

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: P1316566

Luminaire Tested: P3SQAS20R409827D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1316566
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: P3SQAS20R409827D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 2700K CCT AND, 98CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

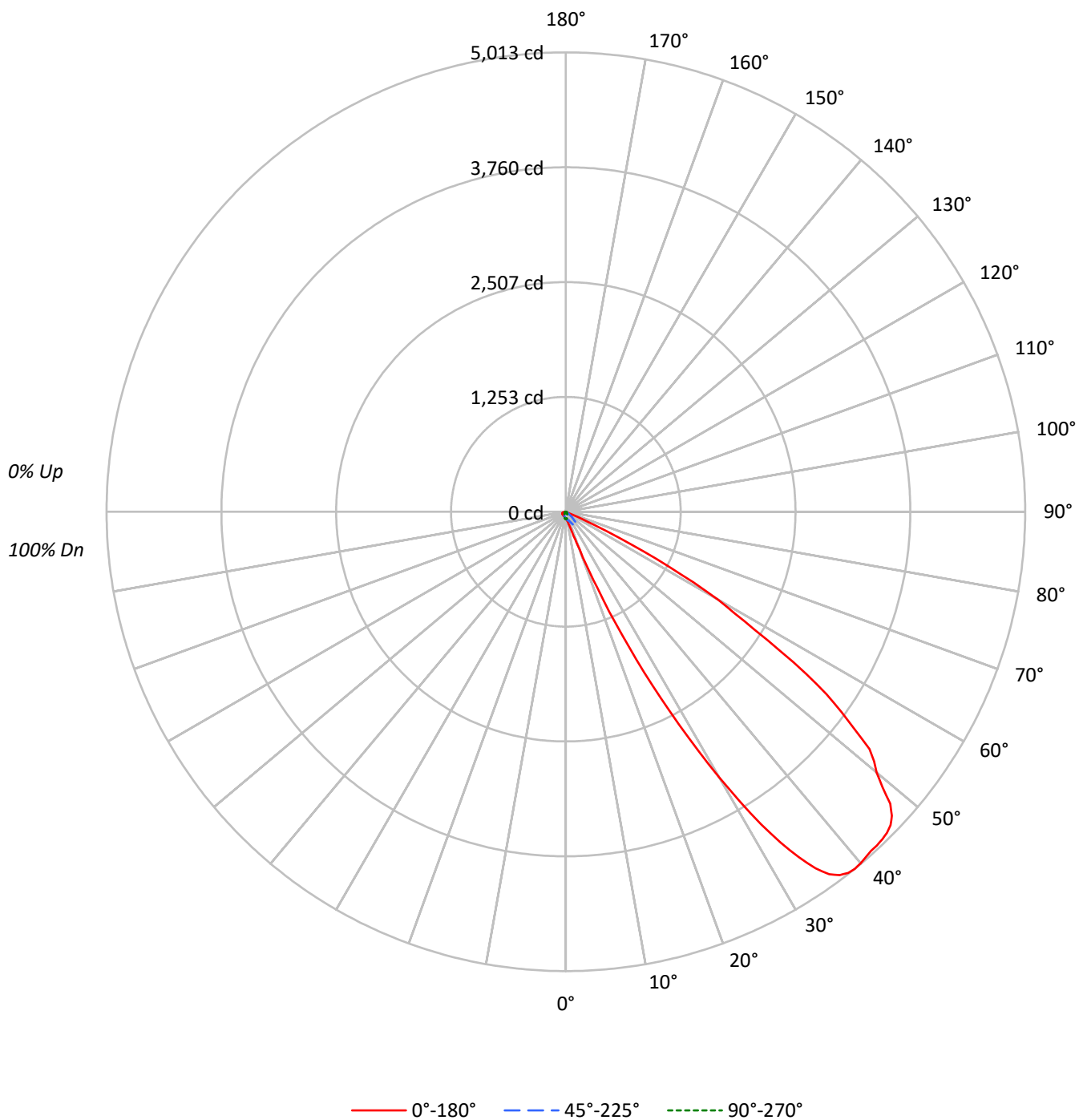
Lumens per Lamp: N/A
Luminaire Lumens: 1549.0 lumens
Efficiency: N/A
Efficacy: 56.5 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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: P1316566

CATALOG NUMBER: P3SQAS20R409827D010 E3SQCA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1316566

CATALOG NUMBER: P3SQAS20R409827D010 E3SQCA451MMS

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	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°	13726	13726	13726	13726	13726
5°	15248	14764	13519	12292	12050
10°	18415	15669	12434	11192	10947
15°	30186	16992	10644	9896	10145
20°	79780	20069	8871	8871	9640
25°	307634	24874	7031	8114	9463
30°	663674	33091	5668	7915	9327
35°	998937	39190	4794	7779	9566
40°	1125430	39344	4159	8004	10229
45°	1206765	30494	3800	8305	11082
50°	1186103	19050	3430	8761	12191
55°	1043497	9398	3423	9819	13662
60°	660508	1963	3927	10781	15190
65°	135091	571	4075	11614	16830
70°	2870	705	4280	12891	19336
75°	2861	1863	4724	14173	21759
80°	2777	1389	5653	15472	25390
85°	2766	2766	11263	16796	28060

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1228567 cd/sqm

TEST NUMBER: P1316566

CATALOG NUMBER: P3SQAS20R409827D010 E3SQCA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.4	0.5
10°-20°	24.5	1.6
20°-30°	120.3	7.8
30°-40°	391.3	25.3
40°-50°	539.5	34.8
50°-60°	375.8	24.3
60°-70°	71.2	4.6
70°-80°	12.9	0.8
80°-90°	6.0	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°	152.3	9.8
0°-40°	543.7	35.1
0°-60°	1458.9	94.2
0°-90°	1549.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1549.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	80	80	80	80	80	
5°	88	85	78	71	70	9
15°	169	95	60	56	57	62
25°	1619	131	37	43	50	833
35°	4751	186	23	37	46	2871
45°	4955	125	16	34	46	3768
55°	3475	31	11	33	46	2970
65°	332	1	10	28	41	586
75°	4	3	7	21	33	4
85°	1	1	6	8	14	1
90°	0	0	0	0	0	

TEST NUMBER: P1316566

CATALOG NUMBER: P3SQAS20R409827D010 E3SQCA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
2.5°	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	82.5	81.1	79.7
5°	88.2	88.2	88.2	88.2	86.8	86.8	86.8	85.4	85.4	82.5	78.2
7.5°	93.9	93.9	93.9	93.9	92.5	91.0	89.6	89.6	88.2	81.1	75.4
10°	105.3	105.3	103.8	102.4	101.0	98.2	96.7	93.9	89.6	79.7	71.1
12.5°	128.0	125.2	123.8	120.9	116.6	111.0	105.3	101.0	91.0	76.8	66.9
15°	169.3	166.4	160.7	152.2	143.7	132.3	122.3	112.4	95.3	72.5	59.7
17.5°	241.8	233.3	224.8	210.5	189.2	169.3	147.9	129.5	101.0	68.3	54.1
20°	435.3	429.6	378.4	338.6	274.6	229.0	186.4	155.1	109.5	64.0	48.4
22.5°	897.6	837.9	753.9	617.4	480.8	354.2	257.5	194.9	118.1	58.3	42.7
25°	1618.9	1525.0	1344.3	1081.1	798.0	564.7	372.7	254.6	130.9	52.6	37.0
27.5°	2451.0	2355.7	2075.5	1712.7	1250.4	852.1	532.0	337.1	147.9	46.9	32.7
30°	3337.3	3256.2	2900.6	2398.4	1762.5	1193.5	712.7	421.1	166.4	41.3	28.5
31°	3694.3	3590.5	3206.4	2671.5	2002.9	1334.3	785.2	456.6	173.6	39.8	27.0
32°	4022.9	3904.9	3506.6	2933.3	2197.8	1486.6	864.9	487.9	179.2	37.0	25.6
33°	4306.0	4168.0	3784.0	3180.8	2412.6	1628.8	947.4	517.8	183.5	34.1	24.2
34°	4546.4	4426.9	4014.4	3429.7	2603.3	1765.4	1028.5	547.7	186.4	32.7	22.8
35°	4751.3	4643.2	4234.9	3618.9	2789.6	1897.7	1102.5	576.1	186.4	29.9	22.8
36°	4889.3	4795.4	4425.5	3812.4	2946.1	2010.1	1165.1	601.7	186.4	27.0	21.3
37°	4964.7	4873.6	4550.7	3971.7	3099.7	2121.0	1222.0	621.7	184.9	25.6	19.9
38°	5003.1	4923.4	4643.2	4101.2	3206.4	2200.7	1271.8	637.3	183.5	22.8	19.9
39°	5013.0	4946.2	4701.5	4195.1	3310.3	2280.3	1307.3	645.8	179.2	21.3	18.5
40°	5005.9	4947.6	4732.8	4279.0	3389.9	2342.9	1332.9	648.7	175.0	18.5	18.5
41°	4991.7	4946.2	4755.6	4337.3	3453.9	2382.8	1342.9	643.0	169.3	15.6	17.1
42°	4978.9	4929.1	4765.5	4377.2	3498.0	2402.7	1341.5	631.6	160.7	14.2	17.1
43°	4978.9	4922.0	4766.9	4402.8	3519.4	2404.1	1324.4	610.3	149.4	12.8	15.6
44°	4970.4	4917.7	4774.0	4419.8	3525.1	2391.3	1297.4	587.5	136.6	11.4	15.6
45°	4954.7	4899.2	4772.6	4421.3	3515.1	2360.0	1253.3	557.6	125.2	8.5	15.6
46°	4924.8	4875.0	4759.8	4411.3	3485.2	2314.5	1200.6	527.8	112.4	7.1	14.2
47°	4865.1	4826.7	4725.7	4377.2	3439.7	2247.6	1138.0	493.6	102.4	5.7	14.2
48°	4762.7	4735.6	4667.4	4301.8	3352.9	2165.1	1071.2	456.6	92.5	5.7	14.2
49°	4574.9	4553.6	4513.7	4180.8	3242.0	2064.1	998.6	415.4	82.5	4.3	14.2
50°	4426.9	4404.2	4323.1	3977.4	3082.6	1936.1	919.0	374.1	71.1	2.8	12.8
51°	4328.8	4291.8	4163.8	3741.3	2850.8	1765.4	832.2	332.9	59.7	2.8	12.8
52°	4205.0	4149.6	3990.2	3529.3	2638.8	1594.7	738.3	291.6	52.6	2.8	12.8
53°	3946.1	3926.2	3768.3	3301.7	2426.9	1431.1	641.6	257.5	45.5	2.8	12.8
54°	3719.9	3690.1	3475.3	2985.9	2196.4	1249.0	542.0	227.6	38.4	2.8	12.8
55°	3475.3	3416.9	3226.3	2719.9	1926.1	1081.1	446.7	196.3	31.3	2.8	11.4
56°	3166.6	3115.4	2910.5	2435.4	1677.2	910.4	374.1	160.7	24.2	2.8	11.4
57°	2791.0	2744.1	2586.2	2085.4	1418.3	744.0	304.4	129.5	18.5	2.8	11.4
58°	2428.3	2375.6	2195.0	1749.7	1145.1	590.4	254.6	105.3	14.2	2.8	11.4
59°	2149.5	2078.3	1845.0	1469.5	896.2	448.1	202.0	83.9	10.0	2.8	11.4
60°	1917.6	1859.3	1617.4	1223.4	702.7	330.0	149.4	64.0	5.7	2.8	11.4
62.5°	1111.0	1095.4	877.7	630.2	331.5	153.6	74.0	29.9	2.8	4.3	11.4
65°	331.5	288.8	224.8	133.7	85.4	51.2	27.0	10.0	1.4	4.3	10.0



TEST NUMBER: P1316566

CATALOG NUMBER: P3SQAS20R409827D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	10.0	10.0	10.0	10.0	10.0	10.0	5.7	2.8	1.4	4.3	10.0
70°	5.7	4.3	4.3	4.3	4.3	2.8	2.8	1.4	1.4	4.3	8.5
72.5°	4.3	4.3	4.3	4.3	2.8	2.8	2.8	1.4	2.8	4.3	7.1
75°	4.3	2.8	2.8	2.8	2.8	1.4	1.4	1.4	2.8	4.3	7.1
77.5°	2.8	2.8	2.8	2.8	1.4	1.4	1.4	1.4	2.8	4.3	7.1
80°	2.8	2.8	1.4	1.4	1.4	1.4	1.4	1.4	1.4	4.3	5.7
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	4.3	5.7
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	4.3	5.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.4	4.3	4.3
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: P1316566

CATALOG NUMBER: P3SQAS20R409827D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	79.7	79.7	79.7	79.7
2.5°	76.8	75.4	74.0	74.0
5°	74.0	71.1	71.1	69.7
7.5°	69.7	66.9	66.9	66.9
10°	65.4	64.0	64.0	62.6
12.5°	59.7	59.7	59.7	59.7
15°	55.5	55.5	56.9	56.9
17.5°	49.8	51.2	54.1	55.5
20°	45.5	48.4	51.2	52.6
22.5°	42.7	45.5	49.8	51.2
25°	38.4	42.7	48.4	49.8
27.5°	35.6	41.3	45.5	48.4
30°	32.7	39.8	44.1	46.9
31°	32.7	38.4	44.1	46.9
32°	31.3	37.0	44.1	45.5
33°	31.3	37.0	44.1	45.5
34°	29.9	37.0	42.7	45.5
35°	29.9	37.0	42.7	45.5
36°	28.5	35.6	42.7	45.5
37°	28.5	35.6	42.7	45.5
38°	27.0	35.6	42.7	45.5
39°	27.0	35.6	42.7	45.5
40°	27.0	35.6	42.7	45.5
41°	25.6	35.6	42.7	45.5
42°	25.6	35.6	42.7	45.5
43°	25.6	34.1	42.7	45.5
44°	25.6	34.1	42.7	45.5
45°	24.2	34.1	42.7	45.5
46°	24.2	34.1	42.7	45.5
47°	24.2	34.1	42.7	45.5
48°	24.2	34.1	42.7	45.5
49°	24.2	34.1	42.7	45.5
50°	22.8	32.7	42.7	45.5
51°	22.8	32.7	42.7	45.5
52°	22.8	32.7	42.7	45.5
53°	22.8	32.7	42.7	45.5
54°	21.3	32.7	42.7	45.5
55°	21.3	32.7	42.7	45.5
56°	21.3	32.7	42.7	44.1
57°	21.3	32.7	41.3	44.1
58°	21.3	31.3	41.3	44.1
59°	21.3	31.3	41.3	44.1
60°	21.3	31.3	41.3	44.1
62.5°	19.9	31.3	39.8	42.7
65°	18.5	28.5	39.8	41.3



TEST NUMBER: P1316566

CATALOG NUMBER: P3SQAS20R409827D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	18.5	27.0	37.0	39.8
70°	17.1	25.6	35.6	38.4
72.5°	14.2	24.2	32.7	35.6
75°	12.8	21.3	29.9	32.7
77.5°	11.4	18.5	27.0	28.5
80°	10.0	15.6	22.8	25.6
82.5°	7.1	11.4	18.5	19.9
85°	5.7	8.5	12.8	14.2
87.5°	4.3	4.3	7.1	7.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)