

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: P1307806

Luminaire Tested: P3SQAS09R209030DE010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1307806
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: P3SQAS09R209030DE010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

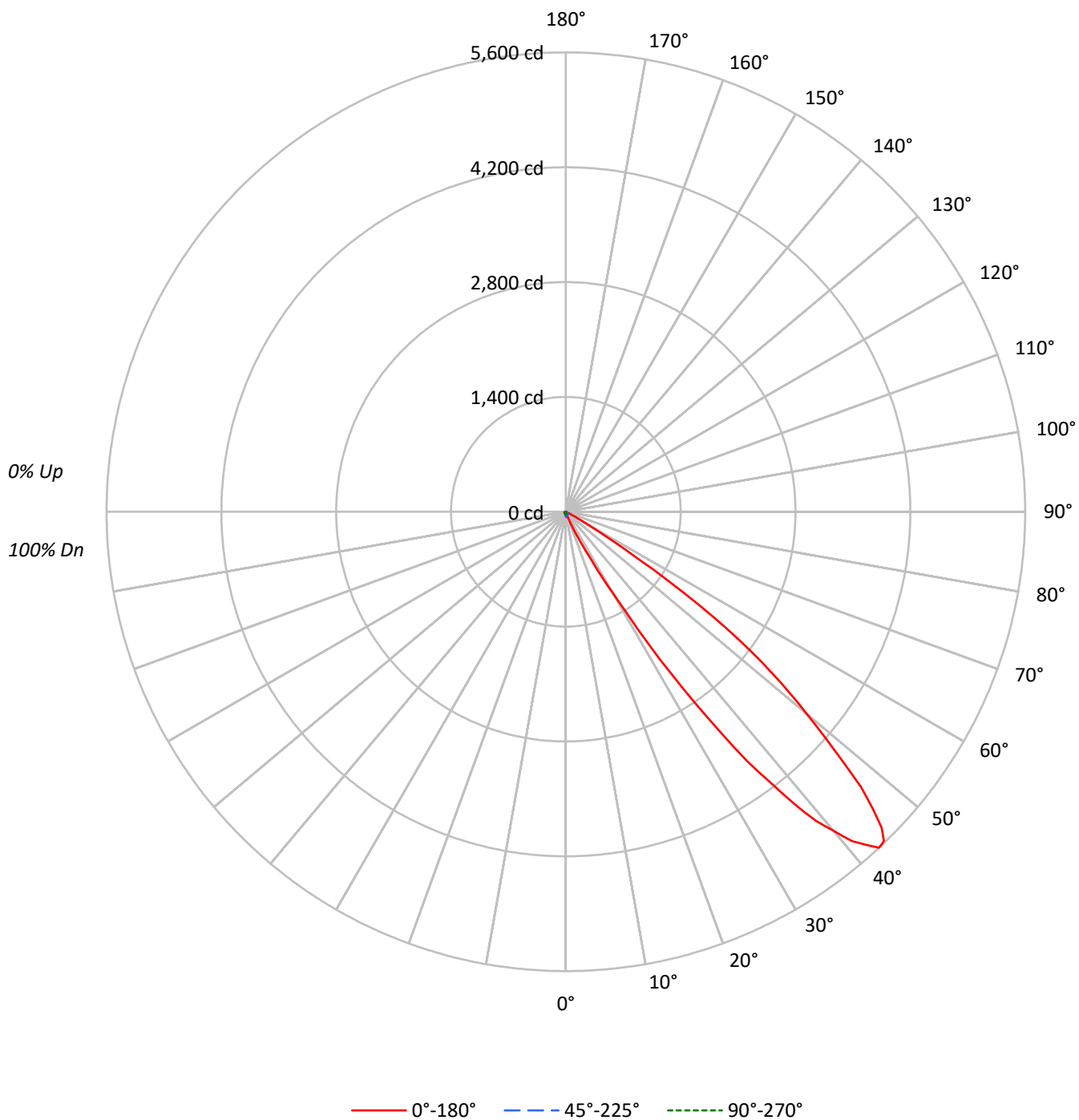
Lumens per Lamp: N/A
Luminaire Lumens: 778.0 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11.1
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
RCR																			
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87	87
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73	73
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63	61	61
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51	51
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42	42
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35	35
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31	29	29
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27	25	25
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	21	21
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19	17	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	9317	9317	9317	9317	9317
5°	10874	10114	8713	7589	7330
10°	10738	9199	6908	5876	5754
15°	9378	7043	5081	4689	4957
20°	13929	5901	3757	4014	4417
25°	60029	6119	2926	3611	4314
30°	226965	7418	2466	3480	4216
35°	688048	8914	2313	3532	4457
40°	1140920	8880	1978	3777	4766
45°	1326133	6065	1778	3921	5163
50°	1029417	3322	1768	4126	5868
55°	595808	2192	1742	4624	6366
60°	100750	517	1516	4788	7061
65°	7743	0	1793	5379	8028
70°	1108	0	2216	5891	9215
75°	998	466	2462	6787	10713
80°	694	694	3670	7240	12298
85°	1383	1383	5730	7311	13042

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1326133 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.6	0.6
10°-20°	9.7	1.3
20°-30°	31.1	4.0
30°-40°	198.4	25.5
40°-50°	363.1	46.7
50°-60°	149.2	19.2
60°-70°	12.6	1.6
70°-80°	6.3	0.8
80°-90°	2.9	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°	45.5	5.8
0°-40°	243.8	31.3
0°-60°	756.2	97.2
0°-90°	778.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	778.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	54	54	54	54	54	
5°	63	58	50	44	42	6
15°	53	40	28	26	28	17
25°	316	32	15	19	23	208
35°	3273	42	11	17	21	2071
45°	5445	25	7	16	21	3909
55°	1984	7	6	15	21	1735
65°	19	0	4	13	20	62
75°	2	1	4	10	16	2
85°	1	1	3	4	7	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°	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
2.5°	59.2	59.2	59.2	58.5	58.5	59.2	58.5	58.5	58.5	58.5	57.8
5°	62.9	62.9	62.9	62.9	62.9	62.9	62.9	62.1	62.1	61.4	58.5
7.5°	64.3	64.3	64.3	64.3	63.6	63.6	63.6	63.6	62.9	62.1	57.0
10°	61.4	61.4	61.4	60.7	60.7	60.7	60.0	60.0	59.2	58.5	52.6
12.5°	55.6	55.6	55.6	55.6	54.8	54.8	54.1	54.1	53.4	52.6	46.1
15°	52.6	52.6	52.6	51.9	51.9	51.2	50.4	49.7	49.0	47.5	39.5
17.5°	57.0	57.0	56.3	56.3	54.8	53.4	52.6	50.4	49.0	46.8	35.1
20°	76.0	76.8	73.8	71.7	70.2	65.8	63.6	60.0	57.0	53.4	32.2
22.5°	153.5	150.6	145.5	137.5	127.9	119.9	105.3	93.6	85.5	74.6	31.4
25°	315.9	312.9	299.0	287.3	258.1	235.4	204.0	178.4	152.1	126.5	32.2
27.5°	600.3	580.5	576.9	523.5	482.6	424.1	363.4	312.2	265.4	213.5	34.4
30°	1141.3	1118.6	1038.9	958.5	848.1	723.1	603.9	492.8	399.9	315.9	37.3
31°	1448.4	1470.3	1376.7	1215.2	1052.1	892.0	728.9	587.8	467.9	363.4	38.8
32°	1903.9	1808.1	1709.4	1543.4	1306.5	1101.8	897.1	693.8	535.9	414.6	40.2
33°	2334.5	2278.2	2127.6	1920.7	1636.3	1348.9	1083.5	818.9	619.3	476.7	40.9
34°	2793.7	2731.5	2609.4	2312.6	2000.4	1623.9	1270.0	962.9	718.7	537.4	41.7
35°	3272.6	3246.2	3010.8	2753.5	2369.6	1915.6	1494.4	1120.8	815.9	593.0	42.4
36°	3754.4	3669.6	3485.3	3109.5	2708.9	2185.4	1729.9	1267.8	914.7	658.8	42.4
37°	4117.0	4098.0	3853.8	3487.5	3016.7	2473.4	1933.1	1430.8	1014.1	715.1	42.4
38°	4517.0	4441.7	4193.8	3820.9	3306.2	2737.4	2145.9	1572.7	1108.4	766.2	41.7
39°	4854.0	4742.2	4492.1	4123.6	3559.2	2937.7	2314.8	1710.1	1191.8	808.6	40.9
40°	5074.8	4997.3	4736.3	4321.8	3788.8	3127.1	2485.9	1823.5	1253.9	840.8	39.5
41°	5318.3	5189.6	4931.5	4514.8	3955.5	3293.8	2593.3	1898.0	1302.2	862.0	38.0
42°	5463.8	5358.5	5052.2	4644.2	4074.6	3388.8	2681.1	1955.1	1331.4	873.0	35.1
43°	5599.8	5456.5	5158.2	4719.5	4153.6	3456.1	2721.3	1981.4	1338.0	873.0	31.4
44°	5581.5	5445.5	5136.2	4729.7	4171.1	3475.8	2738.1	1982.1	1327.7	862.0	27.8
45°	5444.8	5309.5	5031.0	4640.5	4108.3	3437.1	2704.5	1952.9	1299.2	843.0	24.9
46°	5194.0	5059.5	4846.0	4491.4	3991.3	3349.3	2626.2	1889.3	1251.7	812.3	21.9
47°	4921.3	4790.4	4571.8	4250.8	3791.7	3192.9	2512.9	1800.1	1185.2	767.7	19.7
48°	4525.7	4443.9	4224.5	3950.3	3514.6	2947.9	2314.0	1654.6	1096.0	709.9	16.8
49°	4176.3	4090.0	3897.7	3603.0	3153.4	2662.8	2076.4	1477.6	979.7	645.6	14.6
50°	3842.1	3766.8	3589.2	3256.5	2827.3	2318.4	1755.5	1254.6	833.5	565.9	12.4
51°	3515.3	3459.0	3277.7	2972.1	2536.3	2053.8	1520.8	1044.8	688.7	469.4	11.7
52°	3187.0	3180.4	2983.8	2674.5	2253.4	1789.8	1292.7	881.8	584.2	394.1	11.0
53°	2833.9	2791.5	2619.7	2341.8	1937.5	1514.9	1096.0	743.6	503.0	335.6	9.5
54°	2431.8	2384.2	2200.0	1949.2	1582.9	1240.7	883.2	601.0	418.9	283.7	8.8
55°	1984.3	1903.2	1769.4	1512.0	1236.4	946.8	682.2	476.0	334.9	236.2	7.3
56°	1505.4	1424.3	1348.9	1159.6	907.3	706.3	508.1	364.8	261.7	186.4	6.6
57°	1047.0	1042.6	919.0	773.5	606.8	481.1	348.0	257.4	185.0	144.8	5.1
58°	679.2	656.6	577.6	493.5	397.0	300.5	223.7	174.7	125.8	98.7	4.4
59°	476.0	430.6	388.2	329.0	250.0	189.4	144.0	111.9	87.0	68.7	2.9
60°	292.5	283.0	254.4	200.3	162.3	133.8	107.5	82.6	63.6	49.0	1.5
62.5°	83.3	84.8	76.8	68.0	58.5	50.4	45.3	38.8	32.2	25.6	0.0
65°	19.0	18.3	19.7	18.3	16.8	16.8	14.6	13.2	11.7	11.0	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°	5.8	5.8	5.1	5.1	5.1	4.4	4.4	3.7	3.7	2.9	0.0
70°	2.2	2.2	2.2	2.2	2.2	1.5	1.5	1.5	0.7	0.7	0.0
72.5°	2.2	2.2	2.2	1.5	1.5	1.5	1.5	1.5	0.7	0.7	0.7
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.7	0.7	0.7	0.7
77.5°	1.5	1.5	1.5	1.5	1.5	0.7	1.5	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
85°	0.7	0.7	0.7	0.7	0.0	0.0	0.7	0.7	0.7	0.0	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
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°	54.1	54.1	54.1	54.1	54.1	54.1
2.5°	56.3	53.4	51.2	49.0	48.3	48.3
5°	54.8	50.4	46.1	43.9	42.4	42.4
7.5°	50.4	45.3	40.9	38.8	38.0	38.0
10°	45.3	39.5	35.1	33.6	33.6	32.9
12.5°	39.5	33.6	30.7	30.0	30.0	30.0
15°	32.9	28.5	26.3	26.3	27.1	27.8
17.5°	27.8	23.4	22.7	24.1	25.6	25.6
20°	23.4	20.5	20.5	21.9	23.4	24.1
22.5°	19.7	17.5	18.3	20.5	22.7	23.4
25°	17.5	15.4	16.8	19.0	21.2	22.7
27.5°	14.6	13.9	15.4	18.3	21.2	21.9
30°	12.4	12.4	14.6	17.5	20.5	21.2
31°	11.7	11.7	14.6	17.5	20.5	21.2
32°	11.0	11.7	13.9	17.5	20.5	21.2
33°	10.2	11.0	13.9	16.8	20.5	21.2
34°	9.5	11.0	13.9	16.8	20.5	21.2
35°	8.8	11.0	13.9	16.8	20.5	21.2
36°	8.0	10.2	13.2	16.8	20.5	21.2
37°	7.3	10.2	13.2	16.8	20.5	21.2
38°	6.6	9.5	13.2	16.8	20.5	21.2
39°	6.6	9.5	12.4	16.8	19.7	21.2
40°	5.8	8.8	12.4	16.8	19.7	21.2
41°	5.1	8.8	12.4	16.1	19.7	21.2
42°	4.4	8.0	11.7	16.1	19.7	21.2
43°	3.7	8.0	11.7	16.1	19.7	21.2
44°	3.7	7.3	11.7	16.1	19.7	21.2
45°	2.9	7.3	11.7	16.1	19.7	21.2
46°	2.2	7.3	11.7	16.1	19.7	21.2
47°	2.2	6.6	11.0	16.1	19.7	21.2
48°	1.5	6.6	11.0	16.1	19.7	21.2
49°	1.5	6.6	11.0	16.1	19.7	21.9
50°	1.5	6.6	11.0	15.4	19.7	21.9
51°	0.7	6.6	11.0	15.4	19.7	21.9
52°	0.7	6.6	10.2	15.4	20.5	21.9
53°	0.7	5.8	10.2	15.4	20.5	21.9
54°	0.7	5.8	10.2	15.4	20.5	21.2
55°	0.7	5.8	10.2	15.4	19.7	21.2
56°	0.7	5.1	10.2	15.4	19.7	21.2
57°	0.7	5.1	9.5	14.6	19.7	20.5
58°	0.7	5.1	9.5	14.6	19.7	20.5
59°	0.7	5.1	9.5	14.6	19.0	20.5
60°	1.5	4.4	8.8	13.9	19.0	20.5
62.5°	1.5	4.4	8.8	13.9	18.3	19.7
65°	1.5	4.4	8.0	13.2	18.3	19.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.5	3.7	7.3	12.4	17.5	19.0
70°	1.5	4.4	7.3	11.7	16.8	18.3
72.5°	2.2	3.7	6.6	11.0	16.1	17.5
75°	2.2	3.7	6.6	10.2	15.4	16.1
77.5°	2.9	3.7	5.8	8.8	13.9	14.6
80°	2.9	3.7	5.1	7.3	11.7	12.4
82.5°	2.9	3.7	3.7	5.8	8.8	9.5
85°	2.2	2.9	2.9	3.7	5.8	6.6
87.5°	2.2	2.9	2.2	1.5	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)