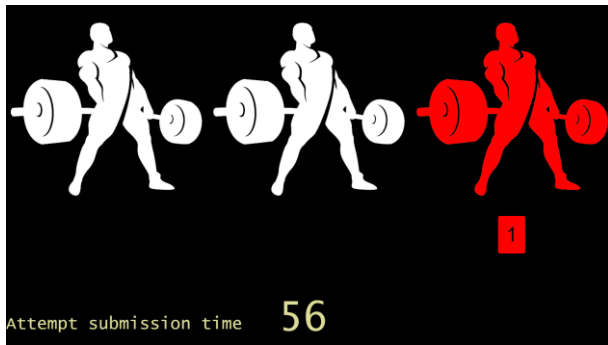


# Custom Lights

## Examples



## How it Works

To create these effects, we can overlay each light with an entirely black image that contains what is called an alpha channel. An alpha channel controls the opacity at each point on the image – ranging from completely transparent (opacity = 0) to completely opaque (opacity = 1). So, at points where the opacity is zero, the overlay is transparent, and we'll see the colour of the lights showing through from behind the overlay. Conversely, points where the overlay is opaque will show as black (because the overlaid image is black).

In the first example, the opacity has been set to 0 on the deadlifter, and to 1 in the black surrounding areas. Partial opacity (somewhere between 0 and 1) allows us to achieve a watermark effect, as in the IPF example.

In image editors, alpha channels are often depicted as greyscale images: fully transparent areas (opacity = 0) showing in black and fully opaque areas (opacity = 1) in white. Areas having intermediate opacity show as various shades of grey.

So, viewing the overlay alpha channels in editing software for the above two examples, they may look like this:



## Requirements of the Overlay Image File

- It must be in PNG (Portable Network Graphics) format.
- The image must be square. Recommended to be at least 500 x 500 pixels.
- The image must be entirely black (or at least black in those areas you want to be opaque).
- It must contain a single alpha channel as explained above.
- It must have name 'custom.png' and be placed in the same folder as all the other Ref Light files.

## Don't Want to Mess with Alpha Channels?

If you don't have access to an image editor that handles them, or you simply don't want to work with alpha channels ... all is not lost! You can use the free online PNG Transparency Creator on the [ONLINEPNGTOOLS](https://onlinepngtools.com) site to generate a suitable png file from a simple black and white image (jpg, png, gif, etc.).

Your image needs to be *white* where you want to show the lights colour and *black* everywhere else. Follow the site's instructions for uploading your image file, having first set the transparency colour to *white*, then save the generated png.

## Configuring Ref Lights

When Ref Lights detects the presence of a custom.png file, you can choose from light shapes of Round, Square or Custom.

## Sample custom.png File

You can download the deadlifter custom file from <https://weighttraining.nz/ref-lights/custom.png>. Save the file in your Ref Lights folder to see how it works.

Finally, if you have a suitable image (for example, a club logo) that you would like to incorporate into your lights but are mystified by the technicalities of making a custom.png file from it, email it to me together with a note to say how you want it to appear and I'll do my best to generate the file for you.

John Rippon

2 July 2023