

# New Networked Warehouse & Office Lighting Design For Medical Manufacturer Meets Rigorous Specifications

## PROJECT OVERVIEW

When the world's leading designer and manufacturer of mobility products recently added a new medical manufacturing and office site to its roster of facilities, its leaders wanted to ensure the best working conditions for their employees while designing the most environmentally sustainable building possible.

The new facility in Pennsylvania includes 90,000 square feet for the warehouse and 20,000 square feet of office space. This considerable-sized area's lighting system needed to meet very specific and somewhat challenging specifications.

## THE PROBLEM

The mobility products manufacturer had a clear picture of what they wanted—a contemporary stream-lined look, maximum illumination and optimized efficiency and functionality of lighting and energy systems, all while keeping to their tight construction budget and installation timeline. The client also desired higher-than-average light levels throughout the warehouse and wished the building to be LEED certified.

"As a new-construction project, the client had a blank slate to work from," says SBT Alliance EVP of Manufacturing and Logistics Adam Mayse. "This is a blessing and a curse at times, as the client can specify how they would like to use the space, but sometimes making these wishes a reality is a real challenge for project engineers."

## THE SOLUTION

SBT Alliance worked tirelessly with through its internal divisions IAC and DDL to develop a new nationwide lighting standard for this manufacturer.

First, they designed a custom-specified narrow-beam optic that allowed them to take advantage of the interior reflectance of the boxes on the warehouse shelves to boost aisleway foot-candles and allow for the top-rack packages to be visible from the floor—another challenging requirement from the client. The SBT Alliance solution helps streamline operations and limit user error when workers retrieve product from warehouse shelves.

SBT Alliance worked with its innovative internal division, IAC, to integrate Bluetooth mesh controls directly into cutting edge DDL fixtures to

further enhance the operability of the warehouse and office facilities. This IoT solution includes occupancy-based controls, which allowed for value engineering throughout the facility. It helped limit unnecessary installations which resulted in a significant reduction in installation costs. Having networked controls also enabled the client to operate all lights within the facility from a single "master" switch, allowing them to bring all lights to full bright in case of an emergency.

This manufacturer refused to make concessions for employee health and safety when considering its building and lighting design. SBT's networked control system solution also provided the opportunity to install automatic fan control at dock doors, so when trucking personnel is loading and unloading trucks, fans automatically start to cool the area on hot days.

## A NEW NATIONWIDE STANDARD

The client was elated with the results. Not only did the project meet tier-one lighting specifications, but it also helped the building owner achieve LEED Certification and ASHARE 90.1 compliance—all while maximizing efficiency, controllability and energy savings. The lighting and control specifications that SBT Alliance engineers developed have now become the nationwide specification for all the manufacturer's warehouse facilities.

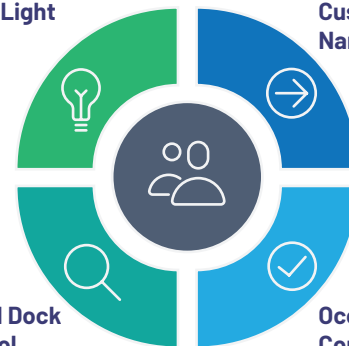
SBT Alliance specializes in human-centric lighting, which focuses on the needs of the people who occupy the building. This project has proven again that there is no need to settle for poor lighting when it can be designed for the specific work being done in the building to their benefit, to the benefit of the company's bottom line and environmental footprint.

Improved Light Levels

Custom-Specification Narrow Beam Optics

IoT-Based Dock Fan Control

Occupancy-Based Controls



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