



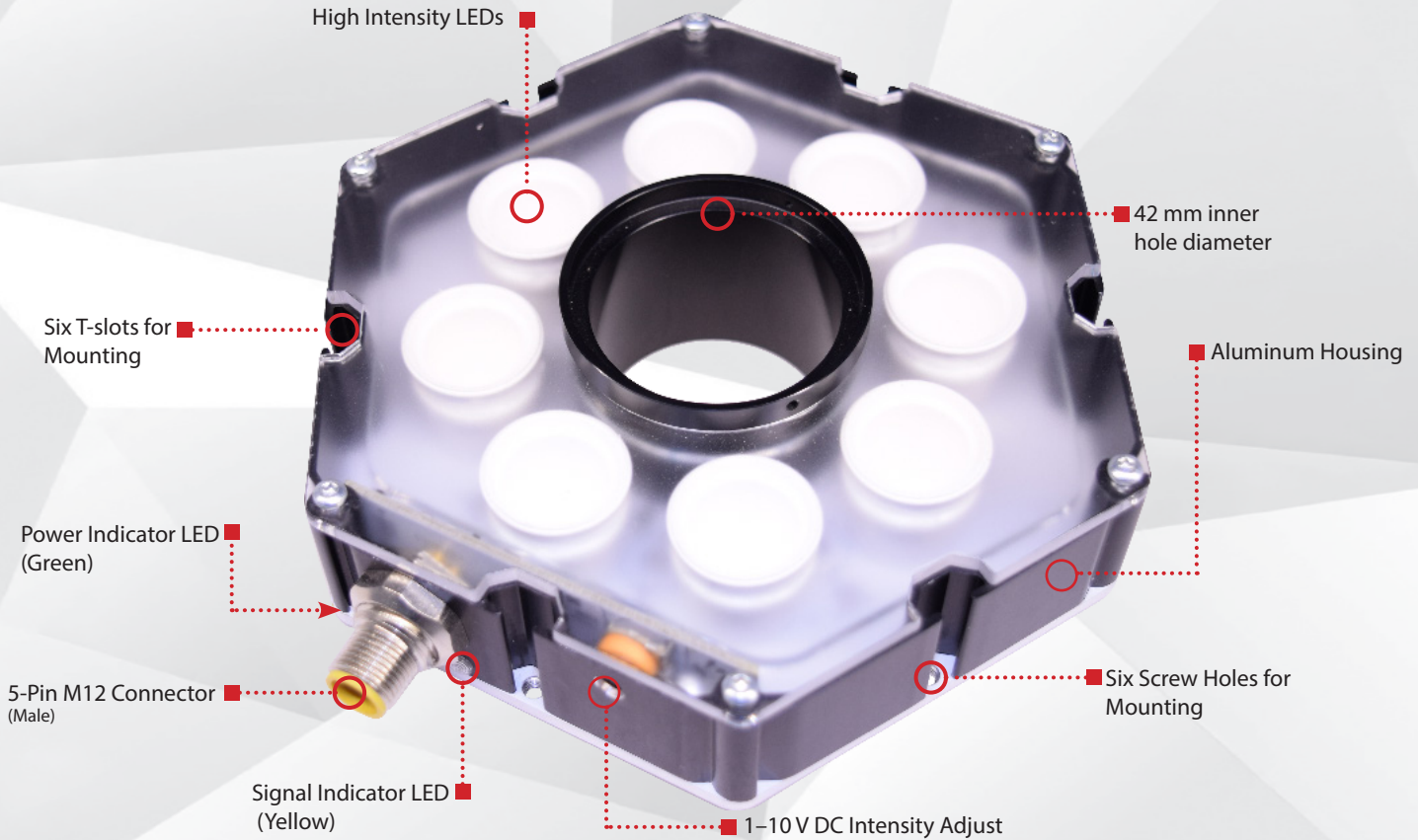
smart
vision lights

RCC130EZ Mount

RING LIGHT

NARROW UNIFORM PATTERN

P R O D U C T D A T A S H E E T



Warranty
10
YEAR

Compliant
IEC
62471

Compliant
CE
RoHS

Rated
IP
50

Connector
5-PIN
M12

PRODUCT HIGHLIGHTS

- ✓ Special lenses project a narrow uniform / homogenous light pattern.
- ✓ 5-pin M12 quick connect
- ✓ Built-in driver, no external wiring needed
- ✓ PNP and NPN strobe input
- ✓ Conversion adapters for different cameras available



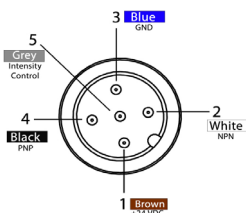
PRODUCT INTRODUCTION

The aluminium housing of the Ring Light Series of lights provides small particle resistance and an all around durable light. The RCC130 was designed to produce a narrow uniform/homogenous light pattern. To achieve this, the RCC130 contains special lenses for creating this near collimated light pattern. Its simple plug and play 5-pin M12 connector is easy to use while allowing for full control. The RCC130 operates with either an NPN or a PNP signal and runs on an industry standard 24 V DC. The 1–10 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 SPECIFICATIONS

Electrical Input	24 V DC +/- 5%
Input Current	Max. 430mA
Wattage	Max. 11 W
Strobe Input	PNP > +4 V DC or greater to activate NPN > GND (<1 V DC) to activate
PNP Line	4 mA @ 4 V DC 10 mA @ 12 V DC 20 mA @ 24 V DC
NPN Line	15 mA @ Ground (0VDC)
Yellow Indicator LED	LED Strobe Indicator ON = Light Active
Green Indicator LED	ON = Power
Continuous Mode	NPN can be tied to ground OR PNP can be tied to 24 V DC (not both)
Potentiometer	270° turn pot – Intensity control of 10% to 100%. Turn clockwise to increases intensity
Analog Intensity	The output is adjustable from 10–100% of brightness by a 1–10 V DC signal. (Jumpering pin 5 to pin 1 will provide maximum intensity)
Connection	5-pin M12 connector
Ambient Temperature	-18°–40° C (0°–104° F)
IP Rating	IP50
Weight	~325g
Compliances	CE, RoHS, IEC 62471

WIRING CONFIGURATION



Pin layout for light (Male Connector)

Pins	Function	Signal	Wire Color
1	Power In	+24 V DC	BROWN
2	NPN	Sinking Signal	WHITE
3	GND	Ground	BLUE
4	PNP	Sourcing Signal	BLACK
5	Intensity Control	1 - 10 V DC	GREY*

* Some cables use green/yellow for pin 5

OPTIONAL

For maximum intensity, analog intensity may be connected to +V DC (24 V DC) - Jumper pin 5 to pin 1

RESOURCE CORNER

Additional resources are available on our website, including CAD files, videos, and application examples.

Smart Vision Lights

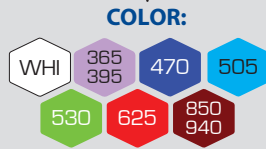
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Muskegon, MI 49445
P: +1 231.722.1199 | F: +1 231.722.9922
smartvisionlights.com
techsupport@smartvisionlights.com
Open: Monday – Friday | 8am–5pm ET





PART NUMBER

RCC130 –



Part Number Examples:

RCC130-625 RCC130, 625 Red Wavelength,
Standard (Narrow) Lenses

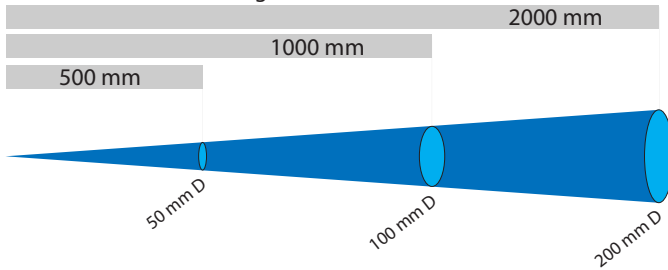
Additional wavelengths options available upon request



LIGHT PATTERNS

Smart Vision Lights recommends the RCC130 be used at a working distance between 500 mm and 5000 mm.

Beam Diameter (White Light) – 6500 K

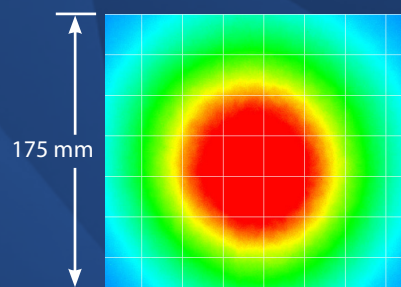


Working Distance mm (inches)	Pattern (80% - 100% measured intensity) mm (inches)
500 mm (19.7")	50 mm D
1000 mm (39.4")	100 mm D
2000 mm (78.8")	200 mm D

Typical Output Performance	Illuminance (Lux)
Distance = 1000 mm	13,000
<i>Illumination measurement taken on White Lights - 6500K</i>	

The RCC130 Ring Light produces a uniform light pattern.

Working Distance = 500 mm Grid set to 25 mm x 25 mm

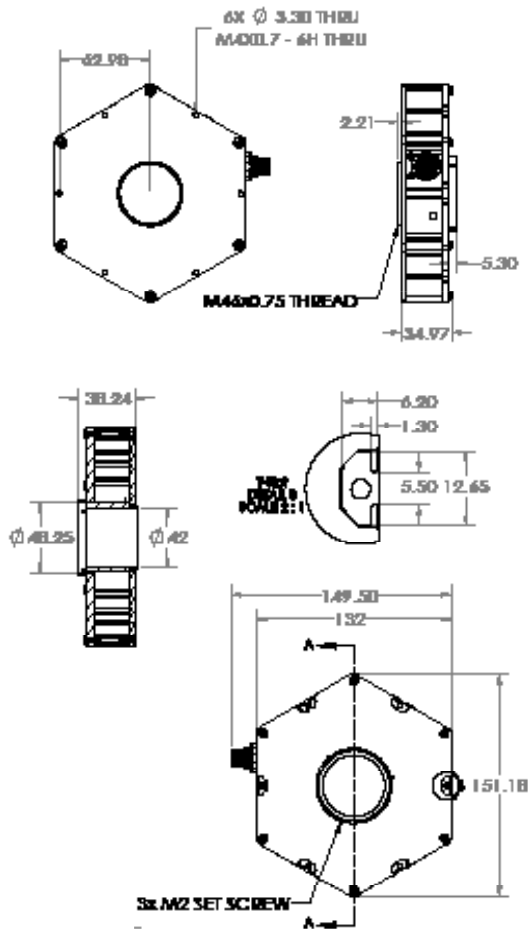


Narrow



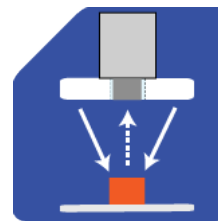
PRODUCT DRAWING

CAD files available on our website.
Dimensions are in mm.



ILLUMINATION

RCC130 Series of RingLights works best for:



Radial



EYE SAFETY

According to IEC 62471:2006. Full documentation available 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 eyes. Safe for most applications except prolonged exposure. Applicable for wavelengths: 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



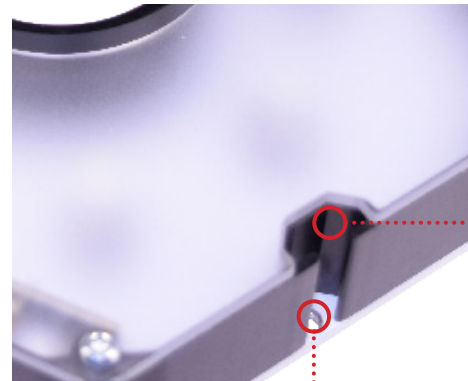
MOUNTING

Mounting options include six T-slots and six M4 threaded holes on the RCC130 EZ Mount ring light.

Optional Mounting Hardware:

T-Slots = M5 x 0.8 mm T-Nut

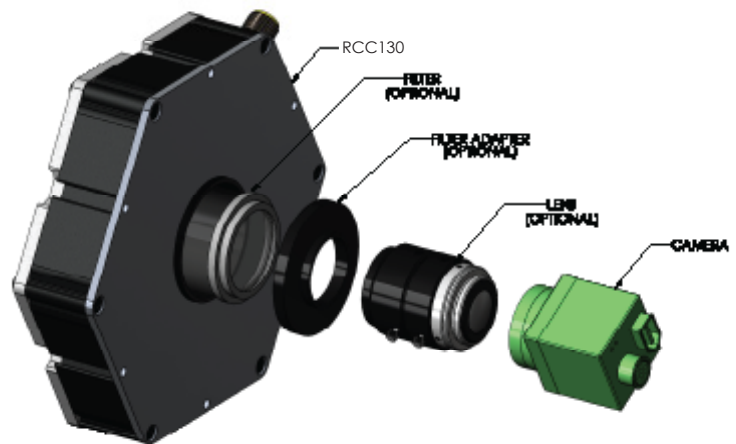
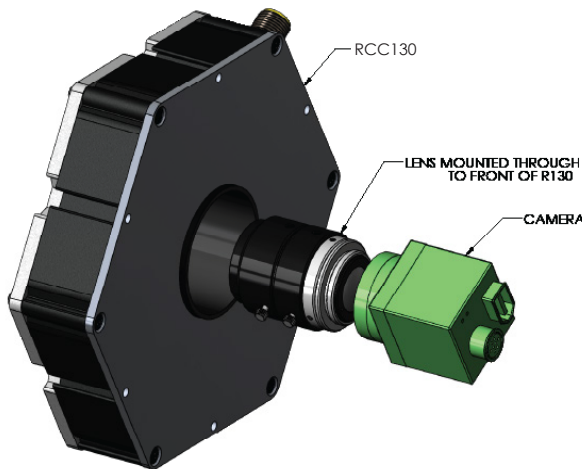
Threaded screw Holes = M4 screws



T-slots
M4 Screw Holes

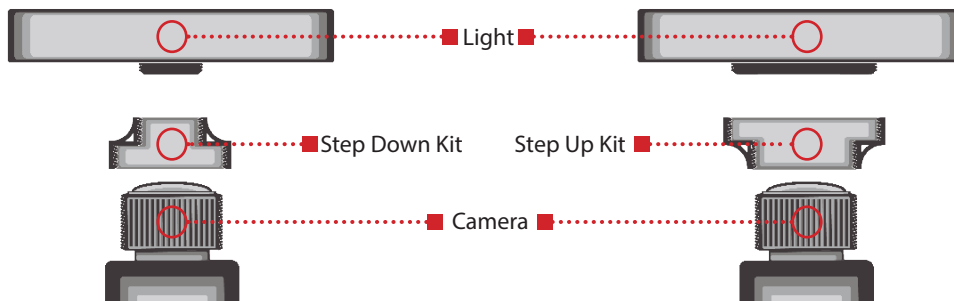


CAMERA MOUNTING ADAPTER



STEP UP / STEP DOWN KITS

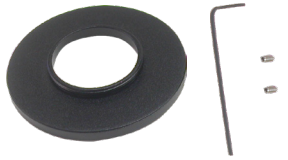
Step-up or step down rings allow the M46 thread on ring lights to be mounted directly to the threads found on the front end of most lenses/ cameras.





ACCESSORIES

Step-Up Kits *



Lens Thread Size	Part Number
25 mm	SU25.5-46
27 mm	SU27-46
30.5 mm	SU30.5-46
34 mm	SU34-46
35.5 mm	SU35.5-46
37 mm	SU37-46
39 mm	SU39-46
40.5 mm	SU40.5-46
43 mm	SU46-46

Step-Down Kits



Lens Thread Size	Part Number
49 mm	SD49-46
52 mm	SD52-46
55 mm	SD55-46
58 mm	SD58-46
62 mm	SD62-46
67 mm	SD67-46
72 mm	SD72-46

Camera Mounting Adapter



Description	Part Number
Adapter	ADP0002-KIT

Power Cables



Lengths	Part Number
5 m	5PM12-5
10 m	5PM12-10
15 m	5PM12-15

Power Adapters *



Description	Part Number
AC, 24 Volt, 1.7 Amp	T1 Power Supply



GLOSSARY

This glossary covers all Smart Vision Lights product families; some content in this section may not apply to this specific light.

TERMINOLOGY

OverDrive™ Light includes an integrated high-pulse driver for complete LED light control.

Continuous Operation Light stays on continuously.

Multi-Drive™ Combines continuous operation and OverDrive™ strobe (high-pulse operation) mode into one easy-to-use light.

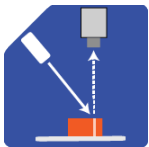
Built-in Driver The built-in driver allows full function without the need of an external controller.

Camera to Light Connect the light directly to the camera, without the need for additional controllers or equipment.

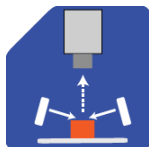
Polarizers Filters that reduce reflections on specular surfaces.

Diffusers Used to widen the angle of light emission, reduce reflections, and increase uniformity.

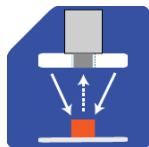
TYPES OF ILLUMINATION



Projector



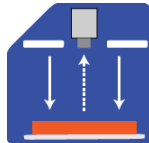
Dark Field



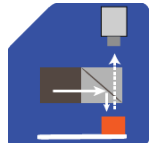
Radial



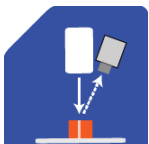
Bright Field



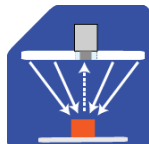
Direct



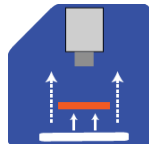
Axial



Line



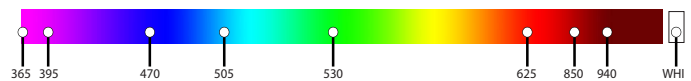
Diffuse Panel



Backlight

COLOR/WAVELENGTHS LEGEND

Wavelengths options range from 365 nm to 1550 nm.*
Additional wavelengths available for many light families.



*See Part Number section for **this light** available standard wavelengths.



Shortwave Infrared LEDs are available in 1050 nm, 1200 nm, 1300 nm, 1450 nm, and 1550 nm.*

*Check Part Number section to see if **this light** is available in SWIR wavelengths.