

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: P1336850

Luminaire Tested: P3A05R209035DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336850
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: P3A05R209035DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

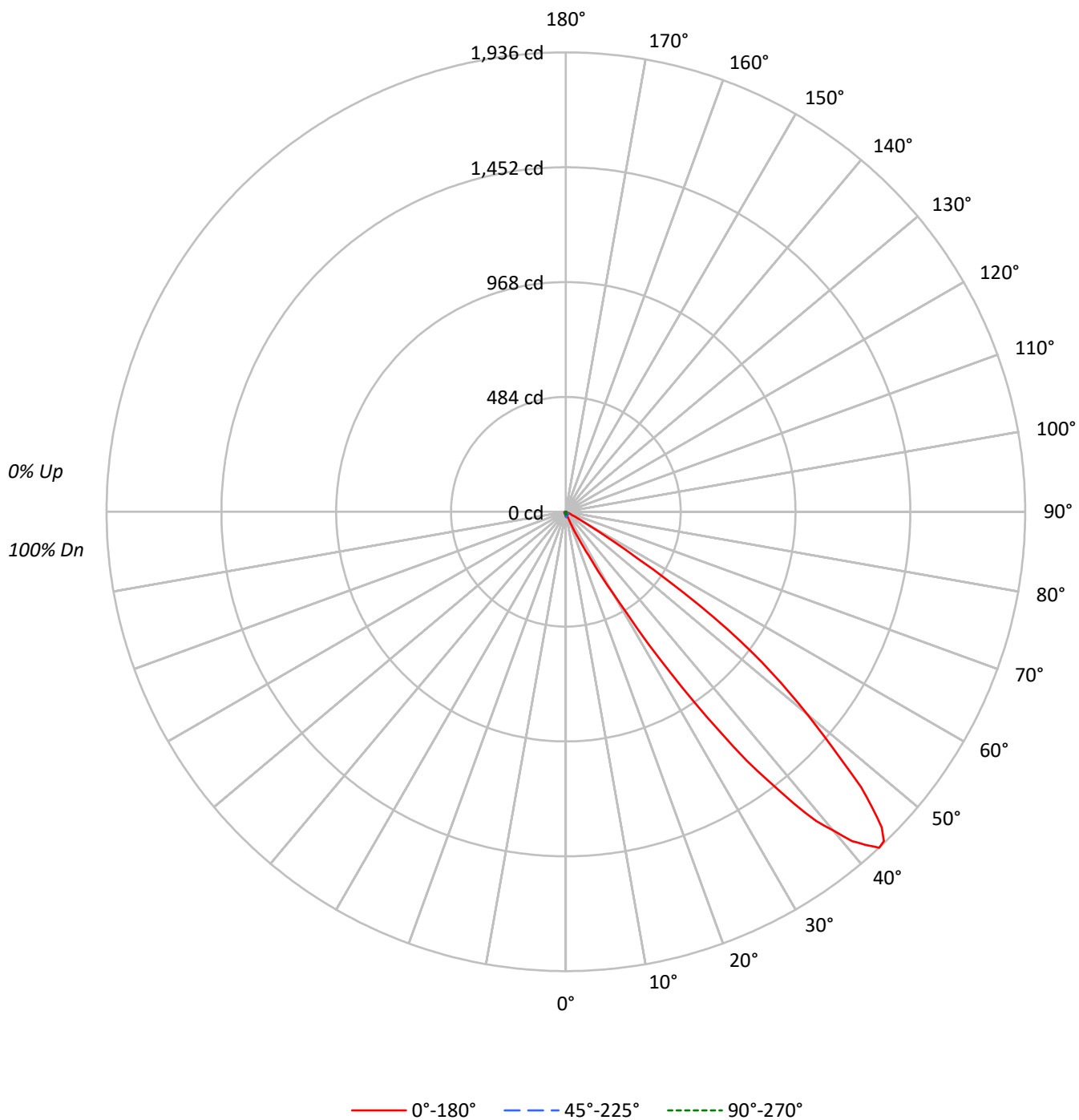
Lumens per Lamp: N/A
Luminaire Lumens: 269.0 lumens
Efficiency: N/A
Efficacy: 37.4 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	4101	4101	4101	4101	4101
5°	4777	4446	3830	3346	3236
10°	4720	4052	3050	2583	2538
15°	4132	3110	2247	2066	2179
20°	6137	2590	1657	1773	1937
25°	26421	2686	1282	1597	1887
30°	99914	3266	1089	1545	1848
35°	302894	3935	1017	1553	1954
40°	502284	3922	859	1660	2090
45°	583813	2667	775	1737	2264
50°	453171	1467	785	1808	2593
55°	262299	956	765	2026	2791
60°	44339	219	658	2105	3114
65°	3424	0	778	2387	3528
70°	513	0	962	2565	4039
75°	424	254	1101	2965	4745
80°	379	379	1642	3157	5430
85°	755	755	2516	3271	5787

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 583813 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.6	0.6
10°-20°	3.4	1.3
20°-30°	10.7	4.0
30°-40°	68.6	25.5
40°-50°	125.6	46.7
50°-60°	51.6	19.2
60°-70°	4.3	1.6
70°-80°	2.2	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°	15.7	5.8
0°-40°	84.3	31.3
0°-60°	261.5	97.2
0°-90°	269.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	269.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	19	19	19	19	19	
5°	22	20	17	15	15	2
15°	18	14	10	9	10	6
25°	109	11	5	7	8	72
35°	1132	15	4	6	7	716
45°	1883	9	2	6	7	1352
55°	686	2	2	5	7	600
65°	7	0	2	5	7	21
75°	0	0	1	4	6	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°	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7	18.7
2.5°	20.5	20.5	20.5	20.2	20.2	20.5	20.2	20.2	20.2	20.2	20.0
5°	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.5	21.5	21.2	20.2
7.5°	22.2	22.2	22.2	22.2	22.0	22.0	22.0	22.0	21.7	21.5	19.7
10°	21.2	21.2	21.2	21.0	21.0	21.0	20.7	20.7	20.5	20.2	18.2
12.5°	19.2	19.2	19.2	19.2	19.0	19.0	18.7	18.7	18.5	18.2	15.9
15°	18.2	18.2	18.2	17.9	17.9	17.7	17.4	17.2	16.9	16.4	13.7
17.5°	19.7	19.7	19.5	19.5	19.0	18.5	18.2	17.4	16.9	16.2	12.1
20°	26.3	26.5	25.5	24.8	24.3	22.8	22.0	20.7	19.7	18.5	11.1
22.5°	53.1	52.1	50.3	47.5	44.2	41.5	36.4	32.4	29.6	25.8	10.9
25°	109.2	108.2	103.4	99.3	89.2	81.4	70.5	61.7	52.6	43.7	11.1
27.5°	207.5	200.7	199.5	181.0	166.8	146.6	125.6	107.9	91.8	73.8	11.9
30°	394.6	386.8	359.2	331.4	293.2	250.0	208.8	170.4	138.3	109.2	12.9
31°	500.8	508.4	476.0	420.1	363.8	308.4	252.0	203.2	161.8	125.6	13.4
32°	658.3	625.2	591.0	533.7	451.7	381.0	310.2	239.9	185.3	143.3	13.9
33°	807.2	787.7	735.6	664.1	565.8	466.4	374.6	283.1	214.1	164.8	14.2
34°	965.9	944.4	902.2	799.6	691.7	561.5	439.1	332.9	248.5	185.8	14.4
35°	1131.5	1122.4	1041.0	952.0	819.3	662.3	516.7	387.5	282.1	205.0	14.7
36°	1298.1	1268.8	1205.1	1075.1	936.6	755.6	598.1	438.3	316.2	227.8	14.7
37°	1423.5	1416.9	1332.5	1205.8	1043.0	855.2	668.4	494.7	350.6	247.2	14.7
38°	1561.8	1535.7	1450.0	1321.1	1143.1	946.5	742.0	543.8	383.2	264.9	14.4
39°	1678.3	1639.6	1553.2	1425.8	1230.6	1015.7	800.4	591.3	412.1	279.6	14.2
40°	1754.7	1727.9	1637.6	1494.3	1310.0	1081.2	859.5	630.5	433.5	290.7	13.7
41°	1838.8	1794.4	1705.1	1561.0	1367.6	1138.8	896.7	656.3	450.2	298.0	13.1
42°	1889.2	1852.7	1746.8	1605.8	1408.8	1171.7	927.0	676.0	460.3	301.8	12.1
43°	1936.2	1886.6	1783.5	1631.8	1436.1	1195.0	940.9	685.1	462.6	301.8	10.9
44°	1929.9	1882.8	1775.9	1635.3	1442.2	1201.8	946.7	685.3	459.1	298.0	9.6
45°	1882.6	1835.8	1739.5	1604.5	1420.5	1188.4	935.1	675.2	449.2	291.5	8.6
46°	1795.9	1749.4	1675.5	1552.9	1380.0	1158.1	908.0	653.2	432.8	280.9	7.6
47°	1701.6	1656.3	1580.7	1469.8	1311.0	1104.0	868.9	622.4	409.8	265.4	6.8
48°	1564.8	1536.5	1460.7	1365.9	1215.2	1019.3	800.1	572.1	378.9	245.5	5.8
49°	1444.0	1414.1	1347.7	1245.8	1090.3	920.7	717.9	510.9	338.7	223.2	5.1
50°	1328.4	1302.4	1241.0	1126.0	977.6	801.6	607.0	433.8	288.2	195.7	4.3
51°	1215.4	1196.0	1133.3	1027.6	877.0	710.1	525.8	361.2	238.1	162.3	4.0
52°	1101.9	1099.7	1031.7	924.7	779.1	618.8	446.9	304.9	202.0	136.3	3.8
53°	979.8	965.2	905.8	809.7	669.9	523.8	378.9	257.1	173.9	116.0	3.3
54°	840.8	824.4	760.7	674.0	547.3	429.0	305.4	207.8	144.9	98.1	3.0
55°	686.1	658.0	611.8	522.8	427.5	327.4	235.9	164.6	115.8	81.7	2.5
56°	520.5	492.4	466.4	400.9	313.7	244.2	175.7	126.1	90.5	64.5	2.3
57°	362.0	360.5	317.8	267.5	209.8	166.3	120.3	89.0	64.0	50.1	1.8
58°	234.8	227.0	199.7	170.6	137.3	103.9	77.4	60.4	43.5	34.1	1.5
59°	164.6	148.9	134.2	113.8	86.5	65.5	49.8	38.7	30.1	23.8	1.0
60°	101.1	97.8	88.0	69.3	56.1	46.3	37.2	28.6	22.0	16.9	0.5
62.5°	28.8	29.3	26.5	23.5	20.2	17.4	15.7	13.4	11.1	8.8	0.0
65°	6.6	6.3	6.8	6.3	5.8	5.8	5.1	4.6	4.0	3.8	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°	2.0	2.0	1.8	1.8	1.8	1.5	1.5	1.3	1.3	1.0	0.0
70°	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.3	0.3	0.0
72.5°	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3
77.5°	0.5	0.5	0.5	0.5	0.5	0.3	0.5	0.3	0.3	0.3	0.3
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
85°	0.3	0.3	0.3	0.3	0.0	0.0	0.3	0.3	0.3	0.0	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	18.7	18.7	18.7	18.7	18.7	18.7
2.5°	19.5	18.5	17.7	16.9	16.7	16.7
5°	19.0	17.4	15.9	15.2	14.7	14.7
7.5°	17.4	15.7	14.2	13.4	13.1	13.1
10°	15.7	13.7	12.1	11.6	11.6	11.4
12.5°	13.7	11.6	10.6	10.4	10.4	10.4
15°	11.4	9.9	9.1	9.1	9.4	9.6
17.5°	9.6	8.1	7.8	8.3	8.8	8.8
20°	8.1	7.1	7.1	7.6	8.1	8.3
22.5°	6.8	6.1	6.3	7.1	7.8	8.1
25°	6.1	5.3	5.8	6.6	7.3	7.8
27.5°	5.1	4.8	5.3	6.3	7.3	7.6
30°	4.3	4.3	5.1	6.1	7.1	7.3
31°	4.0	4.0	5.1	6.1	7.1	7.3
32°	3.8	4.0	4.8	6.1	7.1	7.3
33°	3.5	3.8	4.8	5.8	7.1	7.3
34°	3.3	3.8	4.8	5.8	7.1	7.3
35°	3.0	3.8	4.8	5.8	7.1	7.3
36°	2.8	3.5	4.6	5.8	7.1	7.3
37°	2.5	3.5	4.6	5.8	7.1	7.3
38°	2.3	3.3	4.6	5.8	7.1	7.3
39°	2.3	3.3	4.3	5.8	6.8	7.3
40°	2.0	3.0	4.3	5.8	6.8	7.3
41°	1.8	3.0	4.3	5.6	6.8	7.3
42°	1.5	2.8	4.0	5.6	6.8	7.3
43°	1.3	2.8	4.0	5.6	6.8	7.3
44°	1.3	2.5	4.0	5.6	6.8	7.3
45°	1.0	2.5	4.0	5.6	6.8	7.3
46°	0.8	2.5	4.0	5.6	6.8	7.3
47°	0.8	2.3	3.8	5.6	6.8	7.3
48°	0.5	2.3	3.8	5.6	6.8	7.3
49°	0.5	2.3	3.8	5.6	6.8	7.6
50°	0.5	2.3	3.8	5.3	6.8	7.6
51°	0.3	2.3	3.8	5.3	6.8	7.6
52°	0.3	2.3	3.5	5.3	7.1	7.6
53°	0.3	2.0	3.5	5.3	7.1	7.6
54°	0.3	2.0	3.5	5.3	7.1	7.3
55°	0.3	2.0	3.5	5.3	6.8	7.3
56°	0.3	1.8	3.5	5.3	6.8	7.3
57°	0.3	1.8	3.3	5.1	6.8	7.1
58°	0.3	1.8	3.3	5.1	6.8	7.1
59°	0.3	1.8	3.3	5.1	6.6	7.1
60°	0.5	1.5	3.0	4.8	6.6	7.1
62.5°	0.5	1.5	3.0	4.8	6.3	6.8
65°	0.5	1.5	2.8	4.6	6.3	6.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.3	2.5	4.3	6.1	6.6
70°	0.5	1.5	2.5	4.0	5.8	6.3
72.5°	0.8	1.3	2.3	3.8	5.6	6.1
75°	0.8	1.3	2.3	3.5	5.3	5.6
77.5°	1.0	1.3	2.0	3.0	4.8	5.1
80°	1.0	1.3	1.8	2.5	4.0	4.3
82.5°	1.0	1.3	1.3	2.0	3.0	3.3
85°	0.8	1.0	1.0	1.3	2.0	2.3
87.5°	0.8	1.0	0.8	0.5	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)