

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: P1343928

Luminaire Tested: P3A13R209030DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343928
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R209030DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

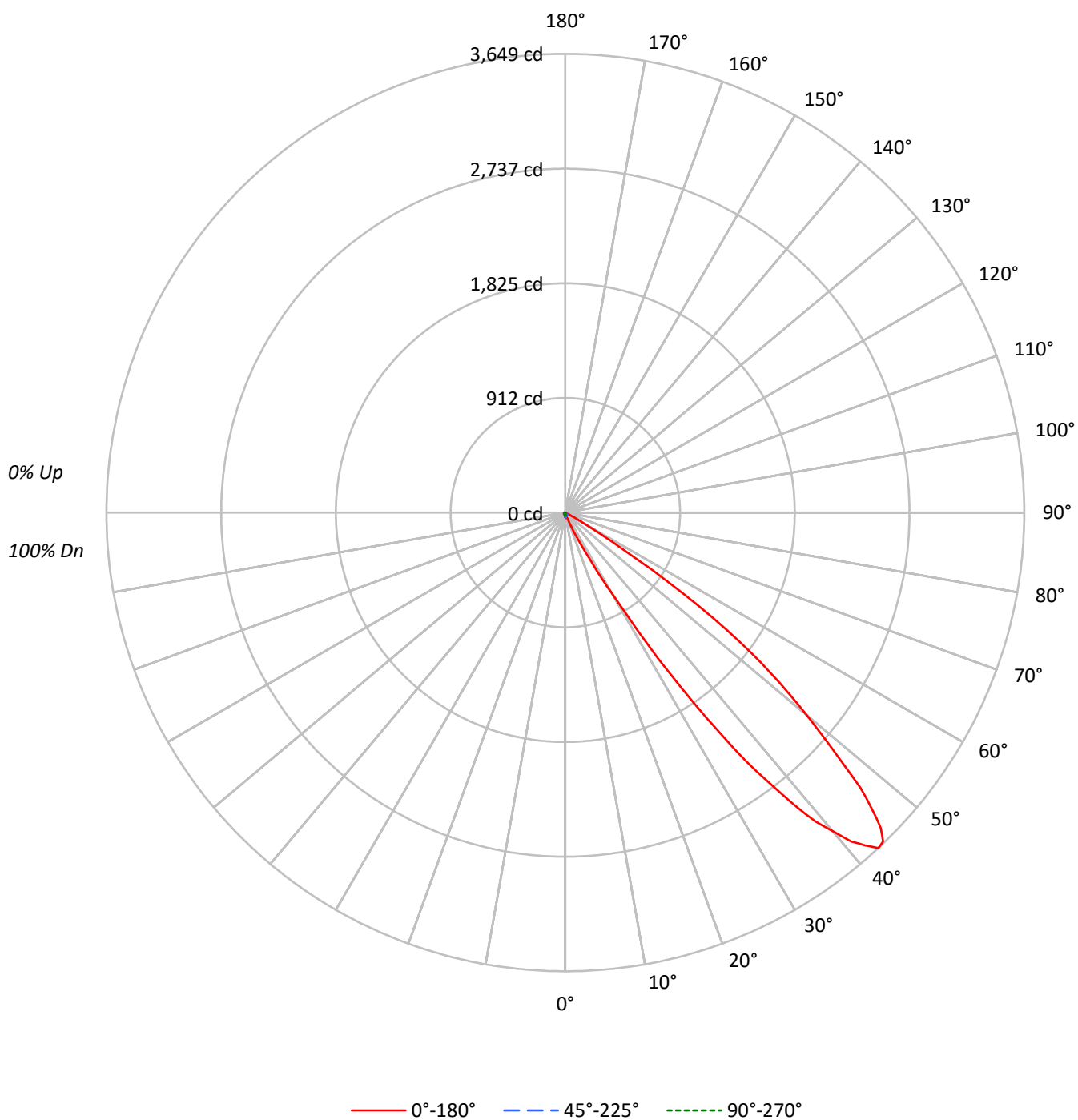
Lumens per Lamp: N/A
Luminaire Lumens: 507.0 lumens
Efficiency: N/A
Efficacy: 34.7 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	108	104	101	97	100	97	94	96	94	92	92	91	89
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27
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	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	7741	7741	7741	7741	7741
5°	9025	8387	7242	6295	6075
10°	8907	7637	5722	4876	4765
15°	7787	5834	4222	3905	4109
20°	11574	4900	3104	3337	3664
25°	49793	5081	2419	3000	3581
30°	188333	6153	2051	2887	3494
35°	570881	7388	1901	2945	3694
40°	946659	7357	1632	3149	3950
45°	1100331	5024	1489	3256	4280
50°	854147	2763	1467	3411	4878
55°	494358	1835	1453	3823	5276
60°	83590	439	1272	3991	5833
65°	6434	0	1505	4462	6693
70°	898	0	1859	4873	7629
75°	847	424	2033	5676	8896
80°	631	631	3031	6061	10229
85°	1258	1258	4780	6038	10819

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1100331 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.0	0.6
10°-20°	6.3	1.3
20°-30°	20.2	4.0
30°-40°	129.3	25.5
40°-50°	236.7	46.7
50°-60°	97.2	19.2
60°-70°	8.2	1.6
70°-80°	4.1	0.8
80°-90°	1.9	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°	29.6	5.8
0°-40°	158.9	31.3
0°-60°	492.8	97.2
0°-90°	507.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	507.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	35	35	35	35	35	
5°	41	38	33	29	28	4
15°	34	26	19	17	18	11
25°	206	21	10	12	15	135
35°	2133	28	7	11	14	1350
45°	3548	16	5	10	14	2548
55°	1293	5	4	10	14	1130
65°	12	0	3	9	13	40
75°	1	0	2	7	10	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°	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3	35.3
2.5°	38.6	38.6	38.6	38.1	38.1	38.6	38.1	38.1	38.1	38.1	37.6
5°	41.0	41.0	41.0	41.0	41.0	41.0	41.0	40.5	40.5	40.0	38.1
7.5°	41.9	41.9	41.9	41.9	41.5	41.5	41.5	41.5	41.0	40.5	37.2
10°	40.0	40.0	40.0	39.5	39.5	39.5	39.1	39.1	38.6	38.1	34.3
12.5°	36.2	36.2	36.2	36.2	35.7	35.7	35.3	35.3	34.8	34.3	30.0
15°	34.3	34.3	34.3	33.8	33.8	33.4	32.9	32.4	31.9	31.0	25.7
17.5°	37.2	37.2	36.7	36.7	35.7	34.8	34.3	32.9	31.9	30.5	22.9
20°	49.6	50.0	48.1	46.7	45.7	42.9	41.5	39.1	37.2	34.8	21.0
22.5°	100.1	98.2	94.8	89.6	83.4	78.1	68.6	61.0	55.7	48.6	20.5
25°	205.8	203.9	194.9	187.2	168.2	153.4	132.9	116.3	99.1	82.4	21.0
27.5°	391.2	378.3	375.9	341.1	314.5	276.3	236.8	203.4	173.0	139.1	22.4
30°	743.8	729.0	677.1	624.6	552.7	471.2	393.6	321.1	260.6	205.8	24.3
31°	943.9	958.2	897.2	791.9	685.6	581.3	475.0	383.1	304.9	236.8	25.3
32°	1240.7	1178.3	1114.0	1005.8	851.4	718.0	584.6	452.2	349.2	270.2	26.2
33°	1521.3	1484.7	1386.5	1251.7	1066.3	879.1	706.1	533.6	403.6	310.7	26.7
34°	1820.6	1780.1	1700.5	1507.0	1303.6	1058.2	827.6	627.5	468.4	350.2	27.2
35°	2132.6	2115.5	1962.1	1794.4	1544.2	1248.3	973.9	730.4	531.7	386.4	27.6
36°	2446.6	2391.4	2271.3	2026.4	1765.3	1424.1	1127.3	826.2	596.1	429.3	27.6
37°	2683.0	2670.6	2511.4	2272.7	1965.9	1611.9	1259.8	932.4	660.9	466.0	27.6
38°	2943.6	2894.5	2733.0	2490.0	2154.6	1783.9	1398.4	1024.9	722.3	499.3	27.2
39°	3163.2	3090.3	2927.4	2687.2	2319.4	1914.4	1508.5	1114.4	776.6	527.0	26.7
40°	3307.1	3256.6	3086.5	2816.4	2469.0	2037.8	1620.0	1188.3	817.1	547.9	25.7
41°	3465.8	3381.9	3213.7	2942.1	2577.7	2146.5	1690.0	1236.9	848.6	561.7	24.8
42°	3560.6	3492.0	3292.3	3026.5	2655.3	2208.4	1747.2	1274.1	867.6	568.9	22.9
43°	3649.2	3555.8	3361.4	3075.6	2706.8	2252.2	1773.4	1291.2	871.9	568.9	20.5
44°	3637.3	3548.7	3347.1	3082.2	2718.2	2265.1	1784.3	1291.7	865.3	561.7	18.1
45°	3548.2	3460.1	3278.5	3024.1	2677.2	2239.8	1762.4	1272.6	846.7	549.4	16.2
46°	3384.8	3297.1	3158.0	2926.9	2601.0	2182.7	1711.4	1231.2	815.7	529.3	14.3
47°	3207.1	3121.8	2979.3	2770.1	2470.9	2080.7	1637.6	1173.0	772.3	500.3	12.9
48°	2949.3	2895.9	2753.0	2574.3	2290.3	1921.1	1508.0	1078.2	714.2	462.6	11.0
49°	2721.5	2665.3	2540.0	2348.0	2055.0	1735.3	1353.1	962.9	638.5	420.7	9.5
50°	2503.8	2454.7	2338.9	2122.2	1842.5	1510.9	1144.0	817.6	543.2	368.8	8.1
51°	2290.8	2254.1	2136.0	1936.8	1652.8	1338.4	991.0	680.9	448.8	305.9	7.6
52°	2076.9	2072.6	1944.4	1742.9	1468.5	1166.4	842.4	574.6	380.7	256.8	7.1
53°	1846.8	1819.1	1707.2	1526.1	1262.6	987.2	714.2	484.6	327.8	218.7	6.2
54°	1584.7	1553.7	1433.7	1270.2	1031.5	808.6	575.6	391.7	273.0	184.9	5.7
55°	1293.1	1240.2	1153.0	985.3	805.7	617.0	444.5	310.2	218.2	153.9	4.8
56°	981.0	928.1	879.1	755.7	591.3	460.3	331.1	237.8	170.6	121.5	4.3
57°	682.3	679.4	598.9	504.1	395.5	313.5	226.8	167.7	120.5	94.3	3.3
58°	442.6	427.9	376.4	321.6	258.7	195.8	145.8	113.9	82.0	64.3	2.9
59°	310.2	280.6	253.0	214.4	162.9	123.4	93.9	72.9	56.7	44.8	1.9
60°	190.6	184.4	165.8	130.6	105.8	87.2	70.0	53.8	41.5	31.9	1.0
62.5°	54.3	55.3	50.0	44.3	38.1	32.9	29.5	25.3	21.0	16.7	0.0
65°	12.4	11.9	12.9	11.9	11.0	11.0	9.5	8.6	7.6	7.1	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°	3.8	3.8	3.3	3.3	3.3	2.9	2.9	2.4	2.4	1.9	0.0
70°	1.4	1.4	1.4	1.4	1.4	1.0	1.0	1.0	0.5	0.5	0.0
72.5°	1.4	1.4	1.4	1.0	1.0	1.0	1.0	1.0	0.5	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	0.5	1.0	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	0.5
85°	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.0	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°	35.3	35.3	35.3	35.3	35.3	35.3
2.5°	36.7	34.8	33.4	31.9	31.4	31.4
5°	35.7	32.9	30.0	28.6	27.6	27.6
7.5°	32.9	29.5	26.7	25.3	24.8	24.8
10°	29.5	25.7	22.9	21.9	21.9	21.4
12.5°	25.7	21.9	20.0	19.5	19.5	19.5
15°	21.4	18.6	17.2	17.2	17.6	18.1
17.5°	18.1	15.2	14.8	15.7	16.7	16.7
20°	15.2	13.3	13.3	14.3	15.2	15.7
22.5°	12.9	11.4	11.9	13.3	14.8	15.2
25°	11.4	10.0	11.0	12.4	13.8	14.8
27.5°	9.5	9.1	10.0	11.9	13.8	14.3
30°	8.1	8.1	9.5	11.4	13.3	13.8
31°	7.6	7.6	9.5	11.4	13.3	13.8
32°	7.1	7.6	9.1	11.4	13.3	13.8
33°	6.7	7.1	9.1	11.0	13.3	13.8
34°	6.2	7.1	9.1	11.0	13.3	13.8
35°	5.7	7.1	9.1	11.0	13.3	13.8
36°	5.2	6.7	8.6	11.0	13.3	13.8
37°	4.8	6.7	8.6	11.0	13.3	13.8
38°	4.3	6.2	8.6	11.0	13.3	13.8
39°	4.3	6.2	8.1	11.0	12.9	13.8
40°	3.8	5.7	8.1	11.0	12.9	13.8
41°	3.3	5.7	8.1	10.5	12.9	13.8
42°	2.9	5.2	7.6	10.5	12.9	13.8
43°	2.4	5.2	7.6	10.5	12.9	13.8
44°	2.4	4.8	7.6	10.5	12.9	13.8
45°	1.9	4.8	7.6	10.5	12.9	13.8
46°	1.4	4.8	7.6	10.5	12.9	13.8
47°	1.4	4.3	7.1	10.5	12.9	13.8
48°	1.0	4.3	7.1	10.5	12.9	13.8
49°	1.0	4.3	7.1	10.5	12.9	14.3
50°	1.0	4.3	7.1	10.0	12.9	14.3
51°	0.5	4.3	7.1	10.0	12.9	14.3
52°	0.5	4.3	6.7	10.0	13.3	14.3
53°	0.5	3.8	6.7	10.0	13.3	14.3
54°	0.5	3.8	6.7	10.0	13.3	13.8
55°	0.5	3.8	6.7	10.0	12.9	13.8
56°	0.5	3.3	6.7	10.0	12.9	13.8
57°	0.5	3.3	6.2	9.5	12.9	13.3
58°	0.5	3.3	6.2	9.5	12.9	13.3
59°	0.5	3.3	6.2	9.5	12.4	13.3
60°	1.0	2.9	5.7	9.1	12.4	13.3
62.5°	1.0	2.9	5.7	9.1	11.9	12.9
65°	1.0	2.9	5.2	8.6	11.9	12.9



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	2.4	4.8	8.1	11.4	12.4
70°	1.0	2.9	4.8	7.6	11.0	11.9
72.5°	1.4	2.4	4.3	7.1	10.5	11.4
75°	1.4	2.4	4.3	6.7	10.0	10.5
77.5°	1.9	2.4	3.8	5.7	9.1	9.5
80°	1.9	2.4	3.3	4.8	7.6	8.1
82.5°	1.9	2.4	2.4	3.8	5.7	6.2
85°	1.4	1.9	1.9	2.4	3.8	4.3
87.5°	1.4	1.9	1.4	1.0	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)