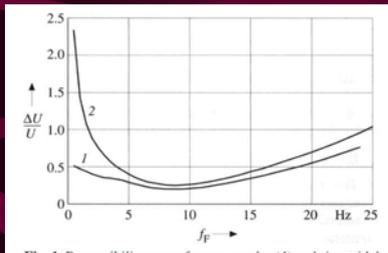
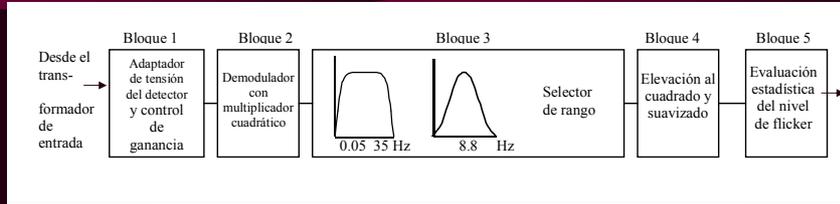
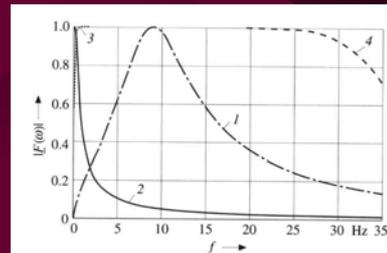


# Medidor de Flicker



Percepción para fluctuaciones (1) rectangulares y (2) senoidales



Amplitud de respuesta filtros: 1) ponderado, 2) pasa-bajo, 3) pasa-alto, 4) Butterworth.

# Índices de Flicker

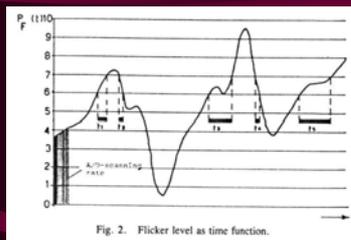
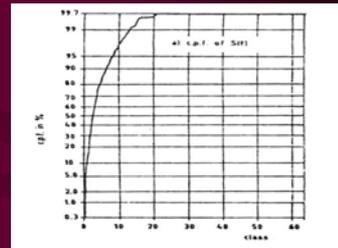


Fig. 2. Flicker level as time function.

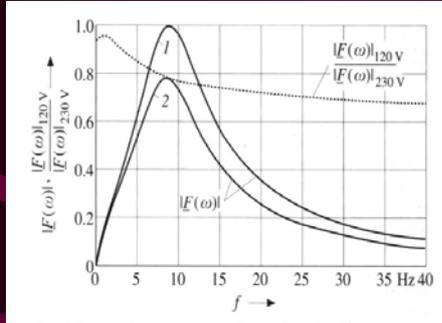


$P_{st}$  y  $P_{lt}$ : índices de severidad de flicker de tiempo corto y largo.

$$P_{st} = \sqrt{0.0314 * S_{0.1} + 0.0525 * S_1 + 0.0657 * S_3 + 0.28 * S_{10} + 0.08 * S_{50}}$$

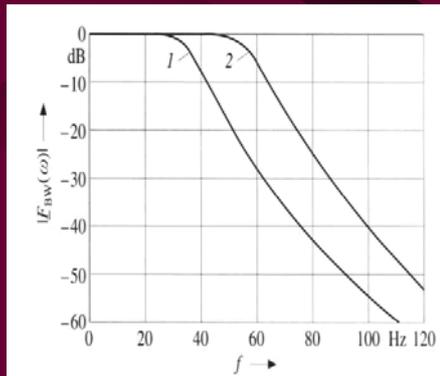
$$P_{lt} = \sqrt[3]{\frac{\sum_{i=1}^N P_{sti}^3}{N}}$$

## Corrección para 120 V 60 Hz

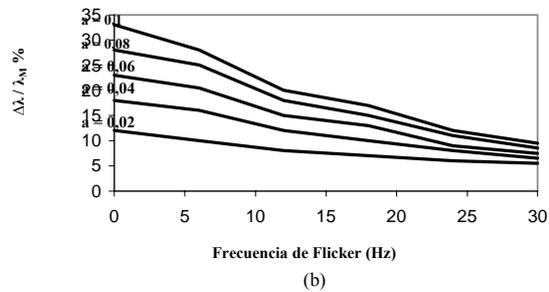
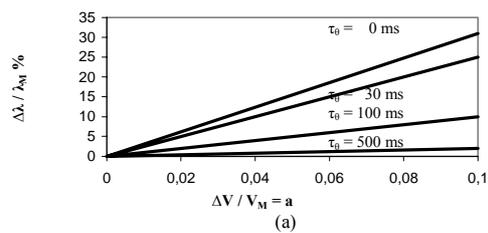
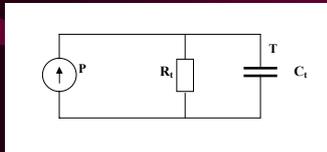


Respuesta en amplitud del filtro ponderado para (1) 230 V y (2) 120 V

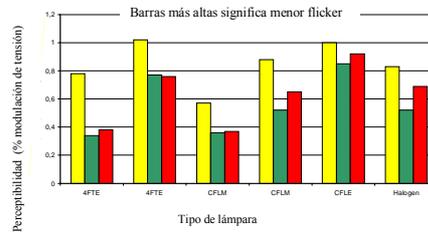
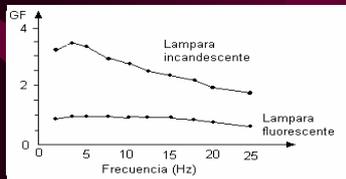
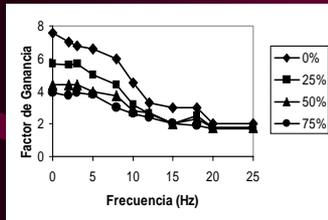
Respuesta en amplitud del filtro Butterworth, 1) 6to orden, 3 dB,  $f_c = 35$  Hz y 2) 8vo orden, 3 dB,  $f_c = 56$  Hz



## Comportamiento de la lámpara



# Comparación de efectos



Barra clara: Modulación de 5 Hz.  
 Barra intermedia: Modulación de 10 Hz.  
 Barra oscura: Modulación de 15 Hz.  
 4FTE = Lámpara fluorescente 1,2 m, balasto electrónico.  
 CFLM = Lámpara fluorescente compacta con balasto magnético  
 CFLE = Lámpara fluorescente compacta con balasto electrónico