



KODAK EKTASCAN HG Film / 5165

1) Description

KODAK EKTASCAN HG Film/5165 is a very fine grain black-and-white film suitable for continuous-tone medical imaging. It can be exposed with a helium-neon laser and/or red laser diode based printer. 5165 Film is processable in existing standard and rapid automated processing cycles, using KODAK RP X-OMAT Chemicals. It is NOT processable in KWIK RA cycle. This film has high gloss on emulsion side. It is coated on a blue, 7 mil (175 micrometre) ESTAR Base support.

EKTASCAN HG Film/5165 is designed to record superb medical images using helium-neon based laser printers. It is designed to record a full range of images from computed tomography, digital subtraction angiography, magnetic resonance imaging, nuclear medicine, ultrasound, computed radiography, and digitized film images.

5165 Film is packaged in the following formats:

- 1 darkroom load for the KODAK EKTASCAN XLP Laser Printer
- 7 roomlight load for the KODAK EKTASCAN XLP Laser Printer
- 10 roomlight load for the KODAK EKTASCAN 2180 Laser Printer (KELP)

2) Safelight

Do not use a safelight. Handle unprocessed film in total darkness.

3) Storage and Handling

Handling -

Hands must be clean, dry and free of lotions, etc. Film should be handled carefully by the edges to avoid physical strains such as pressure, creasing, or buckling.

Storage -

Store unexposed film at 50 to 70 F (10 to 20 C), at 30 to 50 percent RH, and properly shielded from x-rays, gamma rays, or other penetrating radiation. Keep exposed film in a cool, dry place that is properly shielded from penetrating radiation. Process as soon as possible after exposure. Processed film should be stored at 60 to 80 F (16 to 27 C), at 30 to 50 percent RH.

4) Sensitometric Parameters

Relative Speed:	Measured at a density of 1.00 above gross fog.
Contrast:	Measured as slope of the line between densities of 0.25 and 2.00 above gross fog.
Gross Fog:	Density of film base plus chemical fog.
Upper Density Point (UDP):	Maximum density of film using sensitometric exposure.
Customer Upper Density Point (CUDP):	Maximum density of film using a practical laser printer exposure.

5) Process Variations

Changes to speed, contrast, fog, and customer upper density point as a result of temperature variations from normal are included in GRAPH5 Section.

6) Automated Processing

Processing is recommended in the following KODAK X-OMAT and RP X-OMAT Processors, using KODAK RP X-OMAT Chemicals:

KODAK RP X-OMAT Processor, Model M7 Series

KODAK X-OMAT Processor, Model SP

KODAK RP X-OMAT Processor, Model M8

KODAK X-OMAT M20, M35 Processor

KODAK RP X-OMAT Processors, Model M5, M6

KODAK X-OMAT 270 RA Processor, 460 RA Processor, 480 RA Processor, 180 LP Processor

KODAK X-OMAT 3000 RA and 5000 RA Processors

NOTICE! Observe precautionary information on product labels and on the Material Safety Data Sheets.

7) Image Structure

Diffuse rms Granularity -
GRAPH included.

NOTE: Exposed with white light; results may differ depending on how the product is exposed and the individual printer noise.

8) Film Characteristics

Maximum Density:	4.00 2.87 (exposed to 6.40 ergs/sq cm of 633 nm light and/or 4.88 ergs/sq cm of 670 nm light)
Contrast: 1.80	(633nm and 670nm)
Maximum Gamma:	2.30 at 2.20 density (670 nm)

Actual Pixel Data¹ for KELP XLP 633 nm exposure and Actual Pixel Data for KELP 2180 at 670 nm exposure:

Area = 0.008 cm x 0.008 cm = 64 x 10⁻⁶ sq cm

Time = 247 nanoseconds

Optical Power to produce 2.85 density=110 microwatts at 632.8 nm

9) Graphs²

Characteristic:

- A) 633nm Sensitometric Exposure (10-97)
- B) 670nm Sensitometric Exposure (10-97)

Process Temperature Variation:

- C) Characteristic (10-97)
- D) Gross Fog (10-97)
- E) Speed (10-97)
- F) Contrast (10-97)
- G) CUDP (10-97)

rms Granularity:

- H) (10-97)

Spectral Sensitivity:

- I) (10-97)

Safelight Sensitivity:

- J) (12-97)

NOTE: The Kodak materials described in this publication for use with KODAK EKTASCAN HG Film / 5165 are available from dealers who supply Kodak products. You can use other materials, but you may not obtain similar results.

The contents of this publication are subject to change without notice.

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Health Imaging
EASTMAN KODAK COMPANY - Rochester, NY 14650

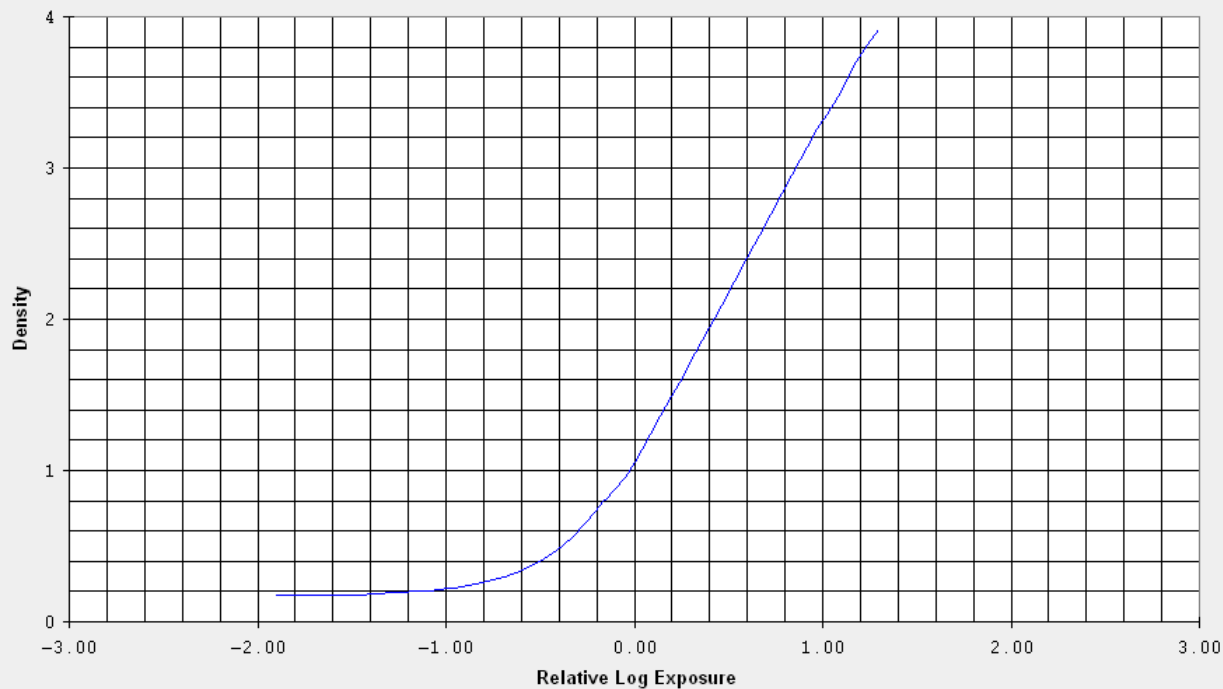
¹Laser printers using different exposure parameters may produce results that are not proportional to those reported due to reciprocity characteristics.

²NOTICE: While the data presented are typical of production coatings, they do not represent standards that must be met by Kodak. Varying storage, exposure, and processing conditions will affect results. The company reserves the right to change and improve product characteristics at any time.

End of Data Sheet

TI2366A 10-97
CHARACTERISTIC, For Publication

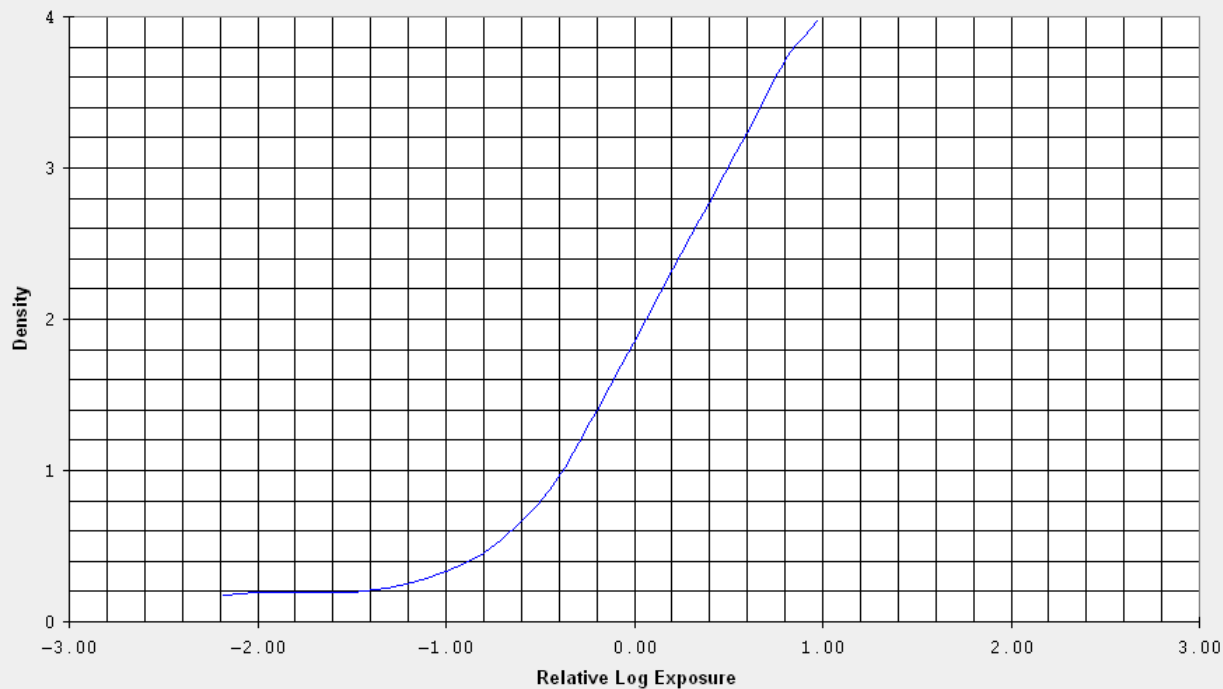
KODAK EKTASCAN HG Film/5165
633nm Sensitometric Exp., Seasoned KODAK RP X-OMAT Chemicals, 95F (35C)
KODAK RP X-OMAT Processor, Model M6, 90 sec; Diffuse visual



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TI2366B 10-97
CHARACTERISTIC, For Publication

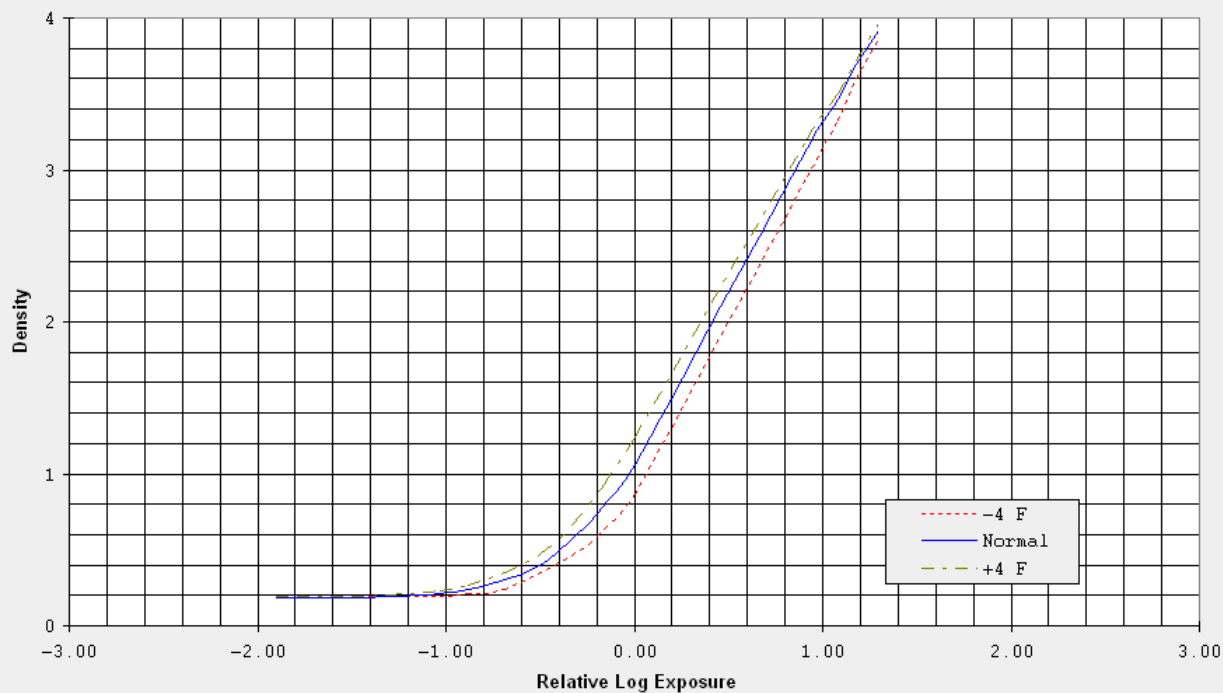
KODAK EKTASCAN HG Film/5165
670nm Sensitometric Exp.; Seasoned KODAK RP X-OMAT Chemicals, 95F (35C)
KODAK RP X-OMAT Processor, Model M6, 90 sec; Diffuse visual



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TI2366C 10-97
CHARACTERISTIC, For Publication

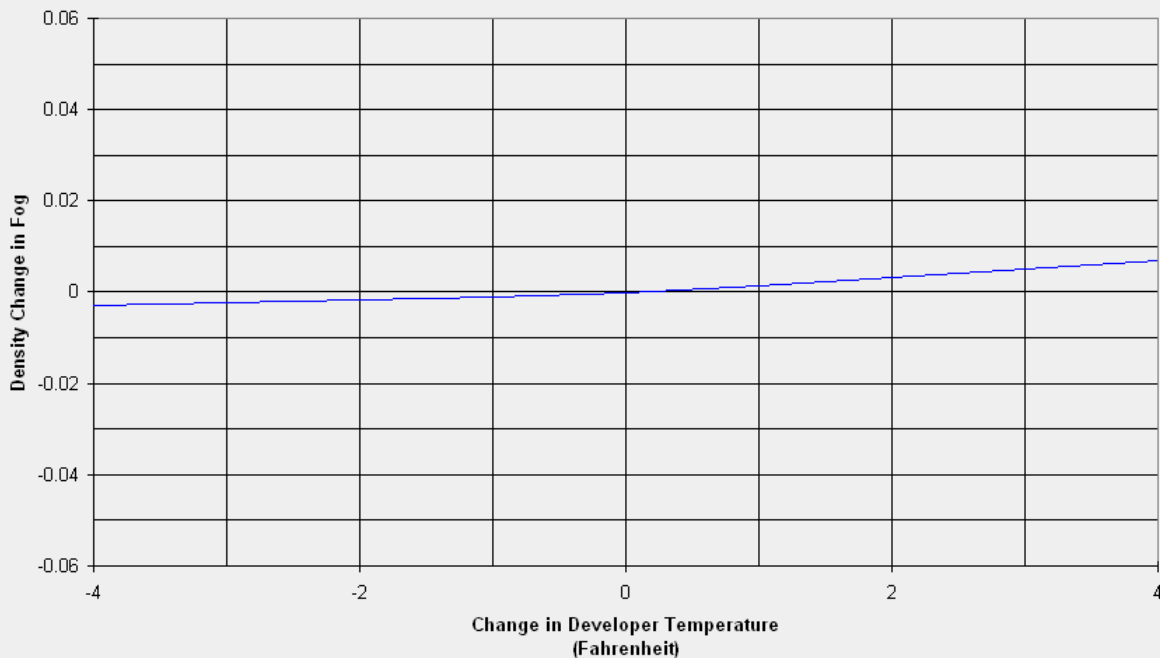
KODAK EKTASCAN HG Film/5165
633nm Sensitometric Exp., Seasoned KODAK RP X-OMAT Chemicals, 95F (35C)
KODAK RP X-OMAT Processor, Model M6, 90 sec; Diffuse visual



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TI2366D 10-97
TEMPERATURE VARIATION, For Publication

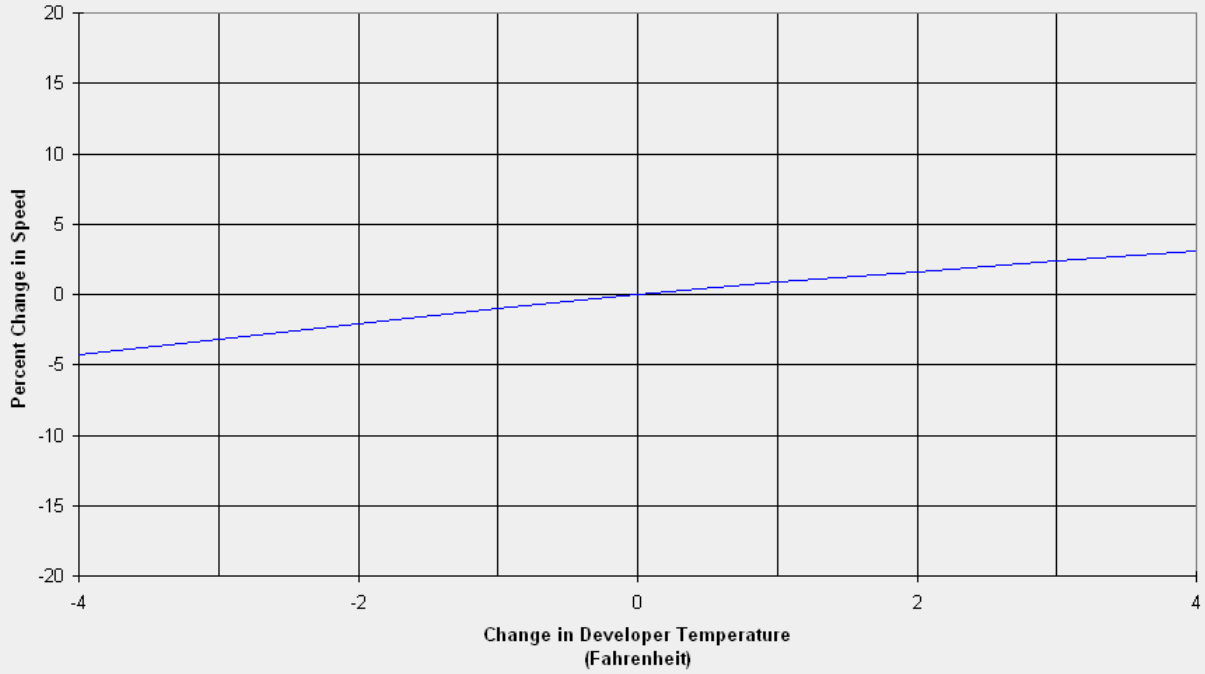
KODAK EKTASCAN HG Film/5165
Density Change in Fog (Reference: Normal Temp. = 0% Change)
Seasoned KODAK RP X-OMAT Chemicals, 95F (35C)
KODAK RP X-OMAT Processor M6; Diffuse Visual
(4 F = 2.2 C)



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TI2366E 10-97
TEMPERATURE VARIATION, For Publication

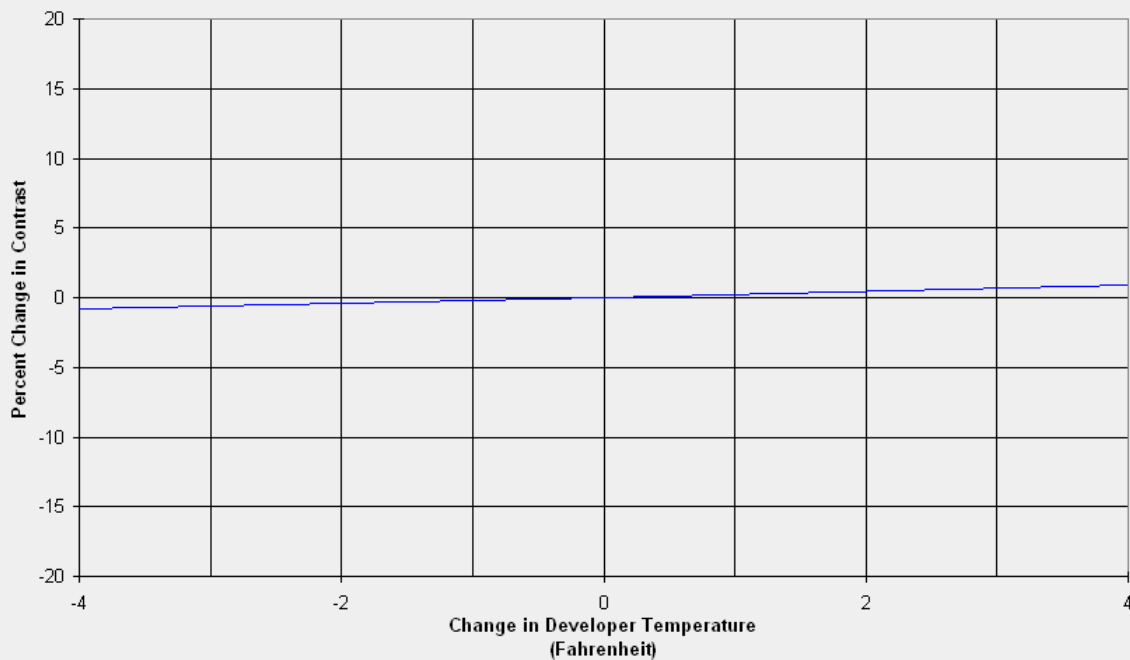
KODAK EKTASCAN HG Film/5165
Percent Change in Relative Speed (Reference: Normal Temp. = 0% Change)
Seasoned KODAK RP X-OMAT Chemicals, 95F (35C)
KODAK RP X-OMAT Processor M6; Diffuse Visual
(4 F = 2.2 C)



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TI2366F 10-97
TEMPERATURE VARIATION, For Publication

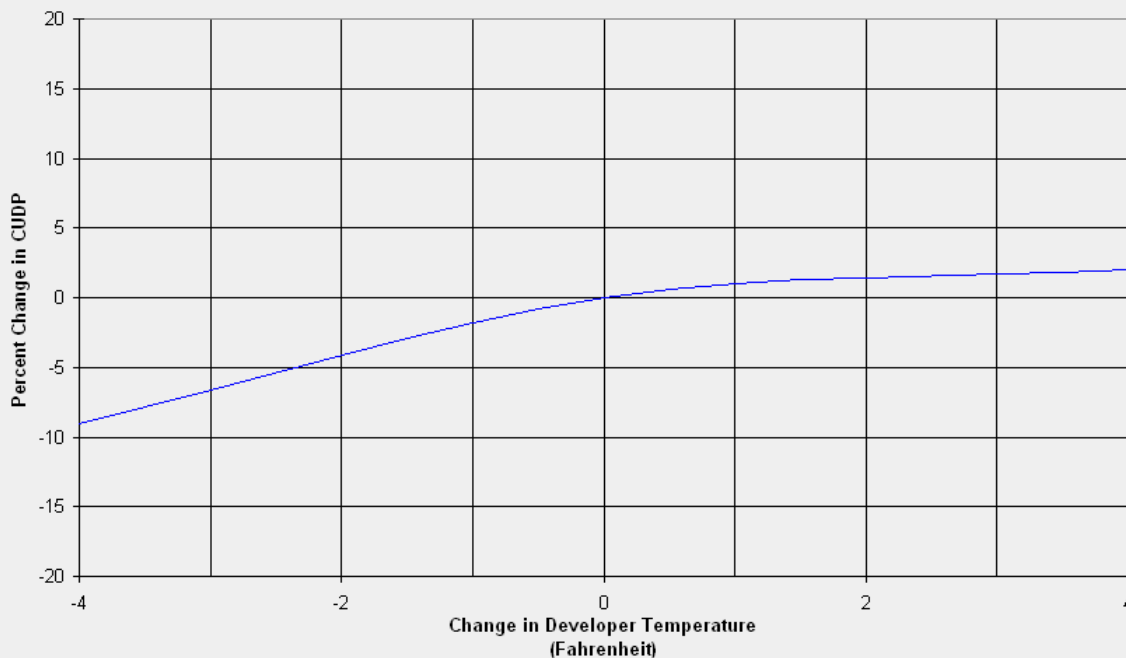
KODAK EKTASCAN HG Film/5165
Percent Change in Contrast (Reference: Normal Temp. = 0% Change)
Seasoned KODAK RP X-OMAT Chemicals, 95F (35C)
KODAK RP X-OMAT Processor M6; Diffuse Visual
(4 F= 2.2C)



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TI2366G 10-97
TEMPERATURE VARIATION, For Publication

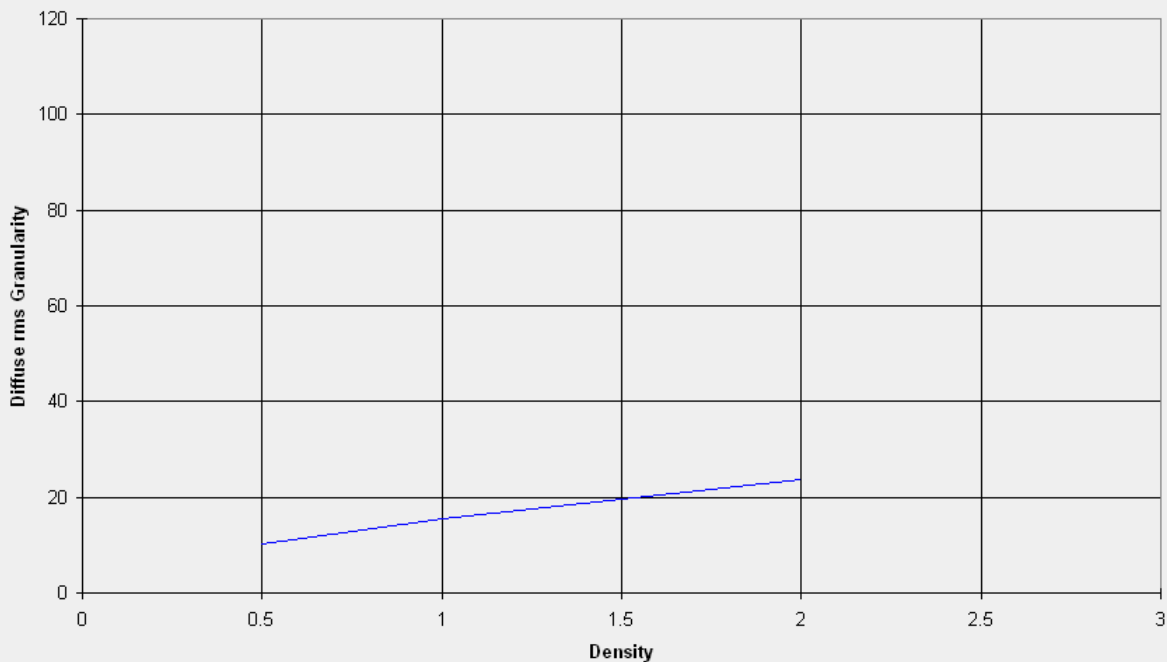
KODAK EKTASCAN HG Film/5165
Percent Change in CUDP
KODAK RP X-OMAT Processor M6 and seasoned RP X-OMAT Chemicals;
Diffuse Visual; (Ref: Normal Temp. = 0% Change)
(4 F = 2.2C)



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TI2366H 10-97
GRANULARITY, For Publication

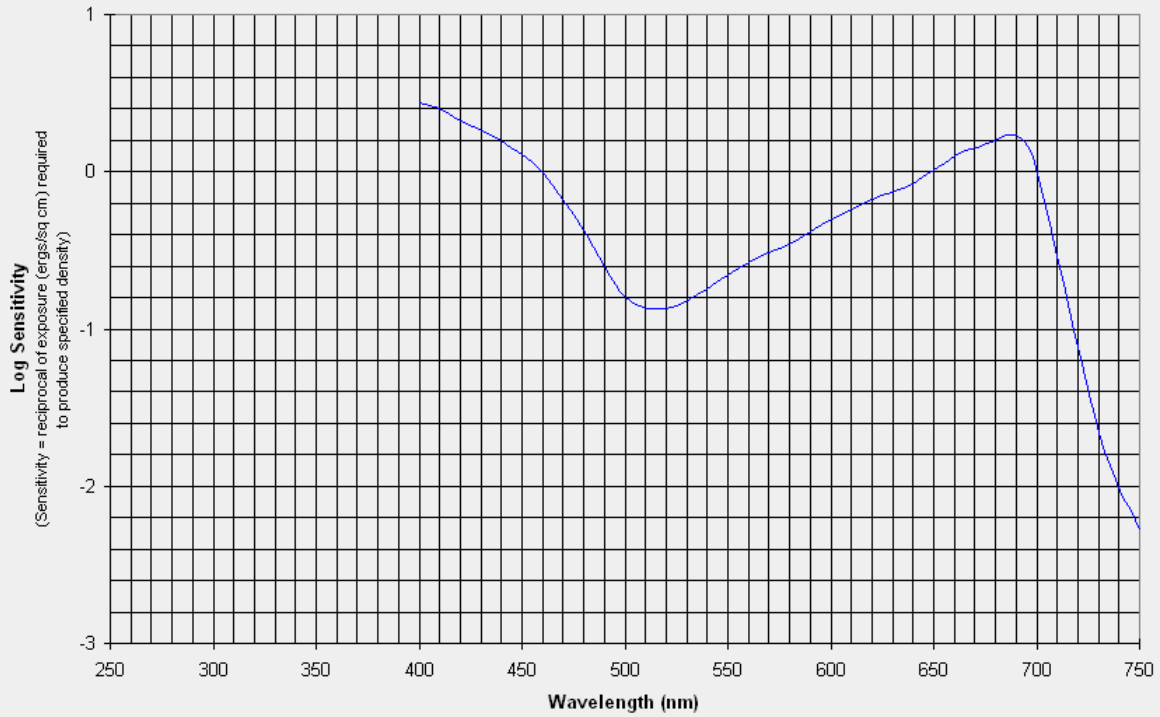
KODAK EKTASCAN HG Film/5165
Seasoned KODAK RP X-OMAT Chemicals, 95F (35C)
KODAK RP X-OMAT Processor M6; 48 Micrometre Aperture



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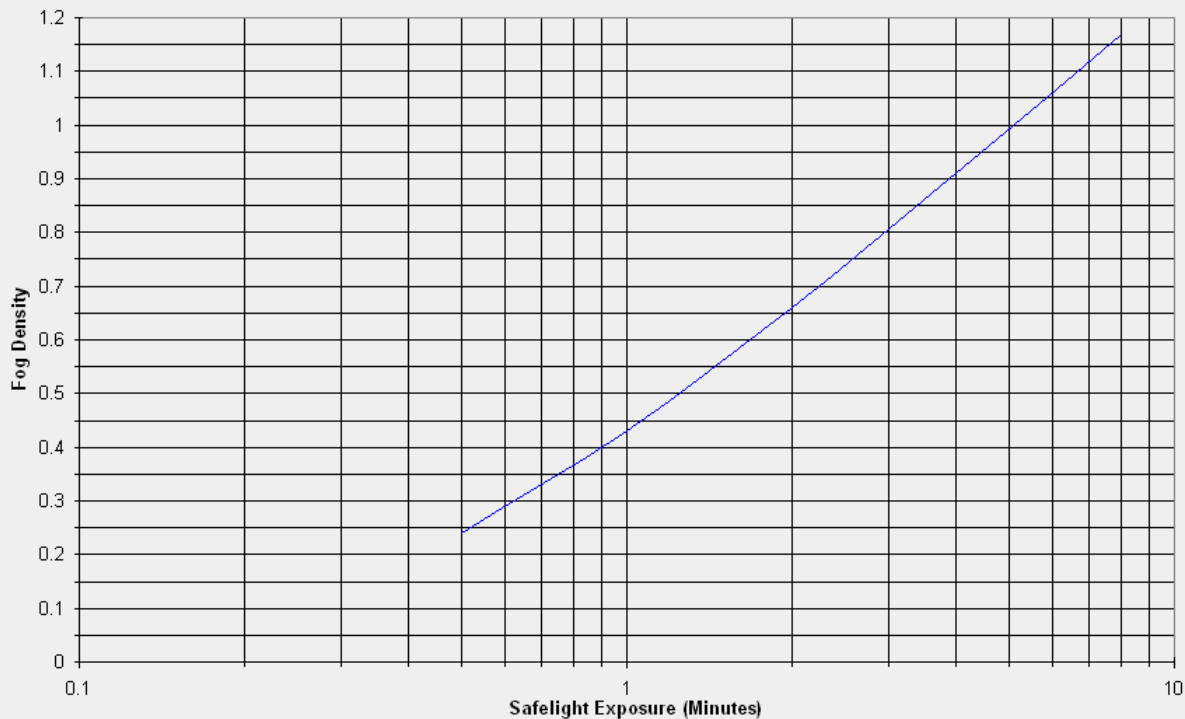
TI2366I 10-97
SPECTRAL SENSITIVITY, For Publication

KODAK EKTASCAN HG Film/5165
Effective Exp 1.4 sec; Seasoned KODAK RP X-OMAT Chemicals, 95F (35C)
KODAK RP X-OMAT Processor M6; Diffuse Visual



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TI2366J 12-97
SAFELIGHT SENSITIVITY For Publication
KODAK EKTASCAN HG Film/5165
KODAK GBX-2 Safelight Filter, 25 watt lamp, 25 lux
KODAK RP X-OMAT Processor; KODAK RP X-OMAT Chemicals,(35C)
(Fog growth with increasing safelight exposure)



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