

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: P1336458

Luminaire Tested: P3A05R159827DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336458
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: P3A05R159827DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

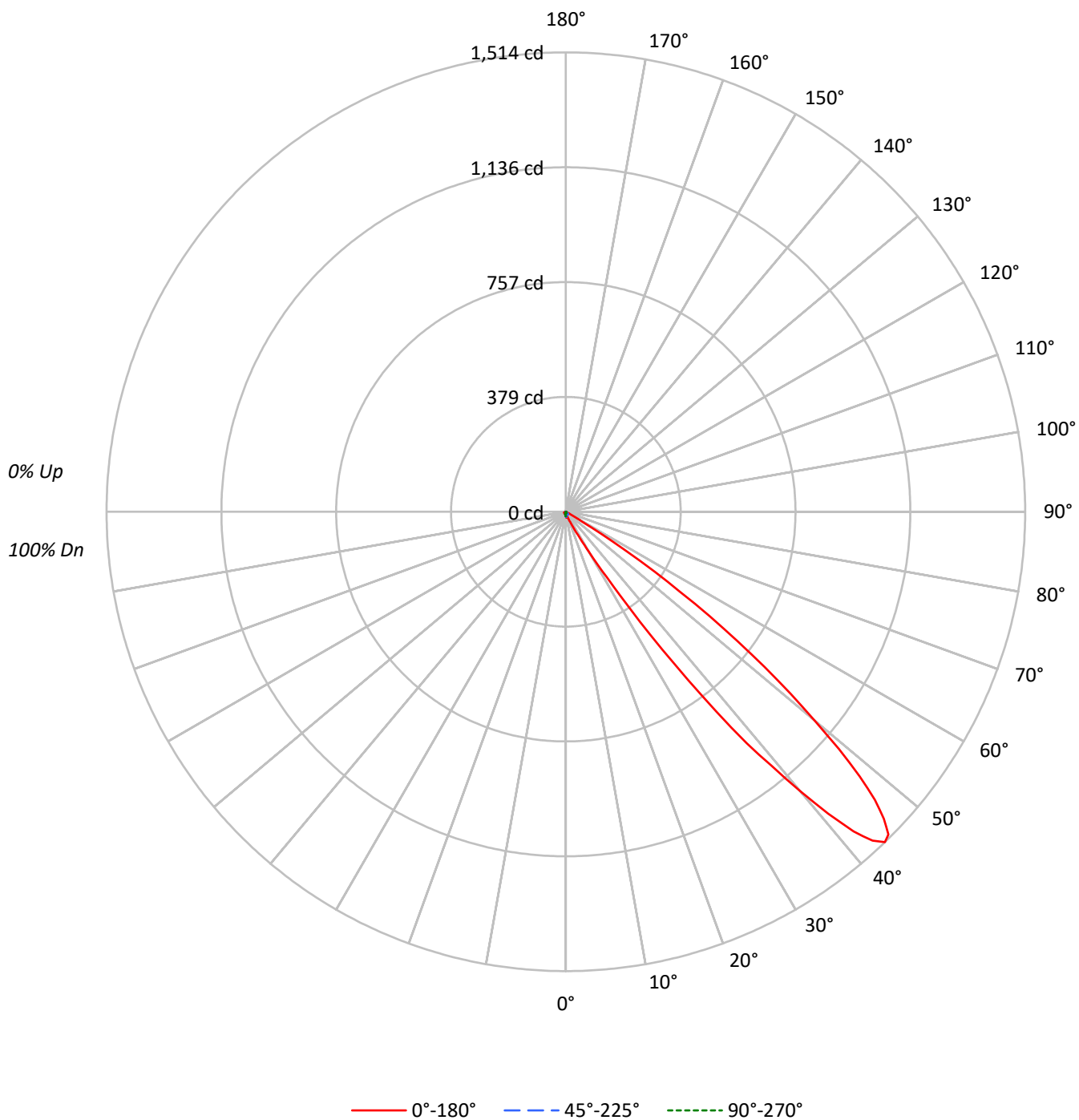
Lumens per Lamp: N/A
Luminaire Lumens: 169.0 lumens
Efficiency: N/A
Efficacy: 23.5 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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			0
RW	70	50	30	10	70	50	30	10	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	100		
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	87		
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61		
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50		
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35		
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29		
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24		
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20		
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3289	3289	3289	3289	3289
5°	4072	3632	2972	2597	2553
10°	4008	3117	2293	2026	2071
15°	3337	2225	1635	1680	1793
20°	5787	1773	1260	1447	1657
25°	12872	2129	1016	1355	1548
30°	38538	2608	886	1317	1621
35°	148328	2945	803	1365	1713
40°	344245	2548	773	1403	1832
45°	466281	1923	682	1520	1985
50°	365600	1160	682	1603	2183
55°	175478	497	650	1720	2370
60°	16051	88	570	1842	2675
65°	1764	0	519	1920	2906
70°	449	0	641	2052	3142
75°	424	169	847	2288	3558
80°	379	379	1010	2399	3788
85°	503	503	1761	2013	4277

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 466281 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.3	0.8
10°-20°	2.7	1.6
20°-30°	6.4	3.8
30°-40°	35.0	20.7
40°-50°	84.6	50.1
50°-60°	33.8	20.0
60°-70°	2.9	1.7
70°-80°	1.6	1.0
80°-90°	0.7	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°	10.3	6.1
0°-40°	45.3	26.8
0°-60°	163.7	96.9
0°-90°	169.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	169.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	15	15	15	15	15	
5°	18	16	14	12	12	2
15°	15	10	7	7	8	5
25°	53	9	4	6	6	32
35°	554	11	3	5	6	392
45°	1504	6	2	5	6	1061
55°	459	1	2	4	6	428
65°	3	0	1	4	6	9
75°	0	0	1	3	4	0
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°	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
2.5°	16.9	16.9	17.0	16.9	16.9	16.9	16.9	16.7	16.7	16.7	16.2
5°	18.5	18.5	18.5	18.5	18.4	18.4	18.4	18.2	18.2	18.0	16.5
7.5°	19.2	19.2	19.0	19.0	18.9	18.9	18.7	18.5	18.4	18.2	15.8
10°	18.0	18.0	18.0	17.9	17.9	17.7	17.5	17.4	17.2	16.9	14.0
12.5°	16.0	16.0	16.2	16.0	15.8	15.7	15.3	15.2	15.0	14.7	11.6
15°	14.7	14.7	14.7	14.5	14.3	14.0	13.8	13.5	13.3	12.8	9.8
17.5°	18.7	18.7	18.5	18.2	17.5	17.0	16.2	15.5	14.7	13.6	8.4
20°	24.8	24.8	24.4	24.1	23.3	22.4	21.1	19.9	18.5	17.4	7.6
22.5°	35.9	36.4	35.4	34.2	33.0	31.0	29.2	27.3	24.9	22.9	7.8
25°	53.2	53.8	53.2	50.6	48.4	45.7	42.1	38.4	34.4	30.7	8.8
27.5°	86.3	86.6	85.8	79.2	75.7	68.6	62.3	56.3	49.5	42.8	9.6
30°	152.2	152.3	146.9	133.8	122.2	106.7	93.5	80.9	70.3	59.5	10.3
31°	200.4	195.6	184.2	168.3	149.8	128.9	110.9	94.5	78.7	67.1	10.4
32°	254.4	253.8	234.7	207.3	182.5	156.4	129.2	108.4	90.2	74.3	10.6
33°	326.1	326.4	296.4	264.1	223.4	188.4	152.8	124.2	102.3	82.9	11.0
34°	438.0	411.7	376.4	332.6	277.4	224.6	178.5	142.6	113.2	91.2	11.0
35°	554.1	527.6	488.8	422.5	346.6	272.8	209.0	162.3	126.4	100.1	11.0
36°	684.1	661.7	603.1	518.3	421.6	318.3	241.3	185.0	139.4	108.2	10.8
37°	824.7	791.8	726.8	634.3	504.9	382.3	280.7	207.6	152.3	116.9	10.4
38°	967.4	937.8	855.7	743.6	604.3	449.9	320.2	229.3	164.3	123.5	9.9
39°	1075.6	1059.4	978.0	852.8	683.6	514.0	360.8	252.6	176.9	130.1	9.4
40°	1202.6	1176.5	1099.4	944.5	777.5	579.2	400.5	273.2	187.4	135.3	8.9
41°	1318.6	1285.6	1188.2	1038.5	852.7	637.8	438.3	294.4	195.8	138.3	8.6
42°	1418.0	1379.6	1277.8	1119.1	915.5	684.7	468.5	309.6	203.7	140.9	8.1
43°	1482.4	1449.2	1349.1	1179.6	969.3	727.6	496.6	325.4	208.6	142.6	7.4
44°	1513.7	1480.2	1383.3	1217.5	1002.3	753.4	514.8	336.3	214.0	144.7	6.9
45°	1503.6	1469.6	1375.9	1218.2	1012.6	762.7	522.5	341.2	216.9	146.8	6.2
46°	1457.3	1433.3	1339.0	1186.5	993.0	752.7	518.2	337.5	215.9	146.8	5.6
47°	1392.2	1364.9	1275.1	1132.0	945.7	727.1	500.5	326.2	209.6	143.4	4.9
48°	1303.6	1280.3	1186.0	1045.6	873.0	671.3	460.5	307.9	199.9	136.8	4.2
49°	1192.4	1160.0	1072.2	935.1	778.3	592.1	408.1	276.9	184.2	127.6	3.7
50°	1071.7	1031.8	964.0	824.3	680.4	507.7	339.2	234.1	162.1	115.4	3.4
51°	953.6	913.0	848.4	729.6	576.0	421.3	273.7	186.9	133.5	98.7	2.9
52°	831.1	797.0	724.8	631.4	493.1	341.4	228.0	158.1	110.9	82.9	2.4
53°	709.1	685.8	617.1	522.5	396.2	278.9	186.2	135.3	96.7	70.9	1.9
54°	586.9	561.5	509.2	425.0	319.3	220.1	157.9	113.2	83.9	61.8	1.7
55°	459.0	445.9	397.7	324.0	242.0	175.6	128.1	97.4	70.3	51.7	1.3
56°	353.5	338.7	294.7	235.1	179.8	137.5	103.6	79.5	59.5	43.3	1.0
57°	231.5	216.4	187.2	164.1	130.9	100.3	79.2	62.7	48.4	35.9	0.8
58°	136.8	123.0	118.5	101.1	87.3	68.1	58.5	46.7	35.7	28.3	0.5
59°	62.9	63.9	56.8	53.2	48.4	43.3	35.6	31.2	24.4	20.4	0.3
60°	36.6	34.5	33.7	30.2	26.8	23.8	21.4	18.9	15.3	13.1	0.2
62.5°	12.5	12.0	12.3	11.1	10.4	10.1	9.3	7.9	6.6	5.4	0.0
65°	3.4	3.4	3.2	3.0	2.9	2.7	2.5	2.2	2.0	1.7	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°	1.2	1.2	1.0	1.0	0.8	0.8	0.7	0.7	0.5	0.5	0.0
70°	0.7	0.7	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.0
72.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2
75°	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
77.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	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	0.2	0.3
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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°	15.0	15.0	15.0	15.0	15.0	15.0
2.5°	15.5	14.8	14.0	13.5	13.3	13.1
5°	14.8	13.5	12.5	11.8	11.6	11.6
7.5°	13.3	11.8	10.8	10.4	10.3	10.3
10°	11.6	10.3	9.4	9.1	9.3	9.3
12.5°	9.8	8.6	8.3	8.3	8.4	8.6
15°	7.9	7.2	7.2	7.4	7.8	7.9
17.5°	6.6	6.2	6.4	6.7	7.1	7.4
20°	5.4	5.4	5.7	6.2	6.7	7.1
22.5°	4.5	4.7	5.2	5.7	6.4	6.7
25°	3.9	4.2	4.7	5.6	6.2	6.4
27.5°	3.4	3.9	4.5	5.4	6.1	6.4
30°	2.9	3.5	4.4	5.2	6.1	6.4
31°	2.7	3.4	4.2	5.2	6.1	6.4
32°	2.5	3.4	4.2	5.2	6.1	6.4
33°	2.4	3.2	4.2	5.1	6.1	6.4
34°	2.2	3.2	4.2	5.2	6.1	6.4
35°	2.0	3.0	4.0	5.1	5.9	6.4
36°	1.9	3.0	4.0	5.1	6.1	6.4
37°	1.7	3.0	4.0	5.1	5.9	6.4
38°	1.7	2.9	3.9	5.1	5.9	6.4
39°	1.5	2.7	3.9	5.1	5.9	6.4
40°	1.3	2.7	3.7	4.9	5.9	6.4
41°	1.2	2.5	3.7	4.9	5.9	6.4
42°	1.0	2.5	3.7	4.9	5.9	6.4
43°	0.8	2.4	3.5	4.9	5.9	6.4
44°	0.8	2.4	3.5	4.9	5.9	6.4
45°	0.7	2.2	3.4	4.9	5.9	6.4
46°	0.7	2.2	3.4	4.7	5.9	6.4
47°	0.5	2.2	3.4	4.7	5.9	6.4
48°	0.5	2.0	3.4	4.7	5.9	6.4
49°	0.3	2.0	3.4	4.7	5.9	6.4
50°	0.3	2.0	3.2	4.7	5.9	6.4
51°	0.3	2.0	3.2	4.7	5.9	6.4
52°	0.3	1.9	3.2	4.7	5.9	6.4
53°	0.3	1.9	3.2	4.7	5.9	6.4
54°	0.3	1.9	3.0	4.7	5.9	6.4
55°	0.3	1.7	3.0	4.5	5.9	6.2
56°	0.3	1.7	3.0	4.5	5.9	6.2
57°	0.3	1.7	2.9	4.5	5.9	6.2
58°	0.3	1.5	2.9	4.4	5.7	6.2
59°	0.3	1.5	2.7	4.4	5.7	6.1
60°	0.3	1.3	2.7	4.2	5.6	6.1
62.5°	0.3	1.2	2.4	4.0	5.4	5.7
65°	0.3	1.0	2.2	3.7	5.2	5.6



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.3	1.0	2.0	3.5	4.9	5.4
70°	0.3	1.0	1.9	3.2	4.7	4.9
72.5°	0.5	1.0	1.7	3.0	4.4	4.5
75°	0.7	1.0	1.5	2.7	4.0	4.2
77.5°	0.7	1.0	1.3	2.4	3.5	3.7
80°	0.7	0.8	1.2	1.9	2.9	3.0
82.5°	0.7	0.8	0.8	1.5	2.2	2.4
85°	0.5	0.7	0.7	0.8	1.5	1.7
87.5°	0.5	0.7	0.3	0.5	0.7	0.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)