

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: P1337006

Luminaire Tested: P3A05R209840DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1337006
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: P3A05R209840DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

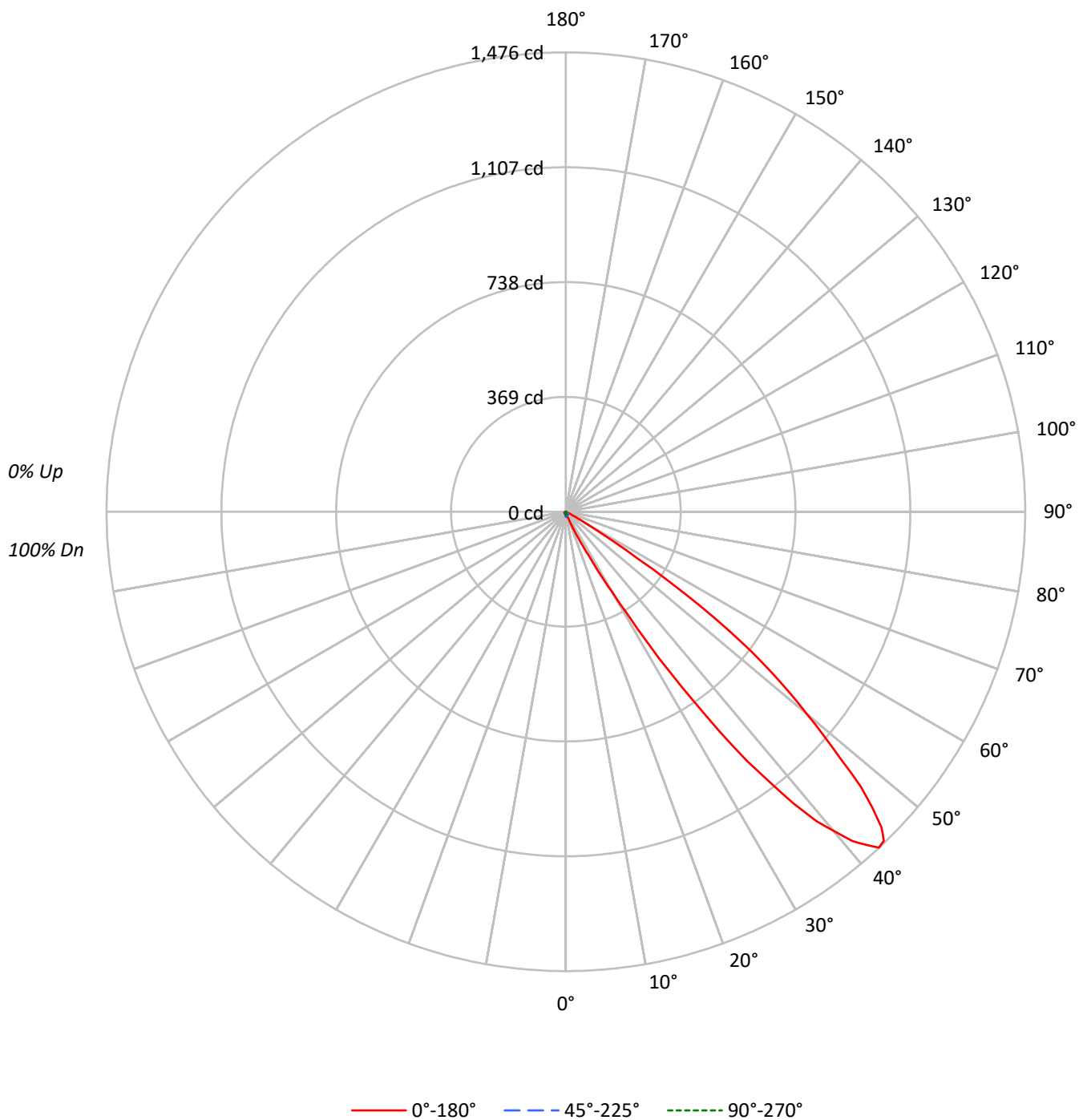
Lumens per Lamp: N/A
Luminaire Lumens: 205.0 lumens
Efficiency: N/A
Efficacy: 28.5 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	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°	3136	3136	3136	3136	3136
5°	3654	3390	2928	2553	2465
10°	3607	3095	2316	1982	1937
15°	3156	2361	1703	1566	1657
20°	4667	1984	1260	1353	1493
25°	20130	2057	968	1210	1452
30°	76138	2481	836	1165	1418
35°	230831	2998	776	1178	1499
40°	382774	2977	658	1260	1603
45°	444914	2047	589	1302	1737
50°	345370	1126	580	1365	1979
55°	199907	726	573	1529	2141
60°	33813	175	526	1623	2368
65°	2594	0	623	1816	2698
70°	385	0	769	1988	3077
75°	339	169	847	2288	3558
80°	253	253	1263	2399	4167
85°	503	503	2013	2516	4277

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 444914 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.2	0.6
10°-20°	2.6	1.3
20°-30°	8.2	4.0
30°-40°	52.3	25.5
40°-50°	95.7	46.7
50°-60°	39.3	19.2
60°-70°	3.3	1.6
70°-80°	1.7	0.8
80°-90°	0.8	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°	12.0	5.8
0°-40°	64.3	31.3
0°-60°	199.2	97.2
0°-90°	205.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	205.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	14	14	14	14	14	
5°	17	15	13	12	11	2
15°	14	10	8	7	7	4
25°	83	8	4	5	6	55
35°	862	11	3	4	6	546
45°	1435	7	2	4	6	1030
55°	523	2	2	4	6	457
65°	5	0	1	4	5	16
75°	0	0	1	3	4	0
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°	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3	14.3
2.5°	15.6	15.6	15.6	15.4	15.4	15.6	15.4	15.4	15.4	15.4	15.2
5°	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.4	16.4	16.2	15.4
7.5°	17.0	17.0	17.0	17.0	16.8	16.8	16.8	16.8	16.6	16.4	15.0
10°	16.2	16.2	16.2	16.0	16.0	16.0	15.8	15.8	15.6	15.4	13.9
12.5°	14.6	14.6	14.6	14.6	14.4	14.4	14.3	14.3	14.1	13.9	12.1
15°	13.9	13.9	13.9	13.7	13.7	13.5	13.3	13.1	12.9	12.5	10.4
17.5°	15.0	15.0	14.8	14.8	14.4	14.1	13.9	13.3	12.9	12.3	9.2
20°	20.0	20.2	19.5	18.9	18.5	17.3	16.8	15.8	15.0	14.1	8.5
22.5°	40.5	39.7	38.3	36.2	33.7	31.6	27.7	24.7	22.5	19.7	8.3
25°	83.2	82.5	78.8	75.7	68.0	62.0	53.7	47.0	40.1	33.3	8.5
27.5°	158.2	153.0	152.0	137.9	127.2	111.7	95.7	82.3	69.9	56.3	9.1
30°	300.7	294.8	273.8	252.6	223.5	190.5	159.1	129.8	105.4	83.2	9.8
31°	381.6	387.4	362.8	320.2	277.2	235.0	192.1	154.9	123.3	95.7	10.2
32°	501.7	476.4	450.4	406.7	344.3	290.3	236.4	182.8	141.2	109.2	10.6
33°	615.1	600.3	560.6	506.1	431.2	355.4	285.5	215.8	163.2	125.6	10.8
34°	736.1	719.7	687.6	609.4	527.1	427.9	334.6	253.7	189.4	141.6	11.0
35°	862.3	855.4	793.3	725.5	624.4	504.7	393.8	295.3	215.0	156.2	11.2
36°	989.3	966.9	918.4	819.3	713.8	575.8	455.8	334.1	241.0	173.6	11.2
37°	1084.8	1079.8	1015.5	918.9	794.9	651.7	509.4	377.0	267.2	188.4	11.2
38°	1190.2	1170.4	1105.1	1006.8	871.2	721.3	565.4	414.4	292.1	201.9	11.0
39°	1279.0	1249.5	1183.7	1086.6	937.8	774.1	609.9	450.6	314.0	213.1	10.8
40°	1337.2	1316.8	1248.0	1138.8	998.3	824.0	655.0	480.5	330.4	221.5	10.4
41°	1401.3	1367.4	1299.4	1189.6	1042.2	867.9	683.3	500.1	343.1	227.1	10.0
42°	1439.7	1411.9	1331.2	1223.7	1073.6	892.9	706.5	515.2	350.8	230.0	9.2
43°	1475.5	1437.8	1359.2	1243.6	1094.5	910.7	717.1	522.1	352.6	230.0	8.3
44°	1470.7	1434.9	1353.4	1246.3	1099.1	915.9	721.5	522.3	349.9	227.1	7.3
45°	1434.7	1399.0	1325.6	1222.8	1082.5	905.7	712.6	514.6	342.3	222.1	6.6
46°	1368.6	1333.2	1276.9	1183.5	1051.7	882.5	692.0	497.8	329.8	214.0	5.8
47°	1296.7	1262.3	1204.7	1120.1	999.1	841.3	662.1	474.3	312.3	202.3	5.2
48°	1192.5	1170.9	1113.1	1040.9	926.1	776.8	609.7	436.0	288.8	187.1	4.4
49°	1100.4	1077.7	1027.0	949.4	830.9	701.6	547.1	389.3	258.2	170.1	3.9
50°	1012.4	992.5	945.7	858.1	745.0	610.9	462.6	330.6	219.6	149.1	3.3
51°	926.3	911.4	863.7	783.1	668.3	541.2	400.7	275.3	181.5	123.7	3.1
52°	839.8	838.0	786.2	704.7	593.8	471.6	340.6	232.3	153.9	103.8	2.9
53°	746.7	735.5	690.3	617.1	510.5	399.2	288.8	195.9	132.5	88.4	2.5
54°	640.8	628.2	579.7	513.6	417.1	326.9	232.7	158.4	110.4	74.7	2.3
55°	522.9	501.5	466.2	398.4	325.8	249.5	179.7	125.4	88.2	62.2	1.9
56°	396.7	375.3	355.4	305.5	239.1	186.1	133.9	96.1	69.0	49.1	1.7
57°	275.9	274.7	242.2	203.8	159.9	126.8	91.7	67.8	48.7	38.1	1.3
58°	179.0	173.0	152.2	130.0	104.6	79.2	59.0	46.0	33.1	26.0	1.2
59°	125.4	113.5	102.3	86.7	65.9	49.9	38.0	29.5	22.9	18.1	0.8
60°	77.1	74.6	67.0	52.8	42.8	35.3	28.3	21.8	16.8	12.9	0.4
62.5°	22.0	22.3	20.2	17.9	15.4	13.3	11.9	10.2	8.5	6.7	0.0
65°	5.0	4.8	5.2	4.8	4.4	4.4	3.9	3.5	3.1	2.9	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°	1.5	1.5	1.3	1.3	1.3	1.2	1.2	1.0	1.0	0.8	0.0
70°	0.6	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.2	0.2	0.0
72.5°	0.6	0.6	0.6	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2
75°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2
77.5°	0.4	0.4	0.4	0.4	0.4	0.2	0.4	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°	14.3	14.3	14.3	14.3	14.3	14.3
2.5°	14.8	14.1	13.5	12.9	12.7	12.7
5°	14.4	13.3	12.1	11.6	11.2	11.2
7.5°	13.3	11.9	10.8	10.2	10.0	10.0
10°	11.9	10.4	9.2	8.9	8.9	8.7
12.5°	10.4	8.9	8.1	7.9	7.9	7.9
15°	8.7	7.5	6.9	6.9	7.1	7.3
17.5°	7.3	6.2	6.0	6.4	6.7	6.7
20°	6.2	5.4	5.4	5.8	6.2	6.4
22.5°	5.2	4.6	4.8	5.4	6.0	6.2
25°	4.6	4.0	4.4	5.0	5.6	6.0
27.5°	3.9	3.7	4.0	4.8	5.6	5.8
30°	3.3	3.3	3.9	4.6	5.4	5.6
31°	3.1	3.1	3.9	4.6	5.4	5.6
32°	2.9	3.1	3.7	4.6	5.4	5.6
33°	2.7	2.9	3.7	4.4	5.4	5.6
34°	2.5	2.9	3.7	4.4	5.4	5.6
35°	2.3	2.9	3.7	4.4	5.4	5.6
36°	2.1	2.7	3.5	4.4	5.4	5.6
37°	1.9	2.7	3.5	4.4	5.4	5.6
38°	1.7	2.5	3.5	4.4	5.4	5.6
39°	1.7	2.5	3.3	4.4	5.2	5.6
40°	1.5	2.3	3.3	4.4	5.2	5.6
41°	1.3	2.3	3.3	4.2	5.2	5.6
42°	1.2	2.1	3.1	4.2	5.2	5.6
43°	1.0	2.1	3.1	4.2	5.2	5.6
44°	1.0	1.9	3.1	4.2	5.2	5.6
45°	0.8	1.9	3.1	4.2	5.2	5.6
46°	0.6	1.9	3.1	4.2	5.2	5.6
47°	0.6	1.7	2.9	4.2	5.2	5.6
48°	0.4	1.7	2.9	4.2	5.2	5.6
49°	0.4	1.7	2.9	4.2	5.2	5.8
50°	0.4	1.7	2.9	4.0	5.2	5.8
51°	0.2	1.7	2.9	4.0	5.2	5.8
52°	0.2	1.7	2.7	4.0	5.4	5.8
53°	0.2	1.5	2.7	4.0	5.4	5.8
54°	0.2	1.5	2.7	4.0	5.4	5.6
55°	0.2	1.5	2.7	4.0	5.2	5.6
56°	0.2	1.3	2.7	4.0	5.2	5.6
57°	0.2	1.3	2.5	3.9	5.2	5.4
58°	0.2	1.3	2.5	3.9	5.2	5.4
59°	0.2	1.3	2.5	3.9	5.0	5.4
60°	0.4	1.2	2.3	3.7	5.0	5.4
62.5°	0.4	1.2	2.3	3.7	4.8	5.2
65°	0.4	1.2	2.1	3.5	4.8	5.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.4	1.0	1.9	3.3	4.6	5.0
70°	0.4	1.2	1.9	3.1	4.4	4.8
72.5°	0.6	1.0	1.7	2.9	4.2	4.6
75°	0.6	1.0	1.7	2.7	4.0	4.2
77.5°	0.8	1.0	1.5	2.3	3.7	3.9
80°	0.8	1.0	1.3	1.9	3.1	3.3
82.5°	0.8	1.0	1.0	1.5	2.3	2.5
85°	0.6	0.8	0.8	1.0	1.5	1.7
87.5°	0.6	0.8	0.6	0.4	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)