

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: P1334407

Luminaire Tested: P3A02R209727DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334407
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: P3A02R209727DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

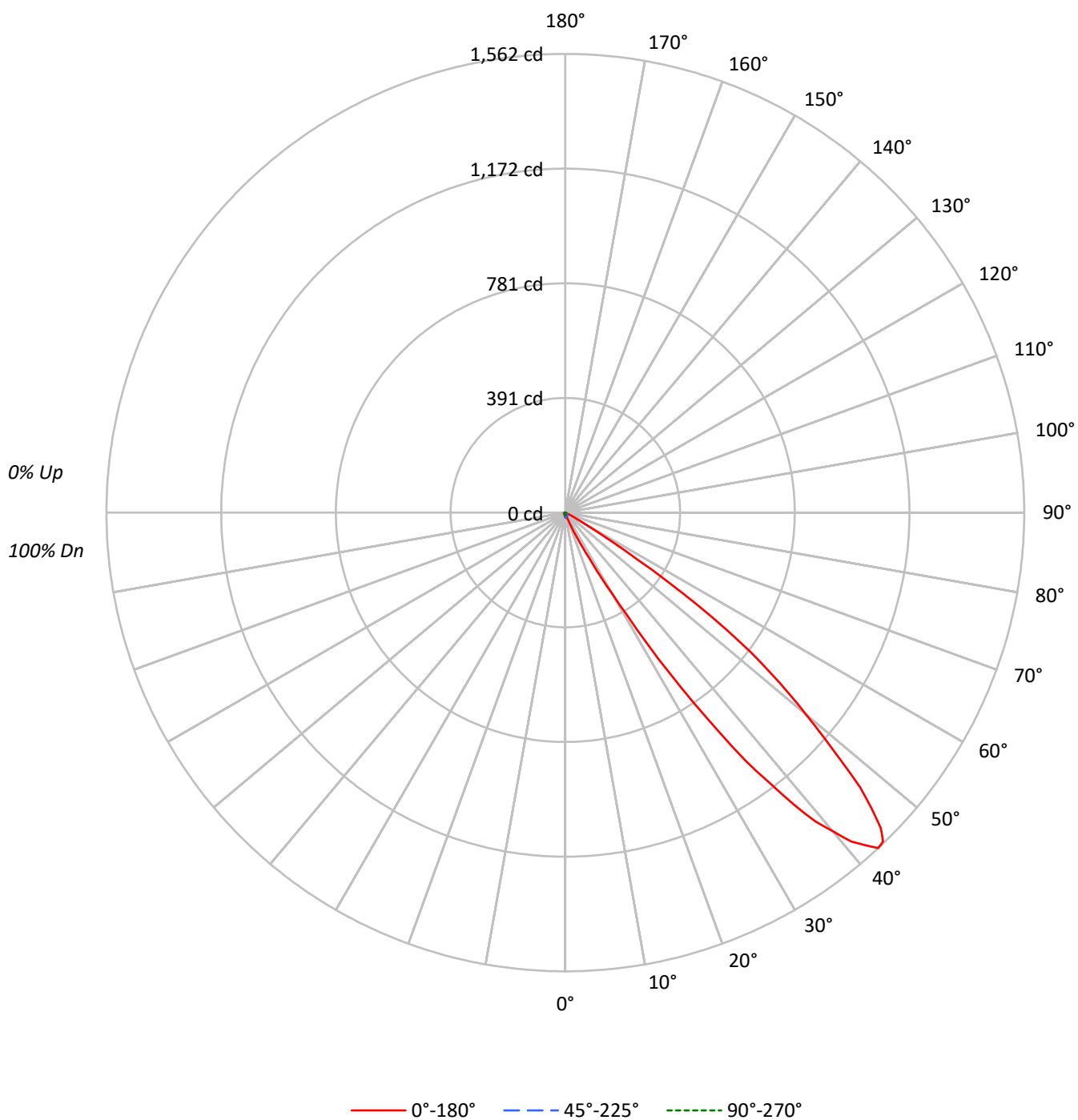
Lumens per Lamp: N/A
Luminaire Lumens: 217.0 lumens
Efficiency: N/A
Efficacy: 60.3 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.52 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			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°	3311	3311	3311	3311	3311
5°	3852	3588	3104	2685	2597
10°	3808	3273	2449	2093	2049
15°	3337	2497	1816	1657	1748
20°	4947	2100	1330	1423	1563
25°	21316	2178	1040	1282	1524
30°	80595	2633	886	1241	1494
35°	244350	3159	830	1258	1579
40°	405188	3149	687	1345	1689
45°	470964	2140	620	1395	1830
50°	365566	1194	614	1467	2081
55°	211605	765	612	1644	2256
60°	35787	175	526	1710	2500
65°	2750	0	623	1920	2854
70°	385	0	769	2116	3270
75°	339	169	847	2457	3813
80°	253	253	1263	2526	4420
85°	503	503	2013	2516	4529

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 470964 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.3	0.6
10°-20°	2.7	1.3
20°-30°	8.7	4.0
30°-40°	55.3	25.5
40°-50°	101.3	46.7
50°-60°	41.6	19.2
60°-70°	3.5	1.6
70°-80°	1.7	0.8
80°-90°	0.8	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°	12.7	5.8
0°-40°	68.0	31.3
0°-60°	210.9	97.2
0°-90°	217.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	217.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	15	15	15	15	15	
5°	18	16	14	12	12	2
15°	15	11	8	7	8	5
25°	88	9	4	5	6	58
35°	913	12	3	5	6	578
45°	1519	7	2	4	6	1090
55°	554	2	2	4	6	484
65°	5	0	1	4	6	17
75°	0	0	1	3	4	0
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°	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1	15.1
2.5°	16.5	16.5	16.5	16.3	16.3	16.5	16.3	16.3	16.3	16.3	16.1
5°	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.3	17.3	17.1	16.3
7.5°	17.9	17.9	17.9	17.9	17.7	17.7	17.7	17.7	17.5	17.3	15.9
10°	17.1	17.1	17.1	16.9	16.9	16.9	16.7	16.7	16.5	16.3	14.7
12.5°	15.5	15.5	15.5	15.5	15.3	15.3	15.1	15.1	14.9	14.7	12.8
15°	14.7	14.7	14.7	14.5	14.5	14.3	14.1	13.9	13.7	13.3	11.0
17.5°	15.9	15.9	15.7	15.7	15.3	14.9	14.7	14.1	13.7	13.1	9.8
20°	21.2	21.4	20.6	20.0	19.6	18.4	17.7	16.7	15.9	14.9	9.0
22.5°	42.8	42.0	40.6	38.3	35.7	33.4	29.4	26.1	23.9	20.8	8.8
25°	88.1	87.3	83.4	80.1	72.0	65.7	56.9	49.8	42.4	35.3	9.0
27.5°	167.4	161.9	160.9	146.0	134.6	118.3	101.4	87.1	74.0	59.5	9.6
30°	318.3	312.0	289.8	267.4	236.6	201.7	168.4	137.4	111.5	88.1	10.4
31°	404.0	410.1	384.0	338.9	293.5	248.8	203.3	164.0	130.5	101.4	10.8
32°	531.0	504.3	476.8	430.5	364.4	307.3	250.2	193.5	149.5	115.6	11.2
33°	651.1	635.4	593.4	535.7	456.4	376.2	302.2	228.4	172.7	133.0	11.4
34°	779.2	761.9	727.8	645.0	557.9	452.9	354.2	268.6	200.5	149.9	11.6
35°	912.8	905.4	839.8	768.0	660.9	534.3	416.8	312.6	227.6	165.4	11.8
36°	1047.2	1023.5	972.1	867.3	755.6	609.5	482.5	353.6	255.1	183.7	11.8
37°	1148.3	1143.0	1074.9	972.7	841.4	689.9	539.2	399.1	282.8	199.4	11.8
38°	1259.9	1238.9	1169.7	1065.7	922.2	763.5	598.5	438.7	309.2	213.7	11.6
39°	1353.9	1322.7	1252.9	1150.2	992.7	819.4	645.6	477.0	332.4	225.5	11.4
40°	1415.5	1393.9	1321.1	1205.4	1056.8	872.2	693.4	508.6	349.7	234.5	11.0
41°	1483.4	1447.5	1375.5	1259.3	1103.3	918.7	723.3	529.4	363.2	240.4	10.6
42°	1524.0	1494.6	1409.1	1295.4	1136.5	945.2	747.8	545.3	371.4	243.5	9.8
43°	1561.9	1521.9	1438.7	1316.4	1158.5	964.0	759.0	552.6	373.2	243.5	8.8
44°	1556.8	1518.9	1432.6	1319.2	1163.4	969.5	763.7	552.9	370.3	240.4	7.7
45°	1518.7	1480.9	1403.2	1294.3	1145.9	958.7	754.3	544.7	362.4	235.1	6.9
46°	1448.7	1411.2	1351.6	1252.7	1113.2	934.2	732.5	527.0	349.1	226.6	6.1
47°	1372.6	1336.1	1275.2	1185.6	1057.6	890.6	700.9	502.1	330.6	214.1	5.5
48°	1262.3	1239.5	1178.3	1101.8	980.3	822.2	645.4	461.5	305.7	198.0	4.7
49°	1164.8	1140.8	1087.1	1005.0	879.5	742.7	579.2	412.1	273.3	180.1	4.1
50°	1071.6	1050.6	1001.1	908.3	788.6	646.7	489.6	349.9	232.5	157.8	3.5
51°	980.5	964.8	914.2	829.0	707.4	572.8	424.2	291.4	192.1	130.9	3.3
52°	888.9	887.1	832.2	746.0	628.5	499.2	360.5	245.9	162.9	109.9	3.1
53°	790.4	778.6	730.7	653.2	540.4	422.5	305.7	207.4	140.3	93.6	2.7
54°	678.3	665.0	613.6	543.7	441.5	346.1	246.3	167.6	116.9	79.1	2.4
55°	553.5	530.8	493.5	421.7	344.8	264.1	190.3	132.8	93.4	65.9	2.0
56°	419.9	397.3	376.2	323.4	253.1	197.0	141.7	101.8	73.0	52.0	1.8
57°	292.0	290.8	256.3	215.8	169.3	134.2	97.1	71.8	51.6	40.4	1.4
58°	189.5	183.1	161.1	137.7	110.7	83.8	62.4	48.7	35.1	27.5	1.2
59°	132.8	120.1	108.3	91.8	69.7	52.8	40.2	31.2	24.3	19.2	0.8
60°	81.6	78.9	71.0	55.9	45.3	37.3	30.0	23.0	17.7	13.7	0.4
62.5°	23.2	23.7	21.4	19.0	16.3	14.1	12.6	10.8	9.0	7.1	0.0
65°	5.3	5.1	5.5	5.1	4.7	4.7	4.1	3.7	3.3	3.1	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°	1.6	1.6	1.4	1.4	1.4	1.2	1.2	1.0	1.0	0.8	0.0
70°	0.6	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.2	0.2	0.0
72.5°	0.6	0.6	0.6	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°	15.1	15.1	15.1	15.1	15.1	15.1
2.5°	15.7	14.9	14.3	13.7	13.5	13.5
5°	15.3	14.1	12.8	12.2	11.8	11.8
7.5°	14.1	12.6	11.4	10.8	10.6	10.6
10°	12.6	11.0	9.8	9.4	9.4	9.2
12.5°	11.0	9.4	8.6	8.4	8.4	8.4
15°	9.2	8.0	7.3	7.3	7.5	7.7
17.5°	7.7	6.5	6.3	6.7	7.1	7.1
20°	6.5	5.7	5.7	6.1	6.5	6.7
22.5°	5.5	4.9	5.1	5.7	6.3	6.5
25°	4.9	4.3	4.7	5.3	5.9	6.3
27.5°	4.1	3.9	4.3	5.1	5.9	6.1
30°	3.5	3.5	4.1	4.9	5.7	5.9
31°	3.3	3.3	4.1	4.9	5.7	5.9
32°	3.1	3.3	3.9	4.9	5.7	5.9
33°	2.9	3.1	3.9	4.7	5.7	5.9
34°	2.7	3.1	3.9	4.7	5.7	5.9
35°	2.4	3.1	3.9	4.7	5.7	5.9
36°	2.2	2.9	3.7	4.7	5.7	5.9
37°	2.0	2.9	3.7	4.7	5.7	5.9
38°	1.8	2.7	3.7	4.7	5.7	5.9
39°	1.8	2.7	3.5	4.7	5.5	5.9
40°	1.6	2.4	3.5	4.7	5.5	5.9
41°	1.4	2.4	3.5	4.5	5.5	5.9
42°	1.2	2.2	3.3	4.5	5.5	5.9
43°	1.0	2.2	3.3	4.5	5.5	5.9
44°	1.0	2.0	3.3	4.5	5.5	5.9
45°	0.8	2.0	3.3	4.5	5.5	5.9
46°	0.6	2.0	3.3	4.5	5.5	5.9
47°	0.6	1.8	3.1	4.5	5.5	5.9
48°	0.4	1.8	3.1	4.5	5.5	5.9
49°	0.4	1.8	3.1	4.5	5.5	6.1
50°	0.4	1.8	3.1	4.3	5.5	6.1
51°	0.2	1.8	3.1	4.3	5.5	6.1
52°	0.2	1.8	2.9	4.3	5.7	6.1
53°	0.2	1.6	2.9	4.3	5.7	6.1
54°	0.2	1.6	2.9	4.3	5.7	5.9
55°	0.2	1.6	2.9	4.3	5.5	5.9
56°	0.2	1.4	2.9	4.3	5.5	5.9
57°	0.2	1.4	2.7	4.1	5.5	5.7
58°	0.2	1.4	2.7	4.1	5.5	5.7
59°	0.2	1.4	2.7	4.1	5.3	5.7
60°	0.4	1.2	2.4	3.9	5.3	5.7
62.5°	0.4	1.2	2.4	3.9	5.1	5.5
65°	0.4	1.2	2.2	3.7	5.1	5.5



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.4	1.0	2.0	3.5	4.9	5.3
70°	0.4	1.2	2.0	3.3	4.7	5.1
72.5°	0.6	1.0	1.8	3.1	4.5	4.9
75°	0.6	1.0	1.8	2.9	4.3	4.5
77.5°	0.8	1.0	1.6	2.4	3.9	4.1
80°	0.8	1.0	1.4	2.0	3.3	3.5
82.5°	0.8	1.0	1.0	1.6	2.4	2.7
85°	0.6	0.8	0.8	1.0	1.6	1.8
87.5°	0.6	0.8	0.6	0.4	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)