



## General Motors

Flint, Michigan

### Truck and Bus Plant: Energy Efficient Lighting Upgrade

**Problem** Upgrade required to improve the working environment of this GM truck and bus plant; involved replacing old lighting technologies, reducing maintenance and utility costs, and standardizing lighting materials.

**Resolution** The Optimira team pursued a multi-pronged approach to address the necessary upgrade requirements. Over 7,000 fluorescent fixtures were replaced with new energy efficient fixtures. Approximately 5,200 400W GE HID fixtures were removed while 2,000 new 400W Hubble HID energy fixtures were added. In order to upgrade the existing Energy Management System, new Power Link lighting panels, transformers and contractors were installed. Optimira provided the project management team to oversee the project.

**Project Description** The scope of the project involved the design and implementation of an energy efficient lighting upgrade at a GM plant, encompassing roughly 3.2 million square feet. As part of the design process, light levels were to be evaluated at each area of the plant in order to ensure that all areas throughout the plant met the Illuminating Engineering Society of North America (IESNA) lighting standards. The project required no investment dollars from General Motors. Rather, the project was funded via the energy cost savings achieved from the existing utility budget.

**End Result** The project was delivered under budget and on schedule. The project increased light levels from 20-25 % while reducing energy costs by 35%. The project savings achieved is \$849,941/year.

