

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, 42' MAST ARM & 16' LUM ARM

FOLDER: VTTRAF FILE: 4216

ANALYSIS OF POLE: STRESSES

SECTION HEIGHT* (FT)	GROUP LOAD NO.	COMB. STR. RATIO	APPLIED STRESS (KSI)			ALLOW. STRESS (KSI)		
			AXIAL	BEND.	SHEAR	AXIAL	BEND	SHEAR
26.50	1	0.00	0.03	0.05	0.23	33.00	36.30	18.15
26.50	2	0.00	0.03	0.17	0.59	33.00	48.28	24.14
26.50	3	0.01	0.04	0.15	0.66	33.00	48.28	24.14
20.00	1	0.55	0.20	19.56	0.01	33.00	36.30	18.15
20.00	2	0.73	0.20	19.17	13.90	33.00	48.28	24.14
20.00	3	0.90	0.33	36.38	8.82	33.00	48.28	24.14
0.00	1	0.34	0.22	12.11	0.00	33.00	36.30	18.15
0.00	2	0.50	0.22	17.78	8.57	33.00	48.28	24.14
0.00	3	0.60	0.34	27.25	3.57	33.00	48.28	24.14

\* THESE HEIGHTS ARE ABOVE THE POLE BASE PLATE.