

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: P1336810

Luminaire Tested: P3A05R209027DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336810
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 E3CA451MW
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 90CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

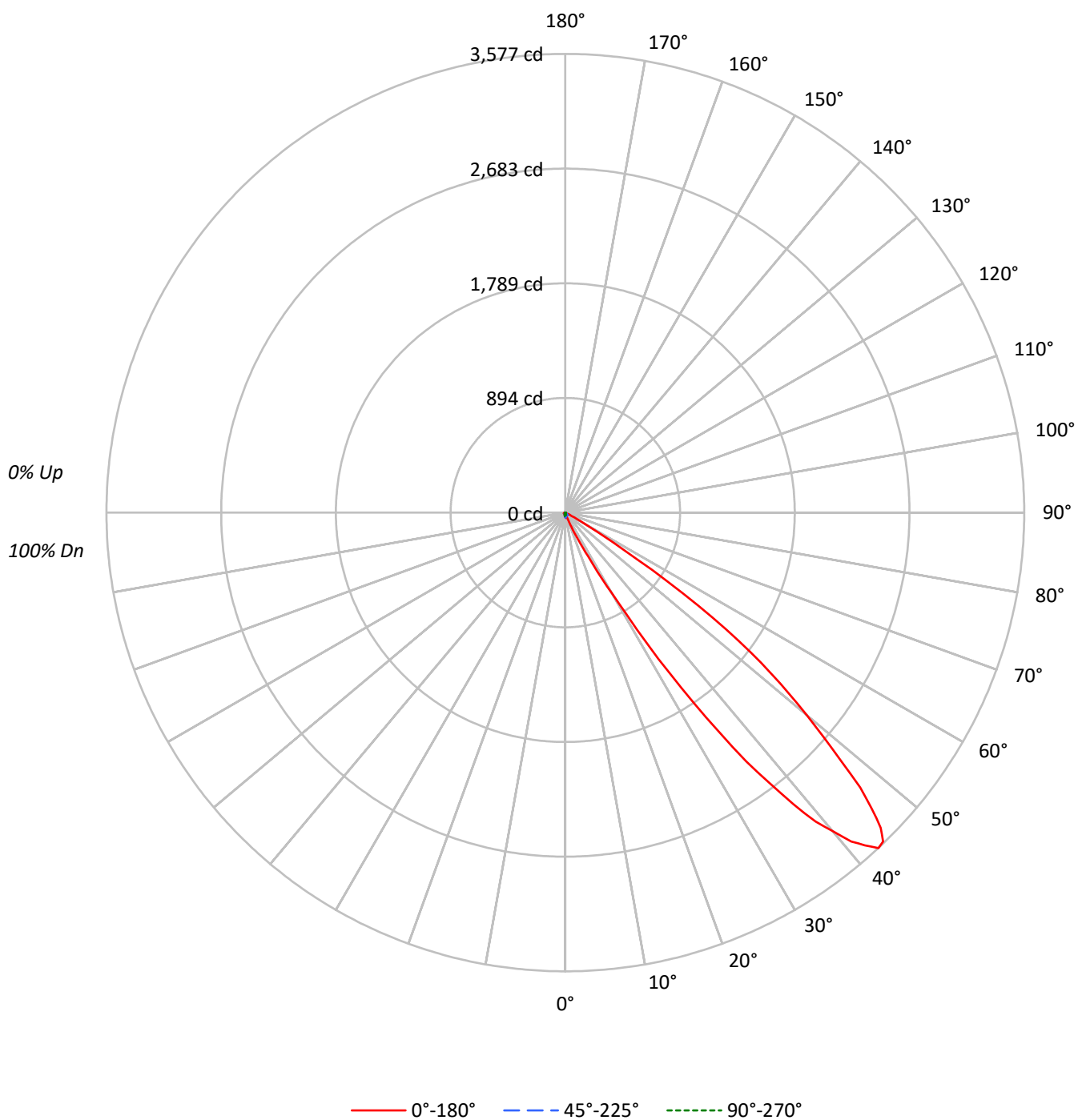
Lumens per Lamp: N/A
Luminaire Lumens: 497.0 lumens
Efficiency: N/A
Efficacy: 69.0 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
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°	7587	7587	7587	7587	7587
5°	8849	8232	7088	6163	5965
10°	8728	7481	5611	4787	4676
15°	7628	5721	4132	3814	4018
20°	11341	4807	3057	3267	3594
25°	48825	4984	2371	2928	3508
30°	184611	6026	2000	2836	3418
35°	559637	7254	1874	2864	3614
40°	927996	7214	1603	3063	3864
45°	1078624	4931	1458	3194	4186
50°	837294	2695	1433	3343	4776
55°	484609	1797	1415	3747	5161
60°	81923	395	1228	3903	5745
65°	6278	0	1453	4358	6538
70°	898	0	1795	4809	7501
75°	763	424	1949	5507	8727
80°	631	631	2904	5935	9976
85°	1258	1258	4780	5787	10567

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1078624 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.0	0.6
10°-20°	6.2	1.3
20°-30°	19.8	4.0
30°-40°	126.7	25.5
40°-50°	232.0	46.7
50°-60°	95.3	19.2
60°-70°	8.0	1.6
70°-80°	4.0	0.8
80°-90°	1.9	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°	29.0	5.8
0°-40°	155.8	31.3
0°-60°	483.1	97.2
0°-90°	497.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	497.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	35	35	35	35	35	
5°	40	37	32	28	27	4
15°	34	25	18	17	18	11
25°	202	21	10	12	14	133
35°	2091	27	7	11	14	1323
45°	3478	16	5	10	14	2497
55°	1268	5	4	10	14	1108
65°	12	0	3	8	13	40
75°	1	0	2	6	10	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°	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.6
2.5°	37.8	37.8	37.8	37.4	37.4	37.8	37.4	37.4	37.4	37.4	36.9
5°	40.2	40.2	40.2	40.2	40.2	40.2	40.2	39.7	39.7	39.2	37.4
7.5°	41.1	41.1	41.1	41.1	40.6	40.6	40.6	40.6	40.2	39.7	36.4
10°	39.2	39.2	39.2	38.8	38.8	38.8	38.3	38.3	37.8	37.4	33.6
12.5°	35.5	35.5	35.5	35.5	35.0	35.0	34.6	34.6	34.1	33.6	29.4
15°	33.6	33.6	33.6	33.2	33.2	32.7	32.2	31.8	31.3	30.4	25.2
17.5°	36.4	36.4	36.0	36.0	35.0	34.1	33.6	32.2	31.3	29.9	22.4
20°	48.6	49.0	47.2	45.8	44.8	42.0	40.6	38.3	36.4	34.1	20.6
22.5°	98.1	96.2	92.9	87.8	81.7	76.6	67.3	59.8	54.6	47.6	20.1
25°	201.8	199.9	191.0	183.6	164.9	150.4	130.3	114.0	97.1	80.8	20.6
27.5°	383.5	370.8	368.5	334.4	308.3	270.9	232.1	199.4	169.5	136.4	22.0
30°	729.1	714.6	663.7	612.3	541.8	461.9	385.8	314.8	255.5	201.8	23.8
31°	925.3	939.3	879.5	776.3	672.1	569.8	465.7	375.5	298.9	232.1	24.8
32°	1216.2	1155.0	1092.0	986.0	834.6	703.9	573.1	443.2	342.4	264.8	25.7
33°	1491.3	1455.4	1359.2	1227.0	1045.3	861.7	692.2	523.1	395.6	304.5	26.2
34°	1784.6	1744.9	1666.9	1477.3	1277.9	1037.3	811.3	615.1	459.1	343.3	26.6
35°	2090.6	2073.8	1923.4	1759.0	1513.8	1223.7	954.7	716.0	521.2	378.8	27.1
36°	2398.4	2344.2	2226.5	1986.4	1730.5	1396.1	1105.1	809.9	584.3	420.8	27.1
37°	2630.0	2617.9	2461.9	2227.9	1927.1	1580.1	1234.9	914.0	647.8	456.8	27.1
38°	2885.5	2837.4	2679.1	2440.9	2112.1	1748.7	1370.8	1004.7	708.1	489.5	26.6
39°	3100.8	3029.4	2869.6	2634.2	2273.7	1876.7	1478.7	1092.5	761.3	516.6	26.2
40°	3241.9	3192.4	3025.6	2760.8	2420.3	1997.6	1588.0	1164.9	801.0	537.1	25.2
41°	3397.4	3315.2	3150.3	2884.1	2526.8	2104.1	1656.7	1212.5	831.8	550.7	24.3
42°	3490.4	3423.1	3227.4	2966.8	2602.9	2164.8	1712.7	1248.9	850.5	557.7	22.4
43°	3577.2	3485.7	3295.1	3014.9	2653.4	2207.8	1738.4	1265.7	854.7	557.7	20.1
44°	3565.6	3478.7	3281.1	3021.4	2664.6	2220.4	1749.2	1266.2	848.2	550.7	17.7
45°	3478.2	3391.8	3213.9	2964.5	2624.4	2195.7	1727.7	1247.5	830.0	538.5	15.9
46°	3318.0	3232.1	3095.7	2869.2	2549.7	2139.6	1677.7	1206.9	799.6	518.9	14.0
47°	3143.8	3060.2	2920.5	2715.5	2422.2	2039.7	1605.3	1149.9	757.1	490.4	12.6
48°	2891.1	2838.8	2698.7	2523.5	2245.2	1883.2	1478.3	1057.0	700.1	453.5	10.7
49°	2667.9	2612.8	2489.9	2301.7	2014.4	1701.0	1326.5	943.9	625.9	412.4	9.3
50°	2454.4	2406.3	2292.8	2080.3	1806.1	1481.1	1121.4	801.5	532.5	361.5	7.9
51°	2245.6	2209.7	2093.8	1898.6	1620.2	1312.0	971.5	667.4	440.0	299.9	7.5
52°	2035.9	2031.7	1906.1	1708.5	1439.5	1143.4	825.8	563.3	373.2	251.7	7.0
53°	1810.3	1783.2	1673.5	1496.0	1237.7	967.8	700.1	475.0	321.3	214.4	6.1
54°	1553.5	1523.1	1405.4	1245.2	1011.2	792.6	564.2	383.9	267.6	181.2	5.6
55°	1267.6	1215.8	1130.3	965.9	789.8	604.8	435.8	304.1	213.9	150.9	4.7
56°	961.7	909.8	861.7	740.8	579.6	451.2	324.6	233.1	167.2	119.1	4.2
57°	668.8	666.0	587.1	494.2	387.7	307.3	222.3	164.4	118.2	92.5	3.3
58°	433.9	419.4	369.0	315.3	253.6	192.0	142.9	111.6	80.3	63.1	2.8
59°	304.1	275.1	248.0	210.2	159.7	121.0	92.0	71.5	55.6	43.9	1.9
60°	186.8	180.8	162.5	128.0	103.7	85.5	68.7	52.8	40.6	31.3	0.9
62.5°	53.2	54.2	49.0	43.4	37.4	32.2	29.0	24.8	20.6	16.3	0.0
65°	12.1	11.7	12.6	11.7	10.7	10.7	9.3	8.4	7.5	7.0	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°	3.7	3.7	3.3	3.3	3.3	2.8	2.8	2.3	2.3	1.9	0.0
70°	1.4	1.4	1.4	1.4	1.4	0.9	0.9	0.9	0.5	0.5	0.0
72.5°	1.4	1.4	1.4	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5
75°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5
77.5°	0.9	0.9	0.9	0.9	0.9	0.5	0.9	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°	34.6	34.6	34.6	34.6	34.6	34.6
2.5°	36.0	34.1	32.7	31.3	30.8	30.8
5°	35.0	32.2	29.4	28.0	27.1	27.1
7.5°	32.2	29.0	26.2	24.8	24.3	24.3
10°	29.0	25.2	22.4	21.5	21.5	21.0
12.5°	25.2	21.5	19.6	19.1	19.1	19.1
15°	21.0	18.2	16.8	16.8	17.3	17.7
17.5°	17.7	14.9	14.5	15.4	16.3	16.3
20°	14.9	13.1	13.1	14.0	14.9	15.4
22.5°	12.6	11.2	11.7	13.1	14.5	14.9
25°	11.2	9.8	10.7	12.1	13.5	14.5
27.5°	9.3	8.9	9.8	11.7	13.5	14.0
30°	7.9	7.9	9.3	11.2	13.1	13.5
31°	7.5	7.5	9.3	11.2	13.1	13.5
32°	7.0	7.5	8.9	11.2	13.1	13.5
33°	6.5	7.0	8.9	10.7	13.1	13.5
34°	6.1	7.0	8.9	10.7	13.1	13.5
35°	5.6	7.0	8.9	10.7	13.1	13.5
36°	5.1	6.5	8.4	10.7	13.1	13.5
37°	4.7	6.5	8.4	10.7	13.1	13.5
38°	4.2	6.1	8.4	10.7	13.1	13.5
39°	4.2	6.1	7.9	10.7	12.6	13.5
40°	3.7	5.6	7.9	10.7	12.6	13.5
41°	3.3	5.6	7.9	10.3	12.6	13.5
42°	2.8	5.1	7.5	10.3	12.6	13.5
43°	2.3	5.1	7.5	10.3	12.6	13.5
44°	2.3	4.7	7.5	10.3	12.6	13.5
45°	1.9	4.7	7.5	10.3	12.6	13.5
46°	1.4	4.7	7.5	10.3	12.6	13.5
47°	1.4	4.2	7.0	10.3	12.6	13.5
48°	0.9	4.2	7.0	10.3	12.6	13.5
49°	0.9	4.2	7.0	10.3	12.6	14.0
50°	0.9	4.2	7.0	9.8	12.6	14.0
51°	0.5	4.2	7.0	9.8	12.6	14.0
52°	0.5	4.2	6.5	9.8	13.1	14.0
53°	0.5	3.7	6.5	9.8	13.1	14.0
54°	0.5	3.7	6.5	9.8	13.1	13.5
55°	0.5	3.7	6.5	9.8	12.6	13.5
56°	0.5	3.3	6.5	9.8	12.6	13.5
57°	0.5	3.3	6.1	9.3	12.6	13.1
58°	0.5	3.3	6.1	9.3	12.6	13.1
59°	0.5	3.3	6.1	9.3	12.1	13.1
60°	0.9	2.8	5.6	8.9	12.1	13.1
62.5°	0.9	2.8	5.6	8.9	11.7	12.6
65°	0.9	2.8	5.1	8.4	11.7	12.6



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.9	2.3	4.7	7.9	11.2	12.1
70°	0.9	2.8	4.7	7.5	10.7	11.7
72.5°	1.4	2.3	4.2	7.0	10.3	11.2
75°	1.4	2.3	4.2	6.5	9.8	10.3
77.5°	1.9	2.3	3.7	5.6	8.9	9.3
80°	1.9	2.3	3.3	4.7	7.5	7.9
82.5°	1.9	2.3	2.3	3.7	5.6	6.1
85°	1.4	1.9	1.9	2.3	3.7	4.2
87.5°	1.4	1.9	1.4	0.9	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)