

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: P1334424

Luminaire Tested: P3A02R209730DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334424
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: P3A02R209730DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 97CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

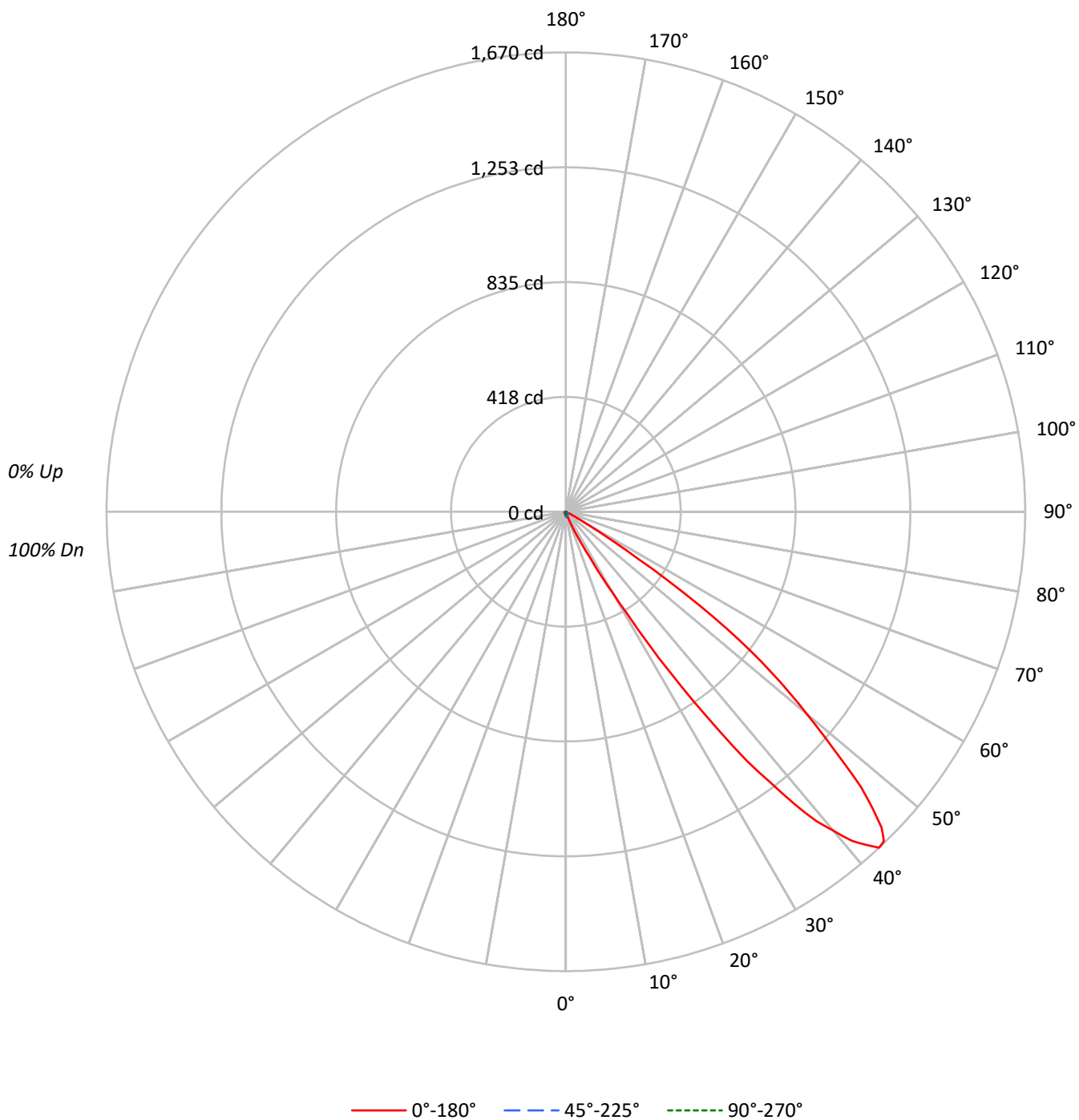
Lumens per Lamp: N/A
Luminaire Lumens: 232.0 lumens
Efficiency: N/A
Efficacy: 64.4 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
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
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	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°	3530	3530	3530	3530	3530
5°	4138	3830	3302	2884	2773
10°	4075	3496	2627	2227	2182
15°	3564	2679	1930	1771	1884
20°	5297	2240	1423	1517	1680
25°	22792	2323	1113	1379	1645
30°	86165	2811	937	1317	1595
35°	261241	3373	883	1338	1686
40°	433183	3378	744	1431	1803
45°	503494	2295	682	1489	1954
50°	390844	1262	682	1569	2217
55°	226209	841	650	1759	2409
60°	38243	175	570	1798	2675
65°	2958	0	675	2024	3061
70°	449	0	833	2244	3526
75°	339	169	932	2626	4067
80°	253	253	1389	2778	4672
85°	503	503	2264	2768	5032

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 503494 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.4	0.6
10°-20°	2.9	1.3
20°-30°	9.3	4.0
30°-40°	59.2	25.5
40°-50°	108.3	46.7
50°-60°	44.5	19.2
60°-70°	3.7	1.6
70°-80°	1.9	0.8
80°-90°	0.9	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°	13.6	5.8
0°-40°	72.7	31.3
0°-60°	225.5	97.2
0°-90°	232.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	232.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	16	16	16	16	16	
5°	19	17	15	13	13	2
15°	16	12	8	8	8	5
25°	94	10	5	6	7	62
35°	976	13	3	5	6	618
45°	1624	7	2	5	6	1166
55°	592	2	2	5	6	517
65°	6	0	1	4	6	18
75°	0	0	1	3	5	1
85°	0	0	1	1	2	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°	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1
2.5°	17.7	17.7	17.7	17.4	17.4	17.7	17.4	17.4	17.4	17.4	17.2
5°	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.5	18.5	18.3	17.4
7.5°	19.2	19.2	19.2	19.2	19.0	19.0	19.0	19.0	18.8	18.5	17.0
10°	18.3	18.3	18.3	18.1	18.1	18.1	17.9	17.9	17.7	17.4	15.7
12.5°	16.6	16.6	16.6	16.6	16.4	16.4	16.1	16.1	15.9	15.7	13.7
15°	15.7	15.7	15.7	15.5	15.5	15.3	15.0	14.8	14.6	14.2	11.8
17.5°	17.0	17.0	16.8	16.8	16.4	15.9	15.7	15.0	14.6	14.0	10.5
20°	22.7	22.9	22.0	21.4	20.9	19.6	19.0	17.9	17.0	15.9	9.6
22.5°	45.8	44.9	43.4	41.0	38.2	35.8	31.4	27.9	25.5	22.2	9.4
25°	94.2	93.3	89.2	85.7	77.0	70.2	60.8	53.2	45.3	37.7	9.6
27.5°	179.0	173.1	172.0	156.1	143.9	126.5	108.4	93.1	79.1	63.7	10.2
30°	340.3	333.6	309.8	285.8	252.9	215.6	180.1	146.9	119.3	94.2	11.1
31°	431.9	438.4	410.5	362.4	313.7	266.0	217.4	175.3	139.5	108.4	11.6
32°	567.7	539.2	509.7	460.3	389.6	328.6	267.5	206.9	159.8	123.6	12.0
33°	696.2	679.4	634.5	572.8	487.9	402.3	323.1	244.2	184.7	142.2	12.2
34°	833.1	814.5	778.1	689.6	596.5	484.2	378.7	287.1	214.3	160.2	12.4
35°	975.9	968.0	897.8	821.1	706.6	571.2	445.6	334.2	243.3	176.8	12.6
36°	1119.6	1094.3	1039.3	927.3	807.8	651.7	515.8	378.1	272.7	196.4	12.6
37°	1227.7	1222.0	1149.2	1040.0	899.6	737.6	576.5	426.7	302.4	213.2	12.6
38°	1347.0	1324.5	1250.6	1139.4	985.9	816.3	639.9	469.0	330.5	228.5	12.4
39°	1447.5	1414.1	1339.5	1229.7	1061.3	876.0	690.3	510.0	355.4	241.1	12.2
40°	1513.3	1490.2	1412.4	1288.7	1129.8	932.5	741.3	543.8	373.9	250.7	11.8
41°	1585.9	1547.5	1470.6	1346.3	1179.5	982.2	773.3	566.0	388.3	257.1	11.3
42°	1629.3	1597.9	1506.6	1384.9	1215.1	1010.5	799.5	583.0	397.0	260.3	10.5
43°	1669.9	1627.1	1538.2	1407.4	1238.6	1030.6	811.5	590.8	399.0	260.3	9.4
44°	1664.4	1623.9	1531.6	1410.4	1243.8	1036.5	816.5	591.1	395.9	257.1	8.3
45°	1623.6	1583.3	1500.2	1383.8	1225.1	1024.9	806.5	582.3	387.4	251.4	7.4
46°	1548.9	1508.7	1445.1	1339.3	1190.2	998.8	783.1	563.4	373.3	242.2	6.5
47°	1467.5	1428.5	1363.3	1267.6	1130.7	952.1	749.4	536.8	353.4	228.9	5.9
48°	1349.6	1325.2	1259.8	1178.0	1048.0	879.1	690.1	493.4	326.8	211.7	5.0
49°	1245.4	1219.6	1162.3	1074.4	940.3	794.0	619.2	440.6	292.2	192.5	4.4
50°	1145.7	1123.3	1070.3	971.1	843.1	691.4	523.5	374.1	248.5	168.8	3.7
51°	1048.3	1031.5	977.4	886.3	756.3	612.4	453.5	311.6	205.4	140.0	3.5
52°	950.4	948.4	889.8	797.5	672.0	533.7	385.5	262.9	174.2	117.5	3.3
53°	845.1	832.4	781.2	698.3	577.8	451.7	326.8	221.7	150.0	100.1	2.8
54°	725.2	711.0	656.0	581.3	472.0	370.0	263.4	179.2	124.9	84.6	2.6
55°	591.7	567.5	527.6	450.9	368.7	282.3	203.4	141.9	99.9	70.4	2.2
56°	448.9	424.7	402.3	345.8	270.6	210.6	151.5	108.8	78.1	55.6	2.0
57°	312.2	310.9	274.1	230.7	181.0	143.5	103.8	76.7	55.2	43.2	1.5
58°	202.5	195.8	172.2	147.2	118.4	89.6	66.7	52.1	37.5	29.4	1.3
59°	141.9	128.4	115.8	98.1	74.6	56.5	43.0	33.4	25.9	20.5	0.9
60°	87.2	84.4	75.9	59.7	48.4	39.9	32.0	24.6	19.0	14.6	0.4
62.5°	24.9	25.3	22.9	20.3	17.4	15.0	13.5	11.6	9.6	7.6	0.0
65°	5.7	5.5	5.9	5.5	5.0	5.0	4.4	3.9	3.5	3.3	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°	1.7	1.7	1.5	1.5	1.5	1.3	1.3	1.1	1.1	0.9	0.0
70°	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.2	0.2	0.0
72.5°	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2
75°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2
77.5°	0.4	0.4	0.4	0.4	0.4	0.2	0.4	0.2	0.2	0.2	0.2
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
85°	0.2	0.2	0.2	0.2	0.0	0.0	0.2	0.2	0.2	0.0	0.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
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°	16.1	16.1	16.1	16.1	16.1	16.1
2.5°	16.8	15.9	15.3	14.6	14.4	14.4
5°	16.4	15.0	13.7	13.1	12.6	12.6
7.5°	15.0	13.5	12.2	11.6	11.3	11.3
10°	13.5	11.8	10.5	10.0	10.0	9.8
12.5°	11.8	10.0	9.2	8.9	8.9	8.9
15°	9.8	8.5	7.8	7.8	8.1	8.3
17.5°	8.3	7.0	6.8	7.2	7.6	7.6
20°	7.0	6.1	6.1	6.5	7.0	7.2
22.5°	5.9	5.2	5.5	6.1	6.8	7.0
25°	5.2	4.6	5.0	5.7	6.3	6.8
27.5°	4.4	4.1	4.6	5.5	6.3	6.5
30°	3.7	3.7	4.4	5.2	6.1	6.3
31°	3.5	3.5	4.4	5.2	6.1	6.3
32°	3.3	3.5	4.1	5.2	6.1	6.3
33°	3.1	3.3	4.1	5.0	6.1	6.3
34°	2.8	3.3	4.1	5.0	6.1	6.3
35°	2.6	3.3	4.1	5.0	6.1	6.3
36°	2.4	3.1	3.9	5.0	6.1	6.3
37°	2.2	3.1	3.9	5.0	6.1	6.3
38°	2.0	2.8	3.9	5.0	6.1	6.3
39°	2.0	2.8	3.7	5.0	5.9	6.3
40°	1.7	2.6	3.7	5.0	5.9	6.3
41°	1.5	2.6	3.7	4.8	5.9	6.3
42°	1.3	2.4	3.5	4.8	5.9	6.3
43°	1.1	2.4	3.5	4.8	5.9	6.3
44°	1.1	2.2	3.5	4.8	5.9	6.3
45°	0.9	2.2	3.5	4.8	5.9	6.3
46°	0.7	2.2	3.5	4.8	5.9	6.3
47°	0.7	2.0	3.3	4.8	5.9	6.3
48°	0.4	2.0	3.3	4.8	5.9	6.3
49°	0.4	2.0	3.3	4.8	5.9	6.5
50°	0.4	2.0	3.3	4.6	5.9	6.5
51°	0.2	2.0	3.3	4.6	5.9	6.5
52°	0.2	2.0	3.1	4.6	6.1	6.5
53°	0.2	1.7	3.1	4.6	6.1	6.5
54°	0.2	1.7	3.1	4.6	6.1	6.3
55°	0.2	1.7	3.1	4.6	5.9	6.3
56°	0.2	1.5	3.1	4.6	5.9	6.3
57°	0.2	1.5	2.8	4.4	5.9	6.1
58°	0.2	1.5	2.8	4.4	5.9	6.1
59°	0.2	1.5	2.8	4.4	5.7	6.1
60°	0.4	1.3	2.6	4.1	5.7	6.1
62.5°	0.4	1.3	2.6	4.1	5.5	5.9
65°	0.4	1.3	2.4	3.9	5.5	5.9



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.4	1.1	2.2	3.7	5.2	5.7
70°	0.4	1.3	2.2	3.5	5.0	5.5
72.5°	0.7	1.1	2.0	3.3	4.8	5.2
75°	0.7	1.1	2.0	3.1	4.6	4.8
77.5°	0.9	1.1	1.7	2.6	4.1	4.4
80°	0.9	1.1	1.5	2.2	3.5	3.7
82.5°	0.9	1.1	1.1	1.7	2.6	2.8
85°	0.7	0.9	0.9	1.1	1.7	2.0
87.5°	0.7	0.9	0.7	0.4	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)