

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: P1345602

Luminaire Tested: P3A13R359835DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345602
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: P3A13R359835DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 3500K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

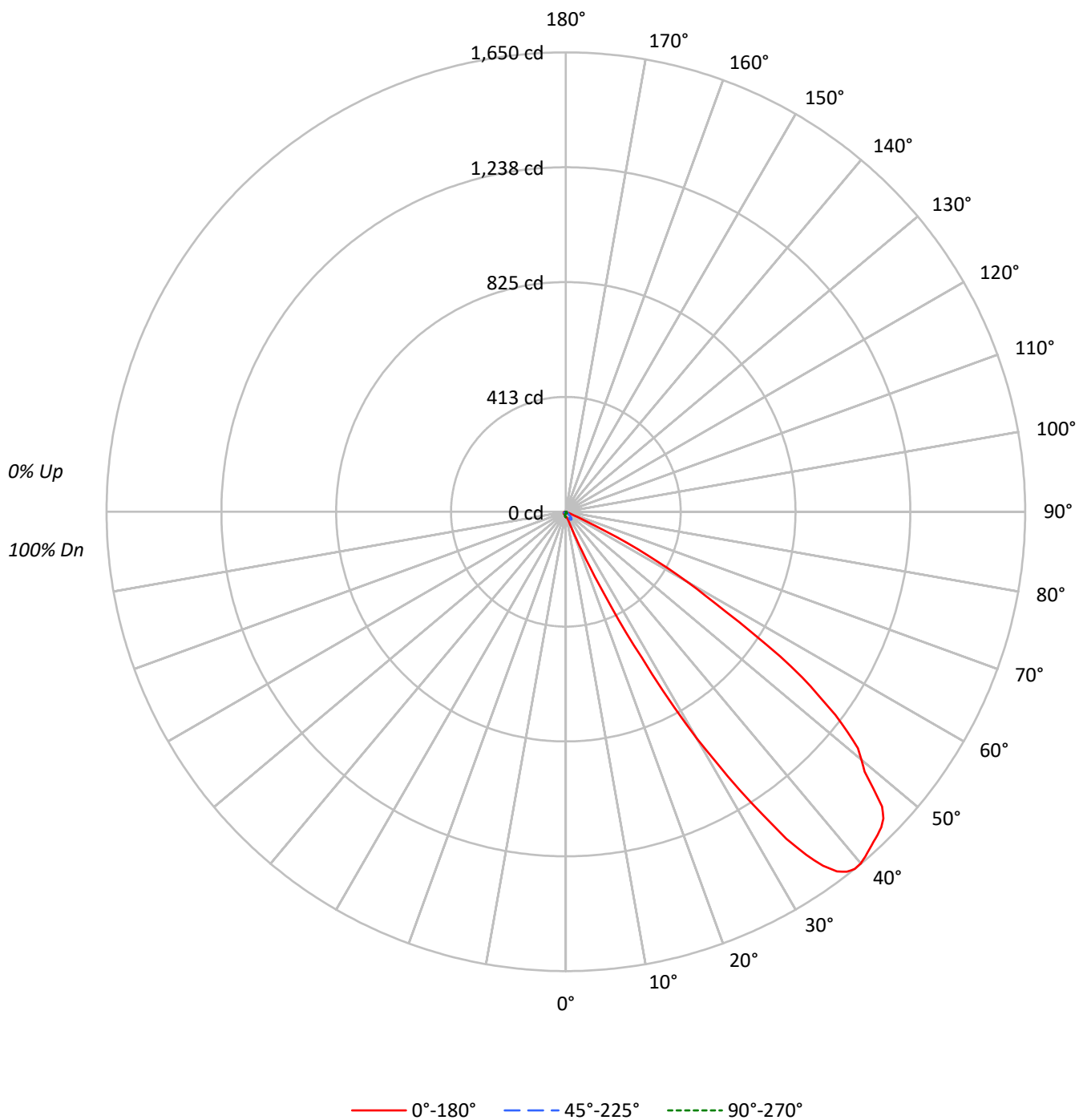
Lumens per Lamp: N/A
Luminaire Lumens: 411.0 lumens
Efficiency: N/A
Efficacy: 28.3 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.5
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	107	104	100	97	100	97	94	96	93	91	92	90	89
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	62	48	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	41	33	27	40	32	27	39	32	26	38	31	26
9	52	38	29	23	50	37	29	23	36	28	23	35	28	22	34	27	22
10	48	34	25	19	46	33	25	19	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4144	4144	4144	4144	4144
5°	4490	4402	4094	3676	3588
10°	4698	4297	3629	3140	3140
15°	6742	4222	2951	2701	2770
20°	16871	4504	2334	2334	2590
25°	78367	5734	1790	2153	2419
30°	238239	7799	1418	1975	2431
35°	402636	9048	1205	1874	2382
40°	471970	8931	945	1918	2548
45°	497044	6326	806	2078	2760
50°	473127	3787	751	2149	3036
55°	396449	1567	841	2409	3555
60°	221956	307	965	2763	3903
65°	38292	208	986	3061	4410
70°	705	256	1218	3334	5001
75°	593	339	1610	3813	5676
80°	505	505	1894	4167	6566
85°	0	1006	3774	4780	7548

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 500553 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.4
10°-20°	4.8	1.2
20°-30°	25.2	6.1
30°-40°	108.9	26.5
40°-50°	155.4	37.8
50°-60°	96.2	23.4
60°-70°	14.6	3.6
70°-80°	2.7	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°	31.8	7.7
0°-40°	140.7	34.2
0°-60°	392.2	95.4
0°-90°	411.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	411.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	19	19	19	19	19	
5°	20	20	19	17	16	2
15°	30	19	13	12	12	11
25°	324	24	7	9	10	194
35°	1504	34	4	7	9	903
45°	1603	20	3	7	9	1211
55°	1037	4	2	6	9	883
65°	74	0	2	6	8	151
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°	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
2.5°	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7	18.9	18.6
5°	20.4	20.4	20.0	20.0	20.0	20.0	20.0	20.0	19.3	18.6	17.4
7.5°	20.8	20.8	20.4	20.4	20.4	20.4	20.0	19.7	18.9	17.4	16.3
10°	21.1	21.1	21.1	21.1	20.8	20.4	20.0	19.3	18.2	16.3	15.2
12.5°	23.7	23.7	23.4	22.6	21.9	21.1	20.4	18.9	16.7	14.8	13.7
15°	29.7	29.3	28.6	27.5	26.0	24.1	22.6	18.6	15.2	13.0	12.2
17.5°	41.6	40.8	39.7	36.0	32.6	29.3	26.3	18.6	13.7	11.5	10.8
20°	72.3	72.7	64.9	56.0	48.6	40.4	33.0	19.3	12.2	10.0	9.6
22.5°	151.0	145.1	126.5	105.0	80.1	62.0	46.7	21.1	10.8	8.5	8.5
25°	323.9	301.3	256.4	193.7	136.5	96.8	67.9	23.7	9.6	7.4	7.8
27.5°	591.4	571.0	480.8	362.1	240.4	146.2	92.0	27.1	8.5	6.3	7.0
30°	940.9	884.5	766.9	593.6	401.8	223.7	123.5	30.8	7.0	5.6	6.7
31°	1050.0	1024.0	880.8	686.7	470.8	265.6	136.9	31.9	6.7	5.6	6.3
32°	1179.5	1133.5	1005.1	788.8	540.9	303.1	152.9	33.0	6.3	4.8	6.3
33°	1295.2	1250.7	1094.5	878.6	611.8	345.8	169.9	33.4	5.6	4.8	5.9
34°	1416.9	1356.1	1201.3	972.4	684.5	391.8	185.5	33.8	5.2	4.5	5.9
35°	1504.1	1443.3	1293.4	1046.6	747.2	432.6	203.3	33.8	4.8	4.5	5.6
36°	1571.6	1518.2	1372.8	1123.1	809.6	469.3	217.4	33.8	4.1	4.1	5.6
37°	1618.0	1567.2	1426.2	1188.7	857.0	502.0	230.0	33.8	3.7	4.1	5.6
38°	1640.6	1598.3	1477.8	1236.6	903.1	527.6	240.0	33.0	3.3	3.7	5.2
39°	1650.3	1615.8	1509.3	1277.0	937.6	549.8	247.5	32.3	3.0	3.7	5.2
40°	1648.8	1618.7	1527.1	1304.9	965.4	565.1	251.5	31.2	2.6	3.3	5.2
41°	1640.3	1614.3	1536.4	1328.6	982.1	575.4	252.7	30.1	2.2	3.3	4.8
42°	1630.6	1606.9	1539.3	1341.2	992.8	578.8	249.7	28.6	2.2	3.0	4.8
43°	1620.6	1598.7	1539.3	1345.3	995.4	576.6	244.9	26.0	1.9	3.0	4.8
44°	1612.4	1591.7	1534.5	1344.2	989.9	568.0	236.0	23.0	1.5	3.0	4.8
45°	1602.8	1582.4	1528.2	1337.1	979.1	553.6	224.8	20.4	1.1	2.6	4.8
46°	1585.7	1569.8	1517.1	1322.7	962.0	533.5	210.7	18.6	0.7	2.6	4.5
47°	1552.7	1539.0	1495.6	1301.2	939.4	509.8	196.3	16.7	0.7	2.6	4.5
48°	1486.3	1485.9	1452.5	1261.1	903.4	480.1	181.1	14.8	0.7	2.6	4.5
49°	1422.1	1415.4	1373.9	1190.6	851.9	444.5	165.1	13.4	0.4	2.6	4.5
50°	1386.9	1372.4	1304.1	1107.5	785.8	395.1	148.0	11.1	0.4	2.2	4.5
51°	1350.1	1329.3	1248.8	1032.5	707.2	347.6	129.5	8.9	0.4	2.2	4.1
52°	1283.7	1264.0	1173.9	960.9	630.7	299.0	111.7	7.4	0.4	2.2	4.5
53°	1212.1	1183.9	1086.0	882.3	563.6	256.0	93.5	6.3	0.4	2.2	4.1
54°	1122.0	1109.3	996.9	785.8	484.9	214.4	76.8	5.2	0.4	2.2	4.1
55°	1037.0	1018.4	901.6	687.1	413.7	175.9	64.2	4.1	0.4	2.2	4.1
56°	928.7	900.8	791.4	596.6	341.3	141.7	54.2	3.3	0.4	2.2	4.1
57°	799.5	769.9	683.4	496.0	267.9	108.0	45.3	2.6	0.4	2.2	4.1
58°	676.4	650.8	558.0	382.9	201.8	74.9	37.5	1.9	0.4	1.9	4.1
59°	584.3	556.2	464.1	294.6	140.2	55.3	28.2	1.5	0.4	2.2	4.1
60°	506.1	469.7	373.6	228.2	100.2	39.7	20.8	0.7	0.7	2.2	4.1
62.5°	291.6	257.5	178.5	92.8	41.2	20.4	10.0	0.4	0.7	2.2	4.1
65°	73.8	65.7	42.7	20.0	11.5	7.0	3.7	0.4	0.7	1.9	3.7



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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	2.2	1.9	1.5	0.7	0.4	0.7	1.9	3.7
70°	1.1	1.1	1.1	0.7	0.7	0.4	0.4	0.4	0.7	1.9	3.3
72.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	1.1	1.9	3.0
75°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	1.1	1.9	3.0
77.5°	0.7	0.7	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	2.2
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°	18.9	18.9	18.9
2.5°	17.8	17.8	17.8
5°	16.7	16.7	16.3
7.5°	15.6	15.2	15.2
10°	14.1	14.1	14.1
12.5°	13.0	13.0	13.0
15°	11.9	12.2	12.2
17.5°	10.8	11.5	11.5
20°	10.0	10.8	11.1
22.5°	9.3	10.0	10.4
25°	8.9	9.6	10.0
27.5°	8.2	9.3	10.0
30°	7.8	8.9	9.6
31°	7.8	8.9	9.3
32°	7.4	8.9	9.3
33°	7.4	8.9	9.3
34°	7.4	8.5	9.3
35°	7.0	8.5	8.9
36°	7.0	8.5	8.9
37°	7.0	8.5	9.3
38°	7.0	8.5	8.9
39°	6.7	8.5	8.9
40°	6.7	8.5	8.9
41°	6.7	8.5	8.9
42°	6.7	8.5	8.9
43°	6.7	8.5	8.9
44°	6.7	8.2	8.9
45°	6.7	8.2	8.9
46°	6.7	8.5	8.9
47°	6.7	8.5	9.3
48°	6.7	8.2	8.9
49°	6.3	8.2	8.9
50°	6.3	8.2	8.9
51°	6.3	8.5	9.3
52°	6.3	8.5	9.3
53°	6.3	8.5	9.3
54°	6.3	8.5	8.9
55°	6.3	8.5	9.3
56°	6.3	8.5	8.9
57°	6.3	8.5	8.9
58°	6.3	8.2	8.9
59°	6.3	8.2	8.9
60°	6.3	8.2	8.9
62.5°	5.9	8.2	8.9
65°	5.9	7.8	8.5



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CATALOG NUMBER: P3A13R359835DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	5.6	7.8	8.2
70°	5.2	7.4	7.8
72.5°	4.8	7.0	7.4
75°	4.5	6.3	6.7
77.5°	3.7	5.6	6.3
80°	3.3	4.8	5.2
82.5°	2.6	4.1	4.5
85°	1.9	3.0	3.0
87.5°	0.7	1.5	1.5
90°	0.0	0.0	0.0

(END OF REPORT)