

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: P1334039

Luminaire Tested: P3A02R159035DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334039
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: P3A02R159035DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

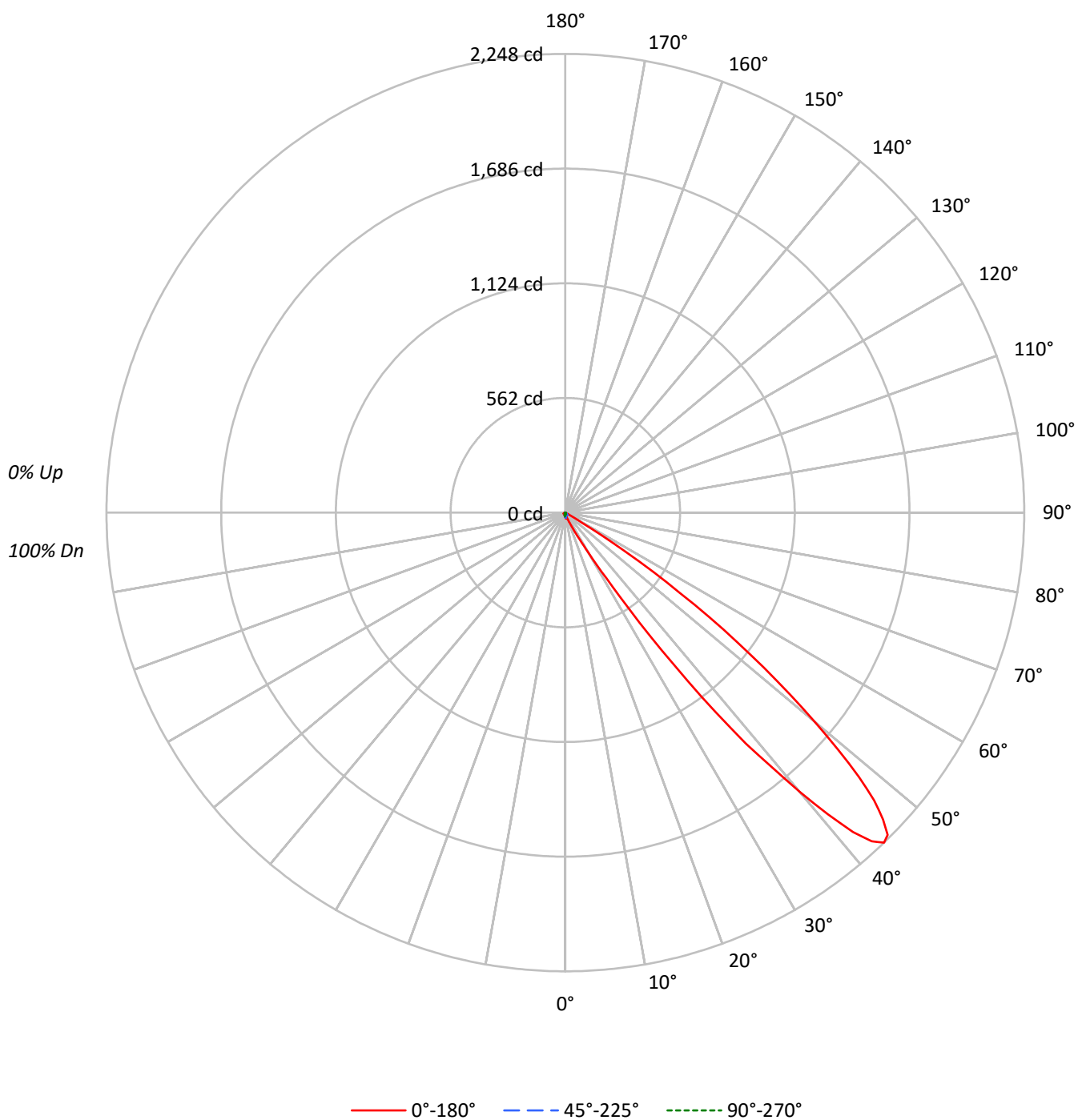
Lumens per Lamp: N/A
Luminaire Lumens: 251.1 lumens
Efficiency: N/A
Efficacy: 69.7 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.48 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	89
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	54	49	44
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4890	4890	4890	4890	4890
5°	6053	5393	4402	3852	3808
10°	5967	4631	3407	3006	3073
15°	4949	3292	2452	2497	2679
20°	8587	2637	1867	2170	2450
25°	19138	3145	1524	2008	2299
30°	57224	3874	1342	1975	2405
35°	220284	4363	1205	2008	2543
40°	511301	3807	1145	2090	2719
45°	692537	2884	1023	2264	2946
50°	542993	1706	1023	2388	3241
55°	260617	765	956	2600	3555
60°	23814	132	877	2763	3947
65°	2594	0	778	2854	4307
70°	641	0	962	3077	4680
75°	678	254	1271	3389	5338
80°	631	631	1642	3536	5683
85°	755	755	2516	3271	6290

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 692537 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.9	0.8
10°-20°	4.0	1.6
20°-30°	9.5	3.8
30°-40°	51.9	20.7
40°-50°	125.7	50.1
50°-60°	50.2	20.0
60°-70°	4.3	1.7
70°-80°	2.5	1.0
80°-90°	1.1	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°	15.4	6.1
0°-40°	67.3	26.8
0°-60°	243.2	96.8
0°-90°	251.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	251.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	22	22	22	22	22	
5°	28	24	20	18	17	3
15°	22	14	11	11	12	8
25°	79	13	6	8	10	48
35°	823	16	4	8	10	581
45°	2233	9	3	7	10	1575
55°	682	2	2	7	9	635
65°	5	0	2	6	8	13
75°	1	0	2	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°	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3	22.3
2.5°	25.0	25.0	25.3	25.0	25.0	25.0	25.0	24.8	24.8	24.8	24.0
5°	27.5	27.5	27.5	27.5	27.3	27.3	27.3	27.0	27.0	26.8	24.5
7.5°	28.5	28.5	28.3	28.3	28.0	28.0	27.8	27.5	27.3	27.0	23.5
10°	26.8	26.8	26.8	26.5	26.5	26.3	26.0	25.8	25.5	25.0	20.8
12.5°	23.8	23.8	24.0	23.8	23.5	23.3	22.8	22.5	22.3	21.8	17.3
15°	21.8	21.8	21.8	21.5	21.3	20.8	20.5	20.0	19.8	19.0	14.5
17.5°	27.8	27.8	27.5	27.0	26.0	25.3	24.0	23.0	21.8	20.3	12.5
20°	36.8	36.8	36.3	35.8	34.5	33.3	31.3	29.5	27.5	25.8	11.3
22.5°	53.3	54.1	52.6	50.8	49.1	46.0	43.3	40.5	37.0	34.0	11.5
25°	79.1	79.8	79.1	75.1	71.8	67.8	62.6	57.1	51.1	45.5	13.0
27.5°	128.1	128.6	127.4	117.6	112.4	101.9	92.6	83.6	73.6	63.6	14.3
30°	226.0	226.2	218.2	198.7	181.4	158.4	138.9	120.1	104.4	88.3	15.3
31°	297.6	290.6	273.5	250.0	222.5	191.5	164.7	140.4	116.9	99.6	15.5
32°	377.9	376.9	348.6	307.8	271.0	232.3	192.0	160.9	133.9	110.4	15.8
33°	484.3	484.8	440.2	392.2	331.9	279.8	227.0	184.4	151.9	123.1	16.3
34°	650.5	611.4	559.1	494.0	411.9	333.6	265.0	211.7	168.2	135.4	16.3
35°	822.9	783.6	726.0	627.4	514.8	405.2	310.3	241.0	187.7	148.7	16.3
36°	1016.1	982.8	895.7	769.8	626.2	472.8	358.4	274.8	207.0	160.7	16.0
37°	1224.8	1176.0	1079.4	942.0	749.8	567.9	417.0	308.3	226.2	173.7	15.5
38°	1436.8	1392.8	1270.9	1104.4	897.5	668.2	475.5	340.6	244.0	183.4	14.8
39°	1597.5	1573.5	1452.6	1266.6	1015.3	763.3	535.8	375.2	262.8	193.2	14.0
40°	1786.2	1747.4	1632.8	1402.8	1154.7	860.2	594.9	405.7	278.3	201.0	13.3
41°	1958.4	1909.3	1764.7	1542.4	1266.4	947.3	651.0	437.2	290.8	205.5	12.8
42°	2106.0	2049.0	1897.8	1662.0	1359.7	1016.8	695.8	459.7	302.6	209.2	12.0
43°	2201.6	2152.3	2003.7	1751.9	1439.6	1080.7	737.5	483.3	309.8	211.7	11.0
44°	2248.2	2198.4	2054.5	1808.2	1488.6	1119.0	764.6	499.5	317.8	215.0	10.3
45°	2233.2	2182.6	2043.5	1809.2	1503.9	1132.7	776.1	506.8	322.1	218.0	9.3
46°	2164.3	2128.8	1988.7	1762.2	1474.8	1118.0	769.6	501.3	320.6	218.0	8.3
47°	2067.7	2027.2	1893.8	1681.3	1404.5	1079.9	743.3	484.5	311.3	213.0	7.3
48°	1936.1	1901.6	1761.4	1552.9	1296.7	997.1	684.0	457.2	296.8	203.2	6.3
49°	1770.9	1722.9	1592.5	1388.8	1156.0	879.5	606.2	411.2	273.5	189.5	5.5
50°	1591.7	1532.4	1431.8	1224.3	1010.6	754.1	503.8	347.6	240.8	171.4	5.0
51°	1416.3	1356.0	1260.1	1083.7	855.4	625.7	406.4	277.6	198.2	146.7	4.3
52°	1234.3	1183.8	1076.4	937.8	732.3	507.0	338.6	234.8	164.7	123.1	3.5
53°	1053.1	1018.6	916.5	776.1	588.4	414.2	276.5	201.0	143.7	105.4	2.8
54°	871.7	833.9	756.3	631.2	474.3	326.9	234.5	168.2	124.6	91.8	2.5
55°	681.7	662.2	590.6	481.3	359.4	260.8	190.2	144.7	104.4	76.8	2.0
56°	525.1	503.0	437.7	349.1	267.0	204.2	153.9	118.1	88.3	64.3	1.5
57°	343.9	321.3	278.1	243.8	194.5	148.9	117.6	93.1	71.8	53.3	1.3
58°	203.2	182.7	175.9	150.2	129.6	101.1	86.8	69.3	53.1	42.0	0.8
59°	93.4	94.9	84.3	79.1	71.8	64.3	52.8	46.3	36.3	30.3	0.5
60°	54.3	51.3	50.1	44.8	39.8	35.3	31.8	28.0	22.8	19.5	0.3
62.5°	18.5	17.8	18.3	16.5	15.5	15.0	13.8	11.8	9.8	8.0	0.0
65°	5.0	5.0	4.8	4.5	4.3	4.0	3.8	3.3	3.0	2.5	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°	1.8	1.8	1.5	1.5	1.3	1.3	1.0	1.0	0.8	0.8	0.0
70°	1.0	1.0	1.0	0.8	0.8	0.8	0.5	0.5	0.5	0.3	0.0
72.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.3	0.3
75°	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.5
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
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°	22.3	22.3	22.3	22.3	22.3	22.3
2.5°	23.0	22.0	20.8	20.0	19.8	19.5
5°	22.0	20.0	18.5	17.5	17.3	17.3
7.5°	19.8	17.5	16.0	15.5	15.3	15.3
10°	17.3	15.3	14.0	13.5	13.8	13.8
12.5°	14.5	12.8	12.3	12.3	12.5	12.8
15°	11.8	10.8	10.8	11.0	11.5	11.8
17.5°	9.8	9.3	9.5	10.0	10.5	11.0
20°	8.0	8.0	8.5	9.3	10.0	10.5
22.5°	6.8	7.0	7.8	8.5	9.5	10.0
25°	5.8	6.3	7.0	8.3	9.3	9.5
27.5°	5.0	5.8	6.8	8.0	9.0	9.5
30°	4.3	5.3	6.5	7.8	9.0	9.5
31°	4.0	5.0	6.3	7.8	9.0	9.5
32°	3.8	5.0	6.3	7.8	9.0	9.5
33°	3.5	4.8	6.3	7.5	9.0	9.5
34°	3.3	4.8	6.3	7.8	9.0	9.5
35°	3.0	4.5	6.0	7.5	8.8	9.5
36°	2.8	4.5	6.0	7.5	9.0	9.5
37°	2.5	4.5	6.0	7.5	8.8	9.5
38°	2.5	4.3	5.8	7.5	8.8	9.5
39°	2.3	4.0	5.8	7.5	8.8	9.5
40°	2.0	4.0	5.5	7.3	8.8	9.5
41°	1.8	3.8	5.5	7.3	8.8	9.5
42°	1.5	3.8	5.5	7.3	8.8	9.5
43°	1.3	3.5	5.3	7.3	8.8	9.5
44°	1.3	3.5	5.3	7.3	8.8	9.5
45°	1.0	3.3	5.0	7.3	8.8	9.5
46°	1.0	3.3	5.0	7.0	8.8	9.5
47°	0.8	3.3	5.0	7.0	8.8	9.5
48°	0.8	3.0	5.0	7.0	8.8	9.5
49°	0.5	3.0	5.0	7.0	8.8	9.5
50°	0.5	3.0	4.8	7.0	8.8	9.5
51°	0.5	3.0	4.8	7.0	8.8	9.5
52°	0.5	2.8	4.8	7.0	8.8	9.5
53°	0.5	2.8	4.8	7.0	8.8	9.5
54°	0.5	2.8	4.5	7.0	8.8	9.5
55°	0.5	2.5	4.5	6.8	8.8	9.3
56°	0.5	2.5	4.5	6.8	8.8	9.3
57°	0.5	2.5	4.3	6.8	8.8	9.3
58°	0.5	2.3	4.3	6.5	8.5	9.3
59°	0.5	2.3	4.0	6.5	8.5	9.0
60°	0.5	2.0	4.0	6.3	8.3	9.0
62.5°	0.5	1.8	3.5	6.0	8.0	8.5
65°	0.5	1.5	3.3	5.5	7.8	8.3



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.5	3.0	5.3	7.3	8.0
70°	0.5	1.5	2.8	4.8	7.0	7.3
72.5°	0.8	1.5	2.5	4.5	6.5	6.8
75°	1.0	1.5	2.3	4.0	6.0	6.3
77.5°	1.0	1.5	2.0	3.5	5.3	5.5
80°	1.0	1.3	1.8	2.8	4.3	4.5
82.5°	1.0	1.3	1.3	2.3	3.3	3.5
85°	0.8	1.0	1.0	1.3	2.3	2.5
87.5°	0.8	1.0	0.5	0.8	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)