

# Units and definitions for the Seeing Patterns lectures

Term	Units/definition
Visual angle	degrees (deg), minutes (arcmin), seconds (arcsec)
Luminance	L, candelas per square metre (cd/m <sup>2</sup> )
Mean Luminance	$L_{\text{mean}}$ (cd/m <sup>2</sup> )
Sine-wave grating	$L(x) = L_{\text{mean}} + A \sin(2\pi f x + p)$ (A=amplitude, f=spatial frequency, p=phase)
Michelson Contrast C	$(L_{\text{max}} - L_{\text{min}}) / (L_{\text{max}} + L_{\text{min}})$ or $A / L_{\text{mean}}$
Cycle width, or period	Degrees of visual angle (deg)
Spatial Frequency (1/cycle width)	Cycles per degree (c/deg or cpd)
Contrast threshold	Minimum detectable contrast C
Contrast sensitivity	1/Contrast threshold i.e. 1/C
Acuity or resolution limit	Highest spatial frequency at which a grating can be detected when at full contrast (c/deg)
Reflectance	% of light reflected
Brightness	Perceived luminance
Lightness	Perceived reflectance