



LED Lighting Summary

LED Lighting Specs:

- Continuous lighting strips - Hotspot-free appearance (even in low profile channels)
- Correlated color temperature (CCT): 3,000K (warm white)
- Fully dimmable (dimmer sold separately)
- UL Listed and RoHS
- 90 watts per reel | 18 watts per meter | ~6 watts per foot
- 7350 lumens per reel | 1470 lumens per meter
- Power supply varies by application (sold separately). We generally recommend using a power supply rated for at least 20% higher wattage than the lighting. We recommend and can supply Meanwell products. Keeping drivers close to lighting helps prevent voltage drop issues.
- Baffle suspension has integrated low-voltage wire - length from baffle to ceiling required at time of order.

Sonus' responsibility of lighting ends with low volt wire to the ceiling. An electrician is responsible for identifying correct wiring, power supply, and connections to a power source. Sonus can supply Driver and Dimmer upon request or the electrician can supply.

Power Supply / Driver / Transformer

We generally recommend using a power supply rated for at least 20% higher wattage than the lighting (6/5 of estimated actual power consumption). These numbers are conservative, since additional margin for error is built into the ratings of the power supplies themselves. Using a more powerful driver than you need is not a problem for the components and will actually extend the operational life of the power supply.

There are two limits you need to keep in mind:

1. How much load can you put on each driver?
2. How much wire and lighting can you drive in one branch without making a home run to the driver? The answer is generally one "unit of sale," which is a reel or set of modules.

They are very different concepts. Examples:

1. How much load can you put on each driver?



Let's say you put 5 reels of 24-watt regular strip on a 60-watt driver. You don't violate #2 above, but you do violate #1. The driver is not big enough and your installation won't work. You need a more powerful driver.

2. How much wire and lighting can you drive in one branch without making a home run to the driver?

Let's say you have a 150-watt driver and you connect 50 feet (about 3 reels) of regular strip lights in a single line. You don't violate #1-your driver is large enough ($150 \gg 24 \text{ watts} \times 3 \text{ reels}$.) You do exceed the branch length limit of 16-20 feet, so after 20 feet your lights will become ever dimmer. In an RGB installation, they will be the wrong color and appear to respond strangely to the controller. Worst of all, the section of strip light closest to the driver will be forced to carry more current than it is designed for. This will cause it to run hot and fail prematurely. Shorten your branches by making home runs to the driver or controller. Or, let's say you want to put the same 3 reels of regular strip light at the end of a 50 foot run of 18 gauge wire. Using 12 volts, 18 gauge, 6 amps load and 50 feet, we calculate you'll drop 3.95 volts. If you power your head end with 8 volts, it will barely light. At the tail end of each reel, it will probably be dark. You need thicker wire or a shorter run. Put the driver closer to the lights, if you can. Using a higher wattage driver won't help with this problem. You could adjust the driver voltage up to compensate for the drop, but very few drivers allow enough adjustment to accomplish that, plus if you have any lights closer to the driver, you run the risk of burning them out with excessive voltage (and, therefore, current.) Use thicker wire, make more home runs and move your drivers closer to the lights.