

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: P1344522

Luminaire Tested: P3A13R259735DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344522
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-75)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R259735DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R25 optic, 3500K CCT AND, 97CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

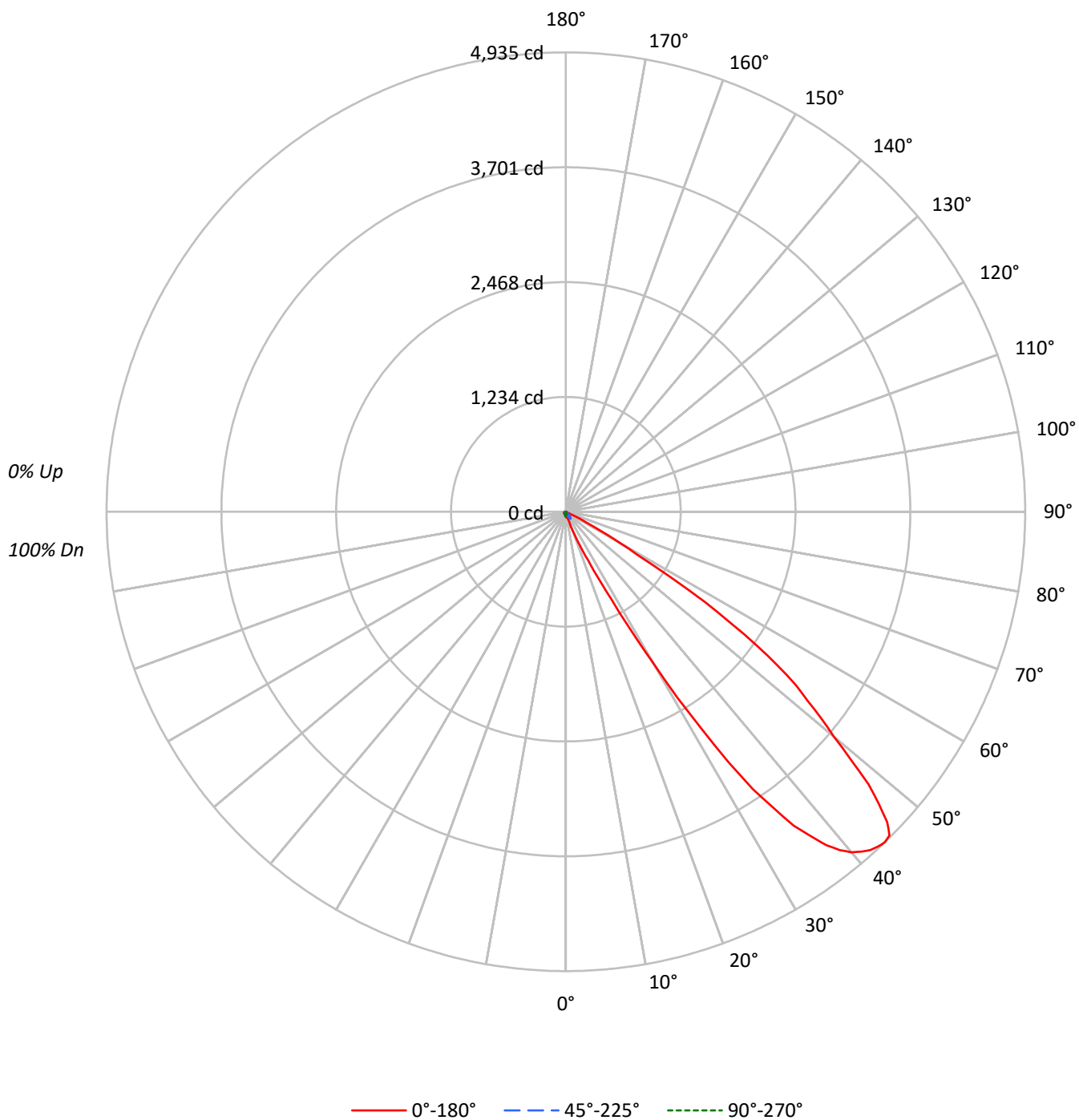
Lumens per Lamp: N/A
Luminaire Lumens: 1028.9 lumens
Efficiency: N/A
Efficacy: 70.5 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.61 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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



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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	0
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	108	104	101	97	100	97	94		96	94	92		92	91	89	87
2	101	93	87	82	98	91	86	81	88	83	79		85	81	77		82	78	75	73
3	92	81	74	67	89	80	73	67	77	71	66		74	69	64		72	67	63	61
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63	58	53	51
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	42
6	68	55	45	39	66	54	45	39	52	44	38		50	43	38		48	42	37	35
7	62	48	39	32	60	47	39	32	46	38	32		44	37	32		43	36	32	29
8	57	43	34	27	55	42	33	27	40	33	27		39	32	27		38	32	27	25
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34	27	23	21
10	48	34	25	20	47	33	25	20	32	25	20		31	24	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	11512	11512	11512	11512	11512
5°	13163	12547	11160	9971	9773
10°	13115	11890	9485	8261	8261
15°	14597	10284	7401	6992	7401
20°	51548	10151	5694	5927	6557
25°	148315	12920	4597	5468	6363
30°	473212	19952	3671	5267	6431
35°	1036478	23503	3159	5086	6532
40°	1367276	21268	2605	5181	6985
45°	1524747	14885	2512	5613	7567
50°	1283472	7710	2456	5868	8324
55°	959584	3097	2409	6576	9328
60°	297038	789	2368	7149	10306
65°	25372	0	2802	7524	11259
70°	1731	577	2885	8719	12759
75°	1525	763	3813	9235	14572
80°	1137	1137	5683	10229	17174
85°	2264	2264	9057	11322	18115

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1524747 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.7	0.5
10°-20°	12.1	1.2
20°-30°	56.9	5.5
30°-40°	274.1	26.6
40°-50°	429.6	41.8
50°-60°	220.2	21.4
60°-70°	20.8	2.0
70°-80°	7.0	0.7
80°-90°	3.5	0.3
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°	73.8	7.2
0°-40°	347.8	33.8
0°-60°	997.7	97.0
0°-90°	1028.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1028.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	52	52	52	52	52	
5°	60	57	51	45	44	6
15°	64	45	33	31	33	27
25°	613	53	19	23	26	380
35°	3872	88	12	19	24	2350
45°	4917	48	8	18	24	3598
55°	2510	8	6	17	24	2090
65°	49	0	5	14	22	153
75°	2	1	4	11	17	2
85°	1	1	4	4	7	1
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°	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5
2.5°	57.0	57.0	57.0	57.0	57.0	57.0	56.1	56.1	57.0	56.1	56.1
5°	59.8	59.8	59.8	59.8	59.8	59.8	59.8	58.9	58.9	58.9	57.0
7.5°	60.7	59.8	59.8	59.8	59.8	59.8	59.8	59.8	58.9	58.9	56.1
10°	58.9	58.9	58.9	58.9	58.0	58.0	58.0	57.0	57.0	57.0	53.4
12.5°	58.9	58.9	58.9	58.9	58.0	58.0	57.0	57.0	56.1	55.2	48.9
15°	64.3	64.3	64.3	63.4	62.5	61.6	60.7	59.8	58.9	57.0	45.3
17.5°	94.2	91.5	90.5	86.9	82.4	77.9	74.3	70.6	67.0	64.3	43.5
20°	220.9	220.0	215.5	204.6	192.9	179.3	165.7	150.3	128.6	114.1	43.5
22.5°	383.0	377.6	369.4	361.3	340.5	316.0	290.7	261.7	233.6	203.7	46.2
25°	613.0	625.7	598.5	576.8	540.6	496.2	448.2	408.4	357.7	310.6	53.4
27.5°	1065.8	1073.9	1020.5	949.9	865.7	772.4	681.8	613.9	528.8	450.9	67.0
30°	1868.9	1877.1	1787.4	1637.1	1463.3	1310.3	1102.9	920.9	753.4	623.9	78.8
31°	2332.6	2269.2	2165.0	2019.3	1799.2	1568.3	1319.3	1099.3	887.4	717.2	82.4
32°	2735.5	2730.1	2608.7	2387.8	2166.9	1881.6	1572.8	1285.8	1025.9	811.3	85.1
33°	3210.9	3174.7	3003.5	2795.3	2502.8	2215.7	1817.3	1489.5	1168.1	916.4	86.9
34°	3592.1	3494.3	3423.7	3185.5	2876.8	2510.9	2084.5	1705.0	1345.6	1017.8	87.8
35°	3871.9	3851.1	3713.4	3491.6	3177.4	2803.4	2372.4	1928.7	1494.1	1135.5	87.8
36°	4168.0	4103.7	3969.7	3768.7	3462.6	3076.0	2592.4	2122.5	1667.0	1241.4	86.9
37°	4353.6	4315.6	4182.5	3975.1	3675.4	3306.0	2838.7	2327.1	1804.7	1347.4	85.1
38°	4544.7	4467.7	4336.4	4138.1	3843.8	3497.0	3017.1	2484.7	1931.4	1440.6	82.4
39°	4676.9	4597.2	4463.2	4265.8	3977.8	3633.8	3158.4	2618.7	2041.9	1510.4	78.8
40°	4776.5	4699.5	4563.7	4360.9	4076.5	3741.5	3276.1	2737.3	2134.3	1571.0	74.3
41°	4838.1	4766.5	4631.6	4429.7	4144.5	3803.1	3353.1	2814.3	2196.7	1611.8	69.7
42°	4889.7	4816.3	4678.7	4472.2	4186.1	3855.6	3400.1	2863.2	2239.3	1632.6	66.1
43°	4918.7	4845.3	4711.3	4500.3	4211.5	3880.0	3425.5	2885.8	2253.8	1629.9	59.8
44°	4935.0	4858.9	4724.0	4513.0	4222.3	3886.4	3427.3	2881.3	2243.8	1608.2	54.3
45°	4916.8	4841.7	4711.3	4500.3	4203.3	3866.5	3409.2	2856.8	2205.8	1565.6	48.0
46°	4799.1	4741.2	4621.7	4427.9	4143.5	3815.8	3363.0	2809.8	2146.9	1513.1	40.7
47°	4591.8	4545.6	4429.7	4285.7	4028.6	3722.5	3277.9	2720.1	2064.5	1434.3	32.6
48°	4375.4	4307.4	4199.7	4052.1	3834.8	3555.0	3137.5	2588.8	1939.6	1331.1	29.0
49°	4055.7	4015.9	3920.8	3756.0	3575.8	3329.5	2939.2	2420.4	1786.5	1218.8	25.4
50°	3762.3	3735.2	3602.1	3480.7	3289.7	3059.7	2670.3	2198.5	1596.4	1079.4	22.6
51°	3533.2	3500.6	3404.7	3253.4	3049.7	2782.6	2415.9	1910.6	1378.2	913.6	18.1
52°	3294.2	3276.1	3191.0	3035.2	2835.1	2568.9	2168.7	1666.1	1166.3	772.4	14.5
53°	3098.6	3072.3	2968.2	2829.7	2613.3	2338.0	1900.6	1438.8	987.9	649.2	12.7
54°	2813.4	2802.5	2735.5	2590.6	2356.1	2056.4	1658.0	1211.6	824.0	550.5	10.9
55°	2510.0	2473.8	2405.9	2290.9	2075.4	1795.6	1377.3	1004.2	666.4	463.6	8.1
56°	2140.6	2138.8	2017.4	1921.5	1730.4	1433.4	1100.2	784.2	541.5	386.6	7.2
57°	1787.4	1730.4	1613.6	1518.5	1313.0	1087.5	816.8	587.7	423.8	313.3	5.4
58°	1322.0	1292.1	1261.4	1121.9	931.8	770.6	583.1	412.9	313.3	239.1	3.6
59°	897.3	896.4	860.2	754.3	644.7	479.9	364.0	280.7	215.5	175.7	2.7
60°	677.3	661.0	588.6	518.8	405.7	303.3	215.5	165.7	134.0	113.2	1.8
62.5°	237.2	246.3	216.4	179.3	136.7	112.3	86.0	69.7	57.0	46.2	0.0
65°	48.9	53.4	46.2	43.5	34.4	29.9	26.3	22.6	19.0	16.3	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°	6.3	5.4	5.4	5.4	4.5	4.5	4.5	4.5	3.6	3.6	0.9
70°	2.7	2.7	2.7	2.7	2.7	2.7	1.8	1.8	1.8	1.8	0.9
72.5°	2.7	2.7	2.7	1.8	1.8	1.8	1.8	1.8	1.8	0.9	0.9
75°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.9	0.9	0.9	0.9
77.5°	1.8	1.8	1.8	1.8	1.8	1.8	0.9	0.9	0.9	0.9	0.9
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.8
85°	0.9	0.9	0.9	0.0	0.0	0.9	0.9	0.9	0.9	0.9	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
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°	52.5	52.5	52.5	52.5	52.5	52.5
2.5°	55.2	53.4	50.7	49.8	48.9	48.9
5°	54.3	50.7	48.0	45.3	44.4	44.4
7.5°	51.6	47.1	43.5	41.7	40.7	39.8
10°	48.9	42.6	38.9	37.1	37.1	37.1
12.5°	43.5	38.0	34.4	33.5	34.4	34.4
15°	38.9	32.6	30.8	30.8	31.7	32.6
17.5°	33.5	29.0	27.2	28.1	29.0	29.9
20°	29.9	24.4	24.4	25.4	28.1	28.1
22.5°	26.3	21.7	21.7	24.4	26.3	27.2
25°	23.5	19.0	19.9	22.6	25.4	26.3
27.5°	19.9	16.3	18.1	21.7	24.4	25.4
30°	17.2	14.5	17.2	20.8	23.5	25.4
31°	16.3	13.6	17.2	19.9	23.5	25.4
32°	14.5	13.6	16.3	19.9	23.5	24.4
33°	13.6	12.7	16.3	19.9	23.5	24.4
34°	12.7	11.8	15.4	19.9	23.5	24.4
35°	10.9	11.8	15.4	19.0	22.6	24.4
36°	10.0	10.9	15.4	19.0	22.6	24.4
37°	9.1	10.9	14.5	19.0	22.6	24.4
38°	8.1	10.0	14.5	19.0	22.6	24.4
39°	7.2	10.0	13.6	19.0	22.6	24.4
40°	6.3	9.1	13.6	18.1	22.6	24.4
41°	6.3	9.1	13.6	18.1	22.6	24.4
42°	5.4	9.1	13.6	18.1	22.6	24.4
43°	4.5	8.1	13.6	18.1	22.6	24.4
44°	3.6	8.1	12.7	18.1	22.6	24.4
45°	3.6	8.1	12.7	18.1	22.6	24.4
46°	2.7	7.2	12.7	18.1	22.6	24.4
47°	1.8	7.2	12.7	17.2	22.6	24.4
48°	1.8	7.2	12.7	17.2	22.6	24.4
49°	1.8	7.2	11.8	17.2	22.6	24.4
50°	1.8	7.2	11.8	17.2	22.6	24.4
51°	0.9	6.3	11.8	17.2	22.6	24.4
52°	0.9	6.3	11.8	17.2	22.6	25.4
53°	0.9	6.3	11.8	17.2	22.6	24.4
54°	0.9	6.3	10.9	17.2	22.6	24.4
55°	0.9	6.3	10.9	17.2	22.6	24.4
56°	0.9	5.4	10.9	16.3	22.6	24.4
57°	1.8	5.4	10.9	16.3	22.6	23.5
58°	1.8	5.4	10.9	16.3	21.7	23.5
59°	1.8	5.4	10.9	16.3	21.7	23.5
60°	1.8	5.4	10.0	16.3	21.7	23.5
62.5°	1.8	5.4	10.0	15.4	20.8	22.6
65°	1.8	5.4	9.1	14.5	20.8	21.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.8	4.5	9.1	13.6	19.9	20.8
70°	2.7	4.5	8.1	13.6	19.0	19.9
72.5°	2.7	4.5	8.1	11.8	17.2	19.0
75°	2.7	4.5	7.2	10.9	16.3	17.2
77.5°	2.7	4.5	6.3	10.0	14.5	15.4
80°	3.6	4.5	5.4	8.1	12.7	13.6
82.5°	3.6	4.5	4.5	6.3	10.0	10.9
85°	2.7	3.6	3.6	4.5	6.3	7.2
87.5°	2.7	3.6	2.7	1.8	3.6	3.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)