



NOVUS

ENGINEERING

Lighting Upgrades for Union College's Memorial Fieldhouse



Novus Engineering, P.C. was selected to conduct an energy audit of the Union College campus in Schenectady, N.Y. The audit was co-funded through NYSERDA's Flexible Technical (FlexTech) Assistance program. In addition to identifying various energy-saving projects throughout campus, Novus designed, implemented, and commissioned a large-scale lighting upgrade project for the Memorial Field House.

In this project, existing 1000-Watt metal halide (MH) fixtures were replaced with continuous rows of high-efficient (90%) fluorescent fixtures utilizing T5HO lamps. The existing MH lighting had a Color Rendering Index CRI of about 65 versus 85 for the new T5's. The new fixtures are easily accessible for maintenance and cleaning. Manual lighting control switches were replaced with an automated control panel supplemented with occupancy sensors and photocells. The system automatically sets scenes based on ambient light level and occupancy. Different pre-set scenes may also be selected by occupants with a simple 7-button wall-station near the main entrance.

The lighting upgrade dramatically improved light levels and light quality and also resulted in a 70% kWh energy savings equating to an annual electric bill reduction of \$15,000.



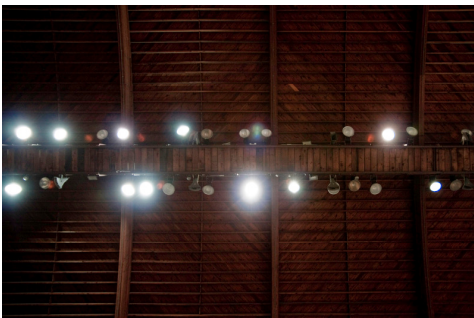
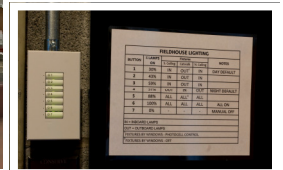
Before



After



Controls



Before



After

**Union College
Schenectady, NY**

**Lighting Upgrades for
Memorial Fieldhouse**

Completion Date: 2010