

How to Select the Proper Pole

Selecting the Proper Pole:

1. Calculate the total EPA of the desired luminaire(s) and mounting bracket(s) from the respective cataloging data.
2. Select the size of pole and mounting height desired.
3. Determine the maximum wind velocity in your local area as shown on the Isotach wind map below.
4. Determine the specific pole capable of sustaining the luminaire(s) and bracket(s) by utilizing the wind loading capacity charts for the desired pole type. The total wind load rating for the desired pole must be greater than the total EPA of the luminaire(s) and bracket(s).
5. Ensure that the pole tenon or drilling matches the mounting hardware of the luminaire.

Example:

Installation-Three FLM 400 watt metal halide floodlight luminaires mounted in-line on a 25', 5" square straight steel pole in Rockford, Illinois.

1. Total EPA for fixtures and brackets: 6.5 sq. ft.

Luminaires

FLM-1.9 sq. ft. x 3=5.7 sq. ft. (EPA)

Weight-40 lbs. X 3=120 lbs.

Bracket

RHB3-2DB-0.8 sq. ft.

Weight-28 lbs.

Total Luminaire EPA-6.5 sq. ft.

Total Luminaire Weight-148 lbs

2. Wind velocity for Rockford, Illinois, as shown on Isotach wind speed map: 80 MPH.
3. Based on luminaire EPA, the SQS525G11-T24 is suitable to withstand the load. Its maximum EPA capacity is 8.8 sq. ft., and its maximum weight capacity is 220 lbs.

Isotach Wind Map

The 50-year mean recurrence Isotach wind map below will help determine the wind velocity of a given area and aid in the selection of a pole to meet the specific wind load criteria for that geographic location. For areas where unusual wind conditions may exist, such as mountain terrain or hurricane regions (shown as 110 MPH zones), it is advised to contact Day-Brite Lighting.

