

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: P1340456

Luminaire Tested: P3A09R209730DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1340456
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: P3A09R209730DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

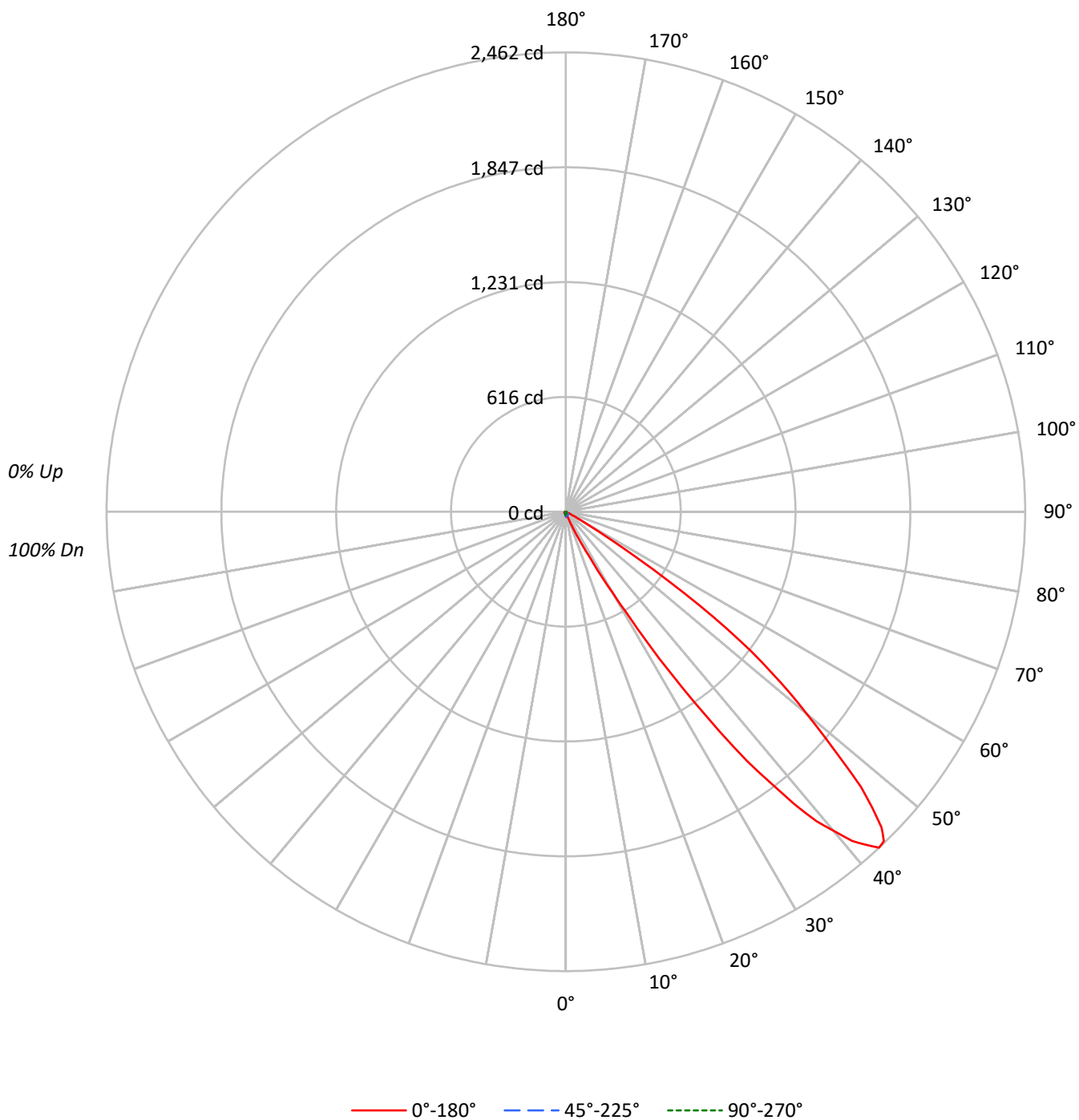
Lumens per Lamp: N/A
Luminaire Lumens: 342.0 lumens
Efficiency: N/A
Efficacy: 30.8 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11.1
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			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	110	106	102	99	108	104	101	97	100	97	94		96	94	92		92	91	89	87
2	101	93	87	82	98	91	86	81	88	83	79		85	81	77		82	78	75	73
3	92	81	74	67	89	80	73	67	77	71	66		74	69	65		72	67	63	61
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63	58	53	51
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	42
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	62	48	39	32	60	47	38	32	46	38	32		44	37	32		43	36	31	29
8	57	42	33	27	55	42	33	27	40	33	27		39	32	27		38	31	27	25
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34	27	23	21
10	48	34	25	20	47	33	25	20	32	25	19		31	24	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5219	5219	5219	5219	5219
5°	6075	5657	4887	4248	4094
10°	6012	5144	3874	3295	3229
15°	5244	3950	2838	2633	2770
20°	7794	3290	2100	2240	2474
25°	33583	3411	1621	2032	2419
30°	127032	4153	1393	1950	2355
35°	385102	4979	1285	1981	2490
40°	638568	4981	1116	2118	2662
45°	742248	3380	992	2202	2884
50°	576186	1876	989	2286	3275
55°	333484	1223	994	2561	3555
60°	56399	263	833	2675	3947
65°	4358	0	986	3009	4514
70°	641	0	1218	3270	5129
75°	508	254	1356	3813	6015
80°	379	379	2020	4041	6945
85°	755	755	3271	4026	7296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 742248 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.0	0.6
10°-20°	4.3	1.3
20°-30°	13.7	4.0
30°-40°	87.2	25.5
40°-50°	159.6	46.7
50°-60°	65.6	19.2
60°-70°	5.5	1.6
70°-80°	2.7	0.8
80°-90°	1.3	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°	20.0	5.8
0°-40°	107.2	31.3
0°-60°	332.4	97.2
0°-90°	342.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	342.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	24	24	24	24	24	
5°	28	26	22	19	19	3
15°	23	17	12	12	12	7
25°	139	14	7	8	10	91
35°	1439	19	5	7	9	911
45°	2394	11	3	7	9	1719
55°	872	3	3	7	9	762
65°	8	0	2	6	9	27
75°	1	0	2	4	7	1
85°	0	0	1	2	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°	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8	23.8
2.5°	26.0	26.0	26.0	25.7	25.7	26.0	25.7	25.7	25.7	25.7	25.4
5°	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.3	27.3	27.0	25.7
7.5°	28.3	28.3	28.3	28.3	28.0	28.0	28.0	28.0	27.6	27.3	25.1
10°	27.0	27.0	27.0	26.7	26.7	26.7	26.4	26.4	26.0	25.7	23.1
12.5°	24.4	24.4	24.4	24.4	24.1	24.1	23.8	23.8	23.5	23.1	20.2
15°	23.1	23.1	23.1	22.8	22.8	22.5	22.2	21.9	21.5	20.9	17.4
17.5°	25.1	25.1	24.7	24.7	24.1	23.5	23.1	22.2	21.5	20.6	15.4
20°	33.4	33.7	32.5	31.5	30.9	28.9	28.0	26.4	25.1	23.5	14.1
22.5°	67.5	66.2	64.0	60.4	56.2	52.7	46.3	41.1	37.6	32.8	13.8
25°	138.8	137.6	131.5	126.3	113.5	103.5	89.7	78.4	66.9	55.6	14.1
27.5°	263.9	255.2	253.6	230.1	212.1	186.4	159.7	137.2	116.7	93.8	15.1
30°	501.7	491.7	456.7	421.4	372.8	317.9	265.5	216.6	175.8	138.8	16.4
31°	636.7	646.3	605.2	534.2	462.5	392.1	320.4	258.4	205.7	159.7	17.0
32°	836.9	794.8	751.4	678.5	574.3	484.3	394.4	305.0	235.6	182.2	17.7
33°	1026.2	1001.5	935.3	844.3	719.3	593.0	476.3	360.0	272.2	209.6	18.0
34°	1228.1	1200.7	1147.1	1016.6	879.3	713.8	558.3	423.3	315.9	236.2	18.3
35°	1438.6	1427.0	1323.5	1210.4	1041.7	842.1	656.9	492.7	358.7	260.7	18.6
36°	1650.4	1613.1	1532.1	1366.9	1190.8	960.7	760.4	557.3	402.1	289.6	18.6
37°	1809.8	1801.4	1694.1	1533.1	1326.1	1087.3	849.8	629.0	445.8	314.3	18.6
38°	1985.6	1952.5	1843.5	1679.6	1453.4	1203.3	943.3	691.3	487.2	336.8	18.3
39°	2133.8	2084.6	1974.7	1812.7	1564.6	1291.4	1017.6	751.8	523.9	355.5	18.0
40°	2230.8	2196.8	2082.0	1899.8	1665.5	1374.6	1092.8	801.6	551.2	369.6	17.4
41°	2337.9	2281.3	2167.8	1984.6	1738.8	1447.9	1140.0	834.4	572.4	378.9	16.7
42°	2401.8	2355.5	2220.9	2041.5	1791.2	1489.7	1178.6	859.4	585.3	383.8	15.4
43°	2461.6	2398.6	2267.5	2074.6	1825.9	1519.3	1196.2	871.0	588.2	383.8	13.8
44°	2453.6	2393.8	2257.8	2079.1	1833.6	1527.9	1203.6	871.3	583.7	378.9	12.2
45°	2393.5	2334.0	2211.6	2039.9	1805.9	1510.9	1188.9	858.5	571.1	370.6	10.9
46°	2283.2	2224.1	2130.2	1974.4	1754.5	1472.3	1154.5	830.5	550.2	357.1	9.6
47°	2163.3	2105.8	2009.7	1868.6	1666.8	1403.6	1104.7	791.3	521.0	337.5	8.7
48°	1989.5	1953.5	1857.0	1736.5	1545.0	1295.9	1017.2	727.3	481.8	312.1	7.4
49°	1835.8	1797.9	1713.4	1583.9	1386.2	1170.5	912.8	649.5	430.7	283.8	6.4
50°	1689.0	1655.9	1577.8	1431.5	1242.9	1019.2	771.7	551.5	366.4	248.8	5.5
51°	1545.3	1520.5	1440.8	1306.5	1114.9	902.8	668.5	459.3	302.8	206.3	5.1
52°	1401.0	1398.1	1311.6	1175.7	990.6	786.8	568.2	387.6	256.8	173.2	4.8
53°	1245.7	1227.1	1151.6	1029.4	851.7	665.9	481.8	326.9	221.1	147.5	4.2
54°	1069.0	1048.1	967.1	856.9	695.8	545.4	388.3	264.2	184.2	124.7	3.9
55°	872.3	836.6	777.8	664.7	543.5	416.2	299.9	209.2	147.2	103.8	3.2
56°	661.8	626.1	593.0	509.7	398.9	310.5	223.4	160.4	115.1	82.0	2.9
57°	460.2	458.3	404.0	340.0	266.8	211.5	153.0	113.1	81.3	63.6	2.2
58°	298.6	288.6	253.9	216.9	174.5	132.1	98.3	76.8	55.3	43.4	1.9
59°	209.2	189.3	170.7	144.6	109.9	83.2	63.3	49.2	38.2	30.2	1.3
60°	128.6	124.4	111.8	88.1	71.4	58.8	47.2	36.3	28.0	21.5	0.6
62.5°	36.6	37.3	33.7	29.9	25.7	22.2	19.9	17.0	14.1	11.2	0.0
65°	8.4	8.0	8.7	8.0	7.4	7.4	6.4	5.8	5.1	4.8	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°	2.6	2.6	2.2	2.2	2.2	1.9	1.9	1.6	1.6	1.3	0.0
70°	1.0	1.0	1.0	1.0	1.0	0.6	0.6	0.6	0.3	0.3	0.0
72.5°	1.0	1.0	1.0	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°	23.8	23.8	23.8	23.8	23.8	23.8
2.5°	24.7	23.5	22.5	21.5	21.2	21.2
5°	24.1	22.2	20.2	19.3	18.6	18.6
7.5°	22.2	19.9	18.0	17.0	16.7	16.7
10°	19.9	17.4	15.4	14.8	14.8	14.5
12.5°	17.4	14.8	13.5	13.2	13.2	13.2
15°	14.5	12.5	11.6	11.6	11.9	12.2
17.5°	12.2	10.3	10.0	10.6	11.2	11.2
20°	10.3	9.0	9.0	9.6	10.3	10.6
22.5°	8.7	7.7	8.0	9.0	10.0	10.3
25°	7.7	6.7	7.4	8.4	9.3	10.0
27.5°	6.4	6.1	6.7	8.0	9.3	9.6
30°	5.5	5.5	6.4	7.7	9.0	9.3
31°	5.1	5.1	6.4	7.7	9.0	9.3
32°	4.8	5.1	6.1	7.7	9.0	9.3
33°	4.5	4.8	6.1	7.4	9.0	9.3
34°	4.2	4.8	6.1	7.4	9.0	9.3
35°	3.9	4.8	6.1	7.4	9.0	9.3
36°	3.5	4.5	5.8	7.4	9.0	9.3
37°	3.2	4.5	5.8	7.4	9.0	9.3
38°	2.9	4.2	5.8	7.4	9.0	9.3
39°	2.9	4.2	5.5	7.4	8.7	9.3
40°	2.6	3.9	5.5	7.4	8.7	9.3
41°	2.2	3.9	5.5	7.1	8.7	9.3
42°	1.9	3.5	5.1	7.1	8.7	9.3
43°	1.6	3.5	5.1	7.1	8.7	9.3
44°	1.6	3.2	5.1	7.1	8.7	9.3
45°	1.3	3.2	5.1	7.1	8.7	9.3
46°	1.0	3.2	5.1	7.1	8.7	9.3
47°	1.0	2.9	4.8	7.1	8.7	9.3
48°	0.6	2.9	4.8	7.1	8.7	9.3
49°	0.6	2.9	4.8	7.1	8.7	9.6
50°	0.6	2.9	4.8	6.7	8.7	9.6
51°	0.3	2.9	4.8	6.7	8.7	9.6
52°	0.3	2.9	4.5	6.7	9.0	9.6
53°	0.3	2.6	4.5	6.7	9.0	9.6
54°	0.3	2.6	4.5	6.7	9.0	9.3
55°	0.3	2.6	4.5	6.7	8.7	9.3
56°	0.3	2.2	4.5	6.7	8.7	9.3
57°	0.3	2.2	4.2	6.4	8.7	9.0
58°	0.3	2.2	4.2	6.4	8.7	9.0
59°	0.3	2.2	4.2	6.4	8.4	9.0
60°	0.6	1.9	3.9	6.1	8.4	9.0
62.5°	0.6	1.9	3.9	6.1	8.0	8.7
65°	0.6	1.9	3.5	5.8	8.0	8.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.6	1.6	3.2	5.5	7.7	8.4
70°	0.6	1.9	3.2	5.1	7.4	8.0
72.5°	1.0	1.6	2.9	4.8	7.1	7.7
75°	1.0	1.6	2.9	4.5	6.7	7.1
77.5°	1.3	1.6	2.6	3.9	6.1	6.4
80°	1.3	1.6	2.2	3.2	5.1	5.5
82.5°	1.3	1.6	1.6	2.6	3.9	4.2
85°	1.0	1.3	1.3	1.6	2.6	2.9
87.5°	1.0	1.3	1.0	0.6	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)