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## **TEST AND ACCEPTANCE OF THE FIRERAY 5000 BEAM DETECTOR SYSTEM**

UL 268-5 asks only that one 'follow the manufacturer's instructions...'.

In FFE's UL 268 test report we can see that the User Guide instructions supplied only referred to the software fire test. The software fire test therefore is the accepted fire Test and Acceptance for UL 268 Compliance.

The software fire test works by reducing the transmit power until the received signal strength drops below the fire threshold. This demonstrates that when the level of signal is reduced (obscuration) and the beam goes into Alarm and the system is functioning properly.

The software fire test and manual slow cover up test do the same thing except that the manual slow cover up actually confirms you are on the reflector, so it is superior in terms of confirming correct alignment, but of course both methods test for fire obscuration equally.

Our recommendation is that since during commissioning you have just confirmed proper alignment and the IR Signal being received is from the reflector by a manual cover up of the prism via the SET program function - the software fire test is acceptable.

For subsequent maintenance, the software fire test can only be deficient if the beam has realigned on a semi-reflective object other than the reflector, which is highly unlikely, hence:

- Manual slow cover up is only necessary for troubleshooting difficult installations
- Software fire test is acceptable for Fire Authority Acceptance and Routine Maintenance per UL 268-5

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