



# Phosphor Information Leaflet

## GENERAL

Name	Lutetium aluminate garnet terbium
Chemical formula	$\text{Lu}_3\text{Al}_5\text{O}_{12}:\text{Tb}^{3+}$
Application areas	Projection TV sets

## OPTICAL PROPERTIES

Excitation maxima @	268 nm (4.63 eV), 321 nm (3.86 eV)
Emission maximum @ 268 nm exc.	383 nm (3.24 eV), 418 nm (2.97 eV), 488 nm (2.54 eV), 543 nm (2.28 eV), 591 nm (2.10 eV), 765 nm (1.62 eV)
Centroid wavelength	618 nm (2.01 eV)
Full width @ half emission maximum	Line
Lumen equivalent	245 lm/W <sub>opt.</sub>
CIE1931 chromaticity coordinates (x, y)	0.346, 0.510
Band edge of host lattice	160 nm (7.75 eV)
Reflection @ 268 nm	23 %

## PHYSICAL PROPERTIES

Body colour	White
Density	6.70 g/cm <sup>3</sup>
Refractive index (at $\lambda$ )	1.84 (589.3 nm)
Mineral type	Garnet
Crystal system	Cubic
Space group (#)	I a -3 d (230)

