



# Orange Coast College





Higher Education



LED Lighting + Advanced Controls

**Proposition 39  
California**

## THE CHALLENGE

Orange Coast College’s campus was equipped with inefficient fluorescent, incandescent, metal halide and halogen lighting technologies throughout interior and exterior areas. In addition to being energy intensive, the distribution of light was uneven, causing dark areas that led to security, safety and learning concerns for students, teachers, and staff.

## THE SOLUTION

Orange Coast College partnered with SmartWatt for guidance navigating through Prop 39 and to take advantage of the funds available to enhance the aesthetics of the campus. The project includes four phases:

- **Phase 1:** Interior lighting and lighting control upgrades completed throughout 60 campus buildings.
- **Phase 2:** Metal halide fixtures replaced with LEDs on all exterior pole lighting throughout the campus. The new LED lighting design resulted in lower energy consumption, while achieving desired light levels and a more even distribution of light.
- **Phase 3:** Halogen fixtures replaced with LEDs throughout a sports stadium and track. Stadium lighting was designed to achieve NCAA requirements. Additionally, metal halide and incandescent fixtures were replaced with LEDs throughout a theatre, gym and fitness center.
- **Phase 4:** LED lighting upgrades throughout lecture halls. Phase 4 is currently in process and expected to be complete in 2017.

## THE IMPACT

The new lighting systems have enhanced security, safety and aesthetics of campus building for students, teachers and staff. Additionally, the upgrades have helped the college reduce energy and maintenance costs, and their environmental impact.

Phase 1 of the project achieved dramatic savings, resulting in a *Prop 39 Excellence Award* as the **Highest Scoring Prop 39 Retrofit Project of the Year** by the Board of Governors of the California Community Colleges.

**\$221K** / saved annually phase 1-3

Phase 1, 2 & 3 cost: **\$2.9M**  
Prop 39 funding: **\$2.4M**

**1,577 Tons** / CO<sub>2</sub> reduction

Planting **1,354** acres of trees  
Removing **302** cars