



CELMA

*Federation of National Manufacturers Association for
Luminaires and Electrotechnical Components for
Luminaires in the European Union*



Joint CELMA / ELC LED Forum Light+Building Fair 14 April 2010

Features & Benefits of LED Luminaires

Allan Horn





Features & Benefits of LED Luminaires

Objective

-
- Demonstrate that lighting with LED lamps & luminaires is a viable choice



Features & Benefits of LED Luminaires

Question

■ Question....



- Why are LEDs so popular?
- Is it a “hype” or are LEDs now “main stream”?



Features & Benefits of LED Luminaires

LEDs Offer

- LED based luminaires offer
 - Many well understood features and benefits

And

 - Some new dimensions and opportunities



Features & Benefits of LED Luminaires

Adoption

- LED has become serious business in many applications



2003



2010



Features & Benefits of LED Luminaires

Consider the CELMA Guide



CELMA Guide for OEMs and Producers of LED based Luminaires 2nd Edition, April 2010

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2nd Edition, April 2010

www.celma.org

*Available on
your USB stick
& on www.celma.org!*





Features & Benefits of LED Luminaires

Why?

- In the spirit of a balanced presentation
 - Features that need careful consideration
 - Either as an end user or as a luminaire producer



Positive Features	Considerations
Long life light source Design flexibility, life and performance	Needs to be appropriate for the application Several factors have an impact on life and lumen maintenance
<p>*Consider the CELMA LED Luminaires OEM Design Guide</p>	



Features & Benefits of LED Luminaires

Why?

Positive Features	Considerations
<p>Point light source Precise beam control</p>	<p>Can present new challenges from an optics design perspective</p>
<p>No Ultra Violet, Infra Red or Mercury Environmental and application friendly</p>	<p>Lifecycle assessments show the “in use” energy saving proportion as having the most significant impact</p>
<p>Design flexibility - Aesthetics</p>	<p>How can you make your product unique? Just look around the show for many unique examples</p>



Features & Benefits of LED Luminaires

Why?

Positive Features	Considerations
<p>Controllability – e.g. Dimming CCT tuneable</p>	<p>Need an understanding of electronics</p>
<p>Spectral distribution is different to conventional light sources</p>	<p>Need an understanding of the principals of LEDs, in order to incorporate and maximise this feature</p>
<p>* Consider the CELMA LED Luminaires OEM Design Guide</p>	



Features & Benefits of LED Luminaires

Why?

Positive Features	Considerations
Growth opportunities for existing and new players in the market	Innovation Legislation Fiscal stimulation
Disruptive technology	Standards and Legislation Realistic performance expectations Danger of poor quality products into the market > Market Surveillance?

- * *Refer to the detailed standardisation presentation*
- * *Consider the Correct Presentation of Photometric Data presentation*



■ The starting question was...

- Why are LEDs so popular?
- Is it a “hype” or are LEDs now “main stream”?

■ The answer is...

- LED technology is very promising and exciting
- The European lighting industry is working very hard to encourage and accelerate adoption, whilst maintaining realistic expectations
- Crucial need to combine energy efficiency & quality lighting

**The presentations of this Forum will give you
confidence in these statements**



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**Thank you very much
for your kind attention!**

www.celma.org – www.elcfed.org