

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: P1335751

Luminaire Tested: P3A02R409730DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335751
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R409730DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

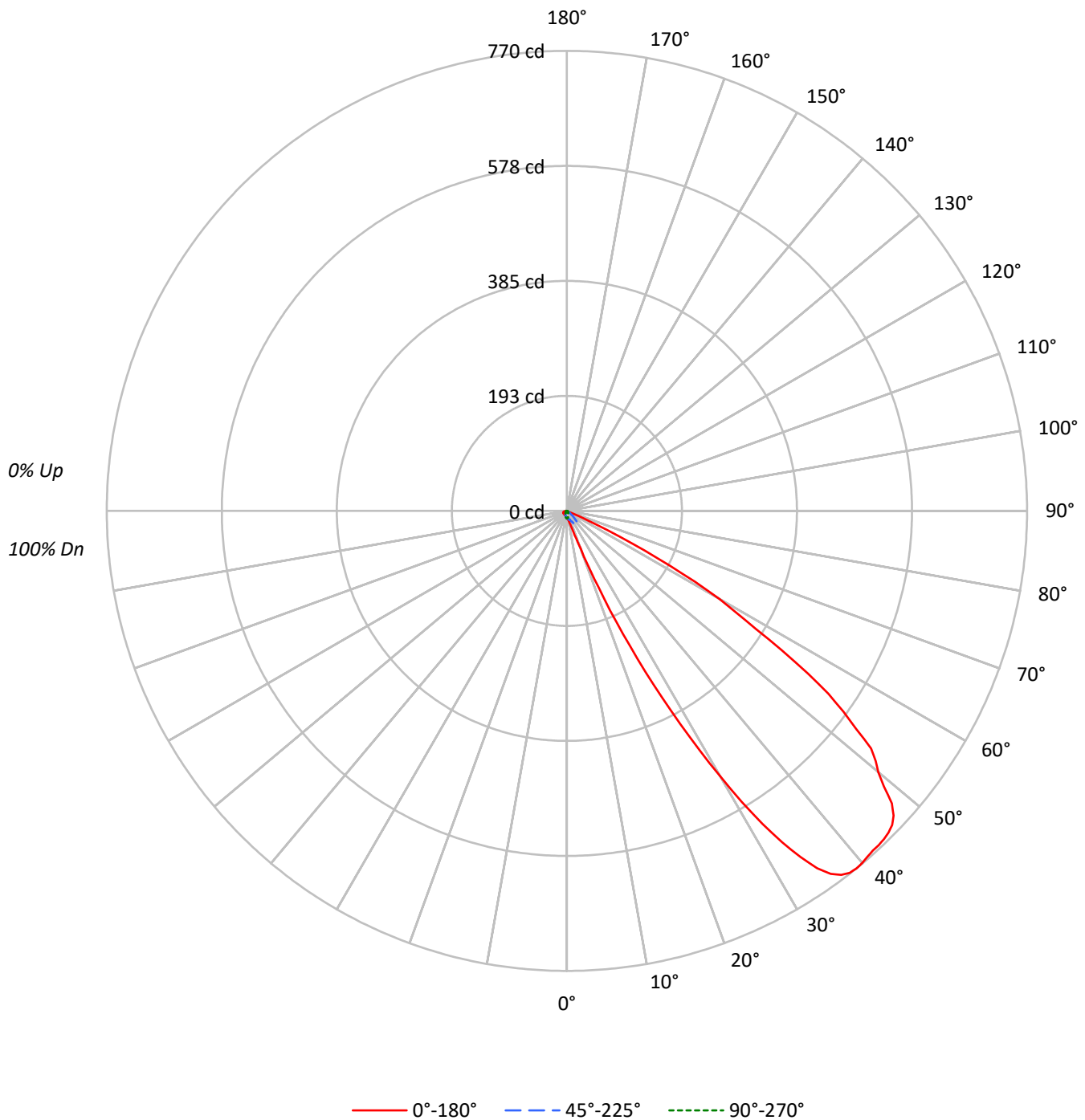
Lumens per Lamp: N/A
Luminaire Lumens: 238.0 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	107	104	100	97	99	97	94		96	93	91		92	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81	78	75	72
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71	66	62	60
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62	57	52	50
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54	49	44	42
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48	42	37	35
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42	36	31	29
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38	31	26	24
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	20		31	24	20		30	24	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	2675	2675	2675	2675	2675
5°	2994	2884	2641	2399	2355
10°	3607	3073	2427	2182	2138
15°	5902	3314	2089	1930	1975
20°	15611	3920	1727	1727	1890
25°	60173	4863	1379	1597	1839
30°	129843	6482	1114	1545	1823
35°	195415	7656	937	1526	1874
40°	220155	7700	802	1574	2004
45°	236087	5954	744	1613	2171
50°	232044	3718	682	1706	2388
55°	204150	1835	650	1912	2676
60°	129200	395	746	2105	2982
65°	26410	104	778	2283	3269
70°	577	128	833	2500	3783
75°	593	339	932	2796	4236
80°	505	253	1137	3031	4925
85°	503	503	2264	3271	5535

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 240341 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.1	0.5
10°-20°	3.8	1.6
20°-30°	18.5	7.8
30°-40°	60.1	25.3
40°-50°	82.9	34.8
50°-60°	57.7	24.3
60°-70°	10.9	4.6
70°-80°	2.0	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°	23.4	9.8
0°-40°	83.5	35.1
0°-60°	224.2	94.2
0°-90°	238.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	238.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	12	12	12	12	12	
5°	14	13	12	11	11	1
15°	26	15	9	8	9	9
25°	249	20	6	7	8	128
35°	730	29	4	6	7	441
45°	761	19	2	5	7	579
55°	534	5	2	5	7	456
65°	51	0	2	4	6	90
75°	1	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°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
2.5°	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.5	12.2
5°	13.6	13.6	13.6	13.6	13.3	13.3	13.3	13.1	13.1	12.7	12.0
7.5°	14.4	14.4	14.4	14.4	14.2	14.0	13.8	13.8	13.6	12.5	11.6
10°	16.2	16.2	16.0	15.7	15.5	15.1	14.9	14.4	13.8	12.2	10.9
12.5°	19.7	19.2	19.0	18.6	17.9	17.0	16.2	15.5	14.0	11.8	10.3
15°	26.0	25.6	24.7	23.4	22.1	20.3	18.8	17.3	14.6	11.1	9.2
17.5°	37.2	35.8	34.5	32.3	29.1	26.0	22.7	19.9	15.5	10.5	8.3
20°	66.9	66.0	58.1	52.0	42.2	35.2	28.6	23.8	16.8	9.8	7.4
22.5°	137.9	128.7	115.8	94.9	73.9	54.4	39.6	29.9	18.1	9.0	6.6
25°	248.7	234.3	206.5	166.1	122.6	86.8	57.3	39.1	20.1	8.1	5.7
27.5°	376.6	362.0	318.9	263.2	192.1	130.9	81.7	51.8	22.7	7.2	5.0
30°	512.8	500.3	445.7	368.5	270.8	183.4	109.5	64.7	25.6	6.3	4.4
31°	567.6	551.7	492.7	410.5	307.7	205.0	120.7	70.2	26.7	6.1	4.2
32°	618.1	600.0	538.8	450.7	337.7	228.4	132.9	75.0	27.5	5.7	3.9
33°	661.6	640.4	581.4	488.7	370.7	250.3	145.6	79.6	28.2	5.2	3.7
34°	698.5	680.2	616.8	527.0	400.0	271.2	158.0	84.1	28.6	5.0	3.5
35°	730.0	713.4	650.7	556.0	428.6	291.6	169.4	88.5	28.6	4.6	3.5
36°	751.2	736.8	680.0	585.8	452.7	308.8	179.0	92.5	28.6	4.2	3.3
37°	762.8	748.8	699.2	610.2	476.3	325.9	187.8	95.5	28.4	3.9	3.1
38°	768.7	756.5	713.4	630.1	492.7	338.1	195.4	97.9	28.2	3.5	3.1
39°	770.2	760.0	722.4	644.6	508.6	350.4	200.9	99.2	27.5	3.3	2.8
40°	769.1	760.2	727.2	657.5	520.9	360.0	204.8	99.7	26.9	2.8	2.8
41°	767.0	760.0	730.7	666.4	530.7	366.1	206.3	98.8	26.0	2.4	2.6
42°	765.0	757.3	732.2	672.5	537.5	369.2	206.1	97.0	24.7	2.2	2.6
43°	765.0	756.3	732.4	676.5	540.7	369.4	203.5	93.8	22.9	2.0	2.4
44°	763.7	755.6	733.5	679.1	541.6	367.4	199.3	90.3	21.0	1.7	2.4
45°	761.3	752.8	733.3	679.3	540.1	362.6	192.6	85.7	19.2	1.3	2.4
46°	756.7	749.0	731.3	677.8	535.5	355.6	184.5	81.1	17.3	1.1	2.2
47°	747.5	741.6	726.1	672.5	528.5	345.3	174.9	75.8	15.7	0.9	2.2
48°	731.8	727.6	717.1	661.0	515.2	332.7	164.6	70.2	14.2	0.9	2.2
49°	702.9	699.6	693.5	642.4	498.1	317.1	153.4	63.8	12.7	0.7	2.2
50°	680.2	676.7	664.2	611.1	473.6	297.5	141.2	57.5	10.9	0.4	2.0
51°	665.1	659.4	639.8	574.8	438.0	271.2	127.9	51.1	9.2	0.4	2.0
52°	646.1	637.6	613.1	542.3	405.4	245.0	113.4	44.8	8.1	0.4	2.0
53°	606.3	603.3	579.0	507.3	372.9	219.9	98.6	39.6	7.0	0.4	2.0
54°	571.6	567.0	534.0	458.8	337.5	191.9	83.3	35.0	5.9	0.4	2.0
55°	534.0	525.0	495.7	417.9	295.9	166.1	68.6	30.2	4.8	0.4	1.7
56°	486.5	478.7	447.2	374.2	257.7	139.9	57.5	24.7	3.7	0.4	1.7
57°	428.8	421.6	397.4	320.4	217.9	114.3	46.8	19.9	2.8	0.4	1.7
58°	373.1	365.0	337.3	268.8	175.9	90.7	39.1	16.2	2.2	0.4	1.7
59°	330.3	319.3	283.5	225.8	137.7	68.8	31.0	12.9	1.5	0.4	1.7
60°	294.6	285.7	248.5	188.0	108.0	50.7	22.9	9.8	0.9	0.4	1.7
62.5°	170.7	168.3	134.9	96.8	50.9	23.6	11.4	4.6	0.4	0.7	1.7
65°	50.9	44.4	34.5	20.5	13.1	7.9	4.2	1.5	0.2	0.7	1.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	1.5	1.5	1.5	1.5	1.5	1.5	0.9	0.4	0.2	0.7	1.5
70°	0.9	0.7	0.7	0.7	0.7	0.4	0.4	0.2	0.2	0.7	1.3
72.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.2	0.4	0.7	1.1
75°	0.7	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.7	1.1
77.5°	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.4	0.7	1.1
80°	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.9
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.9
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.7	0.7
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):

	112.5°	135°	157.5°	180°
0°	12.2	12.2	12.2	12.2
2.5°	11.8	11.6	11.4	11.4
5°	11.4	10.9	10.9	10.7
7.5°	10.7	10.3	10.3	10.3
10°	10.1	9.8	9.8	9.6
12.5°	9.2	9.2	9.2	9.2
15°	8.5	8.5	8.7	8.7
17.5°	7.6	7.9	8.3	8.5
20°	7.0	7.4	7.9	8.1
22.5°	6.6	7.0	7.6	7.9
25°	5.9	6.6	7.4	7.6
27.5°	5.5	6.3	7.0	7.4
30°	5.0	6.1	6.8	7.2
31°	5.0	5.9	6.8	7.2
32°	4.8	5.7	6.8	7.0
33°	4.8	5.7	6.8	7.0
34°	4.6	5.7	6.6	7.0
35°	4.6	5.7	6.6	7.0
36°	4.4	5.5	6.6	7.0
37°	4.4	5.5	6.6	7.0
38°	4.2	5.5	6.6	7.0
39°	4.2	5.5	6.6	7.0
40°	4.2	5.5	6.6	7.0
41°	3.9	5.5	6.6	7.0
42°	3.9	5.5	6.6	7.0
43°	3.9	5.2	6.6	7.0
44°	3.9	5.2	6.6	7.0
45°	3.7	5.2	6.6	7.0
46°	3.7	5.2	6.6	7.0
47°	3.7	5.2	6.6	7.0
48°	3.7	5.2	6.6	7.0
49°	3.7	5.2	6.6	7.0
50°	3.5	5.0	6.6	7.0
51°	3.5	5.0	6.6	7.0
52°	3.5	5.0	6.6	7.0
53°	3.5	5.0	6.6	7.0
54°	3.3	5.0	6.6	7.0
55°	3.3	5.0	6.6	7.0
56°	3.3	5.0	6.6	6.8
57°	3.3	5.0	6.3	6.8
58°	3.3	4.8	6.3	6.8
59°	3.3	4.8	6.3	6.8
60°	3.3	4.8	6.3	6.8
62.5°	3.1	4.8	6.1	6.6
65°	2.8	4.4	6.1	6.3



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	2.8	4.2	5.7	6.1
70°	2.6	3.9	5.5	5.9
72.5°	2.2	3.7	5.0	5.5
75°	2.0	3.3	4.6	5.0
77.5°	1.7	2.8	4.2	4.4
80°	1.5	2.4	3.5	3.9
82.5°	1.1	1.7	2.8	3.1
85°	0.9	1.3	2.0	2.2
87.5°	0.7	0.7	1.1	1.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)