

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: P1344006

Luminaire Tested: P3A13R209730DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344006
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: P3A13R209730DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 97CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

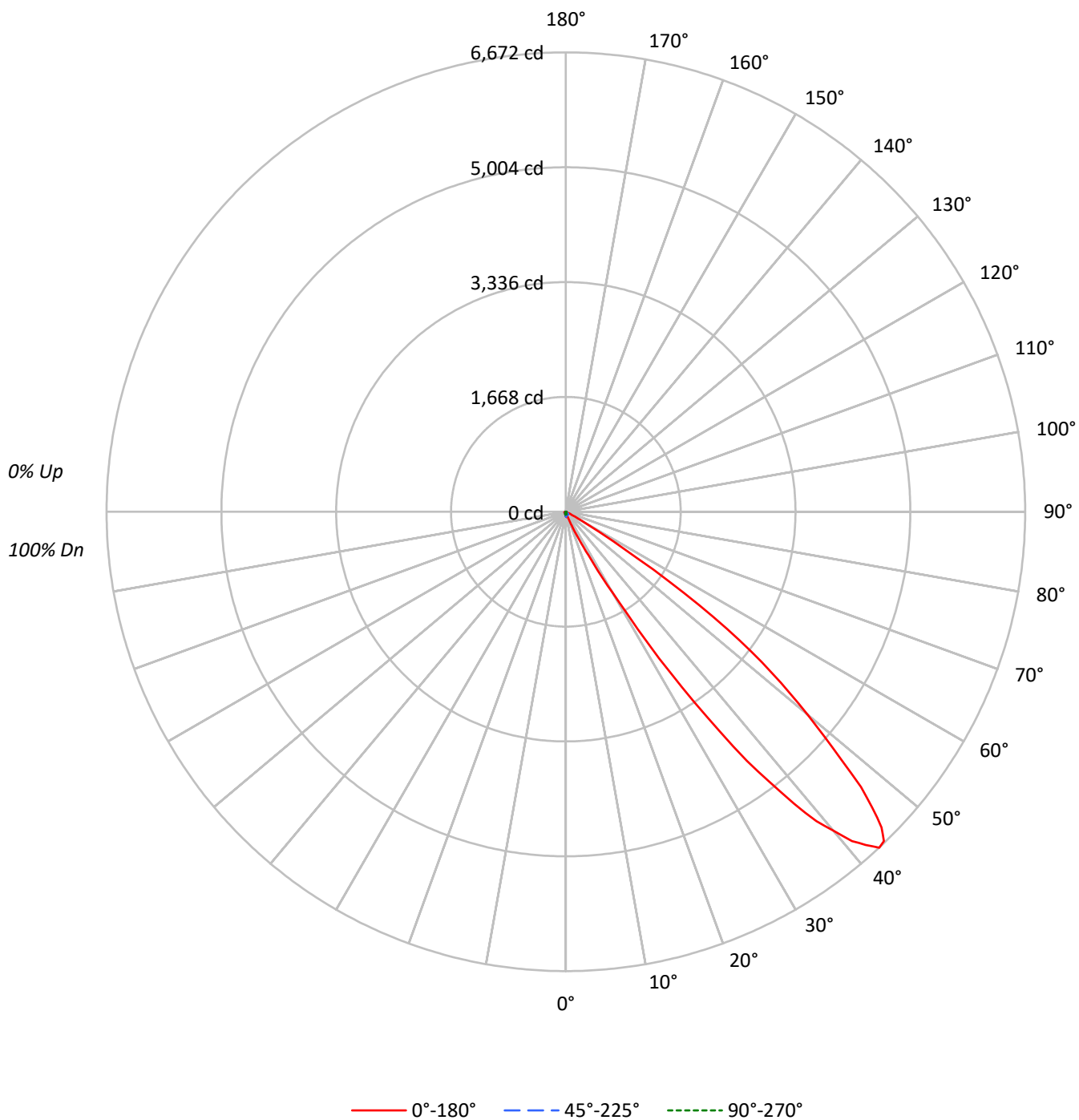
Lumens per Lamp: N/A
Luminaire Lumens: 927.0 lumens
Efficiency: N/A
Efficacy: 63.5 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	14144	14144	14144	14144	14144
5°	16487	15342	13229	11512	11116
10°	16299	13961	10465	8929	8728
15°	14234	10670	7719	7128	7514
20°	21142	8937	5694	6091	6697
25°	91046	9267	4428	5492	6533
30°	344331	11242	3747	5292	6406
35°	1043812	13518	3507	5354	6773
40°	1730871	13454	3006	5725	7242
45°	2011837	9179	2698	5954	7846
50°	1561740	5049	2661	6243	8904
55°	903882	3326	2676	6996	9672
60°	152839	746	2281	7280	10701
65°	11778	0	2698	8146	12193
70°	1667	0	3334	8912	13977
75°	1440	763	3728	10336	16267
80°	1137	1137	5556	10986	18689
85°	2264	2264	8806	11070	19625

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2011837 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.5	0.6
10°-20°	11.6	1.3
20°-30°	37.0	4.0
30°-40°	236.4	25.5
40°-50°	432.7	46.7
50°-60°	177.8	19.2
60°-70°	15.0	1.6
70°-80°	7.5	0.8
80°-90°	3.5	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°	54.2	5.8
0°-40°	290.5	31.3
0°-60°	901.0	97.2
0°-90°	927.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	927.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	64	64	64	64	64	
5°	75	70	60	52	50	7
15°	63	47	34	31	33	20
25°	376	38	18	23	27	247
35°	3899	50	13	20	25	2468
45°	6488	30	9	19	25	4658
55°	2364	9	7	18	25	2067
65°	23	0	5	16	24	74
75°	2	1	4	12	19	2
85°	1	1	4	4	8	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°	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5	64.5
2.5°	70.6	70.6	70.6	69.7	69.7	70.6	69.7	69.7	69.7	69.7	68.8
5°	74.9	74.9	74.9	74.9	74.9	74.9	74.9	74.0	74.0	73.2	69.7
7.5°	76.7	76.7	76.7	76.7	75.8	75.8	75.8	75.8	74.9	74.0	68.0
10°	73.2	73.2	73.2	72.3	72.3	72.3	71.4	71.4	70.6	69.7	62.7
12.5°	66.2	66.2	66.2	66.2	65.3	65.3	64.5	64.5	63.6	62.7	54.9
15°	62.7	62.7	62.7	61.9	61.9	61.0	60.1	59.2	58.4	56.6	47.0
17.5°	68.0	68.0	67.1	67.1	65.3	63.6	62.7	60.1	58.4	55.8	41.8
20°	90.6	91.5	88.0	85.4	83.6	78.4	75.8	71.4	68.0	63.6	38.3
22.5°	182.9	179.5	173.4	163.8	152.5	142.9	125.4	111.5	101.9	88.9	37.5
25°	376.3	372.9	356.3	342.4	307.5	280.5	243.1	212.6	181.2	150.7	38.3
27.5°	715.2	691.7	687.3	623.8	575.0	505.3	433.0	372.0	316.2	254.4	40.9
30°	1359.9	1332.9	1237.9	1142.1	1010.5	861.6	719.6	587.2	476.5	376.3	44.4
31°	1725.8	1751.9	1640.4	1447.9	1253.6	1062.8	868.5	700.4	557.5	433.0	46.2
32°	2268.5	2154.4	2036.8	1839.0	1556.8	1312.8	1068.9	826.7	638.6	493.9	47.9
33°	2781.6	2714.5	2535.1	2288.5	1949.7	1607.3	1291.1	975.7	737.9	568.0	48.8
34°	3328.7	3254.7	3109.2	2755.5	2383.5	1934.9	1513.2	1147.3	856.4	640.3	49.7
35°	3899.3	3868.0	3587.4	3280.8	2823.4	2282.4	1780.7	1335.5	972.2	706.5	50.5
36°	4473.4	4372.4	4152.8	3705.1	3227.7	2603.9	2061.2	1510.6	1089.8	784.9	50.5
37°	4905.5	4882.9	4591.9	4155.4	3594.4	2947.1	2303.4	1704.9	1208.3	852.0	50.5
38°	5382.0	5292.3	4997.0	4552.7	3939.4	3261.6	2556.9	1873.9	1320.7	913.0	49.7
39°	5783.6	5650.4	5352.4	4913.4	4240.8	3500.3	2758.1	2037.6	1420.0	963.5	48.8
40°	6046.7	5954.4	5643.4	5149.4	4514.4	3726.0	2962.0	2172.7	1494.0	1001.8	47.0
41°	6336.8	6183.5	5876.0	5379.4	4713.0	3924.6	3090.0	2261.5	1551.5	1027.1	45.3
42°	6510.2	6384.7	6019.7	5533.6	4855.0	4037.8	3194.6	2329.5	1586.4	1040.2	41.8
43°	6672.2	6501.5	6146.1	5623.4	4949.1	4118.0	3242.5	2360.9	1594.2	1040.2	37.5
44°	6650.5	6488.4	6119.9	5635.5	4970.0	4141.5	3262.5	2361.7	1582.0	1027.1	33.1
45°	6487.5	6326.4	5994.5	5529.3	4895.1	4095.3	3222.4	2326.9	1548.1	1004.5	29.6
46°	6188.7	6028.4	5774.1	5351.6	4755.7	3990.8	3129.2	2251.1	1491.4	967.9	26.1
47°	5863.8	5707.9	5447.4	5064.9	4517.8	3804.4	2994.2	2144.8	1412.2	914.7	23.5
48°	5392.5	5294.9	5033.6	4706.9	4187.7	3512.5	2757.2	1971.4	1305.9	845.9	20.0
49°	4976.1	4873.3	4644.2	4293.1	3757.3	3172.8	2474.1	1760.6	1167.4	769.2	17.4
50°	4578.0	4488.2	4276.5	3880.2	3368.8	2762.5	2091.7	1494.9	993.1	674.3	14.8
51°	4188.5	4121.5	3905.4	3541.3	3022.1	2447.1	1812.0	1244.9	820.6	559.3	13.9
52°	3797.4	3789.6	3555.2	3186.7	2684.9	2132.6	1540.2	1050.6	696.1	469.6	13.1
53°	3376.6	3326.1	3121.4	2790.3	2308.6	1805.0	1305.9	886.0	599.4	399.9	11.3
54°	2897.5	2840.9	2621.3	2322.5	1886.1	1478.4	1052.4	716.1	499.2	338.0	10.5
55°	2364.3	2267.6	2108.2	1801.6	1473.1	1128.2	812.8	567.1	399.0	281.4	8.7
56°	1793.7	1697.0	1607.3	1381.7	1081.1	841.5	605.5	434.7	311.9	222.1	7.8
57°	1247.5	1242.3	1095.1	921.7	723.1	573.2	414.7	306.6	220.4	172.5	6.1
58°	809.3	782.3	688.2	588.0	473.0	358.0	266.6	208.2	149.8	117.6	5.2
59°	567.1	513.1	462.6	392.0	297.9	225.6	171.6	133.3	103.7	81.9	3.5
60°	348.5	337.1	303.2	238.7	193.4	159.4	128.1	98.4	75.8	58.4	1.7
62.5°	99.3	101.1	91.5	81.0	69.7	60.1	54.0	46.2	38.3	30.5	0.0
65°	22.7	21.8	23.5	21.8	20.0	20.0	17.4	15.7	13.9	13.1	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°	7.0	7.0	6.1	6.1	6.1	5.2	5.2	4.4	4.4	3.5	0.0
70°	2.6	2.6	2.6	2.6	2.6	1.7	1.7	1.7	0.9	0.9	0.0
72.5°	2.6	2.6	2.6	1.7	1.7	1.7	1.7	1.7	0.9	0.9	0.9
75°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0.9	0.9	0.9	0.9
77.5°	1.7	1.7	1.7	1.7	1.7	0.9	1.7	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	0.9
85°	0.9	0.9	0.9	0.9	0.0	0.0	0.9	0.9	0.9	0.0	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°	64.5	64.5	64.5	64.5	64.5	64.5
2.5°	67.1	63.6	61.0	58.4	57.5	57.5
5°	65.3	60.1	54.9	52.3	50.5	50.5
7.5°	60.1	54.0	48.8	46.2	45.3	45.3
10°	54.0	47.0	41.8	40.1	40.1	39.2
12.5°	47.0	40.1	36.6	35.7	35.7	35.7
15°	39.2	34.0	31.4	31.4	32.2	33.1
17.5°	33.1	27.9	27.0	28.7	30.5	30.5
20°	27.9	24.4	24.4	26.1	27.9	28.7
22.5°	23.5	20.9	21.8	24.4	27.0	27.9
25°	20.9	18.3	20.0	22.7	25.3	27.0
27.5°	17.4	16.6	18.3	21.8	25.3	26.1
30°	14.8	14.8	17.4	20.9	24.4	25.3
31°	13.9	13.9	17.4	20.9	24.4	25.3
32°	13.1	13.9	16.6	20.9	24.4	25.3
33°	12.2	13.1	16.6	20.0	24.4	25.3
34°	11.3	13.1	16.6	20.0	24.4	25.3
35°	10.5	13.1	16.6	20.0	24.4	25.3
36°	9.6	12.2	15.7	20.0	24.4	25.3
37°	8.7	12.2	15.7	20.0	24.4	25.3
38°	7.8	11.3	15.7	20.0	24.4	25.3
39°	7.8	11.3	14.8	20.0	23.5	25.3
40°	7.0	10.5	14.8	20.0	23.5	25.3
41°	6.1	10.5	14.8	19.2	23.5	25.3
42°	5.2	9.6	13.9	19.2	23.5	25.3
43°	4.4	9.6	13.9	19.2	23.5	25.3
44°	4.4	8.7	13.9	19.2	23.5	25.3
45°	3.5	8.7	13.9	19.2	23.5	25.3
46°	2.6	8.7	13.9	19.2	23.5	25.3
47°	2.6	7.8	13.1	19.2	23.5	25.3
48°	1.7	7.8	13.1	19.2	23.5	25.3
49°	1.7	7.8	13.1	19.2	23.5	26.1
50°	1.7	7.8	13.1	18.3	23.5	26.1
51°	0.9	7.8	13.1	18.3	23.5	26.1
52°	0.9	7.8	12.2	18.3	24.4	26.1
53°	0.9	7.0	12.2	18.3	24.4	26.1
54°	0.9	7.0	12.2	18.3	24.4	25.3
55°	0.9	7.0	12.2	18.3	23.5	25.3
56°	0.9	6.1	12.2	18.3	23.5	25.3
57°	0.9	6.1	11.3	17.4	23.5	24.4
58°	0.9	6.1	11.3	17.4	23.5	24.4
59°	0.9	6.1	11.3	17.4	22.7	24.4
60°	1.7	5.2	10.5	16.6	22.7	24.4
62.5°	1.7	5.2	10.5	16.6	21.8	23.5
65°	1.7	5.2	9.6	15.7	21.8	23.5



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.7	4.4	8.7	14.8	20.9	22.7
70°	1.7	5.2	8.7	13.9	20.0	21.8
72.5°	2.6	4.4	7.8	13.1	19.2	20.9
75°	2.6	4.4	7.8	12.2	18.3	19.2
77.5°	3.5	4.4	7.0	10.5	16.6	17.4
80°	3.5	4.4	6.1	8.7	13.9	14.8
82.5°	3.5	4.4	4.4	7.0	10.5	11.3
85°	2.6	3.5	3.5	4.4	7.0	7.8
87.5°	2.6	3.5	2.6	1.7	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)