Certified UV Lamp Testing

This document applies only to low-pressure and low-pressure high output UV lamps, which emit primarily at 254 nm.

Introduction

When UV lamp manufacturers market their UV lamps, the should provide data concerning the following characteristics:

Electrical power (W)
UVC efficiency (%) [ratio of the total UVC power (W) to the lamp electrical power (W), expressed as a percentage]
Arc length (mm) (distance from the tip of one electrode to the tip of the other electrode)
Configuration (e.g., linear, U-shaped, etc.)
Outer diameter (mm)
Irradiance at 1.0 m from the lamp center (optional)

Ideally, the UVC efficiency should be certified by a "third party" independent expert, hereinafter called the "expert".

Certification Process

When a UV Lamp manufacturer (hereinafter referred to as the "client") wishes to have a specific lamp type certified, the following process should be followed:

1. Consulting MikA Business Development LLC (CMABD) will specify an expert, **Jim Bolton** to supervise the UV lamp testing.
2. The UV lamp testing can take place either at the client's facilities or at a test site designated by CMABD.
3. The client is responsible for travel and accommodation expenses for the expert to travel to the test site.
4. The client should take 25 UV lamps from stock and mark each lamp with the numbers 1 to 25.
5. Once this is done, the expert is notified that the lamps have been marked. The expert the selects twelve (12) lamp numbers at random.
6. The twelve (12) selected lamps are then operated at full power for 100 hours prior to testing.
7. The lamp testing must be carried out according to the Protocol and the expert must determine that the lamp testing chamber fulfills the requirements as specified in the IUVA Lamp Testing Protocol (IUVA, 2017). Ø see in this web page under the menu point 100/News
8. All operations in the lamp testing must be supervised by the expert, and he/she must use and record all data.
9. CMABD can provide a neutral measurement laboratory partner with all the uv radiometer established and equipment as well as accredited or certified on taking these UVC measurements.