

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: P1306755

Luminaire Tested: P3SQAS09R409027DE010 E3SQCA451MW

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1306755
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: P3SQAS09R409027DE010 E3SQCA451MW
Description: 3in Adjustable LED luminaire with, R40 optic, 2700K CCT AND, 90CRI , E3SQCA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

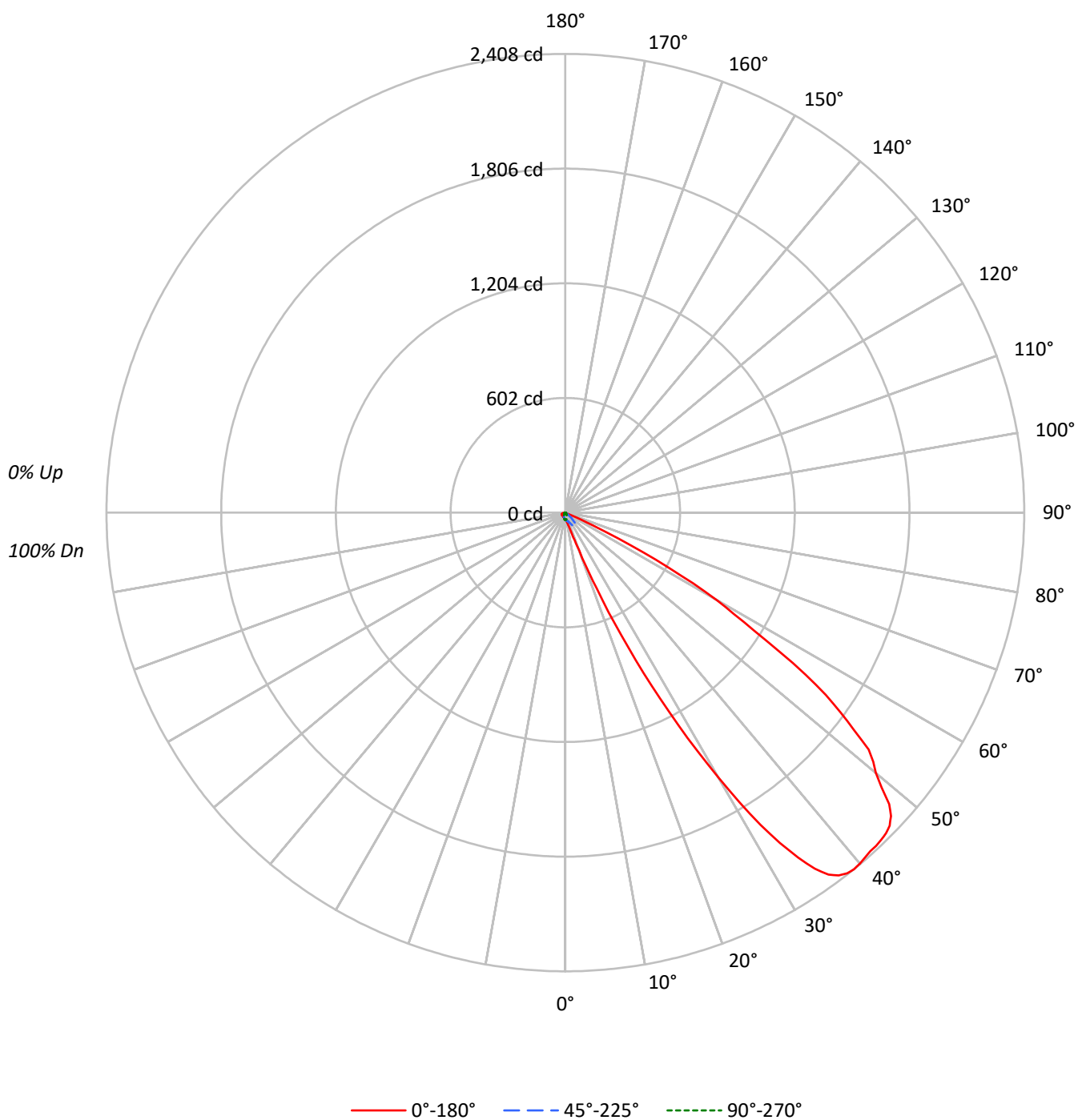
Lumens per Lamp: N/A
Luminaire Lumens: 744.0 lumens
Efficiency: N/A
Efficacy: 67.0 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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: P1306755

CATALOG NUMBER: P3SQAS09R409027DE010 E3SQCA451MW

Luminous Intensity Polar Plot



TEST NUMBER: P1306755

CATALOG NUMBER: P3SQAS09R409027DE010 E3SQCA451MW

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	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	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°	6596	6596	6596	6596	6596
5°	7330	7088	6500	5913	5791
10°	8849	7520	5981	5369	5264
15°	14496	8166	5117	4743	4868
20°	38323	9640	4252	4252	4637
25°	147765	11953	3382	3896	4542
30°	318762	15889	2724	3798	4474
35°	479800	18817	2292	3742	4604
40°	540559	18885	2001	3844	4924
45°	579623	14638	1827	3994	5334
50°	569701	9163	1634	4207	5868
55°	501196	4504	1651	4714	6576
60°	317234	930	1894	5167	7302
65°	64876	285	1956	5583	8069
70°	1360	352	2065	6194	9265
75°	1331	932	2262	6787	10447
80°	1389	694	2678	7438	12199
85°	1383	1383	5335	8102	13437

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 590104 cd/sqm

TEST NUMBER: P1306755

CATALOG NUMBER: P3SQAS09R409027DE010 E3SQCA451MW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.6	0.5
10°-20°	11.8	1.6
20°-30°	57.8	7.8
30°-40°	188.0	25.3
40°-50°	259.1	34.8
50°-60°	180.5	24.3
60°-70°	34.2	4.6
70°-80°	6.2	0.8
80°-90°	2.8	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°	73.2	9.8
0°-40°	261.1	35.1
0°-60°	700.7	94.2
0°-90°	744.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	744.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	38	38	38	38	38	
5°	42	41	38	34	34	4
15°	81	46	29	27	27	30
25°	778	63	18	20	24	400
35°	2282	90	11	18	22	1379
45°	2380	60	8	16	22	1810
55°	1669	15	6	16	22	1427
65°	159	1	5	14	20	282
75°	2	1	3	10	16	2
85°	1	1	3	4	7	1
90°	0	0	0	0	0	

TEST NUMBER: P1306755

CATALOG NUMBER: P3SQAS09R409027DE010 E3SQCA451MW

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3	38.3
2.5°	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	38.9	38.3
5°	42.4	42.4	42.4	42.4	41.7	41.7	41.7	41.0	41.0	39.6	37.6
7.5°	45.1	45.1	45.1	45.1	44.4	43.7	43.0	43.0	42.4	38.9	36.2
10°	50.6	50.6	49.9	49.2	48.5	47.1	46.5	45.1	43.0	38.3	34.2
12.5°	61.5	60.1	59.4	58.1	56.0	53.3	50.6	48.5	43.7	36.9	32.1
15°	81.3	79.9	77.2	73.1	69.0	63.5	58.8	54.0	45.8	34.8	28.7
17.5°	116.2	112.1	108.0	101.1	90.9	81.3	71.1	62.2	48.5	32.8	26.0
20°	209.1	206.3	181.7	162.6	131.9	110.0	89.5	74.5	52.6	30.7	23.2
22.5°	431.1	402.4	362.1	296.5	230.9	170.1	123.7	93.6	56.7	28.0	20.5
25°	777.6	732.5	645.7	519.3	383.3	271.3	179.0	122.3	62.9	25.3	17.8
27.5°	1177.3	1131.5	996.9	822.6	600.6	409.3	255.5	161.9	71.1	22.5	15.7
30°	1602.9	1564.0	1393.2	1152.0	846.6	573.3	342.3	202.2	79.9	19.8	13.7
31°	1774.4	1724.5	1540.1	1283.2	962.0	640.9	377.2	219.3	83.4	19.1	13.0
32°	1932.3	1875.6	1684.2	1408.9	1055.6	714.0	415.4	234.4	86.1	17.8	12.3
33°	2068.2	2002.0	1817.5	1527.8	1158.8	782.3	455.1	248.7	88.1	16.4	11.6
34°	2183.7	2126.3	1928.2	1647.3	1250.4	847.9	494.0	263.1	89.5	15.7	10.9
35°	2282.1	2230.2	2034.1	1738.2	1339.9	911.5	529.5	276.7	89.5	14.3	10.9
36°	2348.4	2303.3	2125.6	1831.1	1415.0	965.4	559.6	289.0	89.5	13.0	10.2
37°	2384.6	2340.9	2185.8	1907.7	1488.8	1018.7	586.9	298.6	88.8	12.3	9.6
38°	2403.0	2364.8	2230.2	1969.8	1540.1	1057.0	610.8	306.1	88.1	10.9	9.6
39°	2407.8	2375.7	2258.2	2014.9	1589.9	1095.3	627.9	310.2	86.1	10.2	8.9
40°	2404.4	2376.4	2273.2	2055.2	1628.2	1125.3	640.2	311.6	84.0	8.9	8.9
41°	2397.6	2375.7	2284.1	2083.3	1659.0	1144.5	645.0	308.8	81.3	7.5	8.2
42°	2391.4	2367.5	2288.9	2102.4	1680.1	1154.0	644.3	303.4	77.2	6.8	8.2
43°	2391.4	2364.1	2289.6	2114.7	1690.4	1154.7	636.1	293.1	71.7	6.1	7.5
44°	2387.3	2362.0	2293.0	2122.9	1693.1	1148.6	623.1	282.2	65.6	5.5	7.5
45°	2379.8	2353.1	2292.3	2123.6	1688.3	1133.5	602.0	267.8	60.1	4.1	7.5
46°	2365.4	2341.5	2286.2	2118.8	1674.0	1111.7	576.7	253.5	54.0	3.4	6.8
47°	2336.8	2318.3	2269.8	2102.4	1652.1	1079.6	546.6	237.1	49.2	2.7	6.8
48°	2287.6	2274.6	2241.8	2066.2	1610.4	1039.9	514.5	219.3	44.4	2.7	6.8
49°	2197.4	2187.1	2168.0	2008.1	1557.2	991.4	479.6	199.5	39.6	2.0	6.8
50°	2126.3	2115.4	2076.4	1910.4	1480.6	929.9	441.4	179.7	34.2	1.4	6.1
51°	2079.2	2061.4	1999.9	1797.0	1369.3	847.9	399.7	159.9	28.7	1.4	6.1
52°	2019.7	1993.1	1916.5	1695.2	1267.4	765.9	354.6	140.1	25.3	1.4	6.1
53°	1895.4	1885.8	1810.0	1585.8	1165.6	687.4	308.2	123.7	21.9	1.4	6.1
54°	1786.7	1772.4	1669.2	1434.2	1055.0	599.9	260.3	109.3	18.4	1.4	6.1
55°	1669.2	1641.2	1549.6	1306.4	925.1	519.3	214.5	94.3	15.0	1.4	5.5
56°	1520.9	1496.3	1398.0	1169.7	805.6	437.3	179.7	77.2	11.6	1.4	5.5
57°	1340.6	1318.0	1242.2	1001.7	681.2	357.3	146.2	62.2	8.9	1.4	5.5
58°	1166.3	1141.0	1054.3	840.4	550.0	283.6	122.3	50.6	6.8	1.4	5.5
59°	1032.4	998.2	886.2	705.8	430.5	215.2	97.0	40.3	4.8	1.4	5.5
60°	921.0	893.0	776.9	587.6	337.5	158.5	71.7	30.7	2.7	1.4	5.5
62.5°	533.6	526.1	421.6	302.7	159.2	73.8	35.5	14.3	1.4	2.0	5.5
65°	159.2	138.7	108.0	64.2	41.0	24.6	13.0	4.8	0.7	2.0	4.8



TEST NUMBER: P1306755

CATALOG NUMBER: P3SQAS09R409027DE010 E3SQCA451MW

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	4.8	4.8	4.8	4.8	4.8	4.8	2.7	1.4	0.7	2.0	4.8
70°	2.7	2.0	2.0	2.0	2.0	1.4	1.4	0.7	0.7	2.0	4.1
72.5°	2.0	2.0	2.0	2.0	1.4	1.4	1.4	0.7	1.4	2.0	3.4
75°	2.0	1.4	1.4	1.4	1.4	0.7	0.7	0.7	1.4	2.0	3.4
77.5°	1.4	1.4	1.4	1.4	0.7	0.7	0.7	0.7	1.4	2.0	3.4
80°	1.4	1.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.0	2.7
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.0	2.7
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.0	2.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	2.0	2.0
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: P1306755

CATALOG NUMBER: P3SQAS09R409027DE010 E3SQCA451MW

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	38.3	38.3	38.3	38.3
2.5°	36.9	36.2	35.5	35.5
5°	35.5	34.2	34.2	33.5
7.5°	33.5	32.1	32.1	32.1
10°	31.4	30.7	30.7	30.1
12.5°	28.7	28.7	28.7	28.7
15°	26.6	26.6	27.3	27.3
17.5°	23.9	24.6	26.0	26.6
20°	21.9	23.2	24.6	25.3
22.5°	20.5	21.9	23.9	24.6
25°	18.4	20.5	23.2	23.9
27.5°	17.1	19.8	21.9	23.2
30°	15.7	19.1	21.2	22.5
31°	15.7	18.4	21.2	22.5
32°	15.0	17.8	21.2	21.9
33°	15.0	17.8	21.2	21.9
34°	14.3	17.8	20.5	21.9
35°	14.3	17.8	20.5	21.9
36°	13.7	17.1	20.5	21.9
37°	13.7	17.1	20.5	21.9
38°	13.0	17.1	20.5	21.9
39°	13.0	17.1	20.5	21.9
40°	13.0	17.1	20.5	21.9
41°	12.3	17.1	20.5	21.9
42°	12.3	17.1	20.5	21.9
43°	12.3	16.4	20.5	21.9
44°	12.3	16.4	20.5	21.9
45°	11.6	16.4	20.5	21.9
46°	11.6	16.4	20.5	21.9
47°	11.6	16.4	20.5	21.9
48°	11.6	16.4	20.5	21.9
49°	11.6	16.4	20.5	21.9
50°	10.9	15.7	20.5	21.9
51°	10.9	15.7	20.5	21.9
52°	10.9	15.7	20.5	21.9
53°	10.9	15.7	20.5	21.9
54°	10.2	15.7	20.5	21.9
55°	10.2	15.7	20.5	21.9
56°	10.2	15.7	20.5	21.2
57°	10.2	15.7	19.8	21.2
58°	10.2	15.0	19.8	21.2
59°	10.2	15.0	19.8	21.2
60°	10.2	15.0	19.8	21.2
62.5°	9.6	15.0	19.1	20.5
65°	8.9	13.7	19.1	19.8



TEST NUMBER: P1306755

CATALOG NUMBER: P3SQAS09R409027DE010 E3SQCA451MW

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	8.9	13.0	17.8	19.1
70°	8.2	12.3	17.1	18.4
72.5°	6.8	11.6	15.7	17.1
75°	6.1	10.2	14.3	15.7
77.5°	5.5	8.9	13.0	13.7
80°	4.8	7.5	10.9	12.3
82.5°	3.4	5.5	8.9	9.6
85°	2.7	4.1	6.1	6.8
87.5°	2.0	2.0	3.4	3.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)