$$
\begin{aligned}
x &= v_x t, \\
y &= y_0 + v_y t - \frac{1}{2} g t^2
\end{aligned}
$$

$$
\begin{aligned}
y &= y_0 + \frac{v_y}{v_x} x - \frac{g}{2 v_x^2} x^2 \\
&= y_0 + x \tan\lambda - \frac{g}{2 v^2 \cos^2\lambda} x^2
\end{aligned}
$$