



ProLight Opto Technology Corp.

All-round high power LED packaging service provider

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About ProLight Opto

Product line-up

- Automotive
- UV LED
- General lighting
- Specialty lighting
- Entertainment lighting
- IR / VCSEL

Production & Quality

About ProLight

About ProLight

2004
established

2012
ProLight own
factory in Taiwan

2014
IPO

2021
joined Ennstar
group

Leadership team

Chairman : HB Chen (Ex-CEO of AUO)

President : Michael Hsing

HQ & Plant : Taoyuan City, Taiwan

Office : Shanghai / Shenzhen

Employee : 300 people

Capacity : 45 KK/ month

Ennostar Group

Ennostar

Epi / Chip	Package / Module	Advanced Compound Semiconductor
EPISTAR <ul style="list-style-type: none">• Episky• Epicrystal• Jiangsu Canyang Optoelectronics• Shenzhen Epikylin Optoelectronics	Lextar  Low-mid power <ul style="list-style-type: none">• Yenrich Technology• Hexawave	Unikorn
Mini / Micro LED	Sensing	Automotive
		Power Device
		5G

Ennstar at a Glance

Founded	January 2021
Paid-in Capital	USD 241 Million (NTD 6.86 Billion)
Group Patents	6,329 (5,531 granted + 798 pending)
Group Revenue (2021)	≈ USD 1,020 Million* (NT 36 Billion)

ProLight's vision & mission



Realize the infinite possibilities of compound semiconductor applications.

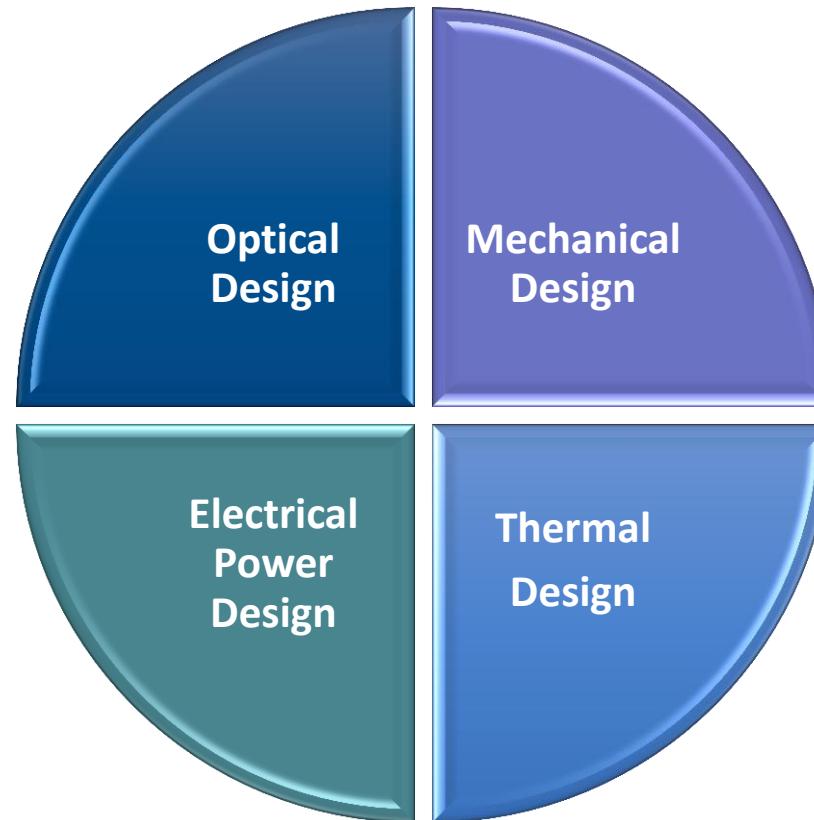


Provide differentiated LED packaging technology for customers with all-round service solutions.

ProLight's capability

Integrated Design · Manufacturer · Service

- 1. Exclusive Phosphor Tech. to provide excellent color uniformity.
- 2. Phosphor Color Control Tech.



- 1. HV LED packaging tech.
- 2. DOB design.

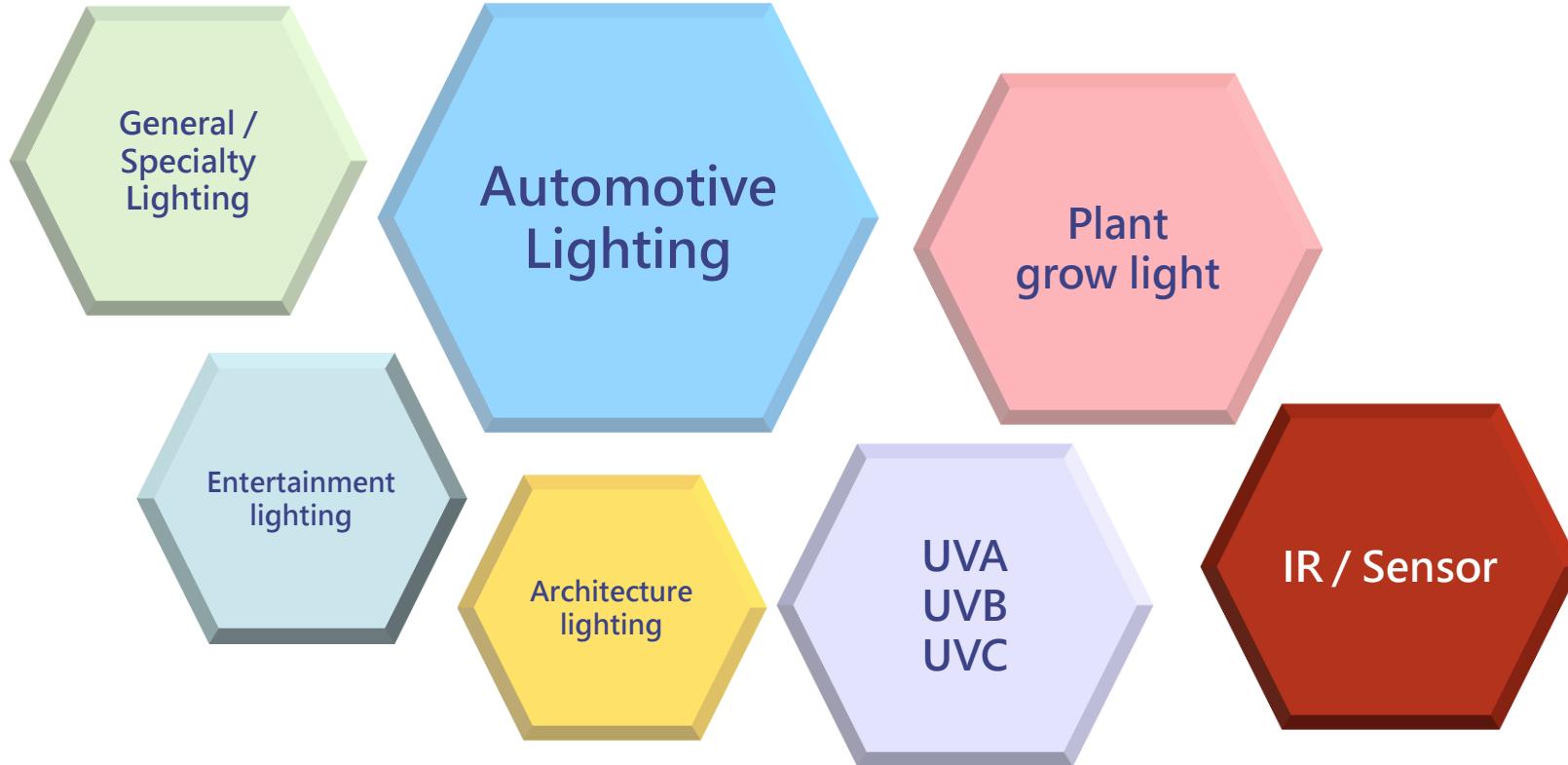
- 1. All product series passed MSL-1
- 2. Light module design & SMT production.

- 1. Dedicated on Vertical / Horizontal / Flip chip design.
- 2. Various High Thermal Dissipating Substrate design to provide better thermal solution.

Certification



Business segments



ProLight's core product applications

Product line-up

Automotive series

Exterior light



- Headlamp : 1-chip CSP ~9-chip CSP
- Turning light / DRL / Tail light
PLCC6 package : customized-color available
Colors : R/B/W/A/PC Amber



Module



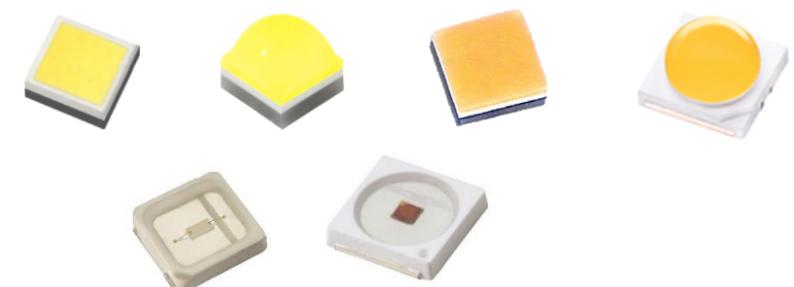
- HUD (Head Up Display)
- Tail light module



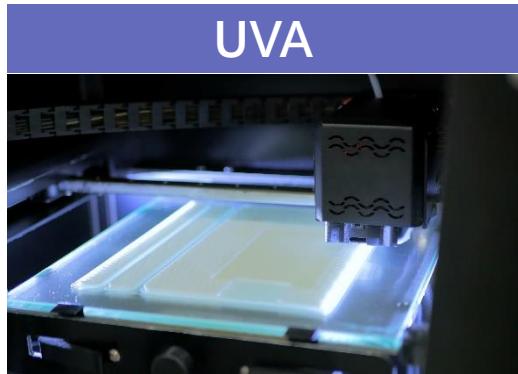
Warning Light



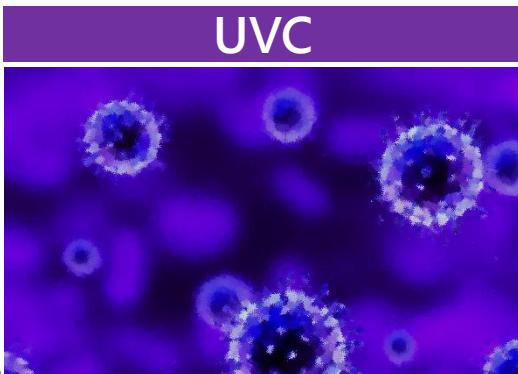
- Various packages :
1616 / 1616⁺ / 2525 / 3030 / 3535
- Colors : R/B/G/W/A/PC Amber



UV series



- Application: printing / exposure / ink curing / anti-bacteria
- LED: 3~20W (365nm/385nm/395nm/400nm)
Module: 200W (365nm/385nm/395nm)
- High lux / narrow angle
ProLight is the only one supplying LED with **viewing angle 30° with quartz lens** (better lux)
- Seamless side-by-side module



- Application: air purification, water sterilization
- **Nano-quartz coating /Quartz lens**
UVC penetration >99%
- Flip chip package
- LED : 0.2~12W (10~150mW)
Module : 100W (1,000mW)



General lighting

Commercial lighting



- High CRI >90
- Tunable /dim to warm white
- MacAdam 1-step



Human centric



- Reduce blue light hazard
- Increase concentration



Module



- Tunable white
- Exclusive IC power
- AC / DC module



Specialty lighting

Plant growing



- Package : 3030 / 3535
- Watt : 0.5~4W
- High PPF



Medical



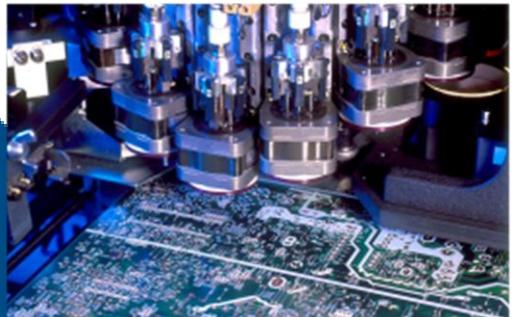
- Surgical lighting : CRI >95, R9 >90
R9 >90 makes the colors of blood, organs, and tissue in the operative field more visible and distinguishable.



Surgical Light

Endoscope

Industry



- AOI : narrow angle / high flux / good uniformity
- Package : 1616 / 3535



Entertainment Lighting

Architecture



- Exclusive color : customized-color available

- Watt : 0.5W~15W



Stage Light



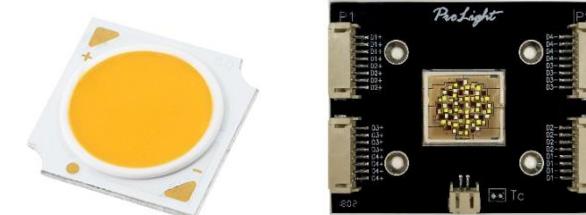
- COB color : 2-in-1~6-in-1
- LED color : 4-in-1~7-in-1



Studio Light



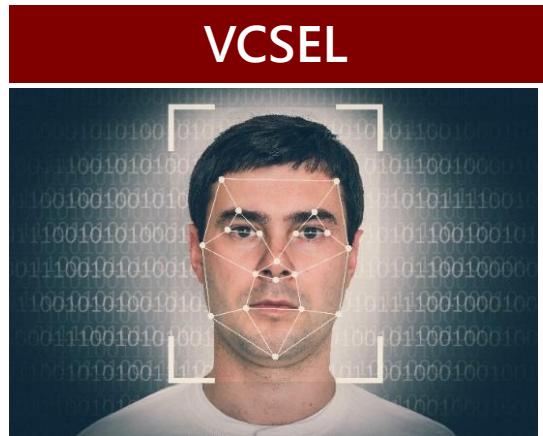
- CRI >95~98



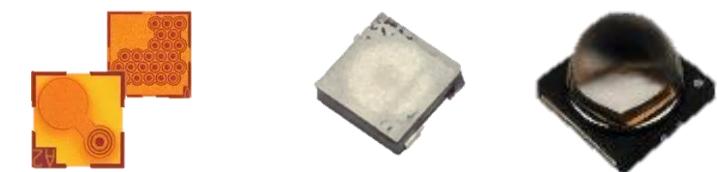
IR series



- Applications : CCTV / Car safety system
- Package : 3535 with narrow viewing angle (35° 60° 80 ° 140 °)
- wavelength : 850~1000nm



- Applications : Face ID
- Package : 3030 / 3535



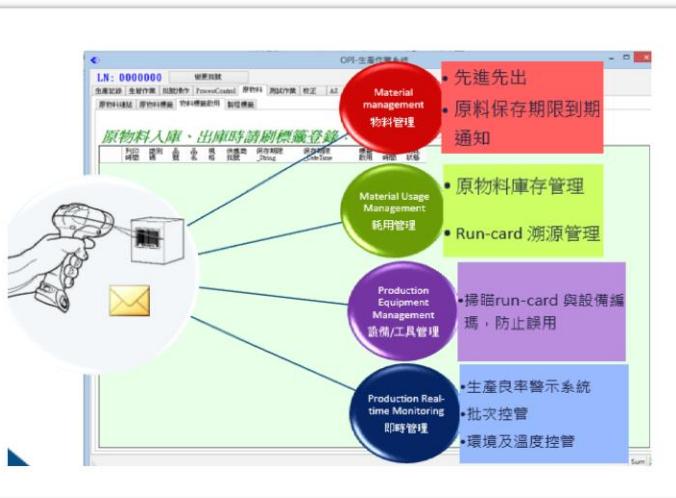
Vcsel
chip

Production & Quality

Production control process



- First in & first use
- Materials Traceability System
- Run-card tracking and management



- Low Yield Auto-alert / WIP alert
- Specification system
- Delivery date change/ delay notice
- Environment and curing temp. Monitor
- SPC(for automotive) / ORT monitor

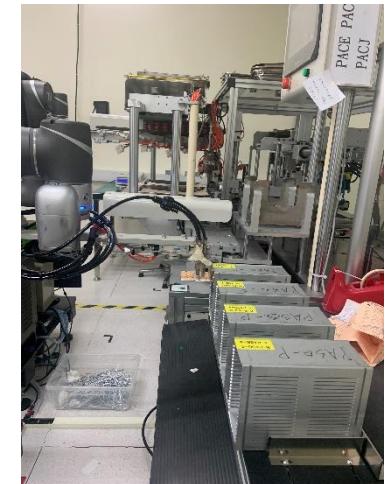


Automated robot arm

Flexible automatic production by robot arm



Phosphor coating station



Laser engraving station

Reliability testing equipment



High temp. life test



Thermal shock chamber



Burn-in life test



Low temp. life test



Wet & Humidity Chamber



IR Reflow chambers





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