

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: P1336942

Luminaire Tested: P3A05R209740DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336942
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: P3A05R209740DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

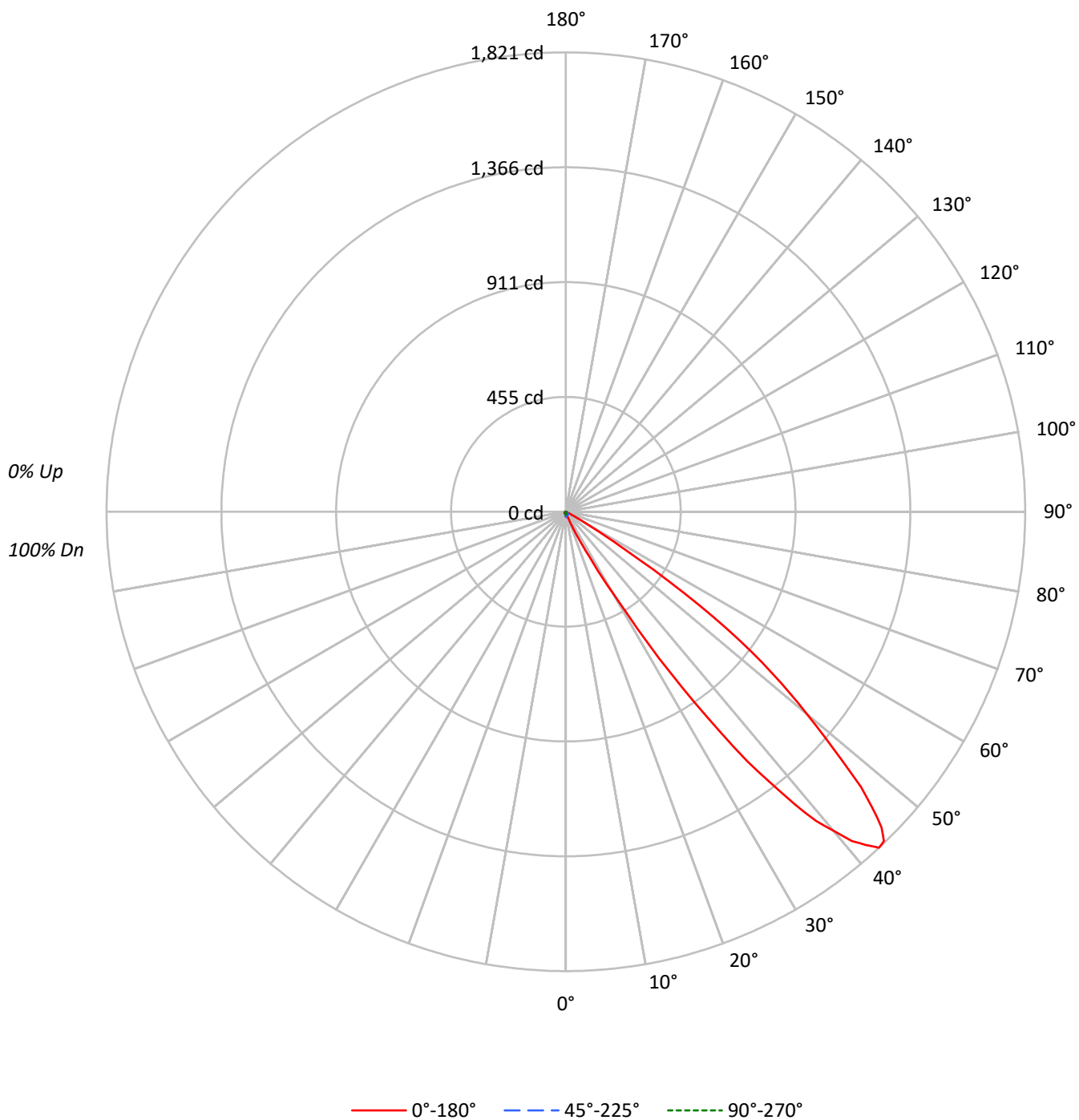
Lumens per Lamp: N/A
Luminaire Lumens: 253.0 lumens
Efficiency: N/A
Efficacy: 35.1 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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°	3859	3859	3859	3859	3859
5°	4490	4182	3610	3148	3038
10°	4453	3808	2850	2427	2382
15°	3882	2906	2111	1952	2043
20°	5764	2450	1563	1657	1820
25°	24848	2540	1210	1500	1790
30°	93964	3064	1013	1443	1747
35°	284878	3694	964	1472	1847
40°	472399	3664	830	1574	1975
45°	549080	2512	744	1613	2140
50°	426221	1365	716	1706	2422
55°	246701	918	726	1912	2638
60°	41707	219	614	1974	2938
65°	3217	0	726	2231	3321
70°	449	0	898	2436	3783
75°	424	169	1017	2796	4406
80°	253	253	1515	3031	5051
85°	503	503	2516	3019	5284

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 549080 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.5	0.6
10°-20°	3.2	1.3
20°-30°	10.1	4.0
30°-40°	64.5	25.5
40°-50°	118.1	46.7
50°-60°	48.5	19.2
60°-70°	4.1	1.6
70°-80°	2.0	0.8
80°-90°	1.0	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°	14.8	5.8
0°-40°	79.3	31.3
0°-60°	245.9	97.2
0°-90°	253.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	253.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	18	18	18	18	18	
5°	20	19	16	14	14	2
15°	17	13	9	9	9	5
25°	103	10	5	6	7	68
35°	1064	14	4	6	7	674
45°	1771	8	2	5	7	1271
55°	645	2	2	5	7	564
65°	6	0	1	4	6	20
75°	0	0	1	3	5	1
85°	0	0	1	1	2	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°	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
2.5°	19.3	19.3	19.3	19.0	19.0	19.3	19.0	19.0	19.0	19.0	18.8
5°	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.2	20.2	20.0	19.0
7.5°	20.9	20.9	20.9	20.9	20.7	20.7	20.7	20.7	20.4	20.2	18.5
10°	20.0	20.0	20.0	19.7	19.7	19.7	19.5	19.5	19.3	19.0	17.1
12.5°	18.1	18.1	18.1	18.1	17.8	17.8	17.6	17.6	17.4	17.1	15.0
15°	17.1	17.1	17.1	16.9	16.9	16.6	16.4	16.2	15.9	15.5	12.8
17.5°	18.5	18.5	18.3	18.3	17.8	17.4	17.1	16.4	15.9	15.2	11.4
20°	24.7	25.0	24.0	23.3	22.8	21.4	20.7	19.5	18.5	17.4	10.5
22.5°	49.9	49.0	47.3	44.7	41.6	39.0	34.2	30.4	27.8	24.3	10.2
25°	102.7	101.8	97.2	93.4	83.9	76.6	66.3	58.0	49.5	41.1	10.5
27.5°	195.2	188.8	187.6	170.2	156.9	137.9	118.2	101.5	86.3	69.4	11.2
30°	371.1	363.8	337.9	311.7	275.8	235.1	196.4	160.3	130.1	102.7	12.1
31°	471.0	478.1	447.7	395.2	342.1	290.1	237.0	191.2	152.2	118.2	12.6
32°	619.1	588.0	555.9	501.9	424.9	358.3	291.7	225.6	174.3	134.8	13.1
33°	759.2	740.9	691.9	624.6	532.1	438.7	352.4	266.3	201.4	155.0	13.3
34°	908.5	888.3	848.6	752.0	650.5	528.1	413.0	313.1	233.7	174.8	13.6
35°	1064.2	1055.7	979.1	895.4	770.6	622.9	486.0	364.5	265.3	192.8	13.8
36°	1220.9	1193.3	1133.4	1011.2	880.9	710.7	562.5	412.3	297.4	214.2	13.8
37°	1338.8	1332.6	1253.2	1134.1	981.0	804.3	628.6	465.3	329.8	232.5	13.8
38°	1468.9	1444.4	1363.8	1242.5	1075.2	890.2	697.8	511.4	360.4	249.2	13.6
39°	1578.5	1542.1	1460.8	1341.0	1157.4	955.3	752.8	556.1	387.5	263.0	13.3
40°	1650.3	1625.1	1540.2	1405.4	1232.1	1016.9	808.4	593.0	407.8	273.4	12.8
41°	1729.5	1687.6	1603.7	1468.2	1286.3	1071.1	843.3	617.2	423.5	280.3	12.4
42°	1776.8	1742.5	1642.9	1510.3	1325.0	1102.0	871.9	635.8	433.0	283.9	11.4
43°	1821.0	1774.4	1677.4	1534.7	1350.7	1123.9	884.9	644.3	435.1	283.9	10.2
44°	1815.1	1770.8	1670.3	1538.1	1356.4	1130.3	890.4	644.6	431.8	280.3	9.0
45°	1770.6	1726.6	1636.0	1509.1	1336.0	1117.7	879.5	635.1	422.5	274.1	8.1
46°	1689.1	1645.3	1575.9	1460.6	1297.9	1089.2	854.0	614.4	407.0	264.2	7.1
47°	1600.4	1557.8	1486.7	1382.3	1233.0	1038.3	817.2	585.4	385.4	249.6	6.4
48°	1471.7	1445.1	1373.8	1284.6	1142.9	958.7	752.5	538.1	356.4	230.9	5.5
49°	1358.1	1330.0	1267.5	1171.7	1025.5	865.9	675.2	480.5	318.6	209.9	4.8
50°	1249.4	1224.9	1167.2	1059.0	919.4	753.9	570.9	408.0	271.0	184.0	4.0
51°	1143.2	1124.8	1065.9	966.5	824.8	667.9	494.5	339.8	224.0	152.6	3.8
52°	1036.4	1034.3	970.3	869.7	732.8	582.0	420.4	286.7	190.0	128.2	3.6
53°	921.6	907.8	851.9	761.5	630.1	492.6	356.4	241.8	163.6	109.1	3.1
54°	790.8	775.3	715.4	633.9	514.8	403.5	287.2	195.4	136.2	92.3	2.9
55°	645.3	618.9	575.4	491.7	402.1	307.9	221.8	154.8	108.9	76.8	2.4
56°	489.5	463.2	438.7	377.1	295.1	229.7	165.2	118.6	85.1	60.6	2.1
57°	340.5	339.0	298.9	251.6	197.3	156.4	113.2	83.7	60.2	47.1	1.7
58°	220.9	213.5	187.8	160.5	129.1	97.7	72.8	56.8	40.9	32.1	1.4
59°	154.8	140.0	126.3	107.0	81.3	61.6	46.8	36.4	28.3	22.3	1.0
60°	95.1	92.0	82.7	65.1	52.8	43.5	35.0	26.9	20.7	15.9	0.5
62.5°	27.1	27.6	25.0	22.1	19.0	16.4	14.7	12.6	10.5	8.3	0.0
65°	6.2	5.9	6.4	5.9	5.5	5.5	4.8	4.3	3.8	3.6	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°	1.9	1.9	1.7	1.7	1.7	1.4	1.4	1.2	1.2	1.0	0.0
70°	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.2	0.0
72.5°	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.2
77.5°	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.2	0.2	0.2	0.2
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
85°	0.2	0.2	0.2	0.2	0.0	0.0	0.2	0.2	0.2	0.0	0.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
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°	17.6	17.6	17.6	17.6	17.6	17.6
2.5°	18.3	17.4	16.6	15.9	15.7	15.7
5°	17.8	16.4	15.0	14.3	13.8	13.8
7.5°	16.4	14.7	13.3	12.6	12.4	12.4
10°	14.7	12.8	11.4	10.9	10.9	10.7
12.5°	12.8	10.9	10.0	9.7	9.7	9.7
15°	10.7	9.3	8.6	8.6	8.8	9.0
17.5°	9.0	7.6	7.4	7.8	8.3	8.3
20°	7.6	6.7	6.7	7.1	7.6	7.8
22.5°	6.4	5.7	5.9	6.7	7.4	7.6
25°	5.7	5.0	5.5	6.2	6.9	7.4
27.5°	4.8	4.5	5.0	5.9	6.9	7.1
30°	4.0	4.0	4.8	5.7	6.7	6.9
31°	3.8	3.8	4.8	5.7	6.7	6.9
32°	3.6	3.8	4.5	5.7	6.7	6.9
33°	3.3	3.6	4.5	5.5	6.7	6.9
34°	3.1	3.6	4.5	5.5	6.7	6.9
35°	2.9	3.6	4.5	5.5	6.7	6.9
36°	2.6	3.3	4.3	5.5	6.7	6.9
37°	2.4	3.3	4.3	5.5	6.7	6.9
38°	2.1	3.1	4.3	5.5	6.7	6.9
39°	2.1	3.1	4.0	5.5	6.4	6.9
40°	1.9	2.9	4.0	5.5	6.4	6.9
41°	1.7	2.9	4.0	5.2	6.4	6.9
42°	1.4	2.6	3.8	5.2	6.4	6.9
43°	1.2	2.6	3.8	5.2	6.4	6.9
44°	1.2	2.4	3.8	5.2	6.4	6.9
45°	1.0	2.4	3.8	5.2	6.4	6.9
46°	0.7	2.4	3.8	5.2	6.4	6.9
47°	0.7	2.1	3.6	5.2	6.4	6.9
48°	0.5	2.1	3.6	5.2	6.4	6.9
49°	0.5	2.1	3.6	5.2	6.4	7.1
50°	0.5	2.1	3.6	5.0	6.4	7.1
51°	0.2	2.1	3.6	5.0	6.4	7.1
52°	0.2	2.1	3.3	5.0	6.7	7.1
53°	0.2	1.9	3.3	5.0	6.7	7.1
54°	0.2	1.9	3.3	5.0	6.7	6.9
55°	0.2	1.9	3.3	5.0	6.4	6.9
56°	0.2	1.7	3.3	5.0	6.4	6.9
57°	0.2	1.7	3.1	4.8	6.4	6.7
58°	0.2	1.7	3.1	4.8	6.4	6.7
59°	0.2	1.7	3.1	4.8	6.2	6.7
60°	0.5	1.4	2.9	4.5	6.2	6.7
62.5°	0.5	1.4	2.9	4.5	5.9	6.4
65°	0.5	1.4	2.6	4.3	5.9	6.4



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.2	2.4	4.0	5.7	6.2
70°	0.5	1.4	2.4	3.8	5.5	5.9
72.5°	0.7	1.2	2.1	3.6	5.2	5.7
75°	0.7	1.2	2.1	3.3	5.0	5.2
77.5°	1.0	1.2	1.9	2.9	4.5	4.8
80°	1.0	1.2	1.7	2.4	3.8	4.0
82.5°	1.0	1.2	1.2	1.9	2.9	3.1
85°	0.7	1.0	1.0	1.2	1.9	2.1
87.5°	0.7	1.0	0.7	0.5	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)