

ANALYSIS OF VALMONT INDUSTRIES LIGHTING STRUCTURE
IN ACCORDANCE WITH AASHTO-2009 RQMTS. (FINAL DEFLECTED POSITION)
BY BNS 5/12/2014 VERSION Fuse 1.10.0.540 32-bit

SUBJECT: VERMONT, 34' & 31' MAST ARMS W/12' LUM ARM

FOLDER: VTTRAF FILE: 3431L12

LUMINAIRE ARM 1 (DS70-12)

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SPAN LENGTH	=	12.00 FT
ORIENTATION **	=	0 DEGREES
TOP MEMBER		
SHAPE	=	ROUND
BASE O.D.	=	2.38 IN
OUTER END O.D.	=	2.38 IN
THICKNESS	=	0.1540 IN
ATTACH. HT. *	=	26.50 FT
RISE	=	3.50 FT
SLOPE AT BASE	=	26.0 DEGREES
CENTROID LOCATION		
HORIZONTAL	=	5.88 FT
VERTICAL	=	2.24 FT
SPAN TO JOINT	=	8.44 FT
YIELD STRENGTH	=	36 KSI
UNBENT LENGTH	=	12.62 FT
UNBENT LENGTH TO JOINT	=	8.44 FT

BOTTOM MEMBER
SHAPE = ROUND

DIAMETER	=	2.38 IN
THICKNESS	=	0.1540 IN
ATTACH. HT. *	=	24.25 FT
CENTROID LOCATION		
HORIZONTAL	=	4.00 FT
VERTICAL	=	3.73 FT
YIELD STRENGTH	=	36 KSI
UNBENT LENGTH	=	9.98 FT
MATERIAL	=	S109 - 36 ksi
WEIGHT	=	84 LBS

* THESE HEIGHTS ARE ABOVE BOTTOM OF BASE PLATE OR
TRANSFORMER BASE.

+ ELLIPTICAL CROSS SECTION; FIRST DIAMETER IS HORIZONTAL.

** ARM ORIENTATIONS ARE ANGLES FROM +X AXIS IN X-Y PLANE.
X AND Y AXES ARE PERPENDICULAR/PARALLEL TO SIDES OF
POLE BASE PLATE. SEE *** BELOW.

*** IF ARM IS ATTACHED WITH A CLAMP, HEIGHT AND
ORIENTATION MUST NOT BE CHANGED FROM VALUES SHOWN
ABOVE WITHOUT CONSULTING VALMONT.