

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: P1336854

Luminaire Tested: P3A05R209035DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336854
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: P3A05R209035DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 90CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

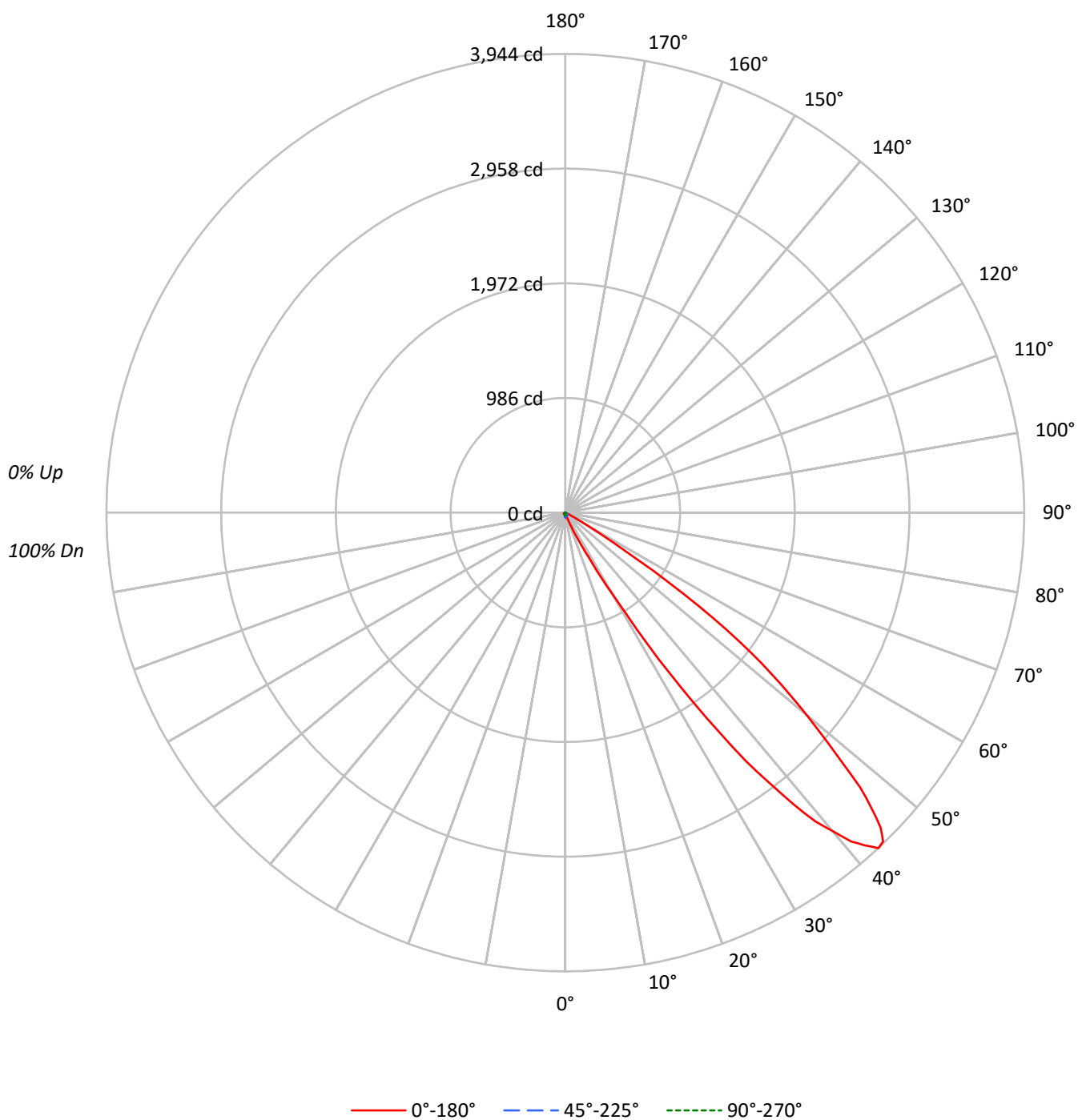
Lumens per Lamp: N/A
Luminaire Lumens: 548.0 lumens
Efficiency: N/A
Efficacy: 76.1 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	8355	8355	8355	8355	8355
5°	9751	9069	7814	6802	6582
10°	9641	8261	6190	5277	5166
15°	8422	6311	4563	4200	4450
20°	12508	5297	3360	3594	3967
25°	53834	5492	2613	3242	3871
30°	203550	6659	2228	3140	3773
35°	617057	8004	2061	3159	3989
40°	1023231	7958	1775	3378	4265
45°	1189302	5427	1582	3504	4621
50°	923228	3002	1569	3684	5254
55°	534347	1950	1567	4129	5696
60°	90344	439	1360	4298	6315
65°	6953	0	1608	4825	7212
70°	962	0	1988	5257	8271
75°	847	424	2203	6100	9574
80°	631	631	3283	6440	11113
85°	1258	1258	5284	6542	11573

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1189302 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.3	0.6
10°-20°	6.9	1.3
20°-30°	21.9	4.0
30°-40°	139.7	25.5
40°-50°	255.8	46.7
50°-60°	105.1	19.2
60°-70°	8.9	1.6
70°-80°	4.4	0.8
80°-90°	2.1	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°	32.0	5.8
0°-40°	171.8	31.3
0°-60°	532.6	97.2
0°-90°	548.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	548.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	38	38	38	38	38	
5°	44	41	36	31	30	4
15°	37	28	20	18	20	12
25°	222	23	11	13	16	146
35°	2305	30	8	12	15	1459
45°	3835	18	5	11	15	2754
55°	1398	5	4	11	15	1222
65°	13	0	3	9	14	44
75°	1	0	3	7	11	1
85°	0	0	2	3	5	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°	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
2.5°	41.7	41.7	41.7	41.2	41.2	41.7	41.2	41.2	41.2	41.2	40.7
5°	44.3	44.3	44.3	44.3	44.3	44.3	44.3	43.8	43.8	43.3	41.2
7.5°	45.3	45.3	45.3	45.3	44.8	44.8	44.8	44.8	44.3	43.8	40.2
10°	43.3	43.3	43.3	42.7	42.7	42.7	42.2	42.2	41.7	41.2	37.1
12.5°	39.1	39.1	39.1	39.1	38.6	38.6	38.1	38.1	37.6	37.1	32.4
15°	37.1	37.1	37.1	36.6	36.6	36.0	35.5	35.0	34.5	33.5	27.8
17.5°	40.2	40.2	39.7	39.7	38.6	37.6	37.1	35.5	34.5	33.0	24.7
20°	53.6	54.1	52.0	50.5	49.4	46.3	44.8	42.2	40.2	37.6	22.7
22.5°	108.1	106.1	102.5	96.8	90.1	84.5	74.2	65.9	60.3	52.5	22.1
25°	222.5	220.4	210.6	202.4	181.8	165.8	143.7	125.7	107.1	89.1	22.7
27.5°	422.8	408.9	406.3	368.7	339.9	298.7	256.0	219.9	186.9	150.4	24.2
30°	803.9	787.9	731.8	675.2	597.4	509.3	425.4	347.1	281.7	222.5	26.3
31°	1020.2	1035.6	969.7	855.9	741.1	628.3	513.4	414.1	329.6	256.0	27.3
32°	1341.0	1273.6	1204.0	1087.1	920.3	776.1	631.9	488.7	377.5	292.0	28.3
33°	1644.4	1604.7	1498.6	1352.9	1152.6	950.2	763.2	576.8	436.2	335.8	28.8
34°	1967.8	1924.0	1838.0	1628.9	1409.0	1143.8	894.5	678.2	506.2	378.5	29.4
35°	2305.1	2286.6	2120.7	1939.5	1669.1	1349.3	1052.6	789.5	574.7	417.7	29.9
36°	2644.5	2584.7	2455.0	2190.3	1908.0	1539.3	1218.5	893.0	644.3	464.0	29.9
37°	2899.9	2886.5	2714.5	2456.5	2124.9	1742.2	1361.6	1007.8	714.3	503.7	29.9
38°	3181.6	3128.6	2954.0	2691.3	2328.8	1928.1	1511.5	1107.7	780.7	539.7	29.4
39°	3419.0	3340.2	3164.1	2904.6	2507.0	2069.2	1630.5	1204.6	839.4	569.6	28.8
40°	3574.6	3520.0	3336.1	3044.1	2668.7	2202.6	1751.0	1284.4	883.2	592.2	27.8
41°	3746.0	3655.4	3473.6	3180.1	2786.1	2320.0	1826.7	1336.9	917.2	607.2	26.8
42°	3848.5	3774.4	3558.6	3271.2	2870.0	2387.0	1888.5	1377.1	937.8	614.9	24.7
43°	3944.3	3843.4	3633.3	3324.3	2925.7	2434.4	1916.8	1395.6	942.4	614.9	22.1
44°	3931.4	3835.7	3617.8	3331.5	2938.0	2448.3	1928.6	1396.1	935.2	607.2	19.6
45°	3835.1	3739.9	3543.7	3268.7	2893.7	2421.0	1905.0	1375.5	915.1	593.8	17.5
46°	3658.5	3563.7	3413.4	3163.6	2811.3	2359.2	1849.8	1330.7	881.7	572.2	15.4
47°	3466.4	3374.2	3220.2	2994.2	2670.7	2249.0	1770.0	1267.9	834.8	540.7	13.9
48°	3187.8	3130.1	2975.6	2782.5	2475.6	2076.4	1629.9	1165.4	772.0	500.1	11.8
49°	2941.6	2880.9	2745.4	2537.9	2221.2	1875.6	1462.6	1040.8	690.1	454.7	10.3
50°	2706.3	2653.2	2528.1	2293.8	1991.5	1633.0	1236.5	883.7	587.1	398.6	8.8
51°	2476.1	2436.4	2308.7	2093.4	1786.5	1446.6	1071.2	735.9	485.1	330.6	8.2
52°	2244.8	2240.2	2101.7	1883.8	1587.2	1260.7	910.5	621.1	411.5	277.6	7.7
53°	1996.1	1966.2	1845.2	1649.5	1364.7	1067.1	772.0	523.7	354.3	236.4	6.7
54°	1712.9	1679.4	1549.6	1373.0	1115.0	873.9	622.1	423.3	295.1	199.8	6.2
55°	1397.7	1340.5	1246.3	1065.0	870.9	666.9	480.5	335.3	235.9	166.3	5.1
56°	1060.4	1003.2	950.2	816.8	639.1	497.5	357.9	257.0	184.4	131.3	4.6
57°	737.5	734.4	647.3	544.9	427.4	338.9	245.1	181.3	130.3	102.0	3.6
58°	478.4	462.5	406.8	347.6	279.6	211.7	157.6	123.1	88.6	69.5	3.1
59°	335.3	303.3	273.5	231.7	176.1	133.4	101.5	78.8	61.3	48.4	2.1
60°	206.0	199.3	179.2	141.1	114.3	94.2	75.7	58.2	44.8	34.5	1.0
62.5°	58.7	59.7	54.1	47.9	41.2	35.5	31.9	27.3	22.7	18.0	0.0
65°	13.4	12.9	13.9	12.9	11.8	11.8	10.3	9.3	8.2	7.7	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°	4.1	4.1	3.6	3.6	3.6	3.1	3.1	2.6	2.6	2.1	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°	38.1	38.1	38.1	38.1	38.1	38.1
2.5°	39.7	37.6	36.0	34.5	34.0	34.0
5°	38.6	35.5	32.4	30.9	29.9	29.9
7.5°	35.5	31.9	28.8	27.3	26.8	26.8
10°	31.9	27.8	24.7	23.7	23.7	23.2
12.5°	27.8	23.7	21.6	21.1	21.1	21.1
15°	23.2	20.1	18.5	18.5	19.1	19.6
17.5°	19.6	16.5	16.0	17.0	18.0	18.0
20°	16.5	14.4	14.4	15.4	16.5	17.0
22.5°	13.9	12.4	12.9	14.4	16.0	16.5
25°	12.4	10.8	11.8	13.4	14.9	16.0
27.5°	10.3	9.8	10.8	12.9	14.9	15.4
30°	8.8	8.8	10.3	12.4	14.4	14.9
31°	8.2	8.2	10.3	12.4	14.4	14.9
32°	7.7	8.2	9.8	12.4	14.4	14.9
33°	7.2	7.7	9.8	11.8	14.4	14.9
34°	6.7	7.7	9.8	11.8	14.4	14.9
35°	6.2	7.7	9.8	11.8	14.4	14.9
36°	5.7	7.2	9.3	11.8	14.4	14.9
37°	5.1	7.2	9.3	11.8	14.4	14.9
38°	4.6	6.7	9.3	11.8	14.4	14.9
39°	4.6	6.7	8.8	11.8	13.9	14.9
40°	4.1	6.2	8.8	11.8	13.9	14.9
41°	3.6	6.2	8.8	11.3	13.9	14.9
42°	3.1	5.7	8.2	11.3	13.9	14.9
43°	2.6	5.7	8.2	11.3	13.9	14.9
44°	2.6	5.1	8.2	11.3	13.9	14.9
45°	2.1	5.1	8.2	11.3	13.9	14.9
46°	1.5	5.1	8.2	11.3	13.9	14.9
47°	1.5	4.6	7.7	11.3	13.9	14.9
48°	1.0	4.6	7.7	11.3	13.9	14.9
49°	1.0	4.6	7.7	11.3	13.9	15.4
50°	1.0	4.6	7.7	10.8	13.9	15.4
51°	0.5	4.6	7.7	10.8	13.9	15.4
52°	0.5	4.6	7.2	10.8	14.4	15.4
53°	0.5	4.1	7.2	10.8	14.4	15.4
54°	0.5	4.1	7.2	10.8	14.4	14.9
55°	0.5	4.1	7.2	10.8	13.9	14.9
56°	0.5	3.6	7.2	10.8	13.9	14.9
57°	0.5	3.6	6.7	10.3	13.9	14.4
58°	0.5	3.6	6.7	10.3	13.9	14.4
59°	0.5	3.6	6.7	10.3	13.4	14.4
60°	1.0	3.1	6.2	9.8	13.4	14.4
62.5°	1.0	3.1	6.2	9.8	12.9	13.9
65°	1.0	3.1	5.7	9.3	12.9	13.9



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	2.6	5.1	8.8	12.4	13.4
70°	1.0	3.1	5.1	8.2	11.8	12.9
72.5°	1.5	2.6	4.6	7.7	11.3	12.4
75°	1.5	2.6	4.6	7.2	10.8	11.3
77.5°	2.1	2.6	4.1	6.2	9.8	10.3
80°	2.1	2.6	3.6	5.1	8.2	8.8
82.5°	2.1	2.6	2.6	4.1	6.2	6.7
85°	1.5	2.1	2.1	2.6	4.1	4.6
87.5°	1.5	2.1	1.5	1.0	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)