

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: P1315609

Luminaire Tested: P3SQAS20R159740D010 E3SQCA451MW

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1315609
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: P3SQAS20R159740D010 E3SQCA451MW
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 97CRI , E3SQCA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

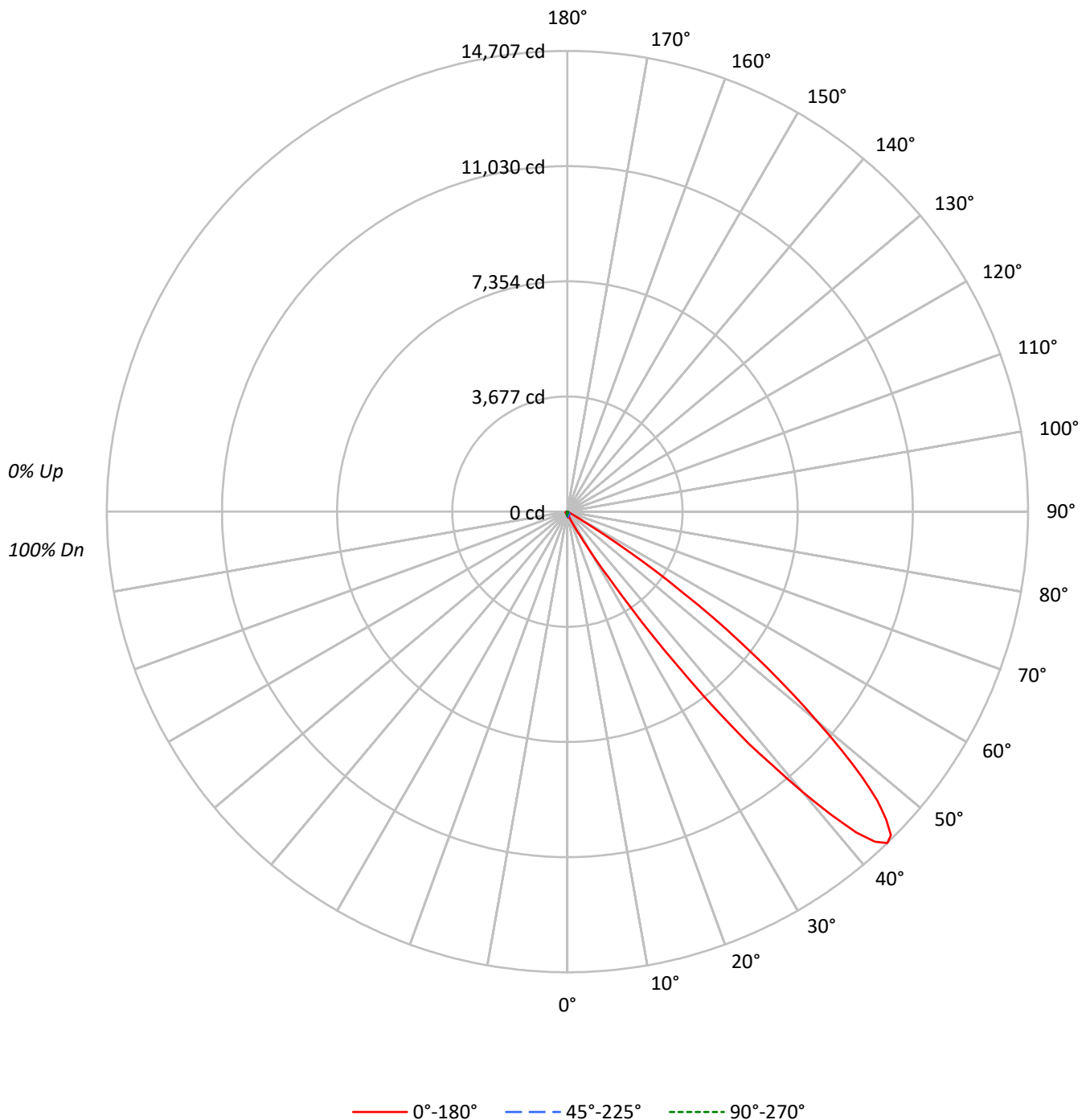
Lumens per Lamp: N/A
Luminaire Lumens: 1642.0 lumens
Efficiency: N/A
Efficacy: 57.0 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P1315609

CATALOG NUMBER: P3SQAS20R159740D010 E3SQCA451MW

Luminous Intensity Polar Plot



TEST NUMBER: P1315609

CATALOG NUMBER: P3SQAS20R159740D010 E3SQCA451MW

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			0
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°	25093	25093	25093	25093	25093
5°	31136	27730	22647	19812	19535
10°	30639	23766	17470	15459	15739
15°	25390	16938	12552	12837	13711
20°	44114	13507	9604	11106	12609
25°	98320	16171	7772	10261	11820
30°	294003	19867	6841	10102	12369
35°	1131791	22370	6202	10323	13077
40°	2627007	19514	5890	10679	13984
45°	3558162	14760	5188	11569	15149
50°	2789911	8761	5251	12271	16665
55°	1339104	3933	4924	13272	18196
60°	122381	551	4512	14088	20288
65°	13326	0	3994	14670	22006
70°	3273	0	4935	15660	23918
75°	3261	1065	6521	17434	27216
80°	3273	3273	8133	17852	29258
85°	3162	3162	12844	16203	32407

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3558162 cd/sqm

TEST NUMBER: P1315609

CATALOG NUMBER: P3SQAS20R159740D010 E3SQCA451MW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.4	0.8
10°-20°	25.9	1.6
20°-30°	62.0	3.8
30°-40°	339.6	20.7
40°-50°	822.4	50.1
50°-60°	328.1	20.0
60°-70°	28.4	1.7
70°-80°	16.0	1.0
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°	100.4	6.1
0°-40°	440.0	26.8
0°-60°	1590.6	96.9
0°-90°	1642.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1642.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	146	146	146	146	146	
5°	180	160	131	115	113	17
15°	142	95	70	72	77	50
25°	517	85	41	54	62	312
35°	5383	106	30	49	62	3804
45°	14609	61	21	48	62	10306
55°	4460	13	16	44	61	4155
65°	33	0	10	36	54	84
75°	5	2	10	26	41	5
85°	2	2	6	8	16	1
90°	0	0	0	0	0	

TEST NUMBER: P1315609

CATALOG NUMBER: P3SQAS20R159740D010 E3SQCA451MW

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	145.7	145.7	145.7	145.7	145.7	145.7	145.7	145.7	145.7	145.7	145.7
2.5°	163.7	163.7	165.4	163.7	163.7	163.7	163.7	162.1	162.1	162.1	157.2
5°	180.1	180.1	180.1	180.1	178.5	178.5	178.5	176.8	176.8	175.2	160.4
7.5°	186.6	186.6	185.0	185.0	183.4	183.4	181.7	180.1	178.5	176.8	153.9
10°	175.2	175.2	175.2	173.5	173.5	171.9	170.3	168.6	167.0	163.7	135.9
12.5°	155.5	155.5	157.2	155.5	153.9	152.3	149.0	147.4	145.7	142.4	113.0
15°	142.4	142.4	142.4	140.8	139.2	135.9	134.3	131.0	129.3	124.4	95.0
17.5°	181.7	181.7	180.1	176.8	170.3	165.4	157.2	150.6	142.4	132.6	81.9
20°	240.7	240.7	237.4	234.1	225.9	217.8	204.7	193.2	180.1	168.6	73.7
22.5°	348.7	353.6	343.8	332.4	320.9	301.3	283.2	265.2	242.3	222.7	75.3
25°	517.4	522.3	517.4	491.2	469.9	443.7	409.3	373.3	334.0	298.0	85.1
27.5°	838.3	841.5	833.3	769.5	735.1	666.4	605.8	546.8	481.3	415.9	93.3
30°	1478.4	1480.1	1427.7	1300.0	1187.0	1036.4	908.7	785.9	682.7	577.9	99.9
31°	1946.7	1900.8	1789.5	1635.6	1455.5	1252.5	1077.3	918.5	764.6	651.6	101.5
32°	2472.2	2465.7	2280.7	2013.8	1773.1	1519.3	1255.8	1052.7	875.9	722.0	103.1
33°	3168.0	3171.3	2879.9	2565.5	2171.0	1830.4	1485.0	1206.6	993.8	805.5	106.4
34°	4255.2	3999.7	3657.6	3231.9	2694.9	2182.4	1733.8	1385.1	1100.2	885.7	106.4
35°	5383.2	5126.2	4749.6	4104.5	3367.8	2650.7	2030.2	1576.7	1227.9	972.5	106.4
36°	6647.1	6429.4	5859.6	5036.1	4096.3	3092.7	2344.5	1797.7	1354.0	1051.1	104.8
37°	8012.6	7693.3	7061.4	6162.5	4905.1	3714.9	2727.6	2017.1	1480.1	1136.2	101.5
38°	9399.3	9111.2	8313.8	7225.1	5871.1	4371.4	3110.7	2228.3	1596.3	1200.1	96.6
39°	10450.4	10293.3	9502.5	8286.0	6642.2	4993.5	3505.3	2454.2	1719.1	1263.9	91.7
40°	11684.9	11431.1	10681.3	9176.7	7554.2	5627.2	3891.7	2653.9	1820.6	1314.7	86.8
41°	12811.3	12490.4	11544.1	10090.2	8284.4	6196.9	4258.4	2860.2	1902.5	1344.2	83.5
42°	13777.3	13404.0	12415.1	10872.8	8895.1	6652.1	4551.5	3007.6	1979.4	1368.7	78.6
43°	14402.7	14080.2	13107.7	11460.6	9417.3	7069.6	4824.9	3161.5	2026.9	1385.1	72.0
44°	14707.2	14381.4	13440.0	11829.0	9738.2	7320.0	5001.7	3267.9	2079.3	1406.4	67.1
45°	14609.0	14278.3	13368.0	11835.5	9838.1	7410.1	5077.0	3315.4	2107.1	1426.0	60.6
46°	14158.8	13926.3	13009.4	11527.7	9648.2	7313.5	5034.5	3279.4	2097.3	1426.0	54.0
47°	13526.8	13261.6	12388.9	10998.9	9188.1	7064.6	4862.6	3169.7	2036.7	1393.3	47.5
48°	12665.6	12439.7	11522.8	10159.0	8482.5	6522.7	4474.5	2991.2	1941.8	1329.4	40.9
49°	11585.0	11270.7	10417.7	9085.0	7562.4	5753.2	3965.4	2690.0	1789.5	1239.4	36.0
50°	10412.8	10024.8	9366.6	8009.3	6611.1	4933.0	3295.7	2274.1	1575.0	1121.5	32.7
51°	9265.1	8870.5	8243.4	7089.2	5596.0	4093.1	2658.9	1815.7	1296.7	959.4	27.8
52°	8074.8	7744.1	7041.7	6134.7	4790.5	3317.0	2215.2	1535.7	1077.3	805.5	22.9
53°	6889.5	6663.5	5995.5	5077.0	3849.1	2709.6	1809.1	1314.7	939.8	689.3	18.0
54°	5702.5	5455.2	4947.7	4129.1	3102.5	2138.2	1534.1	1100.2	815.3	600.9	16.4
55°	4459.8	4332.1	3863.9	3148.4	2351.1	1706.0	1244.3	946.3	682.7	502.6	13.1
56°	3434.9	3290.8	2863.5	2283.9	1746.9	1336.0	1006.9	772.8	577.9	420.8	9.8
57°	2249.6	2102.2	1819.0	1594.7	1272.1	974.2	769.5	609.0	469.9	348.7	8.2
58°	1329.4	1195.2	1151.0	982.3	848.1	661.4	568.1	453.5	347.1	275.1	4.9
59°	610.7	620.5	551.7	517.4	469.9	420.8	345.5	302.9	237.4	198.1	3.3
60°	355.3	335.6	327.4	293.1	260.3	230.8	207.9	183.4	149.0	127.7	1.6
62.5°	121.2	116.2	119.5	108.1	101.5	98.2	90.0	76.9	63.9	52.4	0.0
65°	32.7	32.7	31.1	29.5	27.8	26.2	24.6	21.3	19.6	16.4	0.0



TEST NUMBER: P1315609

CATALOG NUMBER: P3SQAS20R159740D010 E3SQCA451MW

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	11.5	11.5	9.8	9.8	8.2	8.2	6.5	6.5	4.9	4.9	0.0
70°	6.5	6.5	6.5	4.9	4.9	4.9	3.3	3.3	3.3	1.6	0.0
72.5°	4.9	4.9	4.9	4.9	4.9	4.9	3.3	3.3	3.3	1.6	1.6
75°	4.9	4.9	4.9	3.3	3.3	3.3	3.3	3.3	3.3	3.3	1.6
77.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
80°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	1.6	3.3
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.3
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6
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: P1315609

CATALOG NUMBER: P3SQAS20R159740D010 E3SQCA451MW

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	145.7	145.7	145.7	145.7	145.7	145.7
2.5°	150.6	144.1	135.9	131.0	129.3	127.7
5°	144.1	131.0	121.2	114.6	113.0	113.0
7.5°	129.3	114.6	104.8	101.5	99.9	99.9
10°	113.0	99.9	91.7	88.4	90.0	90.0
12.5°	95.0	83.5	80.2	80.2	81.9	83.5
15°	76.9	70.4	70.4	72.0	75.3	76.9
17.5°	63.9	60.6	62.2	65.5	68.8	72.0
20°	52.4	52.4	55.7	60.6	65.5	68.8
22.5°	44.2	45.8	50.8	55.7	62.2	65.5
25°	37.7	40.9	45.8	54.0	60.6	62.2
27.5°	32.7	37.7	44.2	52.4	58.9	62.2
30°	27.8	34.4	42.6	50.8	58.9	62.2
31°	26.2	32.7	40.9	50.8	58.9	62.2
32°	24.6	32.7	40.9	50.8	58.9	62.2
33°	22.9	31.1	40.9	49.1	58.9	62.2
34°	21.3	31.1	40.9	50.8	58.9	62.2
35°	19.6	29.5	39.3	49.1	57.3	62.2
36°	18.0	29.5	39.3	49.1	58.9	62.2
37°	16.4	29.5	39.3	49.1	57.3	62.2
38°	16.4	27.8	37.7	49.1	57.3	62.2
39°	14.7	26.2	37.7	49.1	57.3	62.2
40°	13.1	26.2	36.0	47.5	57.3	62.2
41°	11.5	24.6	36.0	47.5	57.3	62.2
42°	9.8	24.6	36.0	47.5	57.3	62.2
43°	8.2	22.9	34.4	47.5	57.3	62.2
44°	8.2	22.9	34.4	47.5	57.3	62.2
45°	6.5	21.3	32.7	47.5	57.3	62.2
46°	6.5	21.3	32.7	45.8	57.3	62.2
47°	4.9	21.3	32.7	45.8	57.3	62.2
48°	4.9	19.6	32.7	45.8	57.3	62.2
49°	3.3	19.6	32.7	45.8	57.3	62.2
50°	3.3	19.6	31.1	45.8	57.3	62.2
51°	3.3	19.6	31.1	45.8	57.3	62.2
52°	3.3	18.0	31.1	45.8	57.3	62.2
53°	3.3	18.0	31.1	45.8	57.3	62.2
54°	3.3	18.0	29.5	45.8	57.3	62.2
55°	3.3	16.4	29.5	44.2	57.3	60.6
56°	3.3	16.4	29.5	44.2	57.3	60.6
57°	3.3	16.4	27.8	44.2	57.3	60.6
58°	3.3	14.7	27.8	42.6	55.7	60.6
59°	3.3	14.7	26.2	42.6	55.7	58.9
60°	3.3	13.1	26.2	40.9	54.0	58.9
62.5°	3.3	11.5	22.9	39.3	52.4	55.7
65°	3.3	9.8	21.3	36.0	50.8	54.0



TEST NUMBER: P1315609

CATALOG NUMBER: P3SQAS20R159740D010 E3SQCA451MW

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	3.3	9.8	19.6	34.4	47.5	52.4
70°	3.3	9.8	18.0	31.1	45.8	47.5
72.5°	4.9	9.8	16.4	29.5	42.6	44.2
75°	6.5	9.8	14.7	26.2	39.3	40.9
77.5°	6.5	9.8	13.1	22.9	34.4	36.0
80°	6.5	8.2	11.5	18.0	27.8	29.5
82.5°	6.5	8.2	8.2	14.7	21.3	22.9
85°	4.9	6.5	6.5	8.2	14.7	16.4
87.5°	4.9	6.5	3.3	4.9	6.5	6.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)