

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: P1345522

Luminaire Tested: P3A13R359730DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345522
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: P3A13R359730DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 3000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

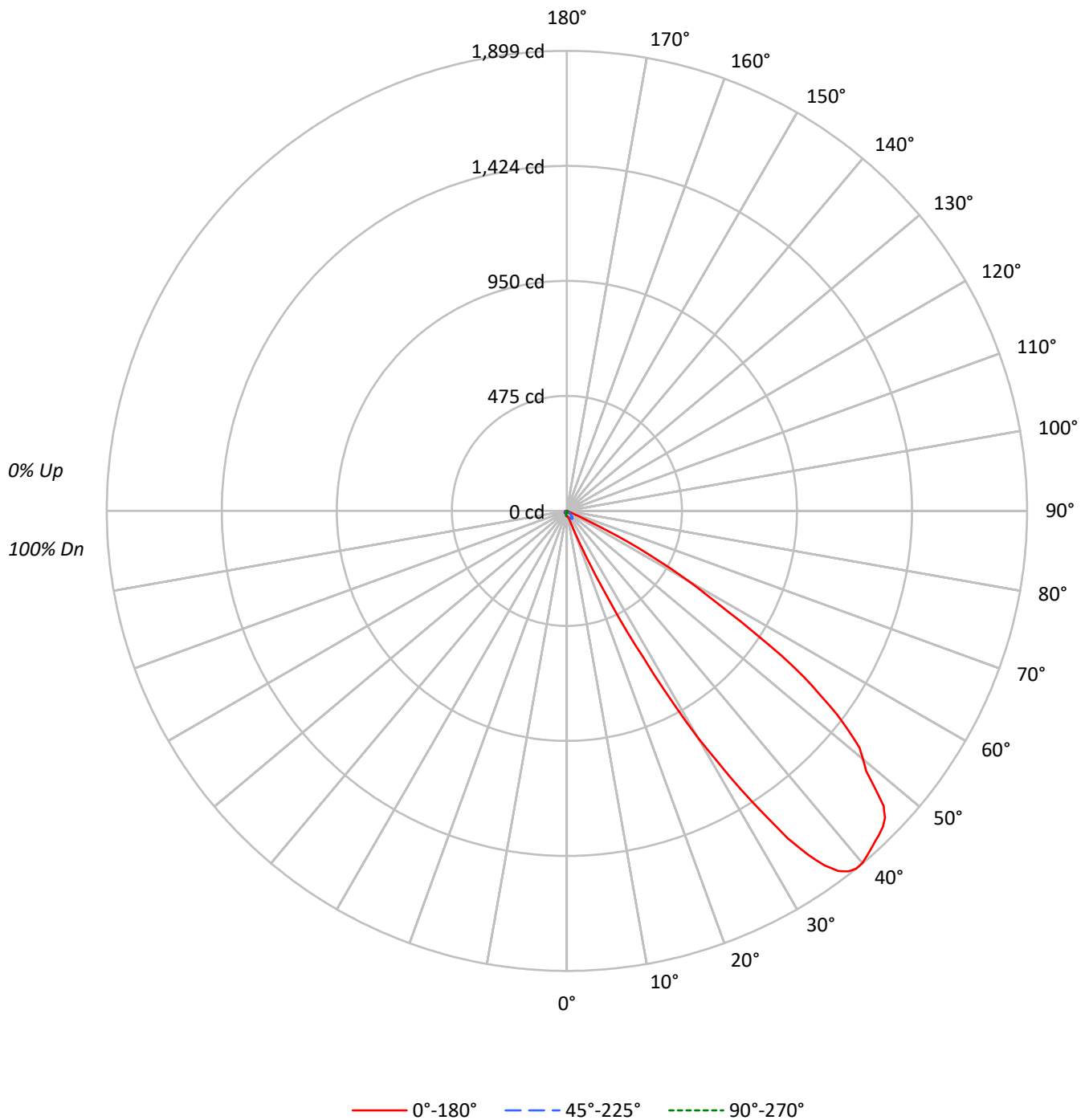
Lumens per Lamp: N/A
Luminaire Lumens: 473.0 lumens
Efficiency: N/A
Efficacy: 32.4 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	4780	4780	4780	4780	4780
5°	5173	5085	4689	4226	4138
10°	5411	4943	4186	3607	3607
15°	7764	4835	3383	3110	3201
20°	19438	5180	2684	2684	2987
25°	90199	6605	2057	2468	2782
30°	274169	8963	1621	2279	2811
35°	463375	10413	1365	2168	2730
40°	543161	10276	1088	2204	2920
45°	572028	7288	930	2388	3163
50°	544494	4367	887	2490	3480
55°	456242	1797	994	2791	4091
60°	255418	395	1140	3201	4473
65°	44103	208	1090	3528	5085
70°	833	256	1346	3847	5770
75°	763	339	1779	4321	6524
80°	505	505	2147	4799	7577
85°	0	1006	4277	5284	8554

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 576061 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.0	0.4
10°-20°	5.6	1.2
20°-30°	29.0	6.1
30°-40°	125.3	26.5
40°-50°	178.8	37.8
50°-60°	110.7	23.4
60°-70°	16.9	3.6
70°-80°	3.1	0.7
80°-90°	1.6	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°	36.6	7.7
0°-40°	161.9	34.2
0°-60°	451.4	95.4
0°-90°	473.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	473.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	22	22	22	22	22	
5°	24	23	21	19	19	2
15°	34	21	15	14	14	12
25°	373	27	8	10	12	223
35°	1731	39	5	8	10	1039
45°	1845	24	3	8	10	1394
55°	1193	5	3	7	11	1016
65°	85	0	2	7	10	174
75°	1	0	2	5	8	1
85°	0	0	2	2	3	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°	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
2.5°	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	22.6	21.8	21.3
5°	23.5	23.5	23.1	23.1	23.1	23.1	23.1	23.1	22.2	21.3	20.1
7.5°	23.9	23.9	23.5	23.5	23.5	23.5	23.1	22.6	21.8	20.1	18.8
10°	24.3	24.3	24.3	24.3	23.9	23.5	23.1	22.2	20.9	18.8	17.5
12.5°	27.3	27.3	26.9	26.0	25.2	24.3	23.5	21.8	19.2	17.1	15.8
15°	34.2	33.7	32.9	31.6	29.9	27.8	26.0	21.3	17.5	14.9	14.1
17.5°	47.8	47.0	45.7	41.4	37.6	33.7	30.3	21.3	15.8	13.2	12.4
20°	83.3	83.7	74.7	64.5	55.9	46.5	38.0	22.2	14.1	11.5	11.1
22.5°	173.8	167.0	145.6	120.8	92.2	71.3	53.8	24.3	12.4	9.8	9.8
25°	372.8	346.7	295.0	222.9	157.1	111.4	78.1	27.3	11.1	8.5	9.0
27.5°	680.6	657.1	553.4	416.7	276.7	168.2	105.9	31.2	9.8	7.3	8.1
30°	1082.8	1017.9	882.6	683.2	462.4	257.5	142.2	35.4	8.1	6.4	7.7
31°	1208.4	1178.5	1013.7	790.3	541.8	305.7	157.6	36.7	7.7	6.4	7.3
32°	1357.4	1304.4	1156.7	907.8	622.5	348.8	175.9	38.0	7.3	5.6	7.3
33°	1490.6	1439.4	1259.6	1011.1	704.1	397.9	195.6	38.4	6.4	5.6	6.8
34°	1630.7	1560.6	1382.6	1119.1	787.8	450.9	213.5	38.9	6.0	5.1	6.8
35°	1731.0	1661.0	1488.5	1204.5	859.9	497.9	234.0	38.9	5.6	5.1	6.4
36°	1808.7	1747.2	1579.8	1292.5	931.7	540.1	250.2	38.9	4.7	4.7	6.4
37°	1862.1	1803.6	1641.3	1368.1	986.3	577.7	264.7	38.9	4.3	4.7	6.4
38°	1888.1	1839.4	1700.7	1423.1	1039.3	607.2	276.3	38.0	3.8	4.3	6.0
39°	1899.2	1859.5	1737.0	1469.7	1079.0	632.8	284.8	37.1	3.4	4.3	6.0
40°	1897.5	1862.9	1757.5	1501.7	1111.0	650.3	289.5	35.9	3.0	3.8	6.0
41°	1887.7	1857.8	1768.1	1529.0	1130.2	662.3	290.8	34.6	2.6	3.8	5.6
42°	1876.6	1849.3	1771.6	1543.5	1142.6	666.1	287.4	32.9	2.6	3.4	5.6
43°	1865.1	1839.9	1771.6	1548.2	1145.6	663.5	281.8	29.9	2.1	3.4	5.6
44°	1855.7	1831.8	1766.0	1547.0	1139.2	653.7	271.6	26.5	1.7	3.4	5.6
45°	1844.6	1821.1	1758.7	1538.8	1126.8	637.1	258.8	23.5	1.3	3.0	5.6
46°	1824.9	1806.6	1745.9	1522.2	1107.2	614.0	242.5	21.3	0.9	3.0	5.1
47°	1786.9	1771.1	1721.2	1497.4	1081.1	586.7	225.9	19.2	0.9	3.0	5.1
48°	1710.5	1710.1	1671.6	1451.3	1039.7	552.5	208.4	17.1	0.9	3.0	5.1
49°	1636.6	1628.9	1581.1	1370.2	980.4	511.5	190.0	15.4	0.4	3.0	5.1
50°	1596.1	1579.4	1500.8	1274.5	904.4	454.7	170.4	12.8	0.4	2.6	5.1
51°	1553.8	1529.9	1437.2	1188.3	813.8	400.1	149.0	10.2	0.4	2.6	4.7
52°	1477.4	1454.7	1351.0	1105.9	725.9	344.1	128.5	8.5	0.4	2.6	5.1
53°	1395.0	1362.5	1249.8	1015.4	648.6	294.6	107.6	7.3	0.4	2.6	4.7
54°	1291.2	1276.7	1147.3	904.4	558.1	246.8	88.4	6.0	0.4	2.6	4.7
55°	1193.4	1172.1	1037.6	790.8	476.1	202.4	73.9	4.7	0.4	2.6	4.7
56°	1068.7	1036.7	910.8	686.6	392.8	163.1	62.3	3.8	0.4	2.6	4.7
57°	920.1	886.0	786.5	570.9	308.3	124.3	52.1	3.0	0.4	2.6	4.7
58°	778.4	748.9	642.2	440.6	232.3	86.3	43.1	2.1	0.4	2.1	4.7
59°	672.5	640.0	534.2	339.0	161.4	63.6	32.5	1.7	0.4	2.6	4.7
60°	582.4	540.6	430.0	262.6	115.3	45.7	23.9	0.9	0.9	2.6	4.7
62.5°	335.6	296.3	205.4	106.7	47.4	23.5	11.5	0.4	0.9	2.6	4.7
65°	85.0	75.6	49.1	23.1	13.2	8.1	4.3	0.4	0.9	2.1	4.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	3.0	3.0	3.0	2.6	2.1	1.7	0.9	0.4	0.9	2.1	4.3
70°	1.3	1.3	1.3	0.9	0.9	0.4	0.4	0.4	0.9	2.1	3.8
72.5°	0.9	0.9	0.9	0.9	0.4	0.4	0.4	0.4	1.3	2.1	3.4
75°	0.9	0.9	0.9	0.9	0.4	0.4	0.4	0.4	1.3	2.1	3.4
77.5°	0.9	0.9	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.7	3.0
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.7	2.6
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.7	2.1
85°	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	1.3	1.7	1.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.3	1.7	1.3
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°	21.8	21.8	21.8
2.5°	20.5	20.5	20.5
5°	19.2	19.2	18.8
7.5°	17.9	17.5	17.5
10°	16.2	16.2	16.2
12.5°	14.9	14.9	14.9
15°	13.7	14.1	14.1
17.5°	12.4	13.2	13.2
20°	11.5	12.4	12.8
22.5°	10.7	11.5	12.0
25°	10.2	11.1	11.5
27.5°	9.4	10.7	11.5
30°	9.0	10.2	11.1
31°	9.0	10.2	10.7
32°	8.5	10.2	10.7
33°	8.5	10.2	10.7
34°	8.5	9.8	10.7
35°	8.1	9.8	10.2
36°	8.1	9.8	10.2
37°	8.1	9.8	10.7
38°	8.1	9.8	10.2
39°	7.7	9.8	10.2
40°	7.7	9.8	10.2
41°	7.7	9.8	10.2
42°	7.7	9.8	10.2
43°	7.7	9.8	10.2
44°	7.7	9.4	10.2
45°	7.7	9.4	10.2
46°	7.7	9.8	10.2
47°	7.7	9.8	10.7
48°	7.7	9.4	10.2
49°	7.3	9.4	10.2
50°	7.3	9.4	10.2
51°	7.3	9.8	10.7
52°	7.3	9.8	10.7
53°	7.3	9.8	10.7
54°	7.3	9.8	10.2
55°	7.3	9.8	10.7
56°	7.3	9.8	10.2
57°	7.3	9.8	10.2
58°	7.3	9.4	10.2
59°	7.3	9.4	10.2
60°	7.3	9.4	10.2
62.5°	6.8	9.4	10.2
65°	6.8	9.0	9.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	6.4	9.0	9.4
70°	6.0	8.5	9.0
72.5°	5.6	8.1	8.5
75°	5.1	7.3	7.7
77.5°	4.3	6.4	7.3
80°	3.8	5.6	6.0
82.5°	3.0	4.7	5.1
85°	2.1	3.4	3.4
87.5°	0.9	1.7	1.7
90°	0.0	0.0	0.0

(END OF REPORT)