

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: P1341039

Luminaire Tested: P3A09R259835DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1341039
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-75)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A09R259835DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R25 optic, 3500K CCT AND, 98CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

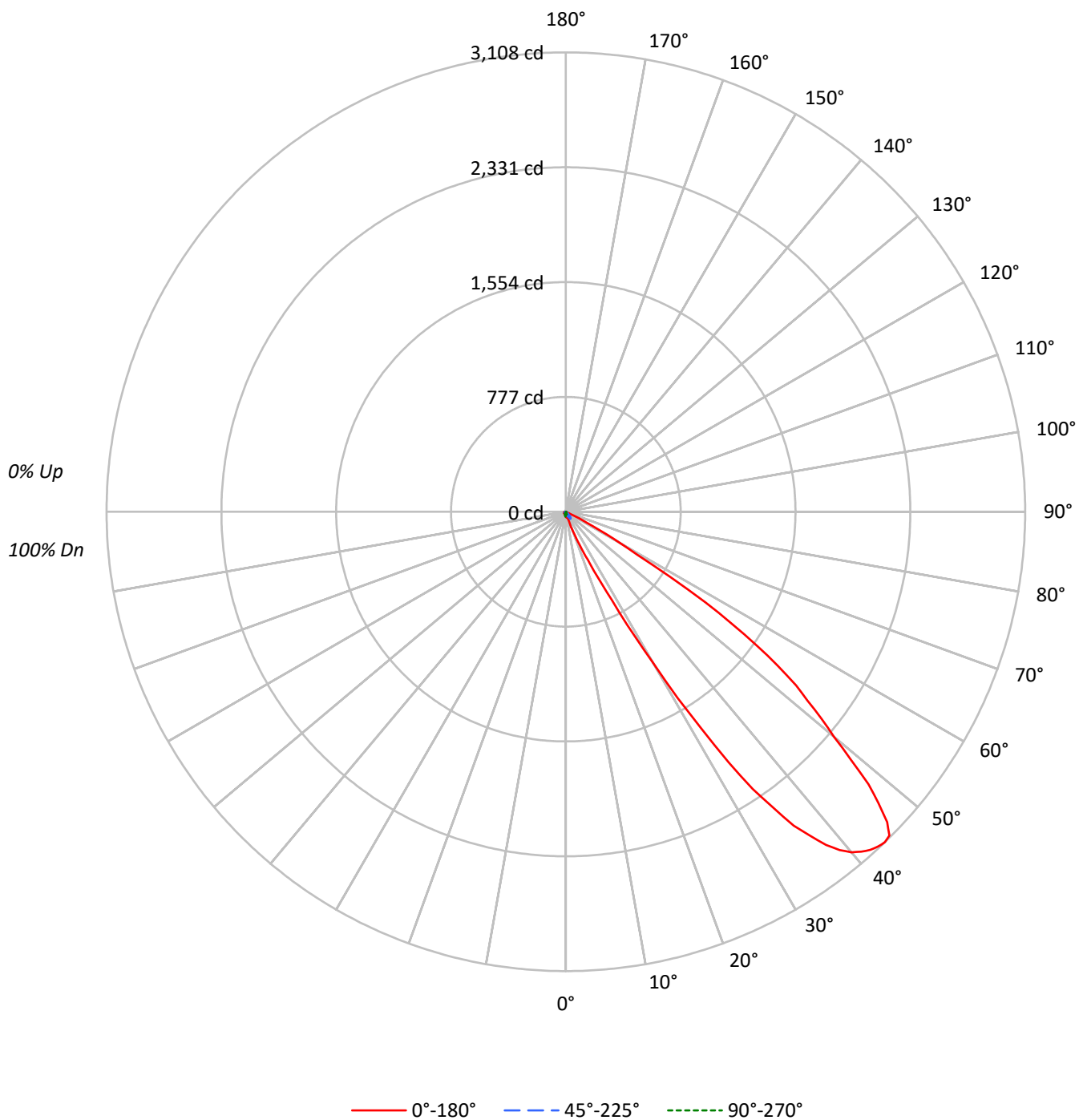
Lumens per Lamp: N/A
Luminaire Lumens: 648.0 lumens
Efficiency: N/A
Efficacy: 58.9 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.6 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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		
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87		
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73		
3	92	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51		
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42		
6	68	55	45	39	66	54	45	39	52	44	38	50	43	38	48	42	37	35		
7	62	48	39	32	60	47	39	32	46	38	32	44	37	32	43	36	32	29		
8	57	43	34	27	55	42	33	27	40	33	27	39	32	27	38	32	27	25		
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	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	7258	7258	7258	7258	7258
5°	8276	7902	7022	6273	6141
10°	8261	7481	5967	5210	5210
15°	9194	6470	4654	4404	4654
20°	32459	6394	3594	3734	4130
25°	93392	8130	2903	3460	3992
30°	297995	12559	2304	3317	4051
35°	652714	14803	1981	3212	4122
40°	861013	13397	1632	3263	4408
45°	960193	9365	1582	3535	4776
50°	808263	4878	1569	3684	5254
55°	604308	1950	1529	4129	5887
60°	187046	482	1491	4517	6491
65°	15981	0	1764	4722	7108
70°	1090	385	1859	5514	8014
75°	932	508	2457	5761	9150
80°	758	758	3662	6440	10860
85°	1510	1510	5787	7296	11573

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 960193 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.0	0.5
10°-20°	7.6	1.2
20°-30°	35.8	5.5
30°-40°	172.6	26.6
40°-50°	270.6	41.8
50°-60°	138.7	21.4
60°-70°	13.1	2.0
70°-80°	4.4	0.7
80°-90°	2.2	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°	46.4	7.2
0°-40°	219.1	33.8
0°-60°	628.3	97.0
0°-90°	648.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	648.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	33	33	33	33	33	
5°	38	36	32	28	28	4
15°	40	28	20	19	20	17
25°	386	34	12	14	16	239
35°	2438	55	7	12	15	1480
45°	3096	30	5	11	15	2266
55°	1581	5	4	11	15	1316
65°	31	0	3	9	14	96
75°	1	1	3	7	11	1
85°	1	1	2	3	5	0
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°	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1
2.5°	35.9	35.9	35.9	35.9	35.9	35.9	35.4	35.4	35.9	35.4	35.4
5°	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.1	37.1	37.1	35.9
7.5°	38.2	37.6	37.6	37.6	37.6	37.6	37.6	37.6	37.1	37.1	35.4
10°	37.1	37.1	37.1	37.1	36.5	36.5	36.5	35.9	35.9	35.9	33.6
12.5°	37.1	37.1	37.1	37.1	36.5	36.5	35.9	35.9	35.4	34.8	30.8
15°	40.5	40.5	40.5	39.9	39.3	38.8	38.2	37.6	37.1	35.9	28.5
17.5°	59.3	57.6	57.0	54.7	51.9	49.0	46.8	44.5	42.2	40.5	27.4
20°	139.1	138.6	135.7	128.9	121.5	112.9	104.4	94.7	81.0	71.8	27.4
22.5°	241.2	237.8	232.7	227.5	214.4	199.0	183.0	164.8	147.1	128.3	29.1
25°	386.0	394.0	376.9	363.2	340.4	312.5	282.3	257.2	225.2	195.6	33.6
27.5°	671.2	676.3	642.6	598.2	545.1	486.4	429.4	386.6	333.0	284.0	42.2
30°	1176.9	1182.1	1125.6	1031.0	921.5	825.1	694.5	579.9	474.4	392.9	49.6
31°	1468.9	1429.0	1363.4	1271.6	1133.0	987.6	830.8	692.3	558.8	451.6	51.9
32°	1722.6	1719.2	1642.8	1503.7	1364.5	1184.9	990.5	809.7	646.1	510.9	53.6
33°	2022.0	1999.2	1891.4	1760.3	1576.1	1395.3	1144.4	938.0	735.6	577.1	54.7
34°	2262.1	2200.5	2156.0	2006.1	1811.6	1581.2	1312.7	1073.7	847.4	640.9	55.3
35°	2438.3	2425.2	2338.5	2198.8	2000.9	1765.4	1494.0	1214.6	940.9	715.1	55.3
36°	2624.7	2584.3	2499.9	2373.3	2180.5	1937.1	1632.6	1336.6	1049.8	781.8	54.7
37°	2741.6	2717.7	2633.9	2503.3	2314.5	2081.9	1787.7	1465.5	1136.5	848.5	53.6
38°	2862.0	2813.5	2730.8	2605.9	2420.6	2202.2	1900.0	1564.7	1216.3	907.2	51.9
39°	2945.2	2895.0	2810.6	2686.3	2505.0	2288.3	1988.9	1649.1	1285.9	951.1	49.6
40°	3007.9	2959.5	2873.9	2746.2	2567.2	2356.2	2063.1	1723.8	1344.0	989.3	46.8
41°	3046.7	3001.7	2916.7	2789.5	2609.9	2394.9	2111.5	1772.3	1383.4	1015.0	43.9
42°	3079.2	3033.0	2946.4	2816.3	2636.1	2428.0	2141.2	1803.1	1410.2	1028.1	41.6
43°	3097.5	3051.3	2966.9	2834.0	2652.1	2443.4	2157.2	1817.3	1419.3	1026.4	37.6
44°	3107.7	3059.8	2974.9	2842.0	2659.0	2447.4	2158.3	1814.5	1413.0	1012.7	34.2
45°	3096.3	3049.0	2966.9	2834.0	2647.0	2434.9	2146.9	1799.1	1389.1	985.9	30.2
46°	3022.2	2985.7	2910.4	2788.4	2609.3	2402.9	2117.8	1769.4	1352.0	952.8	25.7
47°	2891.6	2862.5	2789.5	2698.9	2536.9	2344.2	2064.2	1713.0	1300.1	903.2	20.5
48°	2755.3	2712.6	2644.7	2551.8	2414.9	2238.7	1975.8	1630.3	1221.4	838.2	18.2
49°	2554.0	2528.9	2469.1	2365.3	2251.8	2096.7	1850.9	1524.2	1125.1	767.5	16.0
50°	2369.3	2352.2	2268.4	2191.9	2071.6	1926.8	1681.6	1384.5	1005.3	679.7	14.3
51°	2225.0	2204.5	2144.0	2048.8	1920.5	1752.3	1521.4	1203.2	867.9	575.4	11.4
52°	2074.5	2063.1	2009.5	1911.4	1785.4	1617.7	1365.7	1049.2	734.4	486.4	9.1
53°	1951.3	1934.8	1869.2	1782.0	1645.7	1472.3	1196.9	906.1	622.1	408.9	8.0
54°	1771.7	1764.8	1722.6	1631.4	1483.7	1295.0	1044.1	763.0	518.9	346.7	6.8
55°	1580.7	1557.9	1515.1	1442.7	1307.0	1130.8	867.3	632.4	419.7	292.0	5.1
56°	1348.0	1346.9	1270.5	1210.0	1089.7	902.7	692.8	493.8	341.0	243.5	4.6
57°	1125.6	1089.7	1016.1	956.3	826.8	684.8	514.3	370.1	266.9	197.3	3.4
58°	832.5	813.7	794.3	706.5	586.8	485.3	367.2	260.0	197.3	150.5	2.3
59°	565.1	564.5	541.7	475.0	406.0	302.2	229.2	176.8	135.7	110.6	1.7
60°	426.5	416.3	370.6	326.7	255.5	191.0	135.7	104.4	84.4	71.3	1.1
62.5°	149.4	155.1	136.3	112.9	86.1	70.7	54.2	43.9	35.9	29.1	0.0
65°	30.8	33.6	29.1	27.4	21.7	18.8	16.5	14.3	12.0	10.3	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°	4.0	3.4	3.4	3.4	2.9	2.9	2.9	2.9	2.3	2.3	0.6
70°	1.7	1.7	1.7	1.7	1.7	1.7	1.1	1.1	1.1	1.1	0.6
72.5°	1.7	1.7	1.7	1.1	1.1	1.1	1.1	1.1	1.1	0.6	0.6
75°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.6	0.6	0.6	0.6
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	0.6	0.6	0.6	0.6	0.6
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.1
85°	0.6	0.6	0.6	0.0	0.0	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
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°	33.1	33.1	33.1	33.1	33.1	33.1
2.5°	34.8	33.6	31.9	31.4	30.8	30.8
5°	34.2	31.9	30.2	28.5	27.9	27.9
7.5°	32.5	29.7	27.4	26.2	25.7	25.1
10°	30.8	26.8	24.5	23.4	23.4	23.4
12.5°	27.4	23.9	21.7	21.1	21.7	21.7
15°	24.5	20.5	19.4	19.4	20.0	20.5
17.5°	21.1	18.2	17.1	17.7	18.2	18.8
20°	18.8	15.4	15.4	16.0	17.7	17.7
22.5°	16.5	13.7	13.7	15.4	16.5	17.1
25°	14.8	12.0	12.5	14.3	16.0	16.5
27.5°	12.5	10.3	11.4	13.7	15.4	16.0
30°	10.8	9.1	10.8	13.1	14.8	16.0
31°	10.3	8.6	10.8	12.5	14.8	16.0
32°	9.1	8.6	10.3	12.5	14.8	15.4
33°	8.6	8.0	10.3	12.5	14.8	15.4
34°	8.0	7.4	9.7	12.5	14.8	15.4
35°	6.8	7.4	9.7	12.0	14.3	15.4
36°	6.3	6.8	9.7	12.0	14.3	15.4
37°	5.7	6.8	9.1	12.0	14.3	15.4
38°	5.1	6.3	9.1	12.0	14.3	15.4
39°	4.6	6.3	8.6	12.0	14.3	15.4
40°	4.0	5.7	8.6	11.4	14.3	15.4
41°	4.0	5.7	8.6	11.4	14.3	15.4
42°	3.4	5.7	8.6	11.4	14.3	15.4
43°	2.9	5.1	8.6	11.4	14.3	15.4
44°	2.3	5.1	8.0	11.4	14.3	15.4
45°	2.3	5.1	8.0	11.4	14.3	15.4
46°	1.7	4.6	8.0	11.4	14.3	15.4
47°	1.1	4.6	8.0	10.8	14.3	15.4
48°	1.1	4.6	8.0	10.8	14.3	15.4
49°	1.1	4.6	7.4	10.8	14.3	15.4
50°	1.1	4.6	7.4	10.8	14.3	15.4
51°	0.6	4.0	7.4	10.8	14.3	15.4
52°	0.6	4.0	7.4	10.8	14.3	16.0
53°	0.6	4.0	7.4	10.8	14.3	15.4
54°	0.6	4.0	6.8	10.8	14.3	15.4
55°	0.6	4.0	6.8	10.8	14.3	15.4
56°	0.6	3.4	6.8	10.3	14.3	15.4
57°	1.1	3.4	6.8	10.3	14.3	14.8
58°	1.1	3.4	6.8	10.3	13.7	14.8
59°	1.1	3.4	6.8	10.3	13.7	14.8
60°	1.1	3.4	6.3	10.3	13.7	14.8
62.5°	1.1	3.4	6.3	9.7	13.1	14.3
65°	1.1	3.4	5.7	9.1	13.1	13.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.1	2.9	5.7	8.6	12.5	13.1
70°	1.7	2.9	5.1	8.6	12.0	12.5
72.5°	1.7	2.9	5.1	7.4	10.8	12.0
75°	1.7	2.9	4.6	6.8	10.3	10.8
77.5°	1.7	2.9	4.0	6.3	9.1	9.7
80°	2.3	2.9	3.4	5.1	8.0	8.6
82.5°	2.3	2.9	2.9	4.0	6.3	6.8
85°	1.7	2.3	2.3	2.9	4.0	4.6
87.5°	1.7	2.3	1.7	1.1	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)