

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: IRiS

Report Number: P1345442

Luminaire Tested: P3A13R359030DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345442
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R359030DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 3000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

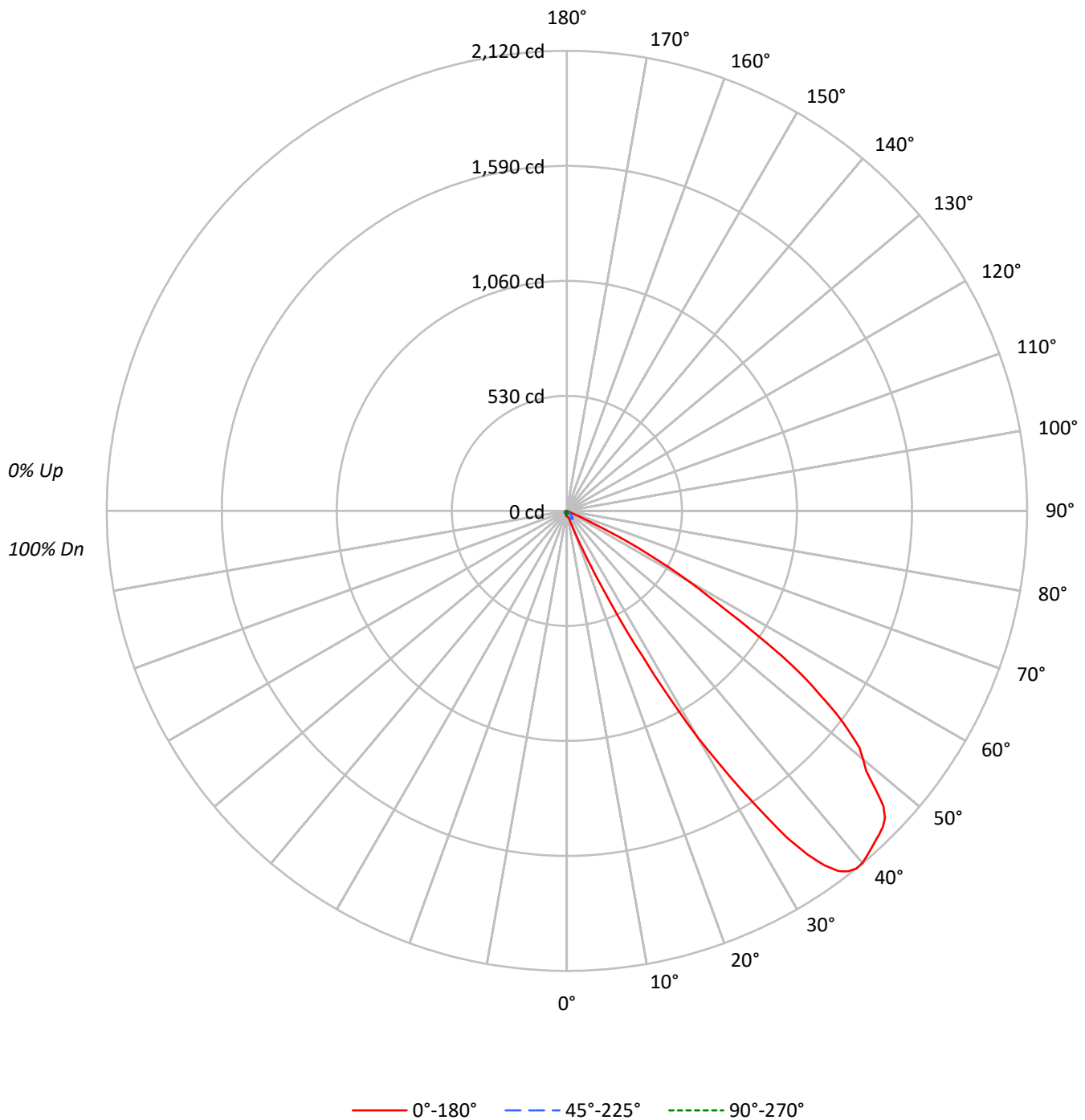
Lumens per Lamp: N/A
Luminaire Lumens: 528.0 lumens
Efficiency: N/A
Efficacy: 36.2 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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: 24 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	62	48	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	41	33	27	40	32	27	39	32	26	38	31	26
9	52	38	29	23	50	37	29	23	36	28	23	35	28	22	34	27	22
10	48	34	25	19	46	33	25	19	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5329	5329	5329	5329	5329
5°	5767	5657	5239	4711	4622
10°	6056	5522	4676	4030	4030
15°	8649	5403	3791	3473	3564
20°	21679	5787	3010	3010	3337
25°	100675	7379	2299	2758	3121
30°	306047	10027	1798	2532	3140
35°	517262	11618	1526	2436	3052
40°	606336	11450	1231	2462	3263
45°	638547	8125	1023	2667	3535
50°	607809	4878	989	2763	3889
55°	509306	1988	1109	3097	4549
60°	285109	439	1272	3552	5000
65°	49188	259	1245	3943	5707
70°	898	321	1539	4296	6411
75°	847	424	2033	4829	7286
80°	631	631	2399	5430	8461
85°	0	1258	4780	6038	9561

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 643045 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.2	0.4
10°-20°	6.2	1.2
20°-30°	32.4	6.1
30°-40°	139.9	26.5
40°-50°	199.6	37.8
50°-60°	123.6	23.4
60°-70°	18.8	3.6
70°-80°	3.5	0.7
80°-90°	1.8	0.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	40.8	7.7
0°-40°	180.7	34.2
0°-60°	503.9	95.4
0°-90°	528.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	528.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	24	24	24	24	24	
5°	26	26	24	21	21	3
15°	38	24	17	15	16	14
25°	416	30	10	11	13	249
35°	1932	43	6	9	11	1160
45°	2059	26	3	9	11	1556
55°	1332	5	3	8	12	1135
65°	95	0	2	8	11	194
75°	1	0	2	6	9	1
85°	0	0	2	2	4	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3
2.5°	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3	24.3	23.8
5°	26.2	26.2	25.7	25.7	25.7	25.7	25.7	25.7	24.8	23.8	22.4
7.5°	26.7	26.7	26.2	26.2	26.2	26.2	25.7	25.3	24.3	22.4	21.0
10°	27.2	27.2	27.2	27.2	26.7	26.2	25.7	24.8	23.4	21.0	19.5
12.5°	30.5	30.5	30.0	29.1	28.1	27.2	26.2	24.3	21.4	19.1	17.6
15°	38.1	37.7	36.7	35.3	33.4	31.0	29.1	23.8	19.5	16.7	15.7
17.5°	53.4	52.4	51.0	46.2	41.9	37.7	33.8	23.8	17.6	14.8	13.8
20°	92.9	93.4	83.4	72.0	62.4	52.0	42.4	24.8	15.7	12.9	12.4
22.5°	194.0	186.4	162.5	134.9	103.0	79.6	60.1	27.2	13.8	11.0	11.0
25°	416.1	387.0	329.4	248.8	175.4	124.4	87.2	30.5	12.4	9.5	10.0
27.5°	759.8	733.5	617.7	465.2	308.9	187.8	118.2	34.8	11.0	8.1	9.1
30°	1208.7	1136.3	985.2	762.6	516.2	287.4	158.7	39.6	9.1	7.1	8.6
31°	1348.9	1315.5	1131.5	882.2	604.8	341.3	175.9	41.0	8.6	7.1	8.1
32°	1515.2	1456.1	1291.2	1013.3	694.9	389.4	196.4	42.4	8.1	6.2	8.1
33°	1663.9	1606.7	1406.1	1128.7	786.0	444.2	218.3	42.9	7.1	6.2	7.6
34°	1820.3	1742.1	1543.3	1249.3	879.4	503.3	238.3	43.4	6.7	5.7	7.6
35°	1932.3	1854.1	1661.5	1344.6	959.9	555.8	261.2	43.4	6.2	5.7	7.1
36°	2019.0	1950.4	1763.5	1442.8	1040.0	602.9	279.3	43.4	5.2	5.2	7.1
37°	2078.6	2013.3	1832.2	1527.1	1101.0	644.9	295.5	43.4	4.8	5.2	7.1
38°	2107.7	2053.3	1898.4	1588.6	1160.1	677.8	308.4	42.4	4.3	4.8	6.7
39°	2120.1	2075.7	1938.9	1640.6	1204.5	706.4	317.9	41.5	3.8	4.8	6.7
40°	2118.2	2079.5	1961.8	1676.3	1240.2	725.9	323.2	40.0	3.3	4.3	6.7
41°	2107.2	2073.8	1973.7	1706.8	1261.6	739.3	324.6	38.6	2.9	4.3	6.2
42°	2094.8	2064.3	1977.6	1723.0	1275.5	743.5	320.8	36.7	2.9	3.8	6.2
43°	2081.9	2053.8	1977.6	1728.3	1278.8	740.7	314.6	33.4	2.4	3.8	6.2
44°	2071.4	2044.8	1971.4	1726.8	1271.7	729.7	303.1	29.6	1.9	3.8	6.2
45°	2059.1	2032.8	1963.3	1717.8	1257.8	711.1	288.8	26.2	1.4	3.3	6.2
46°	2037.1	2016.6	1949.0	1699.2	1235.9	685.4	270.7	23.8	1.0	3.3	5.7
47°	1994.7	1977.1	1921.3	1671.6	1206.8	654.9	252.1	21.4	1.0	3.3	5.7
48°	1909.4	1908.9	1866.0	1620.1	1160.6	616.8	232.6	19.1	1.0	3.3	5.7
49°	1826.9	1818.4	1765.0	1529.5	1094.3	571.0	212.1	17.2	0.5	3.3	5.7
50°	1781.7	1763.1	1675.4	1422.7	1009.5	507.6	190.2	14.3	0.5	2.9	5.7
51°	1734.5	1707.8	1604.3	1326.5	908.5	446.6	166.3	11.4	0.5	2.9	5.2
52°	1649.2	1623.9	1508.1	1234.5	810.3	384.2	143.5	9.5	0.5	2.9	5.7
53°	1557.2	1520.9	1395.1	1133.4	724.0	328.9	120.1	8.1	0.5	2.9	5.2
54°	1441.3	1425.1	1280.7	1009.5	623.0	275.5	98.7	6.7	0.5	2.9	5.2
55°	1332.2	1308.4	1158.2	882.7	531.4	225.9	82.5	5.2	0.5	2.9	5.2
56°	1193.0	1157.3	1016.7	766.4	438.5	182.1	69.6	4.3	0.5	2.9	5.2
57°	1027.1	989.0	878.0	637.3	344.1	138.7	58.1	3.3	0.5	2.9	5.2
58°	868.9	836.0	716.9	491.9	259.3	96.3	48.1	2.4	0.5	2.4	5.2
59°	750.7	714.5	596.3	378.4	180.2	71.0	36.2	1.9	0.5	2.9	5.2
60°	650.1	603.4	480.0	293.1	128.7	51.0	26.7	1.0	1.0	2.9	5.2
62.5°	374.6	330.8	229.3	119.2	52.9	26.2	12.9	0.5	1.0	2.9	5.2
65°	94.8	84.4	54.8	25.7	14.8	9.1	4.8	0.5	1.0	2.4	4.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	3.3	3.3	3.3	2.9	2.4	1.9	1.0	0.5	1.0	2.4	4.8
70°	1.4	1.4	1.4	1.0	1.0	0.5	0.5	0.5	1.0	2.4	4.3
72.5°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.4	2.4	3.8
75°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.4	2.4	3.8
77.5°	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.9	3.3
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.9	2.9
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.9	2.4
85°	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	1.4	1.9	1.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.4	1.9	1.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	24.3	24.3	24.3
2.5°	22.9	22.9	22.9
5°	21.4	21.4	21.0
7.5°	20.0	19.5	19.5
10°	18.1	18.1	18.1
12.5°	16.7	16.7	16.7
15°	15.3	15.7	15.7
17.5°	13.8	14.8	14.8
20°	12.9	13.8	14.3
22.5°	11.9	12.9	13.3
25°	11.4	12.4	12.9
27.5°	10.5	11.9	12.9
30°	10.0	11.4	12.4
31°	10.0	11.4	11.9
32°	9.5	11.4	11.9
33°	9.5	11.4	11.9
34°	9.5	11.0	11.9
35°	9.1	11.0	11.4
36°	9.1	11.0	11.4
37°	9.1	11.0	11.9
38°	9.1	11.0	11.4
39°	8.6	11.0	11.4
40°	8.6	11.0	11.4
41°	8.6	11.0	11.4
42°	8.6	11.0	11.4
43°	8.6	11.0	11.4
44°	8.6	10.5	11.4
45°	8.6	10.5	11.4
46°	8.6	11.0	11.4
47°	8.6	11.0	11.9
48°	8.6	10.5	11.4
49°	8.1	10.5	11.4
50°	8.1	10.5	11.4
51°	8.1	11.0	11.9
52°	8.1	11.0	11.9
53°	8.1	11.0	11.9
54°	8.1	11.0	11.4
55°	8.1	11.0	11.9
56°	8.1	11.0	11.4
57°	8.1	11.0	11.4
58°	8.1	10.5	11.4
59°	8.1	10.5	11.4
60°	8.1	10.5	11.4
62.5°	7.6	10.5	11.4
65°	7.6	10.0	11.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	7.1	10.0	10.5
70°	6.7	9.5	10.0
72.5°	6.2	9.1	9.5
75°	5.7	8.1	8.6
77.5°	4.8	7.1	8.1
80°	4.3	6.2	6.7
82.5°	3.3	5.2	5.7
85°	2.4	3.8	3.8
87.5°	1.0	1.9	1.9
90°	0.0	0.0	0.0

(END OF REPORT)