

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: P1343417

Luminaire Tested: P3A13R159030D2WDE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343417
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R159030D2WDE010 E3CA451MMS
Description: 3in Adjustable Dim to Warm LED luminaire with, R15 optic, 3000K CCT AND, 90CRI ,
E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

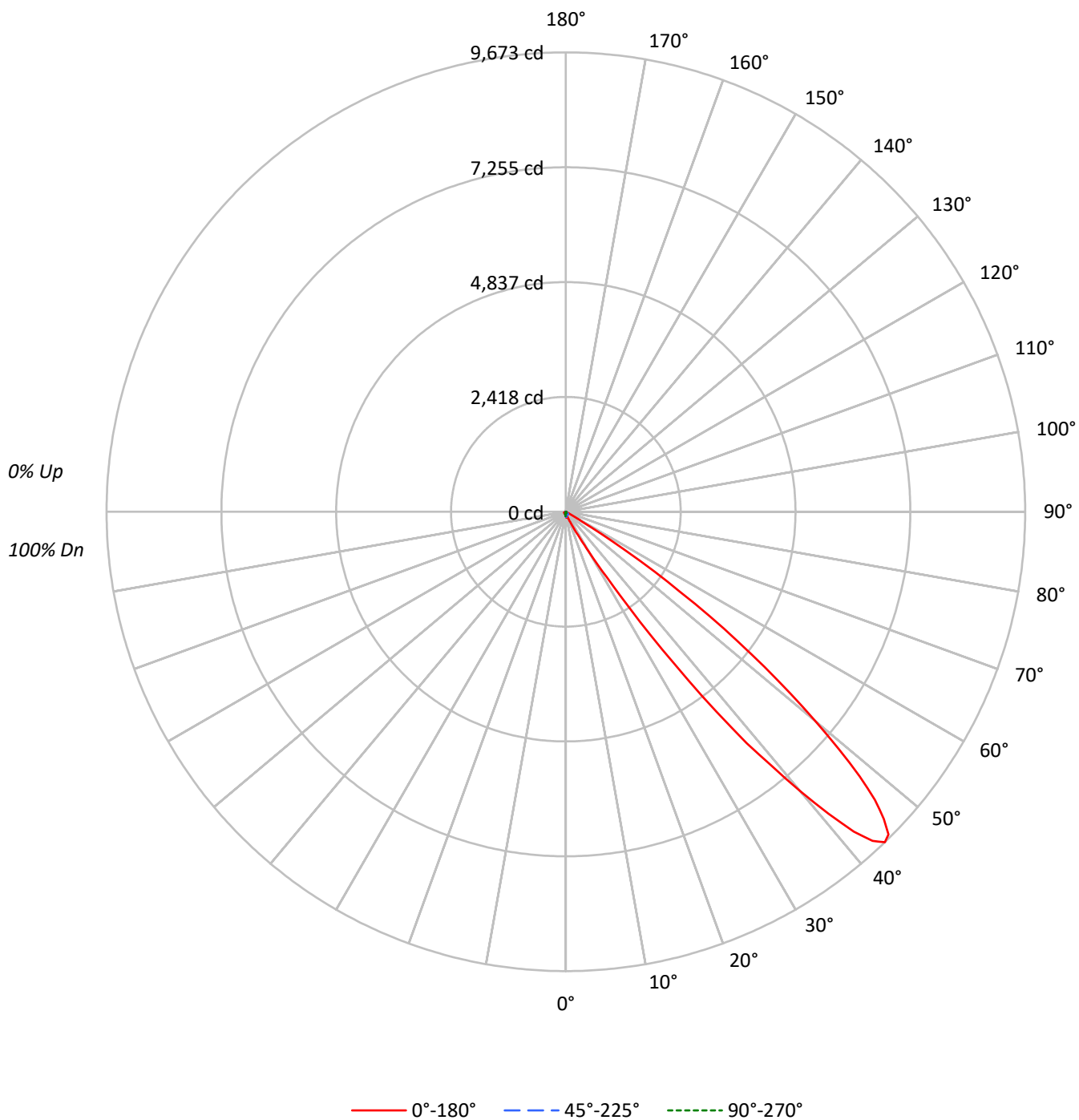
Lumens per Lamp: N/A
Luminaire Lumens: 1080.0 lumens
Efficiency: N/A
Efficacy: 53.7 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 20.1
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	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	107	104	100	97	100	97	94	96	93	91	92	90	89	87		
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61		
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50		
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35		
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29		
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24		
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20		
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	21007	21007	21007	21007	21007
5°	26084	23222	18952	16597	16355
10°	25651	19906	14629	12959	13182
15°	21271	14189	10511	10761	11487
20°	36940	11318	8051	9287	10548
25°	82335	13549	6508	8589	9896
30°	246215	16635	5722	8457	10356
35°	947818	18738	5193	8646	10949
40°	2200008	16345	4924	8931	11708
45°	2979782	12342	4342	9675	12683
50°	2336401	7335	4401	10302	13953
55°	1121451	3288	4129	11125	15216
60°	102492	482	3772	11797	17016
65°	11156	0	3373	12297	18420
70°	2757	0	4167	13143	20003
75°	2711	932	5507	14572	22791
80°	2778	2778	6819	14901	24498
85°	2768	2768	10819	13586	27172

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2979782 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	8.2	0.8
10°-20°	17.0	1.6
20°-30°	40.8	3.8
30°-40°	223.4	20.7
40°-50°	541.0	50.1
50°-60°	215.8	20.0
60°-70°	18.7	1.7
70°-80°	10.5	1.0
80°-90°	4.6	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°	66.0	6.1
0°-40°	289.4	26.8
0°-60°	1046.2	96.9
0°-90°	1080.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1080.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	96	96	96	96	96	
5°	118	106	86	75	74	11
15°	94	62	46	47	51	33
25°	340	56	27	36	41	205
35°	3541	70	19	32	41	2502
45°	9609	40	14	31	41	6778
55°	2933	9	11	29	40	2733
65°	22	0	6	24	36	55
75°	3	1	6	17	27	3
85°	1	1	4	5	11	1
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°	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8	95.8
2.5°	107.7	107.7	108.8	107.7	107.7	107.7	107.7	106.6	106.6	106.6	103.4
5°	118.5	118.5	118.5	118.5	117.4	117.4	117.4	116.3	116.3	115.2	105.5
7.5°	122.8	122.8	121.7	121.7	120.6	120.6	119.5	118.5	117.4	116.3	101.2
10°	115.2	115.2	115.2	114.1	114.1	113.1	112.0	110.9	109.8	107.7	89.4
12.5°	102.3	102.3	103.4	102.3	101.2	100.1	98.0	96.9	95.8	93.7	74.3
15°	93.7	93.7	93.7	92.6	91.5	89.4	88.3	86.1	85.1	81.8	62.5
17.5°	119.5	119.5	118.5	116.3	112.0	108.8	103.4	99.1	93.7	87.2	53.8
20°	158.3	158.3	156.1	154.0	148.6	143.2	134.6	127.1	118.5	110.9	48.5
22.5°	229.4	232.6	226.1	218.6	211.1	198.1	186.3	174.5	159.4	146.5	49.5
25°	340.3	343.5	340.3	323.1	309.1	291.8	269.2	245.5	219.7	196.0	56.0
27.5°	551.4	553.5	548.1	506.1	483.5	438.3	398.4	359.7	316.6	273.5	61.4
30°	972.4	973.5	939.0	855.0	780.7	681.7	597.7	516.9	449.1	380.1	65.7
31°	1280.4	1250.2	1177.0	1075.8	957.3	823.8	708.6	604.1	502.9	428.6	66.8
32°	1626.1	1621.8	1500.1	1324.5	1166.2	999.3	826.0	692.4	576.1	474.9	67.8
33°	2083.7	2085.9	1894.2	1687.4	1427.9	1203.9	976.7	793.6	653.7	529.8	70.0
34°	2798.8	2630.8	2405.7	2125.7	1772.5	1435.5	1140.4	911.0	723.7	582.6	70.0
35°	3540.7	3371.7	3124.0	2699.7	2215.1	1743.4	1335.3	1037.0	807.6	639.7	70.0
36°	4372.1	4228.8	3854.1	3312.4	2694.3	2034.2	1542.1	1182.4	890.6	691.3	68.9
37°	5270.2	5060.2	4644.5	4053.3	3226.3	2443.4	1794.1	1326.7	973.5	747.3	66.8
38°	6182.3	5992.7	5468.3	4752.2	3861.6	2875.2	2046.0	1465.6	1049.9	789.3	63.5
39°	6873.6	6770.2	6250.1	5450.0	4368.8	3284.4	2305.6	1614.2	1130.7	831.3	60.3
40°	7685.6	7518.6	7025.4	6035.8	4968.6	3701.2	2559.7	1745.6	1197.5	864.7	57.1
41°	8426.4	8215.4	7593.0	6636.7	5448.9	4075.9	2800.9	1881.3	1251.3	884.1	54.9
42°	9061.8	8816.3	8165.8	7151.4	5850.6	4375.3	2993.7	1978.2	1301.9	900.3	51.7
43°	9473.2	9261.0	8621.4	7538.0	6194.1	4649.9	3173.5	2079.4	1333.2	911.0	47.4
44°	9673.4	9459.2	8840.0	7780.3	6405.2	4814.6	3289.8	2149.4	1367.6	925.0	44.2
45°	9608.8	9391.3	8792.6	7784.6	6470.9	4873.9	3339.3	2180.6	1385.9	937.9	39.8
46°	9312.7	9159.8	8556.7	7582.2	6345.9	4810.3	3311.3	2157.0	1379.5	937.9	35.5
47°	8897.0	8722.6	8148.6	7234.4	6043.3	4646.7	3198.3	2084.8	1339.6	916.4	31.2
48°	8330.6	8182.0	7579.0	6681.9	5579.2	4290.2	2943.1	1967.4	1277.2	874.4	26.9
49°	7619.9	7413.1	6852.1	5975.5	4974.0	3784.1	2608.2	1769.3	1177.0	815.2	23.7
50°	6848.8	6593.6	6160.7	5268.0	4348.4	3244.6	2167.7	1495.8	1035.9	737.7	21.5
51°	6094.0	5834.4	5422.0	4662.8	3680.7	2692.2	1748.8	1194.2	852.9	631.0	18.3
52°	5311.1	5093.6	4631.6	4035.0	3150.9	2181.7	1457.0	1010.1	708.6	529.8	15.1
53°	4531.4	4382.8	3943.5	3339.3	2531.7	1782.2	1189.9	864.7	618.1	453.4	11.8
54°	3750.7	3588.1	3254.3	2715.8	2040.7	1406.4	1009.0	723.7	536.3	395.2	10.8
55°	2933.4	2849.4	2541.4	2070.8	1546.4	1122.1	818.4	622.4	449.1	330.6	8.6
56°	2259.3	2164.5	1883.4	1502.2	1149.0	878.7	662.3	508.3	380.1	276.8	6.5
57°	1479.6	1382.7	1196.4	1048.9	836.7	640.7	506.1	400.6	309.1	229.4	5.4
58°	874.4	786.1	757.0	646.1	557.8	435.1	373.7	298.3	228.3	180.9	3.2
59°	401.7	408.1	362.9	340.3	309.1	276.8	227.2	199.2	156.1	130.3	2.2
60°	233.7	220.8	215.4	192.8	171.2	151.8	136.8	120.6	98.0	84.0	1.1
62.5°	79.7	76.5	78.6	71.1	66.8	64.6	59.2	50.6	42.0	34.5	0.0
65°	21.5	21.5	20.5	19.4	18.3	17.2	16.2	14.0	12.9	10.8	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°	7.5	7.5	6.5	6.5	5.4	5.4	4.3	4.3	3.2	3.2	0.0
70°	4.3	4.3	4.3	3.2	3.2	3.2	2.2	2.2	2.2	1.1	0.0
72.5°	3.2	3.2	3.2	3.2	3.2	3.2	2.2	2.2	2.2	1.1	1.1
75°	3.2	3.2	3.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.1
77.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
80°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.1	2.2
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2
85°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
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°	95.8	95.8	95.8	95.8	95.8	95.8
2.5°	99.1	94.8	89.4	86.1	85.1	84.0
5°	94.8	86.1	79.7	75.4	74.3	74.3
7.5°	85.1	75.4	68.9	66.8	65.7	65.7
10°	74.3	65.7	60.3	58.2	59.2	59.2
12.5°	62.5	54.9	52.8	52.8	53.8	54.9
15°	50.6	46.3	46.3	47.4	49.5	50.6
17.5°	42.0	39.8	40.9	43.1	45.2	47.4
20°	34.5	34.5	36.6	39.8	43.1	45.2
22.5°	29.1	30.2	33.4	36.6	40.9	43.1
25°	24.8	26.9	30.2	35.5	39.8	40.9
27.5°	21.5	24.8	29.1	34.5	38.8	40.9
30°	18.3	22.6	28.0	33.4	38.8	40.9
31°	17.2	21.5	26.9	33.4	38.8	40.9
32°	16.2	21.5	26.9	33.4	38.8	40.9
33°	15.1	20.5	26.9	32.3	38.8	40.9
34°	14.0	20.5	26.9	33.4	38.8	40.9
35°	12.9	19.4	25.8	32.3	37.7	40.9
36°	11.8	19.4	25.8	32.3	38.8	40.9
37°	10.8	19.4	25.8	32.3	37.7	40.9
38°	10.8	18.3	24.8	32.3	37.7	40.9
39°	9.7	17.2	24.8	32.3	37.7	40.9
40°	8.6	17.2	23.7	31.2	37.7	40.9
41°	7.5	16.2	23.7	31.2	37.7	40.9
42°	6.5	16.2	23.7	31.2	37.7	40.9
43°	5.4	15.1	22.6	31.2	37.7	40.9
44°	5.4	15.1	22.6	31.2	37.7	40.9
45°	4.3	14.0	21.5	31.2	37.7	40.9
46°	4.3	14.0	21.5	30.2	37.7	40.9
47°	3.2	14.0	21.5	30.2	37.7	40.9
48°	3.2	12.9	21.5	30.2	37.7	40.9
49°	2.2	12.9	21.5	30.2	37.7	40.9
50°	2.2	12.9	20.5	30.2	37.7	40.9
51°	2.2	12.9	20.5	30.2	37.7	40.9
52°	2.2	11.8	20.5	30.2	37.7	40.9
53°	2.2	11.8	20.5	30.2	37.7	40.9
54°	2.2	11.8	19.4	30.2	37.7	40.9
55°	2.2	10.8	19.4	29.1	37.7	39.8
56°	2.2	10.8	19.4	29.1	37.7	39.8
57°	2.2	10.8	18.3	29.1	37.7	39.8
58°	2.2	9.7	18.3	28.0	36.6	39.8
59°	2.2	9.7	17.2	28.0	36.6	38.8
60°	2.2	8.6	17.2	26.9	35.5	38.8
62.5°	2.2	7.5	15.1	25.8	34.5	36.6
65°	2.2	6.5	14.0	23.7	33.4	35.5



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	2.2	6.5	12.9	22.6	31.2	34.5
70°	2.2	6.5	11.8	20.5	30.2	31.2
72.5°	3.2	6.5	10.8	19.4	28.0	29.1
75°	4.3	6.5	9.7	17.2	25.8	26.9
77.5°	4.3	6.5	8.6	15.1	22.6	23.7
80°	4.3	5.4	7.5	11.8	18.3	19.4
82.5°	4.3	5.4	5.4	9.7	14.0	15.1
85°	3.2	4.3	4.3	5.4	9.7	10.8
87.5°	3.2	4.3	2.2	3.2	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)