

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: P1308343

Luminaire Tested: P3SQAS20R409030D010 E3SQCA451MMS

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1308343
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: P3SQAS20R409030D010 E3SQCA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 90CRI , E3SQCA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

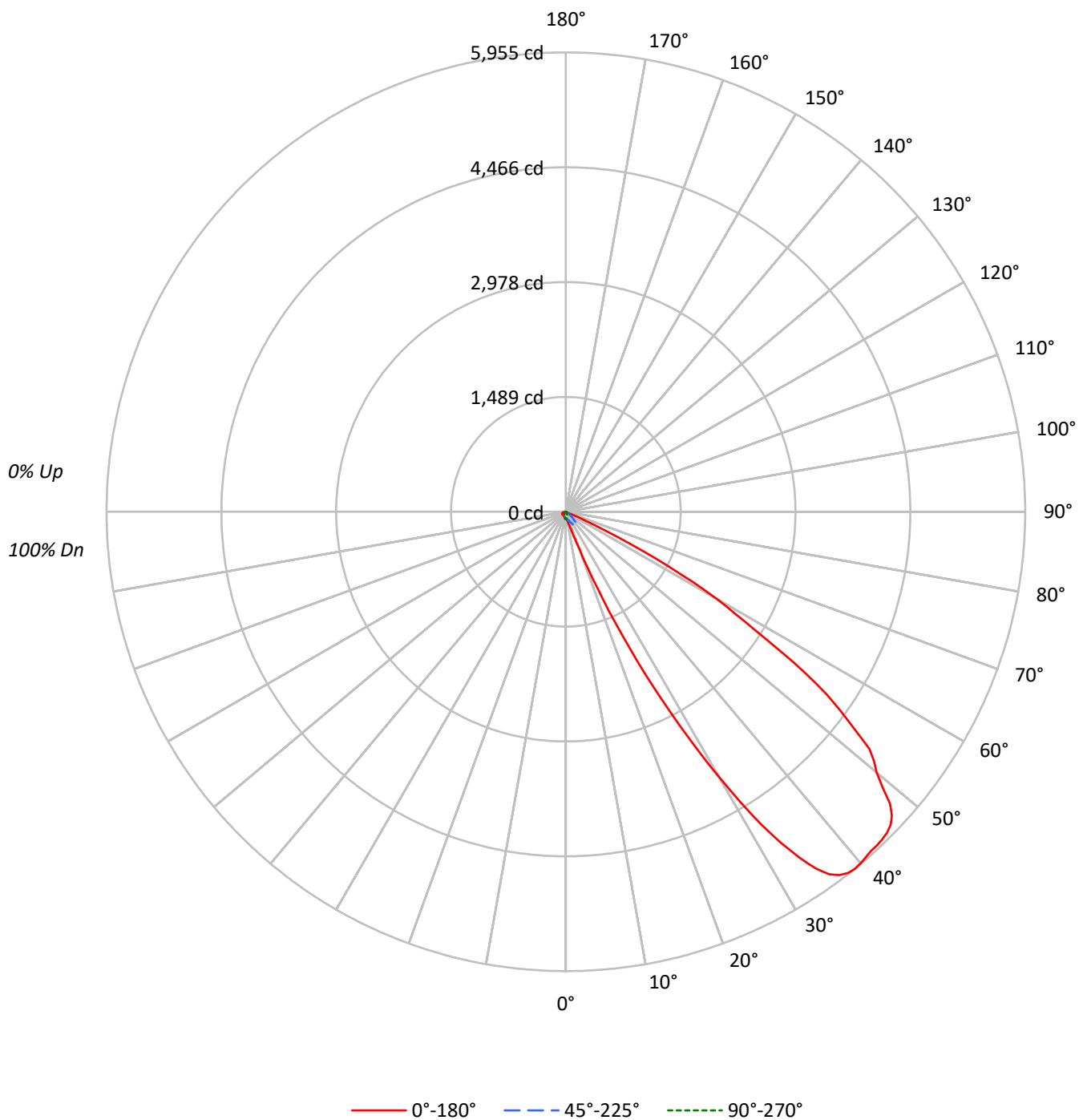
Lumens per Lamp: N/A
Luminaire Lumens: 1840.0 lumens
Efficiency: N/A
Efficacy: 63.9 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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: P1308343

CATALOG NUMBER: P3SQAS20R409030D010 E3SQCA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1308343

CATALOG NUMBER: P3SQAS20R409030D010 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	0
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°	16292	16292	16292	16292	16292
5°	18118	17530	16061	14608	14315
10°	21860	18625	14777	13291	13011
15°	35856	20183	12659	11750	12053
20°	94772	23844	10538	10538	11455
25°	365421	29549	8342	9634	11231
30°	788343	39316	6722	9406	11097
35°	1186602	46548	5677	9230	11374
40°	1336874	46718	4946	9487	12163
45°	1433470	36217	4530	9889	13177
50°	1408941	22640	4073	10423	14495
55°	1239507	11170	4054	11680	16244
60°	784577	2342	4650	12813	18049
65°	160438	693	4809	13774	19968
70°	3424	856	5086	15308	22962
75°	3394	2262	5590	16835	25885
80°	3372	1686	6744	18447	30150
85°	3359	3359	13437	19958	33395

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1459376 cd/sqm

TEST NUMBER: P1308343

CATALOG NUMBER: P3SQAS20R409030D010 E3SQCA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.8	0.5
10°-20°	29.1	1.6
20°-30°	142.9	7.8
30°-40°	464.9	25.3
40°-50°	640.8	34.8
50°-60°	446.4	24.3
60°-70°	84.6	4.6
70°-80°	15.3	0.8
80°-90°	7.1	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°	180.9	9.8
0°-40°	645.8	35.1
0°-60°	1733.0	94.2
0°-90°	1840.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1840.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	95	95	95	95	95	
5°	105	101	93	84	83	11
15°	201	113	71	66	68	73
25°	1923	156	44	51	59	990
35°	5644	221	27	44	54	3411
45°	5886	149	19	41	54	4476
55°	4128	37	14	39	54	3528
65°	394	2	12	34	49	696
75°	5	3	8	25	39	5
85°	2	2	7	10	17	1
90°	0	0	0	0	0	

TEST NUMBER: P1308343

CATALOG NUMBER: P3SQAS20R409030D010 E3SQCA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6	94.6
2.5°	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	98.0	96.3	94.6
5°	104.8	104.8	104.8	104.8	103.1	103.1	103.1	101.4	101.4	98.0	92.9
7.5°	111.5	111.5	111.5	111.5	109.8	108.1	106.5	106.5	104.8	96.3	89.6
10°	125.0	125.0	123.4	121.7	120.0	116.6	114.9	111.5	106.5	94.6	84.5
12.5°	152.1	148.7	147.0	143.6	138.6	131.8	125.0	120.0	108.1	91.2	79.4
15°	201.1	197.7	190.9	180.8	170.7	157.1	145.3	133.5	113.2	86.2	71.0
17.5°	287.3	277.1	267.0	250.1	224.7	201.1	175.7	153.8	120.0	81.1	64.2
20°	517.1	510.3	449.5	402.2	326.1	272.1	221.4	184.2	130.1	76.0	57.5
22.5°	1066.3	995.3	895.6	733.4	571.1	420.8	305.9	231.5	140.3	69.3	50.7
25°	1923.0	1811.4	1596.8	1284.2	948.0	670.8	442.7	302.5	155.5	62.5	43.9
27.5°	2911.5	2798.3	2465.4	2034.5	1485.3	1012.2	632.0	400.5	175.7	55.8	38.9
30°	3964.2	3867.9	3445.5	2849.0	2093.6	1417.7	846.6	500.2	197.7	49.0	33.8
31°	4388.4	4265.0	3808.8	3173.4	2379.2	1585.0	932.8	542.4	206.2	47.3	32.1
32°	4778.7	4638.5	4165.3	3484.3	2610.7	1765.8	1027.4	579.6	212.9	43.9	30.4
33°	5115.0	4951.1	4494.8	3778.4	2865.9	1934.8	1125.4	615.1	218.0	40.6	28.7
34°	5400.6	5258.6	4768.6	4074.1	3092.3	2097.0	1221.7	650.6	221.4	38.9	27.0
35°	5643.9	5515.5	5030.5	4298.8	3313.7	2254.2	1309.6	684.4	221.4	35.5	27.0
36°	5807.8	5696.3	5256.9	4528.6	3499.5	2387.7	1383.9	714.8	221.4	32.1	25.3
37°	5897.3	5789.2	5405.6	4717.9	3682.0	2519.5	1451.5	738.4	219.7	30.4	23.7
38°	5943.0	5848.3	5515.5	4871.6	3808.8	2614.1	1510.7	757.0	218.0	27.0	23.7
39°	5954.8	5875.4	5584.7	4983.2	3932.1	2708.7	1552.9	767.2	212.9	25.3	22.0
40°	5946.4	5877.1	5621.9	5082.9	4026.8	2783.1	1583.3	770.5	207.8	22.0	22.0
41°	5929.5	5875.4	5648.9	5152.2	4102.8	2830.4	1595.2	763.8	201.1	18.6	20.3
42°	5914.2	5855.1	5660.8	5199.5	4155.2	2854.0	1593.5	750.3	190.9	16.9	20.3
43°	5914.2	5846.7	5662.5	5229.9	4180.5	2855.7	1573.2	724.9	177.4	15.2	18.6
44°	5904.1	5841.6	5670.9	5250.2	4187.3	2840.5	1541.1	697.9	162.2	13.5	18.6
45°	5885.5	5819.6	5669.2	5251.8	4175.5	2803.4	1488.7	662.4	148.7	10.1	18.6
46°	5850.0	5790.9	5654.0	5240.0	4140.0	2749.3	1426.2	626.9	133.5	8.4	16.9
47°	5779.1	5733.4	5613.5	5199.5	4085.9	2669.9	1351.8	586.4	121.7	6.8	16.9
48°	5657.4	5625.3	5544.2	5109.9	3982.8	2571.9	1272.4	542.4	109.8	6.8	16.9
49°	5434.3	5409.0	5361.7	4966.3	3851.0	2451.9	1186.2	493.4	98.0	5.1	16.9
50°	5258.6	5231.6	5135.3	4724.6	3661.8	2299.8	1091.6	444.4	84.5	3.4	15.2
51°	5142.0	5098.1	4946.0	4444.1	3386.3	2097.0	988.5	395.4	71.0	3.4	15.2
52°	4995.0	4929.1	4739.8	4192.4	3134.5	1894.2	877.0	346.4	62.5	3.4	15.2
53°	4687.5	4663.8	4476.2	3922.0	2882.8	1699.9	762.1	305.9	54.1	3.4	15.2
54°	4418.8	4383.3	4128.1	3546.9	2609.0	1483.6	643.8	270.4	45.6	3.4	15.2
55°	4128.1	4058.9	3832.4	3230.9	2288.0	1284.2	530.6	233.2	37.2	3.4	13.5
56°	3761.5	3700.6	3457.3	2892.9	1992.3	1081.5	444.4	190.9	28.7	3.4	13.5
57°	3315.4	3259.6	3072.0	2477.2	1684.7	883.8	361.6	153.8	22.0	3.4	13.5
58°	2884.5	2821.9	2607.3	2078.4	1360.3	701.3	302.5	125.0	16.9	3.4	13.5
59°	2553.3	2468.8	2191.7	1745.5	1064.6	532.3	239.9	99.7	11.8	3.4	13.5
60°	2277.8	2208.5	1921.3	1453.2	834.8	392.0	177.4	76.0	6.8	3.4	13.5
62.5°	1319.7	1301.1	1042.6	748.6	393.7	182.5	87.9	35.5	3.4	5.1	13.5
65°	393.7	343.0	267.0	158.8	101.4	60.8	32.1	11.8	1.7	5.1	11.8



TEST NUMBER: P1308343

CATALOG NUMBER: P3SQAS20R409030D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	11.8	11.8	11.8	11.8	11.8	11.8	6.8	3.4	1.7	5.1	11.8
70°	6.8	5.1	5.1	5.1	5.1	3.4	3.4	1.7	1.7	5.1	10.1
72.5°	5.1	5.1	5.1	5.1	3.4	3.4	3.4	1.7	3.4	5.1	8.4
75°	5.1	3.4	3.4	3.4	3.4	1.7	1.7	1.7	3.4	5.1	8.4
77.5°	3.4	3.4	3.4	3.4	1.7	1.7	1.7	1.7	3.4	5.1	8.4
80°	3.4	3.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7	5.1	6.8
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	5.1	6.8
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	5.1	6.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7	5.1	5.1
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: P1308343

CATALOG NUMBER: P3SQAS20R409030D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	94.6	94.6	94.6	94.6
2.5°	91.2	89.6	87.9	87.9
5°	87.9	84.5	84.5	82.8
7.5°	82.8	79.4	79.4	79.4
10°	77.7	76.0	76.0	74.4
12.5°	71.0	71.0	71.0	71.0
15°	65.9	65.9	67.6	67.6
17.5°	59.1	60.8	64.2	65.9
20°	54.1	57.5	60.8	62.5
22.5°	50.7	54.1	59.1	60.8
25°	45.6	50.7	57.5	59.1
27.5°	42.2	49.0	54.1	57.5
30°	38.9	47.3	52.4	55.8
31°	38.9	45.6	52.4	55.8
32°	37.2	43.9	52.4	54.1
33°	37.2	43.9	52.4	54.1
34°	35.5	43.9	50.7	54.1
35°	35.5	43.9	50.7	54.1
36°	33.8	42.2	50.7	54.1
37°	33.8	42.2	50.7	54.1
38°	32.1	42.2	50.7	54.1
39°	32.1	42.2	50.7	54.1
40°	32.1	42.2	50.7	54.1
41°	30.4	42.2	50.7	54.1
42°	30.4	42.2	50.7	54.1
43°	30.4	40.6	50.7	54.1
44°	30.4	40.6	50.7	54.1
45°	28.7	40.6	50.7	54.1
46°	28.7	40.6	50.7	54.1
47°	28.7	40.6	50.7	54.1
48°	28.7	40.6	50.7	54.1
49°	28.7	40.6	50.7	54.1
50°	27.0	38.9	50.7	54.1
51°	27.0	38.9	50.7	54.1
52°	27.0	38.9	50.7	54.1
53°	27.0	38.9	50.7	54.1
54°	25.3	38.9	50.7	54.1
55°	25.3	38.9	50.7	54.1
56°	25.3	38.9	50.7	52.4
57°	25.3	38.9	49.0	52.4
58°	25.3	37.2	49.0	52.4
59°	25.3	37.2	49.0	52.4
60°	25.3	37.2	49.0	52.4
62.5°	23.7	37.2	47.3	50.7
65°	22.0	33.8	47.3	49.0



TEST NUMBER: P1308343

CATALOG NUMBER: P3SQAS20R409030D010 E3SQCA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	22.0	32.1	43.9	47.3
70°	20.3	30.4	42.2	45.6
72.5°	16.9	28.7	38.9	42.2
75°	15.2	25.3	35.5	38.9
77.5°	13.5	22.0	32.1	33.8
80°	11.8	18.6	27.0	30.4
82.5°	8.4	13.5	22.0	23.7
85°	6.8	10.1	15.2	16.9
87.5°	5.1	5.1	8.4	8.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)