

COSMEDICO TECHNICAL ADVISORY: Are Longer VHR Lamps Better?

The use of “longer” lamps –particularly the VHR® 2.0M– has increased rapidly in Europe in the last year.

Initial applications of this lamp, which is about 8-9 inches longer than our standard FR71 VHR®, were all in “standups”. Now sunbeds are being designed around this lamp.

All lamp manufacturers realize that the indoor tanning industry is driven by a constant stream of “new” products. This has resulted in a continual introduction of lamps that are positioned as “new” when their only intrinsic value is that they are “new” –new name, new label, new length, etc.

In reality, our longer VHR®’s are much, much more than this new “positioning” of an old product. We believe the VHR® lamp is the most effective tanning lamp ever produced. It combines massive UVA output with balanced and proportionate UVB energy.

CosmoLux®VHR® is in all respects a “perfect” tanning lamp.

However, it is important to know that all VHR® lamps are built using an extended cathode mount. This means that UV production in a VHR® does not begin at the lamp end, close to the base, but rather up to 3 or 4 inches from the base.

This is absolutely necessary for technical reasons (mercury condensation) but it effectively reduces the UV emitting length of



the 6’ lamp by 6-8 total inches. So, in a 6’ VHR®, UV is produced in only 5.5’ or less of the lamp’s overall length. This explains, in part, why many equipment manufacturers stagger 6’ lamps - staggering is needed to get head-to-toe UV coverage.

By lengthening the VHR® by 8 to 9 inches, the UV emission length of the VHR® is extended by the same value. That means full UV is produced over more than 6’ of the lamp’s length. True head-to-toe UV coverage with the 2.0M VHR® lamp.

With the longer VHR® it is now possible for bed makers to get full VHR® coverage of the face without the need for high pressure facial lamps. Although salon owners tend to choose beds with H/P facials, there is no evidence that supports the perception that H/P is more effective than low pressure fluorescents in tanning the face and head. In fact we believe the opposite is true.

Consider this: when a bed is measured by the manufacturer to establish an exposure schedule, it is accepted practice that three areas are measured separately. The facial area, the body area beneath the canopy fluorescents, and the bench are all measured

independently.

Each section produces UV and exposure schedules for each of the three (3) areas are calculated. Seldom do all three (3) areas have identical exposure times. But the area that produces the maximum irradiation and has the shortest exposure time must be used when setting the exposure schedule for the bed.

In every bed measurement ever conducted by Cosmedico, it is the area beneath the facials that has the longest exposure time (Te). Typically, we might see a bench with VLR®’s that has a Te of 14 minutes; a canopy with VHR®’s that has a Te of 12 minutes, and an H/P facial area with a Te of 19 minutes. What this means in this example is that, in a 12 minute session, the face of the tanner is being underexposed by a full 7 minutes.

If the H/P facials were eliminated and the regular VHR®’s in the canopy were replaced with the longer 2.0M VHR®’s, maximum exposure would be delivered to the tanner’s body over its full length - including the face. It is this particular benefit of the “long” feature of the VHR® 2.0M lamp that is driving its rapid growth.