

# SYLVANIA Lamps

## LEDlescent™ and LEDlescent CURVALUME® T8 Nano Plastic Ballast-Free Family

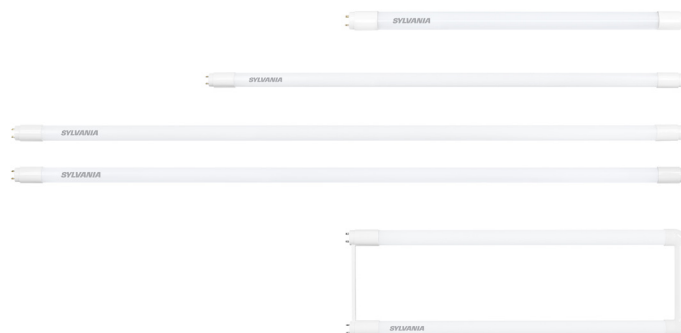
### Application

LEDlescent and LEDlescent Curvalume T8 Nano Plastic lamps are ideal to upgrade fluorescent fixtures whether they are currently T8 or T12. These lamps are an energy saving alternative, contain no mercury, provide instant light and have a uniform distribution. Engineered to operate directly on 120-277V, these lamps minimize labor and recycling costs and can be used in conjunction with occupancy and vacancy sensors to further increase energy savings.

When installing the LEDlescent T8 lamps, the UL rating of the existing fixture is not voided (even when it is electrically modified) since our LEDlescent T8 lamp is UL Classified (as a luminaire conversion retrofit kit) under UL standard 1598C. UL 1598C is the standard covering LED retrofits intended for an existing UL rated fixture. Since the user is retrofitting with a UL 1598C classified LED kit, the installer must follow the installation instructions included with the lamps for the modified fixture to retain its UL rating.

### Benefits and Features

- Lamps operate on shunted and non-shunted lampholders thereby reducing installation costs when wired in the double-ended configuration (recommended).
- Designed to use either Single-End (SE) or Double-End (DE) wiring configurations
- Shatterproof Frosted Nano Plastic lamps do not break in the manner of glass LED or fluorescent lamps
- No polarity; can be installed in either direction
- Safety circuit prevents current from flowing through the lamp when only one end is engaged in the socket thereby eliminating potential shock hazard
- No risk of electrical arcing between the lamp pins and the lamp holders
- Suitable for dry and damp locations – not for use where directly exposed to water
- DLC listing allows for rebates in areas where applicable, saving on overall project cost
- These lamps tested and approved with some 120V Phase Cut dimmers
- CCT: 3000K, 3500K, 4100K, 5000K
- Available beam angle: 200°
- Light emitting angle: 320°



### Wattage Comparison

| Traditional Source                         | Traditional System Wattage | LED System Wattage | Energy Savings* |
|--------------------------------------------|----------------------------|--------------------|-----------------|
| 2ft 17W T8 w/QHE 2X32T8/UNV ISN-SC         | 29                         | 18                 | 38%             |
| 3ft 25W T8 w/QHE 2X32T8/UNV ISN-SC         | 43                         | 22                 | 49%             |
| 4ft 32W T8 w/QHE 2X32T8/UNV ISN-SC         | 55                         | 26                 | 53%             |
| 4ft 32W T8 w/QHE 2X32T8/UNV ISN-SC         | 55                         | 34                 | 38%             |
| 22.5" 32W T8 Ubend w/QHE 2X32T8/UNV ISN-SC | 55                         | 30                 | 45%             |

\*Energy savings over life of lamp calculated at \$0.11/kWh

### Rated Life

- 50,000 hours (L<sub>70</sub>)

### Electrical

- Input voltage range: 120-277V<sub>AC</sub>
- Input voltage tolerance: ±10% (108V-305V)
- Power Factor >0.9
- THD <20%
- Dimmable when paired with select trailing edge, phase-cut dimmers

### Warranty

- 5-year limited lamp warranty (24/7 operation)
- NLB Trusted Warranty Program

### Certifications and Listings

- cULus 1993 & 1598C
- RoHS
- FCC
- DLC 5.1
- NSF Listed: NSF/ANSI Standard 2 – Food Equipment



## Specification Data

|             |      |
|-------------|------|
| Catalog #   | Type |
| Project     |      |
| Comments    |      |
| Prepared by |      |

## Ordering Guide

| LED            | XX                                                                              | T8        | LXX                                              | FP                           | DIM            | 8      | XX                                                   | BF             | G2                        |
|----------------|---------------------------------------------------------------------------------|-----------|--------------------------------------------------|------------------------------|----------------|--------|------------------------------------------------------|----------------|---------------------------|
| LED            | Wattage                                                                         | Lamp Type | Length                                           | Color/Finish                 | Dimming        | CRI    | CCT                                                  | Operation      | Generation                |
| LED = LED Lamp | 8 = 8 Watts<br>11 = 11 Watts<br>13 = 13 Watts<br>15 = 15 Watts<br>17 = 17 Watts | T8        | L24 = 24"<br>L36 = 36"<br>L48 = 48"<br>U = 22.5" | FP = Frosted<br>Nano Plastic | DIM = Dimmable | 8 = 82 | 30 = 3000K<br>35 = 3500K<br>41 = 4100K<br>50 = 5000K | BF = UL Type B | G2 = Second<br>Generation |

## Ordering Information

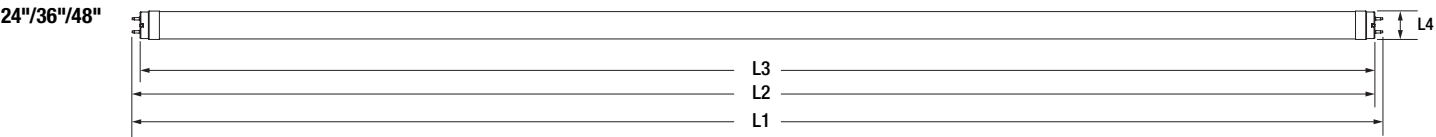
| Item Number | Ordering Abbreviation  | Wattage (W) | Base Type | Replaces    | Input Voltage (V) | Average Rated Life (hrs.) | CCT   | Typical Lumens (lm) | CRI | Power Factor | Bulb Finish          | Case Qty | DLC Listed |
|-------------|------------------------|-------------|-----------|-------------|-------------------|---------------------------|-------|---------------------|-----|--------------|----------------------|----------|------------|
| 41965       | LED8T8L24FPDIM830BFG2  | 8           | G13       | F017830ECO  | 120-277V          | 50,000                    | 3000K | 1150                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41966       | LED8T8L24FPDIM835BFG2  | 8           | G13       | F017835ECO  | 120-277V          | 50,000                    | 3500K | 1250                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41967       | LED8T8L24FPDIM841BFG2  | 8           | G13       | F017841ECO  | 120-277V          | 50,000                    | 4100K | 1250                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41968       | LED8T8L24FPDIM850BFG2  | 8           | G13       | F017850ECO  | 120-277V          | 50,000                    | 5000K | 1250                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41969       | LED11T8L36FPDIM830BFG2 | 11          | G13       | F025830ECO  | 120-277V          | 50,000                    | 3000K | 1550                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41970       | LED11T8L36FPDIM835BFG2 | 11          | G13       | F025835ECO  | 120-277V          | 50,000                    | 3500K | 1650                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41971       | LED11T8L36FPDIM841BFG2 | 11          | G13       | F025841ECO  | 120-277V          | 50,000                    | 4100K | 1650                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41972       | LED11T8L36FPDIM850BFG2 | 11          | G13       | F025850ECO  | 120-277V          | 50,000                    | 5000K | 1650                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41973       | LED13T8L48FPDIM830BFG2 | 13          | G13       | F032830ECO  | 120-277V          | 50,000                    | 3000K | 2000                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41974       | LED13T8L48FPDIM835BFG2 | 13          | G13       | F032835ECO  | 120-277V          | 50,000                    | 3500K | 2100                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41975       | LED13T8L48FPDIM841BFG2 | 13          | G13       | F032841ECO  | 120-277V          | 50,000                    | 4100K | 2100                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41976       | LED13T8L48FPDIM850BFG2 | 13          | G13       | F032850ECO  | 120-277V          | 50,000                    | 5000K | 2100                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41977       | LED17T8L48FPDIM830BFG2 | 17          | G13       | F032830ECO  | 120-277V          | 50,000                    | 3000K | 2300                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41978       | LED17T8L48FPDIM835BFG2 | 17          | G13       | F032835ECO  | 120-277V          | 50,000                    | 3500K | 2500                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41979       | LED17T8L48FPDIM841BFG2 | 17          | G13       | F032841ECO  | 120-277V          | 50,000                    | 4100K | 2500                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41980       | LED17T8L48FPDIM850BFG2 | 17          | G13       | F032850ECO  | 120-277V          | 50,000                    | 5000K | 2500                | 82  | >0.9         | Frosted Nano Plastic | 25       | 5.1        |
| 41981       | LED15T8UFPDIM830BFG2   | 15          | G13       | FB032830ECO | 120-277V          | 50,000                    | 3000K | 2200                | 82  | >0.9         | Frosted Nano Plastic | 10       | 5.1        |
| 41982       | LED15T8UFPDIM835BFG2   | 15          | G13       | FB032835ECO | 120-277V          | 50,000                    | 3500K | 2200                | 82  | >0.9         | Frosted Nano Plastic | 10       | 5.1        |
| 41983       | LED15T8UFPDIM841BFG2   | 15          | G13       | FB032841ECO | 120-277V          | 50,000                    | 4100K | 2200                | 82  | >0.9         | Frosted Nano Plastic | 10       | 5.1        |
| 41984       | LED15T8UFPDIM850BFG2   | 15          | G13       | FB032850ECO | 120-277V          | 50,000                    | 5000K | 2200                | 82  | >0.9         | Frosted Nano Plastic | 10       | 5.1        |

## Dimmer Compatibility

LUTRON MAELV-600 and DVELV-303P Reverse Phase Control dimmers are tested and compatible with these lamps.

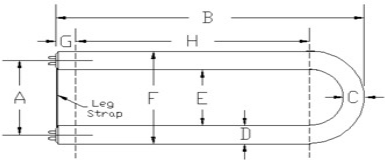
## Specifications & Lighting Data

| Lamp                   | Ballast | Current – 120V/277V (AMPS) | System Power (W) | System Lumens (lm) | System Efficacy (lm/W) | No of Lamps |
|------------------------|---------|----------------------------|------------------|--------------------|------------------------|-------------|
| LED8T8L24FPDIM8XXBFG2  | N/A     | 0.133/0.058                | 16.5             | 2330               | 141                    | 2           |
| LED11T8L36FPDIM8XXBFG2 | N/A     | 0.183/0.079                | 24               | 3400               | 142                    | 2           |
| LED13T8L48FPDIM8XXBFG2 | N/A     | 0.217/0.094                | 26               | 4170               | 160                    | 2           |
| LED17T8L48FPDIM8XXBFG2 | N/A     | 0.283/0.123                | 34               | 4775               | 140                    | 2           |
| LED15T8UFPDIM8XXBFG2   | N/A     | 0.250/0.108                | 30               | 4225               | 141                    | 2           |



| Lamp Description       | L1<br>End of Base Pin to<br>End of Opposite Pin End | L2<br>Base Face to Opposite<br>Base Pin | L3<br>Base Face to<br>Base Face | L4<br>Bulb Outside<br>Diameter |
|------------------------|-----------------------------------------------------|-----------------------------------------|---------------------------------|--------------------------------|
| LED8T8L24FPDIM8XXBFG2  | 23.72" ±0.055" (602.6mm ±1.4mm)                     | 23.45" ±0.05" (595.65mm ±1.25mm)        | max 23.22" (589.8mm)            | 1.02" ±0.08" (25.9mm ±2.0mm)   |
| LED11T8L36FPDIM8XXBFG2 | 35.72" ±0.055" (907.4mm ±1.4mm)                     | 35.45" ±0.05" (900.45mm ±1.25mm)        | max 35.22" (894.6mm)            | 1.02" ±0.08" (25.9mm ±2.0mm)   |
| LED13T8L48FPDIM8XXBFG2 | 47.725" ±0.055" (1212.2mm ±1.4mm)                   | 47.45" ±0.05" (1205.25mm ±1.25mm)       | max 47.22" (1199.4mm)           | 1.02" ±0.08" (25.9mm ±2.0mm)   |
| LED17T8L48FPDIM8XXBFG2 | 47.725" ±0.055" (1212.2mm ±1.4mm)                   | 47.45" ±0.05" (1205.25mm ±1.25mm)       | max 47.22" (1199.4mm)           | 1.02" ±0.08" (25.9mm ±2.0mm)   |

### U-bend



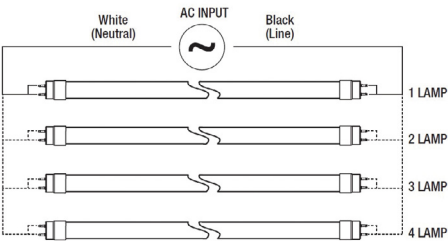
| Lamp Description     | (A)<br>Lamp Legs, center<br>to center, nominal<br>(min and max) | (B)<br>Base face to lamp end<br>(min/max) | (C)<br>Bulb diameter in bend<br>(min/max) | (D)<br>Bulb diameter in legs<br>(min/max) | (E)<br>Distance<br>between legs<br>(min) | (F)<br>Distance<br>outside of<br>legs (max) |
|----------------------|-----------------------------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|------------------------------------------|---------------------------------------------|
| LED15T8UFPDIM8XXBFG2 | 6.0" (152.0mm)                                                  | 22.25"/22.60" (565.2/574.0mm)             | 0.89"/1.15" (22.6/29.2mm)                 | 0.94"/1.10" (23.9/27.9mm)                 | 4.70" (119.4mm)                          | 7.10" (180.3mm)                             |

## Wiring Diagrams

Please consult the installation manual provided in the shipping carton for more wiring details.

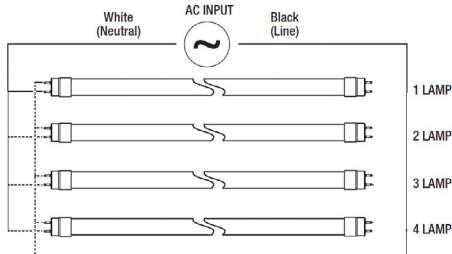
### Double-Ended Wiring

Recommended wiring configuration for all new applications.

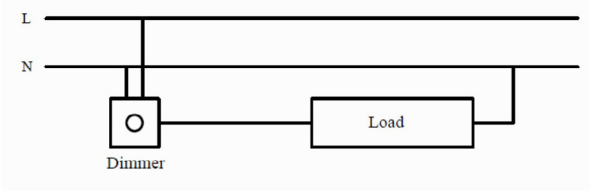


### Single-Ended Wiring

For installations previously wired in single-ended configuration.



## Wiring Diagram with a Dimmer



## Installation

1. Please read and comply with all instructions, including the installation manual included inside the packaging before attempting installation.
2. All installation, inspection, and maintenance of lighting fixtures should be done with the power to the fixture turned off. Lamps should be installed and operated in compliance with the National Electric Code (NEC), Underwriters Laboratories, Inc. (UL) requirements, and all applicable codes and regulations.
3. IMPORTANT: For all new installations operating as UL Type B, follow the wiring instructions for double-ended wiring (recommended). Approved for single-ended configuration for existing UL Type B applications previously wired as such. See installation manual for wiring options.
4. Ensure lampholders/sockets are in good operating condition before installation and if any defects are detected, change the lampholders/sockets.
5. Insert and align tubes properly in lamp holders. Partial insertion results in a poor or intermittent electrical contact that can result in short lamp life and arcing. Arcing at the lamp holder can result in localized overheating.
6. Not for use with other LED or fluorescent lamps in the same fixture.
7. When using LEDescent™ lamps, to conform to UL, you MUST affix the luminaire warning sticker, included inside the packaging, to the fixture during installation (this maintains existing UL safety ratings).
8. Best practice: cap off the remaining ballast wires should the ballast be left in the fixture after disconnecting.
9. Do not make or alter any open holes in an enclosure of wiring or electrical components during installation.
10. Do not expose wiring to edges of sheet metal or other sharp objects.
11. Make sure the lamps have the proper connections before restoring power.
12. When converting a fixture to Type B and emergency back-up is desired, the installer would also have to change the existing emergency back-up to an inverter-type emergency driver.
13. LEDescent is compatible with Philips Bodine ELI-S-20 Emergency Lighting Inverters and IOTA inverter models IIS-25-I, IIS-35-I, IIS-50-1, IIS125, IIS-375, IIS-550.
14. For detailed warranty information, please visit [www.ledvanceUS.com](http://www.ledvanceUS.com).

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