High-Intensity LEDs

Two Mounting Tabs

IP68 Rating

316 Stainless-Steel Enclosure

5-Pin M12 Connector
(male)

Warranty	Compliant	Compliant	Rated	Connector
10 YEAR	**IEC** 62471	**CE** RoHS	**IP 68**	5-PIN M12

PRODUCT HIGHLIGHTS

✓ Built-in driver

✓ PNP and NPN trigger signal input

✓ 316 stainless-steel enclosure

✓ 5-pin M12 quick connect

✓ FDA food-grade compliant

PRODUCT DESCRIPTION

The SOBLW Series features a stainless-steel IP68-rated enclosure with sealed bolts and a waterproof connector for food industry and washdown environment applications where water and harsh detergents are present. The lights are highly versatile, with many custom sizes available. The series provides intense and highly diffuse area lighting with a built-in driver, so no external driver is needed. Active area dimensions (mm) include but are not limited to 150 x 150, 190 x 190, 300 x 150, 300 x 300, and 450 x 300.

PRODUCT SPECIFICATIONS

Electrical Input	24VDC +/−5%
On/Off Input	PNP: +4VDC or greater to activate | NPN: GND (<VDC) to activate
PNP Line	4 mA @ 4VDC | 10 mA @ 12VDC | 20 mA @ 24VDC
NPN Line	15 mA @ ground (0VDC)
Continuous Mode	NPN can be tied to ground **OR** PNP can be tied to 24VDC (not both)
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–40º C (0º–104º F)
IP Rating	IP68
Compliances	CE, RoHS, IEC 62471
Warranty	10 year. For complete warranty information, visit smartvisionlights.com/warranty

Standard Light Sizes	Input Current	Wattage	Weight
150 mm x 150 mm	0.45 A	10.8 W	–
190 mm x 190 mm	1.20 A	28.8 W	–
300 mm x 150 mm	0.90 A	21.6 W	–
300 mm x 300 mm	1..80 A	43.2 W	4.30 kg
450 mm x 300 mm	2.70 A	64.8 W	–

WIRING CONFIGURATION
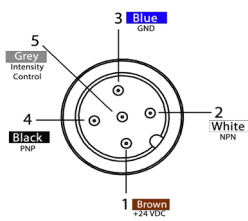
Pin layout for light (Male Connector)

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*

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

OPTIONAL

For maximum intensity, connect pin 5 to pin 1 at 24VDC.
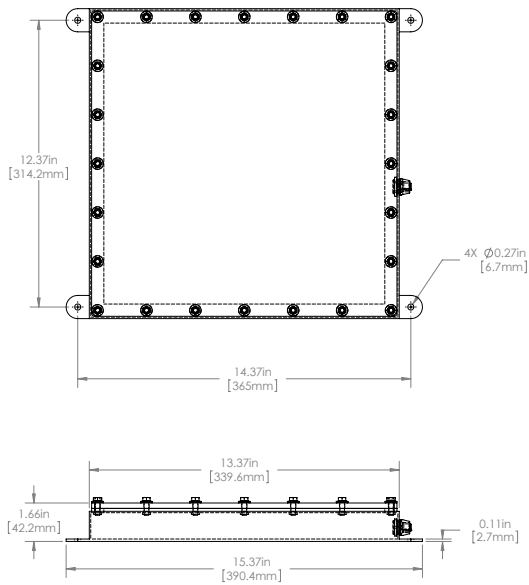
RESOURCE CORNER

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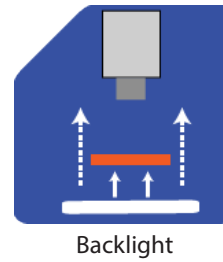
PRODUCT DRAWING

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

12.37in
[314.2mm]

4X ⌀0.27in
[6.7mm]

14.37in
[365mm]

13.37in
[339.6mm]

1.66in
[42.2mm]

0.11in
[2.7mm]

15.37in
[390.4mm]

SOBLW–300x300 shown
CAD files for all standard-size SOBLW lights
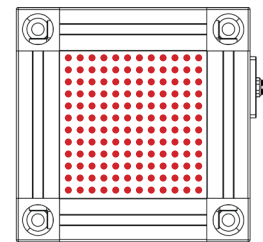are available at smartvisionlights.com.

ILLUMINATION

SOBLW Series of Backlights works best for:

Backlight

AREA LIT

LEDs are placed to produce uniform intensity throughout the lighted surface area.

SOBLW–150x150 mm shown
(LED size and spacing not shown to scale)

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 for prolonged exposure. Applicable for wavelengths 470, 505, 530, and WHI.

PART NUMBER

SOBLW — ☐☐☐ X ☐☐☐ — ☐☐☐

SIZE (L x W):
150 x 150
190 x 190
300 x 150
300 x 300
450 x 300
Custom sizes upon request

The 5-pin M12 connector is located on the wide side of the light.
Sizes listed are in millimeters.
Additional wavelengths and sizes available upon request.

COLOR:
WHI 470
530 625 850

Part Number Examples:

SOBLW-150x150-625	SOBLW, 150 mm x 150 mm, 625 nm Red Wavelength
SOBLW-300x150-WHI	SOBLW, 300 mm x 150 mm, White
SOBLW-450x150-470	SOBLW, 450 mm x 150 mm, 470 nm Blue Wavelength

CUSTOM SIZE

Smart Vision Lights can customize a SOBLW to the size you need. When requesting a custom SOBLW include the following: size (length x width) in millimeters, what side the 5-pin M12 connector should be placed on, and desired wavelength (color).
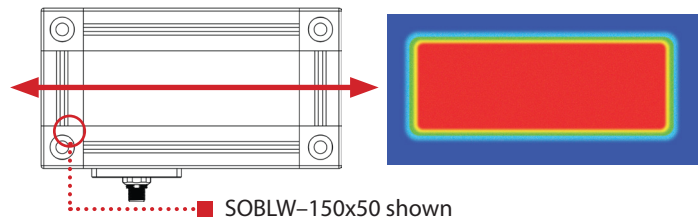
OPTICAL PERFORMANCE

The SOBLW offers a very diffuse light pattern.

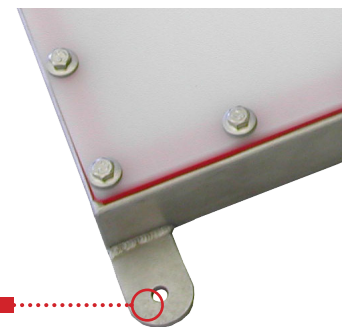| OPTICAL PERFORMANCE FOR THE SOBLW	
Rating	Illuminance (Lux)
Average Intensity Rating	42,000
Illuminance measurement taken at surface of SOBLW	

■ SOBLW–150x50 shown

MOUNTING

The SOBLW Backlight Series features two stainless-steel tabs welded directly to the housing for simple yet versatile mounting options.

Mounting Tab ■

ACCESSORIES

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

Power Cables (Washdown)	
Length	Part Number
15 m	W5PM12-15

Variable Control Pot	
Description	Part Number
Variable Control Pot	IVP-C1

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 ILLUMINATION

Projector, Dark Field, Radial, Bright Field, Direct, Axial, Line, Diffuse Panel, Backlight
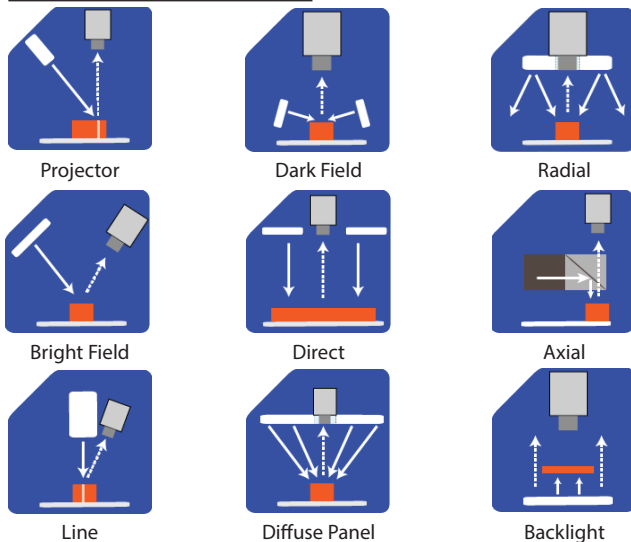
COMMON COLOR/WAVELENGTHS LEGEND

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

365 395 470 505 530 625 850 940 WHI
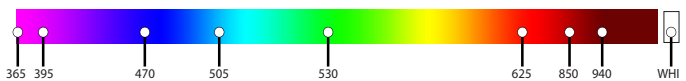
*See Part Number section for **this light's** available standard wavelengths.*

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.*