

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: P1335700

Luminaire Tested: P3A02R409040DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335700
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R409040DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 4000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

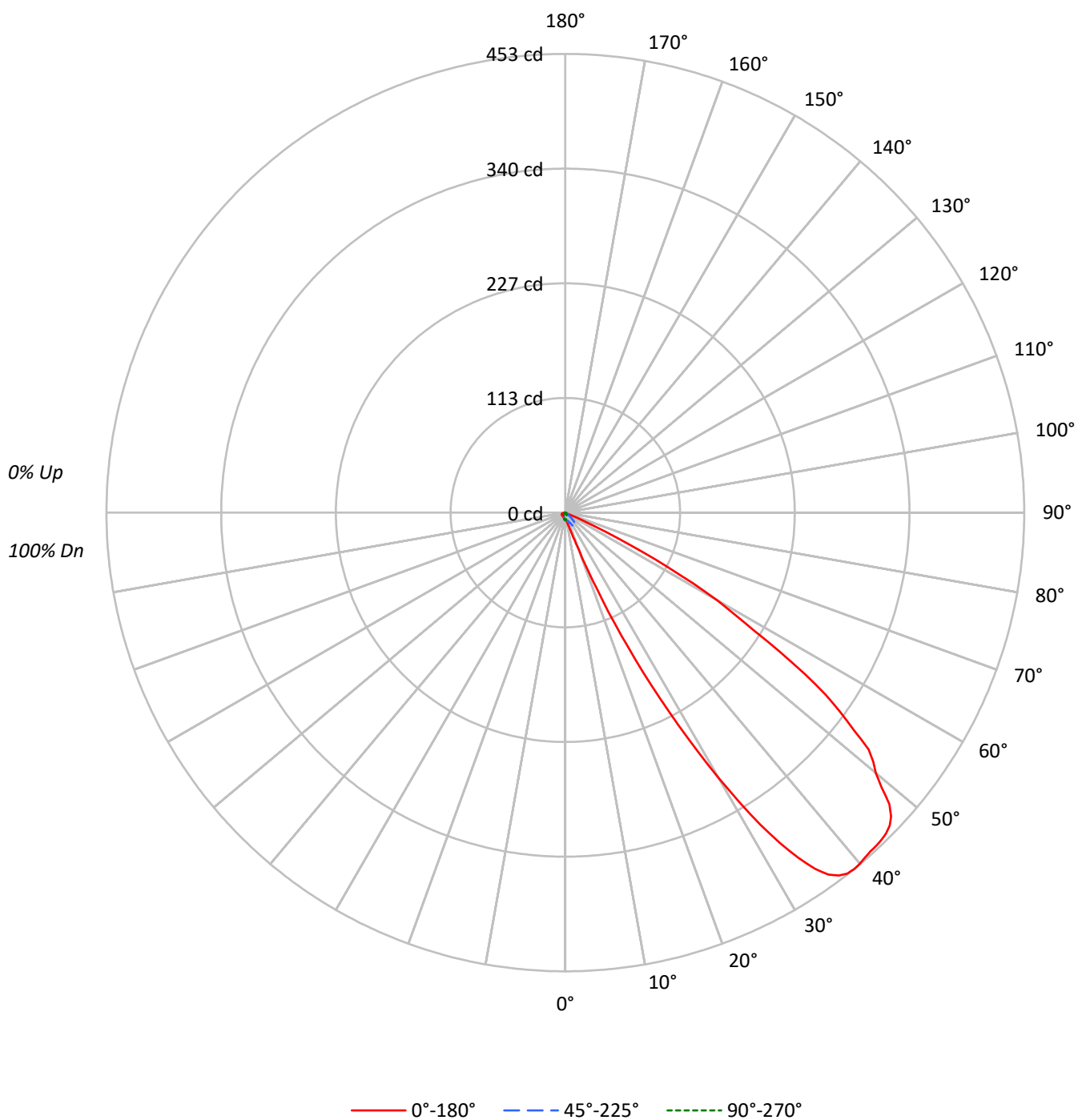
Lumens per Lamp: N/A
Luminaire Lumens: 140.0 lumens
Efficiency: N/A
Efficacy: 38.9 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.74 / 1.55
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
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
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	99	97	94	96	93	91	92	90	88
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62
4	82	70	62	55	80	69	61	54	67	59	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	38	50	43	37	48	42	37
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1579	1579	1579	1579	1579
5°	1761	1695	1563	1409	1387
10°	2115	1804	1425	1291	1269
15°	3473	1952	1226	1135	1158
20°	9171	2310	1027	1027	1120
25°	35397	2855	798	944	1089
30°	76366	3798	658	912	1063
35°	114947	4497	562	883	1098
40°	129500	4523	487	916	1174
45°	138867	3504	434	961	1271
50°	136490	2183	409	1023	1399
55°	120082	1070	382	1147	1567
60°	76003	219	439	1228	1754
65°	15566	52	467	1349	1920
70°	321	64	513	1475	2244
75°	339	254	508	1610	2542
80°	379	126	631	1768	2904
85°	252	252	1258	2013	3271

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 141375 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.7	0.5
10°-20°	2.2	1.6
20°-30°	10.9	7.8
30°-40°	35.4	25.3
40°-50°	48.8	34.8
50°-60°	34.0	24.3
60°-70°	6.4	4.6
70°-80°	1.2	0.8
80°-90°	0.5	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°	13.8	9.8
0°-40°	49.1	35.1
0°-60°	131.9	94.2
0°-90°	140.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	140.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	7	7	7	7	7	
5°	8	8	7	6	6	1
15°	15	9	5	5	5	6
25°	146	12	3	4	4	75
35°	429	17	2	3	4	259
45°	448	11	1	3	4	341
55°	314	3	1	3	4	268
65°	30	0	1	3	4	53
75°	0	0	1	2	3	0
85°	0	0	0	1	1	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
2.5°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.3	7.2
5°	8.0	8.0	8.0	8.0	7.8	7.8	7.8	7.7	7.7	7.5	7.1
7.5°	8.5	8.5	8.5	8.5	8.4	8.2	8.1	8.1	8.0	7.3	6.8
10°	9.5	9.5	9.4	9.3	9.1	8.9	8.7	8.5	8.1	7.2	6.4
12.5°	11.6	11.3	11.2	10.9	10.5	10.0	9.5	9.1	8.2	6.9	6.0
15°	15.3	15.0	14.5	13.8	13.0	12.0	11.1	10.2	8.6	6.6	5.4
17.5°	21.9	21.1	20.3	19.0	17.1	15.3	13.4	11.7	9.1	6.2	4.9
20°	39.3	38.8	34.2	30.6	24.8	20.7	16.8	14.0	9.9	5.8	4.4
22.5°	81.1	75.7	68.1	55.8	43.5	32.0	23.3	17.6	10.7	5.3	3.9
25°	146.3	137.8	121.5	97.7	72.1	51.0	33.7	23.0	11.8	4.8	3.3
27.5°	221.5	212.9	187.6	154.8	113.0	77.0	48.1	30.5	13.4	4.2	3.0
30°	301.6	294.3	262.2	216.8	159.3	107.9	64.4	38.1	15.0	3.7	2.6
31°	333.9	324.5	289.8	241.5	181.0	120.6	71.0	41.3	15.7	3.6	2.4
32°	363.6	352.9	316.9	265.1	198.6	134.4	78.2	44.1	16.2	3.3	2.3
33°	389.2	376.7	342.0	287.5	218.1	147.2	85.6	46.8	16.6	3.1	2.2
34°	410.9	400.1	362.8	310.0	235.3	159.6	93.0	49.5	16.8	3.0	2.1
35°	429.4	419.7	382.8	327.1	252.1	171.5	99.6	52.1	16.8	2.7	2.1
36°	441.9	433.4	400.0	344.6	266.3	181.7	105.3	54.4	16.8	2.4	1.9
37°	448.7	440.5	411.3	359.0	280.2	191.7	110.4	56.2	16.7	2.3	1.8
38°	452.2	445.0	419.7	370.7	289.8	198.9	114.9	57.6	16.6	2.1	1.8
39°	453.1	447.0	424.9	379.2	299.2	206.1	118.2	58.4	16.2	1.9	1.7
40°	452.4	447.2	427.8	386.7	306.4	211.8	120.5	58.6	15.8	1.7	1.7
41°	451.2	447.0	429.8	392.0	312.2	215.4	121.4	58.1	15.3	1.4	1.5
42°	450.0	445.5	430.7	395.6	316.2	217.2	121.2	57.1	14.5	1.3	1.5
43°	450.0	444.9	430.8	397.9	318.1	217.3	119.7	55.2	13.5	1.2	1.4
44°	449.2	444.5	431.5	399.5	318.6	216.1	117.3	53.1	12.3	1.0	1.4
45°	447.8	442.8	431.4	399.6	317.7	213.3	113.3	50.4	11.3	0.8	1.4
46°	445.1	440.6	430.2	398.7	315.0	209.2	108.5	47.7	10.2	0.6	1.3
47°	439.7	436.2	427.1	395.6	310.9	203.1	102.9	44.6	9.3	0.5	1.3
48°	430.5	428.0	421.8	388.8	303.0	195.7	96.8	41.3	8.4	0.5	1.3
49°	413.5	411.6	408.0	377.9	293.0	186.6	90.3	37.5	7.5	0.4	1.3
50°	400.1	398.1	390.7	359.5	278.6	175.0	83.1	33.8	6.4	0.3	1.2
51°	391.2	387.9	376.3	338.1	257.7	159.6	75.2	30.1	5.4	0.3	1.2
52°	380.1	375.0	360.6	319.0	238.5	144.1	66.7	26.4	4.8	0.3	1.2
53°	356.7	354.9	340.6	298.4	219.3	129.3	58.0	23.3	4.1	0.3	1.2
54°	336.2	333.5	314.1	269.9	198.5	112.9	49.0	20.6	3.5	0.3	1.2
55°	314.1	308.8	291.6	245.8	174.1	97.7	40.4	17.7	2.8	0.3	1.0
56°	286.2	281.6	263.1	220.1	151.6	82.3	33.8	14.5	2.2	0.3	1.0
57°	252.3	248.0	233.7	188.5	128.2	67.2	27.5	11.7	1.7	0.3	1.0
58°	219.5	214.7	198.4	158.1	103.5	53.4	23.0	9.5	1.3	0.3	1.0
59°	194.3	187.8	166.8	132.8	81.0	40.5	18.3	7.6	0.9	0.3	1.0
60°	173.3	168.0	146.2	110.6	63.5	29.8	13.5	5.8	0.5	0.3	1.0
62.5°	100.4	99.0	79.3	57.0	30.0	13.9	6.7	2.7	0.3	0.4	1.0
65°	30.0	26.1	20.3	12.1	7.7	4.6	2.4	0.9	0.1	0.4	0.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.3	0.1	0.4	0.9
70°	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.1	0.1	0.4	0.8
72.5°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.1	0.3	0.4	0.6
75°	0.4	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.4	0.6
77.5°	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.3	0.4	0.6
80°	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4	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):

	112.5°	135°	157.5°	180°
0°	7.2	7.2	7.2	7.2
2.5°	6.9	6.8	6.7	6.7
5°	6.7	6.4	6.4	6.3
7.5°	6.3	6.0	6.0	6.0
10°	5.9	5.8	5.8	5.7
12.5°	5.4	5.4	5.4	5.4
15°	5.0	5.0	5.1	5.1
17.5°	4.5	4.6	4.9	5.0
20°	4.1	4.4	4.6	4.8
22.5°	3.9	4.1	4.5	4.6
25°	3.5	3.9	4.4	4.5
27.5°	3.2	3.7	4.1	4.4
30°	3.0	3.6	4.0	4.2
31°	3.0	3.5	4.0	4.2
32°	2.8	3.3	4.0	4.1
33°	2.8	3.3	4.0	4.1
34°	2.7	3.3	3.9	4.1
35°	2.7	3.3	3.9	4.1
36°	2.6	3.2	3.9	4.1
37°	2.6	3.2	3.9	4.1
38°	2.4	3.2	3.9	4.1
39°	2.4	3.2	3.9	4.1
40°	2.4	3.2	3.9	4.1
41°	2.3	3.2	3.9	4.1
42°	2.3	3.2	3.9	4.1
43°	2.3	3.1	3.9	4.1
44°	2.3	3.1	3.9	4.1
45°	2.2	3.1	3.9	4.1
46°	2.2	3.1	3.9	4.1
47°	2.2	3.1	3.9	4.1
48°	2.2	3.1	3.9	4.1
49°	2.2	3.1	3.9	4.1
50°	2.1	3.0	3.9	4.1
51°	2.1	3.0	3.9	4.1
52°	2.1	3.0	3.9	4.1
53°	2.1	3.0	3.9	4.1
54°	1.9	3.0	3.9	4.1
55°	1.9	3.0	3.9	4.1
56°	1.9	3.0	3.9	4.0
57°	1.9	3.0	3.7	4.0
58°	1.9	2.8	3.7	4.0
59°	1.9	2.8	3.7	4.0
60°	1.9	2.8	3.7	4.0
62.5°	1.8	2.8	3.6	3.9
65°	1.7	2.6	3.6	3.7



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	1.7	2.4	3.3	3.6
70°	1.5	2.3	3.2	3.5
72.5°	1.3	2.2	3.0	3.2
75°	1.2	1.9	2.7	3.0
77.5°	1.0	1.7	2.4	2.6
80°	0.9	1.4	2.1	2.3
82.5°	0.6	1.0	1.7	1.8
85°	0.5	0.8	1.2	1.3
87.5°	0.4	0.4	0.6	0.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)