

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: P1334099

Luminaire Tested: P3A02R159730DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334099
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R159730DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 3000K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

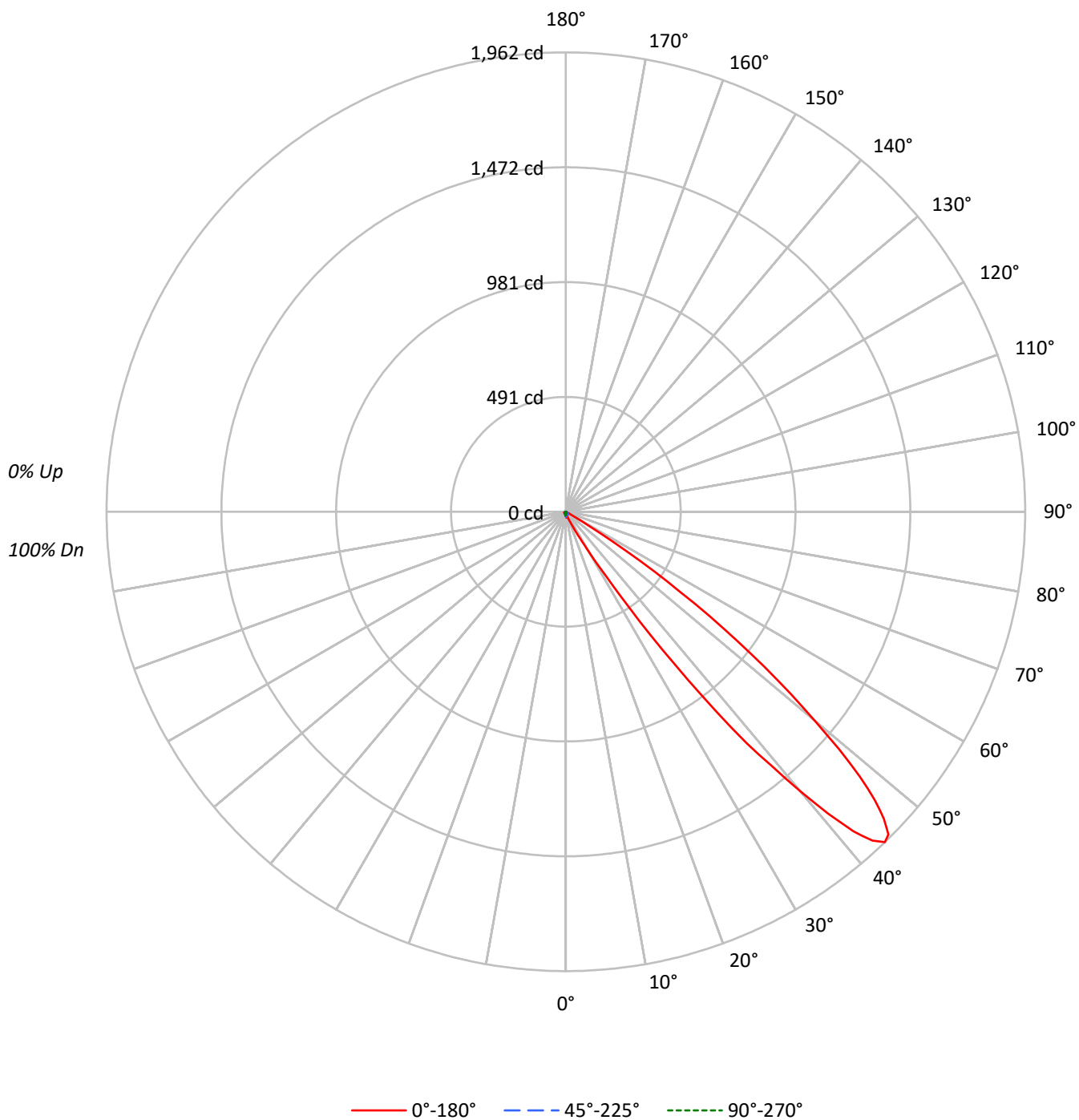
Lumens per Lamp: N/A
Luminaire Lumens: 219.0 lumens
Efficiency: N/A
Efficacy: 60.8 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	100	97	94		96	93	91		92
2	101	93	87	81	98	91	85	80	87	83	78		84	80	77		81
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62
5	75	62	52	46	73	61	52	45	58	51	45		56	50	44		55
6	68	54	45	38	66	53	44	38	51	43	37		49	42	37		48
7	62	47	38	32	60	47	38	32	45	37	31		44	36	31		42
8	56	42	33	27	55	41	33	27	40	32	26		39	31	26		37
9	52	37	28	22	50	37	28	22	35	28	22		34	27	22		33
10	48	33	25	19	46	33	25	19	32	24	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4254	4254	4254	4254	4254
5°	5283	4711	3852	3368	3324
10°	5210	4030	2961	2627	2672
15°	4313	2883	2134	2179	2338
20°	7491	2287	1633	1890	2147
25°	16695	2758	1331	1742	2008
30°	49932	3368	1165	1722	2102
35°	192203	3801	1044	1767	2222
40°	446122	3321	1002	1803	2376
45°	604249	2512	868	1954	2574
50°	473775	1501	887	2081	2831
55°	227395	650	841	2256	3097
60°	20788	88	746	2412	3465
65°	2283	0	675	2491	3736
70°	577	0	833	2629	4039
75°	593	169	1101	2965	4660
80°	505	505	1389	3031	4925
85°	503	503	2264	2768	5535

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 604249 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.8
10°-20°	3.5	1.6
20°-30°	8.3	3.8
30°-40°	45.3	20.7
40°-50°	109.7	50.1
50°-60°	43.8	20.0
60°-70°	3.8	1.7
70°-80°	2.1	1.0
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°	13.4	6.1
0°-40°	58.7	26.8
0°-60°	212.1	96.9
0°-90°	219.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	219.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	19	19	19	19	19	
5°	24	21	18	15	15	2
15°	19	13	9	10	10	7
25°	69	11	6	7	8	42
35°	718	14	4	7	8	507
45°	1948	8	3	6	8	1374
55°	595	2	2	6	8	554
65°	4	0	1	5	7	11
75°	1	0	1	4	6	1
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
2.5°	21.8	21.8	22.1	21.8	21.8	21.8	21.8	21.6	21.6	21.6	21.0
5°	24.0	24.0	24.0	24.0	23.8	23.8	23.8	23.6	23.6	23.4	21.4
7.5°	24.9	24.9	24.7	24.7	24.5	24.5	24.2	24.0	23.8	23.6	20.5
10°	23.4	23.4	23.4	23.1	23.1	22.9	22.7	22.5	22.3	21.8	18.1
12.5°	20.7	20.7	21.0	20.7	20.5	20.3	19.9	19.7	19.4	19.0	15.1
15°	19.0	19.0	19.0	18.8	18.6	18.1	17.9	17.5	17.3	16.6	12.7
17.5°	24.2	24.2	24.0	23.6	22.7	22.1	21.0	20.1	19.0	17.7	10.9
20°	32.1	32.1	31.7	31.2	30.1	29.0	27.3	25.8	24.0	22.5	9.8
22.5°	46.5	47.2	45.9	44.3	42.8	40.2	37.8	35.4	32.3	29.7	10.0
25°	69.0	69.7	69.0	65.5	62.7	59.2	54.6	49.8	44.5	39.7	11.4
27.5°	111.8	112.2	111.1	102.6	98.0	88.9	80.8	72.9	64.2	55.5	12.4
30°	197.2	197.4	190.4	173.4	158.3	138.2	121.2	104.8	91.1	77.1	13.3
31°	259.6	253.5	238.7	218.1	194.1	167.0	143.7	122.5	102.0	86.9	13.5
32°	329.7	328.9	304.2	268.6	236.5	202.6	167.5	140.4	116.8	96.3	13.8
33°	422.5	423.0	384.1	342.2	289.6	244.1	198.1	160.9	132.5	107.4	14.2
34°	567.5	533.5	487.8	431.0	359.4	291.1	231.2	184.7	146.7	118.1	14.2
35°	718.0	683.7	633.5	547.4	449.2	353.5	270.8	210.3	163.8	129.7	14.2
36°	886.6	857.5	781.5	671.7	546.3	412.5	312.7	239.8	180.6	140.2	14.0
37°	1068.7	1026.1	941.8	821.9	654.2	495.5	363.8	269.0	197.4	151.5	13.5
38°	1253.6	1215.2	1108.9	963.6	783.1	583.0	414.9	297.2	212.9	160.1	12.9
39°	1393.8	1372.9	1267.4	1105.1	885.9	666.0	467.5	327.3	229.3	168.6	12.2
40°	1558.5	1524.6	1424.6	1223.9	1007.5	750.5	519.1	354.0	242.8	175.3	11.6
41°	1708.7	1665.9	1539.7	1345.8	1104.9	826.5	568.0	381.5	253.7	179.3	11.1
42°	1837.5	1787.7	1655.9	1450.2	1186.4	887.2	607.1	401.1	264.0	182.6	10.5
43°	1920.9	1877.9	1748.2	1528.5	1256.0	942.9	643.5	421.7	270.3	184.7	9.6
44°	1961.6	1918.1	1792.5	1577.7	1298.8	976.3	667.1	435.9	277.3	187.6	9.0
45°	1948.5	1904.3	1782.9	1578.6	1312.1	988.3	677.1	442.2	281.0	190.2	8.1
46°	1888.4	1857.4	1735.1	1537.5	1286.8	975.4	671.5	437.4	279.7	190.2	7.2
47°	1804.1	1768.7	1652.4	1467.0	1225.5	942.2	648.5	422.8	271.6	185.8	6.3
48°	1689.3	1659.1	1536.8	1354.9	1131.3	870.0	596.8	399.0	259.0	177.3	5.5
49°	1545.1	1503.2	1389.4	1211.7	1008.6	767.3	528.9	358.8	238.7	165.3	4.8
50°	1388.8	1337.0	1249.3	1068.2	881.8	657.9	439.6	303.3	210.1	149.6	4.4
51°	1235.7	1183.1	1099.5	945.5	746.4	545.9	354.6	242.2	172.9	128.0	3.7
52°	1077.0	1032.9	939.2	818.2	638.9	442.4	295.4	204.8	143.7	107.4	3.1
53°	918.9	888.7	799.6	677.1	513.4	361.4	241.3	175.3	125.3	91.9	2.4
54°	760.6	727.6	659.9	550.7	413.8	285.2	204.6	146.7	108.7	80.1	2.2
55°	594.8	577.8	515.3	419.9	313.6	227.5	166.0	126.2	91.1	67.0	1.7
56°	458.1	438.9	381.9	304.6	233.0	178.2	134.3	103.1	77.1	56.1	1.3
57°	300.0	280.4	242.6	212.7	169.7	129.9	102.6	81.2	62.7	46.5	1.1
58°	177.3	159.4	153.5	131.0	113.1	88.2	75.8	60.5	46.3	36.7	0.7
59°	81.4	82.8	73.6	69.0	62.7	56.1	46.1	40.4	31.7	26.4	0.4
60°	47.4	44.8	43.7	39.1	34.7	30.8	27.7	24.5	19.9	17.0	0.2
62.5°	16.2	15.5	15.9	14.4	13.5	13.1	12.0	10.3	8.5	7.0	0.0
65°	4.4	4.4	4.1	3.9	3.7	3.5	3.3	2.8	2.6	2.2	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	1.5	1.5	1.3	1.3	1.1	1.1	0.9	0.9	0.7	0.7	0.0
70°	0.9	0.9	0.9	0.7	0.7	0.7	0.4	0.4	0.4	0.2	0.0
72.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.2	0.2
75°	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.4
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	19.4	19.4	19.4	19.4	19.4	19.4
2.5°	20.1	19.2	18.1	17.5	17.3	17.0
5°	19.2	17.5	16.2	15.3	15.1	15.1
7.5°	17.3	15.3	14.0	13.5	13.3	13.3
10°	15.1	13.3	12.2	11.8	12.0	12.0
12.5°	12.7	11.1	10.7	10.7	10.9	11.1
15°	10.3	9.4	9.4	9.6	10.0	10.3
17.5°	8.5	8.1	8.3	8.7	9.2	9.6
20°	7.0	7.0	7.4	8.1	8.7	9.2
22.5°	5.9	6.1	6.8	7.4	8.3	8.7
25°	5.0	5.5	6.1	7.2	8.1	8.3
27.5°	4.4	5.0	5.9	7.0	7.9	8.3
30°	3.7	4.6	5.7	6.8	7.9	8.3
31°	3.5	4.4	5.5	6.8	7.9	8.3
32°	3.3	4.4	5.5	6.8	7.9	8.3
33°	3.1	4.1	5.5	6.6	7.9	8.3
34°	2.8	4.1	5.5	6.8	7.9	8.3
35°	2.6	3.9	5.2	6.6	7.6	8.3
36°	2.4	3.9	5.2	6.6	7.9	8.3
37°	2.2	3.9	5.2	6.6	7.6	8.3
38°	2.2	3.7	5.0	6.6	7.6	8.3
39°	2.0	3.5	5.0	6.6	7.6	8.3
40°	1.7	3.5	4.8	6.3	7.6	8.3
41°	1.5	3.3	4.8	6.3	7.6	8.3
42°	1.3	3.3	4.8	6.3	7.6	8.3
43°	1.1	3.1	4.6	6.3	7.6	8.3
44°	1.1	3.1	4.6	6.3	7.6	8.3
45°	0.9	2.8	4.4	6.3	7.6	8.3
46°	0.9	2.8	4.4	6.1	7.6	8.3
47°	0.7	2.8	4.4	6.1	7.6	8.3
48°	0.7	2.6	4.4	6.1	7.6	8.3
49°	0.4	2.6	4.4	6.1	7.6	8.3
50°	0.4	2.6	4.1	6.1	7.6	8.3
51°	0.4	2.6	4.1	6.1	7.6	8.3
52°	0.4	2.4	4.1	6.1	7.6	8.3
53°	0.4	2.4	4.1	6.1	7.6	8.3
54°	0.4	2.4	3.9	6.1	7.6	8.3
55°	0.4	2.2	3.9	5.9	7.6	8.1
56°	0.4	2.2	3.9	5.9	7.6	8.1
57°	0.4	2.2	3.7	5.9	7.6	8.1
58°	0.4	2.0	3.7	5.7	7.4	8.1
59°	0.4	2.0	3.5	5.7	7.4	7.9
60°	0.4	1.7	3.5	5.5	7.2	7.9
62.5°	0.4	1.5	3.1	5.2	7.0	7.4
65°	0.4	1.3	2.8	4.8	6.8	7.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.4	1.3	2.6	4.6	6.3	7.0
70°	0.4	1.3	2.4	4.1	6.1	6.3
72.5°	0.7	1.3	2.2	3.9	5.7	5.9
75°	0.9	1.3	2.0	3.5	5.2	5.5
77.5°	0.9	1.3	1.7	3.1	4.6	4.8
80°	0.9	1.1	1.5	2.4	3.7	3.9
82.5°	0.9	1.1	1.1	2.0	2.8	3.1
85°	0.7	0.9	0.9	1.1	2.0	2.2
87.5°	0.7	0.9	0.4	0.7	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)