

**Conference program
Tagungsprogramm
Programme du congrès**

Istanbul



LUX EUROPA 2009

**Lighting and the Environment
Licht und die Umwelt
Lumière et l'Environnement**

11th European Lighting Conference
11. Europäischer Lichtkongress
11^{ème} Congrès Européen de la Lumière

9 - 11 September 2009



Welcome

It is a great pleasure for me to welcome the participants to “Lux Europa 2009” in İstanbul on behalf of the organizing committee. The conference will take place at Kabataş Cultural Center on Bosphorus from 9 to 11 September 2009. The program of the 11th European Lighting Conference is organized under the topic “Lighting and the Environment” including valuable research studies on the main theme and other supplemental topics as well. The variety of the actual topics to be discussed in the sessions will facilitate your interaction with other participants from about thirty different countries. There are twenty scientific sessions covering all aspects of lighting.

You will be offered a conference program that is both professionally and socially inspiring. All participants and accompanying persons are cordially invited to the Welcome Reception, the Bosphorus Cruise and the Gala Dinner. Rahmi Koç Museum on Golden Horn with a view of the historical peninsula has been selected as the venue for the Gala Dinner, where you will have the opportunity to visit the museum and taste the local tastes of Turkish cuisine. There are also excellent opportunities for discovering more about İstanbul, the city of Turkish cultural heritage, through the social aspects of the conference program. A bridge between the East and the West for centuries, you will find a harmonious blend of culture, cuisine, arts and architecture in İstanbul, which will be the European Capital of Culture in 2010.

I hope that you join us at the conference and enjoy the beautiful city of İstanbul and will have a memorable scientific and social event.

Sincerely yours,

Mehmet Ş. Küçükdoğu

Chairman of the Organizing Committee and
President of the Turkish National Committee on Illumination

Committees · Komitees · Comités

National Lighting Societies Lichttechnische Gesellschaften Sociétés Nationales de l'Éclairage

Technical Advisory Committee Papers Committee

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|----|---|-----------|-------------------------|
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| CH | Schweizer Licht Gesellschaft Association Suisse pour l'éclairage | SLG | |
| CZ | Ceská společnost pro osvětlování | LtG | |
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| ES | Comite Español de Iluminación | CEI | Joan Ramon Sarroca |
| FR | Association Française de l'éclairage | AFE | Bernard Duval |
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| HU | MEE Világítástechnikai Társaság | MEE VTT | Péter Schwarcz |
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| SL | Slovensko drustvo za razsvetljavo | SDR | Grega Bizjak |
| TR | Aydınlatma Türk Milli Komitesi | ATMK | Mehmet Şener Küçükdoğu |
| UK | Society of Light and Lighting | SLL | Lou Bedocs |

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Wednesday, 9 September

Hamdi Saver Hall



**Opening Session · Eröffnungsveranstaltung
Cérémonie d'inauguration**

09:00 **Mehmet Ş. Küçükdoğu**
Chairman of the Organizing Committee and President of the Turkish National
Committee on Illumination

İsmail Ünal
Mayor of Beşiktaş

Cengiz Bektaş
Architect and Poet
Daylight

Aslıhan E. Özel, Zeynep G. Özkişi, Esra Berkman, Korkutalp Bilgin
Turkish Maqamic Music Concert

10:20 **Wolfgang Prah** (DE)
Lux Europa: An attempt to collect and present facts, aims and history in the internet

10:30 Coffee Break · Kaffeepause · Pause café

Wednesday, 9 September

Hamdi Saver Hall

Chairman · Diskussionsleiter · Modérateur: **Marc Fontoyont (FR)**

**Lighting and the Environment · Licht und die Umwelt
Lumière et l'Environnement**

Presented Paper

- 11:00 Hester Hellinga, Truus de Bruin-Hordijk (NL)
A new method for the analysis of daylight access and view out
- 11:15 John Mardaljevic (UK)
Application of the useful daylight illuminance metric: A parametric evaluation covering 480 combinations of building type, climate and orientation
- 11:30 Stanislav Darula, Richard Kittler (SK)
Exterior daylight illuminance and irradiance variability
- 11:45 Dilay Kesten, Felix Thumm, Sebastian Fiedler, Andreas Löffler, Ursula Eicker (DE)
The use of a full scale mock-up office and different scale model measurements to assess daylight performance
- 12:00 Bojana S. Brunner (AT)
Sky luminance mapping based on digital imaging and measured horizontal global illuminance

Presented Poster

- 12:15 *Marek Krasnan, Stanislav Darula (SK)*
Unconventional daylight transport to building interiors
- 12:20 *Müjgan Ş. Sözen, Rengin Ünver, Esra K. Özcan (TR)*
Natural lighting of Aphrodisias Museum's additional exhibition hall

12:25 Lunch break · Mittagspause · Pause déjeuner



Wednesday, 9 September

Feyyaz Tokar Hall

Chairman · Diskussionsleiter · Modérateur: **Christoph Schierz (DE)**

**Light for People at Work · Licht für Menschen bei der Arbeit
Lumière dans les lieux de travail**

Presented Paper

- 11:00 Mariëlle P. J. Aarts, Sanne J. van Velzen, Zara Huijbregts (NL)
Ultra high color temperature and visual performance
- 11:15 Cornelia Vandahl, Nora Gudd, Christoph Schierz (DE)
Subjective assessment of brightness depending on colour temperature
- 11:30 Martine Knoop, Jettie Hoonhout, Ruben Vanpol (NL)
Coloured light in offices: support or distraction?
- 11:45 Banu Manav, Rana Kutlu, Mehmet Ş. Küçükdoğu (TR)
An experimental study on the appraisal of an office setting with respect to illuminances and wall colors
- 12:00 Alfonz Smola, Dionyz Gasparovsky, Peter Janiga, Laszlo Pomothy (SK)
Survey of lighting systems in schools and educational buildings

Presented Poster

- 12:15 *K. Eren Şansal, Tommy Govén, Thorbjörn Laike, Peter Raynham (UK)*
Time-dependent effects of indoor lighting on well-being and academic performance
- 12:20 *Tuba Baskan, Müjgan Ş. Sözen (TR)*
Examination of artificial lighting in classroom in terms of visual comfort and efficient energy use - The sample of FMV Private Ayazağa İşik High School

12:25 Lunch break · Mittagspause · Pause déjeuner

Wednesday, 9 September

Hamdi Saver Hall

Chairman · Diskussionsleiter · Modérateur: **Tommy Goven (SE)**

Sustainable Lighting · Nachhaltige Beleuchtung · Eclairage durable

Presented Paper

- 13:25 Lou Bedocs (UK)
Sustainable quality lighting with PEC
- 13:40 Radhakrishna S. Aithal, Chandrashekara S. Adiga, Anantharam P. Saralebettu (IN)
Impact of self-sustainable rural household lighting - Case study of a typical Indian village
- 13:55 Ater Amogpai, Eino Tetri, Liisa Halonen (FI)
New lighting technologies in developing countries - case Sudan
- 14:10 Heinrich Kaase, Alfred Wacker (DE)
Innovative and sustainable lighting
- 14:25 Özlem Özkızılkaya, Sermin Onaygil (TR)
Effects of parameters in road lighting cost calculation formulas
- 14:40 Haldun Demirdes, Isabelle Huaman, Jennifer Brons (FR)
Assessing light pollution with a comprehensive and quantitative framework: Outdoor Site-Lighting Performance (OSP)

14:55 Coffee Break · Kaffeepause · Pause café



Wednesday, 9 September

Feyyaz Tokar Hall

Chairman · Diskussionsleiter · Modérateur: **Anna Shakhparunyants (RU)**

**Light for People at Work · Licht für Menschen bei der Arbeit
Lumière dans les lieux de travail**

Presented Paper

- 13:25 Christoph Schierz (DE)
Lighting for the elderly: Physiological basics and their consequences
- 13:40 Adrie de Vries, Mariëlle Aarts, Martine Knoop, Hugo Cornelissen (NL)
Beneficial non-visual effects of daylight, research into the influential parameters
- 13:55 Karin CHJ Smolders, Yvonne AW de Kort (NL)
Light up my day: A between-group test of dynamic lighting effects on office workers' wellbeing in the field
- 14:10 Ásta Logadóttir, Jens Christoffersen (DK)
Dynamic lighting concept in Danish office environments with daylight contribution
- 14:25 Paula Longato (DE)
Daylighting in office buildings

Presented Poster

- 14:40 *Azeddine Belakehal, Amar Bennadji, Kheira T. Aoul (DZ)*
From words to ambience: Towards an architectural daylighting design based on users' perceptions and behaviours
- 14:45 *Cornel I. Bianchi, Camelia M. Burlacu, Ana-Maria Gh. Bianchi, Dan N. Vătăjelu (RO)*
The use of natural light within the modern interior lighting systems
- 14:50 *Chiara Aghemo, Valerio R. M. Lo Verso, Anna Pellegrino, Caterina Petrigni, Laura Rossi (IT)*
Evaluation of display legibility through luminance mapping: An application to aircraft cockpits

14:55 Coffee Break · Kaffeepause · Pause café

Wednesday, 9 September

Hamdi Saver Hall

Chairman · Diskussionsleiter · Modérateur: **Grega Bizjak (SL)**

Health and Lighting · Gesundheit und Licht · Santé et la lumière

Presented Paper

15:25 Christian Corbé (FR)

Light, lighting and health

15:40 Jean-Jacques Ezrati (FR)

Du lieu de travail au lieu de retraite, l'importance de l'éclairage dynamique

15:55 Francesco Leccese, Giacomo Salvadori, Giuseppe Tuoni (IT)

Lighting design and study of colorimetric aspects in a day care centre for people with Alzheimer's disease

16:10 Andreas Wojtysiak, Dieter Lang, Soheil Moghtader (DE)

Report on the 3rd DIN Expert Panel 2009 "Effect of light on human beings"

Presented Poster

16:25 Motoharu Takao, Yasuko Koga (JP)

Polychromatic properties of the pupillary light reflex in human subjects

16:30 Renate E. C. Hammer, Peter C. Holzer (AT)

Effects of highly insulating and sun protecting glazing

16:35 Ahmet E. Çakır (DE)

Daylight for health and efficiency – A new career for an old friend

16:40 Hillevi Hemphälä, Peder Wibom, Per Nylén (SE)

Visual ergonomics while sorting mail – A lighting intervention

16:45 Ruslan Kozakov, Heinz Schöpp, Horst Rudolph, Stefan Seltmann, Dieter Kunz (DE)

Melatonin suppression by plasma light sources. Project PLACAR

16:50-17:50 Poster Session



Wednesday, 9 September

Feyyaz Tokar Hall

Chairman · Diskussionsleiter · Modérateur: **Janos Schanda (HU)**

Lighting Quality · Lichtqualität · Qualité de l'éclairage

Presented Paper

- 15:25 Steffen Franke, Ruslan Kozakov (DE)
Spectra optimization with respect to different methods assessing the color rendering and biological effectiveness
- 15:40 Nickolas V. Bisketzis, Phaedra F. Topalis, Constantinos A. Bouroussis, Frangiskos V. Topalis (GR)
Is the fovea vision only photopic?
- 15:55 Ingrid Vogels, Dragan Sekulovski, Ramon Clout, Roger Moors (NL)
A quantitative study on the impact of light on the atmosphere of an environment
- 16:10 Peter Bodrogi, Stefan Brückner, Tran Q. Khanh (DE)
Effect of inter-observer variability of colour vision on the colour quality of modern light sources

Presented Poster

- 16:25 *Stefan Brueckner, Peter Bodrogi, Tran Q. Khanh (DE)*
Colour rendering of new white LED light sources – visual tests
- 16:30 *N. Bo, P. Iacomussi, G. Rossi (IT)*
On the LED colour rendering evaluation for works of art lighting
- 16:35 *Esther de Beer, Peter van der Burgt, Simone Poort (NL)*
The contribution of light to the atmosphere in retail applications
- 16:40 *Steve Fotios, Kevin Houser (UK)*
Tuning lamp spectral power to improve the perception of interior spaces

16:50-17:50 Poster Session

Thursday, 10 September

Hamdi Saver Hall

Chairman · Diskussionsleiter · Modérateur: **Péter Schwarcz (HU)**

Sustainable Lighting · Nachhaltige Beleuchtung · Eclairage durable

Presented Paper

09:00 Mohammed S. Mayhoub, David Carter (UK)

Hybrid lighting systems: A feasibility study for Europe

09:15 Matej B. Kobav, Grega Bizjak, Dominique Dumortier (SI)

Complete analysis of the luminance measurements gained with sky scanner

Presented Poster

09:30 *Massimo Paroncini, Francesco Corvaro, Giorgia Nardini, Sara Pistolesi (IT)*

Modelling of internal illuminance levels in a daylight test room using a simulation software

09:35 *Heiko Herzberg, Sirri Aydınli, Stephan Völker (DE)*

Charakterisierung der Farbveränderungen von Elefanteneifenbein bei kontrollierter Exposition optischer Strahlung bestimmter Wellenlängenbereiche

Lighting and the Environment · Licht und die Umwelt

Lumière et l'Environnement

Presented Paper

09:40 Tamás Déri, Zsolt Hermes, Ágnes Németh-Vidovszky (HU)

Tendenzen der Eisenbahn-Unterführung und Treppen Beleuchtung in Europa

09:55 Semiha Yilmazer, Sibel E. Ural, Sezin Tanrıöver (TR)

A discussion on spatial color design with the emphasis of technical specifications: Energy efficiency and visual quality

Presented Poster

10:10 *Nobuyuki Yamamoto, Toshihiro Bando (JP)*

Psychological influence of fluctuating light on human impression

10:15 *Peter Marx (DE)*

An efficient, pollution free and dimmable desk luminaire with innovative high voltage AC Light Emitting Diodes (ACRICHE-LEDs)

10:20 *St. Franke, R. Methling, H. Schneidenbach, H. Schöpp, L. Hitzschke, M. Käning, B. Schalk (DE)*

Approach to environment-friendly mercury-free HID lamps

10:25 Coffee Break · Kaffeepause · Pause café



Thursday, 10 September

Feyyaz Tokar Hall

Chairman · Diskussionsleiter · Modérateur: **Liisa Halonen (FI)**

Lighting Quality · Lichtqualität · Qualité de l'éclairage

Presented Paper

09:00 Barbara Matusiak, Per Fosse (NO)

Daylighting preferences for subjects with visual impairment and for subjects with normal vision, a full-scale study in a room laboratory

09:15 Werner Osterhaus (DE)

Design guidelines for glare-free daylit work environments

09:30 Cornelia Moosmann, Jan Wienold, Andreas Wagner, Volker Wittwer (DE)

Age effects on glare perception under daylight conditions

09:45 Chiara Aghemo, Laretta Chiaraviglio, Anna Pellegrino (IT)

Assessment of discomfort glare in daylit rooms with shading devices: Results from a field study and comparison with software simulations

Presented Poster

10:00 *Sian A. Kleindienst, Marilynne Andersen (US)*

The adaptation of daylight glare probability to dynamic metrics in a computational setting

10:05 *Niloofer Moghbel, Jan Wienold (DE)*

Contrast evaluation for visual displays under daylight conditions in office rooms

10:10 *Paul W. Schmits, Carolin Liedtke (DE)*

Vertical illuminance for visual communication

10:15 *Massimo Bizzaro, Elena Pedrotti, Silvia Valenti (IT)*

Rehabilitation of the exhibition about "Sala delle Palme" (Palm Trees Hall)

10:25 Coffee Break · Kaffeepause · Pause café

Thursday, 10 September

Hamdi Saver Hall

Chairman · Diskussionsleiter · Modérateur: **Florin Pop (RO)**

**Lighting and the Environment · Licht und die Umwelt
Lumière et l'Environnement**

Presented Paper

10:55 Reinhard Weitzel (DE)

Off-grid-lighting solutions for least developed countries

Presented Poster

11:10 *Anne Iversen, Louise F. Wille, Toke R. Nielsen, Svend H. Svendsen (DK)*

Simulated influence of the surrounding buildings on the daylight availability in the master plan and on the working plane

Health and Lighting · Gesundheit und Licht · Santé et la lumière

Presented Paper

11:15 Peter Thorns, Brian J. Hills (UK)

Office user response to lighting solutions employing variable light levels

11:30 Tommy Govén, Thorbjörn Laike, Peter Raynham, Eren Sansal (SE)

The influence of ambient lighting on pupils in classrooms - considering visual, biological and emotional aspects as well as use of energy

11:45 Sharon J. Gochenour, Marilynne Andersen (US)

Circadian effects of daylighting in a residential environment

12:00 Leonie Geerdinck, Bianca van der Zande, Ambali Talen, Thomas van Erp, Luc Schlangen (NL)

Comfortable lighting for seniors: The effect of illuminance and color temperature on the visual acuity in later life

Presented Poster

12:15 *Patrick C. Rombauts, Tine Moens (BE)*

Optimisation of the physical climate comfort in hospital bedrooms

12:20 *Sezin Tanrıöver (TR)*

Towards a sustainable and healthy approach in hospital lighting

12:25 Lunch break · Mittagspause · Pause déjeuner



Thursday, 10 September

Feyyaz Tokar Hall

Chairman · Diskussionsleiter · Modérateur: **Lou Bedocs (UK)**

Lighting Quality · Lichtqualität · Qualité de l'éclairage

Presented Paper

10:55 Sara R. Rodrigues (PT)

Quality of natural light in Portuguese architecture

11:10 Jacques Lecocq, Jean-Paul Rami, Matthieu Gilbert (FR)

Tolerances in lighting

11:25 Bert Junghans (AT)

Interactive lighting design with VIVALDI for optimised lighting solutions in balance of dynamic lighting quality, energy criteria and life cycle cost aspects

11:40 Florin Pop, Horia F. Pop, Mihaela Pop (RO)

LIGHTING QUALITY – component of indoor environment

11:55 Birthe Tralau, Peter Dehoff (AT)

Examination: Ergonomic Lighting Indicator in practise

12:10 Steve Fotios, Tharinee Ramasoot (UK)

Developing a model to predict user acceptability of display screen reflections

12:25 Lunch break · Mittagspause · Pause déjeuner

Thursday, 10 September

Hamdi Saver Hall

Chairman · Diskussionsleiter · Modérateur: **Bernard Duval (FR)**

**Standards of Lighting · Beleuchtungsstandards
Standards de l'éclairage**

Presented Paper

- 13:25 Soheil Moghtader, Dieter Schornick (DE)
Progress report on CEN/TC 169 "Light and Lighting" and outlook
- 13:40 Anna Staudt, Jan de Boer, Hans Erhorn (DE)
CENSE: A joint European effort of bringing the EPBD and CEN 15193 "prEN 15193: Energy performance of buildings - Energy requirements for lighting" into practise
- 13:55 Raphael Labayrade, Marc Fontoynont (FR)
Alternatives to IES lights in lighting simulation softwares
- Presented Poster*
- 14:10 *Jean-Jacques Ezrati (FR)*
An European norm for exhibition lighting
- 14:15 *Mükail Akbulut, Ersen Akdeniz, Ömer Gül (TR)*
An assessment of solid state lighting standards and test procedures
- 14:20 *Johan Alferdinck, Natasja van der Leden (NL)*
Optimum luminous intensities of traffic lights for day and night

14:30 Coffee Break · Kaffeepause · Pause café

Thursday, 10 September

Feyyaz Tokar Hall



Chairman · Diskussionsleiter · Modérateur: **Axel Stockmar** (DE)

Adaptive Lighting · Adaptive Beleuchtung · Eclairage adaptable

Presented Paper

13:25 Alexander Rosemann, Cristian Suvagau (CA)

Strategies for wireless lighting control systems

13:40 Eirik Bjelland, Tor Mjøs, Pål J Larsen (NO)

Intelligent street lighting in Oslo

13:55 Péter Schwarcz (HU)

New approach to lighting applications design

14:10 Sermin Onaygil, Burcu Büyükkınacı (TR)

Road lighting automation strategies

Presented Poster

14:25 *Dragan Sekulovski, Lorenzo Feri, Tim C. W. Schenk, Jean-Paul M. G. Linnartz (NL)*

Interactive lighting design using coded light

14:30 Coffee Break · Kaffeepause · Pause café

Thursday, 10 September

Hamdi Saver Hall

Chairman · Diskussionsleiter · Modérateur: **Włodzimierz Witakowski (PL)**

Energy Efficiency · Energie Effizienz · Efficacité Energétique

Presented Paper

- 15:00 Thomas Kuhn, Christoph Schiller, Nils Haferkemper, Tran Q. Khanh (DE)
LED-street lighting- technological, energy, lighting aspects and results of real tests on the roads
- 15:15 P. Iacomussi, G. Rossi, P. Soardo (IT)
The luminance coefficient in road lighting - A parameter for saving energy and reducing atmospheric pollution
- 15:30 Roland Heinz (DE)
Organic Light Emitting Devices - OLEDs for displays and general lighting -
- 15:45 Sören Schäfer, Franziska Kley, Stephan Völker (DE)
Messbarkeit der Wirkung unterschiedlicher spektraler Verteilungen von Lichtquellen bei kleinen Adaptationsleuchtdichten

Presented Poster

- 16:00 Detlef Düe, Matthias Weigert (DE)
Neuheiten in der Reflektortechnik - Chancen zur Senkung von Energiekosten
- 16:05 Reinhard Weitzel (DE)
Intelligent use of energetically optimized buildings with energy efficient, intelligent dimmable ECGs and bus-systems
- 16:10 Ebru Acuner, Emre Erkin, Sermin Onaygil (TR)
Lighting in hotels at Antalya: Is it efficient enough?
- 16:15 Alec J. Fisher, Stephen E. Jenkins (AU)
Improving the energy efficiency of road lighting in Australia
- 16:20 Sezen Yıldırım, Mehmet Kesler (TR)
The utilization of LEDs in automotive industry and a case study from Turkey

16:25-17:25 Poster Session



Thursday, 10 September

Feyyaz Tokar Hall

Chairman · Diskussionsleiter · Modérateur: **Peter Dehoff (AT)**

**Lighting in Architecture · Beleuchtung in der Architektur
Eclairage dans l'architecture**

Presented Paper

- 15:00 Piergiovanni Ceregioli (IT)
Appreciating form - The Dancing Satyr of Mazara del Vallo
- 15:15 Arturo Covitti (IT)
Measurement of visual quality of a lit monument
- 15:30 Panagiota Hatziefstratiou, Peter Raynham (GR)
The use of LEDs in lighting design applications
- 15:45 Christian Ferouelle, Vincent Laganier (FR)
100% LED designs
- 16:00 Feride Şener, Alpin K. Yener (TR)
Lighting in museum buildings and investigation of a case study
Presented Poster
- 16:15 *Selin Özmen, Leyla D. Öztürk (TR)*
A successive approach for asymmetrical reflector design
- 16:20 *Arturo Covitti (IT)*
Measurement and visual evaluation of the shading of a bas-relief

16:25-17:25 Poster Session

Friday, 11 September

Hamdi Saver Hall

Chairman · Diskussionsleiter · Modérateur: **Miomir Kostic (SB)**

Measurement · Messung · Mesure

Presented Paper

09:00 Leyla D. Öztürk, A. Kamuran Türkoğlu (TR)

Color mixture of dissimilar fluorescent lamps

09:15 Birgit Painter, Denis Fan, John Mardaljevic (UK)

Evidence-based daylight research: Development of a new visual comfort monitoring method

Presented Poster

09:30 Yusuf Çalkın, A. Kamuran Türkoğlu (TR)

Realization and transfer of luminance unit

09:35 Lorenzo Fellin, Pietro Fiorentin, Elena Pedrotti, Alessandro Scroccaro (IT)

Applications of an imaging spectro-chroma meter in art conservation

09:40 Peter Marx, Jiangen Pan (DE)

A new two mirror and two detector (2M2D) goniophotometer

**Lighting in Architecture · Beleuchtung in der Architektur
Eclairage dans l'architecture**

Presented Paper

09:45 Jaime M. Lee, Marilyne Andersen (US)

A simulation-based expert system for daylighting design

Presented Poster

10:00 Nicolas Roy, Henrik W. Jensen, Claus Jensen, Per A. Andersen (DK)

Daylight visualizer 2, an intuitive and user-friendly simulation tool for accurate daylighting predictions

10:05 Mine Yavuz, Rengin Ünver (TR)

Effect of the artificial lights on the facade colours

10:15 Coffee Break · Kaffeepause · Pause café



Friday, 11 September

Feyyaz Tokar Hall

Chairman · Diskussionsleiter · Modérateur: **Müjgan Ş. Sözen (TR)**

Lighting in the Cities · Licht in den Städten · Eclairage dans les villes

Presented Paper

09:00 Lorenzo Fellin, Pietro Fiorentin, Edoardo Tognon, Marina Vio, Alessandra Vivona (IT)
Guidelines for a master plan for urban lighting in Venezia

09:15 İpek Fitöz, Ferda Yüksel, Damla Altuncu, Nergiz Arifoğlu (TR)
Light as city furniture in Istanbul

09:30 Lidija S. Djokic, Biljana Lj. Obradovic, Miomir B. Kostic (RS)
Recommendations for floodlighting of bridges

Presented Poster

09:45 Navaz Davoudian, Steve Fotios (UK)
The impact of background lighting factors on the visual saliency of urban objects

09:50 Duygu A. Cin (TR)
Lighting of cities with the electricity in the Ottoman Empire in the last quarter of 19th century and early 20th century: Electrification of Istanbul

09:55 Francesco Leccese, Giacomo Salvadori, Giuseppe Tuoni, Matteo Casini (IT)
Architectural lighting of the seventeenth-century building "Logge di Banchi" (Pisa) for the retraining of the pedestrian axis Leaning Tower–Railway Station

10:00 Cenk Yavuz, Ertan Yanıkoğlu (TR)
Urban lighting review of Adapazarı: What has changed in four years?

10:05 Tomáš Novák, Karel Sokanský, Tomáš Maixner (CZ)
Luminous flux radiated by public lighting to the upper hemisphere

10:10 Stephan Horn (DE)
Urban lighting masterplans - setting rules not meeting standards

10:15 Coffee Break · Kaffeepause · Pause café

Friday, 11 September

Hamdi Saver Hall

Chairman · Diskussionsleiter · Modérateur: **Lorenzo Fellin (IT)**

Lighting in the Cities · Licht in den Städten · Eclairage dans les villes

Presented Paper

- 10:45 Patricia Sajous (FR)
Influence scrolling luminaries (flicker effect) on the visibility in road lighting - Perception survey on a sample of 69 people
- 11:00 Jean-Paul Rami, Jacques Lecocq, Joachim Leibig, David Manto (FR)
“Flat beam” luminaires adapted to tunnel road lighting using LEDs and fluorescent tubes sources
- 11:15 Steve Fotios, Chris Cheal (UK)
Lighting spectrum and obstacle detection for pedestrians
- 11:30 Justine Decuypere, Jean-Luc Capron, Michel Renglet (BE)
Influence of mesopic lighting conditions on pedestrian visual field in urban environment
- Presented Poster*
- 11:45 Udo Fischer, Veit Franke, Hans-Thomas Hansen, Viktor Keppler, Karl Kurz (DE)
Gestaltung wirkungsvoller Lichtwerbeanlagen
- 11:50 Peter Janiga, Dionyz Gasparovsky (SK)
Monitoring of the quality of electrical energy in public lighting installations
- 11:55 Francesco Leccese, Giacomo Salvadori, Giovanni Cuciniello (IT)
On the lighting comfort parameters relating to pedestrian-mechanic routes to overcome the gap between historic centres and peripheral car parking areas: The case concerning the town of Volterra (Italy)
- 12:00 Mehmet Yeni, Gülen Krochmann (DE)
Public lighting in change and the potentials to increase the energy efficiency
- 12:05 Steve Fotios, Chris Cheal (UK)
Spectrum-balanced illuminance reductions for exterior lighting
- 12:10 Stanimir Bl. Stefanov, Hristo N. Vasilev (BG)
Optimizing parameters of street lighting systems designed by small target visibility criteria

12:15 Lunch break · Mittagspause · Pause déjeuner



Friday, 11 September

Feyyaz Tokar Hall

Chairman · Diskussionsleiter · Modérateur: **Alfonz Smola (SK)**

Energy Efficiency · Energie Effizienz · Efficacité Energétique

Presented Paper

- 10:45 Emre Erkin, Önder Güler, Sermin Onaygil (TR)
An investigation on impacts of daylight responsive control systems in terms of energy quality and saving
- 11:00 Jan de Boer, Simon Wössner (DE)
Modelling daylight penetration through façade systems – Status quo and current developments
- 11:15 Cenk Yavuz, Ertan Yanıkoğlu, Önder Güler (TR)
Determination of real energy saving potential of daylight responsive systems: A case study
- 11:30 Franco Gugliermetti, Fabio Bisegna, Laura Monti (IT)
Integrated and cooperative systems to support natural lighting in non residential buildings
- 11:45 Rana Kutlu, Alpin K. Yener, Mehmet Ş. Küçükdoğu (TR)
A study on facade design for primary school classrooms in temperate and hot climates from the viewpoints of visual comfort and energy conservation

Presented Poster

- 12:00 Benjamin J. Birt, Guy R. Newsham (CA)
Energy savings from photosensors and occupant sensors/wall switches on a college campus
- 12:05 Lambros T. Doulos, Aris Tsangrassoulis, Frangiskos V. Topalis (GR)
Introducing a new methodology for finding the optimum field of view of a photosensor in regard its position
- 12:10 Anca D. Galasiu, Guy R. Newsham (CA)
Energy savings due to occupancy sensors and personal controls: A pilot field study

12:15 Lunch break · Mittagspause · Pause déjeuner

Friday, 11 September

Hamdi Saver Hall

Chairman · Diskussionsleiter · Modérateur: **Guy Vandermeersch (BE)**

Measurement · Messung · Mesure

Presented Paper

- 13:15 Detlef Lindner, Armin Sperling, Matthias Lindemann (DE)
Lichtstärke und Lichtstrom: Weitergabe der Key Comparison Reference Values in den EURAMET-Bereich
- 13:30 Susanne Köhler, Stephan Völker (DE)
Luminance coefficients of road surfaces for small angles of light incidence and their application for luminance based headlamp evaluation
- 13:45 Lorenzo Fellin, Pietro Fiorentin, Alessandro Scroccaro (IT)
Why testing the road lighting? A system for their evaluation
- 14:00 Constantinos A. Bouroussis, Frangiskos V. Topalis (GR)
Automated luminance measurements of tunnel and road lighting installations
- 14:15 Haldun Demirdes (FR)
A simple method for easy determination of the average luminance coefficient "q₀" of road surfaces in road lighting
- 14:30 Zeynep Özver-Krochmann, Tran Q. Khanh (DE)
Measuring systems for spectral radiometric and photometric characterisation of LEDs
- Presented Poster*
- 14:45 Bernd Panhans, Jan de Boer, Andreas Otto, Frohmut Wellner (DE)
A new 'in-situ' measuring device for determining photometric parameters of road surfaces
- 14:50 A. Kamuran Türkoğlu, Yusuf Çalkın, Özcan Bazkır (TR)
Maintenance and dissemination of candela at UME

Closing Ceremony · Abschlussveranstaltung · Cérémonie de clôture

- 15:05 **Wout van Bommel (NL)**
Lighting tomorrow: What's hot and what's not hot
- 15:45 **Włodzimierz Witkowski (PL)**
Invitation to Lux Europa 2013
- 15:55 **Mehmet Ş. Küçükdoğu (TR)**
Farewell



Friday, 11 September

Feyyaz Tokar Hall

Chairman · Diskussionsleiter · Modérateur: **Con op den Kamp (NL)**
Energy Efficiency · Energie Effizienz · Efficacité Energétique

Presented Paper

- 13:15 Stéphanie Mittelham, Jürgen Sturm (BE)
Lobbying of the European lighting industry in Brussels – CELMA & ELC
- 13:30 Friedrich W. Bremecker (DE)
Determination of the Lighting Energy Numeric Indicator (LENI) in the lighting design process
- 13:45 Eino Tetri, Liisa Halonen (FI)
Guidebook on energy efficient electric lighting for buildings
- 14:00 Arnaud G. Deneyer, Peter D'Herdt, Benoît Roisin, Magali Bodart (BE)
The use of energy efficient in dwellings - Challenge et potentials
- 14:15 Dorin Beu, Florin Pop (RO)
Romanian CFL campaign for energy efficient lighting in residential buildings
- 14:30 Wilfried Pohl (AT)
Energy efficient electric lighting

Presented Poster

- 14:45 *Dionyz Gasparovsky, Alfonz Smola, Peter Janiga (SK)*
Potential of energy savings in the framework of energy certification of buildings
- 14:50 *Karel Sokanský, Tomáš Novák, František Dostál (CZ)*
Energy savings in public lighting

Wednesday - Friday, 9 - 11 September

Poster

Lighting and the Environment · Licht und die Umwelt Lumière et l'Environnement

Alessio Corazza, Claudio Boffito, Ben De Maagt (IT)

New environmental friendly getter alloy for discharge lamps

Alessio Corazza, Stefano Giorgi, Vincenzo Massaro (IT)

High accuracy mercury dispensers for linear, compact and circular fluorescent lamps

Light for People at Work · Licht für Menschen bei der Arbeit Lumière dans les lieux de travail

Mouniette E. Seksaf, Kheira T. Aouel (DZ)

Impact of windows size on daylight use according to office-buildings' users in hot climates regions, Case of Biskra, Algeria

Andrzej Pawlak, Krzysztof Zaremba (PL)

LED luminaire with adjustable colour temperature

Sustainable Lighting · Nachhaltige Beleuchtung · Eclairage durable

Heinrich Dudel (DE)

Nachhaltige Beleuchtung am Beispiel einer Photovoltaik-LED-Außenleuchte und ihrer Komponenten

Cyril Chain, Vincent Marchaut (FR)

Airplane observation at night-time for a sustainable urban lighting - The F-Light project

Lighting Quality · Lichtqualität · Qualité de l'éclairage

Thavanathan Sujendan (AU)

Energy saving lamps for a greener and better tomorrow

Koichi Ikeda (JP)

Colour appearance under white LED source and fluorescent lamp

Wouter R. Ryckaert, Wim Hertog, Kevin Smet, Arno Keppens, Sandra Herrebosch, Geert Deconinck, Peter Hanselaer (BE)

Counter lighting with fluorescent lamps and LEDs: A comparative study

Petr Baxant (CZ)

Quality of lighting evaluated by means of digital image processing

Dae-II Seok, Mi-Ae Lee, Hoon Kim (KR)

An assessment of the disability glare by the road lighting system installed on the guardrail



Wednesday - Friday, 9 - 11 September

Seung-Gyun Jung, Yong-Ick Cho, Hoon Kim (KR)
A study of UGR for non-uniform luminance source

Peter van der Burgt, Johan van Kemenade (NL)
Communicating colour rendering by the colour rendering icon

Adaptive Lighting · Adaptive Beleuchtung · Eclairage adaptable

Alexander Günther, Sebastian Schade (DE)
Aktiver Scheinwerfer mit DMD Array

Energy Efficiency · Energie Effizienz · Efficacité Energétique

Lale Erdem, Dilek Enarun (TR)
Energy savings potential through using LEDs in refrigerators and freezers: Applications in the Turkish market

Magali E. Bodart, Benoit Roisin, Arnaud Deneyer, Peter D'Herdt (BE)
Establishment of innovation guidelines for the residential lighting from a relighting project

Piotr Pracki (PL)
Criteria for assessment of lighting energy efficiency in interiors

Sabine Piller, Mechthild Zumbusch (DE)
Energieeffiziente Stadtbeleuchtung - Der Bundeswettbewerb und europäische Aktivitäten

İsmail Kiyak, Bülent Oral, Vedat Topuz (TR)
Effects of lighting performance on cooling for power LED

Silvia-Maria M. Digă, Cristian M. Bratu, Nicolae M. Digă (RO)
Aspects modernes de calcul de l'efficacité énergétique des systèmes d'éclairage intérieur

Lighting in Architecture · Beleuchtung in der Architektur Eclairage dans l'architecture

Jean-Jacques Ezrati (FR)
Effets de la température de couleur de sources fluorescentes sur la conservation des objets du patrimoine

Sabine Brunner (DE)
Light design in architecture - When architecture and light become one

Rosa Urbano-Gutiérrez, Marilyne Andersen (US)
Sustainability through light: A contemporary approach to articulate design and technology

Wednesday - Friday, 9 - 11 September

Jean-Jacques Ezrati (FR)

Daylighting for museum, a good choice?

Zeynep Besler, Rengin Ünver (TR)

An examination on the lighting programmes: Artificial illuminances in closed spaces

Arne Abromeit, Andreas Wagner (DE)

A new web based eLearning platform for building simulation

Measurement · Messung · Mesure

Daniel C. Mensch (DE)

Effiziente Verarbeitung von Strahldatensätzen aus Simulation und Messung

Carlo Baroncini, Oreste Boccia, Fabrizio Chella, Paolo Zazzini (IT)

Double light pipe: Experimental analysis on reduced scale models and comparison with numerical results

Daniel C. Mensch, Henning Kiel, Christian Ziehl (DE)

Evaluation of stray light from peripheral areas of the luminous intensity distribution of headlamps

Lorenzo Fellin, Pietro Fiorentin, Elena Pedrotti, Alessandro Scroccaro (IT)

The importance of pavement reflectance: A portable system for on site measurements

Urszula J. Blaszcak (PL)

From the studies on discomfort glare measurement

Nikolaos G. Chondrakis, Lambros T. Doulos, Frangiskos V. Topalis (GR)

Starting characteristics and steady state operation of dimming electronic ballasts

Marek Pípa, Alfonz Smola (SK)

Comparative measurements of photopic and scotopic luminous fluxes of different light sources

Arne Abromeit, Andreas Wagner (DE)

Low-cost luminance cameras with CMOS-sensors

Lorenzo Fellin, Pietro Fiorentin, Elena Pedrotti (IT)

Prediction and preventing of fading caused by the light on art materials

Jan Škoda, Petr Baxant (CZ)

Measuring of luminous intensity curves by digital camera

Lighting in the Cities · Licht in den Städten · Eclairage dans les villes

Tetsuo Yamaya, Akihiko Mitsuishi (JP)

On the culture of the traditional town and the urban lightscape design in Tokyo "Shitamachi" area

Social Program

All registered delegates and their accompanying persons are cordially invited to attend the Welcome Reception, Bosphorus Cruise and Gala Dinner.

Welcome Reception

Tuesday, 08 September 2009, 19:00 – 21:00



The welcome reception will be held in the Kabataş Cultural Centre, conference venue. The cultural centre is located on the European shore of Bosphorus and the welcome reception will take place in its garden overlooking the magnificent view of the strait. We warmly welcome you to reunite with colleagues and make new acquaintances before starting with the conference.

Bosphorus Cruise

Wednesday, 09 September 2009, 18:30 – 21:00

Bosphorus, the scenic water passage separating Asia and Europe has been the subject of many legends down the ages. Its length, if measured in a straight line, is 30 kilometers but the natural, winding route of the motorway increases the navigating distance to twice as long. Çırağan, Dolmabahçe, and Beylerbeyi Palaces, Küçüksu Pavilion, Rumeli and Anatolian fortresses, and the waterside mansions are some of the sights of a fascinating Bosphorus tour. Our journey will start from and end at the conference venue.



Social Program

Gala Dinner

Thursday, 10 September 2009, 19:30 – 24:00

The Gala Dinner will be held in the Erdoğan Gönül Gallery of Rahmi M. Koç Museum. The Museum is the first major museum in Turkey dedicated to the history of Transportation, Industry and Communications. Housed in historical buildings on the shore of Golden Horn, the collection contains thousands of items from gramophone needles to full size ships and aircraft.

The museum is open for our guests before (from 17:30 on) and during the event.



Reservation can be made starting from 9 September, in the conference office.

Departure from The Marmara Hotel, Taksim: 19:00, from Ortaköy Princess Hotel: 18:45

Address: Rahmi M. Koç Museum Hasköy Cad. No: 5 Hasköy/Istanbul, Tel: +90 212 369 66 00-01

Contact

Conference Secretary

Leyla Dokuzer Öztürk

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