

PROJECT CASE STUDY
Distribution Center

Brightening the Bottom Line:

How Evolved Lighting & Energy Achieved Cost Savings, Efficiency, and a 40% Incentive Package for Torrid



Executive Summary

At Evolved Lighting & Energy (Evolved), we're proud of our rise from a small group of dedicated lighting geeks, to a growing business with hundreds of happy clients. We recently completed a comprehensive LED lighting upgrade project for Torrid's warehouse and distribution center, addressing critical issues of inefficiency, high operational costs, and suboptimal lighting quality.

Through a collaborative and detail-oriented approach, Evolved not only delivered a superior lighting solution but also secured significant cost savings for Torrid through available incentives. This paper outlines the project's key elements, from initial assessment to final implementation, with an emphasis on our collaborative process, technical advancements, and financial benefits that set this project apart.

Project Overview

The Torrid warehouse and distribution center was struggling with outdated fluorescent lighting that drained resources, both in terms of energy consumption and maintenance demands.

The existing system relied heavily on T8 fluorescent strips and highbay fixtures, which are not only inefficient, but becoming harder to source. These consumed excessive amounts of electricity, and also required frequent replacements, putting a strain on Torrid's maintenance team. With limited manpower, keeping up with the constant need for bulb changes was a daunting task, further exacerbating operational inefficiencies.

The lighting in the facility was also insufficient for the tasks the Torrid team needed to perform. Poor illumination created a suboptimal working environment, impacting productivity and safety. Recognizing these challenges, Torrid got bids from three vendors, each providing a solution that would enhance lighting quality, reduce operational costs, and simplify maintenance.

Evolved Lighting & Energy won the contract by demonstrating superior value through a collaborative process, which actively involved Torrid's facility manager in the design phase, ensuring the solution met their precise needs.

Building Size & Fixtures

For context, we share the scale and measurements of the project, given the large size of the warehouse and distribution center and the variety of fixtures involved. The facility required a comprehensive upgrade across its significant space, which included:

Total Square Footage: 750,000

Total Fixture Counts:

- **488** qty 2-lamp 4-foot T8 strips
- **5137** qty 4-lamp T8 strips
- **213** qty 2x4 LED flat panels
- **76** qty 215-watt highbays
- **766** qty 270-watt highbays



Wattage saved: 546,782 watts annually



Projected annual energy savings: \$487,542



Projected annual maintenance savings: \$184,250



Incentive attained: \$448,028

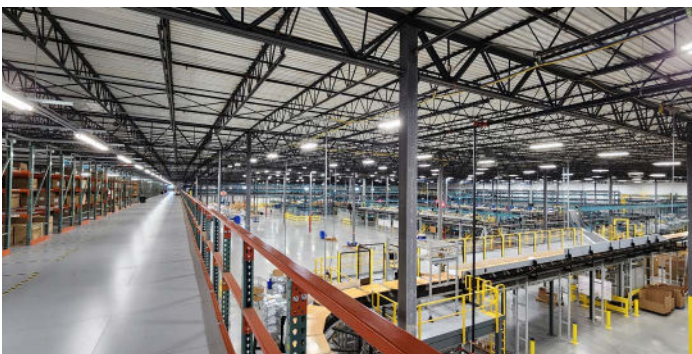
Challenges with Fluorescent Lighting

Fluorescent lighting, while once a popular choice for commercial and industrial spaces, has significant drawbacks that make it less desirable in today's energy-conscious world. These fixtures typically have a shorter lifespan compared to modern LED solutions, leading to frequent replacements. And fluorescent lights contain small amounts of mercury, posing environmental hazards and complicating disposal processes.

The inefficiency of fluorescent fixtures translates into higher energy costs. For a facility the size of Torrid's warehouse and distribution center, these costs can add up quickly, draining resources that could be better allocated elsewhere.

Additionally, the quality of light produced by fluorescents is inferior to that of LEDs, often resulting in poor color rendering and insufficient brightness, which can negatively impact both productivity and safety in a workspace.

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Evolved Lighting & Energy's Approach

Free Audit and Assessment:

Evolved Lighting & Energy initiated the project with a no-cost, comprehensive audit. This audit was essential in understanding the intricacies of Torrid's existing lighting setup. Our team assessed the facility's current lighting design, the types of products in use, and the overall costs associated with maintaining this outdated system. By gathering detailed data, we were able to propose a solution that was not only tailored to Torrid's specific needs but also positioned to deliver long-term value and quick payback.

Collaboration and Design:

A hallmark of our approach at Evolved is the collaborative process we employ when designing and implementing lighting solutions. For this project, we engaged closely with Torrid's facility manager throughout the design phase, ensuring that every decision was informed by on-the-ground insights and practical requirements.

From the start, our client interacted frequently with our Vice President, Jace, who presented the proposal, worked through the mockup, and attended the first day on site ensuring our customer knew how important they are to us.

Our design process included mock-ups and discovery phases, during which we explored various options to find the most effective solution. This iterative process ensured that the final design would not only meet but exceed Torrid's expectations.

In the mock-up phase, we presented sample lighting options with the Torrid team so they could see, touch, and understand the products before moving forward with their product decisions. This helped them feel comfortable with their investment and gave multiple stakeholders the ability to see what the end results would look like ahead of time.

Maximizing Incentives:

One of the key advantages of working with Evolved is our deep understanding of the incentive landscape. As a recognized trade ally, we are experts in navigating the complex web of government incentives and rebates available for energy-efficient upgrades.

For Torrid, we leveraged our knowledge to maximize the incentives available for their project. By utilizing our turnkey solution for incentive processing, we streamlined the application process, ensuring that Torrid received the maximum financial benefit with minimal effort on their part.

Team and Execution:

Execution of the project was led by Vino and Chris, who were responsible for all customer interactions and ensuring that the project stayed on track. They were supported by a team of highly experienced electricians and a site foreman known for his exceptional leadership skills.

Our approach to project management is characterized by meticulous planning and a commitment to quality. We pride ourselves on providing “red carpet service from start to finish,” which was evident throughout the Torrid project. Our philosophy, encapsulated in the phrase “it takes a village, and we bring the village,” highlights the collective effort and expertise required to deliver successful outcomes for our clients.

John was our site foreman in charge of running the crew on the ground, and Kyle was our project manager. Their communication and daily reporting throughout the job was stellar – a hallmark of our customer service and something we strive for throughout all of our projects. They provided a daily report, completion maps, and pictures of progress each day directly to Torrid’s management to ensure they were in the know at all times.

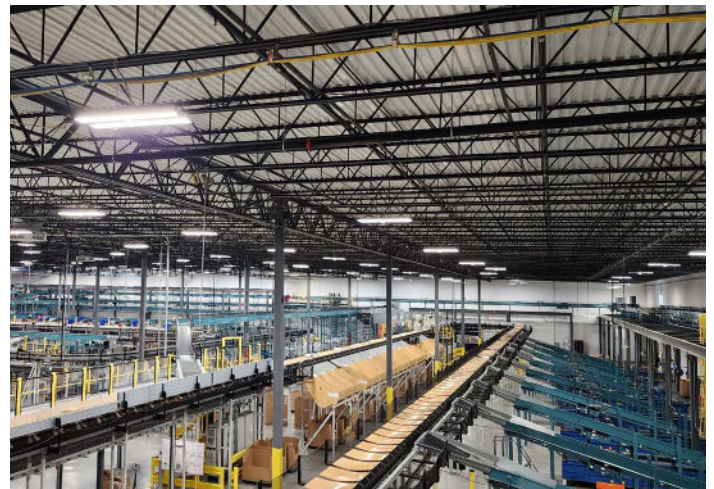
Technical Implementation

Networked Controls:

A significant aspect of this project was the integration of networked lighting controls. Unlike traditional lighting systems, which operate on fixed schedules or manual inputs, networked

controls allow for dynamic management of lighting based on real-time needs. This system offers several advantages, including energy savings, enhanced user control, and increased flexibility.

For Torrid, we provided an iPad as a mobile control panel, giving facility managers the ability to adjust lighting settings on the go. Whether it’s dimming lights during off-peak hours or adjusting brightness levels in different zones, the networked controls offer unparalleled convenience and efficiency. The programming phase for these controls took three days, during which we fine-tuned the system to ensure it operated at peak efficiency.



The Benefits of LED Lighting:

LED lighting represents a significant upgrade over traditional fluorescent systems. LEDs are renowned for their long lifespan, often lasting up to 25 times longer than incandescent bulbs and significantly longer than fluorescent tubes. This longevity translates into reduced maintenance costs and fewer disruptions to operation.

In terms of energy efficiency, LEDs consume significantly less power than their fluorescent counterparts. This reduction in energy use not only lowers operating costs but also contributes to a smaller carbon footprint, aligning with broader sustainability goals. Additionally, LEDs offer superior light quality, with better color rendering and uniformity, creating a more comfortable and productive working environment.

Incentives and Payback:

Evolved's expertise in navigating government incentives was crucial in reducing the overall cost of the project for Torrid. We secured a 40% reimbursement through available incentives, which significantly offset the initial investment required for the upgrade. This financial benefit, coupled with the reduced operational costs from the new LED lighting system, means that the estimated payback period for the project is under two years, pending final utility bills. This quick payback period is a testament to the financial prudence of investing in energy-efficient lighting solutions.



Incentive attained: \$448,028

Competitive Bidding Process:

Securing this project was no easy feat, given the competitive bidding process that involved three vendors. Evolved Lighting & Energy set itself apart by demonstrating a superior value proposition. Our approach to collaboration, which involved Torrid's facility manager in the design phase, was a key differentiator. By ensuring the final solution was tailored to meet the specific needs of the facility, we were able to provide a proposal that not only addressed the immediate issues but also offered long-term benefits.

Our commitment to delivering "red carpet service" played a crucial role in securing the project. From the initial audit to the final installation, our team's dedication to quality and customer satisfaction was evident, giving Torrid the confidence to choose Evolved as their partner for this critical upgrade.

Matthew Razzano, Facilities Services Manager was pleased with the results and our partnership – *"Since completing the conversion, we've noticed a substantial decrease in our energy consumption. Our monthly electricity consumption has seen a noticeable reduction, which is not only great for our bottom line but also aligns perfectly with our sustainability goals. The quality of light has vastly improved as well, creating a brighter, more comfortable work environment and reduced maintenance costs.*

The team at Evolved was professional, knowledgeable, and dedicated throughout the entire process. Their on-site team was very knowledgeable and courteous to all our staff. They were proactive in addressing any concerns and ensured minimal disruption to our daily operations during installation. The project was completed on time and within budget, exceeding our expectations in every way."

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Conclusion:

The LED lighting upgrade at Torrid's warehouse and distribution center is a prime example of how Evolved Lighting & Energy delivers comprehensive, cost-effective, and client-focused solutions. Our approach, characterized by thorough audits, collaborative design processes, and expert implementation, ensures that our clients receive the highest quality service and the best possible outcomes. The significant cost savings achieved through incentives, combined with the improved lighting quality and reduced operational costs, make this project a model for energy-efficient upgrades in large facilities.

At Evolved Lighting & Energy, we believe that successful projects are built on collaboration, expertise, and a commitment to excellence. The Torrid project embodies these values, demonstrating how targeted, efficient lighting solutions can transform a facility's operations while providing substantial financial benefits.

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614.867.5747
www.evolvedle.com

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1850 Dividend Drive | Columbus, OH 43228 | 614.867.5747 | evolvedle.com