

ANALYSIS OF VALMONT INDUSTRIES LIGHTING STRUCTURE  
IN ACCORDANCE WITH AASHTO-1994 RQMTS. (FINAL DEFLECTED POSITION)  
BY MLS 03/31/2010 VERSION Fuse 1.9.0.363

SUBJECT: MASSACHUSETTS, 30' MAST ARM

FOLDER: MATR335 FILE: 30

R E S U L T S S U M M A R Y

MAXIMUM COMBINED STRESS RATIO  
IN EACH MAJOR COMPONENT  
==== (GROUPS I, II & III) ===

POLE (AT 20.00 (FT)) = 0.63  
SIGNAL AND SIGN ARM 1 = 0.90  
BASE PLATE = 0.61  
ANCHOR BOLTS = 0.70  
S/S ARM 1 ATTACH. BOLTS = 0.38  
S/S ARM 1 ATTACH. PLATE = 0.57

MAXIMUM REACTIONS APPLIED TO FOUNDATION  
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BENDING MOMENT = 40742 FT-LBS  
TORSION = 41129 FT-LBS  
SHEAR FORCE = 2185 LBS  
AXIAL FORCE = 1779 LBS

MAXIMUM BENDING + AXIAL DEAD WT. STRESS  
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POLE = 9.31 KSI  
SIGN/SIGNAL ARM 1 = 12.16 KSI

RESULTANT DEFLECTION OF POLE TOP  
CAUSED BY DEAD WEIGHT  
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0.63 DEGREES