



Project Summary

In 2009, an elementary school in Minnesota was growing increasingly dissatisfied with the lighting quality in the school's gymnasium. The 48 high-pressure sodium (HPS) high bays hanging there cast a dim, eerie glow. Each HPS fixture consumed 400 watts of electricity and took minutes to warm up. School officials knew it was time to replace their dingy, inefficient high bays and began looking for a better solution. After reviewing numerous products, they selected the RVLT 100-watt high bay in day white.

End User: Elementary School

Application: Gymnasium

Products: ■ 100W Day White LED High Bay

- Benefits:**
- Reduced maintenance
 - Reduced energy usage
 - Dramatically increased light levels
 - Cleaner, brighter appearance

Project Overview



The school's LED retrofit proved to be a simple and rewarding process. Each HPS high bay and ballast was replaced by an RVLT LED high bay, which vastly improved the gym's lighting quality. Under the old HPS high bays, footcandle readings in the 24-foot-high gym ranged from 9.8 to 25.5.

Under the new LED high bays, the gym achieves between 37.2 and 42.1 footcandles. The day white color of the LED light gives the gym a bright, clean glow instead of a greenish gloom.



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Project Overview (cont')

The RVLT high bays have also improved the school's maintenance and energy costs. The fixtures operate without a ballast and are covered by a 5-year warranty. They have reduced the power consumption of the gym's lighting by 75%. By installing the RVLT LED fixtures, the school has reduced its carbon footprint by over 35,000 pounds a year, the equivalent of planting seven acres of trees.

To further conserve energy, the school also installed a new lighting control system featuring 6 infrared and ultrasonic occupancy sensors. The RVLT fixtures power on and off instantly. The control system has reduced the operating hours of the high bays from 12 to 7 hours a day, 5 days a week. This conserves another 120kWh of electricity a week.

Cost Analysis

Existing Fixtures	Replacement Fixtures
400W High Pressure Sodium High Bays	100W LED High Bays

Annual Energy Savings: \$8,954.18

Estimated ROI: 3 years



School officials were delighted with the results of their lighting retrofit. Under RVLT's high bays, the gym looks great, requires less maintenance, and uses far less energy than HPS fixtures. The school district and city are now considering retrofitting dozens of other gyms in the region.

Visit www.rvlt.com for more information.

Numbers are calculated at the time of installation and may not reflect current upgrades to lighting fixture components.