Residential sprinklers have a different discharge pattern than standard spray sprinklers. They are required to throw water to wet walls within 28 inches of the ceiling.

Introduced in the 1980s, residential sprinklers objective is to achieve life safety in dwelling units. Generally the fuel loading in dwelling units is located near walls. As such, the discharge patterns of residential sprinklers have the wall wetting requirement.

Figures 1 and 2 demonstrate the different discharge patterns between standard spray and residential sprinklers.