

# Seiwa Optical UV LED Light Guide

UV Curing Resin Curing Fluorescence Excitation Lithography Nondestructive testing

> Design • Manufacture • Sales Seiwa Optical Co., Ltd Factory

# Introduction

Announcing Seiwa's new UV product line (UV (365-385-405) LED Illumination)! They have already been successfully utilized for testing and curing. Currently, the target wavelengths are UV-365, UV-385, and UV-405. However, our product line can also be used for finer wavelengths such as UV-375 and UV-395. In addition, aggregates like COBs which require high power output can be made. It is possible to blend the wavelengths of three outputs for COBs. These products can be used for many different applications and wavelengths. Since our LED output emits high power, there are many advantages in using our products. Some of these advantages include lower power consumption, prolonged life, and no need to manually power on/off.

We are increasing the power ouput of our UV LED light products as follows:

- 1. Average LED radiant flux at 700mA 500~780mW (365nm, dependent on model)
- 2. Average LED radiant flux at 1000mA 1000mW (365nm, dependent on model)
- 3. COB development (60chip) max radiant flux 3000mW (365nm, 3 wavelengths possible)
- 4. Long life span of our UV LED products continue to be verified since our release 3 years ago

#### 1. 《UV(365•385•405)LED Light》

# Seiwa Optical's UV-LED Light

### Intro to LED light: Adaptable, bright, and energy efficient

1. The brightness comes from the optical manufacturer's unique design of the lens. We develop a variety of lens for lines, parallel lights, local high illuminance, and distribution emphasis. Also, we can setup optical simulations and can understand your requested light and distribution level before the product trial. We will eliminate prototype waste.

2、 We can simulate heat waste for processes such as heat dissipation of the LED light which affect the length of life. We can also simulate the actual temperature of the environment.

**(1)**Air cool (High efficiency heat sink)

**②**Forced air cool (by fan)

**③**Water cool (Water jacket, chiller)

Multi-purpose: LED, implementation quantity, board design, radiator and optical design, power supply design.

# 2. 《Representative product》

Intro to our representative product



#### 1. Intro to line-type UV-LED(365nm)

- •UV-365nm Water-cooled line-type lighting
- Illuminance 50~350mW、 diffusion type
- Power600W external dimming RS-232C, Analog 0-5V, Digital 8bit, option to control by LAN
- •Wavelength can be selected (365, 385, 405)
- •Water quantity: 6L/Min Tj=45°C Ta=25°C
- No diffusion, condensing 700mW possible at WD30mm



### 2. Intro to line-type UV-LED(365nm)



- UV-365nm Air-cooled line-type lighting
  Illuminance 500mW, condensing type
  Power300W external dimming RS-232C, Analog 0-5V, Digital 8bit, option to control by LAN
  Wavelength can be selected (365, 385, 405)
- Condensing width 5mm length 400mm

#### 3. For local curing, spot lighting



- •UV-365nm Fiber type, spot lighting
- Illuminance 500mW, condensing type
- Light-emitting portion visceral to power supply 300W
   External dimming RS-232C, Analog 0-5V, Digital 8bit, option to control by LAN
- •Wavelength can be selected (365, 385, 405)
- Condensing width  $\phi$  5mm
- •No. of emitted lights and distance selectable

## 4. Introduction to Spot-type UV-LED



- •UV-LED Air-cooled spot lighting
- •Illuminance 400mW、diffusion type (365)
- •Power30W External dimming Analog 0-5V, Digital 8bit
- •Wavelength can be selected (365, 375, 385, 395, 405)
- •Exit path  $\phi$  5mm
- Ideal for detection of transparent electrodes
- 5. For testing, module sales





- Module sales of aluminum substrate mounted UV-LED
- Illuminance 450mW~1000mW
- Wavelength 365, 385, 405
   Low illuminance types available (375, 395) (100mW~780mW)

# 3. 《Design solutions》

1. Custom-designed solutions based on user requests

Color-displayed distribution Graph-displayed brightness output Graph-displayed Strength • Distance







#### LED Single Output



#### Rod lens configuration



#### Original light-guided lens



We can simulate optimal conditions and design your requested lighting.



