

Phosphor Information Leaflet

GENERAL

Name	Lutetium borate europium
Chemical formula	$\text{LuBO}_3:\text{Eu}^{3+}$
Application areas	FLs with enhanced luminous flux

OPTICAL PROPERTIES

Excitation maxima @ 595.5 nm em.	257.5 nm (4.8 eV), 526 nm (2.4 eV)
Emission maximum @ 260 nm exc.	589.4 nm (2.1 eV), 595.4 nm (2.1 eV)
Centroid wavelength	615 nm (2.0 eV)
Full width @ half emission maximum	Lines
Lumen equivalent	354 lm/W
CIE1931 chromaticity coordinates (x, y)	0.599, 0.410
Band edge of host lattice	193.8 nm (6.4 eV)
Reflection @ 260 nm	25%
Decay time $\tau_{1/e}$	8 ms

PHYSICAL PROPERTIES

Body colour	White
Density	6.86 g/cm ³
Refractive index (at λ)	1.626 (543.5 nm)
Mineral type	Calcite
Crystal system	Trigonal
Space group (#)	R-3c h (#167)

