

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: P1334335

Luminaire Tested: P3A02R209030D2WDE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334335
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: P3A02R209030D2WDE010 E3CA451MMS
Description: 3in Adjustable Dim to Warm LED luminaire with, R20 optic, 3000K CCT AND, 90CRI ,
E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

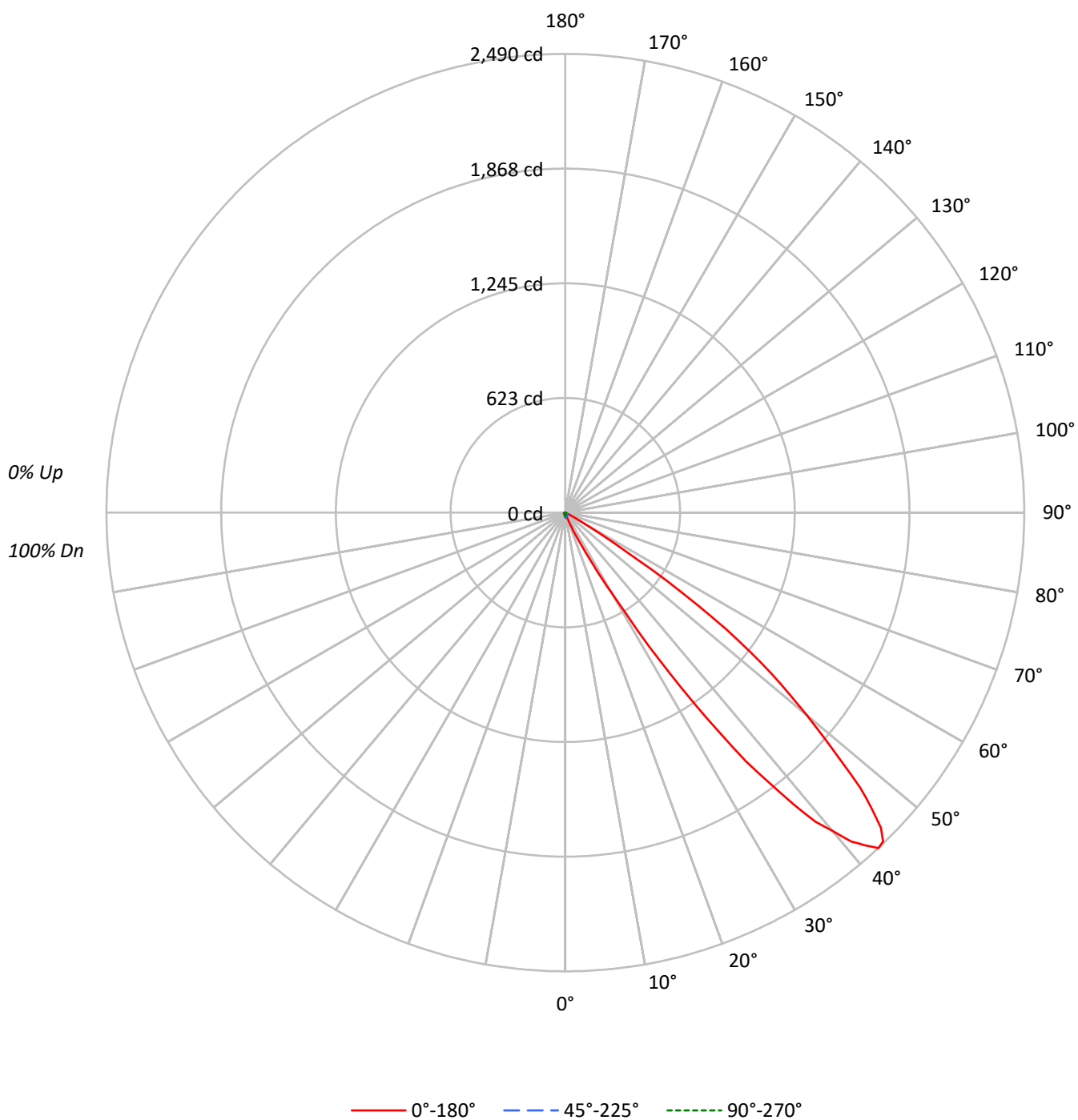
Lumens per Lamp: N/A
Luminaire Lumens: 346.0 lumens
Efficiency: N/A
Efficacy: 48.1 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	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°	5285	5285	5285	5285	5285
5°	6163	5723	4931	4292	4160
10°	6079	5210	3919	3340	3251
15°	5312	3995	2883	2656	2815
20°	7887	3337	2124	2287	2497
25°	33994	3460	1645	2057	2444
30°	128526	4203	1393	1975	2380
35°	389599	5059	1312	2008	2516
40°	646039	5038	1116	2147	2691
45°	750931	3442	1023	2233	2915
50°	582906	1876	989	2320	3343
55°	337383	1262	994	2600	3594
60°	57057	307	877	2719	3991
65°	4410	0	1038	3061	4566
70°	641	0	1282	3334	5193
75°	593	254	1356	3897	6100
80°	379	379	2020	4167	6945
85°	755	755	3271	4026	7296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 750931 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.1	0.6
10°-20°	4.3	1.3
20°-30°	13.8	4.0
30°-40°	88.2	25.5
40°-50°	161.5	46.7
50°-60°	66.4	19.2
60°-70°	5.6	1.6
70°-80°	2.8	0.8
80°-90°	1.3	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°	20.2	5.8
0°-40°	108.4	31.3
0°-60°	336.3	97.2
0°-90°	346.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	346.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	24	24	24	24	24	
5°	28	26	22	20	19	3
15°	23	18	13	12	12	7
25°	140	14	7	8	10	92
35°	1455	19	5	8	9	921
45°	2422	11	3	7	9	1739
55°	882	3	3	7	9	771
65°	8	0	2	6	9	28
75°	1	0	2	5	7	1
85°	0	0	1	2	3	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°	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1	24.1
2.5°	26.3	26.3	26.3	26.0	26.0	26.3	26.0	26.0	26.0	26.0	25.7
5°	28.0	28.0	28.0	28.0	28.0	28.0	28.0	27.6	27.6	27.3	26.0
7.5°	28.6	28.6	28.6	28.6	28.3	28.3	28.3	28.3	28.0	27.6	25.4
10°	27.3	27.3	27.3	27.0	27.0	27.0	26.7	26.7	26.3	26.0	23.4
12.5°	24.7	24.7	24.7	24.7	24.4	24.4	24.1	24.1	23.7	23.4	20.5
15°	23.4	23.4	23.4	23.1	23.1	22.8	22.4	22.1	21.8	21.1	17.6
17.5°	25.4	25.4	25.0	25.0	24.4	23.7	23.4	22.4	21.8	20.8	15.6
20°	33.8	34.1	32.8	31.9	31.2	29.3	28.3	26.7	25.4	23.7	14.3
22.5°	68.3	67.0	64.7	61.1	56.9	53.3	46.8	41.6	38.0	33.2	14.0
25°	140.5	139.2	133.0	127.8	114.8	104.7	90.7	79.3	67.6	56.3	14.3
27.5°	267.0	258.2	256.6	232.8	214.6	188.6	161.6	138.8	118.0	94.9	15.3
30°	507.6	497.5	462.1	426.3	377.2	321.6	268.6	219.2	177.9	140.5	16.6
31°	644.1	653.9	612.3	540.4	467.9	396.7	324.2	261.4	208.1	161.6	17.2
32°	846.7	804.1	760.2	686.4	581.1	490.0	399.0	308.6	238.3	184.4	17.9
33°	1038.2	1013.2	946.2	854.2	727.7	599.9	481.9	364.2	275.4	212.0	18.2
34°	1242.4	1214.8	1160.5	1028.5	889.6	722.2	564.8	428.2	319.6	239.0	18.5
35°	1455.4	1443.7	1339.0	1224.5	1053.8	851.9	664.6	498.5	362.9	263.7	18.9
36°	1669.7	1632.0	1550.0	1382.9	1204.7	971.9	769.3	563.8	406.8	293.0	18.9
37°	1831.0	1822.5	1713.9	1551.0	1341.6	1100.0	859.7	636.3	451.0	318.0	18.9
38°	2008.8	1975.3	1865.1	1699.3	1470.4	1217.4	954.3	699.4	492.9	340.8	18.5
39°	2158.7	2109.0	1997.8	1833.9	1582.9	1306.5	1029.5	760.5	530.0	359.6	18.2
40°	2256.9	2222.5	2106.4	1922.0	1685.0	1390.7	1105.5	810.9	557.6	373.9	17.6
41°	2365.2	2308.0	2193.2	2007.9	1759.1	1464.8	1153.3	844.1	579.1	383.4	16.9
42°	2429.9	2383.1	2246.8	2065.4	1812.1	1507.1	1192.4	869.5	592.1	388.2	15.6
43°	2490.4	2426.7	2294.0	2098.9	1847.2	1537.0	1210.2	881.2	595.0	388.2	14.0
44°	2482.3	2421.8	2284.2	2103.5	1855.0	1545.8	1217.7	881.5	590.5	383.4	12.4
45°	2421.5	2361.3	2237.4	2063.8	1827.1	1528.6	1202.8	868.5	577.8	374.9	11.1
46°	2309.9	2250.1	2155.2	1997.5	1775.0	1489.6	1168.0	840.2	556.7	361.3	9.8
47°	2188.6	2130.4	2033.2	1890.5	1686.3	1420.0	1117.6	800.5	527.1	341.4	8.8
48°	2012.7	1976.3	1878.8	1756.8	1563.0	1311.0	1029.1	735.8	487.4	315.7	7.5
49°	1857.3	1818.9	1733.4	1602.4	1402.4	1184.2	923.5	657.1	435.7	287.1	6.5
50°	1708.7	1675.2	1596.2	1448.3	1257.4	1031.1	780.7	558.0	370.7	251.7	5.5
51°	1563.4	1538.3	1457.7	1321.8	1128.0	913.4	676.3	464.7	306.3	208.8	5.2
52°	1417.4	1414.4	1327.0	1189.4	1002.1	796.0	574.9	392.1	259.8	175.3	4.9
53°	1260.3	1241.5	1165.0	1041.5	861.7	673.7	487.4	330.7	223.7	149.2	4.2
54°	1081.5	1060.3	978.4	866.9	704.0	551.8	392.8	267.3	186.3	126.2	3.9
55°	882.5	846.4	786.9	672.4	549.8	421.1	303.4	211.7	148.9	105.0	3.3
56°	669.5	633.4	599.9	515.7	403.5	314.1	226.0	162.3	116.4	82.9	2.9
57°	465.6	463.7	408.7	344.0	269.9	214.0	154.8	114.5	82.3	64.4	2.3
58°	302.1	292.0	256.9	219.5	176.6	133.6	99.5	77.7	55.9	43.9	2.0
59°	211.7	191.5	172.7	146.3	111.2	84.2	64.1	49.7	38.7	30.6	1.3
60°	130.1	125.8	113.2	89.1	72.2	59.5	47.8	36.7	28.3	21.8	0.7
62.5°	37.1	37.7	34.1	30.2	26.0	22.4	20.2	17.2	14.3	11.4	0.0
65°	8.5	8.1	8.8	8.1	7.5	7.5	6.5	5.9	5.2	4.9	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°	2.6	2.6	2.3	2.3	2.3	2.0	2.0	1.6	1.6	1.3	0.0
70°	1.0	1.0	1.0	1.0	1.0	0.7	0.7	0.7	0.3	0.3	0.0
72.5°	1.0	1.0	1.0	0.7	0.7	0.7	0.7	0.7	0.3	0.3	0.3
75°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.3
77.5°	0.7	0.7	0.7	0.7	0.7	0.3	0.7	0.3	0.3	0.3	0.3
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
85°	0.3	0.3	0.3	0.3	0.0	0.0	0.3	0.3	0.3	0.0	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
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°	24.1	24.1	24.1	24.1	24.1	24.1
2.5°	25.0	23.7	22.8	21.8	21.5	21.5
5°	24.4	22.4	20.5	19.5	18.9	18.9
7.5°	22.4	20.2	18.2	17.2	16.9	16.9
10°	20.2	17.6	15.6	15.0	15.0	14.6
12.5°	17.6	15.0	13.7	13.3	13.3	13.3
15°	14.6	12.7	11.7	11.7	12.0	12.4
17.5°	12.4	10.4	10.1	10.7	11.4	11.4
20°	10.4	9.1	9.1	9.8	10.4	10.7
22.5°	8.8	7.8	8.1	9.1	10.1	10.4
25°	7.8	6.8	7.5	8.5	9.4	10.1
27.5°	6.5	6.2	6.8	8.1	9.4	9.8
30°	5.5	5.5	6.5	7.8	9.1	9.4
31°	5.2	5.2	6.5	7.8	9.1	9.4
32°	4.9	5.2	6.2	7.8	9.1	9.4
33°	4.6	4.9	6.2	7.5	9.1	9.4
34°	4.2	4.9	6.2	7.5	9.1	9.4
35°	3.9	4.9	6.2	7.5	9.1	9.4
36°	3.6	4.6	5.9	7.5	9.1	9.4
37°	3.3	4.6	5.9	7.5	9.1	9.4
38°	2.9	4.2	5.9	7.5	9.1	9.4
39°	2.9	4.2	5.5	7.5	8.8	9.4
40°	2.6	3.9	5.5	7.5	8.8	9.4
41°	2.3	3.9	5.5	7.2	8.8	9.4
42°	2.0	3.6	5.2	7.2	8.8	9.4
43°	1.6	3.6	5.2	7.2	8.8	9.4
44°	1.6	3.3	5.2	7.2	8.8	9.4
45°	1.3	3.3	5.2	7.2	8.8	9.4
46°	1.0	3.3	5.2	7.2	8.8	9.4
47°	1.0	2.9	4.9	7.2	8.8	9.4
48°	0.7	2.9	4.9	7.2	8.8	9.4
49°	0.7	2.9	4.9	7.2	8.8	9.8
50°	0.7	2.9	4.9	6.8	8.8	9.8
51°	0.3	2.9	4.9	6.8	8.8	9.8
52°	0.3	2.9	4.6	6.8	9.1	9.8
53°	0.3	2.6	4.6	6.8	9.1	9.8
54°	0.3	2.6	4.6	6.8	9.1	9.4
55°	0.3	2.6	4.6	6.8	8.8	9.4
56°	0.3	2.3	4.6	6.8	8.8	9.4
57°	0.3	2.3	4.2	6.5	8.8	9.1
58°	0.3	2.3	4.2	6.5	8.8	9.1
59°	0.3	2.3	4.2	6.5	8.5	9.1
60°	0.7	2.0	3.9	6.2	8.5	9.1
62.5°	0.7	2.0	3.9	6.2	8.1	8.8
65°	0.7	2.0	3.6	5.9	8.1	8.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.7	1.6	3.3	5.5	7.8	8.5
70°	0.7	2.0	3.3	5.2	7.5	8.1
72.5°	1.0	1.6	2.9	4.9	7.2	7.8
75°	1.0	1.6	2.9	4.6	6.8	7.2
77.5°	1.3	1.6	2.6	3.9	6.2	6.5
80°	1.3	1.6	2.3	3.3	5.2	5.5
82.5°	1.3	1.6	1.6	2.6	3.9	4.2
85°	1.0	1.3	1.3	1.6	2.6	2.9
87.5°	1.0	1.3	1.0	0.7	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)