

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: P1318236

Luminaire Tested: P3SQAS20R159835D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1318236
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: P3SQAS20R159835D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 98CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

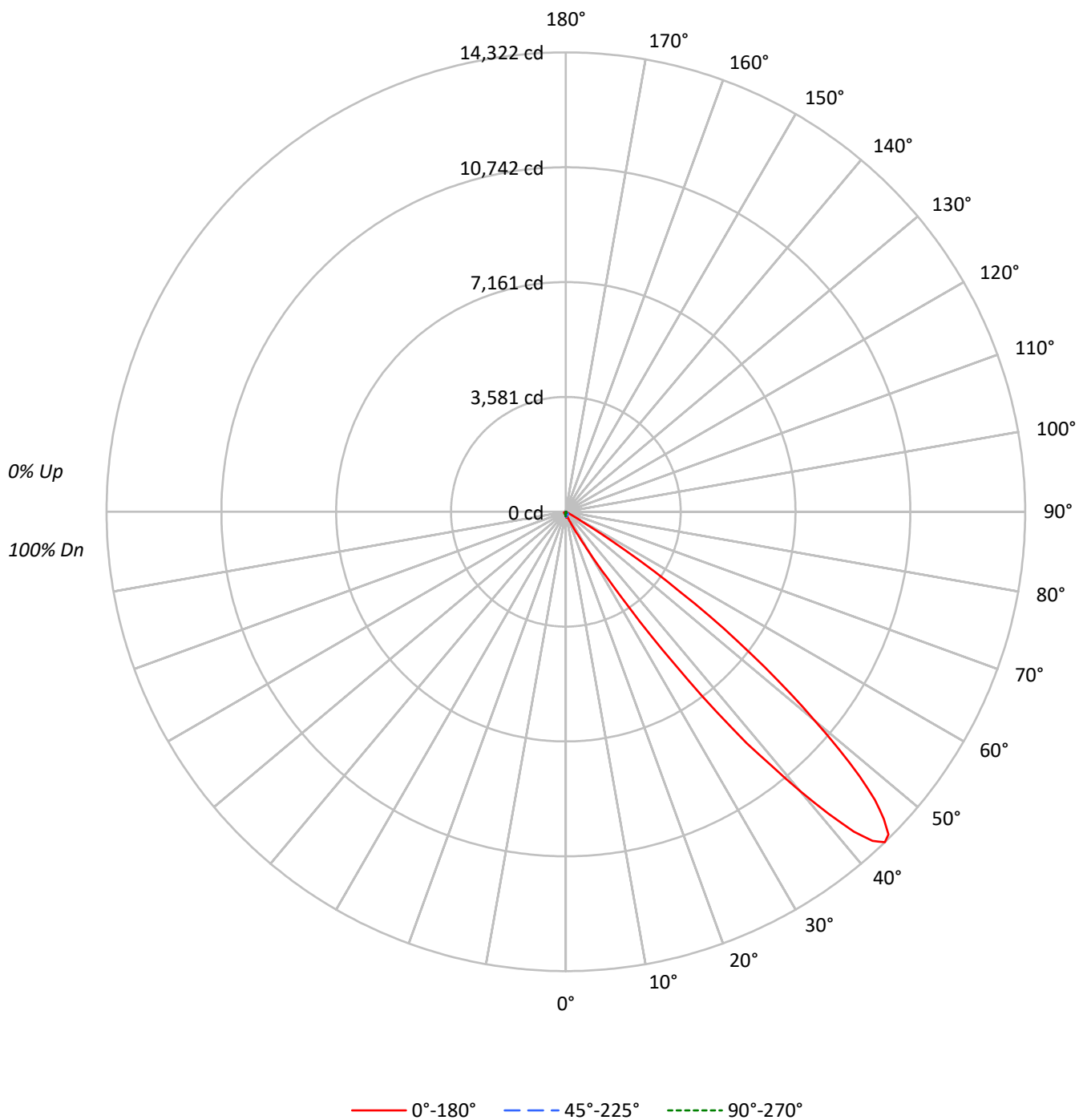
Lumens per Lamp: N/A
Luminaire Lumens: 1599.0 lumens
Efficiency: N/A
Efficacy: 58.4 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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: P1318236

CATALOG NUMBER: P3SQAS20R159835D010 E3SQCA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1318236

CATALOG NUMBER: P3SQAS20R159835D010 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°	24438	24438	24438	24438	24438
5°	30323	27004	22042	19293	19017
10°	29834	23137	17016	15057	15337
15°	24730	16493	12231	12517	13355
20°	42960	13141	9347	10813	12279
25°	95735	15753	7582	9995	11516
30°	286307	19350	6662	9824	12051
35°	1102146	21781	6034	10050	12741
40°	2558212	18997	5733	10387	13624
45°	3464976	14370	5042	11252	14760
50°	2716846	8547	5117	11950	16237
55°	1304034	3843	4774	12911	17715
60°	119178	551	4409	13743	19771
65°	13000	0	3912	14304	21435
70°	3223	0	4834	15257	23264
75°	3194	1065	6388	16968	26550
80°	3174	3174	7934	17356	28464
85°	3162	3162	12647	15808	31419

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3464976 cd/sqm

TEST NUMBER: P1318236

CATALOG NUMBER: P3SQAS20R159835D010 E3SQCA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.1	0.8
10°-20°	25.2	1.6
20°-30°	60.4	3.8
30°-40°	330.8	20.7
40°-50°	800.9	50.1
50°-60°	319.5	20.0
60°-70°	27.6	1.7
70°-80°	15.6	1.0
80°-90°	6.9	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°	97.7	6.1
0°-40°	428.5	26.8
0°-60°	1548.9	96.9
0°-90°	1599.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1599.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	142	142	142	142	142	
5°	175	156	128	112	110	17
15°	139	92	69	70	75	48
25°	504	83	40	53	61	304
35°	5242	104	29	48	61	3704
45°	14226	59	21	46	61	10036
55°	4343	13	16	43	59	4046
65°	32	0	10	35	53	82
75°	5	2	10	26	40	5
85°	2	2	6	8	16	1
90°	0	0	0	0	0	

TEST NUMBER: P1318236

CATALOG NUMBER: P3SQAS20R159835D010 E3SQCA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	141.9	141.9	141.9	141.9	141.9	141.9	141.9	141.9	141.9	141.9	141.9
2.5°	159.4	159.4	161.0	159.4	159.4	159.4	159.4	157.8	157.8	157.8	153.1
5°	175.4	175.4	175.4	175.4	173.8	173.8	173.8	172.2	172.2	170.6	156.2
7.5°	181.8	181.8	180.2	180.2	178.6	178.6	177.0	175.4	173.8	172.2	149.9
10°	170.6	170.6	170.6	169.0	169.0	167.4	165.8	164.2	162.6	159.4	132.3
12.5°	151.5	151.5	153.1	151.5	149.9	148.3	145.1	143.5	141.9	138.7	110.0
15°	138.7	138.7	138.7	137.1	135.5	132.3	130.7	127.5	126.0	121.2	92.5
17.5°	177.0	177.0	175.4	172.2	165.8	161.0	153.1	146.7	138.7	129.1	79.7
20°	234.4	234.4	231.2	228.0	220.0	212.0	199.3	188.1	175.4	164.2	71.7
22.5°	339.6	344.4	334.8	323.7	312.5	293.4	275.8	258.3	236.0	216.8	73.3
25°	503.8	508.6	503.8	478.3	457.6	432.1	398.6	363.5	325.2	290.2	82.9
27.5°	816.3	819.5	811.5	749.3	715.9	648.9	589.9	532.5	468.7	405.0	90.9
30°	1439.7	1441.3	1390.3	1265.9	1155.9	1009.2	884.9	765.3	664.8	562.8	97.3
31°	1895.7	1851.0	1742.6	1592.8	1417.4	1219.7	1049.1	894.4	744.6	634.6	98.8
32°	2407.5	2401.1	2220.9	1961.1	1726.7	1479.6	1222.9	1025.2	853.0	703.1	100.4
33°	3085.1	3088.3	2804.5	2498.4	2114.1	1782.5	1446.1	1175.0	967.8	784.4	103.6
34°	4143.7	3895.0	3561.8	3147.3	2624.3	2125.3	1688.4	1348.8	1071.4	862.5	103.6
35°	5242.2	4991.9	4625.2	3997.0	3279.6	2581.3	1977.0	1535.4	1195.8	947.0	103.6
36°	6473.1	6261.0	5706.2	4904.2	3989.1	3011.7	2283.1	1750.6	1318.5	1023.6	102.0
37°	7802.8	7491.9	6876.4	6001.1	4776.7	3617.6	2656.2	1964.2	1441.3	1106.5	98.8
38°	9153.2	8872.6	8096.1	7035.9	5717.4	4256.9	3029.3	2169.9	1554.5	1168.7	94.1
39°	10176.8	10023.7	9253.6	8069.0	6468.3	4862.8	3413.5	2389.9	1674.1	1230.8	89.3
40°	11378.9	11131.8	10401.6	8936.4	7356.3	5479.8	3789.8	2584.4	1772.9	1280.3	84.5
41°	12475.8	12163.3	11241.8	9826.0	8067.4	6034.6	4146.9	2785.3	1852.6	1309.0	81.3
42°	13416.5	13053.0	12090.0	10588.1	8662.1	6477.9	4432.3	2928.8	1927.6	1332.9	76.5
43°	14025.5	13711.4	12764.4	11160.5	9170.7	6884.4	4698.6	3078.7	1973.8	1348.8	70.2
44°	14322.1	14004.8	13088.0	11519.2	9483.2	7128.4	4870.7	3182.3	2024.8	1369.5	65.4
45°	14226.4	13904.4	13017.9	11525.6	9580.5	7216.0	4944.1	3228.6	2051.9	1388.7	59.0
46°	13788.0	13561.6	12668.7	11225.8	9395.5	7122.0	4902.6	3193.5	2042.4	1388.7	52.6
47°	13172.5	12914.3	12064.5	10710.9	8947.5	6879.6	4735.2	3086.7	1983.4	1356.8	46.2
48°	12333.9	12113.9	11221.1	9893.0	8260.3	6351.9	4357.4	2912.9	1890.9	1294.6	39.9
49°	11281.6	10975.5	10144.9	8847.1	7364.3	5602.6	3861.5	2619.5	1742.6	1206.9	35.1
50°	10140.1	9762.2	9121.3	7799.6	6438.0	4803.8	3209.4	2214.6	1533.8	1092.1	31.9
51°	9022.4	8638.2	8027.6	6903.6	5449.5	3985.9	2589.2	1768.1	1262.7	934.3	27.1
52°	7863.4	7541.3	6857.3	5974.0	4665.1	3230.2	2157.2	1495.5	1049.1	784.4	22.3
53°	6709.0	6489.0	5838.5	4944.1	3748.3	2638.7	1761.8	1280.3	915.2	671.2	17.5
54°	5553.1	5312.4	4818.1	4021.0	3021.3	2082.2	1493.9	1071.4	794.0	585.1	15.9
55°	4343.0	4218.7	3762.7	3065.9	2289.5	1661.3	1211.7	921.5	664.8	489.5	12.8
56°	3345.0	3204.7	2788.5	2224.1	1701.2	1301.0	980.5	752.5	562.8	409.7	9.6
57°	2190.6	2047.1	1771.3	1552.9	1238.8	948.6	749.3	593.1	457.6	339.6	8.0
58°	1294.6	1163.9	1120.8	956.6	825.9	644.1	553.2	441.6	338.0	267.9	4.8
59°	594.7	604.3	537.3	503.8	457.6	409.7	336.4	295.0	231.2	192.9	3.2
60°	346.0	326.8	318.9	285.4	253.5	224.8	202.5	178.6	145.1	124.4	1.6
62.5°	118.0	113.2	116.4	105.2	98.8	95.7	87.7	74.9	62.2	51.0	0.0
65°	31.9	31.9	30.3	28.7	27.1	25.5	23.9	20.7	19.1	15.9	0.0



TEST NUMBER: P1318236

CATALOG NUMBER: P3SQAS20R159835D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	11.2	11.2	9.6	9.6	8.0	8.0	6.4	6.4	4.8	4.8	0.0
70°	6.4	6.4	6.4	4.8	4.8	4.8	3.2	3.2	3.2	1.6	0.0
72.5°	4.8	4.8	4.8	4.8	4.8	4.8	3.2	3.2	3.2	1.6	1.6
75°	4.8	4.8	4.8	3.2	3.2	3.2	3.2	3.2	3.2	3.2	1.6
77.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
80°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	1.6	3.2
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.2
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: P1318236

CATALOG NUMBER: P3SQAS20R159835D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	141.9	141.9	141.9	141.9	141.9	141.9
2.5°	146.7	140.3	132.3	127.5	126.0	124.4
5°	140.3	127.5	118.0	111.6	110.0	110.0
7.5°	126.0	111.6	102.0	98.8	97.3	97.3
10°	110.0	97.3	89.3	86.1	87.7	87.7
12.5°	92.5	81.3	78.1	78.1	79.7	81.3
15°	74.9	68.6	68.6	70.2	73.3	74.9
17.5°	62.2	59.0	60.6	63.8	67.0	70.2
20°	51.0	51.0	54.2	59.0	63.8	67.0
22.5°	43.0	44.6	49.4	54.2	60.6	63.8
25°	36.7	39.9	44.6	52.6	59.0	60.6
27.5°	31.9	36.7	43.0	51.0	57.4	60.6
30°	27.1	33.5	41.5	49.4	57.4	60.6
31°	25.5	31.9	39.9	49.4	57.4	60.6
32°	23.9	31.9	39.9	49.4	57.4	60.6
33°	22.3	30.3	39.9	47.8	57.4	60.6
34°	20.7	30.3	39.9	49.4	57.4	60.6
35°	19.1	28.7	38.3	47.8	55.8	60.6
36°	17.5	28.7	38.3	47.8	57.4	60.6
37°	15.9	28.7	38.3	47.8	55.8	60.6
38°	15.9	27.1	36.7	47.8	55.8	60.6
39°	14.3	25.5	36.7	47.8	55.8	60.6
40°	12.8	25.5	35.1	46.2	55.8	60.6
41°	11.2	23.9	35.1	46.2	55.8	60.6
42°	9.6	23.9	35.1	46.2	55.8	60.6
43°	8.0	22.3	33.5	46.2	55.8	60.6
44°	8.0	22.3	33.5	46.2	55.8	60.6
45°	6.4	20.7	31.9	46.2	55.8	60.6
46°	6.4	20.7	31.9	44.6	55.8	60.6
47°	4.8	20.7	31.9	44.6	55.8	60.6
48°	4.8	19.1	31.9	44.6	55.8	60.6
49°	3.2	19.1	31.9	44.6	55.8	60.6
50°	3.2	19.1	30.3	44.6	55.8	60.6
51°	3.2	19.1	30.3	44.6	55.8	60.6
52°	3.2	17.5	30.3	44.6	55.8	60.6
53°	3.2	17.5	30.3	44.6	55.8	60.6
54°	3.2	17.5	28.7	44.6	55.8	60.6
55°	3.2	15.9	28.7	43.0	55.8	59.0
56°	3.2	15.9	28.7	43.0	55.8	59.0
57°	3.2	15.9	27.1	43.0	55.8	59.0
58°	3.2	14.3	27.1	41.5	54.2	59.0
59°	3.2	14.3	25.5	41.5	54.2	57.4
60°	3.2	12.8	25.5	39.9	52.6	57.4
62.5°	3.2	11.2	22.3	38.3	51.0	54.2
65°	3.2	9.6	20.7	35.1	49.4	52.6



TEST NUMBER: P1318236

CATALOG NUMBER: P3SQAS20R159835D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	3.2	9.6	19.1	33.5	46.2	51.0
70°	3.2	9.6	17.5	30.3	44.6	46.2
72.5°	4.8	9.6	15.9	28.7	41.5	43.0
75°	6.4	9.6	14.3	25.5	38.3	39.9
77.5°	6.4	9.6	12.8	22.3	33.5	35.1
80°	6.4	8.0	11.2	17.5	27.1	28.7
82.5°	6.4	8.0	8.0	14.3	20.7	22.3
85°	4.8	6.4	6.4	8.0	14.3	15.9
87.5°	4.8	6.4	3.2	4.8	6.4	6.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)