

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: P1335380

Luminaire Tested: P3A02R359050DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335380
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R359050DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 5000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

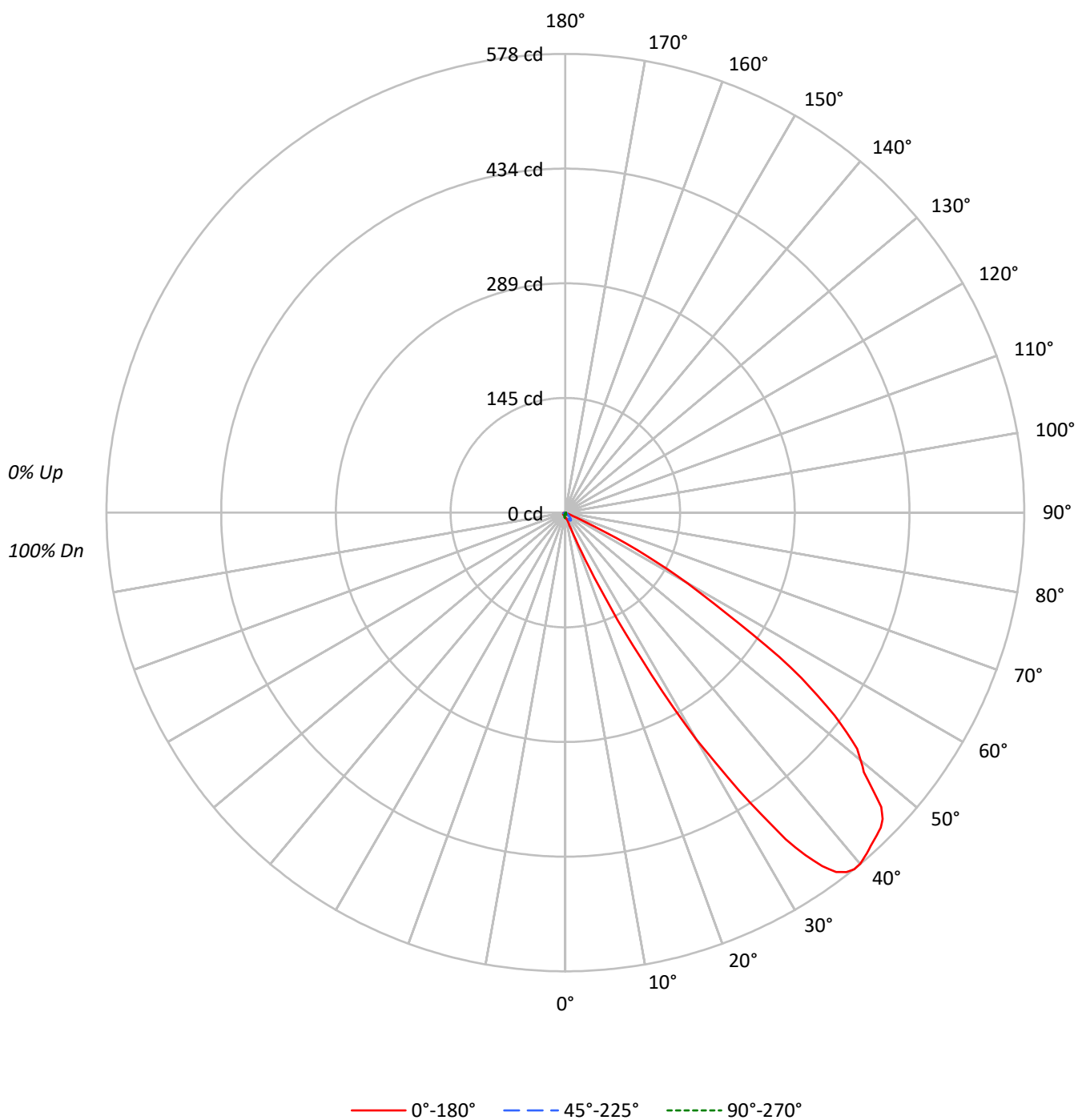
Lumens per Lamp: N/A
Luminaire Lumens: 144.0 lumens
Efficiency: N/A
Efficacy: 40.0 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1335380

CATALOG NUMBER: P3A02R359050DE010 E3A451WMH

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	107	104	100	97	100	97	94		96	93	91		92
2	100	93	86	81	98	91	85	80	87	83	78		84	80	77		81
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62
5	75	62	52	46	73	61	52	45	58	51	45		56	50	44		55
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48
7	62	48	38	32	60	47	38	32	45	37	32		44	37	31		42
8	57	42	33	27	55	41	33	27	40	32	27		39	32	26		38
9	52	38	29	23	50	37	29	23	36	28	23		35	28	22		34
10	48	34	25	19	46	33	25	19	32	25	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1447	1447	1447	1447	1447
5°	1563	1541	1431	1277	1255
10°	1648	1514	1269	1091	1091
15°	2361	1476	1022	953	976
20°	5904	1587	817	817	910
25°	27461	2008	629	750	847
30°	83481	2735	481	684	861
35°	141074	3159	428	669	830
40°	165367	3120	344	658	887
45°	174158	2202	279	713	961
50°	165760	1330	273	751	1058
55°	138891	535	306	841	1223
60°	77757	132	351	965	1360
65°	13439	52	311	1090	1557
70°	256	64	385	1154	1731
75°	254	85	508	1356	1949
80°	126	126	631	1515	2273
85°	0	252	1258	1510	2516

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 175385 cd/sqm

TEST NUMBER: P1335380

CATALOG NUMBER: P3A02R359050DE010 E3A451WMH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.6	0.4
10°-20°	1.7	1.2
20°-30°	8.8	6.1
30°-40°	38.2	26.5
40°-50°	54.4	37.8
50°-60°	33.7	23.4
60°-70°	5.1	3.6
70°-80°	0.9	0.7
80°-90°	0.5	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°	11.1	7.7
0°-40°	49.3	34.2
0°-60°	137.4	95.5
0°-90°	144.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	144.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	7	7	7	7	7	
5°	7	7	6	6	6	1
15°	10	6	4	4	4	4
25°	114	8	3	3	4	68
35°	527	12	2	2	3	316
45°	562	7	1	2	3	424
55°	363	1	1	2	3	309
65°	26	0	1	2	3	53
75°	0	0	1	2	2	0
85°	0	0	0	1	1	0
90°	0	0	0	0	0	

TEST NUMBER: P1335380

CATALOG NUMBER: P3A02R359050DE010 E3A451WMH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
2.5°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.6	6.5
5°	7.1	7.1	7.0	7.0	7.0	7.0	7.0	7.0	6.8	6.5	6.1
7.5°	7.3	7.3	7.1	7.1	7.1	7.1	7.0	6.9	6.6	6.1	5.7
10°	7.4	7.4	7.4	7.4	7.3	7.1	7.0	6.8	6.4	5.7	5.3
12.5°	8.3	8.3	8.2	7.9	7.7	7.4	7.1	6.6	5.8	5.2	4.8
15°	10.4	10.3	10.0	9.6	9.1	8.4	7.9	6.5	5.3	4.5	4.3
17.5°	14.6	14.3	13.9	12.6	11.4	10.3	9.2	6.5	4.8	4.0	3.8
20°	25.3	25.5	22.7	19.6	17.0	14.2	11.6	6.8	4.3	3.5	3.4
22.5°	52.9	50.8	44.3	36.8	28.1	21.7	16.4	7.4	3.8	3.0	3.0
25°	113.5	105.6	89.8	67.9	47.8	33.9	23.8	8.3	3.4	2.6	2.7
27.5°	207.2	200.1	168.5	126.9	84.2	51.2	32.2	9.5	3.0	2.2	2.5
30°	329.7	309.9	268.7	208.0	140.8	78.4	43.3	10.8	2.5	1.9	2.3
31°	367.9	358.8	308.6	240.6	165.0	93.1	48.0	11.2	2.3	1.9	2.2
32°	413.2	397.1	352.1	276.4	189.5	106.2	53.6	11.6	2.2	1.7	2.2
33°	453.8	438.2	383.5	307.8	214.4	121.2	59.5	11.7	1.9	1.7	2.1
34°	496.4	475.1	420.9	340.7	239.8	137.3	65.0	11.8	1.8	1.6	2.1
35°	527.0	505.7	453.1	366.7	261.8	151.6	71.2	11.8	1.7	1.6	1.9
36°	550.6	531.9	481.0	393.5	283.6	164.4	76.2	11.8	1.4	1.4	1.9
37°	566.9	549.1	499.7	416.5	300.3	175.9	80.6	11.8	1.3	1.4	1.9
38°	574.8	560.0	517.8	433.3	316.4	184.8	84.1	11.6	1.2	1.3	1.8
39°	578.2	566.1	528.8	447.4	328.5	192.6	86.7	11.3	1.0	1.3	1.8
40°	577.7	567.1	535.0	457.2	338.2	198.0	88.1	10.9	0.9	1.2	1.8
41°	574.7	565.6	538.3	465.5	344.1	201.6	88.5	10.5	0.8	1.2	1.7
42°	571.3	563.0	539.3	469.9	347.9	202.8	87.5	10.0	0.8	1.0	1.7
43°	567.8	560.1	539.3	471.3	348.8	202.0	85.8	9.1	0.6	1.0	1.7
44°	564.9	557.7	537.6	471.0	346.8	199.0	82.7	8.1	0.5	1.0	1.7
45°	561.6	554.4	535.4	468.5	343.0	193.9	78.8	7.1	0.4	0.9	1.7
46°	555.6	550.0	531.5	463.4	337.1	186.9	73.8	6.5	0.3	0.9	1.6
47°	544.0	539.2	524.0	455.9	329.1	178.6	68.8	5.8	0.3	0.9	1.6
48°	520.7	520.6	508.9	441.8	316.5	168.2	63.4	5.2	0.3	0.9	1.6
49°	498.3	495.9	481.4	417.1	298.5	155.7	57.8	4.7	0.1	0.9	1.6
50°	485.9	480.8	456.9	388.0	275.3	138.4	51.9	3.9	0.1	0.8	1.6
51°	473.0	465.8	437.5	361.8	247.8	121.8	45.4	3.1	0.1	0.8	1.4
52°	449.8	442.9	411.3	336.7	221.0	104.8	39.1	2.6	0.1	0.8	1.6
53°	424.7	414.8	380.5	309.1	197.5	89.7	32.8	2.2	0.1	0.8	1.4
54°	393.1	388.7	349.3	275.3	169.9	75.1	26.9	1.8	0.1	0.8	1.4
55°	363.3	356.8	315.9	240.7	144.9	61.6	22.5	1.4	0.1	0.8	1.4
56°	325.4	315.6	277.3	209.0	119.6	49.7	19.0	1.2	0.1	0.8	1.4
57°	280.1	269.7	239.4	173.8	93.9	37.8	15.9	0.9	0.1	0.8	1.4
58°	237.0	228.0	195.5	134.2	70.7	26.3	13.1	0.6	0.1	0.6	1.4
59°	204.7	194.9	162.6	103.2	49.1	19.4	9.9	0.5	0.1	0.8	1.4
60°	177.3	164.6	130.9	79.9	35.1	13.9	7.3	0.3	0.3	0.8	1.4
62.5°	102.2	90.2	62.5	32.5	14.4	7.1	3.5	0.1	0.3	0.8	1.4
65°	25.9	23.0	14.9	7.0	4.0	2.5	1.3	0.1	0.3	0.6	1.3



TEST NUMBER: P1335380

CATALOG NUMBER: P3A02R359050DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	0.9	0.9	0.9	0.8	0.6	0.5	0.3	0.1	0.3	0.6	1.3
70°	0.4	0.4	0.4	0.3	0.3	0.1	0.1	0.1	0.3	0.6	1.2
72.5°	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.4	0.6	1.0
75°	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.4	0.6	1.0
77.5°	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5	0.9
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5	0.8
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5	0.6
85°	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.4	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.4
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: P1335380

CATALOG NUMBER: P3A02R359050DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	6.6	6.6	6.6
2.5°	6.2	6.2	6.2
5°	5.8	5.8	5.7
7.5°	5.5	5.3	5.3
10°	4.9	4.9	4.9
12.5°	4.5	4.5	4.5
15°	4.2	4.3	4.3
17.5°	3.8	4.0	4.0
20°	3.5	3.8	3.9
22.5°	3.2	3.5	3.6
25°	3.1	3.4	3.5
27.5°	2.9	3.2	3.5
30°	2.7	3.1	3.4
31°	2.7	3.1	3.2
32°	2.6	3.1	3.2
33°	2.6	3.1	3.2
34°	2.6	3.0	3.2
35°	2.5	3.0	3.1
36°	2.5	3.0	3.1
37°	2.5	3.0	3.2
38°	2.5	3.0	3.1
39°	2.3	3.0	3.1
40°	2.3	3.0	3.1
41°	2.3	3.0	3.1
42°	2.3	3.0	3.1
43°	2.3	3.0	3.1
44°	2.3	2.9	3.1
45°	2.3	2.9	3.1
46°	2.3	3.0	3.1
47°	2.3	3.0	3.2
48°	2.3	2.9	3.1
49°	2.2	2.9	3.1
50°	2.2	2.9	3.1
51°	2.2	3.0	3.2
52°	2.2	3.0	3.2
53°	2.2	3.0	3.2
54°	2.2	3.0	3.1
55°	2.2	3.0	3.2
56°	2.2	3.0	3.1
57°	2.2	3.0	3.1
58°	2.2	2.9	3.1
59°	2.2	2.9	3.1
60°	2.2	2.9	3.1
62.5°	2.1	2.9	3.1
65°	2.1	2.7	3.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	1.9	2.7	2.9
70°	1.8	2.6	2.7
72.5°	1.7	2.5	2.6
75°	1.6	2.2	2.3
77.5°	1.3	1.9	2.2
80°	1.2	1.7	1.8
82.5°	0.9	1.4	1.6
85°	0.6	1.0	1.0
87.5°	0.3	0.5	0.5
90°	0.0	0.0	0.0

(END OF REPORT)