

Determine the Correct Wire Size (AWG) to Use Chart



Based off the Distance and amount of load (Watts) use the same or bigger size wire in the chart below for your project. The smaller the AWG the larger the wire size.

Determine the Correct Wire Size to Use Chart (all wire sizes in AWG - American Wire Gauge)																	
Watts	Distance (in feet)																
	5	10	15	20	25	30	40	50	60	70	80	90	100	125	150	175	200
5	24	24	24	24	24	24	24	24	24	24	24	24	24	24	23	23	22
10	24	24	24	24	24	24	24	24	24	24	23	23	22	21	20	20	19
15	24	24	24	24	24	24	24	23	23	22	21	21	20	19	19	18	17
20	24	24	24	24	24	24	23	22	21	21	20	20	19	18	17	17	16
25	24	24	24	24	24	23	22	21	20	20	19	19	18	17	16	16	15
30	24	24	24	24	23	23	21	20	20	19	18	18	17	16	16	15	14
35	24	24	24	24	23	22	21	20	19	18	18	17	17	16	15	14	14
40	24	24	24	23	22	21	20	19	18	18	17	17	16	15	14	14	13
45	24	24	24	23	22	21	20	19	18	17	17	16	16	15	14	13	13
50	24	24	23	22	21	20	19	18	17	17	16	16	15	14	13	13	12
55	24	24	23	22	21	20	19	18	17	16	16	15	15	14	13	12	12
60	24	24	23	21	20	20	18	17	17	16	15	15	14	13	13	12	11
65	24	24	22	21	20	19	18	17	16	16	15	14	14	13	12	12	11
70	24	24	22	21	20	19	18	17	16	15	15	14	14	13	12	11	11
75	24	23	22	20	19	19	17	16	16	15	14	14	13	12	12	11	10
80	24	23	21	20	19	18	17	16	15	15	14	14	13	12	11	11	10
85	24	23	21	20	19	18	17	16	15	14	14	13	13	12	11	10	10
90	24	23	21	20	19	18	17	16	15	14	14	13	13	12	11	10	10
95	24	22	21	19	18	18	16	15	15	14	13	13	12	11	11	10	9
100	24	22	20	19	18	17	16	15	14	14	13	13	12	11	10	10	9
110	24	22	20	19	18	17	16	15	14	13	13	12	12	11	10	9	9
120	24	21	20	18	17	17	15	14	14	13	12	12	11	10	10	9	8
130	24	21	19	18	17	16	15	14	13	13	12	11	11	10	9	9	8
140	24	21	19	18	17	16	15	14	13	12	12	11	11	10	9	8	8
150	23	20	19	17	16	16	14	13	13	12	11	11	10	9	9	8	7

Notes:

This chart assumes you are using Copper Wires, have 24V DC at the power source & are aiming for a Voltage Drop of 8%*

*Based off LEDI testing, 8% voltage drop allows you to use the smallest wire size and see a negligible difference in heat and lumen output.

All Wire Sizes in AWG (American Wire Gauge)