

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: P1340486

Luminaire Tested: P3A09R209740DE010 E3A451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1340486
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A09R209740DE010 E3A451MW
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 97CRI , E3A451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

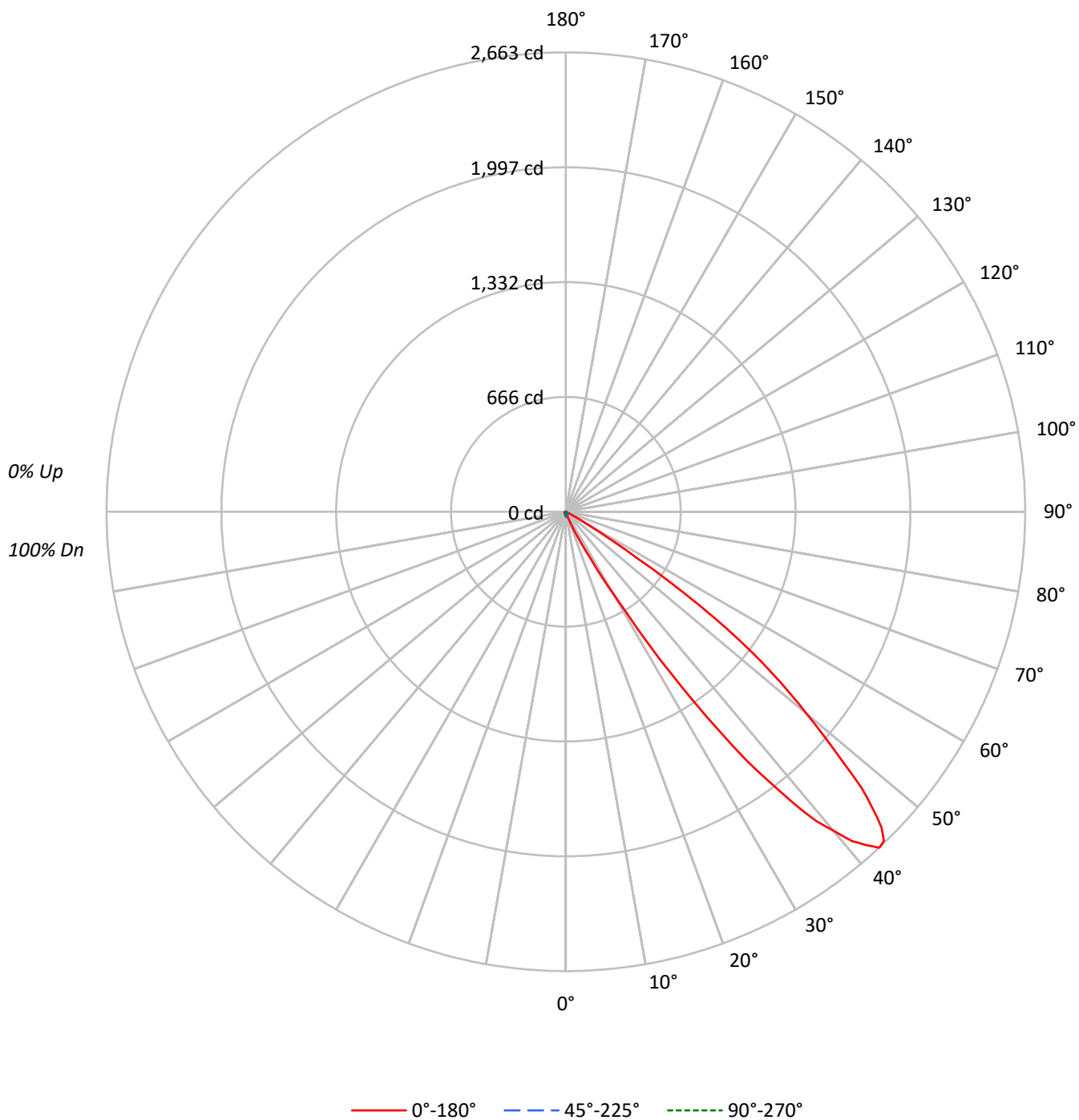
Lumens per Lamp: N/A
Luminaire Lumens: 370.0 lumens
Efficiency: N/A
Efficacy: 33.3 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11.1
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	65		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	38	52	44	38		50	43	38		48
7	62	48	39	32	60	47	38	32	46	38	32		44	37	32		43
8	57	42	33	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	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5636	5636	5636	5636	5636
5°	6582	6119	5283	4600	4446
10°	6502	5567	4186	3563	3474
15°	5675	4268	3087	2838	2997
20°	8447	3570	2264	2427	2684
25°	36341	3702	1766	2178	2613
30°	137439	4482	1494	2102	2557
35°	416636	5407	1392	2142	2704
40°	690866	5382	1202	2290	2891
45°	802998	3659	1085	2357	3132
50°	623331	2013	1058	2490	3548
55°	360780	1338	1070	2791	3861
60°	61004	307	921	2895	4254
65°	4670	0	1090	3269	4877
70°	641	0	1346	3590	5578
75°	593	254	1440	4151	6439
80°	379	379	2147	4420	7450
85°	755	755	3522	4277	7799

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 802998 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.2	0.6
10°-20°	4.6	1.3
20°-30°	14.8	4.0
30°-40°	94.4	25.5
40°-50°	172.7	46.7
50°-60°	71.0	19.2
60°-70°	6.0	1.6
70°-80°	3.0	0.8
80°-90°	1.4	0.4
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°	21.6	5.8
0°-40°	116.0	31.3
0°-60°	359.6	97.2
0°-90°	370.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	370.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	26	26	26	26	26	
5°	30	28	24	21	20	3
15°	25	19	14	12	13	8
25°	150	15	7	9	11	99
35°	1556	20	5	8	10	985
45°	2589	12	4	8	10	1859
55°	944	4	3	7	10	825
65°	9	0	2	6	9	29
75°	1	0	2	5	8	1
85°	0	0	1	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°	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7
2.5°	28.2	28.2	28.2	27.8	27.8	28.2	27.8	27.8	27.8	27.8	27.5
5°	29.9	29.9	29.9	29.9	29.9	29.9	29.9	29.6	29.6	29.2	27.8
7.5°	30.6	30.6	30.6	30.6	30.3	30.3	30.3	30.3	29.9	29.6	27.1
10°	29.2	29.2	29.2	28.9	28.9	28.9	28.5	28.5	28.2	27.8	25.0
12.5°	26.4	26.4	26.4	26.4	26.1	26.1	25.7	25.7	25.4	25.0	21.9
15°	25.0	25.0	25.0	24.7	24.7	24.3	24.0	23.6	23.3	22.6	18.8
17.5°	27.1	27.1	26.8	26.8	26.1	25.4	25.0	24.0	23.3	22.3	16.7
20°	36.2	36.5	35.1	34.1	33.4	31.3	30.3	28.5	27.1	25.4	15.3
22.5°	73.0	71.6	69.2	65.4	60.8	57.0	50.1	44.5	40.7	35.5	15.0
25°	150.2	148.8	142.2	136.7	122.7	112.0	97.0	84.8	72.3	60.2	15.3
27.5°	285.5	276.1	274.3	249.0	229.5	201.7	172.8	148.5	126.2	101.5	16.3
30°	542.8	532.0	494.1	455.9	403.3	343.9	287.2	234.4	190.2	150.2	17.7
31°	688.8	699.3	654.7	577.9	500.4	424.2	346.7	279.6	222.5	172.8	18.4
32°	905.4	859.9	813.0	734.0	621.4	524.0	426.6	330.0	254.9	197.2	19.1
33°	1110.2	1083.5	1011.8	913.4	778.2	641.5	515.3	389.4	294.5	226.7	19.5
34°	1328.6	1299.1	1241.0	1099.8	951.3	772.3	604.0	457.9	341.8	255.6	19.8
35°	1556.4	1543.8	1431.9	1309.5	1126.9	911.0	710.7	533.0	388.0	282.0	20.2
36°	1785.5	1745.2	1657.5	1478.8	1288.3	1039.3	822.7	602.9	435.0	313.3	20.2
37°	1958.0	1948.9	1832.8	1658.6	1434.7	1176.3	919.4	680.5	482.3	340.1	20.2
38°	2148.2	2112.4	1994.5	1817.1	1572.4	1301.8	1020.5	747.9	527.1	364.4	19.8
39°	2308.5	2255.3	2136.3	1961.1	1692.7	1397.1	1100.9	813.3	566.8	384.6	19.5
40°	2413.5	2376.6	2252.5	2055.3	1801.8	1487.2	1182.2	867.2	596.3	399.9	18.8
41°	2529.3	2468.1	2345.3	2147.1	1881.1	1566.4	1233.3	902.7	619.3	410.0	18.1
42°	2598.5	2548.4	2402.7	2208.7	1937.8	1611.7	1275.1	929.8	633.2	415.2	16.7
43°	2663.1	2595.0	2453.1	2244.5	1975.4	1643.6	1294.2	942.3	636.3	415.2	15.0
44°	2654.4	2589.8	2442.7	2249.4	1983.7	1653.0	1302.2	942.7	631.4	410.0	13.2
45°	2589.4	2525.1	2392.6	2206.9	1953.8	1634.6	1286.2	928.7	617.9	400.9	11.8
46°	2470.2	2406.2	2304.6	2136.0	1898.2	1592.9	1249.0	898.5	595.3	386.3	10.4
47°	2340.5	2278.2	2174.3	2021.6	1803.2	1518.5	1195.1	856.1	563.6	365.1	9.4
48°	2152.3	2113.4	2009.1	1878.7	1671.5	1402.0	1100.5	786.9	521.2	337.6	8.0
49°	1986.1	1945.1	1853.7	1713.5	1499.7	1266.4	987.5	702.7	465.9	307.0	7.0
50°	1827.2	1791.4	1706.9	1548.7	1344.6	1102.6	834.9	596.7	396.4	269.1	5.9
51°	1671.8	1645.0	1558.8	1413.5	1206.2	976.7	723.2	496.9	327.5	223.2	5.6
52°	1515.7	1512.6	1419.0	1271.9	1071.7	851.2	614.8	419.3	277.8	187.4	5.2
53°	1347.7	1327.6	1245.9	1113.7	921.4	720.5	521.2	353.6	239.2	159.6	4.5
54°	1156.5	1133.9	1046.3	927.0	752.8	590.1	420.0	285.8	199.2	134.9	4.2
55°	943.7	905.1	841.5	719.1	588.0	450.3	324.4	226.4	159.3	112.3	3.5
56°	715.9	677.3	641.5	551.5	431.5	335.9	241.7	173.5	124.5	88.7	3.1
57°	497.9	495.8	437.1	367.9	288.6	228.8	165.5	122.4	88.0	68.8	2.4
58°	323.0	312.2	274.7	234.7	188.8	142.9	106.4	83.1	59.8	46.9	2.1
59°	226.4	204.8	184.6	156.5	118.9	90.1	68.5	53.2	41.4	32.7	1.4
60°	139.1	134.6	121.0	95.3	77.2	63.6	51.1	39.3	30.3	23.3	0.7
62.5°	39.6	40.3	36.5	32.3	27.8	24.0	21.6	18.4	15.3	12.2	0.0
65°	9.0	8.7	9.4	8.7	8.0	8.0	7.0	6.3	5.6	5.2	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°	2.8	2.8	2.4	2.4	2.4	2.1	2.1	1.7	1.7	1.4	0.0
70°	1.0	1.0	1.0	1.0	1.0	0.7	0.7	0.7	0.3	0.3	0.0
72.5°	1.0	1.0	1.0	0.7	0.7	0.7	0.7	0.7	0.3	0.3	0.3
75°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.3
77.5°	0.7	0.7	0.7	0.7	0.7	0.3	0.7	0.3	0.3	0.3	0.3
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
85°	0.3	0.3	0.3	0.3	0.0	0.0	0.3	0.3	0.3	0.0	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
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°	25.7	25.7	25.7	25.7	25.7	25.7
2.5°	26.8	25.4	24.3	23.3	22.9	22.9
5°	26.1	24.0	21.9	20.9	20.2	20.2
7.5°	24.0	21.6	19.5	18.4	18.1	18.1
10°	21.6	18.8	16.7	16.0	16.0	15.6
12.5°	18.8	16.0	14.6	14.3	14.3	14.3
15°	15.6	13.6	12.5	12.5	12.9	13.2
17.5°	13.2	11.1	10.8	11.5	12.2	12.2
20°	11.1	9.7	9.7	10.4	11.1	11.5
22.5°	9.4	8.3	8.7	9.7	10.8	11.1
25°	8.3	7.3	8.0	9.0	10.1	10.8
27.5°	7.0	6.6	7.3	8.7	10.1	10.4
30°	5.9	5.9	7.0	8.3	9.7	10.1
31°	5.6	5.6	7.0	8.3	9.7	10.1
32°	5.2	5.6	6.6	8.3	9.7	10.1
33°	4.9	5.2	6.6	8.0	9.7	10.1
34°	4.5	5.2	6.6	8.0	9.7	10.1
35°	4.2	5.2	6.6	8.0	9.7	10.1
36°	3.8	4.9	6.3	8.0	9.7	10.1
37°	3.5	4.9	6.3	8.0	9.7	10.1
38°	3.1	4.5	6.3	8.0	9.7	10.1
39°	3.1	4.5	5.9	8.0	9.4	10.1
40°	2.8	4.2	5.9	8.0	9.4	10.1
41°	2.4	4.2	5.9	7.6	9.4	10.1
42°	2.1	3.8	5.6	7.6	9.4	10.1
43°	1.7	3.8	5.6	7.6	9.4	10.1
44°	1.7	3.5	5.6	7.6	9.4	10.1
45°	1.4	3.5	5.6	7.6	9.4	10.1
46°	1.0	3.5	5.6	7.6	9.4	10.1
47°	1.0	3.1	5.2	7.6	9.4	10.1
48°	0.7	3.1	5.2	7.6	9.4	10.1
49°	0.7	3.1	5.2	7.6	9.4	10.4
50°	0.7	3.1	5.2	7.3	9.4	10.4
51°	0.3	3.1	5.2	7.3	9.4	10.4
52°	0.3	3.1	4.9	7.3	9.7	10.4
53°	0.3	2.8	4.9	7.3	9.7	10.4
54°	0.3	2.8	4.9	7.3	9.7	10.1
55°	0.3	2.8	4.9	7.3	9.4	10.1
56°	0.3	2.4	4.9	7.3	9.4	10.1
57°	0.3	2.4	4.5	7.0	9.4	9.7
58°	0.3	2.4	4.5	7.0	9.4	9.7
59°	0.3	2.4	4.5	7.0	9.0	9.7
60°	0.7	2.1	4.2	6.6	9.0	9.7
62.5°	0.7	2.1	4.2	6.6	8.7	9.4
65°	0.7	2.1	3.8	6.3	8.7	9.4



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.7	1.7	3.5	5.9	8.3	9.0
70°	0.7	2.1	3.5	5.6	8.0	8.7
72.5°	1.0	1.7	3.1	5.2	7.6	8.3
75°	1.0	1.7	3.1	4.9	7.3	7.6
77.5°	1.4	1.7	2.8	4.2	6.6	7.0
80°	1.4	1.7	2.4	3.5	5.6	5.9
82.5°	1.4	1.7	1.7	2.8	4.2	4.5
85°	1.0	1.4	1.4	1.7	2.8	3.1
87.5°	1.0	1.4	1.0	0.7	1.4	1.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)