

FLUKE®

Biomedical

Nuclear Associates

07-501 to 07-555

X-Ray Test Patterns

Operators Manual

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Section 1 Introduction

1.1 X-Ray Test Patterns

These x-ray test patterns are used to evaluate film screen systems and magnification techniques. The patterns consist of various lead thicknesses. Each test pattern is enclosed in plastic. The resolution range for each pattern is different. On the face of each pattern is the range of line pairs per mm for easy identification.

1.2 Film/Screen Resolution Limits

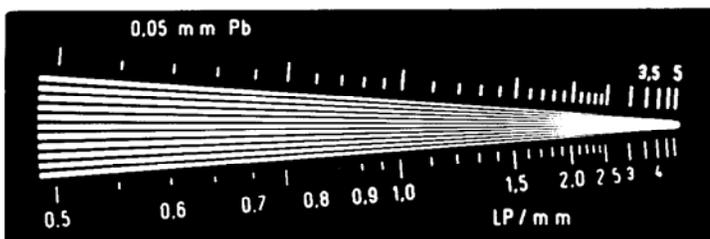
1. Place the test plate on top of a test film. Do not use a grid.
2. Use a 40" focus-film distance and 50-60 kVp. Center the tube over the test plate. Adjust the mAs for a gross optical density of about 1.5 on a portion of the film not covered by the test plate. (These factors give minimum geometric effects and sufficient contrast to assure a reliable test.)
3. Determine the limiting resolution by inspecting the finished radiograph with a 5-10 power magnifying glass. This is done by looking for the last bar section in which you can clearly see a distinction between line and space. Read the number corresponding to this line pair section. This represents the line pair resolution for your system.
4. Additional testing can be made by placing tissue equivalent material over the test pattern. This is done to evaluate how well the x-ray system can resolve through attenuation.

1.3 Models

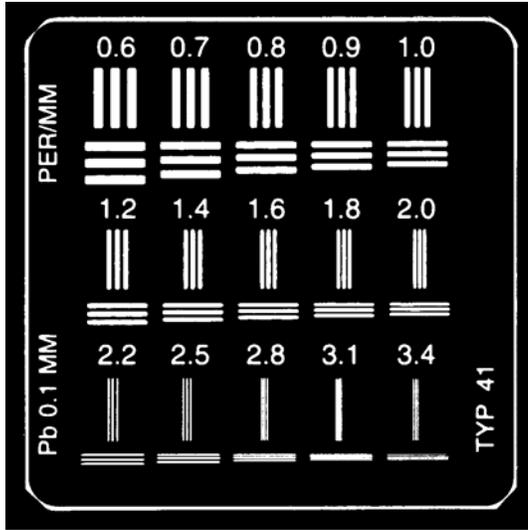
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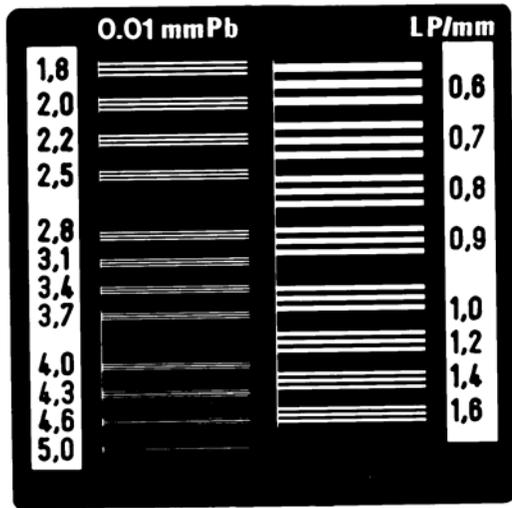
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