

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: P1345458

Luminaire Tested: P3A13R359035DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345458
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R359035DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 3500K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

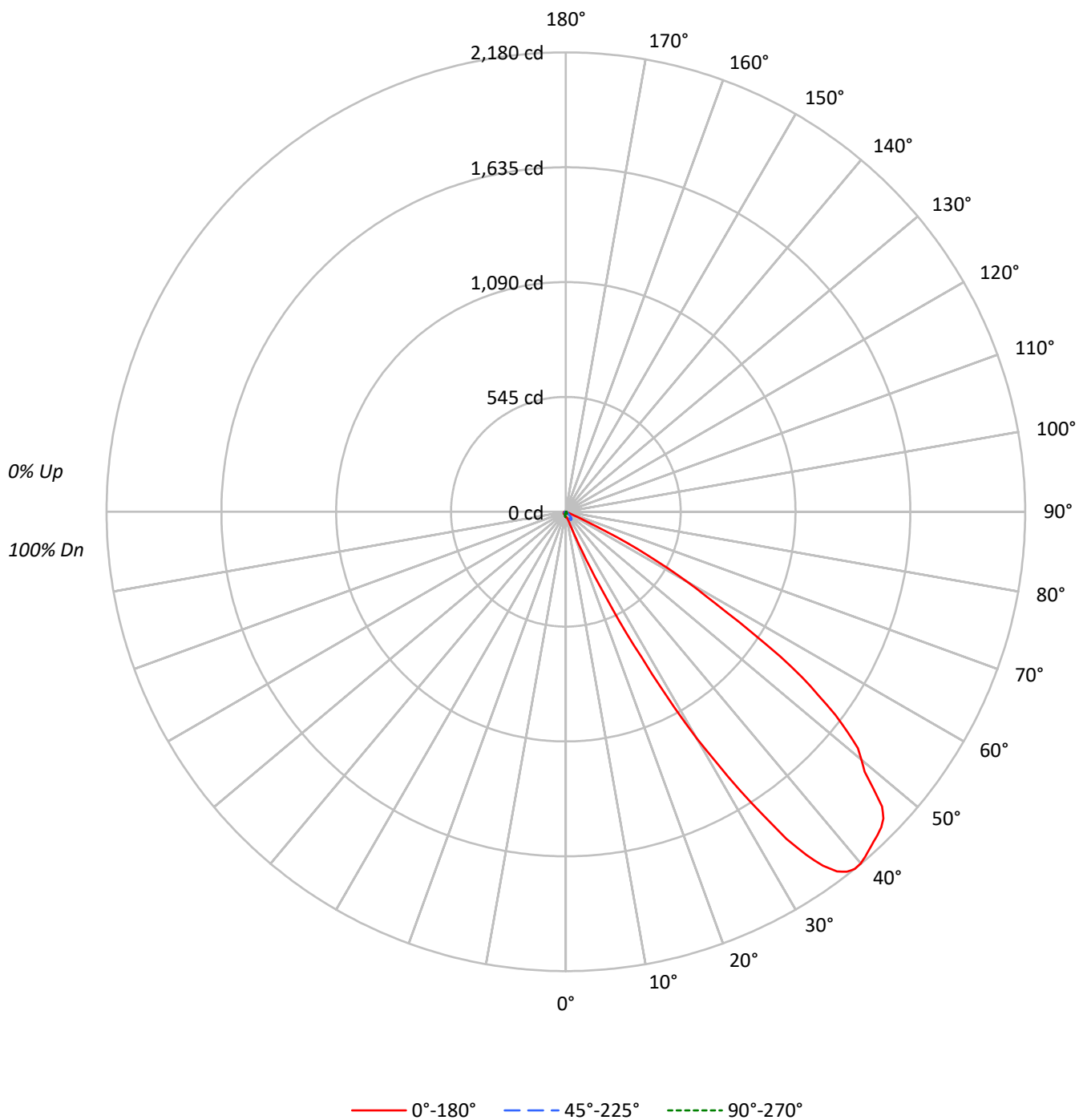
Lumens per Lamp: N/A
Luminaire Lumens: 543.0 lumens
Efficiency: N/A
Efficacy: 37.2 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	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	100	97	94	96	93	91	92	90	89
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	62	48	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	41	33	27	40	32	27	39	32	26	38	31	26
9	52	38	29	23	50	37	29	23	36	28	23	35	28	22	34	27	22
10	48	34	25	19	46	33	25	19	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5482	5482	5482	5482	5482
5°	5943	5833	5393	4865	4755
10°	6212	5678	4810	4142	4142
15°	8899	5562	3905	3564	3678
20°	22309	5951	3080	3080	3430
25°	103530	7597	2371	2855	3194
30°	314757	10305	1874	2608	3216
35°	531958	11939	1579	2490	3159
40°	623540	11794	1260	2519	3378
45°	656688	8373	1054	2729	3659
50°	625071	5015	989	2831	4025
55°	523757	2064	1109	3173	4702
60°	293222	439	1272	3640	5175
65°	50589	259	1297	4047	5863
70°	962	321	1603	4424	6604
75°	847	424	2118	4999	7456
80°	631	631	2526	5556	8713
85°	0	1258	5032	6290	9812

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 661322 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.3	0.4
10°-20°	6.4	1.2
20°-30°	33.3	6.1
30°-40°	143.9	26.5
40°-50°	205.2	37.8
50°-60°	127.1	23.4
60°-70°	19.4	3.6
70°-80°	3.6	0.7
80°-90°	1.8	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°	42.0	7.7
0°-40°	185.9	34.2
0°-60°	518.2	95.4
0°-90°	543.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	543.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	25	25	25	25	25	
5°	27	26	24	22	22	3
15°	39	24	17	16	16	14
25°	428	31	10	12	13	256
35°	1987	45	6	9	12	1193
45°	2118	27	3	9	12	1600
55°	1370	5	3	8	12	1167
65°	98	0	2	8	11	199
75°	1	0	2	6	9	1
85°	0	0	2	2	4	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
2.5°	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	25.0	24.5
5°	27.0	27.0	26.5	26.5	26.5	26.5	26.5	26.5	25.5	24.5	23.0
7.5°	27.4	27.4	27.0	27.0	27.0	27.0	26.5	26.0	25.0	23.0	21.6
10°	27.9	27.9	27.9	27.9	27.4	27.0	26.5	25.5	24.0	21.6	20.1
12.5°	31.4	31.4	30.9	29.9	28.9	27.9	27.0	25.0	22.1	19.6	18.1
15°	39.2	38.7	37.7	36.3	34.3	31.9	29.9	24.5	20.1	17.2	16.2
17.5°	54.9	53.9	52.4	47.5	43.1	38.7	34.8	24.5	18.1	15.2	14.2
20°	95.6	96.1	85.8	74.0	64.2	53.4	43.6	25.5	16.2	13.2	12.7
22.5°	199.5	191.7	167.1	138.7	105.9	81.9	61.8	27.9	14.2	11.3	11.3
25°	427.9	398.0	338.7	255.9	180.4	127.9	89.7	31.4	12.7	9.8	10.3
27.5°	781.3	754.4	635.3	478.4	317.6	193.1	121.6	35.8	11.3	8.3	9.3
30°	1243.1	1168.6	1013.2	784.3	530.9	295.6	163.2	40.7	9.3	7.4	8.8
31°	1387.2	1352.9	1163.7	907.3	622.0	351.0	180.9	42.2	8.8	7.4	8.3
32°	1558.3	1497.5	1327.9	1042.1	714.7	400.5	202.0	43.6	8.3	6.4	8.3
33°	1711.2	1652.4	1446.0	1160.7	808.3	456.8	224.5	44.1	7.4	6.4	7.8
34°	1872.0	1791.6	1587.2	1284.7	904.4	517.6	245.1	44.6	6.9	5.9	7.8
35°	1987.2	1906.8	1708.7	1382.8	987.2	571.5	268.6	44.6	6.4	5.9	7.4
36°	2076.4	2005.8	1813.6	1483.8	1069.6	620.1	287.2	44.6	5.4	5.4	7.4
37°	2137.6	2070.5	1884.2	1570.5	1132.3	663.2	303.9	44.6	4.9	5.4	7.4
38°	2167.5	2111.7	1952.4	1633.7	1193.1	697.0	317.1	43.6	4.4	4.9	6.9
39°	2180.3	2134.7	1994.0	1687.2	1238.7	726.4	326.9	42.6	3.9	4.9	6.9
40°	2178.3	2138.6	2017.6	1723.9	1275.4	746.5	332.3	41.2	3.4	4.4	6.9
41°	2167.1	2132.7	2029.8	1755.3	1297.5	760.3	333.8	39.7	2.9	4.4	6.4
42°	2154.3	2122.9	2033.7	1772.0	1311.7	764.7	329.9	37.7	2.9	3.9	6.4
43°	2141.1	2112.2	2033.7	1777.4	1315.1	761.7	323.5	34.3	2.5	3.9	6.4
44°	2130.3	2102.8	2027.4	1775.9	1307.8	750.5	311.8	30.4	2.0	3.9	6.4
45°	2117.6	2090.6	2019.0	1766.6	1293.6	731.3	297.0	27.0	1.5	3.4	6.4
46°	2095.0	2073.9	2004.3	1747.5	1271.0	704.9	278.4	24.5	1.0	3.4	5.9
47°	2051.4	2033.2	1975.9	1719.0	1241.1	673.5	259.3	22.1	1.0	3.4	5.9
48°	1963.6	1963.1	1919.0	1666.1	1193.6	634.3	239.2	19.6	1.0	3.4	5.9
49°	1878.8	1870.0	1815.1	1573.0	1125.4	587.2	218.1	17.6	0.5	3.4	5.9
50°	1832.3	1813.2	1723.0	1463.2	1038.2	522.0	195.6	14.7	0.5	2.9	5.9
51°	1783.7	1756.3	1649.9	1364.2	934.3	459.3	171.1	11.8	0.5	2.9	5.4
52°	1696.0	1670.0	1550.9	1269.5	833.3	395.1	147.5	9.8	0.5	2.9	5.9
53°	1601.4	1564.1	1434.7	1165.6	744.6	338.2	123.5	8.3	0.5	2.9	5.4
54°	1482.3	1465.6	1317.1	1038.2	640.7	283.3	101.5	6.9	0.5	2.9	5.4
55°	1370.0	1345.5	1191.1	907.8	546.5	232.3	84.8	5.4	0.5	2.9	5.4
56°	1226.9	1190.1	1045.5	788.2	451.0	187.2	71.6	4.4	0.5	2.9	5.4
57°	1056.3	1017.1	902.9	655.4	353.9	142.6	59.8	3.4	0.5	2.9	5.4
58°	893.6	859.8	737.2	505.9	266.7	99.0	49.5	2.5	0.5	2.5	5.4
59°	772.0	734.8	613.2	389.2	185.3	73.0	37.3	2.0	0.5	2.9	5.4
60°	668.6	620.6	493.6	301.5	132.3	52.4	27.4	1.0	1.0	2.9	5.4
62.5°	385.3	340.2	235.8	122.5	54.4	27.0	13.2	0.5	1.0	2.9	5.4
65°	97.5	86.8	56.4	26.5	15.2	9.3	4.9	0.5	1.0	2.5	4.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	3.4	3.4	3.4	2.9	2.5	2.0	1.0	0.5	1.0	2.5	4.9
70°	1.5	1.5	1.5	1.0	1.0	0.5	0.5	0.5	1.0	2.5	4.4
72.5°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.5	2.5	3.9
75°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.5	2.5	3.9
77.5°	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	1.5	2.0	3.4
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	2.0	2.9
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	2.0	2.5
85°	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	1.5	2.0	2.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	2.0	1.5
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):

	135°	157.5°	180°
0°	25.0	25.0	25.0
2.5°	23.5	23.5	23.5
5°	22.1	22.1	21.6
7.5°	20.6	20.1	20.1
10°	18.6	18.6	18.6
12.5°	17.2	17.2	17.2
15°	15.7	16.2	16.2
17.5°	14.2	15.2	15.2
20°	13.2	14.2	14.7
22.5°	12.3	13.2	13.7
25°	11.8	12.7	13.2
27.5°	10.8	12.3	13.2
30°	10.3	11.8	12.7
31°	10.3	11.8	12.3
32°	9.8	11.8	12.3
33°	9.8	11.8	12.3
34°	9.8	11.3	12.3
35°	9.3	11.3	11.8
36°	9.3	11.3	11.8
37°	9.3	11.3	12.3
38°	9.3	11.3	11.8
39°	8.8	11.3	11.8
40°	8.8	11.3	11.8
41°	8.8	11.3	11.8
42°	8.8	11.3	11.8
43°	8.8	11.3	11.8
44°	8.8	10.8	11.8
45°	8.8	10.8	11.8
46°	8.8	11.3	11.8
47°	8.8	11.3	12.3
48°	8.8	10.8	11.8
49°	8.3	10.8	11.8
50°	8.3	10.8	11.8
51°	8.3	11.3	12.3
52°	8.3	11.3	12.3
53°	8.3	11.3	12.3
54°	8.3	11.3	11.8
55°	8.3	11.3	12.3
56°	8.3	11.3	11.8
57°	8.3	11.3	11.8
58°	8.3	10.8	11.8
59°	8.3	10.8	11.8
60°	8.3	10.8	11.8
62.5°	7.8	10.8	11.8
65°	7.8	10.3	11.3



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	7.4	10.3	10.8
70°	6.9	9.8	10.3
72.5°	6.4	9.3	9.8
75°	5.9	8.3	8.8
77.5°	4.9	7.4	8.3
80°	4.4	6.4	6.9
82.5°	3.4	5.4	5.9
85°	2.5	3.9	3.9
87.5°	1.0	2.0	2.0
90°	0.0	0.0	0.0

(END OF REPORT)