

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: P520599

Luminaire Tested: **4WSLA-50-L940-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: P520599  
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-50-L940-UPL8-UNV-U  
Description: 4 FOOT, 500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 4000K, 90 CRI  
LEDS WITH 8% UPLIGHT  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

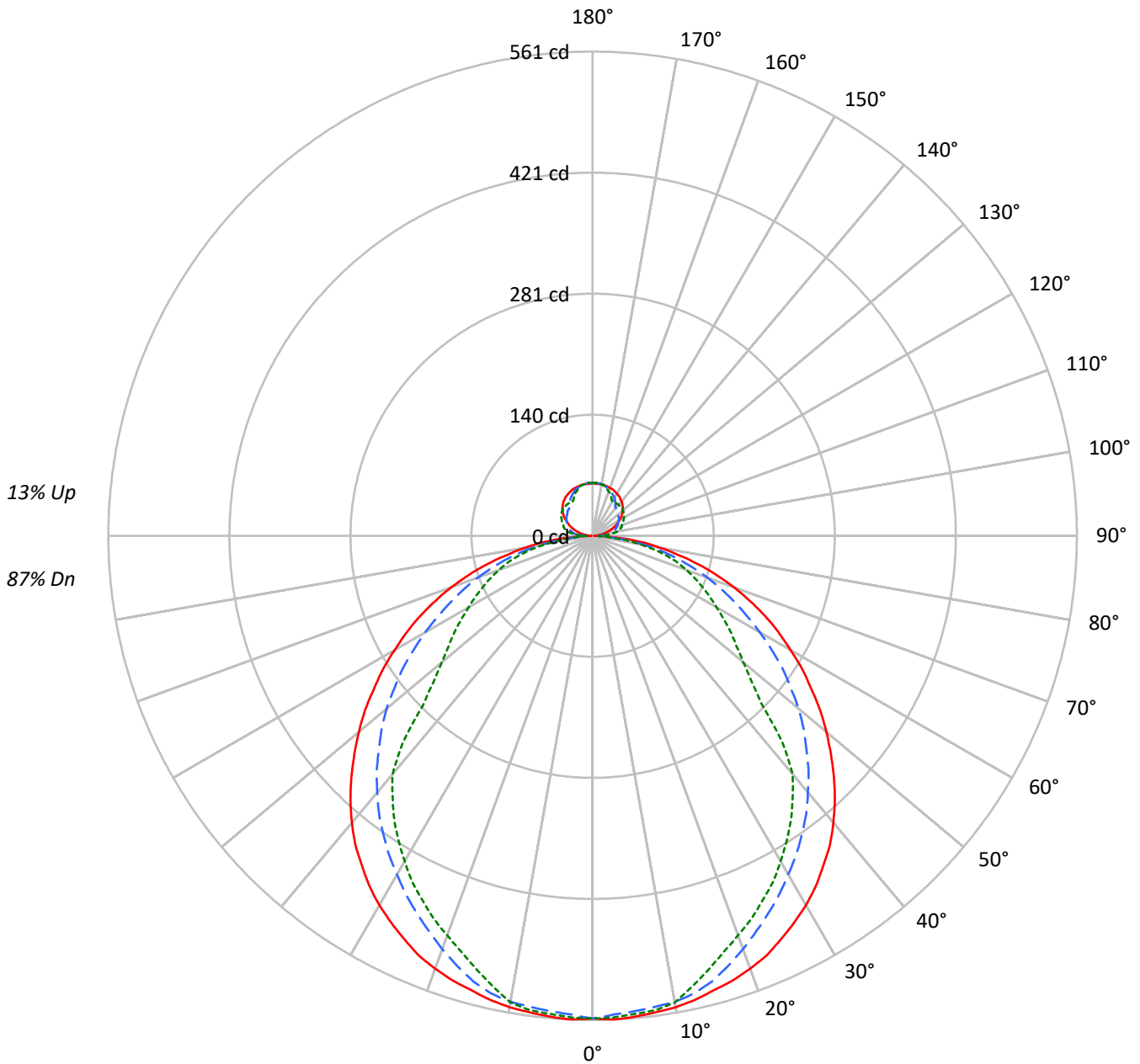
Lumens per Lamp: N/A  
Luminaire Lumens: 1741.0 lumens  
Efficiency: N/A  
Efficacy: 111.6 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 15.6  
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	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°	3011	3011	3011
5°	3022	2988	3005
10°	3031	2996	3000
15°	3036	2978	2897
20°	3057	2918	2821
25°	3064	2863	2768
30°	3071	2816	2706
35°	3062	2777	2634
40°	3048	2726	2533
45°	3008	2665	2114
50°	2959	2608	1907
55°	2900	2522	1835
60°	2850	2409	1785
65°	2809	2306	1784
70°	2736	2217	1811
75°	2612	2109	1824
80°	2445	1897	1695
85°	2235	1340	1142



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	53.0	3.0
10°-20°	150.6	8.6
20°-30°	225.0	12.9
30°-40°	268.6	15.4
40°-50°	268.6	15.4
50°-60°	232.4	13.4
60°-70°	178.4	10.2
70°-80°	109.3	6.3
80°-90°	30.8	1.8
90°-100°	17.4	1.0
100°-110°	27.6	1.6
110°-120°	32.3	1.9
120°-130°	34.9	2.0
130°-140°	34.3	2.0
140°-150°	30.4	1.7
150°-160°	25.0	1.4
160°-170°	16.7	1.0
170°-180°	5.8	0.3
0°-30°	428.5	24.6
0°-40°	697.1	40.0
0°-60°	1198.1	68.8
0°-90°	1516.6	87.1
90°-120°	77.3	4.4
90°-150°	176.9	10.2
90°-180°	224.0	12.9
0°-180°	1741.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	559	559	559	559	559	
5°	559	558	553	557	556	53
15°	545	544	534	525	520	154
25°	516	510	482	469	466	238
35°	466	454	423	407	401	292
45°	395	384	350	319	278	305
55°	309	302	269	215	196	277
65°	221	212	181	146	140	218
75°	126	119	101	88	88	132
85°	36	30	22	18	18	38
90°	2	6	9	11	12	3
95°	6	14	18	19	19	6
105°	18	19	27	32	34	19
115°	31	26	32	37	39	30
125°	41	33	37	43	44	37
135°	49	44	41	45	48	38
145°	55	52	46	45	47	34
155°	58	57	54	52	51	27
165°	60	60	59	59	59	17
175°	60	61	61	62	62	6
180°	61	61	61	61	61	



TEST NUMBER: P520599

CATALOG NUMBER: 4WSLA-50-L940-UPL8-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	559.4	559.4	559.4	559.4	559.4
2.5°	561.0	559.4	555.4	559.4	558.6
5°	559.4	557.8	553.0	557.0	556.2
7.5°	557.0	555.4	550.6	555.4	554.6
10°	554.6	553.0	548.2	551.4	549.0
12.5°	550.6	549.0	543.3	539.3	534.5
15°	544.9	544.1	534.5	524.8	520.0
17.5°	540.1	537.7	522.4	511.1	505.5
20°	533.7	529.6	509.5	496.6	492.6
22.5°	526.4	520.0	495.8	483.8	480.5
25°	516.0	509.5	482.2	469.3	466.1
27.5°	505.5	497.4	468.5	455.6	452.4
30°	494.2	483.0	453.2	441.1	435.5
32.5°	481.3	470.1	438.7	425.0	418.6
35°	466.1	454.0	422.6	407.3	400.9
37.5°	451.6	438.7	406.5	389.6	380.7
40°	433.9	421.0	388.0	369.5	360.6
42.5°	415.3	403.3	370.3	347.7	326.0
45°	395.2	384.0	350.1	318.8	277.7
47.5°	374.3	364.6	331.6	289.0	249.5
50°	353.4	343.7	311.5	260.8	227.8
52.5°	332.4	324.4	289.0	237.5	210.1
55°	309.1	301.8	268.8	214.9	195.6
57.5°	288.2	280.9	245.5	196.4	180.3
60°	264.8	258.4	223.8	177.9	165.8
62.5°	243.1	235.8	202.0	161.8	152.9
65°	220.6	212.5	181.1	145.7	140.1
67.5°	197.2	189.2	161.0	131.2	128.0
70°	173.9	167.4	140.9	116.7	115.1
72.5°	149.7	142.5	120.7	103.0	103.0
75°	125.6	119.1	101.4	87.7	87.7
77.5°	100.6	97.4	81.3	71.6	72.4
80°	78.9	74.9	61.2	54.7	54.7
82.5°	58.0	53.1	41.1	36.2	37.8
85°	36.2	29.8	21.7	18.5	18.5
87.5°	11.3	8.9	6.4	7.2	7.2
90°	1.6	5.6	8.9	11.3	12.1
92.5°	4.0	10.5	12.9	15.3	16.1
95°	6.4	13.7	18.5	19.3	19.3
97.5°	8.9	15.3	22.5	25.8	25.8
100°	12.1	16.1	24.1	29.0	29.8
102.5°	15.3	17.7	25.8	30.6	32.2
105°	18.5	19.3	27.4	32.2	33.8



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CATALOG NUMBER: 4WSLA-50-L940-UPL8-UNV-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	27.4	24.1	30.6	36.2	37.8
115°	30.6	25.8	32.2	37.0	39.4
117.5°	33.0	28.2	33.8	38.6	40.2
120°	35.4	29.8	34.6	40.2	41.9
122.5°	38.6	31.4	36.2	41.1	43.5
125°	41.1	33.0	37.0	42.7	44.3
127.5°	43.5	36.2	37.8	43.5	45.1
130°	45.1	39.4	38.6	44.3	45.9
132.5°	47.5	41.9	39.4	45.1	46.7
135°	49.1	44.3	41.1	45.1	47.5
137.5°	50.7	46.7	41.1	45.1	46.7
140°	52.3	49.1	41.9	45.1	46.7
142.5°	53.1	50.7	42.7	45.1	46.7
145°	54.7	52.3	45.9	45.1	46.7
147.5°	55.5	53.9	48.3	45.1	46.7
150°	56.3	55.5	50.7	45.9	45.9
152.5°	57.1	56.3	52.3	49.1	47.5
155°	58.0	57.1	53.9	51.5	50.7
157.5°	58.8	58.8	55.5	53.9	53.1
160°	58.8	59.6	57.1	55.5	54.7
162.5°	59.6	60.4	58.0	57.1	56.3
165°	59.6	60.4	58.8	58.8	58.8
167.5°	60.4	61.2	60.4	59.6	59.6
170°	60.4	61.2	60.4	60.4	60.4
172.5°	60.4	61.2	61.2	61.2	61.2
175°	60.4	61.2	61.2	62.0	62.0
177.5°	60.4	61.2	61.2	61.2	61.2
180°	61.2	61.2	61.2	61.2	61.2



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	21.7	20.9	28.2	33.8	35.4
110°	24.1	22.5	29.8	34.6	36.2



(END OF REPORT)