LED Flashlight
U.S.A. Market Forecast & Analysis
2016 - 2026

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Report Description

This is the ElectroniCast report provides the 2016 market data review and 2017-2026 forecast for LED-based flashlights, which are used in the United States of America. The 2016-2026 market data is segmented by rechargeable- versus standard-types. Several end-user application groups are covered in market forecast; finally, the forecast for the major sales channels are presented in easy-to-follow illustrations and text.

Company profiles and competitive market shares of over 60 LED flashlight manufacturer/brands are presented. ElectroniCast research findings, which are pertinent to Intellectual Property (IP), US Patents and related issues, are also provided. The Flashlight market and technology environment is discussed.

Market Forecast by Product Categories
The forecast is based on the following LED flashlight product category types:

- Rechargeable
- Standard

Market Forecast by Application Categories
Market forecast of each product-type by the following end-user type (application) categories:

- Commercial/Industrial/Other (all non-government work applications)
- Government-Sector (all levels of government: local, state and federal)
  - Military/Law Enforcement/First Responders
  - Other Government-Sector
- Consumer/Non-Specific
Market Forecast by Sales Channels
The market forecast of each product-type and end-user type (application), are also segmented by the following sales channels:

- Specialty Retail (e-Commerce/Internet and In-Store)
- General Retail (e-Commerce/Internet and In-Store)
- Direct from Manufacturer/Brand (Internet and Direct Sales/Other)

Market Forecast, By Function
This report provides the 2016 market data review and 2017-2026 forecast for flashlights by the following functions:

- Consumption Value
- Quantity (number/units)
- Average Selling Prices (ASP)

Flashlights Covered in this Study
All LED-based flashlights are included in this study, unless mentioned otherwise. Also, bicycle LED lights (bike-lights), which are similar in design to flashlights, are included in quantifying the market data in this study. Also included are LED flashlights, which are used as a work or task light; however, only the flashlight unit (itself) is counted, not any value-added components. A flashlight-based work/task light (not necessarily professional work) is a flashlight with valued-added accessories added permanently or detachable, which are designed to accommodate the specific needs of a related task, as discussed in some examples below:

- Hooks or clamps or straps or casing-design are added to the flashlight for the specific reason for hand-free operation; case design examples include: swivel lamp-heads; self-standing design, beam adjustments, others – the following are a few application examples:
  - Auto mechanics, surgeons or miners using headlamps;
  - Recreational/Sport hikers/campers using headlamps
  - Military and police using flashlights attached to the weapon/gun;
  - Recreational/Sport/Protection use of flashlights attached to a gun
  - Police, security, delivery use of flashlights attached to a bicycle;
  - Recreational/Sport use of flashlights attached to a bicycle

- Specific features added, such as (examples):
  - Chemical/Other resistant casing
  - Harsh environment/Rugged upgrade case and other components
  - Explosion-proof upgrade case and other components
  - Casing to accommodate work-related hand controls or grips
Add-on or Built-on Accessories  For flashlights that are equipped to wear on the head; for example in sports, surgery/medical, in the mining industry and other hands-free use, only the flashlight unit and internal recharging units are included in the pricing data; this is also true for flashlight brackets or clamps for guns, bicycles, other (only the flashlight itself is counted in the averages selling price data for the ElectroniCast market forecast data).

Not Included  Items not included in the overall volume and value forecast:

- Straps that are added to the flashlight unit
- Removable mounting brackets for weapon-flashlights
- Storage/travel cases the flashlight
- Flashlights in Androids and other mobile communication devices
- Novelty flashlights or toy-like novelty key-chain flashlights
- Lanterns

Market Opportunity  Since the market opportunity for flashlights continues to evolve, through the “marketing push” by manufacturers to differentiate from each other to achieve increasing revenue, there is a need to explore technology-driven solutions addressing, but not limited to the list shown below. The relationship of cost of materials, along with the end-user price-points, are important considerations for flashlight manufacturers; however, there are many other items of interest to consider in finding ways to differentiate from your competitors.

Market Research Methodology

Market analysis and technology forecasting are complex tasks. Any predictions of the shape and trends of technology and economic movement start from the notion that the germ of what will be important tomorrow is present, although smaller or larger or in a different form, in our environment today. However, taking as a basis for a prediction the assumptions of current, conventional belief creates a set of preconceived notions that can lead to serious mistakes. ElectroniCast, instead, looks to the basic driving forces.

The future market for a particular type of flashlight consumed in general purpose (household), as well as commercial/industrial and harsh environment, military/aerospace, emergency services and law enforcement applications depends on a number of factors, including: User equipment demand, back-up lighting due to power failures, various work-related tasks and recreational purposes, as well in conjunction with explosion and dangerous environments and with the use of night vision goggles (NSG), night vision imaging systems (NVIS) and night vision compatible (NVC) lighting and various other circumstances.

Information Base  This study is based on analysis of information obtained continually over the past several years, but updated through the end of January 2017. During this period, ElectroniCast analysts performed interviews with authoritative and representative individuals in the flashlight manufactures and brand distributors, as well as LED manufacturing (materials, chips, packaging,
devices, associated parts/pieces, fittings/fixtures, NVIS filters), other light sources and military/aerospace, law enforcement and other first responders, communication, automotive, medical services, R&D, and government regulating authorities, as well as power sources (batteries and capacitors). The interviews were conducted principally with:

- Engineers, marketing personnel and management at manufacturers of LEDs, other light source technologies, as well as flashlight material (plastic, metal, other) package design and reflective optics.

- Design group leaders, engineers, marketing personnel and market planners at major users and potential users and distributors of LEDs, other light sources, flashlights and power sources (batteries and capacitors).

- Other industry/sector experts, including those focused on patents/intellectual property, standards activities, trade associations, and investments.

The interviews covered issues of technology, R&D support, pricing, contract size, reliability, documentation, installation/maintenance crafts, standards, supplier competition and other topics.

A full review of published information was also performed to supplement information obtained through interviews. The following sources were reviewed:

- Professional technical journals and papers; Trade press articles
- Technical conference proceedings; Product literature
- Company profile and financial information
- Additional information based on previous ElectroniCast market studies; Personal knowledge of the research team.

In analyzing and forecasting the complexities of the American market for flashlights, it is essential that the market research team have a good and a deep understanding of the technology and of the industry. ElectroniCast members who participated in this report were qualified.

**Bottom-up Methodology** ElectroniCast forecasts are developed initially at the lowest detail level, and then summed to successively higher levels. The background market research focuses on the amount of each type of product used in each application in the base year (last year: 2016), and the prices paid at the first transaction from the manufacturer. This forms the base year data.

ElectroniCast analysts then forecast the growth rates in component quantity use in each application, along with price trends, based on competitive, economic and technology forecast trends, and apply these to derive long term forecasts at the lowest application levels. The usage growth rate forecasts depend heavily on analysis of overall end user trends toward equipment usage and economic payback.
About ElectroniCast

ElectroniCast, founded in 1981, specializes in forecasting technology and global market trends in fiber optics communication components and devices, as well providing market data on light emitting diodes used in lighting.

As an independent consultancy we offer multi-client and custom market research studies to the world’s leading companies based on comprehensive, in-depth analysis of quantitative and qualitative factors. This includes technology forecasting, markets and applications forecasting, strategic planning, competitive analysis, customer-satisfaction surveys and marketing/sales consultation. ElectroniCast, founded as a technology-based independent consulting firm, meets the information needs of the investment community, industry planners and related suppliers.

Proprietary Statement

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| Bushnell Outdoor Products  |
| CatEye Company, Limited  |
| Coast Products  |
| Coleman Company, Incorporated  |
| Cool View (Hawkeye Distributing, LLC)  |
| Craftsman (KCD IP, LLC – Sears Holdings)  |
| Dorcy International, Inc.  |
| Duracell (Procter & Gamble)  |
| EagleTac-USA.com  |
| E. Mishan & Sons, Inc. ("Emson")  |
| Energizer Holdings / Eveready  |
| FenixLight Limited  |
| 5.11, Incorporated (5.11 TACTICAL®)  |
| FourSevens (4Sevens)  |
| FoxFury Lighting Solutions  |
| GENTOS Co.,Ltd.  |
| Gerber  |
| HDS Systems, Inc.  |
| Iwiss Electric Co., Ltd  |
| Klarus Lighting Technology Co., Ltd  |
| Koehler – Bright Star LLC / Koehler Lighting Products  |
| Larson Electronics LLC (Magnalite Brand)  |
| Leatherman Tool Group Inc. (LED Lenser) / Zweibrüder Optoelectronics GmbH & Co. KB  |
| Life+Gear  |
| Longxing Optoelectronic Technology Co., Ltd.  |
| Lumencraft (Gatlight)  |
| Mag Instrument Incorporated (MAGLITE®)  |
| Makita Corporation  |
| Matsushima (Tat Ming Holding Group)  |
| Microbluebear Technology Company, Ltd. (Shenzhen) - ACEBEAM®  |
| MicroFire Technology Company, Ltd.)  |
| Micronix Systems Inc. (Identify Surgical Headlamp)  |
| NexTorch  |
| Nightcore®  |
| Nite Ize (INOVA Brand)  |
| Panasonic  |
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