

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: P1343458

Luminaire Tested: P3A13R159040DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343458
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: P3A13R159040DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 90CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

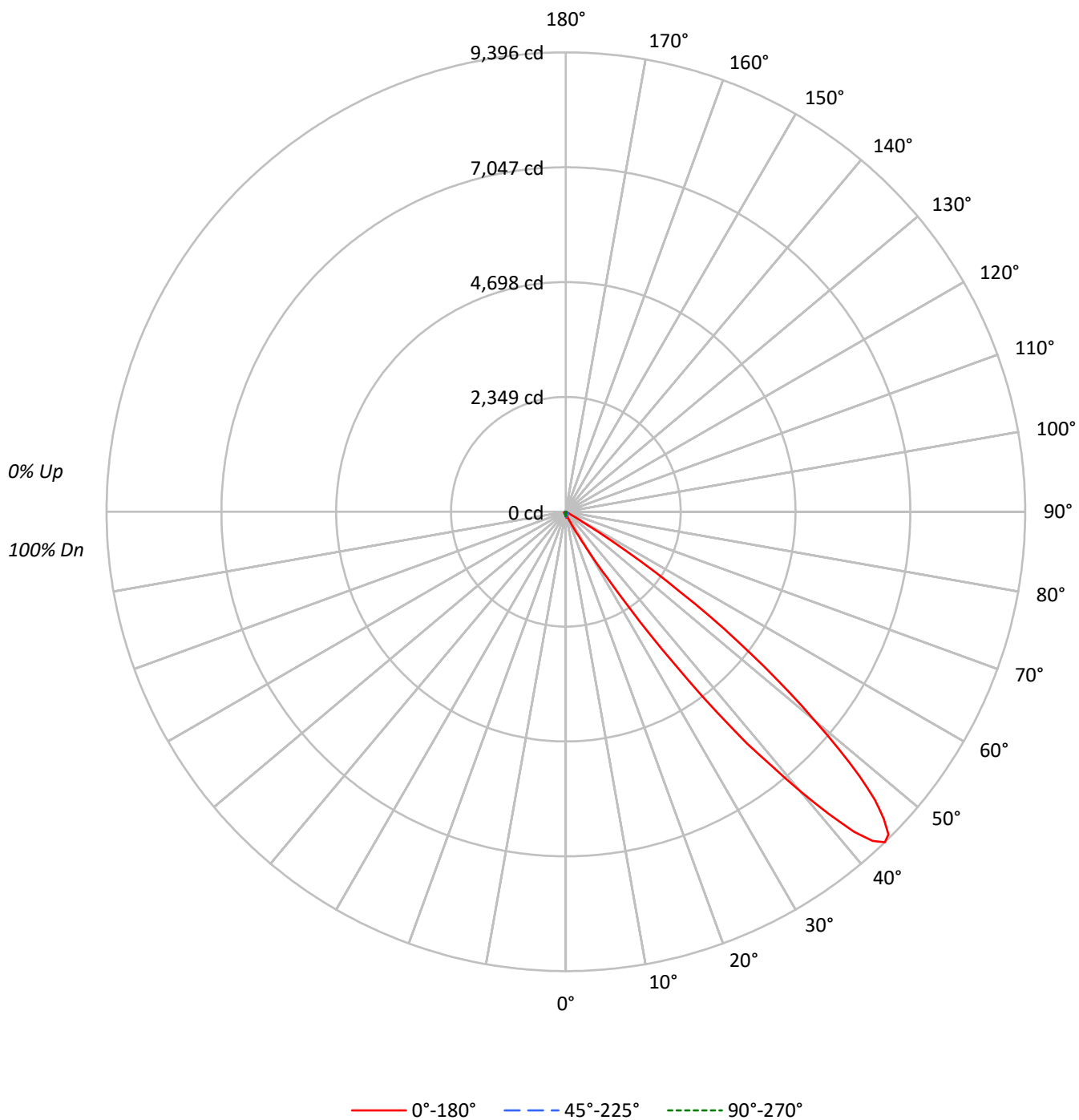
Lumens per Lamp: N/A
Luminaire Lumens: 1049.0 lumens
Efficiency: N/A
Efficacy: 71.8 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	107	104	100	97	100	97	94		96	93	91		92
2	101	93	87	81	98	91	85	80	87	83	78		84	80	77		81
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62
5	75	62	52	46	73	61	52	45	58	51	45		56	50	44		55
6	68	54	45	38	66	53	44	38	51	43	37		49	42	37		48
7	62	47	38	32	60	47	38	32	45	37	31		44	36	31		42
8	56	42	33	27	55	41	33	27	40	32	26		39	31	26		37
9	52	37	28	22	50	37	28	22	35	28	22		34	27	22		33
10	48	33	25	19	46	33	25	19	32	24	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	20415	20415	20415	20415	20415
5°	25336	22562	18424	16113	15893
10°	24916	19327	14206	12580	12803
15°	20658	13780	10216	10443	11169
20°	35890	10991	7817	9031	10244
25°	79964	13162	6315	8347	9605
30°	239151	16154	5570	8204	10052
35°	920621	18203	5033	8406	10627
40°	2136861	15858	4780	8673	11364
45°	2894254	12001	4217	9396	12311
50°	2269367	7130	4298	9995	13543
55°	1089261	3211	4014	10781	14795
60°	99553	439	3684	11446	16534
65°	10844	0	3269	11934	17901
70°	2693	0	4039	12759	19426
75°	2626	847	5338	14149	22113
80°	2652	2652	6566	14522	23740
85°	2516	2516	10567	13083	26418

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2894254 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	7.9	0.8
10°-20°	16.5	1.6
20°-30°	39.6	3.8
30°-40°	217.0	20.7
40°-50°	525.4	50.1
50°-60°	209.6	20.0
60°-70°	18.1	1.7
70°-80°	10.2	1.0
80°-90°	4.5	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°	64.1	6.1
0°-40°	281.1	26.8
0°-60°	1016.2	96.9
0°-90°	1049.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1049.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	93	93	93	93	93	
5°	115	102	84	73	72	11
15°	91	61	45	46	49	32
25°	330	54	26	34	40	199
35°	3439	68	19	31	40	2430
45°	9333	39	14	30	40	6584
55°	2849	8	10	28	39	2654
65°	21	0	6	23	34	54
75°	3	1	6	17	26	3
85°	1	1	4	5	10	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°	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1	93.1
2.5°	104.6	104.6	105.6	104.6	104.6	104.6	104.6	103.5	103.5	103.5	100.4
5°	115.1	115.1	115.1	115.1	114.0	114.0	114.0	113.0	113.0	111.9	102.5
7.5°	119.2	119.2	118.2	118.2	117.1	117.1	116.1	115.1	114.0	113.0	98.3
10°	111.9	111.9	111.9	110.9	110.9	109.8	108.8	107.7	106.7	104.6	86.8
12.5°	99.4	99.4	100.4	99.4	98.3	97.3	95.2	94.1	93.1	91.0	72.2
15°	91.0	91.0	91.0	90.0	88.9	86.8	85.8	83.7	82.6	79.5	60.7
17.5°	116.1	116.1	115.1	113.0	108.8	105.6	100.4	96.2	91.0	84.7	52.3
20°	153.8	153.8	151.7	149.6	144.3	139.1	130.7	123.4	115.1	107.7	47.1
22.5°	222.8	225.9	219.6	212.3	205.0	192.5	180.9	169.4	154.8	142.2	48.1
25°	330.5	333.7	330.5	313.8	300.2	283.5	261.5	238.5	213.4	190.4	54.4
27.5°	535.5	537.6	532.4	491.6	469.6	425.7	387.0	349.3	307.5	265.7	59.6
30°	944.5	945.5	912.1	830.5	758.3	662.1	580.5	502.1	436.2	369.2	63.8
31°	1243.6	1214.3	1143.2	1044.9	929.9	800.2	688.2	586.8	488.5	416.3	64.8
32°	1579.4	1575.2	1457.0	1286.5	1132.8	970.6	802.2	672.5	559.6	461.3	65.9
33°	2023.9	2026.0	1839.8	1639.0	1386.9	1169.4	948.7	770.9	634.9	514.6	68.0
34°	2718.4	2555.3	2336.7	2064.7	1721.6	1394.3	1107.7	884.9	702.9	565.9	68.0
35°	3439.1	3274.9	3034.3	2622.2	2151.5	1693.4	1297.0	1007.3	784.5	621.3	68.0
36°	4246.6	4107.5	3743.5	3217.3	2617.0	1975.8	1497.8	1148.5	865.0	671.5	66.9
37°	5118.9	4914.9	4511.2	3937.0	3133.7	2373.3	1742.6	1288.6	945.5	725.9	64.8
38°	6004.8	5820.7	5311.3	4615.8	3750.8	2792.7	1987.3	1423.5	1019.8	766.7	61.7
39°	6676.3	6575.9	6070.7	5293.6	4243.4	3190.2	2239.4	1567.9	1098.2	807.5	58.6
40°	7465.0	7302.8	6823.8	5862.6	4826.0	3594.9	2486.2	1695.5	1163.1	839.9	55.4
41°	8184.6	7979.6	7375.0	6446.2	5292.5	3958.9	2720.5	1827.3	1215.4	858.7	53.3
42°	8801.7	8563.2	7931.5	6946.2	5682.7	4249.7	2907.7	1921.4	1264.6	874.4	50.2
43°	9201.2	8995.2	8373.9	7321.7	6016.3	4516.4	3082.4	2019.7	1294.9	884.9	46.0
44°	9395.8	9187.6	8586.2	7557.0	6221.3	4676.5	3195.4	2087.7	1328.4	898.5	42.9
45°	9333.0	9121.7	8540.2	7561.2	6285.1	4734.0	3243.5	2118.1	1346.1	911.0	38.7
46°	9045.4	8896.9	8311.1	7364.5	6163.8	4672.3	3216.3	2095.0	1339.9	911.0	34.5
47°	8641.7	8472.2	7914.7	7026.7	5869.9	4513.3	3106.5	2025.0	1301.2	890.1	30.3
48°	8091.5	7947.1	7361.4	6490.1	5419.1	4167.1	2858.6	1911.0	1240.5	849.3	26.1
49°	7401.2	7200.3	6655.4	5804.0	4831.3	3675.5	2533.3	1718.5	1143.2	791.8	23.0
50°	6652.3	6404.4	5983.9	5116.8	4223.6	3151.5	2105.5	1452.8	1006.2	716.5	20.9
51°	5919.0	5667.0	5266.4	4529.0	3575.1	2614.9	1698.6	1160.0	828.4	612.9	17.8
52°	5158.6	4947.4	4498.6	3919.2	3060.5	2119.1	1415.2	981.1	688.2	514.6	14.6
53°	4401.4	4257.0	3830.3	3243.5	2459.0	1731.1	1155.8	839.9	600.4	440.3	11.5
54°	3643.0	3485.1	3160.9	2637.9	1982.1	1366.0	980.1	702.9	520.9	383.9	10.5
55°	2849.2	2767.6	2468.4	2011.4	1502.0	1089.9	794.9	604.6	436.2	321.1	8.4
56°	2194.4	2102.4	1829.4	1459.1	1116.0	853.5	643.3	493.7	369.2	268.8	6.3
57°	1437.1	1343.0	1162.1	1018.8	812.7	622.3	491.6	389.1	300.2	222.8	5.2
58°	849.3	763.5	735.3	627.6	541.8	422.6	362.9	289.7	221.7	175.7	3.1
59°	390.1	396.4	352.5	330.5	300.2	268.8	220.7	193.5	151.7	126.6	2.1
60°	227.0	214.4	209.2	187.2	166.3	147.5	132.8	117.1	95.2	81.6	1.0
62.5°	77.4	74.3	76.4	69.0	64.8	62.8	57.5	49.2	40.8	33.5	0.0
65°	20.9	20.9	19.9	18.8	17.8	16.7	15.7	13.6	12.6	10.5	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°	7.3	7.3	6.3	6.3	5.2	5.2	4.2	4.2	3.1	3.1	0.0
70°	4.2	4.2	4.2	3.1	3.1	3.1	2.1	2.1	2.1	1.0	0.0
72.5°	3.1	3.1	3.1	3.1	3.1	3.1	2.1	2.1	2.1	1.0	1.0
75°	3.1	3.1	3.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.0
77.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
80°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.0	2.1
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.1
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
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°	93.1	93.1	93.1	93.1	93.1	93.1
2.5°	96.2	92.0	86.8	83.7	82.6	81.6
5°	92.0	83.7	77.4	73.2	72.2	72.2
7.5°	82.6	73.2	66.9	64.8	63.8	63.8
10°	72.2	63.8	58.6	56.5	57.5	57.5
12.5°	60.7	53.3	51.3	51.3	52.3	53.3
15°	49.2	45.0	45.0	46.0	48.1	49.2
17.5°	40.8	38.7	39.7	41.8	43.9	46.0
20°	33.5	33.5	35.6	38.7	41.8	43.9
22.5°	28.2	29.3	32.4	35.6	39.7	41.8
25°	24.1	26.1	29.3	34.5	38.7	39.7
27.5°	20.9	24.1	28.2	33.5	37.7	39.7
30°	17.8	22.0	27.2	32.4	37.7	39.7
31°	16.7	20.9	26.1	32.4	37.7	39.7
32°	15.7	20.9	26.1	32.4	37.7	39.7
33°	14.6	19.9	26.1	31.4	37.7	39.7
34°	13.6	19.9	26.1	32.4	37.7	39.7
35°	12.6	18.8	25.1	31.4	36.6	39.7
36°	11.5	18.8	25.1	31.4	37.7	39.7
37°	10.5	18.8	25.1	31.4	36.6	39.7
38°	10.5	17.8	24.1	31.4	36.6	39.7
39°	9.4	16.7	24.1	31.4	36.6	39.7
40°	8.4	16.7	23.0	30.3	36.6	39.7
41°	7.3	15.7	23.0	30.3	36.6	39.7
42°	6.3	15.7	23.0	30.3	36.6	39.7
43°	5.2	14.6	22.0	30.3	36.6	39.7
44°	5.2	14.6	22.0	30.3	36.6	39.7
45°	4.2	13.6	20.9	30.3	36.6	39.7
46°	4.2	13.6	20.9	29.3	36.6	39.7
47°	3.1	13.6	20.9	29.3	36.6	39.7
48°	3.1	12.6	20.9	29.3	36.6	39.7
49°	2.1	12.6	20.9	29.3	36.6	39.7
50°	2.1	12.6	19.9	29.3	36.6	39.7
51°	2.1	12.6	19.9	29.3	36.6	39.7
52°	2.1	11.5	19.9	29.3	36.6	39.7
53°	2.1	11.5	19.9	29.3	36.6	39.7
54°	2.1	11.5	18.8	29.3	36.6	39.7
55°	2.1	10.5	18.8	28.2	36.6	38.7
56°	2.1	10.5	18.8	28.2	36.6	38.7
57°	2.1	10.5	17.8	28.2	36.6	38.7
58°	2.1	9.4	17.8	27.2	35.6	38.7
59°	2.1	9.4	16.7	27.2	35.6	37.7
60°	2.1	8.4	16.7	26.1	34.5	37.7
62.5°	2.1	7.3	14.6	25.1	33.5	35.6
65°	2.1	6.3	13.6	23.0	32.4	34.5



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	2.1	6.3	12.6	22.0	30.3	33.5
70°	2.1	6.3	11.5	19.9	29.3	30.3
72.5°	3.1	6.3	10.5	18.8	27.2	28.2
75°	4.2	6.3	9.4	16.7	25.1	26.1
77.5°	4.2	6.3	8.4	14.6	22.0	23.0
80°	4.2	5.2	7.3	11.5	17.8	18.8
82.5°	4.2	5.2	5.2	9.4	13.6	14.6
85°	3.1	4.2	4.2	5.2	9.4	10.5
87.5°	3.1	4.2	2.1	3.1	4.2	4.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)