

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: P1342392

Luminaire Tested: P3A09R409030D2WDE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1342392
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: P3A09R409030D2WDE010 E3A451WMH
Description: 3in Adjustable Dim to Warm LED luminaire with, R40 optic, 3000K CCT AND, 90CRI ,
E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

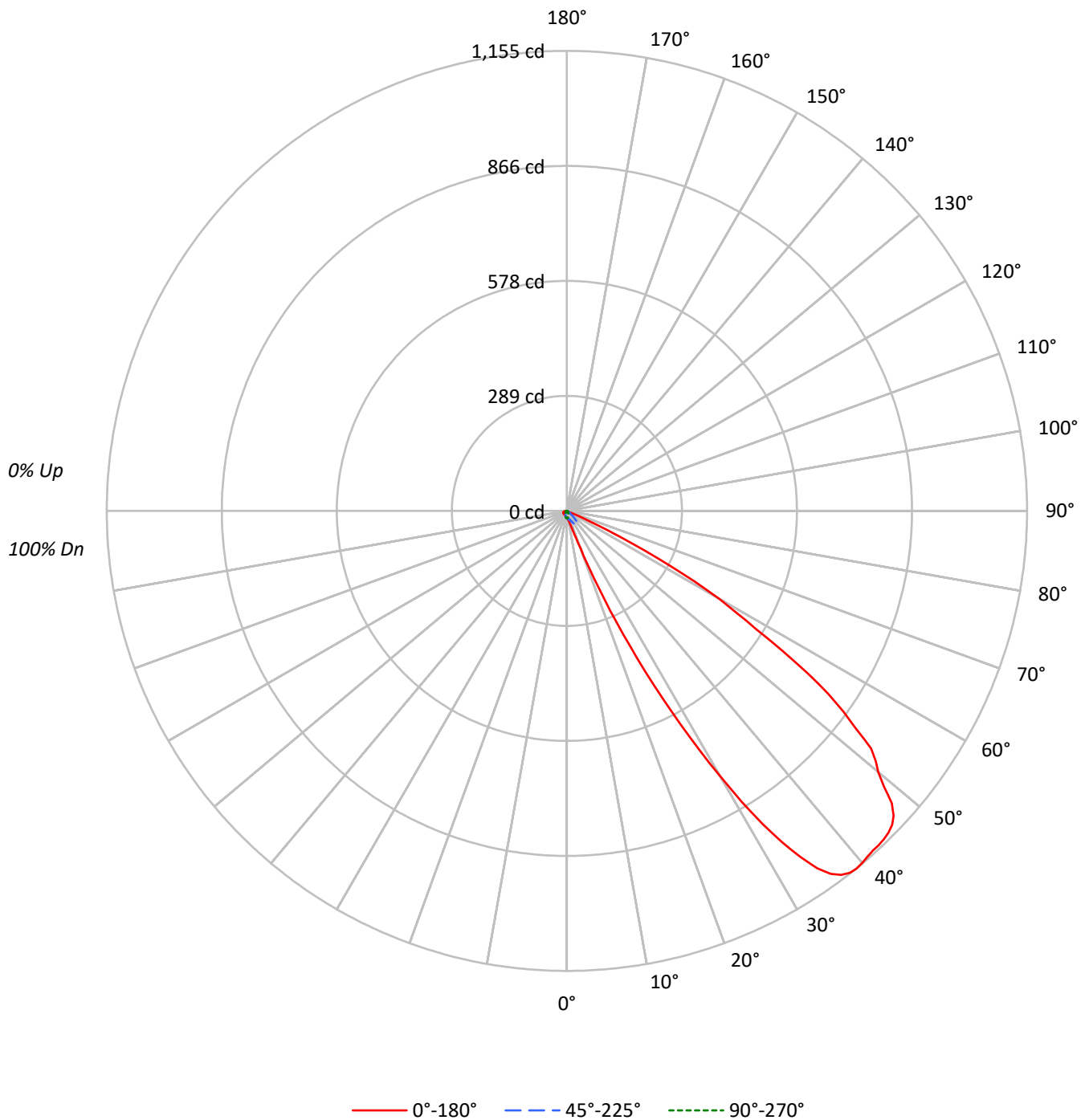
Lumens per Lamp: N/A
Luminaire Lumens: 357.0 lumens
Efficiency: N/A
Efficacy: 24.3 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.7
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			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	110	106	102	99	107	104	100	97	99	97	94		96	93	91		92	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81	78	75	72
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71	66	62	60
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62	57	52	50
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54	49	44	42
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48	42	37	35
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42	36	31	29
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38	31	26	24
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34	27	23	21
10	48	34	25	20	47	33	25	20	32	25	20		31	24	20		30	24	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4035	4035	4035	4035	4035
5°	4468	4336	3962	3610	3544
10°	5411	4609	3652	3295	3206
15°	8854	4994	3133	2906	2974
20°	23405	5881	2590	2590	2824
25°	90271	7307	2057	2371	2782
30°	194739	9723	1671	2329	2735
35°	293123	11484	1392	2275	2811
40°	330247	11536	1231	2347	3006
45°	354114	8962	1116	2450	3256
50°	348065	5595	1023	2559	3582
55°	306187	2753	994	2867	4014
60°	193800	570	1140	3158	4473
65°	39641	156	1193	3424	4929
70°	833	192	1282	3783	5706
75°	847	593	1356	4151	6354
80°	884	379	1642	4546	7450
85°	755	755	3271	5032	8303

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 360528 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.5
10°-20°	5.7	1.6
20°-30°	27.7	7.8
30°-40°	90.2	25.3
40°-50°	124.3	34.8
50°-60°	86.6	24.3
60°-70°	16.4	4.6
70°-80°	3.0	0.8
80°-90°	1.4	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°	35.1	9.8
0°-40°	125.3	35.1
0°-60°	336.2	94.2
0°-90°	357.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	357.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	18	18	18	18	18	
5°	20	20	18	16	16	2
15°	39	22	14	13	13	14
25°	373	30	8	10	12	192
35°	1095	43	5	8	10	662
45°	1142	29	4	8	10	868
55°	801	7	3	8	10	685
65°	76	0	2	7	10	135
75°	1	1	2	5	8	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°	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4	18.4
2.5°	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	18.7	18.4
5°	20.3	20.3	20.3	20.3	20.0	20.0	20.0	19.7	19.7	19.0	18.0
7.5°	21.6	21.6	21.6	21.6	21.3	21.0	20.7	20.7	20.3	18.7	17.4
10°	24.3	24.3	23.9	23.6	23.3	22.6	22.3	21.6	20.7	18.4	16.4
12.5°	29.5	28.9	28.5	27.9	26.9	25.6	24.3	23.3	21.0	17.7	15.4
15°	39.0	38.4	37.0	35.1	33.1	30.5	28.2	25.9	22.0	16.7	13.8
17.5°	55.7	53.8	51.8	48.5	43.6	39.0	34.1	29.8	23.3	15.7	12.5
20°	100.3	99.0	87.2	78.0	63.3	52.8	42.9	35.7	25.2	14.8	11.1
22.5°	206.9	193.1	173.8	142.3	110.8	81.6	59.3	44.9	27.2	13.4	9.8
25°	373.1	351.5	309.8	249.2	183.9	130.2	85.9	58.7	30.2	12.1	8.5
27.5°	564.9	542.9	478.3	394.7	288.2	196.4	122.6	77.7	34.1	10.8	7.5
30°	769.1	750.5	668.5	552.8	406.2	275.1	164.3	97.0	38.4	9.5	6.6
31°	851.4	827.5	739.0	615.7	461.6	307.5	181.0	105.2	40.0	9.2	6.2
32°	927.2	900.0	808.2	676.0	506.5	342.6	199.3	112.5	41.3	8.5	5.9
33°	992.4	960.6	872.1	733.1	556.0	375.4	218.4	119.3	42.3	7.9	5.6
34°	1047.8	1020.3	925.2	790.5	600.0	406.9	237.0	126.2	42.9	7.5	5.2
35°	1095.0	1070.1	976.0	834.1	642.9	437.4	254.1	132.8	42.9	6.9	5.2
36°	1126.8	1105.2	1020.0	878.7	679.0	463.3	268.5	138.7	42.9	6.2	4.9
37°	1144.2	1123.2	1048.8	915.4	714.4	488.8	281.6	143.3	42.6	5.9	4.6
38°	1153.1	1134.7	1070.1	945.2	739.0	507.2	293.1	146.9	42.3	5.2	4.6
39°	1155.4	1140.0	1083.6	966.8	762.9	525.6	301.3	148.8	41.3	4.9	4.3
40°	1153.7	1140.3	1090.8	986.2	781.3	540.0	307.2	149.5	40.3	4.3	4.3
41°	1150.4	1140.0	1096.0	999.6	796.0	549.2	309.5	148.2	39.0	3.6	3.9
42°	1147.5	1136.0	1098.3	1008.8	806.2	553.7	309.2	145.6	37.0	3.3	3.9
43°	1147.5	1134.4	1098.6	1014.7	811.1	554.1	305.2	140.6	34.4	3.0	3.6
44°	1145.5	1133.4	1100.3	1018.6	812.4	551.1	299.0	135.4	31.5	2.6	3.6
45°	1141.9	1129.1	1100.0	1019.0	810.1	543.9	288.8	128.5	28.9	2.0	3.6
46°	1135.0	1123.6	1097.0	1016.7	803.2	533.4	276.7	121.6	25.9	1.6	3.3
47°	1121.3	1112.4	1089.1	1008.8	792.8	518.0	262.3	113.8	23.6	1.3	3.3
48°	1097.7	1091.4	1075.7	991.4	772.8	499.0	246.9	105.2	21.3	1.3	3.3
49°	1054.4	1049.5	1040.3	963.6	747.2	475.7	230.2	95.7	19.0	1.0	3.3
50°	1020.3	1015.0	996.4	916.7	710.5	446.2	211.8	86.2	16.4	0.7	3.0
51°	997.7	989.1	959.6	862.3	657.0	406.9	191.8	76.7	13.8	0.7	3.0
52°	969.1	956.4	919.6	813.4	608.2	367.5	170.2	67.2	12.1	0.7	3.0
53°	909.5	904.9	868.5	761.0	559.3	329.8	147.9	59.3	10.5	0.7	3.0
54°	857.3	850.5	800.9	688.2	506.2	287.9	124.9	52.5	8.9	0.7	3.0
55°	800.9	787.5	743.6	626.9	443.9	249.2	102.9	45.2	7.2	0.7	2.6
56°	729.8	718.0	670.8	561.3	386.5	209.8	86.2	37.0	5.6	0.7	2.6
57°	643.3	632.4	596.0	480.6	326.9	171.5	70.2	29.8	4.3	0.7	2.6
58°	559.6	547.5	505.9	403.3	263.9	136.1	58.7	24.3	3.3	0.7	2.6
59°	495.4	479.0	425.2	338.7	206.5	103.3	46.6	19.3	2.3	0.7	2.6
60°	441.9	428.5	372.8	282.0	162.0	76.1	34.4	14.8	1.3	0.7	2.6
62.5°	256.1	252.4	202.3	145.2	76.4	35.4	17.0	6.9	0.7	1.0	2.6
65°	76.4	66.6	51.8	30.8	19.7	11.8	6.2	2.3	0.3	1.0	2.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	2.3	2.3	2.3	2.3	2.3	2.3	1.3	0.7	0.3	1.0	2.3
70°	1.3	1.0	1.0	1.0	1.0	0.7	0.7	0.3	0.3	1.0	2.0
72.5°	1.0	1.0	1.0	1.0	0.7	0.7	0.7	0.3	0.7	1.0	1.6
75°	1.0	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.7	1.0	1.6
77.5°	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.3	0.7	1.0	1.6
80°	0.7	0.7	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.0	1.3
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.0	1.3
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.0	1.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	1.0	1.0
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°	18.4	18.4	18.4	18.4
2.5°	17.7	17.4	17.0	17.0
5°	17.0	16.4	16.4	16.1
7.5°	16.1	15.4	15.4	15.4
10°	15.1	14.8	14.8	14.4
12.5°	13.8	13.8	13.8	13.8
15°	12.8	12.8	13.1	13.1
17.5°	11.5	11.8	12.5	12.8
20°	10.5	11.1	11.8	12.1
22.5°	9.8	10.5	11.5	11.8
25°	8.9	9.8	11.1	11.5
27.5°	8.2	9.5	10.5	11.1
30°	7.5	9.2	10.2	10.8
31°	7.5	8.9	10.2	10.8
32°	7.2	8.5	10.2	10.5
33°	7.2	8.5	10.2	10.5
34°	6.9	8.5	9.8	10.5
35°	6.9	8.5	9.8	10.5
36°	6.6	8.2	9.8	10.5
37°	6.6	8.2	9.8	10.5
38°	6.2	8.2	9.8	10.5
39°	6.2	8.2	9.8	10.5
40°	6.2	8.2	9.8	10.5
41°	5.9	8.2	9.8	10.5
42°	5.9	8.2	9.8	10.5
43°	5.9	7.9	9.8	10.5
44°	5.9	7.9	9.8	10.5
45°	5.6	7.9	9.8	10.5
46°	5.6	7.9	9.8	10.5
47°	5.6	7.9	9.8	10.5
48°	5.6	7.9	9.8	10.5
49°	5.6	7.9	9.8	10.5
50°	5.2	7.5	9.8	10.5
51°	5.2	7.5	9.8	10.5
52°	5.2	7.5	9.8	10.5
53°	5.2	7.5	9.8	10.5
54°	4.9	7.5	9.8	10.5
55°	4.9	7.5	9.8	10.5
56°	4.9	7.5	9.8	10.2
57°	4.9	7.5	9.5	10.2
58°	4.9	7.2	9.5	10.2
59°	4.9	7.2	9.5	10.2
60°	4.9	7.2	9.5	10.2
62.5°	4.6	7.2	9.2	9.8
65°	4.3	6.6	9.2	9.5



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	4.3	6.2	8.5	9.2
70°	3.9	5.9	8.2	8.9
72.5°	3.3	5.6	7.5	8.2
75°	3.0	4.9	6.9	7.5
77.5°	2.6	4.3	6.2	6.6
80°	2.3	3.6	5.2	5.9
82.5°	1.6	2.6	4.3	4.6
85°	1.3	2.0	3.0	3.3
87.5°	1.0	1.0	1.6	1.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)