

Structured Light

- High Power LED Projector
- Driver built in – No External wiring to a driver
- PNP and NPN Strobe input
- Continuous operation or Strobe mode
- Dimmable via built in potentiometer
- Analog intensity via 0-10VDC signal



SHARP UNIFORM LIGHT

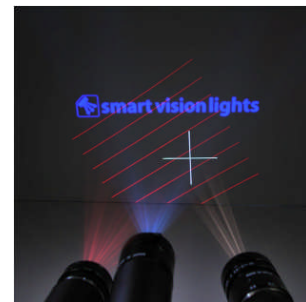


LED Projector can provide thinner lines with sharper edges and a more uniform illumination.



Laser emitters have thicker lines with blurred edges. Non uniformity with decay at the ends along with speckle are present in laser emitters.

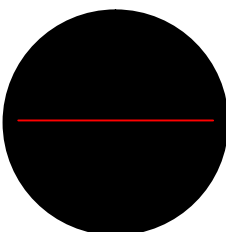
ANY SHAPE CAN BE PROJECTED



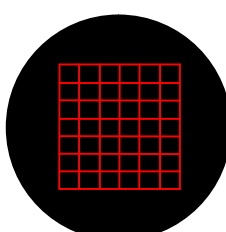
Multiple LED Wavelengths

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

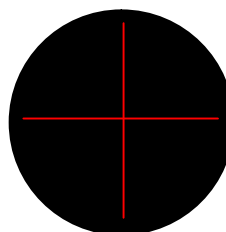
Line



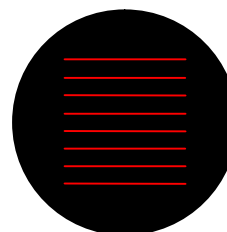
Grid



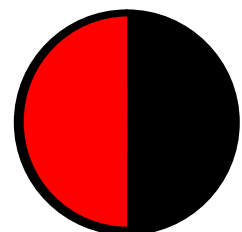
Cross



Multiple Lines



Edge



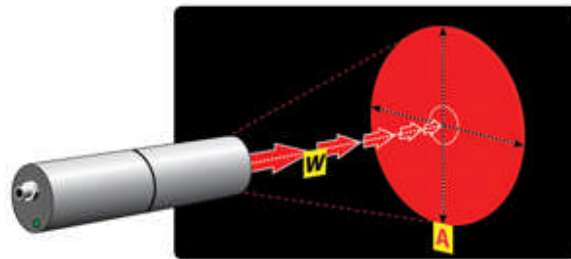
Projectors integrate standard C-mount 2/3" lenses. Telecentric lenses can also be used for telecentric pattern projection. Projector lenses and pattern sizes with distances are listed in the chart below. Chart is approximations due to differences of lens manufacturers.

W = Working Distance

	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)

A = Diameter of Area

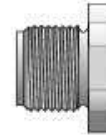
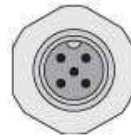
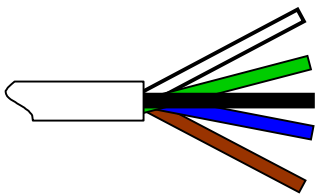


Electrical Input	Voltage - 24 VDC +/- 10% Maximum 15 Watts
Analog Intensity	The output is adjustable from 10%-100% of brightness by a 0 -10 VDC signal
Dimmable	The output is manually adjustable from 10%-100% of brightness by potentiometer
Continuous Mode	Light will be in continuous mode by leaving signal on strobe input
Strobe	PNP ► +4VDC or greater to activate. NPN ► GND (<1VDC) to activate
Strobe Mode	The Light will operate in either continuous or strobe mode. In strobe mode, the output pulse width will track the pulse width of the strobe pulse.

SP30 – XXX —» Part Number Key

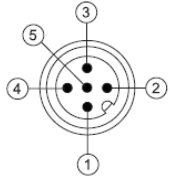
Product Family: Projector Light 30mm Barrel	Color: 470, 505, 530, 590, 625, 850, 940 & WHI (White)
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Smart Vision Lights cables are 5 conductors M12 in 18AWG wire. 18AWG is recommended for ALL OverDrive series and standard series lights. 18AWG is necessary to strobe lights at full current. Common M12 cables are 22AWG. Standard 22AWG wires will not supply full power needed for our light. Smart Vision Lights recommends the cable from the power supply to the light be kept to a minimum.



PIN	Wire Color	Function	Signal
1	BROWN	Power	+24 VDC
2	WHITE	NPN Strobe	GND for Active ON
3	BLUE	Ground	GND
4	BLACK	PNP Strobe	4VDC to 30VDC for Active ON
5	GREEN	Analog Intensity Control	0-10 VDC

Standard M12 5 Pin cable color code

Pin and Cable Color Assignment	
 <p>Connector on Light</p> <p>1 = 24VDC 2 = NPN STROBE 3 = GND 4 = PNP STROBE 5 = 0-10VDC Analog</p>	<p>Standard M12 mating cable color</p> <p>BROWN WHITE BLUE BLACK GREEN (GRAY)</p>
<p>If Analog 0-10 VDC is not used to control light intensity; +VDC (24VDC) must be connected to Analog Input.</p>	

- 5 pin Standard M12 mating cable must be used.
- 0 – 10 VDC Analog controls intensity of light from 10-100%. 0VDC = 10%, 10VDC = 100%
- PNP and NPN strobe – In strobe mode the light output will track the pulse width of the strobe input.
- Continuous mode – Leaving the NPN or PNP strobe signal in an active ON state. Non-OverDrive Lights.

Pattern Replacement



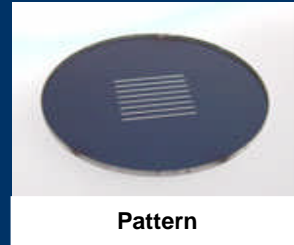
Tools: small screwdriver or tweezers



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.

