

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: P1343942

Luminaire Tested: P3A13R209035DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343942
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: P3A13R209035DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

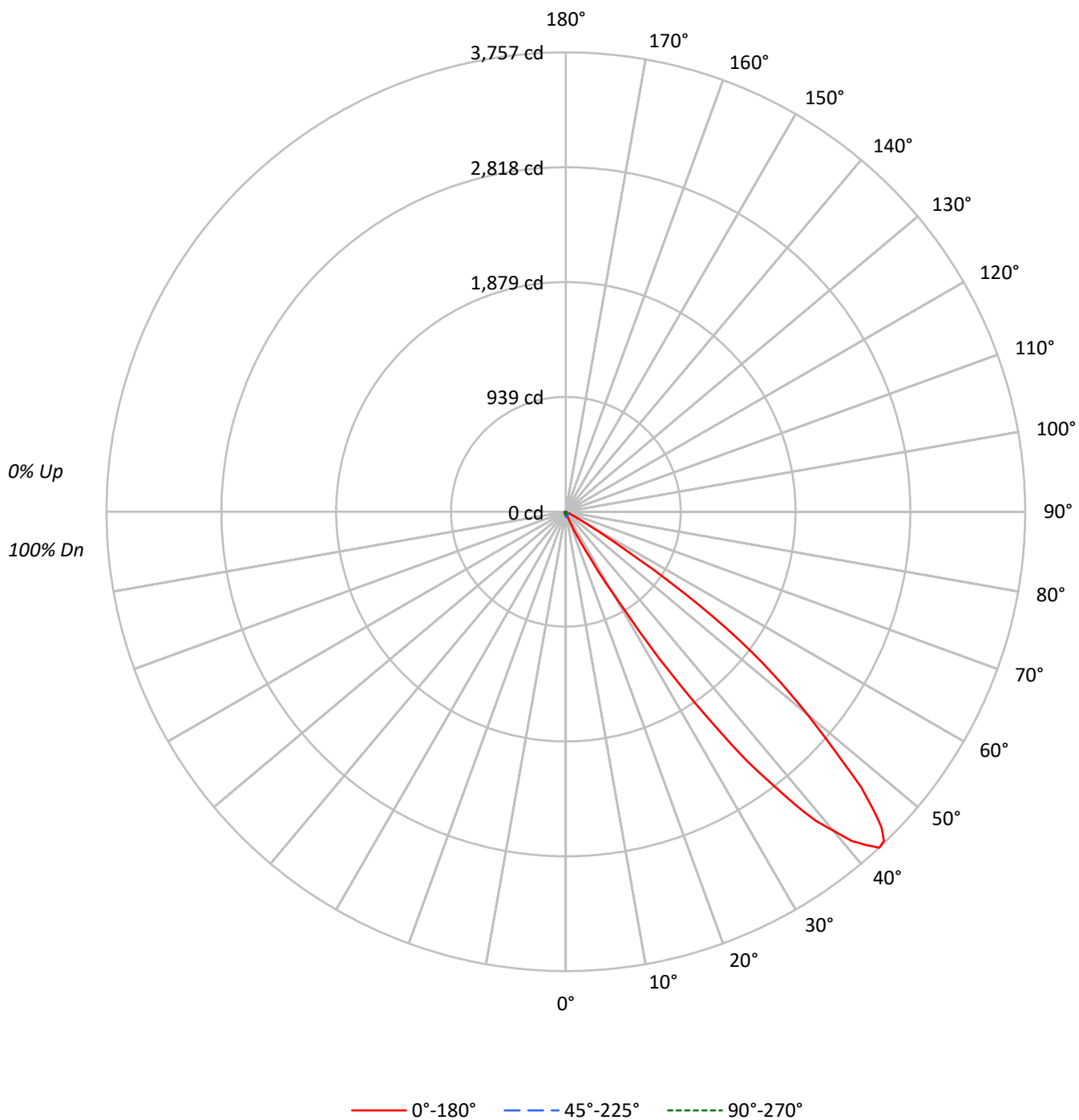
Lumens per Lamp: N/A
Luminaire Lumens: 522.0 lumens
Efficiency: N/A
Efficacy: 35.8 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	110	106	102	99	108	104	101	97	100	97	94		96	94	92		92	91	89	87
2	101	93	87	82	98	91	86	81	88	83	79		85	81	77		82	78	75	73
3	92	81	74	67	89	80	73	67	77	71	66		74	69	65		72	67	63	61
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63	58	53	51
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	42
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	62	48	39	32	60	47	38	32	46	38	32		44	37	32		43	36	31	29
8	57	42	33	27	55	42	33	27	40	33	27		39	32	27		38	31	27	25
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34	27	23	21
10	48	34	25	20	47	33	25	20	32	25	19		31	24	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	7960	7960	7960	7960	7960
5°	9289	8629	7440	6471	6273
10°	9174	7860	5901	5032	4921
15°	8014	6016	4336	4018	4222
20°	11901	5040	3197	3430	3780
25°	51269	5226	2492	3097	3678
30°	193903	6330	2102	2988	3595
35°	587772	7629	1981	3025	3801
40°	974683	7586	1689	3235	4065
45°	1132893	5179	1520	3349	4404
50°	879425	2831	1501	3514	5015
55°	509000	1873	1491	3938	5429
60°	86046	439	1272	4079	6008
65°	6641	0	1505	4566	6849
70°	962	0	1859	5001	7886
75°	847	424	2118	5846	9150
80°	631	631	3157	6188	10481
85°	1258	1258	5032	6290	11070

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1132893 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.1	0.6
10°-20°	6.5	1.3
20°-30°	20.8	4.0
30°-40°	133.1	25.5
40°-50°	243.6	46.7
50°-60°	100.1	19.2
60°-70°	8.4	1.6
70°-80°	4.2	0.8
80°-90°	2.0	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°	30.5	5.8
0°-40°	163.6	31.3
0°-60°	507.4	97.2
0°-90°	522.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	522.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	36	36	36	36	36	
5°	42	39	34	29	28	4
15°	35	26	19	18	19	11
25°	212	22	10	13	15	139
35°	2196	28	7	11	14	1390
45°	3653	17	5	11	14	2623
55°	1331	5	4	10	14	1164
65°	13	0	3	9	13	42
75°	1	0	2	7	11	1
85°	0	0	2	2	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°	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3	36.3
2.5°	39.7	39.7	39.7	39.2	39.2	39.7	39.2	39.2	39.2	39.2	38.8
5°	42.2	42.2	42.2	42.2	42.2	42.2	42.2	41.7	41.7	41.2	39.2
7.5°	43.2	43.2	43.2	43.2	42.7	42.7	42.7	42.7	42.2	41.7	38.3
10°	41.2	41.2	41.2	40.7	40.7	40.7	40.2	40.2	39.7	39.2	35.3
12.5°	37.3	37.3	37.3	37.3	36.8	36.8	36.3	36.3	35.8	35.3	30.9
15°	35.3	35.3	35.3	34.8	34.8	34.3	33.8	33.4	32.9	31.9	26.5
17.5°	38.3	38.3	37.8	37.8	36.8	35.8	35.3	33.8	32.9	31.4	23.5
20°	51.0	51.5	49.5	48.1	47.1	44.2	42.7	40.2	38.3	35.8	21.6
22.5°	103.0	101.1	97.6	92.2	85.8	80.5	70.6	62.8	57.4	50.0	21.1
25°	211.9	210.0	200.6	192.8	173.2	158.0	136.9	119.7	102.0	84.9	21.6
27.5°	402.7	389.5	387.0	351.2	323.8	284.5	243.8	209.5	178.1	143.2	23.1
30°	765.8	750.6	697.1	643.1	569.0	485.2	405.2	330.6	268.3	211.9	25.0
31°	971.8	986.5	923.7	815.3	705.9	598.5	489.1	394.4	314.0	243.8	26.0
32°	1277.4	1213.1	1146.9	1035.6	876.6	739.3	601.9	465.5	359.6	278.1	27.0
33°	1566.4	1528.6	1427.5	1288.7	1097.9	905.1	727.0	549.4	415.5	319.8	27.5
34°	1874.4	1832.7	1750.8	1551.6	1342.2	1089.5	852.1	646.1	482.2	360.6	28.0
35°	2195.7	2178.1	2020.1	1847.4	1589.9	1285.3	1002.7	752.0	547.5	397.8	28.5
36°	2519.0	2462.1	2338.5	2086.3	1817.5	1466.3	1160.7	850.6	613.7	442.0	28.5
37°	2762.3	2749.6	2585.7	2340.0	2024.0	1659.6	1297.0	960.0	680.4	479.8	28.5
38°	3030.7	2980.1	2813.8	2563.7	2218.3	1836.6	1439.8	1055.2	743.7	514.1	28.0
39°	3256.8	3181.8	3014.0	2766.7	2388.0	1971.1	1553.1	1147.4	799.6	542.6	27.5
40°	3405.0	3353.0	3177.8	2899.7	2542.1	2098.1	1667.9	1223.5	841.3	564.1	26.5
41°	3568.3	3482.0	3308.8	3029.2	2653.9	2210.0	1740.0	1273.5	873.7	578.4	25.5
42°	3665.9	3595.3	3389.8	3116.0	2733.9	2273.7	1798.9	1311.8	893.3	585.7	23.5
43°	3757.2	3661.0	3460.9	3166.5	2786.9	2318.9	1825.9	1329.4	897.7	585.7	21.1
44°	3744.9	3653.7	3446.2	3173.4	2798.6	2332.1	1837.1	1329.9	890.9	578.4	18.6
45°	3653.2	3562.4	3375.5	3113.6	2756.4	2306.1	1814.6	1310.3	871.7	565.6	16.7
46°	3484.9	3394.7	3251.4	3013.5	2678.0	2247.2	1762.1	1267.6	839.8	545.0	14.7
47°	3301.9	3214.1	3067.5	2852.1	2544.0	2142.3	1686.0	1207.8	795.2	515.1	13.2
48°	3036.6	2981.6	2834.4	2650.5	2358.1	1977.9	1552.6	1110.1	735.3	476.3	11.3
49°	2802.1	2744.2	2615.2	2417.5	2115.8	1786.6	1393.2	991.4	657.3	433.2	9.8
50°	2577.9	2527.4	2408.1	2184.9	1897.0	1555.6	1177.8	841.8	559.2	379.7	8.3
51°	2358.6	2320.8	2199.2	1994.1	1701.7	1378.0	1020.4	701.0	462.1	314.9	7.8
52°	2138.3	2133.9	2002.0	1794.5	1511.9	1200.9	867.3	591.6	392.0	264.4	7.4
53°	1901.4	1872.9	1757.7	1571.3	1300.0	1016.4	735.3	498.9	337.5	225.2	6.4
54°	1631.6	1599.7	1476.1	1307.8	1062.1	832.5	592.6	403.2	281.1	190.3	5.9
55°	1331.4	1276.9	1187.1	1014.5	829.5	635.3	457.7	319.4	224.7	158.5	4.9
56°	1010.1	955.6	905.1	778.0	608.8	473.9	340.9	244.8	175.6	125.1	4.4
57°	702.5	699.5	616.6	519.0	407.2	322.8	233.5	172.7	124.1	97.1	3.4
58°	455.7	440.5	387.5	331.1	266.4	201.6	150.1	117.2	84.4	66.2	2.9
59°	319.4	288.9	260.5	220.8	167.8	127.1	96.6	75.1	58.4	46.1	2.0
60°	196.2	189.8	170.7	134.4	108.9	89.8	72.1	55.4	42.7	32.9	1.0
62.5°	55.9	56.9	51.5	45.6	39.2	33.8	30.4	26.0	21.6	17.2	0.0
65°	12.8	12.3	13.2	12.3	11.3	11.3	9.8	8.8	7.8	7.4	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°	3.9	3.9	3.4	3.4	3.4	2.9	2.9	2.5	2.5	2.0	0.0
70°	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.5	0.0
72.5°	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	0.5	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	0.5	1.0	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	0.5
85°	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.0	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°	36.3	36.3	36.3	36.3	36.3	36.3
2.5°	37.8	35.8	34.3	32.9	32.4	32.4
5°	36.8	33.8	30.9	29.4	28.5	28.5
7.5°	33.8	30.4	27.5	26.0	25.5	25.5
10°	30.4	26.5	23.5	22.6	22.6	22.1
12.5°	26.5	22.6	20.6	20.1	20.1	20.1
15°	22.1	19.1	17.7	17.7	18.2	18.6
17.5°	18.6	15.7	15.2	16.2	17.2	17.2
20°	15.7	13.7	13.7	14.7	15.7	16.2
22.5°	13.2	11.8	12.3	13.7	15.2	15.7
25°	11.8	10.3	11.3	12.8	14.2	15.2
27.5°	9.8	9.3	10.3	12.3	14.2	14.7
30°	8.3	8.3	9.8	11.8	13.7	14.2
31°	7.8	7.8	9.8	11.8	13.7	14.2
32°	7.4	7.8	9.3	11.8	13.7	14.2
33°	6.9	7.4	9.3	11.3	13.7	14.2
34°	6.4	7.4	9.3	11.3	13.7	14.2
35°	5.9	7.4	9.3	11.3	13.7	14.2
36°	5.4	6.9	8.8	11.3	13.7	14.2
37°	4.9	6.9	8.8	11.3	13.7	14.2
38°	4.4	6.4	8.8	11.3	13.7	14.2
39°	4.4	6.4	8.3	11.3	13.2	14.2
40°	3.9	5.9	8.3	11.3	13.2	14.2
41°	3.4	5.9	8.3	10.8	13.2	14.2
42°	2.9	5.4	7.8	10.8	13.2	14.2
43°	2.5	5.4	7.8	10.8	13.2	14.2
44°	2.5	4.9	7.8	10.8	13.2	14.2
45°	2.0	4.9	7.8	10.8	13.2	14.2
46°	1.5	4.9	7.8	10.8	13.2	14.2
47°	1.5	4.4	7.4	10.8	13.2	14.2
48°	1.0	4.4	7.4	10.8	13.2	14.2
49°	1.0	4.4	7.4	10.8	13.2	14.7
50°	1.0	4.4	7.4	10.3	13.2	14.7
51°	0.5	4.4	7.4	10.3	13.2	14.7
52°	0.5	4.4	6.9	10.3	13.7	14.7
53°	0.5	3.9	6.9	10.3	13.7	14.7
54°	0.5	3.9	6.9	10.3	13.7	14.2
55°	0.5	3.9	6.9	10.3	13.2	14.2
56°	0.5	3.4	6.9	10.3	13.2	14.2
57°	0.5	3.4	6.4	9.8	13.2	13.7
58°	0.5	3.4	6.4	9.8	13.2	13.7
59°	0.5	3.4	6.4	9.8	12.8	13.7
60°	1.0	2.9	5.9	9.3	12.8	13.7
62.5°	1.0	2.9	5.9	9.3	12.3	13.2
65°	1.0	2.9	5.4	8.8	12.3	13.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	2.5	4.9	8.3	11.8	12.8
70°	1.0	2.9	4.9	7.8	11.3	12.3
72.5°	1.5	2.5	4.4	7.4	10.8	11.8
75°	1.5	2.5	4.4	6.9	10.3	10.8
77.5°	2.0	2.5	3.9	5.9	9.3	9.8
80°	2.0	2.5	3.4	4.9	7.8	8.3
82.5°	2.0	2.5	2.5	3.9	5.9	6.4
85°	1.5	2.0	2.0	2.5	3.9	4.4
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)