

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: P1343486

Luminaire Tested: P3A13R159727DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343486
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: P3A13R159727DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

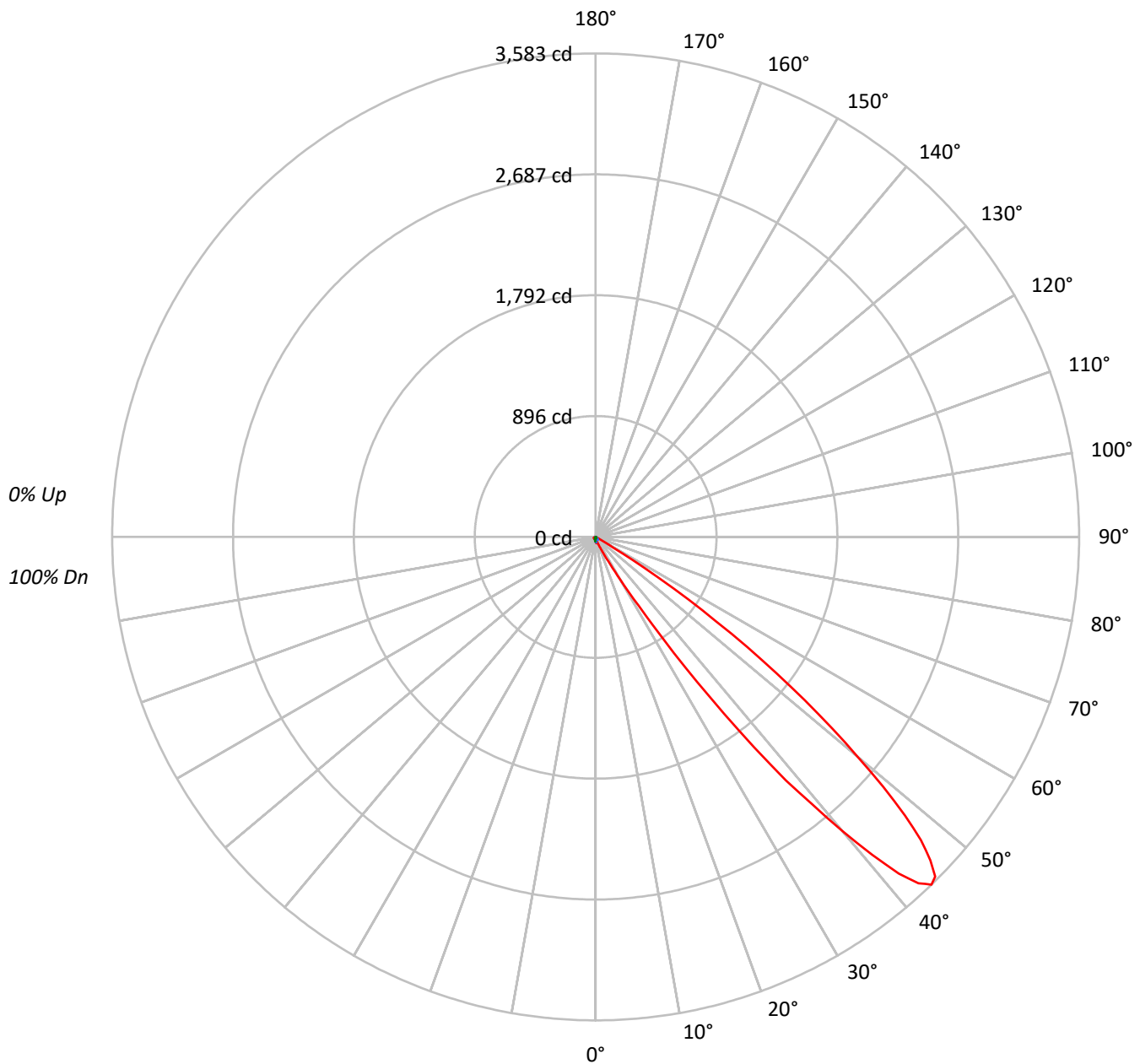
Lumens per Lamp: N/A
Luminaire Lumens: 400.1 lumens
Efficiency: N/A
Efficacy: 27.4 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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



— 0°-180° - - 45°-225° - - - 90°-270°

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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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	89	89	87
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	75	75	73
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	63	63	61
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	53	53	50
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	44	44	42
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	37	37	35
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	31	31	29
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	26	26	24
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	22	22	20
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	19	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	7784	7784	7784	7784	7784
5°	9663	8607	7022	6141	6053
10°	9508	7370	5411	4787	4876
15°	7877	5244	3905	3973	4245
20°	13675	4177	2987	3454	3920
25°	30486	5008	2419	3194	3678
30°	91204	6153	2127	3140	3849
35°	351052	6933	1927	3212	4069
40°	814812	6040	1832	3321	4351
45°	1103618	4590	1613	3597	4714
50°	865336	2729	1637	3821	5185
55°	415335	1223	1529	4129	5658
60°	37936	175	1403	4386	6315
65°	4151	0	1245	4566	6849
70°	1026	0	1539	4873	7437
75°	1017	339	2033	5422	8472
80°	1010	1010	2526	5556	9092
85°	1006	1006	4026	5032	10064

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1103618 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.0	0.8
10°-20°	6.3	1.6
20°-30°	15.1	3.8
30°-40°	82.8	20.7
40°-50°	200.4	50.1
50°-60°	79.9	20.0
60°-70°	6.9	1.7
70°-80°	3.9	1.0
80°-90°	1.7	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°	24.5	6.1
0°-40°	107.2	26.8
0°-60°	387.5	96.9
0°-90°	400.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	400.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	36	36	36	36	36	
5°	44	39	32	28	28	4
15°	35	23	17	18	19	12
25°	126	21	10	13	15	76
35°	1311	26	7	12	15	927
45°	3559	15	5	12	15	2510
55°	1086	3	4	11	15	1012
65°	8	0	2	9	13	20
75°	1	0	2	6	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°	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.5
2.5°	39.9	39.9	40.3	39.9	39.9	39.9	39.9	39.5	39.5	39.5	38.3
5°	43.9	43.9	43.9	43.9	43.5	43.5	43.5	43.1	43.1	42.7	39.1
7.5°	45.5	45.5	45.1	45.1	44.7	44.7	44.3	43.9	43.5	43.1	37.5
10°	42.7	42.7	42.7	42.3	42.3	41.9	41.5	41.1	40.7	39.9	33.1
12.5°	37.9	37.9	38.3	37.9	37.5	37.1	36.3	35.9	35.5	34.7	27.5
15°	34.7	34.7	34.7	34.3	33.9	33.1	32.7	31.9	31.5	30.3	23.1
17.5°	44.3	44.3	43.9	43.1	41.5	40.3	38.3	36.7	34.7	32.3	19.9
20°	58.6	58.6	57.8	57.0	55.0	53.0	49.9	47.1	43.9	41.1	17.9
22.5°	85.0	86.1	83.8	81.0	78.2	73.4	69.0	64.6	59.0	54.2	18.3
25°	126.0	127.2	126.0	119.7	114.5	108.1	99.7	90.9	81.4	72.6	20.7
27.5°	204.2	205.0	203.0	187.5	179.1	162.3	147.6	133.2	117.3	101.3	22.7
30°	360.2	360.5	347.8	316.7	289.2	252.5	221.4	191.4	166.3	140.8	24.3
31°	474.2	463.1	435.9	398.4	354.6	305.1	262.4	223.7	186.3	158.7	24.7
32°	602.2	600.6	555.6	490.6	431.9	370.1	305.9	256.5	213.4	175.9	25.1
33°	771.8	772.5	701.6	625.0	528.9	445.9	361.7	293.9	242.1	196.2	25.9
34°	1036.6	974.4	891.0	787.3	656.5	531.7	422.4	337.4	268.0	215.8	25.9
35°	1311.4	1248.8	1157.0	999.9	820.4	645.7	494.6	384.1	299.1	236.9	25.9
36°	1619.3	1566.2	1427.4	1226.8	997.9	753.4	571.1	437.9	329.8	256.1	25.5
37°	1951.9	1874.1	1720.2	1501.2	1194.9	905.0	664.5	491.4	360.5	276.8	24.7
38°	2289.7	2219.5	2025.3	1760.1	1430.2	1064.9	757.8	542.8	388.9	292.3	23.5
39°	2545.8	2507.5	2314.9	2018.5	1618.1	1216.5	853.9	597.9	418.8	307.9	22.3
40°	2846.5	2784.7	2602.0	2235.5	1840.2	1370.8	948.0	646.5	443.5	320.3	21.1
41°	3120.9	3042.7	2812.2	2458.0	2018.1	1509.6	1037.4	696.8	463.4	327.4	20.3
42°	3356.2	3265.3	3024.4	2648.7	2166.9	1620.5	1108.8	732.7	482.2	333.4	19.1
43°	3508.6	3430.0	3193.1	2791.9	2294.1	1722.2	1175.4	770.2	493.8	337.4	17.5
44°	3582.8	3503.4	3274.1	2881.6	2372.3	1783.2	1218.4	796.1	506.5	342.6	16.4
45°	3558.8	3478.3	3256.5	2883.2	2396.6	1805.1	1236.8	807.6	513.3	347.4	14.8
46°	3449.1	3392.5	3169.2	2808.2	2350.4	1781.6	1226.4	798.9	510.9	347.4	13.2
47°	3295.2	3230.6	3018.0	2679.4	2238.3	1721.0	1184.5	772.1	496.2	339.4	11.6
48°	3085.4	3030.4	2807.0	2474.8	2066.4	1589.0	1090.0	728.7	473.0	323.9	10.0
49°	2822.2	2745.6	2537.8	2213.2	1842.2	1401.5	966.0	655.3	435.9	301.9	8.8
50°	2536.6	2442.1	2281.8	1951.1	1610.5	1201.7	802.9	554.0	383.7	273.2	8.0
51°	2257.0	2160.9	2008.1	1727.0	1363.2	997.1	647.7	442.3	315.9	233.7	6.8
52°	1967.1	1886.5	1715.4	1494.4	1167.0	808.0	539.6	374.1	262.4	196.2	5.6
53°	1678.3	1623.3	1460.5	1236.8	937.7	660.1	440.7	320.3	228.9	167.9	4.4
54°	1389.2	1328.9	1205.3	1005.9	755.8	520.9	373.7	268.0	198.6	146.4	4.0
55°	1086.4	1055.3	941.3	767.0	572.7	415.6	303.1	230.5	166.3	122.4	3.2
56°	836.8	801.7	697.6	556.4	425.6	325.5	245.3	188.3	140.8	102.5	2.4
57°	548.0	512.1	443.1	388.5	309.9	237.3	187.5	148.4	114.5	85.0	2.0
58°	323.9	291.2	280.4	239.3	206.6	161.1	138.4	110.5	84.6	67.0	1.2
59°	148.8	151.2	134.4	126.0	114.5	102.5	84.2	73.8	57.8	48.3	0.8
60°	86.5	81.8	79.8	71.4	63.4	56.2	50.7	44.7	36.3	31.1	0.4
62.5°	29.5	28.3	29.1	26.3	24.7	23.9	21.9	18.7	15.6	12.8	0.0
65°	8.0	8.0	7.6	7.2	6.8	6.4	6.0	5.2	4.8	4.0	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°	2.8	2.8	2.4	2.4	2.0	2.0	1.6	1.6	1.2	1.2	0.0
70°	1.6	1.6	1.6	1.2	1.2	1.2	0.8	0.8	0.8	0.4	0.0
72.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.8	0.8	0.8	0.4	0.4
75°	1.2	1.2	1.2	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4
77.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.8
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
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°	35.5	35.5	35.5	35.5	35.5	35.5
2.5°	36.7	35.1	33.1	31.9	31.5	31.1
5°	35.1	31.9	29.5	27.9	27.5	27.5
7.5°	31.5	27.9	25.5	24.7	24.3	24.3
10°	27.5	24.3	22.3	21.5	21.9	21.9
12.5°	23.1	20.3	19.5	19.5	19.9	20.3
15°	18.7	17.2	17.2	17.5	18.3	18.7
17.5°	15.6	14.8	15.2	16.0	16.8	17.5
20°	12.8	12.8	13.6	14.8	16.0	16.8
22.5°	10.8	11.2	12.4	13.6	15.2	16.0
25°	9.2	10.0	11.2	13.2	14.8	15.2
27.5°	8.0	9.2	10.8	12.8	14.4	15.2
30°	6.8	8.4	10.4	12.4	14.4	15.2
31°	6.4	8.0	10.0	12.4	14.4	15.2
32°	6.0	8.0	10.0	12.4	14.4	15.2
33°	5.6	7.6	10.0	12.0	14.4	15.2
34°	5.2	7.6	10.0	12.4	14.4	15.2
35°	4.8	7.2	9.6	12.0	14.0	15.2
36°	4.4	7.2	9.6	12.0	14.4	15.2
37°	4.0	7.2	9.6	12.0	14.0	15.2
38°	4.0	6.8	9.2	12.0	14.0	15.2
39°	3.6	6.4	9.2	12.0	14.0	15.2
40°	3.2	6.4	8.8	11.6	14.0	15.2
41°	2.8	6.0	8.8	11.6	14.0	15.2
42°	2.4	6.0	8.8	11.6	14.0	15.2
43°	2.0	5.6	8.4	11.6	14.0	15.2
44°	2.0	5.6	8.4	11.6	14.0	15.2
45°	1.6	5.2	8.0	11.6	14.0	15.2
46°	1.6	5.2	8.0	11.2	14.0	15.2
47°	1.2	5.2	8.0	11.2	14.0	15.2
48°	1.2	4.8	8.0	11.2	14.0	15.2
49°	0.8	4.8	8.0	11.2	14.0	15.2
50°	0.8	4.8	7.6	11.2	14.0	15.2
51°	0.8	4.8	7.6	11.2	14.0	15.2
52°	0.8	4.4	7.6	11.2	14.0	15.2
53°	0.8	4.4	7.6	11.2	14.0	15.2
54°	0.8	4.4	7.2	11.2	14.0	15.2
55°	0.8	4.0	7.2	10.8	14.0	14.8
56°	0.8	4.0	7.2	10.8	14.0	14.8
57°	0.8	4.0	6.8	10.8	14.0	14.8
58°	0.8	3.6	6.8	10.4	13.6	14.8
59°	0.8	3.6	6.4	10.4	13.6	14.4
60°	0.8	3.2	6.4	10.0	13.2	14.4
62.5°	0.8	2.8	5.6	9.6	12.8	13.6
65°	0.8	2.4	5.2	8.8	12.4	13.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	2.4	4.8	8.4	11.6	12.8
70°	0.8	2.4	4.4	7.6	11.2	11.6
72.5°	1.2	2.4	4.0	7.2	10.4	10.8
75°	1.6	2.4	3.6	6.4	9.6	10.0
77.5°	1.6	2.4	3.2	5.6	8.4	8.8
80°	1.6	2.0	2.8	4.4	6.8	7.2
82.5°	1.6	2.0	2.0	3.6	5.2	5.6
85°	1.2	1.6	1.6	2.0	3.6	4.0
87.5°	1.2	1.6	0.8	1.2	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)