

# Nestle Prepared Foods



Nestle is the largest food and drink company in the world. Headquartered in Switzerland, the 150-year old company operates most of its 447 facilities from America. Nestle has a sustainability program that is focused on making its facilities more efficient and has a commitment to the environment while improving food resources around the globe. The company is also committed to safety and health at all of their facilities, valuing the wellbeing of their 339,000 employees.

The company partnered with SmartWatt to complete an energy systems optimization project at their 234,833 square-foot cold storage facility in Gaffney, South Carolina.

## THE CHALLENGE

The cold storage facility featured outdated light fixtures that produced uneven distribution and dim light levels, causing eye strain for employees and exorbitant energy costs.

- **Energy Costs:** The lighting system was energy intensive and expensive to operate, due to the inefficient lighting technologies and simple controls.
- **Dim Lighting:** The fixtures installed in the warehouse were not properly designed for the space, making the output less than desirable and dim.
- **Uneven Distribution of Light:** The layout of fixtures caused light levels to be uneven in areas and irregularities in foot candles across the plant. Additionally, the fixture layout was not designed with the unique spaces and tasks taken into account.

“Very professional and great to work with. Team got the job done and worked safe, looking out for all.”

Howard Cote, Project Engineering Manager



## THE SOLUTION

To reduce the costs to operate and maintain the lighting systems, and increase light levels for staff, a new lighting system was installed throughout interior and exterior areas.

- **Lighting Design:** A new fixture layout was designed to provide a more even distribution of lighting. The new layout included the removal of unnecessary fixtures, plus the addition of new fixtures in areas that required higher light levels to optimally complete specific tasks.
- **LED Lighting:** 603 LED fixtures were installed throughout the facility. The LEDs required a lower wattage than the original fixtures while still providing equivalent or higher light levels.
- **Lighting Controls:** Lighting occupancy controls were installed on fixtures to automatically turn lights on or off based on motion, resulting in additional energy savings.

## THE IMPACT

The new lighting design, light levels, and even distribution of light has resulted in a positive feedback from the users of the space. With the motion based lighting controls, the customer is only using the lights they need when that specific space is occupied.

Additionally, the cost to maintain and operate the lighting systems has been reduced dramatically, due to the efficiency and long life-span of LEDs, and the ability of fixtures to automatically turn on or off based on occupancy.

**\$128K** / annual energy cost savings

**\$13K** / annual maintenance cost savings

Annual lighting energy reduction: **84%**

Number of LED fixtures installed: **603**

CO<sub>2</sub> reduction: **3,202,627 lbs**

Estimated payback period: **1.3 years**