

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: P1344442

Luminaire Tested: P3A13R259035DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344442
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-75)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R259035DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R25 optic, 3500K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

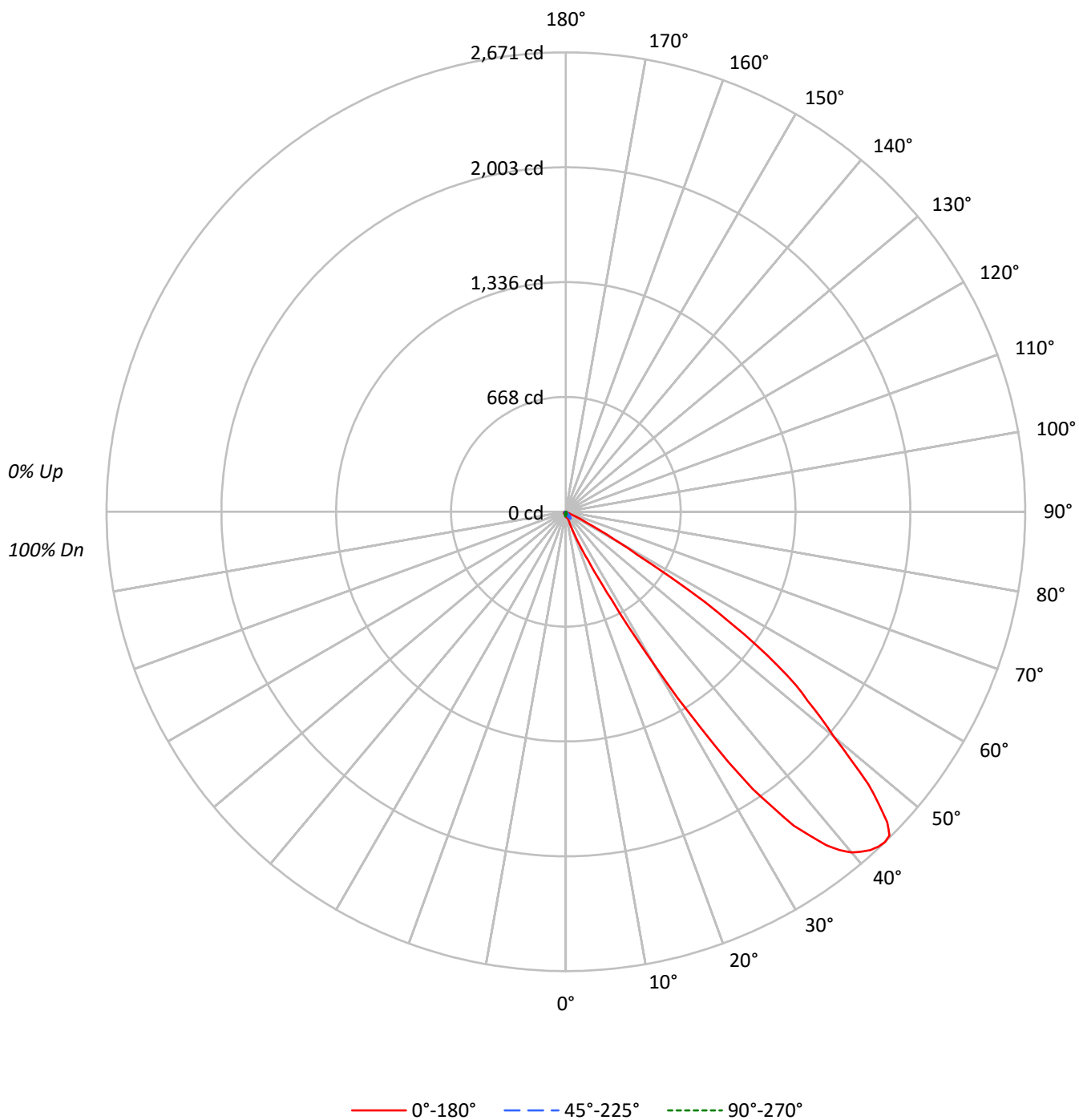
Lumens per Lamp: N/A
Luminaire Lumens: 557.0 lumens
Efficiency: N/A
Efficacy: 38.2 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.61 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	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	108	104	101	97	100	97	94	96	94	92	92	91	89	87		
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73		
3	92	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51		
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42		
6	68	55	45	39	66	54	45	39	52	44	38	50	43	38	48	42	37	35		
7	62	48	39	32	60	47	39	32	46	38	32	44	37	32	43	36	32	29		
8	57	43	34	27	55	42	33	27	40	33	27	39	32	27	38	32	27	25		
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	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	6228	6228	6228	6228	6228
5°	7110	6802	6031	5393	5283
10°	7103	6435	5121	4476	4476
15°	7900	5562	3995	3791	3995
20°	27909	5484	3080	3197	3547
25°	80279	6992	2492	2976	3436
30°	256166	10786	1975	2861	3469
35°	561056	12715	1713	2757	3534
40°	740101	11507	1403	2805	3779
45°	825357	8063	1364	3039	4093
50°	694766	4196	1330	3173	4503
55°	519437	1682	1300	3555	5046
60°	160777	439	1272	3859	5570
65°	13750	0	1505	4047	6123
70°	962	321	1603	4744	6924
75°	847	424	2118	4999	7879
80°	631	631	3157	5556	9345
85°	1258	1258	5032	6290	9812

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 825357 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.5	0.5
10°-20°	6.6	1.2
20°-30°	30.8	5.5
30°-40°	148.4	26.6
40°-50°	232.6	41.7
50°-60°	119.2	21.4
60°-70°	11.3	2.0
70°-80°	3.8	0.7
80°-90°	1.9	0.3
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°	39.9	7.2
0°-40°	188.3	33.8
0°-60°	540.1	97.0
0°-90°	557.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	557.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	28	28	28	28	28	
5°	32	31	27	24	24	3
15°	35	24	18	17	18	15
25°	332	29	10	12	14	206
35°	2096	48	6	10	13	1272
45°	2662	26	4	10	13	1948
55°	1359	4	3	9	13	1131
65°	26	0	3	8	12	83
75°	1	0	2	6	9	1
85°	0	0	2	2	4	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4
2.5°	30.9	30.9	30.9	30.9	30.9	30.9	30.4	30.4	30.9	30.4	30.4
5°	32.3	32.3	32.3	32.3	32.3	32.3	32.3	31.9	31.9	31.9	30.9
7.5°	32.8	32.3	32.3	32.3	32.3	32.3	32.3	32.3	31.9	31.9	30.4
10°	31.9	31.9	31.9	31.9	31.4	31.4	31.4	30.9	30.9	30.9	28.9
12.5°	31.9	31.9	31.9	31.9	31.4	31.4	30.9	30.9	30.4	29.9	26.5
15°	34.8	34.8	34.8	34.3	33.8	33.3	32.8	32.3	31.9	30.9	24.5
17.5°	51.0	49.5	49.0	47.1	44.6	42.2	40.2	38.2	36.3	34.8	23.5
20°	119.6	119.1	116.7	110.8	104.4	97.0	89.7	81.4	69.6	61.8	23.5
22.5°	207.3	204.4	200.0	195.6	184.3	171.1	157.3	141.7	126.5	110.3	25.0
25°	331.8	338.7	324.0	312.2	292.6	268.6	242.6	221.1	193.6	168.1	28.9
27.5°	576.9	581.3	552.4	514.2	468.6	418.1	369.1	332.3	286.2	244.1	36.3
30°	1011.7	1016.1	967.5	886.2	792.1	709.2	597.0	498.5	407.8	337.7	42.6
31°	1262.6	1228.3	1171.9	1093.0	973.9	848.9	714.1	595.0	480.3	388.2	44.6
32°	1480.7	1477.8	1412.1	1292.5	1172.9	1018.5	851.4	696.0	555.3	439.2	46.1
33°	1738.1	1718.5	1625.8	1513.1	1354.8	1199.4	983.7	806.3	632.3	496.0	47.1
34°	1944.4	1891.5	1853.2	1724.3	1557.2	1359.2	1128.3	922.9	728.4	550.9	47.5
35°	2095.9	2084.6	2010.1	1890.0	1719.9	1517.5	1284.2	1044.0	808.7	614.6	47.5
36°	2256.1	2221.3	2148.8	2040.0	1874.3	1665.0	1403.3	1148.9	902.4	672.0	47.1
37°	2356.6	2336.0	2264.0	2151.7	1989.5	1789.5	1536.6	1259.7	976.9	729.3	46.1
38°	2460.0	2418.4	2347.3	2240.0	2080.7	1892.9	1633.2	1345.0	1045.5	779.8	44.6
39°	2531.6	2488.5	2415.9	2309.1	2153.2	1967.0	1709.6	1417.5	1105.3	817.6	42.6
40°	2585.5	2543.9	2470.3	2360.5	2206.6	2025.3	1773.4	1481.7	1155.3	850.4	40.2
41°	2618.9	2580.1	2507.1	2397.8	2243.4	2058.6	1815.0	1523.4	1189.1	872.5	37.7
42°	2646.8	2607.1	2532.6	2420.8	2265.9	2087.0	1840.5	1549.8	1212.1	883.7	35.8
43°	2662.5	2622.8	2550.2	2436.0	2279.7	2100.3	1854.2	1562.1	1220.0	882.3	32.3
44°	2671.3	2630.1	2557.1	2442.9	2285.6	2103.7	1855.2	1559.6	1214.6	870.5	29.4
45°	2661.5	2620.8	2550.2	2436.0	2275.3	2092.9	1845.4	1546.4	1194.0	847.5	26.0
46°	2597.8	2566.4	2501.7	2396.8	2242.9	2065.5	1820.4	1520.9	1162.1	819.0	22.1
47°	2485.5	2460.5	2397.8	2319.9	2180.7	2015.0	1774.3	1472.4	1117.5	776.4	17.6
48°	2368.4	2331.6	2273.3	2193.4	2075.8	1924.3	1698.4	1401.3	1049.9	720.5	15.7
49°	2195.4	2173.8	2122.3	2033.1	1935.6	1802.3	1591.0	1310.2	967.1	659.7	13.7
50°	2036.6	2021.9	1949.8	1884.1	1780.7	1656.2	1445.4	1190.1	864.1	584.3	12.3
51°	1912.6	1894.9	1843.0	1761.1	1650.8	1506.2	1307.7	1034.2	746.0	494.6	9.8
52°	1783.2	1773.4	1727.3	1643.0	1534.6	1390.5	1173.9	901.9	631.3	418.1	7.8
53°	1677.3	1663.1	1606.7	1531.7	1414.6	1265.6	1028.8	778.8	534.8	351.4	6.9
54°	1522.9	1517.0	1480.7	1402.3	1275.4	1113.1	897.5	655.8	446.0	298.0	5.9
55°	1358.7	1339.1	1302.3	1240.1	1123.4	972.0	745.5	543.6	360.7	251.0	4.4
56°	1158.7	1157.7	1092.0	1040.1	936.7	775.9	595.5	424.5	293.1	209.3	3.9
57°	967.5	936.7	873.4	822.0	710.7	588.7	442.1	318.1	229.4	169.6	2.9
58°	715.6	699.4	682.8	607.3	504.4	417.1	315.7	223.5	169.6	129.4	2.0
59°	485.7	485.2	465.6	408.3	349.0	259.8	197.0	151.9	116.7	95.1	1.5
60°	366.6	357.8	318.6	280.9	219.6	164.2	116.7	89.7	72.5	61.3	1.0
62.5°	128.4	133.3	117.1	97.0	74.0	60.8	46.6	37.7	30.9	25.0	0.0
65°	26.5	28.9	25.0	23.5	18.6	16.2	14.2	12.3	10.3	8.8	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	3.4	2.9	2.9	2.9	2.5	2.5	2.5	2.5	2.0	2.0	0.5
70°	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	0.5
72.5°	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0
85°	0.5	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	28.4	28.4	28.4	28.4	28.4	28.4
2.5°	29.9	28.9	27.4	27.0	26.5	26.5
5°	29.4	27.4	26.0	24.5	24.0	24.0
7.5°	27.9	25.5	23.5	22.5	22.1	21.6
10°	26.5	23.0	21.1	20.1	20.1	20.1
12.5°	23.5	20.6	18.6	18.1	18.6	18.6
15°	21.1	17.6	16.7	16.7	17.2	17.6
17.5°	18.1	15.7	14.7	15.2	15.7	16.2
20°	16.2	13.2	13.2	13.7	15.2	15.2
22.5°	14.2	11.8	11.8	13.2	14.2	14.7
25°	12.7	10.3	10.8	12.3	13.7	14.2
27.5°	10.8	8.8	9.8	11.8	13.2	13.7
30°	9.3	7.8	9.3	11.3	12.7	13.7
31°	8.8	7.4	9.3	10.8	12.7	13.7
32°	7.8	7.4	8.8	10.8	12.7	13.2
33°	7.4	6.9	8.8	10.8	12.7	13.2
34°	6.9	6.4	8.3	10.8	12.7	13.2
35°	5.9	6.4	8.3	10.3	12.3	13.2
36°	5.4	5.9	8.3	10.3	12.3	13.2
37°	4.9	5.9	7.8	10.3	12.3	13.2
38°	4.4	5.4	7.8	10.3	12.3	13.2
39°	3.9	5.4	7.4	10.3	12.3	13.2
40°	3.4	4.9	7.4	9.8	12.3	13.2
41°	3.4	4.9	7.4	9.8	12.3	13.2
42°	2.9	4.9	7.4	9.8	12.3	13.2
43°	2.5	4.4	7.4	9.8	12.3	13.2
44°	2.0	4.4	6.9	9.8	12.3	13.2
45°	2.0	4.4	6.9	9.8	12.3	13.2
46°	1.5	3.9	6.9	9.8	12.3	13.2
47°	1.0	3.9	6.9	9.3	12.3	13.2
48°	1.0	3.9	6.9	9.3	12.3	13.2
49°	1.0	3.9	6.4	9.3	12.3	13.2
50°	1.0	3.9	6.4	9.3	12.3	13.2
51°	0.5	3.4	6.4	9.3	12.3	13.2
52°	0.5	3.4	6.4	9.3	12.3	13.7
53°	0.5	3.4	6.4	9.3	12.3	13.2
54°	0.5	3.4	5.9	9.3	12.3	13.2
55°	0.5	3.4	5.9	9.3	12.3	13.2
56°	0.5	2.9	5.9	8.8	12.3	13.2
57°	1.0	2.9	5.9	8.8	12.3	12.7
58°	1.0	2.9	5.9	8.8	11.8	12.7
59°	1.0	2.9	5.9	8.8	11.8	12.7
60°	1.0	2.9	5.4	8.8	11.8	12.7
62.5°	1.0	2.9	5.4	8.3	11.3	12.3
65°	1.0	2.9	4.9	7.8	11.3	11.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	2.5	4.9	7.4	10.8	11.3
70°	1.5	2.5	4.4	7.4	10.3	10.8
72.5°	1.5	2.5	4.4	6.4	9.3	10.3
75°	1.5	2.5	3.9	5.9	8.8	9.3
77.5°	1.5	2.5	3.4	5.4	7.8	8.3
80°	2.0	2.5	2.9	4.4	6.9	7.4
82.5°	2.0	2.5	2.5	3.4	5.4	5.9
85°	1.5	2.0	2.0	2.5	3.4	3.9
87.5°	1.5	2.0	1.5	1.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)