

Horticultural Lighting Forum

植物照明論壇

**Chance to enter
LUCKY DRAW!**

**有機會參加
大抽獎!**

- Date 日期 : 28 / 10 / 2018 (Sunday 星期日)
 Time 時間 : 2:30am – 3:45pm
 Venue 地點 : Seminar Room, Hall 10, AWE
 亞洲國際博覽 10 號展館研討室
 Language 語言 : English (with Simultaneous Interpretation service in Mandarin)
 英語 (附普通話傳譯服務)
 Remarks 備註 : Free Admission (Please click [HERE](#) to register online)
 免費入座 「[按此](#)」登記

Time 時間	Programme 程序表
2:15am – 2:30am	Registration 登記
2:30am – 2:55pm	Horticultural Lighting Trend in Europe 植物照明在歐洲有多流行? Mr Markus Helle, Editor-in-Chief and Managing Director, Highlight Magazine 
2:55pm – 3:20pm	Latest Horticultural Lighting Technology and Application 植物照明的最新科技及應用 Mr Daniel Doxsee, Sr. Director, Head of Global Sales, General Lighting, Osram Opto Semiconductors 
3:20pm – 3:45pm	Artificial Lighting for Controlled Environmental Horticulture 可控環境園藝的人工照明 Dr Marvin Henry Böll, Senior Engineer and Project Manager, TÜV SÜD TÜV SÜD 高級工程師及項目經理 Marvin Henry Böll 博士 
3:45pm	Lucky Draw 抽獎

Organiser 主辦機構

Supporting organisation 支持機構



HKEIA
香港電子業商會



HONG KONG ELECTRONICS & TECHNOLOGIES ASSOCIATION
香港電子科技商會

Remarks 備註:

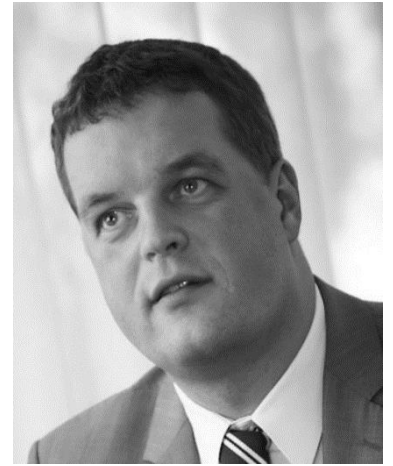
- Free admission. Seats are granted on a **first-come-first-served basis**. 免費入場。座位有限，**先到先得**。
- Trade only and persons under 18 will not be admitted. 只接待 18 歲或以上業內人士進場。
- The Organisers reserve the right to make any changes without prior notice. 主辦機構保留任何更改之權利而不作另行通告。

ABOUT THE SPEAKERS

Mr Markus Helle, Editor-in-Chief and Managing Director, Highlight Magazine

Markus Helle (born 1969) is Editor-in-Chief of the magazine HIGHLIGHT, a special magazine for lighting, targeting the German luminaire trade, manufacturers and specifiers.

He has an university degree in economics and journalism and has been publishing on lighting and luminaires since 1992. Since 1998 he is developing the magazine HIGHLIGHT into one of the leading communication platforms for the lighting industry, with special issues, books, website and job portal. HIGHLIGHT is today reporting on trends for luminaires, technical aspects as well as on trends in the industry and the economic development.



Mr Daniel Doxsee, Sr. Director, Head of Global Sales, General Lighting, Osram Opto Semiconductors

Dan is the Head of Global Sales for General Lighting at Osram Opto Semiconductors, who he joined in 2016. Dan currently leads the commercialization of Osram's LED products for lighting applications globally, based in Penang, Malaysia. Before joining Osram in 2016 Dan worked for Nichia Corporation from 2004 to 2016, where he was Vice President of Nichia America, based in Detroit and later Deputy Managing Director of Nichia Europe, based in Frankfurt, Germany. Prior to joining Nichia in 2004 Dan spent 6 years with GE Lighting's LED division in various roles in Engineering and Product Management, based in Cleveland. Dan is a native of Canada and received his Ph.D. in Inorganic Chemistry in 1992.



Dr Marvin Henry Böll, Senior Engineer and Project Manager, TÜV SÜD

Marvin Böll is Senior Engineer and Project Manager at TÜV SÜD, for horticulture lighting. Before joining TÜV SÜD he worked in Research and Development, developing new lighting solutions for AZ e-lite Pte Ltd. Marvin Böll has a PhD in Electrical Engineering from the Technische Universität Darmstadt, where he studied models to describe human color perception.

Marvin Böll 博士就職于 TÜV 南德意志集團，擔任植物照明高級工程師及項目經理。加入 TÜV 南德意志集團之前，Marvin Böll 博士服務于 AZ e-lite Pte Ltd，研究和開發新照明解決方案。Marvin Böll 博士在達姆斯塔特工業大學獲得電氣工程博士學位，致力於研究人類色覺描述模型。



Presentation Abstract

The conditions under which plants are grown differ from those for general lighting. If required, the climate can typically range from normal to tropical. Some of these environmental conditions can prove to be challenging for lighting systems. High ambient temperatures for example or temperature cycling can affect the function and dielectric strength of the luminaires which can pose a safety risk. Testing horticultural lightings according to existing standards for harsh environments such as water ingress and operation under various temperatures would improve the overall performance of horticultural lightings. Available standards in the field of horticulture not only promote performance and safety tests but also the usage of the correct terminology and a unified approach for recording necessary parameters such as humidity, light level and light distribution. The data gained from these measurements will enable light planners to enhance the quality of the illumination in a similar fashion as in general lighting.

植物生長燈所處的使用環境條件與一般照明燈具不同。根據植物所處的氣候環境，植物燈的使用環境會從一般的氣候環境跨越到熱帶氣候環境。其中一些環境條件對植物照明系統來說具有很大的挑戰性，例如，較高的環境溫度或溫度循環變化可能會影響燈具的功能和電氣強度，從而造成安全風險。按照惡劣環境下使用燈具的標準來測試植物燈，例如有水浸的環境或者不同使用溫度下的環境，會提高植物燈的整體性能。目前市場上植物燈的標準不僅提出了性能和安全測試，而且使用了正確的術語和統一的分類方法來規定一些必要的參數，例如濕

度·光強和光分佈,這些測量中獲得的數據,將能夠幫助植物燈設計者以類似于一般照明的方式來提高植物燈的光照質量。