

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: P1311185

Luminaire Tested: P3SQAS09R409050DE010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1311185
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 1/29/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3SQAS09R409050DE010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 5000K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

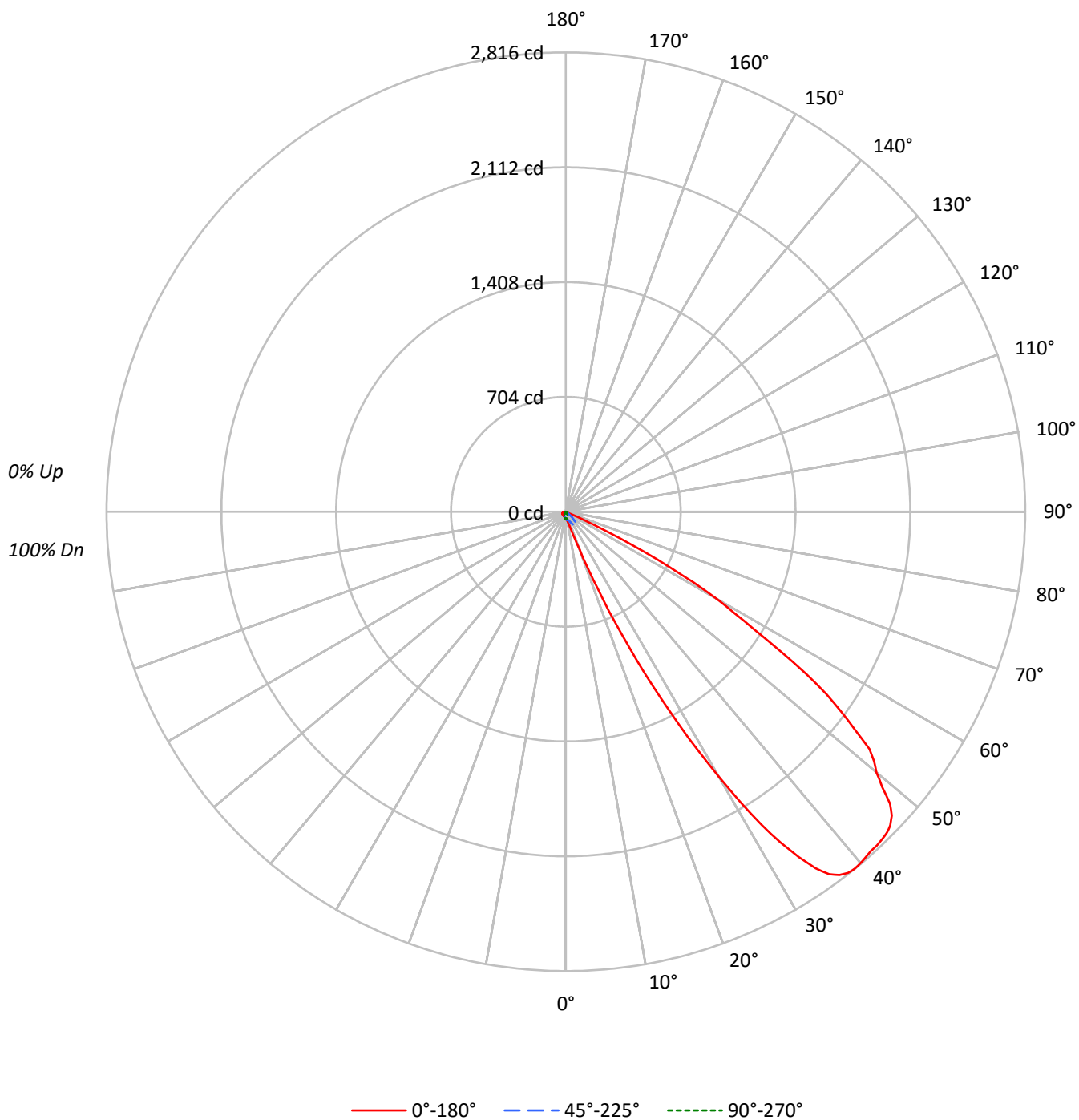
Lumens per Lamp: N/A
Luminaire Lumens: 870.1 lumens
Efficiency: N/A
Efficacy: 78.4 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1311185

CATALOG NUMBER: P3SQAS09R409050DE010 E3SQCA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1311185

CATALOG NUMBER: P3SQAS09R409050DE010 E3SQCA451MMS

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	0
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	99	97	94		96	93	91		92	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81	78	75	72
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71	66	62	60
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62	57	52	50
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54	49	44	42
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48	42	37	35
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42	36	31	29
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38	31	26	24
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	20		31	24	20		30	24	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	7698	7698	7698	7698	7698
5°	8558	8281	7589	6898	6760
10°	10335	8796	6978	6296	6156
15°	16956	9539	5991	5563	5706
20°	44811	11271	4985	4985	5425
25°	172772	13967	3953	4561	5321
30°	372754	18594	3182	4455	5250
35°	561060	22013	2691	4373	5382
40°	632106	22100	2338	4496	5755
45°	677778	17122	2143	4676	6235
50°	666183	10690	1929	4930	6859
55°	586079	5285	1922	5525	7687
60°	370968	1102	2204	6062	8542
65°	75879	326	2282	6520	9454
70°	1611	403	2417	7251	10877
75°	1597	1065	2662	7985	12244
80°	1587	793	3174	8728	14282
85°	1581	1581	6323	9485	15808

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 690029 cd/sqm

TEST NUMBER: P1311185

CATALOG NUMBER: P3SQAS09R409050DE010 E3SQCA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.2	0.5
10°-20°	13.8	1.6
20°-30°	67.6	7.8
30°-40°	219.8	25.3
40°-50°	303.0	34.8
50°-60°	211.1	24.3
60°-70°	40.0	4.6
70°-80°	7.2	0.8
80°-90°	3.3	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°	85.6	9.8
0°-40°	305.4	35.1
0°-60°	819.5	94.2
0°-90°	870.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	870.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	45	45	45	45	45	
5°	50	48	44	40	39	5
15°	95	54	34	31	32	35
25°	909	74	21	24	28	468
35°	2669	105	13	21	26	1613
45°	2783	70	9	19	26	2116
55°	1952	18	6	18	26	1668
65°	186	1	6	16	23	329
75°	2	2	4	12	18	2
85°	1	1	3	5	8	1
90°	0	0	0	0	0	

TEST NUMBER: P1311185

CATALOG NUMBER: P3SQAS09R409050DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7
2.5°	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3	45.5	44.7
5°	49.5	49.5	49.5	49.5	48.7	48.7	48.7	47.9	47.9	46.3	43.9
7.5°	52.7	52.7	52.7	52.7	51.9	51.1	50.3	50.3	49.5	45.5	42.3
10°	59.1	59.1	58.3	57.5	56.7	55.1	54.3	52.7	50.3	44.7	39.9
12.5°	71.9	70.3	69.5	67.9	65.5	62.3	59.1	56.7	51.1	43.1	37.6
15°	95.1	93.5	90.3	85.5	80.7	74.3	68.7	63.1	53.5	40.7	33.6
17.5°	135.8	131.0	126.2	118.2	106.3	95.1	83.1	72.7	56.7	38.4	30.4
20°	244.5	241.3	212.5	190.2	154.2	128.6	104.7	87.1	61.5	36.0	27.2
22.5°	504.2	470.6	423.5	346.8	270.1	198.9	144.6	109.5	66.3	32.8	24.0
25°	909.2	856.5	755.0	607.2	448.2	317.2	209.3	143.0	73.5	29.6	20.8
27.5°	1376.6	1323.1	1165.7	962.0	702.3	478.6	298.8	189.4	83.1	26.4	18.4
30°	1874.4	1828.9	1629.1	1347.1	989.9	670.3	400.3	236.5	93.5	23.2	16.0
31°	2074.9	2016.6	1800.9	1500.5	1125.0	749.4	441.0	256.5	97.5	22.4	15.2
32°	2259.5	2193.2	1969.5	1647.5	1234.4	834.9	485.8	274.0	100.7	20.8	14.4
33°	2418.5	2341.0	2125.3	1786.5	1355.1	914.8	532.1	290.8	103.1	19.2	13.6
34°	2553.5	2486.4	2254.7	1926.3	1462.1	991.5	577.7	307.6	104.7	18.4	12.8
35°	2668.6	2607.9	2378.5	2032.6	1566.8	1065.8	619.2	323.6	104.7	16.8	12.8
36°	2746.1	2693.3	2485.6	2141.3	1654.7	1129.0	654.4	338.0	104.7	15.2	12.0
37°	2788.4	2737.3	2555.9	2230.7	1741.0	1191.3	686.3	349.2	103.9	14.4	11.2
38°	2810.0	2765.2	2607.9	2303.4	1800.9	1236.0	714.3	357.9	103.1	12.8	11.2
39°	2815.6	2778.0	2640.6	2356.2	1859.2	1280.8	734.3	362.7	100.7	12.0	10.4
40°	2811.6	2778.8	2658.2	2403.3	1904.0	1315.9	748.6	364.3	98.3	10.4	10.4
41°	2803.6	2778.0	2671.0	2436.1	1939.9	1338.3	754.2	361.1	95.1	8.8	9.6
42°	2796.4	2768.4	2676.6	2458.4	1964.7	1349.5	753.4	354.7	90.3	8.0	9.6
43°	2796.4	2764.5	2677.4	2472.8	1976.7	1350.3	743.8	342.8	83.9	7.2	8.8
44°	2791.6	2762.1	2681.4	2482.4	1979.9	1343.1	728.7	330.0	76.7	6.4	8.8
45°	2782.8	2751.7	2680.6	2483.2	1974.3	1325.5	703.9	313.2	70.3	4.8	8.8
46°	2766.0	2738.1	2673.4	2477.6	1957.5	1299.9	674.3	296.4	63.1	4.0	8.0
47°	2732.5	2710.9	2654.2	2458.4	1931.9	1262.4	639.2	277.2	57.5	3.2	8.0
48°	2675.0	2659.8	2621.4	2416.1	1883.2	1216.0	601.6	256.5	51.9	3.2	8.0
49°	2569.5	2557.5	2535.1	2348.2	1820.9	1159.3	560.9	233.3	46.3	2.4	8.0
50°	2486.4	2473.6	2428.1	2233.9	1731.4	1087.4	516.1	210.1	39.9	1.6	7.2
51°	2431.3	2410.5	2338.6	2101.3	1601.1	991.5	467.4	187.0	33.6	1.6	7.2
52°	2361.8	2330.6	2241.1	1982.3	1482.1	895.6	414.7	163.8	29.6	1.6	7.2
53°	2216.4	2205.2	2116.5	1854.4	1363.0	803.8	360.3	144.6	25.6	1.6	7.2
54°	2089.3	2072.5	1951.9	1677.0	1233.6	701.5	304.4	127.8	21.6	1.6	7.2
55°	1951.9	1919.1	1812.1	1527.6	1081.8	607.2	250.9	110.3	17.6	1.6	6.4
56°	1778.5	1749.8	1634.7	1367.8	942.0	511.3	210.1	90.3	13.6	1.6	6.4
57°	1567.6	1541.2	1452.5	1171.3	796.6	417.9	171.0	72.7	10.4	1.6	6.4
58°	1363.8	1334.3	1232.8	982.7	643.2	331.6	143.0	59.1	8.0	1.6	6.4
59°	1207.2	1167.3	1036.3	825.3	503.4	251.7	113.5	47.1	5.6	1.6	6.4
60°	1077.0	1044.3	908.4	687.1	394.7	185.4	83.9	36.0	3.2	1.6	6.4
62.5°	624.0	615.2	493.0	353.9	186.2	86.3	41.5	16.8	1.6	2.4	6.4
65°	186.2	162.2	126.2	75.1	47.9	28.8	15.2	5.6	0.8	2.4	5.6



TEST NUMBER: P1311185

CATALOG NUMBER: P3SQAS09R409050DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	5.6	5.6	5.6	5.6	5.6	5.6	3.2	1.6	0.8	2.4	5.6
70°	3.2	2.4	2.4	2.4	2.4	1.6	1.6	0.8	0.8	2.4	4.8
72.5°	2.4	2.4	2.4	2.4	1.6	1.6	1.6	0.8	1.6	2.4	4.0
75°	2.4	1.6	1.6	1.6	1.6	0.8	0.8	0.8	1.6	2.4	4.0
77.5°	1.6	1.6	1.6	1.6	0.8	0.8	0.8	0.8	1.6	2.4	4.0
80°	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	2.4	3.2
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	2.4	3.2
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	2.4	3.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1311185

CATALOG NUMBER: P3SQAS09R409050DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	44.7	44.7	44.7	44.7
2.5°	43.1	42.3	41.5	41.5
5°	41.5	39.9	39.9	39.1
7.5°	39.1	37.6	37.6	37.6
10°	36.8	36.0	36.0	35.2
12.5°	33.6	33.6	33.6	33.6
15°	31.2	31.2	32.0	32.0
17.5°	28.0	28.8	30.4	31.2
20°	25.6	27.2	28.8	29.6
22.5°	24.0	25.6	28.0	28.8
25°	21.6	24.0	27.2	28.0
27.5°	20.0	23.2	25.6	27.2
30°	18.4	22.4	24.8	26.4
31°	18.4	21.6	24.8	26.4
32°	17.6	20.8	24.8	25.6
33°	17.6	20.8	24.8	25.6
34°	16.8	20.8	24.0	25.6
35°	16.8	20.8	24.0	25.6
36°	16.0	20.0	24.0	25.6
37°	16.0	20.0	24.0	25.6
38°	15.2	20.0	24.0	25.6
39°	15.2	20.0	24.0	25.6
40°	15.2	20.0	24.0	25.6
41°	14.4	20.0	24.0	25.6
42°	14.4	20.0	24.0	25.6
43°	14.4	19.2	24.0	25.6
44°	14.4	19.2	24.0	25.6
45°	13.6	19.2	24.0	25.6
46°	13.6	19.2	24.0	25.6
47°	13.6	19.2	24.0	25.6
48°	13.6	19.2	24.0	25.6
49°	13.6	19.2	24.0	25.6
50°	12.8	18.4	24.0	25.6
51°	12.8	18.4	24.0	25.6
52°	12.8	18.4	24.0	25.6
53°	12.8	18.4	24.0	25.6
54°	12.0	18.4	24.0	25.6
55°	12.0	18.4	24.0	25.6
56°	12.0	18.4	24.0	24.8
57°	12.0	18.4	23.2	24.8
58°	12.0	17.6	23.2	24.8
59°	12.0	17.6	23.2	24.8
60°	12.0	17.6	23.2	24.8
62.5°	11.2	17.6	22.4	24.0
65°	10.4	16.0	22.4	23.2



TEST NUMBER: P1311185

CATALOG NUMBER: P3SQAS09R409050DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	10.4	15.2	20.8	22.4
70°	9.6	14.4	20.0	21.6
72.5°	8.0	13.6	18.4	20.0
75°	7.2	12.0	16.8	18.4
77.5°	6.4	10.4	15.2	16.0
80°	5.6	8.8	12.8	14.4
82.5°	4.0	6.4	10.4	11.2
85°	3.2	4.8	7.2	8.0
87.5°	2.4	2.4	4.0	4.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)