

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: P1335799

Luminaire Tested: P3A02R409827DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335799
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: P3A02R409827DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 2700K CCT AND, 98CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

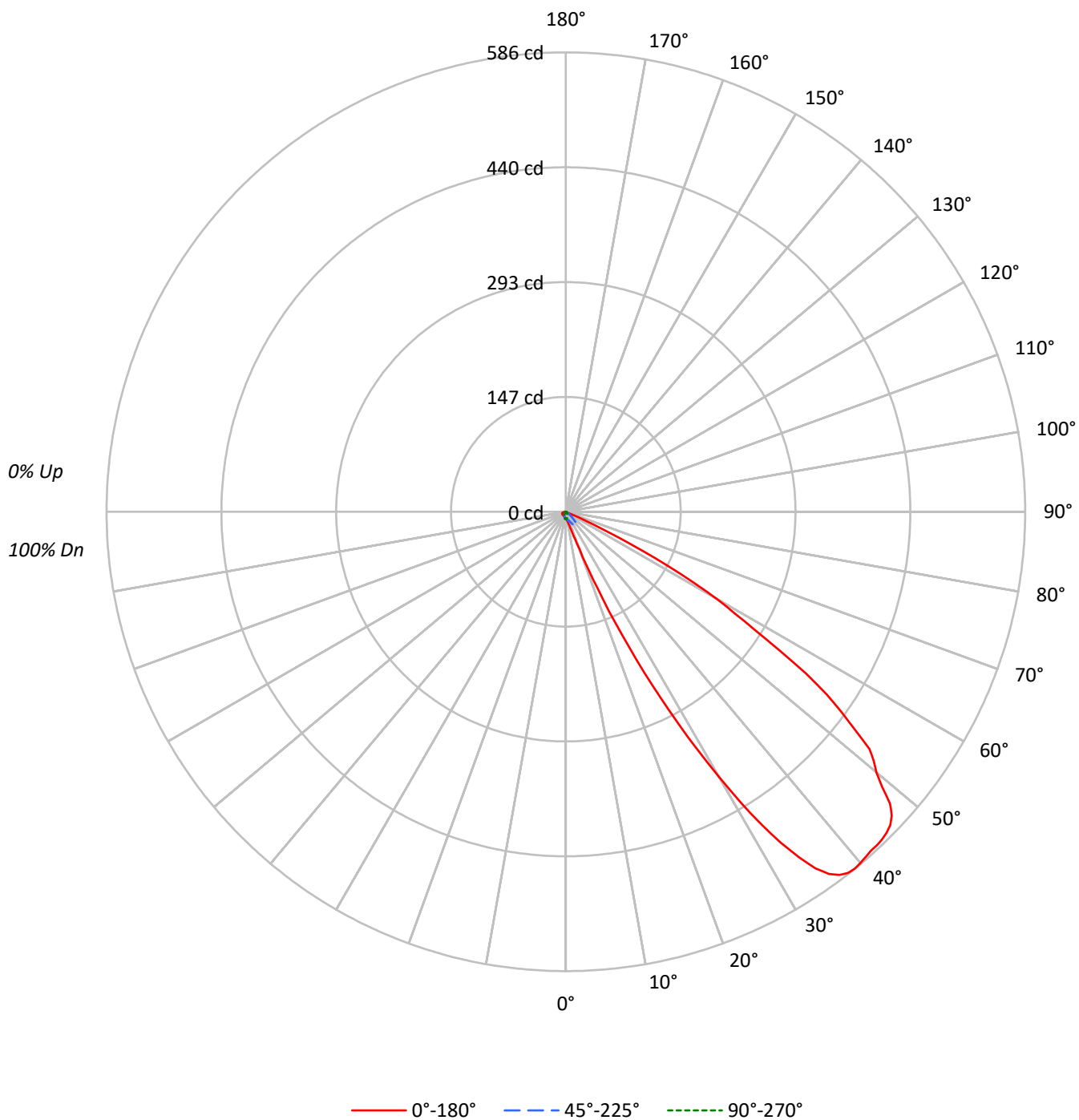
Lumens per Lamp: N/A
Luminaire Lumens: 181.0 lumens
Efficiency: N/A
Efficacy: 50.3 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.74 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	2039	2039	2039	2039	2039
5°	2267	2201	2003	1827	1783
10°	2739	2338	1848	1670	1625
15°	4495	2520	1589	1476	1498
20°	11878	2987	1330	1330	1447
25°	45777	3702	1040	1210	1403
30°	98749	4912	836	1190	1393
35°	148623	5836	723	1151	1419
40°	167428	5840	630	1202	1517
45°	179554	4528	558	1240	1644
50°	176472	2831	512	1296	1808
55°	155254	1415	497	1453	2026
60°	98282	307	570	1623	2281
65°	20080	104	623	1712	2491
70°	449	128	641	1923	2885
75°	424	254	678	2118	3219
80°	379	253	884	2273	3788
85°	503	503	1761	2516	4277

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 182788 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.9	0.5
10°-20°	2.9	1.6
20°-30°	14.1	7.8
30°-40°	45.7	25.3
40°-50°	63.0	34.8
50°-60°	43.9	24.3
60°-70°	8.3	4.6
70°-80°	1.5	0.8
80°-90°	0.7	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°	17.8	9.8
0°-40°	63.5	35.1
0°-60°	170.5	94.2
0°-90°	181.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	181.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	9	9	9	9	9	
5°	10	10	9	8	8	1
15°	20	11	7	6	7	7
25°	189	15	4	5	6	97
35°	555	22	3	4	5	335
45°	579	15	2	4	5	440
55°	406	4	1	4	5	347
65°	39	0	1	3	5	68
75°	0	0	1	2	4	0
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°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
2.5°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.5	9.3
5°	10.3	10.3	10.3	10.3	10.1	10.1	10.1	10.0	10.0	9.6	9.1
7.5°	11.0	11.0	11.0	11.0	10.8	10.6	10.5	10.5	10.3	9.5	8.8
10°	12.3	12.3	12.1	12.0	11.8	11.5	11.3	11.0	10.5	9.3	8.3
12.5°	15.0	14.6	14.5	14.1	13.6	13.0	12.3	11.8	10.6	9.0	7.8
15°	19.8	19.4	18.8	17.8	16.8	15.5	14.3	13.1	11.1	8.5	7.0
17.5°	28.3	27.3	26.3	24.6	22.1	19.8	17.3	15.1	11.8	8.0	6.3
20°	50.9	50.2	44.2	39.6	32.1	26.8	21.8	18.1	12.8	7.5	5.7
22.5°	104.9	97.9	88.1	72.1	56.2	41.4	30.1	22.8	13.8	6.8	5.0
25°	189.2	178.2	157.1	126.3	93.3	66.0	43.6	29.8	15.3	6.2	4.3
27.5°	286.4	275.3	242.5	200.1	146.1	99.6	62.2	39.4	17.3	5.5	3.8
30°	390.0	380.5	338.9	280.3	206.0	139.5	83.3	49.2	19.4	4.8	3.3
31°	431.7	419.5	374.7	312.2	234.0	155.9	91.8	53.4	20.3	4.7	3.2
32°	470.1	456.3	409.7	342.8	256.8	173.7	101.1	57.0	20.9	4.3	3.0
33°	503.2	487.0	442.2	371.7	281.9	190.3	110.7	60.5	21.4	4.0	2.8
34°	531.2	517.3	469.1	400.8	304.2	206.3	120.2	64.0	21.8	3.8	2.7
35°	555.2	542.6	494.8	422.9	326.0	221.7	128.8	67.3	21.8	3.5	2.7
36°	571.3	560.3	517.1	445.5	344.2	234.9	136.1	70.3	21.8	3.2	2.5
37°	580.1	569.5	531.7	464.1	362.2	247.8	142.8	72.6	21.6	3.0	2.3
38°	584.6	575.3	542.6	479.2	374.7	257.1	148.6	74.5	21.4	2.7	2.3
39°	585.8	578.0	549.4	490.2	386.8	266.5	152.8	75.5	20.9	2.5	2.2
40°	584.9	578.1	553.0	500.0	396.1	273.8	155.8	75.8	20.4	2.2	2.2
41°	583.3	578.0	555.7	506.8	403.6	278.4	156.9	75.1	19.8	1.8	2.0
42°	581.8	576.0	556.8	511.5	408.7	280.8	156.7	73.8	18.8	1.7	2.0
43°	581.8	575.1	557.0	514.5	411.2	280.9	154.8	71.3	17.5	1.5	1.8
44°	580.8	574.6	557.8	516.5	411.9	279.4	151.6	68.7	16.0	1.3	1.8
45°	579.0	572.5	557.7	516.6	410.7	275.8	146.4	65.2	14.6	1.0	1.8
46°	575.5	569.6	556.2	515.5	407.2	270.4	140.3	61.7	13.1	0.8	1.7
47°	568.5	564.0	552.2	511.5	401.9	262.6	133.0	57.7	12.0	0.7	1.7
48°	556.5	553.4	545.4	502.7	391.8	253.0	125.2	53.4	10.8	0.7	1.7
49°	534.6	532.1	527.4	488.5	378.8	241.2	116.7	48.5	9.6	0.5	1.7
50°	517.3	514.6	505.2	464.8	360.2	226.2	107.4	43.7	8.3	0.3	1.5
51°	505.8	501.5	486.5	437.2	333.1	206.3	97.2	38.9	7.0	0.3	1.5
52°	491.4	484.9	466.3	412.4	308.3	186.3	86.3	34.1	6.2	0.3	1.5
53°	461.1	458.8	440.3	385.8	283.6	167.2	75.0	30.1	5.3	0.3	1.5
54°	434.7	431.2	406.1	348.9	256.6	145.9	63.3	26.6	4.5	0.3	1.5
55°	406.1	399.3	377.0	317.8	225.1	126.3	52.2	22.9	3.7	0.3	1.3
56°	370.0	364.0	340.1	284.6	196.0	106.4	43.7	18.8	2.8	0.3	1.3
57°	326.1	320.6	302.2	243.7	165.7	86.9	35.6	15.1	2.2	0.3	1.3
58°	283.7	277.6	256.5	204.5	133.8	69.0	29.8	12.3	1.7	0.3	1.3
59°	251.2	242.9	215.6	171.7	104.7	52.4	23.6	9.8	1.2	0.3	1.3
60°	224.1	217.3	189.0	143.0	82.1	38.6	17.5	7.5	0.7	0.3	1.3
62.5°	129.8	128.0	102.6	73.6	38.7	18.0	8.6	3.5	0.3	0.5	1.3
65°	38.7	33.7	26.3	15.6	10.0	6.0	3.2	1.2	0.2	0.5	1.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.7	0.3	0.2	0.5	1.2
70°	0.7	0.5	0.5	0.5	0.5	0.3	0.3	0.2	0.2	0.5	1.0
72.5°	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.3	0.5	0.8
75°	0.5	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.5	0.8
77.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.5	0.8
80°	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.7
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.7
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5	0.5
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°	9.3	9.3	9.3	9.3
2.5°	9.0	8.8	8.6	8.6
5°	8.6	8.3	8.3	8.1
7.5°	8.1	7.8	7.8	7.8
10°	7.6	7.5	7.5	7.3
12.5°	7.0	7.0	7.0	7.0
15°	6.5	6.5	6.6	6.6
17.5°	5.8	6.0	6.3	6.5
20°	5.3	5.7	6.0	6.2
22.5°	5.0	5.3	5.8	6.0
25°	4.5	5.0	5.7	5.8
27.5°	4.2	4.8	5.3	5.7
30°	3.8	4.7	5.2	5.5
31°	3.8	4.5	5.2	5.5
32°	3.7	4.3	5.2	5.3
33°	3.7	4.3	5.2	5.3
34°	3.5	4.3	5.0	5.3
35°	3.5	4.3	5.0	5.3
36°	3.3	4.2	5.0	5.3
37°	3.3	4.2	5.0	5.3
38°	3.2	4.2	5.0	5.3
39°	3.2	4.2	5.0	5.3
40°	3.2	4.2	5.0	5.3
41°	3.0	4.2	5.0	5.3
42°	3.0	4.2	5.0	5.3
43°	3.0	4.0	5.0	5.3
44°	3.0	4.0	5.0	5.3
45°	2.8	4.0	5.0	5.3
46°	2.8	4.0	5.0	5.3
47°	2.8	4.0	5.0	5.3
48°	2.8	4.0	5.0	5.3
49°	2.8	4.0	5.0	5.3
50°	2.7	3.8	5.0	5.3
51°	2.7	3.8	5.0	5.3
52°	2.7	3.8	5.0	5.3
53°	2.7	3.8	5.0	5.3
54°	2.5	3.8	5.0	5.3
55°	2.5	3.8	5.0	5.3
56°	2.5	3.8	5.0	5.2
57°	2.5	3.8	4.8	5.2
58°	2.5	3.7	4.8	5.2
59°	2.5	3.7	4.8	5.2
60°	2.5	3.7	4.8	5.2
62.5°	2.3	3.7	4.7	5.0
65°	2.2	3.3	4.7	4.8



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	2.2	3.2	4.3	4.7
70°	2.0	3.0	4.2	4.5
72.5°	1.7	2.8	3.8	4.2
75°	1.5	2.5	3.5	3.8
77.5°	1.3	2.2	3.2	3.3
80°	1.2	1.8	2.7	3.0
82.5°	0.8	1.3	2.2	2.3
85°	0.7	1.0	1.5	1.7
87.5°	0.5	0.5	0.8	0.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)