

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: P1343398

Luminaire Tested: P3A13R159027DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343398
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R159027DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

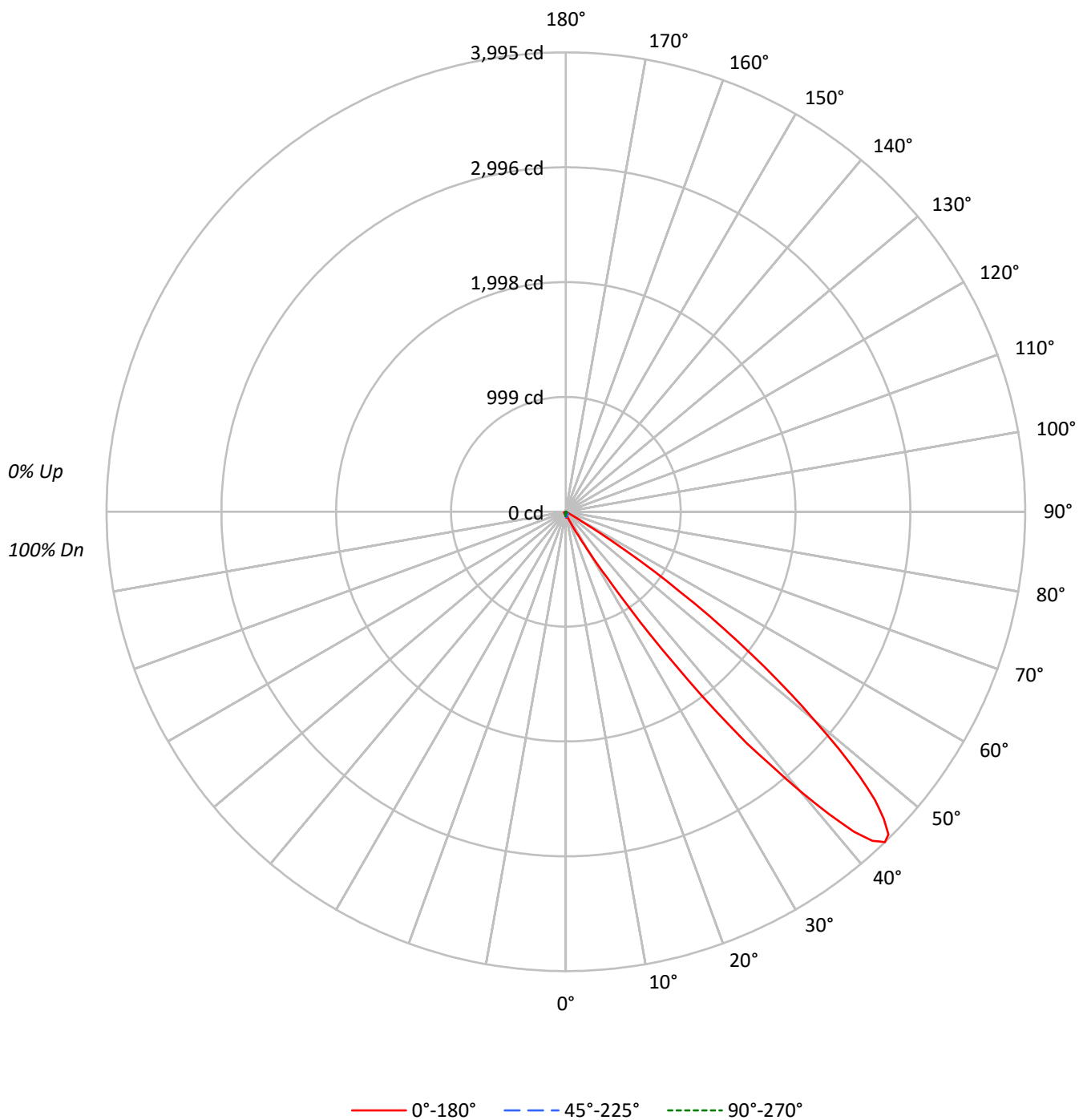
Lumens per Lamp: N/A
Luminaire Lumens: 446.0 lumens
Efficiency: N/A
Efficacy: 30.5 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
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	102	102	100
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	89	89	87
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	75	75	73
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	63	63	61
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	53	53	50
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	44	44	42
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	37	37	35
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	31	31	29
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	26	26	24
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	22	22	20
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	19	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	8684	8684	8684	8684	8684
5°	10764	9597	7836	6846	6758
10°	10599	8216	6034	5344	5455
15°	8786	5857	4336	4450	4745
20°	15261	4667	3314	3850	4364
25°	33994	5589	2686	3557	4089
30°	101687	6862	2355	3494	4279
35°	391420	7736	2142	3560	4524
40°	908531	6756	2032	3693	4838
45°	1230546	5117	1799	4000	5241
50°	964847	3036	1808	4264	5765
55°	463123	1376	1682	4588	6308
60°	42321	175	1579	4868	7017
65°	4618	0	1401	5085	7627
70°	1154	0	1731	5386	8271
75°	1101	339	2288	6015	9404
80°	1137	1137	2778	6188	10102
85°	1006	1006	4529	5535	11070

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1230546 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.4	0.8
10°-20°	7.0	1.6
20°-30°	16.9	3.8
30°-40°	92.3	20.7
40°-50°	223.4	50.1
50°-60°	89.1	20.0
60°-70°	7.7	1.7
70°-80°	4.3	1.0
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°	27.3	6.1
0°-40°	119.5	26.8
0°-60°	432.0	96.9
0°-90°	446.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	446.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	40	40	40	40	40	
5°	49	44	36	31	31	5
15°	39	26	19	20	21	13
25°	140	23	11	15	17	85
35°	1462	29	8	13	17	1033
45°	3968	16	6	13	17	2799
55°	1211	4	4	12	16	1128
65°	9	0	3	10	15	23
75°	1	0	3	7	11	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°	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6
2.5°	44.5	44.5	44.9	44.5	44.5	44.5	44.5	44.0	44.0	44.0	42.7
5°	48.9	48.9	48.9	48.9	48.5	48.5	48.5	48.0	48.0	47.6	43.6
7.5°	50.7	50.7	50.3	50.3	49.8	49.8	49.4	48.9	48.5	48.0	41.8
10°	47.6	47.6	47.6	47.1	47.1	46.7	46.2	45.8	45.4	44.5	36.9
12.5°	42.2	42.2	42.7	42.2	41.8	41.4	40.5	40.0	39.6	38.7	30.7
15°	38.7	38.7	38.7	38.2	37.8	36.9	36.5	35.6	35.1	33.8	25.8
17.5°	49.4	49.4	48.9	48.0	46.2	44.9	42.7	40.9	38.7	36.0	22.2
20°	65.4	65.4	64.5	63.6	61.4	59.1	55.6	52.5	48.9	45.8	20.0
22.5°	94.7	96.1	93.4	90.3	87.2	81.8	76.9	72.0	65.8	60.5	20.5
25°	140.5	141.9	140.5	133.4	127.6	120.5	111.2	101.4	90.7	80.9	23.1
27.5°	227.7	228.6	226.4	209.0	199.7	181.0	164.5	148.5	130.7	113.0	25.3
30°	401.6	402.0	387.8	353.1	322.4	281.5	246.8	213.5	185.4	157.0	27.1
31°	528.8	516.3	486.1	444.3	395.3	340.2	292.6	249.5	207.7	177.0	27.6
32°	671.5	669.7	619.5	547.0	481.6	412.7	341.1	285.9	237.9	196.1	28.0
33°	860.5	861.4	782.2	696.9	589.7	497.2	403.3	327.7	269.9	218.8	28.9
34°	1155.8	1086.4	993.5	877.8	732.0	592.8	470.9	376.2	298.8	240.6	28.9
35°	1462.2	1392.4	1290.1	1114.9	914.8	720.0	551.4	428.2	333.5	264.2	28.9
36°	1805.5	1746.4	1591.6	1367.9	1112.6	840.0	636.8	488.3	367.8	285.5	28.5
37°	2176.4	2089.7	1918.0	1673.9	1332.3	1009.0	740.9	547.9	402.0	308.6	27.6
38°	2553.0	2474.8	2258.2	1962.5	1594.7	1187.4	844.9	605.2	433.6	326.0	26.2
39°	2838.5	2795.9	2581.1	2250.6	1804.2	1356.3	952.1	666.6	466.9	343.3	24.9
40°	3173.9	3104.9	2901.2	2492.6	2051.9	1528.4	1057.1	720.9	494.5	357.1	23.6
41°	3479.8	3392.6	3135.6	2740.7	2250.2	1683.2	1156.7	776.9	516.7	365.1	22.7
42°	3742.2	3640.8	3372.2	2953.3	2416.1	1806.8	1236.3	816.9	537.6	371.8	21.3
43°	3912.1	3824.5	3560.3	3112.9	2557.9	1920.2	1310.5	858.7	550.5	376.2	19.6
44°	3994.8	3906.3	3650.6	3213.0	2645.1	1988.3	1358.6	887.6	564.8	382.0	18.2
45°	3968.1	3878.3	3631.0	3214.8	2672.2	2012.7	1379.0	900.5	572.3	387.3	16.5
46°	3845.8	3782.7	3533.6	3131.2	2620.6	1986.5	1367.5	890.7	569.7	387.3	14.7
47°	3674.1	3602.1	3365.1	2987.5	2495.7	1918.9	1320.8	860.9	553.2	378.4	12.9
48°	3440.2	3378.9	3129.8	2759.4	2304.0	1771.7	1215.4	812.5	527.4	361.1	11.1
49°	3146.7	3061.3	2829.7	2467.7	2054.1	1562.7	1077.1	730.6	486.1	336.6	9.8
50°	2828.3	2722.9	2544.2	2175.5	1795.7	1339.9	895.2	617.7	427.8	304.6	8.9
51°	2516.6	2409.4	2239.1	1925.6	1520.0	1111.8	722.2	493.2	352.2	260.6	7.6
52°	2193.3	2103.4	1912.7	1666.3	1301.2	901.0	601.7	417.1	292.6	218.8	6.2
53°	1871.3	1809.9	1628.5	1379.0	1045.5	736.0	491.4	357.1	255.3	187.2	4.9
54°	1548.9	1481.8	1343.9	1121.5	842.7	580.8	416.7	298.8	221.5	163.2	4.4
55°	1211.4	1176.7	1049.5	855.2	638.6	463.4	338.0	257.0	185.4	136.5	3.6
56°	933.0	893.9	777.8	620.4	474.5	362.9	273.5	209.9	157.0	114.3	2.7
57°	611.0	571.0	494.1	433.1	345.5	264.6	209.0	165.4	127.6	94.7	2.2
58°	361.1	324.6	312.6	266.8	230.4	179.7	154.3	123.2	94.3	74.7	1.3
59°	165.9	168.5	149.9	140.5	127.6	114.3	93.8	82.3	64.5	53.8	0.9
60°	96.5	91.2	88.9	79.6	70.7	62.7	56.5	49.8	40.5	34.7	0.4
62.5°	32.9	31.6	32.5	29.4	27.6	26.7	24.5	20.9	17.3	14.2	0.0
65°	8.9	8.9	8.4	8.0	7.6	7.1	6.7	5.8	5.3	4.4	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°	3.1	3.1	2.7	2.7	2.2	2.2	1.8	1.8	1.3	1.3	0.0
70°	1.8	1.8	1.8	1.3	1.3	1.3	0.9	0.9	0.9	0.4	0.0
72.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.9	0.9	0.9	0.4	0.4
75°	1.3	1.3	1.3	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.4
77.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	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	0.4	0.9
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.9
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	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°	39.6	39.6	39.6	39.6	39.6	39.6
2.5°	40.9	39.1	36.9	35.6	35.1	34.7
5°	39.1	35.6	32.9	31.1	30.7	30.7
7.5°	35.1	31.1	28.5	27.6	27.1	27.1
10°	30.7	27.1	24.9	24.0	24.5	24.5
12.5°	25.8	22.7	21.8	21.8	22.2	22.7
15°	20.9	19.1	19.1	19.6	20.5	20.9
17.5°	17.3	16.5	16.9	17.8	18.7	19.6
20°	14.2	14.2	15.1	16.5	17.8	18.7
22.5°	12.0	12.5	13.8	15.1	16.9	17.8
25°	10.2	11.1	12.5	14.7	16.5	16.9
27.5°	8.9	10.2	12.0	14.2	16.0	16.9
30°	7.6	9.3	11.6	13.8	16.0	16.9
31°	7.1	8.9	11.1	13.8	16.0	16.9
32°	6.7	8.9	11.1	13.8	16.0	16.9
33°	6.2	8.4	11.1	13.3	16.0	16.9
34°	5.8	8.4	11.1	13.8	16.0	16.9
35°	5.3	8.0	10.7	13.3	15.6	16.9
36°	4.9	8.0	10.7	13.3	16.0	16.9
37°	4.4	8.0	10.7	13.3	15.6	16.9
38°	4.4	7.6	10.2	13.3	15.6	16.9
39°	4.0	7.1	10.2	13.3	15.6	16.9
40°	3.6	7.1	9.8	12.9	15.6	16.9
41°	3.1	6.7	9.8	12.9	15.6	16.9
42°	2.7	6.7	9.8	12.9	15.6	16.9
43°	2.2	6.2	9.3	12.9	15.6	16.9
44°	2.2	6.2	9.3	12.9	15.6	16.9
45°	1.8	5.8	8.9	12.9	15.6	16.9
46°	1.8	5.8	8.9	12.5	15.6	16.9
47°	1.3	5.8	8.9	12.5	15.6	16.9
48°	1.3	5.3	8.9	12.5	15.6	16.9
49°	0.9	5.3	8.9	12.5	15.6	16.9
50°	0.9	5.3	8.4	12.5	15.6	16.9
51°	0.9	5.3	8.4	12.5	15.6	16.9
52°	0.9	4.9	8.4	12.5	15.6	16.9
53°	0.9	4.9	8.4	12.5	15.6	16.9
54°	0.9	4.9	8.0	12.5	15.6	16.9
55°	0.9	4.4	8.0	12.0	15.6	16.5
56°	0.9	4.4	8.0	12.0	15.6	16.5
57°	0.9	4.4	7.6	12.0	15.6	16.5
58°	0.9	4.0	7.6	11.6	15.1	16.5
59°	0.9	4.0	7.1	11.6	15.1	16.0
60°	0.9	3.6	7.1	11.1	14.7	16.0
62.5°	0.9	3.1	6.2	10.7	14.2	15.1
65°	0.9	2.7	5.8	9.8	13.8	14.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.9	2.7	5.3	9.3	12.9	14.2
70°	0.9	2.7	4.9	8.4	12.5	12.9
72.5°	1.3	2.7	4.4	8.0	11.6	12.0
75°	1.8	2.7	4.0	7.1	10.7	11.1
77.5°	1.8	2.7	3.6	6.2	9.3	9.8
80°	1.8	2.2	3.1	4.9	7.6	8.0
82.5°	1.8	2.2	2.2	4.0	5.8	6.2
85°	1.3	1.8	1.8	2.2	4.0	4.4
87.5°	1.3	1.8	0.9	1.3	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)