

GENERAL DATA

Spectral Response	See Curve
Wavelength of Maximum Response	6100 $\pm$ 400 Angstroms
Sensitive Material	Cadmium-Sulfide
Sensitive Area	Viewed from End
Construction	Hermetically Sealed in Glass with Flexible Leads
Outline	See Drawing
Operating Position	Any

ELECTRICAL DATA

RATINGS (Absolute Maximum Values)

Breakdown Voltage ²	300 Volts
Dissipation	
T-amb = 25°C	50 mW
T-amb = 70°C	5 mW
Ambient Temperature Range	-40 to +70 °C
Illumination	Note 3

CHARACTERISTICS

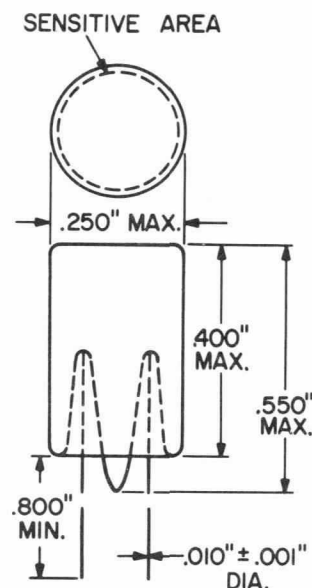
Cell Resistance ⁴	
Illumination 2 FC	
Color Temperature 2870°K	40,000 Ohms
Dark Resistance ⁵	10.0 Megohms Min.

NOTES:

- Minute increases in relative humidity will produce change in color.
- Measured with cell in complete darkness at a pulse rate of 100 pps, 100 μ sec. duration. Voltage in excess of the rated value may damage the cell. Maximum DC or AC peak voltage is limited by maximum dissipation and minimum dark resistance rating.
- Care should be exercised to prevent localized over-heating of the sensitive surface when the cell is used with a lens system.
- Measured after 60 minutes minimum exposure to approximately 50 FC illumination (ambient room light).
- Measured in complete darkness, 10 seconds after removal of 2 FC illumination.

QUICK REFERENCE DATA

The Sylvania Type 8318 is a miniature cadmium-sulfide photoconductive cell featuring high sensitivity and hermetically sealed - in - glass construction. The cell is gaseous back-filled for a high dissipation safety factor and includes a blue-dot compound which turns pink¹ if the cell envelope becomes damaged. The 8318 is designed for use in a wide variety of industrial applications.



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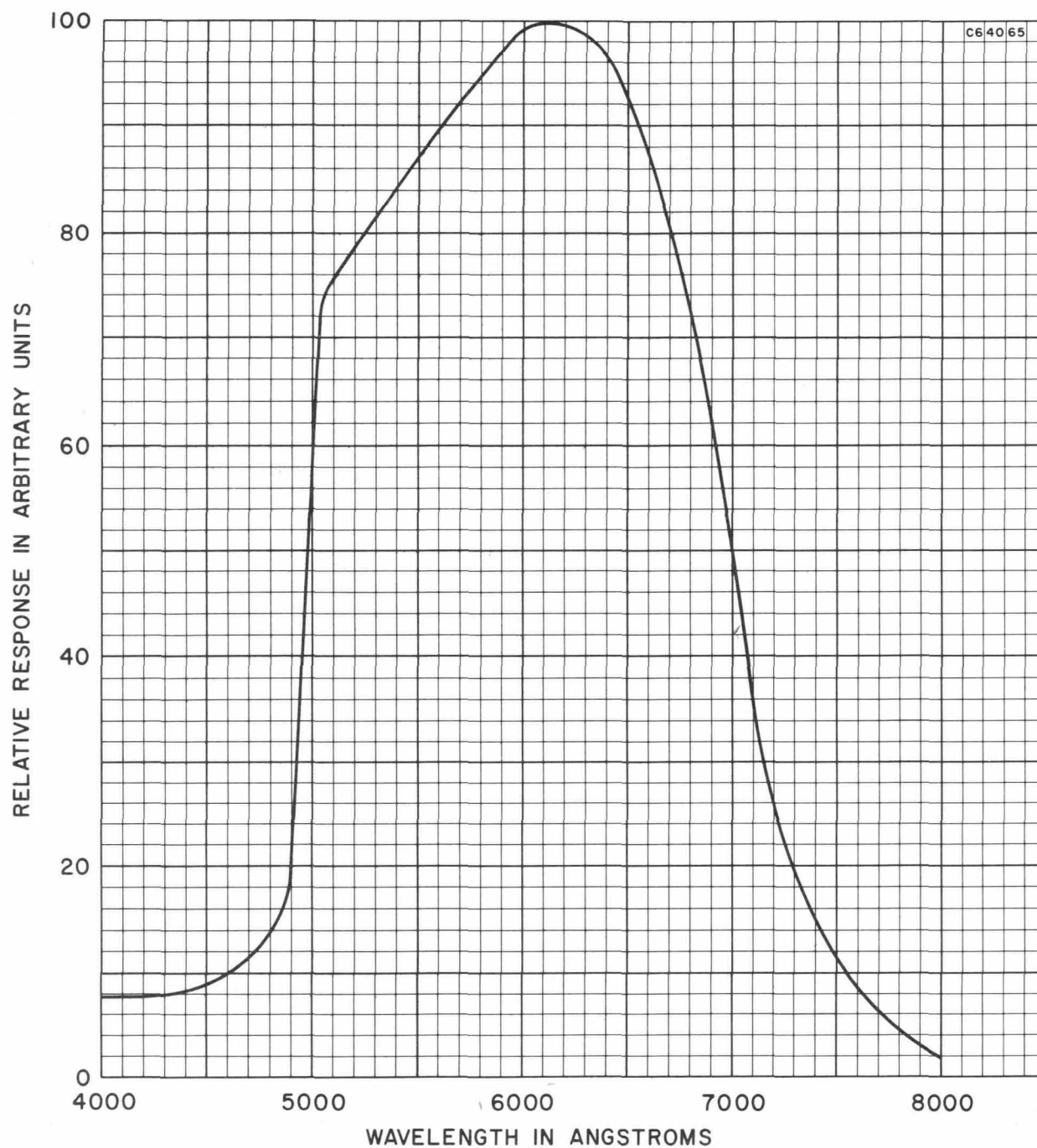
NOVEMBER, 1964

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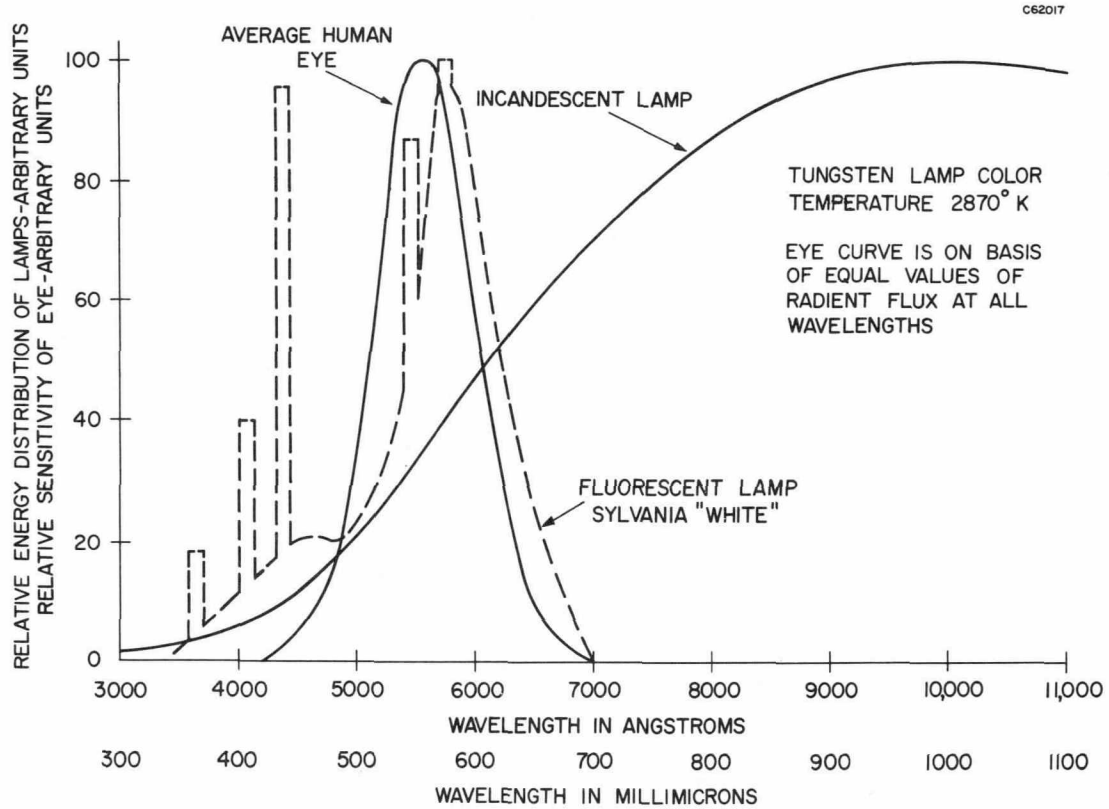
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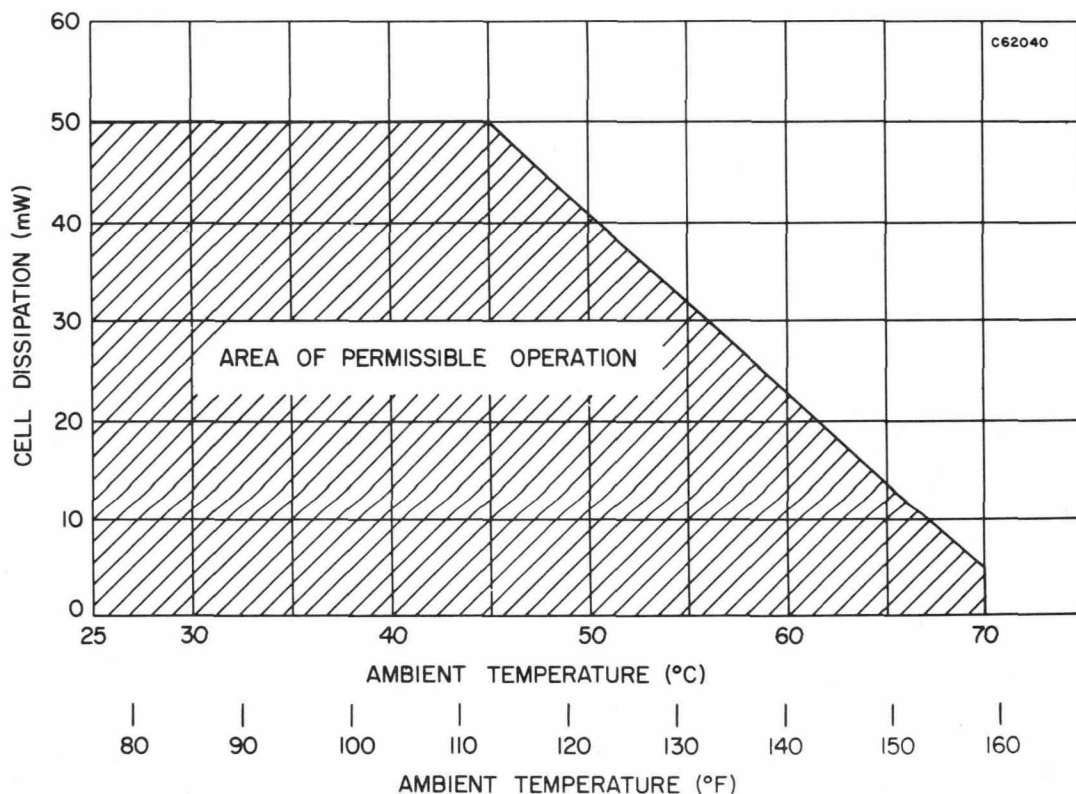
SPECTRAL RESPONSE



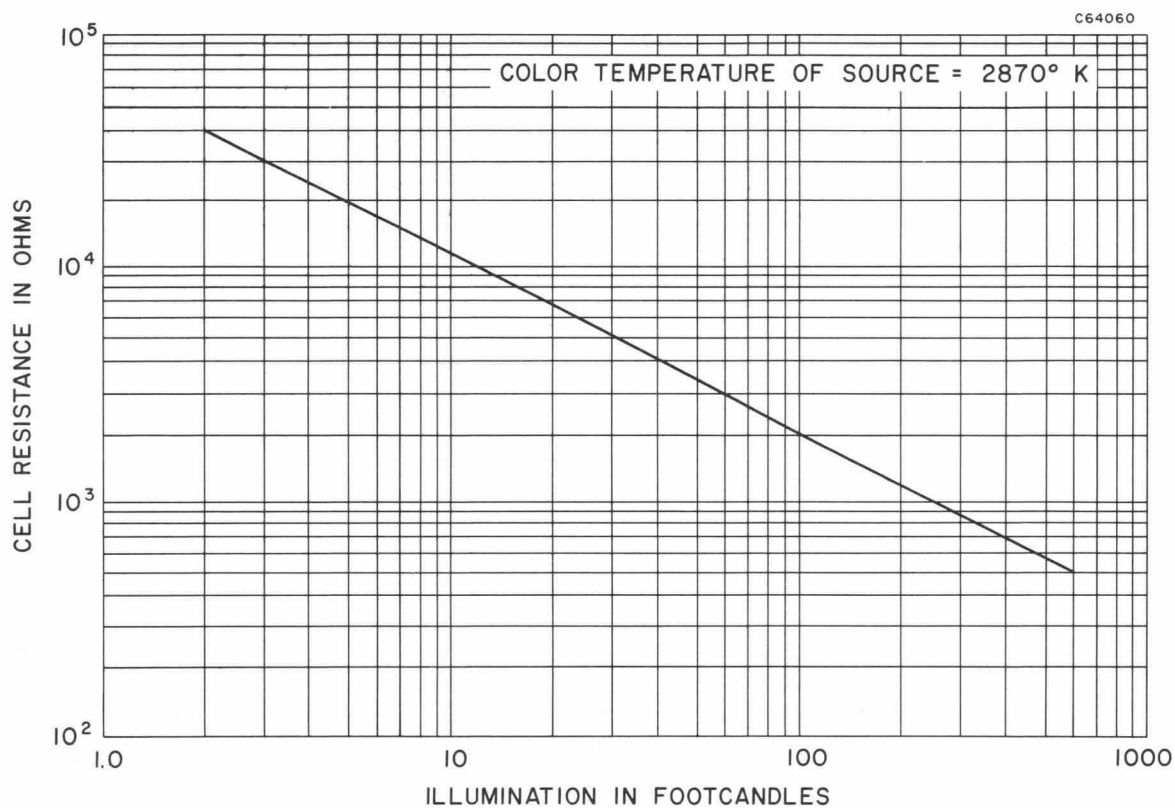
SPECTRAL CHARACTERISTIC OF HUMAN EYE, TUNGSTEN AND FLUORESCENT LAMPS



PERMISSIBLE DISSIPATION AS A FUNCTION OF AMBIENT TEMPERATURE



CELL RESISTANCE VS ILLUMINATION



CELL CURRENT AND DISSIPATION VS VOLTAGE

