

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: P1345957

Luminaire Tested: P3A13R409030DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345957
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R409030DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

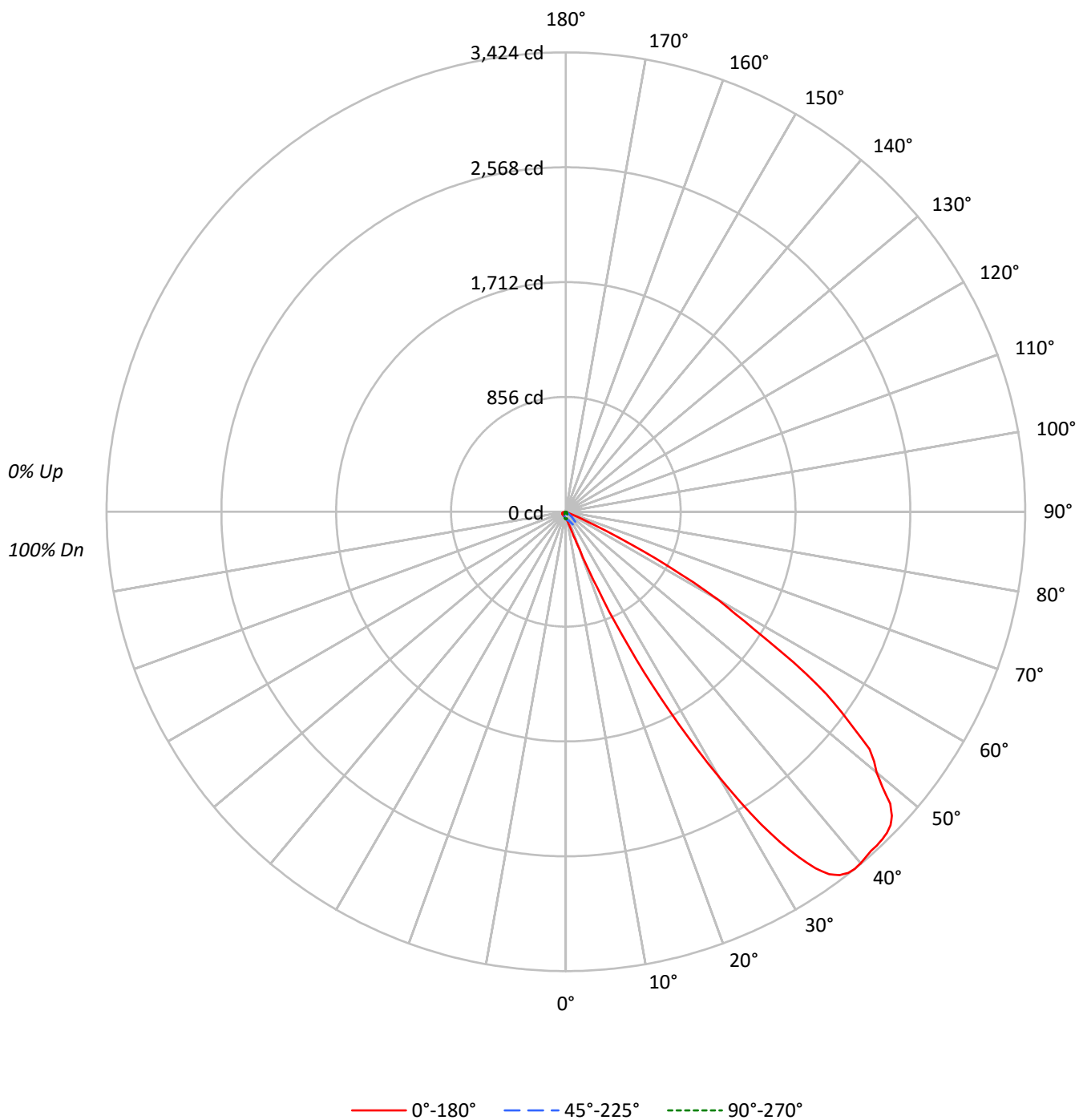
Lumens per Lamp: N/A
Luminaire Lumens: 1058.0 lumens
Efficiency: N/A
Efficacy: 72.5 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	99	97	94	96	93	91	92	90	88
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	11929	11929	11929	11929	11929
5°	13251	12833	11754	10698	10478
10°	16010	13627	10821	9730	9530
15°	26243	14779	9262	8604	8831
20°	69376	17455	7701	7701	8401
25°	267524	21630	6121	7041	8226
30°	577152	28789	4912	6887	8128
35°	868715	34077	4149	6773	8325
40°	978748	34207	3607	6956	8902
45°	1049473	26514	3318	7226	9644
50°	1031506	16579	2968	7607	10609
55°	907475	8181	2982	8525	11890
60°	574428	1710	3421	9385	13201
65°	117470	519	3528	10066	14632
70°	2500	641	3719	11220	16798
75°	2457	1610	4151	12370	18893
80°	2399	1263	4925	13512	22099
85°	2516	2516	9812	14593	24405

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1068433 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.1	0.5
10°-20°	16.8	1.6
20°-30°	82.2	7.8
30°-40°	267.3	25.3
40°-50°	368.5	34.8
50°-60°	256.7	24.3
60°-70°	48.7	4.6
70°-80°	8.8	0.8
80°-90°	4.1	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°	104.0	9.8
0°-40°	371.3	35.1
0°-60°	996.4	94.2
0°-90°	1058.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1058.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	54	54	54	54	54	
5°	60	58	53	49	48	6
15°	116	65	41	38	39	42
25°	1106	89	25	29	34	569
35°	3245	127	16	25	31	1961
45°	3384	86	11	23	31	2573
55°	2374	21	8	22	31	2029
65°	226	1	7	19	28	400
75°	3	2	5	15	22	3
85°	1	1	4	6	10	1
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4	54.4
2.5°	56.4	56.4	56.4	56.4	56.4	56.4	56.4	56.4	56.4	55.4	54.4
5°	60.2	60.2	60.2	60.2	59.3	59.3	59.3	58.3	58.3	56.4	53.4
7.5°	64.1	64.1	64.1	64.1	63.2	62.2	61.2	61.2	60.2	55.4	51.5
10°	71.9	71.9	70.9	70.0	69.0	67.0	66.1	64.1	61.2	54.4	48.6
12.5°	87.4	85.5	84.5	82.6	79.7	75.8	71.9	69.0	62.2	52.5	45.7
15°	115.6	113.7	109.8	104.0	98.1	90.4	83.6	76.8	65.1	49.6	40.8
17.5°	165.2	159.3	153.5	143.8	129.2	115.6	101.0	88.4	69.0	46.6	36.9
20°	297.3	293.4	258.5	231.2	187.5	156.4	127.3	105.9	74.8	43.7	33.0
22.5°	613.1	572.3	515.0	421.7	328.4	241.9	175.9	133.1	80.6	39.8	29.1
25°	1105.7	1041.6	918.2	738.4	545.1	385.7	254.6	173.9	89.4	36.0	25.3
27.5°	1674.1	1609.0	1417.6	1169.8	854.1	582.0	363.4	230.3	101.0	32.1	22.3
30°	2279.4	2224.1	1981.1	1638.2	1203.8	815.2	486.8	287.6	113.7	28.2	19.4
31°	2523.3	2452.4	2190.0	1824.7	1368.0	911.4	536.3	311.9	118.5	27.2	18.5
32°	2747.8	2667.1	2395.1	2003.5	1501.2	1015.3	590.7	333.3	122.4	25.3	17.5
33°	2941.1	2846.9	2584.5	2172.6	1647.9	1112.5	647.1	353.7	125.3	23.3	16.5
34°	3105.3	3023.7	2741.9	2342.6	1778.1	1205.8	702.5	374.1	127.3	22.3	15.5
35°	3245.2	3171.4	2892.5	2471.8	1905.4	1296.1	753.0	393.5	127.3	20.4	15.5
36°	3339.5	3275.4	3022.7	2604.0	2012.2	1372.9	795.8	411.0	127.3	18.5	14.6
37°	3391.0	3328.8	3108.2	2712.8	2117.2	1448.7	834.6	424.6	126.3	17.5	13.6
38°	3417.2	3362.8	3171.4	2801.2	2190.0	1503.1	868.6	435.3	125.3	15.5	13.6
39°	3424.0	3378.3	3211.2	2865.3	2261.0	1557.5	892.9	441.1	122.4	14.6	12.6
40°	3419.2	3379.3	3232.6	2922.7	2315.4	1600.3	910.4	443.1	119.5	12.6	12.6
41°	3409.4	3378.3	3248.1	2962.5	2359.1	1627.5	917.2	439.2	115.6	10.7	11.7
42°	3400.7	3366.7	3254.9	2989.7	2389.2	1641.1	916.2	431.4	109.8	9.7	11.7
43°	3400.7	3361.8	3255.9	3007.2	2403.8	1642.0	904.6	416.8	102.0	8.7	10.7
44°	3394.9	3358.9	3260.8	3018.8	2407.7	1633.3	886.1	401.3	93.3	7.8	10.7
45°	3384.2	3346.3	3259.8	3019.8	2400.9	1611.9	856.0	380.9	85.5	5.8	10.7
46°	3363.8	3329.8	3251.1	3013.0	2380.5	1580.8	820.1	360.5	76.8	4.9	9.7
47°	3323.0	3296.7	3227.7	2989.7	2349.4	1535.2	777.3	337.2	70.0	3.9	9.7
48°	3253.0	3234.5	3187.9	2938.2	2290.1	1478.8	731.6	311.9	63.2	3.9	9.7
49°	3124.7	3110.2	3083.0	2855.6	2214.3	1409.8	682.1	283.7	56.4	2.9	9.7
50°	3023.7	3008.2	2952.8	2716.7	2105.5	1322.4	627.7	255.5	48.6	1.9	8.7
51°	2956.7	2931.4	2843.9	2555.4	1947.1	1205.8	568.4	227.4	40.8	1.9	8.7
52°	2872.1	2834.2	2725.4	2410.6	1802.4	1089.2	504.3	199.2	36.0	1.9	8.7
53°	2695.3	2681.7	2573.8	2255.1	1657.6	977.5	438.2	175.9	31.1	1.9	8.7
54°	2540.8	2520.4	2373.7	2039.4	1500.2	853.1	370.2	155.5	26.2	1.9	8.7
55°	2373.7	2333.8	2203.6	1857.7	1315.6	738.4	305.1	134.1	21.4	1.9	7.8
56°	2162.8	2127.9	1987.9	1663.4	1145.5	621.8	255.5	109.8	16.5	1.9	7.8
57°	1906.3	1874.3	1766.4	1424.4	968.7	508.2	207.9	88.4	12.6	1.9	7.8
58°	1658.6	1622.6	1499.2	1195.1	782.2	403.2	173.9	71.9	9.7	1.9	7.8
59°	1468.1	1419.5	1260.2	1003.7	612.1	306.1	138.0	57.3	6.8	1.9	7.8
60°	1309.8	1269.9	1104.7	835.6	480.0	225.4	102.0	43.7	3.9	1.9	7.8
62.5°	758.8	748.2	599.5	430.4	226.4	104.9	50.5	20.4	1.9	2.9	7.8
65°	226.4	197.2	153.5	91.3	58.3	35.0	18.5	6.8	1.0	2.9	6.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	6.8	6.8	6.8	6.8	6.8	6.8	3.9	1.9	1.0	2.9	6.8
70°	3.9	2.9	2.9	2.9	2.9	1.9	1.9	1.0	1.0	2.9	5.8
72.5°	2.9	2.9	2.9	2.9	1.9	1.9	1.9	1.0	1.9	2.9	4.9
75°	2.9	1.9	1.9	1.9	1.9	1.0	1.0	1.0	1.9	2.9	4.9
77.5°	1.9	1.9	1.9	1.9	1.0	1.0	1.0	1.0	1.9	2.9	4.9
80°	1.9	1.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.9	3.9
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.9	3.9
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.9	3.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	2.9	2.9
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):

	112.5°	135°	157.5°	180°
0°	54.4	54.4	54.4	54.4
2.5°	52.5	51.5	50.5	50.5
5°	50.5	48.6	48.6	47.6
7.5°	47.6	45.7	45.7	45.7
10°	44.7	43.7	43.7	42.8
12.5°	40.8	40.8	40.8	40.8
15°	37.9	37.9	38.9	38.9
17.5°	34.0	35.0	36.9	37.9
20°	31.1	33.0	35.0	36.0
22.5°	29.1	31.1	34.0	35.0
25°	26.2	29.1	33.0	34.0
27.5°	24.3	28.2	31.1	33.0
30°	22.3	27.2	30.1	32.1
31°	22.3	26.2	30.1	32.1
32°	21.4	25.3	30.1	31.1
33°	21.4	25.3	30.1	31.1
34°	20.4	25.3	29.1	31.1
35°	20.4	25.3	29.1	31.1
36°	19.4	24.3	29.1	31.1
37°	19.4	24.3	29.1	31.1
38°	18.5	24.3	29.1	31.1
39°	18.5	24.3	29.1	31.1
40°	18.5	24.3	29.1	31.1
41°	17.5	24.3	29.1	31.1
42°	17.5	24.3	29.1	31.1
43°	17.5	23.3	29.1	31.1
44°	17.5	23.3	29.1	31.1
45°	16.5	23.3	29.1	31.1
46°	16.5	23.3	29.1	31.1
47°	16.5	23.3	29.1	31.1
48°	16.5	23.3	29.1	31.1
49°	16.5	23.3	29.1	31.1
50°	15.5	22.3	29.1	31.1
51°	15.5	22.3	29.1	31.1
52°	15.5	22.3	29.1	31.1
53°	15.5	22.3	29.1	31.1
54°	14.6	22.3	29.1	31.1
55°	14.6	22.3	29.1	31.1
56°	14.6	22.3	29.1	30.1
57°	14.6	22.3	28.2	30.1
58°	14.6	21.4	28.2	30.1
59°	14.6	21.4	28.2	30.1
60°	14.6	21.4	28.2	30.1
62.5°	13.6	21.4	27.2	29.1
65°	12.6	19.4	27.2	28.2



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	12.6	18.5	25.3	27.2
70°	11.7	17.5	24.3	26.2
72.5°	9.7	16.5	22.3	24.3
75°	8.7	14.6	20.4	22.3
77.5°	7.8	12.6	18.5	19.4
80°	6.8	10.7	15.5	17.5
82.5°	4.9	7.8	12.6	13.6
85°	3.9	5.8	8.7	9.7
87.5°	2.9	2.9	4.9	4.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)