

PHILIPS

Outdoor lighting

Airports



Case Study
OptiVision
LED system improves
safety and cuts costs

Trondheim Airport Værnes, Norway

**Client**

Avinor AS, Trondheim
Airport, Værnes

Location

Stjordal, Norway

Lighting system

OptiVision LED



Background

Trondheim Airport, Værnes, is Norway's fourth largest airport, with nearly 5 million passengers a year, and it is growing. The air route between Trondheim and Oslo, with 35 flights a day, is the fifth largest in Europe in terms of passenger numbers.

The project

Værnes Airport needed new area lighting to be installed from scratch in the aircraft parking area or apron area, as it is also known. The lighting had to provide adequate light output, comply with the regulations of the Norwegian Air Traffic and Airport Management (now Avinor), be able to withstand rough weather and not be a nuisance for either cabin crew or ground staff.

Tor Arne Larsen, Head of Avinor's Electrical Department at Værnes, says:

"I asked Philips to look into the possibilities of developing a long-life lighting system that would be a complete solution and comply with the government requirements. We do have suppliers who offer similar products, but we have chosen the one who in addition to the perfect light quality, is experienced and reliable to deal with after sales support after several years, when we possible need service.

Philips's OptiVision LED proved to be an excellent choice in terms of the demanded criteria.

“

This solution makes sure we don't lose our night vision, due to the LED fixtures design and the light distribution. **It gives our personnel better visibility and offers more safety.**”

Tor Arne Larsen, Head of Avinor's Electrical Department



Area & Transportation



The installation delivered to Værnes consists of 18 OptiVision LED luminaires mounted on 6 high masts, 4 of which carry 2 luminaires each and use approx. 1 kW per high mast. The previous conventional installation at the airport used 4 kW per high mast, so a significant energy saving of € 12,944.84 per year is achieved versus the old installation.

In addition, the long-life LEDs and the fact that the driver box is positioned on the ground rather than inside the high mast, will translate into maintenance savings of € 13,374.00 per year. This is driven by the fact that the old installation had a lamp replacement cycle of 3 years. The total savings from energy consumption and maintenance resulting in an investment payback of less than 1 year.

The solution came after Tor Arne Larsen had made initial enquiries. He received support from Philips product development team in Lyon and the local sales company teams in Denmark and Norway. Fredrik Nyberg, Product manager Outdoor Lighting at Philips Nordic, says: “This project was a lot more than just product delivery. It was the result of the close partnership and the extremely rewarding project work between Avinor and Philips. We believe the customer will benefit from this partnership through the entire lifecycle of the project.”



OptiVision
LED

Benefits

In addition to ensuring energy and maintenance savings, the OptiVision LED system provides much better color reproduction, which makes it easier for different objects to be distinguished from each other. This is not the case with the traditional yellow light produced using high-pressure sodium.

“Both our flight crew and ground personnel are extremely satisfied with the solution”, says Tor Arne. This solution makes sure we don’t lose our night vision, due to the LED fixtures design and how these distribute the light. It gives our personnel better visibility and offers more safety. Philips has done a great job!”



Energy savings
€ 12,944.84
p/year

Maintenance savings
€ 13,374.00
p/year

Short payback
< 1 year

Better visibility
at night for
flight and
ground crew



