4.0 -

3.5 -

3.0 -

2.5 -

4.0 -

3.5

3.0 -

2.5

4.0 -

3.5

3.0

2.5 -

4.23 3.3

2.35

1.5

4.28

3.57

3.4

2.56

1.5

2.69

2.76

2.57

2.59

1.5

3.13

4.52 3.95

2.0

5.33

4.59

3.78

3.02

2.0

3.27

3.09

3.02

2.0

5.23

5.65 5.16 2.79

2.5

6.03

4.59

2.5

4.1

3.72

3.11

2.5

2.24 2.58 2.74 3.18

Customer density

6.26

Ratio of time taken: our method against benchmark

No elementarity

5.42 6.38 3.57 4.32 5.25 3.0 ng-route 7.14 8.4

5.66

3.0

3.51

3.49

3.0

3.45 3.86

Elementary

8.17 9.34

7.03 7.5



- 7

-5

-2

1

10.49

8.4

7.17

5.16

4.0

12.87

9.55

8.39

4.98

4.0

4.25

3.64

4.0

7.07

4.59

3.5

4.16

4.14

3.5