

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: P1311802

Luminaire Tested: P3SQAS24R409050D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1311802
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: P3SQAS24R409050D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 5000K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

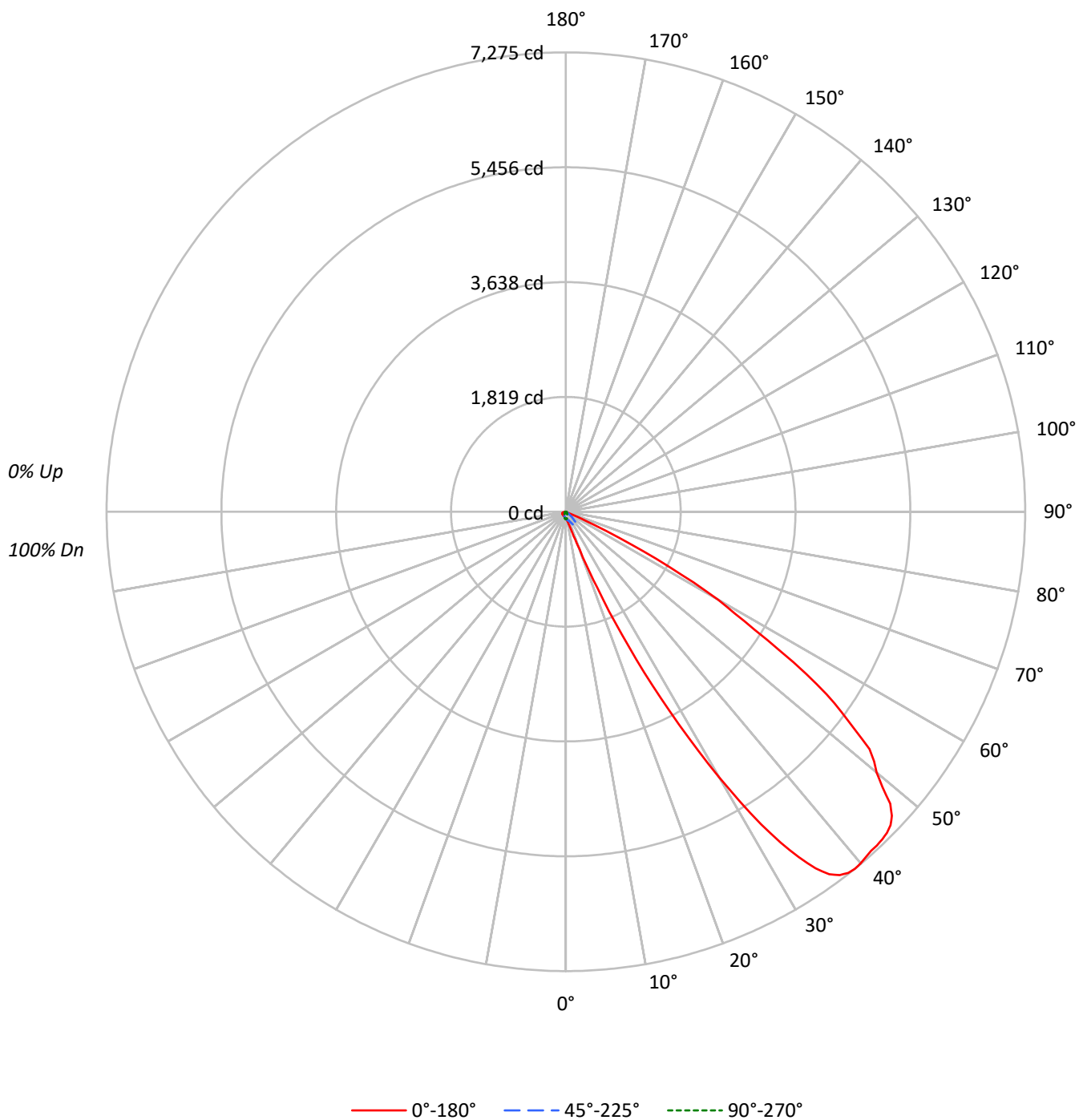
Lumens per Lamp: N/A
Luminaire Lumens: 2248.0 lumens
Efficiency: N/A
Efficacy: 78.1 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 28.8
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: P1311802

CATALOG NUMBER: P3SQAS24R409050D010 E3SQCA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1311802

CATALOG NUMBER: P3SQAS24R409050D010 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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26
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	20	31	24	20	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	19909	19909	19909	19909	19909
5°	22129	21420	19622	17841	17496
10°	26722	22752	18048	16246	15879
15°	43808	24659	15458	14353	14727
20°	115775	29141	12866	12866	14002
25°	446449	36086	10204	11763	13739
30°	963166	48026	8213	11494	13543
35°	1449703	56850	6938	11290	13897
40°	1633300	57082	6025	11601	14861
45°	1751340	44255	5529	12056	16099
50°	1721349	27650	4984	12727	17710
55°	1514366	13632	4954	14262	19847
60°	958557	2859	5683	15638	22044
65°	196014	856	5909	16830	24410
70°	4179	1057	6244	18732	28047
75°	4126	2728	6854	20628	31607
80°	4066	2083	8232	22514	36895
85°	4150	4150	16401	24503	40706

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1782963 cd/sqm

TEST NUMBER: P1311802

CATALOG NUMBER: P3SQAS24R409050D010 E3SQCA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.8	0.5
10°-20°	35.6	1.6
20°-30°	174.6	7.8
30°-40°	567.9	25.3
40°-50°	782.9	34.8
50°-60°	545.4	24.3
60°-70°	103.4	4.6
70°-80°	18.7	0.8
80°-90°	8.7	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°	221.1	9.8
0°-40°	789.0	35.1
0°-60°	2117.3	94.2
0°-90°	2248.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2248.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	116	116	116	116	116	
5°	128	124	114	103	101	13
15°	246	138	87	80	83	89
25°	2349	190	54	62	72	1210
35°	6895	270	33	54	66	4167
45°	7191	182	23	50	66	5468
55°	5044	45	16	48	66	4311
65°	481	2	14	41	60	851
75°	6	4	10	31	48	6
85°	2	2	8	12	21	2
90°	0	0	0	0	0	

TEST NUMBER: P1311802

CATALOG NUMBER: P3SQAS24R409050D010 E3SQCA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	115.6	115.6	115.6	115.6	115.6	115.6	115.6	115.6	115.6	115.6	115.6
2.5°	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	119.7	117.7	115.6
5°	128.0	128.0	128.0	128.0	125.9	125.9	125.9	123.9	123.9	119.7	113.5
7.5°	136.3	136.3	136.3	136.3	134.2	132.1	130.1	130.1	128.0	117.7	109.4
10°	152.8	152.8	150.7	148.6	146.6	142.4	140.4	136.3	130.1	115.6	103.2
12.5°	185.8	181.7	179.6	175.5	169.3	161.0	152.8	146.6	132.1	111.5	97.0
15°	245.7	241.5	233.3	220.9	208.5	192.0	177.5	163.1	138.3	105.3	86.7
17.5°	351.0	338.6	326.2	305.5	274.6	245.7	214.7	187.9	146.6	99.1	78.5
20°	631.7	623.5	549.2	491.3	398.4	332.4	270.4	225.0	159.0	92.9	70.2
22.5°	1302.7	1216.0	1094.2	896.0	697.8	514.1	373.7	282.8	171.4	84.6	61.9
25°	2349.4	2213.1	1950.9	1569.0	1158.2	819.6	540.9	369.5	189.9	76.4	53.7
27.5°	3557.1	3418.8	3012.1	2485.6	1814.7	1236.6	772.1	489.3	214.7	68.1	47.5
30°	4843.3	4725.6	4209.5	3480.7	2557.9	1732.1	1034.3	611.1	241.5	59.9	41.3
31°	5361.4	5210.7	4653.3	3877.1	2906.8	1936.5	1139.6	662.7	251.9	57.8	39.2
32°	5838.3	5667.0	5088.9	4256.9	3189.6	2157.4	1255.2	708.1	260.1	53.7	37.2
33°	6249.2	6048.9	5491.5	4616.2	3501.4	2363.8	1374.9	751.5	266.3	49.5	35.1
34°	6598.1	6424.6	5826.0	4977.5	3778.0	2562.0	1492.6	794.8	270.4	47.5	33.0
35°	6895.3	6738.4	6145.9	5252.0	4048.4	2754.0	1600.0	836.1	270.4	43.4	33.0
36°	7095.6	6959.3	6422.6	5532.8	4275.5	2917.1	1690.8	873.3	270.4	39.2	31.0
37°	7205.0	7072.9	6604.3	5764.0	4498.5	3078.1	1773.4	902.2	268.4	37.2	28.9
38°	7260.8	7145.1	6738.4	5951.9	4653.3	3193.7	1845.6	924.9	266.3	33.0	28.9
39°	7275.2	7178.2	6823.1	6088.1	4804.0	3309.4	1897.3	937.3	260.1	31.0	26.8
40°	7264.9	7180.2	6868.5	6209.9	4919.6	3400.2	1934.4	941.4	253.9	26.8	26.8
41°	7244.2	7178.2	6901.5	6294.6	5012.5	3458.0	1948.9	933.1	245.7	22.7	24.8
42°	7225.7	7153.4	6916.0	6352.4	5076.5	3486.9	1946.8	916.6	233.3	20.6	24.8
43°	7225.7	7143.1	6918.1	6389.6	5107.5	3489.0	1922.0	885.7	216.8	18.6	22.7
44°	7213.3	7136.9	6928.4	6414.3	5115.8	3470.4	1882.8	852.6	198.2	16.5	22.7
45°	7190.6	7110.1	6926.3	6416.4	5101.3	3425.0	1818.8	809.3	181.7	12.4	22.7
46°	7147.2	7075.0	6907.7	6401.9	5058.0	3358.9	1742.4	765.9	163.1	10.3	20.6
47°	7060.5	7004.8	6858.2	6352.4	4991.9	3261.9	1651.6	716.4	148.6	8.3	20.6
48°	6911.9	6872.6	6773.5	6243.0	4866.0	3142.1	1554.6	662.7	134.2	8.3	20.6
49°	6639.4	6608.4	6550.6	6067.5	4704.9	2995.6	1449.3	602.8	119.7	6.2	20.6
50°	6424.6	6391.6	6273.9	5772.3	4473.7	2809.8	1333.7	543.0	103.2	4.1	18.6
51°	6282.2	6228.5	6042.7	5429.6	4137.2	2562.0	1207.7	483.1	86.7	4.1	18.6
52°	6102.6	6022.1	5790.9	5122.0	3829.6	2314.3	1071.5	423.2	76.4	4.1	18.6
53°	5726.9	5698.0	5468.8	4791.6	3522.0	2076.9	931.1	373.7	66.1	4.1	18.6
54°	5398.6	5355.2	5043.5	4333.3	3187.6	1812.6	786.6	330.3	55.7	4.1	18.6
55°	5043.5	4958.9	4682.2	3947.3	2795.3	1569.0	648.2	284.9	45.4	4.1	16.5
56°	4595.5	4521.2	4223.9	3534.4	2434.0	1321.3	543.0	233.3	35.1	4.1	16.5
57°	4050.5	3982.4	3753.2	3026.5	2058.3	1079.7	441.8	187.9	26.8	4.1	16.5
58°	3524.1	3447.7	3185.5	2539.3	1661.9	856.8	369.5	152.8	20.6	4.1	16.5
59°	3119.4	3016.2	2677.6	2132.6	1300.6	650.3	293.2	121.8	14.5	4.1	16.5
60°	2782.9	2698.3	2347.3	1775.4	1019.9	479.0	216.8	92.9	8.3	4.1	16.5
62.5°	1612.4	1589.6	1273.8	914.6	481.0	223.0	107.4	43.4	4.1	6.2	16.5
65°	481.0	419.1	326.2	194.1	123.9	74.3	39.2	14.5	2.1	6.2	14.5



TEST NUMBER: P1311802

CATALOG NUMBER: P3SQAS24R409050D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	14.5	14.5	14.5	14.5	14.5	14.5	8.3	4.1	2.1	6.2	14.5
70°	8.3	6.2	6.2	6.2	6.2	4.1	4.1	2.1	2.1	6.2	12.4
72.5°	6.2	6.2	6.2	6.2	4.1	4.1	4.1	2.1	4.1	6.2	10.3
75°	6.2	4.1	4.1	4.1	4.1	2.1	2.1	2.1	4.1	6.2	10.3
77.5°	4.1	4.1	4.1	4.1	2.1	2.1	2.1	2.1	4.1	6.2	10.3
80°	4.1	4.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	6.2	8.3
82.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	6.2	8.3
85°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	6.2	8.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.1	6.2	6.2
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: P1311802

CATALOG NUMBER: P3SQAS24R409050D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	115.6	115.6	115.6	115.6
2.5°	111.5	109.4	107.4	107.4
5°	107.4	103.2	103.2	101.2
7.5°	101.2	97.0	97.0	97.0
10°	95.0	92.9	92.9	90.8
12.5°	86.7	86.7	86.7	86.7
15°	80.5	80.5	82.6	82.6
17.5°	72.3	74.3	78.5	80.5
20°	66.1	70.2	74.3	76.4
22.5°	61.9	66.1	72.3	74.3
25°	55.7	61.9	70.2	72.3
27.5°	51.6	59.9	66.1	70.2
30°	47.5	57.8	64.0	68.1
31°	47.5	55.7	64.0	68.1
32°	45.4	53.7	64.0	66.1
33°	45.4	53.7	64.0	66.1
34°	43.4	53.7	61.9	66.1
35°	43.4	53.7	61.9	66.1
36°	41.3	51.6	61.9	66.1
37°	41.3	51.6	61.9	66.1
38°	39.2	51.6	61.9	66.1
39°	39.2	51.6	61.9	66.1
40°	39.2	51.6	61.9	66.1
41°	37.2	51.6	61.9	66.1
42°	37.2	51.6	61.9	66.1
43°	37.2	49.5	61.9	66.1
44°	37.2	49.5	61.9	66.1
45°	35.1	49.5	61.9	66.1
46°	35.1	49.5	61.9	66.1
47°	35.1	49.5	61.9	66.1
48°	35.1	49.5	61.9	66.1
49°	35.1	49.5	61.9	66.1
50°	33.0	47.5	61.9	66.1
51°	33.0	47.5	61.9	66.1
52°	33.0	47.5	61.9	66.1
53°	33.0	47.5	61.9	66.1
54°	31.0	47.5	61.9	66.1
55°	31.0	47.5	61.9	66.1
56°	31.0	47.5	61.9	64.0
57°	31.0	47.5	59.9	64.0
58°	31.0	45.4	59.9	64.0
59°	31.0	45.4	59.9	64.0
60°	31.0	45.4	59.9	64.0
62.5°	28.9	45.4	57.8	61.9
65°	26.8	41.3	57.8	59.9



TEST NUMBER: P1311802

CATALOG NUMBER: P3SQAS24R409050D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	26.8	39.2	53.7	57.8
70°	24.8	37.2	51.6	55.7
72.5°	20.6	35.1	47.5	51.6
75°	18.6	31.0	43.4	47.5
77.5°	16.5	26.8	39.2	41.3
80°	14.5	22.7	33.0	37.2
82.5°	10.3	16.5	26.8	28.9
85°	8.3	12.4	18.6	20.6
87.5°	6.2	6.2	10.3	10.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)