

[Privacy & Cookies Policy](#)



# THE UK NEWSPAPER

(<http://www.theuknewspaper.co.uk/>)



JAMES TU: SHEDDING LIGHT ON LED TECHNOLOGY

[Privacy & Cookies Policy](#)

## JAMES TU: SHEDDING LIGHT ON LED TECHNOLOGY

If you are looking to reduce your environmental impact, LEDs (light emitting diodes, a semiconductor-based light source) provide an opportunity to not only positively impact the environment but may also improve your quality of life. While there are still some misconceptions about LED lighting, it is important to note that there are many benefits of LED lighting over standard incandescent or fluorescent lighting. Some manufacturers, such as Energy Focus, have made technical breakthroughs with their LED technology that you might find especially advantageous.

### What Are LED Advantages?

The standard advantages of LEDs over incandescent or fluorescent lighting are: a 50-80% reduction in energy consumption, increased longevity, and the elimination of the ballast (which regulates the electric current to fluorescent lights). Incandescent and fluorescent lighting uses significantly more electricity than LEDs, which

translates to increased consumption of the natural resources required to provide that electricity. LED lamps last much longer and can be easily replaced by even more advanced lamps with more efficient LEDs as well as smarter electronics that facilitate additional energy savings from dimming, occupancy sensing and daylight harvesting (dimming when daylight is available). And because good LED lamps last a lot longer—Energy Focus standard fluorescent replacement LED lamps have warranties of 50,000 hours and 10 years—substantial lamp and ballast replacement and maintenance cost is eliminated.

In addition, LEDs eliminate the introduction of hazardous chemicals to the environment from fluorescent lights (which contain mercury and must be recycled accordingly), and ballasts, which contain PCBs (a highly toxic and regulated substance) as well as lead, mercury, cadmium and other regulated chemicals.

## Eliminating UV Radiation and Controlling Circadian Rhythm

LEDs have brought renewed attention to the biological impact of lighting, increasing demand for lights that promote both physiological and emotional wellbeing. There are two primary biological advantages of LEDs in high quality products: precise control over the wavelengths emitted, and control of both visible and invisible flicker. Controlling the wavelengths emitted by the diodes has enabled the reduction or even the elimination of UV radiation and strong blue spectrum of light, which, in fluorescent lamps, has been linked to eye diseases such as cataracts and pterygia (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3222423/>) (a tissue growth on the cornea) in a study published by the *American Journal of Public Health*.

Controlling wavelengths, or color temperature of the light from bright, cool white to soft, warm white, also enables the production of lights that subtly alter their output throughout the day to remain in line with our biological clock, which helps keep an optimal circadian rhythm and human comfort. Circadian rhythms can influence sleep-wake cycles, hormone release, eating habits and digestion, body temperature, and other important bodily functions.



(<http://www.theuknewspaper.co.uk/subscribe-to-the-uk-newspaper-newsletter/>)

[Privacy & Cookies Policy](#)

Energy Focus is one of the manufacturers that is pioneering the development and launch of color tunable LED tubes and switches to provide affordable dimmable and circadian lighting capabilities for existing buildings. LED tubes are designed to replace fluorescent lighting—there are more than 10 billion of them in the world today—without restricting future lighting options or the need to replace the entire fixture, which contains mostly mechanical parts that could last far longer than the lamps, thus significantly reducing environmental waste.

Humans spend 90% of our time indoor where lighting is a necessity. The world will simply be a better place with more efficient, environmental friendly and biologically beneficial LED lighting.

## How Flicker Could Be Causing Headaches

Flicker in lighting (<https://www.energy.gov/eere/ssl/flicker>) occurs as a result of modulating the electric current to power the light sources. Your headaches, eye strain or fatigue may be signs that flicker is affecting your wellness or productivity. While it isn't technically difficult to reduce or perhaps even eliminate flicker in LED lights, due to additional costs incurred many architects and contractors aren't making this a priority in their project specifications, which can yield particularly devastating results in schools and hospitals. Energy Focus has "flicker-free" LED technology that effectively reduces flicker levels to zero, helping to reduce the health consequences that come with flickering in light.



**BUSINESS GAME CHANGER MAGAZINE PROMOTION**

**SEND IN YOUR NOMINATION  
FOR  
THE UK'S TOP TEN  
GAME CHANGING  
WOMEN IN STEM  
AWARDS 2020**

**CLICK HERE TO ENTER →**

(<http://www.businessgamechanger.biz/2020/01/are-you-a-successful-businesswoman-who-has-made-a-contribution-to-science-technology-engineering-or-maths/>)

# Lighting for Disinfecting in the Future?

LEDs are also impactful in their potential for future innovation. Unlike fluorescent or incandescent lighting, you can precisely control the wavelengths emitted from LEDs. Certain wavelengths have been found effective in disinfecting entire rooms (destroying bacteria, mold, and certain viruses) without the use of hazardous chemicals or UV. Imagine cleaner indoor spaces that prevent the spread or contagions of harmful substances. In my mind, we are only scratching the surface in the benefits that will be available in LED lighting as technologies continue to evolve rapidly.

## Making the Leap to LED Lighting

Switching to LED tubes is a simple process that can be done by maintenance staff or an external retrofitting company. It involves turning off the power, rewiring the sockets to bypass the fluorescent ballast and turning the power back on – something that might take 15 minutes per fixture to accomplish.

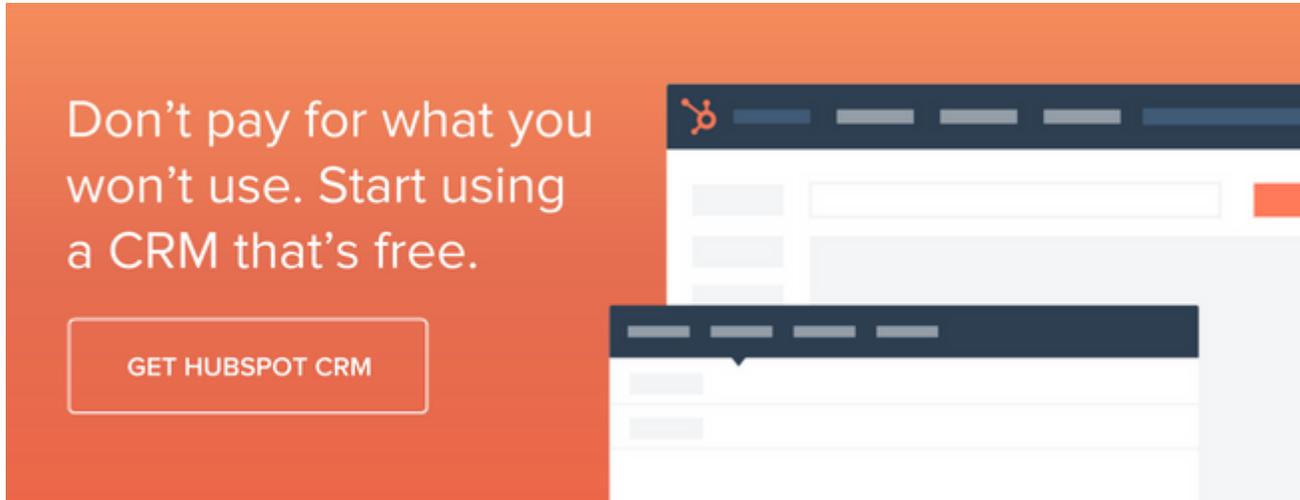
So not only can LEDs positively impact the environment, they may also provide health and wellness benefits, and retrofitting is the simplest, fastest and most environmentally friendly solution to achieve these goals.

*By James Tu, Chairman & Chief Executive Officer at Energy Focus, Inc. (<https://energyfocus.com/>)*



### About the author

James Tu is Chairman & Chief Executive Officer at Energy Focus, Inc. (<https://energyfocus.com/>), an industry-leading innovator of energy-efficient LED lighting technologies and solutions. James is passionate about technologies that improve environmental, human and business (“triple-bottom-line”) performances.



(<http://hubs.to/D2F2C>)



(<https://podcasts.apple.com/fr/podcast/kizzis-friday-game-changers/id1475230711?l=en&ls=1>)

Please follow and like us:

Like Share Tweet

Love this post? Rate it!

 [Total: 0 Average: 0]



([http://www.theuknews  
paper.co.uk/author/edit  
or/](http://www.theuknews<br/>paper.co.uk/author/edit<br/>or/))

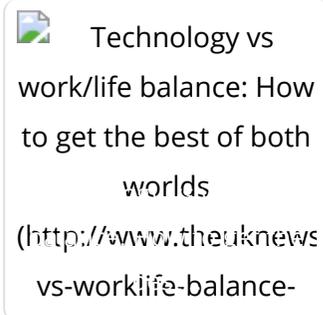
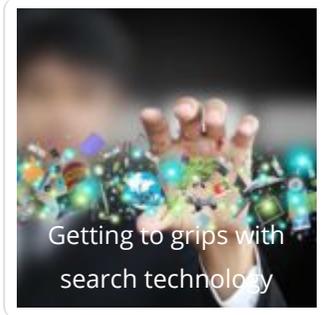
editor  
(<http://www.theuknewspaper.co.uk/author/editor/>)

Privacy & Cookies Policy

Kizzi Nkwocha is the editor of Business Game Changer Magazine and publisher of The Property Investor and Money and Finance Magazine, the net's fastest growing wealth creation publication. Kizzi Nkwocha made his mark in the UK as a publicist, journalist and social media pioneer. As a widely respected and successful media consultant he has represented a diverse range of clients including the King of Uganda, and Amnesty International. Nkwocha has also become a well-known personality on both radio and television. He has been the focus of a Channel 4 documentary on publicity and has hosted his own talk show, London Line, on Sky TV. He has also produced and presented both radio and TV shows in Cyprus and Spain.

See author's posts (<http://www.theuknewspaper.co.uk/author/editor/>)

Related Posts:



ABOUT THE AUTHOR:



Kizzi Nkwocha is the editor of Business Game Changer Magazine and publisher of The Property Investor and Money and Finance Magazine, the net's fastest growing wealth creation publication.

Kizzi Nkwocha made his mark in the UK as a publicist, journalist and social media pioneer. As a widely respected and successful media consultant he has represented a diverse range of clients including the King of Uganda, and Amnesty International. Nkwocha has also become a well-known personality on both radio and television. He has been the focus of a Channel 4 documentary on publicity and has hosted his own talk show, London Line, on Sky TV. He has also produced and presented both radio and TV shows in Cyprus and Spain.

## RELATED POSTS

[Privacy & Cookies Policy](#)

## LEAVE A REPLY

Your email address will not be published.

Message

Name

Email	Privacy & Cookies Policy
-------	--------------------------

Website
---------

POST COMMENT

Search ...	SEARCH
------------	--------

## Your Stars

**2020/1/28**

- Health
- Love
- Job
- Contacts
- Lucky

Cancer daily horoscope (<http://hitrusha.com/tag/daily-horoscope-cancer/>)

## Puzzles

(<http://www.theuknewspaper.co.uk/wordsearch-january-2020/>)

[Privacy & Cookies Policy](#)



(<http://www.theuknewspaper.co.uk/wordsearch-january-2020/>) **Brain Melting Puzzles**

A promotional banner for HubSpot CRM. The left side has an orange background with white text: "Don't pay for what you won't use. Start using a CRM that's free." Below this is a white button with the text "GET HUBSPOT CRM". The right side shows a stylized screenshot of a web browser interface with a dark blue header and a light grey body.

(<http://hubs.to/D2F2C>)

## Recent Articles

(<http://www.theuknewspaper.co.uk/batting-for-the-wrong-side/>)

Batting for the Wrong Side! (<http://www.theuknewspaper.co.uk/batting-for-the-wrong-side/>)

Privacy & Cookies Policy



(<http://www.theuknewspaper.co.uk/andy-macinnnes-will-a-new-decade-mark-a-sea-change-in-our-use-of-plastic/>)

Andy MacInnes: Will a new decade mark a sea change in our use of plastic? (<http://www.theuknewspaper.co.uk/andy-macinnnes-will-a-new-decade-mark-a-sea-change-in-our-use-of-plastic/>)



(<http://www.theuknewspaper.co.uk/beauty-purchases-are-driven-by-eco-friendly-credentials-not-influencers/>)

lonna Stagia : Beauty purchases are driven by eco-friendly credentials — not influencers (<http://www.theuknewspaper.co.uk/beauty-purchases-are-driven-by-eco-friendly-credentials-not-influencers/>)



(<http://www.theuknewspaper.co.uk/the-curious-tale-of-the-stolen-pets-review/>)

The Curious Tale of The Stolen Pets Review (<http://www.theuknewspaper.co.uk/the-curious-tale-of-the-stolen-pets-review/>)



(<http://www.theuknewspaper.co.uk/apex-construct-review/>)  
Apex Construct Review (<http://www.theuknewspaper.co.uk/apex-construct-review/>)



(<http://www.theuknewspaper.co.uk/have-you-proven-yourself-a-successful-uk-based-woman-in-business/>)  
Have you proven yourself a successful UK-based woman in business?  
(<http://www.theuknewspaper.co.uk/have-you-proven-yourself-a-successful-uk-based-woman-in-business/>)



(<http://www.theuknewspaper.co.uk/piers-morgan-a-case-of-foot-and-mouth-disease/>)  
Piers Morgan: A Case of Foot and Mouth Disease?  
(<http://www.theuknewspaper.co.uk/piers-morgan-a-case-of-foot-and-mouth-disease/>)



(<http://www.theuknewspaper.co.uk/bill-newbrough-asks-plastic-cotton-hemp-why-using-natural-fibre-grocery-bags-is-the-most-sustainable-option-for-the-planet/>)  
Bill Newbrough asks plastic, cotton, hemp? Why using natural fibre grocery bags is the most sustainable option for the planet (<http://www.theuknewspaper.co.uk/bill-newbrough-asks-plastic-cotton-hemp-why-using-natural-fibre-grocery-bags-is-the-most-sustainable-option-for-the-planet/>)



(<http://www.theuknewspaper.co.uk/jo-hand-on-veganuary-why-the-plant-based-trend-is-here-to-stay/>)  
Privacy & Cookies Policy

Jo Hand On Veganuary: Why the plant based trend is here to stay

(<http://www.theuknewspaper.co.uk/jo-hand-on-veganuary-why-the-plant-based-trend-is-here-to-stay/>)



(<http://www.theuknewspaper.co.uk/green-beauty-trends-for-2020/>)

Rebecca Dallimore on Green Beauty Trends for 2020

(<http://www.theuknewspaper.co.uk/green-beauty-trends-for-2020/>)