Special feature

# The 10 best kept secrets in lighting

OK, so they're not exactly secret - but they ain't as well known as they should be. If you want to be seriously well equipped and connected, you'll need these names in your little black book – you'll never know when thev'll come in useful...



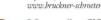
### 1 General Lamps

If you need a lamp – and we mean any lamp – then General Lamps can get it for you. The company supplies obscure, ated and rare lamps to historic houses, the film industry, the armed forces, fishkeepers... the list goes on. If the firm can't get the lamps, it'll have them made. It recently rejuvenated the 1920s squirrel cage lamp that had become obsolete. However, the bread and butter of the business remains standard lamps. General Lamps 01844 344844



# 2 Bruckner & Schroeter attachments

German manufacturer of groovy little attachments that go directly onto MR16 lamps. They do barndoors, honeycombs, louvres, filter clips, spread lenses, diffusers, snoots, UV filters and decorative glass attachments that breathe new life into the low-voltage lamp and allow you to really manage the light. They even do combinations of the above. Exactly the sort of stuff that makes you go "I wish I knew about this for my last job...'



3 Crown-silver GLS lamps

Cheap as chips, and when used with an external reflector give zero glare, razor-sharp beam cut-off, and possibly the most even intensity across the beam of any lamp, period. Crap energy consumption of course, but then again your AR111 loses almost half its light output thanks the cross-blade. Crown-silvers are big in Germany and retailers such as Ikea still swear by them. So how come they're as popular as



GE's website offers free downloads of a number of littleknown tools and utilities that are invaluable for saving time in calcs. Light\*Beams is great shortcut for working out how much light will fall on an surface from a reflector lamp, and will even produce beam intensity cones. HI\*Calc is another useful tool which tells you exactly how much the lumens, lifetime, efficacy and colour of halogen and incandescent lamps



## 5 Koolshade Sun Screen

Not a lighting product as such, but an essential tool for the toolbox. The Sun Screen from Koolshade is a light-directional glare-reduction micro-louvred sheet woven from bronze wires and configured into a mesh. It's been around for years, but top lighting designers still get excited about it and, used imaginatively, it can manage to move a design to places otherwise unattainable. Want to cut the luminance of a buried uplight? Whack on Koolshade. Result!





# 6 David Morgan Associates

Billed as 'new product development consultants', David Morgan Associates provides a one-stop shop service for luminaire manufacturers and designers. Under the auspices of former Thorn product designer David Morgan (right), the practice will research and design a luminaire, decide the appropriate materials and then source that product from manufacturers around the world. DHA works with factories in China, the US, Japan and elsewhere to create new fittings. Customers include Thorn, Louis Poulsen, Holophane, Lightolier and Designplan.
www.dmadesion.co.uk



### 7 Iwasaki high CRI lamps

The lamps to use when you're pushing the boat out. Iwasaki is the Rolls-Royce of HID and halogen sources - with prices to match. Its superbly engineered quartz lamps outperform everyone else's ceramics in terms of colour properties. Indeed, its Color Arc 6500 lamp has the highest colour rendering index of any discharge lamp (CRI96) for absolutely true colours. For critical applications where you want the best life-time and colour stability, they can't be beaten. mmm imasaki co uk



Incorporating lighting into surfaces has been a lighting designer's fantasy for years - but recently it became a firm reality in the shape of 'flat' electro-luminescent panels by Elumin8 System. Thin as a piece of card, the material can be integrated into minimalist back-lit signage or used as illuminated panels for walls, with no recess required. Only suitable for low-light applications, but an extremely useful tool nevertheless. *Elumin*8 01202 965120



9 Polyvent breathing membrane

Outdoor fittings can be a pain - they heat up, air is pushed out of the gaskets and moisture is pulled in as they cool. The solution is Polyvent Membrane by Gore, better known for Goretex. Polyvent is made from micro-porous PTFE, which illows air, but not moisture droplets, to pass through it. A plug of the material, fixed into a small hole with silicone, allows the fitting to 'breathe' with no moisture ingress. Brilliant. Gore +49 89 4612 2211



# 10 Waldmann fluoresent tubes

Under-promoted and under-used in the UK, the architectural light tube system from Waldmann Lighting is a great high-tech lighting solution for contemporary interior or exterior environments. Available in either T5 or T8 versions, in a range of lengths or wattages, with an electronic ballast in the tubular base (or piggy-backed behind the body) the tubes can be mounted in any orientation, providing lighting solutions which are both functional and decorative.





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# New lamps for old

A New Lighting Experience

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David Morgan implores light source manufacturers to consult luminaire designers before introducing new designs

What's wrong with old technology? Why do the big four light source manufacturers introduce new light sources that are often worse than earlier technology? Couldn't we return to a simpler lighting

As a luminaire designer I am frequently caught up in the challenge of designing for new light sources, but often discover later in the game that I

am pursuing a fool's errand. All too often in the UK, luminaire designers and manufacnew light sources that the should use rather than the light sources we might prefer.

It is often years before the new sources are of stable quality, while existing light sources that do a good job are rejected as old has

Those of us who have been in the industry for a while remember the problems of as the early HOI metal halide. lamps. Remember the tripletap ballasts to compensate for the poor quality, variable voltage British electricity supply; the colour shift and the short life problems?

Who would seriously claim that the quality of light from a

mains-voltage halogen capsule lamp or 50mm-diameter line voltage halogen reflector lamp voltage version?

These lamps may meet the need for a higher profit light source without a good quality transformer, but they offer the consumer a poorer quality of

PAR 20 and PAR 30 lamps



lamps for exterior lighting, but it was soon discovered that those made for the UK market with glued-on front glasses were not waterproof, although in the US and Japan the PAR38 is flame bonded and can therefore be used outside without a cover.

Bi-pin versions of lowwattage ceramic metal halide lamps are fragile, and fail to hold the arc tube in a consistent relationship to the reflec-

In time, these problems are often resolved, but product failures in the field are so expensive - both in monetary terms and in tarnished reputawait a while before rushing to specify newly introduced light

In the US, low voltage and line-voltage xenon-filled incandescent lamps are used extensively in under-cabinet and cove lighting applications, giving a warm light combined with long life.

I leave you to form a view as to whether their scarcity in the UK is due to differences in lighting taste or to a subtle protectionism to keep these exclusively Japanese-produced light sources out of the mar-

# Pressure

In Japan, Krypton-filled miniature GLS lamps are available that make it possible to manufacture small and neat residential lighting products. These have, to my knowledge, never been tried here despit Now we are all struggling to make sense out of how and light is good and the lamp life

# It is often years before the new sources are of stable quality, while existing light sources that do a good job are rejected as old hat"

where to use LEDs. They're is typically five times longer expensive, thermally very senitive and, it could be argued, have a limited number of applications rather than being the be-all and end-all of light-

ing in the future.
The situation with LEDs reminds me of the early hype about fibre optic lighting now perceived as a mature and useful technique but with limited applications. I seem to remember that the idea was that buildings would have a central light engine - sulphur amp-powered – and all luminaires would be connected by optical fibre to this one high-

efficiency source.
While I am not suggesting that all new developments in light sources are retrograde. ibility gap between the hype surrounding the introduction of new light sources and the reality of actually designing

around them.

It is generally too commercially risky to design around a speciality or hard-to-find light ource, so we are obliged to work with the tools presented to us by the oligopoly of light

source suppliers.

In other markets, the situation is somewhat different.

than the standard 1,000-hour GLS lamp used in the UK.

Will we in the UK ever see something along the lines of the shadowless concealed lamp cap linear fluorescent lamns from Nippo - so popular in Japan for architectural wash lights and cove lights?

I understand the commer cial pressure on light source new lamp designs and techquickly as possible. It's vital for them to recover their investment in R&D. But if the end result of excessive speed is a degree of cynicism and hesitation by luminaire developers.

spent working with the luminaire development community before the introduction of new light sources would result in light sources that really meet the needs of the market, rather than providing another potential headache.

• David Morgan runs David Morgan Associates, an international design consultancy in London that specialises in luminaire

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