

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: P1344189

Luminaire Tested: P3A13R20B2750DE010 E3CA451MMS_2700K

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344189
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: P3A13R20B2750DE010 E3CA451MMS_2700K
Description: 3in Adjustable Boosted Cyan Tunable White LED luminaire with, R20 optic, 2700K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

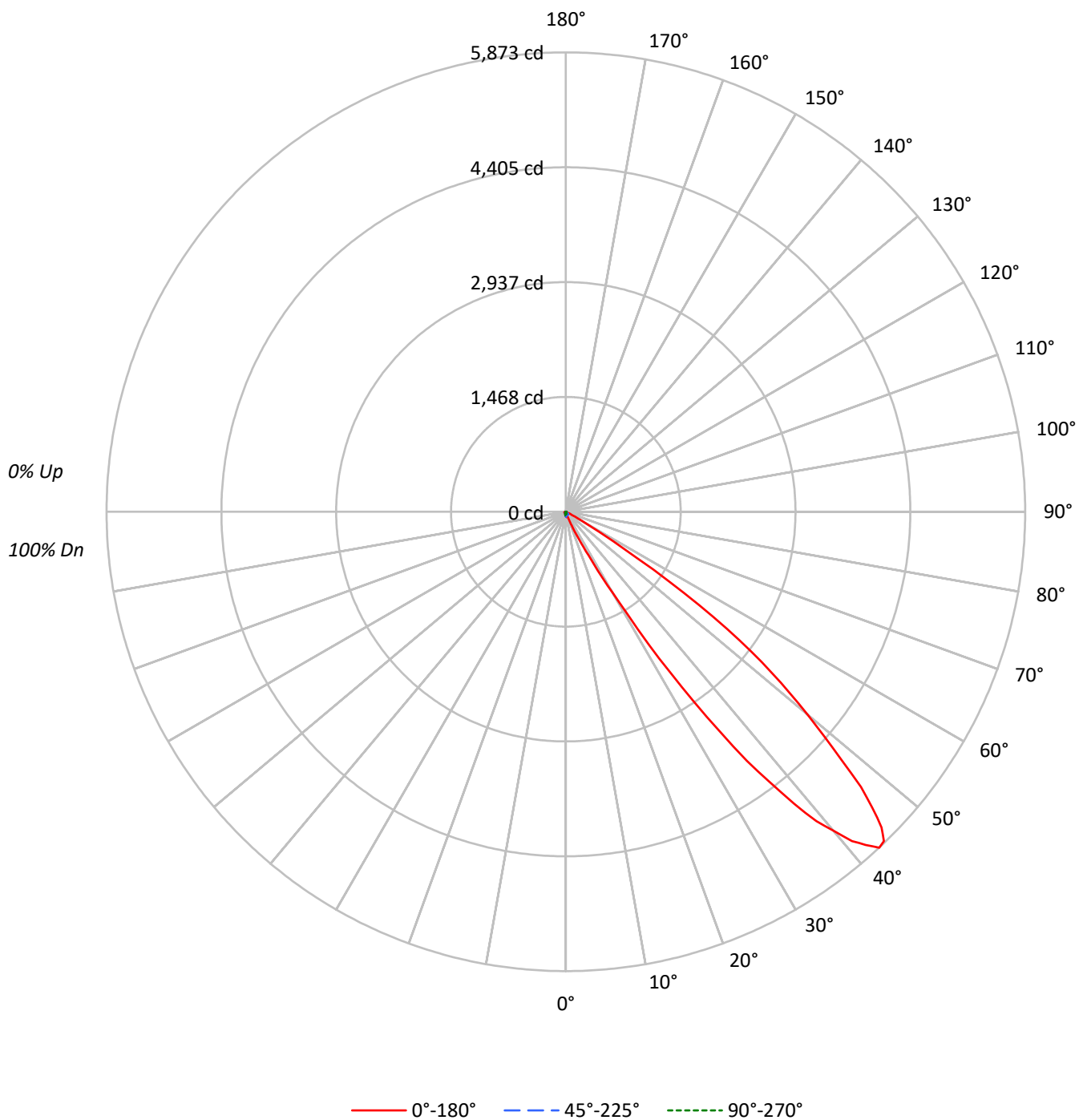
Lumens per Lamp: N/A
Luminaire Lumens: 816.0 lumens
Efficiency: N/A
Efficacy: 42.7 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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	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°	12433	12433	12433	12433	12433
5°	14506	13493	11644	10125	9795
10°	14340	12291	9218	7860	7682
15°	12531	9398	6788	6266	6606
20°	18622	7864	5017	5367	5904
25°	80158	8154	3895	4815	5758
30°	303110	9900	3292	4659	5621
35°	918827	11912	3078	4711	5943
40°	1523626	11851	2634	5038	6355
45°	1770944	8094	2388	5241	6884
50°	1374727	4435	2354	5492	7846
55°	795651	2944	2332	6155	8487
60°	134507	658	2017	6403	9429
65°	10325	0	2387	7160	10740
70°	1475	0	2949	7886	12310
75°	1271	678	3219	9065	14318
80°	1010	1010	4799	9723	16416
85°	2013	2013	7799	9561	17360

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1770944 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.9	0.6
10°-20°	10.2	1.3
20°-30°	32.6	4.0
30°-40°	208.1	25.5
40°-50°	380.9	46.7
50°-60°	156.5	19.2
60°-70°	13.2	1.6
70°-80°	6.6	0.8
80°-90°	3.1	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°	47.7	5.8
0°-40°	255.7	31.3
0°-60°	793.1	97.2
0°-90°	816.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	816.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	57	57	57	57	57	
5°	66	61	53	46	44	6
15°	55	41	30	28	29	18
25°	331	34	16	20	24	218
35°	3432	44	12	18	22	2173
45°	5711	26	8	17	22	4100
55°	2081	8	6	16	22	1819
65°	20	0	5	14	21	65
75°	2	1	4	11	17	2
85°	1	1	3	4	7	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°	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7	56.7
2.5°	62.1	62.1	62.1	61.3	61.3	62.1	61.3	61.3	61.3	61.3	60.6
5°	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.2	65.2	64.4	61.3
7.5°	67.5	67.5	67.5	67.5	66.7	66.7	66.7	66.7	65.9	65.2	59.8
10°	64.4	64.4	64.4	63.6	63.6	63.6	62.9	62.9	62.1	61.3	55.2
12.5°	58.3	58.3	58.3	58.3	57.5	57.5	56.7	56.7	56.0	55.2	48.3
15°	55.2	55.2	55.2	54.4	54.4	53.7	52.9	52.1	51.4	49.8	41.4
17.5°	59.8	59.8	59.0	59.0	57.5	56.0	55.2	52.9	51.4	49.1	36.8
20°	79.8	80.5	77.5	75.2	73.6	69.0	66.7	62.9	59.8	56.0	33.7
22.5°	161.0	158.0	152.6	144.2	134.2	125.8	110.4	98.2	89.7	78.2	33.0
25°	331.3	328.2	313.6	301.4	270.7	246.9	214.0	187.1	159.5	132.7	33.7
27.5°	629.6	608.9	605.0	549.1	506.1	444.8	381.1	327.4	278.4	223.9	36.0
30°	1197.1	1173.3	1089.7	1005.3	889.5	758.4	633.4	516.9	419.5	331.3	39.1
31°	1519.1	1542.1	1444.0	1274.5	1103.5	935.6	764.5	616.5	490.8	381.1	40.6
32°	1996.9	1896.4	1792.9	1618.8	1370.4	1155.6	940.9	727.7	562.1	434.8	42.2
33°	2448.5	2389.5	2231.5	2014.5	1716.2	1414.8	1136.5	858.9	649.5	500.0	42.9
34°	2930.1	2864.9	2736.9	2425.5	2098.1	1703.2	1332.0	1009.9	753.8	563.6	43.7
35°	3432.4	3404.8	3157.9	2888.0	2485.4	2009.1	1567.4	1175.6	855.8	621.9	44.5
36°	3937.8	3848.8	3655.6	3261.4	2841.2	2292.1	1814.4	1329.7	959.3	690.9	44.5
37°	4318.1	4298.2	4042.1	3657.9	3164.0	2594.2	2027.5	1500.7	1063.6	750.0	44.5
38°	4737.6	4658.6	4398.6	4007.6	3467.7	2871.1	2250.7	1649.5	1162.5	803.7	43.7
39°	5091.1	4973.8	4711.5	4325.0	3733.0	3081.2	2427.8	1793.7	1250.0	848.1	42.9
40°	5322.7	5241.4	4967.6	4532.8	3973.8	3279.8	2607.3	1912.5	1315.1	881.9	41.4
41°	5578.1	5443.1	5172.4	4735.3	4148.7	3454.7	2720.0	1990.7	1365.8	904.1	39.9
42°	5730.7	5620.2	5298.9	4871.0	4273.6	3554.3	2812.0	2050.6	1396.4	915.6	36.8
43°	5873.3	5723.0	5410.1	4950.0	4356.5	3624.9	2854.2	2078.2	1403.3	915.6	33.0
44°	5854.1	5711.5	5387.1	4960.7	4374.9	3645.6	2871.8	2078.9	1392.6	904.1	29.1
45°	5710.7	5568.9	5276.7	4867.2	4308.9	3605.0	2836.6	2048.3	1362.7	884.2	26.1
46°	5447.7	5306.6	5082.7	4710.8	4186.2	3512.9	2754.5	1981.5	1312.8	852.0	23.0
47°	5161.7	5024.4	4795.1	4458.5	3976.9	3348.8	2635.7	1888.0	1243.1	805.2	20.7
48°	4746.8	4660.9	4430.9	4143.3	3686.2	3091.9	2427.1	1735.4	1149.5	744.6	17.6
49°	4380.2	4289.8	4088.1	3779.0	3307.4	2792.9	2177.8	1549.8	1027.6	677.1	15.3
50°	4029.8	3950.8	3764.5	3415.5	2965.4	2431.7	1841.2	1315.9	874.2	593.5	13.0
51°	3687.0	3628.0	3437.8	3117.2	2660.2	2154.1	1595.0	1095.8	722.4	492.3	12.3
52°	3342.7	3335.8	3129.5	2805.1	2363.4	1877.2	1355.8	924.8	612.7	413.3	11.5
53°	2972.3	2927.8	2747.6	2456.2	2032.1	1588.9	1149.5	779.9	527.6	352.0	10.0
54°	2550.5	2500.7	2307.4	2044.4	1660.2	1301.3	926.4	630.3	439.4	297.5	9.2
55°	2081.2	1996.1	1855.8	1585.8	1296.7	993.1	715.5	499.2	351.2	247.7	7.7
56°	1578.9	1493.8	1414.8	1216.2	951.7	740.8	533.0	382.7	274.5	195.5	6.9
57°	1098.1	1093.5	963.9	811.3	636.5	504.6	365.0	269.9	194.0	151.8	5.4
58°	712.4	688.6	605.8	517.6	416.4	315.2	234.7	183.3	131.9	103.5	4.6
59°	499.2	451.7	407.2	345.1	262.3	198.6	151.1	117.3	91.3	72.1	3.1
60°	306.7	296.8	266.9	210.1	170.2	140.3	112.7	86.7	66.7	51.4	1.5
62.5°	87.4	89.0	80.5	71.3	61.3	52.9	47.5	40.6	33.7	26.8	0.0
65°	19.9	19.2	20.7	19.2	17.6	17.6	15.3	13.8	12.3	11.5	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°	6.1	6.1	5.4	5.4	5.4	4.6	4.6	3.8	3.8	3.1	0.0
70°	2.3	2.3	2.3	2.3	2.3	1.5	1.5	1.5	0.8	0.8	0.0
72.5°	2.3	2.3	2.3	1.5	1.5	1.5	1.5	1.5	0.8	0.8	0.8
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.8	0.8	0.8	0.8
77.5°	1.5	1.5	1.5	1.5	1.5	0.8	1.5	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
85°	0.8	0.8	0.8	0.8	0.0	0.0	0.8	0.8	0.8	0.0	0.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
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°	56.7	56.7	56.7	56.7	56.7	56.7
2.5°	59.0	56.0	53.7	51.4	50.6	50.6
5°	57.5	52.9	48.3	46.0	44.5	44.5
7.5°	52.9	47.5	42.9	40.6	39.9	39.9
10°	47.5	41.4	36.8	35.3	35.3	34.5
12.5°	41.4	35.3	32.2	31.4	31.4	31.4
15°	34.5	29.9	27.6	27.6	28.4	29.1
17.5°	29.1	24.5	23.8	25.3	26.8	26.8
20°	24.5	21.5	21.5	23.0	24.5	25.3
22.5°	20.7	18.4	19.2	21.5	23.8	24.5
25°	18.4	16.1	17.6	19.9	22.2	23.8
27.5°	15.3	14.6	16.1	19.2	22.2	23.0
30°	13.0	13.0	15.3	18.4	21.5	22.2
31°	12.3	12.3	15.3	18.4	21.5	22.2
32°	11.5	12.3	14.6	18.4	21.5	22.2
33°	10.7	11.5	14.6	17.6	21.5	22.2
34°	10.0	11.5	14.6	17.6	21.5	22.2
35°	9.2	11.5	14.6	17.6	21.5	22.2
36°	8.4	10.7	13.8	17.6	21.5	22.2
37°	7.7	10.7	13.8	17.6	21.5	22.2
38°	6.9	10.0	13.8	17.6	21.5	22.2
39°	6.9	10.0	13.0	17.6	20.7	22.2
40°	6.1	9.2	13.0	17.6	20.7	22.2
41°	5.4	9.2	13.0	16.9	20.7	22.2
42°	4.6	8.4	12.3	16.9	20.7	22.2
43°	3.8	8.4	12.3	16.9	20.7	22.2
44°	3.8	7.7	12.3	16.9	20.7	22.2
45°	3.1	7.7	12.3	16.9	20.7	22.2
46°	2.3	7.7	12.3	16.9	20.7	22.2
47°	2.3	6.9	11.5	16.9	20.7	22.2
48°	1.5	6.9	11.5	16.9	20.7	22.2
49°	1.5	6.9	11.5	16.9	20.7	23.0
50°	1.5	6.9	11.5	16.1	20.7	23.0
51°	0.8	6.9	11.5	16.1	20.7	23.0
52°	0.8	6.9	10.7	16.1	21.5	23.0
53°	0.8	6.1	10.7	16.1	21.5	23.0
54°	0.8	6.1	10.7	16.1	21.5	22.2
55°	0.8	6.1	10.7	16.1	20.7	22.2
56°	0.8	5.4	10.7	16.1	20.7	22.2
57°	0.8	5.4	10.0	15.3	20.7	21.5
58°	0.8	5.4	10.0	15.3	20.7	21.5
59°	0.8	5.4	10.0	15.3	19.9	21.5
60°	1.5	4.6	9.2	14.6	19.9	21.5
62.5°	1.5	4.6	9.2	14.6	19.2	20.7
65°	1.5	4.6	8.4	13.8	19.2	20.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.5	3.8	7.7	13.0	18.4	19.9
70°	1.5	4.6	7.7	12.3	17.6	19.2
72.5°	2.3	3.8	6.9	11.5	16.9	18.4
75°	2.3	3.8	6.9	10.7	16.1	16.9
77.5°	3.1	3.8	6.1	9.2	14.6	15.3
80°	3.1	3.8	5.4	7.7	12.3	13.0
82.5°	3.1	3.8	3.8	6.1	9.2	10.0
85°	2.3	3.1	3.1	3.8	6.1	6.9
87.5°	2.3	3.1	2.3	1.5	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)