

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: P1309395

Luminaire Tested: P3SQAS20R209035D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1309395
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 1/29/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3SQAS20R209035D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

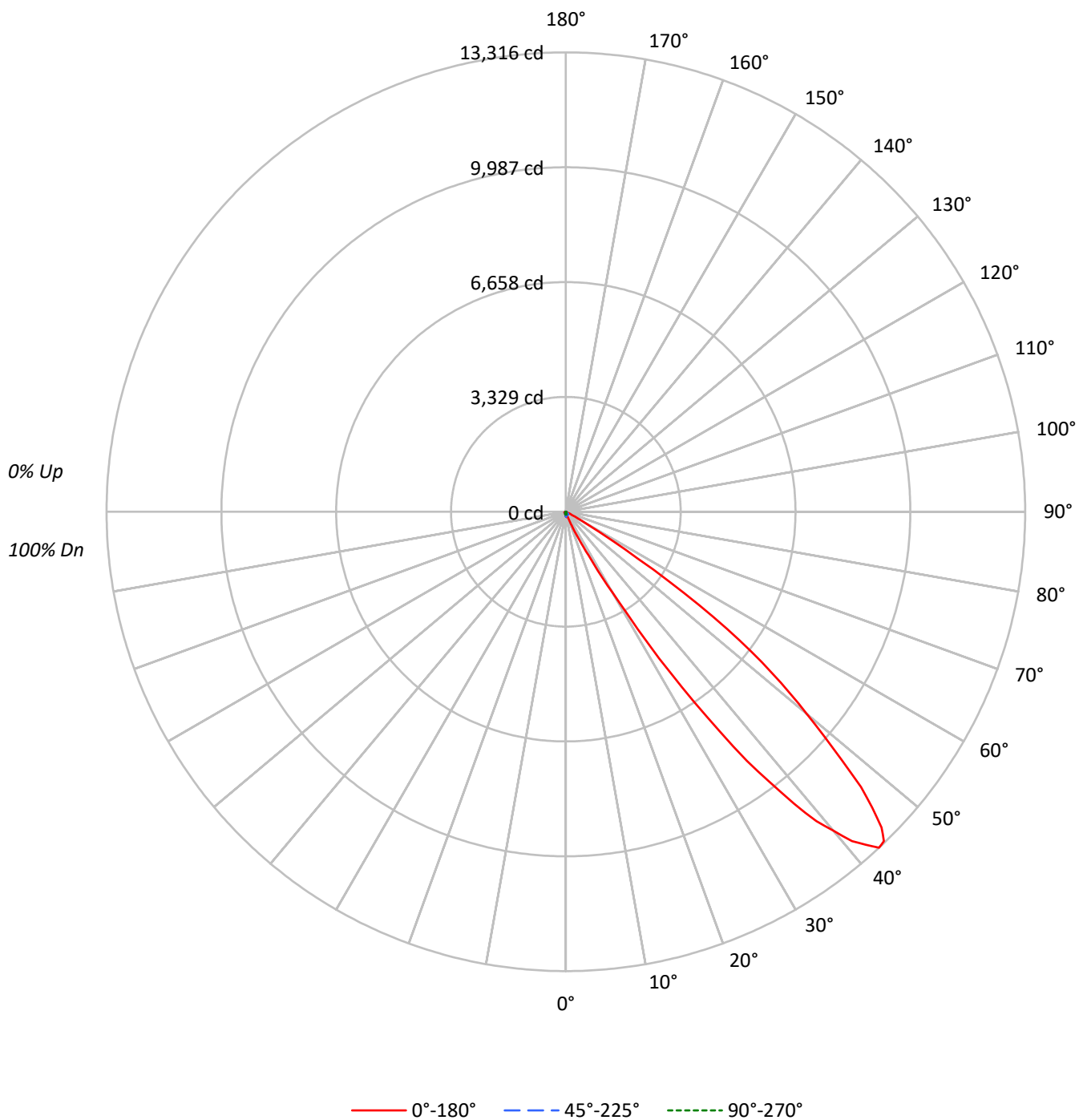
Lumens per Lamp: N/A
Luminaire Lumens: 1850.0 lumens
Efficiency: N/A
Efficacy: 64.2 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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: P1309395

CATALOG NUMBER: P3SQAS20R209035D010 E3SQCA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1309395

CATALOG NUMBER: P3SQAS20R209035D010 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	108	104	101	97	100	97	94	96	94	92	92	91	89	87		
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73		
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63	61		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51		
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42		
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35		
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31	29		
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27	25		
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	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	22165	22165	22165	22165	22165
5°	25846	24048	20746	18031	17426
10°	25532	21895	16421	13990	13676
15°	22323	16742	12089	11161	11785
20°	33136	14021	8926	9567	10520
25°	142729	14537	6936	8589	10242
30°	539701	17639	5886	8293	10023
35°	1636085	21193	5487	8410	10596
40°	2713001	21111	4699	8993	11331
45°	3153390	14394	4238	9304	12275
50°	2447870	7931	4180	9779	13986
55°	1416782	5225	4174	10960	15133
60°	239527	1206	3582	11367	16774
65°	18420	0	4238	12755	19112
70°	2618	0	5237	13999	21904
75°	2329	1131	5789	16170	25419
80°	1686	1686	8629	17257	29357
85°	3359	3359	13832	17191	30826

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3153390 cd/sqm

TEST NUMBER: P1309395

CATALOG NUMBER: P3SQAS20R209035D010 E3SQCA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	11.1	0.6
10°-20°	23.1	1.3
20°-30°	73.9	4.0
30°-40°	471.8	25.5
40°-50°	863.5	46.7
50°-60°	354.8	19.2
60°-70°	29.9	1.6
70°-80°	14.9	0.8
80°-90°	7.0	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°	108.1	5.8
0°-40°	579.8	31.3
0°-60°	1798.1	97.2
0°-90°	1850.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1850.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	129	129	129	129	129	
5°	150	139	120	104	101	14
15°	125	94	68	63	66	40
25°	751	76	36	45	54	494
35°	7782	101	26	40	50	4925
45°	12947	59	17	38	50	9296
55°	4718	17	14	36	50	4125
65°	45	0	10	31	47	147
75°	4	2	9	24	38	4
85°	2	2	7	9	16	1
90°	0	0	0	0	0	

TEST NUMBER: P1309395

CATALOG NUMBER: P3SQAS20R209035D010 E3SQCA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	128.7	128.7	128.7	128.7	128.7	128.7	128.7	128.7	128.7	128.7	128.7
2.5°	140.8	140.8	140.8	139.1	139.1	140.8	139.1	139.1	139.1	139.1	137.3
5°	149.5	149.5	149.5	149.5	149.5	149.5	149.5	147.8	147.8	146.0	139.1
7.5°	153.0	153.0	153.0	153.0	151.3	151.3	151.3	151.3	149.5	147.8	135.6
10°	146.0	146.0	146.0	144.3	144.3	144.3	142.6	142.6	140.8	139.1	125.2
12.5°	132.1	132.1	132.1	132.1	130.4	130.4	128.7	128.7	126.9	125.2	109.5
15°	125.2	125.2	125.2	123.4	123.4	121.7	120.0	118.2	116.5	113.0	93.9
17.5°	135.6	135.6	133.9	133.9	130.4	126.9	125.2	120.0	116.5	111.3	83.5
20°	180.8	182.5	175.6	170.4	166.9	156.5	151.3	142.6	135.6	126.9	76.5
22.5°	365.1	358.1	346.0	326.9	304.2	285.1	250.4	222.5	203.4	177.3	74.8
25°	751.1	744.1	711.1	683.3	613.7	559.8	485.1	424.2	361.6	300.8	76.5
27.5°	1427.4	1380.4	1371.7	1244.8	1147.5	1008.4	864.1	742.4	631.1	507.7	81.7
30°	2713.9	2660.0	2470.5	2279.3	2016.7	1719.4	1436.1	1171.8	951.0	751.1	88.7
31°	3444.1	3496.3	3273.7	2889.5	2501.8	2121.1	1733.4	1397.8	1112.7	864.1	92.1
32°	4527.2	4299.5	4064.8	3670.1	3106.8	2620.0	2133.2	1649.9	1274.4	985.8	95.6
33°	5551.2	5417.4	5059.2	4567.2	3890.9	3207.7	2576.6	1947.2	1472.6	1133.5	97.4
34°	6643.1	6495.3	6204.9	5499.1	4756.7	3861.4	3019.9	2289.7	1709.0	1277.8	99.1
35°	7781.8	7719.2	7159.4	6547.4	5634.7	4555.0	3553.6	2665.2	1940.2	1410.0	100.8
36°	8927.5	8725.9	8287.7	7394.1	6441.4	5196.6	4113.4	3014.7	2174.9	1566.4	100.8
37°	9789.9	9744.7	9164.0	8293.0	7173.3	5881.6	4596.8	3402.4	2411.4	1700.3	100.8
38°	10740.9	10561.8	9972.4	9085.7	7861.8	6509.2	5102.7	3739.7	2635.7	1822.0	99.1
39°	11542.3	11276.3	10681.7	9805.5	8463.3	6985.6	5504.3	4066.5	2833.9	1922.9	97.4
40°	12067.4	11883.1	11262.4	10276.7	9009.2	7435.8	5911.1	4336.0	2981.6	1999.4	93.9
41°	12646.3	12340.3	11726.6	10735.6	9405.6	7832.2	6166.7	4513.3	3096.4	2049.8	90.4
42°	12992.3	12741.9	12013.5	11043.4	9689.0	8058.3	6375.3	4648.9	3165.9	2075.8	83.5
43°	13315.7	12974.9	12265.6	11222.4	9876.8	8218.2	6470.9	4711.5	3181.6	2075.8	74.8
44°	13272.2	12948.8	12213.4	11246.8	9918.5	8265.1	6510.9	4713.3	3157.2	2049.8	66.1
45°	12947.1	12625.5	11963.1	11034.7	9769.0	8173.0	6431.0	4643.7	3089.4	2004.6	59.1
46°	12350.8	12030.9	11523.2	10680.0	9490.8	7964.4	6244.9	4492.5	2976.4	1931.5	52.2
47°	11702.3	11391.1	10871.3	10108.0	9016.2	7592.3	5975.5	4280.3	2818.2	1825.5	46.9
48°	10761.7	10567.0	10045.4	9393.5	8357.3	7009.9	5502.6	3934.4	2606.1	1688.1	40.0
49°	9930.7	9725.5	9268.3	8567.7	7498.4	6331.9	4937.5	3513.6	2329.7	1535.2	34.8
50°	9136.2	8957.1	8534.6	7743.6	6723.0	5513.0	4174.3	2983.4	1982.0	1345.6	29.6
51°	8359.0	8225.2	7794.0	7067.3	6031.1	4883.6	3616.2	2484.4	1637.7	1116.2	27.8
52°	7578.4	7562.8	7095.1	6359.7	5358.3	4256.0	3073.8	2096.7	1389.1	937.1	26.1
53°	6738.7	6637.8	6229.3	5568.6	4607.2	3602.3	2606.1	1768.1	1196.1	798.0	22.6
54°	5782.5	5669.5	5231.3	4635.0	3764.0	2950.3	2100.2	1429.1	996.2	674.6	20.9
55°	4718.5	4525.5	4207.3	3595.4	2939.9	2251.4	1622.1	1131.8	796.3	561.6	17.4
56°	3579.7	3386.7	3207.7	2757.4	2157.6	1679.5	1208.3	867.5	622.4	443.3	15.6
57°	2489.6	2479.2	2185.4	1839.4	1443.0	1144.0	827.6	612.0	439.9	344.2	12.2
58°	1615.1	1561.2	1373.5	1173.5	944.0	714.6	532.0	415.5	299.0	234.7	10.4
59°	1131.8	1024.0	923.2	782.4	594.6	450.3	342.5	266.0	206.9	163.4	7.0
60°	695.4	672.8	605.0	476.4	386.0	318.2	255.6	196.5	151.3	116.5	3.5
62.5°	198.2	201.7	182.5	161.7	139.1	120.0	107.8	92.1	76.5	60.8	0.0
65°	45.2	43.5	46.9	43.5	40.0	40.0	34.8	31.3	27.8	26.1	0.0



TEST NUMBER: P1309395

CATALOG NUMBER: P3SQAS20R209035D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	13.9	13.9	12.2	12.2	12.2	10.4	10.4	8.7	8.7	7.0	0.0
70°	5.2	5.2	5.2	5.2	5.2	3.5	3.5	3.5	1.7	1.7	0.0
72.5°	5.2	5.2	5.2	3.5	3.5	3.5	3.5	3.5	1.7	1.7	1.7
75°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	1.7	1.7	1.7	1.7
77.5°	3.5	3.5	3.5	3.5	3.5	1.7	3.5	1.7	1.7	1.7	1.7
80°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
85°	1.7	1.7	1.7	1.7	0.0	0.0	1.7	1.7	1.7	0.0	1.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7
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: P1309395

CATALOG NUMBER: P3SQAS20R209035D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	128.7	128.7	128.7	128.7	128.7	128.7
2.5°	133.9	126.9	121.7	116.5	114.7	114.7
5°	130.4	120.0	109.5	104.3	100.8	100.8
7.5°	120.0	107.8	97.4	92.1	90.4	90.4
10°	107.8	93.9	83.5	80.0	80.0	78.2
12.5°	93.9	80.0	73.0	71.3	71.3	71.3
15°	78.2	67.8	62.6	62.6	64.3	66.1
17.5°	66.1	55.6	53.9	57.4	60.8	60.8
20°	55.6	48.7	48.7	52.2	55.6	57.4
22.5°	46.9	41.7	43.5	48.7	53.9	55.6
25°	41.7	36.5	40.0	45.2	50.4	53.9
27.5°	34.8	33.0	36.5	43.5	50.4	52.2
30°	29.6	29.6	34.8	41.7	48.7	50.4
31°	27.8	27.8	34.8	41.7	48.7	50.4
32°	26.1	27.8	33.0	41.7	48.7	50.4
33°	24.3	26.1	33.0	40.0	48.7	50.4
34°	22.6	26.1	33.0	40.0	48.7	50.4
35°	20.9	26.1	33.0	40.0	48.7	50.4
36°	19.1	24.3	31.3	40.0	48.7	50.4
37°	17.4	24.3	31.3	40.0	48.7	50.4
38°	15.6	22.6	31.3	40.0	48.7	50.4
39°	15.6	22.6	29.6	40.0	46.9	50.4
40°	13.9	20.9	29.6	40.0	46.9	50.4
41°	12.2	20.9	29.6	38.2	46.9	50.4
42°	10.4	19.1	27.8	38.2	46.9	50.4
43°	8.7	19.1	27.8	38.2	46.9	50.4
44°	8.7	17.4	27.8	38.2	46.9	50.4
45°	7.0	17.4	27.8	38.2	46.9	50.4
46°	5.2	17.4	27.8	38.2	46.9	50.4
47°	5.2	15.6	26.1	38.2	46.9	50.4
48°	3.5	15.6	26.1	38.2	46.9	50.4
49°	3.5	15.6	26.1	38.2	46.9	52.2
50°	3.5	15.6	26.1	36.5	46.9	52.2
51°	1.7	15.6	26.1	36.5	46.9	52.2
52°	1.7	15.6	24.3	36.5	48.7	52.2
53°	1.7	13.9	24.3	36.5	48.7	52.2
54°	1.7	13.9	24.3	36.5	48.7	50.4
55°	1.7	13.9	24.3	36.5	46.9	50.4
56°	1.7	12.2	24.3	36.5	46.9	50.4
57°	1.7	12.2	22.6	34.8	46.9	48.7
58°	1.7	12.2	22.6	34.8	46.9	48.7
59°	1.7	12.2	22.6	34.8	45.2	48.7
60°	3.5	10.4	20.9	33.0	45.2	48.7
62.5°	3.5	10.4	20.9	33.0	43.5	46.9
65°	3.5	10.4	19.1	31.3	43.5	46.9



TEST NUMBER: P1309395

CATALOG NUMBER: P3SQAS20R209035D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	3.5	8.7	17.4	29.6	41.7	45.2
70°	3.5	10.4	17.4	27.8	40.0	43.5
72.5°	5.2	8.7	15.6	26.1	38.2	41.7
75°	5.2	8.7	15.6	24.3	36.5	38.2
77.5°	7.0	8.7	13.9	20.9	33.0	34.8
80°	7.0	8.7	12.2	17.4	27.8	29.6
82.5°	7.0	8.7	8.7	13.9	20.9	22.6
85°	5.2	7.0	7.0	8.7	13.9	15.6
87.5°	5.2	7.0	5.2	3.5	7.0	7.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)