

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: P1343901

Luminaire Tested: P3A13R209027DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343901
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: P3A13R209027DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

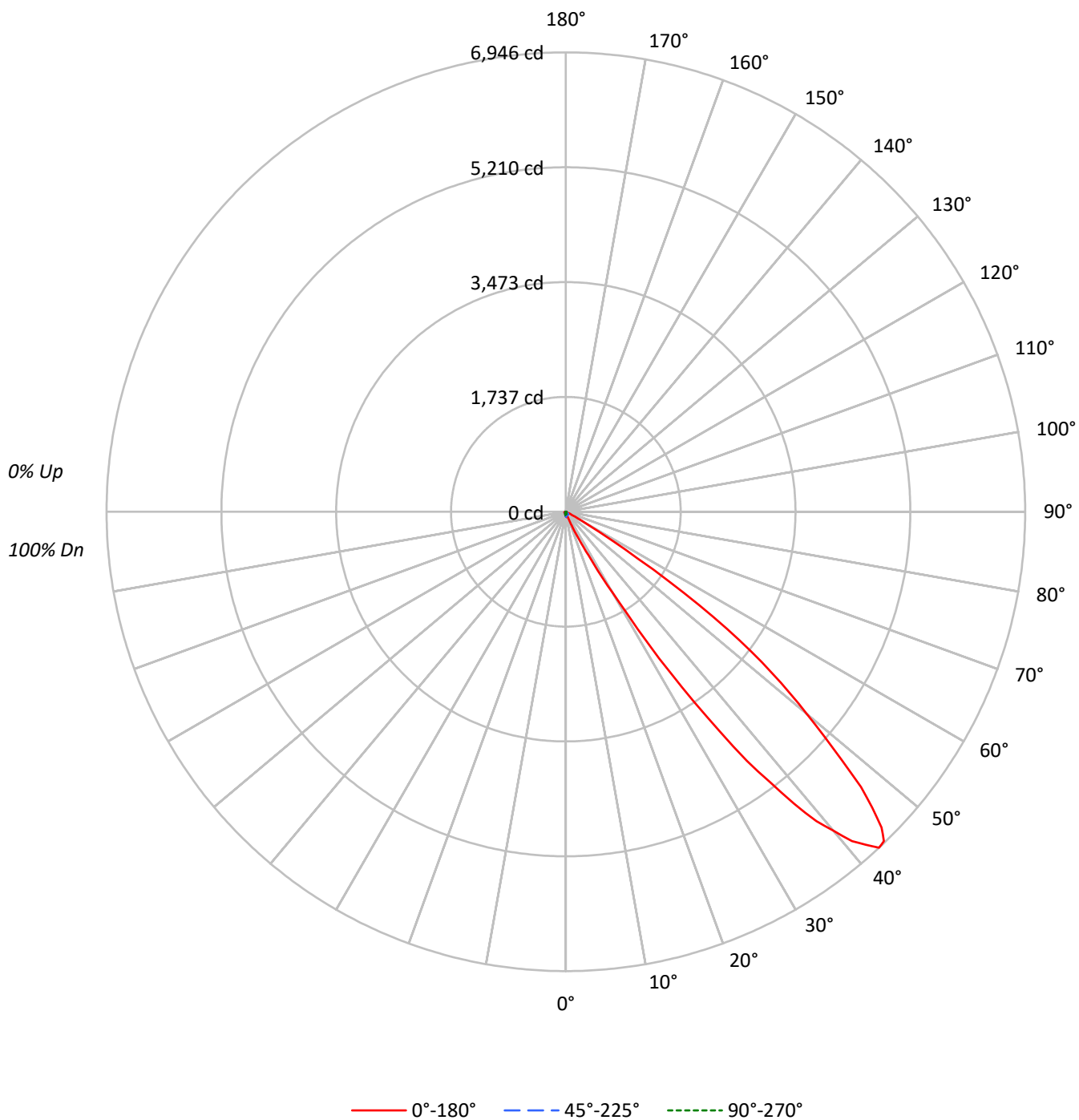
Lumens per Lamp: N/A
Luminaire Lumens: 965.0 lumens
Efficiency: N/A
Efficacy: 66.1 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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
RW	70	50	30	10	70	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
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	14714	14714	14714	14714	14714
5°	17169	15959	13779	11974	11578
10°	16967	14540	10911	9285	9085
15°	14824	11124	8036	7401	7832
20°	22005	9311	5927	6347	6977
25°	94796	9654	4597	5710	6799
30°	358435	11723	3899	5520	6659
35°	1086616	14081	3641	5595	7040
40°	1801833	14026	3120	5983	7528
45°	2094326	9551	2822	6202	8156
50°	1625738	5254	2797	6482	9279
55°	940965	3479	2791	7264	10055
60°	159066	789	2368	7543	11139
65°	12245	0	2802	8457	12712
70°	1731	0	3462	9296	14554
75°	1525	763	3813	10760	16945
80°	1137	1137	5683	11491	19447
85°	2264	2264	9057	11322	20631

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2094326 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.8	0.6
10°-20°	12.1	1.3
20°-30°	38.5	4.0
30°-40°	246.1	25.5
40°-50°	450.4	46.7
50°-60°	185.1	19.2
60°-70°	15.6	1.6
70°-80°	7.8	0.8
80°-90°	3.7	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°	56.4	5.8
0°-40°	302.5	31.3
0°-60°	938.0	97.2
0°-90°	965.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	965.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	67	67	67	67	67	
5°	78	72	63	54	53	7
15°	65	49	35	33	34	21
25°	392	40	19	24	28	258
35°	4059	53	14	21	26	2569
45°	6754	31	9	20	26	4849
55°	2461	9	7	19	26	2151
65°	24	0	5	16	24	77
75°	2	1	4	13	20	2
85°	1	1	4	4	8	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°	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1	67.1
2.5°	73.5	73.5	73.5	72.5	72.5	73.5	72.5	72.5	72.5	72.5	71.6
5°	78.0	78.0	78.0	78.0	78.0	78.0	78.0	77.1	77.1	76.2	72.5
7.5°	79.8	79.8	79.8	79.8	78.9	78.9	78.9	78.9	78.0	77.1	70.7
10°	76.2	76.2	76.2	75.3	75.3	75.3	74.4	74.4	73.5	72.5	65.3
12.5°	68.9	68.9	68.9	68.9	68.0	68.0	67.1	67.1	66.2	65.3	57.1
15°	65.3	65.3	65.3	64.4	64.4	63.5	62.6	61.7	60.8	58.9	49.0
17.5°	70.7	70.7	69.8	69.8	68.0	66.2	65.3	62.6	60.8	58.0	43.5
20°	94.3	95.2	91.6	88.9	87.1	81.6	78.9	74.4	70.7	66.2	39.9
22.5°	190.4	186.8	180.5	170.5	158.7	148.7	130.6	116.1	106.1	92.5	39.0
25°	391.8	388.1	370.9	356.4	320.1	292.0	253.0	221.3	188.6	156.9	39.9
27.5°	744.5	720.1	715.5	649.3	598.5	526.0	450.7	387.2	329.2	264.8	42.6
30°	1415.6	1387.5	1288.7	1188.9	1052.0	896.9	749.1	611.2	496.1	391.8	46.3
31°	1796.5	1823.7	1707.6	1507.2	1305.0	1106.4	904.2	729.1	580.4	450.7	48.1
32°	2361.5	2242.7	2120.3	1914.4	1620.6	1366.7	1112.7	860.6	664.7	514.2	49.9
33°	2895.6	2825.8	2639.0	2382.4	2029.6	1673.2	1344.0	1015.7	768.1	591.3	50.8
34°	3465.2	3388.1	3236.6	2868.4	2481.2	2014.2	1575.2	1194.4	891.5	666.6	51.7
35°	4059.2	4026.5	3734.5	3415.3	2939.2	2376.0	1853.6	1390.2	1012.1	735.5	52.6
36°	4656.8	4551.6	4323.1	3856.9	3360.0	2710.6	2145.7	1572.5	1134.5	817.1	52.6
37°	5106.6	5083.0	4780.1	4325.8	3741.8	3068.0	2397.8	1774.8	1257.8	886.9	52.6
38°	5602.7	5509.3	5201.8	4739.3	4100.9	3395.3	2661.7	1950.7	1374.8	950.4	51.7
39°	6020.7	5882.0	5571.8	5114.8	4414.7	3643.8	2871.2	2121.2	1478.2	1003.0	50.8
40°	6294.6	6198.5	5874.7	5360.5	4699.4	3878.7	3083.4	2261.7	1555.3	1042.9	49.0
41°	6596.6	6437.0	6116.9	5599.9	4906.2	4085.5	3216.7	2354.2	1615.1	1069.2	47.2
42°	6777.1	6646.5	6266.5	5760.5	5054.0	4203.4	3325.5	2425.0	1651.4	1082.8	43.5
43°	6945.7	6768.0	6398.0	5853.9	5151.9	4286.8	3375.4	2457.6	1659.6	1082.8	39.0
44°	6923.1	6754.4	6370.8	5866.6	5173.7	4311.3	3396.2	2458.5	1646.9	1069.2	34.5
45°	6753.5	6585.7	6240.2	5755.9	5095.7	4263.2	3354.5	2422.3	1611.5	1045.6	30.8
46°	6442.4	6275.6	6010.8	5570.9	4950.6	4154.4	3257.5	2343.4	1552.6	1007.5	27.2
47°	6104.2	5941.8	5670.7	5272.6	4703.0	3960.3	3116.9	2232.7	1470.0	952.2	24.5
48°	5613.5	5512.0	5239.9	4899.8	4359.3	3656.5	2870.3	2052.3	1359.4	880.6	20.9
49°	5180.1	5073.1	4834.5	4469.1	3911.3	3302.8	2575.5	1832.8	1215.2	800.8	18.1
50°	4765.6	4672.2	4451.8	4039.2	3506.9	2875.7	2177.4	1556.2	1033.8	701.9	15.4
51°	4360.2	4290.4	4065.5	3686.4	3145.9	2547.4	1886.3	1295.9	854.3	582.2	14.5
52°	3953.1	3944.9	3701.0	3317.3	2795.0	2220.0	1603.4	1093.7	724.6	488.8	13.6
53°	3515.0	3462.4	3249.3	2904.7	2403.2	1879.0	1359.4	922.3	623.9	416.3	11.8
54°	3016.3	2957.3	2728.8	2417.7	1963.4	1539.0	1095.5	745.5	519.6	351.9	10.9
55°	2461.3	2360.6	2194.6	1875.4	1533.5	1174.4	846.1	590.4	415.3	292.9	9.1
56°	1867.3	1766.6	1673.2	1438.3	1125.4	876.0	630.3	452.5	324.7	231.3	8.2
57°	1298.6	1293.2	1139.9	959.5	752.7	596.7	431.7	319.2	229.4	179.6	6.3
58°	842.5	814.4	716.4	612.1	492.4	372.7	277.5	216.7	156.0	122.4	5.4
59°	590.4	534.1	481.5	408.1	310.2	234.9	178.7	138.8	107.9	85.2	3.6
60°	362.7	351.0	315.6	248.5	201.3	166.0	133.3	102.5	78.9	60.8	1.8
62.5°	103.4	105.2	95.2	84.3	72.5	62.6	56.2	48.1	39.9	31.7	0.0
65°	23.6	22.7	24.5	22.7	20.9	20.9	18.1	16.3	14.5	13.6	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°	7.3	7.3	6.3	6.3	6.3	5.4	5.4	4.5	4.5	3.6	0.0
70°	2.7	2.7	2.7	2.7	2.7	1.8	1.8	1.8	0.9	0.9	0.0
72.5°	2.7	2.7	2.7	1.8	1.8	1.8	1.8	1.8	0.9	0.9	0.9
75°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.9	0.9	0.9	0.9
77.5°	1.8	1.8	1.8	1.8	1.8	0.9	1.8	0.9	0.9	0.9	0.9
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.0	0.0	0.9	0.9	0.9	0.0	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
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°	67.1	67.1	67.1	67.1	67.1	67.1
2.5°	69.8	66.2	63.5	60.8	59.9	59.9
5°	68.0	62.6	57.1	54.4	52.6	52.6
7.5°	62.6	56.2	50.8	48.1	47.2	47.2
10°	56.2	49.0	43.5	41.7	41.7	40.8
12.5°	49.0	41.7	38.1	37.2	37.2	37.2
15°	40.8	35.4	32.6	32.6	33.6	34.5
17.5°	34.5	29.0	28.1	29.9	31.7	31.7
20°	29.0	25.4	25.4	27.2	29.0	29.9
22.5°	24.5	21.8	22.7	25.4	28.1	29.0
25°	21.8	19.0	20.9	23.6	26.3	28.1
27.5°	18.1	17.2	19.0	22.7	26.3	27.2
30°	15.4	15.4	18.1	21.8	25.4	26.3
31°	14.5	14.5	18.1	21.8	25.4	26.3
32°	13.6	14.5	17.2	21.8	25.4	26.3
33°	12.7	13.6	17.2	20.9	25.4	26.3
34°	11.8	13.6	17.2	20.9	25.4	26.3
35°	10.9	13.6	17.2	20.9	25.4	26.3
36°	10.0	12.7	16.3	20.9	25.4	26.3
37°	9.1	12.7	16.3	20.9	25.4	26.3
38°	8.2	11.8	16.3	20.9	25.4	26.3
39°	8.2	11.8	15.4	20.9	24.5	26.3
40°	7.3	10.9	15.4	20.9	24.5	26.3
41°	6.3	10.9	15.4	20.0	24.5	26.3
42°	5.4	10.0	14.5	20.0	24.5	26.3
43°	4.5	10.0	14.5	20.0	24.5	26.3
44°	4.5	9.1	14.5	20.0	24.5	26.3
45°	3.6	9.1	14.5	20.0	24.5	26.3
46°	2.7	9.1	14.5	20.0	24.5	26.3
47°	2.7	8.2	13.6	20.0	24.5	26.3
48°	1.8	8.2	13.6	20.0	24.5	26.3
49°	1.8	8.2	13.6	20.0	24.5	27.2
50°	1.8	8.2	13.6	19.0	24.5	27.2
51°	0.9	8.2	13.6	19.0	24.5	27.2
52°	0.9	8.2	12.7	19.0	25.4	27.2
53°	0.9	7.3	12.7	19.0	25.4	27.2
54°	0.9	7.3	12.7	19.0	25.4	26.3
55°	0.9	7.3	12.7	19.0	24.5	26.3
56°	0.9	6.3	12.7	19.0	24.5	26.3
57°	0.9	6.3	11.8	18.1	24.5	25.4
58°	0.9	6.3	11.8	18.1	24.5	25.4
59°	0.9	6.3	11.8	18.1	23.6	25.4
60°	1.8	5.4	10.9	17.2	23.6	25.4
62.5°	1.8	5.4	10.9	17.2	22.7	24.5
65°	1.8	5.4	10.0	16.3	22.7	24.5



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.8	4.5	9.1	15.4	21.8	23.6
70°	1.8	5.4	9.1	14.5	20.9	22.7
72.5°	2.7	4.5	8.2	13.6	20.0	21.8
75°	2.7	4.5	8.2	12.7	19.0	20.0
77.5°	3.6	4.5	7.3	10.9	17.2	18.1
80°	3.6	4.5	6.3	9.1	14.5	15.4
82.5°	3.6	4.5	4.5	7.3	10.9	11.8
85°	2.7	3.6	3.6	4.5	7.3	8.2
87.5°	2.7	3.6	2.7	1.8	3.6	3.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)