

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: P1306187

Luminaire Tested: P3SQAS20R209024D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1306187
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: P3SQAS20R209024D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 2400K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

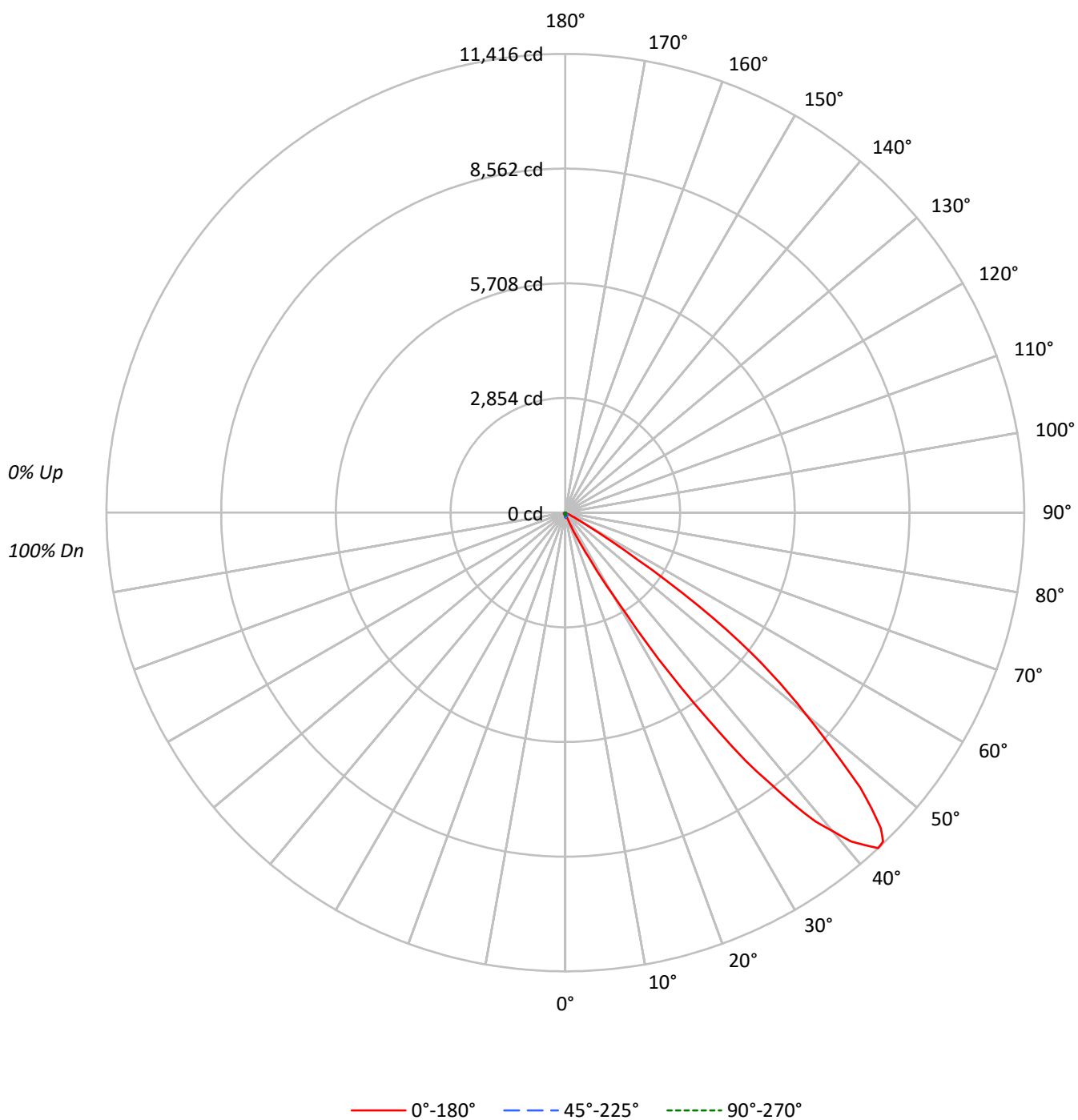
Lumens per Lamp: N/A
Luminaire Lumens: 1586.0 lumens
Efficiency: N/A
Efficacy: 55.1 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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°	18996	18996	18996	18996	18996
5°	22163	20607	17772	15456	14937
10°	21895	18765	14078	11997	11734
15°	19131	14353	10359	9575	10092
20°	28408	12023	7643	8192	9017
25°	122358	12466	5948	7373	8779
30°	462681	15114	5031	7119	8591
35°	1402608	18165	4709	7211	9083
40°	2325837	18098	4024	7711	9712
45°	2703390	12348	3629	7989	10522
50°	2098542	6779	3590	8386	11977
55°	1214586	4474	3573	9398	12971
60°	205358	1033	3066	9748	14363
65°	15812	0	3627	10921	16382
70°	2266	0	4482	11984	18782
75°	1996	998	4991	13907	21826
80°	1488	1488	7438	14778	25092
85°	2964	2964	11856	14820	26479

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2703390 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.5	0.6
10°-20°	19.8	1.3
20°-30°	63.3	4.0
30°-40°	404.4	25.5
40°-50°	740.3	46.7
50°-60°	304.2	19.2
60°-70°	25.7	1.6
70°-80°	12.8	0.8
80°-90°	6.0	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°	92.7	5.8
0°-40°	497.1	31.3
0°-60°	1541.5	97.2
0°-90°	1586.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1586.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	110	110	110	110	110	
5°	128	119	103	89	86	12
15°	107	80	58	54	57	34
25°	644	66	31	39	46	423
35°	6671	86	22	34	43	4223
45°	11100	51	15	33	43	7969
55°	4045	15	12	31	43	3536
65°	39	0	9	27	40	126
75°	3	2	8	21	33	4
85°	2	2	6	8	13	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°	110.3	110.3	110.3	110.3	110.3	110.3	110.3	110.3	110.3	110.3	110.3
2.5°	120.7	120.7	120.7	119.2	119.2	120.7	119.2	119.2	119.2	119.2	117.7
5°	128.2	128.2	128.2	128.2	128.2	128.2	128.2	126.7	126.7	125.2	119.2
7.5°	131.2	131.2	131.2	131.2	129.7	129.7	129.7	129.7	128.2	126.7	116.3
10°	125.2	125.2	125.2	123.7	123.7	123.7	122.2	122.2	120.7	119.2	107.3
12.5°	113.3	113.3	113.3	113.3	111.8	111.8	110.3	110.3	108.8	107.3	93.9
15°	107.3	107.3	107.3	105.8	105.8	104.3	102.8	101.4	99.9	96.9	80.5
17.5°	116.3	116.3	114.8	114.8	111.8	108.8	107.3	102.8	99.9	95.4	71.5
20°	155.0	156.5	150.5	146.1	143.1	134.1	129.7	122.2	116.3	108.8	65.6
22.5°	313.0	307.0	296.6	280.2	260.8	244.4	214.6	190.8	174.4	152.0	64.1
25°	643.9	637.9	609.6	585.8	526.1	479.9	415.8	363.7	310.0	257.9	65.6
27.5°	1223.7	1183.4	1176.0	1067.2	983.7	864.5	740.8	636.4	541.0	435.2	70.1
30°	2326.6	2280.4	2118.0	1954.0	1728.9	1474.1	1231.1	1004.6	815.3	643.9	76.0
31°	2952.6	2997.3	2806.6	2477.2	2144.8	1818.4	1486.0	1198.3	953.9	740.8	79.0
32°	3881.2	3685.9	3484.7	3146.4	2663.5	2246.1	1828.8	1414.5	1092.5	845.1	82.0
33°	4759.1	4644.3	4337.3	3915.5	3335.7	2749.9	2208.9	1669.3	1262.4	971.8	83.5
34°	5695.1	5568.4	5319.5	4714.3	4077.9	3310.3	2588.9	1962.9	1465.1	1095.5	85.0
35°	6671.3	6617.7	6137.7	5613.1	4830.6	3905.0	3046.5	2284.9	1663.4	1208.8	86.4
36°	7653.6	7480.7	7105.1	6339.0	5522.2	4455.0	3526.4	2584.5	1864.6	1342.9	86.4
37°	8392.8	8354.1	7856.3	7109.5	6149.7	5042.3	3940.8	2916.8	2067.3	1457.7	86.4
38°	9208.1	9054.6	8549.3	7789.2	6739.9	5580.3	4374.5	3206.0	2259.5	1562.0	85.0
39°	9895.2	9667.2	9157.4	8406.2	7255.6	5988.7	4718.8	3486.2	2429.5	1648.5	83.5
40°	10345.3	10187.3	9655.2	8810.2	7723.6	6374.7	5067.6	3717.2	2556.2	1714.0	80.5
41°	10841.7	10579.3	10053.2	9203.6	8063.4	6714.6	5286.7	3869.3	2654.5	1757.3	77.5
42°	11138.3	10923.6	10299.1	9467.5	8306.4	6908.3	5465.5	3985.5	2714.1	1779.6	71.5
43°	11415.5	11123.4	10515.2	9621.0	8467.3	7045.4	5547.5	4039.2	2727.6	1779.6	64.1
44°	11378.2	11101.0	10470.5	9641.8	8503.1	7085.7	5581.8	4040.7	2706.7	1757.3	56.6
45°	11099.5	10823.8	10255.9	9460.0	8374.9	7006.7	5513.2	3981.0	2648.6	1718.5	50.7
46°	10588.3	10314.0	9878.8	9155.9	8136.5	6827.8	5353.8	3851.4	2551.7	1655.9	44.7
47°	10032.3	9765.5	9319.9	8665.6	7729.6	6508.9	5122.7	3669.5	2416.0	1565.0	40.2
48°	9226.0	9059.1	8611.9	8053.0	7164.7	6009.6	4717.3	3372.9	2234.2	1447.2	34.3
49°	8513.6	8337.7	7945.7	7345.0	6428.4	5428.3	4232.9	3012.2	1997.2	1316.1	29.8
50°	7832.4	7678.9	7316.7	6638.5	5763.6	4726.3	3578.6	2557.6	1699.1	1153.6	25.3
51°	7166.2	7051.4	6681.8	6058.8	5170.4	4186.7	3100.2	2129.9	1404.0	956.9	23.8
52°	6496.9	6483.5	6082.6	5452.1	4593.6	3648.7	2635.1	1797.5	1190.9	803.4	22.4
53°	5777.1	5690.6	5340.3	4774.0	3949.7	3088.2	2234.2	1515.8	1025.4	684.1	19.4
54°	4957.3	4860.4	4484.8	3973.6	3226.9	2529.3	1800.5	1225.2	854.0	578.3	17.9
55°	4045.1	3879.7	3606.9	3082.3	2520.4	1930.2	1390.6	970.3	682.6	481.4	14.9
56°	3068.9	2903.4	2749.9	2363.9	1849.7	1439.8	1035.9	743.7	533.6	380.1	13.4
57°	2134.3	2125.4	1873.5	1576.9	1237.1	980.7	709.5	524.6	377.1	295.1	10.4
58°	1384.6	1338.4	1177.5	1006.1	809.3	612.6	456.1	356.2	256.4	201.2	8.9
59°	970.3	877.9	791.4	670.7	509.7	386.0	293.6	228.0	177.4	140.1	6.0
60°	596.2	576.8	518.7	408.4	330.9	272.8	219.1	168.4	129.7	99.9	3.0
62.5°	169.9	172.9	156.5	138.6	119.2	102.8	92.4	79.0	65.6	52.2	0.0
65°	38.8	37.3	40.2	37.3	34.3	34.3	29.8	26.8	23.8	22.4	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°	11.9	11.9	10.4	10.4	10.4	8.9	8.9	7.5	7.5	6.0	0.0
70°	4.5	4.5	4.5	4.5	4.5	3.0	3.0	3.0	1.5	1.5	0.0
72.5°	4.5	4.5	4.5	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5
75°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5
77.5°	3.0	3.0	3.0	3.0	3.0	1.5	3.0	1.5	1.5	1.5	1.5
80°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
82.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
85°	1.5	1.5	1.5	1.5	0.0	0.0	1.5	1.5	1.5	0.0	1.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5
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°	110.3	110.3	110.3	110.3	110.3	110.3
2.5°	114.8	108.8	104.3	99.9	98.4	98.4
5°	111.8	102.8	93.9	89.4	86.4	86.4
7.5°	102.8	92.4	83.5	79.0	77.5	77.5
10°	92.4	80.5	71.5	68.6	68.6	67.1
12.5°	80.5	68.6	62.6	61.1	61.1	61.1
15°	67.1	58.1	53.7	53.7	55.1	56.6
17.5°	56.6	47.7	46.2	49.2	52.2	52.2
20°	47.7	41.7	41.7	44.7	47.7	49.2
22.5°	40.2	35.8	37.3	41.7	46.2	47.7
25°	35.8	31.3	34.3	38.8	43.2	46.2
27.5°	29.8	28.3	31.3	37.3	43.2	44.7
30°	25.3	25.3	29.8	35.8	41.7	43.2
31°	23.8	23.8	29.8	35.8	41.7	43.2
32°	22.4	23.8	28.3	35.8	41.7	43.2
33°	20.9	22.4	28.3	34.3	41.7	43.2
34°	19.4	22.4	28.3	34.3	41.7	43.2
35°	17.9	22.4	28.3	34.3	41.7	43.2
36°	16.4	20.9	26.8	34.3	41.7	43.2
37°	14.9	20.9	26.8	34.3	41.7	43.2
38°	13.4	19.4	26.8	34.3	41.7	43.2
39°	13.4	19.4	25.3	34.3	40.2	43.2
40°	11.9	17.9	25.3	34.3	40.2	43.2
41°	10.4	17.9	25.3	32.8	40.2	43.2
42°	8.9	16.4	23.8	32.8	40.2	43.2
43°	7.5	16.4	23.8	32.8	40.2	43.2
44°	7.5	14.9	23.8	32.8	40.2	43.2
45°	6.0	14.9	23.8	32.8	40.2	43.2
46°	4.5	14.9	23.8	32.8	40.2	43.2
47°	4.5	13.4	22.4	32.8	40.2	43.2
48°	3.0	13.4	22.4	32.8	40.2	43.2
49°	3.0	13.4	22.4	32.8	40.2	44.7
50°	3.0	13.4	22.4	31.3	40.2	44.7
51°	1.5	13.4	22.4	31.3	40.2	44.7
52°	1.5	13.4	20.9	31.3	41.7	44.7
53°	1.5	11.9	20.9	31.3	41.7	44.7
54°	1.5	11.9	20.9	31.3	41.7	43.2
55°	1.5	11.9	20.9	31.3	40.2	43.2
56°	1.5	10.4	20.9	31.3	40.2	43.2
57°	1.5	10.4	19.4	29.8	40.2	41.7
58°	1.5	10.4	19.4	29.8	40.2	41.7
59°	1.5	10.4	19.4	29.8	38.8	41.7
60°	3.0	8.9	17.9	28.3	38.8	41.7
62.5°	3.0	8.9	17.9	28.3	37.3	40.2
65°	3.0	8.9	16.4	26.8	37.3	40.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	3.0	7.5	14.9	25.3	35.8	38.8
70°	3.0	8.9	14.9	23.8	34.3	37.3
72.5°	4.5	7.5	13.4	22.4	32.8	35.8
75°	4.5	7.5	13.4	20.9	31.3	32.8
77.5°	6.0	7.5	11.9	17.9	28.3	29.8
80°	6.0	7.5	10.4	14.9	23.8	25.3
82.5°	6.0	7.5	7.5	11.9	17.9	19.4
85°	4.5	6.0	6.0	7.5	11.9	13.4
87.5°	4.5	6.0	4.5	3.0	6.0	6.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)