

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: P520509

Luminaire Tested: **4WSLA-150-L830-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: P520509
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-L830-UPL8-UNV-U
Description: 4 FOOT, 1500 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 80 CRI
LEDS WITH 8% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

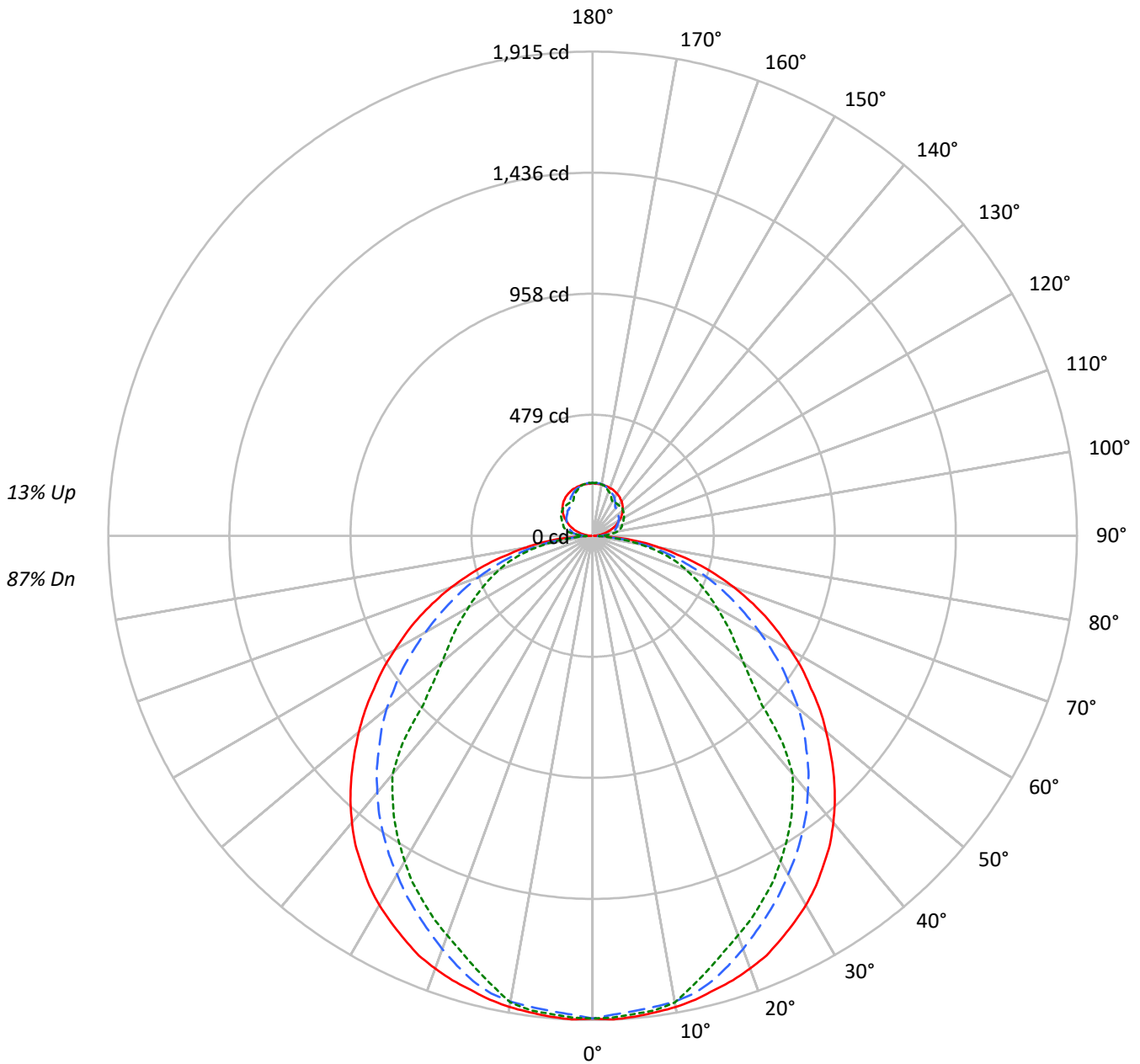
Lumens per Lamp: N/A
Luminaire Lumens: 5941.9 lumens
Efficiency: N/A
Efficacy: 124.6 lumens/watt
Spacing Criteria (0/90/45): 1.31 / 1.17 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 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					20									
RC	80					70					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	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°	10276	10276	10276
5°	10315	10196	10256
10°	10344	10224	10239
15°	10363	10164	9888
20°	10432	9960	9629
25°	10457	9772	9446
30°	10483	9612	9236
35°	10450	9476	8989
40°	10403	9303	8646
45°	10267	9095	7214
50°	10098	8902	6510
55°	9898	8610	6264
60°	9728	8220	6091
65°	9585	7871	6087
70°	9338	7566	6181
75°	8912	7197	6226
80°	8343	6471	5790
85°	7632	4582	3903



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.8	3.0
10°-20°	513.9	8.6
20°-30°	767.8	12.9
30°-40°	916.6	15.4
40°-50°	916.7	15.4
50°-60°	793.3	13.4
60°-70°	608.9	10.2
70°-80°	373.1	6.3
80°-90°	105.0	1.8
90°-100°	59.4	1.0
100°-110°	94.2	1.6
110°-120°	110.2	1.9
120°-130°	118.9	2.0
130°-140°	117.2	2.0
140°-150°	103.7	1.7
150°-160°	85.3	1.4
160°-170°	57.1	1.0
170°-180°	19.9	0.3
0°-30°	1462.5	24.6
0°-40°	2379.1	40.0
0°-60°	4089.0	68.8
0°-90°	5176.1	87.1
90°-120°	263.8	4.4
90°-150°	603.5	10.2
90°-180°	766.0	12.9
0°-180°	5941.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1909	1909	1909	1909	1909	
5°	1909	1904	1887	1901	1898	182
15°	1860	1857	1824	1791	1775	526
25°	1761	1739	1646	1602	1591	812
35°	1591	1549	1442	1390	1368	996
45°	1349	1310	1195	1088	948	1040
55°	1055	1030	918	734	668	946
65°	753	725	618	497	478	744
75°	429	407	346	299	299	452
85°	124	102	74	63	63	129
90°	6	19	30	38	41	9
95°	22	47	63	66	66	22
105°	63	66	93	110	115	66
115°	104	88	110	126	135	102
125°	140	113	126	146	151	125
135°	168	151	140	154	162	129
145°	187	179	157	154	159	117
155°	198	195	184	176	173	91
165°	203	206	200	200	200	58
175°	206	209	209	212	212	20
180°	209	209	209	209	209	



TEST NUMBER: P520509

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1909.3	1909.3	1909.3	1909.3	1909.3
2.5°	1914.8	1909.3	1895.6	1909.3	1906.6
5°	1909.3	1903.8	1887.3	1901.1	1898.3
7.5°	1901.1	1895.6	1879.1	1895.6	1892.8
10°	1892.8	1887.3	1870.8	1881.8	1873.6
12.5°	1879.1	1873.6	1854.4	1840.6	1824.1
15°	1859.9	1857.1	1824.1	1791.2	1774.7
17.5°	1843.4	1835.1	1782.9	1744.5	1725.2
20°	1821.4	1807.7	1739.0	1695.0	1681.3
22.5°	1796.7	1774.7	1692.3	1651.1	1640.1
25°	1761.0	1739.0	1645.6	1601.6	1590.6
27.5°	1725.2	1697.8	1598.9	1554.9	1543.9
30°	1686.8	1648.3	1546.7	1505.5	1486.2
32.5°	1642.8	1604.4	1497.2	1450.5	1428.5
35°	1590.6	1549.4	1442.3	1390.1	1368.1
37.5°	1541.2	1497.2	1387.3	1329.6	1299.4
40°	1480.7	1436.8	1324.2	1261.0	1230.7
42.5°	1417.6	1376.3	1263.7	1186.8	1112.6
45°	1348.9	1310.4	1195.0	1087.9	947.8
47.5°	1277.4	1244.5	1131.8	986.2	851.6
50°	1206.0	1173.1	1063.2	890.1	777.5
52.5°	1134.6	1107.1	986.2	810.4	717.0
55°	1054.9	1030.2	917.6	733.5	667.6
57.5°	983.5	958.8	837.9	670.3	615.4
60°	903.8	881.9	763.7	607.1	565.9
62.5°	829.7	804.9	689.5	552.2	522.0
65°	752.7	725.3	618.1	497.2	478.0
67.5°	673.1	645.6	549.4	447.8	436.8
70°	593.4	571.4	480.8	398.3	392.8
72.5°	511.0	486.3	412.1	351.6	351.6
75°	428.6	406.6	346.1	299.4	299.4
77.5°	343.4	332.4	277.5	244.5	247.2
80°	269.2	255.5	208.8	186.8	186.8
82.5°	197.8	181.3	140.1	123.6	129.1
85°	123.6	101.6	74.2	63.2	63.2
87.5°	38.5	30.2	22.0	24.7	24.7
90°	5.5	19.2	30.2	38.5	41.2
92.5°	13.7	35.7	44.0	52.2	54.9
95°	22.0	46.7	63.2	65.9	65.9
97.5°	30.2	52.2	76.9	87.9	87.9
100°	41.2	54.9	82.4	98.9	101.6
102.5°	52.2	60.4	87.9	104.4	109.9
105°	63.2	65.9	93.4	109.9	115.4



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CATALOG NUMBER: 4WSLA-150-L830-UPL8-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	93.4	82.4	104.4	123.6	129.1
115°	104.4	87.9	109.9	126.4	134.6
117.5°	112.6	96.2	115.4	131.9	137.4
120°	120.9	101.6	118.1	137.4	142.9
122.5°	131.9	107.1	123.6	140.1	148.3
125°	140.1	112.6	126.4	145.6	151.1
127.5°	148.3	123.6	129.1	148.3	153.8
130°	153.8	134.6	131.9	151.1	156.6
132.5°	162.1	142.9	134.6	153.8	159.3
135°	167.6	151.1	140.1	153.8	162.1
137.5°	173.1	159.3	140.1	153.8	159.3
140°	178.6	167.6	142.9	153.8	159.3
142.5°	181.3	173.1	145.6	153.8	159.3
145°	186.8	178.6	156.6	153.8	159.3
147.5°	189.6	184.1	164.8	153.8	159.3
150°	192.3	189.6	173.1	156.6	156.6
152.5°	195.1	192.3	178.6	167.6	162.1
155°	197.8	195.1	184.1	175.8	173.1
157.5°	200.5	200.5	189.6	184.1	181.3
160°	200.5	203.3	195.1	189.6	186.8
162.5°	203.3	206.0	197.8	195.1	192.3
165°	203.3	206.0	200.5	200.5	200.5
167.5°	206.0	208.8	206.0	203.3	203.3
170°	206.0	208.8	206.0	206.0	206.0
172.5°	206.0	208.8	208.8	208.8	208.8
175°	206.0	208.8	208.8	211.5	211.5
177.5°	206.0	208.8	208.8	208.8	208.8
180°	208.8	208.8	208.8	208.8	208.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	74.2	71.4	96.2	115.4	120.9
110°	82.4	76.9	101.6	118.1	123.6



(END OF REPORT)