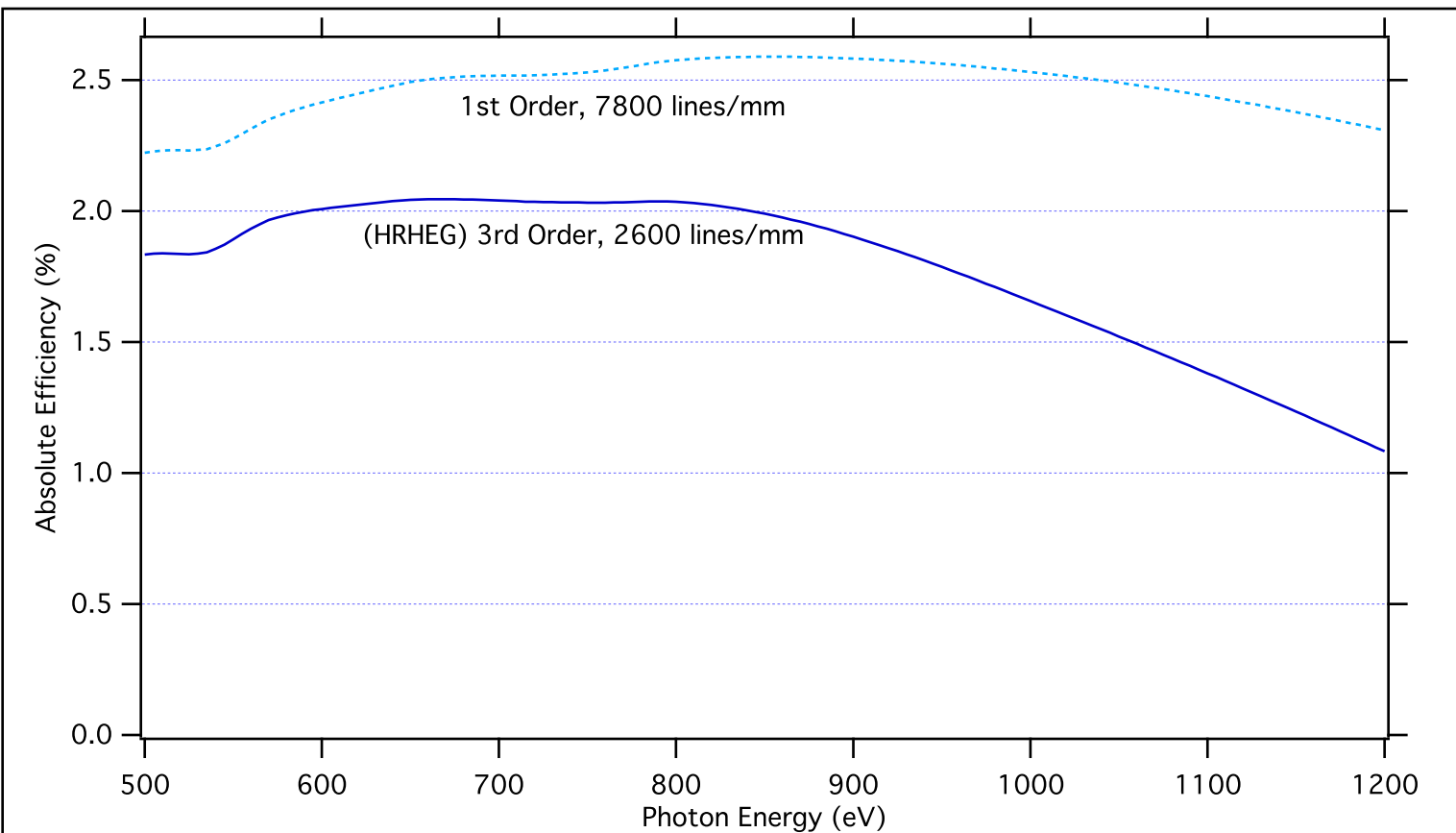


(a) The 3rd order HRMEG (1800 lines/mm), and an equivalent-resolution 1st-order grating (5400 lines/mm - difficult or impossible to manufacture). The 3rd order efficiency advantage persists even for sinusoidal gratings without the blazing advantage.



(b) The 3rd order HRHEG (2600 lines/mm), and an equivalent-resolution 1st-order grating (7800 lines/mm - impossible to manufacture).