

Laminar Pattern (continued)

## critical environment diffusers

# TM | www.titus-hvac.com TLFR-LED

Redefine your comfort zone.

- Ideal for installation in hospital operating rooms
- Integral LED luminare with tunable color temperature @ 90 CRI
- · Snap-in, tool-less HEPA filter installation and removal
- · Factory pressure tested
- Roomside accessible control enclosure
- · Roomside accessible PAO challenge port option
- Perforated face quickly removes by loosening quarter-turn fasteners
- Three free area options
- Accommodates filters with 2", 3", & 4" media packs
- Compatible with 1" or 1<sup>1</sup>/<sub>2</sub>" T-bar ceiling grids





## MODELS:

TLFR-AA-LED / Aluminum TLFR-LED / 304 Stainless Steel

Standard Finish - #26 White Optional Finish - #04 Mill

## **OVERVIEW**

### Vertical Laminar Flow Technology

The next generation Titus unidirectional flow diffuser for critical environments has been designed to comply with industry standard, ASHRAE 170, offering important safeguards for surgical patients. Used in operating rooms as the primary diffusers, the vertical piston of air created by the TLFR-LED is used to discharge clean air over the patient during operations. The integration of high-output, high-efficiency LED lighting eliminates the need for specialized luminaries around the perimeter of the diffuser array. The integrated LED lighting improves lighting quality over the operating table or workspace with more direct lighting and less shadows. Eliminating the need for the perimeter lighting reduces installed components, enabling more flexibility for placement of diffusers and ceiling mounted equipment. Including snap-in, autocentering filter retainers, the new TLFR-LED reduces the amount of time and effort during installation and removal of filters. This decreases the time a lab or operating suite is out of commission, allowing facilities to maximize profitability and patient care.

Unidirectional flow minimizes air induction, reducing the opportunity for contaminated air to be re-entrained and pollute a clean airstream.

The TLFR-LED Series of laminar flow diffusers generates a low velocity, evenly distributed, downward moving "piston" of conditioned air.

Installed over the operating table in a hospital operating room, TLFR-LED diffusers help protect the patient from contaminated room secondary air. The only appreciable amount of room air entrainment occurs at the boundaries of the moving air mass, outside the confines of the operating table. As a result, the patient is effectively isolated from residual room air.

TLFR-LED is especially effective in cooling areas with heavy, localized, internal loads, as in computer rooms. The column of air delivered by the TLFR-LED cools the load source directly without generating high velocities in the occupied space.