

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: P1345618

Luminaire Tested: P3A13R359840DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345618
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: P3A13R359840DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 4000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

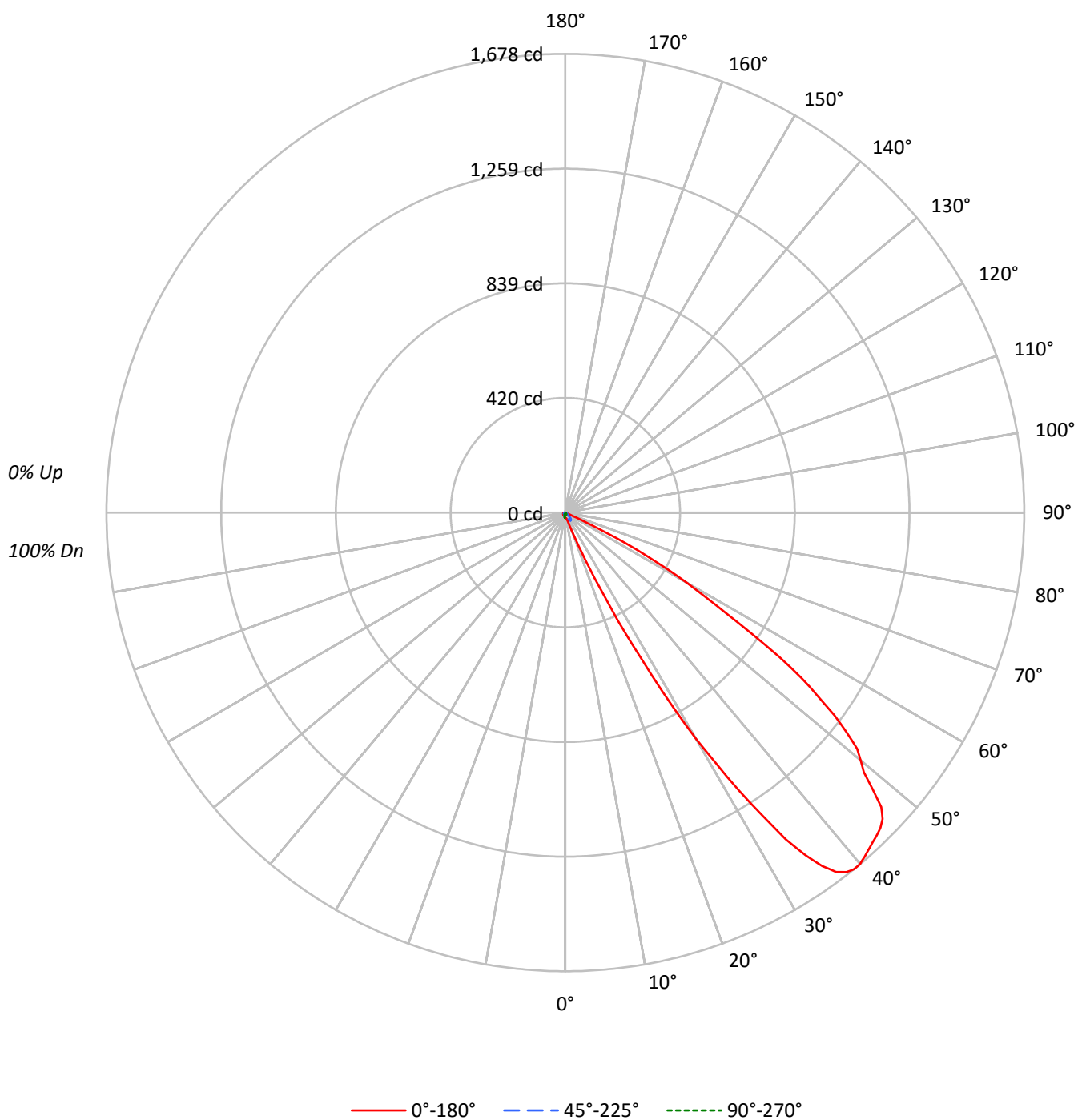
Lumens per Lamp: N/A
Luminaire Lumens: 418.0 lumens
Efficiency: N/A
Efficacy: 28.8 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.5
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			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	110	106	102	99	107	104	100	97	100	97	94		96	93	91		92	90	89	87
2	100	93	86	81	98	91	85	80	87	83	78		84	80	77		81	78	75	73
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71	67	63	61
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62	57	52	50
5	75	62	52	46	73	61	52	45	58	51	45		56	50	44		55	49	44	42
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48	42	37	35
7	62	48	38	32	60	47	38	32	45	37	32		44	37	31		42	36	31	29
8	57	42	33	27	55	41	33	27	40	32	27		39	32	26		38	31	26	24
9	52	38	29	23	50	37	29	23	36	28	23		35	28	22		34	27	22	20
10	48	34	25	19	46	33	25	19	32	25	19		31	24	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4210	4210	4210	4210	4210
5°	4578	4490	4160	3742	3654
10°	4787	4364	3696	3184	3184
15°	6856	4291	2997	2747	2838
20°	17175	4574	2380	2380	2637
25°	79698	5831	1815	2202	2468
30°	242290	7925	1443	2000	2481
35°	409489	9182	1205	1927	2436
40°	480014	9074	973	1947	2605
45°	505510	6450	806	2109	2822
50°	481178	3855	785	2183	3104
55°	403178	1606	879	2447	3594
60°	225728	351	1009	2807	3991
65°	38967	208	986	3113	4514
70°	705	256	1218	3398	5065
75°	678	339	1610	3813	5761
80°	505	505	1894	4293	6693
85°	0	1006	3774	4780	7548

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 509076 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.4
10°-20°	4.9	1.2
20°-30°	25.6	6.1
30°-40°	110.8	26.5
40°-50°	158.0	37.8
50°-60°	97.9	23.4
60°-70°	14.9	3.6
70°-80°	2.8	0.7
80°-90°	1.4	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°	32.3	7.7
0°-40°	143.1	34.2
0°-60°	398.9	95.4
0°-90°	418.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	418.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	19	19	19	19	19	
5°	21	20	19	17	17	2
15°	30	19	13	12	12	11
25°	329	24	8	9	10	197
35°	1530	34	4	7	9	918
45°	1630	21	3	7	9	1232
55°	1055	4	2	6	9	898
65°	75	0	2	6	9	153
75°	1	0	2	4	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°	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2	19.2
2.5°	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	19.2	18.9
5°	20.8	20.8	20.4	20.4	20.4	20.4	20.4	20.4	19.6	18.9	17.7
7.5°	21.1	21.1	20.8	20.8	20.8	20.8	20.4	20.0	19.2	17.7	16.6
10°	21.5	21.5	21.5	21.5	21.1	20.8	20.4	19.6	18.5	16.6	15.5
12.5°	24.1	24.1	23.8	23.0	22.3	21.5	20.8	19.2	17.0	15.1	14.0
15°	30.2	29.8	29.1	27.9	26.4	24.5	23.0	18.9	15.5	13.2	12.5
17.5°	42.3	41.5	40.4	36.6	33.2	29.8	26.8	18.9	14.0	11.7	10.9
20°	73.6	74.0	66.0	57.0	49.4	41.1	33.6	19.6	12.5	10.2	9.8
22.5°	153.6	147.5	128.7	106.8	81.5	63.0	47.5	21.5	10.9	8.7	8.7
25°	329.4	306.4	260.7	197.0	138.9	98.5	69.1	24.1	9.8	7.5	7.9
27.5°	601.5	580.7	489.0	368.3	244.5	148.7	93.6	27.5	8.7	6.4	7.2
30°	956.9	899.6	780.0	603.7	408.7	227.5	125.7	31.3	7.2	5.7	6.8
31°	1067.9	1041.4	895.8	698.4	478.8	270.2	139.2	32.5	6.8	5.7	6.4
32°	1199.5	1152.8	1022.2	802.2	550.2	308.3	155.5	33.6	6.4	4.9	6.4
33°	1317.3	1272.0	1113.1	893.5	622.2	351.7	172.8	34.0	5.7	4.9	6.0
34°	1441.0	1379.2	1221.8	989.0	696.2	398.5	188.7	34.3	5.3	4.5	6.0
35°	1529.7	1467.8	1315.4	1064.5	760.0	440.0	206.8	34.3	4.9	4.5	5.7
36°	1598.4	1544.1	1396.1	1142.2	823.3	477.3	221.1	34.3	4.2	4.2	5.7
37°	1645.6	1593.9	1450.5	1209.0	871.6	510.5	233.9	34.3	3.8	4.2	5.7
38°	1668.6	1625.6	1502.9	1257.7	918.4	536.6	244.1	33.6	3.4	3.8	5.3
39°	1678.4	1643.3	1535.0	1298.8	953.5	559.2	251.7	32.8	3.0	3.8	5.3
40°	1676.9	1646.3	1553.1	1327.1	981.8	574.7	255.8	31.7	2.6	3.4	5.3
41°	1668.2	1641.8	1562.5	1351.2	998.8	585.2	257.0	30.6	2.3	3.4	4.9
42°	1658.4	1634.2	1565.6	1364.1	1009.7	588.6	253.9	29.1	2.3	3.0	4.9
43°	1648.2	1625.9	1565.6	1368.2	1012.4	586.4	249.0	26.4	1.9	3.0	4.9
44°	1639.9	1618.8	1560.7	1367.1	1006.7	577.7	240.0	23.4	1.5	3.0	4.9
45°	1630.1	1609.3	1554.2	1359.9	995.8	563.0	228.7	20.8	1.1	2.6	4.9
46°	1612.7	1596.5	1542.9	1345.2	978.4	542.6	214.3	18.9	0.8	2.6	4.5
47°	1579.1	1565.2	1521.0	1323.3	955.4	518.5	199.6	17.0	0.8	2.6	4.5
48°	1511.6	1511.2	1477.3	1282.6	918.8	488.3	184.1	15.1	0.8	2.6	4.5
49°	1446.3	1439.5	1397.3	1210.9	866.4	452.0	167.9	13.6	0.4	2.6	4.5
50°	1410.5	1395.8	1326.3	1126.3	799.2	401.9	150.6	11.3	0.4	2.3	4.5
51°	1373.1	1352.0	1270.1	1050.1	719.2	353.6	131.7	9.1	0.4	2.3	4.2
52°	1305.6	1285.6	1193.9	977.3	641.5	304.1	113.6	7.5	0.4	2.3	4.5
53°	1232.8	1204.1	1104.5	897.3	573.2	260.4	95.1	6.4	0.4	2.3	4.2
54°	1141.1	1128.2	1013.9	799.2	493.2	218.1	78.1	5.3	0.4	2.3	4.2
55°	1054.6	1035.8	916.9	698.8	420.7	178.9	65.3	4.2	0.4	2.3	4.2
56°	944.5	916.2	804.9	606.8	347.1	144.1	55.1	3.4	0.4	2.3	4.2
57°	813.2	783.0	695.1	504.5	272.4	109.8	46.0	2.6	0.4	2.3	4.2
58°	687.9	661.8	567.5	389.4	205.3	76.2	38.1	1.9	0.4	1.9	4.2
59°	594.3	565.6	472.0	299.6	142.6	56.2	28.7	1.5	0.4	2.3	4.2
60°	514.7	477.7	380.0	232.1	101.9	40.4	21.1	0.8	0.8	2.3	4.2
62.5°	296.6	261.9	181.5	94.3	41.9	20.8	10.2	0.4	0.8	2.3	4.2
65°	75.1	66.8	43.4	20.4	11.7	7.2	3.8	0.4	0.8	1.9	3.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	2.6	2.6	2.6	2.3	1.9	1.5	0.8	0.4	0.8	1.9	3.8
70°	1.1	1.1	1.1	0.8	0.8	0.4	0.4	0.4	0.8	1.9	3.4
72.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	1.1	1.9	3.0
75°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	1.1	1.9	3.0
77.5°	0.8	0.8	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.5	2.6
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.5	2.3
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.5	1.9
85°	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	1.1	1.5	1.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.1	1.5	1.1
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°	19.2	19.2	19.2
2.5°	18.1	18.1	18.1
5°	17.0	17.0	16.6
7.5°	15.8	15.5	15.5
10°	14.3	14.3	14.3
12.5°	13.2	13.2	13.2
15°	12.1	12.5	12.5
17.5°	10.9	11.7	11.7
20°	10.2	10.9	11.3
22.5°	9.4	10.2	10.6
25°	9.1	9.8	10.2
27.5°	8.3	9.4	10.2
30°	7.9	9.1	9.8
31°	7.9	9.1	9.4
32°	7.5	9.1	9.4
33°	7.5	9.1	9.4
34°	7.5	8.7	9.4
35°	7.2	8.7	9.1
36°	7.2	8.7	9.1
37°	7.2	8.7	9.4
38°	7.2	8.7	9.1
39°	6.8	8.7	9.1
40°	6.8	8.7	9.1
41°	6.8	8.7	9.1
42°	6.8	8.7	9.1
43°	6.8	8.7	9.1
44°	6.8	8.3	9.1
45°	6.8	8.3	9.1
46°	6.8	8.7	9.1
47°	6.8	8.7	9.4
48°	6.8	8.3	9.1
49°	6.4	8.3	9.1
50°	6.4	8.3	9.1
51°	6.4	8.7	9.4
52°	6.4	8.7	9.4
53°	6.4	8.7	9.4
54°	6.4	8.7	9.1
55°	6.4	8.7	9.4
56°	6.4	8.7	9.1
57°	6.4	8.7	9.1
58°	6.4	8.3	9.1
59°	6.4	8.3	9.1
60°	6.4	8.3	9.1
62.5°	6.0	8.3	9.1
65°	6.0	7.9	8.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	5.7	7.9	8.3
70°	5.3	7.5	7.9
72.5°	4.9	7.2	7.5
75°	4.5	6.4	6.8
77.5°	3.8	5.7	6.4
80°	3.4	4.9	5.3
82.5°	2.6	4.2	4.5
85°	1.9	3.0	3.0
87.5°	0.8	1.5	1.5
90°	0.0	0.0	0.0

(END OF REPORT)