The range at which the reticle turns red (or yellow/green) is determined by the 'EffectiveRange' property (I think of the Primary ammo type), which does NOT necessaraily match the actual range of the primary or secondary ammo types. For example I could set the effective range of the pistol to 300 meters and be able to target anything up to 300 meters, but the reticle would be yellow (or is it green for not in range? Can't remember) until you got within the weapons actual range (again, I think this is determined by the primary ammo type).

On some weapons the range is greater than the effective range, so you can actually shoot and hit them before the targetting box appears.

So, in closing, EffectiveRange is the range at which the targetting box appears, and Range is the range at which you can actually hit them from, and they are not necessaraily the same.