## List of full sensitivity spaced seeds for at most 9 mismatches

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Each spaced seed s is a periodic seed (b is a periodic block). It consists of  $n_b$  repetitions of the block and first  $n_d$  symbols of the blocks. Other parameters: w is the weight of the periodic seed,  $n_m$  is the maximum number of mismatches allowed to achieve the full sensitivity,  $L_{min}$  is the minimum length of a read required for the found seed.

We used the following selection criteria:

- by setting  $n_m$  and the length L of a read, we found all seeds of a maximum weight w;
- for a given weight w we found the shortest length  $L_{min}$  of reads when we are able to find seeds;
- among all seeds found for  $n_m$ , w and  $L_{min}$ , we used only seeds of maximum length.

If a seed s is found, then its reverse version  $\bar{s}$  (all digits are in the reverse order) can also be used. To form the seeds below lists of seed blocks b were used. Those blocks were found for sizes from 10 to 50 for  $n_m = 3, 4, \ldots, 9$  and from 10 to 70 for  $n_m = 2$ . For each block size only sequences of maximum weight were used. There is a possibility that in a future longer seed blocks can be found and new spaced seeds can be formed for a given weight w (it will be possible to use them for shorter reads, i.e.  $L_{min}$  will be smaller).

- 11)  $n_m = 9$ , w = 23,  $L_{min} = 141$ ,  $n_b = 2$ ,  $n_d = 22$ ,
- 12)  $n_m = 9$ , w = 24,  $L_{min} = 150$ ,  $n_b = 2$ ,  $n_d = 31$ ,
- 13)  $n_m = 9$ , w = 24,  $L_{min} = 150$ ,  $n_b = 2$ ,  $n_d = 31$ ,
- 14)  $n_m = 9$ , w = 24,  $L_{min} = 150$ ,  $n_b = 2$ ,  $n_d = 31$ ,
- 15)  $n_m = 9$ , w = 24,  $L_{min} = 150$ ,  $n_b = 2$ ,  $n_d = 31$ ,
- 16)  $n_m = 9$ , w = 24,  $L_{min} = 150$ ,  $n_b = 2$ ,  $n_d = 31$ ,
- 17)  $n_m = 9$ , w = 24,  $L_{min} = 150$ ,  $n_b = 2$ ,  $n_d = 31$ ,
- 18)  $n_m = 9$ , w = 24,  $L_{min} = 150$ ,  $n_b = 2$ ,  $n_d = 31$ ,
- 19)  $n_m = 9$ , w = 24,  $L_{min} = 150$ ,  $n_b = 2$ ,  $n_d = 31$ ,
- 20)  $n_m = 9$ , w = 25,  $L_{min} = 154$ ,  $n_b = 2$ ,  $n_d = 17$ ,
- 21)  $n_m = 9$ , w = 25,  $L_{min} = 154$ ,  $n_b = 2$ ,  $n_d = 17$ ,
- 22)  $n_m = 9$ , w = 25,  $L_{min} = 154$ ,  $n_b = 2$ ,  $n_d = 17$ ,
- 23)  $n_m = 9$ , w = 25,  $L_{min} = 154$ ,  $n_b = 2$ ,  $n_d = 17$ ,

- 24)  $n_m = 9$ , w = 25,  $L_{min} = 154$ ,  $n_b = 2$ ,  $n_d = 17$ ,
- 25)  $n_m = 9$ , w = 25,  $L_{min} = 154$ ,  $n_b = 2$ ,  $n_d = 17$ ,
- 26)  $n_m = 9$ , w = 26,  $L_{min} = 156$ ,  $n_b = 2$ ,  $n_d = 19$ ,
- 27)  $n_m = 9$ , w = 27,  $L_{min} = 162$ ,  $n_b = 3$ ,  $n_d = 3$ ,
- 28)  $n_m = 9$ , w = 27,  $L_{min} = 162$ ,  $n_b = 3$ ,  $n_d = 3$ ,
  - b = 11100000001010000000110000000010000000
- 29)  $n_m = 9$ , w = 28,  $L_{min} = 170$ ,  $n_b = 3$ ,  $n_d = 11$ ,
  - b = 10000000111000000001000000011000000010,
- 30)  $n_m = 9$ , w = 28,  $L_{min} = 170$ ,  $n_b = 3$ ,  $n_d = 11$ ,
- 31)  $n_m = 9$ , w = 28,  $L_{min} = 170$ ,  $n_h = 3$ ,  $n_d = 11$ ,
  - b = 11100000001010000000110000000010000000
- 32)  $n_m = 9$ , w = 28,  $L_{min} = 170$ ,  $n_b = 3$ ,  $n_d = 11$ ,
  - b = 10000010101000000001000000101000001000
- 33)  $n_m = 9$ , w = 28,  $L_{min} = 170$ ,  $n_b = 3$ ,  $n_d = 11$ ,
- 34)  $n_m = 9$ , w = 28,  $L_{min} = 170$ ,  $n_b = 3$ ,  $n_d = 11$ ,
  - b = 100010001010000000001000100000100000010
- 35)  $n_m = 9$ , w = 28,  $L_{min} = 170$ ,  $n_b = 3$ ,  $n_d = 11$ ,
- 36)  $n_m = 9$ , w = 28,  $L_{min} = 170$ ,  $n_b = 3$ ,  $n_d = 11$ ,
  - b = 10101000001000100000010100000000100000

- 37)  $n_m = 9$ , w = 28,  $L_{min} = 170$ ,  $n_b = 3$ ,  $n_d = 11$ ,
- 38)  $n_m = 9$ , w = 28,  $L_{min} = 170$ ,  $n_b = 3$ ,  $n_d = 11$ ,
- 39)  $n_m = 9$ , w = 28,  $L_{min} = 170$ ,  $n_b = 3$ ,  $n_d = 11$ ,
  - b = 100100100010000010000010010000000001000
- 40)  $n_m = 9$ , w = 28,  $L_{min} = 170$ ,  $n_b = 3$ ,  $n_d = 11$ ,
  - b = 10100010001000000001000010001010000000
- 41)  $n_m = 9$ , w = 29,  $L_{min} = 172$ ,  $n_b = 3$ ,  $n_d = 13$ ,
  - b = 10100000001110000000010000000110000000
- 42)  $n_m = 9$ , w = 29,  $L_{min} = 172$ ,  $n_b = 3$ ,  $n_d = 13$ ,
  - b = 11100000001010000000110000000010000000
- 43)  $n_m = 9$ , w = 29,  $L_{min} = 172$ ,  $n_b = 3$ ,  $n_d = 13$ ,
- 44)  $n_m = 9$ , w = 30,  $L_{min} = 180$ ,  $n_b = 3$ ,  $n_d = 21$ ,
- 45)  $n_m = 9$ , w = 30,  $L_{min} = 180$ ,  $n_b = 3$ ,  $n_d = 21$ ,
  - b = 10000000101000000011100000000100000001
- 46)  $n_m = 9$ , w = 30,  $L_{min} = 180$ ,  $n_b = 3$ ,  $n_d = 21$ ,
- 47)  $n_m = 9$ , w = 30,  $L_{min} = 180$ ,  $n_b = 3$ ,  $n_d = 21$ ,
- 48)  $n_m = 9$ , w = 30,  $L_{min} = 180$ ,  $n_b = 3$ ,  $n_d = 21$ ,
  - b = 10000010001000010101000000001000000010
- 49)  $n_m = 9$ , w = 30,  $L_{min} = 180$ ,  $n_b = 3$ ,  $n_d = 21$ ,

- 50)  $n_m = 9$ , w = 30,  $L_{min} = 180$ ,  $n_b = 3$ ,  $n_d = 21$ ,
- 51)  $n_m = 9$ , w = 30,  $L_{min} = 180$ ,  $n_b = 3$ ,  $n_d = 21$ ,
- 52)  $n_m = 9$ , w = 30,  $L_{min} = 180$ ,  $n_b = 3$ ,  $n_d = 21$ ,
  - b = 100010000010001001001000000001000000100
- 53)  $n_m = 9$ , w = 30,  $L_{min} = 180$ ,  $n_b = 3$ ,  $n_d = 21$ ,
- 54)  $n_m = 9$ , w = 30,  $L_{min} = 180$ ,  $n_b = 3$ ,  $n_d = 21$ ,
- 55)  $n_m = 9$ , w = 30,  $L_{min} = 180$ ,  $n_b = 3$ ,  $n_d = 21$ ,
  - b = 10100000010100010001000000001000001000
- 56)  $n_m = 9$ , w = 31,  $L_{min} = 181$ ,  $n_b = 3$ ,  $n_d = 22$ ,
- 57)  $n_m = 9$ , w = 32,  $L_{min} = 190$ ,  $n_b = 3$ ,  $n_d = 31$ ,
- 58)  $n_m = 9$ , w = 32,  $L_{min} = 190$ ,  $n_b = 3$ ,  $n_d = 31$ ,
- 59)  $n_m = 9$ , w = 32,  $L_{min} = 190$ ,  $n_b = 3$ ,  $n_d = 31$ ,
- 60)  $n_m = 9$ , w = 32,  $L_{min} = 190$ ,  $n_b = 3$ ,  $n_d = 31$ ,
- 61)  $n_m = 9$ , w = 32,  $L_{min} = 190$ ,  $n_b = 3$ ,  $n_d = 31$ ,
- 62)  $n_m = 9$ , w = 32,  $L_{min} = 190$ ,  $n_b = 3$ ,  $n_d = 31$ ,

- 64)  $n_m = 9$ , w = 32,  $L_{min} = 190$ ,  $n_b = 3$ ,  $n_d = 31$ ,

65)  $n_m = 9$ , w = 33,  $L_{min} = 195$ ,  $n_b = 3$ ,  $n_d = 16$ ,

66)  $n_m = 9$ , w = 33,  $L_{min} = 195$ ,  $n_b = 3$ ,  $n_d = 16$ ,

67)  $n_m = 9$ , w = 33,  $L_{min} = 195$ ,  $n_b = 3$ ,  $n_d = 16$ ,

68)  $n_m = 9$ , w = 33,  $L_{min} = 195$ ,  $n_b = 3$ ,  $n_d = 16$ ,

69)  $n_m = 9$ , w = 34,  $L_{min} = 200$ ,  $n_b = 3$ ,  $n_d = 21$ ,

70)  $n_m = 9$ , w = 34,  $L_{min} = 200$ ,  $n_b = 3$ ,  $n_d = 21$ ,

71)  $n_m = 9$ , w = 34,  $L_{min} = 200$ ,  $n_b = 3$ ,  $n_d = 21$ ,

72)  $n_m = 9$ , w = 34,  $L_{min} = 200$ ,  $n_b = 3$ ,  $n_d = 21$ ,

73)  $n_m = 9$ , w = 35,  $L_{min} = 202$ ,  $n_b = 4$ ,  $n_d = 3$ ,

74)  $n_m = 9$ , w = 35,  $L_{min} = 202$ ,  $n_b = 4$ ,  $n_d = 3$ ,

b = 1110000001010000000110000000010000000

75)  $n_m = 9$ , w = 36,  $L_{min} = 210$ ,  $n_b = 4$ ,  $n_d = 11$ ,

b = 10000000111000000001000000011000000010

- 77)  $n_m = 9$ , w = 36,  $L_{min} = 210$ ,  $n_b = 4$ ,  $n_d = 11$ ,

b = 11100000001010000000110000000010000000,

78)  $n_m = 9$ , w = 36,  $L_{min} = 210$ ,  $n_b = 4$ ,  $n_d = 11$ ,

b = 100000101010000000001000000101000001000

79)  $n_m = 9$ , w = 36,  $L_{min} = 210$ ,  $n_b = 4$ ,  $n_d = 11$ ,

80)  $n_m = 9$ , w = 36,  $L_{min} = 210$ ,  $n_b = 4$ ,  $n_d = 11$ ,

b = 100010001010000000001000100000100000010

81)  $n_m = 9$ , w = 36,  $L_{min} = 210$ ,  $n_b = 4$ ,  $n_d = 11$ ,

82)  $n_m = 9$ , w = 36,  $L_{min} = 210$ ,  $n_b = 4$ ,  $n_d = 11$ ,

b = 10101000001000100000010100000000100000

83)  $n_m = 9$ , w = 36,  $L_{min} = 210$ ,  $n_h = 4$ ,  $n_d = 11$ ,

84)  $n_m = 9$ , w = 36,  $L_{min} = 210$ ,  $n_b = 4$ ,  $n_d = 11$ ,

85)  $n_m = 9$ , w = 36,  $L_{min} = 210$ ,  $n_b = 4$ ,  $n_d = 11$ ,

b = 100100100010000010000010010000000001000,

86)  $n_m = 9$ , w = 36,  $L_{min} = 210$ ,  $n_b = 4$ ,  $n_d = 11$ ,

b = 10100010001000000001000010001010000000

87)  $n_m = 9$ , w = 37,  $L_{min} = 212$ ,  $n_b = 4$ ,  $n_d = 13$ ,

b = 1010000001110000000010000000110000000

88)  $n_m = 9$ , w = 37,  $L_{min} = 212$ ,  $n_b = 4$ ,  $n_d = 13$ ,

b = 11100000001010000000110000000010000000

89)  $n_m = 9$ , w = 37,  $L_{min} = 212$ ,  $n_b = 4$ ,  $n_d = 13$ ,

- 90)  $n_m = 9$ , w = 38,  $L_{min} = 220$ ,  $n_b = 4$ ,  $n_d = 21$ ,

91)  $n_m = 9$ , w = 38,  $L_{min} = 220$ ,  $n_b = 4$ ,  $n_d = 21$ ,

b = 10000000101000000011100000000100000001

92)  $n_m = 9$ , w = 38,  $L_{min} = 220$ ,  $n_b = 4$ ,  $n_d = 21$ ,

93)  $n_m = 9$ , w = 38,  $L_{min} = 220$ ,  $n_b = 4$ ,  $n_d = 21$ ,

94)  $n_m = 9$ , w = 38,  $L_{min} = 220$ ,  $n_b = 4$ ,  $n_d = 21$ ,

b = 1000001000100001010100000000100000010

95)  $n_m = 9$ , w = 38,  $L_{min} = 220$ ,  $n_b = 4$ ,  $n_d = 21$ ,

96)  $n_m = 9$ , w = 38,  $L_{min} = 220$ ,  $n_b = 4$ ,  $n_d = 21$ ,

97)  $n_m = 9$ , w = 38,  $L_{min} = 220$ ,  $n_b = 4$ ,  $n_d = 21$ ,

b = 1001000100001001001001000000001000000

98)  $n_m = 9$ , w = 38,  $L_{min} = 220$ ,  $n_b = 4$ ,  $n_d = 21$ ,

b = 100010000010001001001000000001000000100.

99)  $n_m = 9$ , w = 38,  $L_{min} = 220$ ,  $n_b = 4$ ,  $n_d = 21$ ,

100)  $n_m = 9$ , w = 38,  $L_{min} = 220$ ,  $n_b = 4$ ,  $n_d = 21$ ,

b = 100010100000001010001000100000000100000

101)  $n_m = 9$ , w = 38,  $L_{min} = 220$ ,  $n_b = 4$ ,  $n_d = 21$ ,

b = 10100000010100010001000000001000001000

- 102)  $n_m = 9$ , w = 39,  $L_{min} = 221$ ,  $n_b = 4$ ,  $n_d = 22$ ,
- 103)  $n_m = 9$ , w = 40,  $L_{min} = 230$ ,  $n_b = 4$ ,  $n_d = 31$ ,
- 104)  $n_m = 9$ , w = 40,  $L_{min} = 230$ ,  $n_h = 4$ ,  $n_d = 31$ ,
- 105)  $n_m = 9$ , w = 40,  $L_{min} = 230$ ,  $n_b = 4$ ,  $n_d = 31$ ,
- 106)  $n_m = 9$ , w = 40,  $L_{min} = 230$ ,  $n_b = 4$ ,  $n_d = 31$ ,
- 107)  $n_m = 9$ , w = 40,  $L_{min} = 230$ ,  $n_b = 4$ ,  $n_d = 31$ ,
- 108)  $n_m = 9$ , w = 40,  $L_{min} = 230$ ,  $n_b = 4$ ,  $n_d = 31$ ,
- 109)  $n_m = 9$ , w = 40,  $L_{min} = 230$ ,  $n_b = 4$ ,  $n_d = 31$ ,
- 110)  $n_m = 9$ , w = 40,  $L_{min} = 230$ ,  $n_b = 4$ ,  $n_d = 31$ ,
- 111)  $n_m = 9$ , w = 41,  $L_{min} = 235$ ,  $n_b = 4$ ,  $n_d = 11$ ,
- 112)  $n_m = 9$ , w = 41,  $L_{min} = 235$ ,  $n_b = 4$ ,  $n_d = 11$ ,
- 113)  $n_m = 9$ , w = 42,  $L_{min} = 240$ ,  $n_b = 4$ ,  $n_d = 16$ ,
- 114)  $n_m = 9$ , w = 42,  $L_{min} = 240$ ,  $n_b = 4$ ,  $n_d = 16$ ,

115)  $n_m = 9$ , w = 42,  $L_{min} = 240$ ,  $n_b = 4$ ,  $n_d = 16$ ,

116)  $n_m = 9$ , w = 42,  $L_{min} = 240$ ,  $n_b = 4$ ,  $n_d = 16$ ,

117)  $n_m = 9$ , w = 43,  $L_{min} = 242$ ,  $n_b = 5$ ,  $n_d = 3$ ,

118)  $n_m = 9$ , w = 43,  $L_{min} = 242$ ,  $n_b = 5$ ,  $n_d = 3$ ,

b = 11100000001010000000110000000010000000

119)  $n_m = 9$ , w = 44,  $L_{min} = 248$ ,  $n_b = 4$ ,  $n_d = 19$ ,

120)  $n_m = 9$ , w = 45,  $L_{min} = 252$ ,  $n_b = 5$ ,  $n_d = 13$ ,

b = 10100000001110000000010000000110000000

121)  $n_m = 9$ , w = 45,  $L_{min} = 252$ ,  $n_b = 5$ ,  $n_d = 13$ ,

b = 11100000001010000000110000000010000000,

122)  $n_m = 9$ , w = 45,  $L_{min} = 252$ ,  $n_b = 5$ ,  $n_d = 13$ ,

123)  $n_m = 9$ , w = 46,  $L_{min} = 260$ ,  $n_b = 5$ ,  $n_d = 21$ ,

124)  $n_m = 9$ , w = 46,  $L_{min} = 260$ ,  $n_b = 5$ ,  $n_d = 21$ ,

b = 1000000101000000011100000000100000001

125)  $n_m = 9$ , w = 46,  $L_{min} = 260$ ,  $n_b = 5$ ,  $n_d = 21$ ,

126)  $n_m = 9$ , w = 46,  $L_{min} = 260$ ,  $n_b = 5$ ,  $n_d = 21$ ,

127)  $n_m = 9$ , w = 46,  $L_{min} = 260$ ,  $n_b = 5$ ,  $n_d = 21$ ,

b = 10000010001000010101000000001000000010,

128)  $n_m = 9$ , w = 46,  $L_{min} = 260$ ,  $n_b = 5$ ,  $n_d = 21$ ,

129)  $n_m = 9$ , w = 46,  $L_{min} = 260$ ,  $n_b = 5$ ,  $n_d = 21$ ,

130)  $n_m = 9$ , w = 46,  $L_{min} = 260$ ,  $n_b = 5$ ,  $n_d = 21$ ,

b = 10010001000010010010010000000001000000,

131)  $n_m = 9$ , w = 46,  $L_{min} = 260$ ,  $n_b = 5$ ,  $n_d = 21$ ,

b = 100010000010001001001000000001000000100,

132)  $n_m = 9$ , w = 46,  $L_{min} = 260$ ,  $n_b = 5$ ,  $n_d = 21$ ,

133)  $n_m = 9$ , w = 46,  $L_{min} = 260$ ,  $n_b = 5$ ,  $n_d = 21$ ,

134)  $n_m = 9$ , w = 46,  $L_{min} = 260$ ,  $n_b = 5$ ,  $n_d = 21$ ,

135)  $n_m = 9$ , w = 47,  $L_{min} = 261$ ,  $n_b = 5$ ,  $n_d = 22$ ,

- 136)  $n_m = 9$ , w = 48,  $L_{min} = 270$ ,  $n_b = 5$ ,  $n_d = 31$ ,
- 137)  $n_m = 9$ , w = 48,  $L_{min} = 270$ ,  $n_b = 5$ ,  $n_d = 31$ ,
- 138)  $n_m = 9$ , w = 48,  $L_{min} = 270$ ,  $n_b = 5$ ,  $n_d = 31$ ,
- 139)  $n_m = 9$ , w = 48,  $L_{min} = 270$ ,  $n_b = 5$ ,  $n_d = 31$ ,
- 140)  $n_m = 9$ , w = 48,  $L_{min} = 270$ ,  $n_b = 5$ ,  $n_d = 31$ ,
- 141)  $n_m = 9$ , w = 48,  $L_{min} = 270$ ,  $n_b = 5$ ,  $n_d = 31$ ,
- 142)  $n_m = 9$ , w = 48,  $L_{min} = 270$ ,  $n_b = 5$ ,  $n_d = 31$ ,
- 143)  $n_m = 9$ , w = 48,  $L_{min} = 270$ ,  $n_b = 5$ ,  $n_d = 31$ ,
- 144)  $n_m = 9$ , w = 49,  $L_{min} = 276$ ,  $n_b = 5$ ,  $n_d = 7$ ,
- 145)  $n_m = 9$ , w = 49,  $L_{min} = 276$ ,  $n_b = 5$ ,  $n_d = 7$ ,

146)  $n_m = 9$ , w = 49,  $L_{min} = 276$ ,  $n_b = 5$ ,  $n_d = 7$ ,

147)  $n_m = 9$ , w = 50,  $L_{min} = 280$ ,  $n_b = 5$ ,  $n_d = 11$ ,

148)  $n_m = 9$ , w = 50,  $L_{min} = 280$ ,  $n_b = 5$ ,  $n_d = 11$ ,

149)  $n_m = 9$ , w = 51,  $L_{min} = 282$ ,  $n_b = 6$ ,  $n_d = 3$ ,

b = 11100000000100000001100000001010000000,

150)  $n_m = 9$ , w = 51,  $L_{min} = 282$ ,  $n_b = 6$ ,  $n_d = 3$ ,

b = 1110000001010000000110000000010000000,

151)  $n_m = 9$ , w = 52,  $L_{min} = 290$ ,  $n_b = 6$ ,  $n_d = 11$ ,

b = 10000000111000000001000000011000000010,

152)  $n_m = 9$ , w = 52,  $L_{min} = 290$ ,  $n_b = 6$ ,  $n_d = 11$ ,

153)  $n_m = 9$ , w = 52,  $L_{min} = 290$ ,  $n_b = 6$ ,  $n_d = 11$ ,

b = 11100000001010000000110000000010000000

154)  $n_m = 9$ , w = 52,  $L_{min} = 290$ ,  $n_b = 6$ ,  $n_d = 11$ ,

b = 10000010101000000001000000101000001000

155)  $n_m = 9$ , w = 52,  $L_{min} = 290$ ,  $n_b = 6$ ,  $n_d = 11$ ,

156)  $n_m = 9$ , w = 52,  $L_{min} = 290$ ,  $n_b = 6$ ,  $n_d = 11$ ,

b = 10001000101000000001000100000100000010,

- 157)  $n_m = 9$ , w = 52,  $L_{min} = 290$ ,  $n_b = 6$ ,  $n_d = 11$ ,
- 158)  $n_m = 9$ , w = 52,  $L_{min} = 290$ ,  $n_b = 6$ ,  $n_d = 11$ ,
  - b = 10101000001000100000010100000000100000
- 159)  $n_m = 9$ , w = 52,  $L_{min} = 290$ ,  $n_b = 6$ ,  $n_d = 11$ ,
- 160)  $n_m = 9$ , w = 52,  $L_{min} = 290$ ,  $n_b = 6$ ,  $n_d = 11$ ,
- 161)  $n_m = 9$ , w = 52,  $L_{min} = 290$ ,  $n_b = 6$ ,  $n_d = 11$ ,
  - b = 100100100010000010000010010000000001000.
- 162)  $n_m = 9$ , w = 52,  $L_{min} = 290$ ,  $n_b = 6$ ,  $n_d = 11$ ,
  - b = 10100010001000000001000010001010000000
- 163)  $n_m = 9$ , w = 53,  $L_{min} = 292$ ,  $n_b = 6$ ,  $n_d = 13$ ,
  - b = 1010000001110000000010000000110000000,
- 164)  $n_m = 9$ , w = 53,  $L_{min} = 292$ ,  $n_b = 6$ ,  $n_d = 13$ ,
  - b = 11100000001010000000110000000010000000
- 165)  $n_m = 9$ , w = 53,  $L_{min} = 292$ ,  $n_b = 6$ ,  $n_d = 13$ ,
- 166)  $n_m = 9$ , w = 54,  $L_{min} = 300$ ,  $n_b = 6$ ,  $n_d = 21$ ,

b = 10000000101000000011100000000100000001,

- 168)  $n_m = 9$ , w = 54,  $L_{min} = 300$ ,  $n_b = 6$ ,  $n_d = 21$ ,

169)  $n_m = 9$ , w = 54,  $L_{min} = 300$ ,  $n_b = 6$ ,  $n_d = 21$ ,

170)  $n_m = 9$ , w = 54,  $L_{min} = 300$ ,  $n_b = 6$ ,  $n_d = 21$ ,

b = 10000010001000010101000000001000000010,

171)  $n_m = 9$ , w = 54,  $L_{min} = 300$ ,  $n_b = 6$ ,  $n_d = 21$ ,

172)  $n_m = 9$ , w = 54,  $L_{min} = 300$ ,  $n_b = 6$ ,  $n_d = 21$ ,

173)  $n_m = 9$ , w = 54,  $L_{min} = 300$ ,  $n_b = 6$ ,  $n_d = 21$ ,

174)  $n_m = 9$ , w = 54,  $L_{min} = 300$ ,  $n_b = 6$ ,  $n_d = 21$ ,

b = 100010000010001001001000000001000000100,

175)  $n_m = 9$ , w = 54,  $L_{min} = 300$ ,  $n_b = 6$ ,  $n_d = 21$ ,

176)  $n_m = 9$ , w = 54,  $L_{min} = 300$ ,  $n_b = 6$ ,  $n_d = 21$ ,

177)  $n_m = 9$ , w = 54,  $L_{min} = 300$ ,  $n_b = 6$ ,  $n_d = 21$ ,

b = 10100000010100010001000000001000001000

- 178)  $n_m = 9$ , w = 55,  $L_{min} = 301$ ,  $n_b = 6$ ,  $n_d = 22$ ,
- 179)  $n_m = 9$ , w = 56,  $L_{min} = 310$ ,  $n_b = 6$ ,  $n_d = 31$ ,
- 180)  $n_m = 9$ , w = 56,  $L_{min} = 310$ ,  $n_b = 6$ ,  $n_d = 31$ ,
- 181)  $n_m = 9$ , w = 56,  $L_{min} = 310$ ,  $n_b = 6$ ,  $n_d = 31$ ,
- 182)  $n_m = 9$ , w = 56,  $L_{min} = 310$ ,  $n_b = 6$ ,  $n_d = 31$ ,
- 183)  $n_m = 9$ , w = 56,  $L_{min} = 310$ ,  $n_b = 6$ ,  $n_d = 31$ ,
- 184)  $n_m = 9$ , w = 56,  $L_{min} = 310$ ,  $n_b = 6$ ,  $n_d = 31$ ,
- 185)  $n_m = 9$ , w = 56,  $L_{min} = 310$ ,  $n_b = 6$ ,  $n_d = 31$ ,
- 186)  $n_m = 9$ , w = 56,  $L_{min} = 310$ ,  $n_b = 6$ ,  $n_d = 31$ ,
- 187)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

188)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

189)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

190)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

191)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

192)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

193)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

194)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

195)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

196)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

197)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

198)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

199)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

200)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

201)  $n_m = 9$ , w = 57,  $L_{min} = 316$ ,  $n_b = 5$ ,  $n_d = 17$ ,

202)  $n_m = 9$ , w = 58,  $L_{min} = 320$ ,  $n_b = 5$ ,  $n_d = 21$ ,

203)  $n_m = 9$ , w = 58,  $L_{min} = 320$ ,  $n_b = 5$ ,  $n_d = 21$ ,

204)  $n_m = 9$ , w = 58,  $L_{min} = 320$ ,  $n_b = 5$ ,  $n_d = 21$ ,

205)  $n_m = 9$ , w = 59,  $L_{min} = 322$ ,  $n_b = 7$ ,  $n_d = 3$ ,

b = 1110000000010000000110000001010000000,

206)  $n_m = 9$ , w = 59,  $L_{min} = 322$ ,  $n_b = 7$ ,  $n_d = 3$ ,

b = 11100000001010000000110000000010000000

207)  $n_m = 9$ , w = 60,  $L_{min} = 330$ ,  $n_b = 7$ ,  $n_d = 11$ ,

b = 10000000111000000001000000011000000010

208)  $n_m = 9$ , w = 60,  $L_{min} = 330$ ,  $n_b = 7$ ,  $n_d = 11$ ,

- 219)  $n_m = 9$ , w = 61,  $L_{min} = 332$ ,  $n_b = 7$ ,  $n_d = 13$ ,

b = 1010000001110000000010000000110000000

- 220)  $n_m = 9$ , w = 61,  $L_{min} = 332$ ,  $n_b = 7$ ,  $n_d = 13$ ,

b = 11100000001010000000110000000010000000,

- 221)  $n_m = 9$ , w = 61,  $L_{min} = 332$ ,  $n_b = 7$ ,  $n_d = 13$ ,

- 222)  $n_m = 9$ , w = 62,  $L_{min} = 340$ ,  $n_b = 7$ ,  $n_d = 21$ ,

- 223)  $n_m = 9$ , w = 62,  $L_{min} = 340$ ,  $n_b = 7$ ,  $n_d = 21$ ,

b = 100000010100000001110000000100000001

- 224)  $n_m = 9$ , w = 62,  $L_{min} = 340$ ,  $n_b = 7$ ,  $n_d = 21$ ,

- 225)  $n_m = 9$ , w = 62,  $L_{min} = 340$ ,  $n_b = 7$ ,  $n_d = 21$ ,

- 226)  $n_m = 9$ , w = 62,  $L_{min} = 340$ ,  $n_b = 7$ ,  $n_d = 21$ ,

b = 1000001000100001010100000000100000010

- 228)  $n_m = 9$ , w = 62,  $L_{min} = 340$ ,  $n_b = 7$ ,  $n_d = 21$ ,

- 229)  $n_m = 9$ , w = 62,  $L_{min} = 340$ ,  $n_b = 7$ ,  $n_d = 21$ ,

- 230)  $n_m = 9$ , w = 62,  $L_{min} = 340$ ,  $n_b = 7$ ,  $n_d = 21$ ,

b = 100010000010001001001000000001000000100,

- 231)  $n_m = 9$ , w = 62,  $L_{min} = 340$ ,  $n_b = 7$ ,  $n_d = 21$ ,

- 232)  $n_m = 9$ , w = 62,  $L_{min} = 340$ ,  $n_b = 7$ ,  $n_d = 21$ ,

- 233)  $n_m = 9$ , w = 62,  $L_{min} = 340$ ,  $n_b = 7$ ,  $n_d = 21$ ,

b = 10100000010100010001000000001000001000,

- 234)  $n_m = 9$ , w = 63,  $L_{min} = 341$ ,  $n_b = 7$ ,  $n_d = 22$ ,

- 235)  $n_m = 9$ , w = 64,  $L_{min} = 350$ ,  $n_b = 7$ ,  $n_d = 31$ ,

236)  $n_m = 9$ , w = 64,  $L_{min} = 350$ ,  $n_b = 7$ ,  $n_d = 31$ ,

- 237)  $n_m = 9$ , w = 64,  $L_{min} = 350$ ,  $n_b = 7$ ,  $n_d = 31$ ,

- 238)  $n_m = 9$ , w = 64,  $L_{min} = 350$ ,  $n_b = 7$ ,  $n_d = 31$ ,

- 239)  $n_m = 9$ , w = 64,  $L_{min} = 350$ ,  $n_b = 7$ ,  $n_d = 31$ ,

- 240)  $n_m = 9$ , w = 64,  $L_{min} = 350$ ,  $n_b = 7$ ,  $n_d = 31$ ,

- 241)  $n_m = 9$ , w = 64,  $L_{min} = 350$ ,  $n_b = 7$ ,  $n_d = 31$ ,

- 242)  $n_m = 9$ , w = 64,  $L_{min} = 350$ ,  $n_b = 7$ ,  $n_d = 31$ ,

- 243)  $n_m = 9$ , w = 65,  $L_{min} = 358$ ,  $n_b = 6$ ,  $n_d = 9$ ,

- 244)  $n_m = 9$ , w = 65,  $L_{min} = 358$ ,  $n_b = 6$ ,  $n_d = 9$ ,

245)  $n_m = 9$ , w = 65,  $L_{min} = 358$ ,  $n_b = 6$ ,  $n_d = 9$ ,

246)  $n_m = 9$ , w = 65,  $L_{min} = 358$ ,  $n_b = 6$ ,  $n_d = 9$ ,

247)  $n_m = 9$ , w = 65,  $L_{min} = 358$ ,  $n_b = 6$ ,  $n_d = 9$ ,

248)  $n_m = 9$ , w = 65,  $L_{min} = 358$ ,  $n_b = 6$ ,  $n_d = 9$ ,

249)  $n_m = 9$ , w = 65,  $L_{min} = 358$ ,  $n_b = 6$ ,  $n_d = 9$ ,

250)  $n_m = 9$ , w = 65,  $L_{min} = 358$ ,  $n_b = 6$ ,  $n_d = 9$ ,

251)  $n_m = 9$ , w = 66,  $L_{min} = 360$ ,  $n_b = 6$ ,  $n_d = 11$ ,

252)  $n_m = 9$ , w = 67,  $L_{min} = 362$ ,  $n_b = 8$ ,  $n_d = 3$ ,

253)  $n_m = 9$ , w = 67,  $L_{min} = 362$ ,  $n_b = 8$ ,  $n_d = 3$ ,

b = 1110000001010000000110000000010000000

254)  $n_m = 9$ , w = 68,  $L_{min} = 370$ ,  $n_b = 8$ ,  $n_d = 11$ ,

b = 10000000111000000001000000011000000010

255)  $n_m = 9$ , w = 68,  $L_{min} = 370$ ,  $n_b = 8$ ,  $n_d = 11$ ,

256)  $n_m = 9$ , w = 68,  $L_{min} = 370$ ,  $n_b = 8$ ,  $n_d = 11$ ,

b = 11100000001010000000110000000010000000

257)  $n_m = 9$ , w = 68,  $L_{min} = 370$ ,  $n_b = 8$ ,  $n_d = 11$ ,

b = 100000101010000000001000000101000001000

258)  $n_m = 9$ , w = 68,  $L_{min} = 370$ ,  $n_b = 8$ ,  $n_d = 11$ ,

259)  $n_m = 9$ , w = 68,  $L_{min} = 370$ ,  $n_b = 8$ ,  $n_d = 11$ ,

b = 10001000101000000001000100000100000010

260)  $n_m = 9$ , w = 68,  $L_{min} = 370$ ,  $n_b = 8$ ,  $n_d = 11$ ,

261)  $n_m = 9$ , w = 68,  $L_{min} = 370$ ,  $n_b = 8$ ,  $n_d = 11$ ,

b = 10101000001000100000010100000000100000,

262)  $n_m = 9$ , w = 68,  $L_{min} = 370$ ,  $n_b = 8$ ,  $n_d = 11$ ,

263)  $n_m = 9$ , w = 68,  $L_{min} = 370$ ,  $n_b = 8$ ,  $n_d = 11$ ,

- 264)  $n_m = 9$ , w = 68,  $L_{min} = 370$ ,  $n_b = 8$ ,  $n_d = 11$ ,

b = 100100100010000010000010010000000001000

- 265)  $n_m = 9$ , w = 68,  $L_{min} = 370$ ,  $n_b = 8$ ,  $n_d = 11$ ,

b = 10100010001000000001000010001010000000

- 266)  $n_m = 9$ , w = 69,  $L_{min} = 372$ ,  $n_b = 8$ ,  $n_d = 13$ ,

b = 1010000001110000000010000000110000000

- 267)  $n_m = 9$ , w = 69,  $L_{min} = 372$ ,  $n_b = 8$ ,  $n_d = 13$ ,

b = 11100000001010000000110000000010000000

- 268)  $n_m = 9$ , w = 69,  $L_{min} = 372$ ,  $n_b = 8$ ,  $n_d = 13$ ,

- 269)  $n_m = 9$ , w = 70,  $L_{min} = 380$ ,  $n_b = 8$ ,  $n_d = 21$ ,

- 270)  $n_m = 9$ , w = 70,  $L_{min} = 380$ ,  $n_b = 8$ ,  $n_d = 21$ ,

b = 10000000101000000011100000000100000001,

- 271)  $n_m = 9$ , w = 70,  $L_{min} = 380$ ,  $n_b = 8$ ,  $n_d = 21$ ,

- 273)  $n_m = 9$ , w = 70,  $L_{min} = 380$ ,  $n_b = 8$ ,  $n_d = 21$ ,

b = 100000100010000010101000000001000000010

274)  $n_m = 9$ , w = 70,  $L_{min} = 380$ ,  $n_b = 8$ ,  $n_d = 21$ ,

275)  $n_m = 9$ , w = 70,  $L_{min} = 380$ ,  $n_b = 8$ ,  $n_d = 21$ ,

276)  $n_m = 9$ , w = 70,  $L_{min} = 380$ ,  $n_b = 8$ ,  $n_d = 21$ ,

277)  $n_m = 9$ , w = 70,  $L_{min} = 380$ ,  $n_b = 8$ ,  $n_d = 21$ ,

b = 100010000010001001001000000001000000100

278)  $n_m = 9$ , w = 70,  $L_{min} = 380$ ,  $n_b = 8$ ,  $n_d = 21$ ,

279)  $n_m = 9$ , w = 70,  $L_{min} = 380$ ,  $n_b = 8$ ,  $n_d = 21$ ,

b = 100010100000001010001000100000000100000,

280)  $n_m = 9$ , w = 70,  $L_{min} = 380$ ,  $n_b = 8$ ,  $n_d = 21$ ,

281)  $n_m = 9$ , w = 71,  $L_{min} = 381$ ,  $n_b = 8$ ,  $n_d = 22$ ,

282)  $n_m = 9$ , w = 72,  $L_{min} = 390$ ,  $n_b = 8$ ,  $n_d = 31$ ,

283)  $n_m = 9$ , w = 72,  $L_{min} = 390$ ,  $n_b = 8$ ,  $n_d = 31$ ,

284)  $n_m = 9$ , w = 72,  $L_{min} = 390$ ,  $n_b = 8$ ,  $n_d = 31$ ,

285)  $n_m = 9$ , w = 72,  $L_{min} = 390$ ,  $n_b = 8$ ,  $n_d = 31$ ,

286)  $n_m = 9$ , w = 72,  $L_{min} = 390$ ,  $n_b = 8$ ,  $n_d = 31$ ,

287)  $n_m = 9$ , w = 72,  $L_{min} = 390$ ,  $n_b = 8$ ,  $n_d = 31$ ,

288)  $n_m = 9$ , w = 72,  $L_{min} = 390$ ,  $n_b = 8$ ,  $n_d = 31$ ,

289)  $n_m = 9$ , w = 72,  $L_{min} = 390$ ,  $n_b = 8$ ,  $n_d = 31$ ,

- 291)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

- 292)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 10000000101000000011100000000100000001

- 293)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 1010000001110000000010000000110000000

- 294)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 10000000111000000001000000011000000010,

- 295)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 1110000000010000000110000001010000000

- 296)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 110000000010000000110000001010000001,

- 297)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 10000000010000000110000000101000000011,

- 298)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

- 300)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 110000000101000000001100000000100000001

301)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100000010100000001100000000100000011

302)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 101000000011000000010000001110000000

303)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100000000110000000010000000111000000010,

304)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

305)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 10000000010000000111000000010100000001,

306)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

307)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100000100010000010101000000001000000010

- 309)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100010000010101000000001000000010100000

310)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 10000010101000000001000000101000001000

311)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

312)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 1010000000010000001010000010001000010,

313)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 1000000001000000101000001000100001010

314)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

315)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 1000001000000010100010001010000000001000

316)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

- 318)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100010001010000000001000100000100000010

- 319)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_h = 9$ ,  $n_d = 1$ ,

b = 100010100000000010001000001000000101000

- 320)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

- 321)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

- 322)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

- 323)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 10101000001000100000010100000000100000,

- 324)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 101000001000100000001010000000010000010,

- 325)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100000100010000000101000000001000001010

b = 10001000000101000000001000001010100000,

327)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100000001010000000010000010101000001000

328)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_h = 9$ ,  $n_d = 1$ ,

329)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100000000100000101010000010001000000010

330)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

331)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 10010001000001001001001000000001000000

332)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100010000010001001001000000001000000100,

333)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100000100010010010000000010000001001000,

334)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

- 336)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

- 337)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_h = 9$ ,  $n_d = 1$ ,

- 338)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

- 339)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100100100010000010000010010000000001000

- 340)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

- 341)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

- 342)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100000100000010010000000010001001001000,

- 343)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

- 345)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100000000100100100100100000100000100

- 346)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_h = 9$ ,  $n_d = 1$ ,

- 347)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100010100000001010001000100000000100000

- 348)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 10100000010100010001000000001000001000

- 349)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100000010100010001000000010000100010

- 350)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 10100010001000000001000010001010000000,

- 351)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 100010001000000000100001000101000000010,

- 352)  $n_m = 9$ , w = 73,  $L_{min} = 400$ ,  $n_b = 9$ ,  $n_d = 1$ ,

b = 1000100000000100001000101000000101000