

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: P1316500

Luminaire Tested: P3SQAS20R209827D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1316500
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 1/29/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3SQAS20R209827D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 98CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

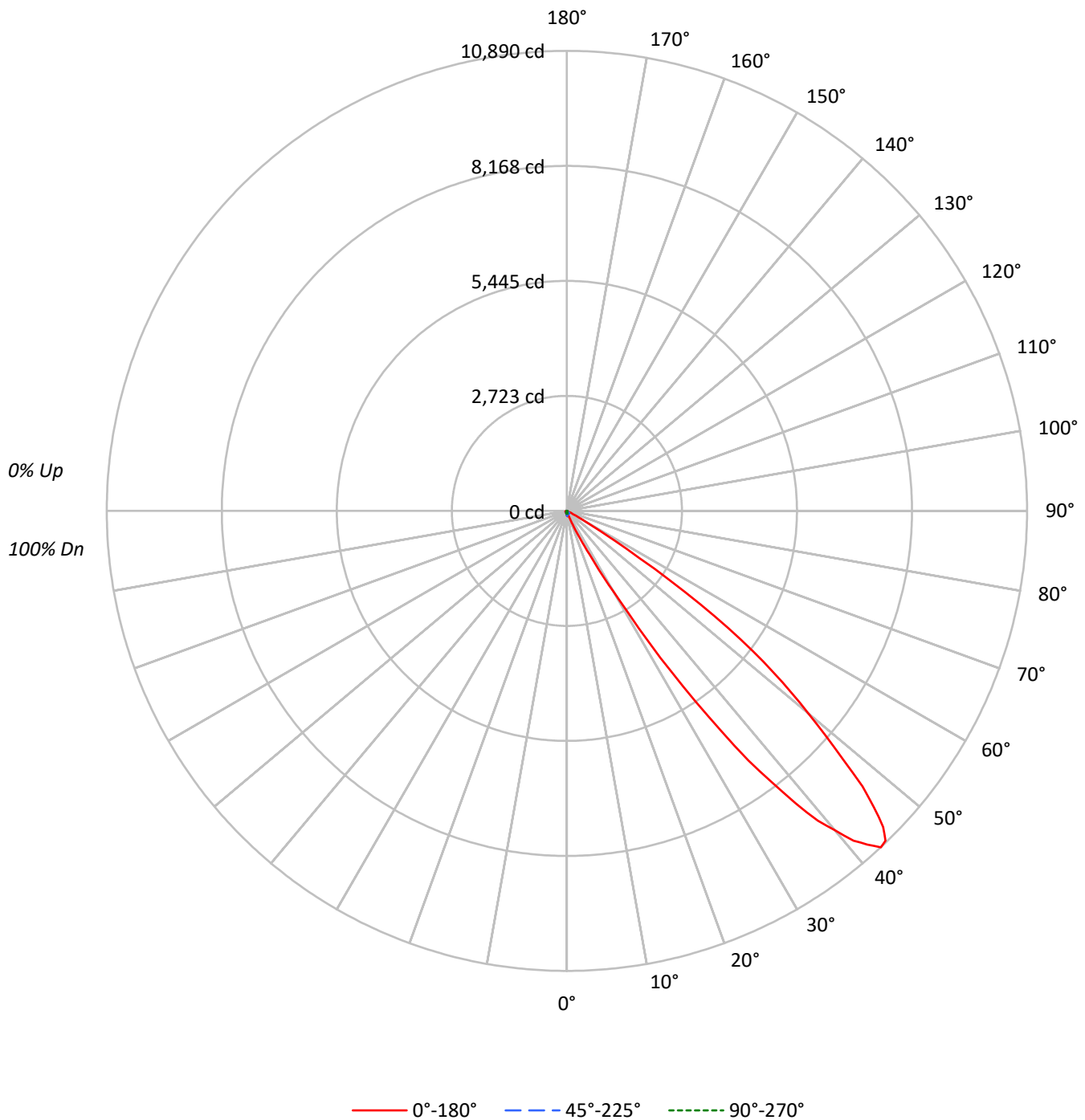
Lumens per Lamp: N/A
Luminaire Lumens: 1513.0 lumens
Efficiency: N/A
Efficacy: 55.2 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 27.4
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	50	30	10
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°	18118	18118	18118	18118	18118
5°	21143	19657	16960	14747	14263
10°	20881	17908	13431	11437	11192
15°	18258	13693	9896	9129	9628
20°	27106	11473	7294	7826	8596
25°	116714	11896	5682	7031	8380
30°	441382	14418	4813	6781	8193
35°	1338062	17345	4478	6875	8662
40°	2218800	17266	3844	7352	9263
45°	2578955	11764	3459	7623	10035
50°	2001953	6484	3430	8011	11441
55°	1158677	4264	3423	8978	12371
60°	195886	964	2928	9300	13709
65°	15078	0	3464	10432	15649
70°	2165	0	4280	11430	17876
75°	1863	932	4724	13242	20828
80°	1389	1389	7042	14083	24001
85°	2766	2766	11263	14030	25293

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2578955 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.0	0.6
10°-20°	18.9	1.3
20°-30°	60.4	4.0
30°-40°	385.8	25.5
40°-50°	706.2	46.7
50°-60°	290.2	19.2
60°-70°	24.5	1.6
70°-80°	12.2	0.8
80°-90°	5.7	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°	88.4	5.8
0°-40°	474.2	31.3
0°-60°	1470.6	97.2
0°-90°	1513.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1513.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	105	105	105	105	105	
5°	122	114	98	85	82	12
15°	102	77	56	51	54	33
25°	614	63	30	37	44	404
35°	6364	82	21	33	41	4028
45°	10589	48	14	31	41	7603
55°	3859	14	11	30	41	3373
65°	37	0	8	26	38	120
75°	3	1	7	20	31	3
85°	1	1	6	7	13	1
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°	105.2	105.2	105.2	105.2	105.2	105.2	105.2	105.2	105.2	105.2	105.2
2.5°	115.2	115.2	115.2	113.7	113.7	115.2	113.7	113.7	113.7	113.7	112.3
5°	122.3	122.3	122.3	122.3	122.3	122.3	122.3	120.9	120.9	119.4	113.7
7.5°	125.1	125.1	125.1	125.1	123.7	123.7	123.7	123.7	122.3	120.9	110.9
10°	119.4	119.4	119.4	118.0	118.0	118.0	116.6	116.6	115.2	113.7	102.4
12.5°	108.1	108.1	108.1	108.1	106.6	106.6	105.2	105.2	103.8	102.4	89.6
15°	102.4	102.4	102.4	101.0	101.0	99.5	98.1	96.7	95.3	92.4	76.8
17.5°	110.9	110.9	109.5	109.5	106.6	103.8	102.4	98.1	95.3	91.0	68.2
20°	147.9	149.3	143.6	139.3	136.5	128.0	123.7	116.6	110.9	103.8	62.6
22.5°	298.6	292.9	283.0	267.3	248.8	233.2	204.7	182.0	166.4	145.0	61.1
25°	614.2	608.6	581.5	558.8	501.9	457.8	396.7	346.9	295.7	246.0	62.6
27.5°	1167.4	1129.0	1121.9	1018.1	938.4	824.7	706.7	607.1	516.1	415.2	66.8
30°	2219.5	2175.5	2020.5	1864.1	1649.4	1406.2	1174.5	958.3	777.8	614.2	72.5
31°	2816.7	2859.4	2677.4	2363.1	2046.1	1734.7	1417.6	1143.2	910.0	706.7	75.4
32°	3702.5	3516.3	3324.3	3001.6	2540.9	2142.8	1744.6	1349.3	1042.2	806.2	78.2
33°	4540.0	4430.5	4137.6	3735.2	3182.1	2623.3	2107.2	1592.5	1204.3	927.1	79.6
34°	5432.9	5312.1	5074.6	4497.4	3890.2	3158.0	2469.8	1872.6	1397.7	1045.1	81.0
35°	6364.3	6313.1	5855.2	5354.7	4608.3	3725.3	2906.3	2179.7	1586.8	1153.1	82.5
36°	7301.3	7136.3	6778.0	6047.2	5268.0	4250.0	3364.1	2465.5	1778.8	1281.1	82.5
37°	8006.5	7969.6	7494.6	6782.3	5866.6	4810.2	3759.4	2782.6	1972.1	1390.6	82.5
38°	8784.3	8637.8	8155.8	7430.7	6429.7	5323.5	4173.2	3058.4	2155.5	1490.1	81.0
39°	9439.8	9222.2	8735.9	8019.3	6921.6	5713.1	4501.6	3325.7	2317.6	1572.6	79.6
40°	9869.2	9718.4	9210.8	8404.6	7368.1	6081.3	4834.3	3546.1	2438.5	1635.1	76.8
41°	10342.6	10092.4	9590.5	8780.0	7692.3	6405.5	5043.4	3691.2	2532.3	1676.4	73.9
42°	10625.6	10420.8	9825.1	9031.7	7924.1	6590.3	5214.0	3802.1	2589.2	1697.7	68.2
43°	10890.1	10611.4	10031.3	9178.1	8077.6	6721.2	5292.2	3853.3	2602.0	1697.7	61.1
44°	10854.5	10590.0	9988.6	9198.0	8111.7	6759.5	5324.9	3854.7	2582.1	1676.4	54.0
45°	10588.6	10325.6	9783.9	9024.6	7989.5	6684.2	5259.5	3797.8	2526.7	1639.4	48.3
46°	10100.9	9839.3	9424.1	8734.5	7762.0	6513.6	5107.3	3674.1	2434.2	1579.7	42.7
47°	9570.6	9316.1	8890.9	8266.7	7373.8	6209.3	4886.9	3500.6	2304.8	1493.0	38.4
48°	8801.3	8642.1	8215.5	7682.3	6834.9	5733.0	4500.2	3217.7	2131.4	1380.6	32.7
49°	8121.7	7953.9	7580.0	7006.9	6132.5	5178.4	4038.1	2873.6	1905.3	1255.5	28.4
50°	7471.9	7325.4	6979.9	6333.0	5498.4	4508.7	3413.9	2439.9	1620.9	1100.5	24.2
51°	6836.3	6726.8	6374.2	5779.9	4932.4	3994.0	2957.5	2031.8	1339.4	912.8	22.7
52°	6197.9	6185.1	5802.6	5201.2	4382.2	3480.7	2513.9	1714.8	1136.1	766.4	21.3
53°	5511.1	5428.7	5094.5	4554.2	3767.9	2946.1	2131.4	1446.0	978.2	652.6	18.5
54°	4729.1	4636.7	4278.4	3790.7	3078.3	2412.9	1717.6	1168.8	814.7	551.7	17.1
55°	3858.9	3701.1	3440.9	2940.4	2404.4	1841.3	1326.6	925.6	651.2	459.3	14.2
56°	2927.6	2769.8	2623.3	2255.1	1764.5	1373.5	988.2	709.5	509.0	362.6	12.8
57°	2036.1	2027.6	1787.3	1504.3	1180.1	935.6	676.8	500.5	359.7	281.5	10.0
58°	1320.9	1276.8	1123.3	959.8	772.1	584.4	435.1	339.8	244.6	192.0	8.5
59°	925.6	837.5	755.0	639.8	486.3	368.3	280.1	217.5	169.2	133.7	5.7
60°	568.7	550.3	494.8	389.6	315.7	260.2	209.0	160.7	123.7	95.3	2.8
62.5°	162.1	164.9	149.3	132.2	113.7	98.1	88.2	75.4	62.6	49.8	0.0
65°	37.0	35.5	38.4	35.5	32.7	32.7	28.4	25.6	22.7	21.3	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°	11.4	11.4	10.0	10.0	10.0	8.5	8.5	7.1	7.1	5.7	0.0
70°	4.3	4.3	4.3	4.3	4.3	2.8	2.8	2.8	1.4	1.4	0.0
72.5°	4.3	4.3	4.3	2.8	2.8	2.8	2.8	2.8	1.4	1.4	1.4
75°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4
77.5°	2.8	2.8	2.8	2.8	2.8	1.4	2.8	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
85°	1.4	1.4	1.4	1.4	0.0	0.0	1.4	1.4	1.4	0.0	1.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
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°	105.2	105.2	105.2	105.2	105.2	105.2
2.5°	109.5	103.8	99.5	95.3	93.8	93.8
5°	106.6	98.1	89.6	85.3	82.5	82.5
7.5°	98.1	88.2	79.6	75.4	73.9	73.9
10°	88.2	76.8	68.2	65.4	65.4	64.0
12.5°	76.8	65.4	59.7	58.3	58.3	58.3
15°	64.0	55.5	51.2	51.2	52.6	54.0
17.5°	54.0	45.5	44.1	46.9	49.8	49.8
20°	45.5	39.8	39.8	42.7	45.5	46.9
22.5°	38.4	34.1	35.5	39.8	44.1	45.5
25°	34.1	29.9	32.7	37.0	41.2	44.1
27.5°	28.4	27.0	29.9	35.5	41.2	42.7
30°	24.2	24.2	28.4	34.1	39.8	41.2
31°	22.7	22.7	28.4	34.1	39.8	41.2
32°	21.3	22.7	27.0	34.1	39.8	41.2
33°	19.9	21.3	27.0	32.7	39.8	41.2
34°	18.5	21.3	27.0	32.7	39.8	41.2
35°	17.1	21.3	27.0	32.7	39.8	41.2
36°	15.6	19.9	25.6	32.7	39.8	41.2
37°	14.2	19.9	25.6	32.7	39.8	41.2
38°	12.8	18.5	25.6	32.7	39.8	41.2
39°	12.8	18.5	24.2	32.7	38.4	41.2
40°	11.4	17.1	24.2	32.7	38.4	41.2
41°	10.0	17.1	24.2	31.3	38.4	41.2
42°	8.5	15.6	22.7	31.3	38.4	41.2
43°	7.1	15.6	22.7	31.3	38.4	41.2
44°	7.1	14.2	22.7	31.3	38.4	41.2
45°	5.7	14.2	22.7	31.3	38.4	41.2
46°	4.3	14.2	22.7	31.3	38.4	41.2
47°	4.3	12.8	21.3	31.3	38.4	41.2
48°	2.8	12.8	21.3	31.3	38.4	41.2
49°	2.8	12.8	21.3	31.3	38.4	42.7
50°	2.8	12.8	21.3	29.9	38.4	42.7
51°	1.4	12.8	21.3	29.9	38.4	42.7
52°	1.4	12.8	19.9	29.9	39.8	42.7
53°	1.4	11.4	19.9	29.9	39.8	42.7
54°	1.4	11.4	19.9	29.9	39.8	41.2
55°	1.4	11.4	19.9	29.9	38.4	41.2
56°	1.4	10.0	19.9	29.9	38.4	41.2
57°	1.4	10.0	18.5	28.4	38.4	39.8
58°	1.4	10.0	18.5	28.4	38.4	39.8
59°	1.4	10.0	18.5	28.4	37.0	39.8
60°	2.8	8.5	17.1	27.0	37.0	39.8
62.5°	2.8	8.5	17.1	27.0	35.5	38.4
65°	2.8	8.5	15.6	25.6	35.5	38.4



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	2.8	7.1	14.2	24.2	34.1	37.0
70°	2.8	8.5	14.2	22.7	32.7	35.5
72.5°	4.3	7.1	12.8	21.3	31.3	34.1
75°	4.3	7.1	12.8	19.9	29.9	31.3
77.5°	5.7	7.1	11.4	17.1	27.0	28.4
80°	5.7	7.1	10.0	14.2	22.7	24.2
82.5°	5.7	7.1	7.1	11.4	17.1	18.5
85°	4.3	5.7	5.7	7.1	11.4	12.8
87.5°	4.3	5.7	4.3	2.8	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)