

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: P1336840

Luminaire Tested: P3A05R209030DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336840
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 E3CA451MW
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 90CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

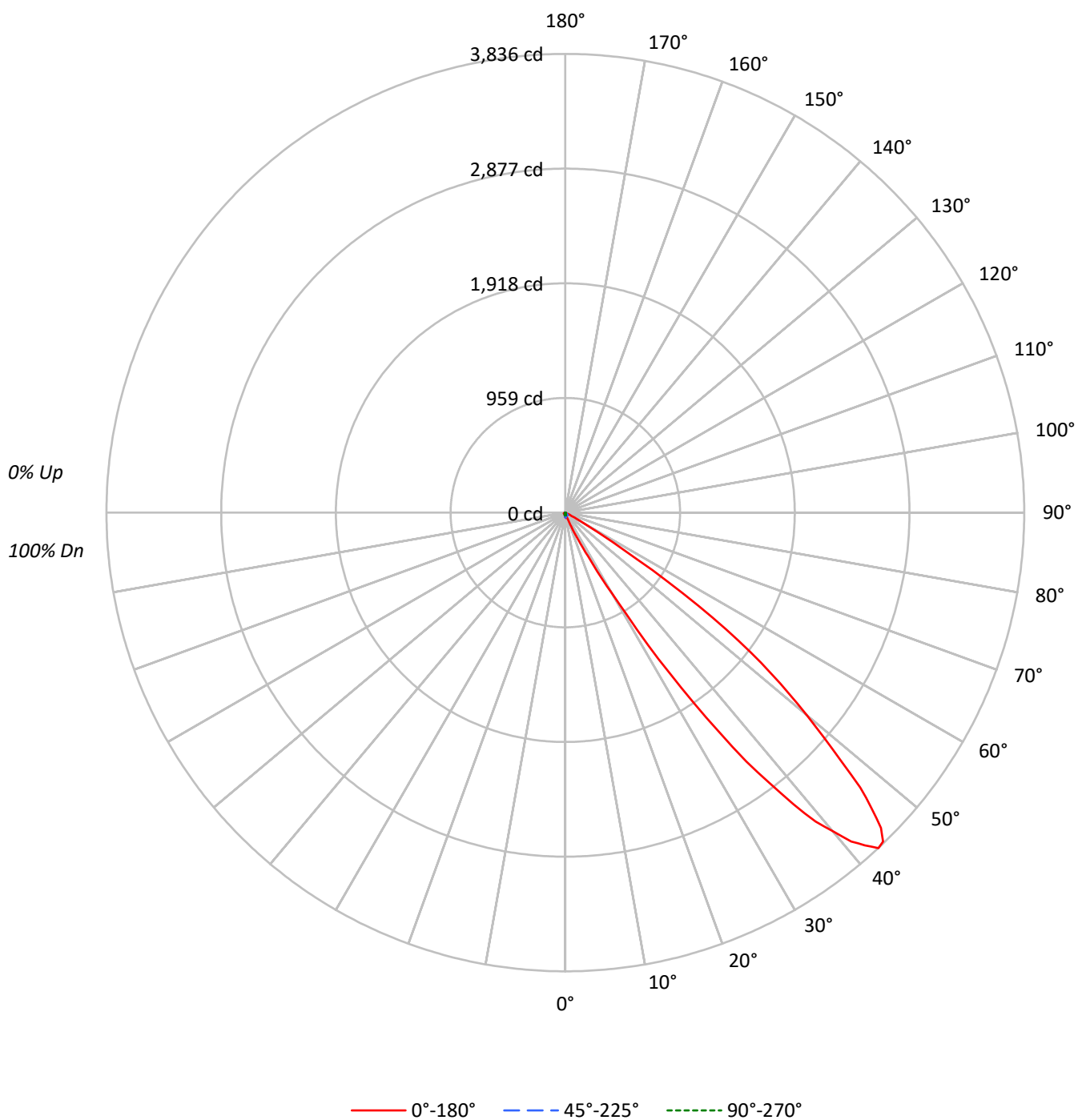
Lumens per Lamp: N/A
Luminaire Lumens: 532.9 lumens
Efficiency: N/A
Efficacy: 74.0 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	8135	8135	8135	8135	8135
5°	9487	8827	7616	6626	6405
10°	9374	8038	6012	5121	5010
15°	8195	6129	4427	4086	4313
20°	12158	5134	3267	3500	3850
25°	52358	5323	2540	3145	3750
30°	197980	6457	2152	3038	3671
35°	600166	7790	2008	3078	3882
40°	995207	7729	1718	3292	4151
45°	1156771	5272	1551	3411	4497
50°	897949	2900	1535	3582	5117
55°	519704	1912	1529	4014	5543
60°	87888	439	1316	4166	6140
65°	6745	0	1557	4670	7005
70°	962	0	1923	5129	8014
75°	847	424	2118	5931	9320
80°	631	631	3157	6314	10734
85°	1258	1258	5032	6290	11322

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1156771 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.2	0.6
10°-20°	6.7	1.3
20°-30°	21.3	4.0
30°-40°	135.9	25.5
40°-50°	248.8	46.7
50°-60°	102.2	19.2
60°-70°	8.6	1.6
70°-80°	4.3	0.8
80°-90°	2.0	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°	31.1	5.8
0°-40°	167.0	31.3
0°-60°	518.0	97.2
0°-90°	532.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	532.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	37	37	37	37	37	
5°	43	40	35	30	29	4
15°	36	27	20	18	19	11
25°	216	22	10	13	16	142
35°	2242	29	8	12	14	1419
45°	3730	17	5	11	14	2678
55°	1359	5	4	10	14	1188
65°	13	0	3	9	14	42
75°	1	0	2	7	11	1
85°	0	0	2	2	4	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°	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1	37.1
2.5°	40.6	40.6	40.6	40.1	40.1	40.6	40.1	40.1	40.1	40.1	39.6
5°	43.1	43.1	43.1	43.1	43.1	43.1	43.1	42.6	42.6	42.1	40.1
7.5°	44.1	44.1	44.1	44.1	43.6	43.6	43.6	43.6	43.1	42.6	39.1
10°	42.1	42.1	42.1	41.6	41.6	41.6	41.1	41.1	40.6	40.1	36.1
12.5°	38.1	38.1	38.1	38.1	37.6	37.6	37.1	37.1	36.6	36.1	31.6
15°	36.1	36.1	36.1	35.6	35.6	35.1	34.6	34.1	33.6	32.6	27.0
17.5°	39.1	39.1	38.6	38.6	37.6	36.6	36.1	34.6	33.6	32.1	24.0
20°	52.1	52.6	50.6	49.1	48.1	45.1	43.6	41.1	39.1	36.6	22.0
22.5°	105.2	103.2	99.7	94.2	87.7	82.1	72.1	64.1	58.6	51.1	21.5
25°	216.4	214.4	204.9	196.9	176.8	161.3	139.7	122.2	104.2	86.7	22.0
27.5°	411.2	397.7	395.2	358.6	330.6	290.5	248.9	213.9	181.8	146.3	23.5
30°	781.9	766.4	711.8	656.7	581.0	495.4	413.7	337.6	274.0	216.4	25.5
31°	992.3	1007.3	943.2	832.5	720.8	611.1	499.4	402.7	320.6	248.9	26.5
32°	1304.3	1238.7	1171.1	1057.4	895.1	754.8	614.6	475.3	367.2	284.0	27.5
33°	1599.4	1560.8	1457.6	1315.9	1121.0	924.2	742.3	561.0	424.3	326.6	28.1
34°	1913.9	1871.3	1787.7	1584.3	1370.4	1112.5	870.1	659.7	492.4	368.2	28.6
35°	2242.0	2224.0	2062.7	1886.4	1623.4	1312.3	1023.8	767.9	559.0	406.2	29.1
36°	2572.1	2514.0	2387.8	2130.3	1855.8	1497.2	1185.1	868.6	626.6	451.3	29.1
37°	2820.5	2807.5	2640.2	2389.3	2066.7	1694.5	1324.4	980.3	694.7	489.9	29.1
38°	3094.5	3042.9	2873.1	2617.7	2265.0	1875.4	1470.1	1077.4	759.4	524.9	28.6
39°	3325.4	3248.8	3077.5	2825.0	2438.4	2012.6	1585.8	1171.6	816.5	554.0	28.1
40°	3476.7	3423.6	3244.8	2960.8	2595.6	2142.3	1703.0	1249.2	859.0	576.0	27.0
41°	3643.5	3555.4	3378.5	3093.0	2709.8	2256.5	1776.7	1300.3	892.1	590.6	26.0
42°	3743.2	3671.1	3461.2	3181.7	2791.5	2321.6	1836.8	1339.4	912.1	598.1	24.0
43°	3836.4	3738.2	3533.8	3233.3	2845.6	2367.7	1864.3	1357.4	916.6	598.1	21.5
44°	3823.8	3730.7	3518.8	3240.3	2857.6	2381.3	1875.9	1357.9	909.6	590.6	19.0
45°	3730.2	3637.5	3446.7	3179.2	2814.5	2354.7	1852.8	1337.9	890.1	577.5	17.0
46°	3558.4	3466.2	3319.9	3077.0	2734.4	2294.6	1799.2	1294.3	857.5	556.5	15.0
47°	3371.5	3281.9	3132.1	2912.2	2597.6	2187.4	1721.6	1233.2	812.0	525.9	13.5
48°	3100.5	3044.4	2894.2	2706.3	2407.8	2019.6	1585.3	1133.5	750.8	486.4	11.5
49°	2861.1	2802.0	2670.3	2468.4	2160.4	1824.3	1422.5	1012.3	671.2	442.3	10.0
50°	2632.2	2580.6	2458.9	2231.0	1937.0	1588.3	1202.6	859.5	571.0	387.7	8.5
51°	2408.3	2369.7	2245.5	2036.1	1737.6	1407.0	1041.9	715.8	471.8	321.6	8.0
52°	2183.4	2178.9	2044.2	1832.3	1543.8	1226.2	885.6	604.1	400.2	270.0	7.5
53°	1941.5	1912.4	1794.7	1604.4	1327.4	1037.9	750.8	509.4	344.6	229.9	6.5
54°	1666.0	1633.4	1507.2	1335.4	1084.4	850.0	605.1	411.7	287.0	194.3	6.0
55°	1359.4	1303.8	1212.2	1035.9	847.0	648.7	467.3	326.1	229.4	161.8	5.0
56°	1031.3	975.7	924.2	794.4	621.6	483.9	348.1	249.9	179.3	127.7	4.5
57°	717.3	714.3	629.6	529.9	415.7	329.6	238.4	176.3	126.7	99.2	3.5
58°	465.3	449.8	395.7	338.1	272.0	205.9	153.3	119.7	86.2	67.6	3.0
59°	326.1	295.0	266.0	225.4	171.3	129.7	98.7	76.6	59.6	47.1	2.0
60°	200.4	193.8	174.3	137.2	111.2	91.7	73.6	56.6	43.6	33.6	1.0
62.5°	57.1	58.1	52.6	46.6	40.1	34.6	31.1	26.5	22.0	17.5	0.0
65°	13.0	12.5	13.5	12.5	11.5	11.5	10.0	9.0	8.0	7.5	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°	4.0	4.0	3.5	3.5	3.5	3.0	3.0	2.5	2.5	2.0	0.0
70°	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.5	0.0
72.5°	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5
77.5°	1.0	1.0	1.0	1.0	1.0	0.5	1.0	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
85°	0.5	0.5	0.5	0.5	0.0	0.0	0.5	0.5	0.5	0.0	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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°	37.1	37.1	37.1	37.1	37.1	37.1
2.5°	38.6	36.6	35.1	33.6	33.1	33.1
5°	37.6	34.6	31.6	30.1	29.1	29.1
7.5°	34.6	31.1	28.1	26.5	26.0	26.0
10°	31.1	27.0	24.0	23.0	23.0	22.5
12.5°	27.0	23.0	21.0	20.5	20.5	20.5
15°	22.5	19.5	18.0	18.0	18.5	19.0
17.5°	19.0	16.0	15.5	16.5	17.5	17.5
20°	16.0	14.0	14.0	15.0	16.0	16.5
22.5°	13.5	12.0	12.5	14.0	15.5	16.0
25°	12.0	10.5	11.5	13.0	14.5	15.5
27.5°	10.0	9.5	10.5	12.5	14.5	15.0
30°	8.5	8.5	10.0	12.0	14.0	14.5
31°	8.0	8.0	10.0	12.0	14.0	14.5
32°	7.5	8.0	9.5	12.0	14.0	14.5
33°	7.0	7.5	9.5	11.5	14.0	14.5
34°	6.5	7.5	9.5	11.5	14.0	14.5
35°	6.0	7.5	9.5	11.5	14.0	14.5
36°	5.5	7.0	9.0	11.5	14.0	14.5
37°	5.0	7.0	9.0	11.5	14.0	14.5
38°	4.5	6.5	9.0	11.5	14.0	14.5
39°	4.5	6.5	8.5	11.5	13.5	14.5
40°	4.0	6.0	8.5	11.5	13.5	14.5
41°	3.5	6.0	8.5	11.0	13.5	14.5
42°	3.0	5.5	8.0	11.0	13.5	14.5
43°	2.5	5.5	8.0	11.0	13.5	14.5
44°	2.5	5.0	8.0	11.0	13.5	14.5
45°	2.0	5.0	8.0	11.0	13.5	14.5
46°	1.5	5.0	8.0	11.0	13.5	14.5
47°	1.5	4.5	7.5	11.0	13.5	14.5
48°	1.0	4.5	7.5	11.0	13.5	14.5
49°	1.0	4.5	7.5	11.0	13.5	15.0
50°	1.0	4.5	7.5	10.5	13.5	15.0
51°	0.5	4.5	7.5	10.5	13.5	15.0
52°	0.5	4.5	7.0	10.5	14.0	15.0
53°	0.5	4.0	7.0	10.5	14.0	15.0
54°	0.5	4.0	7.0	10.5	14.0	14.5
55°	0.5	4.0	7.0	10.5	13.5	14.5
56°	0.5	3.5	7.0	10.5	13.5	14.5
57°	0.5	3.5	6.5	10.0	13.5	14.0
58°	0.5	3.5	6.5	10.0	13.5	14.0
59°	0.5	3.5	6.5	10.0	13.0	14.0
60°	1.0	3.0	6.0	9.5	13.0	14.0
62.5°	1.0	3.0	6.0	9.5	12.5	13.5
65°	1.0	3.0	5.5	9.0	12.5	13.5



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	2.5	5.0	8.5	12.0	13.0
70°	1.0	3.0	5.0	8.0	11.5	12.5
72.5°	1.5	2.5	4.5	7.5	11.0	12.0
75°	1.5	2.5	4.5	7.0	10.5	11.0
77.5°	2.0	2.5	4.0	6.0	9.5	10.0
80°	2.0	2.5	3.5	5.0	8.0	8.5
82.5°	2.0	2.5	2.5	4.0	6.0	6.5
85°	1.5	2.0	2.0	2.5	4.0	4.5
87.5°	1.5	2.0	1.5	1.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)