

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: P1313745

Luminaire Tested: P3SQAS20R409730D010 E3SQCA451MB

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1313745
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: P3SQAS20R409730D010 E3SQCA451MB
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 97CRI , E3SQCA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

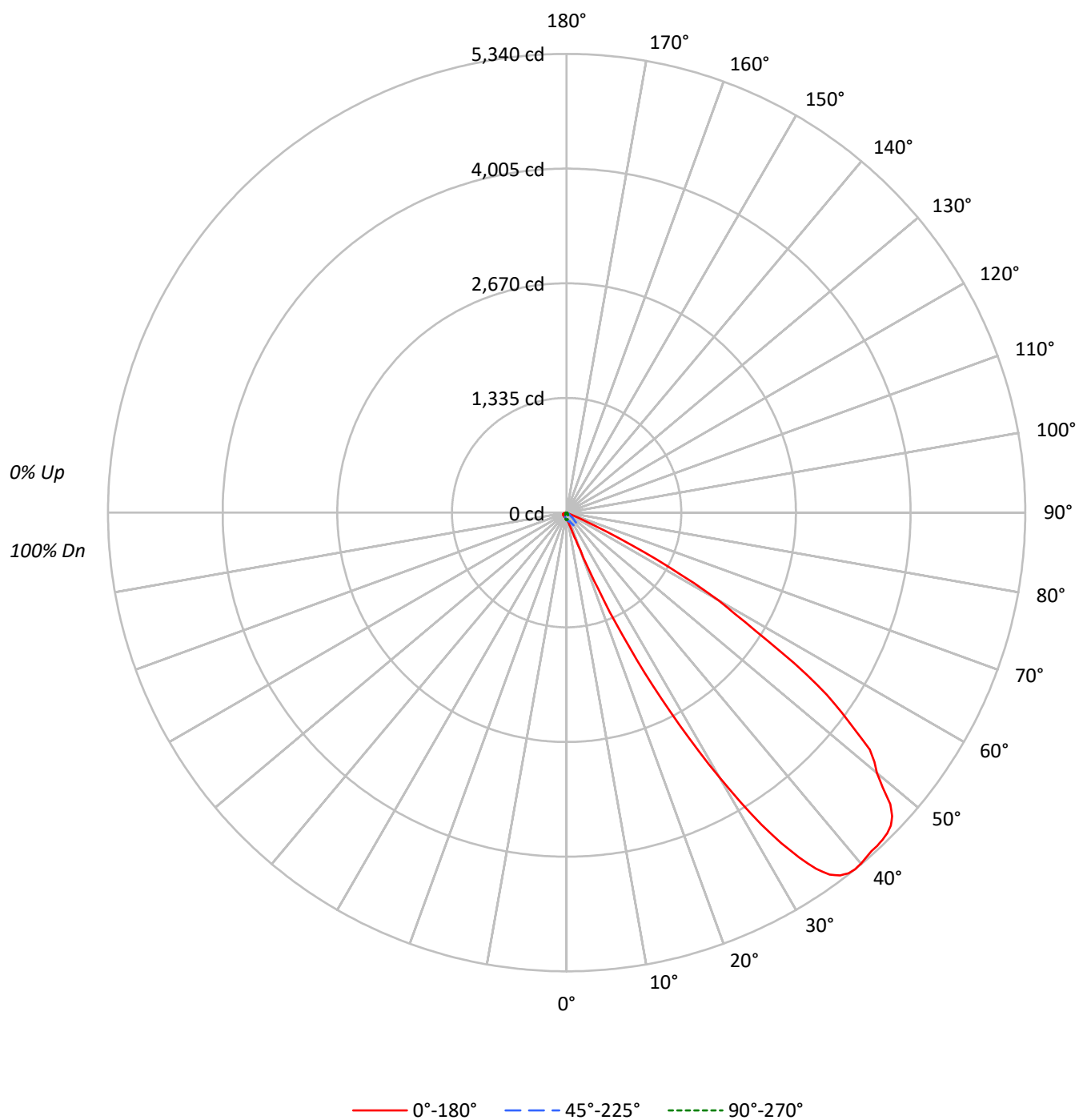
Lumens per Lamp: N/A
Luminaire Lumens: 1650.0 lumens
Efficiency: N/A
Efficacy: 57.3 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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: P1313745

CATALOG NUMBER: P3SQAS20R409730D010 E3SQCA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1313745

CATALOG NUMBER: P3SQAS20R409730D010 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°	14622	14622	14622	14622	14622
5°	16233	15715	14401	13104	12828
10°	19604	16701	13256	11927	11664
15°	32147	18097	11340	10537	10805
20°	84985	21388	9439	9439	10282
25°	327682	26490	7487	8646	10071
30°	706947	35259	6026	8432	9943
35°	1064071	41734	5088	8284	10197
40°	1198811	41907	4429	8521	10904
45°	1285459	32466	4067	8866	11813
50°	1263455	20309	3644	9351	12995
55°	1111536	9999	3633	10479	14563
60°	703564	2101	4168	11470	16189
65°	143893	611	4320	12348	17890
70°	3072	755	4582	13747	20595
75°	2994	1996	5057	15105	23223
80°	2975	1488	6050	16563	27076
85°	2964	2964	12054	17982	30036

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1308668 cd/sqm

TEST NUMBER: P1313745

CATALOG NUMBER: P3SQAS20R409730D010 E3SQCA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.9	0.5
10°-20°	26.1	1.6
20°-30°	128.2	7.8
30°-40°	416.9	25.3
40°-50°	574.7	34.8
50°-60°	400.3	24.3
60°-70°	75.9	4.6
70°-80°	13.7	0.8
80°-90°	6.3	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°	162.2	9.8
0°-40°	579.1	35.1
0°-60°	1554.1	94.2
0°-90°	1650.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1650.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	85	85	85	85	85	
5°	94	91	83	76	74	9
15°	180	102	64	59	61	66
25°	1724	139	39	46	53	888
35°	5061	198	24	39	48	3058
45°	5278	133	17	36	48	4013
55°	3702	33	12	35	48	3164
65°	353	2	11	30	44	624
75°	4	3	8	23	35	4
85°	2	2	6	9	15	1
90°	0	0	0	0	0	

TEST NUMBER: P1313745

CATALOG NUMBER: P3SQAS20R409730D010 E3SQCA451MB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9	84.9
2.5°	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	87.9	86.4	84.9
5°	93.9	93.9	93.9	93.9	92.4	92.4	92.4	90.9	90.9	87.9	83.3
7.5°	100.0	100.0	100.0	100.0	98.5	97.0	95.5	95.5	93.9	86.4	80.3
10°	112.1	112.1	110.6	109.1	107.6	104.6	103.0	100.0	95.5	84.9	75.8
12.5°	136.4	133.3	131.8	128.8	124.3	118.2	112.1	107.6	97.0	81.8	71.2
15°	180.3	177.3	171.2	162.1	153.0	140.9	130.3	119.7	101.5	77.3	63.6
17.5°	257.6	248.5	239.4	224.3	201.5	180.3	157.6	137.9	107.6	72.7	57.6
20°	463.7	457.6	403.1	360.6	292.5	244.0	198.5	165.2	116.7	68.2	51.5
22.5°	956.2	892.5	803.1	657.6	512.2	377.3	274.3	207.6	125.8	62.1	45.5
25°	1724.4	1624.4	1432.0	1151.6	850.1	601.6	397.0	271.2	139.4	56.1	39.4
27.5°	2610.9	2509.3	2210.8	1824.4	1331.9	907.7	566.7	359.1	157.6	50.0	34.9
30°	3554.9	3468.5	3089.7	2554.8	1877.5	1271.3	759.2	448.5	177.3	43.9	30.3
31°	3935.2	3824.6	3415.5	2845.7	2133.5	1421.3	836.4	486.4	184.9	42.4	28.8
32°	4285.3	4159.5	3735.2	3124.5	2341.1	1583.5	921.3	519.7	190.9	39.4	27.3
33°	4586.8	4439.8	4030.7	3388.2	2569.9	1735.0	1009.2	551.6	195.5	36.4	25.8
34°	4842.9	4715.6	4276.2	3653.4	2773.0	1880.5	1095.6	583.4	198.5	34.9	24.2
35°	5061.1	4945.9	4511.0	3854.9	2971.5	2021.4	1174.4	613.7	198.5	31.8	24.2
36°	5208.1	5108.1	4714.1	4061.0	3138.2	2141.1	1241.0	641.0	198.5	28.8	22.7
37°	5288.4	5191.4	4847.4	4230.7	3301.8	2259.3	1301.6	662.2	197.0	27.3	21.2
38°	5329.3	5244.4	4945.9	4368.6	3415.5	2344.2	1354.7	678.9	195.5	24.2	21.2
39°	5339.9	5268.7	5008.1	4468.6	3526.1	2429.0	1392.6	687.9	190.9	22.7	19.7
40°	5332.3	5270.2	5041.4	4558.0	3610.9	2495.7	1419.8	691.0	186.4	19.7	19.7
41°	5317.2	5268.7	5065.6	4620.1	3679.1	2538.1	1430.4	684.9	180.3	16.7	18.2
42°	5303.5	5250.5	5076.2	4662.6	3726.1	2559.3	1428.9	672.8	171.2	15.2	18.2
43°	5303.5	5242.9	5077.8	4689.8	3748.8	2560.8	1410.7	650.1	159.1	13.6	16.7
44°	5294.4	5238.4	5085.3	4708.0	3754.9	2547.2	1381.9	625.8	145.5	12.1	16.7
45°	5277.8	5218.7	5083.8	4709.5	3744.3	2513.9	1335.0	594.0	133.3	9.1	16.7
46°	5246.0	5192.9	5070.2	4698.9	3712.5	2465.4	1278.9	562.2	119.7	7.6	15.2
47°	5182.3	5141.4	5033.8	4662.6	3664.0	2394.2	1212.2	525.8	109.1	6.1	15.2
48°	5073.2	5044.4	4971.7	4582.3	3571.6	2306.3	1141.0	486.4	98.5	6.1	15.2
49°	4873.2	4850.5	4808.0	4453.5	3453.4	2198.7	1063.7	442.5	87.9	4.5	15.2
50°	4715.6	4691.4	4605.0	4236.8	3283.6	2062.3	978.9	398.5	75.8	3.0	13.6
51°	4611.0	4571.6	4435.3	3985.2	3036.7	1880.5	886.4	354.6	63.6	3.0	13.6
52°	4479.2	4420.1	4250.4	3759.4	2810.9	1698.6	786.4	310.6	56.1	3.0	13.6
53°	4203.4	4182.2	4014.0	3517.0	2585.1	1524.4	683.4	274.3	48.5	3.0	13.6
54°	3962.5	3930.7	3701.9	3180.6	2339.6	1330.4	577.3	242.4	40.9	3.0	13.6
55°	3701.9	3639.7	3436.7	2897.2	2051.7	1151.6	475.8	209.1	33.3	3.0	12.1
56°	3373.0	3318.5	3100.3	2594.2	1786.5	969.8	398.5	171.2	25.8	3.0	12.1
57°	2973.0	2923.0	2754.8	2221.4	1510.7	792.5	324.3	137.9	19.7	3.0	12.1
58°	2586.6	2530.5	2338.1	1863.8	1219.8	628.8	271.2	112.1	15.2	3.0	12.1
59°	2289.6	2213.8	1965.3	1565.3	954.6	477.3	215.2	89.4	10.6	3.0	12.1
60°	2042.6	1980.5	1722.9	1303.2	748.6	351.5	159.1	68.2	6.1	3.0	12.1
62.5°	1183.4	1166.8	934.9	671.3	353.1	163.7	78.8	31.8	3.0	4.5	12.1
65°	353.1	307.6	239.4	142.4	90.9	54.6	28.8	10.6	1.5	4.5	10.6



TEST NUMBER: P1313745

CATALOG NUMBER: P3SQAS20R409730D010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	10.6	10.6	10.6	10.6	10.6	10.6	6.1	3.0	1.5	4.5	10.6
70°	6.1	4.5	4.5	4.5	4.5	3.0	3.0	1.5	1.5	4.5	9.1
72.5°	4.5	4.5	4.5	4.5	3.0	3.0	3.0	1.5	3.0	4.5	7.6
75°	4.5	3.0	3.0	3.0	3.0	1.5	1.5	1.5	3.0	4.5	7.6
77.5°	3.0	3.0	3.0	3.0	1.5	1.5	1.5	1.5	3.0	4.5	7.6
80°	3.0	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	4.5	6.1
82.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	4.5	6.1
85°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	4.5	6.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.5	4.5	4.5
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: P1313745

CATALOG NUMBER: P3SQAS20R409730D010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	84.9	84.9	84.9	84.9
2.5°	81.8	80.3	78.8	78.8
5°	78.8	75.8	75.8	74.2
7.5°	74.2	71.2	71.2	71.2
10°	69.7	68.2	68.2	66.7
12.5°	63.6	63.6	63.6	63.6
15°	59.1	59.1	60.6	60.6
17.5°	53.0	54.6	57.6	59.1
20°	48.5	51.5	54.6	56.1
22.5°	45.5	48.5	53.0	54.6
25°	40.9	45.5	51.5	53.0
27.5°	37.9	43.9	48.5	51.5
30°	34.9	42.4	47.0	50.0
31°	34.9	40.9	47.0	50.0
32°	33.3	39.4	47.0	48.5
33°	33.3	39.4	47.0	48.5
34°	31.8	39.4	45.5	48.5
35°	31.8	39.4	45.5	48.5
36°	30.3	37.9	45.5	48.5
37°	30.3	37.9	45.5	48.5
38°	28.8	37.9	45.5	48.5
39°	28.8	37.9	45.5	48.5
40°	28.8	37.9	45.5	48.5
41°	27.3	37.9	45.5	48.5
42°	27.3	37.9	45.5	48.5
43°	27.3	36.4	45.5	48.5
44°	27.3	36.4	45.5	48.5
45°	25.8	36.4	45.5	48.5
46°	25.8	36.4	45.5	48.5
47°	25.8	36.4	45.5	48.5
48°	25.8	36.4	45.5	48.5
49°	25.8	36.4	45.5	48.5
50°	24.2	34.9	45.5	48.5
51°	24.2	34.9	45.5	48.5
52°	24.2	34.9	45.5	48.5
53°	24.2	34.9	45.5	48.5
54°	22.7	34.9	45.5	48.5
55°	22.7	34.9	45.5	48.5
56°	22.7	34.9	45.5	47.0
57°	22.7	34.9	43.9	47.0
58°	22.7	33.3	43.9	47.0
59°	22.7	33.3	43.9	47.0
60°	22.7	33.3	43.9	47.0
62.5°	21.2	33.3	42.4	45.5
65°	19.7	30.3	42.4	43.9



TEST NUMBER: P1313745

CATALOG NUMBER: P3SQAS20R409730D010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	19.7	28.8	39.4	42.4
70°	18.2	27.3	37.9	40.9
72.5°	15.2	25.8	34.9	37.9
75°	13.6	22.7	31.8	34.9
77.5°	12.1	19.7	28.8	30.3
80°	10.6	16.7	24.2	27.3
82.5°	7.6	12.1	19.7	21.2
85°	6.1	9.1	13.6	15.2
87.5°	4.5	4.5	7.6	7.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)