

# LED Lighting Helps Nurture Better Learning Environments for Special Ed. Children



*"Apparently 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  
for Centennial Contractors

## The Challenges

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.

## The Solution

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.

## The Benefits

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.

## MaxLite

Inheriting global manufacturing and marketing expertise that dates back to 1955, MaxLite was one of the first movers into LED technology in the industry. Committed to energy efficiency as an ENERGY STAR® Partner of the Year in 2009, MaxLite established the MaxLED® brand, an extensive line of indoor and outdoor lighting fixtures featuring innovative LED luminaires and lamps using the latest state-of-the-art LED technology, ranging from the award-winning Flat Panel collection, to the best-selling outdoor lineup, Plug-and-Play light bars and lamps.

