

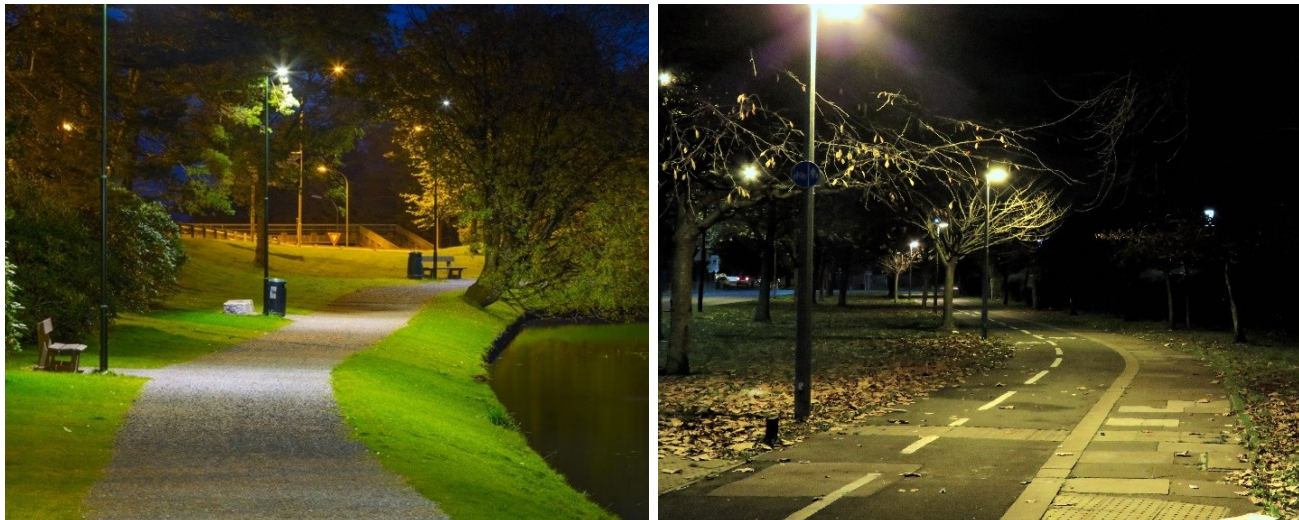
LUMAWISE MOTION PROGRAMMABLE STREET LIGHTING MOTION SENSOR

Jonathan Catchpole – System Architect
for TE Connectivity

EVERY CONNECTION COUNTS



MOTION SENSOR APPLICATION AND PROBLEM STATEMENT



Sustainability

- Sustainability is at the forefront of considerations at multiple levels
- From governments, municipalities, industry to even utilities
- There are pressure on our global resources, and reducing our consumption will ease that pressure

Outdoor Lighting

- Outdoor lighting's main purpose is for safety and security
- Typical applications include roadways, car parks, parks & recreational areas and cycle & walkway lighting
- There is long durations of the dark period where the lighting is not used i.e., no pedestrians or traffic
- Some organisations have made the decision to completely turn the lights off during these times
- This could present legal issues if an incident does occur

With a motion sensor, there does not need to be a compromise

LUMAWISE MOTION PROGRAMMABLE SENSOR

Description

The LUMAWISE Motion programmable motion sensor is designed for streetlighting. Enabling energy savings from dimming the luminaire, while still being able to react to motion and bring a luminaire to full brightness for safety and security reasons.

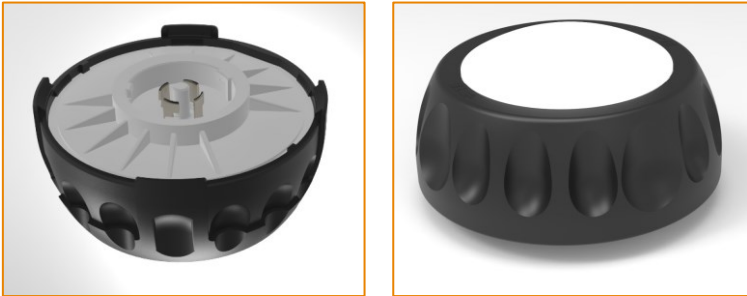
LUMAWISE Motion programmable motion sensor will fit into the Zhaga-D4i ecosystem, the new standard in smart cities. Working as a standalone control device or in combination with Zhaga-D4i photocell or communication node for greater levels of control.

Benefits

- Interoperability guaranteed from the Zhaga-D4i logo and certification (Slide 4)
- Detected motion will cause a dimmed luminaire to brighten supporting energy savings while still having the safety and security of a lit area
- Programmable version supports on-time, brightness levels, and lux on and off settings to be configured in the field or factory
- Compact design to keep the aesthetics of modern designed luminaires

Features

- On: 35lux, Off: 18lux
- No motion: 20% brightness, Motion: 100% brightness
- On time: 2 minutes
- Tested on poles from 5 to 12m high
- Detects pedestrians, runners and cyclists
- Masks available for self-defined detection zone (Slide 5)
- Lighting control of the driver via the D4i communication protocol
- 80mm diameter package
- 6-8mA average power consumption, 25mA on startup
- Powered from D4i bus
- IP68 and IK07
- CE Compliant

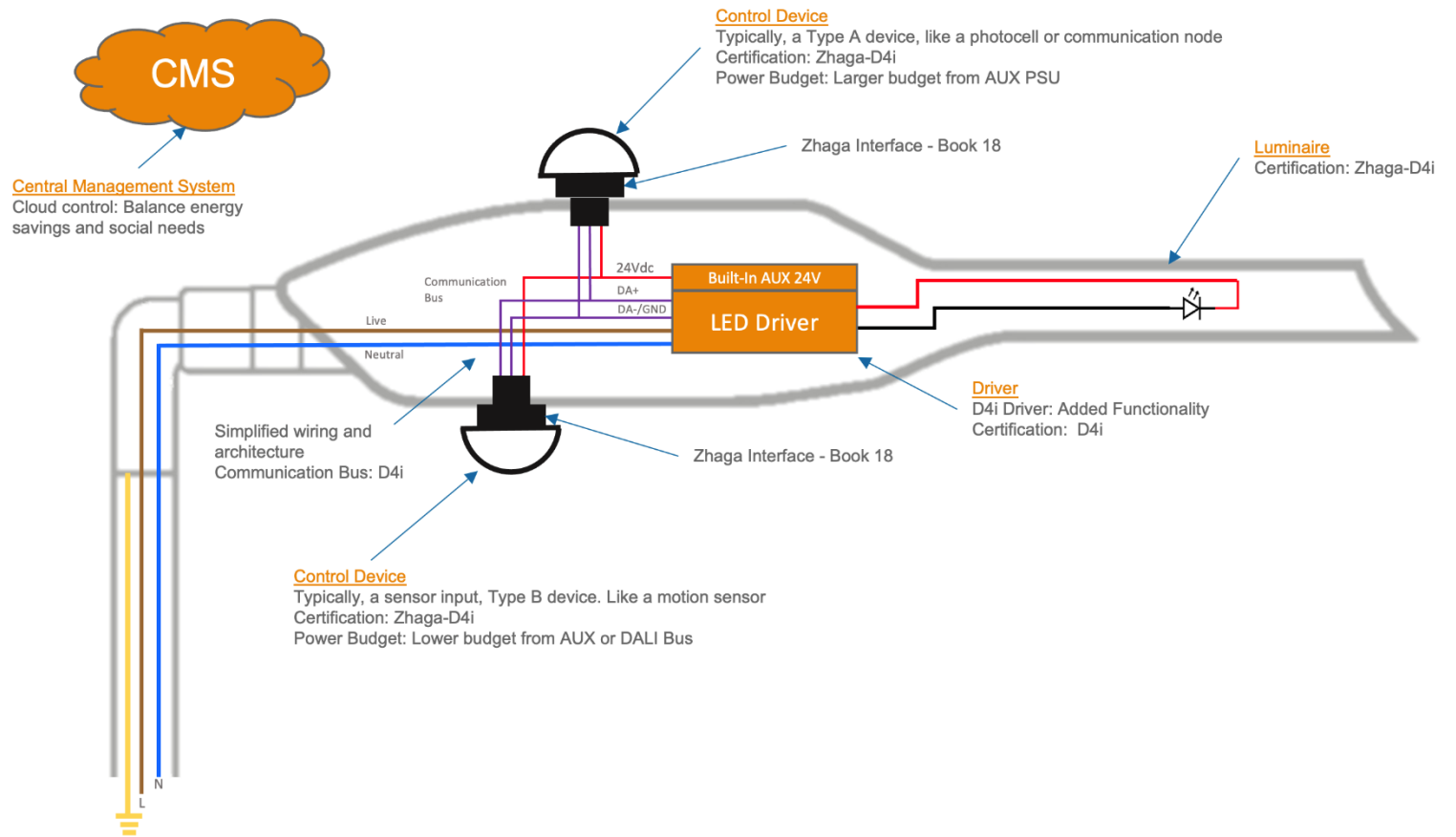


The sensor is a pluggable device, with the standard Zhaga Book 18 interface for an easy upgrade.

LUMAWISE MOTION – ZHAGA-D4I CERTIFIED

Zhaga-D4i certification means interoperability

- LUMAWISE Motion Programmable motion sensor will work as a standalone device or with a Zhaga-D4i photocell
- First enabled two node architecture solution
- LUMAWISE Motion: ‘Type B’ device

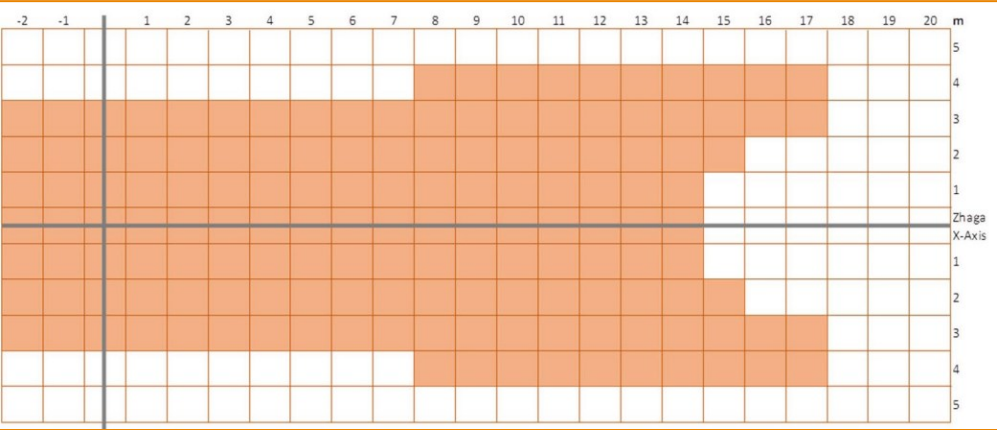


Standardisation and certification program benefits specifiers. Allowing them to specify products from different manufacturers and know they will work together.

LUMAWISE MOTION – RECTANGULAR DETECTION ZONE

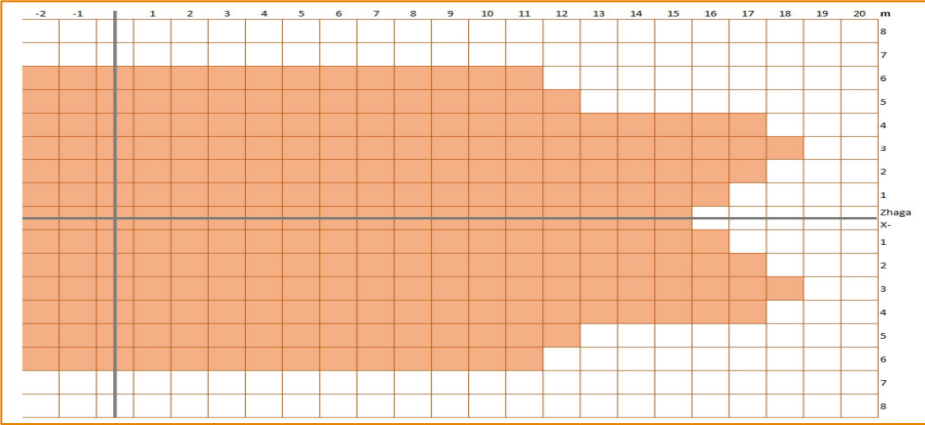
Market Leading Detection Zone

Typical Detection Diagram at 5m Mounting Height



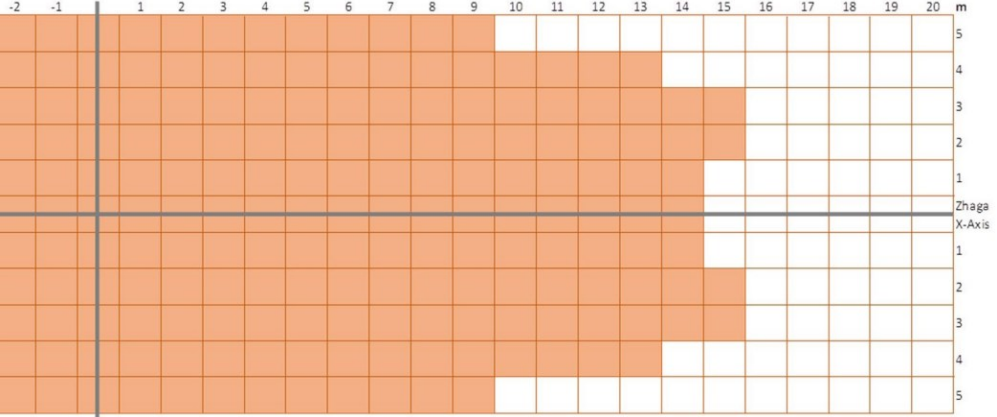
Only one half of detection zone shown

Typical Detection Diagram at 12m Mounting Height



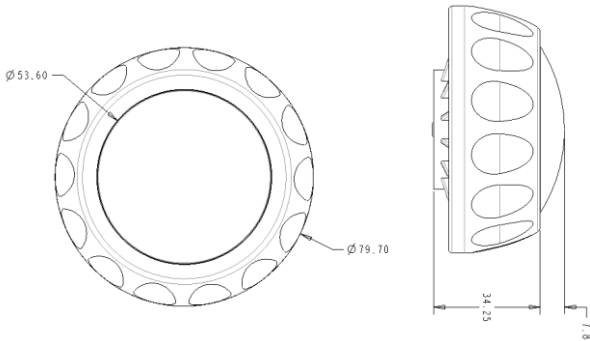
Only one half of detection zone shown

Typical Detection Diagram at 8m Mounting Height

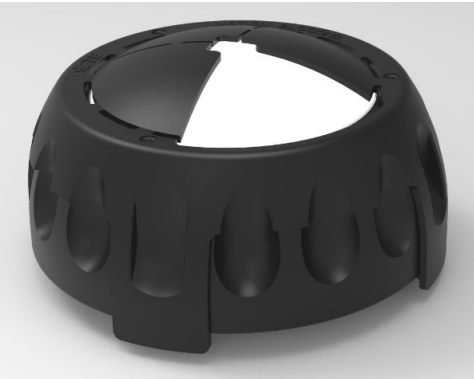


Only one half of detection zone shown

Mechanical Footprint



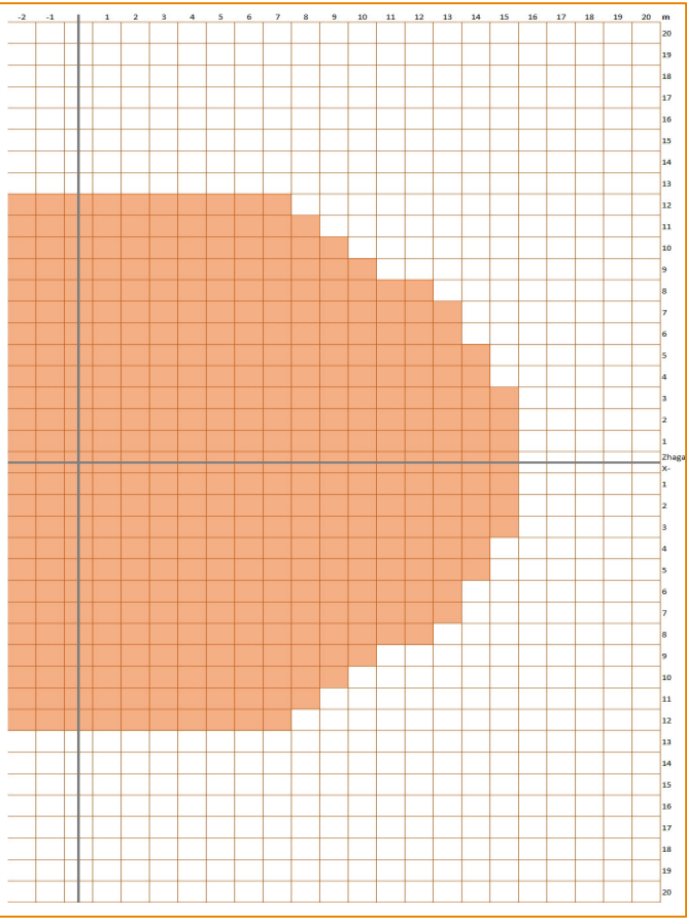
Masking



LUMAWISE MOTION – CIRCULAR DETECTION ZONE

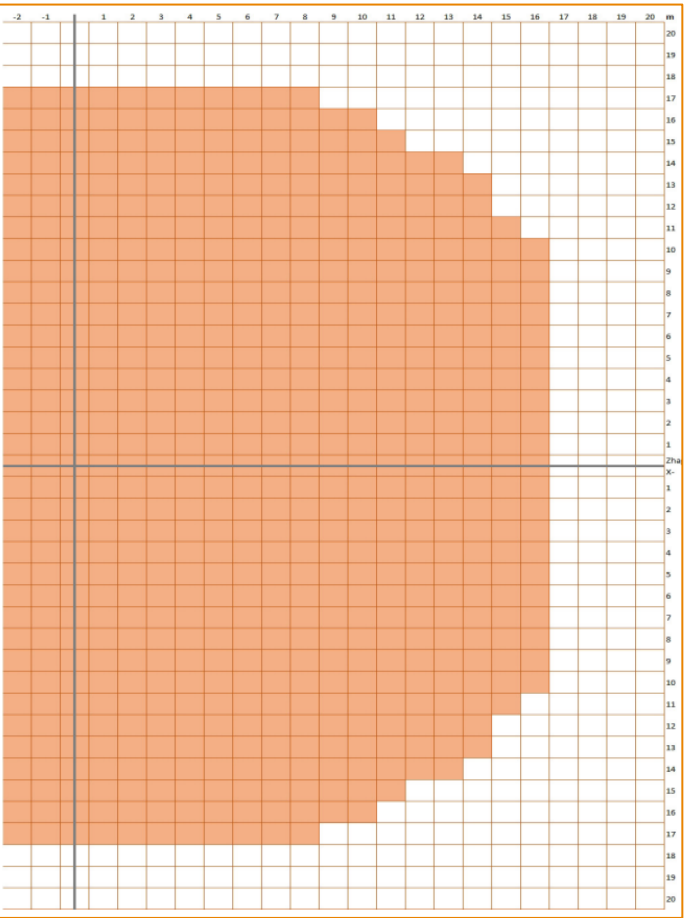
Market Leading Detection Zone

Typical Detection Diagram at 5m Mounting Height



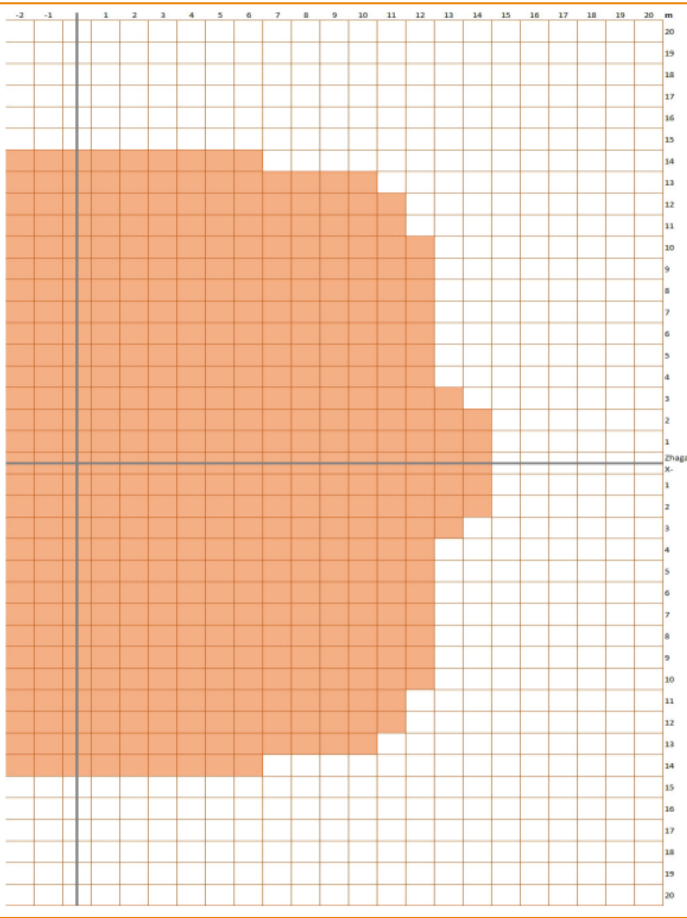
Only one half of detection zone shown

Typical Detection Diagram at 8m Mounting Height



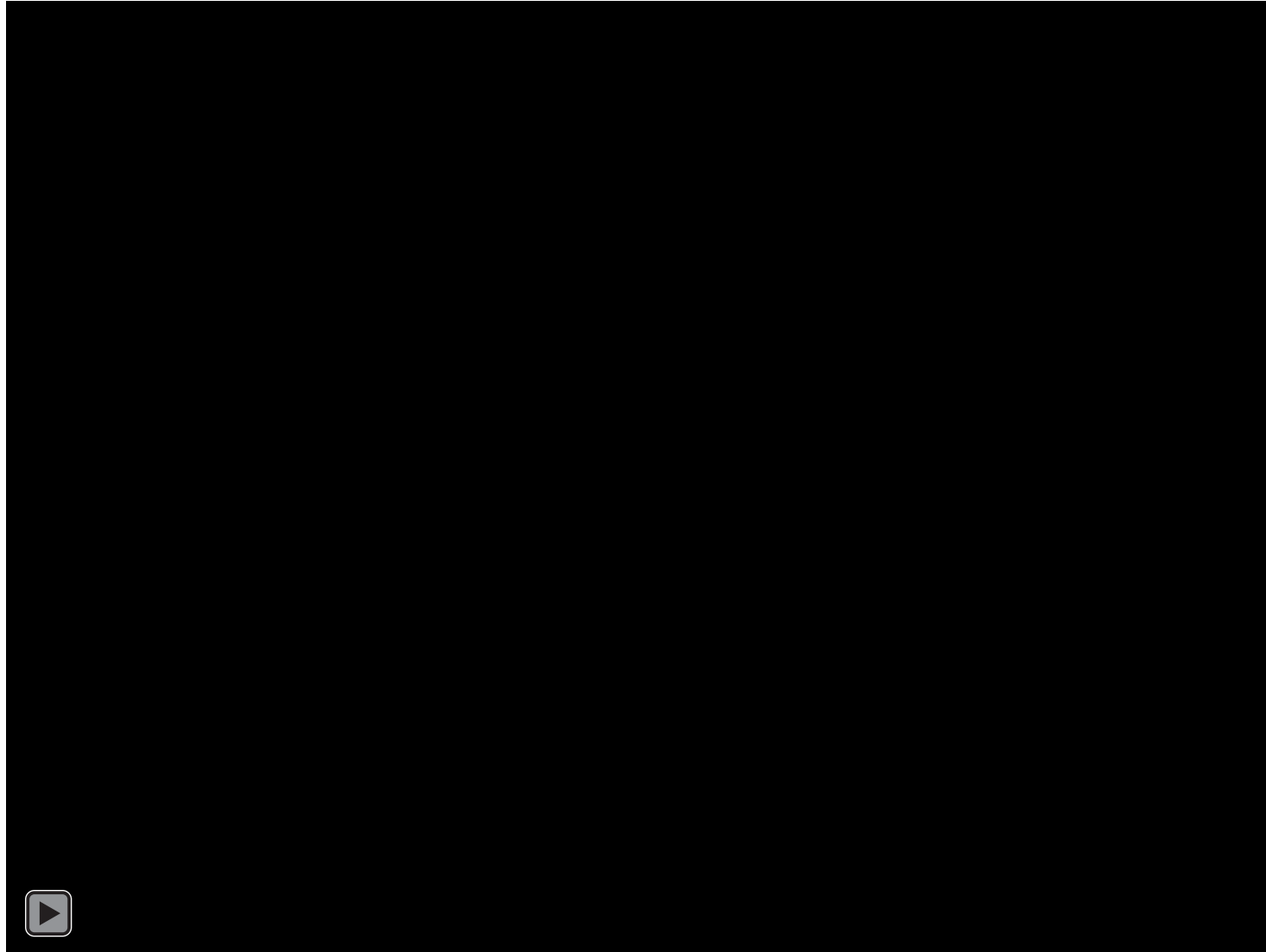
Only one half of detection zone shown

Typical Detection Diagram at 12m Mounting Height



Only one half of detection zone shown

PERFORMANCE VIDEO



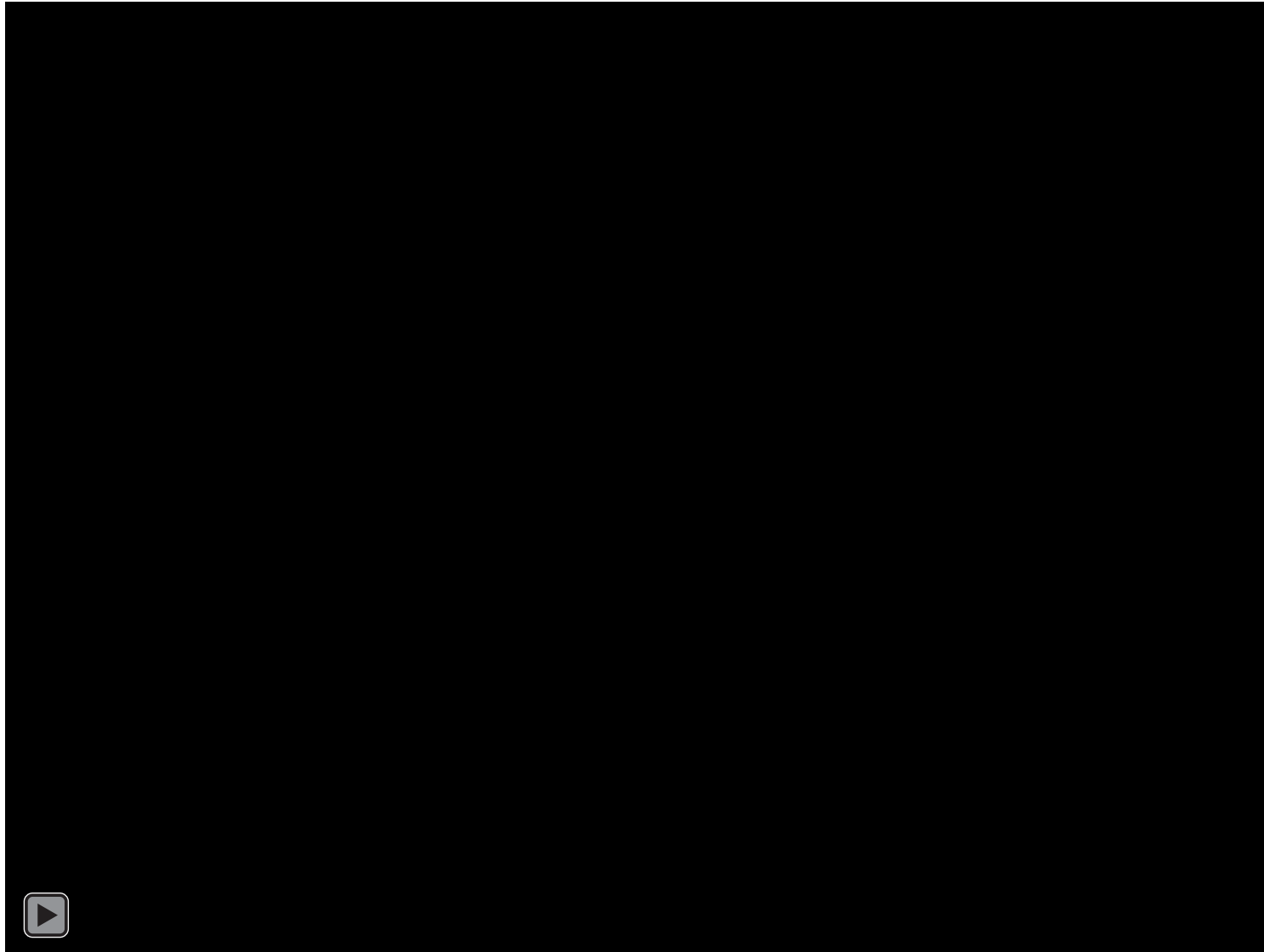
LUMAWISE MOTION

Product Selection Information

| P/N | Product Description | Switching Ratio | Release State |
|-----------|---------------------|---|------------------------|
| 2388426-1 | LUMAWISE Motion | Inverse Ratio (35lux ON – 18lux Off) | Available at release |
| 2388426-2 | LUMAWISE Motion | Conventional Ratio (18lux ON – 35lux Off) | Available upon request |
| 2388426-3 | LUMAWISE Motion | 1:1 Ratio (20lux ON – 20lux Off) | Available upon request |

| P/N | Product Description | Switching Ratio | Detection Pattern |
|-------------|------------------------------|---------------------------------------|-------------------|
| 2444029-1 | LUMAWISE Motion Programmable | Default Values (35lux ON – 18lux Off) | Rectangular |
| 3-2444029-1 | LUMAWISE Motion Programmable | Default Values (35lux ON – 18lux Off) | Circular |

PAIRED WITH A TYPE A MESH NETWORK



**WHEN
TECHNOLOGY
CONNECTS,
SO DOES HUMANITY.**

EVERY CONNECTION COUNTS

