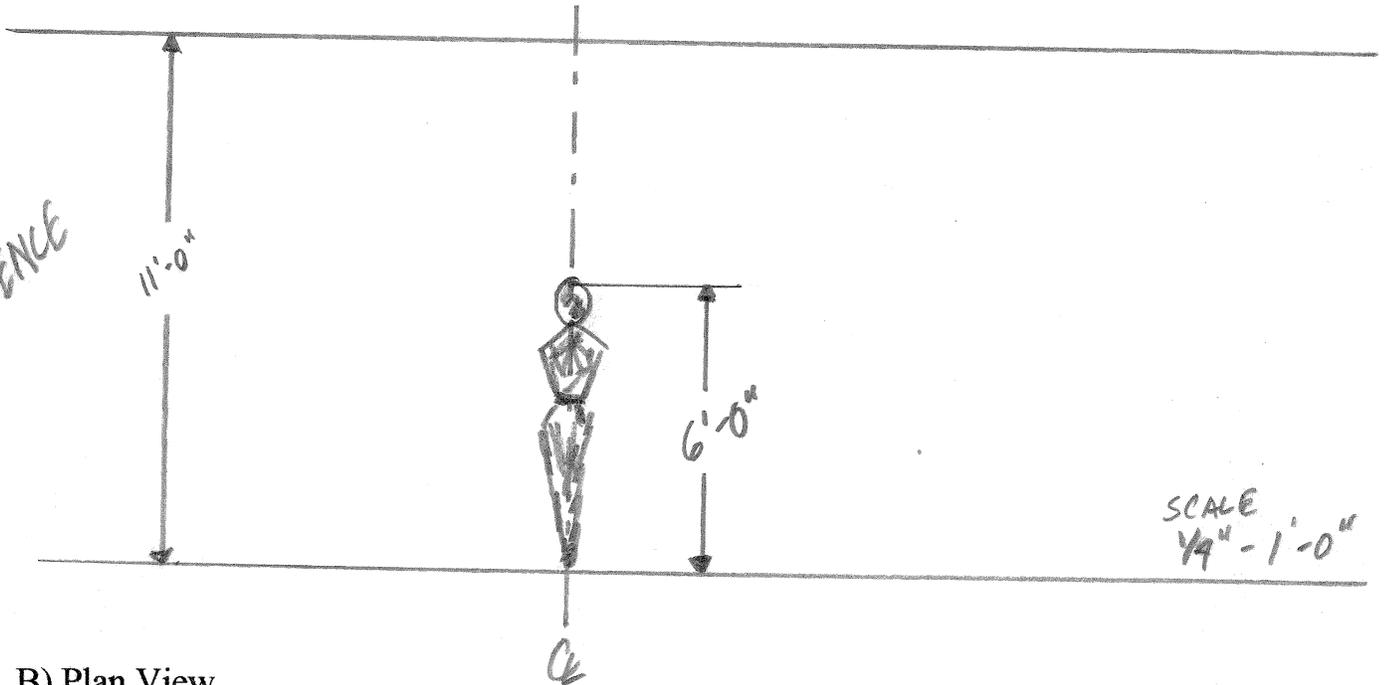


FRONTLIGHT

A) Vertical Section

GIVEN: instrument hanging position 11'-0" from stage floor
 Center of focus 6'-0" from stage floor

- #1 plot a 45 degree vertical angle on the section below
- #2 plot a 60 degree vertical angle on the section below
- #3 measure the "magic #'s" for both angles of light

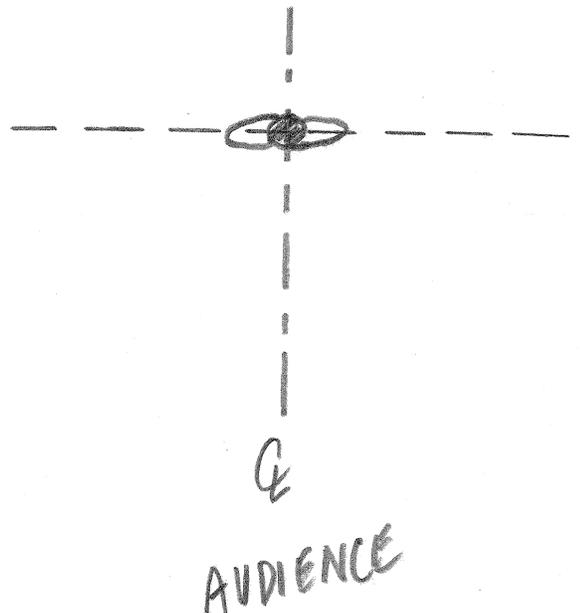


B) Plan View

GIVEN: figure (center of focus) in plan view
 information gained from vertical section above

- #1 plot the location of an instrument which will produce frontlight at a 0 degree horizontal angle & a 60 degree vertical angle on the plan view below
- #2 plot two instruments which will produce frontlight at 45-45 degree horizontal angles with a 45 degree vertical angle

USE MAGIC #'S FOUND ABOVE!!

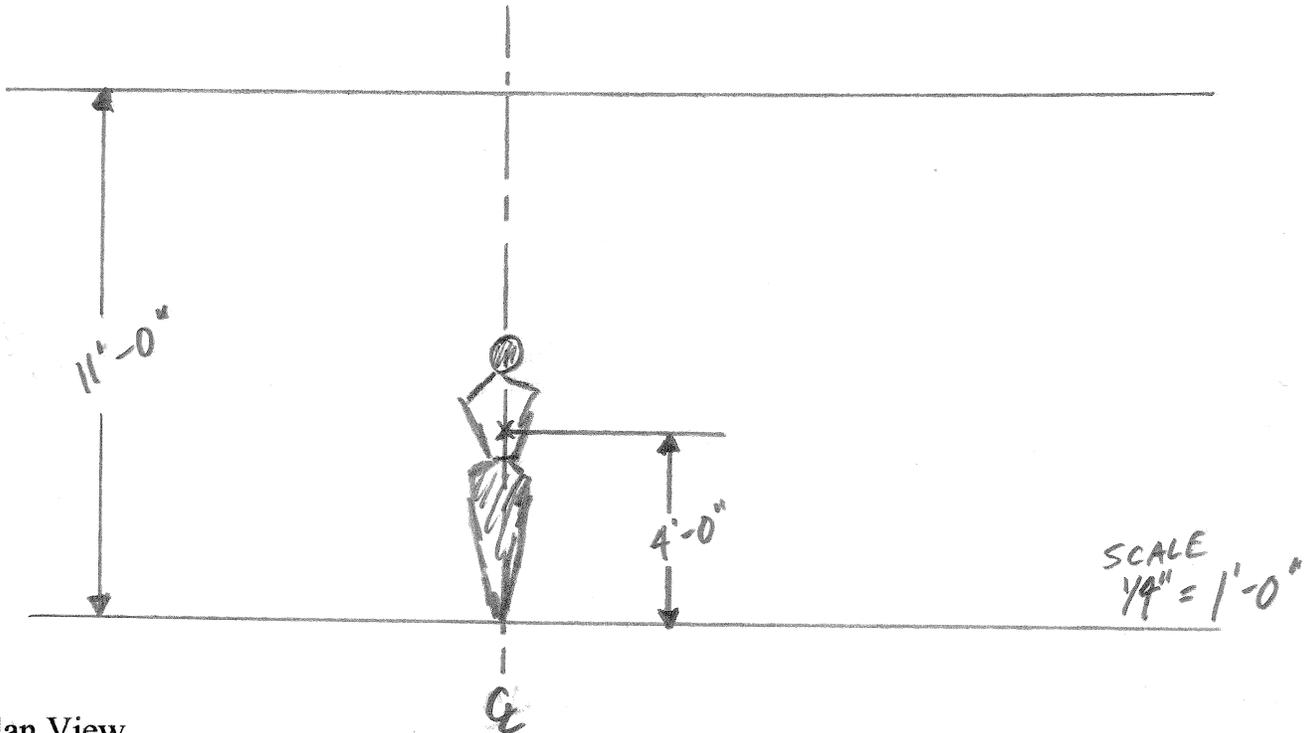


SIDELIGHT

A) Vertical Section

GIVEN: instrument hanging position 11'-0" from stage floor
Center of focus 4'-0" from stage floor

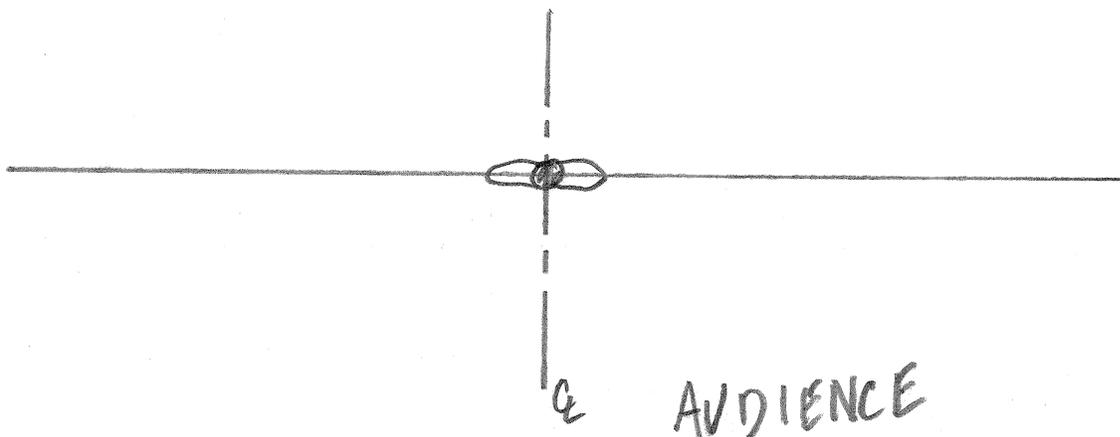
- #1 plot a 30 degree vertical angle on the section below
- #2 plot a 45 degree vertical angle on the section below
- #3 plot a 60 degree vertical angle on the section below
- #4 measure the "magic #'s" for all 3 angles of light



B) Plan View

GIVEN: figure (center of focus) in plan view
Information gained from the vertical section above

- #1 plot the location of an instrument which will produce sidelight from SL at a 30 degree vertical angle
- #2 plot the location of an instrument which will produce sidelight from SL at a 60 degree vertical angle
- #3 plot the location of an instrument which will produce sidelight from SR at a 45 degree vertical angle

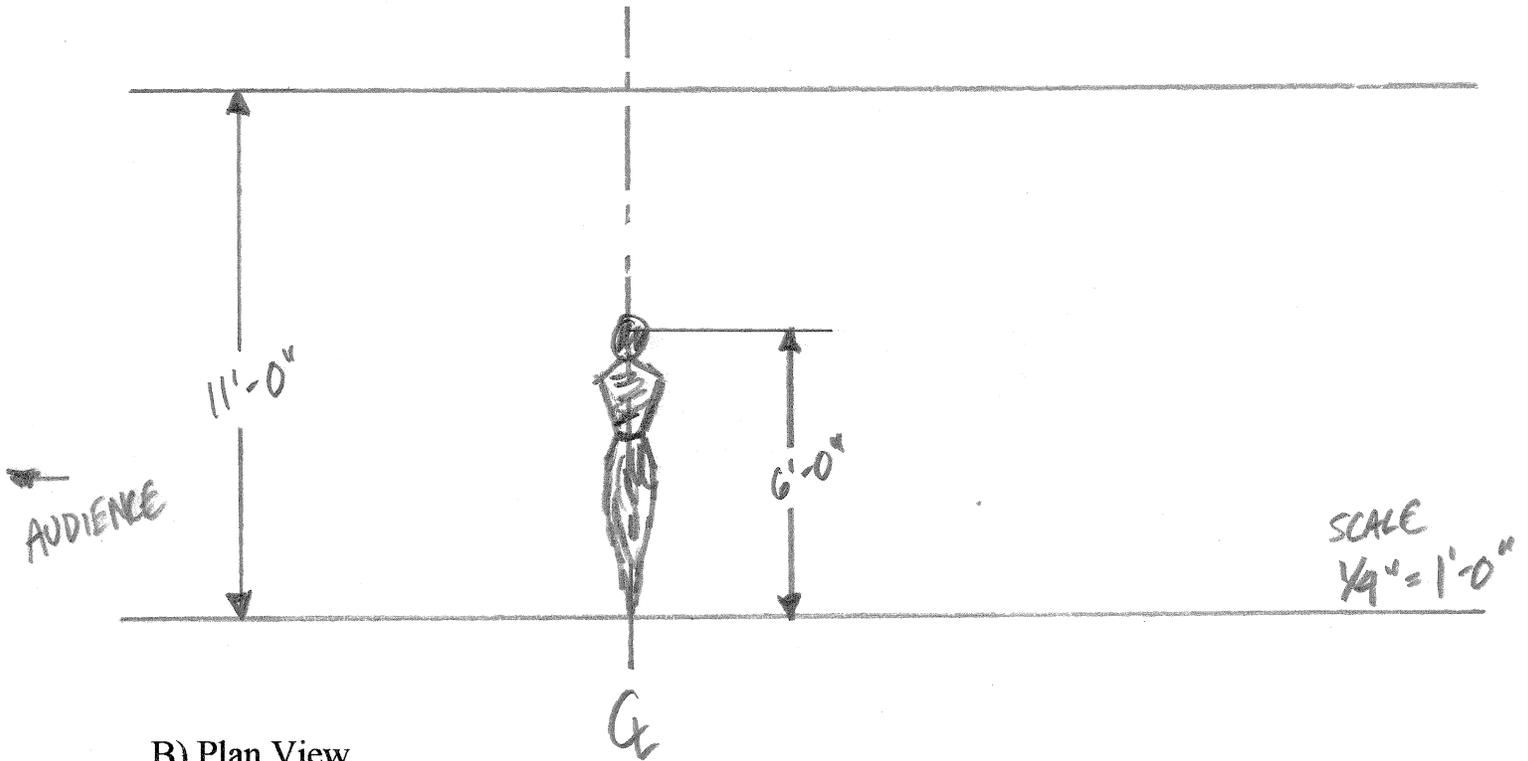


BACKLIGHT

A) Vertical Section

GIVEN: instrument hanging position 11'-0" from the stage floor

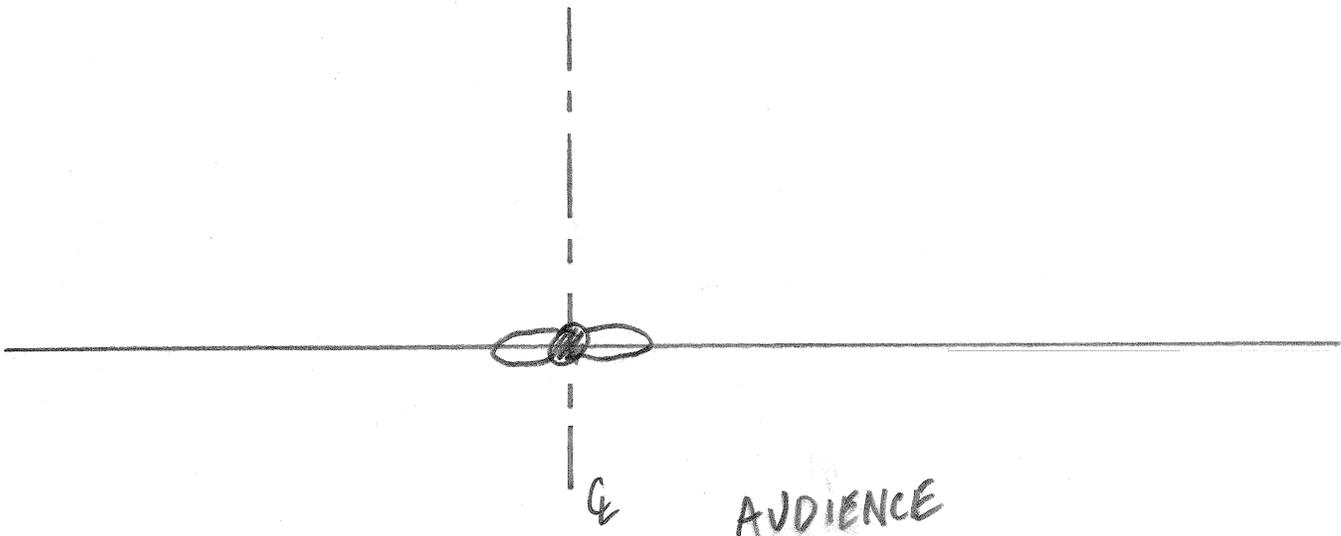
- #1 plot a 45 degree vertical angle for a 6' tall actor
- #2 plot a 45 degree angle for a 6' tall actor, who is standing on a 2'-0" platform
- #3 measure "magic #'s"



B) Plan View

GIVEN: figure (center of focus) in plan view

- #1 plot the location of two 45 degree backlight instruments with 45 degree vertical angle (for actor standing on floor)
- #2 plot the location of an instrument which will produce backlight at a 0 degree horizontal angle & a 45 degree vertical angle, when the actor is standing on a 2'-0" platform

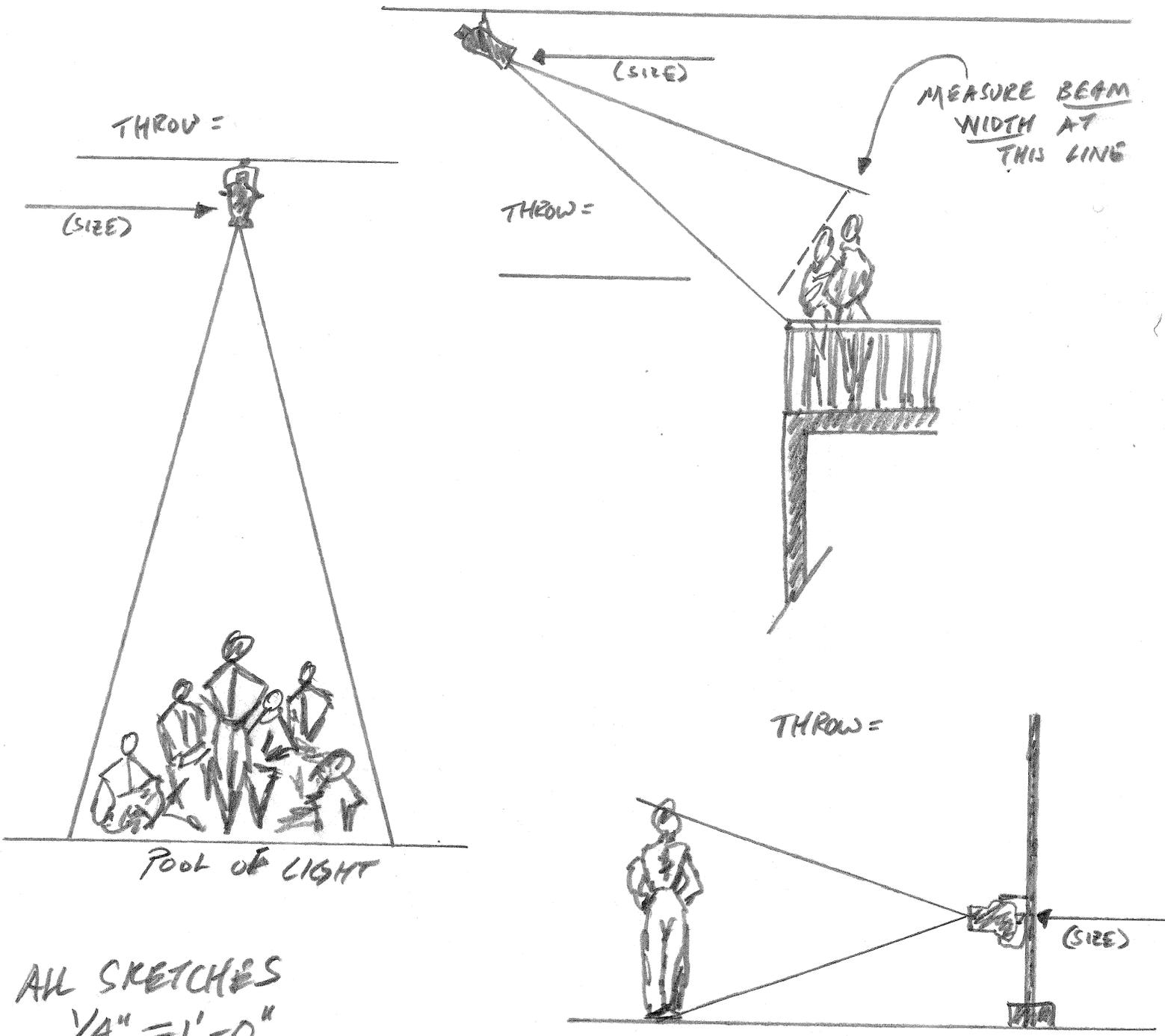


THROW DISTANCE & INSTRUMENT SELECTION

For each of the 3 effects shown on the sketch below:

- 1) Measure the throw distance & label it on the sketch
- 2) Select the correct size (focal length) of ellipsoidal needed to create the beam spread as shown on the sketch

Reminder: $4\frac{1}{2} \times 6\frac{1}{2}$ E = 1.15 Mf (multiplying factor)
6 x 9 E = .73 "
6 x 12 E = .53 "
6 x 16 E = .44 "



ALL SKETCHES
 $\frac{1}{4}'' = 1'-0''$