

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: P1312709

Luminaire Tested: P3SQAS20R209727D010 E3SQCA451MW

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1312709
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: P3SQAS20R209727D010 E3SQCA451MW
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 97CRI , E3SQCA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

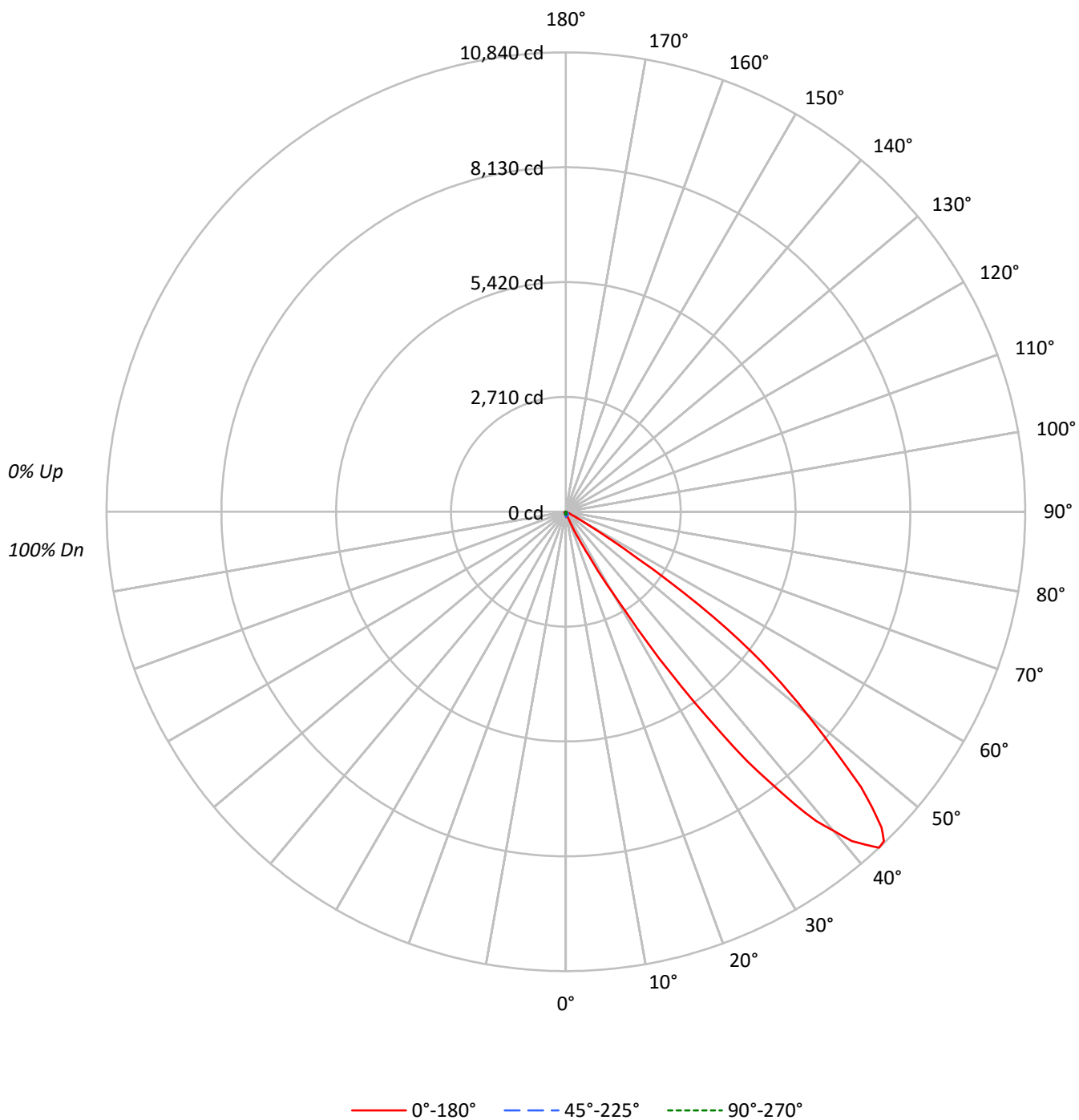
Lumens per Lamp: N/A
Luminaire Lumens: 1506.0 lumens
Efficiency: N/A
Efficacy: 52.3 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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°	18032	18032	18032	18032	18032
5°	21040	19570	16890	14678	14193
10°	20793	17820	13361	11385	11140
15°	18169	13622	9842	9093	9592
20°	26978	11418	7258	7789	8559
25°	116182	11839	5644	6993	8342
30°	439354	14358	4793	6761	8153
35°	1331860	17261	4457	6854	8620
40°	2208526	17176	3822	7329	9218
45°	2567021	11715	3459	7575	9986
50°	1992682	6457	3403	7958	11387
55°	1153333	4264	3393	8918	12311
60°	194990	964	2928	9266	13640
65°	14996	0	3464	10392	15567
70°	2115	0	4280	11380	17826
75°	1863	932	4724	13175	20694
80°	1389	1389	7042	14083	23902
85°	2766	2766	11263	14030	25096

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2567021 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.0	0.6
10°-20°	18.8	1.3
20°-30°	60.1	4.0
30°-40°	384.0	25.5
40°-50°	702.9	46.7
50°-60°	288.8	19.2
60°-70°	24.4	1.6
70°-80°	12.1	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°	88.0	5.8
0°-40°	472.0	31.3
0°-60°	1463.8	97.2
0°-90°	1506.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1506.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	105	105	105	105	105	
5°	122	113	98	85	82	12
15°	102	76	55	51	54	32
25°	611	62	30	37	44	402
35°	6335	82	21	33	41	4010
45°	10540	48	14	31	41	7567
55°	3841	14	11	30	41	3358
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°	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7	104.7
2.5°	114.6	114.6	114.6	113.2	113.2	114.6	113.2	113.2	113.2	113.2	111.8
5°	121.7	121.7	121.7	121.7	121.7	121.7	121.7	120.3	120.3	118.9	113.2
7.5°	124.5	124.5	124.5	124.5	123.1	123.1	123.1	123.1	121.7	120.3	110.4
10°	118.9	118.9	118.9	117.5	117.5	117.5	116.1	116.1	114.6	113.2	101.9
12.5°	107.6	107.6	107.6	107.6	106.1	106.1	104.7	104.7	103.3	101.9	89.2
15°	101.9	101.9	101.9	100.5	100.5	99.1	97.7	96.2	94.8	92.0	76.4
17.5°	110.4	110.4	109.0	109.0	106.1	103.3	101.9	97.7	94.8	90.6	67.9
20°	147.2	148.6	142.9	138.7	135.9	127.4	123.1	116.1	110.4	103.3	62.3
22.5°	297.2	291.5	281.6	266.1	247.7	232.1	203.8	181.2	165.6	144.4	60.9
25°	611.4	605.7	578.9	556.2	499.6	455.7	394.9	345.3	294.4	244.8	62.3
27.5°	1162.0	1123.7	1116.7	1013.3	934.1	820.9	703.4	604.3	513.7	413.3	66.5
30°	2209.3	2165.4	2011.1	1855.4	1641.7	1399.7	1169.0	953.9	774.2	611.4	72.2
31°	2803.7	2846.1	2665.0	2352.2	2036.6	1726.6	1411.0	1137.9	905.8	703.4	75.0
32°	3685.4	3500.0	3308.9	2987.7	2529.1	2132.8	1736.6	1343.1	1037.4	802.5	77.8
33°	4519.0	4410.0	4118.5	3718.0	3167.4	2611.2	2097.5	1585.1	1198.7	922.8	79.3
34°	5407.8	5287.5	5051.2	4476.6	3872.2	3143.4	2458.4	1863.9	1391.2	1040.2	80.7
35°	6334.8	6283.9	5828.1	5330.0	4586.9	3708.1	2892.8	2169.6	1579.5	1147.8	82.1
36°	7267.5	7103.3	6746.7	6019.2	5243.6	4230.3	3348.6	2454.1	1770.5	1275.2	82.1
37°	7969.5	7932.7	7460.0	6750.9	5839.5	4787.9	3742.0	2769.7	1963.0	1384.2	82.1
38°	8743.6	8597.9	8118.1	7396.3	6399.9	5298.8	4153.9	3044.3	2145.6	1483.2	80.7
39°	9396.1	9179.5	8695.5	7982.2	6889.6	5686.6	4480.8	3310.4	2306.9	1565.3	79.3
40°	9823.5	9673.5	9168.2	8365.8	7334.0	6053.2	4812.0	3529.7	2427.2	1627.6	76.4
41°	10294.8	10045.7	9546.1	8739.4	7656.7	6375.9	5020.0	3674.1	2520.6	1668.6	73.6
42°	10576.4	10372.6	9779.6	8989.9	7887.4	6559.9	5189.9	3784.5	2577.2	1689.9	67.9
43°	10839.7	10562.3	9984.8	9135.7	8040.2	6690.1	5267.7	3835.4	2590.0	1689.9	60.9
44°	10804.3	10541.1	9942.4	9155.5	8074.2	6728.3	5300.2	3836.8	2570.2	1668.6	53.8
45°	10539.6	10277.8	9738.6	8982.8	7952.5	6653.3	5235.1	3780.2	2515.0	1631.8	48.1
46°	10054.2	9793.8	9380.5	8694.1	7726.0	6483.4	5083.7	3657.1	2423.0	1572.4	42.5
47°	9526.3	9273.0	8849.8	8228.5	7339.7	6180.6	4864.3	3484.4	2294.2	1486.1	38.2
48°	8760.6	8602.1	8177.5	7646.8	6803.3	5706.4	4479.4	3202.8	2121.5	1374.2	32.6
49°	8084.1	7917.1	7544.9	6974.5	6104.1	5154.5	4019.4	2860.3	1896.5	1249.7	28.3
50°	7437.3	7291.6	6947.6	6303.7	5472.9	4487.9	3398.1	2428.6	1613.4	1095.4	24.1
51°	6804.7	6695.7	6344.7	5753.1	4909.6	3975.5	2943.8	2022.4	1333.2	908.6	22.6
52°	6169.2	6156.5	5775.8	5177.1	4361.9	3464.6	2502.2	1706.8	1130.8	762.8	21.2
53°	5485.7	5403.6	5071.0	4533.2	3750.5	2932.5	2121.5	1439.3	973.7	649.6	18.4
54°	4707.2	4615.2	4258.6	3773.2	3064.1	2401.7	1709.7	1163.4	811.0	549.1	17.0
55°	3841.1	3684.0	3425.0	2926.8	2393.2	1832.8	1320.5	921.4	648.2	457.1	14.2
56°	2914.1	2757.0	2611.2	2244.6	1756.4	1367.2	983.6	706.2	506.7	360.9	12.7
57°	2026.7	2018.2	1779.0	1497.4	1174.7	931.3	673.7	498.2	358.1	280.2	9.9
58°	1314.8	1270.9	1118.1	955.3	768.5	581.7	433.1	338.3	243.4	191.1	8.5
59°	921.4	833.6	751.5	636.9	484.0	366.6	278.8	216.5	168.4	133.0	5.7
60°	566.1	547.7	492.5	387.8	314.2	259.0	208.0	159.9	123.1	94.8	2.8
62.5°	161.3	164.2	148.6	131.6	113.2	97.7	87.7	75.0	62.3	49.5	0.0
65°	36.8	35.4	38.2	35.4	32.6	32.6	28.3	25.5	22.6	21.2	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°	11.3	11.3	9.9	9.9	9.9	8.5	8.5	7.1	7.1	5.7	0.0
70°	4.2	4.2	4.2	4.2	4.2	2.8	2.8	2.8	1.4	1.4	0.0
72.5°	4.2	4.2	4.2	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°	104.7	104.7	104.7	104.7	104.7	104.7
2.5°	109.0	103.3	99.1	94.8	93.4	93.4
5°	106.1	97.7	89.2	84.9	82.1	82.1
7.5°	97.7	87.7	79.3	75.0	73.6	73.6
10°	87.7	76.4	67.9	65.1	65.1	63.7
12.5°	76.4	65.1	59.4	58.0	58.0	58.0
15°	63.7	55.2	51.0	51.0	52.4	53.8
17.5°	53.8	45.3	43.9	46.7	49.5	49.5
20°	45.3	39.6	39.6	42.5	45.3	46.7
22.5°	38.2	34.0	35.4	39.6	43.9	45.3
25°	34.0	29.7	32.6	36.8	41.0	43.9
27.5°	28.3	26.9	29.7	35.4	41.0	42.5
30°	24.1	24.1	28.3	34.0	39.6	41.0
31°	22.6	22.6	28.3	34.0	39.6	41.0
32°	21.2	22.6	26.9	34.0	39.6	41.0
33°	19.8	21.2	26.9	32.6	39.6	41.0
34°	18.4	21.2	26.9	32.6	39.6	41.0
35°	17.0	21.2	26.9	32.6	39.6	41.0
36°	15.6	19.8	25.5	32.6	39.6	41.0
37°	14.2	19.8	25.5	32.6	39.6	41.0
38°	12.7	18.4	25.5	32.6	39.6	41.0
39°	12.7	18.4	24.1	32.6	38.2	41.0
40°	11.3	17.0	24.1	32.6	38.2	41.0
41°	9.9	17.0	24.1	31.1	38.2	41.0
42°	8.5	15.6	22.6	31.1	38.2	41.0
43°	7.1	15.6	22.6	31.1	38.2	41.0
44°	7.1	14.2	22.6	31.1	38.2	41.0
45°	5.7	14.2	22.6	31.1	38.2	41.0
46°	4.2	14.2	22.6	31.1	38.2	41.0
47°	4.2	12.7	21.2	31.1	38.2	41.0
48°	2.8	12.7	21.2	31.1	38.2	41.0
49°	2.8	12.7	21.2	31.1	38.2	42.5
50°	2.8	12.7	21.2	29.7	38.2	42.5
51°	1.4	12.7	21.2	29.7	38.2	42.5
52°	1.4	12.7	19.8	29.7	39.6	42.5
53°	1.4	11.3	19.8	29.7	39.6	42.5
54°	1.4	11.3	19.8	29.7	39.6	41.0
55°	1.4	11.3	19.8	29.7	38.2	41.0
56°	1.4	9.9	19.8	29.7	38.2	41.0
57°	1.4	9.9	18.4	28.3	38.2	39.6
58°	1.4	9.9	18.4	28.3	38.2	39.6
59°	1.4	9.9	18.4	28.3	36.8	39.6
60°	2.8	8.5	17.0	26.9	36.8	39.6
62.5°	2.8	8.5	17.0	26.9	35.4	38.2
65°	2.8	8.5	15.6	25.5	35.4	38.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	2.8	7.1	14.2	24.1	34.0	36.8
70°	2.8	8.5	14.2	22.6	32.6	35.4
72.5°	4.2	7.1	12.7	21.2	31.1	34.0
75°	4.2	7.1	12.7	19.8	29.7	31.1
77.5°	5.7	7.1	11.3	17.0	26.9	28.3
80°	5.7	7.1	9.9	14.2	22.6	24.1
82.5°	5.7	7.1	7.1	11.3	17.0	18.4
85°	4.2	5.7	5.7	7.1	11.3	12.7
87.5°	4.2	5.7	4.2	2.8	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)