

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: P1311590

Luminaire Tested: P3SQAS20R209050D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1311590
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: P3SQAS20R209050D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 5000K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

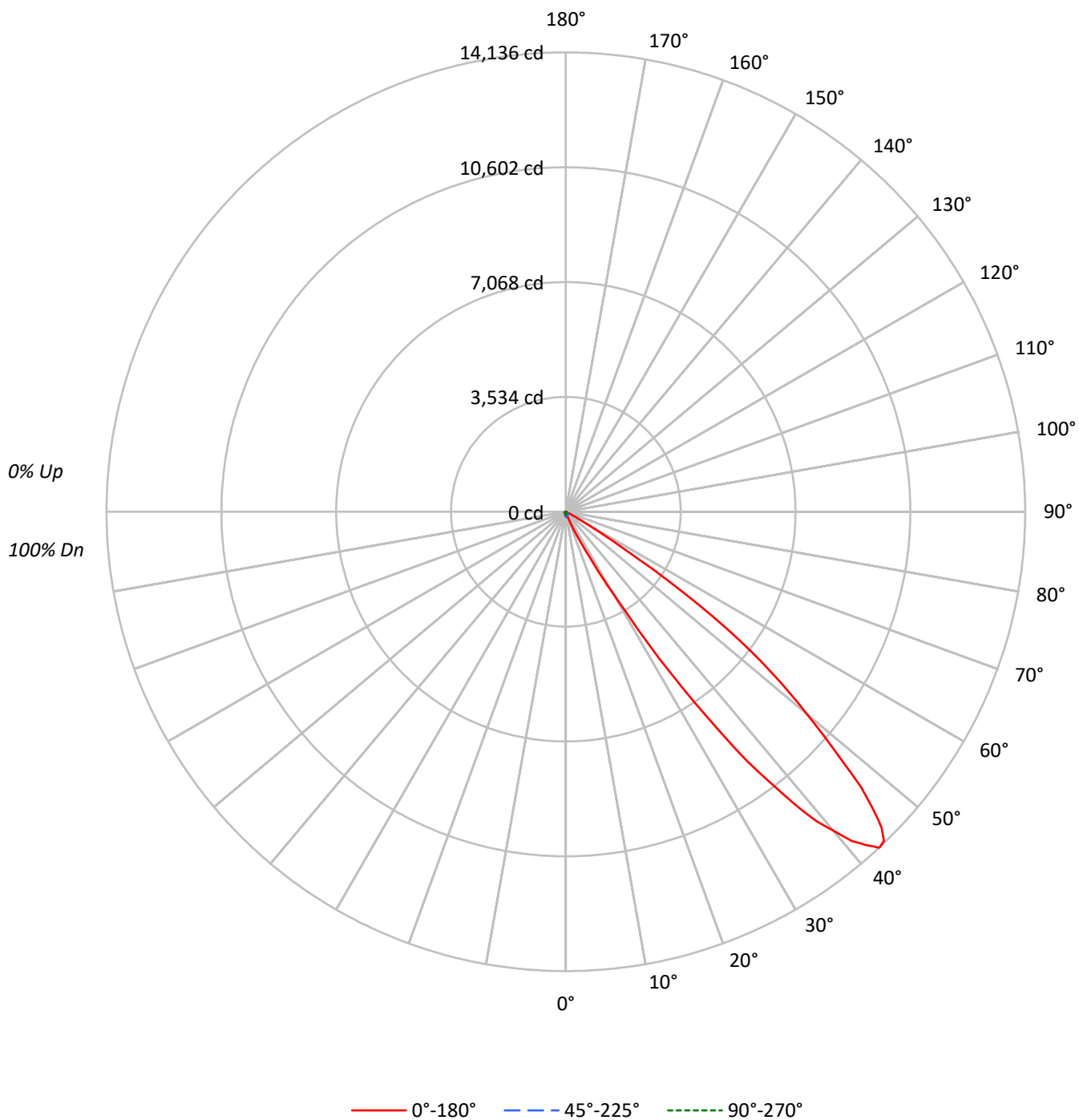
Lumens per Lamp: N/A
Luminaire Lumens: 1964.0 lumens
Efficiency: N/A
Efficacy: 68.2 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 28.8
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°	23526	23526	23526	23526	23526
5°	27436	25534	22025	19138	18516
10°	27106	23241	17435	14847	14532
15°	23696	17776	12837	11839	12499
20°	35189	14882	9475	10153	11161
25°	151508	15430	7373	9121	10870
30°	572952	18713	6244	8810	10639
35°	1736897	22517	5824	8935	11248
40°	2880178	22415	4969	9555	12028
45°	3347702	15296	4506	9889	13030
50°	2598688	8413	4448	10396	14843
55°	1504067	5555	4444	11650	16064
60°	254304	1274	3823	12090	17808
65°	19561	0	4523	13529	20294
70°	2769	0	5589	14855	23213
75°	2462	1198	6122	17168	27016
80°	1785	1785	9124	18348	31142
85°	3557	3557	14623	18180	32802

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3347702 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.7	0.6
10°-20°	24.6	1.3
20°-30°	78.4	4.0
30°-40°	500.8	25.5
40°-50°	916.7	46.7
50°-60°	376.7	19.2
60°-70°	31.8	1.6
70°-80°	15.8	0.8
80°-90°	7.4	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°	114.7	5.8
0°-40°	615.6	31.3
0°-60°	1909.0	97.2
0°-90°	1964.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1964.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	137	137	137	137	137	
5°	159	148	127	111	107	15
15°	133	100	72	66	70	42
25°	797	81	39	48	57	524
35°	8261	107	28	42	54	5229
45°	13745	63	18	41	54	9869
55°	5009	18	15	39	54	4379
65°	48	0	11	33	50	156
75°	4	2	9	26	41	4
85°	2	2	7	9	17	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°	136.6	136.6	136.6	136.6	136.6	136.6	136.6	136.6	136.6	136.6	136.6
2.5°	149.5	149.5	149.5	147.7	147.7	149.5	147.7	147.7	147.7	147.7	145.8
5°	158.7	158.7	158.7	158.7	158.7	158.7	158.7	156.9	156.9	155.0	147.7
7.5°	162.4	162.4	162.4	162.4	160.6	160.6	160.6	160.6	158.7	156.9	144.0
10°	155.0	155.0	155.0	153.2	153.2	153.2	151.3	151.3	149.5	147.7	132.9
12.5°	140.3	140.3	140.3	140.3	138.4	138.4	136.6	136.6	134.7	132.9	116.3
15°	132.9	132.9	132.9	131.0	131.0	129.2	127.4	125.5	123.7	120.0	99.7
17.5°	144.0	144.0	142.1	142.1	138.4	134.7	132.9	127.4	123.7	118.1	88.6
20°	192.0	193.8	186.4	180.9	177.2	166.1	160.6	151.3	144.0	134.7	81.2
22.5°	387.6	380.2	367.3	347.0	323.0	302.7	265.8	236.2	215.9	188.3	79.4
25°	797.3	790.0	754.9	725.4	651.5	594.3	515.0	450.4	383.9	319.3	81.2
27.5°	1515.3	1465.5	1456.3	1321.5	1218.2	1070.5	917.3	788.1	670.0	538.9	86.7
30°	2881.1	2823.9	2622.7	2419.7	2141.0	1825.4	1524.5	1244.0	1009.6	797.3	94.1
31°	3656.3	3711.7	3475.5	3067.6	2656.0	2251.8	1840.2	1483.9	1181.2	917.3	97.8
32°	4806.2	4564.4	4315.2	3896.3	3298.3	2781.5	2264.7	1751.6	1352.9	1046.5	101.5
33°	5893.3	5751.2	5371.0	4848.7	4130.7	3405.3	2735.3	2067.2	1563.3	1203.4	103.4
34°	7052.4	6895.5	6587.3	5837.9	5049.8	4099.3	3206.0	2430.8	1814.3	1356.6	105.2
35°	8261.3	8194.9	7600.6	6950.9	5981.9	4835.7	3772.6	2829.5	2059.8	1496.9	107.1
36°	9477.7	9263.6	8798.4	7849.8	6838.3	5516.8	4366.9	3200.4	2309.0	1663.0	107.1
37°	10393.1	10345.1	9728.7	8804.0	7615.4	6244.0	4880.0	3612.0	2560.0	1805.1	107.1
38°	11402.7	11212.6	10586.9	9645.6	8346.3	6910.3	5417.1	3970.1	2798.1	1934.3	105.2
39°	12253.6	11971.2	11340.0	10409.7	8984.9	7416.0	5843.5	4317.1	3008.5	2041.3	103.4
40°	12811.0	12615.4	11956.4	10909.9	9564.4	7894.1	6275.4	4603.2	3165.4	2122.6	99.7
41°	13425.6	13100.8	12449.2	11397.2	9985.2	8314.9	6546.7	4791.4	3287.2	2176.1	96.0
42°	13792.9	13527.1	12753.8	11723.9	10286.1	8554.8	6768.2	4935.4	3361.0	2203.8	88.6
43°	14136.2	13774.5	13021.4	11914.0	10485.4	8724.6	6869.7	5001.8	3377.6	2203.8	79.4
44°	14090.1	13746.8	12966.0	11939.8	10529.7	8774.5	6912.1	5003.7	3351.8	2176.1	70.1
45°	13744.9	13403.5	12700.3	11714.7	10371.0	8676.6	6827.2	4929.9	3279.8	2128.1	62.8
46°	13111.8	12772.2	12233.3	11338.1	10075.7	8455.1	6629.8	4769.3	3159.8	2050.6	55.4
47°	12423.4	12093.0	11541.2	10730.9	9571.8	8060.2	6343.7	4544.1	2991.9	1938.0	49.8
48°	11424.9	11218.2	10664.4	9972.3	8872.3	7441.9	5841.6	4176.8	2766.7	1792.2	42.5
49°	10542.6	10324.8	9839.4	9095.6	7960.5	6722.0	5241.8	3730.2	2473.2	1629.8	36.9
50°	9699.1	9509.0	9060.5	8220.7	7137.3	5852.7	4431.5	3167.2	2104.1	1428.6	31.4
51°	8874.1	8732.0	8274.3	7502.8	6402.7	5184.6	3839.1	2637.5	1738.6	1184.9	29.5
52°	8045.4	8028.8	7532.3	6751.6	5688.4	4518.3	3263.2	2225.9	1474.7	994.8	27.7
53°	7153.9	7046.9	6613.1	5911.8	4891.1	3824.3	2766.7	1877.1	1269.8	847.2	24.0
54°	6138.8	6018.8	5553.7	4920.6	3995.9	3132.2	2229.6	1517.2	1057.6	716.1	22.1
55°	5009.2	4804.4	4466.6	3816.9	3121.1	2390.2	1722.0	1201.6	845.3	596.2	18.5
56°	3800.3	3595.4	3405.3	2927.3	2290.5	1782.9	1282.8	921.0	660.8	470.7	16.6
57°	2643.0	2632.0	2320.0	1952.7	1531.9	1214.5	878.6	649.7	467.0	365.4	12.9
58°	1714.7	1657.4	1458.1	1245.8	1002.2	758.6	564.8	441.1	317.5	249.2	11.1
59°	1201.6	1087.1	980.1	830.6	631.2	478.0	363.6	282.4	219.6	173.5	7.4
60°	738.3	714.3	642.3	505.7	409.7	337.8	271.3	208.6	160.6	123.7	3.7
62.5°	210.4	214.1	193.8	171.7	147.7	127.4	114.4	97.8	81.2	64.6	0.0
65°	48.0	46.1	49.8	46.1	42.5	42.5	36.9	33.2	29.5	27.7	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°	14.8	14.8	12.9	12.9	12.9	11.1	11.1	9.2	9.2	7.4	0.0
70°	5.5	5.5	5.5	5.5	5.5	3.7	3.7	3.7	1.8	1.8	0.0
72.5°	5.5	5.5	5.5	3.7	3.7	3.7	3.7	3.7	1.8	1.8	1.8
75°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8
77.5°	3.7	3.7	3.7	3.7	3.7	1.8	3.7	1.8	1.8	1.8	1.8
80°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
82.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
85°	1.8	1.8	1.8	1.8	0.0	0.0	1.8	1.8	1.8	0.0	1.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
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°	136.6	136.6	136.6	136.6	136.6	136.6
2.5°	142.1	134.7	129.2	123.7	121.8	121.8
5°	138.4	127.4	116.3	110.7	107.1	107.1
7.5°	127.4	114.4	103.4	97.8	96.0	96.0
10°	114.4	99.7	88.6	84.9	84.9	83.1
12.5°	99.7	84.9	77.5	75.7	75.7	75.7
15°	83.1	72.0	66.4	66.4	68.3	70.1
17.5°	70.1	59.1	57.2	60.9	64.6	64.6
20°	59.1	51.7	51.7	55.4	59.1	60.9
22.5°	49.8	44.3	46.1	51.7	57.2	59.1
25°	44.3	38.8	42.5	48.0	53.5	57.2
27.5°	36.9	35.1	38.8	46.1	53.5	55.4
30°	31.4	31.4	36.9	44.3	51.7	53.5
31°	29.5	29.5	36.9	44.3	51.7	53.5
32°	27.7	29.5	35.1	44.3	51.7	53.5
33°	25.8	27.7	35.1	42.5	51.7	53.5
34°	24.0	27.7	35.1	42.5	51.7	53.5
35°	22.1	27.7	35.1	42.5	51.7	53.5
36°	20.3	25.8	33.2	42.5	51.7	53.5
37°	18.5	25.8	33.2	42.5	51.7	53.5
38°	16.6	24.0	33.2	42.5	51.7	53.5
39°	16.6	24.0	31.4	42.5	49.8	53.5
40°	14.8	22.1	31.4	42.5	49.8	53.5
41°	12.9	22.1	31.4	40.6	49.8	53.5
42°	11.1	20.3	29.5	40.6	49.8	53.5
43°	9.2	20.3	29.5	40.6	49.8	53.5
44°	9.2	18.5	29.5	40.6	49.8	53.5
45°	7.4	18.5	29.5	40.6	49.8	53.5
46°	5.5	18.5	29.5	40.6	49.8	53.5
47°	5.5	16.6	27.7	40.6	49.8	53.5
48°	3.7	16.6	27.7	40.6	49.8	53.5
49°	3.7	16.6	27.7	40.6	49.8	55.4
50°	3.7	16.6	27.7	38.8	49.8	55.4
51°	1.8	16.6	27.7	38.8	49.8	55.4
52°	1.8	16.6	25.8	38.8	51.7	55.4
53°	1.8	14.8	25.8	38.8	51.7	55.4
54°	1.8	14.8	25.8	38.8	51.7	53.5
55°	1.8	14.8	25.8	38.8	49.8	53.5
56°	1.8	12.9	25.8	38.8	49.8	53.5
57°	1.8	12.9	24.0	36.9	49.8	51.7
58°	1.8	12.9	24.0	36.9	49.8	51.7
59°	1.8	12.9	24.0	36.9	48.0	51.7
60°	3.7	11.1	22.1	35.1	48.0	51.7
62.5°	3.7	11.1	22.1	35.1	46.1	49.8
65°	3.7	11.1	20.3	33.2	46.1	49.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	3.7	9.2	18.5	31.4	44.3	48.0
70°	3.7	11.1	18.5	29.5	42.5	46.1
72.5°	5.5	9.2	16.6	27.7	40.6	44.3
75°	5.5	9.2	16.6	25.8	38.8	40.6
77.5°	7.4	9.2	14.8	22.1	35.1	36.9
80°	7.4	9.2	12.9	18.5	29.5	31.4
82.5°	7.4	9.2	9.2	14.8	22.1	24.0
85°	5.5	7.4	7.4	9.2	14.8	16.6
87.5°	5.5	7.4	5.5	3.7	7.4	7.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)