

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: P1340556

Luminaire Tested: P3A09R209840DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1340556
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A09R209840DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 98CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

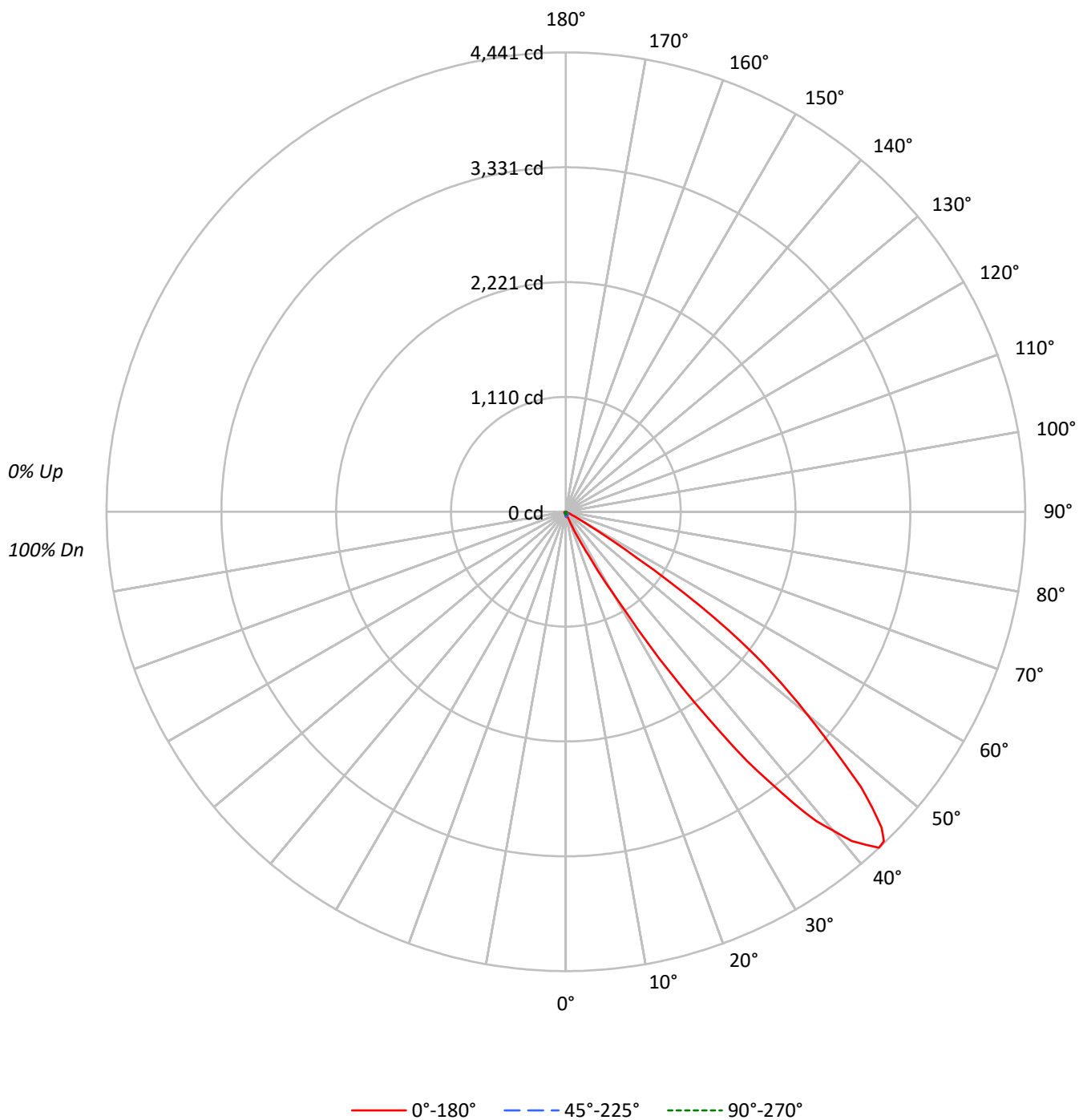
Lumens per Lamp: N/A
Luminaire Lumens: 617.0 lumens
Efficiency: N/A
Efficacy: 56.1 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	65	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	38	52	44	38	50	43	38	48	42	37	35		
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31	29		
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	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	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	9407	9407	9407	9407	9407
5°	10984	10213	8805	7660	7396
10°	10844	9285	6969	5945	5812
15°	9467	7106	5131	4745	4994
20°	14071	5951	3780	4060	4457
25°	60608	6170	2952	3653	4355
30°	229175	7495	2507	3520	4254
35°	694742	8994	2329	3560	4497
40°	1152044	8960	2004	3807	4809
45°	1339054	6109	1799	3969	5210
50°	1039454	3377	1774	4162	5936
55°	601632	2217	1759	4664	6423
60°	101702	526	1535	4824	7105
65°	7835	0	1816	5396	8146
70°	1090	0	2244	5963	9296
75°	1017	508	2457	6863	10845
80°	758	758	3662	7324	12502
85°	1510	1510	5787	7296	13083

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1339054 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.7	0.6
10°-20°	7.7	1.3
20°-30°	24.6	4.0
30°-40°	157.3	25.5
40°-50°	288.0	46.7
50°-60°	118.3	19.2
60°-70°	10.0	1.6
70°-80°	5.0	0.8
80°-90°	2.3	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°	36.0	5.8
0°-40°	193.4	31.3
0°-60°	599.7	97.2
0°-90°	617.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	617.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	43	43	43	43	43	
5°	50	46	40	35	34	5
15°	42	31	23	21	22	13
25°	250	26	12	15	18	165
35°	2595	34	9	13	17	1643
45°	4318	20	6	13	17	3100
55°	1574	6	5	12	17	1376
65°	15	0	4	10	16	49
75°	1	1	3	8	13	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°	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9
2.5°	47.0	47.0	47.0	46.4	46.4	47.0	46.4	46.4	46.4	46.4	45.8
5°	49.9	49.9	49.9	49.9	49.9	49.9	49.9	49.3	49.3	48.7	46.4
7.5°	51.0	51.0	51.0	51.0	50.4	50.4	50.4	50.4	49.9	49.3	45.2
10°	48.7	48.7	48.7	48.1	48.1	48.1	47.5	47.5	47.0	46.4	41.7
12.5°	44.1	44.1	44.1	44.1	43.5	43.5	42.9	42.9	42.3	41.7	36.5
15°	41.7	41.7	41.7	41.2	41.2	40.6	40.0	39.4	38.8	37.7	31.3
17.5°	45.2	45.2	44.6	44.6	43.5	42.3	41.7	40.0	38.8	37.1	27.8
20°	60.3	60.9	58.6	56.8	55.7	52.2	50.4	47.5	45.2	42.3	25.5
22.5°	121.8	119.4	115.4	109.0	101.5	95.1	83.5	74.2	67.8	59.1	24.9
25°	250.5	248.2	237.2	227.9	204.7	186.7	161.8	141.5	120.6	100.3	25.5
27.5°	476.0	460.4	457.5	415.2	382.7	336.3	288.2	247.6	210.5	169.3	27.3
30°	905.1	887.1	823.9	760.2	672.6	573.5	478.9	390.8	317.2	250.5	29.6
31°	1148.7	1166.0	1091.8	963.7	834.4	707.4	578.1	466.2	371.1	288.2	30.7
32°	1509.9	1433.9	1355.7	1224.0	1036.2	873.8	711.5	550.3	425.0	328.8	31.9
33°	1851.4	1806.8	1687.3	1523.2	1297.7	1069.8	859.3	649.4	491.1	378.1	32.5
34°	2215.6	2166.3	2069.4	1834.0	1586.4	1287.8	1007.2	763.6	570.0	426.2	33.1
35°	2595.3	2574.5	2387.8	2183.7	1879.2	1519.2	1185.2	888.9	647.1	470.2	33.6
36°	2977.5	2910.2	2764.1	2466.0	2148.3	1733.1	1371.9	1005.4	725.4	522.4	33.6
37°	3265.1	3250.0	3056.3	2765.8	2392.4	1961.6	1533.1	1134.7	804.2	567.1	33.6
38°	3582.2	3522.5	3325.9	3030.2	2622.0	2170.9	1701.8	1247.2	879.0	607.7	33.1
39°	3849.5	3760.8	3562.5	3270.3	2822.6	2329.8	1835.8	1356.2	945.1	641.3	32.5
40°	4024.6	3963.2	3756.2	3427.4	3004.7	2480.0	1971.4	1446.1	994.4	666.8	31.3
41°	4217.7	4115.7	3911.0	3580.5	3136.9	2612.2	2056.7	1505.3	1032.7	683.6	30.2
42°	4333.1	4249.6	4006.7	3683.1	3231.4	2687.5	2126.3	1550.5	1055.9	692.3	27.8
43°	4441.0	4327.3	4090.7	3742.8	3294.0	2740.9	2158.1	1571.4	1061.1	692.3	24.9
44°	4426.5	4318.6	4073.3	3751.0	3308.0	2756.5	2171.5	1571.9	1053.0	683.6	22.0
45°	4318.0	4210.8	3989.8	3680.2	3258.1	2725.8	2144.8	1548.7	1030.4	668.5	19.7
46°	4119.1	4012.5	3843.1	3561.9	3165.3	2656.2	2082.8	1498.3	992.7	644.2	17.4
47°	3902.9	3799.1	3625.7	3371.2	3007.0	2532.1	1992.9	1427.6	939.9	608.8	15.7
48°	3589.2	3524.2	3350.3	3132.8	2787.3	2337.9	1835.2	1312.2	869.2	563.0	13.3
49°	3312.0	3243.6	3091.1	2857.4	2500.8	2111.8	1646.7	1171.8	777.0	512.0	11.6
50°	3047.0	2987.3	2846.4	2582.6	2242.2	1838.7	1392.2	995.0	661.0	448.8	9.9
51°	2787.8	2743.2	2599.4	2357.0	2011.4	1628.8	1206.1	828.6	546.2	372.3	9.3
52°	2527.5	2522.3	2366.3	2121.0	1787.1	1419.4	1025.1	699.3	463.3	312.5	8.7
53°	2247.4	2213.8	2077.5	1857.2	1536.6	1201.4	869.2	589.7	398.9	266.1	7.5
54°	1928.5	1890.8	1744.7	1545.8	1255.3	984.0	700.4	476.6	332.2	225.0	7.0
55°	1573.7	1509.3	1403.2	1199.1	980.5	750.9	541.0	377.5	265.6	187.3	5.8
56°	1193.9	1129.5	1069.8	919.6	719.6	560.1	403.0	289.3	207.6	147.9	5.2
57°	830.3	826.8	728.9	613.5	481.3	381.5	276.0	204.1	146.7	114.8	4.1
58°	538.7	520.7	458.1	391.4	314.9	238.3	177.4	138.6	99.7	78.3	3.5
59°	377.5	341.5	307.9	260.9	198.3	150.2	114.2	88.7	69.0	54.5	2.3
60°	231.9	224.4	201.8	158.9	128.7	106.1	85.2	65.5	50.4	38.8	1.2
62.5°	66.1	67.3	60.9	53.9	46.4	40.0	35.9	30.7	25.5	20.3	0.0
65°	15.1	14.5	15.7	14.5	13.3	13.3	11.6	10.4	9.3	8.7	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°	4.6	4.6	4.1	4.1	4.1	3.5	3.5	2.9	2.9	2.3	0.0
70°	1.7	1.7	1.7	1.7	1.7	1.2	1.2	1.2	0.6	0.6	0.0
72.5°	1.7	1.7	1.7	1.2	1.2	1.2	1.2	1.2	0.6	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	0.6	1.2	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	0.6
85°	0.6	0.6	0.6	0.6	0.0	0.0	0.6	0.6	0.6	0.0	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°	42.9	42.9	42.9	42.9	42.9	42.9
2.5°	44.6	42.3	40.6	38.8	38.3	38.3
5°	43.5	40.0	36.5	34.8	33.6	33.6
7.5°	40.0	35.9	32.5	30.7	30.2	30.2
10°	35.9	31.3	27.8	26.7	26.7	26.1
12.5°	31.3	26.7	24.4	23.8	23.8	23.8
15°	26.1	22.6	20.9	20.9	21.5	22.0
17.5°	22.0	18.6	18.0	19.1	20.3	20.3
20°	18.6	16.2	16.2	17.4	18.6	19.1
22.5°	15.7	13.9	14.5	16.2	18.0	18.6
25°	13.9	12.2	13.3	15.1	16.8	18.0
27.5°	11.6	11.0	12.2	14.5	16.8	17.4
30°	9.9	9.9	11.6	13.9	16.2	16.8
31°	9.3	9.3	11.6	13.9	16.2	16.8
32°	8.7	9.3	11.0	13.9	16.2	16.8
33°	8.1	8.7	11.0	13.3	16.2	16.8
34°	7.5	8.7	11.0	13.3	16.2	16.8
35°	7.0	8.7	11.0	13.3	16.2	16.8
36°	6.4	8.1	10.4	13.3	16.2	16.8
37°	5.8	8.1	10.4	13.3	16.2	16.8
38°	5.2	7.5	10.4	13.3	16.2	16.8
39°	5.2	7.5	9.9	13.3	15.7	16.8
40°	4.6	7.0	9.9	13.3	15.7	16.8
41°	4.1	7.0	9.9	12.8	15.7	16.8
42°	3.5	6.4	9.3	12.8	15.7	16.8
43°	2.9	6.4	9.3	12.8	15.7	16.8
44°	2.9	5.8	9.3	12.8	15.7	16.8
45°	2.3	5.8	9.3	12.8	15.7	16.8
46°	1.7	5.8	9.3	12.8	15.7	16.8
47°	1.7	5.2	8.7	12.8	15.7	16.8
48°	1.2	5.2	8.7	12.8	15.7	16.8
49°	1.2	5.2	8.7	12.8	15.7	17.4
50°	1.2	5.2	8.7	12.2	15.7	17.4
51°	0.6	5.2	8.7	12.2	15.7	17.4
52°	0.6	5.2	8.1	12.2	16.2	17.4
53°	0.6	4.6	8.1	12.2	16.2	17.4
54°	0.6	4.6	8.1	12.2	16.2	16.8
55°	0.6	4.6	8.1	12.2	15.7	16.8
56°	0.6	4.1	8.1	12.2	15.7	16.8
57°	0.6	4.1	7.5	11.6	15.7	16.2
58°	0.6	4.1	7.5	11.6	15.7	16.2
59°	0.6	4.1	7.5	11.6	15.1	16.2
60°	1.2	3.5	7.0	11.0	15.1	16.2
62.5°	1.2	3.5	7.0	11.0	14.5	15.7
65°	1.2	3.5	6.4	10.4	14.5	15.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.2	2.9	5.8	9.9	13.9	15.1
70°	1.2	3.5	5.8	9.3	13.3	14.5
72.5°	1.7	2.9	5.2	8.7	12.8	13.9
75°	1.7	2.9	5.2	8.1	12.2	12.8
77.5°	2.3	2.9	4.6	7.0	11.0	11.6
80°	2.3	2.9	4.1	5.8	9.3	9.9
82.5°	2.3	2.9	2.9	4.6	7.0	7.5
85°	1.7	2.3	2.3	2.9	4.6	5.2
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)