tivoli

2″

1¹/₂″

6¹/₈″-7¹/₄″*

*Globe sizes vary

Please verify the contents of the packages!

Please read instructions entirely before starting installation

Be sure power is turned off before installing or modifying the system

Call Tivoli, LLC tech support with questions

Caution: Litesphere Adapt™ is designed to work with listed Class 2 12V DC transformers only. Use of any other power source will cause damage, shorten the life of the fixture and will void the warranty.

Consult any and all applicable local and national codes for installation

Do not conceal or extend exposed conductors through a building wall as per local electrical code

Warning: With any luminaire for any application, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injuries. This lighting system should be installed by a certified professional.

IP65 | DIMMABLE | c(UL)us LISTED

Installation Instructions

Overview

Litesphere Adapt™ may be cut in the field to match project requirements. Simply cut wires and connect to junction box or connect directly to transformer for power. Install End Cap **(LS-EC-CL)** on dead end.

Note: Ensure the system is wired for correct polarity. The solid colored wire goes to the positive (+) terminal, and the striped wire goes to the negative (-) terminal on the power supply.

⚠ **WARNING!** Danger of electric shock. Do not cut while system is powered!

Measure area where system is to be installed and cut Litesphere lengths to fit.

Option 1

Rigid Mount to Surface

Mounting directly to surface is the best option to highlight architectural details.

Step 1: Attach each Litesphere Adapt™ socket to a fixed surface with No. 6 size screws (by others). Do not overtighten screws.
Step 2: Connect lead end of strand to junction box or power supply using Wire Nuts (by others) suitable for 16 AWG Wire.
Note: Maintain polarity. The solid wire is positive (+) and the ribbed wire is negative (-).

Litesphere Adapt™ Socket

#6 Screws
(do not overtighten)
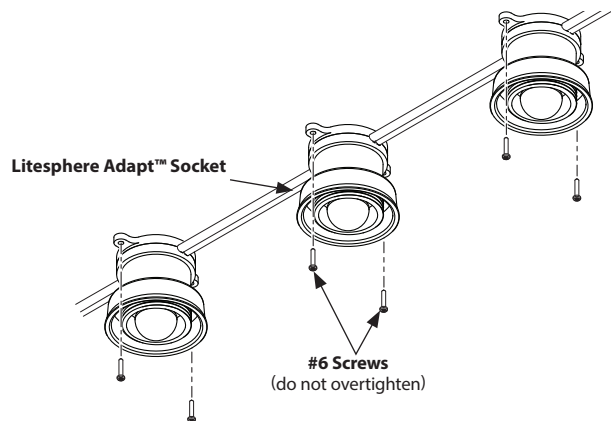
Step 3: Litesphere Adapt is manufactured with a 24" Lead Wire at both ends in order to ensure the globes will be mounted at least one foot away from any structure. However, for rigid mounting, the dead end lead may be cut back in the field to ¹¹/₁₆" minimum, which is just long enough to fit inside the End Cap (**LS-EC-CL).** For best results, fill the inside of the End Cap with Silicone Sealer before installing on wire.

Silicone Sealant

¹¹/₁₆″

End Cap
(LS-EC-CL)

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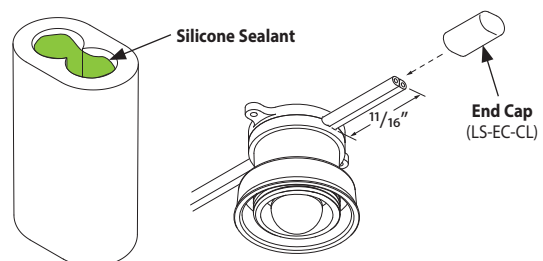
Option 1 (Continued)

Step 4: A weatherproof foam ring should be in place over the neck of the globe and it should be pushed down to the globe to ensure a water-tight seal. Install Globes by threading into socket until snug. Do not overtighten.

Litesphere Adapt™ Socket
Foam Ring
Globe
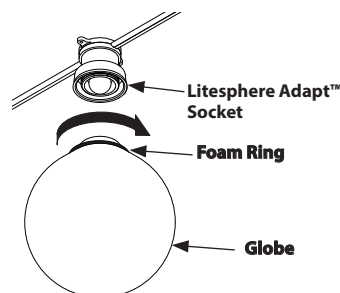
Option 2: Suspension Cable Mount

Hanger clip mount to Suspension Cable

Illuminate courtyards, streets or parks with festive lighting using Catenary Cable (**LS-CABLE-60, LS-CABLE 110, LS-CABLE 500**) available separately). Each cable is a 1/8" dia. stainless steel aircraft cable. Attach each end of cable to structural support using Cable Locks (**LS-LOCK-4**) included with 60 and 110 foot Cable Kits or available separately. 500 foot cable is not sold with locks and must be ordered individually. Follow instructions carefully.

NOTE: Article 225.3(B) of the National Electrical Code states that all festoon lighting spans over 40 feet MUST be supported by messenger wire. The messenger wire shall be supported by strain insulators. The **LS-CABLE** options offered by Tivoli meet these requirements. Consult applicable local codes for installation.

Step 1: Attach eye bolts or other attaching hardware (by others) to structural supports to hang Catenary Cable (**LS-CABLE-60, LS-CABLE 110 or LS-CABLE 500**). Catenary Cable is rated for hanging loads up to a maximum of 200 lbs. **This cable is rated for 880 lbs. of pulling tension.**

Step 2: Insert cable into upper hole in Cable Lock following the direction of the arrow on the side of the lock.
Note: These Cable Locks are rated at 200 lbs. maximum hanging weight.

Step 3: Loop Cable through Eye Bolt or other mounting hardware (by others) and insert the cable back into the lower hole of the Cable Lock, as shown.
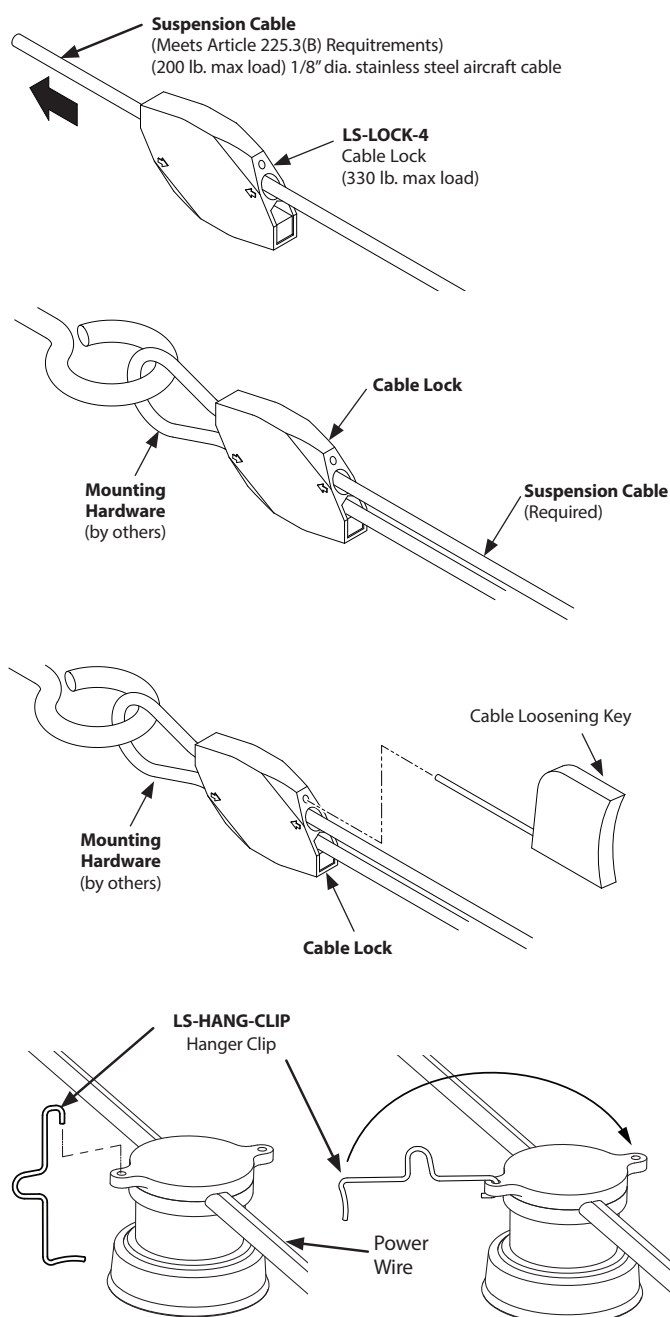
Step 4: A Catenary Tensioning Tool **(LS-TT)** is available to help tighten the cable. **This tool is capable of applying 880 lbs. of tension.**

Step 5: To loosen Cable, insert Key (Included) into small hole above Cable Entry hole and press to release cable.

Step 6: Insert hanger clips **(LS-HANG-CLIP)** into the sockets as shown below to hang over suspension cable.

Step 7: Insert curled end of Hangar **(LS-HANG-CLIP)** into hole on one side of socket.

Suspension Cable (Meets Article 225.3(B) Requitrements) (200 lb. max load) 1/8" dia. stainless steel aircraft cable
LS-LOCK-4 Cable Lock (330 lb. max load)
Cable Lock
Mounting Hardware (by others)
Suspension Cable (Required)
Cable Loosening Key
Mounting Hardware (by others)
Cable Lock
LS-HANG-CLIP Hanger Clip
Power Wire

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Installation Instructions: Option 2 (Continued)

Step 8: Position first socket below suspension cable and swing hanger over the cable and across the top of the Litesphere™ socket.
Step 9: Insert end of Hanger into hole on opposite side of socket, as shown.
Step 10: Bend up the end of the Hanger Clip to secure.
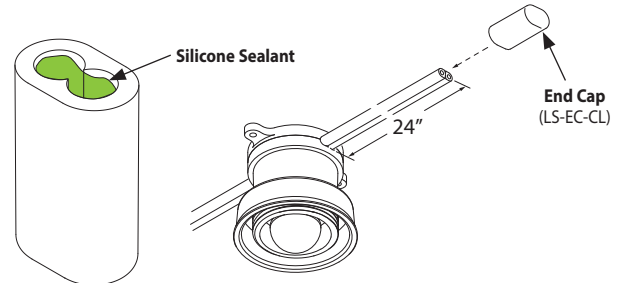
Suspension cable

Bend hanger clip to secure
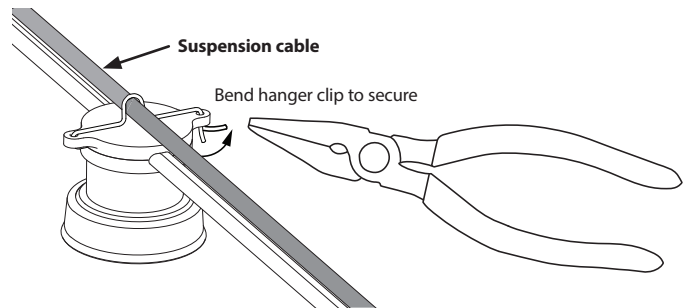
Step 11: Repeat procedure for all Litesphere Adapt™ sockets.

Step 12: Connect lead end of strand to junction box or power supply using Wire Nuts (by others) suitable for 16 AWG wire.
Note: Maintain polarity. The solid wire is positive (+) and the striped wire is negative (-).
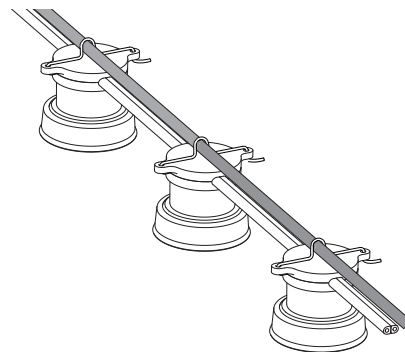
Step 13: Litesphere Adapt is manufactured with a 24" Lead Wire at both ends in order to ensure the globes will be mounted at least one foot away from any structure to avoid damage to a globe if it comes in contact with the structure. If strand is trimmed in the field, be sure to maintain the 24" lead at the end of the strand. Install an End Cap on the trail end (**LS-EC-CL).** For best results, fill the inside of the End Cap with Silicone Sealer before installing on wire.

Silicone Sealant

End Cap
(LS-EC-CL)

24"

Step 14: A weatherproof foam ring should be in place over the neck of the globe and it should be pushed down to the globe to ensure a water-tight seal. Install Globes by threading into socket until snug. Do not overtighten.

Litesphere Adapt™ Socket

Foam Ring

Globe

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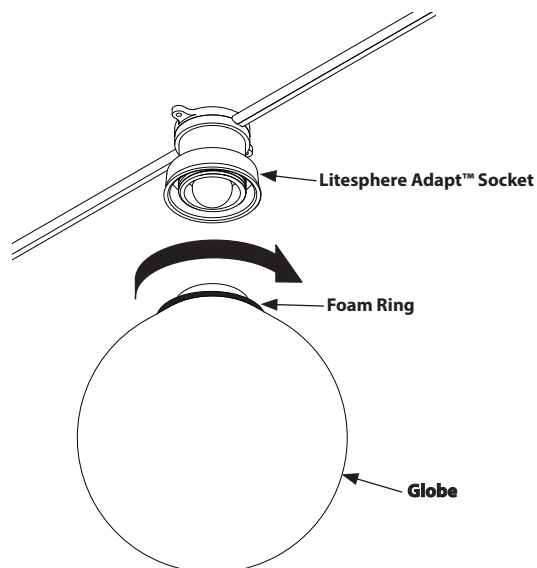
Wiring Size:

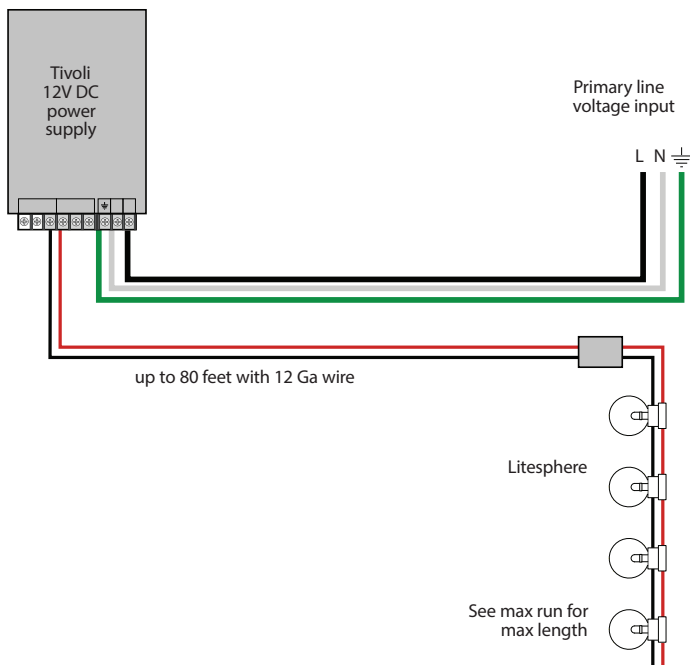Installer calculates wire size between load and power supply to avoid voltage drop.

The wire sizing from the transformer to the light strings must be carefully calculated in order for low voltage circuits to operate properly. Tivoli recommends locating the transformer as close to the light string as possible. Use 12 gauge lead wire and keep the transformer within 80 ft of the fixture.

Note:
Consult factory for lengths over 80'.

Maximum Single Run*			
LED Type	**12" OC**	**18" OC**	**24" OC**
Very HIgh Output	45'	55'	60'

*Maximum run lengths are based on Tivoli's recommended lumen drop.

Tivoli 12V DC power supply

Primary line voltage input

L N

up to 80 feet with 12 Ga wire

Litesphere

See max run for max length

⚠ **Warnings:** Risk of injury or fire.

Do not cover any luminaire as the covering may cause it to overheat.

Do not install this lighting system where the exposed bare contacts can be shorted or contact any conductive material to reduce the risk of fire and burns.

Do not install any luminaire closer than 6 inches (15.25cm) from any curtain, or similar combustible material.

Do not use any luminaire if damaged; such as, broken globe, loose connections, or frayed wire insulation. Inspect periodically.

Do not submerge any luminaire in liquid. Use waterproof connectors for all outdoor applications.

Do not secure any luminaire with staples, nails or like means that might damage the wire insulation. Secure it by using screws through the base.
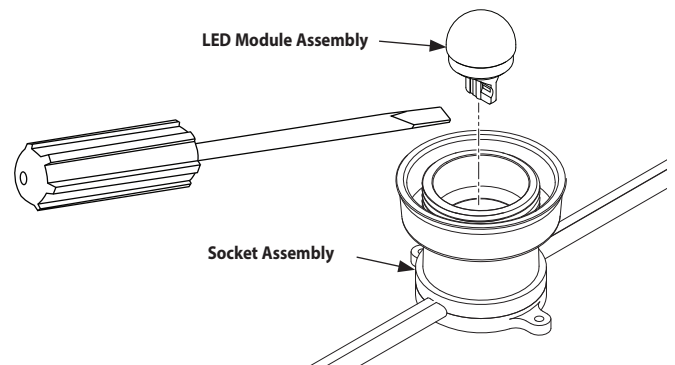
Do not run any luminaire at an operating temperature exceeding 65˚ C or 149˚ F.

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LED Module Replacement

Step 1: Unscrew Globe from Socket.

Socket Assembly

Globe
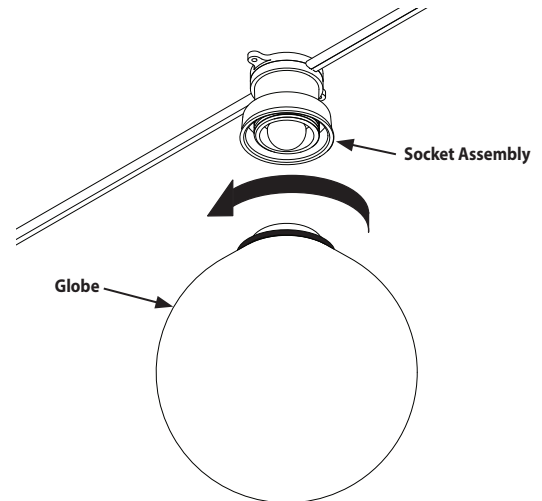
Step 2: Use a narrow flat blade screwdriver to remove LED Module. Place the blade under the lip of the LED Module and pry upwards. Be careful not to damage the socket.

Step 3: Install replacement LED Module by inserting gently into socket until it locks into place.

LED Module Assembly

Socket Assembly

Step 4: Stretch one replacement Foam Ring over the neck of the Globe. Run your finger around the neck of the Globe carefully to push the Foam Washer down as far as it can go. These Foam Washers are fragile, so use caution when installing them.

⚠**Warning!** Danger of Product Damage.

The weatherproof foam ring is necessary to keep a water-tight seal. Whenever the bulb has been unscrewed, a new Foam Ring must be installed to keep water out of the fixture.
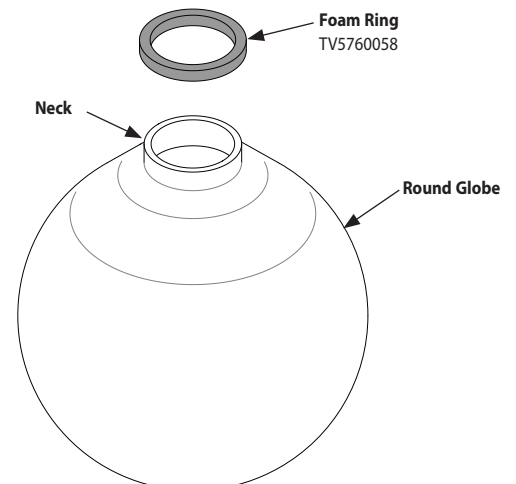
Step 5: Thread Globe into socket until snug. Do not overtighten.

Foam Ring
TV5760058

Neck

Round Globe

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