

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: P1316484

Luminaire Tested: P3SQAS20R159827D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1316484
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: P3SQAS20R159827D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 98CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

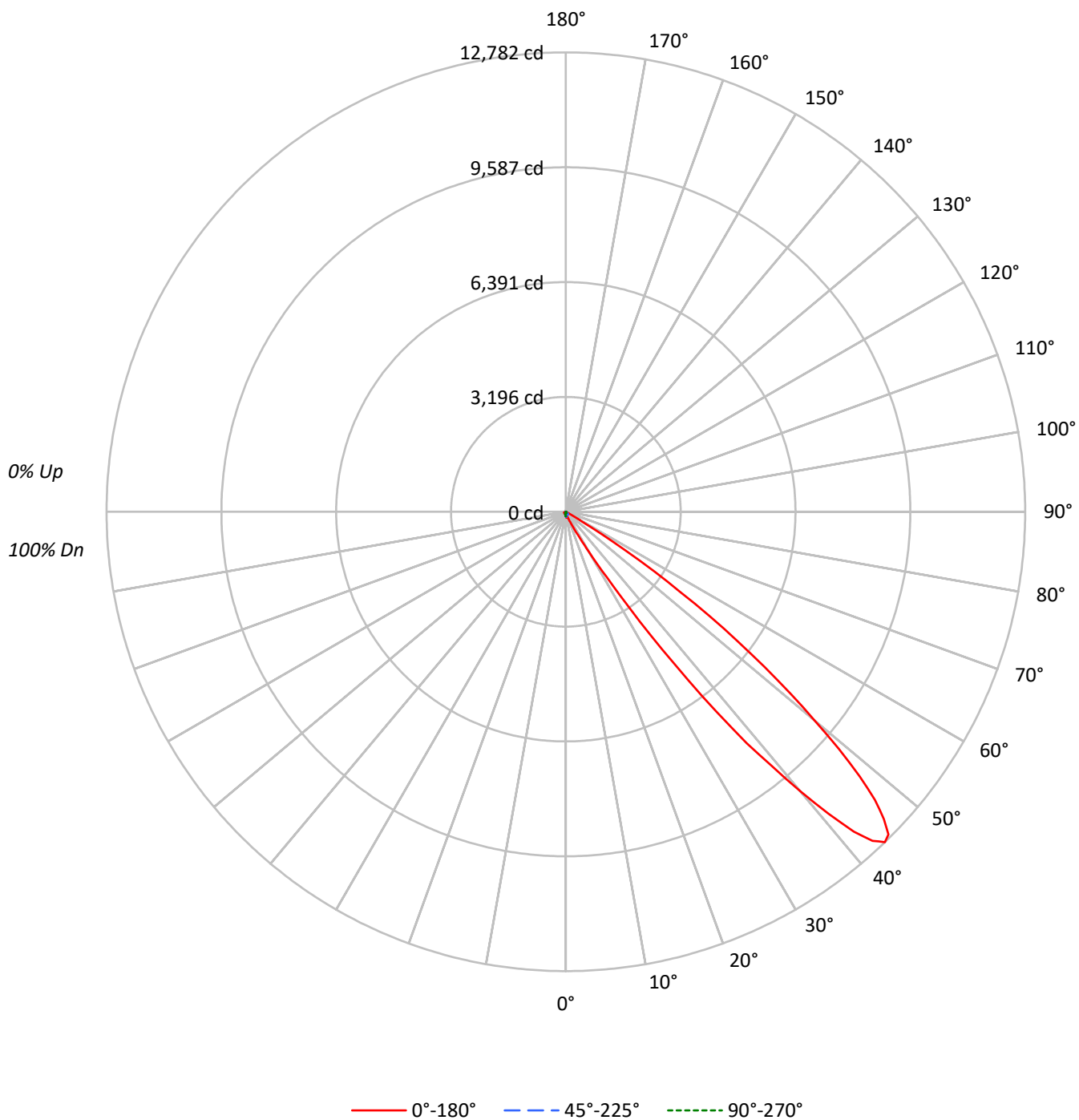
Lumens per Lamp: N/A
Luminaire Lumens: 1427.0 lumens
Efficiency: N/A
Efficacy: 52.1 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P1316484

CATALOG NUMBER: P3SQAS20R159827D010 E3SQCA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1316484

CATALOG NUMBER: P3SQAS20R159827D010 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	100	97	94	96	93	91	92	90	89	87		
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61		
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50		
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35		
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29		
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24		
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20		
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	21803	21803	21803	21803	21803
5°	27056	24100	19674	17219	16977
10°	26617	20653	15180	13431	13693
15°	22073	14710	10912	11161	11928
20°	38341	11730	8339	9640	10960
25°	85436	14062	6765	8931	10280
30°	255502	17262	5946	8770	10759
35°	983589	19448	5382	8977	11374
40°	2283032	16951	5126	9285	12163
45°	3092257	12811	4506	10059	13177
50°	2424587	7636	4582	10664	14495
55°	1163782	3423	4264	11530	15794
60°	106365	482	3927	12262	17636
65°	11614	0	3464	12755	19153
70°	2870	0	4280	13596	20796
75°	2861	932	5656	15172	23689
80°	2777	2777	7042	15571	25390
85°	2766	2766	11263	14030	28060

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3092257 cd/sqm

TEST NUMBER: P1316484

CATALOG NUMBER: P3SQAS20R159827D010 E3SQCA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.8	0.8
10°-20°	22.5	1.6
20°-30°	53.9	3.8
30°-40°	295.2	20.7
40°-50°	714.8	50.1
50°-60°	285.1	20.0
60°-70°	24.6	1.7
70°-80°	13.9	1.0
80°-90°	6.1	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°	87.2	6.1
0°-40°	382.4	26.8
0°-60°	1382.3	96.9
0°-90°	1427.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1427.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	127	127	127	127	127	
5°	156	139	114	100	98	15
15°	124	82	61	63	67	43
25°	450	74	36	47	54	271
35°	4678	92	26	43	54	3306
45°	12696	53	18	41	54	8956
55°	3876	11	14	38	53	3611
65°	28	0	8	31	47	73
75°	4	1	8	23	36	4
85°	1	1	6	7	14	1
90°	0	0	0	0	0	

TEST NUMBER: P1316484

CATALOG NUMBER: P3SQAS20R159827D010 E3SQCA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6	126.6
2.5°	142.3	142.3	143.7	142.3	142.3	142.3	142.3	140.9	140.9	140.9	136.6
5°	156.5	156.5	156.5	156.5	155.1	155.1	155.1	153.7	153.7	152.2	139.4
7.5°	162.2	162.2	160.8	160.8	159.4	159.4	157.9	156.5	155.1	153.7	133.7
10°	152.2	152.2	152.2	150.8	150.8	149.4	148.0	146.6	145.1	142.3	118.1
12.5°	135.2	135.2	136.6	135.2	133.7	132.3	129.5	128.1	126.6	123.8	98.2
15°	123.8	123.8	123.8	122.4	120.9	118.1	116.7	113.8	112.4	108.1	82.5
17.5°	157.9	157.9	156.5	153.7	148.0	143.7	136.6	130.9	123.8	115.3	71.1
20°	209.2	209.2	206.3	203.5	196.4	189.2	177.9	167.9	156.5	146.6	64.0
22.5°	303.1	307.3	298.8	288.8	278.9	261.8	246.2	230.5	210.6	193.5	65.5
25°	449.6	453.9	449.6	426.9	408.4	385.6	355.7	324.4	290.3	259.0	74.0
27.5°	728.5	731.3	724.2	668.7	638.9	579.1	526.5	475.2	418.3	361.4	81.1
30°	1284.8	1286.3	1240.7	1129.7	1031.6	900.7	789.7	683.0	593.3	502.3	86.8
31°	1691.8	1651.9	1555.2	1421.4	1264.9	1088.5	936.2	798.2	664.5	566.3	88.2
32°	2148.5	2142.8	1982.0	1750.1	1541.0	1320.4	1091.3	914.9	761.2	627.5	89.6
33°	2753.2	2756.1	2502.8	2229.6	1886.7	1590.7	1290.5	1048.6	863.7	700.0	92.5
34°	3698.0	3476.0	3178.7	2808.7	2342.0	1896.7	1506.8	1203.7	956.2	769.8	92.5
35°	4678.3	4455.0	4127.7	3567.1	2926.8	2303.6	1764.3	1370.2	1067.1	845.2	92.5
36°	5776.8	5587.5	5092.4	4376.7	3560.0	2687.8	2037.5	1562.3	1176.7	913.5	91.1
37°	6963.4	6686.0	6136.8	5355.6	4262.9	3228.5	2370.5	1753.0	1286.3	987.5	88.2
38°	8168.6	7918.2	7225.2	6279.1	5102.4	3799.0	2703.4	1936.5	1387.3	1043.0	83.9
39°	9082.1	8945.5	8258.2	7201.1	5772.5	4339.7	3046.3	2132.9	1494.0	1098.4	79.7
40°	10154.9	9934.4	9282.7	7975.1	6565.0	4890.3	3382.1	2306.4	1582.2	1142.6	75.4
41°	11133.8	10854.9	10032.5	8769.0	7199.6	5385.5	3700.8	2485.7	1653.4	1168.2	72.6
42°	11973.3	11648.9	10789.5	9449.2	7730.4	5781.1	3955.5	2613.8	1720.2	1189.5	68.3
43°	12516.8	12236.5	11391.4	9960.0	8184.3	6143.9	4193.1	2747.5	1761.5	1203.7	62.6
44°	12781.5	12498.3	11680.2	10280.1	8463.1	6361.6	4346.8	2840.0	1807.0	1222.2	58.3
45°	12696.1	12408.7	11617.6	10285.8	8549.9	6439.8	4412.3	2881.3	1831.2	1239.3	52.6
46°	12304.8	12102.8	11306.0	10018.3	8384.9	6355.9	4375.3	2850.0	1822.7	1239.3	47.0
47°	11755.6	11525.1	10766.7	9558.7	7985.1	6139.6	4225.9	2754.6	1770.0	1210.8	41.3
48°	11007.2	10810.8	10014.0	8828.8	7371.8	5668.6	3888.7	2599.6	1687.5	1155.4	35.6
49°	10068.1	9794.9	9053.6	7895.4	6572.2	4999.9	3446.2	2337.7	1555.2	1077.1	31.3
50°	9049.3	8712.1	8140.1	6960.6	5745.5	4287.1	2864.2	1976.3	1368.8	974.7	28.5
51°	8051.9	7709.0	7164.1	6161.0	4863.3	3557.1	2310.7	1577.9	1126.9	833.8	24.2
52°	7017.5	6730.1	6119.7	5331.4	4163.3	2882.7	1925.1	1334.6	936.2	700.0	19.9
53°	5987.4	5791.0	5210.5	4412.3	3345.1	2354.8	1572.3	1142.6	816.7	599.0	15.7
54°	4955.8	4740.9	4299.9	3588.4	2696.3	1858.2	1333.2	956.2	708.6	522.2	14.2
55°	3875.9	3764.9	3357.9	2736.1	2043.2	1482.6	1081.4	822.4	593.3	436.8	11.4
56°	2985.1	2859.9	2488.6	1984.9	1518.2	1161.0	875.1	671.6	502.3	365.7	8.5
57°	1955.0	1826.9	1580.8	1385.9	1105.6	846.6	668.7	529.3	408.4	303.1	7.1
58°	1155.4	1038.7	1000.3	853.7	737.0	574.8	493.7	394.1	301.6	239.0	4.3
59°	530.7	539.3	479.5	449.6	408.4	365.7	300.2	263.2	206.3	172.2	2.8
60°	308.8	291.7	284.6	254.7	226.2	200.6	180.7	159.4	129.5	111.0	1.4
62.5°	105.3	101.0	103.9	93.9	88.2	85.4	78.3	66.9	55.5	45.5	0.0
65°	28.5	28.5	27.0	25.6	24.2	22.8	21.3	18.5	17.1	14.2	0.0



TEST NUMBER: P1316484

CATALOG NUMBER: P3SQAS20R159827D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	10.0	10.0	8.5	8.5	7.1	7.1	5.7	5.7	4.3	4.3	0.0
70°	5.7	5.7	5.7	4.3	4.3	4.3	2.8	2.8	2.8	1.4	0.0
72.5°	4.3	4.3	4.3	4.3	4.3	4.3	2.8	2.8	2.8	1.4	1.4
75°	4.3	4.3	4.3	2.8	2.8	2.8	2.8	2.8	2.8	2.8	1.4
77.5°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
80°	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	1.4	2.8
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	2.8
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
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: P1316484

CATALOG NUMBER: P3SQAS20R159827D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	126.6	126.6	126.6	126.6	126.6	126.6
2.5°	130.9	125.2	118.1	113.8	112.4	111.0
5°	125.2	113.8	105.3	99.6	98.2	98.2
7.5°	112.4	99.6	91.1	88.2	86.8	86.8
10°	98.2	86.8	79.7	76.8	78.3	78.3
12.5°	82.5	72.6	69.7	69.7	71.1	72.6
15°	66.9	61.2	61.2	62.6	65.5	66.9
17.5°	55.5	52.6	54.1	56.9	59.8	62.6
20°	45.5	45.5	48.4	52.6	56.9	59.8
22.5°	38.4	39.8	44.1	48.4	54.1	56.9
25°	32.7	35.6	39.8	47.0	52.6	54.1
27.5°	28.5	32.7	38.4	45.5	51.2	54.1
30°	24.2	29.9	37.0	44.1	51.2	54.1
31°	22.8	28.5	35.6	44.1	51.2	54.1
32°	21.3	28.5	35.6	44.1	51.2	54.1
33°	19.9	27.0	35.6	42.7	51.2	54.1
34°	18.5	27.0	35.6	44.1	51.2	54.1
35°	17.1	25.6	34.1	42.7	49.8	54.1
36°	15.7	25.6	34.1	42.7	51.2	54.1
37°	14.2	25.6	34.1	42.7	49.8	54.1
38°	14.2	24.2	32.7	42.7	49.8	54.1
39°	12.8	22.8	32.7	42.7	49.8	54.1
40°	11.4	22.8	31.3	41.3	49.8	54.1
41°	10.0	21.3	31.3	41.3	49.8	54.1
42°	8.5	21.3	31.3	41.3	49.8	54.1
43°	7.1	19.9	29.9	41.3	49.8	54.1
44°	7.1	19.9	29.9	41.3	49.8	54.1
45°	5.7	18.5	28.5	41.3	49.8	54.1
46°	5.7	18.5	28.5	39.8	49.8	54.1
47°	4.3	18.5	28.5	39.8	49.8	54.1
48°	4.3	17.1	28.5	39.8	49.8	54.1
49°	2.8	17.1	28.5	39.8	49.8	54.1
50°	2.8	17.1	27.0	39.8	49.8	54.1
51°	2.8	17.1	27.0	39.8	49.8	54.1
52°	2.8	15.7	27.0	39.8	49.8	54.1
53°	2.8	15.7	27.0	39.8	49.8	54.1
54°	2.8	15.7	25.6	39.8	49.8	54.1
55°	2.8	14.2	25.6	38.4	49.8	52.6
56°	2.8	14.2	25.6	38.4	49.8	52.6
57°	2.8	14.2	24.2	38.4	49.8	52.6
58°	2.8	12.8	24.2	37.0	48.4	52.6
59°	2.8	12.8	22.8	37.0	48.4	51.2
60°	2.8	11.4	22.8	35.6	47.0	51.2
62.5°	2.8	10.0	19.9	34.1	45.5	48.4
65°	2.8	8.5	18.5	31.3	44.1	47.0



TEST NUMBER: P1316484

CATALOG NUMBER: P3SQAS20R159827D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	2.8	8.5	17.1	29.9	41.3	45.5
70°	2.8	8.5	15.7	27.0	39.8	41.3
72.5°	4.3	8.5	14.2	25.6	37.0	38.4
75°	5.7	8.5	12.8	22.8	34.1	35.6
77.5°	5.7	8.5	11.4	19.9	29.9	31.3
80°	5.7	7.1	10.0	15.7	24.2	25.6
82.5°	5.7	7.1	7.1	12.8	18.5	19.9
85°	4.3	5.7	5.7	7.1	12.8	14.2
87.5°	4.3	5.7	2.8	4.3	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)