

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: P1334363

Luminaire Tested: P3A02R209035DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334363
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: P3A02R209035DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

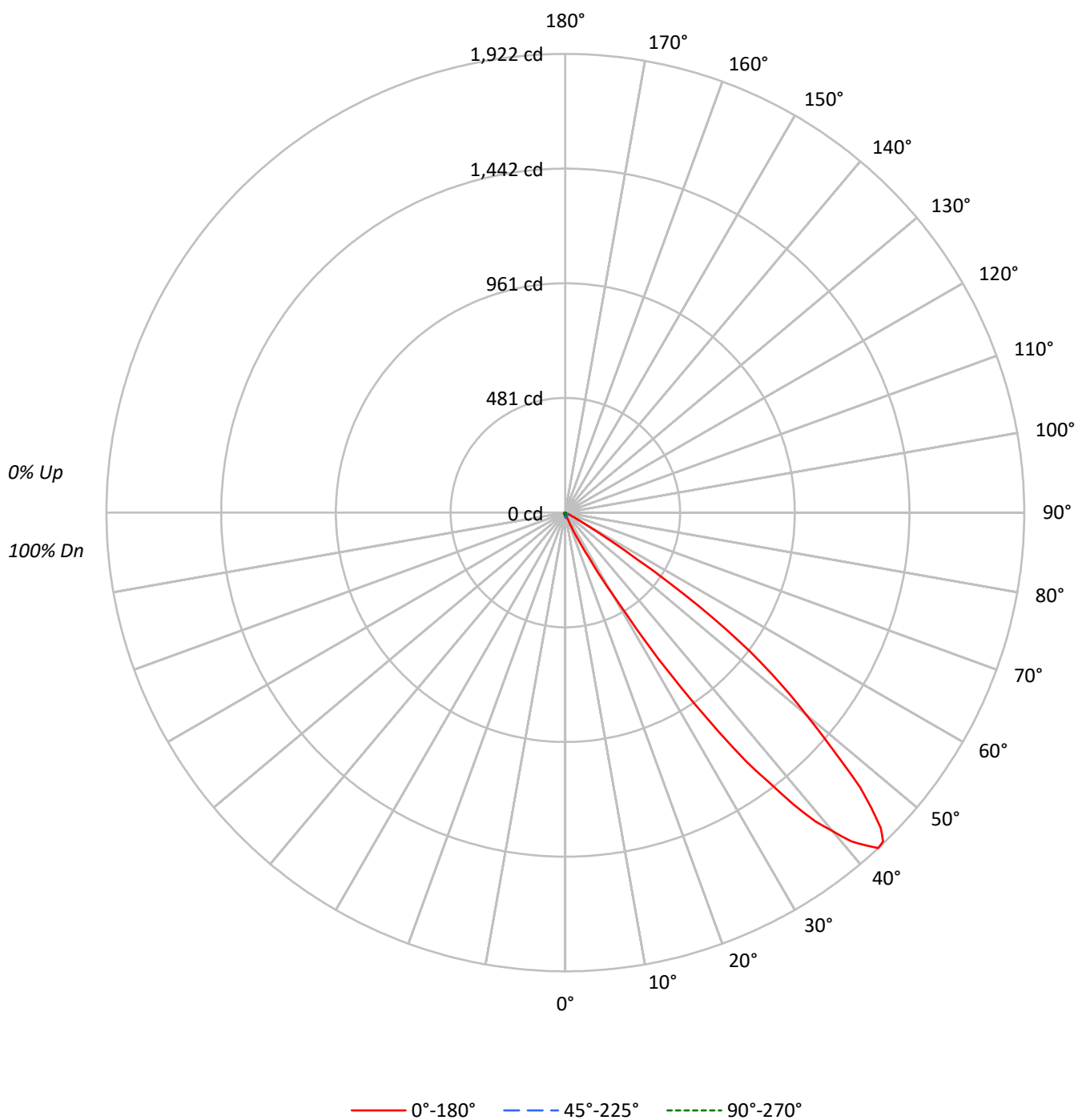
Lumens per Lamp: N/A
Luminaire Lumens: 267.1 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	4079	4079	4079	4079	4079
5°	4755	4424	3808	3324	3214
10°	4698	4030	3006	2561	2516
15°	4109	3065	2225	2043	2157
20°	6091	2567	1633	1750	1937
25°	26227	2661	1282	1573	1887
30°	99180	3241	1089	1519	1848
35°	300645	3908	1017	1553	1954
40°	498534	3864	859	1660	2090
45°	579471	2636	775	1706	2264
50°	449827	1467	785	1808	2559
55°	260349	956	765	2026	2791
60°	44032	219	658	2105	3070
65°	3373	0	778	2335	3528
70°	513	0	962	2565	4039
75°	424	254	1101	2965	4660
80°	379	379	1642	3157	5430
85°	755	755	2516	3271	5787

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 579471 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.6	0.6
10°-20°	3.3	1.2
20°-30°	10.7	4.0
30°-40°	68.1	25.5
40°-50°	124.6	46.7
50°-60°	51.2	19.2
60°-70°	4.3	1.6
70°-80°	2.2	0.8
80°-90°	1.0	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°	15.6	5.8
0°-40°	83.7	31.3
0°-60°	259.5	97.2
0°-90°	267.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	267.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	19	19	19	19	19	
5°	22	20	17	15	15	2
15°	18	14	10	9	10	6
25°	108	11	5	6	8	71
35°	1123	15	4	6	7	711
45°	1869	8	2	6	7	1342
55°	681	2	2	5	7	595
65°	6	0	2	4	7	21
75°	0	0	1	4	6	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°	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6	18.6
2.5°	20.3	20.3	20.3	20.1	20.1	20.3	20.1	20.1	20.1	20.1	19.8
5°	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.3	21.3	21.1	20.1
7.5°	22.1	22.1	22.1	22.1	21.8	21.8	21.8	21.8	21.6	21.3	19.6
10°	21.1	21.1	21.1	20.8	20.8	20.8	20.6	20.6	20.3	20.1	18.1
12.5°	19.1	19.1	19.1	19.1	18.8	18.8	18.6	18.6	18.3	18.1	15.8
15°	18.1	18.1	18.1	17.8	17.8	17.6	17.3	17.1	16.8	16.3	13.5
17.5°	19.6	19.6	19.3	19.3	18.8	18.3	18.1	17.3	16.8	16.1	12.0
20°	26.1	26.3	25.3	24.6	24.1	22.6	21.8	20.6	19.6	18.3	11.0
22.5°	52.7	51.7	49.9	47.2	43.9	41.2	36.1	32.1	29.4	25.6	10.8
25°	108.4	107.4	102.6	98.6	88.6	80.8	70.0	61.2	52.2	43.4	11.0
27.5°	206.0	199.2	198.0	179.7	165.6	145.5	124.7	107.1	91.1	73.3	11.8
30°	391.7	383.9	356.6	329.0	291.1	248.2	207.3	169.1	137.3	108.4	12.8
31°	497.1	504.6	472.5	417.0	361.1	306.1	250.2	201.7	160.6	124.7	13.3
32°	653.4	620.5	586.6	529.7	448.4	378.1	307.9	238.1	183.9	142.3	13.8
33°	801.2	781.9	730.2	659.2	561.6	462.9	371.9	281.0	212.5	163.6	14.1
34°	958.8	937.4	895.5	793.7	686.5	557.3	435.8	330.5	246.7	184.4	14.3
35°	1123.1	1114.1	1033.3	945.0	813.2	657.4	512.9	384.7	280.0	203.5	14.6
36°	1288.5	1259.4	1196.1	1067.2	929.6	750.0	593.7	435.1	313.9	226.1	14.6
37°	1412.9	1406.4	1322.6	1196.9	1035.3	848.9	663.4	491.0	348.0	245.4	14.6
38°	1550.2	1524.3	1439.3	1311.3	1134.6	939.4	736.4	539.7	380.4	263.0	14.3
39°	1665.8	1627.4	1541.6	1415.2	1221.5	1008.2	794.4	586.9	409.0	277.5	14.1
40°	1741.6	1715.0	1625.4	1483.2	1300.3	1073.2	853.1	625.8	430.3	288.6	13.5
41°	1825.2	1781.0	1692.4	1549.4	1357.5	1130.4	890.0	651.4	446.9	295.8	13.0
42°	1875.1	1839.0	1733.8	1593.8	1398.4	1163.0	920.1	671.0	456.9	299.6	12.0
43°	1921.8	1872.6	1770.2	1619.7	1425.5	1186.1	933.9	680.0	459.2	299.6	10.8
44°	1915.5	1868.8	1762.7	1623.2	1431.5	1192.9	939.7	680.2	455.7	295.8	9.5
45°	1868.6	1822.2	1726.6	1592.6	1409.9	1179.6	928.1	670.2	445.9	289.3	8.5
46°	1782.5	1736.3	1663.1	1541.4	1369.8	1149.5	901.3	648.4	429.6	278.8	7.5
47°	1688.9	1644.0	1569.0	1458.8	1301.3	1095.8	862.4	617.8	406.7	263.5	6.8
48°	1553.2	1525.1	1449.8	1355.7	1206.2	1011.7	794.2	567.8	376.1	243.6	5.8
49°	1433.2	1403.6	1337.6	1236.5	1082.2	913.8	712.6	507.1	336.2	221.6	5.0
50°	1318.6	1292.7	1231.8	1117.6	970.3	795.7	602.5	430.6	286.0	194.2	4.3
51°	1206.4	1187.1	1124.9	1020.0	870.4	704.8	521.9	358.6	236.4	161.1	4.0
52°	1093.7	1091.5	1024.0	917.9	773.3	614.2	443.6	302.6	200.5	135.2	3.8
53°	972.6	958.0	899.0	803.7	664.9	519.9	376.1	255.2	172.6	115.2	3.3
54°	834.6	818.2	755.0	668.9	543.2	425.8	303.1	206.3	143.8	97.4	3.0
55°	681.0	653.1	607.2	518.9	424.3	324.9	234.1	163.3	114.9	81.0	2.5
56°	516.6	488.8	462.9	398.0	311.4	242.4	174.4	125.2	89.8	64.0	2.3
57°	359.3	357.8	315.4	265.5	208.3	165.1	119.4	88.3	63.5	49.7	1.8
58°	233.1	225.3	198.2	169.4	136.2	103.1	76.8	60.0	43.2	33.9	1.5
59°	163.3	147.8	133.2	112.9	85.8	65.0	49.4	38.4	29.9	23.6	1.0
60°	100.4	97.1	87.3	68.8	55.7	45.9	36.9	28.4	21.8	16.8	0.5
62.5°	28.6	29.1	26.3	23.3	20.1	17.3	15.6	13.3	11.0	8.8	0.0
65°	6.5	6.3	6.8	6.3	5.8	5.8	5.0	4.5	4.0	3.8	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°	2.0	2.0	1.8	1.8	1.8	1.5	1.5	1.3	1.3	1.0	0.0
70°	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.3	0.3	0.0
72.5°	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3
77.5°	0.5	0.5	0.5	0.5	0.5	0.3	0.5	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°	18.6	18.6	18.6	18.6	18.6	18.6
2.5°	19.3	18.3	17.6	16.8	16.6	16.6
5°	18.8	17.3	15.8	15.1	14.6	14.6
7.5°	17.3	15.6	14.1	13.3	13.0	13.0
10°	15.6	13.5	12.0	11.5	11.5	11.3
12.5°	13.5	11.5	10.5	10.3	10.3	10.3
15°	11.3	9.8	9.0	9.0	9.3	9.5
17.5°	9.5	8.0	7.8	8.3	8.8	8.8
20°	8.0	7.0	7.0	7.5	8.0	8.3
22.5°	6.8	6.0	6.3	7.0	7.8	8.0
25°	6.0	5.3	5.8	6.5	7.3	7.8
27.5°	5.0	4.8	5.3	6.3	7.3	7.5
30°	4.3	4.3	5.0	6.0	7.0	7.3
31°	4.0	4.0	5.0	6.0	7.0	7.3
32°	3.8	4.0	4.8	6.0	7.0	7.3
33°	3.5	3.8	4.8	5.8	7.0	7.3
34°	3.3	3.8	4.8	5.8	7.0	7.3
35°	3.0	3.8	4.8	5.8	7.0	7.3
36°	2.8	3.5	4.5	5.8	7.0	7.3
37°	2.5	3.5	4.5	5.8	7.0	7.3
38°	2.3	3.3	4.5	5.8	7.0	7.3
39°	2.3	3.3	4.3	5.8	6.8	7.3
40°	2.0	3.0	4.3	5.8	6.8	7.3
41°	1.8	3.0	4.3	5.5	6.8	7.3
42°	1.5	2.8	4.0	5.5	6.8	7.3
43°	1.3	2.8	4.0	5.5	6.8	7.3
44°	1.3	2.5	4.0	5.5	6.8	7.3
45°	1.0	2.5	4.0	5.5	6.8	7.3
46°	0.8	2.5	4.0	5.5	6.8	7.3
47°	0.8	2.3	3.8	5.5	6.8	7.3
48°	0.5	2.3	3.8	5.5	6.8	7.3
49°	0.5	2.3	3.8	5.5	6.8	7.5
50°	0.5	2.3	3.8	5.3	6.8	7.5
51°	0.3	2.3	3.8	5.3	6.8	7.5
52°	0.3	2.3	3.5	5.3	7.0	7.5
53°	0.3	2.0	3.5	5.3	7.0	7.5
54°	0.3	2.0	3.5	5.3	7.0	7.3
55°	0.3	2.0	3.5	5.3	6.8	7.3
56°	0.3	1.8	3.5	5.3	6.8	7.3
57°	0.3	1.8	3.3	5.0	6.8	7.0
58°	0.3	1.8	3.3	5.0	6.8	7.0
59°	0.3	1.8	3.3	5.0	6.5	7.0
60°	0.5	1.5	3.0	4.8	6.5	7.0
62.5°	0.5	1.5	3.0	4.8	6.3	6.8
65°	0.5	1.5	2.8	4.5	6.3	6.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.3	2.5	4.3	6.0	6.5
70°	0.5	1.5	2.5	4.0	5.8	6.3
72.5°	0.8	1.3	2.3	3.8	5.5	6.0
75°	0.8	1.3	2.3	3.5	5.3	5.5
77.5°	1.0	1.3	2.0	3.0	4.8	5.0
80°	1.0	1.3	1.8	2.5	4.0	4.3
82.5°	1.0	1.3	1.3	2.0	3.0	3.3
85°	0.8	1.0	1.0	1.3	2.0	2.3
87.5°	0.8	1.0	0.8	0.5	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)