

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: P1334316

Luminaire Tested: P3A02R209027DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334316
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R209027DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

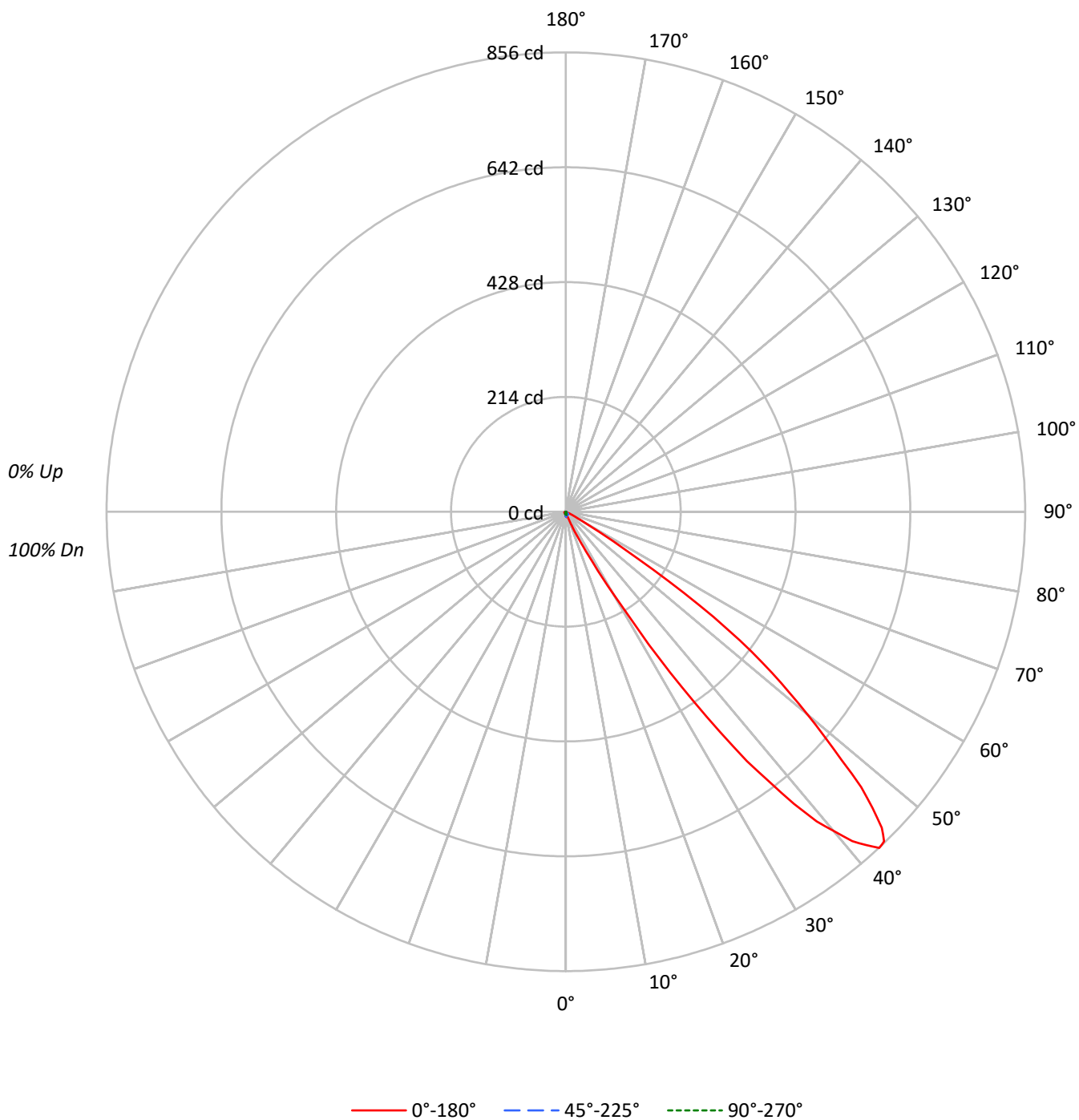
Lumens per Lamp: N/A
Luminaire Lumens: 119.0 lumens
Efficiency: N/A
Efficacy: 33.0 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	108	104	101	97	100	97	94	96	94	92	92	91	89
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27
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	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1820	1820	1820	1820	1820
5°	2113	1959	1695	1475	1431
10°	2093	1804	1336	1136	1113
15°	1839	1362	999	908	953
20°	2707	1143	723	793	863
25°	11686	1186	556	702	847
30°	44209	1443	481	684	810
35°	134007	1740	455	696	857
40°	222188	1718	372	744	916
45°	258259	1178	341	775	992
50°	200488	648	341	785	1160
55°	116029	421	344	879	1223
60°	19604	88	307	921	1360
65°	1505	0	363	1038	1557
70°	192	0	449	1154	1795
75°	169	85	508	1356	2118
80°	126	126	758	1389	2399
85°	252	252	1006	1510	2516

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 258259 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.7	0.6
10°-20°	1.5	1.3
20°-30°	4.7	4.0
30°-40°	30.3	25.5
40°-50°	55.5	46.7
50°-60°	22.8	19.2
60°-70°	1.9	1.6
70°-80°	1.0	0.8
80°-90°	0.4	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°	6.9	5.8
0°-40°	37.3	31.3
0°-60°	115.7	97.2
0°-90°	119.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	119.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8	8	8	8	8	
5°	10	9	8	7	6	1
15°	8	6	4	4	4	3
25°	48	5	2	3	4	32
35°	501	6	2	3	3	317
45°	833	4	1	2	3	598
55°	304	1	1	2	3	265
65°	3	0	1	2	3	9
75°	0	0	1	2	2	0
85°	0	0	0	1	1	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°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
2.5°	9.1	9.1	9.1	8.9	8.9	9.1	8.9	8.9	8.9	8.9	8.8
5°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.5	9.5	9.4	8.9
7.5°	9.8	9.8	9.8	9.8	9.7	9.7	9.7	9.7	9.6	9.5	8.7
10°	9.4	9.4	9.4	9.3	9.3	9.3	9.2	9.2	9.1	8.9	8.1
12.5°	8.5	8.5	8.5	8.5	8.4	8.4	8.3	8.3	8.2	8.1	7.0
15°	8.1	8.1	8.1	7.9	7.9	7.8	7.7	7.6	7.5	7.3	6.0
17.5°	8.7	8.7	8.6	8.6	8.4	8.2	8.1	7.7	7.5	7.2	5.4
20°	11.6	11.7	11.3	11.0	10.7	10.1	9.7	9.2	8.7	8.2	4.9
22.5°	23.5	23.0	22.3	21.0	19.6	18.3	16.1	14.3	13.1	11.4	4.8
25°	48.3	47.9	45.7	44.0	39.5	36.0	31.2	27.3	23.3	19.3	4.9
27.5°	91.8	88.8	88.2	80.1	73.8	64.9	55.6	47.8	40.6	32.7	5.3
30°	174.6	171.1	158.9	146.6	129.7	110.6	92.4	75.4	61.2	48.3	5.7
31°	221.5	224.9	210.6	185.9	160.9	136.4	111.5	89.9	71.6	55.6	5.9
32°	291.2	276.6	261.5	236.1	199.8	168.5	137.2	106.1	82.0	63.4	6.2
33°	357.1	348.5	325.4	293.8	250.3	206.3	165.7	125.3	94.7	72.9	6.3
34°	427.3	417.8	399.1	353.7	306.0	248.4	194.3	147.3	109.9	82.2	6.4
35°	500.6	496.5	460.5	421.2	362.4	293.0	228.6	171.4	124.8	90.7	6.5
36°	574.3	561.3	533.1	475.6	414.3	334.3	264.6	193.9	139.9	100.8	6.5
37°	629.7	626.8	589.5	533.4	461.4	378.3	295.7	218.9	155.1	109.4	6.5
38°	690.9	679.4	641.5	584.4	505.7	418.7	328.2	240.6	169.5	117.2	6.4
39°	742.5	725.3	687.1	630.7	544.4	449.3	354.1	261.6	182.3	123.7	6.3
40°	776.2	764.4	724.4	661.0	579.5	478.3	380.2	278.9	191.8	128.6	6.0
41°	813.5	793.8	754.3	690.6	605.0	503.8	396.7	290.3	199.2	131.9	5.8
42°	835.7	819.6	772.8	710.4	623.2	518.3	410.1	299.0	203.6	133.5	5.4
43°	856.5	834.6	789.0	721.9	635.3	528.6	416.2	303.1	204.7	133.5	4.8
44°	853.7	832.9	785.6	723.4	638.0	531.6	418.8	303.2	203.1	131.9	4.2
45°	832.8	812.1	769.5	709.8	628.4	525.7	413.7	298.7	198.7	128.9	3.8
46°	794.5	773.9	741.2	687.0	610.5	512.3	401.7	289.0	191.5	124.2	3.4
47°	752.7	732.7	699.3	650.2	580.0	488.4	384.4	275.3	181.3	117.4	3.0
48°	692.2	679.7	646.2	604.2	537.6	450.9	353.9	253.1	167.6	108.6	2.6
49°	638.8	625.6	596.2	551.1	482.3	407.3	317.6	226.0	149.9	98.7	2.2
50°	587.7	576.2	549.0	498.1	432.5	354.6	268.5	191.9	127.5	86.6	1.9
51°	537.7	529.1	501.3	454.6	387.9	314.1	232.6	159.8	105.3	71.8	1.8
52°	487.5	486.5	456.4	409.1	344.7	273.8	197.7	134.9	89.4	60.3	1.7
53°	433.5	427.0	400.7	358.2	296.4	231.7	167.6	113.7	76.9	51.3	1.5
54°	372.0	364.7	336.5	298.1	242.1	189.8	135.1	91.9	64.1	43.4	1.3
55°	303.5	291.1	270.6	231.3	189.1	144.8	104.3	72.8	51.2	36.1	1.1
56°	230.3	217.8	206.3	177.4	138.8	108.0	77.7	55.8	40.0	28.5	1.0
57°	160.1	159.5	140.6	118.3	92.8	73.6	53.2	39.4	28.3	22.1	0.8
58°	103.9	100.4	88.3	75.5	60.7	46.0	34.2	26.7	19.2	15.1	0.7
59°	72.8	65.9	59.4	50.3	38.2	29.0	22.0	17.1	13.3	10.5	0.4
60°	44.7	43.3	38.9	30.6	24.8	20.5	16.4	12.6	9.7	7.5	0.2
62.5°	12.7	13.0	11.7	10.4	8.9	7.7	6.9	5.9	4.9	3.9	0.0
65°	2.9	2.8	3.0	2.8	2.6	2.6	2.2	2.0	1.8	1.7	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°	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.4	0.0
70°	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.0
72.5°	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
75°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
77.5°	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85°	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	8.3	8.3	8.3	8.3	8.3	8.3
2.5°	8.6	8.2	7.8	7.5	7.4	7.4
5°	8.4	7.7	7.0	6.7	6.5	6.5
7.5°	7.7	6.9	6.3	5.9	5.8	5.8
10°	6.9	6.0	5.4	5.1	5.1	5.0
12.5°	6.0	5.1	4.7	4.6	4.6	4.6
15°	5.0	4.4	4.0	4.0	4.1	4.2
17.5°	4.2	3.6	3.5	3.7	3.9	3.9
20°	3.6	3.1	3.1	3.4	3.6	3.7
22.5°	3.0	2.7	2.8	3.1	3.5	3.6
25°	2.7	2.3	2.6	2.9	3.2	3.5
27.5°	2.2	2.1	2.3	2.8	3.2	3.4
30°	1.9	1.9	2.2	2.7	3.1	3.2
31°	1.8	1.8	2.2	2.7	3.1	3.2
32°	1.7	1.8	2.1	2.7	3.1	3.2
33°	1.6	1.7	2.1	2.6	3.1	3.2
34°	1.5	1.7	2.1	2.6	3.1	3.2
35°	1.3	1.7	2.1	2.6	3.1	3.2
36°	1.2	1.6	2.0	2.6	3.1	3.2
37°	1.1	1.6	2.0	2.6	3.1	3.2
38°	1.0	1.5	2.0	2.6	3.1	3.2
39°	1.0	1.5	1.9	2.6	3.0	3.2
40°	0.9	1.3	1.9	2.6	3.0	3.2
41°	0.8	1.3	1.9	2.5	3.0	3.2
42°	0.7	1.2	1.8	2.5	3.0	3.2
43°	0.6	1.2	1.8	2.5	3.0	3.2
44°	0.6	1.1	1.8	2.5	3.0	3.2
45°	0.4	1.1	1.8	2.5	3.0	3.2
46°	0.3	1.1	1.8	2.5	3.0	3.2
47°	0.3	1.0	1.7	2.5	3.0	3.2
48°	0.2	1.0	1.7	2.5	3.0	3.2
49°	0.2	1.0	1.7	2.5	3.0	3.4
50°	0.2	1.0	1.7	2.3	3.0	3.4
51°	0.1	1.0	1.7	2.3	3.0	3.4
52°	0.1	1.0	1.6	2.3	3.1	3.4
53°	0.1	0.9	1.6	2.3	3.1	3.4
54°	0.1	0.9	1.6	2.3	3.1	3.2
55°	0.1	0.9	1.6	2.3	3.0	3.2
56°	0.1	0.8	1.6	2.3	3.0	3.2
57°	0.1	0.8	1.5	2.2	3.0	3.1
58°	0.1	0.8	1.5	2.2	3.0	3.1
59°	0.1	0.8	1.5	2.2	2.9	3.1
60°	0.2	0.7	1.3	2.1	2.9	3.1
62.5°	0.2	0.7	1.3	2.1	2.8	3.0
65°	0.2	0.7	1.2	2.0	2.8	3.0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.2	0.6	1.1	1.9	2.7	2.9
70°	0.2	0.7	1.1	1.8	2.6	2.8
72.5°	0.3	0.6	1.0	1.7	2.5	2.7
75°	0.3	0.6	1.0	1.6	2.3	2.5
77.5°	0.4	0.6	0.9	1.3	2.1	2.2
80°	0.4	0.6	0.8	1.1	1.8	1.9
82.5°	0.4	0.6	0.6	0.9	1.3	1.5
85°	0.3	0.4	0.4	0.6	0.9	1.0
87.5°	0.3	0.4	0.3	0.2	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)