

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: P1345090

Luminaire Tested: P3A13R309835DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345090
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R309835DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 3500K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

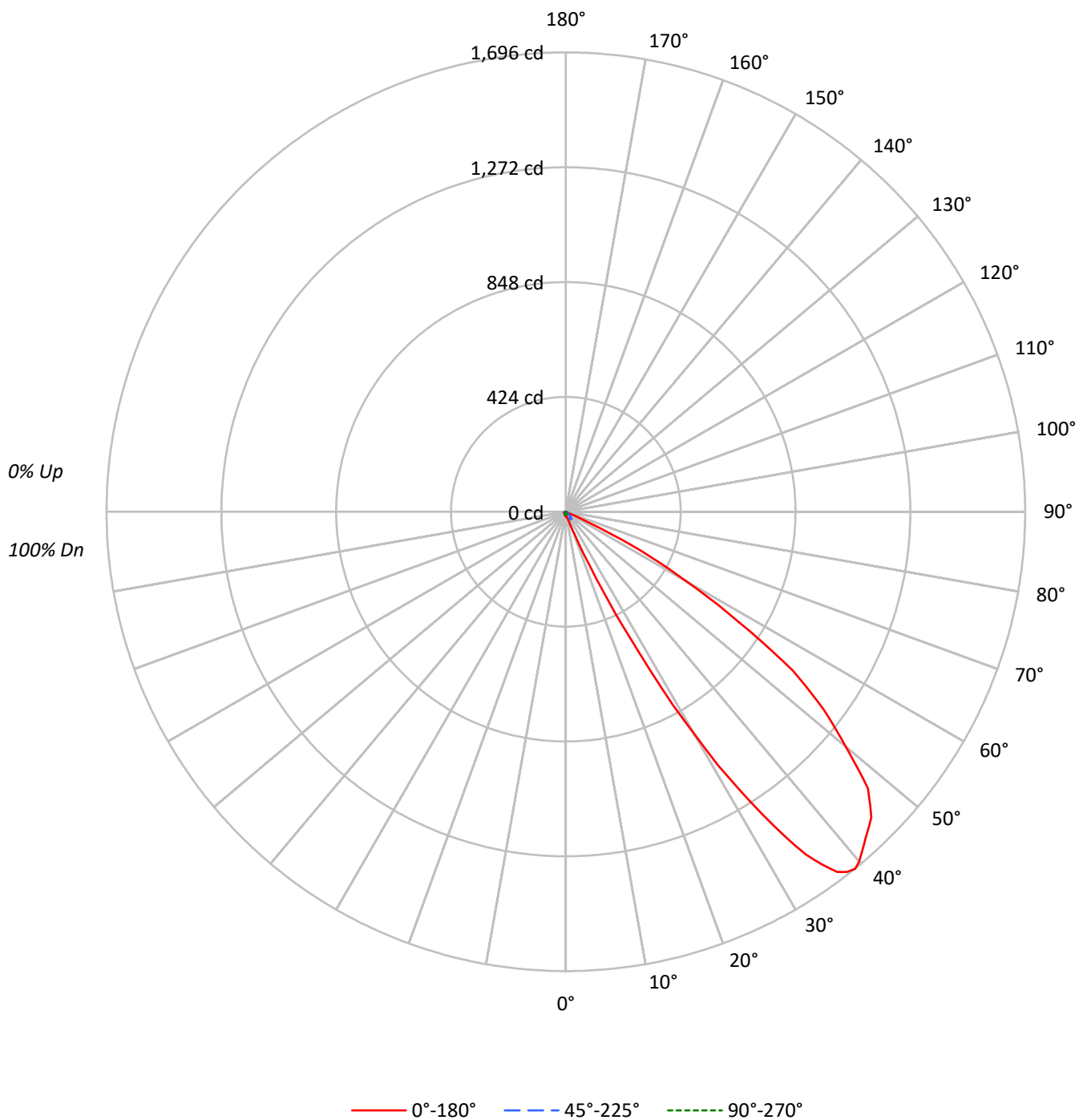
Lumens per Lamp: N/A
Luminaire Lumens: 441.0 lumens
Efficiency: N/A
Efficacy: 30.4 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	108	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	60	52	45	58	51	45	56	50	44	54	49	44
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37
7	62	48	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31
8	56	42	33	27	55	41	33	27	40	32	26	39	32	26	37	31	26
9	52	37	29	23	50	37	28	23	36	28	22	34	27	22	33	27	22
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3750	3750	3750	3750	3750
5°	4006	3918	3676	3346	3280
10°	4386	3897	3229	2895	2806
15°	6402	3882	2701	2452	2520
20°	16125	4247	2077	2077	2334
25°	74859	5299	1621	1887	2153
30°	238340	7343	1215	1798	2152
35°	413585	8941	990	1686	2195
40°	482332	8931	744	1689	2233
45°	494656	6326	806	1830	2419
50°	460028	3548	648	1910	2797
55°	390982	1835	726	2141	3135
60°	225815	482	833	2281	3421
65°	46075	0	986	2698	3840
70°	705	256	1218	3077	4552
75°	593	339	1271	3135	5338
80°	505	505	1894	3788	6061
85°	0	1006	3774	3774	7548

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 494656 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.5	0.4
10°-20°	4.4	1.0
20°-30°	25.4	5.8
30°-40°	118.8	26.9
40°-50°	168.0	38.1
50°-60°	103.3	23.4
60°-70°	15.7	3.6
70°-80°	2.5	0.6
80°-90°	1.2	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°	31.4	7.1
0°-40°	150.2	34.1
0°-60°	421.5	95.6
0°-90°	441.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	441.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	17	17	17	17	17	
5°	18	18	17	15	15	2
15°	28	17	12	11	11	10
25°	309	22	7	8	9	190
35°	1545	33	4	6	8	927
45°	1595	20	3	6	8	1209
55°	1023	5	2	6	8	870
65°	89	0	2	5	7	161
75°	1	0	2	4	6	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°	22.5°	45°	67.5°	90°	112.5°	135°
0°	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
2.5°	17.5	17.5	17.8	17.8	17.5	17.8	17.8	17.8	17.1	16.7	16.0
5°	18.2	18.2	18.2	18.6	18.2	18.2	17.8	17.5	16.7	15.6	15.2
7.5°	18.9	18.9	18.6	18.9	18.6	18.6	17.8	17.1	16.0	14.9	14.1
10°	19.7	19.7	19.3	19.3	18.9	18.9	17.5	16.3	14.5	13.4	13.0
12.5°	21.9	21.9	21.5	21.2	20.4	20.1	17.1	15.2	13.0	11.9	11.5
15°	28.2	27.9	27.1	26.0	24.1	23.8	17.1	14.1	11.9	10.8	10.8
17.5°	38.6	38.3	37.1	34.2	30.8	29.7	17.1	12.6	10.4	9.7	9.7
20°	69.1	66.1	60.6	53.1	45.3	41.2	18.2	11.1	8.9	8.5	8.9
21°	90.3	87.3	80.2	68.0	54.2	49.8	18.9	10.8	8.5	8.2	8.9
22°	123.0	119.6	105.1	88.4	68.7	60.9	19.3	10.0	7.8	7.8	8.5
23°	171.6	166.1	141.5	114.8	85.8	74.7	20.1	9.7	7.4	7.8	8.2
24°	224.7	219.9	192.1	151.9	109.6	93.6	20.8	9.3	7.1	7.1	7.8
25°	309.4	303.9	254.5	191.7	138.9	112.6	21.9	8.5	6.7	6.7	7.8
26°	419.0	393.4	327.6	247.0	171.3	141.2	23.0	8.2	6.3	6.7	7.4
27°	523.0	501.9	427.9	316.9	211.7	173.5	24.5	7.8	5.9	6.3	7.4
28°	659.7	630.0	536.8	400.8	266.7	209.9	26.0	7.4	5.6	6.3	7.1
29°	812.8	771.2	658.6	495.2	328.8	250.7	27.5	7.1	5.2	5.9	7.1
30°	941.3	902.3	789.8	607.0	400.1	304.6	29.0	6.7	4.8	5.9	7.1
31°	1092.2	1033.1	896.8	701.7	461.4	358.5	30.5	5.9	4.5	5.6	6.7
32°	1214.4	1173.1	1028.3	808.7	542.0	417.9	31.6	5.6	4.5	5.6	6.7
33°	1332.5	1277.1	1137.1	911.2	614.8	478.8	32.7	5.2	4.1	5.2	6.7
34°	1445.4	1394.5	1240.0	994.1	683.5	536.8	33.4	4.5	4.1	5.2	6.3
35°	1545.0	1485.9	1330.6	1075.1	754.1	589.5	33.4	4.1	3.7	4.8	6.3
36°	1609.6	1567.3	1409.4	1154.9	818.0	639.7	33.4	3.7	3.3	4.8	5.9
37°	1665.0	1615.6	1472.5	1216.2	865.2	679.8	33.4	3.3	3.3	4.8	5.9
38°	1687.6	1645.3	1516.0	1270.5	909.4	720.7	33.1	3.0	3.0	4.5	5.9
39°	1696.5	1658.7	1548.7	1309.5	942.1	748.2	32.3	2.6	3.0	4.5	5.9
40°	1685.0	1656.4	1565.4	1334.7	968.1	768.2	31.2	2.2	2.6	4.5	5.9
42.5°	1637.5	1618.5	1561.7	1360.0	990.4	783.1	27.1	1.5	2.6	4.1	5.9
45°	1595.1	1574.3	1524.2	1333.6	961.4	753.7	20.4	0.7	2.6	4.1	5.9
47.5°	1513.0	1500.0	1460.7	1266.4	897.9	687.6	14.5	0.4	2.2	3.7	5.6
50°	1348.5	1336.2	1284.2	1099.6	772.3	581.4	10.4	0.4	1.9	3.7	5.6
52.5°	1201.0	1188.0	1113.3	914.2	593.3	426.1	6.7	0.4	1.9	3.7	5.6
55°	1022.7	1000.0	902.0	693.9	420.5	285.7	4.8	0.4	1.9	3.3	5.6
57.5°	757.1	724.0	636.3	473.3	242.2	154.9	2.6	0.4	1.9	3.3	5.6
60°	514.9	495.2	398.2	249.6	103.3	65.4	1.1	0.4	1.9	3.3	5.2
62.5°	312.0	287.2	200.2	106.2	44.6	29.7	0.0	0.7	1.9	3.3	5.2
65°	88.8	78.8	52.4	24.1	12.6	9.7	0.0	0.7	1.9	3.3	5.2
67.5°	3.0	3.0	3.0	2.6	1.9	1.9	0.4	0.7	1.9	3.3	4.8
70°	1.1	1.1	1.1	0.7	0.7	0.4	0.4	0.7	1.9	3.0	4.8
72.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.7	1.5	2.6	4.5
75°	0.7	0.7	0.7	0.4	0.4	0.4	0.4	1.1	1.5	2.6	3.7
77.5°	0.7	0.7	0.7	0.4	0.4	0.4	0.4	1.1	1.5	2.2	3.7
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.5	2.2	3.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.4	0.4	0.4	0.0	0.0	0.0	0.4	1.1	1.5	1.5	2.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.1	1.5	1.1	1.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.1	1.1	1.1	0.7
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):

	157.5°	180°
0°	17.1	17.1
2.5°	16.0	16.0
5°	14.9	14.9
7.5°	13.7	13.7
10°	12.6	12.6
12.5°	11.9	11.9
15°	10.8	11.1
17.5°	10.0	10.4
20°	9.7	10.0
21°	9.7	10.0
22°	9.3	9.7
23°	9.3	9.7
24°	8.9	9.3
25°	8.5	8.9
26°	8.5	8.9
27°	8.5	8.9
28°	8.2	8.9
29°	8.2	8.5
30°	8.2	8.5
31°	7.8	8.5
32°	7.8	8.5
33°	7.8	8.2
34°	7.4	8.2
35°	7.4	8.2
36°	7.4	8.2
37°	7.4	7.8
38°	7.4	8.2
39°	7.4	7.8
40°	7.4	7.8
42.5°	7.4	7.8
45°	7.4	7.8
47.5°	7.4	8.2
50°	7.4	8.2
52.5°	7.4	8.2
55°	7.4	8.2
57.5°	7.4	7.8
60°	7.4	7.8
62.5°	7.1	7.8
65°	7.1	7.4
67.5°	7.1	7.4
70°	6.7	7.1
72.5°	6.3	6.7
75°	5.6	6.3
77.5°	5.2	5.6
80°	4.5	4.8

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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	3.7	3.7
85°	2.6	3.0
87.5°	1.5	1.5
90°	0.0	0.0

(END OF REPORT)