

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: P1340020

Luminaire Tested: P3A09R159830DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1340020
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A09R159830DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 3000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

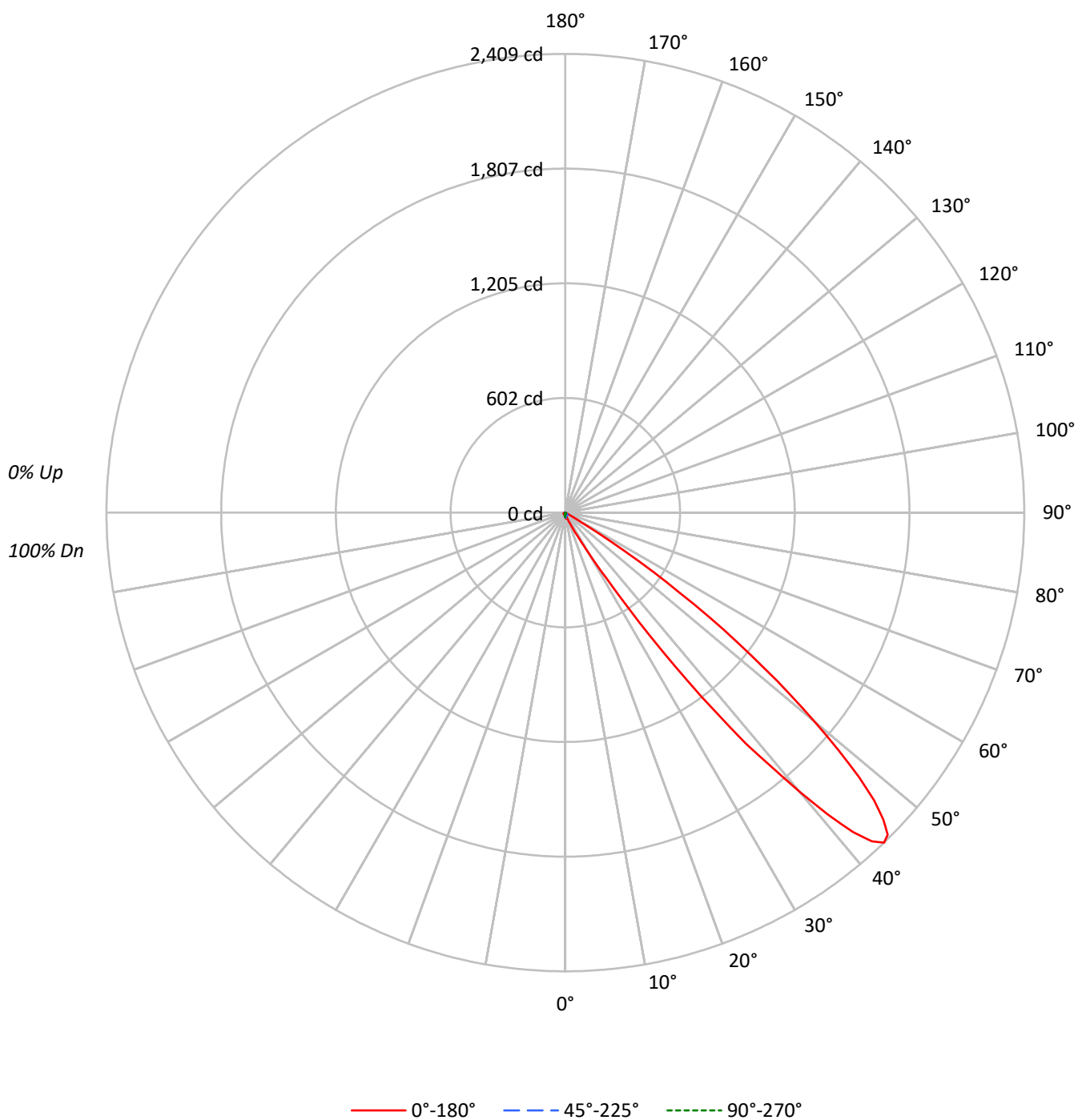
Lumens per Lamp: N/A
Luminaire Lumens: 269.0 lumens
Efficiency: N/A
Efficacy: 24.5 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	107	104	100	97	100	97	94	96	93	91	92	90	89
2	101	93	87	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	53
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	37	49	42	37	48	42	37
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5241	5241	5241	5241	5241
5°	6493	5789	4733	4138	4072
10°	6390	4965	3652	3229	3295
15°	5289	3541	2611	2679	2860
20°	9194	2824	2007	2310	2637
25°	20517	3363	1621	2153	2468
30°	61326	4153	1418	2102	2583
35°	236078	4658	1285	2142	2730
40°	547970	4065	1231	2233	2920
45°	742186	3070	1085	2419	3163
50°	581951	1842	1092	2559	3480
55°	279311	803	1032	2753	3785
60°	25524	132	921	2938	4254
65°	2802	0	830	3061	4618
70°	705	0	1026	3270	5001
75°	678	254	1356	3643	5676
80°	631	631	1642	3788	6061
85°	755	755	2768	3271	6793

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 742186 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.0	0.8
10°-20°	4.2	1.6
20°-30°	10.2	3.8
30°-40°	55.6	20.7
40°-50°	134.7	50.1
50°-60°	53.8	20.0
60°-70°	4.6	1.7
70°-80°	2.6	1.0
80°-90°	1.2	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°	16.4	6.1
0°-40°	72.1	26.8
0°-60°	260.6	96.9
0°-90°	269.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	269.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	24	24	24	24	24	
5°	30	26	22	19	18	3
15°	23	16	12	12	13	8
25°	85	14	7	9	10	51
35°	882	17	5	8	10	623
45°	2393	10	4	8	10	1688
55°	731	2	3	7	10	681
65°	5	0	2	6	9	14
75°	1	0	2	4	7	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°	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
2.5°	26.8	26.8	27.1	26.8	26.8	26.8	26.8	26.6	26.6	26.6	25.7
5°	29.5	29.5	29.5	29.5	29.2	29.2	29.2	29.0	29.0	28.7	26.3
7.5°	30.6	30.6	30.3	30.3	30.0	30.0	29.8	29.5	29.2	29.0	25.2
10°	28.7	28.7	28.7	28.4	28.4	28.2	27.9	27.6	27.4	26.8	22.3
12.5°	25.5	25.5	25.7	25.5	25.2	24.9	24.4	24.1	23.9	23.3	18.5
15°	23.3	23.3	23.3	23.1	22.8	22.3	22.0	21.5	21.2	20.4	15.6
17.5°	29.8	29.8	29.5	29.0	27.9	27.1	25.7	24.7	23.3	21.7	13.4
20°	39.4	39.4	38.9	38.4	37.0	35.7	33.5	31.6	29.5	27.6	12.1
22.5°	57.1	57.9	56.3	54.4	52.6	49.4	46.4	43.5	39.7	36.5	12.3
25°	84.8	85.6	84.8	80.5	77.0	72.7	67.1	61.2	54.7	48.8	13.9
27.5°	137.3	137.9	136.5	126.1	120.4	109.2	99.2	89.6	78.9	68.1	15.3
30°	242.2	242.5	233.9	213.0	194.5	169.8	148.9	128.7	111.8	94.7	16.4
31°	318.9	311.4	293.2	268.0	238.4	205.2	176.5	150.5	125.3	106.8	16.6
32°	405.0	403.9	373.6	329.9	290.5	248.9	205.7	172.5	143.5	118.3	16.9
33°	519.0	519.5	471.8	420.3	355.7	299.9	243.3	197.7	162.8	132.0	17.4
34°	697.1	655.3	599.2	529.5	441.5	357.5	284.0	226.9	180.2	145.1	17.4
35°	881.9	839.8	778.1	672.4	551.7	434.2	332.6	258.3	201.2	159.3	17.4
36°	1089.0	1053.3	960.0	825.0	671.1	506.7	384.1	294.5	221.8	172.2	17.2
37°	1312.7	1260.4	1156.8	1009.6	803.6	608.6	446.9	330.4	242.5	186.1	16.6
38°	1539.8	1492.6	1362.0	1183.6	961.8	716.1	509.6	365.0	261.5	196.6	15.8
39°	1712.0	1686.3	1556.7	1357.5	1088.2	818.1	574.3	402.1	281.6	207.1	15.0
40°	1914.3	1872.7	1749.9	1503.4	1237.6	921.9	637.6	434.8	298.3	215.4	14.2
41°	2098.8	2046.2	1891.2	1653.0	1357.2	1015.2	697.6	468.6	311.7	220.2	13.7
42°	2257.1	2195.9	2033.9	1781.2	1457.2	1089.8	745.6	492.7	324.3	224.2	12.9
43°	2359.5	2306.7	2147.4	1877.5	1542.8	1158.2	790.4	517.9	332.1	226.9	11.8
44°	2409.4	2356.0	2201.8	1937.9	1595.4	1199.2	819.4	535.4	340.6	230.4	11.0
45°	2393.3	2339.1	2190.0	1939.0	1611.7	1214.0	831.7	543.1	345.2	233.6	9.9
46°	2319.6	2281.5	2131.3	1888.5	1580.6	1198.1	824.8	537.2	343.6	233.6	8.9
47°	2216.0	2172.6	2029.6	1801.9	1505.2	1157.4	796.6	519.3	333.7	228.3	7.8
48°	2074.9	2037.9	1887.7	1664.3	1389.6	1068.6	733.0	490.0	318.1	217.8	6.7
49°	1897.9	1846.4	1706.7	1488.3	1238.9	942.5	649.6	440.7	293.2	203.0	5.9
50°	1705.9	1642.3	1534.5	1312.1	1083.1	808.1	539.9	372.6	258.0	183.7	5.4
51°	1517.8	1453.2	1350.5	1161.4	916.8	670.5	435.6	297.5	212.4	157.2	4.6
52°	1322.9	1268.7	1153.6	1005.0	784.8	543.4	362.9	251.6	176.5	132.0	3.8
53°	1128.7	1091.6	982.2	831.7	630.6	443.9	296.4	215.4	154.0	112.9	3.0
54°	934.2	893.7	810.6	676.4	508.3	350.3	251.3	180.2	133.6	98.4	2.7
55°	730.6	709.7	633.0	515.8	385.2	279.5	203.8	155.0	111.8	82.3	2.1
56°	562.7	539.1	469.1	374.2	286.2	218.9	165.0	126.6	94.7	68.9	1.6
57°	368.5	344.4	298.0	261.2	208.4	159.6	126.1	99.8	77.0	57.1	1.3
58°	217.8	195.8	188.6	160.9	138.9	108.4	93.1	74.3	56.9	45.1	0.8
59°	100.0	101.7	90.4	84.8	77.0	68.9	56.6	49.6	38.9	32.5	0.5
60°	58.2	55.0	53.6	48.0	42.6	37.8	34.1	30.0	24.4	20.9	0.3
62.5°	19.8	19.0	19.6	17.7	16.6	16.1	14.8	12.6	10.5	8.6	0.0
65°	5.4	5.4	5.1	4.8	4.6	4.3	4.0	3.5	3.2	2.7	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°	1.9	1.9	1.6	1.6	1.3	1.3	1.1	1.1	0.8	0.8	0.0
70°	1.1	1.1	1.1	0.8	0.8	0.8	0.5	0.5	0.5	0.3	0.0
72.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.3	0.3
75°	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.5
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	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°	23.9	23.9	23.9	23.9	23.9	23.9
2.5°	24.7	23.6	22.3	21.5	21.2	20.9
5°	23.6	21.5	19.8	18.8	18.5	18.5
7.5°	21.2	18.8	17.2	16.6	16.4	16.4
10°	18.5	16.4	15.0	14.5	14.8	14.8
12.5°	15.6	13.7	13.1	13.1	13.4	13.7
15°	12.6	11.5	11.5	11.8	12.3	12.6
17.5°	10.5	9.9	10.2	10.7	11.3	11.8
20°	8.6	8.6	9.1	9.9	10.7	11.3
22.5°	7.2	7.5	8.3	9.1	10.2	10.7
25°	6.2	6.7	7.5	8.9	9.9	10.2
27.5°	5.4	6.2	7.2	8.6	9.7	10.2
30°	4.6	5.6	7.0	8.3	9.7	10.2
31°	4.3	5.4	6.7	8.3	9.7	10.2
32°	4.0	5.4	6.7	8.3	9.7	10.2
33°	3.8	5.1	6.7	8.0	9.7	10.2
34°	3.5	5.1	6.7	8.3	9.7	10.2
35°	3.2	4.8	6.4	8.0	9.4	10.2
36°	3.0	4.8	6.4	8.0	9.7	10.2
37°	2.7	4.8	6.4	8.0	9.4	10.2
38°	2.7	4.6	6.2	8.0	9.4	10.2
39°	2.4	4.3	6.2	8.0	9.4	10.2
40°	2.1	4.3	5.9	7.8	9.4	10.2
41°	1.9	4.0	5.9	7.8	9.4	10.2
42°	1.6	4.0	5.9	7.8	9.4	10.2
43°	1.3	3.8	5.6	7.8	9.4	10.2
44°	1.3	3.8	5.6	7.8	9.4	10.2
45°	1.1	3.5	5.4	7.8	9.4	10.2
46°	1.1	3.5	5.4	7.5	9.4	10.2
47°	0.8	3.5	5.4	7.5	9.4	10.2
48°	0.8	3.2	5.4	7.5	9.4	10.2
49°	0.5	3.2	5.4	7.5	9.4	10.2
50°	0.5	3.2	5.1	7.5	9.4	10.2
51°	0.5	3.2	5.1	7.5	9.4	10.2
52°	0.5	3.0	5.1	7.5	9.4	10.2
53°	0.5	3.0	5.1	7.5	9.4	10.2
54°	0.5	3.0	4.8	7.5	9.4	10.2
55°	0.5	2.7	4.8	7.2	9.4	9.9
56°	0.5	2.7	4.8	7.2	9.4	9.9
57°	0.5	2.7	4.6	7.2	9.4	9.9
58°	0.5	2.4	4.6	7.0	9.1	9.9
59°	0.5	2.4	4.3	7.0	9.1	9.7
60°	0.5	2.1	4.3	6.7	8.9	9.7
62.5°	0.5	1.9	3.8	6.4	8.6	9.1
65°	0.5	1.6	3.5	5.9	8.3	8.9



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.6	3.2	5.6	7.8	8.6
70°	0.5	1.6	3.0	5.1	7.5	7.8
72.5°	0.8	1.6	2.7	4.8	7.0	7.2
75°	1.1	1.6	2.4	4.3	6.4	6.7
77.5°	1.1	1.6	2.1	3.8	5.6	5.9
80°	1.1	1.3	1.9	3.0	4.6	4.8
82.5°	1.1	1.3	1.3	2.4	3.5	3.8
85°	0.8	1.1	1.1	1.3	2.4	2.7
87.5°	0.8	1.1	0.5	0.8	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)