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# LEDs & High-Efficiency Lighting: United States

March 2018



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# About This Report

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## Scope & Method

This report forecasts to 2022 US high-efficiency lighting demand in nominal US dollars at the manufacturer level. Total demand is segmented by product in terms of:

- LED lamps
- fluorescent lamps
- high intensity discharge lamps
- other high-efficiency lamps such as induction lamps and cold cathode fluorescent lamps

Total demand is also segmented by market as follows:

- nonresidential buildings
- residential buildings
- roadway, parking, and other outdoor
- other markets such as OEM lamps for flashlights, desk lamps, and holiday lights

To illustrate historical trends, total demand is provided in annual series from 2007 to 2017; the various segments are reported at five-year intervals for 2007, 2012, and 2017.

The scope of this report is limited to lamps used in general purpose lighting applications. Motor vehicles, machinery, and applications in which lights are used as signals or indicators are excluded. Also excluded are LED luminaires, in which LEDs are integrated into fixtures rather than being used in a replaceable lamp format.

This report quantifies trends in various measures of growth and volatility. Growth (or decline) expressed as an average annual growth rate (AAGR) is the least squares growth rate, which takes into account all available datapoints over a period. The volatility of datapoints around a least squares growth trend over time is expressed via the coefficient of determination, or  $r^2$ . The most stable data series relative to the trend carries an  $r^2$  value of 1.0; the most volatile – 0.0. Growth calculated as a compound annual growth rate (CAGR) employs, by definition, only the first and last datapoints over a period. The CAGR is used to describe forecast growth, defined as the expected trend beginning in the base year and ending in the forecast year. Readers are encouraged to consider historical volatility when assessing particular annual values along the forecast trend, including in the forecast year.

Key macroeconomic indicators are also provided with quantified trends. Other various topics, including profiles of pertinent leading suppliers, are covered in this report. A full outline of report items by page is available in the Table of Contents.

## Sources

*LEDs & High-Efficiency Lighting: United States* (FF60071) is based on *General Purpose LEDs & Other High-Efficiency Lighting in the US*, a comprehensive industry study published by The Freedonia Group. Reported findings represent the synthesis and analysis of data from various primary, secondary, macroeconomic, and demographic sources including:

- firms participating in the industry, and their suppliers and customers
- government/public agencies
- national, regional, and international non-governmental organizations
- trade associations and their publications
- the business and trade press
- indicator forecasts by The Freedonia Group
- the findings of other reports and studies by The Freedonia Group

Specific sources and additional resources are listed in the Resources section of this publication for reference and to facilitate further research.

## Industry Codes

Table 7 | Industry Codes Related to High-Efficiency Lighting

| NAICS/SCIAN 2007                              |  | SIC                                |                                    |
|---|--|------------------------------------|------------------------------------|
| North American Industry Classification System |  | Standard Industrial Classification |                                    |
| 334413  | Semiconductor and related device manufacturing | 3674                               | Semiconductors and related devices |
| 335110  | Electric lamp bulb and part manufacturing      | 3641                               | Electric lamp bulbs and tubes      |

Source: US Census Bureau

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## Resources

### The Freedonia Group

*General Purpose LEDs & Other High-Efficiency Lighting in the US*, March 2018

### Freedonia Industry Studies

*Kitchen & Bath Remodeling*, March 2018

*Silicones Market in the US*, February 2018

*Landscaping Products Market in the US*, October 2017

*Global Silicones Market*, June 2017

*Circuit Breakers & Fuses*, September 2016

*Insulated Wire & Cable*, May 2015

*World Lighting Fixtures*, August 2014

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National Electrical Manufacturers Association

North American Retail Hardware Association

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## About This Report

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    United States Census Bureau  
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