

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: P1307159

Luminaire Tested: P3SQAS20R209027D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1307159
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: P3SQAS20R209027D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

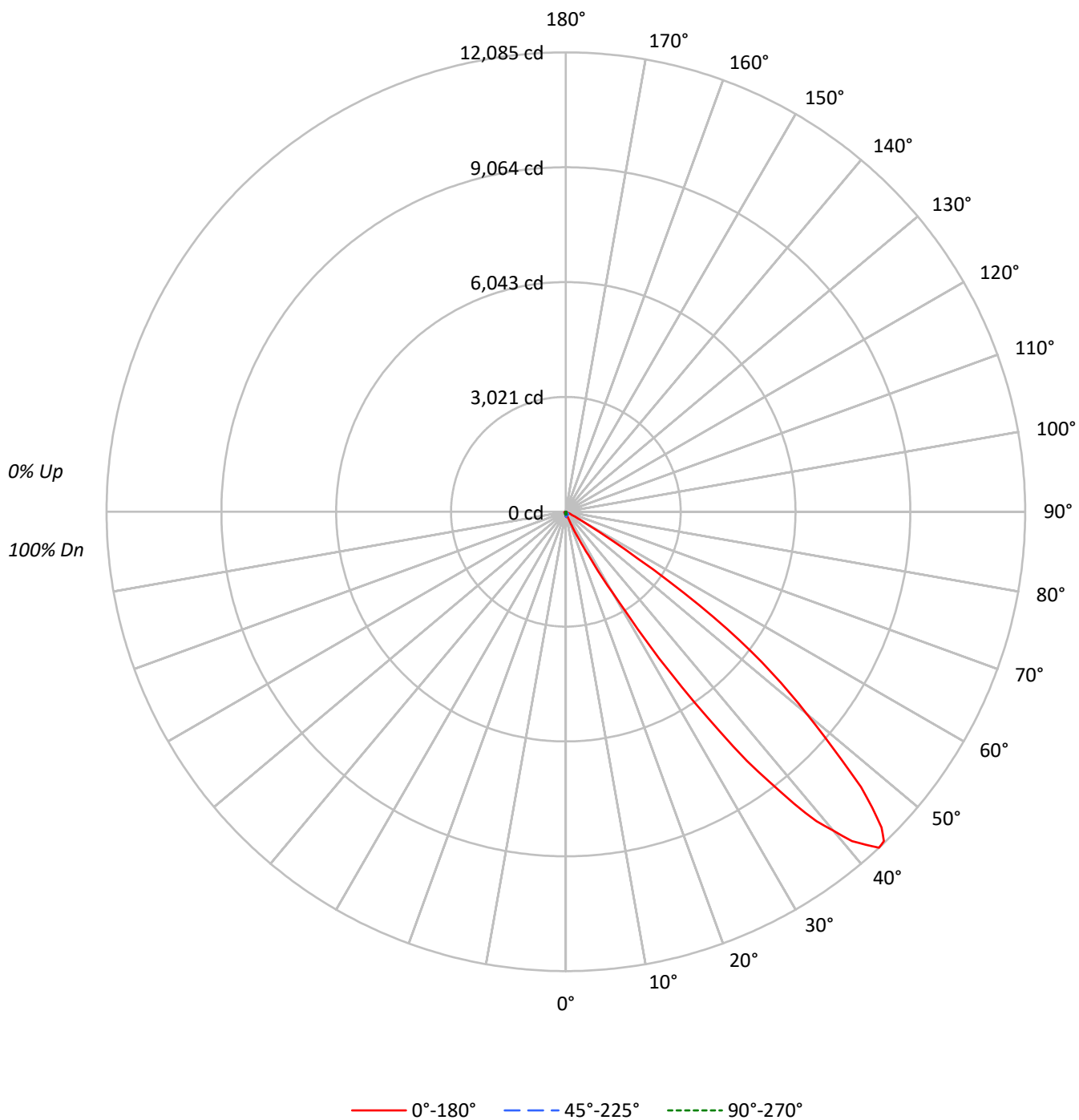
Lumens per Lamp: N/A
Luminaire Lumens: 1679.0 lumens
Efficiency: N/A
Efficacy: 58.3 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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°	20116	20116	20116	20116	20116
5°	23460	21818	18827	16372	15819
10°	23172	19866	14900	12696	12416
15°	20255	15191	10965	10127	10698
20°	30076	12719	8101	8669	9549
25°	129522	13188	6290	7791	9292
30°	489806	16009	5330	7537	9108
35°	1484855	19237	4983	7632	9629
40°	2462236	19155	4249	8161	10297
45°	2861923	13055	3848	8452	11155
50°	2221602	7181	3805	8869	12673
55°	1285808	4744	3783	9939	13752
60°	217379	1102	3272	10333	15224
65°	16708	0	3871	11573	17360
70°	2367	0	4784	12689	19840
75°	2129	1065	5257	14706	23090
80°	1587	1587	7835	15670	26580
85°	3162	3162	12449	15611	28060

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2861923 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.0	0.6
10°-20°	21.0	1.3
20°-30°	67.0	4.0
30°-40°	428.2	25.5
40°-50°	783.7	46.7
50°-60°	322.0	19.2
60°-70°	27.2	1.6
70°-80°	13.5	0.8
80°-90°	6.4	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°	98.1	5.8
0°-40°	526.2	31.3
0°-60°	1631.9	97.2
0°-90°	1679.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1679.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	117	117	117	117	117	
5°	136	126	109	95	92	13
15°	114	85	62	57	60	36
25°	682	69	33	41	49	448
35°	7062	92	24	36	46	4470
45°	11750	54	16	35	46	8437
55°	4282	16	13	33	46	3743
65°	41	0	10	28	43	134
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°	116.8	116.8	116.8	116.8	116.8	116.8	116.8	116.8	116.8	116.8	116.8
2.5°	127.8	127.8	127.8	126.2	126.2	127.8	126.2	126.2	126.2	126.2	124.7
5°	135.7	135.7	135.7	135.7	135.7	135.7	135.7	134.1	134.1	132.5	126.2
7.5°	138.9	138.9	138.9	138.9	137.3	137.3	137.3	137.3	135.7	134.1	123.1
10°	132.5	132.5	132.5	131.0	131.0	131.0	129.4	129.4	127.8	126.2	113.6
12.5°	119.9	119.9	119.9	119.9	118.3	118.3	116.8	116.8	115.2	113.6	99.4
15°	113.6	113.6	113.6	112.0	112.0	110.5	108.9	107.3	105.7	102.6	85.2
17.5°	123.1	123.1	121.5	121.5	118.3	115.2	113.6	108.9	105.7	101.0	75.7
20°	164.1	165.7	159.4	154.6	151.5	142.0	137.3	129.4	123.1	115.2	69.4
22.5°	331.4	325.0	314.0	296.6	276.1	258.8	227.2	202.0	184.6	160.9	67.8
25°	681.6	675.3	645.3	620.1	557.0	508.1	440.2	385.0	328.2	273.0	69.4
27.5°	1295.4	1252.8	1244.9	1129.8	1041.4	915.2	784.2	673.7	572.8	460.7	74.2
30°	2463.0	2414.1	2242.1	2068.6	1830.3	1560.5	1303.3	1063.5	863.1	681.6	80.5
31°	3125.8	3173.1	2971.1	2622.4	2270.5	1925.0	1573.1	1268.6	1009.8	784.2	83.6
32°	4108.8	3902.1	3689.1	3330.9	2819.6	2377.8	1936.0	1497.4	1156.6	894.6	86.8
33°	5038.1	4916.6	4591.6	4145.1	3531.3	2911.2	2338.4	1767.2	1336.5	1028.8	88.4
34°	6029.0	5894.9	5631.4	4990.8	4317.0	3504.4	2740.8	2078.0	1551.0	1159.7	89.9
35°	7062.5	7005.7	6497.7	5942.2	5113.9	4134.0	3225.2	2418.9	1760.9	1279.6	91.5
36°	8102.3	7919.3	7521.7	6710.7	5846.0	4716.2	3733.2	2736.0	1973.9	1421.7	91.5
37°	8885.0	8843.9	8316.9	7526.4	6510.3	5337.9	4171.9	3087.9	2188.5	1543.2	91.5
38°	9748.1	9585.5	9050.6	8245.9	7135.1	5907.5	4631.0	3394.0	2392.0	1653.6	89.9
39°	10475.5	10234.0	9694.4	8899.2	7681.1	6339.9	4995.5	3690.6	2571.9	1745.1	88.4
40°	10952.0	10784.7	10221.4	9326.8	8176.5	6748.5	5364.7	3935.2	2706.0	1814.5	85.2
41°	11477.4	11199.7	10642.7	9743.3	8536.3	7108.3	5596.7	4096.1	2810.2	1860.3	82.0
42°	11791.4	11564.2	10903.1	10022.6	8793.4	7313.4	5786.0	4219.2	2873.3	1884.0	75.7
43°	12084.9	11775.6	11131.8	10185.1	8963.9	7458.6	5872.8	4276.0	2887.5	1884.0	67.8
44°	12045.4	11751.9	11084.5	10207.2	9001.7	7501.2	5909.1	4277.6	2865.4	1860.3	60.0
45°	11750.4	11458.5	10857.3	10014.7	8866.0	7417.5	5836.5	4214.5	2803.9	1819.3	53.6
46°	11209.2	10918.8	10458.1	9692.8	8613.6	7228.2	5667.7	4077.2	2701.3	1753.0	47.3
47°	10620.6	10338.2	9866.4	9173.7	8182.8	6890.5	5423.1	3884.7	2557.7	1656.8	42.6
48°	9767.0	9590.3	9116.9	8525.2	7584.8	6362.0	4993.9	3570.7	2365.2	1532.1	36.3
49°	9012.8	8826.6	8411.6	7775.7	6805.3	5746.6	4481.1	3188.9	2114.3	1393.3	31.6
50°	8291.7	8129.2	7745.7	7027.8	6101.6	5003.4	3788.5	2707.6	1798.8	1221.3	26.8
51°	7586.4	7464.9	7073.6	6414.0	5473.6	4432.2	3282.0	2254.8	1486.3	1013.0	25.2
52°	6877.9	6863.7	6439.3	5771.8	4863.0	3862.6	2789.7	1902.9	1260.7	850.5	23.7
53°	6115.8	6024.3	5653.5	5053.9	4181.3	3269.3	2365.2	1604.7	1085.6	724.2	20.5
54°	5248.0	5145.4	4747.8	4206.6	3416.1	2677.6	1906.1	1297.0	904.1	612.2	18.9
55°	4282.3	4107.2	3818.4	3263.0	2668.2	2043.3	1472.1	1027.2	722.7	509.7	15.8
56°	3248.8	3073.7	2911.2	2502.5	1958.1	1524.2	1096.6	787.4	564.9	402.4	14.2
57°	2259.5	2250.0	1983.4	1669.4	1309.6	1038.2	751.1	555.4	399.2	312.4	11.0
58°	1465.8	1416.9	1246.5	1065.1	856.8	648.5	482.8	377.1	271.4	213.0	9.5
59°	1027.2	929.4	837.8	710.0	539.6	408.7	310.8	241.4	187.8	148.3	6.3
60°	631.1	610.6	549.1	432.3	350.3	288.7	231.9	178.3	137.3	105.7	3.2
62.5°	179.9	183.0	165.7	146.7	126.2	108.9	97.8	83.6	69.4	55.2	0.0
65°	41.0	39.4	42.6	39.4	36.3	36.3	31.6	28.4	25.2	23.7	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°	12.6	12.6	11.0	11.0	11.0	9.5	9.5	7.9	7.9	6.3	0.0
70°	4.7	4.7	4.7	4.7	4.7	3.2	3.2	3.2	1.6	1.6	0.0
72.5°	4.7	4.7	4.7	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°	116.8	116.8	116.8	116.8	116.8	116.8
2.5°	121.5	115.2	110.5	105.7	104.1	104.1
5°	118.3	108.9	99.4	94.7	91.5	91.5
7.5°	108.9	97.8	88.4	83.6	82.0	82.0
10°	97.8	85.2	75.7	72.6	72.6	71.0
12.5°	85.2	72.6	66.3	64.7	64.7	64.7
15°	71.0	61.5	56.8	56.8	58.4	60.0
17.5°	60.0	50.5	48.9	52.1	55.2	55.2
20°	50.5	44.2	44.2	47.3	50.5	52.1
22.5°	42.6	37.9	39.4	44.2	48.9	50.5
25°	37.9	33.1	36.3	41.0	45.8	48.9
27.5°	31.6	30.0	33.1	39.4	45.8	47.3
30°	26.8	26.8	31.6	37.9	44.2	45.8
31°	25.2	25.2	31.6	37.9	44.2	45.8
32°	23.7	25.2	30.0	37.9	44.2	45.8
33°	22.1	23.7	30.0	36.3	44.2	45.8
34°	20.5	23.7	30.0	36.3	44.2	45.8
35°	18.9	23.7	30.0	36.3	44.2	45.8
36°	17.4	22.1	28.4	36.3	44.2	45.8
37°	15.8	22.1	28.4	36.3	44.2	45.8
38°	14.2	20.5	28.4	36.3	44.2	45.8
39°	14.2	20.5	26.8	36.3	42.6	45.8
40°	12.6	18.9	26.8	36.3	42.6	45.8
41°	11.0	18.9	26.8	34.7	42.6	45.8
42°	9.5	17.4	25.2	34.7	42.6	45.8
43°	7.9	17.4	25.2	34.7	42.6	45.8
44°	7.9	15.8	25.2	34.7	42.6	45.8
45°	6.3	15.8	25.2	34.7	42.6	45.8
46°	4.7	15.8	25.2	34.7	42.6	45.8
47°	4.7	14.2	23.7	34.7	42.6	45.8
48°	3.2	14.2	23.7	34.7	42.6	45.8
49°	3.2	14.2	23.7	34.7	42.6	47.3
50°	3.2	14.2	23.7	33.1	42.6	47.3
51°	1.6	14.2	23.7	33.1	42.6	47.3
52°	1.6	14.2	22.1	33.1	44.2	47.3
53°	1.6	12.6	22.1	33.1	44.2	47.3
54°	1.6	12.6	22.1	33.1	44.2	45.8
55°	1.6	12.6	22.1	33.1	42.6	45.8
56°	1.6	11.0	22.1	33.1	42.6	45.8
57°	1.6	11.0	20.5	31.6	42.6	44.2
58°	1.6	11.0	20.5	31.6	42.6	44.2
59°	1.6	11.0	20.5	31.6	41.0	44.2
60°	3.2	9.5	18.9	30.0	41.0	44.2
62.5°	3.2	9.5	18.9	30.0	39.4	42.6
65°	3.2	9.5	17.4	28.4	39.4	42.6



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	3.2	7.9	15.8	26.8	37.9	41.0
70°	3.2	9.5	15.8	25.2	36.3	39.4
72.5°	4.7	7.9	14.2	23.7	34.7	37.9
75°	4.7	7.9	14.2	22.1	33.1	34.7
77.5°	6.3	7.9	12.6	18.9	30.0	31.6
80°	6.3	7.9	11.0	15.8	25.2	26.8
82.5°	6.3	7.9	7.9	12.6	18.9	20.5
85°	4.7	6.3	6.3	7.9	12.6	14.2
87.5°	4.7	6.3	4.7	3.2	6.3	6.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)