VOL.3 Issue 3

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IllumiNation

JULY - SEP 2021

THE LIGHTING MAGAZINE BY ELCOMA

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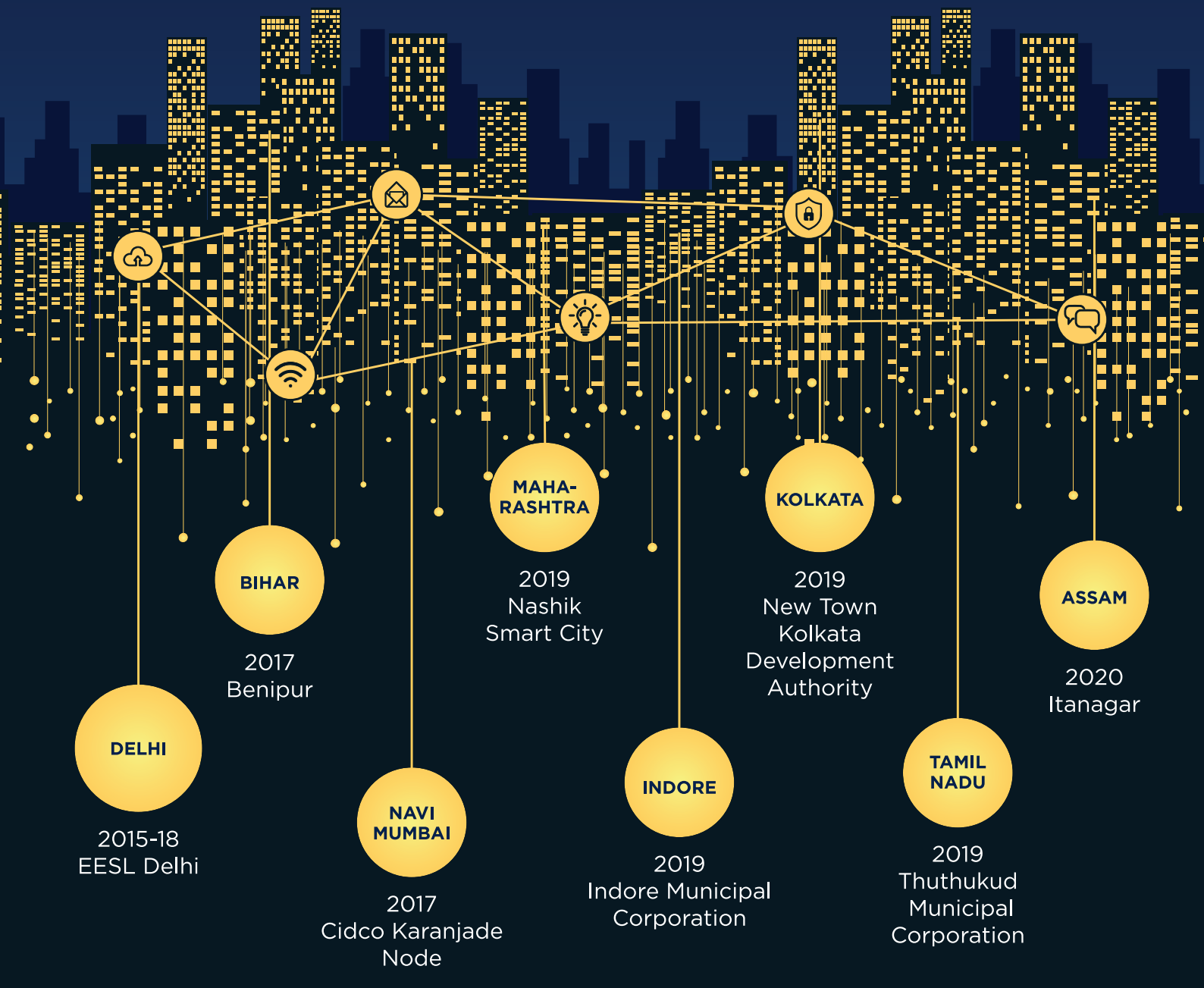

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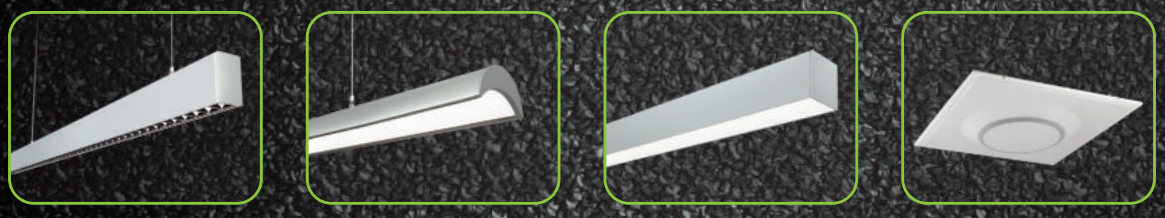

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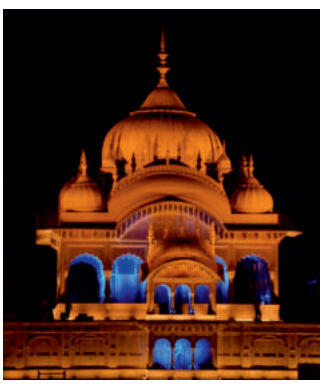

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PUBLISHER
Shyam Sujan
Electric Lamp and Component Manufacturers' Association of India
122, 1st Floor, DLF Tower-A, Jasola District Centre, Jasola Vihar, New Delhi -110025
Tel: +91-11-41556644/46604947

EDITOR
Shyam Sujan,
Secretary General, ELCOMA

EDITORIAL BOARD
Sudeshna Mukhopadhyay
Amal Sengupta
Krishan Sujan
Natasha Tandon
Jayaganesan K
Pruthwiraj Lenka
Subrata Sen

EDITORIAL CONTACT
info@elcomaindia.com

MARKETING AND ADVERTISEMENT CONTACT
Amal Sengupta
amalsengupta@elcomaindia.com

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Hope Amid the Pandemic

COVID-19 once again changed our entire lifestyle and with the second wave, a new way of living has emerged. Working from home, helping with the household chores, spending hours on online meetings and calls within the four walls of our homes again became our 'new normal'. Again we were able to spend more time with our family members and loved ones and enjoy the small pleasures of tea on the terrace, unhurried morning walks, watching TV with family and enjoying a siesta between calls.

But this time around the troubles of those that were affected by the pandemic were much closer to home. Everyone you spoke to, had a near or dear one affected by the virus and were struggling to arrange medical attention for them. My heart goes out to those who struggled during this second phase to get medicines, oxygen, hospital beds and healthcare for themselves, their family members or their friends.

It has been a trying time for a large number of urban Indians and it is now supposed that the virus is spreading to the rural hinterland of our country. To those that have little or no access to healthcare, doctors, medicines or even basic hygiene, this could be a bigger disaster waiting to unfold.

But as always there is a silver lining to each dark cloud. The number of cases have rapidly been coming down and as quickly as the second wave spread, it is subsiding almost as fast. The unlock procedures are now being put in place and soon we should see businesses back to normal. Most manufacturing units have resumed production, workers are slowly coming back to work and offices are reopening with limited personnel.

But it is not the time yet to assume the worst is behind us. It is more important now to be careful, to observe COVID hygiene, to wear a mask and to get vaccinated, in order to prevent the third wave of COVID hitting us. With billions of dollars lost by all businesses across the world till date to the pandemic, India can ill afford a third lockdown.

IllumiNation wishes to convey its heartfelt condolences to those ELCOMA members and families who lost their family members, employees and workers during the COVID19 pandemic. We are dedicating a page in memoriam of these departed souls in this issue of the magazine.

Please get vaccinated and stay safe.

SHYAM SUJAN
Secretary General
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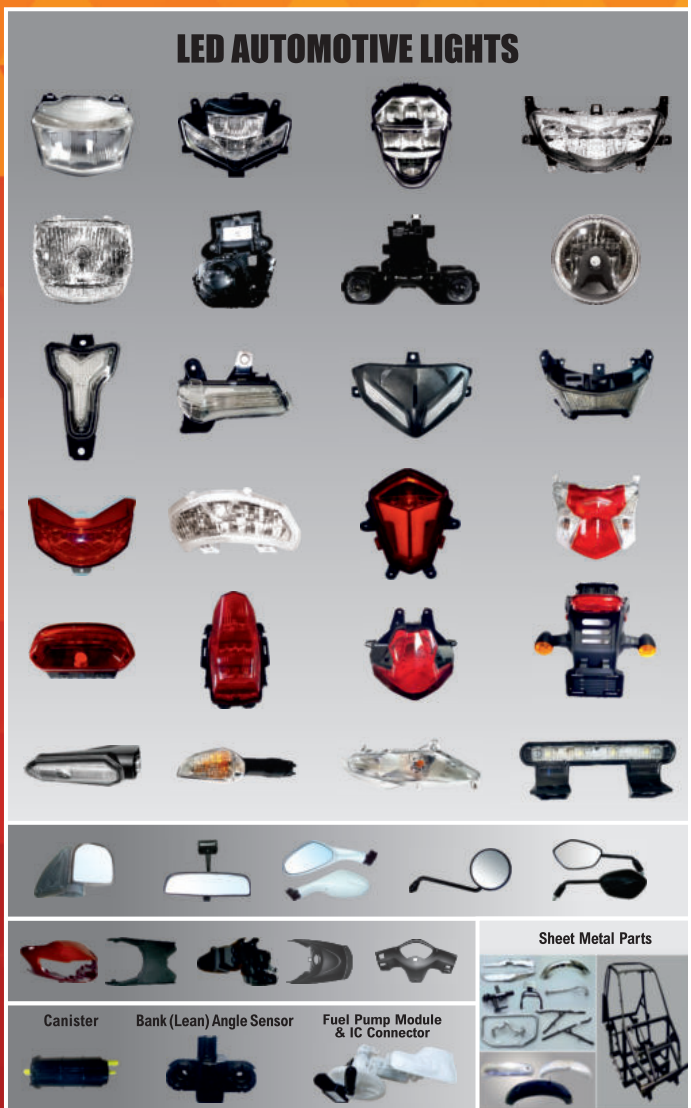

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The Future is Bright

The last few months have been very distressing for our country since the start of the COVID-19 pandemic last year. The so called 'second wave' of the pandemic severely disturbed the economic and social fabric of our entire country, as daily cases hit an all-time high number since March 2020. Our healthcare system underwent an unprecedented crisis due to the burgeoning number of cases and lack of adequate infrastructure like hospital beds, oxygen supplies and medicines.

Several state governments announced lockdowns to contain the spread of the pandemic, and this in turn affected all industries including ours. ELCOMA fully endorsed this move from the administration to contain the proliferation of COVID-19 cases and I am proud to say that all ELCOMA members supported this unequivocally. Despite facing financial losses during the lockdown, they prioritized their employees above all else and gave them full compensation for this period and offered extensive support in the form of medicines, oxygen concentrators and other assistance as necessary.

The silver lining amidst all this gloom is that the agricultural sector in the country has remained largely unaffected by COVID-19 and monsoon rains that were adequate last year are predicted to be on track this year as well. It is estimated that the Indian agricultural sector will grow by 27% this year, which will help boost rural demand and purchasing power. On the manufacturing side, the Indian government's Aatmanirbhar Bharat initiative launched earlier this year, has been a welcome move at the right time, as the industry has been preparing for it since a long time. ELCOMA has already prepared a Vision 2024 plan to initiate manufacturing and export of lighting products on a large scale by the year 2024. All our members are supporting this initiative and I am confident that as an industry we will be able to achieve more than the projections.

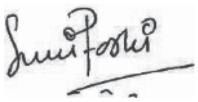
Considering the several reports predicting a potential third wave of COVID-19 pandemic hitting the country over the next few months, we encourage all ELCOMA members to proactively work with our scientific community, health departments and other stakeholders of the Indian Government to install UV-C based air disinfection systems in indoor environments, especially in the critical healthcare facilities that need to be operational even in lockdown situations. The UV-C based disinfection system has been proven to inactivate all known pathogens in the past and is now also proven to inactivate SARS CoV-2. As an industry, we should leverage our knowledge and expertise of UV-C lighting to safeguard our surroundings.

Despite its large scale, the lighting industry faces a shortage of trained lighting professionals as currently there are no undergraduate courses that offer lighting as a core subject. Till the time such educational courses are not offered by any institute, ELCOMA is committed to skilling aspiring individuals wanting to build a career in the lighting industry by organizing training programs along with knowledge partners from the industry to impart the domain knowledge of the lighting sector.

The PLI scheme for LEDs has finally come through after several rounds of deliberations happened between ELCOMA members, DPIIT, CII, FICCI etc. and I see it as a positive step towards strengthening of component manufacturing eco-system within country resulting in long term benefits to the LED lighting industry.

I am very optimistic that our lighting industry will become a core industry not only in India, but around the world soon, thanks to our innovative products and solutions that can bring newer experiences to consumers.

With best wishes



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Building the Most Trusted Indian Lighting Brand

IllumiNation chats with Sh. J. P. Agarwal, Chairman, Surya Roshni

IllumiNation chats with Mr. Agarwal, on his entrepreneurial journey from manufacturing of Steel pipes to Electrical Bulbs, Luminaires, Appliances, plastic pipes, and his vision of manufacturing LED products on a large scale and meeting the national mission of Atmanirbhar in all product lines.

Surya was a pioneer in Steel Pipes manufacturing, which was a very lucrative business. How did the company decide to enter into the Lighting Segment, which had low priced and low margin products?

In the year 1984, Surya's lighting business was started with the dream of 'Lighting Every City, Every Home'. We strongly believed that by entering lighting business we could contribute to the development of the nation. Almost four decades down the line, Surya is proud to be one of the leading brands in the lighting industry. LED technology has opened up new frontiers in Lighting and Surya has fully capitalized on the opportunity.

How did you script the success story for the lighting business at Surya?

Surya is ranked as one of the most trusted brands in India for lighting products. The story began in 1984, when we launched our lighting business in India. We have followed a strategy of backward integration and strong corporate governance. We built a world class manufacturing infrastructure, with fully integrated plants in Kashipur (Uttarakhand) and Gwalior (M.P.), with the latest and best technology imported from around the world. We also built the largest glass plant in Asia. This is complemented by a state-of-the-art R&D center at Noida. We also built a very strong distribution network across the length and breadth of India and have a strong and dedicated team working in the company. We have always taken good care of our customers and dealers. We have built a very strong, trusted brand. Our success has been due to a clear vision, investments in technology, manufacturing, R&D and of course hard work in the market.

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

Indian engineers and R&D personnel are truly world class. In many ways India is leading the world in innovation. As an industry, we need to build scale in finished products and components, so that we are competitive. The PLI scheme for LED Lighting launched by the Government is an important step in that direction.

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?

Selling of this kind of products is an insult to Indian consumers. As an industry, we need to crack down on this, so that consumers are not cheated. Several Government initiatives have also been taken in recent years to curb this menace. Surya is committed to offering consumers high quality products at reasonable prices.

How do you plan to participate in the Government's Atmanirbhar program where there is a push to enhance localization of components specifically to the Lighting Industry?

Surya is a proud Indian company. We have local manufacturing units and continue to invest in local-for-local production. We have always participated in any Government initiative for the betterment of Indian industry and will always continue to do so.

How is Surya Roshni gearing up for the next generation of lighting products given that the success of LED Lighting business will also depend on a strong R&D set up and capability to develop newer designs with speed?

Counted amongst one of the top lighting R&D centers in India, the Surya Technology and Innovation Centre (STIC) at Noida caters to Photometric, Electrical, Mechanical, Environmental, and Endurance test requirements for development of latest generation energy-saving lamps and luminaires. Additionally, the STIC is also being used to carry out Photometric Optical Testing. STIC houses the Mirror Goniophotometer from LMT, Germany, an equipment for precise and accurate measurement of the distribution of light in the lamps, luminaires and LED chips, which can be found in technological centers of some of the leading lighting companies in the world. STIC has approvals from DSIR, Govt. of India and accreditation from NABL. Our team also keeps visiting exhibitions and displays of technology and products to stay abreast with the latest technology trends.

Do you have any plans to expand your manufacturing facilities?

We are continuously investing in our

Sh. J. P. Agarwal has been the Chairman of Surya Roshni since January 2012, before which he held the role of Chairman and Managing Director. Mr. Agarwal has also served as an Executive Director at Jindal Industries Limited. He received his undergraduate degree from the University of Calcutta and an MBA from Swinburne University of Technology. A staunch believer in the power that India represents, he spends a lot of time on philanthropy and provides educational support to many needy students. He was awarded the Padma Shri in 2020 for his contribution to the industry.

manufacturing facilities, for both Lighting and Steel. We also plan to add some new categories in Lighting and Consumer Durables in the coming months and years.

How has the COVID pandemic impacted your organization? How did you overcome the challenge of dealing with staff and workers due to lock down?

In this pandemic situation, Surya Roshni took it as an opportunity to drive efficiency, cut costs and further improve our Working Capital management. We did well in a very difficult situation. Surya has fully supported all of its staff and employees in this tough period. Business was impacted during the lockdowns across the country, but we leveraged technology to enable our teams to work effectively from home. Even for society we played a part in our own way by converting our existing facilities to help produce medical oxygen for people in need at our Malanpur (Gwalior) Plant. For some time, the Malanpur Plant stopped the production of Lighting completely and started filling and supplying all the available cylinders to the maximum possible by working 24/7. With such steps, so far we have supplied over 13,400 cylinders, equivalent to 8 tankers of oxygen, to all the nearby districts hospitals, absolutely free of cost.

The diverse working environment has made you a man of strong personality. What will be your message to youth of today?

My message to the youth of today would be to continuously work for the development of India, and to respect your elders. Hard work always pays off. Don't be afraid of trying new things.

IN A LIGHTER VEIN

Favourite Food	:	Being an ardent follower of naturopathy, my favourite food is sprouts, raw vegetables & fruits.
Favorite Holiday Destination	:	Anywhere in the hills with a peaceful environment.
Which is/are your favourite restaurant/s?	:	I have been patronizing Mainland China and Little Italy for years.

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

My day starts with meditation & Yoga sessions, and ends with Yoga and meditation sessions, with physiotherapy in between.

Who is your inspiration in life?

There are many great personalities who have inspired me, including Swami Vivekananda, Lee Iacocca and S. N. Goenka of Vipassana.

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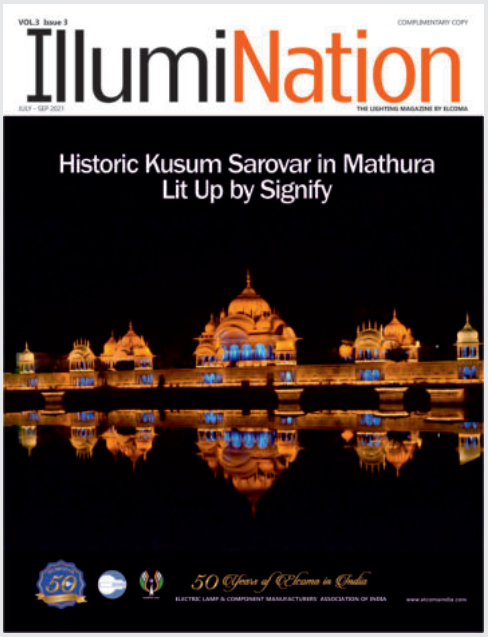

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Driving Indian Manufacturing

IllumiNation chats with Sh. Saurabh Gaur, IAS, Jt Secy, MeitY on the government perspective on promoting manufacturing in India

What kind of challenges do you foresee in promoting the manufacturing of electronic components in India?

Most of the components are covered under the ITA agreement zero duty treatment. Hence, it is not feasible to bring back the component ecosystem through the duty protection route. Wherever it is possible to impose BCD on components, it has been considered. However, this can provide only limited protection as it leads to increase the price of finished products, making them non-competitive.

Thus, what is required going forward is trying to achieve two goals in tandem, i.e. bringing and developing domestic manufacturing in component ecosystem and on the other hand to stay cost competitive in manufacturing finished products. Thus, PLI Scheme for Large Scale Electronic Manufacturing along with other tariff and non-tariff policy measures are required for export promotion and import substitution. These are being used to counter the disabilities that are associated with manufacturing in India.

The Second Round of the PLI Scheme for Large Scale Electronics Manufacturing was launched on 11 March, 2021 for incentivising Electronic Components. Through this scheme over the next 4 years, the approved electronic component manufacturers are expected to generate a total production of upto INR 12,432 crore and this is expected to bring an additional investment in electronics manufacturing to the tune of INR 573 crore.

The Production Linked Incentives (PLI) is more directed towards supporting the component manufacturing. Do you think this is a right decision? Should it not be provided to manufacturers of finished products, as well?

The PLI Scheme for Large Scale Electronics Manufacturing has targeted segments such as Mobile phone and

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Electronic Components while another PLI Scheme for IT Hardware targets segments like Laptops, Tablets, All-in-one PCs and Servers. Thus, these schemes cover both components and finished products. Further, out of the total 45 plus companies in these PLI schemes a significant turnover and investments are being driven by finished products manufacturers itself. Entire value chain of manufacturing in Electronics Manufacturing is being targeted through these Schemes.

In addition, a dedicated scheme named Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS) will provide financial incentive of 25% on capital expenditure for the identified list of electronic goods that comprise downstream value chain of electronic products.

ELCOMA has collaborated with several International Lighting associations for technology exchange and business development. Now that we are preparing for exports, will your ministry be able to extend support, and to what extent?

The Mobile and Electronic Devices Exports Promotion Council (approved by Hon'ble CIM and to be housed in MeitY) is in the process of being incorporated to promote export of all types of mobile devices and electronic components by extending support to the manufacturers/exporters on aspects such as market price, market preferences and latest designs prevalent in the foreign countries; tariff and other restrictive practices of importing countries; knowledge about the product range and export prices; acceptable international standards and specifications; promotion in foreign countries; etc.

The implementation of regulations is very weak in India. In spite of CRO and mandatory standards, still about 36% market is surviving without any fear. What can you do to ensure that at least 90% market is CRO compliant?

The Government is working on the strict enforcement of the regulation. In this direction, the random surveillance for LED products at border points was enabled in September 2020. The surveillance is also being revamped under the ambit of 'Electronics and IT Goods (Requirement of Compulsory Registration) Order 2021.'

How would you rate our Indian engineers and R&D personnel when compared to these international teams?

R&D leads to innovation and generation of Intellectual Properties, which act as the foundation for the growth of ESDM industries. MeitY has setup various Center of Excellences (CoEs) in the ESDM sector with the support of different IITs for carrying out functional research and to promote start-up ecosystem. The CoEs along with MeitY Start-up Hub (MSH) have also been launching various innovation challenges for promoting innovations, R&D across academics, start-ups, industries etc.

Where do you think our Indian industry needs to improve most to come at par with International giants?

Though the Indian Electronics manufacturing industry had been growing at a CAGR of 23% Y-o-Y, the potential for growth for the sector is much higher.

In order to make the Indian industry come at par with the international giants, the industry needs to have a robust electronics ecosystem in the country. This ecosystem would help to attract and make it convenient for international giants to procure components locally and thus make India their manufacturing base. Government of India has taken steps to develop a strong electronics ecosystem and had launched the trilogy of schemes in April 2020. Subsequently the PLI for IT Hardware scheme was launched in March 2021. It can be said that the sector is on track to achieve the target of USD 400 billion by 2025 as envisaged by the National Electronics Policy 2019.

Lighting Industry does not appear in any Core sector. It is forced to be part of Electronics or sometimes Electrical. Lighting is a different technology that require full and separate attention to develop. What in your opinion should the government be doing to actually promote the Lighting Industry as a separate sector?

A decision may be taken in this regard.

From your perspective how has the COVID pandemic impacted the Indian economy? What are the new plans to revive the economy and overcome the challenge of COVID?

The COVID pandemic wreaked havoc in most countries and India had to bear the brunt of it as well. Government of India could anticipate that the Indian economy would need some boost to come out of this predicament. MeitY had launched 4 schemes since April 2020 which would enhance Electronics manufacturing in the country and provide the needed impetus for recovery from the pandemic. A collective incentive of about INR 51 thousand crore (USD 6.8 bn) is expected to be pumped into the electronics manufacturing sector as incentives in the next 5 years. This would in turn attract investments of INR 33673 crore (USD 4.48 bn) and create over 4 lakh direct jobs in the country.

The schemes saw participation from both global and domestic champions companies and thus laid the foundation for creating a robust electronics ecosystem in India. It can be fairly estimated that the cumulative effects of the Government would help India recover from the pandemic in a very short period.

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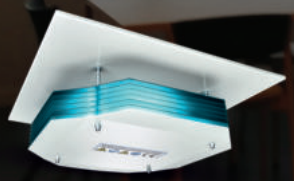
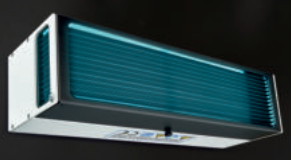
with Philips UV-C disinfection upper air luminaires

Philips UV-C products are proven to inactivate 99.99% COVID-19 virus*



Philips UV-C disinfection upper air ceiling mounted



Philips UV-C disinfection upper air wall mounted

Trusted
35 years of experience in UV-C lighting and strong application expertise

Effective
No known pathogen is resistant to UV-C radiation

Fast
Can inactivate harmful pathogens within 10 minutes

Versatile
Can be used in numerous applications

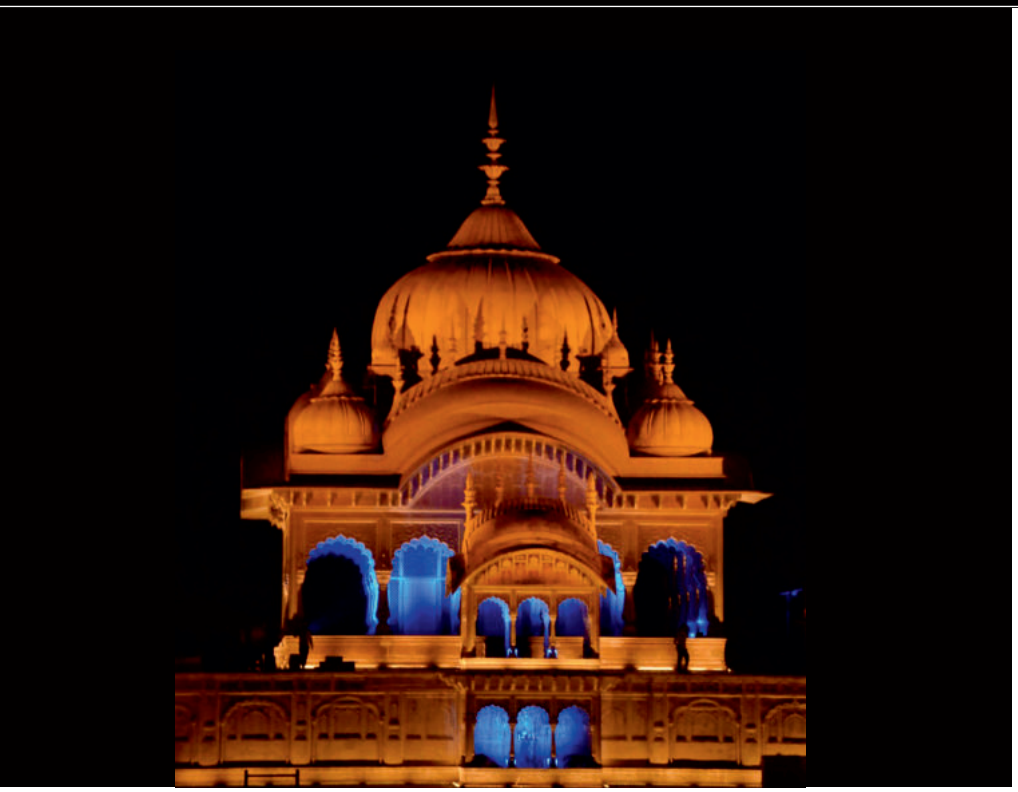
Effective against COVID-19 virus

Research by Innovative Bioanalysis validates Philips UV-C disinfection upper air wall mounted luminaires inactivated 99.99% of SARS-COV-2 virus, in the air of a room within 10 minutes.

*Disclaimer: A dose of 22ml/cm2 will result in reduction of 99.9999% in 25 seconds. For more details, visit our website. Research conducted by National Emerging Infectious Disease Laboratories (NEIDL) at Boston University in June '20.

Kusum Sarovar glows with white LED lighting from Signify

The 18th Century Kusum Sarovar complex in the historic town of Mathura in Uttar Pradesh is illuminated by Signify India using its Color Kinetics Monochrome White LED system



Signify has illuminated the Kusum Sarovar complex in the historic town of Mathura in Uttar Pradesh, India using its Color Kinetics Monochrome White LED system. Signify provided 618 LED light points in warm white color to enhance the architectural features of the historical complex to help encourage night tourism. The project has been executed by the company in collaboration with the Uttar Pradesh Tourism Department and Architect Design Associates.

Kusum Sarovar is an important cultural icon for Mathura's citizens and pilgrims. The sandstone monument was built in the 18th century by the Jat leader Maharaja Suraj Mal for his queen Kishori Rani on the holy Govardhan Hill between Manasi Ganga and Radha Kund in the Mathura District of Uttar Pradesh

in India. It is visited by millions of pilgrims each year during the annual Govardhan Parikrama pilgrimage. The historical landmark is famous for its many legends associated with the Hindu god Lord Krishna and features a canopy of Maharaja Suraj Mal, flanked on either side by two smaller canopies of his two wives. The architecture and carving are in the pierced stone style and the ceiling of cenotaphs are adorned with beautiful paintings that depict the life of Lord Krishna.

"At Signify, we are committed to helping Indian cities develop more eco-friendly tourist landmarks by using LED lighting to lower energy use and reduce operating costs. The Kusum Sarovar complex is a historically significant landmark that has deep ties with the holy city of Mathura. We are proud to be a part of this project that will help bring to life the beauty and glory of this monument, using our Color Kinetics solution"

The lighting has been carefully designed to highlight the various architectural accents in this ancient complex giving visitors an unparalleled view of its opulent architecture, domes, ornate columns, gardens and the lake at night. The multiple shades of white light and narrow beam lenses highlight its various architectural features and the water body. The interactions between the lighting, the water and the monument create a visually invigorating experience for a visitor right from the entry of the complex and help create a narrative that emphasizes the mythological significance of the site.

"At Signify, we are committed to helping Indian cities develop more eco-friendly tourist landmarks by using LED lighting to lower energy use and reduce operating costs. The Kusum Sarovar complex is a historically significant landmark that has deep ties with the holy city of Mathura. We are proud to be a part of this project that will help bring to life the beauty and glory of this monument, using our Color Kinetics solution." says Sumit Padmakar Joshi, Vice Chairman and Managing Director of Signify's operations in India.

This latest project joins the expanding list of historical monuments Signify has previously illuminated using Color Kinetics, including Rashtrapati Bhavan, Qutub Minar, Howrah Bridge and Somnath temple amongst others.

AUTHOR : SIGNIFY INNOVATIONS INDIA LIMITED

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

DALI – the standard for digital lighting control

A primer on the DALI Protocol

Modern lighting systems must do more than just switching light on and off. Nowadays, light is one of the essential comfort features and part of an energy saving concept in varied applications. The most important thing is to create a personalized lighting situation (lighting scenes) that can be stored and recalled, possibly with integrated presence detector and daylight dependent control. The system must also be very easy to operate and enable feedback messages to be sent.

With traditional wiring and with analog 1-10V interface such requirements are very difficult to meet and involve a great deal of time, effort and money. A large number of components have to be used to enable a programmed scene to be changed, to provide flexible grouping at the same time and then to integrate these settings in a daylight-dependent control system.

DALI, short for Digital Addressable Lighting Interface, overcomes the gap of previous 1-10V technology and fulfills all the requirement of a digital system and provides Digital addressing, Digital Processing and Digital Communication for such systems.

WHAT IS DALI?

DALI is a two-way communication system used to standardize digital commands that are recognized by all components in the lighting system. DALI is an "open protocol", meaning it is a common platform that can be adopted by all lighting equipment manufacturers. In DALI, each device is assigned an individually controllable DALI address and it allows for devices to be grouped and controlled together. It offers intelligent room-based lighting management with low component costs and high functionality.

Simple installation - DALI is installed by using standard installation material for mains voltage. In five-wire mains cables, the two wires not needed for power supply can be used for the DALI interface, with no need to worry about the polarity.

Simple design, versatile functionality - Every LED Driver in the DALI system can be addressed individually in digital format and therefore interference-free, can belong to more than one group at the same time, can store the lighting levels for different lighting scenes and even be switched on and off digitally without the need for relays. Feedback messages from individual DALI LED Drivers are also possible (e.g. lamp faults).

Simple operation - The intelligence of the DALI system resides in the DALI controller. Automatic routines are run in the controller for detecting the connected components and addressing them. The user supplements these with simple commands using the control elements. It is just as quick and easy to change the settings and adjust them to suit new requirements.

In a DALI system, a two-wire, unpolarized bus is used for power and two-way data communication. DALI power is 16V, when there is no active communication, but the voltage level can differ depending on the data transmission. Two-way communication allows for DALI devices to send three types of commands.

WHAT CAN DALI DO?

DALI is technically managed in the open, global standard IEC 62386. The DALI Protocol is constantly evolving. In 2014 DALI was restructured and DALI-2 was released with many ease of use improvements, new commands and compatibility with control devices. With these dynamic changes to the protocol, lighting systems have become more controllable and customizable.

The DALI standard describes three basic kinds of devices namely Bus power supplies, Control gear and Control devices. Combinations of these are allowed within the same product.

Digital control of light quality with intelligent feedback

Control - Dimming curve is designed to match human-eye sensitivity and brightness perception. DALI can precisely control the light output level as well as lighting color for enhanced comfort and well-being. The lighting state can be stored as a scene and can be recalled whenever necessary. Input devices such as pushbuttons, rotary controls or touch panels offers personal control of lighting via user interfaces

Configure - DALI sensors can be used to configure the light output level based on various stimulus e.g. input from occupancy/ ambient light sensors. LED Drivers can be configured for use in Emergency Lighting too.

Query - Facility managers can get appropriate information (like luminaire info, energy & diagnostic data) for each luminaire which can be used for luminaire maintenance, enhanced asset management & performance monitoring.

DALI for color control

DALI allows precise, repeatable selection and simple control of color. It enables control of the color output of two or more lamps from DALI control gear providing smooth fading between colors and provides accurate color calibration by xy and Tc color types.

DALI for Human Centric Lighting

DALI allows building occupants to experience improved comfort and wellbeing, higher productivity, better staff retention, daylight harvesting (adjust intensity according to ambient light levels through the day) and color-temperature control (according to time of day and/or individual preference).

DALI in an IoT world

DiiA, the global DALI alliance, is taking further steps to bring the extensive benefits of DALI to the Internet of Things (IoT) world. Having established the DALI-2 certification process, which secures interoperability between DALI devices, DiiA is developing new specifications that extend the well-established DALI lighting protocol. These will create new possibilities for DALI technology in the IoT age, while making use of DALI's strength as a robust, reliable and relatively low-cost communication technology optimized for lighting applications.

ADVANTAGES OF DALI-2 OVER DALI-1

Control gear - For DALI-2, the IEC 62386 standard has been re-written, making it much clearer and more tightly specified, resulting in significantly improved product interoperability. Additionally, there has been a large increase in the amount of testing. As an example, a DALI-2 LED driver takes about three times longer to test than a DALI version 1 LED driver. This more-thorough testing results in a large increase in interoperability, with fewer problems expected in installations. Some features have also been added, the most significant being the extended fade time, allowing fades from 0.1 s up to 16 minutes.

Control devices - Control devices are new to the DALI-2 standard (IEC 62386, part 103). They were not specified in DALI version 1. Those that connected to the DALI-bus were proprietary solutions. This meant that such control devices had to be from the same manufacturer, to ensure they would work together. Whereas, The DALI-2 standard gives requirements for application controllers and input devices, allowing devices from different manufacturers to be used together on the same DALI bus.

Interoperability - DALI-2 offers full compatibility and allows all drivers (traditional/LED) & user interfaces (sensors, buttons, switches, interfaces etc.) to be mixed in projects.

Standardization - DALI-2 is a neutrally tested standard and all standard functions from all DALI suppliers work without hassles.

Compatibility - DALI-2 works with all current products based on DALI (by using the existing feature set)

Specificity - Manufacturer specific features as e.g. the way of light sensing, CLO, Corridor function etc. are still possible

Extended - Extended feature set is provided by using complete DALI-2 systems.

DALI-2 certification is driven by DiiA, the global DALI alliance that ensures interoperability through testing and certification with trademark use.

AUTHOR : PRUTHWIRAJ LENKA
HEAD OF OPERATIONS ,
DIGITAL SYSTEM
OSRAM LIGHTING PVT LTD

PLI scheme for white goods will reboot manufacturing, create capacity: Piyush Goyal

Union Commerce and Industry Minister Piyush Goyal, ahead of the opening of the three-month window for the production linked incentive (PLI) scheme for white goods, said that the scheme has been introduced to produce national manufacturing champions. During an interaction with the industry on 15 Jun 2021, Mr Goyal said that the scheme will reboot Indian manufacturing to create capacity and capability. Mr Goyal said that India's growth story will be led by its PLI scheme and that this scheme would bring cost-competitiveness, quality, efficiency and technology making India leverage its competitive and comparative advantage to stake a claim in the global supply chains.

The PLI Scheme for white goods was notified on April 16 and the guidelines were issued on June 4. The outlay for the scheme is Rs 6,238 crore for 2021-22 to 2028-29. The scheme will extend incentive of 4-6 per cent on incremental sales for five years. An outlay of Rs 1.97 lakh crore was announced in Budget 2021-22 for PLI schemes for 13 key sectors. Through PLI, minimum production is expected to be $500 billion in over five years. The ministry has claimed that PLI alone can expand a quarter of the total manufacturing output of the last five years. The government expects to generate 1 crore employment through this scheme in five years.

The interaction over the PLI scheme for white goods such as ACs and LEDs was held to take the feedback on the scheme. The hon'ble minister stated that selection of companies eligible under the scheme will be done in a transparent and time-bound manner.

Mr Sunil Vachani, Executive Chairman of Dixon Technologies represented the Lighting Industry and ELCOMA.

He told the Hon'ble Minister that the industry felt that it create the ecosystem mechanicals, MPCB, passive as well as the LED packaging in the country very quickly and that the industry is grateful that almost 87% of the components have been covered under the PLI scheme. He informed the minister that some of the components had been missed out and the industry is engaging with the team at the Commerce and Industry ministry to ensure that the components that have been missed out can also be included, such as poly capacitors, electronic capacitors and wires.

Mr Vachani assured Mr Goyal that the industry is extremely confident that with this PLI a strong components ecosystem will be developed. He informed the minister that large global players like MLS are already evaluating LED packaging in India and Chang Feng are looking at establishing large setup for mechanicals. There are also several small and medium players within country who are setting-up or expanding their existing infrastructure for other components like wires, MPCB, Bare PCBs, etc.

With the launch of the PLI scheme, the Indian Lighting Industry feels that a strong component ecosystem will be develop which will eventually strengthen the industry to become a large global player and look towards exporting multi-million dollar exports in a very short period time. He assured the Hon'ble Minister that the industry is very confident of achieving a market share of 10% in the 130 billion US$ global market from the current value addition of 25% to products, would surely increase to almost 85% in a short time.

He thanked the Hon'ble Minister for this path breaking scheme and suggested that in the future another scheme providing PLI for finished goods may be thought of. Mr Vachani assure Mr Goyal you that the Indian Lighting Industry would work extremely hard and ensure that India does become the hub of manufacturing of LED lighting.

AUTHOR: ILLUMINATION EDITORIAL BOARD

Production Linked Incentive Scheme (PLI) for LED Lights Manufacturers in India

आत्मनिर्भर भारत

The Production Linked Incentive scheme for LED lighting has been announced by Department for Promotion of Industry & Internal Trade (DPIIT) on 16th April 2021. This will boost LED lighting component manufacturing in India and will create an ecosystem by which not only our dependency on imports of components will reduce but it will also create global champions. Our estimate on local BOM percentage content which is currently at a level less than 50%, is expected to reach a level of 70% over a period of next 5 years. With no threshold limits for investment and manufacturing revenue defined, existing finished goods manufacturers can venture on component manufacturing for captive use and thus enabling backward integration in manufacturing. Brief details about the PLI Scheme notification is as given under:

TARGET SEGMENTS:

Support under the Scheme will be provided to companies/entities engaged in manufacturing of components of Air Conditioners and LED Lights in India as under:

- LED Lights
  - LED Lighting Products (Core Components like LED Chip Packaging, Resisters, Ics, Fuses and large-scale investments in other components etc.)
  - Large Investments
  - Normal Investments
- Components of LED Lighting Products (like LED Chips, LED Drivers, LED Engines, Mechanicals, Packaging, Modules, Wire Wound Inductors and other components)
  - Large Investments
  - Normal Investments

QUANTUM OF INCENTIVE:

- The PLI Scheme shall extend an incentive of 4% to 6% on incremental sales (net of taxes) over the base year of goods manufactured in India and covered under target segments, to eligible companies, for a period of five (5) years subsequent to the base year and one year of gestation period.
- The applicant will have to fulfill both criteria of cumulative incremental investment in plant and machinery as well as incremental sales over the base year in that respective year to be eligible for PLI. The first year of investment will be FY 2021-22 and the first year of incremental sale will be FY 2022-23. Actual disbursement of PLI for a respective year will be subsequent to that year.
- The Scheme is Fund Limited and even in case of over achievement the total pay-out of incentives would be capped at the amount approved by Cabinet.
- All relevant details of the Scheme, for example, base year, eligibility criteria, target segments, quantum of incentive, pre-qualification criteria for different target segments, application period, etc. will be detailed in Scheme Guidelines.

ELIGIBILITY:

- Incentive under the Scheme shall be provided to Companies making brown field or green field Investments for manufacturing in target segments in India.
- Eligibility of Companies shall be subject to their meeting the pre-qualification criteria for different target segments which will be defined in the Scheme Guidelines.
- More details are available in the notification guidelines.

TENURE OF THE SCHEME:

Support under the Scheme shall be provided for a period of five (5) years subsequent to the base year as defined and one year of gestation period for fructifying investment to be implemented over FY 2021-22 to FY 2028-29.

BASE YEAR:

- FY 2019-20 shall be treated as the base year for computation of cumulative incremental investment and incremental sales (net of taxes) of manufactured goods (as distinct from traded goods) as well as for prequalification criteria.

SELECTION OF BENEFICIARIES

- Mere assembly of finished goods shall not be incentivized.
- Selection of companies for the Scheme shall be done so as to

incentivize manufacturing of components or sub-assemblies which are not manufactured in India presently with sufficient capacity.

- Companies investing in basic/core components shall have a higher priority.

FINANCIAL OUTLAY:

- The PLI Scheme will be implemented within the overall financial limits of ₹ 6,238 Crores for implementation of the Scheme over a period of 5 years.
- Incentive per beneficiary: The incentive per beneficiary will be applicable on incremental sales (net of taxes) of manufactured goods (as distinct from traded goods) over base year subject to ceilings as may be decided and the beneficiary meeting the cumulative investment criteria.

REVIEW AND MONITORING:

The Empowered Group of Secretaries (EGoS) chaired by Cabinet Secretary will monitor the PLI scheme, undertake periodic review of the outgo under the scheme, ensure uniformity of all PLIs and take appropriate action to ensure that the expenditure is within the prescribed outlay. In addition, EGoS will be empowered to make any changes in the modalities of the scheme within the overall financial outlay of Rs. 6,238 crore.

Eligibility Threshold Criteria: LED Lights

Sl	Segment	Year	PLI Rate	Minimum Cumulative Incremental Investment (INR Cr)	Minimum Incremental Sale (INR Cr)	Minimum PLI (INR Cr)	Minimum Cumulative Incremental Investment (INR Cr)	Minimum Incremental Sale (INR Cr)	Minimum PLI (INR Cr)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
				LARGE INVESTMENT			NORMAL INVESTMENT		
1	LED Lights (Core Components)#	2021-22		100			20		
		2022-23	6%	150	600		40	120	
		2023-24	6%	200	900	36	60	240	7
		2024-25	5%	250	1200	54	80	360	14
		2025-26	5%	300	1500	60	100	480	18
		2026-27	4%		1800	75		600	24
		2027-28				72			24
		Total		**300**	**6000**	**297**	**100**	**1800**	**88**
2	Components of LED Lights*	2021-22		5			2		
		2022-23	6%	10	30		4	12	
		2023-24	6%	15	60	2	6	24	1
		2024-25	5%	20	90	4	8	36	1
		2025-26	5%	25	120	5	10	48	2
		2026-27	4%		150	6		60	2
		2027-28				6			2
		Total		**25**	**450**	**22**	**10**	**180**	**9**

Figures are rounded off for easier readability.

LED Lights: (Core Components like LED Chip Packaging, Resisters, ICs, Fuses and large scale investments in other components etc.)
*Components of LED Lights: LED Chips, LED Drivers, LED Engines, Mechanicals, Packaging, Modules, Wire Wound Inductors and other components.

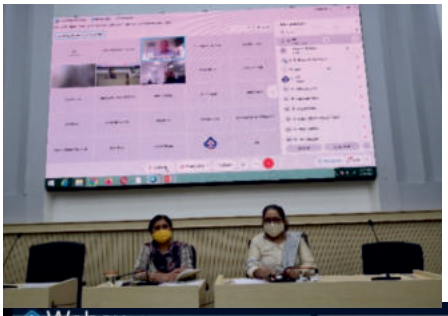
COL. (4): Actual disbursement of PLI for a respective year will be subsequent to that year. For example, subject to fulfilling the conditions of cumulative threshold incremental investment up to FY 2021-22 over base year and threshold incremental sales of manufactured goods over the base year in FY 2022-23, PLI will be disbursed in FY 2023-24.

AUTHOR: ILLUMINATION EDITORIAL BOARD

BIS organizes Webinar on CRS

A webinar with the theme 'This week That day' was organized by Registration Department of Bureau of Indian Standards on 18 June 2021. The webinar was chaired by Mr. H J S Pasricha, Sc F & DDG (Certification) and was attended by over 140 dignified members from various Govt. departments like, MeitY, Ministry of New and Renewal Energy (MNRE), industry associations, BIS recognized laboratories, Indian manufactures, brand owners, officers from BIS and others. The webinar is a part of 'Azadi Ka Amrut Mahotsav – India @ 75', which is an initiative of the Government of India to celebrate and commemorate 75 years of progressive India. It was informed that they have chosen this occasion to celebrate the completion of eight years of Compulsory Registration Scheme (CRS).

Mr. H J S Pashricha, Sc F & DDG (Certification) inaugurated the webinar and welcomed the speakers Dr. B. S. Negi, Advisor, MNRE, Dr. Bharat K Yadav, Sc.-E, MeitY, Mr. Shyam Sujan, Secretary General, ELCOMA, and Mr. George Paul, CEO, MAIT and all the attendees on behalf of BIS and informed that the occasion also marks 8 years of successful completion of CRS as first license was granted on 12 June 2013. He informed the audience that as on date, more than 17000 licenses are in operation for different products notified by MeitY, MNRE, and Ministry of Heavy Industries. In his address, he emphasized on the importance of product certification and its role in ensuring safety to end users. He also highlighted contribution of BIS towards Atmanirbhar Bharat through CRS. He invited feedbacks from the audience. His address was followed by technical sessions.



The technical session started with a presentation by Mr. Peeyush Prakash, Sc.-C (Registration) on the subject 'CRS: Challenges and Achievements' during which he gave a brief history of CRS and informed the audience about the various ministries working with BIS specific to the CRS. He also gave a glimpse of the increase in product categories in CRS and how the CRS has evolved in to paperless system through digital platform.

Dr. B. S Negi, Advisor, MNRE was the next speaker who spoke on the subject 'Standards & Certification as a stepping stone to Quality'. This was followed by a presentation by Dr. Bharat K Yadav, Sc.-E, MeitY on 'CRO: Accomplishments and Way Ahead' who emphasized how the regulations have made significant success in deterring the traders/ manufacturers from importing unsafe products to India and achieving the goal of providing safer products to consumers. He also talked about the various challenges being faced in implementation of the order and emphasized on the role of surveillance in the operation of the order.

Mr. Shyam Sujan, Secretary General, ELCOMA, took over from Dr. Bharat and spoke about 'The role of Standards & Certification in Lighting Industry'. He congratulated BIS on reducing the turnaround time required for development of standards. He further informed about action taken under Vision 2020 to reduce 10 % of power consumption in lighting sector. Further, he suggested that BIS may create a query knowledge base for welfare of BIS officers, manufacturers and labs. He further suggested that instead of adopting IEC standard to Indian conditions, BIS may pursue IEC to make standards in different tiers to accommodate Indian conditions.

The last speaker was Mr. George Paul, CEO, MAIT who congratulated BIS on the various initiatives taken by BIS to ensure good quality of work even during trying times. The technical sessions were followed by an interactive question answer session, where queries from audience were addressed by BIS and MeitY and other speakers.

Mr. Avik Datta, Sc.- C, DDG Secretariat, proposed a hearty vote of thanks to the distinguished guests and the delegates in the seminar at the closing of the Webinar.

AUTHOR: ILLUMINATION EDITORIAL BOARD WITH INPUTS FROM BIS

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ELCOMA advocates inclusion of UVC Tech for Controlling COVID Spread

ELCOMA requests for the Inclusion of UV-C disinfection technology for indoor environments to contain spread of ongoing pandemic

As part of its advocacy role, ELCOMA recently wrote to Shri K Vijay Raghavan, Principal Scientific Advisor to Government of India to request the Inclusion of UV-C disinfection technology for indoor environments in advisory to contain spread of ongoing pandemic.

The letter complemented the government on recognizing "airborne transmission" as one of the modes, besides aerosol and surface, causing spread of this ongoing pandemic in indoor environments and suggesting measures to tackle this issue. While the industry agrees that ventilation indeed is a good mitigation strategy to reduce the viral particle concentrations thus reducing inhaled dose of viral particles but achieving the same in existing buildings with central air conditioning systems or in individual spaces having DX AC units is not easily possible as the ventilation rates of the system are optimized for activity carried out in a space and overall energy required to cool the fresh air intake. Many solution have evolved over time to address this issue and one such solution is utilizing UV-C1 radiation energy to disinfect the air. For airborne viral particles, upper room UVGI (Ultraviolet Germicidal Irradiation) systems provide air changes per hour that are similar to the introduction of clean air into the space.

UV-C disinfection is an established technology for disinfection. It has been applied for many decades since it was discovered to be an effective tool in preventing the spread of contagious diseases through disinfecting water, surfaces and air in very short time periods. UV-C inactivates viruses and microorganisms such as bacteria, moulds, spores, fungi and yeasts by damaging their DNA or RNA genomes and inhibiting replication. UV-C is generated by long-known lamp manufacturing and light generation technologies. It is easily controllable and chemical free, therefore more environmentally friendly than various other disinfectants.

UV-C radiation has been proven to inactivate all micro-organisms and viruses against which it has been tested including, among others, those causing tuberculosis, influenza, and SARS. In relation to COVID-19, several scientific reports have been published showing rapid and effective inactivation of SARS-CoV-2 by ultraviolet-C.

UV-C disinfection indoors can take various forms depending on applications

Upper-room UV-C systems and UV-C in recirculating air disinfection units can inhibit likely airborne transmission routes in occupied spaces. Natural air flow resulting from movement, temperature changes and recirculating air-conditioning in indoor spaces contributes to the rapid spread of viruses such as SARS-CoV-2. High-output UV-C systems in the upper space of rooms or in UV-C recirculating air disinfection units can reduce the concentration of infectious viruses in the air while preventing human exposure to UV-C irradiation.

UV-C irradiation in HVAC systems keeps cooling coils free of infectious biofilm in heat exchangers, disinfects surfaces and disinfects the air flow. Treatment within the air distribution systems can inactivate viruses and pathogens, thereby reducing the transference from one room to another.

Surface UV-C disinfection systems are an effective and established method of reducing infection rates in unoccupied spaces. Fixed and mobile high-output UV-C surface disinfection units have been used for many years to reduce the incidence of infections - for example, in hospitals. Surface disinfection employing UV-C systems has been successfully applied to quickly inactivate various pathogens such as MRSA. UV-C systems for surface disinfection can also disinfect surrounding air and as such perform simultaneous air and surface disinfection.

Whole room direct disinfection below exposure limits in occupied spaces. Low-output UV disinfection can be performed in a manner that is below exposure limits to inactivate viruses and pathogens in air either as a primary method or in combination with other methods.

WHO and US Centers for Disease Control and Prevention have

recommended the use of upper-room UV-C systems as a supplemental air-cleaning measure to reduce transmission of airborne bacterial and viral infections in public buildings, hospitals, military housings and classrooms. Recently US Centers for Disease Control and Prevention have recommended use of upper air UVGI (Ultraviolet germicidal irradiation) for indoor environment applications such as hospital waiting rooms, courtroom, lobbies, school/institutional cafeterias, school nurse's office, homeless shelter sleep areas, restaurants, breakrooms etc.to reduce the exposure to SARS-Cov-2 which causes COVID-19. The Food and Environmental Hygiene Department (FEHD), Government of Hong Kong, also has recently asked restaurants/ cafeterias to introduce UV-C based or UV-C combine HEPA air purification devices to enhance anti-epidemic effect.

For bibliography and References contact to deepakkumar@elcomaindia.com

GLA requests WHO to Promote UVC Disinfection Technology

The Global Lighting Association, in a recent letter to the World Health Organization (WHO), requested them to promote use of UV-C disinfection technology indoors in the battle against the COVID-19 pandemic. GLA recommended that Ultraviolet C (UV-C1) disinfection technology is an efficacious adjunct to preventive non-pharmaceutical intervention (social distancing, hand hygiene, face masks) to reduce contamination by neutralizing the SARS-CoV-2 virus. UV-C disinfection in an indoor environment reduces the viral load and hence decreases risk of infection and its efficacy extends to almost all indoor locations. GLA also feels that there is also a longer-term interest at stake, as the technology can be an important tool in mitigating other current and future airborne pathogens.

Although both the World Health Organization and the US Centers for Disease Control have recommended the use of upper-room UV-C systems as a supplemental air-cleaning measure to reduce transmission of airborne bacterial and viral infections in public buildings, hospitals, military housings and classrooms, UV-C disinfection technology is not listed in WHO recommendations as non-pharmaceutical intervention in non-domestic indoor places in the battle against the COVID-19 pandemic.

The Global Lighting Association requested the WHO to add all the four forms of safe UV-C application solutions described by them to WHO's list of recommendation as a non-pharmaceutical intervention for indoor use.

GLOBAL LIGHTING ASSOCIATION

Surya Roshni Supports COVID fight with Oxygen Cylinders

With the shortage of Oxygen looming large over the hospitals of Madhya Pradesh during the second wave of COVID-19 in April 2021, energy minister Pradumnya Singh Tomar, requested the management of Surya Roshni's Malanpur plant to help those in dire need. The shortage of oxygen in hospitals caused chaos throughout Gwalior and other cities of Madhya Pradesh.

In a selfless action, the management of Surya Roshni shut the plant and supplied oxygen cylinders for medical purposes. They refilled and supplied more than 250 oxygen cylinders within 24 hours to Gwalior, Bhind and Morena where many hospitals were worried about the shortage of oxygen. 20 workers worked round the clock for 4 days to refill and supply over 600 cylinders of Oxygen till the crisis was averted. In all, Surya Roshni supplied over 13,400 cylinders, equivalent to 8 tankers of oxygen, to all the nearby districts hospitals, absolutely free of cost during the pandemic.

Energy minister Pradumnya Singh Tomar bowed down before the management of the firm and thanked them for their humanitarian gesture.

SURYA LED

Dixon Technologies - Top 5 Lighting EMS in the World

आत्मनिर्भर भारत

From modest beginnings, Dixon is today India's largest Manufacturer of Lighting Products

As a home-grown manufacturing company, Dixon Technologies provides design focused solutions in consumer durables, home appliances, lighting, mobile phones and security devices to customers across the globe, along with repairing and refurbishment services of a wide range of products including set top boxes, mobile phones and LED TV panels

Dixon began its journey in 1993 with a modest start with a 5000 sq. ft. Industrial space in Okhla Industrial Estate, New Delhi. Today Dixon is the largest 'Electronics System Design and Manufacturing' company in India with an industrial space of 2.4 million sq. ft. area and a turnover of over US$ 900 million.

Focused on high value consumer electronics, home appliances, mobile phones, lighting, electronics products, reverse logistics and medical equipment, Dixon has made its place as one of the most respected EMS companies in the world.

Over the last 27 years, Dixon has demonstrated rapid growth in its Lighting vertical and is recognized for low-cost manufacturing capabilities, proven design expertise and established high quality customer base. With world-class production facilities, a localized ecosystem, handpicked vendors, in-house research and testing and indigenous manufacturing, Dixon is an Industry leader today and amongst one of the top 5 EMS companies worldwide in Lighting.

Dixon has 14 manufacturing facilities located in Uttar Pradesh, Uttarakhand and Andhra Pradesh and 3 R&D centres in India and China and employs 1700+ personnel across their facilities which

are accredited with ISO 9001-2015, ISO 14001-2015 and 45001:2018 Quality certificates.

Dixon's portfolio of products in LED Lighting includes LED Bulbs from 0.5W to 50W, LED Battens, Downlighters, Panel Lights, Ceiling Lights, Outdoor Drivers, LED Tubelights (TLED), etc for some of India's leading brands. Dixon also manufactures smart LED Bulbs, LED battens and Panel Lights. The also produce color LED products in 0.5W Bulb, Battens, Concealed lights, Down-lights while manufacturing Bulbs, Battens and Down-lights in the Tri-CCT category. In the future Dixon plans to manufacture Decorative Lights (Rope Light, Table Lights and Mirror Lights, etc as well as Outdoor Lights like Street Lights and Flood Lights. With a capacity of over 250 mn LED bulbs, 50 mn LED Battens and Tubes and 20 mn downlights in addition to 20 mn drivers and ballast per annum Dixon is the leading manufacturer of lighting products in India.

Offering 'End-to-End' solutions across multiple sectors, today Dixon is a fully backward-integrated enterprise with state of the art facilities and infrastructure. Dixon has emerged as the largest EMS in India that is fully equipped to cater to the fast growing Indian requirements in the EMS space and also offering its products to various International markets.

SUNIL VACHANI,
EXECUTIVE CHAIRMAN

Government of India's PLI scheme is a Path breaking and a historic step in the right direction. Besides creating lakhs of new jobs it will improve the domestic industry and significantly contribute to the Indian Exports in the coming years. Indian EMS Industry greatly appreciates honourable PM's vision and Made in India campaign which has inspired the whole manufacturing Industry in India. Needless to say that with such aggressive reforms Indian industry is poised to become one of the top manufacturing hubs in various verticals such as Telecom, IT, Lighting, Pharma, Automobiles and Auto components etc.

AUTHOR: ILLUMINATION EDITORIAL BOARD WITH INPUTS FROM DIXON TECHNOLOGIES

Century LED – Creating Magik

आत्मनिर्भर भारत

Century LED manufactures all their products for the Magik brand at their factory in Howrah

Century LED Limited, headquartered in Kolkata is a forward-looking LED lighting solution provider with an aspiration of becoming one of the top lighting brands in India. As a significant contributor to the Government of India's 'Make in India' and 'Atmanirbhar' initiatives, Century LED strives to manufacture all its products at its own manufacturing unit located in Howrah.

Century's state of the art factory, whose operations and supervision are managed by industry veterans, not only produces lighting products for their own brand “Magik” but also caters to OEM manufacturing for few other leading lighting brands in India.

The manufacturing unit houses a NABL accredited laboratory that has the capability of providing a wide variety of testing facilities, enabling the company to offer products that confirm to very high-quality standards. Multiple production lines ensure that the factory to simultaneously produces a wide variety of products. Each production line is equipped with highly sophisticated machines that that have been procured or specially designed with the objective of reducing production cycle times.

The primary products manufactured at the factory include but are not limited to bulbs, battens, downlights, street lights, flood lights, highbays and IoT based lighting solutions. The company

produces 2 million bulbs every month along with 0.5 million other products that cater to both retail sale as well as B2B projects.

The company's R&D centre located in Howrah has designed several innovative and rugged products for their own brands as well as for OEM business. The company's R&D teams have developed many cutting-edge, futuristic products including smart, IoT products that can be controlled from anywhere in the world with features like tunable CCT, remote control operations, APP based operation and response to voice commands.

Strict quality control allows their branded products to feature very high efficacy, life expectancy and capabilities. Several unique features like automatic switch-on and switch-off, automatic multi-stage dimming especially in streetlights and flood lights has enabled customers to not only have enhanced savings on their energy bills but also have better, effortless control due to automation.

Century LED follows gender neutral employee policies as a result of which they employ over 80 women in the factories who contribute in vital departments like R&D, QA etc. In fact, in certain processes and sub processes, [mounting, visual, touch-up etc.] women perform faster and more flawlessly than men. All women employees along with their family members are medically insured (either through mediclaim or ESIC coverage).

MAKING MAGIK IN INDIA – ANIRUDH KAJARIA, BUSINESS HEAD, CENTURY LED

Magik LED has been a wholehearted supporter of the Make in India initiative and is one of the first large lighting companies to embrace the spirit of this unique scheme. We broke ranks and went against the industry trends and set up our own factory at a huge investment to manufacture products locally.

With changes in the import duty structure, Make-in-India got the necessary impetus over the last few years. While the PLI scheme will further boost this, the increase of import duty on components unfortunately has taken some sheen off this campaign. Till components start getting manufactured locally on a large scale, there will be a cost pressure on Indian made goods.

The PLI scheme introduced by the Govt should encourage companies to manufacture lighting products & components locally. In 2020, India imported electronic products valued at over 3.7 Trillion INR. The implementation of the PLI scheme is a good way to reverse the trend. While mechanical components and small electronics will see more local manufacturing, it will require a special effort to attract large investments in LED manufacturing especially semiconductors & LED chips. In any case, smooth and quick implementation of the scheme should see increased domestic manufacturing.

The PLI scheme and vision of the Government is to also make India competitive for exports. However, as the Indian industries import more than 50% of components/parts from China, this drives up production costs and provides no competitive advantage to Indian producers. Localization of components, especially semiconductors and LED will make exports competitive on both cost and quality fronts.

Further, if the PLI can cover investment in dies and tools too, it will allow investments in soft assets that are currently dependent on Chinese designs. Special emphasis needs to be given on tool dies apart from investments so that India can be a thought leader and drive innovation in this segment.

AUTHOR: ILLUMINATION EDITORIAL BOARD WITH INPUTS FROM CENTURY LED

Luker Electric – Southern Manufacturing, APAC Ambitions

आत्मनिर्भर भारत

With their manufacturing plant in Tamil Nadu, Luker is focusing on energy efficient, eco-friendly products in India and Asia-Pacific region

LUKER Electric Technologies Private Limited, a joint venture with LUKER USA for exclusive manufacturing and sales in India and the Asia Pacific, has set up one of India's biggest LED manufacturing factory at Chettippalayam the village, Coimbatore, Tamil Nadu which is spread across 21 acres of land. In the first phase, the factory layout consisting of about 225,000 sqft has been operationalized and in the second phase another 300,000 sq. ft. of the plant is expected to be commissioned in 2022. The company expects to enhance their production turnover to US $ 65 Million per annum by 2024 and aims to make India a LED manufacturing hub and export products to the Asia Pacific region.

Luker manufactures over 2500 models and designs of LED Lighting solutions for Domestic, Commercial and Industrial applications in warn, neutral and cool-white color options. They also manufacture specialized lighting for Stadium, Street lighting and Commercial Buildings and their indoor and outdoor products are ideal for houses, apartments, factories, warehouses, hospitals, streets, stadiums, public places, shopping malls, etc. Luker

manufactures Ceiling, Exhaust and Pedestal fans with the latest energy saving technology and their Solar Water Heaters, MCB and ELCB and Solar Products meet all local and international standards.

Luker has a well-equipped, qualified, and experienced Research & Development wing for new product innovations and product designs as per the latest market demand. Their testing lab, which is undergoing NABL certification, is equipped with qualified engineers and world-class testing equipment and follows all International and IEC standards.

At present Luker Electric Technologies employs over 1000 employees of which 600+ employees are employed in the factory. Most factory workers are from surrounding areas and 80% of the workforce are women.

LUKER Electric products are available pan India through over 300 Distributors, 600 Dealers and 60000 retail touchpoints. Their technical support team is present in all major cities and provides onsite services to customers anywhere in India.

MR. JOTHISH KUMAR, MANAGING DIRECTOR

Under the Make in India policy, LUKER Electric Technologies is promoted by Indians with a manufacturing hub in India. We expect to reach a turnover of US$ 1 Billion in the long run. Our eco-friendly and energy-saving products have an edge over other products in the market and that is the reason why our products were selected for the Prestigious Brand Award in 2019 at the UAE- INDIA strategic conclave in Dubai. Soon we also plan to export our products to the Asia Pacific region.

AUTHOR: ILLUMINATION EDITORIAL BOARD WITH INPUTS FROM LUKER

Guruprasad Mohapatra Passes Away

Mr Guruprasad Mohapatra (1962-2021), passed away recently due to COVID. An Indian Administrative Service (IAS) officer of the 1986 batch he served as secretary in the Department for Promotion of Industry and Internal Trade (DPIIT).

Mr Mohapatra was the head of several empowered groups set up by the Prime Minister including one for the effective response of COVID. He was instrumental in ensuring that during the recent COVID surge, demand for medical oxygen was met and he kept coordinating oxygen supplies almost till his last few breaths to give other patients a fighting chance. Continuing work even while he was hospitalized, his sense of responsibility was such that he put the country above his own needs.

As a professional, his career was marked by numerous achievements. In his role as municipal commissioner of Ahmedabad, he oversaw the Sabarmati river-front redevelopment and as chairman of the Airports Authority of India (AAI), he ensured expansion of aviation infrastructure in tier 3 cities for the UDAN scheme. As Secretary, DPIIT, he ensured that work on 'ease of doing business' gathered further pace, with the country moving up 14 positions on the global chart. The government's push for reducing the compliance burden of citizens in their interactions with the state apparatus was spearheaded by him.

IoT based smart Guestroom Management System for Hotels

The article highlights how IoT based systems can change the way hotels and guests interact

In today's competitive hospitality industry, hotels are looking to differentiate themselves from home-sharing services like Airbnb, by creating more personalized and memorable guest experiences. An IoT based smart Guestroom and Hotel property management system can empower these experiences, helping to make spaces more flexible, personalised and dynamic. These experiences create an exceptional stay for the guests.

Creating a memorable stay is essential – not just for guests' loyalty, but for the brand itself. In the world of social media, a positive experience can be shared instantly with others. So, it has never been more important to create spaces that are flexible, engaging and environmentally sustainable. Choosing the right solution provider which can partner with the hotel, can be very crucial in assuring the quality and consistency across hotel estates. A reliable solution provider should be able to provide a solution that is available globally with CE and UL certified systems.

A typical guest room in hotel has numerous systems that need to work round the clock to create a pleasingly unforgettable experience for the guests. Bringing all these systems on a central control not only gives the guest a seamlessly integrated interface, but also maximises the energy and operational efficiency of the hotel.[1] For example, using occupancy or door status to switch or step-down HVAC behaviour, or routing a Make Up my Room request to housekeeping, an IoT based smart guest room management system can create an incredible experience for the guest while simultaneously delivering the services efficiently. To provide such a seamless guest experience and to maximise the benefit of automating energy management, hotels need a single integrated room control system.

As world of IoT is adding new devices every day, we can expect that an IoT based smart guest room management system should not be restricted to the guest room experiences but it can also impact other aspects of the guests, in house staff and create a complete solution package for the hotel. Ideally, such a system should focus on enhanced guest experience, guest safety and well being, Energy Management and Operational & Staff Efficiency.[2]

FEATURES OF GUEST ROOM MANAGEMENT SYSTEM

Guest rooms are just as important to hotel operators as they are to visitors. A significant portion of a hotel's operating costs typically goes into servicing them. One reason is that guest rooms usually account for the majority of space in a hotel. Hotels feature three distinct zones: guest rooms, public spaces and service areas. The space allocation between these three zones varies depending on the type of hotel. For example, guest rooms in a mid-range hotel could take up as much as 90% of the floor plan. A large luxury hotel with convention facilities, on the other hand, will typically allocate around 65% of space.

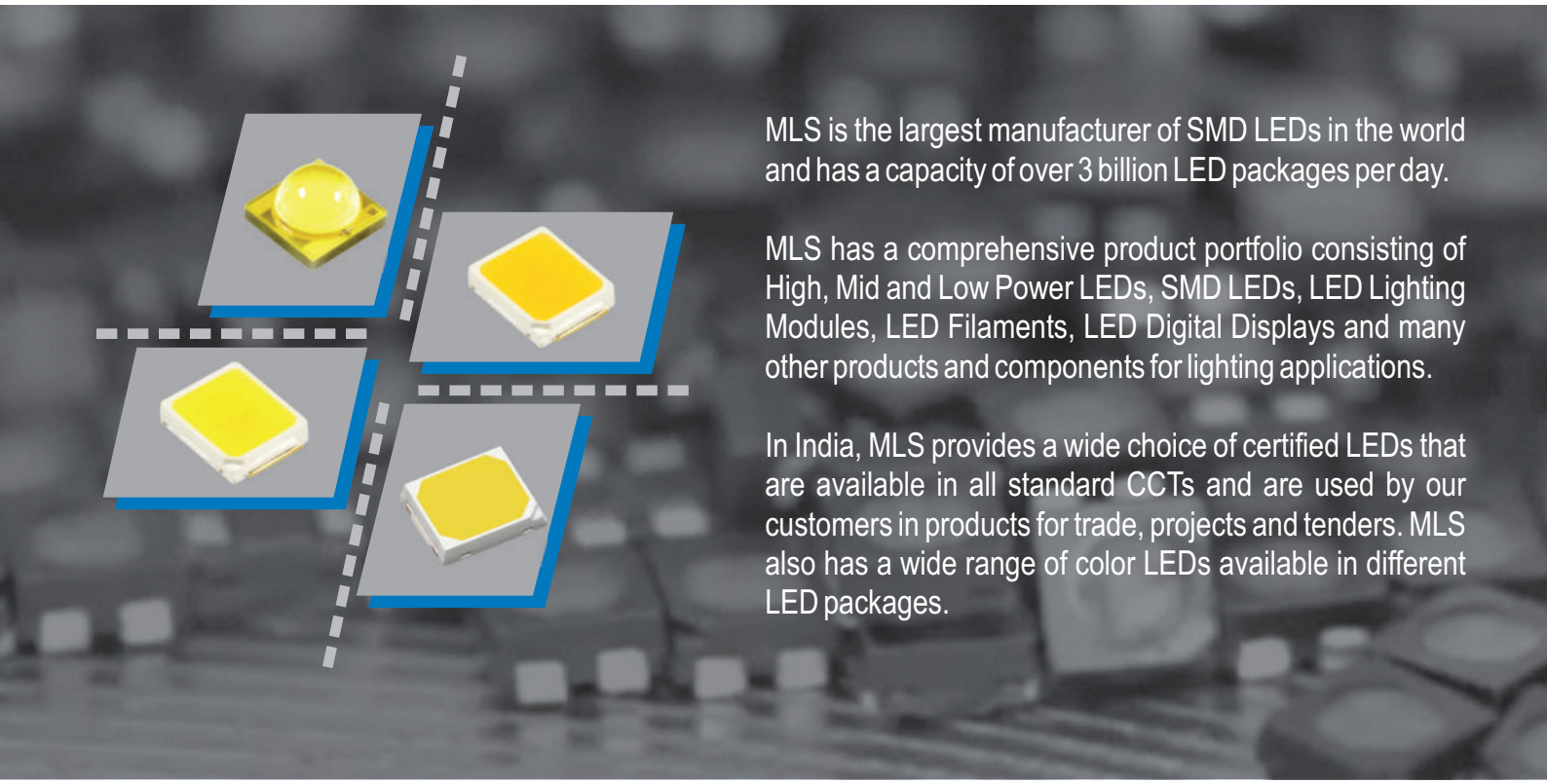
A good guest room management system should be able to address and interact with all the major system components in a room that impact the overall guest experience.

1. Lighting and Scene Management

The guest room system should be able to greet the guest by creating a warm welcome scene upon entering first time in the room. When guests arrive, the system should automatically detect their presence and activate a tailored welcome lighting scene upon entering the room. The guest should not go through the hassle of fumbling with key cards or switches, he/she needs to experience just a perfect presentation of the room. This welcome scene should be automatically tailored based on the time of the day (day/night) or ambient lighting conditions and should include other services, such as motorised curtains for maximum impact.

The guest room should also be equipped with dimmable luminaires which can be configured by the hotel to create different mood and activity scenes. With one tap on a panel, selecting different scenes, mood or activity-based scenes, is the most intuitive way for guests to personalise their rooms through dynamic lighting. With dimming, guests can choose scenes such as bright, relax and work, tailoring the lighting to a different intensity. The right guest room system should be able to support all open standard dimming methods. No matter the dimming method, the system should be able to provide smooth, flicker free dimming. To ensure perfect integration, the system provider can also provide compatibility testing service for third party luminaires.

In addition to these services, luxury



MLS is the largest manufacturer of SMD LEDs in the world and has a capacity of over 3 billion LED packages per day.

MLS has a comprehensive product portfolio consisting of High, Mid and Low Power LEDs, SMD LEDs, LED Lighting Modules, LED Filaments, LED Digital Displays and many other products and components for lighting applications.

In India, MLS provides a wide choice of certified LEDs that are available in all standard CCTs and are used by our customers in products for trade, projects and tenders. MLS also has a wide range of color LEDs available in different LED packages.

NO.1

The largest LED packaging company in the world

25,000+	TOP 3	4bn USD
Employees worldwide	Lighting company	Group Revenue

3,000,000,000

3 Billion LED packages per day

MLS INDIA PRIVATE LIMITED

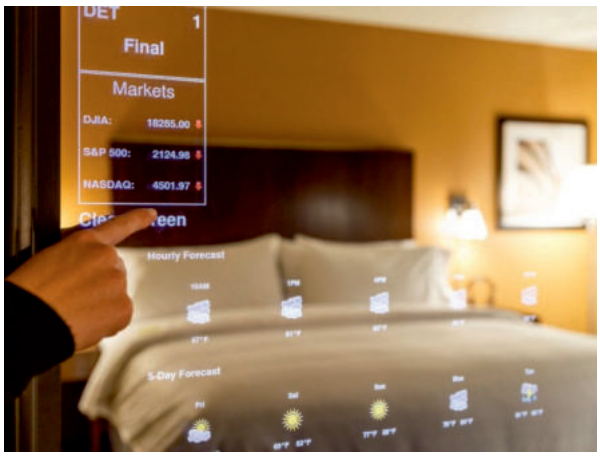
1201-1202, 12th Floor, Signature Towers, Tower - A, South City - 1 Gurgaon, 122001
+91-124-4867400/401 info@mlsindia.net www.mlsindia.net

hotel guest services, such as VIP guest welcome, can be further enhanced with lighting scenes. The system can provide hidden lighting scenes access to the hotel staff. Using hidden lighting scenes which can be activated simply by hotel's staff, the hotel operator can highlight a gift or note on the bed for guests or a champagne or fruit basket. Each iteration creates a small but memorable positive experience. These small but impactful features enhance the hotel services and leave a lasting impact of the guests.

2. Wellness by improving Quality of sleep

Quality of sleep and guest comfort can be directly improved with a combination of lighting and smart controls.

Research shows that a third of travellers leave a light on overnight to help them navigate in an unfamiliar environment.[3]. Apart from consuming energy, that's a major distraction from great sleep. Anti-Stumble lights paired with sensors and embedded lighting controls can detect when a guest steps out of bed. Once detected, the guest room system can illuminate the surface of the floor with a low level of light. The guest room system should coordinate with the sensors in the bedroom and bathroom to create an ambience with just the right amount of light which guests require to navigate the space in night but not enough to wake him/her or other guests in the room.[3]



Another discomfort which most guest experience in a guest room while sleeping are the various LED indicators on different components present in a room such as fire alarm sensor, television set and keypads lights. These illuminated indicators on panels, sensors and other devices around a room can become distracting for many guests getting to or staying asleep. A good guest room management system can reduce this to the maximum by providing the option to disable all indicators - either fully or as part of specific scenes such as night or all off – for all the components provided by the supplier. Using panels that combines this total darkness with an easy and intuitive way to find a light when needed – the panel can have the provision of a proximity sensor that can provide a halo for a soft illumination or display back-light to help as soon as the guest approaches these panels. At all other times, these panels do not show any light or indicator to create zero light pollution and provide the most effective sleeping environment to the guests.

3. HVAC and Energy Management

The system should be able to utilise all the components in the guest room to create a space which not just automates the guest comfort but also contributes significantly on energy savings. The system should be able to provide real time occupancy cooling/heating. The guest room management system should be able to do a smart occupancy detection, as well as to check in/out information from the Property Management System of the hotel, and provide the most efficient conditioning of a room, while always reflecting the guests comfort preferences.[1] The system should also be able to accommodate the real time request from guests to set the temperature as preferred by the guests. While the system optimises the room conditions when unoccupied to balance comfort and energy savings, it should always have the flexibility to remember and restore guest preferences. This system should be able to integrate third party system such as balcony to enhance the energy management of the space. When a balcony door or window is opened, HVAC can be disabled, immediately or after a delay. By implementing a central monitoring system with a dashboard, real-time door status can be seen by the hotel staff, increasing the operational efficiency of the hotel staff.

In a typical guest room, many guest room systems measure temperature from a single point and this feedback is sent to the HVAC system for temperature-based cooling/heating. But a good guest room management system should take multi point readings around the guest room with evenly spaced-out temperature sensors to the most accurate temperature around. By using this average temperature, HVAC control should be able to truly represent the picture of the full room, not just at the thermostat point. At night, when the room is occupied and the guests are sleeping, the system can trigger a localised temperature detection and control the HVAC system. This can be probably done by taking temperature around the bedside panels. By using this localised data, the system provides maximum comfort, contributing towards a great night's sleep.

The guest room management system should also be able to provide a one touch mode to switch between different scenes not just for lighting but also for the HVAC. For example, an energy savings mode can allow guests to opt for further energy savings with a single tap on the thermostat. This mode might move the temperature set point to an optimised mode. Guests can be thanked

for their support on the display, this can be linked to guest's loyalty programmes. The guest room management system can have another mode such as exclusive mode for those extra special guests that need the additional attention and care and want to be treated a little differently.

4. Window coverings and Mechanical

It is very essential to control every system of the guest room from the same user interface with matching wiring accessories for a consistent design and finish. With the design philosophy approaching to a more simple and cleaner look, avoiding different panels type of panels for different functions becomes imperative. A good guest room management system should not only be able to provide controls for its components but also able to integrate other components such as curtains and blinds, ceiling fans, BMS and central HVAC and power outlet controls and have the room control logic around to incorporate all the systems in the guest room.

There are other systems in a guest room such as motorised curtains, blinds and privacy screens which can provide guest convenience, as well as a 'wow effect' when incorporated with the various scenes of the guest room. Effects such as closing curtains when a room is unoccupied or when the temperature or light level exceeds set levels, can also help conserve energy and preserve room material finishes. Many hotels also have the provision of ceiling fans as an additional guest comfort option. The system should have the provision to control these fans as well. Control of these components should be seamlessly integrated using the same controllers and interfaces for consistent presentation of control.

As there are other mechanical systems such as HVAC and power with have to be integrated with building management systems, the guest room management system should provide a range of open

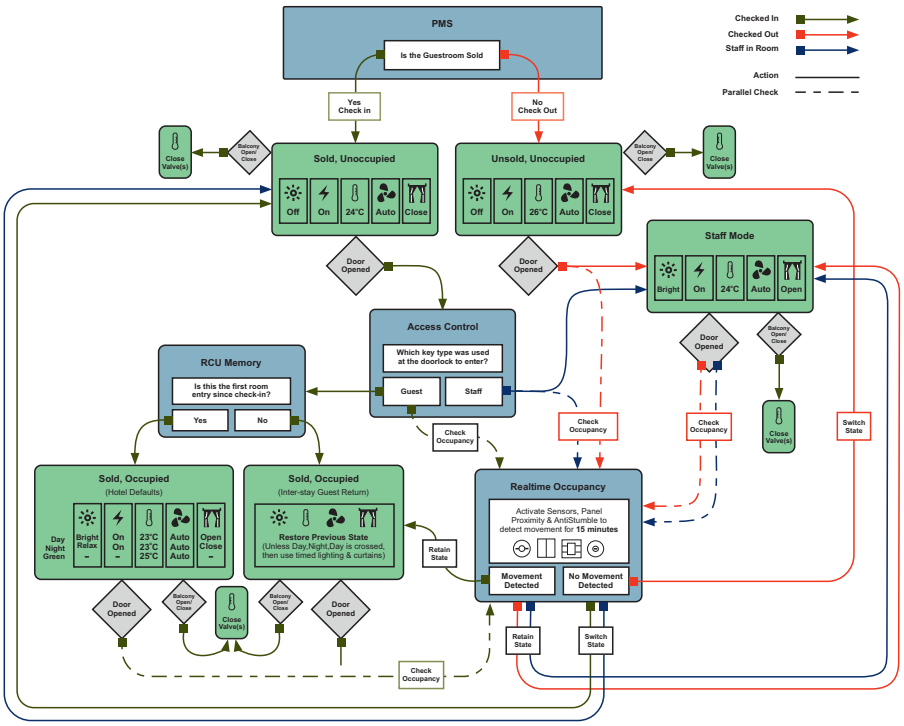


Figure 1: A Typical Guest Room Management System architecture

protocol and proprietary integration options such as BacNet, Modbus and Coolmaster.

The system should additionally be able to provide control of the power outlets. This saves energy by reducing standby power consumption from equipment such as televisions and coffee makers when Outlets can be programmed to automatically power up upon check-in. Management System architecture

FEATURES IN THE SOFTWARE, DATA SERVICE AND THE IOT OF SYSTEM

Software becomes a core part of the IoT based Guest Room Management system as it monitors the statuses of guest rooms, manages the devices and provides real-time visibility to see and control the services across the hotel. The historical data collected by this software provides rich, intuitive reports that help the hotel operators to make informed decisions to update defaults and plan the staffing inline with guest needs.

The IoT system should come with customizable dashboards option to utilise the data in the most effective way. This dashboard should have different access and windows for the operations team and the maintenance team, prioritizing the inputs that are most important to the relevant teams.

1. Real-time Visibility & Control for front desk & operation:

With the detailed dashboard available, hotel working staff and corresponding teams can view real-time statuses and requests raised by the guests. Simple, yet powerful filters should be present to view every room across the hotel with a certain status to prioritize various tasks and attending requests efficiently. For example, requests such as laundry pickup can be almost immediately actioned and unnecessary journeys can be saved by checking if DND is active. If a guest calls for assistance, this dashboard should provide at a glance information, making it simple to advise or even remotely assist them with changes such as temperature or fan speed. Each room should have an audit trail of events such as DND, occupancy,

balcony door movement to help with guest enquiries, with data available to export in a click.

With a fully networked system, the hotels can expand beyond the standard 'DND' button to offer a full range of services. For example, additional options such as Make Up Room, Laundry Pickup, Service / Butler Call and Room Service / Tray Pickup can also be integrated to the system. All of the services should be available through panels or displays and their status should be synchronised to the dashboard of IoT system for teams to see in action. With these operational integrations, guests' requests should be automatically created as jobs, passed to a runner and prioritised. It creates a very efficient process for the hotel staff and helps deliver incredible guest experience.

2. Proactive Monitoring & Alerts for rooms, devices and more:

The hotel stall can be informed the moment something is not quite right, complete with all the details needed to address it without losing time and increasing guest discomfort. The IoT system should alert of any malfunction by continuously monitoring the status and behaviour of guestrooms over a range of parameters, from temperature and humidity to balcony door and safe door status. This system should also be customised as per different room types, defining a safe range or normal set of expected levels for the various parameters that are measured. As soon as any parameter of the room exceeds this range, or after a certain defined time is elapsed, the system should create and send an alert on the dashboard. While this dashboard and linked email alerts provide timely notification that a guestroom requires attention, it should also be integrated to deploy with the hotel operational systems. For example, if a guest leaves DND active for more than 48 hours, the IoT system can create a task in guest relationship management such as FCS eConnect for staff to ensure that guests are okay, or if humidity spikes, the IoT system can create a ticket in engineering management system such as FCS eEngineering to assign appropriately qualified engineering currently on shift to investigate.[1]

3. Seasonality & Bulk Updates

The IoT system should self-manage defaults across the guest rooms or configure these rooms to change automatically with the seasons. The IoT system should provide hotel management users with the ability to remotely update key room settings such as default temperature set point, sensor time-outs and welcome scene behaviours. These settings are organised by room type allowing hotels to differentiate between rooms by tier, their aspect, floor or any other means. Updating these settings for a room type with the IoT system will automatically broadcast to every instance in the property when the room is next unoccupied. Intuitive overviews from the software help to make sure that rooms are up to date, including the latest chances and updates. With the help of the software and IoT system, defaults for different seasons settings can be automatically updated throughout the year to optimise guest comfort by creating seasons. The IoT system should have the option to create different periods for room defaults each with its own unique settings.

4. Empower decisions with powerful reporting

With the help of the IoT systems, hotel can serve guests even better through gaining a deep understanding of their behaviours. The dashboard will immediately show a glance of information about guest patterns and the support staff teams can perform in a much better way. The various reports generated by the software should be stored in a report library that should provide either broad overviews of requests and performance (Management Report), or in-depth readings in to themes such as Occupancy, Environmental, Room Statues to look for exceptions and establish patterns for the guests. The IoT system should also be able to give insights into trends, the hotel can easily add a comparison between different wings, floors, room types, or simply how the selected data has changed over time. These reports should be custom build to select exactly the data types needed, from just the right rooms and dates. These reports should be saved easily in a one click for access in future, with the options of either the fixed dates or a variable time period, such as this month compared to last month.

AUTHORS : NUPUR JHA,
NATIONAL APPLICATION SPECIALIST,
SIGNIFY INNOVATIONS INDIA LIMITED
SAUMEN BHAUMIK,
HEAD OF SPECIFICATION SALES,
SIGNIFY INNOVATIONS INDIA LIMITED

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

In Memoriam

ELCOMA Pays Tribute to those Indian Lighting Professionals that have succumbed to the COVID-19 pandemic in recent times. Our heartfelt condolences to the families of these colleagues.

Their untimely demise has left a deep void in all our hearts.

Deepak Gupta, a partner in Just About Power passed away on 21-04-2021. A well known personality in the lighting industry, Deepak was formerly associated with Osram, Halonix, Stanley Electric, MLS (Forest Lighting), Tata Motors and General Motors in various capacities. He is survived by his wife and two children.

Dr. Rahul Ravindra Mohan, Key Account Manager, Traxon BU at Osram India passed away on 5 May 2021. Dr. Rahul served at Osram India for more than 4 years. He is survived by his wife and three kids.

Ranjeet Kumar was a dynamic member of Bajaj Consumer Products sales team, based at Bhagalpur in Bihar who passed away on April 12, 2021. He was associated with Bajaj for the last 3 years. He is survived by his mother and wife.

Mr Dharmendra Kumar, AGM IT at Osram India passed away on 15 May 2021. Mr Dharmendra served at Osram India for more than 11 years. He is survived by his wife and two kids.

Nitendra Kumar was a young member of Bajaj Consumer Products sales team based at Gaya in Bihar who passed away on May 09, 2021. He was associated with Bajaj for 2.5 years. He is survived by his parents, wife and 2 kids.

Brijendra Singh was a member of Bajaj Consumer Care team, based in Delhi and was associated with them for the last 8 years. He passed away on May 06, 2021. He is survived by his parents, spouse and 2 sons

Khadar Saheb Sk was a part of Bajaj Consumer Care department who passed away on May 04, 2021. He was associated with Bajaj for over 10 years and managed Godown Spare Parts Procurement and Execution function for entire South, based out of Hyderabad. He is survived by his twin kids.

Mr. Akshat Gupta, Sr Manager AM OEM at Osram India passed away on 22 May 2021. Mr Akshat served at Osram India more than 5 years. He is survived by his wife and three kids.

BIS gets enforcement powers against non-compliant Lighting products

In the 5 years since the start of CRO program, ELCOMA has been reiterating that a major portion of the Indian LED Lighting market (estimated suggest about 36%) is occupied by unorganized sector where non-BIS compliant and illegal LED lights are being sold. At least two studies conducted by independent agency Nielsen reveal and establish this data.

ELCOMA approached MEITY who are the regulator of this Order, multiple times to make them aware of this situation. But it appeared that MeitY at that time did not have a surveillance policy in place meant to curb such BIS non-compliant and spurious products. Even when a surveillance policy was framed and implemented it was apparently applicable primarily for the BIS registered products, having R-number and was totally silent on the non-compliant products (without BIS Mark) of the unorganized sector. ELCOMA continuously approached MEITY, BIS and even the Ministry of Finance explaining the problem and how it impacted the safety of consumers and loss of revenue if actions related to curb these illegal products were not taken.

BIS Act 1987 was updated by BIS Act 2016 by virtue of which manufacturers and sellers were prohibited to manufacture, sell, etc., certain goods without the Standard Mark and that no person shall be able to manufacture, import, distribute, sell, hire, lease, store or exhibit for sale any such goods, article, process, system or service. In the event of such a violation of this prohibition, penal provisions were defined in the Act which included imprisonment upto 2 years and/or a fine of upto INR 2 lakhs or 10 times the value of the goods in the first instance. Subsequent violations carried a fine of upto 5 lakhs or 10 times the value of the goods in addition to the imprisonment term. In the event that the value of the goods could not be determined then one year's production and annual turnover of the pervious year would be assumed.

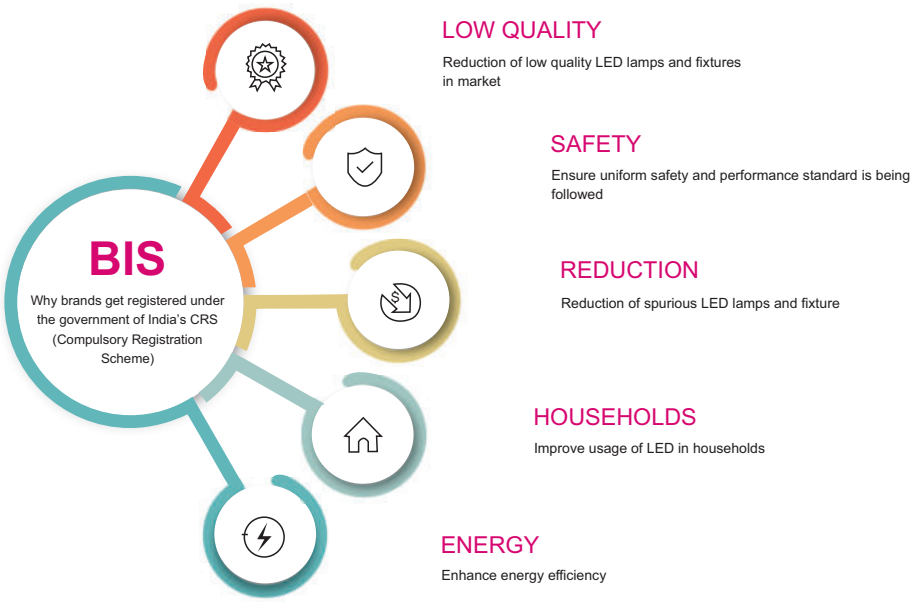
With the BIS Act being revised there was a need for MEITY to amend their CRO which referred to BIS Act 1987, to migrate to BIS Act 2016.

After consistent pursuance by ELCOMA with MEITY the following changes were made:

- MEITY's CRO was amended through Gazette notification wherein the applicability of CRO was revised to BIS Act 2016
- Bureau of Indian Standards shall be the authority to certify and enforce conformity to the Standard Mark under this Order

As a result of these changes, BIS is also now the enforcement body and has the authority to enforce the Order, and to act against unregulated and non-BIS compliant products manufactured / sold in the market.

BIS has requested ELCOMA members to provide information of such non-compliant and illegal products manufactured / sold in the market by registering complaints in the BIS Care App. The BIS Care App is a medium by which complaints and feedback can be sent to BIS so that they can act and enforce actions against the illegal products and unscrupulous manufacturers / sellers.

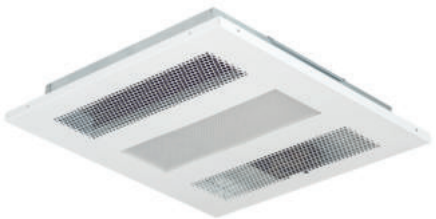


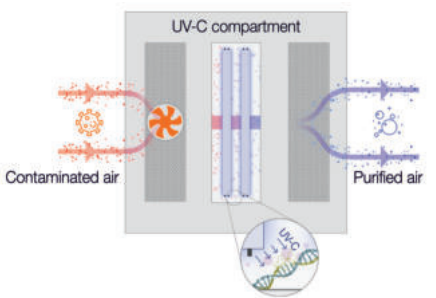
AUTHOR: ILLUMINATION EDITORIAL BOARD WITH INPUTS FROM BIS

Signify Launches LED glass bulb

Philips Full Glow LED diffused glass bulb, with almost zero plastic usage in the product, solves needs of the consumer while being eco-friendly at the same time. These range of bulbs from Philips will have diffused clear, white and warm white offerings. The Philips Full Glow products come with Eye comfort Technology, High Voltage and Surge protection, Fire retardant material usage and No hazardous substance usage (RoHS) as the other offerings by Signify in the Philips Range. Additionally, the Full glow bulb has a 360 degree beam angle for all around spread of light which the company claims is 2 times more than similar LED bulbs currently being offered in the market . Philips Full Glow Bulb is going to be available on amazon.in and at nearby electrical stores soon. The Range would be extended to Diffused and Clear offerings very shortly.

Ledvance launches UVC Air Recirculators





LEDVANCE India has recently launched its range of UVC Recirculators. Available as recessed and surface installed panels for ceilings and as wall mounted recirculators, these products are designed to reduce the virus concentration in the air within a room.

These products have increased germicidal action due to high gloss polished aluminium inside UVC compartment and there is no direct UVC exposure due to special design of this UVC compartment. An intelligent MCU module carries out automatic diagnostics of UVC lamp and Fan and when a malfunction is detected it is shown via LEDs. The ceiling mounted recirculators are available with and without LED.

The ceiling installed panels provide a CADR (Clean Air Delivery Rate) of < 60 m^3/h and a and UVC Dose of 57 J/m^2. Based on LEDVANCE R&D scientific-paper research published in 2021, the average lethal UVC-Dose for aerosolized SARS-CoV2 virus to achieve D90 is 17 J/m^2, for D99 is 34 J/m^2 and for D99.9 is 54 J/m^2. Therefore these products can provide a virus inactivation rate of 99.9%. At a standard installation height of 2.5m, the coverage area of the ceiling UVC Recirculator is about 25 sqm.

Halonix Launches its Range of Unique LED Products

Halonix Speaker Bulb is a technology marvel that allows you to enjoy music, right from your bulb! The Halonix Speaker Bulb uses Bluetooth technology to connect with a smartphone and stream music through its powerful 5-Watt inbuilt speaker. This energy-efficient LED light bulb has two light-mode settings – bright 9W white light and dim 0.5W yellow light and provides for an uninterrupted, no-cable, no-charging music experience.

Halonix Inverter Lighting Solutions are the widest offerings of inverter bulbs and inverter battens that come with a powerful inbuilt lithium battery and automatically light up when there is a power outage and give continuous lighting backup.

Halonix Prizm : Millions of Colour-Lighting Solutions - The Halonix Prizm range provides consumer the option of choosing from millions of colours for the light in their room. These products can be controlled through a smartphone using Bluetooth or WIFI using an Android or iPhone App. With the App user can conveniently and intuitively control the settings of the light such as colour or brightness – as per their mood and requirements. They are also compatible with Google Assistant and Amazon Alexa.

Halonix Radar Motion Sensor Bulb - is a 10W LED bulb, with an automatic on/off feature that works smartly with a motion sensor. It automatically turns on when it detects motion within a 15-feet radius and turns off after one minute when no motion is detected.

Halonix All-Rounder LED Lamp - has three wattages in one bulb. It comes with an adjustable brightness option in three different wattages – 15W/8W/0.5W. Customers can switch between bright, right and night light modes according to their needs by switching the bulb off/on.

LUKER launches smart backlit panels

LUKER Electric Technologies Pvt Ltd recently launched its 2X2 feet Smart Backlit Panel which offers immense flexibility and control options for modern workspaces, healthcare and educational sector lighting where grid type fixtures are used.

LUKER Smart backlit panel allows users to control colour temperature (from 2700K - 6500K) and intensity of the light without the use of expensive controllers or devices by simply using a mobile app. It uses Bluetooth SIG's mesh networking protocol to support multiple devices control from a single device.

Users can download the mobile app and connect the Smart backlit panel to control options for the luminaire from their mobile phone or tab.

Flicker Controlled EYELUV Panels by Orient

Based on the positive response from the market for the EUELUV range of LED bulbs and Battens in 2019, Orient Electric is now launching EYELUV LED panels to extend their Flicker Controlled range of LED products.

These panels are available in 10W, 12W, 15W and 20W with respective cut-out sizes of 4", 5", 6" and 8". The product portfolio is available in both round and square shapes and in all the 3 CCTs (cool white, warm white and Neutral white).

These products provide consumers with the additional feature of Flicker controlled technology which reduces the invisible flicker present in LED lights and as a result reduce eye strain. The flicker free feature is provided at the same pricing as existing panel lights to consumer.

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