

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: P1345938

Luminaire Tested: P3A13R409030D2WDE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345938
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: P3A13R409030D2WDE010 E3A451WMH
Description: 3in Adjustable Dim to Warm LED luminaire with, R40 optic, 3000K CCT AND, 90CRI ,
E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

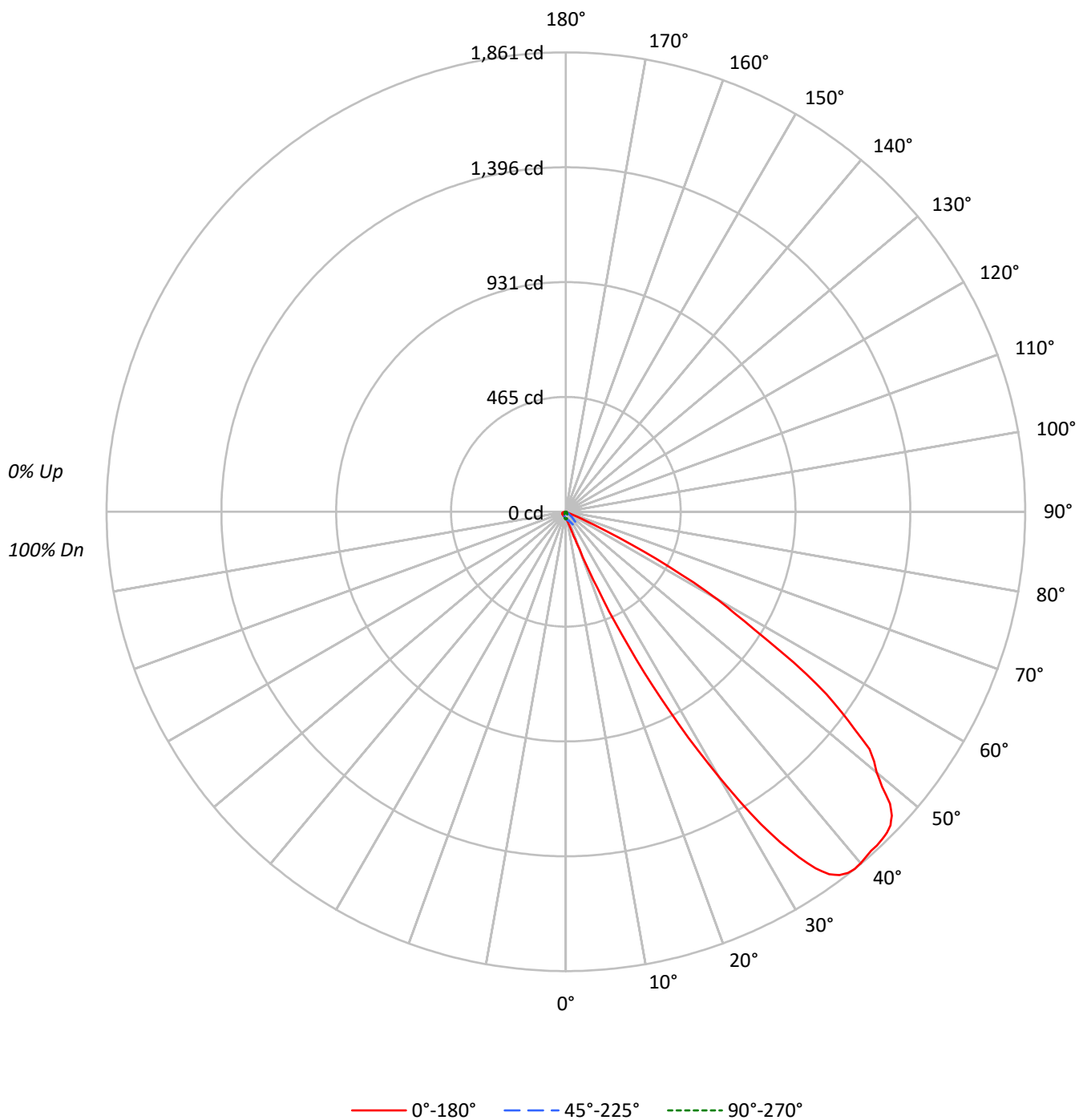
Lumens per Lamp: N/A
Luminaire Lumens: 575.0 lumens
Efficiency: N/A
Efficacy: 28.6 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 20.1
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: P1345938

CATALOG NUMBER: P3A13R409030D2WDE010 E3A451WMH

Luminous Intensity Polar Plot



TEST NUMBER: P1345938

CATALOG NUMBER: P3A13R409030D2WDE010 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		107	104	100	97		99	97	94		96	93	91		92	90	88
2	100	93	86	81		98	91	85	80		87	82	78		84	80	76		81	78	75
3	91	81	73	66		89	79	72	66		76	70	65		73	68	64		71	66	62
4	82	70	62	55		80	69	61	54		67	59	54		64	58	53		62	57	52
5	75	62	52	46		73	60	52	45		58	51	45		56	50	44		54	49	44
6	68	54	45	38		66	53	44	38		51	43	38		50	43	37		48	42	37
7	62	48	39	32		60	47	38	32		45	37	32		44	37	31		42	36	31
8	57	42	33	27		55	42	33	27		40	32	27		39	32	27		38	31	26
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	20		31	24	20		30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	6491	6491	6491	6491	6491
5°	7198	6978	6383	5811	5701
10°	8706	7415	5878	5299	5166
15°	14257	8036	5040	4677	4790
20°	37710	9497	4200	4200	4550
25°	145387	11759	3315	3823	4476
30°	313669	15648	2684	3747	4406
35°	472129	18524	2249	3667	4524
40°	531911	18606	1975	3779	4838
45°	570354	14420	1799	3938	5241
50°	560596	9006	1637	4128	5765
55°	493172	4435	1606	4626	6461
60°	312168	921	1842	5087	7192
65°	63820	259	1920	5500	7939
70°	1346	321	2052	6091	9168
75°	1356	932	2203	6693	10252
80°	1389	631	2652	7324	11996
85°	1258	1258	5284	8051	13335

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 580677 cd/sqm

TEST NUMBER: P1345938

CATALOG NUMBER: P3A13R409030D2WDE010 E3A451WMH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.8	0.5
10°-20°	9.1	1.6
20°-30°	44.7	7.8
30°-40°	145.3	25.3
40°-50°	200.3	34.8
50°-60°	139.5	24.3
60°-70°	26.4	4.6
70°-80°	4.8	0.8
80°-90°	2.2	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°	56.5	9.8
0°-40°	201.8	35.1
0°-60°	541.6	94.2
0°-90°	575.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	575.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	30	30	30	30	30	
5°	33	32	29	26	26	3
15°	63	35	22	21	21	23
25°	601	49	14	16	18	309
35°	1764	69	8	14	17	1066
45°	1839	46	6	13	17	1399
55°	1290	12	4	12	17	1103
65°	123	0	4	11	15	218
75°	2	1	3	8	12	2
85°	0	0	2	3	5	0
90°	0	0	0	0	0	

TEST NUMBER: P1345938

CATALOG NUMBER: P3A13R409030D2WDE010 E3A451WMH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6
2.5°	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.1	29.6
5°	32.7	32.7	32.7	32.7	32.2	32.2	32.2	31.7	31.7	30.6	29.0
7.5°	34.9	34.9	34.9	34.9	34.3	33.8	33.3	33.3	32.7	30.1	28.0
10°	39.1	39.1	38.5	38.0	37.5	36.4	35.9	34.9	33.3	29.6	26.4
12.5°	47.5	46.5	45.9	44.9	43.3	41.2	39.1	37.5	33.8	28.5	24.8
15°	62.8	61.8	59.7	56.5	53.3	49.1	45.4	41.7	35.4	26.9	22.2
17.5°	89.8	86.6	83.4	78.2	70.2	62.8	54.9	48.1	37.5	25.3	20.1
20°	161.6	159.5	140.5	125.7	101.9	85.0	69.2	57.6	40.7	23.8	18.0
22.5°	333.2	311.0	279.9	229.2	178.5	131.5	95.6	72.3	43.8	21.7	15.8
25°	600.9	566.1	499.0	401.3	296.2	209.6	138.4	94.5	48.6	19.5	13.7
27.5°	909.8	874.5	770.4	635.8	464.2	316.3	197.5	125.1	54.9	17.4	12.1
30°	1238.8	1208.7	1076.7	890.3	654.3	443.0	264.6	156.3	61.8	15.3	10.6
31°	1371.4	1332.8	1190.2	991.7	743.5	495.3	291.5	169.5	64.4	14.8	10.0
32°	1493.3	1449.5	1301.7	1088.9	815.8	551.8	321.1	181.1	66.5	13.7	9.5
33°	1598.4	1547.2	1404.6	1180.7	895.6	604.6	351.7	192.2	68.1	12.7	9.0
34°	1687.7	1643.3	1490.2	1273.1	966.3	655.3	381.8	203.3	69.2	12.1	8.4
35°	1763.7	1723.6	1572.0	1343.4	1035.5	704.4	409.2	213.9	69.2	11.1	8.4
36°	1814.9	1780.1	1642.8	1415.2	1093.6	746.1	432.5	223.4	69.2	10.0	7.9
37°	1842.9	1809.1	1689.3	1474.3	1150.6	787.3	453.6	230.8	68.6	9.5	7.4
38°	1857.2	1827.6	1723.6	1522.4	1190.2	816.9	472.1	236.6	68.1	8.4	7.4
39°	1860.9	1836.1	1745.2	1557.2	1228.8	846.5	485.3	239.7	66.5	7.9	6.9
40°	1858.2	1836.6	1756.8	1588.4	1258.4	869.7	494.8	240.8	65.0	6.9	6.9
41°	1853.0	1836.1	1765.3	1610.0	1282.1	884.5	498.5	238.7	62.8	5.8	6.3
42°	1848.2	1829.7	1769.0	1624.8	1298.5	891.9	498.0	234.5	59.7	5.3	6.3
43°	1848.2	1827.1	1769.5	1634.3	1306.4	892.4	491.6	226.5	55.4	4.8	5.8
44°	1845.0	1825.5	1772.2	1640.7	1308.5	887.7	481.6	218.1	50.7	4.2	5.8
45°	1839.2	1818.6	1771.6	1641.2	1304.8	876.0	465.2	207.0	46.5	3.2	5.8
46°	1828.1	1809.7	1766.9	1637.5	1293.7	859.1	445.7	195.9	41.7	2.6	5.3
47°	1806.0	1791.7	1754.2	1624.8	1276.8	834.3	422.4	183.2	38.0	2.1	5.3
48°	1767.9	1757.9	1732.6	1596.8	1244.6	803.7	397.6	169.5	34.3	2.1	5.3
49°	1698.2	1690.3	1675.5	1552.0	1203.4	766.2	370.7	154.2	30.6	1.6	5.3
50°	1643.3	1634.9	1604.8	1476.4	1144.3	718.7	341.1	138.9	26.4	1.1	4.8
51°	1606.9	1593.1	1545.6	1388.8	1058.2	655.3	308.9	123.6	22.2	1.1	4.8
52°	1560.9	1540.3	1481.2	1310.1	979.5	592.0	274.1	108.3	19.5	1.1	4.8
53°	1464.8	1457.4	1398.8	1225.6	900.9	531.2	238.2	95.6	16.9	1.1	4.8
54°	1380.9	1369.8	1290.0	1108.4	815.3	463.6	201.2	84.5	14.3	1.1	4.8
55°	1290.0	1268.4	1197.6	1009.6	715.0	401.3	165.8	72.9	11.6	1.1	4.2
56°	1175.5	1156.4	1080.4	904.0	622.6	338.0	138.9	59.7	9.0	1.1	4.2
57°	1036.0	1018.6	960.0	774.1	526.5	276.2	113.0	48.1	6.9	1.1	4.2
58°	901.4	881.9	814.8	649.5	425.1	219.1	94.5	39.1	5.3	1.1	4.2
59°	797.9	771.5	684.9	545.5	332.7	166.3	75.0	31.2	3.7	1.1	4.2
60°	711.8	690.2	600.4	454.1	260.9	122.5	55.4	23.8	2.1	1.1	4.2
62.5°	412.4	406.6	325.8	233.9	123.0	57.0	27.5	11.1	1.1	1.6	4.2
65°	123.0	107.2	83.4	49.6	31.7	19.0	10.0	3.7	0.5	1.6	3.7



TEST NUMBER: P1345938

CATALOG NUMBER: P3A13R409030D2WDE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	3.7	3.7	3.7	3.7	3.7	3.7	2.1	1.1	0.5	1.6	3.7
70°	2.1	1.6	1.6	1.6	1.6	1.1	1.1	0.5	0.5	1.6	3.2
72.5°	1.6	1.6	1.6	1.6	1.1	1.1	1.1	0.5	1.1	1.6	2.6
75°	1.6	1.1	1.1	1.1	1.1	0.5	0.5	0.5	1.1	1.6	2.6
77.5°	1.1	1.1	1.1	1.1	0.5	0.5	0.5	0.5	1.1	1.6	2.6
80°	1.1	1.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.1
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.1
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.6	1.6
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: P1345938

CATALOG NUMBER: P3A13R409030D2WDE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	29.6	29.6	29.6	29.6
2.5°	28.5	28.0	27.5	27.5
5°	27.5	26.4	26.4	25.9
7.5°	25.9	24.8	24.8	24.8
10°	24.3	23.8	23.8	23.2
12.5°	22.2	22.2	22.2	22.2
15°	20.6	20.6	21.1	21.1
17.5°	18.5	19.0	20.1	20.6
20°	16.9	18.0	19.0	19.5
22.5°	15.8	16.9	18.5	19.0
25°	14.3	15.8	18.0	18.5
27.5°	13.2	15.3	16.9	18.0
30°	12.1	14.8	16.4	17.4
31°	12.1	14.3	16.4	17.4
32°	11.6	13.7	16.4	16.9
33°	11.6	13.7	16.4	16.9
34°	11.1	13.7	15.8	16.9
35°	11.1	13.7	15.8	16.9
36°	10.6	13.2	15.8	16.9
37°	10.6	13.2	15.8	16.9
38°	10.0	13.2	15.8	16.9
39°	10.0	13.2	15.8	16.9
40°	10.0	13.2	15.8	16.9
41°	9.5	13.2	15.8	16.9
42°	9.5	13.2	15.8	16.9
43°	9.5	12.7	15.8	16.9
44°	9.5	12.7	15.8	16.9
45°	9.0	12.7	15.8	16.9
46°	9.0	12.7	15.8	16.9
47°	9.0	12.7	15.8	16.9
48°	9.0	12.7	15.8	16.9
49°	9.0	12.7	15.8	16.9
50°	8.4	12.1	15.8	16.9
51°	8.4	12.1	15.8	16.9
52°	8.4	12.1	15.8	16.9
53°	8.4	12.1	15.8	16.9
54°	7.9	12.1	15.8	16.9
55°	7.9	12.1	15.8	16.9
56°	7.9	12.1	15.8	16.4
57°	7.9	12.1	15.3	16.4
58°	7.9	11.6	15.3	16.4
59°	7.9	11.6	15.3	16.4
60°	7.9	11.6	15.3	16.4
62.5°	7.4	11.6	14.8	15.8
65°	6.9	10.6	14.8	15.3



TEST NUMBER: P1345938

CATALOG NUMBER: P3A13R409030D2WDE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	6.9	10.0	13.7	14.8
70°	6.3	9.5	13.2	14.3
72.5°	5.3	9.0	12.1	13.2
75°	4.8	7.9	11.1	12.1
77.5°	4.2	6.9	10.0	10.6
80°	3.7	5.8	8.4	9.5
82.5°	2.6	4.2	6.9	7.4
85°	2.1	3.2	4.8	5.3
87.5°	1.6	1.6	2.6	2.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)