Logarithmic response function of achromatic vision space T^*_{LOG3}

nonlinear color terms	**name and relationship with test field luminance *L***	***notes***
threshold sum T^*_{LOG3}	$T^*_{LOG3} = A_1 \cdot \log (1 + A_3 \cdot L)^t$ $= A_1 \cdot t \cdot \log (X)$ $X = 1 + A_3 \cdot L; \quad dX/dL = A_3$	exponent: $t = A_2$
CIE luminance contrast sensitivity threshold L / dL	$dT^*_{LOG3} / dX = A_1 \cdot t \cdot X^{-1}$ $dT^*_{LOG3} / dL = dT^*_{LOG3} / dX \cdot dX / dL$ $dT^*_{LOG3} / dL = A_1 \cdot A_3 \cdot t \cdot X^{-1}$ *for* dT^*_{LOG3}=1, and multiplication with L: $L / dL = L \cdot A_1 \cdot A_3 \cdot t \cdot X^{-1}$ $= L \cdot A_1 \cdot A_3 \cdot t \cdot (1 + A_3 \cdot L)^{-1}$	for large L: T^*_{LOG3} $=A_1 \cdot t \cdot \log(A_3 \cdot L)$ for least square fit: $dX/dA3 = 1$ $dX/dL = A_3$
CIE luminance difference threshold *dL*	$dL = X / [A_1 \cdot A_3 \cdot t]$ $= [1 + A_3 \cdot L] / [A_1 \cdot A_3 \cdot t]$	