

## SSL 360 DESIGN INNOVATION

Vol. 1 Issue 1 | Jan 2012

## intelliSSL™ Smart Designs

Long range Wi-Fi IP enabled lighting solutions

Thermal Solution Resources, LLC (TSR) designs wireless solutions and lighting products for Smart Homes, Buildings and General Lighting. NXP GreenChip technology opens the wireless standards for ZigBee Home Automation and Green-Wave Reality Energy Management Platform.

Green energy conservation using wireless intelliSSL™ LED lighting devices and systems bring Smart Solutions to any mobile device.







#### intelliSSL™

Smart LED lighting with TSR's patent pending integrated wireless antenna technology out performs existing technology and offers the greatest coverage for wireless data and control transmission.

TSR's patent pending moduLED™ SSL Plastics™ designs allow maximum wireless coverage without obstructing the LED light, color, intensity and direction.

## SSL 360 Design for intelliSSL™ LED Lighting

The integration of wireless radios and antennas further benefit from TSR's SSL 360 Design Suite methodology. intelliSSL™ is designed specifically for wireless LED lighting. TSR's design approach focuses on the advantages of wireless in lighting and securing a facility:

- integration with daylight to harvest additional energy savings
- motion detectors to activate lighting only when the area is occupied
- future connectivity as a hub for other wireless devices





# SSL 360 DESIGN INNOVATION

Page 2

## moduLED™ Lamp Designs

Designed for Manufacturing, Lower Cost, Higher Performance Solutions

LED lamp performance and manufacturing costs are significant factors in LED lamp sales. Mass market adoption requires reliable, high volume low cost designs.

Hand soldering, thermal interface, screws, glues, metal heat sinks, overhandling all contribute to reliability, warranty concerns as well as higher costs and lower performance. TSR's SSL 360 Design Suite is a proven approach for successful designs of lamps and fixtures. With the option of Integrating advanced thermal management materials and patent pending design technology, TSR can design, prototype and ramp to production in weeks rather than months with its scaled high volume production designs.

Thermal Solution Resources (TSR) designs lamps and fixtures with modularity and plug and play assembly in mind. This approach integrates optics, LED engines, electronics/drivers and thermal management in a way that enables LED products to meet current and future requirements. Advantages include:

- Up to 40% reduction in LED lamp costs
- Plug and play design and electrical connections
- NO Soldering
- NO Thermal Interface Material
- NO Screws
- NO Glues



### Comparison of Traditional vs. ModuLED™ Design Components

## **Traditional Design Components**

- Metal heat sink
- LED Module (PCB, LED)
- Painting
- TIR Optic
- Driver assembly
- Screws
- Glues
- Thermal Interface
- Hand assembly

#### ModuLED<sup>™</sup> Design Components

- ∫ SSL Plastic<sup>™</sup> heat sink with integrated
- LED Module (PCB, LED)
- TIR Optic
- Driver assembly
- Automated assembly

#### Thermal Solution Resources, LLC

91 Point Judith Road, Suite 123 Narragansett, RI 02882

T: 401-515-3269

info@thermsource.com

www.thermsource.com

twitter: @thermsource

linkedin: /company/thermal-solution-resources-llc

