

Optical Properties

- For superior discharge lamp performance, the SG25 lighting grades have virtually no hydroxyl content, as shown by the transmission at 2730nm. The maximum hydroxyl contents are 1.0ppm for grades SG25B and SG26BZ, and 5.0ppm for grade SG25A. Hydroxyl-containing quartz would show a measurable reduction at 2730nm.
- Grade SG26BZ prevents ozone generation by absorbing the 185nm wave length.
- For germicidal lamps, grades SG25 and SG26 provide excellent transmission at 254nm.

- For fused quartz, the transmission (T2) at other thicknesses is given by:

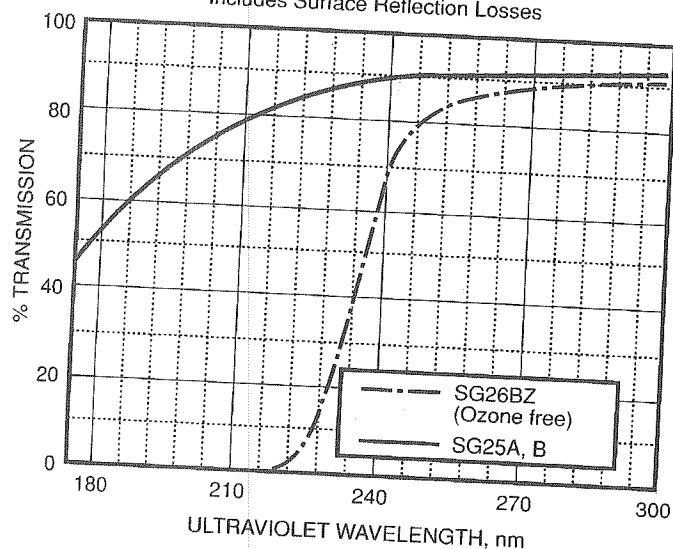
$$\ln(T_2) = (t_2/t_1)\ln(T_1/0.92) + \ln(0.92)$$

Where T1 is the transmission at thickness t1

- Index of refraction 1.4585
- Optical dispersion 67.6

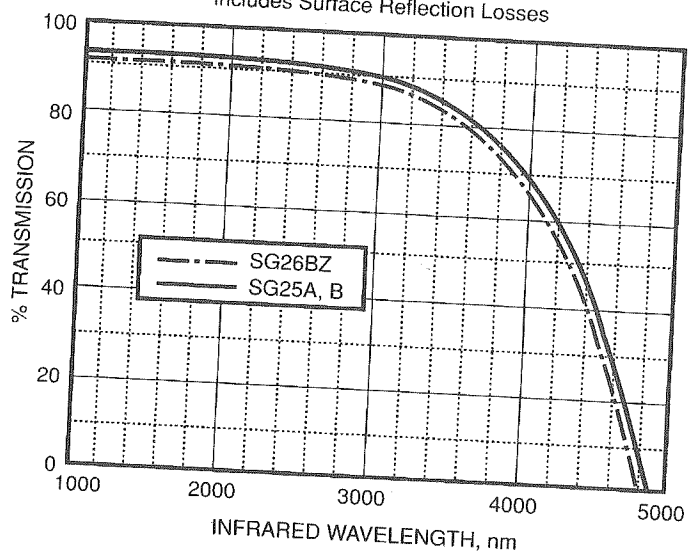
FUSED QUARTZ TRANSMISSION CURVES FOR LIGHTING GRADES

- Sample Thickness 1.5 mm
- Includes Surface Reflection Losses

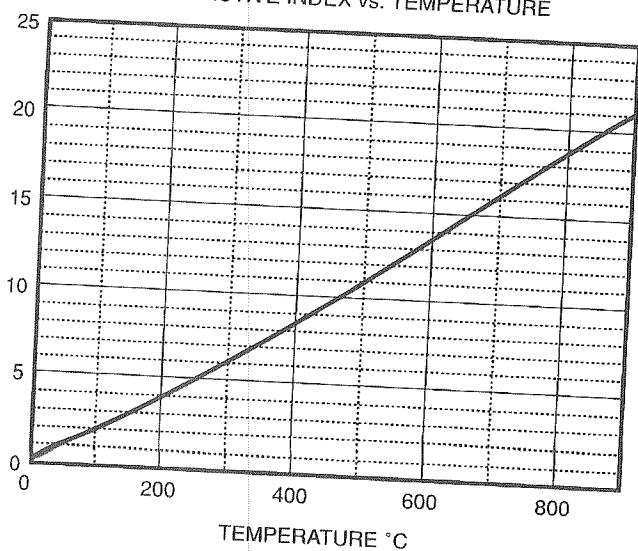


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REFRACTIVE INDEX vs. TEMPERATURE



REFRACTIVE INDEX vs. WAVELENGTH

