

# Smart Control

## For Road & Street Lighting



Innovative & Tailored  
Lighting Solutions for **Success**  
[www.aokledlight.com](http://www.aokledlight.com)



## Brief Introduction of **AOK**



**40+**

R&D engineers team

**200+**

Patent certificates

**50%+**

Energy consumption reduction

**100+**

Countries clients served

**20,000+**

Projects successfully installed

## Layout Globally to Serve Clients



Help Customers  
for Our **Top** Mission

**20000m<sup>2</sup>+**  
Production Base

**Sophisticated**  
R&D Team

**International**  
Utility Patents

**Professional** QC  
Testing & Lab

**Globally**  
Certificated

**Oversea**  
Warehouses

**International**  
Strategic Partners

# Smart Connectivity for a Sustainable Future



Zhaga  
Supported



Nema / LoRa  
Socket



DALI Control



Photocell



3G/4G  
Connection



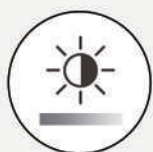
Microwave



PIR



NB-IoT  
Connection



Dimming  
Customization



ZigBee  
Control



Casambi  
Supported



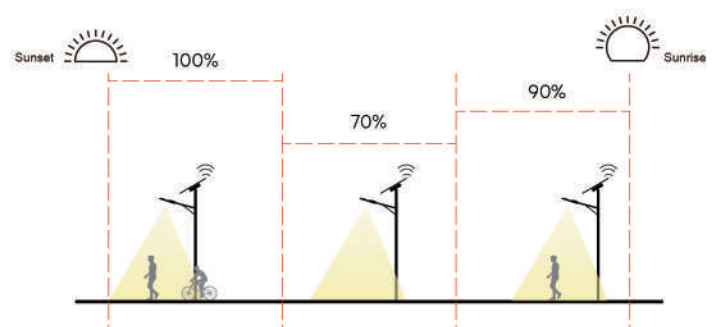
# Smart Lighting Control Ready

A range of smart control options meets diverse needs, from individual luminaire management to overseeing entire installations, ensuring flexibility for different requirements.



## Right Timing and Dimming Control

With specialized control systems, luminaires can dim to preset levels at night when occupancy is low, and return to full output as required.

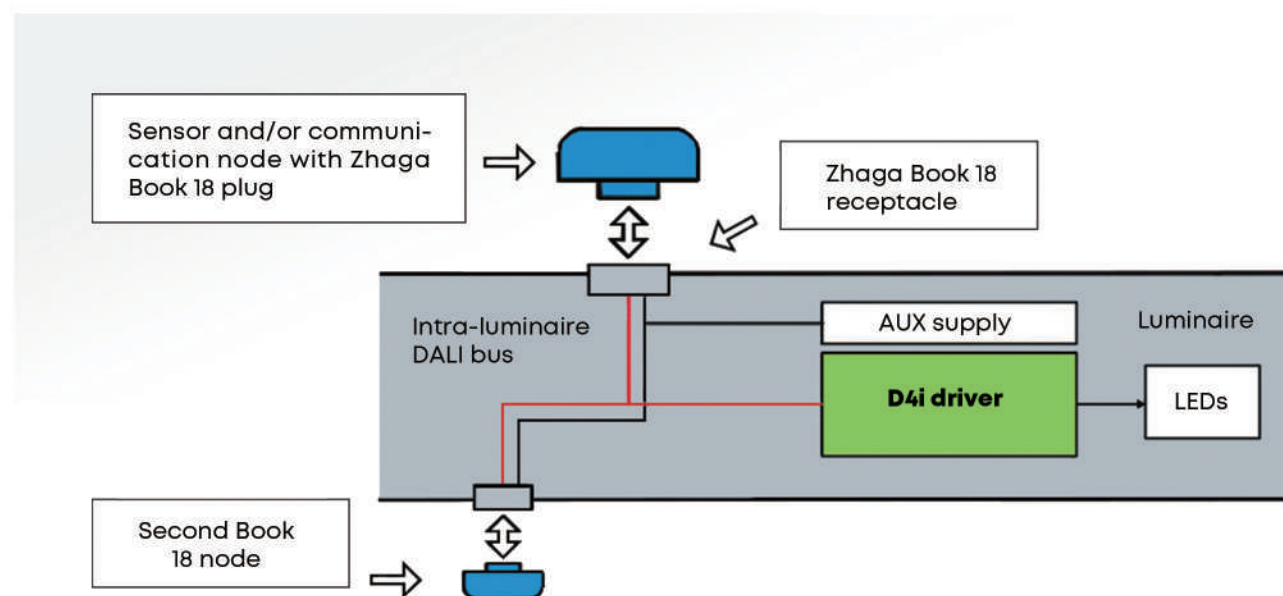


## NEMA Socket Optional

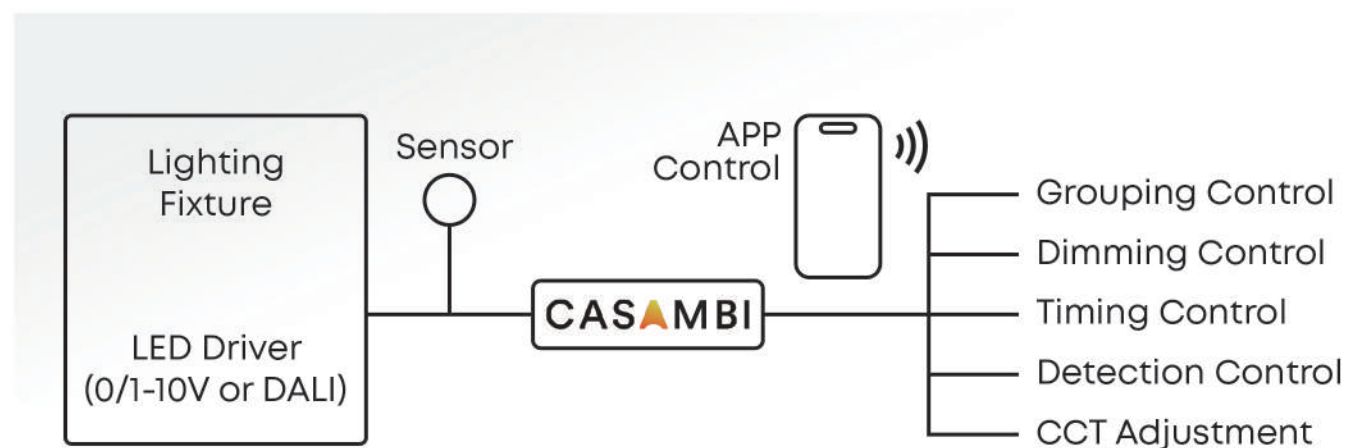
Products with NEMA sockets allow for easy integration of sensors and controls into luminaires, enhancing smart control and seamless integration with lighting management systems.



## Outdoor Luminaire with Zhaga Receptacles Optional

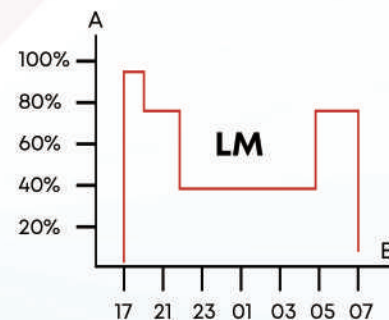


## Casambi Ready (optional)



## Custom Dimming Profile

Smart luminaire drivers enable the programming of complex dimming profiles without extra wiring. Customized time intervals and light levels contribute to maximum energy savings, maintaining required lighting levels and uniformity throughout the night.



## Daylight Sensor / Photocell

Photocell or daylight sensors switch the luminaire on as soon natural light falls to a certain level. It can be programmed to switch on during a storm, on a cloudy day (in critical areas) or only at nightfall so as to provide safety and comfort in public spaces.



## Smart standards. Smarter lighting.

LoRaWAN® Luminaire Controller Zhaga is a wireless device for remote LED luminaire control with a Zhaga-compliant connector and DALI interface. It's compatible with LoRaWAN®, NB-IoT, and LTE-M networks, featuring a modern, compact design suitable for various street lighting modules.

LoRaWAN® Luminaire Controller NEMA is designed for LED luminaires with an ANSI C136.41 NEMA receptacle. It controls the luminaire through DALI or 0-10V analog interfaces and provides a secure power connection with three robust twist lock contacts.

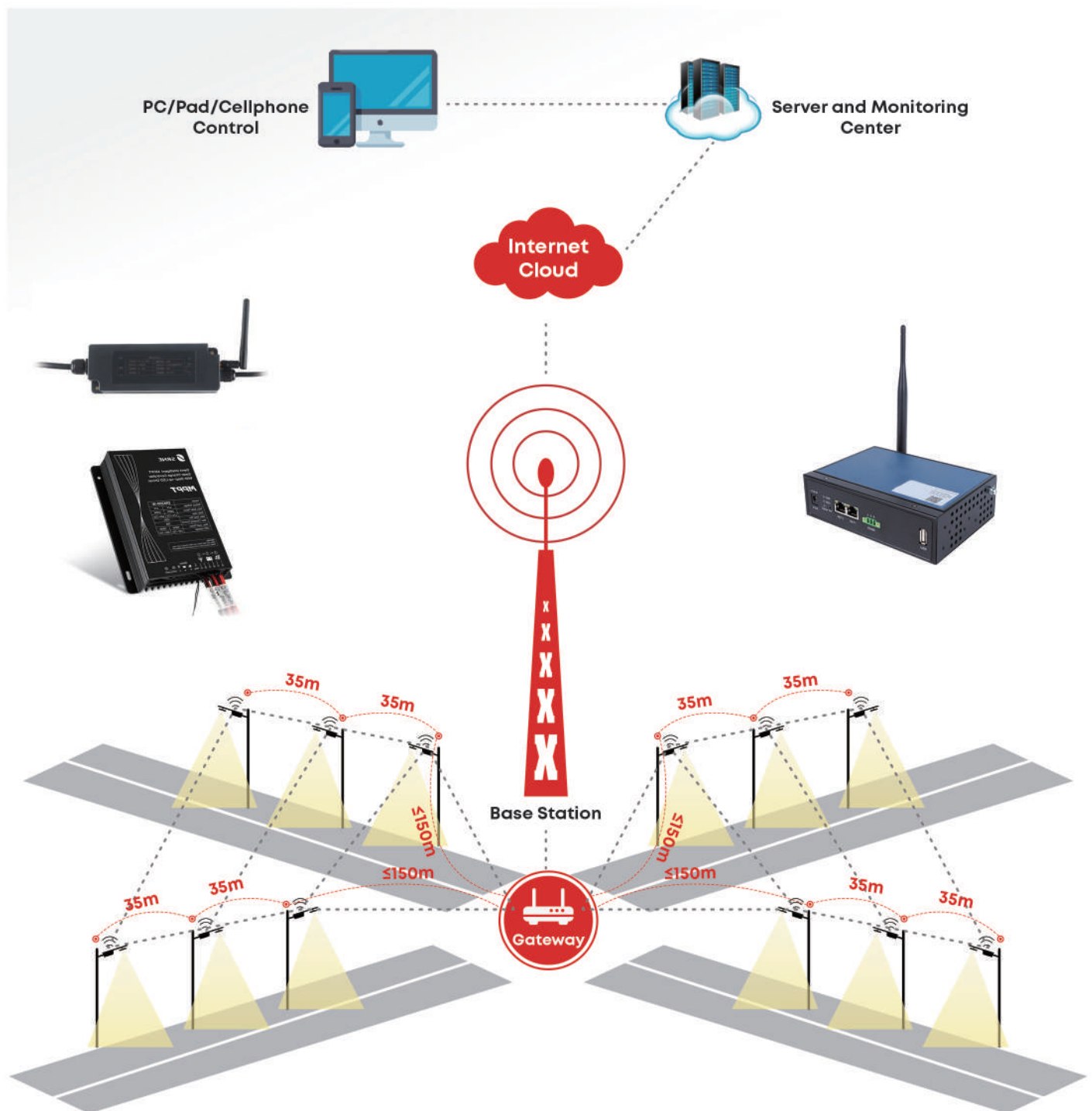


# Comparison of Different Wireless Protocols

Wireless network type	4G/3G	Zigbee	Lora	NB-iot	PLC
Networking mode	Based on carrier	Based on Zigbee	Based on Lora	Based on Zigbee	Based on power line
Frequency band	Operator frequency band	2.4G	433M/868M	Operator frequency band	Wiring
Anti-interference	Strong	Regular	Strong	Strong	Strong
Distance	Operation based on 4G base station coverage	500m, relay 1.5km	Radius 1.5-2km	18-30km	1000m
Cost	High	Regular	Low	Low	Low
Field of fit	Road & street lighting, factory lighting, solar lighting	Road & street lighting, Tunnel lighting, factory lighting, solar lighting	Road & street lighting, Tunnel lighting, factory lighting, solar lighting	Road & street lighting, solar lighting	Grid powered lighting



# Application of Typical IoT Networking (ZigBee)



## Application Guidelines:

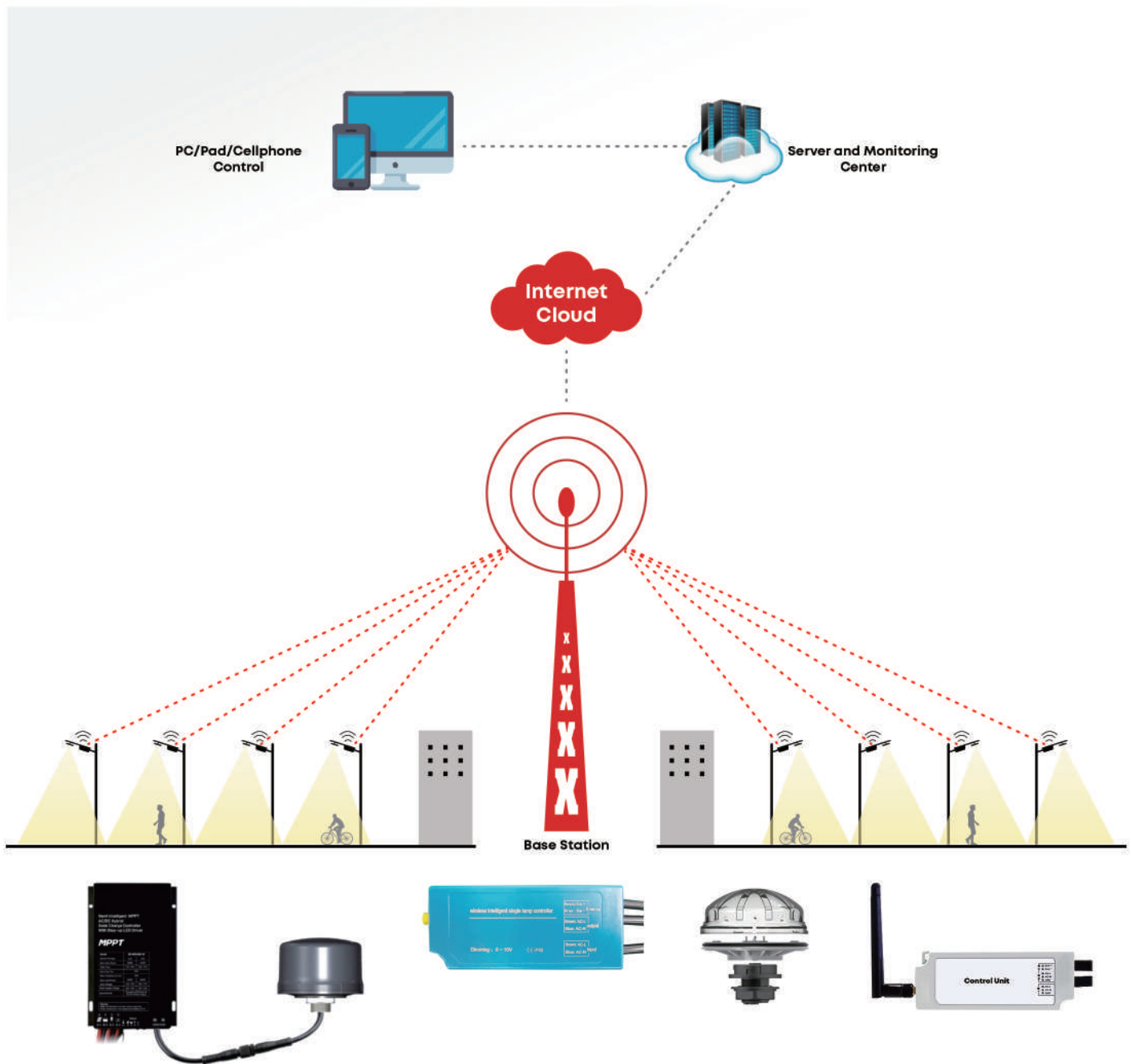
For densely arranged lamps, place the gateway centrally. When the distance between lamps is approximately 35m and the coverage radius is around 1.5km, the Zigbee mesh network performs optimally.

Ensure the distance between the gateway and the nearest lamp is within 150m whenever possible.

For irregular lamp layouts or uneven terrain, increase the number of gateways as needed based on signal testing and debugging results.



# Application of Typical IoT Networking (3G/4G)



## Application Guidelines:

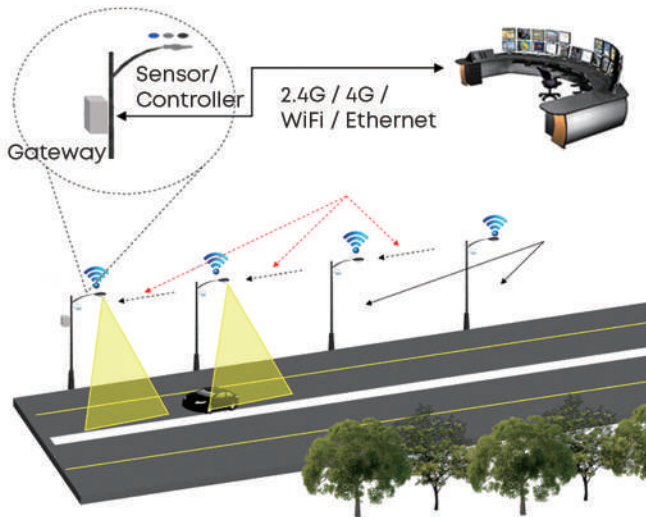
Each lamp is equipped with an independent 4G communication module, operating separately from base station communication.

It offers long communication distances, relying on the operator's signal coverage.

The communication signal is stable, and the product is competitively priced, making it ideal for high-end projects.

# Smart Connectivity for a Sustainable Future

## Cloud Control and Compatibility



By using the cloud platform, the control center manages group switching period, dimming, data, status, monitoring, etc

AOK adopts a technology-agnostic approach, leveraging open standards and protocols to create a system architecture that integrates effortlessly with third-party software and hardware solutions. Our control system is designed for full interoperability, enabling the following capabilities:

Control luminaires from other brands.

Manage controllers and integrate sensors from various manufacturers.

Connect seamlessly with third-party devices and platforms.

## Mobility Can Be Managed at Any Time



**EASY TO USE**

**QUICK AND  
EASY PAIRING**

**DEFINING  
THE SETTINGS**

**MANUAL  
DIMMING  
CONTROL**

**ON-SITE  
DIAGNOSTIC**



# Connecting Future Together

