

# Recommended Number of Lights for Indoor and Outdoor Trees

## How Many Lights for Indoor Christmas Trees?

### Rule of Thumb: Christmas trees

- For medium lighting, plan 100 mini lights per vertical foot of the tree
- For heavy lighting, plan 200 mini lights per vertical foot

Tree Height	Mini Lights	5mm LEDs	C7 Bulbs
4'	400	300	25
6'	600	450	50
8'	800	600	100
10'	1,000	750	150
12'	1200	900	200
14'	1,500	1,125	250
20'	2,000	1,500	480

## How Many Lights for Outdoor Trees?

There is no exact calculation to determine how many lights are required to light outdoor trees. Slender and deciduous trees will require the least amount of lights for desired affect. Evergreen trees including Spruce, Pines and Firs that retain

most of their foliage in the winter may require up to 25% more lights than the recommended count shown.

Note: C9 bulbs are much larger than C7 bulbs and may overwhelm trees under 12' tall.

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## Factors in Bulb Spacing and String Length

String length is a consideration when calculating how many lights are needed. 100 light count strings can come with various spacing between bulbs, resulting in string lengths that can differ by 15' or more.

**Indoor Christmas trees:** For calculating the number of lights needed for indoor trees, plan for 100 lights per vertical foot.

- Most popular: 4" bulb spacing to allow for maximum lighting with minimal wire

- If wrapping branches: 6" or 8" spacing is recommended to allow space for wire to wrap tightly around each branch

## Outdoor Trees

- **Evergreen trees** are thick, needing additional string length to ensure complete coverage. 6" bulb spacing is ideal. Consider using C7 and C9 bulbs.
- **Deciduous trees** shed leaves, requiring fewer lights if simply draping and more if wrapping trunks and branches. 8" spacing is ideal.
- **Trunks and branches** require higher light counts. Learn more through our dedicated resource page for Wrapping Outdoor Trees with Lights. For heavier lighting, 4-5 light strings should cover trunks and main branches. Many trunks can be wrapped with 1-2.
- **Bushes and hedges** - light counts remain standard, however many people choose to use net lights for quick and even coverage. When using light strings, choose random light patterns as opposed to uniform for best effect.