

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: P1335030

Luminaire Tested: P3A02R309040DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335030
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R309040DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R30 optic, 4000K CCT AND, 90CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

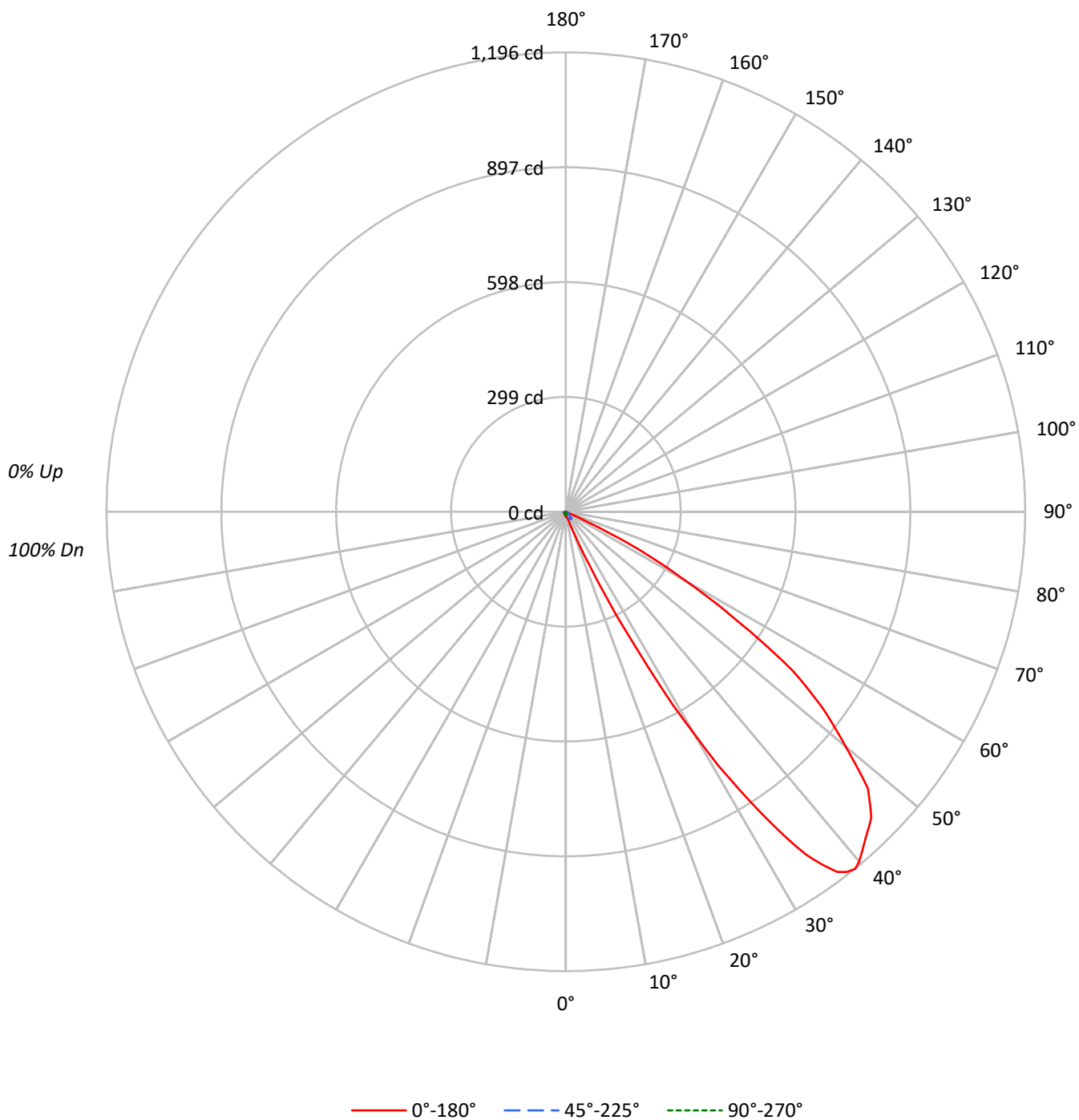
Lumens per Lamp: N/A
Luminaire Lumens: 311.0 lumens
Efficiency: N/A
Efficacy: 86.4 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.65 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73	73	73
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61	61	61
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52	50	50	50
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	42	42	42
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35	35	35
7	62	48	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29	29	29
8	56	42	33	27	55	41	33	27	40	32	26	39	32	26	37	31	26	24	24	24
9	52	37	29	23	50	37	28	23	36	28	22	34	27	22	33	27	22	20	20	20
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	24	19	17	17	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	2653	2653	2653	2653	2653
5°	2818	2773	2597	2355	2311
10°	3095	2739	2271	2049	1982
15°	4518	2747	1907	1725	1793
20°	11364	2987	1470	1470	1657
25°	52793	3750	1137	1331	1524
30°	168076	5165	861	1266	1519
35°	291651	6318	696	1205	1553
40°	340152	6298	515	1202	1574
45°	348842	4466	558	1302	1706
50°	324424	2490	443	1330	1979
55°	275718	1300	497	1491	2217
60°	159242	351	570	1623	2412
65°	32481	0	675	1920	2698
70°	513	192	833	2180	3206
75°	424	254	847	2203	3813
80°	379	379	1263	2652	4293
85°	0	755	2516	2516	5284

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 348842 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.1	0.4
10°-20°	3.1	1.0
20°-30°	17.9	5.8
30°-40°	83.8	26.9
40°-50°	118.5	38.1
50°-60°	72.9	23.4
60°-70°	11.1	3.6
70°-80°	1.8	0.6
80°-90°	0.9	0.3
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°	22.2	7.1
0°-40°	105.9	34.1
0°-60°	297.3	95.6
0°-90°	311.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	311.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	12	12	12	12	12	
5°	13	13	12	11	10	1
15°	20	12	8	8	8	7
25°	218	16	5	6	6	134
35°	1090	24	3	4	6	654
45°	1125	14	2	4	6	853
55°	721	3	1	4	6	614
65°	63	0	1	4	5	113
75°	0	0	1	3	4	1
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
0°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
2.5°	12.3	12.3	12.6	12.6	12.3	12.6	12.6	12.6	12.1	11.8	11.3
5°	12.8	12.8	12.8	13.1	12.8	12.8	12.6	12.3	11.8	11.0	10.7
7.5°	13.4	13.4	13.1	13.4	13.1	13.1	12.6	12.1	11.3	10.5	10.0
10°	13.9	13.9	13.6	13.6	13.4	13.4	12.3	11.5	10.2	9.4	9.2
12.5°	15.5	15.5	15.2	14.9	14.4	14.1	12.1	10.7	9.2	8.4	8.1
15°	19.9	19.6	19.1	18.3	17.0	16.8	12.1	10.0	8.4	7.6	7.6
17.5°	27.2	27.0	26.2	24.1	21.7	21.0	12.1	8.9	7.3	6.8	6.8
20°	48.7	46.6	42.7	37.5	32.0	29.1	12.8	7.9	6.3	6.0	6.3
21°	63.7	61.6	56.6	47.9	38.2	35.1	13.4	7.6	6.0	5.8	6.3
22°	86.7	84.4	74.1	62.3	48.5	43.0	13.6	7.1	5.5	5.5	6.0
23°	121.0	117.1	99.8	80.9	60.5	52.7	14.1	6.8	5.2	5.5	5.8
24°	158.5	155.1	135.4	107.1	77.3	66.0	14.7	6.5	5.0	5.0	5.5
25°	218.2	214.3	179.5	135.2	98.0	79.4	15.5	6.0	4.7	4.7	5.5
26°	295.5	277.4	231.1	174.2	120.8	99.5	16.2	5.8	4.5	4.7	5.2
27°	368.9	353.9	301.8	223.5	149.3	122.3	17.3	5.5	4.2	4.5	5.2
28°	465.3	444.3	378.6	282.7	188.1	148.0	18.3	5.2	3.9	4.5	5.0
29°	573.2	543.9	464.5	349.2	231.8	176.8	19.4	5.0	3.7	4.2	5.0
30°	663.8	636.3	557.0	428.1	282.1	214.8	20.4	4.7	3.4	4.2	5.0
31°	770.2	728.5	632.4	494.9	325.4	252.8	21.5	4.2	3.1	3.9	4.7
32°	856.4	827.3	725.1	570.3	382.2	294.7	22.3	3.9	3.1	3.9	4.7
33°	939.7	900.7	801.9	642.6	433.6	337.7	23.1	3.7	2.9	3.7	4.7
34°	1019.3	983.4	874.5	701.0	482.0	378.6	23.6	3.1	2.9	3.7	4.5
35°	1089.5	1047.9	938.4	758.2	531.8	415.8	23.6	2.9	2.6	3.4	4.5
36°	1135.1	1105.3	993.9	814.5	576.9	451.1	23.6	2.6	2.4	3.4	4.2
37°	1174.2	1139.3	1038.5	857.7	610.1	479.4	23.6	2.4	2.4	3.4	4.2
38°	1190.1	1160.3	1069.1	895.9	641.3	508.2	23.3	2.1	2.1	3.1	4.2
39°	1196.4	1169.7	1092.2	923.5	664.4	527.6	22.8	1.8	2.1	3.1	4.2
40°	1188.3	1168.1	1104.0	941.3	682.7	541.8	22.0	1.6	1.8	3.1	4.2
42.5°	1154.8	1141.4	1101.3	959.1	698.4	552.2	19.1	1.0	1.8	2.9	4.2
45°	1124.9	1110.2	1074.9	940.5	678.0	531.5	14.4	0.5	1.8	2.9	4.2
47.5°	1067.0	1057.8	1030.1	893.1	633.2	484.9	10.2	0.3	1.6	2.6	3.9
50°	951.0	942.3	905.6	775.4	544.6	410.0	7.3	0.3	1.3	2.6	3.9
52.5°	847.0	837.8	785.1	644.7	418.4	300.5	4.7	0.3	1.3	2.6	3.9
55°	721.2	705.2	636.1	489.4	296.6	201.5	3.4	0.3	1.3	2.4	3.9
57.5°	533.9	510.6	448.8	333.8	170.8	109.2	1.8	0.3	1.3	2.4	3.9
60°	363.1	349.2	280.8	176.0	72.8	46.1	0.8	0.3	1.3	2.4	3.7
62.5°	220.1	202.5	141.2	74.9	31.4	21.0	0.0	0.5	1.3	2.4	3.7
65°	62.6	55.5	36.9	17.0	8.9	6.8	0.0	0.5	1.3	2.4	3.7
67.5°	2.1	2.1	2.1	1.8	1.3	1.3	0.3	0.5	1.3	2.4	3.4
70°	0.8	0.8	0.8	0.5	0.5	0.3	0.3	0.5	1.3	2.1	3.4
72.5°	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.5	1.0	1.8	3.1
75°	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.8	1.0	1.8	2.6
77.5°	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.8	1.0	1.6	2.6
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.0	1.6	2.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.3	0.3	0.3	0.0	0.0	0.0	0.3	0.8	1.0	1.0	1.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	1.0	0.8	1.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	0.8	0.8	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):

	157.5°	180°
0°	12.1	12.1
2.5°	11.3	11.3
5°	10.5	10.5
7.5°	9.7	9.7
10°	8.9	8.9
12.5°	8.4	8.4
15°	7.6	7.9
17.5°	7.1	7.3
20°	6.8	7.1
21°	6.8	7.1
22°	6.5	6.8
23°	6.5	6.8
24°	6.3	6.5
25°	6.0	6.3
26°	6.0	6.3
27°	6.0	6.3
28°	5.8	6.3
29°	5.8	6.0
30°	5.8	6.0
31°	5.5	6.0
32°	5.5	6.0
33°	5.5	5.8
34°	5.2	5.8
35°	5.2	5.8
36°	5.2	5.8
37°	5.2	5.5
38°	5.2	5.8
39°	5.2	5.5
40°	5.2	5.5
42.5°	5.2	5.5
45°	5.2	5.5
47.5°	5.2	5.8
50°	5.2	5.8
52.5°	5.2	5.8
55°	5.2	5.8
57.5°	5.2	5.5
60°	5.2	5.5
62.5°	5.0	5.5
65°	5.0	5.2
67.5°	5.0	5.2
70°	4.7	5.0
72.5°	4.5	4.7
75°	3.9	4.5
77.5°	3.7	3.9
80°	3.1	3.4



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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	2.6	2.6
85°	1.8	2.1
87.5°	1.0	1.0
90°	0.0	0.0

(END OF REPORT)