

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: P1345506

Luminaire Tested: P3A13R359727DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345506
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: P3A13R359727DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 2700K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

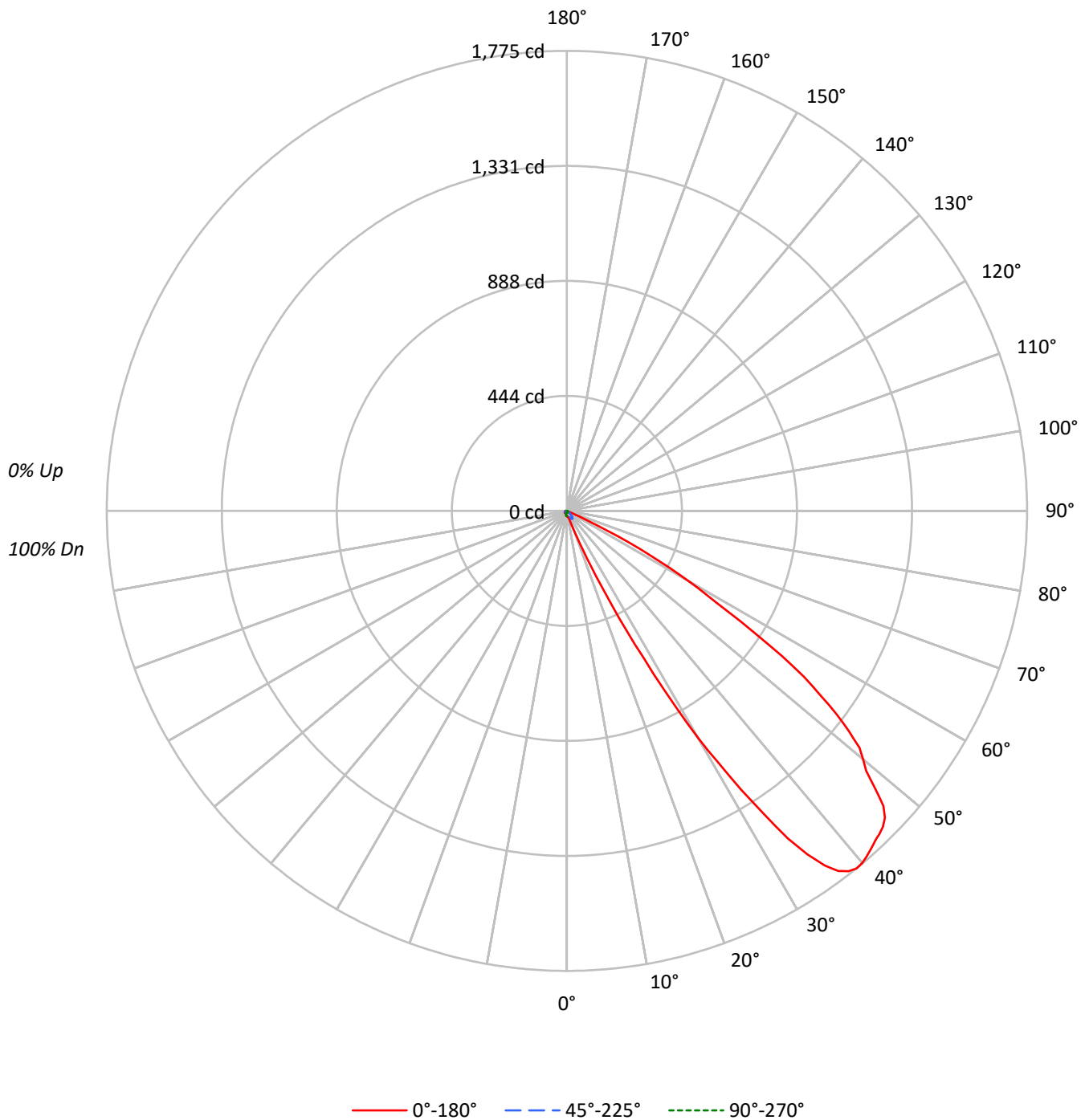
Lumens per Lamp: N/A
Luminaire Lumens: 442.1 lumens
Efficiency: N/A
Efficacy: 30.3 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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

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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		107	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	61	52	45		58	51	45		56	50	44		55	49	44
6	68	54	45	38		66	53	44	38		51	43	38		50	43	37		48	42	37
7	62	48	38	32		60	47	38	32		45	37	32		44	37	31		42	36	31
8	57	42	33	27		55	41	33	27		40	32	27		39	32	26		38	31	26
9	52	38	29	23		50	37	29	23		36	28	23		35	28	22		34	27	22
10	48	34	25	19		46	33	25	19		32	25	19		31	24	19		30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4451	4451	4451	4451	4451
5°	4821	4733	4380	3962	3874
10°	5054	4609	3919	3384	3384
15°	7242	4518	3178	2906	2997
20°	18155	4830	2520	2520	2800
25°	84271	6170	1936	2323	2613
30°	256217	8381	1519	2127	2633
35°	432992	9717	1285	2034	2570
40°	507580	9589	1031	2061	2748
45°	534536	6791	868	2233	2977
50°	508811	4094	819	2320	3275
55°	426346	1682	918	2600	3823
60°	238665	351	1053	2982	4210
65°	41198	208	1038	3321	4774
70°	769	256	1282	3590	5386
75°	678	339	1694	4067	6100
80°	505	505	2020	4546	7072
85°	0	1006	4026	5032	8051

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 538307 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.8	0.4
10°-20°	5.2	1.2
20°-30°	27.1	6.1
30°-40°	117.1	26.5
40°-50°	167.1	37.8
50°-60°	103.5	23.4
60°-70°	15.8	3.6
70°-80°	3.0	0.7
80°-90°	1.5	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°	34.2	7.7
0°-40°	151.3	34.2
0°-60°	421.9	95.4
0°-90°	442.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	442.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	20	20	20	20	20	
5°	22	22	20	18	18	2
15°	32	20	14	13	13	11
25°	348	26	8	10	11	208
35°	1618	36	5	8	10	971
45°	1724	22	3	7	10	1302
55°	1115	4	2	7	10	950
65°	79	0	2	6	9	162
75°	1	0	2	5	7	1
85°	0	0	2	2	3	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
2.5°	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	20.3	19.9
5°	21.9	21.9	21.5	21.5	21.5	21.5	21.5	21.5	20.7	19.9	18.8
7.5°	22.3	22.3	21.9	21.9	21.9	21.9	21.5	21.1	20.3	18.8	17.6
10°	22.7	22.7	22.7	22.7	22.3	21.9	21.5	20.7	19.6	17.6	16.4
12.5°	25.5	25.5	25.1	24.3	23.5	22.7	21.9	20.3	18.0	16.0	14.8
15°	31.9	31.5	30.7	29.5	27.9	25.9	24.3	19.9	16.4	14.0	13.2
17.5°	44.7	43.9	42.7	38.7	35.1	31.5	28.3	19.9	14.8	12.4	11.6
20°	77.8	78.2	69.8	60.2	52.3	43.5	35.5	20.7	13.2	10.8	10.4
22.5°	162.4	156.0	136.1	112.9	86.2	66.6	50.3	22.7	11.6	9.2	9.2
25°	348.3	324.0	275.7	208.3	146.8	104.1	73.0	25.5	10.4	8.0	8.4
27.5°	636.0	614.1	517.1	389.4	258.6	157.2	99.0	29.1	9.2	6.8	7.6
30°	1011.9	951.2	824.7	638.4	432.1	240.6	132.9	33.1	7.6	6.0	7.2
31°	1129.2	1101.2	947.2	738.5	506.3	285.7	147.2	34.3	7.2	6.0	6.8
32°	1268.4	1218.9	1080.9	848.3	581.7	326.0	164.4	35.5	6.8	5.2	6.8
33°	1392.9	1345.0	1177.0	944.8	658.0	371.9	182.7	35.9	6.0	5.2	6.4
34°	1523.8	1458.3	1292.0	1045.8	736.2	421.3	199.5	36.3	5.6	4.8	6.4
35°	1617.5	1552.1	1390.9	1125.6	803.6	465.2	218.7	36.3	5.2	4.8	6.0
36°	1690.2	1632.7	1476.3	1207.8	870.6	504.7	233.8	36.3	4.4	4.4	6.0
37°	1740.0	1685.4	1533.8	1278.4	921.7	539.8	247.4	36.3	4.0	4.4	6.0
38°	1764.4	1718.9	1589.2	1329.9	971.2	567.4	258.2	35.5	3.6	4.0	5.6
39°	1774.8	1737.6	1623.1	1373.4	1008.3	591.3	266.1	34.7	3.2	4.0	5.6
40°	1773.2	1740.8	1642.3	1403.3	1038.2	607.7	270.5	33.5	2.8	3.6	5.6
41°	1764.0	1736.0	1652.3	1428.8	1056.2	618.8	271.7	32.3	2.4	3.6	5.2
42°	1753.6	1728.1	1655.4	1442.4	1067.7	622.4	268.5	30.7	2.4	3.2	5.2
43°	1742.8	1719.3	1655.4	1446.8	1070.5	620.0	263.3	27.9	2.0	3.2	5.2
44°	1734.1	1711.7	1650.3	1445.6	1064.5	610.9	253.8	24.7	1.6	3.2	5.2
45°	1723.7	1701.7	1643.5	1438.0	1053.0	595.3	241.8	21.9	1.2	2.8	5.2
46°	1705.3	1688.2	1631.5	1422.4	1034.6	573.8	226.6	19.9	0.8	2.8	4.8
47°	1669.8	1655.1	1608.4	1399.3	1010.3	548.2	211.1	18.0	0.8	2.8	4.8
48°	1598.4	1598.0	1562.1	1356.2	971.6	516.3	194.7	16.0	0.8	2.8	4.8
49°	1529.4	1522.2	1477.5	1280.4	916.1	478.0	177.6	14.4	0.4	2.8	4.8
50°	1491.5	1475.9	1402.5	1191.0	845.1	424.9	159.2	12.0	0.4	2.4	4.8
51°	1452.0	1429.6	1343.0	1110.4	760.5	373.9	139.3	9.6	0.4	2.4	4.4
52°	1380.5	1359.4	1262.4	1033.4	678.3	321.6	120.1	8.0	0.4	2.4	4.8
53°	1303.5	1273.2	1167.9	948.8	606.1	275.3	100.5	6.8	0.4	2.4	4.4
54°	1206.6	1193.0	1072.1	845.1	521.5	230.6	82.6	5.6	0.4	2.4	4.4
55°	1115.2	1095.3	969.6	738.9	444.9	189.1	69.0	4.4	0.4	2.4	4.4
56°	998.7	968.8	851.1	641.6	367.1	152.4	58.3	3.6	0.4	2.4	4.4
57°	859.8	827.9	735.0	533.5	288.1	116.1	48.7	2.8	0.4	2.4	4.4
58°	727.4	699.8	600.1	411.8	217.1	80.6	40.3	2.0	0.4	2.0	4.4
59°	628.4	598.1	499.1	316.8	150.8	59.5	30.3	1.6	0.4	2.4	4.4
60°	544.2	505.1	401.8	245.4	107.7	42.7	22.3	0.8	0.8	2.4	4.4
62.5°	313.6	276.9	191.9	99.7	44.3	21.9	10.8	0.4	0.8	2.4	4.4
65°	79.4	70.6	45.9	21.5	12.4	7.6	4.0	0.4	0.8	2.0	4.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	2.8	2.8	2.8	2.4	2.0	1.6	0.8	0.4	0.8	2.0	4.0
70°	1.2	1.2	1.2	0.8	0.8	0.4	0.4	0.4	0.8	2.0	3.6
72.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	1.2	2.0	3.2
75°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	1.2	2.0	3.2
77.5°	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4	1.2	1.6	2.8
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.2	1.6	2.4
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.2	1.6	2.0
85°	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	1.2	1.6	1.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.2	1.6	1.2
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):

	135°	157.5°	180°
0°	20.3	20.3	20.3
2.5°	19.2	19.2	19.2
5°	18.0	18.0	17.6
7.5°	16.8	16.4	16.4
10°	15.2	15.2	15.2
12.5°	14.0	14.0	14.0
15°	12.8	13.2	13.2
17.5°	11.6	12.4	12.4
20°	10.8	11.6	12.0
22.5°	10.0	10.8	11.2
25°	9.6	10.4	10.8
27.5°	8.8	10.0	10.8
30°	8.4	9.6	10.4
31°	8.4	9.6	10.0
32°	8.0	9.6	10.0
33°	8.0	9.6	10.0
34°	8.0	9.2	10.0
35°	7.6	9.2	9.6
36°	7.6	9.2	9.6
37°	7.6	9.2	10.0
38°	7.6	9.2	9.6
39°	7.2	9.2	9.6
40°	7.2	9.2	9.6
41°	7.2	9.2	9.6
42°	7.2	9.2	9.6
43°	7.2	9.2	9.6
44°	7.2	8.8	9.6
45°	7.2	8.8	9.6
46°	7.2	9.2	9.6
47°	7.2	9.2	10.0
48°	7.2	8.8	9.6
49°	6.8	8.8	9.6
50°	6.8	8.8	9.6
51°	6.8	9.2	10.0
52°	6.8	9.2	10.0
53°	6.8	9.2	10.0
54°	6.8	9.2	9.6
55°	6.8	9.2	10.0
56°	6.8	9.2	9.6
57°	6.8	9.2	9.6
58°	6.8	8.8	9.6
59°	6.8	8.8	9.6
60°	6.8	8.8	9.6
62.5°	6.4	8.8	9.6
65°	6.4	8.4	9.2



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	6.0	8.4	8.8
70°	5.6	8.0	8.4
72.5°	5.2	7.6	8.0
75°	4.8	6.8	7.2
77.5°	4.0	6.0	6.8
80°	3.6	5.2	5.6
82.5°	2.8	4.4	4.8
85°	2.0	3.2	3.2
87.5°	0.8	1.6	1.6
90°	0.0	0.0	0.0

(END OF REPORT)