

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: P1335640

Luminaire Tested: P3A02R409027DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335640
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: P3A02R409027DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R40 optic, 2700K CCT AND, 90CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

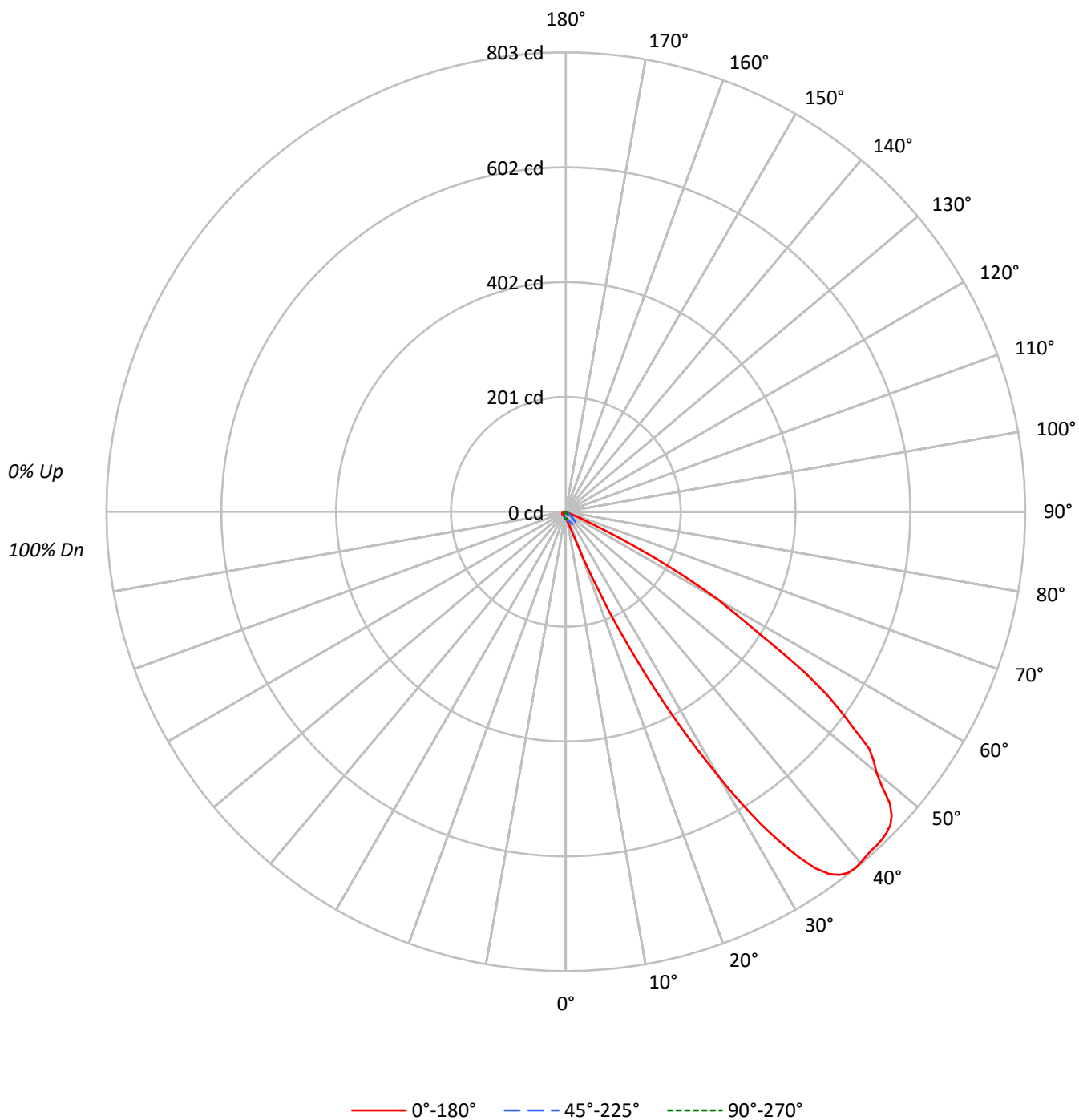
Lumens per Lamp: N/A
Luminaire Lumens: 248.0 lumens
Efficiency: N/A
Efficacy: 68.9 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	107	104	100	97	99	97	94		96	93	91		92
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34
10	48	34	25	20	47	33	25	20	32	25	20		31	24	20		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	2807	2807	2807	2807	2807
5°	3104	3016	2751	2509	2465
10°	3763	3184	2538	2271	2227
15°	6152	3473	2179	2020	2066
20°	16265	4084	1797	1797	1960
25°	62713	5081	1428	1645	1936
30°	135287	6735	1165	1621	1899
35°	203634	7977	964	1579	1954
40°	229430	8015	859	1632	2090
45°	246010	6202	775	1706	2264
50°	241800	3889	682	1774	2490
55°	212714	1912	688	1988	2791
60°	134638	395	789	2193	3114
65°	27552	104	830	2387	3424
70°	577	128	898	2629	3911
75°	593	424	932	2881	4406
80°	631	253	1137	3157	5177
85°	503	503	2264	3522	5787

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 250437 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.2	0.5
10°-20°	3.9	1.6
20°-30°	19.3	7.8
30°-40°	62.7	25.3
40°-50°	86.4	34.8
50°-60°	60.2	24.3
60°-70°	11.4	4.6
70°-80°	2.1	0.8
80°-90°	0.9	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°	24.4	9.8
0°-40°	87.0	35.1
0°-60°	233.6	94.2
0°-90°	248.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	248.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	13	13	13	13	13	
5°	14	14	12	11	11	1
15°	27	15	10	9	9	10
25°	259	21	6	7	8	133
35°	761	30	4	6	7	460
45°	793	20	2	6	7	603
55°	556	5	2	5	7	476
65°	53	0	2	5	7	94
75°	1	0	1	3	5	1
85°	0	0	1	1	2	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°	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
2.5°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.0	12.8
5°	14.1	14.1	14.1	14.1	13.9	13.9	13.9	13.7	13.7	13.2	12.5
7.5°	15.0	15.0	15.0	15.0	14.8	14.6	14.3	14.3	14.1	13.0	12.1
10°	16.9	16.9	16.6	16.4	16.2	15.7	15.5	15.0	14.3	12.8	11.4
12.5°	20.5	20.0	19.8	19.4	18.7	17.8	16.9	16.2	14.6	12.3	10.7
15°	27.1	26.6	25.7	24.4	23.0	21.2	19.6	18.0	15.3	11.6	9.6
17.5°	38.7	37.4	36.0	33.7	30.3	27.1	23.7	20.7	16.2	10.9	8.7
20°	69.7	68.8	60.6	54.2	44.0	36.7	29.8	24.8	17.5	10.2	7.7
22.5°	143.7	134.1	120.7	98.8	77.0	56.7	41.2	31.2	18.9	9.3	6.8
25°	259.2	244.2	215.2	173.1	127.8	90.4	59.7	40.8	21.0	8.4	5.9
27.5°	392.4	377.2	332.3	274.2	200.2	136.4	85.2	54.0	23.7	7.5	5.2
30°	534.3	521.3	464.4	384.0	282.2	191.1	114.1	67.4	26.6	6.6	4.6
31°	591.5	574.8	513.4	427.7	320.7	213.6	125.7	73.1	27.8	6.4	4.3
32°	644.1	625.2	561.4	469.6	351.9	238.0	138.5	78.1	28.7	5.9	4.1
33°	689.4	667.3	605.8	509.3	386.3	260.8	151.7	82.9	29.4	5.5	3.9
34°	727.9	708.8	642.7	549.1	416.8	282.6	164.7	87.7	29.8	5.2	3.6
35°	760.7	743.4	678.0	579.4	446.6	303.8	176.5	92.2	29.8	4.8	3.6
36°	782.8	767.8	708.5	610.4	471.7	321.8	186.5	96.3	29.8	4.3	3.4
37°	794.9	780.3	728.6	635.9	496.3	339.6	195.6	99.5	29.6	4.1	3.2
38°	801.0	788.3	743.4	656.6	513.4	352.3	203.6	102.0	29.4	3.6	3.2
39°	802.6	791.9	752.7	671.6	530.0	365.1	209.3	103.4	28.7	3.4	3.0
40°	801.5	792.1	757.7	685.1	542.7	375.1	213.4	103.9	28.0	3.0	3.0
41°	799.2	791.9	761.4	694.4	553.0	381.5	215.0	102.9	27.1	2.5	2.7
42°	797.1	789.2	763.0	700.8	560.0	384.7	214.8	101.1	25.7	2.3	2.7
43°	797.1	788.0	763.2	704.9	563.5	384.9	212.0	97.7	23.9	2.0	2.5
44°	795.8	787.3	764.3	707.6	564.4	382.9	207.7	94.1	21.9	1.8	2.5
45°	793.3	784.4	764.1	707.9	562.8	377.8	200.7	89.3	20.0	1.4	2.5
46°	788.5	780.5	762.1	706.3	558.0	370.6	192.2	84.5	18.0	1.1	2.3
47°	778.9	772.8	756.6	700.8	550.7	359.9	182.2	79.0	16.4	0.9	2.3
48°	762.5	758.2	747.3	688.7	536.8	346.6	171.5	73.1	14.8	0.9	2.3
49°	732.5	729.0	722.7	669.4	519.1	330.5	159.9	66.5	13.2	0.7	2.3
50°	708.8	705.1	692.1	636.8	493.5	310.0	147.1	59.9	11.4	0.5	2.0
51°	693.1	687.1	666.6	599.0	456.4	282.6	133.2	53.3	9.6	0.5	2.0
52°	673.2	664.4	638.8	565.1	422.5	255.3	118.2	46.7	8.4	0.5	2.0
53°	631.8	628.6	603.3	528.6	388.5	229.1	102.7	41.2	7.3	0.5	2.0
54°	595.6	590.8	556.4	478.1	351.7	200.0	86.8	36.4	6.1	0.5	2.0
55°	556.4	547.1	516.5	435.5	308.4	173.1	71.5	31.4	5.0	0.5	1.8
56°	507.0	498.8	466.0	389.9	268.5	145.8	59.9	25.7	3.9	0.5	1.8
57°	446.9	439.3	414.1	333.9	227.1	119.1	48.7	20.7	3.0	0.5	1.8
58°	388.8	380.3	351.4	280.1	183.3	94.5	40.8	16.9	2.3	0.5	1.8
59°	344.1	332.7	295.4	235.3	143.5	71.7	32.3	13.4	1.6	0.5	1.8
60°	307.0	297.7	259.0	195.9	112.5	52.8	23.9	10.2	0.9	0.5	1.8
62.5°	177.9	175.4	140.5	100.9	53.1	24.6	11.8	4.8	0.5	0.7	1.8
65°	53.1	46.2	36.0	21.4	13.7	8.2	4.3	1.6	0.2	0.7	1.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	1.6	1.6	1.6	1.6	1.6	1.6	0.9	0.5	0.2	0.7	1.6
70°	0.9	0.7	0.7	0.7	0.7	0.5	0.5	0.2	0.2	0.7	1.4
72.5°	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.5	0.7	1.1
75°	0.7	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.5	0.7	1.1
77.5°	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.5	0.7	1.1
80°	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.9
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.9
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.7	0.7
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°	12.8	12.8	12.8	12.8
2.5°	12.3	12.1	11.8	11.8
5°	11.8	11.4	11.4	11.2
7.5°	11.2	10.7	10.7	10.7
10°	10.5	10.2	10.2	10.0
12.5°	9.6	9.6	9.6	9.6
15°	8.9	8.9	9.1	9.1
17.5°	8.0	8.2	8.7	8.9
20°	7.3	7.7	8.2	8.4
22.5°	6.8	7.3	8.0	8.2
25°	6.1	6.8	7.7	8.0
27.5°	5.7	6.6	7.3	7.7
30°	5.2	6.4	7.1	7.5
31°	5.2	6.1	7.1	7.5
32°	5.0	5.9	7.1	7.3
33°	5.0	5.9	7.1	7.3
34°	4.8	5.9	6.8	7.3
35°	4.8	5.9	6.8	7.3
36°	4.6	5.7	6.8	7.3
37°	4.6	5.7	6.8	7.3
38°	4.3	5.7	6.8	7.3
39°	4.3	5.7	6.8	7.3
40°	4.3	5.7	6.8	7.3
41°	4.1	5.7	6.8	7.3
42°	4.1	5.7	6.8	7.3
43°	4.1	5.5	6.8	7.3
44°	4.1	5.5	6.8	7.3
45°	3.9	5.5	6.8	7.3
46°	3.9	5.5	6.8	7.3
47°	3.9	5.5	6.8	7.3
48°	3.9	5.5	6.8	7.3
49°	3.9	5.5	6.8	7.3
50°	3.6	5.2	6.8	7.3
51°	3.6	5.2	6.8	7.3
52°	3.6	5.2	6.8	7.3
53°	3.6	5.2	6.8	7.3
54°	3.4	5.2	6.8	7.3
55°	3.4	5.2	6.8	7.3
56°	3.4	5.2	6.8	7.1
57°	3.4	5.2	6.6	7.1
58°	3.4	5.0	6.6	7.1
59°	3.4	5.0	6.6	7.1
60°	3.4	5.0	6.6	7.1
62.5°	3.2	5.0	6.4	6.8
65°	3.0	4.6	6.4	6.6



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	3.0	4.3	5.9	6.4
70°	2.7	4.1	5.7	6.1
72.5°	2.3	3.9	5.2	5.7
75°	2.0	3.4	4.8	5.2
77.5°	1.8	3.0	4.3	4.6
80°	1.6	2.5	3.6	4.1
82.5°	1.1	1.8	3.0	3.2
85°	0.9	1.4	2.0	2.3
87.5°	0.7	0.7	1.1	1.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)