

EMERGING TECHNOLOGIES SHOWCASE WEBINAR: ADVANCED LIGHTING CONTROL SYSTEMS

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Question and Answer session

Q: How is the security of system access managed for wireless lighting control systems?

A: Almost any lighting control system can tie into an alarm or security system by sending out a dry contact closure to a BMS. Anytime a relay is closed, it can send a signal to an alarm or to a dial out to call in.

Q: How vulnerable to hacking are wireless systems – any better than other systems?

A: There are risks to connecting a lighting control system to the internet. Jim Benya usually recommends not to. If there is no portal between your system and the internet, nobody can hack into it. However, Information Technology (IT) people can probably put in a fire wall, just like any software.

Q: How does an LED buyer know that the life of the fixture will be as advertised?

A: Independent testing from Design Lights Consortium (DLC) and LM 79 are all 3rd party tested. This protocol assures that you're getting the consumption and efficacy as reported on their lists. The DOE Lighting Facts label is also 3rd party tested. However, the FCC label is not required – it is manufacturer claimed. LM 80 is independently tested and can assist end users with proper life estimates.

DLC was set up specifically so that consumers can be assured that the product was vetted. To avoid misrepresented data, it's best for commercial customers to stick with DLC. Energy star is vetting in a similar way for residential products, mostly indoor.

One of the primary reasons to buy an LED product is because it lasts a long time. The cost of replacing an LED that doesn't meet its life expectancy can negate expected savings. It's important to "know your supplier" to be assured of what you're buying. While it's easy to buy simple LED products from the internet, there is a risk. The quality of the vendor and product as well as the validity of the warranty are very important.

Q: What manufacturer-specific, non-DALI, control systems would you recommend to integrate occupancy and daylighting controls for interior lighting systems?

A: There are a number of companies making products that utilize variations of lighting controls. Familiar brand names (such as Lutron, Wattstopper, Leviton and others) all have products that are good. To find out what exists, it's recommended that you visit with your lighting sales reps in your region – Portland or Seattle or SW WA. Give them the opportunity to explain the brands they represent and what their products can do. This is the best way to start doing research on what brands and others will be under consideration. As these companies are part of our community and long established, it's their job to provide you with additional assurance.

Q: Without a photocell on an astronomical timeclock how are dark stormy days handled?

A: There will still be plenty of light to see.

Q: Which technologies does 20% power reduction equal 20% light reduction

A: For most technologies it's not linear. We perceive different light levels for different types of lighting quality.

Q: What process is recommend to commission and integrate occupancy and daylighting controls for interior lighting systems?

A: Use local factory reps for small projects and factory start-ups for large projects. Local reps will usually be available for site visit consultations and trainings.

Q: Are you seeing any LED and controls systems for large sports venues?

A: Doug Oppedal has not seen any in our area. Sports venues are typically a cost effective challenge due to high cost of the new systems (material and labor for high work) and low hours of operation.

Q: What percentage of LEDs installed today do you think will be in use to rated end of life versus being upgraded to better product at more cost like cameras and computers and cell phones which rarely wear out these days?

A: LED's are improving rapidly so there is always the question of "will the cost of waiting be worth waiting for more efficient technology?" As always, predicting the future is difficult.