

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: P1344582

Luminaire Tested: P3A13R259835DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344582
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: P3A13R259835DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R25 optic, 3500K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

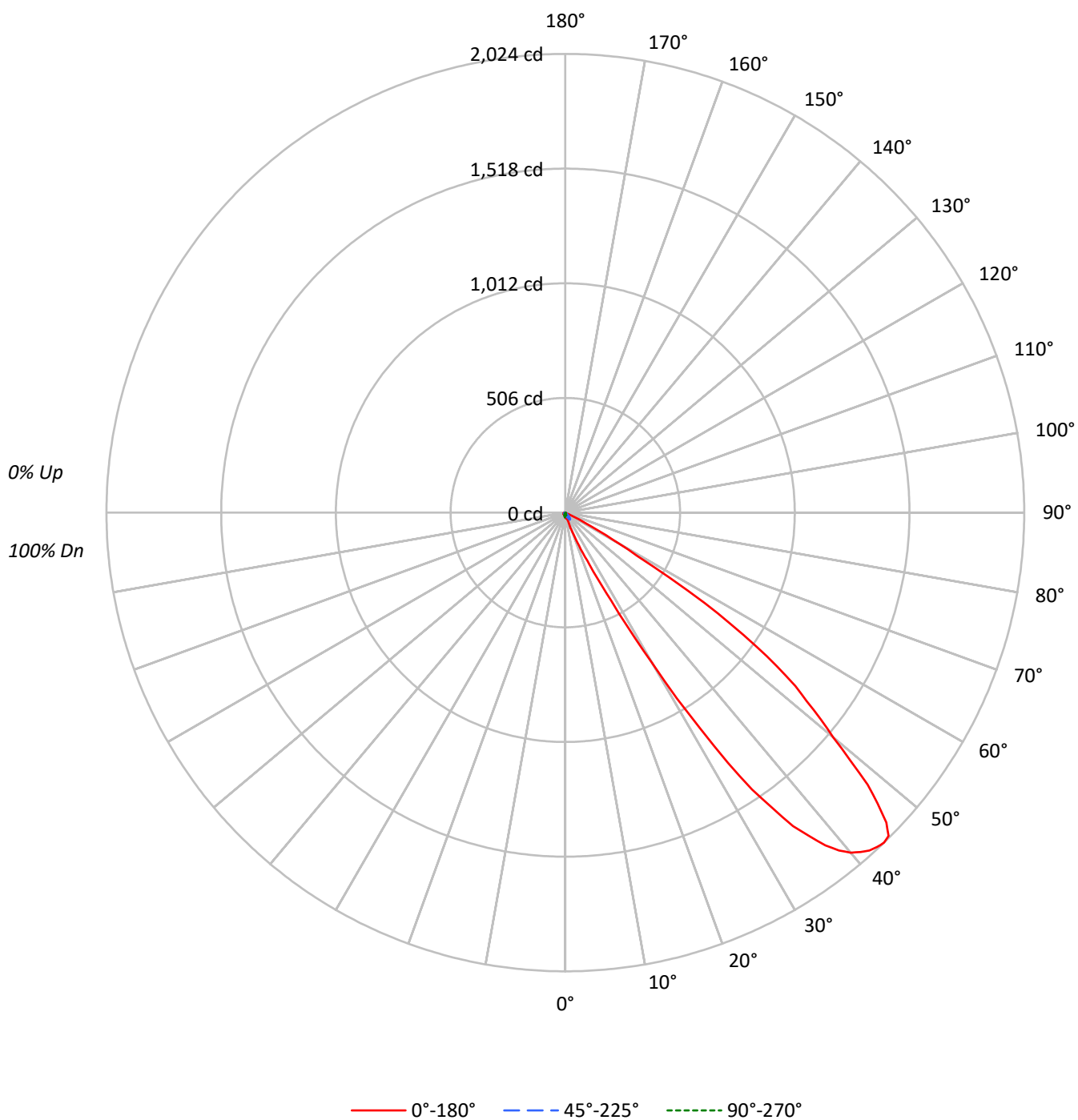
Lumens per Lamp: N/A
Luminaire Lumens: 422.0 lumens
Efficiency: N/A
Efficacy: 29.1 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.61 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4715	4715	4715	4715	4715
5°	5393	5151	4578	4094	4006
10°	5366	4876	3897	3384	3384
15°	5993	4222	3042	2860	3042
20°	21142	4154	2334	2427	2684
25°	60826	5299	1887	2250	2613
30°	194080	8178	1494	2152	2633
35°	425069	9637	1285	2088	2677
40°	560736	8731	1059	2118	2863
45°	625305	6109	1023	2295	3101
50°	526379	3173	1023	2422	3411
55°	393544	1262	994	2714	3823
60°	121832	307	965	2938	4254
65°	10429	0	1141	3061	4618
70°	705	256	1218	3590	5257
75°	593	339	1610	3813	6015
80°	505	505	2399	4167	7072
85°	1006	1006	3774	4780	7548

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 625305 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.9	0.5
10°-20°	5.0	1.2
20°-30°	23.3	5.5
30°-40°	112.4	26.6
40°-50°	176.2	41.7
50°-60°	90.3	21.4
60°-70°	8.5	2.0
70°-80°	2.9	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°	30.3	7.2
0°-40°	142.7	33.8
0°-60°	409.2	97.0
0°-90°	422.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	422.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	22	22	22	22	22	
5°	24	23	21	19	18	2
15°	26	19	13	13	13	11
25°	251	22	8	9	11	156
35°	1588	36	5	8	10	964
45°	2016	20	3	7	10	1475
55°	1029	3	3	7	10	857
65°	20	0	2	6	9	63
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°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5
2.5°	23.4	23.4	23.4	23.4	23.4	23.4	23.0	23.0	23.4	23.0	23.0
5°	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.1	24.1	24.1	23.4
7.5°	24.9	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.1	24.1	23.0
10°	24.1	24.1	24.1	24.1	23.8	23.8	23.8	23.4	23.4	23.4	21.9
12.5°	24.1	24.1	24.1	24.1	23.8	23.8	23.4	23.4	23.0	22.7	20.1
15°	26.4	26.4	26.4	26.0	25.6	25.3	24.9	24.5	24.1	23.4	18.6
17.5°	38.6	37.5	37.1	35.6	33.8	31.9	30.5	29.0	27.5	26.4	17.8
20°	90.6	90.2	88.4	83.9	79.1	73.5	68.0	61.6	52.7	46.8	17.8
22.5°	157.1	154.9	151.5	148.2	139.6	129.6	119.2	107.3	95.8	83.6	18.9
25°	251.4	256.6	245.5	236.5	221.7	203.5	183.8	167.5	146.7	127.4	21.9
27.5°	437.1	440.4	418.5	389.5	355.0	316.8	279.6	251.8	216.9	184.9	27.5
30°	766.5	769.8	733.0	671.4	600.1	537.3	452.3	377.7	309.0	255.9	32.3
31°	956.6	930.6	887.9	828.1	737.9	643.2	541.1	450.8	363.9	294.1	33.8
32°	1121.8	1119.6	1069.9	979.3	888.6	771.7	645.0	527.3	420.7	332.7	34.9
33°	1316.8	1302.0	1231.8	1146.4	1026.4	908.7	745.3	610.9	479.0	375.8	35.6
34°	1473.1	1433.0	1404.1	1306.4	1179.8	1029.8	854.8	699.3	551.8	417.4	36.0
35°	1587.9	1579.4	1522.9	1431.9	1303.1	1149.7	972.9	791.0	612.7	465.7	36.0
36°	1709.3	1683.0	1628.0	1545.6	1420.0	1261.5	1063.2	870.4	683.7	509.1	35.6
37°	1785.5	1769.9	1715.3	1630.2	1507.3	1355.8	1164.2	954.4	740.1	552.6	34.9
38°	1863.8	1832.2	1778.4	1697.1	1576.4	1434.2	1237.3	1019.0	792.1	590.8	33.8
39°	1918.0	1885.3	1830.4	1749.4	1631.3	1490.2	1295.3	1073.9	837.4	619.4	32.3
40°	1958.9	1927.3	1871.6	1788.4	1671.8	1534.4	1343.5	1122.6	875.3	644.3	30.5
41°	1984.1	1954.8	1899.5	1816.6	1699.7	1559.7	1375.1	1154.2	900.9	661.0	28.6
42°	2005.3	1975.2	1918.8	1834.1	1716.8	1581.2	1394.4	1174.2	918.3	669.5	27.1
43°	2017.2	1987.1	1932.1	1845.6	1727.1	1591.2	1404.8	1183.5	924.3	668.4	24.5
44°	2023.9	1992.7	1937.3	1850.8	1731.6	1593.8	1405.6	1181.6	920.2	659.5	22.3
45°	2016.4	1985.6	1932.1	1845.6	1723.8	1585.7	1398.1	1171.6	904.6	642.1	19.7
46°	1968.2	1944.4	1895.4	1815.9	1699.3	1564.9	1379.2	1152.3	880.5	620.5	16.7
47°	1883.1	1864.2	1816.6	1757.6	1652.1	1526.6	1344.3	1115.5	846.7	588.2	13.4
48°	1794.4	1766.5	1722.3	1661.8	1572.7	1457.9	1286.7	1061.7	795.4	545.9	11.9
49°	1663.3	1646.9	1607.9	1540.4	1466.5	1365.5	1205.4	992.6	732.7	499.8	10.4
50°	1543.0	1531.8	1477.2	1427.5	1349.1	1254.8	1095.1	901.6	654.7	442.6	9.3
51°	1449.0	1435.6	1396.3	1334.3	1250.7	1141.2	990.8	783.5	565.2	374.7	7.4
52°	1351.0	1343.5	1308.6	1244.8	1162.7	1053.5	889.4	683.3	478.3	316.8	5.9
53°	1270.8	1260.0	1217.3	1160.5	1071.7	958.8	779.5	590.1	405.1	266.3	5.2
54°	1153.8	1149.3	1121.8	1062.4	966.3	843.3	679.9	496.9	337.9	225.8	4.5
55°	1029.4	1014.5	986.7	939.5	851.1	736.4	564.8	411.8	273.3	190.1	3.3
56°	877.9	877.1	827.4	788.0	709.6	587.8	451.2	321.6	222.1	158.6	3.0
57°	733.0	709.6	661.7	622.8	538.5	446.0	335.0	241.0	173.8	128.5	2.2
58°	542.2	529.9	517.3	460.1	382.1	316.0	239.1	169.3	128.5	98.0	1.5
59°	368.0	367.6	352.8	309.3	264.4	196.8	149.3	115.1	88.4	72.0	1.1
60°	277.8	271.1	241.4	212.8	166.4	124.4	88.4	68.0	55.0	46.4	0.7
62.5°	97.3	101.0	88.8	73.5	56.1	46.0	35.3	28.6	23.4	18.9	0.0
65°	20.1	21.9	18.9	17.8	14.1	12.3	10.8	9.3	7.8	6.7	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°	2.6	2.2	2.2	2.2	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	0.7	0.7	0.7	0.7	0.4
72.5°	1.1	1.1	1.1	0.7	0.7	0.7	0.7	0.7	0.7	0.4	0.4
75°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4
77.5°	0.7	0.7	0.7	0.7	0.7	0.7	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	0.7
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°	21.5	21.5	21.5	21.5	21.5	21.5
2.5°	22.7	21.9	20.8	20.4	20.1	20.1
5°	22.3	20.8	19.7	18.6	18.2	18.2
7.5°	21.2	19.3	17.8	17.1	16.7	16.3
10°	20.1	17.5	16.0	15.2	15.2	15.2
12.5°	17.8	15.6	14.1	13.7	14.1	14.1
15°	16.0	13.4	12.6	12.6	13.0	13.4
17.5°	13.7	11.9	11.1	11.5	11.9	12.3
20°	12.3	10.0	10.0	10.4	11.5	11.5
22.5°	10.8	8.9	8.9	10.0	10.8	11.1
25°	9.7	7.8	8.2	9.3	10.4	10.8
27.5°	8.2	6.7	7.4	8.9	10.0	10.4
30°	7.1	5.9	7.1	8.5	9.7	10.4
31°	6.7	5.6	7.1	8.2	9.7	10.4
32°	5.9	5.6	6.7	8.2	9.7	10.0
33°	5.6	5.2	6.7	8.2	9.7	10.0
34°	5.2	4.8	6.3	8.2	9.7	10.0
35°	4.5	4.8	6.3	7.8	9.3	10.0
36°	4.1	4.5	6.3	7.8	9.3	10.0
37°	3.7	4.5	5.9	7.8	9.3	10.0
38°	3.3	4.1	5.9	7.8	9.3	10.0
39°	3.0	4.1	5.6	7.8	9.3	10.0
40°	2.6	3.7	5.6	7.4	9.3	10.0
41°	2.6	3.7	5.6	7.4	9.3	10.0
42°	2.2	3.7	5.6	7.4	9.3	10.0
43°	1.9	3.3	5.6	7.4	9.3	10.0
44°	1.5	3.3	5.2	7.4	9.3	10.0
45°	1.5	3.3	5.2	7.4	9.3	10.0
46°	1.1	3.0	5.2	7.4	9.3	10.0
47°	0.7	3.0	5.2	7.1	9.3	10.0
48°	0.7	3.0	5.2	7.1	9.3	10.0
49°	0.7	3.0	4.8	7.1	9.3	10.0
50°	0.7	3.0	4.8	7.1	9.3	10.0
51°	0.4	2.6	4.8	7.1	9.3	10.0
52°	0.4	2.6	4.8	7.1	9.3	10.4
53°	0.4	2.6	4.8	7.1	9.3	10.0
54°	0.4	2.6	4.5	7.1	9.3	10.0
55°	0.4	2.6	4.5	7.1	9.3	10.0
56°	0.4	2.2	4.5	6.7	9.3	10.0
57°	0.7	2.2	4.5	6.7	9.3	9.7
58°	0.7	2.2	4.5	6.7	8.9	9.7
59°	0.7	2.2	4.5	6.7	8.9	9.7
60°	0.7	2.2	4.1	6.7	8.9	9.7
62.5°	0.7	2.2	4.1	6.3	8.5	9.3
65°	0.7	2.2	3.7	5.9	8.5	8.9



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.7	1.9	3.7	5.6	8.2	8.5
70°	1.1	1.9	3.3	5.6	7.8	8.2
72.5°	1.1	1.9	3.3	4.8	7.1	7.8
75°	1.1	1.9	3.0	4.5	6.7	7.1
77.5°	1.1	1.9	2.6	4.1	5.9	6.3
80°	1.5	1.9	2.2	3.3	5.2	5.6
82.5°	1.5	1.9	1.9	2.6	4.1	4.5
85°	1.1	1.5	1.5	1.9	2.6	3.0
87.5°	1.1	1.5	1.1	0.7	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)