

File Help

Analysis Data | Geometry Data | Point Loads | Luminaire Data | Baseplate Data | Output Options | FEA Options | Company Info

Project Description

Test Case 4A

Desired Number of Analysis Sections

100

Fatigue Category

I

Project Number

12345

Wind Speed (mph)

105

Fatigue Importance Factor - Gust

1.00

Customer Name

Test

Modulus of Elasticity (10^6 psi)

29.0

Fatigue Importance Factor - Vortex Shedding

1.00

AASHTO Version

LTS-5

Ice Thickness (in)

0.6

Pole CAFL Detail Category

B

Recurrence Interval

50 years

Ice Density (lbf/ft^3)

60.0

Baseplate CAFL Detail Category

E'

Region Type

Non-Hurricane

Suppress Ice Loading Analysis?

Calculate Projected Width using Point/Point Width?

Enable audible feedback?

Preview FEA Text

Print FEA Text

Preview Text

Print Text

Initialize Data

Preview FEA Graphics

Plot FEA Graphics

Preview Graphics

Plot Graphics

HP LaserJet 3390 / 3392 PCL5 Portrait (8.50 x 11.00)

Evaluate Geometry

Perform Analysis

Status Message

Exit

Pole Base Flat-to-Flat Width (in) <input type="text" value="8.1250"/>	Lap Length Adder (in) <input type="text" value="3.0"/>	Cross Section Shape <input type="text" value="12 Flats"/>
Pole Taper (in/ft) <input type="text" value="0.1400"/>	Lap Length Calculation Type <input type="text" value="1.5 x ID + Adder, Next Incl"/>	Embedment Depth (ft) <input type="text" value="0.00"/>
Bend Radius (in) <input type="text" value="2.0000"/>	Elevation Of Base Above Grade (ft) <input type="text" value="0.00"/>	Fixity Point Depth (ft) <input type="text" value="0.00"/>

(Note: Tubes are defined from the top down w/ Tube #1 being the top-most tube.)

Specify Tube Dimensions Directly?

	Actual Length (ft)	Thickness (in)	Thk Ovr	Yield Strength (ksi)	Bottom Connection Type	Top FI/FI (in)	Bot FI/FI (in)	Overlap (in)
Tube 1	<input type="text" value="15.00"/>	<input type="text" value="0.125 (1/8)"/>	<input type="text" value="0.0000"/>	<input type="text" value="50"/>	<input type="text" value="Slip"/>	<input type="text" value="4.175"/>	<input type="text" value="6.275"/>	
Tube 2	<input type="text" value="16.50"/>	<input type="text" value="0.125 (1/8)"/>	<input type="text" value="0.0000"/>	<input type="text" value="50"/>	<input type="text" value="Welded"/>	<input type="text" value="5.815"/>	<input type="text" value="8.125"/>	
Tube 3	<input type="text" value="0.00"/>	<input type="text" value="Undefined"/>	<input type="text" value="0.0000"/>	<input type="text" value="0"/>	<input type="text" value="undefined"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	
Tube 4	<input type="text" value="0.00"/>	<input type="text" value="Undefined"/>	<input type="text" value="0.0000"/>	<input type="text" value="0"/>	<input type="text" value="undefined"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	
Tube 5	<input type="text" value="0.00"/>	<input type="text" value="Undefined"/>	<input type="text" value="0.0000"/>	<input type="text" value="0"/>	<input type="text" value="undefined"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	
Tube 6	<input type="text" value="0.00"/>	<input type="text" value="Undefined"/>	<input type="text" value="0.0000"/>	<input type="text" value="0"/>	<input type="text" value="undefined"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	
Tube 7	<input type="text" value="0.00"/>	<input type="text" value="Undefined"/>	<input type="text" value="0.0000"/>	<input type="text" value="0"/>	<input type="text" value="undefined"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	
Tube 8	<input type="text" value="0.00"/>	<input type="text" value="Undefined"/>	<input type="text" value="0.0000"/>	<input type="text" value="0"/>	<input type="text" value="undefined"/>	<input type="text" value="0.000"/>	<input type="text" value="0.000"/>	

Enable audible feedback?

<input type="text" value="Initialize Data"/>	<input type="text" value="Preview FEA Text"/>	<input type="text" value="Print FEA Text"/>	<input type="text" value="Preview Text"/>	<input type="text" value="Print Text"/>
	<input type="text" value="Preview FEA Graphics"/>	<input type="text" value="Plot FEA Graphics"/>	<input type="text" value="Preview Graphics"/>	<input type="text" value="Plot Graphics"/>
			<input type="text" value="Evaluate Geometry"/>	<input type="text" value="Perform Analysis"/>
				<input type="text" value="Exit"/>

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=== Specify Forces Directly?

=== Elev Above Pole Bottom (ft)

= = Projected Area (ft^2)

= = Drag Coefficient

Point Load Description					Weight (lbf)	Moment Arm (ft)	Along-Wind Force (lbf)	Across-Wind Force (lbf)
1 Load in Y direction	X	20.00	0.00	1.00	0	0.00	1000.00	0.00
2	X	0.00	0.00	1.00	0	0.00	0.00	0.00
3	X	0.00	0.00	1.00	0	0.00	0.00	0.00
4	X	0.00	0.00	1.00	0	0.00	0.00	0.00
5	X	0.00	0.00	1.00	0	0.00	0.00	0.00

Note: The Along-Wind direction is the Positive Y Axis. The Across-Wind direction is the Positive X Axis. The Pole is aligned with the Positive Z Axis.

Enable audible feedback?

Initialize Data	Preview FEA Text	Print FEA Text	Preview Text	Print Text
	Preview FEA Graphics	Plot FEA Graphics	Preview Graphics	Plot Graphics
			Evaluate Geometry	Perform Analysis
				Exit

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Number of luminaires

Head Assembly Cross Section Area (ft²)

Head Assembly Surface Area for Ice Accumulation (ft²)

Luminaire Cross Section Area (ft²)

Head Assembly Weight (lbf)

Luminaire Weight (lbf)

Head Assembly Drag Coefficient

Luminaire Drag Coefficient

Head Assembly Width (ft)

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Number Of Bolts

Weld Size - Upper (in)

Bolt Diameter (in)

Weld Size - Lower (in)

Bolt Yield Strength (ksi)

Plate Yield Strength (ksi)

Bolt Circle Diameter (in)

Baseplate OD (in)

Baseplate Thickness (in)

Enable audible feedback?

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Please select the desired curve(s) to plot

- Combined Stress Ratio
- Resultant Bending Stress
- Moment About X
- Moment About Y
- Resultant Shear
- Resultant Bending Moment
- Allowable Bending Stress
- Allowable Shear Stress
- Static Deflection
- Dynamic Deflection
- P-Delta
- Vortex Shedding Bending Stress
- Gust Bending Stress
- Mode Shape 1
- Mode Shape 2

Enable audible feedback?

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- Printout Options**
- Model Input
 - Element Forces
 - Displaced Geometry

- Plot Options**
- Element Layout
 - Mode Shape
 - Static Displacement

- View Plane**
- XY Plane
 - XZ Plane
 - YZ Plane

Displacement Scale

Select FEA Model Directory

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		Plot Graphics	
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Status Message

Company Name

K2 Engineering, Inc.

Phone Number

(205) 951-3825

Load Logo

Street Address

5549 Hunters Hill Road

Fax Number

(205) 951-3825

C:\K2_Projects\K2Logo_NoText.bmp

P O Box Number

<no PO box>

Email Address

rkiser@k2engineeringinc.com



City

Irondale

Web Address

www.k2engineeringinc.com

State

AL

Engineer Name

Robert P Kiser, PE

ZIP Code

35210-3036

Enable audible feedback?

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Print FEA Text

Preview Text

Print Text

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Preview Graphics

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