



CIE-LUV

UNIFORM COLOUR SPACE

The U and V dimensions represent the Red-Green and Blue-Yellow axes. The third axis is the L or the Luminance value. The new updated (1976 version), of the original 1931 CIE diagram, has better more even spacing of colour differences, hence it was called Uniform Colour Space.

The triangle bounded by the locations of the three Phosphors (Red, Green, Blue), is the area which represents all the colours that can be produced by the monitor or TV, that uses these phosphors (610nm, 550nm, and 470nm). Human vision can perceive all colour bounded by the CIE curve. The boundary represents the maximum purity of a colour. All values toward the centre, represent the mixing of other colours with the pure colour.

Since a mixture of all colours (additive) produces white, the central area shows the different "colour Temperatures" of white. For example D65 is a colour temperature of 6500°K. The colour temperatures of light sources is shown along the curve, moving toward the Red as the colour temperature decreases (ie. candlelight). D65 is the standard white for most colour TV and monitors. This is approximately the colour temperature of daylight, hence you must use colour film balanced for daylight to photograph TV or monitor graphics.