

# Long Life LED Traffic Signal Modules

**FRONTIER**  
A LEOTEK Brand

## Description

**LEOTEK Frontier Long Life LED signal modules** are designed to deliver industry-leading durability with a **full 15-year warranty**. As the first traffic signal product of its kind, Frontier Long Life features a specially engineered power supply and light engine optimized for extended field operation and reduced maintenance. Fully compliant with the **ITE VTCSH LED Circular Signal Supplement dated June 27, 2005**, it offers consistent optical performance, high energy efficiency, and long-term value for DOTs seeking reliable, low-maintenance signal solutions.

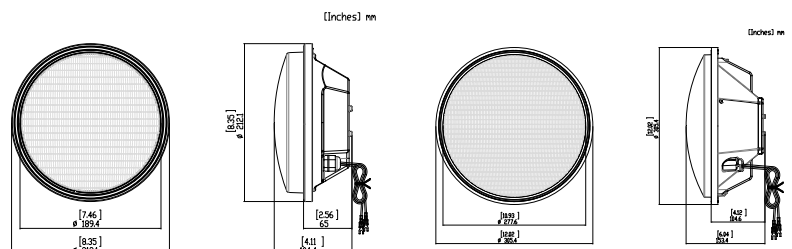
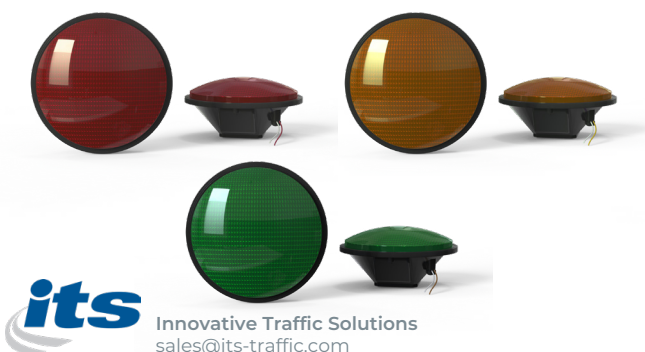
## Electrical Specifications

- Operating Voltage  
80 V AC–135 V AC  
(120 V AC nominal)
- Operating Temp Range  
-40 °C to +74 °C
- Turn-on / Turn-off Time  
< 75 msec
- Power Factor  
> 0.9
- Total Harmonic Distortion  
< 20%
- Failed State Impedance  
> 250K ohm within 300ms

## Features & Benefits

- 15 year full performance warranty
- Enhanced thermal management
- Robust LED technology
- Meets / exceeds ITE uniformity specifications (better than 10-to-1)
- Expanded view radiation pattern suitable for span wire and steep grade applications
- Transient suppression exceeds ITE and NEMA specifications
- Meets / exceeds ITE moisture intrusion specifications
- Meets / exceeds ITE failed state impedance specifications
- Hard coated lenses for abrasion resistance
- Intertek-ETL certified
- Long life power supply is conformally coated for robust operation
- All modules meet the ITE VTCSH-LED Circular Signal Supplement over the full temperature range of -40 °C to +74 °C
- CSA C22.2 No. 250.0-21
- CSA C22.2 No. 250.13-22
- UL 1598:2021

| Model Number and Color |                  | Color  | Typical Wattage @ 25°C | Voltage   | Dominant Wavelength (nm) | Maintained Intensity (cd) Min. | Standard |
|------------------------|------------------|--------|------------------------|-----------|--------------------------|--------------------------------|----------|
| Tinted Lens            | Clear Lens       |        |                        |           |                          |                                |          |
| <b>8 inch Ball</b>     |                  |        |                        |           |                          |                                |          |
| 433-1110-003XL15       | 433-1170-003XL15 | Red    | 6.1W                   | 80-135Vac | 626                      | 165                            | ITE 2005 |
| 433-3130-901XL15       | 433-3170-901XL15 | Yellow | 6.5W                   | 80-135Vac | 589                      | 410                            | ITE 2005 |
| 433-2120-001XL15       | 433-2170-001XL15 | Green  | 6.2W                   | 80-135Vac | 500                      | 215                            | ITE 2005 |
| <b>12 inch Ball</b>    |                  |        |                        |           |                          |                                |          |
| 433-1210-003XL15       | 433-1270-003XL15 | Red    | 7W                     | 80-135Vac | 626                      | 365                            | ITE 2005 |
| 433-3230-901XL15       | 433-3270-901XL15 | Yellow | 9W                     | 80-135Vac | 589                      | 910                            | ITE 2005 |
| 433-2220-001XL15       | 433-2270-001XL15 | Green  | 7W                     | 80-135Vac | 500                      | 475                            | ITE 2005 |



**its** Innovative Traffic Solutions  
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