

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: P1336836

Luminaire Tested: P3A05R209030DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336836
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: P3A05R209030DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

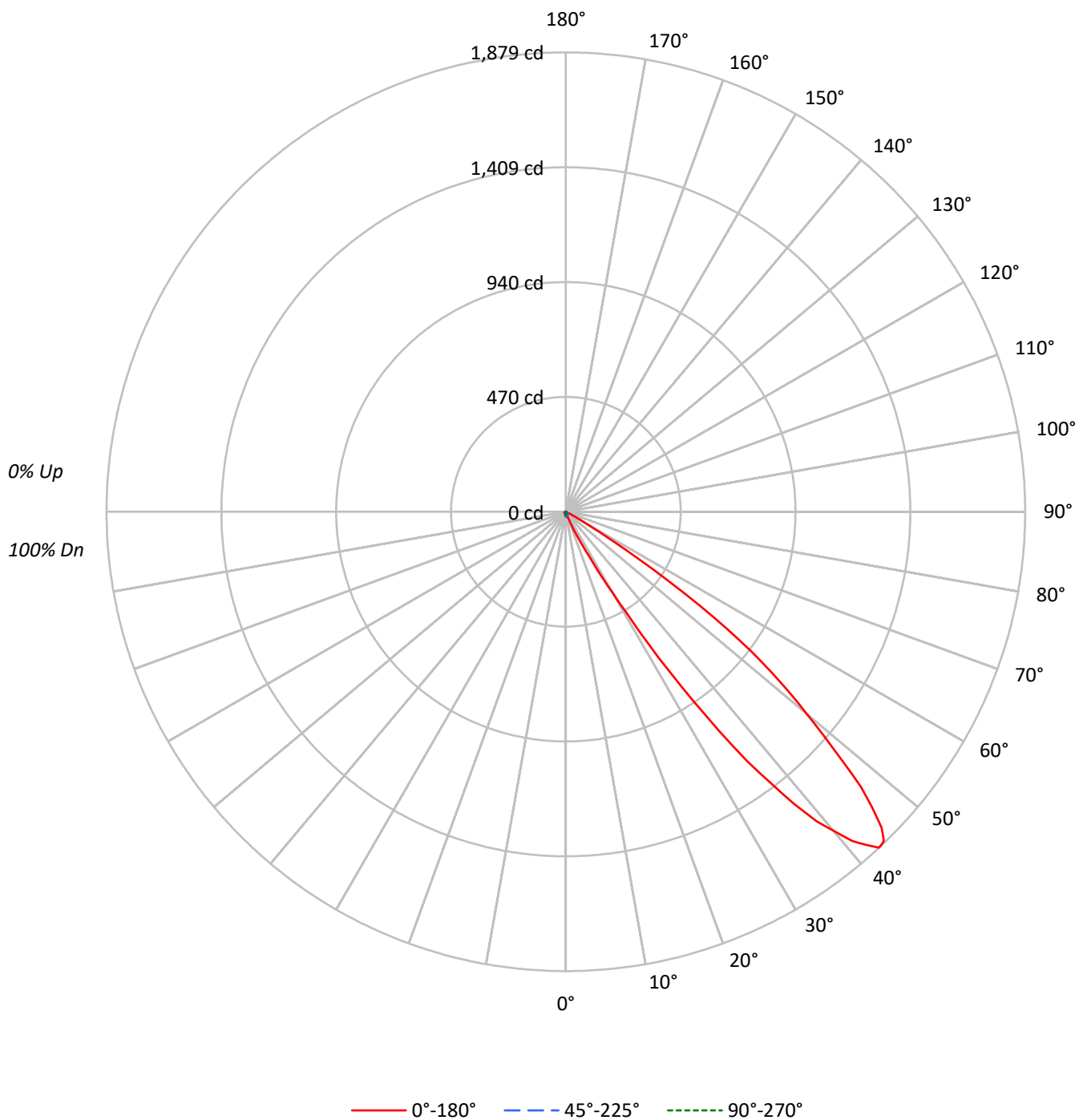
Lumens per Lamp: N/A
Luminaire Lumens: 261.0 lumens
Efficiency: N/A
Efficacy: 36.2 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	3991	3991	3991	3991	3991
5°	4644	4314	3720	3236	3126
10°	4587	3941	2939	2516	2449
15°	4018	2997	2179	1998	2111
20°	5951	2520	1610	1727	1890
25°	25647	2613	1258	1548	1839
30°	96952	3165	1063	1494	1798
35°	293899	3801	990	1499	1901
40°	487342	3779	830	1603	2032
45°	566446	2574	775	1675	2202
50°	439696	1433	751	1774	2524
55°	254500	956	765	1988	2714
60°	43023	219	658	2061	3026
65°	3321	0	778	2283	3424
70°	449	0	962	2500	3911
75°	424	169	1017	2881	4575
80°	253	253	1515	3157	5304
85°	503	503	2516	3019	5535

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 566446 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.6	0.6
10°-20°	3.3	1.3
20°-30°	10.4	4.0
30°-40°	66.6	25.5
40°-50°	121.8	46.7
50°-60°	50.1	19.2
60°-70°	4.2	1.6
70°-80°	2.1	0.8
80°-90°	1.0	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°	15.2	5.8
0°-40°	81.8	31.3
0°-60°	253.7	97.2
0°-90°	261.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	261.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	18	18	18	18	18	
5°	21	20	17	15	14	2
15°	18	13	10	9	9	6
25°	106	11	5	6	8	70
35°	1098	14	4	6	7	695
45°	1827	8	2	5	7	1312
55°	666	2	2	5	7	582
65°	6	0	2	4	7	21
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°	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
2.5°	19.9	19.9	19.9	19.6	19.6	19.9	19.6	19.6	19.6	19.6	19.4
5°	21.1	21.1	21.1	21.1	21.1	21.1	21.1	20.8	20.8	20.6	19.6
7.5°	21.6	21.6	21.6	21.6	21.3	21.3	21.3	21.3	21.1	20.8	19.1
10°	20.6	20.6	20.6	20.4	20.4	20.4	20.1	20.1	19.9	19.6	17.7
12.5°	18.6	18.6	18.6	18.6	18.4	18.4	18.2	18.2	17.9	17.7	15.5
15°	17.7	17.7	17.7	17.4	17.4	17.2	16.9	16.7	16.4	15.9	13.2
17.5°	19.1	19.1	18.9	18.9	18.4	17.9	17.7	16.9	16.4	15.7	11.8
20°	25.5	25.8	24.8	24.0	23.5	22.1	21.3	20.1	19.1	17.9	10.8
22.5°	51.5	50.5	48.8	46.1	42.9	40.2	35.3	31.4	28.7	25.0	10.5
25°	106.0	105.0	100.3	96.4	86.6	79.0	68.4	59.8	51.0	42.4	10.8
27.5°	201.4	194.8	193.5	175.6	161.9	142.3	121.9	104.7	89.0	71.6	11.5
30°	382.9	375.3	348.5	321.6	284.5	242.6	202.6	165.3	134.2	106.0	12.5
31°	485.9	493.3	461.9	407.7	353.0	299.2	244.5	197.2	157.0	121.9	13.0
32°	638.7	606.6	573.5	517.8	438.3	369.6	301.0	232.8	179.8	139.1	13.5
33°	783.2	764.3	713.8	644.3	548.9	452.5	363.5	274.7	207.8	159.9	13.7
34°	937.2	916.4	875.4	775.8	671.1	544.8	426.0	323.0	241.1	180.3	14.0
35°	1097.9	1089.0	1010.1	923.7	794.9	642.6	501.3	376.0	273.7	198.9	14.2
36°	1259.5	1231.1	1169.2	1043.2	908.8	733.1	580.3	425.3	306.8	221.0	14.2
37°	1381.2	1374.8	1292.9	1170.0	1012.0	829.8	648.5	480.0	340.2	239.9	14.2
38°	1515.3	1490.1	1406.9	1281.8	1109.2	918.3	719.9	527.6	371.8	257.1	14.0
39°	1628.4	1590.9	1507.0	1383.4	1194.0	985.5	776.6	573.7	399.8	271.3	13.7
40°	1702.5	1676.5	1588.9	1449.8	1271.0	1049.1	833.9	611.7	420.7	282.1	13.2
41°	1784.2	1741.0	1654.4	1514.6	1327.0	1105.0	870.0	636.7	436.8	289.2	12.8
42°	1833.0	1797.6	1694.9	1558.0	1366.9	1136.9	899.4	655.9	446.7	292.9	11.8
43°	1878.6	1830.5	1730.4	1583.3	1393.4	1159.4	912.9	664.7	448.9	292.9	10.5
44°	1872.5	1826.8	1723.1	1586.7	1399.3	1166.1	918.6	665.0	445.4	289.2	9.3
45°	1826.6	1781.2	1687.8	1556.8	1378.2	1153.1	907.3	655.1	435.9	282.8	8.3
46°	1742.5	1697.3	1625.7	1506.7	1339.0	1123.6	881.0	633.8	419.9	272.5	7.4
47°	1651.0	1607.1	1533.7	1426.1	1272.0	1071.1	843.0	603.9	397.6	257.5	6.6
48°	1518.3	1490.8	1417.2	1325.2	1179.1	989.0	776.3	555.1	367.7	238.2	5.6
49°	1401.0	1372.1	1307.6	1208.7	1057.9	893.3	696.6	495.7	328.7	216.6	4.9
50°	1288.9	1263.7	1204.1	1092.5	948.5	777.8	588.9	420.9	279.6	189.8	4.2
51°	1179.3	1160.4	1099.6	997.1	850.9	689.0	510.2	350.5	231.1	157.5	3.9
52°	1069.2	1067.0	1001.0	897.2	755.9	600.4	433.7	295.8	196.0	132.2	3.7
53°	950.7	936.5	878.8	785.6	650.0	508.2	367.7	249.4	168.8	112.6	3.2
54°	815.8	799.9	738.0	653.9	531.0	416.2	296.3	201.6	140.5	95.2	2.9
55°	665.7	638.5	593.6	507.2	414.8	317.6	228.8	159.7	112.3	79.2	2.5
56°	505.0	477.8	452.5	389.0	304.4	236.9	170.5	122.4	87.8	62.5	2.2
57°	351.2	349.8	308.3	259.5	203.6	161.4	116.8	86.3	62.1	48.6	1.7
58°	227.9	220.3	193.8	165.6	133.2	100.8	75.1	58.6	42.2	33.1	1.5
59°	159.7	144.5	130.2	110.4	83.9	63.5	48.3	37.5	29.2	23.1	1.0
60°	98.1	94.9	85.4	67.2	54.5	44.9	36.1	27.7	21.3	16.4	0.5
62.5°	28.0	28.5	25.8	22.8	19.6	16.9	15.2	13.0	10.8	8.6	0.0
65°	6.4	6.1	6.6	6.1	5.6	5.6	4.9	4.4	3.9	3.7	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	2.0	1.7	1.7	1.7	1.5	1.5	1.2	1.2	1.0	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°	18.2	18.2	18.2	18.2	18.2	18.2
2.5°	18.9	17.9	17.2	16.4	16.2	16.2
5°	18.4	16.9	15.5	14.7	14.2	14.2
7.5°	16.9	15.2	13.7	13.0	12.8	12.8
10°	15.2	13.2	11.8	11.3	11.3	11.0
12.5°	13.2	11.3	10.3	10.1	10.1	10.1
15°	11.0	9.6	8.8	8.8	9.1	9.3
17.5°	9.3	7.8	7.6	8.1	8.6	8.6
20°	7.8	6.9	6.9	7.4	7.8	8.1
22.5°	6.6	5.9	6.1	6.9	7.6	7.8
25°	5.9	5.2	5.6	6.4	7.1	7.6
27.5°	4.9	4.7	5.2	6.1	7.1	7.4
30°	4.2	4.2	4.9	5.9	6.9	7.1
31°	3.9	3.9	4.9	5.9	6.9	7.1
32°	3.7	3.9	4.7	5.9	6.9	7.1
33°	3.4	3.7	4.7	5.6	6.9	7.1
34°	3.2	3.7	4.7	5.6	6.9	7.1
35°	2.9	3.7	4.7	5.6	6.9	7.1
36°	2.7	3.4	4.4	5.6	6.9	7.1
37°	2.5	3.4	4.4	5.6	6.9	7.1
38°	2.2	3.2	4.4	5.6	6.9	7.1
39°	2.2	3.2	4.2	5.6	6.6	7.1
40°	2.0	2.9	4.2	5.6	6.6	7.1
41°	1.7	2.9	4.2	5.4	6.6	7.1
42°	1.5	2.7	3.9	5.4	6.6	7.1
43°	1.2	2.7	3.9	5.4	6.6	7.1
44°	1.2	2.5	3.9	5.4	6.6	7.1
45°	1.0	2.5	3.9	5.4	6.6	7.1
46°	0.7	2.5	3.9	5.4	6.6	7.1
47°	0.7	2.2	3.7	5.4	6.6	7.1
48°	0.5	2.2	3.7	5.4	6.6	7.1
49°	0.5	2.2	3.7	5.4	6.6	7.4
50°	0.5	2.2	3.7	5.2	6.6	7.4
51°	0.2	2.2	3.7	5.2	6.6	7.4
52°	0.2	2.2	3.4	5.2	6.9	7.4
53°	0.2	2.0	3.4	5.2	6.9	7.4
54°	0.2	2.0	3.4	5.2	6.9	7.1
55°	0.2	2.0	3.4	5.2	6.6	7.1
56°	0.2	1.7	3.4	5.2	6.6	7.1
57°	0.2	1.7	3.2	4.9	6.6	6.9
58°	0.2	1.7	3.2	4.9	6.6	6.9
59°	0.2	1.7	3.2	4.9	6.4	6.9
60°	0.5	1.5	2.9	4.7	6.4	6.9
62.5°	0.5	1.5	2.9	4.7	6.1	6.6
65°	0.5	1.5	2.7	4.4	6.1	6.6



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.2	2.5	4.2	5.9	6.4
70°	0.5	1.5	2.5	3.9	5.6	6.1
72.5°	0.7	1.2	2.2	3.7	5.4	5.9
75°	0.7	1.2	2.2	3.4	5.2	5.4
77.5°	1.0	1.2	2.0	2.9	4.7	4.9
80°	1.0	1.2	1.7	2.5	3.9	4.2
82.5°	1.0	1.2	1.2	2.0	2.9	3.2
85°	0.7	1.0	1.0	1.2	2.0	2.2
87.5°	0.7	1.0	0.7	0.5	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)