

IllumiNation

APRIL - JUNE 2023

THE LIGHTING MAGAZINE BY ELCOMA

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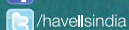
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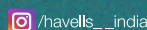
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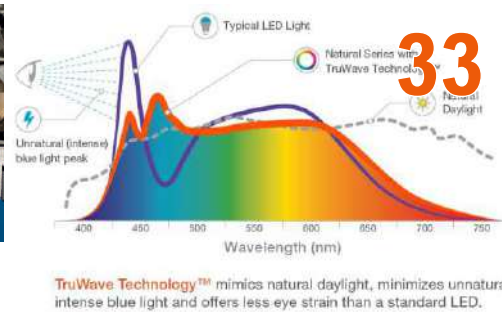
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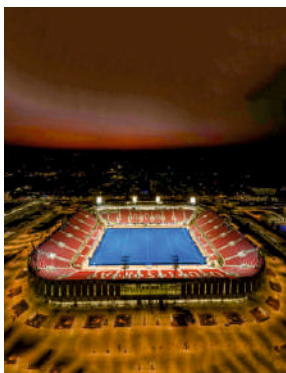
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Future is LED Tech Applications

ELCOMA's blueprint for the Indian Lighting Industry for the next few years called 'Vision 2030' has been prepared. This vision document focuses on the introduction of new technologies in lighting and innovation in application areas of LED lighting.

LED Lighting is expected to play greater role in our lives in the future and if the research on application areas in LED lighting is any indication, we have only just started to scratch the surface of this technology. By 2030 new application areas like agriculture, horticulture, poultry, fisheries and health care etc should be fully developed and matured. These new application areas of LED lighting technology will bring great opportunities for development of new ideas and businesses.

Implementation of many of these technologies, especially horticulture, poultry and healthcare, are already in use in various developed countries and it is only a matter of time before they are commercialized.

In the coming editions of this magazine we will be publish various articles on emerging technologies and application areas of LED Lighting. ELCOMA will also organize conferences and workshops from time by inviting experts from across the world to speak and educate our industry on these topics so that we can learn and adopt these techniques and technologies in India.

We have already completed 5 years of this magazine, Illumination. The ever-growing readership speaks volumes about the quality and content of the magazine. We request our subscribers and readers to send their comments and feedback on anything concerning the magazine, so that we can improve the magazine for you, our readers.

A handwritten signature in black ink that reads "Sujon".

SHYAM SUJAN

Secretary General

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Business Scenario - A mixed bag!

In Q3 (Oct-Dec), GDP growth slowed to 4.4% from 6.3% in Q2 and 5.2% a year earlier. Growth is anticipated to be at or slightly below the official estimate of 7% for FY23, translating to a Q4 growth rate of 4.5-5%. India's economic growth is unmistakably slowing down because of external factors, a declining base effect, and ongoing inflationary pressures.

Despite all of this, India is on the better side of the Global economy. As per the latest Business Confidence and Performance Index (BCPI), it has moved up which means that our businesses are feeling better about their own prospects. Larger companies are more bullish than the smaller companies.

Over the years, ELCOMA has conceived and published various blueprints for the Indian Lighting Industry in the form of 'Vision' documents, I have touched upon our vision documents in last few issues of this magazine. Moving from digitisation of light to intelligent, Smart and Connected lighting, the world is now going a step ahead! **We are now talking of how AI (Artificial Intelligence) is taking smart lighting to the next level.**

Manufacturers are working on developing smart lights with AI technology to meet future residential needs. Many eco-consumers are now searching for high-efficiency products to shrink their carbon footprints. Other customers are looking for convenient product features to minimize stress, creating moods and maximize comfort. I am sure many of us are already working on AI enabled lighting products. It is not something fancy to only talk about... **AI is here to stay!**

All these augurs well for the Indian lighting Industry that has some of the best brains.

Like always, we will scale greater heights in the future.

I wish you lots of good luck.



AVINDER SINGH
President, ELCOMA





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Building Success

**Excerpts from a chat with Mr Jitendra Agrawal,
CEO, Lighting and Consumer Durables, Surya Roshni Ltd
about his recent move to Surya and future strategy**

How did your journey as in Lighting industry start?

Philips Lighting was my first job. My first frontline role was in Mumbai. It is here I learnt that if I needed to win, I should know my customers, my products and my competitors well.

I spent 19 years at Philips Lighting, doing eight different roles in Sales, Product Marketing, Marketing Communication and new Business Development.

Post Philips, I worked with Kurlon as their CEO Designate. It's a home comfort company and was a leader in Mattresses in 2014. Kurlon had nine factories and was a Direct Dealer company. It was remarkable that it could deliver any mattress size to any Dealer within the country in 2-3 days.

Prior to joining Surya Roshni, I was with Luminous, a Schneider Electric Company, as their Head for Home Electric Business. The business included categories like Fans, Lighting, Modular Switches, etc. The skills to shape a large business and to grow a small business are quite different. It is here I learnt what it takes to build a business with limited resources and in smaller span of time.

What kind of challenges did you face during your tenure in your previous organizations and what actions were taken to overcome these challenges?

In my previous company Luminous, my challenge was to build small and non-existent categories to a profitable scale. One of the success stories been introduction of designer fans. Consumer Research backed product development, its manufacturing, availability both offline and online, communication and after sales service infrastructure helped

in growing the category on a sustainable basis every year. The key takeaway is – a) Know what your consumer is looking for; b) It should be a large market c) Make and Deliver (QCD) d) All Channel Availability e) Communicate. Its only when you Walk the Talk, you will make sustainable success.

Please tell us a bit about your recent move to Surya Roshni and your role there.

My role at Surya Roshni is to lead their Lighting and Consumer Durable Business. Surya is a very large Lighting company that manufactures both Conventional and LED lighting products and operates in all channels of Lighting business. Few years back, the company ventured into Fans, Domestic Appliances, Electric Water Heaters and in PVC pipes.

You have travelled the world and met with lighting professionals and experienced new technology and concepts there. How would you rate our Indian engineers and R&D when compared to these international teams?

While at Philips, I remember visiting Surya Roshni factories in Kashipur and Malanpur in 2007 along with global component specialists. The visiting team was surprised to note their excellent knowledge and witness some of world leading practices at both these factories.

I have had opportunities to visit many factories globally and have interacted with many R&D engineers. Indian engineers are amongst the best in the world. The ability to do many things with resource constraints is surely a science worth a study. Indians do excel here.

Where do you think our Indian

Surya Roshni recently appointed Mr Jitendra Agrawal as the CEO of the lighting and consumer durables business. Mr Agrawal joins Surya from Luminous Power Technology Pvt Ltd, (a 100% Subsidiary of Schneider Electric), where he was senior vice president and responsible for the company's home electrical business and will be responsible for driving profitable growth in all areas of the lighting business and building of categories within the consumer durable space for Surya. Prior to that, he spent 19 years with Philips India Limited, where, in his last role, he was a senior director at Philips Lighting. Mr Agrawal brings with him a rich experience of 27 years in the field of business and people management, business strategy, multi-sales channels, product marketing, marketing communication, new business, R&D, quality, and sourcing. He is an Electrical and Electronics Engineer from Mangalore University.

industry needs to improve most to come at par with these International giants?

The Indian industry should work with lighting authorities, opinion makers, customers and regulatory authorities to raise the lighting specification and standard for all applications. It is this work, which can help in driving the Indian Lighting Industry to come in league with its International peers.

The government has launched Production Linked Incentive (PLI) Scheme for both end products and components. What in your opinion should the government be doing more to promote Lighting industries in India?

In addition to these initiatives, I would

CAPTAIN SPEAKS

suggest that the government must ensure compliance of standards by all manufactures. They may start with at least one application such as Street Lighting, make world class standards and enforce them across the industry. This can not only help in improving public lighting and its maintenance to global standard but also prep up the local industry to vie for global markets

How are you gearing up for the next generation of lighting products?

Surya Roshni has a very diverse lighting portfolio. We are currently investing both in our research and development and in our factories to bring products which our consumers and B2B customers are looking for.

What is your message to the new generation in the Lighting Industry?

Know your Market, Customers, Products and Competitors well.

IN A LIGHTER VEIN

How do you unwind after a hectic day or week at work?

I like to run. 50KM a week. It is a great stress buster. I also read a lot.

What is/are your favorite holiday destination/s?

Company of my family and friends make up for any holiday destination.

What kind of food/cuisine do you like?

I like to explore local food wherever I am. It is a great way to connect with local culture

Which is/are your favorite restaurant/s?

Martin's corner, Goa

Who is your inspiration in life?

My parents, my wife and my children

Your favorite books

The Source by James A. Michener is my all-time favourite

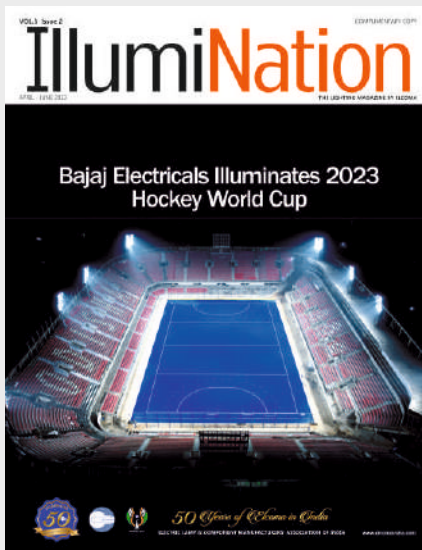
Your favorite film actor/actress

Denzel Washington, Shah Rukh Khan and Tapsee Pannu

Your favorite movie or a movie that you may have seen several times

3 Idiots and Saving Private Ryan

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ELCOMA Member's Directory for year 2022-2024 is now released. Interested stake holders may write for a free copy to deepakkumar@elcomaindia.com

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Driving Innovation

IllumiNation chats with Mr Bhavin Soonderji,
MD, India for Atco Controls on industry perspective

You have been associated with Tridonic for a long period. Please tell us about your journey till date.

It has been quite a journey for more than 25 years. There have been many challenges on promoting higher specification and quality products from day one, due to products promising similar performance etc. But over time we have proved that Tridonic products have possibly the lowest Total Cost of Ownership.

One of the most consistent parts of this journey has been our ability to bring the latest technologies into India due to the constant and on-going efforts of Tridonic to be an innovator.

This has allowed us to be the first in the market for a long list of products like extra low loss magnetic ballasts and digital dimmable ballasts which are now popularly known as DALI - a new standard based on Tridonic Patents. This product range has also been extended to LED Drivers. We also introduced tuneable white LED luminaires in the mid 2000's before it was popular, LED modules for signage applications, Wireless dimming with CASAMBI chips built into the driver and modern control systems based on 6LowPAN technology for Smart Street Lights.

As is evident from some of the items listed above the journey has been one of close partnerships in bringing these new technologies to India and working with our partners enabling them to provide some of the latest solutions.

This has also lead to positioning Tridonic as an innovator and a partner from whom our customers can expect and do get the latest innovations and technologies.

What according to you is the reason for Tridonic's success in the Indian industry?

Ultimately any user is buying light. It is our responsibility to ensure they use the correct products based on their needs and application. For instance, all our LED dimmable and new generation non dimmable LED drivers come with Constant Light Output. This ensures that the user is provided with constant lux through the life of the LED rather than higher lux today to account for 'Lumen Maintenance' factors.

Another example is our FASHIO chip that ensures not only do the colours look inviting but also the white pops without the use of UV components there by reducing the fading of clothes or leather items.

These are two simple examples where we are able to provide the best solutions for our clients' needs.

Finally, when the customers of our customers are satisfied with our solutions we know that successful co-operation and partnership with OEMs ensures a positive experience for all parties involved.

What are your plans to bring new innovative and intelligent lighting in India?

I can say with certainty that all the new innovative solutions that have a potential in India are introduced at the same time as they are globally. This is evident by our wide range of LED drivers for which we have done the BIS and cover applications from simple on off driver, Bluetooth drivers and solutions for Smart Street Lights.

How is Tridonic participating in ELCOMA's Vision 2024 blueprint that seeks to bring all LED Lighting component manufacturing in India by 2024?

As the pandemic has receded and the environment is moving back to pre-pandemic time, we will be relooking at

Atco Controls India Private Limited is the Joint Venture company in India of Tridonic Austria, manufacturing and distributing the components for Lighting Industry since 1996. Tridonic has made it its business to develop innovative products that enable their customers to implement functionally and economically superior lighting solutions. Tridonic provides competent advice and support all the way from project preparation and the project realisation phase, through to project completion and installation.

our plans to have high volume manufacturing in India

As a manufacturer of Ballasts and drivers etc, the manufacturing conditions are different between location of your parent company in Austria and India, How have your India made products been able to match global standards?

We have brought about 4 different plants to India from various plants of the Tridonic group. I don't believe it is the manufacturing conditions but more about the people aligning with a company's standard of production. We firmly believe that production process and resultant quality can be achieved anywhere by anybody provided the senior management ensures that the policies and processes have been followed.

We have in the past brought factory personnel to India and stationed them for long periods time while not only as production being stabilised but also team the is trained in detail about every aspect of production, quality and documentation.

This has ensured that other than the

CHAT TIME

manufacturing location there is no difference between a product produced in India or any other location producing the same product.

What do you think about our Indian engineers and R&D personnel when compared to the international teams? Where do you think our Indian industry needs to improve most to come at par with the International giants?

In our past experience the popular “Jugaad” has both been a boon and a serious challenge to overcome.

In order to marry the two we ensure that the teams are first trained on the company process and procedures and have a similar base line of performance as other manufacturing locations. Following which we encourage the team to improve on some process to further boost productivity and efficiency.

There have been a number of instances where we have been able to reduce wastage, improve efficiency and even reduce bottlenecks leading to higher production.

The grey market in India has disturbed the end product market badly. What is your opinion of the grey-market or non-compliant lighting products being sold in the country? What can be done to curb

this menace? Does this segment also impact you?

In general our products are not sold to the distribution channel globally so there is very low instances of our products coming into the grey market.

Industry bodies should pitch for better policy measure and more importantly swift judiciary measures that are time bound. Unless this improves, those

engaged in such practises are well aware that if not the law, time is certainly on their sides

With the government's plans for Atmanirbharta plan, do you have any plans to expand your manufacturing facilities in India?

As mentioned above we are relooking at our plans to increase manufacturing in India.

IN A LIGHTER VEIN

How do you unwind after a hectic day or week at work?

I enjoy swimming and relaxing in the pool

What is/are your favourite holiday destination/s?

Kerala backwater and road trips

What kind of food/cuisine do you like?

Other than home food Japanese would top the list.

Which is/are your favourite restaurant/s?

There are many. I like to maintain a city wise list of restaurants and local food

Your favourite movie, a movie that you would like to see again and again?

The Usual Suspects is my favourite movie which I may have watched more than 20 times

Your favourite Bollywood actor, male and female?

Manoj Bajpayee and Juhi Chawla

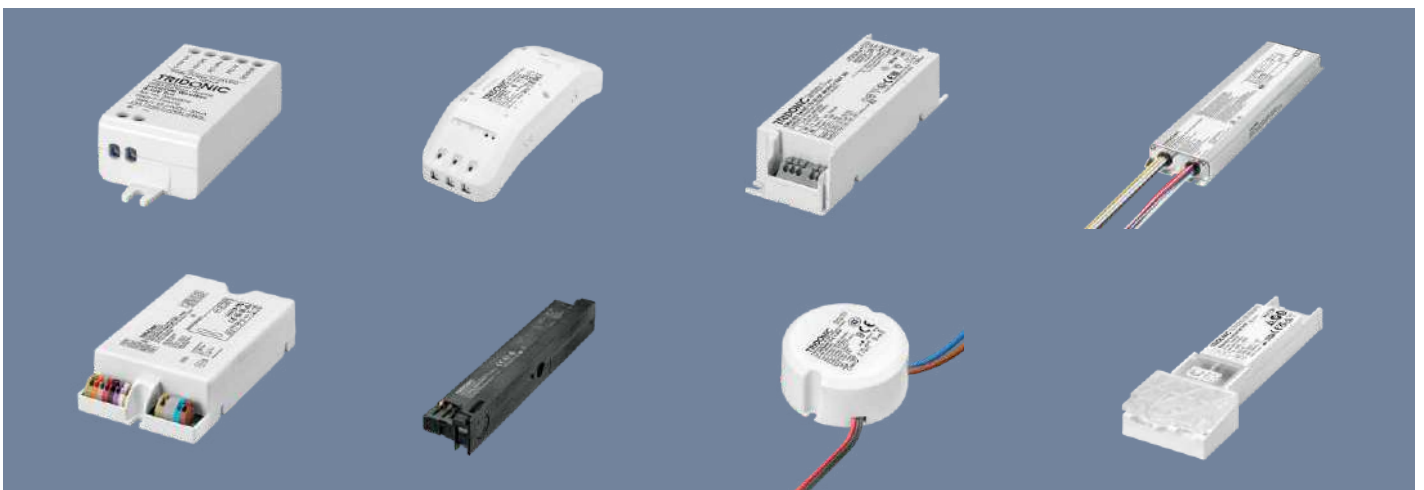
Your favourite Hollywood actor?

Denzel Washington

Are you fond of reading? If yes, your favourite book?

Yes I read a lot of books - mostly spy novels, but the books by Andrew Grove (Only the Paranoid Survive) and Eli Goldratt are some of my favourite books

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Beware of fake P-VIP® projector lamps! Please buy only original

As one of the best-selling OSRAM lamps, counterfeits of P-VIP® projector lamps are seen in market.

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- Negative effects can be caused by using counterfeit OSRAM P-VIP® lamps
- Test result shows that the electrode gap of counterfeit lamps is larger than OSRAM P-VIP® lamps by 30% on average, which undoubtedly indicates a much lower brightness



amul **OSRAM**

2023 Hockey World Cup Stadium illuminated by Bajaj Electricals

Bajaj Electricals Limited illuminated the Birsa Munda Hockey Stadium at Rourkela, Odisha which was one of the two hockey stadiums that hosted the 2023 Hockey World Cup





In line with honourable Chief Minister of Odisha's vision of placing India in the international spotlight in the sporting world, Bajaj Electricals Limited illuminated the Birsa Munda Hockey Stadium at Rourkela, Odisha. This is one of the two hockey stadiums that recently hosted the 2023 Hockey World Cup. The other stadium being the Kalinga Stadium at Bhubaneswar.

The Odisha Sports Ministry built Birsa Munda Stadium in Rourkela has received a mention in the Guinness Book of Records as the world's largest fully seated hockey stadium. Bajaj Electricals proudly lit up the 20,000-seater stadium with lighting levels for HD broadcast and DMX controls that enable luminaire level control that offers a unique stadium experience. The DMX controls allow each lighting mast to be

setup as a display board that can be used to flash-lights to denote play field events like – goals, penalties and set-pieces. Additionally, to elevate the experience for spectators and guests, the infrastructure and landscaping of the internal stadium has been done using Bajaj Electricals – Platz decorative poles. The lighting plans for all the stadiums hosting the 2023 Hockey World Cup had been designed in compliance with the FIH Guidelines for Televised Outdoor Hockey. This is one of the few stadiums in India with such advanced lighting; thus, proving to be not only a world-class sports facility, but also an institution to produce the best of India's sports talent.

This was a challenging project for the team given the constraint in time and the fact that sports masts were to be installed at the height of 19.5 M from ground level on existing infrastructure between the spectators stand. The masts in the Birsa Munda Stadium have integrated masts in the structure, which gives lesser room for modifications to optimize the mast and luminaires designs. However, this feat was successfully achieved with a collaborative effort by the Engineering,





Procurement and Construction team, architects involved, Bajaj Electricals teams and IDCO authorities.

Superior lighting enhances the experience of on-ground sports fans and ensures the game is broadcast with clarity in details for those watching the game from the comfort of their homes. It also brings alive the experience of

watching the sport – whether it's a Hockey shot, a goal, a powerful ace, or a clinch of hockey sticks passing the ball.

Bajaj Electricals has been the front runner in the infrastructure lighting sector since decades and has clinched multiple projects across the country due to superior technical teams that are known for efficient and on-time

execution. By successfully completing yet another top-of-the-line lighting Bajaj Electricals is truly adding to India's growth story by illuminating one stadium at a time.

AUTHOR : BAJAJ ELECTRICALS LTD

Views expressed in this article are those of the contributors and do not necessarily reflect those of the editors or publishers





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Luker Undergoes PLI Audit



Luker Electric Technologies Pvt Ltd were selected as one of the beneficiaries of PLI for manufacturing of White Goods (ACs and LED Lights)(PLIWG) by Department of Promotion of Industries and Internal Trade(DPIIT), Ministry of Commerce. Luker, the only LED Lighting company from South India committed to Invest Rs. 10 Crore in the Normal Investment category and has already invested about 4 Cr until December 2022.

As part of Implementation of PLIWG, a Team from Luker had earlier visited IFCI Ltd at Delhi, who are the Project Monitoring Agency (PMA) for PLIWG. The officials of IFCI had suggested certain actions regarding streamlining of the entire process flow as well as the accounting process which Luker was



able to implement within a period of 45 days and made changes in their ERP Software and separated the PLIWG Stores and Raw Material Inventory. Since Luker captively consumes the eligible products under PLI which are in the form of components that are part of the finished goods, separate semi-finished tags were created to track all the semi-finished goods which were manufactured under the PLI Scheme.

Also based on the suggestions of the PMA officials all the Assets invested under PLIWG have been tagged separately and all the area where they are housed are also separately identifiable as required under the scheme.

A team of officials from IFCI, consisting of Deputy General Manager along with a CA and a CMA visited Luker factory at Chettipalayam, near Coimbatore on 12th December 2022. It was a very good opportunity for Luker to understand the processes, compliances and procedures required under the PLI Scheme as well as get clarifications on issues and apprehensions about the scheme. There were some apprehensions about eligible components which can be shown as sales against the investment, especially in the light of the 60:40 ratio of manufacture of eligible products to other than ACs and LEDs. The visiting officials explained in detail about how beneficiaries can book the sales only of the eligible products which are manufactured for other than Target segments, i.e., ACs and LEDs in the

40% of net incremental Sales. The term Eligible Product for which an applicant has got approval under the scheme is important while interpreting the eligible sales for incentive calculation later.

The visiting team was satisfied with the separation of the accounts and the physical identification of the investments as well as separation of the manufacturing of eligible products - the Raw material Stores, semifinished components and the sales of finished goods using the 'Eligible Products' under the scheme. The visiting team also expressed satisfaction over the way the accounting policy and process were setup as well as the amount of data capture that is being done in the ERP system such that all the aspects of manufacturing and costs of the eligible products manufactured under PLI Scheme can be verified and audited by PMA or any external agency appointed by PMA. The PMA team spent almost a day checking all the storage of sub components of Finished Goods and inspecting the machines. The PMA representatives, took photos of all machines which were tagged as per the PLI notification. The PMA appreciated the efforts of the Luker team and said that they would showcase Luker's system to other beneficiaries who were having difficulties in implementing the processes as per the scheme guidelines.

AUTHOR : LUKER ELECTRIC TECHNOLOGIES PVT.LTD.

Views expressed in this article are those of the contributors and do not necessarily reflect those of the editors or publishers

ELCOMA Event Calender Year 2023

Month	Date	Event
April 2023	1 st Week	ELCOMA magazine IllumiNation – April 2023 issue
	24 th April 2023	ELCOMA Governing Body meeting at Mumbai
	25 th April 2023	ELCOMA conference on Intelligent and Connected LED Lighting- Trends and Solutions in Public Infra Lighting
May 2023	12 th May	ELCOMA committee meetings on-line
June 2023		Review meeting on Vision 2024
July 2023	1 st Week	ELCOMA magazine IllumiNation – July 2023 issue
	14 th July 2023	ELCOMA Governing Body meeting at India Habitat Centre, New Delhi.
August 2023	1 st Week	Special Vision 2030 meeting – Prepare Plans for future action
September 2023	1 st Week	ELCOMA committee meetings on-line
	3 rd Week	ELCOMA Governing Body meeting and Annual General Meeting
October 2023	1 st Week	ELCOMA magazine IllumiNation – Oct 2023 issue
November 2023	2 nd Week	ELCOMA conference at New Delhi on Special Lighting for Hospitality Industry
December 2023	2 nd Week	Review Vision 2024 – action plan for corrections



ELCOMA

Electric Lamp and Component
Manufacturers Association of India

ELCOMA CONFERENCE FOR INTELLIGENT & CONNECTED LED LIGHTING - *TRENDS AND SOLUTIONS IN PUBLIC INFRA LIGHTING*

25th April 2023,
Ramada Hotel, Palm Grove, Juhu Beach, Mumbai



Supporting Organizations:



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E-mail: deepakkumar@elcomaindia.com



Conference Agenda



25TH APRIL 2023 AT RAMADA HOTEL, JUHU BEACH MUMBAI

	Registration: 09.00 to 09.30 Tea/ Coffee/Snacks
Session – 1 Inaugural Session 09.30 – 10.30	Lighting of the auspicious lamp by the dignitaries Introduction and Welcome – Mr. Shyam Sujan, Secretary General, ELCOMA MeitY initiatives for futuristic plans for Intelligent & Innovation lightings, Ms. Asha Nangia, Scientist 'G' MeitY Future Plans for Smart Streetlights- Mr. Anil Kumar Choudhary, Head Operations, EESL Intelligent & Connected LED Lighting – Mr. Avinder Singh, President, ELCOMA Vote of Thanks- Mr. Sunil Sikka, Advisor, ELCOMA
Session - 2	10.30 – 11.40
10.30- 11.00	Roads and Tunnel Lighting by Mr. Shreekant Phanse, National Application Specialist, Signify Innovations India Ltd
11.00- 11.30	Smart Solutions for Public Infra Lighting by Mr. Ponkumaresh Muthaiah, Head Lighting Design & Application, Bajaj Electricals Ltd
11.30-11.40	Q&A
11.40- 12.00	Tea Break
Session - 3	12.00 – 13.40
12.00- 12.30	Dynamic façades for city beautification by Mr. Shirish Mathur, Traxon Technologies
12.30– 13.00	Using Connected Lighting- Users benefits based on international standards Smart Street Lighting by Mr. Bhavin Soonderji, Managing Director, ATCO Controls
13.00-13.30	Urban Lighting by Mr. Subrato Sarkar, DGM, Havells India
13.30-13.40	Q&A
13.40- 14.30	Lunch
Session -4	14.00-
14.30-14.50	Standardization in the field of lighting and luminaries by Ms Neha Agarwal- Scientist 'C'/Deputy Director & Member Secretariat ETD 49, Bureau of Indian Standards
	Sum-up/Close- Mr. Amal Sengupta, GM, ELCOMA

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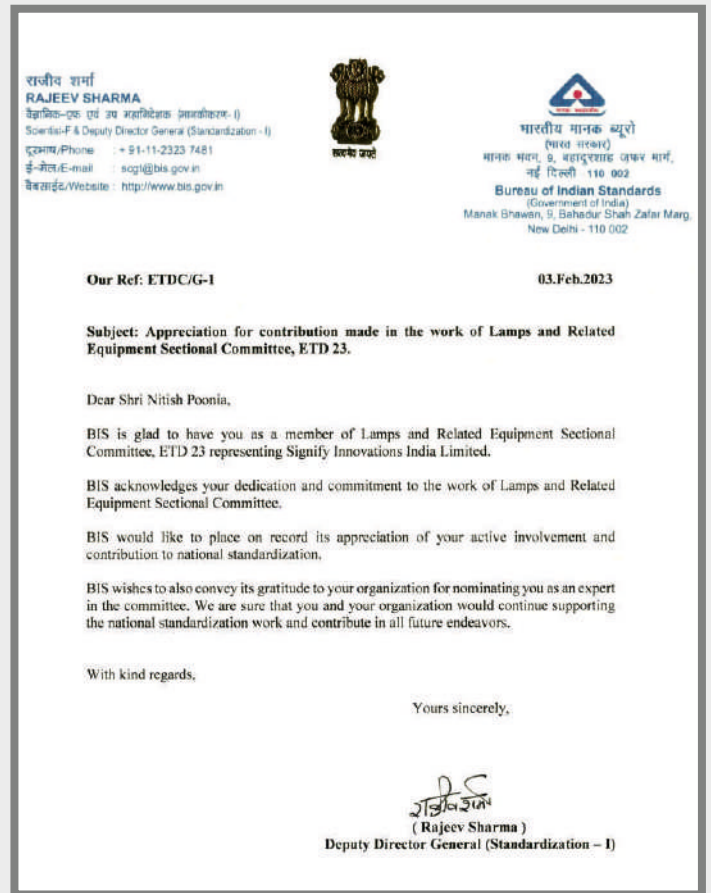
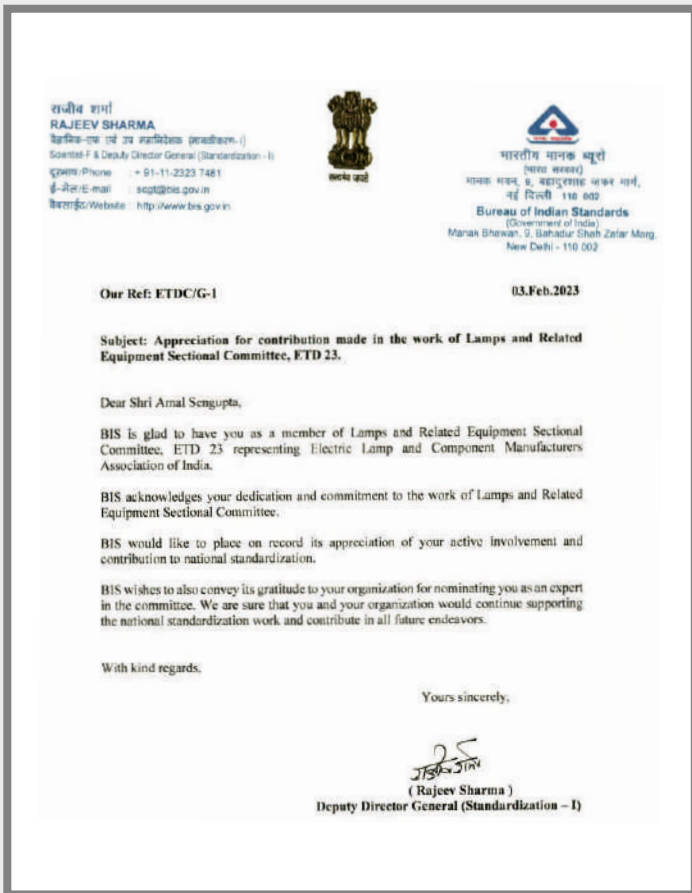


BIS recognizes the contribution of ELCOMA representatives



We are proud to announce that BIS, in its assessment of contributions by various members of the ETD 23 committee has recognized that the work done by Mr. Amal Sengupta, General Manager, ELCOMA and Mr Nitish Poonia of Signify, Chairman of ELCOMA IWG Committee as commendable.

The letters sent by Mr. Rajeev Sharma DDG, Standardization, BIS individually to both our industry colleagues are self explanatory.



ams OSRAM and KHUSHII collaborate for a bright future of 2000 children

ams OSRAM and KHUSHII have collaborated to illuminate the hope for a bright future of 2000 children through Shikshaantra plus programme

An illuminating association between ams OSRAM and KHUSHII lit up the lives of 2000 school-going children to enable them to continue their education for a secure and bright future ahead. While ams OSRAM provided the means for improvising education, KHUSHII provided the expertise to scale up the level of performance of these children, not only academically but also in their mental well-being scores.

Project “Shikshaantra Plus” was introduced in Government Model Senior Secondary School, Gurugram in 2021 in

partnership with ams OSRAM with a core focus on a complete transformation of the school through improved learning levels, mental well-being, life skills and Health and Sanitation and infrastructure augmentation.

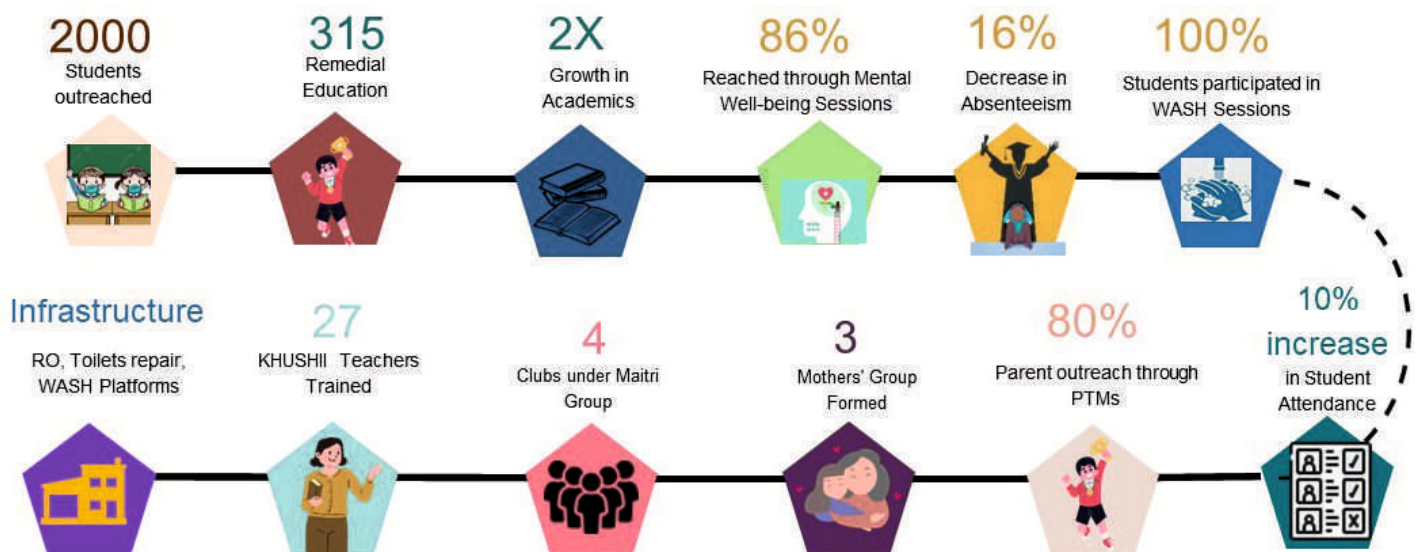
Commenting on the partnership, Mr. Harish Gosain, Executive Director of KHUSHII - "Perhaps the most important thing I want to say to ams OSRAM is, thank you for believing in the same cause as KHUSHII. ams OSRAM has fueled our passions and ideas. With your gift, young children can



experience the festivity in the air and strengthen ties between our communities. It is our second collaboration, and I would like to thank the entire team at ams OSRAM for their time. Looking forward to our future endeavors together."

Outcome of the programme:

Achieved Outcomes



Solar Connected Lighting

The article highlights the benefits and advantages of a Connected Light Management System for Solar Product Installations

Public infrastructure in a city encompasses the basic services available, including roads, electricity, water, gas, sewer, police and fire departments, public transportation and more. The quality of a city's infrastructure is a significant determinant of its livability and suitability for work.

One aspect of civil infrastructure that is indispensable is road lighting. A locality with well-lit roads is perceived to be safer by both residents and passers-by than those where road lighting is inadequate. Well-lit parks, gardens, squares, and play areas add vibrancy, cheerfulness and liveliness to a locale, which can have a positive psychological effect on the observer. People prefer to settle in areas that they feel are safe and where they can move around freely day or night. These factors highlight the importance of lighting in people's day-to-day lives. Good infrastructure not only enhances the quality of life for residents but also encourages others to settle in the city, leading to increased investment in resources and generating more revenue for the government.

Solar Lighting Systems

Lack of access to electric grids is one of the key reasons, among other factors, why it is challenging to take advantage of the benefits of electric lights. However, some places are fortunate to receive ample solar energy. Thus, leveraging natural resources to obtain the necessary illumination is sought after to obtain the necessary illumination requirements. As a result, solar lighting systems are an extremely well-

acceptable solution for a wide range of applications.

The application of solar lighting systems has brought joy to the faces of people in rural areas, while also being utilized for illumination in non-rural areas. This primarily helps to reduce the use of electrical energy and, in turn, carbon footprint. Solar lighting systems are being employed for various purposes such as highways, perimeter lighting, parks, gardens, cycle tracks, parking, industrial areas and camping areas along sea-river fronts.

The success story of solar systems is not new to India, as these systems have been employed in numerous places and for various applications over the years. A typical solar lighting system consists of four components: luminaire, PV panel, battery and a charge controller.

Connected Lighting

The intent of modern-day lighting

Objectives of Smart Lighting System

- Make all street safer for citizens
- Remotely Control, Monitor and Program your Street Lights
- Manage all your streetlighting assets in one platform
- Optimize your energy consumption
- Better plan your maintenance personnel
- Visualize data through one dashboard
- Kick start your Smart City ambition with Public Street Lighting Central Management System
- Integrate with other software to control lighting
- Secure application designed to the highest Cybersecurity standards of IEC62443 develop process

systems is to be inclusive of all the aspects of Lighting and Wellness. The primary factor governing such systems are - Minimum Energy Consumption thus reducing the carbon footprint, promoting green initiatives, providing light for safety and security, improving

Benefits of Signify Interact City System

Reduced lighting energy consumption	Up to 80%
Achieve sustainable operations targets	Up to 80% Reduction of CO ₂ Emissions
Optimize operations	Improve efficiency by at least 50% with effective maintenance planning with in-depth knowledge of all asset information
Reduce down-time of luminaires	Less than 1% down-time with real-time fault detection and fast resolution responses
Reduce citizens' complaints	Track 100% of the issues and resolve them before complaints are reported
Improve traffic and pedestrian safety	Better lighting reduces up to 20% crime and 30% road accidents with injuries
Protect Data & against unauthorized usage	Signify is certified to IEC62443-4-1 Security Certification by Dekra

productivity, ease of operations and movement, etc.

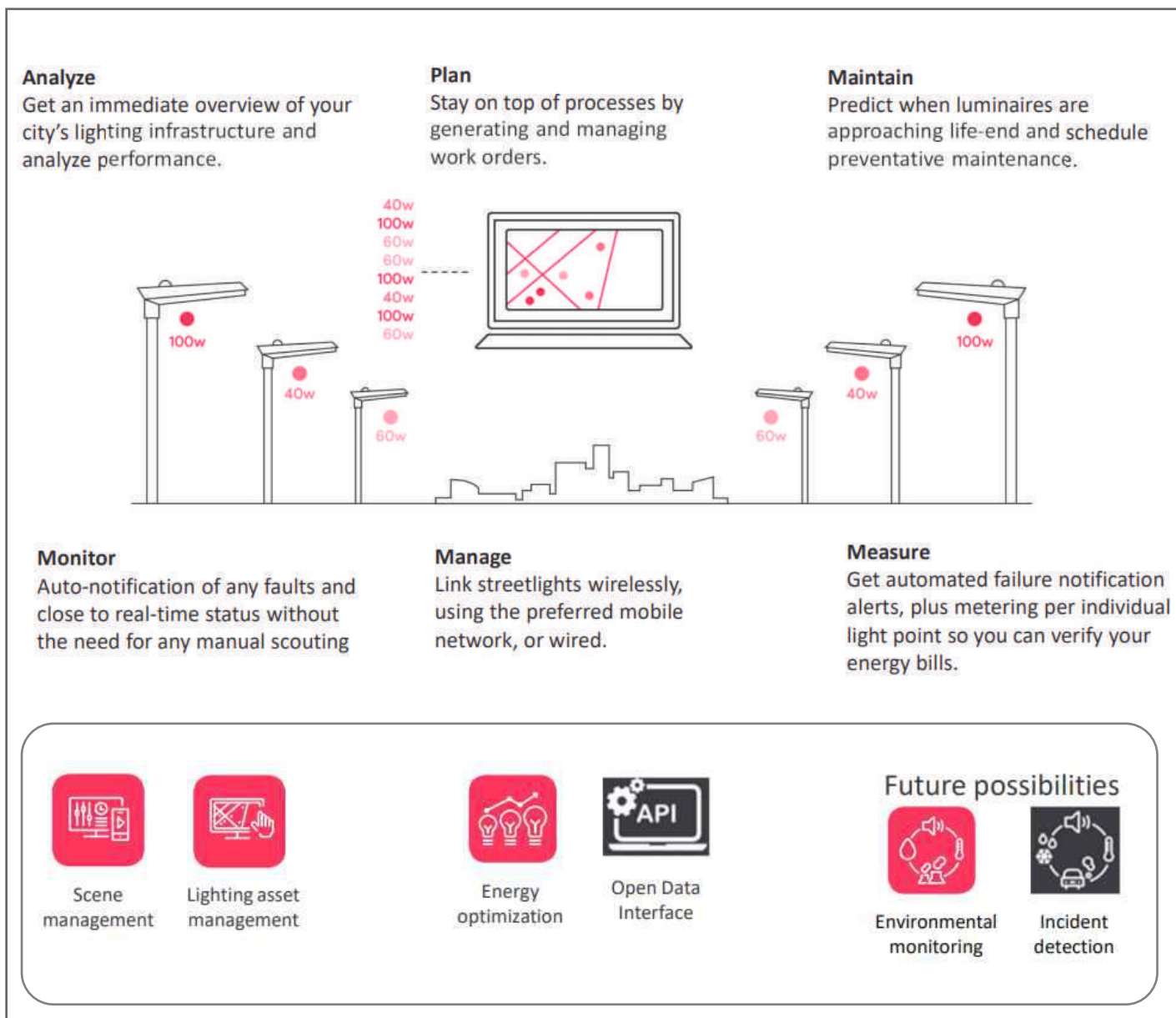
To achieve effective lighting management, such systems need to be designed to control the quantity and quality of light. While lighting control systems were commonly used in indoor applications, control systems are now being successfully deployed for outdoor lighting projects as well. Connected systems exercise complete control over functions such as scheduling and

dimming, as well as supporting maintenance of the lighting equipment. As lighting equipment is an asset, it needs to be taken care of. The system should inform and analyze the health of this equipment and plan for timely maintenance to keep these assets in operational condition. Management of lighting assets and controlling light and energy should be one of the key design factors for smart lighting systems.

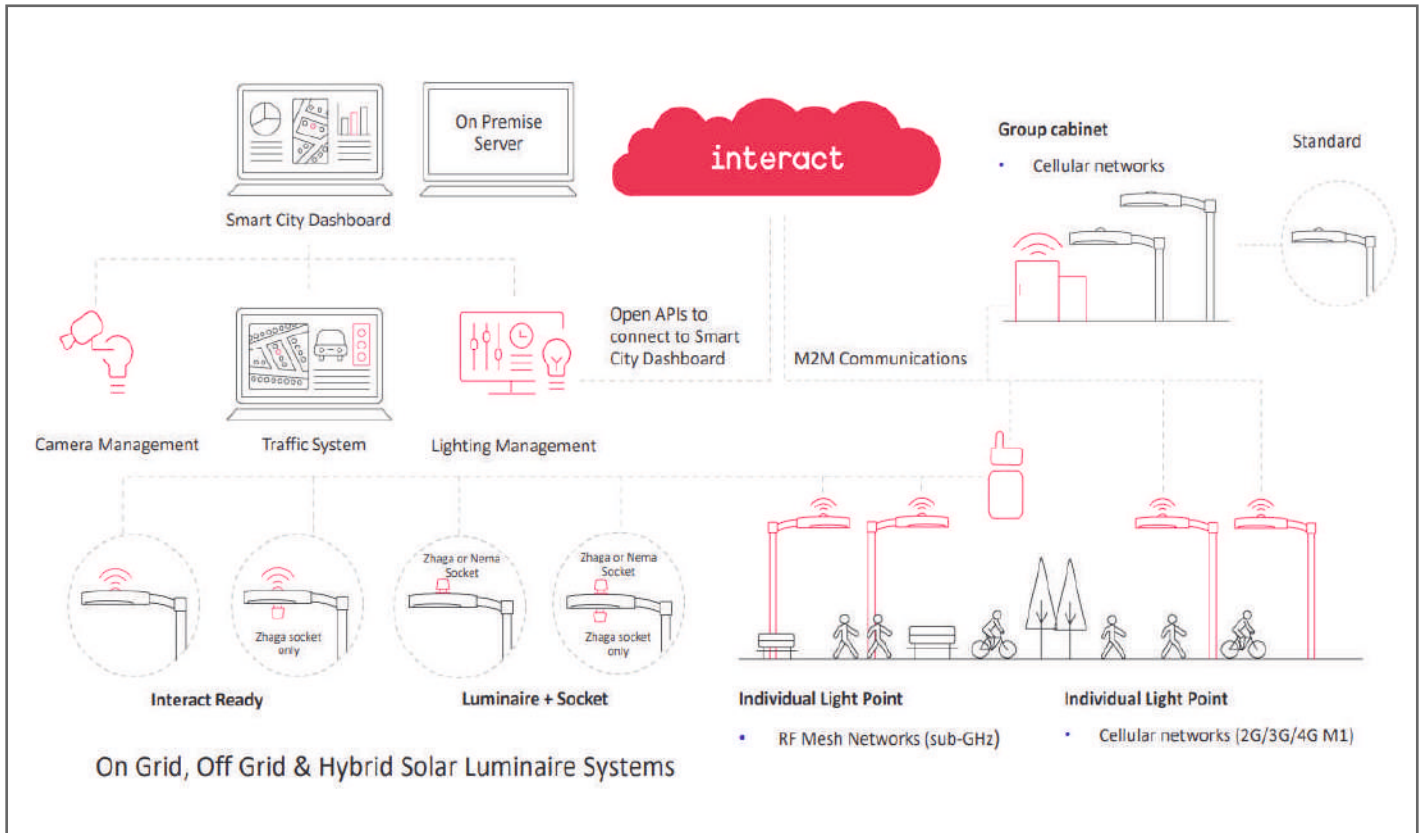
Smart Lighting

A Lighting asset management application enables professional management of lighting data and efficient operational workflows. All the asset data are maintained in a central database and dashboard over a map which allows for easy visualization and analysis. Based on this data, maintenance cycles can be planned, and work orders can be generated for field workers.

The application also enables you to predict when luminaires are approaching the end of their life, making preventative maintenance more cost-effective.



Integrating Solar lighting with Intelligent Connected Systems would create higher value and benefit multiple stakeholders. Smart Connected Systems allow for centralized and remote management of Connected Solar lighting systems.



The primary requirements of any system are that it should be Simple, Open, and Secure. The system infrastructure should be simple, providing a seamless end-to-end solution without any complexity. Installation should be a plug-and-play type of solution that does not require any special expertise. The system should be easy to use and operable for non-IT experts in their daily work life. It should also be open and easily integrated with other major systems, using standardized network technologies. Lighting data should be secure from any leaks, and the solution should be scalable and adaptable to future requirements.

Solar lighting systems can either be off-grid or hybrid. By establishing a connected lighting system, Solar luminaires of all types – standalone non-integrated, all in one or hybrid – can become even more intelligent.

Application of IoT system in conjunction with additional hardware results in Connected Solar system. Light Controllers are employed, and communication is established in order to send – receive command which would in turn control the output of the luminaires.

Controllers

Suitable controllers for outdoor applications provide necessary data and control without any interruptions. The data is transmitted to the segment controller via cellular 2G/3G/4G networks or radio frequency. These system and controllers are capable of detecting failures, operating in standalone mode when the LMS communication fails, switching the power on, off and dimming, GPS location capability, and last gasp capability for power out failure notification. On average, the controllers

consume 0.5W of power.

Each controller has a unique ID for asset management and identification. These controllers come equipped with GPS capability for automatic location reporting. They operate and switch the light point based on the configured calendar and dimming schedules, regardless of whether they are connected to the asset management system or not.

Asset Management System

The management of public lighting is currently undergoing a dynamic transition to ensure that a) light is available in sufficient quantity and quality, b) to detect any malfunctioning of the lighting equipment and c) to understand the efficiency of the system in real-time operations.

This transition is driven by technological revolutions, environmental changes, and

financial pressures. Professional Lighting Asset management systems unfold the multiple benefits via a vis standard system. Key features of these Innovative technology solutions are:

- Remote management
 - Flexible adaptation of light levels with a simple click (On/Off/Dim)
 - Efficient lighting scheme

planning through calendar scheduling

- Light monitoring
 - Actual lighting status
 - Auto-notifications of faults
- Energy measurement
 - Real energy usage and full history reporting

- Providing tools for measurement and verification

Lighting management systems offer a wide range of functionalities, such as user interface, regions, streets and grouping, fault and event notifications, calendar light schedule, energy visualization and reporting, and data analysis and reporting.

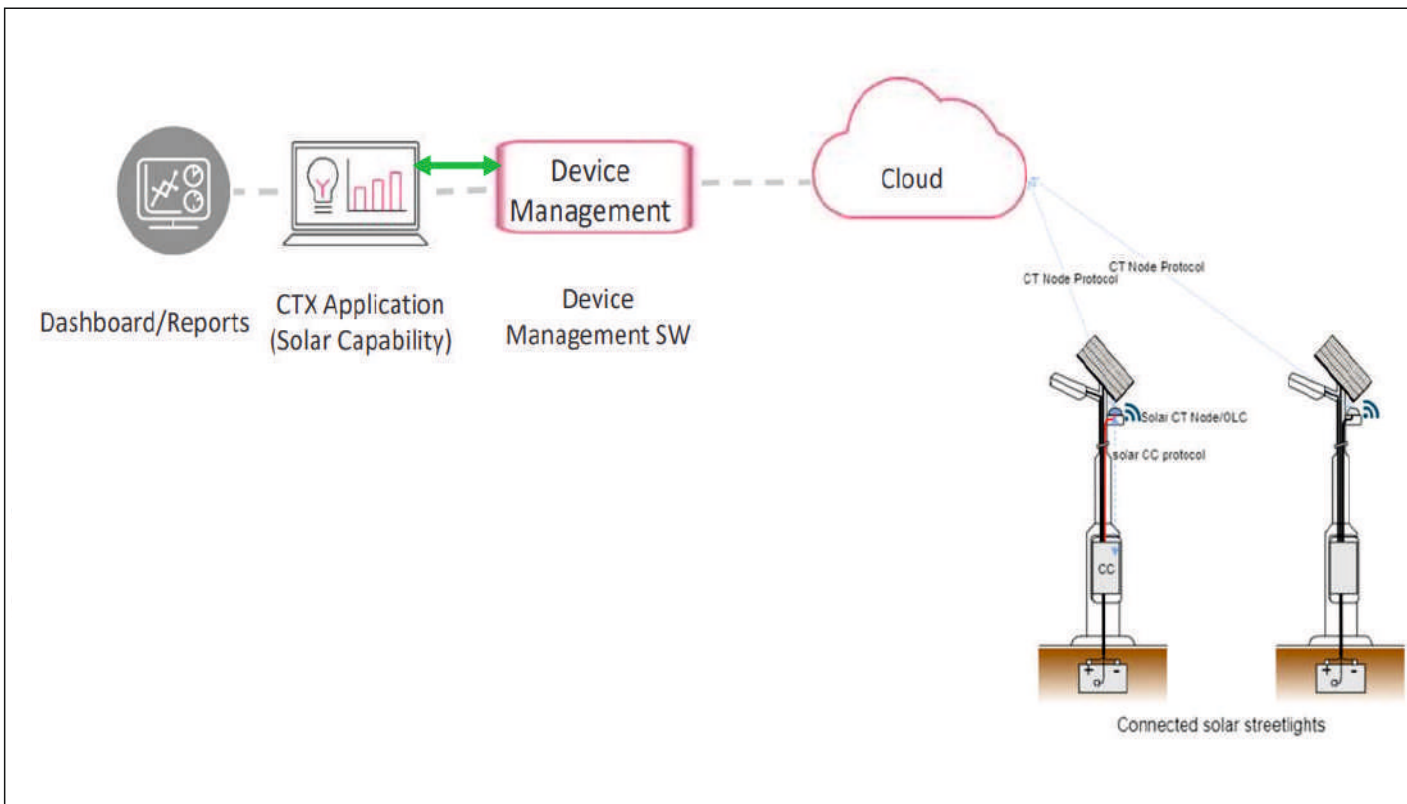


Fig : Overview of a Connected Solar Streetlight System

The light management system is typically centered around a map-based web interface.

The functionalities for assets and asset management are important, and assets can be assigned to regions, streets, and groups. Asset data can be uploaded into the LMS while maintaining the existing asset grouping or input directly. When selecting a street or group, the associated assets will be selected to simplify subsequent workflows, such as energy reporting, manual override, or calendar

revision/assignment.

Conclusion

Adoption of solar powered street lighting paves the way to lower carbon emissions and reduces the dependence on fossil fuels. Off-grid solar illumination is a practical substitute for new points since it reduces costs associated with electricity, cabling, and distribution switchgear.

The All-in-One solar luminaire, which is simple to install and has built-in components, is growing in popularity for

a variety of applications.

The Asset Management and Lighting Control System on the web offers users a host of advantages. In addition to helping with basic data administration, it also aids in managing, monitoring, and maintaining Solar System products which are many a times remotely located.

AUTHOR : SHREEKANT PHANSE, NATIONAL APPLICATION SPECIALIST SIGNIFY INNOVATIONS INDIA LTD.

Views expressed in this article are those of the contributors and do not necessarily reflect those of the editors or publishers

Improved Well Being with Natural Lighting

The article explores the new LED technology that brings the comfort of natural light indoors and improves comfort and well-being

When we talk about Natural Light in the context of Lighting products, we imply that the distribution of wavelengths within the visible region of the spectrum be comparable to a daylight spectrum. Although an incandescent lamp has a full and continuous spectrum, it inherently provides a warm white light dominated by red, making it more like a typical sunset spectrum. Some specialty fluorescent lamps claiming to deliver full spectrum, use a blend of phosphors stimulated by UV, to produce light at the specified color temperature. Inevitably, this is achieved by compromising either efficacy or color rendering. On the other hand, high quality LEDs offer a relatively balanced solution of light quality and high efficiency with minimum compromise. The spectrum of daylight is of course a moving target, depending principally on latitude, season of the year, time of day, and local weather conditions. However, on average, daylight is much more balanced and typical of natural light.

Why do we need to switch to Full Spectrum LED products

High CRI applications : Some commercial lighting applications, e.g. office illumination, may be adequately served with 80 CRI. However, many applications have a strong requirement for color fidelity. For example, retail

display lighting, museum lighting and photography, video and stage lighting allow no compromise on CRI. An additional feature of full-spectrum LED products is the ability to be designed for higher correlated color temperature ranges (CCT), whereas incandescent full-spectrum products are typically limited to low CCT illumination.

Well-being applications : The science about the subtleties of our biological needs and the impact of light on our well-being is always changing and becoming even more important in today's high paced life. Surveys show that people spend an average of 87% of their time in enclosed buildings. This represents an enormous fraction of our lives under artificial lighting, and so it is especially important that lighting provides the benefits of natural light such as reduced eye strain and improved sleep-wake cycles.

Some instances where controlled exposure to full-spectrum artificial Natural Lighting is beneficial are

- Education spaces where students can benefit from reduced eyestrain and improved concentration
- Business and vacation travelers seeking to adapt quickly to new time zones and reduced jet lag
- Night shift workers using artificial natural lighting to help maintain alertness

- Residential lighting requiring a combination of high color rendering and well-being benefits
- Office and factory workers with long hours under artificial light desiring improved sleep-wake cycles

TruWave Technology™ from LEDVANCE is a new LED technology that provides light closer to Natural Light. This innovative technology brings the comfort of natural light indoors for natural living that improves comfort and well-being.

Key Benefits of TruWave Technology™:

- Natural lighting spectrum with most vivid color rendering available
- Closest match to natural light available
- Proprietary technology enables high efficacy human-centric spectrum
- CRI90 lighting with the benefits of Natural Light
- Excellent Color Rendering & TM-30 Metrics
- Blue content most closely matches the natural light of the sun

TruWave in LEDs is achieved by combining unique chip, phosphor and packaging technology to closely match the spectra of natural light. TruWave Technology™ uses multiple quantum wells to provide 3 Blue excitation sources which are adjusted to prevent large peaks in the blue spectrum. This

Effect of Incident Spectrum on Color Rendering



Fig : Effect of Incident Spectrum on Color Rendering

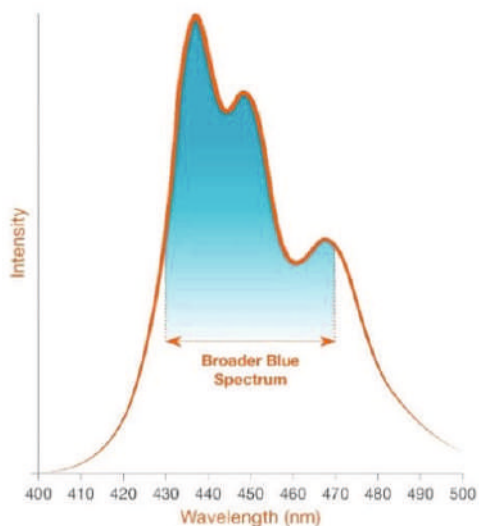
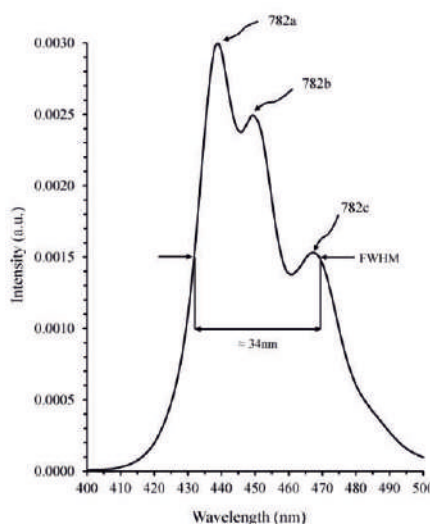


Fig: Broader Blue Spectrum



technology ensures there is no Violet Light Augmentation and that there is better match to Natural Light in the Blue Spectrum.

When a light source has gaps in its spectrum, the reflected color spectrum of the object is incomplete relative to viewing the object under full-spectrum illumination. Therefore, the reflected light also has those bands missing. For instance, skin tones look pallid where the light source has high blue content and flushed where the light source has too much red light.

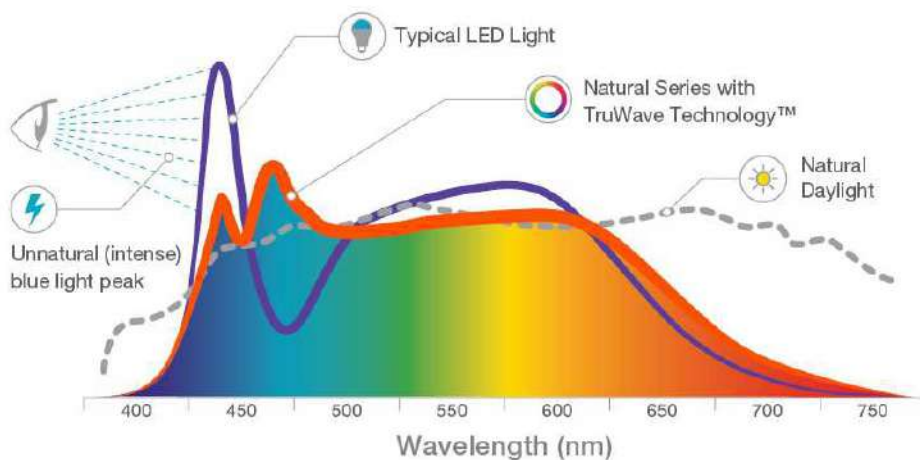
TruWave Technology™: Excellent Color Rendering (CRI) & TM-30 Metrics

CRI is a widely used color accuracy standard which compares objects under the light source with their appearance under a reference source such as sunlight.

TM30 is a color quality standard which remedies some of the flaws in the use of CRI by defining a measure of color fidelity and gamut relative to a reference illuminant or daylight

Since fidelity is measured using 99 test samples representing a large variety of objects, this is a more comprehensive measure of color quality. Fidelity (Rf) and gamut (Rg) measurements can be considered to represent the “naturalness” of how colors are rendered. In graphical form (refer figure below— color vector graph and comparison with a standard CRI 80 lamp), the performance of a lamp is demonstrated by the closeness of the red circle to the black circle (99 test samples under natural light). Ideally, for a natural appearance, the Rf and Rg should be 100, indicating no deviation from the natural light appearance.

LEDVANCE Technology™ products

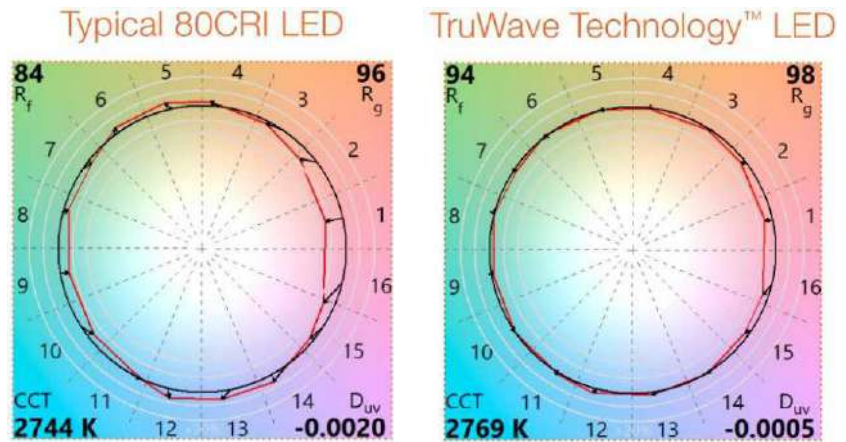


TruWave Technology™ mimics natural daylight, minimizes unnatural, intense blue light and offers less eye strain than a standard LED.

Fig : Comparison of Typical LED Spectrum and TruWave Technology™ Spectrum

TECH CORNER

have a CRI of greater than 90 and an excellent Rf of 94 and near perfect Rg of 98, both at a CCT of 2700K. Visually and intuitively, in Figure below, this outstanding performance is confirmed by the near perfect match of the natural light reference circle (black) and the LEDVANCE TruWave™ circle (red). TM30 performance demonstrates conclusively that TruWave™ delivers a truly natural appearance.



CCT	Rf	Rg	CRI	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
2700K	93	97	93	92	97	99	93	93	98	91	78	52	92	95	93	93	99	87
3000K	93	98	93	93	97	99	94	94	97	92	81	57	93	95	94	93	99	88
3500K	94	98	94	93	95	96	95	93	94	96	87	66	88	95	86	93	97	90
4000K	91	96	93	94	98	97	92	94	96	92	84	62	97	93	86	96	99	91
5000K	91	96	94	96	98	95	92	95	95	91	86	68	98	92	88	98	98	94
6500K	89	95	93	94	100	96	88	93	96	91	85	64	98	89	81	97	98	91

Fig : TM30 performance of TruWave Technology™

How TruWave Technology™ improves health and overall Well-being



- Improved mood: Exposure to natural light has been shown to boost serotonin levels in the brain, which can improve mood and reduce symptoms of depression.
- Better sleep: Exposure to natural light during the day can help regulate the body's circadian rhythm, leading to better sleep at night.
- Increased productivity: Natural light can improve focus, alertness, and productivity, leading to better performance at work or school.
- Reduced eye strain and headaches: Natural light is softer and less harsh on the eyes than artificial lighting, reducing eye strain and headaches.
- Enhanced cognitive function: Natural light has been shown to enhance cognitive function and improve memory retention.
- Reduced stress: Exposure to natural light can help reduce stress levels and promote relaxation.

LED upgrades are typically driven by a perception that light is a commodity to be obtained at the lowest cost. This places an emphasis on energy efficiency and energy cost savings, which is relevant but should not result in missed opportunities to cost-effectively provide

additional value by improving the quality of light overall. While light is indeed a commodity, lighting — the application of light to spaces — can be an asset, supporting design goals by providing accurate colors, visual comfort, and enhanced space perception.

These are worthy investments that can produce tangible value and should be carefully considered.

**AUTHOR : HERSHUL VIRENDRA, AGM,
PRODUCT MANAGEMENT, LEDVANCE
PRIVATE LIMITED**

Views expressed in this article are those of the contributors and do not necessarily reflect those of the editors or publishers



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OSRAM introduces new premium range of higher wattage LED retrofit lamps for various applications, with 50W power and 5000lm on each lamp, your night drives will be as smooth and safe as a clear day drive. This product is available in both 4200K and 6000K color temperature to give you a clear vision in all-weather condition. See and be seen on road by upgrading your vehicle's headlight with OSRAM's new LEDDriving HL PREMIUM New GEN.

Light is OSRAM

OSRAM



Signify partners with FINISH Society to light up 20 primary health centers in Rajasthan

Signify has illuminated 20 primary health centers (PHC) in Rajasthan using solar lighting, under its Swasthya Kiran CSR program. Under this project, executed in partnership with FINISH Society, the company has installed 2.5 KW solar power plants in each health center to enable sustainable and un-interrupted access to lighting, thereby enhancing the healthcare services offered to local residents.

These 20 primary health centers are spread across Udaipur, Nagaur, Baran and Sirohi districts in Rajasthan. Applauding the company's efforts in enhancing the healthcare experience at the tertiary level in the district, Shree Peeyush Samariya, IAS, District Magistrate, Nagaur, shared an appreciation letter with the company at

the Republic Day event held in the district.

Inaugurating the event, Abhijit Banerji, Member Secretary, FINISH Society said, "In smaller districts of Rajasthan, Primary Health Centres (PHCs) like these are the nerve centers as they provide the maximum percentage of out-patient care, including noncommunicable diseases and maternal and child health services. However, erratic electricity supply remains a major challenge that prevents these PHCs from performing to their full potential. Hence, this fortunate partnership between Signify and FINISH Society is a perfect answer to these timeworn issues and ensures uninterrupted power supply to maintain quality health services in these districts of Rajasthan."

Natasha Wadhwa, Head – CSR, Signify Innovations India Limited, said, "Our Swasthya Kiran CSR program aims to create safer and well-illuminated healthcare spaces. PHC's are a vital cog in the healthcare infrastructure of the country, delivering last mile healthcare services to the country's heartland. However, the poor electricity supply can really hinder their output. With our latest project, the PHC's get sustained access to electricity using solar power, which in turn significantly enhances the quality of healthcare services offered. The project has also improved the overall environment for the doctors, nurses and patients visiting the center. We are proud to associate with FINISH society for this project to light up 20 PHC's in four districts of Rajasthan".



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begins with an idea !*



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105 Lm/W



440 High Voltage sustain ability



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BIS raids in Lucknow

भारतीय मानक ब्यूरो
(उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय)
BUREAU OF INDIAN STANDARDS
Ministry of Consumer Affairs, Food & Public Distribution
लखनऊ शाखा कार्यालय
Lucknow Branch Office

प्रेस विज्ञप्ति

भारतीय मानक ब्यूरो के प्रमाणन चिन्ह के दुरुपयोग तथा बी.आई.एस. एक्ट, 2016 के उल्लंघन पर अंकुश लगाने के प्रयास पर कार्यान्वयन हेतु दिनांक 17.02.2023 को भारतीय मानक ब्यूरो के लखनऊ शाखा कार्यालय द्वारा लखनऊ जनपद में स्थानीय पुलिस की सहायता से गारे छापे के दौरान इकाई से आवश्यक साक्ष्य प्राप्त किए गए। इन साक्ष्यों के आधार पर उत्पाद इकाई के विरुद्ध सक्षम न्यायालय में दंडात्मक कार्यवाही की प्रक्रिया प्रारम्भ की जाएगी। छापे के दौरान पकड़े गए उत्पादन इकाई तथा संबंधित उत्पाद विवरण निम्नानुसार है -

इकाई का नाम - मेसर्स महादेव इण्टरप्राइजेज, नाका हिण्डोला, लखनऊ

उत्पाद - सेल्फ वॉलास्टेड एल.ई.डी. लैम्प (ग्रैंड किंग)

भारतीय मानक ब्यूरो, लखनऊ शाखा कार्यालय के प्रमुख श्री ए के महाराणा के निर्देशानुसार अधिकारियों श्री मोहम्मद रिजवान, वैज्ञानिक डी/संयुक्त निदेशक, श्री अभिषेक कुमार, वैज्ञानिक - सी/उपनिदेशक और टीम ने स्थानीय पुलिस के सहयोग के साथ, पूरे उत्तरदायित्व के साथ अंजाम दिया एवं साथ ही प्रमुख ने सूचित किया कि शाखा कार्यालय द्वारा इस प्रकार की कार्यवाही आगे भी की जाती रहेगी ताकि भारतीय मानक प्रमाणन चिन्ह पर जनसाधारण का विश्वास बना रहे तथा आम उपभोक्ता के अधिकारों की सुचारु रूप से रक्षा की जा सके।

उपरोक्त अधिकारियों ने सभी उपभोक्ताओं से अनुरोध किया है कि अपने अधिकारों के प्रति पूर्ण रूप से जागरूक रहें तथा जहां कहीं भी उन्हें भारतीय मानक ब्यूरो के प्रमाणन चिन्ह के दुरुपयोग का संदेह हो, उसकी सूचना तुरंत भारतीय मानक ब्यूरो के ब्लाक बी-2, चतुर्थ तल, पिकप भवन, विभूति खण्ड, गोमती नगर, लखनऊ स्थित कार्यालय, तथा भारतीय मानक ब्यूरो के आई केयर एप पर सूचित करें ताकि ऐसी इकाईयों के विरुद्ध दंडात्मक कार्यवाही की जा सके।

वीथी तल, बी2 ब्लॉक, पिकप भवन, विभूति खंड लखनऊ - 226010, दूरभाष : 0522 2306664
4th Floor, B2 Block, Picupbhawan, Vibhulikhand Lucknow - 226010, Tel : 0522 2306664



 **हिन्दुस्तान**

लखनऊ, शनिवार, 18 फरवरी 2023 **08**



भारतीय मानक ब्यूरो लखनऊ शाखा कार्यालय ने मेसर्स महादेव इंटरप्राइजेज नाका हिंदोला में छापे के दौरान पकड़े गए उत्पादक।

बिना रजिस्ट्रेशन मार्क के बेच रहे थे एलईडी

लखनऊ। भारतीय मानक ब्यूरो (बीआईएस) प्रमाणन चिन्ह के दुरुपयोग को लेकर शुक्रवार को छापेमार कार्रवाई की। पुलिस के साथ बीआईएस के अधिकारियों ने नाका हिंदोला स्थित महादेव इंटरप्राइजेज पर छापे मारा। यहां इलेक्ट्रॉनिक उत्पाद सेल्फ वॉलास्टेड एलईडी लैम्प (किंग ग्रैंड) बिना रजिस्ट्रेशन मार्क के बेचा जा रहा था। जहाँ बीआईएस एक्ट का उल्लंघन है। बीआईएस शाखा के प्रमुख एके महाराणा ने बताया कि यहां मिले 30 एलईडी लैम्प को सीज कर दिया गया है।

Rising India Summit: It's time for India to become a manufacturing hub



The two day Rising India : Real Heroes summit held on 29 - 30 March, celebrated the real thought leaders and gems of India whose journeys are an inspiration to the nation. Hon, Vice President of India, Sh Jagdeep Dhankar, Minister of Defence, Sh, Rajnath Singh, Home Minister Sh Amit Shah, Minister of Road Transport and Highways Sh Nitin Gadkari, Minister of External Affairs Dr. S Jaishankar, Minister of Commerce and Industry Sh Piyush Goyal and many other ministers, entrepreneurs and thought leaders took part in this two day event.

Mr. Sunil Vachani, Founder and Chairman, Dixon Technologies was invited to

tell those present about his opinion on the future of Industry in India. Mr Vachani said that everybody is convinced that this is our time to make India next hub for manufacturing, not only for the domestic market, but also for the global markets. He emphasized on three major issues that need to be addressed in order to make India a global economy. Firstly, he said that India has to become a high scale manufacturing hub. This means that India needs to have large scale units to be able to meet global demand. Secondly, India needs to develop a very vibrant eco system to provide high quality components to be able to make the final products in India. And thirdly, the most important aspect required is to design the products in India. This will give a great thrust to exports because India would then be able to make customized products for global markets. Mr Vachani's ideas were well received by the delegates including government representatives and policy decision makers from various departments.

Standards and Regulations Update

Scope of Labeling Scheme and Star Rating upgraded



In a recent meeting with industry members, BIS and other stakeholders, Bureau of Energy Efficiency, it was discussed that existing scope of the star rating scheme is being revised. Earlier the scope of this scheme was applicable to lamps between 3W and 25W, but from 1 July 2023, it will be applicable from 3W to 35W, therefore aligning the wattages with the related IS standards.

BEE has also revised the Standard and Labelling scheme (S&L) star ratings effective 1 July 2023. The current BEE Labelling scheme and star ratings are going to expire on 30 June 2023.

Under S&L scheme the star ratings will be upgraded based on lm/W criteria. The comparative table is given below for ready reference.

BEE will allow the existing users to opt for the degradation process, under which they may degrade their product star ratings as per the revised table. It was also discussed that BEE will not freeze 1 star (≥ 90 and < 105 lm/W). Currently 1 star rating is under freeze state within the label period which expires on 30 June 2023.

Star Rating Band	Applicable till 30 June 2023	Effective from 1 July 2023
	Luminous Efficacy	Luminous Efficacy
1 Star *	≥ 79 and < 90 – Freeze	≥ 90 and < 105
2 Star **	≥ 90 and < 105	≥ 105 and < 120
3 Star ***	≥ 105 and < 120	≥ 120 and < 135
4 Star ****	≥ 120 and < 135	≥ 135 and < 150
5 Star *****	≥ 135	≥ 150



Implementation of QR Code

BEE had called a separate meeting to understand the challenges for putting the QR code on the products where representatives of the industry shared that due to small size of some products it may be a challenge to implement QR codes. Further, the manufacturing set up of all OEMs, etc would also need to be

upgraded and aligned to affix the QR code on the products. BEE agreed that they will publish a gazette notification for implementation of QR Code, and sufficient time will be provided for its adoption. This QR Code will take the consumers on web page of BEE. This will also help to reduce the numbers of spurious products.



E waste Management Rule, 2022



CPCB recently published the draft “End of life for the products listed in e-waste Management Rule-2022”. Now CPCB is

in process of updating their e-portal for producers to apply for EPR Authorizations aligned with their end of life. End of life for different categories

are listed as below:

** For more details on all the categories pls refer to the “Draft Average life proposed for the notified Electrical and Electronic Equipment (EEE) items under the E-Waste (Management) Rules, 2022” published by CPCB.

This rule is applicable from 1 April 2023. Producers can visit the portal and apply for EPR authorization after Company registration along with the submission of IEC/ GST certificate. The website link is <https://eprewastecpcb.in>

Categories of electrical and electronic equipment	Electrical and Electronic Equipment code	Average Life in Years
Luminaires for fluorescent lamps with the exception of luminaires in households	CEEW15	2 Years
High intensity discharge lamps, including pressure sodium lamps and metal halide lamps	CEEW16	2 Years
Low pressure sodium lamps	CEEW17	2 Years
Other lighting or equipment for the purpose of spreading or controlling light excluding filament bulbs	CEEW18	LED used by Consumers: 3 Years LED used for Professional purpose: 5 Years

AUTHOR : SANTOSH AGNIHOTRI (CHAIRPERSON, ELCOMA TECHNICAL COMMITTEE), GENERAL MANAGER-QUALITY & TECHNICAL, ORIENT ELECTRIC LIMITED

Views expressed in this article are those of the contributors and do not necessarily reflect those of the editors or publishers

Surya Roshni wins “The Best of North-Awards 2022” at the e4m Pride of India Brands 2023



thank e4m leadership for acknowledging our efforts in keeping up pace with our consumers' expectations. Surya has always strived to keep its ears to the ground, while making significant investments in its innovation

One of the front-runners in Lighting, Consumer Durables, Steel Pipes, and Strips industries, Surya Roshni has a powerful presence in the market with a vast distribution network, sprawling across the length and breadth of the country, covering best-in-class products for all. It has recently bagged "The Best of North - Awards 2022" by the exchange4media (e4M) & Pride of India Brands 2023.

The ceremony was held at The Leela Hotel Gurugram, to celebrate and honour entrepreneurs who built successful brands in Bharat for Bharat. The company's CEO of Lighting and Consumer Durables, Mr. Jitendra Agrawal received the award on behalf of Surya Roshni

“We are delighted to receive this prestigious award, and I would like to

capabilities and manufacturing excellence with the largest footprint in lighting and one of the largest distribution networks, thereby serving both the urban and rural consumers. I'm glad to have been a part of the e4m Panel Discussion, which wrapped around how our Brands of Bharat are contributing towards India's growth trajectory..”

Global Lighting Association (GLA) Announces Appointment Of New Secretary

GLA announced that the Company's Board of Directors has appointed Gerald Strickland as Secretary General of the Global Lighting Association, effective 1st January 2023. Gerald has over 20 years of experience advising and supporting regional lighting industry associations and regulators in the alignment of international energy efficiency and environmental regulations

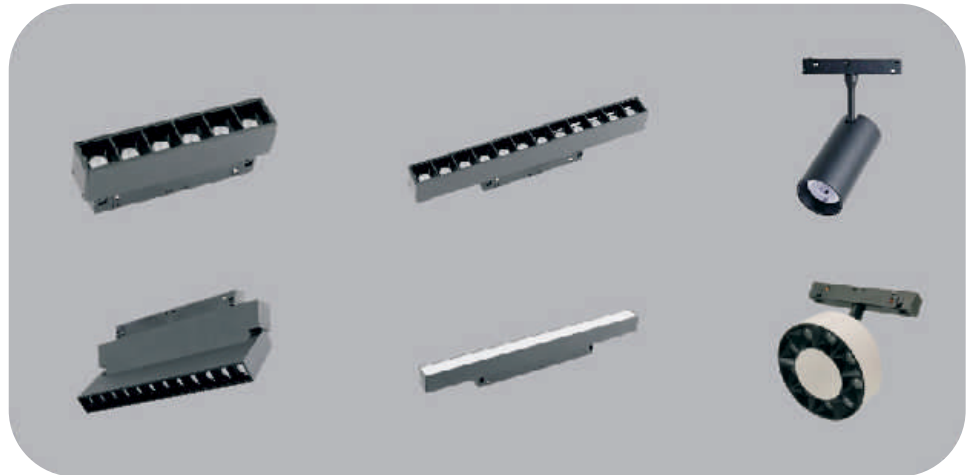
with a focus on the lighting sector. On behalf of a number of regional lighting associations, he has played a key role in securing mandatory legislation for the phase out of inefficient lighting across the European Union and in the Middle East and Africa regions. He has served as an advisor to the Australian Department of Climate Change & Energy Efficiency, the National Reform & Development Commission of the

People's Republic of China, the UN Environment & Development Programs, the World Bank, the International Energy Agency and numerous leading international lighting manufacturers.



Luker launches FUOCO Magnetic LED track lights

Luker has launched FUOCO Magnetic LED track lights. Luker spot track lights and magnetic track lights are popular lighting solutions that provide numerous benefits in various settings, including homes, offices and retail spaces. They are energy-efficient, long-lasting and come in various designs and colours, making them suitable for any design style. They are suitable for various settings and can enhance the aesthetics of any space while providing energy-efficient and cost-effective lighting solutions.



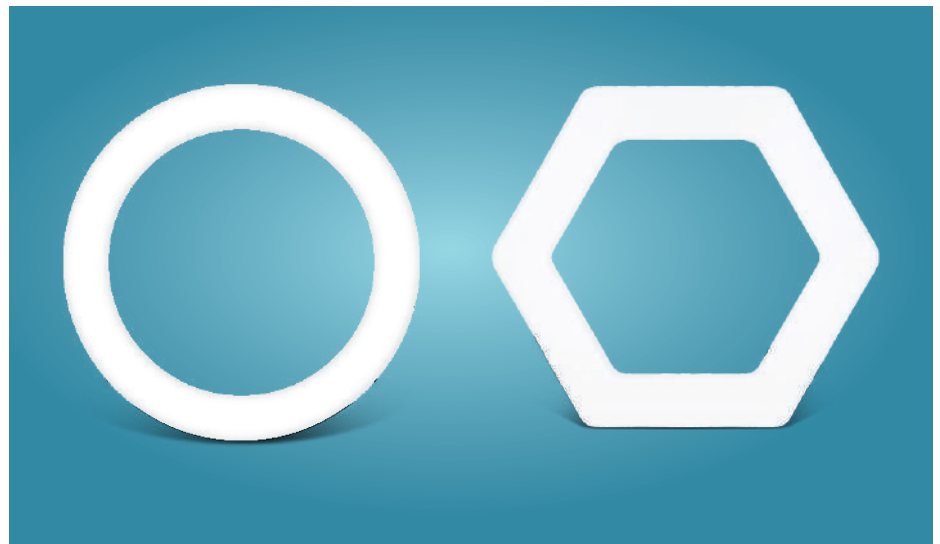
Signify launches uniquely shaped Philips O Bulb and Hexa Bulb

Signify has launched two uniquely shaped LED bulbs in India, called Philips Hexa Bulb and O Bulb. The hexagonal and circular shaped bulbs can be used as decorative lights to lend an elegant touch to indoor space and create the perfect ambience.

Both the bulbs have a simple plug-n-play form that can be easily installed into existing LED bulb sockets.

Designed to be comfortable for the eyes, the bulbs also offer a wider light spread as compared to regular round-shaped LED bulbs.

Commenting on the launch, Sumit Joshi, CEO & Managing Director, Signify (South Asia) said, "As the global leader in lighting, Signify has always been the pioneer in innovation. After successfully creating the T-Bulb category in India, we are delighted to launch our latest range of innovatively shaped LED bulbs -



Philips Hexa bulb and O bulb. Their sleek design can elevate your home interiors while also being gentle on your eyes, thanks to our EyeComfort Technology."

Philips Hexa bulb is available in a 16W,

1500 lumen variant and Philips O Bulb is currently available in a 20W, 1800 lumens variant. Both bulbs are available in cool and warm white colors, across all small and large format retail stores and e-commerce platforms.

Orient Launches Venus Green Recess Panel

Orient Electric has expanded its panel range by launching Venus Green recess Panel with deep reflectors which provide the glare free illumination to consumer to carry on with their work in relaxed environment without any hassle. These panels are designed and manufactured in India with high lumen efficacy (100 Lumen /Watt). These panels are perfect to use in modern spaces like offices, showrooms, art galleries and hotels.

Venus Green Recess Panels are available in 3 ratings (5W, 10W & 15W) with 3 different color options (cool white, natural white and warm white) with external driver to withstand hard field conditions like 4KV surge and 440 VAC supply.

Venus Green Recess Panels are available in recess type and are suitable for false ceiling with cutout option of 3 inches, 4 inches and 6 inches.



LEDVANCE Launches DT6 and DT8 range of DALI Drivers

LEDVANCE recently launched its comprehensive range of DALI – DT-6 and DT-8 drivers. This is one of the most comprehensive ranges of DALI drivers on the market today, featuring several highly optimized LED Driver models in power output ranging from 26W to 150W and very low ripple. These drivers are available in a) Constant Current with current selection and b) Constant Voltage topologies. The Constant Current drivers offer current selection through 8 step dip-selection.

The LEDVANCE DALI range offers the best compatibility experience for installers and the drivers work with most leading DALI sensors and support DALI 2.0 as well. The DALI range offers superb performance with efficiency up to 88% typical dimming and CCT tunability.

LEDVANCE DALI drivers are highly reliable and energy efficient and have built-in energy-saving features, such as automatic dimming and occupancy



sensing, which can help reduce energy consumption and lower operating costs. These DALI drivers are also compatible with a wide range of lighting fixtures, making them an attractive option for retrofitting existing lighting systems.

Flexible and scalable, LEDVANCE DALI drivers allow precise control of

individual lighting fixtures in a variety of settings, such as offices, retail spaces, and homes. These drivers also support advanced lighting features, such as color temperature control and dynamic lighting effects, which can help create a more comfortable and engaging environment for users.

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*ELCOMA Member's Directory
for year 2022-2023 is now
released. Interested stake
holders may write for a free
copy to
deepakkumar@elcomaindia.com*

The advertisement features the ELCOMA logo at the top, with the text 'Electric Lamp & Component Manufacturers' Association of India' and 'MEMBERS' DIRECTORY 2022-23'. Below this is the LEDVANCE logo. The main image shows a modern office interior with a large circular light fixture. Text below the image reads 'LEDVANCE BIOLUX HUMAN CENTRIC LIGHTING' and 'LIGHTING THAT FOCUSES ON WELL-BEING'. At the bottom, there is a QR code and the text 'LEDVANCE PRIVATE LIMITED'.

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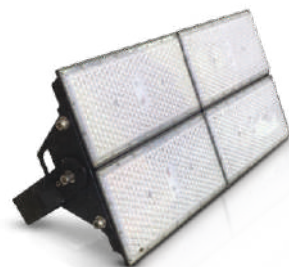


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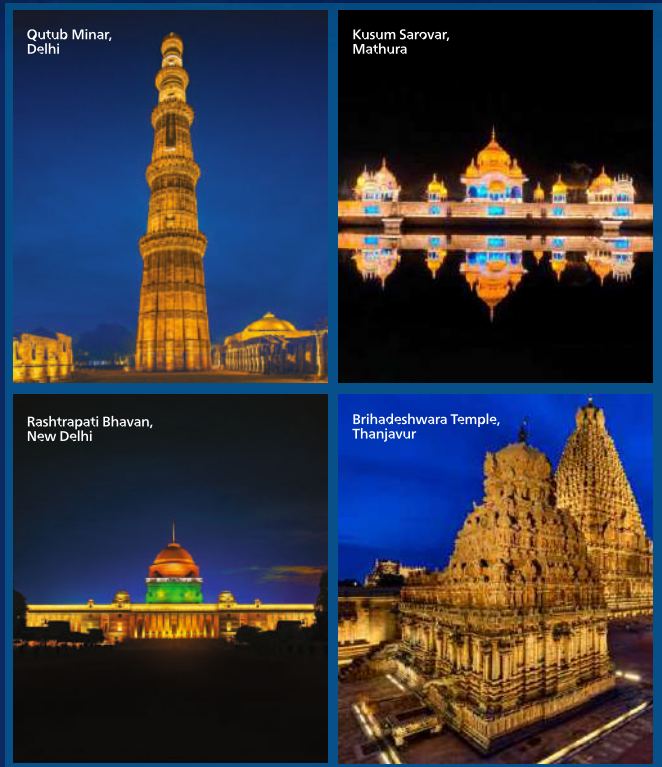
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