

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: P1334346

Luminaire Tested: P3A02R209030DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334346
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R209030DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

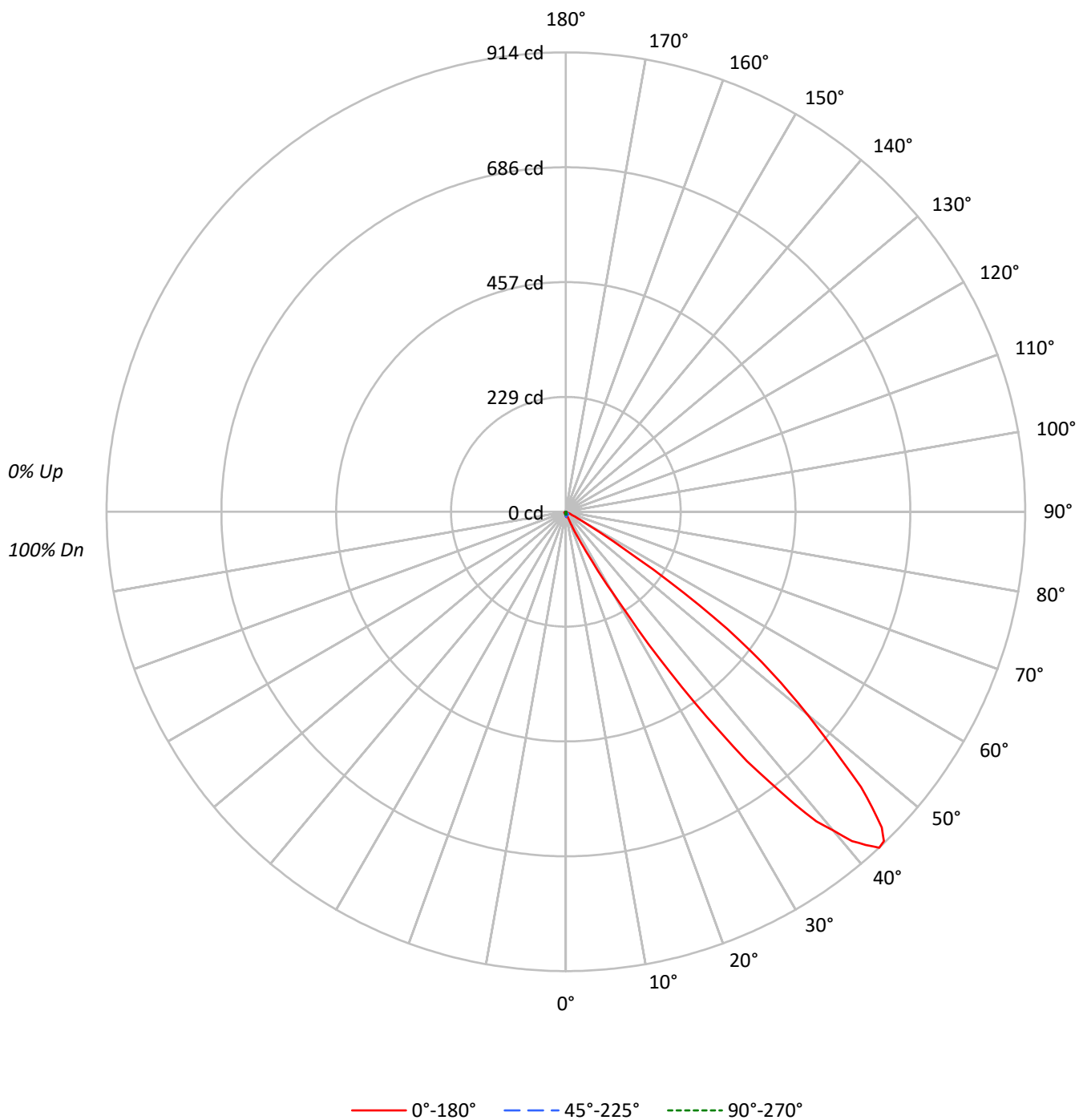
Lumens per Lamp: N/A
Luminaire Lumens: 127.0 lumens
Efficiency: N/A
Efficacy: 35.3 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.52 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
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: P1334346

CATALOG NUMBER: P3A02R209030DE010 E3A451WMH

Luminous Intensity Polar Plot



TEST NUMBER: P1334346

CATALOG NUMBER: P3A02R209030DE010 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	101	97	100	97	94	96	94	92	92	91	89
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1930	1930	1930	1930	1930
5°	2267	2091	1805	1585	1519
10°	2227	1915	1425	1225	1202
15°	1952	1453	1067	976	1022
20°	2894	1237	770	840	910
25°	12485	1282	605	750	895
30°	47172	1545	506	734	886
35°	143001	1847	482	723	937
40°	237130	1832	401	773	1002
45°	275626	1271	372	806	1085
50°	213963	682	375	853	1228
55°	123828	459	382	956	1338
60°	20919	88	307	1009	1447
65°	1608	0	363	1090	1660
70°	256	0	449	1218	1923
75°	169	85	508	1440	2203
80°	126	126	758	1515	2526
85°	252	252	1258	1510	2768

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 275626 cd/sqm

TEST NUMBER: P1334346

CATALOG NUMBER: P3A02R209030DE010 E3A451WMH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.8	0.6
10°-20°	1.6	1.3
20°-30°	5.1	4.0
30°-40°	32.4	25.5
40°-50°	59.3	46.7
50°-60°	24.4	19.2
60°-70°	2.0	1.6
70°-80°	1.0	0.8
80°-90°	0.5	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°	7.4	5.8
0°-40°	39.8	31.3
0°-60°	123.4	97.2
0°-90°	127.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	127.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	9	9	9	9	9	
5°	10	10	8	7	7	1
15°	9	6	5	4	4	3
25°	52	5	2	3	4	34
35°	534	7	2	3	4	338
45°	889	4	1	3	4	638
55°	324	1	1	2	4	283
65°	3	0	1	2	3	10
75°	0	0	1	2	3	0
85°	0	0	0	1	1	0
90°	0	0	0	0	0	

TEST NUMBER: P1334346

CATALOG NUMBER: P3A02R209030DE010 E3A451WMH

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
2.5°	9.7	9.7	9.7	9.5	9.5	9.7	9.5	9.5	9.5	9.5	9.4
5°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.1	10.1	10.0	9.5
7.5°	10.5	10.5	10.5	10.5	10.4	10.4	10.4	10.4	10.3	10.1	9.3
10°	10.0	10.0	10.0	9.9	9.9	9.9	9.8	9.8	9.7	9.5	8.6
12.5°	9.1	9.1	9.1	9.1	9.0	9.0	8.8	8.8	8.7	8.6	7.5
15°	8.6	8.6	8.6	8.5	8.5	8.4	8.2	8.1	8.0	7.8	6.4
17.5°	9.3	9.3	9.2	9.2	9.0	8.7	8.6	8.2	8.0	7.6	5.7
20°	12.4	12.5	12.1	11.7	11.5	10.7	10.4	9.8	9.3	8.7	5.3
22.5°	25.1	24.6	23.8	22.4	20.9	19.6	17.2	15.3	14.0	12.2	5.1
25°	51.6	51.1	48.8	46.9	42.1	38.4	33.3	29.1	24.8	20.6	5.3
27.5°	98.0	94.8	94.2	85.5	78.8	69.2	59.3	51.0	43.3	34.9	5.6
30°	186.3	182.6	169.6	156.5	138.4	118.0	98.6	80.4	65.3	51.6	6.1
31°	236.4	240.0	224.7	198.4	171.7	145.6	119.0	96.0	76.4	59.3	6.3
32°	310.8	295.2	279.0	251.9	213.3	179.9	146.4	113.3	87.5	67.7	6.6
33°	381.1	371.9	347.3	313.5	267.1	220.2	176.9	133.7	101.1	77.8	6.7
34°	456.0	445.9	426.0	377.5	326.5	265.1	207.3	157.2	117.3	87.7	6.8
35°	534.2	529.9	491.5	449.5	386.8	312.7	244.0	183.0	133.2	96.8	6.9
36°	612.9	599.0	568.9	507.6	442.2	356.7	282.4	207.0	149.3	107.5	6.9
37°	672.1	669.0	629.1	569.3	492.4	403.8	315.6	233.6	165.5	116.7	6.9
38°	737.3	725.1	684.6	623.7	539.7	446.8	350.3	256.7	180.9	125.1	6.8
39°	792.4	774.1	733.3	673.1	581.0	479.5	377.9	279.2	194.5	132.0	6.7
40°	828.4	815.8	773.2	705.5	618.5	510.5	405.8	297.7	204.7	137.3	6.4
41°	868.2	847.1	805.0	737.0	645.7	537.7	423.3	309.8	212.6	140.7	6.2
42°	891.9	874.7	824.7	758.1	665.1	553.2	437.7	319.1	217.3	142.5	5.7
43°	914.1	890.7	842.0	770.4	678.0	564.2	444.2	323.4	218.4	142.5	5.1
44°	911.1	888.9	838.4	772.1	680.9	567.4	447.0	323.6	216.7	140.7	4.5
45°	888.8	866.7	821.2	757.5	670.6	561.1	441.5	318.8	212.1	137.6	4.1
46°	847.9	825.9	791.1	733.2	651.5	546.7	428.7	308.4	204.3	132.6	3.6
47°	803.3	782.0	746.3	693.9	619.0	521.2	410.2	293.8	193.5	125.3	3.2
48°	738.8	725.4	689.6	644.8	573.7	481.2	377.7	270.1	178.9	115.9	2.7
49°	681.7	667.6	636.3	588.2	514.8	434.7	339.0	241.2	159.9	105.4	2.4
50°	627.2	614.9	585.9	531.6	461.5	378.5	286.6	204.8	136.1	92.4	2.0
51°	573.8	564.6	535.0	485.2	414.0	335.3	248.2	170.6	112.4	76.6	1.9
52°	520.2	519.2	487.1	436.6	367.8	292.2	211.0	143.9	95.4	64.3	1.8
53°	462.6	455.7	427.6	382.3	316.3	247.3	178.9	121.4	82.1	54.8	1.6
54°	397.0	389.2	359.1	318.2	258.4	202.5	144.2	98.1	68.4	46.3	1.4
55°	323.9	310.7	288.8	246.8	201.8	154.6	111.4	77.7	54.7	38.6	1.2
56°	245.7	232.5	220.2	189.3	148.1	115.3	82.9	59.6	42.7	30.4	1.1
57°	170.9	170.2	150.0	126.3	99.1	78.5	56.8	42.0	30.2	23.6	0.8
58°	110.9	107.2	94.3	80.6	64.8	49.1	36.5	28.5	20.5	16.1	0.7
59°	77.7	70.3	63.4	53.7	40.8	30.9	23.5	18.3	14.2	11.2	0.5
60°	47.7	46.2	41.5	32.7	26.5	21.8	17.5	13.5	10.4	8.0	0.2
62.5°	13.6	13.8	12.5	11.1	9.5	8.2	7.4	6.3	5.3	4.2	0.0
65°	3.1	3.0	3.2	3.0	2.7	2.7	2.4	2.1	1.9	1.8	0.0



TEST NUMBER: P1334346

CATALOG NUMBER: P3A02R209030DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	1.0	1.0	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.0
70°	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.1	0.1	0.0
72.5°	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
75°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
77.5°	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85°	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
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: P1334346

CATALOG NUMBER: P3A02R209030DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	8.8	8.8	8.8	8.8	8.8	8.8
2.5°	9.2	8.7	8.4	8.0	7.9	7.9
5°	9.0	8.2	7.5	7.2	6.9	6.9
7.5°	8.2	7.4	6.7	6.3	6.2	6.2
10°	7.4	6.4	5.7	5.5	5.5	5.4
12.5°	6.4	5.5	5.0	4.9	4.9	4.9
15°	5.4	4.7	4.3	4.3	4.4	4.5
17.5°	4.5	3.8	3.7	3.9	4.2	4.2
20°	3.8	3.3	3.3	3.6	3.8	3.9
22.5°	3.2	2.9	3.0	3.3	3.7	3.8
25°	2.9	2.5	2.7	3.1	3.5	3.7
27.5°	2.4	2.3	2.5	3.0	3.5	3.6
30°	2.0	2.0	2.4	2.9	3.3	3.5
31°	1.9	1.9	2.4	2.9	3.3	3.5
32°	1.8	1.9	2.3	2.9	3.3	3.5
33°	1.7	1.8	2.3	2.7	3.3	3.5
34°	1.6	1.8	2.3	2.7	3.3	3.5
35°	1.4	1.8	2.3	2.7	3.3	3.5
36°	1.3	1.7	2.1	2.7	3.3	3.5
37°	1.2	1.7	2.1	2.7	3.3	3.5
38°	1.1	1.6	2.1	2.7	3.3	3.5
39°	1.1	1.6	2.0	2.7	3.2	3.5
40°	1.0	1.4	2.0	2.7	3.2	3.5
41°	0.8	1.4	2.0	2.6	3.2	3.5
42°	0.7	1.3	1.9	2.6	3.2	3.5
43°	0.6	1.3	1.9	2.6	3.2	3.5
44°	0.6	1.2	1.9	2.6	3.2	3.5
45°	0.5	1.2	1.9	2.6	3.2	3.5
46°	0.4	1.2	1.9	2.6	3.2	3.5
47°	0.4	1.1	1.8	2.6	3.2	3.5
48°	0.2	1.1	1.8	2.6	3.2	3.5
49°	0.2	1.1	1.8	2.6	3.2	3.6
50°	0.2	1.1	1.8	2.5	3.2	3.6
51°	0.1	1.1	1.8	2.5	3.2	3.6
52°	0.1	1.1	1.7	2.5	3.3	3.6
53°	0.1	1.0	1.7	2.5	3.3	3.6
54°	0.1	1.0	1.7	2.5	3.3	3.5
55°	0.1	1.0	1.7	2.5	3.2	3.5
56°	0.1	0.8	1.7	2.5	3.2	3.5
57°	0.1	0.8	1.6	2.4	3.2	3.3
58°	0.1	0.8	1.6	2.4	3.2	3.3
59°	0.1	0.8	1.6	2.4	3.1	3.3
60°	0.2	0.7	1.4	2.3	3.1	3.3
62.5°	0.2	0.7	1.4	2.3	3.0	3.2
65°	0.2	0.7	1.3	2.1	3.0	3.2



TEST NUMBER: P1334346

CATALOG NUMBER: P3A02R209030DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.2	0.6	1.2	2.0	2.9	3.1
70°	0.2	0.7	1.2	1.9	2.7	3.0
72.5°	0.4	0.6	1.1	1.8	2.6	2.9
75°	0.4	0.6	1.1	1.7	2.5	2.6
77.5°	0.5	0.6	1.0	1.4	2.3	2.4
80°	0.5	0.6	0.8	1.2	1.9	2.0
82.5°	0.5	0.6	0.6	1.0	1.4	1.6
85°	0.4	0.5	0.5	0.6	1.0	1.1
87.5°	0.4	0.5	0.4	0.2	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)