

# WHEPP Western Healthcare Coalition

Buffalo Crawford Jackson La Crosse Monroe  
Trempealeau Vernon Counties

Robert Ritger, HCC Coordinator 306 9<sup>th</sup> Ave., South  
Onalaska, WI 54650  
Phone: 608-783-3735  
Cell: 608 780-6789  
Fax: 608-781-0761  
e-mail: [onaritger@charter.net](mailto:onaritger@charter.net)  
[Bob.Ritger@dhs.wisconsin.gov](mailto:Bob.Ritger@dhs.wisconsin.gov)

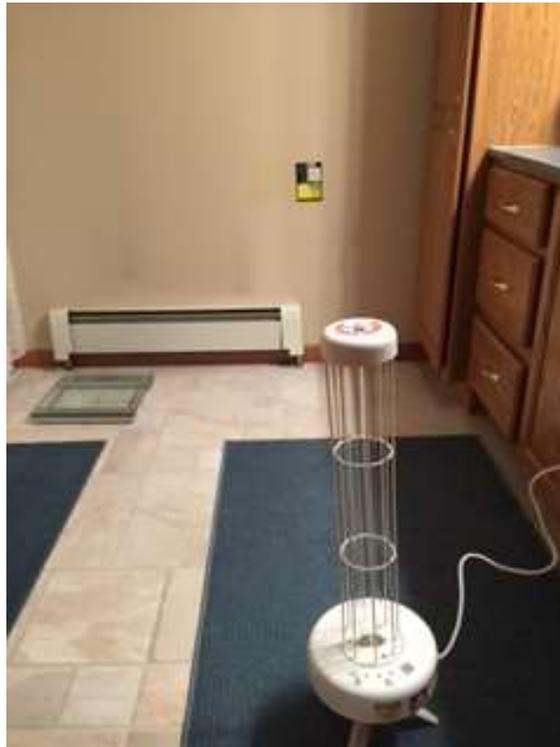


## TURBO UV LIGHT VERIFICATION TESTING

**February 2, 2016**

In an effort to verify the effectiveness of the MRSA Turbo UV sanitizing lights that Western HCC purchased primarily for ambulance disinfection I conducted several tests utilizing Clorox Optimum UV Index cards at several different time settings. \*\*\* NOTE\*\*\* The MRSA Turbo UV is NOT calibrated for use with the Clorox cards however the purpose was to try and determine the proper amount of UV exposure using different time lengths with the Turbo UV.

These tests were conducted in my house in a bathroom and the room was secured so no entry could be made during the testing. The verification card was placed on a wall approximately 2' off the floor and was 5' away from the light source.



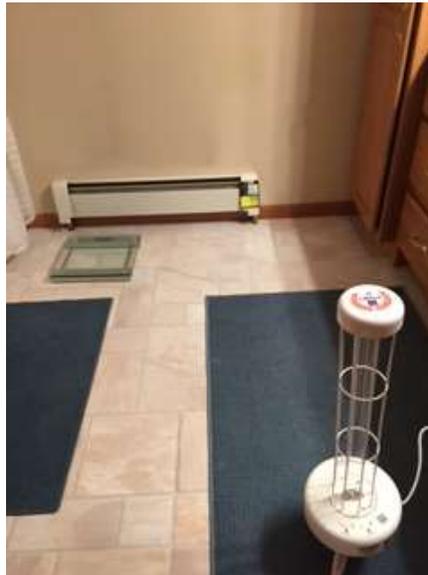
Blank Card prior to exposure:



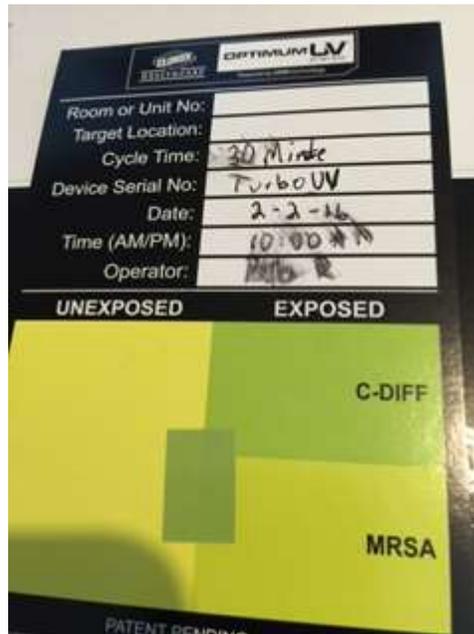
I set the Turbo UV for a 15 minute runtime and secured the room. After 15 minutes I returned to check the card out and there was significant color change indicating exposure.



I then reset a new card in a lower position and cycled the Turbo UV for 30 minutes.



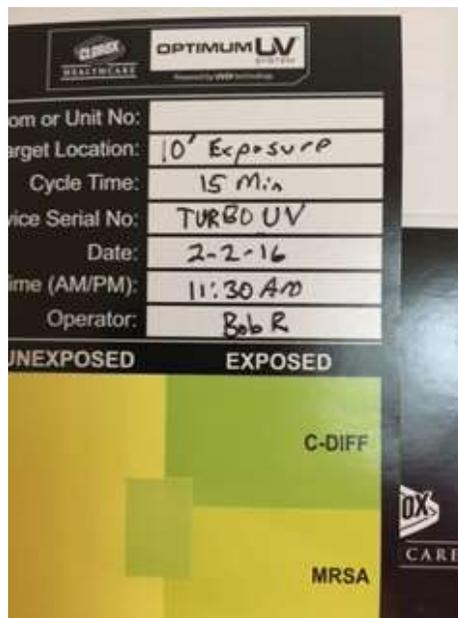
I ran the Turbo UV for a 30 minute cycle at the 5' distance and had a darker exposure result.



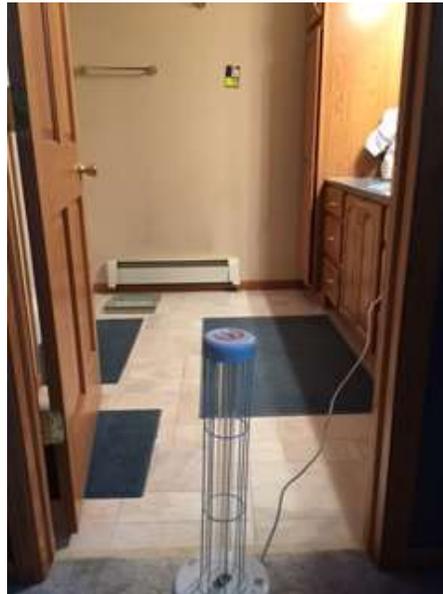
I then moved the Turbo UV back to 10' and repeated the 15 minute cycle.



The result of the test appears to be slightly lighter to the 5' 15 minute test.



Here is the setup for the 10' 30 minute cycle card is 5' off the floor.



Here is the card after the 10' 30 minute exposure.



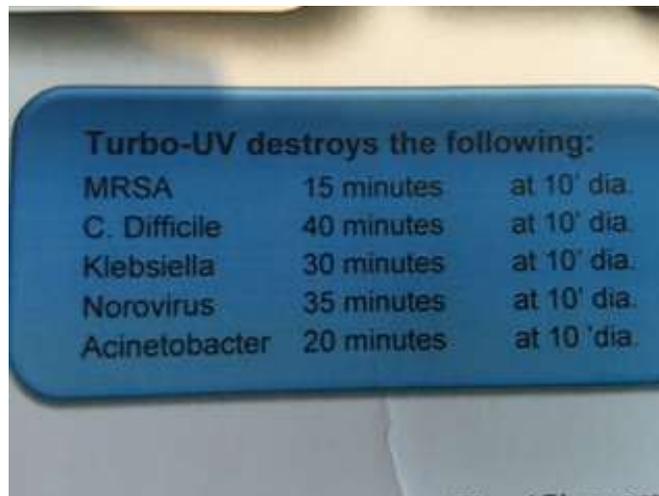
This test at 10' for 30 minutes seems to correlate with the MRSA claim that for the TURBO UV to destroy C. Difficile would take 40 minutes as after 30 minutes the sample is just a bit lighter than the C. Difficile reference color.

**SUMMARY:**

**IMPORTANT TO NOTE AGAIN THAT THE VERIFICATION CARDS ARE NOT CALIBRATED TO THE MRSA TURBO UV.**

The MRSA Turbo UV is a much more compact UV Light and with a lower intensity UV light than the Clorox Optimum UV or any other larger stronger units. With the intent of the Turbo UV to be used primarily in ambulances and small areas it is a much smaller unit and easier to move around and place in smaller spaces.

The testing that is referred to in this report was conducted using the Clorox Healthcare UV verification cards that record exposure to UV light by a patch in the middle of the card that changes color upon exposure to UV. The darker the color change the more exposure to UV occurred. Knowing that the MRSA Turbo UV is a lower intensity UV light I ran several tests to simulate the MRSA chart for killing certain pathogens



Turbo-UV destroys the following:		
MRSA	15 minutes	at 10' dia.
C. Difficile	40 minutes	at 10' dia.
Klebsiella	30 minutes	at 10' dia.
Norovirus	35 minutes	at 10' dia.
Acinetobacter	20 minutes	at 10' dia.

Tests were run with the cards being placed 5' and 10' away from the UV unit for 15 minute and 30 minute tests. The cards were viewed and photographed after each test period so one could see the color changes. There was a more significant color change on the tests conducted at the 5' distance along with some darker appearance with the 30 minute test periods.

I am not providing any opinion but I am presenting the results of the testing that I conducted for your own references and use.

Thank you Bob Ritger – Western HCC Coordinator (WHEPP Region 4)