

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: P1308924

Luminaire Tested: P3SQAS09R209035DE010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1308924
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: P3SQAS09R209035DE010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

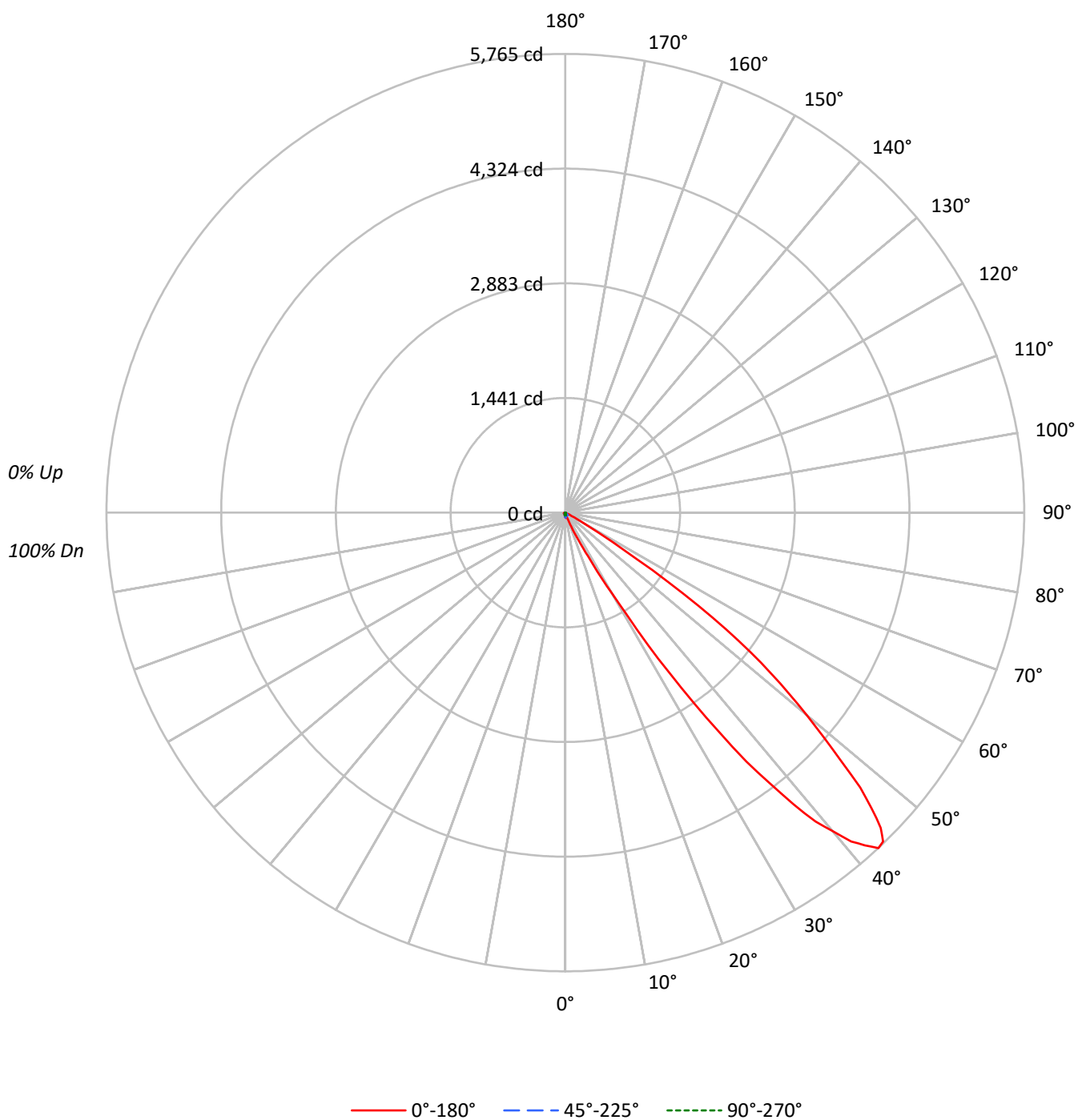
Lumens per Lamp: N/A
Luminaire Lumens: 801.0 lumens
Efficiency: N/A
Efficacy: 72.2 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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
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°	9593	9593	9593	9593	9593
5°	11185	10407	8972	7814	7555
10°	11052	9478	7100	6051	5928
15°	9664	7239	5242	4832	5099
20°	14350	6066	3867	4142	4545
25°	61797	6290	3002	3725	4428
30°	233667	7636	2545	3599	4335
35°	708379	9188	2376	3637	4583
40°	1174666	9128	2023	3889	4901
45°	1365322	6235	1827	4043	5310
50°	1059854	3430	1822	4233	6055
55°	613433	2252	1802	4744	6546
60°	103712	517	1550	4926	7268
65°	7987	0	1834	5501	8273
70°	1158	0	2266	6043	9467
75°	998	532	2529	6987	11046
80°	793	793	3769	7438	12695
85°	1581	1581	5928	7509	13437

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1365322 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.8	0.6
10°-20°	10.0	1.3
20°-30°	32.0	4.0
30°-40°	204.3	25.5
40°-50°	373.9	46.7
50°-60°	153.6	19.2
60°-70°	13.0	1.6
70°-80°	6.5	0.8
80°-90°	3.1	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°	46.8	5.8
0°-40°	251.1	31.3
0°-60°	778.6	97.2
0°-90°	801.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	801.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	56	56	56	56	56	
5°	65	60	52	45	44	6
15°	54	41	29	27	29	17
25°	325	33	16	20	23	214
35°	3369	44	11	17	22	2133
45°	5606	26	8	17	22	4025
55°	2043	8	6	16	22	1786
65°	20	0	4	14	20	64
75°	2	1	4	10	17	2
85°	1	1	3	4	7	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°	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7	55.7
2.5°	61.0	61.0	61.0	60.2	60.2	61.0	60.2	60.2	60.2	60.2	59.5
5°	64.7	64.7	64.7	64.7	64.7	64.7	64.7	64.0	64.0	63.2	60.2
7.5°	66.2	66.2	66.2	66.2	65.5	65.5	65.5	65.5	64.7	64.0	58.7
10°	63.2	63.2	63.2	62.5	62.5	62.5	61.7	61.7	61.0	60.2	54.2
12.5°	57.2	57.2	57.2	57.2	56.5	56.5	55.7	55.7	55.0	54.2	47.4
15°	54.2	54.2	54.2	53.4	53.4	52.7	51.9	51.2	50.4	48.9	40.6
17.5°	58.7	58.7	58.0	58.0	56.5	55.0	54.2	51.9	50.4	48.2	36.1
20°	78.3	79.0	76.0	73.8	72.3	67.7	65.5	61.7	58.7	55.0	33.1
22.5°	158.1	155.1	149.8	141.5	131.7	123.5	108.4	96.4	88.1	76.8	32.4
25°	325.2	322.2	307.9	295.8	265.7	242.4	210.0	183.7	156.6	130.2	33.1
27.5°	618.0	597.7	593.9	539.0	496.8	436.6	374.1	321.4	273.2	219.8	35.4
30°	1175.0	1151.7	1069.7	986.9	873.2	744.5	621.8	507.4	411.8	325.2	38.4
31°	1491.2	1513.8	1417.4	1251.1	1083.2	918.4	750.5	605.2	481.8	374.1	39.9
32°	1960.2	1861.6	1759.9	1589.1	1345.2	1134.4	923.6	714.4	551.8	426.8	41.4
33°	2403.5	2345.6	2190.5	1977.5	1684.7	1388.8	1115.6	843.1	637.6	490.8	42.2
34°	2876.3	2812.3	2686.6	2381.0	2059.5	1671.9	1307.5	991.4	740.0	553.3	42.9
35°	3369.3	3342.2	3099.8	2834.9	2439.7	1972.2	1538.6	1154.0	840.1	610.5	43.7
36°	3865.4	3778.1	3588.4	3201.5	2788.9	2250.0	1781.0	1305.3	941.7	678.2	43.7
37°	4238.7	4219.2	3967.8	3590.6	3105.9	2546.6	1990.3	1473.1	1044.1	736.2	43.7
38°	4650.5	4573.0	4317.8	3933.9	3403.9	2818.3	2209.3	1619.2	1141.2	788.9	42.9
39°	4997.5	4882.3	4624.9	4245.5	3664.4	3024.6	2383.2	1760.7	1227.0	832.5	42.2
40°	5224.9	5145.1	4876.3	4449.5	3900.8	3219.5	2559.4	1877.4	1291.0	865.7	40.6
41°	5475.5	5343.0	5077.3	4648.2	4072.4	3391.1	2670.0	1954.1	1340.7	887.5	39.1
42°	5625.3	5516.9	5201.5	4781.5	4195.1	3489.0	2760.3	2012.9	1370.8	898.8	36.1
43°	5765.3	5617.8	5310.7	4859.0	4276.4	3558.3	2801.7	2040.0	1377.5	898.8	32.4
44°	5746.5	5606.5	5288.1	4869.6	4294.5	3578.6	2819.1	2040.7	1367.0	887.5	28.6
45°	5605.7	5466.5	5179.7	4777.7	4229.7	3538.7	2784.4	2010.6	1337.6	867.9	25.6
46°	5347.6	5209.0	4989.2	4624.2	4109.3	3448.4	2703.9	1945.1	1288.7	836.3	22.6
47°	5066.8	4932.0	4707.0	4376.5	3903.8	3287.3	2587.2	1853.3	1220.2	790.4	20.3
48°	4659.5	4575.2	4349.4	4067.1	3618.5	3035.1	2382.5	1703.5	1128.4	730.9	17.3
49°	4299.7	4210.9	4012.9	3709.6	3246.6	2741.5	2137.8	1521.3	1008.7	664.7	15.1
50°	3955.7	3878.2	3695.3	3352.8	2910.9	2387.0	1807.4	1291.7	858.1	582.6	12.8
51°	3619.2	3561.3	3374.6	3059.9	2611.3	2114.5	1565.7	1075.7	709.1	483.3	12.0
52°	3281.2	3274.5	3072.0	2753.6	2320.0	1842.7	1330.9	907.8	601.4	405.7	11.3
53°	2917.7	2874.0	2697.1	2411.1	1994.8	1559.7	1128.4	765.5	517.9	345.5	9.8
54°	2503.7	2454.7	2265.0	2006.8	1629.7	1277.4	909.3	618.8	431.3	292.1	9.0
55°	2043.0	1959.4	1821.7	1556.7	1272.9	974.8	702.3	490.0	344.8	243.1	7.5
56°	1549.9	1466.4	1388.8	1193.9	934.2	727.2	523.2	375.6	269.5	192.0	6.8
57°	1077.9	1073.4	946.2	796.4	624.8	495.3	358.3	265.0	190.4	149.0	5.3
58°	699.3	676.0	594.7	508.1	408.7	309.4	230.3	179.9	129.5	101.6	4.5
59°	490.0	443.4	399.7	338.7	257.4	195.0	148.3	115.2	89.6	70.8	3.0
60°	301.1	291.3	262.0	206.3	167.1	137.8	110.7	85.1	65.5	50.4	1.5
62.5°	85.8	87.3	79.0	70.0	60.2	51.9	46.7	39.9	33.1	26.3	0.0
65°	19.6	18.8	20.3	18.8	17.3	17.3	15.1	13.5	12.0	11.3	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°	6.0	6.0	5.3	5.3	5.3	4.5	4.5	3.8	3.8	3.0	0.0
70°	2.3	2.3	2.3	2.3	2.3	1.5	1.5	1.5	0.8	0.8	0.0
72.5°	2.3	2.3	2.3	1.5	1.5	1.5	1.5	1.5	0.8	0.8	0.8
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.8	0.8	0.8	0.8
77.5°	1.5	1.5	1.5	1.5	1.5	0.8	1.5	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
85°	0.8	0.8	0.8	0.8	0.0	0.0	0.8	0.8	0.8	0.0	0.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
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°	55.7	55.7	55.7	55.7	55.7	55.7
2.5°	58.0	55.0	52.7	50.4	49.7	49.7
5°	56.5	51.9	47.4	45.2	43.7	43.7
7.5°	51.9	46.7	42.2	39.9	39.1	39.1
10°	46.7	40.6	36.1	34.6	34.6	33.9
12.5°	40.6	34.6	31.6	30.9	30.9	30.9
15°	33.9	29.4	27.1	27.1	27.9	28.6
17.5°	28.6	24.1	23.3	24.8	26.3	26.3
20°	24.1	21.1	21.1	22.6	24.1	24.8
22.5°	20.3	18.1	18.8	21.1	23.3	24.1
25°	18.1	15.8	17.3	19.6	21.8	23.3
27.5°	15.1	14.3	15.8	18.8	21.8	22.6
30°	12.8	12.8	15.1	18.1	21.1	21.8
31°	12.0	12.0	15.1	18.1	21.1	21.8
32°	11.3	12.0	14.3	18.1	21.1	21.8
33°	10.5	11.3	14.3	17.3	21.1	21.8
34°	9.8	11.3	14.3	17.3	21.1	21.8
35°	9.0	11.3	14.3	17.3	21.1	21.8
36°	8.3	10.5	13.5	17.3	21.1	21.8
37°	7.5	10.5	13.5	17.3	21.1	21.8
38°	6.8	9.8	13.5	17.3	21.1	21.8
39°	6.8	9.8	12.8	17.3	20.3	21.8
40°	6.0	9.0	12.8	17.3	20.3	21.8
41°	5.3	9.0	12.8	16.6	20.3	21.8
42°	4.5	8.3	12.0	16.6	20.3	21.8
43°	3.8	8.3	12.0	16.6	20.3	21.8
44°	3.8	7.5	12.0	16.6	20.3	21.8
45°	3.0	7.5	12.0	16.6	20.3	21.8
46°	2.3	7.5	12.0	16.6	20.3	21.8
47°	2.3	6.8	11.3	16.6	20.3	21.8
48°	1.5	6.8	11.3	16.6	20.3	21.8
49°	1.5	6.8	11.3	16.6	20.3	22.6
50°	1.5	6.8	11.3	15.8	20.3	22.6
51°	0.8	6.8	11.3	15.8	20.3	22.6
52°	0.8	6.8	10.5	15.8	21.1	22.6
53°	0.8	6.0	10.5	15.8	21.1	22.6
54°	0.8	6.0	10.5	15.8	21.1	21.8
55°	0.8	6.0	10.5	15.8	20.3	21.8
56°	0.8	5.3	10.5	15.8	20.3	21.8
57°	0.8	5.3	9.8	15.1	20.3	21.1
58°	0.8	5.3	9.8	15.1	20.3	21.1
59°	0.8	5.3	9.8	15.1	19.6	21.1
60°	1.5	4.5	9.0	14.3	19.6	21.1
62.5°	1.5	4.5	9.0	14.3	18.8	20.3
65°	1.5	4.5	8.3	13.5	18.8	20.3



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.5	3.8	7.5	12.8	18.1	19.6
70°	1.5	4.5	7.5	12.0	17.3	18.8
72.5°	2.3	3.8	6.8	11.3	16.6	18.1
75°	2.3	3.8	6.8	10.5	15.8	16.6
77.5°	3.0	3.8	6.0	9.0	14.3	15.1
80°	3.0	3.8	5.3	7.5	12.0	12.8
82.5°	3.0	3.8	3.8	6.0	9.0	9.8
85°	2.3	3.0	3.0	3.8	6.0	6.8
87.5°	2.3	3.0	2.3	1.5	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)