

# LIGHTING CONTROLS SOLUTIONS

The Horner suite of control products allow for easy monitoring of all lighting functions, including dimming, motion control, occupancy, and ambient light sensing, resulting in cost savings and increased site management. Viewable on-site or from a remote location, the Horner suite is easy-to-install and easily customizable with our cost-free software platform, Cscape.

Horner OCS devices offer an intelligent combination of lighting management, energy usage data-logging, and a user friendly touch-screen interface. The control devices are ready to use, and can be programmed to work with any lighting needs in an all-in-one package.

## CONTROL LIGHT GROUPS FROM ONE LOCATION

Horner OCS controllers provide low-cost on/off and dimming power controls with a variety of automated options. The application can be programmed to group lights into different subsets or areas. Doing so allows for only certain lights on the network to be on at a certain time, reducing energy waste. The graphic interface provides easy access and control of the grouped lights.

One OCS device can branch out to all controllers on the network, allowing for easy, one-stop lighting control and monitoring. Different dimming, ambient light, and motion sensing capabilities can be configured for each separate group so the light is there when it is needed.

## SCHEDULE LIGHTING ILLUMINATION TIMES

Lighting system scheduling further increases the automation of the system and leads to reduced energy expenses. Schedules can be configured for each hour of the day, day of the year. The system has a password

protection option, so only users with authorization can alter the lighting schedule.

Once the system implements a main lighting schedule, variations and alterations can be made for certain dates. Holidays, closures, or other dates that might pop up can be manually scheduled and changed on the fly. Scheduling ensures energy consumption only during operating hours or when manually overridden by a password, and can be data logged for monitoring.

## WIRELESS COMPATIBILITY

If the lighting application needs require longer distances or wireless options, the Horner OCS controller also supports unique "Mesh" wireless control. A Mesh wireless network allows for the lights to communicate between one another, not just get signal from the controller. This allows for expanded wireless networks and fail-safe features in event of power loss.

## SYSTEM MONITORING

Monitoring energy usage of lights, groups, and systems overall reveals new ways to maximize cost-efficiency of a lighting system. Horner provides a complete offering of power monitoring for both post-purchase analysis and real-time energy savings.

The 3-phase power monitoring handles building, sub metering, and equipment monitoring. Alarms can be set for specific energy use measurements to alert when reaching a set level. Also, email alerts and web monitoring allow for offsite analysis.





**Touch Screen Controllers from 2.2" to 22"**  
 data logging, ethernet for communications, email and web serving, built-in IO options, CAN networking, RS232/485, USB



**Wireless Control and Monitoring**  
 CsAir wireless networking uses 2.4GHz mesh technology



**Wired Control and Monitoring**  
 CsHop networks repeat at each device for long reliable runs over standard cat5 cable. Ethernet and CAN based IO provide lighting control, temperature monitoring and more.



**Power Monitoring and Load Shedding**  
 Real-time monitoring of 3-phase power with voltage, current, power factor, alarms and more.

**WHAT IS REMOTE PHOSPHOR TECHNOLOGY?**

Traditionally, white LED light is produced from a layer of phosphor adhered to on top of a royal blue LED. Over time, as heating cycles take effect, the adhesion begins to disintegrate and the phosphor layer "lifts" from the blue LED around the edges. This causes both depreciation of color and light output, as less of the light passes through the phosphor.

With Remote Phosphor technology, the phosphor is removed from the LED itself and relocated. Royal blue LEDs illuminate behind the phosphor material, causing it to emit bright white light. The phosphor density can change light output color, and LED arrangements can be specialized for red enhanced CRI. With the phosphor and LED separated, less heat is generated, and the phosphor remains at a constant, even exposure to the royal blue LEDs, generating a longer-lasting, more consistent light.

