

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: P1316046

Luminaire Tested: P3SQAS09R159827DE010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1316046
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 1/29/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3SQAS09R159827DE010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 98CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

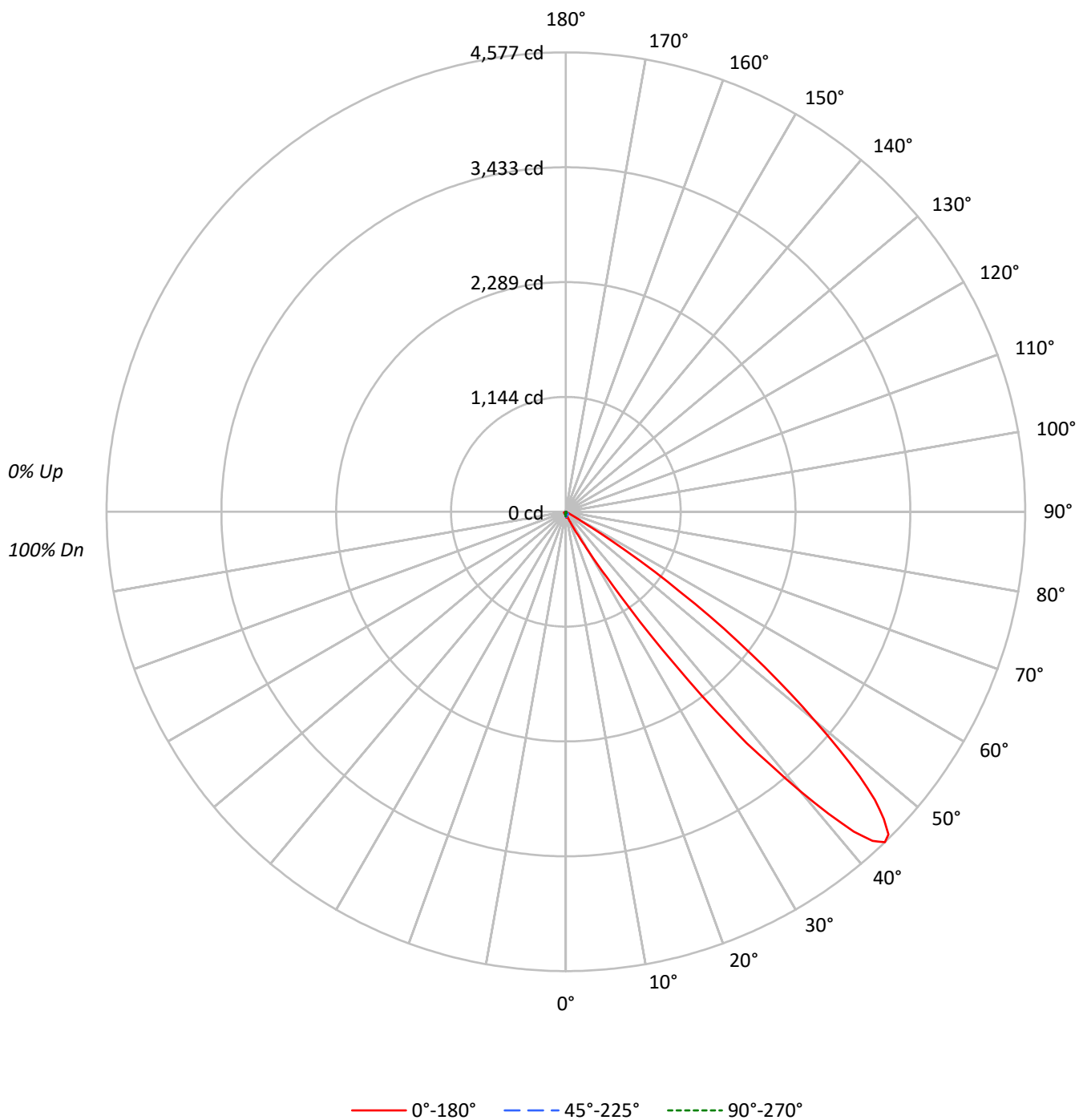
Lumens per Lamp: N/A
Luminaire Lumens: 511.0 lumens
Efficiency: N/A
Efficacy: 46.5 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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	107	104	100	97	100	97	94	96	93	91	92	90	89	87		
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61		
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50		
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35		
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29		
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24		
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20		
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	7802	7802	7802	7802	7802
5°	9681	8627	7054	6172	6085
10°	9531	7397	5439	4809	4897
15°	7899	5278	3905	3994	4261
20°	13727	4197	2987	3464	3922
25°	30594	5036	2413	3192	3687
30°	91498	6185	2128	3142	3858
35°	352223	6959	1934	3217	4079
40°	817538	6070	1844	3327	4362
45°	1107319	4603	1607	3605	4725
50°	868230	2733	1634	3831	5198
55°	416732	1231	1531	4144	5675
60°	38096	172	1412	4374	6303
65°	4157	0	1263	4564	6846
70°	1007	0	1561	4884	7452
75°	998	333	2063	5456	8451
80°	992	992	2479	5554	9124
85°	988	988	3952	4940	10078

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1107319 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.9	0.8
10°-20°	8.1	1.6
20°-30°	19.3	3.8
30°-40°	105.7	20.7
40°-50°	255.9	50.1
50°-60°	102.1	20.0
60°-70°	8.8	1.7
70°-80°	5.0	1.0
80°-90°	2.2	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°	31.2	6.1
0°-40°	136.9	26.8
0°-60°	495.0	96.9
0°-90°	511.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	511.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	45	45	45	45	45	
5°	56	50	41	36	35	5
15°	44	30	22	22	24	15
25°	161	26	13	17	19	97
35°	1675	33	9	15	19	1184
45°	4546	19	7	15	19	3207
55°	1388	4	5	14	19	1293
65°	10	0	3	11	17	26
75°	2	0	3	8	13	1
85°	0	0	2	2	5	0
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°	45.3	45.3	45.3	45.3	45.3	45.3	45.3	45.3	45.3	45.3	45.3
2.5°	51.0	51.0	51.5	51.0	51.0	51.0	51.0	50.4	50.4	50.4	48.9
5°	56.0	56.0	56.0	56.0	55.5	55.5	55.5	55.0	55.0	54.5	49.9
7.5°	58.1	58.1	57.6	57.6	57.1	57.1	56.6	56.0	55.5	55.0	47.9
10°	54.5	54.5	54.5	54.0	54.0	53.5	53.0	52.5	52.0	51.0	42.3
12.5°	48.4	48.4	48.9	48.4	47.9	47.4	46.4	45.9	45.3	44.3	35.2
15°	44.3	44.3	44.3	43.8	43.3	42.3	41.8	40.8	40.3	38.7	29.6
17.5°	56.6	56.6	56.0	55.0	53.0	51.5	48.9	46.9	44.3	41.3	25.5
20°	74.9	74.9	73.9	72.9	70.3	67.8	63.7	60.1	56.0	52.5	22.9
22.5°	108.5	110.1	107.0	103.4	99.9	93.8	88.1	82.5	75.4	69.3	23.4
25°	161.0	162.5	161.0	152.9	146.2	138.1	127.4	116.2	103.9	92.7	26.5
27.5°	260.9	261.9	259.3	239.5	228.8	207.4	188.5	170.2	149.8	129.4	29.0
30°	460.1	460.6	444.3	404.6	369.4	322.5	282.8	244.6	212.5	179.9	31.1
31°	605.8	591.5	556.9	509.0	453.0	389.8	335.3	285.8	237.9	202.8	31.6
32°	769.4	767.3	709.8	626.7	551.8	472.8	390.8	327.6	272.6	224.7	32.1
33°	985.9	986.9	896.2	798.4	675.6	569.6	462.1	375.5	309.3	250.7	33.1
34°	1324.2	1244.7	1138.3	1005.8	838.7	679.2	539.6	431.0	342.4	275.6	33.1
35°	1675.3	1595.3	1478.1	1277.4	1048.1	824.9	631.8	490.7	382.1	302.7	33.1
36°	2068.6	2000.9	1823.6	1567.3	1274.8	962.5	729.6	559.4	421.4	327.1	32.6
37°	2493.6	2394.2	2197.5	1917.8	1526.5	1156.1	848.9	627.7	460.6	353.6	31.6
38°	2925.1	2835.5	2587.3	2248.5	1827.1	1360.4	968.1	693.5	496.8	373.5	30.1
39°	3252.2	3203.3	2957.2	2578.7	2067.1	1554.0	1090.9	763.8	535.0	393.3	28.5
40°	3636.4	3557.4	3324.1	2855.8	2350.9	1751.2	1211.1	825.9	566.6	409.1	27.0
41°	3987.0	3887.1	3592.6	3140.1	2578.1	1928.5	1325.2	890.1	592.1	418.3	26.0
42°	4287.6	4171.4	3863.7	3383.7	2768.2	2070.2	1416.5	936.0	616.0	426.0	24.5
43°	4482.2	4381.8	4079.2	3566.6	2930.7	2200.1	1501.5	983.9	630.8	431.0	22.4
44°	4577.0	4475.6	4182.6	3681.2	3030.6	2278.0	1556.6	1017.0	647.1	437.7	20.9
45°	4546.4	4443.5	4160.2	3683.3	3061.7	2306.1	1580.0	1031.8	655.7	443.8	18.9
46°	4406.3	4333.9	4048.6	3587.5	3002.6	2276.0	1566.8	1020.6	652.7	443.8	16.8
47°	4209.6	4127.1	3855.5	3422.9	2859.4	2198.6	1513.3	986.4	633.8	433.6	14.8
48°	3941.6	3871.3	3586.0	3161.5	2639.8	2029.9	1392.5	930.9	604.3	413.7	12.7
49°	3605.3	3507.5	3242.0	2827.3	2353.5	1790.4	1234.0	837.1	556.9	385.7	11.2
50°	3240.5	3119.8	2914.9	2492.5	2057.4	1535.2	1025.7	707.7	490.2	349.0	10.2
51°	2883.3	2760.6	2565.4	2206.2	1741.5	1273.8	827.5	565.1	403.5	298.6	8.7
52°	2512.9	2410.0	2191.4	1909.2	1490.8	1032.3	689.4	477.9	335.3	250.7	7.1
53°	2144.0	2073.7	1865.8	1580.0	1197.9	843.2	563.0	409.1	292.5	214.5	5.6
54°	1774.6	1697.7	1539.8	1285.0	965.5	665.4	477.4	342.4	253.7	187.0	5.1
55°	1387.9	1348.2	1202.5	979.8	731.7	530.9	387.2	294.5	212.5	156.4	4.1
56°	1069.0	1024.1	891.1	710.8	543.7	415.8	313.4	240.5	179.9	130.9	3.1
57°	700.1	654.2	566.1	496.3	395.9	303.2	239.5	189.5	146.2	108.5	2.5
58°	413.7	371.9	358.2	305.7	263.9	205.8	176.8	141.1	108.0	85.6	1.5
59°	190.0	193.1	171.7	161.0	146.2	130.9	107.5	94.3	73.9	61.7	1.0
60°	110.6	104.5	101.9	91.2	81.0	71.8	64.7	57.1	46.4	39.7	0.5
62.5°	37.7	36.2	37.2	33.6	31.6	30.6	28.0	23.9	19.9	16.3	0.0
65°	10.2	10.2	9.7	9.2	8.7	8.2	7.6	6.6	6.1	5.1	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°	3.6	3.6	3.1	3.1	2.5	2.5	2.0	2.0	1.5	1.5	0.0
70°	2.0	2.0	2.0	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.0
72.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.5
75°	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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°	45.3	45.3	45.3	45.3	45.3	45.3
2.5°	46.9	44.8	42.3	40.8	40.3	39.7
5°	44.8	40.8	37.7	35.7	35.2	35.2
7.5°	40.3	35.7	32.6	31.6	31.1	31.1
10°	35.2	31.1	28.5	27.5	28.0	28.0
12.5°	29.6	26.0	25.0	25.0	25.5	26.0
15°	23.9	21.9	21.9	22.4	23.4	23.9
17.5°	19.9	18.9	19.4	20.4	21.4	22.4
20°	16.3	16.3	17.3	18.9	20.4	21.4
22.5°	13.8	14.3	15.8	17.3	19.4	20.4
25°	11.7	12.7	14.3	16.8	18.9	19.4
27.5°	10.2	11.7	13.8	16.3	18.3	19.4
30°	8.7	10.7	13.2	15.8	18.3	19.4
31°	8.2	10.2	12.7	15.8	18.3	19.4
32°	7.6	10.2	12.7	15.8	18.3	19.4
33°	7.1	9.7	12.7	15.3	18.3	19.4
34°	6.6	9.7	12.7	15.8	18.3	19.4
35°	6.1	9.2	12.2	15.3	17.8	19.4
36°	5.6	9.2	12.2	15.3	18.3	19.4
37°	5.1	9.2	12.2	15.3	17.8	19.4
38°	5.1	8.7	11.7	15.3	17.8	19.4
39°	4.6	8.2	11.7	15.3	17.8	19.4
40°	4.1	8.2	11.2	14.8	17.8	19.4
41°	3.6	7.6	11.2	14.8	17.8	19.4
42°	3.1	7.6	11.2	14.8	17.8	19.4
43°	2.5	7.1	10.7	14.8	17.8	19.4
44°	2.5	7.1	10.7	14.8	17.8	19.4
45°	2.0	6.6	10.2	14.8	17.8	19.4
46°	2.0	6.6	10.2	14.3	17.8	19.4
47°	1.5	6.6	10.2	14.3	17.8	19.4
48°	1.5	6.1	10.2	14.3	17.8	19.4
49°	1.0	6.1	10.2	14.3	17.8	19.4
50°	1.0	6.1	9.7	14.3	17.8	19.4
51°	1.0	6.1	9.7	14.3	17.8	19.4
52°	1.0	5.6	9.7	14.3	17.8	19.4
53°	1.0	5.6	9.7	14.3	17.8	19.4
54°	1.0	5.6	9.2	14.3	17.8	19.4
55°	1.0	5.1	9.2	13.8	17.8	18.9
56°	1.0	5.1	9.2	13.8	17.8	18.9
57°	1.0	5.1	8.7	13.8	17.8	18.9
58°	1.0	4.6	8.7	13.2	17.3	18.9
59°	1.0	4.6	8.2	13.2	17.3	18.3
60°	1.0	4.1	8.2	12.7	16.8	18.3
62.5°	1.0	3.6	7.1	12.2	16.3	17.3
65°	1.0	3.1	6.6	11.2	15.8	16.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	3.1	6.1	10.7	14.8	16.3
70°	1.0	3.1	5.6	9.7	14.3	14.8
72.5°	1.5	3.1	5.1	9.2	13.2	13.8
75°	2.0	3.1	4.6	8.2	12.2	12.7
77.5°	2.0	3.1	4.1	7.1	10.7	11.2
80°	2.0	2.5	3.6	5.6	8.7	9.2
82.5°	2.0	2.5	2.5	4.6	6.6	7.1
85°	1.5	2.0	2.0	2.5	4.6	5.1
87.5°	1.5	2.0	1.0	1.5	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)