

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: P1316938

Luminaire Tested: P3SQAS09R209830DE010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1316938
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: P3SQAS09R209830DE010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 98CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

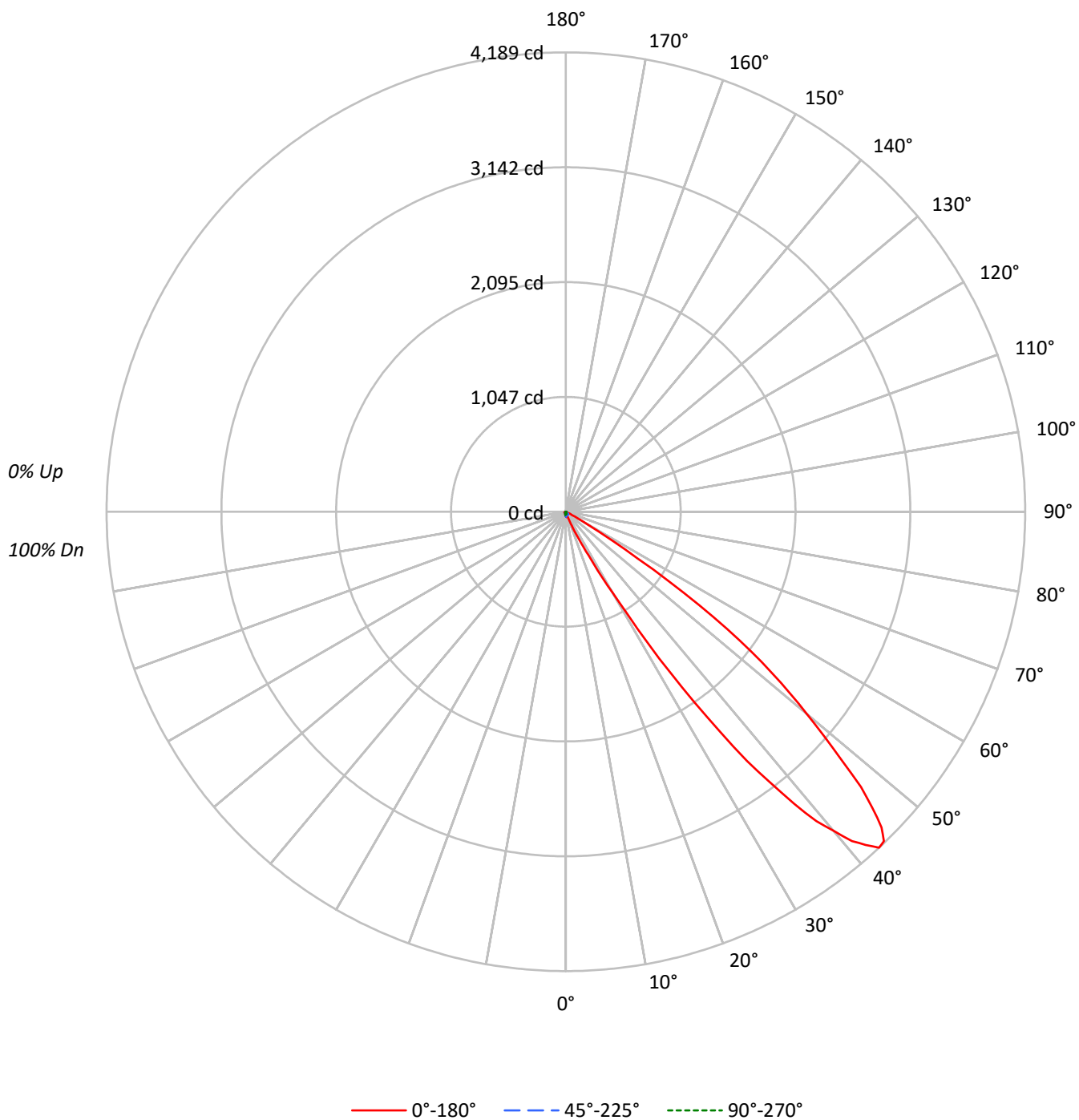
Lumens per Lamp: N/A
Luminaire Lumens: 582.0 lumens
Efficiency: N/A
Efficacy: 52.9 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	108	104	101	97	100	97	94		96	94	92		92
2	101	93	87	82	98	91	86	81	88	83	79		85	81	77		82
3	92	81	74	67	89	80	73	67	77	71	66		74	69	65		72
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48
7	62	48	39	32	60	47	38	32	46	38	32		44	37	32		43
8	57	42	33	27	55	42	33	27	40	33	27		39	32	27		38
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34
10	48	34	25	20	47	33	25	20	32	25	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	6975	6975	6975	6975	6975
5°	8125	7572	6518	5670	5480
10°	8027	6890	5159	4407	4302
15°	7025	5260	3798	3512	3709
20°	10428	4417	2804	3006	3299
25°	44903	4580	2185	2698	3230
30°	169791	5548	1849	2605	3162
35°	514701	6665	1724	2649	3343
40°	853487	6632	1484	2833	3575
45°	992043	4530	1340	2923	3873
50°	770087	2492	1313	3081	4394
55°	445707	1651	1321	3453	4774
60°	75365	379	1137	3582	5270
65°	5787	0	1345	3994	6031
70°	806	0	1662	4431	6899
75°	732	333	1797	5124	7985
80°	496	496	2678	5455	9224
85°	988	988	4347	5335	9683

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 992043 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.5	0.6
10°-20°	7.3	1.3
20°-30°	23.2	4.0
30°-40°	148.4	25.5
40°-50°	271.7	46.7
50°-60°	111.6	19.2
60°-70°	9.4	1.6
70°-80°	4.7	0.8
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°	34.0	5.8
0°-40°	182.4	31.3
0°-60°	565.7	97.2
0°-90°	582.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	582.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	40	40	40	40	40	
5°	47	44	38	33	32	4
15°	39	30	21	20	21	13
25°	236	24	12	14	17	155
35°	2448	32	8	13	16	1550
45°	4073	19	6	12	16	2924
55°	1484	6	4	12	16	1298
65°	14	0	3	10	15	46
75°	1	0	3	8	12	1
85°	0	0	2	3	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°	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5	40.5
2.5°	44.3	44.3	44.3	43.8	43.8	44.3	43.8	43.8	43.8	43.8	43.2
5°	47.0	47.0	47.0	47.0	47.0	47.0	47.0	46.5	46.5	45.9	43.8
7.5°	48.1	48.1	48.1	48.1	47.6	47.6	47.6	47.6	47.0	46.5	42.7
10°	45.9	45.9	45.9	45.4	45.4	45.4	44.8	44.8	44.3	43.8	39.4
12.5°	41.6	41.6	41.6	41.6	41.0	41.0	40.5	40.5	39.9	39.4	34.5
15°	39.4	39.4	39.4	38.8	38.8	38.3	37.7	37.2	36.6	35.6	29.5
17.5°	42.7	42.7	42.1	42.1	41.0	39.9	39.4	37.7	36.6	35.0	26.3
20°	56.9	57.4	55.2	53.6	52.5	49.2	47.6	44.8	42.7	39.9	24.1
22.5°	114.9	112.7	108.8	102.8	95.7	89.7	78.8	70.0	64.0	55.8	23.5
25°	236.3	234.1	223.7	214.9	193.1	176.1	152.6	133.5	113.8	94.6	24.1
27.5°	449.0	434.3	431.5	391.6	361.0	317.2	271.8	233.5	198.5	159.7	25.7
30°	853.8	836.8	777.2	717.0	634.5	540.9	451.8	368.6	299.2	236.3	27.9
31°	1083.5	1099.9	1029.9	909.0	787.1	667.3	545.3	439.7	350.0	271.8	29.0
32°	1424.2	1352.6	1278.8	1154.6	977.4	824.2	671.1	519.0	400.9	310.1	30.1
33°	1746.4	1704.3	1591.6	1436.8	1224.1	1009.1	810.6	612.6	463.3	356.6	30.6
34°	2089.9	2043.4	1952.0	1730.0	1496.4	1214.8	950.0	720.3	537.6	402.0	31.2
35°	2448.1	2428.4	2252.3	2059.8	1772.6	1433.0	1118.0	838.5	610.4	443.6	31.7
36°	2808.6	2745.1	2607.3	2326.2	2026.4	1634.8	1294.1	948.4	684.2	492.8	31.7
37°	3079.8	3065.6	2882.9	2608.9	2256.7	1850.3	1446.1	1070.4	758.6	534.9	31.7
38°	3379.0	3322.7	3137.3	2858.3	2473.3	2047.8	1605.3	1176.5	829.2	573.2	31.2
39°	3631.2	3547.5	3360.4	3084.8	2662.5	2197.6	1731.6	1279.3	891.5	604.9	30.6
40°	3796.3	3738.4	3543.1	3233.0	2834.3	2339.3	1859.6	1364.1	938.0	629.0	29.5
41°	3978.5	3882.2	3689.1	3377.4	2959.0	2464.0	1940.0	1419.9	974.1	644.8	28.4
42°	4087.3	4008.5	3779.4	3474.2	3048.1	2535.1	2005.6	1462.5	996.0	653.1	26.3
43°	4189.0	4081.8	3858.7	3530.5	3107.2	2585.4	2035.7	1482.2	1000.9	653.1	23.5
44°	4175.4	4073.6	3842.3	3538.2	3120.3	2600.2	2048.3	1482.8	993.2	644.8	20.8
45°	4073.1	3971.9	3763.5	3471.4	3073.3	2571.2	2023.1	1460.9	971.9	630.6	18.6
46°	3885.5	3784.8	3625.1	3359.9	2985.8	2505.5	1964.6	1413.3	936.4	607.7	16.4
47°	3681.5	3583.6	3420.0	3179.9	2836.4	2388.5	1879.8	1346.6	886.6	574.3	14.8
48°	3385.6	3324.3	3160.2	2955.1	2629.2	2205.3	1731.1	1237.7	819.9	531.1	12.6
49°	3124.1	3059.6	2915.8	2695.3	2359.0	1992.0	1553.3	1105.4	732.9	483.0	10.9
50°	2874.2	2817.9	2684.9	2436.1	2115.0	1734.4	1313.2	938.6	623.5	423.3	9.3
51°	2629.7	2587.6	2451.9	2223.3	1897.3	1536.4	1137.6	781.6	515.2	351.1	8.8
52°	2384.1	2379.2	2232.1	2000.7	1685.7	1338.9	967.0	659.6	437.0	294.8	8.2
53°	2120.0	2088.2	1959.7	1751.9	1449.4	1133.3	819.9	556.2	376.3	251.0	7.1
54°	1819.1	1783.6	1645.8	1458.2	1184.1	928.2	660.7	449.6	313.4	212.2	6.6
55°	1484.4	1423.7	1323.6	1131.1	924.9	708.3	510.3	356.1	250.5	176.7	5.5
56°	1126.2	1065.4	1009.1	867.5	678.8	528.3	380.1	272.9	195.8	139.5	4.9
57°	783.2	779.9	687.5	578.7	454.0	359.9	260.3	192.5	138.4	108.3	3.8
58°	508.1	491.2	432.1	369.2	297.0	224.8	167.4	130.7	94.1	73.8	3.3
59°	356.1	322.1	290.4	246.1	187.1	141.7	107.7	83.7	65.1	51.4	2.2
60°	218.8	211.7	190.3	149.9	121.4	100.1	80.4	61.8	47.6	36.6	1.1
62.5°	62.4	63.4	57.4	50.9	43.8	37.7	33.9	29.0	24.1	19.1	0.0
65°	14.2	13.7	14.8	13.7	12.6	12.6	10.9	9.8	8.8	8.2	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°	4.4	4.4	3.8	3.8	3.8	3.3	3.3	2.7	2.7	2.2	0.0
70°	1.6	1.6	1.6	1.6	1.6	1.1	1.1	1.1	0.5	0.5	0.0
72.5°	1.6	1.6	1.6	1.1	1.1	1.1	1.1	1.1	0.5	0.5	0.5
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.5	0.5	0.5	0.5
77.5°	1.1	1.1	1.1	1.1	1.1	0.5	1.1	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.0	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°	40.5	40.5	40.5	40.5	40.5	40.5
2.5°	42.1	39.9	38.3	36.6	36.1	36.1
5°	41.0	37.7	34.5	32.8	31.7	31.7
7.5°	37.7	33.9	30.6	29.0	28.4	28.4
10°	33.9	29.5	26.3	25.2	25.2	24.6
12.5°	29.5	25.2	23.0	22.4	22.4	22.4
15°	24.6	21.3	19.7	19.7	20.2	20.8
17.5°	20.8	17.5	17.0	18.0	19.1	19.1
20°	17.5	15.3	15.3	16.4	17.5	18.0
22.5°	14.8	13.1	13.7	15.3	17.0	17.5
25°	13.1	11.5	12.6	14.2	15.9	17.0
27.5°	10.9	10.4	11.5	13.7	15.9	16.4
30°	9.3	9.3	10.9	13.1	15.3	15.9
31°	8.8	8.8	10.9	13.1	15.3	15.9
32°	8.2	8.8	10.4	13.1	15.3	15.9
33°	7.7	8.2	10.4	12.6	15.3	15.9
34°	7.1	8.2	10.4	12.6	15.3	15.9
35°	6.6	8.2	10.4	12.6	15.3	15.9
36°	6.0	7.7	9.8	12.6	15.3	15.9
37°	5.5	7.7	9.8	12.6	15.3	15.9
38°	4.9	7.1	9.8	12.6	15.3	15.9
39°	4.9	7.1	9.3	12.6	14.8	15.9
40°	4.4	6.6	9.3	12.6	14.8	15.9
41°	3.8	6.6	9.3	12.0	14.8	15.9
42°	3.3	6.0	8.8	12.0	14.8	15.9
43°	2.7	6.0	8.8	12.0	14.8	15.9
44°	2.7	5.5	8.8	12.0	14.8	15.9
45°	2.2	5.5	8.8	12.0	14.8	15.9
46°	1.6	5.5	8.8	12.0	14.8	15.9
47°	1.6	4.9	8.2	12.0	14.8	15.9
48°	1.1	4.9	8.2	12.0	14.8	15.9
49°	1.1	4.9	8.2	12.0	14.8	16.4
50°	1.1	4.9	8.2	11.5	14.8	16.4
51°	0.5	4.9	8.2	11.5	14.8	16.4
52°	0.5	4.9	7.7	11.5	15.3	16.4
53°	0.5	4.4	7.7	11.5	15.3	16.4
54°	0.5	4.4	7.7	11.5	15.3	15.9
55°	0.5	4.4	7.7	11.5	14.8	15.9
56°	0.5	3.8	7.7	11.5	14.8	15.9
57°	0.5	3.8	7.1	10.9	14.8	15.3
58°	0.5	3.8	7.1	10.9	14.8	15.3
59°	0.5	3.8	7.1	10.9	14.2	15.3
60°	1.1	3.3	6.6	10.4	14.2	15.3
62.5°	1.1	3.3	6.6	10.4	13.7	14.8
65°	1.1	3.3	6.0	9.8	13.7	14.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.1	2.7	5.5	9.3	13.1	14.2
70°	1.1	3.3	5.5	8.8	12.6	13.7
72.5°	1.6	2.7	4.9	8.2	12.0	13.1
75°	1.6	2.7	4.9	7.7	11.5	12.0
77.5°	2.2	2.7	4.4	6.6	10.4	10.9
80°	2.2	2.7	3.8	5.5	8.8	9.3
82.5°	2.2	2.7	2.7	4.4	6.6	7.1
85°	1.6	2.2	2.2	2.7	4.4	4.9
87.5°	1.6	2.2	1.6	1.1	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)