

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: P1345869

Luminaire Tested: P3A13R35W2N902765DE010 E3A451WMH_5000K

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345869
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R35W2N902765DE010 E3A451WMH_5000K
Description: 3in Adjustable Tunable White LED luminaire with, R35 optic, 5000K CCT AND, 90CRI ,
E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

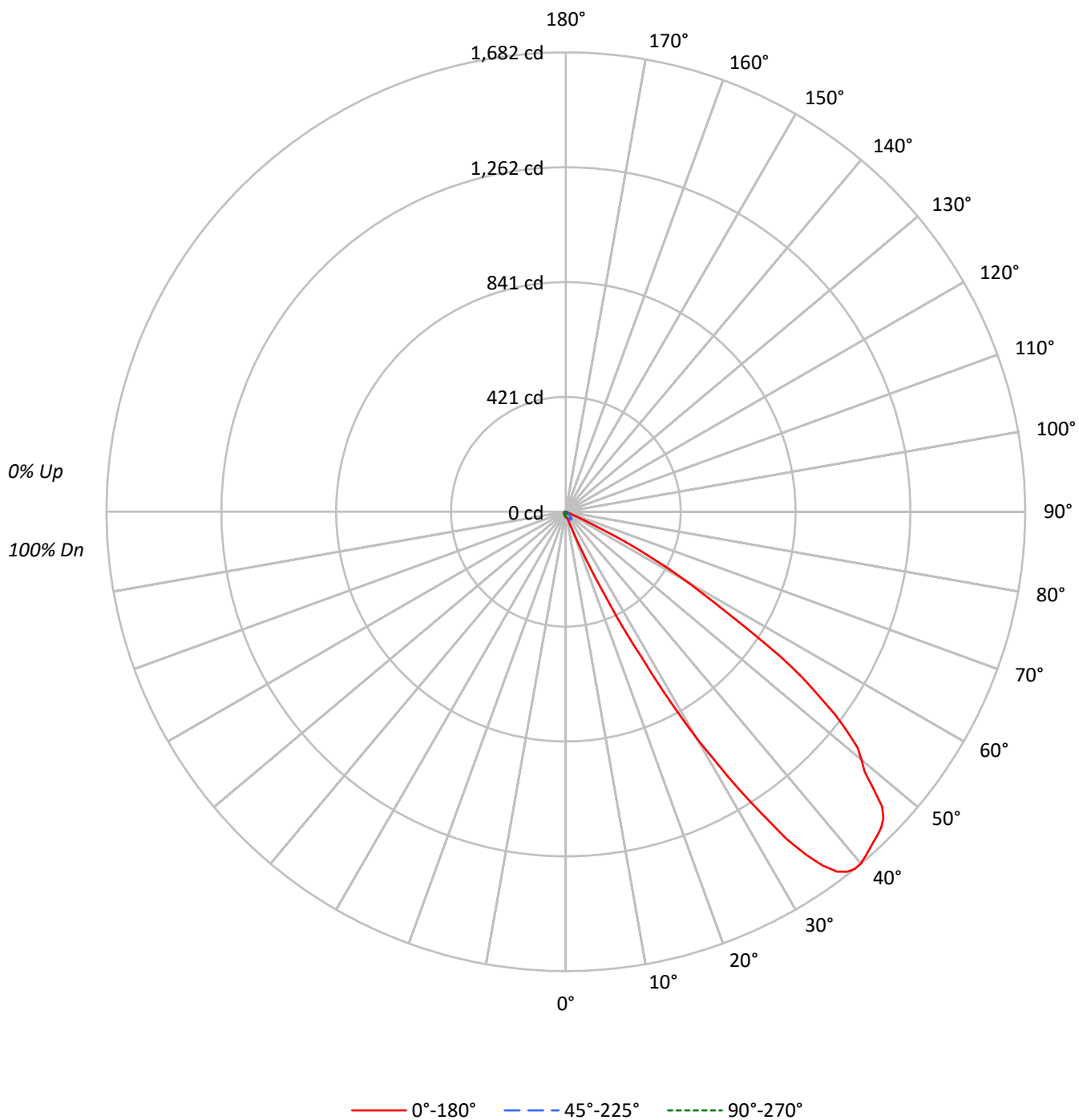
Lumens per Lamp: N/A
Luminaire Lumens: 419.0 lumens
Efficiency: N/A
Efficacy: 34.1 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 12.3
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	107	104	100	97	100	97	94	96	93	91	92	90	89	87		
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61		
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52	50		
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35		
7	62	48	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31	29		
8	57	42	33	27	55	41	33	27	40	32	27	39	32	26	38	31	26	24		
9	52	38	29	23	50	37	29	23	36	28	23	35	28	22	34	27	22	20		
10	48	34	25	19	46	33	25	19	32	25	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4232	4232	4232	4232	4232
5°	4578	4490	4160	3742	3654
10°	4810	4386	3696	3206	3206
15°	6879	4291	2997	2747	2838
20°	17221	4597	2380	2380	2637
25°	79892	5855	1839	2202	2468
30°	242873	7951	1443	2000	2481
35°	410479	9209	1205	1927	2436
40°	481159	9103	973	1947	2605
45°	506719	6450	806	2109	2822
50°	482338	3855	785	2183	3104
55°	404172	1606	879	2447	3632
60°	226254	351	1009	2807	3991
65°	39070	208	986	3165	4514
70°	705	256	1218	3398	5065
75°	678	339	1610	3813	5761
80°	505	505	1894	4293	6693
85°	0	1006	3774	4780	7548

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 510307 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.4
10°-20°	4.9	1.2
20°-30°	25.7	6.1
30°-40°	111.0	26.5
40°-50°	158.4	37.8
50°-60°	98.1	23.4
60°-70°	14.9	3.6
70°-80°	2.8	0.7
80°-90°	1.4	0.3
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°	32.4	7.7
0°-40°	143.4	34.2
0°-60°	399.9	95.4
0°-90°	419.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	419.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	19	19	19	19	19	
5°	21	20	19	17	17	2
15°	30	19	13	12	12	11
25°	330	24	8	9	10	198
35°	1533	34	4	7	9	921
45°	1634	21	3	7	9	1234
55°	1057	4	2	6	10	900
65°	75	0	2	6	9	154
75°	1	0	2	4	7	1
85°	0	0	2	2	3	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
2.5°	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	19.3	18.9
5°	20.8	20.8	20.4	20.4	20.4	20.4	20.4	20.4	19.7	18.9	17.8
7.5°	21.2	21.2	20.8	20.8	20.8	20.8	20.4	20.0	19.3	17.8	16.6
10°	21.6	21.6	21.6	21.6	21.2	20.8	20.4	19.7	18.5	16.6	15.5
12.5°	24.2	24.2	23.8	23.1	22.3	21.6	20.8	19.3	17.0	15.1	14.0
15°	30.3	29.9	29.1	28.0	26.5	24.6	23.1	18.9	15.5	13.2	12.5
17.5°	42.4	41.6	40.5	36.7	33.3	29.9	26.9	18.9	14.0	11.7	11.0
20°	73.8	74.1	66.2	57.1	49.5	41.2	33.7	19.7	12.5	10.2	9.8
22.5°	153.9	147.9	129.0	107.0	81.7	63.2	47.7	21.6	11.0	8.7	8.7
25°	330.2	307.1	261.4	197.4	139.2	98.7	69.2	24.2	9.8	7.6	7.9
27.5°	602.9	582.1	490.2	369.2	245.1	149.0	93.8	27.6	8.7	6.4	7.2
30°	959.2	901.7	781.8	605.2	409.6	228.1	126.0	31.4	7.2	5.7	6.8
31°	1070.4	1043.9	897.9	700.1	480.0	270.8	139.6	32.5	6.8	5.7	6.4
32°	1202.4	1155.5	1024.6	804.1	551.5	309.0	155.8	33.7	6.4	4.9	6.4
33°	1320.4	1275.0	1115.8	895.7	623.7	352.5	173.2	34.0	5.7	4.9	6.1
34°	1444.5	1382.5	1224.7	991.4	697.8	399.4	189.1	34.4	5.3	4.5	6.1
35°	1533.4	1471.3	1318.5	1067.0	761.8	441.0	207.3	34.4	4.9	4.5	5.7
36°	1602.2	1547.7	1399.5	1144.9	825.3	478.5	221.6	34.4	4.2	4.2	5.7
37°	1649.5	1597.7	1453.9	1211.9	873.7	511.8	234.5	34.4	3.8	4.2	5.7
38°	1672.6	1629.4	1506.5	1260.7	920.6	537.9	244.7	33.7	3.4	3.8	5.3
39°	1682.4	1647.2	1538.7	1301.9	955.8	560.5	252.3	32.9	3.0	3.8	5.3
40°	1680.9	1650.2	1556.8	1330.3	984.2	576.1	256.4	31.8	2.6	3.4	5.3
41°	1672.2	1645.7	1566.3	1354.5	1001.2	586.6	257.6	30.6	2.3	3.4	4.9
42°	1662.4	1638.1	1569.3	1367.3	1012.2	590.1	254.6	29.1	2.3	3.0	4.9
43°	1652.1	1629.8	1569.3	1371.5	1014.8	587.8	249.6	26.5	1.9	3.0	4.9
44°	1643.8	1622.6	1564.4	1370.4	1009.1	579.1	240.6	23.5	1.5	3.0	4.9
45°	1634.0	1613.2	1558.0	1363.2	998.2	564.3	229.2	20.8	1.1	2.6	4.9
46°	1616.6	1600.3	1546.6	1348.4	980.8	543.9	214.8	18.9	0.8	2.6	4.5
47°	1582.9	1568.9	1524.7	1326.5	957.7	519.7	200.1	17.0	0.8	2.6	4.5
48°	1515.2	1514.8	1480.8	1285.6	921.0	489.4	184.6	15.1	0.8	2.6	4.5
49°	1449.8	1443.0	1400.6	1213.8	868.4	453.1	168.3	13.6	0.4	2.6	4.5
50°	1413.9	1399.1	1329.5	1129.0	801.1	402.8	150.9	11.3	0.4	2.3	4.5
51°	1376.4	1355.2	1273.1	1052.6	720.9	354.4	132.0	9.1	0.4	2.3	4.2
52°	1308.7	1288.7	1196.7	979.6	643.0	304.9	113.8	7.6	0.4	2.3	4.5
53°	1235.7	1207.0	1107.1	899.4	574.5	261.0	95.3	6.4	0.4	2.3	4.2
54°	1143.8	1130.9	1016.3	801.1	494.4	218.6	78.3	5.3	0.4	2.3	4.2
55°	1057.2	1038.3	919.1	700.5	421.7	179.3	65.4	4.2	0.4	2.3	4.2
56°	946.7	918.4	806.8	608.2	348.0	144.5	55.2	3.4	0.4	2.3	4.2
57°	815.1	784.8	696.7	505.7	273.1	110.1	46.1	2.6	0.4	2.3	4.2
58°	689.5	663.4	568.9	390.3	205.8	76.4	38.2	1.9	0.4	1.9	4.2
59°	595.7	567.0	473.2	300.3	143.0	56.4	28.7	1.5	0.4	2.3	4.2
60°	515.9	478.8	380.9	232.6	102.1	40.5	21.2	0.8	0.8	2.3	4.2
62.5°	297.3	262.5	181.9	94.6	42.0	20.8	10.2	0.4	0.8	2.3	4.2
65°	75.3	66.9	43.5	20.4	11.7	7.2	3.8	0.4	0.8	1.9	3.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	2.6	2.6	2.6	2.3	1.9	1.5	0.8	0.4	0.8	1.9	3.8
70°	1.1	1.1	1.1	0.8	0.8	0.4	0.4	0.4	0.8	1.9	3.4
72.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	1.1	1.9	3.0
75°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	1.1	1.9	3.0
77.5°	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.5	2.6
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.5	2.3
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.5	1.9
85°	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	1.1	1.5	1.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.1	1.5	1.1
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):

	135°	157.5°	180°
0°	19.3	19.3	19.3
2.5°	18.2	18.2	18.2
5°	17.0	17.0	16.6
7.5°	15.9	15.5	15.5
10°	14.4	14.4	14.4
12.5°	13.2	13.2	13.2
15°	12.1	12.5	12.5
17.5°	11.0	11.7	11.7
20°	10.2	11.0	11.3
22.5°	9.5	10.2	10.6
25°	9.1	9.8	10.2
27.5°	8.3	9.5	10.2
30°	7.9	9.1	9.8
31°	7.9	9.1	9.5
32°	7.6	9.1	9.5
33°	7.6	9.1	9.5
34°	7.6	8.7	9.5
35°	7.2	8.7	9.1
36°	7.2	8.7	9.1
37°	7.2	8.7	9.5
38°	7.2	8.7	9.1
39°	6.8	8.7	9.1
40°	6.8	8.7	9.1
41°	6.8	8.7	9.1
42°	6.8	8.7	9.1
43°	6.8	8.7	9.1
44°	6.8	8.3	9.1
45°	6.8	8.3	9.1
46°	6.8	8.7	9.1
47°	6.8	8.7	9.5
48°	6.8	8.3	9.1
49°	6.4	8.3	9.1
50°	6.4	8.3	9.1
51°	6.4	8.7	9.5
52°	6.4	8.7	9.5
53°	6.4	8.7	9.5
54°	6.4	8.7	9.1
55°	6.4	8.7	9.5
56°	6.4	8.7	9.1
57°	6.4	8.7	9.1
58°	6.4	8.3	9.1
59°	6.4	8.3	9.1
60°	6.4	8.3	9.1
62.5°	6.1	8.3	9.1
65°	6.1	7.9	8.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	5.7	7.9	8.3
70°	5.3	7.6	7.9
72.5°	4.9	7.2	7.6
75°	4.5	6.4	6.8
77.5°	3.8	5.7	6.4
80°	3.4	4.9	5.3
82.5°	2.6	4.2	4.5
85°	1.9	3.0	3.0
87.5°	0.8	1.5	1.5
90°	0.0	0.0	0.0

(END OF REPORT)