

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: P1336806

Luminaire Tested: P3A05R209027DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336806
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: P3A05R209027DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

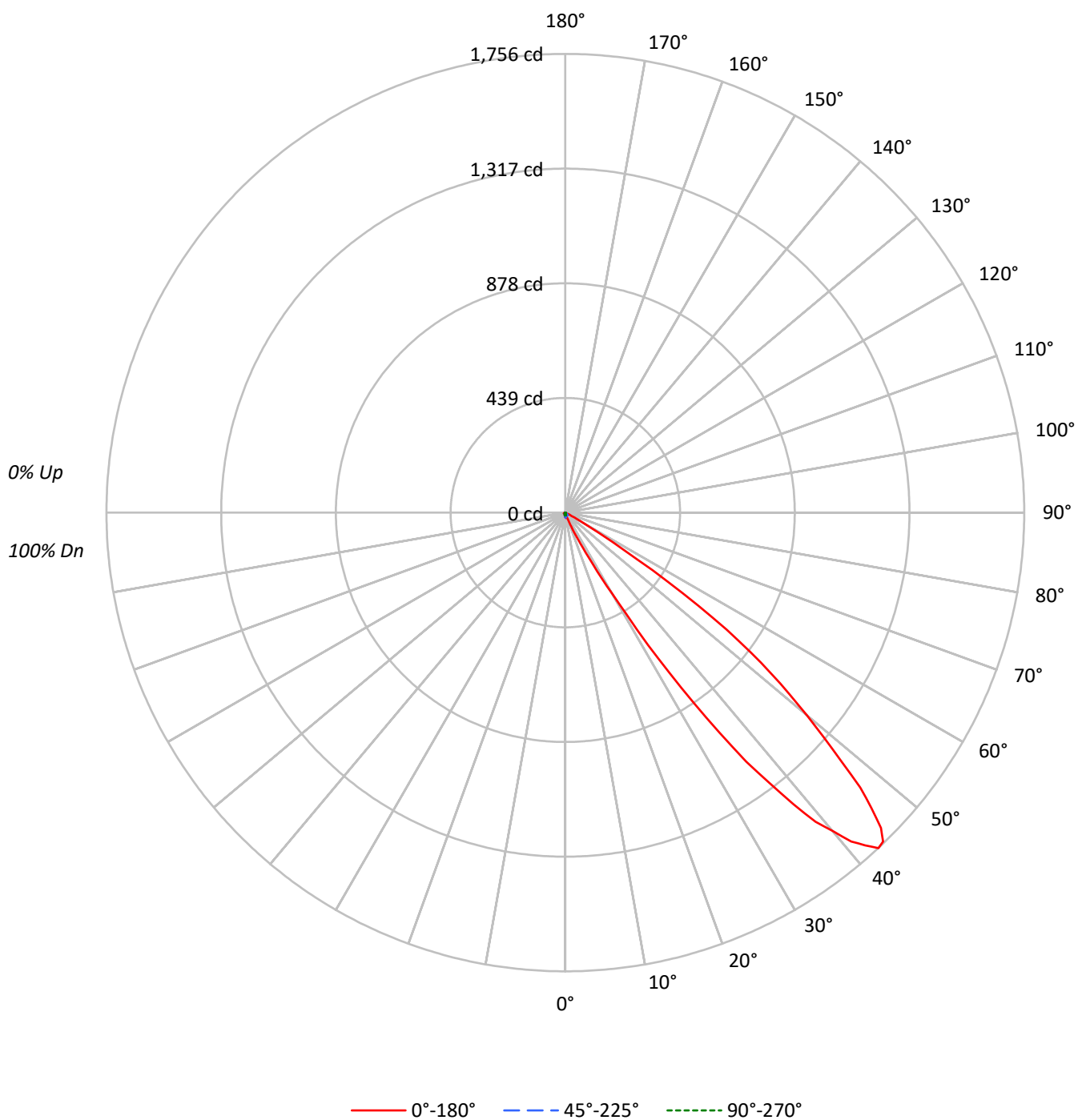
Lumens per Lamp: N/A
Luminaire Lumens: 244.0 lumens
Efficiency: N/A
Efficacy: 33.9 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
RCR																					
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102
1	110	106	102	99		108	104	101	97		100	97	94		96	94	92		92	91	89
2	101	93	87	82		98	91	86	81		88	83	79		85	81	77		82	78	75
3	92	81	74	67		89	80	73	67		77	71	66		74	69	65		72	67	63
4	83	71	62	56		81	70	62	55		67	60	55		65	59	54		63	58	53
5	75	62	53	46		73	61	53	46		59	51	46		57	50	45		55	49	45
6	68	55	45	39		66	54	45	38		52	44	38		50	43	38		48	42	37
7	62	48	39	32		60	47	38	32		46	38	32		44	37	32		43	36	31
8	57	42	33	27		55	42	33	27		40	33	27		39	32	27		38	31	27
9	52	38	29	23		51	37	29	23		36	28	23		35	28	23		34	27	23
10	48	34	25	20		47	33	25	20		32	25	19		31	24	19		30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3728	3728	3728	3728	3728
5°	4336	4028	3478	3038	2928
10°	4297	3674	2761	2338	2293
15°	3746	2815	2020	1884	1975
20°	5554	2357	1493	1610	1773
25°	23977	2444	1161	1452	1718
30°	90622	2962	987	1393	1671
35°	274759	3560	910	1419	1767
40°	455596	3550	802	1517	1889
45°	529543	2419	713	1551	2047
50°	411074	1330	716	1637	2354
55°	237908	879	688	1835	2523
60°	40216	219	614	1930	2807
65°	3113	0	726	2127	3217
70°	449	0	898	2372	3654
75°	424	169	932	2711	4236
80°	253	253	1389	2904	4925
85°	503	503	2264	2768	5284

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 529543 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.5	0.6
10°-20°	3.1	1.3
20°-30°	9.7	4.0
30°-40°	62.2	25.5
40°-50°	113.9	46.7
50°-60°	46.8	19.2
60°-70°	4.0	1.6
70°-80°	2.0	0.8
80°-90°	0.9	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°	14.3	5.8
0°-40°	76.5	31.3
0°-60°	237.2	97.2
0°-90°	244.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	244.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	17	17	17	17	17	
5°	20	18	16	14	13	2
15°	16	12	9	8	9	5
25°	99	10	5	6	7	65
35°	1026	13	3	5	7	650
45°	1708	8	2	5	7	1226
55°	622	2	2	5	7	544
65°	6	0	1	4	6	19
75°	0	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°	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0	17.0
2.5°	18.6	18.6	18.6	18.3	18.3	18.6	18.3	18.3	18.3	18.3	18.1
5°	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.5	19.5	19.3	18.3
7.5°	20.2	20.2	20.2	20.2	19.9	19.9	19.9	19.9	19.7	19.5	17.9
10°	19.3	19.3	19.3	19.0	19.0	19.0	18.8	18.8	18.6	18.3	16.5
12.5°	17.4	17.4	17.4	17.4	17.2	17.2	17.0	17.0	16.7	16.5	14.4
15°	16.5	16.5	16.5	16.3	16.3	16.1	15.8	15.6	15.4	14.9	12.4
17.5°	17.9	17.9	17.7	17.7	17.2	16.7	16.5	15.8	15.4	14.7	11.0
20°	23.8	24.1	23.2	22.5	22.0	20.6	19.9	18.8	17.9	16.7	10.1
22.5°	48.2	47.2	45.6	43.1	40.1	37.6	33.0	29.4	26.8	23.4	9.9
25°	99.1	98.1	93.8	90.1	80.9	73.8	64.0	55.9	47.7	39.7	10.1
27.5°	188.3	182.1	180.9	164.2	151.3	133.0	114.0	97.9	83.2	67.0	10.8
30°	357.9	350.8	325.8	300.6	266.0	226.8	189.4	154.6	125.4	99.1	11.7
31°	454.2	461.1	431.8	381.1	330.0	279.7	228.6	184.4	146.8	114.0	12.2
32°	597.1	567.1	536.1	484.1	409.8	345.6	281.4	217.6	168.1	130.0	12.6
33°	732.2	714.5	667.3	602.4	513.2	423.1	339.8	256.8	194.2	149.5	12.8
34°	876.2	856.7	818.4	725.3	627.4	509.3	398.3	302.0	225.4	168.5	13.1
35°	1026.4	1018.1	944.3	863.6	743.2	600.8	468.7	351.5	255.9	186.0	13.3
36°	1177.5	1150.9	1093.1	975.2	849.6	685.4	542.5	397.6	286.9	206.6	13.3
37°	1291.2	1285.2	1208.7	1093.8	946.1	775.7	606.3	448.7	318.0	224.3	13.3
38°	1416.6	1393.0	1315.3	1198.3	1036.9	858.5	673.0	493.2	347.6	240.3	13.1
39°	1522.3	1487.3	1408.8	1293.3	1116.2	921.3	726.0	536.3	373.8	253.6	12.8
40°	1591.6	1567.3	1485.4	1355.4	1188.2	980.7	779.6	571.9	393.3	263.7	12.4
41°	1667.9	1627.6	1546.6	1415.9	1240.5	1033.0	813.3	595.3	408.4	270.3	11.9
42°	1713.6	1680.6	1584.5	1456.5	1277.9	1062.8	840.9	613.2	417.6	273.8	11.0
43°	1756.2	1711.3	1617.7	1480.1	1302.7	1083.9	853.5	621.4	419.6	273.8	9.9
44°	1750.5	1707.8	1610.9	1483.4	1308.2	1090.1	858.7	621.6	416.4	270.3	8.7
45°	1707.6	1665.2	1577.8	1455.4	1288.5	1078.0	848.2	612.5	407.5	264.4	7.8
46°	1629.0	1586.8	1519.8	1408.6	1251.8	1050.4	823.7	592.5	392.6	254.8	6.9
47°	1543.4	1502.4	1433.8	1333.2	1189.2	1001.4	788.1	564.5	371.7	240.8	6.2
48°	1419.4	1393.7	1324.9	1238.9	1102.3	924.5	725.7	518.9	343.7	222.7	5.3
49°	1309.8	1282.7	1222.4	1130.0	989.0	835.1	651.2	463.4	307.3	202.5	4.6
50°	1205.0	1181.4	1125.6	1021.3	886.7	727.1	550.6	393.5	261.4	177.5	3.9
51°	1102.5	1084.8	1028.0	932.1	795.5	644.1	476.9	327.7	216.0	147.2	3.7
52°	999.5	997.5	935.8	838.8	706.7	561.3	405.4	276.5	183.2	123.6	3.4
53°	888.8	875.5	821.6	734.5	607.7	475.1	343.7	233.2	157.8	105.2	3.0
54°	762.7	747.8	690.0	611.3	496.4	389.1	277.0	188.5	131.4	89.0	2.8
55°	622.3	596.9	554.9	474.2	387.8	296.9	213.9	149.3	105.0	74.1	2.3
56°	472.1	446.7	423.1	363.7	284.6	221.5	159.4	114.4	82.1	58.5	2.1
57°	328.4	327.0	288.2	242.6	190.3	150.9	109.1	80.7	58.0	45.4	1.6
58°	213.0	205.9	181.1	154.8	124.5	94.2	70.2	54.8	39.4	31.0	1.4
59°	149.3	135.1	121.8	103.2	78.4	59.4	45.2	35.1	27.3	21.6	0.9
60°	91.7	88.7	79.8	62.8	50.9	42.0	33.7	25.9	19.9	15.4	0.5
62.5°	26.1	26.6	24.1	21.3	18.3	15.8	14.2	12.2	10.1	8.0	0.0
65°	6.0	5.7	6.2	5.7	5.3	5.3	4.6	4.1	3.7	3.4	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°	1.8	1.8	1.6	1.6	1.6	1.4	1.4	1.1	1.1	0.9	0.0
70°	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.2	0.0
72.5°	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.2
77.5°	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.2	0.2	0.2	0.2
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
85°	0.2	0.2	0.2	0.2	0.0	0.0	0.2	0.2	0.2	0.0	0.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	17.0	17.0	17.0	17.0	17.0	17.0
2.5°	17.7	16.7	16.1	15.4	15.1	15.1
5°	17.2	15.8	14.4	13.8	13.3	13.3
7.5°	15.8	14.2	12.8	12.2	11.9	11.9
10°	14.2	12.4	11.0	10.5	10.5	10.3
12.5°	12.4	10.5	9.6	9.4	9.4	9.4
15°	10.3	8.9	8.3	8.3	8.5	8.7
17.5°	8.7	7.3	7.1	7.6	8.0	8.0
20°	7.3	6.4	6.4	6.9	7.3	7.6
22.5°	6.2	5.5	5.7	6.4	7.1	7.3
25°	5.5	4.8	5.3	6.0	6.6	7.1
27.5°	4.6	4.4	4.8	5.7	6.6	6.9
30°	3.9	3.9	4.6	5.5	6.4	6.6
31°	3.7	3.7	4.6	5.5	6.4	6.6
32°	3.4	3.7	4.4	5.5	6.4	6.6
33°	3.2	3.4	4.4	5.3	6.4	6.6
34°	3.0	3.4	4.4	5.3	6.4	6.6
35°	2.8	3.4	4.4	5.3	6.4	6.6
36°	2.5	3.2	4.1	5.3	6.4	6.6
37°	2.3	3.2	4.1	5.3	6.4	6.6
38°	2.1	3.0	4.1	5.3	6.4	6.6
39°	2.1	3.0	3.9	5.3	6.2	6.6
40°	1.8	2.8	3.9	5.3	6.2	6.6
41°	1.6	2.8	3.9	5.0	6.2	6.6
42°	1.4	2.5	3.7	5.0	6.2	6.6
43°	1.1	2.5	3.7	5.0	6.2	6.6
44°	1.1	2.3	3.7	5.0	6.2	6.6
45°	0.9	2.3	3.7	5.0	6.2	6.6
46°	0.7	2.3	3.7	5.0	6.2	6.6
47°	0.7	2.1	3.4	5.0	6.2	6.6
48°	0.5	2.1	3.4	5.0	6.2	6.6
49°	0.5	2.1	3.4	5.0	6.2	6.9
50°	0.5	2.1	3.4	4.8	6.2	6.9
51°	0.2	2.1	3.4	4.8	6.2	6.9
52°	0.2	2.1	3.2	4.8	6.4	6.9
53°	0.2	1.8	3.2	4.8	6.4	6.9
54°	0.2	1.8	3.2	4.8	6.4	6.6
55°	0.2	1.8	3.2	4.8	6.2	6.6
56°	0.2	1.6	3.2	4.8	6.2	6.6
57°	0.2	1.6	3.0	4.6	6.2	6.4
58°	0.2	1.6	3.0	4.6	6.2	6.4
59°	0.2	1.6	3.0	4.6	6.0	6.4
60°	0.5	1.4	2.8	4.4	6.0	6.4
62.5°	0.5	1.4	2.8	4.4	5.7	6.2
65°	0.5	1.4	2.5	4.1	5.7	6.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.1	2.3	3.9	5.5	6.0
70°	0.5	1.4	2.3	3.7	5.3	5.7
72.5°	0.7	1.1	2.1	3.4	5.0	5.5
75°	0.7	1.1	2.1	3.2	4.8	5.0
77.5°	0.9	1.1	1.8	2.8	4.4	4.6
80°	0.9	1.1	1.6	2.3	3.7	3.9
82.5°	0.9	1.1	1.1	1.8	2.8	3.0
85°	0.7	0.9	0.9	1.1	1.8	2.1
87.5°	0.7	0.9	0.7	0.5	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)