

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: P1311657

Luminaire Tested: P3SQAS20R409050D010 E3SQCA451MW

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1311657
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: P3SQAS20R409050D010 E3SQCA451MW
Description: 3in Adjustable LED luminaire with, R40 optic, 5000K CCT AND, 90CRI , E3SQCA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

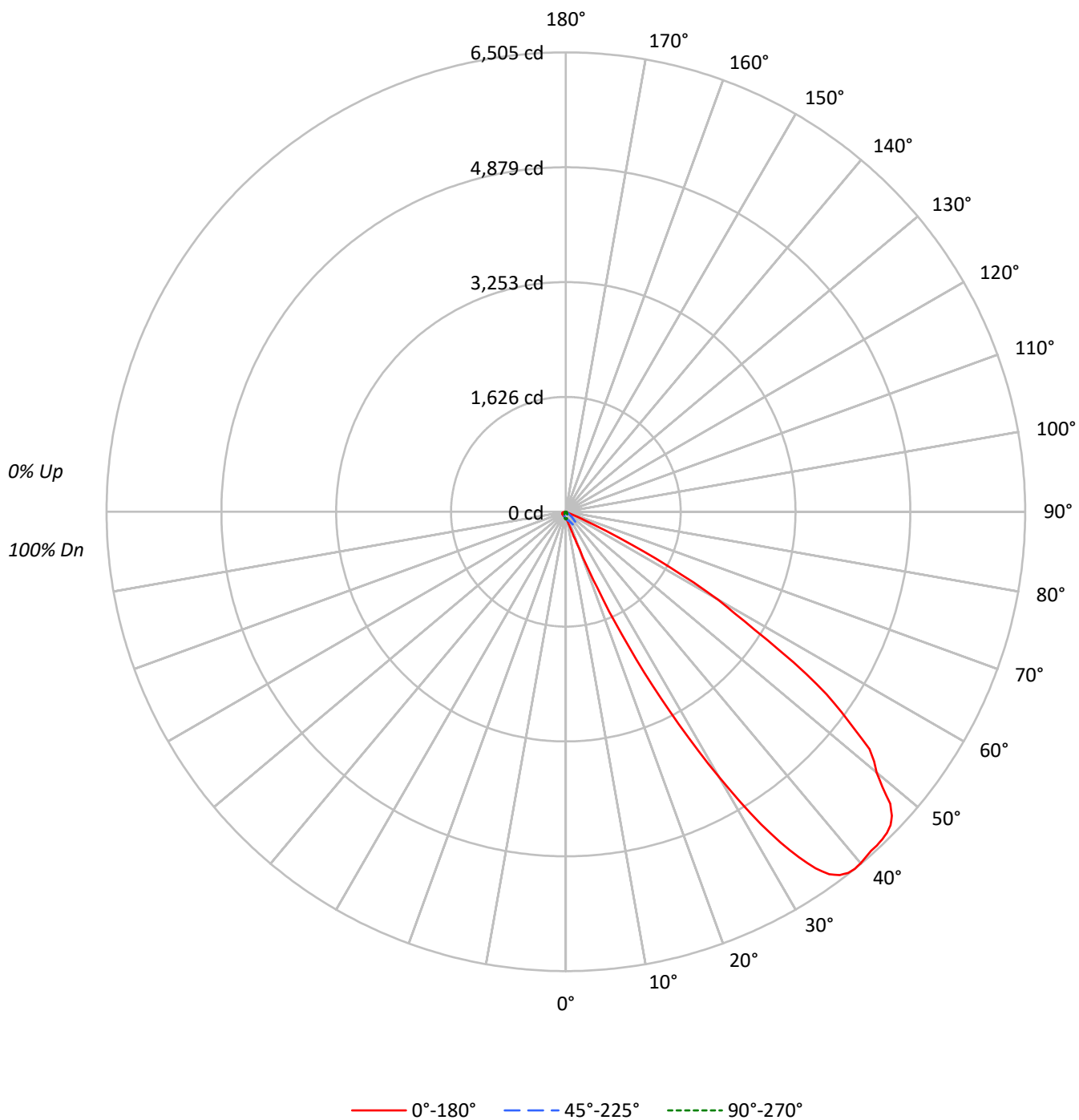
Lumens per Lamp: N/A
Luminaire Lumens: 2010.0 lumens
Efficiency: N/A
Efficacy: 69.8 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

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: P1311657

CATALOG NUMBER: P3SQAS20R409050D010 E3SQCA451MW

Luminous Intensity Polar Plot



TEST NUMBER: P1311657

CATALOG NUMBER: P3SQAS20R409050D010 E3SQCA451MW

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°	17808	17808	17808	17808	17808
5°	19778	19155	17547	15957	15628
10°	23889	20338	16141	14532	14200
15°	39172	22055	13818	12837	13158
20°	103514	26043	11510	11510	12518
25°	399170	32267	9121	10527	12276
30°	861187	42955	7338	10281	12111
35°	1296224	50837	6202	10092	12425
40°	1460368	51034	5396	10364	13287
45°	1565918	39554	4944	10790	14394
50°	1539129	24730	4448	11387	15835
55°	1354027	12191	4444	12761	17745
60°	857083	2549	5098	13984	19702
65°	175272	734	5257	15037	21802
70°	3726	906	5589	16718	25077
75°	3660	2462	6122	18432	28280
80°	3670	1785	7339	20133	32927
85°	3557	3557	14623	21934	36557

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1594200 cd/sqm

TEST NUMBER: P1311657

CATALOG NUMBER: P3SQAS20R409050D010 E3SQCA451MW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	9.7	0.5
10°-20°	31.8	1.6
20°-30°	156.1	7.8
30°-40°	507.8	25.3
40°-50°	700.0	34.8
50°-60°	487.6	24.3
60°-70°	92.4	4.6
70°-80°	16.7	0.8
80°-90°	7.7	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°	197.6	9.8
0°-40°	705.5	35.1
0°-60°	1893.1	94.2
0°-90°	2010.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2010.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	103	103	103	103	103	
5°	114	111	102	92	90	12
15°	220	124	78	72	74	80
25°	2101	170	48	55	65	1082
35°	6165	242	30	48	59	3726
45°	6429	162	20	44	59	4889
55°	4510	41	15	42	59	3854
65°	430	2	13	37	54	761
75°	6	4	9	28	42	5
85°	2	2	7	11	18	1
90°	0	0	0	0	0	

TEST NUMBER: P1311657

CATALOG NUMBER: P3SQAS20R409050D010 E3SQCA451MW

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4
2.5°	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.1	107.1	105.2	103.4
5°	114.4	114.4	114.4	114.4	112.6	112.6	112.6	110.8	110.8	107.1	101.5
7.5°	121.8	121.8	121.8	121.8	120.0	118.1	116.3	116.3	114.4	105.2	97.8
10°	136.6	136.6	134.8	132.9	131.1	127.4	125.5	121.8	116.3	103.4	92.3
12.5°	166.1	162.4	160.6	156.9	151.4	144.0	136.6	131.1	118.1	99.7	86.8
15°	219.7	216.0	208.6	197.5	186.4	171.7	158.7	145.8	123.7	94.1	77.5
17.5°	313.8	302.7	291.7	273.2	245.5	219.7	192.0	168.0	131.1	88.6	70.1
20°	564.8	557.5	491.0	439.3	356.3	297.2	241.8	201.2	142.1	83.1	62.8
22.5°	1164.8	1087.2	978.3	801.1	623.9	459.6	334.1	252.9	153.2	75.7	55.4
25°	2100.6	1978.8	1744.4	1402.9	1035.6	732.8	483.6	330.4	169.8	68.3	48.0
27.5°	3180.5	3056.8	2693.2	2222.5	1622.6	1105.7	690.4	437.5	192.0	60.9	42.5
30°	4330.5	4225.3	3763.8	3112.2	2287.1	1548.7	924.8	546.4	216.0	53.5	36.9
31°	4793.8	4659.1	4160.7	3466.6	2599.0	1731.5	1018.9	592.5	225.2	51.7	35.1
32°	5220.2	5067.0	4550.2	3806.3	2851.9	1929.0	1122.3	633.1	232.6	48.0	33.2
33°	5587.6	5408.5	4910.1	4127.4	3130.7	2113.6	1229.4	671.9	238.1	44.3	31.4
34°	5899.5	5744.5	5209.1	4450.5	3378.0	2290.8	1334.6	710.7	241.8	42.5	29.5
35°	6165.3	6025.0	5495.3	4696.0	3619.8	2462.4	1430.6	747.6	241.8	38.8	29.5
36°	6344.4	6222.5	5742.6	4947.0	3822.9	2608.3	1511.8	780.8	241.8	35.1	27.7
37°	6442.2	6324.1	5905.1	5153.8	4022.2	2752.2	1585.6	806.7	240.0	33.2	25.8
38°	6492.1	6388.7	6025.0	5321.7	4160.7	2855.6	1650.2	827.0	238.1	29.5	25.8
39°	6505.0	6418.2	6100.7	5443.6	4295.4	2959.0	1696.4	838.0	232.6	27.7	24.0
40°	6495.7	6420.1	6141.3	5552.5	4398.8	3040.2	1729.6	841.7	227.0	24.0	24.0
41°	6477.3	6418.2	6170.9	5628.2	4481.9	3091.9	1742.5	834.3	219.7	20.3	22.2
42°	6460.7	6396.1	6183.8	5679.9	4539.1	3117.7	1740.7	819.6	208.6	18.5	22.2
43°	6460.7	6386.8	6185.6	5713.1	4566.8	3119.6	1718.5	791.9	193.8	16.6	20.3
44°	6449.6	6381.3	6194.9	5735.2	4574.2	3103.0	1683.5	762.4	177.2	14.8	20.3
45°	6429.3	6357.3	6193.0	5737.1	4561.2	3062.4	1626.2	723.6	162.4	11.1	20.3
46°	6390.5	6325.9	6176.4	5724.2	4522.5	3003.3	1557.9	684.8	145.8	9.2	18.5
47°	6313.0	6263.2	6132.1	5679.9	4463.4	2916.5	1476.7	640.5	132.9	7.4	18.5
48°	6180.1	6145.0	6056.4	5582.0	4350.8	2809.5	1390.0	592.5	120.0	7.4	18.5
49°	5936.4	5908.7	5857.1	5425.1	4206.8	2678.4	1295.8	539.0	107.1	5.5	18.5
50°	5744.5	5714.9	5609.7	5161.2	4000.1	2512.3	1192.5	485.5	92.3	3.7	16.6
51°	5617.1	5569.1	5403.0	4854.7	3699.2	2290.8	1079.9	431.9	77.5	3.7	16.6
52°	5456.5	5384.5	5177.8	4579.7	3424.2	2069.3	958.0	378.4	68.3	3.7	16.6
53°	5120.5	5094.7	4889.8	4284.3	3149.1	1857.0	832.5	334.1	59.1	3.7	16.6
54°	4827.0	4788.3	4509.5	3874.6	2850.1	1620.7	703.3	295.3	49.8	3.7	16.6
55°	4509.5	4433.9	4186.5	3529.4	2499.4	1402.9	579.6	254.7	40.6	3.7	14.8
56°	4109.0	4042.5	3776.7	3160.2	2176.3	1181.4	485.5	208.6	31.4	3.7	14.8
57°	3621.7	3560.8	3355.9	2706.1	1840.4	965.4	395.0	168.0	24.0	3.7	14.8
58°	3151.0	3082.7	2848.2	2270.5	1486.0	766.1	330.4	136.6	18.5	3.7	14.8
59°	2789.2	2696.9	2394.1	1906.8	1162.9	581.5	262.1	108.9	12.9	3.7	14.8
60°	2488.3	2412.6	2098.8	1587.5	911.9	428.3	193.8	83.1	7.4	3.7	14.8
62.5°	1441.7	1421.3	1138.9	817.7	430.1	199.4	96.0	38.8	3.7	5.5	14.8
65°	430.1	374.7	291.7	173.5	110.8	66.5	35.1	12.9	1.8	5.5	12.9



TEST NUMBER: P1311657

CATALOG NUMBER: P3SQAS20R409050D010 E3SQCA451MW

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	12.9	12.9	12.9	12.9	12.9	12.9	7.4	3.7	1.8	5.5	12.9
70°	7.4	5.5	5.5	5.5	5.5	3.7	3.7	1.8	1.8	5.5	11.1
72.5°	5.5	5.5	5.5	5.5	3.7	3.7	3.7	1.8	3.7	5.5	9.2
75°	5.5	3.7	3.7	3.7	3.7	1.8	1.8	1.8	3.7	5.5	9.2
77.5°	3.7	3.7	3.7	3.7	1.8	1.8	1.8	1.8	3.7	5.5	9.2
80°	3.7	3.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	5.5	7.4
82.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	5.5	7.4
85°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	5.5	7.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.8	5.5	5.5
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: P1311657

CATALOG NUMBER: P3SQAS20R409050D010 E3SQCA451MW

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	103.4	103.4	103.4	103.4
2.5°	99.7	97.8	96.0	96.0
5°	96.0	92.3	92.3	90.4
7.5°	90.4	86.8	86.8	86.8
10°	84.9	83.1	83.1	81.2
12.5°	77.5	77.5	77.5	77.5
15°	72.0	72.0	73.8	73.8
17.5°	64.6	66.5	70.1	72.0
20°	59.1	62.8	66.5	68.3
22.5°	55.4	59.1	64.6	66.5
25°	49.8	55.4	62.8	64.6
27.5°	46.1	53.5	59.1	62.8
30°	42.5	51.7	57.2	60.9
31°	42.5	49.8	57.2	60.9
32°	40.6	48.0	57.2	59.1
33°	40.6	48.0	57.2	59.1
34°	38.8	48.0	55.4	59.1
35°	38.8	48.0	55.4	59.1
36°	36.9	46.1	55.4	59.1
37°	36.9	46.1	55.4	59.1
38°	35.1	46.1	55.4	59.1
39°	35.1	46.1	55.4	59.1
40°	35.1	46.1	55.4	59.1
41°	33.2	46.1	55.4	59.1
42°	33.2	46.1	55.4	59.1
43°	33.2	44.3	55.4	59.1
44°	33.2	44.3	55.4	59.1
45°	31.4	44.3	55.4	59.1
46°	31.4	44.3	55.4	59.1
47°	31.4	44.3	55.4	59.1
48°	31.4	44.3	55.4	59.1
49°	31.4	44.3	55.4	59.1
50°	29.5	42.5	55.4	59.1
51°	29.5	42.5	55.4	59.1
52°	29.5	42.5	55.4	59.1
53°	29.5	42.5	55.4	59.1
54°	27.7	42.5	55.4	59.1
55°	27.7	42.5	55.4	59.1
56°	27.7	42.5	55.4	57.2
57°	27.7	42.5	53.5	57.2
58°	27.7	40.6	53.5	57.2
59°	27.7	40.6	53.5	57.2
60°	27.7	40.6	53.5	57.2
62.5°	25.8	40.6	51.7	55.4
65°	24.0	36.9	51.7	53.5



TEST NUMBER: P1311657

CATALOG NUMBER: P3SQAS20R409050D010 E3SQCA451MW

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	24.0	35.1	48.0	51.7
70°	22.2	33.2	46.1	49.8
72.5°	18.5	31.4	42.5	46.1
75°	16.6	27.7	38.8	42.5
77.5°	14.8	24.0	35.1	36.9
80°	12.9	20.3	29.5	33.2
82.5°	9.2	14.8	24.0	25.8
85°	7.4	11.1	16.6	18.5
87.5°	5.5	5.5	9.2	9.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)