CLAROSTAT
SENSORS AND CONTROLS GROUP

SKAN-A-MATIC®

TECHNICAL INFORMATION

Quality Control

All Skan-A-Matic products are inspected and tested several times before they are released for sale. Statistical methods are not used — each product is tested individually. Light sources and photodetectors are tested and selected for consistent performance.

Each component is "burned-in" according to individual time specifications, eliminating defective components and greatly increasing field reliability.

Skanners and thrubeams with focused lamps are checked to insure that the filament image crosses the optical axis. Thrubeam components with threaded bodies are rotated around the beam axis and checked at 120 degree intervals for proper performance.

Performance Guarantee

Most skanners and thrubeams presented in this catalog have a Performance Chart included in the Technical Specifications. This chart generally shows a band formed by the variation expected in photodetector current at any given distance from the standard white target, Kodak's Neutral Test Card — 90% reflectance. (Kodak #R-27 CAT1527795 or see *Accessories*.) The terms "Maximum" and "Minimum" on the chart refer to the *expected* values. Two small circles indicate the values used by our Quality Control department at final test.

Each unit is guaranteed to produce a photodetector current between the Maximum and Minimum values *at the distance indicated by the circles.* Dark Current will be less than 10% of Light Current.

Choosing A System

To choose the right components for a reliable system several factors should be considered. Sensing mode requirements and limitations to suit a particular application must be determined. The target size and speed, material and distance, as well as environment, must be analyzed. Also, response time and input/output needs will affect the design of a system for optimum performance.

Thrubeam Or Skanner?

- **1st Choice — Thrubeam**
- **2nd Choice — Retroreflective**
- **3rd Choice — Reflective skanner**

The most important factor in reliable detection will always be the amount of light received by the photodetector. Thrubeams are generally preferred simply because the direct illumination of the photodetector by the light source produces a comparatively large photodetector current.

If thrubeams are impractical, the second choice is usually a reflective skanner used in the retroreflective sensing mode. This mode gives a high photodetector current and is almost as convenient to install as a reflective skanner.

When reflective skanners are used, they should be mounted at or near their Optimum Distance To Target. This ensures the highest possible photodetector current.