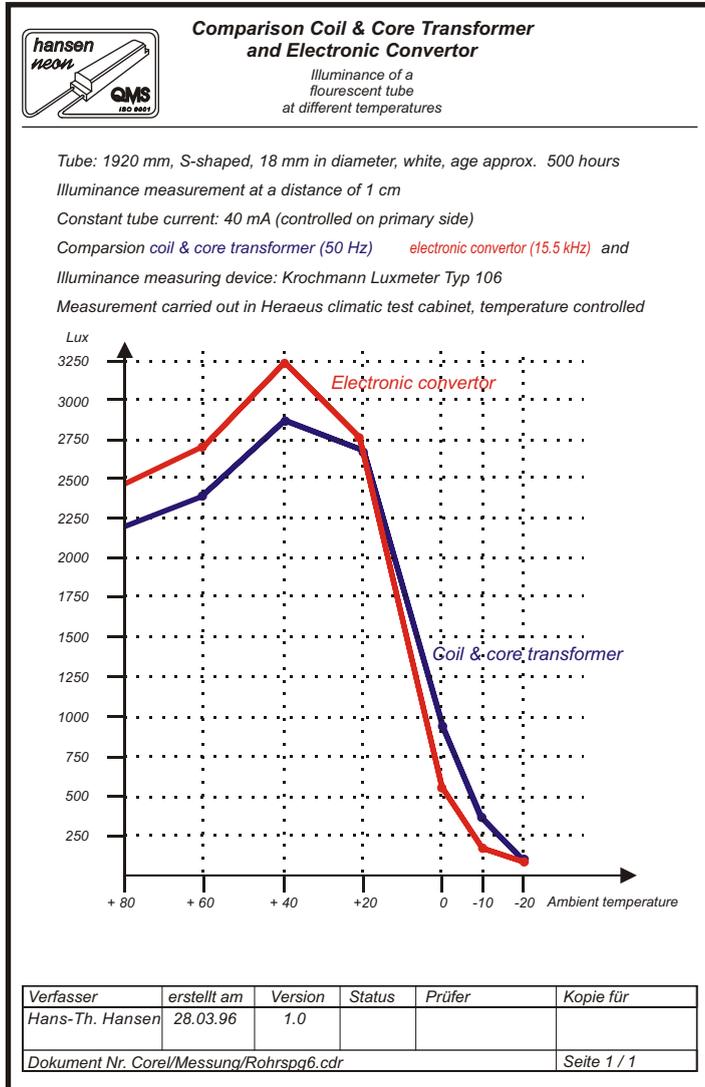


Thermal behaviour of the tube



The temperature has a major influence on the brightness (light flux) of the fluorescent tube.

One reason for these variations is the vapour pressure within the gas which reaches its optimum at a temperature of + 40 °C. At lower temperatures, the brightness declines considerably.

The second reason is the fact that most fluorescent materials on the glass walls inside the tube give off less light with rising temperatures. Hence the brightness declines when the temperature rises - although not as rapidly as it does at cold temperatures.

A fluorescent tube reaches its maximum light emission at approx. + 40° C.

The dependence on the temperature can be seen especially during the cold season when neon advertising signs are considerably darker than in the summertime. Only little light is generated when the system is switched on. The brightness increases with the rising operating temperature of the fluorescent tubes.

Comparison measurement of the brightness using a coil & core transformer and an electronic converter

EVGs and coil & core transformers basically exhibit the same behaviour. The maximum luminous efficacy of both transformer and converter is reached at about + 40 °C.

At temperatures above + 20 °C, the EVGs have an advantage as they generate more light in the tubes. At lower temperatures, however, the light generation of the coil & core transformer is superior. At temperatures below - 20 °C, the light emission of both transformer and converter is equal.