

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: P1344190

Luminaire Tested: P3A13R20B2750DE010 E3CA451MMS_3000K

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344190
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_3000K
Description: 3in Adjustable Boosted Cyan Tunable White LED luminaire with, R20 optic, 3000K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

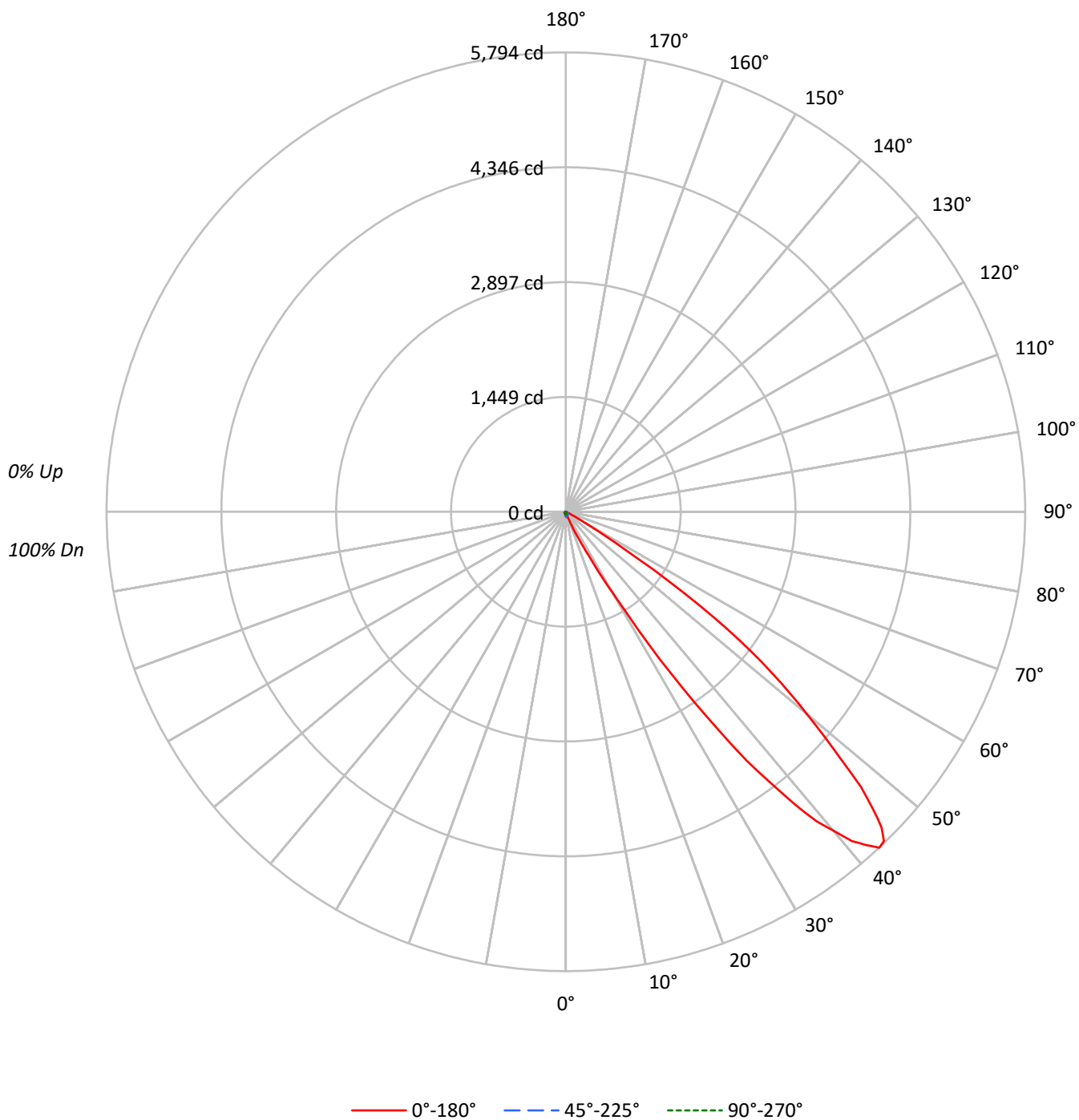
Lumens per Lamp: N/A
Luminaire Lumens: 805.0 lumens
Efficiency: N/A
Efficacy: 42.1 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	12280	12280	12280	12280	12280
5°	14330	13317	11490	9993	9663
10°	14139	12135	9107	7749	7571
15°	12372	9285	6697	6175	6515
20°	18365	7771	4947	5297	5834
25°	79069	8057	3847	4766	5686
30°	299008	9774	3266	4608	5545
35°	906433	11752	3025	4658	5862
40°	1503073	11708	2605	4981	6269
45°	1747065	7970	2357	5148	6791
50°	1356203	4401	2320	5424	7744
55°	784947	2906	2332	6079	8372
60°	132709	658	1974	6315	9298
65°	10222	0	2335	7057	10585
70°	1475	0	2885	7758	12117
75°	1271	678	3219	8981	14064
80°	1010	1010	4799	9597	16290
85°	2013	2013	7548	9561	17109

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1747065 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.8	0.6
10°-20°	10.1	1.3
20°-30°	32.2	4.0
30°-40°	205.3	25.5
40°-50°	375.7	46.7
50°-60°	154.4	19.2
60°-70°	13.0	1.6
70°-80°	6.5	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°	47.0	5.8
0°-40°	252.3	31.3
0°-60°	782.4	97.2
0°-90°	805.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	805.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	56	56	56	56	56	
5°	65	60	52	45	44	6
15°	54	41	30	27	29	17
25°	327	33	16	20	24	215
35°	3386	44	11	17	22	2143
45°	5634	26	8	17	22	4045
55°	2053	8	6	16	22	1795
65°	20	0	4	14	20	64
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°	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0	56.0
2.5°	61.3	61.3	61.3	60.5	60.5	61.3	60.5	60.5	60.5	60.5	59.8
5°	65.1	65.1	65.1	65.1	65.1	65.1	65.1	64.3	64.3	63.5	60.5
7.5°	66.6	66.6	66.6	66.6	65.8	65.8	65.8	65.8	65.1	64.3	59.0
10°	63.5	63.5	63.5	62.8	62.8	62.8	62.0	62.0	61.3	60.5	54.5
12.5°	57.5	57.5	57.5	57.5	56.7	56.7	56.0	56.0	55.2	54.5	47.7
15°	54.5	54.5	54.5	53.7	53.7	53.0	52.2	51.4	50.7	49.2	40.9
17.5°	59.0	59.0	58.3	58.3	56.7	55.2	54.5	52.2	50.7	48.4	36.3
20°	78.7	79.4	76.4	74.1	72.6	68.1	65.8	62.0	59.0	55.2	33.3
22.5°	158.9	155.8	150.5	142.2	132.4	124.1	108.9	96.8	88.5	77.2	32.5
25°	326.8	323.8	309.4	297.3	267.0	243.6	211.1	184.6	157.4	130.9	33.3
27.5°	621.1	600.7	596.9	541.7	499.3	438.8	376.0	323.0	274.6	220.9	35.6
30°	1180.9	1157.5	1075.0	991.8	877.6	748.2	624.9	509.9	413.8	326.8	38.6
31°	1498.6	1521.3	1424.5	1257.3	1088.6	922.9	754.2	608.2	484.2	376.0	40.1
32°	1970.0	1870.9	1768.7	1597.0	1351.9	1140.1	928.2	717.9	554.5	428.9	41.6
33°	2415.5	2357.3	2201.4	1987.4	1693.1	1395.8	1121.1	847.3	640.8	493.2	42.4
34°	2890.6	2826.3	2700.0	2392.8	2069.8	1680.2	1314.1	996.3	743.7	556.0	43.1
35°	3386.1	3358.9	3115.3	2849.0	2451.9	1982.1	1546.3	1159.7	844.3	613.5	43.9
36°	3884.7	3796.9	3606.3	3217.4	2802.9	2261.2	1789.9	1311.8	946.4	681.6	43.9
37°	4259.9	4240.2	3987.6	3608.6	3121.4	2559.3	2000.2	1480.5	1049.3	739.9	43.9
38°	4673.7	4595.8	4339.3	3953.5	3420.9	2832.4	2220.4	1627.3	1146.9	792.8	43.1
39°	5022.5	4906.7	4648.0	4266.7	3682.7	3039.7	2395.1	1769.5	1233.1	836.7	42.4
40°	5250.9	5170.8	4900.7	4471.7	3920.2	3235.6	2572.1	1886.7	1297.4	870.0	40.9
41°	5502.9	5369.7	5102.7	4671.5	4092.7	3408.1	2683.3	1963.9	1347.3	891.9	39.3
42°	5653.4	5544.5	5227.5	4805.4	4216.0	3506.4	2774.1	2022.9	1377.6	903.3	36.3
43°	5794.1	5645.8	5337.2	4883.3	4297.7	3576.0	2815.7	2050.1	1384.4	903.3	32.5
44°	5775.2	5634.5	5314.5	4893.9	4315.9	3596.5	2833.1	2050.9	1373.8	891.9	28.7
45°	5633.7	5493.8	5205.6	4801.6	4250.8	3556.4	2798.3	2020.6	1344.3	872.3	25.7
46°	5374.3	5235.1	5014.2	4647.2	4129.8	3465.6	2717.4	1954.8	1295.1	840.5	22.7
47°	5092.1	4956.7	4730.5	4398.4	3923.3	3303.7	2600.1	1862.5	1226.3	794.3	20.4
48°	4682.8	4598.1	4371.1	4087.4	3636.5	3050.3	2394.4	1712.0	1134.0	734.6	17.4
49°	4321.2	4231.9	4033.0	3728.1	3262.8	2755.2	2148.5	1528.9	1013.7	668.0	15.1
50°	3975.5	3897.5	3713.7	3369.5	2925.4	2398.9	1816.4	1298.2	862.4	585.5	12.9
51°	3637.3	3579.1	3391.4	3075.2	2624.3	2125.0	1573.5	1081.1	712.6	485.7	12.1
52°	3297.6	3290.8	3087.3	2767.3	2331.6	1851.9	1337.5	912.4	604.5	407.8	11.3
53°	2932.2	2888.4	2710.6	2423.1	2004.8	1567.5	1134.0	769.4	520.5	347.2	9.8
54°	2516.2	2467.0	2276.3	2016.9	1637.8	1283.8	913.9	621.9	433.5	293.5	9.1
55°	2053.2	1969.2	1830.8	1564.5	1279.3	979.7	705.8	492.5	346.5	244.4	7.6
56°	1557.7	1473.7	1395.8	1199.8	938.8	730.8	525.8	377.5	270.8	192.9	6.8
57°	1083.3	1078.8	950.9	800.4	627.9	497.8	360.1	266.3	191.4	149.8	5.3
58°	702.8	679.3	597.6	510.6	410.8	310.9	231.5	180.8	130.1	102.1	4.5
59°	492.5	445.6	401.7	340.4	258.7	195.9	149.0	115.7	90.0	71.1	3.0
60°	302.6	292.8	263.3	207.3	167.9	138.4	111.2	85.5	65.8	50.7	1.5
62.5°	86.2	87.8	79.4	70.4	60.5	52.2	46.9	40.1	33.3	26.5	0.0
65°	19.7	18.9	20.4	18.9	17.4	17.4	15.1	13.6	12.1	11.3	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	5.3	5.3	5.3	4.5	4.5	3.8	3.8	3.0	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°	56.0	56.0	56.0	56.0	56.0	56.0
2.5°	58.3	55.2	53.0	50.7	49.9	49.9
5°	56.7	52.2	47.7	45.4	43.9	43.9
7.5°	52.2	46.9	42.4	40.1	39.3	39.3
10°	46.9	40.9	36.3	34.8	34.8	34.0
12.5°	40.9	34.8	31.8	31.0	31.0	31.0
15°	34.0	29.5	27.2	27.2	28.0	28.7
17.5°	28.7	24.2	23.5	25.0	26.5	26.5
20°	24.2	21.2	21.2	22.7	24.2	25.0
22.5°	20.4	18.2	18.9	21.2	23.5	24.2
25°	18.2	15.9	17.4	19.7	21.9	23.5
27.5°	15.1	14.4	15.9	18.9	21.9	22.7
30°	12.9	12.9	15.1	18.2	21.2	21.9
31°	12.1	12.1	15.1	18.2	21.2	21.9
32°	11.3	12.1	14.4	18.2	21.2	21.9
33°	10.6	11.3	14.4	17.4	21.2	21.9
34°	9.8	11.3	14.4	17.4	21.2	21.9
35°	9.1	11.3	14.4	17.4	21.2	21.9
36°	8.3	10.6	13.6	17.4	21.2	21.9
37°	7.6	10.6	13.6	17.4	21.2	21.9
38°	6.8	9.8	13.6	17.4	21.2	21.9
39°	6.8	9.8	12.9	17.4	20.4	21.9
40°	6.1	9.1	12.9	17.4	20.4	21.9
41°	5.3	9.1	12.9	16.6	20.4	21.9
42°	4.5	8.3	12.1	16.6	20.4	21.9
43°	3.8	8.3	12.1	16.6	20.4	21.9
44°	3.8	7.6	12.1	16.6	20.4	21.9
45°	3.0	7.6	12.1	16.6	20.4	21.9
46°	2.3	7.6	12.1	16.6	20.4	21.9
47°	2.3	6.8	11.3	16.6	20.4	21.9
48°	1.5	6.8	11.3	16.6	20.4	21.9
49°	1.5	6.8	11.3	16.6	20.4	22.7
50°	1.5	6.8	11.3	15.9	20.4	22.7
51°	0.8	6.8	11.3	15.9	20.4	22.7
52°	0.8	6.8	10.6	15.9	21.2	22.7
53°	0.8	6.1	10.6	15.9	21.2	22.7
54°	0.8	6.1	10.6	15.9	21.2	21.9
55°	0.8	6.1	10.6	15.9	20.4	21.9
56°	0.8	5.3	10.6	15.9	20.4	21.9
57°	0.8	5.3	9.8	15.1	20.4	21.2
58°	0.8	5.3	9.8	15.1	20.4	21.2
59°	0.8	5.3	9.8	15.1	19.7	21.2
60°	1.5	4.5	9.1	14.4	19.7	21.2
62.5°	1.5	4.5	9.1	14.4	18.9	20.4
65°	1.5	4.5	8.3	13.6	18.9	20.4



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.5	3.8	7.6	12.9	18.2	19.7
70°	1.5	4.5	7.6	12.1	17.4	18.9
72.5°	2.3	3.8	6.8	11.3	16.6	18.2
75°	2.3	3.8	6.8	10.6	15.9	16.6
77.5°	3.0	3.8	6.1	9.1	14.4	15.1
80°	3.0	3.8	5.3	7.6	12.1	12.9
82.5°	3.0	3.8	3.8	6.1	9.1	9.8
85°	2.3	3.0	3.0	3.8	6.1	6.8
87.5°	2.3	3.0	2.3	1.5	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)