

Total Reclaim Matches Words with Actions when Retrofitting Warehouse with MetalOptics® GreenBay™ Fixtures

Project Name: Total Reclaim
Project Location: Seattle, Washington
Energy Service Provider: McKinstry Co.
Products Used: GreenBay MGB 6 lamp 2' x 4' T8 Fluorescent Fixture



Objectives:

Retrofit Total Reclaim warehouse configured with a mix of HID and T12 fluorescent fixtures. As a leader in providing responsible recycling solutions, Total Reclaim was interested in the following benefits to demonstrate consistency between their business objectives and business practices.

- Energy savings over HID
 - Daily operation
 - Lamp life
- Superior optical performance and control
 - Uniformity
 - Better illumination
 - True color recognition and visibility
- **Opportunity to do the right thing for the environment**



Solution:

Total Reclaim jumped at the opportunity presented by McKinstry to illustrate their commitment to environmental services and retrofit their facility in a manner consistent with conservation and environmental protection. McKinstry, headquartered in Seattle, Washington, is a leading “full service” mechanical and electrical contractor covering the Pacific Northwest, with annual sales in the \$300M range. McKinstry employs 650 staff and over 1000 field technicians who deliver a wide range of services including mechanical and electrical construction, energy services, engineering, architectural



metal, maintenance and facility management. Total Reclaim is the leading recycler of computers and electronics in the Pacific Northwest offering a wide variety of innovative environmental services for management of electronics and other hard-to-handle materials, including fluorescent lamps, refrigerant gases and appliances. Total Reclaim immediately saw the many energy and environmental advantages of using MetalOptics GreenBay luminaires. GreenBay was not only an energy efficient high-intensity fluorescent high bay solution but matched energy savings with environmental savings by significantly reducing packaging, waste, weight, floor space requirements and installation time. GreenBay is designed to not only save energy once installed but ensure ease of installation. “The four pallets of GreenBay fixtures arrived at our shop with virtually no damage to the frames or lamps. We typically anticipate from 2% to as many as 10% of the fixtures to arrive damaged. We were happy to find that all the fixtures were intact and ready to install,” exclaimed Dan Ronco, project manager for McKinstry Company. McKinstry enlisted Dean Graves, electrician, to install GreenBay. “The GreenBay fixtures were considerably lighter than conventional high bay fluorescent alternatives making the installation by one person feasible,” commented Mr. Graves. “The compact shape and reduced weight allowed us to double the number of fixtures on our boomlift, thus cutting in half the number of up and down trips we had to make during installation. The cable grips made it very easy to adjust the vertical and horizontal position of the fixtures.” The objective of saving costs was not only realized by using an energy efficient T8 fluorescent solution but by the time saving during installation. “We estimate that using the GreenBay fixture cut our labor hours in half. We saw dramatic reductions in material handling and significant improvements in reduced installation time,” expressed Mr. Ronco. “Not only was installation made easy, due to the package design, GreenBay saved unpacking time, disposal time and cost, storage requirements, fuel cost of transport and increased the overall average illumination of the space from 30 foot candles to 50 foot candles.” “We are extremely pleased with the improved light quality in the warehouse and also about reducing our own environmental impact,” emphasized Peter Thermos of Total Reclaim.

Energy Retrofit Savings:

Old System		GreenBay Solution	
Total Existing Wattage:	29,946	Total New Wattage:	14,960
54 - 400w metal halide high bays	24,732 watts	88 - 6 lamp GreenBay fixtures	
66 - single lamp T12 8' strips	5,214 watts		
Energy Savings: 14,986 Watts			

Shipping Comparison

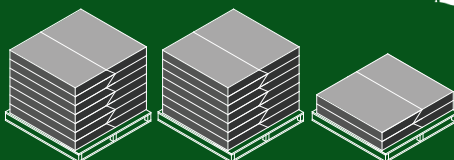
GreenBay Shipment

1 pallet (32 fixtures)
 471 LB total
 78 ft³
 6 LB Cardboard



Traditional Shipment

3 pallets
 762 LB total
 147 ft³
 128 LB Cardboard



57%

Pallet Reduction

93%

Cardboard Reduction

50+%

Energy Savings