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Find the *Smart Vision Lights S75-470* at our website: ***Click HERE***

smart vision lights

S75 Brick Light SPOT LIGHT

PRODUCT DATA SHEET



Warranty	Compliant	Compliant	Rated	Connector
10 YEAR	IEC 62471	CE RoHS	IP 50	5-PIN M12

PRODUCT HIGHLIGHTS

- ✓ 5-pin M12 quick connect
- ✓ Built-in smart driver
- ✓ PNP and NPN trigger signal input
- ✓ Intensity adjustable from 10%–100% using built-in potentiometer

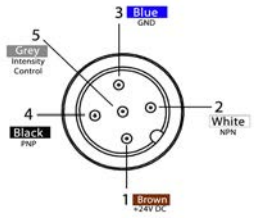
PRODUCT INTRODUCTION

The S75 Brick Light Series is a spot light that features a built-in smart driver. NPN or PNP trigger signals can be used to control the on/off input of the light. Intensity of the light can be controlled via 1–10VDC analog signal line or by adjusting the built-in manual potentiometer. Heat is dissipated through the aluminum backplate, which allows the S75 Brick Light Series to be run at a higher intensity current.

PRODUCT SPECIFICATIONS

Electrical Input	24VDC +/–5%
Input Current	Max. 375 mA
Wattage	Max. 9.0 W
On/Off Input	PNP : +4VDC or greater to activate | NPN : GND (<1VDC) to activate
PNP Line	4 mA @ 4VDC | 10 mA @ 12VDC | 20 mA @ 24VDC
NPN Line	15 mA @ Ground (0 VDC)
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 24VDC (not both)
Potentiometer	270º turn pot — intensity control of 10%–100%. Turn clockwise to increases intensity.
Analog Intensity	The output is adjustable from 10%–100% of brightness by a 1–10VDC signal. (Jumpering pin 5 to pin 1 will provide maximum intensity.)
Connection	5-pin M12 connector
Ambient Temperature	-18º–40ºC (0º–104ºF)
IP Rating	IP50
Weight	~155 g
Compliances	CE, RoHS, IEC 62471
Warranty	UV LEDs have a 2 year warranty, all other LEDs have a 10 year warranty. For complete warranty information, visit smartvisionlights.com/warranty.

WIRING CONFIGURATION



Pin layout for light (Male Connector)

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	1–10VDC	GREY*

OPTIONAL

For maximum intensity, connect pin 5 to pin 1 at 24VDC. Potentiometer intensity needs to be set to 100%.

** Some cables use green/yellow for pin 5*
For maximum intensity, tie pin 5 to pin 1 at +24VDC.
*For continuous mode: Tie PNP (pin 4) can be tied to +24VDC (pin 1) **or** tie NPN (pin 2) can be tied to Ground (pin 3).*



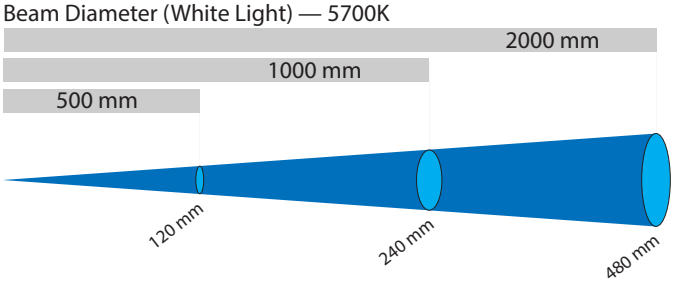
RESOURCE CORNER

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

LIGHT PATTERNS

Smart Vision Lights recommends that the S75 be used at a working distance between 300 mm and 4000 mm.

Beam Diameter (White Light) — 5700K

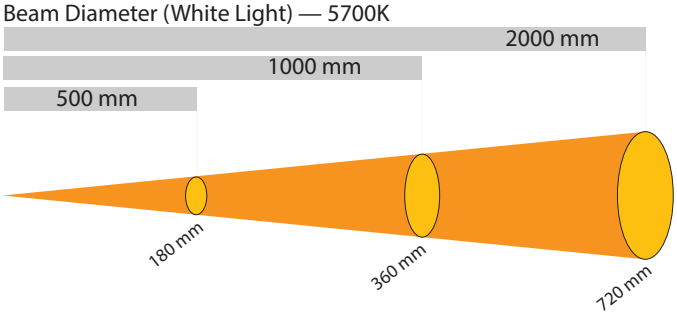


LIGHTING PATTERN FOR THE S75 **with Narrow (Standard) Lenses**

Working Distance mm (inches)	Pattern (80%–100% measured intensity) mm (inches)
500 mm (19.7")	120 mm (~4.7") D
1000 mm (39.4")	240 mm (~9.4") D
2000 mm (78.8")	480 mm (~18.9") D

Typical Output Performance	Illuminance (Lux)
Distance = 500 mm	7250
Illuminance measurement taken on White Lights — 5700K	

Beam Diameter (White Light) — 5700K

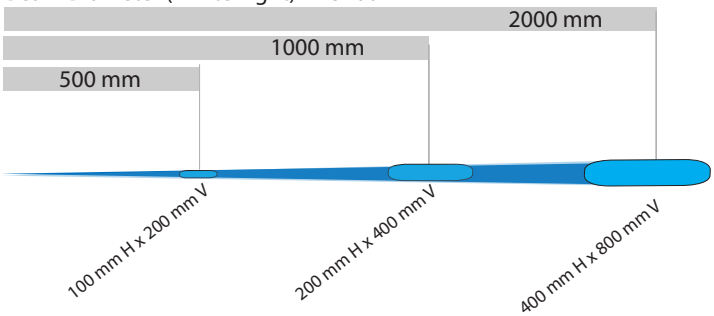


LIGHTING PATTERN FOR THE S75 **with Wide (W) Lenses**

Working Distance mm (inches)	Pattern (80%–100% measured intensity) mm (inches)
500 mm (19.7")	180 mm (~7") D
1000 mm (39.4")	360 mm (~14.2") D
2000 mm (78.8")	720 mm (~28.3") D

Typical Output Performance	Illuminance (Lux)
Distance = 500 mm	6500
Illuminance measurement taken on White Lights — 5700K	

Beam Diameter (White Light) — 5700K



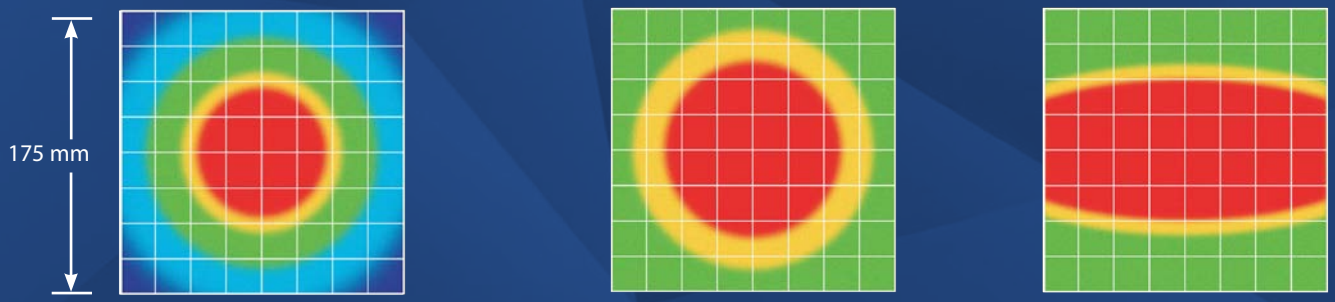
LIGHTING PATTERN FOR THE S75 **with Line (L) Lenses**

Working Distance mm (inches)	Pattern (80%–100% measured intensity) mm (inches)
500 mm (19.7")	100 mm (~3.9") H x 200 mm (~7.8") V
1000 mm (39.4")	200 mm (~7.8") H x 400 mm (~15.7") V
2000 mm (78.8")	400 mm (~15.7") H x 800 mm (~31.5") V

Typical Output Performance	Illuminance (Lux)
Distance = 500 mm	9800
Illuminance measurement taken on White Lights — 5700K	

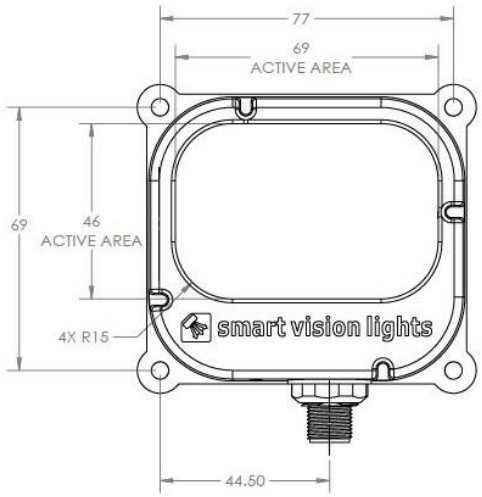
The S75 Brick Light produces a uniform light pattern.

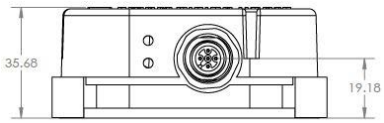
Working Distance = 500 mm Grid set to 25 mm x 25 mm

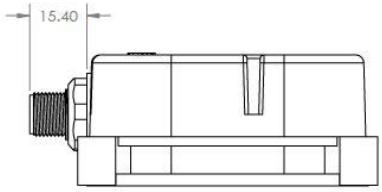


PRODUCT DRAWING

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



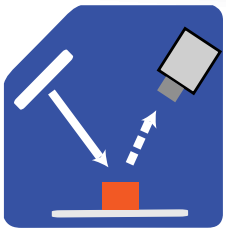




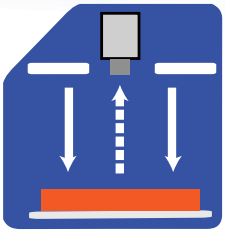


ILLUMINATION

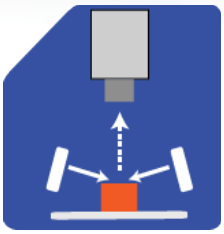
S75 Series of Brick Lights works best for:



Bright Field



Direct Lighting



Dark Field

EYE SAFETY

SMART VISION LIGHTS IEC 62471 COMPLIANT

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, 940, 1050, 1200, 1300, 1450, and 1550.

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 wavelength 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 wavelength 365.

PART NUMBER

S75 – □□□□ – □ – □□□

COLOR:

WHI | 365 395 | 470 | 505 | 530 | 625 | 850 940

LENS:

Leave blank for Standard (Narrow)

W = Wide

L = Line

LINEAR POLARIZER:

Leave blank for none

LPI = Factory Installed

Part Number Examples:

S75-625 S75, 625 nm Red Wavelength, Standard (Narrow) Lens

S75-WHI-L S75, White, Line Lens

S75-470-W-LPI S75, 470 nm Blue Wavelength, Wide Lens, with Linear Polarizer installed

SWIR SHORTWAVE INFRARED

This light is available in our SWIR LEDs.

1050 nm | 1200 nm | 1300 nm | 1450 nm | 1550 nm

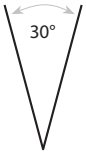
Additional wavelengths and lens options available upon request.

LENS OPTICS

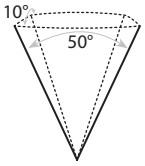
NARROW (STANDARD)
Narrow, 14° angle-cone lenses are standard. Standard lenses project a narrow beam of illumination and are used for long working distances.



WIDE
Wide, 30° angle-cone lenses project a large area of illumination. They create a floodlight effect, can be used for short working distances.



LINE
Line, with a 10° width and a 50° fan-angle project a thin, narrow beam of illumination.



** Additional lens options available upon request.*

When To Use a Linear Polarizer?

Polarizing filters can reduce reflections on specular surfaces.

A Linear Polarizer has a typical transmission of 38 percent while blocking 62 percent of the light not in the polarization plane.

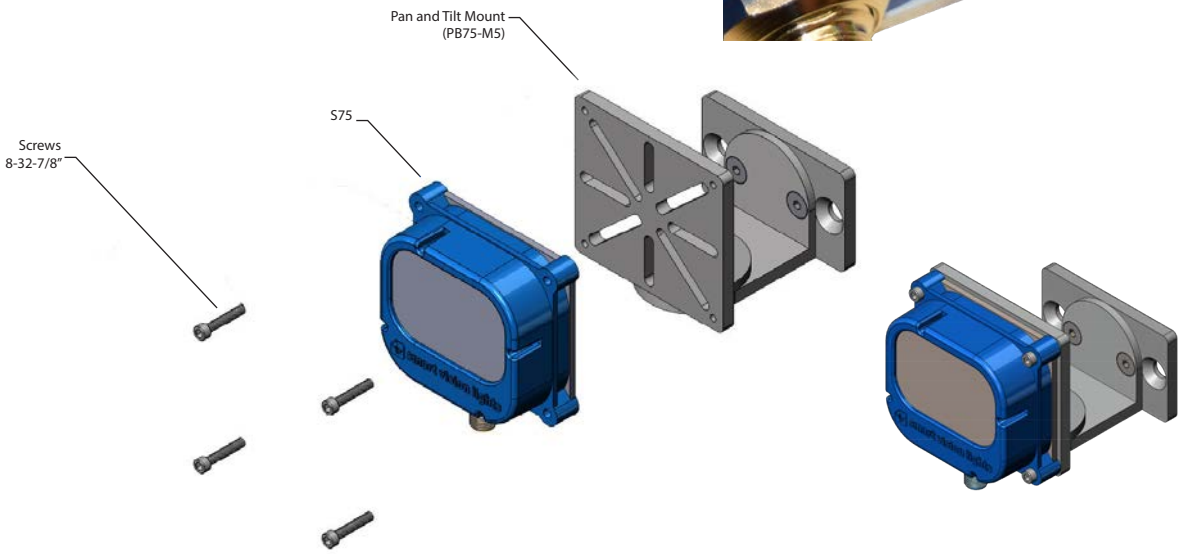
WARNING: Running a light in continuous operation while using a standard polarizer with certain wavelengths (e.g. white, blue) may burn the polarizer.

MOUNTING

Mounting options on the S75 Series of Brick Light include four holes. See Accessories for additional mounting options.

Example of the S75 using the Pan and Tilt Mount (**Part Number: PB75-M5.**)





ACCESSORIES

Power Cables



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

Mount



Description	Part Number
Pan and Tilt Mount	PB75-M5

Mounting Rails



Length	Part Number
300 mm	LEXT300
600 mm	LEXT600
900 mm	LEXT900
1200 mm	LEXT1200
Custom sizes available	

Linear Polarizer



Description	Part Number
Linear Polarizer for S75	S75-LP

Diffuser



Description	Part Number
Diffuser Kit for S75	S75-DKIT

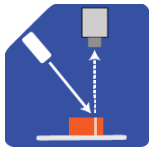
GLOSSARY

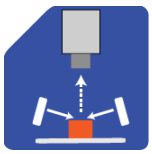
This glossary covers all Smart Vision Lights product families; some content in this section may not apply to this specific light.

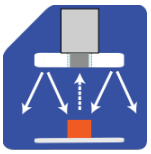
TERMINOLOGY

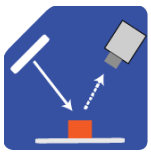
OverDrive™ Light includes an integrated high-current strobe driver for complete LED light control.
Continuous Operation Light stays on continuously.
Multi-Drive™ Combines continuous operation and OverDrive™ strobe (high-current strobe operation) modes into one easy-to-use light.
Built-In Driver The built-in driver allows full function without the need for an external driver.
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.
Diffuser Used to widen the angle of light emission, reduce reflections, and increase uniformity.

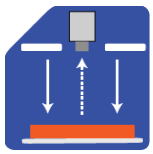
TYPES OF ILLUMINATIONS

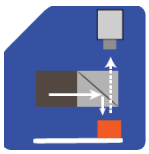

Projector

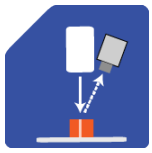

Dark Field

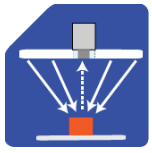

Radial

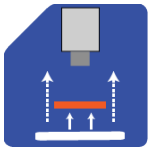

Bright Field


Direct


Axial

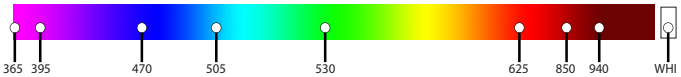

Line


Diffuse Panel


Backlight

COLOR/WAVELENGTHS LEGEND

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



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

SWIR SHORTWAVE **INFRARED**

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.*

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