

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: P1336864

Luminaire Tested: P3A05R209040DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336864
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A05R209040DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

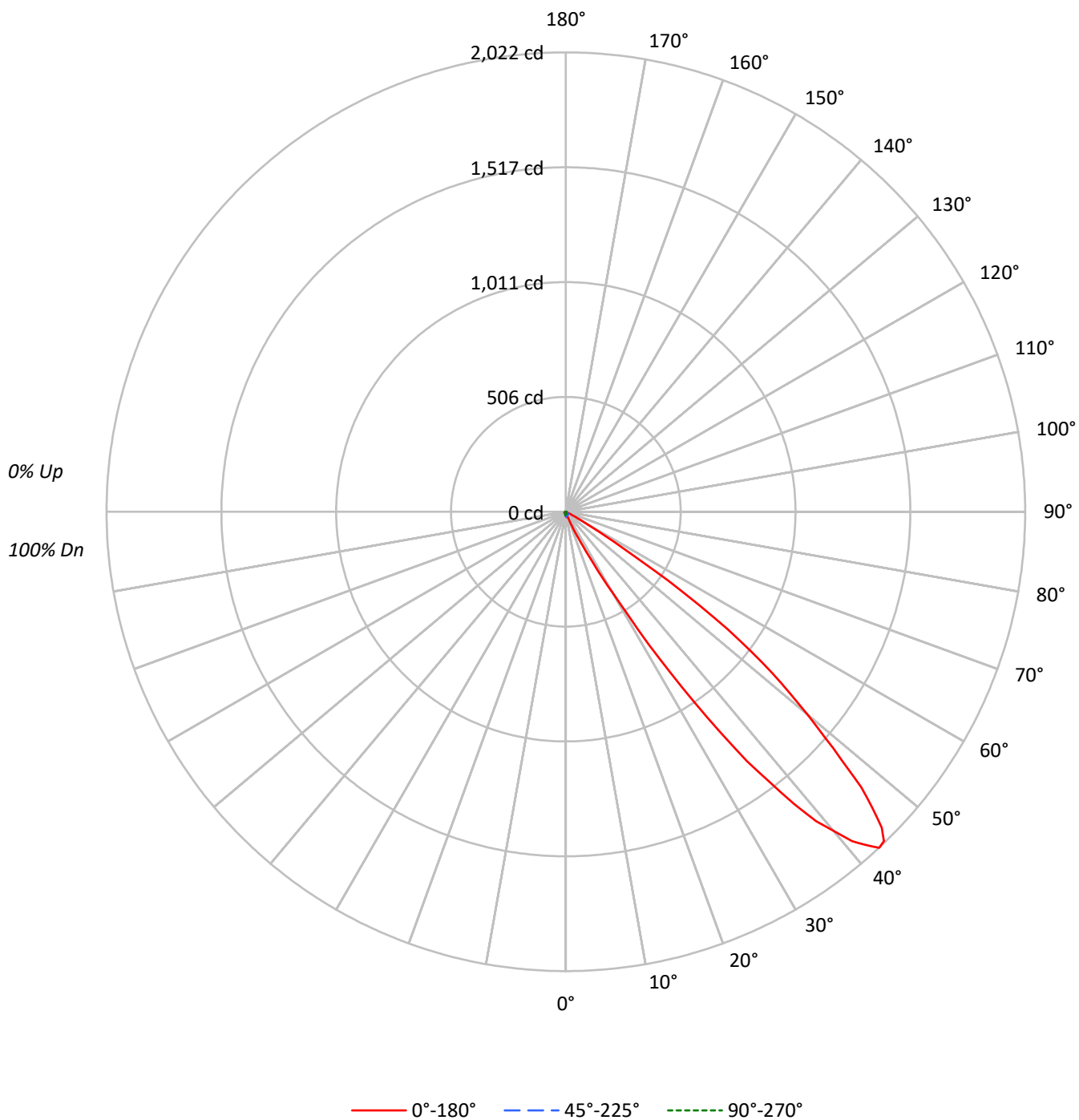
Lumens per Lamp: N/A
Luminaire Lumens: 281.0 lumens
Efficiency: N/A
Efficacy: 39.0 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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	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	65	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	38	52	44	38	50	43	38	48	42	37	35		
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31	29		
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	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	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4276	4276	4276	4276	4276
5°	4997	4644	4006	3478	3368
10°	4943	4231	3184	2694	2650
15°	4313	3246	2338	2157	2270
20°	6417	2707	1727	1843	2030
25°	27606	2807	1331	1669	1984
30°	104370	3418	1139	1595	1950
35°	316412	4096	1071	1633	2061
40°	524669	4093	916	1746	2204
45°	609862	2791	806	1799	2388
50°	473400	1535	819	1876	2695
55°	273997	994	803	2103	2944
60°	46312	219	702	2193	3245
65°	3580	0	830	2491	3684
70°	513	0	1026	2693	4231
75°	424	254	1101	3135	4914
80°	379	379	1642	3283	5683
85°	755	755	2768	3271	6038

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 609862 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.6
10°-20°	3.5	1.3
20°-30°	11.2	4.0
30°-40°	71.7	25.5
40°-50°	131.2	46.7
50°-60°	53.9	19.2
60°-70°	4.5	1.6
70°-80°	2.3	0.8
80°-90°	1.1	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°	16.4	5.8
0°-40°	88.1	31.3
0°-60°	273.1	97.2
0°-90°	281.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	281.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	20	20	20	20	20	
5°	23	21	18	16	15	2
15°	19	14	10	10	10	6
25°	114	12	6	7	8	75
35°	1182	15	4	6	8	748
45°	1967	9	3	6	8	1412
55°	717	3	2	6	8	626
65°	7	0	2	5	7	22
75°	0	0	1	4	6	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°	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
2.5°	21.4	21.4	21.4	21.1	21.1	21.4	21.1	21.1	21.1	21.1	20.9
5°	22.7	22.7	22.7	22.7	22.7	22.7	22.7	22.4	22.4	22.2	21.1
7.5°	23.2	23.2	23.2	23.2	23.0	23.0	23.0	23.0	22.7	22.4	20.6
10°	22.2	22.2	22.2	21.9	21.9	21.9	21.7	21.7	21.4	21.1	19.0
12.5°	20.1	20.1	20.1	20.1	19.8	19.8	19.5	19.5	19.3	19.0	16.6
15°	19.0	19.0	19.0	18.7	18.7	18.5	18.2	18.0	17.7	17.2	14.3
17.5°	20.6	20.6	20.3	20.3	19.8	19.3	19.0	18.2	17.7	16.9	12.7
20°	27.5	27.7	26.7	25.9	25.4	23.8	23.0	21.7	20.6	19.3	11.6
22.5°	55.5	54.4	52.6	49.6	46.2	43.3	38.0	33.8	30.9	26.9	11.4
25°	114.1	113.0	108.0	103.8	93.2	85.0	73.7	64.4	54.9	45.7	11.6
27.5°	216.8	209.7	208.4	189.1	174.3	153.2	131.2	112.8	95.9	77.1	12.4
30°	412.2	404.0	375.2	346.2	306.3	261.2	218.1	178.0	144.4	114.1	13.5
31°	523.1	531.1	497.3	438.9	380.0	322.2	263.3	212.3	169.0	131.2	14.0
32°	687.6	653.1	617.4	557.5	471.9	398.0	324.0	250.6	193.6	149.7	14.5
33°	843.2	822.9	768.5	693.7	591.0	487.2	391.4	295.8	223.7	172.2	14.8
34°	1009.0	986.6	942.5	835.3	722.5	586.5	458.7	347.8	259.6	194.1	15.1
35°	1182.0	1172.5	1087.5	994.5	855.9	691.9	539.8	404.8	294.7	214.2	15.3
36°	1356.0	1325.4	1258.8	1123.1	978.4	789.3	624.8	457.9	330.4	237.9	15.3
37°	1487.0	1480.1	1391.9	1259.6	1089.6	893.4	698.2	516.8	366.3	258.3	15.3
38°	1631.4	1604.2	1514.7	1380.1	1194.1	988.7	775.1	568.0	400.3	276.7	15.1
39°	1753.2	1712.8	1622.5	1489.4	1285.5	1061.0	836.1	617.7	430.4	292.1	14.8
40°	1832.9	1804.9	1710.7	1560.9	1368.4	1129.4	897.9	658.6	452.9	303.7	14.3
41°	1920.9	1874.4	1781.2	1630.7	1428.6	1189.7	936.7	685.5	470.3	311.3	13.7
42°	1973.4	1935.4	1824.8	1677.4	1471.7	1224.0	968.4	706.1	480.9	315.3	12.7
43°	2022.5	1970.8	1863.0	1704.6	1500.2	1248.3	982.9	715.6	483.3	315.3	11.4
44°	2015.9	1966.8	1855.1	1708.3	1506.5	1255.4	989.0	715.9	479.6	311.3	10.0
45°	1966.6	1917.7	1817.1	1676.1	1483.8	1241.4	976.8	705.3	469.3	304.5	9.0
46°	1876.0	1827.4	1750.3	1622.2	1441.6	1209.7	948.6	682.4	452.1	293.4	7.9
47°	1777.5	1730.2	1651.3	1535.3	1369.5	1153.2	907.6	650.2	428.1	277.3	7.1
48°	1634.6	1605.0	1525.8	1426.8	1269.4	1064.7	835.8	597.6	395.8	256.4	6.1
49°	1508.4	1477.2	1407.8	1301.4	1139.0	961.8	750.0	533.7	353.9	233.2	5.3
50°	1387.7	1360.5	1296.3	1176.2	1021.2	837.4	634.0	453.2	301.0	204.4	4.5
51°	1269.7	1249.3	1183.8	1073.5	916.1	741.8	549.3	377.4	248.8	169.5	4.2
52°	1151.1	1148.7	1077.7	966.0	813.9	646.5	466.9	318.5	211.0	142.3	4.0
53°	1023.6	1008.2	946.2	845.8	699.8	547.2	395.8	268.6	181.7	121.2	3.4
54°	878.3	861.1	794.6	704.0	571.7	448.1	319.0	217.1	151.3	102.5	3.2
55°	716.7	687.4	639.1	546.1	446.5	342.0	246.4	171.9	120.9	85.3	2.6
56°	543.7	514.4	487.2	418.8	327.7	255.1	183.5	131.8	94.5	67.3	2.4
57°	378.2	376.6	331.9	279.4	219.2	173.8	125.7	93.0	66.8	52.3	1.8
58°	245.3	237.1	208.6	178.2	143.4	108.5	80.8	63.1	45.4	35.6	1.6
59°	171.9	155.5	140.2	118.8	90.3	68.4	52.0	40.4	31.4	24.8	1.1
60°	105.6	102.2	91.9	72.4	58.6	48.3	38.8	29.8	23.0	17.7	0.5
62.5°	30.1	30.6	27.7	24.6	21.1	18.2	16.4	14.0	11.6	9.2	0.0
65°	6.9	6.6	7.1	6.6	6.1	6.1	5.3	4.8	4.2	4.0	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°	2.1	2.1	1.8	1.8	1.8	1.6	1.6	1.3	1.3	1.1	0.0
70°	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.3	0.3	0.0
72.5°	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3
77.5°	0.5	0.5	0.5	0.5	0.5	0.3	0.5	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	0.3
85°	0.3	0.3	0.3	0.3	0.0	0.0	0.3	0.3	0.3	0.0	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°	19.5	19.5	19.5	19.5	19.5	19.5
2.5°	20.3	19.3	18.5	17.7	17.4	17.4
5°	19.8	18.2	16.6	15.8	15.3	15.3
7.5°	18.2	16.4	14.8	14.0	13.7	13.7
10°	16.4	14.3	12.7	12.1	12.1	11.9
12.5°	14.3	12.1	11.1	10.8	10.8	10.8
15°	11.9	10.3	9.5	9.5	9.8	10.0
17.5°	10.0	8.5	8.2	8.7	9.2	9.2
20°	8.5	7.4	7.4	7.9	8.5	8.7
22.5°	7.1	6.3	6.6	7.4	8.2	8.5
25°	6.3	5.5	6.1	6.9	7.7	8.2
27.5°	5.3	5.0	5.5	6.6	7.7	7.9
30°	4.5	4.5	5.3	6.3	7.4	7.7
31°	4.2	4.2	5.3	6.3	7.4	7.7
32°	4.0	4.2	5.0	6.3	7.4	7.7
33°	3.7	4.0	5.0	6.1	7.4	7.7
34°	3.4	4.0	5.0	6.1	7.4	7.7
35°	3.2	4.0	5.0	6.1	7.4	7.7
36°	2.9	3.7	4.8	6.1	7.4	7.7
37°	2.6	3.7	4.8	6.1	7.4	7.7
38°	2.4	3.4	4.8	6.1	7.4	7.7
39°	2.4	3.4	4.5	6.1	7.1	7.7
40°	2.1	3.2	4.5	6.1	7.1	7.7
41°	1.8	3.2	4.5	5.8	7.1	7.7
42°	1.6	2.9	4.2	5.8	7.1	7.7
43°	1.3	2.9	4.2	5.8	7.1	7.7
44°	1.3	2.6	4.2	5.8	7.1	7.7
45°	1.1	2.6	4.2	5.8	7.1	7.7
46°	0.8	2.6	4.2	5.8	7.1	7.7
47°	0.8	2.4	4.0	5.8	7.1	7.7
48°	0.5	2.4	4.0	5.8	7.1	7.7
49°	0.5	2.4	4.0	5.8	7.1	7.9
50°	0.5	2.4	4.0	5.5	7.1	7.9
51°	0.3	2.4	4.0	5.5	7.1	7.9
52°	0.3	2.4	3.7	5.5	7.4	7.9
53°	0.3	2.1	3.7	5.5	7.4	7.9
54°	0.3	2.1	3.7	5.5	7.4	7.7
55°	0.3	2.1	3.7	5.5	7.1	7.7
56°	0.3	1.8	3.7	5.5	7.1	7.7
57°	0.3	1.8	3.4	5.3	7.1	7.4
58°	0.3	1.8	3.4	5.3	7.1	7.4
59°	0.3	1.8	3.4	5.3	6.9	7.4
60°	0.5	1.6	3.2	5.0	6.9	7.4
62.5°	0.5	1.6	3.2	5.0	6.6	7.1
65°	0.5	1.6	2.9	4.8	6.6	7.1



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.3	2.6	4.5	6.3	6.9
70°	0.5	1.6	2.6	4.2	6.1	6.6
72.5°	0.8	1.3	2.4	4.0	5.8	6.3
75°	0.8	1.3	2.4	3.7	5.5	5.8
77.5°	1.1	1.3	2.1	3.2	5.0	5.3
80°	1.1	1.3	1.8	2.6	4.2	4.5
82.5°	1.1	1.3	1.3	2.1	3.2	3.4
85°	0.8	1.1	1.1	1.3	2.1	2.4
87.5°	0.8	1.1	0.8	0.5	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)