

U.S. Defense Contractor Gets Boost From New LEDs & Networked Controls

PROJECT OVERVIEW

As one of the nation's largest U.S. Defense Contractors, this LED lighting and advanced controls project was beset with strict requirements right from the get-go. From contractor security clearances to onsite time constraints due to top-secret manufacturing runs the world of a defense contractor has its own set of unique challenges.

Located in the Eastern United States, this project consisted of upgrading the existing fluorescent lighting infrastructure within the facility's 325,000 square-foot of manufacturing space and office spaces. The new high-efficiency LED lighting infrastructure would also include an advanced networked controls system to provide the client with the ability to create custom lighting schedules, occupancy, and task-tuning control profiles seamlessly.

THE PROBLEM

Due to the sensitivity of work being conducted within the facility, the client was barred from implementing any type of lighting control solutions that could connect to the outside world.

Couple that with the extremely limited construction timeline and near 24-hour manufacturing shifts, and you can see just how challenging it was going to be to commission this networked controls system.

THE SOLUTION

First: The Controls

In order to abide by the strict security requirements of the client, Smarter Building Technologies Alliance pulled on its IoT-Controls Ecosystem Partner Avi-on Labs. Utilizing Bluetooth® with Mesh to create a networked lighting controls solution and IoT-connected backbone, Avi-on's control solution fit the bill. With Bluetooth's networking simplicity coupled with Mesh's virtually limitless network range, made the Avi-on solution ideal for this project.

Next: Driving Down Onsite Commissioning

SBT Alliance company, Integrated Advanced Controls, provided a vehicle to not only pre-install the lighting control system nodes directly into the LED luminaires, IAC provided pre-commissioning services to greatly streamline installation and reduce onsite commission.

Through the collaborative effort that was only possible between Integrated Advanced Controls and Avi-on we were able to establish a multi-functional team that developed first article procedures and shipping logistics that saved a great deal of time and money during the installation and final on-site commissioning.

THE RESULTS

The new LED lighting system went from under 20 foot-candles (fc) to 50 fc without increasing energy costs or energy usage, drastically increasing worker safety as a result.

Avi-on's Bluetooth Mesh networking technology turned a once difficult-to-operate breaker controls system to a single-switch operating system. In case of emergencies, security personnel can operate all of the lights in the facility from a set of switches right in their security station.

The next phase of this project will upgrade the exterior lighting system as well, including incorporating it into the Avi-on controlled system to provide enhanced security.



Avi-on Scene Controller

Custom Scheduling

Custom Zone Grouping

HEADQUARTERS

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