

INDUSTRIAL LED LIGHTING SAFETY BULLETIN

IN HARSH & HAZARDOUS APPLICATIONS, DEPENDABLE LIGHTING IS AN ABSOLUTE NECESSITY

- Poor lighting has been identified as a leading cause of slip, trip, fall, and contact with objects and equipment at industrial workplaces¹
- Over \$250 billion is estimated to be spent each year on job site injuries²
- Risk of accidents causing injuries or death is reduced up to 60% by clear visibility of hazards³

5 KEY SAFETY BENEFITS OF LED LIGHTING

- 1** Industrial LED lighting offers bright, near daylight illumination with more natural color rendering for **clear visibility of hazards** without the need for supplemental lighting such as flashlights.
- 2** Superior vibration resistance, wide operating temperature ranges and long-life because **reliability is critical in harsh and hazardous environments**.
- 3** LED fixtures are instant-on. In event of power loss, other antiquated fixtures can take up to 20 minutes to come back to full brightness **introducing an unnecessary safety risk**.
- 4** The lifespan of industrial LED fixtures is at least 3X longer than HPS or Fluorescent **reducing the risk of injury that frequent maintenance poses**.
- 5** No hazardous material exposure. LED fixtures contain **no mercury or harmful materials** that require special handling.

Traditional lighting technologies such as Metal Halide, Fluorescent and High Pressure Sodium, require significant and frequent maintenance. These older technologies have short lifespans, poor lumen maintenance and contain material harmful to our environment.

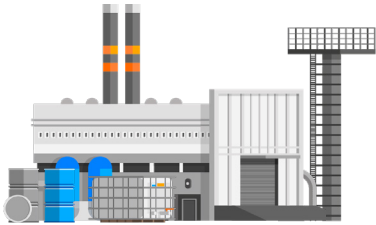
When designed properly, LED systems offer superior energy efficiency, reliability, longevity, improved light levels, visual clarity, and ultimately cost savings from reduced or eliminated lighting related maintenance and energy costs.

1 U.S. Dept. of Labor, Census of Fatal Occupational Injuries Summary, 2016; Occupational Health and Safety Administration, Mine Safety and Health Administration | 2 Leigh J.P., "Economic Burden of Occupational Injury and Illness in the United States" | 3 Abdou, "Effects of Luminous Environment on Worker Productivity in Building Spaces"

Dialight
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www.dialight.com

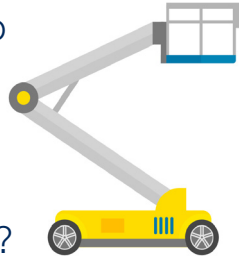
CHOOSING THE RIGHT FIXTURES FOR YOUR APPLICATION

Key questions to consider when making an industrial lighting purchase



ACCESSIBILITY & MAINTENANCE

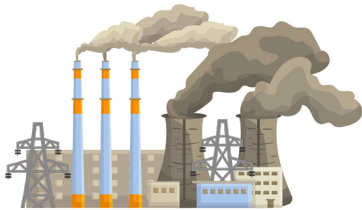
Is my lighting difficult to maintain due to **high mounting heights** or other **obstacles** that make the lighting difficult to access?



Is the **light output** and **color rendering** adequate to perform tasks safely?



VIGILANT[®]



HAZARDOUS & CHALLENGING ENVIRONMENTAL CONDITIONS

Are there areas encumbered by **dust**, **debris**, **extreme temperatures**, **moisture**, **vibration**, or **power surges** that could affect the lifespan and performance of the lighting?



Are there areas requiring Hazardous Location certified fixtures due to the presence of **explosive gases**, **dusts** or **fibers**?



SAFESITE[®]

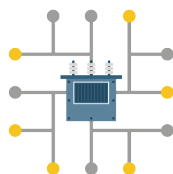


ENERGY SAVINGS & ENERGY ENHANCED PERFORMANCE

How can I save the most money on lighting related **energy costs**?



Do I require lighting that can **seamlessly integrate with my building automation system**?



Do I require advanced controls capabilities to **group**, **dim**, or **schedule** the lights around the needs of my facility?



Are there any **energy rebates** available for these fixtures?



RELIANT[™]

DIALIGHT INDUSTRIAL LED LIGHTING SOLUTIONS

Dialight is the world leader in industrial LED lighting with millions of fixtures installed worldwide. We deeply understand the harsh environments that our customers depend on our fixtures to illuminate each day. That's why our fixtures are built specifically for longevity in these conditions and most offer our industry-leading 10 year warranty.



High Bays



Area Lights



Linears



Floodlights



Wallpacks/ Bulkheads



Streetlights



Controls

VIGILANT®

The ideal solution for maximum performance and longevity in non-hazardous heavy industrial applications



SAFESITE®

The pioneer in harsh and hazardous location certified industrial LED fixtures



*Available on most models

RELIANT™

The revolutionary newcomer offering highly efficient design for light industrial applications



Dialight

info@dialight.com

www.dialight.com

SAVINGS & SERVICES

At Dialight, we deeply understand the harsh environments that our customers depend on our fixtures to illuminate each day. That's why our fixtures are engineered specifically for longevity in these conditions and most offer our industry-leading 10 year warranty, giving you peace of mind by reducing or eliminating the need for maintenance over the lifespan of the fixture.

TOTAL SAVINGS OVER DIALIGHT FIXTURE LIFESPAN



QUICK, EASY INSTALLATION

*reduced labor and
production down time*



ENERGY REBATE ELIGIBILITY

*energy costs
decreased*



WIRELESS CONTROLS

*IntelliLED advanced
controls option to even
further reduce costs*



REDUCED MAINTENANCE

*significant reduction or
elimination in materials,
labor and production
down time*



IMPROVED SAFETY

*risk of accidents is cut
up to 60% with clear
visibility of hazards**



COMPLIMENTARY SERVICES

*de-risking your
investment and finding
the right solution without
over-purchasing*

*Abdou, "Effects of Luminous Environment on Worker Productivity in Building Spaces"

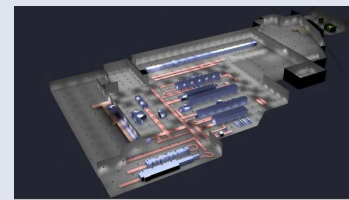
COMPLIMENTARY VALUE ADDED SERVICES

SITE AUDIT



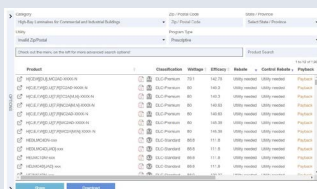
A regional sales manager will gladly visit your facility, taking note of your lighting goals, measuring existing light levels and identifying facility nuances that should be considered in the lighting solution.

LIGHTING LAYOUT



Our talented lighting designers will quickly design a solution to meet your needs with optimal light levels and the fewest fixtures possible.

UTILITY REBATE TOOL



Our website contains a real-time database of DLC listed Dialight products and the utility rebates available in your zip code.

[Learn more](#)

TOTAL COST ANALYSIS



See how much you could be saving in energy and maintenance costs before you buy with our ROI tool.

[Learn more](#)

For a free site audit and lighting layout to help you determine the right solution for your facility, please contact your local Dialight sales representative.

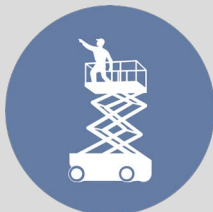
DIALIGHT MAINTENANCE COMPARISON VS. OTHER LIGHTING TECHNOLOGIES

10 YEARS

**DIALIGHT
INDUSTRIAL
LED FIXTURE***
Up to 160 lm/w



**TYPICAL
COMMERCIAL
LED PRODUCT**
Up to 160 lm/w



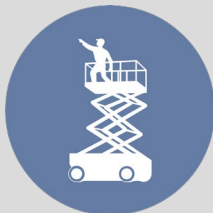
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FLUORESCENT
40-125 lm/w

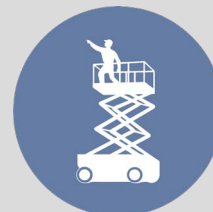
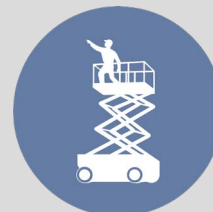
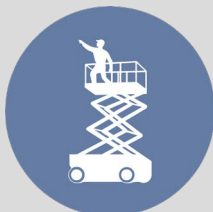


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**HIGH
PRESSURE
SODIUM**
60-120 lm/w



METAL HALIDE
60-90 lm/w



*10 year warranty available on most models

DIALIGHT ENERGY SAVINGS

We are proud to have the largest installed base of industrial LED fixtures in the world with over 2 million fixtures sold globally since 2006.

From 2006-2019, Dialight has saved :

2.8 billion
kilowatt hours of power

=

1,961,175
Metric Tons CO₂

=

Which is equivalent to:

CO₂ emissions from:



423,699

passenger vehicles
driven for one year



4,866,439,206

miles driven by an
average passenger
vehicle



220,679,082
gallons of gasoline
consumed



192,649,804
gallons of diesel consumed

2,160,945,795
pounds of coal burned



Greenhouse gas emissions from:

226,307
homes' energy use
for one year

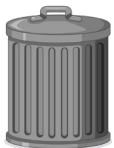


4,540,535
barrels of oil consumed

25,962
tanker trucks' worth of gasoline



Greenhouse gas emissions avoided by:



667,066
Tons of waste recycled
instead of landfilled



95,295
Garbage trucks
of waste recycled
instead of landfilled

83,447,153

trash bags of waste recycled
instead of landfilled



Carbon sequestered by:

13,267

acres of U.S. forests preserved from
conversion to cropland in one year



32,428,444
tree seedlings grown for 10 years



2,561,204
acres of U.S. forests in one year

Dialight

INDUSTRIAL LED LIGHTING ENERGY BULLETIN

There are over 144 million industrial light fixtures at 455,000 facilities across the United States.¹ These work sites require safe, efficient illumination, yet the majority still rely on antiquated, less efficient High Intensity Discharge (HID) lighting. Research confirms that industrial LED lighting is the most efficient solution to minimize energy consumption and avoid environmental impacts.

5 KEY ENERGY BENEFITS OF LED LIGHTING

- 1** LED fixtures are the most efficient white light on the market, and can **save up to 90% of energy** use over legacy systems²
- 2** **30-60% more light output** at the source (in lumens per watt), and at least **30% higher delivered light** efficiency since LEDs are directional with lower light loss³
- 3** Up to **50% less usage per day** though dimming and instant on/off capabilities coupled with sensors and smart controls, plus many LED lighting solutions qualify for DLC standard or premium, offering even greater cost savings⁴
- 4** Converting antiquated industrial lighting to highly efficient industrial LED lighting can reduce carbon emissions by **28 million metric tons**, the equivalent annual emissions of 6 million passenger vehicles⁵
- 5** Lower energy consumption, reduced maintenance costs, and long-life performance result in a much lower total cost of ownership (TCO) versus conventional lighting. **Achieving a payback period in as little as 2 years**



With zero mercury content, a lifetime at least 3x longer than HPS, as well as the potential for fewer fixtures thanks to LED optics, LED lighting is a no brainer for the industrial sector.

1 U.S. Dept. of Energy, Lighting Market Characterization, Tables 4-1, 4-22 | 2 GE "ROI of LED" | 3 U.S. Dept. of Energy, "Energy Savings Forecast", p. 67, ECG analysis; Simkar Corp. "Light Loss Factors" | 4 ECG analysis | 5 U.S. Environmental Protection Agency, "Regulatory Impact Analysis for the Final Mercury and Air Toxics Standards"; U.S. Dept. of Energy, "Lighting Market Characterization"; <https://www.epa.gov/greenvehicles/greenhouse-gas-emissions-typical-passenger-vehicle-0>; ECG analysis