sense and simplicity

How to minimize cinema xenon TCO through optimum lamp selection and operation

F. de Poorter/T. Hardenburger Philips Lighting January 24, 2012

Royal Philips Electronics

- Founded in 1891
- Headquartered in Amsterdam, The Netherlands
- One of the largest global diversified industrial company with sales in 2010 of EUR 22.3 billion
- A multinational workforce of 120,582 employees (October 2011)
- Globally present with manufacturing sites in 100 countries and sales outlets in 100 countries
- An R&D force with expenditures of EUR 1, 576 million (2010)

We are...

Mission

 "Improve the quality of people's lives through timely introduction of meaningful innovations."

Vision

• In a world where complexity increasingly touches every aspect of our daily lives, we will lead in bringing sense and simplicity to people.



Philips Divisions

Healthcare



Lighting



Consumer Lifestyle

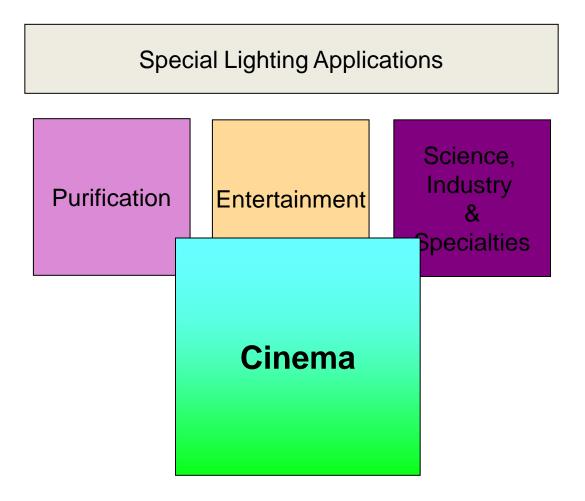


Brand promise:

We empower people to benefit from innovation by delivering on our <u>brand</u> <u>promise</u> of "sense and simplicity". This brand promise encapsulates our commitment to deliver solutions that are advanced, easy to use, and designed around the needs of all our users.



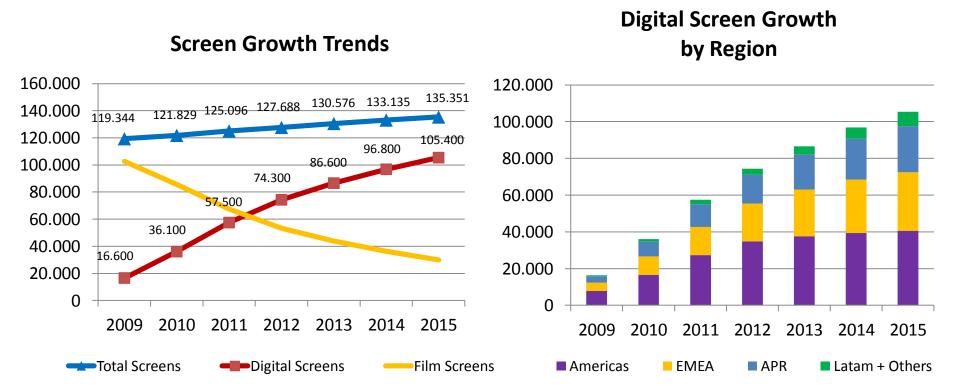
Philips Lighting – Special Lighting Applications





Growth of Digital Cinema

- The number of digital screens more than doubled in 2010 worldwide.
- 3D has been the major driver, now more and more 2D applications.



- End of 2010 = 30% digital
- End of 2012 = 58% digital
- End of 2015 = 78% digital

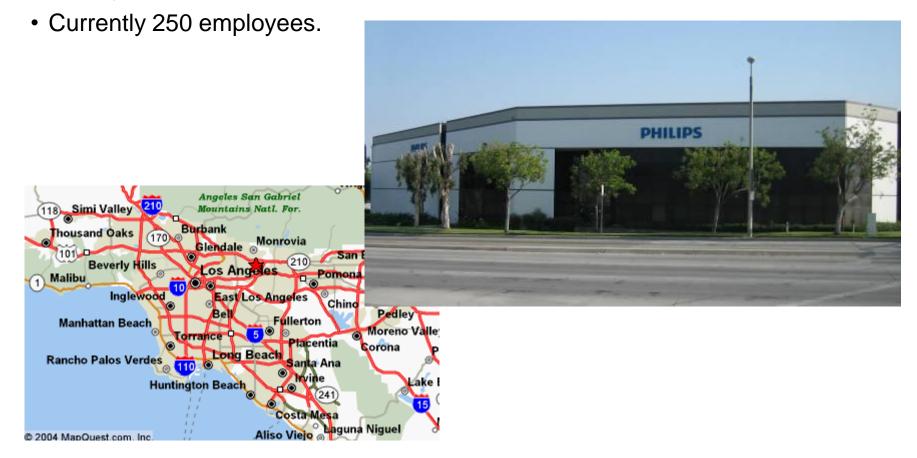
Late 2013: End of 35 mm film in the Americas

Source: Screen Digest



Philips Baldwin Park, CA Operation

- All Philips xenon products are designed and manufactured in our factory in Baldwin Park, CA (Los Angeles area)
- Facility size = $45,000 \text{ ft}^2 (4,100 \text{ m}^2)$





Digital Cinema Xenon Lamp Line-Up

Projector Manufacturer	Lamp Model	Warranty (h)
Barco	XDC-6500B	500
	XDC-4200BH	700
	XDC-4000B	1000
	XDC-3000B	1500
	XDC-3000BH	1200
	XDC-2000BH	1800
NEC	XDC-6000N	600
	XDC-4500N	900
	XDC-4200NH	700
	XDC-4000N	650
	XDC-4001N	1500
	XDC-3000NH	1200
	XDC-2000NH	1800

Projector Manufacturer	Lamp Model	Warranty (h)
Sony	XDC-4200S	600
	XDC-3000S	1000
	XDC-2000S	2400
Christie	XDC-6000C	600
	XDC-4500C	1000
	XDC-3000C	1500
	XDC-2000C	2400
Kinoton/ Cinemeccanica	XDC-3000TA	1500
	XDC-4500TA	1000
	XDC-6000TA	600
	XDC-6500TA	500

Digital Helios – New Product Line

- Digital Helios is an extension to Philips' range of digital cinema xenon lamps, for NEC and Barco projector applications.
- These new Digital Helios models are designed for smaller screens and 2D applications, where customers demand a lower TCO solution.
- Digital Helios lamps are based on the **Helios** lamp platform, but are perfectly adapted for use in NEC and Barco digital projectors.
- The Digital Helios lamp is an AfterMarket solution

 Required light output

 On the 45-8 24 or 10 20 Per 45





Digital Helios Applications

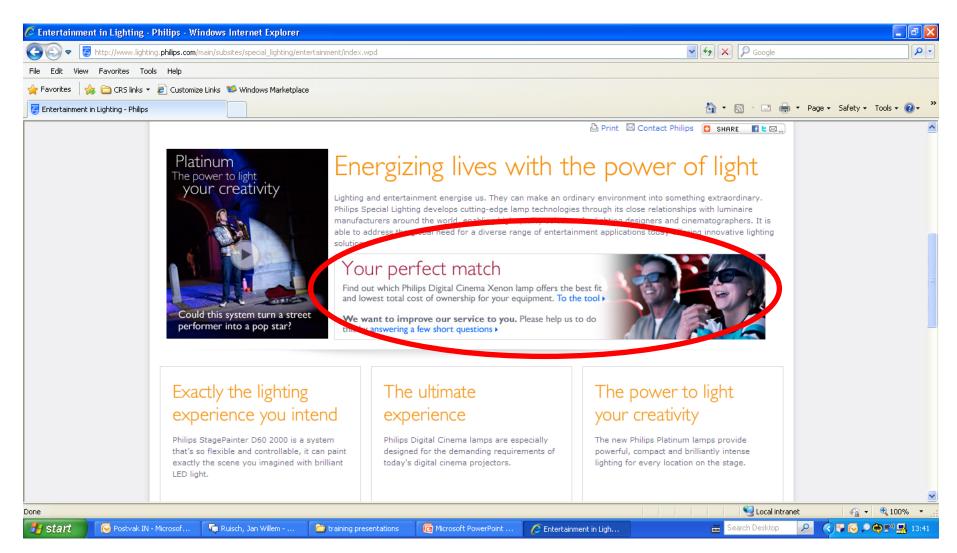
Below is an *example* of where the new Digital Helios models provide the lowest TCO solutions for smaller screen applications, for NEC projectors.

Screen width (m)	3D flat, 4.5 fL, 2.4 gain	2D flat, 14 fL, 1.0 gain	2D flat, 14 fL, 2.4 gain
14	XDC-4000N	Not possible - Projector limit	XDC-3000NH
12	XDC-4000N	XDC-4000N	XDC-2000NH
10	XDC-3000NH	XDC-4001N	XDC-2000NH
8	XDC-2000NH	XDC-3000NH	XDC-2000NH > 14 fL
6	XDC-2000NH	XDC-2000NH	XDC-2000NH > 14 fL

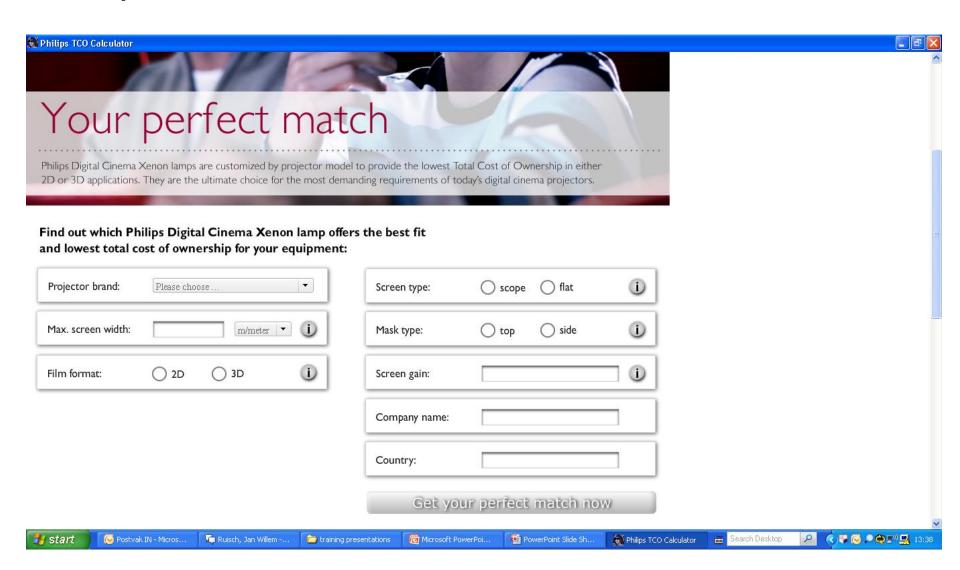
New Digital Helios



New Lamp Selector Tool

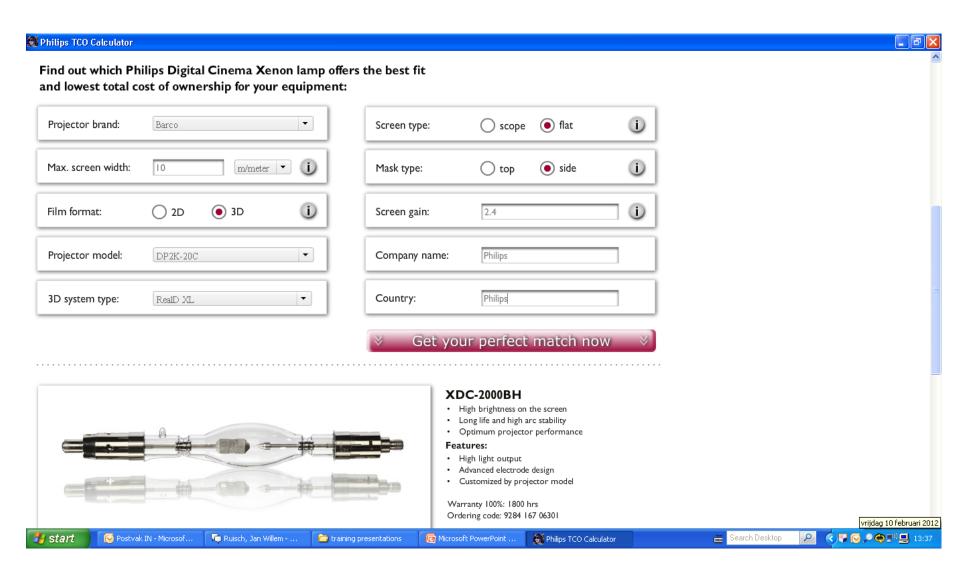


Lamp Selector Tool





Lamp Selector Tool



Optimizing Lamp life and performance

- Make sure the lamp is clean and has no fingerprints on it.
- Check if all electrical connections are good.
- Make sure all filters are clean.
- Choose the right settings for the lamp, preferably starting at 75%
 amperage settings at 0 hr. Always check the spec-sheet from the box!
- Re-align the lamp at half life to optimize the light on screen or when unstable.
- Shut down the lamp in between shows for a minimum of 20 minutes.



Thank you!!

