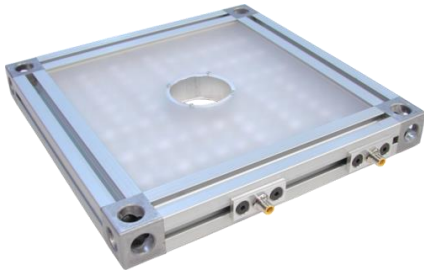



**product features**


- 128, 1mm<sup>2</sup> Die High Current LEDs
- OverDrive 4-5x Intensity of RL300
- Up to 5000 Strokes Per Second
- Maximum Strobe Time 125mS
- SafeStrobe Technology
- 45mm Industrial Frame
- PNP and NPN Strobe Input
- Analog Intensity 0-10VDC Signal


**product specifications**

<b>Electrical Input</b>	24 VDC +/- 5%
<b>Current</b>	Max. 14A draw per connector during strobe; 28A Total – Max. Total Average 2.8A
<b>Wattage</b>	Max. 336W draw per connector during strobe; 672W Total – Max. Total Average 672W
<b>Strobe Input</b>	PNP ► +4VDC or greater to activate   NPN ► GND (<1VDC) to activate
<b>PNP Line</b>	3.7mA @ 3VDC   6.2mA @ 5VDC   12.6mA @ 10VDC   30.4mA @ 24 VDC
<b>NPN Line</b>	22mA @ Common (0VDC)
<b>Signal Wiring</b>	Tie NPN/PNP signal of each plug together
<b>Duty Cycle</b>	Max. 10%
<b>Strobe/Pulse Time</b>	Max. 5000 SPS (Strokes Per Second)   Max. Single Pulse = 125ms
<b>Analog Intensity</b>	The output is adjustable from 10 -100% of brightness by a 0 -10 VDC signal
<b>Connection</b>	5 pin M12 connector
<b>Lifespan</b>	100,000 hrs
<b>IP Rating</b>	IP50
<b>Certification</b>	CE and RoHS certified
<b>IEC 62471 Rating</b>	See page 4


**product number key**

## ODRL300 – XXX – X\* —» Part Number Key

**Product Family:**  
OverDrive Ring Light  
ODRL300

**Color:**  
470 – Blue  
505 – Cyan  
530 – Green  
625 – Red  
850, 940 – IR  
WHI - White

**Lenses:**  
N - Narrow

\* Lights come standard with Wide lenses  
CE and RoHS Compliant



## warnings



### Attention

Please note that the power requirements are up to 14A at 24VDC per connector for a total of 28A. Failure to supply light with up to 28A can result in non-repeatable lighting. Contact Smart Vision Lights for more information.



## wiring configuration

If Analog 0-10 VDC 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	<b>BROWN</b>
	2	NPN	Sinking Signal	<b>WHITE</b>
	3	GND	Ground	<b>BLUE</b>
	4	PNP	Sourcing Signal	<b>BLACK</b>
	5	Intensity Control	0-10VDC	<b>GREY †</b>

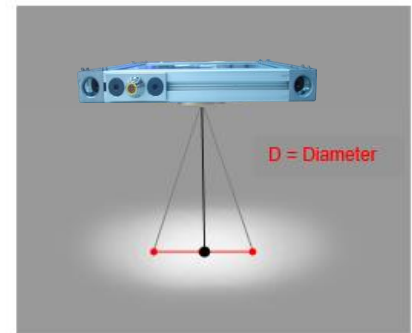
- † Some cables use green with yellow stripe for 0-10V adjustment.
- † The NPN or PNP signal from each plug must be tied together.



## optical performance

### ODRL300-XXX

Working Distance mm (inches)	Pattern (80%-100% measured intensity) mm (Inches)
.5m (20")	23cm (9") D
1m (40")	37cm (14.5") D
Typical output performance	
Distance = .5 meter	Illumination (Lux)
	125000
<i>Illumination measurement taken on White Lights – 6000K</i>	



## mounting & accessories

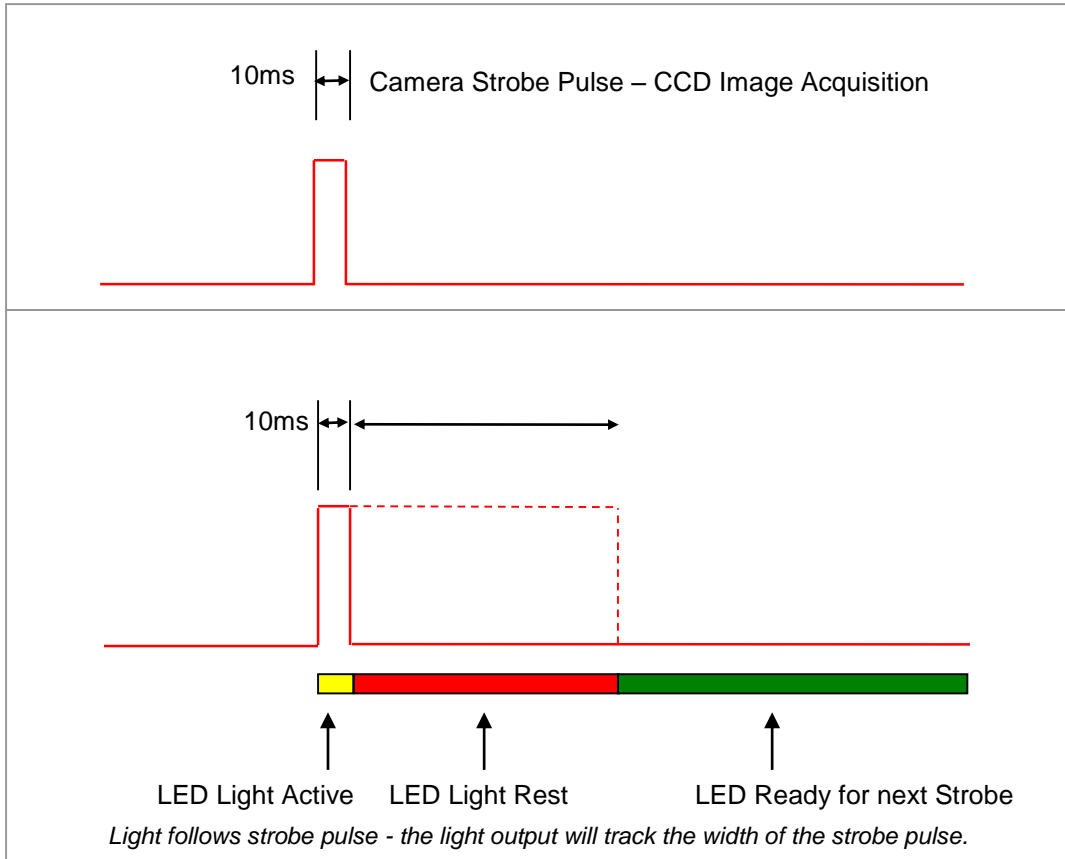


- Standard T-nut with 5/16-18x1/2" bolt



### 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 10mS where Strobe Time is 10mS.**

$$R_T = \frac{10\text{ms}}{.1} = 100\text{mS}$$

Rest Time is 100ms for 10ms Strobe Time



According to IEC 62471:2006. Full documentation 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 eye. Safe for most applications except prolonged exposures.  
Applicable for wavelengths: 470, 505, 530, and WHI