

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: P1344756

Luminaire Tested: P3A13R25W2N902750DE010 E3A451WMH_3500K

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344756
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-75)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R25W2N902750DE010 E3A451WMH_3500K
Description: 3in Adjustable Tunable White LED luminaire with, R25 optic, 3500K CCT AND, 90CRI ,
E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

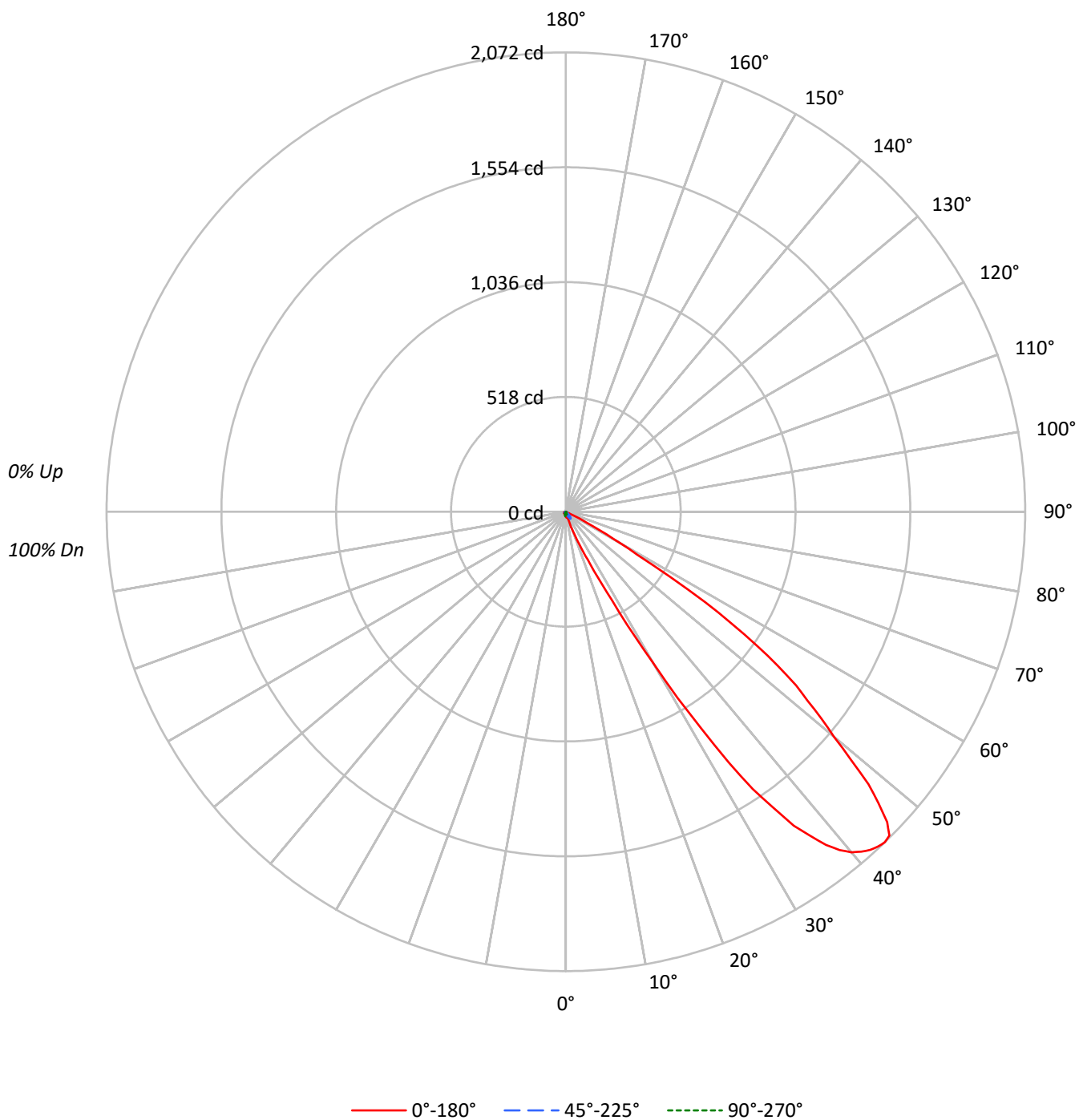
Lumens per Lamp: N/A
Luminaire Lumens: 432.0 lumens
Efficiency: N/A
Efficacy: 35.1 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.61 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 12.3
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: P1344756

CATALOG NUMBER: P3A13R25W2N902750DE010 E3A451WMH_3500K

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		108	104	101	97		100	97	94		96	94	92		92	91	89
2	101	93	87	82		98	91	86	81		88	83	79		85	81	77		82	78	75
3	92	81	74	67		89	80	73	67		77	71	66		74	69	64		72	67	63
4	83	71	62	56		81	70	62	55		67	60	55		65	59	54		63	58	53
5	75	62	53	46		73	61	53	46		59	51	46		57	50	45		55	49	45
6	68	55	45	39		66	54	45	39		52	44	38		50	43	38		48	42	37
7	62	48	39	32		60	47	39	32		46	38	32		44	37	32		43	36	32
8	57	43	34	27		55	42	33	27		40	33	27		39	32	27		38	32	27
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	19		30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4824	4824	4824	4824	4824
5°	5525	5261	4689	4182	4094
10°	5500	4988	3986	3474	3474
15°	6129	4313	3110	2929	3110
20°	21655	4247	2404	2474	2754
25°	62278	5420	1936	2299	2661
30°	198663	8381	1545	2203	2684
35°	435134	9878	1312	2142	2757
40°	574018	8931	1088	2176	2948
45°	640128	6233	1054	2357	3194
50°	538831	3241	1023	2456	3514
55°	402872	1300	1032	2753	3938
60°	124727	351	1009	2982	4342
65°	10637	0	1193	3165	4722
70°	705	256	1218	3654	5386
75°	678	339	1610	3897	6100
80°	505	505	2399	4293	7198
85°	1006	1006	3774	4780	7548

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 640128 cd/sqm

TEST NUMBER: P1344756

CATALOG NUMBER: P3A13R25W2N902750DE010 E3A451WMH_3500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.0	0.5
10°-20°	5.1	1.2
20°-30°	23.9	5.5
30°-40°	115.1	26.6
40°-50°	180.4	41.8
50°-60°	92.5	21.4
60°-70°	8.7	2.0
70°-80°	2.9	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°	31.0	7.2
0°-40°	146.0	33.8
0°-60°	418.9	97.0
0°-90°	432.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	432.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	22	22	22	22	22	
5°	25	24	21	19	19	2
15°	27	19	14	13	14	11
25°	257	22	8	10	11	160
35°	1626	37	5	8	10	987
45°	2064	20	3	8	10	1510
55°	1054	3	3	7	10	877
65°	20	0	2	6	9	64
75°	1	0	2	5	7	1
85°	0	0	2	2	3	0
90°	0	0	0	0	0	

TEST NUMBER: P1344756

CATALOG NUMBER: P3A13R25W2N902750DE010 E3A451WMH_3500K

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
2.5°	23.9	23.9	23.9	23.9	23.9	23.9	23.6	23.6	23.9	23.6	23.6
5°	25.1	25.1	25.1	25.1	25.1	25.1	25.1	24.7	24.7	24.7	23.9
7.5°	25.5	25.1	25.1	25.1	25.1	25.1	25.1	25.1	24.7	24.7	23.6
10°	24.7	24.7	24.7	24.7	24.3	24.3	24.3	23.9	23.9	23.9	22.4
12.5°	24.7	24.7	24.7	24.7	24.3	24.3	23.9	23.9	23.6	23.2	20.5
15°	27.0	27.0	27.0	26.6	26.2	25.9	25.5	25.1	24.7	23.9	19.0
17.5°	39.5	38.4	38.0	36.5	34.6	32.7	31.2	29.7	28.1	27.0	18.2
20°	92.8	92.4	90.5	85.9	81.0	75.3	69.6	63.1	54.0	47.9	18.2
22.5°	160.8	158.5	155.1	151.7	142.9	132.7	122.0	109.9	98.1	85.5	19.4
25°	257.4	262.7	251.3	242.2	226.9	208.3	188.2	171.4	150.2	130.4	22.4
27.5°	447.4	450.9	428.4	398.8	363.4	324.3	286.3	257.7	222.0	189.3	28.1
30°	784.6	788.1	750.4	687.3	614.3	550.1	463.0	386.6	316.3	261.9	33.1
31°	979.3	952.7	908.9	847.7	755.4	658.4	553.9	461.5	372.5	301.1	34.6
32°	1148.4	1146.2	1095.2	1002.5	909.7	790.0	660.3	539.8	430.7	340.6	35.7
33°	1348.0	1332.8	1261.0	1173.5	1050.7	930.2	763.0	625.3	490.4	384.7	36.5
34°	1508.1	1467.0	1437.3	1337.4	1207.7	1054.2	875.1	715.8	564.9	427.3	36.9
35°	1625.5	1616.8	1559.0	1465.9	1333.9	1176.9	996.0	809.7	627.2	476.7	36.9
36°	1749.8	1722.8	1666.6	1582.2	1453.7	1291.4	1088.4	891.1	699.9	521.2	36.5
37°	1827.8	1811.8	1755.9	1668.9	1543.0	1387.9	1191.8	977.0	757.6	565.7	35.7
38°	1908.0	1875.7	1820.5	1737.3	1613.7	1468.1	1266.7	1043.1	810.9	604.8	34.6
39°	1963.5	1930.0	1873.8	1790.9	1670.0	1525.5	1326.0	1099.4	857.2	634.1	33.1
40°	2005.3	1973.0	1916.0	1830.8	1711.4	1570.8	1375.4	1149.2	896.0	659.6	31.2
41°	2031.1	2001.1	1944.5	1859.7	1739.9	1596.6	1407.7	1181.5	922.2	676.7	29.3
42°	2052.8	2022.0	1964.2	1877.6	1757.4	1618.7	1427.5	1202.0	940.1	685.4	27.8
43°	2065.0	2034.2	1977.9	1889.3	1768.1	1628.9	1438.1	1211.5	946.2	684.3	25.1
44°	2071.8	2039.9	1983.2	1894.7	1772.6	1631.6	1438.9	1209.6	942.0	675.1	22.8
45°	2064.2	2032.7	1977.9	1889.3	1764.7	1623.2	1431.3	1199.4	926.0	657.3	20.1
46°	2014.8	1990.5	1940.3	1858.9	1739.6	1602.0	1411.9	1179.6	901.3	635.2	17.1
47°	1927.7	1908.4	1859.7	1799.2	1691.3	1562.8	1376.1	1142.0	866.7	602.2	13.7
48°	1836.9	1808.4	1763.1	1701.2	1609.9	1492.5	1317.2	1086.8	814.3	558.8	12.2
49°	1702.7	1686.0	1646.0	1576.9	1501.2	1397.8	1234.0	1016.1	750.0	511.7	10.6
50°	1579.5	1568.1	1512.2	1461.3	1381.1	1284.5	1121.1	923.0	670.2	453.1	9.5
51°	1483.3	1469.7	1429.4	1365.9	1280.3	1168.2	1014.2	802.1	578.6	383.6	7.6
52°	1383.0	1375.4	1339.6	1274.3	1190.2	1078.5	910.5	699.5	489.6	324.3	6.1
53°	1300.9	1289.8	1246.1	1188.0	1097.1	981.5	797.9	604.1	414.7	272.6	5.3
54°	1181.1	1176.6	1148.4	1087.6	989.1	863.3	696.1	508.6	345.9	231.1	4.6
55°	1053.8	1038.6	1010.1	961.8	871.3	753.8	578.2	421.6	279.8	194.6	3.4
56°	898.7	897.9	847.0	806.7	726.5	601.8	461.9	329.2	227.3	162.3	3.0
57°	750.4	726.5	677.4	637.5	551.2	456.6	342.9	246.7	177.9	131.5	2.3
58°	555.0	542.5	529.5	471.0	391.2	323.5	244.8	173.3	131.5	100.4	1.5
59°	376.7	376.3	361.1	316.7	270.7	201.5	152.8	117.8	90.5	73.7	1.1
60°	284.4	277.5	247.1	217.8	170.3	127.4	90.5	69.6	56.3	47.5	0.8
62.5°	99.6	103.4	90.9	75.3	57.4	47.1	36.1	29.3	23.9	19.4	0.0
65°	20.5	22.4	19.4	18.2	14.4	12.5	11.0	9.5	8.0	6.8	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	2.7	2.3	2.3	2.3	1.9	1.9	1.9	1.9	1.5	1.5	0.4
70°	1.1	1.1	1.1	1.1	1.1	1.1	0.8	0.8	0.8	0.8	0.4
72.5°	1.1	1.1	1.1	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4
75°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4
77.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8
85°	0.4	0.4	0.4	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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

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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	22.0	22.0	22.0	22.0	22.0	22.0
2.5°	23.2	22.4	21.3	20.9	20.5	20.5
5°	22.8	21.3	20.1	19.0	18.6	18.6
7.5°	21.7	19.8	18.2	17.5	17.1	16.7
10°	20.5	17.9	16.3	15.6	15.6	15.6
12.5°	18.2	16.0	14.4	14.1	14.4	14.4
15°	16.3	13.7	12.9	12.9	13.3	13.7
17.5°	14.1	12.2	11.4	11.8	12.2	12.5
20°	12.5	10.3	10.3	10.6	11.8	11.8
22.5°	11.0	9.1	9.1	10.3	11.0	11.4
25°	9.9	8.0	8.4	9.5	10.6	11.0
27.5°	8.4	6.8	7.6	9.1	10.3	10.6
30°	7.2	6.1	7.2	8.7	9.9	10.6
31°	6.8	5.7	7.2	8.4	9.9	10.6
32°	6.1	5.7	6.8	8.4	9.9	10.3
33°	5.7	5.3	6.8	8.4	9.9	10.3
34°	5.3	4.9	6.5	8.4	9.9	10.3
35°	4.6	4.9	6.5	8.0	9.5	10.3
36°	4.2	4.6	6.5	8.0	9.5	10.3
37°	3.8	4.6	6.1	8.0	9.5	10.3
38°	3.4	4.2	6.1	8.0	9.5	10.3
39°	3.0	4.2	5.7	8.0	9.5	10.3
40°	2.7	3.8	5.7	7.6	9.5	10.3
41°	2.7	3.8	5.7	7.6	9.5	10.3
42°	2.3	3.8	5.7	7.6	9.5	10.3
43°	1.9	3.4	5.7	7.6	9.5	10.3
44°	1.5	3.4	5.3	7.6	9.5	10.3
45°	1.5	3.4	5.3	7.6	9.5	10.3
46°	1.1	3.0	5.3	7.6	9.5	10.3
47°	0.8	3.0	5.3	7.2	9.5	10.3
48°	0.8	3.0	5.3	7.2	9.5	10.3
49°	0.8	3.0	4.9	7.2	9.5	10.3
50°	0.8	3.0	4.9	7.2	9.5	10.3
51°	0.4	2.7	4.9	7.2	9.5	10.3
52°	0.4	2.7	4.9	7.2	9.5	10.6
53°	0.4	2.7	4.9	7.2	9.5	10.3
54°	0.4	2.7	4.6	7.2	9.5	10.3
55°	0.4	2.7	4.6	7.2	9.5	10.3
56°	0.4	2.3	4.6	6.8	9.5	10.3
57°	0.8	2.3	4.6	6.8	9.5	9.9
58°	0.8	2.3	4.6	6.8	9.1	9.9
59°	0.8	2.3	4.6	6.8	9.1	9.9
60°	0.8	2.3	4.2	6.8	9.1	9.9
62.5°	0.8	2.3	4.2	6.5	8.7	9.5
65°	0.8	2.3	3.8	6.1	8.7	9.1



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	1.9	3.8	5.7	8.4	8.7
70°	1.1	1.9	3.4	5.7	8.0	8.4
72.5°	1.1	1.9	3.4	4.9	7.2	8.0
75°	1.1	1.9	3.0	4.6	6.8	7.2
77.5°	1.1	1.9	2.7	4.2	6.1	6.5
80°	1.5	1.9	2.3	3.4	5.3	5.7
82.5°	1.5	1.9	1.9	2.7	4.2	4.6
85°	1.1	1.5	1.5	1.9	2.7	3.0
87.5°	1.1	1.5	1.1	0.8	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)