

Respondent Elements

# Dobpler Interactive LED System



# Concept

## The pionering system for responsive light surfaces for architecture

The Dobplers function as effective “light on demands” energy saving potential may be a motivation of purchase, but the Dobpler is more about the unique experience of body motion and a mesmerizing light response, a piece of electronic magic. The slow dimming light track as a ephemeral imprint on the wall made by your body.-Responsive surroundings. It doesn't grow boring over time due to its Scandinavian simplicity inspired design.-Pure white light, -and a intuitive interaction with a social effect appreciated as a architectural tool for urban area development.

Designed in 2006 with the goal of creating a system with the robustnes, longevity and maintainance free simplisity needed to make it feasible to create entire fasades of interactivity, a new smart building skin.

Like the the Mnemosyne, Dobpler are completely different than installations of temporary caractere using demanding computer and camera technology. Its a simple plug, play -and forget system, a smart “brick” of sensors and LEDs that just works for years.



# Implementation

**Robust and resilient systems for interactive light, in full conduct of building regulations.**

The envelope protecting the system from the environment may be built as different designs ranging in full height size or smaller independent modules. The electronics are for outdoor usage protected from corrosion by an "off shore grade" coating and The casing need to be watertight equal to or better than IP 55.

*All cards are produced in Norway in a fully automated production ensuring high quality and a long lifespan.*

Our system is constructed with the PCBs mounted on larger modules of aluminum/plastic composite with the best fire classification. The total thickness is 5 mm. In front it should be minimum 20 mm spacing to a tempered glass with white opaque effect. This creates soft dots of lights in an easy recognizable human shape interaction. Tempered glass thickness should be between 6-10 mm depending on the size of modules.

If there is an existing glass wall, The system may be implemented indoors simply by hanging the 5 mm modules behind it. The suited opal effect on the light may then be achieved by adding an opal plastic film on the glass.

*Extending the space between LED panels and glass to 30-50 mm gives mesmerizing soft clouds of light.*

Fabrics also may be used, or the exclusive effect of Solid Surface Materials like Corian or acryls with its rich possibilities to combine light with engravings.

## Standard made envelopes

A standard extruded aluminium system is available for indoor implementation. Typical 100 cm wide modules with desired height like 240- 300 cm.

## Custom made envelopes

Requirements on the location is mostly a custom made design in demands of existing architectural plan. Irregular shapes are possible with 20 x 5 cm steps.

The images on page two shows the custom built system for European Capitol of Culture 2008, in Sandnes. Made up by 100 x 280 cm wide modules using opal safety-glass 10 mm. Stainless steel framing and corner protections. This system is extreme durable and is the suited example when traffic, harsh weather and risk of vandalism is to be considered.

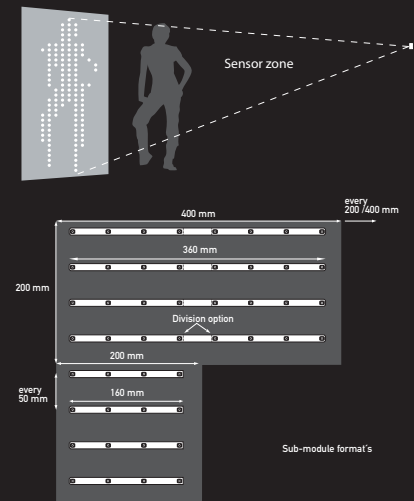
## Locations

The distance between wall and transmitter is typical 3-4 meters but may be expanded if needed. A typical placement would be on a opposite wall or a column. The transmitter casing can be designed to meet the needs of style or robustness.

## Proportions of effects:

Imagine a strong spotlight with a person standing in front. If you place the spot low, a dramatic and high effect is created. Placing it in shoulder height gives a one to one proportion. Placing it off-center gives effect in front or behind. Plan for type of audience, where do they enter and exit? Are smaller children a target group etc.

Placement of wall with directs sunlight will block the sensors. A controller may be added to turn off the system in this period to save energy.



# Technical details

## Power-supply

Power-supplies may be cabinet installed if the location of the cabinet are close enough, or internally in the lights envelope (minimum thickness of 60 mm)

## Durability

The LEDs life time expectancy of 50 000 hours may be divided on the actual time they are lit by the presence of people activating the sensors. A non accurate calculation gives an expected lifetime of tens of years.

As a standard we offers a two year guarantee replacement of any factory errors in the products.

Durability of the power supplies.

By most producers limited to the guaranty time. We have installation running since 2006 with no problems. Access for maintenance of these should be easy, and could be performed by any certified electrician.

## Energy consumption

5 volt DC current.

One square meter has a standby mode of 1.25 Watt

Full light, 31.25 Watt, equal to 1/2 incandescent bulb.

## LEDs

inGaN Pure White is standard color.

other colors may be considered used in a suited setting...

5050 SMD LED. 60 mA

Luminous Intensity: 6 000 mcd

Viewing angle 120 deg



## Nullohm

is designing projects world wide where the social dimension are in focus to create engagement in public areas, or works for the branding conscious commercial sector as fusions between architecture, design, and art.

Located in Norway a nation who has been described as having a strong fascination for light due to the dark winters with the Aurora and the summers midnight sun. Nullohm works as small multi-disciplinary network of craftsmen, coders, designers and architects. Creating small and large installations using custom made technology.

