Notice that the evaporating conditions increase in this direction meaning that from left to right more heat is in the vapor.

The more dense the gas is the more "pounds" of refrigerant are pumped by a given compressor. More pounds equals more weight moved. More weight moved equals more "work" done. More work done takes more "energy" to accomplish. Look at the amperage increase as the suction gas gets more dense. 

DENSITY = Pounds per Cubic Foot