The oldest reference to "Vieng Can" appears in the Ram Kamhaeng's inscription (if this really dates from the thirteenth century, but I think it does). The writing, cann, doesn't allow us to decide whether it means candra (Skt.)/canda (P.) (moon) or candana (Skt./P.) (sandalwood).

In the first Lao inscription (Den Muang 2, 1535 AD) which mentions the city, the name is written as Candapurl (the same as in the inscription of Dan Sai, Loei Province, 1563). From this we could conclude that the meaning is "city (purī) of the moon (canda)".

But it is in fact still uncertain, because "canda", in some cases, can also mean "sandalwood" (cf. T.W. Rhys Davids, Pali-English, p. 261). The Nithan Khun Borom, an ancient Lao chronicle (first redaction in the early-16th century), leads one to think that the name Vieng Can could come from the sandalwood boundary markers (hlak maican) set up by hermits at Pak Pasak (west of the city, near the ancient wall). Based on this, some Lao scholars conclude that the real etymology is candana (there exists other literary traditions about this meaning). This spelling is also the most common in Thai writings. There are also Indian cities named Candanapuri (or -pura).

For me, I am not sure of the real etymology. But I think we can't dissociate vieng and can. The word, vieng, is old (perhaps used in old Mon culture) and designates something circular, for example a city which is protected by a round wall. In this context, candana could make sense. The ambiguity remains...