

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: P1346002

Luminaire Tested: P3A13R409050DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1346002
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: P3A13R409050DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 5000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

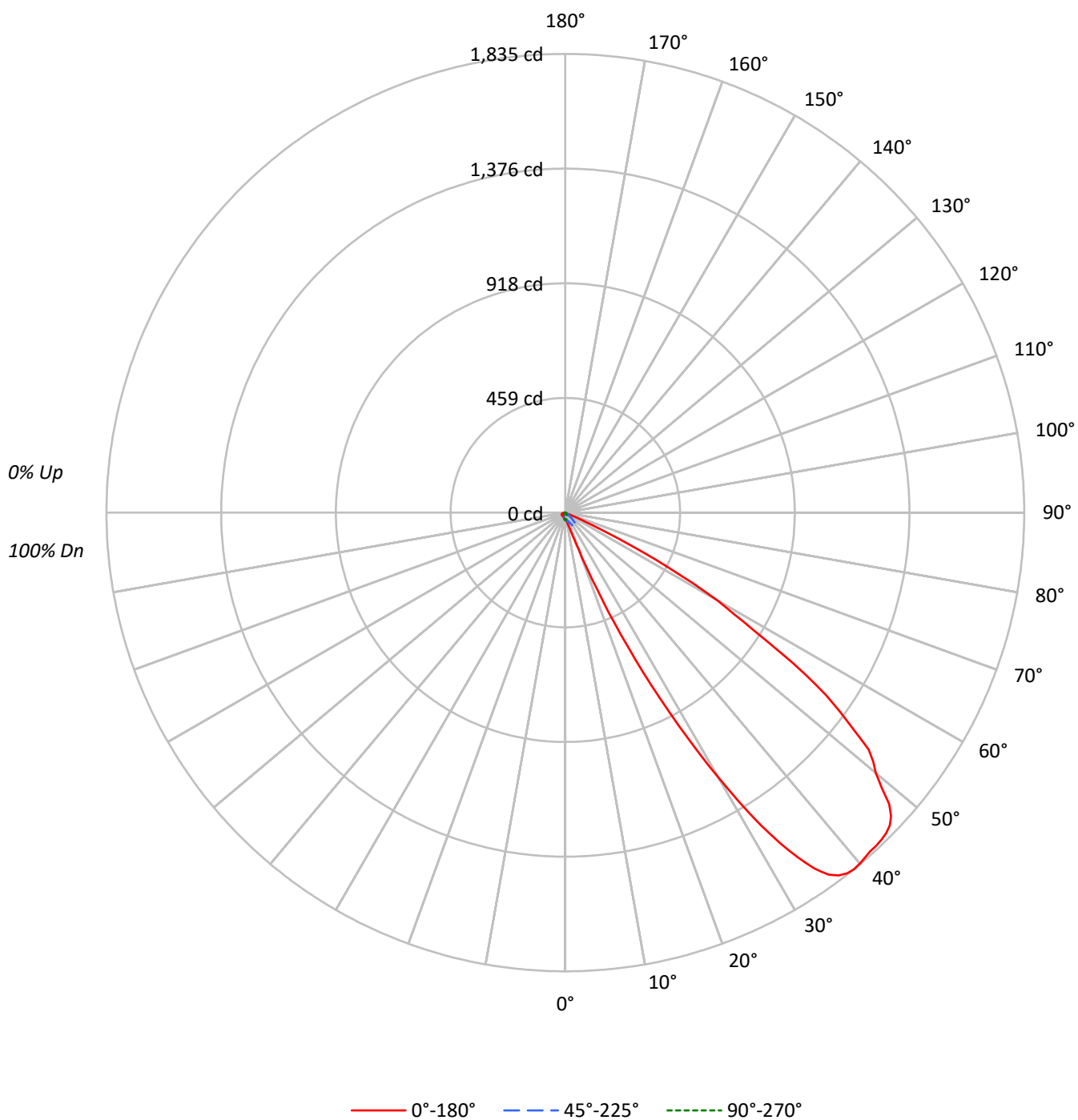
Lumens per Lamp: N/A
Luminaire Lumens: 567.0 lumens
Efficiency: N/A
Efficacy: 38.8 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	6403	6403	6403	6403	6403
5°	7110	6868	6295	5723	5613
10°	8573	7303	5789	5210	5099
15°	14075	7923	4972	4608	4722
20°	37173	9357	4130	4130	4504
25°	143379	11589	3266	3774	4403
30°	309313	15420	2633	3697	4355
35°	465570	18257	2222	3614	4470
40°	524526	18320	1947	3721	4780
45°	562415	14203	1768	3876	5179
50°	552818	8870	1603	4094	5697
55°	486329	4396	1606	4588	6384
60°	307826	921	1842	5043	7061
65°	62938	259	1868	5396	7835
70°	1346	321	1988	6027	9040
75°	1356	847	2203	6608	10167
80°	1263	631	2652	7198	11870
85°	1258	1258	5284	7799	13083

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 572575 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.7	0.5
10°-20°	9.0	1.6
20°-30°	44.0	7.8
30°-40°	143.2	25.3
40°-50°	197.5	34.8
50°-60°	137.6	24.3
60°-70°	26.1	4.6
70°-80°	4.7	0.8
80°-90°	2.2	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°	55.8	9.8
0°-40°	199.0	35.1
0°-60°	534.0	94.2
0°-90°	567.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	567.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	29	29	29	29	29	
5°	32	31	29	26	26	3
15°	62	35	22	20	21	23
25°	593	48	14	16	18	305
35°	1739	68	8	14	17	1051
45°	1814	46	6	12	17	1379
55°	1272	12	4	12	17	1087
65°	121	0	4	10	15	215
75°	2	1	3	8	12	2
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°	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2
2.5°	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	30.2	29.7	29.2
5°	32.3	32.3	32.3	32.3	31.8	31.8	31.8	31.2	31.2	30.2	28.6
7.5°	34.4	34.4	34.4	34.4	33.8	33.3	32.8	32.8	32.3	29.7	27.6
10°	38.5	38.5	38.0	37.5	37.0	35.9	35.4	34.4	32.8	29.2	26.0
12.5°	46.9	45.8	45.3	44.3	42.7	40.6	38.5	37.0	33.3	28.1	24.5
15°	62.0	60.9	58.8	55.7	52.6	48.4	44.8	41.1	34.9	26.6	21.9
17.5°	88.5	85.4	82.3	77.1	69.3	62.0	54.2	47.4	37.0	25.0	19.8
20°	159.3	157.3	138.5	123.9	100.5	83.8	68.2	56.8	40.1	23.4	17.7
22.5°	328.6	306.7	276.0	226.0	176.0	129.7	94.2	71.3	43.2	21.3	15.6
25°	592.6	558.2	492.1	395.7	292.1	206.7	136.4	93.2	47.9	19.3	13.5
27.5°	897.2	862.3	759.7	626.9	457.7	311.9	194.7	123.4	54.2	17.2	12.0
30°	1221.6	1191.9	1061.7	877.9	645.2	436.9	260.9	154.1	60.9	15.1	10.4
31°	1352.3	1314.3	1173.7	977.9	733.2	488.4	287.4	167.1	63.5	14.6	9.9
32°	1472.6	1429.4	1283.6	1073.7	804.5	544.1	316.6	178.6	65.6	13.5	9.4
33°	1576.2	1525.7	1385.1	1164.3	883.1	596.2	346.8	189.5	67.2	12.5	8.9
34°	1664.2	1620.5	1469.4	1255.4	952.9	646.2	376.5	200.5	68.2	12.0	8.3
35°	1739.2	1699.6	1550.2	1324.7	1021.1	694.6	403.6	210.9	68.2	10.9	8.3
36°	1789.7	1755.3	1619.9	1395.5	1078.4	735.8	426.5	220.3	68.2	9.9	7.8
37°	1817.3	1784.0	1665.8	1453.8	1134.6	776.4	447.3	227.6	67.7	9.4	7.3
38°	1831.3	1802.2	1699.6	1501.2	1173.7	805.5	465.5	233.3	67.2	8.3	7.3
39°	1835.0	1810.5	1720.9	1535.6	1211.7	834.7	478.5	236.4	65.6	7.8	6.8
40°	1832.4	1811.0	1732.4	1566.3	1240.9	857.6	487.9	237.4	64.0	6.8	6.8
41°	1827.2	1810.5	1740.7	1587.6	1264.3	872.2	491.6	235.4	62.0	5.7	6.2
42°	1822.5	1804.3	1744.4	1602.2	1280.4	879.5	491.0	231.2	58.8	5.2	6.2
43°	1822.5	1801.7	1744.9	1611.6	1288.2	880.0	484.8	223.4	54.7	4.7	5.7
44°	1819.4	1800.1	1747.5	1617.8	1290.3	875.3	474.9	215.1	50.0	4.2	5.7
45°	1813.6	1793.3	1747.0	1618.4	1286.7	863.9	458.7	204.1	45.8	3.1	5.7
46°	1802.7	1784.5	1742.3	1614.7	1275.7	847.2	439.5	193.2	41.1	2.6	5.2
47°	1780.8	1766.8	1729.8	1602.2	1259.1	822.7	416.6	180.7	37.5	2.1	5.2
48°	1743.3	1733.4	1708.5	1574.6	1227.3	792.5	392.1	167.1	33.8	2.1	5.2
49°	1674.6	1666.8	1652.2	1530.4	1186.7	755.6	365.5	152.0	30.2	1.6	5.2
50°	1620.5	1612.1	1582.4	1455.9	1128.4	708.7	336.4	136.9	26.0	1.0	4.7
51°	1584.5	1571.0	1524.1	1369.5	1043.5	646.2	304.6	121.8	21.9	1.0	4.7
52°	1539.2	1518.9	1460.6	1291.9	965.9	583.7	270.2	106.7	19.3	1.0	4.7
53°	1444.5	1437.2	1379.4	1208.6	888.3	523.8	234.8	94.2	16.7	1.0	4.7
54°	1361.7	1350.7	1272.1	1093.0	804.0	457.2	198.4	83.3	14.1	1.0	4.7
55°	1272.1	1250.7	1181.0	995.6	705.0	395.7	163.5	71.9	11.5	1.0	4.2
56°	1159.1	1140.4	1065.4	891.5	613.9	333.3	136.9	58.8	8.9	1.0	4.2
57°	1021.6	1004.5	946.7	763.4	519.1	272.3	111.4	47.4	6.8	1.0	4.2
58°	888.9	869.6	803.5	640.5	419.2	216.1	93.2	38.5	5.2	1.0	4.2
59°	786.8	760.8	675.4	537.9	328.0	164.0	73.9	30.7	3.6	1.0	4.2
60°	701.9	680.6	592.0	447.8	257.2	120.8	54.7	23.4	2.1	1.0	4.2
62.5°	406.7	400.9	321.3	230.7	121.3	56.2	27.1	10.9	1.0	1.6	4.2
65°	121.3	105.7	82.3	48.9	31.2	18.7	9.9	3.6	0.5	1.6	3.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	3.6	3.6	3.6	3.6	3.6	3.6	2.1	1.0	0.5	1.6	3.6
70°	2.1	1.6	1.6	1.6	1.6	1.0	1.0	0.5	0.5	1.6	3.1
72.5°	1.6	1.6	1.6	1.6	1.0	1.0	1.0	0.5	1.0	1.6	2.6
75°	1.6	1.0	1.0	1.0	1.0	0.5	0.5	0.5	1.0	1.6	2.6
77.5°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.0	1.6	2.6
80°	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.1
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.1
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.6	1.6
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°	29.2	29.2	29.2	29.2
2.5°	28.1	27.6	27.1	27.1
5°	27.1	26.0	26.0	25.5
7.5°	25.5	24.5	24.5	24.5
10°	24.0	23.4	23.4	22.9
12.5°	21.9	21.9	21.9	21.9
15°	20.3	20.3	20.8	20.8
17.5°	18.2	18.7	19.8	20.3
20°	16.7	17.7	18.7	19.3
22.5°	15.6	16.7	18.2	18.7
25°	14.1	15.6	17.7	18.2
27.5°	13.0	15.1	16.7	17.7
30°	12.0	14.6	16.1	17.2
31°	12.0	14.1	16.1	17.2
32°	11.5	13.5	16.1	16.7
33°	11.5	13.5	16.1	16.7
34°	10.9	13.5	15.6	16.7
35°	10.9	13.5	15.6	16.7
36°	10.4	13.0	15.6	16.7
37°	10.4	13.0	15.6	16.7
38°	9.9	13.0	15.6	16.7
39°	9.9	13.0	15.6	16.7
40°	9.9	13.0	15.6	16.7
41°	9.4	13.0	15.6	16.7
42°	9.4	13.0	15.6	16.7
43°	9.4	12.5	15.6	16.7
44°	9.4	12.5	15.6	16.7
45°	8.9	12.5	15.6	16.7
46°	8.9	12.5	15.6	16.7
47°	8.9	12.5	15.6	16.7
48°	8.9	12.5	15.6	16.7
49°	8.9	12.5	15.6	16.7
50°	8.3	12.0	15.6	16.7
51°	8.3	12.0	15.6	16.7
52°	8.3	12.0	15.6	16.7
53°	8.3	12.0	15.6	16.7
54°	7.8	12.0	15.6	16.7
55°	7.8	12.0	15.6	16.7
56°	7.8	12.0	15.6	16.1
57°	7.8	12.0	15.1	16.1
58°	7.8	11.5	15.1	16.1
59°	7.8	11.5	15.1	16.1
60°	7.8	11.5	15.1	16.1
62.5°	7.3	11.5	14.6	15.6
65°	6.8	10.4	14.6	15.1



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	6.8	9.9	13.5	14.6
70°	6.2	9.4	13.0	14.1
72.5°	5.2	8.9	12.0	13.0
75°	4.7	7.8	10.9	12.0
77.5°	4.2	6.8	9.9	10.4
80°	3.6	5.7	8.3	9.4
82.5°	2.6	4.2	6.8	7.3
85°	2.1	3.1	4.7	5.2
87.5°	1.6	1.6	2.6	2.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)