



# COMPANY **PROFILE**



www.edison-opto.com



## **Outline**

## Company Overview

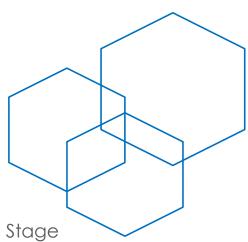
Location, Production, Milestone

#### **Products Series**

- General Lighting
- Special Lighting—Horticulture, Automotive, Human Centric, Stage









**Edison Opto** was established by Mr. Jason Wu, the chairman as well as the founder, at New Taipei City of Taiwan in 2001. For its innovated technology strength, Edison Opto provides comprehensive LED and solid-state lighting products from LED Component, Light Module, UV / IR LED, LED sensing, Horticulture and Automotive Lighting.

With a view to improve R&D process, Edison Opto develops the vertical platform on **TEMO** (Thermal · Electrical · Mechanical · Optical) to ensure the quality of products and services. Furthermore, Edison Opto creates **LDMS** (Lighting Design Manufacturing Service) from light source to luminaire manufacturing, to serve our customers a quality experience of customized solutions.

Establish 2001

Chairman Mr. Jason Wu

Paid-In Capital 47 Mil. USD

Employee 800 people

- 5.5 Mil. USD R&D investment
- International Patent 41 listed





## **Company Location**





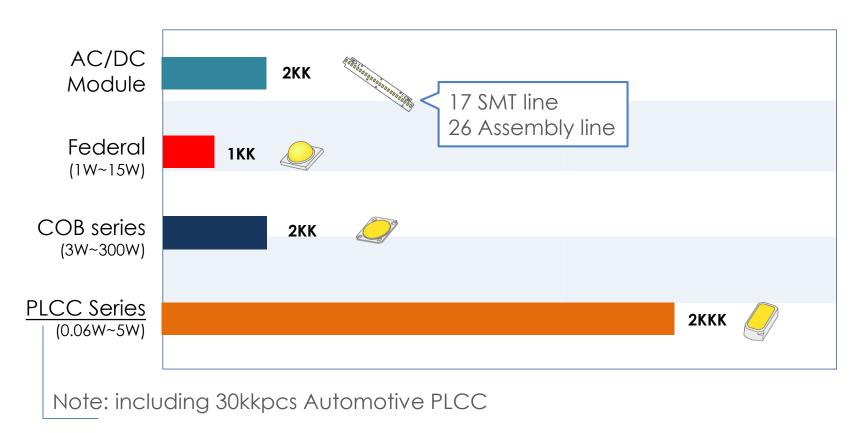






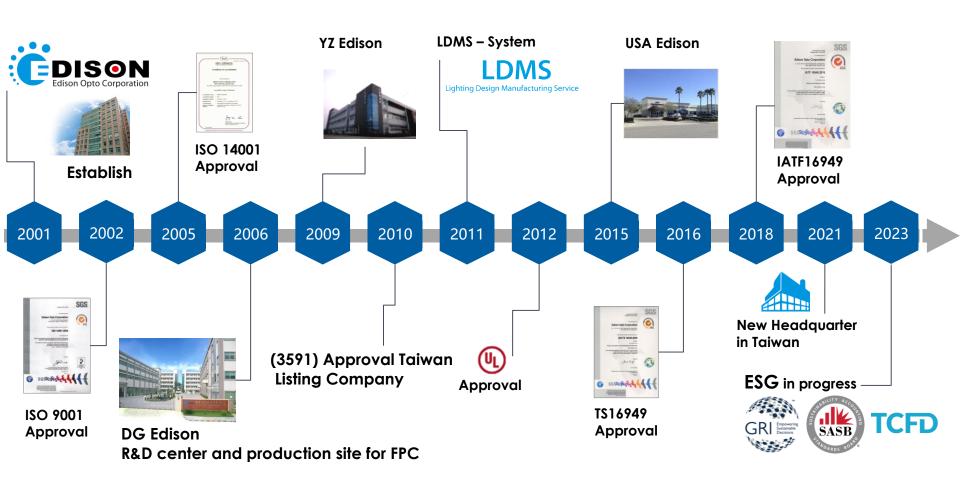
## **Production Capacity**

## Components / Modules - Monthly Production Capacity





## **Company Milestone**





Location, Production, Milestone

## **Products Series**

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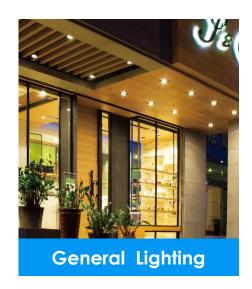


R&D Facilities and Safety Testing Laboratory





## **Main Products List**



- LED Component
  PLCC
  High power
  COB
- AC/DC modules

  SMD
  DOB
- Strips (FPC)



**Automotive** 

- LED
   High power , Flip chip
- Modules
- Strips (FPC)

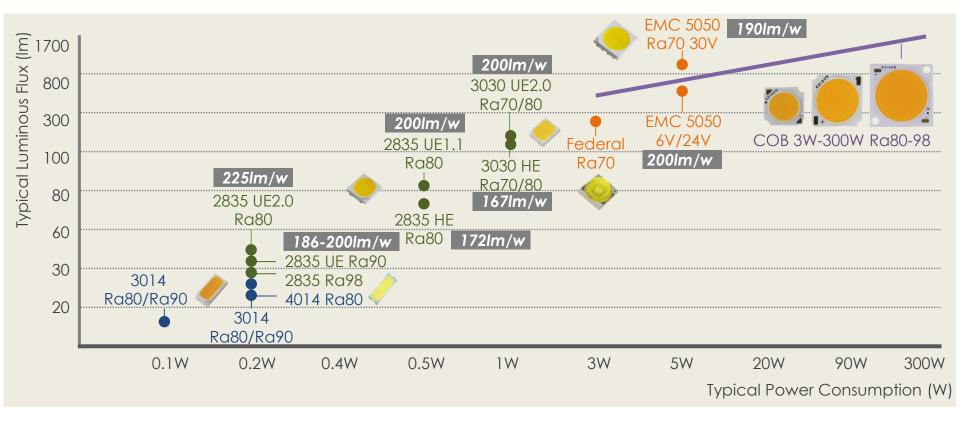


**Professional Lighting** 

- Horticulture
- Semiconductor
- Medical
- Human Centric
- Stage & Filming



## Main Products—General Lighting (component)



- Low Power LEDs
- Mid Power LEDs
- **High Power LEDs**
- COB LEDs

#### Single Color LEDs <







- 3014 0.1W Pink/PC Amber
- 2835 0.2W R/G/B/Pink
- Federal 3W UV/IR
- Federal 3W R/G/B/PC Amber

#### 





- 2835 2in1 WW, NW, CW
- 3528 3in1 RGB (Reverse type)
- 5050 3in1 RGB
- 5050 4in1 RGBW



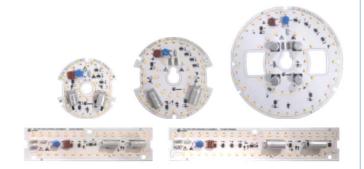
## Main Products—General Lighting (module)



### AC / DC Module

#### Circular/Linear/Ring

- Flicker Free (<5%)
- High Power Factor > 0.98
- High Efficacy
  - DC: 225lm/w
  - AC: 170lm/w



### DOB

#### Ф34/Ф38/Ф47/Ф57/Ф65/Ф50 DTW

- Flicker: 5% (even during dim.)
- PF>0.9
- 4W-40W
- OTP function=circuit protection
- 2700K/3000K/4000K/1800-2700K









## **Strips**

#### FPC 2110/2216/3014/2835/5050

- IP Level: IP20 IP68
- 60D/70D/80D/120D/140D/240D/350D/700D
- Ra80/Ra90/Full Spectrum
- Single color/Dimming/RGB/RGBW



## Main Products—Automotive Lighting (1)

PLCC Series—Exterior/Interior 0.06W-1W (max.3W)











Watt: 1W-3W DRL, Turn Signal, Warning Light





Watt: 0.2W-1W DRL, Turn Signal, Warning Light











Watt: 0.06W-0.5W Turn Signal, Warning Light, Reading Light Ambient Light, Dashboard





Watt: 0.2W-0.5W DRL, Turn Signal, Ambient Light, Dashboard





### PLCC 2214

Watt: 0.06W Ambient Light, Dashboard



Dong Feng Series—Exterior Lamp 3W-25W (max.40W)

## CA2016/L(1D) 🔷 🌭 🎨









Watt: 3W-5W

DRL, Fog Lamp, Turn Signal

### Single Row







Watt: 7W-16W

Type: 2C, 3C, 4C, 5C

DRL, Fog Lamp, High/Low Beam

#### Double Row







- Type: 6C, 8C (18-25W)

**Dual Color** 

- Type: 2CD, 6CD, 8CD (3W-13W) Fog Lamp, High Beam, Bi Beam



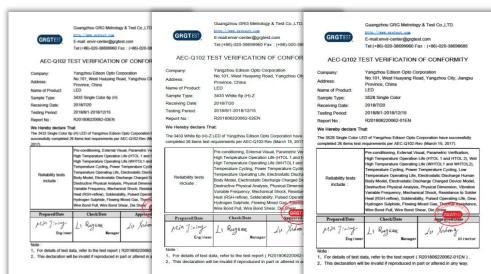
## Main Products—Automotive Lighting (3)

### **Quality Guarantee**

#### Total 28 testing items, main 6 items—

- ✓ MSL
  - ① 85°C/85%RH—168hrs
  - ② Reflow 3 times
- ✓ WHTOL
  - ① 1,000hrs, 85°C/85%RH
  - ② Max./Min. Current
- ✓ HTOL
  - ① 1,000 times
    - Tj=125°C@Max. Current
- ✓ TC
  - -40°C~125°C, 1,000 cycles
- ✓ PTC
  - ① 1,000 cycles, -40°C~125°C
  - ② 5min on/5min off
- ✓ H2S
  - ① 336hrs, 40°C/90%RH,
  - 2 H<sub>2</sub>S 15ppm





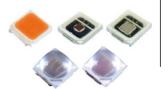


## Main Products—Professional Lighting (1)

## **Horticulture Lighting**

**EMC 3030** 

Federal 3535 PLCC 2835









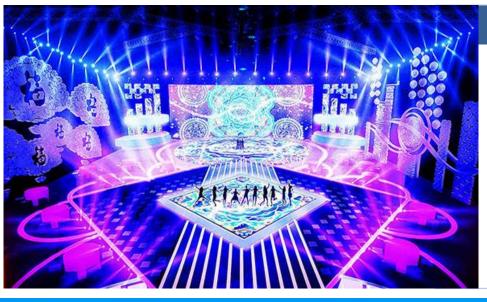












## **Stage Lighting**

3535 R/G/B/W/ Amber/UV/ CW/ WW







#### 32in1 module

= High power Module + **Customized Optic** 



## Main Products—Professional Lighting (2)



### **Human Centric**



### 2835/3030/5050

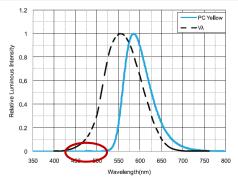
- 0.5W-5W
- 6V
- 3000K (CAF: 0.31-0.37)
- 5700K (CAF: 0.79-0.93)

### **Semiconductor**



#### 2835

- 0.2W-1W
- 3V/6V
- PC Yellow





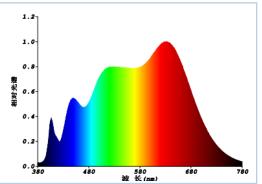


## **Medical Facilities**



#### 2835 Full Spectrum

- 0.2W
- 3V
- 4000K
- COI=0.65

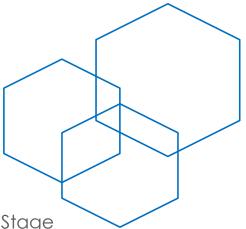




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## R&D Facilities and Safety Testing Laboratory





## **Equipment**



High Temperature Tester

10°C-300°C



Low Temperature Storage Chamber

-55°C-150°C



Constant Temp. & Humi. Chamber

-40°C-150°C 10%RH-98%RH



Thermal Shock Test Machine

-60°C-150°C -55°C-0°C



Automatic Direct Eutectic
Die Attach System

Hot-Pressed Eutectic Production



Thermal Transient Tester (T3Ster)

Package Thermal Characterization Analysis



Integrating-Sphere Photometer

CAS140CT/ CAS120/ HASS2000 Diameter: 100cm/ 50cm/ 25cm Wavelength: 220-1020nm



Scanning Electron Microscope

150k times magnification Element Analysis



## **Management System**

#### Certifications

Quality Assurance











Customer **Orientation** 

**Technology** Leading

**Employee Participation** 





#### **iMES Process Flow**

#### Map

- Map Physical **Process**
- Map Business **Process**



#### Control

- Real-time Visibility
  - Online **Analytics**
- Process Control



#### Optimize

- Optimization
- Simulation
- Virtual & Augmented Reality



#### Excel

- Big Data **Analytics**
- Machine Learning

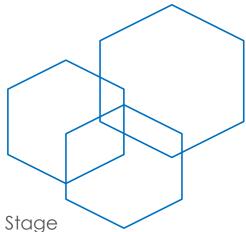




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## LDMS— Total Solution

LED Emitter PCBA Optics Heatsink Circuit Solution
L1 L2 L3 L4 L5 L6



#### **Lighting Design Manufacturing Service**



# Thank You