

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: P1309076

Luminaire Tested: P3SQAS13R159035DE010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1309076
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: P3SQAS13R159035DE010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

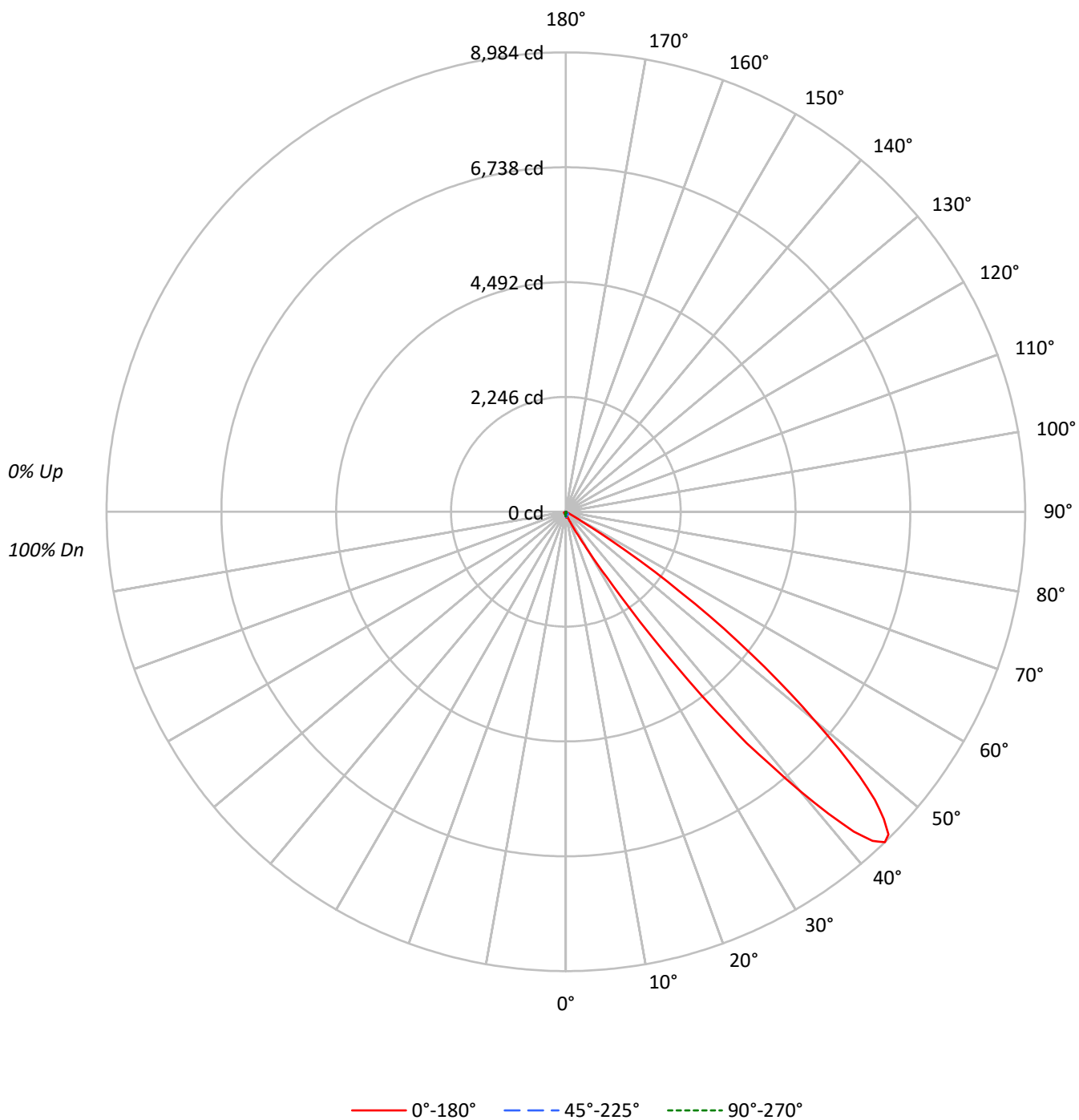
Lumens per Lamp: N/A
Luminaire Lumens: 1003.0 lumens
Efficiency: N/A
Efficacy: 68.7 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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: P1309076

CATALOG NUMBER: P3SQAS13R159035DE010 E3SQCA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1309076

CATALOG NUMBER: P3SQAS13R159035DE010 E3SQCA451MMS

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	50	30
RCR																			
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	87	87
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73	73
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61	61
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50	50
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42	42
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35	35
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29	29
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24	24
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20	20
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	15328	15328	15328	15328	15328
5°	19017	16942	13830	12102	11929
10°	18712	14515	10668	9443	9618
15°	15512	10341	7667	7845	8380
20°	26941	8247	5865	6781	7698
25°	60048	9881	4751	6271	7221
30°	179596	12131	4176	6165	7557
35°	691349	13666	3784	6307	7989
40°	1604680	11915	3597	6520	8543
45°	2173477	9012	3166	7063	9255
50°	1704174	5359	3215	7502	10181
55°	817971	2402	3003	8107	11110
60°	74745	344	2756	8611	12400
65°	8150	0	2445	8965	13448
70°	2014	0	3021	9567	14603
75°	1996	665	3993	10647	16635
80°	1984	1984	4959	10910	17852
85°	1976	1976	7904	9880	19760

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2173477 cd/sqm

TEST NUMBER: P1309076

CATALOG NUMBER: P3SQAS13R159035DE010 E3SQCA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.6	0.8
10°-20°	15.8	1.6
20°-30°	37.9	3.8
30°-40°	207.5	20.7
40°-50°	502.4	50.1
50°-60°	200.4	20.0
60°-70°	17.3	1.7
70°-80°	9.8	1.0
80°-90°	4.3	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°	61.3	6.1
0°-40°	268.8	26.8
0°-60°	971.6	96.9
0°-90°	1003.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1003.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	89	89	89	89	89	
5°	110	98	80	70	69	10
15°	87	58	43	44	47	30
25°	316	52	25	33	38	191
35°	3288	65	18	30	38	2324
45°	8924	37	13	29	38	6295
55°	2724	8	10	27	37	2538
65°	20	0	6	22	33	51
75°	3	1	6	16	25	3
85°	1	1	4	5	10	1
90°	0	0	0	0	0	

TEST NUMBER: P1309076

CATALOG NUMBER: P3SQAS13R159035DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0	89.0
2.5°	100.0	100.0	101.0	100.0	100.0	100.0	100.0	99.0	99.0	99.0	96.0
5°	110.0	110.0	110.0	110.0	109.0	109.0	109.0	108.0	108.0	107.0	98.0
7.5°	114.0	114.0	113.0	113.0	112.0	112.0	111.0	110.0	109.0	108.0	94.0
10°	107.0	107.0	107.0	106.0	106.0	105.0	104.0	103.0	102.0	100.0	83.0
12.5°	95.0	95.0	96.0	95.0	94.0	93.0	91.0	90.0	89.0	87.0	69.0
15°	87.0	87.0	87.0	86.0	85.0	83.0	82.0	80.0	79.0	76.0	58.0
17.5°	111.0	111.0	110.0	108.0	104.0	101.0	96.0	92.0	87.0	81.0	50.0
20°	147.0	147.0	145.0	143.0	138.0	133.0	125.0	118.0	110.0	103.0	45.0
22.5°	213.0	216.0	210.0	203.0	196.0	184.0	173.0	162.0	148.0	136.0	46.0
25°	316.0	319.0	316.0	300.0	287.0	271.0	250.0	228.0	204.0	182.0	52.0
27.5°	512.0	514.0	509.0	470.0	449.0	407.0	370.0	334.0	294.0	254.0	57.0
30°	903.1	904.1	872.1	794.1	725.1	633.1	555.0	480.0	417.0	353.0	61.0
31°	1189.1	1161.1	1093.1	999.1	889.1	765.1	658.1	561.0	467.0	398.0	62.0
32°	1510.1	1506.1	1393.1	1230.1	1083.1	928.1	767.1	643.1	535.0	441.0	63.0
33°	1935.2	1937.2	1759.2	1567.1	1326.1	1118.1	907.1	737.1	607.1	492.0	65.0
34°	2599.2	2443.2	2234.2	1974.2	1646.1	1333.1	1059.1	846.1	672.1	541.0	65.0
35°	3288.3	3131.3	2901.2	2507.2	2057.2	1619.1	1240.1	963.1	750.1	594.1	65.0
36°	4060.3	3927.3	3579.3	3076.3	2502.2	1889.2	1432.1	1098.1	827.1	642.1	64.0
37°	4894.4	4699.4	4313.4	3764.3	2996.3	2269.2	1666.1	1232.1	904.1	694.1	62.0
38°	5741.5	5565.5	5078.4	4413.4	3586.3	2670.2	1900.2	1361.1	975.1	733.1	59.0
39°	6383.5	6287.5	5804.5	5061.4	4057.3	3050.3	2141.2	1499.1	1050.1	772.1	56.0
40°	7137.6	6982.6	6524.6	5605.5	4614.4	3437.3	2377.2	1621.1	1112.1	803.1	53.0
41°	7825.7	7629.7	7051.6	6163.5	5060.4	3785.3	2601.2	1747.1	1162.1	821.1	51.0
42°	8415.7	8187.7	7583.6	6641.6	5433.5	4063.3	2780.2	1837.2	1209.1	836.1	48.0
43°	8797.8	8600.7	8006.7	7000.6	5752.5	4318.4	2947.3	1931.2	1238.1	846.1	44.0
44°	8983.8	8784.7	8209.7	7225.6	5948.5	4471.4	3055.3	1996.2	1270.1	859.1	41.0
45°	8923.8	8721.7	8165.7	7229.6	6009.5	4526.4	3101.3	2025.2	1287.1	871.1	37.0
46°	8648.7	8506.7	7946.7	7041.6	5893.5	4467.4	3075.3	2003.2	1281.1	871.1	33.0
47°	8262.7	8100.7	7567.6	6718.6	5612.5	4315.4	2970.3	1936.2	1244.1	851.1	29.0
48°	7736.7	7598.6	7038.6	6205.5	5181.4	3984.3	2733.2	1827.2	1186.1	812.1	25.0
49°	7076.6	6884.6	6363.5	5549.5	4619.4	3514.3	2422.2	1643.1	1093.1	757.1	22.0
50°	6360.5	6123.5	5721.5	4892.4	4038.3	3013.3	2013.2	1389.1	962.1	685.1	20.0
51°	5659.5	5418.5	5035.4	4330.4	3418.3	2500.2	1624.1	1109.1	792.1	586.1	17.0
52°	4932.4	4730.4	4301.4	3747.3	2926.2	2026.2	1353.1	938.1	658.1	492.0	14.0
53°	4208.4	4070.3	3662.3	3101.3	2351.2	1655.1	1105.1	803.1	574.0	421.0	11.0
54°	3483.3	3332.3	3022.3	2522.2	1895.2	1306.1	937.1	672.1	498.0	367.0	10.0
55°	2724.2	2646.2	2360.2	1923.2	1436.1	1042.1	760.1	578.0	417.0	307.0	8.0
56°	2098.2	2010.2	1749.1	1395.1	1067.1	816.1	615.1	472.0	353.0	257.0	6.0
57°	1374.1	1284.1	1111.1	974.1	777.1	595.1	470.0	372.0	287.0	213.0	5.0
58°	812.1	730.1	703.1	600.1	518.0	404.0	347.0	277.0	212.0	168.0	3.0
59°	373.0	379.0	337.0	316.0	287.0	257.0	211.0	185.0	145.0	121.0	2.0
60°	217.0	205.0	200.0	179.0	159.0	141.0	127.0	112.0	91.0	78.0	1.0
62.5°	74.0	71.0	73.0	66.0	62.0	60.0	55.0	47.0	39.0	32.0	0.0
65°	20.0	20.0	19.0	18.0	17.0	16.0	15.0	13.0	12.0	10.0	0.0



TEST NUMBER: P1309076

CATALOG NUMBER: P3SQAS13R159035DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	7.0	7.0	6.0	6.0	5.0	5.0	4.0	4.0	3.0	3.0	0.0
70°	4.0	4.0	4.0	3.0	3.0	3.0	2.0	2.0	2.0	1.0	0.0
72.5°	3.0	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	1.0	1.0
75°	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0
77.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
80°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	2.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
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: P1309076

CATALOG NUMBER: P3SQAS13R159035DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	89.0	89.0	89.0	89.0	89.0	89.0
2.5°	92.0	88.0	83.0	80.0	79.0	78.0
5°	88.0	80.0	74.0	70.0	69.0	69.0
7.5°	79.0	70.0	64.0	62.0	61.0	61.0
10°	69.0	61.0	56.0	54.0	55.0	55.0
12.5°	58.0	51.0	49.0	49.0	50.0	51.0
15°	47.0	43.0	43.0	44.0	46.0	47.0
17.5°	39.0	37.0	38.0	40.0	42.0	44.0
20°	32.0	32.0	34.0	37.0	40.0	42.0
22.5°	27.0	28.0	31.0	34.0	38.0	40.0
25°	23.0	25.0	28.0	33.0	37.0	38.0
27.5°	20.0	23.0	27.0	32.0	36.0	38.0
30°	17.0	21.0	26.0	31.0	36.0	38.0
31°	16.0	20.0	25.0	31.0	36.0	38.0
32°	15.0	20.0	25.0	31.0	36.0	38.0
33°	14.0	19.0	25.0	30.0	36.0	38.0
34°	13.0	19.0	25.0	31.0	36.0	38.0
35°	12.0	18.0	24.0	30.0	35.0	38.0
36°	11.0	18.0	24.0	30.0	36.0	38.0
37°	10.0	18.0	24.0	30.0	35.0	38.0
38°	10.0	17.0	23.0	30.0	35.0	38.0
39°	9.0	16.0	23.0	30.0	35.0	38.0
40°	8.0	16.0	22.0	29.0	35.0	38.0
41°	7.0	15.0	22.0	29.0	35.0	38.0
42°	6.0	15.0	22.0	29.0	35.0	38.0
43°	5.0	14.0	21.0	29.0	35.0	38.0
44°	5.0	14.0	21.0	29.0	35.0	38.0
45°	4.0	13.0	20.0	29.0	35.0	38.0
46°	4.0	13.0	20.0	28.0	35.0	38.0
47°	3.0	13.0	20.0	28.0	35.0	38.0
48°	3.0	12.0	20.0	28.0	35.0	38.0
49°	2.0	12.0	20.0	28.0	35.0	38.0
50°	2.0	12.0	19.0	28.0	35.0	38.0
51°	2.0	12.0	19.0	28.0	35.0	38.0
52°	2.0	11.0	19.0	28.0	35.0	38.0
53°	2.0	11.0	19.0	28.0	35.0	38.0
54°	2.0	11.0	18.0	28.0	35.0	38.0
55°	2.0	10.0	18.0	27.0	35.0	37.0
56°	2.0	10.0	18.0	27.0	35.0	37.0
57°	2.0	10.0	17.0	27.0	35.0	37.0
58°	2.0	9.0	17.0	26.0	34.0	37.0
59°	2.0	9.0	16.0	26.0	34.0	36.0
60°	2.0	8.0	16.0	25.0	33.0	36.0
62.5°	2.0	7.0	14.0	24.0	32.0	34.0
65°	2.0	6.0	13.0	22.0	31.0	33.0



TEST NUMBER: P1309076

CATALOG NUMBER: P3SQAS13R159035DE010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	2.0	6.0	12.0	21.0	29.0	32.0
70°	2.0	6.0	11.0	19.0	28.0	29.0
72.5°	3.0	6.0	10.0	18.0	26.0	27.0
75°	4.0	6.0	9.0	16.0	24.0	25.0
77.5°	4.0	6.0	8.0	14.0	21.0	22.0
80°	4.0	5.0	7.0	11.0	17.0	18.0
82.5°	4.0	5.0	5.0	9.0	13.0	14.0
85°	3.0	4.0	4.0	5.0	9.0	10.0
87.5°	3.0	4.0	2.0	3.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)