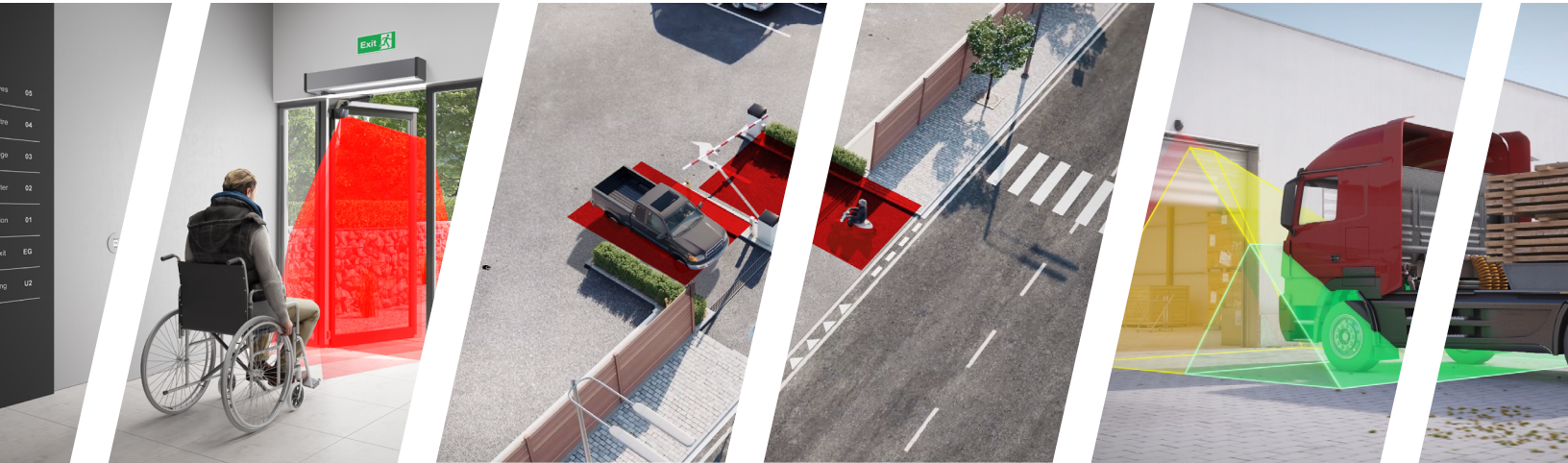




# LASER SOLUTIONS THAT FIT YOUR APPLICATION



# Table of Contents

- Who We Are ..... 03
- Our Expertise ..... 05
- LASER Technology ..... 07
- What's Your Application ..... 09
- Products ..... 11
- Keep In Touch ..... 23



## WHO WE ARE

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At BEA Americas, our team is inspired and empowered to provide advanced sensor solutions that help to grow a safe and convenient automated world.

BEA is a world leader in developing sensors for the safety and activation of automated systems, including pedestrian and industrial automatic doors, vehicle gates and barriers, transportation systems, security access control, and retail sensing applications.

### A **Halma** company

Since 2002, BEA has been a part of Halma, a global holding company headquartered in the United Kingdom. Halma-owned companies produce products and services for markets related to health, safety and environmental safety. BEA operates within the Infrastructure Safety Division of HALMA plc.

# OUR EXPERTISE

BEA researches, develops and integrates the latest technologies into our products to create a diverse range of sensing solutions for pedestrian, industrial, logistics and security applications.

We partner with OEMs in key markets to ensure that our sensors and other solutions can be incorporated seamlessly with their equipment.

Our sensors improve safety and accessibility, while streamlining pedestrian and vehicular flow in applications around the world. BEA manufactures a portion of its LZR products in the United States, ensuring quality and precision through domestic production.



ACTIVATION



PRESENCE

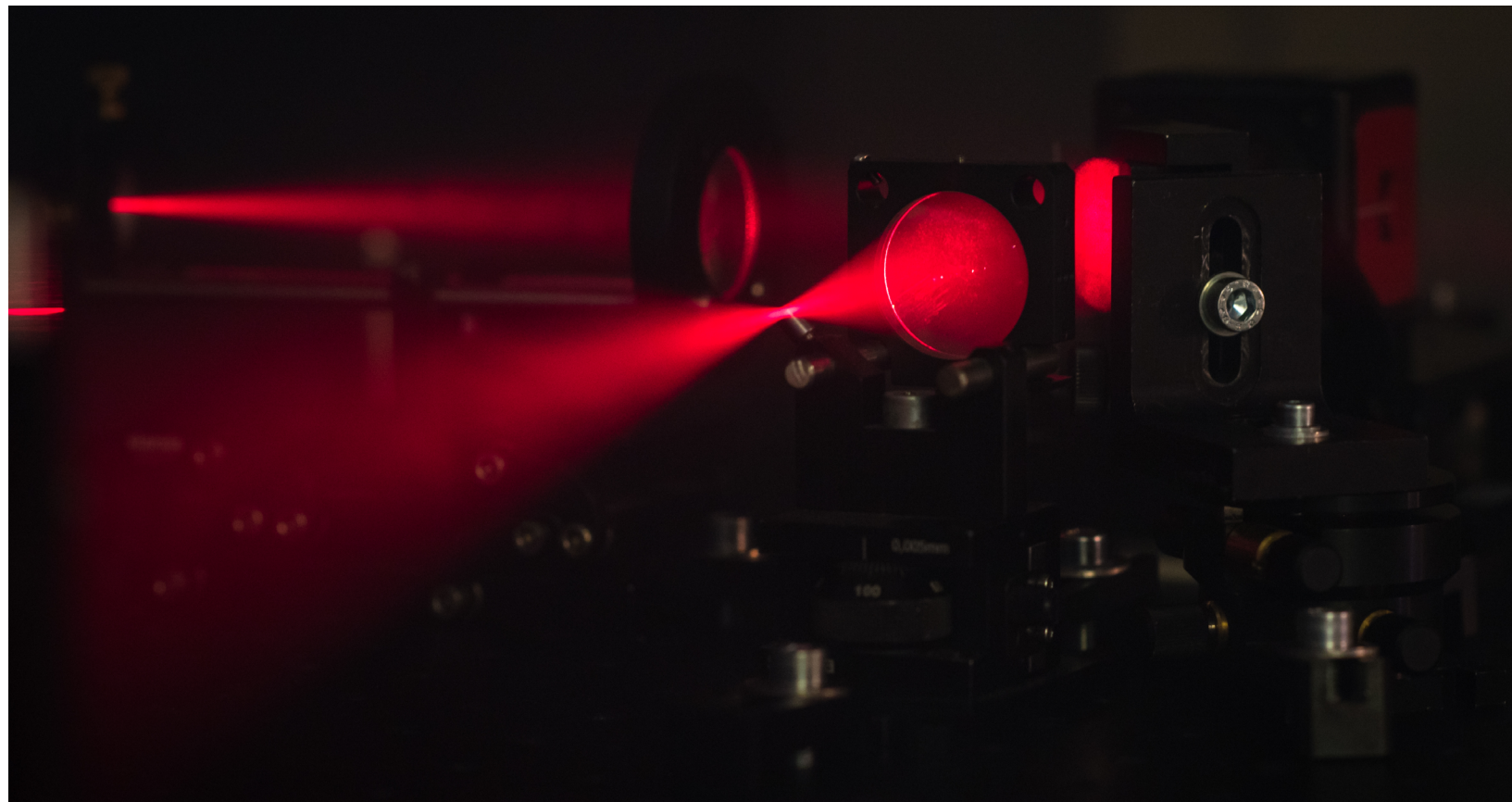


SAFETY



RAW DATA





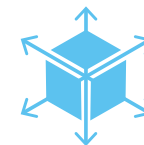
## LASER TECHNOLOGY

LASER technology works according to the principle of Time-of-Flight. The sensor sends an intense light impulse in a defined direction and measures the time until the signal returns.

When the light beams reflect off the multi-faceted mirror in our sensors, LASER curtains project across the designated area. Analyzing this information over a short timeframe makes it easy to determine an object's shape, speed, and direction. With both raw data or relay-based options, BEA offers a variety of sensors suitable for unique or popular applications — customizable or off-the-shelf.



**BACKGROUND  
INDEPENDENCE**



**VERTICAL / HORIZONTAL  
MOUNTING**



**PRECISE PRESENCE  
DETECTION**

# WHAT'S YOUR APPLICATION?



PERIMETER PROTECTION



AGV / AMR



CONVEYOR SYSTEMS



INDUSTRIAL DOORS



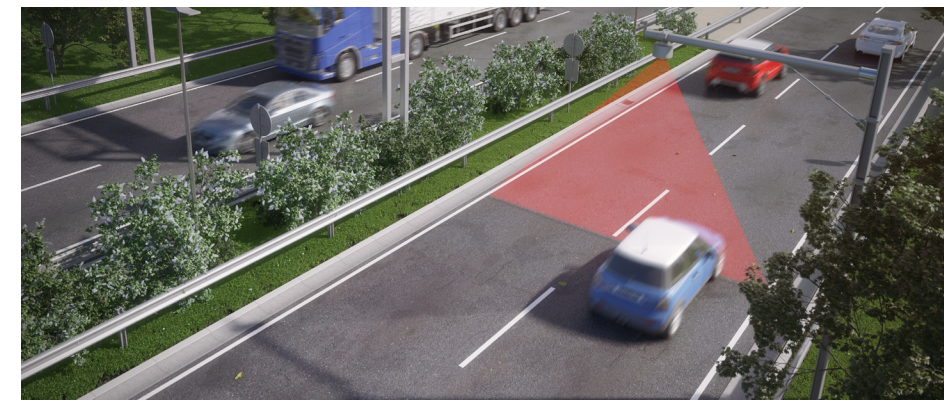
FORKLIFT NAVIGATION



SWING DOORS



MASS TRANSIT



VEHICLE CLASSIFICATION



## LZR®-FLATSCAN S

### COMPACT LASER SCANNER



- Full coverage to the PSD area with intensive curtain providing highest level of protection comparing with traditional technology
- Self-learning of the environment and background to avoid false detection, in case of irregularities within the detection area
- The compact and slim design of 3 mounting sides makes it very suitable to install on multiple applications

## LZR®-FLATSCAN W

### SAFETY SENSOR FOR AUTOMATED WINDOWS



- Pattern covers the entire window – including the inner frame borders – up to 13 feet
- Universal mounting base offers flexible installation and allows a variety of positions to suit niche application needs
- One or both virtual push buttons can be programmed to activate the opening or closing of the window



## LZR®-FLATSCAN SW

### STAND-ALONE, DOOR MOUNTED SWING DOOR SAFETY SYSTEM



- Leading edge safety extends the detection area beyond the leading edge of the door for enhanced safety
- Easy door width programming with Hand Gesture Setup™ reduces configuration time
- LASER technology provides a reduced uncovered zone of down to 3/4 inch
- Hub-less system offers fewer components for easier setup and installation

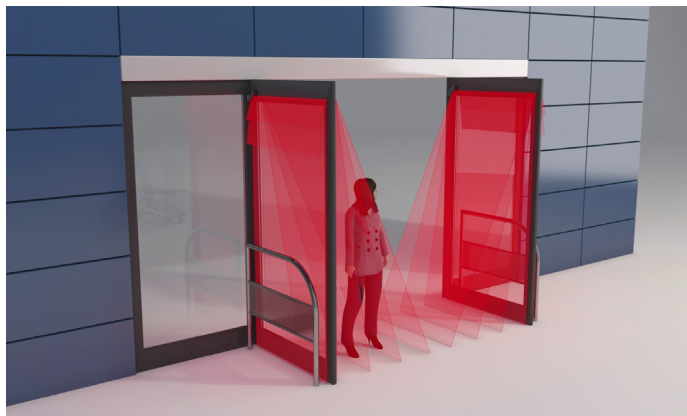
## LZR®-FLATSCAN 3D SW

### FOUR CURTAIN STAND-ALONE, DOOR-MOUNTED SAFETY SYSTEM WITH VIRTUAL PUSH BUTTON FUNCTIONALITY



- The four detection curtains ensure full-safety coverage of the leaf, hinge area and leading edge of the door
- Virtual Push Button functionality offers an additional form of initial activation
- Offers all the benefits of LZR-FLATSCAN SW





## LZR®-MICROSCAN T

### STAND-ALONE, DOOR-MOUNTED, SWING DOOR SAFETY SYSTEM



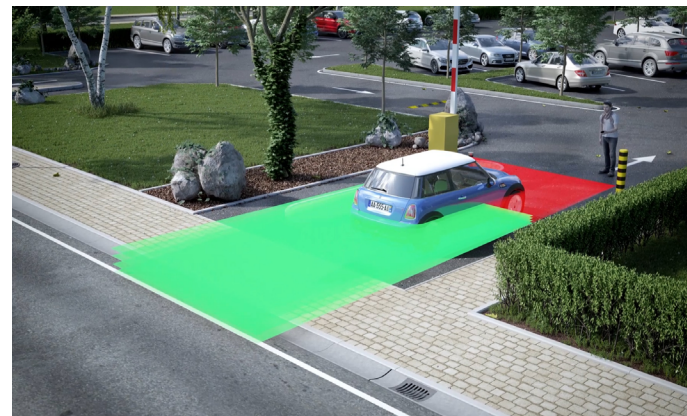
- Plug & play technology utilizing a centralized hub and intuitive LCD interface greatly reduces installation and setup time
- High resolution, self-adapting detection zones, coupled with reduced uncovered zones create the most accurate and reliable safety sensor
- Fully monitored internally, capable of external monitoring
- Meets UL 10B/C, fire rated for up to three hours

## LZR®-WIDESCAN

### MOTION, PRESENCE & SAFETY SENSOR FOR INDUSTRIAL DOORS

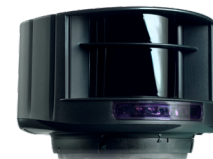


- Utilize mobile app to easily configure sensor settings (available on the Apple App Store & Google Play Store)
- Virtual pull-cord function can differentiate between pedestrian and vehicle traffic and can provide pulse-on-stop activation
- Two visible LASER alignment spots ensure accurate pattern placement
- Promotes energy savings by reducing false detections / unnecessary door cycling, helping to regulate HVAC



## LZR®-H100

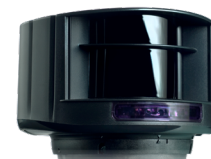
### LASER SCANNER FOR VIRTUAL LOOP APPLICATIONS



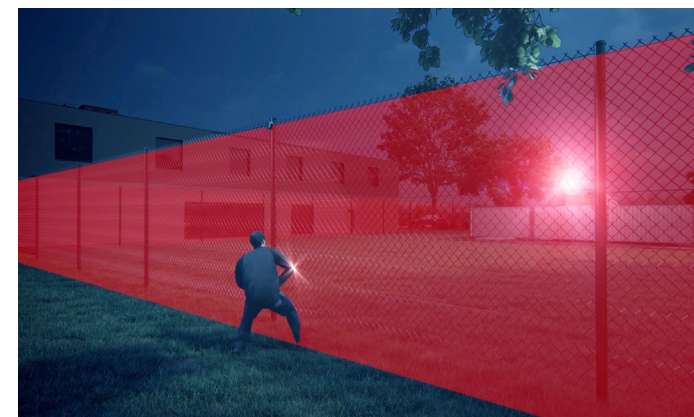
- Ideal for applications where cutting ground for loops is prohibited, impossible or expensive
- Two relays allow for activation via motion or presence
- Time-of-Flight presence-based opto-electronic sensor ensures accurate and immediate detection
- Ability to detect vehicle trajectory during approach and departure

## LZR®-S600

### LASER SCANNER FOR BUILDING AUTOMATION AND SECURITY



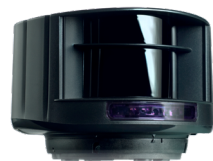
- External entrapment protection device capable of monitoring with interfaces building management systems
- Maximum detection range of 82 x 82 feet
- High immunity to environmental interferences
- Has the ability to ignore dynamic ground conditions and extreme weather







**LZR®-I30**  
LASER SCANNER FOR INDUSTRIAL AUTOMATION



- Four curtains of detection each capable of 30 × 30 feet
- Detects objects as small as 2 inches at 30 feet away, depending on application
- Has the ability to ignore dynamic ground conditions and extreme weather
- Three visible LEDs for pattern alignment



**LZR®-U920 / U921**  
COMPACT RAW DATA LASER SCANNER



- Background or substrate has limited effect on measurements
- Measurement range: up to 65 m (213 ft)
- Standard RS485 bus communication (bi-directional)
- No external illumination of target object necessary as compared to camera systems

**IT'S ALL AROUND US**  
**LASER TECHNOLOGY**

BEA's LASER technology produces intense light beams at a rate of over 16,000 pulses per second - faster than the human eye blinks!

When these light beams reflect off the multi-faceted mirror in our sensors, curtains of LASER spread across your designated application. With the speed at which the beams pulse and the coverage of the LASER curtains, BEA's LASER sensors can detect objects as small as two inches.



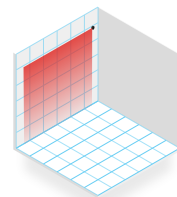


**LZR-FLATSCAN S**

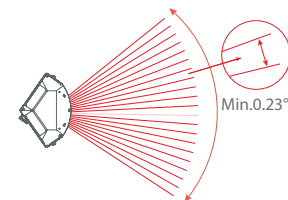
**DETECTION RANGE**

18' x 18'

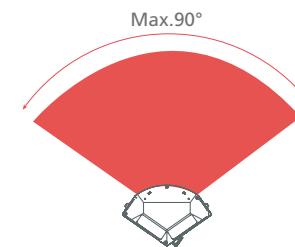
**DETECTION FIELD**



**ANGULAR RESOLUTION**



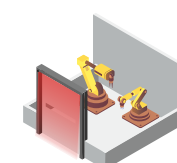
**ANGULAR COVERAGE**



**ENCLOSURE RATING**

IP66

**APPLICATIONS**



Machine Protection

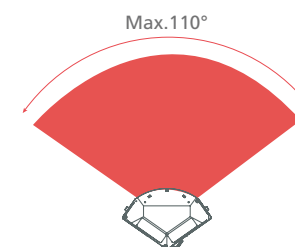
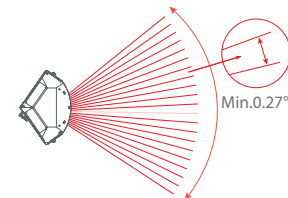
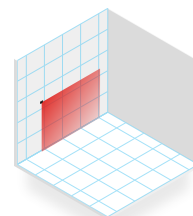


Toll Gate Tailgating

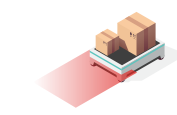


**LZR-FLATSCAN W**

13' (diagonal) with reflectivity of 2%



IP54



AGV / AMR

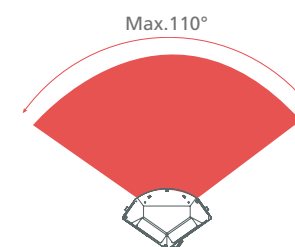
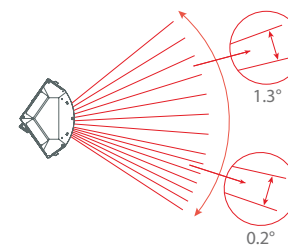
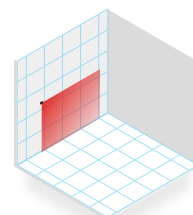


Automated Windows



**LZR-FLATSCAN SW**

13' (diagonal) with reflectivity of 2%



IP54 (EN 60529)



Swinging Doors

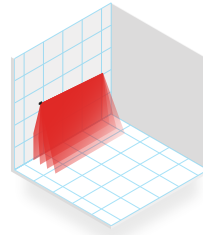


### LZR-FLATSCAN 3D SW

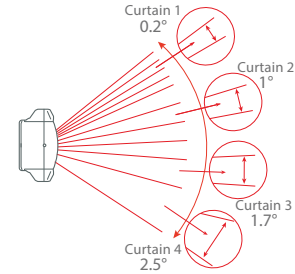
#### DETECTION RANGE

13' (diagonal) with reflectivity of 2%

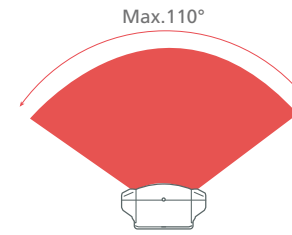
#### DETECTION FIELD



#### ANGULAR RESOLUTION



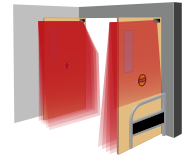
#### ANGULAR COVERAGE



#### ENCLOSURE RATING

IP44 (IEC 60529)

#### APPLICATIONS

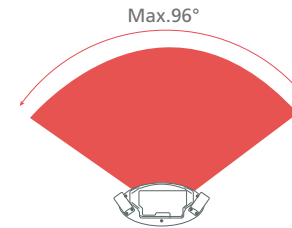
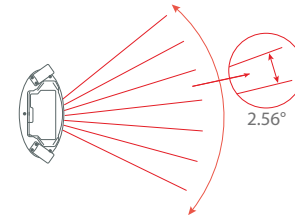
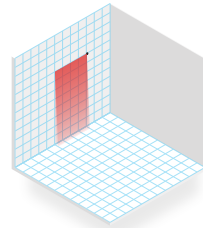


Swinging Doors



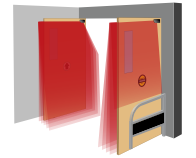
### LZR-MICROSCAN-T

18' x 18'



Hub  
IP20 / NEMA 1

Sensor  
IP53 / NEMA 3

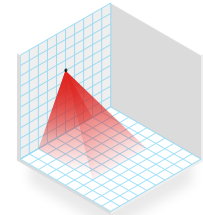


Swinging Doors



### LZR-WIDESCAN

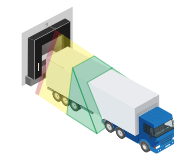
1.2 x Mounting Height



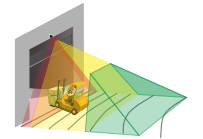
INFORMATION NOT AVAILABLE

INFORMATION NOT AVAILABLE

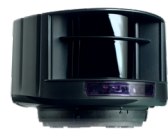
IP65



Loading Docks



High Performance Doors

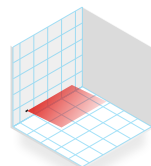


**LZR-H100**

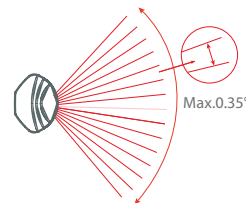
**DETECTION RANGE**

32' x 32'

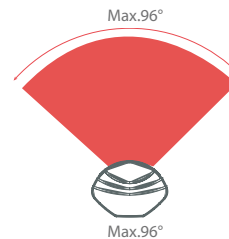
**DETECTION FIELD**



**ANGULAR RESOLUTION**



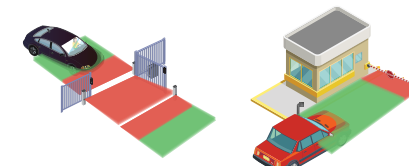
**ANGULAR COVERAGE**



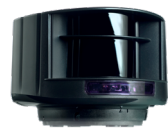
**ENCLOSURE RATING**

IP54 (EN 60529)

**APPLICATIONS**

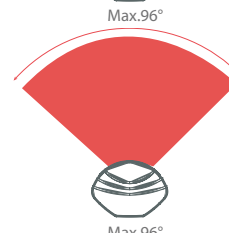
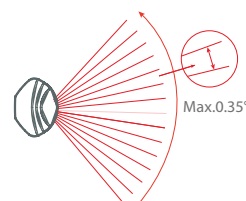
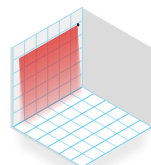


Gates & Barriers

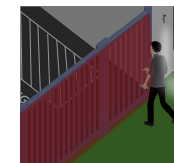


**LZR-S600**

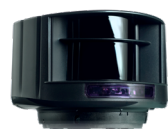
Default: 33' x 33' @  
2% remission factor  
(max 82' x 82')



IP44 (IEC 60529)

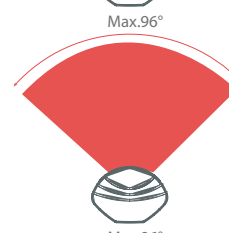
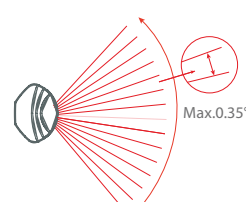
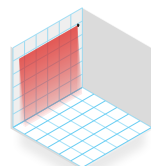


Perimeter Protection

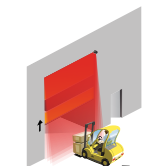


**LZR-I30**

30' x 30'



IP65

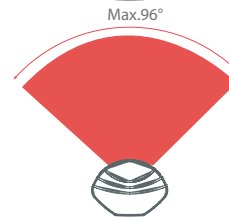
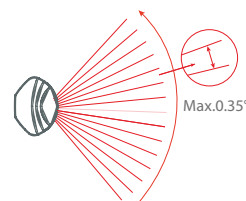
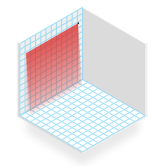


Automatic Industrial Doors



**LZR-U920/U921**

213' / 30' @ 2% remission factor



IP65



Profile Analysis

# KEEP IN TOUCH

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