# Understanding Graphic Arts Densitometry

# **The Equation:** Density = $log_{10} 1/T$

Where T = Transmittance

Transmission density is a function of the amount of light which passes through the film.

Black and white transmission densitometers are used for film inspection, as well as scanner and imagesetter calibration and linearization. The basic measurements are Density and Dot Area.

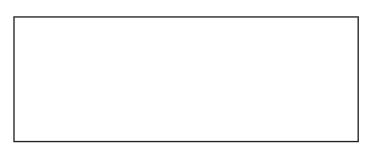
#### Why measure Density?

Measure D-Min of the film in clear area, to assure there is no fogging. D-Min is typis a4Dy .03 D,and Dnt Amoe thean .05 Dfor fmostfilm si

# **The Equation:** Density = $log_{10} 1/R$

Where R = Reflectance Density is a function of the percentage of light reflected. The table to the right shows the relationship of percent reflectance to Density.

# Why measure Density?



**The Equations:** % Hue Error = M - L % Grayness = L

ANSI, American National Standards Institute, Inc.

# **Transmission Densitometer**

No matter which print control strip you use, each one h	nas common elements to help you