

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: P1317441

Luminaire Tested: P3SQAS20R409830D010 E3SQCA451MB

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1317441
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: P3SQAS20R409830D010 E3SQCA451MB
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 98CRI , E3SQCA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

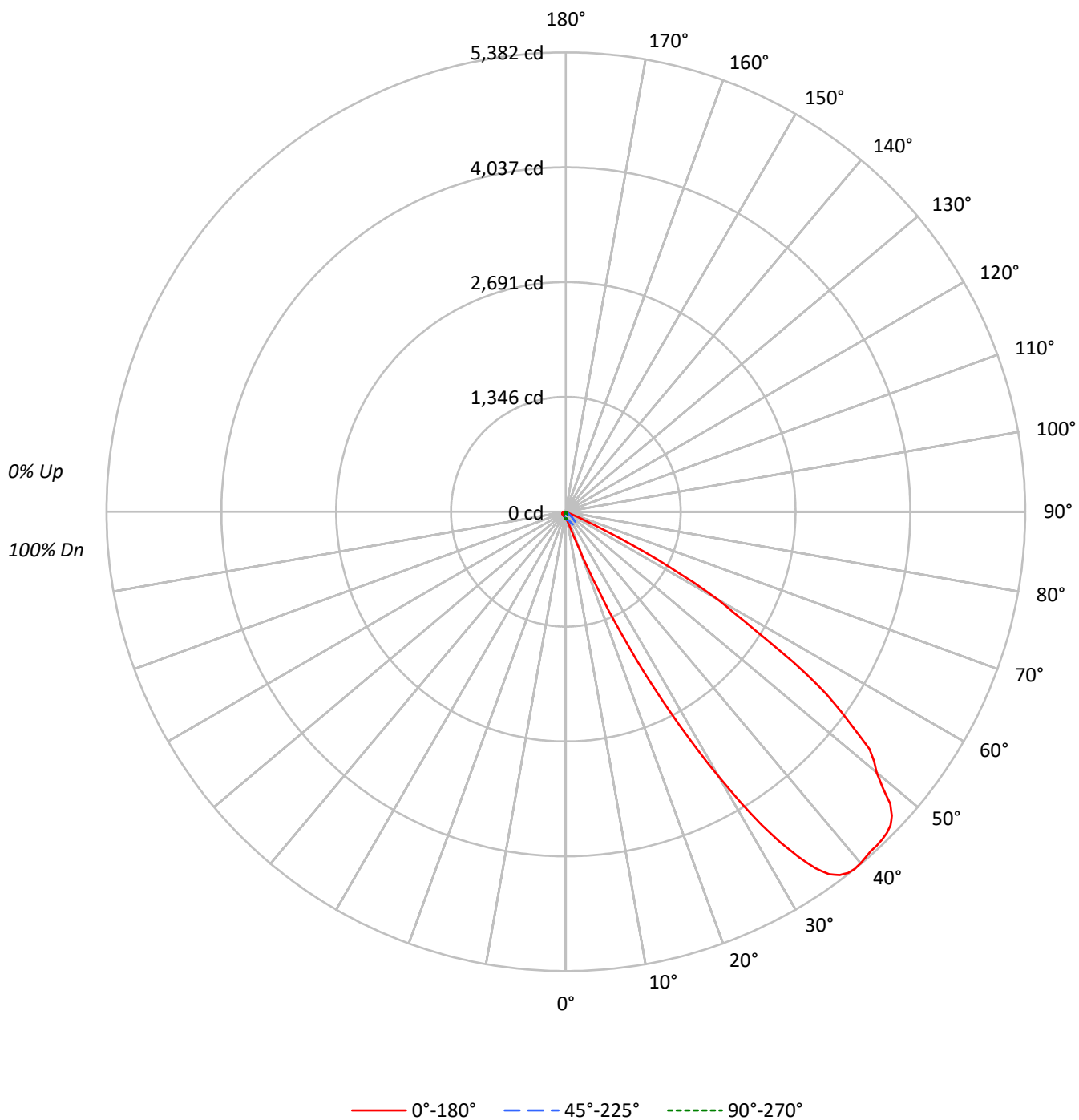
Lumens per Lamp: N/A
Luminaire Lumens: 1663.0 lumens
Efficiency: N/A
Efficacy: 60.7 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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: P1317441

CATALOG NUMBER: P3SQAS20R409830D010 E3SQCA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1317441

CATALOG NUMBER: P3SQAS20R409830D010 E3SQCA451MB

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	14725	14725	14725	14725	14725
5°	16372	15836	14522	13208	12931
10°	19761	16823	13361	12014	11752
15°	32397	18240	11429	10627	10894
20°	85645	21553	9512	9512	10355
25°	330266	26699	7544	8703	10166
30°	712515	35537	6065	8511	10023
35°	1072460	42070	5130	8347	10281
40°	1208254	42221	4474	8588	10994
45°	1295591	32734	4092	8939	11910
50°	1273422	20470	3671	9404	13102
55°	1120274	10089	3663	10539	14683
60°	709110	2101	4202	11573	16292
65°	144993	611	4360	12429	18053
70°	3072	755	4633	13847	20746
75°	3061	2063	5057	15238	23356
80°	3075	1488	6050	16662	27274
85°	2964	2964	12054	18180	30233

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1318971 cd/sqm

TEST NUMBER: P1317441

CATALOG NUMBER: P3SQAS20R409830D010 E3SQCA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.0	0.5
10°-20°	26.3	1.6
20°-30°	129.2	7.8
30°-40°	420.1	25.3
40°-50°	579.2	34.8
50°-60°	403.4	24.3
60°-70°	76.5	4.6
70°-80°	13.8	0.8
80°-90°	6.4	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°	163.5	9.8
0°-40°	583.7	35.1
0°-60°	1566.3	94.2
0°-90°	1663.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1663.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	86	86	86	86	86	
5°	95	92	84	76	75	10
15°	182	102	64	60	61	66
25°	1738	140	40	46	54	895
35°	5101	200	24	40	49	3082
45°	5319	134	17	37	49	4045
55°	3731	34	12	35	49	3189
65°	356	2	11	30	44	629
75°	5	3	8	23	35	4
85°	2	2	6	9	15	1
90°	0	0	0	0	0	

TEST NUMBER: P1317441

CATALOG NUMBER: P3SQAS20R409830D010 E3SQCA451MB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5	85.5
2.5°	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	88.6	87.1	85.5
5°	94.7	94.7	94.7	94.7	93.2	93.2	93.2	91.6	91.6	88.6	84.0
7.5°	100.8	100.8	100.8	100.8	99.3	97.7	96.2	96.2	94.7	87.1	80.9
10°	113.0	113.0	111.5	110.0	108.4	105.4	103.9	100.8	96.2	85.5	76.4
12.5°	137.5	134.4	132.9	129.8	125.2	119.1	113.0	108.4	97.7	82.5	71.8
15°	181.7	178.7	172.6	163.4	154.3	142.0	131.3	120.7	102.3	77.9	64.1
17.5°	259.6	250.5	241.3	226.0	203.1	181.7	158.8	139.0	108.4	73.3	58.0
20°	467.3	461.2	406.2	363.5	294.8	245.9	200.1	166.5	117.6	68.7	51.9
22.5°	963.7	899.5	809.4	662.8	516.2	380.3	276.4	209.2	126.8	62.6	45.8
25°	1738.0	1637.2	1443.2	1160.7	856.8	606.3	400.1	273.4	140.5	56.5	39.7
27.5°	2631.4	2529.1	2228.2	1838.8	1342.4	914.8	571.2	362.0	158.8	50.4	35.1
30°	3582.9	3495.8	3114.0	2574.9	1892.2	1281.3	765.1	452.1	178.7	44.3	30.5
31°	3966.2	3854.7	3442.4	2868.1	2150.3	1432.5	843.0	490.2	186.3	42.8	29.0
32°	4319.0	4192.3	3764.6	3149.2	2359.6	1596.0	928.6	523.8	192.4	39.7	27.5
33°	4622.9	4474.8	4062.4	3414.9	2590.2	1748.7	1017.1	555.9	197.0	36.7	26.0
34°	4881.0	4752.8	4309.9	3682.2	2794.8	1895.3	1104.2	588.0	200.1	35.1	24.4
35°	5101.0	4984.9	4546.6	3885.3	2994.9	2037.3	1183.6	618.5	200.1	32.1	24.4
36°	5249.1	5148.3	4751.2	4093.0	3162.9	2158.0	1250.8	646.0	200.1	29.0	22.9
37°	5330.0	5232.3	4885.6	4264.0	3327.8	2277.1	1311.9	667.4	198.5	27.5	21.4
38°	5371.3	5285.8	4984.9	4403.0	3442.4	2362.6	1365.3	684.2	197.0	24.4	21.4
39°	5382.0	5310.2	5047.5	4503.8	3553.9	2448.2	1403.5	693.4	192.4	22.9	19.9
40°	5374.3	5311.7	5081.1	4593.9	3639.4	2515.4	1431.0	696.4	187.8	19.9	19.9
41°	5359.1	5310.2	5105.5	4656.5	3708.1	2558.1	1441.7	690.3	181.7	16.8	18.3
42°	5345.3	5291.9	5116.2	4699.3	3755.5	2579.5	1440.2	678.1	172.6	15.3	18.3
43°	5345.3	5284.2	5117.8	4726.8	3778.4	2581.0	1421.9	655.2	160.4	13.7	16.8
44°	5336.2	5279.6	5125.4	4745.1	3784.5	2567.3	1392.8	630.7	146.6	12.2	16.8
45°	5319.4	5259.8	5123.9	4746.6	3773.8	2533.7	1345.5	598.7	134.4	9.2	16.8
46°	5287.3	5233.8	5110.1	4736.0	3741.7	2484.8	1289.0	566.6	120.7	7.6	15.3
47°	5223.1	5181.9	5073.5	4699.3	3692.9	2413.0	1221.8	530.0	110.0	6.1	15.3
48°	5113.2	5084.2	5010.9	4618.4	3599.7	2324.5	1150.0	490.2	99.3	6.1	15.3
49°	4911.6	4888.7	4845.9	4488.5	3480.6	2216.0	1072.1	446.0	88.6	4.6	15.3
50°	4752.8	4728.3	4641.3	4270.1	3309.5	2078.6	986.6	401.7	76.4	3.1	13.7
51°	4647.4	4607.7	4470.2	4016.6	3060.6	1895.3	893.4	357.4	64.1	3.1	13.7
52°	4514.5	4454.9	4283.9	3789.1	2833.0	1712.0	792.6	313.1	56.5	3.1	13.7
53°	4236.5	4215.2	4045.6	3544.7	2605.5	1536.4	688.8	276.4	48.9	3.1	13.7
54°	3993.7	3961.6	3731.0	3205.7	2358.0	1340.9	581.9	244.4	41.2	3.1	13.7
55°	3731.0	3668.4	3463.8	2920.1	2067.9	1160.7	479.6	210.8	33.6	3.1	12.2
56°	3399.6	3344.6	3124.7	2614.6	1800.6	977.4	401.7	172.6	26.0	3.1	12.2
57°	2996.4	2946.0	2776.5	2238.9	1522.7	798.7	326.8	139.0	19.9	3.1	12.2
58°	2607.0	2550.5	2356.5	1878.5	1229.4	633.8	273.4	113.0	15.3	3.1	12.2
59°	2307.7	2231.3	1980.8	1577.6	962.2	481.1	216.9	90.1	10.7	3.1	12.2
60°	2058.7	1996.1	1736.5	1313.4	754.5	354.3	160.4	68.7	6.1	3.1	12.2
62.5°	1192.8	1176.0	942.3	676.6	355.8	164.9	79.4	32.1	3.1	4.6	12.2
65°	355.8	310.0	241.3	143.6	91.6	55.0	29.0	10.7	1.5	4.6	10.7



TEST NUMBER: P1317441

CATALOG NUMBER: P3SQAS20R409830D010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	10.7	10.7	10.7	10.7	10.7	10.7	6.1	3.1	1.5	4.6	10.7
70°	6.1	4.6	4.6	4.6	4.6	3.1	3.1	1.5	1.5	4.6	9.2
72.5°	4.6	4.6	4.6	4.6	3.1	3.1	3.1	1.5	3.1	4.6	7.6
75°	4.6	3.1	3.1	3.1	3.1	1.5	1.5	1.5	3.1	4.6	7.6
77.5°	3.1	3.1	3.1	3.1	1.5	1.5	1.5	1.5	3.1	4.6	7.6
80°	3.1	3.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	4.6	6.1
82.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	4.6	6.1
85°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	4.6	6.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	4.6	4.6
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: P1317441

CATALOG NUMBER: P3SQAS20R409830D010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	85.5	85.5	85.5	85.5
2.5°	82.5	80.9	79.4	79.4
5°	79.4	76.4	76.4	74.8
7.5°	74.8	71.8	71.8	71.8
10°	70.3	68.7	68.7	67.2
12.5°	64.1	64.1	64.1	64.1
15°	59.6	59.6	61.1	61.1
17.5°	53.5	55.0	58.0	59.6
20°	48.9	51.9	55.0	56.5
22.5°	45.8	48.9	53.5	55.0
25°	41.2	45.8	51.9	53.5
27.5°	38.2	44.3	48.9	51.9
30°	35.1	42.8	47.3	50.4
31°	35.1	41.2	47.3	50.4
32°	33.6	39.7	47.3	48.9
33°	33.6	39.7	47.3	48.9
34°	32.1	39.7	45.8	48.9
35°	32.1	39.7	45.8	48.9
36°	30.5	38.2	45.8	48.9
37°	30.5	38.2	45.8	48.9
38°	29.0	38.2	45.8	48.9
39°	29.0	38.2	45.8	48.9
40°	29.0	38.2	45.8	48.9
41°	27.5	38.2	45.8	48.9
42°	27.5	38.2	45.8	48.9
43°	27.5	36.7	45.8	48.9
44°	27.5	36.7	45.8	48.9
45°	26.0	36.7	45.8	48.9
46°	26.0	36.7	45.8	48.9
47°	26.0	36.7	45.8	48.9
48°	26.0	36.7	45.8	48.9
49°	26.0	36.7	45.8	48.9
50°	24.4	35.1	45.8	48.9
51°	24.4	35.1	45.8	48.9
52°	24.4	35.1	45.8	48.9
53°	24.4	35.1	45.8	48.9
54°	22.9	35.1	45.8	48.9
55°	22.9	35.1	45.8	48.9
56°	22.9	35.1	45.8	47.3
57°	22.9	35.1	44.3	47.3
58°	22.9	33.6	44.3	47.3
59°	22.9	33.6	44.3	47.3
60°	22.9	33.6	44.3	47.3
62.5°	21.4	33.6	42.8	45.8
65°	19.9	30.5	42.8	44.3



TEST NUMBER: P1317441

CATALOG NUMBER: P3SQAS20R409830D010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	19.9	29.0	39.7	42.8
70°	18.3	27.5	38.2	41.2
72.5°	15.3	26.0	35.1	38.2
75°	13.7	22.9	32.1	35.1
77.5°	12.2	19.9	29.0	30.5
80°	10.7	16.8	24.4	27.5
82.5°	7.6	12.2	19.9	21.4
85°	6.1	9.2	13.7	15.3
87.5°	4.6	4.6	7.6	7.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)