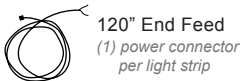
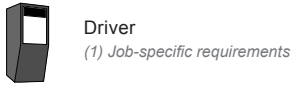


## INSTALLATION INSTRUCTIONS (1/1)

### REQUIRED COMPONENTS



### TERMS & CONDITIONS

To comply with Phantom Lighting System warranty policies and ETL Standards, all lighting strips must be used in conjunction with Phantom Lighting drivers. All Phantom Lighting drivers are ETL Approved and are strongly recommended for proper operation of lighting strips. Phantom Drivers should not be located in areas with no ventilation or subject to high ambient temperatures. If ambient temperature exceeds 115°F (46°C) around the driver, the circuit breakers may nuisance-trip due to excessive heat and void any warranty.

**CAUTION:** FAILURE TO CORRECTLY SIZE THE PRIMARY AND SECONDARY CONDUCTORS AND/OR THE OVERLOAD PROTECTION MAY RESULT IN BODILY INJURY OR SERIOUS PROPERTY DAMAGE

If you have any questions or concerns regarding your application, please contact the Phantom factory or a licensed electrician, or consult the U.S. National Electric Code.

### READ AND UNDERSTAND THESE INSTRUCTIONS BEFORE INSTALLATION – SAVE THESE INSTRUCTIONS!

These fixtures are intended for installation in accordance with the National Electrical Code and local regulations. To ensure full compliance with local codes and regulations, check with your local electrical inspector before installation. To prevent electrical shock, turn off electricity at fuse box before proceeding. Remove all components from the shipping carton. The instructions are in a step by step sequence for correct and easy assembly. Save the shipping carton and packing materials until job is complete.

#### 1. CALCULATE DRIVER REQUIREMENTS

Ultra lighting strips **without a lens** use standard LED tape producing 4.2 watts per foot. Example: a cabinet containing 10' of Ultra Lighting Strips, 10' x 4.2 watts/ft = 42 total watts. Always allow a 20% safety factor when sizing to prevent nuisance tripping. Example: 30 watts x 1.2 = 36 watts, requiring a 40-watt driver. **Maximum run length per feed is 8' or 24 watts.**

Ultra lighting strips **with a lens** use high-density LED tape producing 6.0 watts per foot. Example: a cabinet containing 10' of Ultra Lighting Strips, 10' x 6.0 watts/ft

= 60 total watts. Always allow 20% safety factor when sizing to prevent nuisance tripping. Ex: 60 watts x 1.2 = 72 watts, requiring a 96-watt driver. **Maximum run length per feed = 8.2' or 49.2 watts.** Available driver sizes: 20W, 40W, 60W, 96W, 150W, 200W, 300W

#### 2. DETERMINE LOCATION OF DRIVER

The driver should be out of sight, but still accessible for servicing if necessary. Some electricians install it in the attic above the display, while others conceal it in the base or header of the cabinet.

*Note: the installer should use normal voltage drop calculations when determining the distance from the cabinet. Typically, the distance should not exceed 20' from location when using 16-gauge wire. If farther, use larger gauge wire.*

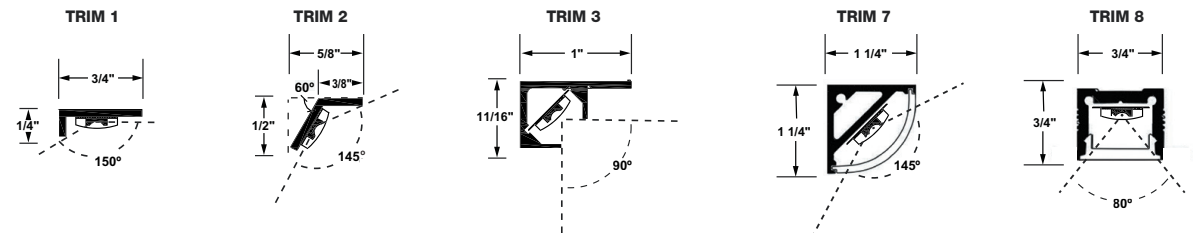
#### 3. DETERMINE TRIM AND MOUNTING METHOD

Different trim profiles are offered with this product. The profile of the trim will determine the space required for mounting. The illustrations depicted below are provided to assist in determining the exact location and verifying adequate space to install each of the trims.

*Note: also consider the strip location in the header section of the cabinet/display case before choosing your trim and mounting method.*

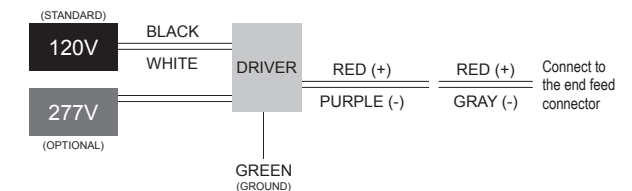
#### 4. INSTALL ULTRA LIGHTING STRIP

Use the diagram below to determine the correct location and position of your selected trim. If trim pieces are broken up to make a longer run, see the previous step. Then use the pre-cut holes to mount the trim with the screws. Please note maximum run limits.



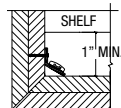
#### 5. CONNECT THE DRIVER

Using a dimmer is optional, but **not required** for this product. Low voltage dimmers are not included with this product; please visit our website for a list of compatible magnetic low-voltage dimmers or call technical support.

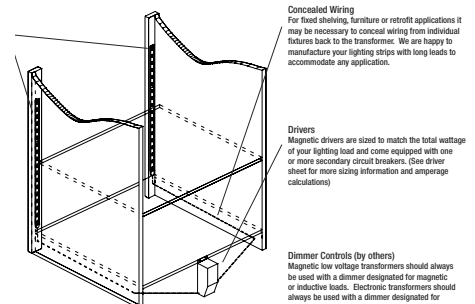
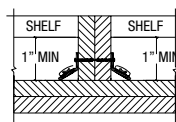


#### ADDITIONAL INFORMATION

**Space Requirement**  
On a cabinet with adjustable shelves, 1" clearance is required between the back surface of the stile and the front of the shelf. This provides the space to move shelves without modifying the Phantom fixture.



**Dual Fixtures**  
The Phantom fixture can be attached behind both vertical stiles, sending light in each direction.



TECHNICAL SUPPORT:  
800.863.1184