

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: P1343504

Luminaire Tested: P3A13R159730DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343504
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R159730DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R15 optic, 3000K CCT AND, 97CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

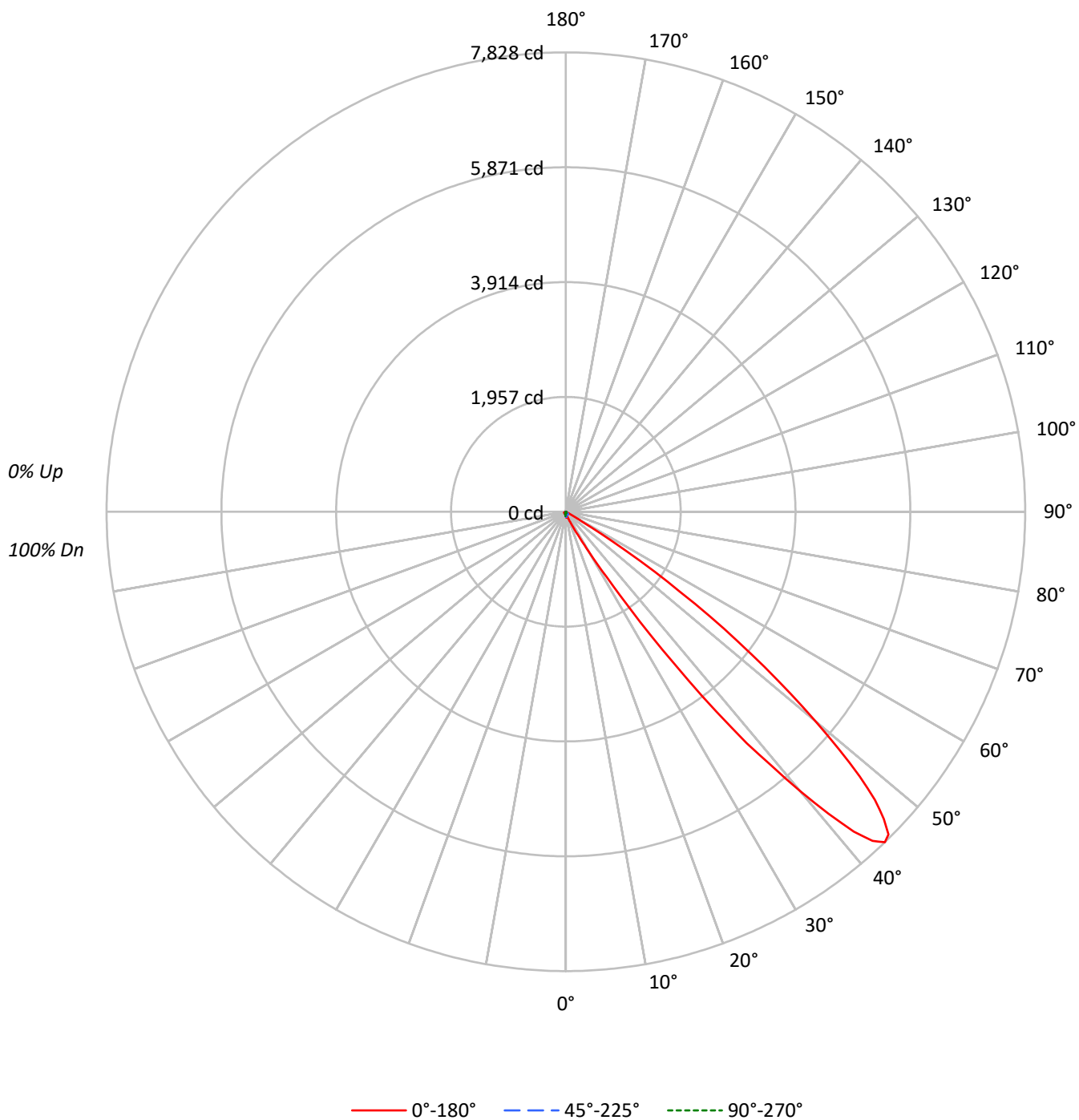
Lumens per Lamp: N/A
Luminaire Lumens: 874.0 lumens
Efficiency: N/A
Efficacy: 59.9 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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	100	97	94		96	93	91		92	90	89	87
2	101	93	87	81	98	91	85	80	87	83	78		84	80	77		81	78	75	73
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71	67	63	61
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62	57	53	50
5	75	62	52	46	73	61	52	45	58	51	45		56	50	44		55	49	44	42
6	68	54	45	38	66	53	44	38	51	43	37		49	42	37		48	42	37	35
7	62	47	38	32	60	47	38	32	45	37	31		44	36	31		42	36	31	29
8	56	42	33	27	55	41	33	27	40	32	26		39	31	26		37	31	26	24
9	52	37	28	22	50	37	28	22	35	28	22		34	27	22		33	27	22	20
10	48	33	25	19	46	33	25	19	32	24	19		31	24	19		30	23	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	17016	17016	17016	17016	17016
5°	21109	18798	15342	13427	13229
10°	20752	16099	11846	10487	10666
15°	17208	11464	8513	8695	9308
20°	29893	9147	6511	7514	8541
25°	66633	10960	5274	6968	8009
30°	199246	13470	4634	6836	8381
35°	767045	15151	4203	6987	8861
40°	1780364	13225	3979	7242	9475
45°	2411413	9986	3504	7846	10265
50°	1890769	5936	3582	8324	11292
55°	907552	2676	3326	8984	12310
60°	82932	395	3070	9561	13771
65°	9028	0	2698	9962	14943
70°	2244	0	3334	10643	16221
75°	2203	763	4406	11777	18470
80°	2147	2147	5556	12123	19826
85°	2264	2264	8806	11070	21889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2411413 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.6	0.8
10°-20°	13.8	1.6
20°-30°	33.0	3.8
30°-40°	180.8	20.7
40°-50°	437.8	50.1
50°-60°	174.6	20.0
60°-70°	15.1	1.7
70°-80°	8.5	1.0
80°-90°	3.8	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°	53.4	6.1
0°-40°	234.2	26.8
0°-60°	846.6	96.9
0°-90°	874.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	874.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	78	78	78	78	78	
5°	96	85	70	61	60	9
15°	76	50	38	38	41	26
25°	275	45	22	29	33	166
35°	2865	57	16	26	33	2025
45°	7776	32	11	25	33	5485
55°	2374	7	9	24	32	2211
65°	17	0	5	19	29	45
75°	3	1	5	14	22	3
85°	1	1	4	4	9	1
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°	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6	77.6
2.5°	87.1	87.1	88.0	87.1	87.1	87.1	87.1	86.3	86.3	86.3	83.7
5°	95.9	95.9	95.9	95.9	95.0	95.0	95.0	94.1	94.1	93.2	85.4
7.5°	99.3	99.3	98.5	98.5	97.6	97.6	96.7	95.9	95.0	94.1	81.9
10°	93.2	93.2	93.2	92.4	92.4	91.5	90.6	89.8	88.9	87.1	72.3
12.5°	82.8	82.8	83.7	82.8	81.9	81.0	79.3	78.4	77.6	75.8	60.1
15°	75.8	75.8	75.8	74.9	74.1	72.3	71.5	69.7	68.8	66.2	50.5
17.5°	96.7	96.7	95.9	94.1	90.6	88.0	83.7	80.2	75.8	70.6	43.6
20°	128.1	128.1	126.4	124.6	120.3	115.9	108.9	102.8	95.9	89.8	39.2
22.5°	185.6	188.2	183.0	176.9	170.8	160.3	150.8	141.2	129.0	118.5	40.1
25°	275.4	278.0	275.4	261.4	250.1	236.2	217.9	198.7	177.8	158.6	45.3
27.5°	446.2	447.9	443.6	409.6	391.3	354.7	322.4	291.1	256.2	221.4	49.7
30°	786.9	787.8	759.9	691.9	631.8	551.6	483.7	418.3	363.4	307.6	53.2
31°	1036.2	1011.8	952.5	870.6	774.7	666.7	573.4	488.9	407.0	346.8	54.0
32°	1315.9	1312.4	1213.9	1071.9	943.8	808.7	668.4	560.3	466.2	384.3	54.9
33°	1686.3	1688.0	1532.9	1365.6	1155.6	974.3	790.4	642.3	529.0	428.8	56.6
34°	2264.9	2129.0	1946.8	1720.3	1434.4	1161.7	922.9	737.3	585.6	471.5	56.6
35°	2865.4	2728.5	2528.1	2184.8	1792.6	1410.9	1080.6	839.2	653.6	517.6	56.6
36°	3538.1	3422.2	3119.0	2680.6	2180.4	1646.2	1247.9	956.9	720.7	559.5	55.8
37°	4264.9	4095.0	3758.6	3280.2	2610.9	1977.3	1451.9	1073.6	787.8	604.8	54.0
38°	5003.1	4849.7	4425.3	3845.8	3125.1	2326.8	1655.8	1186.1	849.7	638.8	51.4
39°	5562.5	5478.9	5058.0	4410.5	3535.5	2658.0	1865.8	1306.3	915.0	672.8	48.8
40°	6219.6	6084.5	5685.4	4884.5	4020.9	2995.2	2071.5	1412.6	969.1	699.8	46.2
41°	6819.2	6648.4	6144.7	5370.8	4409.6	3298.5	2266.7	1522.4	1012.6	715.5	44.4
42°	7333.3	7134.6	6608.3	5787.4	4734.6	3540.7	2422.7	1600.9	1053.6	728.5	41.8
43°	7666.2	7494.6	6976.9	6100.2	5012.6	3763.0	2568.2	1682.8	1078.9	737.3	38.3
44°	7828.3	7654.9	7153.8	6296.3	5183.4	3896.3	2662.3	1739.4	1106.8	748.6	35.7
45°	7776.0	7600.0	7115.5	6299.8	5236.6	3944.2	2702.4	1764.7	1121.6	759.0	32.2
46°	7536.4	7412.6	6924.6	6136.0	5135.5	3892.8	2679.7	1745.5	1116.3	759.0	28.8
47°	7200.0	7058.8	6594.3	5854.5	4890.6	3760.4	2588.2	1687.1	1084.1	741.6	25.3
48°	6741.6	6621.4	6133.3	5407.4	4515.0	3471.9	2381.7	1592.2	1033.6	707.6	21.8
49°	6166.5	5999.1	5545.1	4835.7	4025.3	3062.3	2110.7	1431.8	952.5	659.7	19.2
50°	5542.5	5336.0	4985.6	4263.2	3519.0	2625.7	1754.2	1210.5	838.3	597.0	17.4
51°	4931.6	4721.6	4387.8	3773.4	2978.7	2178.7	1415.3	966.4	690.2	510.7	14.8
52°	4298.0	4122.0	3748.2	3265.4	2549.9	1765.6	1179.1	817.4	573.4	428.8	12.2
53°	3667.1	3546.8	3191.3	2702.4	2048.8	1442.3	963.0	699.8	500.2	366.9	9.6
54°	3035.3	2903.7	2633.6	2197.8	1651.4	1138.1	816.6	585.6	434.0	319.8	8.7
55°	2373.9	2305.9	2056.6	1675.8	1251.4	908.1	662.3	503.7	363.4	267.5	7.0
56°	1828.3	1751.6	1524.2	1215.7	929.8	711.1	535.9	411.3	307.6	224.0	5.2
57°	1197.4	1119.0	968.2	848.8	677.1	518.5	409.6	324.2	250.1	185.6	4.4
58°	707.6	636.2	612.6	522.9	451.4	352.1	302.4	241.4	184.7	146.4	2.6
59°	325.1	330.3	293.7	275.4	250.1	224.0	183.9	161.2	126.4	105.4	1.7
60°	189.1	178.6	174.3	156.0	138.6	122.9	110.7	97.6	79.3	68.0	0.9
62.5°	64.5	61.9	63.6	57.5	54.0	52.3	47.9	41.0	34.0	27.9	0.0
65°	17.4	17.4	16.6	15.7	14.8	13.9	13.1	11.3	10.5	8.7	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°	6.1	6.1	5.2	5.2	4.4	4.4	3.5	3.5	2.6	2.6	0.0
70°	3.5	3.5	3.5	2.6	2.6	2.6	1.7	1.7	1.7	0.9	0.0
72.5°	2.6	2.6	2.6	2.6	2.6	2.6	1.7	1.7	1.7	0.9	0.9
75°	2.6	2.6	2.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0.9
77.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
80°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0.9	1.7
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.7
85°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
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°	77.6	77.6	77.6	77.6	77.6	77.6
2.5°	80.2	76.7	72.3	69.7	68.8	68.0
5°	76.7	69.7	64.5	61.0	60.1	60.1
7.5°	68.8	61.0	55.8	54.0	53.2	53.2
10°	60.1	53.2	48.8	47.1	47.9	47.9
12.5°	50.5	44.4	42.7	42.7	43.6	44.4
15°	41.0	37.5	37.5	38.3	40.1	41.0
17.5°	34.0	32.2	33.1	34.9	36.6	38.3
20°	27.9	27.9	29.6	32.2	34.9	36.6
22.5°	23.5	24.4	27.0	29.6	33.1	34.9
25°	20.0	21.8	24.4	28.8	32.2	33.1
27.5°	17.4	20.0	23.5	27.9	31.4	33.1
30°	14.8	18.3	22.7	27.0	31.4	33.1
31°	13.9	17.4	21.8	27.0	31.4	33.1
32°	13.1	17.4	21.8	27.0	31.4	33.1
33°	12.2	16.6	21.8	26.1	31.4	33.1
34°	11.3	16.6	21.8	27.0	31.4	33.1
35°	10.5	15.7	20.9	26.1	30.5	33.1
36°	9.6	15.7	20.9	26.1	31.4	33.1
37°	8.7	15.7	20.9	26.1	30.5	33.1
38°	8.7	14.8	20.0	26.1	30.5	33.1
39°	7.8	13.9	20.0	26.1	30.5	33.1
40°	7.0	13.9	19.2	25.3	30.5	33.1
41°	6.1	13.1	19.2	25.3	30.5	33.1
42°	5.2	13.1	19.2	25.3	30.5	33.1
43°	4.4	12.2	18.3	25.3	30.5	33.1
44°	4.4	12.2	18.3	25.3	30.5	33.1
45°	3.5	11.3	17.4	25.3	30.5	33.1
46°	3.5	11.3	17.4	24.4	30.5	33.1
47°	2.6	11.3	17.4	24.4	30.5	33.1
48°	2.6	10.5	17.4	24.4	30.5	33.1
49°	1.7	10.5	17.4	24.4	30.5	33.1
50°	1.7	10.5	16.6	24.4	30.5	33.1
51°	1.7	10.5	16.6	24.4	30.5	33.1
52°	1.7	9.6	16.6	24.4	30.5	33.1
53°	1.7	9.6	16.6	24.4	30.5	33.1
54°	1.7	9.6	15.7	24.4	30.5	33.1
55°	1.7	8.7	15.7	23.5	30.5	32.2
56°	1.7	8.7	15.7	23.5	30.5	32.2
57°	1.7	8.7	14.8	23.5	30.5	32.2
58°	1.7	7.8	14.8	22.7	29.6	32.2
59°	1.7	7.8	13.9	22.7	29.6	31.4
60°	1.7	7.0	13.9	21.8	28.8	31.4
62.5°	1.7	6.1	12.2	20.9	27.9	29.6
65°	1.7	5.2	11.3	19.2	27.0	28.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.7	5.2	10.5	18.3	25.3	27.9
70°	1.7	5.2	9.6	16.6	24.4	25.3
72.5°	2.6	5.2	8.7	15.7	22.7	23.5
75°	3.5	5.2	7.8	13.9	20.9	21.8
77.5°	3.5	5.2	7.0	12.2	18.3	19.2
80°	3.5	4.4	6.1	9.6	14.8	15.7
82.5°	3.5	4.4	4.4	7.8	11.3	12.2
85°	2.6	3.5	3.5	4.4	7.8	8.7
87.5°	2.6	3.5	1.7	2.6	3.5	3.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)