

INSTALLATION INSTRUCTIONS

1. Installation shall be done in accordance with the National Electrical Code in the United States or the Canadian Electrical Code (CSA22.1) in Canada. Also follow local electrical code ordinances when applicable.
2. Clean and remove all dust and debris from the area where the modules will be installed. Keep the area clean throughout the installation.
3. The modules installed in the same area should have the same bin letter. If not there might be small differences in colors and this might make the completed architectural lighting project look uneven. Further testing can be required.
4. Lay the bases according to the provided layout. Use the provided double-sided tape.
5. Use #8 fasteners where necessary to hold the bases in place.
6. Insert the 14 AWG electrical conductor (stranded wire) in the modules and snap them in the bases. All modules are to be wired in series (figure 1).
7. If a dimmer is used refer to the installation requirements in technical bulletin #11 “LMPS-DIMMER architectural lighting installation guide”
8. Due to maximum voltage limitations for Class 2 circuits in wet locations, if the modules are installed in a wet location use only the LMPS-350.
9. HEICO lighting™ luminaires cannot be in contact with water, ice or snow in a manner that would not respect the limits of Ingress Protection IP67.

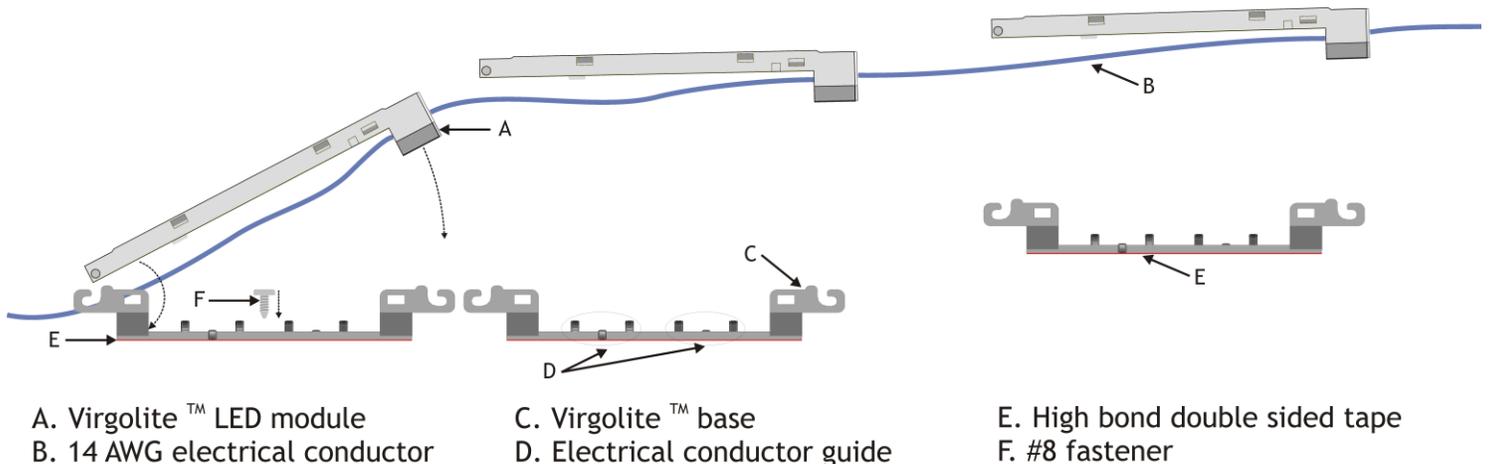


Figure 1: Installation of the Virgolite™ LED module

LOCATIONS DEFINITIONS

DRY LOCATIONS

Dry locations are defined as a location not normally subject to dampness, but may include a location subject to temporary dampness as in the case of a building under construction, provided that ventilation is adequate to prevent the accumulation of moisture.

DAMP LOCATIONS

Damp locations are defined as an interior or exterior location that is normally or periodically subject to condensation or moisture in, on or adjacent to electrical equipment and includes partially protected locations under canopies, marquees, roofed open porches and similar locations. This also includes interior locations subject to moderate degrees of moisture, such as some basements, some barns and some cold-storage warehouses. Locations sheltered from the weather are considered damp locations.

WET LOCATIONS

Wet locations are defined as a location in which liquids may drip, splash, or flow on or against electrical equipment. This also includes outdoor locations, which are any location exposed to the weather. Locations that are sheltered from the weather are not considered outdoor locations. Conductors exposed to direct sunlight shall bear the mark “SUN RESISTANT”, “SR”, or similar or be listed as being sun resistant if they don’t bear such marking.



- The user is responsible that the installation methods and materials used are appropriate for the location.
- It is possible to have the power supply and the LED arrays installed in two different location types, the user is responsible that the installation methods and materials used are appropriate for each location.
- The location definitions are taken from the American Electrical Code (NEC) article 100 and from the Canadian electrical code (NEC) section 0 and appendix B.

POWER SUPPLY ELECTRICAL CONNECTION IN DRY AND DAMP LOCATIONS

1. Installation shall be done in accordance with the National Electrical Code in the United States or the Canadian Electrical Code (CSA22.1) in Canada. Also follow local electrical code ordinances when applicable.
2. A listed electrical enclosure approved for the purpose shall be used for the LMPS primary connection.
3. Power supplies and electrical boxes shall be adequately supported, plumb and true and firmly secured in place with appropriate fasteners.
4. Adequate spacing and airflow shall be provided in between transformers and surrounding materials.
5. Power supplies shall be oriented or protected in a way that will not let condensing water accumulate in the enclosure.
6. All wire and splice connectors shall be suitable for the temperature conditions and locations where installed. Splices shall be kept to a minimum.
7. The Class 2 circuit shall be physically separated from other circuit types.
8. Use #8 fasteners to secure the power supply and the electrical box in place.
9. If more than one (1) LMPS is used, keep a spacing of at least one (1) inch (25.4 mm) between each LMPS.
10. If the Class 2 feeder circuit needs to be extended between the LMPS and the LED arrays, use twisted pair cable type CL2 14 AWG or better, listed for the applicable environment (figure 2). Substitutions according to **NEC table 725.154(G)** and **CEC article 16.210, 16-222, table 19** are permitted (also refer to **CEC Appendix B**). Permitted substitutions for CL2 wires are: **CMP, CL3P, CL2P, CMR, CL3R, CL2R, CMG, CM, PLTC, CL3**.
11. For more details refer to the LMPS-350, LMPS-DC350, LMPS-750 product sheet (documents 11126.007, 11126.002 and 11978.003)

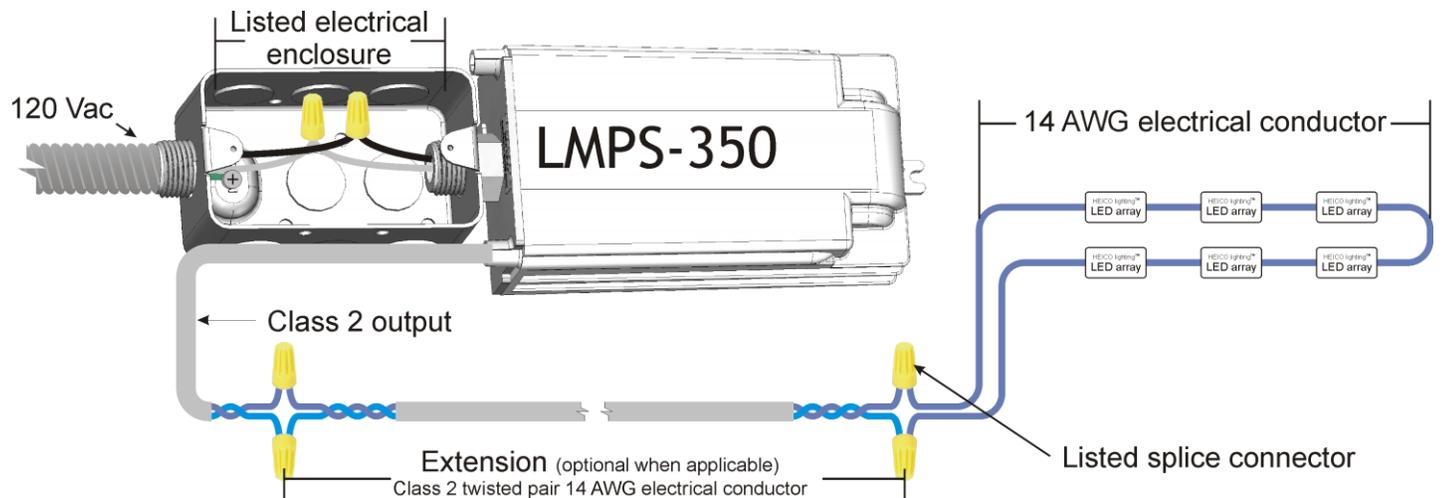


Figure 2: Electrical connections for installation in dry and damp locations (twisted pair extension and LMPS-350 shown, others are similar)



- **IMPORTANT:** The user is responsible for the safe electrical and mechanical installation of the power supply and of the suitability of the wiring system, mounting surfaces and any mounting hardware used. Failure to do so can lead to electrical and mechanical failure of the system and serious personal injury.
- All equipment shall be installed in a neat and workmanlike manner. See NECA 1-2010 standard “Good Workmanship in Electrical Construction”.
- The user is responsible for proper selection of the electrical conductor type that will be used for the specific application; see the requirements in technical bulletin #27 “Wiring for architectural applications”.
- The Class 2 circuit shall be physically separated from other circuit types.

POWER SUPPLY ELECTRICAL CONNECTION IN WET LOCATIONS

1. Installation shall be done in accordance with the National Electrical Code in the United States or the Canadian Electrical Code (CSA22.1) in Canada. Also follow local electrical code ordinances when applicable.
2. A listed electrical enclosure approved for the purpose shall be used for the LMPS primary connection.
3. Power supplies and electrical boxes shall be adequately supported, plumb and true and firmly secured in place with appropriate fasteners.
4. Adequate spacing and airflow shall be provided in between transformers and surrounding materials.
5. Power supplies shall be oriented or protected in a way that will not let condensing water accumulate in the enclosure.
6. All wire and splice connectors shall be suitable for the temperature conditions and locations where installed. Splices shall be kept to a minimum.
7. In wet locations the power supply shall be installed in an appropriate location and in a listed electrical enclosure approved for the purpose (examples: NEMA 3, 3R, 3S, 3X, 3RX, 3SX or 4).
8. The Class 2 circuit shall be physically separated from other circuit types.
9. Use #8 fasteners to secure the power supply and the electrical box in place.
10. If more than one (1) LMPS is used, keep a spacing of at least one (1) inch (25.4 mm) between each LMPS.
11. If the Class 2 feeder circuit needs to be extended between the LMPS and the LED arrays, use twisted pair cable type CL2 14 AWG or better, listed for the applicable environment (figure 3). Substitutions according to NEC table 725.154(G) and CEC article 16.210, 16-222, table 19 are permitted (also refer to CEC Appendix B). Permitted substitutions for CL2 wires are: CMP, CL3P, CL2P, CMR, CL3R, CL2R, CMG, CM, PLTC, CL3.
12. For more details refer to the LMPS-350, LMPS-DC350, LMPS-750 product sheet (documents 11126.007, 11126.002 and 11978.003)

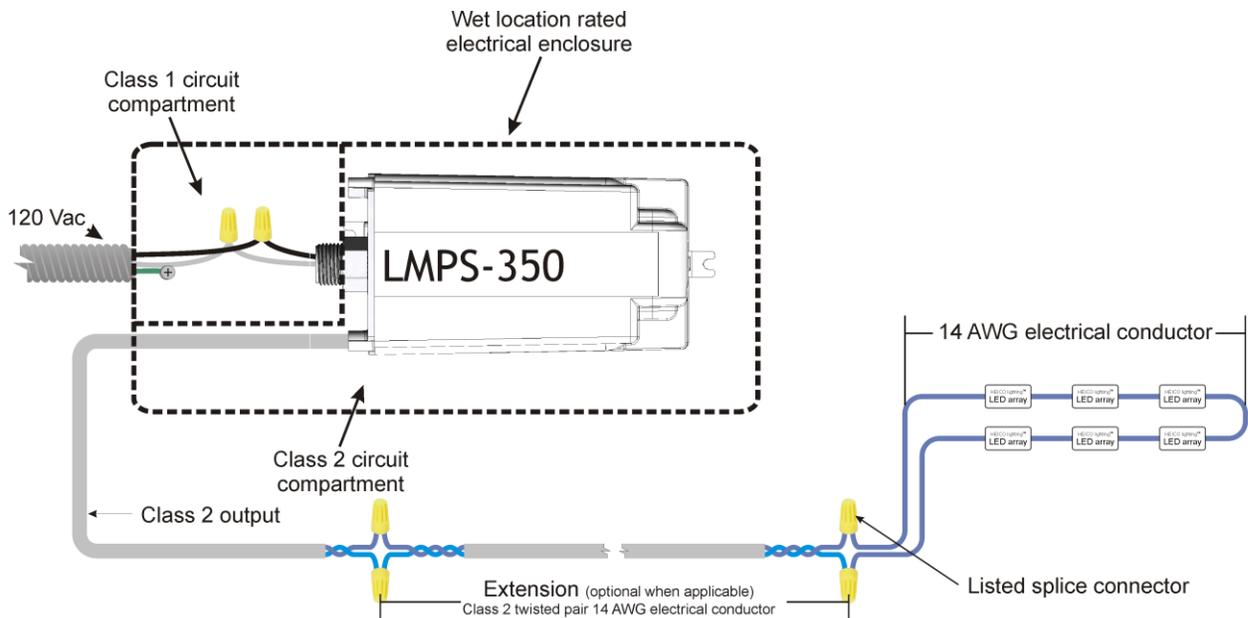


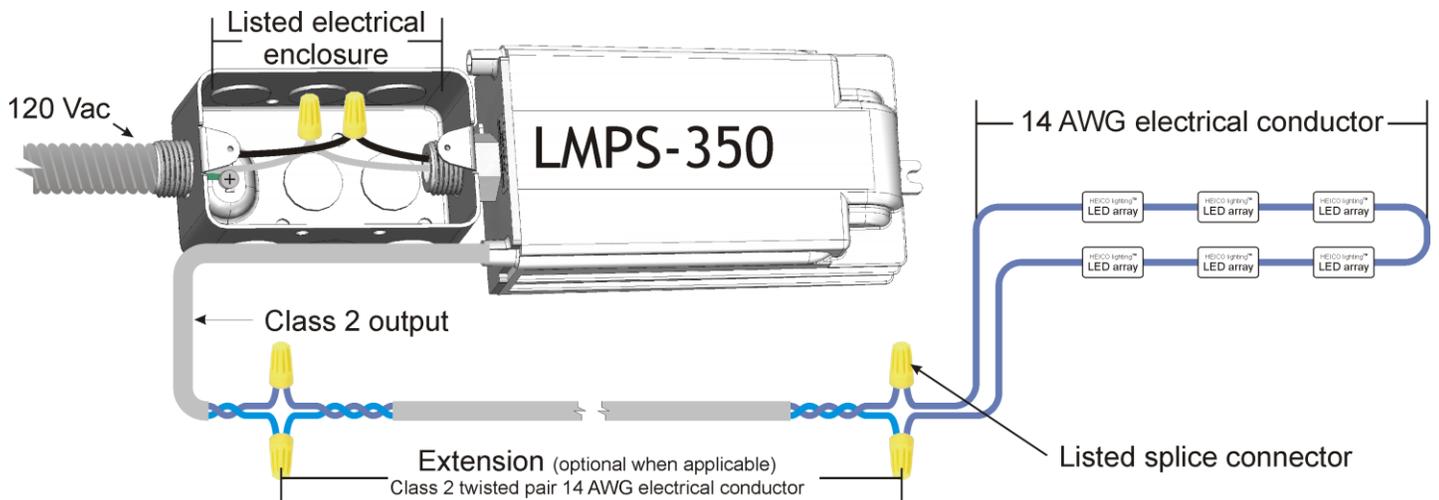
Figure 3: Electrical connections for installation in wet locations (twisted pair extension and LMPS-350 shown, others are similar)



- **IMPORTANT:** The user is responsible for the safe electrical and mechanical installation of the power supply and of the suitability of the wiring system, mounting surfaces and any mounting hardware used. Failure to do so can lead to electrical and mechanical failure of the system and serious personal injury.
- All equipment shall be installed in a neat and workmanlike manner. See NECA 1-2010 standard "Good Workmanship in Electrical Construction".
- The user is responsible for proper selection of the electrical conductor type that will be used for the specific application; see the requirements in technical bulletin #27 "Wiring for architectural applications".
- The Class 2 circuit shall be physically separated from other circuit types.

ON-SITE INSTALLATION

1. Test the complete area either as a whole or in sections. Verify that illumination is uniform. If applicable correct any seen problems.
2. Turn off power before installation, inspection, repair or removal.
3. Use the appropriate extension wire where applicable.
4. Connect the different areas to the power supplies according to the provided layout.
5. All sections on the same power supply shall be wired in series (figure 4).
6. Refer to technical bulletin #5 for troubleshooting details.

**Figure 4: Typical installation**

- All technical data in this technical bulletin is based on test results and is believed to be correct. However since the end use of HEICO lighting™ products, usage application and installation, is beyond our control, HEICO lighting™ makes no warranty expressed or implied as to the fitness of use. Their use shall be solely by the judgment and at the risk of the user notwithstanding any statement in this technical bulletin.
- All equipment shall be installed in a neat and workmanlike manner. See NECA 1-2010 standard “Good Workmanship in Electrical Construction”.
- The user is responsible for proper selection of the electrical conductor type that will be used for the specific application; see the requirements in technical bulletin #27 “Wiring for architectural applications”.
- The modules installed in the same area should have the same bin letter.
- For other LED colors, configurations and general information about layouts please contact HEICO lighting™
- Refer to the product sheet for more information about the LMPS-350, LMPS-DC350, LMPS-750 power supplies and the Virgolite™ modules.