

Pole Selection

The following four factors are crucial in understanding how to properly select a pole: EPA (Effective Projected Area), Gust Velocity, Wind Velocity, and the effective Coefficient of Drag on the fixture.

Effective Projected Area

Calculated in square feet, EPA is the maximum surface area of the pole that is subjected to a wind force. EPA, multiplied by wind speed, equals the force exerted on the pole.

Gust Velocity

Gust velocity is a sudden increase in wind speed that can momentarily cause pole movement. All Nova Pole poles are designed to withstand beyond steady wind velocities by a gust factor of 1.3. Engineering data for poles is available on cut sheets.

Steady Wind Velocity

This is the maximum steady velocity, expressed in mph, that is expected to occur in a specific location.

Coefficient of Drag

The coefficient of drag is a factor number that is applied to reflect the different drag levels on different shapes. For example, a square fixture will have more drag, and thus a higher coefficient of drag, than a round fixture. In calculating the EPA of a fixture, we take the Actual Projected Area and multiply it by the coefficient of drag ($EPA = APA \times \text{Coefficient of Drag}$).

Steps in Selecting a Pole

1. Determine all lighting equipment used (fixtures, brackets, arms, etc.).
2. Add together the EPA's of each component used to get a sum total.
3. Use the wind chart supplied to find the maximum steady wind velocity for the site location of your pole(s).
4. With above information, contact Nova Pole for a precise quote.

Caution

The maximum EPA supported by each pole is shown in pole cut sheets. Wind chart supplied provides general information of maximum steady velocity. Please refer to local sources and regional climactic data as there are some locations with unusual wind conditions. The pole selection procedures discussed here are simply guidelines. A qualified professional should be consulted to verify the overall system design (pole, fixture, bracket, arm, base, foundation & accessories).