

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: P1306688

Luminaire Tested: P3SQAS09R209027DE010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1306688
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: P3SQAS09R209027DE010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

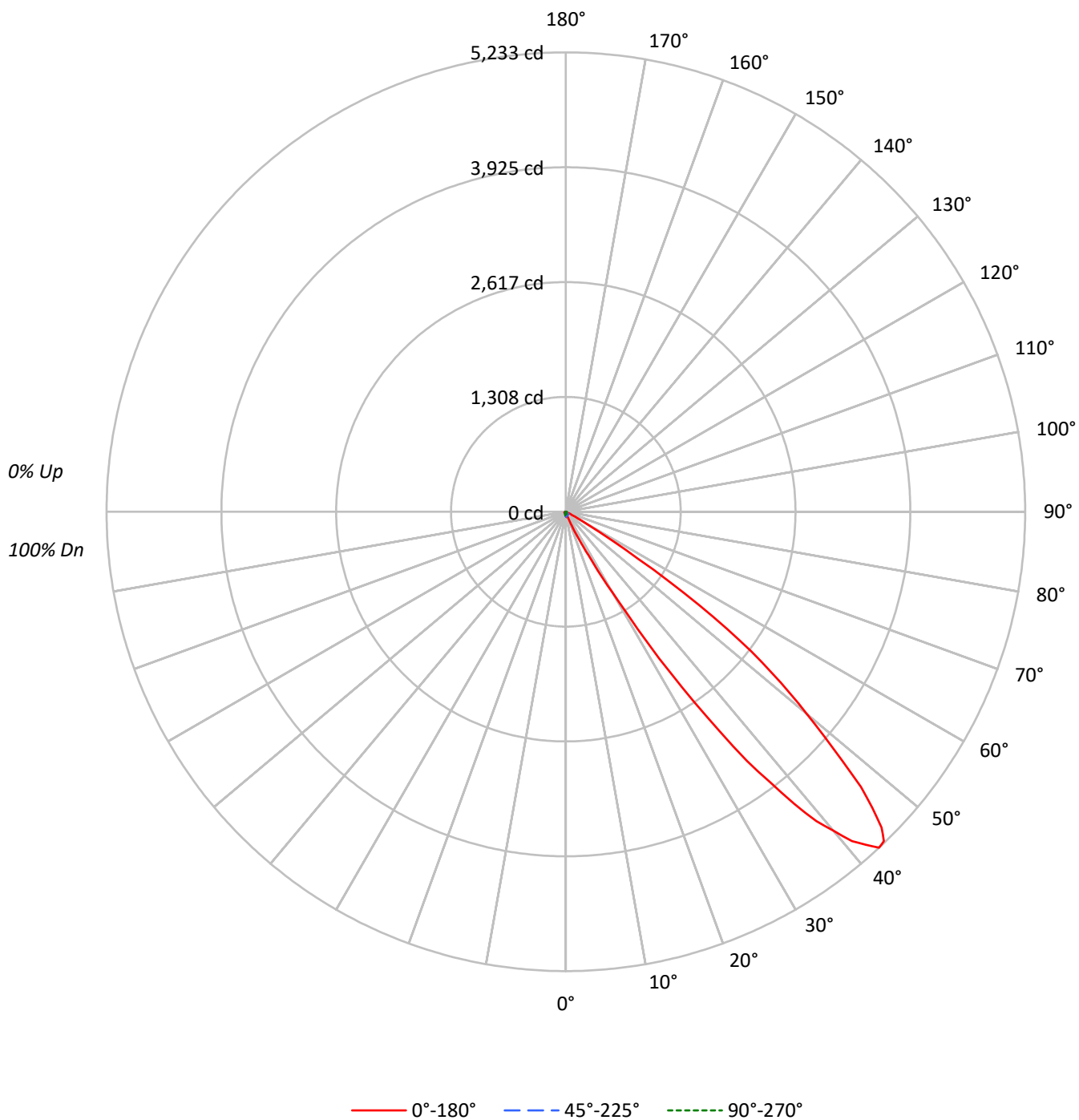
Lumens per Lamp: N/A
Luminaire Lumens: 727.0 lumens
Efficiency: N/A
Efficacy: 65.5 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11.1
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°	8714	8714	8714	8714	8714
5°	10165	9457	8143	7088	6846
10°	10038	8604	6453	5491	5369
15°	8772	6579	4743	4386	4636
20°	13031	5517	3501	3757	4124
25°	56077	5720	2717	3382	4029
30°	212090	6921	2307	3261	3938
35°	642929	8326	2144	3301	4163
40°	1066145	8296	1844	3530	4451
45°	1239207	5651	1656	3653	4822
50°	961952	3108	1634	3831	5493
55°	556744	2042	1651	4294	5945
60°	94137	482	1412	4478	6579
65°	7254	0	1671	5012	7498
70°	1007	0	2065	5489	8611
75°	932	466	2262	6388	9981
80°	694	694	3372	6744	11505
85°	1383	1383	5335	6719	12054

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1239207 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.3	0.6
10°-20°	9.1	1.3
20°-30°	29.0	4.0
30°-40°	185.4	25.5
40°-50°	339.3	46.7
50°-60°	139.4	19.2
60°-70°	11.8	1.6
70°-80°	5.9	0.8
80°-90°	2.8	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°	42.5	5.8
0°-40°	227.9	31.3
0°-60°	706.6	97.2
0°-90°	727.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	727.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	51	51	51	51	51	
5°	59	55	47	41	40	6
15°	49	37	27	25	26	16
25°	295	30	14	18	21	194
35°	3058	40	10	16	20	1936
45°	5088	23	7	15	20	3653
55°	1854	7	6	14	20	1621
65°	18	0	4	12	18	58
75°	1	1	3	10	15	2
85°	1	1	3	3	6	0
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°	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6	50.6
2.5°	55.3	55.3	55.3	54.7	54.7	55.3	54.7	54.7	54.7	54.7	54.0
5°	58.8	58.8	58.8	58.8	58.8	58.8	58.8	58.1	58.1	57.4	54.7
7.5°	60.1	60.1	60.1	60.1	59.4	59.4	59.4	59.4	58.8	58.1	53.3
10°	57.4	57.4	57.4	56.7	56.7	56.7	56.0	56.0	55.3	54.7	49.2
12.5°	51.9	51.9	51.9	51.9	51.2	51.2	50.6	50.6	49.9	49.2	43.0
15°	49.2	49.2	49.2	48.5	48.5	47.8	47.1	46.5	45.8	44.4	36.9
17.5°	53.3	53.3	52.6	52.6	51.2	49.9	49.2	47.1	45.8	43.7	32.8
20°	71.1	71.7	69.0	67.0	65.6	61.5	59.4	56.0	53.3	49.9	30.1
22.5°	143.5	140.7	136.0	128.4	119.6	112.0	98.4	87.5	79.9	69.7	29.4
25°	295.1	292.4	279.4	268.5	241.2	220.0	190.6	166.7	142.1	118.2	30.1
27.5°	560.9	542.5	539.1	489.2	450.9	396.3	339.6	291.7	248.0	199.5	32.1
30°	1066.5	1045.3	970.8	895.7	792.5	675.7	564.3	460.5	373.7	295.1	34.8
31°	1353.4	1373.9	1286.5	1135.5	983.1	833.5	681.2	549.3	437.3	339.6	36.2
32°	1779.1	1689.6	1597.3	1442.3	1220.9	1029.6	838.3	648.4	500.8	387.4	37.6
33°	2181.5	2128.9	1988.1	1794.8	1529.0	1260.5	1012.5	765.2	578.7	445.5	38.3
34°	2610.5	2552.5	2438.4	2161.0	1869.3	1517.4	1186.7	899.8	671.6	502.2	38.9
35°	3058.0	3033.4	2813.5	2573.0	2214.3	1790.0	1396.5	1047.4	762.5	554.1	39.6
36°	3508.3	3429.0	3256.9	2905.7	2531.3	2042.1	1616.5	1184.7	854.7	615.6	39.6
37°	3847.2	3829.4	3601.2	3258.9	2818.9	2311.3	1806.4	1337.0	947.6	668.2	39.6
38°	4220.9	4150.5	3918.9	3570.5	3089.5	2557.9	2005.2	1469.6	1035.7	716.0	38.9
39°	4535.8	4431.3	4197.6	3853.3	3325.9	2745.1	2163.0	1598.0	1113.6	755.6	38.3
40°	4742.2	4669.7	4425.8	4038.5	3540.4	2922.1	2322.9	1703.9	1171.7	785.7	36.9
41°	4969.7	4849.4	4608.2	4218.8	3696.2	3077.9	2423.3	1773.6	1216.8	805.5	35.5
42°	5105.6	5007.2	4721.0	4339.7	3807.5	3166.7	2505.3	1826.9	1244.1	815.8	32.8
43°	5232.7	5098.8	4820.0	4410.1	3881.3	3229.5	2542.9	1851.5	1250.3	815.8	29.4
44°	5215.6	5088.5	4799.5	4419.7	3897.7	3248.0	2558.6	1852.2	1240.7	805.5	26.0
45°	5087.9	4961.5	4701.2	4336.3	3839.0	3211.8	2527.2	1824.9	1214.1	787.7	23.2
46°	4853.5	4727.8	4528.3	4197.0	3729.6	3129.8	2454.1	1765.4	1169.7	759.0	20.5
47°	4598.7	4476.4	4272.1	3972.2	3543.1	2983.6	2348.2	1682.1	1107.5	717.4	18.4
48°	4229.1	4152.5	3947.6	3691.4	3284.2	2754.7	2162.4	1546.1	1024.1	663.4	15.7
49°	3902.5	3821.9	3642.2	3366.9	2946.7	2488.2	1940.3	1380.8	915.5	603.3	13.7
50°	3590.3	3519.9	3353.9	3043.0	2642.0	2166.5	1640.4	1172.4	778.9	528.8	11.6
51°	3284.9	3232.3	3062.8	2777.2	2370.1	1919.1	1421.1	976.3	643.6	438.6	10.9
52°	2978.1	2972.0	2788.2	2499.2	2105.7	1672.5	1207.9	824.0	545.9	368.2	10.2
53°	2648.1	2608.5	2447.9	2188.3	1810.5	1415.6	1024.1	694.8	470.0	313.6	8.9
54°	2272.4	2227.9	2055.8	1821.4	1479.1	1159.4	825.3	561.6	391.5	265.1	8.2
55°	1854.2	1778.4	1653.4	1412.9	1155.3	884.8	637.4	444.8	312.9	220.7	6.8
56°	1406.7	1330.9	1260.5	1083.6	847.9	660.0	474.8	340.9	244.6	174.2	6.1
57°	978.4	974.3	858.8	722.8	567.1	449.6	325.2	240.5	172.9	135.3	4.8
58°	634.7	613.5	539.7	461.2	371.0	280.8	209.1	163.3	117.5	92.2	4.1
59°	444.8	402.4	362.8	307.4	233.7	177.0	134.6	104.5	81.3	64.2	2.7
60°	273.3	264.4	237.8	187.2	151.7	125.0	100.4	77.2	59.4	45.8	1.4
62.5°	77.9	79.3	71.7	63.5	54.7	47.1	42.4	36.2	30.1	23.9	0.0
65°	17.8	17.1	18.4	17.1	15.7	15.7	13.7	12.3	10.9	10.2	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°	5.5	5.5	4.8	4.8	4.8	4.1	4.1	3.4	3.4	2.7	0.0
70°	2.0	2.0	2.0	2.0	2.0	1.4	1.4	1.4	0.7	0.7	0.0
72.5°	2.0	2.0	2.0	1.4	1.4	1.4	1.4	1.4	0.7	0.7	0.7
75°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7	0.7	0.7	0.7
77.5°	1.4	1.4	1.4	1.4	1.4	0.7	1.4	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
85°	0.7	0.7	0.7	0.7	0.0	0.0	0.7	0.7	0.7	0.0	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
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°	50.6	50.6	50.6	50.6	50.6	50.6
2.5°	52.6	49.9	47.8	45.8	45.1	45.1
5°	51.2	47.1	43.0	41.0	39.6	39.6
7.5°	47.1	42.4	38.3	36.2	35.5	35.5
10°	42.4	36.9	32.8	31.4	31.4	30.7
12.5°	36.9	31.4	28.7	28.0	28.0	28.0
15°	30.7	26.6	24.6	24.6	25.3	26.0
17.5°	26.0	21.9	21.2	22.5	23.9	23.9
20°	21.9	19.1	19.1	20.5	21.9	22.5
22.5°	18.4	16.4	17.1	19.1	21.2	21.9
25°	16.4	14.3	15.7	17.8	19.8	21.2
27.5°	13.7	13.0	14.3	17.1	19.8	20.5
30°	11.6	11.6	13.7	16.4	19.1	19.8
31°	10.9	10.9	13.7	16.4	19.1	19.8
32°	10.2	10.9	13.0	16.4	19.1	19.8
33°	9.6	10.2	13.0	15.7	19.1	19.8
34°	8.9	10.2	13.0	15.7	19.1	19.8
35°	8.2	10.2	13.0	15.7	19.1	19.8
36°	7.5	9.6	12.3	15.7	19.1	19.8
37°	6.8	9.6	12.3	15.7	19.1	19.8
38°	6.1	8.9	12.3	15.7	19.1	19.8
39°	6.1	8.9	11.6	15.7	18.4	19.8
40°	5.5	8.2	11.6	15.7	18.4	19.8
41°	4.8	8.2	11.6	15.0	18.4	19.8
42°	4.1	7.5	10.9	15.0	18.4	19.8
43°	3.4	7.5	10.9	15.0	18.4	19.8
44°	3.4	6.8	10.9	15.0	18.4	19.8
45°	2.7	6.8	10.9	15.0	18.4	19.8
46°	2.0	6.8	10.9	15.0	18.4	19.8
47°	2.0	6.1	10.2	15.0	18.4	19.8
48°	1.4	6.1	10.2	15.0	18.4	19.8
49°	1.4	6.1	10.2	15.0	18.4	20.5
50°	1.4	6.1	10.2	14.3	18.4	20.5
51°	0.7	6.1	10.2	14.3	18.4	20.5
52°	0.7	6.1	9.6	14.3	19.1	20.5
53°	0.7	5.5	9.6	14.3	19.1	20.5
54°	0.7	5.5	9.6	14.3	19.1	19.8
55°	0.7	5.5	9.6	14.3	18.4	19.8
56°	0.7	4.8	9.6	14.3	18.4	19.8
57°	0.7	4.8	8.9	13.7	18.4	19.1
58°	0.7	4.8	8.9	13.7	18.4	19.1
59°	0.7	4.8	8.9	13.7	17.8	19.1
60°	1.4	4.1	8.2	13.0	17.8	19.1
62.5°	1.4	4.1	8.2	13.0	17.1	18.4
65°	1.4	4.1	7.5	12.3	17.1	18.4



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.4	3.4	6.8	11.6	16.4	17.8
70°	1.4	4.1	6.8	10.9	15.7	17.1
72.5°	2.0	3.4	6.1	10.2	15.0	16.4
75°	2.0	3.4	6.1	9.6	14.3	15.0
77.5°	2.7	3.4	5.5	8.2	13.0	13.7
80°	2.7	3.4	4.8	6.8	10.9	11.6
82.5°	2.7	3.4	3.4	5.5	8.2	8.9
85°	2.0	2.7	2.7	3.4	5.5	6.1
87.5°	2.0	2.7	2.0	1.4	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)