

Classroom Tunable Lighting

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“At first, I was sceptical as to how often the light features would be utilized, but our teachers and students have quickly become accustomed to changing the color and brightness throughout the day. I feel the lights have greatly improved the moods of our students, especially in our sensory rooms. I would recommend tunable lighting to any district considering it.”

— **Dr. Beth Horner**
Superintendent

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“I change the brightness all day long. Sometimes I change it for the kids and sometimes for myself. The kids love that we have options!”

— **Kendal Tierney-Hurst**
Special Education Coordinator

District Overview

With roots dating to the late 1800s the High Mount School District has seen its fair share of renovations and additions. Brought into the modern era in 1960, the school currently provides primary education to K-8th grade students. The district partners with nearby Belleville Township High School District 201 for grades 9-12. Beth and her team are excited about the future of education environments and facilities, but look to maintain their main passion and goal, to provide the highest level of education to their students and the great Belleville community.

High Mount SD #116

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Tunable White LED Classroom Lighting Improves Student Performance

What if a simple change in lighting could improve the way students perform in school? There's significant evidence that proves that this is possible with the use of tunable white lights. Traditionally, classrooms have been lit by fluorescent fixtures that emit a single color of light. This color can range from warm white to cool white, but once a light fixture is chosen, there's no option to change its color throughout the day. Research has shown that the inability to change lighting color to match a natural lighting cycle can have many negative consequences on the body's mental and physical behavior.

Tunable Lighting Project

Description.....Tunable Lighting Upgrade
Type.....Energy Savings
Total Project Size.....\$2.84 Million*

**Tunable lighting makes up a small portion of a much larger summer renovation project – see below for greater project description.*


High Mount School had a need to replace the fluorescent lighting fixtures in 5 of their Special Needs classrooms with LED tunable lighting. The lighting is used to mimic a natural light cycle, which is beneficial to the mind and body. This type of LED fixture emits various shades of white light and can be controlled with a remote.

In addition to providing the district with an immediate energy-savings benefit, the tunable white LED classroom lighting has improved alertness, concentration and reduced hyperactivity which will in turn promote higher test scores for the district.

Throughout the day and into night, light follows a natural color cycle (orange-yellow-white-blue-white-yellow-orange). Our bodies are used to this cycle. Artificial lights that deviate from the natural lighting cycle can throw off our circadian rhythms. Circadian rhythm is how your body responds (physically, behaviorally, and mentally) to light and time of day.

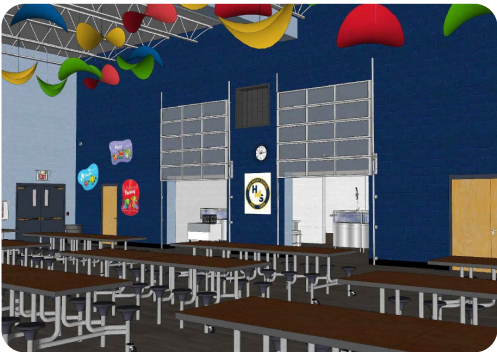
Before.....After.....





ON	TURN ON	TURN OFF	Handheld remote controller cannot be used as a switch, it should be used together with the switch.
Pairing the Light While holding the 'ID' button, power on your panels. Your panels should flash twice to indicate they are paired. You can pair several lights at once.			
Disconnect Remote from Panels While holding the down arrow and the ID button, turn on your panels, this will disconnect them from your remote. Panels will flash twice to indicate they are no longer paired.			
Group Selecting Buttons To assign panels to a group you must first pair them with your remote. Once paired hold the # button you wish to assign to your panels. While the lights are off hold the # button and turn on your switch. Panels will turn on. Do not release the button until the panels flash one time. The flash may not occur till after 3 seconds of turning on the lights. If you release before the flash your groups will not be set up.			
Setting Default Brightness and CCT To save the desired settings as a default, turn the panel to desired color temp and brightness, hold the Save button on the remote until the panels turn off. This will save your setting for future use.			
All groups selected			
5,000K	4,000K	3,500K	3,000K
25% brightness	50% brightness	75% brightness	100% brightness
Decrease brightness	Increase brightness	Decrease color temperature	Increase color temperature

- After turned on, the light will automatically detect the 0-10V dimmer to set brightness, it will get 100% brightness if no dimming signal to input the light.
- If use 0-10V dimmer to control, light brightness will convert to 0-10V dimmer's current brightness setting.
- If using remote controller to control, light brightness will only change from its current brightness rather than remote controller's current brightness setting.



The Tunable Lighting Package is part of a much larger summer project. Updates include renovations of High Mount's existing Media Center, Cafeteria, and Science Lab. These renovations are focused on improving the functionality of the space to better suit the future of education. In addition to the room renovations and lighting upgrades the district plans to replace the existing HVAC system to improve overall system efficiencies with automated building controls.

Contact us for more information!
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