



1. Ballast requirements are provided to assist consumers in determining the applicability of the AAGM for an antenna installation. Refer to UNR-ROHN Engineering Report 870101 dated July 28, 1988 for test data used to generate the ballast requirements indicated. The ballast data should not be relied upon without competent local professional examination and verification of its accuracy and suitability for a specific site or application.
2. Ballast requirements are based on typical ANSI/EIA-222-D paraboloid antennas supported 12 inches from the vertex of the antenna on a 54 inch long mounting pipe on a flat supporting surface. Specific antenna types may require more stringent wind loads and ballast requirements and must be investigated for each installation. The load carrying requirements of the supporting surface, the mast, the antenna and the antenna's connection to the mast must also be investigated for each installation.
3. The ballast weights indicated are net ballast weights, and must be uniformly distributed over all panels. The effective weight of the gravity mount and antenna may be deducted from the ballast weights indicated to determine ballast pan weight requirements. The effective weight of the gravity mount and antenna may be calculated by subtracting the uplift component of wind load from the actual weight of the gravity mount and antenna. (Worst case uplift wind load component =  $.000910 (A) (V)^2$  at an  $80^\circ$  elevation angle).
4. The zero velocity roof loads shown are equal to the ballast weights indicated divided by the total area enclosed by the perimeters of the gravity mounts (i.e. an area greater than the ballast pan contact area). If effective gravity mount and antenna weights are considered when determining ballast pan weight requirements, the zero velocity roof loads will be higher than those indicated due to the absence of the uplift component of wind load. The zero velocity roof load, in all cases, equals the weight of the gravity mount, antenna and ballast weight divided by the total area enclosed by the perimeter of the gravity mount (166 sq. ft.). Total roof loads under wind loading conditions would include wind forces and moments, weight of ballast, gravity mount, antenna and roof pads. (Worst case download component =  $.003374 (A) (V)^2$  at a  $60^\circ$  elevation angle).
5. Maximum wind velocities are based on a minimum 1.5 factor of safety against structural failure and overturning for the worst case antenna elevation angle. The wind speeds which may occur at an installation must be determined on an individual site basis.