MY LUMENS TECH LIMITED

Leading & Innovative Indoor Lighting Solution Provider with Indirect LED Lighting Technology





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ABOUT US



About MY LUMENS

MY LUMENS is the leading & innovative indoor LED lighting solutions provider for healthy and high efficiency led lighting, applications mainly focus on school lighting, hospital lighting, high-end office lighting market with Japanese leading technology (Furukawa material MCPET).

Our main products are T8 led tubes, baselight ,downlight, FPL, linear light, and back-lit panel light, troffer. now were widely used at Louis Vuitton ,Prada, Gucci, TBS, Kubota, Mitsubishi, Honda, ASE Taiwan, CLP HK etc., such kinds of famous companies all over the world.









Company Roadmap

2015 January Released 180lm/W T8 LED Tube with MCPET Technology

March Be the supplier for Japan TBS office (Tokyo Broadcasting System Television)

April Released 140lm/W FPL Tube

October Released Baselight lamp for Japan client

2014 March Released 160lm/W T8 LED Tube with MCPET Technology

April Released CRI 95 LED Tube with MCPET Technology

July Released the special yellow Tube (wavelength is more than 500nm)

August Released indirect LED troffer for LOUIS VUITTON Hongkong Group

September Be the partner with ASE Taiwan

October Be the supplier for CLP Hongkong Group

2011 March MY LUMENS Technology Founded

2010 – 2013 Authorized distributor for Furukawa MCPET

Join the Reference Design for Philip Lumileds, Cree, LG,

Solution Supplier for Osram, Philip, Konka, TCP USA LED Lighting

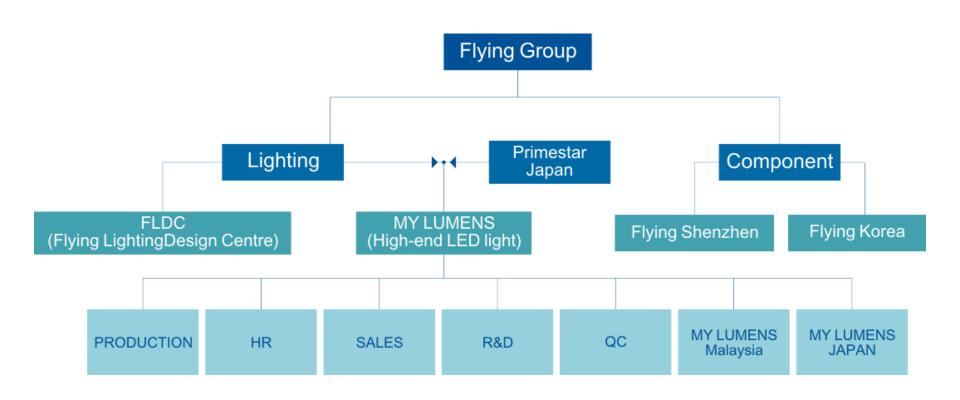
2009 March LED Lighting Business Unit Established

2007 October LED Power Business Established

2006 June Flying Tech Company Established



Organization Chart





PRODUCTS



Main Products

We are focus on high-end LED product with indirect LED lighting technology and competitive advantages .

Main products: LED Tube, LED FPL Tube, LED Base light, LED Down light, LED Linear light, LED Back-lit panel light

- High efficiency (140lm/W-180lm/W)
- Uniform lighting without glare and darkness
- ➤ No-flicker LED tube light
- Less blue light
- ➤ High CRI>95Ra LED tube
- ➤ New technology MCPET inside for indirect LED lighting solution

LED T8 Tube 180lm/W

LED Fixture Light

FPL Light

Downlight





高品質の光生活へ Uniform Lighting-Healthy Life

APPLICATIONS





Indirect LED Lighting fixtures in LOUIS VUITTON Hongkong office

Customized LED Lighting Lamp for LV at Hongkong & Taiwan







Total 11500pcs of LED T8 tubes at TBS Tokyo Headquarters















LED tubes replace at Schools

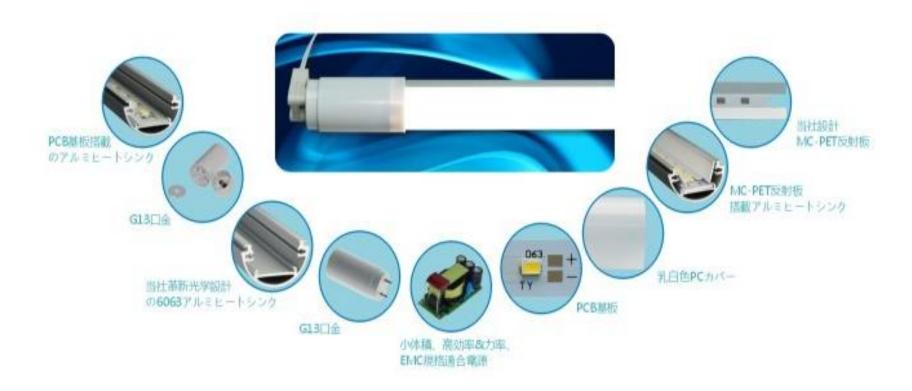




R&D



The patented design for LED Tube as below, can bring us high efficiency and high uniformity base on MCPET technology, the tube structure design is basis on the optical Utilization principle, good uniformity is from the special design.





LED tube patent number: 2011205408362

Indirect LED lighting Solution

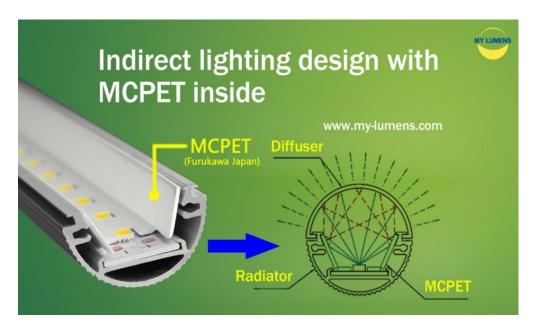
A Special Diffuser material from Taihei Chemical Japan be used together with Furukawa MCPET.

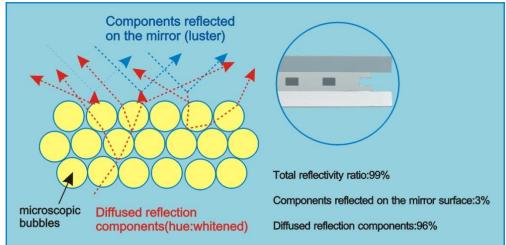
Base on this special design, the LED light will be diffuse reflected many times within the lamps without lowest loss.

The output light from the high haze and high transmittance diffuser, so the light will be more comfortable and uniform.

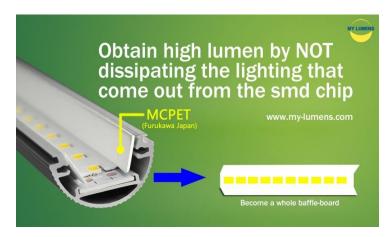
Lights cut into MCPET and repeat reflection and refraction at the interface of air and PET.







High Efficiency Solution



New technology MCPET inside



Mid-power LEDs solution

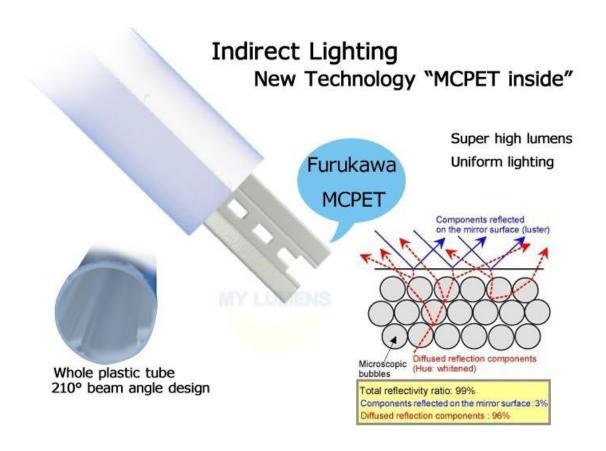
MCPET

Mid-power SMD LED chips solution

Good Heat Management, High PF Driver



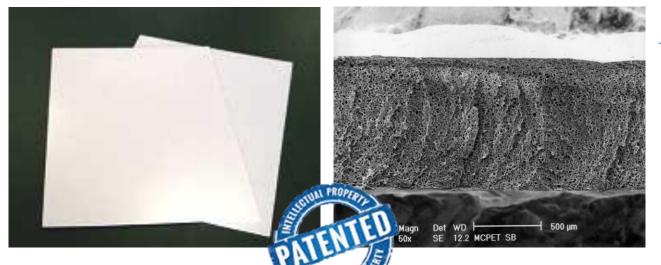
MCPET inside is a new technology from our R&D department which applied in high-effect Lighting industry, which integrated with optics, thermotics, electronics. With MCPET inside, LED products can avoid the normal problem of darkness and spot from the surface of lens.





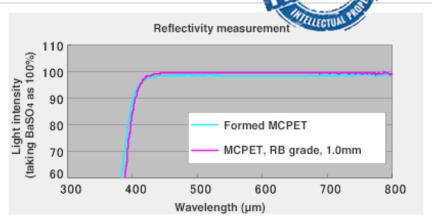
Appearance

Inside



Features

MCPET is a microcellular foamed sheet of polyethylene terephthalate (PET). The sheet consists of extremely small microcellular air bubbles, which are 10μm or less in diameter.

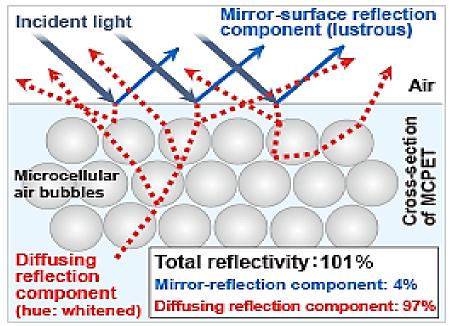




Patented with Furukawa Electric Group







Features for Lighting Application:

The reflectivity is higher than 99%, the stiffness is appropriate for forming, and thermal forming is possible.



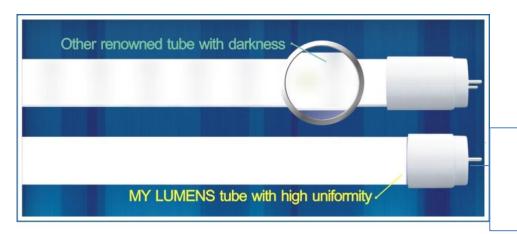
Its raw material is more heat resistant than ordinary PET, so that it is applicable to reflectors for LEDs and incandescent lamps.

The high reflectivity allows for reduction of LEDs, significantly cutting power consumption and eliminate the irregularity of brightness due to LEDs.





Uniformity Comparison



Our LED tubes can present perfect uniformity with MCPET through maximum diffusion reflection, by using lesser LEDs than other led companies.

Structure of MY LUMENS Tube MCPET inside "MY LUMENS"LED Tube light

Structure of MY LUMENS Tube

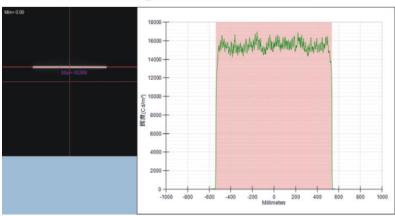






Provide Test Report for Light Distribution and Luminaire Uniformity

Tube Surface brightness distribution



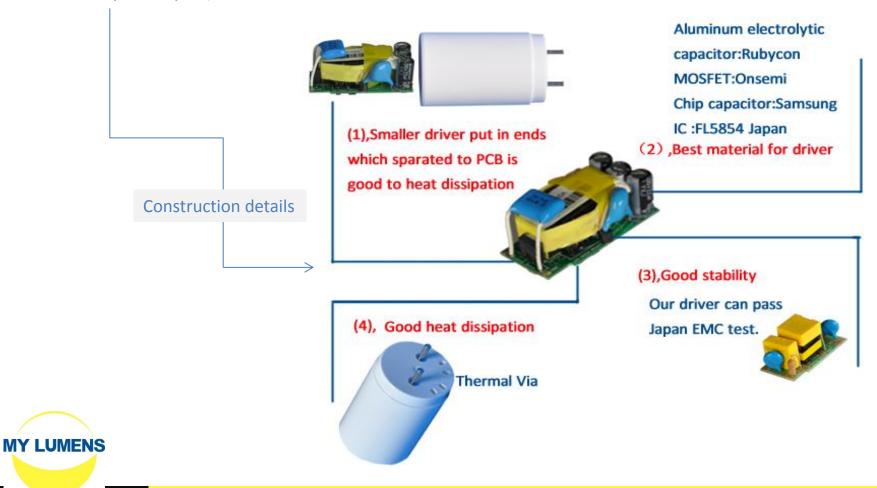
Note: The curve indicate good uniformity of brightness



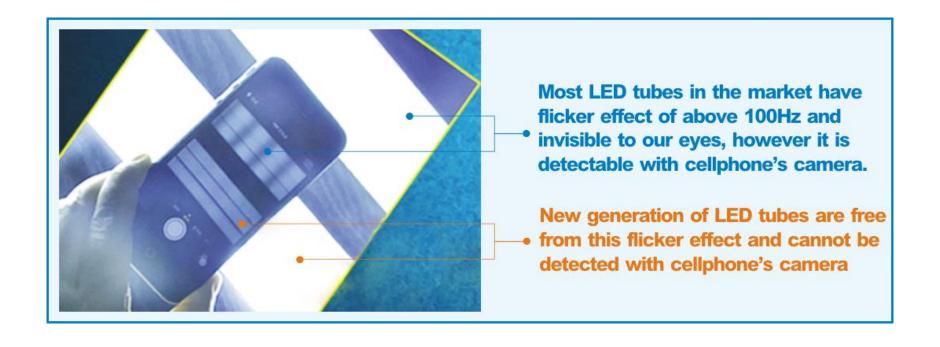
Driver Design

For the purpose of thermoelectric separation, the driver of our LED tube is internal built with our unique design by our engineer team, light and small, but best reliability with high performance.

All main materials are purchased from USA and Japan (Mosfet from Onsemi /Aluminum Capacitor from Rubycon Japan).



Total Internal Reflection remove hotspot, low Glare, no flicker and reduce Blue Wavelength.



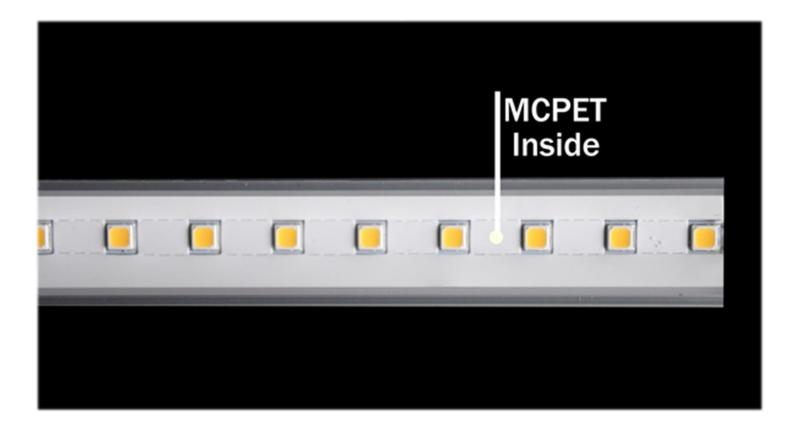


September 2010, we provided solution for 90lm/W LED downlight for Osram Lighting, Philips Lighting and TCP USA.



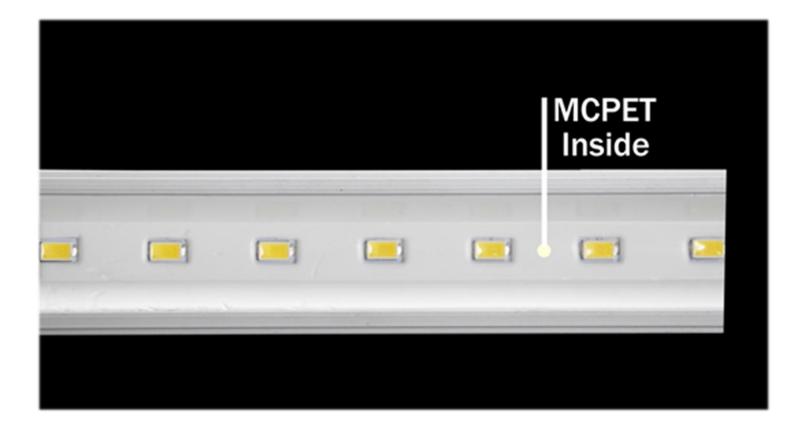


September 2010, we joined the reference design for LG tube light solution of 80pcs LG 5152 LEDs.





In 2011, we provided LED tube light solution of 63pcs Samsung 5630 LEDs for CREE, Samsung, Konka and EFG.



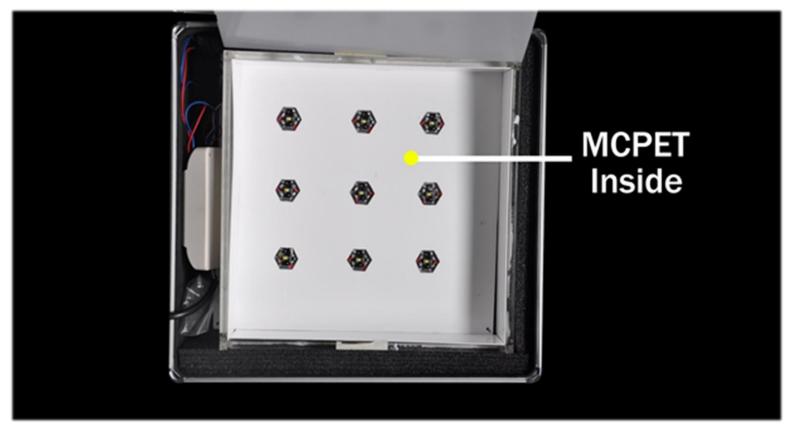


In 2011, we launched 310 $^{\circ}\,$ beam angle LED bulb light solution that able to pass US Energy star.





In 2010, we joined the reference design of Philips Lumileds Rebel ES panel lighting solution, which was also applied for high power LED panel/signboard lighting solutions for LV and PRADA.





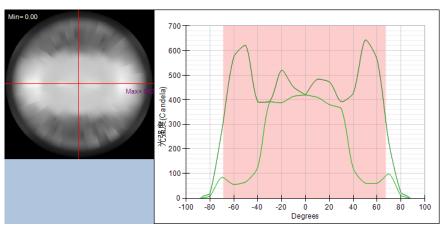
Lighting Fixtures Design

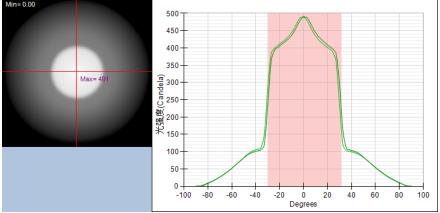


Please ask for the test data if some maker say his performance is the best.

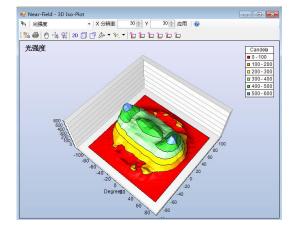
Base on the leading test lab, we can offer different solution for optics design and the test data for optics like light distribution of Lighting fixture.

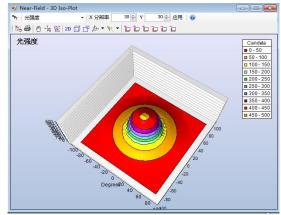
*Below pictures as the light distribution of street light and down light.





3D Lighting Pattern Distribution







Design Solutions for CREE

We are listed in Cree website as below for reference design:

Version	Last Updated		
0	25 Apr 2012		
0	25 Apr 2012		
1	27 Sep 2010		
1	27 Sep 2010		
7 Model C3-85, Bright View Technologies, www.brightviewtechnologies.com 8 Flying Technology Co, www.flyingtechnology.com 9 provide the Bownlight solutions, you also can see website: www.sy-lunens.com. about the video of Lighting Fair Copyright © 2012 Cree, Inc. All rights reserved. The information in this document is subject to change without notice. Cree*, the Cree logo and XLamp* are registered trademarks of Cree, Inc. For product specifications, please see the data sheets available at www.cree.com. For warranty information, please contact Cree Sales at sales@cree.com.			
XLA 6-INCH	MP XM-L LED		
	0 1 1 1 tan See vebsite: www.the Cree logo and XLI lase contact Cree Sales		



学校など子供の目を守る L E D



Healthy LED To Protect Children's Eyes



佛田日王早

にあるいと

口に優しい

でした」と母

经国事联带

MMOTE

(Reach) in

1.老的生生长

C10- 122

きた」と意外

chi金男人

世版は上ヤ

から軽量で持ち埋びらしむすいという。

今後の日標は「粉象、エネルギーの歯 最白足ができる学校を目指していく」と 寺田校長。四的は、前近した太陽光発 着をはじめ、供名様の安定した真全利用 した成力音響。学校で排出される特殊 や無場から出るゴミなどを料用してパイ オマス発展。それらをためることができ る原料電池の様人も窓在機計中だ。機 接着強のモデル技になるとう今後も能 り組んでいまたいと寺田校長は勉負を 言ってくれた。

プルーライトを10~20%間域

LED際的は、これまで発光効率に住 日が事まり、「日にやさしい」をコンセプ トにしたものはままりむかった。 暮るさ と名エネ効率のみに性目が集まるLED 原稿に展覧を盛じ、プライム・スターで は、そう側に立って「日の便理」に著稿。 LED Reach 全体等した。通常のデ ルミ反射機の代わりに古河電工社製 MCPET \$探吗。要具构印度互射处理 誰ちせることで、直接的な光線を軽減 し、やわらかい光を何することが可能と なった(全反射率99%以上)。それにと 田気がよくな もない言名LED集子から発せられるブ シーライト光線の反射も軽減し、プル ーライトが直接間に入ることを抑える情 限心ある。その健康として従来よりも的 我をするという心臓がないから安心、し



10%-20%のプレーライトをカットに 「今後、電気化が鍵上がりする可能性 つながった。 が高く、東京都は全年より15%のCO: 規制をスタート、水供条約では2020 知えでに水銀色有率5mmg以上の製 品的全国女ど民寿命、省エネ、佐コス トのLED展明に関して遅い遙が吹くこ

とが子類されます。しかし、青色LED によるプルーライトの使用教育につい ても報告事務が増えており、不安が広 がっているもの事実。青エネ効果の裏 い着色LEDを使用する優別、プルーラ イトはどうしても出てしまう。このLED 「Reach!で安心してLED解例を使っ ではしい」と関社の開発担当者は暫る。

プライム・スケーでは、これからも長 寿命、金エキ、ゼコストのLEO 顧明の ラインアップはもちろん 人にやきしい 製品製発にも種相的取り組み付加価値 の高い豪寒をしていく。

PRIME STAR

プライム・スター株式会社

TEL: 03-6869-6606 CRY 103-6 Beg-68007



Feedback from End Customer

Why many customers are satisfy with this product even the price is higher—because of the high quality, nearly 98% satisfaction rate from Japanese end customers.

*Data is from the internet survey at rakuten.co.jp

この商品を購入された方のレビュー

■2 <u>すべてのレビューを見る(3件)</u>⇒このショップのレビューを見る

総合評価 ★★★★ 5.00

おっとせいちゃんさん 50代/男性

評価 女女女女女 5.00

投稿日:2014年01月13日

少し金額が高かったけれど、2600 lmの明るさが気に入り、キッチン照明の交換用として購入しました。 今までの蛍光灯と変わらない明るさで、とても明るくとても満足しています。

優 実用品・普段使い 🙆 家族へ @ はじめて

ミラーさん 40代/男性

評価 ★★★★ 5.00

投稿日:2013年12月27日

前回購入して使用していたら知り合いの人に頼まれたので自分用も含めて追加購入です

ミラーさん 40代/男性

評価食食食食食 5.00

投稿日:2013年12月22日

2灯式の片方だけ換えてみたら明るさが全然違いました



PRODUCTION



Manufacturing

Main Incoming material

SMT

PCBA

Assembly

- 1.PCB
- 2. Electrical component
- 3.Metal parts
- 4.Plastic parts

- 1.Solder pasting application
- 2.SMT
- 3.Reflow
- 4. AOI
- 5. Visual inspection

- 1.Component pre-forming
- 2. Manual insertion
- 3. Wave soldering
- 4.Touch up
- 5. Hi-pot test
- 6. Function test
- 7. Visual inspection

- 1. Housing assy.
- 2.Potting
- 3.Baking
- 4.Heat-sink assy.
- 5.MCPCB assembly
- 6. Hi-pot test
- 7.Lens assembly
- 8. Function test
- 9. Aging test
- 10.Function test
- 11.QC inspection
- 12.Packing





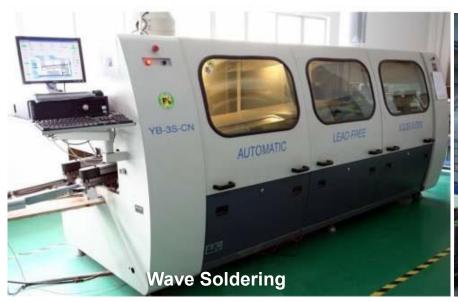








Manufacturing

































1000T Injection Machine Max. diameter of part: 800mm Evaluated capacity: 30000pcs/month













Tooling/Fixture Fabrication for injection, extrusion, blowing and die-casting.

Electronic



Component pre-forming



Wave solder carrier return automation



Auto-function tester

Assembly



Auto optical tester



Pin Rivet automation



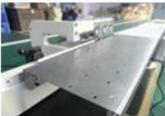
Glue dispenser automation



Laser marking automation



Auto potting machine



Auto de-panel





Full automation insertion machine (AI/RI)



Full automation potting line



Full automation aging line



Full automation assembly line



Auto-soldering



Auto-Screw mounting automation





Lean Production- Visual Management

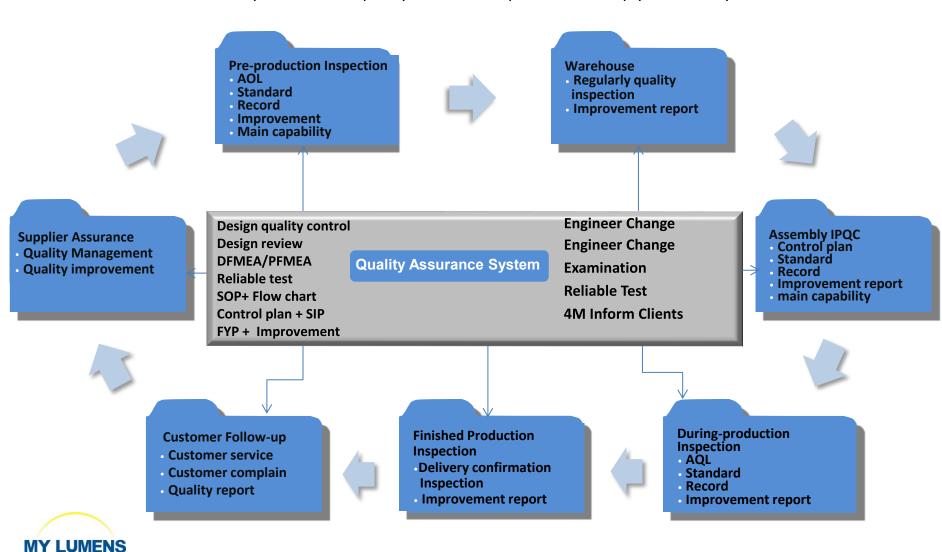


QUALITY



Quality Assurance System

We have updated latest quality surveillance process to comply with ISO system.





















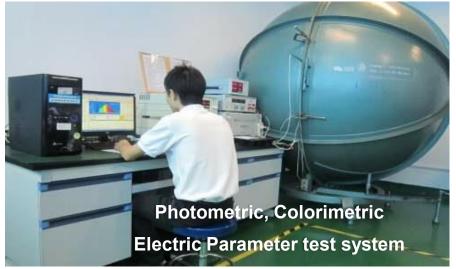




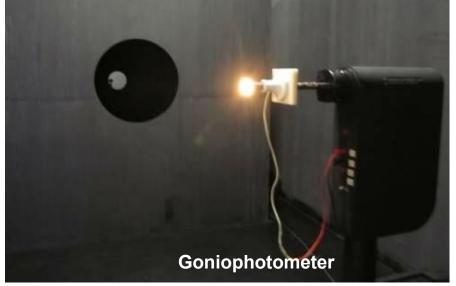
Touch Current Tester







Optical Testing





















LED Retrofit Reliability Testing







LED aging testing







Aging Testing





CERTIFICATION



Verified Witness Lab







EMC / PSE







CE / RoHS



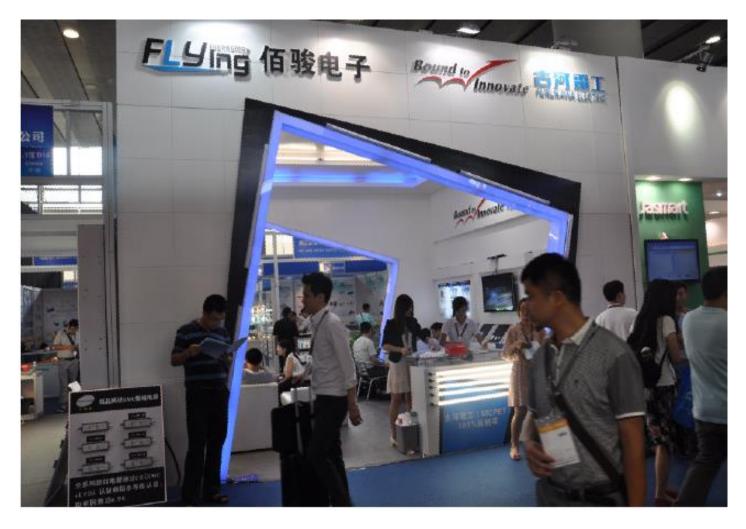




MARKETING



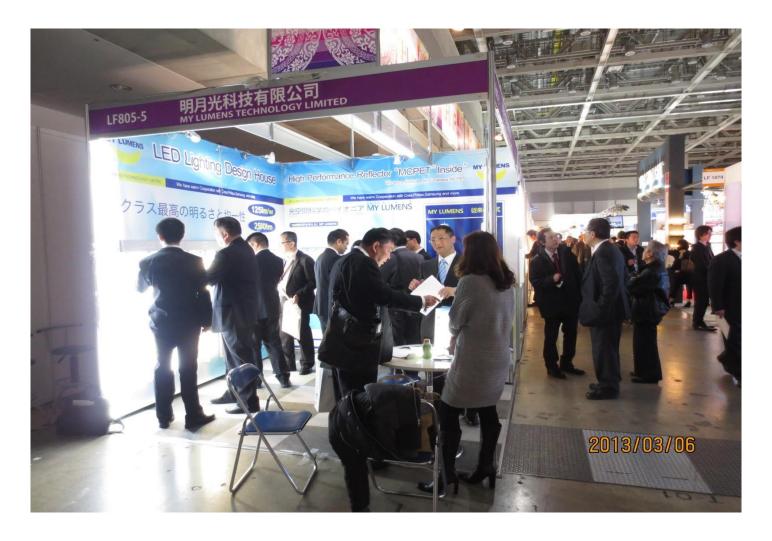
Exhibitions





June 2012 Guangzhou Lighting Fair Jointed together with Furukawa Japan

Exhibitions





March 2013 Japan Lighting Fair

Forum and Events



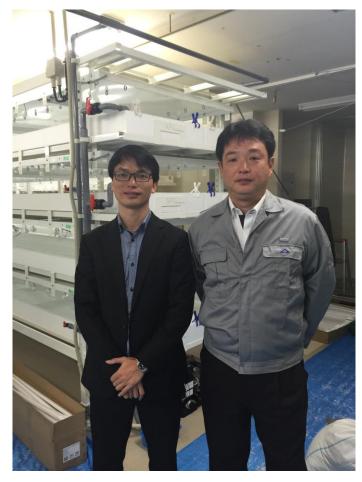
We are the Distributor and R&D partner for Furukawa MCPET

Join Innovation in Lighting Symposium together with Furukawa





Customer Tour



Visit the NTT project together with Furukawa (using our led tubes at FukuShima)





Visit the Daiwa House HQ at Osaka





Customer Tour





Visit the Customer at Tokyo





VALUE



Why our tubes stand out



Flicker-Free < 5%



Low Glare Indirect Lighting



110 to 160 lm/W 30% Less Blue Indirect



Low THD < 15%



ULVO, Thermal & Mechanical



Proven Factory/Comm. School/Hospital



High PF > 0.97



Low Temp < 35°C



3-year Warranty



High CRI > 80



LM-80 LEDs



TUV, PSE, CE



Besides sophisticated HRIL technology and environment protection, Energy Savings is our key contribution to the LED lighting solutions, below is our advantage comparing to other suppliers:

LINEAR FLUORESCENT TUBE BENCHMARK (SAME LUX at 1m)							
Energy Savings is the Biggest contributor to the total cost of operating the lamp	Туре	***	**	•	1		180lm/W
Annualized Lifecycle Cost Hours Day Week Total Hrs \$/Kwh 24 7 52 8736 0.35	Unit	T8 Fluorescent with Magnetic Ballast	T8 Fluorescent with Electronic Ballast	T5 Fluorescent with Electronic Ballast	T8 LED Glass Tube @ AC Approach	T8 LED Tube 1800lm @100lm/W	T8 LED Tube 1800 Im@170Im/W
Light Decay, THD, PF, FLICKER	RATE	NO GOOD	GOOD	GOOD	NO GOOD	GOOD	VERY GOOD
Luminaire Power	W	44	36	28	18	18	11
Same LUX Effective Efficacy	lm/W	41	50	64	100	100	170
Lamp Lifetime	Hours	8000	8000	10000	20000	30000	40000
Replacement over 40,000 hrs	Qty	5.0	5.0	4.0	2.0	1.3	1.0
Cost per Luminaire (Lamp/Ballast)	\$	10	25	25	20	35	80
Cost of Labor for Replacement	\$	3	3	3	3	3	3
Cost of Replacement over 40,000 hrs	\$	\$ 65.00	\$ 140.00	\$ 112.00	\$ 46.00	\$ 50.67	\$ 83.00
Annual Energy Cost	\$	\$ 134.53	\$ 110.07	\$ 85.61	\$ 55.04	\$ 55.04	\$ 32.37
Total Cost of Ownership (40000 hr)	\$	\$ 681.00	\$ 644.00	\$ 504.00	\$ 298.00	\$ 302.67	\$ 231.24



Upgrade to 170lm/w



Competitor's Low Cost T8 Tube Strategy

- Less LED quantity, drive higher current which results in Glare and shorter Life
- Lower Cost Driver with simpler design
- Poor THD, low PF, Flicker, Low Efficiency
- No LM80/LM79 certifications
- Cheaper Capacitors (<10k hours)
- Cheaper ULV2 Plastic Diffuser, tube drops
- No aluminum for HEAT and Mechanical
- > 20% Flickering
- Affects Photography/Videography
- May Affect Health (Strobing)
- Cheaper Tube because Lower BOM Cost

US DOE Caliper Testing to protect US consumers

- 50% does not meet specs or not as claimed
- Light decay too fast due to poor thermal management
- Narrow beam, dark walls

MY LUMENTS Differentiation

- Higher LED count with <35°C at leads
- Lower current density, less Glare
- Only LM80 LEDs
- Driver passed PSE, TUV with Industrial Grade Capacitors/transformer
- Aluminum for mechanical strength and HEAT dissipation
- 100% reflectance material (Furukawa, patented design)
- Less Blue Light (30% Less)
- Flicker Free down to 5mm (<5%)
- Higher BOM Cost and Better Light Quality
- Flicker Free Industrial Grade, 3 yrs Warranty





Cooperative Partner















THANKS!

MY LUMENS TECHNOLOGY LIMITED

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