Surface plasmon polariton modes on cylindrical nanowires remain accessible for applications even when the wire radius is only a small fraction of the wavelength. Abrupt wire termination constitutes a basic discontinuity that underlies many of the wire functions. The diffraction of the surface plasmon modes by the discontinuity is investigated. The near field around the termination plane is determined with no simplifying assumptions of the physical aspects of the diffraction process. The transmitted and reflected fields are calculated for wires in vacuum. Full conversion of the surface plasmon mode energy into light is shown to occur at specific values of the wire radius.