

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: P1311102

Luminaire Tested: P3SQAS09R159050DE010 E3SQCA451MB

Issue Date: 1/29/2026

Test Information

Test Method: LM-79-2019
Report Number: P1311102
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 1/29/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3SQAS09R159050DE010 E3SQCA451MB
Description: 3in Adjustable LED luminaire with, R15 optic, 5000K CCT AND, 90CRI , E3SQCA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

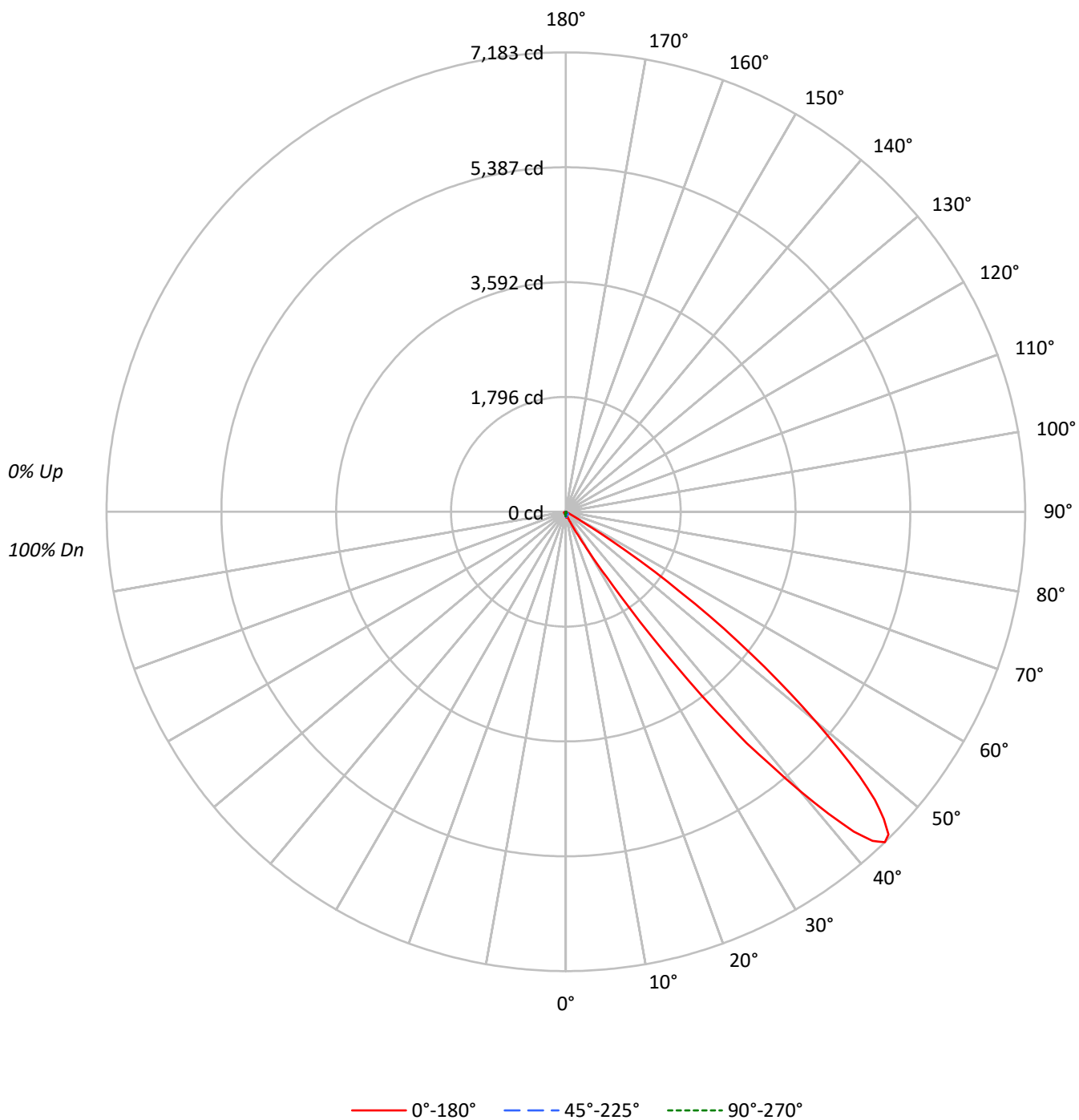
Lumens per Lamp: N/A
Luminaire Lumens: 802.0 lumens
Efficiency: N/A
Efficacy: 72.3 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11.1
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: P1311102

CATALOG NUMBER: P3SQAS09R159050DE010 E3SQCA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1311102

CATALOG NUMBER: P3SQAS09R159050DE010 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	50	30	10
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	100	97	94	96	93	91	92	90	89	87		
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61		
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50		
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35		
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29		
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24		
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20		
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	12262	12262	12262	12262	12262
5°	15213	13554	11064	9681	9543
10°	14970	11612	8534	7555	7695
15°	12410	8273	6133	6276	6704
20°	21553	6598	4692	5425	6158
25°	48020	7905	3801	5017	5777
30°	143601	9705	3341	4932	6046
35°	552797	10933	3028	5046	6391
40°	1283097	9532	2878	5216	6835
45°	1737919	7209	2533	5651	7404
50°	1362670	4287	2572	6002	8145
55°	654059	1922	2402	6486	8888
60°	59761	276	2204	6889	9920
65°	6520	0	1956	7172	10758
70°	1611	0	2417	7654	11682
75°	1597	532	3194	8517	13308
80°	1587	1587	3967	8728	14282
85°	1581	1581	6323	7904	15808

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1737919 cd/sqm

TEST NUMBER: P1311102

CATALOG NUMBER: P3SQAS09R159050DE010 E3SQCA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.1	0.8
10°-20°	12.7	1.6
20°-30°	30.3	3.8
30°-40°	165.9	20.7
40°-50°	401.7	50.1
50°-60°	160.3	20.0
60°-70°	13.9	1.7
70°-80°	7.8	1.0
80°-90°	3.4	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°	49.0	6.1
0°-40°	214.9	26.8
0°-60°	776.9	96.9
0°-90°	802.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	802.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	71	71	71	71	71	
5°	88	78	64	56	55	8
15°	70	46	34	35	38	24
25°	253	42	20	26	30	152
35°	2629	52	14	24	30	1858
45°	7136	30	10	23	30	5034
55°	2178	6	8	22	30	2029
65°	16	0	5	18	26	41
75°	2	1	5	13	20	2
85°	1	1	3	4	8	1
90°	0	0	0	0	0	

TEST NUMBER: P1311102

CATALOG NUMBER: P3SQAS09R159050DE010 E3SQCA451MB

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2	71.2
2.5°	80.0	80.0	80.8	80.0	80.0	80.0	80.0	79.2	79.2	79.2	76.8
5°	88.0	88.0	88.0	88.0	87.2	87.2	87.2	86.4	86.4	85.6	78.4
7.5°	91.2	91.2	90.4	90.4	89.6	89.6	88.8	88.0	87.2	86.4	75.2
10°	85.6	85.6	85.6	84.8	84.8	84.0	83.2	82.4	81.6	80.0	66.4
12.5°	76.0	76.0	76.8	76.0	75.2	74.4	72.8	72.0	71.2	69.6	55.2
15°	69.6	69.6	69.6	68.8	68.0	66.4	65.6	64.0	63.2	60.8	46.4
17.5°	88.8	88.8	88.0	86.4	83.2	80.8	76.8	73.6	69.6	64.8	40.0
20°	117.6	117.6	116.0	114.4	110.4	106.4	100.0	94.4	88.0	82.4	36.0
22.5°	170.3	172.7	167.9	162.3	156.7	147.1	138.3	129.5	118.4	108.8	36.8
25°	252.7	255.1	252.7	239.9	229.5	216.7	199.9	182.3	163.1	145.5	41.6
27.5°	409.4	411.0	407.0	375.8	359.1	325.5	295.9	267.1	235.1	203.1	45.6
30°	722.1	722.9	697.3	634.9	579.8	506.2	443.8	383.8	333.5	282.3	48.8
31°	950.8	928.4	874.0	798.9	710.9	611.7	526.2	448.6	373.4	318.3	49.6
32°	1207.5	1204.3	1113.9	983.6	866.0	742.1	613.3	514.2	427.8	352.7	50.4
33°	1547.4	1549.0	1406.6	1253.1	1060.4	894.0	725.3	589.4	485.4	393.4	52.0
34°	2078.3	1953.6	1786.5	1578.5	1316.3	1066.0	846.8	676.5	537.4	432.6	52.0
35°	2629.3	2503.8	2319.8	2004.8	1644.9	1294.7	991.6	770.1	599.8	475.0	52.0
36°	3246.7	3140.3	2862.0	2459.8	2000.8	1510.6	1145.1	878.0	661.3	513.4	51.2
37°	3913.6	3757.6	3449.0	3010.0	2395.8	1814.4	1332.2	985.2	722.9	555.0	49.6
38°	4590.9	4450.2	4060.7	3528.9	2867.6	2135.1	1519.4	1088.4	779.7	586.2	47.2
39°	5104.3	5027.5	4641.3	4047.1	3244.3	2439.0	1712.1	1198.7	839.7	617.3	44.8
40°	5707.2	5583.3	5217.0	4482.1	3689.7	2748.5	1900.8	1296.3	889.2	642.1	42.4
41°	6257.4	6100.7	5638.5	4928.4	4046.3	3026.7	2079.9	1397.0	929.2	656.5	40.8
42°	6729.2	6546.9	6063.9	5310.6	4344.6	3249.1	2223.1	1469.0	966.8	668.5	38.4
43°	7034.7	6877.2	6402.2	5597.7	4599.7	3453.0	2356.6	1544.2	990.0	676.5	35.2
44°	7183.4	7024.3	6564.5	5777.6	4756.4	3575.3	2443.0	1596.1	1015.6	686.9	32.8
45°	7135.5	6973.9	6529.3	5780.8	4805.2	3619.3	2479.8	1619.3	1029.2	696.5	29.6
46°	6915.5	6802.0	6354.2	5630.5	4712.5	3572.1	2459.0	1601.7	1024.4	696.5	26.4
47°	6606.9	6477.3	6051.1	5372.2	4487.7	3450.6	2375.0	1548.2	994.8	680.5	23.2
48°	6186.2	6075.9	5628.1	4961.9	4143.1	3185.9	2185.5	1461.0	948.4	649.3	20.0
49°	5658.5	5504.9	5088.3	4437.4	3693.7	2810.0	1936.8	1313.9	874.0	605.3	17.6
50°	5085.9	4896.4	4574.9	3912.0	3229.1	2409.4	1609.7	1110.7	769.3	547.8	16.0
51°	4525.3	4332.6	4026.3	3462.6	2733.3	1999.2	1298.7	886.8	633.3	468.6	13.6
52°	3944.0	3782.4	3439.4	2996.4	2339.8	1620.1	1082.0	750.1	526.2	393.4	11.2
53°	3365.0	3254.7	2928.4	2479.8	1880.0	1323.5	883.6	642.1	459.0	336.7	8.8
54°	2785.2	2664.5	2416.6	2016.8	1515.4	1044.4	749.3	537.4	398.2	293.5	8.0
55°	2178.3	2115.9	1887.2	1537.8	1148.3	833.3	607.7	462.2	333.5	245.5	6.4
56°	1677.7	1607.3	1398.6	1115.5	853.2	652.5	491.8	377.4	282.3	205.5	4.8
57°	1098.7	1026.8	888.4	778.9	621.3	475.8	375.8	297.5	229.5	170.3	4.0
58°	649.3	583.8	562.2	479.8	414.2	323.1	277.5	221.5	169.5	134.3	2.4
59°	298.3	303.1	269.5	252.7	229.5	205.5	168.7	147.9	116.0	96.8	1.6
60°	173.5	163.9	159.9	143.1	127.1	112.8	101.6	89.6	72.8	62.4	0.8
62.5°	59.2	56.8	58.4	52.8	49.6	48.0	44.0	37.6	31.2	25.6	0.0
65°	16.0	16.0	15.2	14.4	13.6	12.8	12.0	10.4	9.6	8.0	0.0



TEST NUMBER: P1311102

CATALOG NUMBER: P3SQAS09R159050DE010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	5.6	5.6	4.8	4.8	4.0	4.0	3.2	3.2	2.4	2.4	0.0
70°	3.2	3.2	3.2	2.4	2.4	2.4	1.6	1.6	1.6	0.8	0.0
72.5°	2.4	2.4	2.4	2.4	2.4	2.4	1.6	1.6	1.6	0.8	0.8
75°	2.4	2.4	2.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.8
77.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.8	1.6
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
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: P1311102

CATALOG NUMBER: P3SQAS09R159050DE010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	71.2	71.2	71.2	71.2	71.2	71.2
2.5°	73.6	70.4	66.4	64.0	63.2	62.4
5°	70.4	64.0	59.2	56.0	55.2	55.2
7.5°	63.2	56.0	51.2	49.6	48.8	48.8
10°	55.2	48.8	44.8	43.2	44.0	44.0
12.5°	46.4	40.8	39.2	39.2	40.0	40.8
15°	37.6	34.4	34.4	35.2	36.8	37.6
17.5°	31.2	29.6	30.4	32.0	33.6	35.2
20°	25.6	25.6	27.2	29.6	32.0	33.6
22.5°	21.6	22.4	24.8	27.2	30.4	32.0
25°	18.4	20.0	22.4	26.4	29.6	30.4
27.5°	16.0	18.4	21.6	25.6	28.8	30.4
30°	13.6	16.8	20.8	24.8	28.8	30.4
31°	12.8	16.0	20.0	24.8	28.8	30.4
32°	12.0	16.0	20.0	24.8	28.8	30.4
33°	11.2	15.2	20.0	24.0	28.8	30.4
34°	10.4	15.2	20.0	24.8	28.8	30.4
35°	9.6	14.4	19.2	24.0	28.0	30.4
36°	8.8	14.4	19.2	24.0	28.8	30.4
37°	8.0	14.4	19.2	24.0	28.0	30.4
38°	8.0	13.6	18.4	24.0	28.0	30.4
39°	7.2	12.8	18.4	24.0	28.0	30.4
40°	6.4	12.8	17.6	23.2	28.0	30.4
41°	5.6	12.0	17.6	23.2	28.0	30.4
42°	4.8	12.0	17.6	23.2	28.0	30.4
43°	4.0	11.2	16.8	23.2	28.0	30.4
44°	4.0	11.2	16.8	23.2	28.0	30.4
45°	3.2	10.4	16.0	23.2	28.0	30.4
46°	3.2	10.4	16.0	22.4	28.0	30.4
47°	2.4	10.4	16.0	22.4	28.0	30.4
48°	2.4	9.6	16.0	22.4	28.0	30.4
49°	1.6	9.6	16.0	22.4	28.0	30.4
50°	1.6	9.6	15.2	22.4	28.0	30.4
51°	1.6	9.6	15.2	22.4	28.0	30.4
52°	1.6	8.8	15.2	22.4	28.0	30.4
53°	1.6	8.8	15.2	22.4	28.0	30.4
54°	1.6	8.8	14.4	22.4	28.0	30.4
55°	1.6	8.0	14.4	21.6	28.0	29.6
56°	1.6	8.0	14.4	21.6	28.0	29.6
57°	1.6	8.0	13.6	21.6	28.0	29.6
58°	1.6	7.2	13.6	20.8	27.2	29.6
59°	1.6	7.2	12.8	20.8	27.2	28.8
60°	1.6	6.4	12.8	20.0	26.4	28.8
62.5°	1.6	5.6	11.2	19.2	25.6	27.2
65°	1.6	4.8	10.4	17.6	24.8	26.4



TEST NUMBER: P1311102

CATALOG NUMBER: P3SQAS09R159050DE010 E3SQCA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.6	4.8	9.6	16.8	23.2	25.6
70°	1.6	4.8	8.8	15.2	22.4	23.2
72.5°	2.4	4.8	8.0	14.4	20.8	21.6
75°	3.2	4.8	7.2	12.8	19.2	20.0
77.5°	3.2	4.8	6.4	11.2	16.8	17.6
80°	3.2	4.0	5.6	8.8	13.6	14.4
82.5°	3.2	4.0	4.0	7.2	10.4	11.2
85°	2.4	3.2	3.2	4.0	7.2	8.0
87.5°	2.4	3.2	1.6	2.4	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)