

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: P1314181

Luminaire Tested: P3SQAS09R209735DE010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1314181
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: P3SQAS09R209735DE010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 97CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

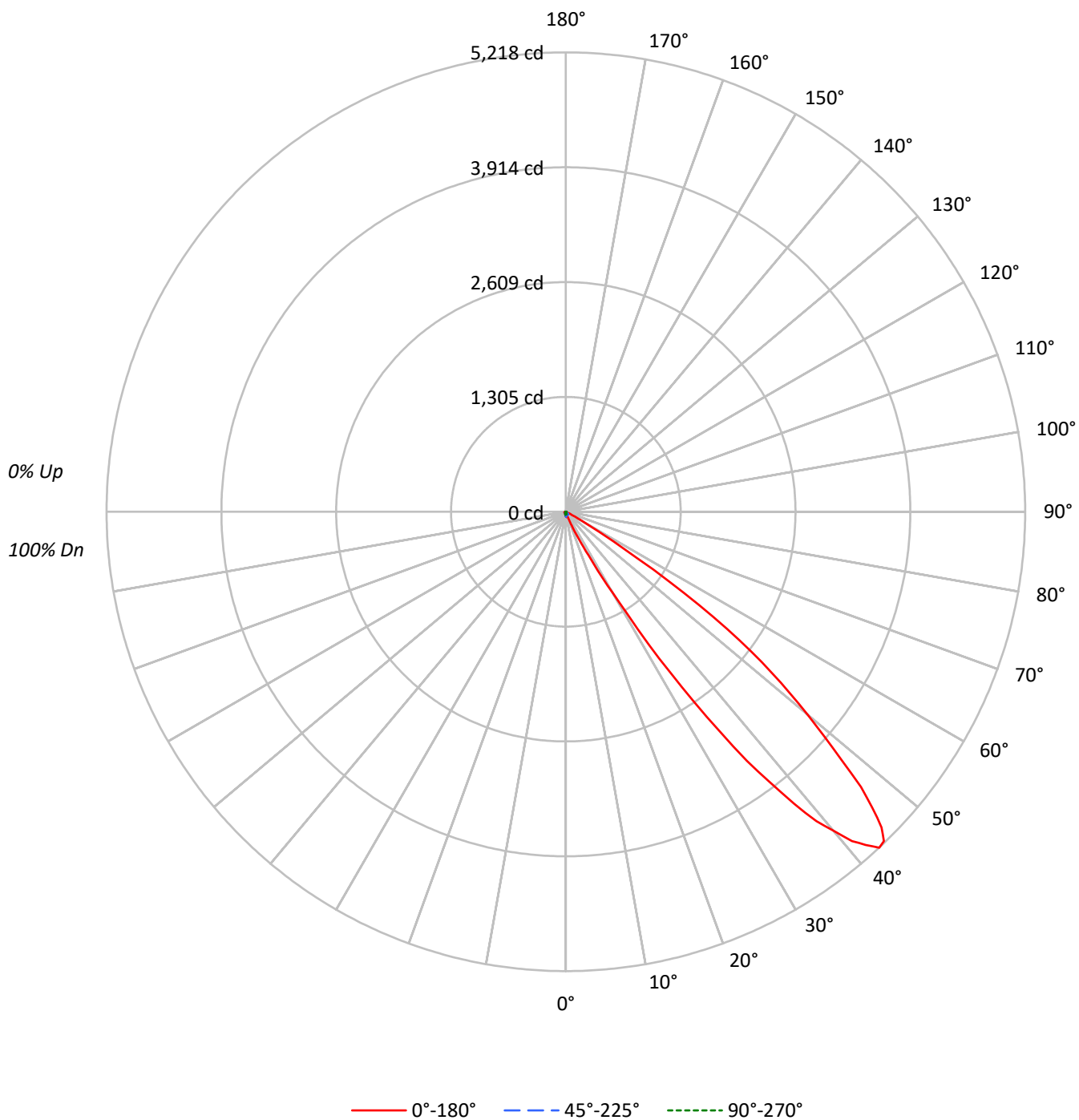
Lumens per Lamp: N/A
Luminaire Lumens: 725.0 lumens
Efficiency: N/A
Efficacy: 65.3 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	8680	8680	8680	8680	8680
5°	10131	9422	8125	7071	6829
10°	10003	8587	6436	5474	5369
15°	8754	6561	4743	4368	4618
20°	12994	5498	3501	3739	4124
25°	55925	5701	2717	3363	4010
30°	211513	6901	2307	3261	3938
35°	641163	8305	2144	3301	4163
40°	1063200	8273	1844	3530	4451
45°	1235797	5651	1656	3653	4822
50°	959300	3108	1634	3831	5466
55°	555213	2042	1651	4294	5945
60°	93861	482	1412	4443	6579
65°	7213	0	1671	5012	7498
70°	1007	0	2065	5489	8560
75°	932	466	2262	6321	9981
80°	694	694	3372	6744	11505
85°	1383	1383	5335	6719	12054

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1235797 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°	184.9	25.5
40°-50°	338.4	46.7
50°-60°	139.0	19.2
60°-70°	11.7	1.6
70°-80°	5.8	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°	42.4	5.8
0°-40°	227.2	31.3
0°-60°	704.7	97.2
0°-90°	725.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	725.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	50	50	50	50	50	
5°	59	54	47	41	40	6
15°	49	37	27	24	26	16
25°	294	30	14	18	21	194
35°	3050	40	10	16	20	1930
45°	5074	23	7	15	20	3643
55°	1849	7	6	14	20	1616
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°	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4	50.4
2.5°	55.2	55.2	55.2	54.5	54.5	55.2	54.5	54.5	54.5	54.5	53.8
5°	58.6	58.6	58.6	58.6	58.6	58.6	58.6	57.9	57.9	57.2	54.5
7.5°	60.0	60.0	60.0	60.0	59.3	59.3	59.3	59.3	58.6	57.9	53.1
10°	57.2	57.2	57.2	56.6	56.6	56.6	55.9	55.9	55.2	54.5	49.1
12.5°	51.8	51.8	51.8	51.8	51.1	51.1	50.4	50.4	49.7	49.1	42.9
15°	49.1	49.1	49.1	48.4	48.4	47.7	47.0	46.3	45.6	44.3	36.8
17.5°	53.1	53.1	52.5	52.5	51.1	49.7	49.1	47.0	45.6	43.6	32.7
20°	70.9	71.5	68.8	66.8	65.4	61.3	59.3	55.9	53.1	49.7	30.0
22.5°	143.1	140.4	135.6	128.1	119.2	111.7	98.1	87.2	79.7	69.5	29.3
25°	294.3	291.6	278.7	267.8	240.5	219.4	190.1	166.2	141.7	117.9	30.0
27.5°	559.4	541.0	537.6	487.8	449.7	395.2	338.6	290.9	247.3	198.9	32.0
30°	1063.6	1042.4	968.2	893.2	790.3	673.8	562.8	459.2	372.7	294.3	34.7
31°	1349.7	1370.2	1282.9	1132.4	980.4	831.2	679.3	547.8	436.1	338.6	36.1
32°	1774.2	1684.9	1592.9	1438.3	1217.5	1026.8	836.0	646.6	499.4	386.3	37.5
33°	2175.5	2123.0	1982.7	1789.9	1524.8	1257.1	1009.7	763.1	577.1	444.2	38.2
34°	2603.4	2545.4	2431.7	2155.0	1864.1	1513.2	1183.5	897.3	669.7	500.8	38.8
35°	3049.6	3025.1	2805.7	2565.9	2208.2	1785.1	1392.6	1044.5	760.4	552.6	39.5
36°	3498.6	3419.6	3247.9	2897.7	2524.3	2036.5	1612.0	1181.4	852.3	613.9	39.5
37°	3836.6	3818.9	3591.3	3249.9	2811.2	2304.9	1801.4	1333.4	945.0	666.3	39.5
38°	4209.3	4139.1	3908.1	3560.6	3081.0	2550.9	1999.7	1465.5	1032.9	714.0	38.8
39°	4523.3	4419.1	4186.1	3842.7	3316.7	2737.6	2157.1	1593.6	1110.6	753.6	38.2
40°	4729.1	4656.9	4413.7	4027.3	3530.7	2914.0	2316.5	1699.2	1168.5	783.5	36.8
41°	4956.0	4836.1	4595.6	4207.2	3686.0	3069.4	2416.7	1768.7	1213.4	803.3	35.4
42°	5091.6	4993.5	4708.0	4327.8	3797.1	3158.0	2498.4	1821.9	1240.7	813.5	32.7
43°	5218.3	5084.8	4806.8	4398.0	3870.6	3220.6	2535.9	1846.4	1246.8	813.5	29.3
44°	5201.3	5074.5	4786.3	4407.5	3887.0	3239.0	2551.6	1847.1	1237.3	803.3	25.9
45°	5073.9	4947.8	4688.2	4324.4	3828.4	3202.9	2520.2	1819.8	1210.7	785.6	23.2
46°	4840.2	4714.8	4515.9	4185.4	3719.4	3121.2	2447.3	1760.6	1166.4	757.0	20.4
47°	4586.0	4464.1	4260.4	3961.3	3533.4	2975.4	2341.7	1677.4	1104.4	715.4	18.4
48°	4217.4	4141.1	3936.7	3681.2	3275.2	2747.1	2156.4	1541.8	1021.3	661.6	15.7
49°	3891.8	3811.4	3632.2	3357.6	2938.6	2481.4	1935.0	1377.0	913.0	601.6	13.6
50°	3580.4	3510.2	3344.6	3034.6	2634.7	2160.5	1635.9	1169.2	776.7	527.3	11.6
51°	3275.8	3223.4	3054.4	2769.6	2363.5	1913.9	1417.2	973.6	641.8	437.4	10.9
52°	2969.9	2963.8	2780.5	2492.3	2099.9	1667.9	1204.6	821.7	544.4	367.2	10.2
53°	2640.8	2601.3	2441.2	2182.3	1805.5	1411.7	1021.3	692.9	468.8	312.7	8.9
54°	2266.1	2221.8	2050.1	1816.4	1475.1	1156.2	823.0	560.1	390.4	264.4	8.2
55°	1849.1	1773.5	1648.8	1409.0	1152.1	882.3	635.7	443.5	312.0	220.1	6.8
56°	1402.9	1327.2	1257.1	1080.6	845.5	658.2	473.5	340.0	243.9	173.7	6.1
57°	975.7	971.6	856.4	720.8	565.5	448.3	324.3	239.8	172.4	134.9	4.8
58°	633.0	611.8	538.3	459.9	370.0	280.0	208.5	162.8	117.2	92.0	4.1
59°	443.5	401.3	361.8	306.6	233.0	176.5	134.2	104.2	81.1	64.0	2.7
60°	272.5	263.7	237.1	186.7	151.3	124.7	100.2	77.0	59.3	45.6	1.4
62.5°	77.7	79.0	71.5	63.4	54.5	47.0	42.2	36.1	30.0	23.8	0.0
65°	17.7	17.0	18.4	17.0	15.7	15.7	13.6	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°	50.4	50.4	50.4	50.4	50.4	50.4
2.5°	52.5	49.7	47.7	45.6	45.0	45.0
5°	51.1	47.0	42.9	40.9	39.5	39.5
7.5°	47.0	42.2	38.2	36.1	35.4	35.4
10°	42.2	36.8	32.7	31.3	31.3	30.7
12.5°	36.8	31.3	28.6	27.9	27.9	27.9
15°	30.7	26.6	24.5	24.5	25.2	25.9
17.5°	25.9	21.8	21.1	22.5	23.8	23.8
20°	21.8	19.1	19.1	20.4	21.8	22.5
22.5°	18.4	16.4	17.0	19.1	21.1	21.8
25°	16.4	14.3	15.7	17.7	19.8	21.1
27.5°	13.6	12.9	14.3	17.0	19.8	20.4
30°	11.6	11.6	13.6	16.4	19.1	19.8
31°	10.9	10.9	13.6	16.4	19.1	19.8
32°	10.2	10.9	12.9	16.4	19.1	19.8
33°	9.5	10.2	12.9	15.7	19.1	19.8
34°	8.9	10.2	12.9	15.7	19.1	19.8
35°	8.2	10.2	12.9	15.7	19.1	19.8
36°	7.5	9.5	12.3	15.7	19.1	19.8
37°	6.8	9.5	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	20.4
50°	1.4	6.1	10.2	14.3	18.4	20.4
51°	0.7	6.1	10.2	14.3	18.4	20.4
52°	0.7	6.1	9.5	14.3	19.1	20.4
53°	0.7	5.5	9.5	14.3	19.1	20.4
54°	0.7	5.5	9.5	14.3	19.1	19.8
55°	0.7	5.5	9.5	14.3	18.4	19.8
56°	0.7	4.8	9.5	14.3	18.4	19.8
57°	0.7	4.8	8.9	13.6	18.4	19.1
58°	0.7	4.8	8.9	13.6	18.4	19.1
59°	0.7	4.8	8.9	13.6	17.7	19.1
60°	1.4	4.1	8.2	12.9	17.7	19.1
62.5°	1.4	4.1	8.2	12.9	17.0	18.4
65°	1.4	4.1	7.5	12.3	17.0	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	17.7
70°	1.4	4.1	6.8	10.9	15.7	17.0
72.5°	2.0	3.4	6.1	10.2	15.0	16.4
75°	2.0	3.4	6.1	9.5	14.3	15.0
77.5°	2.7	3.4	5.5	8.2	12.9	13.6
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)