RESOURCE - VOLTAGE DROP CHART

LOW VOLT LINEAR

Voltage drop is the amount of voltage loss that occurs in wire due to resistance. It is important to calculate drop when configuring your LED system. This is done as a standard practice when requesting a quote. Using the incorrect gauge wire can lead to issues such as flickering, light loss and altered color temp. The chart below shows an approximation of gauge wire needed for a 100W system.

STATIC 24 VOLT SIGNATURE, DESIGN, AND PRO LINEAR & NEON

WIRE MATERIAL	# OF CONDUCTORS	AMPS	VOLTAGE	PHASE	WIRE GAUGE	MAX DISTANCE (FT)	VOLTAGE LOSS
Copper	2	4	24	DC	20*	29	4.91%
					18	47	5.00%
					17	59	4.98%
					16	75	5.02%
					15	94	4.99%
					14	119	5.01%
					13	150	5.01%
					12	189	5.00%
					11	238	5.00%
					10	300	4.98%

RGB 24 VOLT SIGNATURE, DESIGN, AND PRO LINEAR & NEON

WIRE MATERIAL	# OF CONDUCTORS	AMPS	VOLTAGE	PHASE	WIRE GAUGE	MAX DISTANCE (FT)	VOLTAGE LOSS
Copper	4	4	24	DC	20*	59	4.99%
					18	86	4.52%
					17	115	4.85%
					16	150	5.02%
					15	185	4.91%
					14	230	4.84%
					13	285	4.76%
					12	360	4.76%
					11	445	4.67%
					10	550	4.58%

*20 Gauge not used for Neon

This chart gives general guidelines for determining wire gauges based on total distance from driver to LED ribbon.

PROJECT | FIXTURE | PHASE | DATE