

## Voltage Drop Chart for #10-2 Wire

<i>Watts</i>	18	35	70	105	140	175	210	245	280	288
<i>Amps</i>	1.5	2.9	5.8	8.8	11.7	14.6	17.5	20.4	23.3	24.0
DISTANCE*										
25	0.1	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.3	1.3
50	0.2	0.3	0.6	0.9	1.3	1.6	1.9	2.2	2.5	2.6
75	0.2	0.5	0.9	1.4	1.9	2.4	2.8	3.3	3.8	3.9
100	0.3	0.6	1.3	1.9	2.5	3.2	3.8	4.4	5.0	5.2
125	0.4	0.8	1.6	2.4	3.2	3.9	4.7	5.5	6.3	6.5
150	0.5	0.9	1.9	2.8	3.8	4.7	5.7	6.6	7.6	7.8
175	0.6	1.1	2.2	3.3	4.4	5.5	6.6	7.7	8.8	9.1
200	0.6	1.3	2.5	3.8	5.0	6.3	7.6	8.8	10.1	10.4
225	0.7	1.4	2.8	4.3	5.7	7.1	8.5	9.9		
250	0.8	1.6	3.2	4.7	6.3	7.9	9.5			
275	0.9	1.7	3.5	5.2	6.9	8.7	10.4			
300	1.0	1.9	3.8	5.7	7.6	9.5				
325	1.1	2.0	4.1	6.1	8.2	10.2				
350	1.1	2.2	4.4	6.6	8.8					
375	1.2	2.4	4.7	7.1	9.5					
400	1.3	2.5	5.0	7.6	10.1					
425	1.4	2.7	5.4	8.0						
450	1.5	2.8	5.7	8.5						
475	1.5	3.0	6.0	9.0						
500	1.6	3.2	6.3	9.5						
525	1.7	3.3	6.6	9.9						
550	1.8	3.5	6.9	10.4						
575	1.9	3.6	7.2							
600	1.9	3.8	7.6							
625	2.0	3.9	7.9							
650	2.1	4.1	8.2							
675	2.2	4.3	8.5							
700	2.3	4.4	8.8							
725	2.3	4.6	9.1							
750	2.4	4.7	9.5							
775	2.5	4.9	9.8							
800	2.6	5.0	10.1							
825	2.7	5.2	10.4							
850	2.8	5.4								
875	2.8	5.5								
900	2.9	5.7								
925	3.0	5.8								
950	3.1	6.0								
975	3.2	6.1								
1000	3.2	6.3								

Note: #10-2 wire is rated for maximum of 30 amps and 360 watts. Always use no more than 80% (according to the National Electrical Code) thus a total of 288 watts of total lamp load.

Formula used:  

$$\text{Amps} \times \text{Distance} \times 2 \times \text{Resistance/foot} = \text{Watts} / \text{Volts}$$
 Resistance per foot for #10-2 wire = .00108

\* Distance of wire is calculated from the transformer to the first connection point ONLY.

