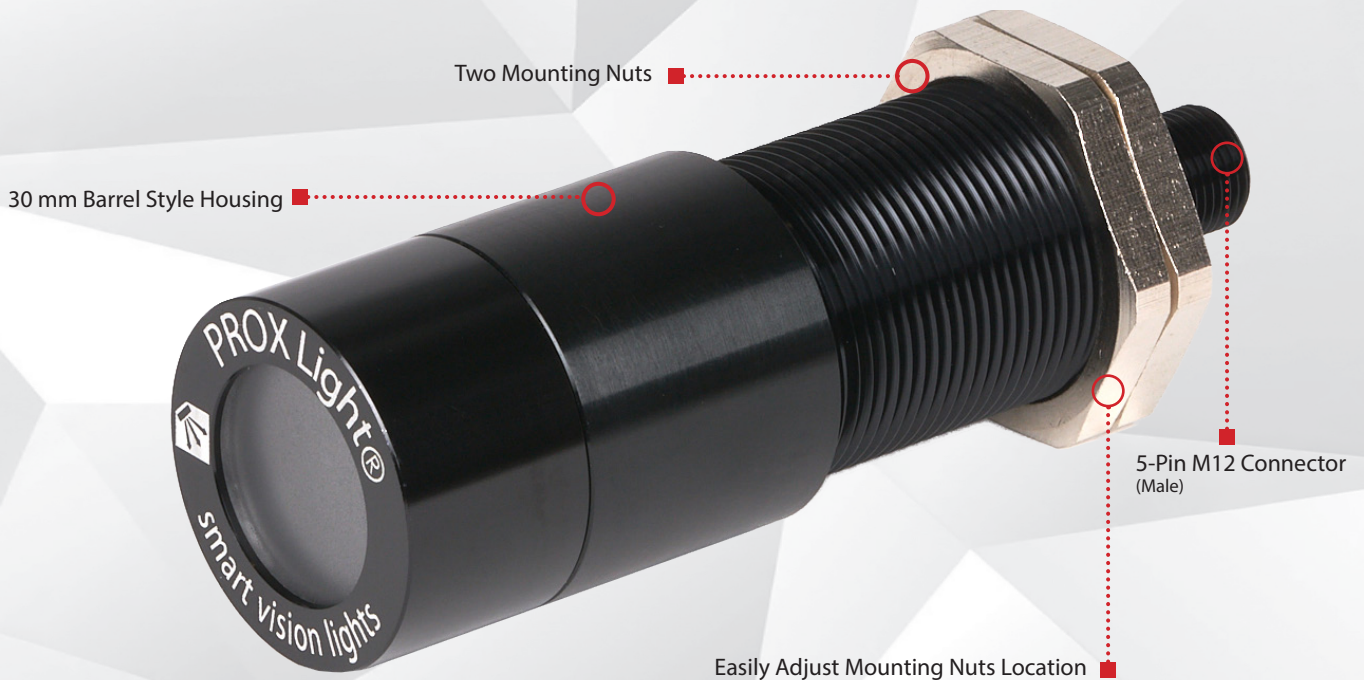


P R O D U C T D A T A S H E E T



Warranty  
**2**  
YEAR

Compliant  
**IEC**  
62471

Compliant  
**CE**  
RoHS

Rated  
**IP**  
65

Connector  
**5 PIN**  
M12

## PRODUCT HIGHLIGHTS

- ✓ 5-pin M12 quick connect
- ✓ Built-in driver, no external wiring to driver needed
- ✓ PNP and NPN strobe input
- ✓ 30 mm barrel style housing
- ✓ Standard optics provides tight focused light



## PRODUCT DESCRIPTION

The SX30 Series of Prox Lights is enclosed in a 30mm Barrel Style Housing. The SX30 Series feature an NPN and PNP strobe signal with a 1–10VDC analog intensity control signal for added versatility. The SX30 Series has multiple mounting options allowing for ease of install and comes with two mounting nuts.

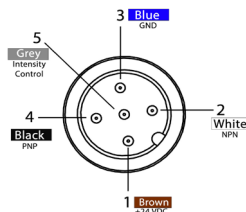


## PRODUCT SPECIFICATIONS

Electrical Input	24VDC +/- 5%
Input Current	Max. 200 mA
Input Power	Max. 6 W
Strobe Trigger	PNP > +4VDC or greater to activate   NPN > GND (<1VDC) to activate
PNP Trigger	2.2 mA @ 4VDC   8.8 mA @ 12VDC   17.6 mA @ 24VDC
NPN Trigger	14.4 mA @ Ground (0VDC)
Continuous Mode	NPN can be tied to ground <b>OR</b> PNP can be tied to 24VDC (not both)
Red Indicator LED	LED Strobe Indicator ON = Light Active
Green Indicator LED	ON = Power
Analog Intensity	The output is adjustable from 10% - 100% by a 1 - 10 VDC signal Jumpering pin 5 to pin 1 will provide maximum intensit
Connection	5-pin M12 connector
Operating Temperature	-18°–40° C (0°–104° F)
IP Rating	IP65
Weight	~320g
Compliances	CE, RoHS, IEC 62471
Warranty	2 years; see <a href="http://smartvisionlights.com/warranty">smartvisionlights.com/warranty</a> for more information.



## WIRING CONFIGURATION



Pins	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	1–10VDC	GREY*

\* Some cables use green/yellow for 1-10V adjustment

For proper light function, apply either a PNP or NPN signal, not both.

Failure to supply light with correct input current will result in inconsistent lighting behavior.

(see Product Specifications for requirements)

Pin layout for light (Male Connector)



## RESOURCE CORNER

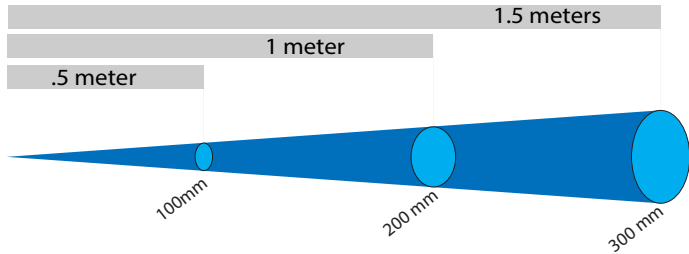
Additional resources available on our website including CAD files, videos and application examples.



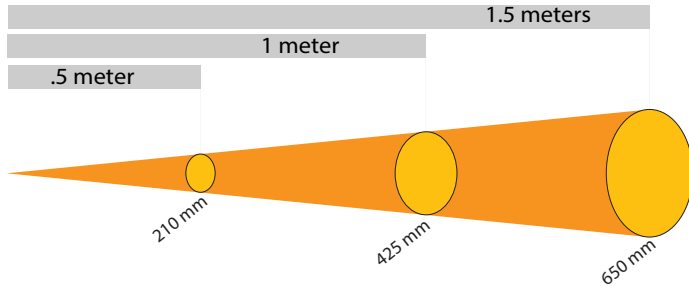
## LIGHT PATTERNS

Smart Vision Lights recommends the SX30 be used at a working distance between 500 mm to 4000 mm.

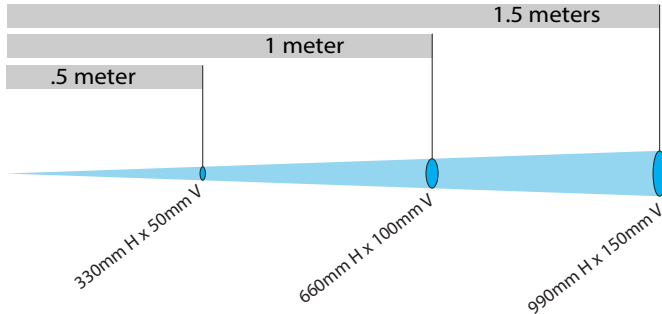
Beam Diameter (White Light) – 6500 K



Beam Diameter (White Light) – 6500 K



Beam Diameter (White Light) – 6500 K



### LIGHTING PATTERN FOR THE SX30 (NARROW)

Working Distance mm (inches)	Pattern (80% - 100% measured intensity) mm (inches)
.5m (19.7")	100mm (~4") D
1m (39.4")	200mm (~8") D
1.5m (59")	300mm (~12") D

Typical Output Performance	Illuminance (Lux)
Distance = .5 meter	9,600
<i>Illumination measurement taken on White Lights - 6500K</i>	

### LIGHTING PATTERN FOR THE SX30 (WIDE)

Working Distance mm (inches)	Pattern (80% - 100% measured intensity) mm (inches)
.5m (19.7")	210mm (~6")
1m (39.4")	425mm (~17")
1.5m (59")	650mm (~22")

Typical Output Performance	Illuminance (Lux)
Distance = .5 meter	6,300
<i>Illumination measurement taken on White Lights - 6500K</i>	

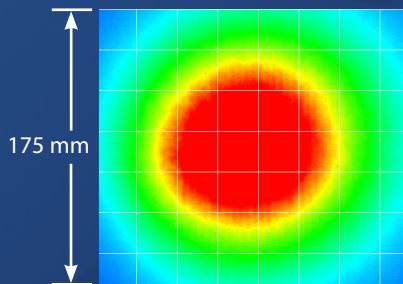
### LIGHTING PATTERN FOR THE SX30 (LINE)

Working Distance mm (inches)	Pattern (80% - 100% measured intensity) mm (inches)
.5m (19.7")	330mm (~13") H x 50mm (~2") V
1m (39.4")	660mm (~26") H x 100mm (~4") V
1.5m (59")	990mm (~39") H x 150mm (~6") V

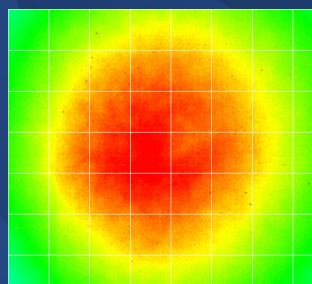
Typical Output Performance	Illuminance (Lux)
Distance = .5 meter	10,000
<i>Illumination measurement taken on White Lights - 6500K</i>	

The SX30 Prox Light produces a uniform light pattern.

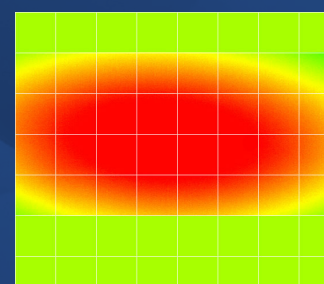
Working Distance = 500 mm Grid set to 25 mm x 25 mm



Narrow



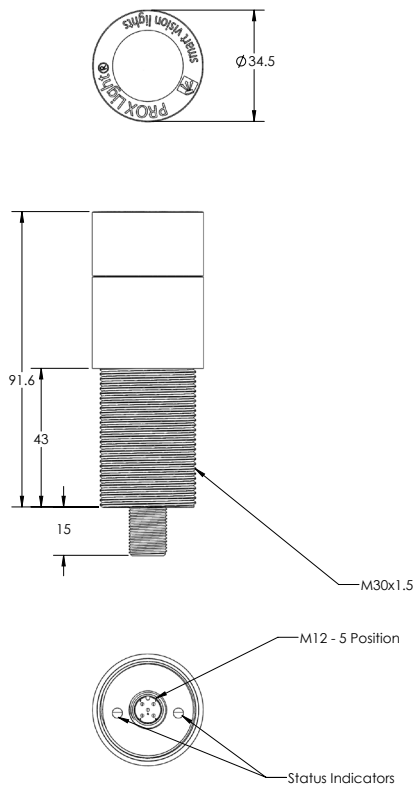
Wide



Line

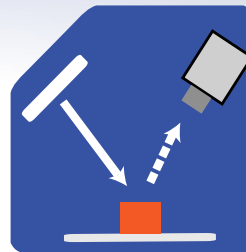
 **PRODUCT DRAWING**

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



 **ILLUMINATION**

SX30 series of Prox Spot Lights works best for:



Bright Field

 **EYE SAFETY**

According to IEC-62471:2006. Full documentation upon request with purchase of product.

**Notice**

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

**Caution**

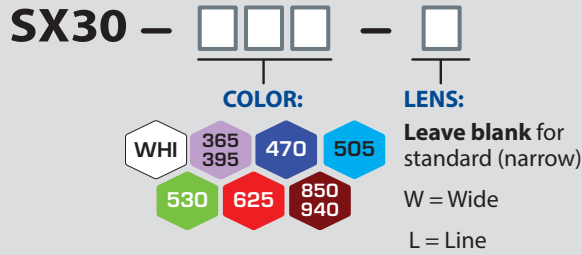
**Risk Group 1:** Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to eye. Safe for most applications except prolonged exposures. Applicable for wavelengths: 470, 505, 530, and WHI.

**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 and 395.



## PART NUMBER



### Part Number Examples:

- SX30-625** SX30, 625 nm Red Wavelength, Standard (Narrow) Lenses
- SX30-WHI-L** SX30, White, Line Lenses

Additional wavelengths options available upon request



## STANDARD LENS OPTICS

### NARROW

**Narrow lens are standard.**

Narrow, 10° angle-cone lenses are standard. Standard lenses create a narrow beam of illumination and are used for long working distances.

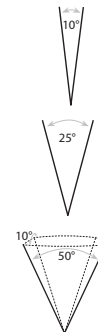
### WIDE

Wide, 25° angle-cone lenses create a large area of illumination. They create a floodlight effect and can be used for short working distances.

### LINE

Line, with a 10° width and a 50° fan angle, projects a thin, narrow beam of illumination

\* Additional lens options available upon request.

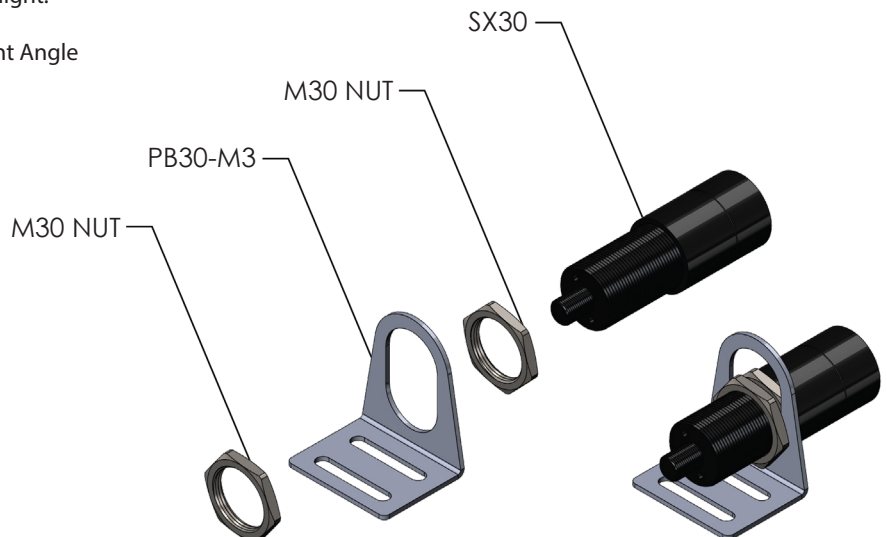


## MOUNTING

Two M30 nuts for mounting are included with the light.

Example of the SX30 shown using the Slotted Right Angle mount (**Part Number: PB30-M3**).


See accessories for additional mounting options.









## ACCESSORIES

Mount	
	
Description	Part Number
Swivel Mount	PB30-M1

Mount	
	
Description	Part Number
Slotted Block Mount	PB30-M2

Mount	
	
Description	Part Number
Slotted Right Angle	PB30-M3

Mount	
	
Description	Part Number
Blot-on Block Mount	PB30-M6

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



## GLOSSARY

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

### TERMINOLOGY

**OverDrive™** Lights include an integrated high-pulse driver for complete LED light control.

**Continuous Operation** Lights stay on continuously.

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

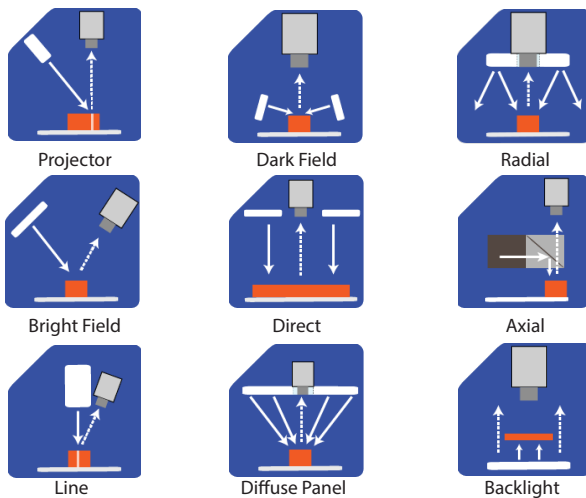
**Built-in Driver** The built-in driver allows full function without the need of an external controller.

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

**Polarizers** Filters that reduce reflections on specular surfaces.

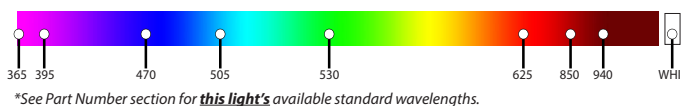
**Diffuser** Used to widen the angle of light emission, reduce reflections, and increase uniformity.

### TYPES OF ILLUMINATIONS



### COLOR/WAVELENGTHS LEGEND

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



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.