



## Louisville Section Technical Meeting

Date: Thursday, April 23, 2014

Time: 6:00 PM – Reception  
6:15 PM – Seating  
6:30 PM – Dinner  
7:00 PM – Presentation

Location: New Albanian Brewery  
3312 Plaza Drive, New Albany, IN

Directions: Take Exit 3 from I-265 E, Head south. Turn Left onto University Woods Dr. Turn Right onto Plaza Drive.

Menu: Pizza buffet (If you've a favorite topping(s), please let me know)  
Salad  
Dessert  
Tea/coffee  
Beer and Wine a la carte

Price: \$10 members and guests, \$5 students and life members

RSVP: Dillon Mitchell, Section Secretary  
Email: [Dillon.mitchell@IEEE.org](mailto:Dillon.mitchell@IEEE.org)  
Cell: 541-661-5503

**Topic: Grote LightForm™ - Flexible Laminated LED Luminaires**

**Speaker: Don Gramlich and Tim Brooks**

### Abstract:

LightForm™ is a new method to package “inorganic” Light Emitting Diode (LED) chips. The new process removes many steps now required in the packaging of LED’s. The process enables high throughput manufacturing, but with less equipment and floor space than that currently used in LED packaging. The concept also eliminates the primary failure mode within a packaged LED, the wire bond. The presentation will provide a background, the status and the potential of this new technology.

## **Biography:**

### **Don Gramlich**

Don Gramlich currently serves as Grote's Application Engineering Manager in the LightForm Division of Grote Industries. He has over 19 years of experience in the transportation industry with 14 years in automotive electronics. Don received his Bachelor of Science degree in Electrical Engineering from The University of Michigan.

### **Tim Brooks**

As Chief Engineer, Tim Brooks manages technical services, electronic design, optical design and advance technology research within Grote Industries. He has over 30 years of product design, process development and engineering management in the markets of industrial sensors, military research and lighting. Tim has a BSEE from Bradley University and an MSEE from University of Illinois.

### **About Grote Industries**

Grote Industries is a leading worldwide manufacturer and supplier of lighting products and related safety systems for commercial, military, and specialized vehicles. Grote engineers and manufactures LED, fluorescent, and incandescent lamps, mirrors, wiring systems, turn signal switches, connections, and reflective accessories for trucks, trailers, farm and construction equipment, fire, rescue, and armored vehicles. For more than 110 years, Grote, a family-owned company, has provided state-of-the-art solutions for OEM and aftermarket customers across the globe. Grote locates its domestic headquarters in Madison, Indiana, and services international customers with locations in Canada, Mexico, Europe and Asia. Additional information is available at [grote.com](http://grote.com).