

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: P1343518

Luminaire Tested: P3A13R159735DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343518
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: P3A13R159735DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

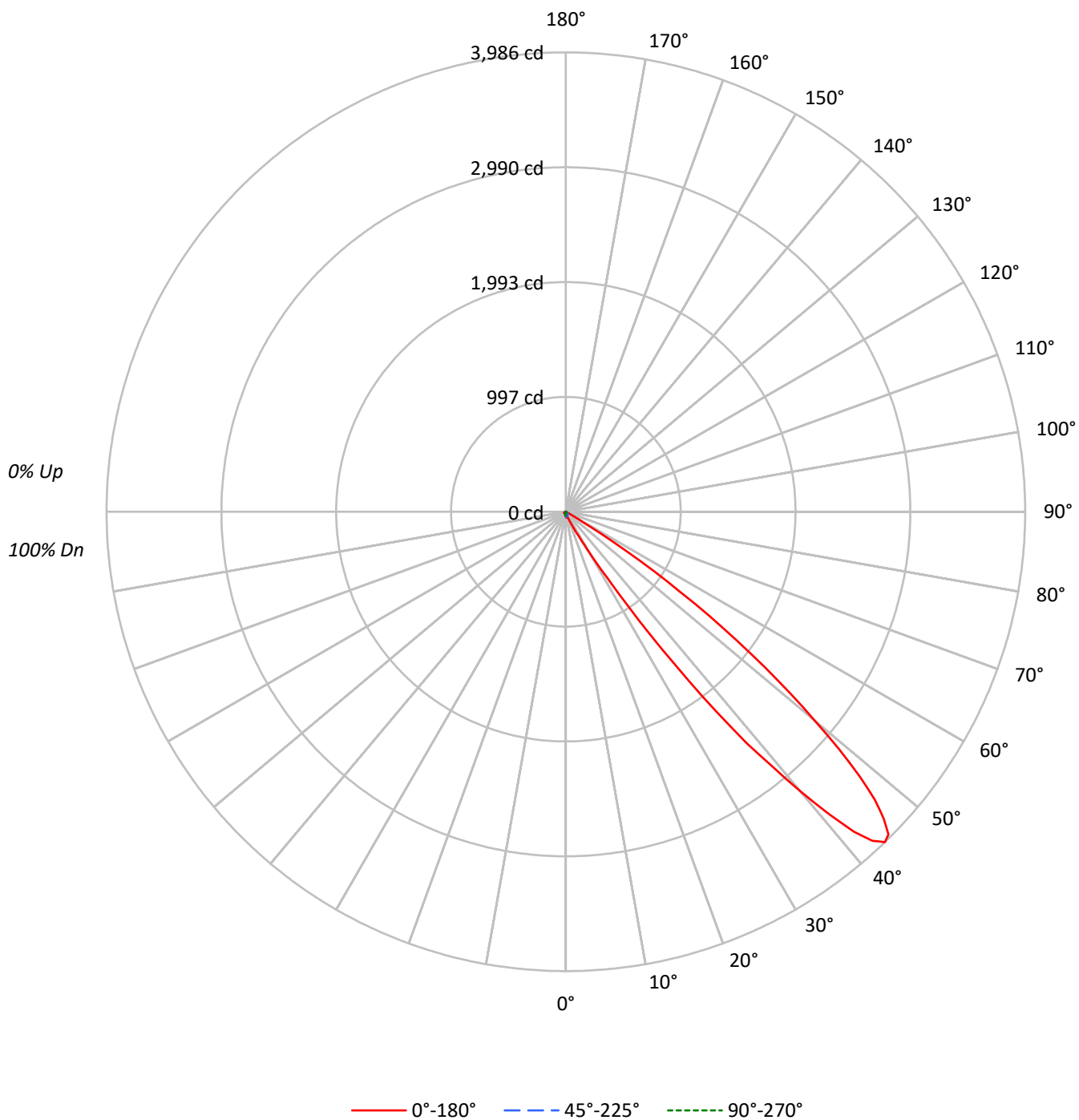
Lumens per Lamp: N/A
Luminaire Lumens: 445.0 lumens
Efficiency: N/A
Efficacy: 30.5 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	8662	8662	8662	8662	8662
5°	10742	9575	7814	6846	6736
10°	10577	8194	6034	5344	5433
15°	8763	5834	4336	4427	4745
20°	15215	4667	3314	3827	4340
25°	33921	5589	2686	3532	4089
30°	101459	6862	2355	3494	4279
35°	390536	7710	2142	3560	4524
40°	906470	6727	2032	3693	4838
45°	1227786	5086	1799	4000	5241
50°	962698	3036	1808	4230	5765
55°	462091	1338	1682	4588	6270
60°	42233	175	1535	4868	7017
65°	4618	0	1401	5085	7575
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: 1227786 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°	16.8	3.8
30°-40°	92.0	20.7
40°-50°	222.9	50.1
50°-60°	88.9	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°	27.2	6.1
0°-40°	119.3	26.8
0°-60°	431.1	96.9
0°-90°	445.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	445.0	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°	1459	29	8	13	17	1031
45°	3959	16	6	13	17	2793
55°	1209	4	4	12	16	1126
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°	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5	39.5
2.5°	44.4	44.4	44.8	44.4	44.4	44.4	44.4	43.9	43.9	43.9	42.6
5°	48.8	48.8	48.8	48.8	48.4	48.4	48.4	47.9	47.9	47.5	43.5
7.5°	50.6	50.6	50.1	50.1	49.7	49.7	49.3	48.8	48.4	47.9	41.7
10°	47.5	47.5	47.5	47.0	47.0	46.6	46.1	45.7	45.3	44.4	36.8
12.5°	42.2	42.2	42.6	42.2	41.7	41.3	40.4	39.9	39.5	38.6	30.6
15°	38.6	38.6	38.6	38.2	37.7	36.8	36.4	35.5	35.1	33.7	25.7
17.5°	49.3	49.3	48.8	47.9	46.1	44.8	42.6	40.8	38.6	35.9	22.2
20°	65.2	65.2	64.3	63.5	61.2	59.0	55.5	52.4	48.8	45.7	20.0
22.5°	94.5	95.8	93.2	90.1	87.0	81.6	76.8	71.9	65.7	60.3	20.4
25°	140.2	141.5	140.2	133.1	127.3	120.2	110.9	101.2	90.5	80.8	23.1
27.5°	227.2	228.1	225.8	208.5	199.2	180.6	164.2	148.2	130.4	112.7	25.3
30°	400.7	401.1	386.9	352.3	321.7	280.9	246.3	213.0	185.0	156.6	27.1
31°	527.6	515.1	485.0	443.3	394.5	339.4	292.0	248.9	207.2	176.6	27.5
32°	670.0	668.2	618.1	545.8	480.5	411.8	340.3	285.3	237.4	195.7	28.0
33°	858.6	859.5	780.5	695.3	588.4	496.1	402.4	327.0	269.3	218.3	28.8
34°	1153.2	1084.0	991.2	875.9	730.3	591.5	469.9	375.4	298.2	240.0	28.8
35°	1458.9	1389.2	1287.2	1112.4	912.7	718.4	550.2	427.3	332.8	263.6	28.8
36°	1801.4	1742.4	1588.0	1364.8	1110.2	838.2	635.4	487.2	366.9	284.9	28.4
37°	2171.5	2085.0	1913.7	1670.1	1329.3	1006.8	739.2	546.6	401.1	307.9	27.5
38°	2547.3	2469.2	2253.1	1958.1	1591.1	1184.7	843.0	603.9	432.6	325.2	26.2
39°	2832.2	2789.6	2575.3	2245.6	1800.1	1353.3	950.0	665.1	465.9	342.5	24.8
40°	3166.7	3098.0	2894.7	2487.0	2047.3	1525.0	1054.7	719.2	493.4	356.3	23.5
41°	3472.0	3385.0	3128.6	2734.6	2245.2	1679.4	1154.1	775.2	515.6	364.3	22.6
42°	3733.8	3632.6	3364.6	2946.7	2410.7	1802.8	1233.5	815.1	536.4	370.9	21.3
43°	3903.3	3815.9	3552.3	3105.9	2552.2	1915.9	1307.6	856.8	549.3	375.4	19.5
44°	3985.8	3897.5	3642.4	3205.8	2639.2	1983.8	1355.5	885.6	563.5	381.1	18.2
45°	3959.2	3869.6	3622.9	3207.6	2666.2	2008.2	1375.9	898.5	571.1	386.5	16.4
46°	3837.2	3774.2	3525.7	3124.1	2614.8	1982.0	1364.4	888.7	568.4	386.5	14.6
47°	3665.9	3594.0	3357.5	2980.8	2490.1	1914.6	1317.8	859.0	552.0	377.6	12.9
48°	3432.5	3371.3	3122.8	2753.2	2298.8	1767.7	1212.7	810.7	526.2	360.3	11.1
49°	3139.7	3054.5	2823.3	2462.1	2049.5	1559.2	1074.7	729.0	485.0	335.9	9.8
50°	2822.0	2716.8	2538.4	2170.6	1791.7	1336.9	893.2	616.3	426.8	303.9	8.9
51°	2510.9	2404.0	2234.1	1921.3	1516.6	1109.3	720.6	492.1	351.4	260.0	7.5
52°	2188.4	2098.7	1908.4	1662.6	1298.3	899.0	600.3	416.2	292.0	218.3	6.2
53°	1867.1	1805.9	1624.9	1375.9	1043.2	734.3	490.3	356.3	254.7	186.8	4.9
54°	1545.4	1478.4	1340.9	1119.0	840.8	579.5	415.8	298.2	221.0	162.8	4.4
55°	1208.7	1174.0	1047.1	853.2	637.2	462.3	337.2	256.5	185.0	136.2	3.5
56°	930.9	891.9	776.0	619.0	473.4	362.1	272.9	209.4	156.6	114.0	2.7
57°	609.7	569.7	493.0	432.2	344.8	264.0	208.5	165.1	127.3	94.5	2.2
58°	360.3	323.9	311.9	266.2	229.8	179.3	154.0	122.9	94.1	74.5	1.3
59°	165.5	168.2	149.5	140.2	127.3	114.0	93.6	82.1	64.3	53.7	0.9
60°	96.3	91.0	88.7	79.4	70.5	62.6	56.4	49.7	40.4	34.6	0.4
62.5°	32.8	31.5	32.4	29.3	27.5	26.6	24.4	20.9	17.3	14.2	0.0
65°	8.9	8.9	8.4	8.0	7.5	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°	39.5	39.5	39.5	39.5	39.5	39.5
2.5°	40.8	39.0	36.8	35.5	35.1	34.6
5°	39.0	35.5	32.8	31.1	30.6	30.6
7.5°	35.1	31.1	28.4	27.5	27.1	27.1
10°	30.6	27.1	24.8	24.0	24.4	24.4
12.5°	25.7	22.6	21.7	21.7	22.2	22.6
15°	20.9	19.1	19.1	19.5	20.4	20.9
17.5°	17.3	16.4	16.9	17.7	18.6	19.5
20°	14.2	14.2	15.1	16.4	17.7	18.6
22.5°	12.0	12.4	13.8	15.1	16.9	17.7
25°	10.2	11.1	12.4	14.6	16.4	16.9
27.5°	8.9	10.2	12.0	14.2	16.0	16.9
30°	7.5	9.3	11.5	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	10.6	13.3	15.5	16.9
36°	4.9	8.0	10.6	13.3	16.0	16.9
37°	4.4	8.0	10.6	13.3	15.5	16.9
38°	4.4	7.5	10.2	13.3	15.5	16.9
39°	4.0	7.1	10.2	13.3	15.5	16.9
40°	3.5	7.1	9.8	12.9	15.5	16.9
41°	3.1	6.7	9.8	12.9	15.5	16.9
42°	2.7	6.7	9.8	12.9	15.5	16.9
43°	2.2	6.2	9.3	12.9	15.5	16.9
44°	2.2	6.2	9.3	12.9	15.5	16.9
45°	1.8	5.8	8.9	12.9	15.5	16.9
46°	1.8	5.8	8.9	12.4	15.5	16.9
47°	1.3	5.8	8.9	12.4	15.5	16.9
48°	1.3	5.3	8.9	12.4	15.5	16.9
49°	0.9	5.3	8.9	12.4	15.5	16.9
50°	0.9	5.3	8.4	12.4	15.5	16.9
51°	0.9	5.3	8.4	12.4	15.5	16.9
52°	0.9	4.9	8.4	12.4	15.5	16.9
53°	0.9	4.9	8.4	12.4	15.5	16.9
54°	0.9	4.9	8.0	12.4	15.5	16.9
55°	0.9	4.4	8.0	12.0	15.5	16.4
56°	0.9	4.4	8.0	12.0	15.5	16.4
57°	0.9	4.4	7.5	12.0	15.5	16.4
58°	0.9	4.0	7.5	11.5	15.1	16.4
59°	0.9	4.0	7.1	11.5	15.1	16.0
60°	0.9	3.5	7.1	11.1	14.6	16.0
62.5°	0.9	3.1	6.2	10.6	14.2	15.1
65°	0.9	2.7	5.8	9.8	13.8	14.6



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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	12.4	12.9
72.5°	1.3	2.7	4.4	8.0	11.5	12.0
75°	1.8	2.7	4.0	7.1	10.6	11.1
77.5°	1.8	2.7	3.5	6.2	9.3	9.8
80°	1.8	2.2	3.1	4.9	7.5	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)