

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: P1337010

Luminaire Tested: P3A05R209840DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1337010
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: P3A05R209840DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 98CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

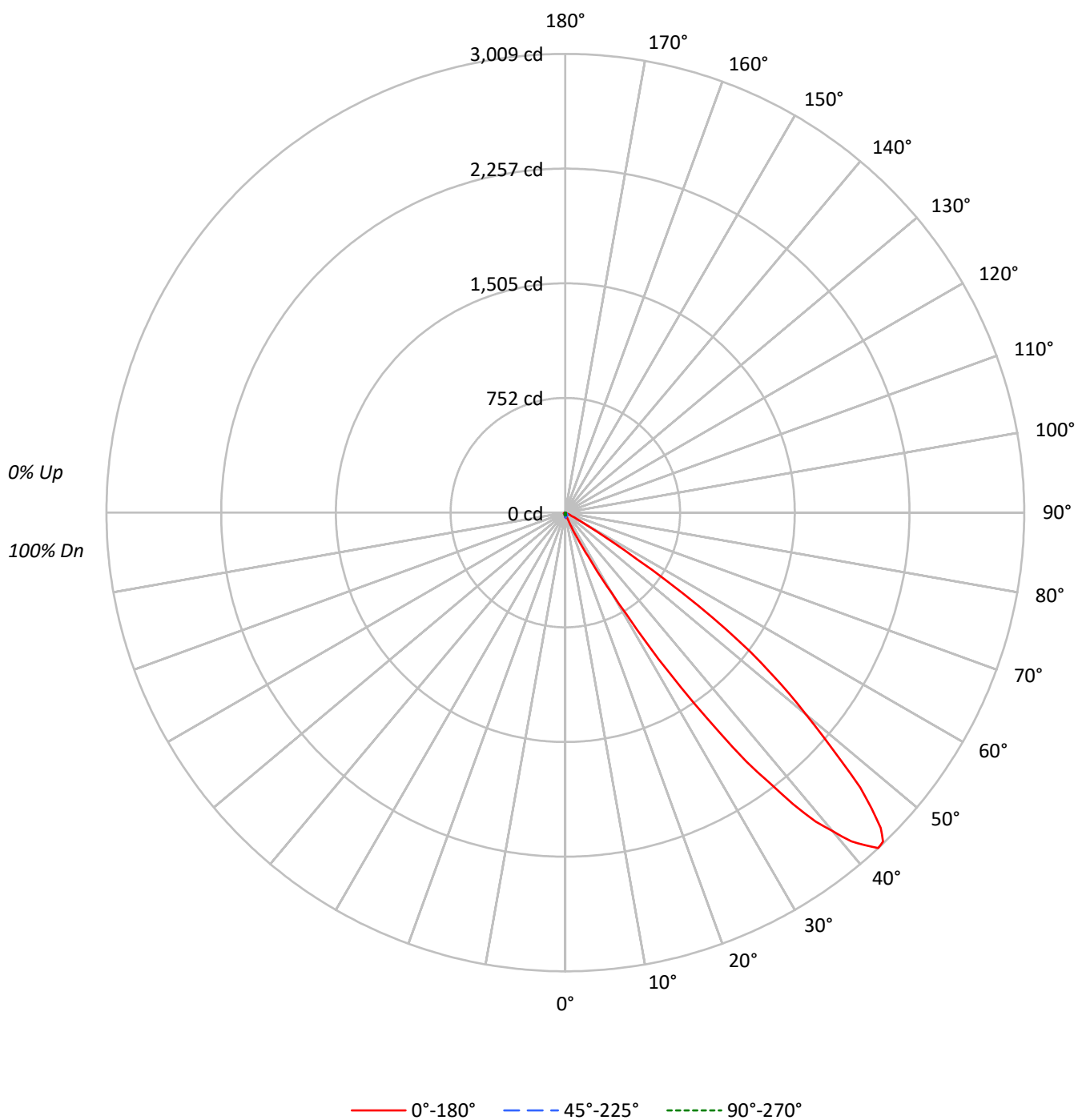
Lumens per Lamp: N/A
Luminaire Lumens: 418.0 lumens
Efficiency: N/A
Efficacy: 58.1 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	6381	6381	6381	6381	6381
5°	7440	6912	5965	5195	5019
10°	7348	6301	4720	4030	3941
15°	6425	4813	3473	3201	3383
20°	9544	4037	2567	2754	3034
25°	41059	4186	1984	2468	2952
30°	155264	5064	1696	2380	2887
35°	470683	6103	1579	2409	3052
40°	780491	6069	1345	2576	3263
45°	907164	4155	1209	2667	3535
50°	704216	2286	1194	2797	4025
55°	407575	1491	1185	3135	4358
60°	68898	351	1053	3289	4824
65°	5292	0	1245	3684	5500
70°	769	0	1539	4039	6283
75°	678	339	1694	4660	7286
80°	505	505	2526	4925	8461
85°	1006	1006	4026	5032	8806

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 907164 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.5	0.6
10°-20°	5.2	1.3
20°-30°	16.7	4.0
30°-40°	106.6	25.5
40°-50°	195.1	46.7
50°-60°	80.2	19.2
60°-70°	6.8	1.6
70°-80°	3.4	0.8
80°-90°	1.6	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°	24.4	5.8
0°-40°	131.0	31.3
0°-60°	406.3	97.2
0°-90°	418.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	418.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	29	29	29	29	29	
5°	34	31	27	24	23	3
15°	28	21	15	14	15	9
25°	170	17	8	10	12	112
35°	1758	23	6	9	11	1113
45°	2925	13	4	9	11	2100
55°	1066	4	3	8	11	932
65°	10	0	2	7	11	33
75°	1	0	2	6	9	1
85°	0	0	2	2	4	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°	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1	29.1
2.5°	31.8	31.8	31.8	31.4	31.4	31.8	31.4	31.4	31.4	31.4	31.0
5°	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.4	33.4	33.0	31.4
7.5°	34.6	34.6	34.6	34.6	34.2	34.2	34.2	34.2	33.8	33.4	30.6
10°	33.0	33.0	33.0	32.6	32.6	32.6	32.2	32.2	31.8	31.4	28.3
12.5°	29.9	29.9	29.9	29.9	29.5	29.5	29.1	29.1	28.7	28.3	24.7
15°	28.3	28.3	28.3	27.9	27.9	27.5	27.1	26.7	26.3	25.5	21.2
17.5°	30.6	30.6	30.2	30.2	29.5	28.7	28.3	27.1	26.3	25.1	18.9
20°	40.9	41.2	39.7	38.5	37.7	35.4	34.2	32.2	30.6	28.7	17.3
22.5°	82.5	80.9	78.2	73.9	68.7	64.4	56.6	50.3	46.0	40.1	16.9
25°	169.7	168.1	160.7	154.4	138.7	126.5	109.6	95.8	81.7	68.0	17.3
27.5°	322.5	311.9	309.9	281.3	259.3	227.8	195.2	167.7	142.6	114.7	18.5
30°	613.2	601.0	558.2	515.0	455.7	388.5	324.5	264.8	214.9	169.7	20.0
31°	778.2	790.0	739.7	652.9	565.3	479.2	391.6	315.8	251.4	195.2	20.8
32°	1022.9	971.4	918.4	829.2	702.0	592.0	482.0	372.8	287.9	222.7	21.6
33°	1254.3	1224.0	1143.1	1031.9	879.1	724.8	582.2	440.0	332.7	256.1	22.0
34°	1501.0	1467.6	1402.0	1242.5	1074.8	872.5	682.3	517.3	386.1	288.7	22.4
35°	1758.3	1744.1	1617.6	1479.4	1273.1	1029.2	802.9	602.2	438.4	318.6	22.8
36°	2017.1	1971.6	1872.6	1670.7	1455.4	1174.1	929.4	681.2	491.4	353.9	22.8
37°	2212.0	2201.8	2070.6	1873.8	1620.8	1328.9	1038.6	768.8	544.8	384.2	22.8
38°	2426.9	2386.4	2253.2	2052.9	1776.3	1470.7	1152.9	845.0	595.5	411.7	22.4
39°	2607.9	2547.8	2413.5	2215.5	1912.3	1578.4	1243.7	918.8	640.3	434.5	22.0
40°	2726.6	2684.9	2544.7	2322.0	2035.6	1680.1	1335.6	979.7	673.7	451.7	21.2
41°	2857.4	2788.2	2649.6	2425.7	2125.2	1769.7	1393.3	1019.8	699.6	463.1	20.4
42°	2935.6	2879.0	2714.4	2495.2	2189.2	1820.7	1440.5	1050.4	715.3	469.0	18.9
43°	3008.6	2931.6	2771.4	2535.7	2231.6	1856.9	1462.1	1064.5	718.9	469.0	16.9
44°	2998.8	2925.7	2759.6	2541.2	2241.0	1867.5	1471.1	1064.9	713.4	463.1	14.9
45°	2925.3	2852.7	2703.0	2493.2	2207.3	1846.7	1453.0	1049.2	698.0	452.9	13.4
46°	2790.6	2718.3	2603.6	2413.1	2144.4	1799.5	1411.0	1015.1	672.5	436.4	11.8
47°	2644.1	2573.8	2456.3	2283.9	2037.2	1715.5	1350.1	967.1	636.8	412.5	10.6
48°	2431.6	2387.6	2269.7	2122.4	1888.3	1583.9	1243.3	889.0	588.8	381.4	9.0
49°	2243.8	2197.4	2094.1	1935.8	1694.2	1430.7	1115.6	793.9	526.4	346.9	7.9
50°	2064.3	2023.8	1928.4	1749.6	1519.0	1245.6	943.2	674.1	447.8	304.0	6.7
51°	1888.7	1858.4	1761.0	1596.8	1362.7	1103.4	817.1	561.3	370.0	252.2	6.3
52°	1712.3	1708.8	1603.1	1436.9	1210.7	961.6	694.5	473.7	313.9	211.7	5.9
53°	1522.6	1499.8	1407.5	1258.2	1041.0	813.9	588.8	399.5	270.3	180.3	5.1
54°	1306.5	1281.0	1182.0	1047.3	850.5	666.6	474.5	322.9	225.1	152.4	4.7
55°	1066.1	1022.5	950.6	812.4	664.3	508.7	366.5	255.7	179.9	126.9	3.9
56°	808.8	765.2	724.8	623.0	487.5	379.5	273.0	196.0	140.6	100.2	3.5
57°	562.5	560.2	493.8	415.6	326.0	258.5	187.0	138.3	99.4	77.8	2.7
58°	364.9	352.8	310.3	265.2	213.3	161.4	120.2	93.9	67.6	53.0	2.4
59°	255.7	231.4	208.6	176.8	134.3	101.7	77.4	60.1	46.7	36.9	1.6
60°	157.1	152.0	136.7	107.6	87.2	71.9	57.7	44.4	34.2	26.3	0.8
62.5°	44.8	45.6	41.2	36.5	31.4	27.1	24.4	20.8	17.3	13.7	0.0
65°	10.2	9.8	10.6	9.8	9.0	9.0	7.9	7.1	6.3	5.9	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°	3.1	3.1	2.7	2.7	2.7	2.4	2.4	2.0	2.0	1.6	0.0
70°	1.2	1.2	1.2	1.2	1.2	0.8	0.8	0.8	0.4	0.4	0.0
72.5°	1.2	1.2	1.2	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4
75°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4
77.5°	0.8	0.8	0.8	0.8	0.8	0.4	0.8	0.4	0.4	0.4	0.4
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
85°	0.4	0.4	0.4	0.4	0.0	0.0	0.4	0.4	0.4	0.0	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
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°	29.1	29.1	29.1	29.1	29.1	29.1
2.5°	30.2	28.7	27.5	26.3	25.9	25.9
5°	29.5	27.1	24.7	23.6	22.8	22.8
7.5°	27.1	24.4	22.0	20.8	20.4	20.4
10°	24.4	21.2	18.9	18.1	18.1	17.7
12.5°	21.2	18.1	16.5	16.1	16.1	16.1
15°	17.7	15.3	14.1	14.1	14.5	14.9
17.5°	14.9	12.6	12.2	13.0	13.7	13.7
20°	12.6	11.0	11.0	11.8	12.6	13.0
22.5°	10.6	9.4	9.8	11.0	12.2	12.6
25°	9.4	8.2	9.0	10.2	11.4	12.2
27.5°	7.9	7.5	8.2	9.8	11.4	11.8
30°	6.7	6.7	7.9	9.4	11.0	11.4
31°	6.3	6.3	7.9	9.4	11.0	11.4
32°	5.9	6.3	7.5	9.4	11.0	11.4
33°	5.5	5.9	7.5	9.0	11.0	11.4
34°	5.1	5.9	7.5	9.0	11.0	11.4
35°	4.7	5.9	7.5	9.0	11.0	11.4
36°	4.3	5.5	7.1	9.0	11.0	11.4
37°	3.9	5.5	7.1	9.0	11.0	11.4
38°	3.5	5.1	7.1	9.0	11.0	11.4
39°	3.5	5.1	6.7	9.0	10.6	11.4
40°	3.1	4.7	6.7	9.0	10.6	11.4
41°	2.7	4.7	6.7	8.6	10.6	11.4
42°	2.4	4.3	6.3	8.6	10.6	11.4
43°	2.0	4.3	6.3	8.6	10.6	11.4
44°	2.0	3.9	6.3	8.6	10.6	11.4
45°	1.6	3.9	6.3	8.6	10.6	11.4
46°	1.2	3.9	6.3	8.6	10.6	11.4
47°	1.2	3.5	5.9	8.6	10.6	11.4
48°	0.8	3.5	5.9	8.6	10.6	11.4
49°	0.8	3.5	5.9	8.6	10.6	11.8
50°	0.8	3.5	5.9	8.2	10.6	11.8
51°	0.4	3.5	5.9	8.2	10.6	11.8
52°	0.4	3.5	5.5	8.2	11.0	11.8
53°	0.4	3.1	5.5	8.2	11.0	11.8
54°	0.4	3.1	5.5	8.2	11.0	11.4
55°	0.4	3.1	5.5	8.2	10.6	11.4
56°	0.4	2.7	5.5	8.2	10.6	11.4
57°	0.4	2.7	5.1	7.9	10.6	11.0
58°	0.4	2.7	5.1	7.9	10.6	11.0
59°	0.4	2.7	5.1	7.9	10.2	11.0
60°	0.8	2.4	4.7	7.5	10.2	11.0
62.5°	0.8	2.4	4.7	7.5	9.8	10.6
65°	0.8	2.4	4.3	7.1	9.8	10.6



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	2.0	3.9	6.7	9.4	10.2
70°	0.8	2.4	3.9	6.3	9.0	9.8
72.5°	1.2	2.0	3.5	5.9	8.6	9.4
75°	1.2	2.0	3.5	5.5	8.2	8.6
77.5°	1.6	2.0	3.1	4.7	7.5	7.9
80°	1.6	2.0	2.7	3.9	6.3	6.7
82.5°	1.6	2.0	2.0	3.1	4.7	5.1
85°	1.2	1.6	1.6	2.0	3.1	3.5
87.5°	1.2	1.6	1.2	0.8	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)