

# Light Symposium 2010

Natural Light - Daylight and artificial lighting for mankind

Time Table

## Thursday 28

OVERVIEW Natural Light, Human, Time	
09.00-09.30	Opening Speech Jan Ejhed
09.30-10.30 [Keynote]	Astronomer Ferdinando Patat European Southern Observatory
10.30-11.00	Break
11.00-11.30	Doctor Prof Abraham Haim University of Haifa – Oranim
11.30-12.00	Scientist Tessa Pocock Heliospectra
12.00-12.30	LD Linnaea Tillett, PhD Tillett Lighting Design
12.30-14.00	Lunch
14.00-14.30	LD Louis Clair Light Cibles
14.30-15.00	LD Prof M.J. Pinto-Coelho <i>lightmotif.arquitectura</i>
15.00-15.30	LD Federico Favero Lighting Laboratory KTH
15.30-16.00	Break
16.00-16.30	Philosopher Tor Nørretranders
16.30-17.30	Closing panel

## Wednesday 27

17.00-20.00 Registration  
Get-together event

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## Friday 29

APPLICATION Light, Space, Architecture	
09.00-09.30	Vox Juventa 1 Laura Bernadet
09.30-10.00	Vox Juventa 2 Matthew Reifsteck
10.00-10.30	Vox Juventa 3 Vellachi Ganesan
10.30-11.00	Break
11.00-11.30	Vox Juventa 4 Mari Sando & Marlin Martinsen
11.30-12.00	Vox Juventa 5 Sebnem Gemalmaz
12.00-12.30	Vox Juventa 6 Stephen Kaye
12.30-14.00	Lunch
14.00-15.00 [Keynote]	Architect Luke Lowings Carpenter Lowings Arch & Design
15.00-15.30	LD Kaoru Mende Light Planining Associates
15.30-16.00	Break
16.00-16.30	Architects I.Alday & M.Jover aldajover arquitectos
16.30-17.00	Architect Lars Gemzøe Gehl Architects
17.00-17.30	Closing panel
Dinner and Vox Juventa award ceremony at Rosendals Trädgård	

## Saturday 30

PRACTICE Techniques, Technologies	
09.00-10.00 [Keynote]	Scientist Ann Webb University of Manchester
10.00-10.30	Björn Karlsson Mälardalens Högskola
10.30-11.00	Break
11.00-11.30	Peder Nordenback Ljuskontroll
11.30-12.00	LD Rogier van der Heide Philips Lighting
12.00-12.30	Closing panel
12.30-13.00	Event closing

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Saturday 30th  
9:00-10:00



### Ann Webb [Keynote speaker]

President Elect of CIE (Comission Internationale de l'Eclairage / International Comission on Illumination) and Director of Division 6 (Photobiology and Photochemistry).  
She is an atmospheric scientists working at the University of Manchester and specialising in solar ultraviolet radiation and its biological effects.

#### Lighting: Brightening Lives or Dimming the Future?

The ability to control light in his immediate environment released man from the natural light-dark control of diurnal and seasonal cycles.  
As populations have grown and technology improved the world has become lighter and brighter.  
The 24-hour day of light is no longer restricted to the Polar circles, yet such a lit environment is both unsustainable and has detrimental effects on the environment, while our bodies still strive to follow a circadian rhythm.  
Can technology reduce the burden of lighting and dim the world with more intelligent systems of illumination?

Saturday 30th  
10:00-10:30



### Björn Karlsson

Björn Karlsson has worked with systems for Solar Energy application in Vattenfall AB during 25 years. The he has been Professor in Solar Energy Technology in Lund University during 7 years and is currently working in Mälardalen University in Västerås.

#### Development of windows with high solar and light transmittance

Windows in energy efficient buildings are required to have very low U-values. This means that one or two panes in the window are coated with a very thin film. This film has a low thermal emittance, which suppress the radiation losses and the U-value. If this film is made thicker the emittance and the U-value is decreased. However when the thickness is increased the transmittance of light and solar energy is decreased. Therefore there is a tendency that windows in low energy building have a relatively low light transmittance. The Swedish Energy Agency has an energy classification of windows. This classification is only based on the U-value of the windows and does not include requirements on the visible transmittance. This classification model further increase the tendency for designing dark windows with low U-values. In the lecture this problem will be analyzed and development of advanced windows which combine high visible transmittance and low U-values will be demonstrated.

Saturday 30th  
11:00-11:30

### Peder Nordenback

Peder Nordenback, MSc Mechanical Engineering - KTH, is the Marketing Manager at Wennerström Ljuskontroll AB.  
Wennerström has a more than 35 years close relation to TRIDONIC, Austria, a global supplier of lighting components and one out of the five producers in the world of semiconductors for Lighting i.e. Light Emitting Diode.



#### Developments in Lighting Technology

LED – Light Emitting Diode is the new light source. Since the diode per it's definition emits a monochromatic light all white LED concept is based on a color mixing concept. The most common concept is based on a blue diode covered by yellow phosphor.  
However the latest technology use more electronics and very high sophisticated phosphor technology which enable the LED module to not only Dimming but also Tunable white.  
Daylight is in many ways the perfect light source with different color temperatures during the day.  
With the latest LED technology it's possible to create simulated daylight from the same light source in a room without natural daylight.

Saturday 30th  
11:30-12:00

### Rogier van der Heide

Vice President of Philips Design and Chief Design Officer of Philips Lighting, Rogier focuses on innovation-led design as an enabler of bridging technology with the creation of meaningful solutions. In 20 years, he has worked with a constellation of international architects and been a recipient of IALD Radiance Award, Lighting Designer of the Year, Edison Award of Excellence, International Illumination Design Awards, among others.



#### "Available Light"

#### An exploration of the design of natural light in architecture.

Renowned lighting designer and now Chief Design Officer of Philips Lighting Rogier van der Heide talks about the design process for natural light. Architects and lighting designers could consider daylight for comfort: enhancing our stay in buildings in the broadest sense. A deliberate vision on natural light and how it relates to humans as well as the architectural environment makes daylight a true building element, with a potential much beyond visibility and functional illumination. And when backed with research, computer technology and a strong artistic view, the design of natural light is perhaps the most powerful contribution to live ability, sustainability and attractiveness of contemporary architecture.