

# **Intelligent Street Lighting Market Forecasts to 2034 – Global Analysis By Lighting Technology (LED, High-Pressure Sodium, Compact Fluorescent, Induction, and Other Lighting Technologies), Control Technology, Communication Technology, Application, Energy Source, and By Geography**

<https://marketpublishers.com/r/I44050A4896EEN.html>

Date: June 2026

Pages: 200

Price: US\$ 4,150.00 (Single User License)

ID: I44050A4896EEN

## **Abstracts**

According to Statistics MRC, the Global Intelligent Street Lighting Market is accounted for \$10.9 billion in 2026 and is expected to reach \$19.9 billion by 2034 growing at a CAGR of 7.8% during the forecast period. Intelligent street lighting refers to advanced lighting systems that incorporate sensors, controls, and communication technologies to optimize energy consumption and enable smart city applications. The market encompasses lighting technologies including LED, high-pressure sodium, compact fluorescent, and induction, with control technologies including dimming and adaptive lighting, remote monitoring and control, motion and occupancy-based control, daylight-based control, and centralized lighting management. Communication technologies include NB-IoT, powerline communication, radio frequency, LoRa and LPWAN, and cellular. Applications include traffic optimization, environmental monitoring, smart parking, public safety, energy management, and urban infrastructure monitoring.

## **Market Dynamics:**

### **Driver:**

#### **Growing demand for energy efficiency and smart city development**

The increasing focus on energy efficiency and smart city development is a primary driver for the intelligent street lighting market. Street lighting represents a significant

municipal energy expense. Intelligent lighting systems reduce energy consumption through adaptive controls. LED technology provides substantial energy savings compared to traditional lighting. Smart city initiatives drive adoption of connected lighting infrastructure. As municipalities seek cost savings and sustainability, intelligent street lighting adoption expands, supporting sustained market growth.

## **Restraint:**

### **High upfront investment and infrastructure requirements**

The significant upfront investment required for intelligent street lighting systems and infrastructure requirements represent a major restraint for the market. LED and control system installation requires substantial capital investment. Communication infrastructure must be deployed. Retrofitting existing lighting systems adds cost and complexity. Smaller municipalities may lack resources for comprehensive upgrades. These cost and infrastructure barriers may limit adoption, particularly among budget-constrained municipalities.

## **Opportunity:**

### **Integration with smart city platforms and IoT ecosystems**

The growing integration of intelligent street lighting with smart city platforms and IoT ecosystems presents significant opportunities for market expansion. Street lighting poles serve as platforms for sensors and communication equipment. Environmental monitoring and traffic sensors can be integrated. Public safety cameras and emergency communication systems can be deployed. As smart city initiatives expand, integrated lighting solutions capture growing market share.

## **Threat:**

### **Cybersecurity risks in connected infrastructure**

Cybersecurity vulnerabilities associated with connected street lighting infrastructure pose significant threats to intelligent street lighting market growth. Networked lighting systems are potential targets for cyberattacks. Compromised systems could be disrupted or used for malicious purposes. Regulatory requirements for critical infrastructure protection add compliance burden. These security concerns may slow adoption and require investment in protection measures.

## **Covid-19 Impact:**

The COVID-19 pandemic accelerated smart city and intelligent lighting investment as municipalities prioritized efficiency and resilience. Remote monitoring capabilities proved valuable during lockdowns. Energy cost savings supported municipal budgets. Post-pandemic, continued smart city investment has supported market growth.

## **The LED segment is expected to be the largest during the forecast period**

The LED segment is expected to account for the largest market share during the forecast period, driven by the superior energy efficiency, long lifespan, and declining costs of LED technology. LED lighting provides substantial energy savings compared to traditional technologies. The segment benefits from continuous improvement in LED efficiency and cost. Government regulations phasing out inefficient lighting accelerate adoption. As the dominant lighting technology, LED maintains the largest segment share.

## **The Solar-Powered segment is expected to have the highest CAGR during the forecast period**

Over the forecast period, the Solar-Powered segment is predicted to witness the highest growth rate, fueled by declining solar costs, growing demand for off-grid solutions, and sustainability initiatives. Solar-powered street lighting eliminates grid connection costs and enables deployment in remote areas. The segment benefits from integrated battery storage advancements. As renewable energy adoption expands, solar-powered lighting delivers the fastest energy source segment growth.

## **Region with largest share:**

During the forecast period, the Europe region is expected to hold the largest market share, supported by strong smart city initiatives, environmental regulations, and advanced infrastructure. European countries lead in intelligent lighting adoption. EU energy efficiency directives drive investment. Government support for smart city development accelerates deployment. With strong policy support and infrastructure, Europe maintains its dominant market position.

## **Region with highest CAGR:**

Over the forecast period, the Asia-Pacific region is anticipated to exhibit the highest

CAGR, driven by rapid urbanization, government smart city initiatives, and increasing investment in urban infrastructure across China, India, and Southeast Asia. The region's large and growing urban populations create substantial demand for intelligent lighting. Government programs support smart city development. Infrastructure investment accelerates adoption. As urban modernization expands, Asia Pacific delivers the fastest market growth globally.

## Key players in the market

Some of the key players in Intelligent Street Lighting Market include Signify N.V., Itron, Inc., Acuity Brands, Inc., Current Lighting Solutions, LLC, Schröder Group, Telensa, Flashnet S.A., Dimonoff Inc., Twilight B.V., CIMCON Digital, Sensus, Honeywell International Inc., Siemens AG, Schneider Electric SE, and Hubbell Incorporated.

## Key Developments:

In August 2026, Flashnet entered into a strategic global partnership with Netmore under its Pulse Partner Program, integrating inteliLIGHT smart street lighting with carrier-grade LoRaWAN connectivity to accelerate interoperable smart city deployments globally.

In April 2026, Schröder announced the acquisition of NLS Lighting, a California-based manufacturer of outdoor architectural and area LED luminaires, strengthening its smart and connected roadway lighting footprint across North America.

In April 2026, Telensa initiated the rollout of its Central Management System (CMS) and smart wireless nodes across Torbay, UK, replacing older sodium lamps with adaptive, dimmable LED streetlights monitored via real-time diagnostics.

## Lighting Technologies Covered:

LED

High-Pressure Sodium

Compact Fluorescent

Induction

Other Lighting Technologies

## **Control Technologies Covered:**

Dimming and Adaptive Lighting

Remote Monitoring and Control

Motion and Occupancy-Based Control

Daylight-Based Control

Centralized Lighting Management

## **Communication Technologies Covered:**

NB-IoT

Powerline Communication

Radio Frequency

LoRa and LPWAN

Cellular

Other Communication Technologies

## **Applications Covered:**

Traffic Optimization

Environmental Monitoring

Smart Parking

Public Safety and Security

Energy Management

Urban Infrastructure Monitoring

## **Energy Sources Covered:**

Grid-Connected

Solar-Powered

Hybrid Renewable Energy

## **End Users Covered:**

Municipalities and Government

Commercial

Industrial

Residential and Community Infrastructure

## **Regions Covered:**

North America

United States

Canada

Mexico

## Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

## Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

## **What our report offers:**

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

## **Free Customization Offerings:**

**All the customers of this report will be entitled to receive one of the following free customization options:**

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

#### Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

#### Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

## Contents

### **1 EXECUTIVE SUMMARY**

- 1.1 Market Snapshot and Key Highlights
- 1.2 Growth Drivers, Challenges, and Opportunities
- 1.3 Competitive Landscape Overview
- 1.4 Strategic Insights and Recommendations

### **2 RESEARCH FRAMEWORK**

- 2.1 Study Objectives and Scope
- 2.2 Stakeholder Analysis
- 2.3 Research Assumptions and Limitations
- 2.4 Research Methodology
  - 2.4.1 Data Collection (Primary and Secondary)
  - 2.4.2 Data Modeling and Estimation Techniques
  - 2.4.3 Data Validation and Triangulation
  - 2.4.4 Analytical and Forecasting Approach

### **3 MARKET DYNAMICS AND TREND ANALYSIS**

- 3.1 Market Definition and Structure
- 3.2 Key Market Drivers
- 3.3 Market Restraints and Challenges
- 3.4 Growth Opportunities and Investment Hotspots
- 3.5 Industry Threats and Risk Assessment
- 3.6 Technology and Innovation Landscape
- 3.7 Emerging and High-Growth Markets
- 3.8 Regulatory and Policy Environment
- 3.9 Impact of COVID-19 and Recovery Outlook

### **4 COMPETITIVE AND STRATEGIC ASSESSMENT**

- 4.1 Porter's Five Forces Analysis
  - 4.1.1 Supplier Bargaining Power
  - 4.1.2 Buyer Bargaining Power
  - 4.1.3 Threat of Substitutes
  - 4.1.4 Threat of New Entrants

- 4.1.5 Competitive Rivalry
- 4.2 Market Share Analysis of Key Players
- 4.3 Product Benchmarking and Performance Comparison

## **5 GLOBAL INTELLIGENT STREET LIGHTING MARKET, BY LIGHTING TECHNOLOGY**

- 5.1 LED
- 5.2 High-Pressure Sodium
- 5.3 Compact Fluorescent
- 5.4 Induction
- 5.5 Other Lighting Technologies

## **6 GLOBAL INTELLIGENT STREET LIGHTING MARKET, BY CONTROL TECHNOLOGY**

- 6.1 Dimming and Adaptive Lighting
- 6.2 Remote Monitoring and Control
- 6.3 Motion and Occupancy-Based Control
- 6.4 Daylight-Based Control
- 6.5 Centralized Lighting Management

## **7 GLOBAL INTELLIGENT STREET LIGHTING MARKET, BY COMMUNICATION TECHNOLOGY**

- 7.1 NB-IoT
- 7.2 Powerline Communication
- 7.3 Radio Frequency
- 7.4 LoRa and LPWAN
- 7.5 Cellular
- 7.6 Other Communication Technologies

## **8 GLOBAL INTELLIGENT STREET LIGHTING MARKET, BY APPLICATION**

- 8.1 Traffic Optimization
- 8.2 Environmental Monitoring
- 8.3 Smart Parking
- 8.4 Public Safety and Security
- 8.5 Energy Management

## 8.6 Urban Infrastructure Monitoring

# 9 GLOBAL INTELLIGENT STREET LIGHTING MARKET, BY ENERGY SOURCE

## 9.1 Grid-Connected

## 9.2 Solar-Powered

## 9.3 Hybrid Renewable Energy

# 10 GLOBAL INTELLIGENT STREET LIGHTING MARKET, BY END USER

## 10.1 Municipalities and Government

## 10.2 Commercial

## 10.3 Industrial

## 10.4 Residential and Community Infrastructure

# 11 GLOBAL INTELLIGENT STREET LIGHTING MARKET, BY GEOGRAPHY

## 11.1 North America

### 11.1.1 United States

### 11.1.2 Canada

### 11.1.3 Mexico

## 11.2 Europe

### 11.2.1 United Kingdom

### 11.2.2 Germany

### 11.2.3 France

### 11.2.4 Italy

### 11.2.5 Spain

### 11.2.6 Netherlands

### 11.2.7 Belgium

### 11.2.8 Sweden

### 11.2.9 Switzerland

### 11.2.10 Poland

### 11.2.11 Rest of Europe

## 11.3 Asia Pacific

### 11.3.1 China

### 11.3.2 Japan

### 11.3.3 India

### 11.3.4 South Korea

### 11.3.5 Australia

- 11.3.6 Indonesia
- 11.3.7 Thailand
- 11.3.8 Malaysia
- 11.3.9 Singapore
- 11.3.10 Vietnam
- 11.3.11 Rest of Asia Pacific
- 11.4 South America
  - 11.4.1 Brazil
  - 11.4.2 Argentina
  - 11.4.3 Colombia
  - 11.4.4 Chile
  - 11.4.5 Peru
  - 11.4.6 Rest of South America
- 11.5 Rest of the World (RoW)
  - 11.5.1 Middle East
    - 11.5.1.1 Saudi Arabia
    - 11.5.1.2 United Arab Emirates
    - 11.5.1.3 Qatar
    - 11.5.1.4 Israel
    - 11.5.1.5 Rest of Middle East
  - 11.5.2 Africa
    - 11.5.2.1 South Africa
    - 11.5.2.2 Egypt
    - 11.5.2.3 Morocco
    - 11.5.2.4 Rest of Africa

## **12 STRATEGIC MARKET INTELLIGENCE**

- 12.1 Industry Value Network and Supply Chain Assessment
- 12.2 White-Space and Opportunity Mapping
- 12.3 Product Evolution and Market Life Cycle Analysis
- 12.4 Channel, Distributor, and Go-to-Market Assessment

## **13 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES**

- 13.1 Mergers and Acquisitions
- 13.2 Partnerships, Alliances, and Joint Ventures
- 13.3 New Product Launches and Certifications
- 13.4 Capacity Expansion and Investments

### 13.5 Other Strategic Initiatives

## 14 COMPANY PROFILES

14.1 Signify N.V.

14.2 Itron, Inc.

14.3 Acuity Brands, Inc.

14.4 Current Lighting Solutions, LLC

14.5 Schröder Group

14.6 Telensa

14.7 Flashnet S.A.

14.8 Dimonoff Inc.

14.9 Twilight B.V.

14.10 CIMCON Digital

14.11 Sensus

14.12 Honeywell International Inc.

14.13 Siemens AG

14.14 Schneider Electric SE

14.15 Hubbell Incorporated

List of Tables

Table 1 Global Intelligent Street Lighting Market Outlook, By Region (2023–2034) (\$MN)

Table 2 Global Intelligent Street Lighting Market Outlook, By Lighting Technology (2023–2034) (\$MN)

Table 3 Global Intelligent Street Lighting Market Outlook, By LED (2023–2034) (\$MN)

Table 4 Global Intelligent Street Lighting Market Outlook, By High-Pressure Sodium (2023–2034) (\$MN)

Table 5 Global Intelligent Street Lighting Market Outlook, By Compact Fluorescent (2023–2034) (\$MN)

Table 6 Global Intelligent Street Lighting Market Outlook, By Induction (2023–2034) (\$MN)

Table 7 Global Intelligent Street Lighting Market Outlook, By Other Lighting Technologies (2023–2034) (\$MN)

Table 8 Global Intelligent Street Lighting Market Outlook, By Control Technology (2023–2034) (\$MN)

Table 9 Global Intelligent Street Lighting Market Outlook, By Dimming and Adaptive Lighting (2023–2034) (\$MN)

Table 10 Global Intelligent Street Lighting Market Outlook, By Remote Monitoring and Control (2023–2034) (\$MN)

Table 11 Global Intelligent Street Lighting Market Outlook, By Motion and Occupancy-

Based Control (2023–2034) (\$MN)

Table 12 Global Intelligent Street Lighting Market Outlook, By Daylight-Based Control (2023–2034) (\$MN)

Table 13 Global Intelligent Street Lighting Market Outlook, By Centralized Lighting Management (2023–2034) (\$MN)

Table 14 Global Intelligent Street Lighting Market Outlook, By Communication Technology (2023–2034) (\$MN)

Table 15 Global Intelligent Street Lighting Market Outlook, By NB-IoT (2023–2034) (\$MN)

Table 16 Global Intelligent Street Lighting Market Outlook, By Powerline Communication (2023–2034) (\$MN)

Table 17 Global Intelligent Street Lighting Market Outlook, By Radio Frequency (2023–2034) (\$MN)

Table 18 Global Intelligent Street Lighting Market Outlook, By LoRa and LPWAN (2023–2034) (\$MN)

Table 19 Global Intelligent Street Lighting Market Outlook, By Cellular (2023–2034) (\$MN)

Table 20 Global Intelligent Street Lighting Market Outlook, By Other Communication Technologies (2023–2034) (\$MN)

Table 21 Global Intelligent Street Lighting Market Outlook, By Application (2023–2034) (\$MN)

Table 22 Global Intelligent Street Lighting Market Outlook, By Traffic Optimization (2023–2034) (\$MN)

Table 23 Global Intelligent Street Lighting Market Outlook, By Environmental Monitoring (2023–2034) (\$MN)

Table 24 Global Intelligent Street Lighting Market Outlook, By Smart Parking (2023–2034) (\$MN)

Table 25 Global Intelligent Street Lighting Market Outlook, By Public Safety and Security (2023–2034) (\$MN)

Table 26 Global Intelligent Street Lighting Market Outlook, By Energy Management (2023–2034) (\$MN)

Table 27 Global Intelligent Street Lighting Market Outlook, By Urban Infrastructure Monitoring (2023–2034) (\$MN)

Table 28 Global Intelligent Street Lighting Market Outlook, By Energy Source (2023–2034) (\$MN)

Table 29 Global Intelligent Street Lighting Market Outlook, By Grid-Connected (2023–2034) (\$MN)

Table 30 Global Intelligent Street Lighting Market Outlook, By Solar-Powered (2023–2034) (\$MN)

Table 31 Global Intelligent Street Lighting Market Outlook, By Hybrid Renewable Energy (2023–2034) (\$MN)

Table 32 Global Intelligent Street Lighting Market Outlook, By End User (2023–2034) (\$MN)

Table 33 Global Intelligent Street Lighting Market Outlook, By Municipalities and Government (2023–2034) (\$MN)

Table 34 Global Intelligent Street Lighting Market Outlook, By Commercial (2023–2034) (\$MN)

Table 35 Global Intelligent Street Lighting Market Outlook, By Industrial (2023–2034) (\$MN)

Table 36 Global Intelligent Street Lighting Market Outlook, By Residential and Community Infrastructure (2023–2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) Regions are also represented in the same manner as above.

## I would like to order

Product name: Intelligent Street Lighting Market Forecasts to 2034 – Global Analysis By Lighting Technology (LED, High-Pressure Sodium, Compact Fluorescent, Induction, and Other Lighting Technologies), Control Technology, Communication Technology, Application, Energy Source, and By Geography

Product link: <https://marketpublishers.com/r/I44050A4896EEN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/I44050A4896EEN.html>