# L4WVD080 Series

**80W, 90-305Vac Input, Constant Voltage LED Driver**

RoHS Compliant

## Features

- Power Rating: 80W
- Input Voltage: 90-305Vac
- Constant current and constant voltage design
- Output current (70mA-3330mA)
- Fixed Current
- Efficiency up to 90%
- Compatible with 0-10V dimming
- UL Class 2 Output option available
- Lightning, OVP, SCP, OTP & Open Circuit Protection
- IP67
- 7-year warranty
- Surge Protection: L-N 4kV, L/N-Earth 4V

*Product images are for illustrative purposes only and may vary from actual design.

## Application

- Outdoor LED lights
- Street lights, high bay and low bay lights, LED panels

## Model List*(See part number scheme for model number details)

| Model Number | Input Voltage Range | Output Power | Output Voltage | Output Current Min. | Output Current Max. | Efficiency | Certification |
|---|---|---|---|---|---|---|---|
| L4WV-080S024ST* | 90-305Vac | 80W | 12-24V | 333mA | 3330mA | 90% | UL/cUL |
| L4WVD080S024ST* | 90-305Vac | 80W | 12-24V | 333mA | 3330mA | 90% | UL/cUL |
| L4WV-080S040ST* | 90-305Vac | 80W | 20-40V | 200mA | 2000mA | 90% | UL/cUL |
| L4WVD080S040ST* | 90-305Vac | 80W | 20-40V | 200mA | 2000mA | 90% | UL/cUL |
| L4WV-080S057ST* | 90-305Vac | 80W | 28-57V | 140mA | 1400mA | 90% | UL/cUL |
| L4WVD080S057ST* | 90-305Vac | 80W | 28-57V | 140mA | 1400mA | 90% | UL/cUL |
| L4WV-080S076ST | 90-305Vac | 80W | 38-76V | 105mA | 1050mA | 90% | UL/cUL |
| L4WVD080S076ST | 90-305Vac | 80W | 38-76V | 105mA | 1050mA | 90% | UL/cUL |
| L4WV-080S114ST | 90-305Vac | 80W | 57-114V | 70mA | 700mA | 90% | UL/cUL |
| L4WVD080S114ST | 90-305Vac | 80W | 57-114V | 70mA | 700mA | 90% | UL/cUL |

*Class 2 output (-=No dimming/D=Dimming)

## Technical Data

| | |
|---|---|
| Input voltage range | 90-305Vac |
| Frequency | 47-63Hz |
| Power factor | > 0.95 @115Vac & 80~100% Full load, > 0.90 @277Vac & 80~100% Full load |

**Technical Sales / Customer Service:** +1-818-338-7788 • Email: sales@autec.com
31328 Via Colinas Suite 102 • Westlake Village, CA 91362 USA • www.autec.com

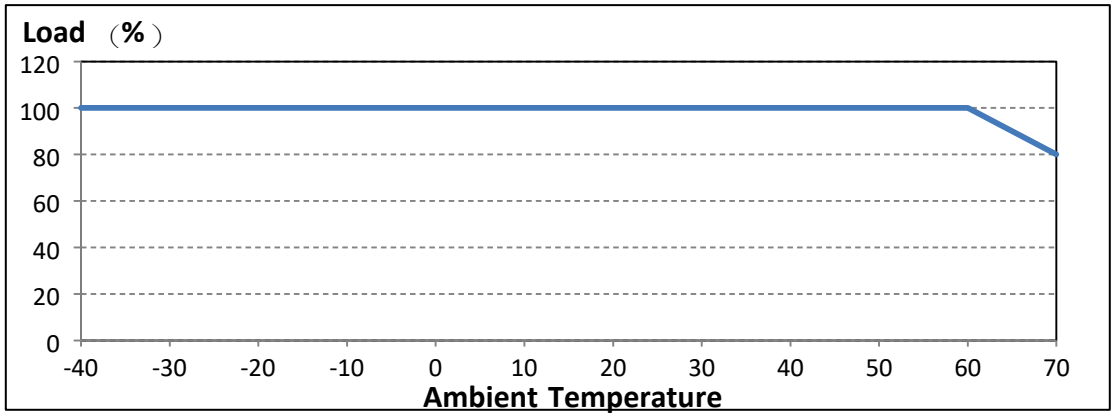
## ■ Technical Data(cont.)

| | |
|---|---|
| Output voltage | 12-114V |
| Output power | 80W |
| Max. Current ripple | 350mA, 200mA, 150mA, 120mA, 100mA |
| Max. Voltage ripple | ±0.5% |
| Max input current | 1.1A |
| Max input Power | 95W |
| Efficiency | 90% |
| Max. open circuit voltage | 35V, 50V, 65V 85V, 125V |
| Dimming | D Version: 0-10V Dimming |
| THD | <20% @ 120Vac & 80~100% full load, <20% @ 277Vac & 80~100% full load |
| Output Current | 700mA-3330mA |
| Protection | OVP, SCP, OTP, and open circuit protection |
| Environmental Protection | UL Dry and Damp and Wet, and Type TL |
| Working Temperature | -40~+70˚C |
| Max Case Temperature | 90˚C |
| Surge Protection | Line to line 4kV, Line to Earth 4kV |
| ANSI Surge Type | 1.2/50μs Combination Wave (w/t 2Ω) |
| Isolation (Primary to Secondary) | 3750Vac/10maMax/60 seconds |
| Dimension | 227x49x40.5 mm (8.94x1.93x1.59 inch) |
| Mounting length | 240 mm (9.45 inch) |
| Overall length | 253 mm (9.96 inch) |
| Weight | 0.87 kg (1.91 lb) |
| Lifetime | >70,00 hours @full load, 75˚C Tcase |
| Packing | 0.87 kg; 18 units/carton; 27 cartons/pallet |

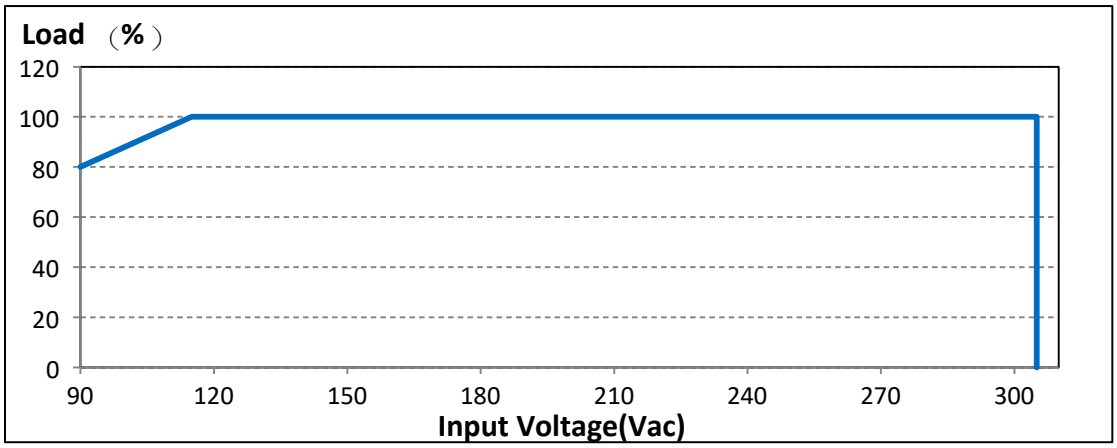
## ■ Safety Compliance

| | |
|---|---|
| Safeties | UL1310 Class 2, UL8750 |
| Electromagnetic Compliance | Per Title 47 CFR Part 15 Class B |

## ■ Derating Curve

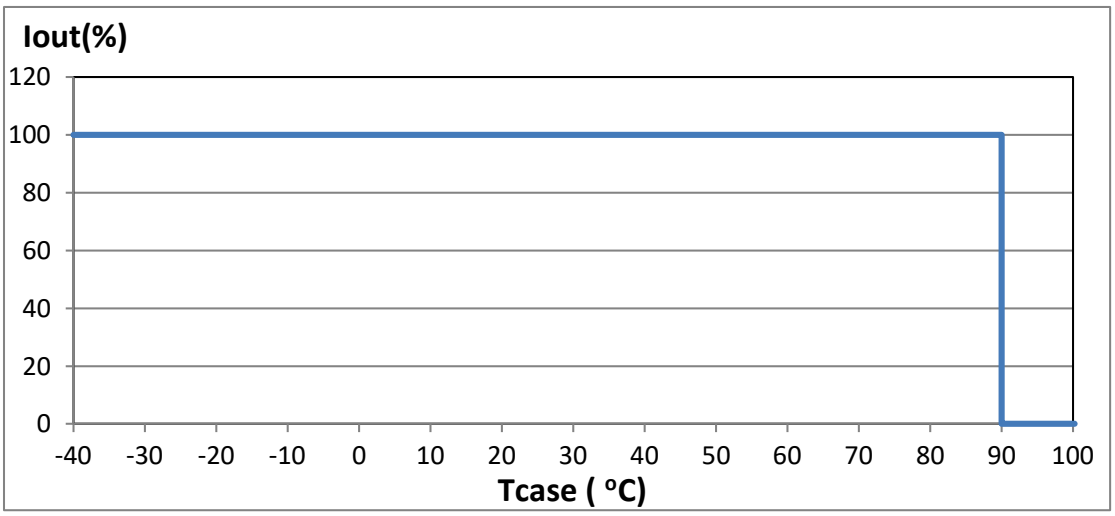



## ■ Static Characteristics

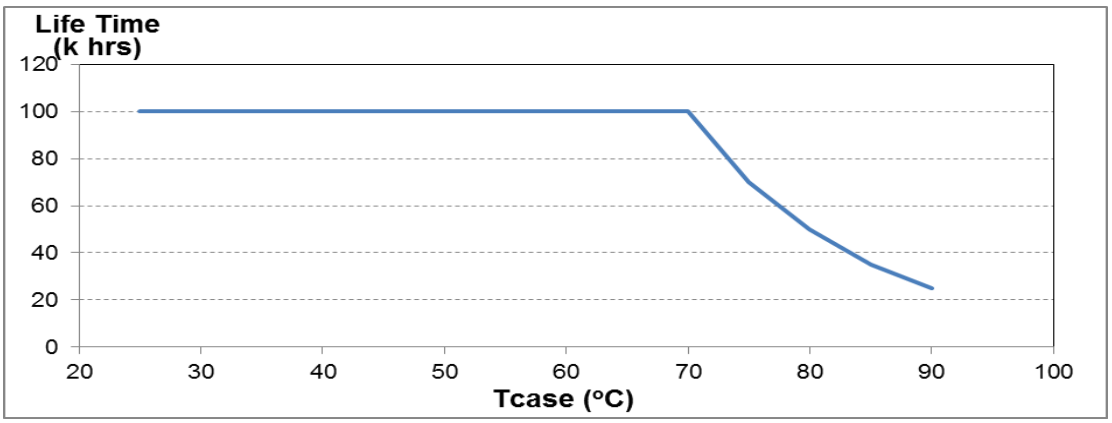



## ■ Electrical Specifications

**Output Current vs. Case Temperature (with ±5ºC Tolerance)**

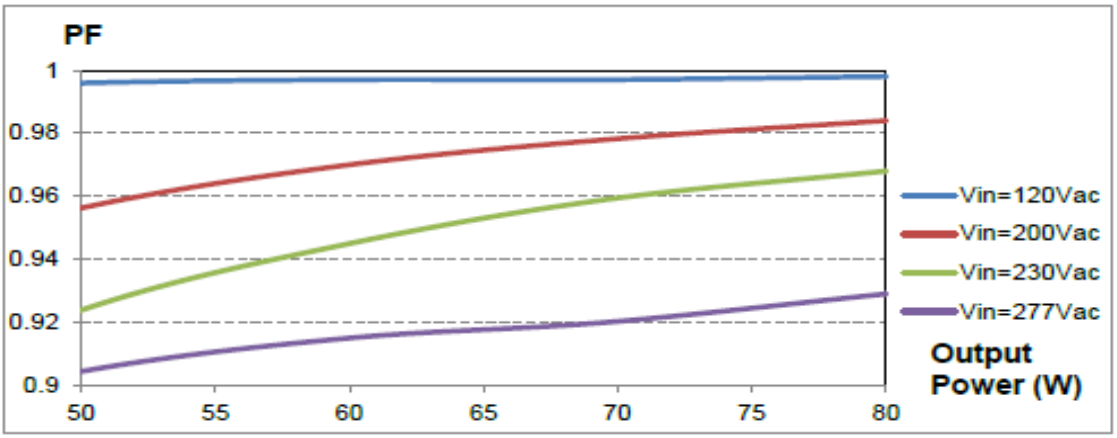


## ■ Lifetime vs Case Temperature



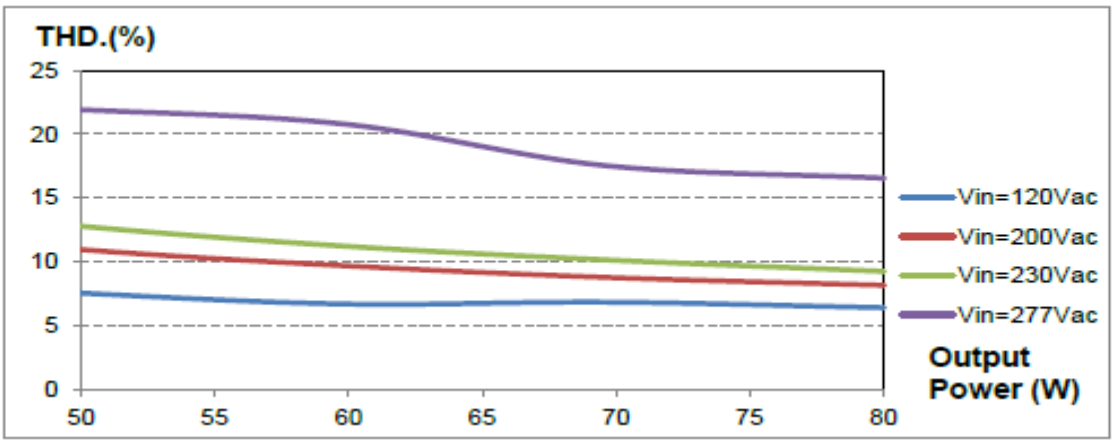

## ■ Power Factor vs. Output Power

**(@ 25°C)**

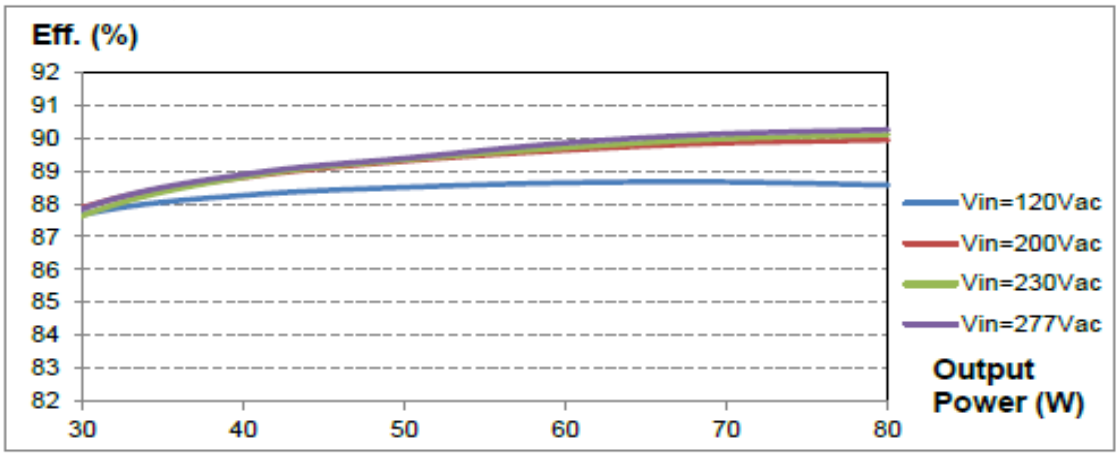



## ■ THD vs. Output Power

**(@ 25°C)**

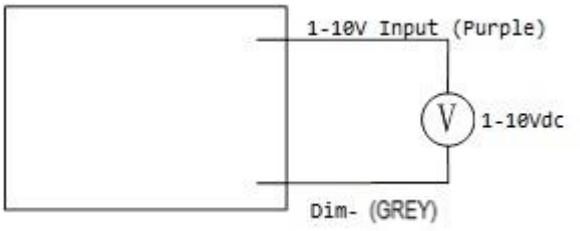


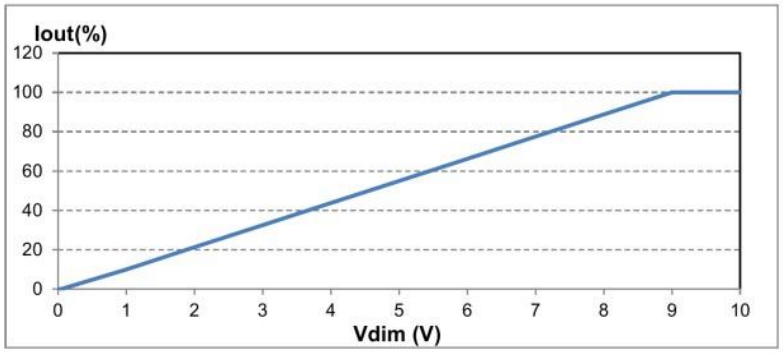
## ■ Efficiency vs. Output Power



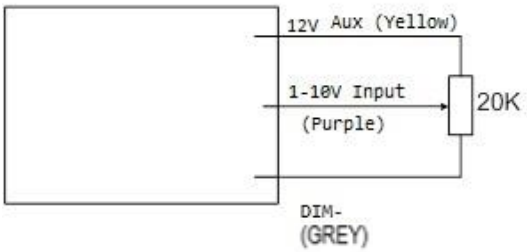

## ■ Dimming

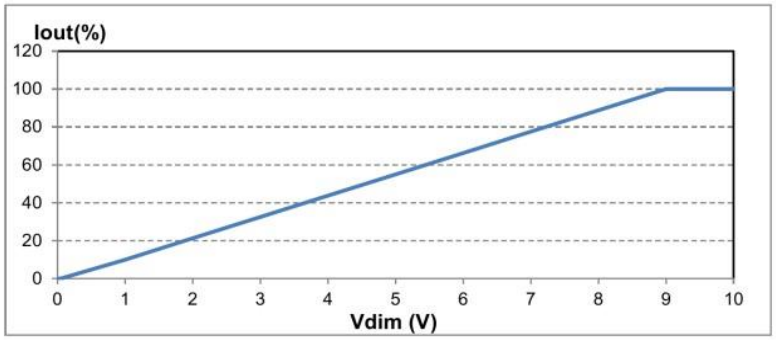
Mode 1 : 1-10Vdc Input on Dimming Control



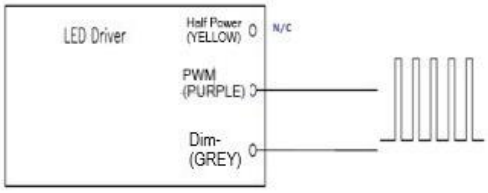

Mode 2 : Potentiometer on Dimming Control

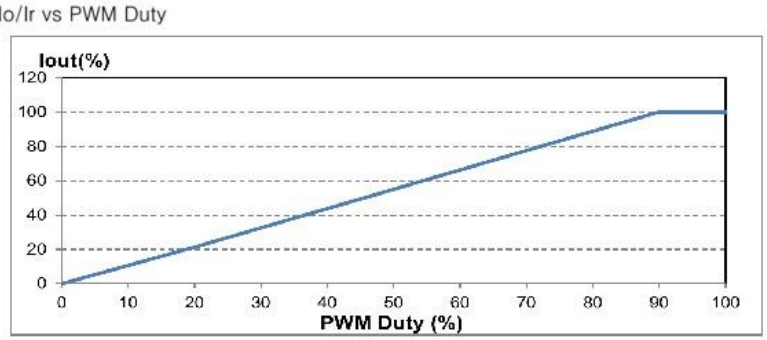


## ■ Dimming(cont.)

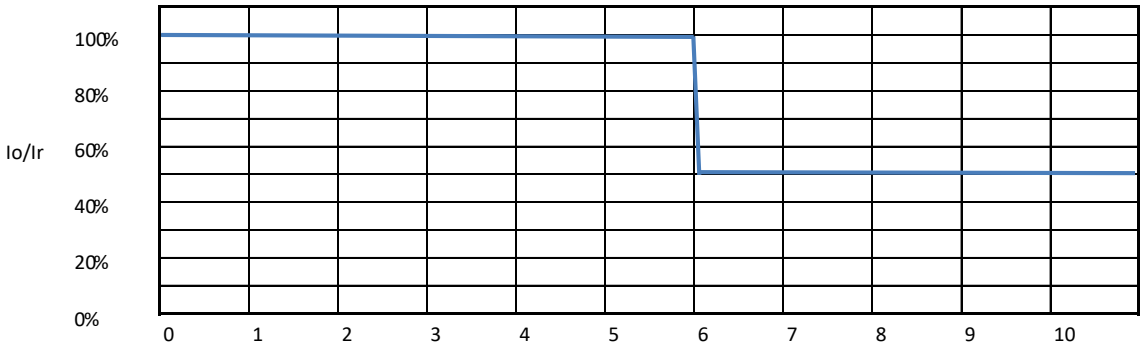
Mode 3 : PWM Signal on Dimming Wires




| Parameter | Values | Conditions |
|---|---|---|
| Input Voltage | 0~10 V | Purple wire. |
| Input Current | 10 mA | |
| PWM Frequency | 0.5 ~ 3 kHz | |
| PWM Pulse Width | 10%~100% | |

Mode 4 : Timer Dimming (Does not require dimming wires)



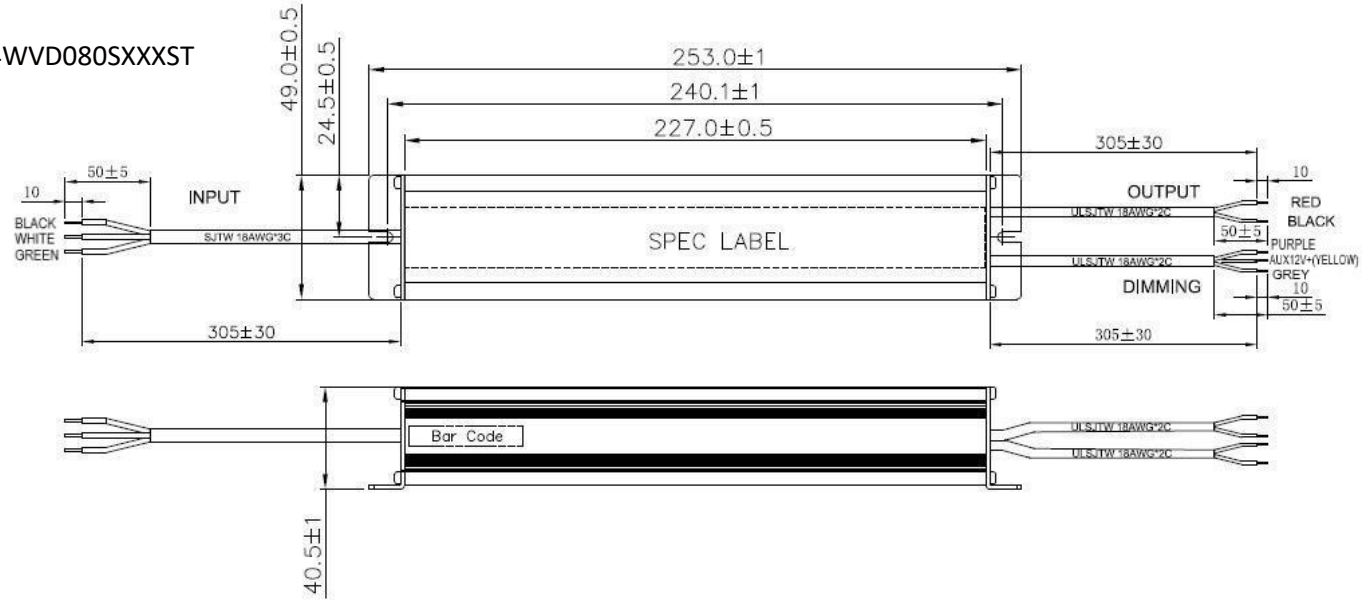

Standard power/time combination above, can be factory set to customer specification. Recycle AC to restart timer.

**NOTE:**

1. If the dimming function is not used, cap the dimming wires and don't use them.
2. Io is actual output current and Ir is rated current without dimming control.
3. For the driver to operate properly, the load voltage must be maintained above the minimum voltage threshold, approximately 50% of the max. output voltage for any given mode.
4. The dimming signal can be less than 1V, when it is 0-1V, the output current can maintain about 10%Ir, however, the connected LEDs may flicker. Maintain dimming voltage greater than 1V in the application is strongly recommended.
5. Pulse width less than 10% will cause the driver to work improperly.

## ■ Mechanical Design

L4WVD080SXXXST



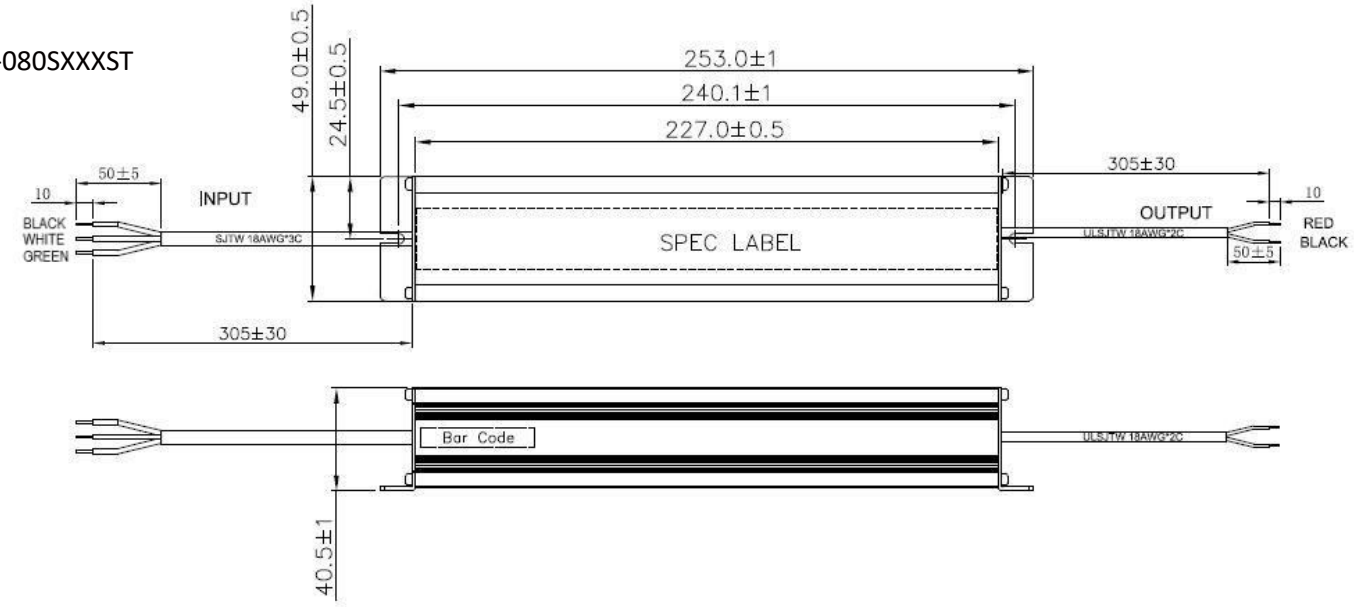

Notes: 1. Outline Dimension: 253*49*40.5

2. Input and Output Connector and Pin Assignment

| | | |
|---|---|---|
| **Input Wire** | **3/#18AWG** | **L= Black, N=White, GND=Green** |
| **Output** | **2/#18AWG** | **V+ is Red, V- is Black** |
| **Dimming Wire** | **3/#22AWG** | **Dim + is Purple,<br>Dim Return is Grey,<br>AUX12V+100mA is Yellow** |

## ■ Mechanical Design(cont.)

`L4WV-080SXXXST

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| **Input Wire** | **3/#18AWG** | **L= Black, N=White, GND=Green** |
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## Part Number Scheme

**L4 W V D 080 S XXX S T**

- L4=LED Driver Series
- W=Input Voltage 90-305VAC
- C=Constant Voltage
- D=Dimmable
- 080=Output Power(Watts)
- T=Class I, 3 Wire Input
- S=Metal case
- XXX=Rated Voltage
  Ex.) 024=24V
  114=114V
- S=Single Output

## Part Number Scheme

**L4 W V - 080 S XXX S T**

- L4=LED Driver Series
- W=Input Voltage 90-305VAC
- C=Constant Voltage
- "-"=Non-Dimmable
- 080=Output Power(Watts)
- T=Class I, 3 Wire Input
- S=Metal case
- XXX=Rated Voltage
  Ex.) 024=24V
  114=114V
- S=Single Output

***Product images are for illustrative purposes only and may vary from actual design.**

***Specifications are subject to change without notice. Autec is not responsible for issues arising from errors or omissions.**

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