

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: P1341368

Luminaire Tested: P3A09R309030D2WDE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1341368
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A09R309030D2WDE010 E3A451WMH
Description: 3in Adjustable Dim to Warm LED luminaire with, R30 optic, 3000K CCT AND, 90CRI ,
E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

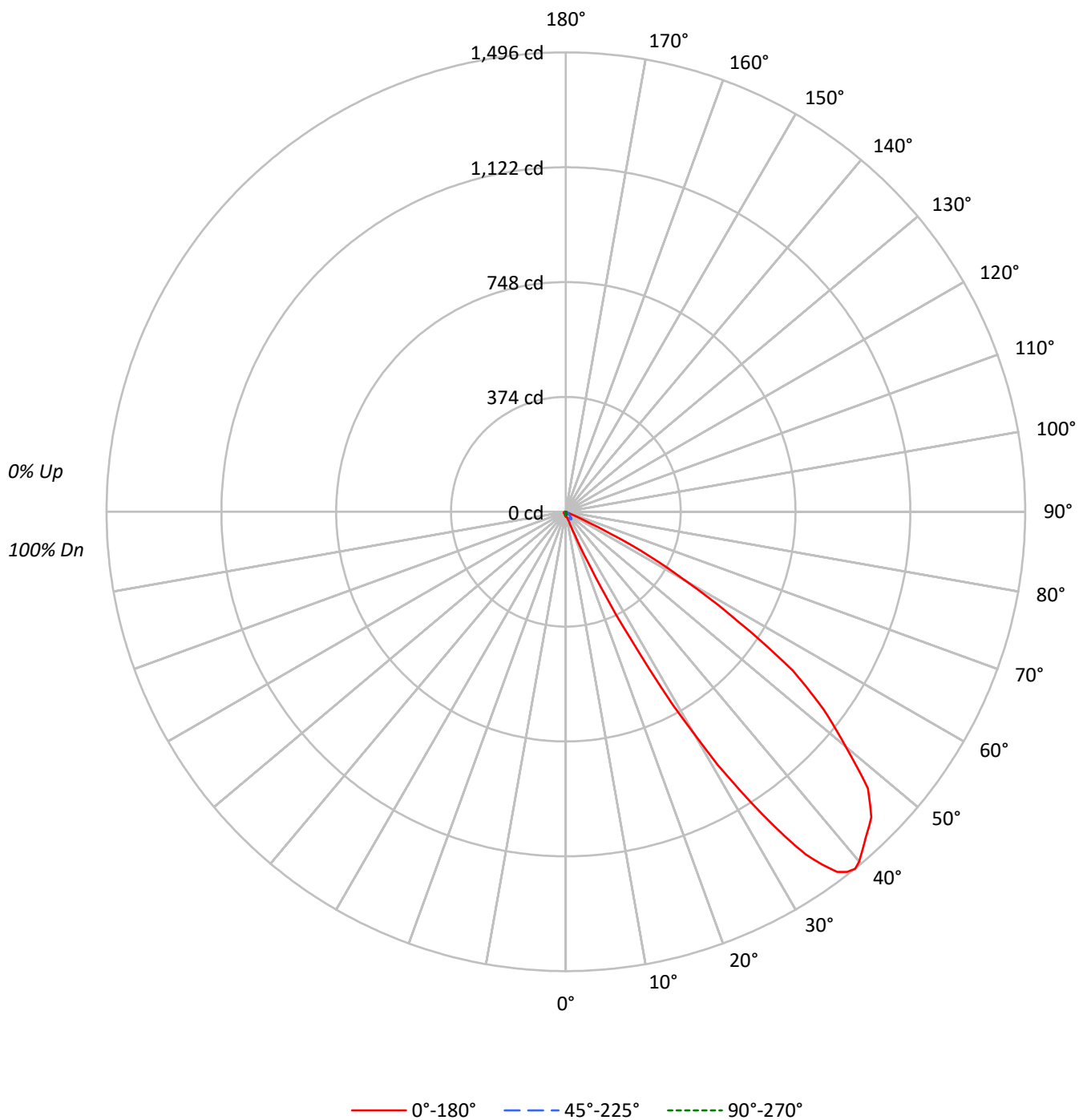
Lumens per Lamp: N/A
Luminaire Lumens: 389.0 lumens
Efficiency: N/A
Efficacy: 26.5 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
RW	70	50	30	10	70	50	30	10	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	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87		
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61		
4	83	71	62	55	80	69	61	55	67	60	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	37	49	42	37	48	42	37	35		
7	62	48	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29		
8	56	42	33	27	55	41	33	27	40	32	26	39	32	26	37	31	26	24		
9	52	37	29	23	50	37	28	23	36	28	22	34	27	22	33	27	22	20		
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3311	3311	3311	3311	3311
5°	3544	3456	3236	2950	2884
10°	3874	3429	2850	2561	2472
15°	5653	3428	2384	2157	2225
20°	14211	3757	1843	1843	2054
25°	66052	4670	1428	1669	1911
30°	210235	6482	1089	1570	1899
35°	364811	7897	883	1499	1927
40°	425454	7872	658	1489	1975
45°	436324	5582	713	1613	2140
50°	405786	3138	546	1672	2456
55°	344877	1644	612	1873	2753
60°	199195	439	702	2017	3026
65°	40627	0	830	2387	3424
70°	641	192	1026	2757	3975
75°	593	254	1101	2796	4745
80°	379	379	1642	3283	5430
85°	0	755	3271	3271	6542

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 436324 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.4	0.4
10°-20°	3.9	1.0
20°-30°	22.4	5.8
30°-40°	104.8	26.9
40°-50°	148.2	38.1
50°-60°	91.1	23.4
60°-70°	13.9	3.6
70°-80°	2.2	0.6
80°-90°	1.1	0.3
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°	27.7	7.1
0°-40°	132.5	34.1
0°-60°	371.8	95.6
0°-90°	389.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	389.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	15	15	15	15	15	
5°	16	16	15	13	13	2
15°	25	15	10	10	10	9
25°	273	19	6	7	8	168
35°	1363	30	3	6	7	818
45°	1407	18	2	5	7	1067
55°	902	4	2	5	7	768
65°	78	0	2	5	7	142
75°	1	0	1	3	6	1
85°	0	0	1	1	3	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
0°	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
2.5°	15.4	15.4	15.7	15.7	15.4	15.7	15.7	15.7	15.1	14.7	14.1
5°	16.1	16.1	16.1	16.4	16.1	16.1	15.7	15.4	14.7	13.8	13.4
7.5°	16.7	16.7	16.4	16.7	16.4	16.4	15.7	15.1	14.1	13.1	12.5
10°	17.4	17.4	17.0	17.0	16.7	16.7	15.4	14.4	12.8	11.8	11.5
12.5°	19.3	19.3	19.0	18.7	18.0	17.7	15.1	13.4	11.5	10.5	10.2
15°	24.9	24.6	23.9	22.9	21.3	21.0	15.1	12.5	10.5	9.5	9.5
17.5°	34.1	33.8	32.8	30.1	27.2	26.2	15.1	11.1	9.2	8.5	8.5
20°	60.9	58.3	53.4	46.9	40.0	36.4	16.1	9.8	7.9	7.5	7.9
21°	79.6	77.0	70.8	60.0	47.8	43.9	16.7	9.5	7.5	7.2	7.9
22°	108.5	105.5	92.7	78.0	60.6	53.7	17.0	8.8	6.9	6.9	7.5
23°	151.4	146.5	124.8	101.3	75.7	65.9	17.7	8.5	6.6	6.9	7.2
24°	198.2	194.0	169.4	134.0	96.7	82.6	18.3	8.2	6.2	6.2	6.9
25°	273.0	268.0	224.5	169.1	122.6	99.3	19.3	7.5	5.9	5.9	6.9
26°	369.6	347.0	289.0	217.9	151.1	124.5	20.3	7.2	5.6	5.9	6.6
27°	461.4	442.7	377.5	279.5	186.8	153.0	21.6	6.9	5.2	5.6	6.6
28°	582.0	555.7	473.5	353.6	235.3	185.1	22.9	6.6	4.9	5.6	6.2
29°	717.0	680.3	581.0	436.8	290.0	221.2	24.2	6.2	4.6	5.2	6.2
30°	830.3	795.9	696.6	535.4	352.9	268.7	25.6	5.9	4.3	5.2	6.2
31°	963.4	911.3	791.0	619.0	407.0	316.2	26.9	5.2	3.9	4.9	5.9
32°	1071.2	1034.8	907.0	713.4	478.1	368.6	27.9	4.9	3.9	4.9	5.9
33°	1175.4	1126.6	1003.0	803.8	542.3	422.4	28.8	4.6	3.6	4.6	5.9
34°	1275.0	1230.1	1093.8	876.9	602.9	473.5	29.5	3.9	3.6	4.6	5.6
35°	1362.8	1310.7	1173.7	948.3	665.2	520.0	29.5	3.6	3.3	4.3	5.6
36°	1419.8	1382.5	1243.2	1018.7	721.5	564.3	29.5	3.3	2.9	4.3	5.2
37°	1468.6	1425.1	1298.9	1072.8	763.2	599.6	29.5	2.9	2.9	4.3	5.2
38°	1488.6	1451.3	1337.3	1120.7	802.2	635.7	29.2	2.6	2.6	3.9	5.2
39°	1496.5	1463.1	1366.1	1155.1	831.0	659.9	28.5	2.3	2.6	3.9	5.2
40°	1486.3	1461.1	1380.8	1177.3	853.9	677.6	27.5	2.0	2.3	3.9	5.2
42.5°	1444.4	1427.7	1377.6	1199.6	873.6	690.7	23.9	1.3	2.3	3.6	5.2
45°	1407.0	1388.7	1344.5	1176.4	848.0	664.9	18.0	0.7	2.3	3.6	5.2
47.5°	1334.6	1323.2	1288.4	1117.1	792.0	606.5	12.8	0.3	2.0	3.3	4.9
50°	1189.5	1178.7	1132.8	969.9	681.2	512.8	9.2	0.3	1.6	3.3	4.9
52.5°	1059.4	1047.9	982.0	806.4	523.3	375.8	5.9	0.3	1.6	3.3	4.9
55°	902.1	882.1	795.6	612.1	370.9	252.0	4.3	0.3	1.6	2.9	4.9
57.5°	667.8	638.6	561.3	417.5	213.6	136.6	2.3	0.3	1.6	2.9	4.9
60°	454.2	436.8	351.3	220.2	91.1	57.7	1.0	0.3	1.6	2.9	4.6
62.5°	275.2	253.3	176.6	93.7	39.3	26.2	0.0	0.7	1.6	2.9	4.6
65°	78.3	69.5	46.2	21.3	11.1	8.5	0.0	0.7	1.6	2.9	4.6
67.5°	2.6	2.6	2.6	2.3	1.6	1.6	0.3	0.7	1.6	2.9	4.3
70°	1.0	1.0	1.0	0.7	0.7	0.3	0.3	0.7	1.6	2.6	4.3
72.5°	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.7	1.3	2.3	3.9
75°	0.7	0.7	0.7	0.3	0.3	0.3	0.3	1.0	1.3	2.3	3.3
77.5°	0.7	0.7	0.7	0.3	0.3	0.3	0.3	1.0	1.3	2.0	3.3
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.0	1.3	2.0	2.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.3	0.3	0.3	0.0	0.0	0.0	0.3	1.0	1.3	1.3	2.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	1.3	1.0	1.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	1.0	1.0	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



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CANDELA DISTRIBUTION (continued):

	157.5°	180°
0°	15.1	15.1
2.5°	14.1	14.1
5°	13.1	13.1
7.5°	12.1	12.1
10°	11.1	11.1
12.5°	10.5	10.5
15°	9.5	9.8
17.5°	8.8	9.2
20°	8.5	8.8
21°	8.5	8.8
22°	8.2	8.5
23°	8.2	8.5
24°	7.9	8.2
25°	7.5	7.9
26°	7.5	7.9
27°	7.5	7.9
28°	7.2	7.9
29°	7.2	7.5
30°	7.2	7.5
31°	6.9	7.5
32°	6.9	7.5
33°	6.9	7.2
34°	6.6	7.2
35°	6.6	7.2
36°	6.6	7.2
37°	6.6	6.9
38°	6.6	7.2
39°	6.6	6.9
40°	6.6	6.9
42.5°	6.6	6.9
45°	6.6	6.9
47.5°	6.6	7.2
50°	6.6	7.2
52.5°	6.6	7.2
55°	6.6	7.2
57.5°	6.6	6.9
60°	6.6	6.9
62.5°	6.2	6.9
65°	6.2	6.6
67.5°	6.2	6.6
70°	5.9	6.2
72.5°	5.6	5.9
75°	4.9	5.6
77.5°	4.6	4.9
80°	3.9	4.3



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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	3.3	3.3
85°	2.3	2.6
87.5°	1.3	1.3
90°	0.0	0.0

(END OF REPORT)