

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: P1344192

Luminaire Tested: P3A13R20B2750DE010 E3CA451MMS_4000K

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344192
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_4000K
Description: 3in Adjustable Boosted Cyan Tunable White LED luminaire with, R20 optic, 4000K CCT AND, 80CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

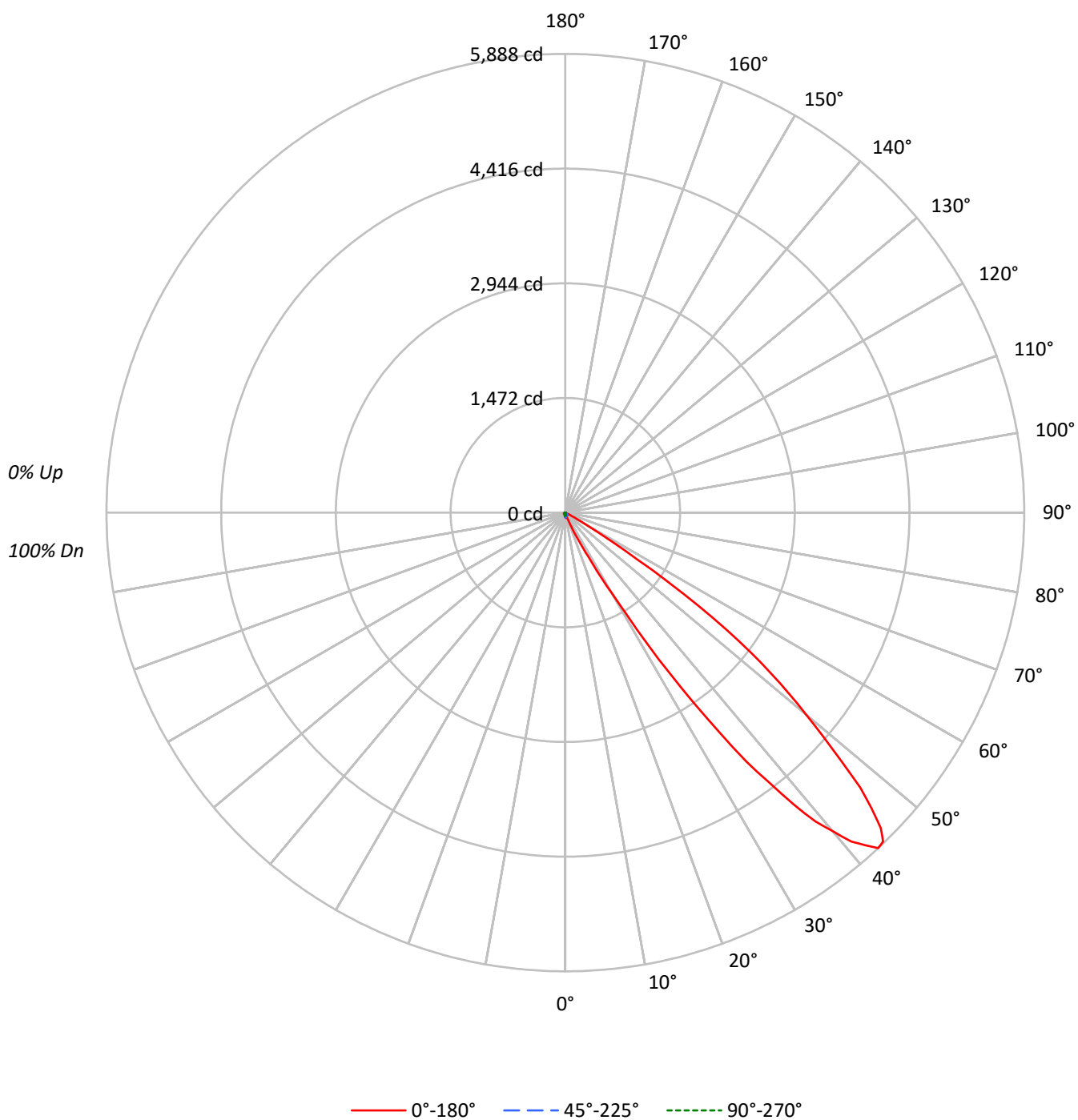
Lumens per Lamp: N/A
Luminaire Lumens: 818.0 lumens
Efficiency: N/A
Efficacy: 42.8 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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				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	0
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°	12477	12477	12477	12477	12477
5°	14550	13537	11666	10147	9817
10°	14384	12313	9241	7882	7704
15°	12554	9421	6810	6288	6629
20°	18645	7887	5017	5390	5927
25°	80351	8178	3895	4839	5758
30°	303844	9926	3317	4659	5646
35°	921076	11939	3078	4738	5970
40°	1527347	11879	2634	5067	6383
45°	1775285	8094	2388	5241	6915
50°	1378104	4469	2354	5492	7880
55°	797601	2944	2332	6155	8525
60°	134858	658	2017	6403	9429
65°	10377	0	2387	7160	10792
70°	1475	0	2949	7886	12310
75°	1271	678	3219	9150	14318
80°	1010	1010	4799	9723	16543
85°	2013	2013	7799	9561	17360

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1775285 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°	32.7	4.0
30°-40°	208.6	25.5
40°-50°	381.8	46.7
50°-60°	156.9	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°	47.8	5.8
0°-40°	256.4	31.3
0°-60°	795.1	97.2
0°-90°	818.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	818.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	57	57	57	57	57	
5°	66	62	53	46	45	6
15°	55	42	30	28	29	18
25°	332	34	16	20	24	218
35°	3441	45	12	18	22	2178
45°	5725	26	8	17	22	4110
55°	2086	8	6	16	22	1824
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°	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9	56.9
2.5°	62.3	62.3	62.3	61.5	61.5	62.3	61.5	61.5	61.5	61.5	60.7
5°	66.1	66.1	66.1	66.1	66.1	66.1	66.1	65.3	65.3	64.6	61.5
7.5°	67.6	67.6	67.6	67.6	66.9	66.9	66.9	66.9	66.1	65.3	60.0
10°	64.6	64.6	64.6	63.8	63.8	63.8	63.0	63.0	62.3	61.5	55.3
12.5°	58.4	58.4	58.4	58.4	57.7	57.7	56.9	56.9	56.1	55.3	48.4
15°	55.3	55.3	55.3	54.6	54.6	53.8	53.0	52.3	51.5	50.0	41.5
17.5°	60.0	60.0	59.2	59.2	57.7	56.1	55.3	53.0	51.5	49.2	36.9
20°	79.9	80.7	77.6	75.3	73.8	69.2	66.9	63.0	60.0	56.1	33.8
22.5°	161.4	158.4	153.0	144.5	134.5	126.1	110.7	98.4	89.9	78.4	33.1
25°	332.1	329.0	314.4	302.1	271.4	247.5	214.5	187.6	159.9	133.0	33.8
27.5°	631.1	610.4	606.5	550.4	507.4	445.9	382.1	328.2	279.0	224.5	36.1
30°	1200.0	1176.2	1092.4	1007.8	891.7	760.3	635.0	518.1	420.5	332.1	39.2
31°	1522.9	1545.9	1447.5	1277.6	1106.2	937.8	766.4	618.1	492.0	382.1	40.7
32°	2001.8	1901.1	1797.3	1622.8	1373.7	1158.5	943.2	729.5	563.5	435.9	42.3
33°	2454.5	2395.4	2237.0	2019.4	1720.4	1418.3	1139.3	861.0	651.1	501.2	43.0
34°	2937.3	2872.0	2743.6	2431.5	2103.2	1707.3	1335.3	1012.4	755.7	565.0	43.8
35°	3440.8	3413.2	3165.6	2895.0	2491.4	2014.1	1571.3	1178.5	857.9	623.4	44.6
36°	3947.4	3858.2	3664.5	3269.4	2848.1	2297.7	1818.8	1333.0	961.7	692.6	44.6
37°	4328.7	4308.7	4052.0	3666.8	3171.8	2600.6	2032.5	1504.4	1066.2	751.8	44.6
38°	4749.2	4670.0	4409.4	4017.4	3476.2	2878.1	2256.2	1653.5	1165.4	805.6	43.8
39°	5103.6	4986.0	4723.1	4335.6	3742.2	3088.7	2433.8	1798.1	1253.0	850.2	43.0
40°	5335.7	5254.3	4979.8	4544.0	3983.5	3287.8	2613.7	1917.2	1318.4	884.0	41.5
41°	5591.7	5456.4	5185.1	4746.9	4158.8	3463.1	2726.7	1995.6	1369.1	906.3	40.0
42°	5744.7	5634.0	5311.9	4883.0	4284.1	3563.1	2818.9	2055.6	1399.9	917.9	36.9
43°	5887.7	5737.0	5423.4	4962.1	4367.1	3633.8	2861.2	2083.3	1406.8	917.9	33.1
44°	5868.5	5725.5	5400.3	4972.9	4385.6	3654.5	2878.9	2084.0	1396.0	906.3	29.2
45°	5724.7	5582.5	5289.6	4879.1	4319.5	3613.8	2843.5	2053.3	1366.0	886.3	26.1
46°	5461.0	5319.6	5095.1	4722.3	4196.5	3521.5	2761.3	1986.4	1316.1	854.1	23.1
47°	5174.3	5036.7	4806.9	4469.4	3986.6	3357.0	2642.1	1892.6	1246.1	807.2	20.8
48°	4758.4	4672.3	4441.7	4153.4	3695.3	3099.5	2433.0	1739.6	1152.3	746.4	17.7
49°	4391.0	4300.3	4098.1	3788.3	3315.5	2799.7	2183.2	1553.6	1030.1	678.8	15.4
50°	4039.7	3960.5	3773.7	3423.9	2972.7	2437.6	1845.7	1319.1	876.3	595.0	13.1
51°	3696.0	3636.9	3446.2	3124.9	2666.7	2159.4	1599.0	1098.5	724.1	493.5	12.3
52°	3350.9	3344.0	3137.2	2812.0	2369.2	1881.8	1359.1	927.1	614.2	414.3	11.5
53°	2979.6	2935.0	2754.4	2462.2	2037.1	1592.8	1152.3	781.8	528.9	352.8	10.0
54°	2556.8	2506.8	2313.1	2049.4	1664.3	1304.5	928.6	631.9	440.5	298.3	9.2
55°	2086.3	2001.0	1860.3	1589.7	1299.9	995.5	717.2	500.4	352.1	248.3	7.7
56°	1582.8	1497.5	1418.3	1219.2	954.0	742.6	534.3	383.6	275.2	196.0	6.9
57°	1100.8	1096.2	966.3	813.3	638.0	505.8	365.9	270.6	194.5	152.2	5.4
58°	714.1	690.3	607.3	518.9	417.4	315.9	235.2	183.7	132.2	103.8	4.6
59°	500.4	452.8	408.2	345.9	262.9	199.1	151.4	117.6	91.5	72.3	3.1
60°	307.5	297.5	267.5	210.6	170.7	140.7	113.0	86.9	66.9	51.5	1.5
62.5°	87.6	89.2	80.7	71.5	61.5	53.0	47.7	40.7	33.8	26.9	0.0
65°	20.0	19.2	20.8	19.2	17.7	17.7	15.4	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°	56.9	56.9	56.9	56.9	56.9	56.9
2.5°	59.2	56.1	53.8	51.5	50.7	50.7
5°	57.7	53.0	48.4	46.1	44.6	44.6
7.5°	53.0	47.7	43.0	40.7	40.0	40.0
10°	47.7	41.5	36.9	35.4	35.4	34.6
12.5°	41.5	35.4	32.3	31.5	31.5	31.5
15°	34.6	30.0	27.7	27.7	28.4	29.2
17.5°	29.2	24.6	23.8	25.4	26.9	26.9
20°	24.6	21.5	21.5	23.1	24.6	25.4
22.5°	20.8	18.4	19.2	21.5	23.8	24.6
25°	18.4	16.1	17.7	20.0	22.3	23.8
27.5°	15.4	14.6	16.1	19.2	22.3	23.1
30°	13.1	13.1	15.4	18.4	21.5	22.3
31°	12.3	12.3	15.4	18.4	21.5	22.3
32°	11.5	12.3	14.6	18.4	21.5	22.3
33°	10.8	11.5	14.6	17.7	21.5	22.3
34°	10.0	11.5	14.6	17.7	21.5	22.3
35°	9.2	11.5	14.6	17.7	21.5	22.3
36°	8.5	10.8	13.8	17.7	21.5	22.3
37°	7.7	10.8	13.8	17.7	21.5	22.3
38°	6.9	10.0	13.8	17.7	21.5	22.3
39°	6.9	10.0	13.1	17.7	20.8	22.3
40°	6.1	9.2	13.1	17.7	20.8	22.3
41°	5.4	9.2	13.1	16.9	20.8	22.3
42°	4.6	8.5	12.3	16.9	20.8	22.3
43°	3.8	8.5	12.3	16.9	20.8	22.3
44°	3.8	7.7	12.3	16.9	20.8	22.3
45°	3.1	7.7	12.3	16.9	20.8	22.3
46°	2.3	7.7	12.3	16.9	20.8	22.3
47°	2.3	6.9	11.5	16.9	20.8	22.3
48°	1.5	6.9	11.5	16.9	20.8	22.3
49°	1.5	6.9	11.5	16.9	20.8	23.1
50°	1.5	6.9	11.5	16.1	20.8	23.1
51°	0.8	6.9	11.5	16.1	20.8	23.1
52°	0.8	6.9	10.8	16.1	21.5	23.1
53°	0.8	6.1	10.8	16.1	21.5	23.1
54°	0.8	6.1	10.8	16.1	21.5	22.3
55°	0.8	6.1	10.8	16.1	20.8	22.3
56°	0.8	5.4	10.8	16.1	20.8	22.3
57°	0.8	5.4	10.0	15.4	20.8	21.5
58°	0.8	5.4	10.0	15.4	20.8	21.5
59°	0.8	5.4	10.0	15.4	20.0	21.5
60°	1.5	4.6	9.2	14.6	20.0	21.5
62.5°	1.5	4.6	9.2	14.6	19.2	20.8
65°	1.5	4.6	8.5	13.8	19.2	20.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.5	3.8	7.7	13.1	18.4	20.0
70°	1.5	4.6	7.7	12.3	17.7	19.2
72.5°	2.3	3.8	6.9	11.5	16.9	18.4
75°	2.3	3.8	6.9	10.8	16.1	16.9
77.5°	3.1	3.8	6.1	9.2	14.6	15.4
80°	3.1	3.8	5.4	7.7	12.3	13.1
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)