



Deutsch-Thai
Handelskammer
German-Thai
Chamber of Commerce



Sensor Systems for Lighting Automation

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www.encyfromgermany.info

giz

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on the basis of a decision
by the German Bundestag

STEINEL

Company Presentation 2013

STEINEL



Steinel – Pioneer and Technology Leader in Sensor Technology



World's
First
Sensor
light

First
Steinel
IR-
sensor

World's
First
HF
sensor

High
End LED
flood
lights

Launch
of i-HF
sensor

World's
first HR
sensor

1987

1988

2000

2004

2013

2014

Figures and Facts

6 European
manufacturing
sites

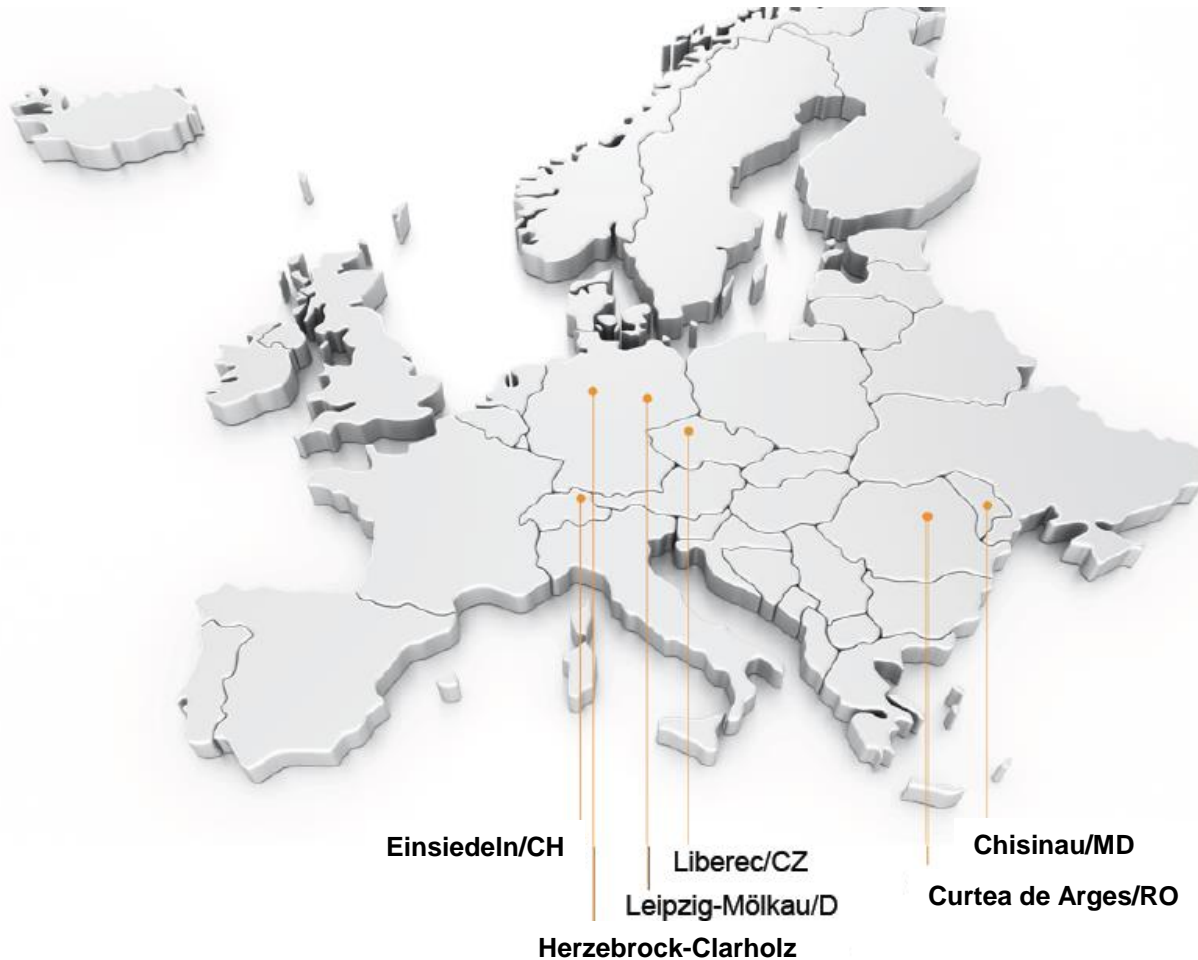
Worldwide
Sales

Founded
1959

Worldwide leader in
Sensor Technology

1.300
Employees

Steinel make all Products by themselves



**German Quality
made in Europe**

Sensor Technology For Home Use

STEINEL DIY



**Sensor LED Floodlight
XLED Home 3**



**Sensor LED
Outdoor Light L625 LED**



**Design Sensor
Indoorlight RS LED D2**



Sensor IS 140

Sensor Technology for Commercial Application

STEINEL Professional



**Presence Detector IR
Quattro HD**



**LED Outdoor Floodlight
XLED 25**

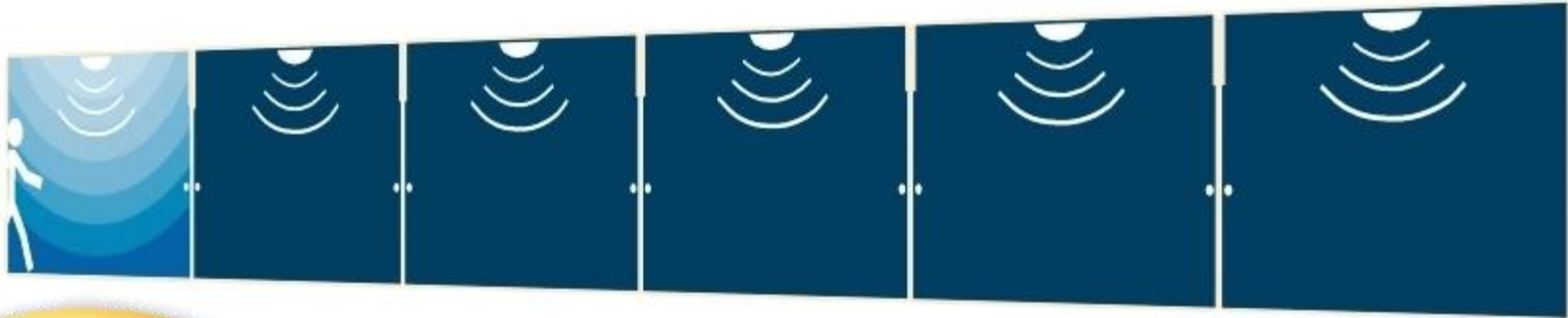


Camera Sensor HPD1



**Sensor Indoorlight
LED S1**

Highest Energy Efficiency



**Clever
Energy
Utilisation**
STEINEL®

Light only when it is needed – automatically.

Light which is not needed is wasted energy.

The Benefits of Steinel Intelligent Lighting Systems

1. Energy saving
2. Comfortable living
3. Enhanced security

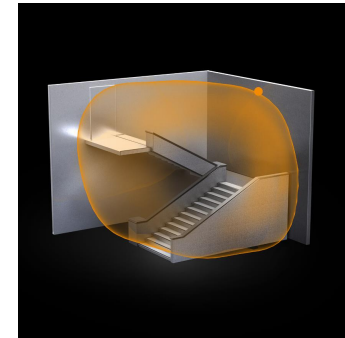
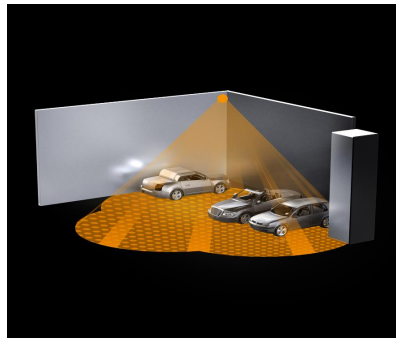
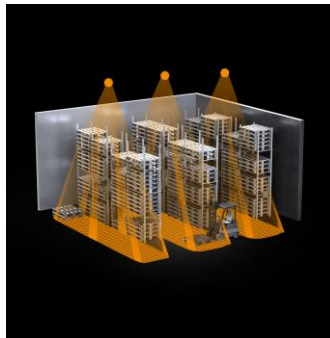




STEINEL's Product Overview
Motion Detectors & Indoor and
Outdoor lights

Sensors and Sensor Lights

Wide range of sensors and sensorlights for all kind of applications...



Staircase

HF 3360



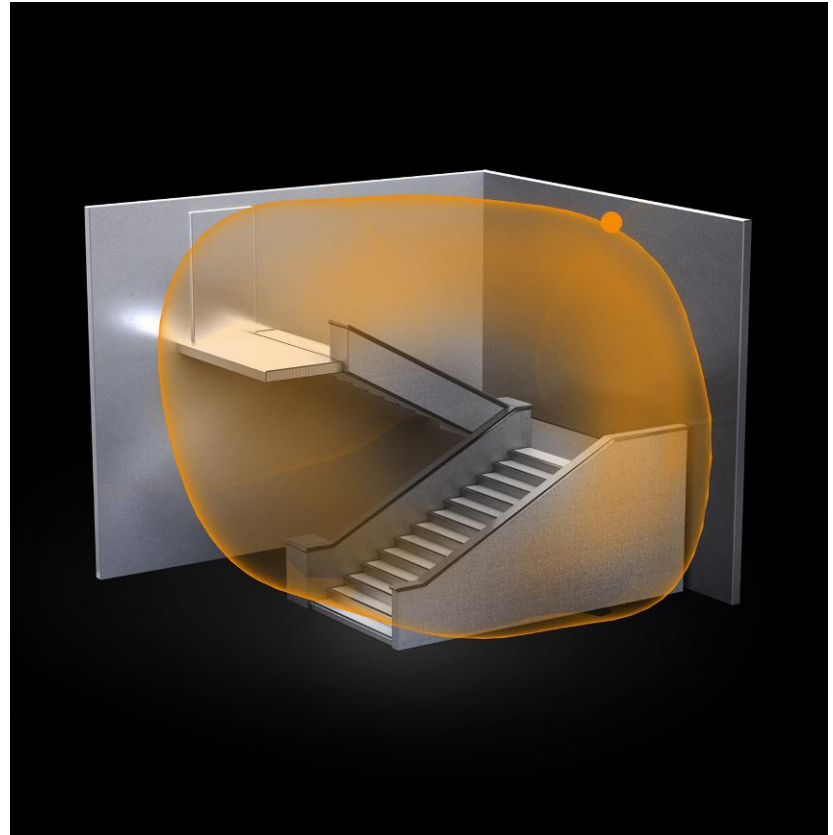
Technical Data

Detection Zone:

8 m max. all around
infinitely variable

Detection Angle:

360° with 140° angle of aperture, also
through glass, wood and stud walls



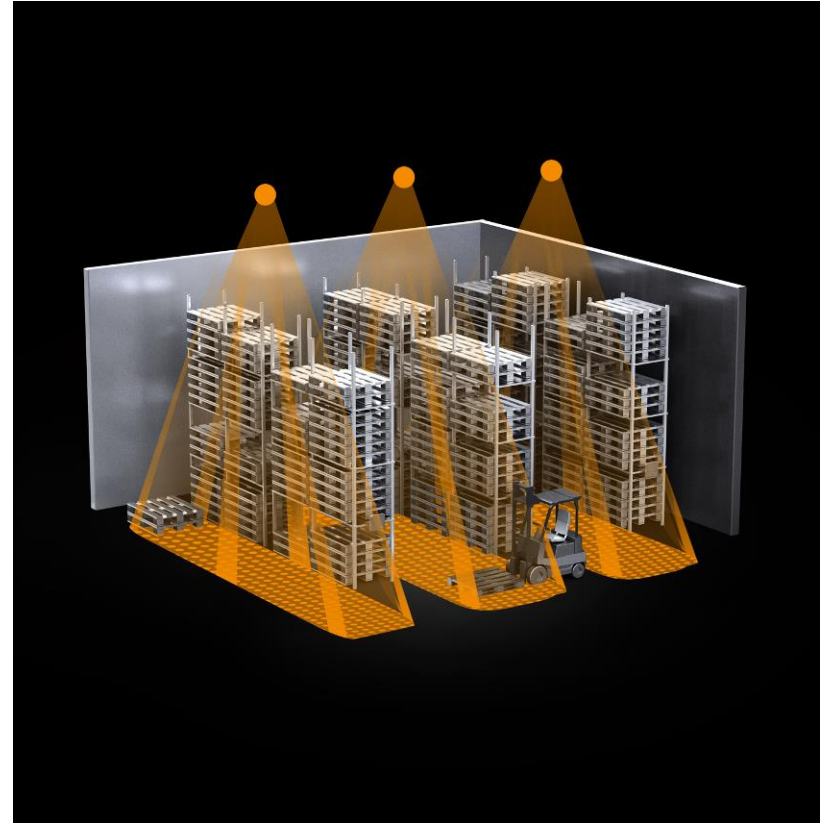
Warehouse

IS 345 MX Highbay



Technical Data

- Detection Zone:** max. of 30 x 4 m (radially) mounted at a height of 12 m
Precision adjustment by re-positioning the lens and shrouds
- Detection Angle:** 180° with 45° angle of aperture,
- Sensor System:** 5 detection levels,
280 switching zones



Parking Garage

IS 3360



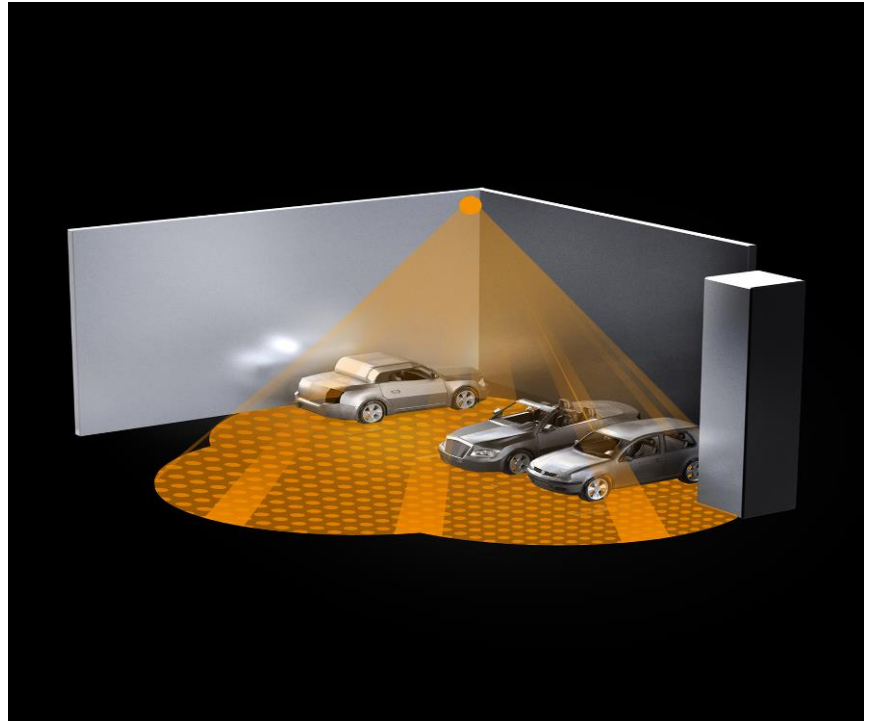
Technical Data

Square Detection Zone: 10 m max. radially
20 m max. tangentially
precision adjustment using shrouds

Installation Height: 2.5m – 10m ceiling height

Detection Angle: 360° with 180° angle of aperture

Sensor system: 11 detection levels,
1416 switching zones



Presence Detectors

IR Quattro HD



Technical Data

Square Detection Zone: Presence 8 x 8 m max. (64 sqm)
Radially 8 x 8 m max. (64 sqm)
Tangentially 20 x 20 m max. (400 sqm)

Installation Height: 2.5m – 10m ceiling height

Sensor System: 13 detection levels
4800 switching zones

Parallel Connections: Master/ Slave
Master/ Master

Interfaces: COM 1, COM 2, DIM, KNX, DALI



Presence Detectors

IR Quattro Slim



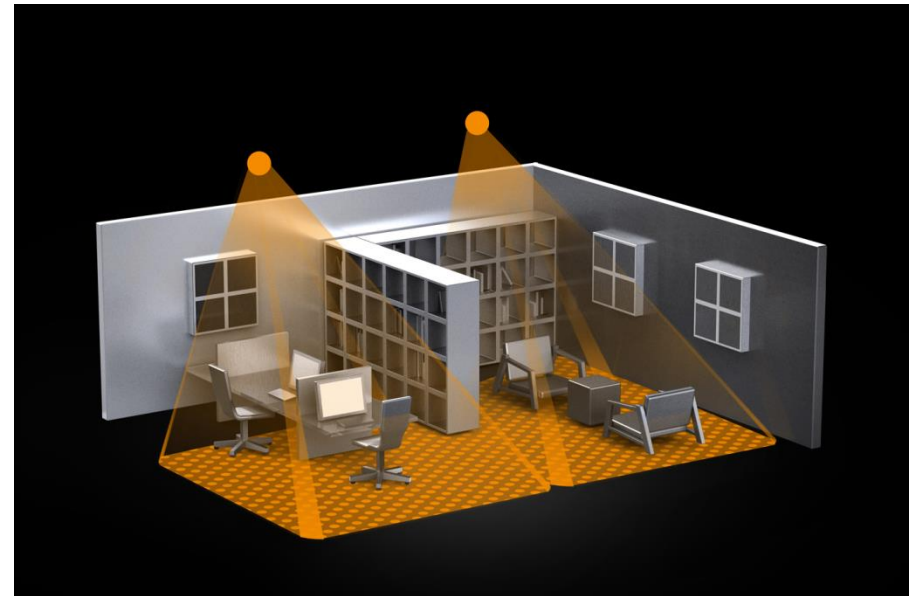
Technical Data

Square Detection Zone: Presence 4 x 4 m max. (16 sqm)
Radially 4 x 4 m max. (16 sqm)
Tangentially 4 x 4 m max. (16 sqm)

Installation Height: 2.5 m – 6 m ceiling height

Parallel Connections: Master/ Slave
Master/ Master

Interfaces: COM 1, COM 2, DIM, KNX



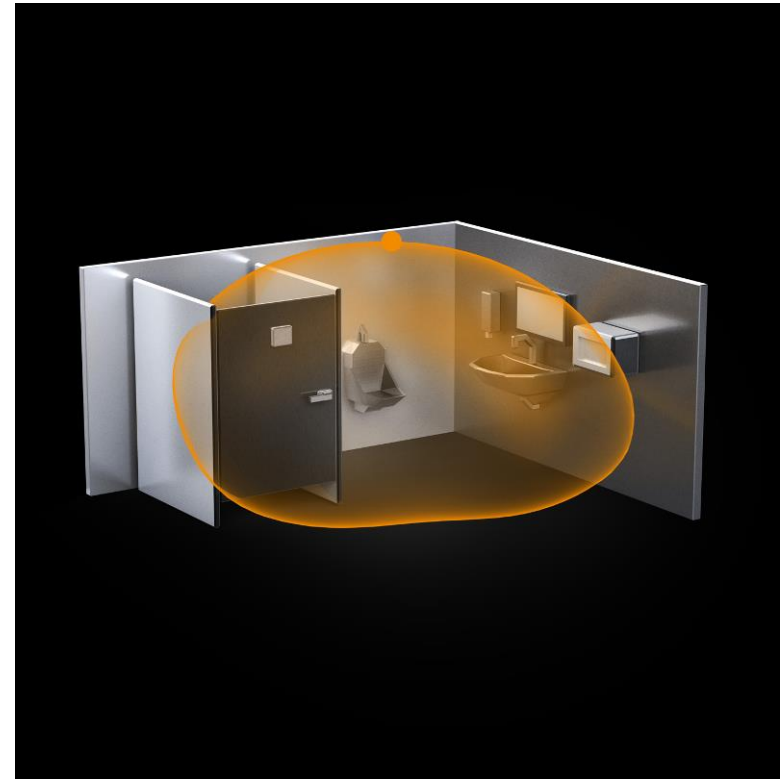
Presence Detectors

HF 360



Technical Data

Detection Zone:	8 m max. all round
Installation Height:	2.5 m – 3.5 m ceiling height
Parallel connections:	Master/ Slave Master/ Master
Interfaces:	COM 1, COM 2, DIM, KNX, DALI



Presence Detectors

Dual HF



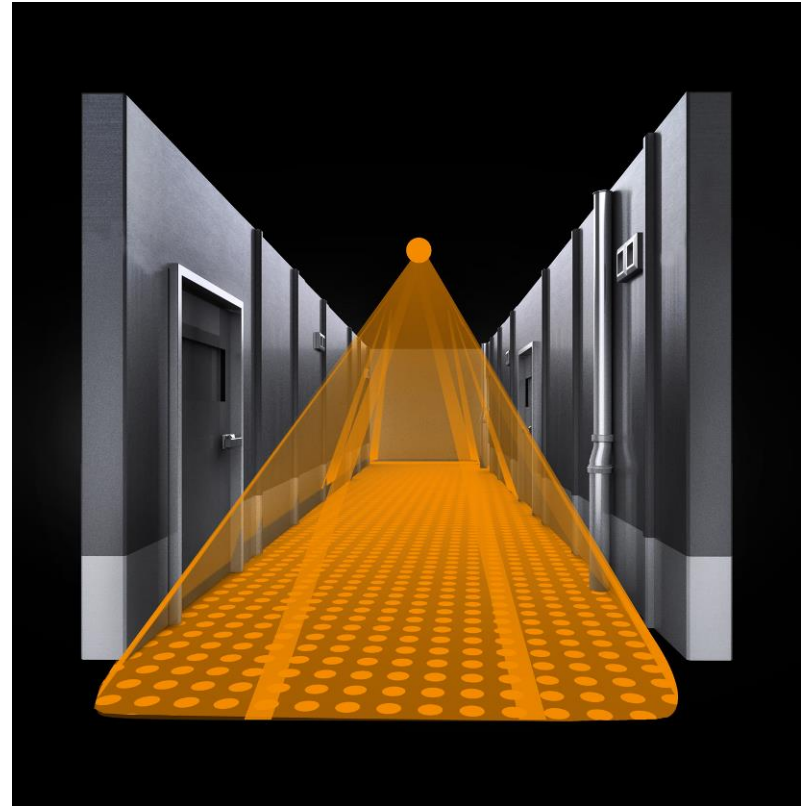
Technical Data

Detection Zone: 10 x 3 m max. in each direction

Installation Height: 2.5 m – 3.5 m ceiling height

Parallel connections: Master/ Slave
Master/ Master

Interfaces: COM 1, DIM, KNX, DALI



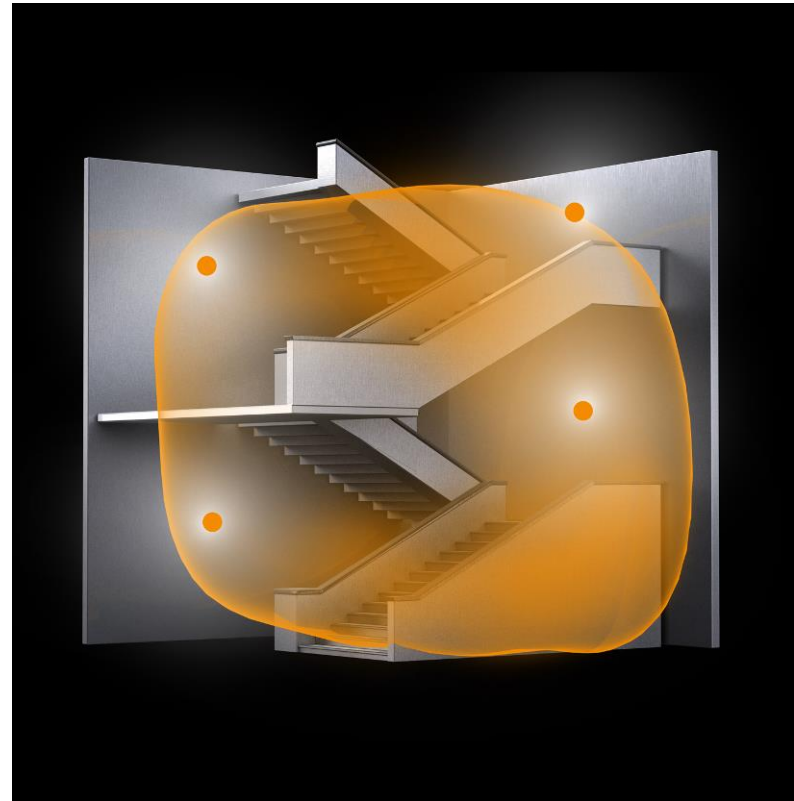
Corridor – Sensor light

RS Pro LED S1



Technical Data

Dimensions:	300 x 300 x 67 mm
Output:	16W LED (1.8W dimmed)
Efficiency:	Plastic PC: 535 lm Plastic PMMA: 760 lm Glass: 660 lm
Detection Zone:	1 – 8 m all around infinitely variable in 4 directions
Detection Angle:	360° with 160° angle of aperture



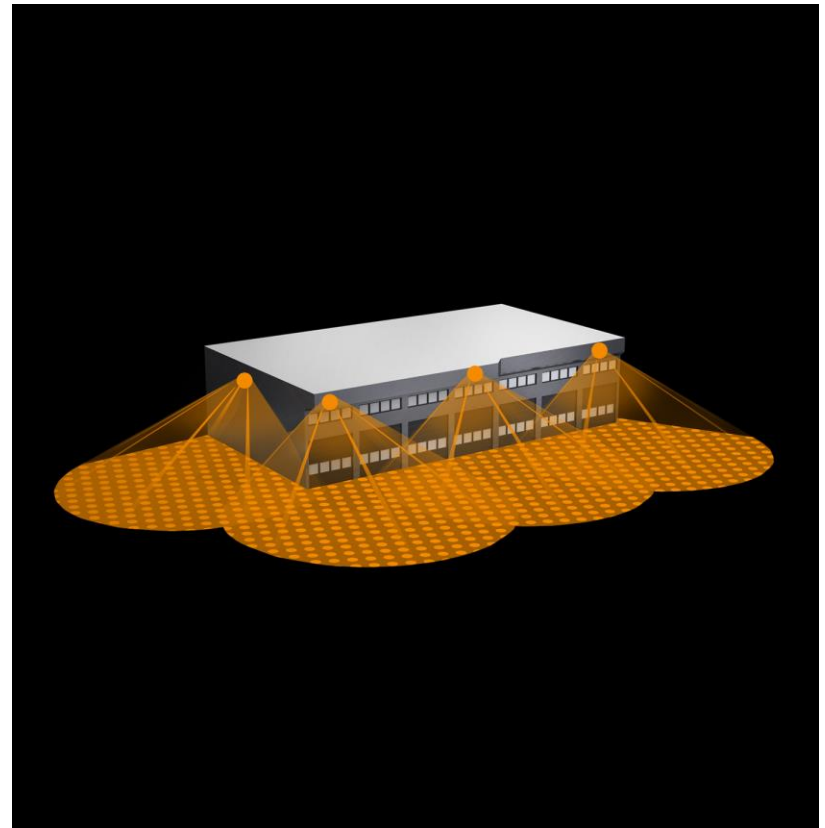
Outdoor LED flood light

XLED 25



Technical Data

Dimensions:	300 x 200 x 220 mm
Output:	25 LEDs, approx. 60W LED/ 2118 lm
Life of LEDs:	up to 50.000 hrs (at 3hrs./day approx. 45 years)
Detection Zone:	12 m all around
Detection Angle:	240° with sneak-by guard
Temperature Range:	-20° C to +50° C
IP Rating:	IP44





References

References

Car Parking Area, Worms, Germany

Assignment

Underground car park automation
using existing lighting

Spatial situation

- 3 parking levels of
- 35 m x 56 m area
- 2,8 m height
- 1960 m² per level
- 5880 m² total area

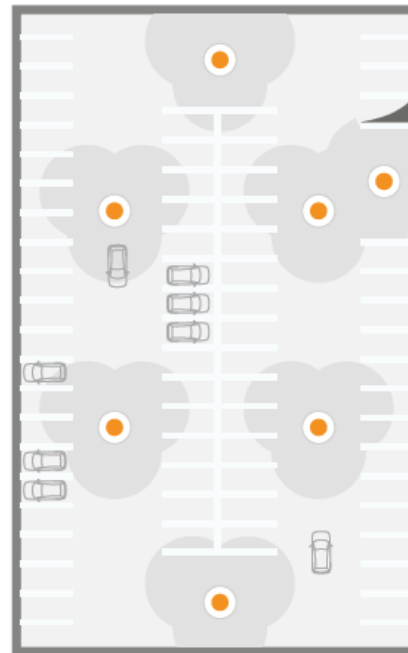
Current status

- 84 x T8 diffuser luminaires
- 24 h lighting
- Consumption: 48.774 kW
- Energy costs p.a.: € 12.307,00

Solution

- 7 x IS 3360 per level
- 21 sensors total

Dimension 35 m x 56 m



Sensor detection



tangential

radial

References

Car Parking Area, Worms, Germany

Cost

21 motion detectors IS 3360 €1.870,26

Installation €1.188,00

Summe **€3.058,26**

Sensor / qm €0,32

Total / qm €0,53

Electricity costs p.a. €12.307,00

Electricity savings (62 %) €7.656,00

Pay back 4,7 months

CO₂ savings 17.52 t

References

Energy Plus House, Berlin



References

Dubai, Marina 23



References

St. Regis, Bangkok



JW Marriott, Phuket



References

St Andrews International School



IKEA Warehouse



Thank you very much for your attention!