



product introduction

The plug n' play design of the Direct-Connect Linear Light Series gives users tremendous flexibility without the concern for additional wiring. The LX150 array utilizes 6 high intensity LEDs being the longest light in the Direct-Connect Series. It also features an integrated constant current driver built into the light. Built-in driver technology was pioneered by Smart Vision Lights during the company's creation. It eliminates the need for any external components in the lighting system. Direct-Connect Series Linear Lights utilize 24VDC and can operate in continuous or strobe mode. NPN or PNP strobe triggers can be used to control the pulse of the light. Intensity of the light can be controlled via 0-10V remote analog signal or manual potentiometer. Available in standard tight, wide, and line optics with options for all standard and some custom wavelengths.



product features



- Direct Connect Up To 16 Units
- T-Slot For Mounting And Connecting Together
- 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 0-10VDC Signal
- Six, 1mm² Die High Current LEDs



product specifications

| | |
|-----------------------------|---|
| Electrical Input | 24VDC +/- 5% |
| Current | Max. 500mA |
| Wattage | Max. 12W |
| Strobe Input | PNP ► +3VDC or greater to activate. NPN ► GND (<1VDC) to activate |
| PNP Line | 3.7mA @ 3VDC 6.2mA @ 5VDC 12.6mA @ 10VDC 30.4mA @ 24VDC |
| NPN Line | 22mA @ Common (0VDC) |
| Yellow Indicator LED | LED Strobe Indicator ON = Light Active |
| Green Indicator LED | ON = Power |
| Continuous Mode | Light will be in continuous mode by leaving signal on strobe input active |
| Potentiometer | 10 turn pot – Intensity control of 10% - 100% Clockwise increases intensity |
| Analog Intensity | The output is adjustable from 10% - 100% of brightness by a 0 -10VDC signal |
| Connection | 5 pin M12 Integral QD connector |
| Daisy Chain | Up to sixteen LX150 |
| Ambient Temperature | -20° - 50° C (-4° - 122° F) |
| Lifespan | 100,000 hrs |
| IP Rating | IP50 |
| Weight | ~285g |
| IEC 62471 Rating | See page 5 |



product key number

LX150 – XXX – X* —» Part Number Key

Product Family:
Linear Light
LX150

Color:
365, 395 – UV
470 – Blue
505 – Cyan
530 – Green
625 – Red
850, 940 – IR
WHI - White

Lenses:
W - Wide
L - Line

* Lights come standard with Narrow lenses

CE and RoHS Compliant



warnings



Attention

Please note that the power requirements are 500mA at 24VDC. Failure to supply light with 500mA will 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 3 to pin 1

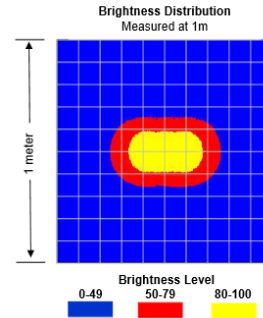
| PIN | Wire Color | Function | Signal |
|-----|------------|--------------------------|-----------------------------|
| 5 | BLUE | Ground | GND |
| 4 | BLACK | PNP Strobe | 4VDC to 30VDC for active ON |
| 3 | GREY* | Analog Intensity Control | 0-10VDC |
| 2 | WHITE | NPN Strobe | GND for active ON |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

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



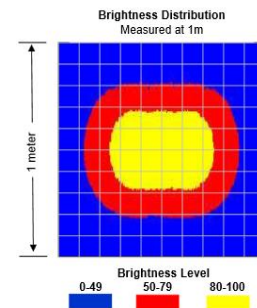
LX150-XXX

| Working Distance mm (inches) | Pattern (80%-100% measured intensity) mm (Inches) |
|---|--|
| .5m (19.7") | 130mm(~5") H x 100mm(~4") V |
| 1m (39.4") | 210mm(~8") H x 200mm(~8") V |
| 1.5m (59") | 280mm(~11") H x 280mm(~11") V |
| Typical output performance | |
| Illumination (Lux) | |
| Distance = .5 meter | |
| 12000 | |
| <i>Illumination measurement taken on White Lights – 6500K</i> | |



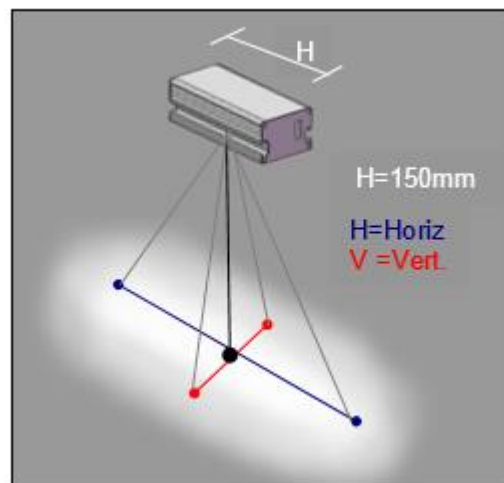
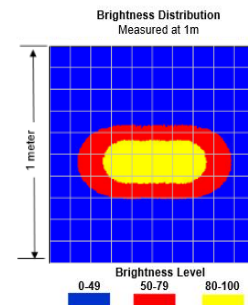
LX150-XXX-W

| Working Distance mm (inches) | Pattern (80%-100% measured intensity) mm (Inches) |
|---|--|
| .5m (19.7") | 180mm(~7") H x 180mm(~7") W |
| 1m (39.4") | 350mm(~14") H x 300mm(~12") W |
| 1.5m (59") | 650mm(~26") H x 650mm(~26") W |
| Typical output performance | |
| Illumination (Lux) | |
| Distance = .5 meter | |
| 4200 | |
| <i>Illumination measurement taken on White Lights – 6500K</i> | |



LX150-XXX-L

| Working Distance mm (inches) | Pattern (80%-100% measured intensity) mm (Inches) |
|---|--|
| .5m (19.7") | 200mm(~8") H x 100mm(~4") V |
| 1m (39.4") | 520mm(~20") H x 200mm(~8") V |
| 1.5m (59") | 710mm(~28") H x 280mm(11") V |
| Typical output performance | |
| Illumination (Lux) | |
| Distance = .5 meter | |
| 10000 | |
| <i>Illumination measurement taken on White Lights – 6500K</i> | |





thermal analysis

The LX series of linear lights is the brightest in the vision industry due to the heat dissipation of the housing. Lifespan and power output for LED lights are based on the junction temperature of the high current LED. The junction is the point where the light is generated inside the LED and the point of heat generation. To dissipate heat, Smart Vision Lights directly mounts high current LED's to an aluminum circuit board. The aluminum circuit board is in direct contact with LX series aluminum housing. This design efficiently transfers heat away from the high powered LEDs. Therefore, the LX series Linear Light can be run at higher current, producing an increased output due the even heat dissipation of the aluminum housing. In constant operation the housing on Smart Vision Lights LX series lights will run at 50°C in an ambient temperature of 25°C.



connecting lights / daisy chain





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

Notice

Risk Group 1: UV emitted from this product. Minimize exposure to eyes and skin. Use appropriate shielding. Safe for most applications except prolonged exposures.
Applicable for wavelengths: 395

Caution

Risk Group 2: UV emitted from this product. Eye or skin irritation may result from exposure. Use appropriate shielding. Does not pose optical hazard if aversion responses limit exposure.
Applicable for wavelengths: 365