

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: P1336868

Luminaire Tested: P3A05R209040DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336868
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A05R209040DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 90CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

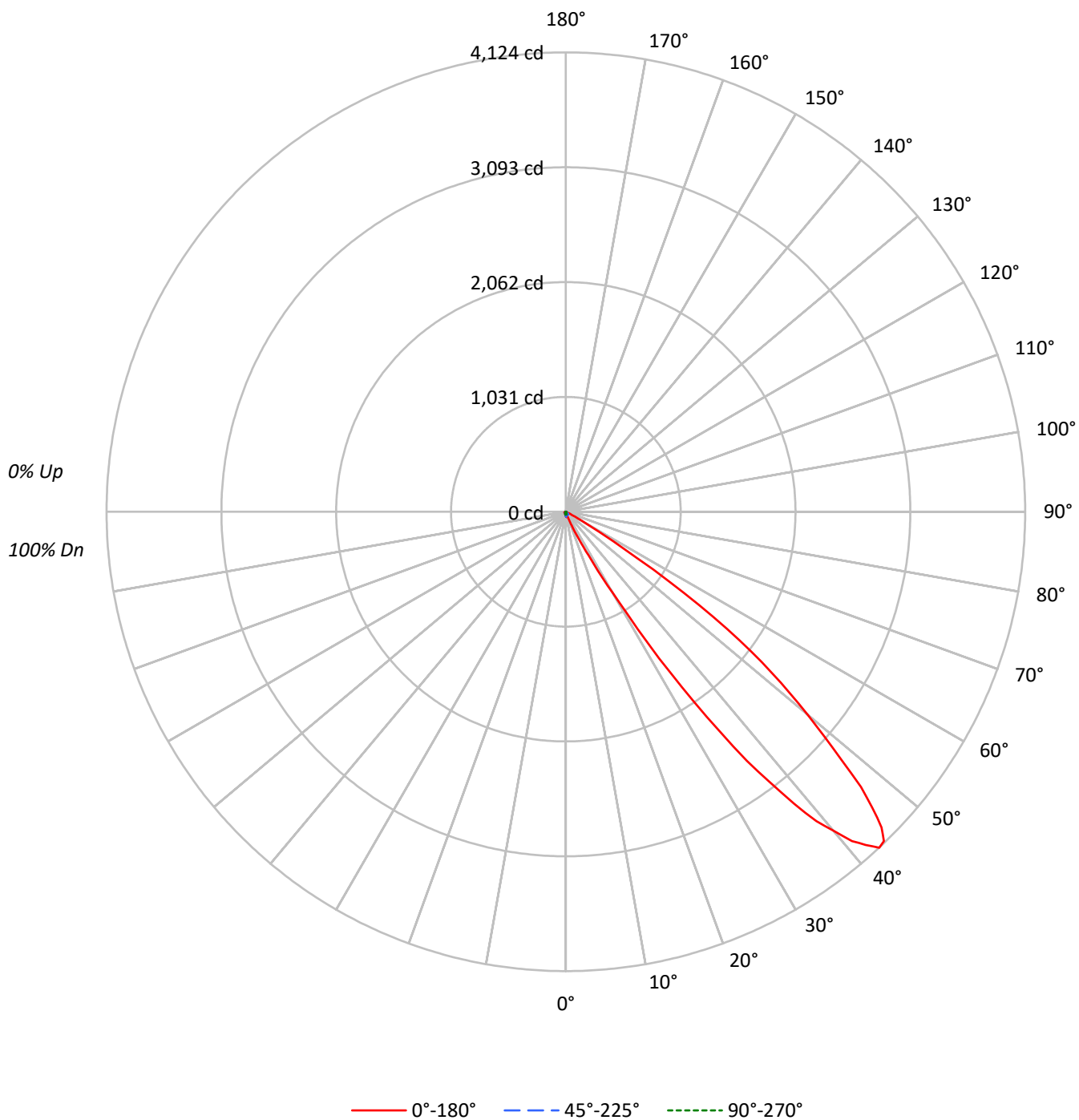
Lumens per Lamp: N/A
Luminaire Lumens: 573.0 lumens
Efficiency: N/A
Efficacy: 79.6 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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

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Luminous Intensity Polar Plot



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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	108	104	101	97	100	97	94		96	94	92		92	91	89	87
2	101	93	87	82	98	91	86	81	88	83	79		85	81	77		82	78	75	73
3	92	81	74	67	89	80	73	67	77	71	66		74	69	65		72	67	63	61
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63	58	53	51
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	42
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	62	48	39	32	60	47	38	32	46	38	32		44	37	32		43	36	31	29
8	57	42	33	27	55	42	33	27	40	33	27		39	32	27		38	31	27	25
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	19		31	24	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	8727	8727	8727	8727	8727
5°	10191	9487	8188	7110	6868
10°	10064	8639	6480	5522	5388
15°	8808	6606	4767	4404	4654
20°	13068	5530	3524	3780	4154
25°	56277	5734	2734	3387	4041
30°	212843	6963	2329	3266	3950
35°	645219	8352	2168	3319	4176
40°	1069890	8330	1861	3550	4466
45°	1243571	5675	1675	3659	4838
50°	965324	3138	1637	3855	5526
55°	558699	2064	1644	4320	5964
60°	94466	482	1403	4473	6622
65°	7264	0	1660	5033	7524
70°	1026	0	2052	5514	8655
75°	932	424	2288	6354	9997
80°	631	631	3410	6819	11618
85°	1258	1258	5535	6793	12077

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1243571 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.4	0.6
10°-20°	7.2	1.3
20°-30°	22.9	4.0
30°-40°	146.1	25.5
40°-50°	267.5	46.7
50°-60°	109.9	19.2
60°-70°	9.3	1.6
70°-80°	4.6	0.8
80°-90°	2.2	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°	33.5	5.8
0°-40°	179.6	31.3
0°-60°	556.9	97.2
0°-90°	573.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	573.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	40	40	40	40	40	
5°	46	43	37	32	31	4
15°	39	29	21	19	20	12
25°	233	24	11	14	17	153
35°	2410	31	8	12	16	1526
45°	4010	18	5	12	16	2879
55°	1461	5	4	11	16	1277
65°	14	0	3	10	14	46
75°	1	0	3	8	12	1
85°	0	0	2	3	5	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8
2.5°	43.6	43.6	43.6	43.1	43.1	43.6	43.1	43.1	43.1	43.1	42.5
5°	46.3	46.3	46.3	46.3	46.3	46.3	46.3	45.8	45.8	45.2	43.1
7.5°	47.4	47.4	47.4	47.4	46.8	46.8	46.8	46.8	46.3	45.8	42.0
10°	45.2	45.2	45.2	44.7	44.7	44.7	44.2	44.2	43.6	43.1	38.8
12.5°	40.9	40.9	40.9	40.9	40.4	40.4	39.8	39.8	39.3	38.8	33.9
15°	38.8	38.8	38.8	38.2	38.2	37.7	37.2	36.6	36.1	35.0	29.1
17.5°	42.0	42.0	41.5	41.5	40.4	39.3	38.8	37.2	36.1	34.5	25.8
20°	56.0	56.5	54.4	52.8	51.7	48.5	46.8	44.2	42.0	39.3	23.7
22.5°	113.1	110.9	107.2	101.2	94.2	88.3	77.5	68.9	63.0	54.9	23.2
25°	232.6	230.5	220.2	211.6	190.1	173.4	150.2	131.4	112.0	93.2	23.7
27.5°	442.1	427.6	424.9	385.6	355.4	312.3	267.6	229.9	195.5	157.2	25.3
30°	840.6	823.9	765.2	706.0	624.6	532.6	444.8	362.9	294.6	232.6	27.5
31°	1066.7	1082.9	1014.0	895.0	774.9	657.0	536.9	432.9	344.6	267.6	28.5
32°	1402.2	1331.7	1259.0	1136.7	962.3	811.5	660.7	511.0	394.7	305.3	29.6
33°	1719.4	1677.9	1567.0	1414.6	1205.1	993.5	798.0	603.1	456.1	351.1	30.2
34°	2057.6	2011.8	1921.9	1703.2	1473.3	1196.0	935.3	709.2	529.3	395.8	30.7
35°	2410.3	2390.9	2217.5	2027.9	1745.2	1410.8	1100.7	825.5	600.9	436.7	31.2
36°	2765.1	2702.7	2567.0	2290.2	1995.1	1609.5	1274.1	933.7	673.6	485.2	31.2
37°	3032.2	3018.2	2838.4	2568.6	2221.8	1821.7	1423.8	1053.8	746.9	526.6	31.2
38°	3326.8	3271.3	3088.8	2814.1	2435.0	2016.1	1580.5	1158.3	816.3	564.3	30.7
39°	3575.0	3492.6	3308.5	3037.1	2621.3	2163.6	1704.8	1259.5	877.7	595.6	30.2
40°	3737.6	3680.5	3488.3	3183.0	2790.4	2303.1	1830.9	1343.0	923.5	619.3	29.1
41°	3916.9	3822.2	3632.1	3325.1	2913.2	2425.9	1910.0	1397.9	959.0	634.9	28.0
42°	4024.1	3946.6	3720.9	3420.5	3001.0	2495.9	1974.6	1439.9	980.6	643.0	25.8
43°	4124.3	4018.7	3799.0	3475.9	3059.1	2545.4	2004.2	1459.3	985.4	643.0	23.2
44°	4110.8	4010.6	3782.9	3483.5	3072.1	2560.0	2016.6	1459.8	977.9	634.9	20.5
45°	4010.1	3910.5	3705.3	3417.8	3025.8	2531.4	1991.9	1438.3	956.9	620.9	18.3
46°	3825.4	3726.3	3569.1	3307.9	2939.6	2466.8	1934.2	1391.4	921.9	598.3	16.2
47°	3624.5	3528.2	3367.1	3130.8	2792.6	2351.6	1850.8	1325.8	872.9	565.4	14.5
48°	3333.2	3272.9	3111.4	2909.4	2588.5	2171.2	1704.3	1218.6	807.2	522.9	12.4
49°	3075.8	3012.3	2870.7	2653.7	2322.5	1961.2	1529.3	1088.3	721.6	475.5	10.8
50°	2829.7	2774.3	2643.4	2398.4	2082.3	1707.5	1292.9	924.0	613.9	416.8	9.2
51°	2589.0	2547.6	2414.0	2188.9	1868.0	1512.6	1120.0	769.5	507.3	345.7	8.6
52°	2347.3	2342.4	2197.6	1969.8	1659.6	1318.2	952.0	649.4	430.2	290.2	8.1
53°	2087.2	2055.9	1929.4	1724.8	1427.0	1115.7	807.2	547.6	370.5	247.2	7.0
54°	1791.0	1756.0	1620.3	1435.6	1165.8	913.8	650.5	442.6	308.6	208.9	6.5
55°	1461.4	1401.7	1303.1	1113.6	910.6	697.3	502.4	350.6	246.6	173.9	5.4
56°	1108.7	1049.0	993.5	854.0	668.3	520.2	374.2	268.7	192.8	137.3	4.8
57°	771.1	767.9	676.9	569.7	446.9	354.3	256.3	189.5	136.2	106.6	3.8
58°	500.3	483.6	425.4	363.5	292.4	221.3	164.8	128.7	92.6	72.7	3.2
59°	350.6	317.2	285.9	242.3	184.2	139.5	106.1	82.4	64.1	50.6	2.2
60°	215.4	208.4	187.4	147.5	119.5	98.5	79.2	60.8	46.8	36.1	1.1
62.5°	61.4	62.5	56.5	50.1	43.1	37.2	33.4	28.5	23.7	18.8	0.0
65°	14.0	13.5	14.5	13.5	12.4	12.4	10.8	9.7	8.6	8.1	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	4.3	4.3	3.8	3.8	3.8	3.2	3.2	2.7	2.7	2.2	0.0
70°	1.6	1.6	1.6	1.6	1.6	1.1	1.1	1.1	0.5	0.5	0.0
72.5°	1.6	1.6	1.6	1.1	1.1	1.1	1.1	1.1	0.5	0.5	0.5
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.5	0.5	0.5	0.5
77.5°	1.1	1.1	1.1	1.1	1.1	0.5	1.1	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.0	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	39.8	39.8	39.8	39.8	39.8	39.8
2.5°	41.5	39.3	37.7	36.1	35.5	35.5
5°	40.4	37.2	33.9	32.3	31.2	31.2
7.5°	37.2	33.4	30.2	28.5	28.0	28.0
10°	33.4	29.1	25.8	24.8	24.8	24.2
12.5°	29.1	24.8	22.6	22.1	22.1	22.1
15°	24.2	21.0	19.4	19.4	19.9	20.5
17.5°	20.5	17.2	16.7	17.8	18.8	18.8
20°	17.2	15.1	15.1	16.2	17.2	17.8
22.5°	14.5	12.9	13.5	15.1	16.7	17.2
25°	12.9	11.3	12.4	14.0	15.6	16.7
27.5°	10.8	10.2	11.3	13.5	15.6	16.2
30°	9.2	9.2	10.8	12.9	15.1	15.6
31°	8.6	8.6	10.8	12.9	15.1	15.6
32°	8.1	8.6	10.2	12.9	15.1	15.6
33°	7.5	8.1	10.2	12.4	15.1	15.6
34°	7.0	8.1	10.2	12.4	15.1	15.6
35°	6.5	8.1	10.2	12.4	15.1	15.6
36°	5.9	7.5	9.7	12.4	15.1	15.6
37°	5.4	7.5	9.7	12.4	15.1	15.6
38°	4.8	7.0	9.7	12.4	15.1	15.6
39°	4.8	7.0	9.2	12.4	14.5	15.6
40°	4.3	6.5	9.2	12.4	14.5	15.6
41°	3.8	6.5	9.2	11.8	14.5	15.6
42°	3.2	5.9	8.6	11.8	14.5	15.6
43°	2.7	5.9	8.6	11.8	14.5	15.6
44°	2.7	5.4	8.6	11.8	14.5	15.6
45°	2.2	5.4	8.6	11.8	14.5	15.6
46°	1.6	5.4	8.6	11.8	14.5	15.6
47°	1.6	4.8	8.1	11.8	14.5	15.6
48°	1.1	4.8	8.1	11.8	14.5	15.6
49°	1.1	4.8	8.1	11.8	14.5	16.2
50°	1.1	4.8	8.1	11.3	14.5	16.2
51°	0.5	4.8	8.1	11.3	14.5	16.2
52°	0.5	4.8	7.5	11.3	15.1	16.2
53°	0.5	4.3	7.5	11.3	15.1	16.2
54°	0.5	4.3	7.5	11.3	15.1	15.6
55°	0.5	4.3	7.5	11.3	14.5	15.6
56°	0.5	3.8	7.5	11.3	14.5	15.6
57°	0.5	3.8	7.0	10.8	14.5	15.1
58°	0.5	3.8	7.0	10.8	14.5	15.1
59°	0.5	3.8	7.0	10.8	14.0	15.1
60°	1.1	3.2	6.5	10.2	14.0	15.1
62.5°	1.1	3.2	6.5	10.2	13.5	14.5
65°	1.1	3.2	5.9	9.7	13.5	14.5



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.1	2.7	5.4	9.2	12.9	14.0
70°	1.1	3.2	5.4	8.6	12.4	13.5
72.5°	1.6	2.7	4.8	8.1	11.8	12.9
75°	1.6	2.7	4.8	7.5	11.3	11.8
77.5°	2.2	2.7	4.3	6.5	10.2	10.8
80°	2.2	2.7	3.8	5.4	8.6	9.2
82.5°	2.2	2.7	2.7	4.3	6.5	7.0
85°	1.6	2.2	2.2	2.7	4.3	4.8
87.5°	1.6	2.2	1.6	1.1	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)