

Arena Lighting

Having a great new arena is a dream come true, and being able to use it at night is a bonus. But you need to put as much thought into lighting the arena as you did planning it.

By Sharon Biggs

September 2007

Having a great new arena is a dream come true, and being able to use it at night is a bonus. But you need to put as much thought into lighting the arena as you did planning it. Michael Donovan from Equestrian Services LLC has some advice.

Just as you need a permit to build the arena, you need a permit for lights. Apply for a lighting permit at the same time you apply for your arena permit, and check local regulations to find out how tall your light poles can be. "Go as high as the regulations will let you," Donovan says. "The cost of a 20 foot pole to a 30 foot pole is minimal. Taller poles cast smaller shadows because the light strikes horse and rider more vertically. You will also need to hire an electrician. This is high voltage power, so don't let someone who is not qualified install the lights. It really does need a professional. Electricity can kill, plus bad wiring is the major cause of barn fires."

"The expensive part of lighting is the installation, so think carefully about your power," Donovan says. "It's likely that your house doesn't have enough electricity to support arena lights, so either you'll have to shut off all the lights in the house to prevent a blown fuse, or you'll have to install a sub panel, which can be costly." The electricity in the barn may not be enough either. A 200-amp panel is generally sufficient to support arena lighting. While you're in the planning stage, have an electrician come out and look at your power sources. He will also be able to do an analysis of your arena to determine how much lighting is necessary.

"There is a certain amount of light that you'll need for your arena," Donovan says. "Different applications require different amounts of light. Much less light is needed for a parking lot than you would need for a tennis court. Riding arenas fall in between those two examples and are generally well lit with 15 foot candles. A foot-candle is the measure of a light's intensity--the density of light that falls on a surface."

Place the light poles symmetrically around the arena. The number of poles depends upon the size of the ring, but a minimum of four is a must. This is to avoid shadows, which can spook horses.

Donovan also says to put as many lights on each pole as possible. Choose metal halide lights because they put out the cleanest light, as opposed to the old-fashioned mercury or sodium vapor lights.

And finally, don't allow your contractor to run conduit or wiring under your arena. If something goes wrong, you might have to dig up the arena to make repairs. This is a sure-fire way to ruin your arena. The base needs to be level throughout, and if one area is disturbed it will act as a sump and collect water. Always have the wiring in conduit and outside the arena.