

interact Landmark



Case study

An artistic and functional lighting installation

Dynamic connected lighting display reacts to traffic and weather conditions



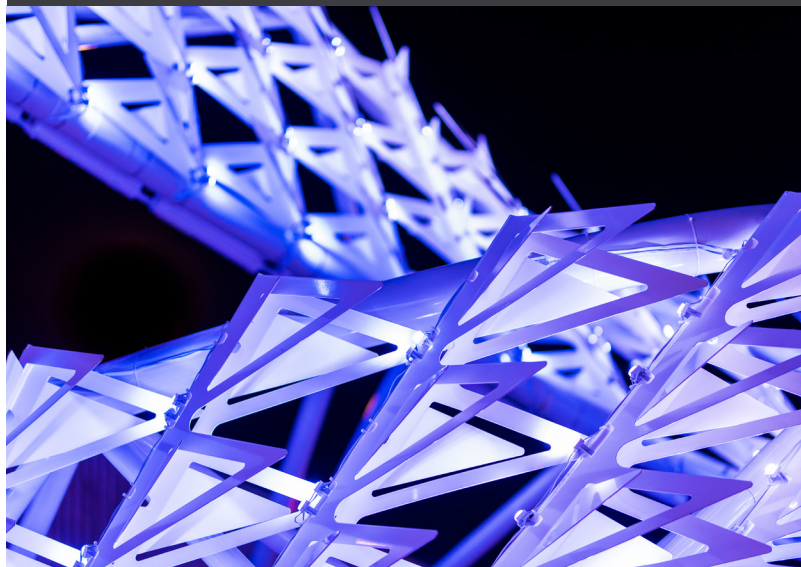
The stunning De Zwerm Underpass lighting display has become a major new landmark in Eindhoven, the Netherlands.

Customer challenge

Also known as “The City of Lights,” Eindhoven has had a relationship with lighting and technology that goes back a long time. However, some areas lack the character that the city is famous for. The Eindhoven municipality wanted a living, breathing artwork piece which reflected the city’s past, strengthened the identity of an anonymous part of town, and acted as a visual connection between traffic flows above and below the tunnel.

“The continuously responsive movements of De Zwerm make it not just another static work of art in the city but a truly living organism integrated in the urban landscape.”

Frank Tjepkema
Designer of De Zwerm Underpass



Solution

Inspired by a flock of birds, Frank Tjepkema — the lighting designer responsible for De Zwerm — combined 728 steel elements and 1,456 individually controlled LED nodes to create a unique lighting display that has become an instant landmark in Eindhoven.

De Zwerm, which means “the swarm,” features a sophisticated interplay between direct and indirect lighting: carefully positioned light from inside each “bird” shines into the next one in a way that optimizes reflection in a smooth transitional movement. This creates an area of light rather than a spotlight, never shining directly into the eyes of drivers.

The optical illusion of the flock of birds is a great example of how lighting and technology can combine impressively.



Making it happen

Each “bird” is outfitted with two Color Kinetics iColor Flex LMX gen2 LED nodes that instantly change color and brightness. The dynamic lighting display changes depending on temperature and traffic flow. In warmer seasons, drivers see reds and oranges while colder weather brings blues and greens. Interact Landmark connected lighting software enables easy monitoring, management and control of the installation. It works seamlessly with Color Kinetics fixtures and the Philips BaseLogic lighting system.

Inside the tunnel, the focus is more on driver comfort and safety. The underpass interior is equipped with Philips BaseLogic system. A photometer on the outside of the underpass records light levels and adjusts the output of the luminaires inside to ensure drivers can see in front of them safely and comfortably.

Benefits



Lighting asset management

Be alerted to system outages and troubleshoot faults to quickly resolve issues and make sure your site always looks spectacular. Asset tracking and history makes record keeping easy.



A strong identity

Create vibrant and attractive spaces at night that generate excitement and civic pride using Color Kinetics controllable color-changing lighting. De Zwerm is programmed to change color depending on temperature and traffic flow.



Driver comfort

The Philips BaseLogic system adjusts the tunnel lighting depending on time of day and environmental conditions, affording drivers maximum visual comfort.



Effective partnerships

To create De Zwerm, Signify partnered with Heijmans (construction), Frank Tjepkema (Designer), and Living Projects (Signify Certified Value Added Partner) – demonstrating that effective partnerships can deliver exceptional results for customers.

Project details

- The flock of “birds” consists of 728 steel elements
- The illusion of flight and movement is created using 1,456 individually controlled LED nodes
- The installation spans 21 meters across the underpass entrance

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