

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: P520544

Luminaire Tested: **4WSLA-175-L930-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: P520544
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-175-L930-UPL15-UNV-U
Description: 4 FOOT, 1750 LUMEN PER FOOT, WSLA LED LUMINAIRE WITH 3000K, 90 CRI
LEDS WITH 15% UPLIGHT
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

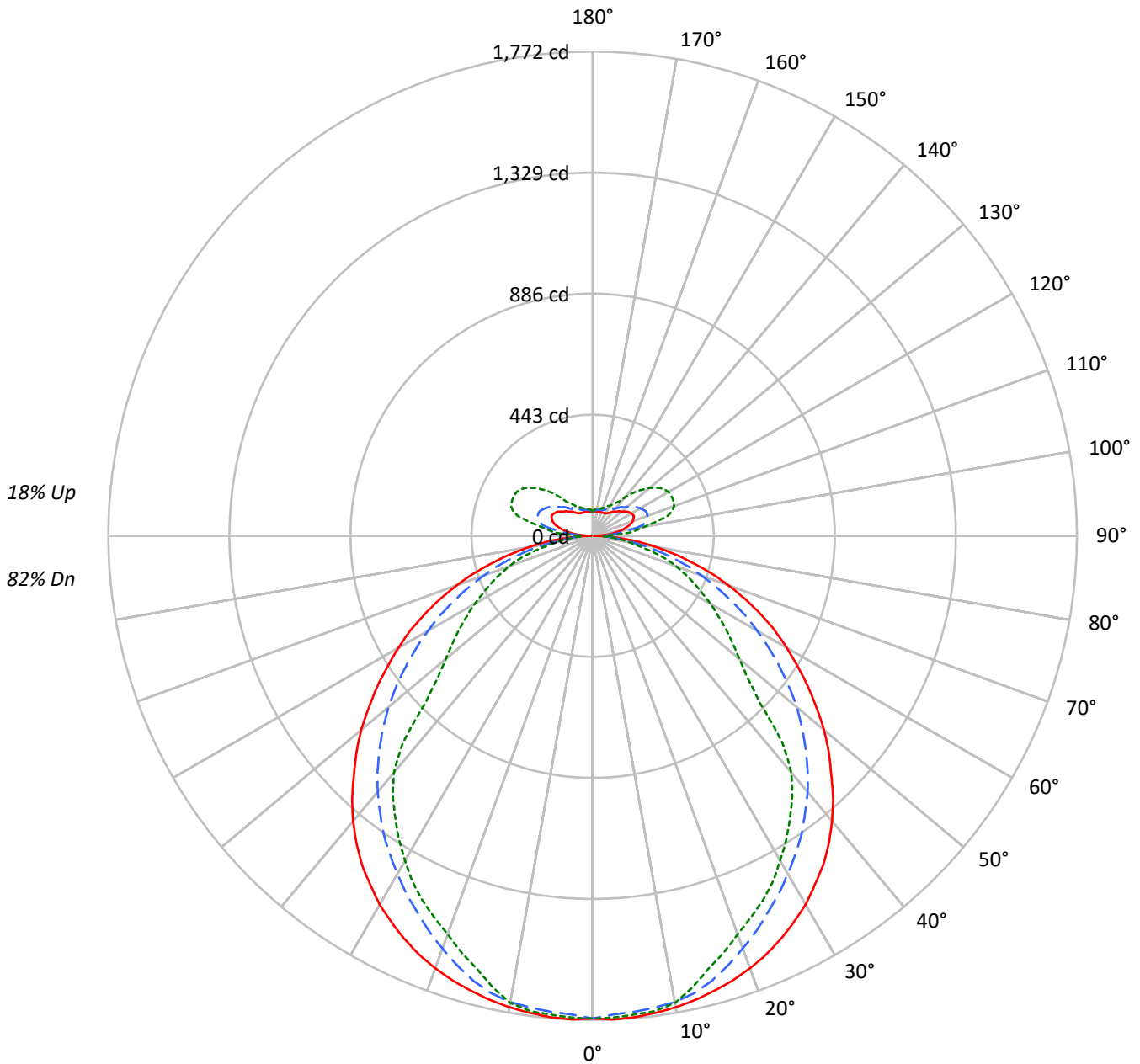
Lumens per Lamp: N/A
Luminaire Lumens: 5721.0 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 1.3 / 1.16 / 1.33
Luminous Opening: Rectangular (W 0.5' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 59.5
Input Voltage (V): NR
Input Current (Ain): 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: P520544

CATALOG NUMBER: 4WSLA-175-L930-UPL15-UNV-U

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°	9507	9507	9507
5°	9553	9447	9505
10°	9576	9468	9487
15°	9603	9394	9134
20°	9645	9204	8886
25°	9671	9022	8745
30°	9687	8874	8528
35°	9664	8757	8275
40°	9579	8597	7942
45°	9395	8386	6586
50°	9255	8160	5865
55°	9028	7834	5581
60°	8832	7482	5362
65°	8624	7073	5202
70°	8288	6625	5103
75°	7823	6072	4693
80°	7163	5108	4166
85°	6416	4428	4205



TEST NUMBER: P520544

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	167.4	2.9
10°-20°	475.6	8.3
20°-30°	709.7	12.4
30°-40°	845.7	14.8
40°-50°	841.2	14.7
50°-60°	720.9	12.6
60°-70°	542.9	9.5
70°-80°	314.4	5.5
80°-90°	94.5	1.7
90°-100°	101.5	1.8
100°-110°	208.3	3.6
110°-120°	220.3	3.9
120°-130°	183.8	3.2
130°-140°	128.4	2.2
140°-150°	79.9	1.4
150°-160°	49.5	0.9
160°-170°	27.9	0.5
170°-180°	9.0	0.2
0°-30°	1352.7	23.6
0°-40°	2198.4	38.4
0°-60°	3760.5	65.7
0°-90°	4712.4	82.4
90°-120°	530.1	9.3
90°-150°	922.2	16.1
90°-180°	1009.0	17.6
0°-180°	5721.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1766	1766	1766	1766	1766	
5°	1768	1763	1749	1761	1759	168
15°	1724	1722	1686	1657	1639	487
25°	1628	1605	1519	1482	1473	751
35°	1471	1432	1333	1281	1260	919
45°	1234	1204	1102	992	865	954
55°	962	948	835	663	595	860
65°	677	661	555	432	408	669
75°	376	364	292	233	226	399
85°	104	91	72	68	68	111
90°	5	25	43	54	57	11
95°	57	77	88	129	140	55
105°	134	140	201	269	285	139
115°	167	142	213	294	322	162
125°	154	136	184	270	305	137
135°	125	136	149	201	231	98
145°	102	118	129	138	147	65
155°	93	98	106	115	116	43
165°	91	95	98	102	102	26
175°	90	91	93	95	97	9
180°	88	88	88	88	88	



TEST NUMBER: P520544

CATALOG NUMBER: 4WSLA-175-L930-UPL15-UNV-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1766.5	1766.5	1766.5	1766.5	1766.5
2.5°	1771.9	1768.3	1753.9	1768.3	1764.7
5°	1768.3	1762.9	1748.6	1761.1	1759.3
7.5°	1761.1	1757.5	1741.4	1755.7	1753.9
10°	1752.2	1746.8	1732.4	1743.2	1736.0
12.5°	1739.6	1736.0	1714.5	1705.6	1691.2
15°	1723.5	1721.7	1685.9	1657.2	1639.3
17.5°	1705.6	1698.4	1648.2	1614.2	1598.1
20°	1684.1	1673.3	1607.0	1567.6	1551.5
22.5°	1659.0	1642.9	1565.8	1528.2	1512.1
25°	1628.5	1605.2	1519.2	1481.6	1472.7
27.5°	1594.5	1567.6	1476.3	1438.6	1427.9
30°	1558.7	1524.6	1427.9	1392.0	1372.3
32.5°	1513.9	1481.6	1381.3	1340.1	1318.6
35°	1470.9	1431.5	1332.9	1281.0	1259.5
37.5°	1418.9	1379.5	1277.4	1225.4	1200.4
40°	1363.4	1324.0	1223.6	1162.7	1130.5
42.5°	1302.5	1266.6	1164.5	1091.1	1028.4
45°	1234.4	1203.9	1101.8	992.5	865.3
47.5°	1171.7	1143.0	1039.1	897.6	766.8
50°	1105.4	1078.5	974.6	808.0	700.5
52.5°	1031.9	1012.2	904.7	731.0	645.0
55°	962.1	947.7	834.9	662.9	594.8
57.5°	888.6	874.3	765.0	598.4	544.6
60°	820.5	806.2	695.1	541.1	498.1
62.5°	752.5	732.8	627.0	485.5	449.7
65°	677.2	661.1	555.4	431.8	408.5
67.5°	602.0	587.6	489.1	381.6	365.5
70°	526.7	514.2	421.0	333.2	324.3
72.5°	453.3	437.1	360.1	284.9	281.3
75°	376.2	363.7	292.0	232.9	225.7
77.5°	302.8	292.0	229.3	177.4	172.0
80°	231.1	220.4	164.8	129.0	134.4
82.5°	170.2	155.9	111.1	100.3	105.7
85°	103.9	91.4	71.7	68.1	68.1
87.5°	35.8	34.0	32.2	37.6	39.4
90°	5.4	25.1	43.0	53.7	57.3
92.5°	30.5	44.8	59.1	69.9	73.5
95°	57.3	77.0	87.8	129.0	139.7
97.5°	78.8	102.1	114.7	152.3	163.0
100°	100.3	121.8	161.2	180.9	193.5
102.5°	118.2	134.4	189.9	229.3	236.5
105°	134.4	139.7	200.7	268.7	284.9



TEST NUMBER: P520544

CATALOG NUMBER: 4WSLA-175-L930-UPL15-UNV-U

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	161.2	143.3	215.0	292.0	320.7
115°	166.6	141.5	213.2	293.8	322.5
117.5°	166.6	141.5	207.8	293.8	322.5
120°	163.0	143.3	200.7	290.2	320.7
122.5°	159.4	139.7	193.5	283.1	313.5
125°	154.1	136.2	184.5	270.5	304.6
127.5°	145.1	139.7	175.6	254.4	288.4
130°	138.0	141.5	164.8	238.3	272.3
132.5°	132.6	138.0	154.1	220.4	250.8
135°	125.4	136.2	148.7	200.7	231.1
137.5°	120.0	130.8	139.7	182.7	207.8
140°	114.7	127.2	130.8	159.4	180.9
142.5°	107.5	121.8	123.6	148.7	157.7
145°	102.1	118.2	129.0	138.0	146.9
147.5°	96.7	111.1	125.4	127.2	136.2
150°	95.0	103.9	120.0	121.8	125.4
152.5°	93.2	100.3	111.1	121.8	123.6
155°	93.2	98.5	105.7	114.7	116.5
157.5°	91.4	98.5	102.1	109.3	111.1
160°	91.4	96.7	100.3	105.7	107.5
162.5°	91.4	96.7	98.5	103.9	105.7
165°	91.4	95.0	98.5	102.1	102.1
167.5°	91.4	95.0	96.7	100.3	100.3
170°	91.4	93.2	96.7	98.5	98.5
172.5°	89.6	93.2	95.0	98.5	98.5
175°	89.6	91.4	93.2	95.0	96.7
177.5°	86.0	91.4	93.2	95.0	93.2
180°	87.8	87.8	87.8	87.8	87.8



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







107.5°	146.9	141.5	207.8	283.1	306.4
110°	155.9	143.3	213.2	288.4	317.1



(END OF REPORT)