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CONTROLS
A WISILICA BRAND

Cyrus F

DC Powered Fixture Mount Dual Channel
Dimming Motion & Light Sensor

c ETL us
LISTED
Intertek

CE

RoHS
COMPLIANT

REACH
COMPLIANT

Bluetooth

DLC QPL
LISTED

openADR
ALLIANCE

Product Overview

Cyrus F is a 12-24VDC powered multi-sensing device with low bay PIR motion detection and ambient light sensing. This industry's smallest formfactor device has two 0-10V output channels for controlling intensity and Correlated Color Temperature (CCT). This easy to install fixture mount device also supports UART interface.

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

Features

- Low bay PIR Motion and ambient light sensing
- 0-10V dual channel class 2 dimming output for intensity and CCT control
- Compact form factor
- BLE 5.2 based non-flooding intelligent communication
- Zero downtime Over-the-Air(OTA) firmware updates
- Supports UART

Specifications

Electrical

Specifications	Value	Remarks
Input voltage	12-24VDC	Rated input voltage
Input current	30mA	@12VDC
	25mA	@24VDC

Output Channel

Specifications	Value	Remarks
Number of channels	2	
Voltage range	0-10VDC	Tolerance: ±0.2V
Current	15mA	Source current per channel
Dimming range	0-100%	1000 steps resolution
Dimming curve	linear (default) / logarithmic	

Bluetooth

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

Environmental

Specifications	Value	Remarks
Ambient temperature	-20 to 50ºC (-4 to 122ºF)	
Storage temperature	-20 to 70ºC (-4 to 158ºF)	
Case temperature	47.6ºC (117.6ºF)	
Relative humidity	85%	

Mechanical

Specifications	Value	Remarks
Dimension	32X42.5mm (1.26X1.67in)	Diameter x Height
Net weight	14g(0.49oz)	
Flammability rating	UL 94 V-0	

Light Sensor

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

PIR Sensor

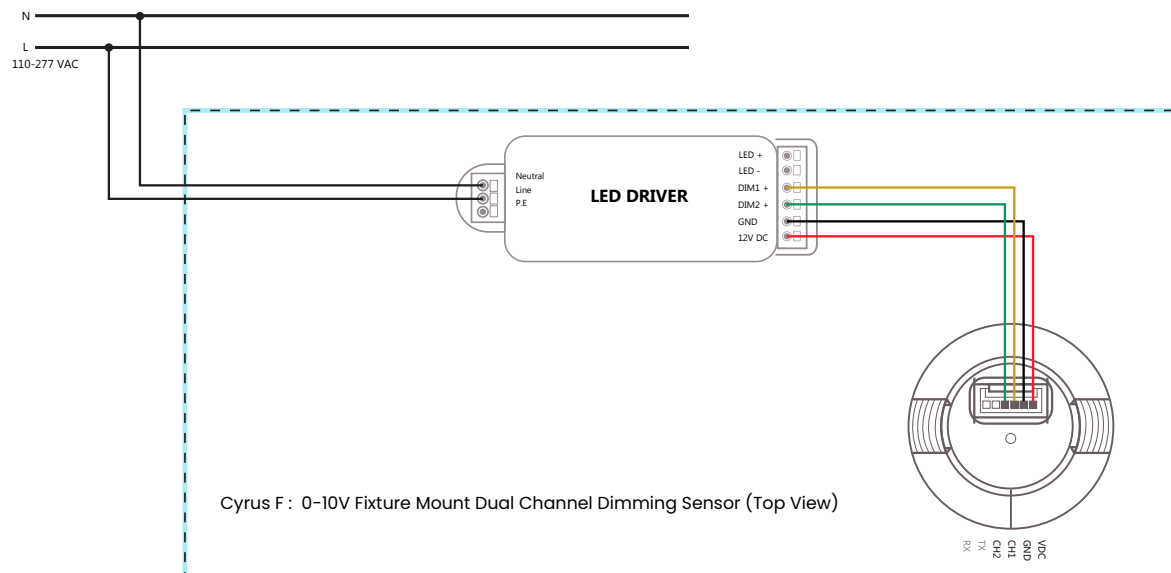| Specifications	Value	Remarks
Mounting height	2.4 to 3m (7.8 to 9.8ft)	
Max detection range	10m(32.8ft)	Diameter, at 3m(9.8ft) mounting height

Product Dimensions

⌀32mm(1.26in)

42.5mm(1.67in)

41.8mm(1.65in)

8.54in(217mm)

0.11in(3mm)
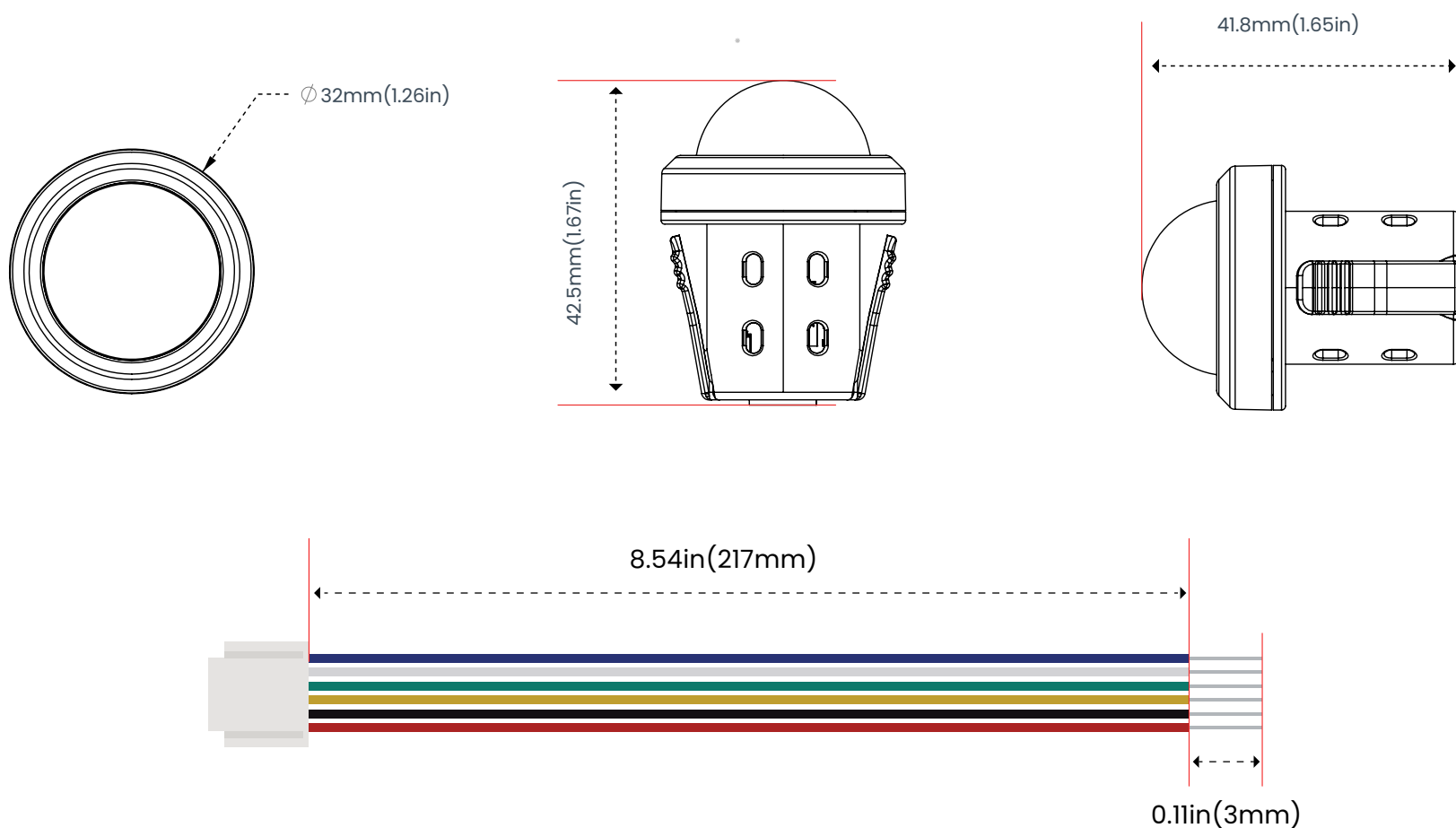
Wiring
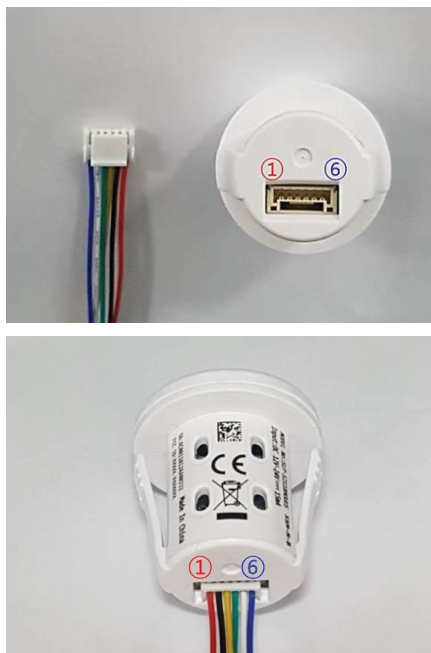
Pin	Symbol	Color	Description
1	VDC	Red	12-24VDC for sensor power
2	Ground	Black	GND
3	CH1+ 0-10V	Yellow	Intensity
4	CH2+ 0-10V	Green	CCT
5	Tx	White	UART communication
6	Rx	Blue	UART communication

Powering the Cyrus F via 12VDC auxiliary output from a driver

N

L
110-277 VAC

Neutral
Line
P.E

LED DRIVER

LED +
LED -
DIM1 +
DIM2 +
GND
12V DC

Cyrus F : 0-10V Fixture Mount Dual Channel Dimming Sensor (Top View)

RX TX CH2 CH1 GND VDC

Dashed Line = 2x4 ft Fixture

CATRON V

CATRON IV

MOBILE APP

VDC
GND
CH1
CH2

N

L

G

Ground (Green)

120-277V (Black)

MOTION HIGH (Yellow)

12V+ (Red)

PSC-AC-PP-700C

COM (White)

V- (Black)

Load (Blue)

VDC
GND
CH1
CH2
TX
RX

CH1+
CH1
LED +
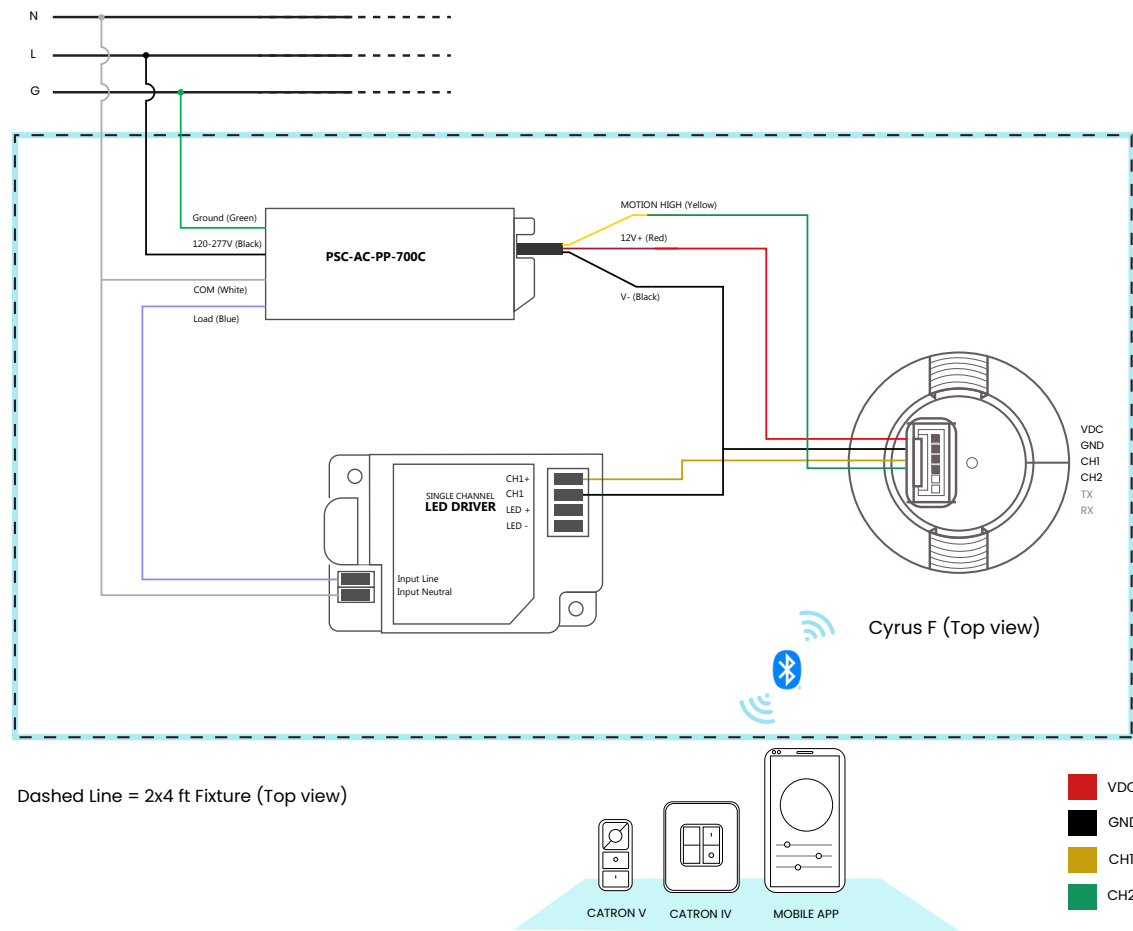LED -

SINGLE CHANNEL
LED DRIVER

Input Line
Input Neutral

Cyrus F (Top view)

Powering the Cyrus F via powerpack

→

Set the output mode of the Cyrus F as 'Single Channel' in the mobile application.

Dashed Line = 2x4 ft Fixture (Top view)

CATRON V   CATRON IV   MOBILE APP

	VDC
	GND
	CH1
	CH2

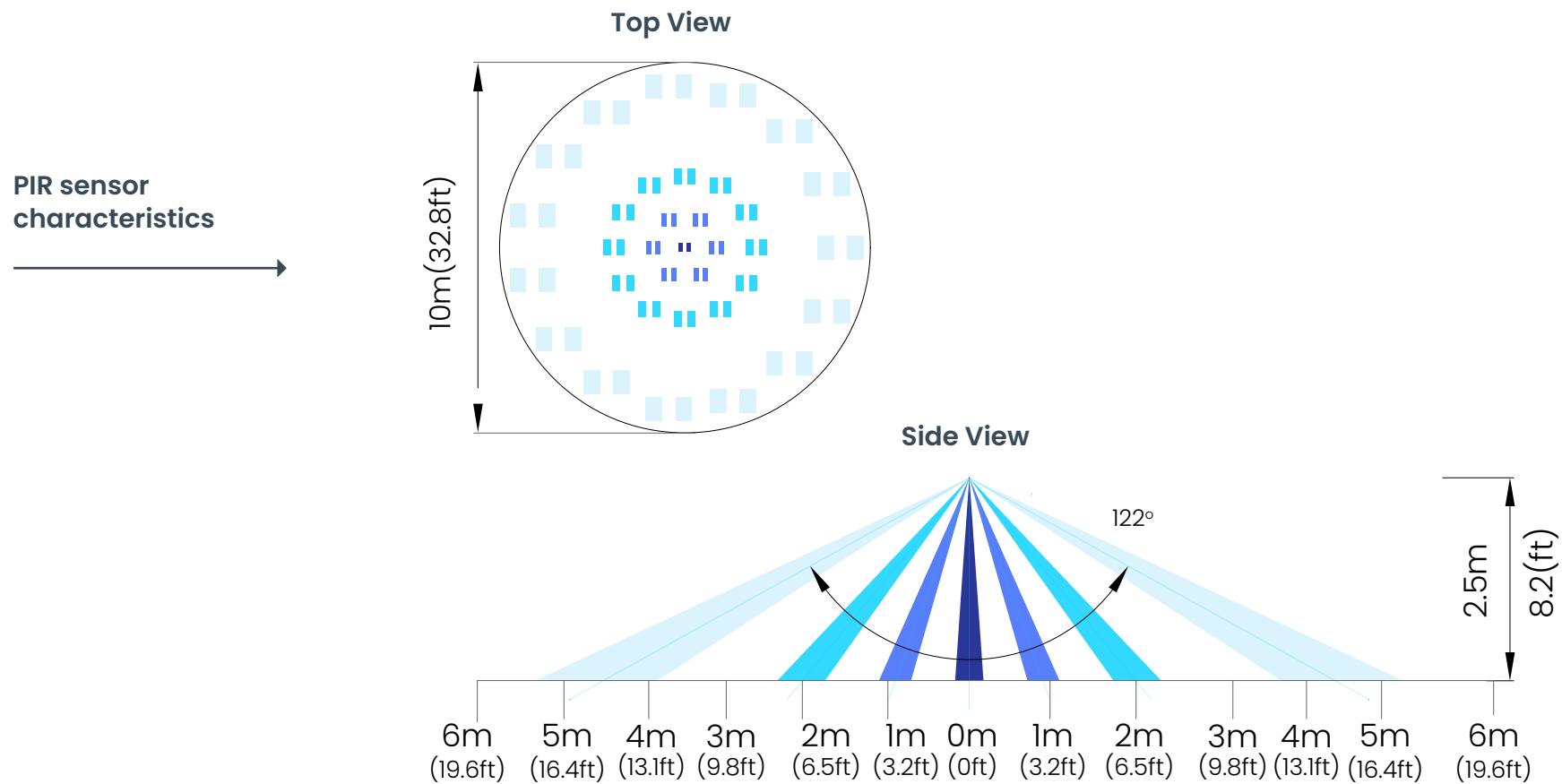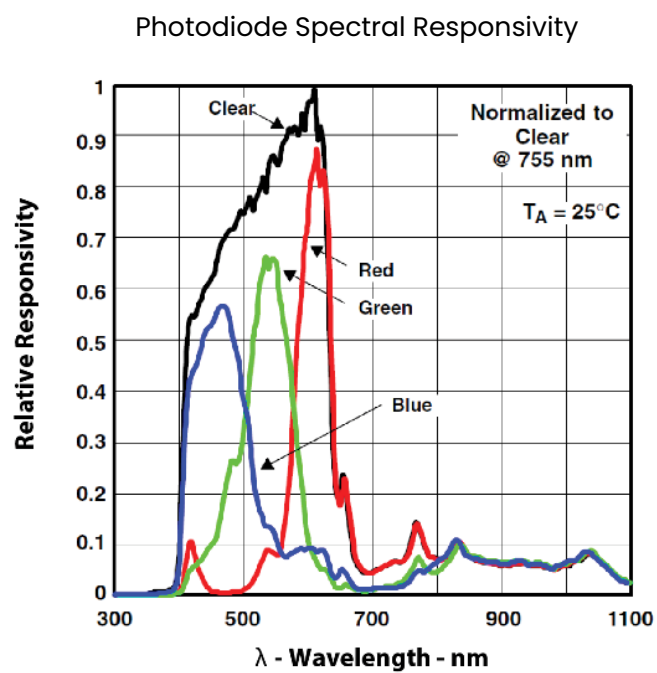## Design options

→

Cyrus F : DC Powered Fixture Mount Dual Channel Dimming Motion & Light Sensor
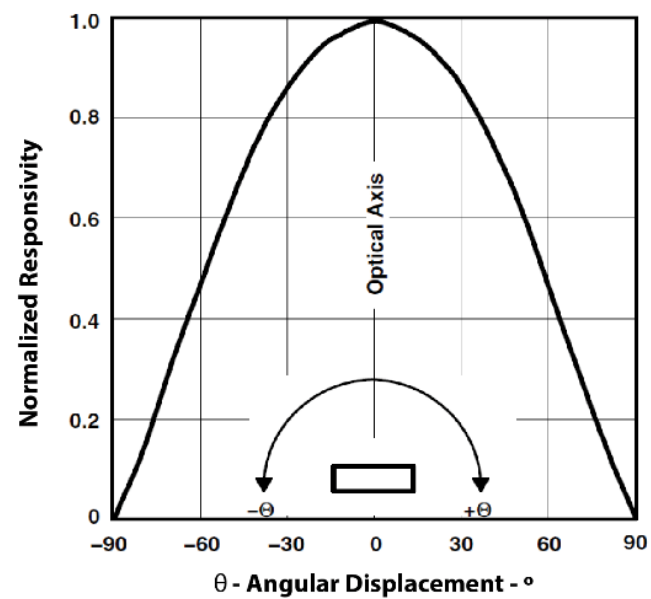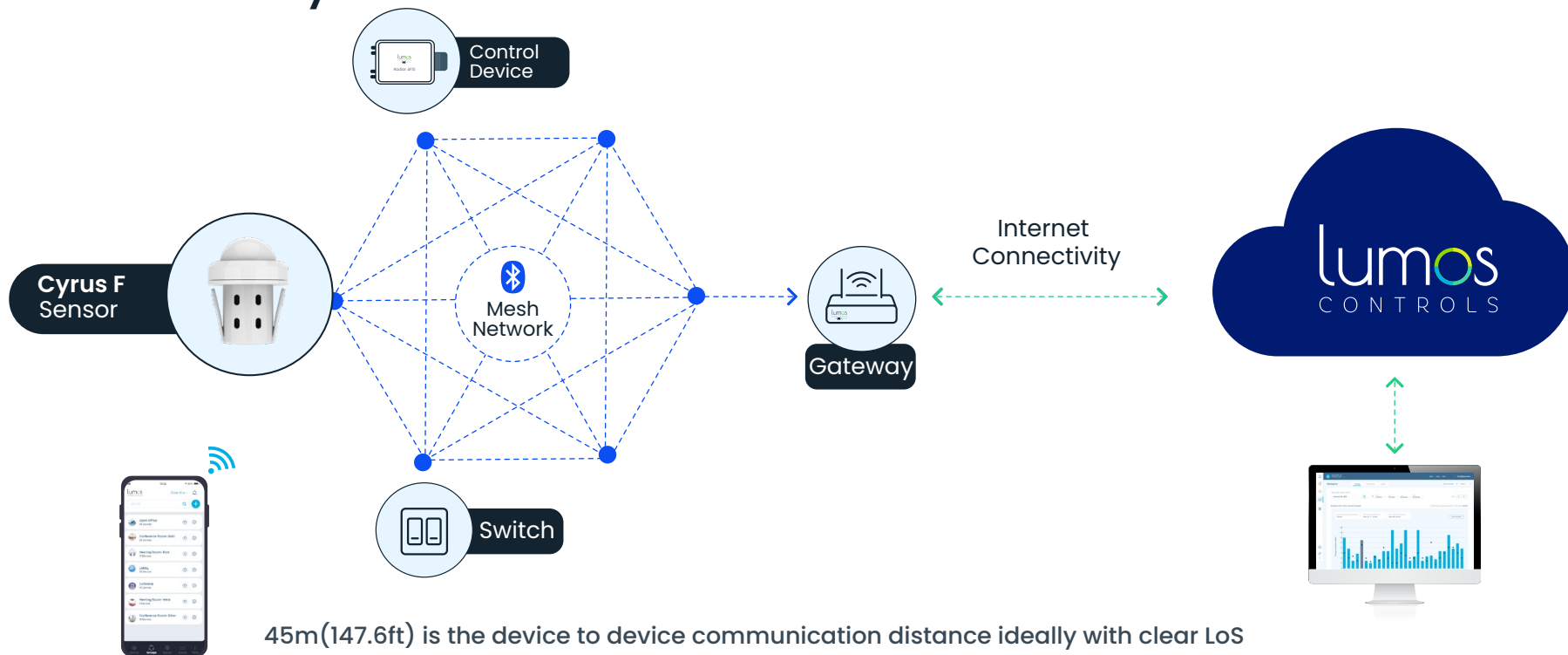
In the lens or the extrusion

Recessed
Linear

Recessed
Troffer

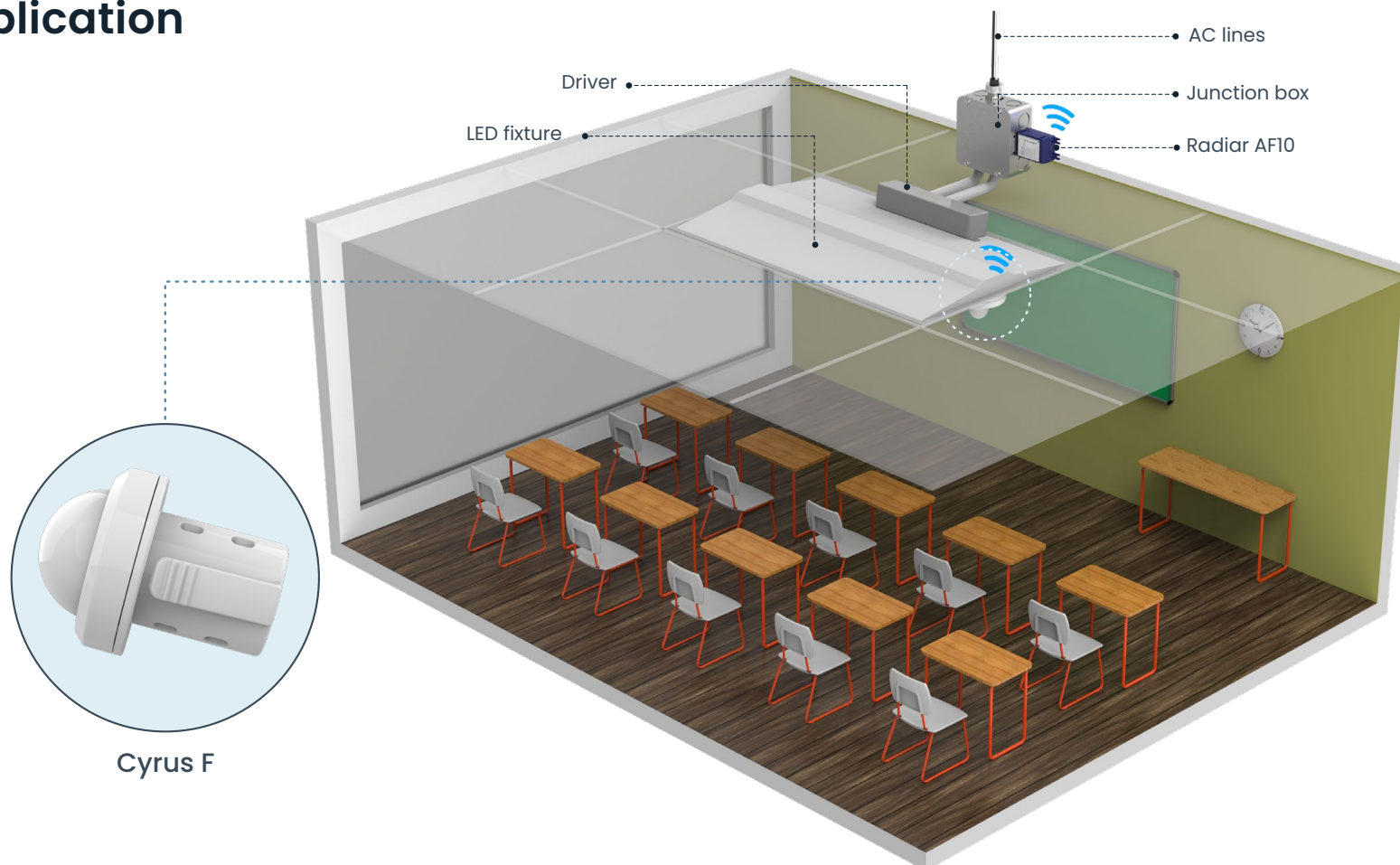Pendant

PIR sensor characteristics →

Top View

10m(32.8ft)

Side View

122°

2.5m
8.2(ft)

| 6m (19.6ft) | 5m (16.4ft) | 4m (13.1ft) | 3m (9.8ft) | 2m (6.5ft) | 1m (3.2ft) | 0m (0ft) | 1m (3.2ft) | 2m (6.5ft) | 3m (9.8ft) | 4m (13.1ft) | 5m (16.4ft) | 6m (19.6ft) |

Color sensor characteristics →

Photodiode Spectral Responsivity

Clear

Normalized to Clear @ 755 nm

$T_A = 25°C$

Red

Green

Blue

Relative Responsivity

λ - Wavelength - nm

Normalized Responsivity vs Angular Displacement

Optical Axis

Normalized Responsivity

−Θ   +Θ

θ - Angular Displacement - °

Smart Ecosystem

Control Device

Cyrus F 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

Application

AC lines

Driver

Junction box

LED fixture

Radiar AF10

Cyrus F

Certifications	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 IEC 61058-1:2018 EN 61058-1-2:2016
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
cETLus	Conforms to UL Std. 60730-1 Cert. to CSA Std. E60730-1
FCC	ID: 2AG4N-WXD2CPLFN

Items included in the package box

- Cyrus F
- User guide
- Six pin connector(Molex connector)

Ordering Information

Product Code	Product Name	Product Description	Communication	Voltage Rating	Sensor Input	Output Channel
WXD2CPLFN	Cyrus F	Motion and light sensor with dual channel dimming	BLE5.2	12-24VDC	Motion and Light Sensor	0-10V(2 Channels), UART

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