

Voltage Drop Chart

This chart displays the maximum amount of feet per single run on 12 gauge or 10 gauge power cable with about 0.3 voltage drop.

12 volt tap at 14, 16 or 18 gauge wire is charted at 8.5 volts - common minimal voltage for LED light fixtures. Check your LED fixtures voltage requirements. This chart is for use as a guide only to help you begin your lighting project. **We strongly recommend checking the actual voltage at each fixture with a volt meter before burying and finalizing your project.**

For example: If you are running a 12 gauge cable on a 14 Volt Tap with a 230 watt load, the maximum length of your run should be 43 feet (see color example below). Any longer run, you will experience noticeable voltage drop.

	Cable Size	100 - 149 Watts	150 - 199 Watts	200 - 249 Watts	250 - 300 Watts
12 Volt Tap	18 gauge @ 8.5v	32 foot max LED run	24 foot max LED run	19 foot max LED run	16 foot max LED run
	16 gauge @ 8.5v	52 foot max LED run	39 foot max LED run	31 foot max LED run	26 foot max LED run
	14 gauge @ 8.5v	83 foot max LED run	61 foot max LED run	49 foot max LED run	41 foot max LED run
	12 gauge	15 foot max run	10 foot max run	8 foot max run	N/R
	10 gauge	24 foot max run	16 foot max run	12 foot max run	10 foot max run
13 Volt Tap	12 gauge	51 foot max run	34 foot max run	25 foot max run	N/R
	10 gauge	81 foot max run	54 foot max run	41 foot max run	32 foot max run
14 Volt Tap	12 gauge	87 foot max run	58 foot max run	43 foot max run	N/R
	10 gauge	138 foot max run	92 foot max run	69 foot max run	55 foot max run
15 Volt Tap	12 gauge	123 foot max run	82 foot max run	61 foot max run	N/R
	10 gauge	195 foot max run	130 foot max run	98 foot max run	78 foot max run
16 Volt Tap	12 gauge	159 foot max run	106 foot max run	79 foot max run	N/R
	10 gauge	252 foot max run	168 foot max run	127 foot max run	101 foot max run
17 Volt Tap	12 gauge	194 foot max run	130 foot max run	97 foot max run	N/R
	10 gauge	309 foot max run	206 foot max run	155 foot max run	124 foot max run
18 Volt Tap	12 gauge	230 foot max run	154 foot max run	115 foot max run	N/R
	10 gauge	366 foot max run	244 foot max run	184 foot max run	147 foot max run
19 Volt Tap	12 gauge	266 foot max run	178 foot max run	133 foot max run	N/R
	10 gauge	423 foot max run	282 foot max run	212 foot max run	170 foot max run
20 Volt Tap	12 gauge	302 foot max run	201 foot max run	151 foot max run	N/R
	10 gauge	480 foot max run	320 foot max run	240 foot max run	192 foot max run
21 Volt Tap	12 gauge	338 foot max run	225 foot max run	169 foot max run	N/R
	10 gauge	537 foot max run	358 foot max run	268 foot max run	215 foot max run
22 Volt Tap	12 gauge	374 foot max run	249 foot max run	187 foot max run	N/R
	10 gauge	595 foot max run	396 foot max run	297 foot max run	238 foot max run

N/R = Not Recommended at specific length with indicated load