

Project Profile

JOINT SYSTEMS MANUFACTURING CENTER

Lima, OH



Before



After

The Joint Systems Manufacturing Center, also known as the Lima Army Tank Plant (LATP), is a tank plant located in Lima, Ohio. It is a government-owned, contractor-operated facility currently operated by General Dynamics Land Systems. Built in the 1940's, this premiere industrial facility is capable of manufacturing, repairing, refurbishing, and testing a full spectrum of combat vehicles and defense systems.

Facility Type:

Industrial, office, and exterior workspace

Square Footage:

More than 1 million SF

Technologies:

Primarily LED high bay fixtures networked with an advanced lighting control system

of Fixtures:

More than 1,300

Savings:

\$575,708 annually

Situation

As the largest energy consumer in the United States, the U.S. federal government is reducing energy usage in its facility portfolio to achieve operational savings. Similarly, the Joint Systems Manufacturing Center sought to reduce the energy consumed at its campus in Lima, OH. Siemens Government Technologies aided in the design and implementation of energy savings projects involving all forms of consumption. Facility lighting was included in the scope of projects as a significant source of energy savings reduced maintenance expenses. Improved lighting quality also was desired across the complex.

Solution

The energy efficient lighting replacement system primarily incorporated LED high bay fixtures that were designed to better distribute light at a lower operating cost while utilizing an advanced lighting control system with wireless intelligent sensors. The sensors were equipped to gather, interpret, and distribute lighting & energy usage data to a central control module. The control system constructed specific light profiles for each fixture in each work area and allowed for local and remote access for altering the lighting and energy profiles.

Siemens Government Technologies partnered with lighting specialist Eco Engineering for both the audit/design and implementation phases of the lighting system. Installation was challenging given the need to upgrade in an active production environment.

Results

- Annual Demand Reduction
Over 17,000 kW projected during the first year.
- Annual Consumption Savings and Environmental Benefits
Estimated at 10,135,223 kWh annually - the equivalent of removing 15.5 million pounds of carbon dioxide emissions from the atmosphere.
- Reduced Billings
The implementation is expected to deliver approximately \$48,142 per month in energy savings and another \$5,718 per month in reduced maintenance expenses. The total annual energy savings will exceed \$577,000 per year.