



# Phosphor Information Leaflet

## GENERAL

Name	Calcium lutecium antimonate manganese
Chemical formula	$\text{Ca}_2\text{LuSbO}_6:\text{Mn}^{4+}$
Application areas	NIR phosphor, medical imaging and therapy, Horticulture lighting

## OPTICAL PROPERTIES

Excitation maxima @	303 nm (4.1 eV), 518 nm (2.4 eV)
Emission maximum @ 160 nm exc.	682 nm (1.8 eV)
Centroid wavelength	681 nm (1.8 eV)
Full width @ half emission maximum	30 nm
Lumen equivalent	7 lm/W
CIE1931 chromaticity coordinates (x, y)	0.72, 0.27
Band edge of host lattice	~ 4.0 eV
Reflection @ 303 nm	32 %
Decay time $\tau_{1/e}$	> 1 ms

## PHYSICAL PROPERTIES

Body colour	light yellow
Density	6.2 g/cm <sup>3</sup>
Refractive index (at $\lambda$ )	
Mineral type	Layered perovskite
Crystal system	Orthorhombic
Space group (#)	<i>Pnma</i> (62)

