# Comlight Eagle Eye 3.0 datasheet

Eagle Eye is an intelligent Motion Sensing Street Lighting control system based on radar detection. The system automatically activates the lights as soon as there is movement in the area, providing full light ahead and dims down for energy saving when no-one is around.

The Comlight system use radio communication to link light controllers together in an intelligent and autonomous system that provide pedestrians, cyclists and vehicles full light when and where needed. The system saves energy, saves the environment while providing safe roads and outdoor areas.

## Technical data

**Electrical**

| | |
|---|---|
| Supply Voltage | 100-240 VAC, 47-63Hz |
| Power Consumption | 1.5W (peak 4W with Gateway unit) |
| Maximum Load | 16A |

**Dimming Control Output**

| | |
|---|---|
| Digital | DALI |
| Analog | 1-10V |
| Step DIM | Relay Control |
| Insulation Classification | Basic |

**RF Communication**

| | |
|---|---|
| Frequency | 868.35 MHz |
| Output Power | ≤16 dBm (39.81 mW) |

**Motion Detection using K-Band Radar**

| | |
|---|---|
| Frequency | 24.050 - 24.250GHz |
| Output Power | ≤12 dBm (15.85 mW) |
| Sensor | Doppler Radar (movement detector) |

**Mechanical**

| | |
|---|---|
| Operating temp. range | -30 to +55 °C |
| Protection Type | IP66 electronics chamber,<br>IP44 outer connector |
| Insulation Material | PVC, UV Resistant |
| Housing Material | Luran S KR 2867 C WU (PC and ASA) - blend |
| Colour | RAL7001 Silver Gray |
| Dimensions | Height 291mm, Width 100mm, Depth 120mm |
| Weight | 680g |

**System Options**

- A: Gateway alt. 1 (LTE Cat-1, UMTS/HSPA, GSM/GPRS/EDGE)
- B: Gateway alt. 2 (LTE Cat-M1, NB-IoT, GSM/GPRS/EDGE)

**System Requirements**

Luminaire must support instant dimming and light level commands must be able to overrule any pre-programmed scheduled dimming profiles.

## Standards

Product is labelled with CE mark and has been tested according to the following standards:

**RoHS & WEEE**
Directive 2011/65/EU, Directive 2012/19/EU, Directive 2009/125/EC

**Safety**
IEC 61347-2-11 (First Edition):2001 used in conjunction with EC 61347-1:2015 (Third Edition)

**EMC**
ETSI EN 301 489-01:V2.1.1, Final draft ETSI EN 301 489-03:V2.1.1 Draft ETSI EN 301 489-51:V2.1.0 ETSI EN 301 908-01:V11.1.1, ETSI EN 301 908-13:V11.1.2
ETSI EN 300 440:V2.1.1

**Radio**
ETSI EN 300 220-1 V3.1.1 (2017-02) ETSI EN 300 220-2 V3.1.1 (2017-02)

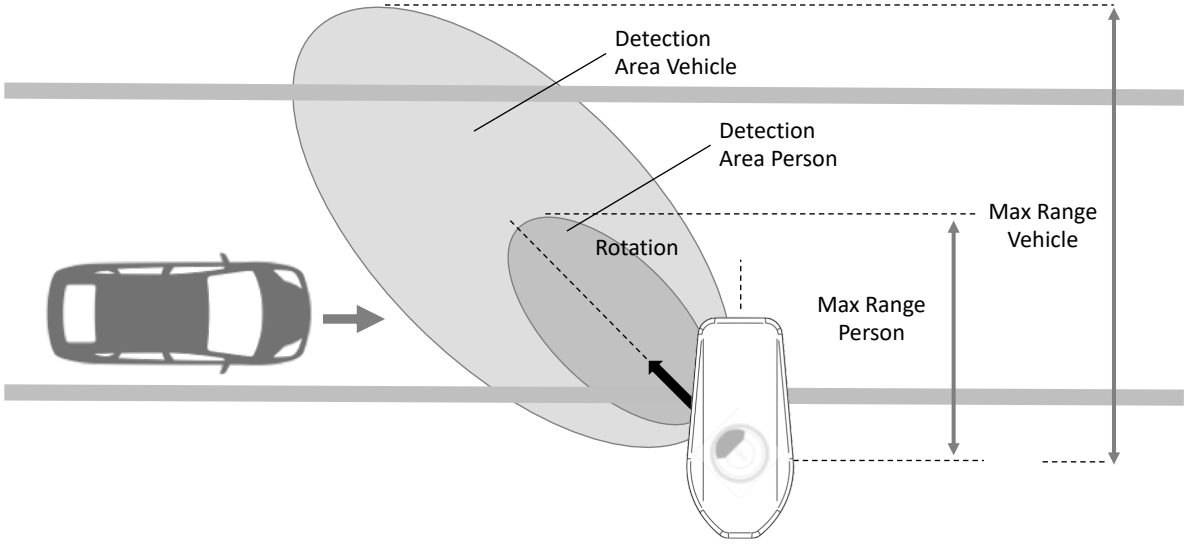
Comlight radar detectors are defined as Short Range Devices according to CEPT/ECC ERC recommendation 70-03, edition of February 2014.

# Cable Connection

Cable Connection: < 4-wire, Ø6 - 12mm, 1.0 - 2.5 $mm^2$ wire

| Wire numbering / color | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Controls | | Step | AC-EM | AC-L1 | AC-N | -DALI -(1-10V) | +DALI | +(1-10V) |
| 4-wire cable | Step | 3/BK | | 1/BN | 2/BU | | | |
| | DALI | | | 1/BN | 2/BU | 3/GY | 4/BK | |
| | 1-10V | | | 1/BN | 2/BU | 3/GY | | 4/BK |

# Detection capabilities




| Horizontal range in meters at 45° radar angle | | | | | | |
|---|---|---|---|---|---|---|
| Mounting height | **High Sensitivity (default)** | | **Medium sensitivity** | | **Low sensitivity** | |
| | Range Person | Range Vehicle | Range Person | Range Vehicle | Range Person | Range Vehicle |
| 4 m | 6 m | 8 m | 6 m | 8 m | 6 m | 7 m |
| 6 m | 7 m | 12 m | 6 m | 10 m | 6 m | 9 m |
| 8 m | 4 m | 16 m | 4 m | 13 m | 2 m | 12 m |
| 10 m | | 20 m | | 14 m | | 13 m |

Vegetation in front of the sensor should be avoided to minimize risk of false detections.