

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: P1335768

Luminaire Tested: P3A02R409735DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335768
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: P3A02R409735DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 97CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

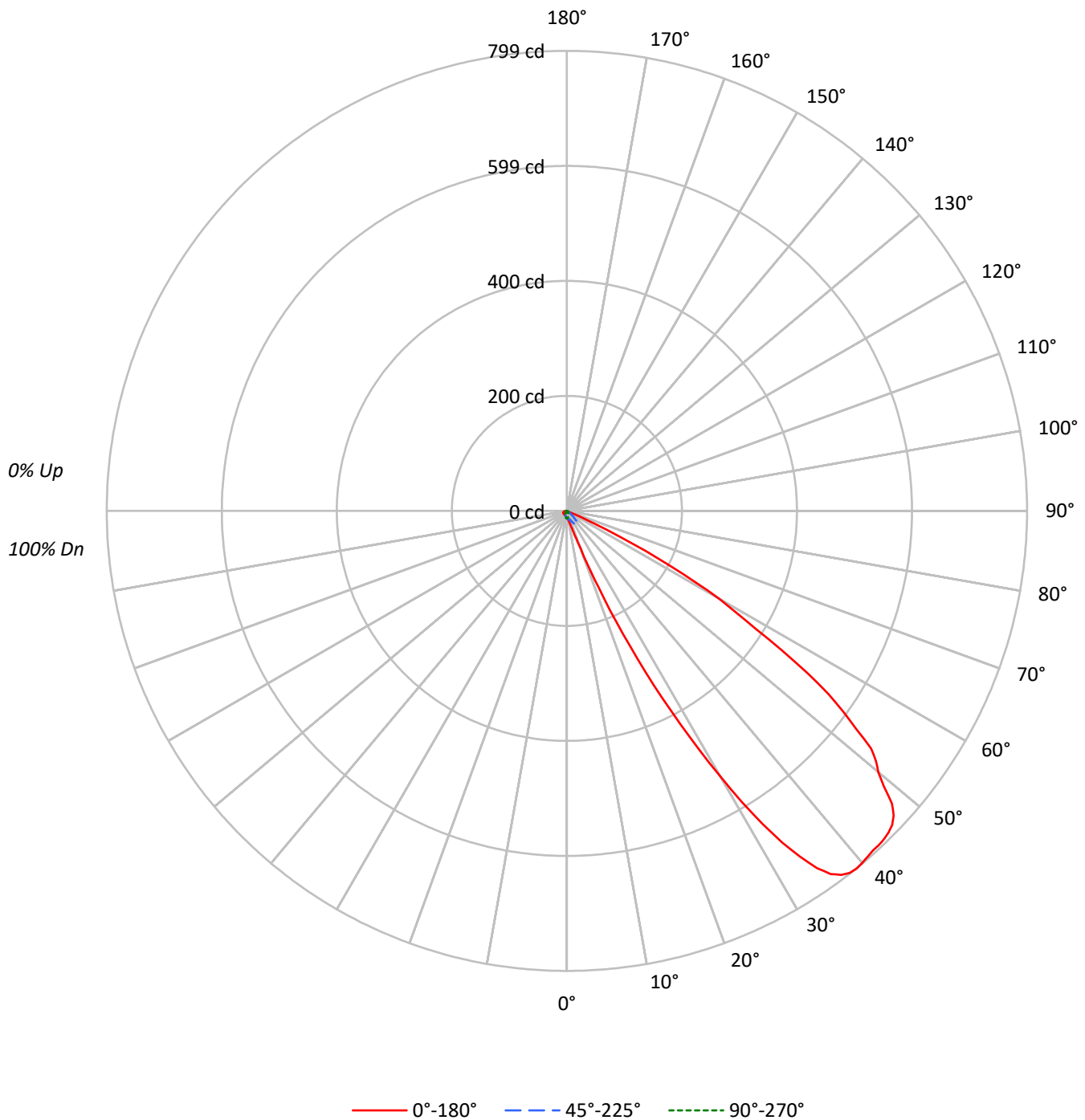
Lumens per Lamp: N/A
Luminaire Lumens: 247.0 lumens
Efficiency: N/A
Efficacy: 68.6 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			0
RW	70	50	30	10	70	50	30	10	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	100		
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86		
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72		
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60		
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50		
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35		
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31	29		
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26	24		
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	20	31	24	20	30	24	19	18		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	2785	2785	2785	2785	2785
5°	3104	2994	2751	2487	2443
10°	3741	3184	2516	2271	2227
15°	6129	3451	2157	1998	2066
20°	16195	4084	1797	1797	1960
25°	62447	5057	1428	1645	1911
30°	134755	6710	1139	1621	1899
35°	202804	7950	964	1579	1954
40°	228485	7986	830	1632	2090
45°	245018	6202	775	1675	2264
50°	240811	3855	682	1774	2490
55°	211873	1912	688	1988	2791
60°	134112	395	789	2193	3070
65°	27448	104	830	2335	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: 249440 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°	19.2	7.8
30°-40°	62.4	25.3
40°-50°	86.0	34.8
50°-60°	59.9	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°	24.3	9.8
0°-40°	86.7	35.1
0°-60°	232.6	94.2
0°-90°	247.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	247.0	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°	258	21	6	7	8	133
35°	758	30	4	6	7	458
45°	790	20	2	5	7	601
55°	554	5	2	5	7	474
65°	53	0	2	4	7	93
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°	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
2.5°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	12.9	12.7
5°	14.1	14.1	14.1	14.1	13.8	13.8	13.8	13.6	13.6	13.2	12.5
7.5°	15.0	15.0	15.0	15.0	14.7	14.5	14.3	14.3	14.1	12.9	12.0
10°	16.8	16.8	16.6	16.3	16.1	15.7	15.4	15.0	14.3	12.7	11.3
12.5°	20.4	20.0	19.7	19.3	18.6	17.7	16.8	16.1	14.5	12.2	10.7
15°	27.0	26.5	25.6	24.3	22.9	21.1	19.5	17.9	15.2	11.6	9.5
17.5°	38.6	37.2	35.8	33.6	30.2	27.0	23.6	20.6	16.1	10.9	8.6
20°	69.4	68.5	60.3	54.0	43.8	36.5	29.7	24.7	17.5	10.2	7.7
22.5°	143.1	133.6	120.2	98.4	76.7	56.5	41.1	31.1	18.8	9.3	6.8
25°	258.1	243.2	214.4	172.4	127.3	90.1	59.4	40.6	20.9	8.4	5.9
27.5°	390.8	375.6	331.0	273.1	199.4	135.9	84.8	53.8	23.6	7.5	5.2
30°	532.2	519.2	462.5	382.4	281.0	190.3	113.6	67.1	26.5	6.6	4.5
31°	589.1	572.5	511.3	426.0	319.4	212.8	125.2	72.8	27.7	6.4	4.3
32°	641.5	622.7	559.1	467.7	350.5	237.0	137.9	77.8	28.6	5.9	4.1
33°	686.6	664.6	603.4	507.2	384.7	259.7	151.1	82.6	29.3	5.4	3.9
34°	725.0	705.9	640.1	546.9	415.1	281.5	164.0	87.3	29.7	5.2	3.6
35°	757.6	740.4	675.3	577.1	444.8	302.6	175.8	91.9	29.7	4.8	3.6
36°	779.6	764.7	705.7	607.9	469.8	320.5	185.8	96.0	29.7	4.3	3.4
37°	791.7	777.1	725.6	633.3	494.3	338.2	194.9	99.1	29.5	4.1	3.2
38°	797.8	785.1	740.4	654.0	511.3	350.9	202.8	101.6	29.3	3.6	3.2
39°	799.4	788.7	749.7	668.9	527.8	363.6	208.5	103.0	28.6	3.4	2.9
40°	798.2	788.9	754.7	682.3	540.5	373.6	212.5	103.4	27.9	2.9	2.9
41°	796.0	788.7	758.3	691.6	550.8	379.9	214.1	102.5	27.0	2.5	2.7
42°	793.9	786.0	759.9	698.0	557.8	383.1	213.9	100.7	25.6	2.3	2.7
43°	793.9	784.8	760.1	702.1	561.2	383.4	211.2	97.3	23.8	2.0	2.5
44°	792.6	784.2	761.3	704.8	562.1	381.3	206.9	93.7	21.8	1.8	2.5
45°	790.1	781.2	761.0	705.0	560.5	376.3	199.8	88.9	20.0	1.4	2.5
46°	785.3	777.4	759.0	703.4	555.7	369.1	191.4	84.2	17.9	1.1	2.3
47°	775.8	769.7	753.5	698.0	548.5	358.4	181.5	78.7	16.3	0.9	2.3
48°	759.4	755.1	744.2	685.9	534.7	345.2	170.8	72.8	14.7	0.9	2.3
49°	729.5	726.1	719.7	666.7	517.0	329.1	159.2	66.2	13.2	0.7	2.3
50°	705.9	702.3	689.4	634.2	491.6	308.7	146.5	59.7	11.3	0.5	2.0
51°	690.3	684.4	663.9	596.6	454.6	281.5	132.7	53.1	9.5	0.5	2.0
52°	670.5	661.7	636.3	562.8	420.8	254.3	117.7	46.5	8.4	0.5	2.0
53°	629.2	626.1	600.9	526.5	387.0	228.2	102.3	41.1	7.3	0.5	2.0
54°	593.2	588.4	554.2	476.1	350.2	199.2	86.4	36.3	6.1	0.5	2.0
55°	554.2	544.9	514.5	433.7	307.1	172.4	71.2	31.3	5.0	0.5	1.8
56°	504.9	496.8	464.1	388.3	267.4	145.2	59.7	25.6	3.9	0.5	1.8
57°	445.1	437.6	412.4	332.5	226.2	118.6	48.5	20.6	2.9	0.5	1.8
58°	387.2	378.8	350.0	279.0	182.6	94.1	40.6	16.8	2.3	0.5	1.8
59°	342.7	331.4	294.2	234.3	142.9	71.5	32.2	13.4	1.6	0.5	1.8
60°	305.8	296.5	257.9	195.1	112.1	52.6	23.8	10.2	0.9	0.5	1.8
62.5°	177.2	174.7	140.0	100.5	52.9	24.5	11.8	4.8	0.5	0.7	1.8
65°	52.9	46.0	35.8	21.3	13.6	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°	12.7	12.7	12.7	12.7
2.5°	12.2	12.0	11.8	11.8
5°	11.8	11.3	11.3	11.1
7.5°	11.1	10.7	10.7	10.7
10°	10.4	10.2	10.2	10.0
12.5°	9.5	9.5	9.5	9.5
15°	8.8	8.8	9.1	9.1
17.5°	7.9	8.2	8.6	8.8
20°	7.3	7.7	8.2	8.4
22.5°	6.8	7.3	7.9	8.2
25°	6.1	6.8	7.7	7.9
27.5°	5.7	6.6	7.3	7.7
30°	5.2	6.4	7.0	7.5
31°	5.2	6.1	7.0	7.5
32°	5.0	5.9	7.0	7.3
33°	5.0	5.9	7.0	7.3
34°	4.8	5.9	6.8	7.3
35°	4.8	5.9	6.8	7.3
36°	4.5	5.7	6.8	7.3
37°	4.5	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	5.4	6.8	7.3
44°	4.1	5.4	6.8	7.3
45°	3.9	5.4	6.8	7.3
46°	3.9	5.4	6.8	7.3
47°	3.9	5.4	6.8	7.3
48°	3.9	5.4	6.8	7.3
49°	3.9	5.4	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	7.0
57°	3.4	5.2	6.6	7.0
58°	3.4	5.0	6.6	7.0
59°	3.4	5.0	6.6	7.0
60°	3.4	5.0	6.6	7.0
62.5°	3.2	5.0	6.4	6.8
65°	2.9	4.5	6.4	6.6



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	2.9	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	2.9	4.3	4.5
80°	1.6	2.5	3.6	4.1
82.5°	1.1	1.8	2.9	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)