

Element Materials Technology

Case Study: Rockford, IL



PROJECT SCOPE

Project Completion Date:
March 26, 2026

Company Name:
Element Materials Technology

Location:
Rockford, IL

Facility Size:
83,000 sq. ft.

Technology Before:
Fluorescent and Metal Halide

Orion LED Products Installed:

- [High Bays](#)
- [Retrofit Troffers](#)
- [Linear Strips](#)
- [Exit Signs and Emergency](#)
- [Area Lights](#)
- [Wall Packs](#)
- [Floods](#)

INTRODUCTION

Element Materials Technology, a global leader in product testing, inspection and certification services, aimed to upgrade their flagship testing facility in Rockford, IL to drive sustainability and improve energy efficiency. The Element Rockford facility is an 83,000 square foot laboratory specializing in best-in-class EMI/EMC, environmental, and dynamics testing services catering to the aerospace, military, commercial electronic, telecommunication, automotive, and medical sectors.

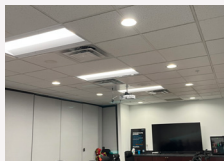
CHALLENGES

Prior to the retrofit, Element's lab facility in Rockford, IL, relied on fluorescent and metal-halide lighting systems, which consumed significant energy. Recognizing the need for a comprehensive lighting update, Element aimed to:

- ✓ Maximize energy savings while enhancing lighting performance.
- ✓ Improve light quality and distribution across various lab testing areas, office spaces, corridors, and exterior walkways and parking lots.
- ✓ Reduce maintenance costs associated with outdated lighting fixtures.
- ✓ Implement sustainable solutions to reduce location-based Scope 2 emissions.

ORION'S SOLUTION

Orion was chosen as the preferred lighting partner for Element's retrofit project due to its ability to deliver a turnkey lighting solution tailored to the diverse needs of Element Rockford's laboratory facility. Orion's product portfolio offered stylish, high-performing, and energy-efficient LED fixtures designed to meet Element's specific and diverse requirements. Each product was strategically selected to optimize energy savings, enhance lighting quality, and ensure seamless integration with Element's existing infrastructure.



The following Orion products were installed as part of the retrofit:

- Harris LED High Bay Star Line
- Harris LDRES 2x4 Retrofit Troffer
- Harris LED Linear Strips
- Harris LED Exit Signs and Emergency Lighting
- Harris LED Lumen Select Area Lights
- Harris LED Lumen Select Wall Packs
- Harris LED Lamps
- Harris Architectural Floods

RESULTS

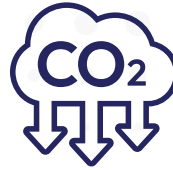
The retrofit project yielded significant improvements in energy efficiency, lighting performance, operational cost savings and reduced environmental impact. The key results include:



Annual Energy Reduction
342,445 kWh



Annual Energy Cost
Reduction: \$44,175



Annual Carbon Dioxide
Reduction: 123 Tons



Quantity of Fixtures
Installed: 600

By transitioning to LED technology, Element effectively reduced its carbon footprint, minimized energy consumption, and achieved substantial cost savings on an annual basis. The upgraded lighting not only enhanced the aesthetics of the facility but also provided optimal lighting conditions critical for Element's testing and inspection processes.

BEFORE



AFTER



CONCLUSION

Element Materials Technology's laboratory retrofit project in Rockford, IL, serves as a testament to the company's commitment to innovation, operational excellence, and goal to reduce location-based Scope 2 emissions. By partnering with Orion and embracing LED technology, Element successfully transformed its lighting infrastructure, realizing significant energy savings, and reducing environmental impact. This project underscores the importance of proactive sustainability initiatives and the transformative power of LED lighting in modernizing industrial facilities, while achieving long-term economic and environmental benefits. All materials were removed and recycled according to EPA standards and requirements, ensuring compliance with environmental regulations and promoting responsible waste management practices.