

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: P1336930

Luminaire Tested: P3A05R209735DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336930
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: P3A05R209735DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 97CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

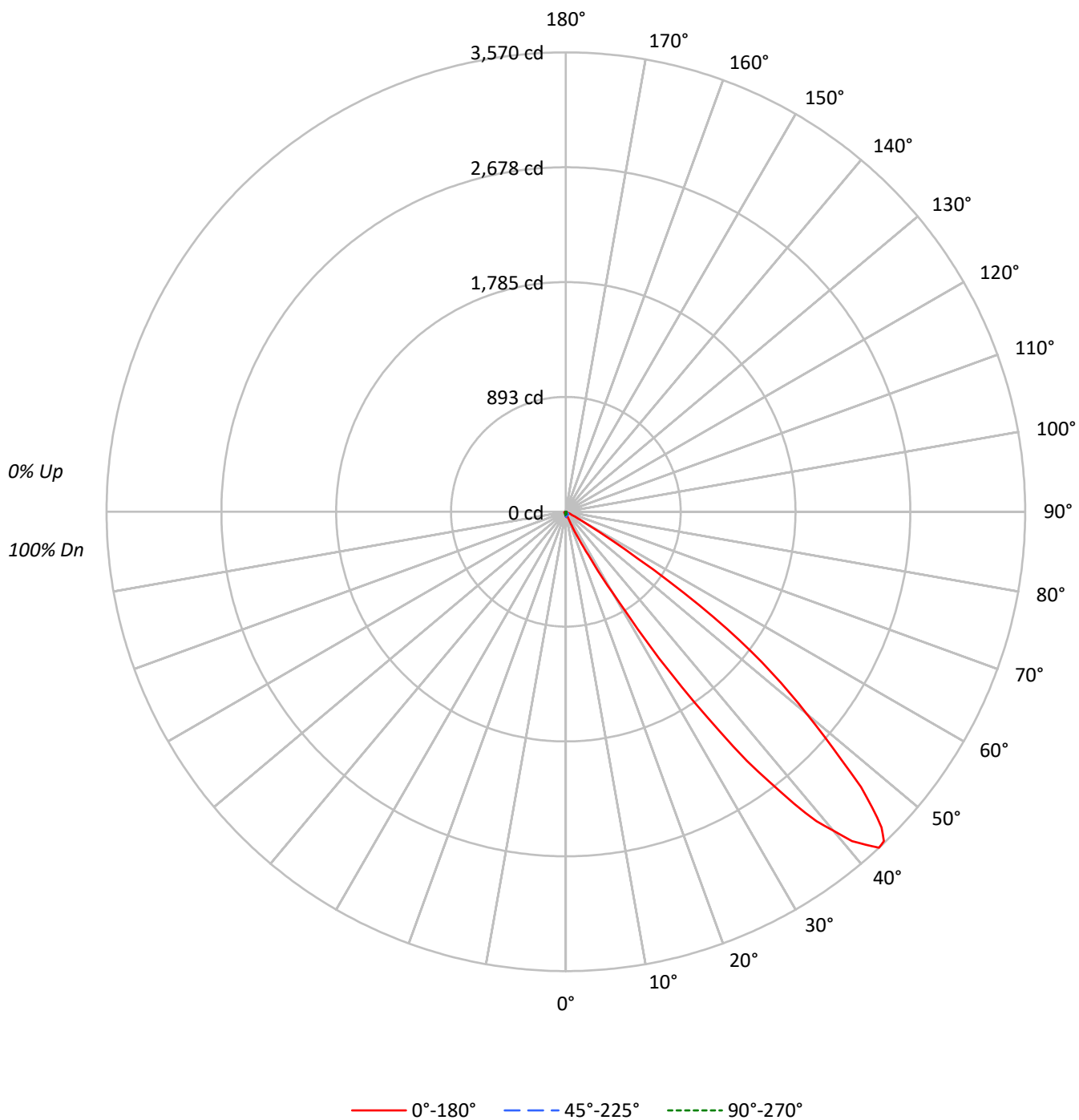
Lumens per Lamp: N/A
Luminaire Lumens: 496.0 lumens
Efficiency: N/A
Efficacy: 68.9 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	7565	7565	7565	7565	7565
5°	8827	8210	7088	6163	5943
10°	8728	7481	5611	4765	4676
15°	7628	5721	4132	3814	4018
20°	11318	4784	3057	3267	3594
25°	48729	4960	2371	2928	3484
30°	184231	6026	2000	2836	3418
35°	558513	7228	1874	2864	3614
40°	926135	7214	1603	3063	3864
45°	1076453	4900	1458	3194	4186
50°	835623	2695	1433	3343	4776
55°	483653	1797	1415	3747	5161
60°	81748	395	1228	3903	5745
65°	6278	0	1453	4358	6538
70°	898	0	1795	4809	7501
75°	763	424	1949	5507	8727
80°	631	631	2904	5935	9976
85°	1258	1258	4780	5787	10567

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1076453 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.0	0.6
10°-20°	6.2	1.3
20°-30°	19.8	4.0
30°-40°	126.5	25.5
40°-50°	231.5	46.7
50°-60°	95.1	19.2
60°-70°	8.0	1.6
70°-80°	4.0	0.8
80°-90°	1.9	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°	29.0	5.8
0°-40°	155.5	31.3
0°-60°	482.1	97.2
0°-90°	496.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	496.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	34	34	34	34	34	
5°	40	37	32	28	27	4
15°	34	25	18	17	18	11
25°	201	20	10	12	14	132
35°	2086	27	7	11	14	1321
45°	3471	16	5	10	14	2492
55°	1265	5	4	10	14	1106
65°	12	0	3	8	13	39
75°	1	0	2	6	10	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°	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.5
2.5°	37.8	37.8	37.8	37.3	37.3	37.8	37.3	37.3	37.3	37.3	36.8
5°	40.1	40.1	40.1	40.1	40.1	40.1	40.1	39.6	39.6	39.2	37.3
7.5°	41.0	41.0	41.0	41.0	40.6	40.6	40.6	40.6	40.1	39.6	36.4
10°	39.2	39.2	39.2	38.7	38.7	38.7	38.2	38.2	37.8	37.3	33.6
12.5°	35.4	35.4	35.4	35.4	35.0	35.0	34.5	34.5	34.0	33.6	29.4
15°	33.6	33.6	33.6	33.1	33.1	32.6	32.2	31.7	31.2	30.3	25.2
17.5°	36.4	36.4	35.9	35.9	35.0	34.0	33.6	32.2	31.2	29.8	22.4
20°	48.5	48.9	47.1	45.7	44.7	42.0	40.6	38.2	36.4	34.0	20.5
22.5°	97.9	96.0	92.8	87.6	81.6	76.4	67.1	59.7	54.5	47.5	20.0
25°	201.4	199.5	190.6	183.2	164.5	150.1	130.0	113.7	97.0	80.6	20.5
27.5°	382.7	370.1	367.8	333.7	307.6	270.4	231.7	199.0	169.2	136.1	21.9
30°	727.6	713.2	662.4	611.1	540.7	461.0	385.0	314.2	255.0	201.4	23.8
31°	923.4	937.4	877.7	774.7	670.8	568.7	464.7	374.8	298.3	231.7	24.7
32°	1213.8	1152.7	1089.8	984.0	833.0	702.4	571.9	442.4	341.7	264.3	25.6
33°	1488.3	1452.4	1356.4	1224.5	1043.2	860.0	690.8	522.1	394.8	303.9	26.1
34°	1781.1	1741.4	1663.6	1474.3	1275.3	1035.3	809.7	613.9	458.2	342.6	26.6
35°	2086.4	2069.6	1919.5	1755.4	1510.7	1221.2	952.8	714.6	520.2	378.0	27.0
36°	2393.5	2339.5	2222.0	1982.4	1727.0	1393.2	1102.8	808.3	583.1	420.0	27.0
37°	2624.7	2612.6	2456.9	2223.4	1923.2	1576.9	1232.4	912.2	646.5	455.9	27.0
38°	2879.7	2831.7	2673.7	2436.0	2107.8	1745.2	1368.1	1002.6	706.6	488.5	26.6
39°	3094.6	3023.3	2863.9	2628.9	2269.1	1872.9	1475.7	1090.3	759.8	515.5	26.1
40°	3235.4	3186.0	3019.5	2755.3	2415.5	1993.6	1584.8	1162.5	799.4	536.0	25.2
41°	3390.6	3308.5	3144.0	2878.3	2521.7	2099.9	1653.3	1210.1	830.2	549.6	24.2
42°	3483.3	3416.2	3220.9	2960.8	2597.7	2160.5	1709.3	1246.4	848.8	556.6	22.4
43°	3570.0	3478.7	3288.5	3008.8	2648.0	2203.4	1734.9	1263.2	853.0	556.6	20.0
44°	3558.4	3471.7	3274.5	3015.4	2659.2	2216.0	1745.6	1263.7	846.5	549.6	17.7
45°	3471.2	3385.0	3207.4	2958.5	2619.1	2191.2	1724.2	1245.0	828.3	537.4	15.8
46°	3311.3	3225.6	3089.5	2863.4	2544.6	2135.3	1674.3	1204.5	798.0	517.9	14.0
47°	3137.5	3054.0	2914.7	2710.0	2417.3	2035.6	1602.1	1147.6	755.6	489.4	12.6
48°	2885.3	2833.1	2693.3	2518.5	2240.7	1879.4	1475.3	1054.8	698.7	452.6	10.7
49°	2662.5	2607.5	2484.9	2297.1	2010.4	1697.6	1323.8	942.0	624.6	411.6	9.3
50°	2449.5	2401.5	2288.2	2076.1	1802.5	1478.1	1119.2	799.9	531.4	360.8	7.9
51°	2241.1	2205.2	2089.6	1894.8	1617.0	1309.3	969.5	666.1	439.1	299.3	7.5
52°	2031.8	2027.6	1902.3	1705.1	1436.6	1141.1	824.1	562.1	372.4	251.2	7.0
53°	1806.7	1779.7	1670.1	1493.0	1235.2	965.8	698.7	474.0	320.7	214.0	6.1
54°	1550.3	1520.0	1402.6	1242.7	1009.2	791.0	563.1	383.2	267.1	180.9	5.6
55°	1265.1	1213.3	1128.0	963.9	788.2	603.6	434.9	303.4	213.5	150.6	4.7
56°	959.7	908.0	860.0	739.3	578.5	450.3	324.0	232.6	166.9	118.9	4.2
57°	667.5	664.7	585.9	493.2	386.9	306.7	221.9	164.1	117.9	92.3	3.3
58°	433.0	418.6	368.2	314.6	253.1	191.6	142.6	111.4	80.2	62.9	2.8
59°	303.4	274.5	247.5	209.8	159.4	120.7	91.8	71.3	55.5	43.8	1.9
60°	186.4	180.4	162.2	127.7	103.5	85.3	68.5	52.7	40.6	31.2	0.9
62.5°	53.1	54.1	48.9	43.3	37.3	32.2	28.9	24.7	20.5	16.3	0.0
65°	12.1	11.7	12.6	11.7	10.7	10.7	9.3	8.4	7.5	7.0	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°	3.7	3.7	3.3	3.3	3.3	2.8	2.8	2.3	2.3	1.9	0.0
70°	1.4	1.4	1.4	1.4	1.4	0.9	0.9	0.9	0.5	0.5	0.0
72.5°	1.4	1.4	1.4	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5
75°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5
77.5°	0.9	0.9	0.9	0.9	0.9	0.5	0.9	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.0	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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°	34.5	34.5	34.5	34.5	34.5	34.5
2.5°	35.9	34.0	32.6	31.2	30.8	30.8
5°	35.0	32.2	29.4	28.0	27.0	27.0
7.5°	32.2	28.9	26.1	24.7	24.2	24.2
10°	28.9	25.2	22.4	21.4	21.4	21.0
12.5°	25.2	21.4	19.6	19.1	19.1	19.1
15°	21.0	18.2	16.8	16.8	17.2	17.7
17.5°	17.7	14.9	14.4	15.4	16.3	16.3
20°	14.9	13.1	13.1	14.0	14.9	15.4
22.5°	12.6	11.2	11.7	13.1	14.4	14.9
25°	11.2	9.8	10.7	12.1	13.5	14.4
27.5°	9.3	8.9	9.8	11.7	13.5	14.0
30°	7.9	7.9	9.3	11.2	13.1	13.5
31°	7.5	7.5	9.3	11.2	13.1	13.5
32°	7.0	7.5	8.9	11.2	13.1	13.5
33°	6.5	7.0	8.9	10.7	13.1	13.5
34°	6.1	7.0	8.9	10.7	13.1	13.5
35°	5.6	7.0	8.9	10.7	13.1	13.5
36°	5.1	6.5	8.4	10.7	13.1	13.5
37°	4.7	6.5	8.4	10.7	13.1	13.5
38°	4.2	6.1	8.4	10.7	13.1	13.5
39°	4.2	6.1	7.9	10.7	12.6	13.5
40°	3.7	5.6	7.9	10.7	12.6	13.5
41°	3.3	5.6	7.9	10.3	12.6	13.5
42°	2.8	5.1	7.5	10.3	12.6	13.5
43°	2.3	5.1	7.5	10.3	12.6	13.5
44°	2.3	4.7	7.5	10.3	12.6	13.5
45°	1.9	4.7	7.5	10.3	12.6	13.5
46°	1.4	4.7	7.5	10.3	12.6	13.5
47°	1.4	4.2	7.0	10.3	12.6	13.5
48°	0.9	4.2	7.0	10.3	12.6	13.5
49°	0.9	4.2	7.0	10.3	12.6	14.0
50°	0.9	4.2	7.0	9.8	12.6	14.0
51°	0.5	4.2	7.0	9.8	12.6	14.0
52°	0.5	4.2	6.5	9.8	13.1	14.0
53°	0.5	3.7	6.5	9.8	13.1	14.0
54°	0.5	3.7	6.5	9.8	13.1	13.5
55°	0.5	3.7	6.5	9.8	12.6	13.5
56°	0.5	3.3	6.5	9.8	12.6	13.5
57°	0.5	3.3	6.1	9.3	12.6	13.1
58°	0.5	3.3	6.1	9.3	12.6	13.1
59°	0.5	3.3	6.1	9.3	12.1	13.1
60°	0.9	2.8	5.6	8.9	12.1	13.1
62.5°	0.9	2.8	5.6	8.9	11.7	12.6
65°	0.9	2.8	5.1	8.4	11.7	12.6



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.9	2.3	4.7	7.9	11.2	12.1
70°	0.9	2.8	4.7	7.5	10.7	11.7
72.5°	1.4	2.3	4.2	7.0	10.3	11.2
75°	1.4	2.3	4.2	6.5	9.8	10.3
77.5°	1.9	2.3	3.7	5.6	8.9	9.3
80°	1.9	2.3	3.3	4.7	7.5	7.9
82.5°	1.9	2.3	2.3	3.7	5.6	6.1
85°	1.4	1.9	1.9	2.3	3.7	4.2
87.5°	1.4	1.9	1.4	0.9	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)