Re: Practically achievable beam divergence for white, non−coherent light

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From: Joe D. (*joe_at_nospam.invalid*)
Date: 02/28/05

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"Ian Stirling" <root@mauve.demon.co.uk> wrote in message
news:4223370b$0$35333$ed2619ec@ptn−nntp−reader02.plus.net...
> ...
> *In practice, 40Kw/m^2 needs an image of the sun that's (about) 40 times*
> *its*
> *normal visible area at the target.*
>
> *Let's say your target is 200m out.*
> *The image off a flat mirror at 200m is (about) 2m.*
> *So, we need 40 2m mirrors, or 160 1m diameter mirrors.*
> *In theory, you could do this with 4*40 men on a framework, all*
> *aiming their own mirror.*
>

Yes, that's the "human heliostat" approach.

However my question is whether any combination of curved mirrors
can project a high intensity (40 kilowatts/m^2) beam of sunlight having
1 milliradian divergence.

The light is initially captured with a parabola, not a flat mirror.
The projected beam must be 40 kilowatts/m^2 or greater.
The beam divergence must be about 1 milliradian. Is that possible,
and if so, how?

I re−read all your responses several times, but I don't see
that answered. Sorry if I was unclear, or if I'm just slow.