

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: P1345074

Luminaire Tested: P3A13R309830DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345074
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: P3A13R309830DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 3000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

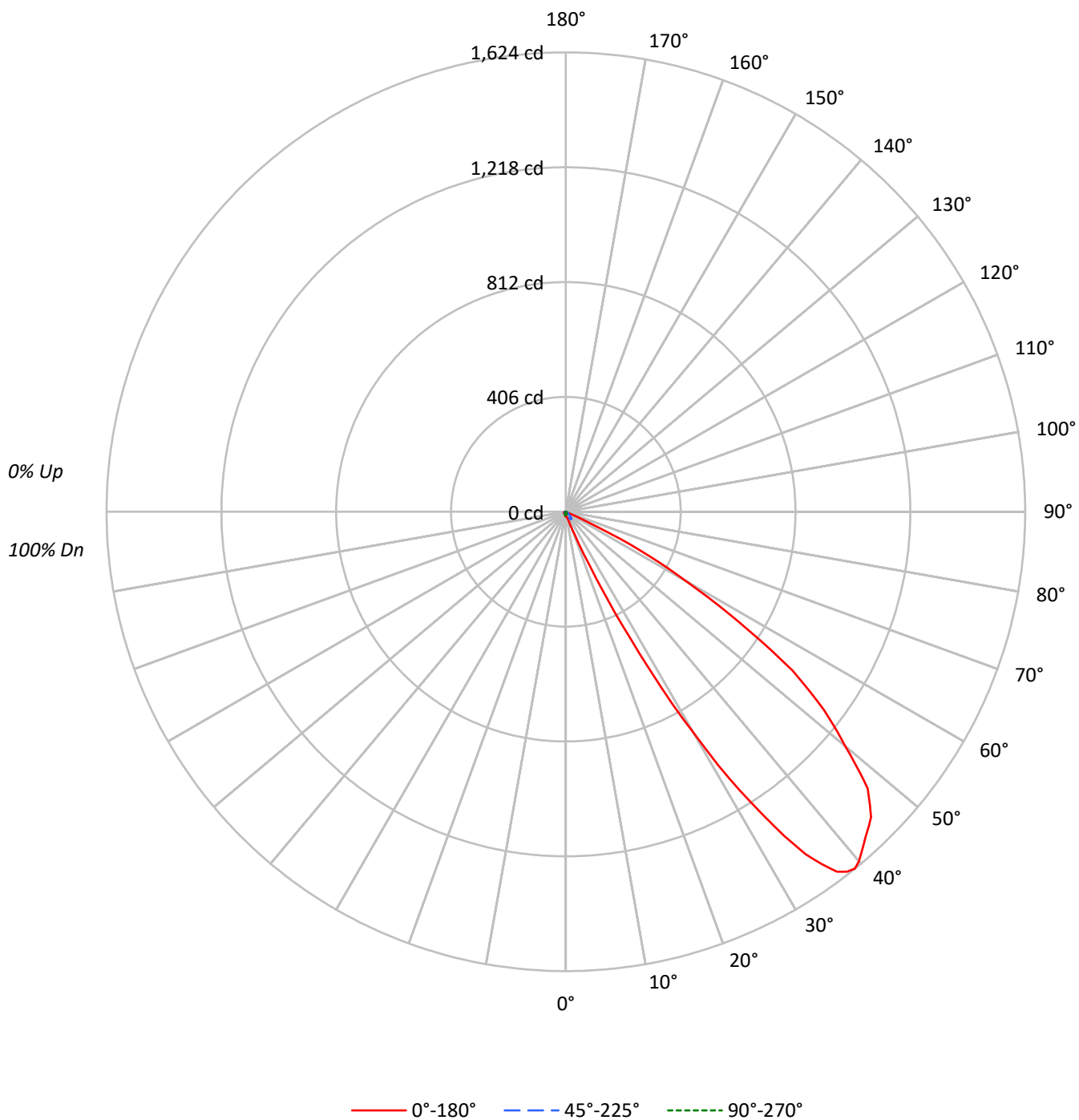
Lumens per Lamp: N/A
Luminaire Lumens: 422.0 lumens
Efficiency: N/A
Efficacy: 29.1 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.5
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	100	97	100	97	94	96	93	91	92	90	89
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37
7	62	48	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31
8	56	42	33	27	55	41	33	27	40	32	26	39	32	26	37	31	26
9	52	37	29	23	50	37	28	23	36	28	22	34	27	22	33	27	22
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3596	3596	3596	3596	3596
5°	3830	3764	3522	3214	3126
10°	4186	3718	3095	2761	2694
15°	6129	3723	2588	2338	2429
20°	15425	4060	1984	1984	2240
25°	71641	5081	1548	1815	2057
30°	228086	7014	1165	1722	2076
35°	395756	8566	964	1606	2088
40°	461550	8559	716	1632	2147
45°	473351	6078	775	1768	2326
50°	440207	3411	614	1808	2661
55°	374123	1759	688	2026	2982
60°	216079	482	789	2193	3289
65°	44103	0	934	2594	3684
70°	705	256	1154	2949	4360
75°	593	339	1186	3050	5083
80°	505	505	1768	3536	5809
85°	0	1006	3522	3522	7045

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 473351 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.5	0.4
10°-20°	4.3	1.0
20°-30°	24.3	5.8
30°-40°	113.7	26.9
40°-50°	160.7	38.1
50°-60°	98.9	23.4
60°-70°	15.1	3.6
70°-80°	2.4	0.6
80°-90°	1.2	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°	30.1	7.1
0°-40°	143.7	34.1
0°-60°	403.4	95.6
0°-90°	422.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	422.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	16	16	16	16	16	
5°	17	17	16	15	14	2
15°	27	16	11	10	11	10
25°	296	21	6	8	8	182
35°	1478	32	4	6	8	887
45°	1526	20	2	6	8	1157
55°	979	5	2	5	8	833
65°	85	0	2	5	7	154
75°	1	0	1	4	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°	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4	16.4
2.5°	16.7	16.7	17.1	17.1	16.7	17.1	17.1	17.1	16.4	16.0	15.3
5°	17.4	17.4	17.4	17.8	17.4	17.4	17.1	16.7	16.0	14.9	14.6
7.5°	18.1	18.1	17.8	18.1	17.8	17.8	17.1	16.4	15.3	14.2	13.5
10°	18.8	18.8	18.5	18.5	18.1	18.1	16.7	15.6	13.9	12.8	12.4
12.5°	21.0	21.0	20.6	20.3	19.6	19.2	16.4	14.6	12.4	11.4	11.0
15°	27.0	26.7	25.9	24.9	23.1	22.8	16.4	13.5	11.4	10.3	10.3
17.5°	37.0	36.6	35.5	32.7	29.5	28.4	16.4	12.1	10.0	9.2	9.2
20°	66.1	63.3	57.9	50.8	43.4	39.5	17.4	10.7	8.5	8.2	8.5
21°	86.4	83.5	76.8	65.1	51.9	47.6	18.1	10.3	8.2	7.8	8.5
22°	117.7	114.5	100.6	84.6	65.8	58.3	18.5	9.6	7.5	7.5	8.2
23°	164.2	158.9	135.4	109.8	82.1	71.5	19.2	9.2	7.1	7.5	7.8
24°	215.1	210.4	183.8	145.4	104.9	89.6	19.9	8.9	6.8	6.8	7.5
25°	296.1	290.8	243.5	183.4	132.9	107.7	21.0	8.2	6.4	6.4	7.5
26°	401.0	376.4	313.5	236.4	163.9	135.1	22.0	7.8	6.0	6.4	7.1
27°	500.5	480.2	409.5	303.2	202.6	166.0	23.5	7.5	5.7	6.0	7.1
28°	631.3	602.9	513.7	383.6	255.2	200.8	24.9	7.1	5.3	6.0	6.8
29°	777.8	738.0	630.3	473.8	314.6	239.9	26.3	6.8	5.0	5.7	6.8
30°	900.8	863.4	755.7	580.8	382.8	291.5	27.7	6.4	4.6	5.7	6.8
31°	1045.1	988.6	858.1	671.5	441.5	343.0	29.1	5.7	4.3	5.3	6.4
32°	1162.0	1122.6	984.0	773.9	518.6	399.9	30.2	5.3	4.3	5.3	6.4
33°	1275.1	1222.1	1088.1	872.0	588.3	458.2	31.3	5.0	3.9	5.0	6.4
34°	1383.2	1334.5	1186.6	951.3	654.1	513.7	32.0	4.3	3.9	5.0	6.0
35°	1478.4	1421.9	1273.3	1028.7	721.6	564.1	32.0	3.9	3.6	4.6	6.0
36°	1540.3	1499.7	1348.7	1105.2	782.8	612.1	32.0	3.6	3.2	4.6	5.7
37°	1593.2	1546.0	1409.1	1163.8	827.9	650.5	32.0	3.2	3.2	4.6	5.7
38°	1614.9	1574.4	1450.7	1215.7	870.2	689.6	31.6	2.8	2.8	4.3	5.7
39°	1623.5	1587.2	1482.0	1253.0	901.5	715.9	30.9	2.5	2.8	4.3	5.7
40°	1612.4	1585.1	1498.0	1277.2	926.4	735.1	29.9	2.1	2.5	4.3	5.7
42.5°	1566.9	1548.8	1494.4	1301.4	947.7	749.3	25.9	1.4	2.5	3.9	5.7
45°	1526.4	1506.5	1458.5	1276.2	920.0	721.3	19.6	0.7	2.5	3.9	5.7
47.5°	1447.8	1435.4	1397.7	1211.8	859.2	658.0	13.9	0.4	2.1	3.6	5.3
50°	1290.4	1278.6	1228.9	1052.2	739.0	556.3	10.0	0.4	1.8	3.6	5.3
52.5°	1149.3	1136.8	1065.4	874.8	567.7	407.7	6.4	0.4	1.8	3.6	5.3
55°	978.6	956.9	863.1	664.0	402.4	273.4	4.6	0.4	1.8	3.2	5.3
57.5°	724.5	692.8	608.9	452.9	231.8	148.2	2.5	0.4	1.8	3.2	5.3
60°	492.7	473.8	381.1	238.9	98.8	62.6	1.1	0.4	1.8	3.2	5.0
62.5°	298.6	274.8	191.6	101.7	42.7	28.4	0.0	0.7	1.8	3.2	5.0
65°	85.0	75.4	50.1	23.1	12.1	9.2	0.0	0.7	1.8	3.2	5.0
67.5°	2.8	2.8	2.8	2.5	1.8	1.8	0.4	0.7	1.8	3.2	4.6
70°	1.1	1.1	1.1	0.7	0.7	0.4	0.4	0.7	1.8	2.8	4.6
72.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.7	1.4	2.5	4.3
75°	0.7	0.7	0.7	0.4	0.4	0.4	0.4	1.1	1.4	2.5	3.6
77.5°	0.7	0.7	0.7	0.4	0.4	0.4	0.4	1.1	1.4	2.1	3.6
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.4	2.1	2.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.4	0.4	0.4	0.0	0.0	0.0	0.4	1.1	1.4	1.4	2.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.1	1.4	1.1	1.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.1	1.1	1.1	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°	16.4	16.4
2.5°	15.3	15.3
5°	14.2	14.2
7.5°	13.2	13.2
10°	12.1	12.1
12.5°	11.4	11.4
15°	10.3	10.7
17.5°	9.6	10.0
20°	9.2	9.6
21°	9.2	9.6
22°	8.9	9.2
23°	8.9	9.2
24°	8.5	8.9
25°	8.2	8.5
26°	8.2	8.5
27°	8.2	8.5
28°	7.8	8.5
29°	7.8	8.2
30°	7.8	8.2
31°	7.5	8.2
32°	7.5	8.2
33°	7.5	7.8
34°	7.1	7.8
35°	7.1	7.8
36°	7.1	7.8
37°	7.1	7.5
38°	7.1	7.8
39°	7.1	7.5
40°	7.1	7.5
42.5°	7.1	7.5
45°	7.1	7.5
47.5°	7.1	7.8
50°	7.1	7.8
52.5°	7.1	7.8
55°	7.1	7.8
57.5°	7.1	7.5
60°	7.1	7.5
62.5°	6.8	7.5
65°	6.8	7.1
67.5°	6.8	7.1
70°	6.4	6.8
72.5°	6.0	6.4
75°	5.3	6.0
77.5°	5.0	5.3
80°	4.3	4.6



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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	3.6	3.6
85°	2.5	2.8
87.5°	1.4	1.4
90°	0.0	0.0

(END OF REPORT)