

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: P1344174

Luminaire Tested: P3A13R20B2750DE010 E3A451WMH_2700K

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344174
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 E3A451WMH_2700K
Description: 3in Adjustable Boosted Cyan Tunable White LED luminaire with, R20 optic, 2700K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

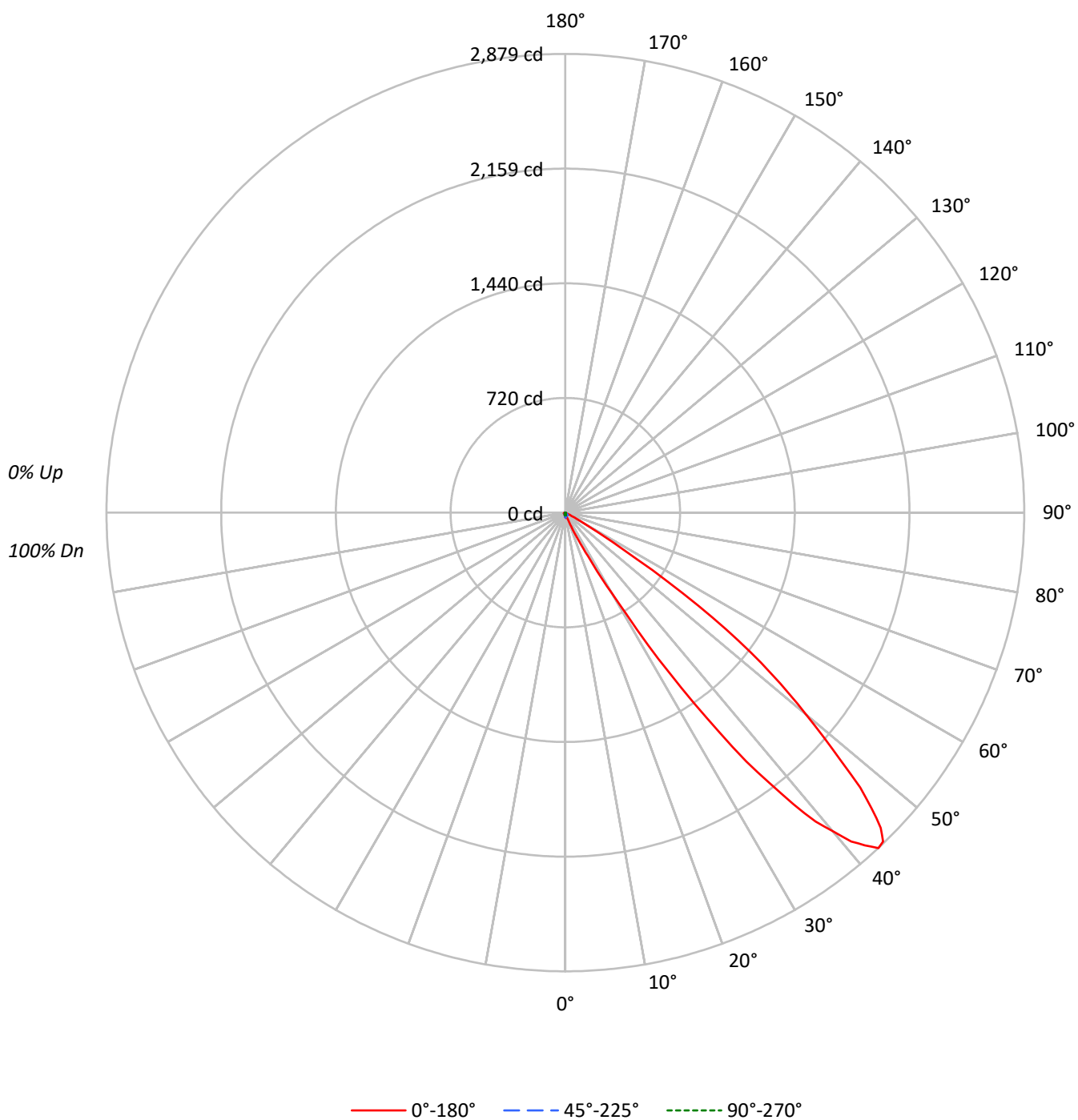
Lumens per Lamp: N/A
Luminaire Lumens: 400.0 lumens
Efficiency: N/A
Efficacy: 20.9 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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
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°	6096	6096	6096	6096	6096
5°	7110	6626	5701	4975	4799
10°	7036	6034	4520	3852	3763
15°	6152	4608	3337	3065	3246
20°	9124	3850	2450	2637	2894
25°	39293	3992	1911	2371	2831
30°	148580	4862	1621	2279	2760
35°	450419	5836	1499	2302	2918
40°	746885	5811	1288	2462	3120
45°	868121	3969	1178	2574	3380
50°	673888	2183	1160	2695	3855
55°	390027	1453	1147	3020	4167
60°	65960	351	1009	3114	4605
65°	5085	0	1193	3528	5241
70°	705	0	1475	3847	6027
75°	678	339	1610	4490	7032
80°	505	505	2399	4799	8082
85°	1006	1006	3774	4780	8554

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 868121 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.4	0.6
10°-20°	5.0	1.3
20°-30°	16.0	4.0
30°-40°	102.0	25.5
40°-50°	186.7	46.7
50°-60°	76.7	19.2
60°-70°	6.5	1.6
70°-80°	3.2	0.8
80°-90°	1.5	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°	23.4	5.8
0°-40°	125.4	31.3
0°-60°	388.8	97.2
0°-90°	400.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	400.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	28	28	28	28	28	
5°	32	30	26	23	22	3
15°	27	20	15	14	14	9
25°	162	16	8	10	12	107
35°	1683	22	6	9	11	1065
45°	2799	13	4	8	11	2010
55°	1020	4	3	8	11	892
65°	10	0	2	7	10	32
75°	1	0	2	5	8	1
85°	0	0	2	2	3	0
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°	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
2.5°	30.4	30.4	30.4	30.1	30.1	30.4	30.1	30.1	30.1	30.1	29.7
5°	32.3	32.3	32.3	32.3	32.3	32.3	32.3	32.0	32.0	31.6	30.1
7.5°	33.1	33.1	33.1	33.1	32.7	32.7	32.7	32.7	32.3	32.0	29.3
10°	31.6	31.6	31.6	31.2	31.2	31.2	30.8	30.8	30.4	30.1	27.1
12.5°	28.6	28.6	28.6	28.6	28.2	28.2	27.8	27.8	27.4	27.1	23.7
15°	27.1	27.1	27.1	26.7	26.7	26.3	25.9	25.6	25.2	24.4	20.3
17.5°	29.3	29.3	28.9	28.9	28.2	27.4	27.1	25.9	25.2	24.1	18.0
20°	39.1	39.5	38.0	36.8	36.1	33.8	32.7	30.8	29.3	27.4	16.5
22.5°	78.9	77.4	74.8	70.7	65.8	61.6	54.1	48.1	44.0	38.3	16.2
25°	162.4	160.9	153.7	147.7	132.7	121.0	104.9	91.7	78.2	65.0	16.5
27.5°	308.6	298.5	296.6	269.1	248.1	218.0	186.8	160.5	136.5	109.8	17.7
30°	586.8	575.1	534.2	492.8	436.1	371.8	310.5	253.4	205.6	162.4	19.2
31°	744.7	755.9	707.8	624.8	540.9	458.6	374.8	302.2	240.6	186.8	19.9
32°	978.9	929.6	878.9	793.5	671.7	566.5	461.2	356.7	275.5	213.1	20.7
33°	1200.3	1171.3	1093.9	987.5	841.3	693.5	557.1	421.0	318.4	245.1	21.1
34°	1436.3	1404.4	1341.6	1189.0	1028.5	834.9	652.9	495.1	369.5	276.3	21.4
35°	1682.6	1669.0	1548.0	1415.7	1218.3	984.9	768.4	576.3	419.5	304.9	21.8
36°	1930.3	1886.7	1791.9	1598.7	1392.7	1123.6	889.4	651.8	470.3	338.7	21.8
37°	2116.7	2107.0	1981.4	1793.1	1551.0	1271.7	993.9	735.6	521.4	367.6	21.8
38°	2322.3	2283.6	2156.2	1964.5	1699.8	1407.4	1103.3	808.6	569.9	393.9	21.4
39°	2495.6	2438.1	2309.6	2120.1	1829.9	1510.4	1190.1	879.2	612.7	415.8	21.1
40°	2609.2	2569.3	2435.1	2222.0	1947.9	1607.8	1278.1	937.5	644.7	432.3	20.3
41°	2734.3	2668.2	2535.5	2321.2	2033.7	1693.5	1333.3	975.9	669.5	443.2	19.5
42°	2809.1	2755.0	2597.5	2387.8	2094.9	1742.3	1378.4	1005.2	684.5	448.8	18.0
43°	2879.1	2805.4	2652.0	2426.5	2135.5	1776.9	1399.1	1018.7	687.9	448.8	16.2
44°	2869.7	2799.7	2640.7	2431.7	2144.5	1787.1	1407.8	1019.1	682.6	443.2	14.3
45°	2799.4	2729.8	2586.6	2385.9	2112.2	1767.1	1390.5	1004.0	668.0	433.4	12.8
46°	2670.4	2601.3	2491.5	2309.2	2052.1	1722.0	1350.3	971.3	643.6	417.6	11.3
47°	2530.2	2462.9	2350.5	2185.5	1949.4	1641.6	1292.0	925.5	609.3	394.7	10.1
48°	2326.9	2284.8	2172.0	2031.0	1807.0	1515.7	1189.7	850.7	563.5	365.0	8.6
49°	2147.2	2102.8	2004.0	1852.5	1621.3	1369.1	1067.6	759.7	503.7	331.9	7.5
50°	1975.4	1936.7	1845.3	1674.3	1453.6	1192.0	902.6	645.1	428.5	291.0	6.4
51°	1807.4	1778.4	1685.2	1528.1	1304.0	1055.9	781.9	537.2	354.1	241.3	6.0
52°	1638.6	1635.2	1534.1	1375.1	1158.5	920.2	664.6	453.3	300.3	202.6	5.6
53°	1457.0	1435.2	1346.9	1204.0	996.2	778.9	563.5	382.3	258.6	172.5	4.9
54°	1250.3	1225.8	1131.1	1002.2	813.8	637.9	454.1	309.0	215.4	145.9	4.5
55°	1020.2	978.5	909.7	777.4	635.7	486.8	350.7	244.7	172.2	121.4	3.8
56°	774.0	732.3	693.5	596.2	466.5	363.1	261.3	187.6	134.6	95.9	3.4
57°	538.3	536.0	472.5	397.7	312.0	247.3	178.9	132.3	95.1	74.4	2.6
58°	349.2	337.6	297.0	253.7	204.1	154.5	115.0	89.8	64.7	50.7	2.3
59°	244.7	221.4	199.6	169.2	128.6	97.4	74.1	57.5	44.7	35.3	1.5
60°	150.4	145.5	130.8	103.0	83.5	68.8	55.3	42.5	32.7	25.2	0.8
62.5°	42.9	43.6	39.5	35.0	30.1	25.9	23.3	19.9	16.5	13.2	0.0
65°	9.8	9.4	10.1	9.4	8.6	8.6	7.5	6.8	6.0	5.6	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°	3.0	3.0	2.6	2.6	2.6	2.3	2.3	1.9	1.9	1.5	0.0
70°	1.1	1.1	1.1	1.1	1.1	0.8	0.8	0.8	0.4	0.4	0.0
72.5°	1.1	1.1	1.1	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4
75°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4
77.5°	0.8	0.8	0.8	0.8	0.8	0.4	0.8	0.4	0.4	0.4	0.4
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
85°	0.4	0.4	0.4	0.4	0.0	0.0	0.4	0.4	0.4	0.0	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
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°	27.8	27.8	27.8	27.8	27.8	27.8
2.5°	28.9	27.4	26.3	25.2	24.8	24.8
5°	28.2	25.9	23.7	22.6	21.8	21.8
7.5°	25.9	23.3	21.1	19.9	19.5	19.5
10°	23.3	20.3	18.0	17.3	17.3	16.9
12.5°	20.3	17.3	15.8	15.4	15.4	15.4
15°	16.9	14.7	13.5	13.5	13.9	14.3
17.5°	14.3	12.0	11.7	12.4	13.2	13.2
20°	12.0	10.5	10.5	11.3	12.0	12.4
22.5°	10.1	9.0	9.4	10.5	11.7	12.0
25°	9.0	7.9	8.6	9.8	10.9	11.7
27.5°	7.5	7.1	7.9	9.4	10.9	11.3
30°	6.4	6.4	7.5	9.0	10.5	10.9
31°	6.0	6.0	7.5	9.0	10.5	10.9
32°	5.6	6.0	7.1	9.0	10.5	10.9
33°	5.3	5.6	7.1	8.6	10.5	10.9
34°	4.9	5.6	7.1	8.6	10.5	10.9
35°	4.5	5.6	7.1	8.6	10.5	10.9
36°	4.1	5.3	6.8	8.6	10.5	10.9
37°	3.8	5.3	6.8	8.6	10.5	10.9
38°	3.4	4.9	6.8	8.6	10.5	10.9
39°	3.4	4.9	6.4	8.6	10.1	10.9
40°	3.0	4.5	6.4	8.6	10.1	10.9
41°	2.6	4.5	6.4	8.3	10.1	10.9
42°	2.3	4.1	6.0	8.3	10.1	10.9
43°	1.9	4.1	6.0	8.3	10.1	10.9
44°	1.9	3.8	6.0	8.3	10.1	10.9
45°	1.5	3.8	6.0	8.3	10.1	10.9
46°	1.1	3.8	6.0	8.3	10.1	10.9
47°	1.1	3.4	5.6	8.3	10.1	10.9
48°	0.8	3.4	5.6	8.3	10.1	10.9
49°	0.8	3.4	5.6	8.3	10.1	11.3
50°	0.8	3.4	5.6	7.9	10.1	11.3
51°	0.4	3.4	5.6	7.9	10.1	11.3
52°	0.4	3.4	5.3	7.9	10.5	11.3
53°	0.4	3.0	5.3	7.9	10.5	11.3
54°	0.4	3.0	5.3	7.9	10.5	10.9
55°	0.4	3.0	5.3	7.9	10.1	10.9
56°	0.4	2.6	5.3	7.9	10.1	10.9
57°	0.4	2.6	4.9	7.5	10.1	10.5
58°	0.4	2.6	4.9	7.5	10.1	10.5
59°	0.4	2.6	4.9	7.5	9.8	10.5
60°	0.8	2.3	4.5	7.1	9.8	10.5
62.5°	0.8	2.3	4.5	7.1	9.4	10.1
65°	0.8	2.3	4.1	6.8	9.4	10.1



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	1.9	3.8	6.4	9.0	9.8
70°	0.8	2.3	3.8	6.0	8.6	9.4
72.5°	1.1	1.9	3.4	5.6	8.3	9.0
75°	1.1	1.9	3.4	5.3	7.9	8.3
77.5°	1.5	1.9	3.0	4.5	7.1	7.5
80°	1.5	1.9	2.6	3.8	6.0	6.4
82.5°	1.5	1.9	1.9	3.0	4.5	4.9
85°	1.1	1.5	1.5	1.9	3.0	3.4
87.5°	1.1	1.5	1.1	0.8	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)