The NuArc UV flood exposure system works differently than the other UV sources in our facility.

Most of the UV sources have a Time parameter that is controlled by the operator. If the UV intensity is measured independently for these types of sources, the total dose desired can be achieved by noting the fixed intensity over a process time parameter.

However, the NuArc has this feature built in, and the process parameter over which we have control is total Dose. So, when you enter a value into the NuArc, you are entering a dose, not a time. The machine will run and integrate the UV power as the UV bulb warms up (and the output intensity changes) until a total dose is reached.

The dose that we use for our standard S1818 resist reagent, spun with our standard spin process, is a dose of 10.

In general, the UV dose is obtained by multiplying the irradiance intensity (mW/cm²) by the exposure time in seconds. The resulting units are therefore, mW*s/cm², or mJ/cm² (J = W*s)