

Re: Diffraction rings

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From: CLT (*not_at_thisaddress*)

Date: 11/29/04

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Hi Steve,

A couple of thoughts:

(1) If you really want to pump them up, tape a piece of cardboard to make your CO larger for the test <g>

(2) Cooldown is critical with SCTs.

(3) Collimation helps. Go out of focus until you have several diffraction rings and collimate until you have them perfectly centered at the center of the FOV.

(4) Wait until a very good night. With the larger scope you want better seeing to push it up against the limits of diffraction. Otherwise you will not see rings in that scope.

(5) If you are concerned about the scope, try star testing it or contact a local astro club to have someone look at it. Then enjoy!

Clear Skies

Chuck Taylor

Do you observe the moon?

Try <http://groups.yahoo.com/group/lunar-observing/>

Are you interested in optics?

Try http://groups.yahoo.com/group/ATM_Optics_Software/

"Steve Maddison" <steve@cosam.org> wrote in message
news:codmuf\$b0o\$1@reader08.wxs.nl...

> *Hi all,*

>

> *I've been reading up on optical theory, but can't seem to find any*

> *answers to a query or two I have about diffraction rings.*

>

Re: Diffraction rings

sci.astro.amateur: Re: Diffraction rings

- > *I've had a Meade LX90 for several months, but to this day never seen any*
- > *hint of diffraction rings around the Airy disk of any stars, regardless*
- > *of brightness. I never thought anything of it, but I recently got my*
- > *hands on an Orion 80mm ED refractor, and in this scope the rings are*
- > *obvious, especially at powers above 100x.*
- >
- > *I'm trying to get the reason for this straight. From what I've read, I'd*
- > *expect the rings to be more obvious in the LX90, due to the central*
- > *obstruction, whilst the opposite is true. I'm curious as to which*
- > *factors affect the diffraction pattern of a scope. I can imagine things*
- > *like the quality of the optics and collimation have something to do with*
- > *it, but can't seem to work out how this all fits together.*
- >
- > *Whether or not such rings are visible doesn't bother me too much – I*
- > *find a nice, sharp, ringless disk pleasing enough, although a disk with*
- > *rings also has a certain beauty to it. Is there an ideal or preferred*
- > *situation?*
- >
- > *Any, even partial, explanation would be most appreciated, as would a*
- > *link to a web site which covers such topics in detail.*
- >
- > *Thanks in advance, and clear skies to you,*
- >
- >
- > *Steve*
- >
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- > --
- > *Steve Maddison*
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