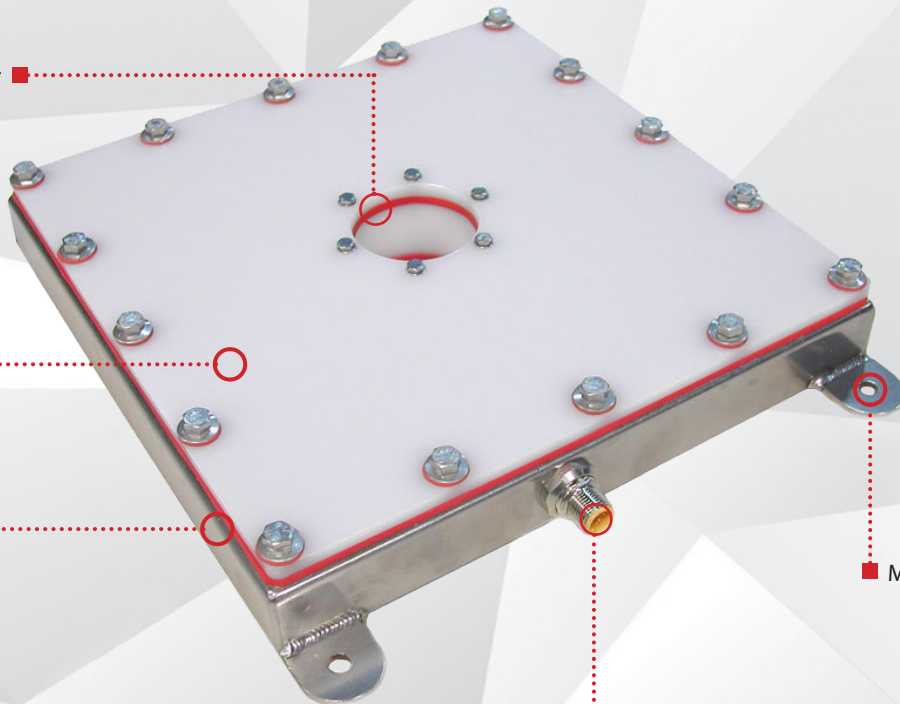




**smart  
vision lights**

# DLPW *Diffuse Panel* RING LIGHT WASHDOWN

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



42 mm inner hole diameter

Washdown IP68 Rating

316 Stainless Steel Housing

5-Pin M12 Connector  
(Male)

Mounting Tabs

Warranty  
**10**  
YEAR

Compliant  
**IEC**  
62471

Compliant  
**CE**  
RoHS

Rated  
**IP**  
68

Connector  
**5-PIN**  
M12

### PRODUCT HIGHLIGHTS

- ✓ 316 Stainless Steel Housing
- ✓ Built-in driver, no external wiring needed
- ✓ PNP and NPN strobe input
- ✓ Washdown IP68 rating
- ✓ 30mm Industrial extrusion





## PRODUCT DESCRIPTION

The DLPW Diffused Light Panel Washdown Series is designed for front lighting and harsh environment applications. The innovative and highly versatile lights can be customized for wavelength options. The series provides intense and highly diffuse area lighting. The DFLW has a 65 mm camera hole in the center for easy viewing. Active area measurements include 190 mm x 190 mm, 300 mm x 300 mm, and 600 mm x 600 mm.

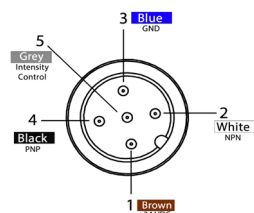


## PRODUCT SPECIFICATIONS

Electrical Input	24 V DC +/- 5%
Input Current	Max. 300 mA
Wattage	Max. 7.5 W
On / Off Input	PNP > +4VDC or greater to activate   NPN > GND (<VDC) to activate
PNP Line	2.8 mA @ 4VDC   8.8 mA @ 12VDC   17.6 mA @ 24VDC
NPN Line	14.4 mA @ Common (0VDC)
Continuous Mode	NPN can be tied to ground <b>OR</b> 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	-18°–40° C (0°–104° F)
IP Rating	IP68
Weight	Based on size. Contact Smart Vision Lights.
Compliances	CE, RoHS, IEC-62471
Warranty	10 year warranty. For complete warranty information, visit <a href="http://smartvisionlights.com/warranty">smartvisionlights.com/warranty</a> .



## WIRING CONFIGURATION



Pin layout for light (Male Connector)

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 pin 5

For maximum intensity, it is possible to tie pin 5 to pin 1 at +24VDC.

For continuous mode: PNP (pin 4) can be tied to +24 V DC (pin 1) **OR** NPN (pin 2) can be tied to Ground (pin 3).

### OPTIONAL

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



## RESOURCE CORNER

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



## PART NUMBER

DLPW—       —

**SIZE:**  
190x190  
300x300  
450x450  
600x600

**COLOR:**

### Part Number Examples:

**DLPW-190x190-625** DLPW, 190 mm x 190 mm, 625 Red Wavelength

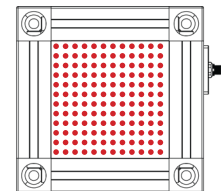
*Additional wavelengths options available upon request.*



## AREA LIT

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

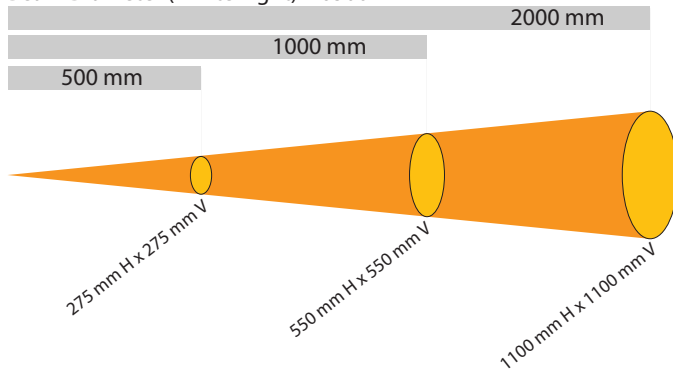
(LED size and spacing not shown to scale)



## LIGHT PATTERNS

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

Beam Diameter (White Light) – 6500 K



### LIGHTING PATTERN FOR THE DLPW-190x190

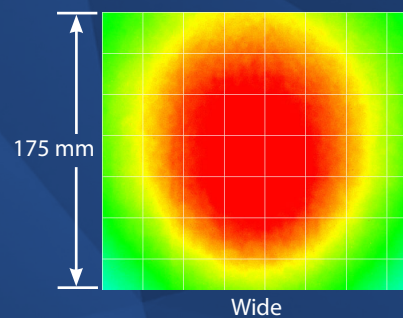
Working Distance mm (inches)	Pattern (80% - 100% measured intensity) mm (inches)
500 mm (19.7")	80mm (~3.1")
1000 mm (39.4")	90mm (~3.54")
2000 mm (78.8")	135mm (~5.3")

Typical Output Performance	Illuminance (Lux)
190x190	44,000
300x300	32,000
450x450	32,000
600x600	32,000

*Illumination measurement taken on White Lights - 6500K*

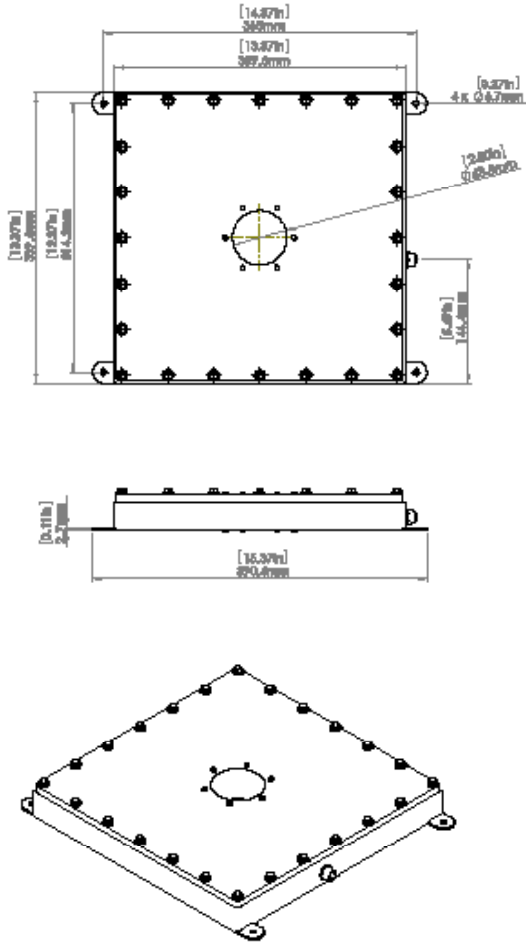
**The DLPW Ring Light produces a uniform light pattern.**

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



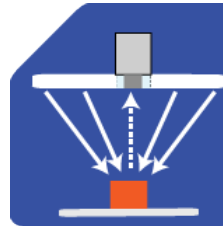
## PRODUCT DRAWING

CAD files available on our website.  
Dimensic

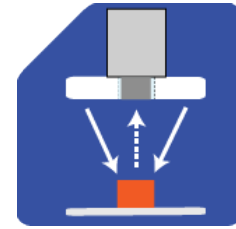


## ILLUMINATION

DLPW Series of Diffused Lights works best for:



Diffuse Panel



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.

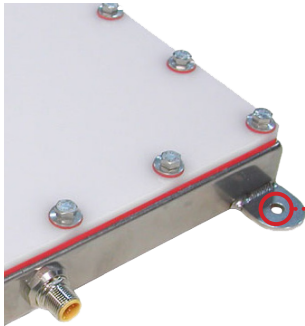
## MOUNTING

Mounting options include four 30 mm industrial extrusions on the DLPW diffuse ring light pan.

### Optional Mounting Hardware:

T-Slots = M5 x 0.8 mm T-Nut

Threaded screw Holes = M4 screws



Mounting Tabs

## ACCESSORIES

### Power Cables (Wash-down)



Length	Part Number
10 m	W5PM12-10
15 m	W5PM12-15

Washdown cables have a 316 Stainless-Steel connector(s).

### Camera Mount\*



Description	Part Number
DLPW-190	BKT0005
DLPW-300	BKT0006
DLPW-450	BKT0013
DLPW-600	BKT0014

\*Camera mount is not washdown

## 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** Light stays on continuously.

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

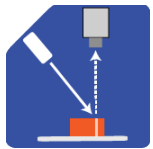
**Built-in Driver** The built-in driver allows full function without the need of an external controller.

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

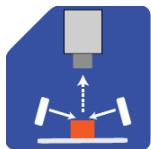
**Polarizers** Filters that reduce reflections on specular surfaces.

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

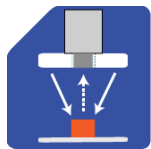
### TYPES OF ILLUMINATION



Projector



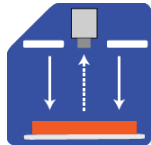
Dark Field



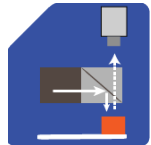
Radial



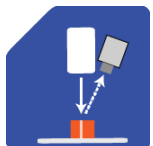
Bright Field



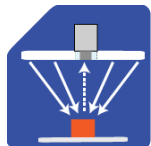
Direct



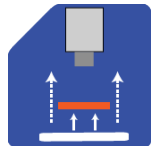
Axial



Line



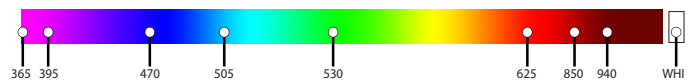
Diffuse Panel



Backlight

### COMMON COLOR/WAVELENGTHS LEGEND

Wavelengths 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.



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's** is available in SWIR wavelengths.