

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: P1334438

Luminaire Tested: P3A02R209735DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334438
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R209735DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 97CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

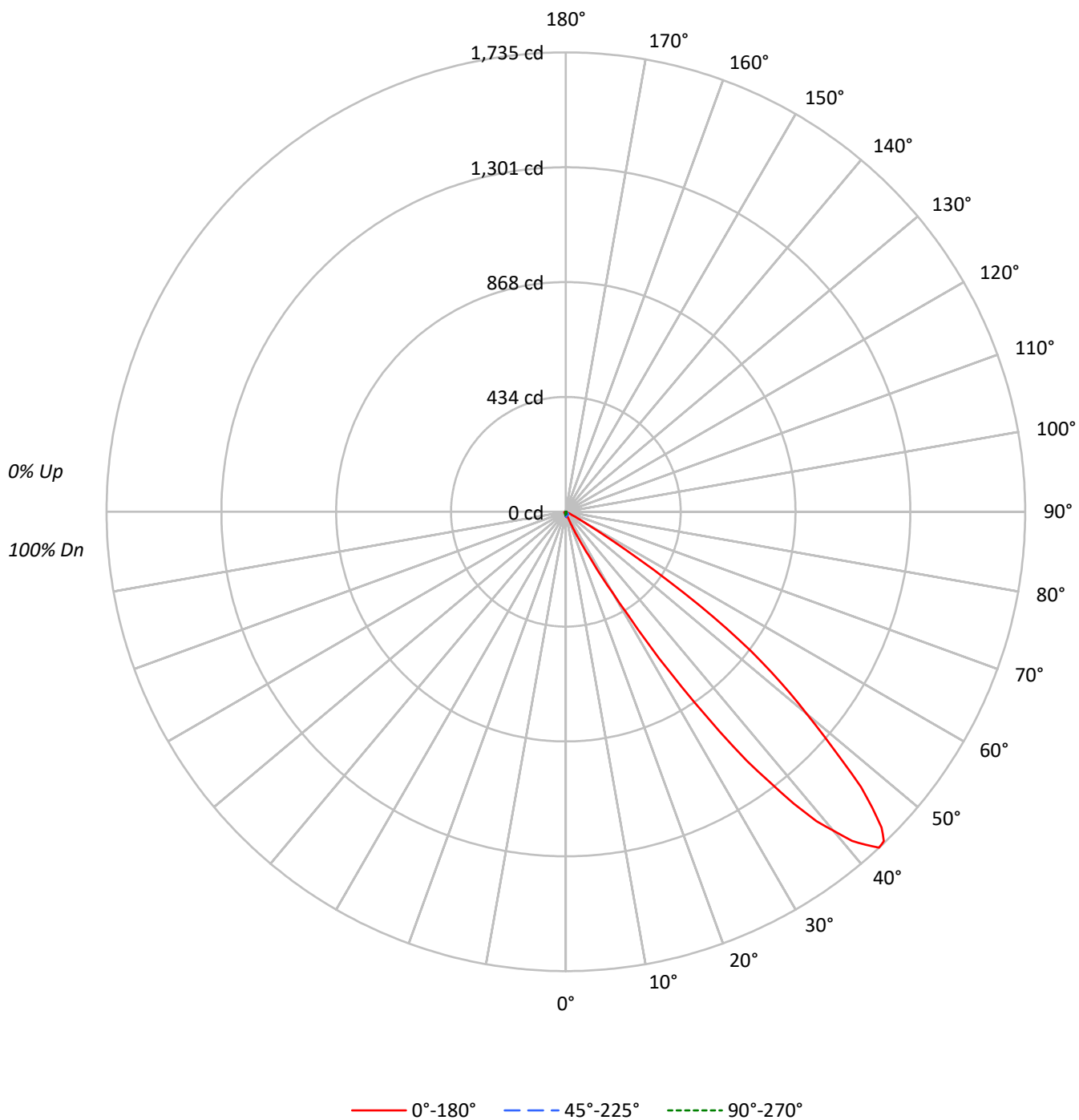
Lumens per Lamp: N/A
Luminaire Lumens: 241.0 lumens
Efficiency: N/A
Efficacy: 66.9 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	108	104	101	97	100	97	94	96	94	92	92	91	89
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3684	3684	3684	3684	3684
5°	4292	3984	3434	2994	2884
10°	4231	3629	2716	2316	2271
15°	3700	2770	1998	1862	1952
20°	5507	2334	1470	1587	1750
25°	23663	2419	1161	1428	1694
30°	89507	2937	987	1367	1671
35°	271360	3507	910	1392	1767
40°	449986	3492	773	1489	1889
45°	523031	2388	713	1551	2047
50°	406025	1330	682	1637	2320
55°	235002	879	688	1835	2523
60°	39734	219	614	1886	2763
65°	3061	0	726	2127	3165
70°	449	0	898	2308	3654
75°	424	169	932	2711	4236
80°	253	253	1389	2904	4925
85°	503	503	2264	2768	5032

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 523031 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.4	0.6
10°-20°	3.0	1.3
20°-30°	9.6	4.0
30°-40°	61.5	25.5
40°-50°	112.5	46.7
50°-60°	46.2	19.2
60°-70°	3.9	1.6
70°-80°	1.9	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°	14.1	5.8
0°-40°	75.5	31.3
0°-60°	234.2	97.2
0°-90°	241.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	241.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	17	17	17	17	17	
5°	20	18	16	14	13	2
15°	16	12	9	8	9	5
25°	98	10	5	6	7	64
35°	1014	13	3	5	7	642
45°	1687	8	2	5	7	1211
55°	615	2	2	5	7	537
65°	6	0	1	4	6	19
75°	0	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°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
2.5°	18.3	18.3	18.3	18.1	18.1	18.3	18.1	18.1	18.1	18.1	17.9
5°	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.3	19.3	19.0	18.1
7.5°	19.9	19.9	19.9	19.9	19.7	19.7	19.7	19.7	19.5	19.3	17.7
10°	19.0	19.0	19.0	18.8	18.8	18.8	18.6	18.6	18.3	18.1	16.3
12.5°	17.2	17.2	17.2	17.2	17.0	17.0	16.8	16.8	16.5	16.3	14.3
15°	16.3	16.3	16.3	16.1	16.1	15.9	15.6	15.4	15.2	14.7	12.2
17.5°	17.7	17.7	17.4	17.4	17.0	16.5	16.3	15.6	15.2	14.5	10.9
20°	23.6	23.8	22.9	22.2	21.7	20.4	19.7	18.6	17.7	16.5	10.0
22.5°	47.6	46.7	45.1	42.6	39.6	37.1	32.6	29.0	26.5	23.1	9.7
25°	97.8	96.9	92.6	89.0	79.9	72.9	63.2	55.3	47.1	39.2	10.0
27.5°	185.9	179.8	178.7	162.2	149.5	131.4	112.6	96.7	82.2	66.1	10.6
30°	353.5	346.5	321.8	296.9	262.7	224.0	187.1	152.6	123.9	97.8	11.6
31°	448.7	455.5	426.5	376.4	325.9	276.3	225.8	182.1	144.9	112.6	12.0
32°	589.8	560.1	529.5	478.1	404.7	341.3	277.9	214.9	166.0	128.4	12.5
33°	723.2	705.7	659.1	595.0	506.9	417.9	335.6	253.7	191.8	147.7	12.7
34°	865.4	846.1	808.3	716.4	619.7	503.0	393.4	298.3	222.6	166.5	12.9
35°	1013.7	1005.6	932.7	852.9	734.0	593.4	462.9	347.2	252.8	183.7	13.1
36°	1163.0	1136.7	1079.6	963.2	839.1	677.0	535.9	392.7	283.3	204.1	13.1
37°	1275.3	1269.4	1193.8	1080.3	934.5	766.2	598.8	443.2	314.1	221.5	13.1
38°	1399.2	1375.9	1299.1	1183.6	1024.2	848.0	664.7	487.2	343.3	237.4	12.9
39°	1503.6	1469.0	1391.5	1277.4	1102.5	910.0	717.0	529.7	369.2	250.5	12.7
40°	1572.0	1548.0	1467.2	1338.7	1173.6	968.7	770.0	564.8	388.4	260.5	12.2
41°	1647.4	1607.6	1527.6	1398.5	1225.3	1020.3	803.3	588.0	403.4	267.0	11.8
42°	1692.5	1659.9	1565.0	1438.6	1262.2	1049.8	830.5	605.6	412.4	270.4	10.9
43°	1734.6	1690.2	1597.8	1462.0	1286.7	1070.6	843.0	613.8	414.5	270.4	9.7
44°	1729.0	1686.8	1591.0	1465.1	1292.1	1076.7	848.2	614.0	411.3	267.0	8.6
45°	1686.6	1644.7	1558.4	1437.5	1272.6	1064.7	837.8	604.9	402.5	261.1	7.7
46°	1608.9	1567.3	1501.1	1391.3	1236.4	1037.5	813.5	585.2	387.7	251.6	6.8
47°	1524.5	1483.9	1416.2	1316.8	1174.5	989.1	778.4	557.6	367.1	237.8	6.1
48°	1401.9	1376.6	1308.6	1223.7	1088.7	913.2	716.8	512.5	339.5	219.9	5.2
49°	1293.7	1266.9	1207.4	1116.1	976.8	824.9	643.2	457.7	303.5	200.0	4.5
50°	1190.2	1166.8	1111.8	1008.8	875.8	718.2	543.8	388.6	258.2	175.3	3.9
51°	1088.9	1071.5	1015.3	920.7	785.7	636.2	471.1	323.6	213.3	145.4	3.6
52°	987.2	985.2	924.3	828.5	698.0	554.4	400.4	273.1	181.0	122.1	3.4
53°	877.8	864.7	811.5	725.4	600.2	469.3	339.5	230.3	155.8	104.0	2.9
54°	753.3	738.6	681.5	603.8	490.3	384.3	273.6	186.2	129.8	87.9	2.7
55°	614.7	589.5	548.1	468.4	383.0	293.3	211.3	147.4	103.7	73.2	2.3
56°	466.3	441.2	417.9	359.2	281.1	218.8	157.4	113.0	81.1	57.8	2.0
57°	324.3	323.0	284.7	239.6	188.0	149.0	107.8	79.7	57.3	44.8	1.6
58°	210.4	203.4	178.9	152.9	123.0	93.1	69.3	54.1	39.0	30.6	1.4
59°	147.4	133.4	120.3	101.9	77.5	58.7	44.6	34.7	27.0	21.3	0.9
60°	90.6	87.6	78.8	62.1	50.3	41.4	33.3	25.6	19.7	15.2	0.5
62.5°	25.8	26.3	23.8	21.1	18.1	15.6	14.0	12.0	10.0	7.9	0.0
65°	5.9	5.7	6.1	5.7	5.2	5.2	4.5	4.1	3.6	3.4	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	1.6	1.6	1.6	1.4	1.4	1.1	1.1	0.9	0.0
70°	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.2	0.0
72.5°	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.2
77.5°	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.2	0.2	0.2	0.2
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
85°	0.2	0.2	0.2	0.2	0.0	0.0	0.2	0.2	0.2	0.0	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°	16.8	16.8	16.8	16.8	16.8	16.8
2.5°	17.4	16.5	15.9	15.2	14.9	14.9
5°	17.0	15.6	14.3	13.6	13.1	13.1
7.5°	15.6	14.0	12.7	12.0	11.8	11.8
10°	14.0	12.2	10.9	10.4	10.4	10.2
12.5°	12.2	10.4	9.5	9.3	9.3	9.3
15°	10.2	8.8	8.2	8.2	8.4	8.6
17.5°	8.6	7.2	7.0	7.5	7.9	7.9
20°	7.2	6.3	6.3	6.8	7.2	7.5
22.5°	6.1	5.4	5.7	6.3	7.0	7.2
25°	5.4	4.8	5.2	5.9	6.6	7.0
27.5°	4.5	4.3	4.8	5.7	6.6	6.8
30°	3.9	3.9	4.5	5.4	6.3	6.6
31°	3.6	3.6	4.5	5.4	6.3	6.6
32°	3.4	3.6	4.3	5.4	6.3	6.6
33°	3.2	3.4	4.3	5.2	6.3	6.6
34°	2.9	3.4	4.3	5.2	6.3	6.6
35°	2.7	3.4	4.3	5.2	6.3	6.6
36°	2.5	3.2	4.1	5.2	6.3	6.6
37°	2.3	3.2	4.1	5.2	6.3	6.6
38°	2.0	2.9	4.1	5.2	6.3	6.6
39°	2.0	2.9	3.9	5.2	6.1	6.6
40°	1.8	2.7	3.9	5.2	6.1	6.6
41°	1.6	2.7	3.9	5.0	6.1	6.6
42°	1.4	2.5	3.6	5.0	6.1	6.6
43°	1.1	2.5	3.6	5.0	6.1	6.6
44°	1.1	2.3	3.6	5.0	6.1	6.6
45°	0.9	2.3	3.6	5.0	6.1	6.6
46°	0.7	2.3	3.6	5.0	6.1	6.6
47°	0.7	2.0	3.4	5.0	6.1	6.6
48°	0.5	2.0	3.4	5.0	6.1	6.6
49°	0.5	2.0	3.4	5.0	6.1	6.8
50°	0.5	2.0	3.4	4.8	6.1	6.8
51°	0.2	2.0	3.4	4.8	6.1	6.8
52°	0.2	2.0	3.2	4.8	6.3	6.8
53°	0.2	1.8	3.2	4.8	6.3	6.8
54°	0.2	1.8	3.2	4.8	6.3	6.6
55°	0.2	1.8	3.2	4.8	6.1	6.6
56°	0.2	1.6	3.2	4.8	6.1	6.6
57°	0.2	1.6	2.9	4.5	6.1	6.3
58°	0.2	1.6	2.9	4.5	6.1	6.3
59°	0.2	1.6	2.9	4.5	5.9	6.3
60°	0.5	1.4	2.7	4.3	5.9	6.3
62.5°	0.5	1.4	2.7	4.3	5.7	6.1
65°	0.5	1.4	2.5	4.1	5.7	6.1



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.1	2.3	3.9	5.4	5.9
70°	0.5	1.4	2.3	3.6	5.2	5.7
72.5°	0.7	1.1	2.0	3.4	5.0	5.4
75°	0.7	1.1	2.0	3.2	4.8	5.0
77.5°	0.9	1.1	1.8	2.7	4.3	4.5
80°	0.9	1.1	1.6	2.3	3.6	3.9
82.5°	0.9	1.1	1.1	1.8	2.7	2.9
85°	0.7	0.9	0.9	1.1	1.8	2.0
87.5°	0.7	0.9	0.7	0.5	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)