

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: P1345410

Luminaire Tested: P3A13R359027DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345410
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R359027DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 2700K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

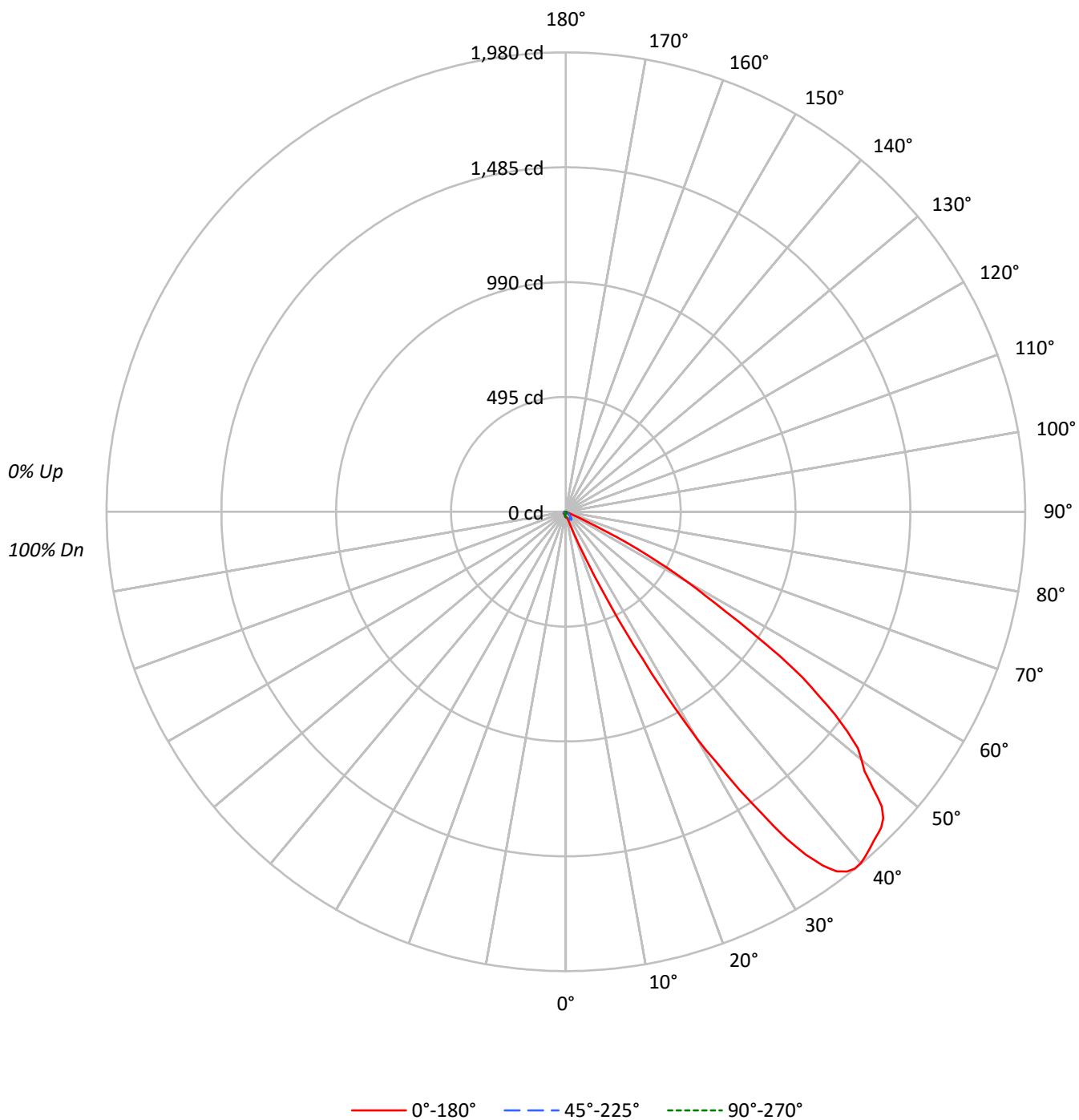
Lumens per Lamp: N/A
Luminaire Lumens: 493.0 lumens
Efficiency: N/A
Efficacy: 33.8 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	100	97	94	96	93	91	92	90	89
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	62	48	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	41	33	27	40	32	27	39	32	26	38	31	26
9	52	38	29	23	50	37	29	23	36	28	23	35	28	22	34	27	22
10	48	34	25	19	46	33	25	19	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4978	4978	4978	4978	4978
5°	5393	5283	4909	4402	4314
10°	5656	5144	4364	3763	3763
15°	8082	5062	3541	3224	3337
20°	20255	5390	2800	2800	3127
25°	93997	6896	2153	2589	2903
30°	285765	9343	1696	2355	2937
35°	482970	10842	1419	2275	2864
40°	566118	10706	1145	2290	3063
45°	596217	7598	961	2481	3318
50°	567521	4571	921	2593	3650
55°	475548	1873	1032	2906	4244
60°	266207	395	1184	3333	4693
65°	45971	208	1141	3684	5292
70°	833	256	1410	3975	5963
75°	763	339	1864	4490	6778
80°	505	505	2273	5051	7829
85°	0	1006	4529	5535	9057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 600430 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.0	0.4
10°-20°	5.8	1.2
20°-30°	30.3	6.1
30°-40°	130.6	26.5
40°-50°	186.3	37.8
50°-60°	115.4	23.4
60°-70°	17.6	3.6
70°-80°	3.3	0.7
80°-90°	1.6	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°	38.1	7.7
0°-40°	168.7	34.2
0°-60°	470.5	95.4
0°-90°	493.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	493.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	23	23	23	23	23	
5°	24	24	22	20	20	2
15°	36	22	16	14	15	13
25°	388	28	9	11	12	232
35°	1804	40	5	8	11	1083
45°	1923	24	3	8	11	1452
55°	1244	5	3	8	11	1059
65°	89	0	2	7	10	181
75°	1	0	2	5	8	1
85°	0	0	2	2	4	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.7
2.5°	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	22.7	22.3
5°	24.5	24.5	24.0	24.0	24.0	24.0	24.0	24.0	23.1	22.3	20.9
7.5°	24.9	24.9	24.5	24.5	24.5	24.5	24.0	23.6	22.7	20.9	19.6
10°	25.4	25.4	25.4	25.4	24.9	24.5	24.0	23.1	21.8	19.6	18.2
12.5°	28.5	28.5	28.0	27.1	26.3	25.4	24.5	22.7	20.0	17.8	16.5
15°	35.6	35.2	34.3	32.9	31.2	28.9	27.1	22.3	18.2	15.6	14.7
17.5°	49.8	49.0	47.6	43.2	39.2	35.2	31.6	22.3	16.5	13.8	12.9
20°	86.8	87.2	77.9	67.2	58.3	48.5	39.6	23.1	14.7	12.0	11.6
22.5°	181.1	174.0	151.8	125.9	96.1	74.3	56.1	25.4	12.9	10.2	10.2
25°	388.5	361.4	307.5	232.3	163.8	116.2	81.4	28.5	11.6	8.9	9.3
27.5°	709.4	684.9	576.8	434.4	288.4	175.3	110.4	32.5	10.2	7.6	8.5
30°	1128.6	1061.0	919.9	712.1	482.0	268.4	148.2	36.9	8.5	6.7	8.0
31°	1259.5	1228.3	1056.5	823.8	564.8	318.6	164.2	38.3	8.0	6.7	7.6
32°	1414.8	1359.6	1205.6	946.2	648.9	363.6	183.4	39.6	7.6	5.8	7.6
33°	1553.6	1500.2	1312.9	1053.9	733.9	414.8	203.8	40.1	6.7	5.8	7.1
34°	1699.6	1626.6	1441.0	1166.4	821.1	470.0	222.5	40.5	6.2	5.3	7.1
35°	1804.2	1731.2	1551.4	1255.5	896.3	518.9	243.9	40.5	5.8	5.3	6.7
36°	1885.2	1821.1	1646.6	1347.1	971.1	563.0	260.8	40.5	4.9	4.9	6.7
37°	1940.8	1879.8	1710.7	1425.9	1028.0	602.1	275.9	40.5	4.5	4.9	6.7
38°	1968.0	1917.2	1772.6	1483.3	1083.2	632.8	287.9	39.6	4.0	4.5	6.2
39°	1979.5	1938.1	1810.4	1531.8	1124.6	659.5	296.8	38.7	3.6	4.5	6.2
40°	1977.7	1941.7	1831.8	1565.2	1158.0	677.8	301.7	37.4	3.1	4.0	6.2
41°	1967.5	1936.4	1842.9	1593.7	1178.0	690.3	303.1	36.0	2.7	4.0	5.8
42°	1955.9	1927.5	1846.5	1608.8	1190.9	694.3	299.5	34.3	2.7	3.6	5.8
43°	1943.9	1917.7	1846.5	1613.7	1194.0	691.6	293.7	31.2	2.2	3.6	5.8
44°	1934.1	1909.2	1840.7	1612.4	1187.4	681.4	283.0	27.6	1.8	3.6	5.8
45°	1922.6	1898.1	1833.1	1603.9	1174.5	664.0	269.7	24.5	1.3	3.1	5.8
46°	1902.1	1883.0	1819.8	1586.6	1154.0	640.0	252.8	22.3	0.9	3.1	5.3
47°	1862.5	1846.0	1793.9	1560.7	1126.8	611.5	235.4	20.0	0.9	3.1	5.3
48°	1782.8	1782.4	1742.3	1512.7	1083.7	575.9	217.2	17.8	0.9	3.1	5.3
49°	1705.8	1697.8	1648.0	1428.1	1021.8	533.2	198.0	16.0	0.4	3.1	5.3
50°	1663.6	1646.2	1564.3	1328.4	942.6	474.0	177.6	13.4	0.4	2.7	5.3
51°	1619.5	1594.6	1498.0	1238.5	848.2	417.0	155.3	10.7	0.4	2.7	4.9
52°	1539.8	1516.2	1408.1	1152.6	756.6	358.7	134.0	8.9	0.4	2.7	5.3
53°	1453.9	1420.1	1302.6	1058.3	676.0	307.1	112.1	7.6	0.4	2.7	4.9
54°	1345.8	1330.7	1195.8	942.6	581.7	257.2	92.1	6.2	0.4	2.7	4.9
55°	1243.9	1221.6	1081.4	824.2	496.2	210.9	77.0	4.9	0.4	2.7	4.9
56°	1113.9	1080.6	949.3	715.6	409.4	170.0	65.0	4.0	0.4	2.7	4.9
57°	959.1	923.5	819.8	595.0	321.3	129.5	54.3	3.1	0.4	2.7	4.9
58°	811.3	780.6	669.3	459.3	242.1	89.9	44.9	2.2	0.4	2.2	4.9
59°	700.9	667.1	556.7	353.4	168.2	66.3	33.8	1.8	0.4	2.7	4.9
60°	607.0	563.4	448.2	273.7	120.2	47.6	24.9	0.9	0.9	2.7	4.9
62.5°	349.8	308.9	214.1	111.3	49.4	24.5	12.0	0.4	0.9	2.7	4.9
65°	88.6	78.8	51.2	24.0	13.8	8.5	4.5	0.4	0.9	2.2	4.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	3.1	3.1	3.1	2.7	2.2	1.8	0.9	0.4	0.9	2.2	4.5
70°	1.3	1.3	1.3	0.9	0.9	0.4	0.4	0.4	0.9	2.2	4.0
72.5°	0.9	0.9	0.9	0.9	0.4	0.4	0.4	0.4	1.3	2.2	3.6
75°	0.9	0.9	0.9	0.9	0.4	0.4	0.4	0.4	1.3	2.2	3.6
77.5°	0.9	0.9	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.8	3.1
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.8	2.7
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.8	2.2
85°	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	1.3	1.8	1.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.3	1.8	1.3
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):

	135°	157.5°	180°
0°	22.7	22.7	22.7
2.5°	21.4	21.4	21.4
5°	20.0	20.0	19.6
7.5°	18.7	18.2	18.2
10°	16.9	16.9	16.9
12.5°	15.6	15.6	15.6
15°	14.2	14.7	14.7
17.5°	12.9	13.8	13.8
20°	12.0	12.9	13.4
22.5°	11.1	12.0	12.5
25°	10.7	11.6	12.0
27.5°	9.8	11.1	12.0
30°	9.3	10.7	11.6
31°	9.3	10.7	11.1
32°	8.9	10.7	11.1
33°	8.9	10.7	11.1
34°	8.9	10.2	11.1
35°	8.5	10.2	10.7
36°	8.5	10.2	10.7
37°	8.5	10.2	11.1
38°	8.5	10.2	10.7
39°	8.0	10.2	10.7
40°	8.0	10.2	10.7
41°	8.0	10.2	10.7
42°	8.0	10.2	10.7
43°	8.0	10.2	10.7
44°	8.0	9.8	10.7
45°	8.0	9.8	10.7
46°	8.0	10.2	10.7
47°	8.0	10.2	11.1
48°	8.0	9.8	10.7
49°	7.6	9.8	10.7
50°	7.6	9.8	10.7
51°	7.6	10.2	11.1
52°	7.6	10.2	11.1
53°	7.6	10.2	11.1
54°	7.6	10.2	10.7
55°	7.6	10.2	11.1
56°	7.6	10.2	10.7
57°	7.6	10.2	10.7
58°	7.6	9.8	10.7
59°	7.6	9.8	10.7
60°	7.6	9.8	10.7
62.5°	7.1	9.8	10.7
65°	7.1	9.3	10.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	6.7	9.3	9.8
70°	6.2	8.9	9.3
72.5°	5.8	8.5	8.9
75°	5.3	7.6	8.0
77.5°	4.5	6.7	7.6
80°	4.0	5.8	6.2
82.5°	3.1	4.9	5.3
85°	2.2	3.6	3.6
87.5°	0.9	1.8	1.8
90°	0.0	0.0	0.0

(END OF REPORT)