LWD specification Checklist
29 May 2002

Leprecon Document # 21-2191

This document is intended to ensure that Leprecon LWD-2400 dimmers are properly specified and installed. Please review the following items during the specification and installation process.

- **Is there proper ventilation?**
  Leprecon LWD-2400 dimmers are designed to operate at an ambient temperature of less than 40 degrees Celsius, about 100 degrees Farenheight. Temperatures higher than this limit will cause the dimmer to shut down.

  The LWD dimmer requires about 24 inches of clear space above the dimmer for adequate air circulation.

- **Is sufficient power available for the intended load?**
  Each LWD dimmer can supply up to 28 kilowatts of power to lighting fixtures. Operating each dimmer at full capacity requires 5-wire power feed, with a capacity of 80 amps per leg.

  In single phase configuration (4 wire) the dimmer will require 120 amps of current per leg. Make sure that the power service available provides 120 volts from each hot leg to neutral. ‘Delta’ or ‘Wild leg’ configurations cannot be used as 3 phase 5 wire supplies. Three phase dimming systems have specific needs due to harmonics that are addressed in the National Electrical Code.

  If there is any question about the supply service, consult with an electrician before specifying the product.

- **Has proper overcurrent protection been specified?**
  Each LWD dimmer requires overcurrent protection that is consistent with the requirements of the system and the requirements of local electrical codes. If you are not familiar with applicable code requirements, consult a qualified electrician.

- **Have environmental factors been considered?**
  Each fully loaded LWD dimmer will contribute about 2448 BTU/HR of heat to the environment. Air circulation or cooling systems must be capable of maintaining the ambient temperature at less than 40 degrees Celsius with this amount of heat generated.

  The LWD dimmer will generate about 60 DB of acoustic noise, measured at 24 inches from the dimmer. The dimmer must be installed in an area where this audible noise is not an issue. Individual channel load, total pack load and lighting levels will factor into the actual acoustic noise level.

- **Have safety and security factors been considered?**
  Each LWD dimmer controls 28,000 watts of power, and is connected to sources of high voltage and high current. The system is UL Listed, but is not appropriate to locate in areas of unrestricted public access.

  Ideally, dimming systems will be located in areas with other electrical utilities, where access is limited to authorized personnel, and the factors of heat and acoustic noise are unlikely to create an issue.

- **Are there no more than 4 dimmers on a network?**
  Up to 4 dimmers can be connected as a networked system, which allows wall station access to all 4 dimmers. Systems larger than 48 channels that require wall station access to all dimmers must be split into two smaller networked systems.

  This restriction does not apply to DMX control, which will drive up to 32 LWD dimmers without the need for buffers.

- **If wall stations are included, has the proper cable been specified?**
  Wall stations and networked dimmers must be connected with CAT5 cable. Multiple pairs must be used for DC power connections. For more information, consult the Litescape Cable Specification.