Lighting That Enhances Learning

Lighting is one of the most important factors in classroom design. Quality illumination improves visibility, enhances safety and keeps students alert and engaged. MaxLite offers a full suite of LED solutions designed to optimize the learning environment while generating higher energy savings for school and university budgets.

LED lighting offers many benefits over the conventional fluorescent fixtures prevalent in most institutions. Not only does it consume less energy and last longer, LED technology is also free of buzzing and flickering, which can help reduce distractions and improve concentration for students. MaxLite LED lamps and fixtures provide superior lighting quality and performance while reducing maintenance disruptions throughout classrooms, athletic facilities, lecture halls, auditoriums, cafeterias, libraries, hallways and offices. Our products are compatible with lighting control systems and using 0-10v dimming, can work with daylight harvesting and vacancy sensors. We also offer a complete line of outdoor products for campus walkways and parking lots and outdoor walkways.

Retrofits That Reduce Energy and Expenses

The quality of lighting plays an essential role in the classroom experience, and yet most schools and universities have outdated, inefficient systems that drain energy and finances. The U.S. Department of Energy estimates that America’s schools spend more than $8 billion each year on energy – more than is spent on textbooks and computers combined. More than 25 percent of electricity consumed by a typical school is for lighting alone, and even more is spent to compensate for the heat generated by outdated fixtures.

These expenditures could be redirected toward educational resources and facility improvements that improve the health, safety and learning experiences of students and teachers within all school buildings, but particularly those in the greatest disrepair. Replacing outdated lighting with LED retrofits could present an opportunity to reduce energy usage by 30 to 50 percent and cooling by 10 to 20 percent. Making even the simplest change, such as swapping fluorescent tubes for LED T8 lamps, can translate into meaningful savings.
Case Study:
MaxLite Saves University of Utah Almost $90,000 in Energy and Maintenance Costs

“We wanted to go LED because they last longer, but I didn’t think 18 flat panels in one classroom would be enough light. We were pleasantly surprised once they were installed, and everyone just loves them. The light is 75 percent better than before, and the products dim so well. We have some more classroom renovations coming up, and we will be using MaxLite products again. I want to make this lighting our standard across campus, wherever we can.”

-- Craig Erickson
Construction Manager
The University of Utah

Located in the James Fletcher Building at the University of Utah in Salt Lake City, two rotunda classrooms that seat 200 students each were renovated in the summer of 2012. The University was looking to replace its 40 200-watt incandescent recessed cans from the 1970s with high-quality lighting to showcase the newly remodeled classrooms, but the construction manager needed new lighting fixtures in stock and ready to ship and install within a one-month period, before classes began. This process would normally take eight weeks or more to order, ship and install a project of this size, but MaxLite was able to meet the university’s timetable.

Additionally, the university was looking to reduce its maintenance time and costs. The classrooms are 22 feet at the back of the room, sloping down to just 10 feet near from the front of the auditorium. Once a week or more, a custodian had to replace lamps and an electrician was called in to fix electrical sockets in the existing fixtures, both tasks of which are difficult and time consuming due to the high and sloped ceilings.

Working with MaxLite representative agency DMA Total Lighting Concepts in Murray, Utah, the university replaced 40 200-watt incandescent can lights with low-voltage switch relays throughout the two classrooms with 36 50-watt 2’x2’ Direct Lit LED Flat Panel models integrating MaxLite’s Lutron driver option, and installed with MaxLite surface mount kits. Additionally, 46 11-watt PAR30 LED lamps with a spot beam angle were installed in the existing recessed cans in front of the auditoriums and over the aisles. Both the fixtures and the lamps are dimmable using the newly installed Lutron dimmers.

While the incandescent cans produced poor quality light, the LED Flat Panels in a 4100K correlated color temperature (CCT) and 3000K PAR30s provide the university with quality general lighting throughout the classrooms. The lamps and fixtures also reduce maintenance time and costs throughout the L70-rated life of 50,000 hours. Saving more than 70 percent in energy and producing twice the light, the university was happy they made the switch to LED lighting. In fact, by switching to LED lamps and fixtures, the university is expected to save 690,100 kWh in energy and $87,572 in energy and maintenance costs throughout the L70-rated 50,000-hour life. Erickson also commented that, combined with the ability to dim and the clarity of the lights, students can now see more clearly and have an easier time taking notes on the overhead projectors.
The Arena-Auditorium at the University of Wyoming is home to the Cowboy and Cowgirl basketball teams and holds the distinction of being the highest NCAA Division I basketball venue in the country with an elevation of 7,220 feet. In 2014, the 200,000-square-foot-facility underwent the first phase of a $30 million renovation to transform it into a premier facility for NCAA basketball and enhance the fan experience. Improvements to the Arena-Auditorium included state-of-the-art HD video boards, scoreboards, sound system and LED lighting. With the renovations, the University needed to meet the NCAA’s new National Television Broadcast Standard Requirements for tournament play on the court, which required a significant increase in the venue’s lighting. This was achieved using MaxLite’s StaxMAX high-output LED flood lights, which provided an immediate 50 percent energy savings over the metal halide fixtures they replaced. In addition to significant energy conservation, the new StaxMAX fixtures also gave the teams the ability to turn the lights on and off during player introductions, creating more drama and excitement at the start of games.

"The versatility and adjustability of the MaxLite products are tremendous and allowed us to meet the desired lighting levels with a minimum number of fixtures, providing us the most efficient use of light. “This was very beneficial, as there is a limited amount of existing catwalk space to mount the fixtures, and we needed to laser aim the fixtures precisely from the computer-generated model to maximize the effectiveness of the light.”

-- Ron Boone
R.J. McNutt & Associates

The high output and efficiency of the StaxMAX enabled the Arena-Auditorium to meet the new NCAA broadcast lighting standards using the same number of fixtures that were in place before the renovation. Seventy 1000-watt metal halide fixtures were replaced with a combination of 540-watt and 360-watt StaxMAX flood lights (quantities of 50 and 27, respectively). Unlike the incumbent fixtures, the StaxMAX are dimmable, which greatly enhances the energy savings with the control system as well. The Arena-Auditorium has recognized immediate energy savings with the 50 percent reduction in wattage and will save $124,820 over the 75,000-hour lifetime of the fixtures. The project was designed by By Architectural Means/Sink Combs Dethlefs, with both electrical engineering and lighting design provided by R.J. McNutt & Associates.
Case Study:

Northern Westchester County New York Catholic School Revamps Cafeteria and Common Area with MaxLite LED Fixtures

"The new lighting transformed the school's cafeteria and entranceway. The new lighting is sharp and professional, and we look forward to finishing the rest of the school this summer with MaxLite's LEDs."

-- Ed Leahy
Project Manager
Baker Liturgical Art, LLC

John F. Kennedy Catholic High School, located on 64 acres in Somers, New York, had an assortment of lighting fixtures from the 1960s throughout the campus that produced uneven distribution. Well-lit areas were sandwiched between darkly lit spaces, with some fixtures hung haphazardly from the ceiling. Additionally, the school spent a considerable amount of time replacing bulbs as they burnt out sporadically, and they wanted to reduce maintenance time and costs associated with replacement products. After researching replacement LED products from local manufacturers, Ed Leahy, project manager at Baker Liturgical Art, chose to use MaxLite products, for the company's excellent customer service, support, and proximity, to resolve potential problems and provide replacement products, if needed.

In addition to student dining, the school's cafeteria serves as a testing area, study hall and meeting space for after-school events, dinners and dances. Within this space, Leahy replaced 40 Lightolier Recessed Incandescent Fixtures with 300-watt bulbs with a parabolic reflector and 31 1'x4' surface-mounted fluorescent fixtures with two 40-watt T12 lamps each with 45-watt 2'x2' ECO-T™ LED Recessed Troffers, in 4100K correlated color temperatures (CCT). The DesignLights Consortium (DLC) qualified fixtures were installed with a dimmer for controllable lighting levels for the varied activities within the space. In the large entry common area, 95 of the same incandescent fixtures and 41 1'x4' fluorescents were replaced with ECO-Ts programmed with a dimmer. The swap to LED lighting will save the school more than seven million kWh of energy and $241,085 in energy and maintenance costs over the L70-rated 50,000-hour lifetime of the LED fixtures.
Case Study:
MaxLite LED Highbays Elevate Energy Savings for School in Tacoma, Washington

“With MaxLite’s 150-watt LED Round Pendant Highbays, we were able to provide the gymnasium with a better quality light while using smaller fixtures that have a longer life. The energy savings are huge and will make a big difference in the school’s operating budget in the years to come.”

-- Justin Moore,
United Lamp Supply

For more than 50 years, St. Charles Borromeo Catholic School of Tacoma, WA has been dedicated to providing its students with the highest level of excellence in education. The campus, which serves pre-kindergarten through eighth grade, includes a state-of-the-art library, music room and computer lab, but a lighting upgrade was needed to bring its gymnasium up to par with the rest of the facilities. The 400-watt metal halide fixtures inside the gymnasium consumed a great deal of energy, created glare and were difficult and expensive to maintain because of the height of the ceilings. They were also slow to light up, requiring the school to turn the fixtures on well in advance of the gymnasium being used, meaning the lights were left on longer than necessary each day. United Lamp Supply, which specializes in green lighting solutions, worked with the school’s administration to choose a replacement product that would increase efficiency and improve the quality of lighting, while matching the design of the existing fixtures. They selected MaxLite’s LED Round Pendant Highbays for the project because of the fixtures’ longevity and instant-on capabilities. In an even swap, 30 existing 400- watt metal halide fixtures were replaced with 150-watt LED fixtures with a narrow beam distribution. Designed especially for 25-foot and higher ceilings, the LED Round Pendant High Bays deliver over 16,000 lumens, while consuming 60 percent less energy than the incumbent metal halides. By converting to LED, St. Charles Borromeo Catholic School will save 382,950 kWh of energy and $33,828 in energy and maintenance costs over the 50,000-hour lifetime of the new fixtures.
Case Study:
LED Lighting Helps Nurture Better Learning Environments for Special Ed. Children

“Special Ed. Children, especially those in the autistic spectrum, are often bothered by the continuous flicker and buzzing of the fluorescent fixtures so school officials decided to replace them with LED fixtures. This retrofit project was a pilot program for the school and has been very well received by the faculty and the district.”

-- Charlie Bowers
Project Manager
Centennial Contractors

When the school district discovered that their Special Education students in the Cherokee Elementary School in Scottsdale, Arizona may be distracted by the disturbing flickering and buzzing sounds of the fluorescent lighting in its existing classrooms, the school selected MaxLite’s 2’x2’ Direct Lit LED Flat Panels for the consistent, quiet lighting throughout four special education classrooms. The new fixtures enable the special education students to learn without being distracted by glare or humming. Cherokee Elementary School replaced 69 2’x4’ fluorescent fixtures with 60 2’x2’ Direct Lit LED Flat Panels in the four classrooms, which saves nearly 60 percent in energy consumption, plus additional reductions in maintenance costs as these panels are designed to last 50,000 hours or up to 13 years. For additional savings, the school received utility rebates for the energy conservation measures, which is helping to offset the cost of the lighting retrofit. Augmenting the need for fewer fixtures to provide the needed light, the LED luminaires use less ceiling space while illuminating the same amount of area inside the classrooms. In addition and very importantly in this case, the fixtures are fully dimmable with a hand-held infrared device so teachers can adjust the lighting levels to meet the changing needs in the classroom. Designed for drop-in ceilings, the LED Flat Panels require a minimal installation depth and were offered in the correlated color temperature (CCT) of 3500K while using just 45 watts. The fixtures are dimmed or switched off when the rooms are not in use, for additional energy savings. Offering a lamp life that is five times longer than traditional fluorescent troffers, students and teachers enjoy robust lighting, with optimal color quality and outstanding color rendering.
EDUCATION LIGHTING

- Downlights
- Flat Panels
- Retrofit Kits
- Lightbars
- Linear Fixtures
- High Bays
- Lamps
- Outdoor
LED panels minimize distractions by providing consistent, quiet illumination.

Higher quality outdoor lighting optimizes safety for students and faculty.

Innovative task lighting delivers high lumen output while highlighting architectural details.

MAXLITE: 25 YEARS OF EXPERIENCE AND INNOVATION
MaxLite has provided certified energy-efficient lighting solutions to the commercial building, residential and OEM markets since 1993. We are a five-time recipient of the prestigious ENERGY STAR® Partner of the Year Award for our industry leadership, and continue to be at the forefront of energy efficient technologies through the innovative research and development capabilities of our teams and facilities in New Jersey and California.

Our customers include global leaders in manufacturing, education, health care, hospitality and retail. Our products illuminate businesses of all sizes, including national landmarks.

PERSONALIZED SERVICE
We work with our customers to ensure our products meet their installation goals, and remain by their sides long after. MaxLite provides a full range of complimentary services, including:
- Facility audits
- ROI calculations
- Local representation
- Lighting layouts
- Utility rebate assistance
- Lifetime product service

FAST DELIVERY
MaxLite keeps its products in stock and available for immediate purchase and delivery, shipping within the United States in one to three business days on standard orders.

UTILITY REBATES
Utility rebates can significantly reduce the overall cost of ownership of LED lighting. Most MaxLite fixtures and lamps are ENERGY STAR® certified or DesignLights Consortium (DLC) qualified, making them eligible for nationwide rebate programs. Our Utility Rebate Team will work with you to transform the lighting in your facility, while ensuring your upfront investment is paid back as quickly as possible.