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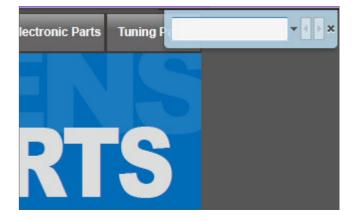
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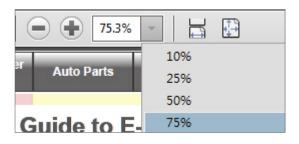
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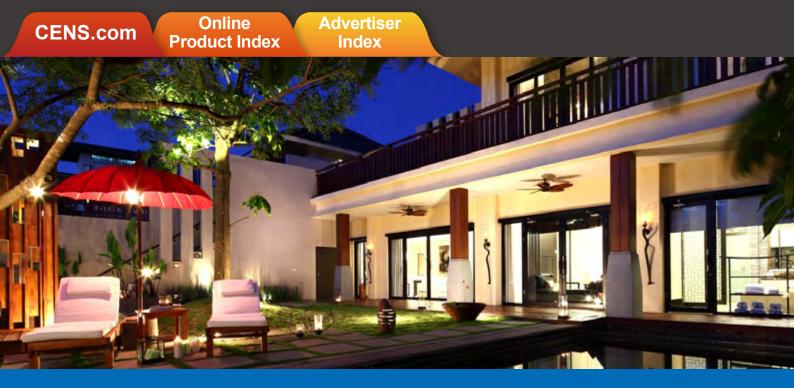


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Taiwan's Lighting Design Guru Pursues Harmony Between Lighting and Nature

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Innovative James Yuan shows the way for a more attractive, more efficient lighting future



By Ken Liu

In 1985, the Wenshui Community in northern Taiwan's Miaoli County had over 800 residents and served as a transportation and business hub for the townships of Dahu, Shitan, and Tai'an. The population later plunged and by 1999 there were only 86 people left, most of them oldsters and children. One reason for this shrinkage was a new access road that made it easier for the community's young people to migrate to cities in search of jobs.

A few years later, some of the migrants started returning, increasing the number of local habitants to around 368 today. This reversal of fortunes has inspired the Japanese TV news channel, NHK, to come and look into the reasons behind it.

"At that time, a senior official in the county government, whose surname was Jien, felt that although it facilitated outmigration the newly built motorway could also bring the community business opportunities," recalls James Yuan, who has been named as Taiwan's most prestigious lighting designer. "He then approached us about coming up with a lighting design project for the community, after its waterways had been dredged and its roads repaved." CENS.com Online Advertiser Product Index Index



James Yuan

Yuan was among the first graduates of the Chung Yuan Christian University's Department of Interior Design, which was founded in 1983. Since there was no academic program in Taiwan that would allow him to earn a higher degree in lighting design, Yuan went to China and earned his Ph. D. in architectural lighting design from Tsinghua University there. He was Taiwan's first lighting-design Ph. D and the island's first lighting designer to be certified by the Chicago-based International Association of Lighting Designers (IALD). In 2000 he was selected by Taiwan's Interior Magazine as one of the island's top 100 lighting designers.

Yuan suggested replacing all of the mercury streetlights around Wenshui with optical-fiber and LED lights, which he says do not produce

so much light pollution as mercury lights and glow likes fireflies. "We found plenty of fireflies in the community when inspecting it for the lighting project," he says. "So we decided to dismantle the mercury lights based on our idea that lighting should be compatible with Mother Nature and conform to the principles of humanity and esthetics. Just imagine--a century ago, residents of this community might clearly see fireflies and stars as they had dinner, thanks to the lack of light pollution."

Natural Elements

Following the improvements that took place in the community, people began coming to camp at Wenshui to watch the fireflies, stars, and the beautiful lighting, inspiring local residents to open stores and make money from them. Many of the young people who had left were encouraged to return by the new business opportunities, and today Wenshui has developed into an important tourist destination in Miaoli. "Why don't we think about how many interesting places like Wenshui we have in Taiwan?" Yuan asks. "Should we not add some natural elements to their lighting and landscape?"

The lighting designer has completed at least 100 projects worldwide, including one for the opening ceremony for the 2008 Beijing Olympics. The Wenshui project may not be as significant as some of his other achievements, but it fully realizes harmony with nature and the value of esthetics and humanity.

Yuan points out that Thomas Edison tried to bring some elements of nature into the incandescent bulb when he was inventing it. "I think very few people know that Edison spent nearly 20 years carrying out around 20,000 experiments with bamboo filaments in his bulbs before deciding to use tungsten," he comments. "He finally gave up on bamboo because it generated too much carbon when it burned, and quickly blackened the bulb." Online Product Index

After the incandescent bulb was invented, brightness was the top priority pursued by lighting technologists and the result was light pollution. "When looking at the Earth from outer space," Yuan laments, "you will see the dazzling brightness of locations in the developed economies. Then you realize that much of the lighting is not appropriately directed," Yuan says, pointing to a satellite image of the Earth.

"Light pollution has certainly taken a serious toll on Mother Nature," Yuan stresses. "The glass buildings in Toronto, Canada have attracted birds to fly into them because of the reflection caused by nearby outdoor lights. Birds mistake the reflected brightness for the sunrise, and kill themselves banging against the glass. Another case is the lights along the Florida coast, which have been mistaken by sea turtles for stars. The turtles follow the lights and crawl ashore only to end up becoming road kill."

Harmony with Nature

Yuan emphasize that lighting should not be just about brightness, but also about "texture." "Lighting technologists always talk about luminous efficacy," he explains, "whereas lighting designers are occupied with the idea of how to make lighting harmonious with Mother Nature." Currently, Yuan has design offices in Beijing, Shanghai, Hong Kong, and Japan in addition to his head office in Taiwan, taking care of work in their respective areas.

Yaun's first design project was for the Wild Goose Pagoda in Xi'an, mainland China, in 2002, a project that embodied the combination of business and the 1,000-plusyear-old historical building. "When we were planning that project," he recalls, "we found that most tourists visited the site in the daytime, and figured that beautiful lighting could attract tourists to come at night as well. Lighting sometimes can create sustainable business in addition to presenting the culture, esthetics, and attitudes of a people.".

After deciding on the goals of the project, Yuan suggested removing the neon lights at the site and paying people who lived there RMB50,000 (US\$8,196.7 at RMB6.1:US\$1) each to relocate. Then, 2,000 stores were built around the site to operate on the buildoperate-transfer (BOT) model. Low-pressure sodium lamps were installed to cast the shadows of trees around the site on the ground, making use of the invisibility of the lamps' wavelength to bugs. Color-changing lights were installed for a dancing water show which performs for five minutes every hour. "While waiting for the dancing water show,"



Yuan says, "tourists want to shop at the stores. Surveys that we conducted reveal that the per-capita GDP generated by the stores soared form US\$828 in 2003 to US\$18,000 in 2009."

Cultural depth was a primary concern in the design of lighting for the opening ceremony of the 2008 Beijing Olympics. The opening ceremony was named "Chinese Scroll," referring to a 72x36.8-meter scroll with 44,000 LEDs controlled by pre-set software programs. The huge scroll took three minutes to unfold and display gigantic Chinese characters in different styles that evolved from the Qin Dynasty to the modern day, along with Chinese landscape paintings, all expressed by hundreds of people in files and rows on the scroll. The LEDs displayed the silhouettes of the gigantic characters and paintings, presenting the essence of Chinese culture. "In the early stages of the planning," Yuan comments, "some experts suggested presenting these paintings and calligraphic characters by projection. Then I said that since people in traditional Chinese society lived under candles, silhouettes created by backlights could better present the concept."

Enhancing Mood while Saving Electricity

The Oiao'an Community Park next to the Far Eastern Plaza on Dunhua South Road in Taipei City is also equipped with a lighting system designed by Yuan, which features lighting colors that change by the hour until the lights are switched off at 10 o'clock. "Originally," Yuan says, "there were 14 mercury streetlights at the park. To conserve electricity, we suggested dismantling them and installing LED lights under the park chairs instead, along with foggers. The lights are switched off at 10 to remind visitors it is time to go home and sleep. We found the citizens really feel good about the aura created by the changing light color and the fog. Our design has cut the park's electricity bill to only NT\$2,000 (US\$66.6 at NT\$30:US\$1) or so from the original NT\$20,000 (US\$666.6) a month. Also, the fog helps capture particulate matter coming from automobile tailpipes."



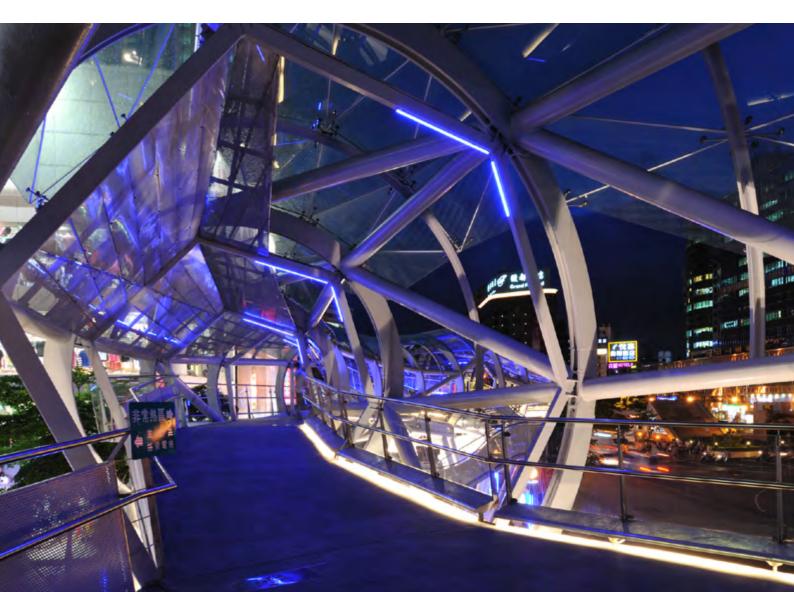
The museum attracts visitors from near and far.

Yuan feels that no one lighting technology can completely replace another, but that different technologies ideally complement each other by making use of the desired wavelengths of each. "For instance," he explains, "superhighways are lined with highpressure sodium lamps and tunnels are outfitted with low-pressure sodium lamps because their wavelengths are invisible to bugs and they are good at penetrating fog, rain, and darkness, although they have poor color rendition. In all cases, driving safety at night trumps seeing bright scenery from speeding vehicles."

The designer stresses that Taiwan's lighting manufacturers have put too much emphasis on replacing older lighting technologies with newer ones, forcing them to compete with each other in manufacturing technology. "Can they outcompete mainland China's manufacturers in the long run?" he asks. "They should create new applications for existing technologies, because that's the only way they can create value." Online Product Index

Yuan is optimistic about the application of organic light emitting diodes (OLEDs) to lighting products, not just because of their comfortable light quality and plasticity but also their biodegradability. "OLEDs are slim and reflective and they are area light sources," he explains, "which allows lighting designers to apply the light source to a wide range of uses. They are complementary to LEDs, which are noted for producing focused light."

Taiwan's lighting industry and the government-backed Industrial Technology Research Institute (ITRI) formed an OLED lighting alliance this July for the purpose of developing new OLED applications for the island's lighting industry. Yuan was invited to assume the position of director general of the alliance's lighting design committee and provide lighting-fixture makers with advice on what designers need from OLED lighting fixtures. Yuan pointed out that at the Lighting + Building 2014 fair in Frankfurt, Germany, OLED applications accounted for around 40% of all products on display. "OLEDs can work as lighting fixtures when plugged into wall sockets, and as mirrors when they are unplugged" he says. "In the future, OLEDs will be combined with smartphones and USBs [universal serial buses] and emerge as parts of interactive lighting fixtures or interactive displays. This emerging trend should provide Taiwan's lighting industry with considerable opportunities as long as the island's IT industry can develop a software sector that is as strong as its hardware sector. South Korea has already integrated electronic hardware and software in OLED lighting."





Taiwan's OLED Lighting Strategy Targets International Business Partnerships Island manufacturers form alliance to promote the lighting source of tomorrow

By Ken Liu

At a time when the organic light emitting diode (OLED) lighting industry is still in its infancy, Taiwan's lighting manufacturers are working closely together to develop a complete supply chain for OLED lighting manufacturing with the aim of attracting partnerships with related enterprises from around the world.

In July this year an OLED-lighting consortium named the "OLED Lighting Commercialization Alliance" (OLCA) was founded, with encouragement by the Ministry of Economic Affairs (MOEA), by Taiwan's lighting manufacturers and designers, machine manufacturers, OLED-panel makers, e-material makers, and the MOEA-backed Industrial Technology Research Institute (ITRI). The alliance is actually a step toward the building up of an OLED-lighting supply chain composed primarily of lighting-fixture, lighting-design, materials, manufacturingtool, and light-engine businesses.

"This alliance places great importance on the commercialization of this promising light source, and we think that the best way to provide that is by building a complete chain; because when you have all of the elements key to the end products, you have more leeway in reining in cost and offering flexibility in design so that you can really cater to consumers," says OLCA Chairman C.T. Liu, Director General of ITRI's Electronics and Optoelectronics Research Laboratories. Online Product Index

The plan is for the supply chain to work with international lighting players in capturing a share of the global OLED-lighting market, which ITRI's market-research unit, the Industrial Economics & Knowledge Center (IEK), predicts will reach US\$5.6 billion by 2020.

Established Model

The model of cooperation that he hopes for, Liu stresses, has already been established by the island's electronics industry, which has developed a successful supply chain through which all of the resources needed to make just about anything buyers want can be integrated. "A case in point is the Apple iPhones assembled by the Foxconn Group, which has achieved an excellent performance by integrating all the resources of Taiwan's electronics industry," he comments.

However, Liu by no means believes that Taiwan should act as a contract manufacturer for international OLED-lighting heavyweights, as many of the island's electronics suppliers do. "Don't forget that among the alliance's members are lighting-fixture manufacturers, many of whom have set up distribution channels and built brand names," he notes. "Also, the membership includes lighting designers, who are the actual users and who know what designs are best for what applications."

OLCA is starting out with five committees, one each for lighting fixtures, lighting design, light engines, equipment, and materials. The lighting fixture committee is chaired by Steven Lin, chairman of the Taiwan Lighting Fixture Export Association, which has over 850 members. The design committee is led by James Yuan, founder of the J.Y. Lighting Design Co. The light-engine committee is headed by RiTdisplay Corp.'s Chief Executive Officer D.C. Wang. The equipment unit is directed by Tongtai Machine & Tool Co. Chairman J.H. Yen, and Managing Director Dick Hsieh of Merck Display Technologies Ltd. will head up the materials committee.



Online Product Index

For Liu's part, the primary tasks of the alliance are to develop efficient manufacturing solutions and an industry standard for OLED light engines. Lin of the lighting fixture committee stresses that only with an industry standard will the island's luminaire makers be able to design their own products.

Liu's lab is developing a first-version OLED standard. "Developing an OLED standard is much simpler than developing a standard for LEDs, because OLED requires fewer manufacturing process," he says. "Basically, 50 to 60 lumens per watt will be defined as the luminous efficacy standard and 10,000 hours as the lifespan standard."

Liu, a specialist in the roll-to-roll OLED-panel manufacturing method, and his lab have introduced a pilot-run roll-to-roll machine which has achieved more cost-efficient OLED production relative to the sheet-tosheet method. "The major challenge of roll-to-roll production is to evenly deposit the ITO [indium tin oxide] layer and print the electrodes on the slim panel rolls," he explains. "We've successfully done both on rolls only 0.1mm thick, and we're working on rolls only half that thickness. And our printing method marks success in only printing the needed three-micron-thick electrode circuits on the panel, instead of printing an electrode layer across the whole panel and then etching out the circuits."

In contrast to the roll-to-roll method, sheet-tosheet manufacturers are using 0.5mm panels at best and require seven processing steps to deposit the electrochemical substance and etch out the electrode circuits, making production relatively pricey, according to Liu. He notes that panel manufacturing accounts for around 40% of the total OLED production cost.

Comfortable to Use and Biodegradable Too

The design committee's Yuan, who is certified by the Chicago-based International



OLEDs completed by ITRI's roll-to-roll machine.

Association of Lighting Designers (IALD) and has been portrayed as Taiwan's top lighting designer, is optimistic about the application of OLED to lighting products, not just because of their comfortable light quality and plasticity but also because of their biodegradability.

Yuan notes that OLED applications accounted for around 40% of all products on display at the Lighting + Building 2014 fair in Frankfurt, Germany. "Now," he says, "OLEDs can work as lighting fixtures when plugged into wall sockets, and as mirrors when they are unplugged. In the future, they can be combined with smartphones and USBs [universal serial buses], and emerge as parts of interactive lighting fixtures or interactive displays.

"OLEDs are slim and reflective, and they are area light sources," he goes on, "which allows lighting designers to apply them to a wide range of uses in combination with LEDs, which produce focused light."

Prof. Jwo-huei Jou, a materials scientist at Taiwan's National Tsing-Hua University who has been researching OLED materials for many years in cooperation with ITRI and private organizations, explains why he prefers OLEDs over LED: the "LED is a spot light source that tends to glare, while OLED light



Pro. Jwo-huei Jou and his candle-like OLED panel.

blankets comfortably, making it more suitable for households and better for health."

Jou's university lab, which is funded by MOEA, has announced the development of a small OLED panel emitting 1,400 Kelvin (K) of correlated color temperature (CCT), which is much friendlier than a candle's 1,914 K; and it has a color rendering index (CRI) of 93, narrowly lagging the benchmark of 100 for a candle. "The candle-like OLED has an efficacy 200 times greater than candlelight," he reports.

Lighting color temperature, Jou notes, is closely related to human health: "Medical findings show that high-K lighting is more carcinogenic than low-K lighting; higher K or whiter light impedes melatonin activity in the human body quicker than low K light. So, people who work night shifts and are exposed to fluorescent lights' 6,000K have a higher risk of cancers."

Prof. Jou has licensed his lighting technology to WiseChip Semiconductor Inc., reportedly the world's No. 2 manufacturer of passive matrix organic light emitting diodes (PMOLEDs), which will begin volume production of OLED lamps with close to natural candle light late this year or early next year. "When volume production begins," he says, "it means that Taiwan's lighting industry has passed a new milestone." Jou says.

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Green Ideas Technology Introduces Blind-spot-free Smart Lighting Control System

Founded only last year, Green Ideas Technology Co., Ltd. focuses on the development of smart lighting control systems for LED lights and solar-powered LED streetlights. Recent field tests carried out by the company prove that its dedicated control system can send signals to all of the 120-some streetlights on the National Taipei University campus, whether in building blocks or at road intersections.

Green Ideas Technology's system, like Chunghwa Telecom's, is built around the ZigBee international wireless protocol. The difference is that Green Ideas Technology adds routers that allow signals to turn corners at road intersections.



The company's smart control system contains several safety designs. One design allows the system's control signal to leapfrog a streetlight with a malfunctioning data module and go on to the next one, so long as the distance between the two does not exceed 200 meters. Another design allows all streetlights connected to the smart system to return to full intensity at night when the control system goes wrong.

Gateways are mounted on streetlights to relay commands from the control computer, and to receive feedback from streetlights and relay it back to the control computer. The computer, which can be a tablet or desktop PC, sends commands to the gateways through Wi Fi or the Ethernet. The smart system is now also available for solar-powered LED streetlights.

According to Tsay, the company's gateway is a powerful unit with an integrated fifthgeneration IEEE 802.11ac wireless module and Ethernet wireless module, as well as an ARM-developed Cortex A8 central processing unit with a speed of 1.7 gigabits per second.

Although the smart system is usable with other high-power LED lights, including wall washers and bay lights, Green Ideas Technology is promoting it mostly for streetlight applications. "Only when it is applied to streetlights can the system fulfill the 'Smart City' idea," Tsay explains, "because streetlights are the most ubiquitous infrastructure items

and Taiwan already has over 300,000 LED streetlights. By installing our system on streetlights we can not only control switching to achieve energy conservation but also provide other functions like realtime traffic, air-quality, and, with a camera added, disaster-relief monitoring."

Tsay feels that although satellites can do real-time monitoring, their ground stations are so big that they are less convenient for disaster monitoring than micro surveillance stations like his smart control system with the camera added.

All-day Operation

To provide 24-hour operation, Green Ideas Technology builds rechargeable batteries into its devices so that they can run on battery power in the day and on the power from the streetlights' electricity lines at night.

Tsay says that his company does the integration of hardware and software for its gateways on its own, noting that since the gateways are exposed to all of the outdoor elements, complicated integration technology is needed to keep them working over the long term. "Our technical team has over 10 years of experience in system integration," he comments. "In addition, the software-hardware supply chain of the IT industry has developed very well, helping us to overcome many technical difficulties." The company is working with the government-

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owned Chunghwa Telecom and the governmentbacked Institute for Information Industry to boost its chances of winning the government smart streetlight contracts.

Besides smart control systems, Green Ideas Technology also supplies lighting fixtures, including panel lights, recessed lights, T8 linear light tubes, bay lights, and streetlights, as well as project consultation, planning, assessment, and installation. It numbers Chunghwa Telecom, the direct-sales company Nu Skin Taiwan, UBS Taiwan, Dharma Drum Mountain, and National Taipei University among its customers.



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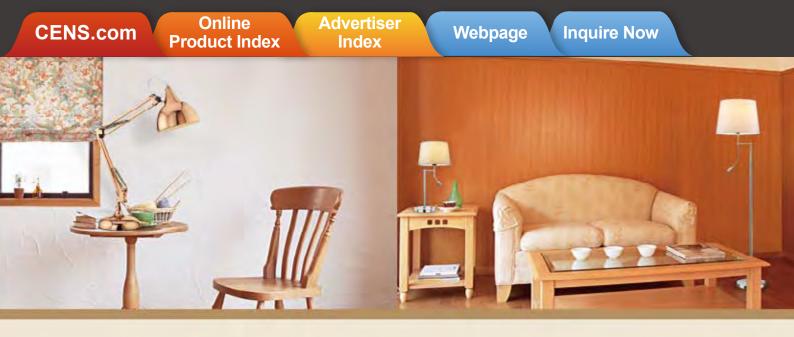


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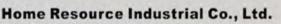
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3412/3W Power: LED X 3 X 5W Product size: ø270mm x 115mm x 95mm

53147/1L Product size: ø230mm x H650mm

Da Che Industrial District, Nanlangtown, Zhongshan City, Guangdong, China Tel: 86-760-85528301-4, 13928167513 Fax: 86-760-85528688 WEB: http://www.tkjlamps.com E-mail: jackie@tkjlamps.com E-mail: tkjlamps@tkjlamps.com

3389-7" (24W)

Product size: ø225 x 225 x H65mm 3389-6" (18W) Product size: ø185 x 185 x H65mm 3389-3.5" (12W) Product size: ø125 x 125 x H65mm

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HKTDC Hong Kong International Lighting Fair(Autumn Edition) 2014.10.27-2014.10.30 Booth No . GH-A02,04,06



10W 700lm

FC02501 CREE COB 1LED 10W 500lm

FC02504 CREE COB 1LED 10W 500Im

HOWELL



FH14901 CREE COB 1LED 10W 700lm



FH15001 CREE COB 1+1LEDs 10+10W 2x700Im



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Commercial

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- BUCKINGHAM INDUSTRIAL CORPORATION
- WEN HUI ENTERPRISE CO., LTD.
- SHANG YEN AQUA TAIJI INTERNATIONAL CO., LTD.
- ART ELECTRONICS LIGHTING CO., LTD.
- CB LIGHTING CO., LTD.

THE BEST LED COOLER IN THE WORLD LED THERMAL COOLER NATURAL AIR CONVECTION. INVENT LED PATENT NUMBER: TAIWAN: M407348, CHINA: 1974120 1750454

Professional LED Lighting



LED CD288-1 TRACK LIGHT

Two Wire Track light 8.2W~19W 90V-260Vac Beam Angle-30° 60° 3000K 1450Im 5700k 1550Im



LED E27-63B TRACK LIGHT BULB

3000K 1450lm 5700K 1550lm Beam Angle 30° 60° W90mm x H108mm 225g E27-63B W120mm x H120mm 295g E27-63A



E27 965 LIGHT BULB

19W L220mm x W90mm x R70mm x L120mm 3000K 1450lm 5700K 1650lm 275g 12W L195mm x W63mm x R45mm x L80mm 3000K 830lm 5700K 900lm 172g 6W L145mm x W50mm x R39mm x L63mm 3000K 470lm 5700K 530lm 82g 90V-260Vac



LED CD290 SPOT & FLOOD LIGHT



LED CD3624 SPOT LIGHT

 37.5W
 75W

 2.2kg
 3.5kg

 2600lm
 5600lm

 W 230mm x L260mm x H 160mm

 W 260mm x L340mm x H 160mm

 90-260Vac



LED CD289 SPOT LIGHT & WATERPROOF

19W W90mm x H100mm 1600lm 910g 3000K 1450lm 5700K 1550lm 90V-260 Vac



CONDOR HIGH TECH CORP (Taiwan Manufacturer)

3F-3, No. 51, Sec. 2, Keelung Rd., Taipei, Taiwan TEL: 886-2-2739-0279 Website:www.condorled.com FAX: 886-2-2735-5096 E-mail: contact@condorled.com

BUCKINGHAM INDUSTRIAL CORPORATION / LED Track Lights, LED Spotlights, LED Downlight



2015 Shanghai Shanghai Hospitality Design & Engineering Expo Booth No. E2H25

Established in 1991 in Taipei, the Buckingham Industrial Corp. Especializes in designing and manufacturing commercial and residential lighting fixtures including downlights, spot lights, track systems, wall lamps, ambient lights, pendants, LED light bulbs, and LED luminaires.

The company operates a factory in Kunshan City, adjacent to Shanghai, which is complete with in-house designers as well as production facilities.

Buckingham believes that the key to success in its industry is constant innovation, and pursuant to that belief the company never ceases converting its new ideas into concrete designs. With the objective of providing customers with optimal products and services, the company persistently enhances its manufacturing capacity by adding new production software and hardware.

SSL is one of the most important revolutionary lighting technology in the last decade. Buckingham LED luminaries is reliable and high quality standard to meet customers' expectation. The new generation of LED's provides energy saving up to 75% by consumption less energy compared to traditional incandescent and compact fluorescent, also contributes to lower environment impact by reducing carbon emission.

In addition to these, every piece of Buckingham LED's is designed for at least 50,000 hours operation with a total solution of free maintenance, that will reduces operation cost in long term.

Buckingham LED's is always the best choice of commercial and residential places. The Buckingham LED's always presents high performance lighting, provides glare free application, distributes the natural of light.

www.buckingham.com.tw sales@buckingham.com.tw Taipei Office Tel 886-2-29037898 Fax 886-2-29037698 8F, No. 659-5, Chung Cheng Rd., Xinzhuang Dist., New Taipei City, Taiwan. China Factory Tel 86-512-57407561 Fax 86-512-57407562 No. 89, Feng Shou East Rd., Qian Deng Town, Kun Shan City, Jiang Su, China.

SHANG YEN AQUA TAIJI ENTERPRISE CO., LTD.

Aqua-bubble Wall, Aqua-bubble Light Pillar, Aqua-bubble Display Cabinet



Founded in 1987, Shang Yen Aqua Taiji International Co., Ltd. initially designed specialty aquariums and FRP landscaping. In 1995, we began making extra-large aquariums for ocean worlds, and in 1999, combining expertise to miniaturize building marine world aquariums with interior décor, created aqua-bubble walls for interiors, as well as integrating such walls into

All our products are multi-

department store displays.

patented or patent-pending in more than 40 countries, including Taiwan, China, the USA, EU, Australia, etc. We've also turned aqua-bubble walls into advertising media to develop aqua-wall signboard lighting. Custom orders for aqua-associated products of various shapes, sizes, and thickness of acrylic are welcome.











Tel: 886-7-731-3318 Fax: 886-7-733-1180 E-mail: ueno@aqua-taiji.com http://www.aqua-taiji.com



Track Light Tracks & Other Accessories

W-302

2" Track actual length 24" (60cm) W-304 4" Track actual length 48" (60cm) W-306 6" Track actual length 72" (180cm) W-308 8" Track actual length 96" (240cm)

W-310

1m Track actual length one and a half meters (100cm) W-315 1.5m Track actual length one and a half meters (150cm) W-320 2m Track actual length two meters (200cm) W-330 3m Track actual length two meters (300cm)



W-331 Live end connector. To start a run W-332 End cap. Connects the track sections end.



W-333 Mini joiner. A low profile connector to cleanly and crisply join two straight track sections end-to-end.



W-340 Pendant adaptor. Provides electrical connection to wire in chandelier or pendant fixture up to 25 lbs



Wen Hui Enterprise Co., Ltd.

New Taipei City, Taiwan Tel: 886-2-2292-0470, 2291-5104 Fax: 886-2-2292-0471 E-mail: wenhuico@ms32.hinet.net http://www.cens.com/wenhui

Specialized manufacturer & exporter

Founded in 1991, Wen Hui Enterprise Co., Ltd. is a leading Taiwan manufacturer and exporter of track-light tracks and other accessories, supplying 90° connectors, flexible couplings, cable & pipe connectors, wall kits, ceiling kits, suspension ceiling kits, lighting parts, hardware fittings etc.



W-431 Live-end connector. To start a run



W-440 Pendant adaptor provides electrical connection to wire in chandelier or pendant.



W-402

2" track actual leangth 24" (60cm) W-404 4" track actual length 48" (120cm) W-406 6" track actual length 72" (180cm) W-408 8" track actual length 96" (240cm) W-410 1M track actual length one meter (100 cm)W-415 1.5M track actual length one and half meter (150cm) W-420 2M track actual length two meters (200 cm)W-430 3M track actual length three meters (300cm)

<u>OEM/ODM orders accepted!</u>

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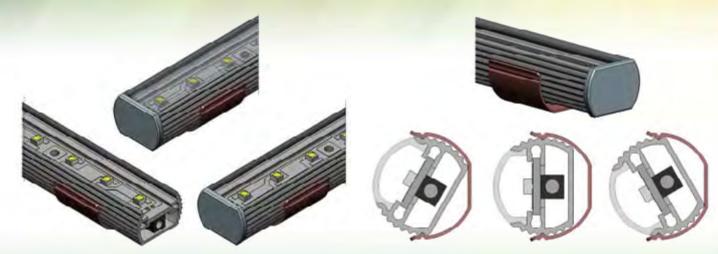
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W-436 T connector. To connect three track sections into a T configuration.

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SA-3FL84-24V-SA-4FL112-24V-SA-5FL140-24V



SA-2FL56-24V _ _ _ _ _ _ _

雅特電子燈業有限公司 ART Electronics Lighting Co., Ltd.

69-106 Xinshu Rd., Xinzhuang Dist., New Taipei City, Taiwan 24262 Tel: 886-2-2908-0262/4 (3 Lines) Fax: 886-2-2209-3013/4 E-mail: art@ms17.hinet.net E-mail: timms@ms62.hinet.net http://www.cens.com/art **CENS.com**

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LED Light Bulbs

The brightest bulb ever, replaces 60W incandescent bulbs

The beginning of the year 2014 is a good one for CB Lighting, formerly known as Carry Beaming Lighting established in Taipei in 1982. The company's two major LED Production sectors: LED commercial lighting track light and LED light bulbs both have achieved major breakthrough in retail market and OEM market.

CB lighting introduced one of the best Watts / 100 Lumen performances Omni-Directional E27 A19 light bulb to the market in the late 2013 and has successfully ODM manufactured for well renowned clients form German, Netherlands, and Spain for Taiwan and EU. With most of the components manufactured in-houseand years of experience in LED developing, CB Lighting can provides highly effective & products form CB lighting now has acquired CE certifications for the EU markets.

IN the commercial Lighting sector. CB lighting provides range from 65w, 45w, 35w, 20w to 10w for track lighting system.

Launched n 2012, these ranges of products have testimonies from clients world wide; such as the King power Duty Free in Bangkok international Airport, Honda Cars Exhibit Center in Taipei, the Big City Shopping Center in Taiwan and Far East Department-Store in Taipei and other extraordinary retail Customers



CB Lighting Co., Ltd.

9F, No. 260, Ta Yeh RD., Beitou Districu, Taipei 112, Taiwan Tel: +886-2-2893-1616 Fax: +886-2-2892-0302 E-mail: cbtcl@ms6.hinet.net http://www.carrybeam.com.tw

Outdoor Lighting

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- FASTOSO TEC-LIGHT COMPANY
- NINGBO RIGHT SPRING LIGHTING & ELECTRICS CO., LTD.
- YU KUANG ELECTRONICS & ENERGY CO., LTD.

JBC ELECTRIC CO., LTD / OUTDOOR LIGHTING DIE CAST BRASS FIXTURES



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SPOT LIGHTS

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STEP LIGHTS

(15)

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UNDER-WATER LIGHTS



<u>3W</u> Colour chang **PATH LIGHTS** 0

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Ningbo Right Spring Lighting & Electronics Co., Ltd.

Floodlights, spotlights, wall lamps, streetlights, tunnel lightings, LED lamps

Founded in 1988 in China's southeast coastal province of Zhejiang, Ningbo Right Spring Lighting & Electronics Co., Ltd. has been dedicated to developing and producing lighting products and related components and parts with a workforce of over 800 people at an ISO-9001-certificated, 100,000-sqaure-meter factory.

The company now supplies a wide spectrum of lighting products, including tunnel lightings, road lighting, waterproof lamps, outdoor lightings, work lamps, ballast tanks, high Tianjin lamps, LED lamps, streetlights, embedded lamps, etc., as well as related electronic components and fixtures, all meeting stringent standards set by RoHS, CE, TUV, PSE, VDE, etc., and having been well received as high-profile products in Europe, Japan and Southeast Asian countries.

Consistently sharpening its R&D capability and keeping skillful, experienced engineers in house, the company has been renowned as an innovative manufacturer in the line, able to better handle contract orders on either an OEM or ODM basis than its Chinese peers.

To enhance its global presence, the company will attend the Hong Kong International Lighting Fair 2013 Autumn Edition and Guangzhou International Lighting Exhibition 2013, and welcomes any form of international cooperation. (SC)

Ningbo Right Spring Lighting & Electrics Co., Ltd.Haijing Road, Hailou Fishing village, Liyang Town, Ninghai County,Ningbo City, Zhejiang Province, ChinaTel: 0574-6537-5900Fax: 0574-6538-8268Email: Gyn@nb-rightspring.comWebsite: www.nb-rightspring.com

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▲ 5RS-LH-03

RS-LL-01 Augustus

RS-T23-50W

RS-LL-02 Orlando

RS-LL-04

Alexander

Yu Kuang Electronics & Energy Co., Ltd.

High-power LED streetlights, indoor/outdoor LED luminaries, solar LED landscape lighting, and more

Vu Kuang Electronics & Energy Co., Ltd. makes a variety of LED lighting fixtures,

Y including high-power streetlights, indoor/ outdoor lights, solar-powered landscape lights, fishing lamps, water/explosion-proof lamps, navigation lamps, warning lights, and solarpowered recessed ground lights.

The company has over 20 years of experience in designing and manufacturing LED lights, especially high-power streetlights, fishing lights, water/ explosion-proof lights, navigation lights, and warning lights, and has become a leading manufacturer in its field.



Using its quality manufacturing and design capability, the company has introduced a heatsink thermal module for its lighting fixtures that is patented in Taiwan, mainland China, the United States, Germany, and the United Kingdom.

The module is made of aluminum die-cast metal coated with a nanometer material that enables wind or rain to easily wash away the dust that would otherwise accumulate on its sleek surface. Also, the design allows raindrops, wind, and dewdrops to take heat away from the surface of the module, keeping the temperature of the lamp within 60 degrees C and thereby assuring the longevity of the high-power LED chips inside the lamps. The company welcomes OEM and ODM orders from buyers throughout the world.





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Waterproof Fluorescent Lamps

Yu Kuang Electronics & Energy Co., Ltd.

No. 4, Hsinsheng 3rd Rd., Tungkang Town, Pingtung County, Taiwan 928 Tel: 886-8-833-4572 Fax: 886-8-832-2160 E-mail: yk80068585@gmail.com;yk91896673@yahoo.com.tw http://www.yu-kuang.com.tw





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- WHOLE LINE ENTERPRISE CO., LTD.

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Constant Gurrent Drivers - Resistor Set Series Output current can be adjusted by change the external resistor Dimming Function Available

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HID Ballasts

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Custom extrudes other thermoplastic materials (PC, ABS, CA, NYLON, PETG, PVC, etc...) to your individual needs in shapes, dimension, tolerances and colors.

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Diameter: $\Phi 5.0 \sim 200 \text{mm}$

The materials are specially suited for use in LED lighting engineering. Their diffusing power coupled

with excellent light transmission is so effective that the light filament remains invisible.





Diameter: Φ1.5~200mm





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