°	349.1	336.2	282.9	234.4	231.1
72.5°	300.6	286.1	242.4	206.9	206.9
75°	252.1	239.2	203.7	176.2	176.2
77.5°	202.0	195.6	163.2	143.9	145.5
80°	158.4	150.3	122.8	109.9	109.9
82.5°	116.4	106.7	82.4	72.7	76.0
85°	72.7	59.8	43.6	37.2	37.2
87.5°	22.6	17.8	12.9	14.5	14.5
90°	3.2	11.3	17.8	22.6	24.2
92.5°	8.1	21.0	25.9	30.7	32.3
95°	12.9	27.5	37.2	38.8	38.8
97.5°	17.8	30.7	45.3	51.7	51.7
100°	24.2	32.3	48.5	58.2	59.8
102.5°	30.7	35.6	51.7	61.4	64.7
105°	37.2	38.8	55.0	64.7	67.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	55.0	48.5	61.4	72.7	76.0
115°	61.4	51.7	64.7	74.4	79.2
117.5°	66.3	56.6	67.9	77.6	80.8
120°	71.1	59.8	69.5	80.8	84.0
122.5°	77.6	63.0	72.7	82.4	87.3
125°	82.4	66.3	74.4	85.7	88.9
127.5°	87.3	72.7	76.0	87.3	90.5
130°	90.5	79.2	77.6	88.9	92.1
132.5°	95.4	84.0	79.2	90.5	93.7
135°	98.6	88.9	82.4	90.5	95.4
137.5°	101.8	93.7	82.4	90.5	93.7
140°	105.1	98.6	84.0	90.5	93.7
142.5°	106.7	101.8	85.7	90.5	93.7
145°	109.9	105.1	92.1	90.5	93.7
147.5°	111.5	108.3	97.0	90.5	93.7
150°	113.1	111.5	101.8	92.1	92.1
152.5°	114.8	113.1	105.1	98.6	95.4
155°	116.4	114.8	108.3	103.4	101.8
157.5°	118.0	118.0	111.5	108.3	106.7
160°	118.0	119.6	114.8	111.5	109.9
162.5°	119.6	121.2	116.4	114.8	113.1
165°	119.6	121.2	118.0	118.0	118.0
167.5°	121.2	122.8	121.2	119.6	119.6
170°	121.2	122.8	121.2	121.2	121.2
172.5°	121.2	122.8	122.8	122.8	122.8
175°	121.2	122.8	122.8	124.5	124.5
177.5°	121.2	122.8	122.8	122.8	122.8
180°	122.8	122.8	122.8	122.8	122.8



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	43.6	42.0	56.6	67.9	71.1
110°	48.5	45.3	59.8	69.5	72.7



(END OF REPORT)