Packing

Problem 43^e. Use CLINGO to pack a given set of squares into a given rectangular area without overlaps. For instance, if the sides of the squares are 4, 3, 2, 2, and 1, and the area is 5×8 , then the problem can be solved as follows:

A A A A B B B X
A A A B B B X
A A A B B B E
A A A C C D D
x x x x x C C D D

(the x's indicate the part of the area that remains unused).