





## product number key

# ODSXP30 – XXX –» Part Number Key

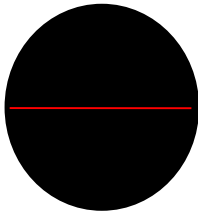
Product Family:  
Projector Light  
ODSXP30

Color:  
470 – Blue  
530 – Green  
625 – Red  
850 – IR  
WHI - White

CE and RoHS Compliant

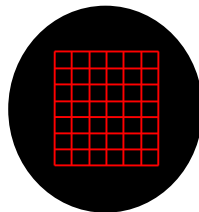
Standard patterns are available and custom patterns can be etched. Patterns can be changed.

Line



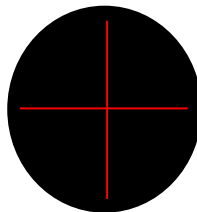
SP-PO-1LN

Grid



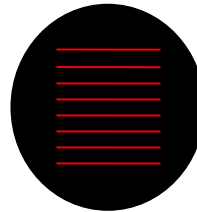
SP-PO-8x8GRID

Cross



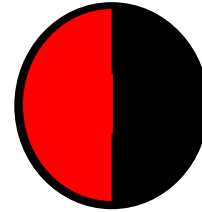
SP-PO-CH

Multiple Line



SP-PO-8LN

Half Sphere



SP-PO-HS



## warnings



### Attention

Please note that the power requirements are 15A at 24VDC. Failure to supply light with 15A will result in non-repeatable lighting. Contact Smart Vision Lights for more information.



## wiring configuration

If Analog 0-10VDC is not used to control light intensity;  
+VDC (24VDC) must be connected to Analog Input - Jumper pin 5 to pin 1

	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	0-10VDC	GREY †

† Some cables use green with yellow stripe for 0-10V adjustment



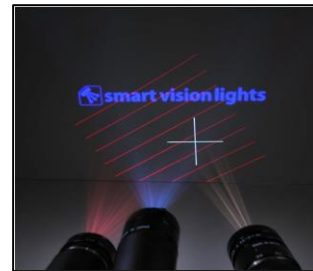
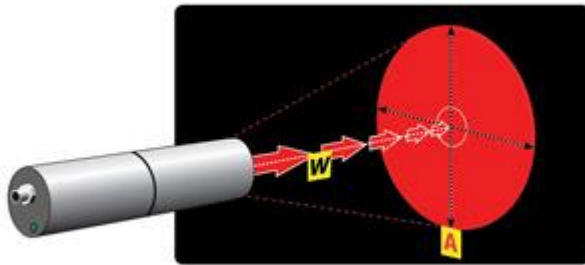
## optical performance

W = Working Distance

A = Diameter of Area

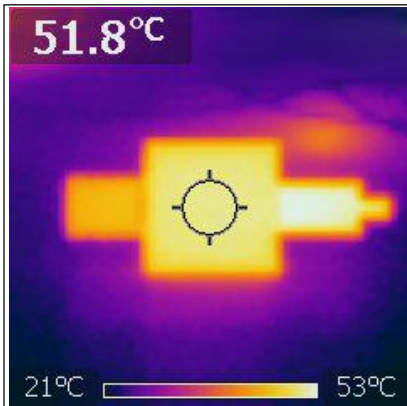
	100mm	150mm	200mm	300mm	400mm	500mm	600mm	750mm	1000mm	1500mm	2000mm
60mm			25			50					
100mm	8	12	16	25	35	35	50	50			
150mm	6	8	12	16	25	25	35	35	50	75	
200mm		6	8	12	16	16	25	25	35	50	100
300mm			6	8	12	12	16	16	25	35	50
400mm				6	8	8	12	12	16	25	35
500mm					6		8	12	16	25	25

Number in box represents the focal length of lens (example - 6 is a 6mm focal length lens)



## thermal analysis

In constant operation the housing on ODSXP30 series lights will run at 50°C in an ambient temperature of 25°C.



ODSXP30 series aluminum enclosures designed to transfer heat away from the high power LED.

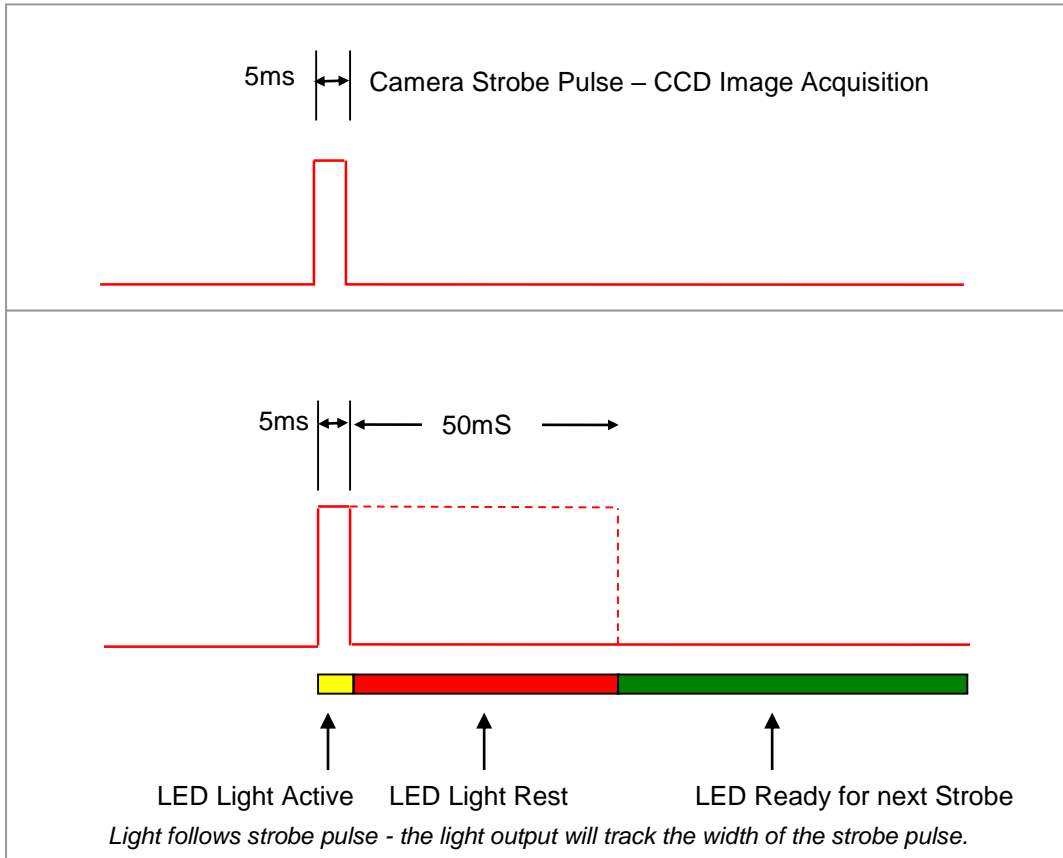
Additional heat sinking recommended in ambient air temperatures above 25°C.

Thermal image taken after 2 hours of continuous ON operation at 25°C.



### Duty Cycle on Performance of Light

*All lights are pulse following*



**Duty Cycle (D) is defined as the ratio between Strobe Time and Rest Time**

**Maximum Duty Cycle for OD Light is 10% = .1**

Calculating Rest Time -  $R_T$

$$R_T = \frac{S_T}{D}$$

$S_T$  is the Strobe Time  
 $R_T$  is the Rest Time  
 $D$  is Duty Cycle

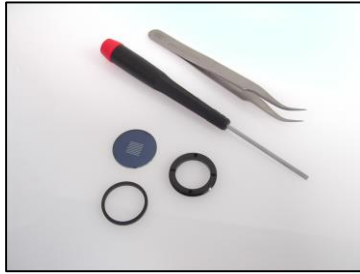
**Example: Camera exposure of 5mS where Strobe Time is 5mS.**

$$R_T = \frac{5ms}{.1} = 50mS$$

Rest Time is 50ms for 5ms Strobe Time



## pattern replacement



Tools: small screwdriver or tweezers



Pattern Retaining Ring



Retainer Ring

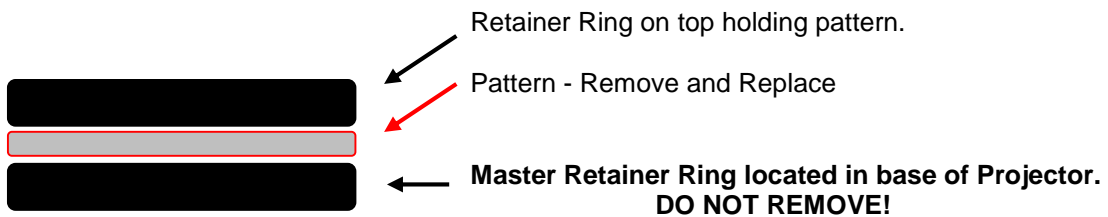


Pattern

### Removal of Retaining Ring

Screwdriver or Tweezers to remove retaining ring. Retaining Ring will turn Clockwise to install and Counter-Clockwise to remove. There are 2 small holes and 2 slots in ring to install/remove.

### Arrangement of Retainer Ring and Pattern.



## risk group

According to IEC 62471:2006. Full documentation upon request.

### Notice

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

### 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, 530, and WHI.