

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: P1338818

Luminaire Tested: P3A05R409024DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1338818
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A05R409024DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R40 optic, 2400K CCT AND, 90CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

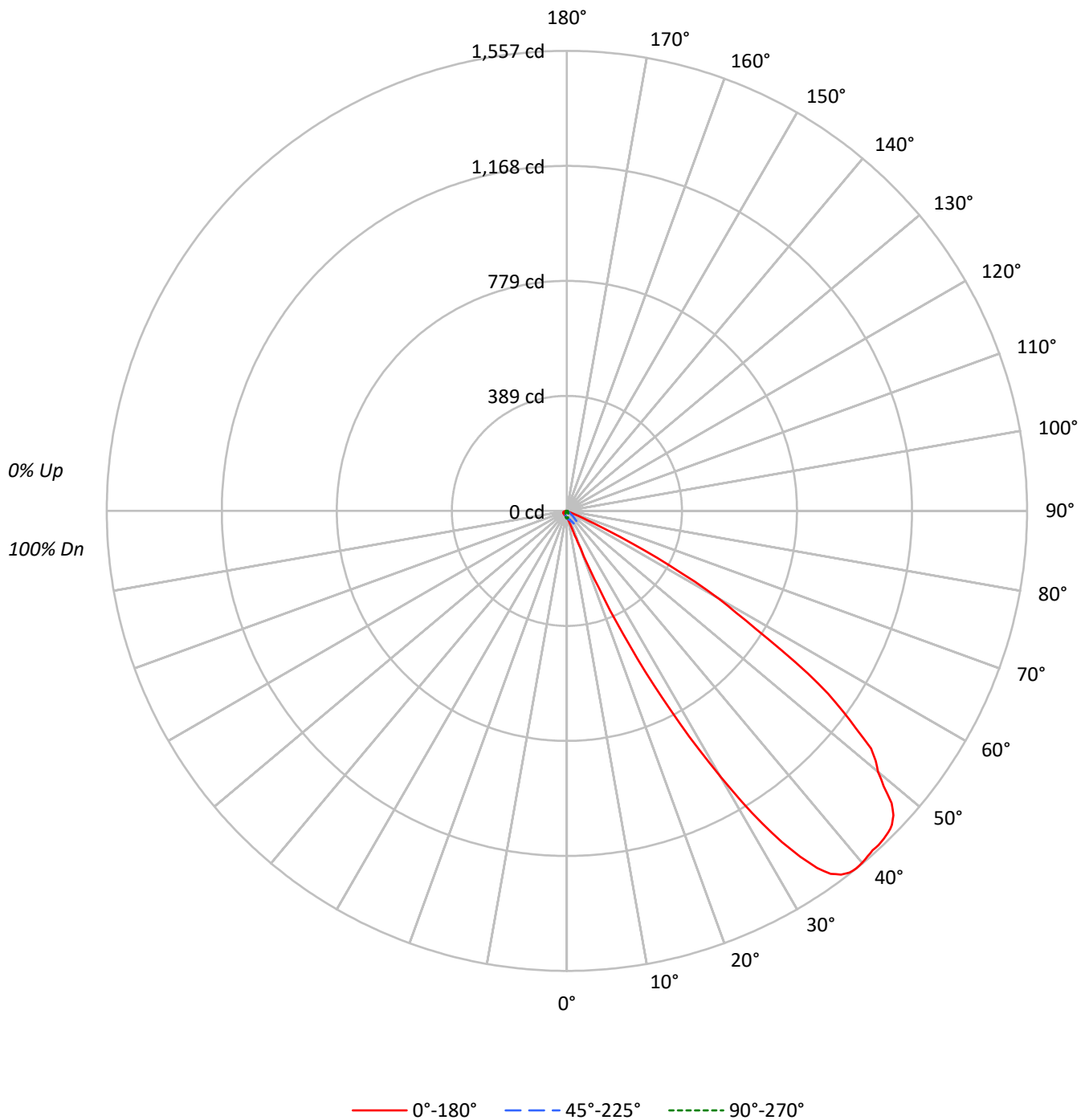
Lumens per Lamp: N/A
Luminaire Lumens: 481.0 lumens
Efficiency: N/A
Efficacy: 66.8 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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
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	99	97	94		96	93	91		92
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34
10	48	34	25	20	47	33	25	20	32	25	20		31	24	20		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5416	5416	5416	5416	5416
5°	6031	5833	5349	4865	4755
10°	7281	6190	4921	4431	4320
15°	11941	6720	4222	3905	4018
20°	31549	7934	3500	3500	3804
25°	121628	9823	2782	3218	3750
30°	262395	13091	2228	3140	3697
35°	394953	15499	1901	3078	3774
40°	444977	15543	1632	3149	4036
45°	477135	12063	1520	3287	4373
50°	468965	7539	1365	3480	4810
55°	412583	3708	1338	3900	5390
60°	261163	789	1535	4254	6008
65°	53391	208	1608	4566	6641
70°	1154	256	1731	5129	7629
75°	1101	763	1864	5592	8642
80°	1137	505	2273	6188	10102
85°	1006	1006	4529	6793	11070

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 485730 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.3	0.5
10°-20°	7.6	1.6
20°-30°	37.4	7.8
30°-40°	121.5	25.3
40°-50°	167.5	34.8
50°-60°	116.7	24.3
60°-70°	22.1	4.6
70°-80°	4.0	0.8
80°-90°	1.8	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°	47.3	9.8
0°-40°	168.8	35.1
0°-60°	453.0	94.2
0°-90°	481.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	481.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	25	25	25	25	25	
5°	27	26	24	22	22	3
15°	53	30	19	17	18	19
25°	503	41	12	13	16	259
35°	1475	58	7	12	14	892
45°	1539	39	5	11	14	1170
55°	1079	10	4	10	14	922
65°	103	0	3	9	13	182
75°	1	1	2	7	10	1
85°	0	0	2	3	4	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7	24.7
2.5°	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.2	24.7
5°	27.4	27.4	27.4	27.4	26.9	26.9	26.9	26.5	26.5	25.6	24.3
7.5°	29.2	29.2	29.2	29.2	28.7	28.3	27.8	27.8	27.4	25.2	23.4
10°	32.7	32.7	32.2	31.8	31.4	30.5	30.0	29.2	27.8	24.7	22.1
12.5°	39.8	38.9	38.4	37.5	36.2	34.5	32.7	31.4	28.3	23.9	20.8
15°	52.6	51.7	49.9	47.3	44.6	41.1	38.0	34.9	29.6	22.5	18.6
17.5°	75.1	72.4	69.8	65.4	58.8	52.6	45.9	40.2	31.4	21.2	16.8
20°	135.2	133.4	117.5	105.1	85.3	71.1	57.9	48.1	34.0	19.9	15.0
22.5°	278.7	260.2	234.1	191.7	149.3	110.0	80.0	60.5	36.7	18.1	13.3
25°	502.7	473.5	417.4	335.7	247.8	175.4	115.7	79.1	40.6	16.3	11.5
27.5°	761.1	731.5	644.5	531.8	388.3	264.6	165.2	104.7	45.9	14.6	10.2
30°	1036.3	1011.1	900.7	744.8	547.3	370.6	221.3	130.8	51.7	12.8	8.8
31°	1147.2	1114.9	995.7	829.6	622.0	414.3	243.8	141.8	53.9	12.4	8.4
32°	1249.2	1212.6	1088.9	910.9	682.5	461.6	268.6	151.5	55.7	11.5	8.0
33°	1337.1	1294.3	1175.0	987.7	749.2	505.8	294.2	160.8	57.0	10.6	7.5
34°	1411.8	1374.7	1246.6	1065.0	808.4	548.2	319.4	170.1	57.9	10.2	7.1
35°	1475.4	1441.8	1315.0	1123.8	866.2	589.3	342.3	178.9	57.9	9.3	7.1
36°	1518.2	1489.1	1374.2	1183.8	914.8	624.2	361.8	186.9	57.9	8.4	6.6
37°	1541.6	1513.4	1413.1	1233.3	962.5	658.6	379.4	193.0	57.4	8.0	6.2
38°	1553.6	1528.8	1441.8	1273.5	995.7	683.4	394.9	197.9	57.0	7.1	6.2
39°	1556.7	1535.9	1459.9	1302.7	1027.9	708.1	406.0	200.5	55.7	6.6	5.7
40°	1554.5	1536.3	1469.6	1328.7	1052.6	727.5	413.9	201.4	54.3	5.7	5.7
41°	1550.0	1535.9	1476.7	1346.8	1072.5	739.9	417.0	199.7	52.6	4.9	5.3
42°	1546.1	1530.6	1479.8	1359.2	1086.2	746.1	416.6	196.1	49.9	4.4	5.3
43°	1546.1	1528.4	1480.2	1367.2	1092.8	746.5	411.3	189.5	46.4	4.0	4.9
44°	1543.4	1527.1	1482.5	1372.5	1094.6	742.6	402.9	182.4	42.4	3.5	4.9
45°	1538.6	1521.3	1482.0	1372.9	1091.5	732.8	389.2	173.2	38.9	2.7	4.9
46°	1529.3	1513.8	1478.0	1369.8	1082.2	718.7	372.8	163.9	34.9	2.2	4.4
47°	1510.7	1498.8	1467.4	1359.2	1068.1	697.9	353.4	153.3	31.8	1.8	4.4
48°	1478.9	1470.5	1449.3	1335.8	1041.2	672.3	332.6	141.8	28.7	1.8	4.4
49°	1420.6	1414.0	1401.6	1298.2	1006.7	641.0	310.1	129.0	25.6	1.3	4.4
50°	1374.7	1367.6	1342.4	1235.1	957.2	601.2	285.4	116.2	22.1	0.9	4.0
51°	1344.2	1332.7	1292.9	1161.8	885.2	548.2	258.4	103.4	18.6	0.9	4.0
52°	1305.8	1288.5	1239.1	1095.9	819.4	495.2	229.3	90.6	16.3	0.9	4.0
53°	1225.4	1219.2	1170.1	1025.3	753.6	444.4	199.2	80.0	14.1	0.9	4.0
54°	1155.1	1145.9	1079.2	927.2	682.0	387.8	168.3	70.7	11.9	0.9	4.0
55°	1079.2	1061.0	1001.8	844.6	598.1	335.7	138.7	61.0	9.7	0.9	3.5
56°	983.3	967.4	903.8	756.2	520.8	282.7	116.2	49.9	7.5	0.9	3.5
57°	866.7	852.1	803.1	647.6	440.4	231.0	94.5	40.2	5.7	0.9	3.5
58°	754.0	737.7	681.6	543.3	355.6	183.3	79.1	32.7	4.4	0.9	3.5
59°	667.5	645.4	572.9	456.3	278.3	139.1	62.7	26.1	3.1	0.9	3.5
60°	595.5	577.3	502.2	379.9	218.2	102.5	46.4	19.9	1.8	0.9	3.5
62.5°	345.0	340.1	272.5	195.7	102.9	47.7	23.0	9.3	0.9	1.3	3.5
65°	102.9	89.7	69.8	41.5	26.5	15.9	8.4	3.1	0.4	1.3	3.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	3.1	3.1	3.1	3.1	3.1	3.1	1.8	0.9	0.4	1.3	3.1
70°	1.8	1.3	1.3	1.3	1.3	0.9	0.9	0.4	0.4	1.3	2.7
72.5°	1.3	1.3	1.3	1.3	0.9	0.9	0.9	0.4	0.9	1.3	2.2
75°	1.3	0.9	0.9	0.9	0.9	0.4	0.4	0.4	0.9	1.3	2.2
77.5°	0.9	0.9	0.9	0.9	0.4	0.4	0.4	0.4	0.9	1.3	2.2
80°	0.9	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.8
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.8
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	1.3	1.3
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):

	112.5°	135°	157.5°	180°
0°	24.7	24.7	24.7	24.7
2.5°	23.9	23.4	23.0	23.0
5°	23.0	22.1	22.1	21.6
7.5°	21.6	20.8	20.8	20.8
10°	20.3	19.9	19.9	19.4
12.5°	18.6	18.6	18.6	18.6
15°	17.2	17.2	17.7	17.7
17.5°	15.5	15.9	16.8	17.2
20°	14.1	15.0	15.9	16.3
22.5°	13.3	14.1	15.5	15.9
25°	11.9	13.3	15.0	15.5
27.5°	11.0	12.8	14.1	15.0
30°	10.2	12.4	13.7	14.6
31°	10.2	11.9	13.7	14.6
32°	9.7	11.5	13.7	14.1
33°	9.7	11.5	13.7	14.1
34°	9.3	11.5	13.3	14.1
35°	9.3	11.5	13.3	14.1
36°	8.8	11.0	13.3	14.1
37°	8.8	11.0	13.3	14.1
38°	8.4	11.0	13.3	14.1
39°	8.4	11.0	13.3	14.1
40°	8.4	11.0	13.3	14.1
41°	8.0	11.0	13.3	14.1
42°	8.0	11.0	13.3	14.1
43°	8.0	10.6	13.3	14.1
44°	8.0	10.6	13.3	14.1
45°	7.5	10.6	13.3	14.1
46°	7.5	10.6	13.3	14.1
47°	7.5	10.6	13.3	14.1
48°	7.5	10.6	13.3	14.1
49°	7.5	10.6	13.3	14.1
50°	7.1	10.2	13.3	14.1
51°	7.1	10.2	13.3	14.1
52°	7.1	10.2	13.3	14.1
53°	7.1	10.2	13.3	14.1
54°	6.6	10.2	13.3	14.1
55°	6.6	10.2	13.3	14.1
56°	6.6	10.2	13.3	13.7
57°	6.6	10.2	12.8	13.7
58°	6.6	9.7	12.8	13.7
59°	6.6	9.7	12.8	13.7
60°	6.6	9.7	12.8	13.7
62.5°	6.2	9.7	12.4	13.3
65°	5.7	8.8	12.4	12.8



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	5.7	8.4	11.5	12.4
70°	5.3	8.0	11.0	11.9
72.5°	4.4	7.5	10.2	11.0
75°	4.0	6.6	9.3	10.2
77.5°	3.5	5.7	8.4	8.8
80°	3.1	4.9	7.1	8.0
82.5°	2.2	3.5	5.7	6.2
85°	1.8	2.7	4.0	4.4
87.5°	1.3	1.3	2.2	2.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)