

R130 Series | RING LIGHT

product introduction

The all metal construction of the Ring Light Series of lights provides a small particle resistant and all around durable light. Its simple plug and play 5 Pin M12 connector allows for ease of use while allowing for full control. The R130 operates 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


- Conversion adapters for different cameras
- PNP and NPN Strobe input
- Continuous operation or Strobe mode
- Dimmable via built in potentiometer
- Standard with wide lenses
- Analog intensity 0-10VDC signal
- Eight, 1mm² Die High Current LEDs


product specifications

Electrical Input	24 VDC +/- 5%
Current	Max. 800mA
Wattage	Max. 20W
Strobe Input	PNP ► +3VDC or greater to activate. NPN ► GND (<1VDC) to activate
PNP Line	3.7mA @ 3VDC 6.2mA @ 5VDC 12.6mA @ 10VDC 30.4mA @ 24 VDC
NPN Line	22mA @ Common (0VDC)
Yellow Indicator LED	LED Strobe Indicator ON = Light Active
Green Indicator LED	ON = Power
Continuous Mode	Light will be in continuous mode by leaving signal on strobe input active
Potentiometer	Intensity control of 10% to 100% Clockwise increases intensity
Analog Intensity	The output is adjustable from 0 -100% of brightness by a 0 -10 VDC signal
Connection	5 pin M12 connector
Lifespan	100,000 hrs
Ambient Temp.	-20° - 50° C (-4° - 122° F)
IP Rating	IP50
Weight	~325g
Certification	CE and RoHS certified
IEC 62471 Rating	See page 4


product number key

R130 – XXX – X* —» Part Number Key

Product Family:
Ring Light R130

Color:
365, 395, 470, 505,
530, 625, 850, 940
& WHI (White)

Lenses:
N - Narrow

* Lights come standard with Wide lenses

CE and RoHS Compliant



warnings



Attention

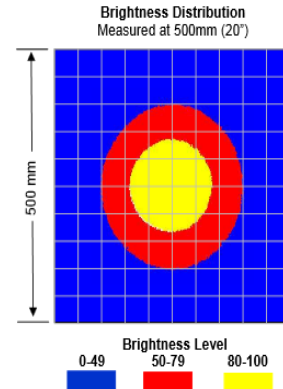
Please note that the power requirements are up to 800mA at 24VDC. Failure to supply light with up to 800mA can result in non-repeatable lighting. Contact Smart Vision Lights for more information.



optical performance

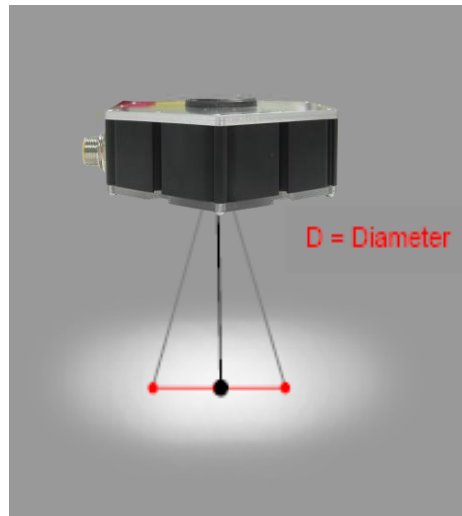
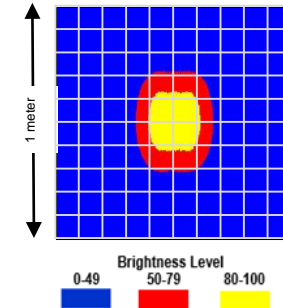
R130-XXX

Working Distance mm (inches)	Pattern (80%-100% measured intensity) mm (Inches)
.25m (10")	150mm (~6") D
.5m (20")	250mm (~10") D
.75m (30")	350mm (~14") D
1m (40")	450mm (~18") D
Typical output performance	
Distance = .5 meter	Illumination (Lux)
	5000
<i>Illumination measurement taken on White Lights – 6500K</i>	



R130-XXX-N

Working Distance mm (inches)	Pattern (80%-100% measured intensity) mm (Inches)
.25m (10")	90mm (~3.5")
.5m (20")	120mm (~4.7")
.75m (30")	160mm (~6.3")
1m (40")	220mm (~8.6")
Typical output performance	
Distance = .5 meter	Illumination (Lux)
	14000
<i>Illumination measurement taken on White Lights – 6500K</i>	



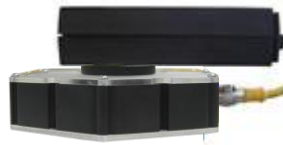


mounting & accessories

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



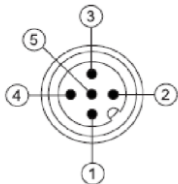
- 0-10 VDC Intensity Adjust
- Active Signal Indicator LED (Yellow)
- Power Input Plug
- Power Indicator LED (Green)



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	Wire Color	Function	Signal
1	BROWN	Power	+24 VDC
2	WHITE	NPN Strobe	GND for Active ON
3	BLUE	Ground	GND
4	BLACK	PNP Strobe	4VDC to 30VDC for Active ON
5	GREEN	Analog Intensity Control	0-10 VDC



- 1 – 24V
- 2 – NPN
- 3 – GND
- 4 – PNP
- 5 – 0-10V

Standard M12 mating cable color code:

- BROWN
- WHITE
- BLUE
- BLACK
- *GRAY (GREEN/YELLOW)



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



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: 395, 470, 505, 530, and WHI.

Notice

Risk Group 1: UV emitted from this product. Minimize exposure to eyes and skin. Use appropriate shielding. Safe for most applications except prolonged exposures. Applicable for wavelengths: 395

Caution

Risk Group 2: UV emitted from this product. Eye or skin irritation may result from exposure. Use appropriate shielding. Does not pose optical hazard if aversion responses limit exposure. Applicable for wavelengths: 365