

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: P1345590

Luminaire Tested: P3A13R359830DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345590
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R359830DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R35 optic, 3000K CCT AND, 98CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

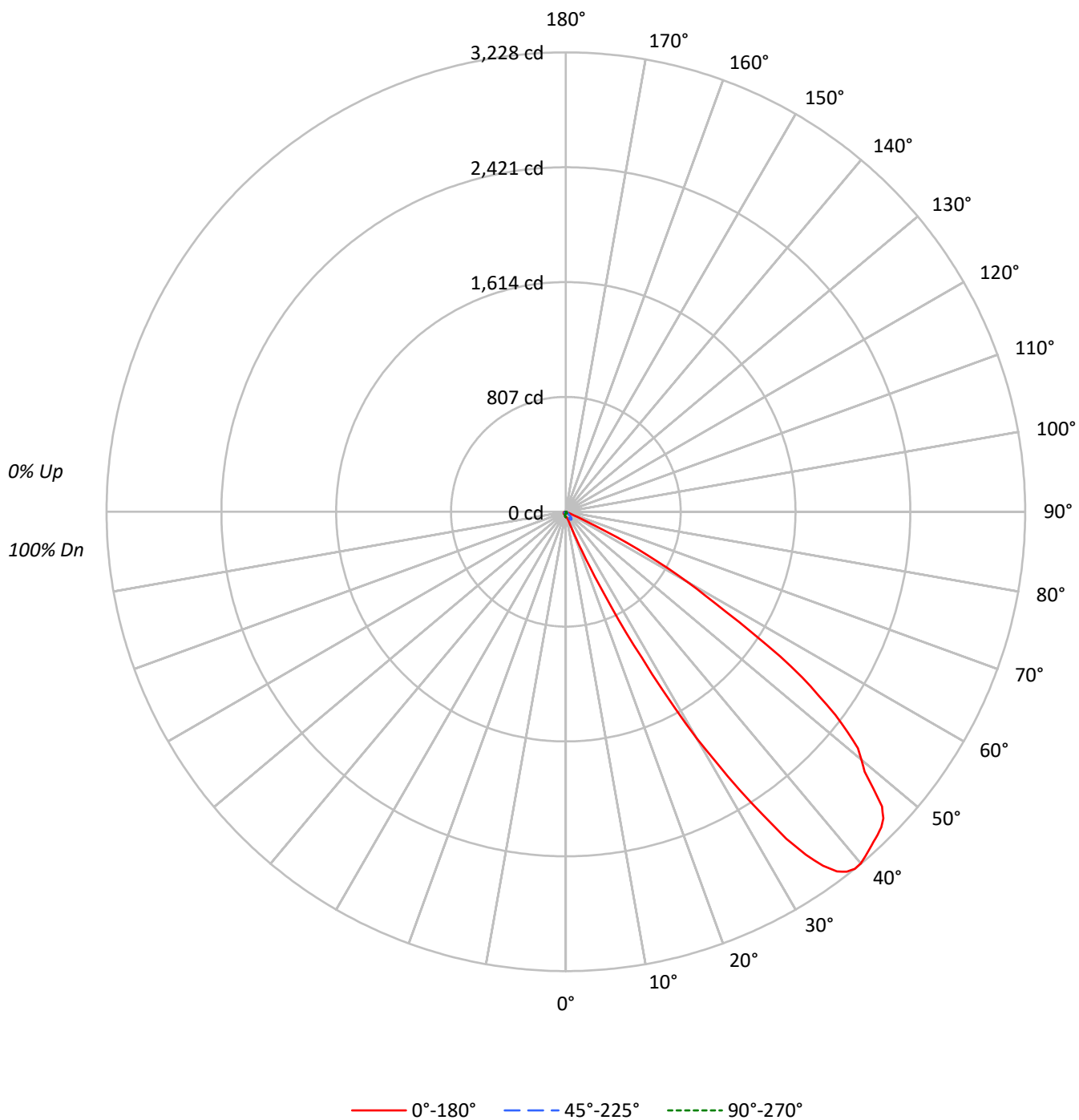
Lumens per Lamp: N/A
Luminaire Lumens: 804.0 lumens
Efficiency: N/A
Efficacy: 55.4 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.5
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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73	73	73
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61	61	61
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52	50	50	50
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42	42	42
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35	35	35
7	62	48	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31	29	29	29
8	57	42	33	27	55	41	33	27	40	32	27	39	32	26	38	31	26	24	24	24
9	52	38	29	23	50	37	29	23	36	28	23	35	28	22	34	27	22	20	20	20
10	48	34	25	19	46	33	25	19	32	25	19	31	24	19	30	24	19	17	17	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	8113	8113	8113	8113	8113
5°	8783	8629	7990	7198	7022
10°	9218	8394	7103	6146	6146
15°	13190	8241	5766	5267	5448
20°	33020	8797	4574	4574	5087
25°	153299	11251	3508	4210	4742
30°	466046	15243	2760	3849	4786
35°	787631	17668	2329	3694	4658
40°	923273	17461	1861	3750	4981
45°	972318	12373	1582	4062	5396
50°	925513	7437	1501	4196	5936
55°	775542	3058	1682	4702	6920
60°	434176	658	1930	5394	7631
65°	74924	363	1868	6019	8665
70°	1410	449	2308	6540	9745
75°	1271	593	3050	7371	11099
80°	884	884	3662	8208	12880
85°	0	1761	7296	9057	14593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 979199 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.3	0.4
10°-20°	9.5	1.2
20°-30°	49.3	6.1
30°-40°	213.0	26.5
40°-50°	303.9	37.8
50°-60°	188.2	23.4
60°-70°	28.7	3.6
70°-80°	5.4	0.7
80°-90°	2.7	0.3
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°	62.2	7.7
0°-40°	275.2	34.2
0°-60°	767.3	95.4
0°-90°	804.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	804.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	37	37	37	37	37	
5°	40	39	36	33	32	4
15°	58	36	25	23	24	21
25°	634	46	14	17	20	379
35°	2942	66	9	14	17	1767
45°	3135	40	5	13	17	2369
55°	2029	8	4	12	18	1728
65°	144	1	4	12	17	295
75°	2	1	4	9	13	2
85°	0	1	3	4	6	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0
2.5°	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	37.0	36.3
5°	39.9	39.9	39.2	39.2	39.2	39.2	39.2	39.2	37.7	36.3	34.1
7.5°	40.6	40.6	39.9	39.9	39.9	39.9	39.2	38.5	37.0	34.1	31.9
10°	41.4	41.4	41.4	41.4	40.6	39.9	39.2	37.7	35.6	31.9	29.8
12.5°	46.5	46.5	45.7	44.3	42.8	41.4	39.9	37.0	32.7	29.0	26.9
15°	58.1	57.3	55.9	53.7	50.8	47.2	44.3	36.3	29.8	25.4	24.0
17.5°	81.3	79.8	77.7	70.4	63.9	57.3	51.5	36.3	26.9	22.5	21.0
20°	141.5	142.3	127.0	109.6	95.1	79.1	64.6	37.7	24.0	19.6	18.9
22.5°	295.4	283.8	247.5	205.4	156.8	121.2	91.4	41.4	21.0	16.7	16.7
25°	633.6	589.3	501.5	378.9	267.1	189.4	132.8	46.5	18.9	14.5	15.2
27.5°	1156.9	1117.0	940.6	708.4	470.3	286.0	180.0	53.0	16.7	12.3	13.8
30°	1840.6	1730.3	1500.2	1161.3	786.0	437.6	241.7	60.2	13.8	10.9	13.1
31°	2054.0	2003.2	1723.0	1343.4	921.0	519.7	267.8	62.4	13.1	10.9	12.3
32°	2307.3	2217.3	1966.1	1543.0	1058.2	593.0	299.0	64.6	12.3	9.4	12.3
33°	2533.7	2446.6	2141.1	1718.7	1196.8	676.4	332.4	65.3	10.9	9.4	11.6
34°	2771.8	2652.7	2350.1	1902.3	1339.1	766.4	362.9	66.0	10.2	8.7	11.6
35°	2942.3	2823.3	2530.1	2047.4	1461.7	846.3	397.7	66.0	9.4	8.7	10.9
36°	3074.4	2969.9	2685.4	2196.9	1583.7	918.1	425.3	66.0	8.0	8.0	10.9
37°	3165.1	3065.7	2789.9	2325.4	1676.6	982.0	450.0	66.0	7.3	8.0	10.9
38°	3209.4	3126.7	2890.8	2419.0	1766.6	1032.1	469.6	64.6	6.5	7.3	10.2
39°	3228.3	3160.8	2952.5	2498.1	1834.1	1075.6	484.1	63.1	5.8	7.3	10.2
40°	3225.4	3166.6	2987.3	2552.6	1888.5	1105.4	492.1	61.0	5.1	6.5	10.2
41°	3208.7	3157.9	3005.5	2599.0	1921.1	1125.7	494.3	58.8	4.4	6.5	9.4
42°	3189.8	3143.4	3011.3	2623.7	1942.2	1132.2	488.5	55.9	4.4	5.8	9.4
43°	3170.2	3127.4	3011.3	2631.7	1947.3	1127.9	479.0	50.8	3.6	5.8	9.4
44°	3154.2	3113.6	3001.8	2629.5	1936.4	1111.2	461.6	45.0	2.9	5.8	9.4
45°	3135.4	3095.5	2989.5	2615.7	1915.3	1082.9	439.8	39.9	2.2	5.1	9.4
46°	3102.0	3070.8	2967.7	2587.4	1882.0	1043.7	412.2	36.3	1.5	5.1	8.7
47°	3037.4	3010.5	2925.6	2545.3	1837.7	997.2	383.9	32.7	1.5	5.1	8.7
48°	2907.5	2906.8	2841.4	2466.9	1767.3	939.2	354.2	29.0	1.5	5.1	8.7
49°	2781.9	2768.9	2687.6	2329.0	1666.4	869.5	323.0	26.1	0.7	5.1	8.7
50°	2713.0	2684.7	2551.1	2166.5	1537.2	773.0	289.6	21.8	0.7	4.4	8.7
51°	2641.1	2600.5	2443.0	2019.9	1383.3	680.1	253.3	17.4	0.7	4.4	8.0
52°	2511.2	2472.7	2296.4	1879.8	1233.8	585.0	218.5	14.5	0.7	4.4	8.7
53°	2371.1	2316.0	2124.4	1725.9	1102.5	500.8	182.9	12.3	0.7	4.4	8.0
54°	2194.8	2170.1	1950.2	1537.2	948.6	419.5	150.2	10.2	0.7	4.4	8.0
55°	2028.6	1992.3	1763.7	1344.1	809.2	344.0	125.6	8.0	0.7	4.4	8.0
56°	1816.6	1762.2	1548.1	1167.1	667.7	277.2	106.0	6.5	0.7	4.4	8.0
57°	1564.1	1506.0	1336.9	970.4	524.0	211.2	88.5	5.1	0.7	4.4	8.0
58°	1323.1	1273.0	1091.6	749.0	394.8	146.6	73.3	3.6	0.7	3.6	8.0
59°	1143.1	1087.9	908.0	576.3	274.3	108.1	55.2	2.9	0.7	4.4	8.0
60°	990.0	918.8	730.9	446.4	196.0	77.7	40.6	1.5	1.5	4.4	8.0
62.5°	570.5	503.7	349.1	181.4	80.6	39.9	19.6	0.7	1.5	4.4	8.0
65°	144.4	128.5	83.5	39.2	22.5	13.8	7.3	0.7	1.5	3.6	7.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	5.1	5.1	5.1	4.4	3.6	2.9	1.5	0.7	1.5	3.6	7.3
70°	2.2	2.2	2.2	1.5	1.5	0.7	0.7	0.7	1.5	3.6	6.5
72.5°	1.5	1.5	1.5	1.5	0.7	0.7	0.7	0.7	2.2	3.6	5.8
75°	1.5	1.5	1.5	1.5	0.7	0.7	0.7	0.7	2.2	3.6	5.8
77.5°	1.5	1.5	0.7	0.7	0.7	0.7	0.7	0.7	2.2	2.9	5.1
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.2	2.9	4.4
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	2.2	2.9	3.6
85°	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7	2.2	2.9	2.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.2	2.9	2.2
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):

	135°	157.5°	180°
0°	37.0	37.0	37.0
2.5°	34.8	34.8	34.8
5°	32.7	32.7	31.9
7.5°	30.5	29.8	29.8
10°	27.6	27.6	27.6
12.5°	25.4	25.4	25.4
15°	23.2	24.0	24.0
17.5°	21.0	22.5	22.5
20°	19.6	21.0	21.8
22.5°	18.1	19.6	20.3
25°	17.4	18.9	19.6
27.5°	16.0	18.1	19.6
30°	15.2	17.4	18.9
31°	15.2	17.4	18.1
32°	14.5	17.4	18.1
33°	14.5	17.4	18.1
34°	14.5	16.7	18.1
35°	13.8	16.7	17.4
36°	13.8	16.7	17.4
37°	13.8	16.7	18.1
38°	13.8	16.7	17.4
39°	13.1	16.7	17.4
40°	13.1	16.7	17.4
41°	13.1	16.7	17.4
42°	13.1	16.7	17.4
43°	13.1	16.7	17.4
44°	13.1	16.0	17.4
45°	13.1	16.0	17.4
46°	13.1	16.7	17.4
47°	13.1	16.7	18.1
48°	13.1	16.0	17.4
49°	12.3	16.0	17.4
50°	12.3	16.0	17.4
51°	12.3	16.7	18.1
52°	12.3	16.7	18.1
53°	12.3	16.7	18.1
54°	12.3	16.7	17.4
55°	12.3	16.7	18.1
56°	12.3	16.7	17.4
57°	12.3	16.7	17.4
58°	12.3	16.0	17.4
59°	12.3	16.0	17.4
60°	12.3	16.0	17.4
62.5°	11.6	16.0	17.4
65°	11.6	15.2	16.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	10.9	15.2	16.0
70°	10.2	14.5	15.2
72.5°	9.4	13.8	14.5
75°	8.7	12.3	13.1
77.5°	7.3	10.9	12.3
80°	6.5	9.4	10.2
82.5°	5.1	8.0	8.7
85°	3.6	5.8	5.8
87.5°	1.5	2.9	2.9
90°	0.0	0.0	0.0

(END OF REPORT)