

# Meeting the Complexities of Tunnel Lighting Head On



Location: Dallas, TX  
 Details: Woodall Rodgers Tunnel  
 Engineer: Jacobs Global

*“Lighting five lanes of roadway from the wall was a challenge which was met from the (LuxTran™) wall fixtures provided by Kenall.”*

- Randy Walker  
 Director of Electrical Engineering, Jacobs Global



## Project Summary

**Challenge:** The ability to support drivers’ visual perceptions – both day and night – from the point of entry to the point of exit.

**Solution:** Specification of LuxTran™ luminaires that support even the most demanding lighting challenges that tunnels present.

**Benefit:** Drivers can travel the length of the tunnel safely and comfortably without impeding traffic flow.

# LuxTran™ helps drivers transition safely through a 1,200 ft. tunnel

Woodall Rodgers Tunnel, Dallas, TX



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Much of the Woodall Rodgers freeway runs unseen, enfolded in a 1,200-foot tunnel creating a new center of calm just blocks away from the heavy swirl of traffic on the interstates and Central Expressway in Dallas, Texas.

This \$110M project is unique because it’s a bridge, of sorts, sometimes being described as a combined bridge, park and tunnel design all in one.

Dallas has orchestrated a new means of putting green over the hardtop of downtown Dallas where the five-acre Klyde Warren Park now sits atop the subterranean Woodall Rodgers Tunnel.

Designed to meet the visual perceptions of drivers, effective tunnel lighting systems must address a variety of concerns, including traffic density and speed, glare, spatial and visual adaptation, contrast between potential obstacles and their background, and ingress protection.

The Texas Department of Transportation (TxDOT) installed a lighting system designed to make traveling through the tunnel safe and comfortable for drivers.

Randy Walker, director of electrical engineering, Jacobs Engineering Group, specified Kenall Lighting’s LuxTran™ induction fixtures for the ceiling and their metal halide CFT wall-mount series for the tunnel walls.

Walker specified Kenall because the fixtures are able to perform and withstand this challenging transportation environment.

Along with 419 150-watt ceiling-mounted induction lights powered 24/7, over 1,800 400-watt metal halide lights with sensors are installed along the sides of the tunnel and are powered during daytime hours. The system automatically adjusts the amount of lighting delivered based on ambient light levels.

***“Kenall’s induction and metal halide fixtures ensure drivers’ safety and field of vision.”***

— Randy Walker

#### **LuxTran™ CFT Features:**

- Corrosion resistant, seam welded housing
- Clear tempered glass lens sealed to doorframe
- IP66 listing ensures dust and water protection
- Shock and vibration resistance
- Type III and IV distribution with forward throw
- Tool-less access to ballast compartment for ease of maintenance



LuxTran™ luminaires allow drivers to quickly adapt from a wide field of vision to a limited one.



Drivers can safely travel through all zones of the tunnel both day and night with the support of LuxTran CFT luminaires.

#### **Benefits for Woodall Rodgers:**

- Supports drivers’ visual perceptions both day and night
- Provides zone-appropriate contrast
- Compatible with controls
- Ease of installation and maintenance

#### **Kenall Becomes a Part of History**

In October of 2012, the project was completed and Klyde Warren Park, the urban green space atop the tunnel, was adorned with trees and landscaping.

Kenall is proud to be part of this unique project; the only freeway tunnel in North Texas and one of the few tunnels in the U.S. topped off with a recreational park in the center of a major city.

For more information, please visit us on the web at [www.kenall.com](http://www.kenall.com)



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