



Shutter Speed Using the 500 or 600 Rule

Use this table to help you calculate the maximum shutter speed you can use before you'll start getting noticeable star trails in your nightscape photos.

Use the 600 rule for longer exposures and web images where slight trailing won't be noticeable, or use the 500 rule if you're more conservative or plan to print your images at 30" or higher.

| Focal Length | 1.5x Crop Sensor (Nikon / Sony) | | 1.6x Crop Sensor (Canon) | | Full Frame Sensor | |
|--------------|--------------------------------------|----------|-------------------------------|----------|-------------------|----------|
| | 500 rule | 600 rule | 500 rule | 600 rule | 500 rule | 600 rule |
| 8mm | 42 s | 50 s | 39 s | 47 s | 63 s | 75 s |
| 14mm | 24 s | 29 s | 22 s | 27 s | 36 s | 43 s |
| 17mm | 19 s | 23 s | 18 s | 22 s | 29 s | 35 s |
| 24mm | 14 s | 17 s | 13 s | 16 s | 21 s | 25 s |
| 35mm | 9 s | 11 s | 9 s | 11 s | 14 s | 17 s |
| 50mm | 7 s | 8 s | 6 s | 7.5 s | 10 s | 12 s |
| 70mm | 5 s | 6 s | 4 s | 5 s | 7 s | 9 s |

For custom focal lengths, simply divide 500 or 600 by the focal length of your lens.

Example, for a 20mm lens: $600 / 20 = 30$ seconds on full frame, or $600 / (20 * 1.6) = 19$ seconds on a Canon crop camera or $600 / (20 * 1.5) = 20$ seconds on a Nikon/Sony crop camera.