

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: P1315689

Luminaire Tested: P3SQAS20R409740D010 E3SQCA451MB

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1315689
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: P3SQAS20R409740D010 E3SQCA451MB
Description: 3in Adjustable LED luminaire with, R40 optic, 4000K CCT AND, 97CRI , E3SQCA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

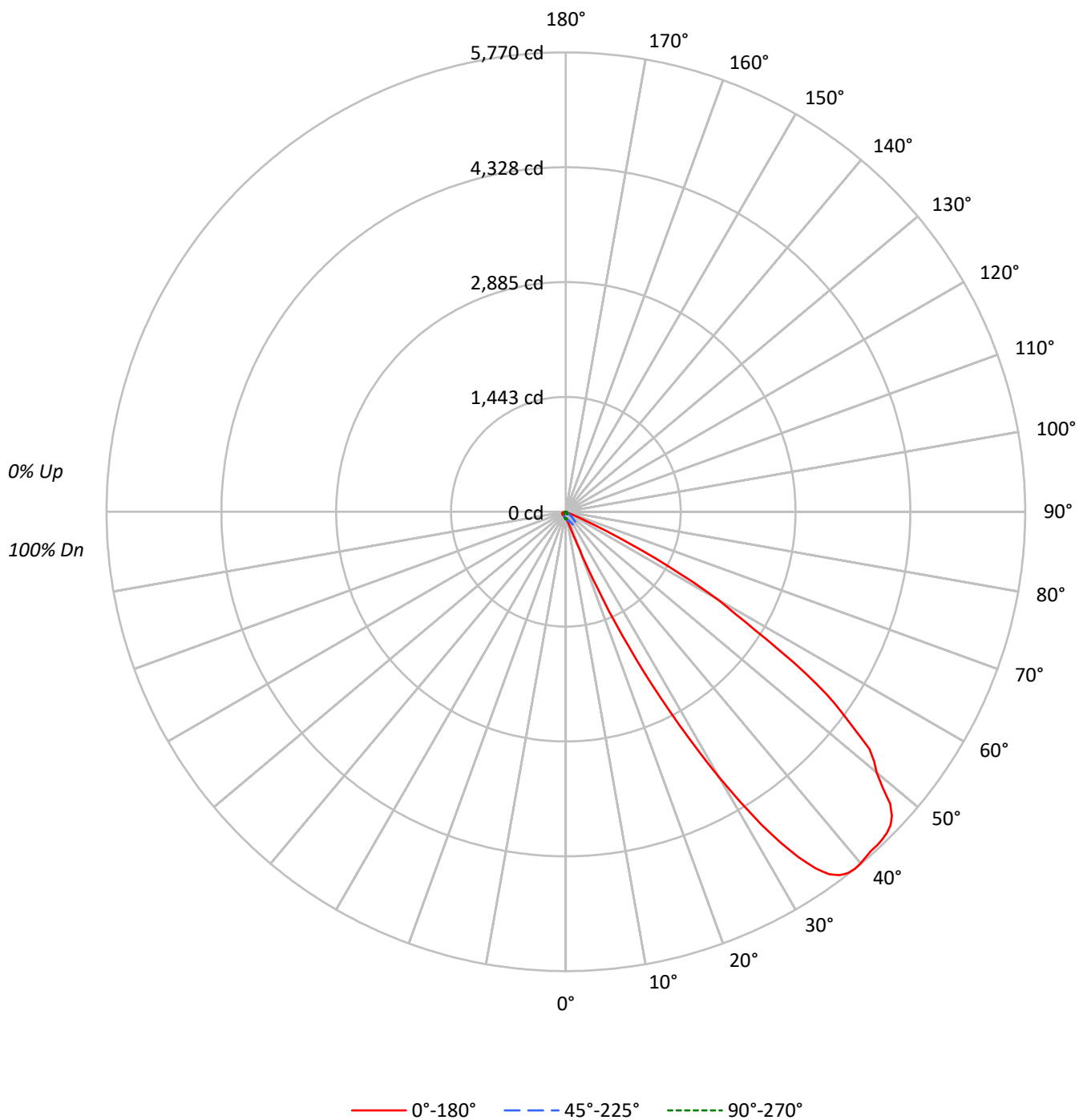
Lumens per Lamp: N/A
Luminaire Lumens: 1783.0 lumens
Efficiency: N/A
Efficacy: 61.9 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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: P1315689

CATALOG NUMBER: P3SQAS20R409740D010 E3SQCA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1315689

CATALOG NUMBER: P3SQAS20R409740D010 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°	15793	15793	15793	15793	15793
5°	17547	16977	15577	14159	13865
10°	21195	18048	14323	12889	12591
15°	34750	19559	12267	11393	11679
20°	91839	23111	10208	10208	11106
25°	354096	28618	8095	9330	10889
30°	763922	38103	6503	9108	10739
35°	1149830	45098	5508	8956	11017
40°	1295439	45279	4789	9195	11781
45°	1389069	35097	4384	9572	12763
50°	1365295	21944	3939	10101	14040
55°	1201134	10809	3933	11320	15734
60°	760294	2239	4512	12400	17498
65°	155466	652	4686	13326	19357
70°	3273	806	4935	14855	22257
75°	3261	2196	5456	16369	25086
80°	3273	1587	6447	17852	29258
85°	3162	3162	12844	19365	32407

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1414148 cd/sqm

TEST NUMBER: P1315689

CATALOG NUMBER: P3SQAS20R409740D010 E3SQCA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.6	0.5
10°-20°	28.2	1.6
20°-30°	138.5	7.8
30°-40°	450.5	25.3
40°-50°	621.0	34.8
50°-60°	432.6	24.3
60°-70°	82.0	4.6
70°-80°	14.8	0.8
80°-90°	6.8	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°	175.3	9.8
0°-40°	625.8	35.1
0°-60°	1679.3	94.2
0°-90°	1783.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1783.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	92	92	92	92	92	
5°	102	98	90	82	80	10
15°	195	110	69	64	66	71
25°	1863	151	43	49	57	959
35°	5469	214	26	43	52	3305
45°	5703	144	18	39	52	4337
55°	4000	36	13	38	52	3419
65°	382	2	12	33	48	675
75°	5	3	8	25	38	5
85°	2	2	6	10	16	1
90°	0	0	0	0	0	

TEST NUMBER: P1315689

CATALOG NUMBER: P3SQAS20R409740D010 E3SQCA451MB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7	91.7
2.5°	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0	93.3	91.7
5°	101.5	101.5	101.5	101.5	99.9	99.9	99.9	98.2	98.2	95.0	90.1
7.5°	108.1	108.1	108.1	108.1	106.4	104.8	103.2	103.2	101.5	93.3	86.8
10°	121.2	121.2	119.5	117.9	116.3	113.0	111.3	108.1	103.2	91.7	81.9
12.5°	147.4	144.1	142.5	139.2	134.3	127.7	121.2	116.3	104.8	88.4	77.0
15°	194.9	191.6	185.0	175.2	165.4	152.3	140.8	129.4	109.7	83.5	68.8
17.5°	278.4	268.5	258.7	242.3	217.8	194.9	170.3	149.0	116.3	78.6	62.2
20°	501.1	494.5	435.6	389.7	316.0	263.6	214.5	178.5	126.1	73.7	55.7
22.5°	1033.2	964.5	867.8	710.6	553.5	407.7	296.4	224.3	135.9	67.1	49.1
25°	1863.4	1755.3	1547.4	1244.5	918.6	650.1	429.0	293.1	150.6	60.6	42.6
27.5°	2821.3	2711.6	2389.0	1971.5	1439.3	980.8	612.4	388.1	170.3	54.0	37.7
30°	3841.4	3748.1	3338.7	2760.7	2028.8	1373.8	820.4	484.7	191.6	47.5	32.7
31°	4252.4	4132.9	3690.8	3075.1	2305.5	1535.9	903.9	525.6	199.8	45.8	31.1
32°	4630.7	4494.8	4036.3	3376.4	2529.8	1711.1	995.6	561.6	206.3	42.6	29.5
33°	4956.5	4797.7	4355.6	3661.3	2777.1	1874.9	1090.5	596.0	211.2	39.3	27.8
34°	5233.3	5095.7	4620.8	3947.9	2996.5	2032.1	1183.9	630.4	214.5	37.7	26.2
35°	5469.0	5344.6	4874.7	4165.6	3211.0	2184.3	1269.0	663.2	214.5	34.4	26.2
36°	5627.9	5519.8	5094.1	4388.3	3391.1	2313.7	1341.1	692.6	214.5	31.1	24.6
37°	5714.7	5609.9	5238.2	4571.7	3568.0	2441.4	1406.6	715.6	212.9	29.5	22.9
38°	5758.9	5667.2	5344.6	4720.7	3690.8	2533.1	1463.9	733.6	211.2	26.2	22.9
39°	5770.3	5693.4	5411.7	4828.8	3810.3	2624.8	1504.8	743.4	206.3	24.6	21.3
40°	5762.1	5695.0	5447.8	4925.4	3902.0	2696.9	1534.3	746.7	201.4	21.3	21.3
41°	5745.8	5693.4	5474.0	4992.5	3975.7	2742.7	1545.7	740.1	194.9	18.0	19.6
42°	5731.0	5673.7	5485.4	5038.4	4026.5	2765.6	1544.1	727.0	185.0	16.4	19.6
43°	5731.0	5665.5	5487.1	5067.9	4051.0	2767.3	1524.5	702.5	171.9	14.7	18.0
44°	5721.2	5660.6	5495.2	5087.5	4057.6	2752.5	1493.3	676.3	157.2	13.1	18.0
45°	5703.2	5639.3	5493.6	5089.2	4046.1	2716.5	1442.6	641.9	144.1	9.8	18.0
46°	5668.8	5611.5	5478.9	5077.7	4011.7	2664.1	1382.0	607.5	129.4	8.2	16.4
47°	5600.0	5555.8	5439.6	5038.4	3959.3	2587.2	1310.0	568.2	117.9	6.5	16.4
48°	5482.1	5451.0	5372.4	4951.6	3859.4	2492.2	1233.0	525.6	106.4	6.5	16.4
49°	5266.0	5241.4	5195.6	4812.4	3731.7	2375.9	1149.5	478.1	95.0	4.9	16.4
50°	5095.7	5069.5	4976.2	4578.3	3548.3	2228.6	1057.8	430.6	81.9	3.3	14.7
51°	4982.7	4940.1	4792.8	4306.5	3281.4	2032.1	957.9	383.2	68.8	3.3	14.7
52°	4840.3	4776.4	4593.0	4062.5	3037.4	1835.6	849.8	335.7	60.6	3.3	14.7
53°	4542.3	4519.3	4337.6	3800.5	2793.5	1647.3	738.5	296.4	52.4	3.3	14.7
54°	4281.9	4247.5	4000.3	3437.0	2528.2	1437.7	623.9	262.0	44.2	3.3	14.7
55°	4000.3	3933.1	3713.7	3130.8	2217.1	1244.5	514.2	226.0	36.0	3.3	13.1
56°	3644.9	3586.0	3350.2	2803.3	1930.5	1048.0	430.6	185.0	27.8	3.3	13.1
57°	3212.7	3158.6	2976.9	2400.5	1632.5	856.4	350.4	149.0	21.3	3.3	13.1
58°	2795.1	2734.5	2526.6	2014.0	1318.1	679.5	293.1	121.2	16.4	3.3	13.1
59°	2474.2	2392.3	2123.8	1691.5	1031.6	515.8	232.5	96.6	11.5	3.3	13.1
60°	2207.3	2140.1	1861.8	1408.2	808.9	379.9	171.9	73.7	6.5	3.3	13.1
62.5°	1278.8	1260.8	1010.3	725.4	381.5	176.8	85.1	34.4	3.3	4.9	13.1
65°	381.5	332.4	258.7	153.9	98.2	58.9	31.1	11.5	1.6	4.9	11.5



TEST NUMBER: P1315689

CATALOG NUMBER: P3SQAS20R409740D010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	11.5	11.5	11.5	11.5	11.5	11.5	6.5	3.3	1.6	4.9	11.5
70°	6.5	4.9	4.9	4.9	4.9	3.3	3.3	1.6	1.6	4.9	9.8
72.5°	4.9	4.9	4.9	4.9	3.3	3.3	3.3	1.6	3.3	4.9	8.2
75°	4.9	3.3	3.3	3.3	3.3	1.6	1.6	1.6	3.3	4.9	8.2
77.5°	3.3	3.3	3.3	3.3	1.6	1.6	1.6	1.6	3.3	4.9	8.2
80°	3.3	3.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6	4.9	6.5
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	4.9	6.5
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	4.9	6.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	4.9	4.9
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: P1315689

CATALOG NUMBER: P3SQAS20R409740D010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	91.7	91.7	91.7	91.7
2.5°	88.4	86.8	85.1	85.1
5°	85.1	81.9	81.9	80.2
7.5°	80.2	77.0	77.0	77.0
10°	75.3	73.7	73.7	72.0
12.5°	68.8	68.8	68.8	68.8
15°	63.9	63.9	65.5	65.5
17.5°	57.3	58.9	62.2	63.9
20°	52.4	55.7	58.9	60.6
22.5°	49.1	52.4	57.3	58.9
25°	44.2	49.1	55.7	57.3
27.5°	40.9	47.5	52.4	55.7
30°	37.7	45.8	50.8	54.0
31°	37.7	44.2	50.8	54.0
32°	36.0	42.6	50.8	52.4
33°	36.0	42.6	50.8	52.4
34°	34.4	42.6	49.1	52.4
35°	34.4	42.6	49.1	52.4
36°	32.7	40.9	49.1	52.4
37°	32.7	40.9	49.1	52.4
38°	31.1	40.9	49.1	52.4
39°	31.1	40.9	49.1	52.4
40°	31.1	40.9	49.1	52.4
41°	29.5	40.9	49.1	52.4
42°	29.5	40.9	49.1	52.4
43°	29.5	39.3	49.1	52.4
44°	29.5	39.3	49.1	52.4
45°	27.8	39.3	49.1	52.4
46°	27.8	39.3	49.1	52.4
47°	27.8	39.3	49.1	52.4
48°	27.8	39.3	49.1	52.4
49°	27.8	39.3	49.1	52.4
50°	26.2	37.7	49.1	52.4
51°	26.2	37.7	49.1	52.4
52°	26.2	37.7	49.1	52.4
53°	26.2	37.7	49.1	52.4
54°	24.6	37.7	49.1	52.4
55°	24.6	37.7	49.1	52.4
56°	24.6	37.7	49.1	50.8
57°	24.6	37.7	47.5	50.8
58°	24.6	36.0	47.5	50.8
59°	24.6	36.0	47.5	50.8
60°	24.6	36.0	47.5	50.8
62.5°	22.9	36.0	45.8	49.1
65°	21.3	32.7	45.8	47.5



TEST NUMBER: P1315689

CATALOG NUMBER: P3SQAS20R409740D010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	21.3	31.1	42.6	45.8
70°	19.6	29.5	40.9	44.2
72.5°	16.4	27.8	37.7	40.9
75°	14.7	24.6	34.4	37.7
77.5°	13.1	21.3	31.1	32.7
80°	11.5	18.0	26.2	29.5
82.5°	8.2	13.1	21.3	22.9
85°	6.5	9.8	14.7	16.4
87.5°	4.9	4.9	8.2	8.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)