

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: P520508

Luminaire Tested: **4WSLA-150-L830-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: P520508
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-L830-UPL15-UNV-U
Description: 4 FOOT, 1500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 80 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

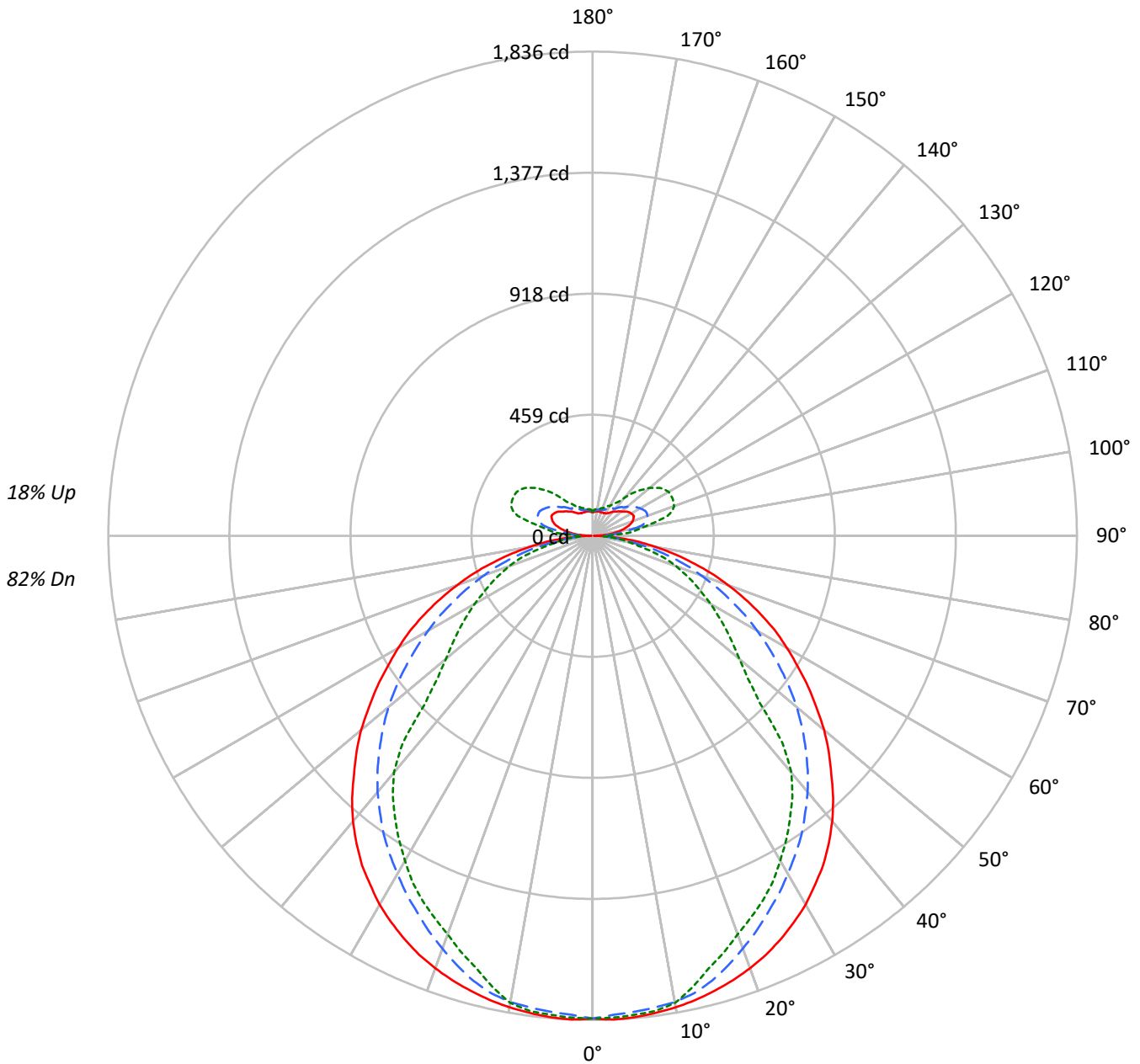
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5929.0 lumens
Efficiency: N/A
Efficacy: 124.3 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°	9853	9853	9853
5°	9901	9790	9850
10°	9924	9812	9832
15°	9952	9735	9466
20°	9996	9539	9209
25°	10022	9350	9063
30°	10038	9196	8838
35°	10016	9076	8576
40°	9927	8909	8231
45°	9737	8691	6826
50°	9592	8457	6079
55°	9356	8118	5784
60°	9154	7754	5556
65°	8937	7330	5391
70°	8590	6866	5289
75°	8108	6292	4864
80°	7423	5294	4317
85°	6651	4588	4360



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.5	2.9
10°-20°	492.9	8.3
20°-30°	735.6	12.4
30°-40°	876.4	14.8
40°-50°	871.7	14.7
50°-60°	747.1	12.6
60°-70°	562.7	9.5
70°-80°	325.9	5.5
80°-90°	97.9	1.7
90°-100°	105.1	1.8
100°-110°	215.9	3.6
110°-120°	228.3	3.9
120°-130°	190.5	3.2
130°-140°	133.1	2.2
140°-150°	82.8	1.4
150°-160°	51.3	0.9
160°-170°	28.9	0.5
170°-180°	9.3	0.2
0°-30°	1401.9	23.6
0°-40°	2278.3	38.4
0°-60°	3897.2	65.7
0°-90°	4883.7	82.4
90°-120°	549.4	9.3
90°-150°	955.7	16.1
90°-180°	1045.0	17.6
0°-180°	5929.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1831	1831	1831	1831	1831	
5°	1833	1827	1812	1825	1823	174
15°	1786	1784	1747	1718	1699	505
25°	1688	1664	1574	1536	1526	778
35°	1524	1484	1381	1328	1305	952
45°	1279	1248	1142	1029	897	989
55°	997	982	865	687	616	891
65°	702	685	576	448	423	694
75°	390	377	303	241	234	413
85°	108	95	74	71	71	115
90°	6	26	45	56	59	11
95°	59	80	91	134	145	57
105°	139	145	208	278	295	144
115°	173	147	221	304	334	168
125°	160	141	191	280	316	142
135°	130	141	154	208	240	101
145°	106	122	134	143	152	67
155°	96	102	110	119	121	45
165°	95	98	102	106	106	27
175°	93	95	96	98	100	9
180°	91	91	91	91	91	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1830.7	1830.7	1830.7	1830.7	1830.7
2.5°	1836.3	1832.6	1817.7	1832.6	1828.9
5°	1832.6	1827.0	1812.1	1825.1	1823.3
7.5°	1825.1	1821.4	1804.7	1819.6	1817.7
10°	1815.9	1810.3	1795.4	1806.6	1799.1
12.5°	1802.9	1799.1	1776.9	1767.6	1752.7
15°	1786.1	1784.3	1747.2	1717.5	1698.9
17.5°	1767.6	1760.2	1708.2	1672.9	1656.2
20°	1745.3	1734.2	1665.5	1624.6	1607.9
22.5°	1719.3	1702.6	1622.8	1583.8	1567.1
25°	1687.7	1663.6	1574.5	1535.5	1526.2
27.5°	1652.5	1624.6	1529.9	1490.9	1479.8
30°	1615.3	1580.1	1479.8	1442.7	1422.2
32.5°	1568.9	1535.5	1431.5	1388.8	1366.5
35°	1524.4	1483.5	1381.4	1327.5	1305.3
37.5°	1470.5	1429.7	1323.8	1270.0	1244.0
40°	1413.0	1372.1	1268.1	1205.0	1171.6
42.5°	1349.8	1312.7	1206.9	1130.7	1065.7
45°	1279.3	1247.7	1141.9	1028.6	896.8
47.5°	1214.3	1184.6	1076.9	930.2	794.7
50°	1145.6	1117.7	1010.0	837.4	726.0
52.5°	1069.5	1049.0	937.6	757.5	668.4
55°	997.1	982.2	865.2	687.0	616.4
57.5°	920.9	906.1	792.8	620.1	564.4
60°	850.4	835.5	720.4	560.7	516.2
62.5°	779.8	759.4	649.8	503.2	466.0
65°	701.8	685.1	575.6	447.5	423.3
67.5°	623.9	609.0	506.9	395.5	378.8
70°	545.9	532.9	436.3	345.3	336.1
72.5°	469.7	453.0	373.2	295.2	291.5
75°	389.9	376.9	302.6	241.4	233.9
77.5°	313.8	302.6	237.7	183.8	178.2
80°	239.5	228.4	170.8	133.7	139.3
82.5°	176.4	161.5	115.1	104.0	109.5
85°	107.7	94.7	74.3	70.6	70.6
87.5°	37.1	35.3	33.4	39.0	40.8
90°	5.6	26.0	44.6	55.7	59.4
92.5°	31.6	46.4	61.3	72.4	76.1
95°	59.4	79.8	91.0	133.7	144.8
97.5°	81.7	105.8	118.8	157.8	169.0
100°	104.0	126.3	167.1	187.5	200.5
102.5°	122.5	139.3	196.8	237.7	245.1
105°	139.3	144.8	208.0	278.5	295.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	167.1	148.5	222.8	302.6	332.4
115°	172.7	146.7	220.9	304.5	334.2
117.5°	172.7	146.7	215.4	304.5	334.2
120°	169.0	148.5	208.0	300.8	332.4
122.5°	165.2	144.8	200.5	293.4	324.9
125°	159.7	141.1	191.2	280.4	315.6
127.5°	150.4	144.8	182.0	263.7	298.9
130°	143.0	146.7	170.8	246.9	282.2
132.5°	137.4	143.0	159.7	228.4	259.9
135°	130.0	141.1	154.1	208.0	239.5
137.5°	124.4	135.5	144.8	189.4	215.4
140°	118.8	131.8	135.5	165.2	187.5
142.5°	111.4	126.3	128.1	154.1	163.4
145°	105.8	122.5	133.7	143.0	152.2
147.5°	100.3	115.1	130.0	131.8	141.1
150°	98.4	107.7	124.4	126.3	130.0
152.5°	96.5	104.0	115.1	126.3	128.1
155°	96.5	102.1	109.5	118.8	120.7
157.5°	94.7	102.1	105.8	113.3	115.1
160°	94.7	100.3	104.0	109.5	111.4
162.5°	94.7	100.3	102.1	107.7	109.5
165°	94.7	98.4	102.1	105.8	105.8
167.5°	94.7	98.4	100.3	104.0	104.0
170°	94.7	96.5	100.3	102.1	102.1
172.5°	92.8	96.5	98.4	102.1	102.1
175°	92.8	94.7	96.5	98.4	100.3
177.5°	89.1	94.7	96.5	98.4	96.5
180°	91.0	91.0	91.0	91.0	91.0



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	152.2	146.7	215.4	293.4	317.5
110°	161.5	148.5	220.9	298.9	328.6



(END OF REPORT)