

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: P1335748

Luminaire Tested: P3A02R409730DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335748
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R409730DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

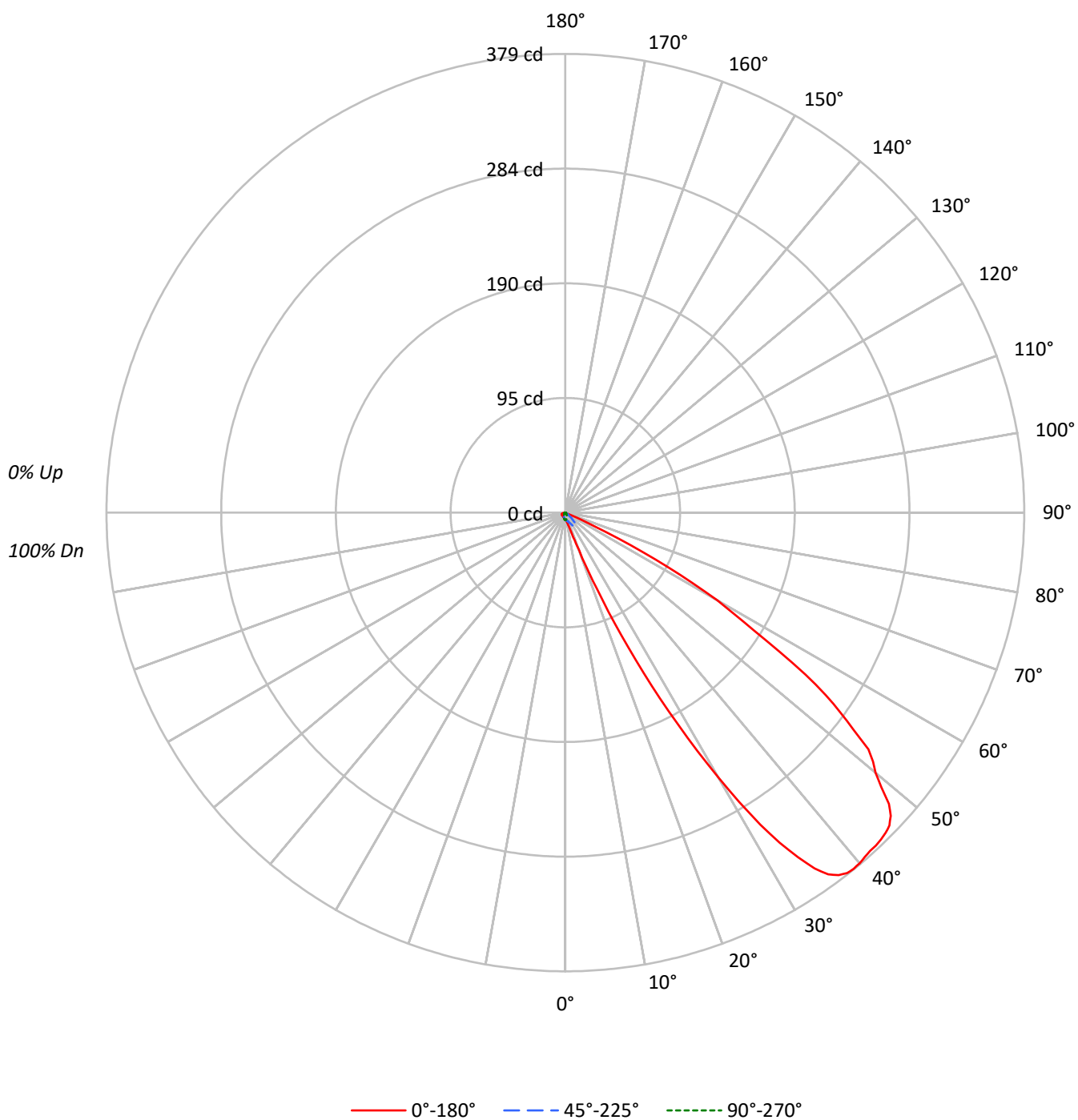
Lumens per Lamp: N/A
Luminaire Lumens: 117.0 lumens
Efficiency: N/A
Efficacy: 32.5 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.74 / 1.55
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
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		99	97	94		96	93	91		92	90	88
2	100	93	86	81		98	91	85	80		87	82	78		84	80	76		81	78	75
3	91	81	73	66		89	79	72	66		76	70	65		73	68	64		71	66	62
4	82	70	62	55		80	69	61	54		67	59	54		64	58	53		62	57	52
5	75	62	52	46		73	60	52	45		58	51	45		56	50	44		54	49	44
6	68	54	45	38		66	53	44	38		51	43	38		50	43	37		48	42	37
7	62	48	39	32		60	47	38	32		45	37	32		44	37	31		42	36	31
8	57	42	33	27		55	42	33	27		40	32	27		39	32	27		38	31	26
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	20		31	24	20		30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1316	1316	1316	1316	1316
5°	1475	1409	1299	1189	1167
10°	1781	1514	1202	1069	1047
15°	2906	1635	1022	953	976
20°	7677	1937	863	863	933
25°	29590	2395	677	774	919
30°	63833	3190	532	760	886
35°	96075	3774	455	750	910
40°	108231	3779	401	773	973
45°	116043	2946	372	806	1054
50°	114077	1842	341	853	1160
55°	100355	918	344	956	1300
60°	63504	175	395	1053	1447
65°	12972	52	415	1090	1608
70°	256	64	385	1218	1859
75°	254	169	424	1356	2118
80°	253	126	505	1515	2399
85°	252	252	1006	1510	2768

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 118161 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.6	0.5
10°-20°	1.9	1.6
20°-30°	9.1	7.8
30°-40°	29.6	25.3
40°-50°	40.7	34.8
50°-60°	28.4	24.3
60°-70°	5.4	4.6
70°-80°	1.0	0.8
80°-90°	0.4	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°	11.5	9.8
0°-40°	41.1	35.1
0°-60°	110.2	94.2
0°-90°	117.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	117.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6	6	6	6	6	
5°	7	6	6	5	5	1
15°	13	7	4	4	4	5
25°	122	10	3	3	4	63
35°	359	14	2	3	3	217
45°	374	10	1	3	3	285
55°	262	2	1	2	3	224
65°	25	0	1	2	3	44
75°	0	0	0	2	2	0
85°	0	0	0	1	1	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
2.5°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.1	6.0
5°	6.7	6.7	6.7	6.7	6.6	6.6	6.6	6.4	6.4	6.2	5.9
7.5°	7.1	7.1	7.1	7.1	7.0	6.9	6.8	6.8	6.7	6.1	5.7
10°	8.0	8.0	7.8	7.7	7.6	7.4	7.3	7.1	6.8	6.0	5.4
12.5°	9.7	9.5	9.3	9.1	8.8	8.4	8.0	7.6	6.9	5.8	5.1
15°	12.8	12.6	12.1	11.5	10.9	10.0	9.2	8.5	7.2	5.5	4.5
17.5°	18.3	17.6	17.0	15.9	14.3	12.8	11.2	9.8	7.6	5.2	4.1
20°	32.9	32.4	28.6	25.6	20.7	17.3	14.1	11.7	8.3	4.8	3.7
22.5°	67.8	63.3	56.9	46.6	36.3	26.8	19.4	14.7	8.9	4.4	3.2
25°	122.3	115.2	101.5	81.7	60.3	42.7	28.2	19.2	9.9	4.0	2.8
27.5°	185.1	177.9	156.8	129.4	94.4	64.4	40.2	25.5	11.2	3.5	2.5
30°	252.1	245.9	219.1	181.2	133.1	90.1	53.8	31.8	12.6	3.1	2.1
31°	279.0	271.2	242.2	201.8	151.3	100.8	59.3	34.5	13.1	3.0	2.0
32°	303.9	294.9	264.9	221.6	166.0	112.3	65.3	36.9	13.5	2.8	1.9
33°	325.2	314.8	285.8	240.3	182.2	123.0	71.6	39.1	13.9	2.6	1.8
34°	343.4	334.4	303.2	259.1	196.6	133.3	77.7	41.4	14.1	2.5	1.7
35°	358.9	350.7	319.9	273.3	210.7	143.3	83.3	43.5	14.1	2.3	1.7
36°	369.3	362.2	334.3	288.0	222.5	151.8	88.0	45.5	14.1	2.0	1.6
37°	375.0	368.1	343.7	300.0	234.1	160.2	92.3	47.0	14.0	1.9	1.5
38°	377.9	371.9	350.7	309.8	242.2	166.2	96.1	48.1	13.9	1.7	1.5
39°	378.6	373.6	355.1	316.9	250.0	172.2	98.7	48.8	13.5	1.6	1.4
40°	378.1	373.7	357.5	323.2	256.0	177.0	100.7	49.0	13.2	1.4	1.4
41°	377.0	373.6	359.2	327.6	260.9	180.0	101.4	48.6	12.8	1.2	1.3
42°	376.1	372.3	360.0	330.6	264.2	181.5	101.3	47.7	12.1	1.1	1.3
43°	376.1	371.8	360.1	332.6	265.8	181.6	100.0	46.1	11.3	1.0	1.2
44°	375.4	371.4	360.6	333.8	266.3	180.6	98.0	44.4	10.3	0.9	1.2
45°	374.2	370.1	360.5	333.9	265.5	178.3	94.7	42.1	9.5	0.6	1.2
46°	372.0	368.2	359.5	333.2	263.2	174.8	90.7	39.9	8.5	0.5	1.1
47°	367.5	364.6	356.9	330.6	259.8	169.8	86.0	37.3	7.7	0.4	1.1
48°	359.7	357.7	352.5	324.9	253.3	163.5	80.9	34.5	7.0	0.4	1.1
49°	345.6	343.9	340.9	315.8	244.9	155.9	75.4	31.4	6.2	0.3	1.1
50°	334.4	332.7	326.5	300.4	232.8	146.2	69.4	28.3	5.4	0.2	1.0
51°	327.0	324.2	314.5	282.6	215.3	133.3	62.9	25.1	4.5	0.2	1.0
52°	317.6	313.4	301.4	266.6	199.3	120.4	55.8	22.0	4.0	0.2	1.0
53°	298.1	296.6	284.6	249.4	183.3	108.1	48.5	19.4	3.4	0.2	1.0
54°	281.0	278.7	262.5	225.5	165.9	94.3	40.9	17.2	2.9	0.2	1.0
55°	262.5	258.1	243.7	205.4	145.5	81.7	33.7	14.8	2.4	0.2	0.9
56°	239.2	235.3	219.8	184.0	126.7	68.8	28.3	12.1	1.8	0.2	0.9
57°	210.8	207.3	195.3	157.5	107.1	56.2	23.0	9.8	1.4	0.2	0.9
58°	183.4	179.4	165.8	132.2	86.5	44.6	19.2	8.0	1.1	0.2	0.9
59°	162.4	157.0	139.4	111.0	67.7	33.8	15.3	6.3	0.8	0.2	0.9
60°	144.8	140.4	122.2	92.4	53.1	24.9	11.3	4.8	0.4	0.2	0.9
62.5°	83.9	82.7	66.3	47.6	25.0	11.6	5.6	2.3	0.2	0.3	0.9
65°	25.0	21.8	17.0	10.1	6.4	3.9	2.0	0.8	0.1	0.3	0.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.2	0.1	0.3	0.8
70°	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.3	0.6
72.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.3	0.5
75°	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.5
77.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.5
80°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	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):

	112.5°	135°	157.5°	180°
0°	6.0	6.0	6.0	6.0
2.5°	5.8	5.7	5.6	5.6
5°	5.6	5.4	5.4	5.3
7.5°	5.3	5.1	5.1	5.1
10°	4.9	4.8	4.8	4.7
12.5°	4.5	4.5	4.5	4.5
15°	4.2	4.2	4.3	4.3
17.5°	3.8	3.9	4.1	4.2
20°	3.4	3.7	3.9	4.0
22.5°	3.2	3.4	3.8	3.9
25°	2.9	3.2	3.7	3.8
27.5°	2.7	3.1	3.4	3.7
30°	2.5	3.0	3.3	3.5
31°	2.5	2.9	3.3	3.5
32°	2.4	2.8	3.3	3.4
33°	2.4	2.8	3.3	3.4
34°	2.3	2.8	3.2	3.4
35°	2.3	2.8	3.2	3.4
36°	2.1	2.7	3.2	3.4
37°	2.1	2.7	3.2	3.4
38°	2.0	2.7	3.2	3.4
39°	2.0	2.7	3.2	3.4
40°	2.0	2.7	3.2	3.4
41°	1.9	2.7	3.2	3.4
42°	1.9	2.7	3.2	3.4
43°	1.9	2.6	3.2	3.4
44°	1.9	2.6	3.2	3.4
45°	1.8	2.6	3.2	3.4
46°	1.8	2.6	3.2	3.4
47°	1.8	2.6	3.2	3.4
48°	1.8	2.6	3.2	3.4
49°	1.8	2.6	3.2	3.4
50°	1.7	2.5	3.2	3.4
51°	1.7	2.5	3.2	3.4
52°	1.7	2.5	3.2	3.4
53°	1.7	2.5	3.2	3.4
54°	1.6	2.5	3.2	3.4
55°	1.6	2.5	3.2	3.4
56°	1.6	2.5	3.2	3.3
57°	1.6	2.5	3.1	3.3
58°	1.6	2.4	3.1	3.3
59°	1.6	2.4	3.1	3.3
60°	1.6	2.4	3.1	3.3
62.5°	1.5	2.4	3.0	3.2
65°	1.4	2.1	3.0	3.1



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	1.4	2.0	2.8	3.0
70°	1.3	1.9	2.7	2.9
72.5°	1.1	1.8	2.5	2.7
75°	1.0	1.6	2.3	2.5
77.5°	0.9	1.4	2.0	2.1
80°	0.8	1.2	1.7	1.9
82.5°	0.5	0.9	1.4	1.5
85°	0.4	0.6	1.0	1.1
87.5°	0.3	0.3	0.5	0.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)