



Cyrus AM

AC Powered Wireless Microwave
Motion & Light Sensor



Product Overview

Cyrus AM is a BLE5.2 controllable high bay Microwave motion and daylight sensor. This sensor operates on a 90-277VAC input voltage range adopts a 5.8GHz Microwave sensing technology for accurate motion detection. It can be mounted at a maximum height of 7m(23ft) and provides a maximum detection range of 17m(55.8ft) diameter. The sensor can be mounted to the ceiling or at the surface using ceiling or surface mount accessories. It can be quickly commissioned, configured, and controlled from any mobile device and can be connected to Lumos Controls cloud for data analytics and configuration management.

The Lumos Controls ecosystem comprises controllers, sensors, switches, modules, drivers, gateways, and analytical dashboards. It is listed by the **Design Lights Consortium (DLC)**, qualifying it for energy conservation incentive programs and rebates by utility companies.

Specifications

Electrical

| Specifications | Value | Remarks |
|-----------------|--------------------------|------------|
| Input voltage | 90-277VAC | |
| Input current | 9mA | 9mA@230VAC |
| | 25 mA | 15mA@90VAC |
| Frequency | 50-60Hz | |
| Inrush current | 4A | |
| Surge rating | 4kV | |
| Standby current | 22mA @110V 14mA @230v | |

Environmental

| Specifications | Value |
|---------------------|----------------------|
| Ambient temperature | 0-80°C (32 to 176°F) |
| Case temperature | 70°C (158°F) |
| Relative humidity | 20-85% |

Features

- High-bay motion and daylight sensor, with mounting height up to 12m(39.4ft)
- BLE 5.2 based non flooding wireless communication
- 90-277VAC universal AC input voltage range
- 5.8GHz Microwave sensor for accurate motion detection
- Motion detection range up to 17m(55.8ft) diameter

Bluetooth

| Specifications | Value | Remarks |
|--|--------------|--|
| Frequency range | 2402-2480MHz | |
| Max output power | 8dBm | Conductive |
| Receive sensitivity | -95dBm | |
| Connection distance (device to device) | 45m(147ft) | Vary depending on the installation environment |

Mechanical

| Specifications | Value | Remarks |
|---------------------|------------------------------------|---|
| Dimension | Excluding accessories | 2.3 X 2.5in (59.8 X 63.1mm) Diameter x Height |
| | Ceiling mount accessories WMAM-CMK | 3.53 x 2.62in (89.7 x 66.8mm) Diameter x Height |
| | Surface mount accessories WMAM-SMK | 4.32 x 2.80in (109.8 x 71.2mm) Diameter x Height |
| Net weight | 85g(3.0oz) | |
| Case material | ABS Plastic | White |
| Flammability rating | UL 94 5VA | |

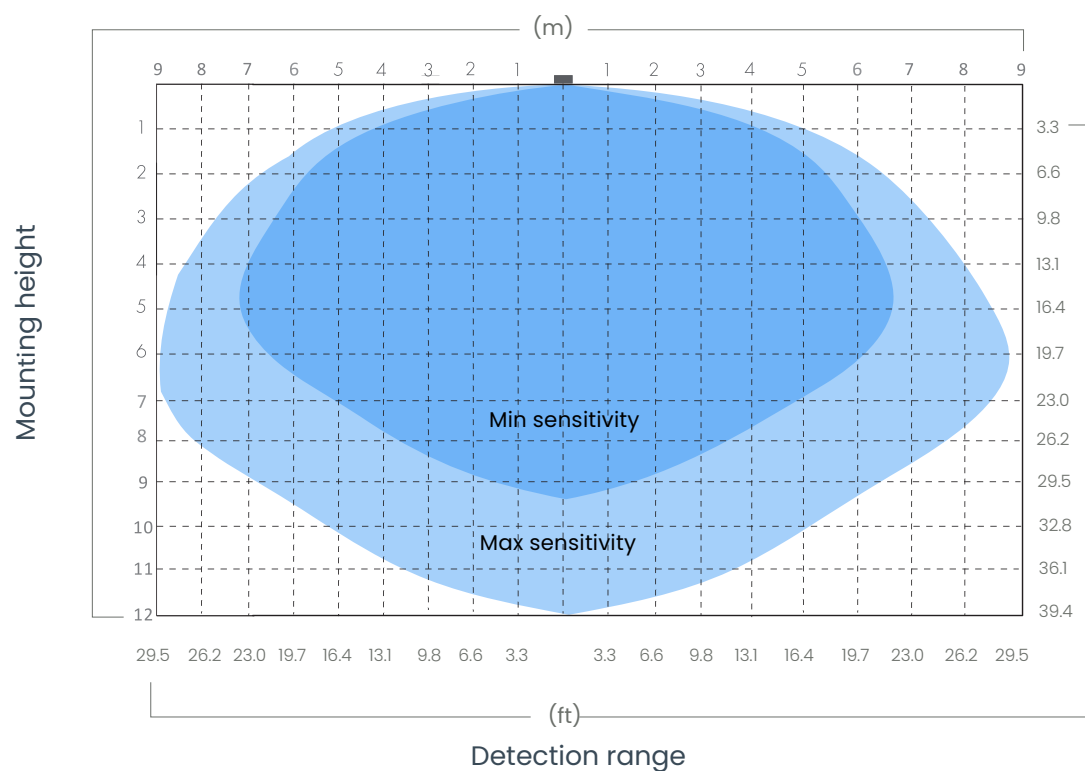
Light Sensor

| Specifications | Value | Remarks |
|---------------------------|--------------|-------------------|
| Dynamic Illuminance range | 0 to 2000lux | |
| Default range setting | 19-512lux | User programmable |
| Illuminance accuracy | ±10% | |

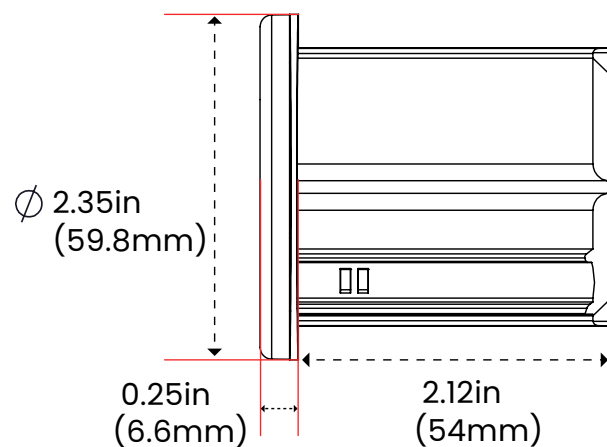
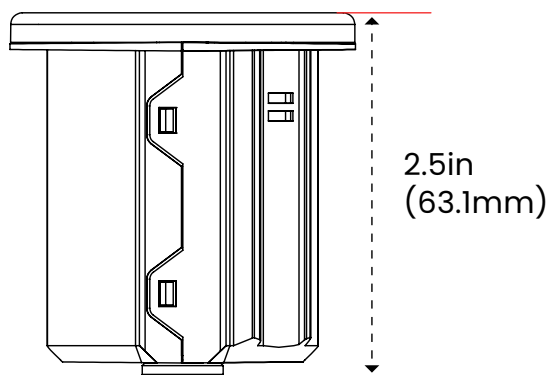
Microwave Motion Sensor

| Specifications | Value | Remarks |
|---------------------|-------------------------|--|
| Mounting height | 13.1-22.9ft (4-7m) | Use 19.8-23ft(6-7m) height for best output |
| Max detection range | 55.7ft (17m) | Diameter, @19.8ft(7m) mounting height |
| Max coverage area | 2732.5sq.ft(254.32sq.m) | Area, @19.8ft(7m) mounting height |

Motion Sensor Characteristics

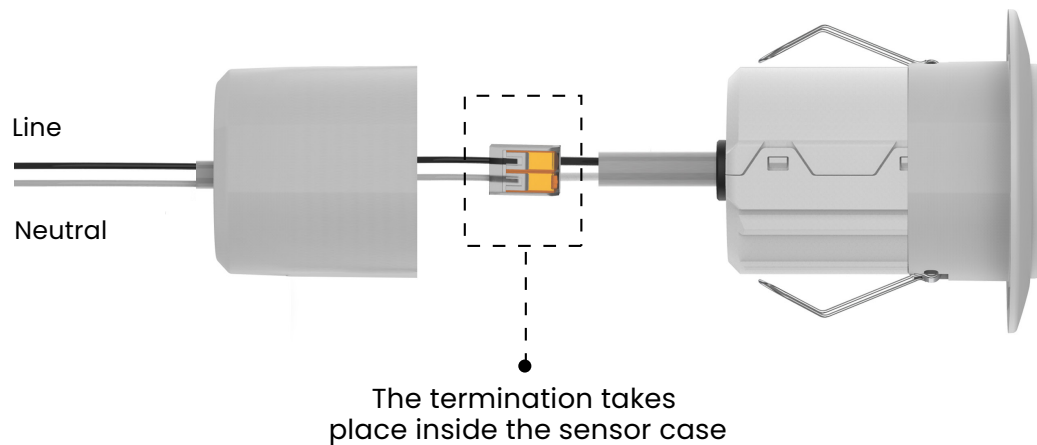


Product Dimensions (Excluding accessories)



Wire Description

Cyrus AM is powered via AC supply to communicate sensor data wirelessly with other WiSilica BLE mesh devices.



Note:

Additional junction box is not required for the sensor as the termination will happen inside the sensor case.

| Pin | Name | Color | Guage | Rating | Description |
|-----|---------|-------|------------------------------|--------|----------------------|
| 1 | Line | Black | 18AWG (0.75mm ²) | 300V | 90-277VAC input line |
| 2 | Neutral | White | 18AWG (0.75mm ²) | 300V | AC input neutral |

Antenna Information

1) Flat patch antenna

**For WMAM-SMK*



| Antenna Properties | |
|--------------------|---------------|
| Frequency range | 2.4GHz-2.5GHz |
| Impedance | 50Ω Nominal |
| VSWR | 1.92:1 Max |
| Return loss | -10dB Max |
| Gain(peak) | 1.5dBi |
| Cable loss | 0.3dBi Max |
| Polarization | Linear |

2) 150mm wire antenna

**For WMAM-CMK*



| Antenna Properties | |
|--------------------|---------------|
| Frequency range | 2.4GHz-2.5GHz |
| Impedance | 50Ω Nominal |
| VSWR | 1.92:1 Max |
| Return loss | -10dB Max |
| Gain(peak) | 1.5dBi |
| Cable loss | 0.3dBi Max |
| Polarization | Linear |

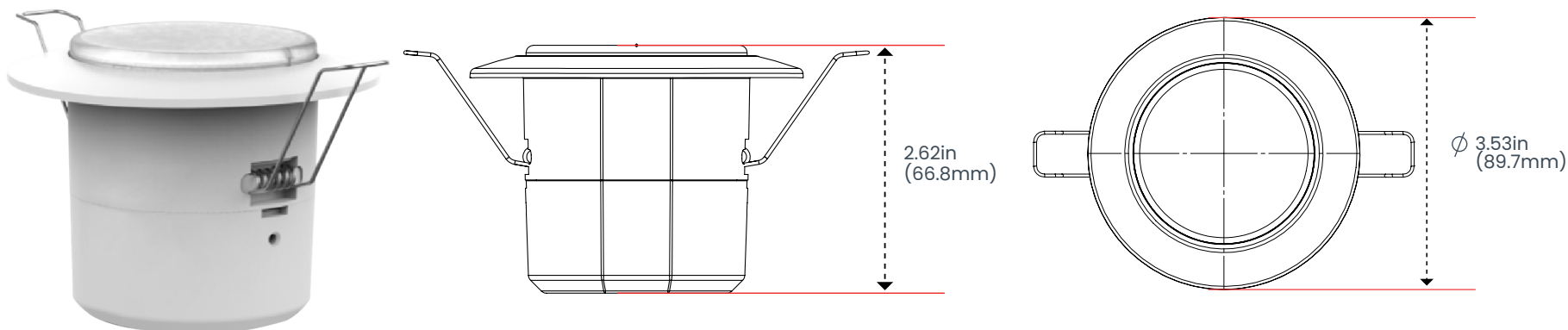
Accessories

Cyrus AM can be mounted to ceiling or at surface using the following mounting accessories.

1. Cyrus AM with ceiling mount accessory (WMAM-CMK)

Dimension: 89.7 x 66.8mm(3.53 x 2.62in) (Top Diameter x Height)

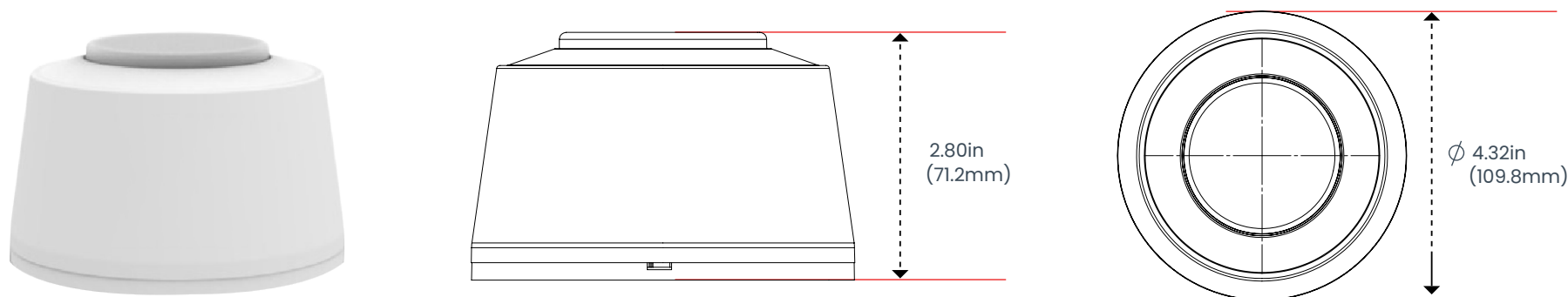
Case Material: UL 94 5VA ABS plastic, White colour



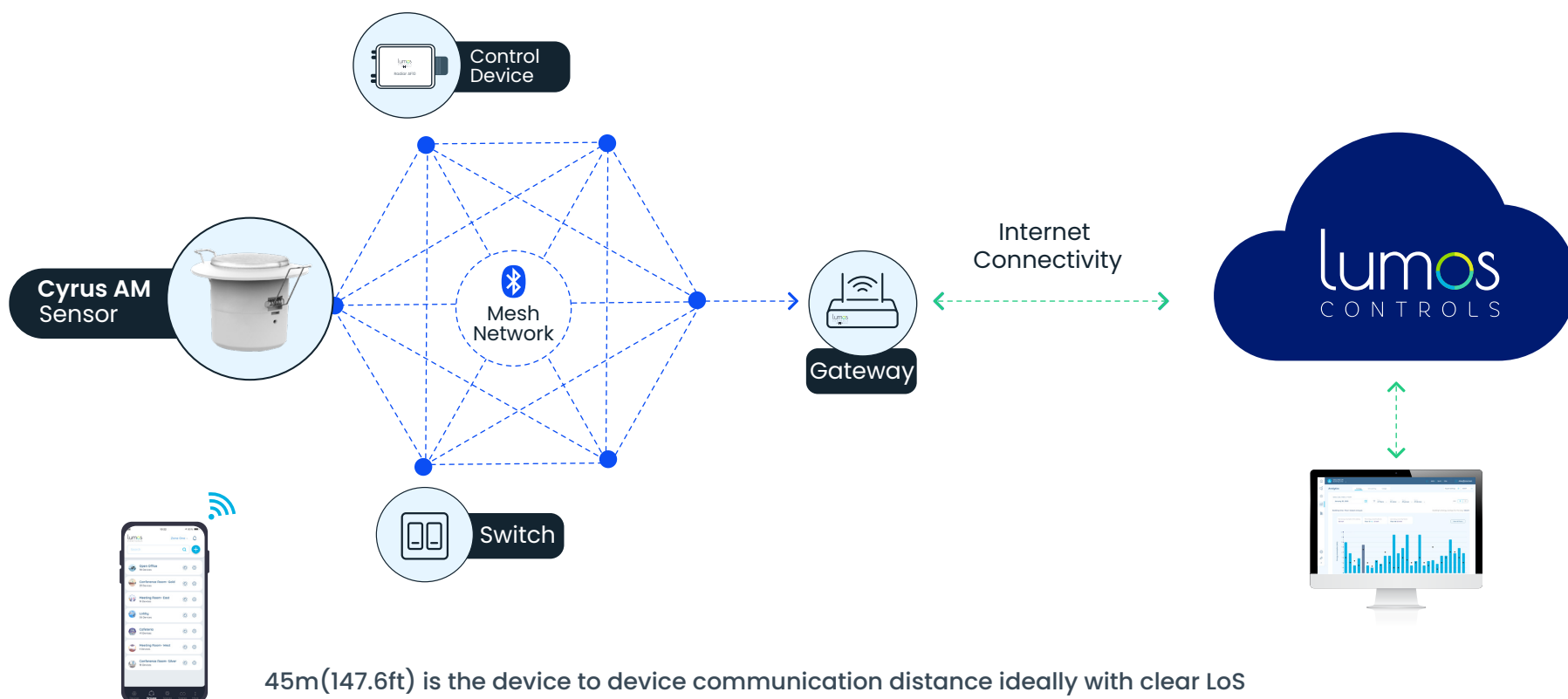
2. Cyrus AM with surface mount accessory (WMAM-SMK)

Dimension: 109.8 x 71.2 mm(4.32 x 2.80in) (Bottom Diameter x Height)

Case Material: UL 94 5VA ABS plastic, White colour

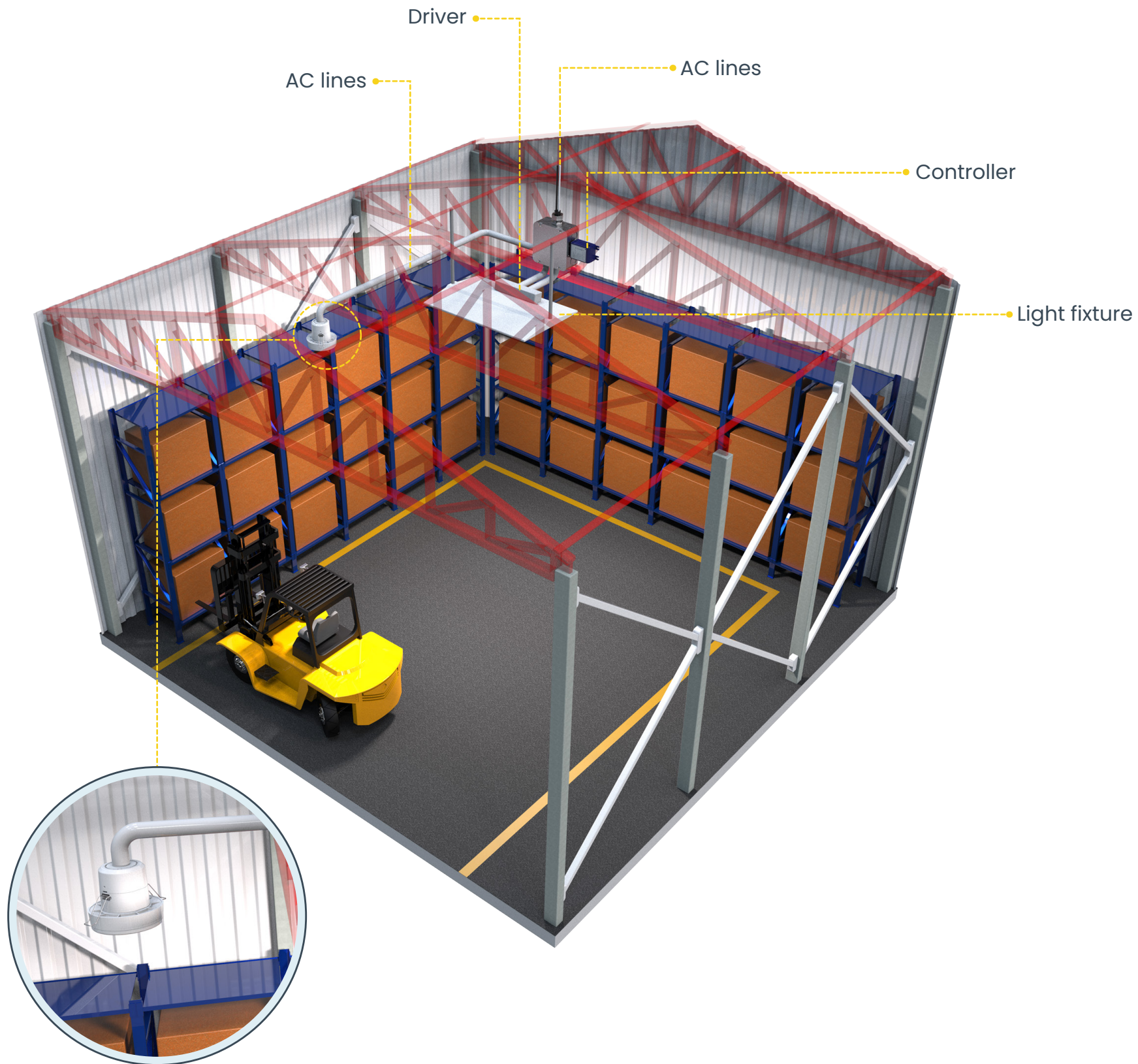


Smart Ecosystem



| Certifications (In progress) | Details |
|---------------------------------|--|
| CE | <p>Article 3, RED 2014/53/EU</p> <p>EMC test standards ETSIEN301489-IV2.2.3(2019-11) ETSIEN301489-3V2.2.0(2021-11) ETSIEN301489-17V3.2.4(2020-09) EN55032:2015/A11:2020 EN55035:2017+A11:2020</p> <p>Safety test standard EN IEC61058-1:2018 EN61058-1-2:2016</p> <p>Radio test standard ETSIEN300328V2.2.2(2019-07) ETSIEN300440V2.2.1(2018-07)</p> <p>Health test standard: EN62479:2010 EN50663:2017</p> |
| cETLus | Conforms to UL Std. 773A Cert. to CSA Std. C22.2 NO. 284 |
| FCC | ID: 2AG4N-WMAM |
| RoHS 2.0 | RoHS Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU |
| REACH | Regulation (EC) No 1907/2006 of REACH |
| WEEE | Under the WEEE Directive: 2012/19/EU |
| Bluetooth | Declaration ID: D059551 |

Application



Cyrus AM

Items included in the package box

- Cyrus AM (fitted with chosen mounting accessory)
- User Guide
- Wire Nuts
- Screws*
- Wallplugs*

*Only for WMAM-SMK

Accessories

| Product Code | Product Description |
|--------------|-------------------------|
| WM-SMK | Surface mount accessory |
| WM-CMK | Ceiling mount accessory |



Ordering Information

| Product Code | Product Name | Product Description | Communication | Voltage Rating | Sensor Input |
|--------------|---------------------------------------|---|---------------|----------------|-----------------------|
| WMAM-CMK | Cyrus AM with ceiling mount accessory | Wireless microwave motion & daylight sensor | BLE 5.2 | 90-277VAC | Motion & light sensor |
| WMAM-SMK | Cyrus AM with surface mount accessory | Wireless microwave motion & daylight sensor | BLE 5.2 | 90-277VAC | Motion & light sensor |

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