

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: P1341036

Luminaire Tested: P3A09R259835DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1341036
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 E3A451WMH
Description: 3in Adjustable LED luminaire with, R25 optic, 3500K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

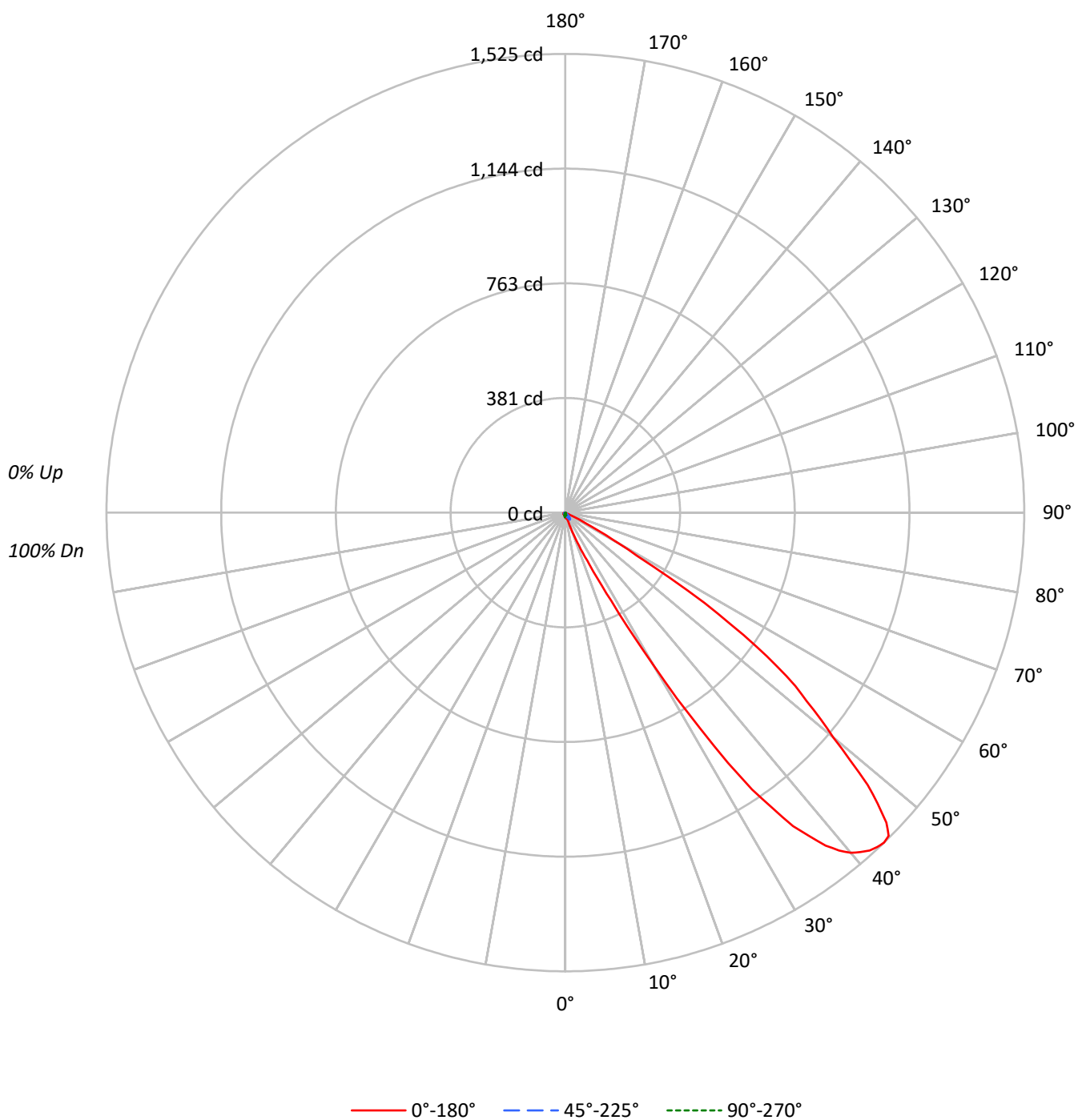
Lumens per Lamp: N/A
Luminaire Lumens: 318.0 lumens
Efficiency: N/A
Efficacy: 28.9 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.61 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	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	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°	3552	3552	3552	3552	3552
5°	4072	3874	3456	3082	3016
10°	4052	3674	2939	2561	2561
15°	4518	3178	2293	2157	2293
20°	15938	3127	1773	1820	2030
25°	45825	3992	1428	1694	1960
30°	146250	6153	1139	1621	1975
35°	320321	7254	964	1579	2034
40°	422535	6555	802	1603	2176
45°	471212	4590	775	1737	2357
50°	396644	2388	751	1808	2593
55°	296553	956	765	2026	2906
60°	91791	263	746	2193	3201
65°	7835	0	882	2335	3476
70°	513	192	898	2693	3975
75°	508	254	1186	2881	4490
80°	379	379	1768	3157	5304
85°	755	755	2768	3522	5535

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 471212 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.5	0.5
10°-20°	3.7	1.2
20°-30°	17.6	5.5
30°-40°	84.7	26.6
40°-50°	132.8	41.7
50°-60°	68.1	21.4
60°-70°	6.4	2.0
70°-80°	2.2	0.7
80°-90°	1.1	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°	22.8	7.2
0°-40°	107.5	33.8
0°-60°	308.4	97.0
0°-90°	318.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	318.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	16	16	16	16	16	
5°	18	18	16	14	14	2
15°	20	14	10	10	10	8
25°	189	16	6	7	8	118
35°	1197	27	4	6	8	726
45°	1520	15	2	6	8	1112
55°	776	2	2	5	8	646
65°	15	0	2	4	7	47
75°	1	0	1	3	5	1
85°	0	0	1	1	2	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°	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
2.5°	17.6	17.6	17.6	17.6	17.6	17.6	17.3	17.3	17.6	17.3	17.3
5°	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.2	18.2	18.2	17.6
7.5°	18.7	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.2	18.2	17.3
10°	18.2	18.2	18.2	18.2	17.9	17.9	17.9	17.6	17.6	17.6	16.5
12.5°	18.2	18.2	18.2	18.2	17.9	17.9	17.6	17.6	17.3	17.1	15.1
15°	19.9	19.9	19.9	19.6	19.3	19.0	18.7	18.5	18.2	17.6	14.0
17.5°	29.1	28.3	28.0	26.9	25.5	24.1	22.9	21.8	20.7	19.9	13.4
20°	68.3	68.0	66.6	63.2	59.6	55.4	51.2	46.5	39.7	35.3	13.4
22.5°	118.4	116.7	114.2	111.7	105.2	97.7	89.8	80.9	72.2	63.0	14.3
25°	189.4	193.4	185.0	178.3	167.1	153.3	138.5	126.2	110.5	96.0	16.5
27.5°	329.4	331.9	315.4	293.5	267.5	238.7	210.7	189.7	163.4	139.4	20.7
30°	577.6	580.1	552.4	505.9	452.2	404.9	340.8	284.6	232.8	192.8	24.3
31°	720.8	701.3	669.1	624.0	556.0	484.7	407.7	339.7	274.2	221.6	25.5
32°	845.4	843.7	806.2	737.9	669.6	581.5	486.1	397.4	317.1	250.7	26.3
33°	992.3	981.1	928.2	863.8	773.5	684.8	561.6	460.3	361.0	283.2	26.9
34°	1110.1	1079.9	1058.0	984.5	889.0	776.0	644.2	526.9	415.8	314.5	27.1
35°	1196.6	1190.1	1147.6	1079.0	981.9	866.4	733.2	596.0	461.7	350.9	27.1
36°	1288.1	1268.2	1226.8	1164.7	1070.1	950.6	801.2	655.9	515.2	383.7	26.9
37°	1345.4	1333.7	1292.5	1228.5	1135.8	1021.7	877.3	719.2	557.7	416.4	26.3
38°	1404.5	1380.7	1340.1	1278.8	1187.9	1080.7	932.4	767.9	596.9	445.2	25.5
39°	1445.3	1420.7	1379.3	1318.3	1229.3	1123.0	976.1	809.3	631.0	466.8	24.3
40°	1476.1	1452.3	1410.4	1347.7	1259.8	1156.3	1012.4	845.9	659.6	485.5	22.9
41°	1495.1	1473.0	1431.3	1368.9	1280.8	1175.3	1036.2	869.7	678.9	498.1	21.5
42°	1511.1	1488.4	1445.9	1382.1	1293.7	1191.5	1050.8	884.8	692.0	504.5	20.4
43°	1520.1	1497.4	1456.0	1390.8	1301.5	1199.1	1058.6	891.8	696.5	503.7	18.5
44°	1525.1	1501.6	1459.9	1394.7	1304.9	1201.0	1059.2	890.4	693.4	497.0	16.8
45°	1519.5	1496.3	1456.0	1390.8	1299.0	1194.9	1053.6	882.9	681.7	483.8	14.8
46°	1483.1	1465.2	1428.3	1368.4	1280.5	1179.2	1039.3	868.3	663.5	467.6	12.6
47°	1419.0	1404.8	1368.9	1324.4	1245.0	1150.4	1013.0	840.6	638.0	443.3	10.1
48°	1352.2	1331.2	1297.9	1252.3	1185.1	1098.6	969.6	800.0	599.4	411.4	9.0
49°	1253.4	1241.1	1211.7	1160.7	1105.1	1028.9	908.3	748.0	552.1	376.7	7.8
50°	1162.7	1154.3	1113.2	1075.7	1016.6	945.6	825.2	679.4	493.3	333.6	7.0
51°	1091.9	1081.8	1052.2	1005.4	942.5	859.9	746.6	590.4	425.9	282.4	5.6
52°	1018.0	1012.4	986.1	938.0	876.2	793.9	670.2	514.9	360.4	238.7	4.5
53°	957.6	949.5	917.3	874.5	807.6	722.5	587.4	444.7	305.3	200.6	3.9
54°	869.4	866.1	845.4	800.6	728.1	635.5	512.4	374.4	254.6	170.1	3.4
55°	775.7	764.5	743.5	708.0	641.4	554.9	425.6	310.3	206.0	143.3	2.5
56°	661.5	661.0	623.5	593.8	534.8	443.0	340.0	242.3	167.3	119.5	2.2
57°	552.4	534.8	498.7	469.3	405.8	336.1	252.4	181.6	131.0	96.8	1.7
58°	408.6	399.3	389.8	346.7	287.9	238.1	180.2	127.6	96.8	73.9	1.1
59°	277.3	277.0	265.8	233.1	199.2	148.3	112.5	86.7	66.6	54.3	0.8
60°	209.3	204.3	181.9	160.3	125.4	93.7	66.6	51.2	41.4	35.0	0.6
62.5°	73.3	76.1	66.9	55.4	42.3	34.7	26.6	21.5	17.6	14.3	0.0
65°	15.1	16.5	14.3	13.4	10.6	9.2	8.1	7.0	5.9	5.0	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°	2.0	1.7	1.7	1.7	1.4	1.4	1.4	1.4	1.1	1.1	0.3
70°	0.8	0.8	0.8	0.8	0.8	0.8	0.6	0.6	0.6	0.6	0.3
72.5°	0.8	0.8	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.3
75°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3
77.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.3	0.3	0.3	0.3
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6
85°	0.3	0.3	0.3	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
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°	16.2	16.2	16.2	16.2	16.2	16.2
2.5°	17.1	16.5	15.7	15.4	15.1	15.1
5°	16.8	15.7	14.8	14.0	13.7	13.7
7.5°	16.0	14.6	13.4	12.9	12.6	12.3
10°	15.1	13.2	12.0	11.5	11.5	11.5
12.5°	13.4	11.8	10.6	10.4	10.6	10.6
15°	12.0	10.1	9.5	9.5	9.8	10.1
17.5°	10.4	9.0	8.4	8.7	9.0	9.2
20°	9.2	7.6	7.6	7.8	8.7	8.7
22.5°	8.1	6.7	6.7	7.6	8.1	8.4
25°	7.3	5.9	6.2	7.0	7.8	8.1
27.5°	6.2	5.0	5.6	6.7	7.6	7.8
30°	5.3	4.5	5.3	6.4	7.3	7.8
31°	5.0	4.2	5.3	6.2	7.3	7.8
32°	4.5	4.2	5.0	6.2	7.3	7.6
33°	4.2	3.9	5.0	6.2	7.3	7.6
34°	3.9	3.6	4.8	6.2	7.3	7.6
35°	3.4	3.6	4.8	5.9	7.0	7.6
36°	3.1	3.4	4.8	5.9	7.0	7.6
37°	2.8	3.4	4.5	5.9	7.0	7.6
38°	2.5	3.1	4.5	5.9	7.0	7.6
39°	2.2	3.1	4.2	5.9	7.0	7.6
40°	2.0	2.8	4.2	5.6	7.0	7.6
41°	2.0	2.8	4.2	5.6	7.0	7.6
42°	1.7	2.8	4.2	5.6	7.0	7.6
43°	1.4	2.5	4.2	5.6	7.0	7.6
44°	1.1	2.5	3.9	5.6	7.0	7.6
45°	1.1	2.5	3.9	5.6	7.0	7.6
46°	0.8	2.2	3.9	5.6	7.0	7.6
47°	0.6	2.2	3.9	5.3	7.0	7.6
48°	0.6	2.2	3.9	5.3	7.0	7.6
49°	0.6	2.2	3.6	5.3	7.0	7.6
50°	0.6	2.2	3.6	5.3	7.0	7.6
51°	0.3	2.0	3.6	5.3	7.0	7.6
52°	0.3	2.0	3.6	5.3	7.0	7.8
53°	0.3	2.0	3.6	5.3	7.0	7.6
54°	0.3	2.0	3.4	5.3	7.0	7.6
55°	0.3	2.0	3.4	5.3	7.0	7.6
56°	0.3	1.7	3.4	5.0	7.0	7.6
57°	0.6	1.7	3.4	5.0	7.0	7.3
58°	0.6	1.7	3.4	5.0	6.7	7.3
59°	0.6	1.7	3.4	5.0	6.7	7.3
60°	0.6	1.7	3.1	5.0	6.7	7.3
62.5°	0.6	1.7	3.1	4.8	6.4	7.0
65°	0.6	1.7	2.8	4.5	6.4	6.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.6	1.4	2.8	4.2	6.2	6.4
70°	0.8	1.4	2.5	4.2	5.9	6.2
72.5°	0.8	1.4	2.5	3.6	5.3	5.9
75°	0.8	1.4	2.2	3.4	5.0	5.3
77.5°	0.8	1.4	2.0	3.1	4.5	4.8
80°	1.1	1.4	1.7	2.5	3.9	4.2
82.5°	1.1	1.4	1.4	2.0	3.1	3.4
85°	0.8	1.1	1.1	1.4	2.0	2.2
87.5°	0.8	1.1	0.8	0.6	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)