

Driverless – The Future of LED Lighting



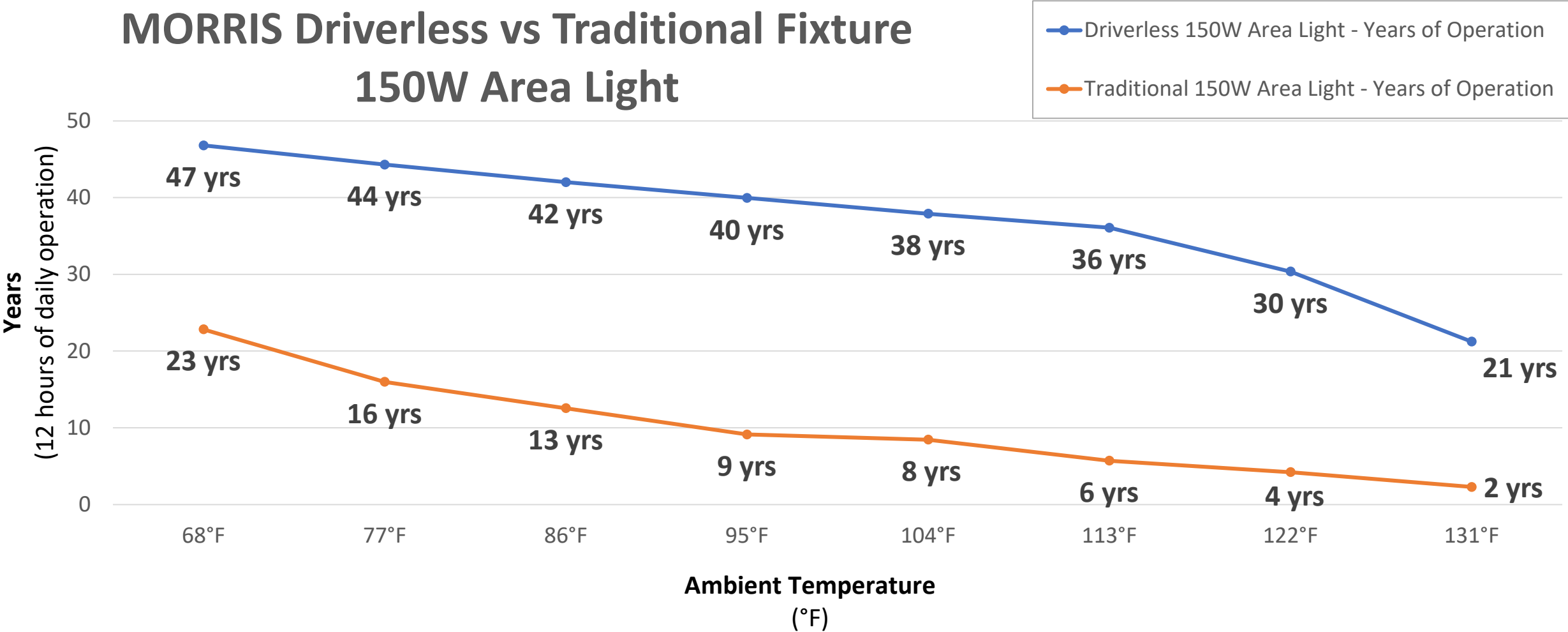
- 99% of the time **drivers** are the first point of failure
 - Capacitor and transformer are weakest link components that fail
- Some competition – promotes 100k to 200k hours of life
 - **BUT they are talking about LED (L70) lifetime, NOT talking about driver lifetime**
- We have eliminated the driver! First point of failure gone!
 - Capacitor & transformer eliminated. All solid state components
 - Components with million hour lifetimes
 - LED becomes first point of failure – using long life 5050 LEDs
- **ONLY FIXTURE IN THE INDUSTRY WITH 200K HOUR LIFETIME**
 - Still lower price than competition touting 10yr warranty fixtures!



USA PATENT PENDING

Driverless Fixture Lifetime Curves

MORRIS Driverless vs Traditional Fixture 150W Area Light



Driverless - Lifetime



Why is a driverless fixture's lifetime better?

- First point of failure components eliminated
 - No more capacitors and transformers

Successful Validation Testing - Thousands of hours of testing employed including:

- **Thermal Shock Test** – confirm durability of a circuit board design, simulate years of service and ID failure points (-40°F to +149°F)
- **Accelerated Life Test** – beyond thermal shock testing this exposes the fixture to elevated temperature up to +194°F.
- **Low Temp Start-Up test** – verify performance in cold start applications
- **Temperature Test** – baseline performance of all board-level components to verify performance to specification.
- **Burn-In/Light Up Test** - 24 hour burn-in for 100% of production units.
- **Additional Tests** - EMI, Leakage Current/Hi-POT/Insulation Resistance, surge protection, etc.

Area Light – extended life test

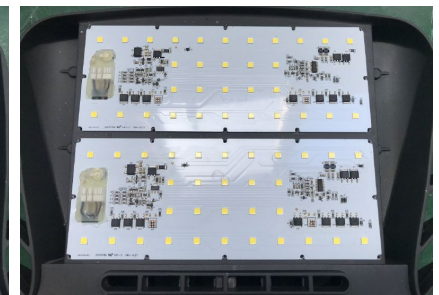


90°C!

Board post-testing



No visual signs of stress or discoloration



Driverless – Product Options



FEATURES:

- 120/240/277V **EXCLUDES 208V**
- 0-10V Dimming
- 10kV Surge Protection
- -40°C to +55°C ambient temperature rating
 - Operational up to 65°C (tested up to 90°C)
- 5050 LEDs – longer life and superior heat dissipation
- 7-Pin twist lock receptacle and shorting cap included!
- 10 Yr warranty available, case by case

PRODUCT OFFERING:

- Area Lights – 75W-300W
- Classic Wall Packs – 45W-150W
- Full Cut-Off Wall Packs – 50W-100W
- Canopy – 45W-70W
- Dusk to Dawn – 35W & 70W
- UFO High Bay – 150W-240W

