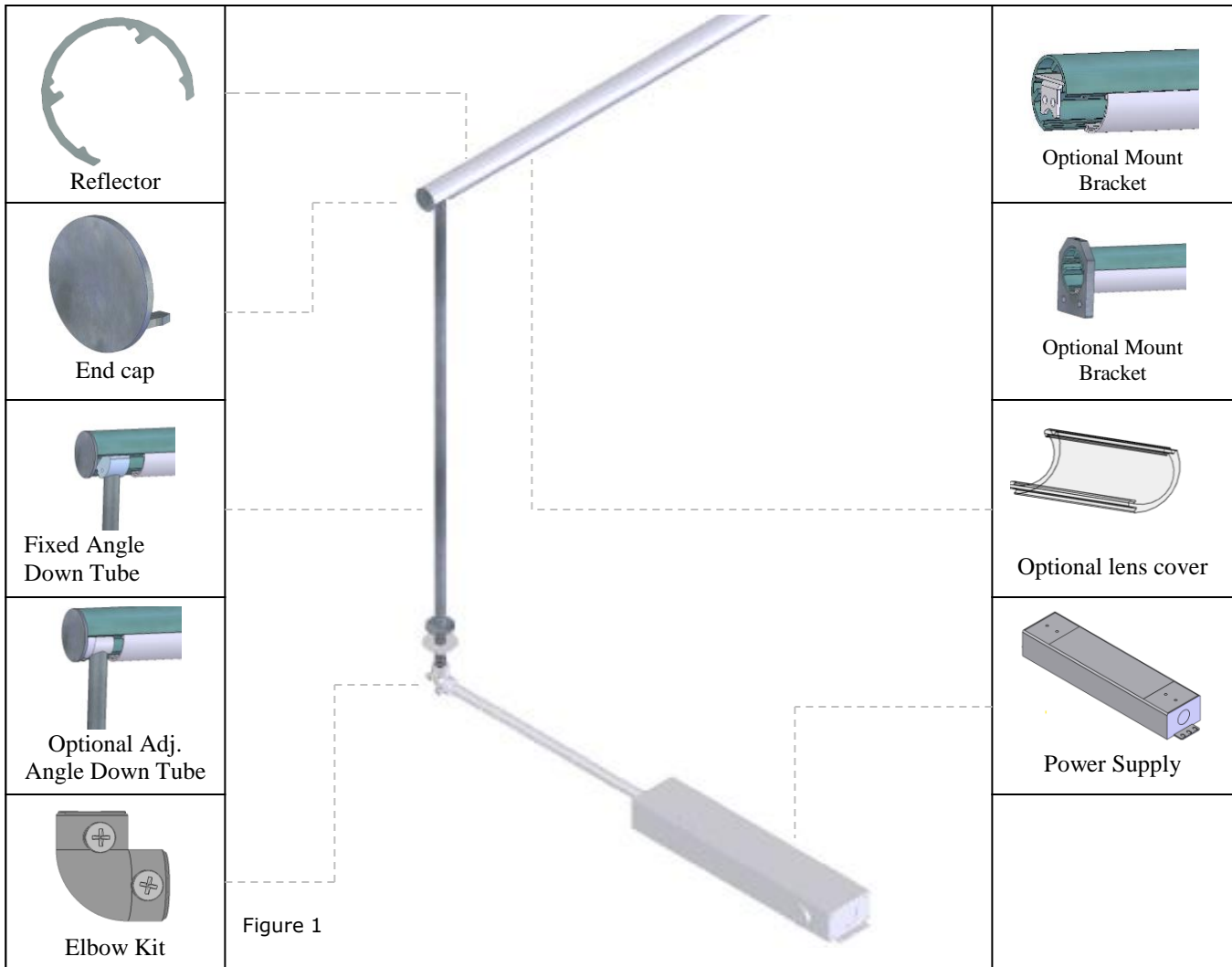




Installation Instructions

685000 LED Cabinet Lighting



INSTALLATION INSTRUCTIONS

Before you begin

These instructions illustrate the Stylmark® 685000 LED Lighting for showcases and cabinets. If you have questions during assembly, call Stylmark's technical help line. This package does not include specialty fasteners or adhesives which may be necessary for complete assembly.

Tools you'll need

- 3/16" hex key
- 5/64" hex key
- 11/16" open-ended wrench
- #2 Phillips screwdriver
- #1 Phillips screwdriver
- #2 flathead screwdriver
- Electric drill & standard bits

Please read these instructions carefully before beginning installation.

Stylmark Installation Instructions: 685000 LED Cabinet Lighting

Getting Started

The reflector can be mounted by one of four methods that were designated when the reflector was ordered. Follow the instructions for your mounting method.

Step-by-Step Instructions Rotating Down Tube Mounting

1. Connect the low voltage cable to the connectors on the LED wiring harness. Be sure to observe polarity.
2. Assemble the rotating down tube assembly by inserting the down tube connector into the retainer. **(See Figure 2, Step 1)** Adjust the angle of the reflector and tighten the set screw. **(See Figure 2, Step 2)** (Do not over-tighten, further adjustment may be necessary)
3. Insert the retainer into the reflector shell. **(See Figure 2, Step 3)** Ensure that the retainer is inserted such that the light will be aimed towards the center of the showcase.
4. Route the low voltage cable through the down tube connector, then through the down tube.
5. Insert the top end of the down tube into the down tube connector and tighten the set screw. **(See Figure 2, Step 4)**
6. Insert the end cap into the reflector. **(See Figure 2, Step 5)**
7. Tighten the threaded washer onto the bottom threaded end of the down tube such that no threads show above the washer.
8. Use the reflector assembly with down tubes installed to determine the location of the mounting holes in the cabinet deck. Mark and drill $\varnothing 1/2"$ (13mm) holes for the reflector down tubes. **(See Figure 3)** Ensure that there are no below deck interferences. **(See Figure 4)**
9. Insert the low voltage cable and the down tubes into the mounting holes in the cabinet deck.
10. Place the large fender washer onto the down tube below the cabinet deck and tighten the fastening nut in place. **(See Figure 4)**
11. Mount the power supply to the underside of the cabinet and attach the conduit connector.
12. Route the low voltage cable from the bottom of the down tube through the 90° elbow kit and the flexible conduit. Attach the elbow kit and conduit and fasten the retaining screws. **(See Figure 5)**
13. Make the wiring connections as shown in the wiring diagram. **(See Figure 17, 18)**

Notes:

The installer determines the power supply mounting location. Be sure to provide for adequate free air movement around the power supply.

The low voltage cable is 156" (3.96 m) and should not be lengthened.

Figure 2

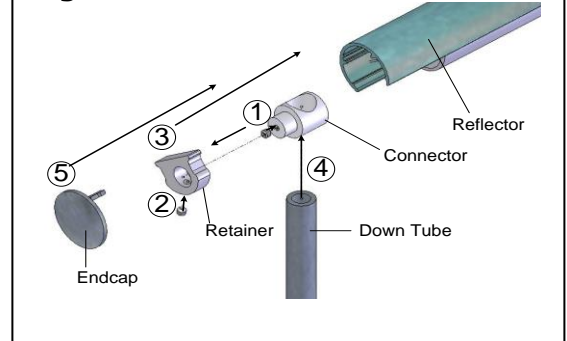


Figure 3

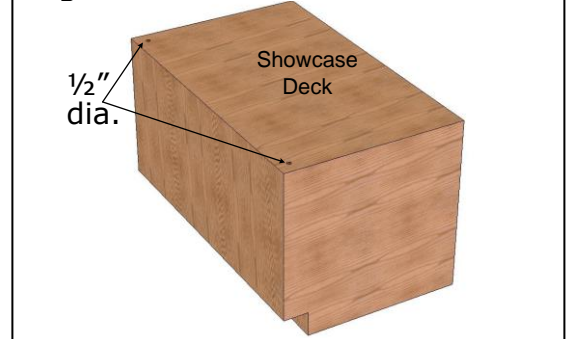


Figure 4

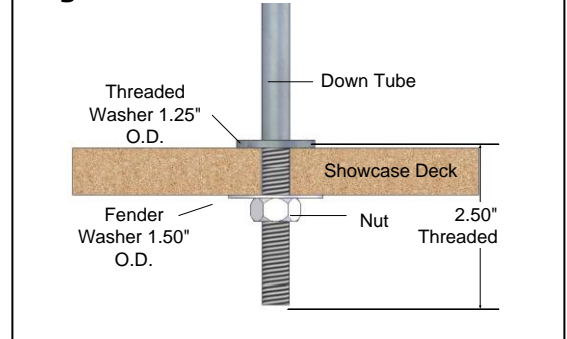
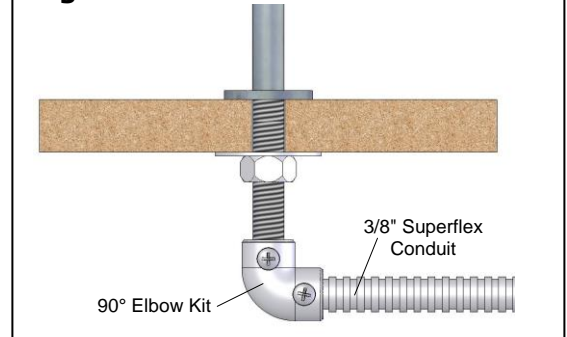


Figure 5



Stylmark Installation Instructions: 685000 LED Cabinet Lighting

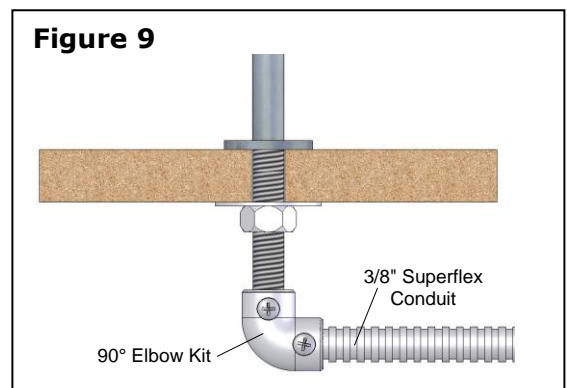
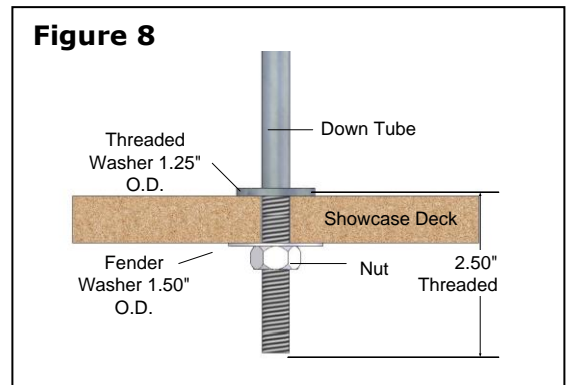
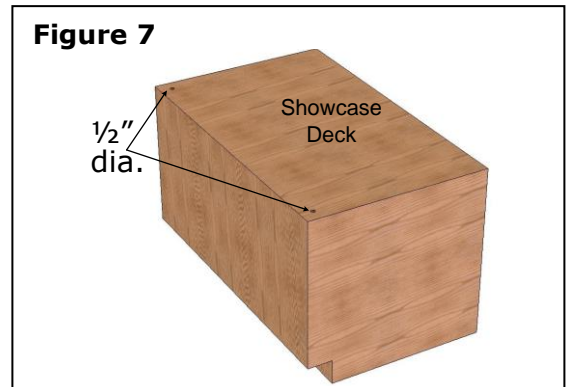
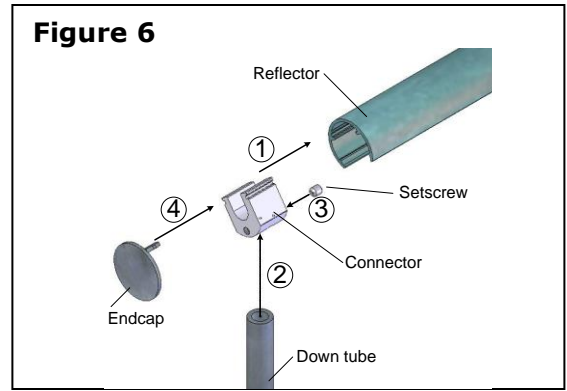
Step-by-Step Instructions Fixed Down Tube Mounting

1. Connect the low voltage cable to the connectors on the LED wiring harness. Be sure to observe polarity.
2. Assemble the fixed down tube assembly by inserting the down tube connector into the reflector. **(See Figure 6, Step 1)** Ensure that the connector is inserted such that the light will be aimed towards the center of the showcase.
3. Cut the down tube to the desired length. Make sure to only cut from the top or the unthreaded end.
4. Route the low voltage cable through the down tube connector, then through the down tube.
5. Insert the down tube into the down tube connector and tighten the setscrew. **(See Figure 6, Step 2 & 3)**
6. Insert the end cap into the reflector. **(See Figure 6, Step 4)**
7. Tighten the threaded washer onto the bottom threaded end of the down tube such that no threads show above the washer.
8. Use the reflector assembly with down tubes installed to determine the location of the mounting holes in the cabinet deck. **(See Figure 7)** Ensure that there are no below deck interferences. **(See Figure 8)**
9. Insert the low voltage cable and the down tubes into the mounting holes in the cabinet deck.
10. Place the large fender washer onto the down tube below the cabinet deck and tighten the fastening nut in place. **(See Figure 8)**
11. Mount the power supply to the underside of the cabinet and attach the conduit connector.
12. Route the low voltage cable from the bottom of the down tube through the 90° elbow kit and the flexible conduit. Attach the elbow kit and conduit and fasten the retaining screws. **(See Figure 9)**
13. Make the wiring connections as shown in the wiring diagram. **(See Figure 17, 18)**

Notes:

The installer determines the power supply mounting location. Be sure to provide for adequate free air movement around the power supply.

The low voltage cable is 156" (3.96 m) and should not be lengthened.



Stylmark Installation Instructions: 685000 LED Cabinet Lighting

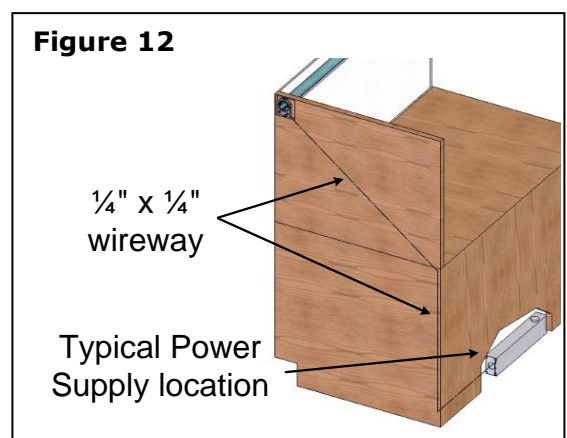
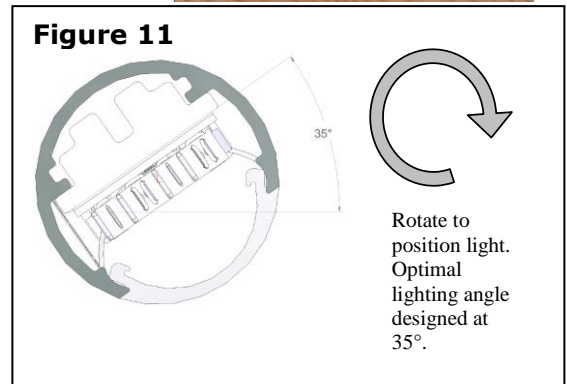
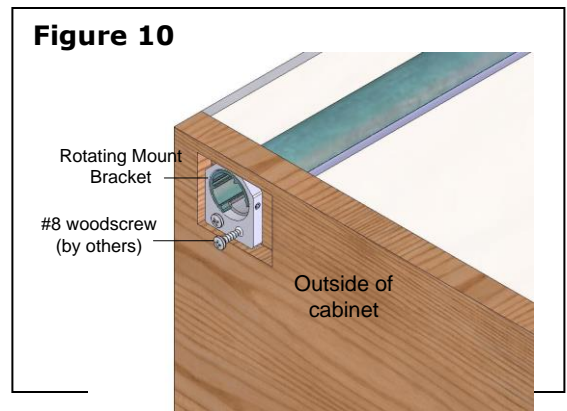
Step-by-Step Instructions Rotating Mount Bracket

1. Use the reflector assembly to determine the location of the mounting holes in the cabinet ends. Mark and drill or route $\varnothing 1.35"$ (35mm) holes for the reflector ends. **(See Figure 10)**
2. As an option, mark and route a relief for the rotating end bracket on the outside of the cabinet end. The bracket is $\frac{1}{4}"$ (6mm) thick. Be sure to provide access to the setscrews on the edge of the bracket.
3. Route a minimum $\frac{1}{4}" \times \frac{1}{4}"$ (6mm x 6mm) grooved channel on the outside of the cabinet end. The channel should provide a wire way from the reflector to the power supply. **(See Figure 12)**
4. Fasten the rotating mount bracket using #8 screws. (obtain locally) **(See Figure 10)**
5. Connect the low voltage cable to the connectors on the LED wiring harness. Be sure to observe polarity.
6. Install the reflector assembly by inserting one end of the reflector through the bracket from the inside of the showcase. Slide past the bracket such that the other end can then be inserted into the opposite bracket.
7. Route the low voltage cable into the wire way.
8. Rotate the reflector to the desired angle. **(See Figure 11)**
9. Secure, but do not over tighten, the setscrews included in the rotating mount bracket assembly. Do not tighten the setscrews against the plastic lens cover. (If your installation has positioned the plastic lens cover in line with a setscrew, either do not tighten that setscrew or reinstall the rotating mount bracket in another orientation such that both setscrews are positioned over the aluminum reflector shell)
10. Mount the power supply to the underside of the cabinet.
11. Make the wiring connections as shown in the wiring diagram. **(See Figure 17, 18)**

Notes:

The installer determines the power supply mounting location. Be sure to provide for adequate free air movement around the power supply.

The low voltage cable is 156" (3.96 m) and should not be lengthened.



Stylmark Installation Instructions: 685000 LED Cabinet Lighting

Step-by-Step Instructions Fixed Mount Bracket

1. Use the reflector assembly to determine the location of the mount bracket on the cabinet end. Mark and drill pilot holes for the #6 screws (obtain locally). **(See Figure 13)**
2. Mark and drill a minimum $\varnothing 0.25''$ (6mm) hole in the cabinet end, just below the fixed mount bracket location. **(See Figure 13)**
3. Route a minimum $1/4'' \times 1/4''$ (6mm x 6mm) grooved channel on the inside of the cabinet end. The channel should provide a wire way from the reflector to the power supply. **(See Figure 15)**
4. Fasten the fixed mount brackets using #6 screws. (obtain locally) **(See Figure 13)**
5. Connect the low voltage cable to the connectors on the LED wiring harness. Be sure to observe polarity. Route the low voltage cable through the hole and in the wire way.
6. Slide the mount bracket clip into the reflector with the snap clip facing the end of the reflector. **(See Figure 14)**
7. Position the reflector and mount bracket clips over the mount brackets. Snap into place. **(See Figure 14)**
8. Mount the power supply to the underside of the cabinet.
9. Make the wiring connections as shown in the wiring diagram. **(See Figure 17, 18)**

Notes:

The installer determines the power supply mounting location. Be sure to provide for adequate free air movement around the power supply.

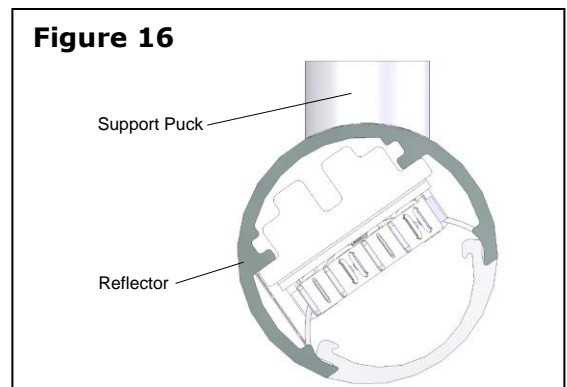
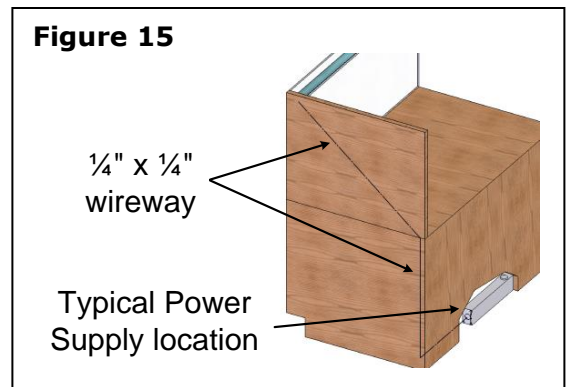
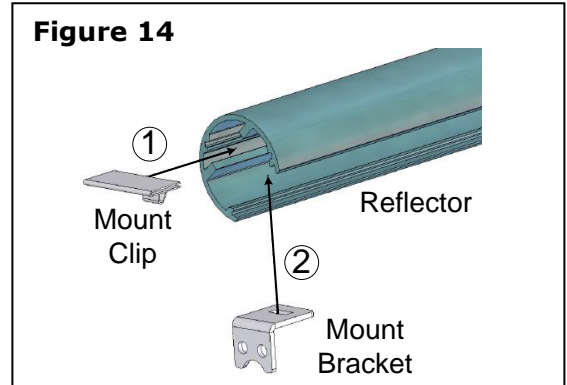
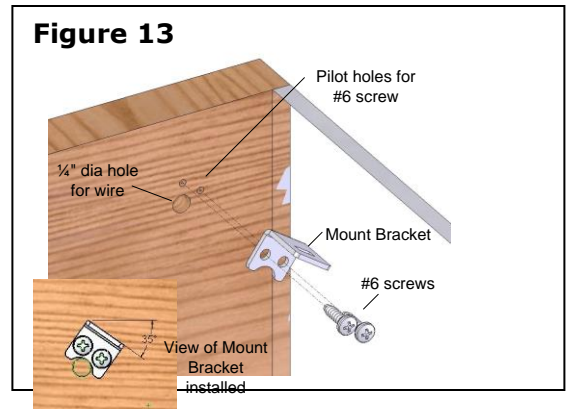
The low voltage cable is 156'' (3.96 m) and should not be lengthened.

Step-by-Step Instructions Support Puck

Reflectors over a certain length (typically 60'') will be provided with a support puck.

(Stylmark recommends using 3M™ Scotch Weld™ Epoxy Adhesive DP-105 Clear, available from suppliers such as Grainger® or Fastenal®)

1. Identify and mark the desired position for the support puck on the light reflector.
2. Clean and prepare surface to adhesive manufacturer's instructions.
3. Apply adhesive to the concave surface of the support puck and position on to the top side of the light reflector, ensuring that all gaps are filled. Take care to position the support puck such that the top of the puck will be parallel to the glass mounting surface. **(See Figure 16)**
4. Allow adhesive to fully cure according to the adhesive manufacturer's instructions. Keep parts from moving during cure.
5. Install all mechanical mounting hardware and prepare for final positioning of light reflector.
6. Apply adhesive to the flat surface of the support puck and position to the underside of the showcase top glass. **(See Figure 16)**
7. Allow adhesive to fully cure according to the adhesive manufacturer's instructions. Keep parts from moving during cure.



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Power Supply Information

Number of LED Light Modules per Power Supply

Light Engine Type	100W (P/N 230982)
24V Systems	Maximum Number of Modules ²
MIG 24V Deluxe ¹	13 + 0
MIG 24V Premium ¹	6 + 1

¹ – Modules are designed to be powered from Constant Voltage power supplies only.

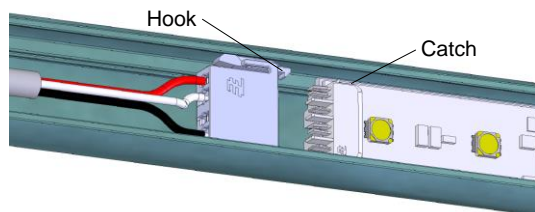
² – Number of 12" modules + number of 6" modules which can be powered either from a single wire feed or in multiple parallel branches.

Wiring Instructions

Notes:

- 1) The installer determines the power supply mounting location.
- 2) A minimum volume of 22" (56cm) x 17" (43cm) x 3-1/2" (9cm) is required for power supply mounting.
- 3) The low voltage cable is 156" (3.96 m).

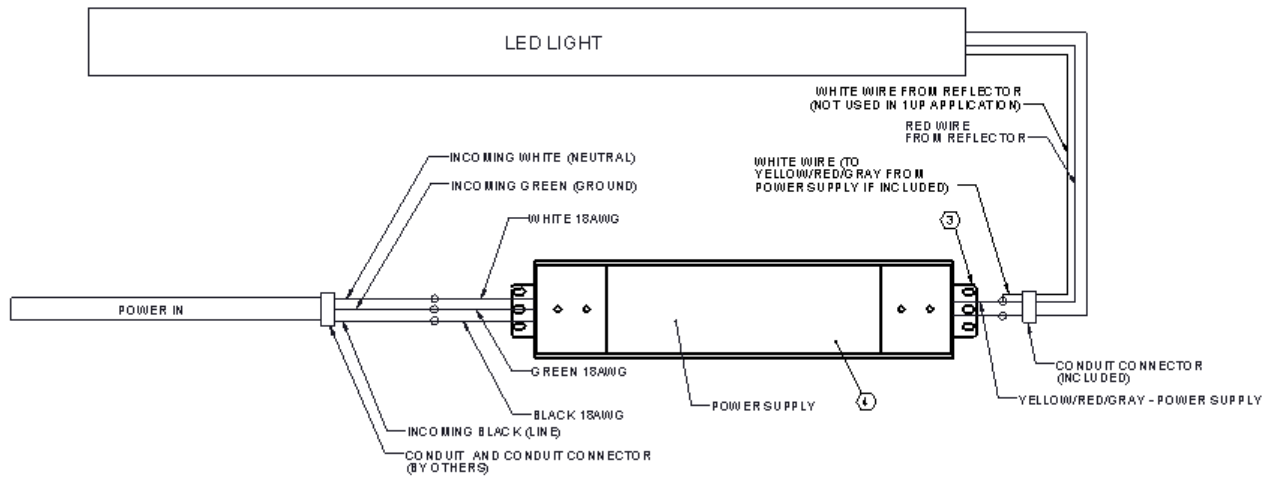
Figure 17



Wiring connector type for MIG 24V

Stylmark Installation Instructions: 685000 LED Cabinet Lighting

Figure 18



NOTES:

1. CONDUIT CONNECTORS TO BE SECURED TO END MOUNT PLATES INCLUDED WITH THE POWER SUPPLY OR TO KNOCK OUTS ON JUNCTION BOX.
2. SECURE CONDUIT AND HARNESS ASSEMBLY WITH CONDUIT CONNECTORS.
- ③ MOUNT POWER SUPPLY USING HOLES ON INCLUDED END PLATES (SCREWS NOT PROVIDED).
- ④ NO BALLAST BOX REQUIRED, POWER SUPPLY UNIT IS SELF CONTAINED
5. LOW VOLTAGE CABLE FROM LED LIGHT WILL BE NON-JACKETED WHEN SUPPLIED AS A DOWNTUBE MOUNT OR WILL BE JACKETED FOR ALL OTHER APPLICATIONS.
6. WHITE WIRE FROM REFLECTOR WILL NOT BE INCLUDED FOR APPLICATIONS WITH 1UP LED MODULES.