

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: P1336954

Luminaire Tested: P3A05R209827DE010 E3A451H

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336954
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: P3A05R209827DE010 E3A451H
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 98CRI , E3A451H TRIM
Light Source: -
Ballast/Driver: -

Summary

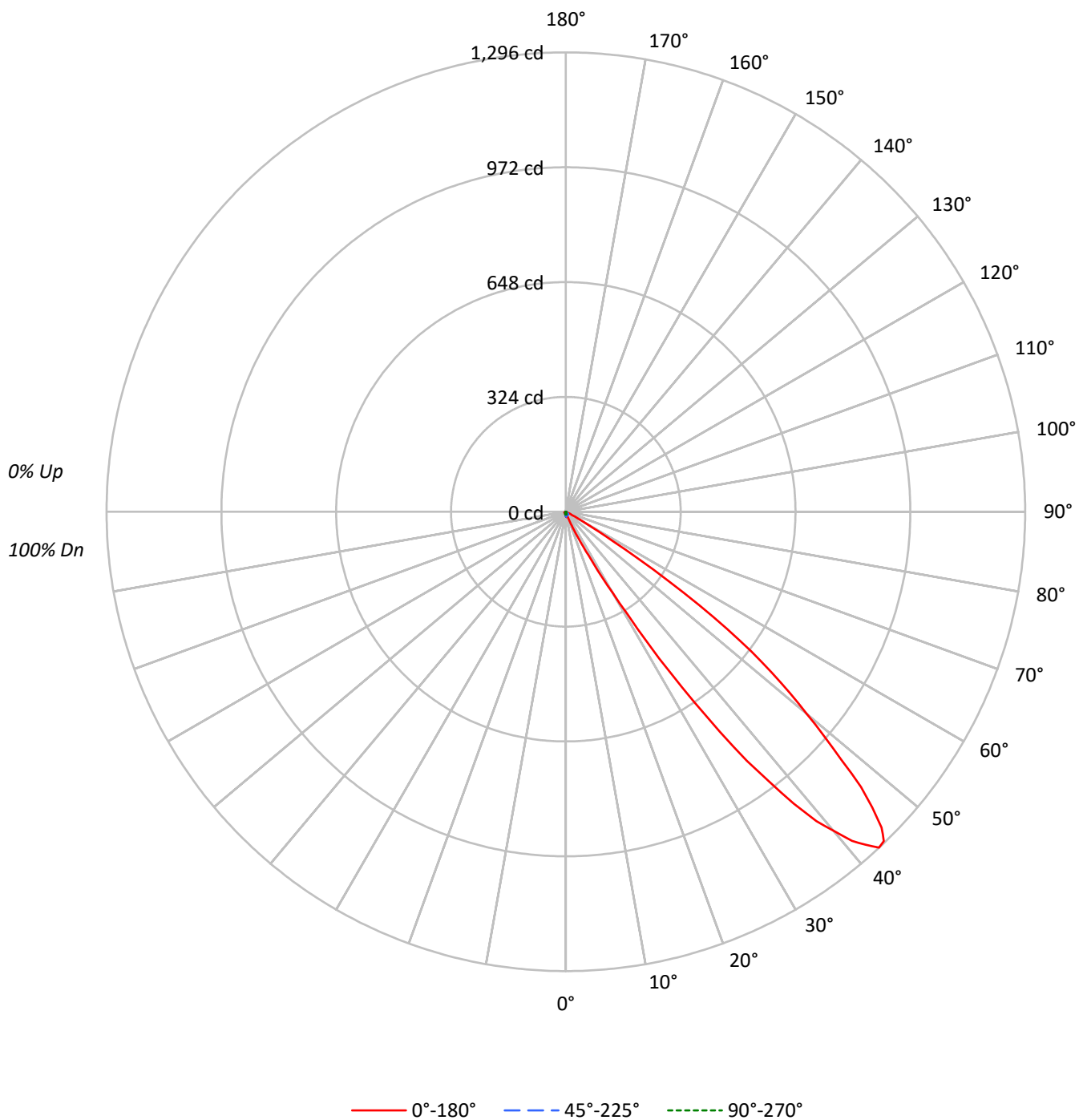
Lumens per Lamp: N/A
Luminaire Lumens: 180.0 lumens
Efficiency: N/A
Efficacy: 25.0 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	50	30	10
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°	2741	2741	2741	2741	2741
5°	3192	2972	2575	2223	2157
10°	3162	2716	2026	1737	1692
15°	2770	2066	1498	1385	1453
20°	4107	1727	1097	1190	1307
25°	17687	1790	871	1065	1258
30°	66871	2178	734	1038	1241
35°	202697	2623	669	1044	1312
40°	336087	2605	573	1116	1403
45°	390645	1799	527	1147	1520
50°	303240	989	512	1228	1740
55°	175516	650	535	1376	1873
60°	29691	132	439	1403	2061
65°	2283	0	519	1557	2387
70°	321	0	641	1731	2693
75°	254	169	678	2033	3135
80°	253	253	1010	2147	3662
85°	503	503	1761	2013	3774

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 390645 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.1	0.6
10°-20°	2.2	1.2
20°-30°	7.2	4.0
30°-40°	45.9	25.5
40°-50°	84.0	46.7
50°-60°	34.5	19.2
60°-70°	2.9	1.6
70°-80°	1.4	0.8
80°-90°	0.7	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°	10.5	5.8
0°-40°	56.4	31.3
0°-60°	175.0	97.2
0°-90°	180.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	180.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	12	12	12	12	12	
5°	14	14	12	10	10	1
15°	12	9	7	6	6	4
25°	73	7	4	4	5	48
35°	757	10	2	4	5	479
45°	1260	6	2	4	5	904
55°	459	2	1	4	5	401
65°	4	0	1	3	5	14
75°	0	0	1	2	4	0
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°	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
2.5°	13.7	13.7	13.7	13.5	13.5	13.7	13.5	13.5	13.5	13.5	13.4
5°	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.4	14.4	14.2	13.5
7.5°	14.9	14.9	14.9	14.9	14.7	14.7	14.7	14.7	14.5	14.4	13.2
10°	14.2	14.2	14.2	14.0	14.0	14.0	13.9	13.9	13.7	13.5	12.2
12.5°	12.9	12.9	12.9	12.9	12.7	12.7	12.5	12.5	12.3	12.2	10.7
15°	12.2	12.2	12.2	12.0	12.0	11.8	11.7	11.5	11.3	11.0	9.1
17.5°	13.2	13.2	13.0	13.0	12.7	12.3	12.2	11.7	11.3	10.8	8.1
20°	17.6	17.8	17.1	16.6	16.2	15.2	14.7	13.9	13.2	12.3	7.4
22.5°	35.5	34.8	33.7	31.8	29.6	27.7	24.4	21.7	19.8	17.3	7.3
25°	73.1	72.4	69.2	66.5	59.7	54.5	47.2	41.3	35.2	29.3	7.4
27.5°	138.9	134.3	133.5	121.1	111.6	98.1	84.1	72.2	61.4	49.4	8.0
30°	264.1	258.8	240.4	221.8	196.2	167.3	139.7	114.0	92.5	73.1	8.6
31°	335.1	340.2	318.5	281.1	243.4	206.4	168.7	136.0	108.3	84.1	9.0
32°	440.5	418.3	395.5	357.1	302.3	254.9	207.6	160.5	124.0	95.9	9.3
33°	540.1	527.1	492.2	444.4	378.6	312.1	250.7	189.5	143.3	110.3	9.5
34°	646.4	632.0	603.7	535.0	462.8	375.7	293.8	222.8	166.3	124.3	9.6
35°	757.2	751.1	696.6	637.0	548.2	443.2	345.8	259.3	188.8	137.2	9.8
36°	868.6	849.0	806.4	719.4	626.7	505.6	400.2	293.3	211.6	152.4	9.8
37°	952.5	948.1	891.6	806.9	697.9	572.3	447.3	331.0	234.6	165.4	9.8
38°	1045.1	1027.6	970.3	884.0	764.9	633.3	496.5	363.9	256.4	177.3	9.6
39°	1123.0	1097.2	1039.3	954.0	823.5	679.7	535.6	395.7	275.7	187.1	9.5
40°	1174.1	1156.2	1095.8	999.9	876.6	723.5	575.1	421.9	290.1	194.5	9.1
41°	1230.5	1200.7	1141.0	1044.5	915.1	762.1	600.0	439.1	301.3	199.4	8.8
42°	1264.1	1239.8	1168.9	1074.5	942.7	784.0	620.3	452.3	308.0	202.0	8.1
43°	1295.6	1262.4	1193.4	1091.9	961.0	799.6	629.6	458.4	309.6	202.0	7.3
44°	1291.4	1259.9	1188.3	1094.3	965.0	804.2	633.5	458.6	307.2	199.4	6.4
45°	1259.7	1228.4	1164.0	1073.6	950.5	795.2	625.7	451.8	300.6	195.0	5.8
46°	1201.7	1170.6	1121.2	1039.1	923.4	774.9	607.6	437.1	289.6	187.9	5.1
47°	1138.6	1108.3	1057.7	983.5	877.3	738.7	581.4	416.5	274.2	177.6	4.6
48°	1047.1	1028.1	977.4	914.0	813.1	682.0	535.4	382.8	253.6	164.3	3.9
49°	966.2	946.3	901.8	833.6	729.6	616.1	480.4	341.9	226.7	149.4	3.4
50°	888.9	871.5	830.4	753.4	654.1	536.4	406.1	290.3	192.8	130.9	2.9
51°	813.3	800.3	758.3	687.6	586.8	475.2	351.8	241.7	159.3	108.6	2.7
52°	737.4	735.8	690.3	618.8	521.3	414.1	299.1	204.0	135.2	91.2	2.5
53°	655.7	645.8	606.1	541.8	448.3	350.5	253.6	172.0	116.4	77.6	2.2
54°	562.6	551.6	509.0	451.0	366.2	287.1	204.3	139.0	96.9	65.6	2.0
55°	459.1	440.3	409.4	349.8	286.0	219.1	157.8	110.1	77.5	54.6	1.7
56°	348.3	329.5	312.1	268.3	209.9	163.4	117.6	84.4	60.6	43.1	1.5
57°	242.2	241.2	212.6	179.0	140.4	111.3	80.5	59.5	42.8	33.5	1.2
58°	157.1	151.9	133.6	114.2	91.9	69.5	51.8	40.4	29.1	22.8	1.0
59°	110.1	99.6	89.8	76.1	57.9	43.8	33.3	25.9	20.1	15.9	0.7
60°	67.7	65.5	58.9	46.3	37.6	31.0	24.9	19.1	14.7	11.3	0.3
62.5°	19.3	19.6	17.8	15.7	13.5	11.7	10.5	9.0	7.4	5.9	0.0
65°	4.4	4.2	4.6	4.2	3.9	3.9	3.4	3.0	2.7	2.5	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°	1.4	1.4	1.2	1.2	1.2	1.0	1.0	0.8	0.8	0.7	0.0
70°	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.0
72.5°	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
75°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
77.5°	0.3	0.3	0.3	0.3	0.3	0.2	0.3	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°	12.5	12.5	12.5	12.5	12.5	12.5
2.5°	13.0	12.3	11.8	11.3	11.2	11.2
5°	12.7	11.7	10.7	10.1	9.8	9.8
7.5°	11.7	10.5	9.5	9.0	8.8	8.8
10°	10.5	9.1	8.1	7.8	7.8	7.6
12.5°	9.1	7.8	7.1	6.9	6.9	6.9
15°	7.6	6.6	6.1	6.1	6.3	6.4
17.5°	6.4	5.4	5.2	5.6	5.9	5.9
20°	5.4	4.7	4.7	5.1	5.4	5.6
22.5°	4.6	4.1	4.2	4.7	5.2	5.4
25°	4.1	3.6	3.9	4.4	4.9	5.2
27.5°	3.4	3.2	3.6	4.2	4.9	5.1
30°	2.9	2.9	3.4	4.1	4.7	4.9
31°	2.7	2.7	3.4	4.1	4.7	4.9
32°	2.5	2.7	3.2	4.1	4.7	4.9
33°	2.4	2.5	3.2	3.9	4.7	4.9
34°	2.2	2.5	3.2	3.9	4.7	4.9
35°	2.0	2.5	3.2	3.9	4.7	4.9
36°	1.9	2.4	3.0	3.9	4.7	4.9
37°	1.7	2.4	3.0	3.9	4.7	4.9
38°	1.5	2.2	3.0	3.9	4.7	4.9
39°	1.5	2.2	2.9	3.9	4.6	4.9
40°	1.4	2.0	2.9	3.9	4.6	4.9
41°	1.2	2.0	2.9	3.7	4.6	4.9
42°	1.0	1.9	2.7	3.7	4.6	4.9
43°	0.8	1.9	2.7	3.7	4.6	4.9
44°	0.8	1.7	2.7	3.7	4.6	4.9
45°	0.7	1.7	2.7	3.7	4.6	4.9
46°	0.5	1.7	2.7	3.7	4.6	4.9
47°	0.5	1.5	2.5	3.7	4.6	4.9
48°	0.3	1.5	2.5	3.7	4.6	4.9
49°	0.3	1.5	2.5	3.7	4.6	5.1
50°	0.3	1.5	2.5	3.6	4.6	5.1
51°	0.2	1.5	2.5	3.6	4.6	5.1
52°	0.2	1.5	2.4	3.6	4.7	5.1
53°	0.2	1.4	2.4	3.6	4.7	5.1
54°	0.2	1.4	2.4	3.6	4.7	4.9
55°	0.2	1.4	2.4	3.6	4.6	4.9
56°	0.2	1.2	2.4	3.6	4.6	4.9
57°	0.2	1.2	2.2	3.4	4.6	4.7
58°	0.2	1.2	2.2	3.4	4.6	4.7
59°	0.2	1.2	2.2	3.4	4.4	4.7
60°	0.3	1.0	2.0	3.2	4.4	4.7
62.5°	0.3	1.0	2.0	3.2	4.2	4.6
65°	0.3	1.0	1.9	3.0	4.2	4.6



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.3	0.8	1.7	2.9	4.1	4.4
70°	0.3	1.0	1.7	2.7	3.9	4.2
72.5°	0.5	0.8	1.5	2.5	3.7	4.1
75°	0.5	0.8	1.5	2.4	3.6	3.7
77.5°	0.7	0.8	1.4	2.0	3.2	3.4
80°	0.7	0.8	1.2	1.7	2.7	2.9
82.5°	0.7	0.8	0.8	1.4	2.0	2.2
85°	0.5	0.7	0.7	0.8	1.4	1.5
87.5°	0.5	0.7	0.5	0.3	0.7	0.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)