```
 1 C:\Users\edomv\AppData\Local\Microsoft\WindowsApps\
   python3.10.exe C:\Users\edomv\Desktop\CS-170-Project-
   1\CS170-Project-1-main\8-puzzle.py
 2 Welcome to XXX 8 puzzle solver.
 3 Type '1' to use a default puzzle, or '2' to enter
   your own puzzle.
 4 2
 5 Enter your puzzle, use a zero to represent the blank
 6 Enter the 1 row, use space or tabs between numbers: 1
   0 3
 7 Enter the 2 row, use space or tabs between numbers: 4
   2 6
 8 Enter the 3 row, use space or tabs between numbers: 7
   5 8
 9 Enter your choice of algorithm
10 1. Uniform Cost Search
11 2. A* with the Misplaced Tile heuristic.
12 3. A* with the Euclidean distance heuristic.
13 3
14 You chose A* with the Euclidean distance heuristic.
15 Initial open_list: [<__main__.Node object at
   0x000002C62AEBBB50>]
16 The best state to explore with g=0 and f=3.0 is:
17 1 0 3
18 4 2 6
19 7 5 8
20
21 The best state to explore with g=1 and f=2.0 is:
22 1 2 3
23 4 0 6
24 7 5 8
25
26 The best state to explore with g=2 and f=1.0 is:
27 1 2 3
28 4 5 6
29 7 0 8
30
31 The best state to explore with g=3 and f=0.0 is:
32 1 2 3
33 4 5 6
34 7 8 0
```

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35
36 Total number of moves for A* with Euclidean distance
   : 3
37
38 Trace of the path (operators): ['DOWN', 'DOWN', '
   RIGHT']
39 NODES EXPANDED = 3
40 Initial state:
41 1 0 3
42 4 2 6
43 7 5 8
44
45 Goal state:
46 1 2 3
47 4 5 6
48 7 8 0
49
50 Maximum queue size: 6
51
52 Process finished with exit code 0
53
```