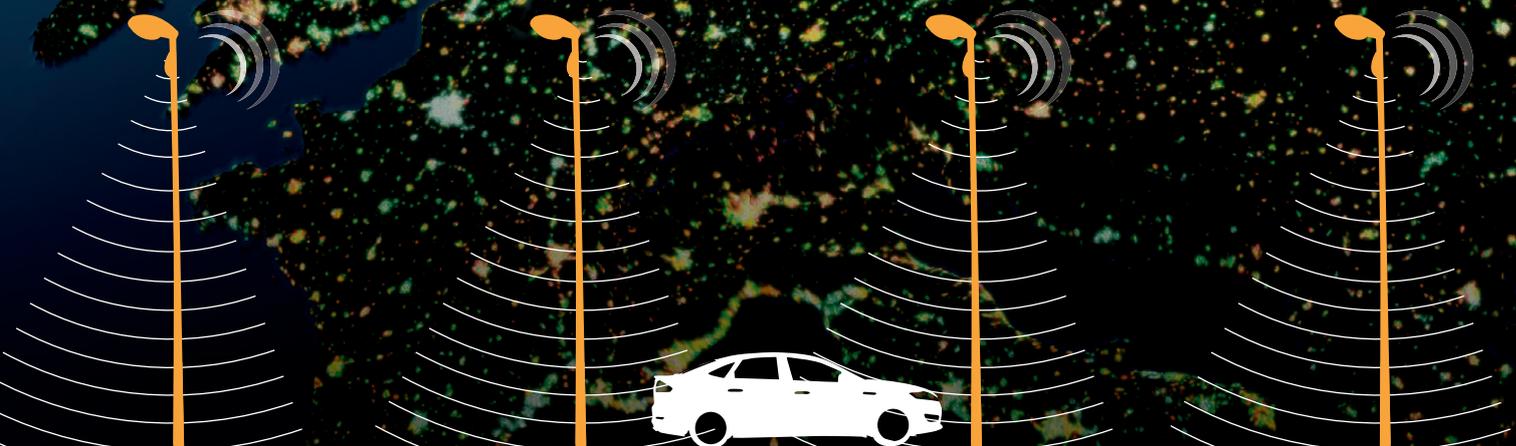
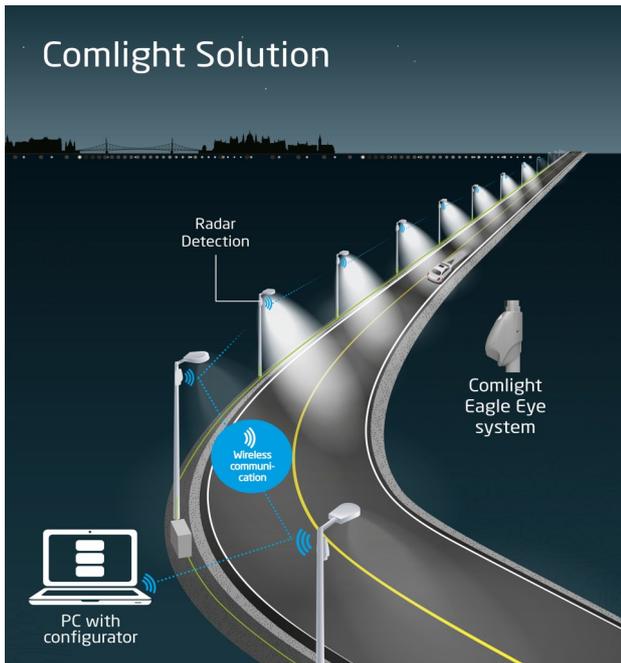


Comlight

Motion Sensing Street Lighting





Eagle Eye is the first and most universal motion sensing control system for outdoor lighting. The system provides light only when and where it is needed, giving optimized energy savings without compromising the safety.

SYSTEM

Eagle Eye is an intelligent motion sensing control system that automatically activates as soon as vehicles or pedestrians are detected in the area. When no activity, the light is set to an optional minimal light level. Eagle Eye can work as a completely stand-alone system, simply install and forget, save energy and maintain safety.

Eagle Eye can optionally be connected to a complete control management system through GPRS connection.

System operation:

- One Eagle Eye unit on each light
- Unique radar technology for detection

- RF communication between units for forward light trigger, creating a "light wave". System can be set up with optional number of poles to be activated when movement is detected
- Optional GPRS for system set-up and statistical data: one Eagle Eye unit per installation (>250 units) will include a GPRS module for communication to remote CMS

KEY FUNCTIONALITIES

- High end system and sophisticated software for Motion Detection
- Stand-alone system or connected to complete CMS
- System differentiate between slow moving and fast moving objects
- Comlight adaptive noise cancellation system
- Connects to all dimmable drivers/ballasts

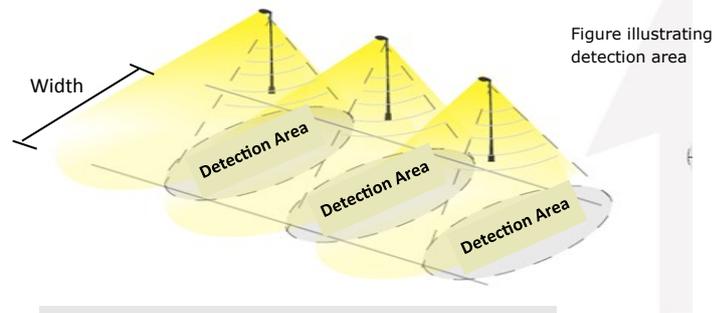
INSTALLATION

Eagle Eye can be retrospectively fitted to existing equipment or can be installed at the same time as the installation is all being replaced or upgraded.

Eagle Eye suits various heights or diameters of pole and varying distances between the poles.

DETECTION

- System will detect objects moving from ~2km/h to 200km/h
- Comilight detection algorithms separate object detection into two separate data channels for slow and fast moving objects. This gives the possibility to customize settings like:
 - * Light levels when detection in different channels
 - * Number of light poles activated around different objects
- Detection area will cover all normal light pole installations



Height of light pole	Typical detection width for pedestrians	Typical detection width for vehicle at 40 km/h
4m	~8m	~15m
8m	~10m	~18m
10m	~12m	~20m

Numbers for detection

TECHNICAL DATA

- Supply voltage: Nominal 100-240 VAC, Range 90 - 264V (universal input) 47 - 63 Hz
- Power consumption: 1,5W (peak 4 W with GPRS module)
- Operating temperature: -30°C to + 60°C
- Sensor: Doppler radar
- RF communication: 900 MHz band (ISM), programmable up to +12 dBm (integrated antenna)
- Protective system: IP 66
- Housing material/colour: UV resistant thermoset plastic, Grey (RAL 7035)
- Dimensions: Height 295 mm, with 106 mm, depth 189 mm (with optional rear cover)
- Cable connector: 7 wires. Length standard 1 meter. Extra cable per request

GPRS (Optional)

Allows remote access for parameter settings and information retrieval (see Luminizer information).

SIM card to be locally provided for the GPRS units.

Remote retrieval of statistical data, e.g:

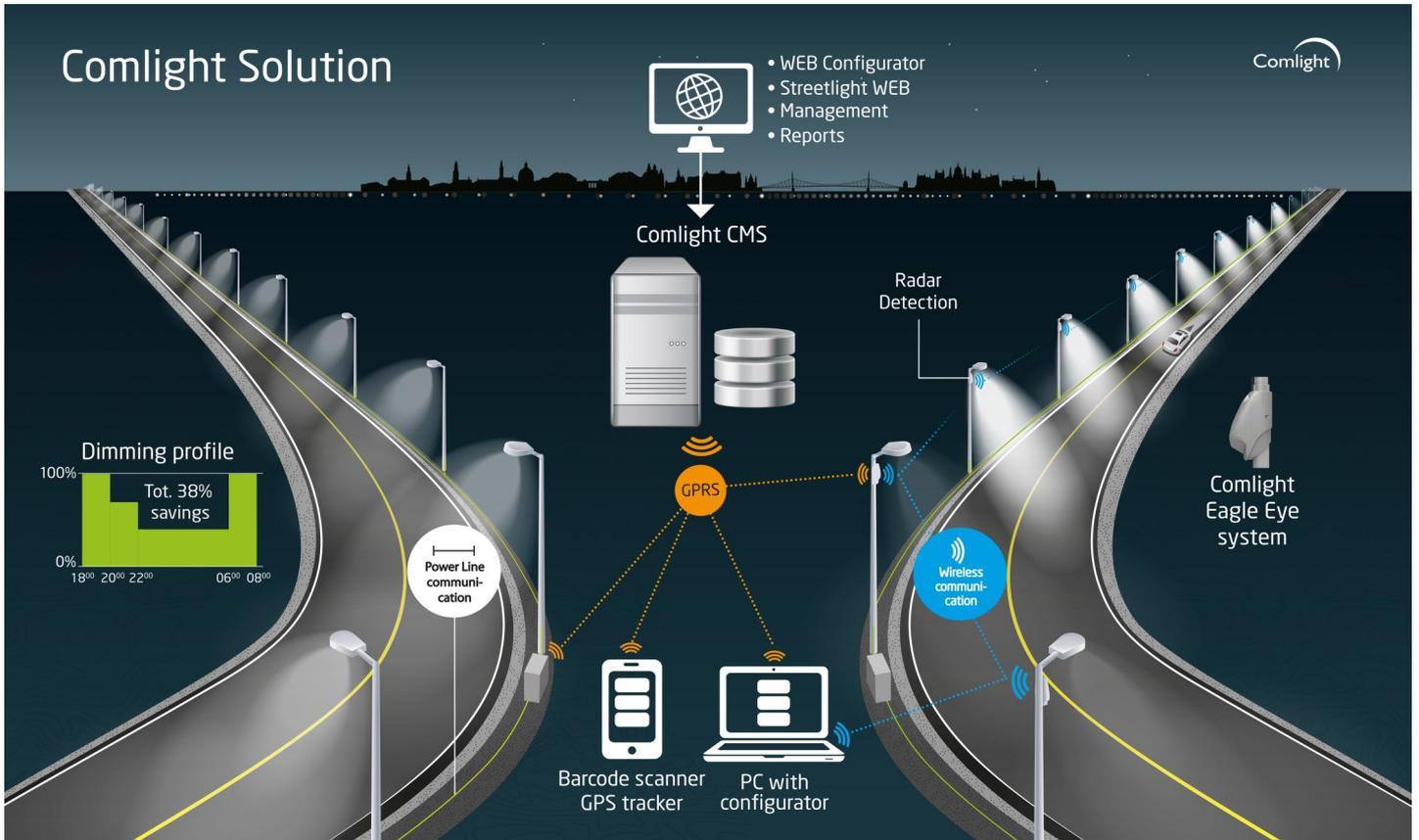
- Time the lamp has been at high or low light level

PARAMETER SETTINGS

Adjustable parameters like:

- Number of light points forward to be triggered from detecting unit in both fast and slow detection channel
- Light level when traffic is detected
- Light level when no traffic is detected
- Settings for rush-hour traffic, e.g. temporary high level intensity at pre-set times of day, evening or night
- Crossroad or junction handling
- Time to keep high light level when traffic is detected

Maximum Safety Minimal Energy



Comlight is best known for its unique motion sensing streetlight control system and its energy saving without compromising safety.

Open system architecture makes Integration easy and a robust SQL database makes the system scalable to meet any future growth.

Start with our stand alone system based on wireless communication and detection and grow into a full fledge solution with a central management system, or use our power line communication system where most favorable and take advantage of its specific benefits. Combine different modules to fit specific needs.

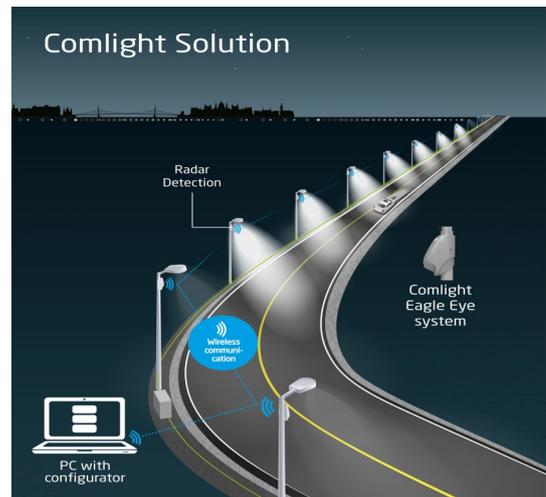
*Commissioning and control can be done locally or remotely over web services. **Install and forget** or use the Central Management System (CMS) for data retrieval and future surveillance and maintenance planning. Stay in control of the total streetlight installation and reduce total cost of ownership.*

EAGLE EYE

Activity based street lighting is the concept of the future. Full illumination when needed but dimmed or turned off when no one around. Traditional dimming profiles becomes obsolete as Eagle Eye adapt to the actual situation and not some historical data.

- Motion detection by microwave detector (radar)
- Adaptive and learning digital filter for noise cancellation
- Wireless communication in a relayed network
- Speed detection range 2-200 km/h
- Install and forget -- or connect

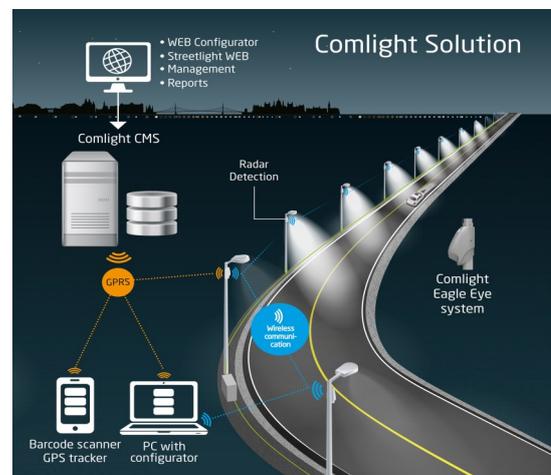
Eagle Eye can easily be connected to LUMINIZER – Comlight CMS or be interfaced to any 3rd party software.



LUMINIZER – COMLIGHT CMS

LUMINIZER is the Comlight Central Management System (CMS). Use it for remote configuration at commissioning only, or have the total installation. It offers full control of the streetlight installation from commissioning to daily operations and planned maintenance activities. Web interface to the public for lamp failure reporting, if not already reported by the connected system itself.

- Fully integrated with Eagle Eye and Luminyx
- Expert engine to assist streetlight monitoring
- Integrated with Google maps
- Remote connection over TCP/IP (GPRS)



LUMINYX

Lamp and segment controller system for *LONWORKS*[®] powerline communication.

- Programmable dimming profiles and astrological clock
- Integrated meter in lamp controllers
- Extensive monitoring functionality, data-logging and alarm handling

LUMINIZER is the Comlight Central Management System (CMS). Use it for remote configuration at commissioning only, or have the total installation, with its status and history, in the database.



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COMMISSIONING & MAINTENANCE TOOLS

Easy commissioning onsite or remotely after installer has traced the serial number and geo positioning via the handheld commissioning unit. This unit may afterwards be used as a maintenance tool for task administration.

Maximum Safety Minimal Energy