

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: P1340552

Luminaire Tested: P3A09R209840DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1340552
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A09R209840DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

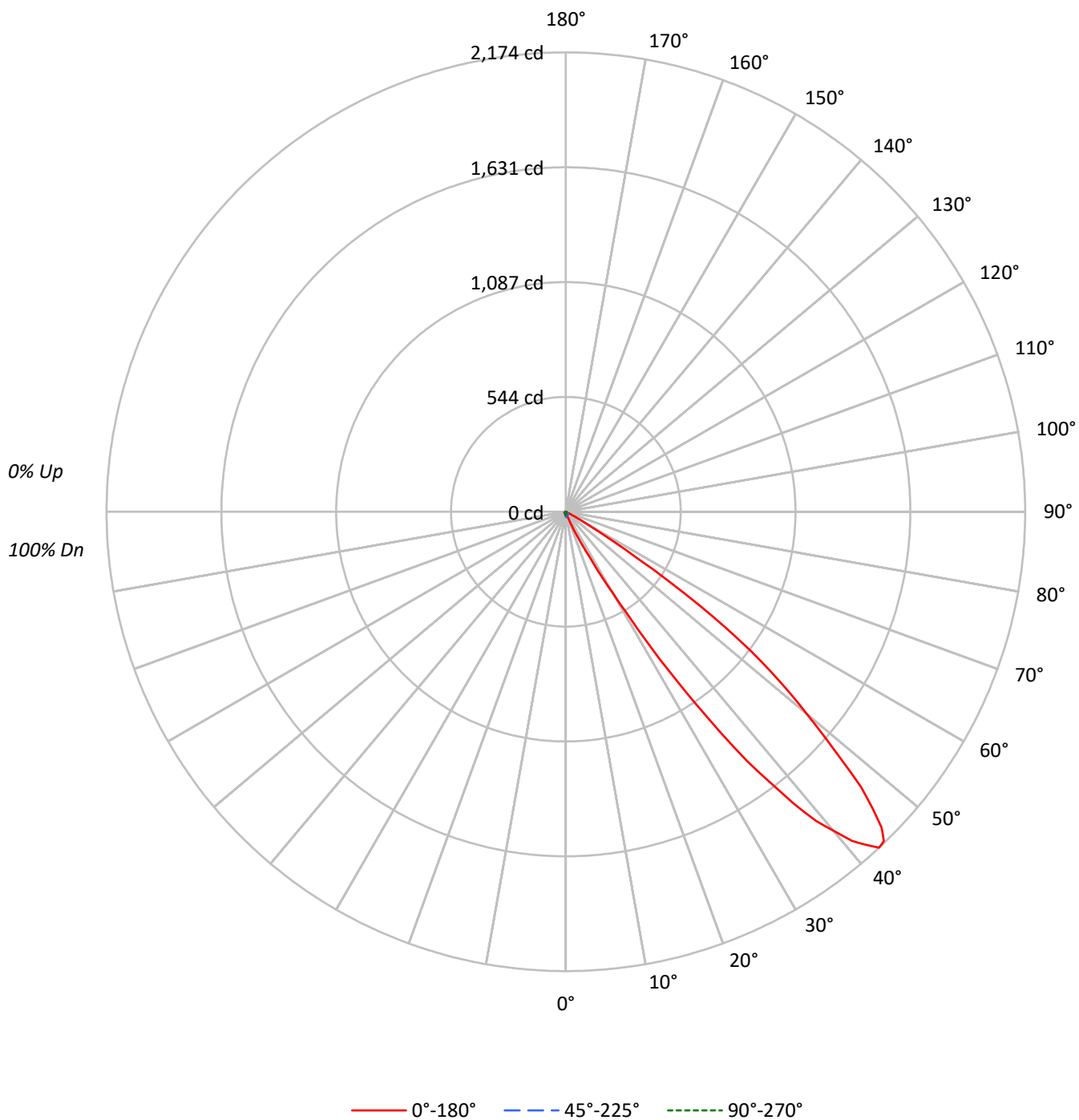
Lumens per Lamp: N/A
Luminaire Lumens: 302.0 lumens
Efficiency: N/A
Efficacy: 27.5 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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	108	104	101	97	100	97	94	96	94	92	92	91	89
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4605	4605	4605	4605	4605
5°	5371	4997	4314	3742	3632
10°	5299	4542	3407	2917	2850
15°	4631	3473	2520	2316	2452
20°	6884	2917	1843	1984	2194
25°	29663	3024	1452	1790	2129
30°	112169	3671	1215	1722	2076
35°	340050	4417	1151	1740	2195
40°	563885	4380	973	1861	2347
45°	655417	2977	868	1923	2543
50°	508776	1637	887	2047	2900
55°	294489	1070	879	2294	3135
60°	49777	263	746	2368	3465
65°	3840	0	882	2646	3995
70°	577	0	1090	2885	4552
75°	508	254	1186	3389	5253
80°	379	379	1768	3536	6061
85°	755	755	2768	3522	6542

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 655417 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.8	0.6
10°-20°	3.8	1.3
20°-30°	12.1	4.0
30°-40°	77.0	25.5
40°-50°	141.0	46.7
50°-60°	57.9	19.2
60°-70°	4.9	1.6
70°-80°	2.4	0.8
80°-90°	1.1	0.4
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°	17.6	5.8
0°-40°	94.6	31.3
0°-60°	293.5	97.2
0°-90°	302.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	302.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	21	21	21	21	21	
5°	24	23	20	17	16	2
15°	20	15	11	10	11	6
25°	123	12	6	7	9	81
35°	1270	16	4	6	8	804
45°	2114	10	3	6	8	1518
55°	770	3	2	6	8	673
65°	7	0	2	5	8	24
75°	1	0	1	4	6	1
85°	0	0	1	1	3	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
2.5°	23.0	23.0	23.0	22.7	22.7	23.0	22.7	22.7	22.7	22.7	22.4
5°	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.1	24.1	23.8	22.7
7.5°	25.0	25.0	25.0	25.0	24.7	24.7	24.7	24.7	24.4	24.1	22.1
10°	23.8	23.8	23.8	23.6	23.6	23.6	23.3	23.3	23.0	22.7	20.4
12.5°	21.6	21.6	21.6	21.6	21.3	21.3	21.0	21.0	20.7	20.4	17.9
15°	20.4	20.4	20.4	20.2	20.2	19.9	19.6	19.3	19.0	18.4	15.3
17.5°	22.1	22.1	21.9	21.9	21.3	20.7	20.4	19.6	19.0	18.2	13.6
20°	29.5	29.8	28.7	27.8	27.2	25.5	24.7	23.3	22.1	20.7	12.5
22.5°	59.6	58.5	56.5	53.4	49.7	46.5	40.9	36.3	33.2	28.9	12.2
25°	122.6	121.5	116.1	111.5	100.2	91.4	79.2	69.2	59.0	49.1	12.5
27.5°	233.0	225.3	223.9	203.2	187.3	164.6	141.1	121.2	103.0	82.9	13.3
30°	443.0	434.2	403.3	372.1	329.2	280.7	234.4	191.3	155.2	122.6	14.5
31°	562.2	570.7	534.4	471.7	408.4	346.2	283.0	228.2	181.6	141.1	15.0
32°	739.0	701.9	663.5	599.1	507.2	427.7	348.2	269.3	208.0	160.9	15.6
33°	906.2	884.3	825.9	745.6	635.2	523.6	420.6	317.9	240.4	185.0	15.9
34°	1084.4	1060.3	1012.9	897.7	776.5	630.3	493.0	373.8	279.0	208.6	16.2
35°	1270.3	1260.1	1168.7	1068.8	919.8	743.6	580.1	435.1	316.7	230.2	16.5
36°	1457.4	1424.4	1352.9	1207.0	1051.5	848.3	671.5	492.1	355.0	255.7	16.5
37°	1598.1	1590.8	1496.0	1353.8	1171.0	960.1	750.4	555.4	393.6	277.6	16.5
38°	1753.4	1724.1	1627.9	1483.2	1283.4	1062.6	833.0	610.5	430.3	297.4	16.2
39°	1884.2	1840.8	1743.7	1600.7	1381.6	1140.3	898.5	663.8	462.6	313.9	15.9
40°	1969.9	1939.8	1838.5	1677.6	1470.7	1213.9	965.0	707.8	486.7	326.4	15.3
41°	2064.4	2014.5	1914.3	1752.5	1535.4	1278.6	1006.7	736.8	505.5	334.6	14.8
42°	2120.9	2080.0	1961.1	1802.8	1581.7	1315.5	1040.7	758.9	516.8	338.9	13.6
43°	2173.7	2118.1	2002.3	1832.0	1612.3	1341.6	1056.3	769.1	519.4	338.9	12.2
44°	2166.6	2113.8	1993.8	1836.0	1619.1	1349.2	1062.9	769.4	515.4	334.6	10.8
45°	2113.5	2061.0	1952.9	1801.3	1594.7	1334.2	1049.8	758.1	504.3	327.2	9.6
46°	2016.2	1964.0	1881.1	1743.4	1549.3	1300.1	1019.4	733.4	485.9	315.3	8.5
47°	1910.3	1859.5	1774.7	1650.1	1471.8	1239.4	975.5	698.7	460.1	298.0	7.7
48°	1756.8	1725.0	1639.8	1533.4	1364.3	1144.3	898.3	642.3	425.4	275.6	6.5
49°	1621.1	1587.6	1513.0	1398.6	1224.1	1033.6	806.0	573.6	380.3	250.6	5.7
50°	1491.4	1462.2	1393.2	1264.1	1097.5	900.0	681.4	487.0	323.5	219.7	4.8
51°	1364.6	1342.7	1272.3	1153.7	984.5	797.2	590.3	405.6	267.3	182.2	4.5
52°	1237.1	1234.6	1158.2	1038.2	874.7	694.8	501.8	342.3	226.8	153.0	4.3
53°	1100.0	1083.6	1016.9	909.0	752.1	588.1	425.4	288.6	195.3	130.3	3.7
54°	943.9	925.5	854.0	756.6	614.4	481.6	342.8	233.3	162.6	110.1	3.4
55°	770.3	738.8	686.8	586.9	479.9	367.5	264.8	184.8	130.0	91.7	2.8
56°	584.4	552.9	523.6	450.1	352.2	274.2	197.2	141.6	101.6	72.4	2.6
57°	406.4	404.7	356.7	300.3	235.6	186.7	135.1	99.9	71.8	56.2	2.0
58°	263.7	254.9	224.2	191.6	154.1	116.6	86.8	67.8	48.8	38.3	1.7
59°	184.8	167.2	150.7	127.7	97.1	73.5	55.9	43.4	33.8	26.7	1.1
60°	113.5	109.8	98.8	77.8	63.0	51.9	41.7	32.1	24.7	19.0	0.6
62.5°	32.4	32.9	29.8	26.4	22.7	19.6	17.6	15.0	12.5	9.9	0.0
65°	7.4	7.1	7.7	7.1	6.5	6.5	5.7	5.1	4.5	4.3	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	2.3	2.3	2.0	2.0	2.0	1.7	1.7	1.4	1.4	1.1	0.0
70°	0.9	0.9	0.9	0.9	0.9	0.6	0.6	0.6	0.3	0.3	0.0
72.5°	0.9	0.9	0.9	0.6	0.6	0.6	0.6	0.6	0.3	0.3	0.3
75°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3
77.5°	0.6	0.6	0.6	0.6	0.6	0.3	0.6	0.3	0.3	0.3	0.3
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
85°	0.3	0.3	0.3	0.3	0.0	0.0	0.3	0.3	0.3	0.0	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	21.0	21.0	21.0	21.0	21.0	21.0
2.5°	21.9	20.7	19.9	19.0	18.7	18.7
5°	21.3	19.6	17.9	17.0	16.5	16.5
7.5°	19.6	17.6	15.9	15.0	14.8	14.8
10°	17.6	15.3	13.6	13.1	13.1	12.8
12.5°	15.3	13.1	11.9	11.6	11.6	11.6
15°	12.8	11.1	10.2	10.2	10.5	10.8
17.5°	10.8	9.1	8.8	9.4	9.9	9.9
20°	9.1	7.9	7.9	8.5	9.1	9.4
22.5°	7.7	6.8	7.1	7.9	8.8	9.1
25°	6.8	6.0	6.5	7.4	8.2	8.8
27.5°	5.7	5.4	6.0	7.1	8.2	8.5
30°	4.8	4.8	5.7	6.8	7.9	8.2
31°	4.5	4.5	5.7	6.8	7.9	8.2
32°	4.3	4.5	5.4	6.8	7.9	8.2
33°	4.0	4.3	5.4	6.5	7.9	8.2
34°	3.7	4.3	5.4	6.5	7.9	8.2
35°	3.4	4.3	5.4	6.5	7.9	8.2
36°	3.1	4.0	5.1	6.5	7.9	8.2
37°	2.8	4.0	5.1	6.5	7.9	8.2
38°	2.6	3.7	5.1	6.5	7.9	8.2
39°	2.6	3.7	4.8	6.5	7.7	8.2
40°	2.3	3.4	4.8	6.5	7.7	8.2
41°	2.0	3.4	4.8	6.2	7.7	8.2
42°	1.7	3.1	4.5	6.2	7.7	8.2
43°	1.4	3.1	4.5	6.2	7.7	8.2
44°	1.4	2.8	4.5	6.2	7.7	8.2
45°	1.1	2.8	4.5	6.2	7.7	8.2
46°	0.9	2.8	4.5	6.2	7.7	8.2
47°	0.9	2.6	4.3	6.2	7.7	8.2
48°	0.6	2.6	4.3	6.2	7.7	8.2
49°	0.6	2.6	4.3	6.2	7.7	8.5
50°	0.6	2.6	4.3	6.0	7.7	8.5
51°	0.3	2.6	4.3	6.0	7.7	8.5
52°	0.3	2.6	4.0	6.0	7.9	8.5
53°	0.3	2.3	4.0	6.0	7.9	8.5
54°	0.3	2.3	4.0	6.0	7.9	8.2
55°	0.3	2.3	4.0	6.0	7.7	8.2
56°	0.3	2.0	4.0	6.0	7.7	8.2
57°	0.3	2.0	3.7	5.7	7.7	7.9
58°	0.3	2.0	3.7	5.7	7.7	7.9
59°	0.3	2.0	3.7	5.7	7.4	7.9
60°	0.6	1.7	3.4	5.4	7.4	7.9
62.5°	0.6	1.7	3.4	5.4	7.1	7.7
65°	0.6	1.7	3.1	5.1	7.1	7.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.6	1.4	2.8	4.8	6.8	7.4
70°	0.6	1.7	2.8	4.5	6.5	7.1
72.5°	0.9	1.4	2.6	4.3	6.2	6.8
75°	0.9	1.4	2.6	4.0	6.0	6.2
77.5°	1.1	1.4	2.3	3.4	5.4	5.7
80°	1.1	1.4	2.0	2.8	4.5	4.8
82.5°	1.1	1.4	1.4	2.3	3.4	3.7
85°	0.9	1.1	1.1	1.4	2.3	2.6
87.5°	0.9	1.1	0.9	0.6	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)