

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: P1340036

Luminaire Tested: P3A09R159835DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1340036
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A09R159835DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

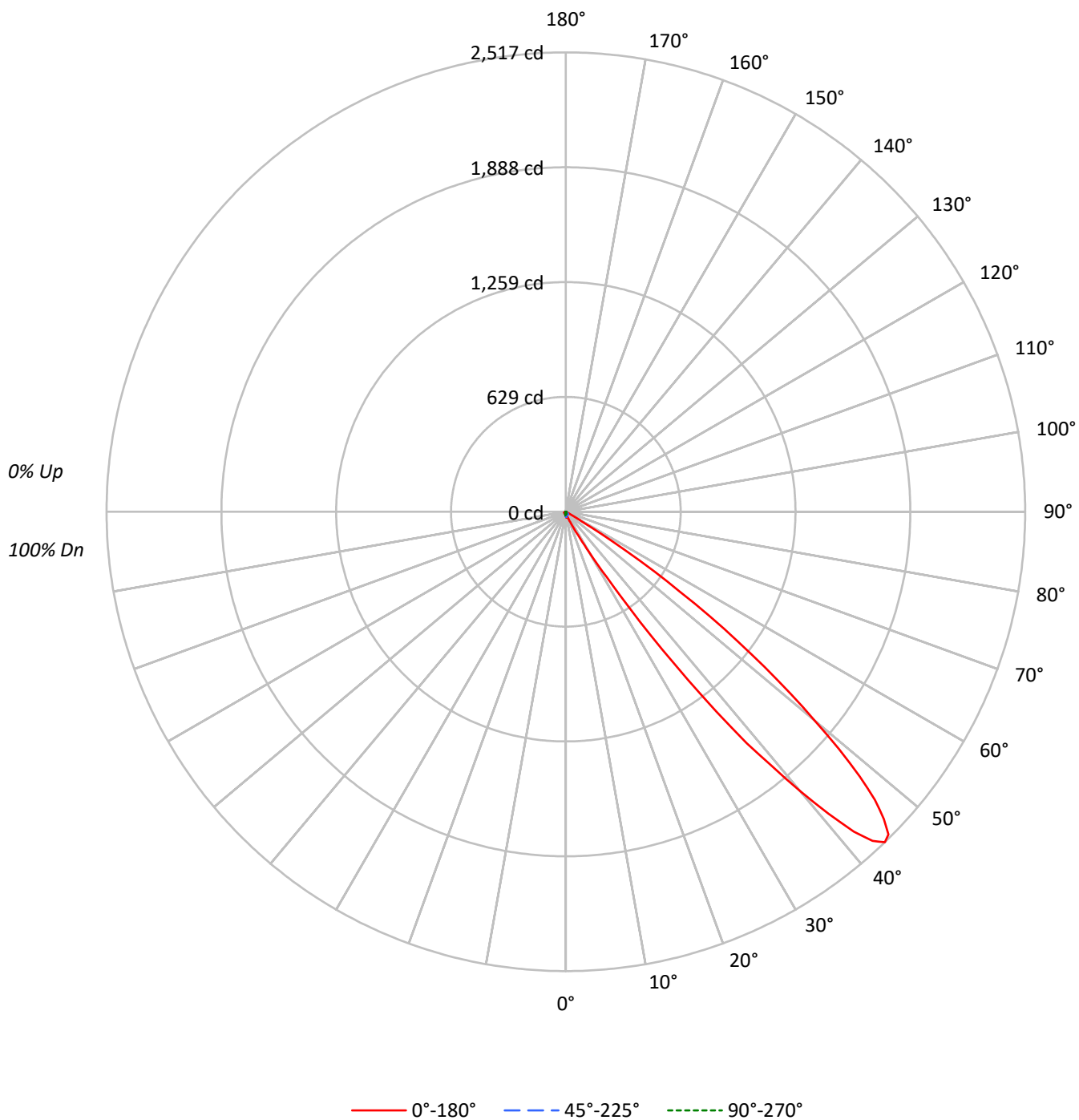
Lumens per Lamp: N/A
Luminaire Lumens: 281.0 lumens
Efficiency: N/A
Efficacy: 25.5 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	89	89	87
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	75	75	73
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	63	63	61
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	53	53	50
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	44	44	42
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	37	37	35
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	31	31	29
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	26	26	24
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	22	22	20
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	19	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5460	5460	5460	5460	5460
5°	6780	6053	4931	4314	4248
10°	6680	5188	3808	3362	3429
15°	5539	3700	2724	2792	2997
20°	9614	2940	2100	2427	2754
25°	21413	3532	1694	2226	2565
30°	64060	4330	1494	2203	2684
35°	246598	4872	1338	2249	2838
40°	572415	4237	1288	2319	3034
45°	775305	3225	1116	2512	3287
50°	607912	1910	1160	2661	3616
55°	291775	841	1070	2906	3976
60°	26665	132	965	3070	4429
65°	2906	0	882	3217	4774
70°	705	0	1090	3398	5193
75°	678	254	1440	3813	5931
80°	758	758	1768	3915	6314
85°	755	755	2768	3522	7045

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 775305 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.1	0.8
10°-20°	4.4	1.6
20°-30°	10.6	3.8
30°-40°	58.1	20.7
40°-50°	140.7	50.1
50°-60°	56.2	20.0
60°-70°	4.9	1.7
70°-80°	2.7	1.0
80°-90°	1.2	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°	17.2	6.1
0°-40°	75.3	26.8
0°-60°	272.2	96.9
0°-90°	281.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	281.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	25	25	25	25	25	
5°	31	28	22	20	19	3
15°	24	16	12	12	13	8
25°	88	15	7	9	11	53
35°	921	18	5	8	11	651
45°	2500	10	4	8	11	1764
55°	763	2	3	8	10	711
65°	6	0	2	6	9	14
75°	1	0	2	4	7	1
85°	0	0	1	1	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°	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9
2.5°	28.0	28.0	28.3	28.0	28.0	28.0	28.0	27.7	27.7	27.7	26.9
5°	30.8	30.8	30.8	30.8	30.5	30.5	30.5	30.3	30.3	30.0	27.5
7.5°	31.9	31.9	31.7	31.7	31.4	31.4	31.1	30.8	30.5	30.3	26.3
10°	30.0	30.0	30.0	29.7	29.7	29.4	29.1	28.9	28.6	28.0	23.3
12.5°	26.6	26.6	26.9	26.6	26.3	26.1	25.5	25.2	24.9	24.4	19.3
15°	24.4	24.4	24.4	24.1	23.8	23.3	23.0	22.4	22.1	21.3	16.3
17.5°	31.1	31.1	30.8	30.3	29.1	28.3	26.9	25.8	24.4	22.7	14.0
20°	41.2	41.2	40.6	40.1	38.7	37.3	35.0	33.1	30.8	28.9	12.6
22.5°	59.7	60.5	58.8	56.9	54.9	51.6	48.5	45.4	41.5	38.1	12.9
25°	88.5	89.4	88.5	84.1	80.4	75.9	70.0	63.9	57.2	51.0	14.6
27.5°	143.5	144.0	142.6	131.7	125.8	114.0	103.7	93.6	82.4	71.2	16.0
30°	253.0	253.3	244.3	222.5	203.1	177.4	155.5	134.5	116.8	98.9	17.1
31°	333.1	325.3	306.2	279.9	249.1	214.3	184.4	157.2	130.8	111.5	17.4
32°	423.1	422.0	390.3	344.6	303.4	260.0	214.9	180.2	149.9	123.6	17.7
33°	542.2	542.7	492.8	439.0	371.5	313.2	254.1	206.5	170.1	137.9	18.2
34°	728.2	684.5	625.9	553.1	461.2	373.5	296.7	237.0	188.3	151.6	18.2
35°	921.2	877.3	812.8	702.4	576.3	453.6	347.4	269.8	210.1	166.4	18.2
36°	1137.5	1100.3	1002.8	861.8	701.0	529.3	401.2	307.6	231.7	179.9	17.9
37°	1371.2	1316.6	1208.4	1054.6	839.4	635.7	466.8	345.2	253.3	194.4	17.4
38°	1608.5	1559.2	1422.8	1236.4	1004.7	748.1	532.3	381.3	273.2	205.4	16.5
39°	1788.4	1761.5	1626.2	1418.0	1136.7	854.6	599.9	420.0	294.2	216.3	15.7
40°	1999.7	1956.2	1827.9	1570.4	1292.8	963.0	666.0	454.2	311.6	225.0	14.8
41°	2192.4	2137.5	1975.6	1726.8	1417.7	1060.5	728.8	489.5	325.6	230.0	14.3
42°	2357.7	2293.9	2124.6	1860.7	1522.2	1138.4	778.9	514.7	338.7	234.2	13.4
43°	2464.8	2409.6	2243.1	1961.3	1611.6	1209.8	825.7	541.0	346.9	237.0	12.3
44°	2516.9	2461.1	2300.0	2024.3	1666.5	1252.7	856.0	559.2	355.8	240.7	11.5
45°	2500.1	2443.5	2287.7	2025.4	1683.6	1268.1	868.8	567.4	360.6	244.0	10.4
46°	2423.0	2383.2	2226.3	1972.8	1651.1	1251.6	861.6	561.2	358.9	244.0	9.2
47°	2314.9	2269.5	2120.1	1882.3	1572.4	1209.0	832.1	542.4	348.5	238.4	8.1
48°	2167.5	2128.8	1971.9	1738.5	1451.6	1116.3	765.7	511.9	332.3	227.5	7.0
49°	1982.6	1928.8	1782.8	1554.7	1294.2	984.6	678.6	460.3	306.2	212.1	6.2
50°	1782.0	1715.6	1602.9	1370.7	1131.4	844.2	564.0	389.2	269.5	191.9	5.6
51°	1585.6	1518.0	1410.7	1213.2	957.7	700.5	455.0	310.7	221.9	164.2	4.8
52°	1381.9	1325.3	1205.1	1049.8	819.8	567.7	379.1	262.8	184.4	137.9	3.9
53°	1179.0	1140.3	1026.0	868.8	658.7	463.7	309.6	225.0	160.8	118.0	3.1
54°	975.9	933.6	846.7	706.6	530.9	365.9	262.5	188.3	139.5	102.8	2.8
55°	763.2	741.4	661.2	538.8	402.3	292.0	212.9	161.9	116.8	86.0	2.2
56°	587.8	563.2	490.0	390.9	299.0	228.6	172.3	132.2	98.9	72.0	1.7
57°	385.0	359.8	311.3	272.9	217.7	166.7	131.7	104.2	80.4	59.7	1.4
58°	227.5	204.5	197.0	168.1	145.1	113.2	97.2	77.6	59.4	47.1	0.8
59°	104.5	106.2	94.4	88.5	80.4	72.0	59.1	51.8	40.6	33.9	0.6
60°	60.8	57.4	56.0	50.2	44.5	39.5	35.6	31.4	25.5	21.9	0.3
62.5°	20.7	19.9	20.5	18.5	17.4	16.8	15.4	13.2	10.9	9.0	0.0
65°	5.6	5.6	5.3	5.0	4.8	4.5	4.2	3.6	3.4	2.8	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°	2.0	2.0	1.7	1.7	1.4	1.4	1.1	1.1	0.8	0.8	0.0
70°	1.1	1.1	1.1	0.8	0.8	0.8	0.6	0.6	0.6	0.3	0.0
72.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.6	0.6	0.6	0.3	0.3
75°	0.8	0.8	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3
77.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.6
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	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°	24.9	24.9	24.9	24.9	24.9	24.9
2.5°	25.8	24.7	23.3	22.4	22.1	21.9
5°	24.7	22.4	20.7	19.6	19.3	19.3
7.5°	22.1	19.6	17.9	17.4	17.1	17.1
10°	19.3	17.1	15.7	15.1	15.4	15.4
12.5°	16.3	14.3	13.7	13.7	14.0	14.3
15°	13.2	12.0	12.0	12.3	12.9	13.2
17.5°	10.9	10.4	10.6	11.2	11.8	12.3
20°	9.0	9.0	9.5	10.4	11.2	11.8
22.5°	7.6	7.8	8.7	9.5	10.6	11.2
25°	6.4	7.0	7.8	9.2	10.4	10.6
27.5°	5.6	6.4	7.6	9.0	10.1	10.6
30°	4.8	5.9	7.3	8.7	10.1	10.6
31°	4.5	5.6	7.0	8.7	10.1	10.6
32°	4.2	5.6	7.0	8.7	10.1	10.6
33°	3.9	5.3	7.0	8.4	10.1	10.6
34°	3.6	5.3	7.0	8.7	10.1	10.6
35°	3.4	5.0	6.7	8.4	9.8	10.6
36°	3.1	5.0	6.7	8.4	10.1	10.6
37°	2.8	5.0	6.7	8.4	9.8	10.6
38°	2.8	4.8	6.4	8.4	9.8	10.6
39°	2.5	4.5	6.4	8.4	9.8	10.6
40°	2.2	4.5	6.2	8.1	9.8	10.6
41°	2.0	4.2	6.2	8.1	9.8	10.6
42°	1.7	4.2	6.2	8.1	9.8	10.6
43°	1.4	3.9	5.9	8.1	9.8	10.6
44°	1.4	3.9	5.9	8.1	9.8	10.6
45°	1.1	3.6	5.6	8.1	9.8	10.6
46°	1.1	3.6	5.6	7.8	9.8	10.6
47°	0.8	3.6	5.6	7.8	9.8	10.6
48°	0.8	3.4	5.6	7.8	9.8	10.6
49°	0.6	3.4	5.6	7.8	9.8	10.6
50°	0.6	3.4	5.3	7.8	9.8	10.6
51°	0.6	3.4	5.3	7.8	9.8	10.6
52°	0.6	3.1	5.3	7.8	9.8	10.6
53°	0.6	3.1	5.3	7.8	9.8	10.6
54°	0.6	3.1	5.0	7.8	9.8	10.6
55°	0.6	2.8	5.0	7.6	9.8	10.4
56°	0.6	2.8	5.0	7.6	9.8	10.4
57°	0.6	2.8	4.8	7.6	9.8	10.4
58°	0.6	2.5	4.8	7.3	9.5	10.4
59°	0.6	2.5	4.5	7.3	9.5	10.1
60°	0.6	2.2	4.5	7.0	9.2	10.1
62.5°	0.6	2.0	3.9	6.7	9.0	9.5
65°	0.6	1.7	3.6	6.2	8.7	9.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.6	1.7	3.4	5.9	8.1	9.0
70°	0.6	1.7	3.1	5.3	7.8	8.1
72.5°	0.8	1.7	2.8	5.0	7.3	7.6
75°	1.1	1.7	2.5	4.5	6.7	7.0
77.5°	1.1	1.7	2.2	3.9	5.9	6.2
80°	1.1	1.4	2.0	3.1	4.8	5.0
82.5°	1.1	1.4	1.4	2.5	3.6	3.9
85°	0.8	1.1	1.1	1.4	2.5	2.8
87.5°	0.8	1.1	0.6	0.8	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)