

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: P1345922

Luminaire Tested: P3A13R409027DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345922
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: P3A13R409027DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 2700K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

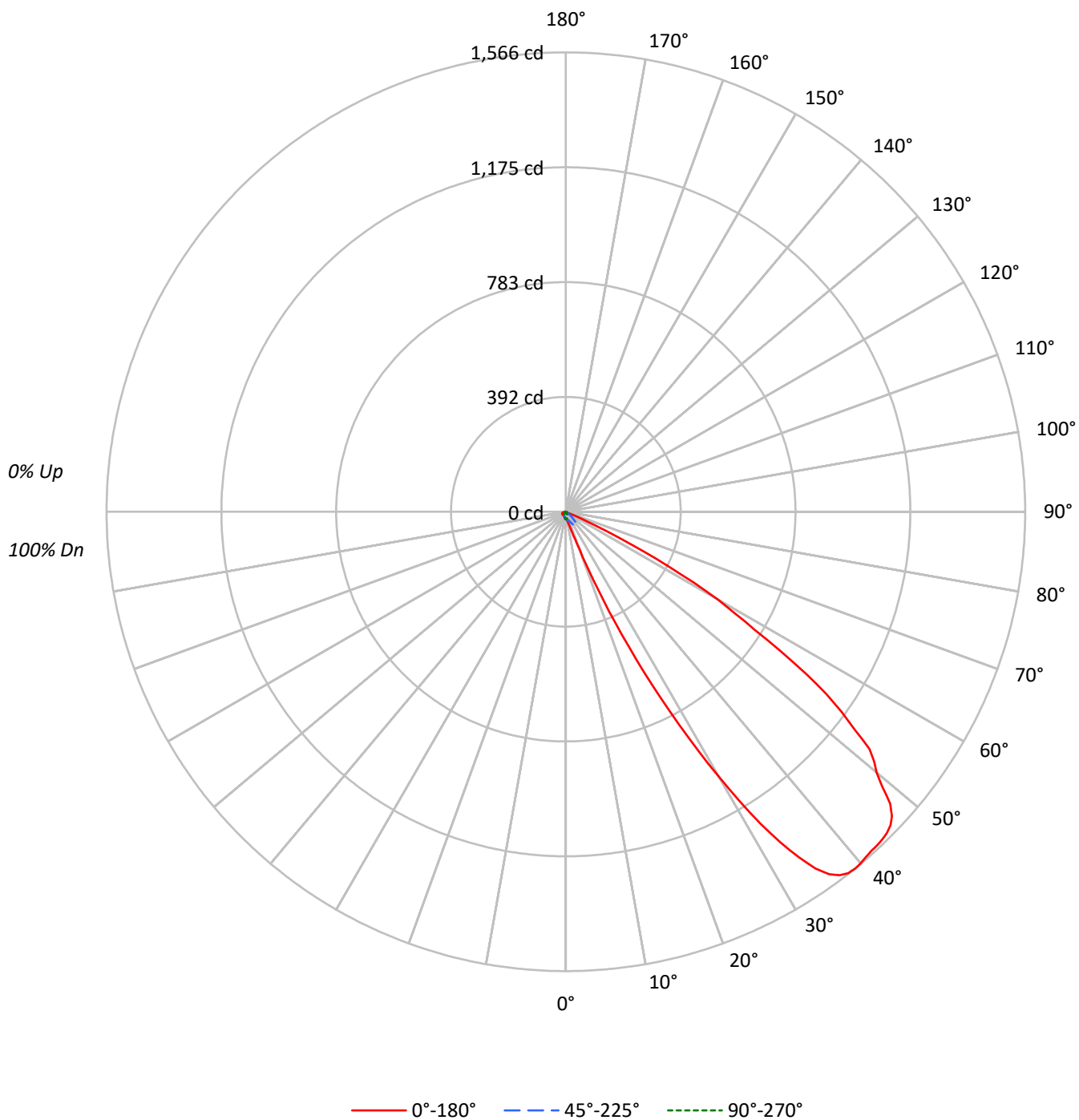
Lumens per Lamp: N/A
Luminaire Lumens: 484.0 lumens
Efficiency: N/A
Efficacy: 33.1 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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°	5460	5460	5460	5460	5460
5°	6075	5877	5371	4887	4799
10°	7326	6235	4943	4453	4364
15°	12009	6765	4245	3927	4041
20°	31736	7981	3524	3524	3827
25°	122378	9896	2807	3218	3774
30°	264041	13167	2254	3140	3722
35°	397416	15580	1901	3105	3801
40°	447725	15658	1660	3177	4065
45°	480081	12125	1520	3318	4404
50°	471865	7573	1365	3480	4844
55°	415144	3747	1376	3900	5429
60°	262786	789	1579	4298	6052
65°	53754	208	1608	4618	6693
70°	1154	256	1731	5129	7694
75°	1101	763	1864	5676	8642
80°	1137	505	2273	6188	10102
85°	1006	1006	4529	6793	11070

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 488753 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.3	0.5
10°-20°	7.7	1.6
20°-30°	37.6	7.8
30°-40°	122.3	25.3
40°-50°	168.6	34.8
50°-60°	117.4	24.3
60°-70°	22.3	4.6
70°-80°	4.0	0.8
80°-90°	1.8	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°	47.6	9.8
0°-40°	169.9	35.1
0°-60°	455.8	94.2
0°-90°	484.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	484.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	25	25	25	25	25	
5°	28	27	24	22	22	3
15°	53	30	19	17	18	19
25°	506	41	12	13	16	260
35°	1485	58	7	12	14	897
45°	1548	39	5	11	14	1177
55°	1086	10	4	10	14	928
65°	104	0	3	9	13	183
75°	1	1	2	7	10	1
85°	0	0	2	3	4	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°	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9
2.5°	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.3	24.9
5°	27.6	27.6	27.6	27.6	27.1	27.1	27.1	26.7	26.7	25.8	24.4
7.5°	29.3	29.3	29.3	29.3	28.9	28.4	28.0	28.0	27.6	25.3	23.6
10°	32.9	32.9	32.4	32.0	31.6	30.7	30.2	29.3	28.0	24.9	22.2
12.5°	40.0	39.1	38.7	37.8	36.4	34.7	32.9	31.6	28.4	24.0	20.9
15°	52.9	52.0	50.2	47.6	44.9	41.3	38.2	35.1	29.8	22.7	18.7
17.5°	75.6	72.9	70.2	65.8	59.1	52.9	46.2	40.4	31.6	21.3	16.9
20°	136.0	134.2	118.2	105.8	85.8	71.6	58.2	48.4	34.2	20.0	15.1
22.5°	280.5	261.8	235.6	192.9	150.2	110.7	80.5	60.9	36.9	18.2	13.3
25°	505.8	476.5	420.0	337.8	249.4	176.5	116.5	79.6	40.9	16.4	11.6
27.5°	765.9	736.1	648.5	535.2	390.7	266.2	166.2	105.3	46.2	14.7	10.2
30°	1042.8	1017.4	906.3	749.4	550.7	372.9	222.7	131.6	52.0	12.9	8.9
31°	1154.3	1121.9	1001.9	834.7	625.8	416.9	245.4	142.7	54.2	12.4	8.4
32°	1257.0	1220.1	1095.7	916.5	686.7	464.5	270.2	152.5	56.0	11.6	8.0
33°	1345.5	1302.3	1182.3	993.9	753.8	508.9	296.0	161.8	57.3	10.7	7.6
34°	1420.6	1383.2	1254.3	1071.7	813.4	551.6	321.4	171.1	58.2	10.2	7.1
35°	1484.6	1450.8	1323.2	1130.8	871.6	592.9	344.5	180.0	58.2	9.3	7.1
36°	1527.7	1498.4	1382.8	1191.2	920.5	628.1	364.0	188.0	58.2	8.4	6.7
37°	1551.3	1522.8	1421.9	1241.0	968.5	662.7	381.8	194.2	57.8	8.0	6.2
38°	1563.3	1538.4	1450.8	1281.5	1001.9	687.6	397.4	199.1	57.3	7.1	6.2
39°	1566.4	1545.5	1469.0	1310.8	1034.3	712.5	408.5	201.8	56.0	6.7	5.8
40°	1564.1	1545.9	1478.8	1337.0	1059.2	732.1	416.5	202.7	54.7	5.8	5.8
41°	1559.7	1545.5	1485.9	1355.2	1079.2	744.5	419.6	200.9	52.9	4.9	5.3
42°	1555.7	1540.1	1489.0	1367.7	1093.0	750.7	419.2	197.4	50.2	4.4	5.3
43°	1555.7	1537.9	1489.5	1375.7	1099.7	751.2	413.8	190.7	46.7	4.0	4.9
44°	1553.0	1536.6	1491.7	1381.0	1101.4	747.2	405.4	183.6	42.7	3.6	4.9
45°	1548.1	1530.8	1491.3	1381.5	1098.3	737.4	391.6	174.2	39.1	2.7	4.9
46°	1538.8	1523.3	1487.3	1378.4	1089.0	723.2	375.1	164.9	35.1	2.2	4.4
47°	1520.1	1508.1	1476.6	1367.7	1074.8	702.3	355.6	154.2	32.0	1.8	4.4
48°	1488.1	1479.7	1458.4	1344.1	1047.7	676.5	334.7	142.7	28.9	1.8	4.4
49°	1429.5	1422.8	1410.4	1306.3	1013.0	645.0	312.0	129.8	25.8	1.3	4.4
50°	1383.2	1376.1	1350.8	1242.8	963.2	604.9	287.1	116.9	22.2	0.9	4.0
51°	1352.6	1341.0	1301.0	1169.0	890.8	551.6	260.0	104.0	18.7	0.9	4.0
52°	1313.9	1296.6	1246.8	1102.8	824.5	498.3	230.7	91.1	16.4	0.9	4.0
53°	1233.0	1226.8	1177.4	1031.7	758.3	447.2	200.5	80.5	14.2	0.9	4.0
54°	1162.3	1153.0	1085.9	933.0	686.3	390.3	169.3	71.1	12.0	0.9	4.0
55°	1085.9	1067.7	1008.1	849.9	601.8	337.8	139.6	61.3	9.8	0.9	3.6
56°	989.4	973.4	909.4	761.0	524.0	284.5	116.9	50.2	7.6	0.9	3.6
57°	872.1	857.4	808.1	651.6	443.2	232.5	95.1	40.4	5.8	0.9	3.6
58°	758.7	742.3	685.8	546.7	357.8	184.5	79.6	32.9	4.4	0.9	3.6
59°	671.6	649.4	576.5	459.2	280.0	140.0	63.1	26.2	3.1	0.9	3.6
60°	599.2	580.9	505.4	382.3	219.6	103.1	46.7	20.0	1.8	0.9	3.6
62.5°	347.1	342.3	274.2	196.9	103.6	48.0	23.1	9.3	0.9	1.3	3.6
65°	103.6	90.2	70.2	41.8	26.7	16.0	8.4	3.1	0.4	1.3	3.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	3.1	3.1	3.1	3.1	3.1	3.1	1.8	0.9	0.4	1.3	3.1
70°	1.8	1.3	1.3	1.3	1.3	0.9	0.9	0.4	0.4	1.3	2.7
72.5°	1.3	1.3	1.3	1.3	0.9	0.9	0.9	0.4	0.9	1.3	2.2
75°	1.3	0.9	0.9	0.9	0.9	0.4	0.4	0.4	0.9	1.3	2.2
77.5°	0.9	0.9	0.9	0.9	0.4	0.4	0.4	0.4	0.9	1.3	2.2
80°	0.9	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.8
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.8
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	1.3	1.3
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):

	112.5°	135°	157.5°	180°
0°	24.9	24.9	24.9	24.9
2.5°	24.0	23.6	23.1	23.1
5°	23.1	22.2	22.2	21.8
7.5°	21.8	20.9	20.9	20.9
10°	20.4	20.0	20.0	19.6
12.5°	18.7	18.7	18.7	18.7
15°	17.3	17.3	17.8	17.8
17.5°	15.6	16.0	16.9	17.3
20°	14.2	15.1	16.0	16.4
22.5°	13.3	14.2	15.6	16.0
25°	12.0	13.3	15.1	15.6
27.5°	11.1	12.9	14.2	15.1
30°	10.2	12.4	13.8	14.7
31°	10.2	12.0	13.8	14.7
32°	9.8	11.6	13.8	14.2
33°	9.8	11.6	13.8	14.2
34°	9.3	11.6	13.3	14.2
35°	9.3	11.6	13.3	14.2
36°	8.9	11.1	13.3	14.2
37°	8.9	11.1	13.3	14.2
38°	8.4	11.1	13.3	14.2
39°	8.4	11.1	13.3	14.2
40°	8.4	11.1	13.3	14.2
41°	8.0	11.1	13.3	14.2
42°	8.0	11.1	13.3	14.2
43°	8.0	10.7	13.3	14.2
44°	8.0	10.7	13.3	14.2
45°	7.6	10.7	13.3	14.2
46°	7.6	10.7	13.3	14.2
47°	7.6	10.7	13.3	14.2
48°	7.6	10.7	13.3	14.2
49°	7.6	10.7	13.3	14.2
50°	7.1	10.2	13.3	14.2
51°	7.1	10.2	13.3	14.2
52°	7.1	10.2	13.3	14.2
53°	7.1	10.2	13.3	14.2
54°	6.7	10.2	13.3	14.2
55°	6.7	10.2	13.3	14.2
56°	6.7	10.2	13.3	13.8
57°	6.7	10.2	12.9	13.8
58°	6.7	9.8	12.9	13.8
59°	6.7	9.8	12.9	13.8
60°	6.7	9.8	12.9	13.8
62.5°	6.2	9.8	12.4	13.3
65°	5.8	8.9	12.4	12.9



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	5.8	8.4	11.6	12.4
70°	5.3	8.0	11.1	12.0
72.5°	4.4	7.6	10.2	11.1
75°	4.0	6.7	9.3	10.2
77.5°	3.6	5.8	8.4	8.9
80°	3.1	4.9	7.1	8.0
82.5°	2.2	3.6	5.8	6.2
85°	1.8	2.7	4.0	4.4
87.5°	1.3	1.3	2.2	2.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)