

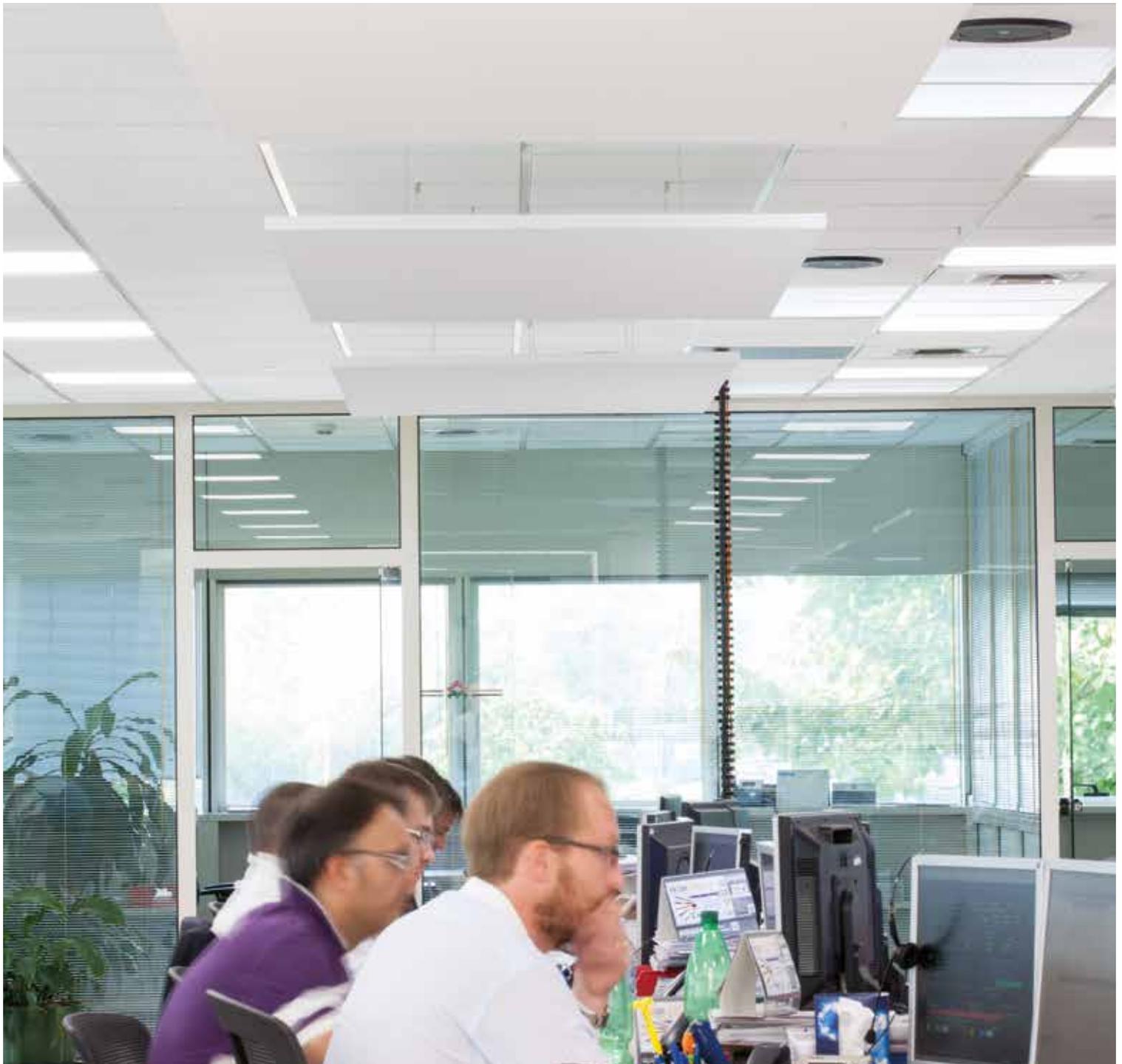
THORN

LIGHTING PEOPLE

Case Study

Autamarocchi SPA

Energy Savings:
62%



LED lighting and controls bring multiple benefits to headquarters of Italian transport company



Energy Savings:
62%



Payback:
4 years



Background

Autamarocchi is a large and specialist transport company with its headquarters in Trieste, Italy. Working with some of the biggest shipping companies and global logistics operators, it makes approximately 1 000 road trips across Europe every day.

Lighting objectives

In order to maintain its service excellence and high quality working environment for employees, Autamarocchi identified it was necessary to renew the lighting system throughout its headquarters to achieve better light quality. Another issue that needed to be addressed was the year-on-year increasing maintenance costs.

Autamarocchi turned to its trusted designer, Luca Pellizzoni, to renew the lighting. Luca had already commissioned the successful installation of Thorn luminaires in separate Autamarocchi offices in 2010.

For Autamarocchi's headquarter control room, where all the critical daily activities are managed, an average of 500 lux on the work surface was required. Consideration was also needed for the differing lighting requirements in the room's various areas.

In the 3 000sqm workshop, as well as improving light output, Autamarocchi was keen to see a reduction in its high energy and maintenance costs for this area. Historic attempts to improve the lighting had reduced maintenance but not lowered energy consumption.

Lighting solution

Having tested luminaires from other manufacturers, Luca commissioned Thorn's luminaires once again based on the lighting performance and corresponding lighting controls. Supported by Thorn's expertise, the lighting design involved all work environments, the basement, the ground floor and the hallways.

In the control room and offices, the old fluorescent lighting was replaced with Thorn's Omega LED luminaire, which uses 50% less energy than fluorescent alternatives and offers adjustable mounting options. The installer and owner of CNLuce, David Ciani, commented that Omega LED was easy to install within the existing 600x600 squares.

In the workshop, the existing 250W metal halide lamps consumed a lot of energy and provided poor quality light with insufficient illuminance. They were therefore replaced with Thorn's robust, low maintenance and energy saving 150W HiPack Pro LED industrial high bay luminaire.

To maximise energy savings in the workshop, eight lighting zones were created, each managed by Thorn's Sensa lighting management system, including occupancy and daylight controls.



Results and benefits

Autamarocchi's lighting maintenance costs have historically been very high but with a 50 000-hour operating life, the LED luminaires virtually eliminate costly, inconvenient and time consuming maintenance operations.

The use of Thorn's Sensa lighting management system in the control room has introduced occupancy and daylight sensors to automatically adjust lighting to the ever-changing environment. Moreover, local dimming controls allow employees to adjust lighting to their specific needs.

As a result of the new LED lighting, total annual energy consumption at Autamarocchi's headquarters has reduced by 62% from 84 714 kW/h to 31 872 kW/h. This will ensure the payback time will be a maximum of four years.

Alessandro Zabai from Autamarocchi, says: *"The old lighting system comprised fluorescent lamps so now that we have LED lighting, the general atmosphere is completely different. I'm amazed at the possibilities that our LED lighting gives us to customise the lighting to different environments. Like a tailored suit, it responds to diverse visual needs. As for energy consumption, we are confident we will see a short payback time thanks to our lower energy costs."*

Products



Omega LED

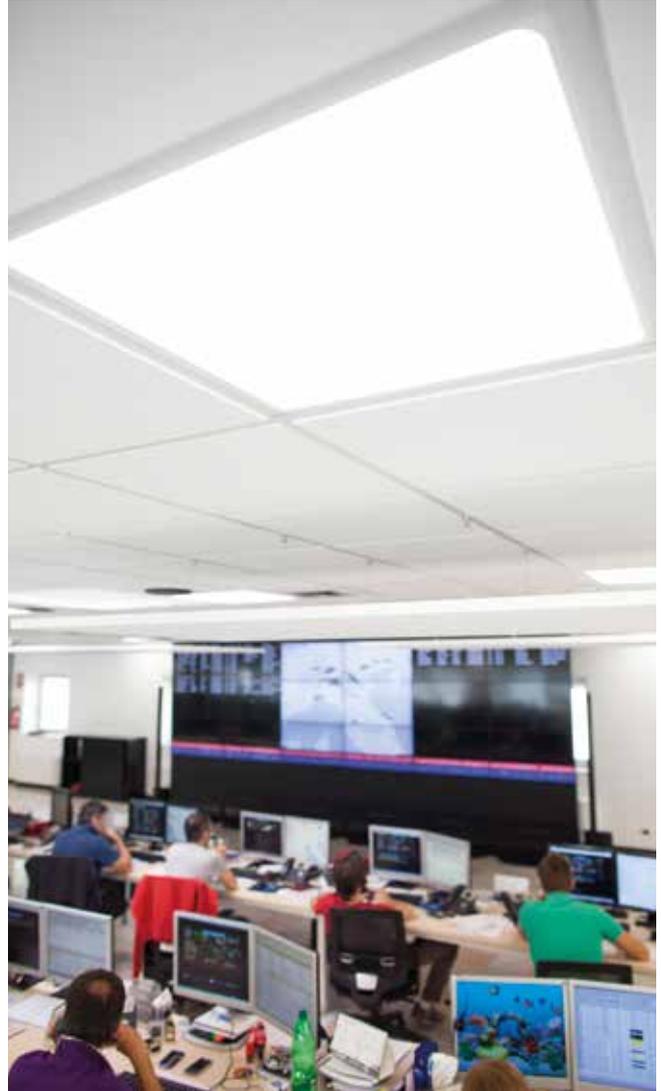


HiPak Pro LED

- Sensa lighting management system

Key facts

- Efficient, low maintenance LED luminaires improve light quality
- Lighting controls provide a comfortable yet energy efficient working environment
- Energy consumption reduced by 62%
- Payback time of four years



eControl From Thorn's 15 ways to save energy, the following are key to minimising energy consumption at Autamarocchi's headquarters:



Lamp efficacy

Lamp efficacy is important because the amount of light emitted from a lamp (in lumens) compared to the amount of power used by the lamp to produce it (in Watts) is key for energy efficiency. The new luminaires installed at Autamarocchi have a high efficacy.



Zoning of lighting

The zoning of the lighting allows luminaires to be controlled with respect to local conditions in each area without impacting adjacent spaces.



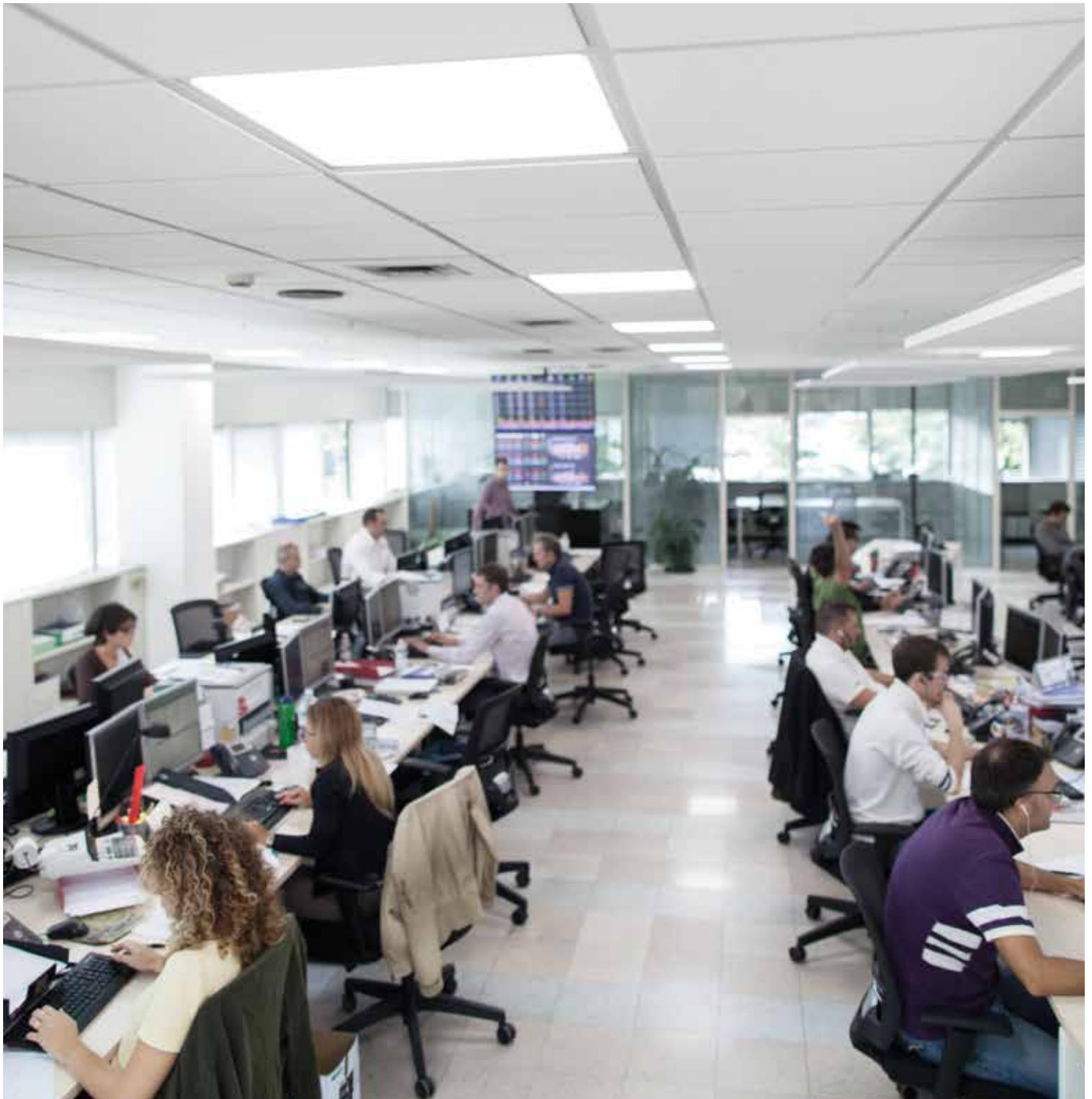
Presence/absence detection

Sensa controls detect when the space is empty and automatically turn the lights off to prevent energy being wasted.



Daylight detection

Sensa controls detect when there is sufficient daylight to automatically dim or turn the lights off and prevent energy being wasted.



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