

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: P1310579

Luminaire Tested: P3SQAS20R409040D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1310579
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: P3SQAS20R409040D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 4000K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

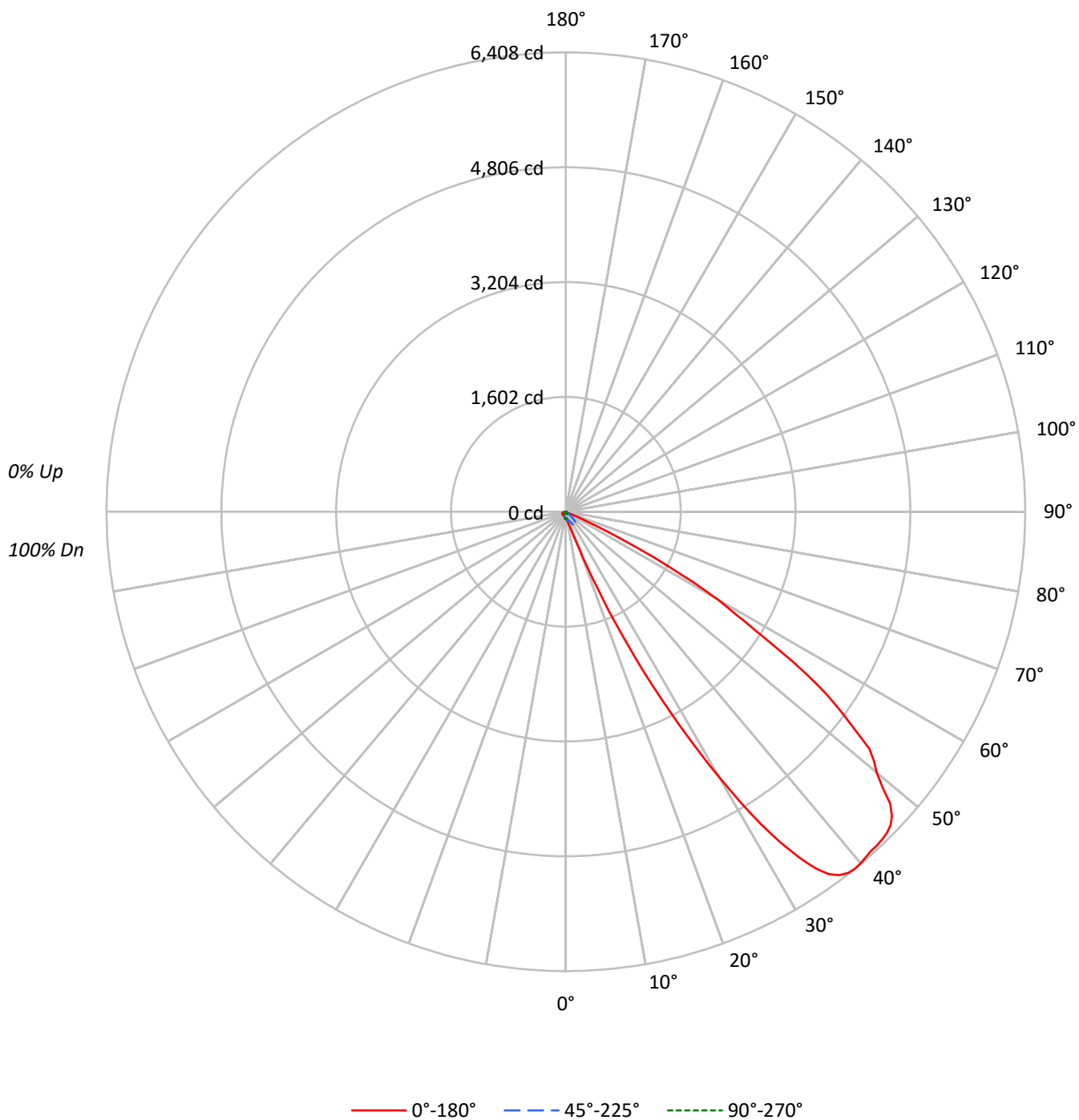
Lumens per Lamp: N/A
Luminaire Lumens: 1980.0 lumens
Efficiency: N/A
Efficacy: 68.8 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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: P1310579

CATALOG NUMBER: P3SQAS20R409040D010 E3SQCA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1310579

CATALOG NUMBER: P3SQAS20R409040D010 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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	107	104	100	97	99	97	94		96	93	91		92
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34
10	48	34	25	20	47	33	25	20	32	25	20		31	24	20		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	17532	17532	17532	17532	17532
5°	19484	18861	17288	15715	15404
10°	23539	20041	15897	14305	13990
15°	38584	21717	13622	12641	12962
20°	101974	25659	11326	11326	12334
25°	393222	31791	8988	10375	12086
30°	848341	42299	7239	10122	11932
35°	1276881	50080	6118	9945	12236
40°	1438583	50292	5306	10229	13085
45°	1542536	38970	4871	10619	14175
50°	1516140	24355	4394	11200	15594
55°	1333819	12010	4354	12551	17475
60°	844270	2514	4994	13778	19427
65°	172663	734	5175	14833	21476
70°	3676	906	5489	16466	24724
75°	3660	2396	6055	18166	27814
80°	3570	1785	7240	19836	32432
85°	3557	3557	14425	21539	35964

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1570412 cd/sqm

TEST NUMBER: P1310579

CATALOG NUMBER: P3SQAS20R409040D010 E3SQCA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.5	0.5
10°-20°	31.4	1.6
20°-30°	153.8	7.8
30°-40°	500.2	25.3
40°-50°	689.6	34.8
50°-60°	480.4	24.3
60°-70°	91.1	4.6
70°-80°	16.5	0.8
80°-90°	7.6	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°	194.7	9.8
0°-40°	694.9	35.1
0°-60°	1864.9	94.2
0°-90°	1980.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1980.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	102	102	102	102	102	
5°	113	109	100	91	89	11
15°	216	122	76	71	73	79
25°	2069	167	47	55	64	1065
35°	6073	238	29	47	58	3670
45°	6333	160	20	44	58	4816
55°	4442	40	14	42	58	3797
65°	424	2	13	36	53	749
75°	6	4	9	27	42	5
85°	2	2	7	11	18	1
90°	0	0	0	0	0	

TEST NUMBER: P1310579

CATALOG NUMBER: P3SQAS20R409040D010 E3SQCA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8	101.8
2.5°	105.5	105.5	105.5	105.5	105.5	105.5	105.5	105.5	105.5	103.6	101.8
5°	112.7	112.7	112.7	112.7	110.9	110.9	110.9	109.1	109.1	105.5	100.0
7.5°	120.0	120.0	120.0	120.0	118.2	116.4	114.6	114.6	112.7	103.6	96.4
10°	134.6	134.6	132.7	130.9	129.1	125.5	123.6	120.0	114.6	101.8	90.9
12.5°	163.7	160.0	158.2	154.6	149.1	141.8	134.6	129.1	116.4	98.2	85.5
15°	216.4	212.7	205.5	194.6	183.7	169.1	156.4	143.7	121.8	92.7	76.4
17.5°	309.1	298.2	287.3	269.1	241.8	216.4	189.1	165.5	129.1	87.3	69.1
20°	556.4	549.1	483.7	432.8	350.9	292.8	238.2	198.2	140.0	81.8	61.8
22.5°	1147.4	1071.0	963.7	789.2	614.6	452.8	329.1	249.1	150.9	74.6	54.6
25°	2069.3	1949.3	1718.3	1381.9	1020.1	721.9	476.4	325.5	167.3	67.3	47.3
27.5°	3133.0	3011.2	2653.0	2189.3	1598.3	1089.2	680.1	431.0	189.1	60.0	41.8
30°	4265.9	4162.2	3707.6	3065.7	2252.9	1525.6	911.0	538.2	212.7	52.7	36.4
31°	4722.3	4589.5	4098.6	3414.9	2560.2	1705.6	1003.7	583.7	221.8	50.9	34.5
32°	5142.3	4991.4	4482.2	3749.4	2809.4	1900.2	1105.6	623.7	229.1	47.3	32.7
33°	5504.2	5327.8	4836.8	4065.8	3083.9	2082.0	1211.0	661.9	234.6	43.6	30.9
34°	5811.5	5658.7	5131.4	4384.1	3327.6	2256.6	1314.7	700.1	238.2	41.8	29.1
35°	6073.3	5935.1	5413.2	4625.9	3565.8	2425.7	1409.2	736.4	238.2	38.2	29.1
36°	6249.7	6129.7	5656.9	4873.2	3765.8	2569.3	1489.2	769.2	238.2	34.5	27.3
37°	6346.1	6229.7	5816.9	5076.8	3962.2	2711.2	1562.0	794.6	236.4	32.7	25.5
38°	6395.2	6293.3	5935.1	5242.3	4098.6	2813.0	1625.6	814.6	234.6	29.1	25.5
39°	6407.9	6322.4	6009.7	5362.3	4231.3	2914.8	1671.1	825.5	229.1	27.3	23.6
40°	6398.8	6324.2	6049.7	5469.6	4333.1	2994.8	1703.8	829.2	223.7	23.6	23.6
41°	6380.6	6322.4	6078.8	5544.2	4415.0	3045.7	1716.5	821.9	216.4	20.0	21.8
42°	6364.2	6300.6	6091.5	5595.1	4471.3	3071.2	1714.7	807.3	205.5	18.2	21.8
43°	6364.2	6291.5	6093.3	5627.8	4498.6	3073.0	1692.9	780.1	190.9	16.4	20.0
44°	6353.3	6286.1	6102.4	5649.6	4505.9	3056.7	1658.3	751.0	174.6	14.5	20.0
45°	6333.3	6262.4	6100.6	5651.4	4493.2	3016.7	1602.0	712.8	160.0	10.9	20.0
46°	6295.1	6231.5	6084.2	5638.7	4455.0	2958.5	1534.7	674.6	143.7	9.1	18.2
47°	6218.8	6169.7	6040.6	5595.1	4396.8	2873.0	1454.7	631.0	130.9	7.3	18.2
48°	6087.9	6053.3	5966.0	5498.7	4285.9	2767.5	1369.2	583.7	118.2	7.3	18.2
49°	5847.8	5820.6	5769.6	5344.1	4144.0	2638.4	1276.5	531.0	105.5	5.5	18.2
50°	5658.7	5629.6	5526.0	5084.1	3940.4	2474.8	1174.7	478.2	90.9	3.6	16.4
51°	5533.3	5486.0	5322.3	4782.3	3644.0	2256.6	1063.7	425.5	76.4	3.6	16.4
52°	5375.1	5304.1	5100.5	4511.3	3373.0	2038.4	943.7	372.8	67.3	3.6	16.4
53°	5044.1	5018.7	4816.8	4220.4	3102.1	1829.3	820.1	329.1	58.2	3.6	16.4
54°	4755.0	4716.8	4442.2	3816.7	2807.5	1596.5	692.8	290.9	49.1	3.6	16.4
55°	4442.2	4367.7	4124.0	3476.7	2462.1	1381.9	571.0	250.9	40.0	3.6	14.5
56°	4047.7	3982.2	3720.4	3113.0	2143.8	1163.7	478.2	205.5	30.9	3.6	14.5
57°	3567.6	3507.6	3305.8	2665.7	1812.9	951.0	389.1	165.5	23.6	3.6	14.5
58°	3103.9	3036.7	2805.7	2236.6	1463.8	754.6	325.5	134.6	18.2	3.6	14.5
59°	2747.5	2656.6	2358.4	1878.4	1145.6	572.8	258.2	107.3	12.7	3.6	14.5
60°	2451.1	2376.6	2067.5	1563.8	898.3	421.9	190.9	81.8	7.3	3.6	14.5
62.5°	1420.1	1400.1	1121.9	805.5	423.7	196.4	94.6	38.2	3.6	5.5	14.5
65°	423.7	369.1	287.3	170.9	109.1	65.5	34.5	12.7	1.8	5.5	12.7



TEST NUMBER: P1310579

CATALOG NUMBER: P3SQAS20R409040D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	12.7	12.7	12.7	12.7	12.7	12.7	7.3	3.6	1.8	5.5	12.7
70°	7.3	5.5	5.5	5.5	5.5	3.6	3.6	1.8	1.8	5.5	10.9
72.5°	5.5	5.5	5.5	5.5	3.6	3.6	3.6	1.8	3.6	5.5	9.1
75°	5.5	3.6	3.6	3.6	3.6	1.8	1.8	1.8	3.6	5.5	9.1
77.5°	3.6	3.6	3.6	3.6	1.8	1.8	1.8	1.8	3.6	5.5	9.1
80°	3.6	3.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	5.5	7.3
82.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	5.5	7.3
85°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	5.5	7.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	5.5	5.5
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: P1310579

CATALOG NUMBER: P3SQAS20R409040D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	101.8	101.8	101.8	101.8
2.5°	98.2	96.4	94.6	94.6
5°	94.6	90.9	90.9	89.1
7.5°	89.1	85.5	85.5	85.5
10°	83.6	81.8	81.8	80.0
12.5°	76.4	76.4	76.4	76.4
15°	70.9	70.9	72.7	72.7
17.5°	63.6	65.5	69.1	70.9
20°	58.2	61.8	65.5	67.3
22.5°	54.6	58.2	63.6	65.5
25°	49.1	54.6	61.8	63.6
27.5°	45.5	52.7	58.2	61.8
30°	41.8	50.9	56.4	60.0
31°	41.8	49.1	56.4	60.0
32°	40.0	47.3	56.4	58.2
33°	40.0	47.3	56.4	58.2
34°	38.2	47.3	54.6	58.2
35°	38.2	47.3	54.6	58.2
36°	36.4	45.5	54.6	58.2
37°	36.4	45.5	54.6	58.2
38°	34.5	45.5	54.6	58.2
39°	34.5	45.5	54.6	58.2
40°	34.5	45.5	54.6	58.2
41°	32.7	45.5	54.6	58.2
42°	32.7	45.5	54.6	58.2
43°	32.7	43.6	54.6	58.2
44°	32.7	43.6	54.6	58.2
45°	30.9	43.6	54.6	58.2
46°	30.9	43.6	54.6	58.2
47°	30.9	43.6	54.6	58.2
48°	30.9	43.6	54.6	58.2
49°	30.9	43.6	54.6	58.2
50°	29.1	41.8	54.6	58.2
51°	29.1	41.8	54.6	58.2
52°	29.1	41.8	54.6	58.2
53°	29.1	41.8	54.6	58.2
54°	27.3	41.8	54.6	58.2
55°	27.3	41.8	54.6	58.2
56°	27.3	41.8	54.6	56.4
57°	27.3	41.8	52.7	56.4
58°	27.3	40.0	52.7	56.4
59°	27.3	40.0	52.7	56.4
60°	27.3	40.0	52.7	56.4
62.5°	25.5	40.0	50.9	54.6
65°	23.6	36.4	50.9	52.7



TEST NUMBER: P1310579

CATALOG NUMBER: P3SQAS20R409040D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	23.6	34.5	47.3	50.9
70°	21.8	32.7	45.5	49.1
72.5°	18.2	30.9	41.8	45.5
75°	16.4	27.3	38.2	41.8
77.5°	14.5	23.6	34.5	36.4
80°	12.7	20.0	29.1	32.7
82.5°	9.1	14.5	23.6	25.5
85°	7.3	10.9	16.4	18.2
87.5°	5.5	5.5	9.1	9.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)