

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: P1335831

Luminaire Tested: P3A02R409835DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335831
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: P3A02R409835DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 98CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

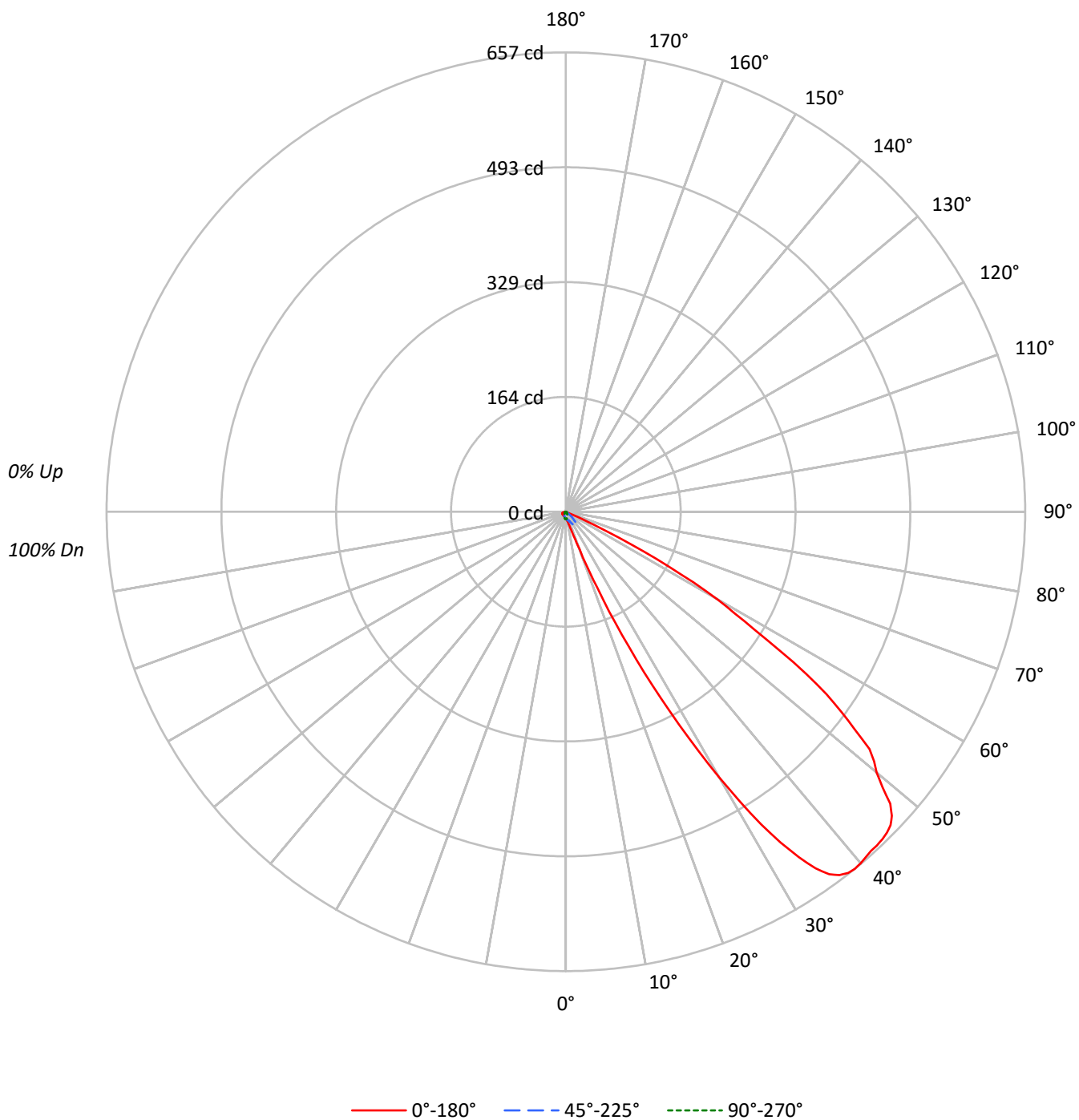
Lumens per Lamp: N/A
Luminaire Lumens: 203.0 lumens
Efficiency: N/A
Efficacy: 56.4 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.55
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			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	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°	2281	2281	2281	2281	2281
5°	2553	2465	2267	2047	2003
10°	3073	2605	2071	1870	1826
15°	5040	2838	1771	1657	1703
20°	13301	3360	1470	1470	1610
25°	51342	4162	1161	1355	1573
30°	110751	5520	937	1317	1570
35°	166692	6532	803	1285	1606
40°	187780	6555	687	1345	1718
45°	201354	5086	651	1395	1861
50°	197930	3173	580	1467	2047
55°	174101	1567	573	1644	2294
60°	110210	307	658	1798	2544
65°	22519	104	675	1920	2802
70°	449	128	705	2180	3206
75°	508	339	763	2372	3643
80°	505	253	884	2652	4293
85°	503	503	1761	2768	4780

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 205005 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.0	0.5
10°-20°	3.2	1.6
20°-30°	15.8	7.8
30°-40°	51.3	25.3
40°-50°	70.7	34.8
50°-60°	49.3	24.3
60°-70°	9.3	4.6
70°-80°	1.7	0.8
80°-90°	0.8	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	9.8
0°-40°	71.2	35.1
0°-60°	191.2	94.2
0°-90°	203.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	203.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	10	10	10	10	10	
5°	12	11	10	9	9	1
15°	22	12	8	7	8	8
25°	212	17	5	6	6	109
35°	623	24	3	5	6	376
45°	649	16	2	4	6	494
55°	455	4	2	4	6	389
65°	43	0	1	4	5	77
75°	1	0	1	3	4	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°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4
2.5°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.6	10.4
5°	11.6	11.6	11.6	11.6	11.4	11.4	11.4	11.2	11.2	10.8	10.3
7.5°	12.3	12.3	12.3	12.3	12.1	11.9	11.7	11.7	11.6	10.6	9.9
10°	13.8	13.8	13.6	13.4	13.2	12.9	12.7	12.3	11.7	10.4	9.3
12.5°	16.8	16.4	16.2	15.8	15.3	14.5	13.8	13.2	11.9	10.1	8.8
15°	22.2	21.8	21.1	19.9	18.8	17.3	16.0	14.7	12.5	9.5	7.8
17.5°	31.7	30.6	29.5	27.6	24.8	22.2	19.4	17.0	13.2	8.9	7.1
20°	57.0	56.3	49.6	44.4	36.0	30.0	24.4	20.3	14.4	8.4	6.3
22.5°	117.6	109.8	98.8	80.9	63.0	46.4	33.7	25.5	15.5	7.6	5.6
25°	212.2	199.9	176.2	141.7	104.6	74.0	48.8	33.4	17.2	6.9	4.8
27.5°	321.2	308.7	272.0	224.5	163.9	111.7	69.7	44.2	19.4	6.2	4.3
30°	437.4	426.7	380.1	314.3	231.0	156.4	93.4	55.2	21.8	5.4	3.7
31°	484.2	470.5	420.2	350.1	262.5	174.9	102.9	59.8	22.7	5.2	3.5
32°	527.2	511.7	459.5	384.4	288.0	194.8	113.3	63.9	23.5	4.8	3.4
33°	564.3	546.2	495.9	416.9	316.2	213.5	124.2	67.9	24.0	4.5	3.2
34°	595.8	580.2	526.1	449.5	341.2	231.4	134.8	71.8	24.4	4.3	3.0
35°	622.7	608.5	555.0	474.3	365.6	248.7	144.5	75.5	24.4	3.9	3.0
36°	640.8	628.4	580.0	499.6	386.1	263.4	152.7	78.9	24.4	3.5	2.8
37°	650.6	638.7	596.4	520.5	406.2	278.0	160.1	81.5	24.2	3.4	2.6
38°	655.7	645.2	608.5	537.5	420.2	288.4	166.7	83.5	24.0	3.0	2.6
39°	657.0	648.2	616.1	549.8	433.8	298.8	171.3	84.6	23.5	2.8	2.4
40°	656.0	648.4	620.2	560.8	444.3	307.0	174.7	85.0	22.9	2.4	2.4
41°	654.2	648.2	623.2	568.4	452.6	312.3	176.0	84.3	22.2	2.1	2.2
42°	652.5	646.0	624.5	573.6	458.4	314.9	175.8	82.8	21.1	1.9	2.2
43°	652.5	645.0	624.7	577.0	461.2	315.1	173.6	80.0	19.6	1.7	2.1
44°	651.4	644.5	625.6	579.2	462.0	313.4	170.0	77.0	17.9	1.5	2.1
45°	649.3	642.1	625.5	579.4	460.7	309.3	164.2	73.1	16.4	1.1	2.1
46°	645.4	638.9	623.8	578.1	456.7	303.3	157.3	69.2	14.7	0.9	1.9
47°	637.6	632.5	619.3	573.6	450.8	294.6	149.1	64.7	13.4	0.7	1.9
48°	624.2	620.6	611.7	563.8	439.4	283.7	140.4	59.8	12.1	0.7	1.9
49°	599.6	596.8	591.5	547.9	424.9	270.5	130.9	54.4	10.8	0.6	1.9
50°	580.2	577.2	566.6	521.3	404.0	253.7	120.4	49.0	9.3	0.4	1.7
51°	567.3	562.5	545.7	490.3	373.6	231.4	109.1	43.6	7.8	0.4	1.7
52°	551.1	543.8	522.9	462.5	345.8	209.0	96.8	38.2	6.9	0.4	1.7
53°	517.1	514.5	493.8	432.7	318.0	187.5	84.1	33.7	6.0	0.4	1.7
54°	487.5	483.6	455.4	391.3	287.8	163.7	71.0	29.8	5.0	0.4	1.7
55°	455.4	447.8	422.8	356.4	252.4	141.7	58.5	25.7	4.1	0.4	1.5
56°	415.0	408.3	381.4	319.2	219.8	119.3	49.0	21.1	3.2	0.4	1.5
57°	365.8	359.6	338.9	273.3	185.9	97.5	39.9	17.0	2.4	0.4	1.5
58°	318.2	311.3	287.7	229.3	150.1	77.4	33.4	13.8	1.9	0.4	1.5
59°	281.7	272.4	241.8	192.6	117.4	58.7	26.5	11.0	1.3	0.4	1.5
60°	251.3	243.7	212.0	160.3	92.1	43.3	19.6	8.4	0.7	0.4	1.5
62.5°	145.6	143.5	115.0	82.6	43.4	20.1	9.7	3.9	0.4	0.6	1.5
65°	43.4	37.8	29.5	17.5	11.2	6.7	3.5	1.3	0.2	0.6	1.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.7	0.4	0.2	0.6	1.3
70°	0.7	0.6	0.6	0.6	0.6	0.4	0.4	0.2	0.2	0.6	1.1
72.5°	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.2	0.4	0.6	0.9
75°	0.6	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.6	0.9
77.5°	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.4	0.6	0.9
80°	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.7
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.7
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.6	0.6
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°	10.4	10.4	10.4	10.4
2.5°	10.1	9.9	9.7	9.7
5°	9.7	9.3	9.3	9.1
7.5°	9.1	8.8	8.8	8.8
10°	8.6	8.4	8.4	8.2
12.5°	7.8	7.8	7.8	7.8
15°	7.3	7.3	7.5	7.5
17.5°	6.5	6.7	7.1	7.3
20°	6.0	6.3	6.7	6.9
22.5°	5.6	6.0	6.5	6.7
25°	5.0	5.6	6.3	6.5
27.5°	4.7	5.4	6.0	6.3
30°	4.3	5.2	5.8	6.2
31°	4.3	5.0	5.8	6.2
32°	4.1	4.8	5.8	6.0
33°	4.1	4.8	5.8	6.0
34°	3.9	4.8	5.6	6.0
35°	3.9	4.8	5.6	6.0
36°	3.7	4.7	5.6	6.0
37°	3.7	4.7	5.6	6.0
38°	3.5	4.7	5.6	6.0
39°	3.5	4.7	5.6	6.0
40°	3.5	4.7	5.6	6.0
41°	3.4	4.7	5.6	6.0
42°	3.4	4.7	5.6	6.0
43°	3.4	4.5	5.6	6.0
44°	3.4	4.5	5.6	6.0
45°	3.2	4.5	5.6	6.0
46°	3.2	4.5	5.6	6.0
47°	3.2	4.5	5.6	6.0
48°	3.2	4.5	5.6	6.0
49°	3.2	4.5	5.6	6.0
50°	3.0	4.3	5.6	6.0
51°	3.0	4.3	5.6	6.0
52°	3.0	4.3	5.6	6.0
53°	3.0	4.3	5.6	6.0
54°	2.8	4.3	5.6	6.0
55°	2.8	4.3	5.6	6.0
56°	2.8	4.3	5.6	5.8
57°	2.8	4.3	5.4	5.8
58°	2.8	4.1	5.4	5.8
59°	2.8	4.1	5.4	5.8
60°	2.8	4.1	5.4	5.8
62.5°	2.6	4.1	5.2	5.6
65°	2.4	3.7	5.2	5.4



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	2.4	3.5	4.8	5.2
70°	2.2	3.4	4.7	5.0
72.5°	1.9	3.2	4.3	4.7
75°	1.7	2.8	3.9	4.3
77.5°	1.5	2.4	3.5	3.7
80°	1.3	2.1	3.0	3.4
82.5°	0.9	1.5	2.4	2.6
85°	0.7	1.1	1.7	1.9
87.5°	0.6	0.6	0.9	0.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)