

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: P1345058

Luminaire Tested: P3A13R309827DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345058
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: P3A13R309827DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 2700K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

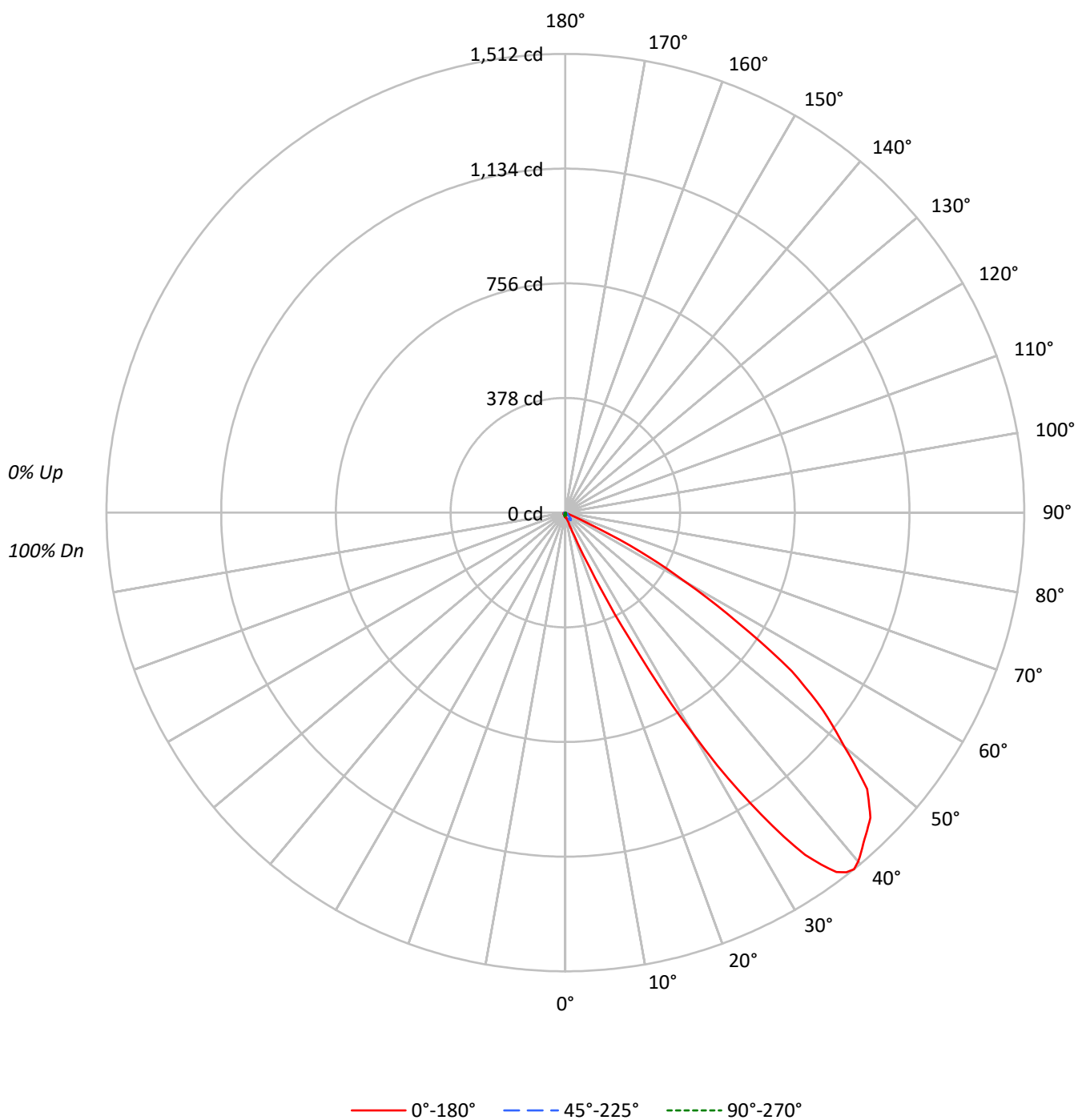
Lumens per Lamp: N/A
Luminaire Lumens: 393.0 lumens
Efficiency: N/A
Efficacy: 27.1 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1345058

CATALOG NUMBER: P3A13R309827DE010 E3A451WMH

Luminous Intensity Polar Plot



TEST NUMBER: P1345058

CATALOG NUMBER: P3A13R309827DE010 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	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°	3333	3333	3333	3333	3333
5°	3566	3500	3280	2994	2906
10°	3897	3474	2872	2583	2516
15°	5721	3451	2406	2179	2247
20°	14375	3780	1843	1843	2077
25°	66730	4718	1452	1694	1911
30°	212412	6533	1089	1595	1924
35°	368559	7977	883	1499	1954
40°	429834	7958	658	1517	2004
45°	440821	5644	713	1644	2171
50°	409948	3173	580	1706	2490
55°	348432	1644	650	1912	2791
60°	201212	439	746	2017	3070
65°	41042	0	882	2387	3424
70°	641	192	1090	2757	4039
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: 440821 cd/sqm

TEST NUMBER: P1345058

CATALOG NUMBER: P3A13R309827DE010 E3A451WMH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.4	0.4
10°-20°	4.0	1.0
20°-30°	22.7	5.8
30°-40°	105.9	26.9
40°-50°	149.7	38.1
50°-60°	92.1	23.4
60°-70°	14.0	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°	28.0	7.1
0°-40°	133.9	34.1
0°-60°	375.6	95.6
0°-90°	393.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	393.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	15	15	15	15	15	
5°	16	16	15	14	13	2
15°	25	15	11	10	10	9
25°	276	20	6	7	8	170
35°	1377	30	3	6	7	826
45°	1422	18	2	5	7	1078
55°	911	4	2	5	7	776
65°	79	0	2	5	7	143
75°	1	0	1	3	6	1
85°	0	0	1	1	3	0
90°	0	0	0	0	0	

TEST NUMBER: P1345058

CATALOG NUMBER: P3A13R309827DE010 E3A451WMH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
0°	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
2.5°	15.6	15.6	15.9	15.9	15.6	15.9	15.9	15.9	15.2	14.9	14.2
5°	16.2	16.2	16.2	16.6	16.2	16.2	15.9	15.6	14.9	13.9	13.6
7.5°	16.9	16.9	16.6	16.9	16.6	16.6	15.9	15.2	14.2	13.2	12.6
10°	17.5	17.5	17.2	17.2	16.9	16.9	15.6	14.6	12.9	11.9	11.6
12.5°	19.5	19.5	19.2	18.9	18.2	17.9	15.2	13.6	11.6	10.6	10.3
15°	25.2	24.8	24.2	23.2	21.5	21.2	15.2	12.6	10.6	9.6	9.6
17.5°	34.4	34.1	33.1	30.5	27.5	26.5	15.2	11.3	9.3	8.6	8.6
20°	61.6	58.9	54.0	47.3	40.4	36.7	16.2	9.9	7.9	7.6	7.9
21°	80.4	77.8	71.5	60.6	48.3	44.4	16.9	9.6	7.6	7.3	7.9
22°	109.6	106.6	93.7	78.8	61.2	54.3	17.2	8.9	7.0	7.0	7.6
23°	152.9	148.0	126.1	102.3	76.5	66.5	17.9	8.6	6.6	7.0	7.3
24°	200.3	196.0	171.2	135.4	97.7	83.4	18.5	8.3	6.3	6.3	7.0
25°	275.8	270.8	226.8	170.8	123.8	100.3	19.5	7.6	6.0	6.0	7.0
26°	373.4	350.6	292.0	220.1	152.6	125.8	20.5	7.3	5.6	6.0	6.6
27°	466.1	447.2	381.4	282.4	188.7	154.6	21.8	7.0	5.3	5.6	6.6
28°	587.9	561.5	478.4	357.2	237.7	187.0	23.2	6.6	5.0	5.6	6.3
29°	724.3	687.3	586.9	441.3	293.0	223.5	24.5	6.3	4.6	5.3	6.3
30°	838.9	804.1	703.8	540.9	356.5	271.5	25.8	6.0	4.3	5.3	6.3
31°	973.3	920.6	799.1	625.3	411.2	319.5	27.1	5.3	4.0	5.0	6.0
32°	1082.2	1045.4	916.3	720.7	483.0	372.4	28.1	5.0	4.0	5.0	6.0
33°	1187.5	1138.1	1013.3	812.1	547.9	426.7	29.1	4.6	3.6	4.6	6.0
34°	1288.1	1242.7	1105.0	885.9	609.1	478.4	29.8	4.0	3.6	4.6	5.6
35°	1376.8	1324.2	1185.8	958.0	672.0	525.4	29.8	3.6	3.3	4.3	5.6
36°	1434.4	1396.7	1256.0	1029.2	729.0	570.1	29.8	3.3	3.0	4.3	5.3
37°	1483.8	1439.7	1312.3	1083.8	771.0	605.8	29.8	3.0	3.0	4.3	5.3
38°	1503.9	1466.2	1351.0	1132.2	810.4	642.2	29.5	2.6	2.6	4.0	5.3
39°	1511.9	1478.1	1380.1	1166.9	839.5	666.7	28.8	2.3	2.6	4.0	5.3
40°	1501.6	1476.1	1395.0	1189.5	862.7	684.6	27.8	2.0	2.3	4.0	5.3
42.5°	1459.3	1442.4	1391.7	1212.0	882.6	697.8	24.2	1.3	2.3	3.6	5.3
45°	1421.5	1403.0	1358.3	1188.5	856.7	671.7	18.2	0.7	2.3	3.6	5.3
47.5°	1348.4	1336.8	1301.7	1128.5	800.1	612.8	12.9	0.3	2.0	3.3	5.0
50°	1201.7	1190.8	1144.4	979.9	688.2	518.1	9.3	0.3	1.7	3.3	5.0
52.5°	1070.3	1058.7	992.1	814.7	528.7	379.7	6.0	0.3	1.7	3.3	5.0
55°	911.4	891.2	803.8	618.4	374.7	254.6	4.3	0.3	1.7	3.0	5.0
57.5°	674.7	645.2	567.1	421.8	215.8	138.0	2.3	0.3	1.7	3.0	5.0
60°	458.8	441.3	354.9	222.5	92.0	58.3	1.0	0.3	1.7	3.0	4.6
62.5°	278.1	255.9	178.4	94.7	39.7	26.5	0.0	0.7	1.7	3.0	4.6
65°	79.1	70.2	46.7	21.5	11.3	8.6	0.0	0.7	1.7	3.0	4.6
67.5°	2.6	2.6	2.6	2.3	1.7	1.7	0.3	0.7	1.7	3.0	4.3
70°	1.0	1.0	1.0	0.7	0.7	0.3	0.3	0.7	1.7	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	4.0
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



TEST NUMBER: P1345058

CATALOG NUMBER: P3A13R309827DE010 E3A451WMH

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



TEST NUMBER: P1345058

CATALOG NUMBER: P3A13R309827DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	157.5°	180°
0°	15.2	15.2
2.5°	14.2	14.2
5°	13.2	13.2
7.5°	12.2	12.2
10°	11.3	11.3
12.5°	10.6	10.6
15°	9.6	9.9
17.5°	8.9	9.3
20°	8.6	8.9
21°	8.6	8.9
22°	8.3	8.6
23°	8.3	8.6
24°	7.9	8.3
25°	7.6	7.9
26°	7.6	7.9
27°	7.6	7.9
28°	7.3	7.9
29°	7.3	7.6
30°	7.3	7.6
31°	7.0	7.6
32°	7.0	7.6
33°	7.0	7.3
34°	6.6	7.3
35°	6.6	7.3
36°	6.6	7.3
37°	6.6	7.0
38°	6.6	7.3
39°	6.6	7.0
40°	6.6	7.0
42.5°	6.6	7.0
45°	6.6	7.0
47.5°	6.6	7.3
50°	6.6	7.3
52.5°	6.6	7.3
55°	6.6	7.3
57.5°	6.6	7.0
60°	6.6	7.0
62.5°	6.3	7.0
65°	6.3	6.6
67.5°	6.3	6.6
70°	6.0	6.3
72.5°	5.6	6.0
75°	5.0	5.6
77.5°	4.6	5.0
80°	4.0	4.3

TEST NUMBER: P1345058

CATALOG NUMBER: P3A13R309827DE010 E3A451WMH

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)