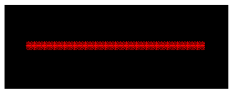
SP30 Series
# Projector Light
LED Pattern Projector

## 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

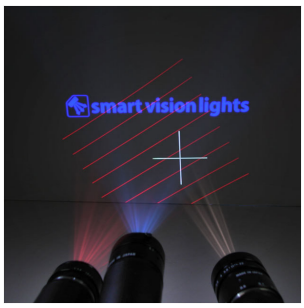
SHARP UNIFORM LIGHT

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.

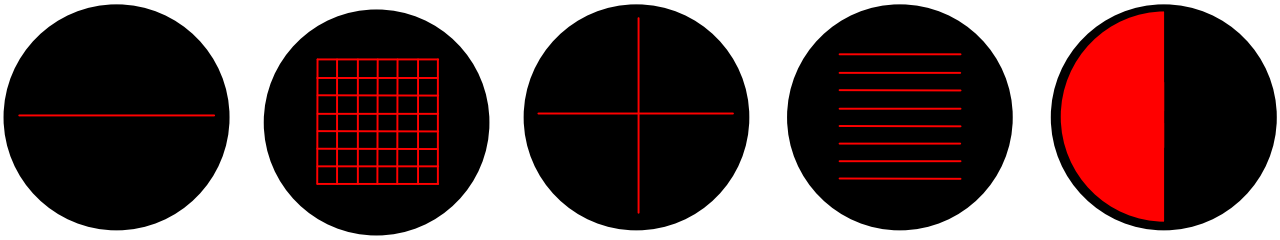
**ANY SHAPE CAN BE PROJECTED**




**Multiple LED Wavelengths**
**UV to IR Available**

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

Line | Grid | Cross | Multiple Lines | Edge



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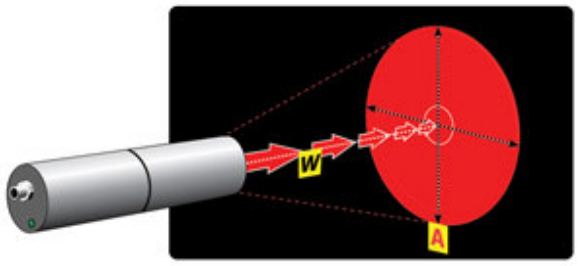
Projectors integrate standard C-mount 2/3” lenses. Telecentric lenses can also be used for telecentric pattern projection. Projector lenses and pattern sizes with distances are listed in the chart below. Chart is approximations due to differences of lens manufacturers.

**W = Working Distance**

**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) | | | | | | | | | | |




| | |
|---|---|
| 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 – XXX —» Part Number Key

**Product Family:**
**Projector Light**
**30mm Barrel**

**Pattern:**
**Line – LN**
**Grid– GD**
**Cross Hair – CH**

**Contact us for more details**

**Color:**
**625 – Red**
**White – WHI**
**470 – Blue**
**530 – Green**

**Contact us for other wavelengths**

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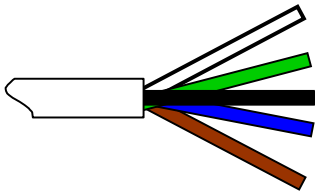
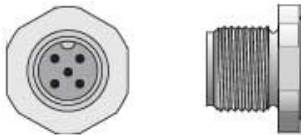
DATA SHEET

# WIRING

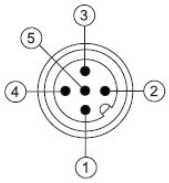
***Smart Vision Lights cables are 5 conductors M12 in 18AWG wire. 18AWG is recommended for ALL OverDrive series and standard series lights. 18AWG is necessary to strobe lights at full current. Common M12 cables are 22AWG. Standard 22AWG wires will not supply full power needed for our light. Smart Vision 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 | |
|---|---|
|  Connector on Light<br>1 = 24VDC<br>2 = NPN STROBE<br>3 = GND<br>4 = PNP STROBE<br>5 = 0-10VDC Analog | Standard M12 mating cable color<br>BROWN<br>WHITE<br>BLUE<br>BLACK<br>GREEN (GRAY) |
| **If Analog 0-10 VDC is not used to control light intensity; +VDC (24VDC) must be connected to Analog Input.** | |

- 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.

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