

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: P1346101

Luminaire Tested: P3A13R409830DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1346101
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: P3A13R409830DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 98CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

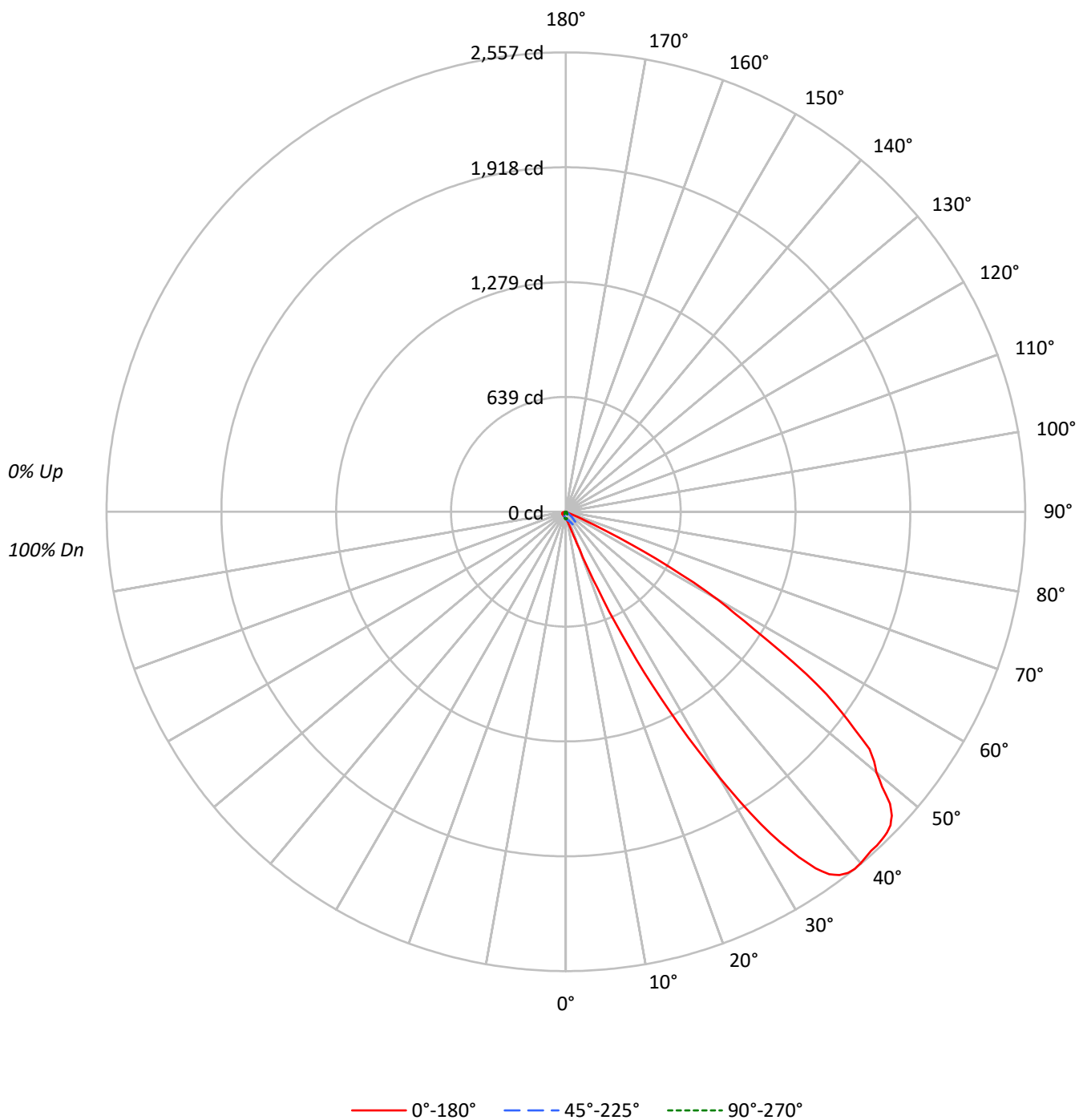
Lumens per Lamp: N/A
Luminaire Lumens: 790.0 lumens
Efficiency: N/A
Efficacy: 54.5 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.5
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	107	104	100	97	99	97	94		96	93	91		92	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81	78	75	72
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71	66	62	60
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62	57	52	50
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54	49	44	42
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48	42	37	35
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42	36	31	29
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38	31	26	24
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	20		31	24	20		30	24	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	8903	8903	8903	8903	8903
5°	9905	9575	8783	7990	7814
10°	11957	10176	8083	7259	7103
15°	19591	11033	6924	6425	6583
20°	51805	13044	5764	5764	6254
25°	199753	16138	4573	5274	6146
30°	430952	21497	3671	5140	6052
35°	648672	25431	3105	5059	6210
40°	730826	25534	2691	5181	6641
45°	783616	19785	2481	5396	7195
50°	770226	12383	2217	5697	7914
55°	677596	6117	2217	6384	8869
60°	428913	1272	2544	7017	9868
65°	87688	363	2646	7524	10896
70°	1859	449	2821	8399	12566
75°	1864	1271	3050	9235	14149
80°	1894	884	3662	10102	16543
85°	1761	1761	7296	11070	18367

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 797772 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.8	0.5
10°-20°	12.5	1.6
20°-30°	61.4	7.8
30°-40°	199.6	25.3
40°-50°	275.1	34.8
50°-60°	191.7	24.3
60°-70°	36.3	4.6
70°-80°	6.6	0.8
80°-90°	3.0	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°	77.7	9.8
0°-40°	277.3	35.1
0°-60°	744.1	94.2
0°-90°	790.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	790.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	41	41	41	41	41	
5°	45	44	40	36	36	5
15°	86	49	30	28	29	31
25°	826	67	19	22	25	425
35°	2423	95	12	19	23	1464
45°	2527	64	8	17	23	1922
55°	1772	16	6	17	23	1515
65°	169	1	5	14	21	299
75°	2	2	4	11	17	2
85°	1	1	3	4	7	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°	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6	40.6
2.5°	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	41.4	40.6
5°	45.0	45.0	45.0	45.0	44.3	44.3	44.3	43.5	43.5	42.1	39.9
7.5°	47.9	47.9	47.9	47.9	47.2	46.4	45.7	45.7	45.0	41.4	38.5
10°	53.7	53.7	53.0	52.2	51.5	50.1	49.3	47.9	45.7	40.6	36.3
12.5°	65.3	63.8	63.1	61.7	59.5	56.6	53.7	51.5	46.4	39.2	34.1
15°	86.3	84.9	82.0	77.6	73.3	67.5	62.4	57.3	48.6	37.0	30.5
17.5°	123.3	119.0	114.6	107.4	96.5	86.3	75.5	66.0	51.5	34.8	27.6
20°	222.0	219.1	193.0	172.7	140.0	116.8	95.0	79.1	55.9	32.6	24.7
22.5°	457.8	427.3	384.5	314.9	245.2	180.7	131.3	99.4	60.2	29.7	21.8
25°	825.6	777.7	685.6	551.4	407.0	288.0	190.1	129.9	66.7	26.8	18.9
27.5°	1250.0	1201.4	1058.5	873.5	637.7	434.6	271.3	171.9	75.5	23.9	16.7
30°	1702.0	1660.7	1479.3	1223.2	898.9	608.7	363.5	214.7	84.9	21.0	14.5
31°	1884.1	1831.2	1635.3	1362.5	1021.5	680.5	400.5	232.9	88.5	20.3	13.8
32°	2051.7	1991.5	1788.4	1496.0	1120.9	758.2	441.1	248.8	91.4	18.9	13.1
33°	2196.1	2125.7	1929.8	1622.2	1230.5	830.7	483.2	264.1	93.6	17.4	12.3
34°	2318.7	2257.8	2047.4	1749.2	1327.7	900.4	524.5	279.3	95.0	16.7	11.6
35°	2423.2	2368.0	2159.8	1845.7	1422.7	967.8	562.3	293.8	95.0	15.2	11.6
36°	2493.6	2445.7	2257.0	1944.4	1502.5	1025.1	594.2	306.9	95.0	13.8	10.9
37°	2532.0	2485.6	2320.9	2025.6	1580.9	1081.7	623.2	317.0	94.3	13.1	10.2
38°	2551.6	2511.0	2368.0	2091.6	1635.3	1122.4	648.6	325.0	93.6	11.6	10.2
39°	2556.7	2522.6	2397.8	2139.5	1688.3	1163.0	666.7	329.4	91.4	10.9	9.4
40°	2553.1	2523.3	2413.8	2182.3	1728.9	1194.9	679.8	330.8	89.2	9.4	9.4
41°	2545.8	2522.6	2425.4	2212.1	1761.5	1215.2	684.9	327.9	86.3	8.0	8.7
42°	2539.3	2513.9	2430.4	2232.4	1784.0	1225.4	684.2	322.1	82.0	7.3	8.7
43°	2539.3	2510.2	2431.2	2245.4	1794.9	1226.1	675.4	311.2	76.2	6.5	8.0
44°	2534.9	2508.1	2434.8	2254.1	1797.8	1219.6	661.7	299.6	69.6	5.8	8.0
45°	2526.9	2498.6	2434.1	2254.9	1792.7	1203.6	639.2	284.4	63.8	4.4	8.0
46°	2511.7	2486.3	2427.5	2249.8	1777.5	1180.4	612.3	269.2	57.3	3.6	7.3
47°	2481.2	2461.6	2410.1	2232.4	1754.3	1146.3	580.4	251.8	52.2	2.9	7.3
48°	2429.0	2415.2	2380.4	2193.9	1710.0	1104.2	546.3	232.9	47.2	2.9	7.3
49°	2333.2	2322.3	2302.0	2132.3	1653.4	1052.7	509.3	211.8	42.1	2.2	7.3
50°	2257.8	2246.2	2204.8	2028.5	1572.2	987.4	468.7	190.8	36.3	1.5	6.5
51°	2207.7	2188.8	2123.6	1908.1	1453.9	900.4	424.4	169.8	30.5	1.5	6.5
52°	2144.6	2116.3	2035.0	1800.0	1345.8	813.3	376.5	148.7	26.8	1.5	6.5
53°	2012.6	2002.4	1921.9	1683.9	1237.7	729.9	327.2	131.3	23.2	1.5	6.5
54°	1897.2	1882.0	1772.4	1522.8	1120.2	637.0	276.4	116.1	19.6	1.5	6.5
55°	1772.4	1742.7	1645.4	1387.2	982.3	551.4	227.8	100.1	16.0	1.5	5.8
56°	1615.0	1588.9	1484.4	1242.1	855.4	464.3	190.8	82.0	12.3	1.5	5.8
57°	1423.4	1399.5	1319.0	1063.6	723.3	379.4	155.3	66.0	9.4	1.5	5.8
58°	1238.4	1211.6	1119.5	892.4	584.0	301.1	129.9	53.7	7.3	1.5	5.8
59°	1096.2	1060.0	941.0	749.4	457.1	228.5	103.0	42.8	5.1	1.5	5.8
60°	978.0	948.2	824.9	623.9	358.4	168.3	76.2	32.6	2.9	1.5	5.8
62.5°	566.6	558.6	447.6	321.4	169.0	78.4	37.7	15.2	1.5	2.2	5.8
65°	169.0	147.3	114.6	68.2	43.5	26.1	13.8	5.1	0.7	2.2	5.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	5.1	5.1	5.1	5.1	5.1	5.1	2.9	1.5	0.7	2.2	5.1
70°	2.9	2.2	2.2	2.2	2.2	1.5	1.5	0.7	0.7	2.2	4.4
72.5°	2.2	2.2	2.2	2.2	1.5	1.5	1.5	0.7	1.5	2.2	3.6
75°	2.2	1.5	1.5	1.5	1.5	0.7	0.7	0.7	1.5	2.2	3.6
77.5°	1.5	1.5	1.5	1.5	0.7	0.7	0.7	0.7	1.5	2.2	3.6
80°	1.5	1.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.2	2.9
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.2	2.9
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.2	2.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	2.2	2.2
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°	40.6	40.6	40.6	40.6
2.5°	39.2	38.5	37.7	37.7
5°	37.7	36.3	36.3	35.5
7.5°	35.5	34.1	34.1	34.1
10°	33.4	32.6	32.6	31.9
12.5°	30.5	30.5	30.5	30.5
15°	28.3	28.3	29.0	29.0
17.5°	25.4	26.1	27.6	28.3
20°	23.2	24.7	26.1	26.8
22.5°	21.8	23.2	25.4	26.1
25°	19.6	21.8	24.7	25.4
27.5°	18.1	21.0	23.2	24.7
30°	16.7	20.3	22.5	23.9
31°	16.7	19.6	22.5	23.9
32°	16.0	18.9	22.5	23.2
33°	16.0	18.9	22.5	23.2
34°	15.2	18.9	21.8	23.2
35°	15.2	18.9	21.8	23.2
36°	14.5	18.1	21.8	23.2
37°	14.5	18.1	21.8	23.2
38°	13.8	18.1	21.8	23.2
39°	13.8	18.1	21.8	23.2
40°	13.8	18.1	21.8	23.2
41°	13.1	18.1	21.8	23.2
42°	13.1	18.1	21.8	23.2
43°	13.1	17.4	21.8	23.2
44°	13.1	17.4	21.8	23.2
45°	12.3	17.4	21.8	23.2
46°	12.3	17.4	21.8	23.2
47°	12.3	17.4	21.8	23.2
48°	12.3	17.4	21.8	23.2
49°	12.3	17.4	21.8	23.2
50°	11.6	16.7	21.8	23.2
51°	11.6	16.7	21.8	23.2
52°	11.6	16.7	21.8	23.2
53°	11.6	16.7	21.8	23.2
54°	10.9	16.7	21.8	23.2
55°	10.9	16.7	21.8	23.2
56°	10.9	16.7	21.8	22.5
57°	10.9	16.7	21.0	22.5
58°	10.9	16.0	21.0	22.5
59°	10.9	16.0	21.0	22.5
60°	10.9	16.0	21.0	22.5
62.5°	10.2	16.0	20.3	21.8
65°	9.4	14.5	20.3	21.0



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	9.4	13.8	18.9	20.3
70°	8.7	13.1	18.1	19.6
72.5°	7.3	12.3	16.7	18.1
75°	6.5	10.9	15.2	16.7
77.5°	5.8	9.4	13.8	14.5
80°	5.1	8.0	11.6	13.1
82.5°	3.6	5.8	9.4	10.2
85°	2.9	4.4	6.5	7.3
87.5°	2.2	2.2	3.6	3.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)