



## product introduction

The all metal construction of the Ring Light Series of lights provides a small particle resistant and all around durable light. Its plug and play 5 Pin M12 connector allows for ease of use while allowing for full control. The ODRD130 has an optimal working distance between 150mm and 450mm and will operate with either an NPN or a PNP signal and runs on an industry standard 24 VDC. The 0-10 VDC intensity control assists in gaining full control of the light output. A standard 42 mm inner hole diameter allows for use with nearly all camera systems with available step-up and step-down conversion kits adapters.



## product features



- 4-5 times Brighter Than Standard High Current LEDs
- SafeStrobe Technology
- Backlight Diffuser
- T-Slot for Mounting
- Conversion Adapters For Different Cameras
- PNP and NPN Strobe Input
- Continuous Operation or Strobe Mode
- Dimmable Via Built In Potentiometer
- Analog Intensity 0-10VDC Signal
- Eight, 1mm<sup>2</sup> Die High Current LEDs



## product specifications

<b>Electrical Input</b>	24 VDC +/- 5%
<b>Current</b>	Max. 4A draw during strobe – Max Average 400mA
<b>Wattage</b>	Max. 96W during strobe - Max. Avg. 9.6W
<b>Strobe Input</b>	PNP ▶ +4VDC or greater to activate.   NPN ▶ GND (<1VDC) to activate
<b>PNP Line</b>	3.7mA @ 3VDC   6.2mA @ 5VDC   12.6mA @ 10VDC   30.4mA @ 24 VDC
<b>NPN Line</b>	22mA @ Common (0VDC)
<b>Duty Cycle</b>	Max. 10%
<b>Yellow Indicator LED</b>	ON = Light Rest (LED inactive) OFF = LED/Light Ready
<b>Green Indicator LED</b>	ON = Power
<b>Strobe/Pulse Time</b>	Max. 5000 SPS (Strobes Per Second)   Max. Single Pulse = 125ms
<b>Potentiometer</b>	Intensity control of 10% to 100% Clockwise increases intensity
<b>Analog Intensity</b>	The output is adjustable from 0 -100% of brightness by a 0 -10 VDC signal
<b>Connection</b>	5 pin M12 connector
<b>Lifespan</b>	100,000 hrs
<b>Ambient Temp.</b>	-20° - 50° C (-4° - 122° F)
<b>IP Rating</b>	IP50
<b>Weight</b>	~325g
<b>Certification</b>	CE and RoHS certified
<b>IEC 62471 Rating</b>	See page 4



## product number key

# ODRD130 – XXX

# —» Part Number Key

Product Family:  
Ring Light  
ODRD130

Color:  
470 – Blue  
505 – Cyan  
530- Green  
625 – Red  
850/940 – IR  
WHI - White

CE and RoHS Compliant



## warnings



### Attention

Please note that the power requirements are up to 800mA at 24VDC. Failure to supply light with up to 800mA can result in non-repeatable lighting. Contact Smart Vision Lights for more information.



## wiring configuration

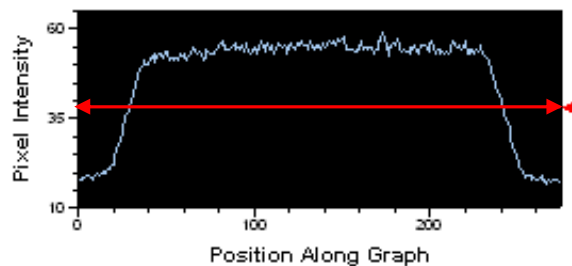
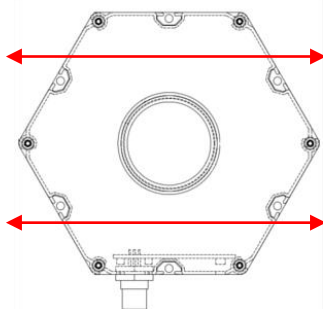
If Analog 0-10 VDC is not used to control light intensity;  
+VDC (24VDC) must be connected to Analog Input - Jumper pin 5 to pin 1

Pin	Function	Signal	Wire Color
1	Power In	+24VDC	BROWN
2	NPN	Sinking Signal	WHITE
3	GND	Ground	BLUE
4	PNP	Sourcing Signal	BLACK
5	Intensity Control	0-10VDC	GREY †

† Some cables use green with yellow stripe for 0-10V adjustment



## optical performance



The ODRD130 offers a very diffuse light pattern at a defined working distance between 150mm – 450mm. The Pixel Graph representation shows a steep drop off in intensity outside of the active area with a very diffuse light pattern inside.

Average Intensity Rating

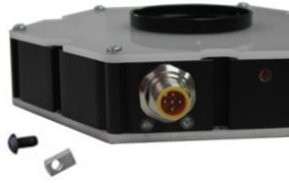
36,000 lux\*

\*Lux measurement taken at surface of RD130.



## mounting & accessories

Standard industrial T-slots on each side accept T-nuts



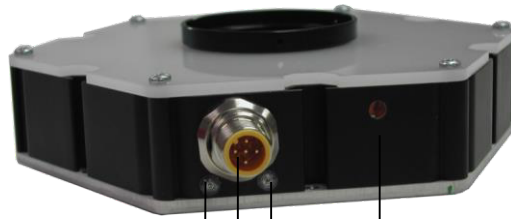
Front mounting of Lens to Ring Light



Rear mounting of Lens to Ring Light



## identification



- 0-10 VDC Intensity Adjust
- Active Signal Indicator LED (Yellow)
- Power Input Plug
- Power Indicator LED (Green)



## adapter kit

### Standard Adapter Kit – Part # SU46-25.5-27

Adapter Kit includes 2 step up rings (25.5 and 27), 6 set screws and hex tool. 6 set screws – 3 for mounting step up ring to light and 3 additional for lens. Some locking thumbscrews may prevent the lens from fitting through the center of the R80, extra low-profile replacement set screws are included, allowing the protruding thumbscrews to be removed.



### Step Up Adapter Kits

Step Up Adapter Kits includes step up rings, 6 set screws and hex tool. Lenses can be mounted to front or back of ring light. Filters can also be installed.



M46 step-up	Lens thread size	Part #
46-	25.5	SU46-25.5/27
46-	27	SU46-25.5/27
46-	30.5	SU46-30.5
46-	34	SU46-34
46-	37	SU46-37
46-	37.5	SU46-37.5
46-	39	SU46-39
46-	40.5	SU46-40.5
46-	43	SU46-43

### Step Down Adapter Rings

Step Down rings mount large lenses to light. Step Down rings mount lenses to back of ring light. Filters can also be installed.



M46 step-down	Lens thread size	Part #
46-	49	SD46-49
46-	52	SD46-52
46-	55	SD46-55
46-	58	SD46-58
46-	62	SD46-62
46-	67	SD46-67
46-	72	SD46-72



## risk group

According to IEC 62471:2006. Full documentation upon request.

#### Notice

Exempt Group: No photobiological hazard to eyes or skin even for continuous, unrestricted use.  
Applicable for wavelengths: 625, 850, and 940.

#### Caution

Risk Group 1: Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to eye. Safe for most applications except prolonged exposures.  
Applicable for wavelengths: 470, 505, 530, and WHI.