

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: P1342584

Luminaire Tested: P3A09R409840DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1342584
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: P3A09R409840DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 4000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

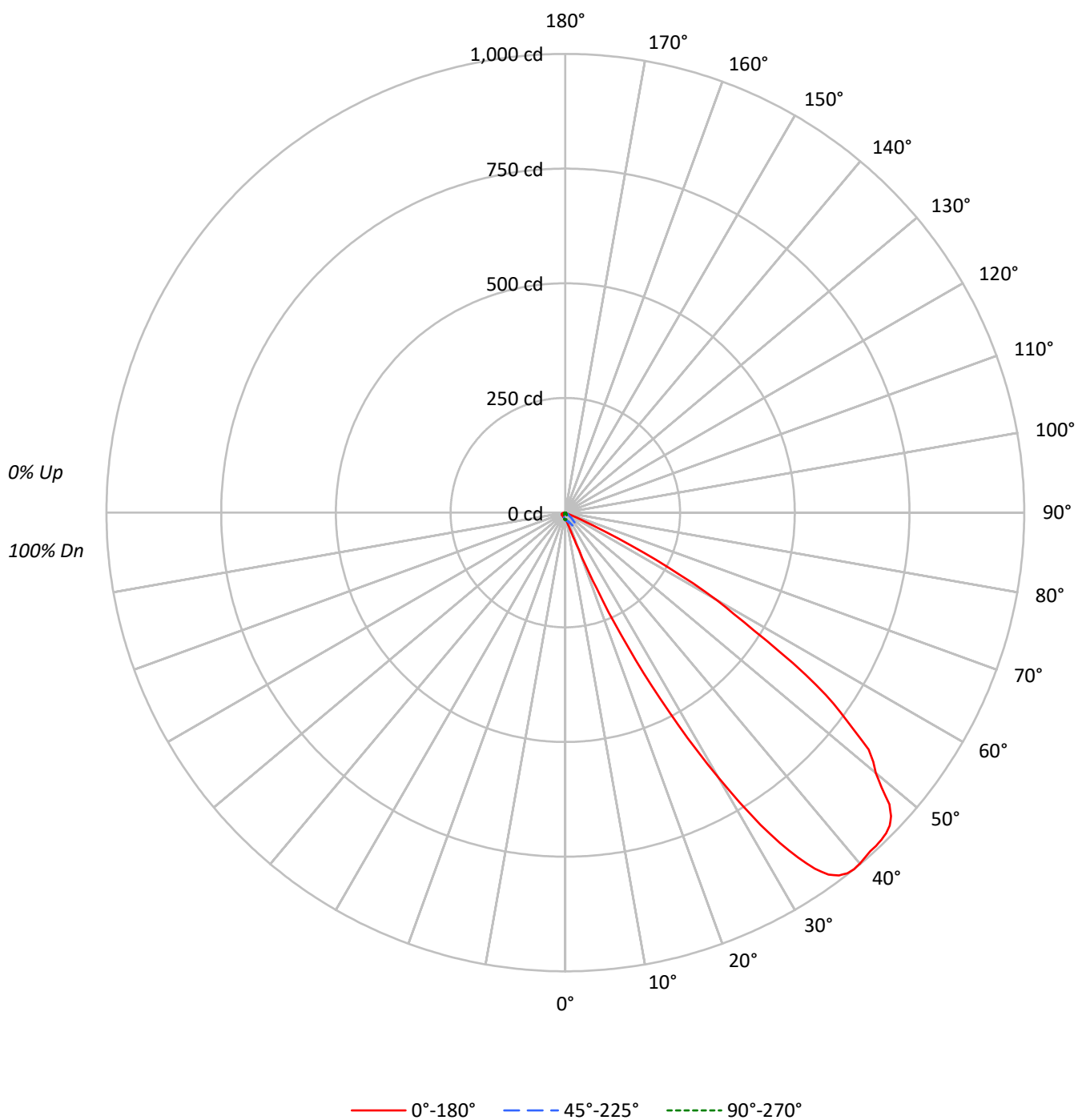
Lumens per Lamp: N/A
Luminaire Lumens: 309.0 lumens
Efficiency: N/A
Efficacy: 28.1 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	107	104	100	97	99	97	94		96	93	91		92
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34
10	48	34	25	20	47	33	25	20	32	25	20		31	24	20		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3487	3487	3487	3487	3487
5°	3874	3742	3434	3126	3060
10°	4676	3986	3162	2850	2783
15°	7673	4313	2701	2520	2588
20°	20255	5110	2240	2240	2450
25°	78125	6315	1790	2057	2395
30°	168558	8406	1443	2000	2380
35°	253719	9958	1205	1981	2436
40°	285850	9990	1059	2032	2605
45°	306512	7753	961	2109	2822
50°	301261	4844	887	2217	3104
55°	265051	2370	879	2485	3479
60°	167750	482	1009	2719	3859
65°	34297	156	1038	2958	4255
70°	705	192	1090	3270	4937
75°	763	508	1186	3643	5507
80°	758	379	1389	3915	6440
85°	755	755	2768	4277	7045

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 312042 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.5	0.5
10°-20°	4.9	1.6
20°-30°	24.0	7.8
30°-40°	78.1	25.3
40°-50°	107.6	34.8
50°-60°	75.0	24.3
60°-70°	14.2	4.6
70°-80°	2.6	0.8
80°-90°	1.2	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°	30.4	9.8
0°-40°	108.4	35.1
0°-60°	291.0	94.2
0°-90°	309.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	309.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	16	16	16	16	16	
5°	18	17	16	14	14	2
15°	34	19	12	11	11	12
25°	323	26	7	8	10	166
35°	948	37	4	7	9	573
45°	988	25	3	7	9	752
55°	693	6	2	6	9	593
65°	66	0	2	6	8	117
75°	1	1	1	4	6	1
85°	0	0	1	2	3	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°	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
2.5°	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.2	15.9
5°	17.6	17.6	17.6	17.6	17.3	17.3	17.3	17.0	17.0	16.5	15.6
7.5°	18.7	18.7	18.7	18.7	18.4	18.2	17.9	17.9	17.6	16.2	15.0
10°	21.0	21.0	20.7	20.4	20.1	19.6	19.3	18.7	17.9	15.9	14.2
12.5°	25.5	25.0	24.7	24.1	23.3	22.1	21.0	20.1	18.2	15.3	13.3
15°	33.8	33.2	32.1	30.4	28.7	26.4	24.4	22.4	19.0	14.5	11.9
17.5°	48.2	46.5	44.8	42.0	37.7	33.8	29.5	25.8	20.1	13.6	10.8
20°	86.8	85.7	75.5	67.5	54.8	45.7	37.2	30.9	21.9	12.8	9.6
22.5°	179.1	167.1	150.4	123.2	95.9	70.7	51.4	38.9	23.6	11.6	8.5
25°	322.9	304.2	268.2	215.7	159.2	112.7	74.3	50.8	26.1	10.5	7.4
27.5°	488.9	469.9	414.0	341.7	249.4	170.0	106.1	67.3	29.5	9.4	6.5
30°	665.7	649.6	578.6	478.4	351.6	238.1	142.2	84.0	33.2	8.2	5.7
31°	737.0	716.2	639.6	532.9	399.6	266.2	156.6	91.1	34.6	7.9	5.4
32°	802.5	779.0	699.5	585.1	438.4	296.5	172.5	97.3	35.8	7.4	5.1
33°	859.0	831.5	754.8	634.5	481.3	324.9	189.0	103.3	36.6	6.8	4.8
34°	906.9	883.1	800.8	684.2	519.3	352.2	205.2	109.3	37.2	6.5	4.5
35°	947.8	926.2	844.8	721.9	556.5	378.6	219.9	114.9	37.2	6.0	4.5
36°	975.3	956.6	882.8	760.5	587.7	401.0	232.4	120.0	37.2	5.4	4.3
37°	990.4	972.2	907.8	792.3	618.3	423.1	243.8	124.0	36.9	5.1	4.0
38°	998.0	982.1	926.2	818.1	639.6	439.0	253.7	127.1	36.6	4.5	4.0
39°	1000.0	986.7	937.9	836.8	660.3	454.9	260.8	128.8	35.8	4.3	3.7
40°	998.6	987.0	944.1	853.6	676.2	467.4	265.9	129.4	34.9	3.7	3.7
41°	995.8	986.7	948.7	865.2	689.0	475.3	267.9	128.3	33.8	3.1	3.4
42°	993.2	983.3	950.6	873.2	697.8	479.3	267.6	126.0	32.1	2.8	3.4
43°	993.2	981.9	950.9	878.3	702.1	479.6	264.2	121.7	29.8	2.6	3.1
44°	991.5	981.0	952.3	881.7	703.2	477.0	258.8	117.2	27.2	2.3	3.1
45°	988.4	977.3	952.1	882.0	701.2	470.8	250.0	111.2	25.0	1.7	3.1
46°	982.4	972.5	949.5	880.0	695.2	461.7	239.5	105.3	22.4	1.4	2.8
47°	970.5	962.8	942.7	873.2	686.2	448.4	227.0	98.5	20.4	1.1	2.8
48°	950.1	944.7	931.1	858.1	668.9	431.9	213.7	91.1	18.4	1.1	2.8
49°	912.6	908.4	900.4	834.0	646.7	411.8	199.2	82.9	16.5	0.9	2.8
50°	883.1	878.6	862.4	793.4	614.9	386.2	183.3	74.6	14.2	0.6	2.6
51°	863.5	856.1	830.6	746.3	568.7	352.2	166.0	66.4	11.9	0.6	2.6
52°	838.8	827.8	796.0	704.0	526.4	318.1	147.3	58.2	10.5	0.6	2.6
53°	787.2	783.2	751.7	658.6	484.1	285.5	128.0	51.4	9.1	0.6	2.6
54°	742.1	736.1	693.3	595.6	438.1	249.2	108.1	45.4	7.7	0.6	2.6
55°	693.3	681.6	643.6	542.6	384.2	215.7	89.1	39.2	6.2	0.6	2.3
56°	631.7	621.5	580.6	485.8	334.6	181.6	74.6	32.1	4.8	0.6	2.3
57°	556.8	547.4	515.9	416.0	282.9	148.4	60.7	25.8	3.7	0.6	2.3
58°	484.4	473.9	437.9	349.0	228.4	117.8	50.8	21.0	2.8	0.6	2.3
59°	428.8	414.6	368.1	293.1	178.8	89.4	40.3	16.7	2.0	0.6	2.3
60°	382.5	370.9	322.7	244.0	140.2	65.8	29.8	12.8	1.1	0.6	2.3
62.5°	221.6	218.5	175.1	125.7	66.1	30.6	14.8	6.0	0.6	0.9	2.3
65°	66.1	57.6	44.8	26.7	17.0	10.2	5.4	2.0	0.3	0.9	2.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	2.0	2.0	2.0	2.0	2.0	2.0	1.1	0.6	0.3	0.9	2.0
70°	1.1	0.9	0.9	0.9	0.9	0.6	0.6	0.3	0.3	0.9	1.7
72.5°	0.9	0.9	0.9	0.9	0.6	0.6	0.6	0.3	0.6	0.9	1.4
75°	0.9	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.6	0.9	1.4
77.5°	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3	0.6	0.9	1.4
80°	0.6	0.6	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.9	1.1
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.9	1.1
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.9	1.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.9	0.9
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°	15.9	15.9	15.9	15.9
2.5°	15.3	15.0	14.8	14.8
5°	14.8	14.2	14.2	13.9
7.5°	13.9	13.3	13.3	13.3
10°	13.1	12.8	12.8	12.5
12.5°	11.9	11.9	11.9	11.9
15°	11.1	11.1	11.4	11.4
17.5°	9.9	10.2	10.8	11.1
20°	9.1	9.6	10.2	10.5
22.5°	8.5	9.1	9.9	10.2
25°	7.7	8.5	9.6	9.9
27.5°	7.1	8.2	9.1	9.6
30°	6.5	7.9	8.8	9.4
31°	6.5	7.7	8.8	9.4
32°	6.2	7.4	8.8	9.1
33°	6.2	7.4	8.8	9.1
34°	6.0	7.4	8.5	9.1
35°	6.0	7.4	8.5	9.1
36°	5.7	7.1	8.5	9.1
37°	5.7	7.1	8.5	9.1
38°	5.4	7.1	8.5	9.1
39°	5.4	7.1	8.5	9.1
40°	5.4	7.1	8.5	9.1
41°	5.1	7.1	8.5	9.1
42°	5.1	7.1	8.5	9.1
43°	5.1	6.8	8.5	9.1
44°	5.1	6.8	8.5	9.1
45°	4.8	6.8	8.5	9.1
46°	4.8	6.8	8.5	9.1
47°	4.8	6.8	8.5	9.1
48°	4.8	6.8	8.5	9.1
49°	4.8	6.8	8.5	9.1
50°	4.5	6.5	8.5	9.1
51°	4.5	6.5	8.5	9.1
52°	4.5	6.5	8.5	9.1
53°	4.5	6.5	8.5	9.1
54°	4.3	6.5	8.5	9.1
55°	4.3	6.5	8.5	9.1
56°	4.3	6.5	8.5	8.8
57°	4.3	6.5	8.2	8.8
58°	4.3	6.2	8.2	8.8
59°	4.3	6.2	8.2	8.8
60°	4.3	6.2	8.2	8.8
62.5°	4.0	6.2	7.9	8.5
65°	3.7	5.7	7.9	8.2



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	3.7	5.4	7.4	7.9
70°	3.4	5.1	7.1	7.7
72.5°	2.8	4.8	6.5	7.1
75°	2.6	4.3	6.0	6.5
77.5°	2.3	3.7	5.4	5.7
80°	2.0	3.1	4.5	5.1
82.5°	1.4	2.3	3.7	4.0
85°	1.1	1.7	2.6	2.8
87.5°	0.9	0.9	1.4	1.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)