



David Morgan offers his personal pick of products on offer at this year's Hong Kong International Lighting Fair.

HONG KONG HIGHLIGHTS

The Hong Kong lighting show has established itself as arguably the leading lighting trade show in Asia over the past fourteen years with around 2,300 exhibitors and 50,000 visitors.

I have visited the show many times in past years looking for component suppliers and assembly factories for my clients.

My overall impressions of this year's show were quite mixed. 2012 is the Hong Kong Year of Design and yet the show organisers seem to make little attempt to prevent Chinese manufacturers from showing blatant copies of Western designed products. It is still rather shocking to see flagrant design infringement on such a large scale. The exhibition organisers should take much stronger efforts to control this if they want the show to be taken seriously.

On the other side of the design coin, Chinese and Taiwanese companies have been active in gaining Red Dot and iF design awards for their designs. Sometimes Red Dot and iF logos are plastered all over their booths giving the impression that all their products have been awarded instead of the one or two actual winners.

The general feeling amongst the visitors that I spoke to was that luminaire design innovations were thin on the ground this year as many of the assembly factories in China have switched production from luminaires to LED retrofit lamps. There were almost unlimited variations on every possible shape and size of retrofit LED lamps and some of these had received international design awards for their novel features.

However there were a wide variety of technical innovations in LEDs and components on offer from both Asian and western companies. The most striking of these developments was the growing development and use of line voltage LED arrays run directly from the mains without a traditional power supply and most importantly without any electrolytic capacitors, which limit driver life. Seoul Semiconductor was an early innovator in this area with their original Acriche products and followed on last year with their Acriche 2 range of arrays incorporating an on board IC driver to control low voltage LEDs direct from mains voltage supply.

Eliminating the traditional driver opens up possibilities for ultra thin LED light engines and luminaires so it will be interesting to see how quickly this approach diffuses through the industry.

The most interesting products and components at this year's show included...

a Megaman • 24W TECOH MHx
Megaman introduced this ingenious replacement for CDM G12 base lamps (with the same lamp centre height) that can be used with existing CDM reflectors and possibly housings assuming that the heat sinking is adequate. The LED module plugs into the base so that colour temperature choice can be left to the last moment and allows for easy toolless upgrades as more efficient versions become available in the future. Megaman won the best in fair award for this development. The company also showed a 16 watt LED GLS replacement lamp which is meant to replace a 100 Watt incandescent lamp.

b Paragon Semiconductor
This Taiwanese company was showing a wide variety of line voltage COB white light arrays in both round and linear formats including a two colour temperature white array for dynamic white applications. It uses an IC integrated with the COB array to control the low voltage LEDs with mains input at 230 VAC. Projected life is 50,000 hours to L70 at a heat sink temperature of 60°C. The power factor is 90.

c Aurora • Crystal Cool
Aurora launched a variety of LED retrofit lamps and luminaires based on their new Crystal Cool thermal management technique. It is understood that a patented nano crystal coating on the rear surface of the ceramic substrate onto which the LED emitters are mounted is so effective at radiating heat energy that heat sink sizes can be reduced by up to 50% thus reducing overall luminaire sizes. Apparently the technique came from the ceramic hob industry and Aurora has adapted it for LED applications.

d Hytronix

This Hong Kong based lighting electronics company is a leading supplier of microwave sensors for the global lighting industry and introduced their daylight sensor that converts light levels directly into a 1 - 10 V dimming output that can be used in daylight harvesting applications. This will simplify and cost reduce many smaller projects as any luminaire fitted with a 1 - 10V dimming driver / ballast can be controlled directly by this light sensor without any other equipment being required.

e Seed Lighting

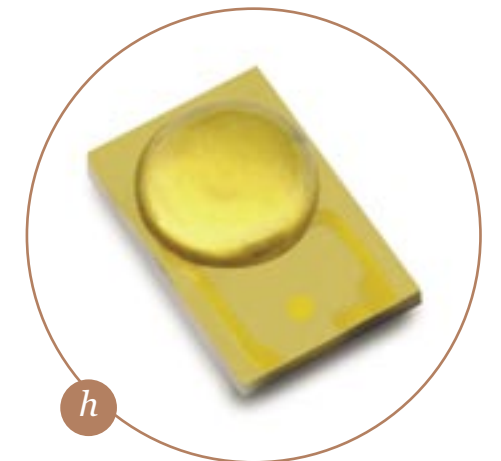
Seed Lighting from Taiwan has been a supplier of good quality home lighting with an Italian flavour for many years. They have gradually created their own design identity for their own products and are now also working with a surprising number of European interior design lighting brands to supply OEM products for design and hospitality markets. This elegantly simple LED pendant is typical of its design approach.

f Noovo • Pendant System

Noovo is a new lighting company based in Hong Kong and London, run by a St Martin's design graduate Tina Leung, that produces lighting and furniture for the interior design and hospitality markets. The Noovo Pendant system is an elegant indirect lighting system based on spun rings that are combined in different sizes to create pendants and table lights. It was winner of the Hong Kong lighting award this year.

g Yaohualux • Eggo

Yaohualux from Ningbo was one of the few mainland Chinese companies exhibiting that were showing distinctive and original designs. The Eggo range is designed by Design Pool in Paris (incorporating the studio of veteran French luminaire designer Jean-Pierre Vitrac). The range of LED exterior adjustable bollards and wall lights is full of Gallic quirkiness and interesting design details.



h Philips Lumiled • Rebel Plus
Philips Lumileds launched their Rebel Plus at the show. This gives increased efficiency up to 110 lumens per watt and a choice of either 2 or 4 step MacAdam ellipse colour consistency so that binning is now much simplified.

i Nichia • NSM 286 M
Nichia were previewing their new 6 watt 36 die emitter package that will be available in 2013. With an output of 700 lumens at 5000K from a small package this can replace COB arrays giving better optical control and Nichia's excellent colour consistency.

either imported directly from Europe or is the result of European educated designers. There is some way to go before 'Designed in China' has much currency outside that country except as a curiosity.

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Conclusions

It seems as though there is a trend for lighting companies in China to try raising the quality of their luminaire design and the government is pushing design up the agenda, but so far most of the creativity is

