

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: P1343402

Luminaire Tested: P3A13R159027DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343402
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: P3A13R159027DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 90CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

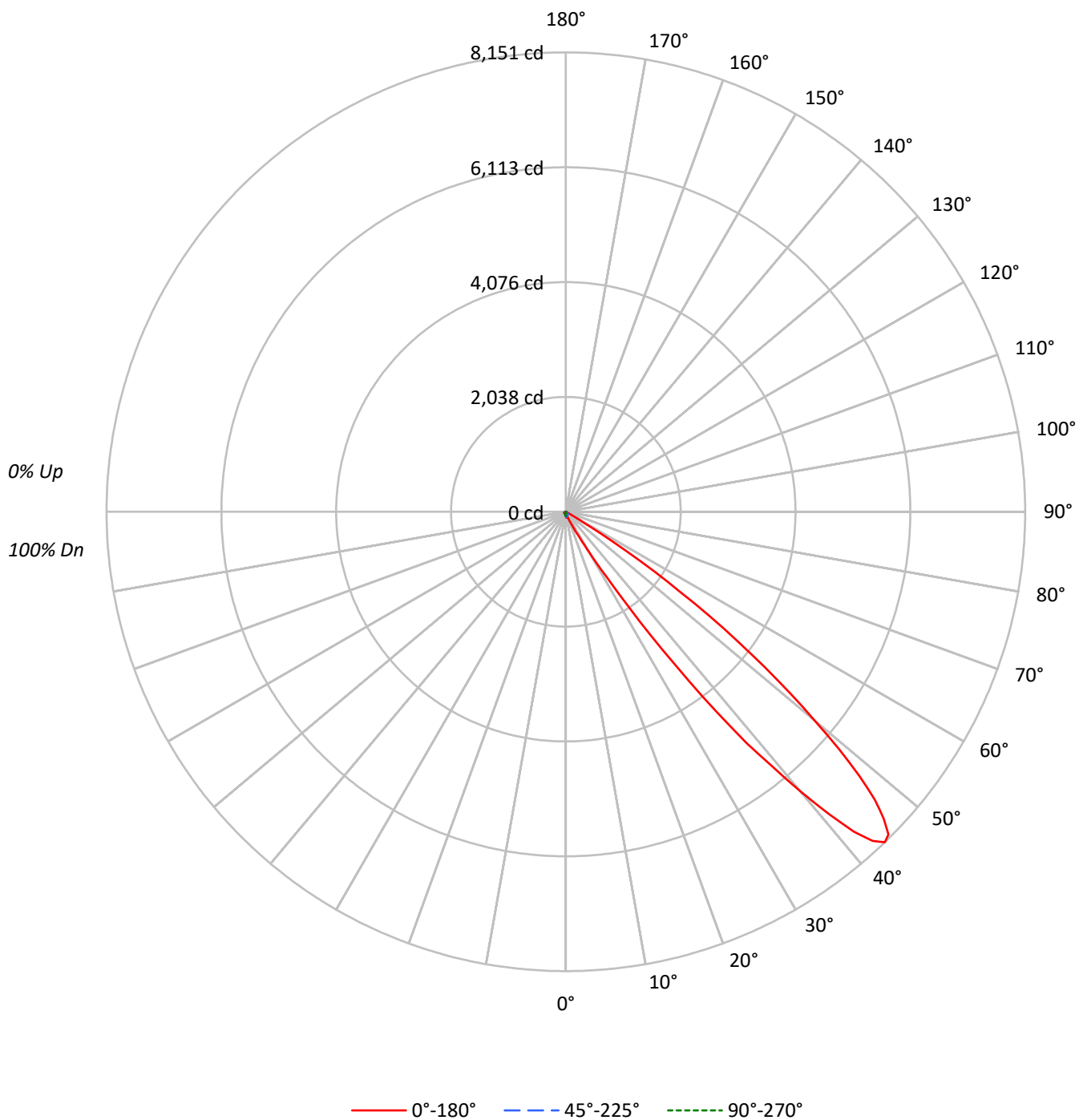
Lumens per Lamp: N/A
Luminaire Lumens: 910.0 lumens
Efficiency: N/A
Efficacy: 62.3 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	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	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°	17718	17718	17718	17718	17718
5°	21968	19569	15981	13978	13779
10°	21621	16767	12313	10911	11111
15°	17912	11941	8854	9058	9671
20°	31129	9521	6767	7841	8891
25°	69367	11420	5492	7234	8347
30°	207450	14002	4836	7115	8736
35°	798633	15794	4363	7281	9235
40°	1853702	13769	4151	7528	9876
45°	2510741	10420	3659	8156	10699
50°	1968652	6175	3718	8665	11769
55°	944903	2791	3479	9366	12845
60°	86353	395	3201	9955	14341
65°	9391	0	2802	10377	15514
70°	2308	0	3462	11028	16862
75°	2288	763	4575	12285	19232
80°	2273	2273	5683	12628	20583
85°	2264	2264	9057	11322	22895

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2510741 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.9	0.8
10°-20°	14.3	1.6
20°-30°	34.4	3.8
30°-40°	188.2	20.7
40°-50°	455.8	50.1
50°-60°	181.8	20.0
60°-70°	15.7	1.7
70°-80°	8.9	1.0
80°-90°	3.9	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°	55.6	6.1
0°-40°	243.9	26.8
0°-60°	881.5	96.9
0°-90°	910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	910.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	81	81	81	81	81	
5°	100	89	73	64	63	9
15°	79	53	39	40	43	27
25°	287	47	23	30	34	173
35°	2983	59	16	27	34	2108
45°	8096	34	12	26	34	5711
55°	2472	7	9	24	34	2303
65°	18	0	5	20	30	47
75°	3	1	5	14	23	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°	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8	80.8
2.5°	90.7	90.7	91.6	90.7	90.7	90.7	90.7	89.8	89.8	89.8	87.1
5°	99.8	99.8	99.8	99.8	98.9	98.9	98.9	98.0	98.0	97.1	88.9
7.5°	103.4	103.4	102.5	102.5	101.6	101.6	100.7	99.8	98.9	98.0	85.3
10°	97.1	97.1	97.1	96.2	96.2	95.3	94.4	93.5	92.6	90.7	75.3
12.5°	86.2	86.2	87.1	86.2	85.3	84.4	82.6	81.7	80.8	78.9	62.6
15°	78.9	78.9	78.9	78.0	77.1	75.3	74.4	72.6	71.7	69.0	52.6
17.5°	100.7	100.7	99.8	98.0	94.4	91.6	87.1	83.5	78.9	73.5	45.4
20°	133.4	133.4	131.6	129.8	125.2	120.7	113.4	107.1	99.8	93.5	40.8
22.5°	193.3	196.0	190.5	184.2	177.8	167.0	157.0	147.0	134.3	123.4	41.7
25°	286.7	289.4	286.7	272.2	260.4	245.9	226.8	206.9	185.1	165.1	47.2
27.5°	464.6	466.4	461.8	426.5	407.4	369.3	335.7	303.1	266.8	230.5	51.7
30°	819.3	820.2	791.2	720.4	657.8	574.4	503.6	435.5	378.4	320.3	55.3
31°	1078.8	1053.4	991.7	906.4	806.6	694.1	597.0	509.0	423.7	361.1	56.3
32°	1370.1	1366.5	1263.9	1116.0	982.7	842.0	695.9	583.4	485.4	400.1	57.2
33°	1755.7	1757.5	1596.0	1421.8	1203.2	1014.4	823.0	668.7	550.8	446.4	59.0
34°	2358.2	2216.7	2027.0	1791.1	1493.5	1209.5	960.9	767.6	609.7	490.9	59.0
35°	2983.4	2840.9	2632.2	2274.7	1866.4	1469.0	1125.1	873.8	680.5	539.0	59.0
36°	3683.9	3563.2	3247.4	2791.0	2270.2	1714.0	1299.3	996.3	750.4	582.5	58.1
37°	4440.6	4263.7	3913.4	3415.3	2718.4	2058.8	1511.7	1117.9	820.2	629.7	56.3
38°	5209.1	5049.4	4607.6	4004.2	3253.8	2422.6	1724.0	1234.9	884.7	665.1	53.5
39°	5791.7	5704.5	5266.3	4592.1	3681.1	2767.4	1942.6	1360.1	952.7	700.5	50.8
40°	6475.8	6335.2	5919.6	5085.7	4186.5	3118.6	2156.8	1470.8	1009.0	728.6	48.1
41°	7100.1	6922.2	6397.8	5592.0	4591.2	3434.3	2360.0	1585.2	1054.3	744.9	46.3
42°	7635.4	7428.5	6880.5	6025.7	4929.7	3686.6	2522.4	1666.8	1097.0	758.5	43.6
43°	7982.0	7803.3	7264.3	6351.5	5219.1	3918.0	2674.0	1752.1	1123.3	767.6	39.9
44°	8150.8	7970.2	7448.5	6555.6	5397.0	4056.8	2772.0	1811.1	1152.3	779.4	37.2
45°	8096.3	7913.0	7408.6	6559.3	5452.3	4106.7	2813.7	1837.4	1167.8	790.3	33.6
46°	7846.8	7718.0	7209.8	6388.7	5347.0	4053.2	2790.1	1817.4	1162.3	790.3	29.9
47°	7496.6	7349.6	6866.0	6095.6	5092.1	3915.2	2694.8	1756.6	1128.8	772.2	26.3
48°	7019.3	6894.1	6386.0	5630.1	4701.0	3614.9	2479.8	1657.7	1076.1	736.8	22.7
49°	6420.4	6246.2	5773.5	5034.9	4191.1	3188.4	2197.6	1490.8	991.7	686.9	20.0
50°	5770.8	5555.7	5191.0	4438.8	3663.9	2733.9	1826.5	1260.3	872.9	621.5	18.1
51°	5134.7	4916.1	4568.5	3928.8	3101.3	2268.4	1473.5	1006.3	718.6	531.7	15.4
52°	4475.1	4291.8	3902.5	3399.9	2654.9	1838.3	1227.7	851.1	597.0	446.4	12.7
53°	3818.2	3692.9	3322.7	2813.7	2133.2	1501.7	1002.6	728.6	520.8	382.0	10.0
54°	3160.3	3023.3	2742.0	2288.4	1719.4	1185.0	850.2	609.7	451.9	333.0	9.1
55°	2471.6	2400.9	2141.4	1744.8	1303.0	945.5	689.6	524.5	378.4	278.6	7.3
56°	1903.6	1823.8	1587.0	1265.8	968.1	740.4	558.0	428.3	320.3	233.2	5.4
57°	1246.7	1165.0	1008.1	883.8	705.0	539.9	426.5	337.5	260.4	193.3	4.5
58°	736.8	662.4	637.9	544.4	470.0	366.6	314.9	251.3	192.4	152.4	2.7
59°	338.4	343.9	305.8	286.7	260.4	233.2	191.5	167.9	131.6	109.8	1.8
60°	196.9	186.0	181.5	162.4	144.3	127.9	115.2	101.6	82.6	70.8	0.9
62.5°	67.1	64.4	66.2	59.9	56.3	54.4	49.9	42.6	35.4	29.0	0.0
65°	18.1	18.1	17.2	16.3	15.4	14.5	13.6	11.8	10.9	9.1	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°	6.4	6.4	5.4	5.4	4.5	4.5	3.6	3.6	2.7	2.7	0.0
70°	3.6	3.6	3.6	2.7	2.7	2.7	1.8	1.8	1.8	0.9	0.0
72.5°	2.7	2.7	2.7	2.7	2.7	2.7	1.8	1.8	1.8	0.9	0.9
75°	2.7	2.7	2.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.9
77.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
80°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.9	1.8
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.8
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°	80.8	80.8	80.8	80.8	80.8	80.8
2.5°	83.5	79.8	75.3	72.6	71.7	70.8
5°	79.8	72.6	67.1	63.5	62.6	62.6
7.5°	71.7	63.5	58.1	56.3	55.3	55.3
10°	62.6	55.3	50.8	49.0	49.9	49.9
12.5°	52.6	46.3	44.5	44.5	45.4	46.3
15°	42.6	39.0	39.0	39.9	41.7	42.6
17.5°	35.4	33.6	34.5	36.3	38.1	39.9
20°	29.0	29.0	30.9	33.6	36.3	38.1
22.5°	24.5	25.4	28.1	30.9	34.5	36.3
25°	20.9	22.7	25.4	29.9	33.6	34.5
27.5°	18.1	20.9	24.5	29.0	32.7	34.5
30°	15.4	19.1	23.6	28.1	32.7	34.5
31°	14.5	18.1	22.7	28.1	32.7	34.5
32°	13.6	18.1	22.7	28.1	32.7	34.5
33°	12.7	17.2	22.7	27.2	32.7	34.5
34°	11.8	17.2	22.7	28.1	32.7	34.5
35°	10.9	16.3	21.8	27.2	31.8	34.5
36°	10.0	16.3	21.8	27.2	32.7	34.5
37°	9.1	16.3	21.8	27.2	31.8	34.5
38°	9.1	15.4	20.9	27.2	31.8	34.5
39°	8.2	14.5	20.9	27.2	31.8	34.5
40°	7.3	14.5	20.0	26.3	31.8	34.5
41°	6.4	13.6	20.0	26.3	31.8	34.5
42°	5.4	13.6	20.0	26.3	31.8	34.5
43°	4.5	12.7	19.1	26.3	31.8	34.5
44°	4.5	12.7	19.1	26.3	31.8	34.5
45°	3.6	11.8	18.1	26.3	31.8	34.5
46°	3.6	11.8	18.1	25.4	31.8	34.5
47°	2.7	11.8	18.1	25.4	31.8	34.5
48°	2.7	10.9	18.1	25.4	31.8	34.5
49°	1.8	10.9	18.1	25.4	31.8	34.5
50°	1.8	10.9	17.2	25.4	31.8	34.5
51°	1.8	10.9	17.2	25.4	31.8	34.5
52°	1.8	10.0	17.2	25.4	31.8	34.5
53°	1.8	10.0	17.2	25.4	31.8	34.5
54°	1.8	10.0	16.3	25.4	31.8	34.5
55°	1.8	9.1	16.3	24.5	31.8	33.6
56°	1.8	9.1	16.3	24.5	31.8	33.6
57°	1.8	9.1	15.4	24.5	31.8	33.6
58°	1.8	8.2	15.4	23.6	30.9	33.6
59°	1.8	8.2	14.5	23.6	30.9	32.7
60°	1.8	7.3	14.5	22.7	29.9	32.7
62.5°	1.8	6.4	12.7	21.8	29.0	30.9
65°	1.8	5.4	11.8	20.0	28.1	29.9



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.8	5.4	10.9	19.1	26.3	29.0
70°	1.8	5.4	10.0	17.2	25.4	26.3
72.5°	2.7	5.4	9.1	16.3	23.6	24.5
75°	3.6	5.4	8.2	14.5	21.8	22.7
77.5°	3.6	5.4	7.3	12.7	19.1	20.0
80°	3.6	4.5	6.4	10.0	15.4	16.3
82.5°	3.6	4.5	4.5	8.2	11.8	12.7
85°	2.7	3.6	3.6	4.5	8.2	9.1
87.5°	2.7	3.6	1.8	2.7	3.6	3.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)