

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: P1311736

Luminaire Tested: P3SQAS24R209050D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1311736
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: P3SQAS24R209050D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 5000K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

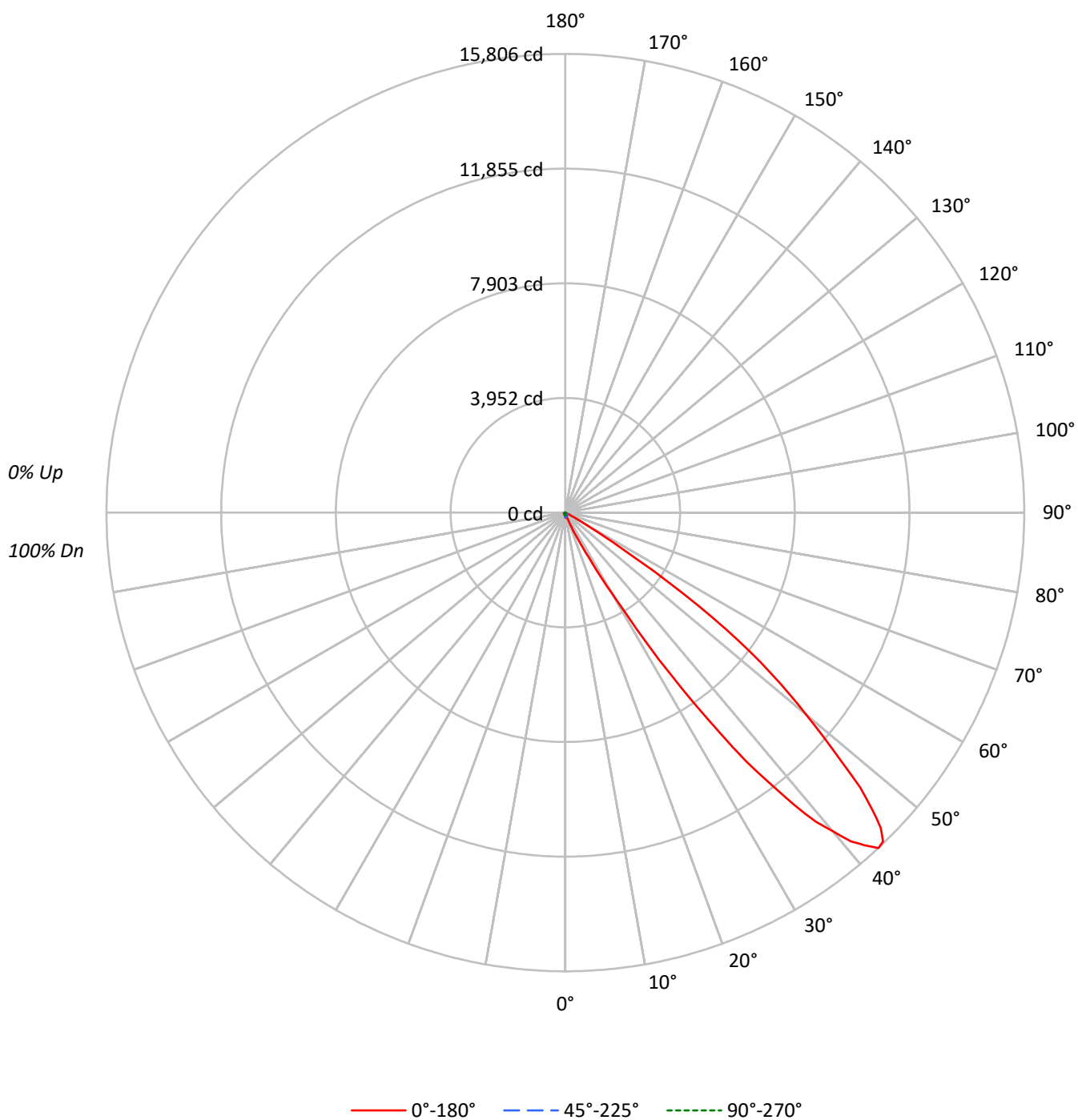
Lumens per Lamp: N/A
Luminaire Lumens: 2196.0 lumens
Efficiency: N/A
Efficacy: 76.3 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	26298	26298	26298	26298	26298
5°	30686	28543	24618	21403	20694
10°	30324	25987	19482	16596	16246
15°	26495	19862	14353	13248	13979
20°	39331	16641	10593	11345	12481
25°	169409	17254	8228	10204	12162
30°	640645	20921	6980	9844	11892
35°	1942075	25166	6518	9987	12573
40°	3220399	25045	5576	10679	13444
45°	3743170	17098	5017	11058	14565
50°	2905683	9404	4984	11601	16585
55°	1681732	6185	4954	13001	17956
60°	284340	1412	4271	13502	19909
65°	21883	0	5053	15119	22699
70°	3122	0	6244	16617	25983
75°	2728	1397	6854	19231	30210
80°	2083	2083	10215	20431	34812
85°	4150	4150	16401	20353	36754

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3743170 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	13.1	0.6
10°-20°	27.5	1.3
20°-30°	87.7	4.0
30°-40°	560.0	25.5
40°-50°	1025.0	46.7
50°-60°	421.1	19.2
60°-70°	35.5	1.6
70°-80°	17.7	0.8
80°-90°	8.4	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°	128.3	5.8
0°-40°	688.3	31.3
0°-60°	2134.4	97.2
0°-90°	2196.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2196.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	153	153	153	153	153	
5°	178	165	142	124	120	17
15°	149	111	80	74	78	47
25°	892	91	43	54	64	586
35°	9237	120	31	48	60	5847
45°	15369	70	21	45	60	11035
55°	5601	21	16	43	60	4896
65°	54	0	12	37	56	175
75°	4	2	10	29	45	5
85°	2	2	8	10	19	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°	152.7	152.7	152.7	152.7	152.7	152.7	152.7	152.7	152.7	152.7	152.7
2.5°	167.2	167.2	167.2	165.1	165.1	167.2	165.1	165.1	165.1	165.1	163.0
5°	177.5	177.5	177.5	177.5	177.5	177.5	177.5	175.4	175.4	173.4	165.1
7.5°	181.6	181.6	181.6	181.6	179.5	179.5	179.5	179.5	177.5	175.4	161.0
10°	173.4	173.4	173.4	171.3	171.3	171.3	169.2	169.2	167.2	165.1	148.6
12.5°	156.8	156.8	156.8	156.8	154.8	154.8	152.7	152.7	150.7	148.6	130.0
15°	148.6	148.6	148.6	146.5	146.5	144.5	142.4	140.3	138.3	134.1	111.4
17.5°	161.0	161.0	158.9	158.9	154.8	150.7	148.6	142.4	138.3	132.1	99.1
20°	214.6	216.7	208.4	202.2	198.1	185.7	179.5	169.2	161.0	150.7	90.8
22.5°	433.4	425.1	410.7	388.0	361.2	338.5	297.2	264.2	241.5	210.5	88.7
25°	891.5	883.3	844.1	811.0	728.5	664.5	575.8	503.5	429.3	357.0	90.8
27.5°	1694.3	1638.6	1628.3	1477.6	1362.1	1197.0	1025.7	881.2	749.1	602.6	97.0
30°	3221.5	3157.5	2932.6	2705.5	2393.9	2041.0	1704.6	1391.0	1128.9	891.5	105.2
31°	4088.2	4150.2	3886.0	3429.9	2969.7	2517.7	2057.5	1659.2	1320.8	1025.7	109.4
32°	5373.9	5103.6	4825.0	4356.5	3687.9	3110.0	2532.2	1958.5	1512.7	1170.1	113.5
33°	6589.5	6430.6	6005.4	5421.4	4618.6	3807.6	3058.4	2311.4	1748.0	1345.5	115.6
34°	7885.5	7710.1	7365.4	6527.6	5646.4	4583.5	3584.7	2717.9	2028.6	1516.8	117.6
35°	9237.2	9162.9	8498.4	7772.0	6688.5	5407.0	4218.3	3163.7	2303.1	1673.7	119.7
36°	10597.2	10357.8	9837.8	8777.0	7646.1	6168.5	4882.8	3578.5	2581.7	1859.4	119.7
37°	11620.8	11567.2	10877.9	9844.0	8514.9	6981.6	5456.5	4038.7	2862.4	2018.3	119.7
38°	12749.7	12537.1	11837.5	10785.0	9332.2	7726.6	6057.0	4439.1	3128.6	2162.8	117.6
39°	13701.1	13385.3	12679.5	11639.4	10046.2	8292.0	6533.8	4827.1	3363.9	2282.5	115.6
40°	14324.3	14105.6	13368.8	12198.7	10694.2	8826.5	7016.7	5146.9	3539.3	2373.3	111.4
41°	15011.5	14648.3	13919.8	12743.5	11164.7	9297.1	7320.0	5357.4	3675.5	2433.1	107.3
42°	15422.2	15125.0	14260.3	13108.8	11501.1	9565.4	7567.7	5518.4	3758.0	2464.1	99.1
43°	15806.1	15401.6	14559.6	13321.3	11724.0	9755.2	7681.2	5592.7	3776.6	2464.1	88.7
44°	15754.5	15370.6	14497.7	13350.2	11773.5	9810.9	7728.6	5594.8	3747.7	2433.1	78.4
45°	15368.6	14986.8	14200.5	13098.5	11596.1	9701.6	7633.7	5512.2	3667.2	2379.5	70.2
46°	14660.7	14281.0	13678.4	12677.5	11265.9	9453.9	7412.9	5332.7	3533.1	2292.8	61.9
47°	13890.9	13521.5	12904.5	11998.5	10702.5	9012.3	7093.0	5080.9	3345.3	2166.9	55.7
48°	12774.5	12543.3	11924.2	11150.3	9920.3	8320.9	6531.7	4670.2	3093.5	2003.9	47.5
49°	11788.0	11544.5	11001.7	10170.0	8900.8	7516.1	5861.0	4170.8	2765.4	1822.3	41.3
50°	10844.9	10632.3	10130.8	9191.8	7980.4	6544.1	4955.0	3541.4	2352.6	1597.3	35.1
51°	9922.4	9763.5	9251.7	8389.0	7159.1	5797.0	4292.5	2949.1	1944.0	1324.9	33.0
52°	8995.8	8977.2	8422.1	7549.1	6360.4	5052.0	3648.7	2488.9	1648.9	1112.3	31.0
53°	7999.0	7879.3	7394.3	6610.1	5468.9	4276.0	3093.5	2098.8	1419.8	947.2	26.8
54°	6863.9	6729.8	6209.7	5501.9	4468.0	3502.1	2493.0	1696.4	1182.5	800.7	24.8
55°	5600.9	5371.9	4994.2	4267.8	3489.8	2672.5	1925.5	1343.5	945.2	666.6	20.6
56°	4249.2	4020.1	3807.6	3273.1	2561.1	1993.6	1434.3	1029.8	738.8	526.2	18.6
57°	2955.3	2942.9	2594.1	2183.4	1712.9	1357.9	982.3	726.4	522.1	408.6	14.4
58°	1917.2	1853.2	1630.3	1393.0	1120.6	848.2	631.5	493.2	355.0	278.6	12.4
59°	1343.5	1215.5	1095.8	928.7	705.8	534.5	406.6	315.7	245.6	194.0	8.3
60°	825.5	798.7	718.2	565.5	458.1	377.7	303.4	233.2	179.5	138.3	4.1
62.5°	235.3	239.4	216.7	191.9	165.1	142.4	128.0	109.4	90.8	72.2	0.0
65°	53.7	51.6	55.7	51.6	47.5	47.5	41.3	37.1	33.0	31.0	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°	16.5	16.5	14.4	14.4	14.4	12.4	12.4	10.3	10.3	8.3	0.0
70°	6.2	6.2	6.2	6.2	6.2	4.1	4.1	4.1	2.1	2.1	0.0
72.5°	6.2	6.2	6.2	4.1	4.1	4.1	4.1	4.1	2.1	2.1	2.1
75°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1
77.5°	4.1	4.1	4.1	4.1	4.1	2.1	4.1	2.1	2.1	2.1	2.1
80°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
82.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
85°	2.1	2.1	2.1	2.1	0.0	0.0	2.1	2.1	2.1	0.0	2.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1
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°	152.7	152.7	152.7	152.7	152.7	152.7
2.5°	158.9	150.7	144.5	138.3	136.2	136.2
5°	154.8	142.4	130.0	123.8	119.7	119.7
7.5°	142.4	128.0	115.6	109.4	107.3	107.3
10°	128.0	111.4	99.1	94.9	94.9	92.9
12.5°	111.4	94.9	86.7	84.6	84.6	84.6
15°	92.9	80.5	74.3	74.3	76.4	78.4
17.5°	78.4	66.0	64.0	68.1	72.2	72.2
20°	66.0	57.8	57.8	61.9	66.0	68.1
22.5°	55.7	49.5	51.6	57.8	64.0	66.0
25°	49.5	43.3	47.5	53.7	59.8	64.0
27.5°	41.3	39.2	43.3	51.6	59.8	61.9
30°	35.1	35.1	41.3	49.5	57.8	59.8
31°	33.0	33.0	41.3	49.5	57.8	59.8
32°	31.0	33.0	39.2	49.5	57.8	59.8
33°	28.9	31.0	39.2	47.5	57.8	59.8
34°	26.8	31.0	39.2	47.5	57.8	59.8
35°	24.8	31.0	39.2	47.5	57.8	59.8
36°	22.7	28.9	37.1	47.5	57.8	59.8
37°	20.6	28.9	37.1	47.5	57.8	59.8
38°	18.6	26.8	37.1	47.5	57.8	59.8
39°	18.6	26.8	35.1	47.5	55.7	59.8
40°	16.5	24.8	35.1	47.5	55.7	59.8
41°	14.4	24.8	35.1	45.4	55.7	59.8
42°	12.4	22.7	33.0	45.4	55.7	59.8
43°	10.3	22.7	33.0	45.4	55.7	59.8
44°	10.3	20.6	33.0	45.4	55.7	59.8
45°	8.3	20.6	33.0	45.4	55.7	59.8
46°	6.2	20.6	33.0	45.4	55.7	59.8
47°	6.2	18.6	31.0	45.4	55.7	59.8
48°	4.1	18.6	31.0	45.4	55.7	59.8
49°	4.1	18.6	31.0	45.4	55.7	61.9
50°	4.1	18.6	31.0	43.3	55.7	61.9
51°	2.1	18.6	31.0	43.3	55.7	61.9
52°	2.1	18.6	28.9	43.3	57.8	61.9
53°	2.1	16.5	28.9	43.3	57.8	61.9
54°	2.1	16.5	28.9	43.3	57.8	59.8
55°	2.1	16.5	28.9	43.3	55.7	59.8
56°	2.1	14.4	28.9	43.3	55.7	59.8
57°	2.1	14.4	26.8	41.3	55.7	57.8
58°	2.1	14.4	26.8	41.3	55.7	57.8
59°	2.1	14.4	26.8	41.3	53.7	57.8
60°	4.1	12.4	24.8	39.2	53.7	57.8
62.5°	4.1	12.4	24.8	39.2	51.6	55.7
65°	4.1	12.4	22.7	37.1	51.6	55.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	4.1	10.3	20.6	35.1	49.5	53.7
70°	4.1	12.4	20.6	33.0	47.5	51.6
72.5°	6.2	10.3	18.6	31.0	45.4	49.5
75°	6.2	10.3	18.6	28.9	43.3	45.4
77.5°	8.3	10.3	16.5	24.8	39.2	41.3
80°	8.3	10.3	14.4	20.6	33.0	35.1
82.5°	8.3	10.3	10.3	16.5	24.8	26.8
85°	6.2	8.3	8.3	10.3	16.5	18.6
87.5°	6.2	8.3	6.2	4.1	8.3	8.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)