

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: P1345490

Luminaire Tested: P3A13R359050DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345490
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: P3A13R359050DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 5000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

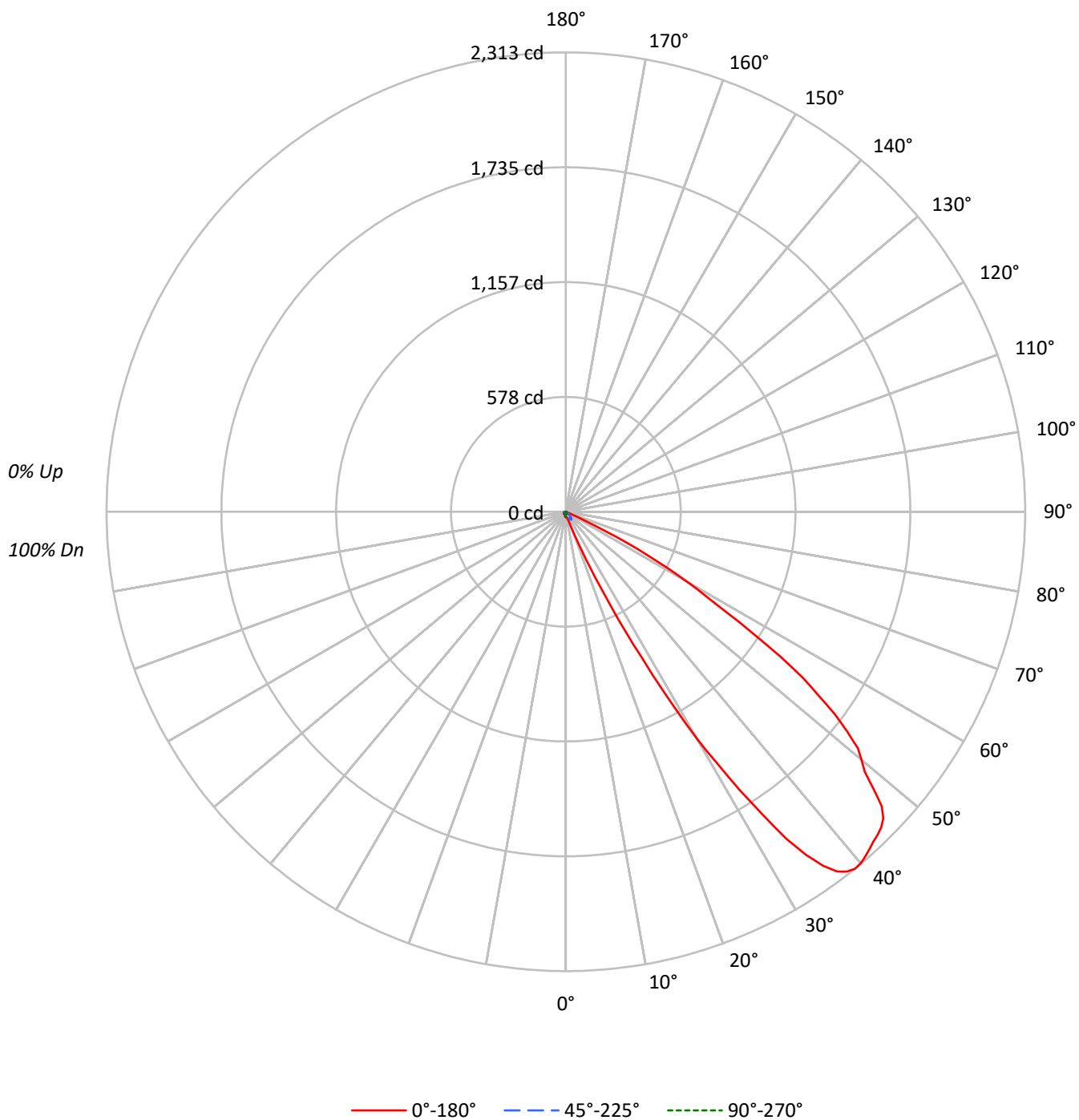
Lumens per Lamp: N/A
Luminaire Lumens: 576.0 lumens
Efficiency: N/A
Efficacy: 39.5 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	5811	5811	5811	5811	5811
5°	6295	6185	5723	5151	5041
10°	6591	6012	5099	4409	4409
15°	9444	5902	4132	3768	3905
20°	23662	6301	3267	3267	3640
25°	109821	8057	2516	3024	3387
30°	333874	10938	1975	2760	3418
35°	564269	12662	1660	2650	3346
40°	661439	12509	1345	2691	3578
45°	696568	8869	1116	2915	3876
50°	663040	5322	1058	3002	4264
55°	555603	2179	1185	3364	4970
60°	311028	439	1360	3859	5482
65°	53702	259	1349	4307	6226
70°	1026	321	1667	4680	6988
75°	847	424	2203	5253	7964
80°	631	631	2652	5935	9218
85°	0	1258	5284	6542	10567

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 701507 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.4	0.4
10°-20°	6.8	1.2
20°-30°	35.3	6.1
30°-40°	152.6	26.5
40°-50°	217.7	37.8
50°-60°	134.8	23.4
60°-70°	20.5	3.6
70°-80°	3.8	0.7
80°-90°	1.9	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°	44.5	7.7
0°-40°	197.2	34.2
0°-60°	549.7	95.4
0°-90°	576.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	576.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	26	26	26	26	26	
5°	29	28	26	23	23	3
15°	42	26	18	17	17	15
25°	454	33	10	12	14	272
35°	2108	47	6	10	12	1266
45°	2246	29	4	9	12	1697
55°	1453	6	3	9	13	1238
65°	104	0	3	8	12	211
75°	1	0	3	6	9	1
85°	0	0	2	3	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°	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
2.5°	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	27.6	26.5	26.0
5°	28.6	28.6	28.1	28.1	28.1	28.1	28.1	28.1	27.0	26.0	24.4
7.5°	29.1	29.1	28.6	28.6	28.6	28.6	28.1	27.6	26.5	24.4	22.9
10°	29.6	29.6	29.6	29.6	29.1	28.6	28.1	27.0	25.5	22.9	21.3
12.5°	33.3	33.3	32.8	31.7	30.7	29.6	28.6	26.5	23.4	20.8	19.2
15°	41.6	41.1	40.0	38.5	36.4	33.8	31.7	26.0	21.3	18.2	17.2
17.5°	58.2	57.2	55.6	50.4	45.8	41.1	36.9	26.0	19.2	16.1	15.1
20°	101.4	101.9	91.0	78.5	68.1	56.7	46.3	27.0	17.2	14.0	13.5
22.5°	211.6	203.3	177.3	147.1	112.3	86.8	65.5	29.6	15.1	12.0	12.0
25°	453.9	422.2	359.3	271.4	191.3	135.7	95.2	33.3	13.5	10.4	10.9
27.5°	828.8	800.2	673.9	507.5	336.9	204.9	129.0	38.0	12.0	8.8	9.9
30°	1318.6	1239.6	1074.8	831.9	563.1	313.5	173.1	43.2	9.9	7.8	9.4
31°	1471.5	1435.1	1234.4	962.5	659.8	372.3	191.9	44.7	9.4	7.8	8.8
32°	1653.0	1588.5	1408.6	1105.4	758.1	424.8	214.2	46.3	8.8	6.8	8.8
33°	1815.2	1752.8	1533.9	1231.3	857.4	484.6	238.1	46.8	7.8	6.8	8.3
34°	1985.7	1900.5	1683.6	1362.8	959.3	549.1	260.0	47.3	7.3	6.2	8.3
35°	2107.9	2022.7	1812.6	1466.8	1047.2	606.3	284.9	47.3	6.8	6.2	7.8
36°	2202.6	2127.7	1923.9	1573.9	1134.6	657.8	304.7	47.3	5.7	5.7	7.8
37°	2267.6	2196.3	1998.7	1666.0	1201.1	703.5	322.4	47.3	5.2	5.7	7.8
38°	2299.3	2240.0	2071.0	1733.0	1265.6	739.4	336.4	46.3	4.7	5.2	7.3
39°	2312.8	2264.4	2115.2	1789.7	1313.9	770.6	346.8	45.2	4.2	5.2	7.3
40°	2310.7	2268.6	2140.2	1828.7	1352.9	791.9	352.5	43.7	3.6	4.7	7.3
41°	2298.8	2262.4	2153.2	1862.0	1376.3	806.5	354.1	42.1	3.1	4.7	6.8
42°	2285.2	2252.0	2157.3	1879.7	1391.4	811.1	349.9	40.0	3.1	4.2	6.8
43°	2271.2	2240.5	2157.3	1885.4	1395.1	808.0	343.2	36.4	2.6	4.2	6.8
44°	2259.8	2230.6	2150.6	1883.8	1387.3	796.1	330.7	32.2	2.1	4.2	6.8
45°	2246.2	2217.6	2141.7	1873.9	1372.2	775.8	315.1	28.6	1.6	3.6	6.8
46°	2222.3	2200.0	2126.1	1853.7	1348.3	747.7	295.3	26.0	1.0	3.6	6.2
47°	2176.0	2156.8	2096.0	1823.5	1316.5	714.4	275.1	23.4	1.0	3.6	6.2
48°	2083.0	2082.5	2035.7	1767.4	1266.1	672.8	253.7	20.8	1.0	3.6	6.2
49°	1993.0	1983.7	1925.4	1668.6	1193.8	622.9	231.4	18.7	0.5	3.6	6.2
50°	1943.6	1923.3	1827.7	1552.1	1101.3	553.8	207.5	15.6	0.5	3.1	6.2
51°	1892.1	1863.0	1750.2	1447.1	991.1	487.2	181.5	12.5	0.5	3.1	5.7
52°	1799.1	1771.5	1645.2	1346.7	883.9	419.1	156.5	10.4	0.5	3.1	6.2
53°	1698.7	1659.2	1521.9	1236.5	789.8	358.8	131.0	8.8	0.5	3.1	5.7
54°	1572.4	1554.7	1397.1	1101.3	679.6	300.5	107.6	7.3	0.5	3.1	5.7
55°	1453.3	1427.3	1263.5	963.0	579.8	246.5	90.0	5.7	0.5	3.1	5.7
56°	1301.5	1262.5	1109.1	836.1	478.4	198.6	75.9	4.7	0.5	3.1	5.7
57°	1120.5	1078.9	957.8	695.2	375.4	151.3	63.4	3.6	0.5	3.1	5.7
58°	947.9	912.0	782.0	536.6	282.9	105.0	52.5	2.6	0.5	2.6	5.7
59°	818.9	779.4	650.5	412.9	196.5	77.5	39.5	2.1	0.5	3.1	5.7
60°	709.2	658.3	523.6	319.8	140.4	55.6	29.1	1.0	1.0	3.1	5.7
62.5°	408.7	360.9	250.1	130.0	57.7	28.6	14.0	0.5	1.0	3.1	5.7
65°	103.5	92.0	59.8	28.1	16.1	9.9	5.2	0.5	1.0	2.6	5.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	3.6	3.6	3.6	3.1	2.6	2.1	1.0	0.5	1.0	2.6	5.2
70°	1.6	1.6	1.6	1.0	1.0	0.5	0.5	0.5	1.0	2.6	4.7
72.5°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.6	2.6	4.2
75°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.6	2.6	4.2
77.5°	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.1	3.6
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.1	3.1
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.1	2.6
85°	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	1.6	2.1	2.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.6	2.1	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

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	26.5	26.5	26.5
2.5°	25.0	25.0	25.0
5°	23.4	23.4	22.9
7.5°	21.8	21.3	21.3
10°	19.8	19.8	19.8
12.5°	18.2	18.2	18.2
15°	16.6	17.2	17.2
17.5°	15.1	16.1	16.1
20°	14.0	15.1	15.6
22.5°	13.0	14.0	14.6
25°	12.5	13.5	14.0
27.5°	11.4	13.0	14.0
30°	10.9	12.5	13.5
31°	10.9	12.5	13.0
32°	10.4	12.5	13.0
33°	10.4	12.5	13.0
34°	10.4	12.0	13.0
35°	9.9	12.0	12.5
36°	9.9	12.0	12.5
37°	9.9	12.0	13.0
38°	9.9	12.0	12.5
39°	9.4	12.0	12.5
40°	9.4	12.0	12.5
41°	9.4	12.0	12.5
42°	9.4	12.0	12.5
43°	9.4	12.0	12.5
44°	9.4	11.4	12.5
45°	9.4	11.4	12.5
46°	9.4	12.0	12.5
47°	9.4	12.0	13.0
48°	9.4	11.4	12.5
49°	8.8	11.4	12.5
50°	8.8	11.4	12.5
51°	8.8	12.0	13.0
52°	8.8	12.0	13.0
53°	8.8	12.0	13.0
54°	8.8	12.0	12.5
55°	8.8	12.0	13.0
56°	8.8	12.0	12.5
57°	8.8	12.0	12.5
58°	8.8	11.4	12.5
59°	8.8	11.4	12.5
60°	8.8	11.4	12.5
62.5°	8.3	11.4	12.5
65°	8.3	10.9	12.0



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	7.8	10.9	11.4
70°	7.3	10.4	10.9
72.5°	6.8	9.9	10.4
75°	6.2	8.8	9.4
77.5°	5.2	7.8	8.8
80°	4.7	6.8	7.3
82.5°	3.6	5.7	6.2
85°	2.6	4.2	4.2
87.5°	1.0	2.1	2.1
90°	0.0	0.0	0.0

(END OF REPORT)