

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: P1310042

Luminaire Tested: P3SQAS09R209040DE010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1310042
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: P3SQAS09R209040DE010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

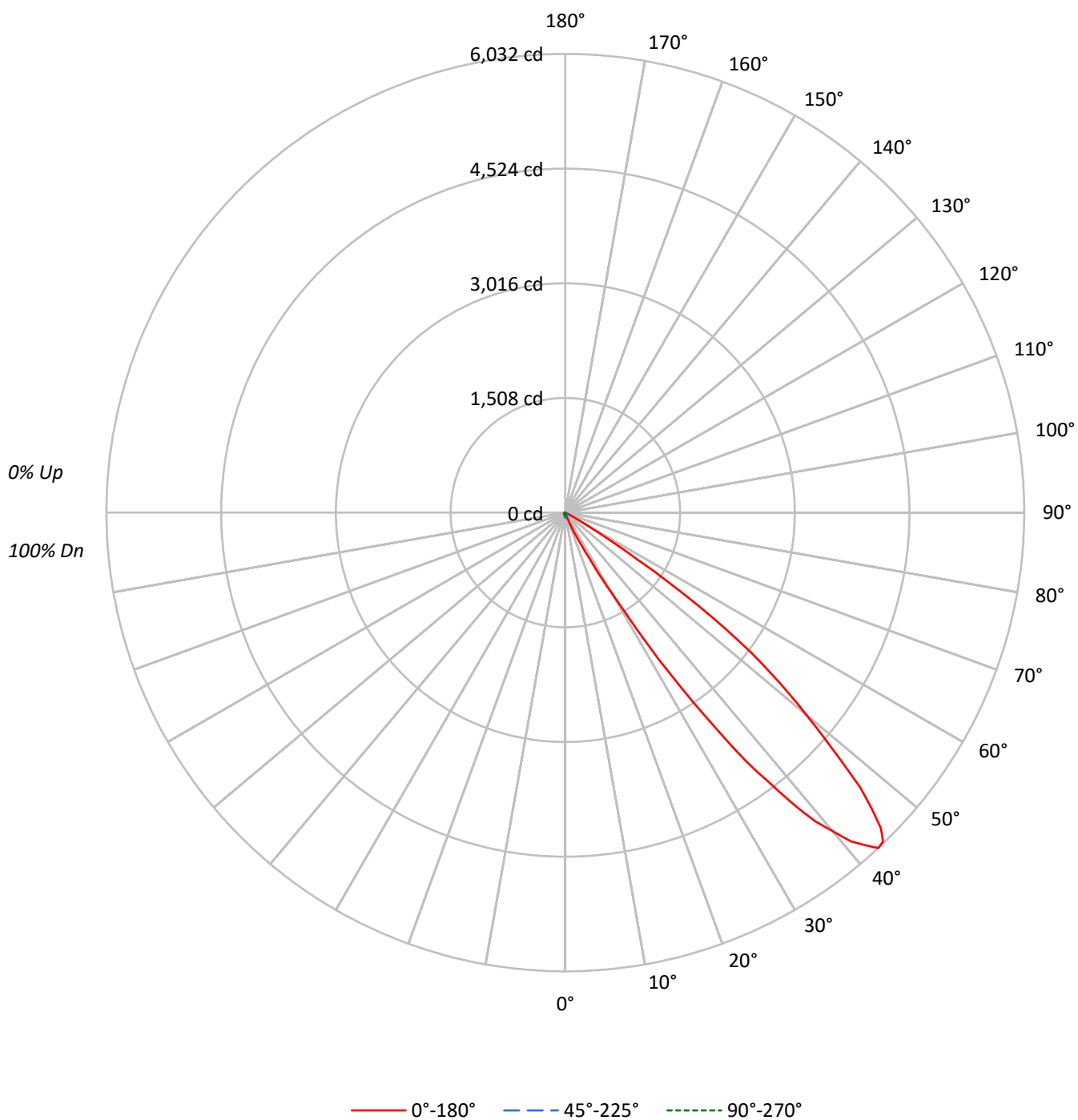
Lumens per Lamp: N/A
Luminaire Lumens: 838.0 lumens
Efficiency: N/A
Efficacy: 75.5 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	10041	10041	10041	10041	10041
5°	11704	10891	9387	8177	7901
10°	11577	9916	7432	6331	6191
15°	10109	7578	5474	5064	5331
20°	15010	6360	4050	4325	4765
25°	64647	6594	3135	3896	4637
30°	244465	7994	2665	3759	4534
35°	741114	9608	2481	3805	4794
40°	1228915	9555	2136	4069	5126
45°	1428404	6527	1924	4214	5553
50°	1108805	3590	1902	4421	6323
55°	641748	2372	1892	4954	6846
60°	108500	551	1619	5167	7612
65°	8354	0	1915	5787	8680
70°	1209	0	2367	6345	9920
75°	1065	532	2595	7320	11512
80°	793	793	3868	7835	13290
85°	1581	1581	6323	7707	14030

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1428404 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.0	0.6
10°-20°	10.5	1.3
20°-30°	33.5	4.0
30°-40°	213.7	25.5
40°-50°	391.2	46.7
50°-60°	160.7	19.2
60°-70°	13.6	1.6
70°-80°	6.8	0.8
80°-90°	3.2	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°	49.0	5.8
0°-40°	262.7	31.3
0°-60°	814.5	97.2
0°-90°	838.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	838.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	58	58	58	58	58	
5°	68	63	54	47	46	6
15°	57	42	31	28	30	18
25°	340	35	16	20	24	224
35°	3525	46	12	18	23	2231
45°	5865	27	8	17	23	4211
55°	2137	8	6	16	23	1868
65°	20	0	5	14	21	67
75°	2	1	4	11	17	2
85°	1	1	3	4	7	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°	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3
2.5°	63.8	63.8	63.8	63.0	63.0	63.8	63.0	63.0	63.0	63.0	62.2
5°	67.7	67.7	67.7	67.7	67.7	67.7	67.7	66.9	66.9	66.2	63.0
7.5°	69.3	69.3	69.3	69.3	68.5	68.5	68.5	68.5	67.7	66.9	61.4
10°	66.2	66.2	66.2	65.4	65.4	65.4	64.6	64.6	63.8	63.0	56.7
12.5°	59.9	59.9	59.9	59.9	59.1	59.1	58.3	58.3	57.5	56.7	49.6
15°	56.7	56.7	56.7	55.9	55.9	55.1	54.3	53.6	52.8	51.2	42.5
17.5°	61.4	61.4	60.6	60.6	59.1	57.5	56.7	54.3	52.8	50.4	37.8
20°	81.9	82.7	79.5	77.2	75.6	70.9	68.5	64.6	61.4	57.5	34.7
22.5°	165.4	162.2	156.7	148.1	137.8	129.2	113.4	100.8	92.1	80.3	33.9
25°	340.2	337.1	322.1	309.5	278.0	253.6	219.7	192.2	163.8	136.2	34.7
27.5°	646.6	625.3	621.4	563.9	519.8	456.8	391.4	336.3	285.9	230.0	37.0
30°	1229.3	1204.9	1119.1	1032.4	913.5	778.9	650.5	530.8	430.8	340.2	40.2
31°	1560.1	1583.7	1482.9	1308.9	1133.2	960.8	785.2	633.2	504.0	391.4	41.7
32°	2050.7	1947.5	1841.2	1662.5	1407.3	1186.8	966.3	747.4	577.3	446.5	43.3
33°	2514.6	2453.9	2291.7	2068.8	1762.5	1453.0	1167.1	882.0	667.0	513.5	44.1
34°	3009.1	2942.2	2810.7	2490.9	2154.7	1749.1	1367.9	1037.2	774.1	578.8	44.9
35°	3525.0	3496.6	3243.0	2965.8	2552.4	2063.3	1609.7	1207.3	878.9	638.7	45.7
36°	4043.9	3952.6	3754.1	3349.3	2917.8	2353.9	1863.3	1365.6	985.2	709.6	45.7
37°	4434.5	4414.1	4151.0	3756.5	3249.3	2664.2	2082.2	1541.2	1092.3	770.2	45.7
38°	4865.3	4784.2	4517.2	4115.6	3561.2	2948.5	2311.4	1694.0	1193.9	825.3	44.9
39°	5228.4	5107.9	4838.5	4441.6	3833.7	3164.3	2493.3	1842.0	1283.7	871.0	44.1
40°	5466.2	5382.7	5101.6	4655.1	4080.9	3368.2	2677.6	1964.1	1350.6	905.7	42.5
41°	5728.4	5589.8	5311.8	4863.0	4260.5	3547.8	2793.3	2044.4	1402.6	928.5	41.0
42°	5885.2	5771.8	5441.8	5002.3	4388.9	3650.2	2887.8	2105.8	1434.1	940.3	37.8
43°	6031.6	5877.3	5556.0	5083.5	4473.9	3722.6	2931.2	2134.2	1441.2	940.3	33.9
44°	6012.0	5865.5	5532.4	5094.5	4492.8	3743.9	2949.3	2135.0	1430.1	928.5	29.9
45°	5864.7	5719.0	5418.9	4998.4	4425.1	3702.1	2913.0	2103.5	1399.4	908.0	26.8
46°	5594.6	5449.7	5219.7	4837.8	4299.1	3607.6	2828.8	2035.0	1348.2	874.9	23.6
47°	5300.8	5159.9	4924.4	4578.7	4084.1	3439.1	2706.7	1938.9	1276.6	826.9	21.3
48°	4874.8	4786.6	4550.3	4255.0	3785.6	3175.3	2492.5	1782.2	1180.5	764.7	18.1
49°	4498.3	4405.4	4198.3	3880.9	3396.6	2868.2	2236.6	1591.6	1055.3	695.4	15.8
50°	4138.4	4057.3	3866.0	3507.6	3045.4	2497.2	1890.8	1351.4	897.8	609.5	13.4
51°	3786.4	3725.8	3530.5	3201.3	2731.9	2212.2	1638.0	1125.4	741.8	505.6	12.6
52°	3432.8	3425.7	3213.9	2880.8	2427.1	1927.9	1392.3	949.8	629.2	424.5	11.8
53°	3052.4	3006.8	2821.7	2522.4	2086.9	1631.7	1180.5	800.9	541.8	361.5	10.2
54°	2619.3	2568.1	2369.7	2099.5	1705.0	1336.4	951.3	647.3	451.3	305.6	9.5
55°	2137.3	2049.9	1905.8	1628.6	1331.7	1019.8	734.8	512.7	360.7	254.4	7.9
56°	1621.5	1534.1	1453.0	1249.0	977.3	760.7	547.3	393.0	281.9	200.8	7.1
57°	1127.7	1123.0	989.9	833.2	653.6	518.2	374.9	277.2	199.2	155.9	5.5
58°	731.6	707.2	622.1	531.6	427.6	323.7	241.0	188.2	135.5	106.3	4.7
59°	512.7	463.9	418.2	354.4	269.3	204.0	155.1	120.5	93.7	74.0	3.2
60°	315.0	304.8	274.1	215.8	174.8	144.1	115.8	89.0	68.5	52.8	1.6
62.5°	89.8	91.4	82.7	73.2	63.0	54.3	48.8	41.7	34.7	27.6	0.0
65°	20.5	19.7	21.3	19.7	18.1	18.1	15.8	14.2	12.6	11.8	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°	6.3	6.3	5.5	5.5	5.5	4.7	4.7	3.9	3.9	3.2	0.0
70°	2.4	2.4	2.4	2.4	2.4	1.6	1.6	1.6	0.8	0.8	0.0
72.5°	2.4	2.4	2.4	1.6	1.6	1.6	1.6	1.6	0.8	0.8	0.8
75°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.8	0.8	0.8	0.8
77.5°	1.6	1.6	1.6	1.6	1.6	0.8	1.6	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
85°	0.8	0.8	0.8	0.8	0.0	0.0	0.8	0.8	0.8	0.0	0.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
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°	58.3	58.3	58.3	58.3	58.3	58.3
2.5°	60.6	57.5	55.1	52.8	52.0	52.0
5°	59.1	54.3	49.6	47.3	45.7	45.7
7.5°	54.3	48.8	44.1	41.7	41.0	41.0
10°	48.8	42.5	37.8	36.2	36.2	35.4
12.5°	42.5	36.2	33.1	32.3	32.3	32.3
15°	35.4	30.7	28.4	28.4	29.1	29.9
17.5°	29.9	25.2	24.4	26.0	27.6	27.6
20°	25.2	22.1	22.1	23.6	25.2	26.0
22.5°	21.3	18.9	19.7	22.1	24.4	25.2
25°	18.9	16.5	18.1	20.5	22.8	24.4
27.5°	15.8	15.0	16.5	19.7	22.8	23.6
30°	13.4	13.4	15.8	18.9	22.1	22.8
31°	12.6	12.6	15.8	18.9	22.1	22.8
32°	11.8	12.6	15.0	18.9	22.1	22.8
33°	11.0	11.8	15.0	18.1	22.1	22.8
34°	10.2	11.8	15.0	18.1	22.1	22.8
35°	9.5	11.8	15.0	18.1	22.1	22.8
36°	8.7	11.0	14.2	18.1	22.1	22.8
37°	7.9	11.0	14.2	18.1	22.1	22.8
38°	7.1	10.2	14.2	18.1	22.1	22.8
39°	7.1	10.2	13.4	18.1	21.3	22.8
40°	6.3	9.5	13.4	18.1	21.3	22.8
41°	5.5	9.5	13.4	17.3	21.3	22.8
42°	4.7	8.7	12.6	17.3	21.3	22.8
43°	3.9	8.7	12.6	17.3	21.3	22.8
44°	3.9	7.9	12.6	17.3	21.3	22.8
45°	3.2	7.9	12.6	17.3	21.3	22.8
46°	2.4	7.9	12.6	17.3	21.3	22.8
47°	2.4	7.1	11.8	17.3	21.3	22.8
48°	1.6	7.1	11.8	17.3	21.3	22.8
49°	1.6	7.1	11.8	17.3	21.3	23.6
50°	1.6	7.1	11.8	16.5	21.3	23.6
51°	0.8	7.1	11.8	16.5	21.3	23.6
52°	0.8	7.1	11.0	16.5	22.1	23.6
53°	0.8	6.3	11.0	16.5	22.1	23.6
54°	0.8	6.3	11.0	16.5	22.1	22.8
55°	0.8	6.3	11.0	16.5	21.3	22.8
56°	0.8	5.5	11.0	16.5	21.3	22.8
57°	0.8	5.5	10.2	15.8	21.3	22.1
58°	0.8	5.5	10.2	15.8	21.3	22.1
59°	0.8	5.5	10.2	15.8	20.5	22.1
60°	1.6	4.7	9.5	15.0	20.5	22.1
62.5°	1.6	4.7	9.5	15.0	19.7	21.3
65°	1.6	4.7	8.7	14.2	19.7	21.3



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.6	3.9	7.9	13.4	18.9	20.5
70°	1.6	4.7	7.9	12.6	18.1	19.7
72.5°	2.4	3.9	7.1	11.8	17.3	18.9
75°	2.4	3.9	7.1	11.0	16.5	17.3
77.5°	3.2	3.9	6.3	9.5	15.0	15.8
80°	3.2	3.9	5.5	7.9	12.6	13.4
82.5°	3.2	3.9	3.9	6.3	9.5	10.2
85°	2.4	3.2	3.2	3.9	6.3	7.1
87.5°	2.4	3.2	2.4	1.6	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)