

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: P1340052

Luminaire Tested: P3A09R159840DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1340052
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A09R159840DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

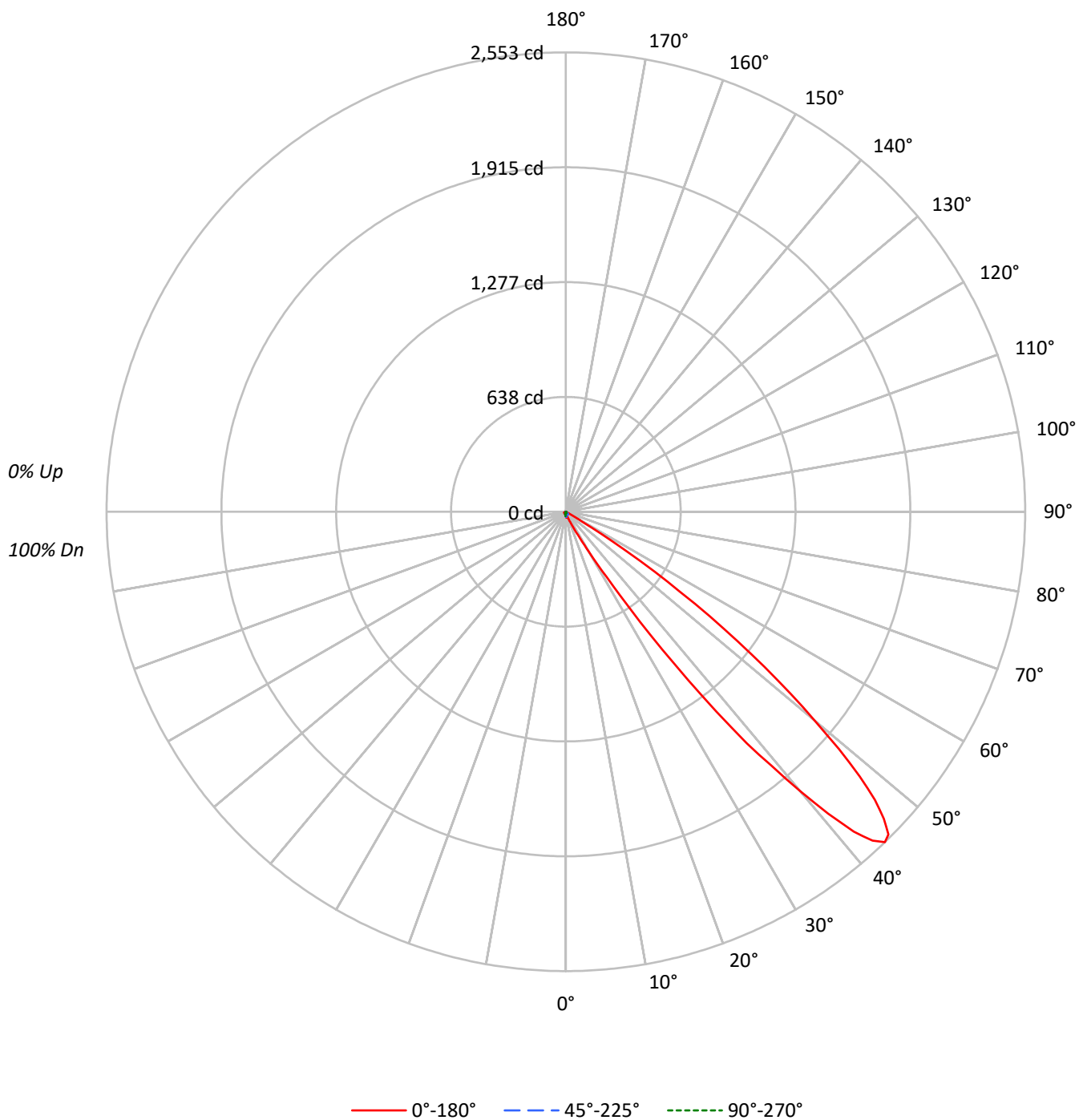
Lumens per Lamp: N/A
Luminaire Lumens: 285.0 lumens
Efficiency: N/A
Efficacy: 25.9 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	107	104	100	97	100	97	94		96	93	91		92
2	101	93	87	81	98	91	85	80	87	83	78		84	80	77		81
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62
5	75	62	52	46	73	61	52	45	58	51	45		56	50	44		55
6	68	54	45	38	66	53	44	38	51	43	37		49	42	37		48
7	62	47	38	32	60	47	38	32	45	37	31		44	36	31		42
8	56	42	33	27	55	41	33	27	40	32	26		39	31	26		37
9	52	37	28	22	50	37	28	22	35	28	22		34	27	22		33
10	48	33	25	19	46	33	25	19	32	24	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5548	5548	5548	5548	5548
5°	6890	6119	4997	4380	4314
10°	6769	5255	3852	3407	3474
15°	5607	3746	2770	2838	3042
20°	9754	2987	2124	2450	2777
25°	21727	3581	1718	2274	2613
30°	64972	4380	1519	2228	2735
35°	250132	4952	1365	2275	2891
40°	580545	4322	1288	2347	3092
45°	786345	3256	1147	2543	3349
50°	616543	1944	1160	2729	3684
55°	295942	879	1070	2944	4014
60°	27059	132	1009	3114	4473
65°	2958	0	882	3269	4877
70°	705	0	1090	3462	5257
75°	763	254	1440	3813	6015
80°	758	758	1768	3915	6440
85°	755	755	2768	3522	7045

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 786345 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.2	0.8
10°-20°	4.5	1.6
20°-30°	10.8	3.8
30°-40°	58.9	20.7
40°-50°	142.8	50.1
50°-60°	57.0	20.0
60°-70°	4.9	1.7
70°-80°	2.8	1.0
80°-90°	1.2	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°	17.4	6.1
0°-40°	76.4	26.8
0°-60°	276.1	96.9
0°-90°	285.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	285.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	25	25	25	25	25	
5°	31	28	23	20	20	3
15°	25	16	12	12	13	9
25°	90	15	7	9	11	54
35°	934	18	5	8	11	660
45°	2536	10	4	8	11	1789
55°	774	2	3	8	10	721
65°	6	0	2	6	9	15
75°	1	0	2	4	7	1
85°	0	0	1	1	3	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°	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3	25.3
2.5°	28.4	28.4	28.7	28.4	28.4	28.4	28.4	28.1	28.1	28.1	27.3
5°	31.3	31.3	31.3	31.3	31.0	31.0	31.0	30.7	30.7	30.4	27.8
7.5°	32.4	32.4	32.1	32.1	31.8	31.8	31.5	31.3	31.0	30.7	26.7
10°	30.4	30.4	30.4	30.1	30.1	29.8	29.6	29.3	29.0	28.4	23.6
12.5°	27.0	27.0	27.3	27.0	26.7	26.4	25.9	25.6	25.3	24.7	19.6
15°	24.7	24.7	24.7	24.4	24.2	23.6	23.3	22.7	22.4	21.6	16.5
17.5°	31.5	31.5	31.3	30.7	29.6	28.7	27.3	26.1	24.7	23.0	14.2
20°	41.8	41.8	41.2	40.6	39.2	37.8	35.5	33.5	31.3	29.3	12.8
22.5°	60.5	61.4	59.7	57.7	55.7	52.3	49.2	46.0	42.1	38.6	13.1
25°	89.8	90.7	89.8	85.3	81.6	77.0	71.0	64.8	58.0	51.7	14.8
27.5°	145.5	146.1	144.6	133.6	127.6	115.7	105.1	94.9	83.5	72.2	16.2
30°	256.6	256.9	247.8	225.6	206.0	179.9	157.7	136.4	118.5	100.3	17.3
31°	337.9	329.9	310.6	283.9	252.6	217.4	187.0	159.4	132.7	113.1	17.6
32°	429.1	428.0	395.9	349.5	307.8	263.7	218.0	182.7	152.0	125.3	17.9
33°	549.9	550.4	499.9	445.3	376.8	317.7	257.7	209.4	172.5	139.8	18.5
34°	738.6	694.2	634.8	561.0	467.7	378.8	300.9	240.4	191.0	153.7	18.5
35°	934.4	889.7	824.4	712.4	584.5	460.1	352.4	273.7	213.1	168.8	18.5
36°	1153.7	1115.9	1017.1	874.1	711.0	536.8	406.9	312.0	235.0	182.4	18.2
37°	1390.7	1335.3	1225.6	1069.6	851.4	644.8	473.4	350.1	256.9	197.2	17.6
38°	1631.4	1581.4	1443.0	1254.1	1019.0	758.7	539.9	386.8	277.1	208.3	16.8
39°	1813.9	1786.6	1649.3	1438.2	1152.9	866.7	608.4	426.0	298.4	219.4	15.9
40°	2028.1	1984.1	1853.9	1592.8	1311.2	976.7	675.5	460.6	316.0	228.2	15.1
41°	2223.6	2167.9	2003.7	1751.4	1437.9	1075.6	739.1	496.4	330.2	233.3	14.5
42°	2391.3	2326.5	2154.9	1887.2	1543.9	1154.6	790.0	522.0	343.6	237.6	13.6
43°	2499.9	2443.9	2275.1	1989.2	1634.6	1227.1	837.5	548.7	351.8	240.4	12.5
44°	2552.7	2496.2	2332.8	2053.1	1690.3	1270.5	868.1	567.2	360.9	244.1	11.7
45°	2535.7	2478.3	2320.3	2054.3	1707.6	1286.2	881.2	575.4	365.7	247.5	10.5
46°	2457.5	2417.2	2258.0	2000.9	1674.6	1269.4	873.8	569.2	364.0	247.5	9.4
47°	2347.8	2301.8	2150.3	1909.1	1594.8	1226.2	844.0	550.2	353.5	241.8	8.2
48°	2198.4	2159.1	2000.0	1763.3	1472.3	1132.1	776.6	519.2	337.0	230.7	7.1
49°	2010.8	1956.2	1808.2	1576.9	1312.6	998.6	688.3	466.9	310.6	215.1	6.3
50°	1807.3	1740.0	1625.7	1390.2	1147.5	856.2	572.0	394.7	273.4	194.7	5.7
51°	1608.1	1539.6	1430.8	1230.5	971.3	710.4	461.5	315.1	225.1	166.5	4.8
52°	1401.5	1344.1	1222.2	1064.8	831.5	575.7	384.5	266.6	187.0	139.8	4.0
53°	1195.8	1156.6	1040.6	881.2	668.1	470.3	314.0	228.2	163.1	119.6	3.1
54°	989.8	946.9	858.8	716.7	538.5	371.1	266.3	191.0	141.5	104.3	2.8
55°	774.1	751.9	670.6	546.5	408.1	296.1	216.0	164.3	118.5	87.2	2.3
56°	596.2	571.2	497.0	396.4	303.2	231.9	174.8	134.1	100.3	73.0	1.7
57°	390.5	364.9	315.7	276.8	220.8	169.1	133.6	105.7	81.6	60.5	1.4
58°	230.7	207.4	199.8	170.5	147.2	114.8	98.6	78.7	60.2	47.7	0.9
59°	106.0	107.7	95.8	89.8	81.6	73.0	60.0	52.6	41.2	34.4	0.6
60°	61.7	58.3	56.8	50.9	45.2	40.1	36.1	31.8	25.9	22.2	0.3
62.5°	21.0	20.2	20.7	18.8	17.6	17.1	15.6	13.4	11.1	9.1	0.0
65°	5.7	5.7	5.4	5.1	4.8	4.5	4.3	3.7	3.4	2.8	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	1.7	1.7	1.4	1.4	1.1	1.1	0.9	0.9	0.0
70°	1.1	1.1	1.1	0.9	0.9	0.9	0.6	0.6	0.6	0.3	0.0
72.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.6	0.6	0.6	0.3	0.3
75°	0.9	0.9	0.9	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3
77.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.6
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	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°	25.3	25.3	25.3	25.3	25.3	25.3
2.5°	26.1	25.0	23.6	22.7	22.4	22.2
5°	25.0	22.7	21.0	19.9	19.6	19.6
7.5°	22.4	19.9	18.2	17.6	17.3	17.3
10°	19.6	17.3	15.9	15.3	15.6	15.6
12.5°	16.5	14.5	13.9	13.9	14.2	14.5
15°	13.4	12.2	12.2	12.5	13.1	13.4
17.5°	11.1	10.5	10.8	11.4	11.9	12.5
20°	9.1	9.1	9.7	10.5	11.4	11.9
22.5°	7.7	8.0	8.8	9.7	10.8	11.4
25°	6.5	7.1	8.0	9.4	10.5	10.8
27.5°	5.7	6.5	7.7	9.1	10.2	10.8
30°	4.8	6.0	7.4	8.8	10.2	10.8
31°	4.5	5.7	7.1	8.8	10.2	10.8
32°	4.3	5.7	7.1	8.8	10.2	10.8
33°	4.0	5.4	7.1	8.5	10.2	10.8
34°	3.7	5.4	7.1	8.8	10.2	10.8
35°	3.4	5.1	6.8	8.5	9.9	10.8
36°	3.1	5.1	6.8	8.5	10.2	10.8
37°	2.8	5.1	6.8	8.5	9.9	10.8
38°	2.8	4.8	6.5	8.5	9.9	10.8
39°	2.6	4.5	6.5	8.5	9.9	10.8
40°	2.3	4.5	6.3	8.2	9.9	10.8
41°	2.0	4.3	6.3	8.2	9.9	10.8
42°	1.7	4.3	6.3	8.2	9.9	10.8
43°	1.4	4.0	6.0	8.2	9.9	10.8
44°	1.4	4.0	6.0	8.2	9.9	10.8
45°	1.1	3.7	5.7	8.2	9.9	10.8
46°	1.1	3.7	5.7	8.0	9.9	10.8
47°	0.9	3.7	5.7	8.0	9.9	10.8
48°	0.9	3.4	5.7	8.0	9.9	10.8
49°	0.6	3.4	5.7	8.0	9.9	10.8
50°	0.6	3.4	5.4	8.0	9.9	10.8
51°	0.6	3.4	5.4	8.0	9.9	10.8
52°	0.6	3.1	5.4	8.0	9.9	10.8
53°	0.6	3.1	5.4	8.0	9.9	10.8
54°	0.6	3.1	5.1	8.0	9.9	10.8
55°	0.6	2.8	5.1	7.7	9.9	10.5
56°	0.6	2.8	5.1	7.7	9.9	10.5
57°	0.6	2.8	4.8	7.7	9.9	10.5
58°	0.6	2.6	4.8	7.4	9.7	10.5
59°	0.6	2.6	4.5	7.4	9.7	10.2
60°	0.6	2.3	4.5	7.1	9.4	10.2
62.5°	0.6	2.0	4.0	6.8	9.1	9.7
65°	0.6	1.7	3.7	6.3	8.8	9.4



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.6	1.7	3.4	6.0	8.2	9.1
70°	0.6	1.7	3.1	5.4	8.0	8.2
72.5°	0.9	1.7	2.8	5.1	7.4	7.7
75°	1.1	1.7	2.6	4.5	6.8	7.1
77.5°	1.1	1.7	2.3	4.0	6.0	6.3
80°	1.1	1.4	2.0	3.1	4.8	5.1
82.5°	1.1	1.4	1.4	2.6	3.7	4.0
85°	0.9	1.1	1.1	1.4	2.6	2.8
87.5°	0.9	1.1	0.6	0.9	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)