

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: P1318318

Luminaire Tested: P3SQAS20R409835D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1318318
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: P3SQAS20R409835D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 98CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

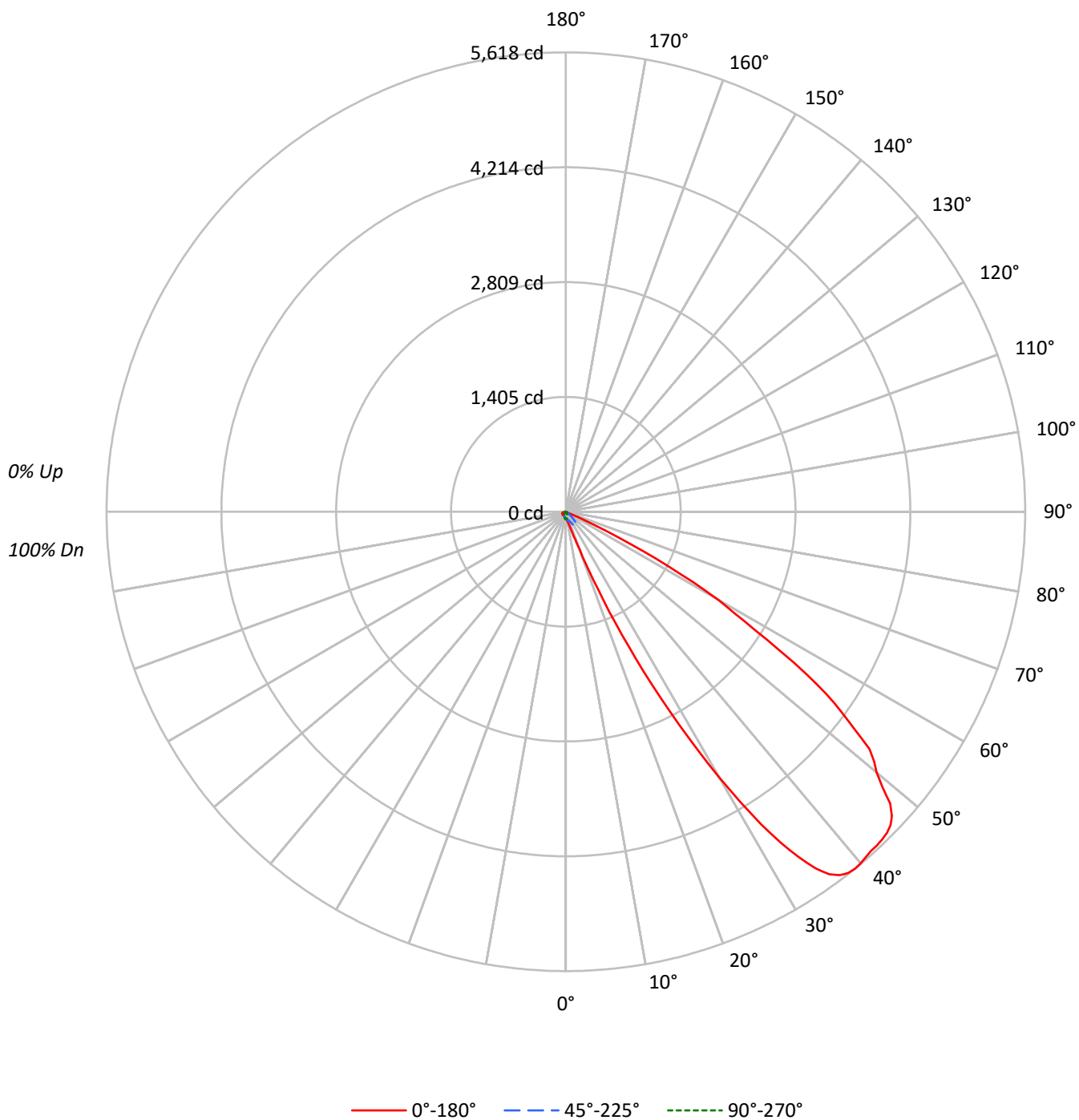
Lumens per Lamp: N/A
Luminaire Lumens: 1736.0 lumens
Efficiency: N/A
Efficacy: 63.4 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 27.4
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: P1318318

CATALOG NUMBER: P3SQAS20R409835D010 E3SQCA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1318318

CATALOG NUMBER: P3SQAS20R409835D010 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	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°	15379	15379	15379	15379	15379
5°	17081	16545	15162	13779	13502
10°	20636	17558	13938	12539	12259
15°	33823	19042	11946	11090	11375
20°	89402	22506	9934	9934	10813
25°	344765	27877	7886	9083	10603
30°	743797	37088	6344	8869	10460
35°	1119534	43899	5361	8725	10722
40°	1261312	44087	4654	8970	11466
45°	1352462	34171	4262	9328	12422
50°	1329312	21354	3831	9833	13664
55°	1169457	10539	3843	11020	15313
60°	740247	2204	4409	12090	17016
65°	151391	652	4564	13000	18827
70°	3223	806	4834	14452	21652
75°	3194	2129	5323	15903	24421
80°	3174	1587	6347	17356	28464
85°	3162	3162	12647	18970	31419

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1376875 cd/sqm

TEST NUMBER: P1318318

CATALOG NUMBER: P3SQAS20R409835D010 E3SQCA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.3	0.5
10°-20°	27.5	1.6
20°-30°	134.9	7.8
30°-40°	438.6	25.3
40°-50°	604.6	34.8
50°-60°	421.2	24.3
60°-70°	79.8	4.6
70°-80°	14.5	0.8
80°-90°	6.7	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°	170.7	9.8
0°-40°	609.3	35.1
0°-60°	1635.0	94.2
0°-90°	1736.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1736.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	89	89	89	89	89	
5°	99	96	88	80	78	10
15°	190	107	67	62	64	69
25°	1814	147	42	48	56	934
35°	5325	209	26	42	51	3218
45°	5553	140	18	38	51	4223
55°	3895	35	13	37	51	3329
65°	372	2	11	32	46	657
75°	5	3	8	24	37	5
85°	2	2	6	10	16	1
90°	0	0	0	0	0	

TEST NUMBER: P1318318

CATALOG NUMBER: P3SQAS20R409835D010 E3SQCA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3	89.3
2.5°	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	92.5	90.9	89.3
5°	98.8	98.8	98.8	98.8	97.3	97.3	97.3	95.7	95.7	92.5	87.7
7.5°	105.2	105.2	105.2	105.2	103.6	102.0	100.4	100.4	98.8	90.9	84.5
10°	118.0	118.0	116.4	114.8	113.2	110.0	108.4	105.2	100.4	89.3	79.7
12.5°	143.5	140.3	138.7	135.5	130.7	124.4	118.0	113.2	102.0	86.1	74.9
15°	189.7	186.5	180.2	170.6	161.0	148.3	137.1	125.9	106.8	81.3	67.0
17.5°	271.0	261.5	251.9	236.0	212.0	189.7	165.8	145.1	113.2	76.5	60.6
20°	487.8	481.5	424.1	379.4	307.7	256.7	208.8	173.8	122.8	71.7	54.2
22.5°	1006.0	939.0	845.0	691.9	538.9	397.0	288.6	218.4	132.3	65.4	47.8
25°	1814.3	1709.1	1506.6	1211.6	894.4	632.9	417.7	285.4	146.7	59.0	41.5
27.5°	2746.9	2640.1	2326.0	1919.5	1401.4	955.0	596.3	377.8	165.8	52.6	36.7
30°	3740.2	3649.3	3250.7	2687.9	1975.3	1337.6	798.7	471.9	186.5	46.2	31.9
31°	4140.3	4023.9	3593.5	2994.0	2244.7	1495.4	880.0	511.8	194.5	44.6	30.3
32°	4508.6	4376.3	3929.9	3287.4	2463.2	1666.0	969.3	546.8	200.9	41.5	28.7
33°	4825.9	4671.2	4240.8	3564.8	2703.9	1825.4	1061.8	580.3	205.7	38.3	27.1
34°	5095.3	4961.4	4499.0	3843.8	2917.5	1978.5	1152.7	613.8	208.8	36.7	25.5
35°	5324.9	5203.7	4746.2	4055.8	3126.4	2126.8	1235.6	645.7	208.8	33.5	25.5
36°	5479.5	5374.3	4959.8	4272.7	3301.7	2252.7	1305.7	674.4	208.8	30.3	23.9
37°	5564.0	5462.0	5100.1	4451.2	3473.9	2377.1	1369.5	696.7	207.3	28.7	22.3
38°	5607.1	5517.8	5203.7	4596.3	3593.5	2466.3	1425.3	714.2	205.7	25.5	22.3
39°	5618.2	5543.3	5269.1	4701.5	3709.9	2555.6	1465.1	723.8	200.9	23.9	20.7
40°	5610.3	5544.9	5304.2	4795.6	3799.2	2625.8	1493.8	727.0	196.1	20.7	20.7
41°	5594.3	5543.3	5329.7	4860.9	3870.9	2670.4	1505.0	720.6	189.7	17.5	19.1
42°	5580.0	5524.2	5340.8	4905.6	3920.3	2692.7	1503.4	707.9	180.2	15.9	19.1
43°	5580.0	5516.2	5342.4	4934.3	3944.2	2694.3	1484.3	683.9	167.4	14.3	17.5
44°	5570.4	5511.4	5350.4	4953.4	3950.6	2680.0	1454.0	658.4	153.1	12.8	17.5
45°	5552.9	5490.7	5348.8	4955.0	3939.5	2644.9	1404.6	625.0	140.3	9.6	17.5
46°	5519.4	5463.6	5334.4	4943.8	3906.0	2593.9	1345.6	591.5	125.9	8.0	15.9
47°	5452.4	5409.4	5296.2	4905.6	3855.0	2519.0	1275.4	553.2	114.8	6.4	15.9
48°	5337.6	5307.3	5230.8	4821.1	3757.7	2426.5	1200.5	511.8	103.6	6.4	15.9
49°	5127.2	5103.3	5058.6	4685.6	3633.4	2313.3	1119.2	465.5	92.5	4.8	15.9
50°	4961.4	4935.9	4845.0	4457.6	3454.8	2169.8	1029.9	419.3	79.7	3.2	14.3
51°	4851.4	4809.9	4666.4	4192.9	3194.9	1978.5	932.7	373.1	67.0	3.2	14.3
52°	4712.7	4650.5	4471.9	3955.4	2957.4	1787.2	827.4	326.8	59.0	3.2	14.3
53°	4422.5	4400.2	4223.2	3700.3	2719.8	1603.8	719.0	288.6	51.0	3.2	14.3
54°	4169.0	4135.5	3894.8	3346.4	2461.6	1399.8	607.4	255.1	43.0	3.2	14.3
55°	3894.8	3829.4	3615.8	3048.3	2158.6	1211.6	500.6	220.0	35.1	3.2	12.8
56°	3548.9	3491.5	3261.9	2729.4	1879.6	1020.3	419.3	180.2	27.1	3.2	12.8
57°	3128.0	3075.4	2898.4	2337.2	1589.5	833.8	341.2	145.1	20.7	3.2	12.8
58°	2721.4	2662.4	2460.0	1961.0	1283.4	661.6	285.4	118.0	15.9	3.2	12.8
59°	2408.9	2329.2	2067.8	1646.9	1004.4	502.2	226.4	94.1	11.2	3.2	12.8
60°	2149.1	2083.7	1812.7	1371.1	787.6	369.9	167.4	71.7	6.4	3.2	12.8
62.5°	1245.1	1227.6	983.7	706.3	371.5	172.2	82.9	33.5	3.2	4.8	12.8
65°	371.5	323.6	251.9	149.9	95.7	57.4	30.3	11.2	1.6	4.8	11.2



TEST NUMBER: P1318318

CATALOG NUMBER: P3SQAS20R409835D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	11.2	11.2	11.2	11.2	11.2	11.2	6.4	3.2	1.6	4.8	11.2
70°	6.4	4.8	4.8	4.8	4.8	3.2	3.2	1.6	1.6	4.8	9.6
72.5°	4.8	4.8	4.8	4.8	3.2	3.2	3.2	1.6	3.2	4.8	8.0
75°	4.8	3.2	3.2	3.2	3.2	1.6	1.6	1.6	3.2	4.8	8.0
77.5°	3.2	3.2	3.2	3.2	1.6	1.6	1.6	1.6	3.2	4.8	8.0
80°	3.2	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	4.8	6.4
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	4.8	6.4
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	4.8	6.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	4.8	4.8
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: P1318318

CATALOG NUMBER: P3SQAS20R409835D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	89.3	89.3	89.3	89.3
2.5°	86.1	84.5	82.9	82.9
5°	82.9	79.7	79.7	78.1
7.5°	78.1	74.9	74.9	74.9
10°	73.3	71.7	71.7	70.1
12.5°	67.0	67.0	67.0	67.0
15°	62.2	62.2	63.8	63.8
17.5°	55.8	57.4	60.6	62.2
20°	51.0	54.2	57.4	59.0
22.5°	47.8	51.0	55.8	57.4
25°	43.0	47.8	54.2	55.8
27.5°	39.9	46.2	51.0	54.2
30°	36.7	44.6	49.4	52.6
31°	36.7	43.0	49.4	52.6
32°	35.1	41.5	49.4	51.0
33°	35.1	41.5	49.4	51.0
34°	33.5	41.5	47.8	51.0
35°	33.5	41.5	47.8	51.0
36°	31.9	39.9	47.8	51.0
37°	31.9	39.9	47.8	51.0
38°	30.3	39.9	47.8	51.0
39°	30.3	39.9	47.8	51.0
40°	30.3	39.9	47.8	51.0
41°	28.7	39.9	47.8	51.0
42°	28.7	39.9	47.8	51.0
43°	28.7	38.3	47.8	51.0
44°	28.7	38.3	47.8	51.0
45°	27.1	38.3	47.8	51.0
46°	27.1	38.3	47.8	51.0
47°	27.1	38.3	47.8	51.0
48°	27.1	38.3	47.8	51.0
49°	27.1	38.3	47.8	51.0
50°	25.5	36.7	47.8	51.0
51°	25.5	36.7	47.8	51.0
52°	25.5	36.7	47.8	51.0
53°	25.5	36.7	47.8	51.0
54°	23.9	36.7	47.8	51.0
55°	23.9	36.7	47.8	51.0
56°	23.9	36.7	47.8	49.4
57°	23.9	36.7	46.2	49.4
58°	23.9	35.1	46.2	49.4
59°	23.9	35.1	46.2	49.4
60°	23.9	35.1	46.2	49.4
62.5°	22.3	35.1	44.6	47.8
65°	20.7	31.9	44.6	46.2



TEST NUMBER: P1318318

CATALOG NUMBER: P3SQAS20R409835D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	20.7	30.3	41.5	44.6
70°	19.1	28.7	39.9	43.0
72.5°	15.9	27.1	36.7	39.9
75°	14.3	23.9	33.5	36.7
77.5°	12.8	20.7	30.3	31.9
80°	11.2	17.5	25.5	28.7
82.5°	8.0	12.8	20.7	22.3
85°	6.4	9.6	14.3	15.9
87.5°	4.8	4.8	8.0	8.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)