

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: P1306672

Luminaire Tested: P3SQAS09R159027DE010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1306672
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 1/29/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3SQAS09R159027DE010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

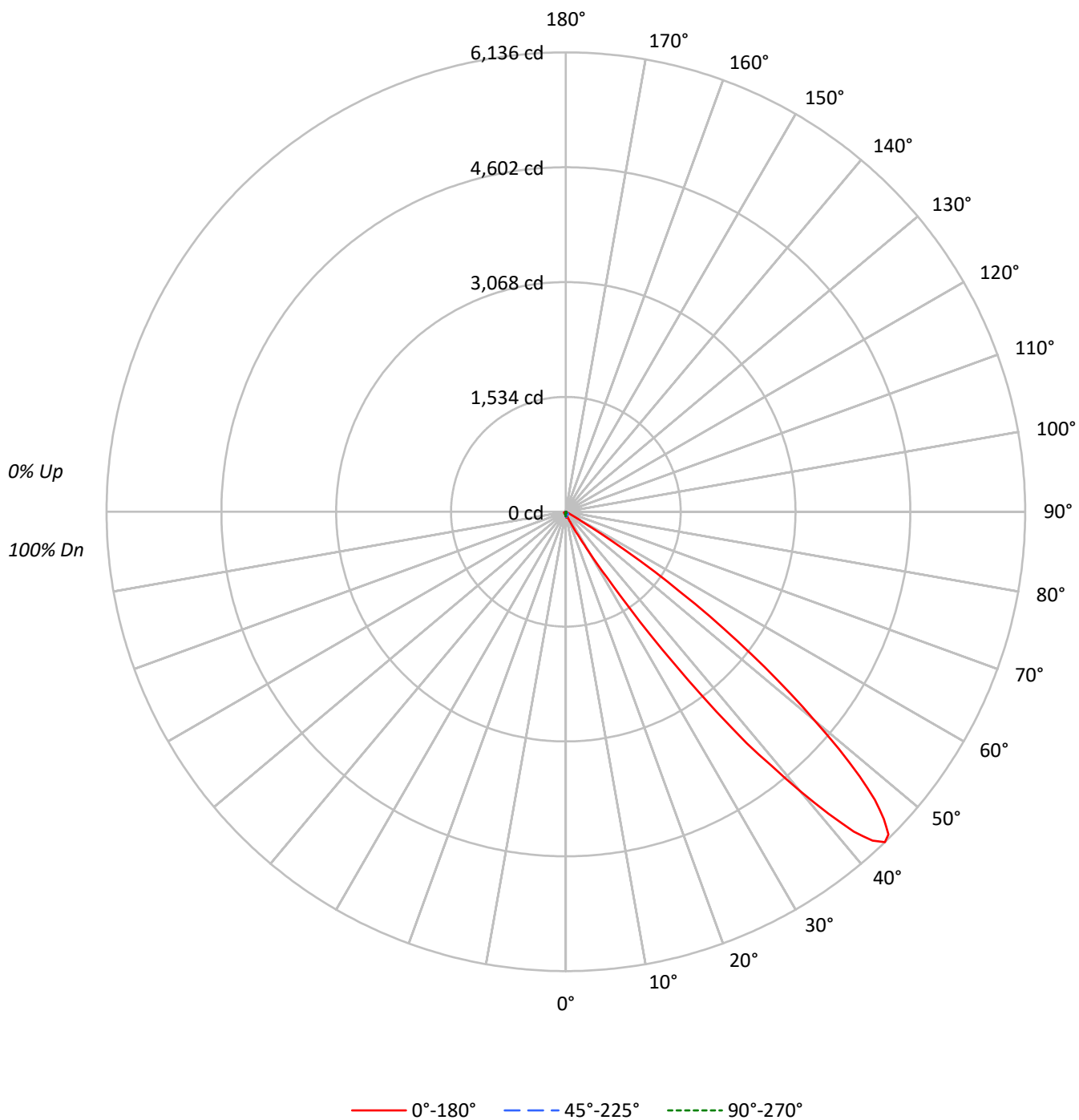
Lumens per Lamp: N/A
Luminaire Lumens: 685.0 lumens
Efficiency: N/A
Efficacy: 61.7 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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: P1306672

CATALOG NUMBER: P3SQAS09R159027DE010 E3SQCA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1306672

CATALOG NUMBER: P3SQAS09R159027DE010 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	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	100	97	94	96	93	91	92	90	89	87		
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61		
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50		
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35		
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29		
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24		
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20		
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	10471	10471	10471	10471	10471
5°	12983	11566	9439	8264	8143
10°	12784	9916	7292	6453	6575
15°	10591	7061	5242	5367	5723
20°	18401	5627	4014	4637	5260
25°	41008	6746	3249	4276	4941
30°	122660	8293	2844	4216	5171
35°	472147	9335	2586	4310	5466
40°	1095911	8139	2451	4451	5845
45°	1484374	6162	2168	4822	6333
50°	1163865	3671	2197	5117	6966
55°	558636	1651	2042	5525	7597
60°	51047	241	1894	5890	8473
65°	5583	0	1671	6113	9169
70°	1360	0	2065	6546	9970
75°	1331	466	2728	7253	11379
80°	1389	1389	3372	7438	12199
85°	1383	1383	5335	6719	13437

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1484374 cd/sqm

TEST NUMBER: P1306672

CATALOG NUMBER: P3SQAS09R159027DE010 E3SQCA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.2	0.8
10°-20°	10.8	1.6
20°-30°	25.9	3.8
30°-40°	141.7	20.7
40°-50°	343.1	50.1
50°-60°	136.9	20.0
60°-70°	11.8	1.7
70°-80°	6.7	1.0
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°	41.9	6.1
0°-40°	183.6	26.8
0°-60°	663.6	96.9
0°-90°	685.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	685.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	61	61	61	61	61	
5°	75	67	55	48	47	7
15°	59	40	29	30	32	21
25°	216	36	17	22	26	130
35°	2246	44	12	20	26	1587
45°	6094	25	9	20	26	4299
55°	1860	6	7	18	25	1733
65°	14	0	4	15	22	35
75°	2	1	4	11	17	2
85°	1	1	3	3	7	1
90°	0	0	0	0	0	

TEST NUMBER: P1306672

CATALOG NUMBER: P3SQAS09R159027DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8
2.5°	68.3	68.3	69.0	68.3	68.3	68.3	68.3	67.6	67.6	67.6	65.6
5°	75.1	75.1	75.1	75.1	74.4	74.4	74.4	73.8	73.8	73.1	66.9
7.5°	77.9	77.9	77.2	77.2	76.5	76.5	75.8	75.1	74.4	73.8	64.2
10°	73.1	73.1	73.1	72.4	72.4	71.7	71.0	70.3	69.7	68.3	56.7
12.5°	64.9	64.9	65.6	64.9	64.2	63.5	62.2	61.5	60.8	59.4	47.1
15°	59.4	59.4	59.4	58.7	58.1	56.7	56.0	54.6	54.0	51.9	39.6
17.5°	75.8	75.8	75.1	73.8	71.0	69.0	65.6	62.8	59.4	55.3	34.2
20°	100.4	100.4	99.0	97.7	94.3	90.8	85.4	80.6	75.1	70.3	30.7
22.5°	145.5	147.5	143.4	138.7	133.9	125.7	118.2	110.6	101.1	92.9	31.4
25°	215.8	217.9	215.8	204.9	196.0	185.1	170.8	155.7	139.3	124.3	35.5
27.5°	349.7	351.1	347.7	321.0	306.7	278.0	252.7	228.1	200.8	173.5	38.9
30°	616.8	617.4	595.6	542.3	495.2	432.3	379.1	327.8	284.8	241.1	41.7
31°	812.1	793.0	746.5	682.3	607.2	522.5	449.4	383.2	319.0	271.8	42.3
32°	1031.3	1028.6	951.4	840.1	739.7	633.8	523.9	439.2	365.4	301.2	43.0
33°	1321.6	1323.0	1201.4	1070.3	905.7	763.6	619.5	503.4	414.6	336.0	44.4
34°	1775.1	1668.6	1525.8	1348.3	1124.2	910.5	723.3	577.8	459.0	369.5	44.4
35°	2245.7	2138.5	1981.4	1712.3	1405.0	1105.8	846.9	657.7	512.3	405.7	44.4
36°	2773.0	2682.2	2444.5	2100.9	1708.9	1290.2	978.1	749.9	564.8	438.5	43.7
37°	3342.6	3209.5	2945.8	2570.8	2046.3	1549.7	1137.9	841.5	617.4	474.0	42.3
38°	3921.2	3800.9	3468.3	3014.1	2449.3	1823.6	1297.7	929.6	665.9	500.6	40.3
39°	4359.6	4294.1	3964.2	3456.7	2771.0	2083.2	1462.3	1023.8	717.2	527.3	38.2
40°	4874.6	4768.8	4456.0	3828.3	3151.4	2347.5	1623.5	1107.2	759.5	548.5	36.2
41°	5344.5	5210.7	4815.9	4209.4	3456.0	2585.2	1776.5	1193.2	793.7	560.8	34.8
42°	5747.5	5591.8	5179.3	4535.9	3710.8	2775.1	1898.8	1254.7	825.8	571.0	32.8
43°	6008.4	5873.9	5468.2	4781.1	3928.7	2949.2	2012.8	1318.9	845.6	577.8	30.1
44°	6135.5	5999.6	5606.8	4934.7	4062.5	3053.7	2086.6	1363.3	867.4	586.7	28.0
45°	6094.5	5956.5	5576.8	4937.5	4104.2	3091.3	2118.0	1383.1	879.0	594.9	25.3
46°	5906.7	5809.7	5427.2	4809.1	4025.0	3051.0	2100.3	1368.1	874.9	594.9	22.5
47°	5643.0	5532.4	5168.3	4588.5	3833.0	2947.2	2028.5	1322.3	849.7	581.2	19.8
48°	5283.8	5189.5	4807.0	4238.1	3538.7	2721.1	1866.7	1247.9	810.0	554.6	17.1
49°	4833.0	4701.8	4346.0	3790.0	3154.8	2400.1	1654.2	1122.2	746.5	517.0	15.0
50°	4343.9	4182.1	3907.5	3341.3	2758.0	2057.9	1374.9	948.7	657.1	467.9	13.7
51°	3865.2	3700.5	3439.0	2957.4	2334.5	1707.5	1109.2	757.5	540.9	400.2	11.6
52°	3368.6	3230.6	2937.6	2559.2	1998.5	1383.8	924.1	640.7	449.4	336.0	9.6
53°	2874.1	2779.8	2501.2	2118.0	1605.8	1130.4	754.7	548.5	392.0	287.5	7.5
54°	2378.9	2275.8	2064.1	1722.5	1294.3	892.0	640.0	459.0	340.1	250.7	6.8
55°	1860.5	1807.2	1611.9	1313.4	980.8	711.7	519.1	394.8	284.8	209.7	5.5
56°	1433.0	1372.8	1194.6	952.8	728.8	557.3	420.1	322.4	241.1	175.5	4.1
57°	938.5	877.0	758.8	665.3	530.7	406.4	321.0	254.1	196.0	145.5	3.4
58°	554.6	498.6	480.2	409.8	353.8	275.9	237.0	189.2	144.8	114.7	2.0
59°	254.8	258.9	230.2	215.8	196.0	175.5	144.1	126.4	99.0	82.6	1.4
60°	148.2	140.0	136.6	122.3	108.6	96.3	86.7	76.5	62.2	53.3	0.7
62.5°	50.5	48.5	49.9	45.1	42.3	41.0	37.6	32.1	26.6	21.9	0.0
65°	13.7	13.7	13.0	12.3	11.6	10.9	10.2	8.9	8.2	6.8	0.0



TEST NUMBER: P1306672

CATALOG NUMBER: P3SQAS09R159027DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	4.8	4.8	4.1	4.1	3.4	3.4	2.7	2.7	2.0	2.0	0.0
70°	2.7	2.7	2.7	2.0	2.0	2.0	1.4	1.4	1.4	0.7	0.0
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	1.4	1.4	1.4	0.7	0.7
75°	2.0	2.0	2.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7	1.4
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.4
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	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

TEST NUMBER: P1306672

CATALOG NUMBER: P3SQAS09R159027DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	60.8	60.8	60.8	60.8	60.8	60.8
2.5°	62.8	60.1	56.7	54.6	54.0	53.3
5°	60.1	54.6	50.5	47.8	47.1	47.1
7.5°	54.0	47.8	43.7	42.3	41.7	41.7
10°	47.1	41.7	38.2	36.9	37.6	37.6
12.5°	39.6	34.8	33.5	33.5	34.2	34.8
15°	32.1	29.4	29.4	30.1	31.4	32.1
17.5°	26.6	25.3	26.0	27.3	28.7	30.1
20°	21.9	21.9	23.2	25.3	27.3	28.7
22.5°	18.4	19.1	21.2	23.2	26.0	27.3
25°	15.7	17.1	19.1	22.5	25.3	26.0
27.5°	13.7	15.7	18.4	21.9	24.6	26.0
30°	11.6	14.3	17.8	21.2	24.6	26.0
31°	10.9	13.7	17.1	21.2	24.6	26.0
32°	10.2	13.7	17.1	21.2	24.6	26.0
33°	9.6	13.0	17.1	20.5	24.6	26.0
34°	8.9	13.0	17.1	21.2	24.6	26.0
35°	8.2	12.3	16.4	20.5	23.9	26.0
36°	7.5	12.3	16.4	20.5	24.6	26.0
37°	6.8	12.3	16.4	20.5	23.9	26.0
38°	6.8	11.6	15.7	20.5	23.9	26.0
39°	6.1	10.9	15.7	20.5	23.9	26.0
40°	5.5	10.9	15.0	19.8	23.9	26.0
41°	4.8	10.2	15.0	19.8	23.9	26.0
42°	4.1	10.2	15.0	19.8	23.9	26.0
43°	3.4	9.6	14.3	19.8	23.9	26.0
44°	3.4	9.6	14.3	19.8	23.9	26.0
45°	2.7	8.9	13.7	19.8	23.9	26.0
46°	2.7	8.9	13.7	19.1	23.9	26.0
47°	2.0	8.9	13.7	19.1	23.9	26.0
48°	2.0	8.2	13.7	19.1	23.9	26.0
49°	1.4	8.2	13.7	19.1	23.9	26.0
50°	1.4	8.2	13.0	19.1	23.9	26.0
51°	1.4	8.2	13.0	19.1	23.9	26.0
52°	1.4	7.5	13.0	19.1	23.9	26.0
53°	1.4	7.5	13.0	19.1	23.9	26.0
54°	1.4	7.5	12.3	19.1	23.9	26.0
55°	1.4	6.8	12.3	18.4	23.9	25.3
56°	1.4	6.8	12.3	18.4	23.9	25.3
57°	1.4	6.8	11.6	18.4	23.9	25.3
58°	1.4	6.1	11.6	17.8	23.2	25.3
59°	1.4	6.1	10.9	17.8	23.2	24.6
60°	1.4	5.5	10.9	17.1	22.5	24.6
62.5°	1.4	4.8	9.6	16.4	21.9	23.2
65°	1.4	4.1	8.9	15.0	21.2	22.5



TEST NUMBER: P1306672

CATALOG NUMBER: P3SQAS09R159027DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.4	4.1	8.2	14.3	19.8	21.9
70°	1.4	4.1	7.5	13.0	19.1	19.8
72.5°	2.0	4.1	6.8	12.3	17.8	18.4
75°	2.7	4.1	6.1	10.9	16.4	17.1
77.5°	2.7	4.1	5.5	9.6	14.3	15.0
80°	2.7	3.4	4.8	7.5	11.6	12.3
82.5°	2.7	3.4	3.4	6.1	8.9	9.6
85°	2.0	2.7	2.7	3.4	6.1	6.8
87.5°	2.0	2.7	1.4	2.0	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)