

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: P1345986

Luminaire Tested: P3A13R409040DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345986
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: P3A13R409040DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 4000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

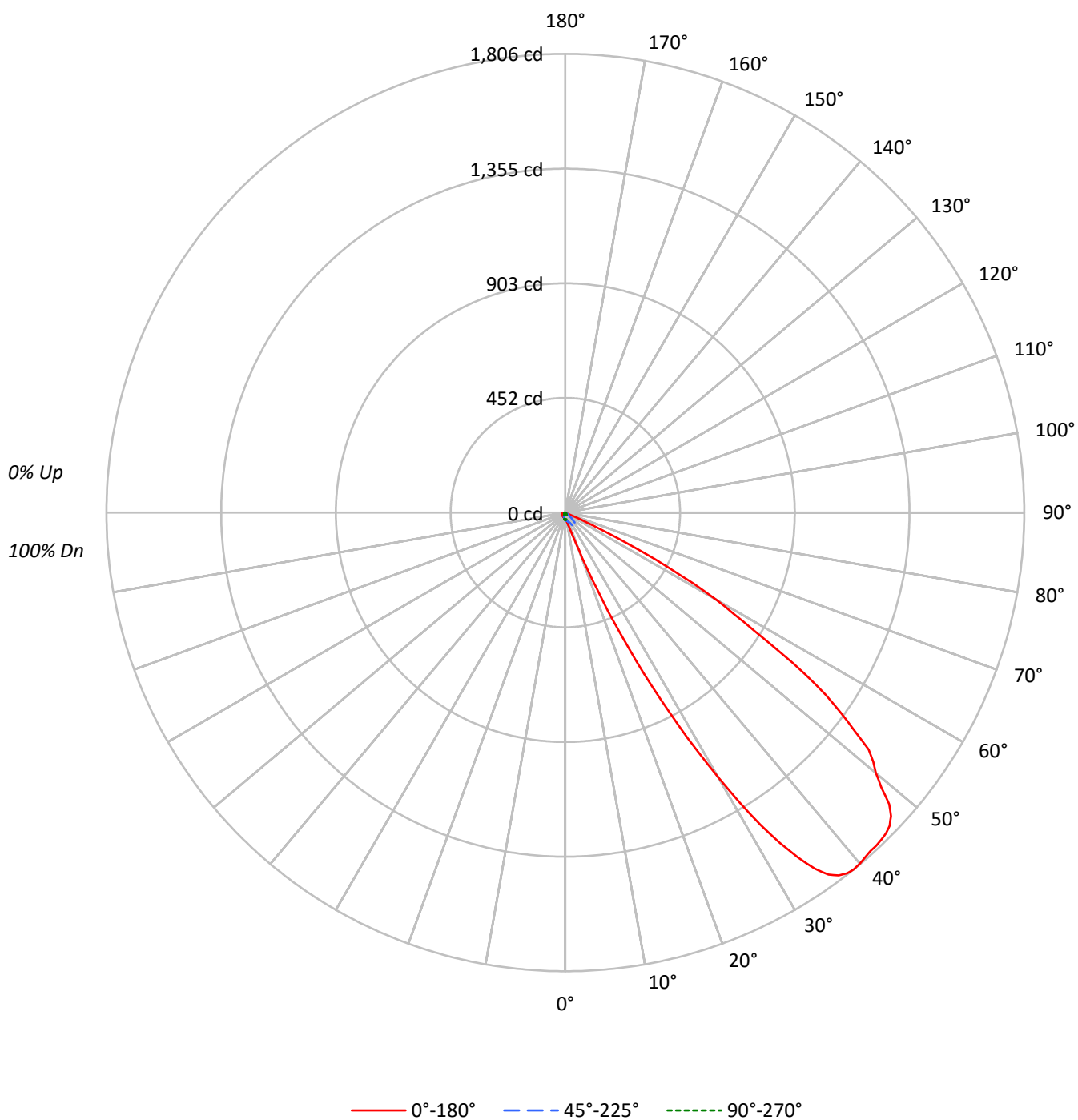
Lumens per Lamp: N/A
Luminaire Lumens: 558.0 lumens
Efficiency: N/A
Efficacy: 38.2 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	6293	6293	6293	6293	6293
5°	7000	6758	6207	5635	5525
10°	8439	7192	5700	5144	5010
15°	13848	7787	4881	4540	4654
20°	36590	9217	4060	4060	4434
25°	141105	11396	3218	3726	4331
30°	304401	15192	2583	3621	4279
35°	458182	17962	2195	3560	4390
40°	516196	18034	1918	3664	4695
45°	553484	13986	1737	3814	5086
50°	544016	8733	1569	4025	5595
55°	478607	4320	1567	4511	6270
60°	302958	877	1798	4956	6973
65°	61952	259	1868	5292	7731
70°	1282	321	1988	5898	8848
75°	1271	847	2203	6524	9997
80°	1263	631	2526	7072	11618
85°	1258	1258	5032	7799	12831

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 563508 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.7	0.5
10°-20°	8.8	1.6
20°-30°	43.3	7.8
30°-40°	141.0	25.3
40°-50°	194.3	34.8
50°-60°	135.4	24.3
60°-70°	25.7	4.6
70°-80°	4.6	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°	54.9	9.8
0°-40°	195.8	35.1
0°-60°	525.5	94.2
0°-90°	558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	558.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	29	29	29	29	29	
5°	32	31	28	26	25	3
15°	61	34	22	20	20	22
25°	583	47	13	15	18	300
35°	1712	67	8	13	16	1034
45°	1785	45	6	12	16	1357
55°	1252	11	4	12	16	1070
65°	119	0	4	10	15	211
75°	2	1	3	8	12	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°	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7
2.5°	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.2	28.7
5°	31.8	31.8	31.8	31.8	31.3	31.3	31.3	30.7	30.7	29.7	28.2
7.5°	33.8	33.8	33.8	33.8	33.3	32.8	32.3	32.3	31.8	29.2	27.2
10°	37.9	37.9	37.4	36.9	36.4	35.4	34.8	33.8	32.3	28.7	25.6
12.5°	46.1	45.1	44.6	43.6	42.0	40.0	37.9	36.4	32.8	27.7	24.1
15°	61.0	60.0	57.9	54.8	51.8	47.7	44.1	40.5	34.3	26.1	21.5
17.5°	87.1	84.0	81.0	75.8	68.2	61.0	53.3	46.6	36.4	24.6	19.5
20°	156.8	154.8	136.3	122.0	98.9	82.5	67.1	55.9	39.5	23.1	17.4
22.5°	323.4	301.8	271.6	222.4	173.2	127.6	92.8	70.2	42.5	21.0	15.4
25°	583.2	549.3	484.3	389.5	287.5	203.4	134.3	91.7	47.1	19.0	13.3
27.5°	882.9	848.6	747.7	617.0	450.4	307.0	191.7	121.4	53.3	16.9	11.8
30°	1202.2	1173.0	1044.9	864.0	634.9	429.9	256.7	151.7	60.0	14.9	10.2
31°	1330.8	1293.4	1155.1	962.4	721.5	480.7	282.9	164.5	62.5	14.3	9.7
32°	1449.2	1406.7	1263.2	1056.7	791.7	535.5	311.6	175.8	64.6	13.3	9.2
33°	1551.2	1501.5	1363.1	1145.8	869.1	586.8	341.3	186.5	66.1	12.3	8.7
34°	1637.8	1594.7	1446.1	1235.5	937.8	635.9	370.5	197.3	67.1	11.8	8.2
35°	1711.6	1672.6	1525.6	1303.7	1004.9	683.6	397.1	207.5	67.1	10.8	8.2
36°	1761.3	1727.5	1594.2	1373.4	1061.3	724.1	419.7	216.8	67.1	9.7	7.7
37°	1788.4	1755.6	1639.3	1430.7	1116.6	764.1	440.2	223.9	66.6	9.2	7.2
38°	1802.3	1773.6	1672.6	1477.4	1155.1	792.8	458.1	229.6	66.1	8.2	7.2
39°	1805.9	1781.8	1693.6	1511.2	1192.5	821.5	470.9	232.7	64.6	7.7	6.7
40°	1803.3	1782.3	1704.9	1541.4	1221.2	844.0	480.2	233.7	63.0	6.7	6.7
41°	1798.2	1781.8	1713.1	1562.4	1244.2	858.3	483.7	231.6	61.0	5.6	6.1
42°	1793.6	1775.6	1716.7	1576.8	1260.1	865.5	483.2	227.5	57.9	5.1	6.1
43°	1793.6	1773.1	1717.2	1586.0	1267.8	866.0	477.1	219.8	53.8	4.6	5.6
44°	1790.5	1771.5	1719.8	1592.2	1269.8	861.4	467.4	211.6	49.2	4.1	5.6
45°	1784.8	1764.9	1719.3	1592.7	1266.3	850.1	451.5	200.9	45.1	3.1	5.6
46°	1774.1	1756.2	1714.6	1589.1	1255.5	833.7	432.5	190.1	40.5	2.6	5.1
47°	1752.6	1738.7	1702.3	1576.8	1239.1	809.7	410.0	177.8	36.9	2.0	5.1
48°	1715.7	1705.9	1681.3	1549.6	1207.8	779.9	385.9	164.5	33.3	2.0	5.1
49°	1648.0	1640.3	1626.0	1506.1	1167.9	743.6	359.7	149.6	29.7	1.5	5.1
50°	1594.7	1586.5	1557.3	1432.8	1110.5	697.4	331.0	134.8	25.6	1.0	4.6
51°	1559.4	1546.0	1499.9	1347.7	1026.9	635.9	299.8	119.9	21.5	1.0	4.6
52°	1514.8	1494.8	1437.4	1271.4	950.6	574.5	266.0	105.1	19.0	1.0	4.6
53°	1421.5	1414.3	1357.5	1189.4	874.2	515.5	231.1	92.8	16.4	1.0	4.6
54°	1340.0	1329.3	1251.9	1075.6	791.2	449.9	195.2	82.0	13.8	1.0	4.6
55°	1251.9	1230.9	1162.2	979.8	693.9	389.5	160.9	70.7	11.3	1.0	4.1
56°	1140.7	1122.3	1048.5	877.3	604.2	328.0	134.8	57.9	8.7	1.0	4.1
57°	1005.4	988.5	931.6	751.2	510.9	268.0	109.7	46.6	6.7	1.0	4.1
58°	874.7	855.8	790.7	630.3	412.5	212.7	91.7	37.9	5.1	1.0	4.1
59°	774.3	748.7	664.6	529.4	322.8	161.4	72.8	30.2	3.6	1.0	4.1
60°	690.8	669.8	582.7	440.7	253.1	118.9	53.8	23.1	2.0	1.0	4.1
62.5°	400.2	394.6	316.2	227.0	119.4	55.3	26.6	10.8	1.0	1.5	4.1
65°	119.4	104.0	81.0	48.2	30.7	18.4	9.7	3.6	0.5	1.5	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	2.0	1.0	0.5	1.5	3.6
70°	2.0	1.5	1.5	1.5	1.5	1.0	1.0	0.5	0.5	1.5	3.1
72.5°	1.5	1.5	1.5	1.5	1.0	1.0	1.0	0.5	1.0	1.5	2.6
75°	1.5	1.0	1.0	1.0	1.0	0.5	0.5	0.5	1.0	1.5	2.6
77.5°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.0	1.5	2.6
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°	28.7	28.7	28.7	28.7
2.5°	27.7	27.2	26.6	26.6
5°	26.6	25.6	25.6	25.1
7.5°	25.1	24.1	24.1	24.1
10°	23.6	23.1	23.1	22.5
12.5°	21.5	21.5	21.5	21.5
15°	20.0	20.0	20.5	20.5
17.5°	17.9	18.4	19.5	20.0
20°	16.4	17.4	18.4	19.0
22.5°	15.4	16.4	17.9	18.4
25°	13.8	15.4	17.4	17.9
27.5°	12.8	14.9	16.4	17.4
30°	11.8	14.3	15.9	16.9
31°	11.8	13.8	15.9	16.9
32°	11.3	13.3	15.9	16.4
33°	11.3	13.3	15.9	16.4
34°	10.8	13.3	15.4	16.4
35°	10.8	13.3	15.4	16.4
36°	10.2	12.8	15.4	16.4
37°	10.2	12.8	15.4	16.4
38°	9.7	12.8	15.4	16.4
39°	9.7	12.8	15.4	16.4
40°	9.7	12.8	15.4	16.4
41°	9.2	12.8	15.4	16.4
42°	9.2	12.8	15.4	16.4
43°	9.2	12.3	15.4	16.4
44°	9.2	12.3	15.4	16.4
45°	8.7	12.3	15.4	16.4
46°	8.7	12.3	15.4	16.4
47°	8.7	12.3	15.4	16.4
48°	8.7	12.3	15.4	16.4
49°	8.7	12.3	15.4	16.4
50°	8.2	11.8	15.4	16.4
51°	8.2	11.8	15.4	16.4
52°	8.2	11.8	15.4	16.4
53°	8.2	11.8	15.4	16.4
54°	7.7	11.8	15.4	16.4
55°	7.7	11.8	15.4	16.4
56°	7.7	11.8	15.4	15.9
57°	7.7	11.8	14.9	15.9
58°	7.7	11.3	14.9	15.9
59°	7.7	11.3	14.9	15.9
60°	7.7	11.3	14.9	15.9
62.5°	7.2	11.3	14.3	15.4
65°	6.7	10.2	14.3	14.9



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	6.7	9.7	13.3	14.3
70°	6.1	9.2	12.8	13.8
72.5°	5.1	8.7	11.8	12.8
75°	4.6	7.7	10.8	11.8
77.5°	4.1	6.7	9.7	10.2
80°	3.6	5.6	8.2	9.2
82.5°	2.6	4.1	6.7	7.2
85°	2.0	3.1	4.6	5.1
87.5°	1.5	1.5	2.6	2.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)