

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: P520472

Luminaire Tested: **4WSLA-100-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: P520472  
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-100-L930-UPL15-UNV-U  
Description: 4 FOOT, 1000 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 90 CRI  
LEDS WITH 15% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

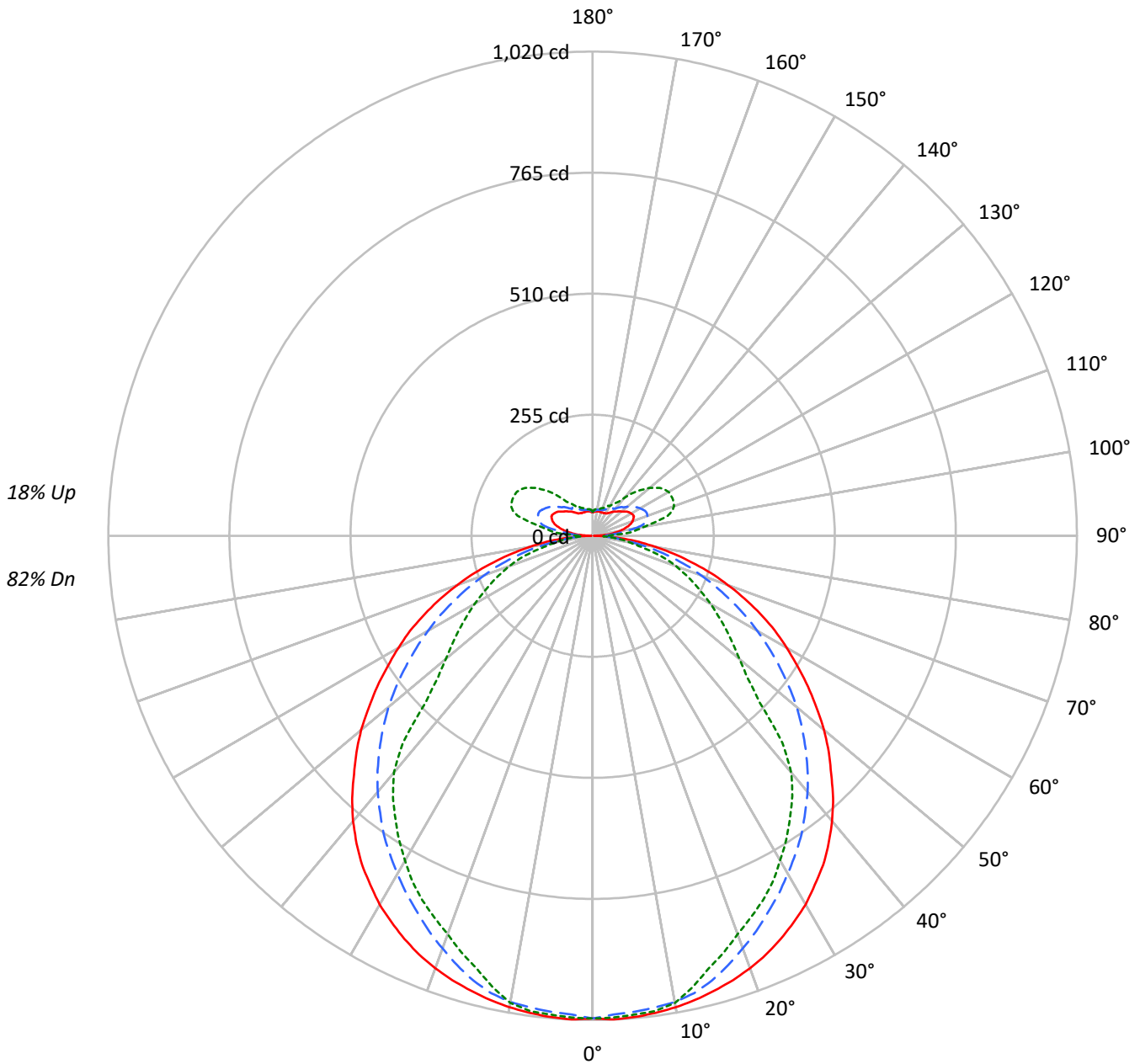
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3293.0 lumens  
Efficiency: N/A  
Efficacy: 104.2 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): 31.6  
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°	5472	5472	5472
5°	5499	5438	5471
10°	5511	5450	5461
15°	5527	5407	5258
20°	5552	5298	5115
25°	5567	5193	5034
30°	5576	5108	4909
35°	5562	5041	4763
40°	5514	4948	4572
45°	5408	4827	3791
50°	5328	4697	3376
55°	5196	4510	3213
60°	5084	4307	3086
65°	4964	4071	2994
70°	4771	3813	2938
75°	4504	3496	2701
80°	4122	2941	2396
85°	3693	2544	2421



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.4	2.9
10°-20°	273.7	8.3
20°-30°	408.5	12.4
30°-40°	486.8	14.8
40°-50°	484.2	14.7
50°-60°	415.0	12.6
60°-70°	312.5	9.5
70°-80°	181.0	5.5
80°-90°	54.4	1.7
90°-100°	58.4	1.8
100°-110°	119.9	3.6
110°-120°	126.8	3.9
120°-130°	105.8	3.2
130°-140°	73.9	2.2
140°-150°	46.0	1.4
150°-160°	28.5	0.9
160°-170°	16.1	0.5
170°-180°	5.2	0.2
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0°-30°	778.6	23.6
0°-40°	1265.4	38.4
0°-60°	2164.5	65.7
0°-90°	2712.4	82.4
90°-120°	305.1	9.3
90°-150°	530.8	16.1
90°-180°	581.0	17.6
0°-180°	3293.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1017	1017	1017	1017	1017	
5°	1018	1015	1006	1014	1013	97
15°	992	991	970	954	944	280
25°	937	924	874	853	848	432
35°	847	824	767	737	725	529
45°	710	693	634	571	498	549
55°	554	546	481	382	342	495
65°	390	380	320	248	235	385
75°	217	209	168	134	130	229
85°	60	53	41	39	39	64
90°	3	14	25	31	33	6
95°	33	44	50	74	80	32
105°	77	80	116	155	164	80
115°	96	82	123	169	186	93
125°	89	78	106	156	175	79
135°	72	78	86	116	133	56
145°	59	68	74	79	85	37
155°	54	57	61	66	67	25
165°	53	55	57	59	59	15
175°	52	53	54	55	56	5
180°	50	50	50	50	50	



TEST NUMBER: P520472

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1016.8	1016.8	1016.8	1016.8	1016.8
2.5°	1019.9	1017.8	1009.6	1017.8	1015.8
5°	1017.8	1014.7	1006.5	1013.7	1012.7
7.5°	1013.7	1011.6	1002.3	1010.6	1009.6
10°	1008.5	1005.4	997.2	1003.4	999.3
12.5°	1001.3	999.3	986.9	981.7	973.5
15°	992.0	991.0	970.4	953.9	943.6
17.5°	981.7	977.6	948.7	929.1	919.9
20°	969.4	963.2	925.0	902.3	893.0
22.5°	954.9	945.6	901.3	879.6	870.4
25°	937.4	924.0	874.5	852.8	847.7
27.5°	917.8	902.3	849.7	828.1	821.9
30°	897.2	877.6	821.9	801.3	789.9
32.5°	871.4	852.8	795.1	771.4	759.0
35°	846.6	823.9	767.2	737.3	725.0
37.5°	816.7	794.0	735.3	705.4	690.9
40°	784.8	762.1	704.3	669.3	650.7
42.5°	749.7	729.1	670.3	628.0	591.9
45°	710.5	693.0	634.2	571.3	498.1
47.5°	674.4	657.9	598.1	516.6	441.4
50°	636.3	620.8	561.0	465.1	403.2
52.5°	594.0	582.6	520.8	420.7	371.2
55°	553.8	545.5	480.6	381.6	342.4
57.5°	511.5	503.2	440.3	344.4	313.5
60°	472.3	464.1	400.1	311.4	286.7
62.5°	433.1	421.8	360.9	279.5	258.8
65°	389.8	380.5	319.7	248.5	235.1
67.5°	346.5	338.2	281.5	219.7	210.4
70°	303.2	296.0	242.3	191.8	186.7
72.5°	260.9	251.6	207.3	164.0	161.9
75°	216.6	209.3	168.1	134.1	129.9
77.5°	174.3	168.1	132.0	102.1	99.0
80°	133.0	126.8	94.9	74.2	77.3
82.5°	98.0	89.7	63.9	57.7	60.8
85°	59.8	52.6	41.2	39.2	39.2
87.5°	20.6	19.6	18.6	21.7	22.7
90°	3.1	14.4	24.7	30.9	33.0
92.5°	17.5	25.8	34.0	40.2	42.3
95°	33.0	44.3	50.5	74.2	80.4
97.5°	45.4	58.8	66.0	87.7	93.8
100°	57.7	70.1	92.8	104.2	111.4
102.5°	68.1	77.3	109.3	132.0	136.1
105°	77.3	80.4	115.5	154.7	164.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	92.8	82.5	123.7	168.1	184.6
115°	95.9	81.5	122.7	169.1	185.6
117.5°	95.9	81.5	119.6	169.1	185.6
120°	93.8	82.5	115.5	167.1	184.6
122.5°	91.8	80.4	111.4	162.9	180.5
125°	88.7	78.4	106.2	155.7	175.3
127.5°	83.5	80.4	101.1	146.4	166.0
130°	79.4	81.5	94.9	137.2	156.7
132.5°	76.3	79.4	88.7	126.8	144.4
135°	72.2	78.4	85.6	115.5	133.0
137.5°	69.1	75.3	80.4	105.2	119.6
140°	66.0	73.2	75.3	91.8	104.2
142.5°	61.9	70.1	71.2	85.6	90.7
145°	58.8	68.1	74.2	79.4	84.6
147.5°	55.7	63.9	72.2	73.2	78.4
150°	54.7	59.8	69.1	70.1	72.2
152.5°	53.6	57.7	63.9	70.1	71.2
155°	53.6	56.7	60.8	66.0	67.0
157.5°	52.6	56.7	58.8	62.9	63.9
160°	52.6	55.7	57.7	60.8	61.9
162.5°	52.6	55.7	56.7	59.8	60.8
165°	52.6	54.7	56.7	58.8	58.8
167.5°	52.6	54.7	55.7	57.7	57.7
170°	52.6	53.6	55.7	56.7	56.7
172.5°	51.6	53.6	54.7	56.7	56.7
175°	51.6	52.6	53.6	54.7	55.7
177.5°	49.5	52.6	53.6	54.7	53.6
180°	50.5	50.5	50.5	50.5	50.5



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	84.6	81.5	119.6	162.9	176.3
110°	89.7	82.5	122.7	166.0	182.5



(END OF REPORT)