

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: P1342536

Luminaire Tested: P3A09R409827DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1342536
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: P3A09R409827DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 2700K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

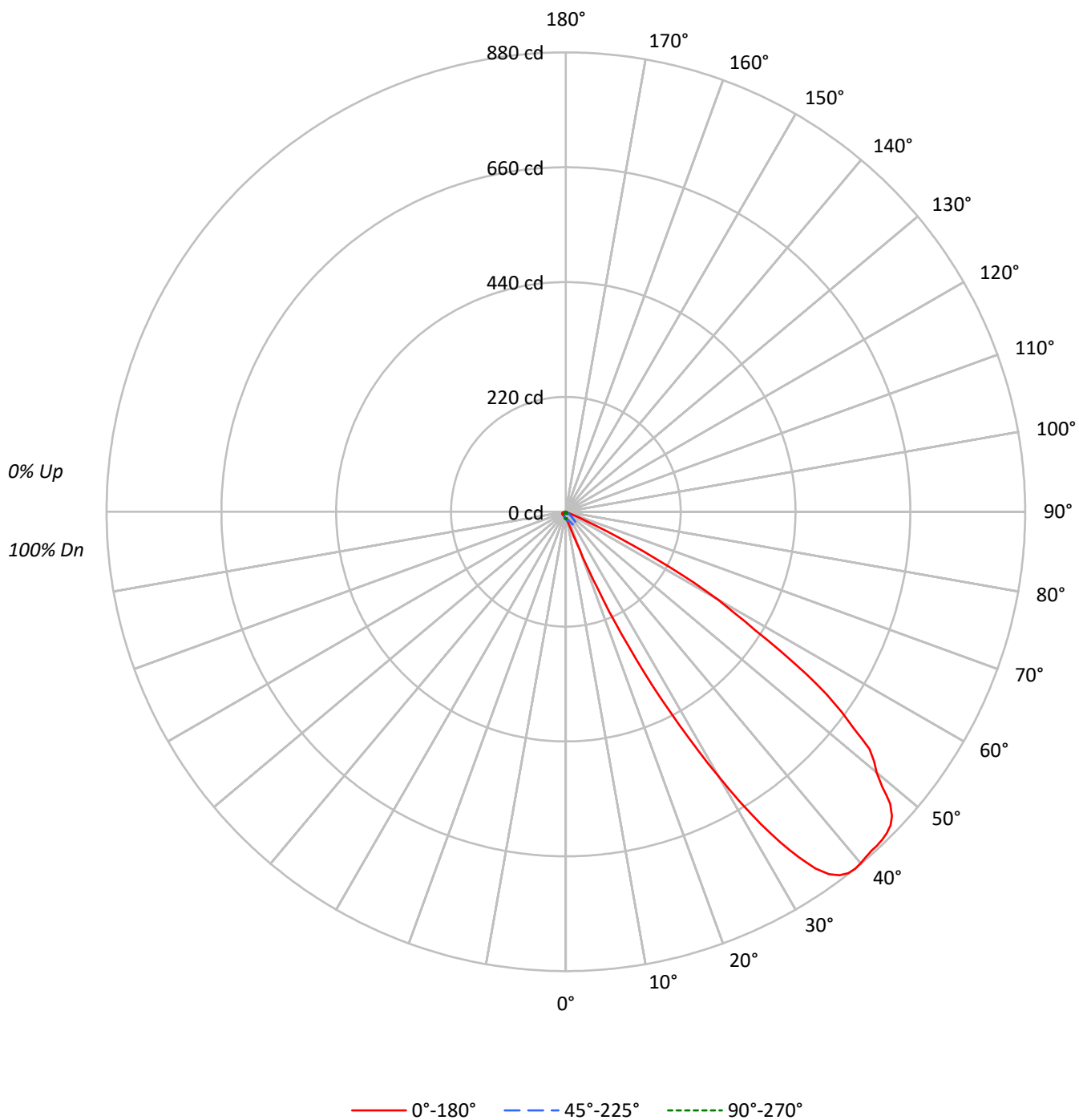
Lumens per Lamp: N/A
Luminaire Lumens: 271.9 lumens
Efficiency: N/A
Efficacy: 24.7 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1342536

CATALOG NUMBER: P3A09R409827DE010 E3A451WMH

Luminous Intensity Polar Plot



TEST NUMBER: P1342536

CATALOG NUMBER: P3A09R409827DE010 E3A451WMH

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°	3070	3070	3070	3070	3070
5°	3412	3302	3016	2751	2685
10°	4119	3496	2783	2494	2449
15°	6742	3791	2384	2202	2270
20°	17828	4480	1984	1984	2147
25°	68786	5565	1573	1815	2105
30°	148377	7394	1266	1772	2076
35°	223336	8754	1071	1740	2142
40°	251614	8788	916	1775	2290
45°	269795	6822	837	1861	2481
50°	265202	4264	751	1944	2729
55°	233282	2103	765	2179	3058
60°	147664	439	877	2412	3377
65°	30198	104	882	2594	3736
70°	641	128	962	2885	4296
75°	593	424	1017	3135	4829
80°	631	253	1263	3410	5683
85°	503	503	2516	3774	6290

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 274680 cd/sqm

TEST NUMBER: P1342536

CATALOG NUMBER: P3A09R409827DE010 E3A451WMH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.3	0.5
10°-20°	4.3	1.6
20°-30°	21.1	7.8
30°-40°	68.7	25.3
40°-50°	94.7	34.8
50°-60°	66.0	24.3
60°-70°	12.5	4.6
70°-80°	2.2	0.8
80°-90°	1.0	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°	26.7	9.8
0°-40°	95.4	35.1
0°-60°	256.1	94.2
0°-90°	271.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	271.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	14	14	14	14	14	
5°	16	15	14	12	12	2
15°	30	17	10	10	10	11
25°	284	23	6	8	9	146
35°	834	33	4	6	8	504
45°	870	22	3	6	8	662
55°	610	6	2	6	8	522
65°	58	0	2	5	7	103
75°	1	0	1	4	6	1
85°	0	0	1	2	2	0
90°	0	0	0	0	0	

TEST NUMBER: P1342536

CATALOG NUMBER: P3A09R409827DE010 E3A451WMH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
2.5°	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.2	14.0
5°	15.5	15.5	15.5	15.5	15.2	15.2	15.2	15.0	15.0	14.5	13.7
7.5°	16.5	16.5	16.5	16.5	16.2	16.0	15.7	15.7	15.5	14.2	13.2
10°	18.5	18.5	18.2	18.0	17.7	17.2	17.0	16.5	15.7	14.0	12.5
12.5°	22.5	22.0	21.7	21.2	20.5	19.5	18.5	17.7	16.0	13.5	11.7
15°	29.7	29.2	28.2	26.7	25.2	23.2	21.5	19.7	16.7	12.7	10.5
17.5°	42.5	41.0	39.5	37.0	33.2	29.7	26.0	22.7	17.7	12.0	9.5
20°	76.4	75.4	66.4	59.5	48.2	40.2	32.7	27.2	19.2	11.2	8.5
22.5°	157.6	147.1	132.4	108.4	84.4	62.2	45.2	34.2	20.7	10.2	7.5
25°	284.3	267.8	236.1	189.8	140.1	99.2	65.4	44.7	23.0	9.2	6.5
27.5°	430.4	413.7	364.4	300.8	219.6	149.6	93.4	59.2	26.0	8.2	5.7
30°	586.0	571.8	509.3	421.2	309.5	209.6	125.1	73.9	29.2	7.2	5.0
31°	648.7	630.5	563.0	469.1	351.7	234.3	137.9	80.2	30.5	7.0	4.7
32°	706.4	685.7	615.7	515.1	385.9	261.0	151.9	85.7	31.5	6.5	4.5
33°	756.1	731.9	664.5	558.5	423.7	286.0	166.4	90.9	32.2	6.0	4.2
34°	798.3	777.4	704.9	602.3	457.1	310.0	180.6	96.2	32.7	5.7	4.0
35°	834.3	815.3	743.6	635.5	489.8	333.2	193.6	101.2	32.7	5.2	4.0
36°	858.5	842.1	777.1	669.4	517.3	353.0	204.6	105.7	32.7	4.7	3.7
37°	871.8	855.8	799.1	697.4	544.3	372.4	214.6	109.2	32.5	4.5	3.5
38°	878.5	864.5	815.3	720.2	563.0	386.4	223.3	111.9	32.2	4.0	3.5
39°	880.3	868.5	825.6	736.6	581.3	400.4	229.6	113.4	31.5	3.7	3.2
40°	879.0	868.8	831.1	751.4	595.3	411.4	234.1	113.9	30.7	3.2	3.2
41°	876.5	868.5	835.1	761.6	606.5	418.4	235.8	112.9	29.7	2.7	3.0
42°	874.3	865.5	836.8	768.6	614.2	421.9	235.6	110.9	28.2	2.5	3.0
43°	874.3	864.3	837.1	773.1	618.0	422.2	232.6	107.2	26.2	2.2	2.7
44°	872.8	863.5	838.3	776.1	619.0	419.9	227.8	103.2	24.0	2.0	2.7
45°	870.0	860.3	838.1	776.4	617.2	414.4	220.1	97.9	22.0	1.5	2.7
46°	864.8	856.0	835.8	774.6	612.0	406.4	210.8	92.7	19.7	1.2	2.5
47°	854.3	847.6	829.8	768.6	604.0	394.7	199.8	86.7	18.0	1.0	2.5
48°	836.3	831.6	819.6	755.4	588.8	380.2	188.1	80.2	16.2	1.0	2.5
49°	803.3	799.6	792.6	734.1	569.3	362.5	175.4	72.9	14.5	0.7	2.5
50°	777.4	773.4	759.1	698.4	541.3	340.0	161.4	65.7	12.5	0.5	2.2
51°	760.1	753.6	731.1	657.0	500.6	310.0	146.1	58.5	10.5	0.5	2.2
52°	738.4	728.6	700.7	619.7	463.4	280.0	129.6	51.2	9.2	0.5	2.2
53°	692.9	689.4	661.7	579.8	426.1	251.3	112.7	45.2	8.0	0.5	2.2
54°	653.2	648.0	610.2	524.3	385.7	219.3	95.2	40.0	6.7	0.5	2.2
55°	610.2	600.0	566.5	477.6	338.2	189.8	78.4	34.5	5.5	0.5	2.0
56°	556.0	547.0	511.1	427.6	294.5	159.9	65.7	28.2	4.2	0.5	2.0
57°	490.1	481.9	454.1	366.2	249.0	130.6	53.5	22.7	3.2	0.5	2.0
58°	426.4	417.2	385.4	307.2	201.1	103.7	44.7	18.5	2.5	0.5	2.0
59°	377.4	364.9	324.0	258.0	157.4	78.7	35.5	14.7	1.7	0.5	2.0
60°	336.7	326.5	284.0	214.8	123.4	58.0	26.2	11.2	1.0	0.5	2.0
62.5°	195.1	192.3	154.1	110.7	58.2	27.0	13.0	5.2	0.5	0.7	2.0
65°	58.2	50.7	39.5	23.5	15.0	9.0	4.7	1.7	0.2	0.7	1.7



TEST NUMBER: P1342536

CATALOG NUMBER: P3A09R409827DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.0	0.5	0.2	0.7	1.7
70°	1.0	0.7	0.7	0.7	0.7	0.5	0.5	0.2	0.2	0.7	1.5
72.5°	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.5	0.7	1.2
75°	0.7	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.5	0.7	1.2
77.5°	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.2	0.5	0.7	1.2
80°	0.5	0.5	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	1.0
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	1.0
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	1.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.7	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

TEST NUMBER: P1342536

CATALOG NUMBER: P3A09R409827DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	14.0	14.0	14.0	14.0
2.5°	13.5	13.2	13.0	13.0
5°	13.0	12.5	12.5	12.2
7.5°	12.2	11.7	11.7	11.7
10°	11.5	11.2	11.2	11.0
12.5°	10.5	10.5	10.5	10.5
15°	9.7	9.7	10.0	10.0
17.5°	8.7	9.0	9.5	9.7
20°	8.0	8.5	9.0	9.2
22.5°	7.5	8.0	8.7	9.0
25°	6.7	7.5	8.5	8.7
27.5°	6.2	7.2	8.0	8.5
30°	5.7	7.0	7.7	8.2
31°	5.7	6.7	7.7	8.2
32°	5.5	6.5	7.7	8.0
33°	5.5	6.5	7.7	8.0
34°	5.2	6.5	7.5	8.0
35°	5.2	6.5	7.5	8.0
36°	5.0	6.2	7.5	8.0
37°	5.0	6.2	7.5	8.0
38°	4.7	6.2	7.5	8.0
39°	4.7	6.2	7.5	8.0
40°	4.7	6.2	7.5	8.0
41°	4.5	6.2	7.5	8.0
42°	4.5	6.2	7.5	8.0
43°	4.5	6.0	7.5	8.0
44°	4.5	6.0	7.5	8.0
45°	4.2	6.0	7.5	8.0
46°	4.2	6.0	7.5	8.0
47°	4.2	6.0	7.5	8.0
48°	4.2	6.0	7.5	8.0
49°	4.2	6.0	7.5	8.0
50°	4.0	5.7	7.5	8.0
51°	4.0	5.7	7.5	8.0
52°	4.0	5.7	7.5	8.0
53°	4.0	5.7	7.5	8.0
54°	3.7	5.7	7.5	8.0
55°	3.7	5.7	7.5	8.0
56°	3.7	5.7	7.5	7.7
57°	3.7	5.7	7.2	7.7
58°	3.7	5.5	7.2	7.7
59°	3.7	5.5	7.2	7.7
60°	3.7	5.5	7.2	7.7
62.5°	3.5	5.5	7.0	7.5
65°	3.2	5.0	7.0	7.2



TEST NUMBER: P1342536

CATALOG NUMBER: P3A09R409827DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	3.2	4.7	6.5	7.0
70°	3.0	4.5	6.2	6.7
72.5°	2.5	4.2	5.7	6.2
75°	2.2	3.7	5.2	5.7
77.5°	2.0	3.2	4.7	5.0
80°	1.7	2.7	4.0	4.5
82.5°	1.2	2.0	3.2	3.5
85°	1.0	1.5	2.2	2.5
87.5°	0.7	0.7	1.2	1.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)