

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: P1341056

Luminaire Tested: P3A09R259840DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1341056
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: P3A09R259840DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R25 optic, 4000K CCT AND, 98CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

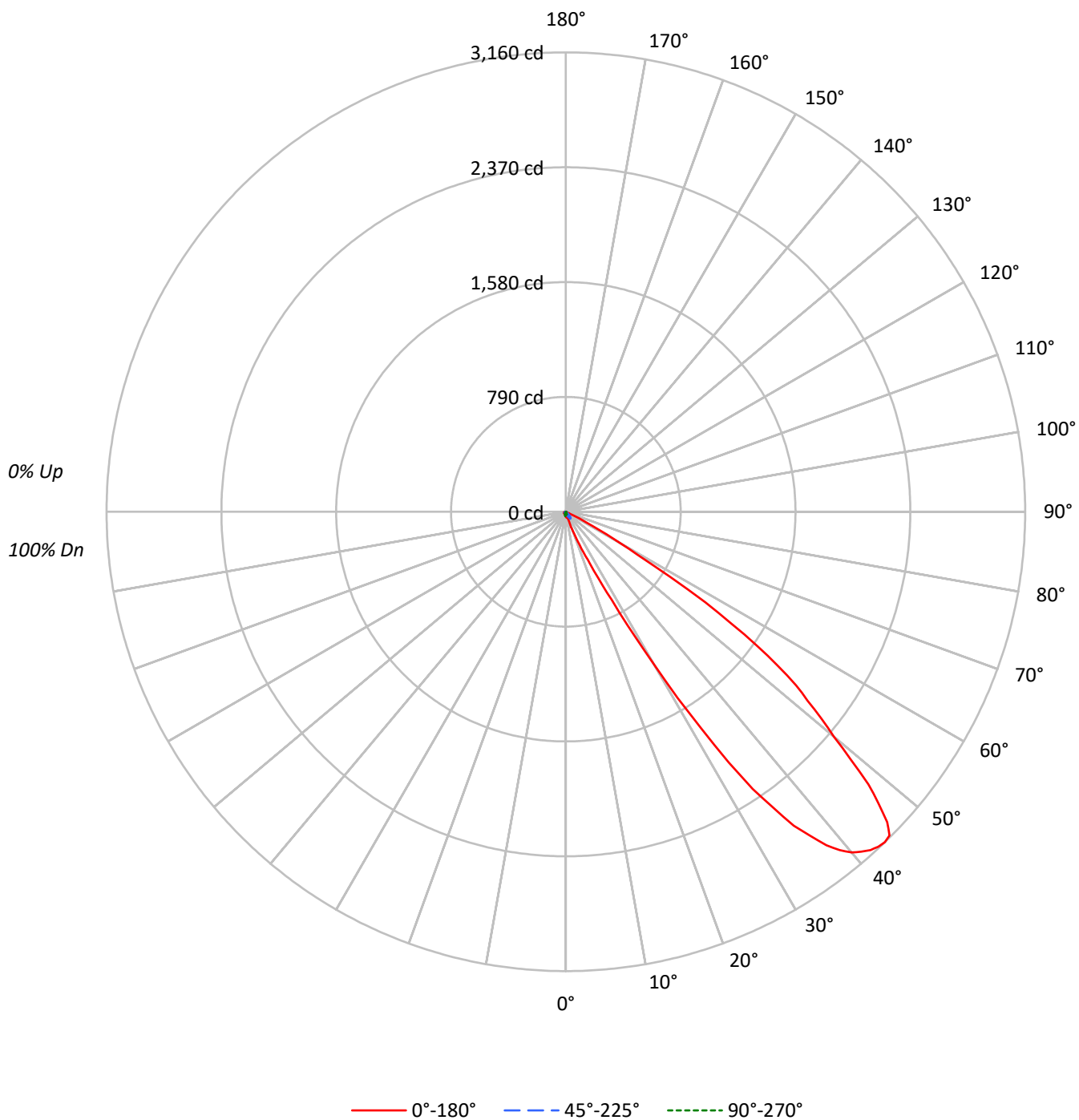
Lumens per Lamp: N/A
Luminaire Lumens: 659.0 lumens
Efficiency: N/A
Efficacy: 59.9 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.61 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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	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°	7368	7368	7368	7368	7368
5°	8431	8034	7154	6383	6251
10°	8394	7615	6079	5299	5299
15°	9353	6583	4745	4472	4745
20°	33020	6487	3664	3780	4200
25°	94989	8275	2952	3508	4065
30°	303059	12787	2355	3368	4102
35°	663797	15071	2008	3266	4203
40°	875641	13626	1660	3321	4494
45°	976504	9520	1613	3597	4869
50°	821977	4947	1569	3753	5356
55°	614554	1988	1567	4205	6002
60°	190248	526	1535	4561	6622
65°	16240	0	1816	4825	7212
70°	1090	385	1859	5578	8207
75°	1017	508	2457	5931	9320
80°	758	758	3662	6566	10986
85°	1510	1510	5787	7296	11573

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 976504 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.0	0.5
10°-20°	7.8	1.2
20°-30°	36.5	5.5
30°-40°	175.5	26.6
40°-50°	275.1	41.8
50°-60°	141.1	21.4
60°-70°	13.3	2.0
70°-80°	4.5	0.7
80°-90°	2.2	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°	47.2	7.2
0°-40°	222.8	33.8
0°-60°	639.0	97.0
0°-90°	659.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	659.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	34	34	34	34	34	
5°	38	36	32	29	28	4
15°	41	29	21	20	21	17
25°	393	34	12	14	17	244
35°	2480	56	8	12	16	1505
45°	3149	31	5	12	16	2304
55°	1608	5	4	11	16	1338
65°	31	0	4	9	14	98
75°	1	1	3	7	11	1
85°	1	1	2	3	5	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°	33.6	33.6	33.6	33.6	33.6	33.6	33.6	33.6	33.6	33.6	33.6
2.5°	36.5	36.5	36.5	36.5	36.5	36.5	36.0	36.0	36.5	36.0	36.0
5°	38.3	38.3	38.3	38.3	38.3	38.3	38.3	37.7	37.7	37.7	36.5
7.5°	38.9	38.3	38.3	38.3	38.3	38.3	38.3	38.3	37.7	37.7	36.0
10°	37.7	37.7	37.7	37.7	37.1	37.1	37.1	36.5	36.5	36.5	34.2
12.5°	37.7	37.7	37.7	37.7	37.1	37.1	36.5	36.5	36.0	35.4	31.3
15°	41.2	41.2	41.2	40.6	40.0	39.4	38.9	38.3	37.7	36.5	29.0
17.5°	60.3	58.6	58.0	55.7	52.8	49.9	47.6	45.2	42.9	41.2	27.8
20°	141.5	140.9	138.0	131.1	123.5	114.8	106.1	96.3	82.3	73.1	27.8
22.5°	245.3	241.8	236.6	231.4	218.0	202.4	186.1	167.6	149.6	130.5	29.6
25°	392.6	400.7	383.3	369.4	346.2	317.8	287.1	261.5	229.1	198.9	34.2
27.5°	682.5	687.8	653.6	608.3	554.4	494.7	436.7	393.2	338.7	288.8	42.9
30°	1196.9	1202.1	1144.7	1048.5	937.1	839.1	706.3	589.8	482.5	399.6	50.5
31°	1493.8	1453.2	1386.6	1293.2	1152.3	1004.4	844.9	704.0	568.3	459.3	52.8
32°	1751.9	1748.4	1670.7	1529.2	1387.7	1205.0	1007.3	823.5	657.0	519.6	54.5
33°	2056.3	2033.1	1923.5	1790.2	1602.9	1419.0	1163.9	953.9	748.1	586.9	55.7
34°	2300.5	2237.9	2192.6	2040.1	1842.4	1608.1	1334.9	1092.0	861.7	651.8	56.3
35°	2479.7	2466.3	2378.2	2236.1	2034.9	1795.4	1519.3	1235.2	956.8	727.2	56.3
36°	2669.3	2628.1	2542.3	2413.6	2217.6	1969.9	1660.3	1359.3	1067.6	795.0	55.7
37°	2788.2	2763.8	2678.6	2545.8	2353.8	2117.2	1818.0	1490.4	1155.7	862.9	54.5
38°	2910.5	2861.2	2777.2	2650.2	2461.7	2239.6	1932.2	1591.3	1236.9	922.6	52.8
39°	2995.2	2944.2	2858.3	2731.9	2547.5	2327.2	2022.7	1677.1	1307.7	967.3	50.5
40°	3059.0	3009.7	2922.7	2792.8	2610.7	2396.2	2098.1	1753.1	1366.8	1006.1	47.6
41°	3098.4	3052.6	2966.2	2836.9	2654.2	2435.6	2147.4	1802.3	1406.8	1032.2	44.7
42°	3131.5	3084.5	2996.4	2864.1	2680.9	2469.2	2177.5	1833.7	1434.1	1045.6	42.3
43°	3150.0	3103.1	3017.2	2882.1	2697.1	2484.9	2193.8	1848.2	1443.4	1043.8	38.3
44°	3160.5	3111.8	3025.4	2890.2	2704.1	2489.0	2194.9	1845.3	1437.0	1029.9	34.8
45°	3148.9	3100.7	3017.2	2882.1	2691.9	2476.2	2183.3	1829.6	1412.6	1002.7	30.7
46°	3073.5	3036.4	2959.8	2835.7	2653.6	2443.7	2153.8	1799.4	1375.0	969.0	26.1
47°	2940.7	2911.1	2836.9	2744.7	2580.0	2384.0	2099.3	1742.0	1322.2	918.6	20.9
48°	2802.1	2758.6	2689.6	2595.1	2455.9	2276.7	2009.4	1657.9	1242.2	852.5	18.6
49°	2597.4	2571.9	2511.0	2405.4	2290.0	2132.3	1882.4	1550.1	1144.2	780.6	16.2
50°	2409.5	2392.1	2306.9	2229.2	2106.8	1959.5	1710.1	1408.0	1022.4	691.2	14.5
51°	2262.8	2241.9	2180.4	2083.6	1953.1	1782.0	1547.2	1223.6	882.6	585.1	11.6
52°	2109.7	2098.1	2043.6	1943.8	1815.7	1645.2	1388.9	1067.0	746.9	494.7	9.3
53°	1984.4	1967.6	1900.9	1812.2	1673.6	1497.3	1217.2	921.5	632.7	415.8	8.1
54°	1801.8	1794.8	1751.9	1659.1	1508.9	1317.0	1061.8	775.9	527.7	352.6	7.0
55°	1607.5	1584.3	1540.8	1467.2	1329.1	1150.0	882.0	643.1	426.8	296.9	5.2
56°	1370.9	1369.7	1292.0	1230.6	1108.2	918.0	704.6	502.2	346.8	247.6	4.6
57°	1144.7	1108.2	1033.4	972.5	840.9	696.5	523.1	376.4	271.4	200.6	3.5
58°	846.7	827.5	807.8	718.5	596.7	493.5	373.5	264.4	200.6	153.1	2.3
59°	574.7	574.1	550.9	483.1	412.9	307.3	233.1	179.8	138.0	112.5	1.7
60°	433.8	423.3	376.9	332.3	259.8	194.3	138.0	106.1	85.8	72.5	1.2
62.5°	151.9	157.7	138.6	114.8	87.6	71.9	55.1	44.7	36.5	29.6	0.0
65°	31.3	34.2	29.6	27.8	22.0	19.1	16.8	14.5	12.2	10.4	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°	4.1	3.5	3.5	3.5	2.9	2.9	2.9	2.9	2.3	2.3	0.6
70°	1.7	1.7	1.7	1.7	1.7	1.7	1.2	1.2	1.2	1.2	0.6
72.5°	1.7	1.7	1.7	1.2	1.2	1.2	1.2	1.2	1.2	0.6	0.6
75°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.6	0.6	0.6	0.6
77.5°	1.2	1.2	1.2	1.2	1.2	1.2	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	0.6	0.6
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.2
85°	0.6	0.6	0.6	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
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°	33.6	33.6	33.6	33.6	33.6	33.6
2.5°	35.4	34.2	32.5	31.9	31.3	31.3
5°	34.8	32.5	30.7	29.0	28.4	28.4
7.5°	33.1	30.2	27.8	26.7	26.1	25.5
10°	31.3	27.3	24.9	23.8	23.8	23.8
12.5°	27.8	24.4	22.0	21.5	22.0	22.0
15°	24.9	20.9	19.7	19.7	20.3	20.9
17.5°	21.5	18.6	17.4	18.0	18.6	19.1
20°	19.1	15.7	15.7	16.2	18.0	18.0
22.5°	16.8	13.9	13.9	15.7	16.8	17.4
25°	15.1	12.2	12.8	14.5	16.2	16.8
27.5°	12.8	10.4	11.6	13.9	15.7	16.2
30°	11.0	9.3	11.0	13.3	15.1	16.2
31°	10.4	8.7	11.0	12.8	15.1	16.2
32°	9.3	8.7	10.4	12.8	15.1	15.7
33°	8.7	8.1	10.4	12.8	15.1	15.7
34°	8.1	7.5	9.9	12.8	15.1	15.7
35°	7.0	7.5	9.9	12.2	14.5	15.7
36°	6.4	7.0	9.9	12.2	14.5	15.7
37°	5.8	7.0	9.3	12.2	14.5	15.7
38°	5.2	6.4	9.3	12.2	14.5	15.7
39°	4.6	6.4	8.7	12.2	14.5	15.7
40°	4.1	5.8	8.7	11.6	14.5	15.7
41°	4.1	5.8	8.7	11.6	14.5	15.7
42°	3.5	5.8	8.7	11.6	14.5	15.7
43°	2.9	5.2	8.7	11.6	14.5	15.7
44°	2.3	5.2	8.1	11.6	14.5	15.7
45°	2.3	5.2	8.1	11.6	14.5	15.7
46°	1.7	4.6	8.1	11.6	14.5	15.7
47°	1.2	4.6	8.1	11.0	14.5	15.7
48°	1.2	4.6	8.1	11.0	14.5	15.7
49°	1.2	4.6	7.5	11.0	14.5	15.7
50°	1.2	4.6	7.5	11.0	14.5	15.7
51°	0.6	4.1	7.5	11.0	14.5	15.7
52°	0.6	4.1	7.5	11.0	14.5	16.2
53°	0.6	4.1	7.5	11.0	14.5	15.7
54°	0.6	4.1	7.0	11.0	14.5	15.7
55°	0.6	4.1	7.0	11.0	14.5	15.7
56°	0.6	3.5	7.0	10.4	14.5	15.7
57°	1.2	3.5	7.0	10.4	14.5	15.1
58°	1.2	3.5	7.0	10.4	13.9	15.1
59°	1.2	3.5	7.0	10.4	13.9	15.1
60°	1.2	3.5	6.4	10.4	13.9	15.1
62.5°	1.2	3.5	6.4	9.9	13.3	14.5
65°	1.2	3.5	5.8	9.3	13.3	13.9



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.2	2.9	5.8	8.7	12.8	13.3
70°	1.7	2.9	5.2	8.7	12.2	12.8
72.5°	1.7	2.9	5.2	7.5	11.0	12.2
75°	1.7	2.9	4.6	7.0	10.4	11.0
77.5°	1.7	2.9	4.1	6.4	9.3	9.9
80°	2.3	2.9	3.5	5.2	8.1	8.7
82.5°	2.3	2.9	2.9	4.1	6.4	7.0
85°	1.7	2.3	2.3	2.9	4.1	4.6
87.5°	1.7	2.3	1.7	1.2	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)