

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: P1344193

Luminaire Tested: P3A13R20B2750DE010 E3CA451MMS_5000K

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344193
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_5000K
Description: 3in Adjustable Boosted Cyan Tunable White LED luminaire with, R20 optic, 5000K CCT AND, 80CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

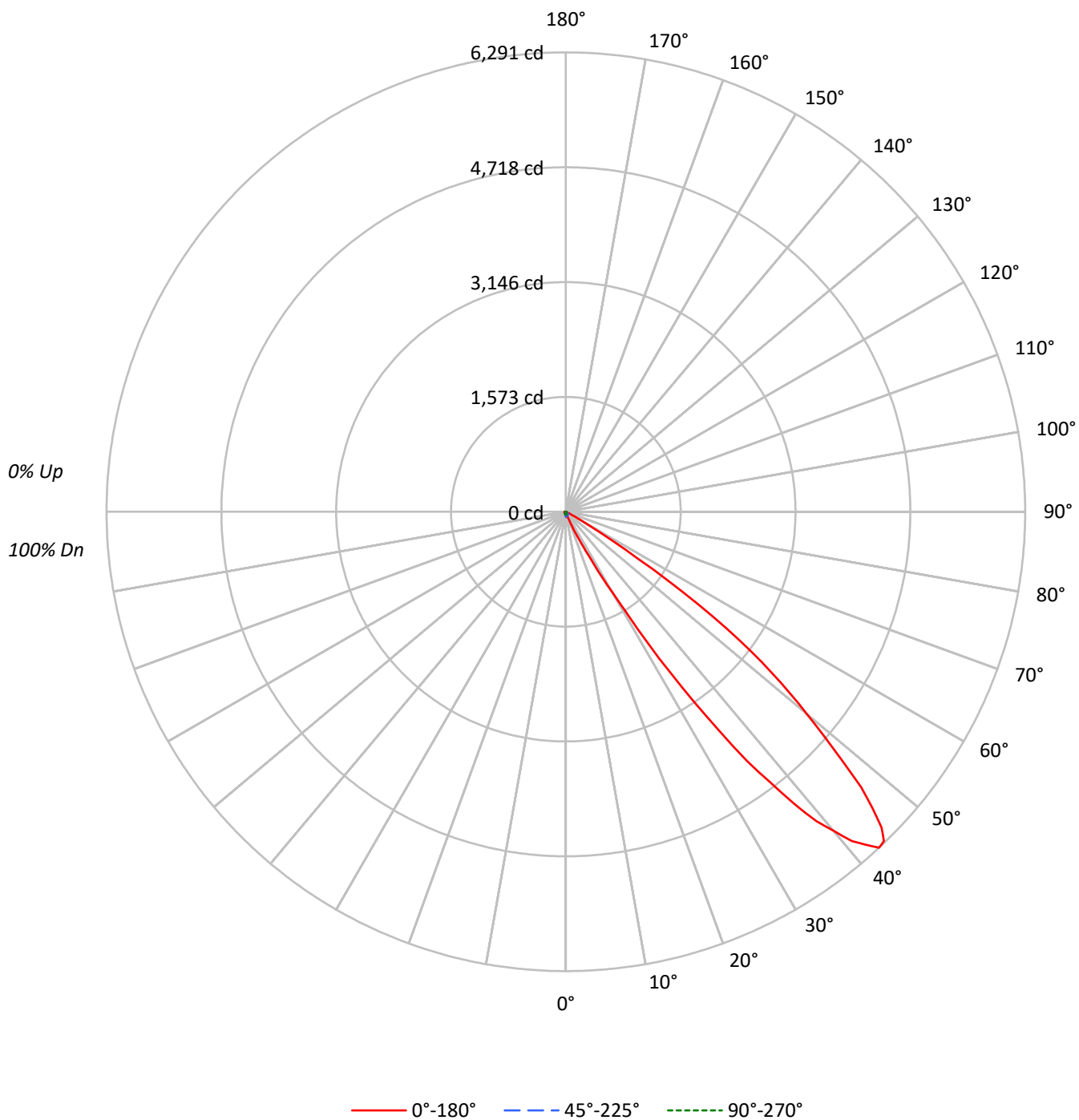
Lumens per Lamp: N/A
Luminaire Lumens: 874.0 lumens
Efficiency: N/A
Efficacy: 45.8 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
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°	13332	13332	13332	13332	13332
5°	15540	14462	12481	10852	10478
10°	15364	13159	9886	8417	8239
15°	13417	10080	7265	6720	7083
20°	19928	8424	5367	5740	6324
25°	85844	8734	4162	5178	6170
30°	324632	10609	3545	4988	6026
35°	984144	12742	3293	5059	6371
40°	1631915	12710	2834	5410	6813
45°	1896817	8652	2543	5613	7381
50°	1472429	4776	2524	5868	8392
55°	852233	3135	2523	6576	9099
60°	144067	702	2149	6842	10087
65°	11104	0	2542	7679	11519
70°	1603	0	3142	8399	13143
75°	1356	678	3474	9743	15335
80°	1010	1010	5177	10355	17679
85°	2013	2013	8303	10315	18618

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1896817 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.2	0.6
10°-20°	10.9	1.3
20°-30°	34.9	4.0
30°-40°	222.9	25.5
40°-50°	408.0	46.7
50°-60°	167.6	19.2
60°-70°	14.1	1.6
70°-80°	7.0	0.8
80°-90°	3.3	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°	51.1	5.8
0°-40°	273.9	31.3
0°-60°	849.5	97.2
0°-90°	874.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	874.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	61	61	61	61	61	
5°	71	66	57	49	48	7
15°	59	44	32	30	31	19
25°	355	36	17	21	26	233
35°	3676	48	12	19	24	2327
45°	6117	28	8	18	24	4392
55°	2229	8	7	17	24	1949
65°	21	0	5	15	22	70
75°	2	1	4	12	18	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°	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8	60.8
2.5°	66.5	66.5	66.5	65.7	65.7	66.5	65.7	65.7	65.7	65.7	64.9
5°	70.6	70.6	70.6	70.6	70.6	70.6	70.6	69.8	69.8	69.0	65.7
7.5°	72.3	72.3	72.3	72.3	71.5	71.5	71.5	71.5	70.6	69.8	64.1
10°	69.0	69.0	69.0	68.2	68.2	68.2	67.4	67.4	66.5	65.7	59.1
12.5°	62.4	62.4	62.4	62.4	61.6	61.6	60.8	60.8	60.0	59.1	51.7
15°	59.1	59.1	59.1	58.3	58.3	57.5	56.7	55.9	55.0	53.4	44.4
17.5°	64.1	64.1	63.2	63.2	61.6	60.0	59.1	56.7	55.0	52.6	39.4
20°	85.4	86.2	83.0	80.5	78.9	73.9	71.5	67.4	64.1	60.0	36.1
22.5°	172.5	169.2	163.4	154.4	143.7	134.7	118.3	105.1	96.1	83.8	35.3
25°	354.8	351.5	335.9	322.8	289.9	264.5	229.2	200.4	170.8	142.1	36.1
27.5°	674.3	652.2	648.0	588.1	542.1	476.4	408.2	350.7	298.2	239.8	38.6
30°	1282.1	1256.7	1167.1	1076.8	952.8	812.3	678.4	553.6	449.3	354.8	41.9
31°	1627.1	1651.7	1546.6	1365.1	1181.9	1002.1	818.9	660.4	525.7	408.2	43.5
32°	2138.8	2031.2	1920.3	1733.9	1467.8	1237.8	1007.8	779.5	602.1	465.7	45.2
33°	2622.6	2559.3	2390.1	2157.7	1838.2	1515.4	1217.2	919.9	695.7	535.5	46.0
34°	3138.4	3068.6	2931.4	2597.9	2247.2	1824.2	1426.7	1081.7	807.4	603.7	46.8
35°	3676.4	3646.8	3382.3	3093.2	2662.0	2151.9	1678.8	1259.1	916.6	666.1	47.6
36°	4217.7	4122.4	3915.4	3493.2	3043.1	2455.0	1943.3	1424.2	1027.5	740.0	47.6
37°	4625.0	4603.7	4329.4	3917.9	3388.9	2778.6	2171.7	1607.4	1139.2	803.3	47.6
38°	5074.3	4989.7	4711.3	4292.4	3714.2	3075.2	2410.7	1766.7	1245.2	860.8	46.8
39°	5453.0	5327.3	5046.4	4632.4	3998.4	3300.2	2600.4	1921.1	1338.8	908.4	46.0
40°	5701.0	5614.0	5320.7	4855.0	4256.3	3512.9	2792.6	2048.5	1408.6	944.6	44.4
41°	5974.5	5830.0	5540.0	5071.9	4443.5	3700.2	2913.3	2132.2	1462.8	968.4	42.7
42°	6138.0	6019.7	5675.6	5217.2	4577.4	3807.0	3011.9	2196.3	1495.7	980.7	39.4
43°	6290.8	6129.8	5794.7	5301.8	4666.1	3882.5	3057.1	2225.9	1503.1	980.7	35.3
44°	6270.2	6117.5	5770.0	5313.3	4685.8	3904.7	3076.0	2226.7	1491.6	968.4	31.2
45°	6116.6	5964.7	5651.7	5213.1	4615.2	3861.2	3038.2	2193.8	1459.5	947.0	27.9
46°	5834.9	5683.8	5443.9	5045.6	4483.8	3762.6	2950.3	2122.4	1406.2	912.5	24.6
47°	5528.5	5381.5	5135.9	4775.4	4259.5	3586.9	2823.0	2022.2	1331.4	862.4	22.2
48°	5084.2	4992.2	4745.8	4437.8	3948.3	3311.7	2599.6	1858.7	1231.2	797.5	18.9
49°	4691.6	4594.7	4378.6	4047.6	3542.5	2991.4	2332.6	1660.0	1100.6	725.3	16.4
50°	4316.2	4231.6	4032.0	3658.3	3176.2	2604.5	1972.1	1409.4	936.3	635.7	14.0
51°	3949.1	3885.8	3682.1	3338.8	2849.3	2307.2	1708.4	1173.7	773.7	527.3	13.1
52°	3580.3	3572.9	3351.9	3004.5	2531.4	2010.7	1452.2	990.6	656.3	442.7	12.3
53°	3183.6	3135.9	2942.9	2630.8	2176.6	1701.8	1231.2	835.3	565.1	377.0	10.7
54°	2731.8	2678.4	2471.5	2189.7	1778.2	1393.8	992.2	675.2	470.6	318.7	9.9
55°	2229.2	2138.0	1987.7	1698.6	1388.9	1063.7	766.3	534.7	376.2	265.3	8.2
56°	1691.2	1600.0	1515.4	1302.7	1019.3	793.4	570.8	409.9	294.0	209.4	7.4
57°	1176.2	1171.3	1032.4	869.0	681.7	540.5	391.0	289.1	207.8	162.6	5.7
58°	763.0	737.6	648.9	554.4	446.0	337.6	251.3	196.3	141.3	110.9	4.9
59°	534.7	483.8	436.1	369.6	280.9	212.7	161.8	125.7	97.7	77.2	3.3
60°	328.5	317.9	285.8	225.1	182.3	150.3	120.7	92.8	71.5	55.0	1.6
62.5°	93.6	95.3	86.2	76.4	65.7	56.7	50.9	43.5	36.1	28.7	0.0
65°	21.4	20.5	22.2	20.5	18.9	18.9	16.4	14.8	13.1	12.3	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°	6.6	6.6	5.7	5.7	5.7	4.9	4.9	4.1	4.1	3.3	0.0
70°	2.5	2.5	2.5	2.5	2.5	1.6	1.6	1.6	0.8	0.8	0.0
72.5°	2.5	2.5	2.5	1.6	1.6	1.6	1.6	1.6	0.8	0.8	0.8
75°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.8	0.8	0.8	0.8
77.5°	1.6	1.6	1.6	1.6	1.6	0.8	1.6	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°	60.8	60.8	60.8	60.8	60.8	60.8
2.5°	63.2	60.0	57.5	55.0	54.2	54.2
5°	61.6	56.7	51.7	49.3	47.6	47.6
7.5°	56.7	50.9	46.0	43.5	42.7	42.7
10°	50.9	44.4	39.4	37.8	37.8	37.0
12.5°	44.4	37.8	34.5	33.7	33.7	33.7
15°	37.0	32.0	29.6	29.6	30.4	31.2
17.5°	31.2	26.3	25.5	27.1	28.7	28.7
20°	26.3	23.0	23.0	24.6	26.3	27.1
22.5°	22.2	19.7	20.5	23.0	25.5	26.3
25°	19.7	17.2	18.9	21.4	23.8	25.5
27.5°	16.4	15.6	17.2	20.5	23.8	24.6
30°	14.0	14.0	16.4	19.7	23.0	23.8
31°	13.1	13.1	16.4	19.7	23.0	23.8
32°	12.3	13.1	15.6	19.7	23.0	23.8
33°	11.5	12.3	15.6	18.9	23.0	23.8
34°	10.7	12.3	15.6	18.9	23.0	23.8
35°	9.9	12.3	15.6	18.9	23.0	23.8
36°	9.0	11.5	14.8	18.9	23.0	23.8
37°	8.2	11.5	14.8	18.9	23.0	23.8
38°	7.4	10.7	14.8	18.9	23.0	23.8
39°	7.4	10.7	14.0	18.9	22.2	23.8
40°	6.6	9.9	14.0	18.9	22.2	23.8
41°	5.7	9.9	14.0	18.1	22.2	23.8
42°	4.9	9.0	13.1	18.1	22.2	23.8
43°	4.1	9.0	13.1	18.1	22.2	23.8
44°	4.1	8.2	13.1	18.1	22.2	23.8
45°	3.3	8.2	13.1	18.1	22.2	23.8
46°	2.5	8.2	13.1	18.1	22.2	23.8
47°	2.5	7.4	12.3	18.1	22.2	23.8
48°	1.6	7.4	12.3	18.1	22.2	23.8
49°	1.6	7.4	12.3	18.1	22.2	24.6
50°	1.6	7.4	12.3	17.2	22.2	24.6
51°	0.8	7.4	12.3	17.2	22.2	24.6
52°	0.8	7.4	11.5	17.2	23.0	24.6
53°	0.8	6.6	11.5	17.2	23.0	24.6
54°	0.8	6.6	11.5	17.2	23.0	23.8
55°	0.8	6.6	11.5	17.2	22.2	23.8
56°	0.8	5.7	11.5	17.2	22.2	23.8
57°	0.8	5.7	10.7	16.4	22.2	23.0
58°	0.8	5.7	10.7	16.4	22.2	23.0
59°	0.8	5.7	10.7	16.4	21.4	23.0
60°	1.6	4.9	9.9	15.6	21.4	23.0
62.5°	1.6	4.9	9.9	15.6	20.5	22.2
65°	1.6	4.9	9.0	14.8	20.5	22.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.6	4.1	8.2	14.0	19.7	21.4
70°	1.6	4.9	8.2	13.1	18.9	20.5
72.5°	2.5	4.1	7.4	12.3	18.1	19.7
75°	2.5	4.1	7.4	11.5	17.2	18.1
77.5°	3.3	4.1	6.6	9.9	15.6	16.4
80°	3.3	4.1	5.7	8.2	13.1	14.0
82.5°	3.3	4.1	4.1	6.6	9.9	10.7
85°	2.5	3.3	3.3	4.1	6.6	7.4
87.5°	2.5	3.3	2.5	1.6	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)