

**BRILLIANCE™**  
A HIGHER LIGHT FORM™



Photograph Courtesy of Joel Mayor

# **TRANSFORMER**

## PRODUCT & INSTALLATION

# **GUIDE**

75 Watt, 150 Watt, 300 Watt, 600 Watt

# TRANSFORMERS



## FEATURES

- UL 1838 Certified
- Secondary circuit breaker
- Two knockout sizes for conduit
- Removable bottom & 4ft Grounded plug
- Canted terminal block for easy access

## TRANSFORMER SPECS

Wattage	<b>75</b>	<b>150</b>	<b>300</b>	<b>600</b>
Finish	<b>Stainless Steel</b>	<b>Stainless Steel</b>	<b>Stainless Steel</b>	<b>Stainless Steel</b>
Photocell/Timer	<b>Included</b>	<b>Compatible</b>	<b>Compatible</b>	<b>Compatible</b>
Secondary Circuit Breaker	<b>Red</b>	<b>Orange</b>	<b>White</b>	<b>Circuit #1 &amp; Circuit #2, White</b>
Multi Tap	<b>12V - 15V</b>	<b>12V - 15V</b>	<b>12V - 15V</b>	<b>12V - 22V</b>
Dimensions (in.)	<b>3.75 x 5.75 x 4.25</b>	<b>5.25 x 17 x 5.25</b>	<b>5.25 x 17 x 5.25</b>	<b>6.5 x 17 x 5.5</b>
Dimmable	<b>On Primary Side</b>	<b>On Primary Side</b>	<b>On Primary Side</b>	<b>On Primary Side</b>
Warranty	<b>Lifetime</b>	<b>Lifetime</b>	<b>Lifetime</b>	<b>Lifetime</b>

## INSTRUCTIONS APPLY TO MODELS: 75W, 150W, 300W, & 600W

### SAFETY

This fixture must be installed in accordance with the National Electric Code and local code specifications. Failure to follow these codes and installation instructions will void the warranty and may result in serious injury and/or damage to the fixture. This product is designed for above ground installation only. Keep these instructions for future use.

- **WARNING!** Risk of fire or electrical shock. Install the transformer at least 3m (10ft) from pool, spa, or fountain.
- NEC® Article 411.5 (B): Lighting systems shall be installed not less than 3m (10ft) horizontally from the nearest edge of the water, unless permitted by Article 680.
- This transformer must be connected to GFCI protected receptacle. If the receptacle is outdoors, then it must be protected by an in-use weatherproof cover.
- All transformers are indoor and outdoor rated, but we recommend the transformer be mounted outdoors. If mounted indoors, then codes should be followed that apply to indoor wiring - especially for wires that pass through exterior walls.
- Transformer must be mounted in a vertical orientation with the bottom plate at least 1 foot from ground.
- It is normal for the unit to become hot; do not allow contact with PVC or plastic sidings. Allow the photocell to be exposed to the sky.

### CIRCUIT BREAKER

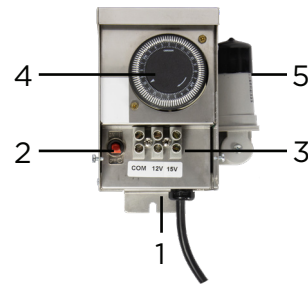
This product has a built in circuit breaker to help protect against electrical short circuits. This does not prevent the need to use GFCI outlets marked for “wet location.” It also does not prevent the requirement to follow all local and electrical building codes for the main circuit breaker protection.

If a circuit break occurs, immediately disconnect the transformer from the power source. Make all repairs to the lighting system that caused the circuit breaker to trip. Once the problem has been determined and fixed, reset the breaker by switching to the “On” position.

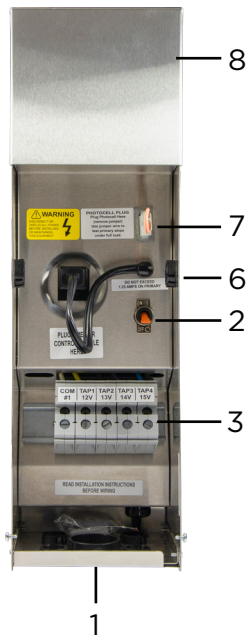
## Transformer Parts

- 1 - Knockouts
- 2 - Secondary Breaker
- 3 - Terminal Blocks
- 4 - Timer
- 5 - Photocell
- 6 - Photocell Knockout
- 7 - Photocell Plug
- 8 - Toroidal Core

### 75 Watt Transformer



### 150 & 300 Watt Transformer



### 600 Watt Transformer



## MOUNTING TRANSFORMER:

Mount transformer to solid surface or stand using stainless steel screws and anchors if needed (hardware not included). Screws will pass through keyholes. Use bubble level to ensure vertical mounting. Bottom of transformer must be at least 1 foot above ground.

## TRANSFORMER SIZING:

The total lamp VA (load) of all fixture connected to one transformer must not exceed 70% of the VA capacity of the transformer. Therefore, the transformer selections are primarily based on Total Fixture Load:

Total Fixture Load (Watts or VA) ÷ 0.7 = Min. Transformer Capacity

Example: Total fixture load is 200 watts, divide by 0.7 to equal 286 watts; a 300W transformer would be ideal.

## SELECT YOUR WIRE:

We recommend using 12 AWG low voltage direct landscape wire. It is important to distribute fixtures evenly along the cable with higher wattage fixtures closer to the transformer if possible. Only use the bottom terminals for wiring to the light source. Do not loosen the top terminals. They are for internal wiring of the transformer. The higher voltage terminals are for long wire runs to lights. These will help account for voltage loss along the long run of wire.

## Voltage Loss Calculation

( distance [ft] X load [W] X 2 ) ÷ cable constant = voltage loss

Wire Gauge	Cable Constant
#18/2	1380
#16/2	2200
#14/2	3500
#12/2	7500
#10/2	11920

## SELECT VOLTAGE TAPS:

Transformers are Multi-Tap giving you a selection of voltages for your wire run connections. Selecting a higher voltage at the transformer compensates for voltage that may be lost along wire runs.

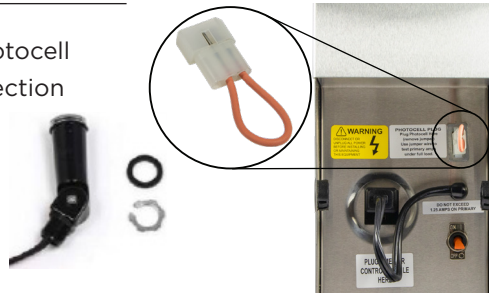
### INSTALLING A PHOTOCELL (already installed in 75W transformer):

Disconnect the source power to the transformer before installing the photo cell. Remove the inner knockout located on the side of the transformer. Do not remove the outer portion of the knockout or the photo cell will not fit properly.

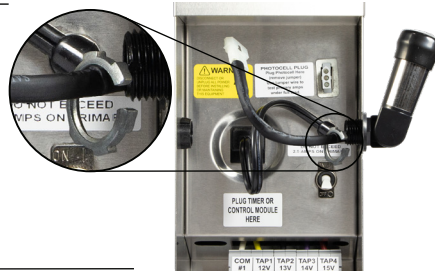
To remove the plastic plug on the right or left side of the transformer, use a screw driver to bend the tabs forward. Use pliers to twist and bend the tabs until the inner knockout breaks loose. Keep the plastic plug inside the transformer in case you need it for future use.



Remove the nut from the photocell and unplug the jumper connection from the transformer.



Insert the wire and connector of the photocell through the hole in the side of the transformer. Place the nut around the wire and screw onto the photocell, holding the unit in position.



Plug the photocell into the now empty socket connection.



# SMART SOCKET 3.0



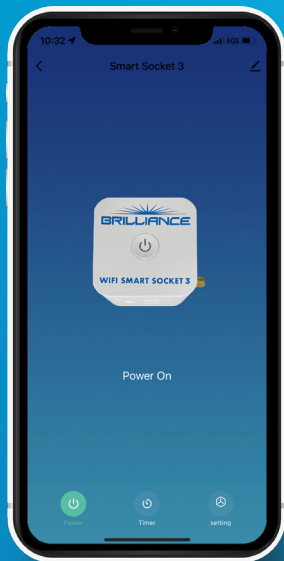
### DESCRIPTION

The Brilliance Wi-Fi Smart Socket 3.0 is designed specifically to pair with a landscape lighting transformer in lieu of a traditional photocell. Remotely control your entire lighting system from anywhere in the world with the Brilliance Smart app.

**TECHNICAL REQUIREMENTS:** Must have consistent 2.4 GHz Wi-Fi signal at the installation location with dBm strength of -70 or better. See the Brilliance Smart Products Guide for more information and troubleshooting.



For more information on the Wi-Fi Smart Socket 3.0 please visit : [brillianceled.com/smart-products](http://brillianceled.com/smart-products)



## BRILLIANCE SMART + Wi-Fi SMART SOCKET 3.0

With **Brilliance Smart** you have control over all of our Smart Products, using an iPhone or Android phone from anywhere in the world. Connected with our **Wi-Fi Smart Socket 3.0**, schedule automated on-off timers, astronomical timers, and control your lights from anywhere in the world.



ACTIVATE INTELLIGENT LIGHT



brillianceled.com | 800.867.2108  
7202 E Cave Creek Rd, Suite 3A  
PO Box 2281 Carefree, AZ 85377