

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: P1310513

Luminaire Tested: P3SQAS20R209040D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1310513
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: P3SQAS20R209040D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

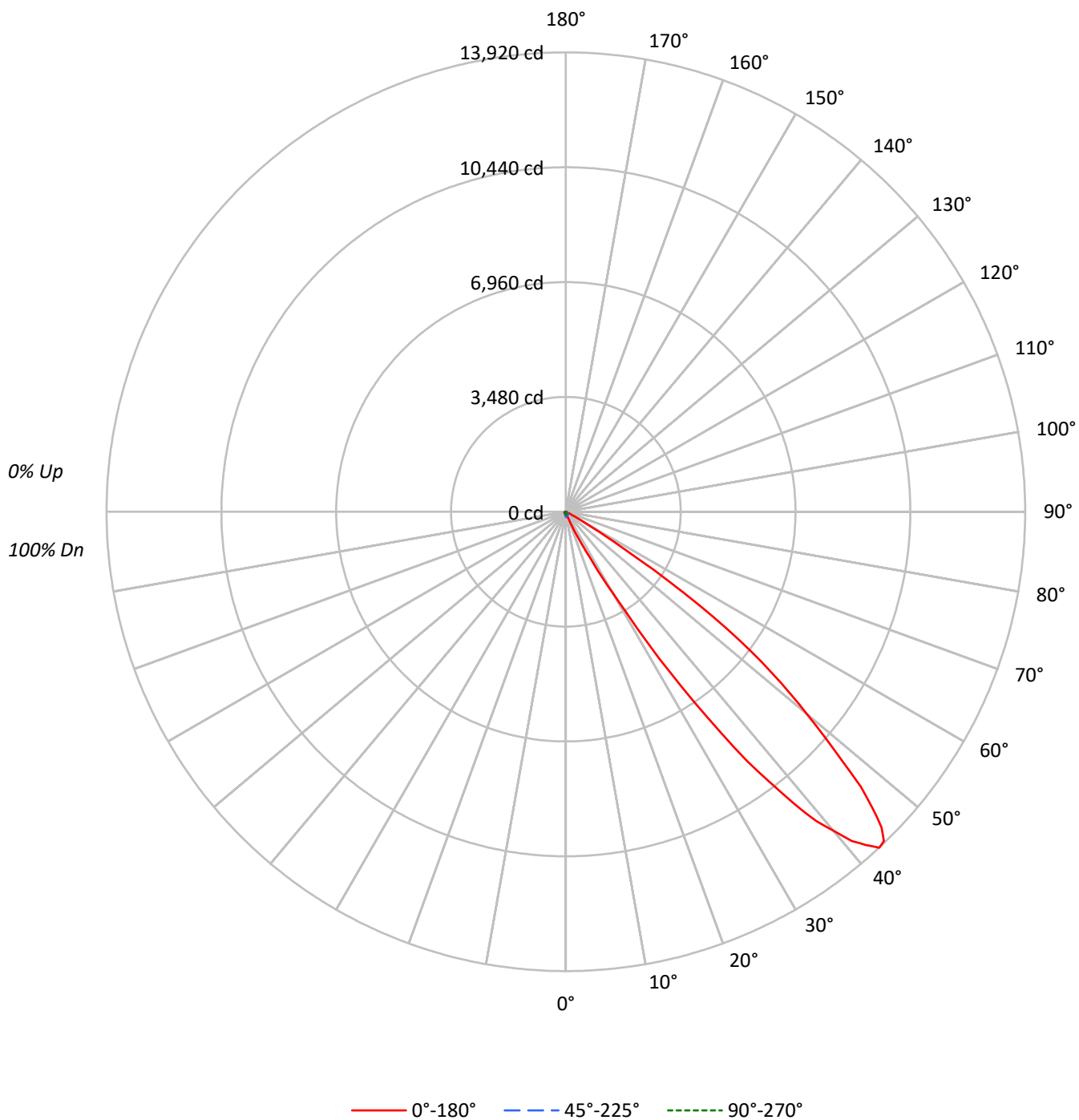
Lumens per Lamp: N/A
Luminaire Lumens: 1934.0 lumens
Efficiency: N/A
Efficacy: 67.2 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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°	23164	23164	23164	23164	23164
5°	27021	25137	21679	18861	18222
10°	26704	22892	17156	14620	14305
15°	23339	17491	12641	11661	12320
20°	34639	14662	9329	9989	10997
25°	149209	15202	7259	8988	10699
30°	564202	18435	6145	8671	10480
35°	1710385	22160	5740	8788	11080
40°	2836180	22055	4901	9398	11848
45°	3296579	15052	4433	9742	12836
50°	2559008	8279	4394	10235	14602
55°	1481097	5465	4354	11470	15824
60°	250412	1240	3754	11883	17532
65°	19275	0	4442	13326	20009
70°	2769	0	5489	14653	22861
75°	2396	1198	6055	16902	26617
80°	1785	1785	9025	18051	30646
85°	3557	3557	14425	17982	32407

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3296579 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.6	0.6
10°-20°	24.2	1.3
20°-30°	77.2	4.0
30°-40°	493.2	25.5
40°-50°	902.7	46.7
50°-60°	370.9	19.2
60°-70°	31.3	1.6
70°-80°	15.6	0.8
80°-90°	7.3	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°	113.0	5.8
0°-40°	606.2	31.3
0°-60°	1879.8	97.2
0°-90°	1934.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1934.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	134	134	134	134	134	
5°	156	145	125	109	105	15
15°	131	98	71	65	69	42
25°	785	80	38	47	56	516
35°	8135	105	27	42	53	5149
45°	13535	62	18	40	53	9718
55°	4933	18	14	38	53	4312
65°	47	0	11	33	49	154
75°	4	2	9	25	40	4
85°	2	2	7	9	16	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°	134.5	134.5	134.5	134.5	134.5	134.5	134.5	134.5	134.5	134.5	134.5
2.5°	147.2	147.2	147.2	145.4	145.4	147.2	145.4	145.4	145.4	145.4	143.6
5°	156.3	156.3	156.3	156.3	156.3	156.3	156.3	154.5	154.5	152.7	145.4
7.5°	159.9	159.9	159.9	159.9	158.1	158.1	158.1	158.1	156.3	154.5	141.8
10°	152.7	152.7	152.7	150.9	150.9	150.9	149.0	149.0	147.2	145.4	130.9
12.5°	138.1	138.1	138.1	138.1	136.3	136.3	134.5	134.5	132.7	130.9	114.5
15°	130.9	130.9	130.9	129.0	129.0	127.2	125.4	123.6	121.8	118.1	98.1
17.5°	141.8	141.8	139.9	139.9	136.3	132.7	130.9	125.4	121.8	116.3	87.2
20°	189.0	190.8	183.6	178.1	174.5	163.6	158.1	149.0	141.8	132.7	80.0
22.5°	381.7	374.4	361.7	341.7	318.1	298.1	261.7	232.6	212.6	185.4	78.2
25°	785.2	777.9	743.4	714.3	641.6	585.2	507.1	443.5	378.0	314.4	80.0
27.5°	1492.2	1443.1	1434.0	1301.3	1199.6	1054.2	903.3	776.1	659.8	530.7	85.4
30°	2837.1	2780.8	2582.7	2382.8	2108.3	1797.5	1501.3	1225.0	994.2	785.2	92.7
31°	3600.5	3655.0	3422.4	3020.7	2615.4	2217.4	1812.1	1461.3	1163.2	903.3	96.3
32°	4732.8	4494.7	4249.3	3836.8	3247.9	2739.0	2230.1	1724.8	1332.2	1030.5	100.0
33°	5803.3	5663.3	5288.9	4774.6	4067.6	3353.3	2693.5	2035.6	1539.4	1185.0	101.8
34°	6944.7	6790.2	6486.7	5748.8	4972.7	4036.7	3157.0	2393.7	1786.6	1335.9	103.6
35°	8135.2	8069.7	7484.5	6844.7	5890.5	4761.9	3715.0	2786.2	2028.3	1474.0	105.4
36°	9332.9	9122.1	8664.1	7729.9	6733.9	5432.5	4300.2	3151.6	2273.7	1637.6	105.4
37°	10234.4	10187.1	9580.1	8669.5	7499.0	6148.6	4805.5	3556.9	2520.9	1777.5	105.4
38°	11228.6	11041.3	10425.2	9498.3	8218.8	6804.7	5334.4	3909.5	2755.3	1904.7	103.6
39°	12066.4	11788.3	11166.8	10250.7	8847.6	7302.7	5754.2	4251.1	2962.5	2010.2	101.8
40°	12615.3	12422.7	11773.8	10743.3	9418.3	7773.5	6179.5	4532.9	3117.0	2090.1	98.1
41°	13220.5	12900.7	12259.1	11223.1	9832.7	8187.9	6446.7	4718.2	3237.0	2142.8	94.5
42°	13582.2	13320.5	12559.0	11544.8	10129.0	8424.1	6664.8	4860.0	3309.7	2170.1	87.2
43°	13920.3	13564.0	12822.5	11732.0	10325.3	8591.4	6764.8	4925.4	3326.0	2170.1	78.2
44°	13874.8	13536.8	12768.0	11757.4	10368.9	8640.4	6806.6	4927.3	3300.6	2142.8	69.1
45°	13535.0	13198.7	12506.3	11535.7	10212.6	8544.1	6723.0	4854.6	3229.7	2095.6	61.8
46°	12911.6	12577.1	12046.4	11164.9	9921.8	8326.0	6528.5	4696.4	3111.6	2019.2	54.5
47°	12233.6	11908.3	11364.9	10567.0	9425.6	7937.0	6246.8	4474.7	2946.2	1908.4	49.1
48°	11250.4	11046.8	10501.5	9820.0	8736.8	7328.2	5752.4	4113.0	2724.4	1764.8	41.8
49°	10381.6	10167.1	9689.1	8956.7	7838.9	6619.4	5161.7	3673.2	2435.5	1604.9	36.4
50°	9551.0	9363.8	8922.1	8095.2	7028.3	5763.3	4363.8	3118.8	2072.0	1406.7	30.9
51°	8738.6	8598.6	8147.9	7388.2	6304.9	5105.4	3780.4	2597.2	1712.1	1166.8	29.1
52°	7922.5	7906.2	7417.2	6648.4	5601.6	4449.3	3213.4	2191.9	1452.2	979.6	27.3
53°	7044.7	6939.2	6512.1	5821.5	4816.4	3765.9	2724.4	1848.4	1250.4	834.2	23.6
54°	6045.0	5926.9	5468.9	4845.5	3934.9	3084.3	2195.5	1494.0	1041.4	705.2	21.8
55°	4932.7	4731.0	4398.4	3758.6	3073.4	2353.7	1695.7	1183.2	832.4	587.1	18.2
56°	3742.2	3540.5	3353.3	2882.6	2255.5	1755.7	1263.2	906.9	650.7	463.5	16.4
57°	2602.7	2591.8	2284.6	1922.9	1508.5	1195.9	865.1	639.8	459.8	359.9	12.7
58°	1688.5	1632.1	1435.8	1226.8	986.9	747.0	556.2	434.4	312.6	245.4	10.9
59°	1183.2	1070.5	965.1	817.9	621.6	470.7	358.0	278.1	216.3	170.8	7.3
60°	727.0	703.4	632.5	498.0	403.5	332.6	267.2	205.4	158.1	121.8	3.6
62.5°	207.2	210.8	190.8	169.0	145.4	125.4	112.7	96.3	80.0	63.6	0.0
65°	47.3	45.4	49.1	45.4	41.8	41.8	36.4	32.7	29.1	27.3	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°	14.5	14.5	12.7	12.7	12.7	10.9	10.9	9.1	9.1	7.3	0.0
70°	5.5	5.5	5.5	5.5	5.5	3.6	3.6	3.6	1.8	1.8	0.0
72.5°	5.5	5.5	5.5	3.6	3.6	3.6	3.6	3.6	1.8	1.8	1.8
75°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	1.8	1.8	1.8	1.8
77.5°	3.6	3.6	3.6	3.6	3.6	1.8	3.6	1.8	1.8	1.8	1.8
80°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
82.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
85°	1.8	1.8	1.8	1.8	0.0	0.0	1.8	1.8	1.8	0.0	1.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8
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°	134.5	134.5	134.5	134.5	134.5	134.5
2.5°	139.9	132.7	127.2	121.8	120.0	120.0
5°	136.3	125.4	114.5	109.1	105.4	105.4
7.5°	125.4	112.7	101.8	96.3	94.5	94.5
10°	112.7	98.1	87.2	83.6	83.6	81.8
12.5°	98.1	83.6	76.3	74.5	74.5	74.5
15°	81.8	70.9	65.4	65.4	67.2	69.1
17.5°	69.1	58.2	56.3	60.0	63.6	63.6
20°	58.2	50.9	50.9	54.5	58.2	60.0
22.5°	49.1	43.6	45.4	50.9	56.3	58.2
25°	43.6	38.2	41.8	47.3	52.7	56.3
27.5°	36.4	34.5	38.2	45.4	52.7	54.5
30°	30.9	30.9	36.4	43.6	50.9	52.7
31°	29.1	29.1	36.4	43.6	50.9	52.7
32°	27.3	29.1	34.5	43.6	50.9	52.7
33°	25.4	27.3	34.5	41.8	50.9	52.7
34°	23.6	27.3	34.5	41.8	50.9	52.7
35°	21.8	27.3	34.5	41.8	50.9	52.7
36°	20.0	25.4	32.7	41.8	50.9	52.7
37°	18.2	25.4	32.7	41.8	50.9	52.7
38°	16.4	23.6	32.7	41.8	50.9	52.7
39°	16.4	23.6	30.9	41.8	49.1	52.7
40°	14.5	21.8	30.9	41.8	49.1	52.7
41°	12.7	21.8	30.9	40.0	49.1	52.7
42°	10.9	20.0	29.1	40.0	49.1	52.7
43°	9.1	20.0	29.1	40.0	49.1	52.7
44°	9.1	18.2	29.1	40.0	49.1	52.7
45°	7.3	18.2	29.1	40.0	49.1	52.7
46°	5.5	18.2	29.1	40.0	49.1	52.7
47°	5.5	16.4	27.3	40.0	49.1	52.7
48°	3.6	16.4	27.3	40.0	49.1	52.7
49°	3.6	16.4	27.3	40.0	49.1	54.5
50°	3.6	16.4	27.3	38.2	49.1	54.5
51°	1.8	16.4	27.3	38.2	49.1	54.5
52°	1.8	16.4	25.4	38.2	50.9	54.5
53°	1.8	14.5	25.4	38.2	50.9	54.5
54°	1.8	14.5	25.4	38.2	50.9	52.7
55°	1.8	14.5	25.4	38.2	49.1	52.7
56°	1.8	12.7	25.4	38.2	49.1	52.7
57°	1.8	12.7	23.6	36.4	49.1	50.9
58°	1.8	12.7	23.6	36.4	49.1	50.9
59°	1.8	12.7	23.6	36.4	47.3	50.9
60°	3.6	10.9	21.8	34.5	47.3	50.9
62.5°	3.6	10.9	21.8	34.5	45.4	49.1
65°	3.6	10.9	20.0	32.7	45.4	49.1



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	3.6	9.1	18.2	30.9	43.6	47.3
70°	3.6	10.9	18.2	29.1	41.8	45.4
72.5°	5.5	9.1	16.4	27.3	40.0	43.6
75°	5.5	9.1	16.4	25.4	38.2	40.0
77.5°	7.3	9.1	14.5	21.8	34.5	36.4
80°	7.3	9.1	12.7	18.2	29.1	30.9
82.5°	7.3	9.1	9.1	14.5	21.8	23.6
85°	5.5	7.3	7.3	9.1	14.5	16.4
87.5°	5.5	7.3	5.5	3.6	7.3	7.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)