U.S. Public and Private Sector Solutions
U.S. Public Sector Solutions

Military | Government Agencies | Municipalities

Energy Smart Lighting

MISSION CRITICAL
LED TECH

MADE in USA
OUR COMMITMENT:

We are committed to US manufacturing and energy intelligence that saves tax payer dollars, reduces CO2 emissions, and fosters American Energy Independence and Energy Security.

We support our war fighters and contract with U.S. Veteran Owned and Service Disabled Veteran Owned Businesses for installation and support across our offerings.

After moving our manufacturing from China to Southeastern Pennsylvania in 2010, we started working with U.S. Government Civilian and Military Agencies to educate facility managers and demonstrate the energy saving advantages of US Made Light Emitting Diode (LED) Technology. Since then we have provided cost-effective solutions that reduce lighting costs by 50% or more for a diverse range of facilities from the east to the west coast and on ships that navigate the oceans of the world.
Sample Accounts

Government

U.S. Department of State
U.S. Department of Defense
  U.S. NAVY
  U.S. Marine Corps
  U.S. Air Force
U.S. Department of Veterans Affairs
U.S. Department of the Interior
U.S. National Park Service
U.S. Department of Agriculture
U.S. Forest Service
+ Municipal Fire, Rescue, and Correctional Facilities

wwwIndependenceLED.com
PUBLIC SECTOR
Energy Savings
Sample Market Traction

From the U.S. NAVY’s Military Sealift Command (MSC)

to the first Veterans Affairs (VA) Hospital + GSA Schedule

Welcome to the
Durham VA Medical Center

www.IndependenceLED.com
In 2013, the MADE in USA Independence LED tubes were installed at the Truman Building in Washington, DC to replace the less efficient fluorescent tubes. The retrofit started in the office of the Deputy Assistant Secretary (DASO) as a springboard for a facility wide energy-saving lighting retrofit.
MSC Ships:
(Independence LED product from 2011 through 2013)

USNS Kaiser T-AO 187
USNS John Lenthall T-AO 189
USNS Walter S. Diehl T-AO 193
USNS Big Horn T-AO 198
USNS Guadalupe T-AO 200
USNS Patuxent T-AO 201
USNS Rappahannock T-AO 204
USNS Ericsson T-AO 193
USNS Pecos T-AO 197
USNS Yukon T-AO 202
USNS Laramie T-AO 203
USNS Comfort T-AH 20
USNS Waters T-AGS 45
USNS Henson T-AGS 63
USNS Supply T-AOE 6
USNS Arctic T-AOE 8
USNS Bridge T-AOE 10
USNS Navajo T-ATF 169
USNS Grasp T-ARS 51
USNS Salvor T-ARS 52
USNS Grapple T-ARS 53
USS Ponce AFSB(I) 15
USS Mount Whitney
USNS Zeus T-ARC 7
USNS Benavidez
USNS Dahl

www.IndependenceLED.com
Most Popular Products to Date:

After multiple rounds of testing, MSC favors to date the 4’ 22 Watt LED Tube and the 2’ 9 Watt LED Tube.

On GSAAAdvantage.gov search: “R1-422XXX-70-CB2-V1” and “109-2311203-1LMS”

Hazardous Location Fixtures: MSC provided Independence LED with a Hazardous Location Fixture for retrofit applications with LED tubes. After more than a year of third party testing, the Underwriters Laboratories (UL) has approved Independence LED as the first manufacturer in this new LED category. The retrofit solution provides massive savings given that replacing the tubes may cost under $200 while replacing each fixture is over $1,000.

LED Specifications Report to MSC: In October 2013, Independence LED was invited to MSC HQ in Washington, DC to meet with the Specifications team. The subsequent LED Specification Report provided by Independence LED is another reflection of our commitment to American Energy Independence and Energy Security.
In 2015, the MADE in USA Independence LED tubes were installed at Marine Corps Base Quantico in Virginia to replace the less efficient fluorescent tubes. The retrofit started in the barracks and included custom LED driver covers to accommodate the special needs of the Marine Corps facility.
In 2016, the MADE in USA Independence LED tubes and fixture solutions were selected over other products by major global lighting companies. The LED project contract is over $1 million, and may stand as the largest retrofit of its kind in U.S. history. Independence LED won the account due to its proven track record, reliability, and industry leading 10 year warranty.
In 2016, Independence LED expanded sales overseas to support military bases with its energy efficient lighting for the US Department of Defense (DoD). The overseas lighting started with the Thumrait Air Base in Oman, and Independence LED won the account given its top performance over five years across diverse facilities within DoD and the U.S government.

According to the DoD, there are over 1.3 million men and women on active duty, 742,000 civilian personnel, and 826,000 serving in the National Guard and Reserve forces. DoD occupies more than 700,000 buildings at 5,000 different locations around the world. The military and VA occupy more than 2.2 billion sq. ft. of buildings which is two thirds of the total 3.4 billion sq. ft. of federal government property. At an average of $1 per sq. ft. to retrofit with LEDs, the annual energy savings is typically $.33 per sq. ft. or higher. The government could save over a billion dollars every year just by changing the lights and save more than 10 billion over the decade long life of the LED technology.
Project: Durham Veterans Administration Medical Center
Highlights: First LED Retrofit at a VA Medical Center
Address: 508 Fulton St, Durham, NC 27705
Owner: U.S. Department of Veterans Affairs (www.va.gov)
LED Installation: Q1 2013

Opportunity
Lighting consumes a significant amount of electricity in the 24/7 areas of a hospital. Like similar structures, the Durham VA Medical Center had inefficient T12 fluorescent fixtures illuminating the back of house and common areas of the 271 bed facility. With a run time of 8,760h/year, the existing 1,200 fixtures used 355,025 kWh per year. At a $.10/kWh electricity rate, the T12 tubes cost $35,501 per year to operate.

Solution
Independence LED’s U.S. Made LED tubes cut the wattage consumption by over 50% while also improving light levels in the machine rooms, adding to the safety of working conditions. The LED lights reduce the annual kWh to 183,627, enabling the Durham VA Medical Center to become the first VA Hospital to set an efficiency benchmark for other public and private sector hospitals.

Results
By replacing fluorescent tubes with new LEDs, the annual energy savings is 171,398 kWh, yielding an electricity savings of $17,140 per year. Over the life of the LEDs, the energy and maintenance savings will be over $150,000. If each of the more than 1,700 facilities in the VA health system were to switch to LED technology, the ten year savings could exceed $1 Billion. This adds up to tax payer savings and more resources for the VA to service our heroes.
Opportunity
The US Forest Service sought a way to reduce energy expenses, while maintaining or improving light quality. With existing fluorescent 32 Watt T8 tubes, an upgrade to LED presented a cost-effective way to achieve their goals. At 60 hours/week and $.15/kWh, each existing 4’ tube used 100.1 kWh and cost $15.02 per year. Pacific Lighting Management (PLM), a DOE Qualified ESCO, turned to Independence LED for the high performance U.S. Made LED Tubes.

Solution
For improved lighting, Independence LED and Pacific Lighting Management recommended using 22W LEDs for the 4’ fixtures, and 15W for the 2’ fixtures. The energy efficient LEDs (4000K, 85 CRI) include frosted lens to ensure that the US Forest Service maintains smooth, quality light at the desk level and work surfaces.

Results
By reducing each 4’ tube wattage from 32W to 22W for an average of 31%, the annual savings is 31.29 kWh and $4.69 every year. Energy report estimates reveal annual energy savings of over 44,000 kWh and 1.5 million pounds of CO2.

“The Independence external power supply and advanced thermal management design allows for considerably longer life, and the 10 year warranty is unmatched in the industry.” - Tim Hatamian, Pacific Lighting Management
Independence LED has a network of over 100 Authorized Resellers across the U.S. and overseas. Many of the network members are SDVOSB and well equipped to provide energy auditing, distribution, and installation services. Plus, Independence LED is actively expanding its outreach to Veterans (most recently from the wars in Iraq and Afghanistan) as demand increases for the Made in America LED technology across the public sector.

Independence LED’s products are listed on the GSA Schedule. This provides a fast and easy way for facility managers and procurement officers to purchase the LED lights. As the demand increases, Independence LED is increasing the number of product types listed on the GSA Schedule. With over 1,000 different fixture and linear “tube” types with variable output, length, color, wattage, lens, end caps, and other factors, we are pleased to work with buyers to provide options beyond the GSA Schedule offerings.
CASE STUDY: Public Safety - Rescue

Project: W.F. Bruen Rescue Squad
Highlights: Bruen Rescue responded to 1,832 calls for help in 2012
Address: 1116 Redmill Rd, Rensselaer NY 12144
Owner: Municipality
LED Installation: 2013

Opportunity Like many Public Safety and Service facilities Bruen Rescue had a combination of inefficient 95 watt 8’ T12 fluorescent tubes and troffers with two and four 32 Watt T8 tubes. With a 24/7 run time of 8,760h/year, each 8’ tube used 832 kWh per year. At a $.16/kWh electricity rate, the T12 tubes cost $113.15 per year to operate.

Solution Independence LED’s Authorized Reseller, ERSI, based in Albany, NY, provided the LED solution with a pair of 4’ 16 watt LED tubes to create an average energy savings of 66% over the existing fluorescent tubes.

Retrofit Highlights:
Bay Areas: (15) 8’ fixtures
Rec Room: (26) 4’ fixt.
Six Offices: (12) 4’ fixt.
Two Bathrooms: (2) 4’ fixt.
Utility & Storage: (5) 4’ fixt.
Bunk Rooms: (10) 4’ fixt.
Plus, Elevator and Hallways

Results By reducing the critical 24/7 bay area 8’ tube wattage by an average of 66%, the annual savings is 552 kWh and $88.30 per 8’ length every year. Over the approximate 7 year life of the LED’s at 24h/day, the lifetime energy savings is over $600. The environmental impact of the retrofit is significant. At the U.S. average of 1.34 lbs of CO2 emission reduction for every kWh saved, each 8’ tube retrofit saves 5,065 lbs of CO2 over the long life of the energy saving LED technology.

Annual Electricity Cost Sample Fixture

<table>
<thead>
<tr>
<th>Previous 8’ Fluorescent</th>
<th>New (2) 4’ Tube Solution</th>
<th>SAVINGS</th>
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**CASE STUDY: Public Safety - Fire**

**Project:** Treasure Island Fire Rescue  
**Highlights:** First LED Tube Retrofit at a U.S. Fire House  
**Address:** 180 108th Ave, Treasure Island, FL 33706  
**Owner:** See: www.mytreasureisland.com/departments/fire_department  
**LED Installation:** 2012

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**Opportunity**  
Treasure Island Fire Rescue took a leadership role as the first Fire House in the U.S. to retrofit with LED tubes. The municipality had 600 32 Watt T8 tubes in their facilities. With a 24/7 run time of 8,760h/year, the 4’ tubes used 168,192 kWh per year. At a $.10/kWh electricity rate, the T8 tubes cost $16,819 per year to operate.

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**Solution**  
The Independence LED 15 Watt tubes reduced the energy cost and created an average energy savings of 53% over the existing fluorescent tubes. Plus, the fire fighters no longer have the risk of bulbs burning out on shifts given the long life of the LED technology.

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**Results**  
By reducing the critical 24/7 area tube wattage by an average of 53%, the annual savings is 89,352 kWh and $8,935 every year. Over the approximate 7 year life of the LED’s at 24h/day, the lifetime energy savings is over $61,000. The environmental impact of the retrofit is significant. At the U.S. average of 1.34 lbs of CO2 emission reduction for every kWh saved, the retrofit saves 820,00 lbs of CO2 over the long life of the energy saving LED technology.
Opportunity  In Mississippi, the Lauderdale County Detention Facility faced the same energy challenges as other Jails around the U.S. They demonstrated leadership by replacing the existing 4’ 32 watt T8 fluorescent tubes, running 24/7 for 8,760h/year with long lasting energy saving 15 watt LED tubes. At $.085/kWh, the T8 tubes cost $23.83 each per year to operate. Locally based, Southern LED Solutions, sourced the tubes from Independence LED to cut electricity cost by over 50%.

Solution  15 watt tubes with replaceable driver technology for high efficiency and longevity.

Results By reducing the tube wattage by an average of 53%, the annual savings is 148.92 kWh and $12.66 per tube every year. Over the 10 year life of the LEDs the energy savings is over $126 for every tube, plus about 2,000 lbs in CO2 emission reduction. That adds up to a ton of pollution reduction for each fluorescent tube replaced with the LED technology. These tubes also come in 12 watts, but the detention facility requested the brighter lights for the added safety measures.
LOCAL SUPPORT:
Beyond the U.S. Federal Government, we have also worked across the public sector to develop savings programs at the local level. From Fire Stations to Emergency Rescue Centers, we have installations that help communities reduce their operating costs. Local public safety facilities often operate 24/7, so the Return on Investment (ROI) on energy-efficient lighting is excellent.

LOCAL FLEX-FINANCING:
Independence LED understands that Fire and Police Chiefs as well as other public facility managers face similar budgetary challenges as those in the private sector. So, Independence LED offers flex-financing and $0 upfront cost programs for local, state, and federal agencies. The programs are designed so that the monthly financing cost is less than the monthly savings.

LOCAL JOB CREATION:
We work with Veterans and Service Disabled Veteran Owned Small Businesses (SDVOSB) as well as Minority Business Enterprises (MBE) and Women Business Enterprises (WBE) for energy auditing, installations, and product distribution. We have seen a ripple effect of new job creation that ranges from package production to transportation and from marketing to other professional services. Independence LED also provides job training through its “LED BOOT CAMP” programs. Energy smart domestic manufacturing is good for the government, good for tax payers, good for the environment, and good for domestic job creation in the new global energy economy.
U.S. Private Sector Solutions

Broad Range of Property Types

Energy Smart Lighting

MADE in USA
PRIVATE SECTOR Energy Savings
Sample Market Traction

Morgan Stanley

New LED vs. Existing

Proven Results: Corporate

www.IndependenceLED.com
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Restaurant Chain Lighting Solutions
Industrial Lighting Solutions
Parking Lighting Solutions
Healthcare Lighting Solutions

This file includes highlight Case Studies for different accounts. For other case studies see: www.independencelited.com/case-studies

Also ask about solutions for other categories:
Retail
Multi-Family
Education
Etc.
Notes: The Independence LED lighting for Mercedes-Benz is a pilot program for the manufacturing facility in Alabama, and the BMW dealership with the retrofit in Virginia added Rolls-Royce to its offerings in 2014. This file includes Case Studies on the other accounts.
CASE STUDY: Office Building

Project: Benchmark LED Efficiency Initiative
Highlights: 1 of 24 Property Retrofits
Address: 520 8th Ave, New York, NY
Owner: Newmark Holdings Portfolio
LED Installation: 2015

Opportunity  The Newmark Holding initiative is one of the largest and most comprehensive commercial LED base building retrofits of its type in the U.S. Newmark Holdings is a vertically integrated real estate company with a 63-year-history of hands-on asset management and a portfolio of more than 10 million square feet of commercial properties throughout New York City. Base building areas often run with 24 x 7 hours of operation, presenting the highest ROI for lighting retrofits.

Solution  The complexity of the different common areas and existing lighting across the portfolio resulted in the specification of more than 100 different LED fixtures, lamps and retrofits and required thousands of hours of auditing, manufacturing, rebate administration, and logistics by Independence LED Lighting.

Results  The cost savings across the 24 properties in this benchmark project will reach $10 million over the 10 year warranty of the Independence LED lights. Favorable ConEdison rebate incentives lift ROI to over 65% with payback in less than 1.5 years. With 3.7 million kWh saved each year, CO2 emissions reduction reaches 50 million lbs over the next decade. Newmark Holdings is leading by example with energy-efficient properties.
CASE STUDY: Office Building

**Project:** Benchmark LED Efficiency Initiative  
**Highlights:** 24 Property Retrofits  
**Address:** 520 8th Ave, New York, NY  
**Owner:** Newmark Holdings Portfolio  
**LED Installation:** 2015

24 Property Retrofits

One of the largest and most comprehensive commercial LED base building retrofits of its type in the U.S.

For each Case Study see: www.IndependenceLED.com/case-studies

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The Time & Life Building is located at 1271 Avenue of the Americas (6th Avenue) in Rockefeller Center in New York City. It was one of the first high rises to retrofit with LED lights in the U.S., and Independence LED started with the exit stairs.
Over multiple installation phases since 2011, MetLife has chosen Independence LED products. The retrofits to date have included 10 major corporate campuses across the U.S. MetLife has taken a leadership role in the Fortune 100 to embrace Made in America energy saving LED technology.
LEADERSHIP: LED OFFICES

Sample Corporate Campus
LED Installations across the U.S.
LEADERSHIP: LED OFFICES

Sample Corporate Campus
LED Installations across the U.S.
MetLife strives to make the 4.6 million square feet of its owned and managed workspace in the United States as sustainable as possible. This workspace includes 14 administrative buildings and two data centers.

In 2013, MetLife certified 100 percent of U.S.-owned and -managed administrative office facilities under the U.S. Environmental Protection Agency’s (EPA) Energy Star commercial buildings program. This program recognizes buildings that exceed sustainability performance benchmarks for energy efficiency and utility consumption.

Additionally, more than 50 percent of U.S.-owned and -managed office facilities are LEED-certified.
**Project:** Morgan Stanley World Headquarters  
**Highlights:** 42 Stories with 1.3 Million Sq. Ft.  
**Address:** 1585 Broadway New York, NY 10036  
**Owner:** Morgan Stanley + Hines Management  
**LED Installation:** 2011

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**Opportunity**  
Morgan Stanley demonstrated national leadership in energy intelligence by retrofitting its World Headquarters in Times Square with LED tubes, making it the first major high rise headquarters in America to embrace the new technology. The existing 4' 32 watt T8 fluorescent tubes, running 24/7 for 8,760h/year, in areas like the exit stairs, each consumed 280 kWh per year. At $.18/kWh, the T8 tubes cost $50.46 each per year to operate.

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**Solution**  
Independence LED provided an LED solution with 15 watt LED tubes that created an average energy savings of 53% over the existing fluorescent tubes. The new LEDs also reduced the maintenance labor to replace the less efficient fluorescent tubes that burn out more frequently.

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**Results**  
By reducing the tube wattage by an average of 53%, the annual savings is 148.92 kWh and $26.81 per tube every year. Over the approximate 7 year life of the LEDs at 24h/day, the lifetime energy savings is over $183 for every tube, plus 1,367 lbs in CO2 emission reduction. The building was completed in 1990, and as a young architect, Independence LED’s CEO, Charlie Szoradi, worked on the high profile project while employed at Gwathmey Siegel Architects in New York City.
Project: BMW Dealership  
Highlights: 1st BMW Dealership in the US with Independence LEDs  
State: Virginia  
Owner: BMW Dealership  
LED Installation: Q4 2013

Opportunity Lighting consumes a significant amount of electricity for automotive dealerships. Like many other dealerships, this one had 2’x2’ troffers with a pair of 32 watt U bend fluorescent tubes, totaling 64 watts per fixture. At 12 hours of illumination over 6 days a week (3,744h/year), each fixture used 239.6 kWh/year. At the average electricity rate in Virginia of $.087/kWh, the lighting cost was $20.84 per fixture per year.

Solution Independence LED provided a 30 watt LED Retrofit Kit solution with a pair of 15 watt 2’ LED tubes. The solution saves 34 watts per fixture for over 53% savings.

Results By reducing the 2’x2’ fixture wattage from 64 to 30, the annual savings is 127.3 kWh and $11 per fixture. Over the 60,000 hour 16 year life of the LEDs at 12/6, the lifetime energy savings is over $176 per fixture. With historical 3% average annual increases in energy cost and reduced bulb replacement and maintenance labor, the savings is over $348 per fixture. Since the lighting upgrade, Sterling BMW has added Rolls Royce to its offerings.
Project: Burger King  
Highlights: 1st of 46 New Jersey franchise owned locations  
Address: 803 Roosevelt Ave, Carteret, NJ 07008  
Owner: Parade Enterprises (www.bkparade.com)  
LED Installation: Q1 2014

Opportunity  
Lighting consumes a significant amount of electricity for Quick Serve Restaurants (QSRs), especially for ones running 24/7 such as this sample Burger King location. Like many similar Burger Kings that are about 2,400 sq. ft., this one has 35 troffer fixtures that are 2’x4’ with four 32 watt fluorescent tubes, totaling 128 watts per fixture. At 8,760h/year the fixtures each used 1,121 kWh/year. With an electricity rate of $.083/kWh, the lighting cost was $93 per fixture per year and $3,257 for all 35 fixtures.

Solution  
Independence LED provided a 44 watt LED Retrofit Kit solution that saves 84 watts per fixture for over 65% savings. Each fixture delivers 4,400 directional lumens, at bright white 5000K for the Kitchen areas and 4000K warmer light to enhance the dining areas.

Daylight Balancing “Light Harvesting”  
Independence LED provides Smart Control enabled external drivers, to automatically dim the lights on bright sunny days, if Burger King chooses to activate the system.

Results  
By reducing the fixture wattage from 128 to 44, the annual savings is 735 kWh and $61 per fixture. With 35 fixtures, the annual savings is $2,137. Over the 60,000 hour 7 year life of the LEDs at 24/7, the lifetime energy savings is almost $15,000. With historical 3% average annual increases in energy cost and reduced bulb replacement and maintenance labor, the savings is over $18,000 per location. With 46 locations, the lifetime savings for this franchise owner exceeds $828,000. This project set the QSR efficiency benchmark in 2014.
**Project:** Chapel Square Garage at the Omni New Haven Hotel  
**Highlights:** One of the First Parking Garage LED Retrofits in CT  
**Address:** 155 Temple Street, New Haven, CT 06510  
**Owner:** Omni Hotels and Resorts (www.omnihotels.com)  
**LED Installation:** Summer 2011

**Opportunity** Lighting consumes a significant amount of electricity for an underground parking garage. Like similar structures, the Chapel Square Garage at the Omni New Haven Hotel had inefficient T12 fluorescent fixtures, some at 98 watts each. With a 24/7 run time, or 8,760h/year, the existing fixtures used 212,298 kWh per year. At a $.128/kWh electricity rate, the T12 tubes cost $54,544 per year to operate. In addition to the high electricity costs, the existing fixtures produced a poor light quality, which was seen as a potential security issue.

**Solution** Independence LED partner Green Garage Lighting provided a 50 watt LED vaportight fixture solution that saves an average of 63% per fixture. Propark, the parking management company for the Chapel Square Garage, was also pleased that the LED fixtures produced more light with less energy, increasing levels in certain areas from 20 foot candles, to 75. “We are very pleased with the new lights in the Chapel Square Garage,” said Steve Foster, Propark Senior Account Manager. “The increased lighting levels create an even greater feeling of comfort and security for our guests.”

<table>
<thead>
<tr>
<th>Annual Operating Costs</th>
<th>Previous Lighting</th>
<th>New LED Lamps</th>
<th>Energy SAVINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>$54,544</td>
<td>$20,200</td>
<td>$34,344</td>
<td></td>
</tr>
</tbody>
</table>

**Results** By reducing the fixture wattage from an average of 63%, the total annual savings is 269,366 kWh and $34,344 per year. Over the 60,000 hour 7 year life of the LEDs at 24h/day the lifetime energy savings is $410,870. With historical 3% annual increases in energy cost and reduced bulb replacement and maintenance labor, the lifetime savings is over $467,900. The project earned a $76,000 rebate from the Connecticut Energy Efficiency Fund, and is a Green Parking Council Demonstrator Site.
Project: Gretz Beer Company  
Highlights: Major Beer Distributor in Southeastern, PA  
Address: 2801 Township Line Rd. Hatfield, PA 19440  
Owner: www.abwholesaler.com/Group12/GretzBeer  
LED Installation: Q3 2014

Opportunity  
Gretz undertook a comprehensive new state-of-the-art design for its facility in this 320,000 sq. ft. warehouse. If they had installed commonly used 450 watt Metal Halide high bay fixtures at 24/7 hours of illumination per day (8,760h/year), each fixture would have used 3,942 kWh/year. At the average electricity rate in PA of $.12/kWh, the lighting cost would have been $473.04 per fixture per year. With high bay bulb replacement and maintenance labor costs of over $48, the annual cost would have exceeded $521 per fixture.

Solution  
Independence LED’s 174 watt LED high bay fixture saves 275 watts per fixture, for over 64% savings with the reduced maintenance costs. The external driver and aluminum heat sinks are ideal for industrial applications.

Results  
By reducing fixture wattage from 450 to 174, the annual savings is 2,417 kWh and $290 per fixture + the $48 in reduced bulb replacement and maintenance labor for total savings of over $338 per fixture. The saving over the long 7 year life of the LEDs (8,760h/year) is $2,315 per fixture and even higher with inflation on energy. With over 300 high bays, the annual savings is over $101,400. Independence also provided on-board motion sensors for added savings and other LEDs throughout the interior and exterior.
CASE STUDY: Distribution Center

Project: Davis & Warshow Distribution Center
Highlights: Winner Urban Green Council “Best Lighting Retrofit”
Address: 57-22 49th Street Maspeth/Queens, NY 11378
Owner: Davis & Warshow (www.daviswarshow.com)
LED Installation: Summer 2012

Opportunity
The green-minded owners of Davis & Warshow installed a 238.74 kilowatt solar array on the roof of their 209,000 sq. ft. distribution center. The system was capable of producing an annual energy output of 268,574 kWh. But the facility had inefficient 8’ T12 fluorescent tubes that used 412,236 kWh per year, resulting in an annual lighting cost of $49,880.

Solution
Independence LED provided an LED solution that created an annual energy savings of 62%. The LED lights reduced the annual kWh to 157,524, enabling Davis & Warshow to become the first facility in America with a "Net Zero Cost of Lighting" through the combination of energy production with the Solar, and energy reduction with the LEDs.

Results
By reducing the fixture wattage from 130 to 70, the annual energy savings is 254,710 kWh, producing an electricity savings of $30,820 per year. Over the life of the LEDs the energy savings will be approximately $246,560. In addition to producing a Net Zero Cost of Lighting, the project also earned a $63,704 rebate from the energy provider ConEdison. With over 2 miles of LEDs, this energy efficiency project won the 2013 “Best Lighting Retrofit” by the Urban Green Council.

Annual Operating Costs

<table>
<thead>
<tr>
<th></th>
<th>Previous Lighting</th>
<th>New LED Lamps</th>
<th>Energy SAVINGS</th>
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<td>$30,820</td>
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CASE STUDY: Distribution Center

Project: Rex Distributing Company
Highlights: Major Beer Distributor in Mississippi
Address: 12100 Intraplex Pkwy, Gulfport, MS 39503
Owner: www.abwholesaler.com/group10/rexdistributingcompany
LED Installation: 2012

Opportunity Lighting consumes a significant amount of electricity for Beer Distribution Centers. This one is over 60,000 sq. ft. and had common 450 watt Metal Halide high bay fixtures. At about 18 hours of illumination per day (6,600h/year), each fixture used 2,970 kWh/year. At the average electricity rate in Mississippi of $.085/kWh, the lighting cost was $252.45 per fixture per year. With high bay bulb replacement and maintenance labor costs of over $48, the annual cost total was over $300 per fixture.

Solution Independence LED’s 150 watt LED high bay fixture saves 300 watts per fixture for over 66% savings. The external driver and aluminum heat sinks are ideal for industrial applications.

Results By reducing fixture wattage from 450 to 150, the annual savings is 1,980 kWh and $168.30 per fixture + the $48 in reduced bulb replacement and maintenance labor for total savings of over $215 per fixture. The saving over the long 9 year life of the LEDs (6,600h/year) is $1,935 per fixture and even higher with inflation on energy. At about 600 sq. ft. per fixture, facilities with 60,000 sq. ft. often have over 100 fixtures, yielding annual savings over $21,500.
**CASE STUDY: Industrial**

**Project:** Waters International Truck and Tractor Co.

**Highlights:** 4th generation business with over 280 employees

**Address:** 65 Mississippi 19, Meridian, MS 39307

**Owner:** Waters International (www.waterstruck.com)

**LED Installation:** 2012

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**Opportunity** Lighting consumes a significant amount of electricity for Truck Dealerships. Like many service bays, this facility had high bay fixtures using 456 watts, with the ballast factor. At over 13 hours of illumination per day (3,750h/year), each fixture used 1,710 kWh/year. At the average electricity rate in Mississippi of $.085/kWh, the lighting cost was $145.35 per fixture per year. Given the high bay replacement and labor costs of over $60, the annual total exceeded $215 per fixture.

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**Solution** Independence LED produced a 100 watt LED high bay fixture that saves 356 watts per fixture for over 78% savings. The external driver and aircraft grade deep fin aluminum heat sinks are ideal for industrial applications to ensure color consistency and longevity.

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**Results** By reducing the fixture wattage from 456 to 100, the annual savings is 1,335 kWh and $113 per fixture. Over the 60,000 hour 16 year life of the LEDs at over 13h/day, the lifetime energy savings is 2,287. With historical 3% average annual increase in energy cost and reduced bulb replacement and maintenance labor, the savings is over $2,800 per fixture.

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Project: Braxton’s Animal Works
Highlights: First U.S. Independent Retailer Retrofit with LED Lights
Address: 620 W Lancaster Ave, Wayne, PA 19087
Owner: David Braxton (www.braxtons.com)
LED Installation: 2009

Opportunity Lighting plays a critical role in a retail environment - it must be bright enough to showcase products, but warm and inviting for shoppers. At Braxton’s Animal Works, the existing lighting scheme created shadows and left little flexibility to highlight products. When Braxton’s decided to upgrade its lamps to improve lighting quality, they also wanted to reduce the energy used by the inefficient halogen, HID and spot lighting. With an electricity rate of $.12/kWh, the annual lighting cost was over $9,137.

Solution Independence LED approached Braxton’s with a solution to retrofit the existing fixtures with a combination of high-efficiency LED tubes and PAR lamps. The new LED lamps produce an outstanding 87% energy savings and deliver a more consistent and better quality light than the previous fixtures. “I was unsure whether LED lighting could maintain the nostalgic feel in our 100-year old barn that houses the retail store. However, after seeing the color versatility and the design capabilities that LEDs have to offer, it was a no-brainer. Now I’m saving over $7,000 a year and my store looks better than ever,” touts owner David Braxton.

Results Reducing the fixture wattages in the fixtures resulted in an annual energy savings of $7,801. The estimated lifetime energy savings is $245,587. With historical 3% average annual increase in energy cost and reduced bulb replacement and maintenance labor, the lifetime savings is over $260,000. This project payback was under 3 years and had an ROI of 34%.
Project: Canadian Tire Store (One of 490 Locations)
Highlights: Retrofit of Emergency Lighting Fixtures in 65,538 sq. ft. Facility
Address: 656 Erb St. West, Waterloo, ON, Canada, N2T 2Z7
Owner: Canadian Tire Store (www.canadiantire.ca)
LED Installation: Spring 2014

Opportunity  The 24/7 emergency lighting (EL) fixtures consume a significant amount of electricity in a large retail center. Canadian Tire had T8 fluorescent tubes with (8) 32 watt 4’ tubes in each 224 watt fixture. With a 24/7 run time of 8,760h/year, each EL fixture used 1,962 kWh per year. At a $.135/kWh electricity rate, the T8 fixtures cost $264.90 Canadian per year to operate.

Solution  Independence LED’s Canadian Manufacturer Representative, Accolades Inc., provided an LED solution with (4) 16w LED tubes per fixture that create an average energy savings of 71% over the existing fluorescent tubes.

Accolades Inc. delamped the EL fixtures in the retail floor with one 16w LED tube for every two 28w fluorescent tubes. The LED tubes also reduce the load required by the Uninterruptable Power Supply to power the EL fixtures.

Results  By reducing the EL fixture wattage by an average of 71%, the annual savings is 1,401 kWh and $189.22 Canadian per fixture every year. Over the approximate 7 year life of the LED’s at 24h/day, the lifetime energy savings is over $1,324. The retrofit project also earned a Save on Energy incentive. If each of the 490 Canadian Tire stores switched to LED technology for their EL systems, the total annual savings would be $2.6 million with lifetime savings over $25 million given maintenance labor savings and expected energy inflation.
ABOUT US
10 Reasons why Independence LED is the preferred choice in the LED marketplace.

#1: Proven Track Record
#2: Multiple Industry FIRSTS
#3: The Made in America Advantage
#4: The Right Technology for Longevity
#5: The Right Quality Assurance & Warranty
#6: The Right Management & Support Team
#7: The Right Auditing & ROI Software
#8: Rebate Ready Products
#9: Industry Leadership
#10: $0 Down Financing

Independence LED is your professional lighting solutions partner with American made LED manufacturing experience and insight. Established in 2007, we provide trusted LED lighting products and services. We bring you expertise from auditing to sourcing and from rebate administration to financing. Independence LED manufactures award winning, U.S. made technology from our Pennsylvania production facilities, and we enhance our offerings through strategic relationships with leading product and service companies. Independence LED delivers reliable and cost-effective LED lighting solutions. Period.

For our U.S. LED manufacturing, we are committed to building the highest quality and most reliable commercial LED lighting products on the market. Our 10 Year Warranty and patent pending LED tube systems, with external independent drivers and aircraft grade aluminum deep fin heat sinks, consistently save 65% or more on electricity over T8 fluorescent tubes and metal halide fixtures. Our clients range from the Fortune 100 to the U.S. Navy.

In addition to winning the Green Business of the Year Award in 2011 from the Main Line Chamber of Commerce, Independence LED won the 2013 Best Lighting Retrofit by the US Green Building Council’s Urban Green Award.
2013 Winner
Best Lighting Retrofit

LED PERFORMANCE: 50% to 65% Savings

Old Tubes: Fluorescent
New Tubes: LED

32 Watts
20,000 Hour Life
(7 years)

12 Watts
60,000 Hour Life
(20 + years)

www.IndependenceLED.com
Industrial Fixtures

SAMPLE Metal Halide to LED Fixtures with Multiple Modules

Sample Conversions:

Metal Halide: 175W
1 Module LED: 54W 7,100 lm

Metal Halide: 250W
2 Module LED: 108W 14,200 lm

Metal Halide: 450W to 750W
3 Module LED: 162W 21,300 lm
4 Module LED: 216W 28,400 lm

Metal Halide: 1000W
6 Module LED: 324W 42,600 lm

10 YEAR WARRANTY

The Independence LED linear form factor is ideal for dissipating heat for industrial fixture applications.
TECHNOLOGY
Top Warranty + Efficiency

The Best Built LED Tube

Strongest Warranty

10 Years

Greater Philadelphia Manufacturing
484-588-5401

www.IndependenceLED.com

Highest Efficiency

143 LM/Watt

Aircraft Grade Aluminum Deep Fin Heat Sinks

www.IndependenceLED.com
Made in USA
(Meets Buy American Standards of the American Recovery and Reinvestment Act – ARRA)

10 Year Warranty

Deep Fin Aluminum Heat Sink

External Driver

UL Classified

Schedule
Best of Breed Engineering, Component Parts, Quality Assurance & Assembly

Top Components
Our EXTERNAL Driver Tubes perform better than internal driver tubes, and we also have advanced Thermal Management Heat Sinks that dissipate rather than trap the heat that damages the diodes.

The Danger of Internal Driver LED Tubes

Discolorations at The Burn Zone from Internal Drivers

www.IndependenceLED.com
Top Products

TUBES

TROFFERS

VAPOUR TIGHTS

HIGH BAYS

www.IndependenceLED.com
Modular Fixture Index

TOP PRODUCTS

Replaces:
- T12, T8, and T5 any lm

Replaces:
- 128 Watt Fluorescent Typ. 4,000 lm

Replaces:
- 175 Watt Metal Halide Typ. 5,000 lm

Replaces:
- 400 Watt Metal Halide Typ. 13,000 or 19,000 lm

TUBES
- 1 Tube Module

TROFFERS
- 2 Tube Module
- 3 Tube Module
- 4 Tube Module

VAPOR TIGHTS
- 2 Tube Module

HIGH BAYS
- 4 Tube Module
- 6 Tube Module

www.IndependenceLED.com
SAVINGS

MISSION CRITICAL LED TECH

MADE in USA
ANNUAL LIGHTING SAVINGS: 70%

SAVINGS REPORT

<table>
<thead>
<tr>
<th>Current Lighting Electricity Cost</th>
<th>Annual</th>
<th>$76,210</th>
<th>$916,580</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected Lighting Electricity Cost (LED)</td>
<td>Annual</td>
<td>$25,789</td>
<td>$314,032</td>
</tr>
<tr>
<td>Reduction in Electricity Costs with LEDs</td>
<td>Annual</td>
<td>$50,421</td>
<td>$602,548</td>
</tr>
<tr>
<td>Additional Operating Savings:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulb Replacement Savings</td>
<td>Annual</td>
<td>$1,948</td>
<td>$19,302</td>
</tr>
<tr>
<td>Maintenance Labor Savings</td>
<td>Annual</td>
<td>$5,292</td>
<td>$75,867</td>
</tr>
<tr>
<td>Reduced Air Conditioning Load</td>
<td>Annual</td>
<td>$1,513</td>
<td>$18,076</td>
</tr>
<tr>
<td>Total Additional Operating Savings</td>
<td>Annual</td>
<td>$8,753</td>
<td>$113,245</td>
</tr>
<tr>
<td>Total Savings with LEDs</td>
<td>Annual</td>
<td>$59,175</td>
<td>$715,793</td>
</tr>
</tbody>
</table>

*Bulb Replacement Savings based on standard cost of existing lamps
*Maintenance Labor Savings based on $0.01/sq. ft. for Parking Garages, and $0.05/sq. ft. for all other facilities
*Reduced Heating/Air Conditioning Load based on an average of $0.03 for every dollar saved on lighting
*Lifetime calculations based on rated lifespan of each product. Weighted average rated life of LEDs = 14.3 years

FINANCIAL ANALYSIS

OPTION #1: PURCHASE

Cost of LED Product | $128,110
Installation Estimate (15%) | $19,217
Less Tax Deduction Cash Value | ($22,227)
Est. Rebate (e.g. $.10/Annual kWh Saved) | ($42,018)
Total Net Cost to Customer | $83,082

Payback (Months) | 26
ROI | 46%

Finance Monthly Cash Flows

| Adjustable Initial Cash Outlay | $0 |
| Payments | LED Savings | Net Cash Flow |
| 19 Months @ 7.5% | ($4,931.23) | $4,931.23 | $0.00 |
| 36 Months @ 7.5% | ($2,584.36) | $4,931.23 | $2,346.87 |
| 60 Months @ 7.5% | ($1,664.79) | $4,931.23 | $3,266.44 |

OPTION #2: On-Balance Sheet FINANCING

Adjustable Initial Cash Outlay | $0
19 Months @ 7.5% | ($4,931.23)
36 Months @ 7.5% | ($2,584.36)
60 Months @ 7.5% | ($1,664.79)

% Split on Lighting Savings | 28%
100% | 72%

Savings during the Service Period: | $296,475
Added Savings during 100% Period: | $301,570
Total Lifetime Savings for this Option: | $598,045

Note: The number of months is adjustable up to a 10 Year (120 months) Term or 7 Years (84 months) for 24/7 facilities.

OPTION #3: Energy Saving Share SERVICE

Adjustable Initial Cash Outlay & Months | $0
84 Months @ 7.5% | ($1,401.77)

% Split on Lighting Savings | 28%
100% | 72%

Savings during the Service Period: | $296,475
Added Savings during 100% Period: | $301,570
Total Lifetime Savings for this Option: | $598,045

Note: This is based on the average LED life for this facility

BONUS INCENTIVES

Federal Tax Deduction Available | $63,506
Tax Deduction Cash Value | $22,227
Property Value Increase | $591,747
EcoAdvantage: CO2 Emissions Reduction | 6,527,603 lbs.

*EPAct Federal Tax Deduction is an estimate based on standard IRS and DOE guidelines. Actual numbers may vary.
*Only areas that have bi-level switching qualify for EPAct incentives (80% of space or more typically qualifies).
*Property Value Increase calculated with 10% cap rate applied to reduction in operating costs.
*EcoAdvantage: based on 1.3 lbs. of CO2 for every kWh of electricity saved (lifetime estimates).

ACT NOW! GO GREEN AND SAVE!

Daily Cost of Waiting | $162
Monthly Cost of Waiting | $4,931
Save Energy, Reduce Maintenance, and Improve Light Quality with $0 Upfront Costs.

**ESPCs**

**ENERGY SAVING PERFORMANCE CONTRACTS**

This provides monthly savings on electricity for lighting without any upfront out of pocket expense.

![Chart showing current utility cost, new utility + rental payment, and savings comparison]
## Total Cost of Ownership

<table>
<thead>
<tr>
<th>LED Fixture</th>
<th>Wattage</th>
<th>10 Years</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. Overseas Manufactured</td>
<td>16W</td>
<td></td>
<td>$210.87</td>
</tr>
<tr>
<td>LED Fixture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T5 Fluorescent</td>
<td>28W</td>
<td></td>
<td>$282.27</td>
</tr>
<tr>
<td>T8 Fluorescent (with Ballast)</td>
<td>35W</td>
<td></td>
<td>$300.84</td>
</tr>
<tr>
<td>T12 Fluorescent (with Ballast)</td>
<td>45W</td>
<td></td>
<td>$318.17</td>
</tr>
</tbody>
</table>

The calculations assume comparable directional lumens, foot candles, or lux for 1 tube T8 (32W / tube + ballast factor) as the existing installed default, and the U.S. average $.12 Cost / kWh. With Independence LED’s 10 Year Warranty at 60,000 hours of life, common scenarios for 6,000 hours of illumination per year include facilities with double shift (16 hours / day). The Independence LED performance is even better for 24/7 operations.
## Total Cost of Ownership

<table>
<thead>
<tr>
<th>Model</th>
<th>Power (W)</th>
<th>10 Years Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>44W T5 Fluorescent</td>
<td>44W</td>
<td>$590.47</td>
</tr>
<tr>
<td>60W Avg. Overseas Manufactured LED Fixture</td>
<td>60W</td>
<td>$806.01</td>
</tr>
<tr>
<td>112W T5 Fluorescent</td>
<td>112W</td>
<td>$1,068.75</td>
</tr>
<tr>
<td>140W T8 Fluorescent (with Ballast)</td>
<td>140W</td>
<td>$1,189.68</td>
</tr>
<tr>
<td>160W T12 Fluorescent (with Ballast)</td>
<td>160W</td>
<td>$1,511.02</td>
</tr>
</tbody>
</table>

The calculations assume comparable directional lumens, foot candles, or lux for 4 tube T8 (32W / tube + ballast factor) troffer as the existing installed default, and the U.S. average $.12 Cost / kWh. With Independence LED’s 10 Year Warranty at 60,000 hours of life, common scenarios for 6,000 hours of illumination per year include facilities with double shift (16 hours / day). The Independence LED performance is even better for 24/7 operations.
### Total Cost of Ownership

<table>
<thead>
<tr>
<th>Type</th>
<th>Wattage</th>
<th>10 Years Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Tight: Competition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence LED Fixture</td>
<td>44W</td>
<td>$688.14</td>
</tr>
<tr>
<td>Avg. Overseas Manufactured</td>
<td>60W</td>
<td>$1,040.34</td>
</tr>
<tr>
<td>LED Fixture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compact Fluorescent</td>
<td>64W</td>
<td>$1,082.47</td>
</tr>
<tr>
<td>Induction</td>
<td>120W</td>
<td>$964.01</td>
</tr>
<tr>
<td>Metal Halide</td>
<td>175W</td>
<td>$1,487.52</td>
</tr>
</tbody>
</table>

The calculations assume comparable directional lumens, foot candles, or lux for **Metal Halide (175W) parking garage fixture as the existing installed default**, and the U.S. average $.12 Cost / kWh. With Independence LED’s 10 Year Warranty at 60,000 hours of life, common scenarios for 6,000 hours of illumination per year include facilities with double shift (16 hours / day). The Independence LED performance is even better for 24/7 operations.
Total Cost of Ownership

116W
10 Years = $1,501.88

Avg. Overseas Manufactured LED Fixture
150W
10 Years = $2,105.02

T5 Efficient Fluorescent
168W
10 Years = $1,729.62

Induction
200W
10 Years = $1,986.69

Metal Halide (with Ballast)
450W
10 Years = $3,740.05

The calculations assume comparable directional lumens, foot candles, or lux for Metal Halide (450 W) High Bay fixture as the existing installed default, and the U.S. average $.12 Cost / kWh. With Independence LED’s 10 Year Warranty at 60,000 hours of life, common scenarios for 6,000 hours of illumination per year include facilities with double shift (16 hours / day). The Independence LED performance is even better for 24/7 operations.
Join the American Energy Revolution

Our LEDS are the Most Reliable and Lowest Cost of Ownership Lighting Solutions on the market: *Made in American with the Highest Quality*

With increasing pressures on business owners and operators, Independence LED helps focus resources where they are needed most. We replace outdated lights to reduce wasted energy and increase Net Operating Income (NOI).

www.IndependenceLED.com