Manufacturing Quality

Manufacturing the highest quality solid state lighting products is top priority for Thomas Research Products. The quality assurance systems we have in place demonstrate our ability to maintain your confidence!

We are committed to understanding and meeting your requirements -- to increasing customer satisfaction through the continual improvement of our products, services, and quality management system.

Our quality regimen begins with project management that covers the entire development process, from concept validation, through prototyping, to pilot run and stocking builds.

Prior to production, we provide Design Failure Mode and Effects Analysis (DFMEA) and Process Failure Mode and Effects Analysis (PFMEA) analysis. This alerts customers to potential issues in design or manufacturing, and saves both time and money.

Accuracy and accountability are crucial at every manufacturing step, beginning as components are received from our suppliers. Detailed lot traceability and LED binning control protocols mean any performance issues with the final product can be traced back to specific components as possible failure points.

Our custom products undergo 100% light-up testing. We also engage 8D preventive and corrective action as well as a 5-why analysis if a manufacturing non-conformity arises. These processes are used to identify the non-conformity and the cause, then implement corrective actions. The results are verified to prevent further issues.

Having our engineering and manufacturing capabilities "under one roof" keeps us nimble and responsive to your needs.

Our Commitment to Safety…

Concern for safety in our facility ties to our quality control. Attention to detail makes for a better products and a better workplace. We utilize several "best-practices" to ensure the safest possible working environment. Including: Gemba Walk, Residual Risk Reduction, and Behavioral Based Safety. These systems help protect both employees and visitors.

LED Driver Testing & Quality Assurance

Our on-premise Test Lab and Environmental Chamber provides the ability to long-term life test our LED drivers and even customers' fixtures for hot and/or cold temperature issues.

- *Our on-site lab routinely tests for:*
- *Thermal Data*
- *Leakage Current*
- *THD, Power Factor & Efficiency*
- *Ripple*
- *Open Circuit Voltage*
- *Smooth Dimming Over the Range*