



CEC
中国电子
CHINA ELECTRONICS

开发晶
KAISTAR

开发晶照明(厦门)有限公司
KAISTAR LIGHTING(XIAMEN)CO., LTD

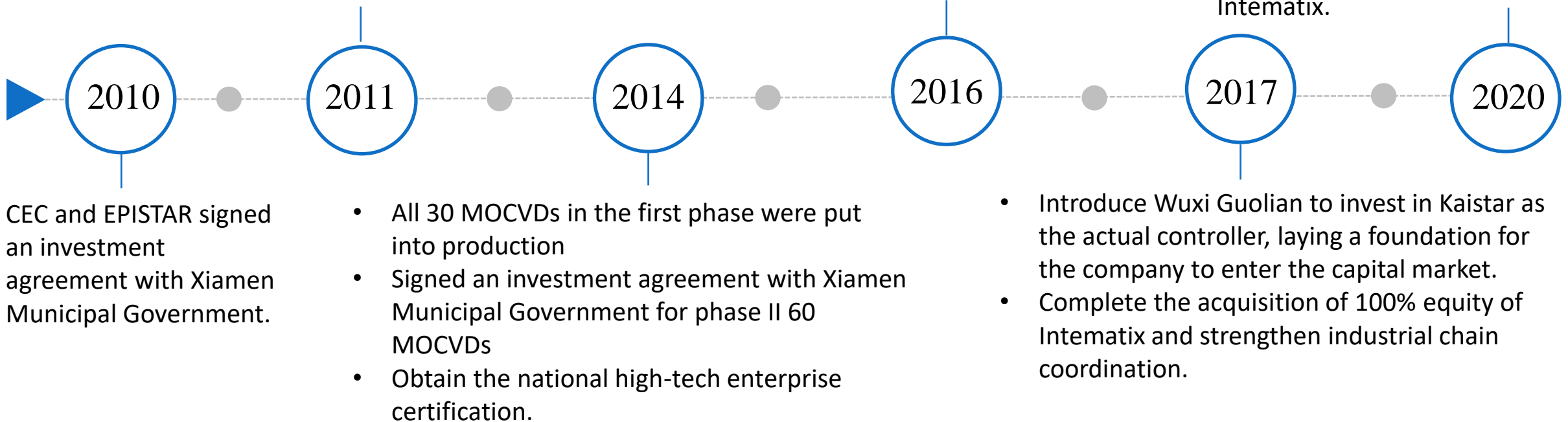
- Founded in **2011** with a registered capital of 271.99 million US dollars, Kaistar Lighting (Xiamen) Co., Ltd. is positioned as a leading enterprise in the LED patented device industry and an important supplier of semiconductor power devices.
- Kaistar has two international well-known LED brands "Bridgelux" and "Intematix". Our business scope covers the R&D, sales and manufacturing of LED epitaxial chips, packaging (SMD, COB), phosphors, power devices, OEM lighting and other products. We have the capability to provide the best solution for our customers with the collaborative R&D of upstream and downstream.
- With the total assets of 4 billion RMB and net assets of 1.9 billion RMB, Kaistar has 87 MOCVD equipment, 8 COB packaging lines, and 31 SMD packaging lines.



The company was registered and established, and the foundation stone of the plant was officially laid.

Completed the acquisition of 100% equity of **Bridgelux and developed Kaistar** to enter the global high-end LED supply chain with the Bridgelux brand.

- Restructuring for Bridgelux and Intematix .
- Promote the strategy of maximizing the value of Bridgelux and leverage synergies with Intematix.



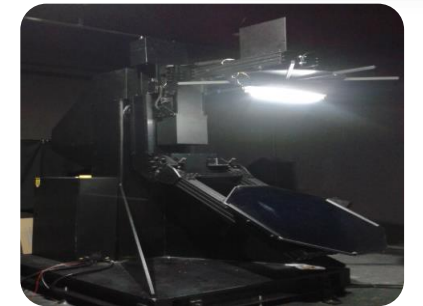
◆ High starting point for the development and production of epitaxial wafers and chips

- With **Bridgelux's** leading LED chip and packaging patent technology, it quickly opens up the international high-end market. It has undertaken many national, provincial and municipal funds and science and technology plan projects. It has more than 1,000 patents on the epitaxial wafer, chip packaging, application, phosphor and etc. The products can be sold worldwide without patent risk by the patent cross-authorization.



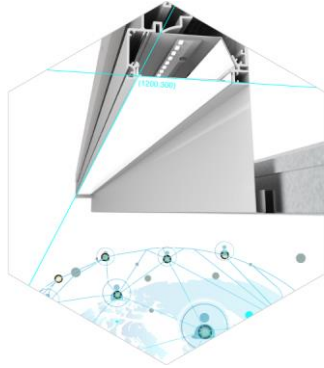
◆ An enterprise technology center more than 80 million RMB investment

- The technology center equipment and personnel office area is more than 2,000 square meters. Currently, it has a professional high-quality technical team composed of more than 150 staffs. We have established a sound quality management system which has passed IATF16949, ISO9001, QC080000, ISO14001, ISO45001, integration management system, CE and other certifications. We has set up LM80 testing laboratory, reliability laboratory, Failure analysis laboratories and calibration/standard parts laboratories which can provide internationally recognized product certification and is the second laboratory with international certification qualifications in China.

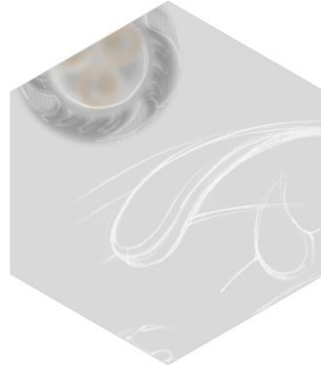


- ◆ The company is a national high-tech enterprise and Xiamen future industry backbone enterprises.
- ◆ With a Fujian Province enterprise technology center and a Xiamen city enterprise technology center, Kaistar is the provincial leading enterprise of the industry and information technology in Fujian province, as well as the demonstration project for the west coast of the strait cooperation with Taiwan. We are also the two key projects for Fujian province integration. We won the top 100 of the Fujian province strategic emerging industry enterprises and Xiamen top 100 enterprises.
- ◆ The company's products won the 2020 American Lighting Exhibition Innovation Award, and won the "China LED Pioneer Gold Award" and "China's TOP 10 LED Industry Brands" repeatedly.





Creative Platform



Tailor-made Design



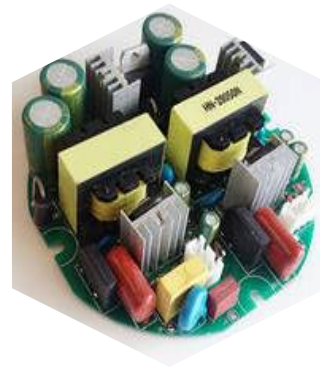
Manufacturing



Quality Control



Optical design



Circuit design



Mechanical design



Outdoor



Ruixing Street Light



R250 Street Light



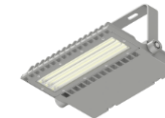
ECO R250 Street Light



R650 Street Light



Eco Scalable Flood



Area Lighter Flood



Area XL Lighter Flood



ECO Flood



Industrial



UFO High bay



Gen 2 UFO High bay



GEN 3 UFO High bay



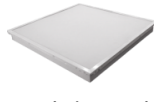
High-temp UFO High bay



Indoor



Edgelit Panel FPL1



BackLit Panel FPL2



Baselight



Light Engine



VESTA TW module



EB linear Gen III



EB linear Premium



Fan Lighting DOB Module



Other



Portable Disinfect Light

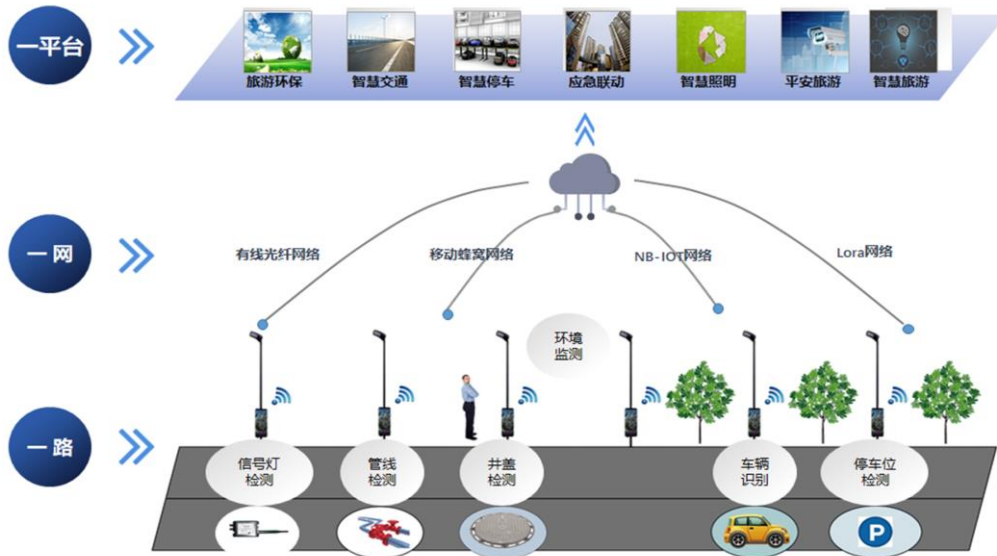


Linear Horti Light



Desk Lamp

Solution



CEC Smart Lighting “—Road—Network—Platform”



MFB multifunction Pole



Platform









Smart Controller

■ Typical projects – Tianjin



■ Functions

-  5G base station: infrastructure
-  CCTV: Public Security
-  IoT: Connection to the city properties.
-  LED screen: LED screen for information broadcast
-  Smart EV charger: Charger for electric car.
-  Environment sensor: Monitoring environment

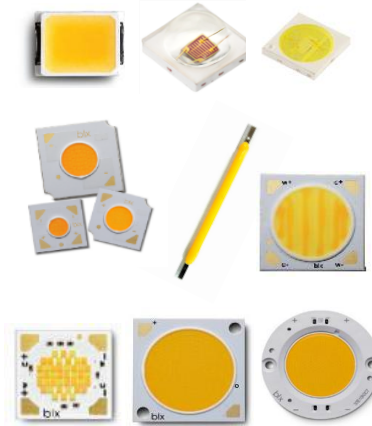
Lighting Products



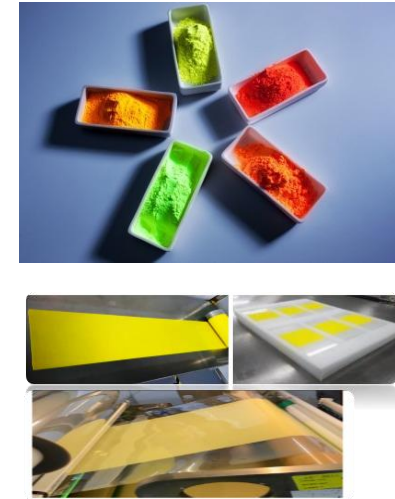
Smart Control Devices



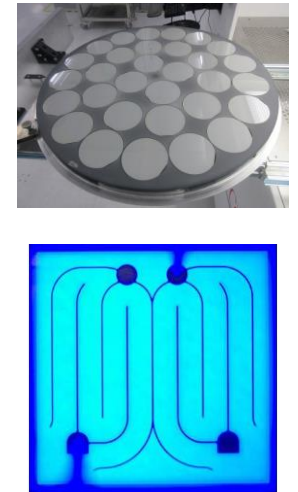
LED Packaging

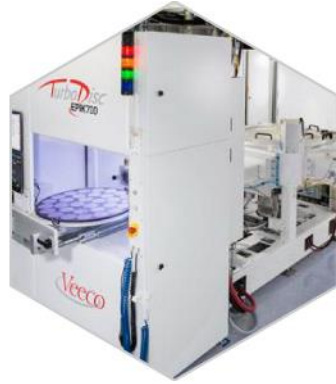


Phosphor

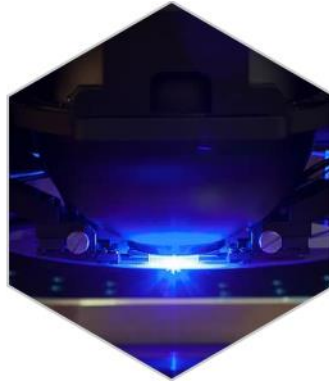


LED Epitaxial Chip





Epitaxial Wafers



LED Chips



Package



Modules



Front End



Middle end



Back End

Common Lighting Products: COB, SMD, Filament



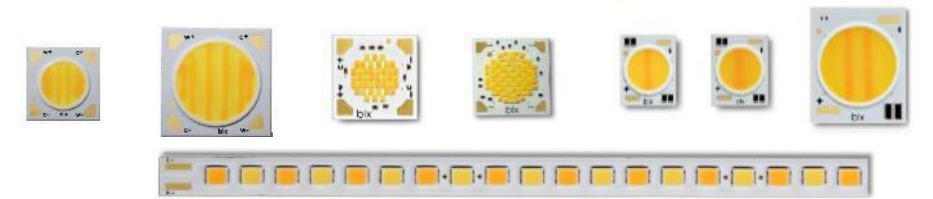
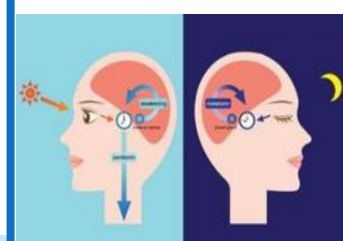
F90 Series Products: COB, SMD, Filament



Thrive™ Human Lighting:
COB, SMD, Filament



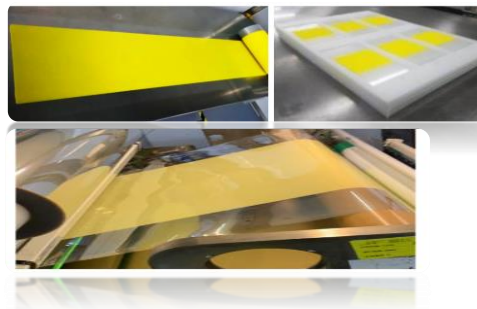
Vesta® series: Tunable COB
Tunable White & Dim-To-Warm



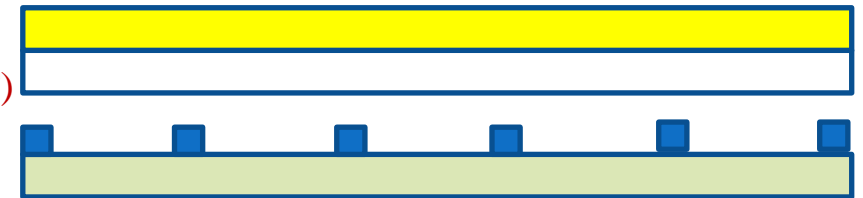
Plant Lighting Series:
2835,3030,3535 white or red light



- With efficient and core patents as the world's leading supplier of LED professional phosphors and phosphor solutions, Intematix phosphor market share ranks first in the world.
- Major supplier of global LED brand companies (Cree, Osram, SSC, Samsung, Lumileds)
- The main products include silicates, aluminates, nitrides and remote phosphors, KSF, NBR, NBRG and other high-endemic, high-efficiency phosphors and fluorescent films.
- KSF high CRI products with high light efficiency developed by own patented technology.



Fluorescent film
Diffusion film (PET)
Blue chip
PCB



Global Patent US 8376580:
Blue Light + Fluorescent film (Remote Phosphor)



宜家家居







Thermal shock
KTHB-415TBS



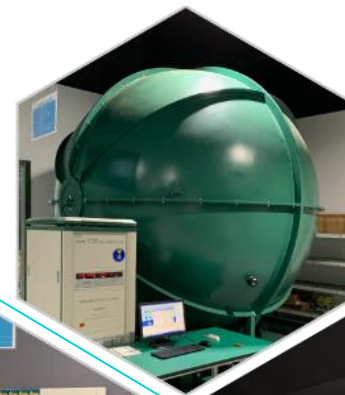
Temperature & Humidity Chamber
KTHB-515TBS



Auto aging line



3m Integrating Sphere
HAS-3000



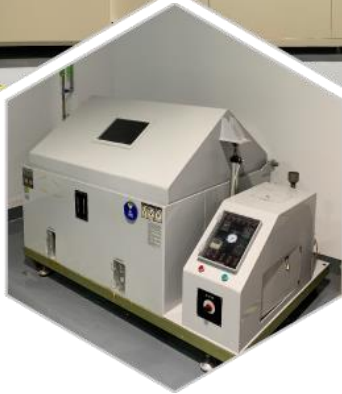
Needle Flame
ZY-2



Glow Wire
ZRS-2



Salty spay
W-CS120



Water-proof
BL-012



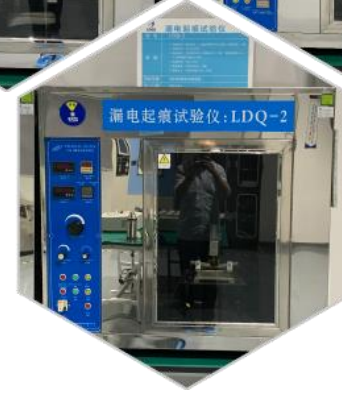
Dust-proof
TK-S600



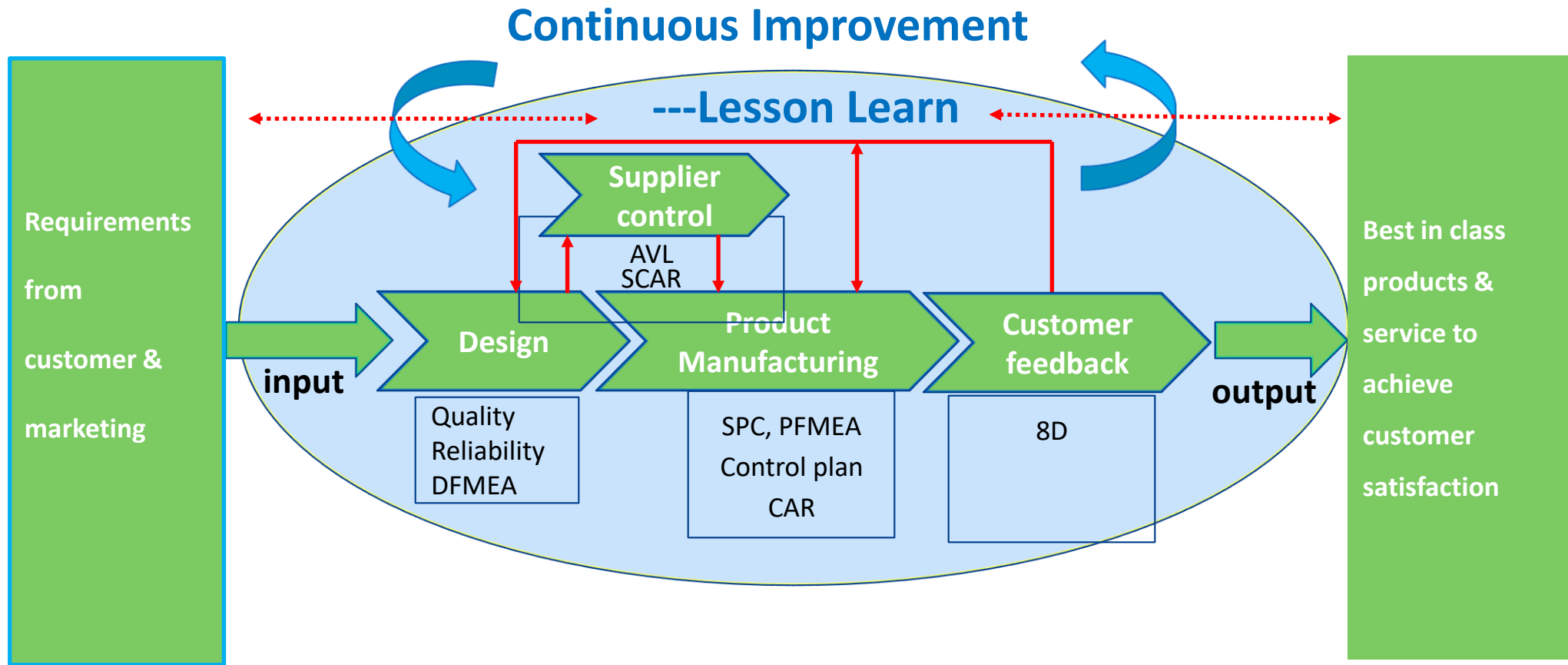
Goniometer
GO-NR1000

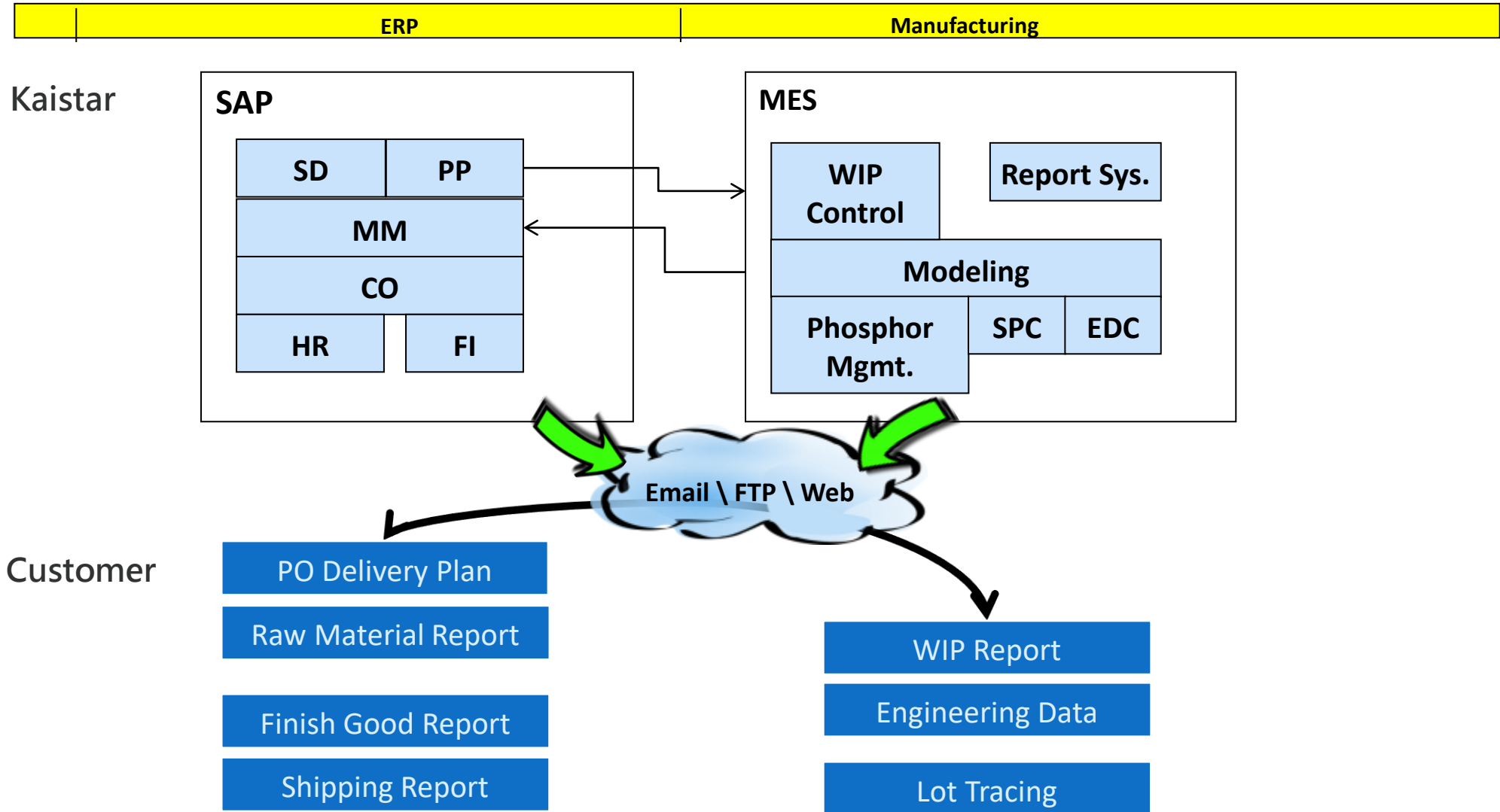


PTI Tester
LDQ-2









ISO9001



QC080000



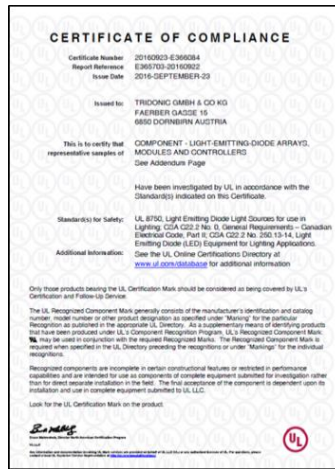
OHSAS18001



ISO14001



UL



ENEC



CE



TISI



PSE



Through an EMC contract, CEC installed more than **40,000 streetlights** in Shenzhen, Shantou, Guiyang, & Guangzhou. CEC is also a major contractor for the Street Lighting in Yuxi, **more than 60,000 solar streetlamps** installed in Yuxi City alone, covering more than 5,000 villages. **CEC built and installed more than 10,000 sets of Smart street lighting systems** in Shantou, Guiyang and adjacent cities.



Smart Solar Light project in Saudi Arabia.

Customized Solutions

- ✓ Take advantage of local sunshine, customized
- ✓ Smart solar street light solution
- ✓ Effectively monitor solar panels and batteries.
- ✓ Supplied intelligent platform with remote management with auto-alarm system



**China's most comprehensive and large-scale Smart City Lighting case,
the National Development and Reform Commission &
National Energy Conservation Center recommended case**

Customized Solutions

- ✓ 3 customized smart light solutions for road lighting, tunnel lighting and landscape lighting.
- ✓ One platform with 3 sub-system to control all these 3 application with daily needed function.



Road Lighting



Tunnel Lighting



Landscape Lighting

CEC/SED and Philips joint project: The Shenzhen Tencent Building, Kunming City landscape lighting upgrade, Leshan Three Rivers Six Banks, Shantou Lushi Bridge and in Guangzhou, the two sides of the River and other landscape landmark projects to provide complete and Smartt lighting fixtures and systems.



**Energy-saving renovation project of Economic Belt on The Silk Road,
the largest IOT Smart street light project in western China.**

Customized Solutions

- ✓ Multi-protocol LCU and CCU system to offer stable and fast response system.
- ✓ SaaS-based big data platform supports management of Smart solar streetlights system, emergency command & communication terminal and mobile monitoring







The world's longest and China's 1st highway Smart streetlight transformation project.

Customized Solutions

- ✓ High efficiency LED Light+PLC LCU and CCU.
- ✓ IoT comm powerful platform to enable remote on/off/ dimming according to time, environment light level, real demand.
- ✓ Auto-alarm notice, status and data checking

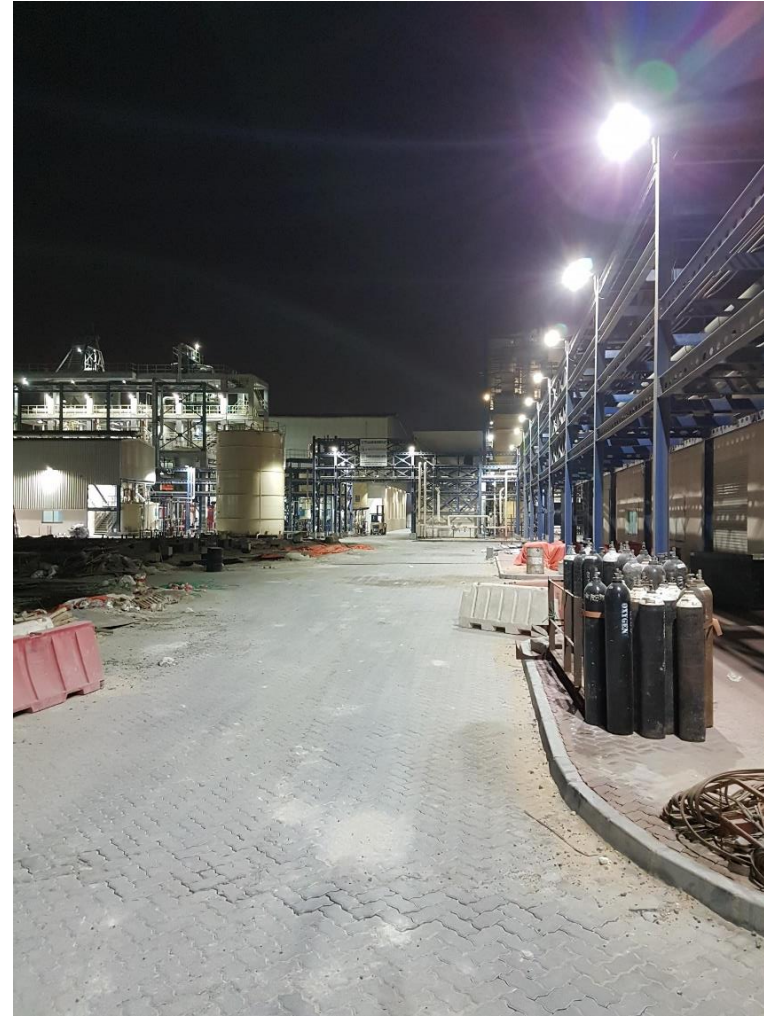
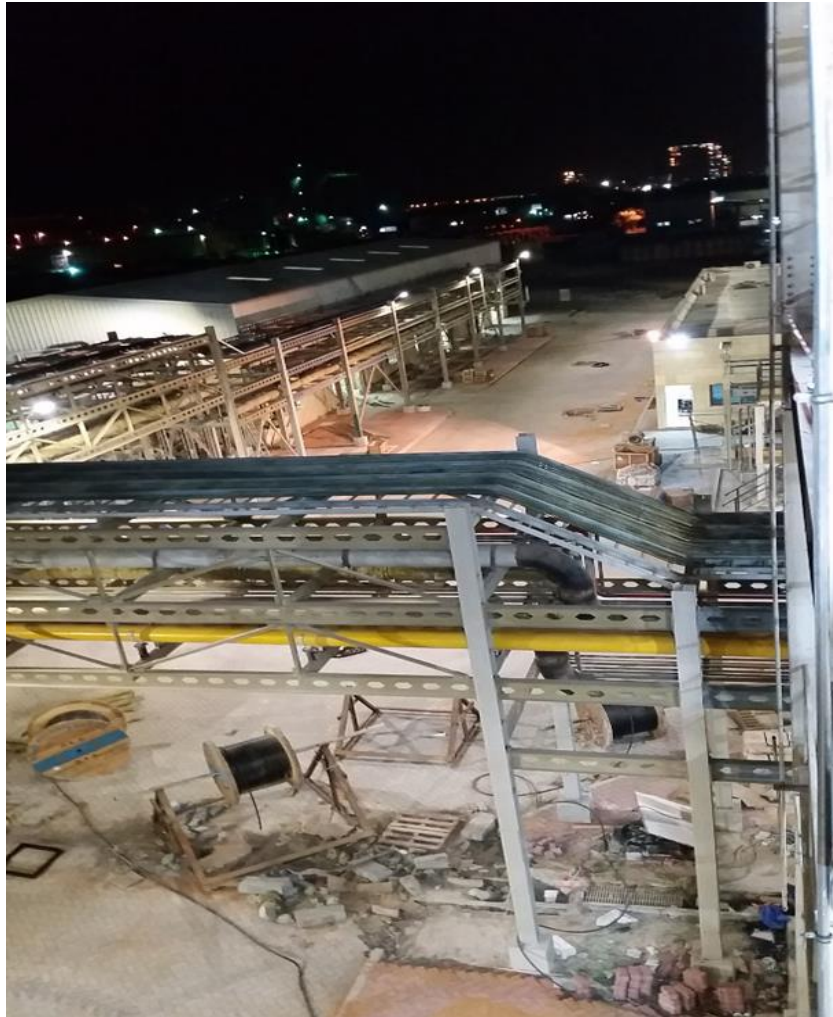


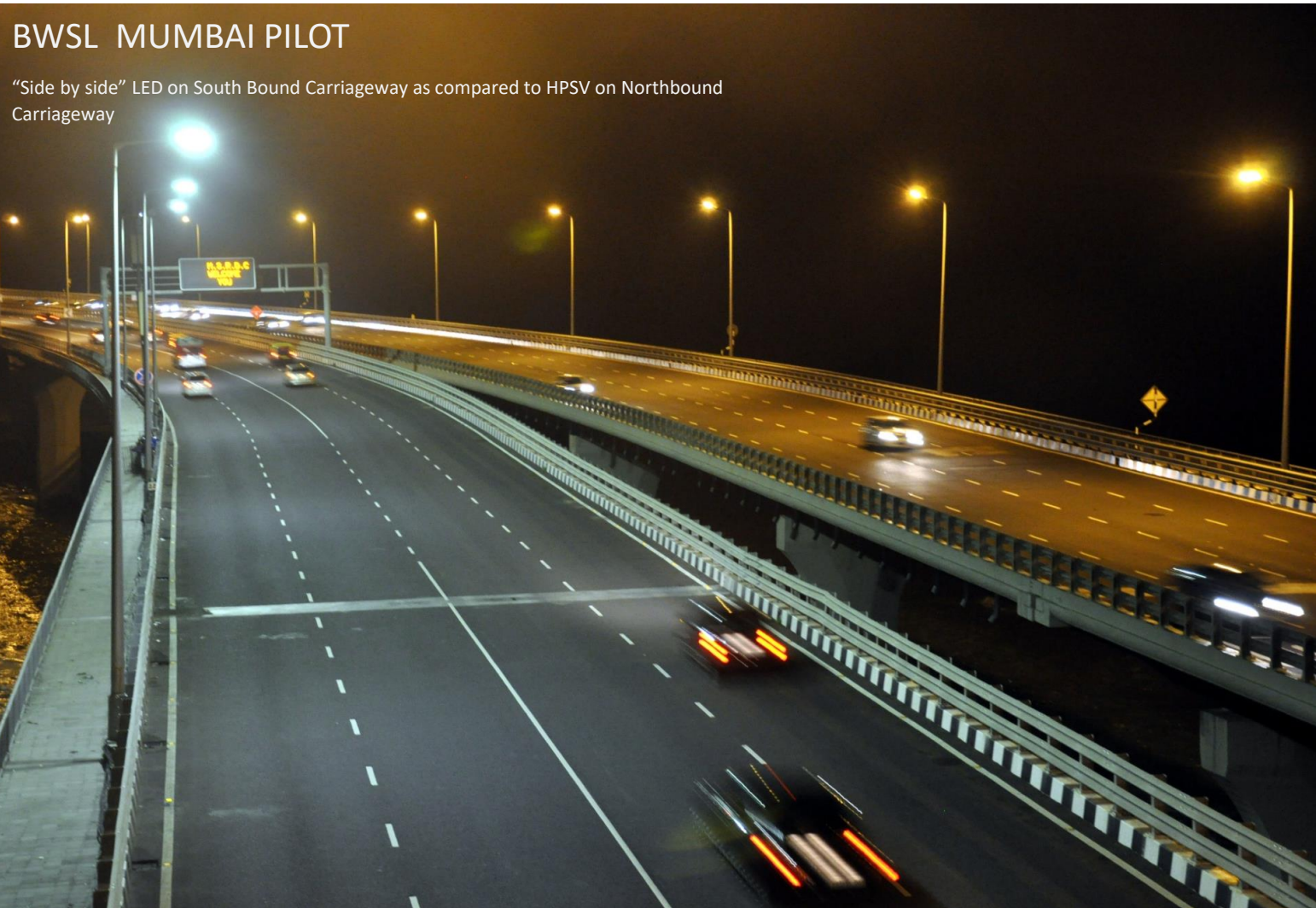
Bangladesh nation-wide benchmark smart lighting project

Customized Solutions

- ✓ Replace traditional light to LED light.
- ✓ With PLC Smart solution.
- ✓ Supply platform to control remotely on/off, dim, grouping, schedule setting and with alarm system















Thank You!

