



## Phosphor Information Leaflet

### GENERAL

Name	Calcium lithium silicate praseodymium sodium
Chemical formula	$\text{CaLi}_2\text{SiO}_4:\text{Pr}^{3+},\text{Na}^+$
Application areas	UV-C emitting discharge lamps
Optical transitions	$[\text{Xe}]4f^15d^1 - [\text{Xe}]4f^2 ({}^3\text{H}_{4,5,6}, {}^3\text{F}_2)$

### OPTICAL PROPERTIES

Excitation maxima @	167 nm (7.4 eV), 202 nm (6.1 eV)
Emission maximum @ 340 nm exc.	254 nm (4.9 eV), 266 nm (4.7 eV), 298 nm (4.2 eV)
Centroid wavelength	296 nm (4.2 eV)
Full width @ half emission maximum	23 nm
Lumen equivalent	-
CIE1931 chromaticity coordinates (x, y)	-
Band edge of host lattice	165 nm (7.5 eV)
Reflectance @ 254 nm	50 %
Decay time (1/e)	16 ns

### PHYSICAL PROPERTIES

Body colour	white
Density	2.9 g/cm <sup>3</sup>
Refractive index (at $\lambda$ )	
Mineral type	
Crystal system	Tetragonal
Space group (#)	I-42m (121)

