Tunable White Indoor LED Strips (5 and 10 meter)



2 Year Warranty

Description

Savant's tunable white LED strips provide high-quality light that can be adjusted to match your environment's mood or enhance the decor. These indoor LED strips are perfect for under cabinet lighting, accent lighting, cove lighting, and more. They support a range of color temperatures between 2400 (warm white) and 6500 Kelvin (bright white). When connected to a Savant system, adding daylight mode can control the temperature and intensity throughout the day, which benefits a person's wellbeing.

DMX-TWKITW - Start Kit for DMX Tunable White Strip Lighting (5M) - kit includes:

- LED Driver (DMX-Driver1-xx)
- (2) 3-Way T-Couplers, (6) Straight Couplers, (2) jumpers

DMX-TWKITB - Start Kit for DMX Tunable White Strip Lighting (10M) - kit includes:

- LED Driver (DMX-Driver3-xx)
- External 240W Power Supply
- (4) 3-Way T-Couplers, (12) Straight Couplers, (4) jumpers

STP-MOUNTID - Mounting Rail for Indoor Lighting Strip (10M) - kit includes:

- (5) Aluminum Rails for mounting (1 meter each)
- (5) Aluminum Rail Diffuser Lens (1 meter each)
- (10) Flat Mounting Brackets, (10) Angle Brackets,
- (10) End Caps - Solid (1) End Cap - with hole for wire

STP-TW10MID - Tunable White Light Strip - Indoor (10M Reel)

Key Features

- Color Rendering Index (CRI) = 80 +
- IP20 rating
- Supports Daylight Mode
- Brightness (highest) - Up to 1100 lumen/m
- Efficiency up to 75 lm/w
- Average Beam Angle of 120°
- Dimmable
- 120 LEDs per meter
- Narrow 10 mm (3⁄8 inch) strip width
- Low 2.0 mm profile
- Small 10 cm (4 inch) bend diameter
- 24V DC Input
- Can be cut every 10 cm (3.94 inch)
- 10 Meter Maximum (~ 32.8 feet)

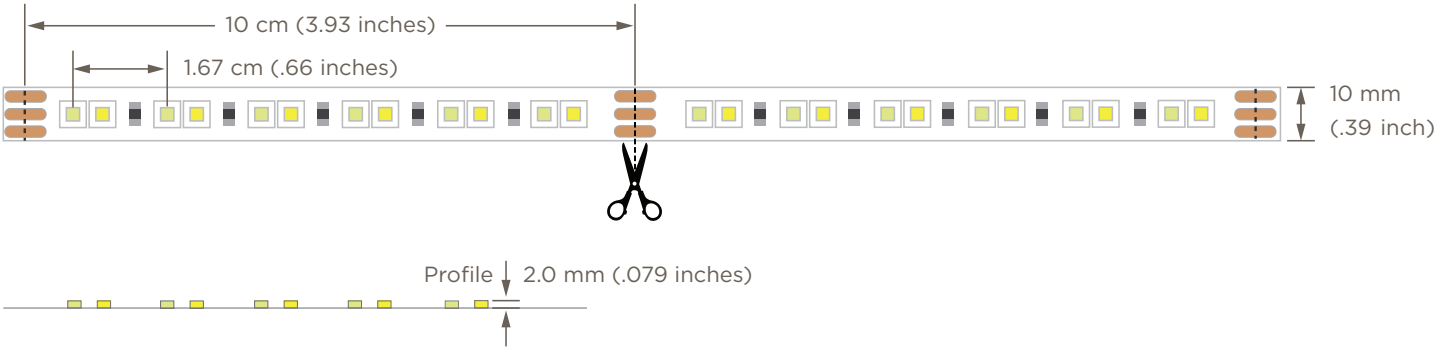
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Specifications

Product	Color/ Temperature	Lumens/Meter	Efficiency	Voltage	CRI
STP-TW10MID	2400K	6000 lm	75 lm/watt	24V DC	80 +
	6500K	7200 lm	75 lm/watt	24V DC	80 +
Voltage and Current					
Input Voltage Range		23.5 - 24.5V DC			
amps/meter		.6 amps / meter			
Maximum Ratings					
Forward Current		600 mA / meter			
Power Consumption		14.4 watts / meter			
Operating Temperature		-15 to +40° C (+5 to 104° F)			
Storage Temperature		-40 to +80° C (-40 to 176° F)			
Miscellaneous					
Lead Wire		#20 AWG			
Lead Wire Length		20 cm (7.87 inches)			
LED Type		SMD2835			
LED Chip Beam Angle		120°			
Energy Efficiency Rating (EED)		A+			
Number of Pins on Strip		3			
Bend Diameter		10 cm (3.94 inches)			
Indoor Installations Only					
Minimum Supported Release					
da Vinci 8.9					

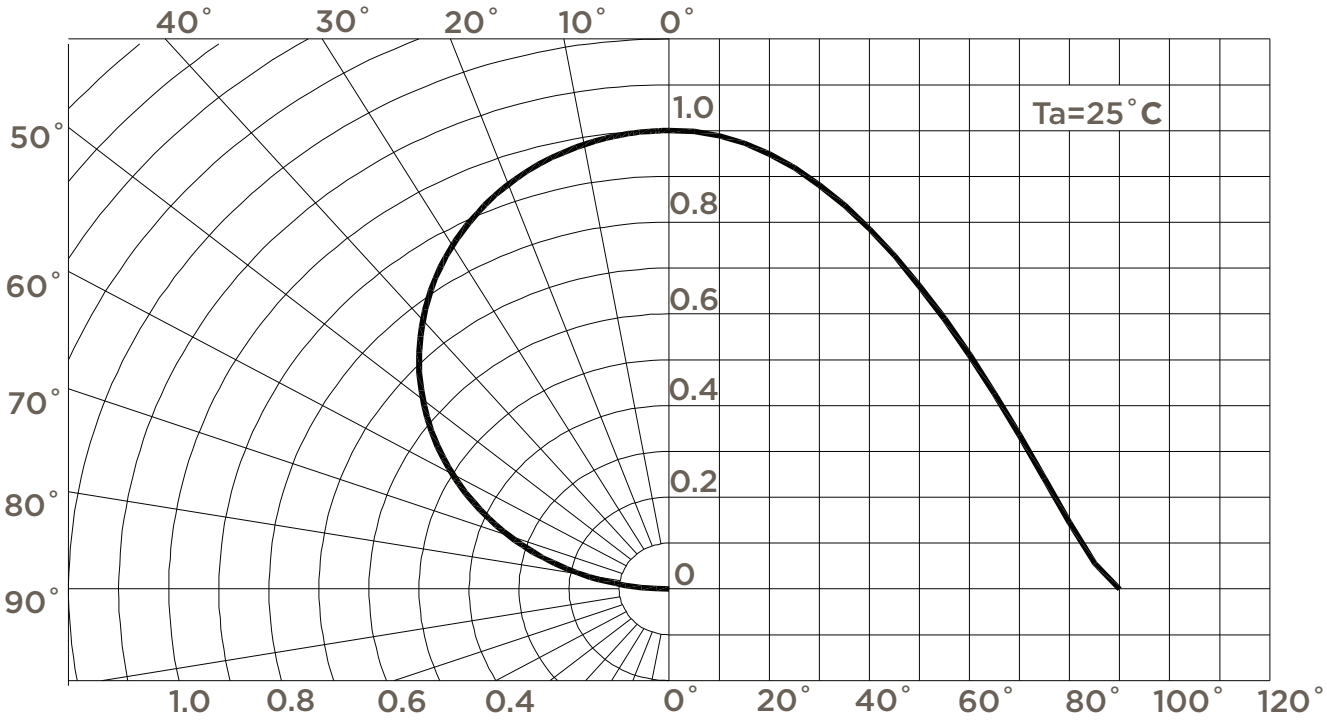
Dimensions



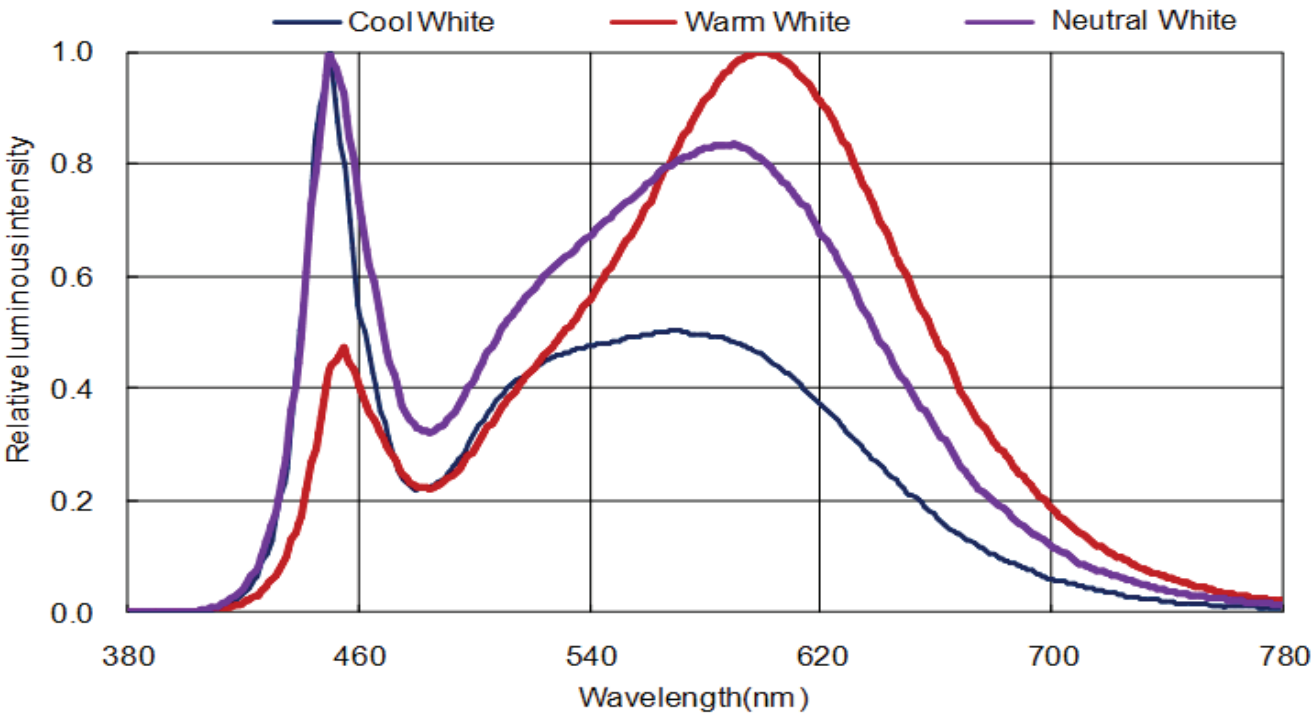
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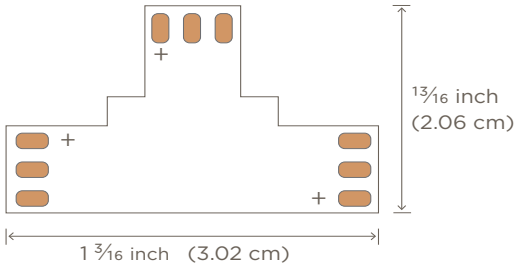
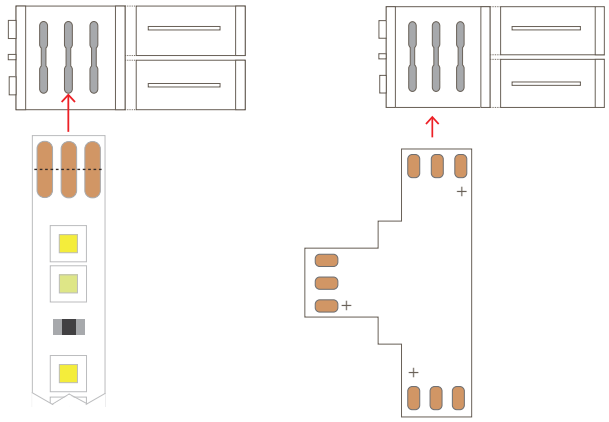
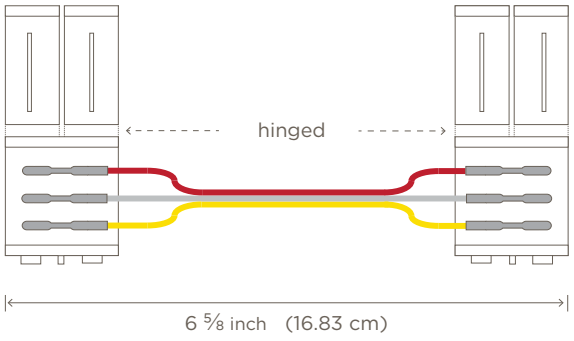
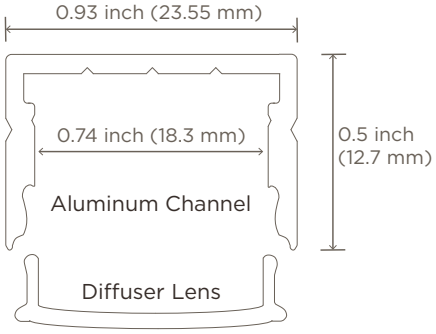
Spatial Distribution



Relative Spectral Emission



LED Strip Accessories

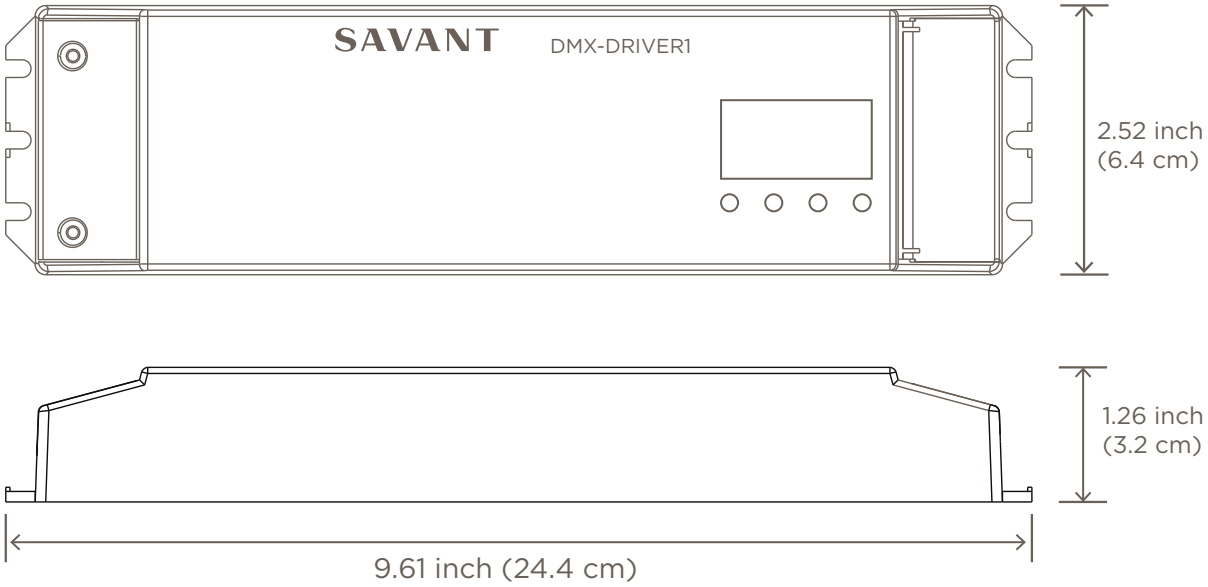
Product	Description	Wire Gauge	Image
STP-TWT-xx (10 pack)	T connector for joining LED strips. The strips can be joined to configure both an in-line and 90° connection.	N/A	
STP-TWCOUPLER (10 pack)	Use the coupler to join either two or three LED strips and make one continuous run. As shown in the image to the right, the coupler supports making tight 90° turns.	N/A	
STP-TWJUMPER (10 pack)	Attaches two sections of the LED strips to create one continuous run. This jumper wire assembly makes it easy to bend the strips around corners that have a tight radius.	#22 AWG	
STP-MOUNTID (5 Pack)	1 meter aluminum channel for mounting the indoor tunable white LED strips. The kit comes complete with the following: (5) One meter alum channel (5) One meter diffuser lens. (10) Flat mounting brackets (10) Adjustable angle brackets (10) Solid end caps (10) End caps with hole for wire	N/A	

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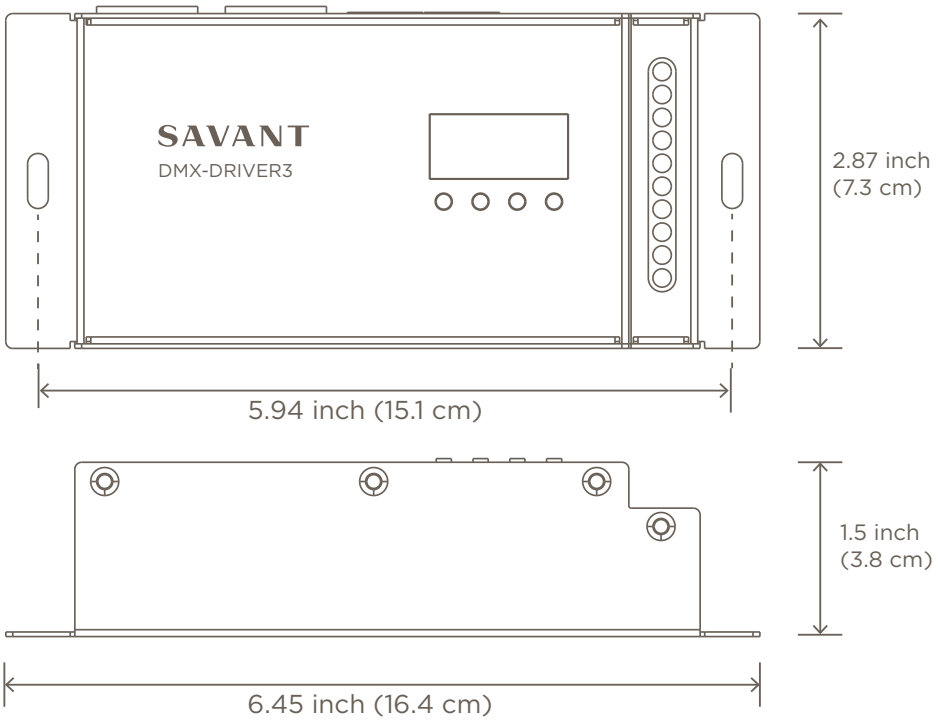
LED Drivers

DMX-DRIVER1-xx (Included in the DMX-TWKITW-xx Tunable White Starter Kit for 5 meter strips.)



HELPFUL! To mount the driver to a wall or similar, choose any of the three fixing screw holes located on either end of the driver.

DMX-DRIVER3 (Included in the DMX-TWKITB-xx Tunable White Starter Kit for 10 meter strips.)

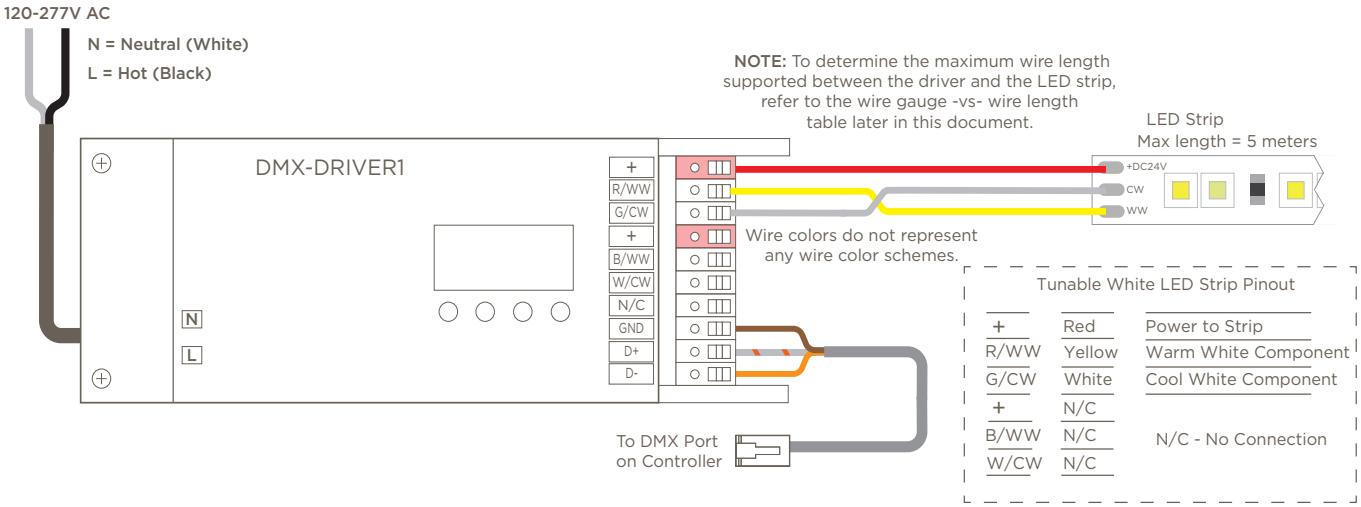


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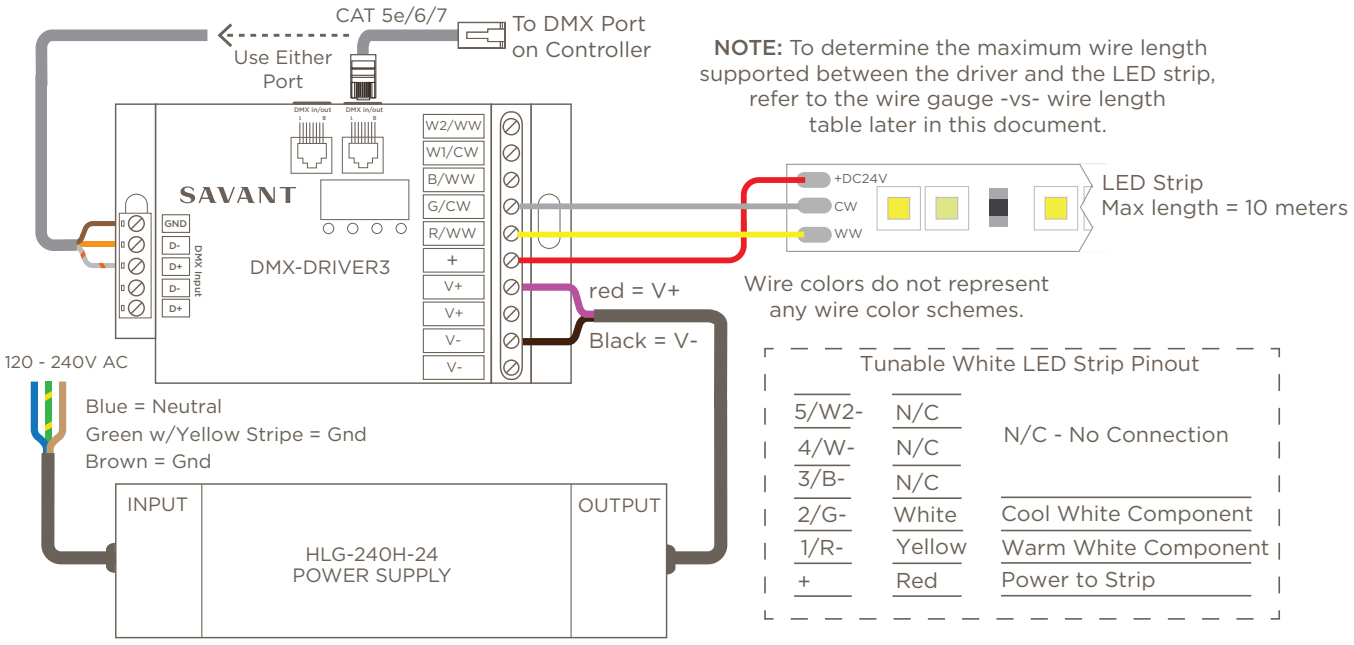
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Wiring Diagrams

Five Meter LED Strip



Ten Meter LED Strip



HELPFUL: Additional wiring diagrams and connector pin-out information is available in the **DMX and O-10V Deployment Guide** located on the Savant Customer Community.

- For LED strips 5 meters and shorter (approx. 16 feet), the DMXDRIVER-1 is all that is needed.
- For LED strips longer than 5 meters, Savant recommends using the DMX-DRIVER3 along with a separate power supply.
- Both drivers are powered using 120-240V AC (50/60 Hz).
- A DMX controller bridges communication between the LED strip and a Savant system to take advantage of the many lighting features such as Daylight Mode.

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Wire Gauge -vs- Wire Length

The table below provides a guideline for determining the wire gauge required to reduce the voltage drop between the LED driver and LED Strip. Using smaller gauged wires result in a loss of brightness and possible flickering of the LEDs.

Wire Gauge	10 W .42 A	20 W .83 A	30 W 1.3 A	40 W 1.7 A	50 W 2.1 A	60 W 2.5 A	70 W 2.9 A	80 W 3.3 A	90 W 3.75 A	100 W 4.2 A
20 AWG	85 feet (25.9 m)	43 feet (13.1 m)	27 feet (8.2 m)	21 feet (6.4 m)	17 feet (5.2 m)	14 feet (4.3 m)	12 feet (3.7 m)	11 feet (3.4 m)	9 feet (2.7 m)	8 feet (2.4 m)
18 AWG	134 ft (40.8 m)	68 feet (20.8 m)	45 feet (13.7 m)	33 feet (10.1 m)	27 feet (8.2 m)	22 feet (6.7 m)	19 feet (5.8 m)	17 feet (5.2 m)	15 feet (4.6 m)	14 feet (4.3 m)
16 AWG	215 feet (65.6 m)	109 feet (33.2 m)	72 feet (21.9 m)	54 feet (16.5 m)	43 feet (13.1 m)	36 feet (11 m)	31 feet (9.4 m)	27 feet (8.3 m)	24 feet (7.3 m)	22 feet (6.7 m)
14 AWG	345 feet (105.2 m)	174 feet (53 m)	115 feet (33.1 m)	86 feet (26.2 m)	69 feet (21 m)	57 feet (17.4 m)	49 feet (14.9 m)	43 feet (13.1 m)	39 feet (11.9 m)	36 feet (11 m)
12 AWG	539 feet (164.3 m)	272 feet (82.9 m)	181 feet (55.2 m)	135 feet (41.1 m)	108 feet (32.9 m)	90 feet (27.4 m)	77 feet (23.5 m)	68 feet (20.7 m)	61 feet (18.6 m)	56 feet (17.1 m)
10 AWG	784 feet (239 m)	397 feet (121 m)	263 feet (80.2 m)	197 feet (60.04	158 feet (48.2 m)	131 feet (40 m)	112 feet (34.1 m)	98 feet (29.9 m)	97 feet (29.6 m)	82 feet (25 m)

Wire Gauge	100 W 4.2 A	110 W 4.6 A	120 W 5.0 A	130 W 5.4 A	140 W 5.8 A	150 W 6.3 A	160 W 6.7 A	170 W 7.1 A	180 W 7.5 A	190 W 7.9 A
20 AWG	8.0 feet (2.4 m)	7.2 feet (2.2 m)	6.6 feet (2 m)	6.1 feet (1.9 m)	5.7 feet (1.7 m)	5.3 feet (1.6 m)	5.0 feet (1.5 m)	4.7 feet (1.4 m)	4.4 feet (1.3 m)	4.2 feet (1.3 m)
18 AWG	14 ft (4.3 m)	12.7 feet (3.9 m)	11.7 feet (3.6 m)	10.8 feet (3.3 m)	10 feet (3 m)	9.3 feet (2.8 m)	8.7 feet (2.7 m)	8.2 feet (2.5 m)	7.8 feet (2.4 m)	7.4 feet (2.3 m)
16 AWG	22 feet (6.7 m)	20.6 feet (6.3 m)	18.9 feet (5.8 m)	17.4 feet (5.3 m)	16.2 feet (4.9 m)	15.1 feet (4.6 m)	14.1 feet (4.3 m)	13.3 feet (4.1 m)	12.6 feet (3.8 m)	11.9 feet (3.6 m)
14 AWG	36 feet (11 m)	32.7 feet (10 m)	30 feet (9.1 m)	27.6 feet (8.4 m)	25.7 feet (7.8 m)	24 feet (7.3 m)	22.5 feet (6.9 m)	21.1 feet (6.4 m)	20 feet (6.1 m)	18.9 feet (5.8 m)
12 AWG	56 feet (17.1 m)	52 feet (15.8 m)	47.7 feet (14.5 m)	44 feet (13.4 m)	40.9 feet (12.5 m)	38.1 feet (11.6 m)	35.7 feet (10.9 m)	33.6 feet (10.2 m)	31.8 feet (9.7 m)	30.1 feet (9.2 m)
10 AWG	82 feet (25 m)	78.5 feet (24 m)	72 feet (22 m)	66.5 feet (20.3 m)	61.7 feet (18.8 m)	57.6 feet (17.6 m)	54 feet (16.5 m)	50.8 feet (15.5 m)	48 feet (14.6 m)	45.5 feet (13.9 m)

Example: How to determine the correct wire gauge (AWG):

Use the tables above for reference when determining the correct wire gauge.

1. **Calculate the Load** - A 5 meter LED Strip is 72 Watts (5 * 14.4 watts/meter). Round up to the nearest wattage specification, which in this example is 80 Watts.
2. **Measure the Distance** - Measure the distance from the LED driver to the start of the LED Strip. Lets assume the measurement is 15 feet. Round up to the nearest distance which is 17 feet.
3. **Select the Wire Gauge** - From these two values, the recommended wire gauge is a #18 AWG. See example in table above.

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Safety and Handling

1. Savant recommends a qualified or licensed electrician install the LED strips and driver.
2. Observe all local and national electrical codes when installing.
3. Observe all electrostatic precautions when handling strips.
4. Use electrical specifications for the LED strip and driver when determining the correct gauge wire.
5. The STP-TW10MID are for indoor use only.
6. Bending the LED Strips beyond the maximum 10 cm (3.94 inches) diameter is not recommended and may cause damage.
7. Do not extend the strips beyond the 10 meter (approx 33 ft) maximum.
8. Remove power from the strip before making any cuts.
9. Be sure to cover or cap the end of any stripped or cut LED strips.
10. Excessive force on the LED can result in a deformation of the LED or possible wire breakage.
11. When handling, be careful not to touch the face of the LEDs. Oils on your hands can contaminate the emitting surface and affect its optical characteristics.

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