

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: P1344456

Luminaire Tested: P3A13R259040DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344456
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: P3A13R259040DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R25 optic, 4000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

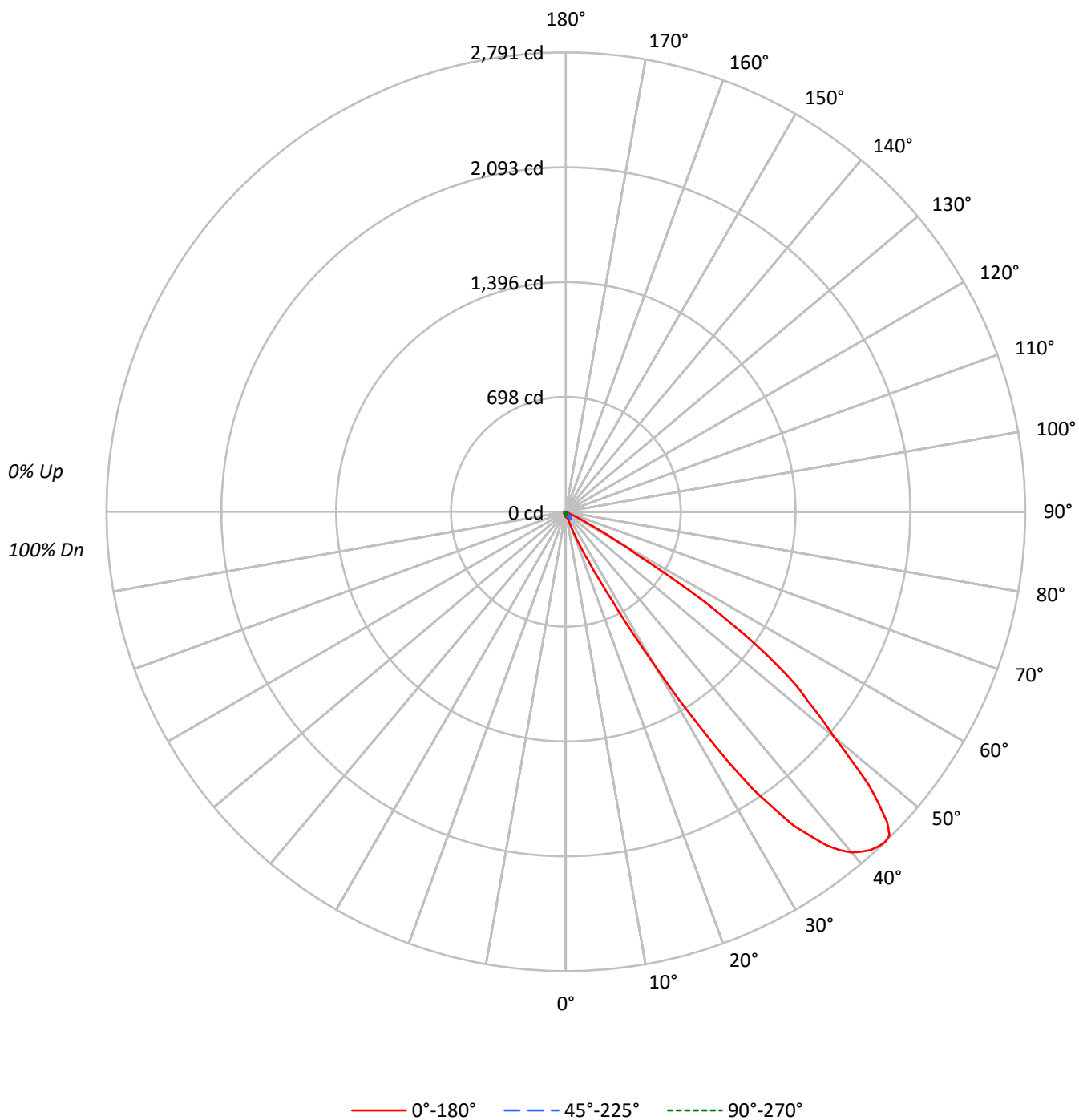
Lumens per Lamp: N/A
Luminaire Lumens: 582.0 lumens
Efficiency: N/A
Efficacy: 39.9 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.61 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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°	6513	6513	6513	6513	6513
5°	7440	7110	6317	5635	5525
10°	7415	6724	5366	4676	4676
15°	8263	5812	4177	3950	4177
20°	29169	5740	3220	3337	3710
25°	83884	7307	2613	3097	3605
30°	267661	11293	2076	2988	3621
35°	586219	13304	1794	2891	3694
40°	773335	12023	1460	2920	3950
45°	862415	8404	1427	3163	4280
50°	725946	4367	1399	3309	4708
55°	542757	1759	1376	3708	5276
60°	168013	439	1360	4035	5833
65°	14372	0	1608	4255	6382
70°	962	321	1667	4937	7245
75°	847	424	2203	5168	8218
80°	631	631	3283	5809	9723
85°	1258	1258	5032	6542	10315

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 862415 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.7	0.5
10°-20°	6.9	1.2
20°-30°	32.2	5.5
30°-40°	155.0	26.6
40°-50°	243.0	41.8
50°-60°	124.6	21.4
60°-70°	11.7	2.0
70°-80°	3.9	0.7
80°-90°	2.0	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°	41.7	7.2
0°-40°	196.7	33.8
0°-60°	564.3	97.0
0°-90°	582.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	582.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	30	30	30	30	30	
5°	34	32	29	26	25	3
15°	36	26	18	17	18	15
25°	347	30	11	13	15	215
35°	2190	50	7	11	14	1329
45°	2781	27	5	10	14	2035
55°	1420	5	4	10	14	1182
65°	28	0	3	8	12	87
75°	1	0	3	6	10	1
85°	0	0	2	3	4	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°	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7
2.5°	32.3	32.3	32.3	32.3	32.3	32.3	31.8	31.8	32.3	31.8	31.8
5°	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.3	33.3	33.3	32.3
7.5°	34.3	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.3	33.3	31.8
10°	33.3	33.3	33.3	33.3	32.8	32.8	32.8	32.3	32.3	32.3	30.2
12.5°	33.3	33.3	33.3	33.3	32.8	32.8	32.3	32.3	31.8	31.2	27.7
15°	36.4	36.4	36.4	35.9	35.3	34.8	34.3	33.8	33.3	32.3	25.6
17.5°	53.3	51.7	51.2	49.2	46.6	44.0	42.0	39.9	37.9	36.4	24.6
20°	125.0	124.5	121.9	115.7	109.1	101.4	93.7	85.0	72.7	64.5	24.6
22.5°	216.6	213.6	209.0	204.3	192.6	178.7	164.4	148.0	132.1	115.2	26.1
25°	346.7	353.9	338.5	326.2	305.8	280.7	253.5	231.0	202.3	175.7	30.2
27.5°	602.8	607.4	577.2	537.2	489.6	436.9	385.6	347.2	299.1	255.0	37.9
30°	1057.1	1061.7	1011.0	926.0	827.6	741.1	623.8	520.9	426.1	352.9	44.6
31°	1319.3	1283.4	1224.5	1142.1	1017.6	887.0	746.2	621.7	501.9	405.6	46.6
32°	1547.2	1544.1	1475.5	1350.5	1225.6	1064.2	889.6	727.2	580.3	458.9	48.1
33°	1816.1	1795.6	1698.8	1581.0	1415.6	1253.2	1027.9	842.5	660.7	518.3	49.2
34°	2031.7	1976.4	1936.4	1801.7	1627.1	1420.2	1179.0	964.4	761.0	575.7	49.7
35°	2189.9	2178.2	2100.3	1974.8	1797.1	1585.6	1341.8	1090.9	845.0	642.2	49.7
36°	2357.4	2321.0	2245.2	2131.6	1958.4	1739.8	1466.3	1200.5	942.9	702.2	49.2
37°	2462.4	2440.9	2365.6	2248.3	2078.8	1869.8	1605.6	1316.2	1020.7	762.1	48.1
38°	2570.5	2526.9	2452.7	2340.5	2174.1	1977.9	1706.5	1405.3	1092.4	814.8	46.6
39°	2645.2	2600.2	2524.4	2412.7	2249.9	2055.2	1786.4	1481.1	1154.9	854.3	44.6
40°	2701.6	2658.0	2581.2	2466.5	2305.7	2116.2	1852.9	1548.2	1207.1	888.6	42.0
41°	2736.4	2695.9	2619.6	2505.4	2344.1	2151.0	1896.5	1591.8	1242.5	911.6	39.4
42°	2765.6	2724.1	2646.3	2529.5	2367.7	2180.7	1923.1	1619.4	1266.5	923.4	37.4
43°	2782.0	2740.5	2664.7	2545.4	2382.0	2194.5	1937.4	1632.2	1274.7	921.9	33.8
44°	2791.2	2748.2	2671.9	2552.5	2388.1	2198.1	1938.5	1629.6	1269.1	909.6	30.7
45°	2781.0	2738.4	2664.7	2545.4	2377.4	2186.9	1928.2	1615.8	1247.6	885.5	27.1
46°	2714.4	2681.6	2614.0	2504.4	2343.6	2158.2	1902.1	1589.2	1214.3	855.8	23.0
47°	2597.1	2571.0	2505.4	2424.0	2278.5	2105.4	1854.0	1538.5	1167.7	811.2	18.4
48°	2474.7	2436.3	2375.3	2291.9	2168.9	2010.7	1774.6	1464.2	1097.0	752.9	16.4
49°	2293.9	2271.4	2217.6	2124.4	2022.5	1883.2	1662.4	1369.0	1010.5	689.3	14.3
50°	2128.0	2112.6	2037.3	1968.7	1860.6	1730.5	1510.3	1243.5	902.9	610.5	12.8
51°	1998.4	1980.0	1925.7	1840.1	1724.9	1573.8	1366.4	1080.6	779.5	516.8	10.2
52°	1863.2	1852.9	1804.8	1716.7	1603.5	1453.0	1226.6	942.3	659.6	436.9	8.2
53°	1752.6	1737.7	1678.8	1600.5	1478.1	1322.4	1075.0	813.8	558.8	367.2	7.2
54°	1591.2	1585.1	1547.2	1465.3	1332.6	1163.1	937.7	685.3	466.1	311.4	6.1
55°	1419.7	1399.2	1360.8	1295.7	1173.8	1015.6	779.0	568.0	376.9	262.2	4.6
56°	1210.7	1209.7	1141.1	1086.8	978.7	810.7	622.3	443.5	306.3	218.7	4.1
57°	1011.0	978.7	912.6	858.9	742.6	615.1	462.0	332.4	239.7	177.2	3.1
58°	747.7	730.8	713.4	634.5	527.0	435.8	329.8	233.5	177.2	135.2	2.0
59°	507.5	507.0	486.5	426.6	364.6	271.4	205.9	158.8	121.9	99.4	1.5
60°	383.1	373.9	332.9	293.5	229.4	171.6	121.9	93.7	75.8	64.0	1.0
62.5°	134.2	139.3	122.4	101.4	77.3	63.5	48.7	39.4	32.3	26.1	0.0
65°	27.7	30.2	26.1	24.6	19.5	16.9	14.9	12.8	10.8	9.2	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°	3.6	3.1	3.1	3.1	2.6	2.6	2.6	2.6	2.0	2.0	0.5
70°	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	1.0	0.5
72.5°	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0
85°	0.5	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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°	29.7	29.7	29.7	29.7	29.7	29.7
2.5°	31.2	30.2	28.7	28.2	27.7	27.7
5°	30.7	28.7	27.1	25.6	25.1	25.1
7.5°	29.2	26.6	24.6	23.6	23.0	22.5
10°	27.7	24.1	22.0	21.0	21.0	21.0
12.5°	24.6	21.5	19.5	18.9	19.5	19.5
15°	22.0	18.4	17.4	17.4	17.9	18.4
17.5°	18.9	16.4	15.4	15.9	16.4	16.9
20°	16.9	13.8	13.8	14.3	15.9	15.9
22.5°	14.9	12.3	12.3	13.8	14.9	15.4
25°	13.3	10.8	11.3	12.8	14.3	14.9
27.5°	11.3	9.2	10.2	12.3	13.8	14.3
30°	9.7	8.2	9.7	11.8	13.3	14.3
31°	9.2	7.7	9.7	11.3	13.3	14.3
32°	8.2	7.7	9.2	11.3	13.3	13.8
33°	7.7	7.2	9.2	11.3	13.3	13.8
34°	7.2	6.7	8.7	11.3	13.3	13.8
35°	6.1	6.7	8.7	10.8	12.8	13.8
36°	5.6	6.1	8.7	10.8	12.8	13.8
37°	5.1	6.1	8.2	10.8	12.8	13.8
38°	4.6	5.6	8.2	10.8	12.8	13.8
39°	4.1	5.6	7.7	10.8	12.8	13.8
40°	3.6	5.1	7.7	10.2	12.8	13.8
41°	3.6	5.1	7.7	10.2	12.8	13.8
42°	3.1	5.1	7.7	10.2	12.8	13.8
43°	2.6	4.6	7.7	10.2	12.8	13.8
44°	2.0	4.6	7.2	10.2	12.8	13.8
45°	2.0	4.6	7.2	10.2	12.8	13.8
46°	1.5	4.1	7.2	10.2	12.8	13.8
47°	1.0	4.1	7.2	9.7	12.8	13.8
48°	1.0	4.1	7.2	9.7	12.8	13.8
49°	1.0	4.1	6.7	9.7	12.8	13.8
50°	1.0	4.1	6.7	9.7	12.8	13.8
51°	0.5	3.6	6.7	9.7	12.8	13.8
52°	0.5	3.6	6.7	9.7	12.8	14.3
53°	0.5	3.6	6.7	9.7	12.8	13.8
54°	0.5	3.6	6.1	9.7	12.8	13.8
55°	0.5	3.6	6.1	9.7	12.8	13.8
56°	0.5	3.1	6.1	9.2	12.8	13.8
57°	1.0	3.1	6.1	9.2	12.8	13.3
58°	1.0	3.1	6.1	9.2	12.3	13.3
59°	1.0	3.1	6.1	9.2	12.3	13.3
60°	1.0	3.1	5.6	9.2	12.3	13.3
62.5°	1.0	3.1	5.6	8.7	11.8	12.8
65°	1.0	3.1	5.1	8.2	11.8	12.3



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	2.6	5.1	7.7	11.3	11.8
70°	1.5	2.6	4.6	7.7	10.8	11.3
72.5°	1.5	2.6	4.6	6.7	9.7	10.8
75°	1.5	2.6	4.1	6.1	9.2	9.7
77.5°	1.5	2.6	3.6	5.6	8.2	8.7
80°	2.0	2.6	3.1	4.6	7.2	7.7
82.5°	2.0	2.6	2.6	3.6	5.6	6.1
85°	1.5	2.0	2.0	2.6	3.6	4.1
87.5°	1.5	2.0	1.5	1.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)