

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: P520527

Luminaire Tested: **4WSLA-150-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: P520527  
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-150-L940-UPL8-UNV-U  
Description: 4 FOOT, 1500 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**

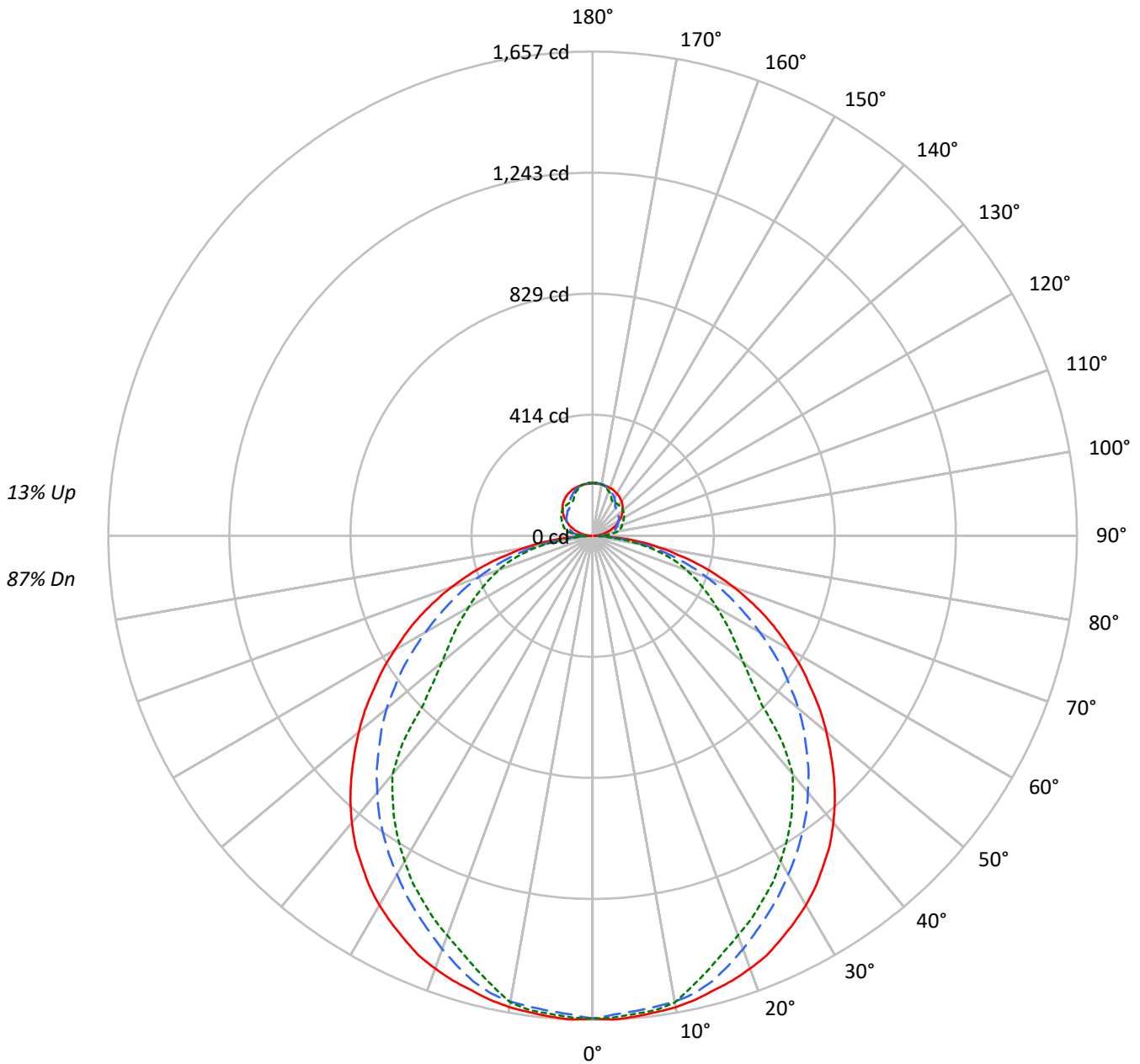
Lumens per Lamp: N/A  
Luminaire Lumens: 5142.0 lumens  
Efficiency: N/A  
Efficacy: 107.8 lumens/watt  
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33  
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 47.7  
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

TEST NUMBER: P520527

CATALOG NUMBER: 4WSLA-150-L940-UPL8-UNV-U

### Luminous Intensity Polar Plot





TEST NUMBER: P520527

CATALOG NUMBER: 4WSLA-150-L940-UPL8-UNV-U

**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°	8892	8892	8892
5°	8926	8823	8875
10°	8952	8848	8860
15°	8968	8795	8557
20°	9027	8619	8333
25°	9049	8456	8174
30°	9071	8318	7993
35°	9044	8200	7778
40°	9003	8051	7482
45°	8885	7871	6243
50°	8738	7703	5633
55°	8566	7450	5421
60°	8418	7114	5271
65°	8295	6812	5268
70°	8080	6546	5350
75°	7713	6228	5388
80°	7221	5601	5012
85°	6607	3964	3378



TEST NUMBER: P520527

CATALOG NUMBER: 4WSLA-150-L940-UPL8-UNV-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.4	3.0
10°-20°	444.7	8.6
20°-30°	664.5	12.9
30°-40°	793.2	15.4
40°-50°	793.3	15.4
50°-60°	686.5	13.4
60°-70°	526.9	10.2
70°-80°	322.9	6.3
80°-90°	90.9	1.8
90°-100°	51.4	1.0
100°-110°	81.5	1.6
110°-120°	95.3	1.9
120°-130°	102.9	2.0
130°-140°	101.4	2.0
140°-150°	89.7	1.7
150°-160°	73.8	1.4
160°-170°	49.4	1.0
170°-180°	17.2	0.3
0°-30°	1265.6	24.6
0°-40°	2058.8	40.0
0°-60°	3538.5	68.8
0°-90°	4479.3	87.1
90°-120°	228.3	4.4
90°-150°	522.3	10.2
90°-180°	663.0	12.9
0°-180°	5142.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1652	1652	1652	1652	1652	
5°	1652	1648	1633	1645	1643	157
15°	1610	1607	1578	1550	1536	455
25°	1524	1505	1424	1386	1376	703
35°	1376	1341	1248	1203	1184	862
45°	1167	1134	1034	941	820	900
55°	913	892	794	635	578	818
65°	651	628	535	430	414	643
75°	371	352	300	259	259	391
85°	107	88	64	55	55	112
90°	5	17	26	33	36	8
95°	19	40	55	57	57	19
105°	55	57	81	95	100	57
115°	90	76	95	109	116	88
125°	121	98	109	126	131	108
135°	145	131	121	133	140	112
145°	162	154	136	133	138	101
155°	171	169	159	152	150	79
165°	176	178	174	174	174	50
175°	178	181	181	183	183	17
180°	181	181	181	181	181	



TEST NUMBER: P520527

CATALOG NUMBER: 4WSLA-150-L940-UPL8-UNV-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1652.2	1652.2	1652.2	1652.2	1652.2
2.5°	1657.0	1652.2	1640.4	1652.2	1649.9
5°	1652.2	1647.5	1633.2	1645.1	1642.7
7.5°	1645.1	1640.4	1626.1	1640.4	1638.0
10°	1638.0	1633.2	1619.0	1628.5	1621.3
12.5°	1626.1	1621.3	1604.7	1592.8	1578.5
15°	1609.5	1607.1	1578.5	1550.0	1535.8
17.5°	1595.2	1588.1	1542.9	1509.6	1493.0
20°	1576.2	1564.3	1504.9	1466.8	1454.9
22.5°	1554.8	1535.8	1464.4	1428.8	1419.3
25°	1523.9	1504.9	1424.0	1386.0	1376.5
27.5°	1493.0	1469.2	1383.6	1345.6	1336.1
30°	1459.7	1426.4	1338.4	1302.8	1286.1
32.5°	1421.6	1388.4	1295.6	1255.2	1236.2
35°	1376.5	1340.8	1248.1	1202.9	1183.9
37.5°	1333.7	1295.6	1200.6	1150.6	1124.5
40°	1281.4	1243.3	1145.9	1091.2	1065.0
42.5°	1226.7	1191.0	1093.6	1027.0	962.8
45°	1167.3	1134.0	1034.1	941.4	820.2
47.5°	1105.5	1076.9	979.5	853.5	737.0
50°	1043.6	1015.1	920.0	770.3	672.8
52.5°	981.8	958.1	853.5	701.3	620.5
55°	912.9	891.5	794.0	634.7	577.7
57.5°	851.1	829.7	725.1	580.1	532.5
60°	782.1	763.1	660.9	525.4	489.7
62.5°	718.0	696.6	596.7	477.8	451.7
65°	651.4	627.6	534.9	430.3	413.7
67.5°	582.4	558.7	475.5	387.5	378.0
70°	513.5	494.5	416.0	344.7	340.0
72.5°	442.2	420.8	356.6	304.3	304.3
75°	370.9	351.8	299.5	259.1	259.1
77.5°	297.2	287.7	240.1	211.6	214.0
80°	233.0	221.1	180.7	161.7	161.7
82.5°	171.2	156.9	121.2	107.0	111.7
85°	107.0	88.0	64.2	54.7	54.7
87.5°	33.3	26.2	19.0	21.4	21.4
90°	4.8	16.6	26.2	33.3	35.7
92.5°	11.9	30.9	38.0	45.2	47.5
95°	19.0	40.4	54.7	57.1	57.1
97.5°	26.2	45.2	66.6	76.1	76.1
100°	35.7	47.5	71.3	85.6	88.0
102.5°	45.2	52.3	76.1	90.3	95.1
105°	54.7	57.1	80.8	95.1	99.8



TEST NUMBER: P520527

CATALOG NUMBER: 4WSLA-150-L940-UPL8-UNV-U

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	80.8	71.3	90.3	107.0	111.7
115°	90.3	76.1	95.1	109.4	116.5
117.5°	97.5	83.2	99.8	114.1	118.9
120°	104.6	88.0	102.2	118.9	123.6
122.5°	114.1	92.7	107.0	121.2	128.4
125°	121.2	97.5	109.4	126.0	130.8
127.5°	128.4	107.0	111.7	128.4	133.1
130°	133.1	116.5	114.1	130.8	135.5
132.5°	140.3	123.6	116.5	133.1	137.9
135°	145.0	130.8	121.2	133.1	140.3
137.5°	149.8	137.9	121.2	133.1	137.9
140°	154.5	145.0	123.6	133.1	137.9
142.5°	156.9	149.8	126.0	133.1	137.9
145°	161.7	154.5	135.5	133.1	137.9
147.5°	164.0	159.3	142.6	133.1	137.9
150°	166.4	164.0	149.8	135.5	135.5
152.5°	168.8	166.4	154.5	145.0	140.3
155°	171.2	168.8	159.3	152.1	149.8
157.5°	173.5	173.5	164.0	159.3	156.9
160°	173.5	175.9	168.8	164.0	161.7
162.5°	175.9	178.3	171.2	168.8	166.4
165°	175.9	178.3	173.5	173.5	173.5
167.5°	178.3	180.7	178.3	175.9	175.9
170°	178.3	180.7	178.3	178.3	178.3
172.5°	178.3	180.7	180.7	180.7	180.7
175°	178.3	180.7	180.7	183.1	183.1
177.5°	178.3	180.7	180.7	180.7	180.7
180°	180.7	180.7	180.7	180.7	180.7



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







107.5°	64.2	61.8	83.2	99.8	104.6
110°	71.3	66.6	88.0	102.2	107.0



(END OF REPORT)