

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: P1345954

Luminaire Tested: P3A13R409030DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345954
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: P3A13R409030DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

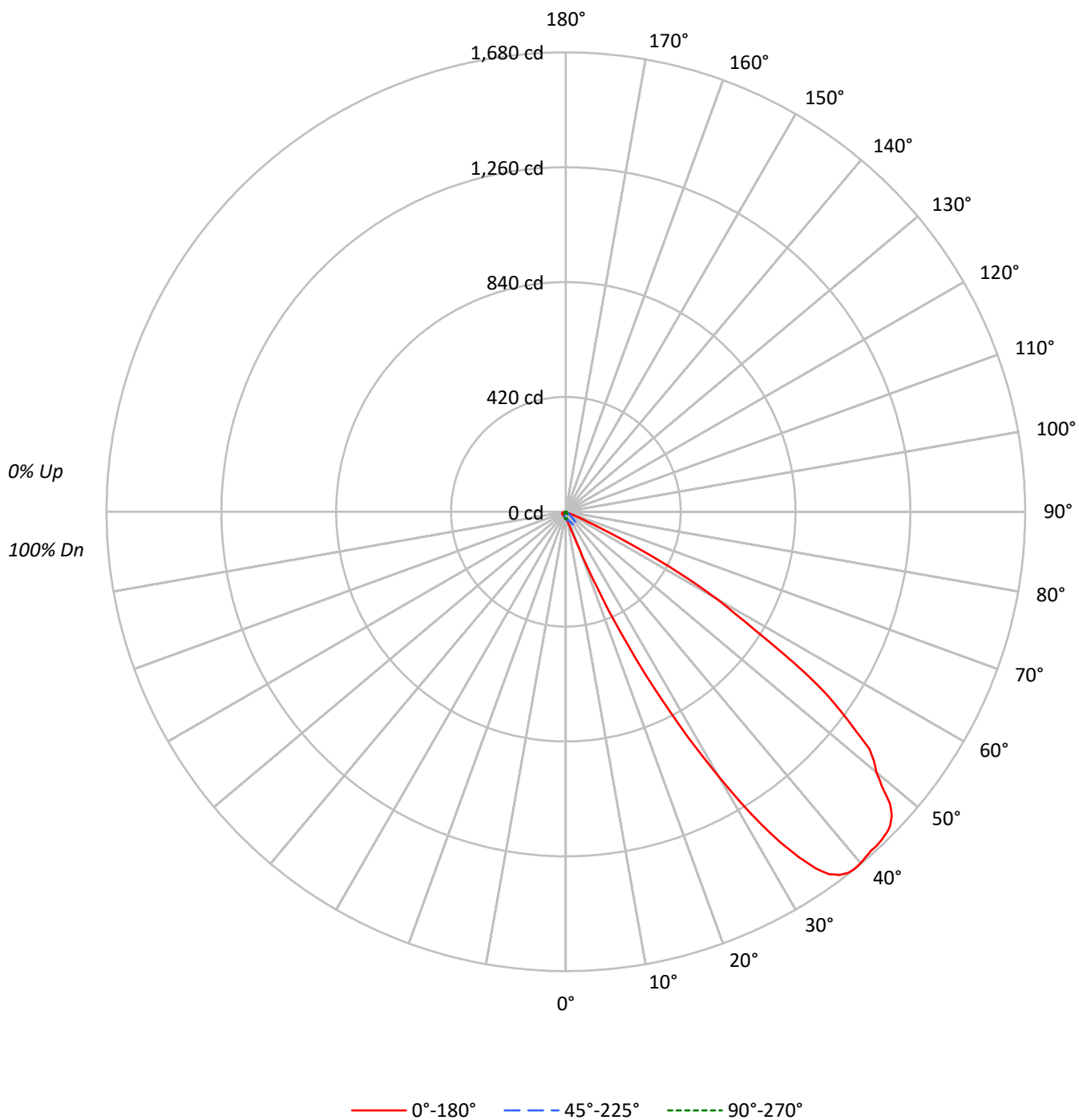
Lumens per Lamp: N/A
Luminaire Lumens: 519.0 lumens
Efficiency: N/A
Efficacy: 35.5 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			0
RW	70	50	30	10	70	50	30	10	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	100		
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86		
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72		
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60		
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50		
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35		
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31	29		
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26	24		
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	21		
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19	18		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5855	5855	5855	5855	5855
5°	6516	6295	5767	5239	5151
10°	7860	6680	5299	4765	4676
15°	12872	7242	4540	4222	4336
20°	34023	8564	3780	3780	4107
25°	131233	10597	3000	3460	4041
30°	283132	14129	2405	3368	3975
35°	426139	16704	2034	3319	4096
40°	480128	16774	1775	3406	4380
45°	514813	12994	1613	3535	4745
50°	506013	8119	1467	3753	5219
55°	445155	4014	1453	4205	5849
60°	281776	833	1667	4605	6491
65°	57646	259	1712	4929	7160
70°	1218	321	1859	5514	8271
75°	1186	847	2033	6015	9320
80°	1263	631	2399	6566	10860
85°	1258	1258	4780	7296	12077

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 524121 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.5	0.5
10°-20°	8.2	1.6
20°-30°	40.3	7.8
30°-40°	131.1	25.3
40°-50°	180.8	34.8
50°-60°	125.9	24.3
60°-70°	23.9	4.6
70°-80°	4.3	0.8
80°-90°	2.0	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°	51.0	9.8
0°-40°	182.2	35.1
0°-60°	488.8	94.2
0°-90°	519.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	519.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	27	27	27	27	27	
5°	30	29	26	24	23	3
15°	57	32	20	19	19	21
25°	542	44	12	14	17	279
35°	1592	62	8	12	15	962
45°	1660	42	5	11	15	1262
55°	1164	10	4	11	15	995
65°	111	0	3	10	14	196
75°	1	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°	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7
2.5°	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.2	26.7
5°	29.6	29.6	29.6	29.6	29.1	29.1	29.1	28.6	28.6	27.6	26.2
7.5°	31.5	31.5	31.5	31.5	31.0	30.5	30.0	30.0	29.6	27.2	25.3
10°	35.3	35.3	34.8	34.3	33.8	32.9	32.4	31.5	30.0	26.7	23.8
12.5°	42.9	41.9	41.5	40.5	39.1	37.2	35.3	33.8	30.5	25.7	22.4
15°	56.7	55.8	53.9	51.0	48.1	44.3	41.0	37.7	31.9	24.3	20.0
17.5°	81.0	78.2	75.3	70.5	63.4	56.7	49.6	43.4	33.8	22.9	18.1
20°	145.8	143.9	126.8	113.4	92.0	76.7	62.4	52.0	36.7	21.4	16.2
22.5°	300.8	280.7	252.6	206.9	161.1	118.7	86.3	65.3	39.6	19.5	14.3
25°	542.4	510.9	450.4	362.2	267.4	189.2	124.9	85.3	43.8	17.6	12.4
27.5°	821.2	789.3	695.4	573.9	419.0	285.5	178.3	113.0	49.6	15.7	11.0
30°	1118.2	1091.0	971.8	803.6	590.5	399.9	238.8	141.1	55.8	13.8	9.5
31°	1237.8	1203.0	1074.3	895.1	671.1	447.1	263.1	153.0	58.1	13.3	9.1
32°	1347.9	1308.3	1174.9	982.8	736.4	498.1	289.8	163.5	60.1	12.4	8.6
33°	1442.8	1396.5	1267.8	1065.7	808.4	545.7	317.4	173.5	61.5	11.4	8.1
34°	1523.3	1483.3	1345.0	1149.2	872.2	591.5	344.6	183.5	62.4	11.0	7.6
35°	1591.9	1555.7	1418.9	1212.5	934.7	635.8	369.4	193.0	62.4	10.0	7.6
36°	1638.2	1606.7	1482.8	1277.4	987.1	673.5	390.4	201.6	62.4	9.1	7.1
37°	1663.4	1632.9	1524.7	1330.7	1038.6	710.7	409.4	208.3	62.0	8.6	6.7
38°	1676.3	1649.6	1555.7	1374.1	1074.3	737.3	426.1	213.5	61.5	7.6	6.7
39°	1679.6	1657.2	1575.3	1405.6	1109.1	764.0	438.0	216.4	60.1	7.1	6.2
40°	1677.3	1657.7	1585.7	1433.7	1135.8	785.0	446.6	217.3	58.6	6.2	6.2
41°	1672.5	1657.2	1593.4	1453.2	1157.3	798.4	449.9	215.4	56.7	5.2	5.7
42°	1668.2	1651.5	1596.7	1466.6	1172.0	805.0	449.5	211.6	53.9	4.8	5.7
43°	1668.2	1649.1	1597.2	1475.2	1179.2	805.5	443.7	204.5	50.0	4.3	5.2
44°	1665.3	1647.7	1599.6	1480.9	1181.1	801.2	434.7	196.8	45.8	3.8	5.2
45°	1660.1	1641.5	1599.1	1481.4	1177.8	790.7	419.9	186.8	41.9	2.9	5.2
46°	1650.1	1633.4	1594.8	1478.0	1167.7	775.5	402.3	176.8	37.7	2.4	4.8
47°	1630.1	1617.2	1583.4	1466.6	1152.5	753.1	381.3	165.4	34.3	1.9	4.8
48°	1595.8	1586.7	1563.8	1441.3	1123.4	725.4	358.9	153.0	31.0	1.9	4.8
49°	1532.8	1525.7	1512.3	1400.8	1086.2	691.6	334.6	139.2	27.6	1.4	4.8
50°	1483.3	1475.6	1448.5	1332.7	1032.9	648.7	307.9	125.4	23.8	1.0	4.3
51°	1450.4	1438.0	1395.1	1253.5	955.2	591.5	278.8	111.5	20.0	1.0	4.3
52°	1408.9	1390.3	1336.9	1182.5	884.1	534.3	247.4	97.7	17.6	1.0	4.3
53°	1322.2	1315.5	1262.6	1106.3	813.1	479.5	215.0	86.3	15.3	1.0	4.3
54°	1246.4	1236.4	1164.4	1000.4	735.9	418.5	181.6	76.3	12.9	1.0	4.3
55°	1164.4	1144.9	1081.0	911.3	645.4	362.2	149.7	65.8	10.5	1.0	3.8
56°	1061.0	1043.8	975.2	816.0	561.9	305.0	125.4	53.9	8.1	1.0	3.8
57°	935.1	919.4	866.5	698.7	475.2	249.3	102.0	43.4	6.2	1.0	3.8
58°	813.6	796.0	735.4	586.3	383.7	197.8	85.3	35.3	4.8	1.0	3.8
59°	720.2	696.4	618.2	492.4	300.3	150.1	67.7	28.1	3.3	1.0	3.8
60°	642.5	623.0	541.9	409.9	235.5	110.6	50.0	21.4	1.9	1.0	3.8
62.5°	372.2	367.0	294.1	211.1	111.1	51.5	24.8	10.0	1.0	1.4	3.8
65°	111.1	96.8	75.3	44.8	28.6	17.2	9.1	3.3	0.5	1.4	3.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	3.3	3.3	3.3	3.3	3.3	3.3	1.9	1.0	0.5	1.4	3.3
70°	1.9	1.4	1.4	1.4	1.4	1.0	1.0	0.5	0.5	1.4	2.9
72.5°	1.4	1.4	1.4	1.4	1.0	1.0	1.0	0.5	1.0	1.4	2.4
75°	1.4	1.0	1.0	1.0	1.0	0.5	0.5	0.5	1.0	1.4	2.4
77.5°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.0	1.4	2.4
80°	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.9
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.9
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.4	1.4
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°	26.7	26.7	26.7	26.7
2.5°	25.7	25.3	24.8	24.8
5°	24.8	23.8	23.8	23.4
7.5°	23.4	22.4	22.4	22.4
10°	21.9	21.4	21.4	21.0
12.5°	20.0	20.0	20.0	20.0
15°	18.6	18.6	19.1	19.1
17.5°	16.7	17.2	18.1	18.6
20°	15.3	16.2	17.2	17.6
22.5°	14.3	15.3	16.7	17.2
25°	12.9	14.3	16.2	16.7
27.5°	11.9	13.8	15.3	16.2
30°	11.0	13.3	14.8	15.7
31°	11.0	12.9	14.8	15.7
32°	10.5	12.4	14.8	15.3
33°	10.5	12.4	14.8	15.3
34°	10.0	12.4	14.3	15.3
35°	10.0	12.4	14.3	15.3
36°	9.5	11.9	14.3	15.3
37°	9.5	11.9	14.3	15.3
38°	9.1	11.9	14.3	15.3
39°	9.1	11.9	14.3	15.3
40°	9.1	11.9	14.3	15.3
41°	8.6	11.9	14.3	15.3
42°	8.6	11.9	14.3	15.3
43°	8.6	11.4	14.3	15.3
44°	8.6	11.4	14.3	15.3
45°	8.1	11.4	14.3	15.3
46°	8.1	11.4	14.3	15.3
47°	8.1	11.4	14.3	15.3
48°	8.1	11.4	14.3	15.3
49°	8.1	11.4	14.3	15.3
50°	7.6	11.0	14.3	15.3
51°	7.6	11.0	14.3	15.3
52°	7.6	11.0	14.3	15.3
53°	7.6	11.0	14.3	15.3
54°	7.1	11.0	14.3	15.3
55°	7.1	11.0	14.3	15.3
56°	7.1	11.0	14.3	14.8
57°	7.1	11.0	13.8	14.8
58°	7.1	10.5	13.8	14.8
59°	7.1	10.5	13.8	14.8
60°	7.1	10.5	13.8	14.8
62.5°	6.7	10.5	13.3	14.3
65°	6.2	9.5	13.3	13.8



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	6.2	9.1	12.4	13.3
70°	5.7	8.6	11.9	12.9
72.5°	4.8	8.1	11.0	11.9
75°	4.3	7.1	10.0	11.0
77.5°	3.8	6.2	9.1	9.5
80°	3.3	5.2	7.6	8.6
82.5°	2.4	3.8	6.2	6.7
85°	1.9	2.9	4.3	4.8
87.5°	1.4	1.4	2.4	2.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)