

**Email received on October 22, 2010 from Clint Chaplin.**

Dear sir/madam,

Samsung has reviewed the latest draft of the "ENERGY STAR(r) Program Requirements for Luminaires", Version 1.0, Draft 2.

We are concerned with the Operating Frequency Requirements: Directional and Non-Directional Luminaires requirements for SSL. Specifically, the requirement for modulation depth <50% for any and all frequencies above 120Hz seems to be too general.

Samsung among many other companies has been working on Visible Light Communication (VLC), which essentially allows SSL to be used for digital communication while also fulfilling the primary purpose of illumination.

IEEE 802.15.7 and Ecma TC47 are both working on specifications for VLC.

VLC essentially blinks the light source at rather high frequencies; frequencies well above any known physiological effects. In order to make effective communication at maximum possible distances and data rates, modulation depths of 100% are specified (analog modulation especially with tri-color LED lamps can cause color shifting).

We ask that the modulation depth requirement of 50% have an upper frequency limit. 4.5kHz is suggested as a possible limit; there doesn't seem to be any physiological effects for modulation frequencies above 4.5kHz at any modulation depths.

Clint Chaplin