



## Case Study

# New Energy Efficient Lighting Design Helps Reduce Energy Cost and Maintenance For Glenbrook North High School Competition Gym

October 2005:

### **PROJECT:**

**GLENBROOK NORTH COMPETITION GYMNASIUM  
NORTHBROOK, ILLINOIS**

- 72-250 WATT HIGH PRESSURE SODIUM FIXTURES

### **ISSUE:**

- Need to reduce energy with new efficient fixtures
- Improve color rendering and foot-candle levels for televised games.

### **SOLUTION:**

- T5HO Technology Fixtures
- Dimming, including inboard/outboard switching

### **PHASE 1: NEW LIGHTING FIXTURES**

- Previous System energy usage was ..... 47,500kW-h
- Reduced System energy usage with 38-2 Lamp & 32-4 Lamp T5HO Fixtures to.....32,300kW-h  
>> An Energy Reduction of ..... 32%

### **PHASE 2 PLANNED: DIMMING TECHNOLOGY**

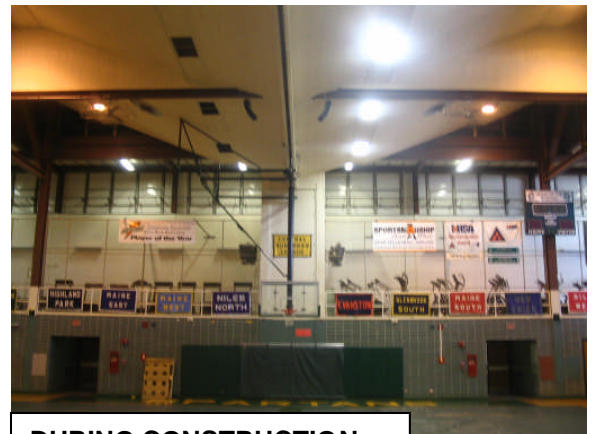
- During Sporting events all lamps are turned on to produce photo-quality lighting.
- During normal school hours dimming systems and day-lightings will reduce lighting system energy usage to ..... 16,300kW-h  
>> An additional energy reduction of .....34%

### **FINAL RESULT:**

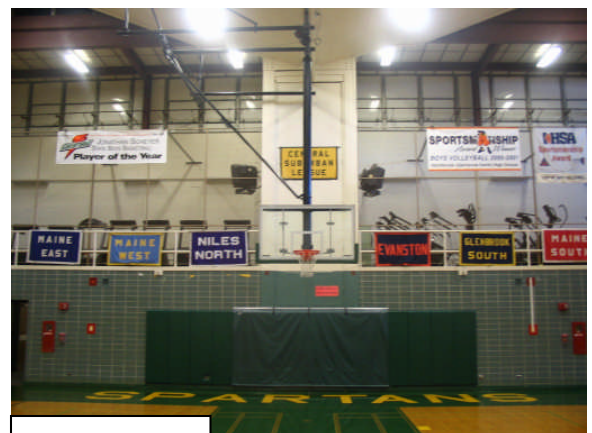
- A Total Lighting System Energy reduction .....66%



**BEFORE**



**DURING CONSTRUCTION**



**AFTER**