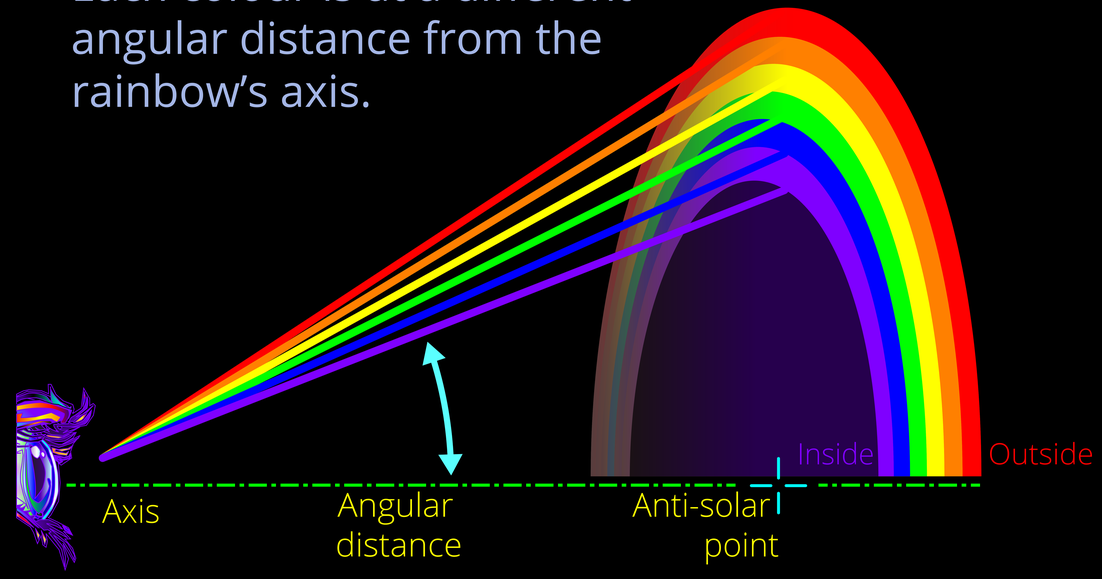
COLOUR BRIGHTNESS & ANGULAR DISTANCE

Raindows appear as arcs of colour to an observer. Each colour is at a different angular distance from the rainbow's axis.



Maximum brightness varies with wavelength

Brightness decreases sharply outside arcs of rainbow

Brightness of colours increases slowly with angular distance inside arcs of rainbow

Max

Relative peak brightness of colours

y

x

Inside

Outside

Angular distance

40^0

41^0

42^0

This diagram plots the brightness (y axis) against angular distance (x axis) of colours in a primary rainbow. Brightness drops off very sharply on the outside but fades slowly on the inside towards the anti-solar point.