

# IN Your Innovation

## LUMINAID User Story



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## Light reaches exactly where it should when the smallest movement is detected

No less than 75 kilometers of light lines to be installed in a brand-new multi-floor distribution center where each of the many small aisles must be illuminated only on when someone's presence is detected. How do you offer the customer such measured detection? How do you always create the right illumination zone, corridor after corridor? LUMINAID, a specialist in linear lighting systems, found the solution partly thanks to utilizing 7,000 PIR sensors. Panasonic Industry not only supplied the PIRs, but they also thought about the application requirements and supported the project specifications of LUMINAID.



A company where research & development plays such an important role. Where all the attention is for testing, experiencing and then trying again. Innovative? Yes, that's how we can see [LUMINAID](#) according to owner Frank Dings. Take, for example, the integration of emergency lighting in line lighting. "Several suppliers are now using this. But we were first." Think of it as the drive to want to lead the way. To be stubborn, as Frank himself describes it. "We are critical, constantly looking for ways to improve."

LUMINAID is located in Oud Gastel, just north of Roosendaal. 'Long light' is what it's all about here, intended for systems for environments such as warehouses, parking garages and, for example, also the food processing industry. Not one project is the same, and how nice is it that we as a company master the entire process, product manager Rob Verstraaten says. "We offer a complete concept to our customers. We calculate, engineer and produce. After this we take care of the delivery, installation and integration of the lighting."

Another useful feature of LUMINAID's system, according to Rob, is by linking the light lines both the electronics and the mechanics click together directly. "It works quickly, looks elegant and makes the light lines robust. Dust can hardly reach it, and the lighting also meets the IP65 standard. The fixtures can be cleaned quickly and safely."



From left to right: Rob Verstraaten, Product Manager at LUMINAID; Raul Heijs, Supply Chain Manager at LUMINAID; Frank Dings, LUMINAID Co-owner; Ivo van Erp, Key Account Manager at Panasonic Industry

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## Narrow, short and low

Lighting for more efficiency. For savings and more sustainability. Each customer has their own goals when they call on LUMINAID for their lighting systems. This also applies to a customer in the retail sector, who was looking for lighting for their own newly built warehouse.

In terms of floor space, the building was not much different from other distribution centers. But the layout was, with the racks on several floors and many paths that intersect on those floors. A puzzle almost, with aisles each about two to three meters width and only three meters high.



In such an environment, try to regulate the lighting optimally – read efficiently. In any case, according to Raul Heijs, supply chain manager at LUMINAID, it is challenging. “The aisles in the warehouse are short, narrow and low. So how do you make sure when someone is in a small hallway, the light only turns on in this particular hallway? We had to go into zones for each corridor separately, with motion detection on both sides of each corridor. Everything is tightly adjusted to within half a meter.”



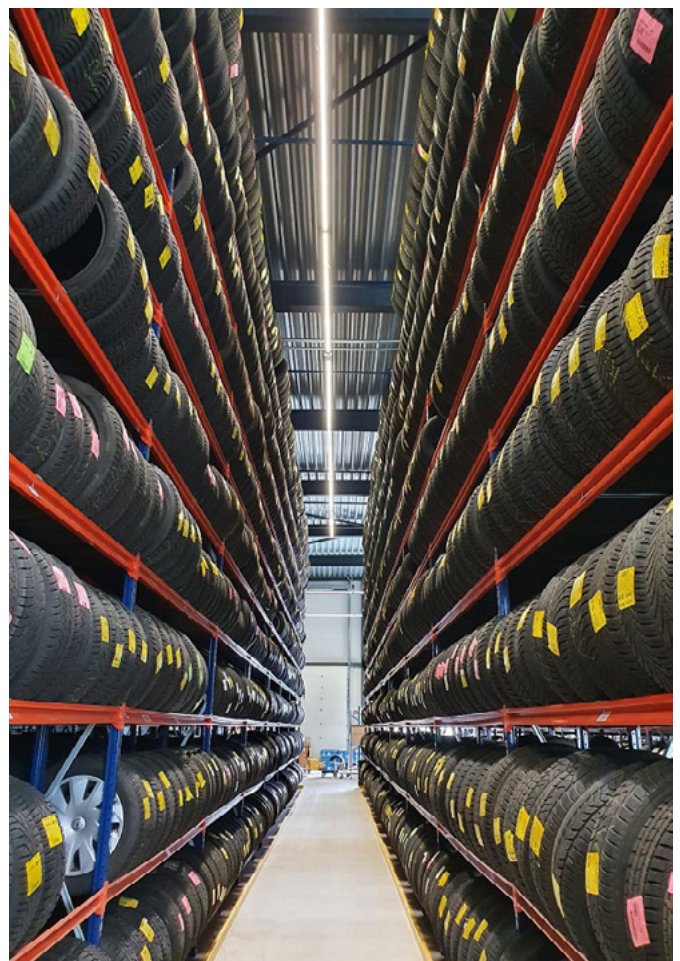
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## Every sensor is the same

LUMINAID drew and calculated. And tested a lot, in the test set-up in their own production hall in Oud Gastel. It was clear the assignment called for a project-specific solution, in which the company considered developing the sensors itself, according to Frank.

“We can do a lot ourselves; we know the basic technology of sensors. We thought about proceeding this way, until we noticed the sensors from Panasonic Industry. It soon became clear to us that they offered what we were looking for. The all-in-one sensor (lens & electronics combined) eliminates the need for us consider criteria to design a new PIR from scratch; the Panasonic sensor solution already exists.”

Rob nods in agreement at Frank’s words. “We are light experts, not sensor experts. Still, we want us to lack nothing in the field of sensors, especially with such a huge number of sensors needed for this project. The sensors must always do what they are supposed to do, they must be identical to each other. And thus, offer certainty – for us and therefore also for the customer.”



Moreover, there is the aspect of convenience, Rob emphasizes. “Customers integrate our light lines without having to program them. The technology is contained in a small unit, containing the sensor in addition to a PCB. Precisely for this project the unit had to be even more compact, given the low ceiling height. The Panasonic sensors with their small size turned out to be very suitable for this. Moreover, they can be quickly integrated.”

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## Corridors become PIR locks

More specifically, the new warehouse utilizes Panasonic's PIR-sensors, where PIR stands for Passive InfraRed detection. The sensor itself does not emit a signal, but instead detects any slight difference in heat coming from a person entering the set zone. A movement by the same person causes a difference in temperature, after which that signal is picked up, amplified and passed on. Frank: "We have turned every aisle into a passive infrared lock, in which the sensors only look into the aisle. Walk into the path and you will be detected 100 percent for sure. The light comes on immediately, the detection works very sharply."

Panasonic Industry contributed ideas to the so-called lens masking, in order to prevent incorrect detection, for good shielding of each zone. "However well the sensors in the warehouse work, they are actually designed for use at a much higher altitude," says Ivo van Erp, key account manager at Panasonic Industry. "In that respect, this project provided us with new information. We share such knowledge internally, incorporate it into the development of our products and feedback the result to our customer. This creates valuable interaction, with two advantages: the customer receives the latest technology and continues to work with us on new developments."

With such a large scope, this project offered LUMINAID an excellent opportunity to apply such a new technique. Just think of the time needed for engineering, which, in addition to this assignment, must also pay for itself for future projects.

Raul: "An environment like the one in this warehouse is emerging. If we ever receive a similar assignment, we already have a large part of the knowledge in-house. In that respect, this was a great springboard, with the intention to use the Panasonic sensors for other projects as well."



### Indispensable for sustainability



In a time of climate change, sustainability is also high on the agenda for companies. So that aspect has gradually become a standard condition within every command LUMINAID is given.

Energy-efficient is what it should be, if only for the necessary BREAAAM certification for a sustainable built environment. "Sensors are indispensable for obtaining that certificate," says Rob Verstraaten, product manager at LUMINAID. "Although we can still get project-specific sensors working at the desk, integration in the field and the technology required for this is a different story. So, it's nice to be able to work with a company like Panasonic for this."

### About Panasonic Industry

As part of Panasonic Corporation's global business, people at Panasonic Industry strive for continuous innovation and share the company's mission and vision - shaping the future for the better. To take engineering to the next level, Panasonic Industry researches, produces and supplies technologies for a vast range of industries. From the tiniest electronic components manufactured in billions of units, to full-custom batch-size 1 factory automation devices, our clear focus on performance, quality and reliability sets the bar high in multiple market sectors and also in industry trends: industrial automation, smart home and building automation, energy solutions, E-mobility and automotive engineering, smart farming and many others. Being an integral member of Panasonic's global family, albeit with a strong network of local European partners, Panasonic Industry is proud to offer continuous and outstanding support to all customers.

### About LUMINAID

LUMINAID develops and manufactures lighting fixtures that provide so-called "continuous light". And that in combination with the integration of various functionalities such as sensors, cameras and audio. Our clients are installers and resellers who want the best for their clients. We do this with a dedicated team of specialists. LUMINAID's innovative linear light systems provide comfort and safety based on continuous light, taking into account both the end-user and the reseller. Easy installation, durability and extensive functionality are central to our lighting solutions.



We are dedicated to the highest standards of global sustainability as  
**Your Committed Enabler.** Find out more on our [website](#).

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