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CONTROLS
A WISILICA BRAND

Cyrus AP

AC Powered Wireless PIR
Motion & Light Sensor

Product Overview

Cyrus AP is a BLE5.2 controllable high bay PIR motion and daylight sensor. This sensor operates on a 90-277VAC input voltage range adopts a PIR sensing technology for accurate motion detection. It comes with swappable lenses for high-bay and low-bay applications, giving you a maximum mounting height of 14m (46ft) and a maximum detection range of 28m (92ft) 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
Input voltage	90 – 277VAC
Input current	9mA@230VAC
	15mA@90VAC
Frequency	50–60Hz
Inrush current	4A
Surge rating	4kV
Standby current	22mA@110VAC 14mA@230VAC

Environmental

Specifications	Value	Remarks
Operating temperature	0–80ºC (32 to 176ºF)	
Case temperature	70ºC (158ºF)	
Relative humidity	20-85%	Non-condensing

Features

- Motion and daylight sensor, with adjustable lenses for high-bay and low-bay applications
- BLE 5.2 based non flooding wireless communication
- 90-277VAC universal AC input voltage range
- PIR sensor for accurate motion detection
- Maximum mounting height of 14m (46ft)
- Motion detection range up to 28m (92ft) diameter

Bluetooth

Specifications	Value	Remarks
Frequency range	2402-2480 MHz	
Max output power	8dBm	Conductive
Receive sensitivity	–95dBm	
Connection distance (device to device)	45m(147.6ft)	Vary depending on the installation environment

Mechanical

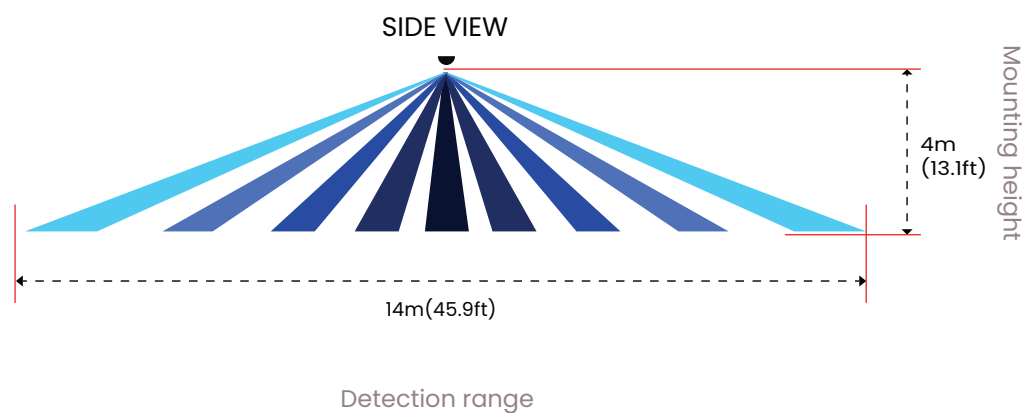| Specifications		Value	Remarks
Dimension	Excluding accessories	2.3 X 2.5in(59.8 X 63.1mm)	Diameter x Height
	Ceiling mount accessories WMAP-CMK-LBL WMAP-CMK-HBL	3.54 x 4.24in(89.8 x 107.7mm) 3.75 x 4.67in(95.3 x 118.7mm)	Diameter x Height
	Surface mount accessories WMAP-SMK-LBL WMAP-SMK-HBL	4.32 x 2.83in(109.8 x 71.8mm) 4.32 x 3.45in(109.8 x 87.6mm)	Diameter x Height
Net weight		85g(3.0oz)	
Case material		ABS Plastic	White
Flammability rating		UL 94 5VA	

Light Sensor

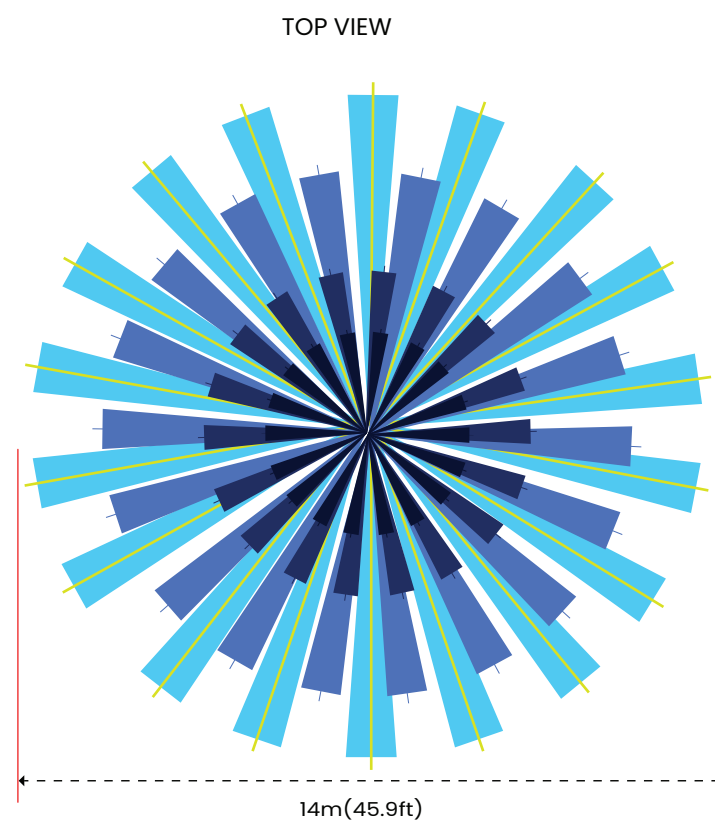| Specifications	Value
Dynamic Illuminance range	0-10500lux
Default range setting	19-512lux
Illuminance accuracy	±10%

Motion Sensor Coverage Patterns
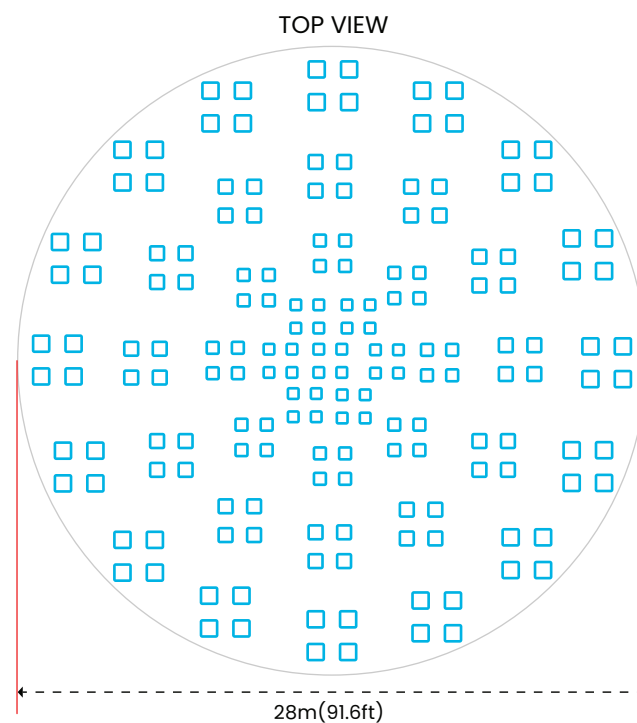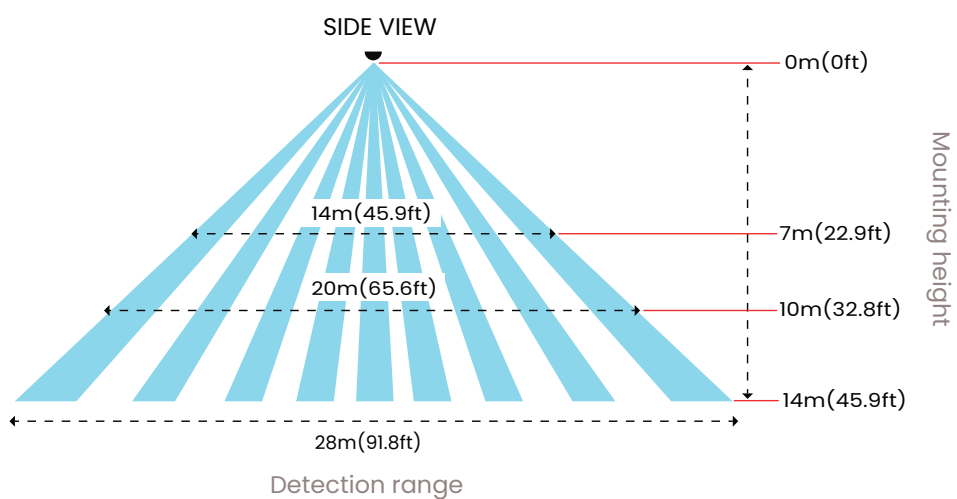
Low-bay lens (WM-LBL)

Detection area

SIDE VIEW

4m
(13.1ft)

Mounting height

14m(45.9ft)

Detection range

TOP VIEW

14m(45.9ft)

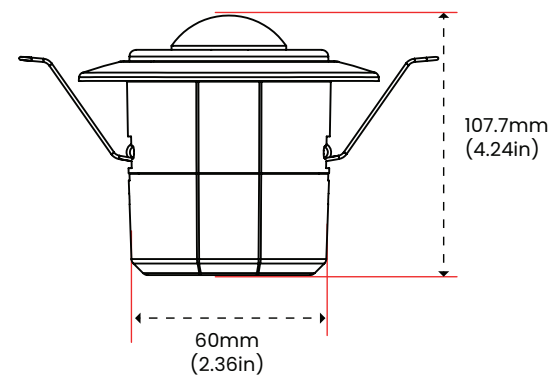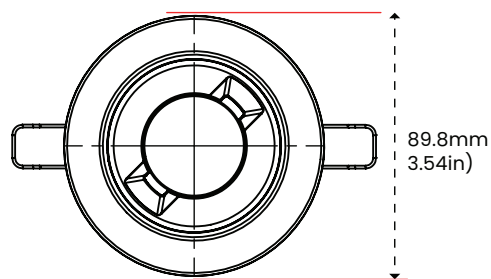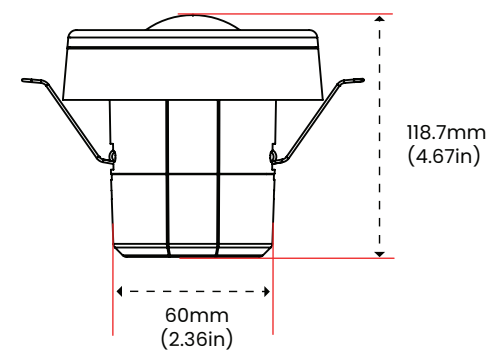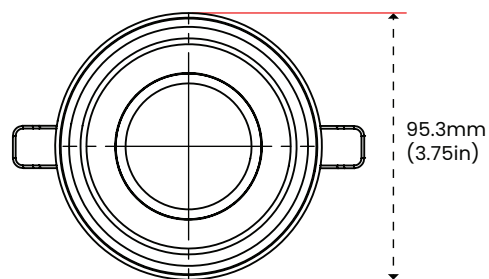| Specifications	Value	Remarks
Max mounting height	13.1ft (4m)	
Max detection range	45.9ft (14m)	Diameter, @13.1ft(4.0m) mounting height ; 150mm(5.9in) movement sensitivity
Max coverage area	1655.5sq.ft(153.8sq.m)	Area, @13.1ft (4.0m) mounting height

High-bay lens (WM-HBL)

Detection area

SIDE VIEW

0m(0ft)

14m(45.9ft)

7m(22.9ft)

20m(65.6ft)

10m(32.8ft)

14m(45.9ft)

Mounting height

28m(91.8ft)

Detection range

TOP VIEW

28m(91.6ft)

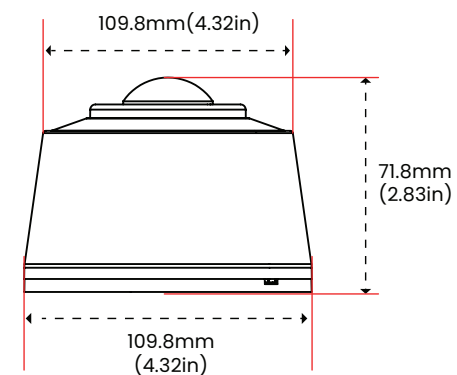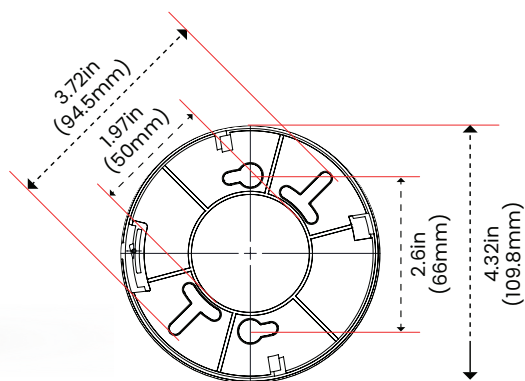| Specifications	Max	Remarks
Max mounting height	45.ft (14m)	
Max detection range	91.9ft (28m)	Area @45.9ft (14m) mounting height
Max coverage area	6624.1 sq.ft(615.4sq.m)	Area @45.9ft (14m) mounting height

Product Dimensions

Sensor with ceiling mount and low-bay lens accessories (WMAP-CMK-LBL)

89.8mm (3.54in)

107.7mm (4.24in)

60mm (2.36in)

Sensor with ceiling mount and high-bay lens accessories (WMAP-CMK-HBL)

95.3mm (3.75in)

118.7mm (4.67in)

60mm (2.36in)

Sensor with surface mount and low-bay lens accessories (WMAP-SMK-LBL)

3.72in (94.5mm)

1.97in (50mm)

2.6in (66mm)

4.32in (109.8mm)

109.8mm(4.32in)

71.8mm (2.83in)

109.8mm (4.32in)

Sensor with surface mount and high-bay lens accessories (WMAP-SMK-HBL)

3.72in (94.5mm)

1.97in (50mm)

2.6in (66mm)

4.32in (109.8mm)

109.8mm(4.32in)

87.6mm (3.45in)

109.8mm (4.32in)
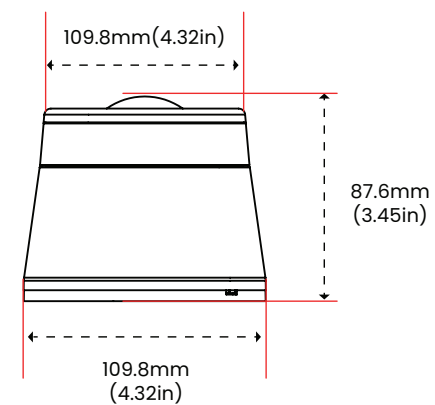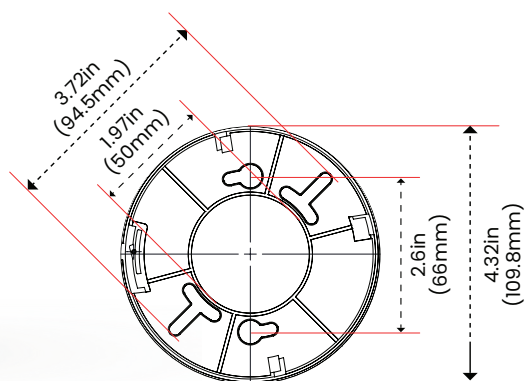
Wire Description

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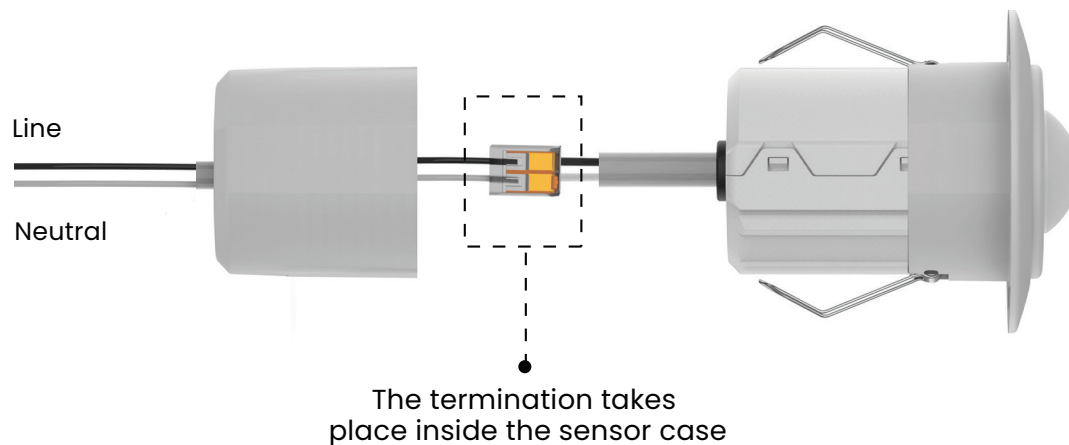
Line

Neutral

Note:

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

The termination takes place 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 WMAP-SMK-LBL
   WMAP-SMK-HBL*

2) **150mm wire antenna**

*For WMAP-CMK-LBL
   WMAP-CMK-HBL*

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

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

Smart Ecosystem

Control Device

Cyrus AP Sensor

Mesh Network

Gateway

Internet Connectivity

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Switch

45m(147.6ft) is the device to device communication distance ideally with clear LoS
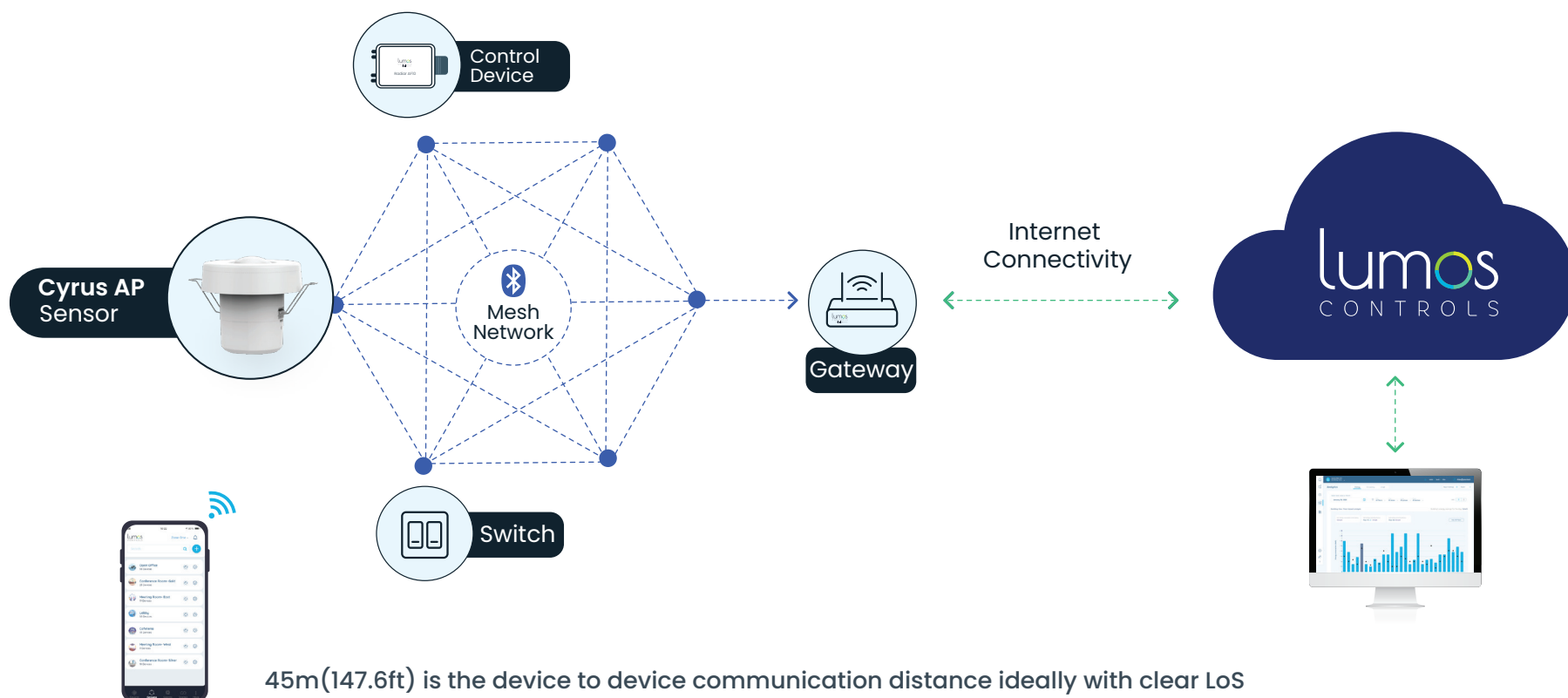
Certifications (In progress)	Details
CE	Article 3, RED 2014/53/EU **EMC test standards** ETSI EN 301 489-1 V2.2.3(2019-11) ETSI EN 301 489-17 V3.2.4(2020-09) EN 55032: 2015/A11:2020 EN 55035: 2017+A11 :2020 **Radio test standard** ETSI EN 300 328 V2.2.2 (2019-07) **Health test standard:** EN 62479: 2010 EN 50663: 2017 **Safety test standard** EN IEC61058-1:2018 EN61058-1-2:2016
cETLus	Conforms to UL Std. 773A Cert. to CSA Std. C22.2 NO. 284
FCC	2AG4N-CYRUSAP
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

Driver

AC lines

AC lines

Controller

Light Fixture

Cyrus AP
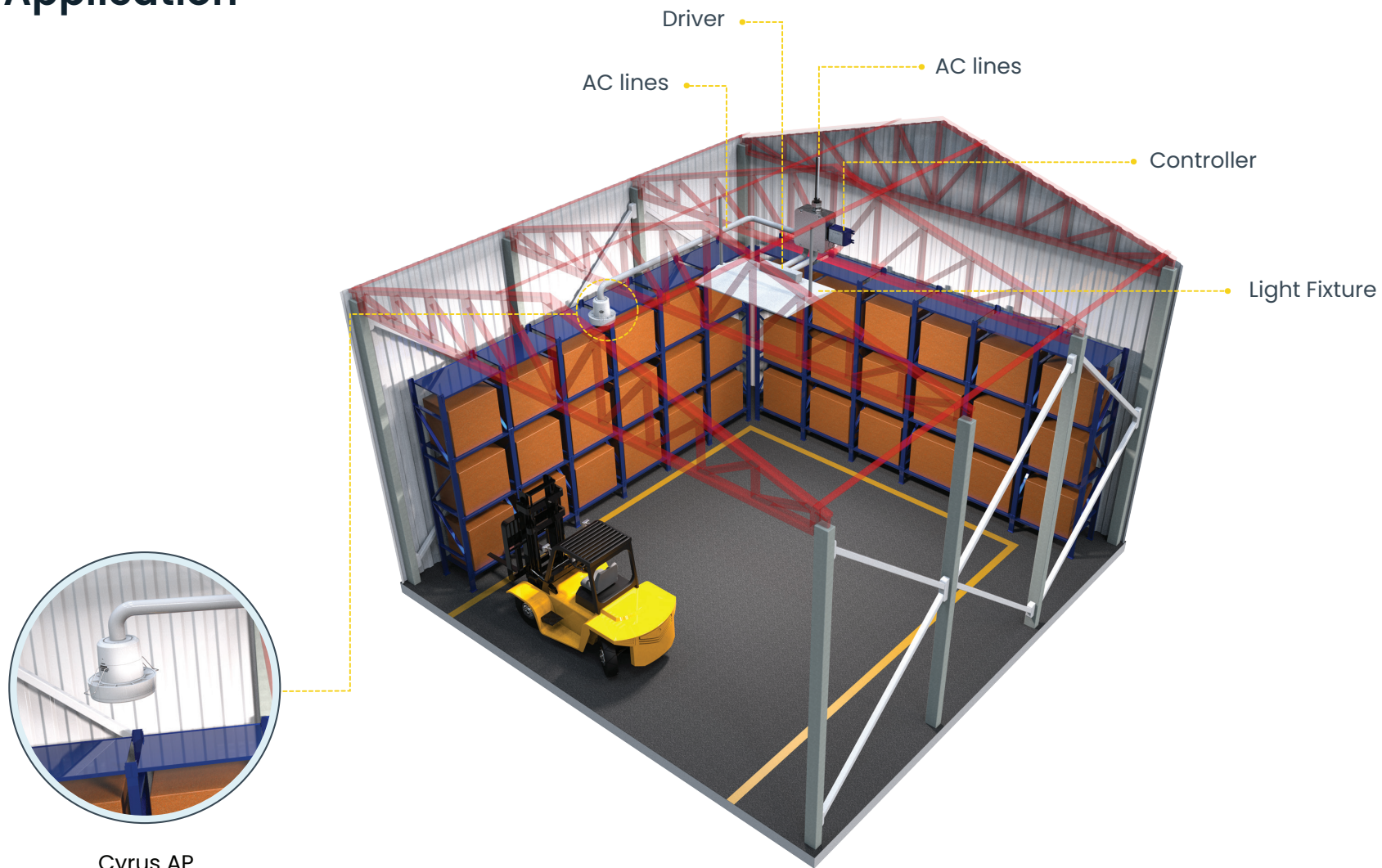
Installation using a junction box

To install the sensor with its surface mount accessory on a junction box, place the mounting plate on the box, drill holes to attach it, and create a central hole to route the sensor wires for termination.

Junction box

Power lines

Junction box

Power lines

Sensor

Sensor
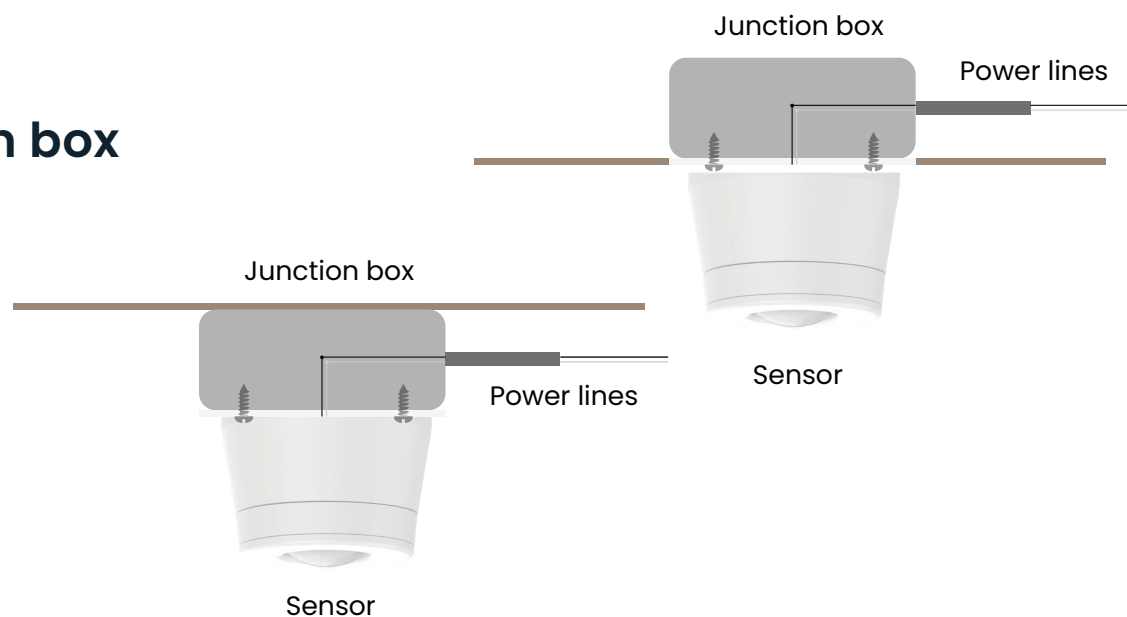
Items included in the package box

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

Only for WMAP-SMK-HBL and WMAP-SMK-LBL

Accessories

Product Code	Product Description
WM-SMK	Surface mount accessory
WM-CMK	Ceiling mount accessory
WM-LBL	Low-bay lens accessory
WM-HBL	High-bay lens accessory

Ordering Information

Product Code	Product Name	Product Description	Communication	Voltage Rating
WMAP-CMK-LBL	Cyrus AP with ceiling mount and low-bay lens accessories	Wireless PIR motion & daylight sensor	BLE 5.2	90-277VAC
WMAP-SMK-LBL	Cyrus AP with surface mount and low-bay lens accessories	Wireless PIR motion & daylight sensor	BLE 5.2	90-277VAC
WMAP-CMK-HBL	Cyrus AP with ceiling mount and high-bay lens accessories	Wireless PIR motion & daylight sensor	BLE 5.2	90-277VAC
WMAP-SMK-HBL	Cyrus AP with surface mount and high-bay lens accessories	Wireless PIR motion & daylight sensor	BLE 5.2	90-277VAC

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