

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: P1345970

Luminaire Tested: P3A13R409035DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345970
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: P3A13R409035DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

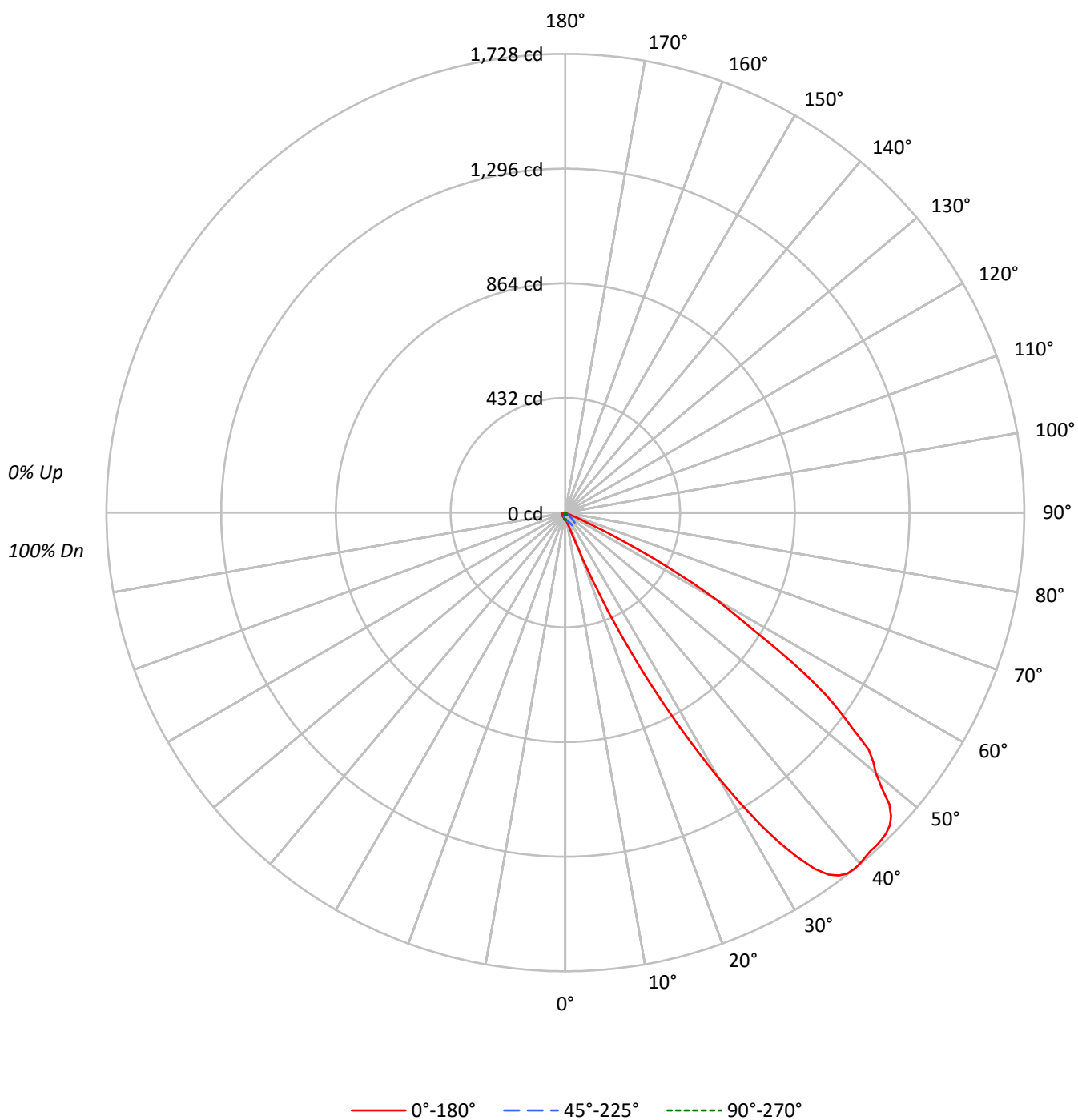
Lumens per Lamp: N/A
Luminaire Lumens: 534.0 lumens
Efficiency: N/A
Efficacy: 36.6 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	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	88
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26
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	20	31	24	20	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	6030	6030	6030	6030	6030
5°	6692	6471	5943	5393	5283
10°	8083	6880	5455	4921	4810
15°	13258	7469	4677	4336	4450
20°	35026	8821	3897	3897	4224
25°	135032	10912	3097	3557	4162
30°	291311	14534	2481	3469	4102
35°	438480	17186	2088	3426	4203
40°	493983	17261	1832	3521	4494
45°	529698	13397	1675	3659	4869
50°	520614	8358	1501	3855	5356
55°	458039	4129	1491	4320	6002
60°	289933	877	1710	4736	6666
65°	59306	259	1764	5085	7368
70°	1282	321	1859	5642	8463
75°	1271	847	2118	6270	9574
80°	1263	631	2526	6819	11113
85°	1258	1258	5032	7296	12328

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 539265 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.6	0.5
10°-20°	8.5	1.6
20°-30°	41.5	7.8
30°-40°	134.9	25.3
40°-50°	186.0	34.8
50°-60°	129.6	24.3
60°-70°	24.6	4.6
70°-80°	4.5	0.8
80°-90°	2.1	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°	52.5	9.8
0°-40°	187.4	35.1
0°-60°	503.0	94.2
0°-90°	534.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	534.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	28	28	28	28	28	
5°	30	29	27	24	24	3
15°	58	33	21	19	20	21
25°	558	45	13	15	17	287
35°	1638	64	8	13	16	990
45°	1708	43	5	12	16	1299
55°	1198	11	4	11	16	1024
65°	114	0	3	10	14	202
75°	2	1	2	7	11	1
85°	0	0	2	3	5	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°	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5	27.5
2.5°	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.0	27.5
5°	30.4	30.4	30.4	30.4	29.9	29.9	29.9	29.4	29.4	28.4	27.0
7.5°	32.4	32.4	32.4	32.4	31.9	31.4	30.9	30.9	30.4	28.0	26.0
10°	36.3	36.3	35.8	35.3	34.8	33.8	33.3	32.4	30.9	27.5	24.5
12.5°	44.1	43.2	42.7	41.7	40.2	38.3	36.3	34.8	31.4	26.5	23.0
15°	58.4	57.4	55.4	52.5	49.5	45.6	42.2	38.7	32.9	25.0	20.6
17.5°	83.4	80.4	77.5	72.6	65.2	58.4	51.0	44.6	34.8	23.5	18.6
20°	150.1	148.1	130.4	116.7	94.6	79.0	64.2	53.5	37.8	22.1	16.7
22.5°	309.4	288.8	259.9	212.8	165.8	122.1	88.8	67.2	40.7	20.1	14.7
25°	558.1	525.7	463.4	372.7	275.1	194.7	128.5	87.8	45.1	18.1	12.8
27.5°	845.0	812.1	715.5	590.4	431.1	293.8	183.4	116.2	51.0	16.2	11.3
30°	1150.5	1122.5	999.9	826.8	607.6	411.4	245.7	145.2	57.4	14.2	9.8
31°	1273.6	1237.8	1105.4	921.0	690.5	460.0	270.7	157.4	59.8	13.7	9.3
32°	1386.9	1346.2	1208.8	1011.2	757.7	512.5	298.2	168.2	61.8	12.8	8.8
33°	1484.5	1436.9	1304.5	1096.5	831.7	561.5	326.6	178.5	63.3	11.8	8.3
34°	1567.3	1526.1	1383.9	1182.4	897.4	608.6	354.6	188.8	64.2	11.3	7.8
35°	1638.0	1600.7	1459.9	1247.6	961.7	654.2	380.1	198.6	64.2	10.3	7.8
36°	1685.5	1653.2	1525.6	1314.3	1015.6	692.9	401.6	207.4	64.2	9.3	7.4
37°	1711.5	1680.1	1568.8	1369.2	1068.6	731.2	421.3	214.3	63.8	8.8	6.9
38°	1724.8	1697.3	1600.7	1413.8	1105.4	758.7	438.4	219.7	63.3	7.8	6.9
39°	1728.2	1705.1	1620.8	1446.2	1141.2	786.1	450.7	222.6	61.8	7.4	6.4
40°	1725.7	1705.6	1631.6	1475.1	1168.6	807.7	459.5	223.6	60.3	6.4	6.4
41°	1720.8	1705.1	1639.4	1495.2	1190.7	821.4	462.9	221.7	58.4	5.4	5.9
42°	1716.4	1699.3	1642.9	1509.0	1205.9	828.3	462.5	217.7	55.4	4.9	5.9
43°	1716.4	1696.8	1643.3	1517.8	1213.3	828.8	456.6	210.4	51.5	4.4	5.4
44°	1713.5	1695.3	1645.8	1523.7	1215.2	824.4	447.2	202.5	47.1	3.9	5.4
45°	1708.1	1689.0	1645.3	1524.2	1211.8	813.6	432.0	192.2	43.2	2.9	5.4
46°	1697.8	1680.6	1640.9	1520.7	1201.5	797.9	413.9	181.9	38.7	2.5	4.9
47°	1677.2	1663.9	1629.1	1509.0	1185.8	774.8	392.3	170.2	35.3	2.0	4.9
48°	1641.9	1632.6	1609.0	1483.0	1155.9	746.4	369.3	157.4	31.9	2.0	4.9
49°	1577.1	1569.8	1556.1	1441.3	1117.6	711.6	344.3	143.2	28.4	1.5	4.9
50°	1526.1	1518.3	1490.3	1371.2	1062.7	667.4	316.8	129.0	24.5	1.0	4.4
51°	1492.3	1479.6	1435.4	1289.8	982.8	608.6	286.9	114.8	20.6	1.0	4.4
52°	1449.6	1430.5	1375.6	1216.7	909.7	549.7	254.5	100.5	18.1	1.0	4.4
53°	1360.4	1353.5	1299.1	1138.2	836.6	493.3	221.2	88.8	15.7	1.0	4.4
54°	1282.4	1272.1	1198.1	1029.4	757.2	430.6	186.8	78.5	13.2	1.0	4.4
55°	1198.1	1178.0	1112.2	937.7	664.0	372.7	154.0	67.7	10.8	1.0	3.9
56°	1091.6	1074.0	1003.4	839.6	578.2	313.9	129.0	55.4	8.3	1.0	3.9
57°	962.2	946.0	891.6	718.9	488.9	256.5	104.9	44.6	6.4	1.0	3.9
58°	837.1	819.0	756.7	603.2	394.8	203.5	87.8	36.3	4.9	1.0	3.9
59°	741.0	716.5	636.1	506.6	309.0	154.5	69.6	28.9	3.4	1.0	3.9
60°	661.1	641.0	557.6	421.7	242.3	113.8	51.5	22.1	2.0	1.0	3.9
62.5°	383.0	377.6	302.6	217.2	114.3	53.0	25.5	10.3	1.0	1.5	3.9
65°	114.3	99.6	77.5	46.1	29.4	17.7	9.3	3.4	0.5	1.5	3.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	3.4	3.4	3.4	3.4	3.4	3.4	2.0	1.0	0.5	1.5	3.4
70°	2.0	1.5	1.5	1.5	1.5	1.0	1.0	0.5	0.5	1.5	2.9
72.5°	1.5	1.5	1.5	1.5	1.0	1.0	1.0	0.5	1.0	1.5	2.5
75°	1.5	1.0	1.0	1.0	1.0	0.5	0.5	0.5	1.0	1.5	2.5
77.5°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.0	1.5	2.5
80°	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	2.0
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	2.0
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	2.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.5	1.5
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°	27.5	27.5	27.5	27.5
2.5°	26.5	26.0	25.5	25.5
5°	25.5	24.5	24.5	24.0
7.5°	24.0	23.0	23.0	23.0
10°	22.6	22.1	22.1	21.6
12.5°	20.6	20.6	20.6	20.6
15°	19.1	19.1	19.6	19.6
17.5°	17.2	17.7	18.6	19.1
20°	15.7	16.7	17.7	18.1
22.5°	14.7	15.7	17.2	17.7
25°	13.2	14.7	16.7	17.2
27.5°	12.3	14.2	15.7	16.7
30°	11.3	13.7	15.2	16.2
31°	11.3	13.2	15.2	16.2
32°	10.8	12.8	15.2	15.7
33°	10.8	12.8	15.2	15.7
34°	10.3	12.8	14.7	15.7
35°	10.3	12.8	14.7	15.7
36°	9.8	12.3	14.7	15.7
37°	9.8	12.3	14.7	15.7
38°	9.3	12.3	14.7	15.7
39°	9.3	12.3	14.7	15.7
40°	9.3	12.3	14.7	15.7
41°	8.8	12.3	14.7	15.7
42°	8.8	12.3	14.7	15.7
43°	8.8	11.8	14.7	15.7
44°	8.8	11.8	14.7	15.7
45°	8.3	11.8	14.7	15.7
46°	8.3	11.8	14.7	15.7
47°	8.3	11.8	14.7	15.7
48°	8.3	11.8	14.7	15.7
49°	8.3	11.8	14.7	15.7
50°	7.8	11.3	14.7	15.7
51°	7.8	11.3	14.7	15.7
52°	7.8	11.3	14.7	15.7
53°	7.8	11.3	14.7	15.7
54°	7.4	11.3	14.7	15.7
55°	7.4	11.3	14.7	15.7
56°	7.4	11.3	14.7	15.2
57°	7.4	11.3	14.2	15.2
58°	7.4	10.8	14.2	15.2
59°	7.4	10.8	14.2	15.2
60°	7.4	10.8	14.2	15.2
62.5°	6.9	10.8	13.7	14.7
65°	6.4	9.8	13.7	14.2



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	6.4	9.3	12.8	13.7
70°	5.9	8.8	12.3	13.2
72.5°	4.9	8.3	11.3	12.3
75°	4.4	7.4	10.3	11.3
77.5°	3.9	6.4	9.3	9.8
80°	3.4	5.4	7.8	8.8
82.5°	2.5	3.9	6.4	6.9
85°	2.0	2.9	4.4	4.9
87.5°	1.5	1.5	2.5	2.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)