

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: P1318252

Luminaire Tested: P3SQAS20R209835D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1318252
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: P3SQAS20R209835D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 98CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

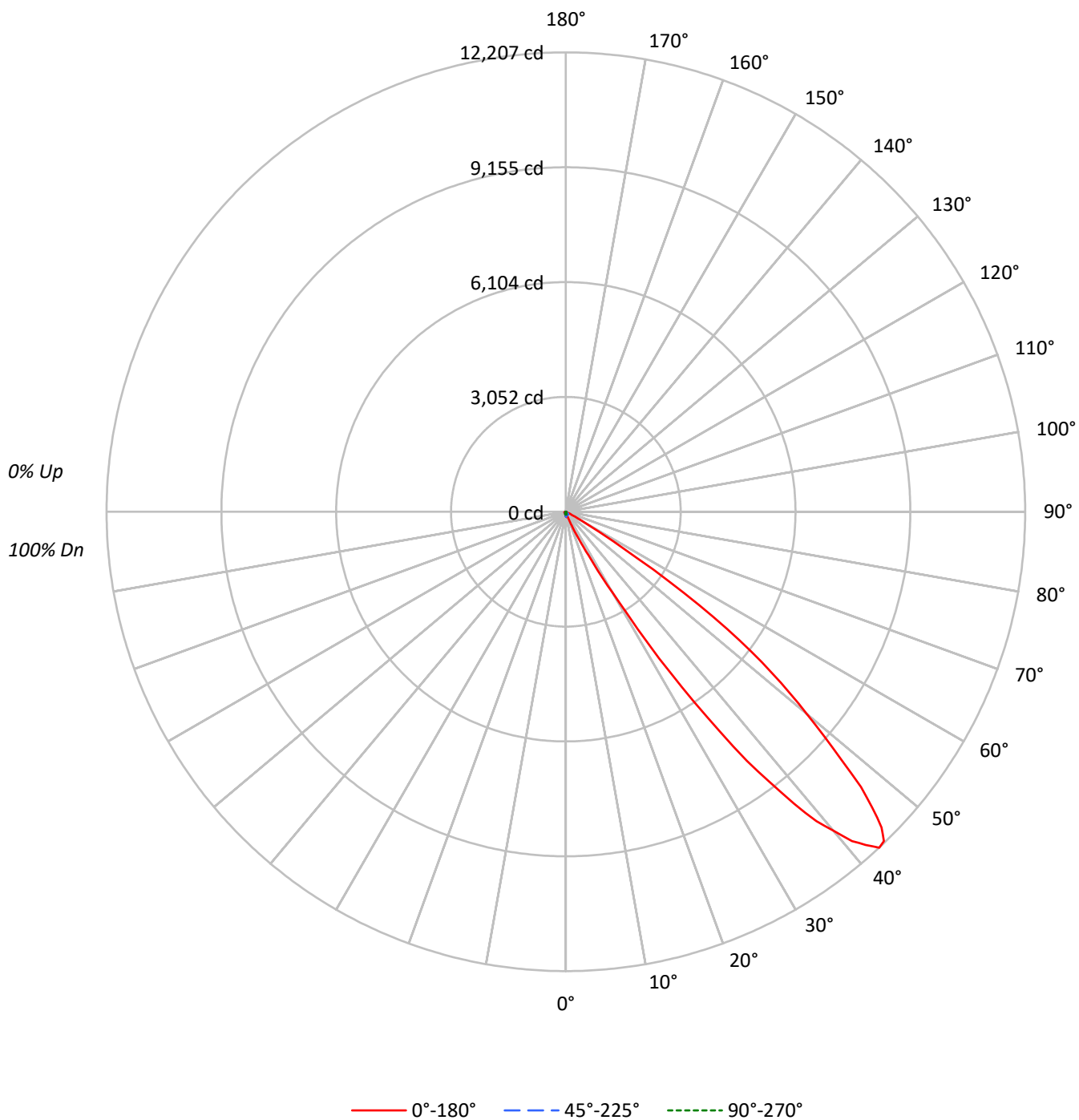
Lumens per Lamp: N/A
Luminaire Lumens: 1696.0 lumens
Efficiency: N/A
Efficacy: 61.9 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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	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°	20305	20305	20305	20305	20305
5°	23702	22042	19017	16527	15974
10°	23416	20076	15057	12819	12539
15°	20469	15351	11090	10234	10805
20°	30387	12848	8174	8761	9640
25°	130833	13321	6366	7867	9387
30°	494778	16168	5389	7617	9188
35°	1499888	19427	5025	7716	9713
40°	2487169	19357	4294	8251	10387
45°	2890882	13201	3873	8549	11252
50°	2244082	7261	3831	8976	12807
55°	1298839	4774	3843	10059	13872
60°	219584	1102	3307	10437	15362
65°	16871	0	3912	11696	17523
70°	2417	0	4834	12840	20041
75°	2129	1065	5323	14839	23356
80°	1587	1587	7934	15769	26878
85°	3162	3162	12647	15808	28257

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2890882 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.1	0.6
10°-20°	21.2	1.3
20°-30°	67.7	4.0
30°-40°	432.5	25.5
40°-50°	791.6	46.7
50°-60°	325.3	19.2
60°-70°	27.4	1.6
70°-80°	13.7	0.8
80°-90°	6.5	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°	99.1	5.8
0°-40°	531.6	31.3
0°-60°	1648.5	97.2
0°-90°	1696.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1696.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	118	118	118	118	118	
5°	137	128	110	96	92	13
15°	115	86	62	57	61	36
25°	688	70	34	41	49	453
35°	7134	92	24	37	46	4515
45°	11869	54	16	35	46	8522
55°	4326	16	13	34	46	3781
65°	41	0	10	29	43	135
75°	3	2	8	22	35	4
85°	2	2	6	8	14	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°	117.9	117.9	117.9	117.9	117.9	117.9	117.9	117.9	117.9	117.9	117.9
2.5°	129.1	129.1	129.1	127.5	127.5	129.1	127.5	127.5	127.5	127.5	125.9
5°	137.1	137.1	137.1	137.1	137.1	137.1	137.1	135.5	135.5	133.9	127.5
7.5°	140.3	140.3	140.3	140.3	138.7	138.7	138.7	138.7	137.1	135.5	124.3
10°	133.9	133.9	133.9	132.3	132.3	132.3	130.7	130.7	129.1	127.5	114.8
12.5°	121.1	121.1	121.1	121.1	119.5	119.5	117.9	117.9	116.4	114.8	100.4
15°	114.8	114.8	114.8	113.2	113.2	111.6	110.0	108.4	106.8	103.6	86.1
17.5°	124.3	124.3	122.7	122.7	119.5	116.4	114.8	110.0	106.8	102.0	76.5
20°	165.8	167.4	161.0	156.2	153.0	143.4	138.7	130.7	124.3	116.4	70.1
22.5°	334.7	328.3	317.2	299.6	278.9	261.4	229.5	204.0	186.5	162.6	68.5
25°	688.5	682.2	651.9	626.4	562.6	513.2	444.7	388.9	331.5	275.7	70.1
27.5°	1308.5	1265.5	1257.5	1141.2	1051.9	924.4	792.1	680.6	578.6	465.4	74.9
30°	2488.0	2438.6	2264.8	2089.5	1848.9	1576.3	1316.5	1074.2	871.8	688.5	81.3
31°	3157.4	3205.2	3001.2	2649.0	2293.5	1944.5	1589.1	1281.4	1020.1	792.1	84.5
32°	4150.4	3941.6	3726.4	3364.6	2848.2	2401.9	1955.6	1512.6	1168.3	903.7	87.7
33°	5089.1	4966.4	4638.1	4187.0	3567.0	2940.6	2362.1	1785.1	1350.0	1039.2	89.3
34°	6090.1	5954.6	5688.4	5041.3	4360.8	3539.9	2768.5	2099.1	1566.7	1171.5	90.8
35°	7134.0	7076.7	6563.4	6002.4	5165.6	4175.9	3257.8	2443.4	1778.7	1292.6	92.4
36°	8184.4	7999.5	7597.8	6778.6	5905.2	4764.0	3771.0	2763.7	1993.9	1436.1	92.4
37°	8974.9	8933.5	8401.1	7602.6	6576.2	5392.0	4214.1	3119.1	2210.7	1558.8	92.4
38°	9846.8	9682.6	9142.3	8329.4	7207.4	5967.3	4677.9	3428.4	2416.3	1670.3	90.8
39°	10581.5	10337.7	9792.6	8989.3	7758.8	6404.1	5046.1	3728.0	2598.0	1762.8	89.3
40°	11062.9	10893.9	10324.9	9421.2	8259.3	6816.9	5419.1	3975.0	2733.4	1832.9	86.1
41°	11593.6	11313.1	10750.5	9842.0	8622.7	7180.3	5653.4	4137.6	2838.6	1879.1	82.9
42°	11910.8	11681.3	11013.4	10124.1	8882.5	7387.5	5844.6	4261.9	2902.4	1903.0	76.5
43°	12207.2	11894.8	11244.6	10288.2	9054.6	7534.1	5932.3	4319.3	2916.7	1903.0	68.5
44°	12167.4	11870.9	11196.7	10310.6	9092.9	7577.1	5968.9	4320.9	2894.4	1879.1	60.6
45°	11869.3	11574.5	10967.2	10116.1	8955.8	7492.7	5895.6	4257.2	2832.3	1837.7	54.2
46°	11322.7	11029.4	10564.0	9791.0	8700.8	7301.4	5725.1	4118.5	2728.7	1770.8	47.8
47°	10728.1	10442.9	9966.3	9266.6	8265.7	6960.3	5478.0	3924.0	2583.6	1673.5	43.0
48°	9865.9	9687.4	9209.2	8611.5	7661.6	6426.4	5044.5	3606.9	2389.2	1547.6	36.7
49°	9104.0	8916.0	8496.8	7854.5	6874.2	5804.8	4526.5	3221.2	2135.7	1407.4	31.9
50°	8375.6	8211.5	7824.2	7099.0	6163.4	5054.1	3826.8	2735.0	1817.0	1233.6	27.1
51°	7663.2	7540.5	7145.2	6479.0	5529.0	4477.1	3315.2	2277.6	1501.4	1023.2	25.5
52°	6947.6	6933.2	6504.5	5830.3	4912.2	3901.7	2817.9	1922.2	1273.5	859.1	23.9
53°	6177.7	6085.3	5710.7	5105.1	4223.7	3302.4	2389.2	1620.9	1096.6	731.6	20.7
54°	5301.1	5197.5	4795.9	4249.2	3450.7	2704.7	1925.4	1310.1	913.3	618.4	19.1
55°	4325.7	4148.8	3857.1	3296.1	2695.2	2064.0	1487.1	1037.6	730.0	514.8	15.9
56°	3281.7	3104.8	2940.6	2527.8	1978.0	1539.7	1107.7	795.3	570.6	406.4	14.3
57°	2282.4	2272.8	2003.5	1686.3	1322.9	1048.7	758.7	561.0	403.2	315.6	11.2
58°	1480.7	1431.3	1259.1	1075.8	865.5	655.1	487.7	380.9	274.1	215.2	9.6
59°	1037.6	938.8	846.3	717.2	545.1	412.8	314.0	243.9	189.7	149.8	6.4
60°	637.5	616.8	554.7	436.7	353.8	291.7	234.3	180.1	138.7	106.8	3.2
62.5°	181.7	184.9	167.4	148.2	127.5	110.0	98.8	84.5	70.1	55.8	0.0
65°	41.4	39.8	43.0	39.8	36.7	36.7	31.9	28.7	25.5	23.9	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°	12.8	12.8	11.2	11.2	11.2	9.6	9.6	8.0	8.0	6.4	0.0
70°	4.8	4.8	4.8	4.8	4.8	3.2	3.2	3.2	1.6	1.6	0.0
72.5°	4.8	4.8	4.8	3.2	3.2	3.2	3.2	3.2	1.6	1.6	1.6
75°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6
77.5°	3.2	3.2	3.2	3.2	3.2	1.6	3.2	1.6	1.6	1.6	1.6
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
85°	1.6	1.6	1.6	1.6	0.0	0.0	1.6	1.6	1.6	0.0	1.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
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°	117.9	117.9	117.9	117.9	117.9	117.9
2.5°	122.7	116.4	111.6	106.8	105.2	105.2
5°	119.5	110.0	100.4	95.6	92.4	92.4
7.5°	110.0	98.8	89.3	84.5	82.9	82.9
10°	98.8	86.1	76.5	73.3	73.3	71.7
12.5°	86.1	73.3	66.9	65.3	65.3	65.3
15°	71.7	62.2	57.4	57.4	59.0	60.6
17.5°	60.6	51.0	49.4	52.6	55.8	55.8
20°	51.0	44.6	44.6	47.8	51.0	52.6
22.5°	43.0	38.3	39.8	44.6	49.4	51.0
25°	38.3	33.5	36.7	41.4	46.2	49.4
27.5°	31.9	30.3	33.5	39.8	46.2	47.8
30°	27.1	27.1	31.9	38.3	44.6	46.2
31°	25.5	25.5	31.9	38.3	44.6	46.2
32°	23.9	25.5	30.3	38.3	44.6	46.2
33°	22.3	23.9	30.3	36.7	44.6	46.2
34°	20.7	23.9	30.3	36.7	44.6	46.2
35°	19.1	23.9	30.3	36.7	44.6	46.2
36°	17.5	22.3	28.7	36.7	44.6	46.2
37°	15.9	22.3	28.7	36.7	44.6	46.2
38°	14.3	20.7	28.7	36.7	44.6	46.2
39°	14.3	20.7	27.1	36.7	43.0	46.2
40°	12.8	19.1	27.1	36.7	43.0	46.2
41°	11.2	19.1	27.1	35.1	43.0	46.2
42°	9.6	17.5	25.5	35.1	43.0	46.2
43°	8.0	17.5	25.5	35.1	43.0	46.2
44°	8.0	15.9	25.5	35.1	43.0	46.2
45°	6.4	15.9	25.5	35.1	43.0	46.2
46°	4.8	15.9	25.5	35.1	43.0	46.2
47°	4.8	14.3	23.9	35.1	43.0	46.2
48°	3.2	14.3	23.9	35.1	43.0	46.2
49°	3.2	14.3	23.9	35.1	43.0	47.8
50°	3.2	14.3	23.9	33.5	43.0	47.8
51°	1.6	14.3	23.9	33.5	43.0	47.8
52°	1.6	14.3	22.3	33.5	44.6	47.8
53°	1.6	12.8	22.3	33.5	44.6	47.8
54°	1.6	12.8	22.3	33.5	44.6	46.2
55°	1.6	12.8	22.3	33.5	43.0	46.2
56°	1.6	11.2	22.3	33.5	43.0	46.2
57°	1.6	11.2	20.7	31.9	43.0	44.6
58°	1.6	11.2	20.7	31.9	43.0	44.6
59°	1.6	11.2	20.7	31.9	41.4	44.6
60°	3.2	9.6	19.1	30.3	41.4	44.6
62.5°	3.2	9.6	19.1	30.3	39.8	43.0
65°	3.2	9.6	17.5	28.7	39.8	43.0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	3.2	8.0	15.9	27.1	38.3	41.4
70°	3.2	9.6	15.9	25.5	36.7	39.8
72.5°	4.8	8.0	14.3	23.9	35.1	38.3
75°	4.8	8.0	14.3	22.3	33.5	35.1
77.5°	6.4	8.0	12.8	19.1	30.3	31.9
80°	6.4	8.0	11.2	15.9	25.5	27.1
82.5°	6.4	8.0	8.0	12.8	19.1	20.7
85°	4.8	6.4	6.4	8.0	12.8	14.3
87.5°	4.8	6.4	4.8	3.2	6.4	6.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)