

# ABSOLUTE SERIES™ LED Flexible Strip - 24 Volt

PN: 7102

Waveform Lighting's ABSOLUTE SERIES™ technology is the LED industry's first LED product to achieve 99 CRI at D50 5000K and D65 6500K.

Premium bin ABSOLUTE SERIES 99 CRI LED diodes which incorporate 420 nm violet emission for truly full spectrum lighting, are mounted 22 per foot (72 per meter).

The LED strips are 16.4 feet (5.0 meters) in length, and are conveniently reeled for quick and easy application, and can be cut to length every 1.6 inches (42 mm) with just a pair of scissors. This product is fully compatible with Waveform Lighting's LED strip accessories, allowing for quick and easy solderless connectivity.

## PRODUCT AND FEATURES

- 99 CRI to truly replicate natural daylight - an industry first
- Available in D50 (5000K) and D65 (6500K)
- 375 lumens per foot (1250 lumens per meter)
- 16 AWG wires with female DC jacks on both ends
- Designed around 24V constant voltage input
- 4 oz copper circuitry for reduced voltage drop
- For indoor use only

## PHOTOMETRIC SPECIFICATIONS

|                             |                  |                                   |         |
|-----------------------------|------------------|-----------------------------------|---------|
| <b>Light output per ft:</b> | 375 lumens       | <b>CRI Ra (min):</b>              | 95      |
| <b>D50 CCT:</b>             | 5000K ± 75K      | <b>CRI Ra (typ):</b>              | 99      |
| <b>D65 CCT:</b>             | 6500K ± 75K      | <b>CRI R9 (min):</b>              | 90      |
| <b>D50 CIE xy:</b>          | (0.3447, 0.3553) | <b>TLCI:</b>                      | 95+     |
| <b>D65 CIE xy:</b>          | (0.3123, 0.3282) | <b>TM-30-15 R/ R<sub>s</sub>:</b> | 95+/100 |

Download full photometric reports at <https://www.waveformlighting.com/photometrics>

## ELECTRICAL SPECIFICATIONS

|                               |                    |
|-------------------------------|--------------------|
| <b>Input type:</b>            | Constant Voltage   |
| <b>Input voltage:</b>         | 24V DC             |
| <b>Current draw per ft:</b>   | 175 mA @ 24V DC    |
| <b>Current draw per reel:</b> | 3.0 A @ 24V DC     |
| <b>Power draw per ft:</b>     | 4.2 W @ 24V DC     |
| <b>Power draw per reel:</b>   | 72 W @ 24V DC      |
| <b>Max run:</b>               | 16.4 ft (5 meters) |

## MECHANICAL SPECIFICATIONS

|                                 |   |
|---------------------------------|---|
| <b>Length:</b>                  | 16.43 ft (5008 mm)  |
| <b>Width:</b>                   | 0.394 in (10 mm)  |
| <b>Height:</b>                  | 0.067 in (1.7 mm)   |
| <b>LED spacing (OC):</b>        | 0.55 in (13.9 mm)   |
| <b>Cut-line spacing:</b>        | 3.2 in (84 mm)  |
| <b>PCB copper thickness:</b>    | 4 oz  |
| <b>Connections (both ends):</b> | DC Female Barrel Jack on<br>16 AWG, 5.9 in (150 mm) wires |

## POWER SUPPLY SELECTION

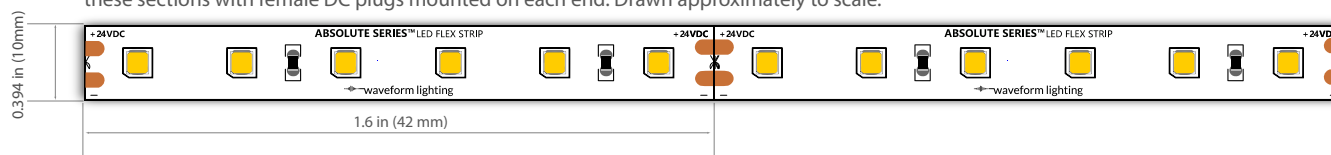
Compatible with Waveform Lighting PN 3092 or third-party 24V DC constant voltage power supply.

If you choose to utilize a third-party power supply unit, you will need to ensure that the power capacity of the power supply is sufficient for the length of LED strip being connected. Use the table below to determine if the power supply is sufficient for your project.

| LENGTH          | MINIMUM POWER SUPPLY CAPACITY | LENGTH        | MINIMUM POWER SUPPLY CAPACITY |
|-----------------|-------------------------------|---------------|-------------------------------|
| <b>1 ft:</b>    | 210 mA / 5 W                  | <b>0.5 m:</b> | 360 mA / 9 W                  |
| <b>3 ft:</b>    | 650 mA / 16 W                 | <b>1.0 m:</b> | 700 mA / 17 W                 |
| <b>6 ft:</b>    | 1.2 A / 30 W                  | <b>2.0 m:</b> | 1.4 A / 35 W                  |
| <b>9 ft:</b>    | 1.9 A / 46 W                  | <b>3.0 m:</b> | 2.2 A / 52 W                  |
| <b>12 ft:</b>   | 2.5 A / 60 W                  | <b>4.0 m:</b> | 2.9 A / 69 W                  |
| <b>16.4 ft:</b> | 3.3 A / 80 W                  | <b>5.0 m:</b> | 3.6 A / 86 W                  |

## MECHANICAL DRAWING & DIMENSIONS

This drawing is an excerpt that shows just two complete, cuttable sections. Each reel consists of 12 of these sections with female DC plugs mounted on each end. Drawn approximately to scale.



## PART NUMBERS AND ORDERING

|             |         |
|-------------|---------|
| <b>D50:</b> | 7102.50 |
| <b>D65:</b> | 7102.65 |

Female DC cables (5.5 x 2.1 mm) are pre-mounted on both ends of the reel for quick and easy set up using the PN 3092 power supply. If conversion to wire inputs is required, use PN 7095.

