
DRL-10040/DRL-10065 Series Direct Ring Light



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1 Introduction of DRL-10040/DRL-10065 Series Direct Ring Light

1.1 DRL-10040/DRL-10065 Series Direct Ring Light General Characteristics

The DRL-10040/DRL-10065 series direct ring light is shown in Figure 1 and Figure 2. **Error! Reference source not found.** It consists of a housing, 18 high-brightness LEDs, and a professionally designed uniform light lens array that matches the LED. It can be applied to common monocular microscopes and stereo microscopes to achieve uniform illumination within a working distance of 80-130 mm.

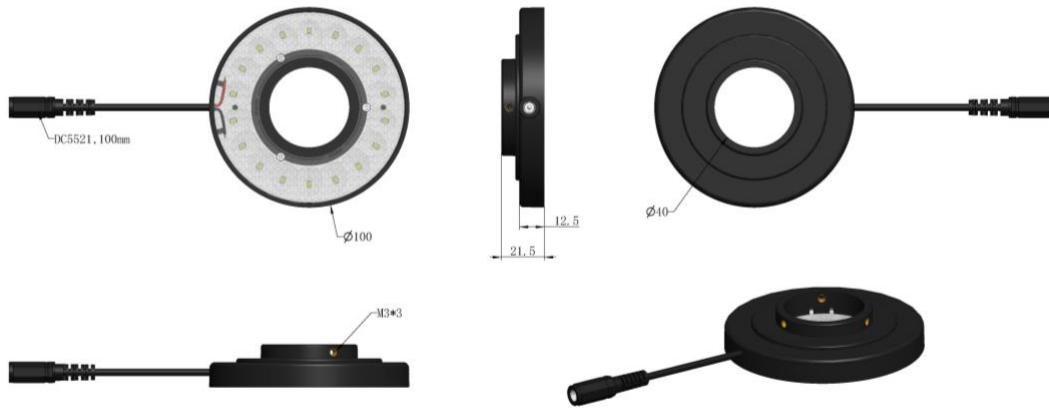
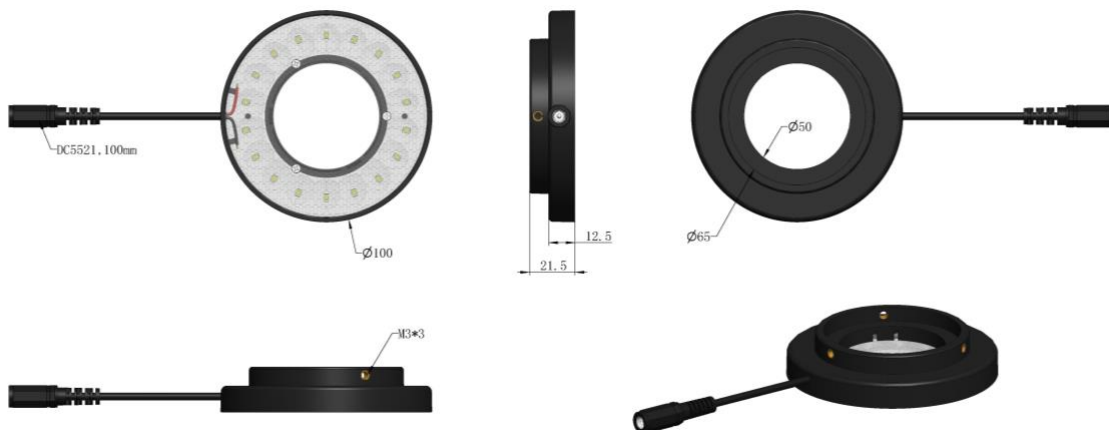


Figure 1 Dimensions of DRL-10040 direct ring light



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Figure 2 Dimensions of DRL-10065 direct ring light

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1.2 DRL-10040/DRL-10065 Series Direct Ring Light Illuminance Analysis

The illumination distribution diagram of the DRL-10040/DRL10065 series direct ring light at working distance of 40-200mm is shown in Figure 3. At a working distance of 80-130mm, the illumination uniformity can reach more than 80%. This solves the problem of uniformity at different working distances.

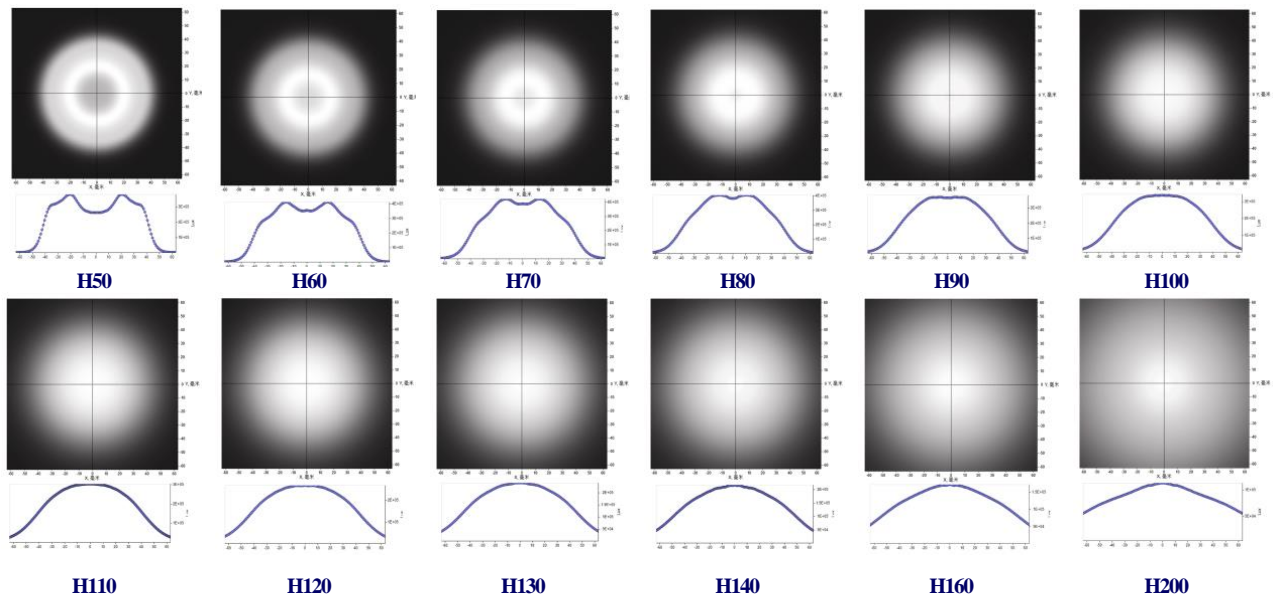


Figure 3 Illuminance distribution of DRL-10040/DRL-10065 series direct ring light(working distance 40-200mm)

1.3 DRL-10040/DRL-10065 Series Direct Ring Light Optional Models

The available models of DRL-10040/DRL-10065 series direct ring light are shown in the table below. The DRL-10040 has an outer diameter of 100mm and an inner diameter of 40mm, which is suitable for monocular microscopes; the DRL-10065 has an outer diameter of 100mm and an inner diameter of 65mm, which is suitable for traditional stereo microscopes.

Order Number	Dimensions	Installation Inner Diameter	Power
DRL-10040	100mm	40mm	12V1A
DRL-10065	100mm	65mm	12V1A

2 Installation of DRL-10040/DRL-10065 Series Ring Light

The DRL-10040/DRL-10065 series direct ring light can be installed on a monocular microscope or a stereo microscope. The installation method is shown in Figure 4. Install the DRL-10040 on the bottom of the monocular microscope and tighten the mounting screws.



Figure 4 DRL-10040 installed on a monocular microscope

3 DRL-10040/DRL-10065 Series Direct Ring Light Packing List

Figure 5 DRL-10040/DRL-10065 series direct ring light packaging diagram

Packing List	
A	Light source packaging box specifications: L: 21.5cm W:12.8cm H: 4.8cm (1pcs, 0.16kg/box)
B	DRL-10040/DRL-10065
C	Ring light modulator
D	Wrench x1/Hexagon socket screw x 3
E	Power adapter: Input: AC 100~240V 50Hz/60Hz, Output: DC 12V 1A (US standard)
F	Power adapter: Input: AC 100~240V 50Hz/60Hz, Output: DC 12V 1A (European standard)
G	Power adapter: Input: AC 100~240V 50Hz/60Hz, Output: DC 12V 1A (UK standard)

4 Pictures Taken with DRL-10040/DRL-10065 Series Direct Ring Light

The circuit board was photographed using a monocular microscope with an ordinary direct ring light and a DRL-10040. The images of the circuit board taken with the monocular microscope with an ordinary direct ring light are shown in Figure 6 and Figure 7 **Error! Reference source not found.** on the left. There are strong reflections in some parts on the image and obvious reflections at the circuit board traces. The images of the circuit board taken with the monocular microscope with a DRL-10040 are shown in Figure 6 and Figure 7 on **Error! Reference source not found.** the right. There is no local reflection on the image and no reflection at the circuit board traces, and the picture is more uniform.

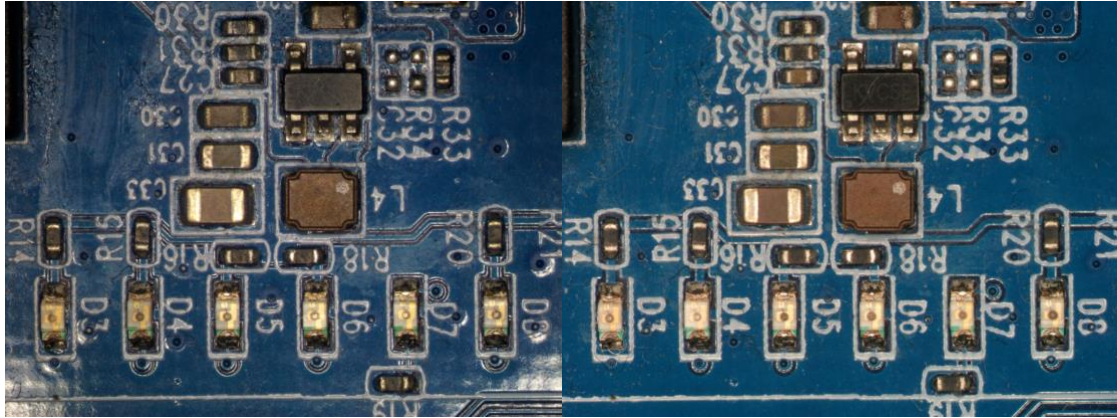


Figure 6 Monocular microscope + ordinary direct ring light to shoot the circuit board (left); Monocular microscope + DRL-10040 to shoot the circuit board (right)

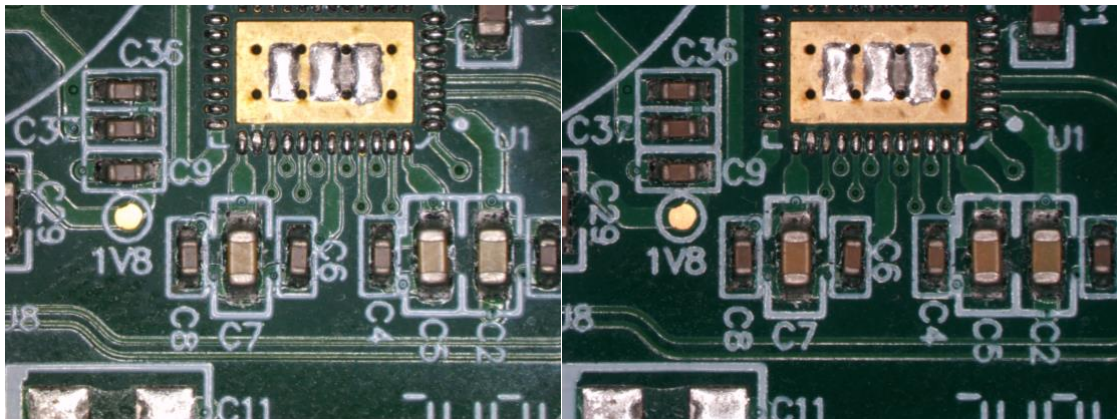


Figure 7 Monocular microscope + ordinary direct ring light to shoot the circuit board (left); Monocular microscope + DRL-10040 to shoot the circuit board (right)

5 ToupTek®-- Contact Information

	杭州图谱光电科技有限公司	
	杭州市西湖区西园五路 6 号奥强大厦 1 号楼 15 层	
	杭州, 310030, 浙江,	
	中国	
	Hangzhou ToupTek Photonics Co., Ltd	
	15F, Aoqiang Building 1, No. 6, Xiyuan 5th Rd.,	
	Hangzhou, 310030, Zhejiang, P.R.China	
	+86-571-8111-0735	
	+86-571-8111-0730	
	+86-571-8810-2638,	
	+86-18058780750 (手机/Mobile Phone)	
FAX: +86-571-8668-3738		
	tphz@touptek.com	
	Skype:	18058780750/ToupTek Photonics
	Q Q	2426878316
	Wechat	18058780750

6 ToupTek web site**6.1 Microscope/web**ENGLISH: [HTTPS://WWW.TOUPTEK.COM](https://www.touptek.com)ENGLISH: [HTTPS://WWW.TOUPTEKPHOTONICS.COM](https://www.touptekphotonics.com)CHINESE: [HTTPS://WWW.TOUPTEKPHOTONICS.COM.CN](https://www.touptekphotonics.com.cn)**6.2 Astronomy/web**CHINESE: [HTTPS://WWW.TOUPTEK-ASTRO.COM.CN](https://www.touptek-astro.com.cn)CHINESE: [HTTPS://WWW.TOUPTEK-ASTRO.CN](https://www.touptek-astro.cn)ENGLISH: [HTTPS://WWW.TOUPTEK-ASTRO.COM](https://www.touptek-astro.com)**6.3 Astronomy/shop**ENGLISH: [HTTPS://WWW.TOUPTEKASTRO.COM](https://www.touptekastro.com)