Presentation

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Show report: LuxLive 2016

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Paul Bremner, Senior Analyst, +44 2086 023801, paul.bremner@ihs.com

Show overview

Paul Bremner – Senior Analyst (Lighting)

LuxLive, Europe's biggest annual lighting event, saw more than 250 exhibitors, 80 expert talks, and more than 8,000 visitors attend.

I attended the show for two days, with the show taking three halls of London's ExCeL. A wide range of exhibitors were in attendance spanning technical lighting and lamps, architectural lighting and design lighting, decorative lighting, components for lighting technology, and accessories/LEDs.

The exhibition halls were busy on both days, with both the stands and various conference arenas being well attended. There were two notable presentations in the "IoT Arena": one was a live demonstration of a LiFi system; in the other, live hacking a kettle exposed vulnerabilities in the IoT. Both presentations drew standing crowds.

The show featured a large contingent of UK companies; however, there was a good mixture of international companies showing too. A number of smaller start-up companies were also present surrounding the IoT Arena, including Gooee and Silvair.

This show report contains my top five stories from the fair.

Top stories

1 pureLiFi provide a live demo of their LiFi system

2 Pen Test Partners exposes IoT vulnerabilities

3 Land Securities shares its PoE lighting experience

4 Osram and Ledvance show separately

5 LIA launches new LED insurance products for members

Top stories
pureLiFi provide a live demo of their LiFi system

1 pureLiFi appeared twice in LuxLive's IoT Arena, first showcasing the "world's first LiFi office" in Paris; and second, demonstrating live on stage its LiFi system working. Interest was high for both of these presentations, with standing room only for the live demonstration.

2 Before the demonstration started, pureLiFi reiterated the major difference between LiFi and VLC, terms which are often used interchangeably. The difference highlighted was that LiFi is two-way, high speed connectivity, while VLC is one-way with a lower data-rate. LiFi also allows the user to move from one lighting fixture to another without losing the connection.

3 Movement between light fixtures was demonstrated, with a video stream being loaded under one light, and continuing to stream as the LiFi dongle connected to the device was moved over to the second light fixture.

4 The demonstrations drew many questions from the audience afterwards, ranging from how much lux is required at the device sensor, whether it works from reflections as well as direct light, the difference between LED and OLED lights for this application, the potential applications this technology could be used for, and many more.

5 In July 2016, pureLiFi raised just over £7 million in Series B funding to commercialize LiFi technology. IHS will be releasing a market insight covering indoor navigation and LiFi in early 2017.

Top stories
Pen Test Partners exposes IoT vulnerabilities

1

An "ethical hacker" from Pen Test Partners (short for penetration testing) hosted a live hacking session, highlighting potential IoT device vulnerabilities. Vulnerabilities in IoT devices from kettles, coffee makers and lights were shown, with the live hacking portion demonstrating a lack of security features in an IoT-enabled kettle.

2

While the live hacking itself was done on a kettle, the vulnerabilities exposed allowed the hacker to access the kettle owner's network access key in plain text, allowing the hacker to be "man in the middle" and listen to every single piece of traffic that goes over the home Wi-Fi network. This would include every password sent, banking traffic, social network traffic, everything.

3

The demonstration urged lighting manufacturers to follow security standards which have already been well-defined, but which are often overlooked. These include digitally signing firmware code, validating the code at boot time, and leaving sensitive information out of the source code.

4

As use of connected lighting continues to grow and the IoT becomes more prominent in smart buildings, the issue of cybersecurity will be paramount for manufacturers to address.

5

Top stories
Land Securities shares their PoE lighting experience

1 Land Securities, the largest commercial property development and investment company in the United Kingdom, shared its experience in deploying PoE (Power over Ethernet) lighting across a number of its office locations.

2 PoE lighting is thought to be a way to enable the "digital ceiling", as PoE supplies DC power direct to LEDs, which are themselves inherently low-voltage DC devices. It enables each light fixture to be individually addressed with an IP address, as well as potentially future-proofing the lighting installation, allowing new sensor and communication modules to be added with relative ease.

3 Land Securities compared the IP lighting transition to the IP video surveillance transition that occurred, and expects directly, digitally addressable IP-connected luminaires to become commonplace, doing away with gateways entirely.

4 Questions were raised over whose business PoE lighting really is, i.e. should lighting companies or networking companies be pushing towards PoE lighting? With Cisco's "Digital Ceiling" Partner Community, it may not be so clear cut as this, with the possibility that companies across the value chain can benefit in different ways.

5 IHS expects adoption of PoE lighting to increase. However, there are a number of barriers to adoption which will limit uptake. In the short-term, PoE lighting will continue to be well-suited for new builds, as the costs remain high for retrofit solutions.

Top stories
Osram and Ledvance show separately

1

Ledvance, the company that was until recently known as Osram's lamp business, has been legally independent sine July 2016. LuxLive was the first major show IHS has attended since this separation.

2

Ledvance continue to expand its portfolio of LED luminaires to the trade and retail sales channels, with the portfolio being expanded also to encompass the smart home. In total, 60 trade products, in eight product ranges, are now available with the Osram brand, covering the wall and ceiling, work luminaire, spot and downlight categories.

3

Ledvance focused on showing its Edition 1906 portfolio of lamps, referencing the "language of design from the early 20th century". Osram focused on showing a range of sensors as well as its EINSTONE smart positioning system which was launched earlier this year at Light+Building.

4

While both companies held separate booths at the show, they did jointly sponsor the main café. IHS will watch with interest how their approach and cooperation at future trade shows occurs.

5

Top stories
LIA launches new insurance products for members

1

The Lighting Industry Association (LIA), is Europe's largest trade body for the lighting industry, with members including lighting manufacturers, suppliers, retailers, wholesalers and designers. The LIA has around 280 members in total.

2

The LIA announced that it has teamed up with specialist insurance broker Kinnell Corporate to form LIA Insurance Services, launching a new range of products for members. These products include energy-efficiency insurance, cyber insurance, professional indemnity, and general commercial insurance. While the latter two are more traditional commercial insurance options, energy efficiency and cyber insurance are being increasingly adopted as longer lifetime LED products have entered the industry.

3

Energy efficiency insurance, which provides cover for breakdown, business interruption and asset performance if the new LED lighting equipment fails to yield the financial saving expected, allows companies to invest in longer-lifetime LED equipment. With LED products having a much longer lifetime than traditional lighting technology, new insurance products are needed to cover this additional lifetime.

4

Cyber insurance, which covers the businesses' IT systems, networks and data stored on these systems, is another product which is increasingly relevant for lighting companies as the IoT continues to gain prominence within the industry.

5

Closing remarks

Paul Bremner – Senior Analyst (Lighting)

LuxLive 2016 for me seemed to cement the idea that the lighting industry has moved past talking about energy efficiency of LED versus traditional lighting technology; the conversation is now about the practical realities of implementing the IoT in lighting.

IHS has recently released *Smart Lighting and Connected Lighting Controls – 2016,* which estimated the total connected lighting market to be almost $6 billion in 2015, growing to an estimated $15 billion in 2020. As this market continues to grow, the IoT in lighting will remain an important topic, with many questions on the technology itself as well as the standards used, and interoperability.

I will echo a comment from Stefan Bernards at Nedap: "IoT is successful when people don't talk about it anymore; it just works."

IHS expects further innovations in the IoT, with LiFi a particularly interesting developing technology.
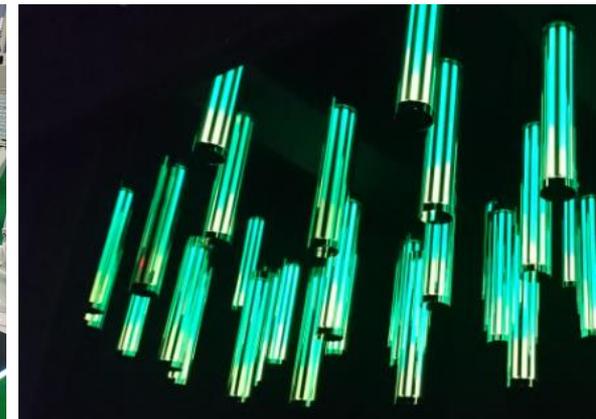
Want further research on the areas discussed from LuxLive – 2016?

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IHS Customer Care:

Americas: +1 800 IHS CARE (+1 800 447 2273); CustomerCare@ihs.com

Europe, Middle East, and Africa: +44 (0) 1344 328 300; Customer.Support@ihs.com

Asia and the Pacific Rim: +604 291 3600; SupportAPAC@ihs.com