

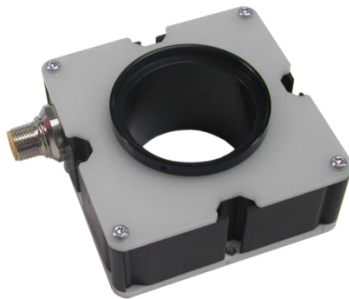


product introduction

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 provides ease of use while allowing for full control. The R80 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. The provided diffuse lens breaks up light into a more diffuse and even pattern - great for inspecting metallic or semi-metallic materials. 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



- T-Slot For Mounting
- Conversion Adapters For Different Cameras
- PNP And NPN Strobe Input
- Diffuse Acrylic Backlight Lens
- Continuous Operation or Strobe Mode
- Dimmable Via Built In Potentiometer
- Analog Intensity 0-10VDC Signal
- Four, 1mm² Die High Current LEDs



product specifications

Electrical Input	24 VDC +/- 5%
Current	Max. 300mA
Wattage	Max. 7.5W
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	3/4 turn - Intensity control of 10% to 100% Clockwise increases intensity
Analog Intensity	The output is adjustable from 10 -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	~183g
Certification	CE and RoHS certified
IEC 62471 Rating	See page 4



product number key

RD80 – XXX

Product Family:
Ring Light
RD80

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

Part Number Key

CE and RoHS Compliant



warnings



Attention

Please note that the power requirements are up to 300mA at 24VDC. Failure to supply light with up to 300mA can result in non-repeatable lighting. Contact Smart Vision Lights for more information.



wiring configuration

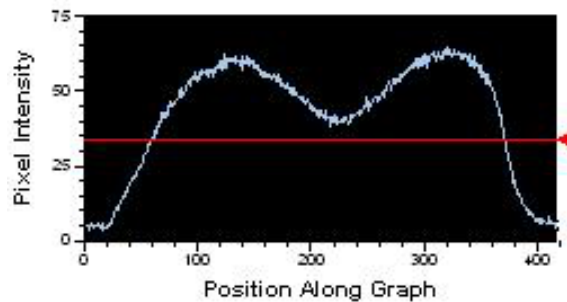
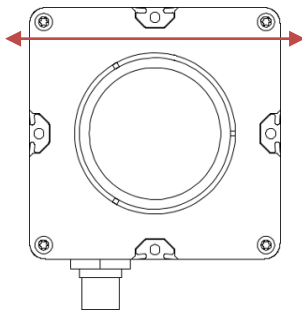
If Analog 0-10 VDC is not used to control light intensity;
+VDC (24VDC) must be connected to Analog Input - Jumper pin 5 to pin 1

	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



Average Intensity

20,000 lux

The RD80 offers a diffuse light pattern at a defined working distance of greater than ~10". The Pixel Graph representation shows a steep drop off in intensity outside of the active area with a diffuse light pattern inside.



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



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



identification



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



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.