

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: P1344602

Luminaire Tested: P3A13R259840DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344602
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: P3A13R259840DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R25 optic, 4000K CCT AND, 98CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

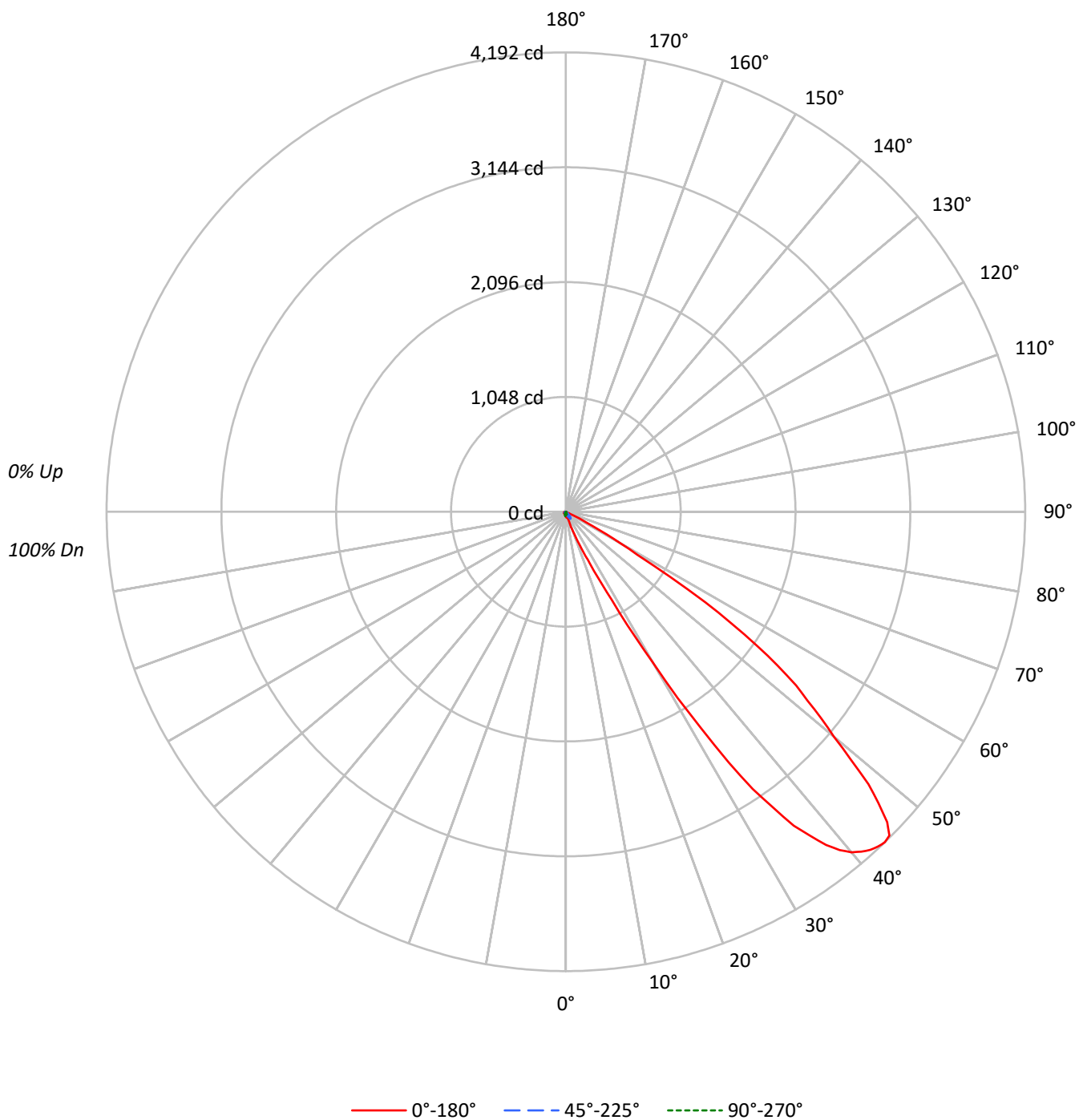
Lumens per Lamp: N/A
Luminaire Lumens: 874.0 lumens
Efficiency: N/A
Efficacy: 60.3 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.6 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.5
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°	9780	9780	9780	9780	9780
5°	11182	10676	9487	8475	8298
10°	11133	10109	8038	7014	7014
15°	12395	8740	6288	5925	6288
20°	43800	8611	4854	5017	5554
25°	125983	10985	3920	4645	5395
30°	401935	16939	3114	4482	5444
35°	880360	19970	2677	4337	5568
40°	1161319	18062	2204	4408	5954
45°	1295080	12652	2140	4776	6450
50°	1090148	6550	2115	4981	7096
55°	815034	2638	2064	5582	7952
60°	252304	658	2017	6052	8771
65°	21533	0	2387	6382	9599
70°	1475	513	2436	7373	10835
75°	1271	678	3219	7795	12370
80°	1010	1010	4799	8713	14522
85°	2013	2013	7799	9561	15599

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1295080 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.0	0.5
10°-20°	10.3	1.2
20°-30°	48.4	5.5
30°-40°	232.8	26.6
40°-50°	364.9	41.8
50°-60°	187.1	21.4
60°-70°	17.6	2.0
70°-80°	5.9	0.7
80°-90°	3.0	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°	62.6	7.2
0°-40°	295.5	33.8
0°-60°	847.4	97.0
0°-90°	874.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	874.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	45	45	45	45	45	
5°	51	48	43	38	38	5
15°	55	38	28	26	28	23
25°	521	45	16	19	22	323
35°	3289	75	10	16	21	1996
45°	4176	41	7	15	21	3056
55°	2132	7	5	15	21	1775
65°	42	0	5	12	18	130
75°	2	1	4	9	15	2
85°	1	1	3	4	6	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°	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6
2.5°	48.5	48.5	48.5	48.5	48.5	48.5	47.7	47.7	48.5	47.7	47.7
5°	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.0	50.0	50.0	48.5
7.5°	51.5	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.0	50.0	47.7
10°	50.0	50.0	50.0	50.0	49.2	49.2	49.2	48.5	48.5	48.5	45.4
12.5°	50.0	50.0	50.0	50.0	49.2	49.2	48.5	48.5	47.7	46.9	41.5
15°	54.6	54.6	54.6	53.8	53.1	52.3	51.5	50.8	50.0	48.5	38.5
17.5°	80.0	77.7	76.9	73.8	70.0	66.1	63.1	60.0	56.9	54.6	36.9
20°	187.7	186.9	183.0	173.8	163.8	152.3	140.7	127.7	109.2	96.9	36.9
22.5°	325.3	320.7	313.8	306.9	289.2	268.4	246.9	222.3	198.4	173.0	39.2
25°	520.7	531.4	508.4	489.9	459.2	421.5	380.7	346.9	303.8	263.8	45.4
27.5°	905.2	912.2	866.8	806.8	735.3	656.0	579.1	521.4	449.2	383.0	56.9
30°	1587.4	1594.3	1518.2	1390.5	1242.9	1112.9	936.8	782.2	639.9	529.9	66.9
31°	1981.2	1927.4	1838.9	1715.1	1528.2	1332.1	1120.6	933.7	753.7	609.1	70.0
32°	2323.4	2318.8	2215.8	2028.1	1840.5	1598.2	1335.9	1092.1	871.4	689.1	72.3
33°	2727.2	2696.5	2551.1	2374.2	2125.8	1882.0	1543.6	1265.2	992.1	778.3	73.8
34°	3051.0	2968.0	2908.0	2705.7	2443.4	2132.7	1770.5	1448.2	1142.9	864.5	74.6
35°	3288.7	3271.0	3154.1	2965.6	2698.8	2381.1	2015.0	1638.2	1269.0	964.5	74.6
36°	3540.2	3485.6	3371.7	3201.0	2941.0	2612.6	2201.9	1802.8	1415.9	1054.4	73.8
37°	3697.8	3665.5	3552.5	3376.3	3121.8	2808.0	2411.1	1976.6	1532.8	1144.4	72.3
38°	3860.1	3794.7	3683.2	3514.8	3264.8	2970.3	2562.6	2110.4	1640.5	1223.6	70.0
39°	3972.4	3904.7	3790.9	3623.2	3378.7	3086.4	2682.6	2224.2	1734.3	1282.9	66.9
40°	4057.0	3991.6	3876.3	3704.0	3462.5	3177.9	2782.6	2325.0	1812.8	1334.4	63.1
41°	4109.3	4048.5	3933.9	3762.4	3520.2	3230.2	2848.0	2390.4	1865.8	1369.0	59.2
42°	4153.1	4090.8	3973.9	3798.6	3555.5	3274.8	2888.0	2431.9	1902.0	1386.7	56.1
43°	4177.7	4115.5	4001.6	3822.4	3577.1	3295.6	2909.5	2451.1	1914.3	1384.4	50.8
44°	4191.6	4127.0	4012.4	3833.2	3586.3	3301.0	2911.0	2447.3	1905.8	1365.9	46.1
45°	4176.2	4112.4	4001.6	3822.4	3570.2	3284.1	2895.7	2426.5	1873.5	1329.8	40.8
46°	4076.2	4027.0	3925.5	3760.9	3519.4	3241.0	2856.4	2386.5	1823.5	1285.2	34.6
47°	3900.1	3860.9	3762.4	3640.1	3421.7	3161.8	2784.1	2310.4	1753.5	1218.3	27.7
48°	3716.3	3658.6	3567.1	3441.7	3257.1	3019.5	2664.9	2198.9	1647.4	1130.6	24.6
49°	3444.8	3411.0	3330.2	3190.2	3037.2	2828.0	2496.5	2055.8	1517.4	1035.2	21.5
50°	3195.6	3172.5	3059.5	2956.4	2794.1	2598.8	2268.1	1867.4	1355.9	916.8	19.2
51°	3001.0	2973.3	2891.8	2763.4	2590.3	2363.4	2052.0	1622.8	1170.6	776.0	15.4
52°	2798.0	2782.6	2710.3	2578.0	2408.1	2181.9	1842.0	1415.1	990.6	656.0	12.3
53°	2631.9	2609.6	2521.1	2403.4	2219.6	1985.8	1614.3	1222.1	839.1	551.4	10.8
54°	2389.6	2380.4	2323.4	2200.4	2001.2	1746.6	1408.2	1029.1	699.9	467.6	9.2
55°	2131.9	2101.2	2043.5	1945.8	1762.8	1525.1	1169.8	852.9	566.1	393.8	6.9
56°	1818.2	1816.6	1713.6	1632.0	1469.7	1217.5	934.5	666.0	459.9	328.4	6.2
57°	1518.2	1469.7	1370.5	1289.8	1115.2	923.7	693.7	499.1	359.9	266.1	4.6
58°	1122.9	1097.5	1071.4	952.9	791.4	654.5	495.3	350.7	266.1	203.0	3.1
59°	762.2	761.4	730.6	640.7	547.6	407.6	309.2	238.4	183.0	149.2	2.3
60°	575.3	561.4	499.9	440.7	344.6	257.6	183.0	140.7	113.8	96.1	1.5
62.5°	201.5	209.2	183.8	152.3	116.1	95.4	73.1	59.2	48.5	39.2	0.0
65°	41.5	45.4	39.2	36.9	29.2	25.4	22.3	19.2	16.2	13.8	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°	5.4	4.6	4.6	4.6	3.8	3.8	3.8	3.8	3.1	3.1	0.8
70°	2.3	2.3	2.3	2.3	2.3	2.3	1.5	1.5	1.5	1.5	0.8
72.5°	2.3	2.3	2.3	1.5	1.5	1.5	1.5	1.5	1.5	0.8	0.8
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.8	0.8	0.8	0.8
77.5°	1.5	1.5	1.5	1.5	1.5	1.5	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	0.8	0.8
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.5
85°	0.8	0.8	0.8	0.0	0.0	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
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°	44.6	44.6	44.6	44.6	44.6	44.6
2.5°	46.9	45.4	43.1	42.3	41.5	41.5
5°	46.1	43.1	40.8	38.5	37.7	37.7
7.5°	43.8	40.0	36.9	35.4	34.6	33.8
10°	41.5	36.1	33.1	31.5	31.5	31.5
12.5°	36.9	32.3	29.2	28.5	29.2	29.2
15°	33.1	27.7	26.1	26.1	26.9	27.7
17.5°	28.5	24.6	23.1	23.8	24.6	25.4
20°	25.4	20.8	20.8	21.5	23.8	23.8
22.5°	22.3	18.5	18.5	20.8	22.3	23.1
25°	20.0	16.2	16.9	19.2	21.5	22.3
27.5°	16.9	13.8	15.4	18.5	20.8	21.5
30°	14.6	12.3	14.6	17.7	20.0	21.5
31°	13.8	11.5	14.6	16.9	20.0	21.5
32°	12.3	11.5	13.8	16.9	20.0	20.8
33°	11.5	10.8	13.8	16.9	20.0	20.8
34°	10.8	10.0	13.1	16.9	20.0	20.8
35°	9.2	10.0	13.1	16.2	19.2	20.8
36°	8.5	9.2	13.1	16.2	19.2	20.8
37°	7.7	9.2	12.3	16.2	19.2	20.8
38°	6.9	8.5	12.3	16.2	19.2	20.8
39°	6.2	8.5	11.5	16.2	19.2	20.8
40°	5.4	7.7	11.5	15.4	19.2	20.8
41°	5.4	7.7	11.5	15.4	19.2	20.8
42°	4.6	7.7	11.5	15.4	19.2	20.8
43°	3.8	6.9	11.5	15.4	19.2	20.8
44°	3.1	6.9	10.8	15.4	19.2	20.8
45°	3.1	6.9	10.8	15.4	19.2	20.8
46°	2.3	6.2	10.8	15.4	19.2	20.8
47°	1.5	6.2	10.8	14.6	19.2	20.8
48°	1.5	6.2	10.8	14.6	19.2	20.8
49°	1.5	6.2	10.0	14.6	19.2	20.8
50°	1.5	6.2	10.0	14.6	19.2	20.8
51°	0.8	5.4	10.0	14.6	19.2	20.8
52°	0.8	5.4	10.0	14.6	19.2	21.5
53°	0.8	5.4	10.0	14.6	19.2	20.8
54°	0.8	5.4	9.2	14.6	19.2	20.8
55°	0.8	5.4	9.2	14.6	19.2	20.8
56°	0.8	4.6	9.2	13.8	19.2	20.8
57°	1.5	4.6	9.2	13.8	19.2	20.0
58°	1.5	4.6	9.2	13.8	18.5	20.0
59°	1.5	4.6	9.2	13.8	18.5	20.0
60°	1.5	4.6	8.5	13.8	18.5	20.0
62.5°	1.5	4.6	8.5	13.1	17.7	19.2
65°	1.5	4.6	7.7	12.3	17.7	18.5



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.5	3.8	7.7	11.5	16.9	17.7
70°	2.3	3.8	6.9	11.5	16.2	16.9
72.5°	2.3	3.8	6.9	10.0	14.6	16.2
75°	2.3	3.8	6.2	9.2	13.8	14.6
77.5°	2.3	3.8	5.4	8.5	12.3	13.1
80°	3.1	3.8	4.6	6.9	10.8	11.5
82.5°	3.1	3.8	3.8	5.4	8.5	9.2
85°	2.3	3.1	3.1	3.8	5.4	6.2
87.5°	2.3	3.1	2.3	1.5	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)