RE: K-Factor Values for UL Listed / FM Approved
Type MV Directional Spray Nozzles

Dear valued customer:

We have recently received several inquiries regarding k-factor values listed in Technical Data Sheet TFP807 (dated July 2014), for Type MV Directional Spray Nozzles, pointing out that these, in some cases, are now different from historical k-factor values for the same nozzles.

The Technical Data Sheet provides UL Listed and FM Approved k-factor values that are considered valid by current laboratory standards. Please be advised that it is our understanding that any difference in values that might be found online at the UL Online Certifications Directory and/or the FM Approval Guide will soon be updated to reflect those found in the technical data sheet.

Please be aware that any reference to k-factors in historic technical data sheets or marketing documentation dated prior to July 2014 that you may have in your possession should be disregarded for current and future designs.

While there have been no dimensional or other changes to the nozzle designs, the original nozzle flow and pressure data was collected at least 30 years ago and the laboratory testing methods and equipment have changed over this period, resulting in the changes in the k-factor values.

We realize that it can be difficult to understand how a specific flow through an orifice at a specific pressure can yield a different k-factor at two different points in time, but please keep in mind that there are other influences on the flow through nozzle orifices, for instance:

- Straightening of the flow leading into the k-factor test apparatus
- Variation in the orifice plates / fittings that fix the nozzles to the k-factor test apparatus
- Angle of flow out of the k-factor test apparatus:
  - UL apparatus flows 90-degrees out of a small cannon
  - FM apparatus flows straight out of a large cannon
- Other differences that cause disturbance to flow, upstream or downstream of nozzle orifice

At Tyco Fire Protection Products, we appreciate and value your business relationship. To best serve you, please do not hesitate to contact our Technical Services if you have any questions or comments in relation to this topic.

Sincerely,

Luke Connery, P.E.
Global Product Manager – Commercial Sprinklers