

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: P520511

Luminaire Tested: **4WSLA-150-L835-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: P520511
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-150-L835-UPL15-UNV-U
Description: 4 FOOT, 1500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3500K, 80 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

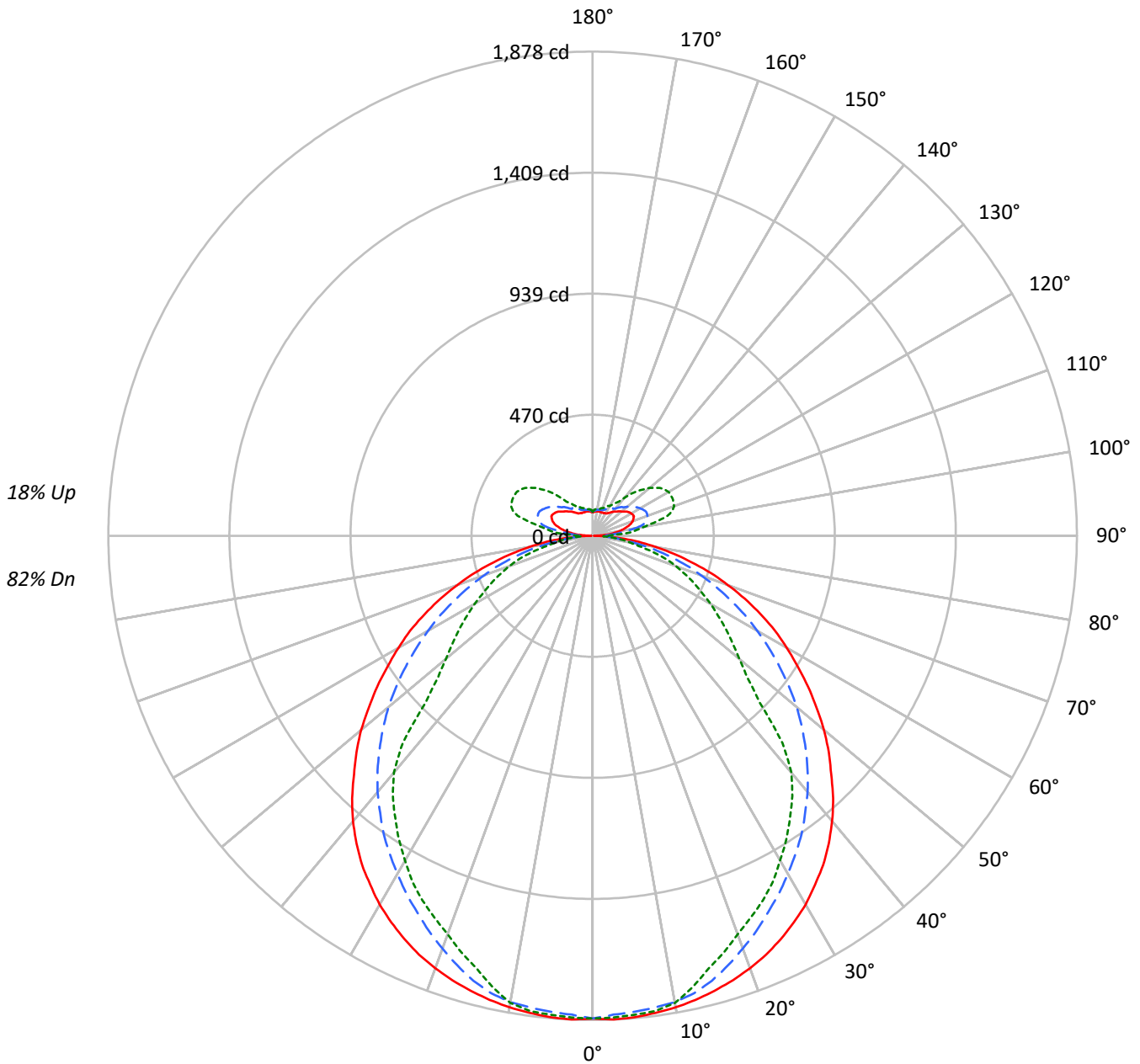
Lumens per Lamp: N/A
Luminaire Lumens: 6063.9 lumens
Efficiency: N/A
Efficacy: 127.1 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 47.7
Input Voltage (V): NR
Input Current (A_{in}): 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°	10077	10077	10077
5°	10126	10013	10075
10°	10150	10035	10056
15°	10179	9956	9682
20°	10223	9756	9419
25°	10251	9562	9270
30°	10267	9406	9040
35°	10244	9282	8771
40°	10153	9112	8419
45°	9959	8889	6981
50°	9810	8649	6217
55°	9569	8303	5916
60°	9361	7931	5682
65°	9141	7497	5514
70°	8785	7023	5408
75°	8293	6436	4976
80°	7593	5415	4413
85°	6799	4693	4458



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.5	2.9
10°-20°	504.1	8.3
20°-30°	752.3	12.4
30°-40°	896.4	14.8
40°-50°	891.6	14.7
50°-60°	764.1	12.6
60°-70°	575.5	9.5
70°-80°	333.3	5.5
80°-90°	100.2	1.7
90°-100°	107.6	1.8
100°-110°	220.8	3.6
110°-120°	233.5	3.9
120°-130°	194.8	3.2
130°-140°	136.1	2.2
140°-150°	84.7	1.4
150°-160°	52.5	0.9
160°-170°	29.6	0.5
170°-180°	9.5	0.2
0°-30°	1433.8	23.6
0°-40°	2330.2	38.4
0°-60°	3985.9	65.7
0°-90°	4994.9	82.4
90°-120°	561.9	9.3
90°-150°	977.4	16.1
90°-180°	1069.0	17.6
0°-180°	6063.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1872	1872	1872	1872	1872	
5°	1874	1869	1853	1867	1865	178
15°	1827	1825	1787	1757	1738	516
25°	1726	1702	1610	1570	1561	796
35°	1559	1517	1413	1358	1335	974
45°	1308	1276	1168	1052	917	1011
55°	1020	1005	885	703	630	912
65°	718	701	589	458	433	710
75°	399	386	310	247	239	422
85°	110	97	76	72	72	117
90°	6	27	46	57	61	11
95°	61	82	93	137	148	58
105°	142	148	213	285	302	148
115°	177	150	226	311	342	172
125°	163	144	196	287	323	145
135°	133	144	158	213	245	104
145°	108	125	137	146	156	69
155°	99	104	112	122	123	46
165°	97	101	104	108	108	27
175°	95	97	99	101	102	9
180°	93	93	93	93	93	



TEST NUMBER: P520511

CATALOG NUMBER: 4WSLA-150-L835-UPL15-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1872.4	1872.4	1872.4	1872.4	1872.4
2.5°	1878.1	1874.3	1859.1	1874.3	1870.5
5°	1874.3	1868.6	1853.4	1866.7	1864.8
7.5°	1866.7	1862.9	1845.8	1861.0	1859.1
10°	1857.2	1851.5	1836.3	1847.7	1840.1
12.5°	1843.9	1840.1	1817.3	1807.8	1792.6
15°	1826.8	1824.9	1786.9	1756.6	1737.6
17.5°	1807.8	1800.2	1747.1	1711.0	1693.9
20°	1785.0	1773.6	1703.4	1661.6	1644.5
22.5°	1758.5	1741.4	1659.7	1619.8	1602.7
25°	1726.2	1701.5	1610.3	1570.5	1561.0
27.5°	1690.1	1661.6	1564.8	1524.9	1513.5
30°	1652.1	1616.0	1513.5	1475.5	1454.6
32.5°	1604.6	1570.5	1464.1	1420.4	1397.6
35°	1559.1	1517.3	1412.8	1357.8	1335.0
37.5°	1504.0	1462.2	1354.0	1298.9	1272.3
40°	1445.1	1403.3	1297.0	1232.4	1198.3
42.5°	1380.6	1342.6	1234.3	1156.5	1090.0
45°	1308.4	1276.1	1167.9	1052.0	917.2
47.5°	1241.9	1211.5	1101.4	951.4	812.8
50°	1171.7	1143.2	1033.0	856.4	742.5
52.5°	1093.8	1072.9	959.0	774.8	683.6
55°	1019.8	1004.6	884.9	702.6	630.5
57.5°	941.9	926.7	810.9	634.3	577.3
60°	869.7	854.5	736.8	573.5	527.9
62.5°	797.6	776.7	664.6	514.6	476.6
65°	717.8	700.7	588.7	457.7	433.0
67.5°	638.1	622.9	518.4	404.5	387.4
70°	558.3	545.0	446.3	353.2	343.7
72.5°	480.4	463.4	381.7	301.9	298.1
75°	398.8	385.5	309.5	246.9	239.3
77.5°	320.9	309.5	243.1	188.0	182.3
80°	245.0	233.6	174.7	136.7	142.4
82.5°	180.4	165.2	117.7	106.3	112.0
85°	110.1	96.8	76.0	72.2	72.2
87.5°	38.0	36.1	34.2	39.9	41.8
90°	5.7	26.6	45.6	57.0	60.8
92.5°	32.3	47.5	62.7	74.1	77.9
95°	60.8	81.7	93.1	136.7	148.1
97.5°	83.6	108.2	121.5	161.4	172.8
100°	106.3	129.1	170.9	191.8	205.1
102.5°	125.3	142.4	201.3	243.1	250.7
105°	142.4	148.1	212.7	284.8	301.9



TEST NUMBER: P520511

CATALOG NUMBER: 4WSLA-150-L835-UPL15-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	170.9	151.9	227.9	309.5	339.9
115°	176.6	150.0	226.0	311.4	341.8
117.5°	176.6	150.0	220.3	311.4	341.8
120°	172.8	151.9	212.7	307.6	339.9
122.5°	169.0	148.1	205.1	300.0	332.3
125°	163.3	144.3	195.6	286.7	322.8
127.5°	153.8	148.1	186.1	269.7	305.7
130°	146.2	150.0	174.7	252.6	288.6
132.5°	140.5	146.2	163.3	233.6	265.9
135°	132.9	144.3	157.6	212.7	245.0
137.5°	127.2	138.6	148.1	193.7	220.3
140°	121.5	134.8	138.6	169.0	191.8
142.5°	113.9	129.1	131.0	157.6	167.1
145°	108.2	125.3	136.7	146.2	155.7
147.5°	102.5	117.7	132.9	134.8	144.3
150°	100.6	110.1	127.2	129.1	132.9
152.5°	98.7	106.3	117.7	129.1	131.0
155°	98.7	104.4	112.0	121.5	123.4
157.5°	96.8	104.4	108.2	115.8	117.7
160°	96.8	102.5	106.3	112.0	113.9
162.5°	96.8	102.5	104.4	110.1	112.0
165°	96.8	100.6	104.4	108.2	108.2
167.5°	96.8	100.6	102.5	106.3	106.3
170°	96.8	98.7	102.5	104.4	104.4
172.5°	94.9	98.7	100.6	104.4	104.4
175°	94.9	96.8	98.7	100.6	102.5
177.5°	91.2	96.8	98.7	100.6	98.7
180°	93.1	93.1	93.1	93.1	93.1



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	155.7	150.0	220.3	300.0	324.7
110°	165.2	151.9	226.0	305.7	336.1



(END OF REPORT)