



# LED Lighting



# Background

Version: draft

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# Content

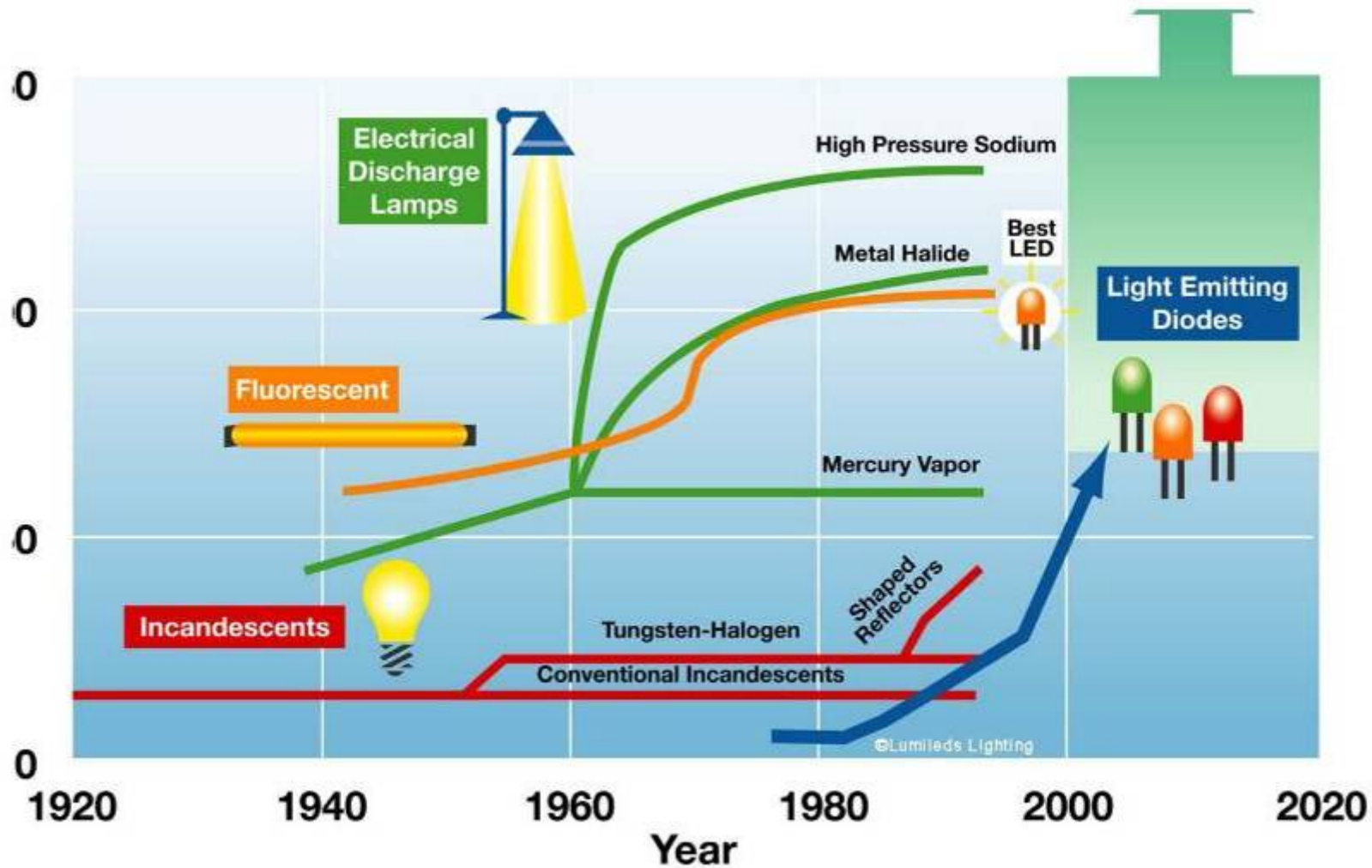


LED lighting is becoming a viable alternative to conventional light source because of its overriding advantages long life, high efficiency, small size and short reaction time. (no heating and high voltage)

This presentation offers you quick information about this field and our products. It includes:

- *LED Lighting Background*
- Marketing Overview
- Our Strength
- Reference Information

# Lighting Technology Development

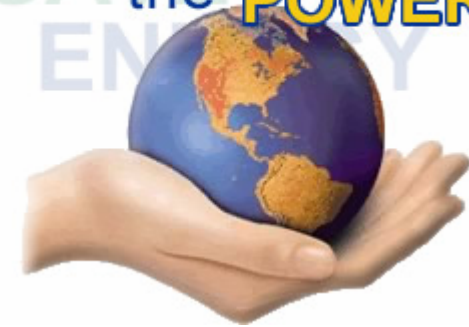


# Applications



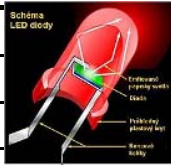
# Engery saving

YOU HAVE  
SAVE the ENERGY  
the POWER

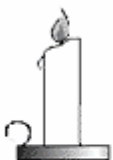






## Lighting Equation

LED	Flourescent	Incandescent
1W	3W	10W
3W	10W	30W
5W	20W	50W
10W	60W	100W



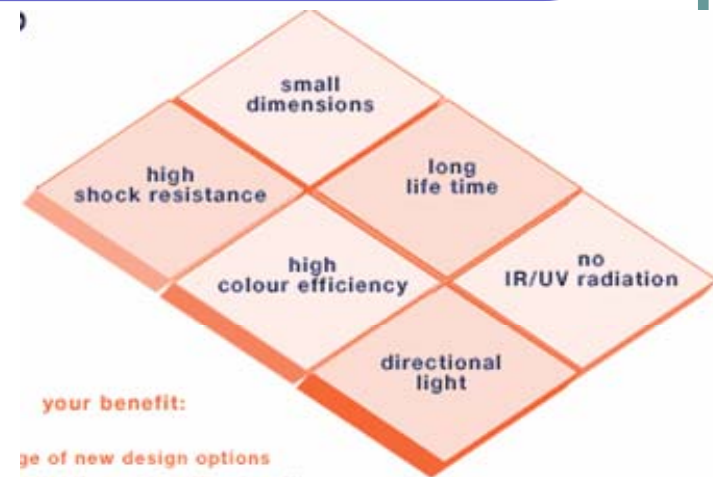
15th      19th      20th century...

					
				<b>HID</b>	<b>LED</b>
Efficacy lm/W	1	10-15	70-100	70-100	Target >50
Efficacy (relative)	<1%	5-9%	25-30%	30-35%	Target 20-30%

# Why LED Lighting?



- Low energy consumption
- Extremely long life
- Very low early failure rate
- Smallest dimensions
- Shock and vibration resistant
- No ultra-violet or infrared radiation
- Low wattage
- Almost no heat generation
- Directed light through optical lenses
- High colour efficiency



# Why LED lighting?



See how much money you can save:

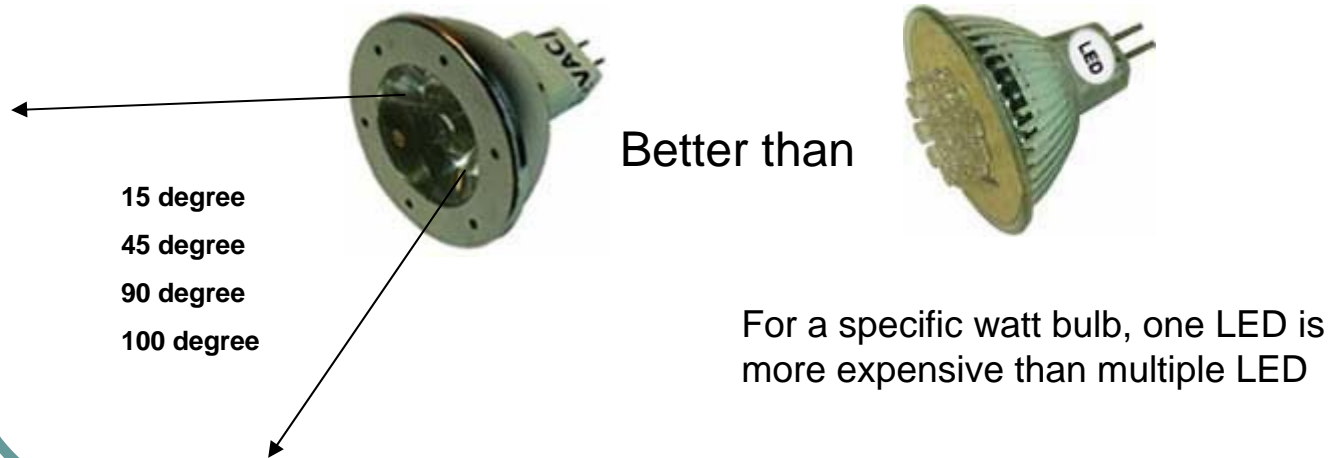
<b>Parameters</b>	<b>3W LED</b>	<b>10W fluorescent</b>	<b>30W incandescent</b>
Lifetime(h)	50000	6000	1500
Nr.of consumed bulbs in 50000h	1	9	34
Bulb price(EUR)	15	1.5	0.45
50000h bulb cost	15	13.5	15.3
50000h power consumption(kwh)	200	650	1500
50000h electricity cost(0.17EUR/kwh)	34	110	255
<b>Total cost in 50000h</b>	<b>49</b>	<b>123.5</b>	<b>289</b>

...and don't forget the labor cost of bulb replacement

# Basic Knowledge



- Available color: Red, Amber, Green, Blue and white. Blue and white has the lower efficiency
- Power: 1W, 3W (popular), 10W, 30W, 50W, 100W, 200W (difficult, but we have them!)

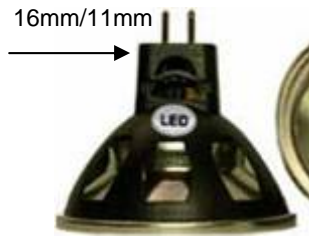


# Basic knowledge



Base types:

**MR16 /MR11**  
Bi-Pin base



Socket for MR16/MR11

12V AC/DC, 24V DC

**E27**  
Medium Screw base



120-240 VAC

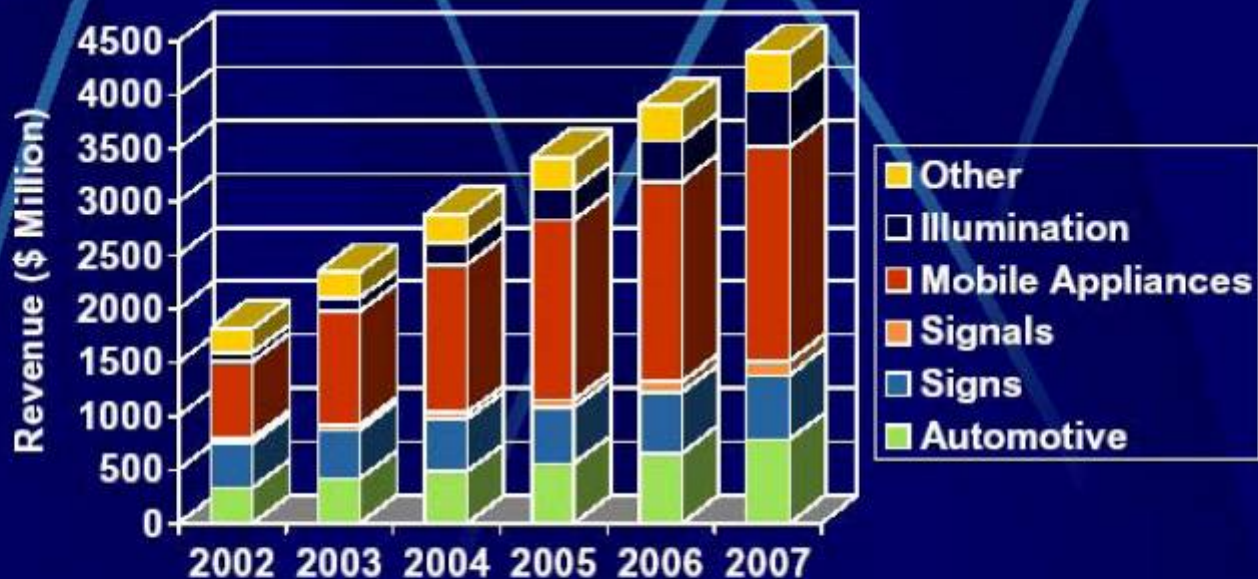
**GU10**  
base



120-240 VAC

- 
- LED Lighting Background
  - **Marketing Overview**
  - Our Strength
  - Reference Information

# Market Forecast



# Market Chance



## Opportunities:

- Few companies can offer over 10W LED products, thus relatively we have less competitors
- The same technology can expand to **street lighting** which is a huge chance
- Energy saving becomes an ever-increasing critical issue, governments make polices to force using energy-saving products.



- Horticultural Background
- Marketing Overview
- **Our Strength**
- Reference Information



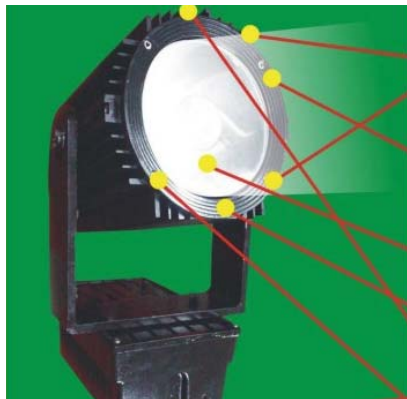
# Our Products in EU market



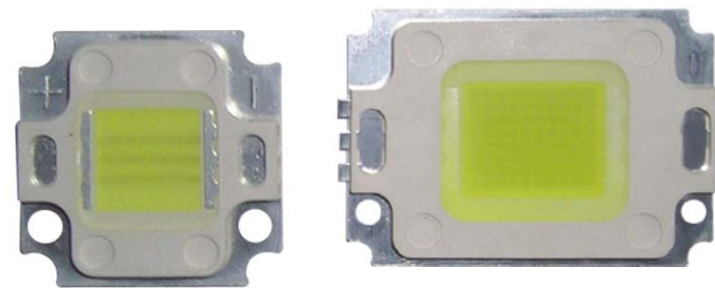
3W 5W 10W Spot lighting



Day-lighting bulbs

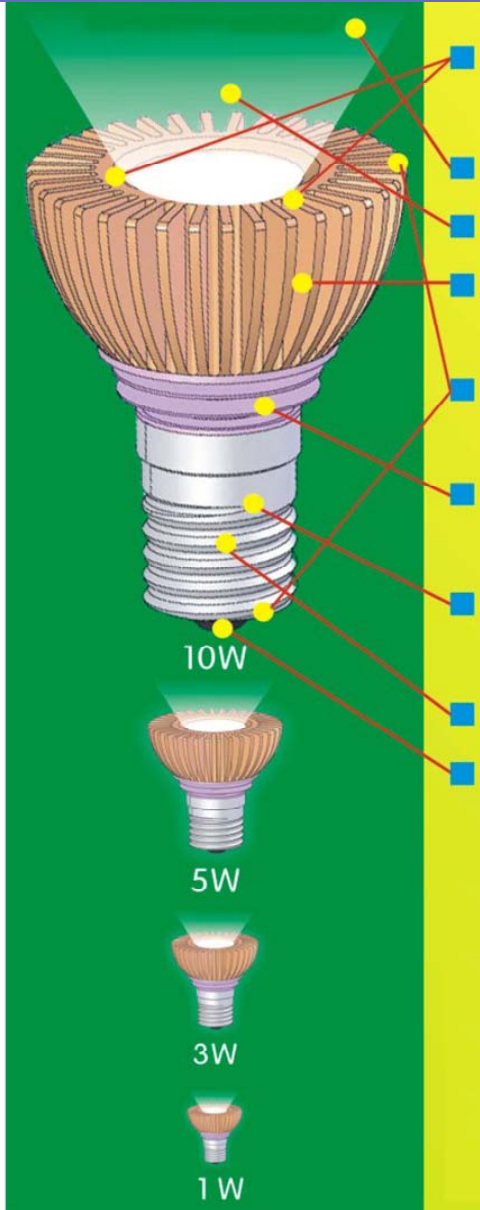


100W spot light



10-200W chips

# LED lighting



Viewing Angle: 20° (sp

Luminous intensity: 12

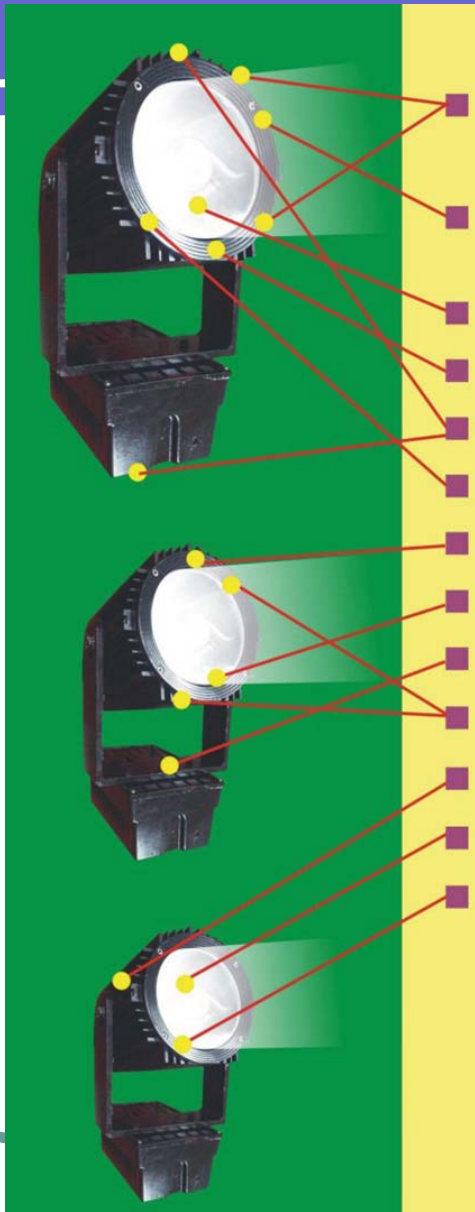
Color: Red/Blue/white;

High-temperature stand

Dimension: Diameter:16

Aluminum for heating d

# LED lighting



Viewing Angle: 40° (spot) or 90° (flood)

Luminous intensity: 1500lux at 2 meters,  
70lux at 30 meters,

Color: white; Color Temperature: 6000k

High-temperature standing material

Dimension: Diameter:167mm,  
Length:200mm Height:500mm

Aluminum for heating dispensing

IP68

Energy saving: 100W = 1000W incandescent

Power Voltage: 200-240VAC

Angle adjustable: +45° to -45°

Patented heating dispensing design

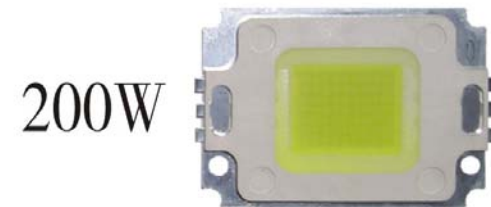
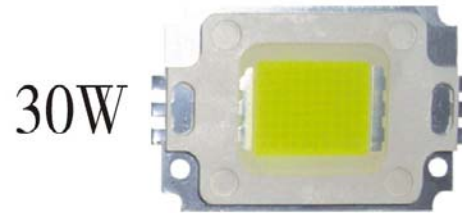
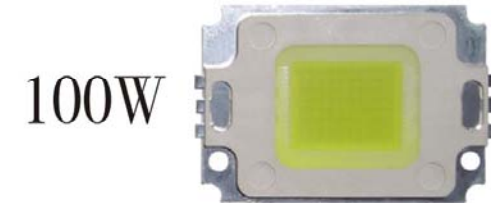
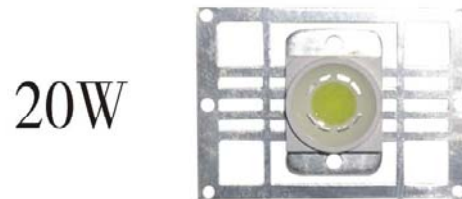
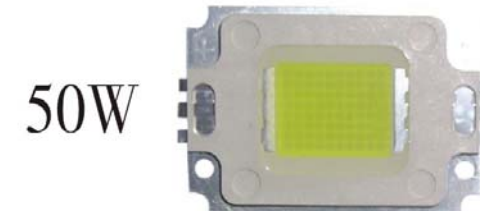
Patented appearance design

Applications: building, stadium, factory, etc.

Major Parameters:

	LED-94-SD		6000k
	LED		40°, or 90°
	1500lux		10pcs
	230V		167x200x500
	100W		80000h

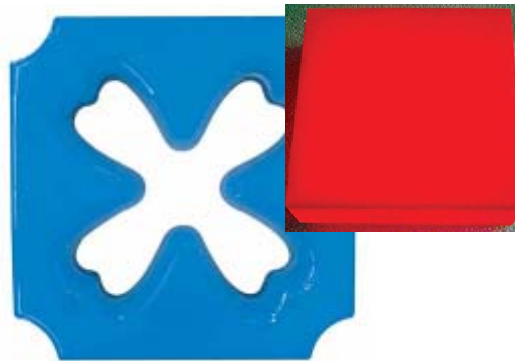
# Discrete LED chips



# Other LED products in factory



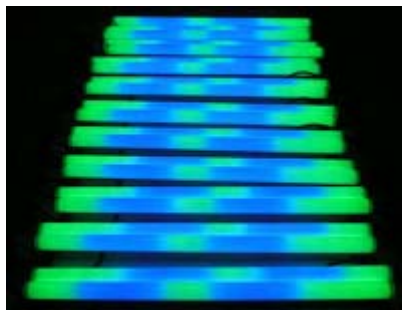
lighting box



lighting brick



Lighting String



lighting tube



lighting word

# Our Strength



- We offer incomparable performance especially in high power 10W-200W
- best price
- Our product has unique, robust and state-of-art design. We have own patents and experienced development team

CE

- LED lighting Background
- Marketing Overview
- Our Strength
- **Reference Information**



# Our Major Competitors



- Philips (with Luxeon™, Cree™ brand)

[www.lighting.philips.com](http://www.lighting.philips.com)

- Osram (with Golden DRAGON® , OSTAR, MultiLED, etc brands)

<http://www.osram-os.com/>

GE

[www.ge.com](http://www.ge.com)

# Nice products from competitors



## Interesting Websites



- [www.Leds.de](http://www.Leds.de)
- <http://www.superbrightleds.com/>
- <http://www.wobestellen.de/>



*Looking forward to  
our cooperation*

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