

# Smarter and Greener:

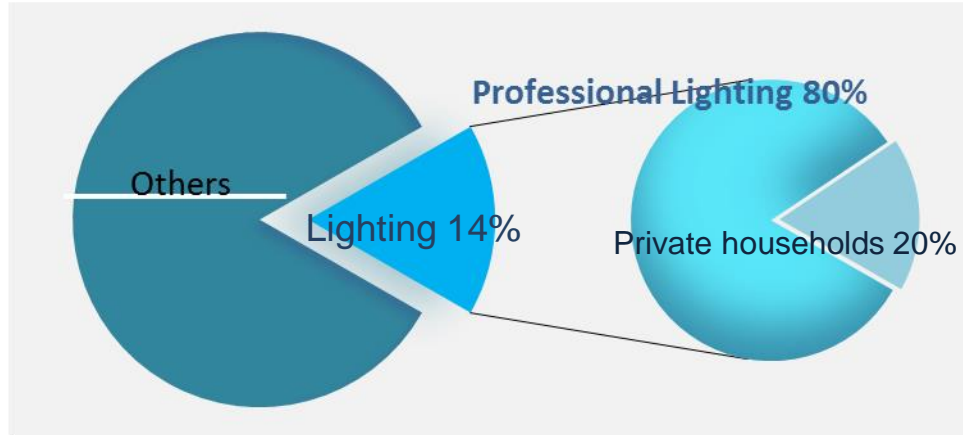
## Delta LED Lighting Solution

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LED Lighting Solution  
Delta Electronics EMEA  
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## Electrical energy consumption in EUROPE: percentage per year



Lighting represents almost **14 percent** of global electricity consumption according to the International Energy Agency. The future development of society in both developed countries and emerging economies around the world are intimately tied up with the ability to effectively light our cities, workplaces, homes, schools and recreation areas.





# Delta LED Lighting Solution

Delta LED lighting can offer you complete solution for different applications

TIMING  
INTENSITY  
CONSTANT ILLUMINANCE  
MANUEL SWITCHING  
MOTION  
LIGHTING SCENES  
MOTION  
DAYLIGHT SIMULATION  
REMOTE CONTROL  
COMBINED MANAGEMENT  
MANUAL DIMMING  
LIGHTING SCENES  
ASTRONOMIC CLOCK  
MOTION AND INTENSITY  
RGB  
MOTION



Office Application



Streetlight application



Industrial Application



Shop & Retail application

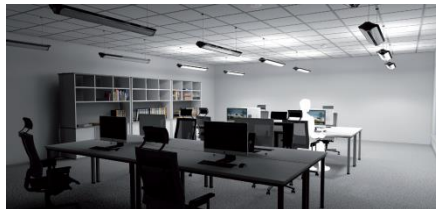


# Office Application



- **Brightness:**  
Stimulating light level for the task and activity
- **Glare:**  
Proper glare-free lighting and good modelling.

- **Conformity**  
Motivating visual environment over working time
- **Flexibility & Individualization**  
Controlling the light intelligently and individually



## Delta office solution

### LED luminaire

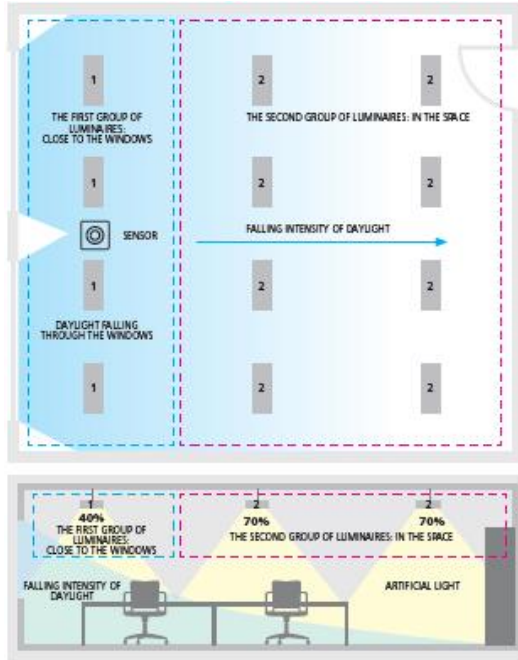


### LED Control



- Variety of options for different outlook preference
- DALI and integrated building management system
- Low glare offering ( $UGR < 16$ )
- Very high efficiency (120lm/w)
- Modular design
- Long life time L80 50,000 hours

# Intelligent control example - Office





# Industrial Application



- **Brightness:**

Appropriate illuminance and uniformity at the visual task

- **Glare and Color Rendering:**

Supporting contrast and colour rendering with the right adjustment.

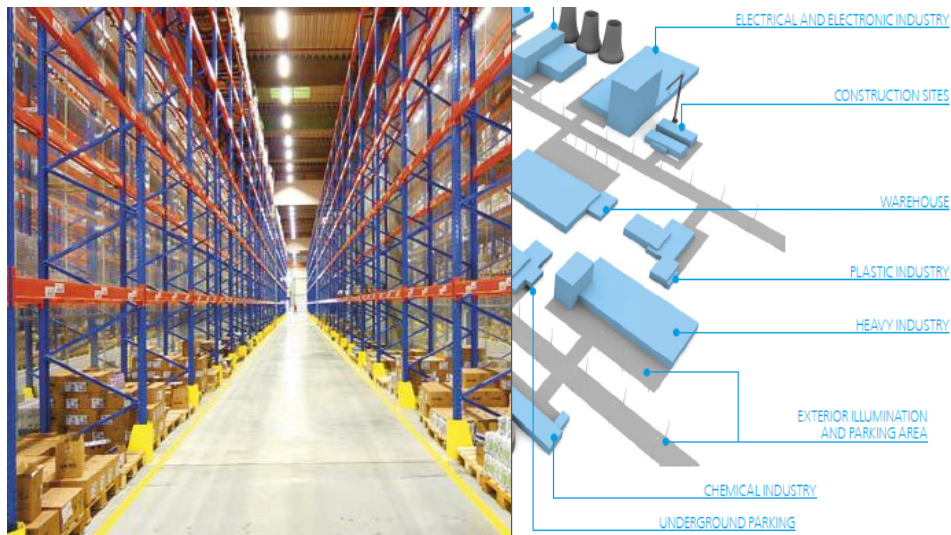
- **Productivity**

Optimizing the right color and light distribution

- **Flexibility for different tasks**

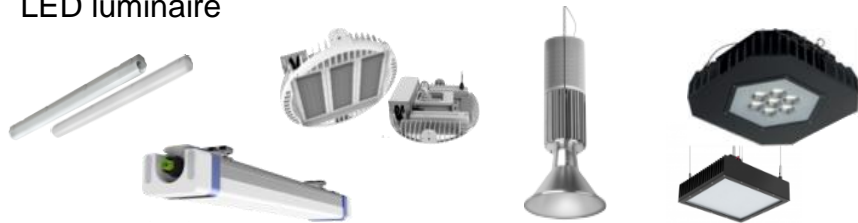
Intelligent control for the production layout changes





## Delta Industrial solution

### LED luminaire

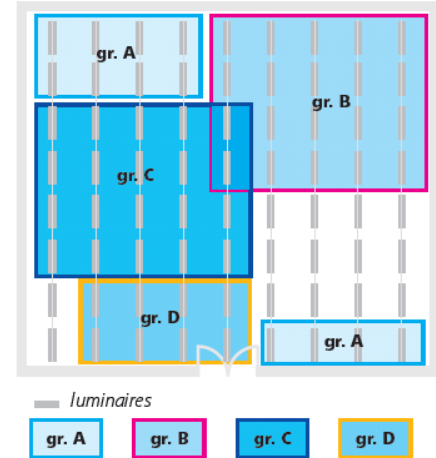


### LED Control

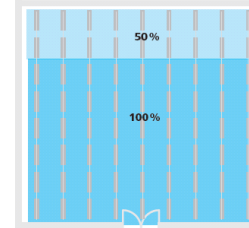


- Variety of options for different high of ceiling
- DALI and integrated building management system
- Very high efficiency (130lm/w)
- Different optics for the better light distribution
- Very long life time L80 100,000 hours

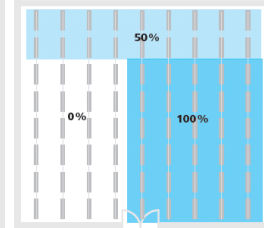




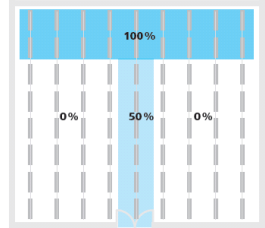
Day shift



Afternoon shift



Night shift



luminaires

100% 100% luminous flux

50% 50% luminous flux

0% 0% luminous flux

# Streetlight Application



- **Brightness:**

Appropriate illuminance and luminance creates comfortable road environment

- **Visualization:**

Lighting heightens the visual impact of architecture and grabs attention

- **Safety**

Well lit streets and parks improve safety and orientation

- **Intelligent**

Innovative luminaires and lighting management reduce the Energy consumption and maintenance



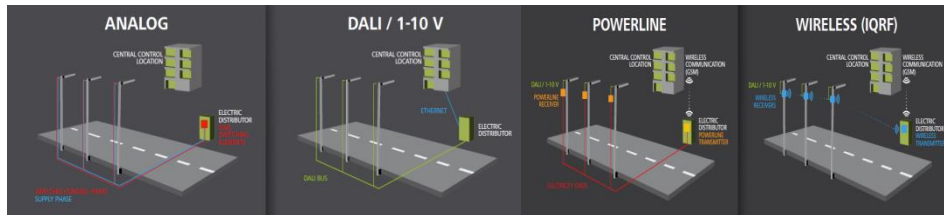


## Delta streetlight solution

### LED luminaire



### LED Control



- Intelligent Telemangement communication
- Tool free maintenance
- Very high efficiency ( up to 140lm/w)
- Different optics for the better light distribution
- Very long life time L80 100,000 hours



# Intelligent control example - Streetlight

## Telemanagement

Communicate with your lighting system from a remote location.

You can also monitor in real time important information such as energy consumption, light source lifecycles and luminaire failures.

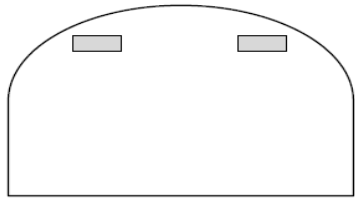
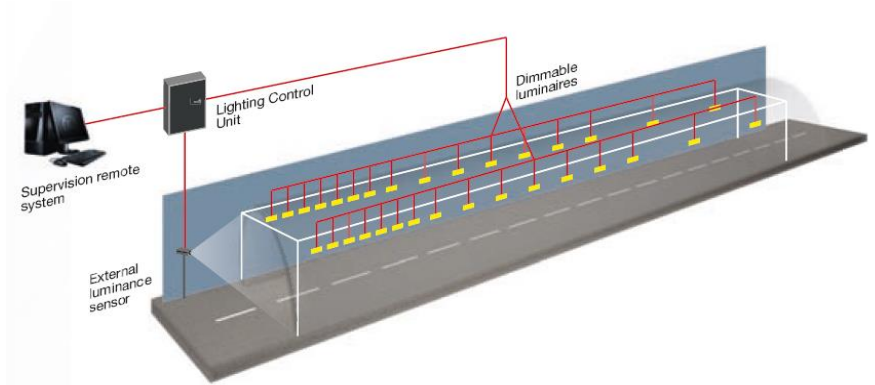
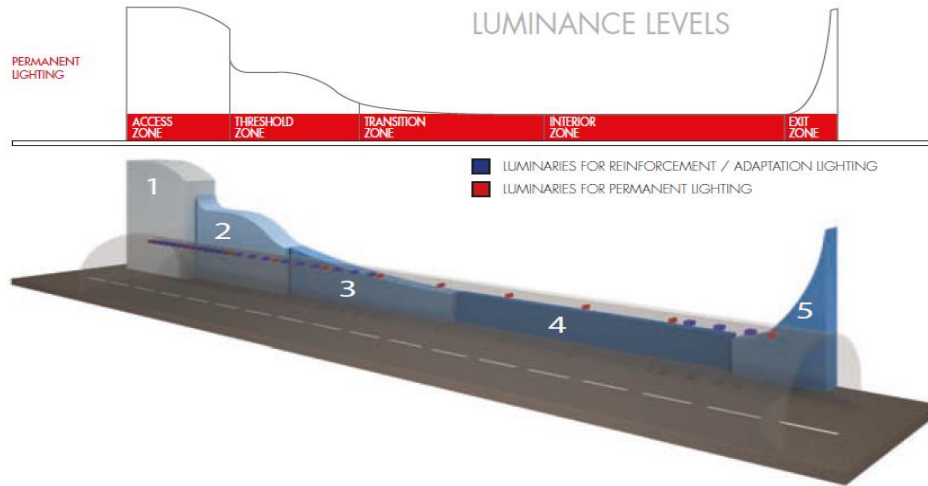


# Intelligent control example - Streetlight

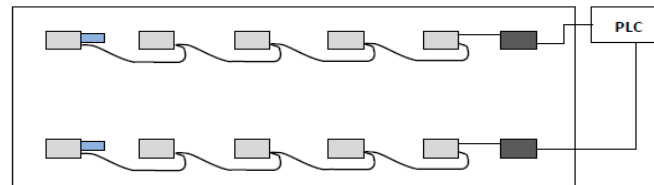




# Intelligent control example - Tunnel



Tunnel with 2 row of luminaires



■ TLED – q.ty: max 2x247 (n.2 RS-485 communication channel)

■ Junction box – q.ty: 2

■ Line terminator – q.ty: 2



# Shop & Retail Application



- **Atmosphere:**

Appropriate atmosphere for the type of shop and goods

- **Emotion:**

Light level, colour rendering, and direction of light to ease the choice.

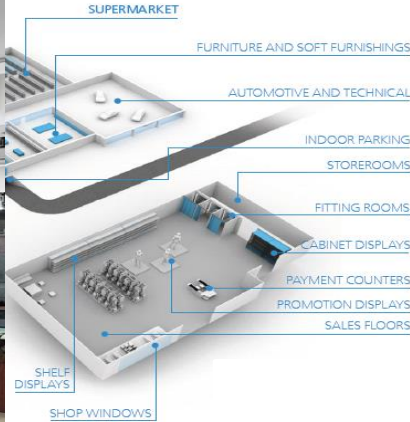
- **Guidance:**

Guidance through lighting to the areas that you want customers to stay

- **Flexibility for different tasks:**

Intelligent control for the goods layout changes

# DELTA Shop & Retail Application – Delta solution



## Delta Industrial solution

### LED luminaire



### LED Control



- Variety of options for different high of ceiling
- DALI and integrated building management system
- Very high efficiency (130lm/w)
- Different optics for the better light distribution
- Very long life time L80 100,000 hours



# Delta LED lighting solution

## 1. Portfolio

Broad scope containing both products & control solutions



## 2. Market/Customer

Present in most of the central European countries



## 3. Logistics & Supply chain

Two central logistics Centre (NL & SL);  
Customer service center &  
Hubs in major European countries



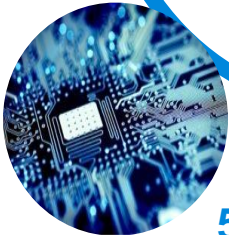
## 4. Customer Service

Central competence & Customer service center in NL



## 5. Technology

Technology/system integration to offer beyond lights



**Delta EMEA LED  
business**



ERGONOMICS

Colour rendering index (CRI)

Glare prevention

Illumination level (task area)

Illumination level (surrounding of task area)

Lighting uniformity

Harmonious distribution of brightness

EMOTION

Vertical illumination

Ceiling illumination

Biological factor of illumination

Availability of daylight

Blue light content (Tc=6500K)

Daylight simulation

Dynamic lighting

Tunable white

Accent lighting

RGB colour mixing

Ambient lighting

ECOLOGY

Latest lamp technology

System efficiency of luminaire

Thermal output of lamp

Dangerous material content

Product life time and maintenance costs

EFFICIENCY

Presence detector

Constant illuminance sensor

Daylight sensor

Calling of lighting scenes

Working days:

Mon

Tue

Wed

Thu

Fri

Sat

Sun

Working hours / day: 12

Working hours / night: 12

Installed power consumption

66528 [kWh/year]

Power consumption with LMS

66528 [kWh/year]

CO2 savings

0 [t/year]

LENI

66,45 [kWh/year.m²]

0 %

ENERGY SAVING

GREEN SOLUTION

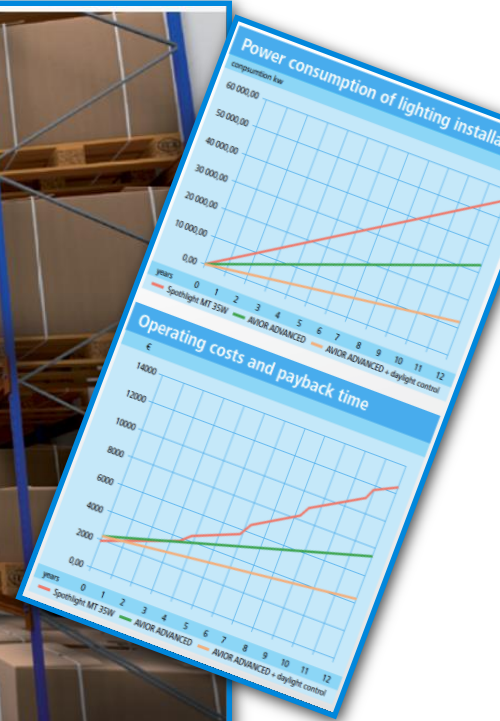
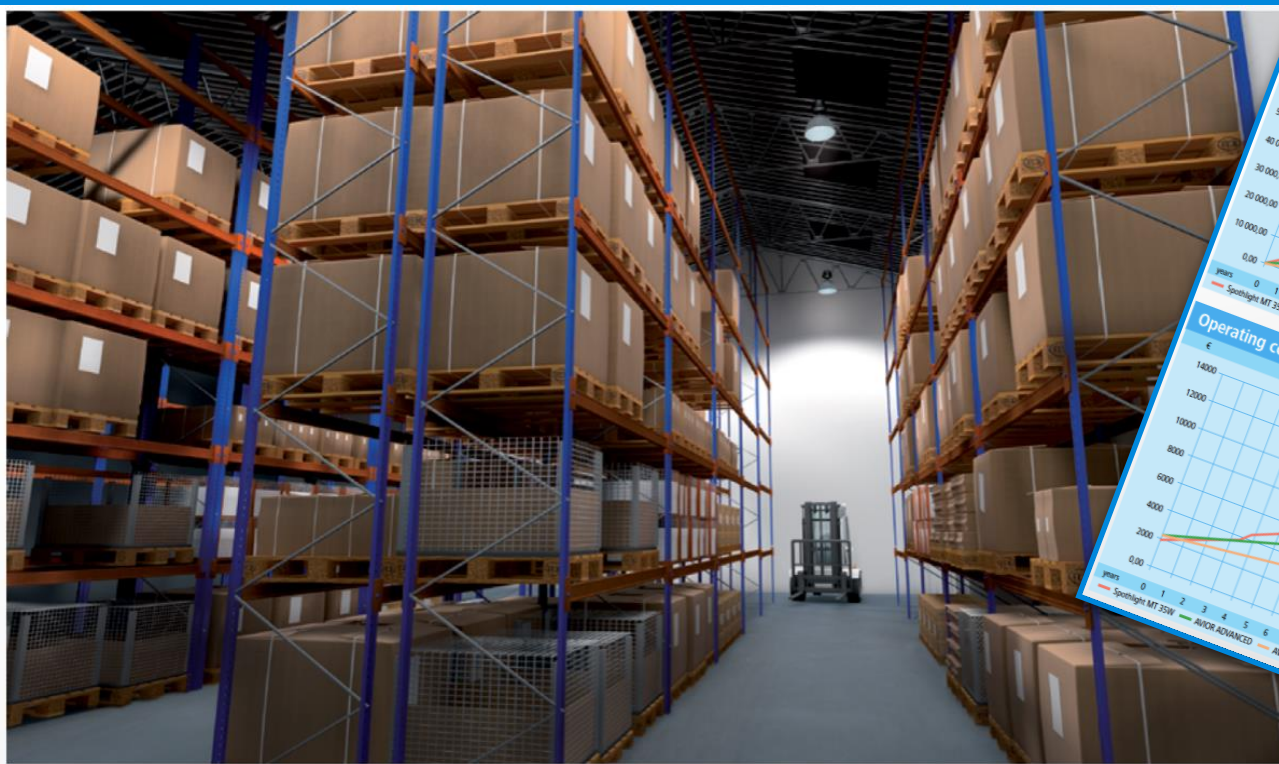
ER

EF

EC

LQS

1.67





- Delta can offer you complete product portfolio in strategic applications.
- Delta provides you strong project support including find the right product, lighting design & calculation, spec verification...etc.
- Efficient marketing exposure & sales package.
- Improved product availability to support you on the short lead time delivery
- Quick product development





It's not only about business but also the earth we live by

# Smarter. Greener. Together.

To learn more about Delta, please visit [www.deltaww.com](http://www.deltaww.com)

