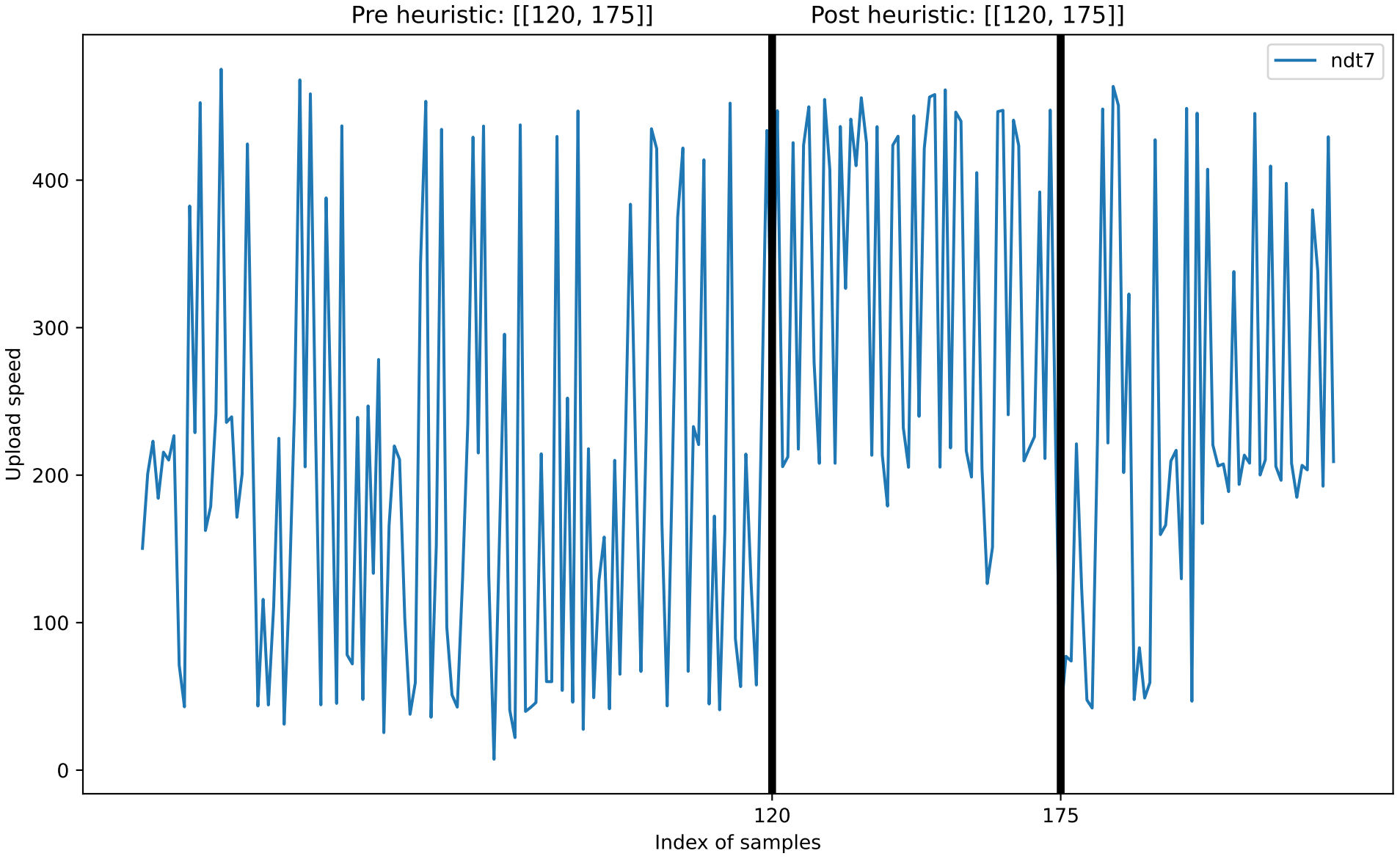
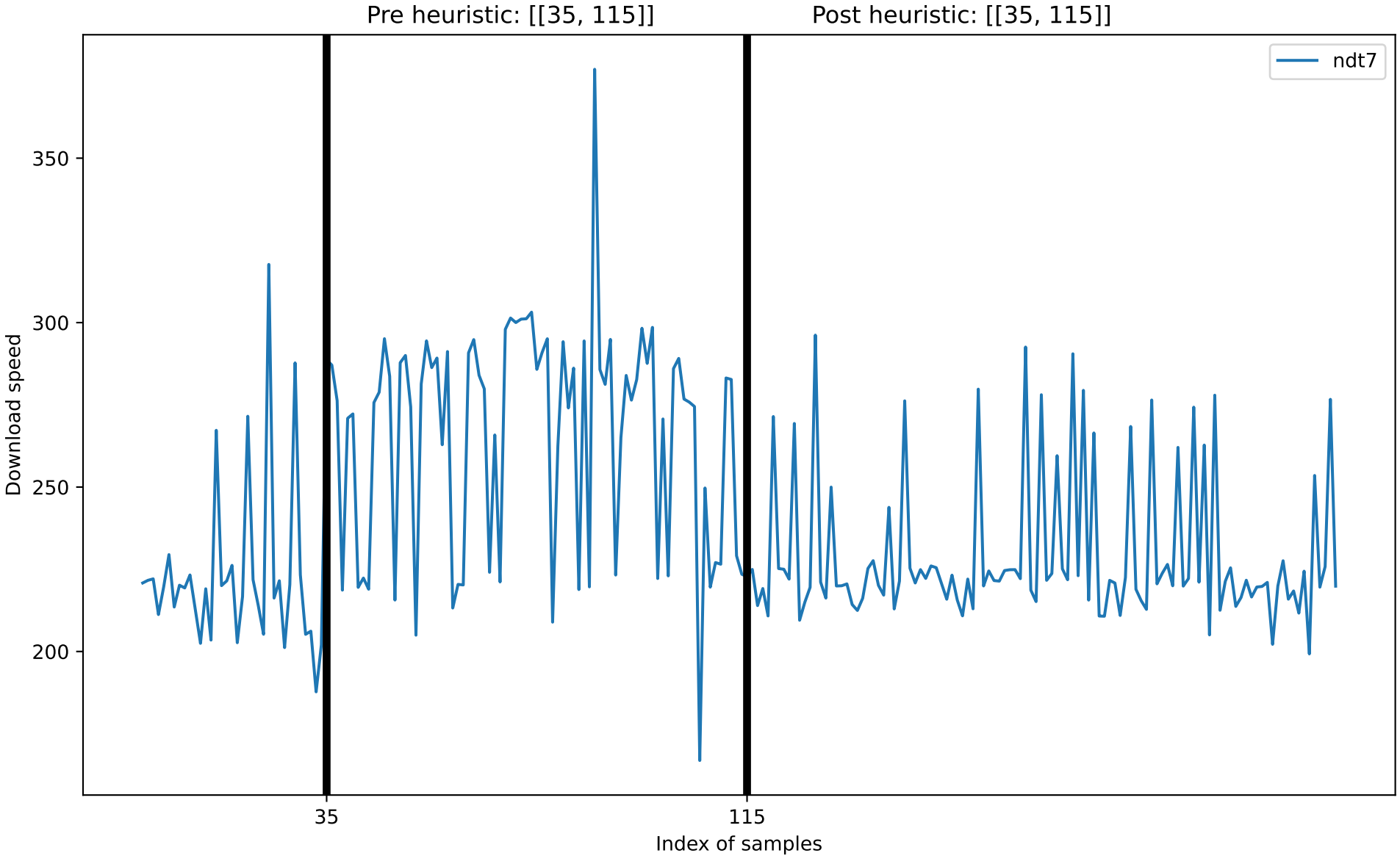
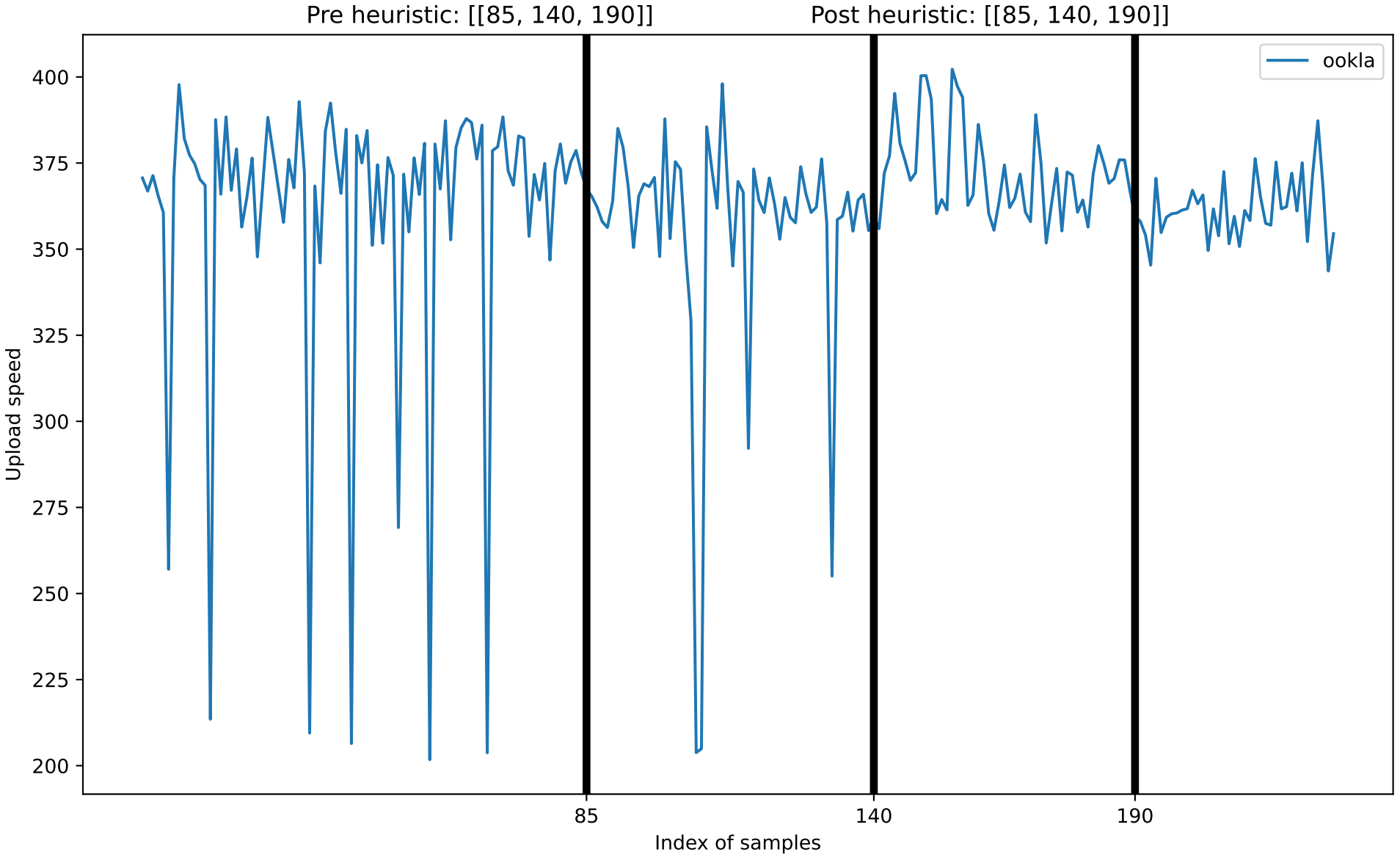
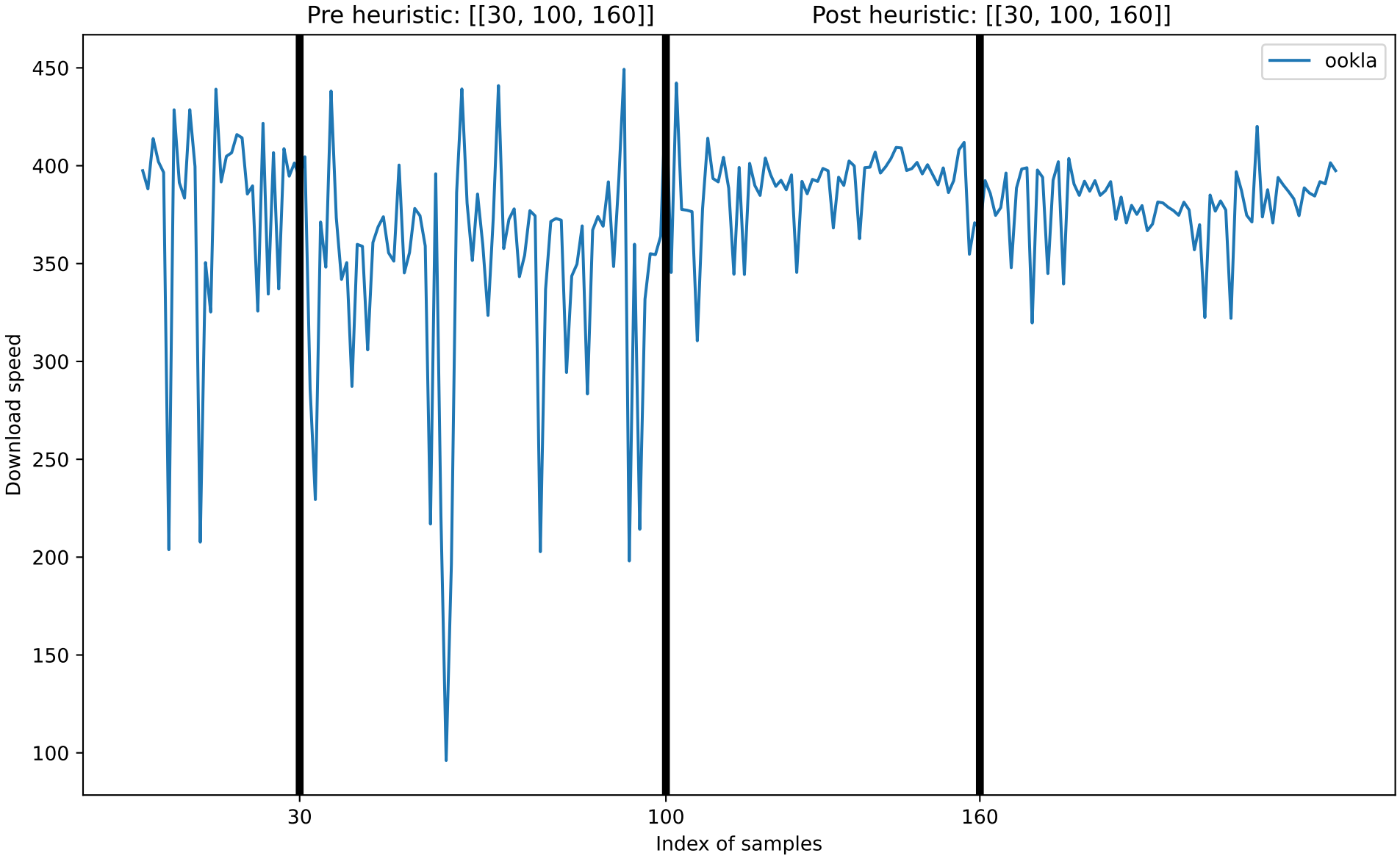
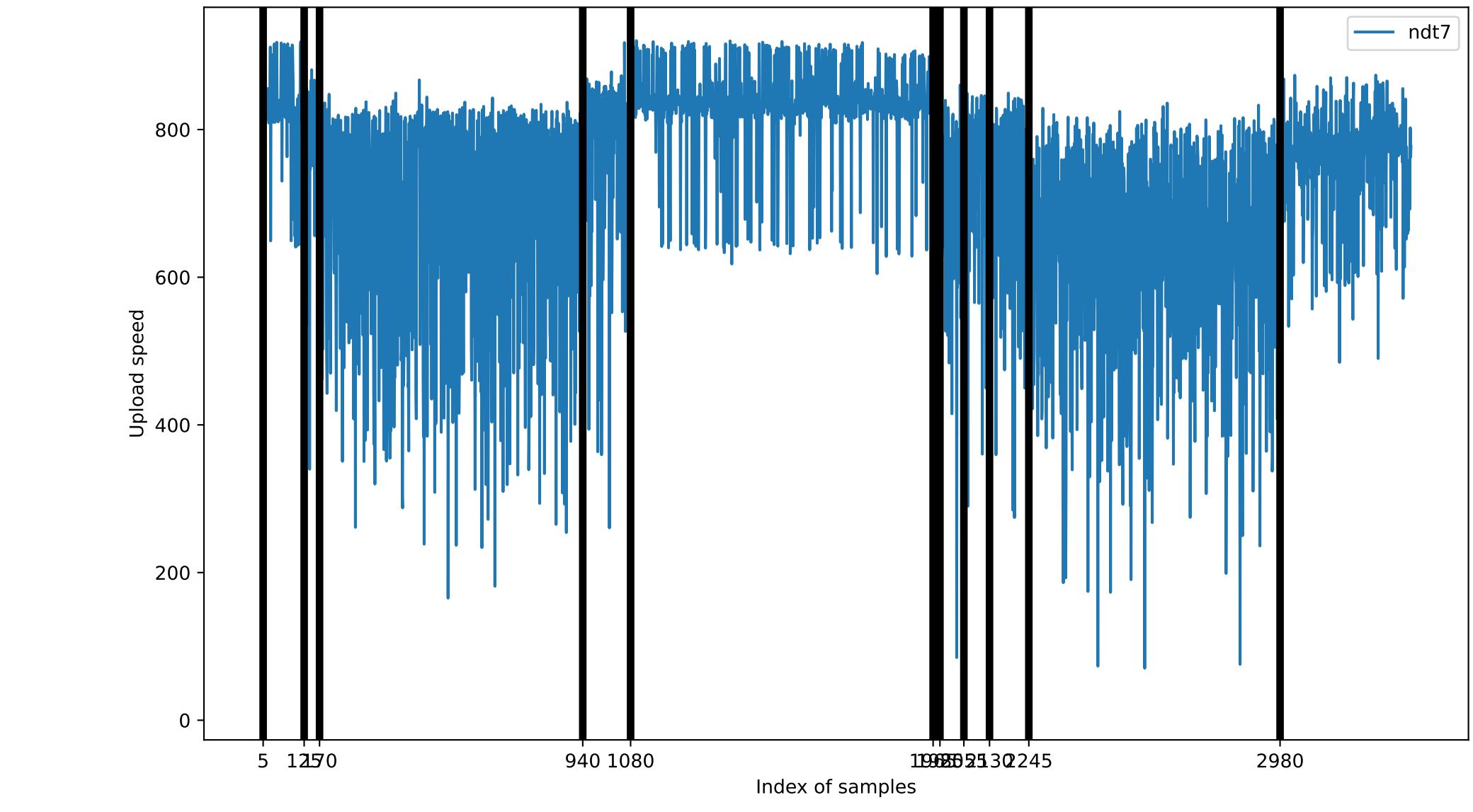
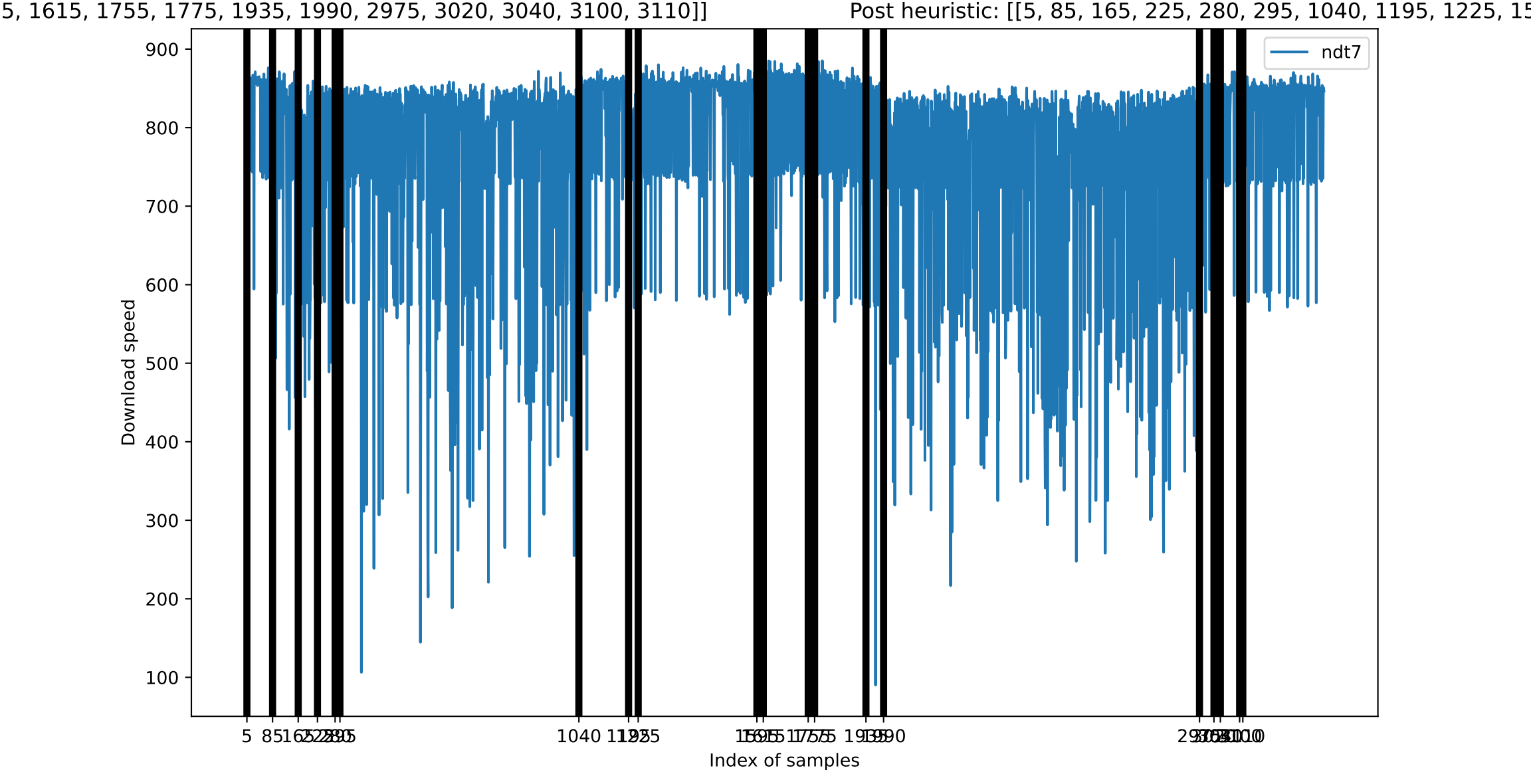

Pre heuristic: [[120, 175]]
Post heuristic: [[120, 175]]
ndt7
Upload speed
0
100
200
300
400
120
175
Index of samples


Pre heuristic: [[35, 115]]
Post heuristic: [[35, 115]]
ndt7
Download speed
350
300
250
200
35
115
Index of samples

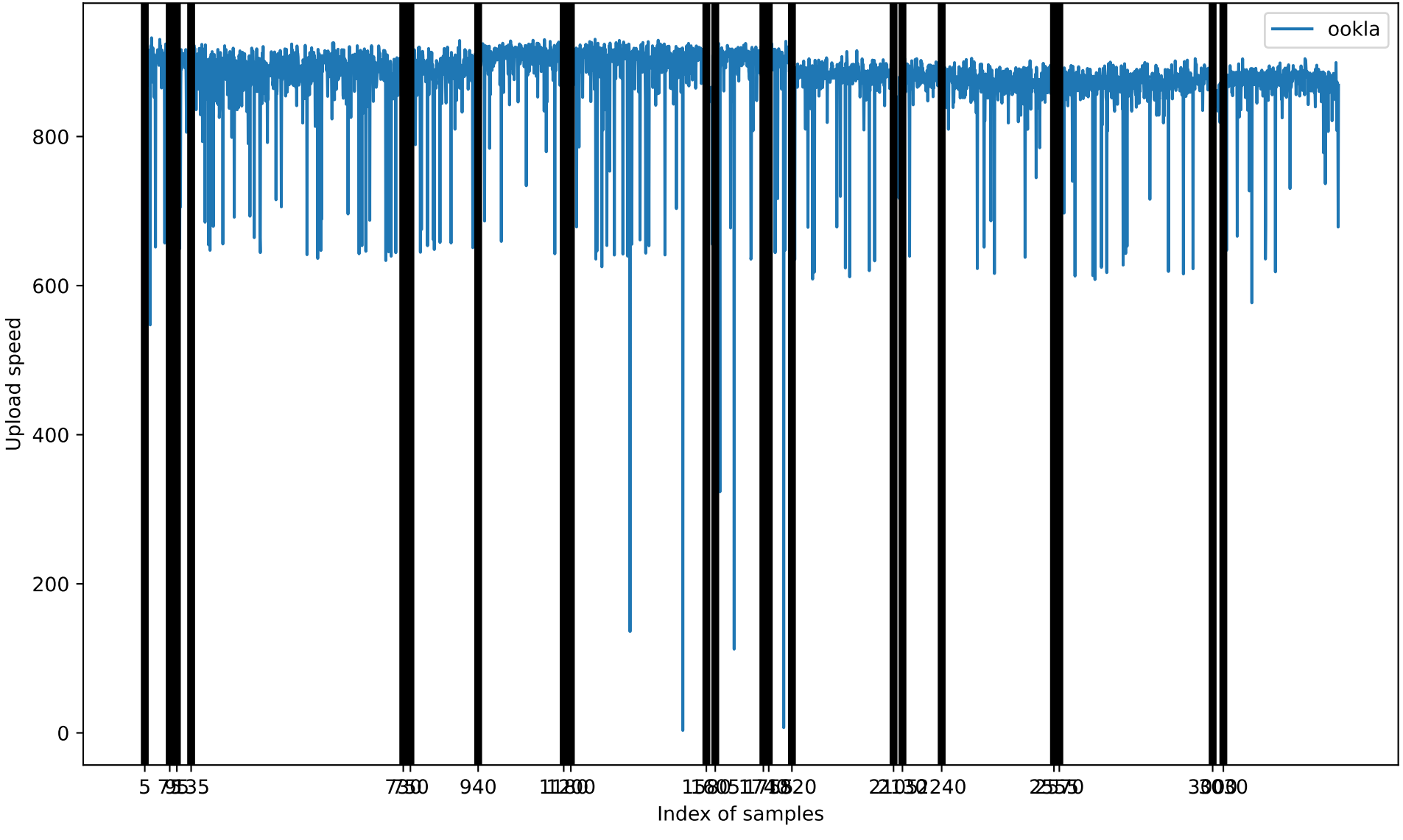

Pre heuristic: [[85, 140, 190]]
Post heuristic: [[85, 140, 190]]
ookla
Upload speed
400
375
350
325
300
275
250
225
200
85
140
190
Index of samples

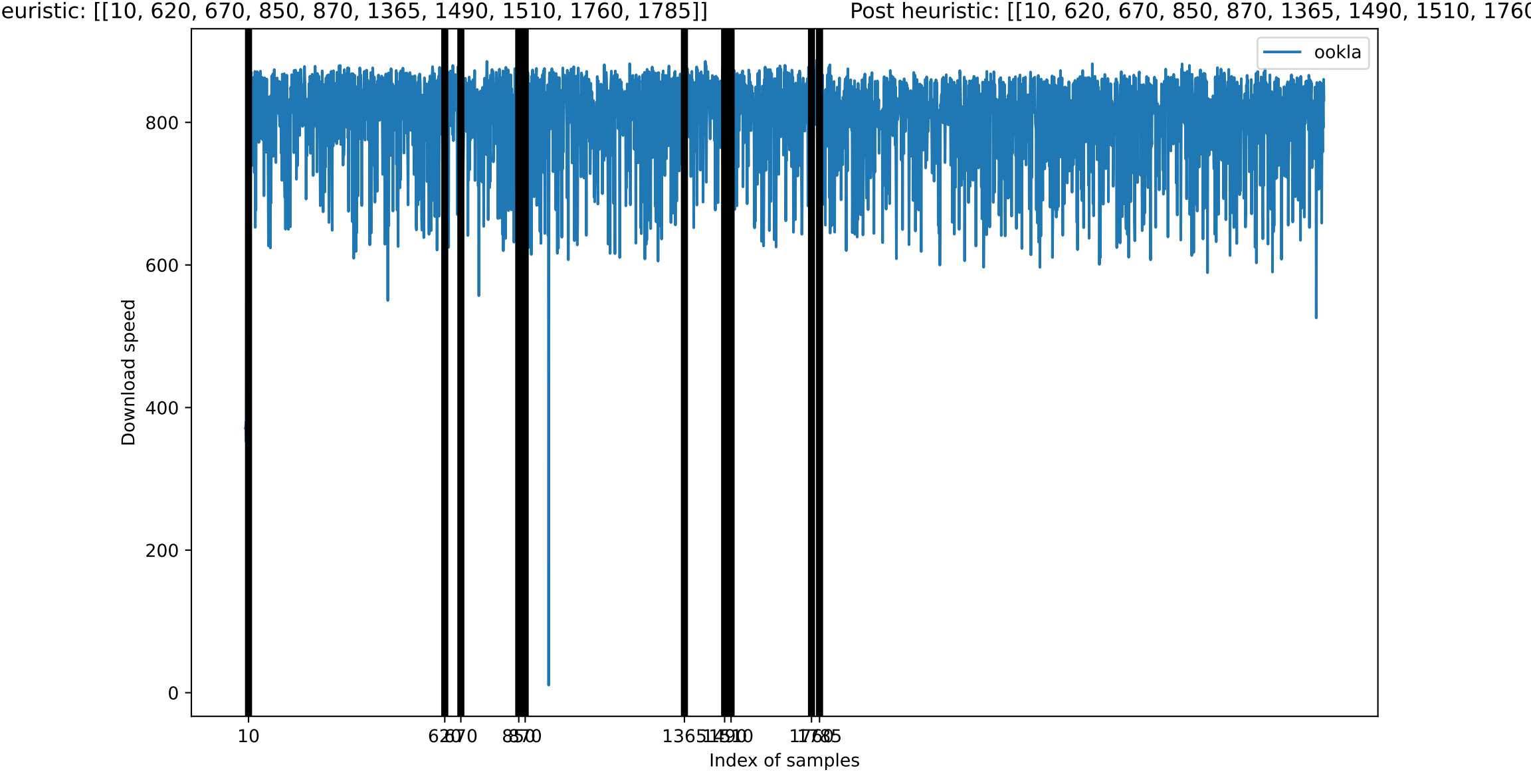

Pre heuristic: [[30, 100, 160]]
Post heuristic: [[30, 100, 160]]
ookla
Download speed
450
400
350
300
250
200
150
100
30
100
160
Index of samples

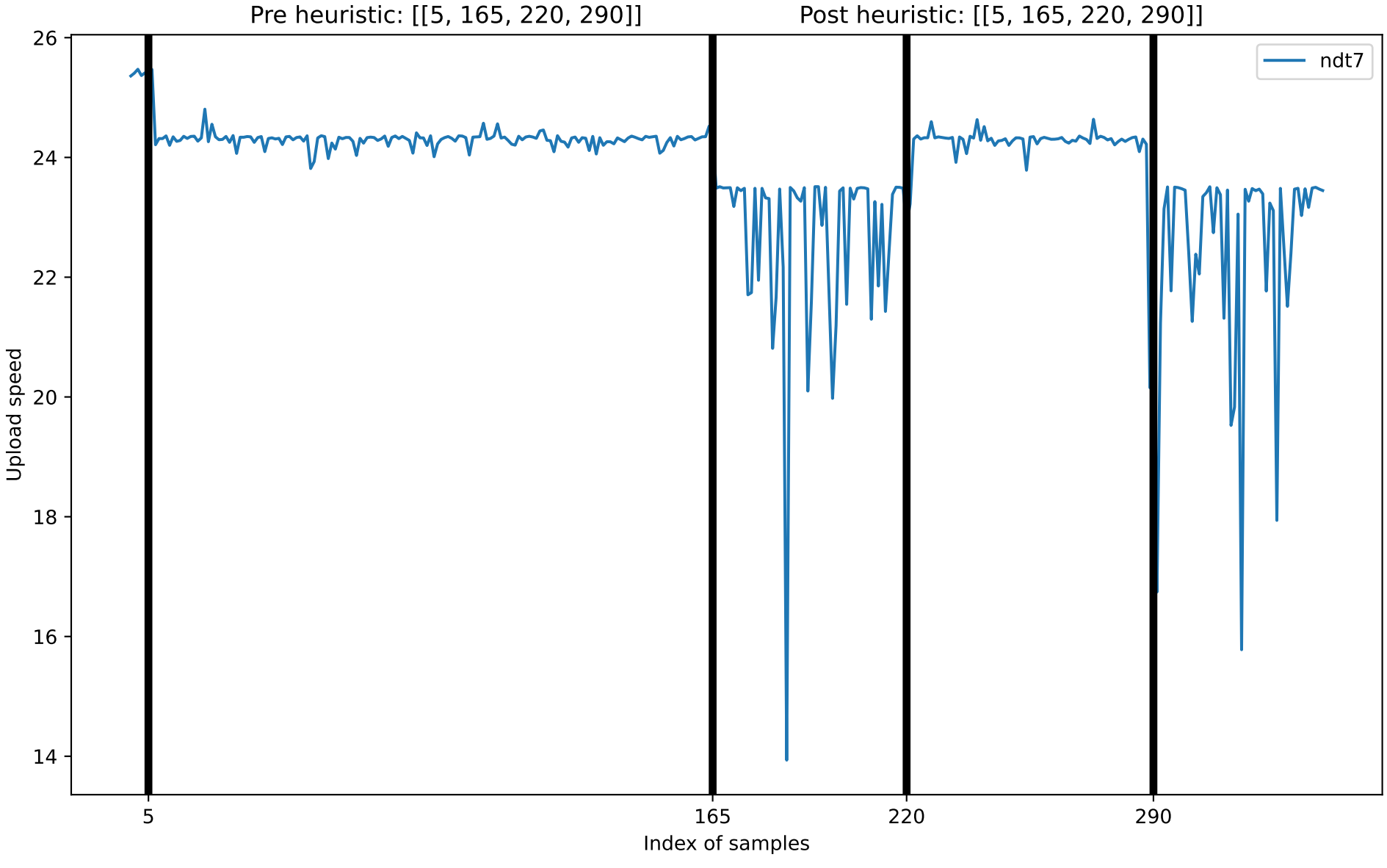

c: [[5, 125, 170, 940, 1080, 1965, 1985, 2055, 2130, 2245, 2980]]
Post heuristic: [[5, 125, 170, 940, 1080, 1965, 1985, 2055, 2130
ndt7
Upload speed
800
600
400
200
0
5
940
1080
2245
2980
Index of samples

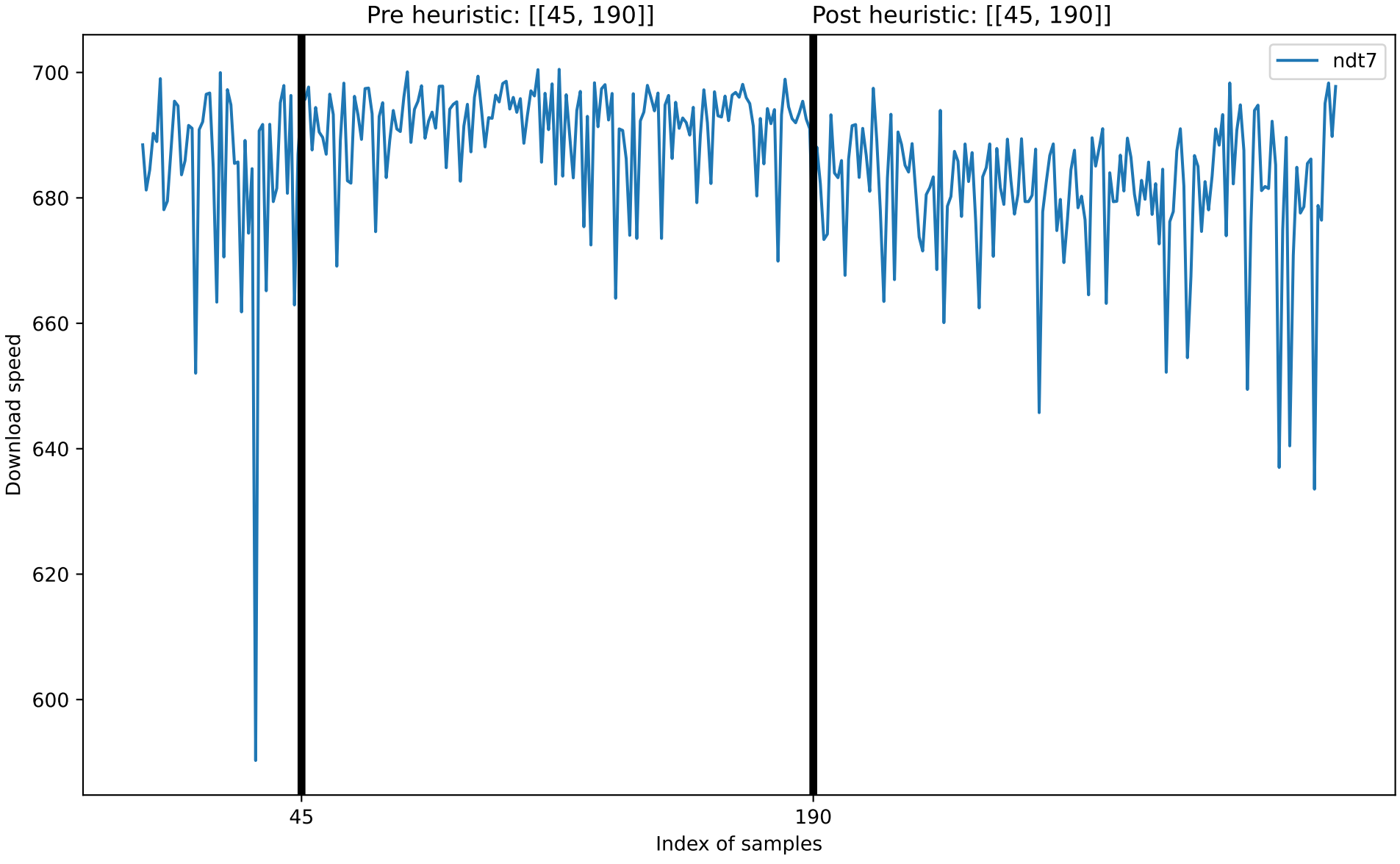

5, 1615, 1755, 1775, 1935, 1990, 2975, 3020, 3040, 3100, 3110]]
Post heuristic: [[5, 85, 165, 225, 280, 295, 1040, 1195, 1225, 15
ndt7
Download speed
900
800
700
600
500
400
300
200
100
Index of samples

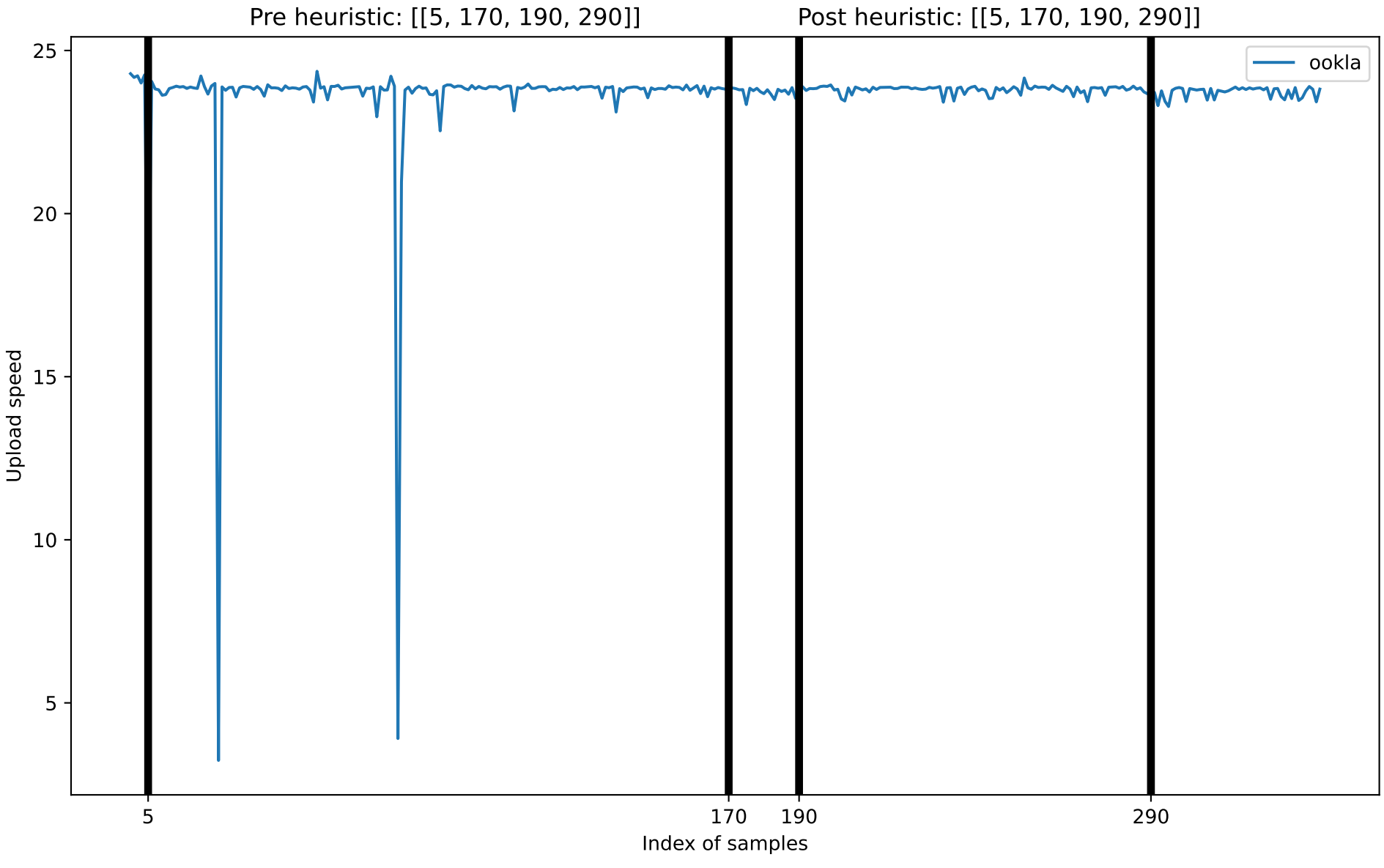
5, 1740, 1755, 1820, 2105, 2130, 2240, 2555, 2570, 3000, 3030]] Post heuristic: [[5, 75, 95, 135, 730, 750, 940, 1180, 1200, 1580

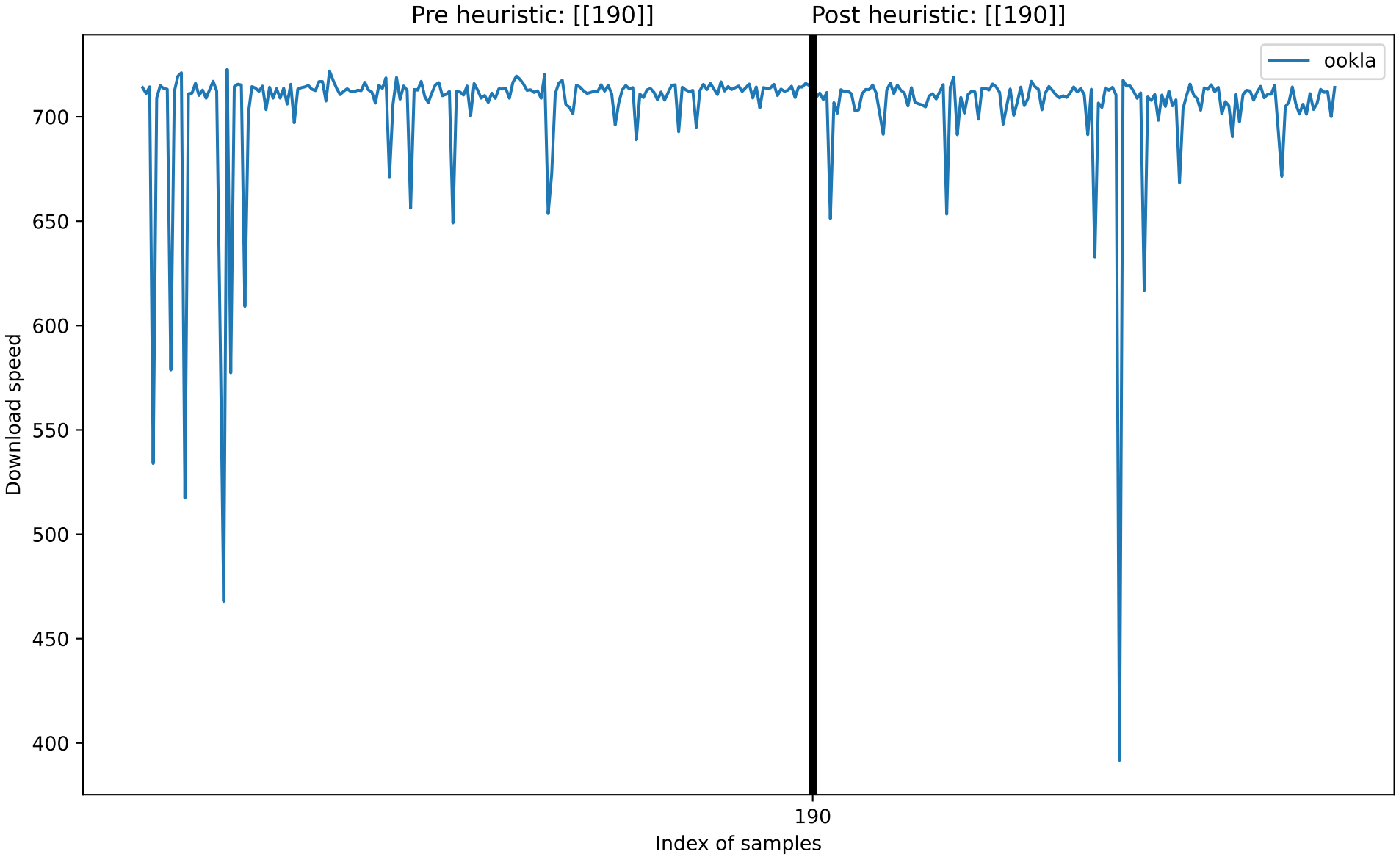


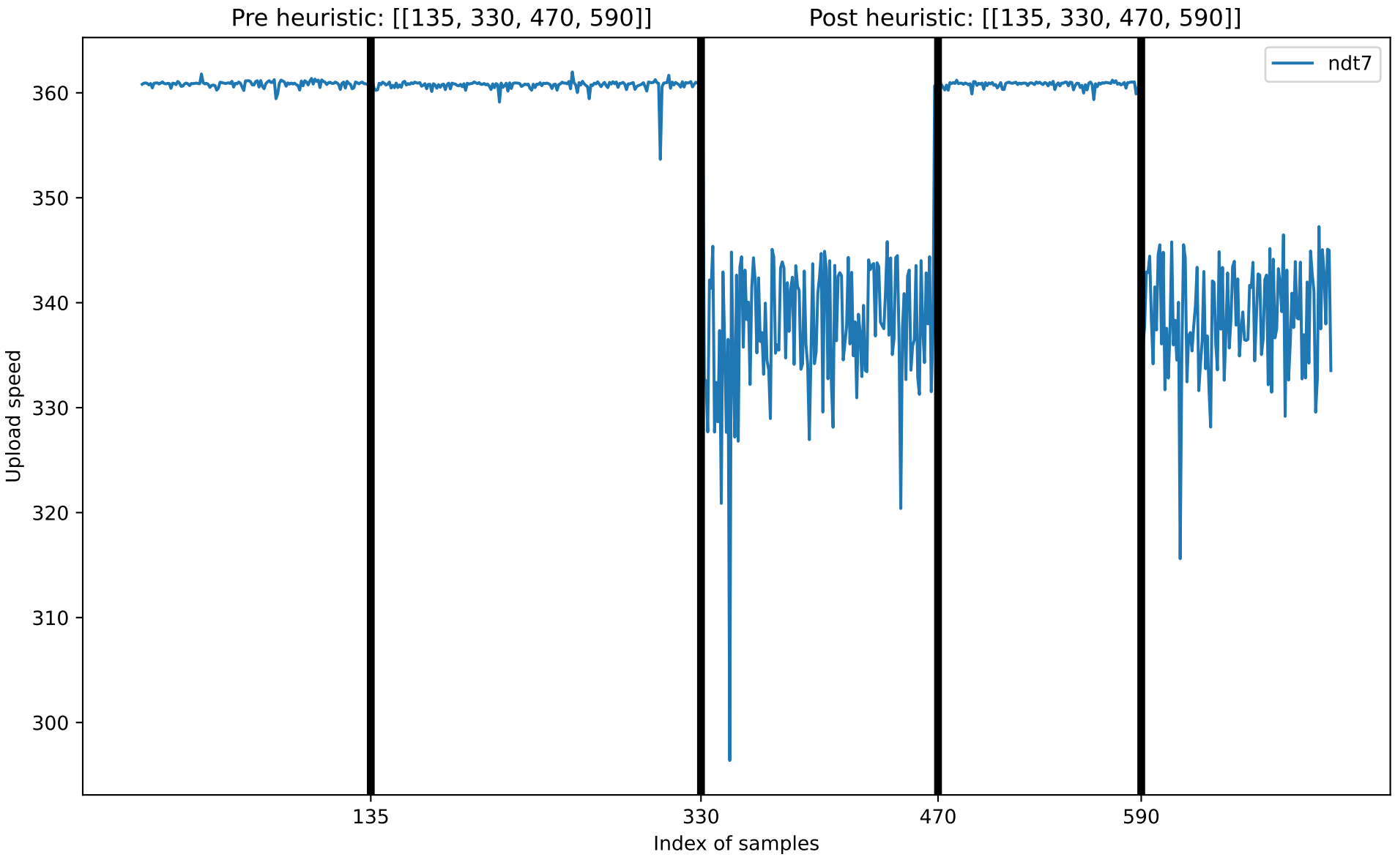

euristic: [[10, 620, 670, 850, 870, 1365, 1490, 1510, 1760, 1785]]
Post heuristic: [[10, 620, 670, 850, 870, 1365, 1490, 1510, 1760
ookla
Download speed
800
600
400
200
0
10
Index of samples

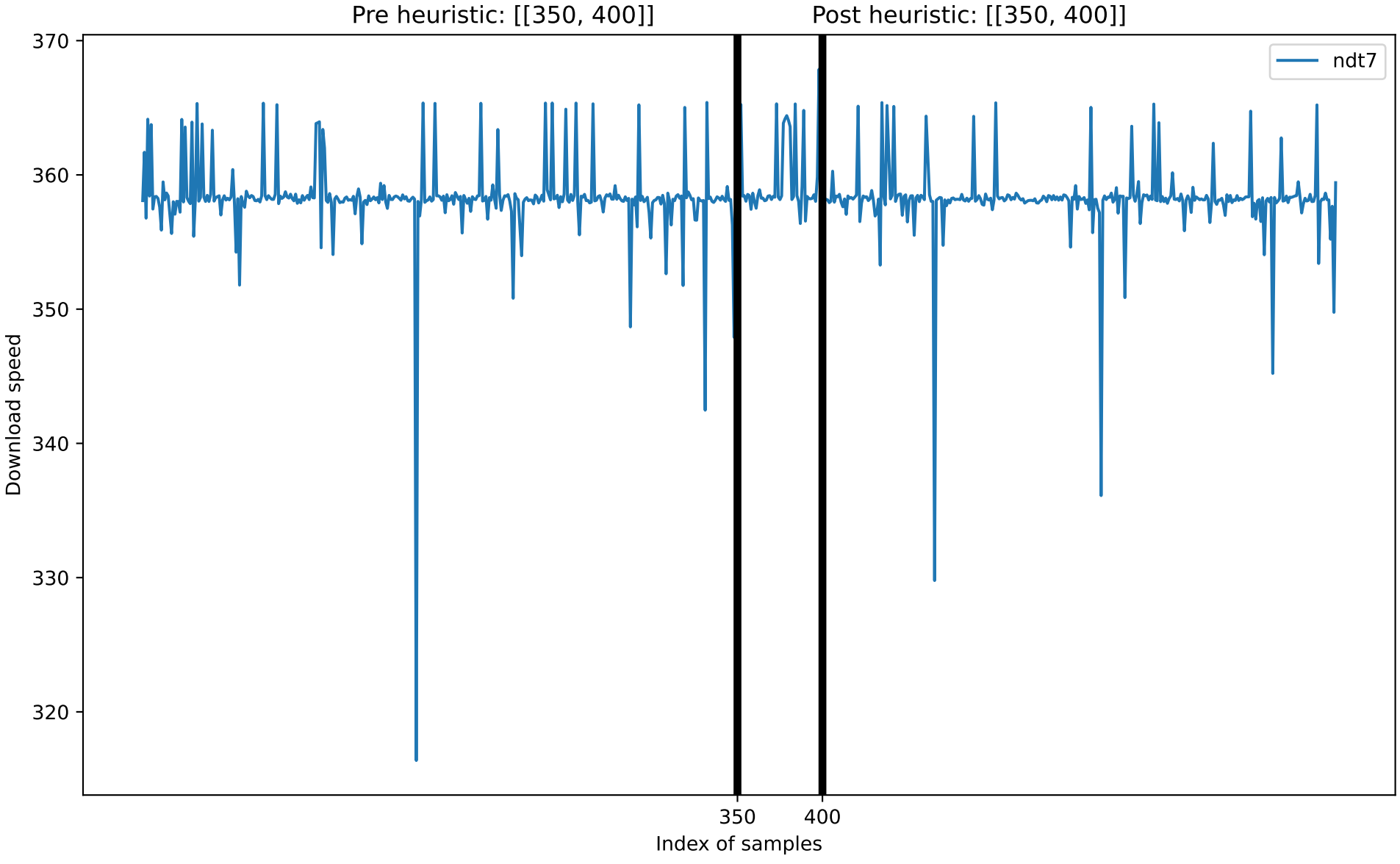

Pre heuristic: [[5, 165, 220, 290]]
Post heuristic: [[5, 165, 220, 290]]
ndt7
Upload speed
26
24
22
20
18
16
14
5
165
220
290
Index of samples

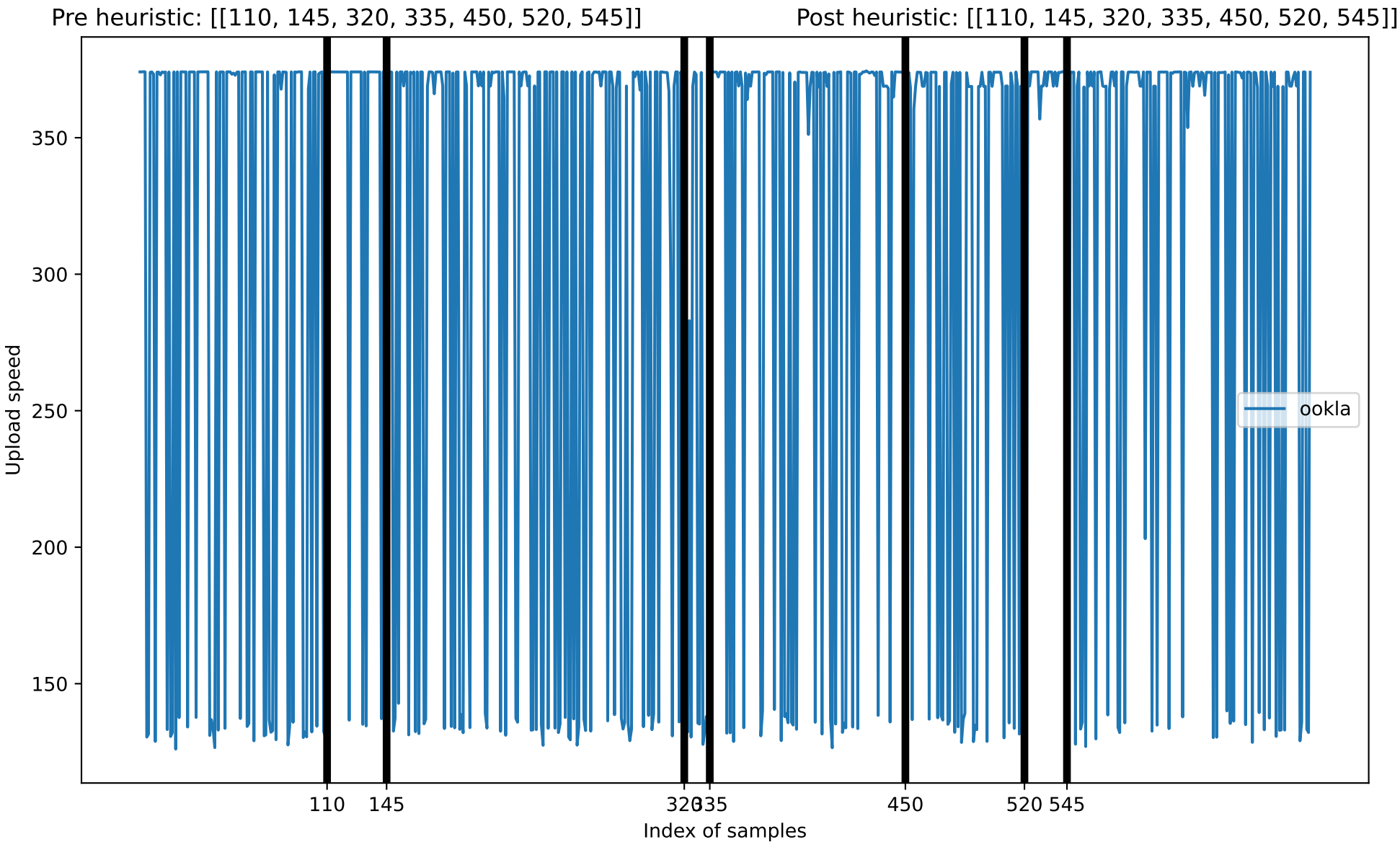

Pre heuristic: [[45, 190]]
Post heuristic: [[45, 190]]
ndt7
700
680
660
640
620
600
Download speed
45
190
Index of samples

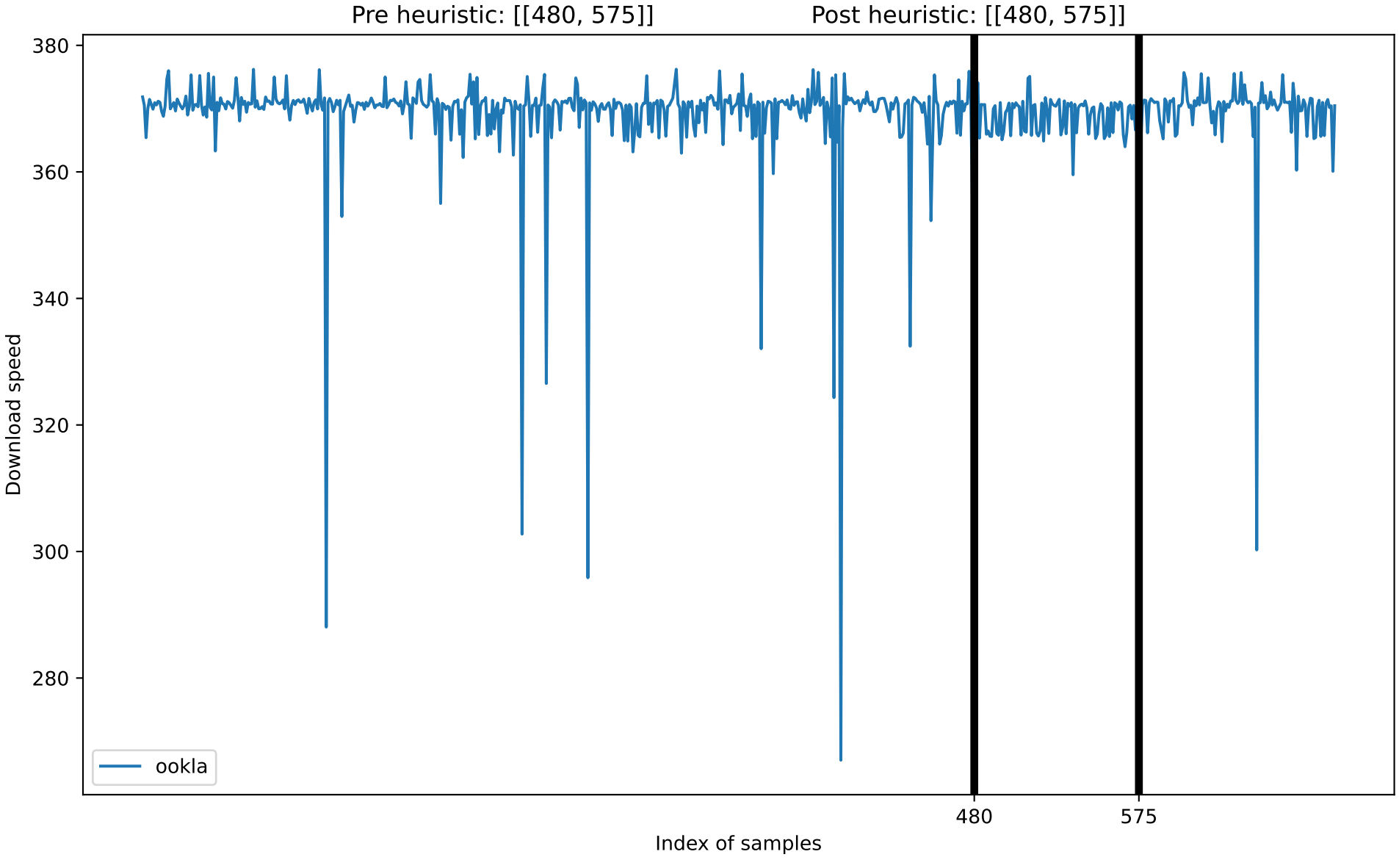

Pre heuristic: [[5, 170, 190, 290]]
Post heuristic: [[5, 170, 190, 290]]
ookla
Upload speed
25
20
15
10
5
5
170
190
290
Index of samples

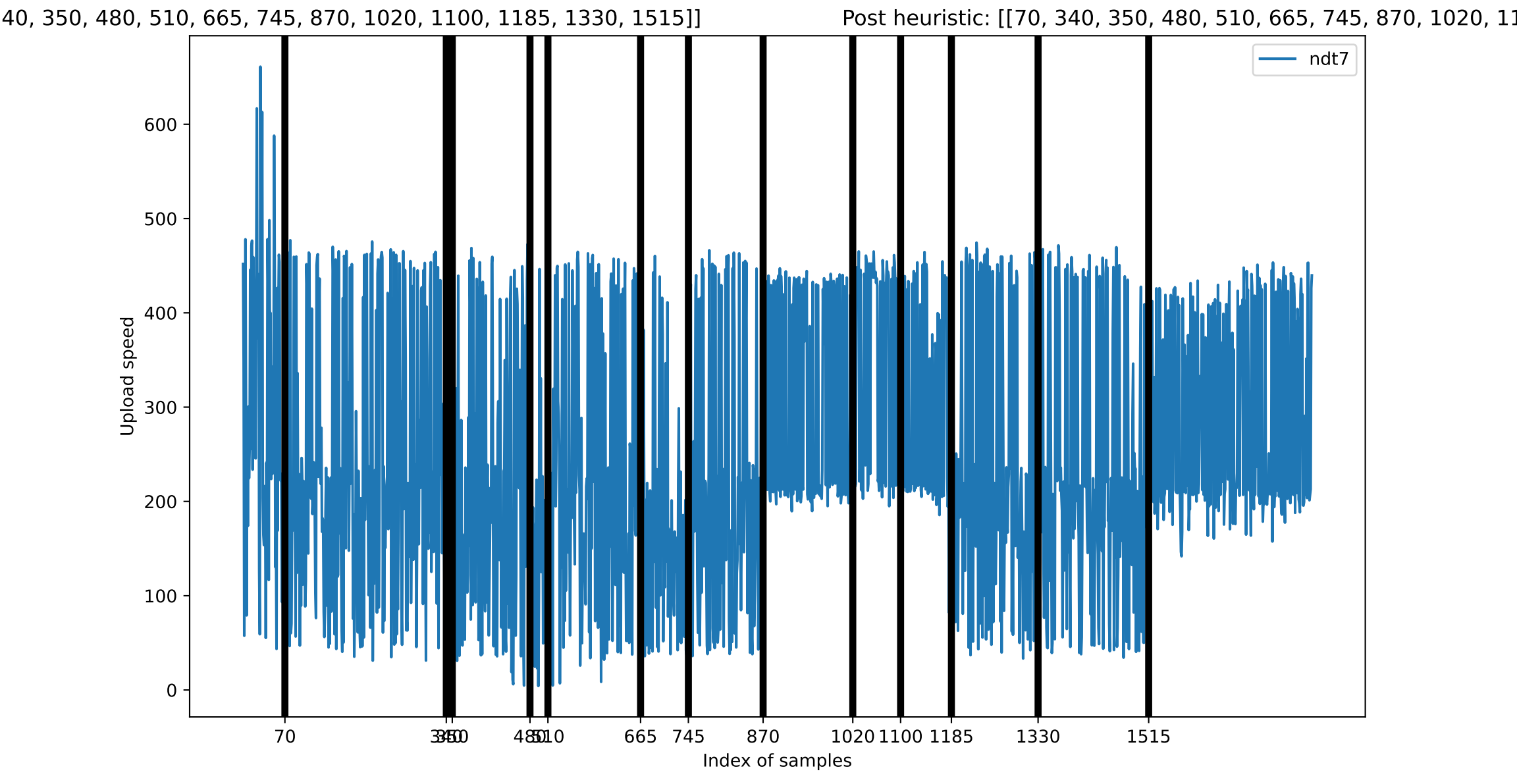

Pre heuristic: [[190]]
Post heuristic: [[190]]
ookla
Download speed
700
650
600
550
500
450
400
190
Index of samples

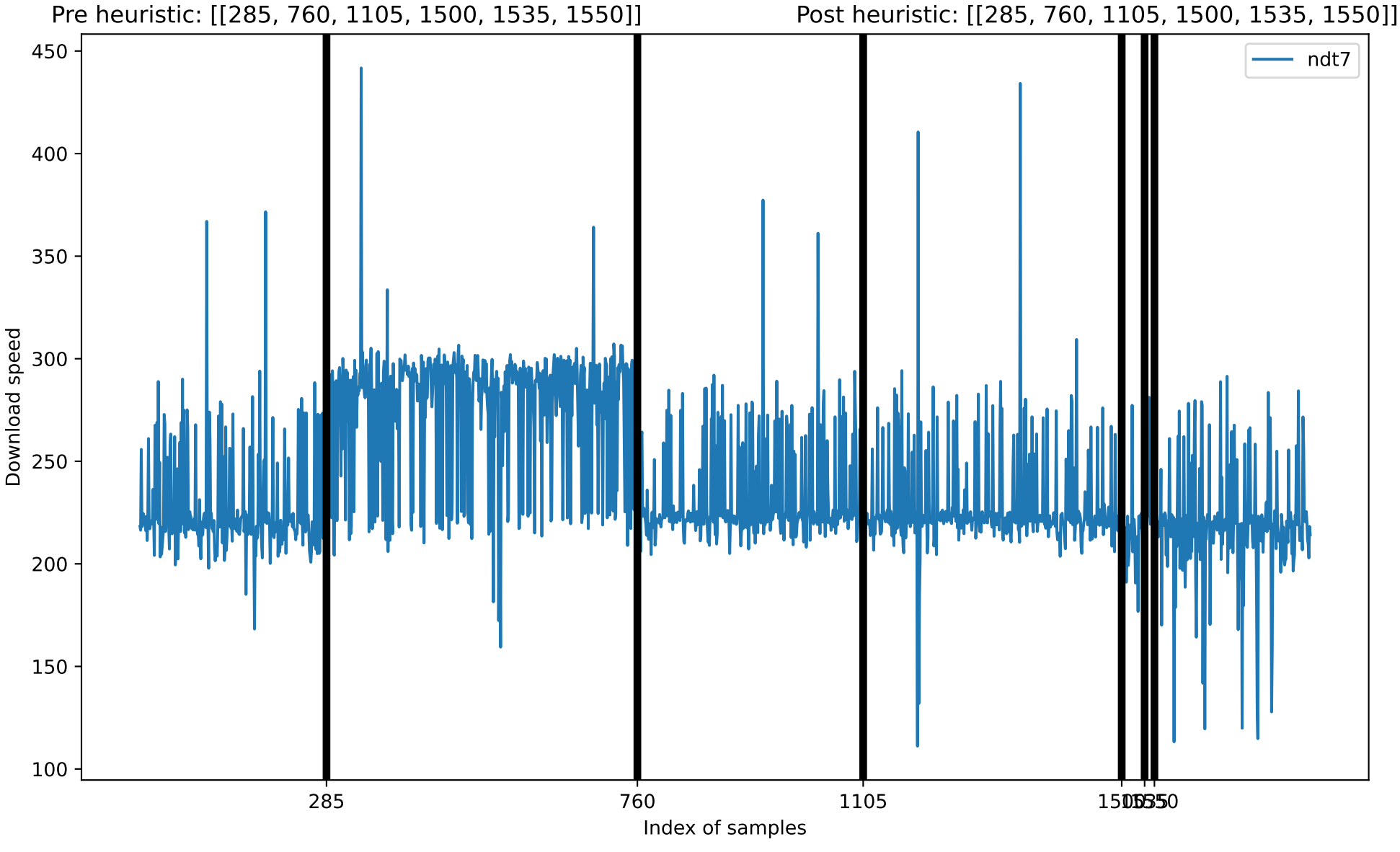

Pre heuristic: [[135, 330, 470, 590]]
Post heuristic: [[135, 330, 470, 590]]
ndt7
Upload speed
360
350
340
330
320
310
300
135
330
470
590
Index of samples

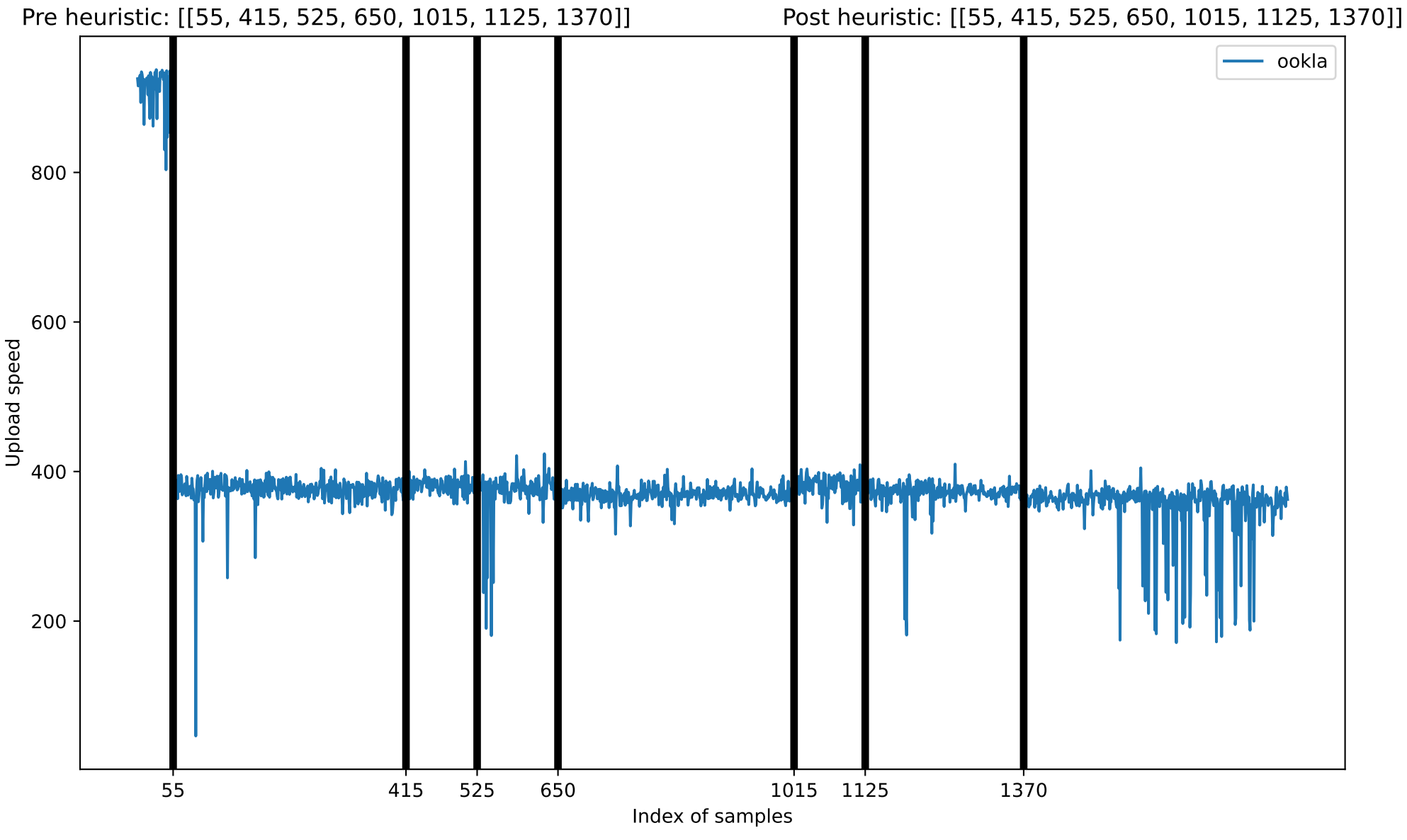

Pre heuristic: [[350, 400]]
Post heuristic: [[350, 400]]
ndt7
370
360
350
340
330
320
Download speed
350
400
Index of samples

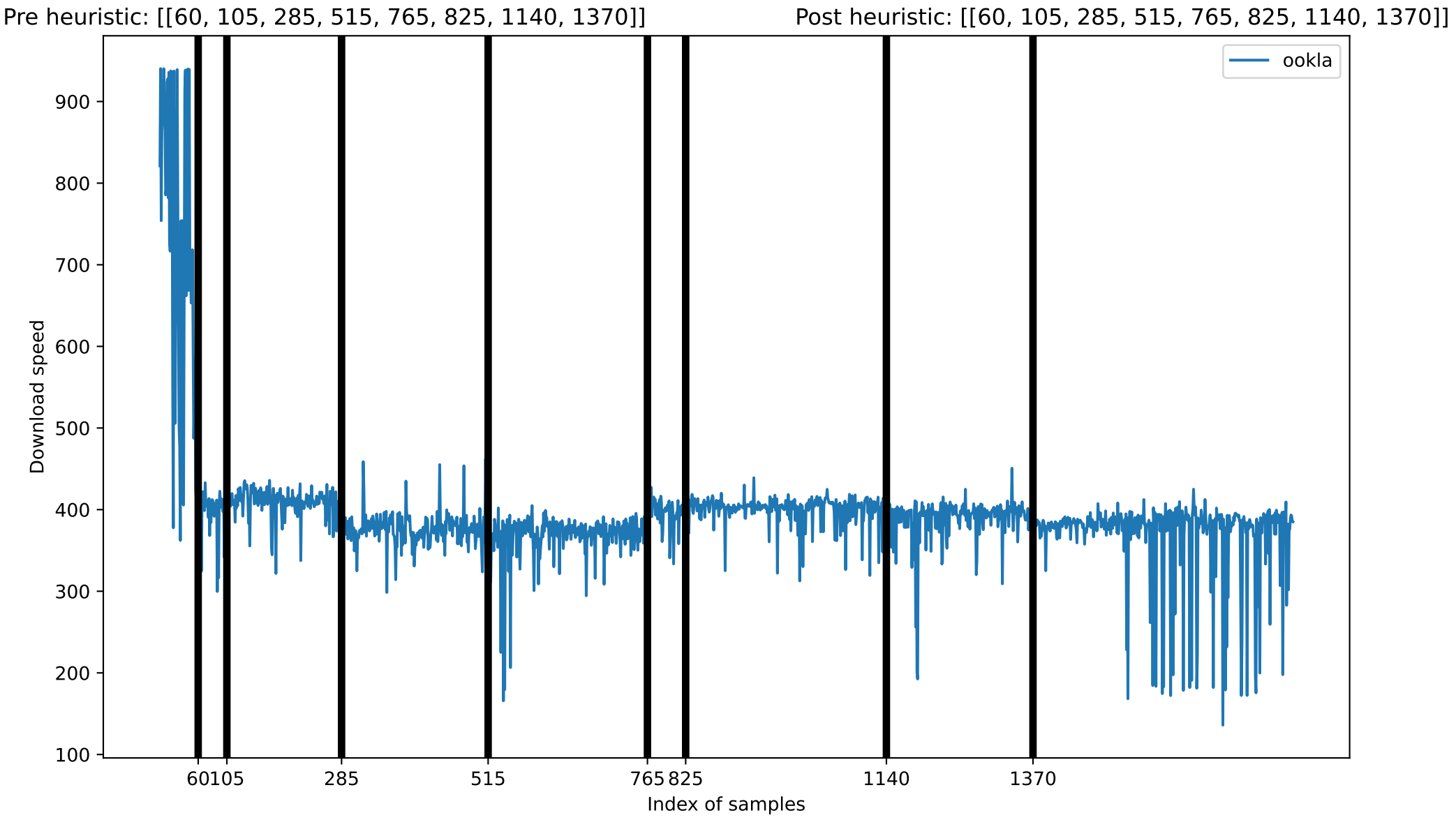

Pre heuristic: [[110, 145, 320, 335, 450, 520, 545]]
Post heuristic: [[110, 145, 320, 335, 450, 520, 545]]
Upload speed
350
300
250
200
150
110
145
320
335
450
520
545
Index of samples
ookla

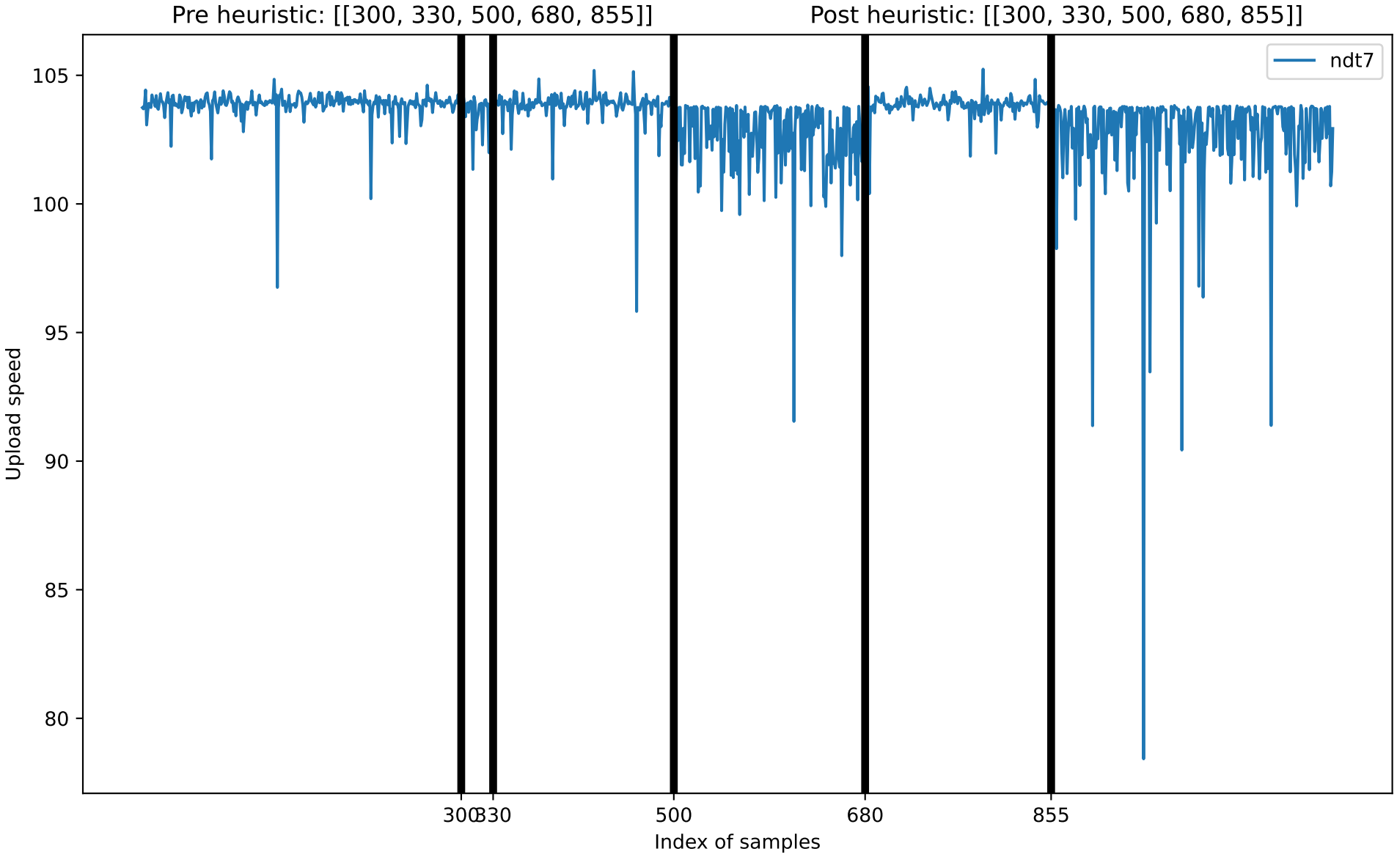

Pre heuristic: [[480, 575]]
Post heuristic: [[480, 575]]
380
360
340
320
300
280
Download speed
ookla
480
575
Index of samples

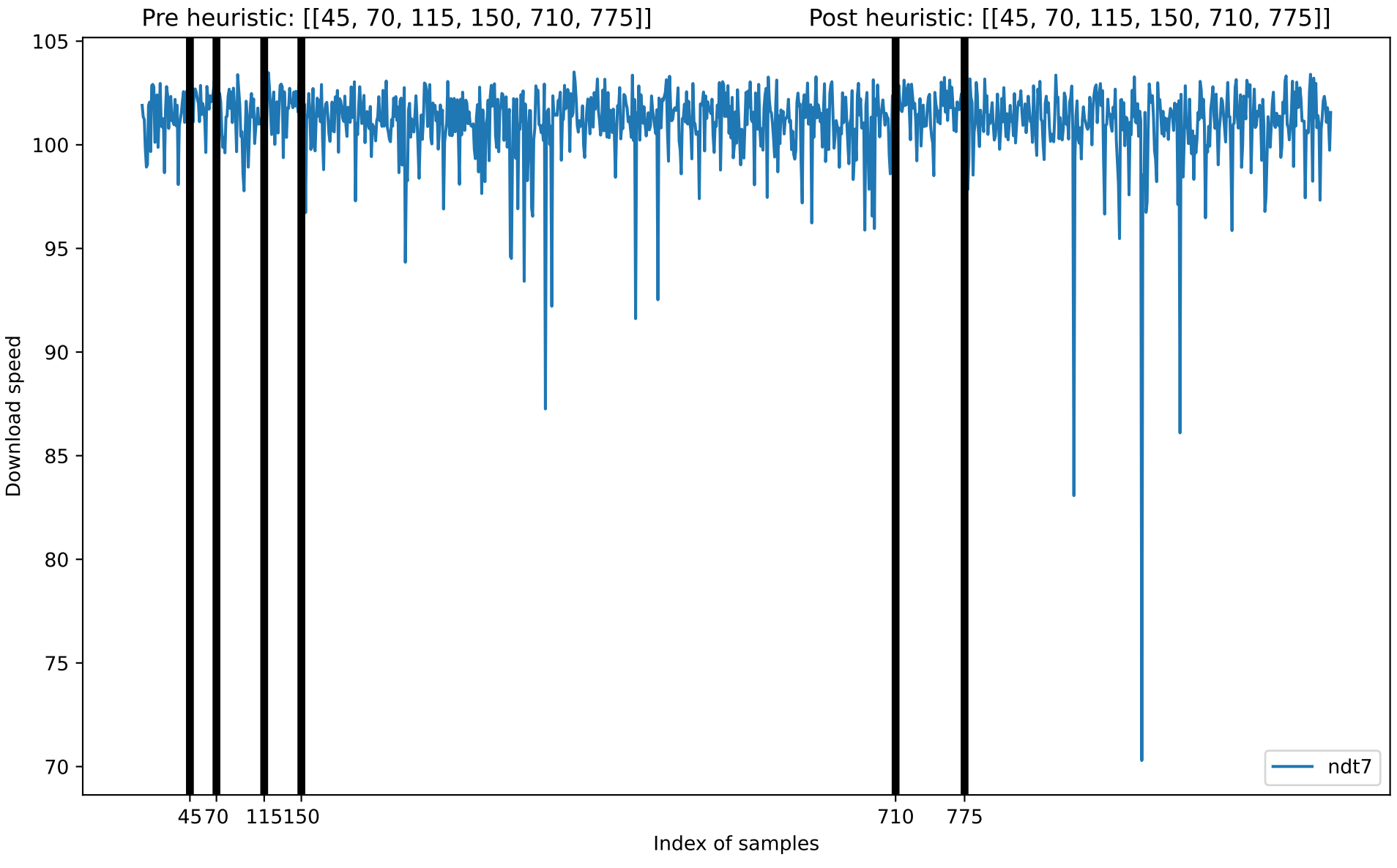

40, 350, 480, 510, 665, 745, 870, 1020, 1100, 1185, 1330, 1515]]
Post heuristic: [[70, 340, 350, 480, 510, 665, 745, 870, 1020, 11
ndt7
Upload speed
600
500
400
300
200
100
0
70
665
745
870
1020
1100
1185
1330
1515
Index of samples

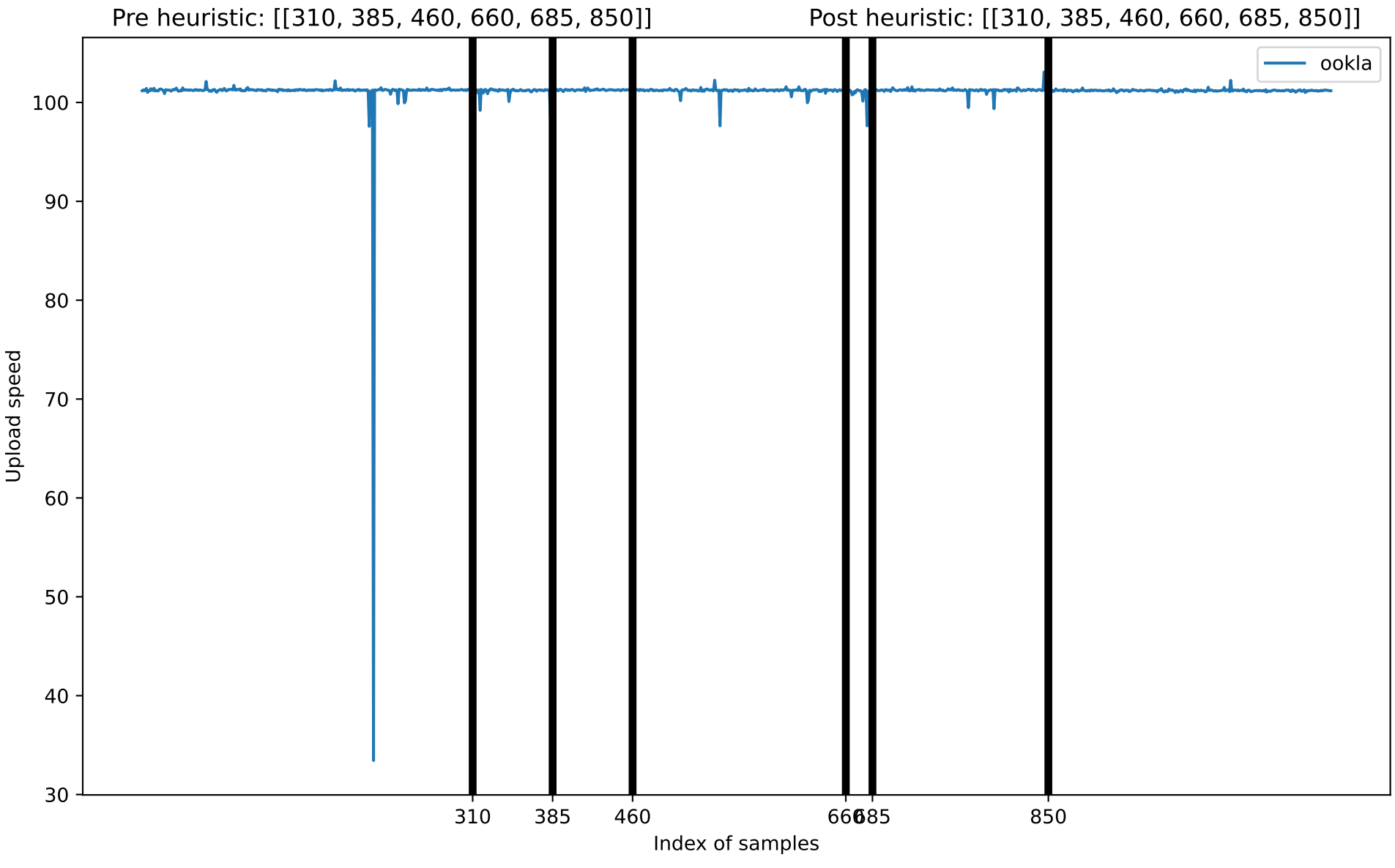

Pre heuristic: [[285, 760, 1105, 1500, 1535, 1550]]
Post heuristic: [[285, 760, 1105, 1500, 1535, 1550]]
ndt7
Download speed
Index of samples
450
400
350
300
250
200
150
100
285
760
1105

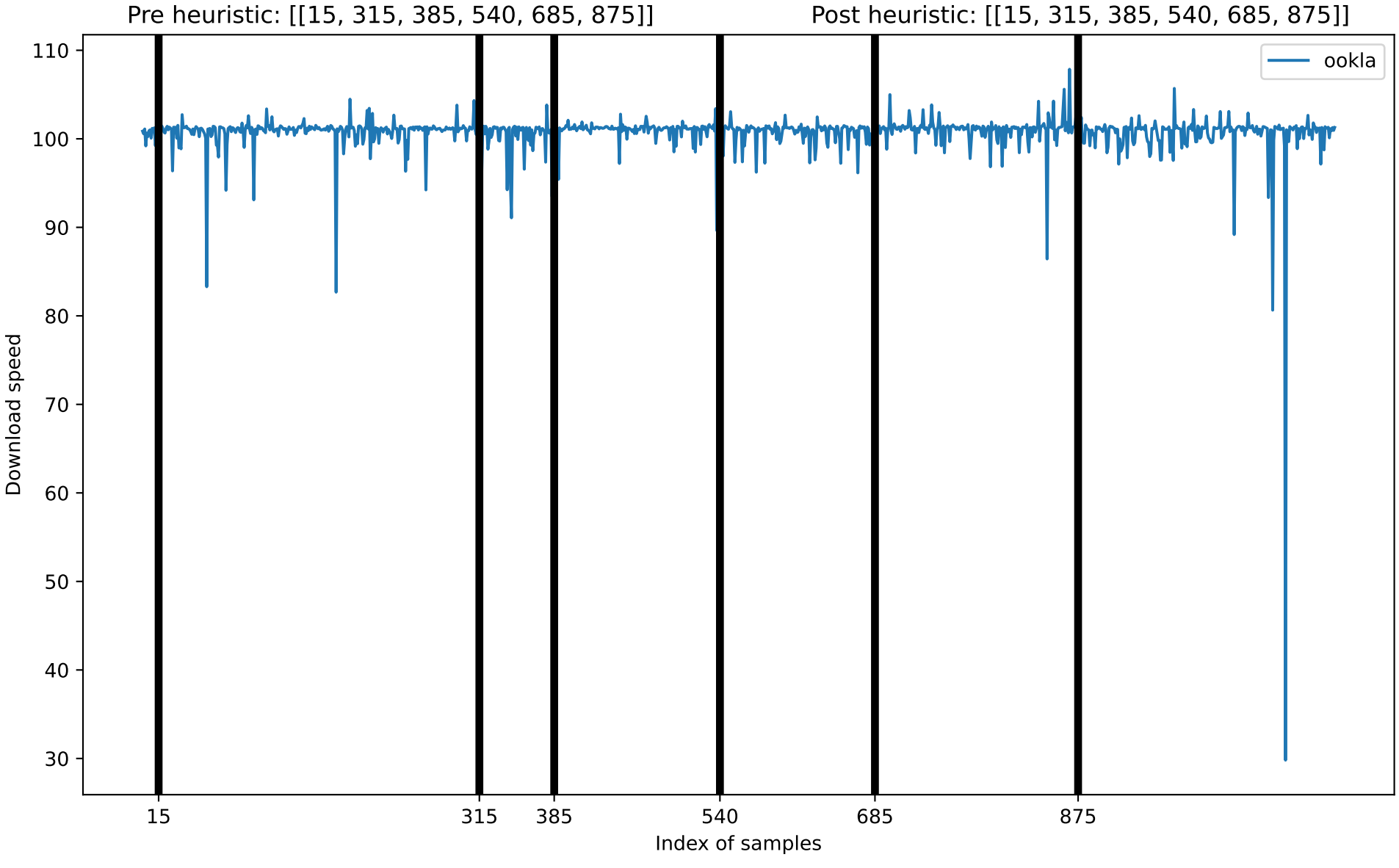

Pre heuristic: [[55, 415, 525, 650, 1015, 1125, 1370]]
Post heuristic: [[55, 415, 525, 650, 1015, 1125, 1370]]
ookla
800
600
400
200
Upload speed
55
415
525
650
1015
1125
1370
Index of samples


Pre heuristic: [[60, 105, 285, 515, 765, 825, 1140, 1370]]
Post heuristic: [[60, 105, 285, 515, 765, 825, 1140, 1370]]
ookla
Download speed
900
800
700
600
500
400
300
200
100
60
105
285
515
765
825
1140
1370
Index of samples


Pre heuristic: [[300, 330, 500, 680, 855]]
Post heuristic: [[300, 330, 500, 680, 855]]
ndt7
105
100
95
90
85
80
Upload speed
300
330
500
680
855
Index of samples


Pre heuristic: [[45, 70, 115, 150, 710, 775]]
Post heuristic: [[45, 70, 115, 150, 710, 775]]
105
100
95
90
85
80
75
70
Download speed
45
70
115
150
710
775
Index of samples
ndt7


Pre heuristic: [[310, 385, 460, 660, 685, 850]]
Post heuristic: [[310, 385, 460, 660, 685, 850]]
ookla
Upload speed
100
90
80
70
60
50
40
30
310
385
460
660
685
850
Index of samples


Pre heuristic: [[15, 315, 385, 540, 685, 875]]
Post heuristic: [[15, 315, 385, 540, 685, 875]]
ookla
Download speed
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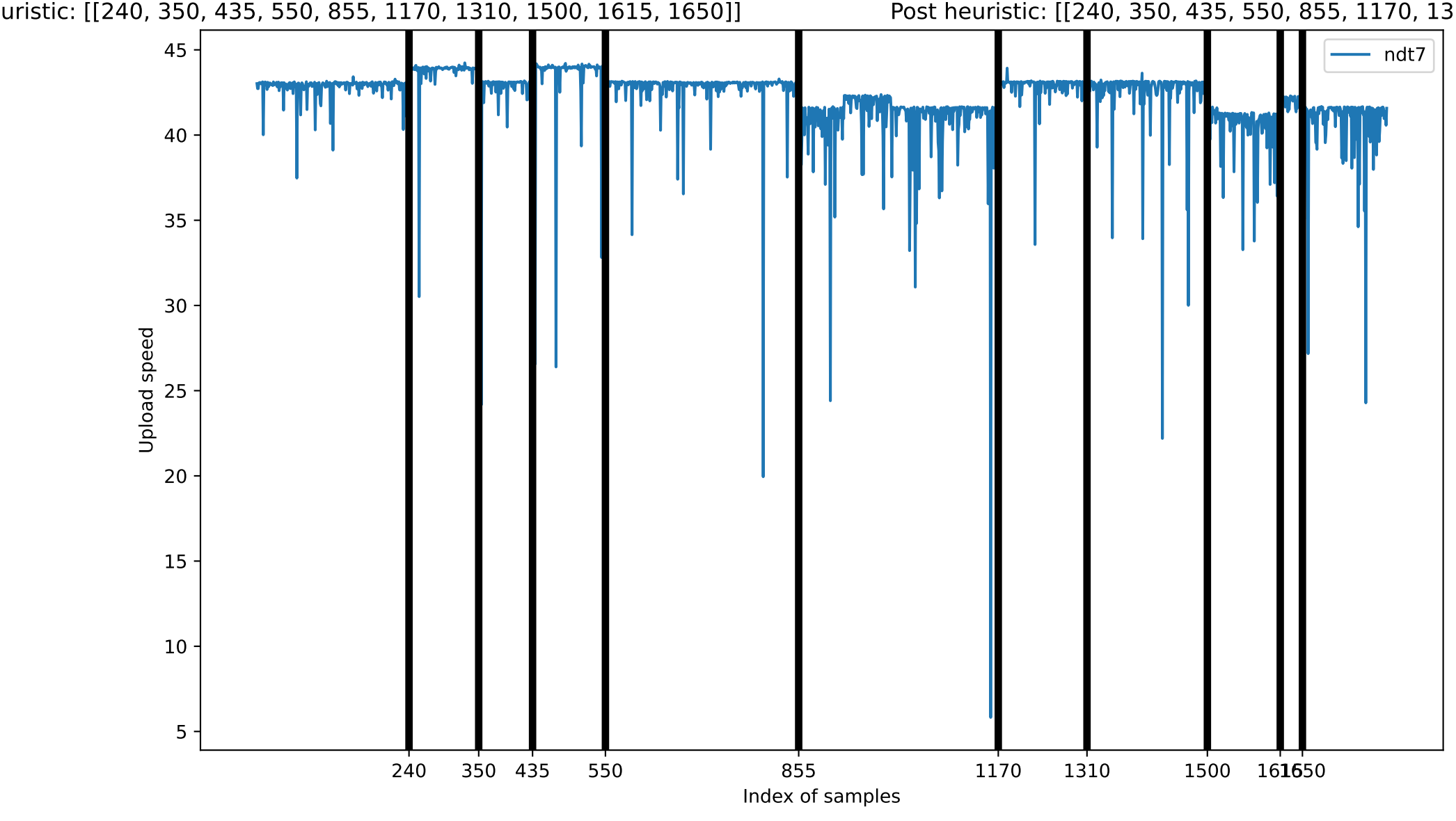
100
90
80
70
60
50
40
30
15
315
385
540
685
875
Index of samples


uristic: [[240, 350, 435, 550, 855, 1170, 1310, 1500, 1615, 1650]]
Post heuristic: [[240, 350, 435, 550, 855, 1170, 1310, 1500, 161
ndt7
Upload speed
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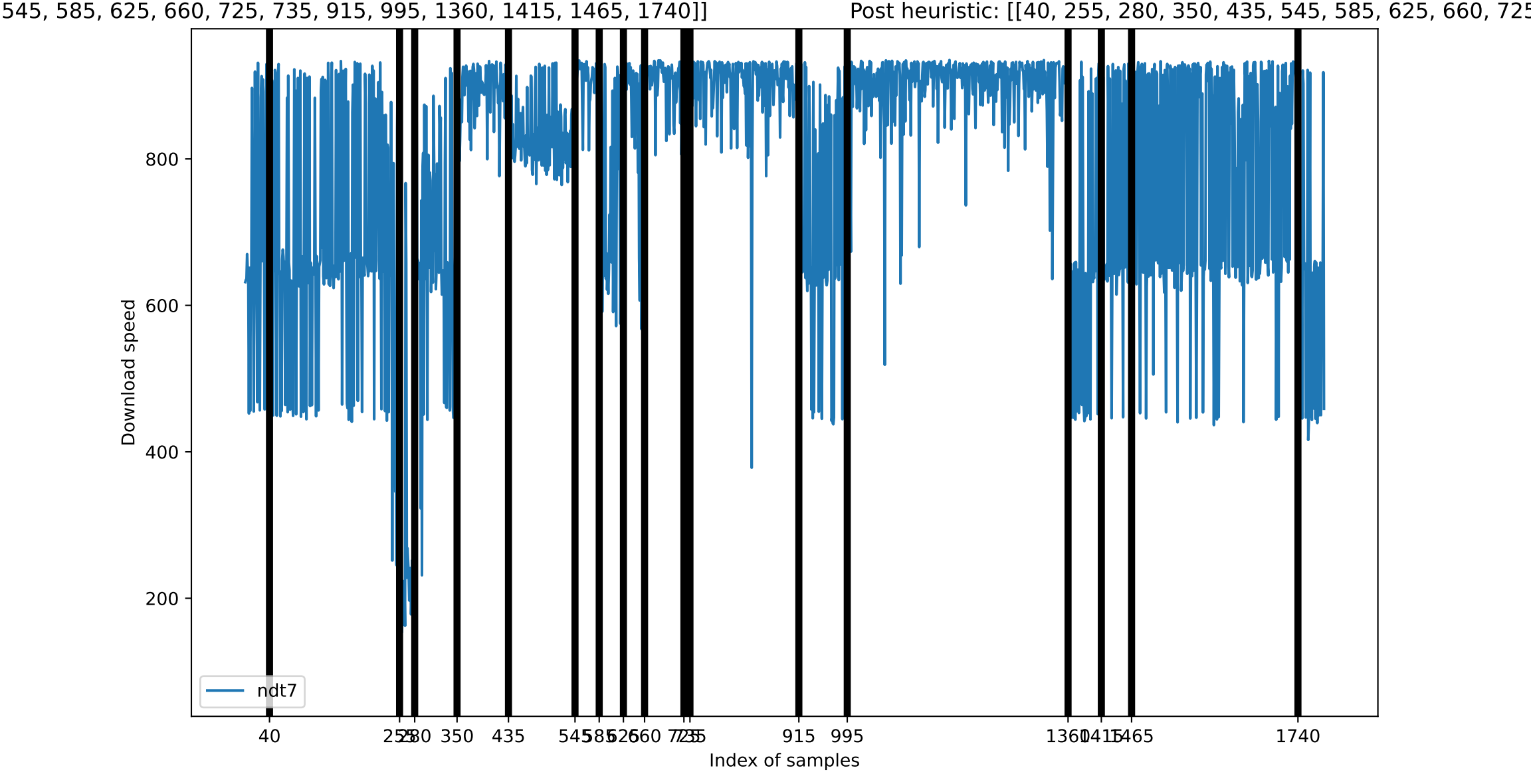
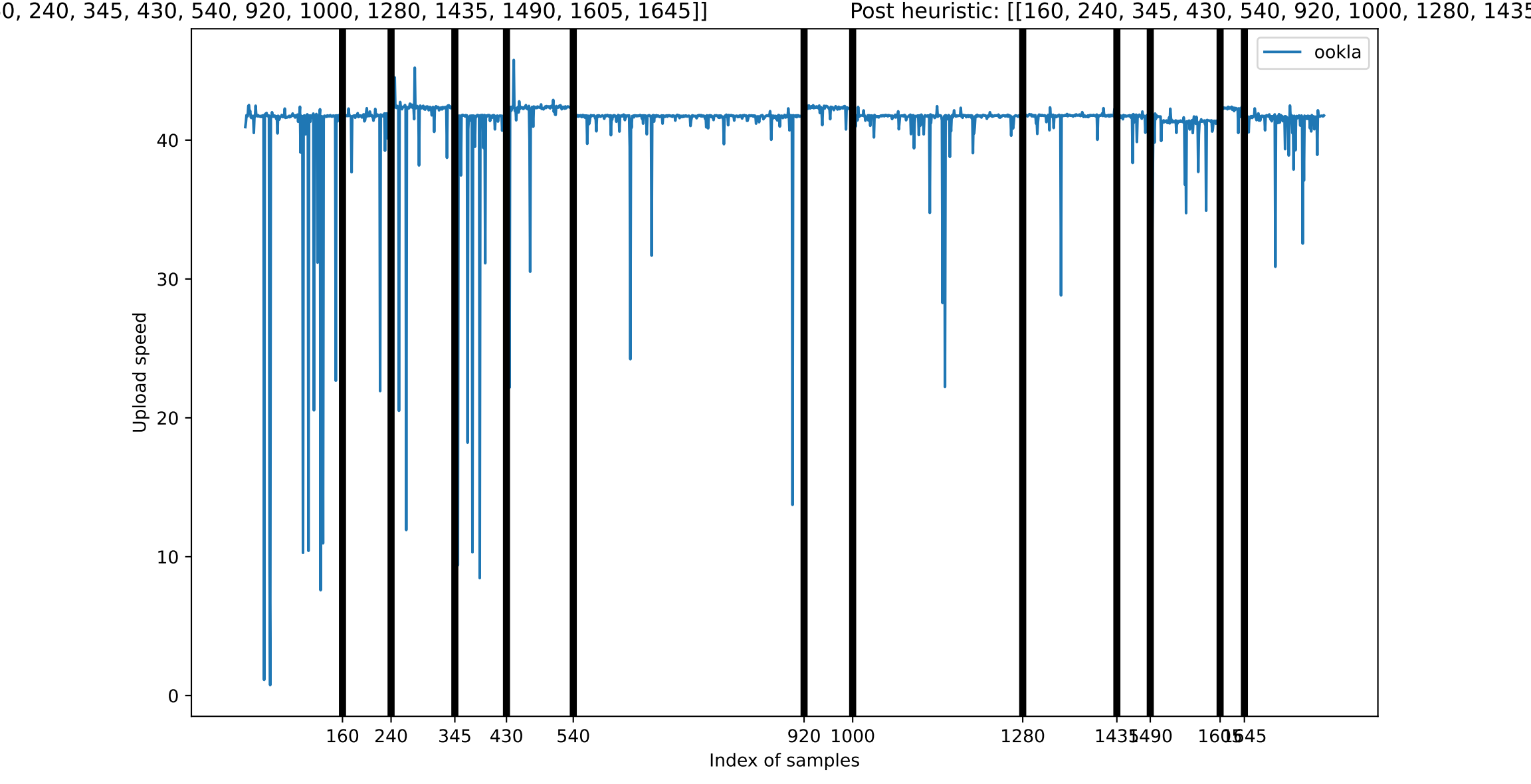
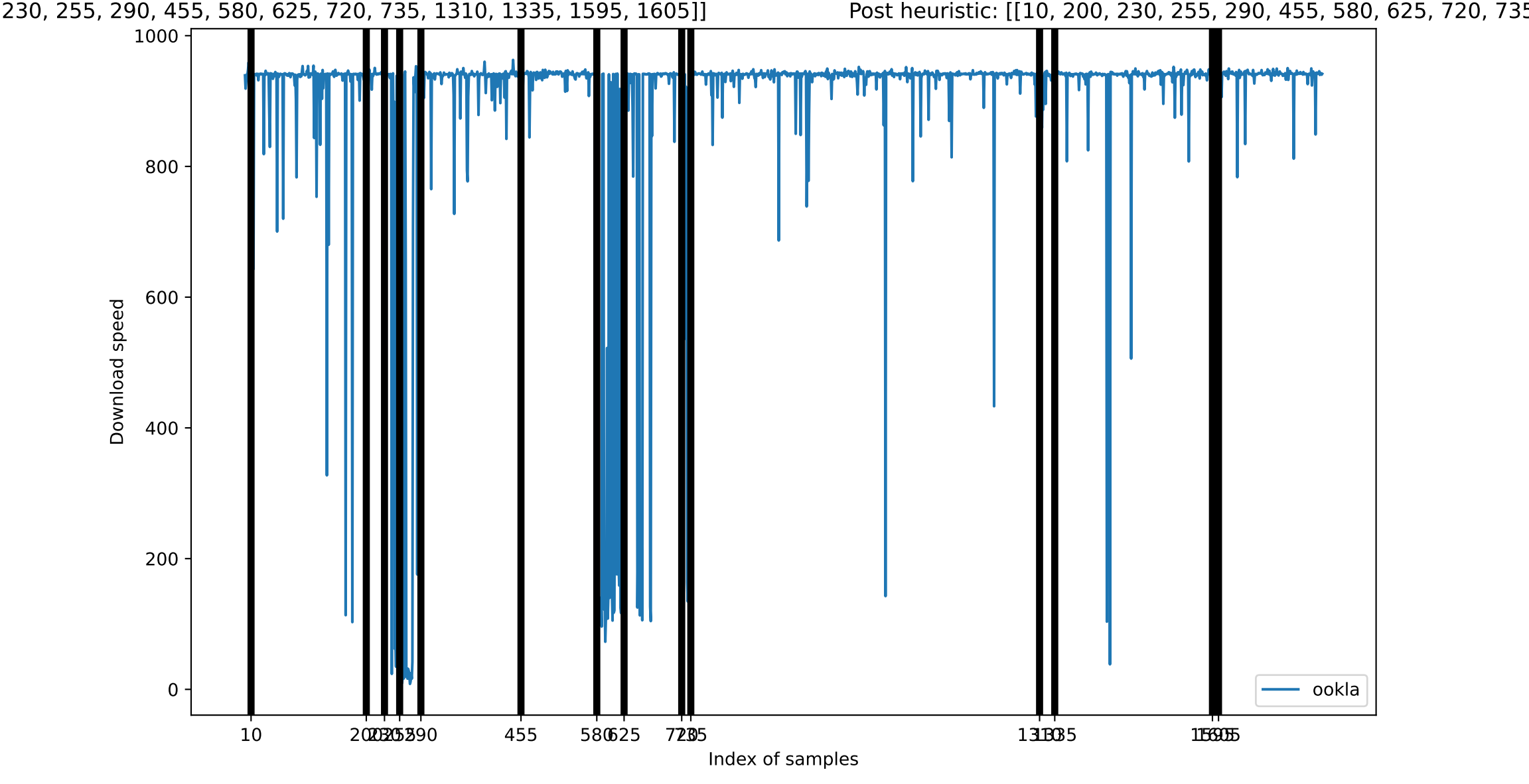
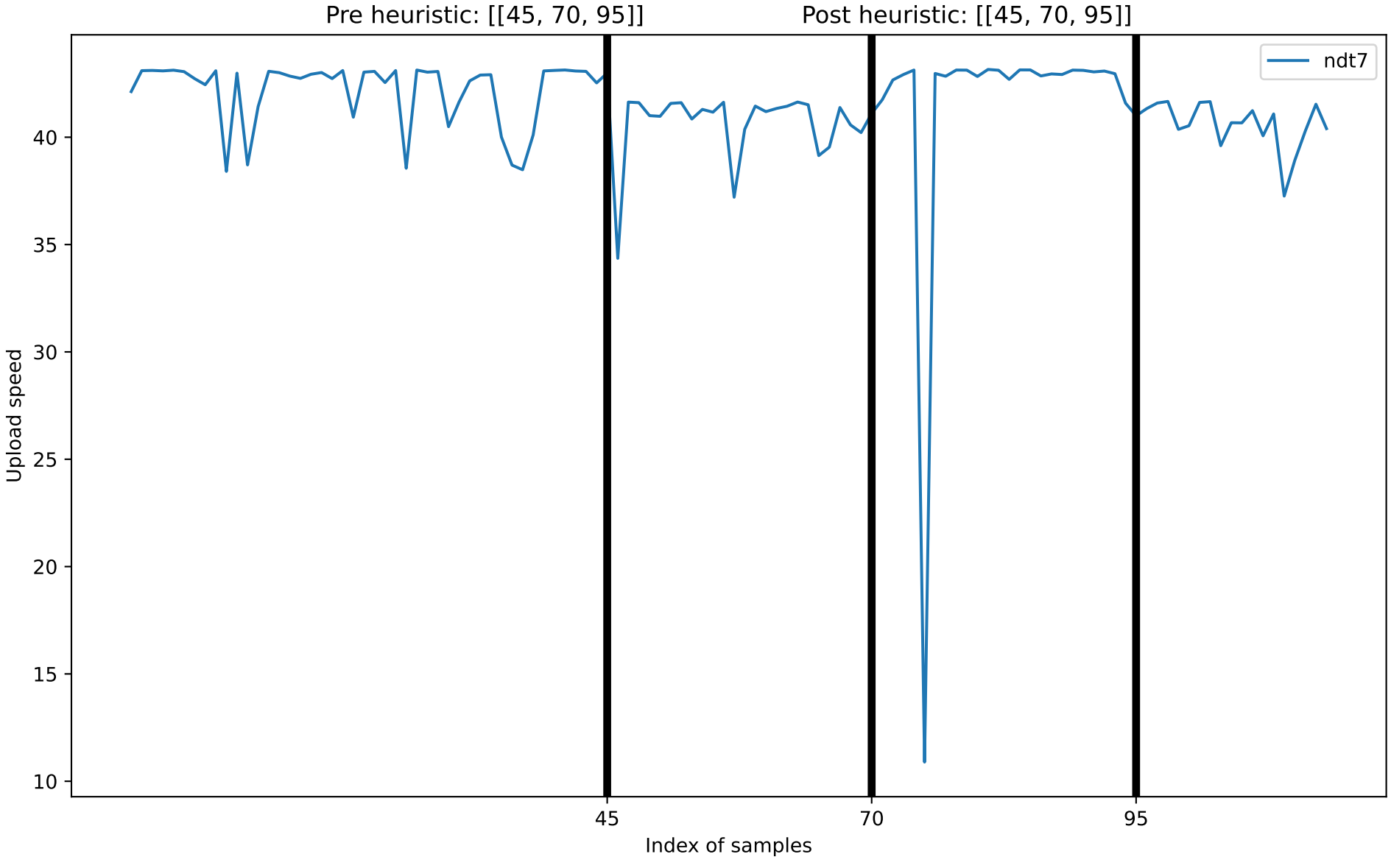
40
35
30
25
20
15
10
5
240
350
435
550
855
1170
1310
1500
1650
Index of samples


545, 585, 625, 660, 725, 735, 915, 995, 1360, 1415, 1465, 1740]]
Post heuristic: [[40, 255, 280, 350, 435, 545, 585, 625, 660, 725
800
600
400
200
Download speed
ndt7
40
350
435
915
995
1740
Index of samples


0, 240, 345, 430, 540, 920, 1000, 1280, 1435, 1490, 1605, 1645]]
Post heuristic: [[160, 240, 345, 430, 540, 920, 1000, 1280, 1435
ookla
Upload speed
0
10
20
30
40
160
240
345
430
540
920
1000
1280
1435
1490
1605
1645
Index of samples


230, 255, 290, 455, 580, 625, 720, 735, 1310, 1335, 1595, 1605]]
Post heuristic: [[10, 200, 230, 255, 290, 455, 580, 625, 720, 735
1000
800
600
400
200
0
Download speed
10
455
Index of samples
ookla


Pre heuristic: [[45, 70, 95]]
Post heuristic: [[45, 70, 95]]
ndt7
Upload speed
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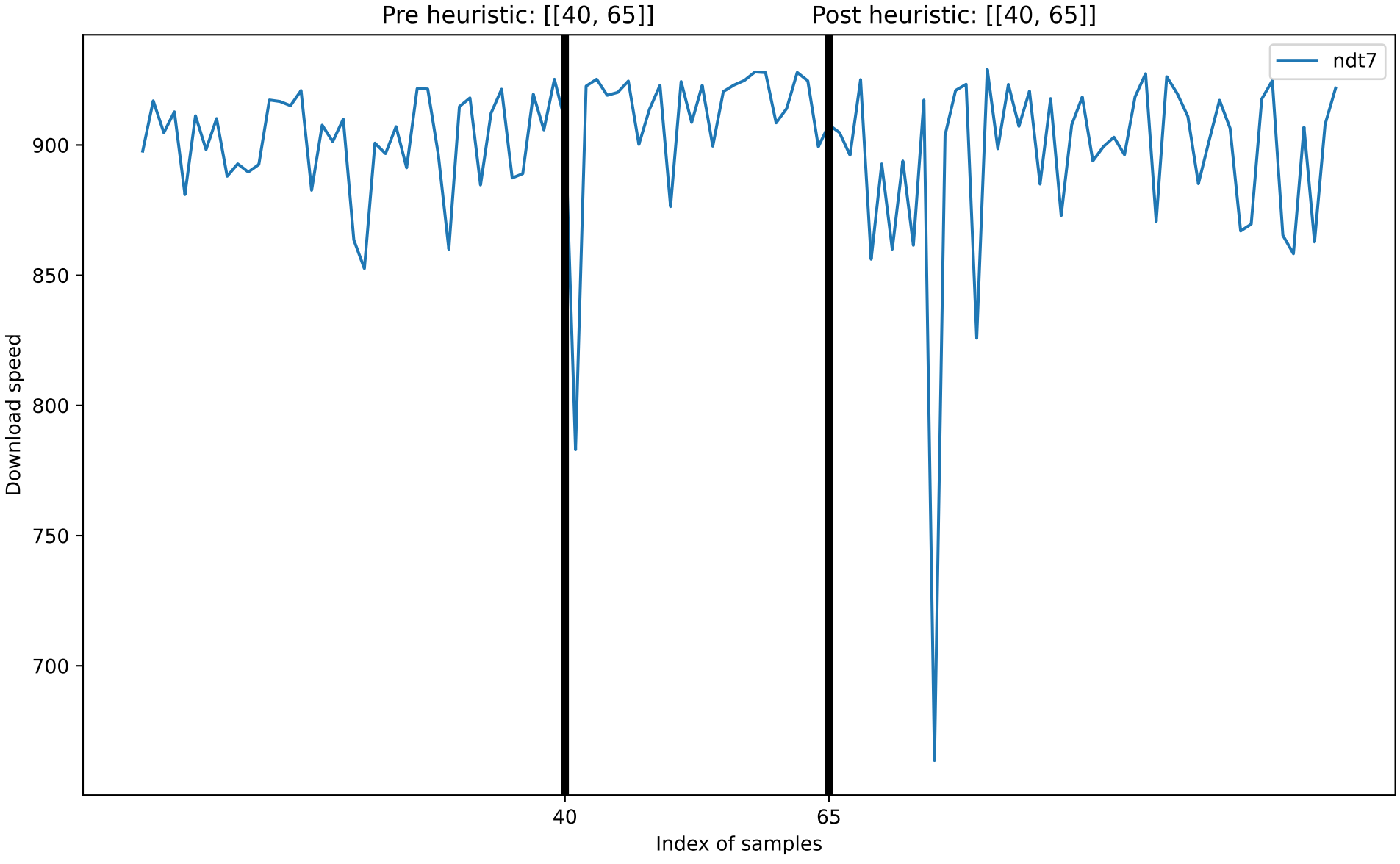
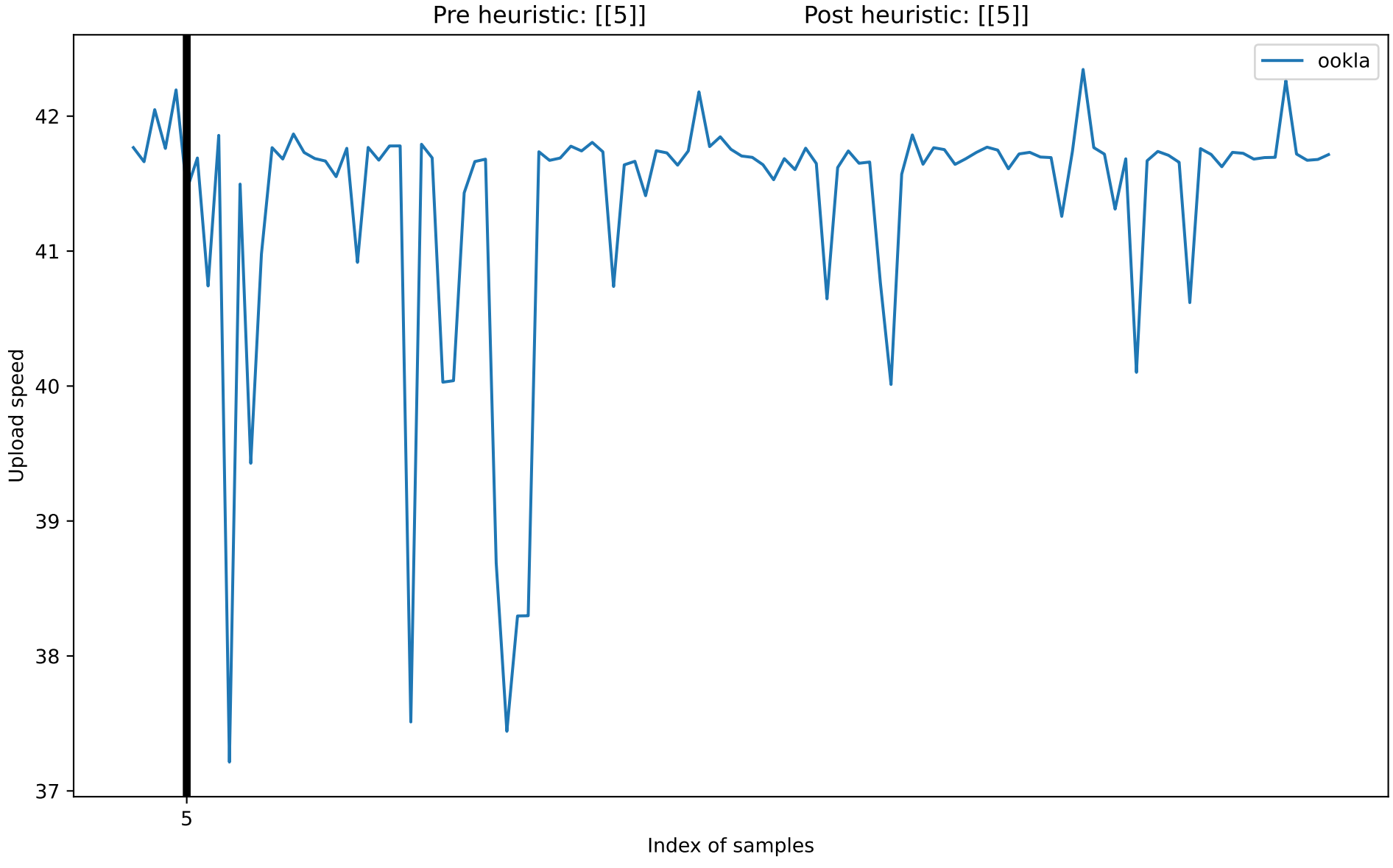
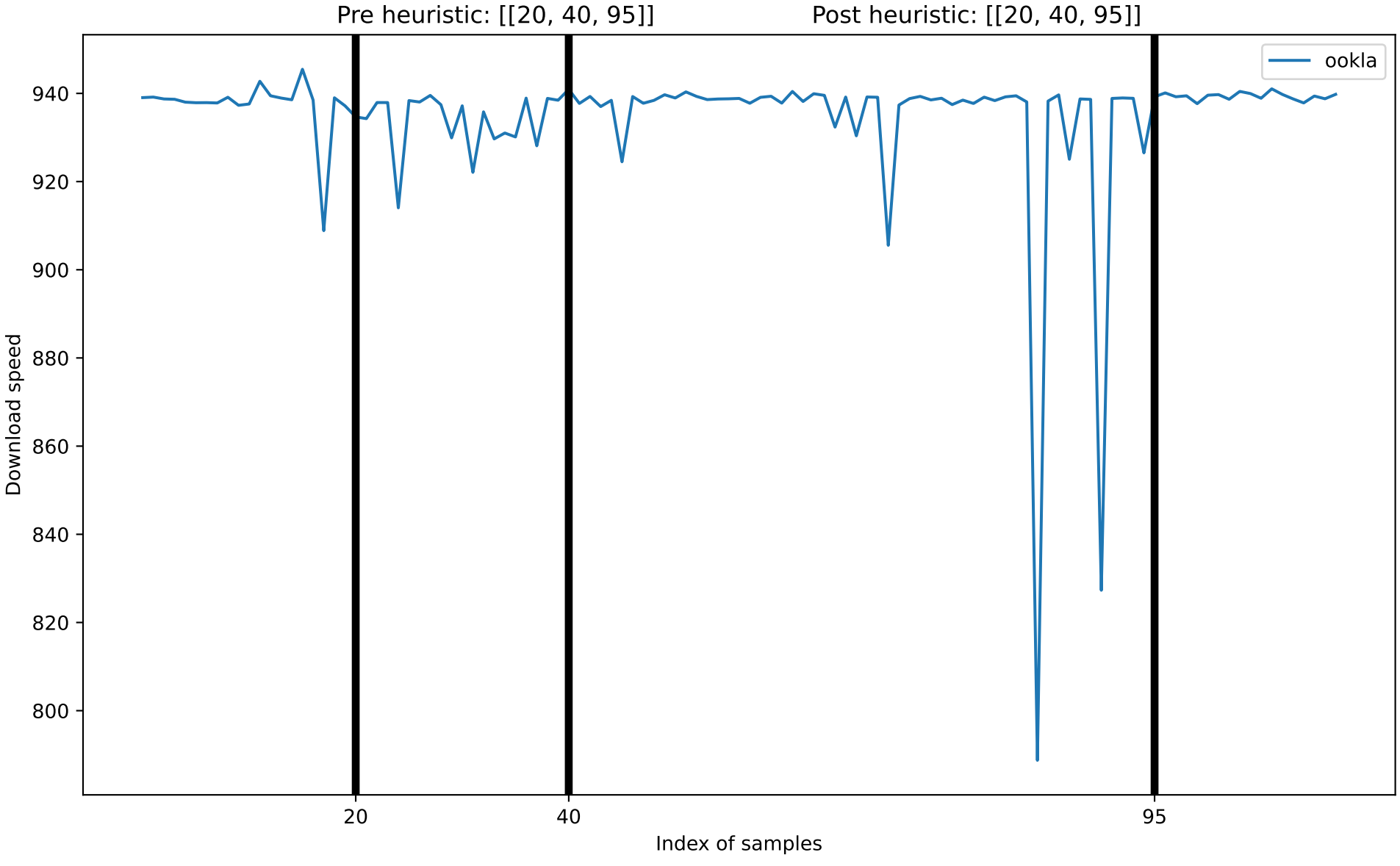
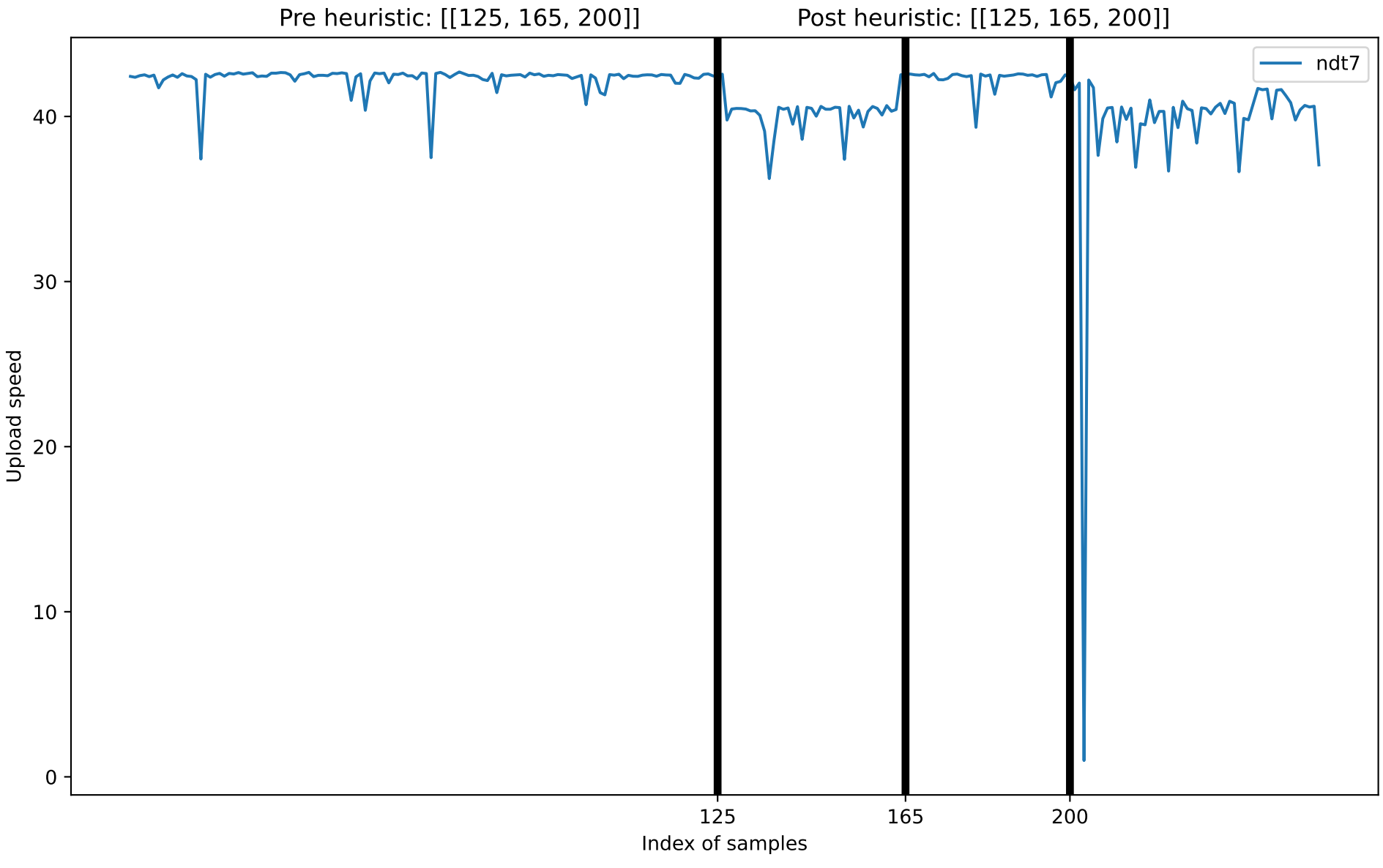
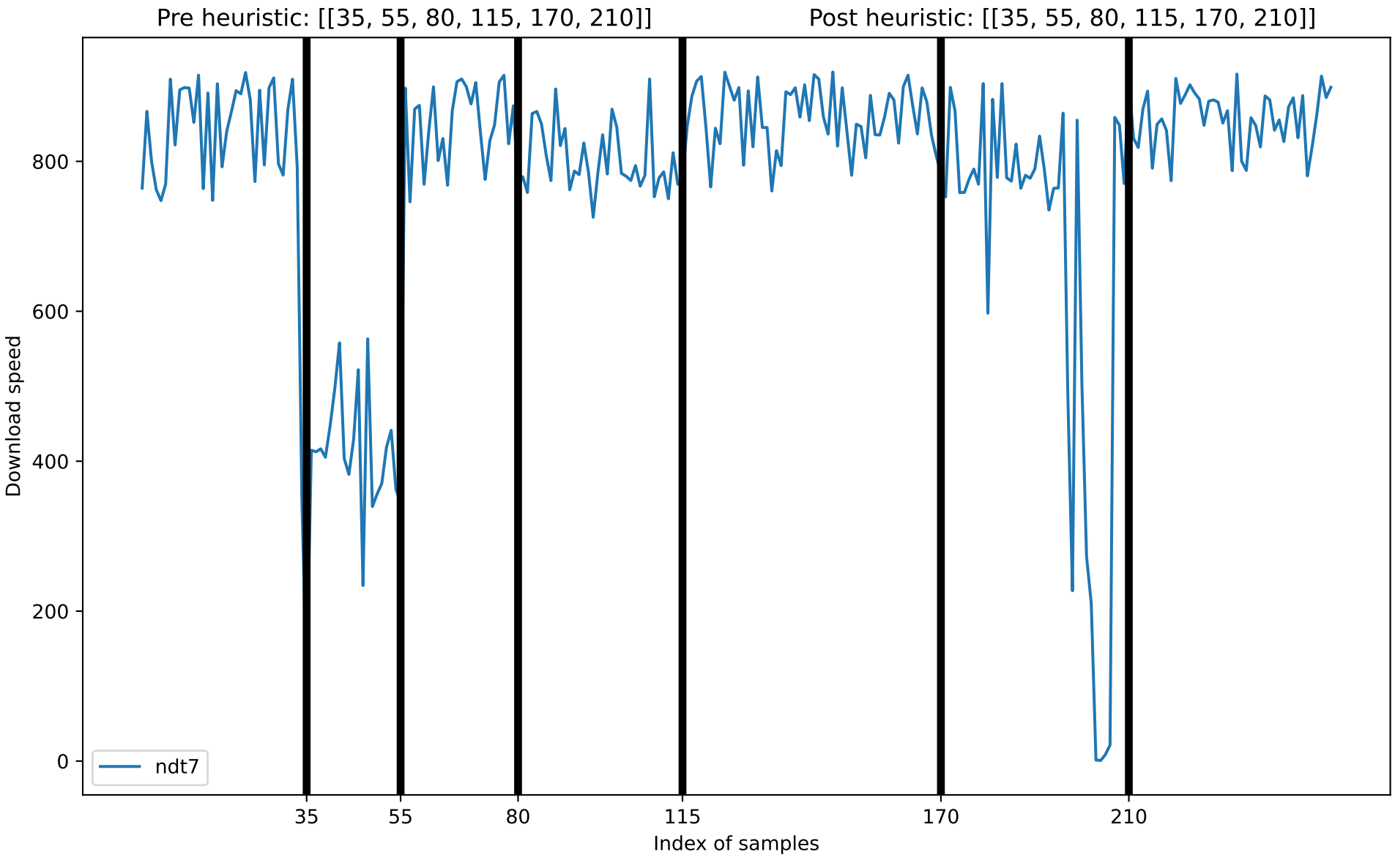
35
30
25
20
15
10
45
70
95
Index of samples

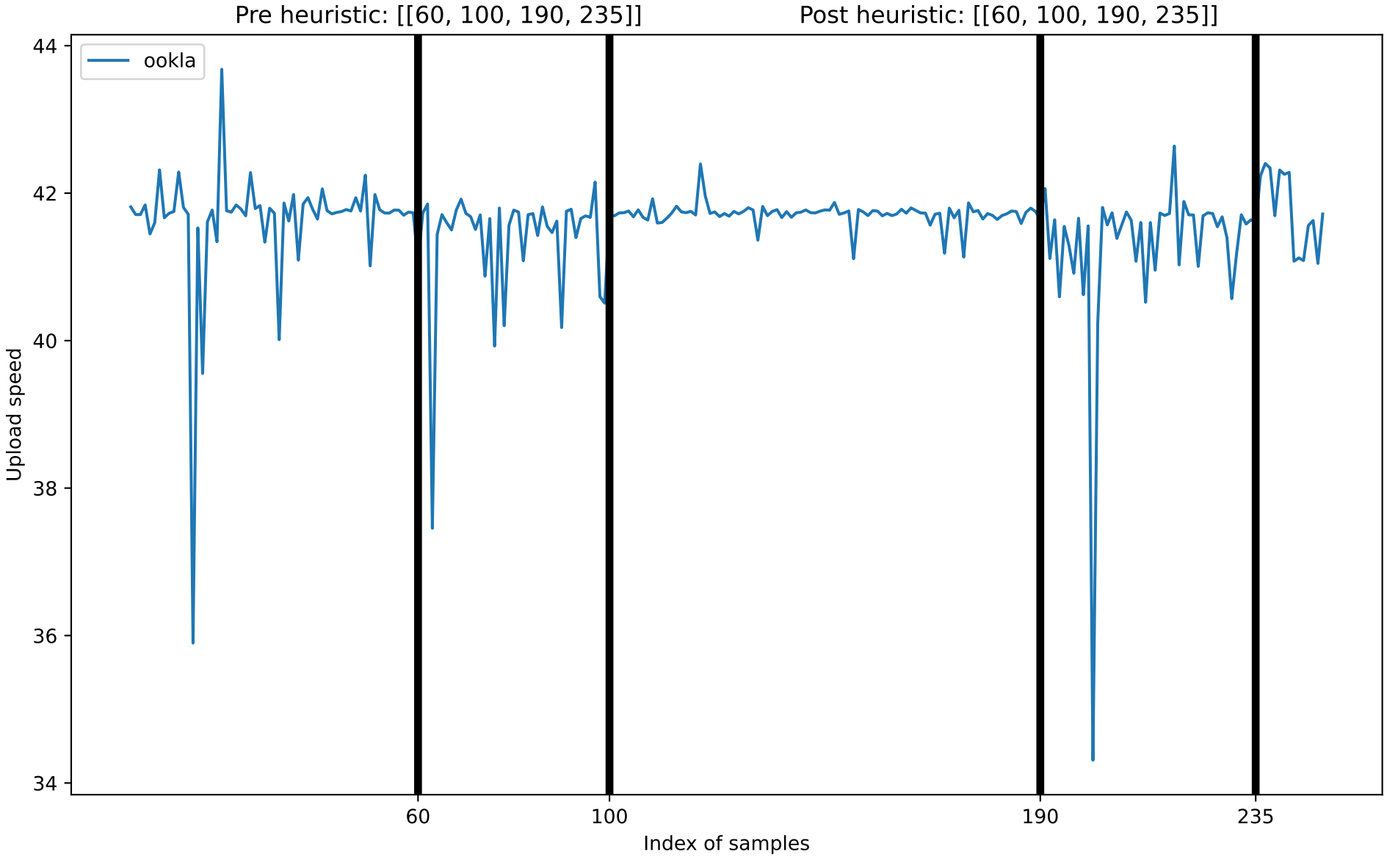

Pre heuristic: [[40, 65]]
Post heuristic: [[40, 65]]
ndt7
900
850
800
750
700
Download speed
40
65
Index of samples

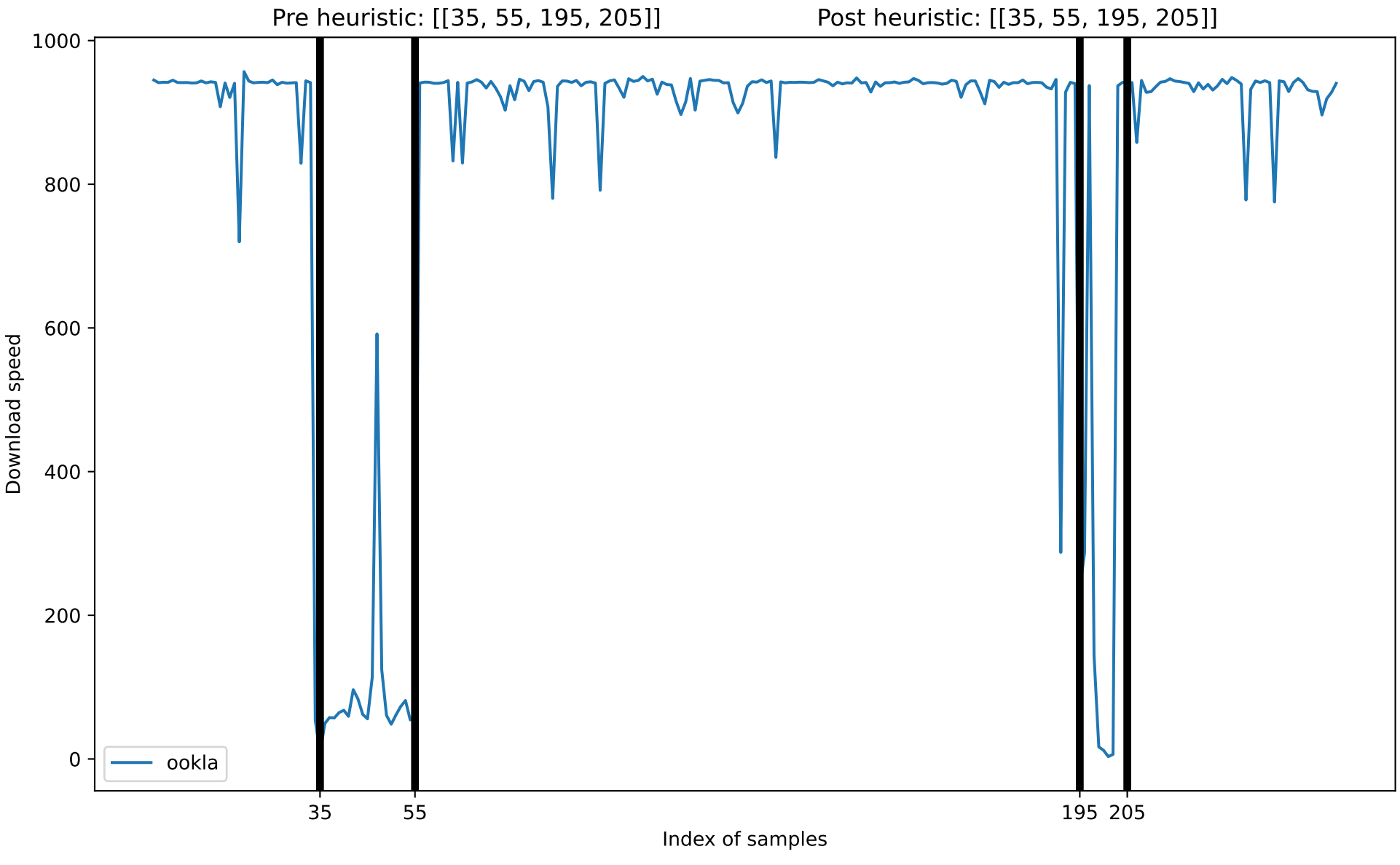

Pre heuristic: [[5]]
Post heuristic: [[5]]
ookla
Upload speed
42
41
40
39
38
37
5
Index of samples

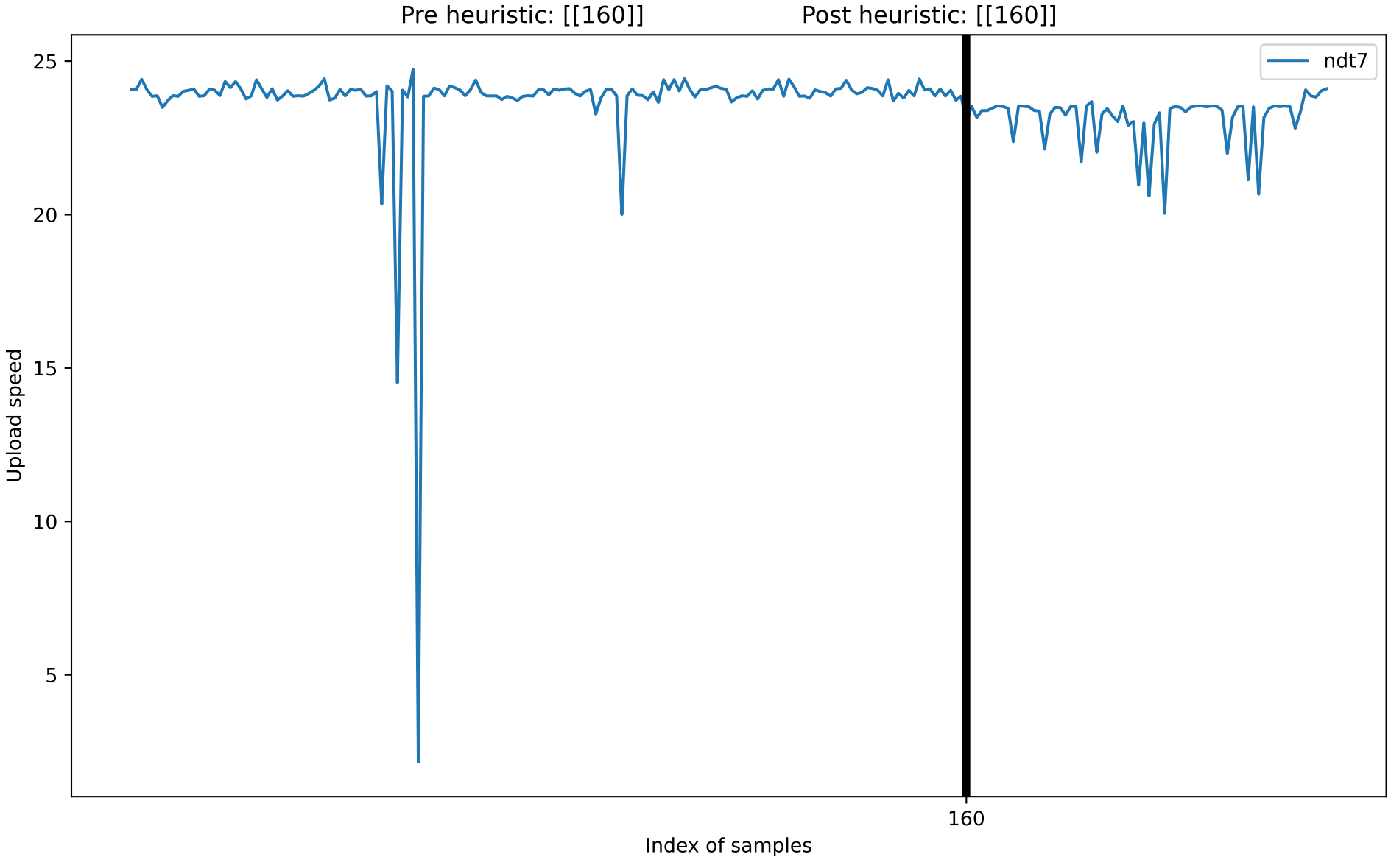

Pre heuristic: [[20, 40, 95]]
Post heuristic: [[20, 40, 95]]
ookla
940
920
900
880
860
840
820
800
Download speed
20
40
95
Index of samples

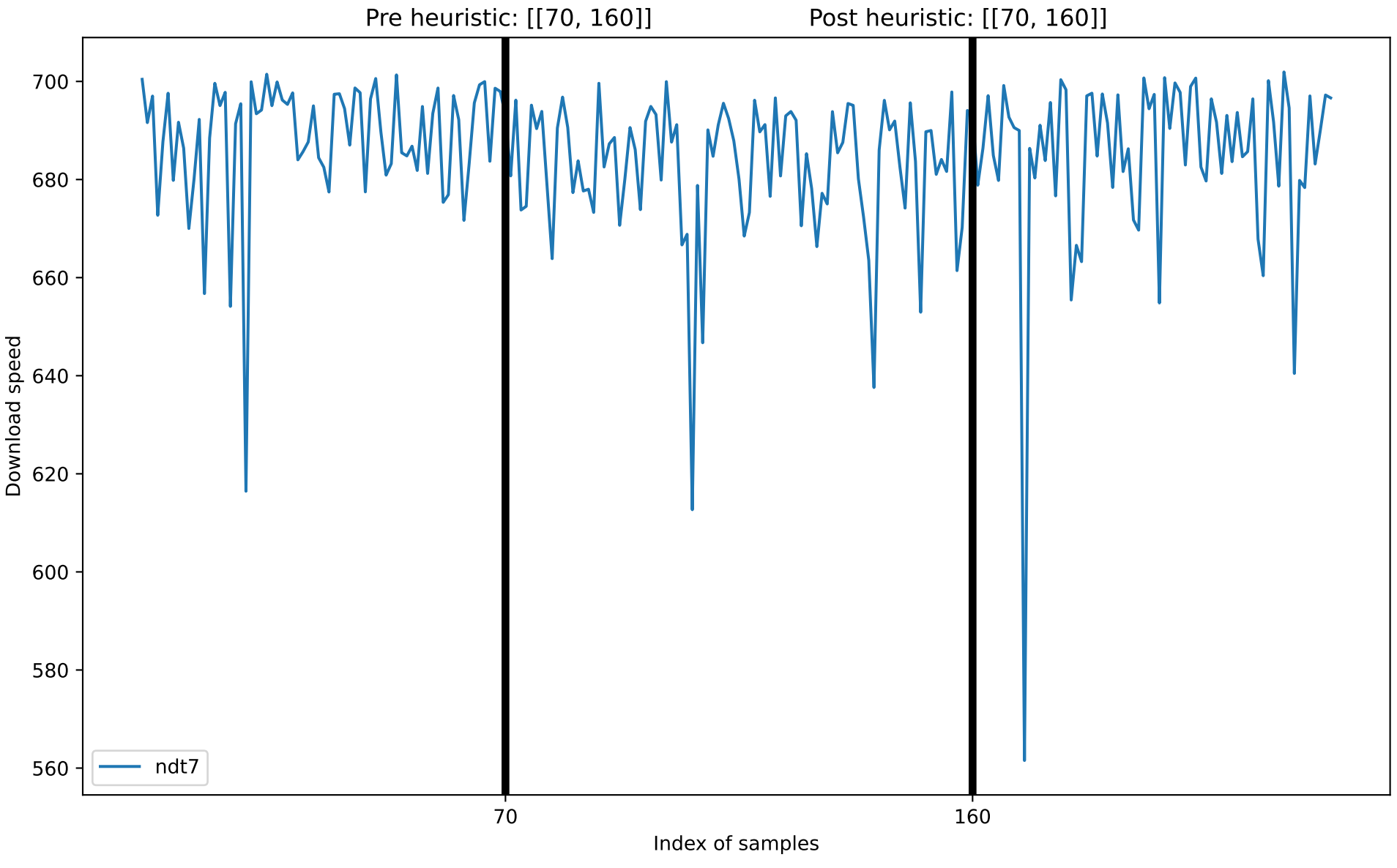

Pre heuristic: [[125, 165, 200]]
Post heuristic: [[125, 165, 200]]
ndt7
Upload speed
0
10
20
30
40
125
165
200
Index of samples

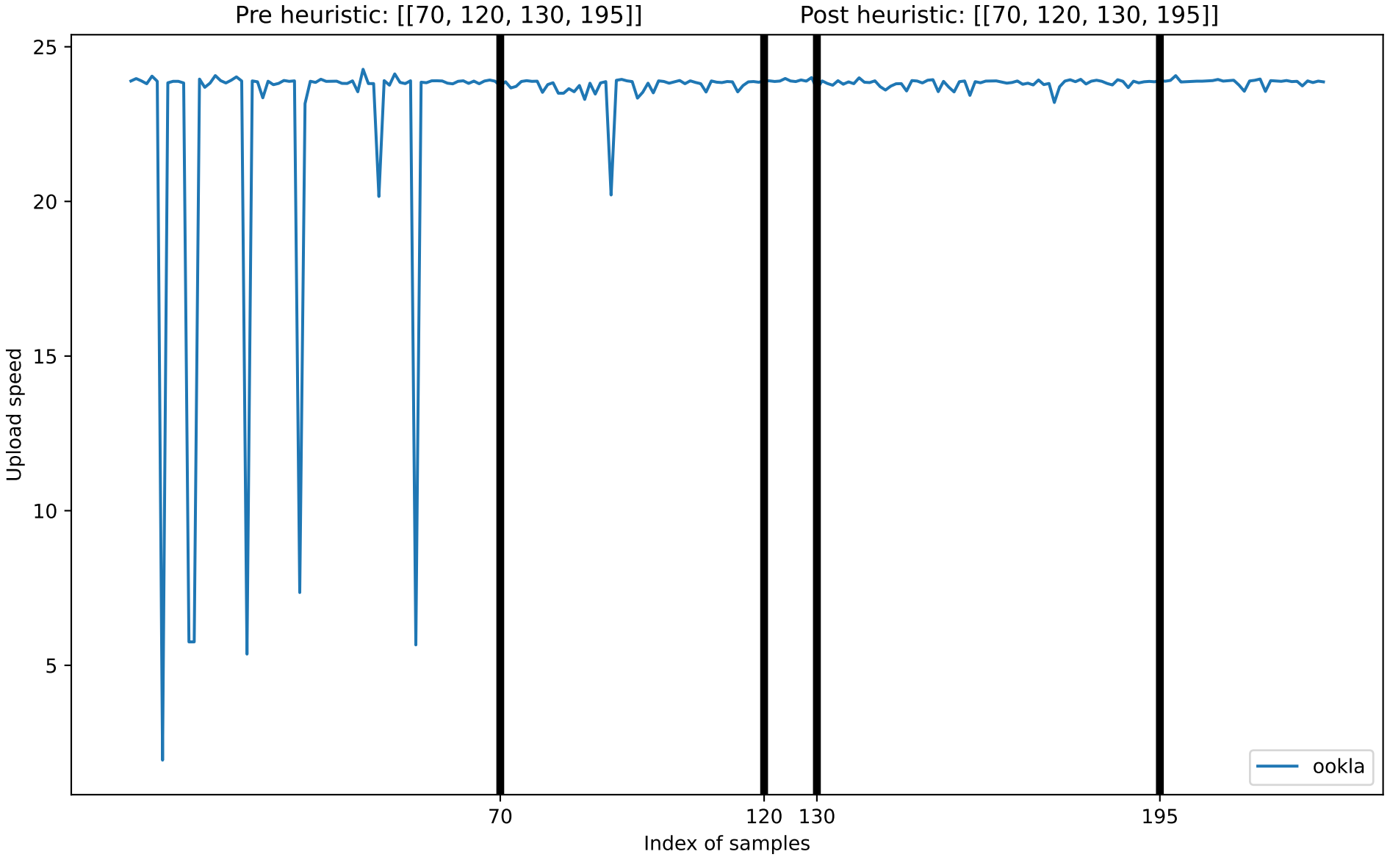

Pre heuristic: [[35, 55, 80, 115, 170, 210]]
Post heuristic: [[35, 55, 80, 115, 170, 210]]
Download speed
800
600
400
200
0
ndt7
35
55
80
115
170
210
Index of samples

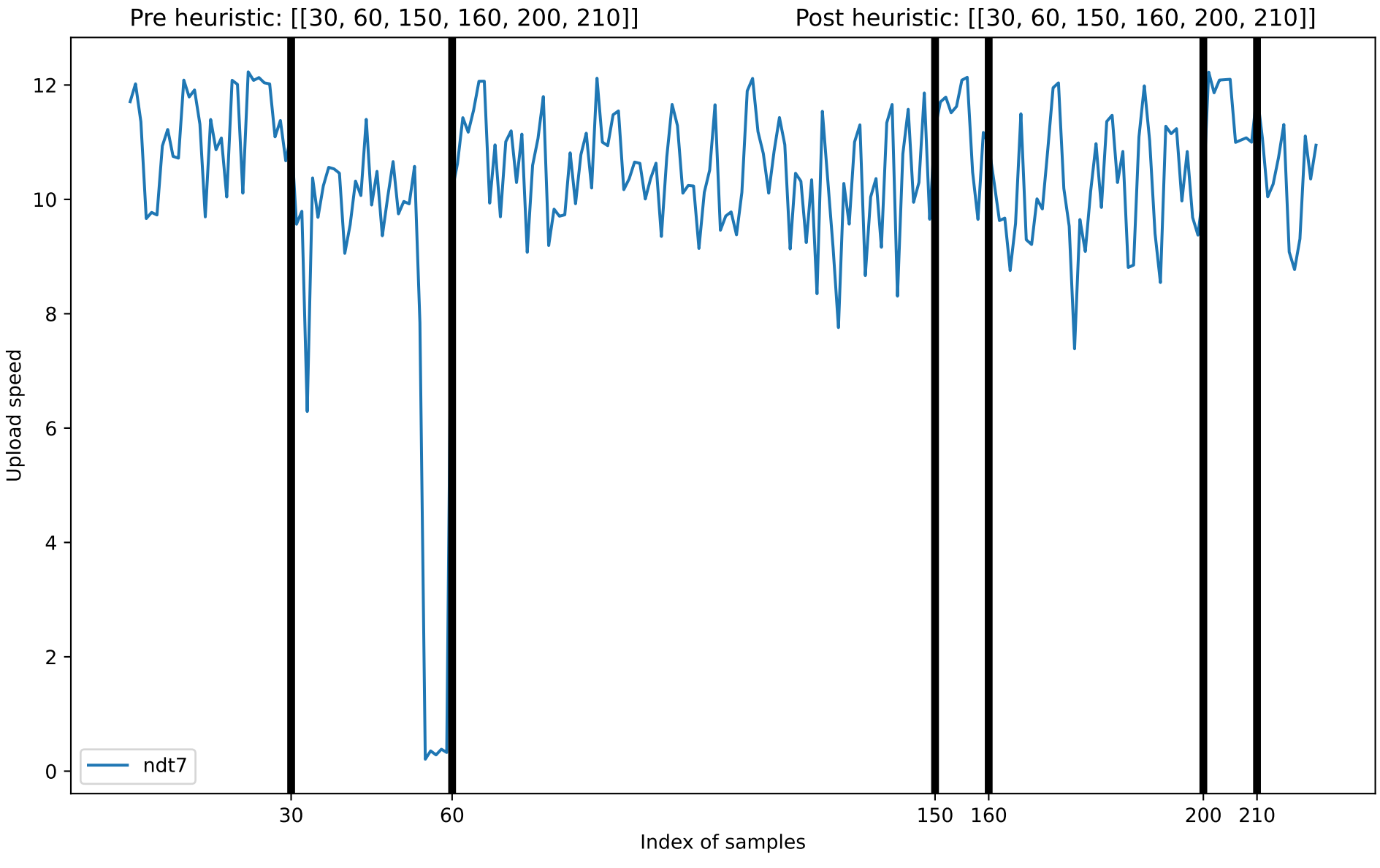

Pre heuristic: [[60, 100, 190, 235]]
Post heuristic: [[60, 100, 190, 235]]
ookla
Upload speed
Index of samples
44
42
40
38
36
34
60
100
190
235

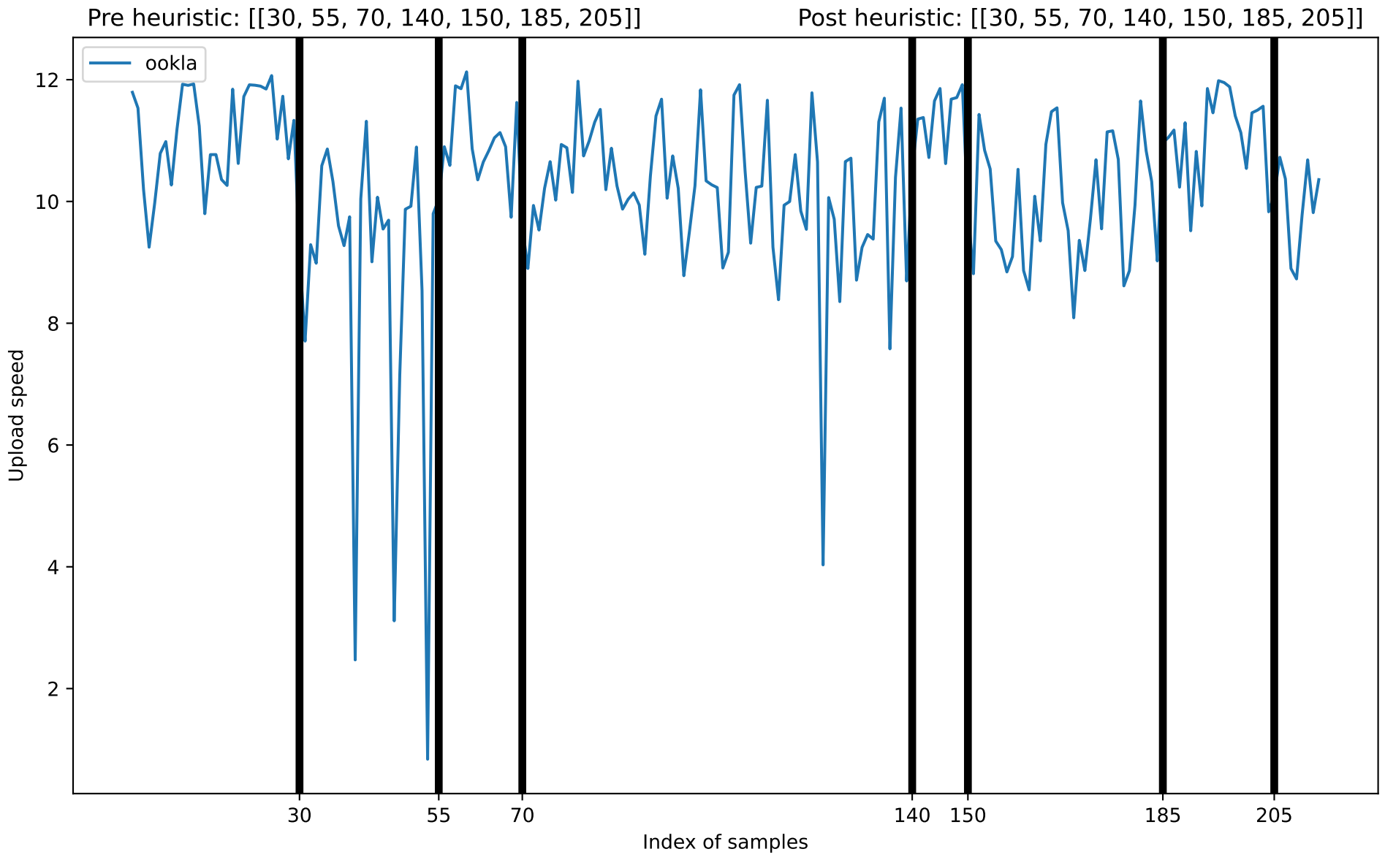

Pre heuristic: [[35, 55, 195, 205]]
Post heuristic: [[35, 55, 195, 205]]
1000
800
600
400
200
0
Download speed
ookla
35
55
195
205
Index of samples

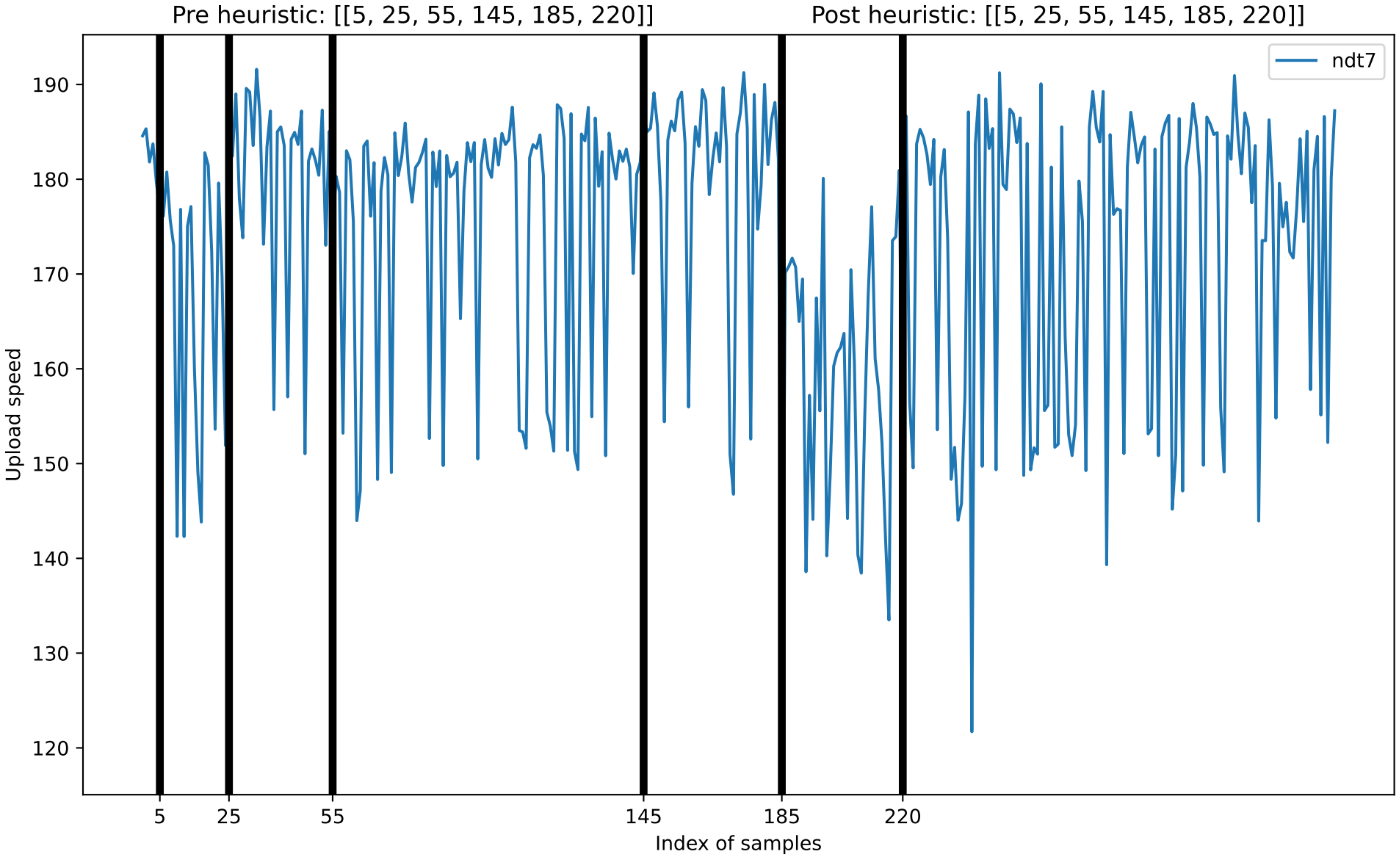

Pre heuristic: [[160]]
Post heuristic: [[160]]
ndt7
Upload speed
25
20
15
10
5
160
Index of samples

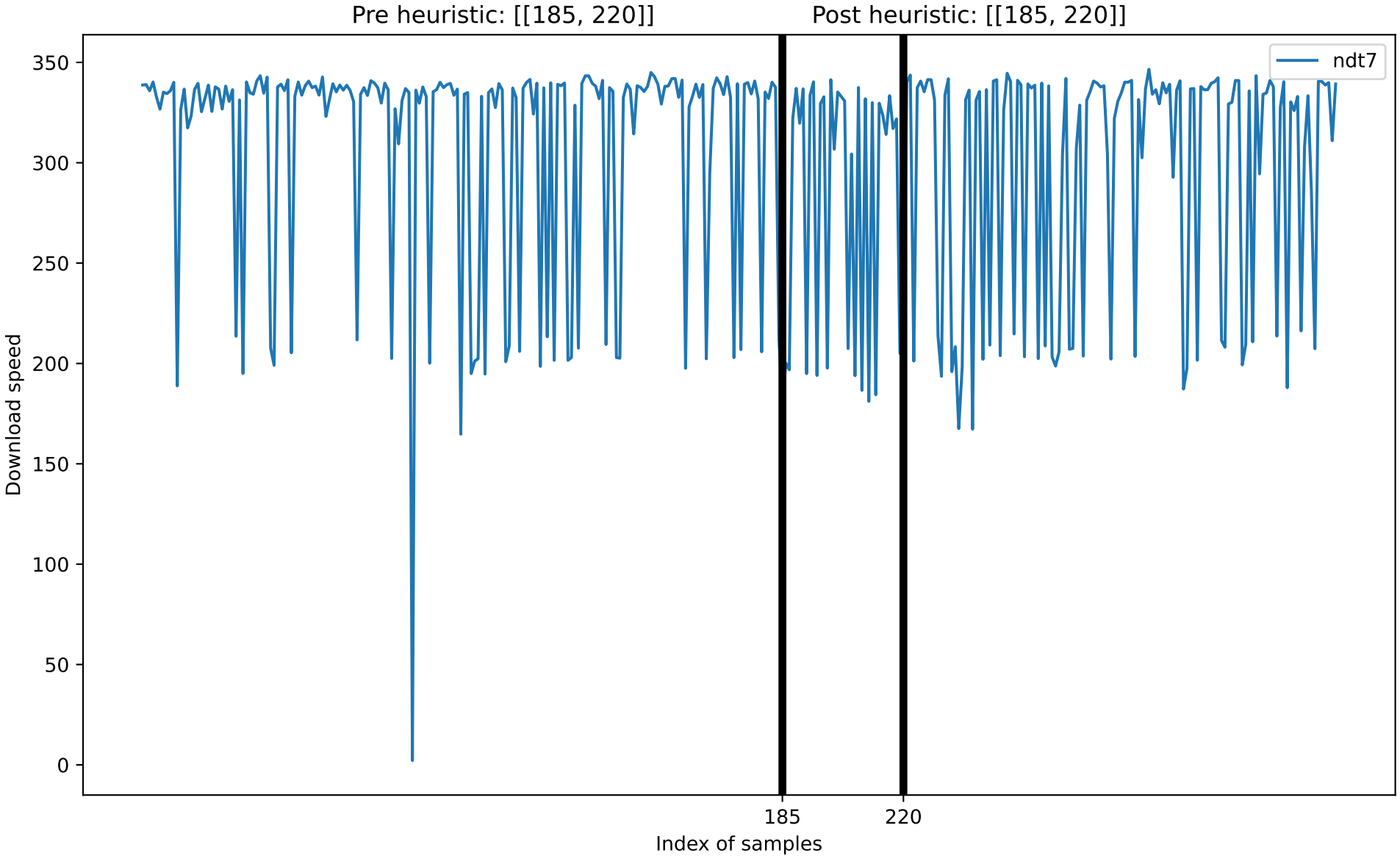

Pre heuristic: [[70, 160]]
Post heuristic: [[70, 160]]
Download speed
700
680
660
640
620
600
580
560
ndt7
70
160
Index of samples

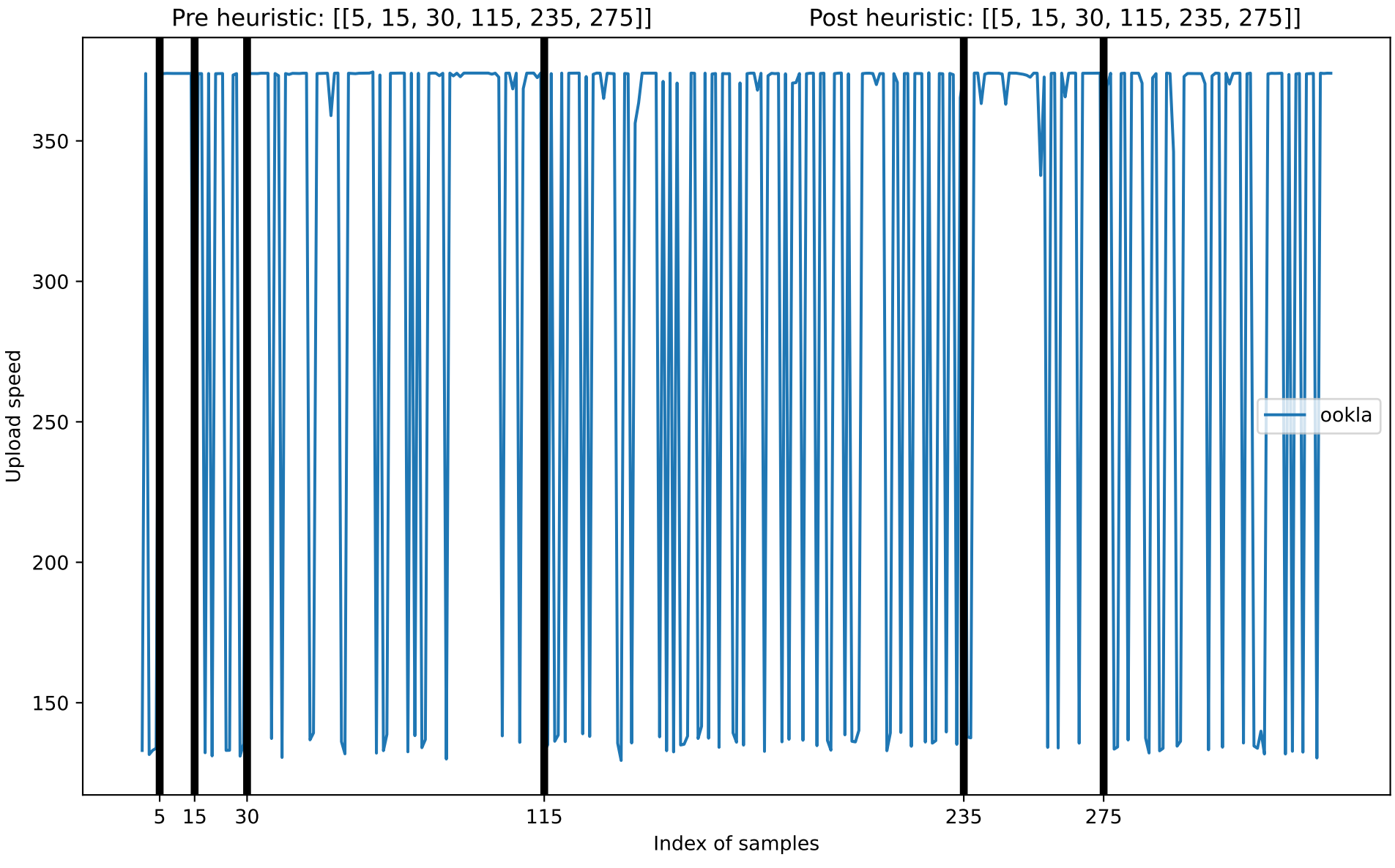

Pre heuristic: [[70, 120, 130, 195]]
Post heuristic: [[70, 120, 130, 195]]
Upload speed
25
20
15
10
5
70
120
130
195
Index of samples
ookla

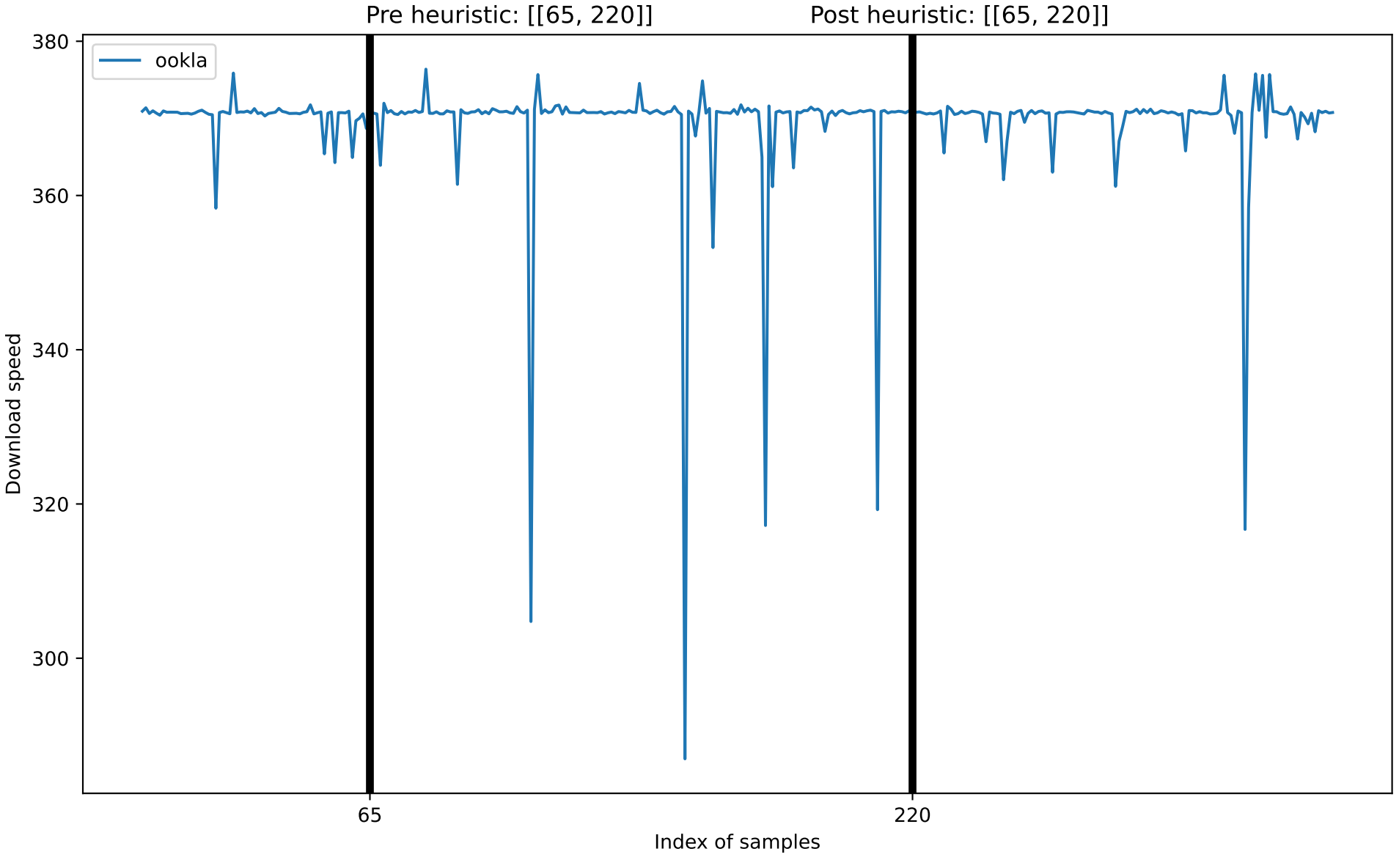

Pre heuristic: [[30, 60, 150, 160, 200, 210]]
Post heuristic: [[30, 60, 150, 160, 200, 210]]
Upload speed
0
2
4
6
8
10
12
ndt7
30
60
150
160
200
210
Index of samples

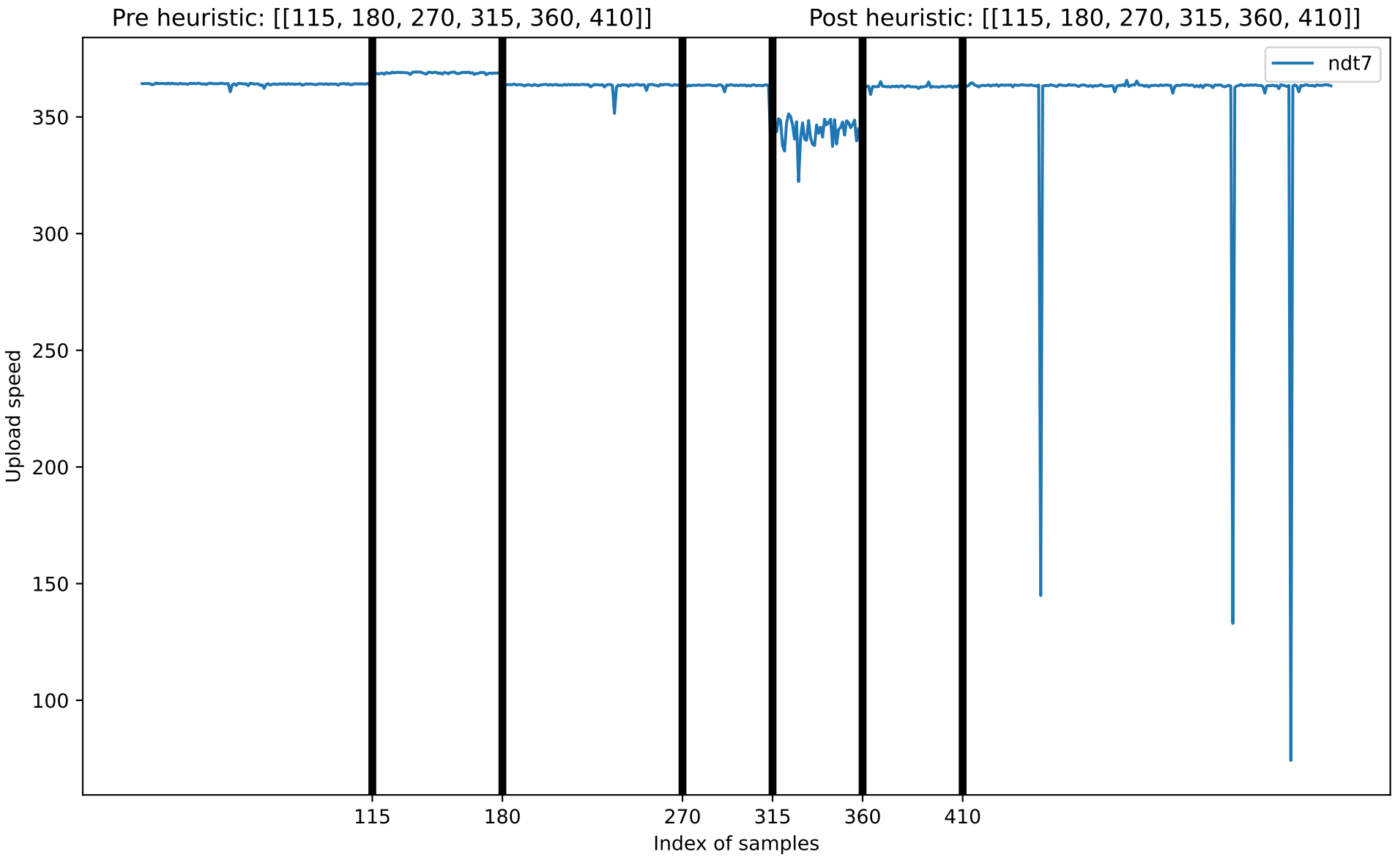

Pre heuristic: [[30, 55, 70, 140, 150, 185, 205]]
Post heuristic: [[30, 55, 70, 140, 150, 185, 205]]
ookla
Upload speed
Index of samples
12
10
8
6
4
2
30
55
70
140
150
185
205

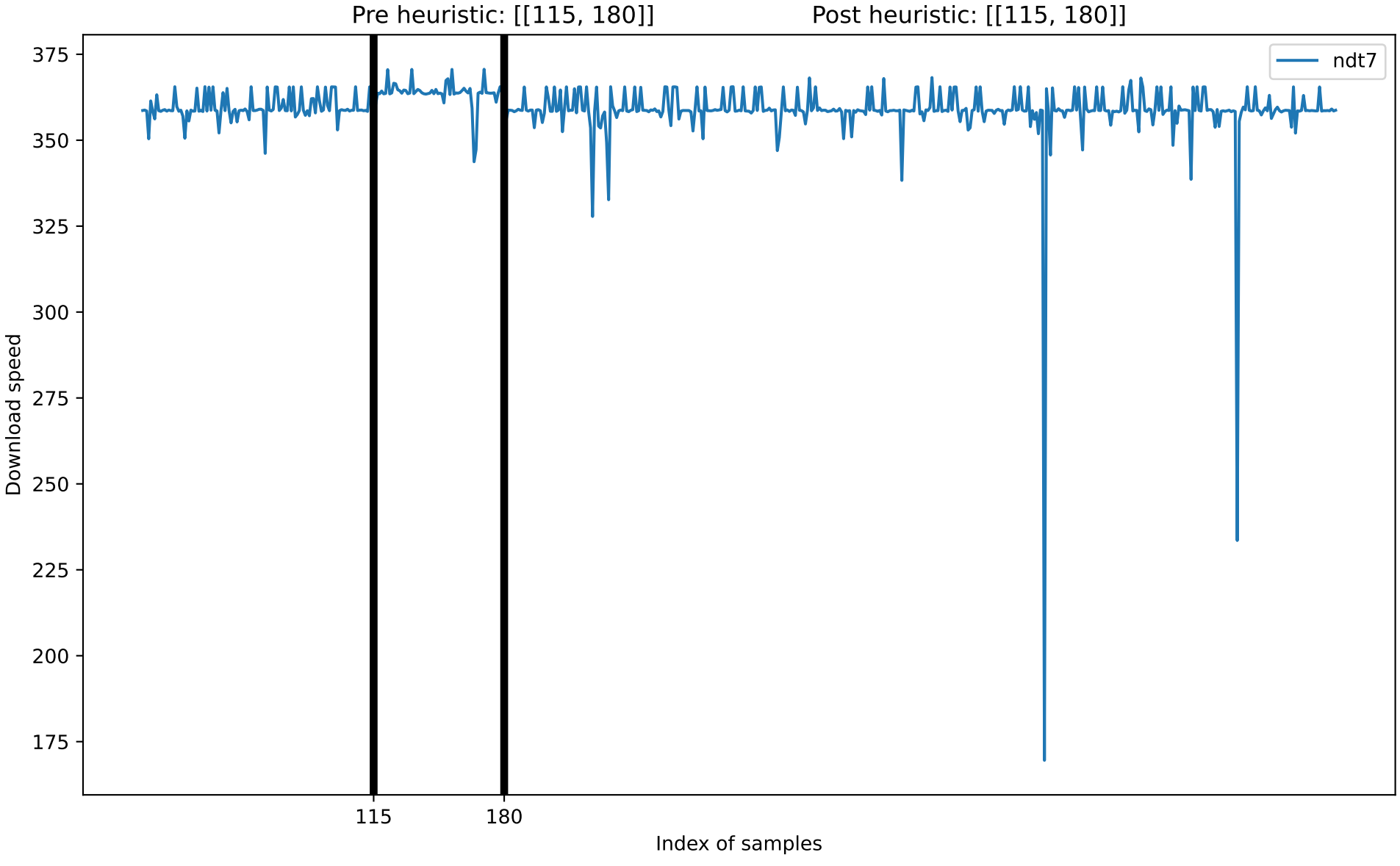

Pre heuristic: [[5, 25, 55, 145, 185, 220]]
Post heuristic: [[5, 25, 55, 145, 185, 220]]
ndt7
Upload speed
190
180
170
160
150
140
130
120
5
25
55
145
185
220
Index of samples

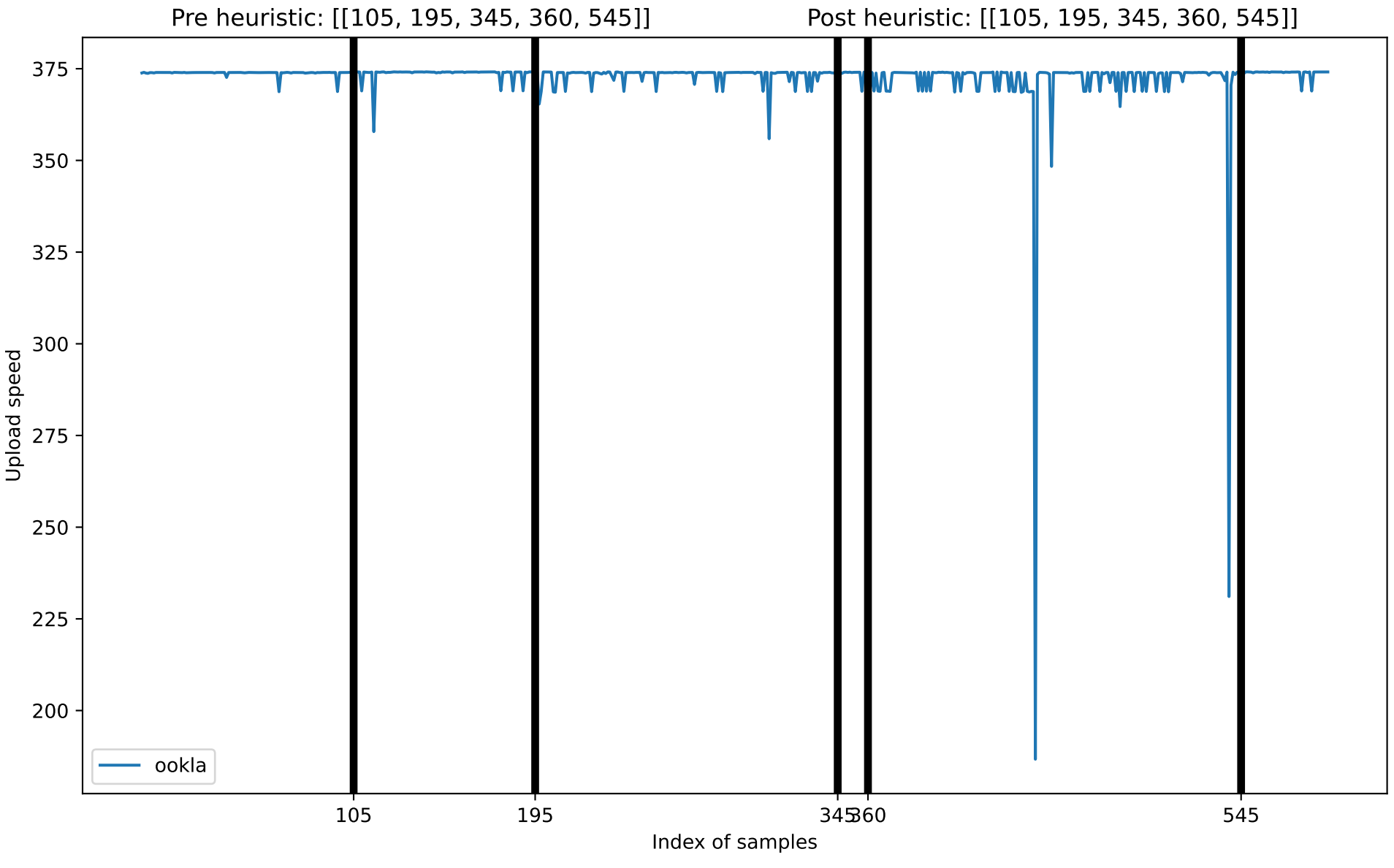

Pre heuristic: [[185, 220]]
Post heuristic: [[185, 220]]
ndt7
Download speed
350
300
250
200
150
100
50
0
185
220
Index of samples

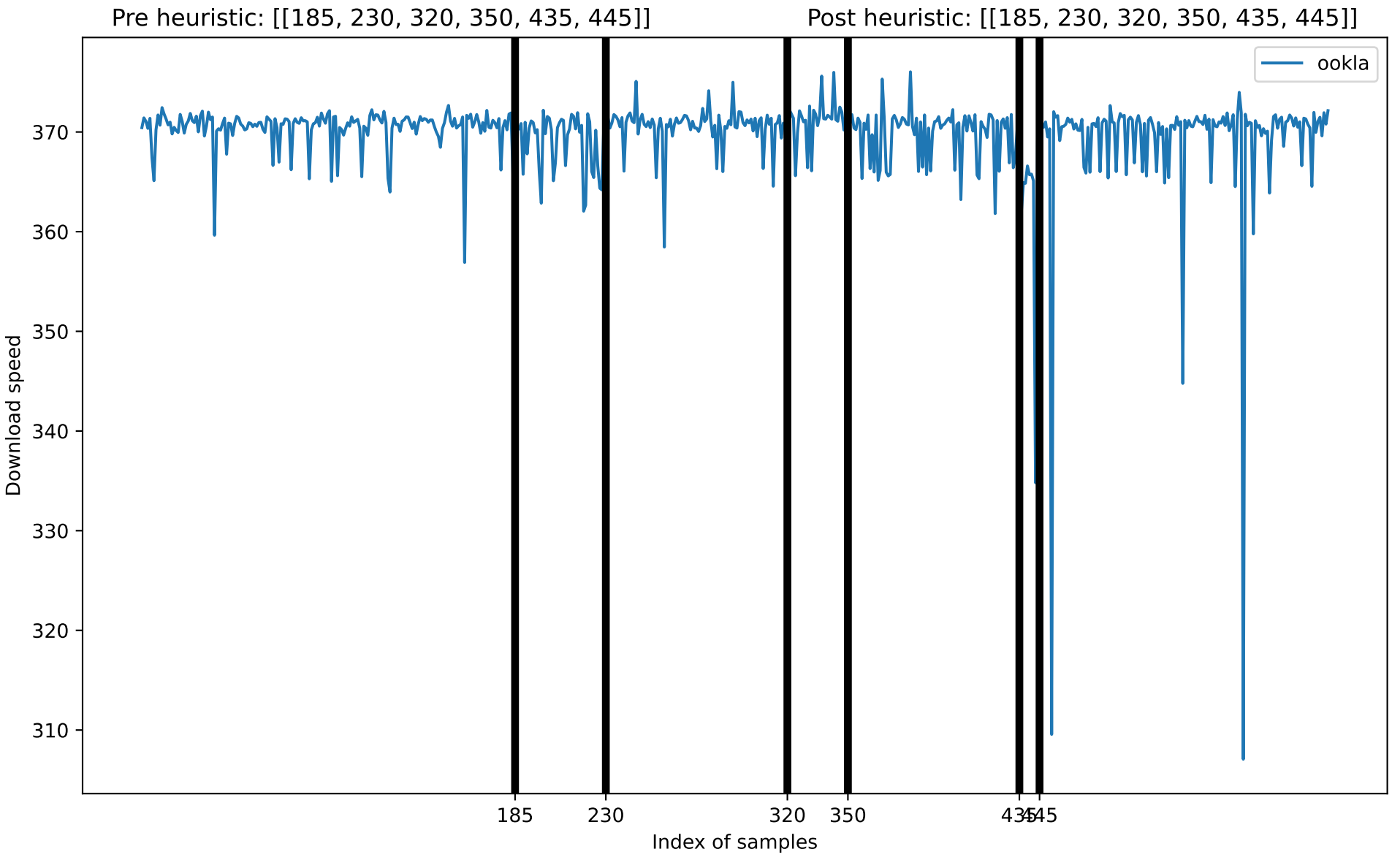

Pre heuristic: [[5, 15, 30, 115, 235, 275]]
Post heuristic: [[5, 15, 30, 115, 235, 275]]
Upload speed
350
300
250
200
150
5
15
30
115
235
275
Index of samples
ookla

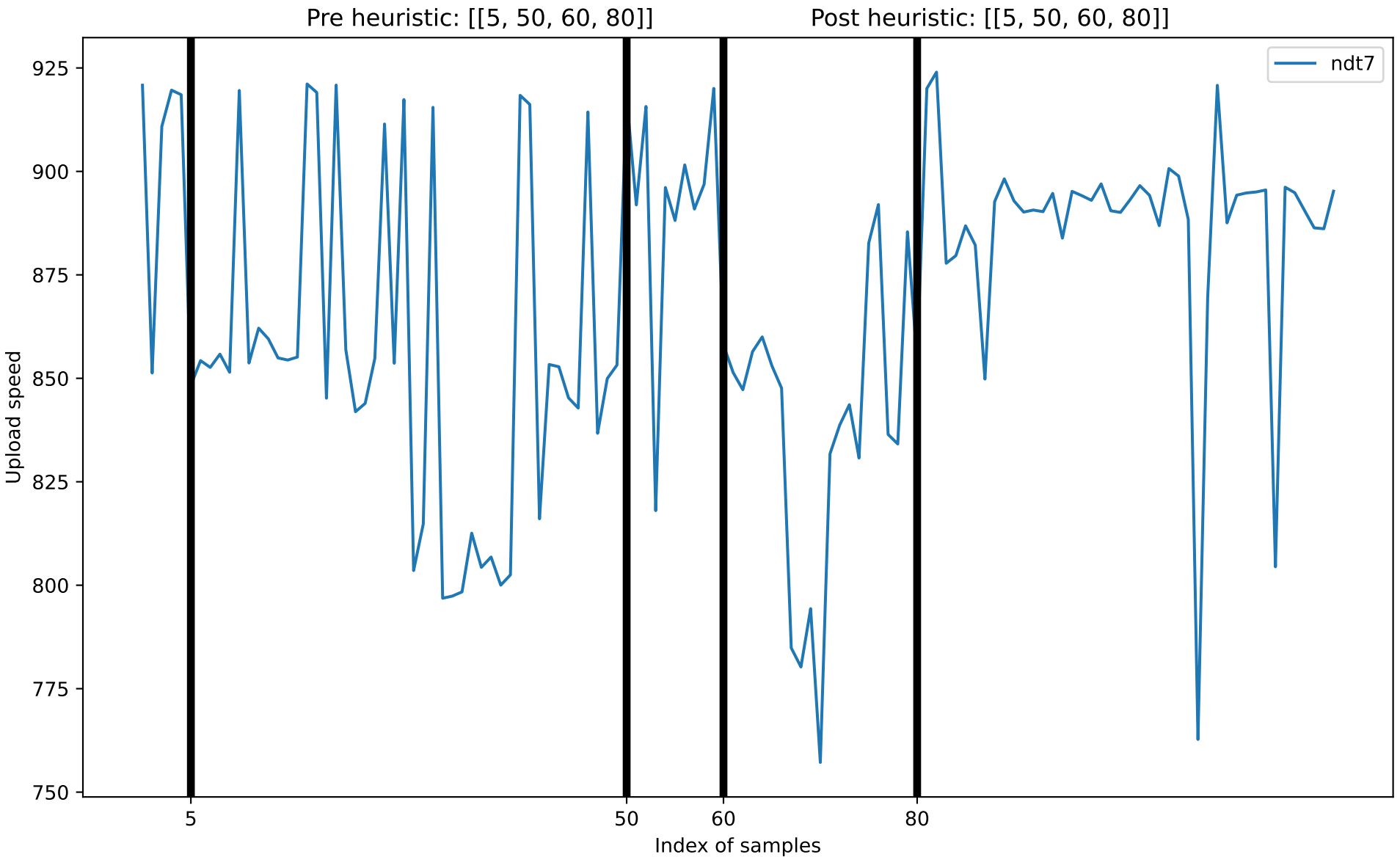

Pre heuristic: [[65, 220]]
Post heuristic: [[65, 220]]
ookla
380
360
340
320
300
Download speed
65
220
Index of samples

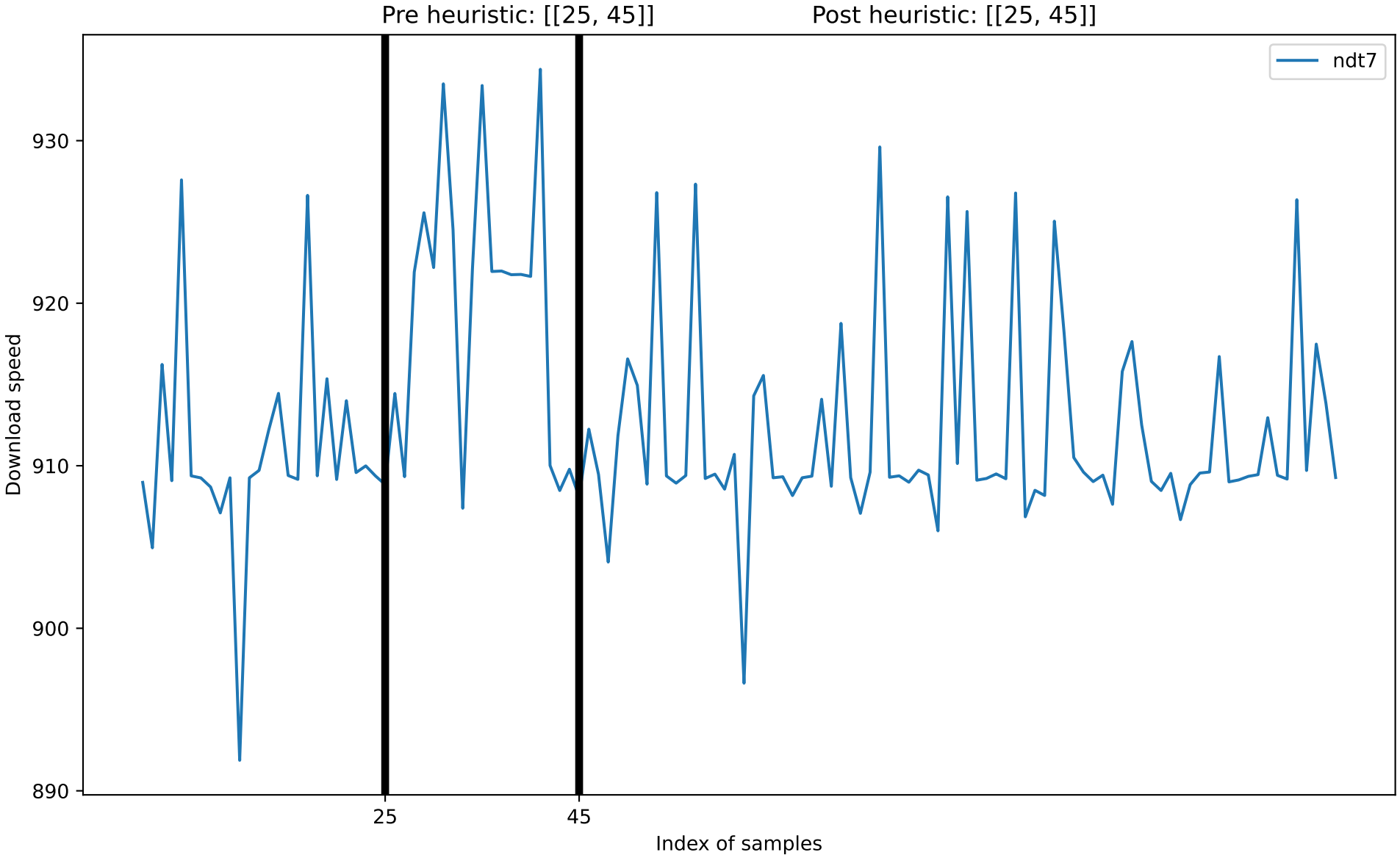

Pre heuristic: [[115, 180, 270, 315, 360, 410]]
Post heuristic: [[115, 180, 270, 315, 360, 410]]
ndt7
Upload speed
350
300
250
200
150
100
115
180
270
315
360
410
Index of samples

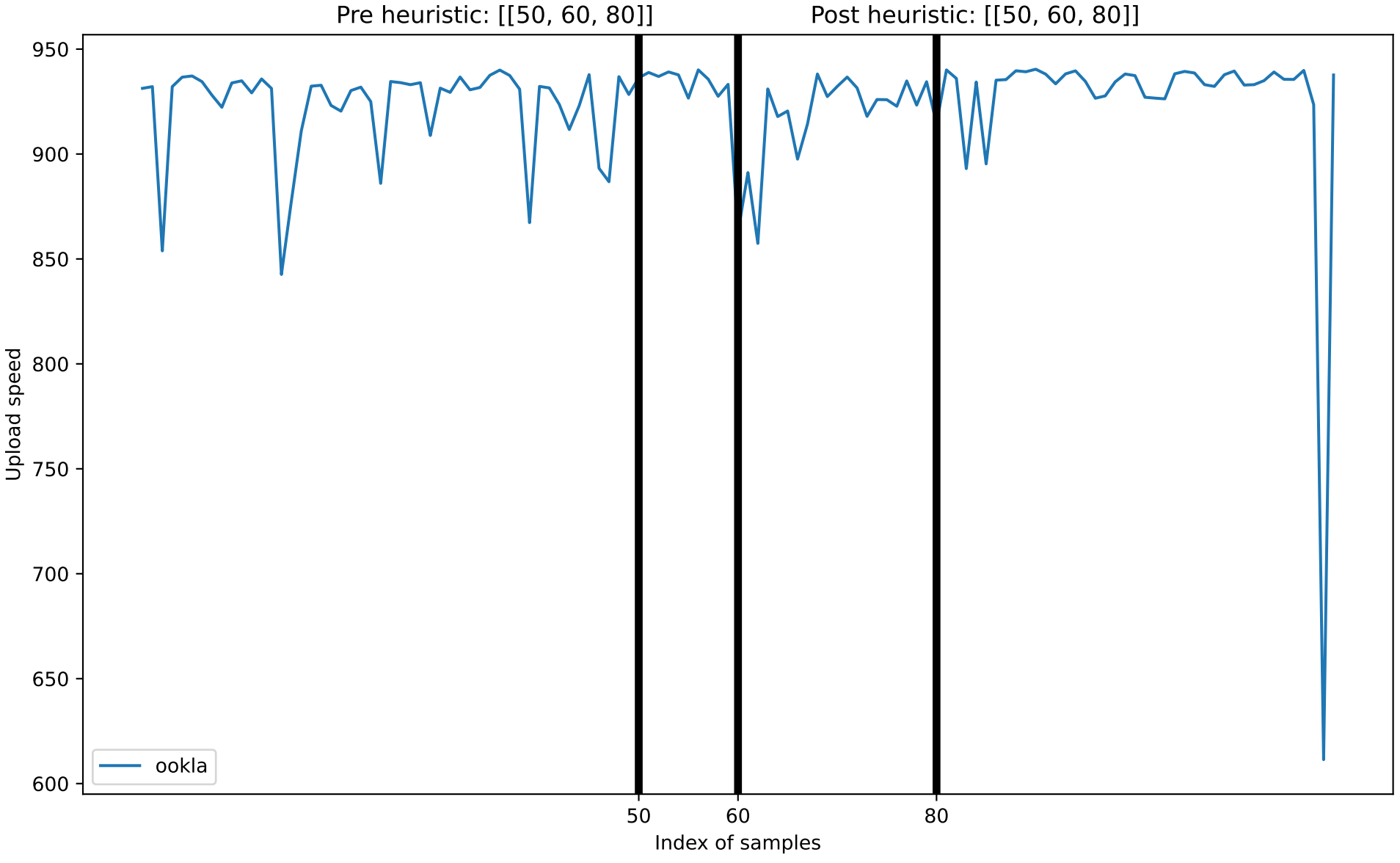

Pre heuristic: [[115, 180]]
Post heuristic: [[115, 180]]
ndt7
Download speed
375
350
325
300
275
250
225
200
175
115
180
Index of samples

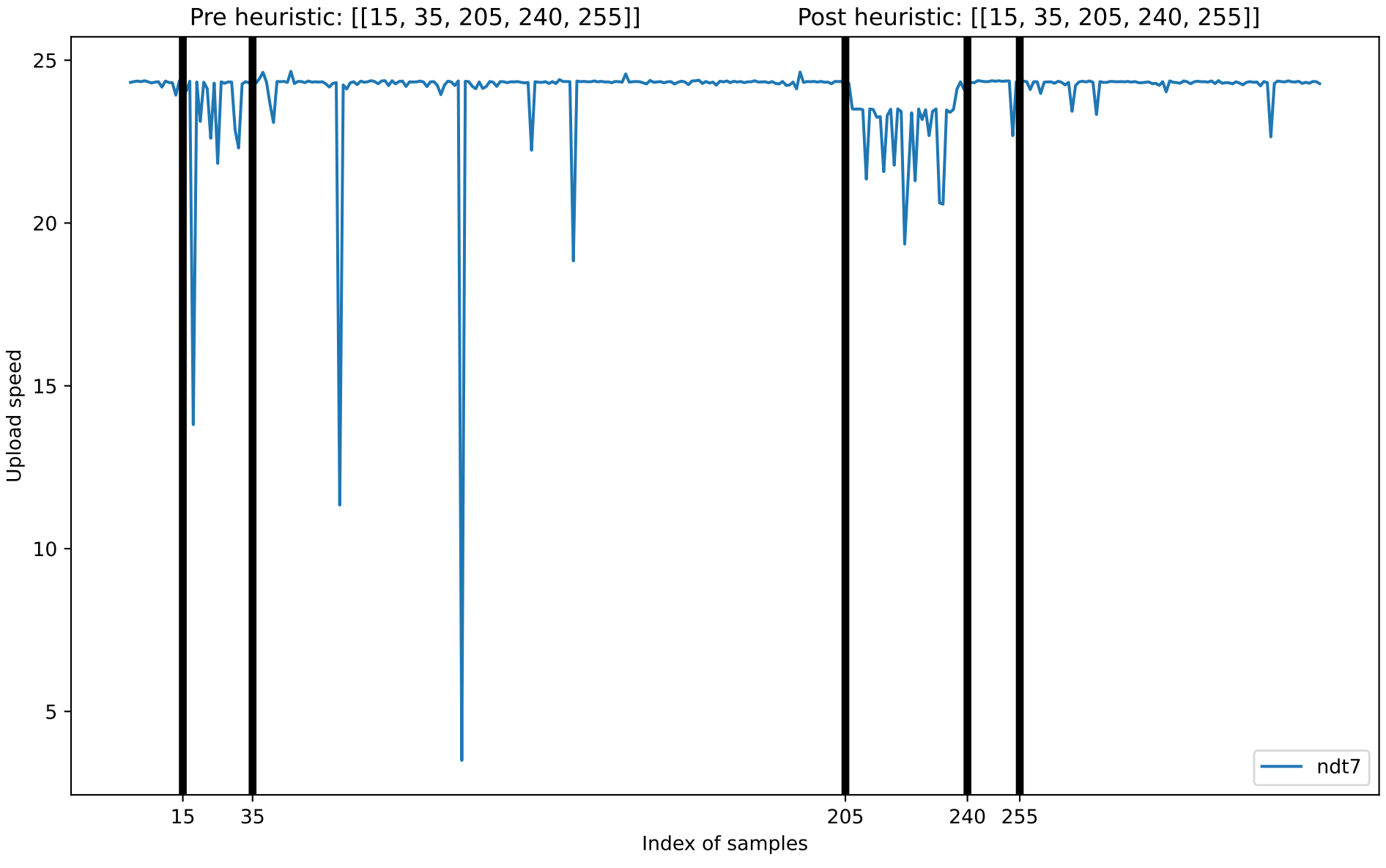

Pre heuristic: [[105, 195, 345, 360, 545]]
Post heuristic: [[105, 195, 345, 360, 545]]
Upload speed
375
350
325
300
275
250
225
200
ookla
105
195
345
360
545
Index of samples

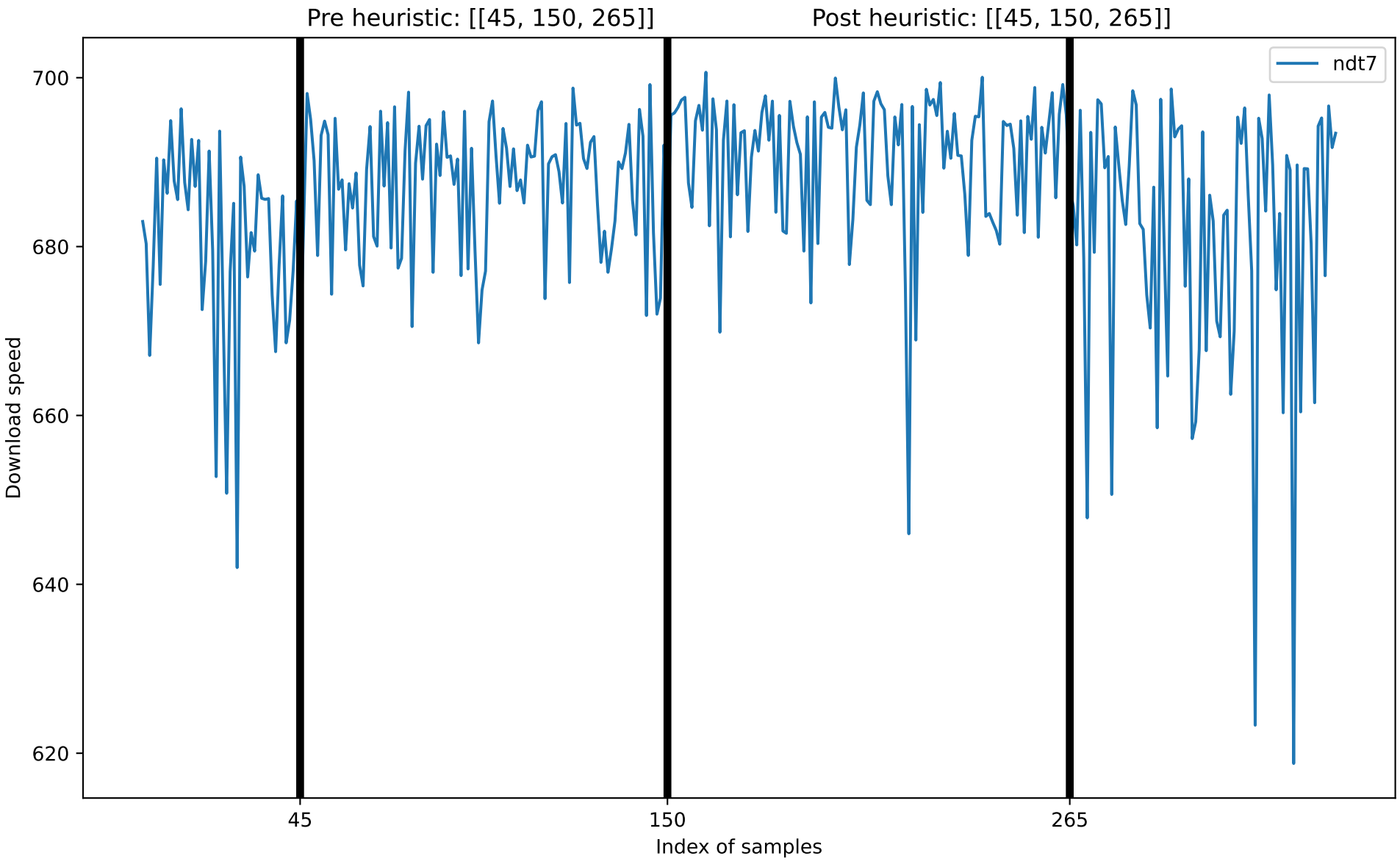

Pre heuristic: [[185, 230, 320, 350, 435, 445]]
Post heuristic: [[185, 230, 320, 350, 435, 445]]
ookla
Download speed
370
360
350
340
330
320
310
185
230
320
350
435
445
Index of samples

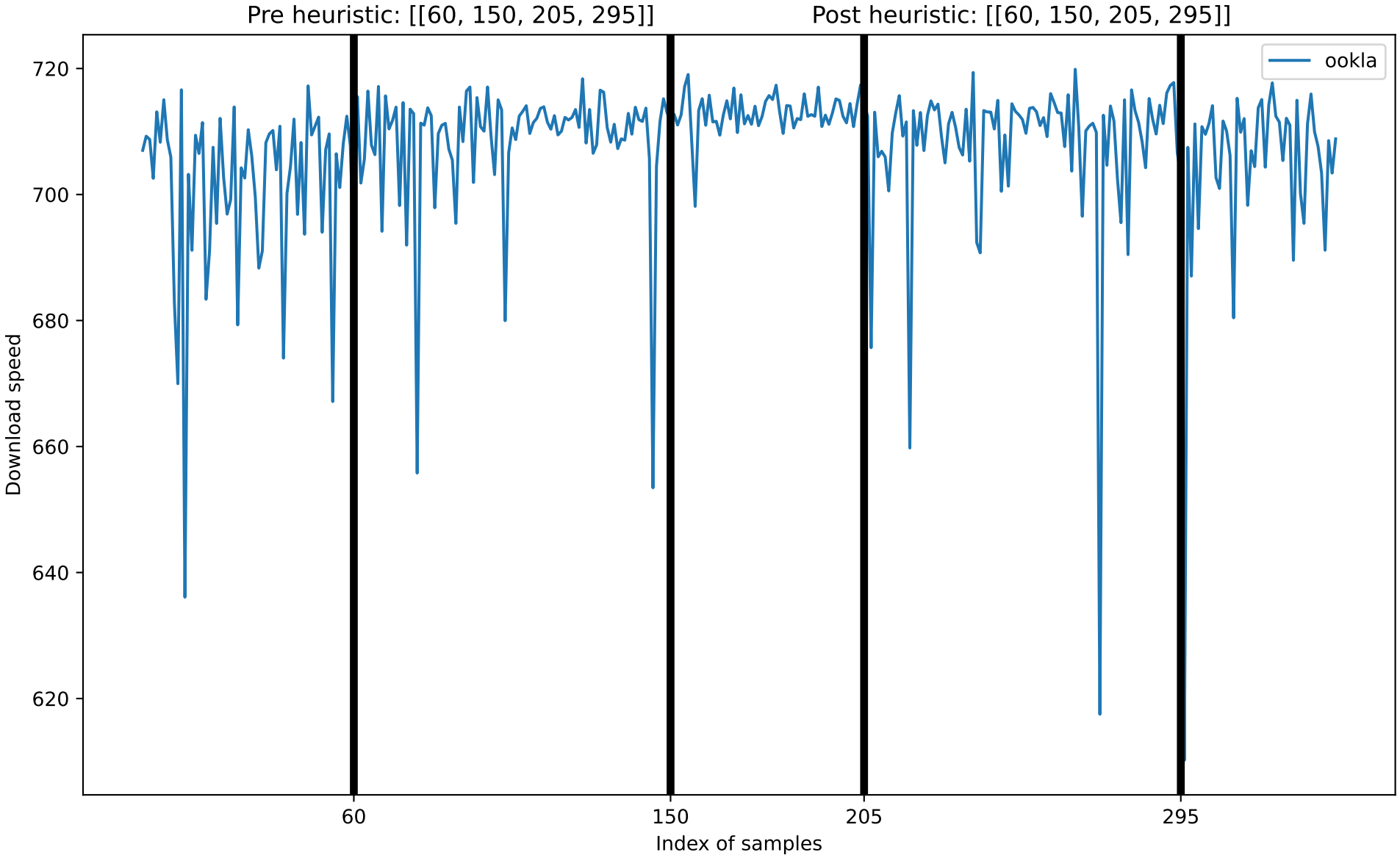

Pre heuristic: [[5, 50, 60, 80]]
Post heuristic: [[5, 50, 60, 80]]
ndt7
Upload speed
925
900
875
850
825
800
775
750
5
50
60
80
Index of samples

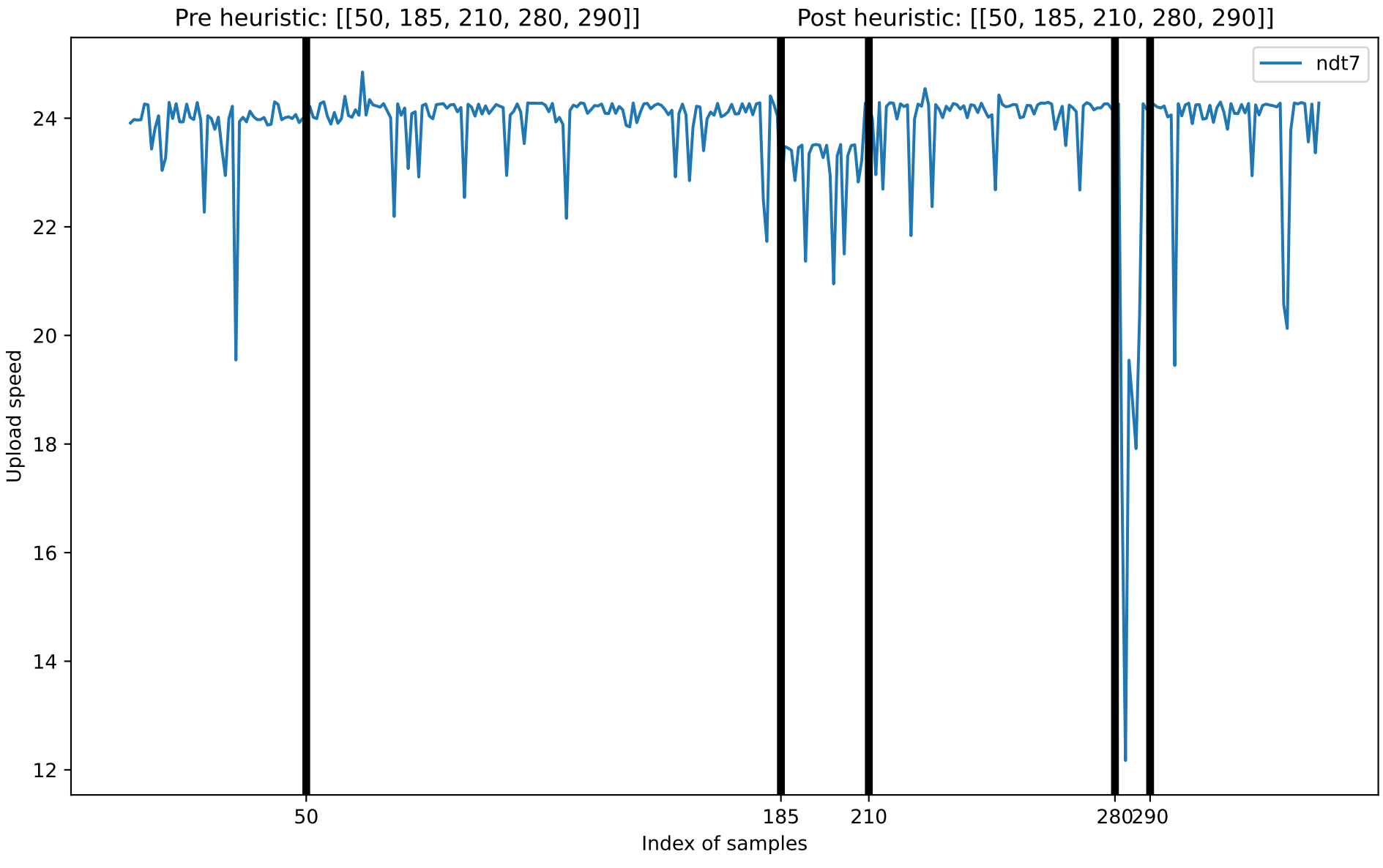

Pre heuristic: [[25, 45]]
Post heuristic: [[25, 45]]
ndt7
930
920
910
900
890
Download speed
25
45
Index of samples

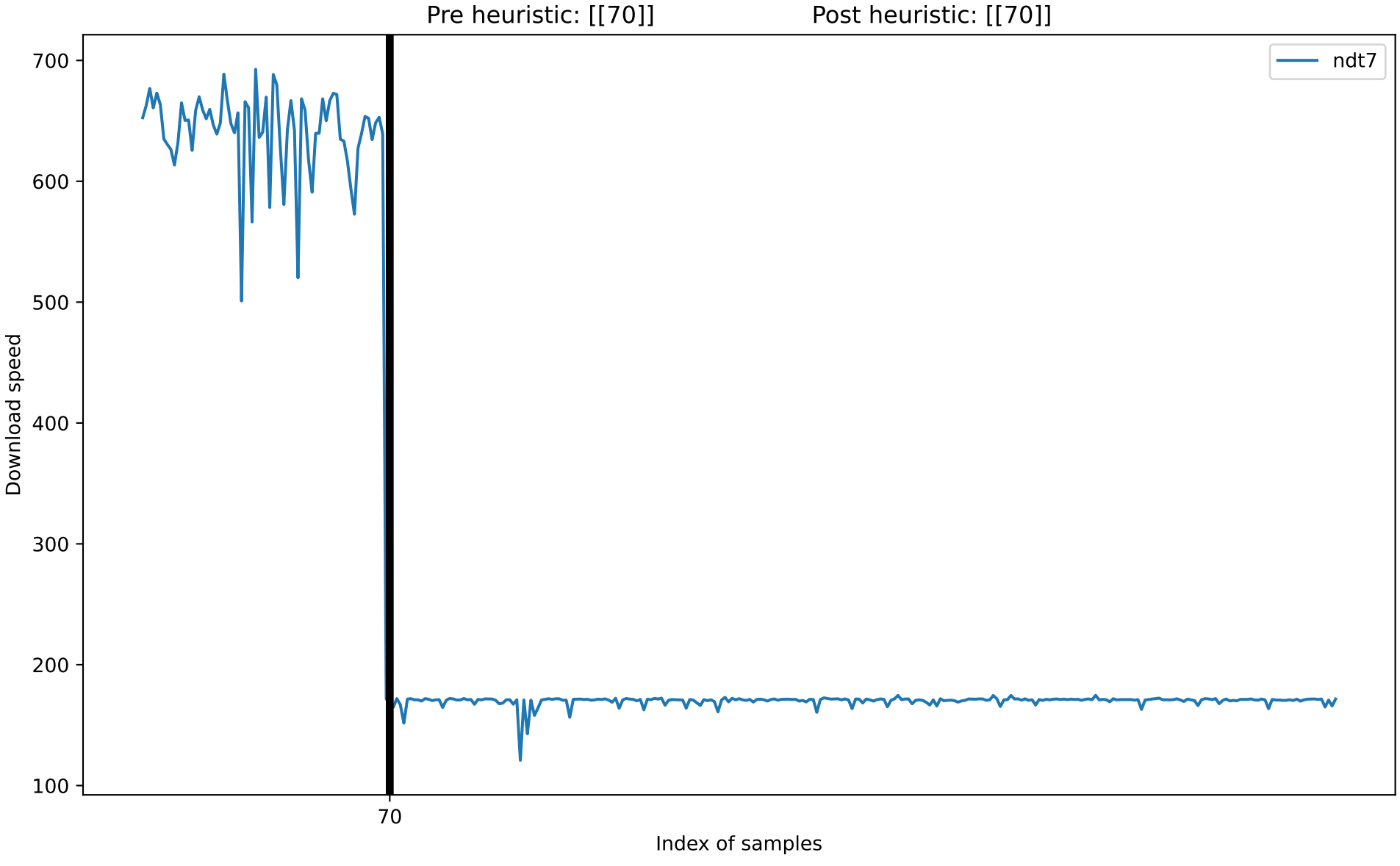

Pre heuristic: [[50, 60, 80]]
Post heuristic: [[50, 60, 80]]
950
900
850
800
750
700
650
600
Upload speed
ookla
50
60
80
Index of samples

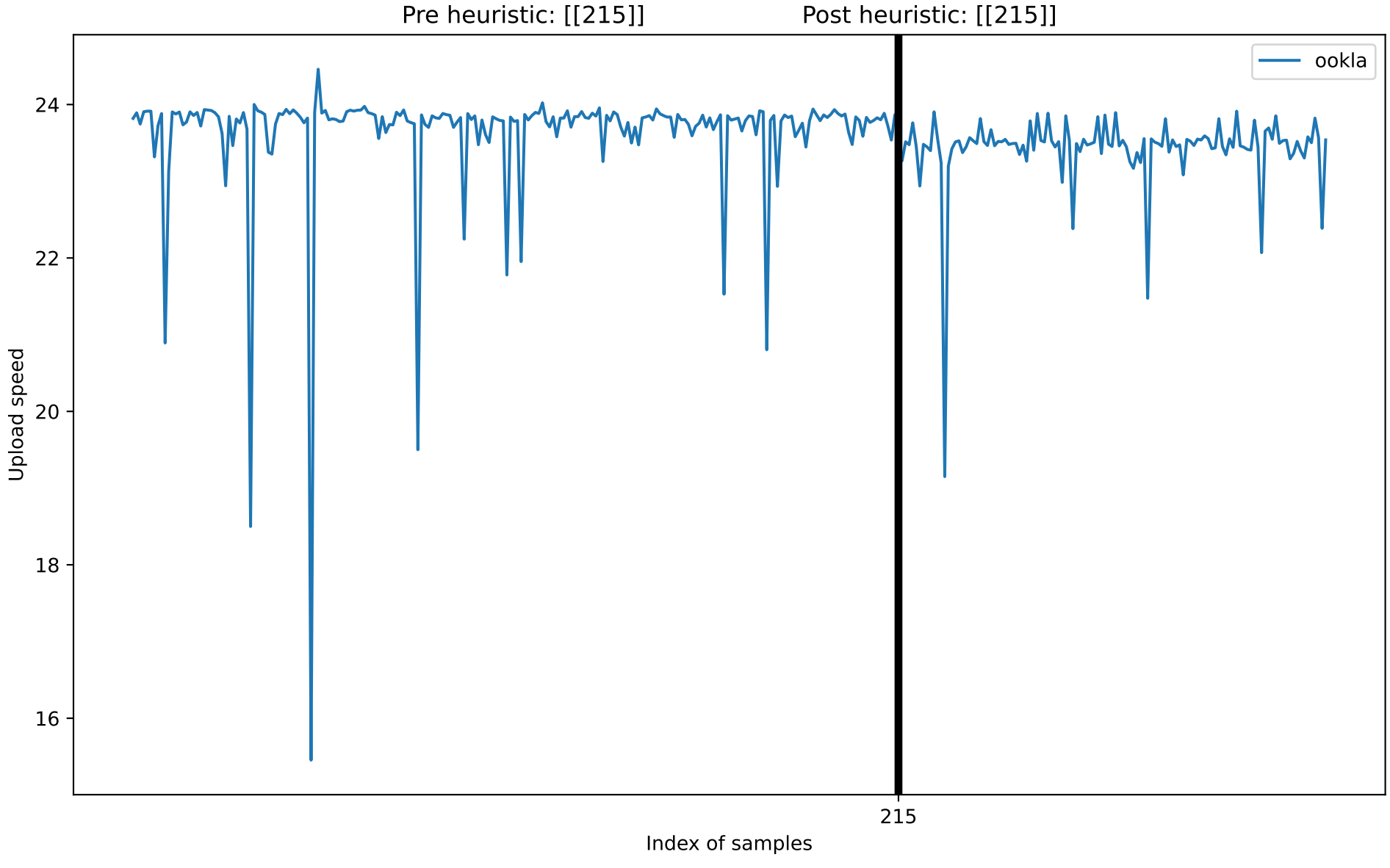

Pre heuristic: [[15, 35, 205, 240, 255]]
Post heuristic: [[15, 35, 205, 240, 255]]
Upload speed
25
20
15
10
5
15
35
205
240
255
Index of samples
ndt7

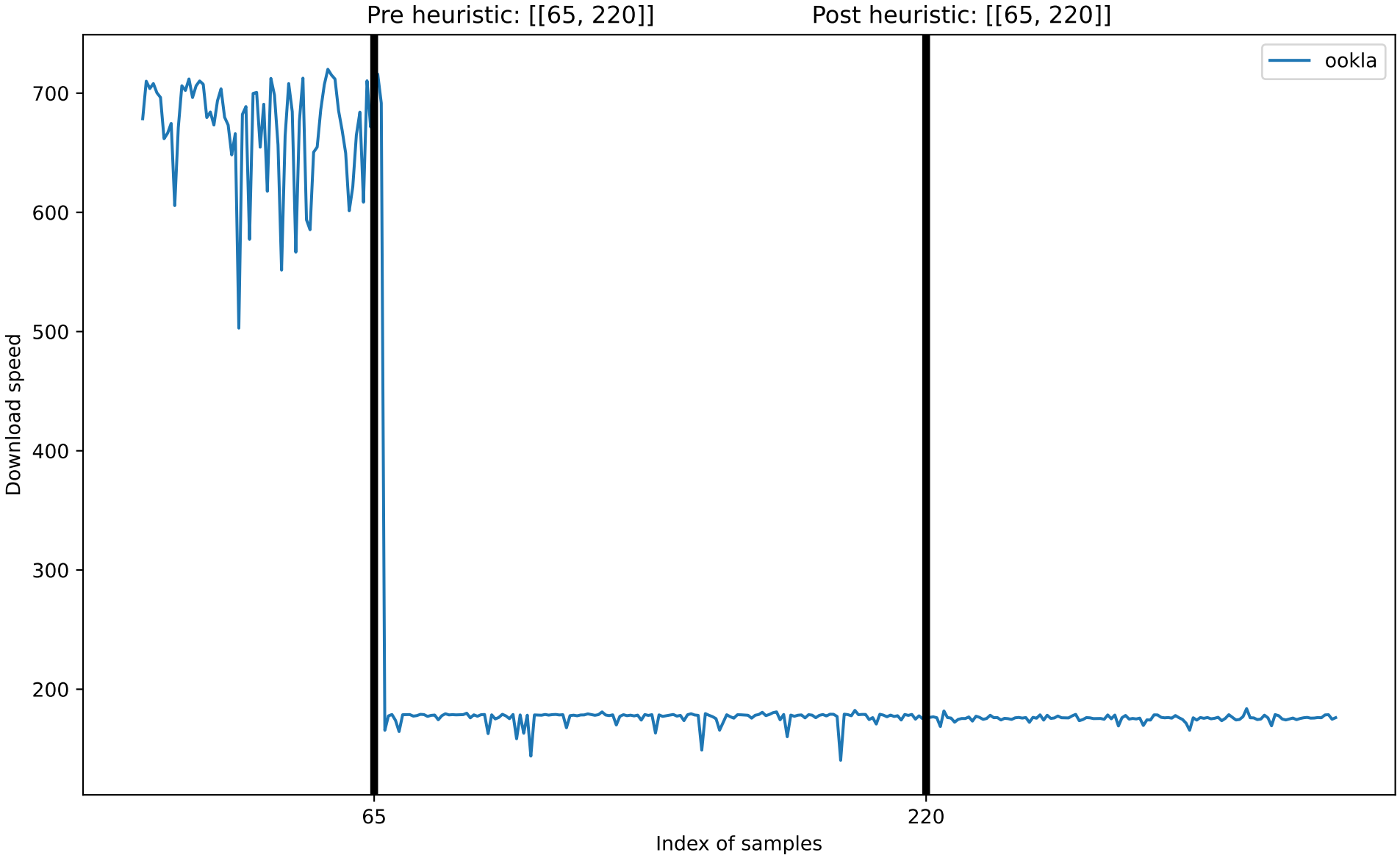

Pre heuristic: [[45, 150, 265]]
Post heuristic: [[45, 150, 265]]
ndt7
700
680
660
640
620
Download speed
45
150
265
Index of samples

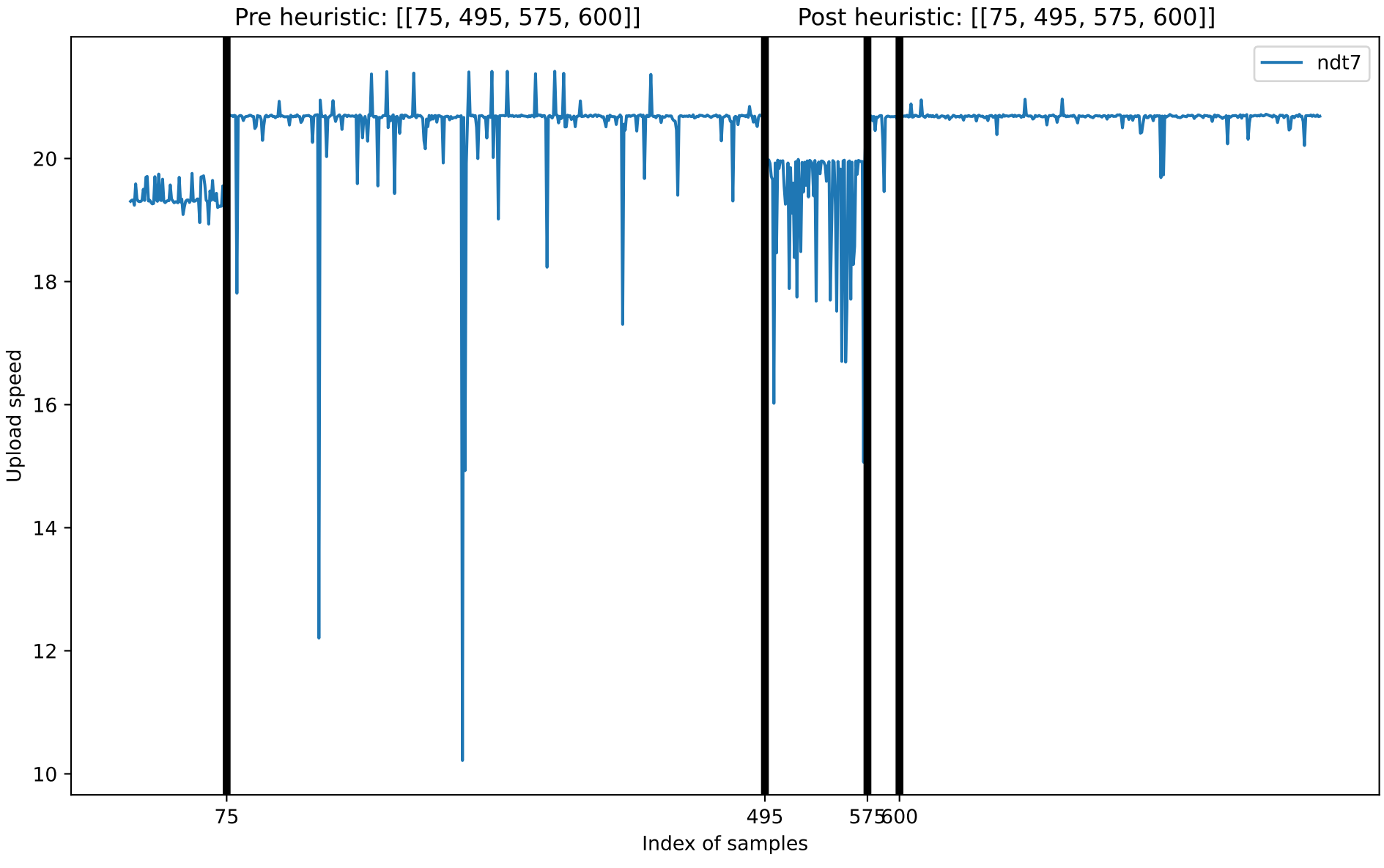

Pre heuristic: [[60, 150, 205, 295]]
Post heuristic: [[60, 150, 205, 295]]
ookla
720
700
680
660
640
620
Download speed
60
150
205
295
Index of samples


Pre heuristic: [[50, 185, 210, 280, 290]]
Post heuristic: [[50, 185, 210, 280, 290]]
ndt7
Upload speed
24
22
20
18
16
14
12
50
185
210
280
290
Index of samples


Pre heuristic: [[70]]
Post heuristic: [[70]]
ndt7
Download speed
700
600
500
400
300
200
100
70
Index of samples

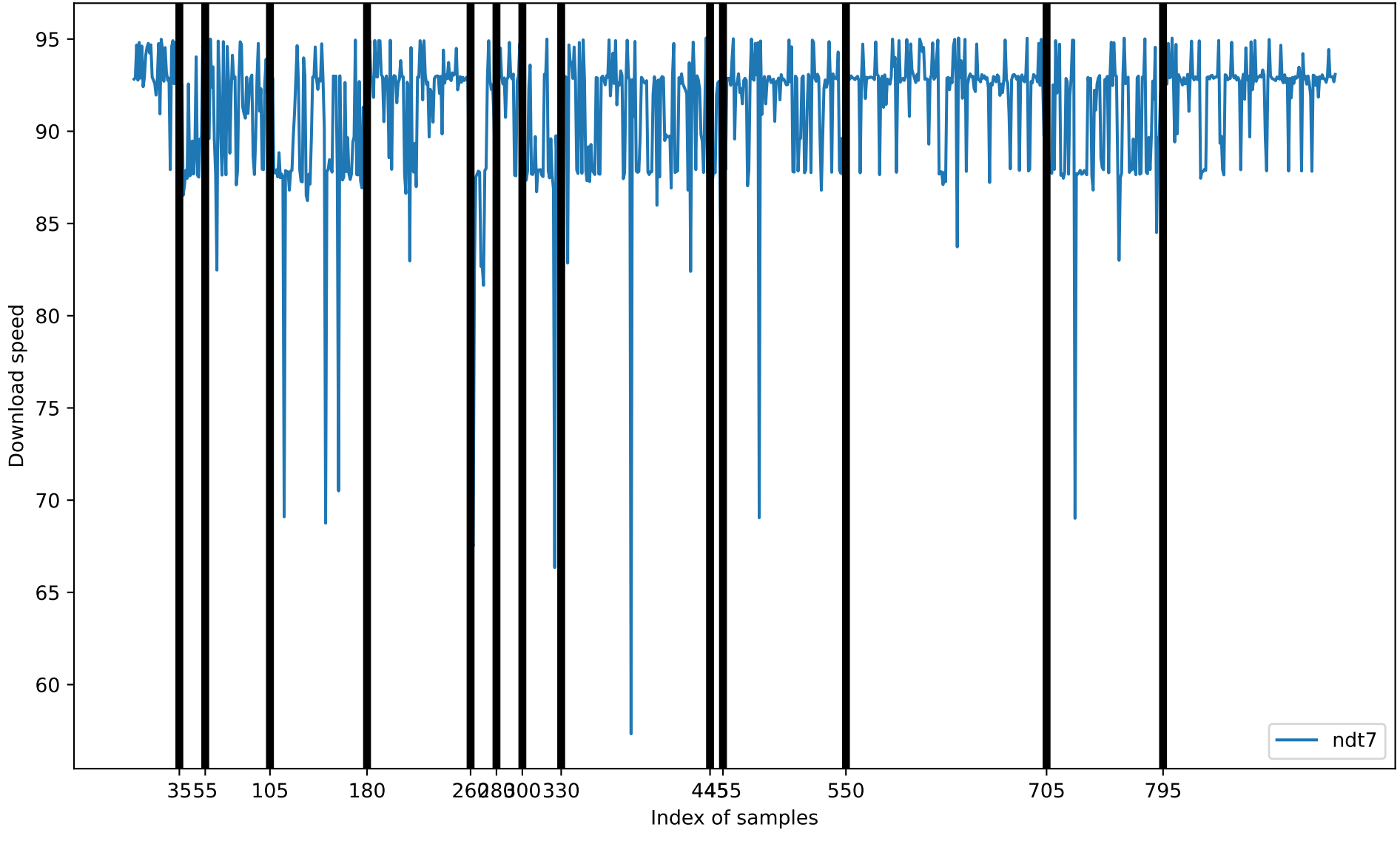

Pre heuristic: [[215]]
Post heuristic: [[215]]
ookla
Upload speed
24
22
20
18
16
215
Index of samples

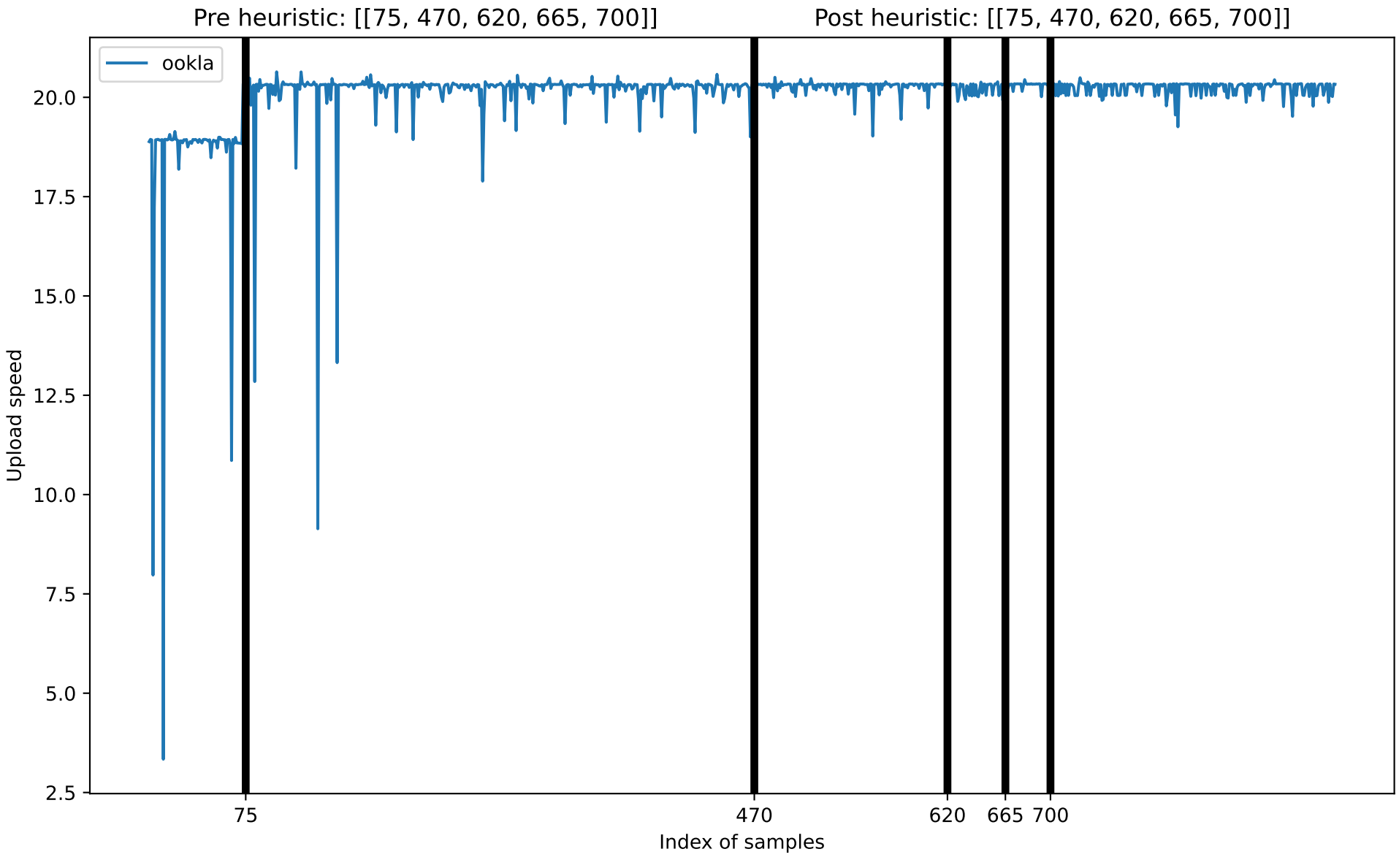

Pre heuristic: [[65, 220]]
Post heuristic: [[65, 220]]
ookla
700
600
500
400
300
200
Download speed
65
220
Index of samples


Pre heuristic: [[75, 495, 575, 600]]
Post heuristic: [[75, 495, 575, 600]]
ndt7
Upload speed
20
18
16
14
12
10
75
495
575
600
Index of samples

: [[35, 55, 105, 180, 260, 280, 300, 330, 445, 455, 550, 705, 795]]

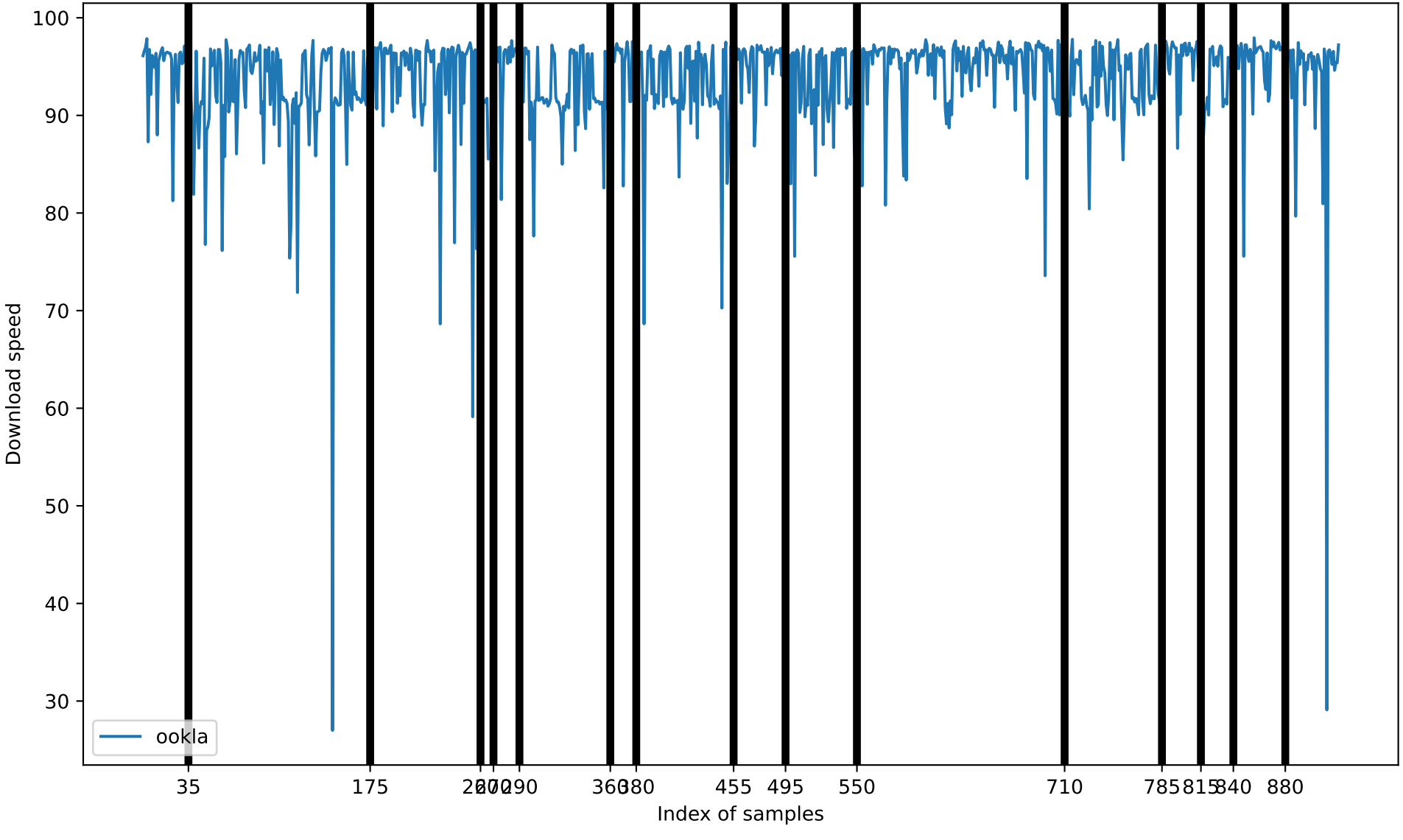
Post heuristic: [[35, 55, 105, 180, 260, 280, 300, 330, 445, 455,

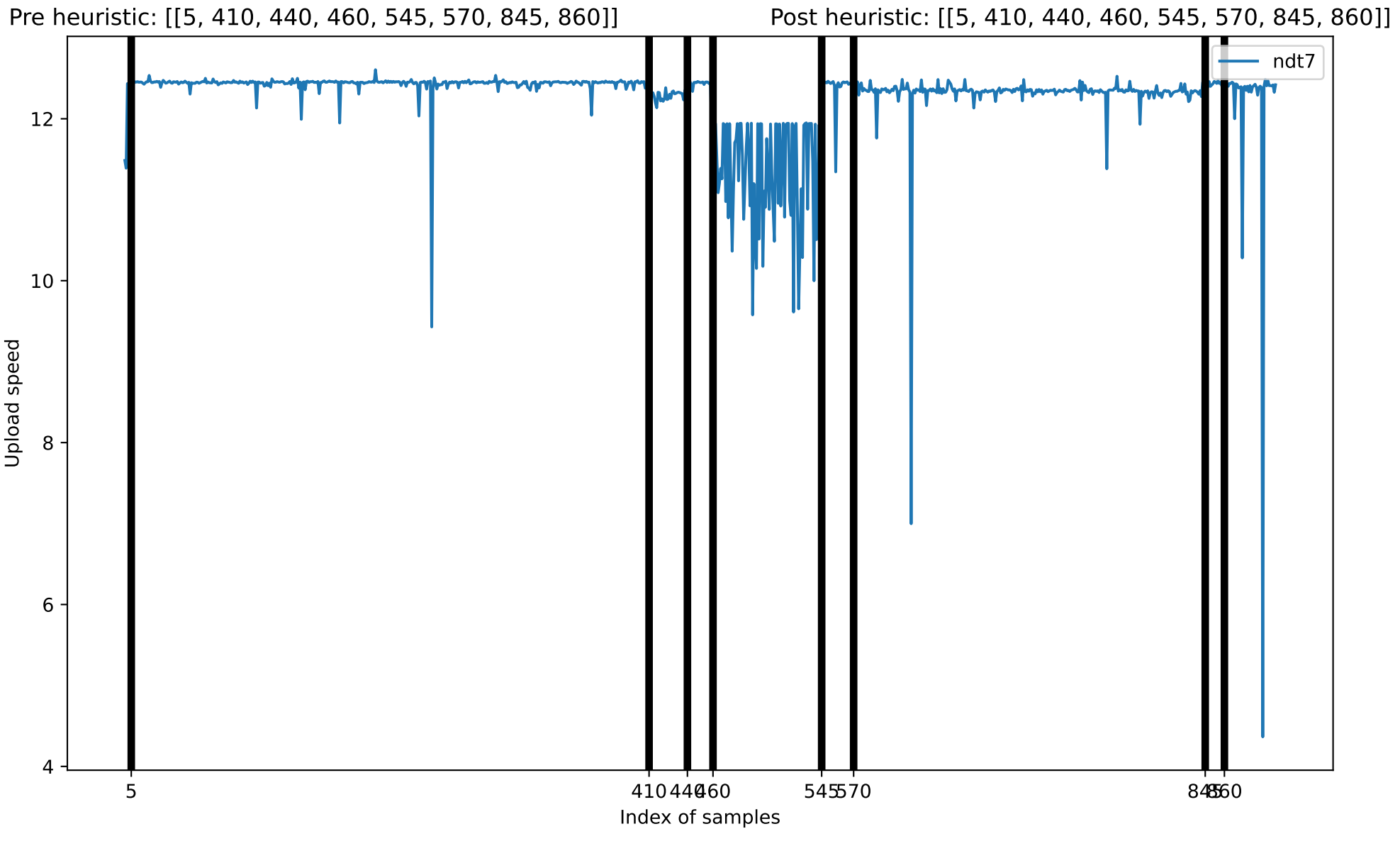


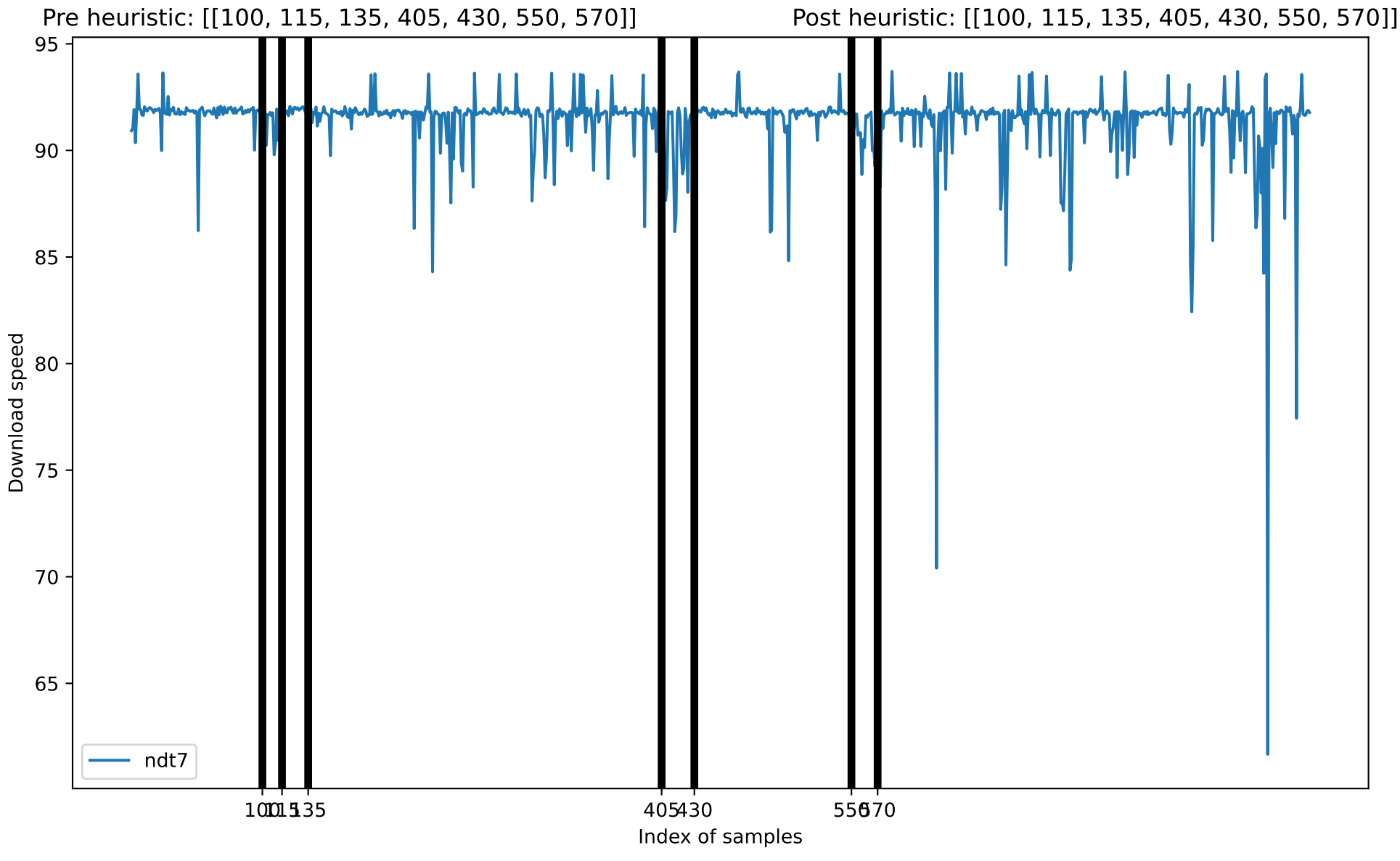

Pre heuristic: [[75, 470, 620, 665, 700]]
Post heuristic: [[75, 470, 620, 665, 700]]
ookla
Upload speed
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
75
470
620
665
700
Index of samples

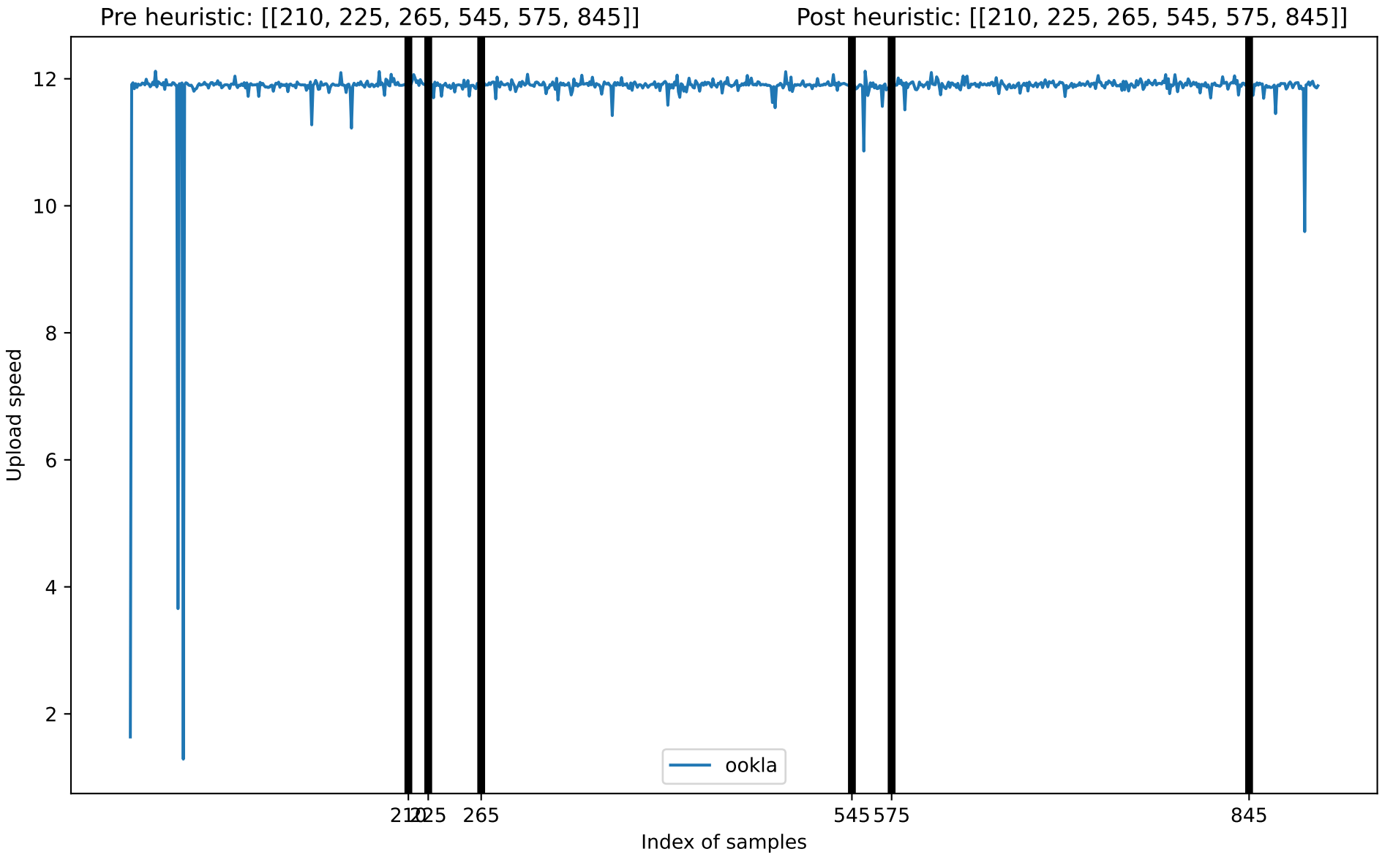
260, 270, 290, 360, 380, 455, 495, 550, 710, 785, 815, 840, 880]]

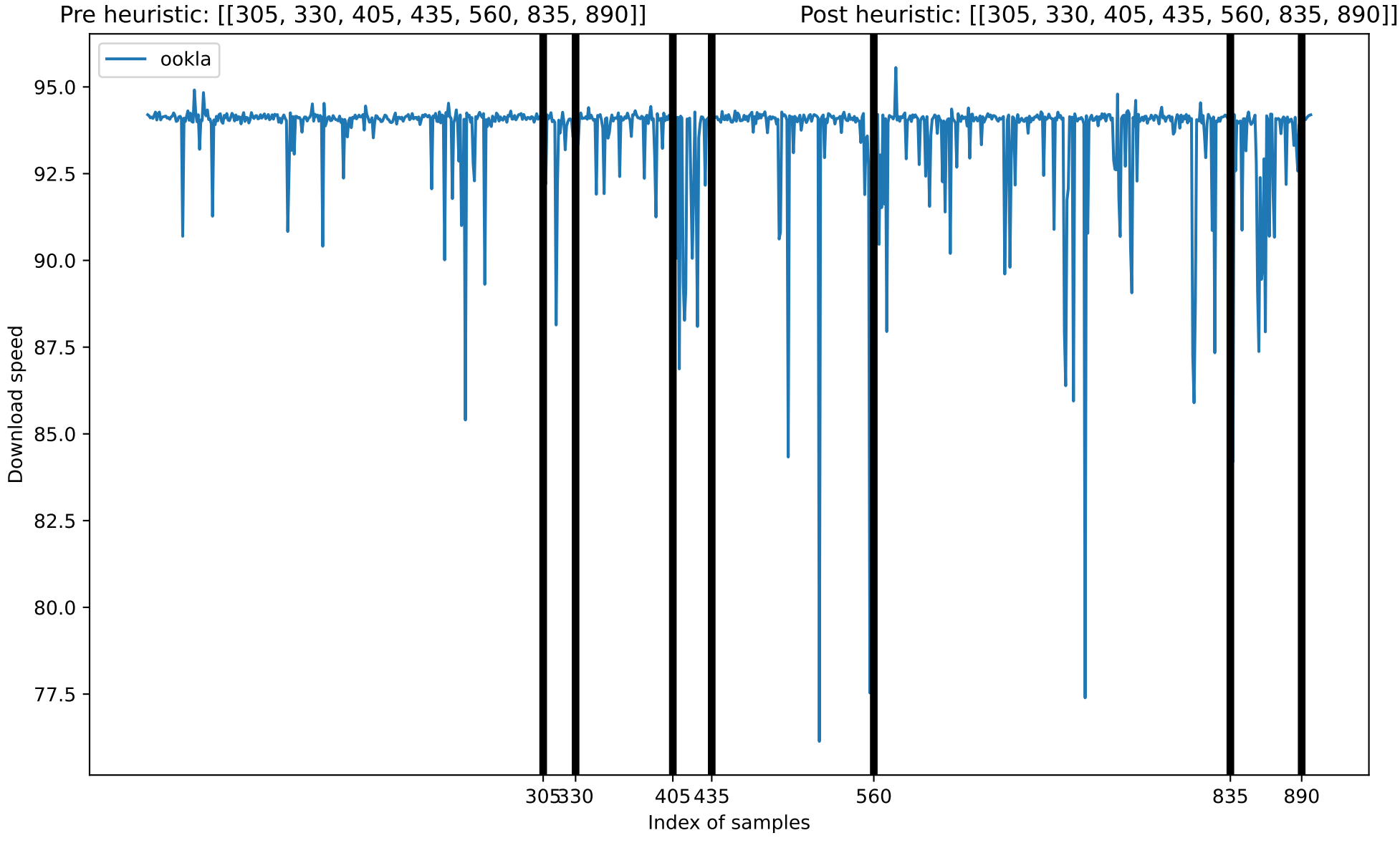
Post heuristic: [[35, 175, 260, 270, 290, 360, 380, 455, 495, 550

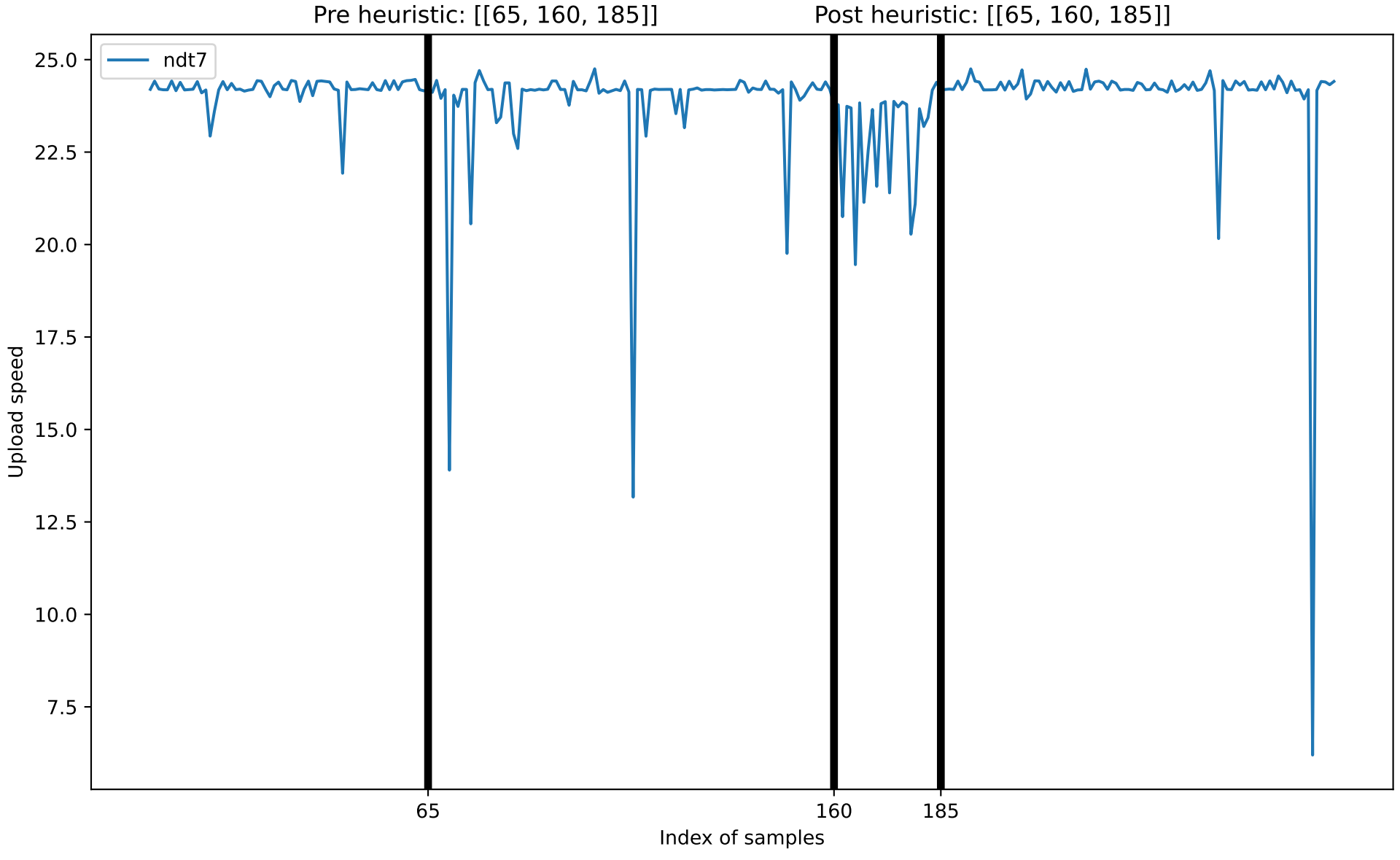


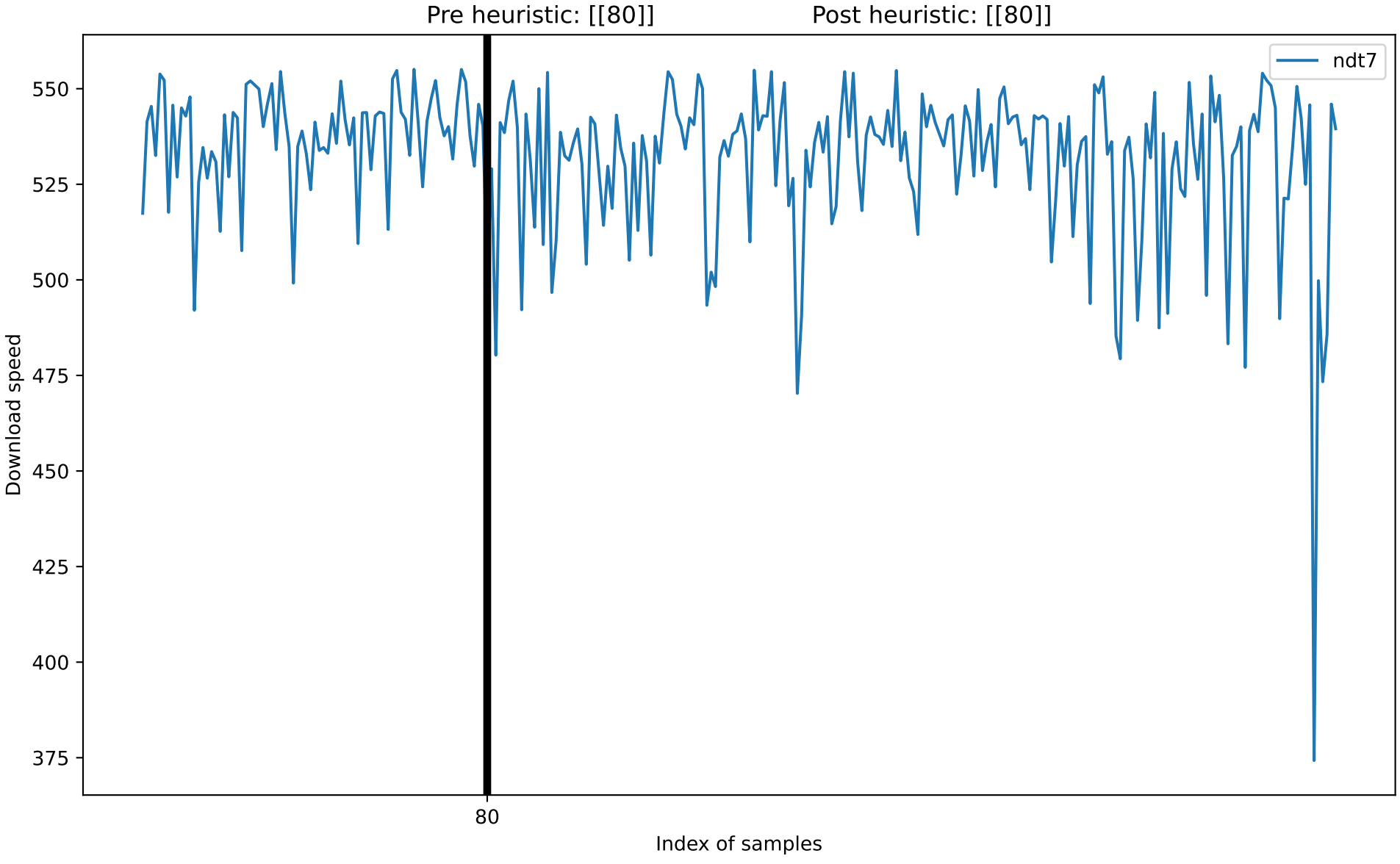

Pre heuristic: [[5, 410, 440, 460, 545, 570, 845, 860]]
Post heuristic: [[5, 410, 440, 460, 545, 570, 845, 860]]
ndt7
Upload speed
12
10
8
6
4
5
410
460
545
570
Index of samples

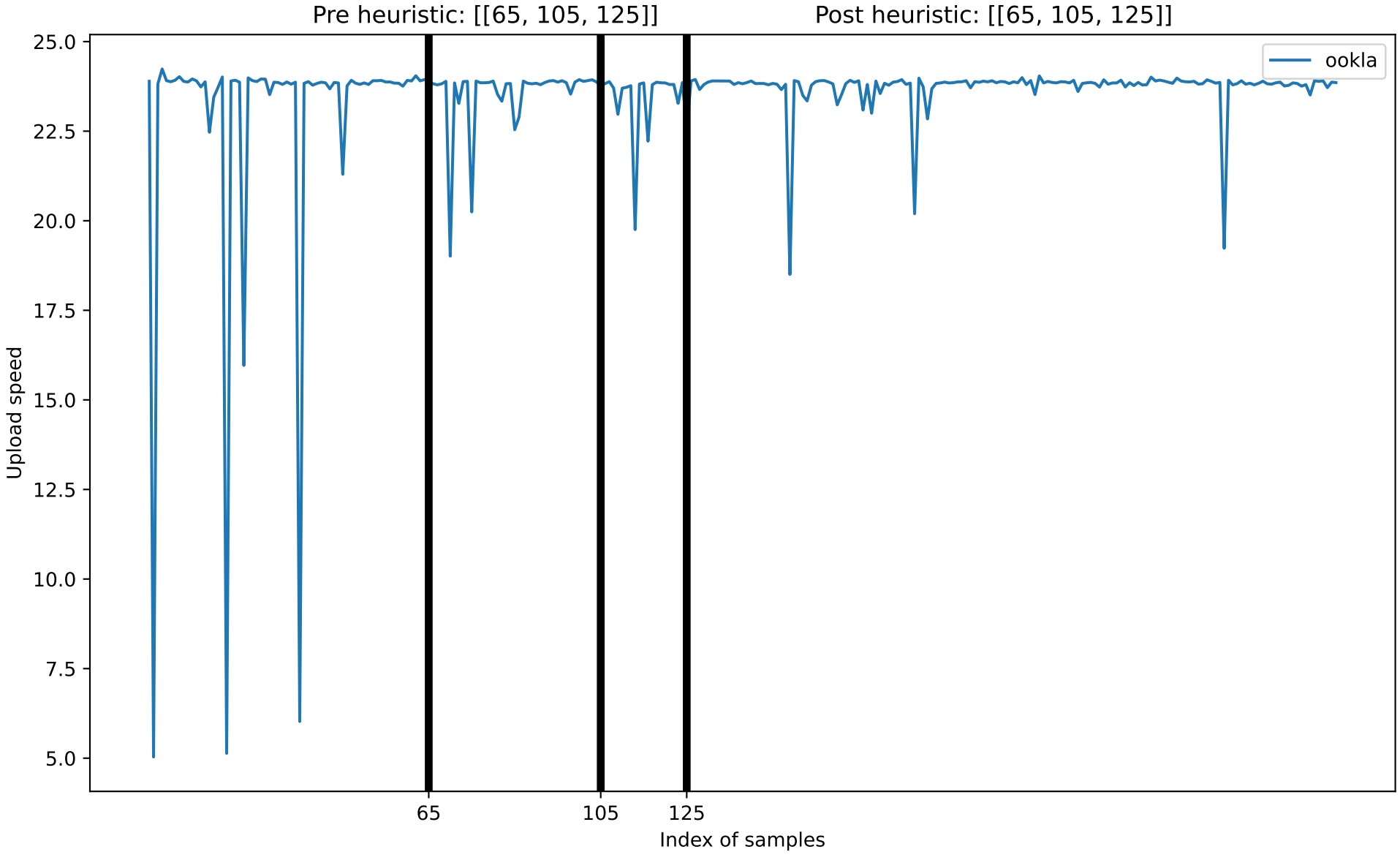

Pre heuristic: [[100, 115, 135, 405, 430, 550, 570]]
Post heuristic: [[100, 115, 135, 405, 430, 550, 570]]
Download speed
95
90
85
80
75
70
65
ndt7
100
115
135
405
430
550
570
Index of samples

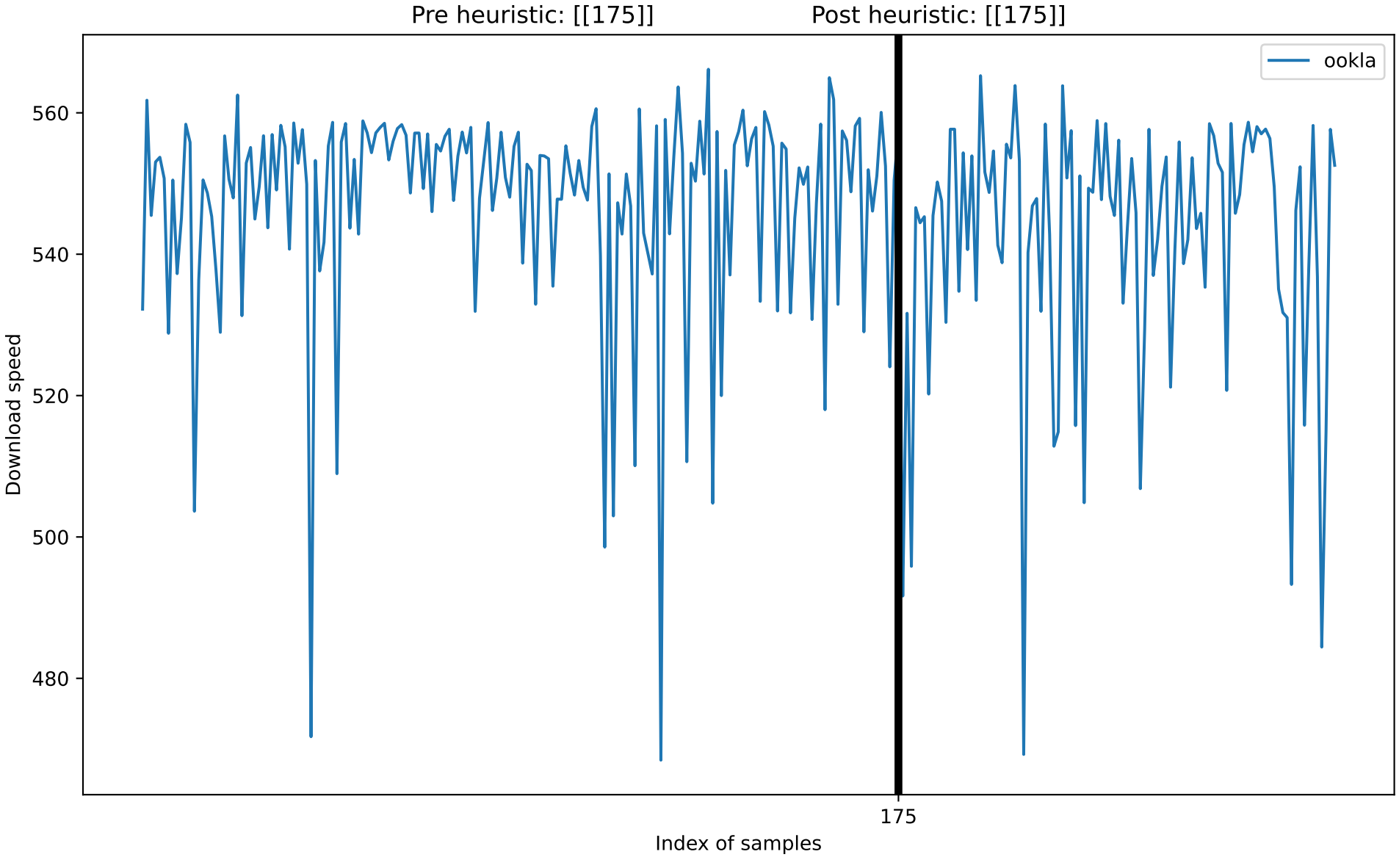

Pre heuristic: [[210, 225, 265, 545, 575, 845]]
Post heuristic: [[210, 225, 265, 545, 575, 845]]
Upload speed
12
10
8
6
4
2
ookla
210
225
265
545
575
845
Index of samples

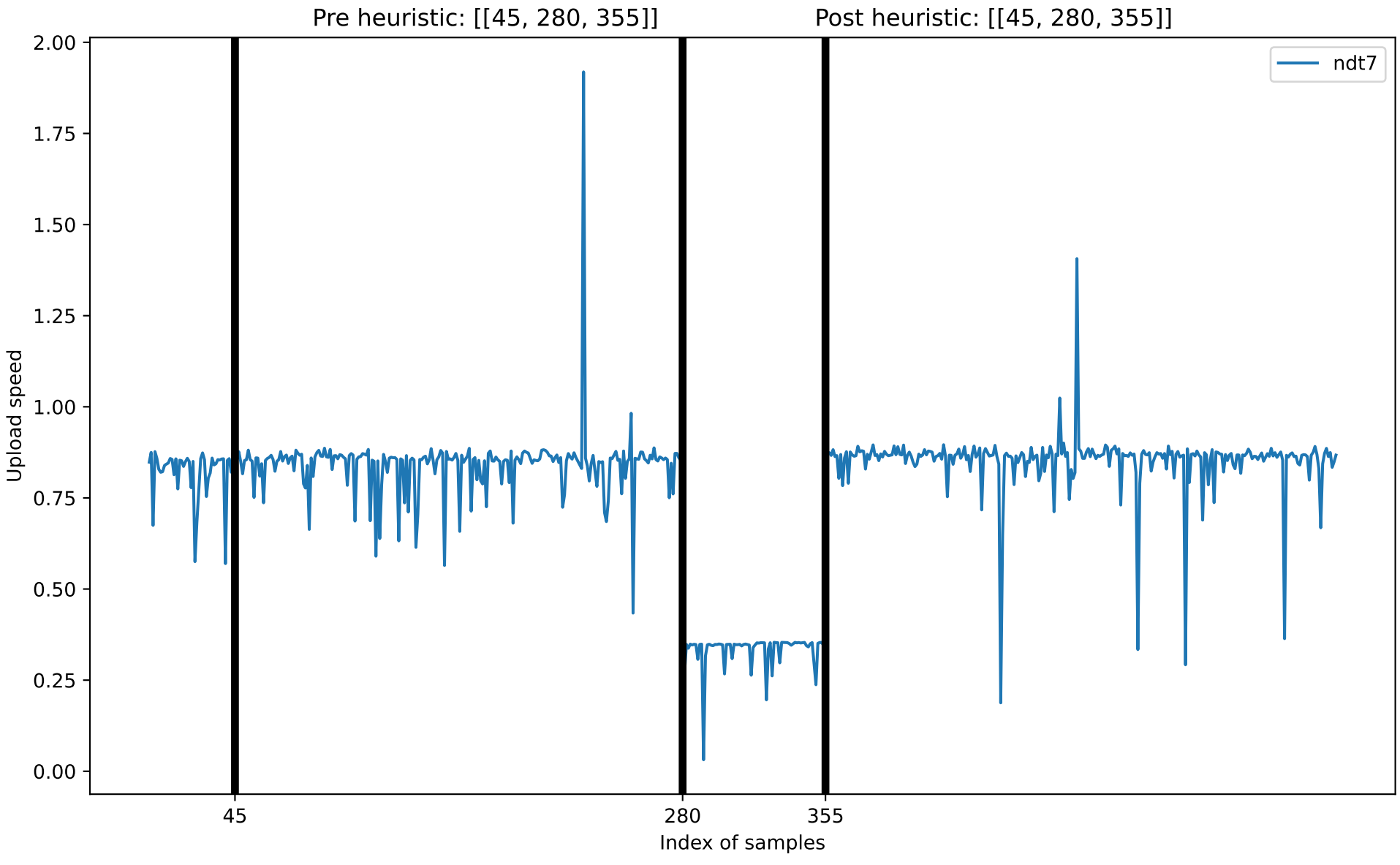

Pre heuristic: [[305, 330, 405, 435, 560, 835, 890]]
Post heuristic: [[305, 330, 405, 435, 560, 835, 890]]
ookla
95.0
92.5
90.0
87.5
85.0
82.5
80.0
77.5
Download speed
305
330
405
435
560
835
890
Index of samples

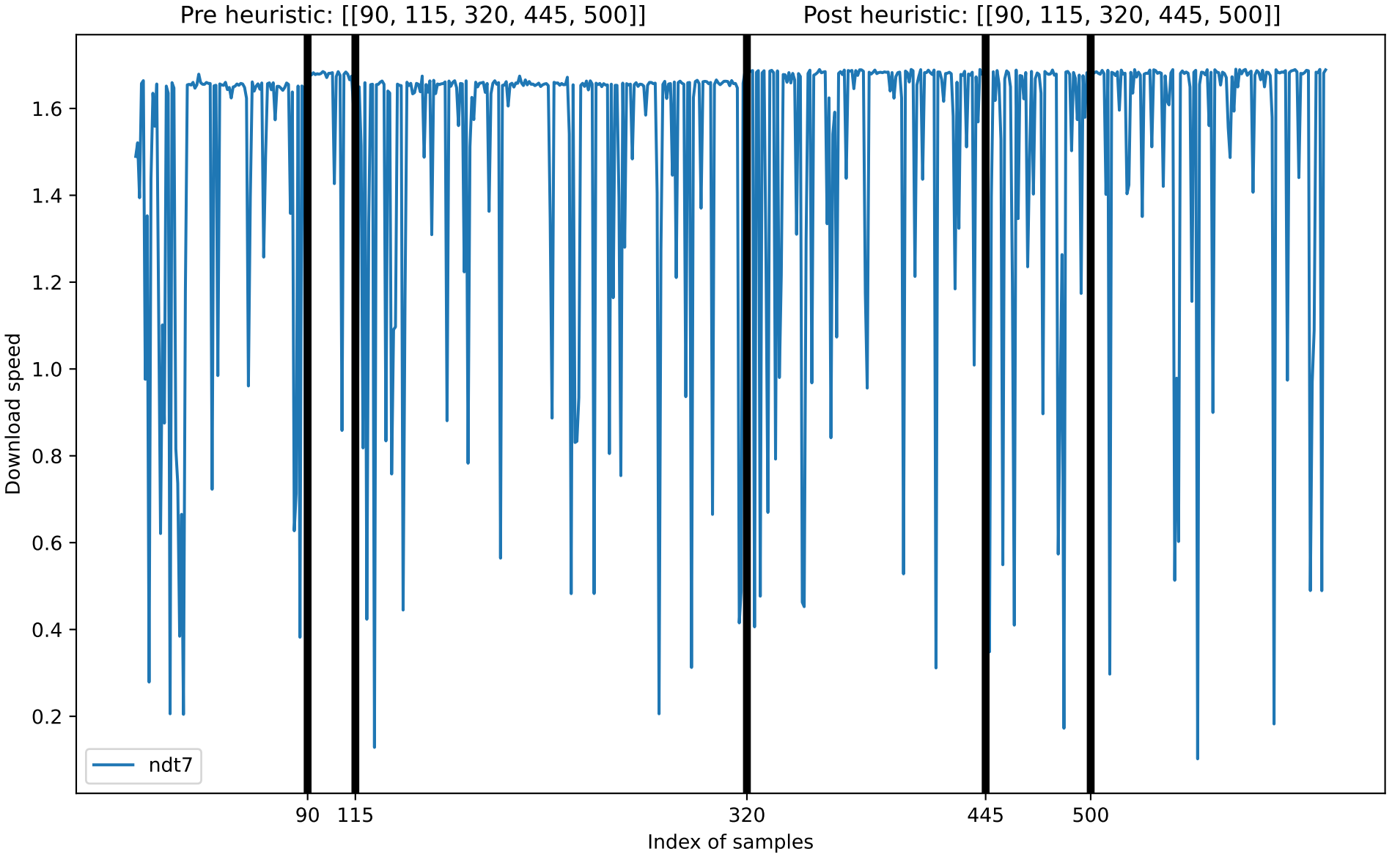

Pre heuristic: [[65, 160, 185]]
Post heuristic: [[65, 160, 185]]
ndt7
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
Upload speed
65
160
185
Index of samples

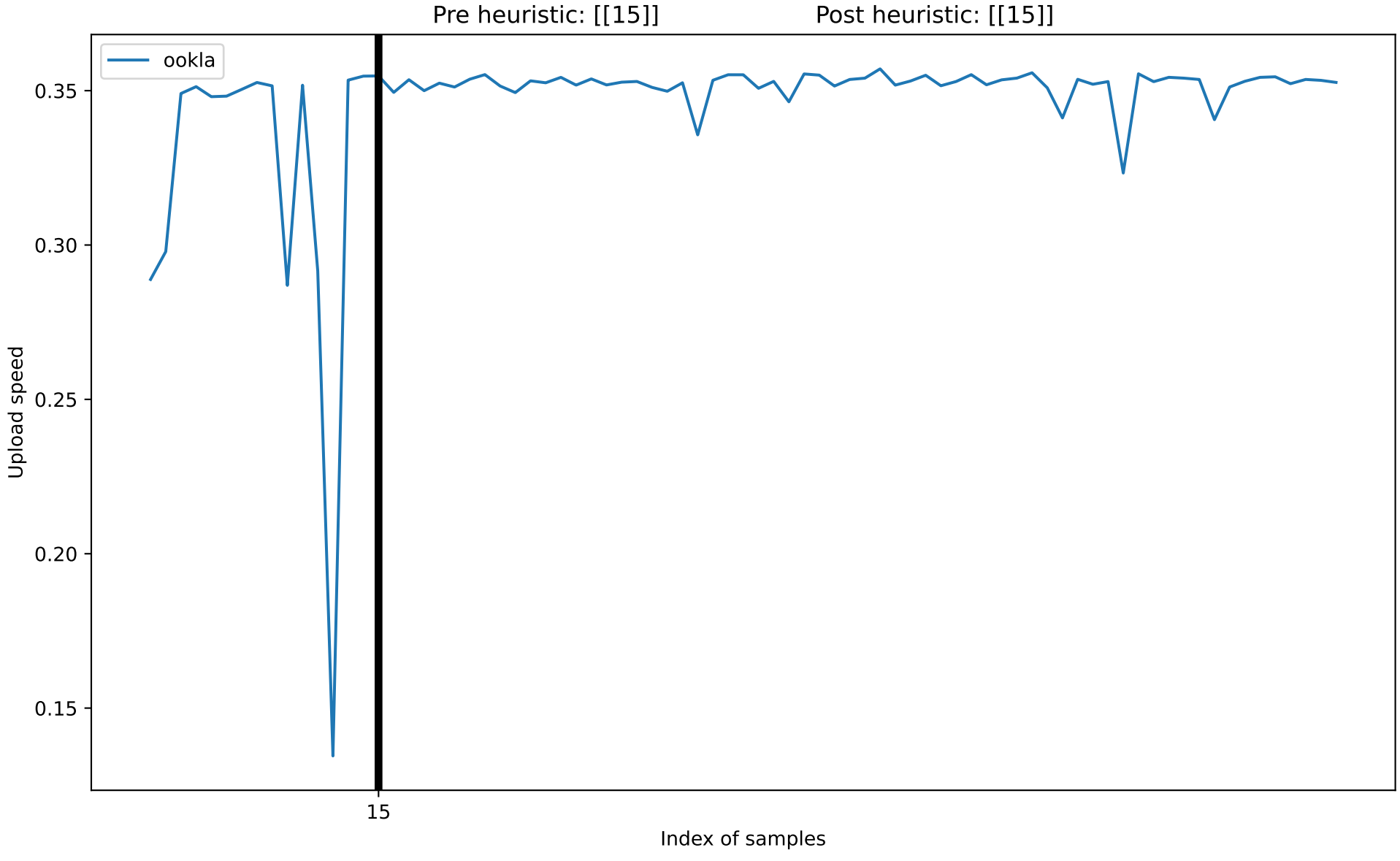

Pre heuristic: [[80]]
Post heuristic: [[80]]
ndt7
Download speed
550
525
500
475
450
425
400
375
80
Index of samples

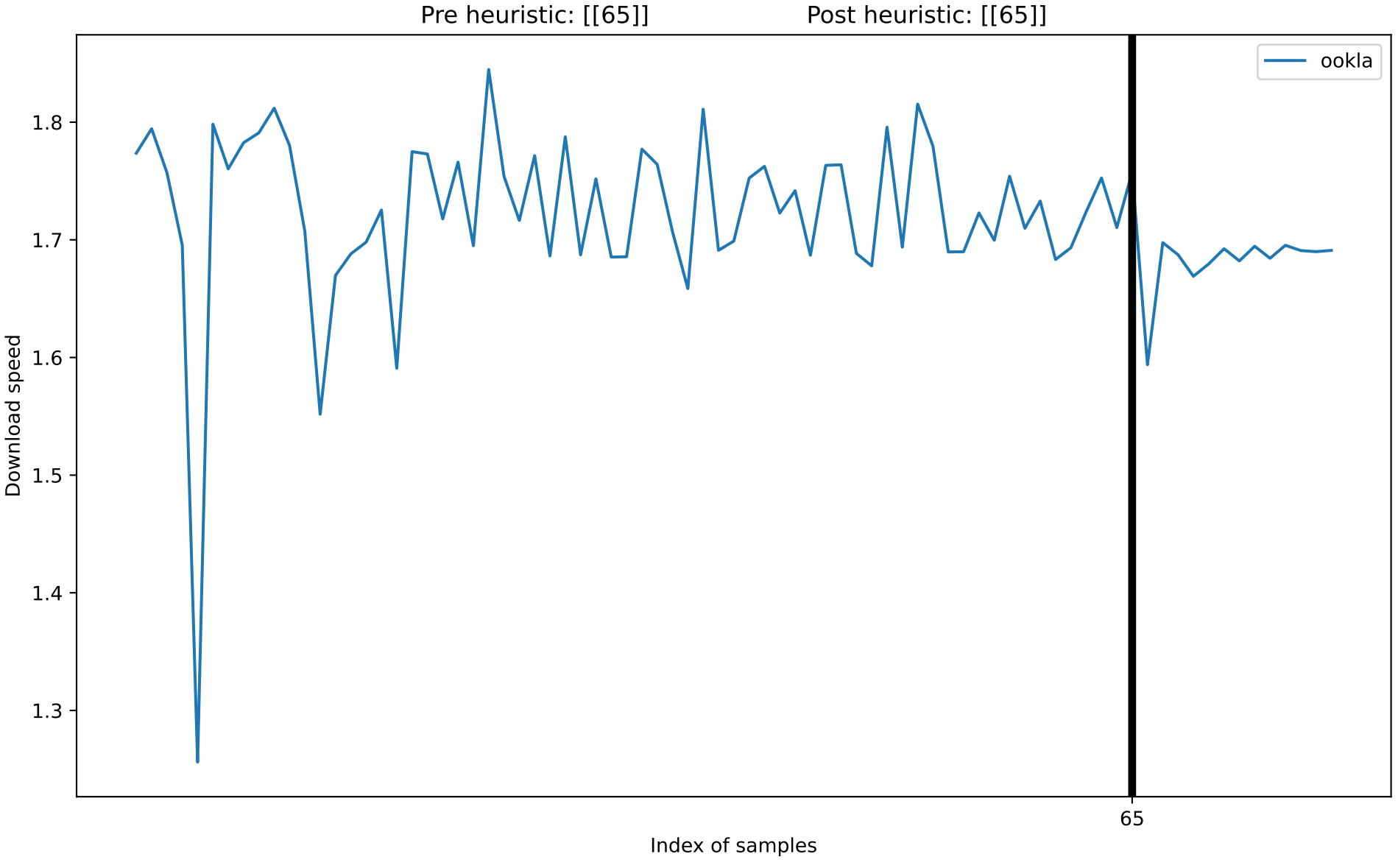

Pre heuristic: [[65, 105, 125]]
Post heuristic: [[65, 105, 125]]
ookla
Upload speed
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
65
105
125
Index of samples

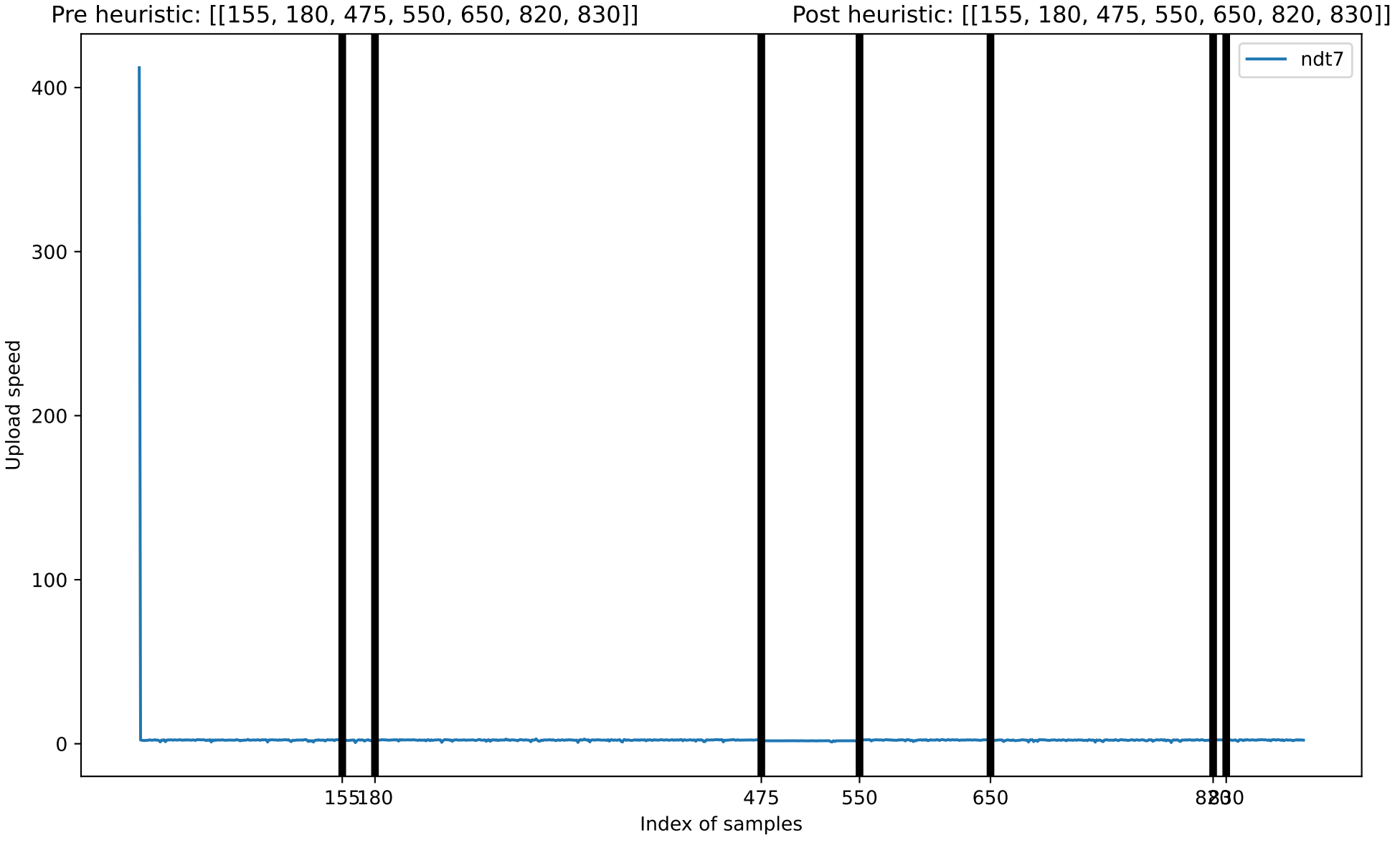

Pre heuristic: [[175]]
Post heuristic: [[175]]
ookla
560
540
520
500
480
Download speed
175
Index of samples

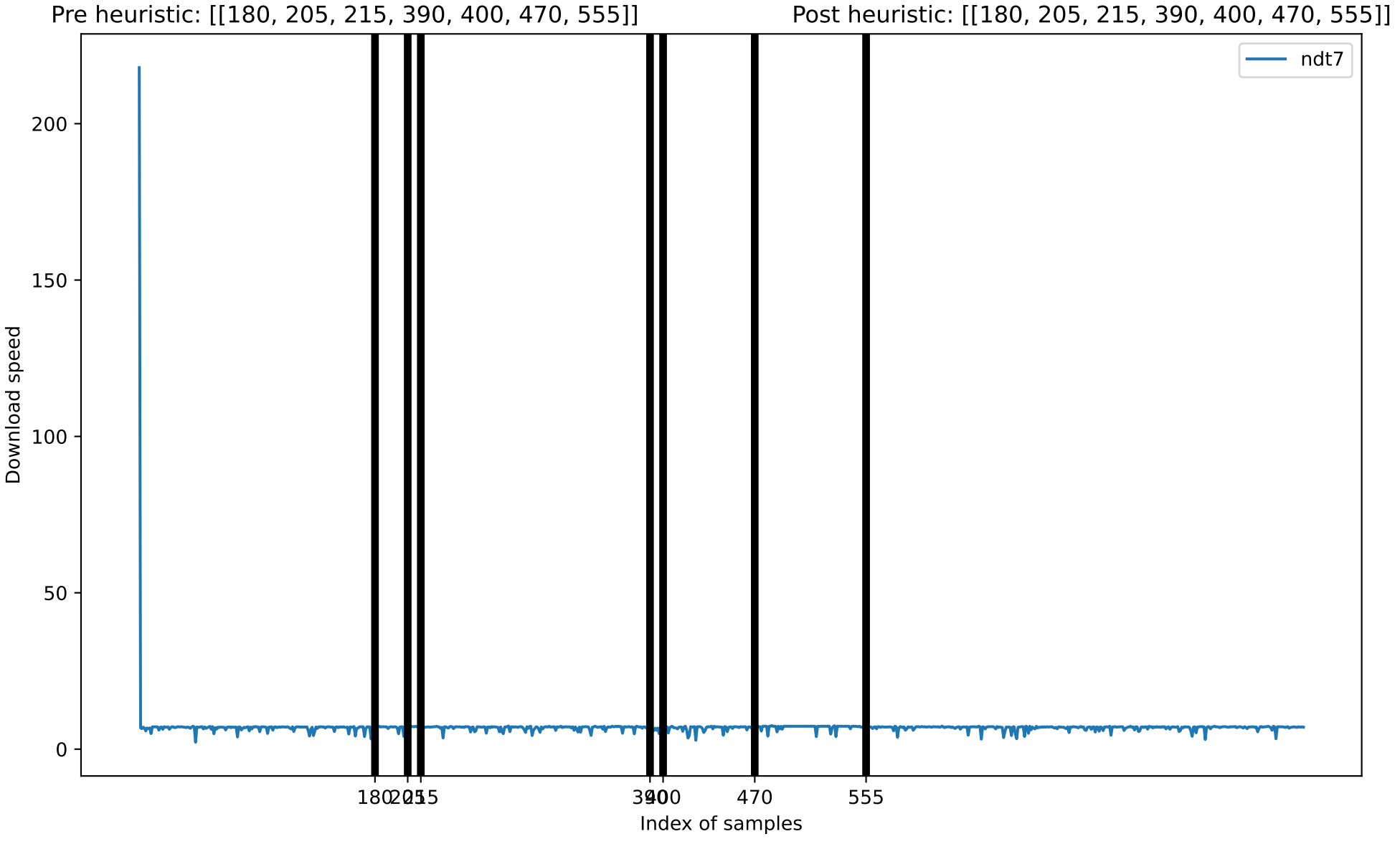

Pre heuristic: [[45, 280, 355]]
Post heuristic: [[45, 280, 355]]
ndt7
Upload speed
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0.00
45
280
355
Index of samples

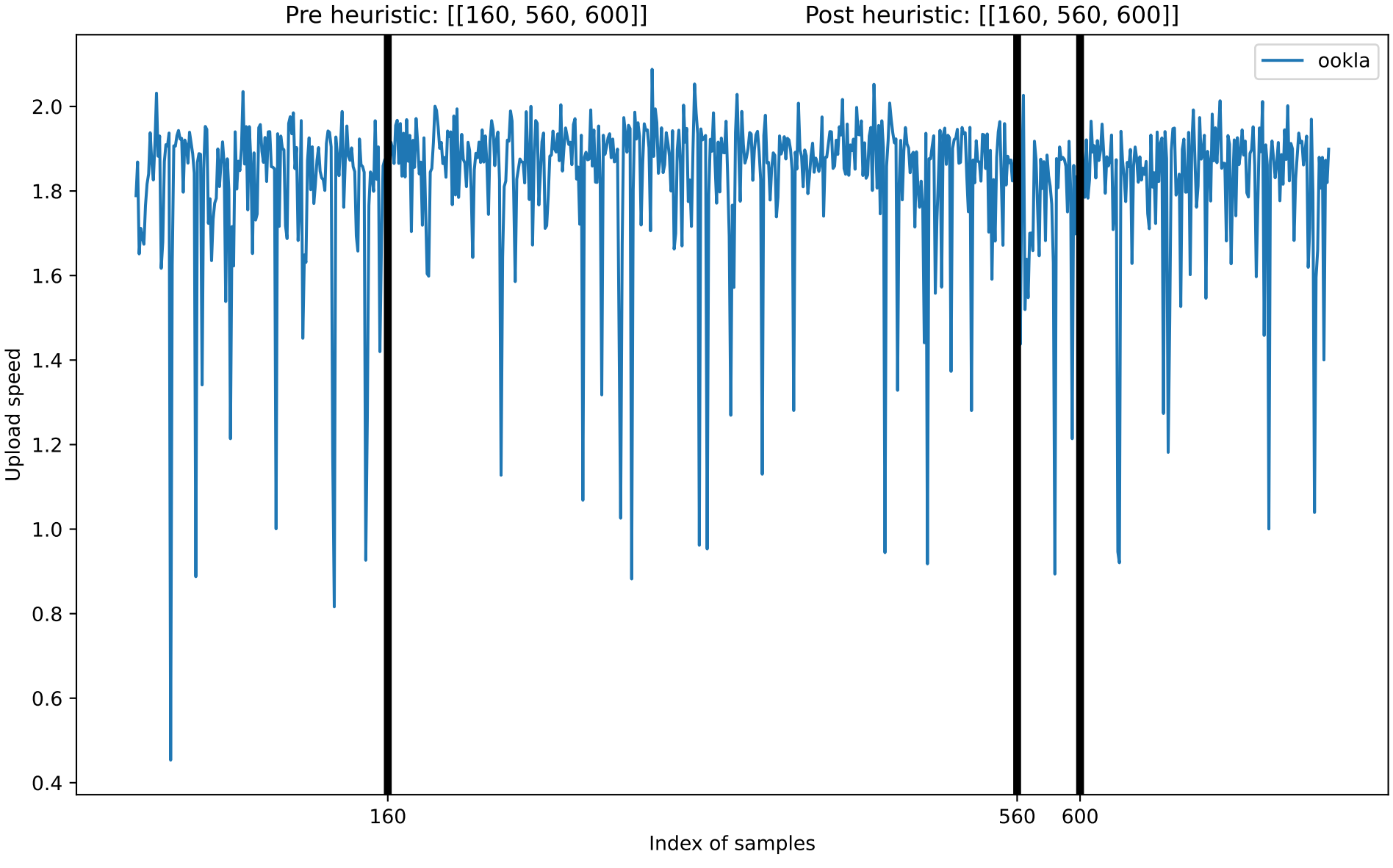

Pre heuristic: [[90, 115, 320, 445, 500]]
Post heuristic: [[90, 115, 320, 445, 500]]
Download speed
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
ndt7
90
115
320
445
500
Index of samples

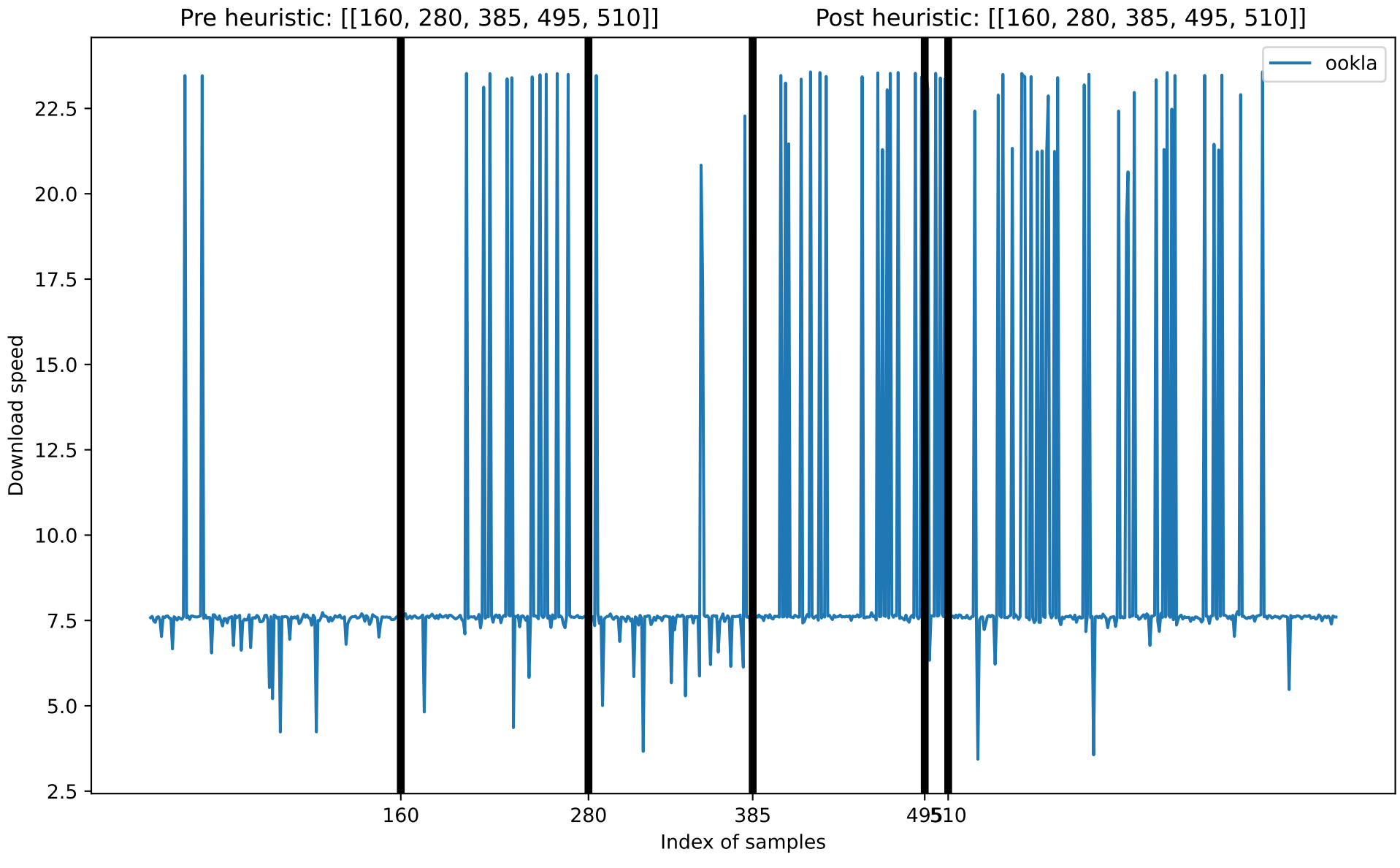

Pre heuristic: [[15]]
Post heuristic: [[15]]
ookla
0.35
0.30
0.25
0.20
0.15
Upload speed
15
Index of samples

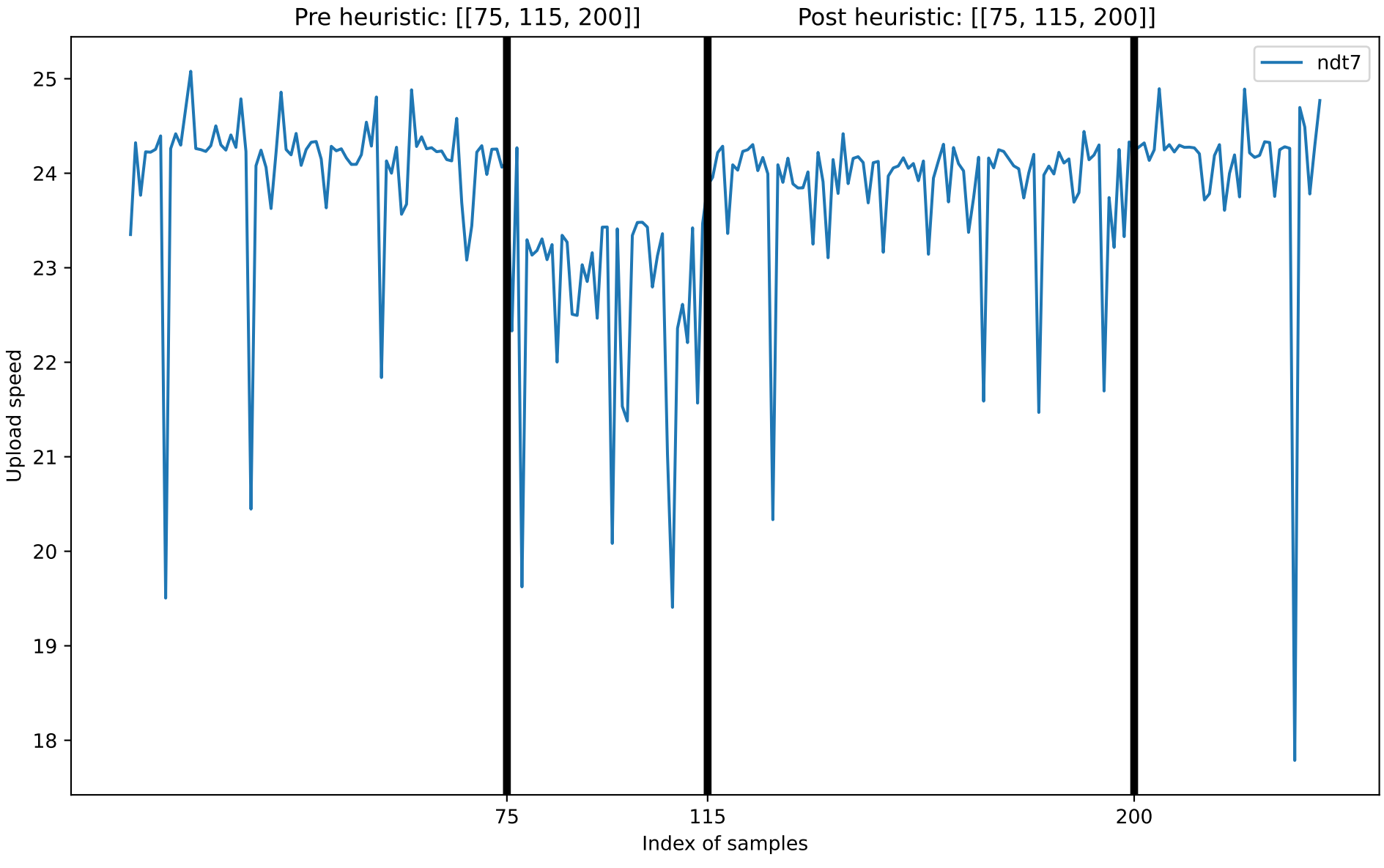

Pre heuristic: [[65]]
Post heuristic: [[65]]
ookla
Download speed
1.8
1.7
1.6
1.5
1.4
1.3
65
Index of samples

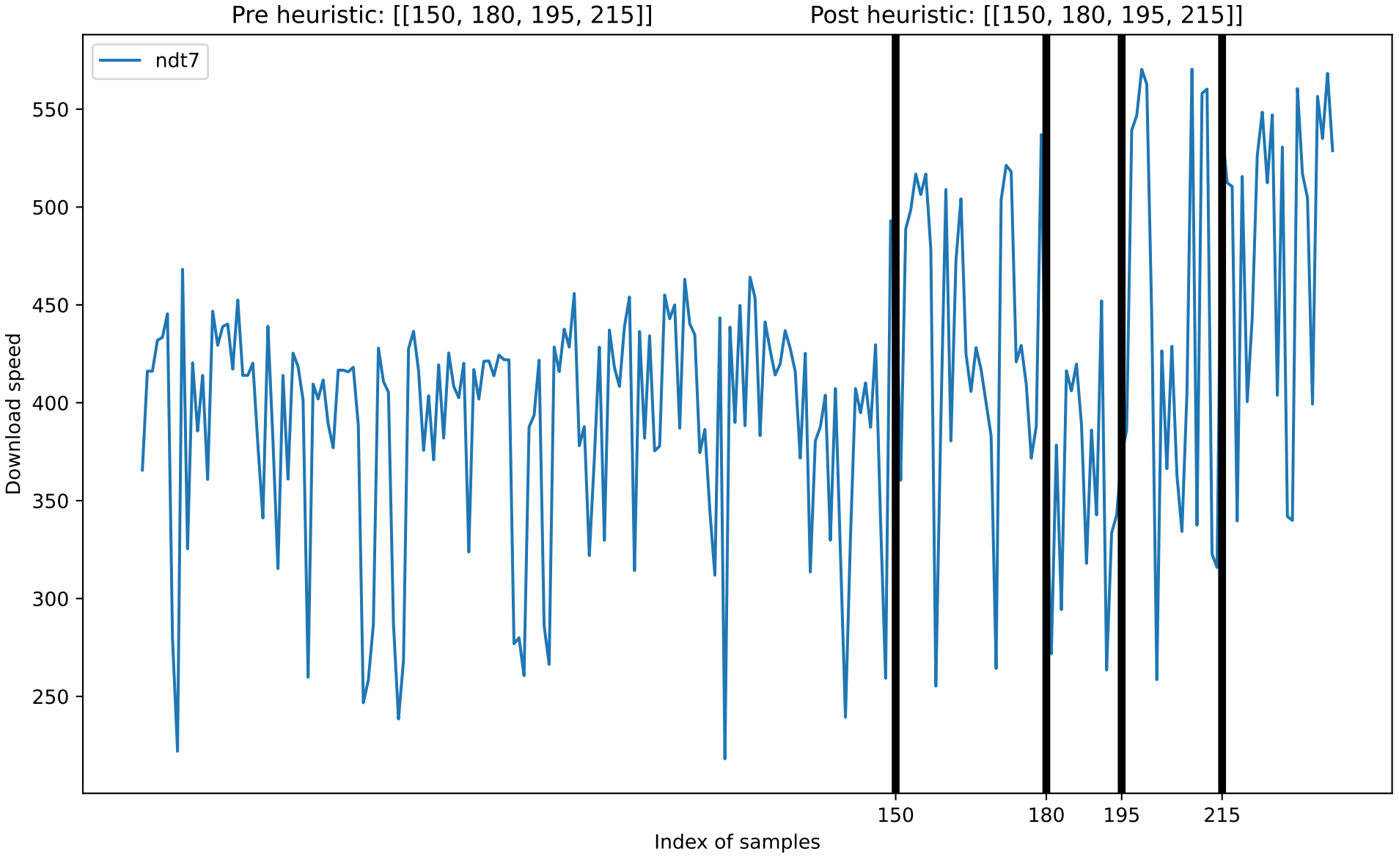

Pre heuristic: [[155, 180, 475, 550, 650, 820, 830]]
Post heuristic: [[155, 180, 475, 550, 650, 820, 830]]
ndt7
400
300
200
100
0
Upload speed
155
180
475
550
650
820
830
Index of samples

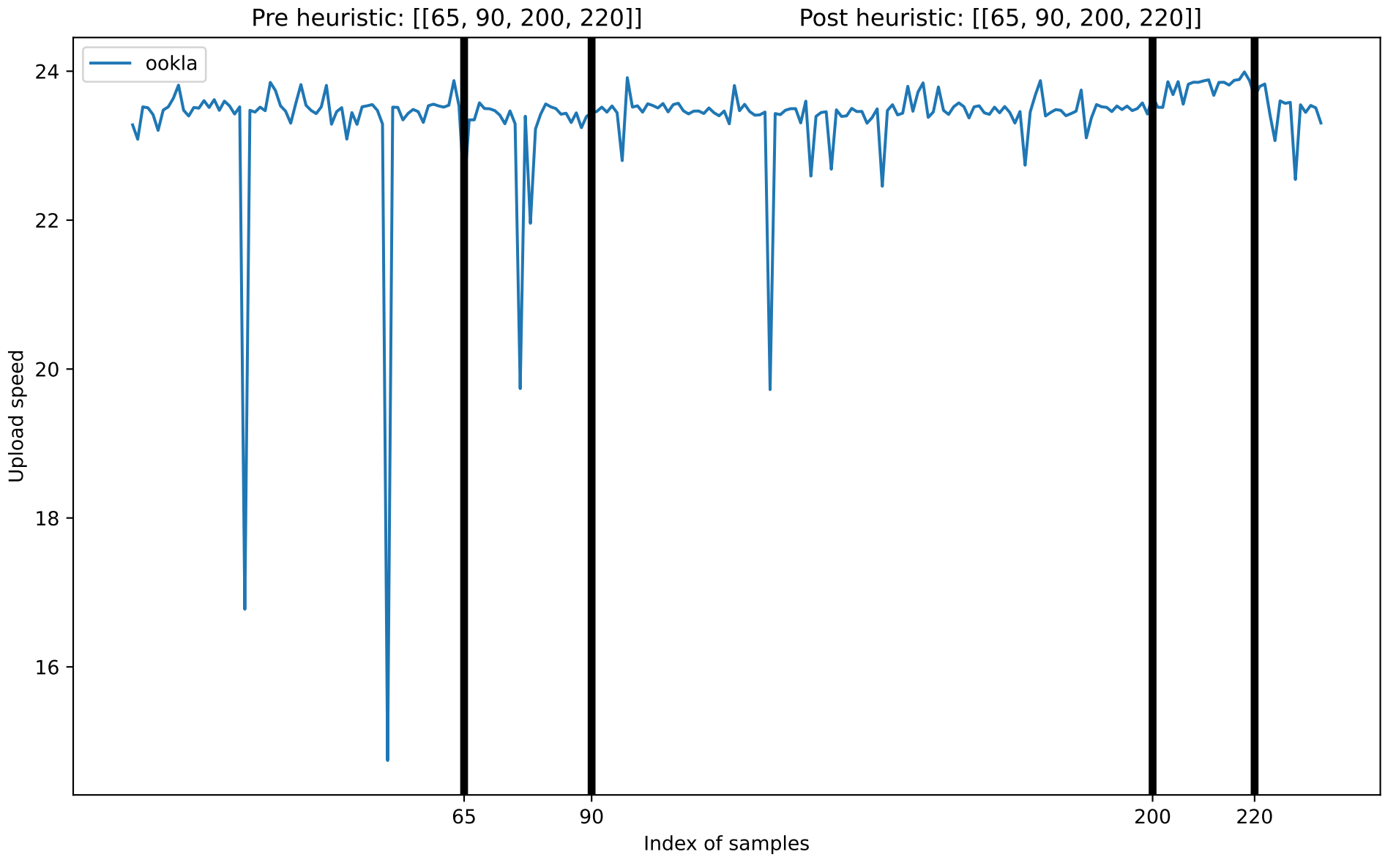

Pre heuristic: [[180, 205, 215, 390, 400, 470, 555]]
Post heuristic: [[180, 205, 215, 390, 400, 470, 555]]
ndt7
Download speed
200
150
100
50
0
180
205
215
390
400
470
555
Index of samples

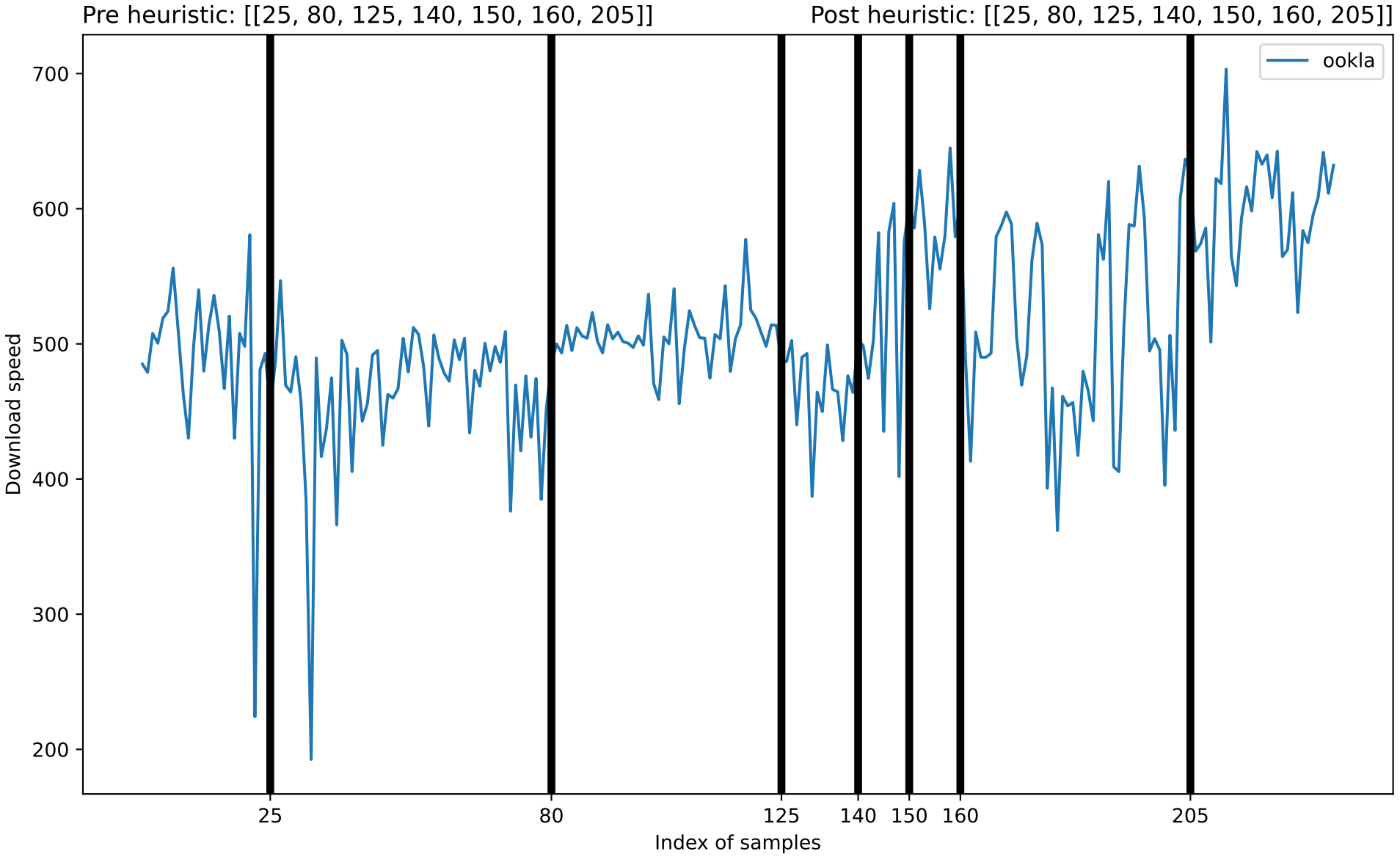

Pre heuristic: [[160, 560, 600]]
Post heuristic: [[160, 560, 600]]
ookla
Upload speed
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
160
560
600
Index of samples


Pre heuristic: [[160, 280, 385, 495, 510]]
Post heuristic: [[160, 280, 385, 495, 510]]
ookla
Download speed
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
2.5
160
280
385
495
510
Index of samples


Pre heuristic: [[75, 115, 200]]
Post heuristic: [[75, 115, 200]]
ndt7
Upload speed
25
24
23
22
21
20
19
18
75
115
200
Index of samples

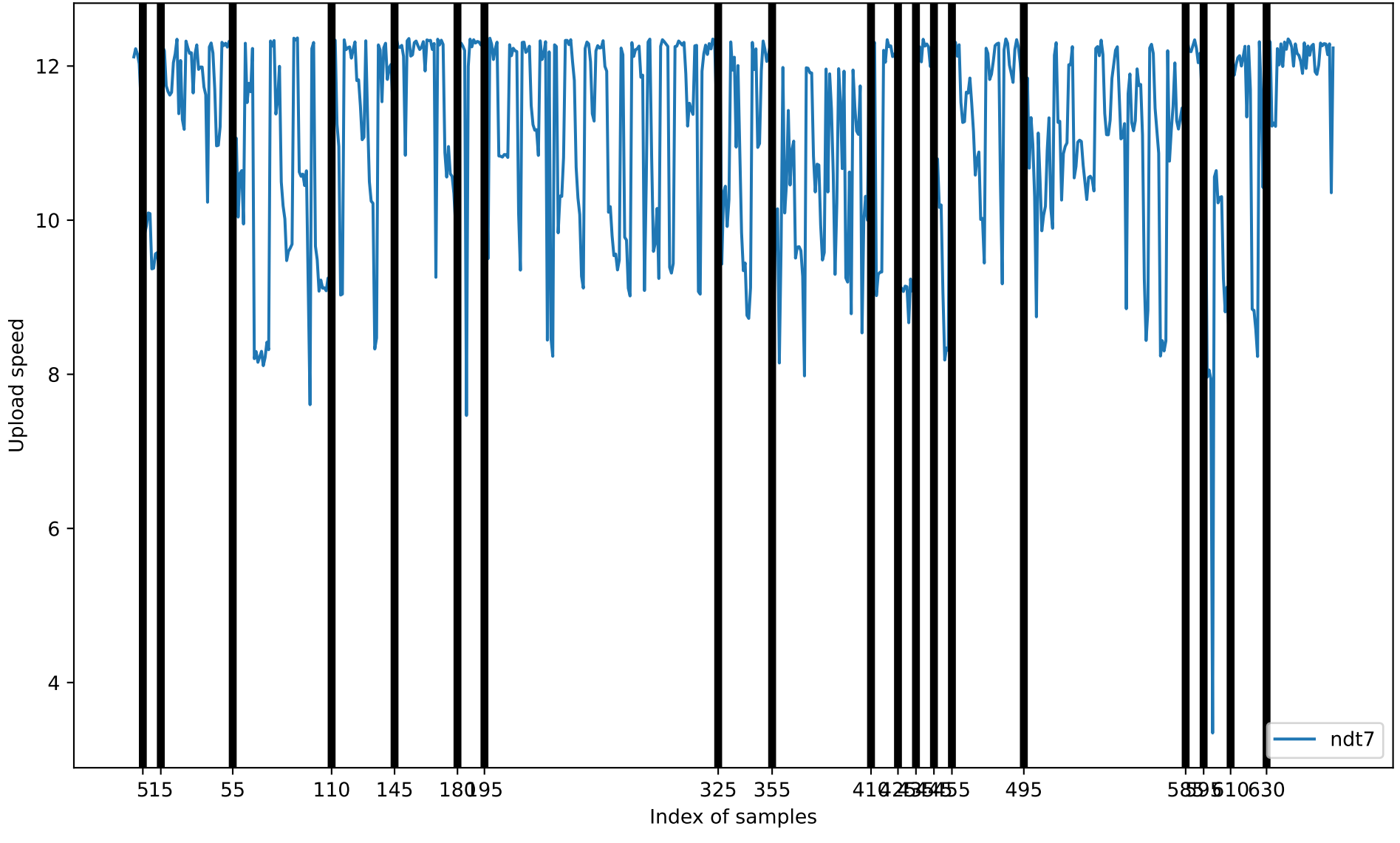

Pre heuristic: [[150, 180, 195, 215]]
Post heuristic: [[150, 180, 195, 215]]
ndt7
Download speed
550
500
450
400
350
300
250
150
180
195
215
Index of samples

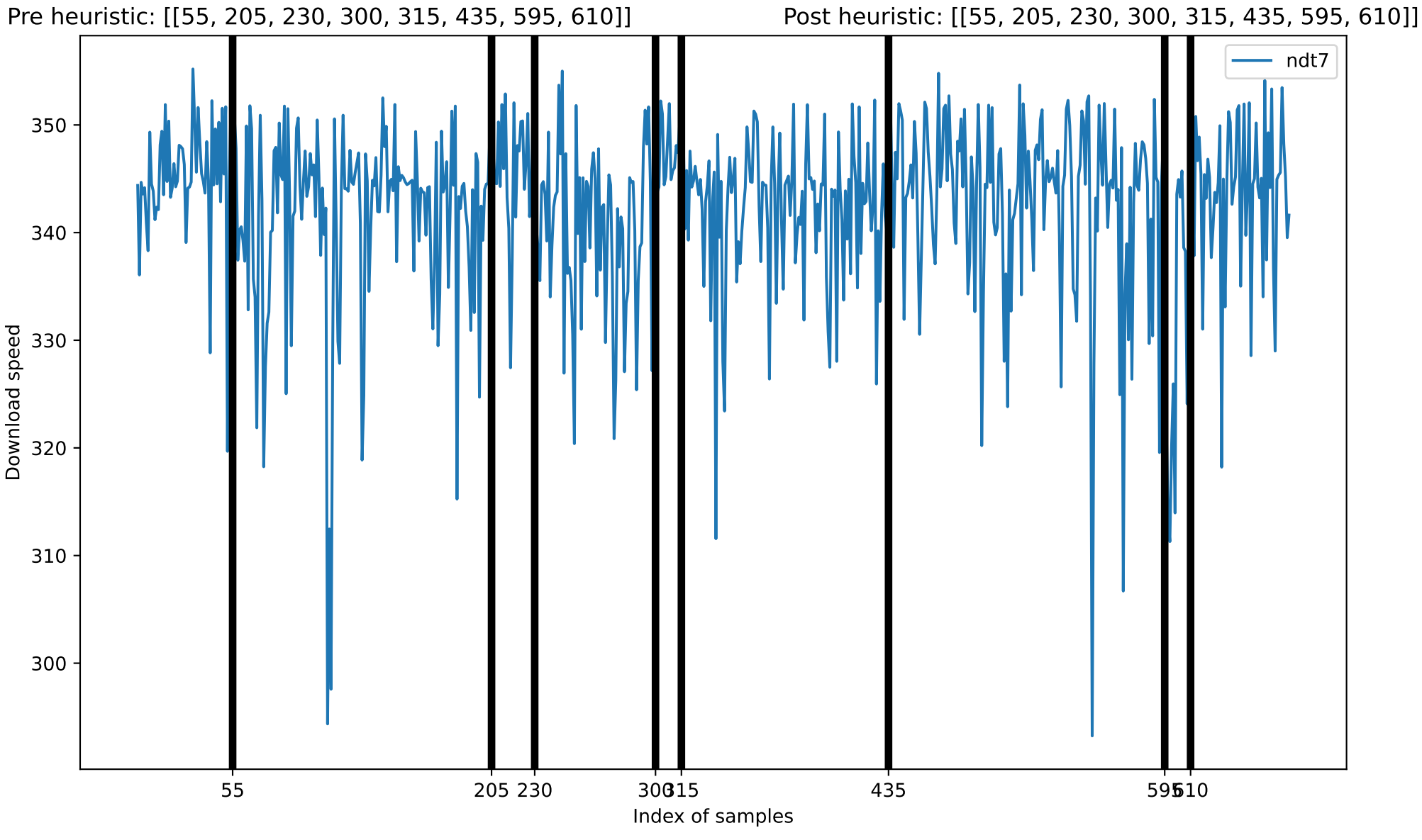

Pre heuristic: [[65, 90, 200, 220]]
Post heuristic: [[65, 90, 200, 220]]
ookla
Upload speed
24
22
20
18
16
65
90
200
220
Index of samples

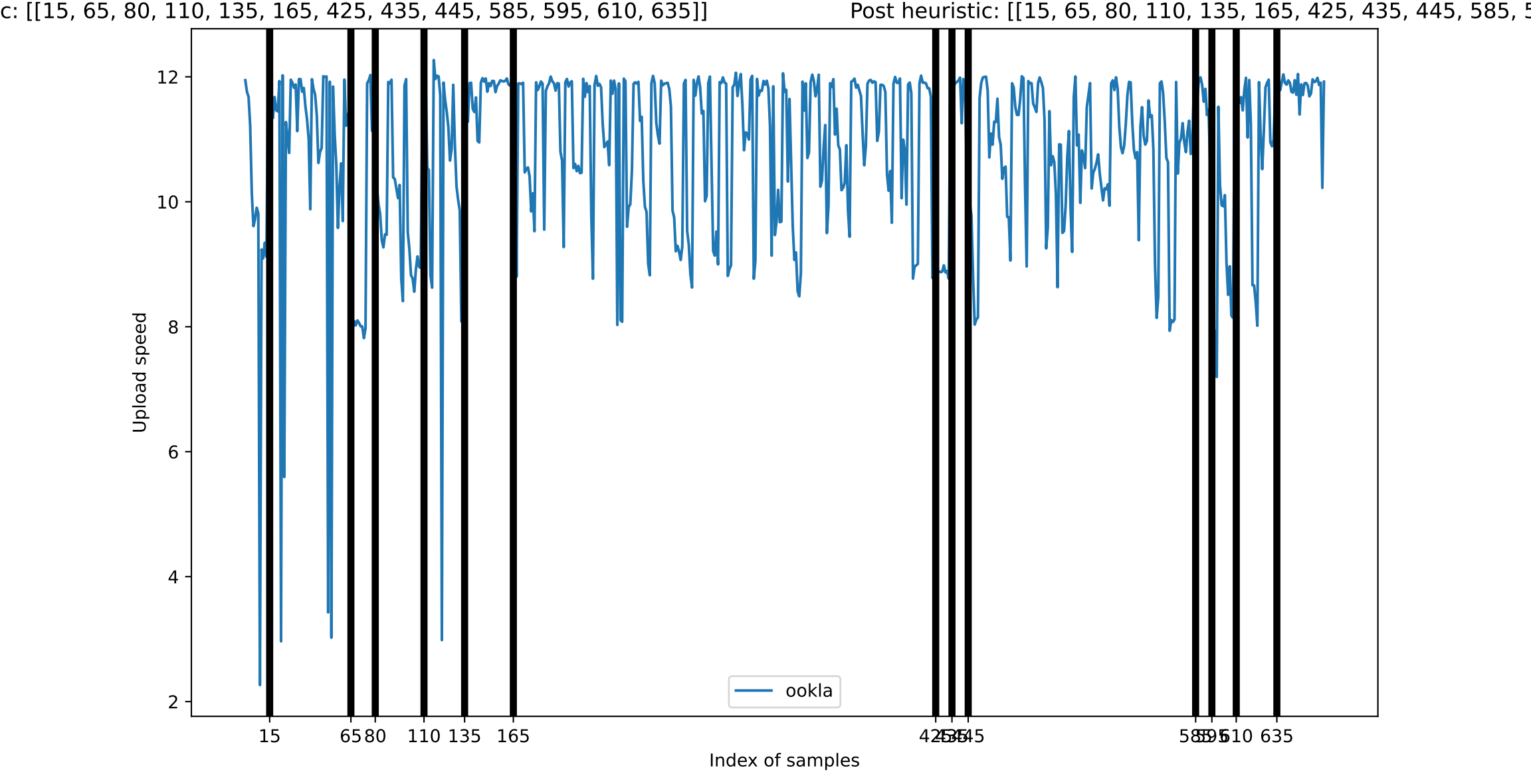

Pre heuristic: [[25, 80, 125, 140, 150, 160, 205]]
Post heuristic: [[25, 80, 125, 140, 150, 160, 205]]
ookla
Download speed
700
600
500
400
300
200
25
80
125
140
150
160
205
Index of samples

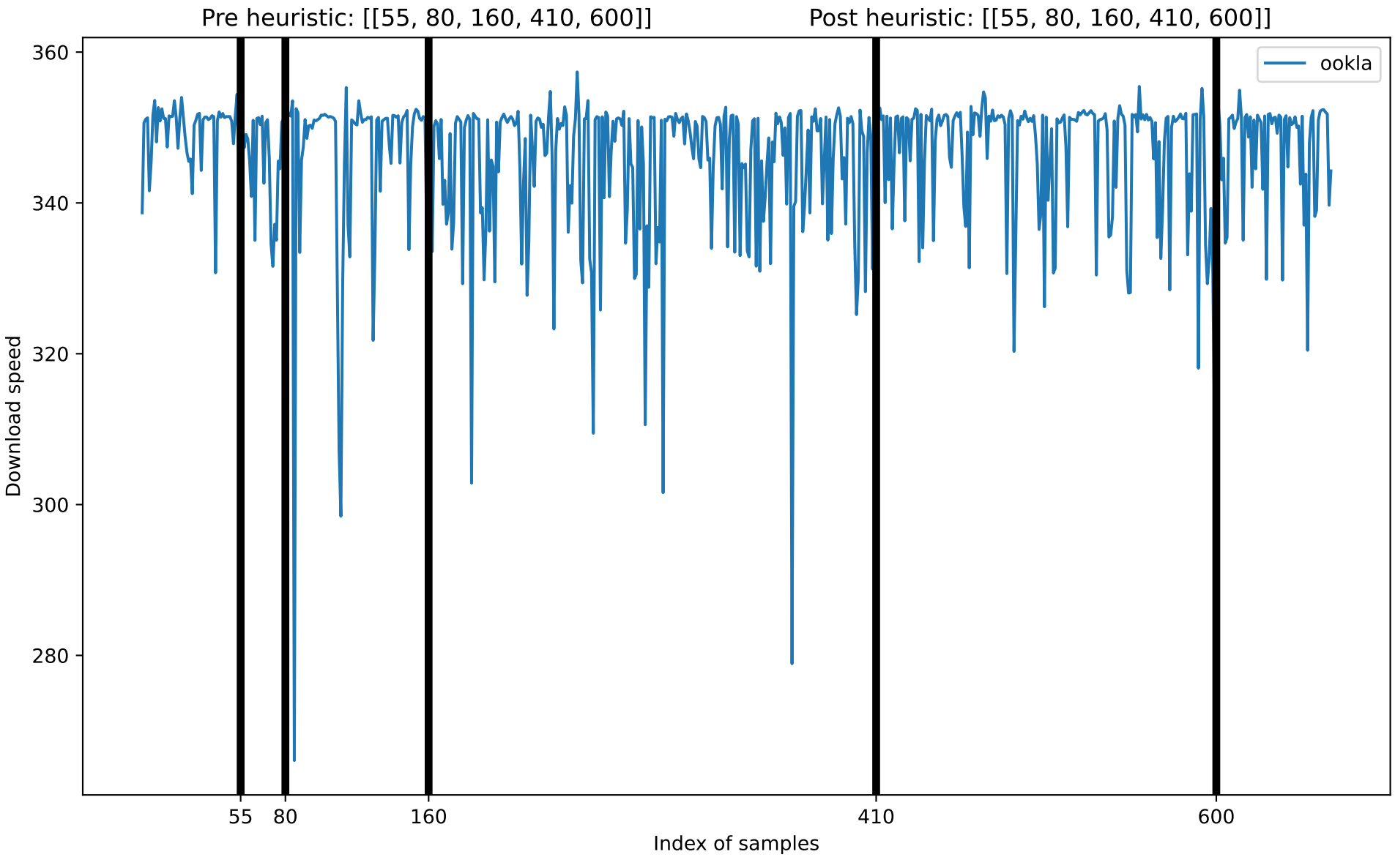
195, 325, 355, 410, 425, 435, 445, 455, 495, 585, 595, 610, 630]]

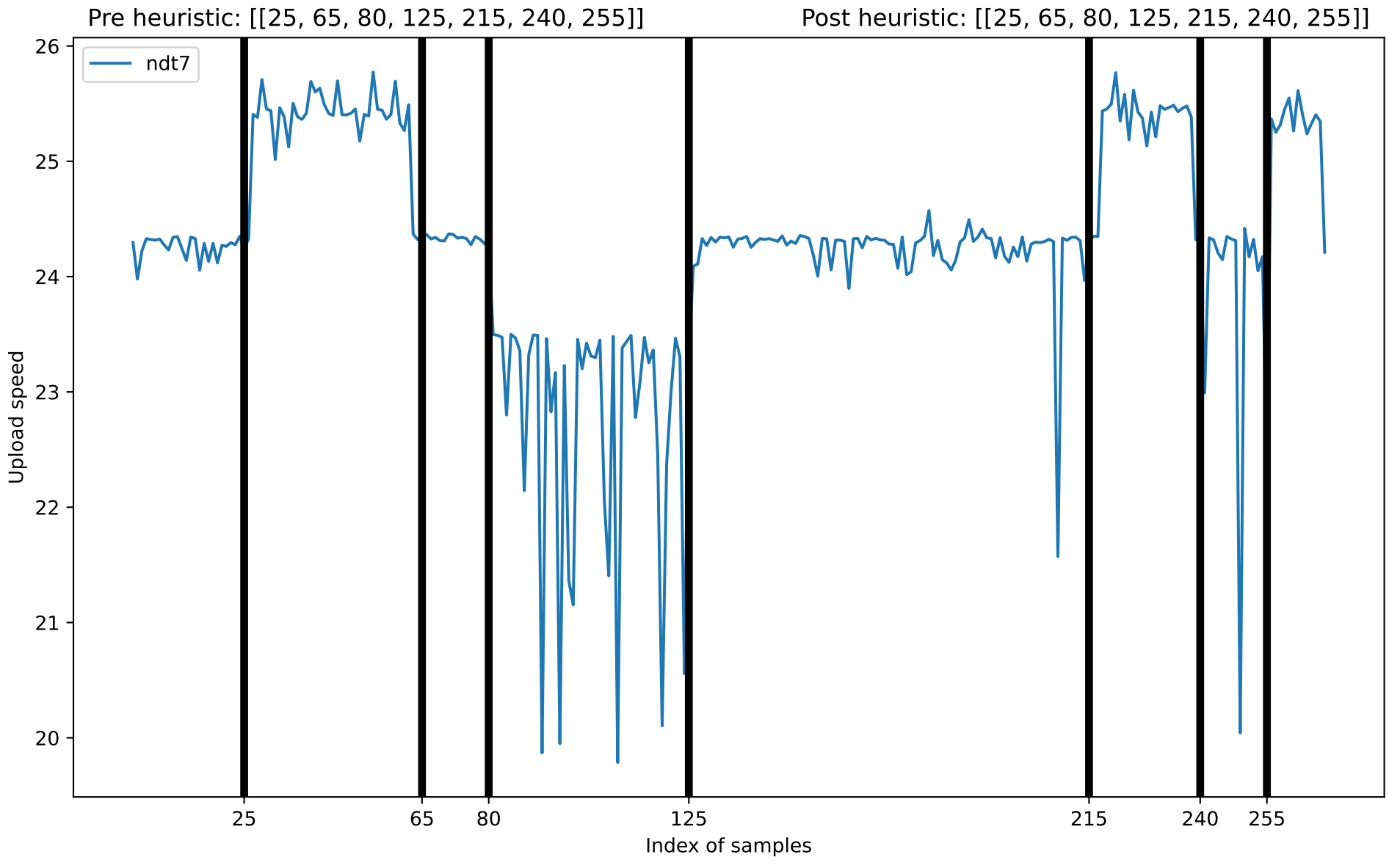
Post heuristic: [[5, 15, 55, 110, 145, 180, 195, 325, 355, 410, 42

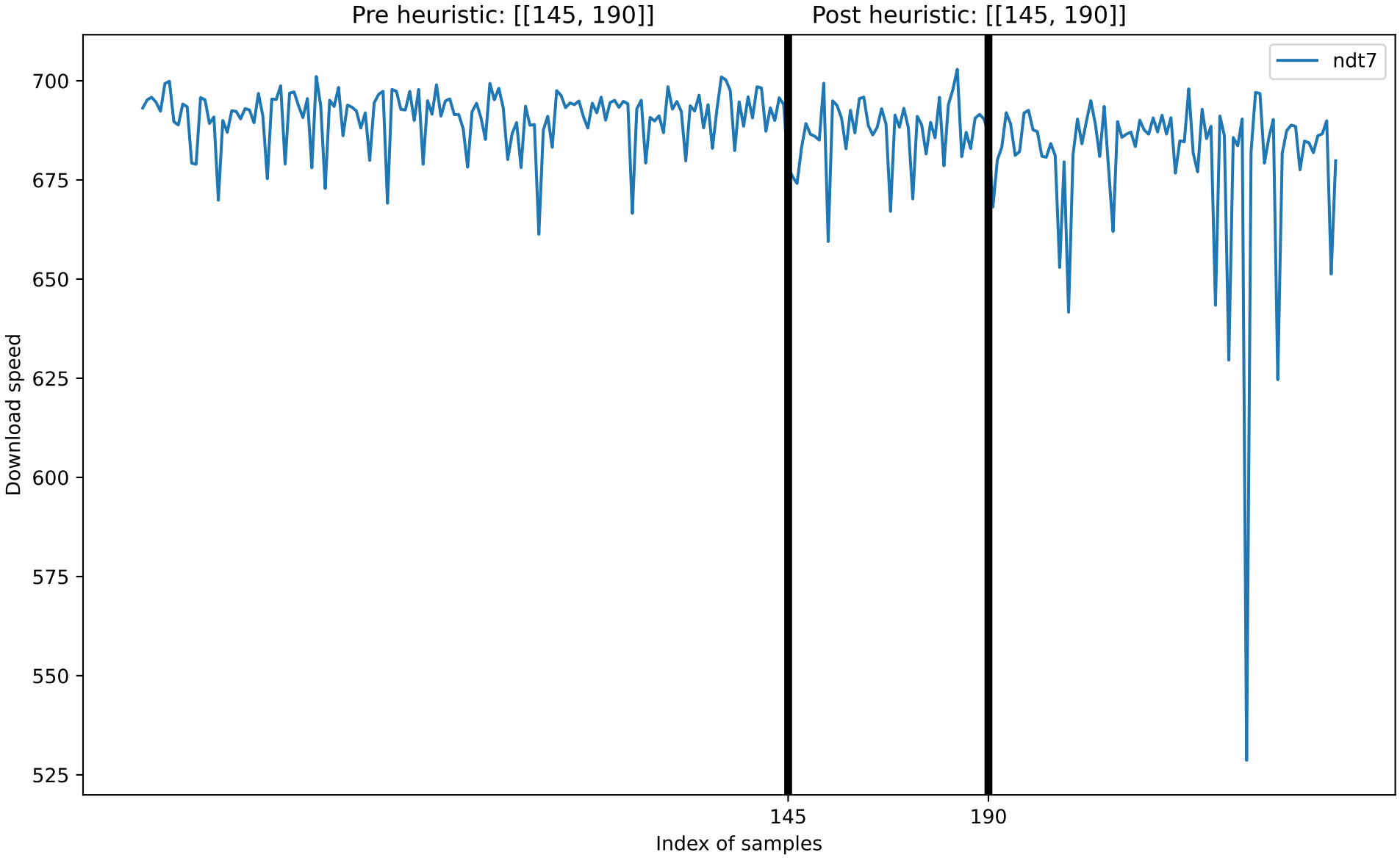


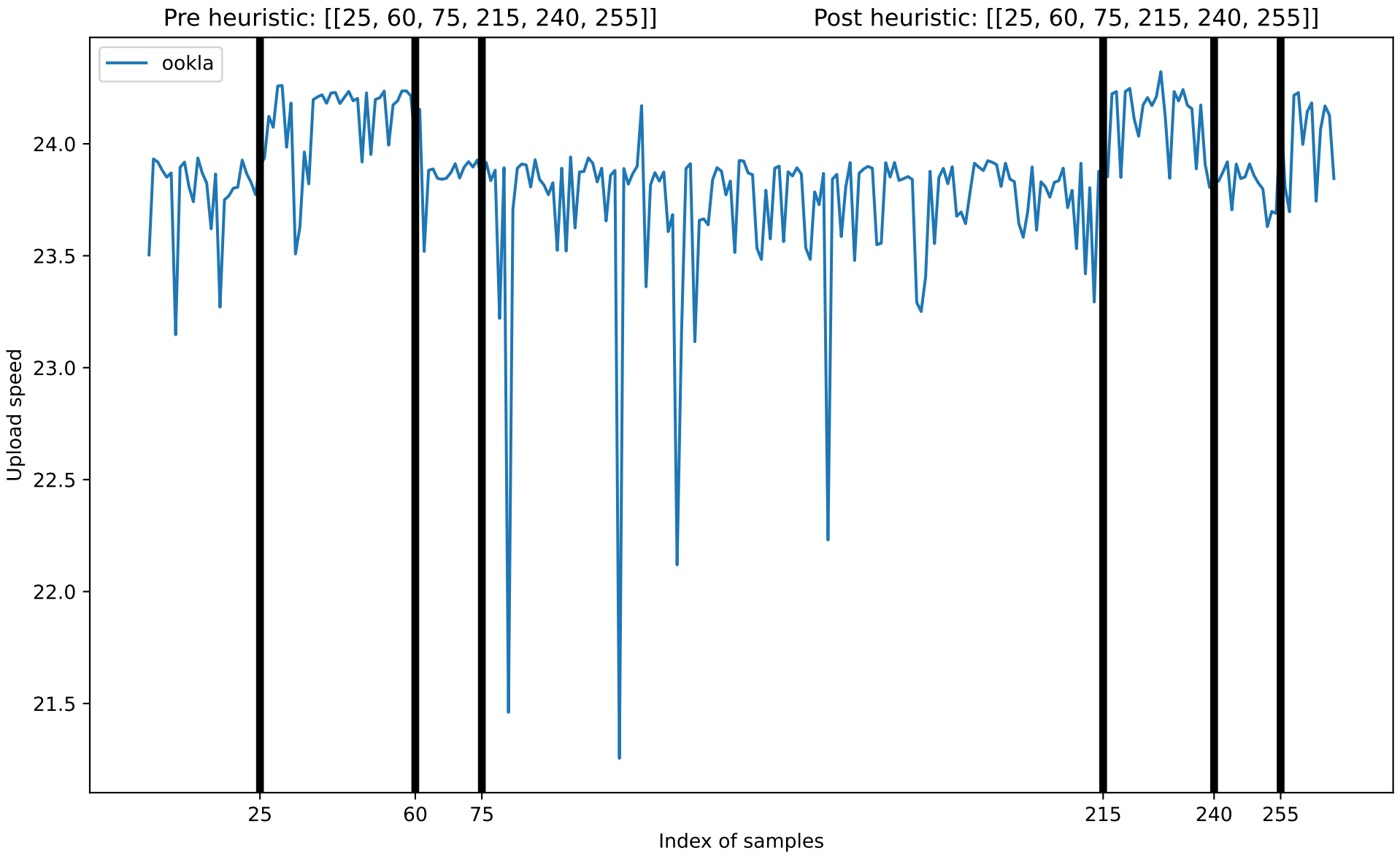

Pre heuristic: [[55, 205, 230, 300, 315, 435, 595, 610]]
Post heuristic: [[55, 205, 230, 300, 315, 435, 595, 610]]
ndt7
Download speed
350
340
330
320
310
300
55
205
230
300
315
435
595
610
Index of samples

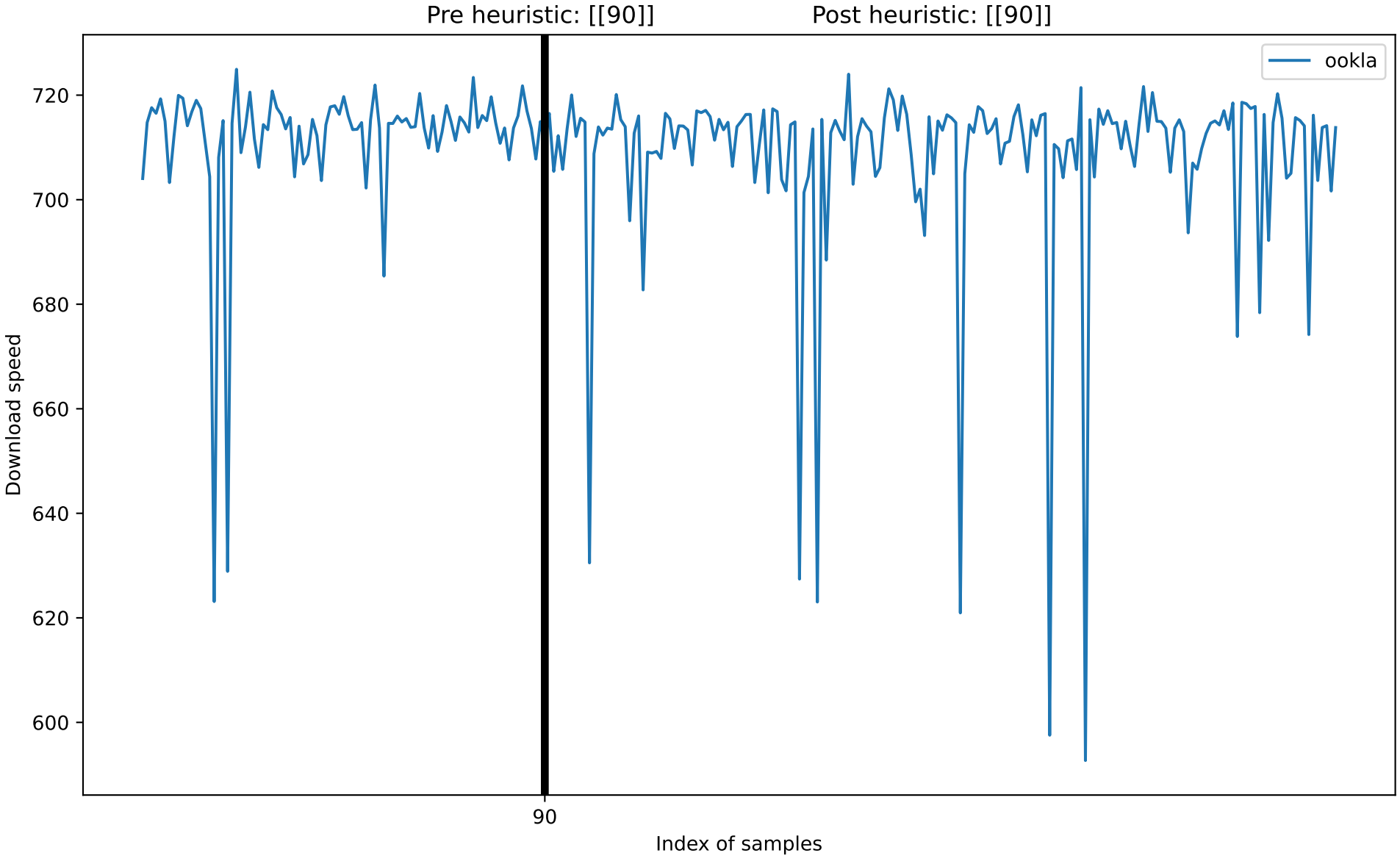

c: [[15, 65, 80, 110, 135, 165, 425, 435, 445, 585, 595, 610, 635]]
Post heuristic: [[15, 65, 80, 110, 135, 165, 425, 435, 445, 585, 5
Upload speed
12
10
8
6
4
2
15
65
80
110
135
165
Index of samples
ookla

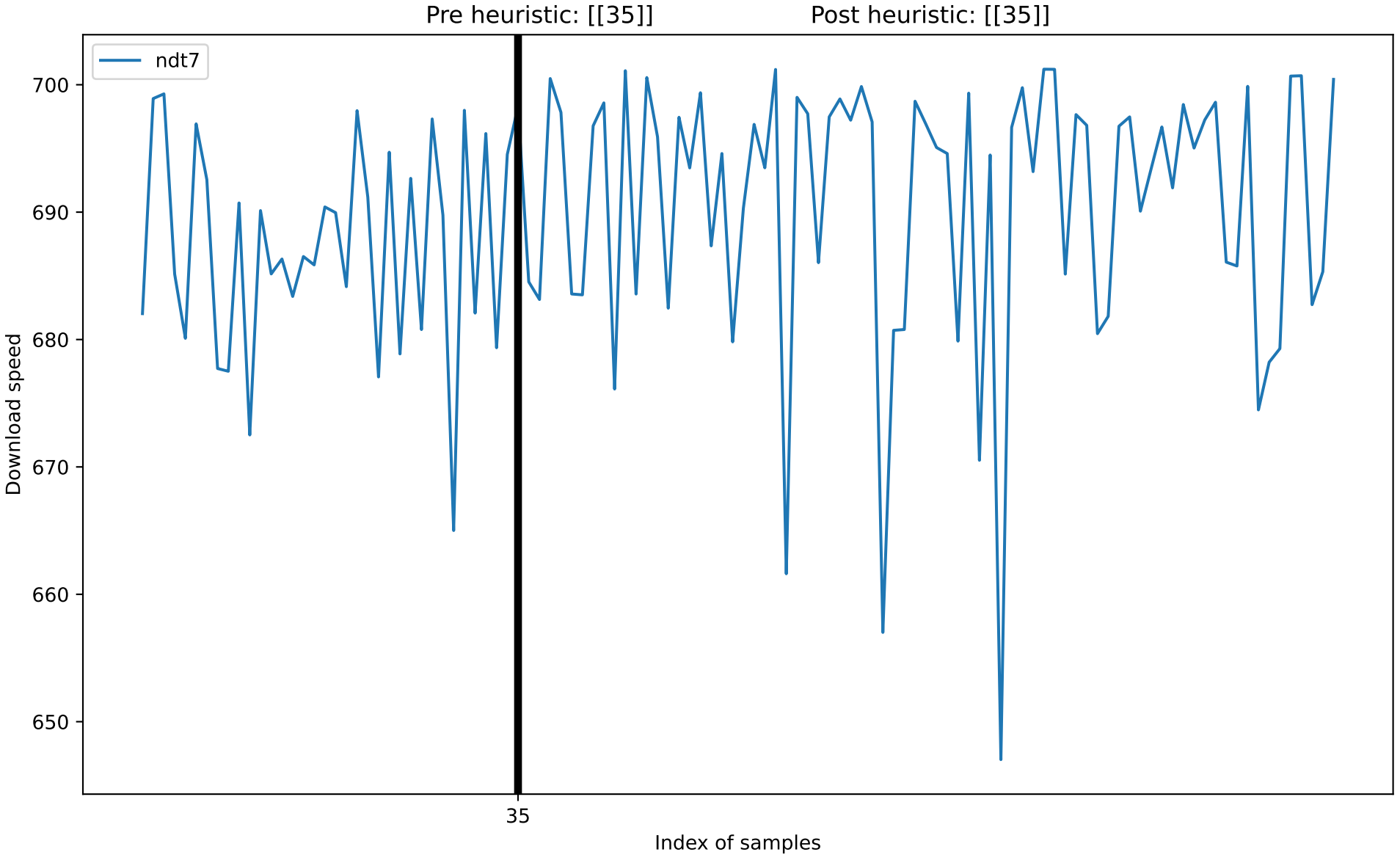

Pre heuristic: [[55, 80, 160, 410, 600]]
Post heuristic: [[55, 80, 160, 410, 600]]
ookla
Download speed
360
340
320
300
280
55
80
160
410
600
Index of samples

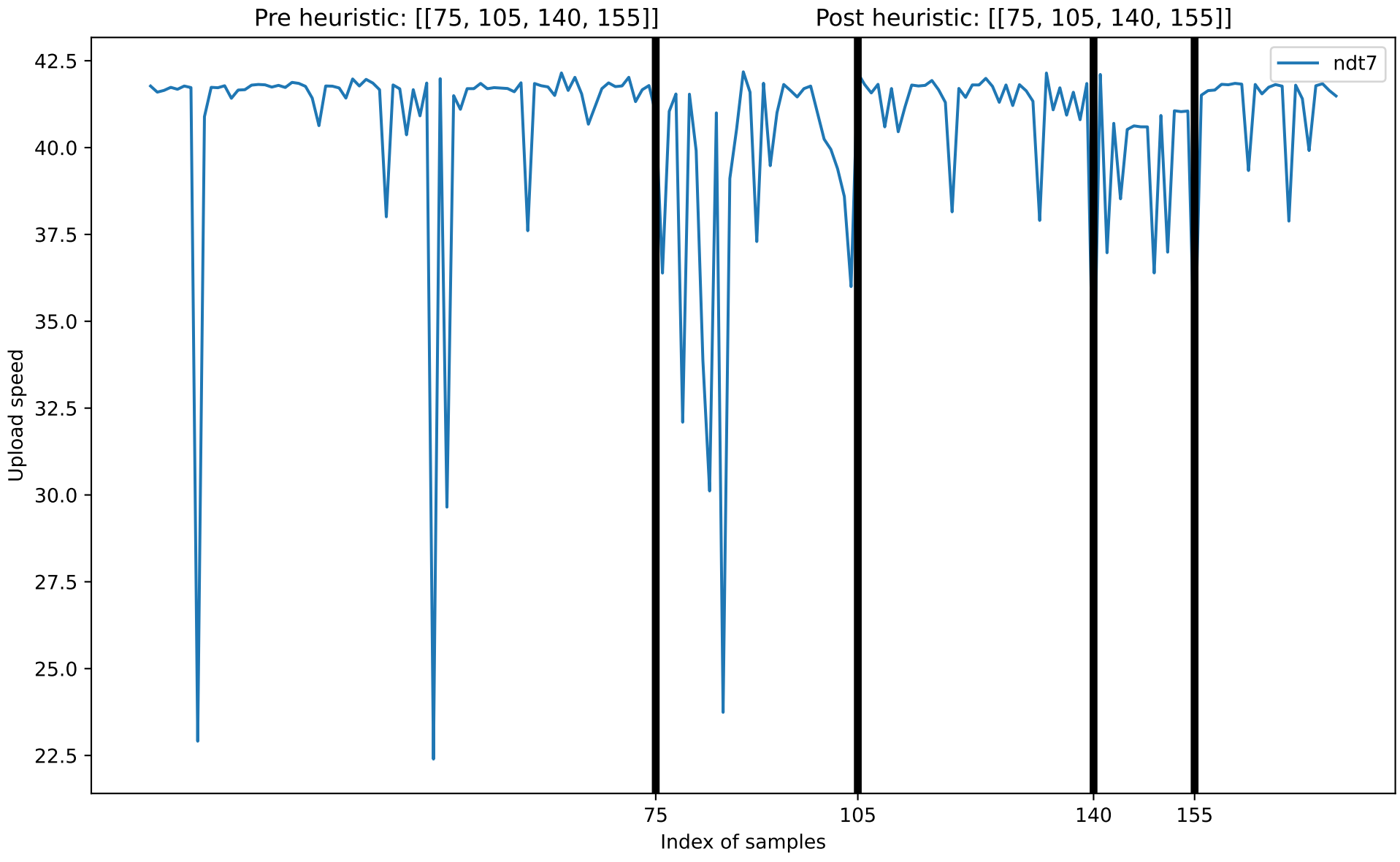

Pre heuristic: [[25, 65, 80, 125, 215, 240, 255]]
Post heuristic: [[25, 65, 80, 125, 215, 240, 255]]
ndt7
Upload speed
Index of samples
26
25
24
23
22
21
20
25
65
80
125
215
240
255

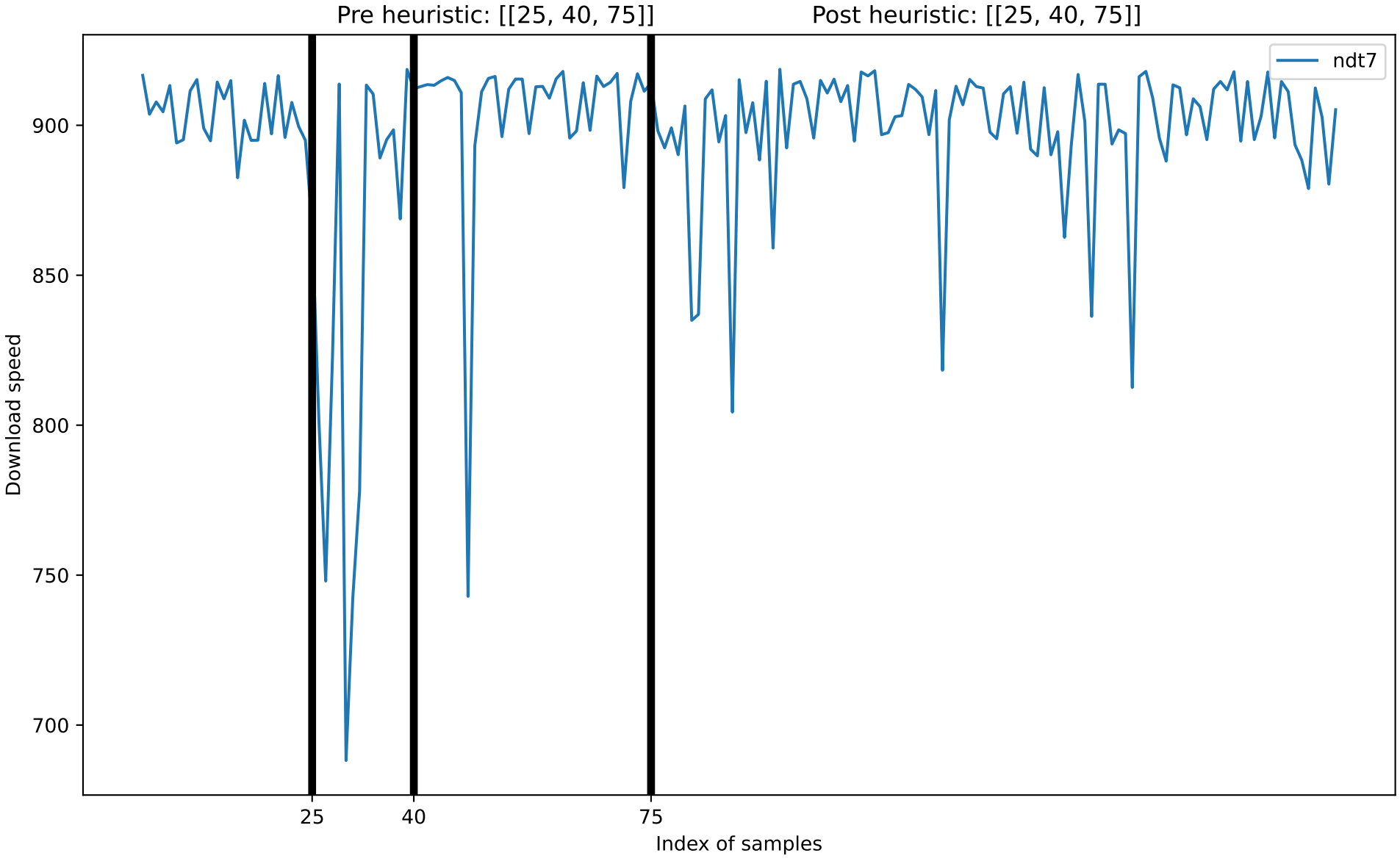

Pre heuristic: [[145, 190]]
Post heuristic: [[145, 190]]
ndt7
Download speed
700
675
650
625
600
575
550
525
145
190
Index of samples

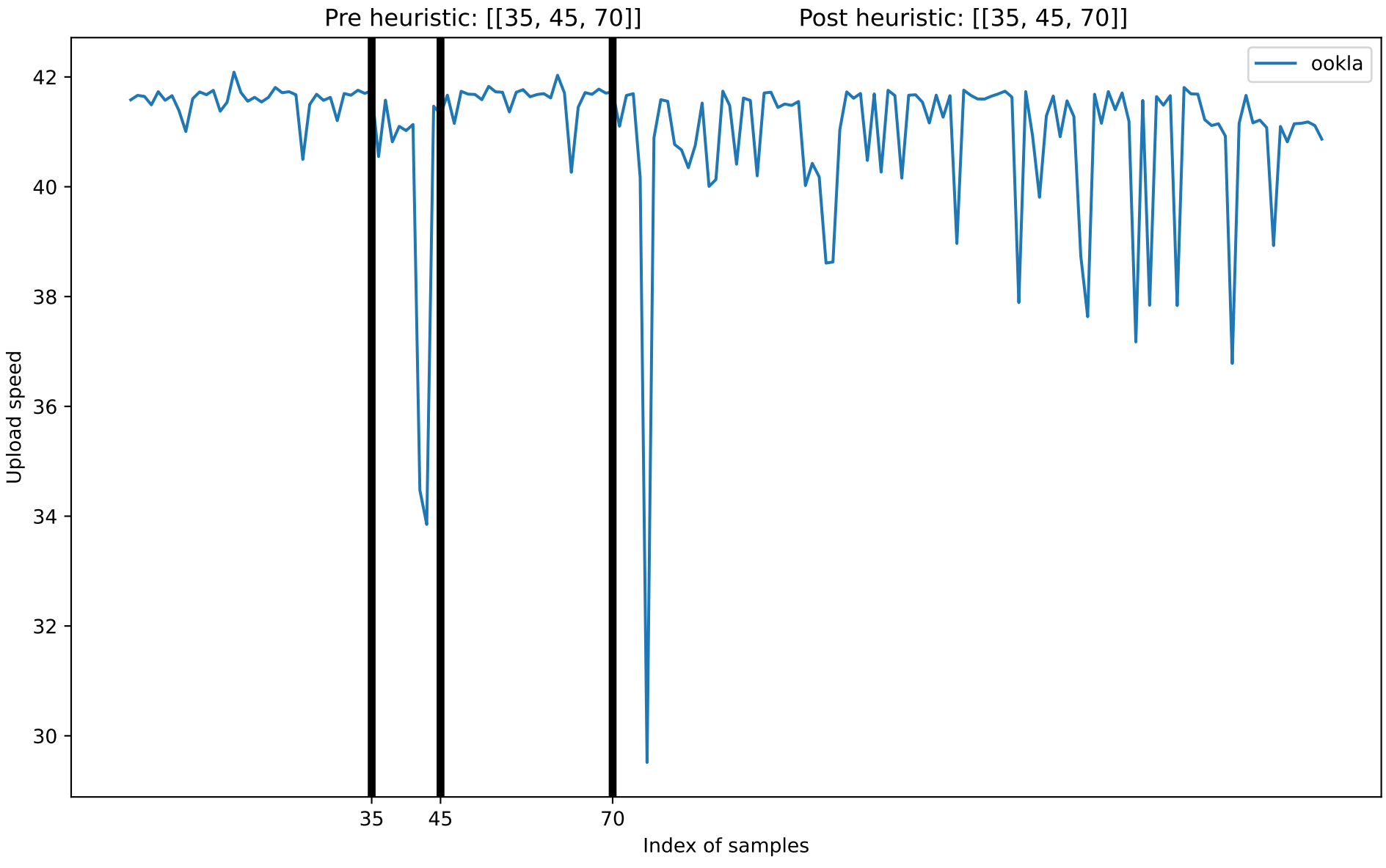

Pre heuristic: [[25, 60, 75, 215, 240, 255]]
Post heuristic: [[25, 60, 75, 215, 240, 255]]
ookla
Upload speed
24.0
23.5
23.0
22.5
22.0
21.5
25
60
75
215
240
255
Index of samples

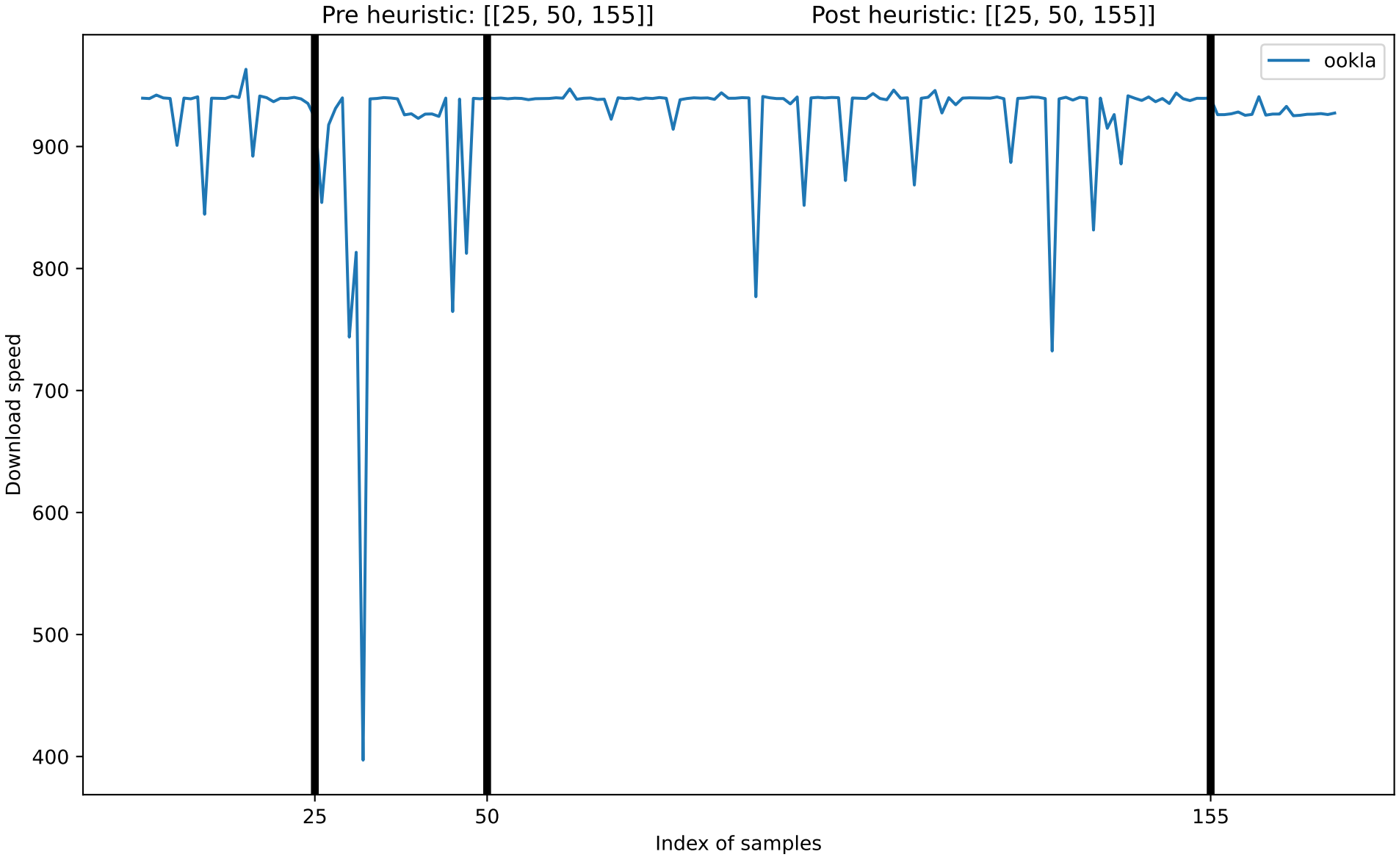

Pre heuristic: [[90]]
Post heuristic: [[90]]
ookla
720
700
680
660
640
620
600
Download speed
90
Index of samples

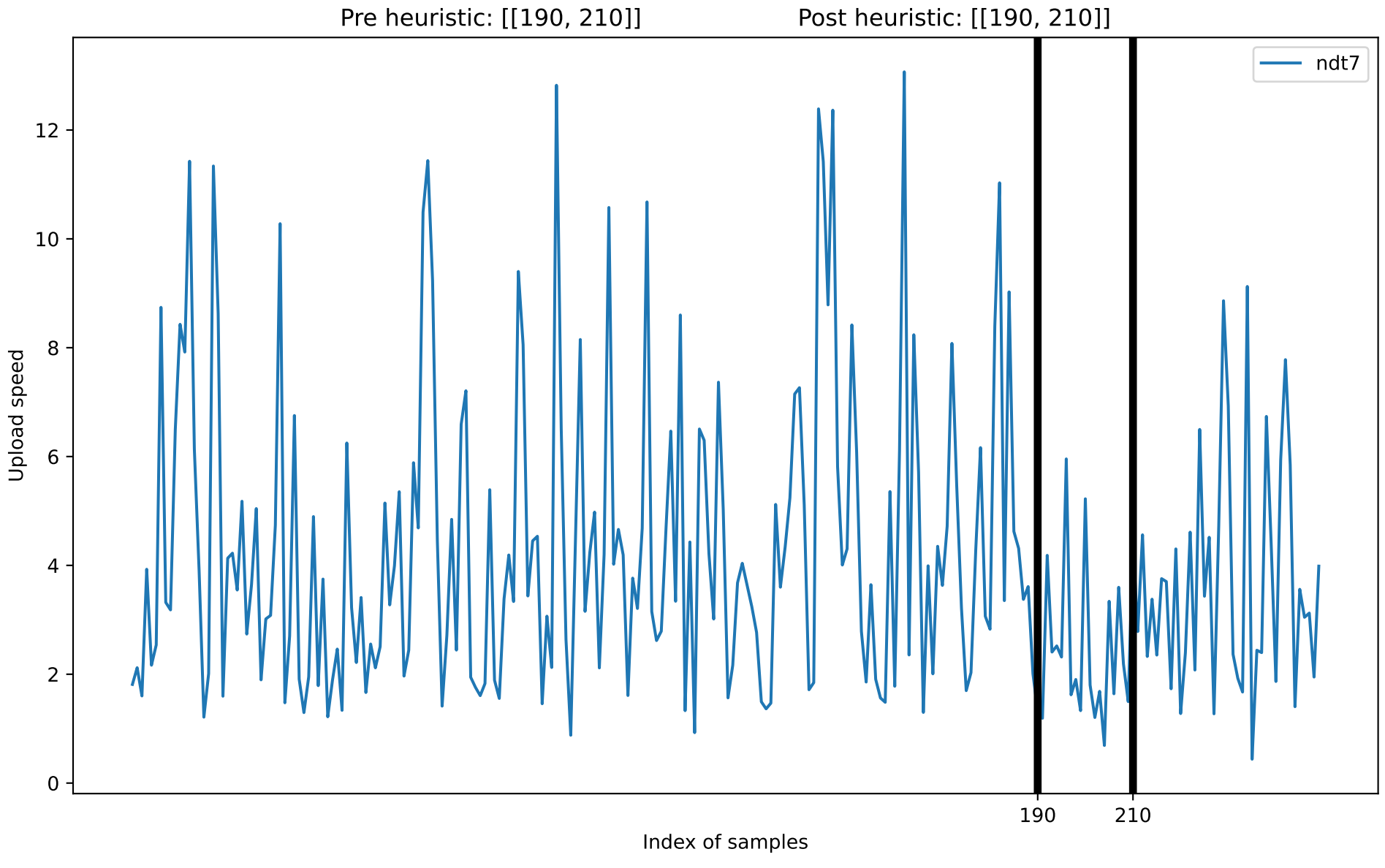

Pre heuristic: [[35]]
Post heuristic: [[35]]
ndt7
700
690
680
670
660
650
Download speed
35
Index of samples

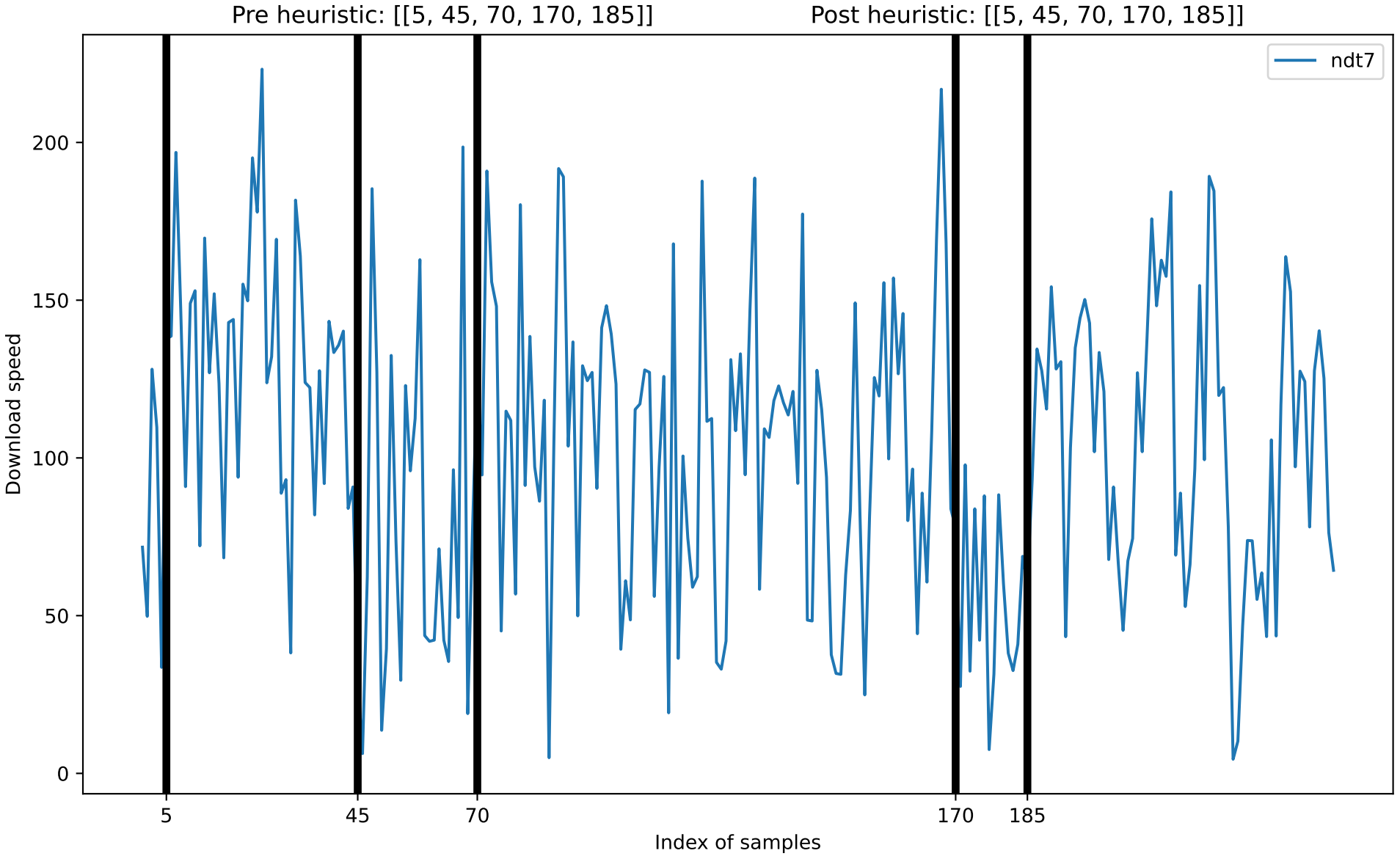

Pre heuristic: [[75, 105, 140, 155]]
Post heuristic: [[75, 105, 140, 155]]
ndt7
Upload speed
42.5
40.0
37.5
35.0
32.5
30.0
27.5
25.0
22.5
75
105
140
155
Index of samples

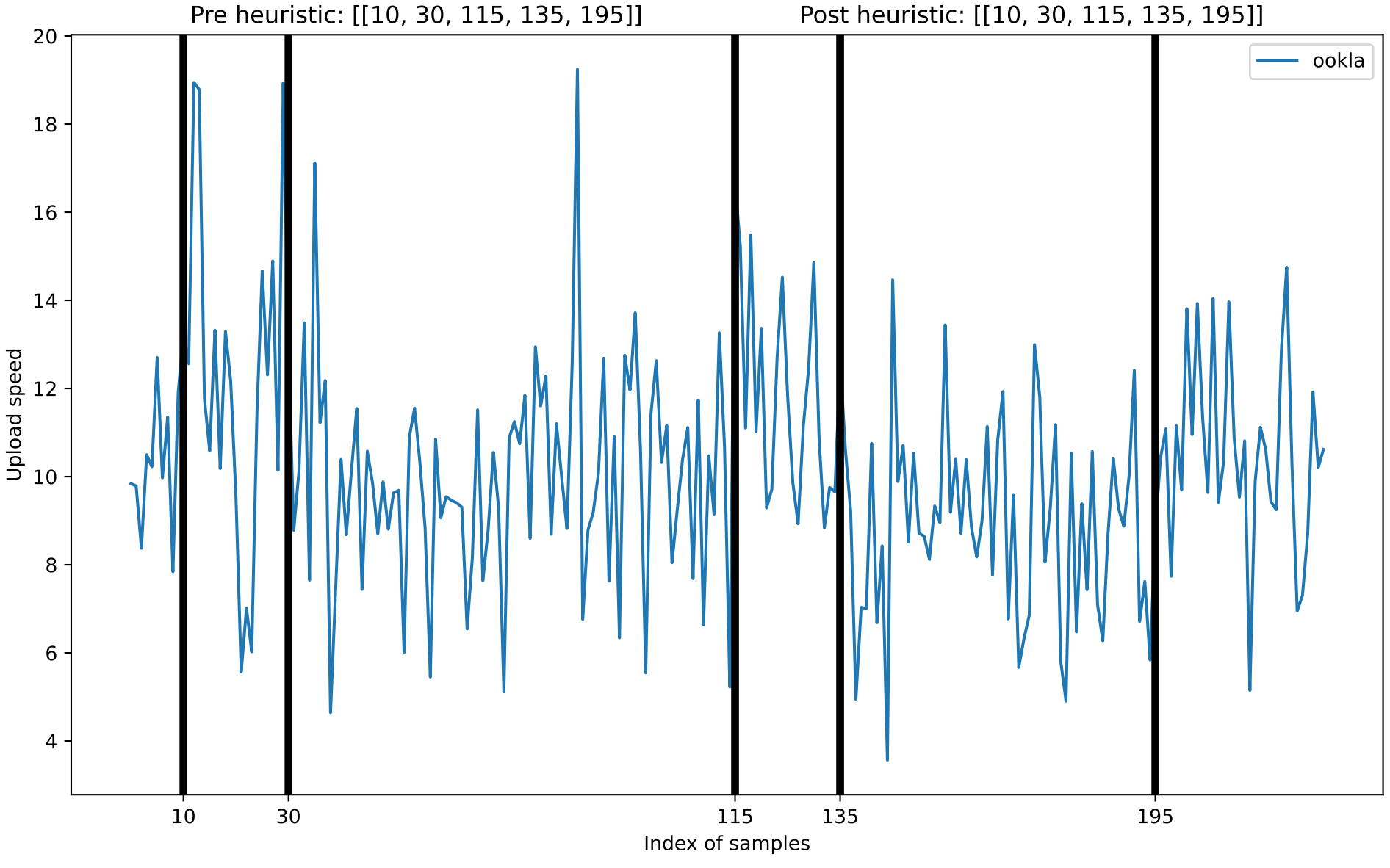

Pre heuristic: [[25, 40, 75]]
Post heuristic: [[25, 40, 75]]
ndt7
900
850
800
750
700
Download speed
25
40
75
Index of samples

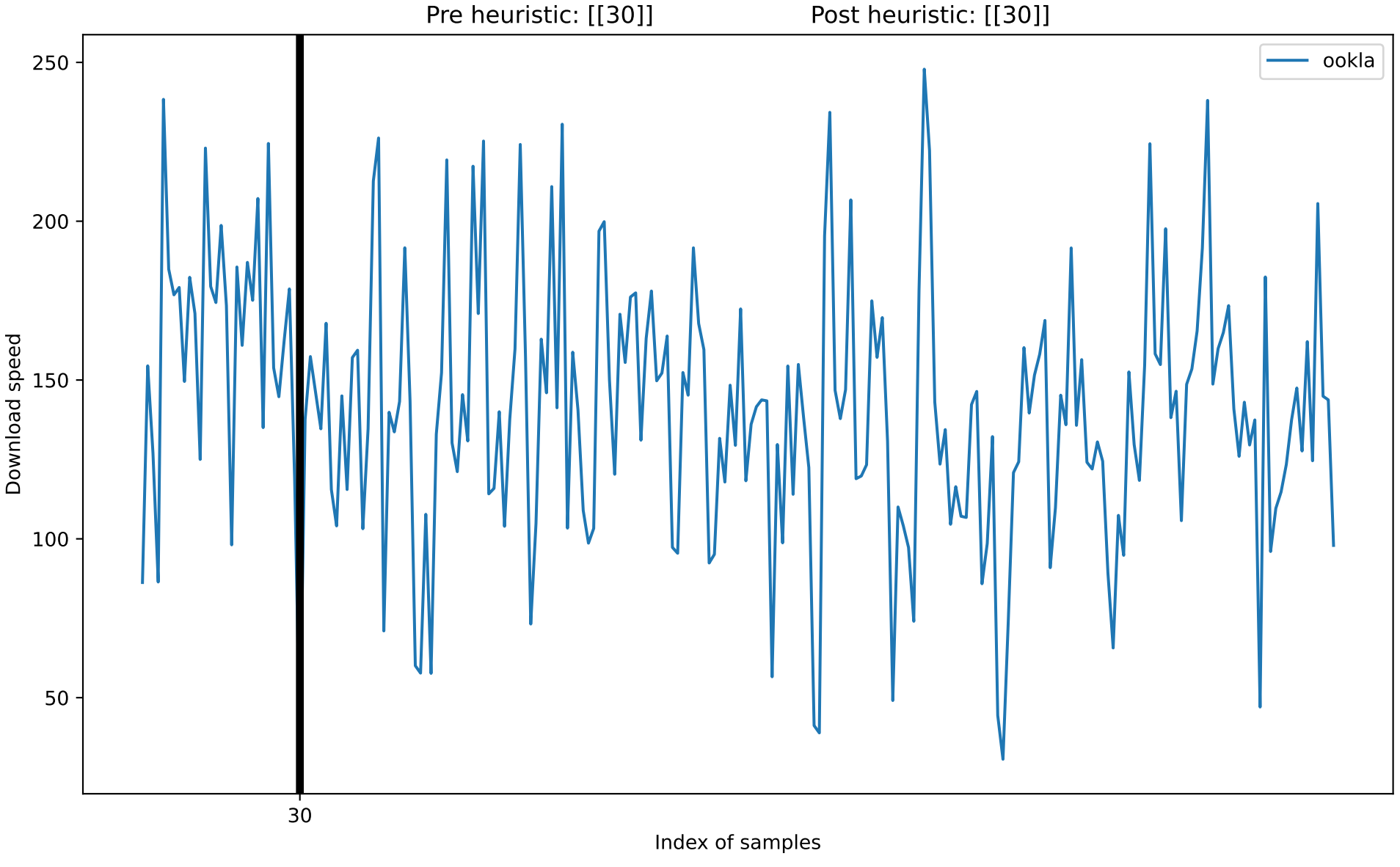

Pre heuristic: [[35, 45, 70]]
Post heuristic: [[35, 45, 70]]
ookla
Upload speed
42
40
38
36
34
32
30
35
45
70
Index of samples

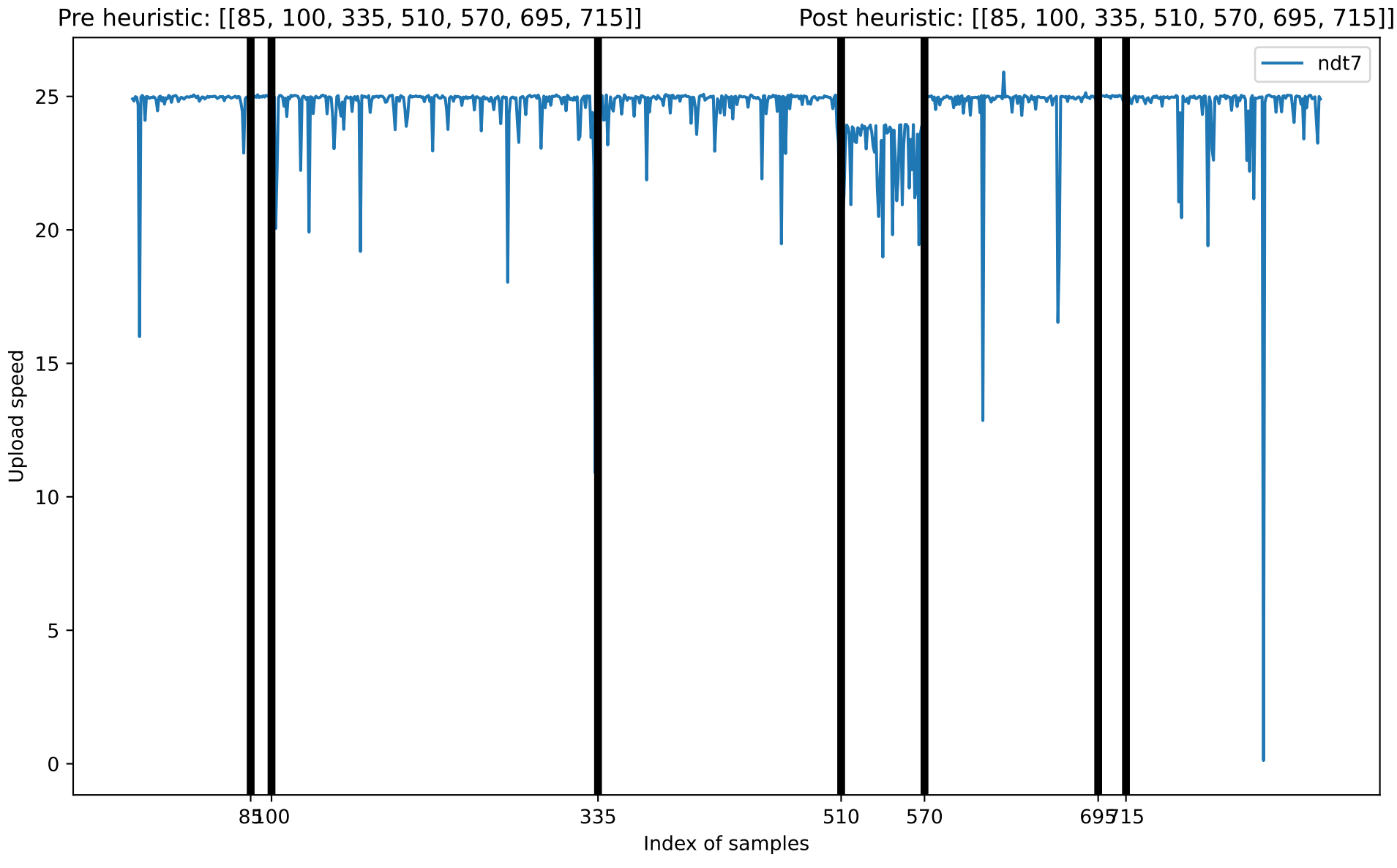

Pre heuristic: [[25, 50, 155]]
Post heuristic: [[25, 50, 155]]
ookla
900
800
700
600
500
400
Download speed
25
50
155
Index of samples

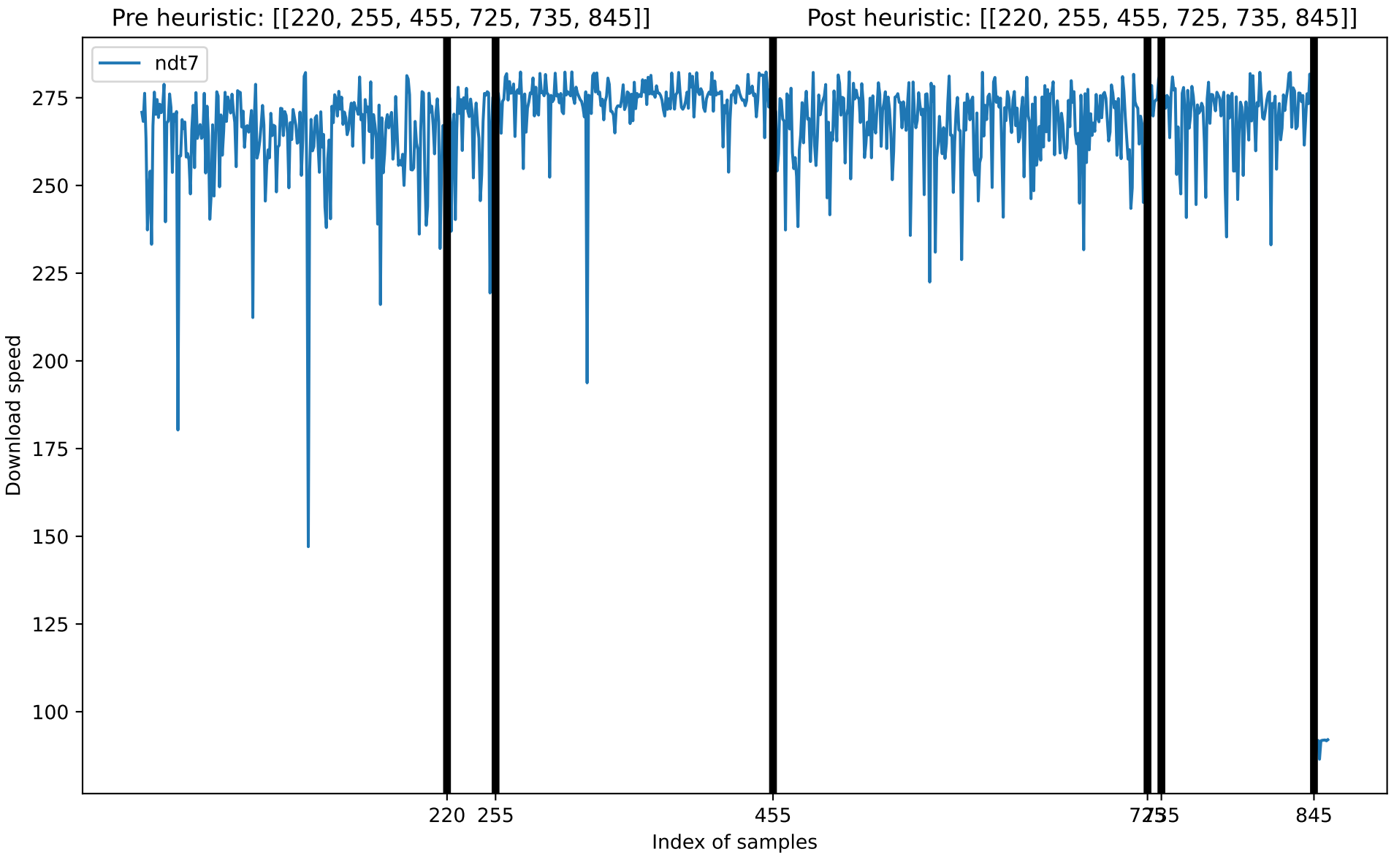

Pre heuristic: [[190, 210]]
Post heuristic: [[190, 210]]
ndt7
Upload speed
0
2
4
6
8
10
12
190
210
Index of samples

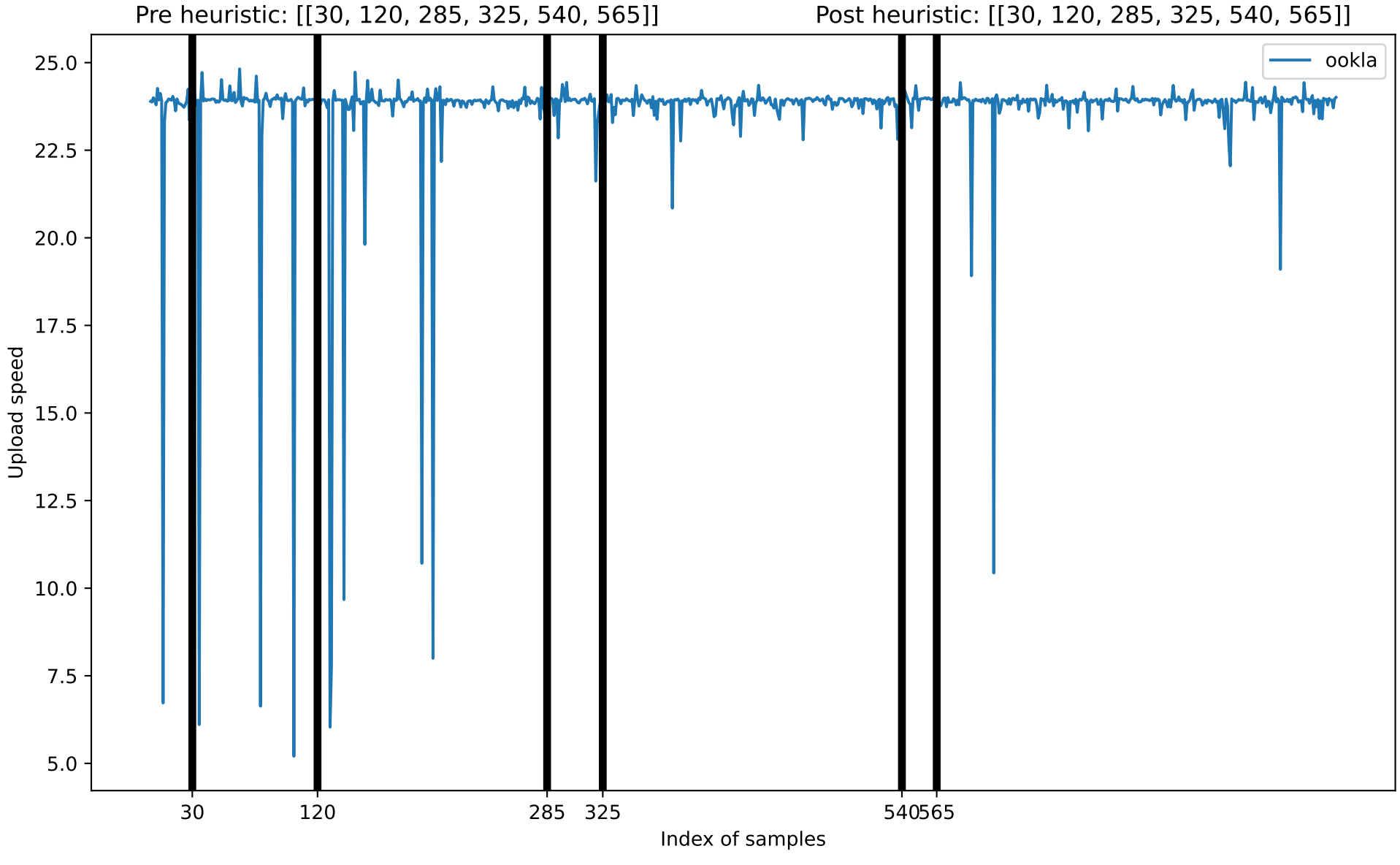

Pre heuristic: [[5, 45, 70, 170, 185]]
Post heuristic: [[5, 45, 70, 170, 185]]
ndt7
Download speed
0
50
100
150
200
5
45
70
170
185
Index of samples

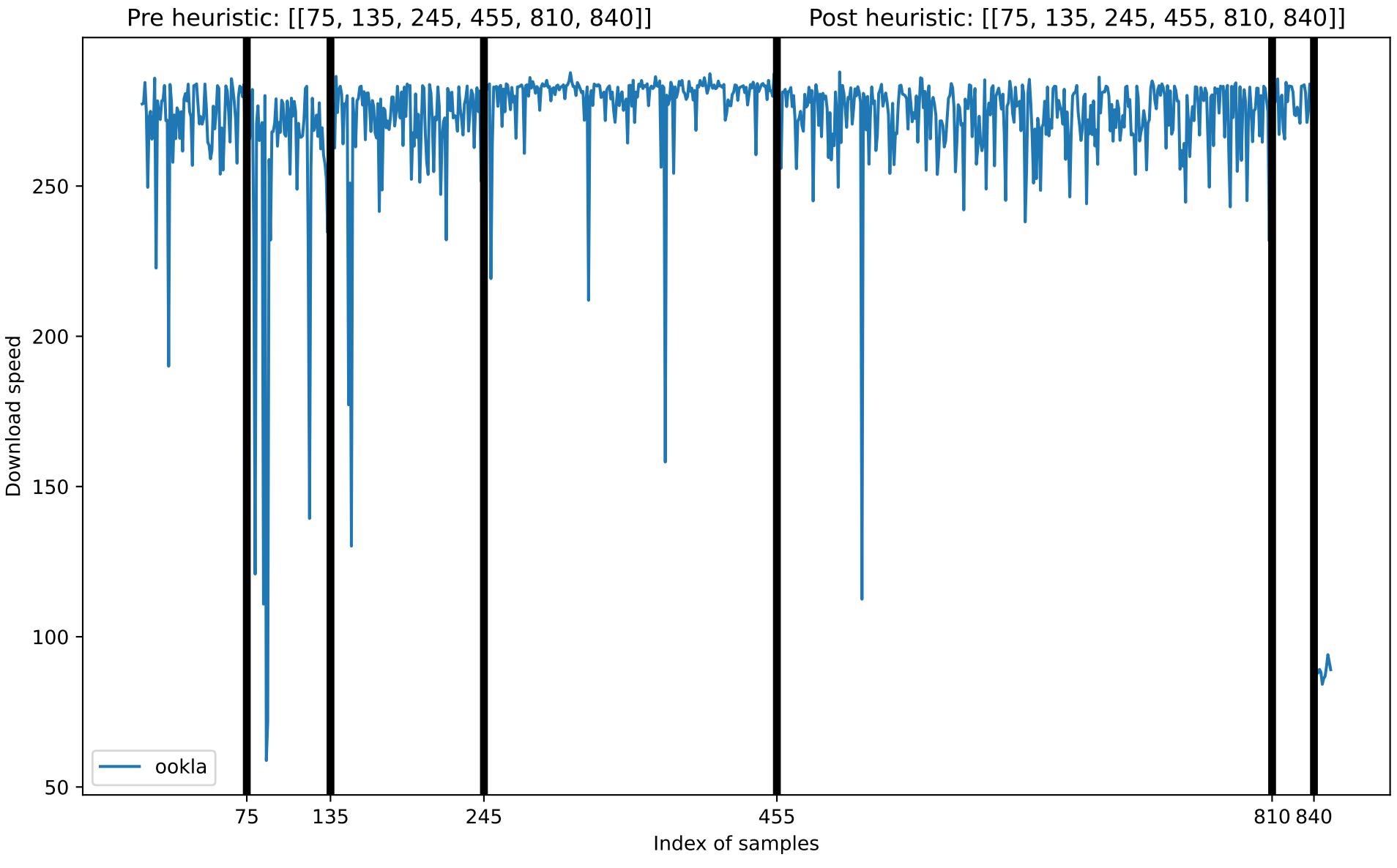

Pre heuristic: [[10, 30, 115, 135, 195]]
Post heuristic: [[10, 30, 115, 135, 195]]
ookla
Upload speed
Index of samples
20
18
16
14
12
10
8
6
4
10
30
115
135
195

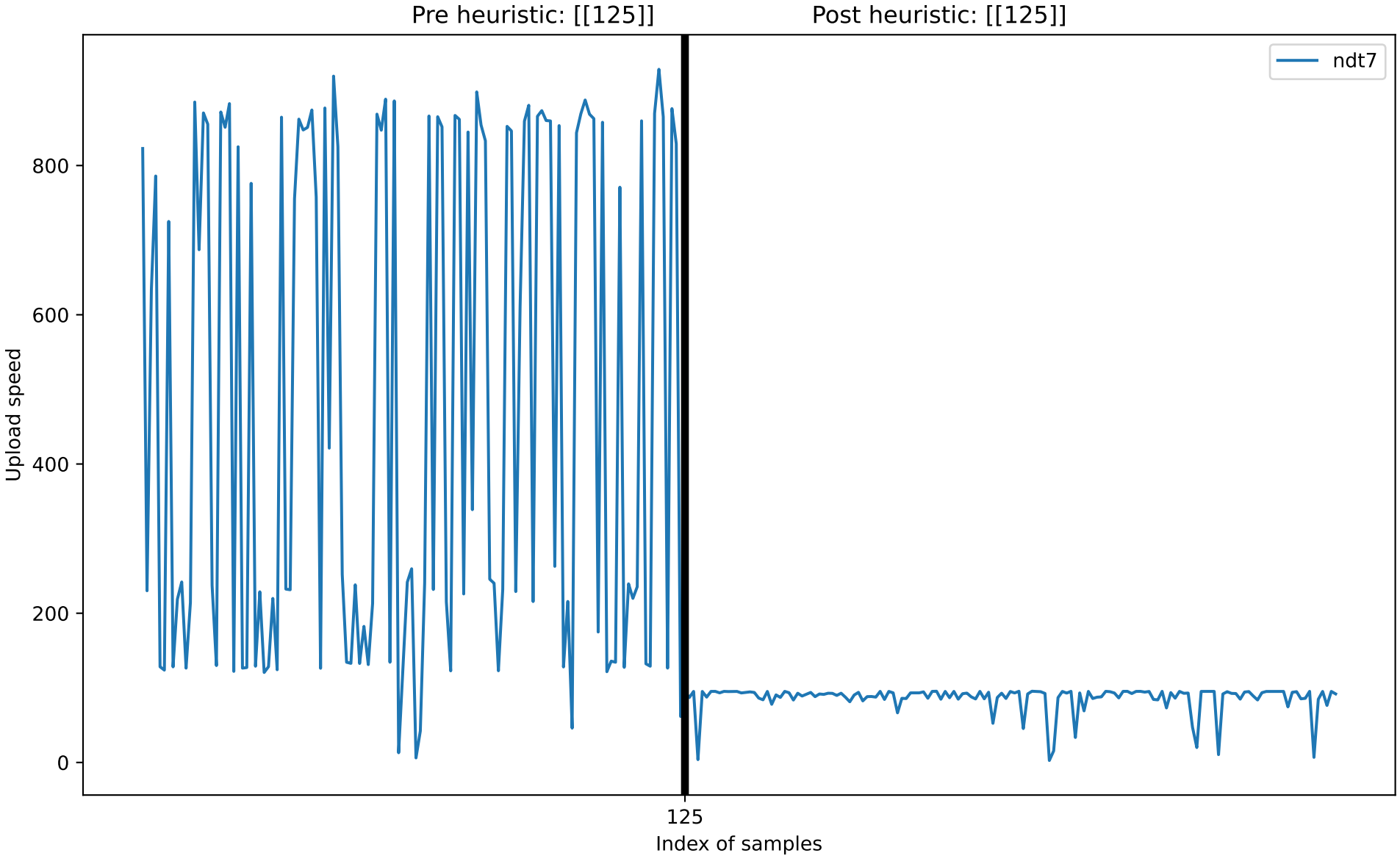

Pre heuristic: [[30]]
Post heuristic: [[30]]
ookla
250
200
150
100
50
Download speed
30
Index of samples

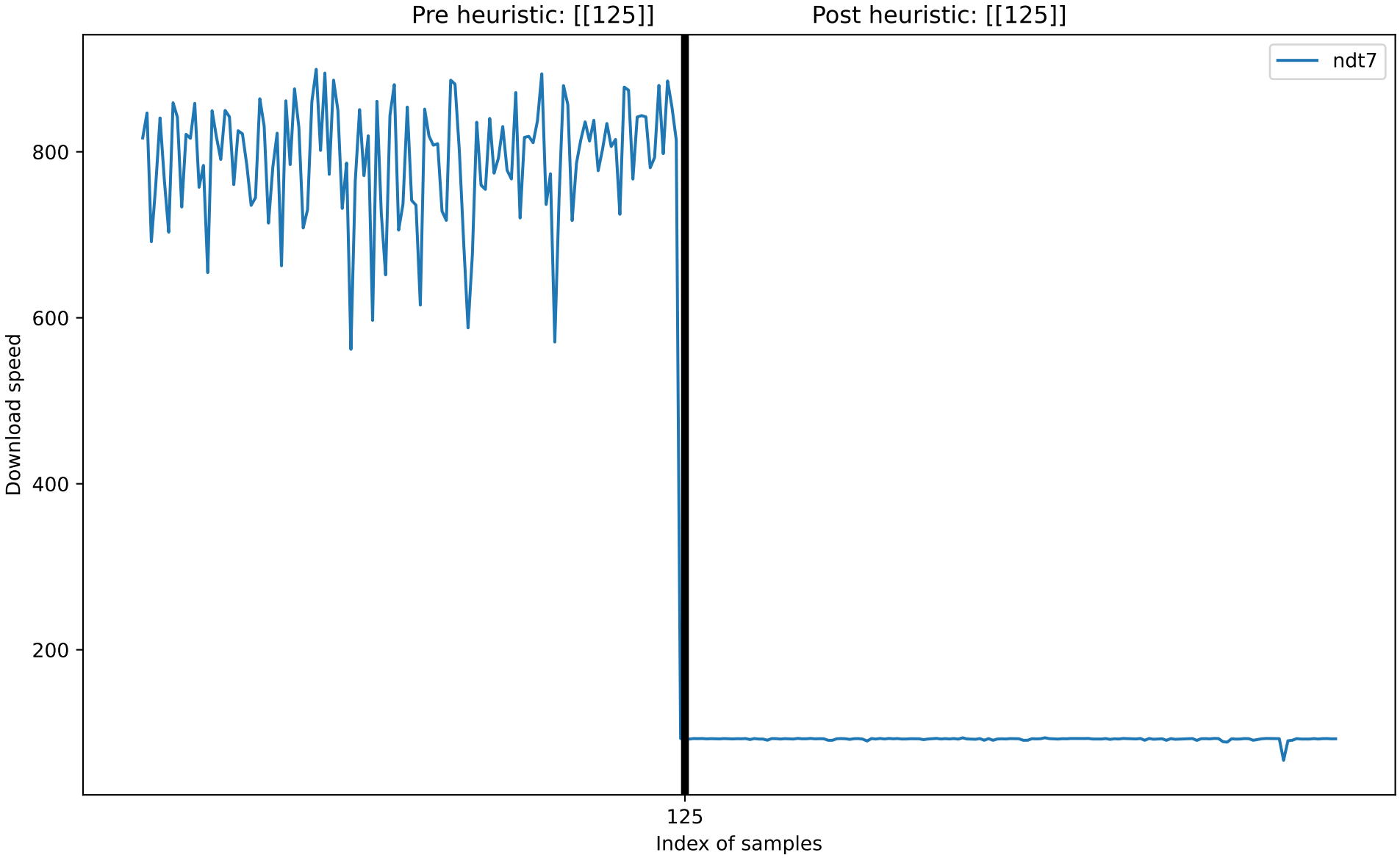

Pre heuristic: [[85, 100, 335, 510, 570, 695, 715]]
Post heuristic: [[85, 100, 335, 510, 570, 695, 715]]
ndt7
Upload speed
25
20
15
10
5
0
85
100
335
510
570
695
715
Index of samples

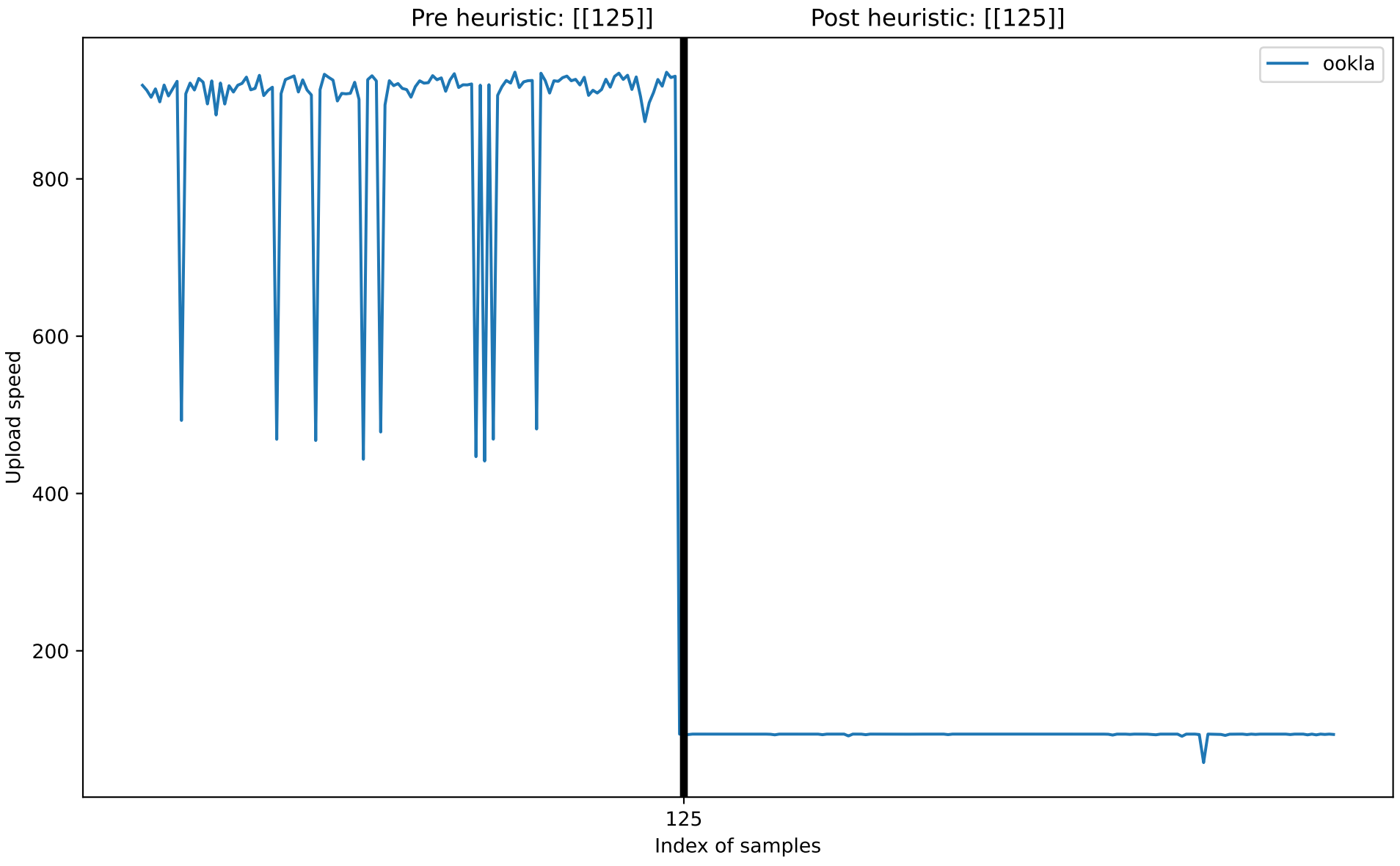

Pre heuristic: [[220, 255, 455, 725, 735, 845]]
Post heuristic: [[220, 255, 455, 725, 735, 845]]
ndt7
Download speed
275
250
225
200
175
150
125
100
220
255
455
845
Index of samples

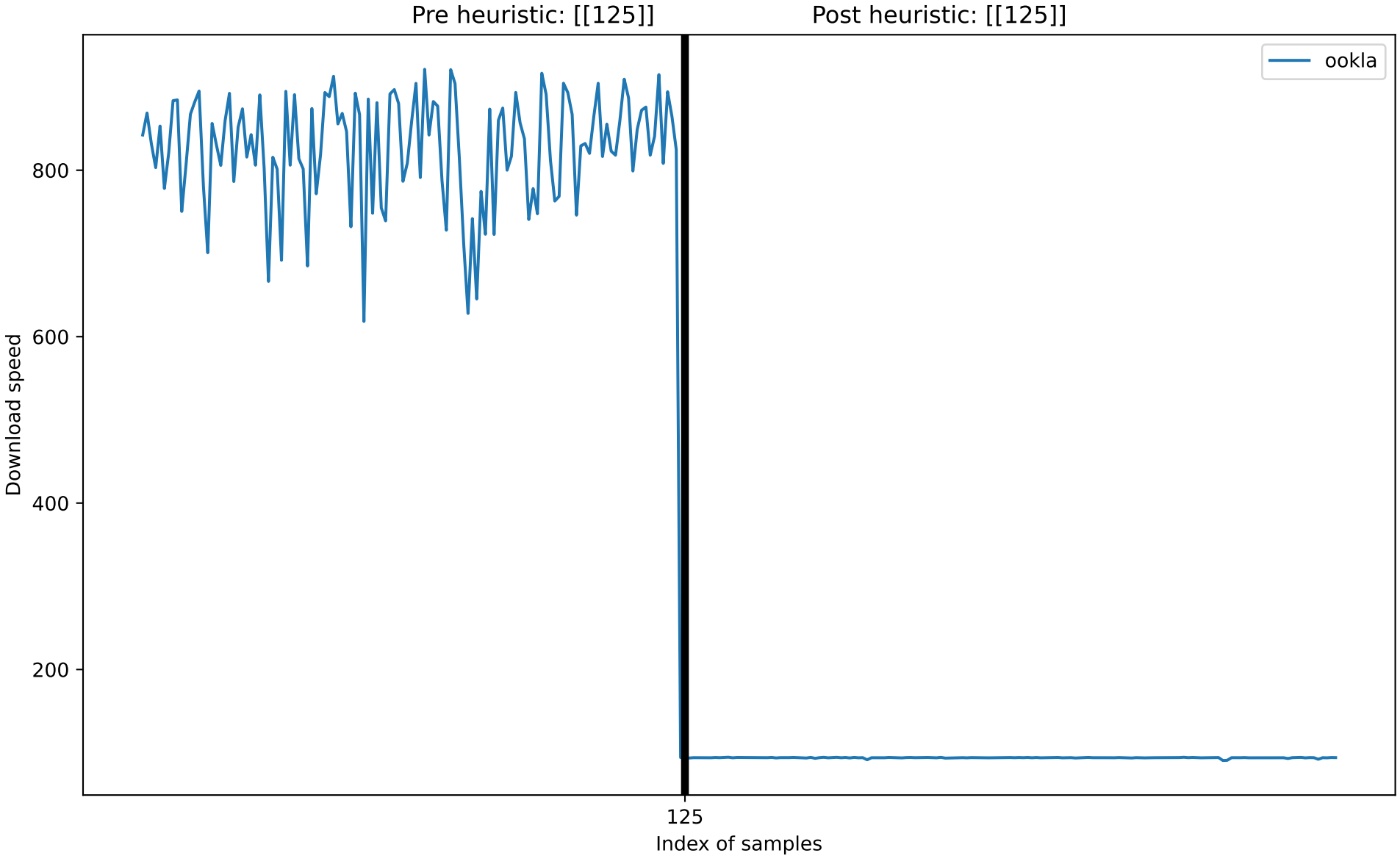

Pre heuristic: [[30, 120, 285, 325, 540, 565]]
Post heuristic: [[30, 120, 285, 325, 540, 565]]
ookla
Upload speed
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
30
120
285
325
540
565
Index of samples

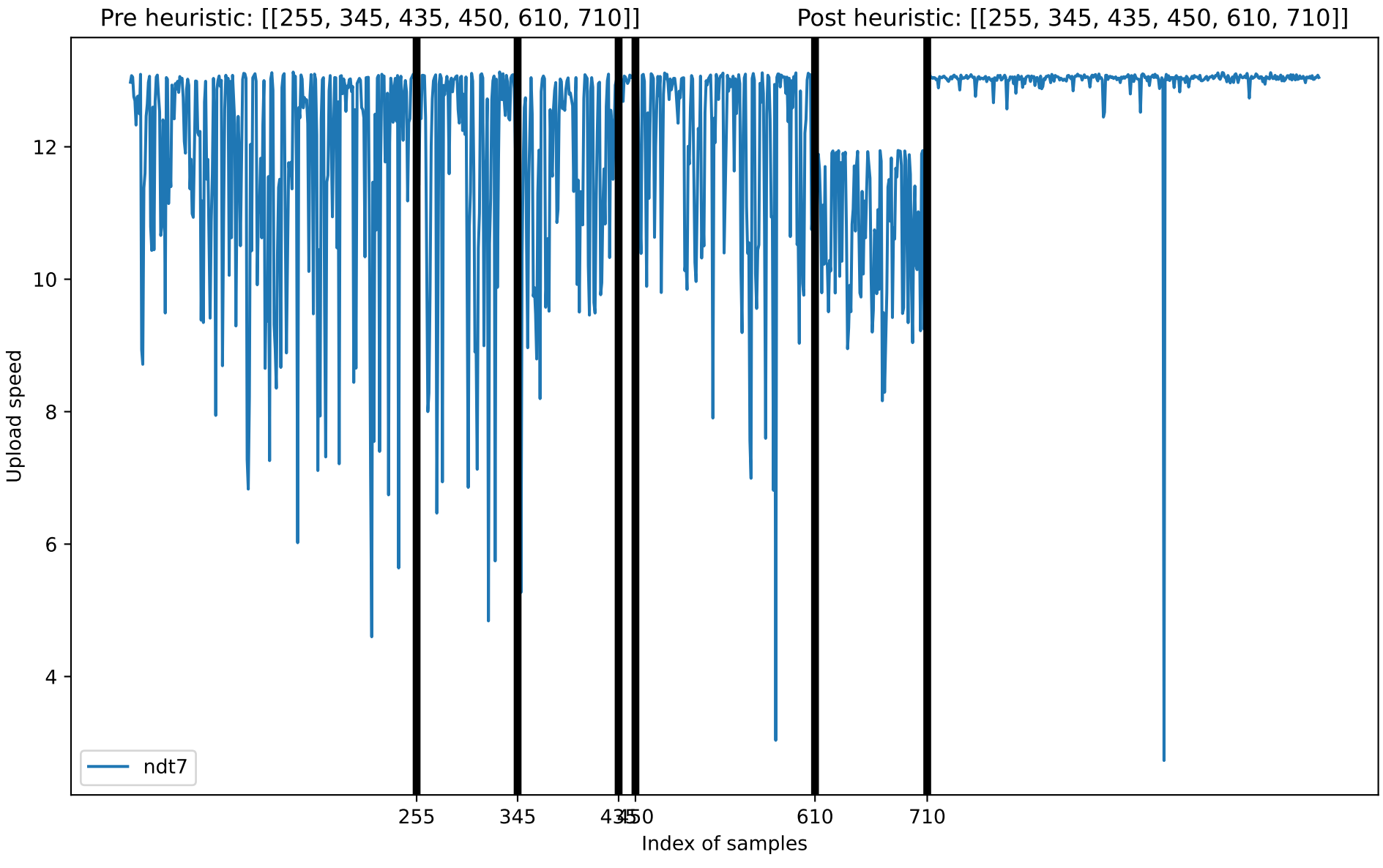

Pre heuristic: [[75, 135, 245, 455, 810, 840]]
Post heuristic: [[75, 135, 245, 455, 810, 840]]
Download speed
250
200
150
100
50
ookla
75
135
245
455
810
840
Index of samples

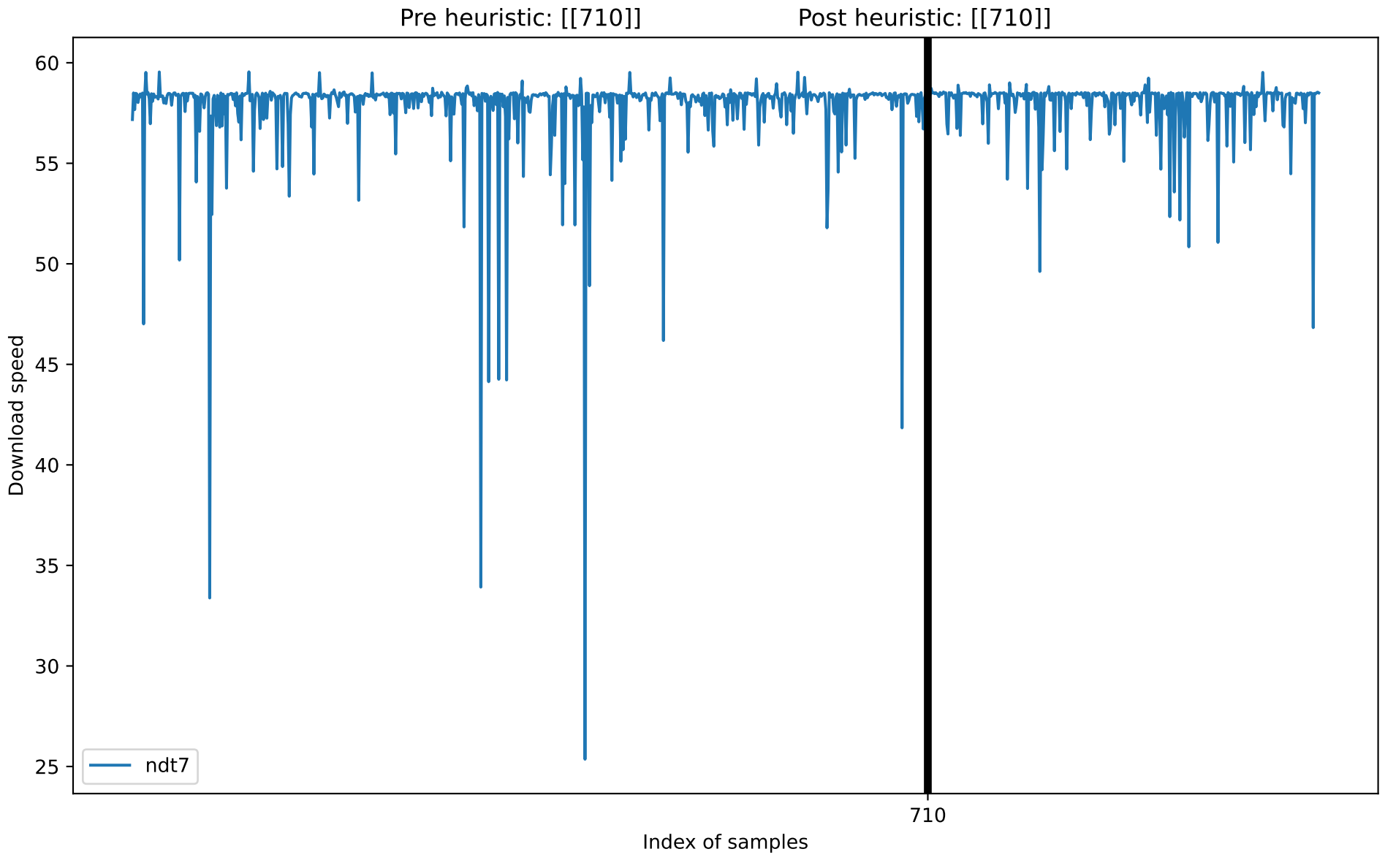

Pre heuristic: [[125]]
Post heuristic: [[125]]
ndt7
Upload speed
800
600
400
200
0
125
Index of samples

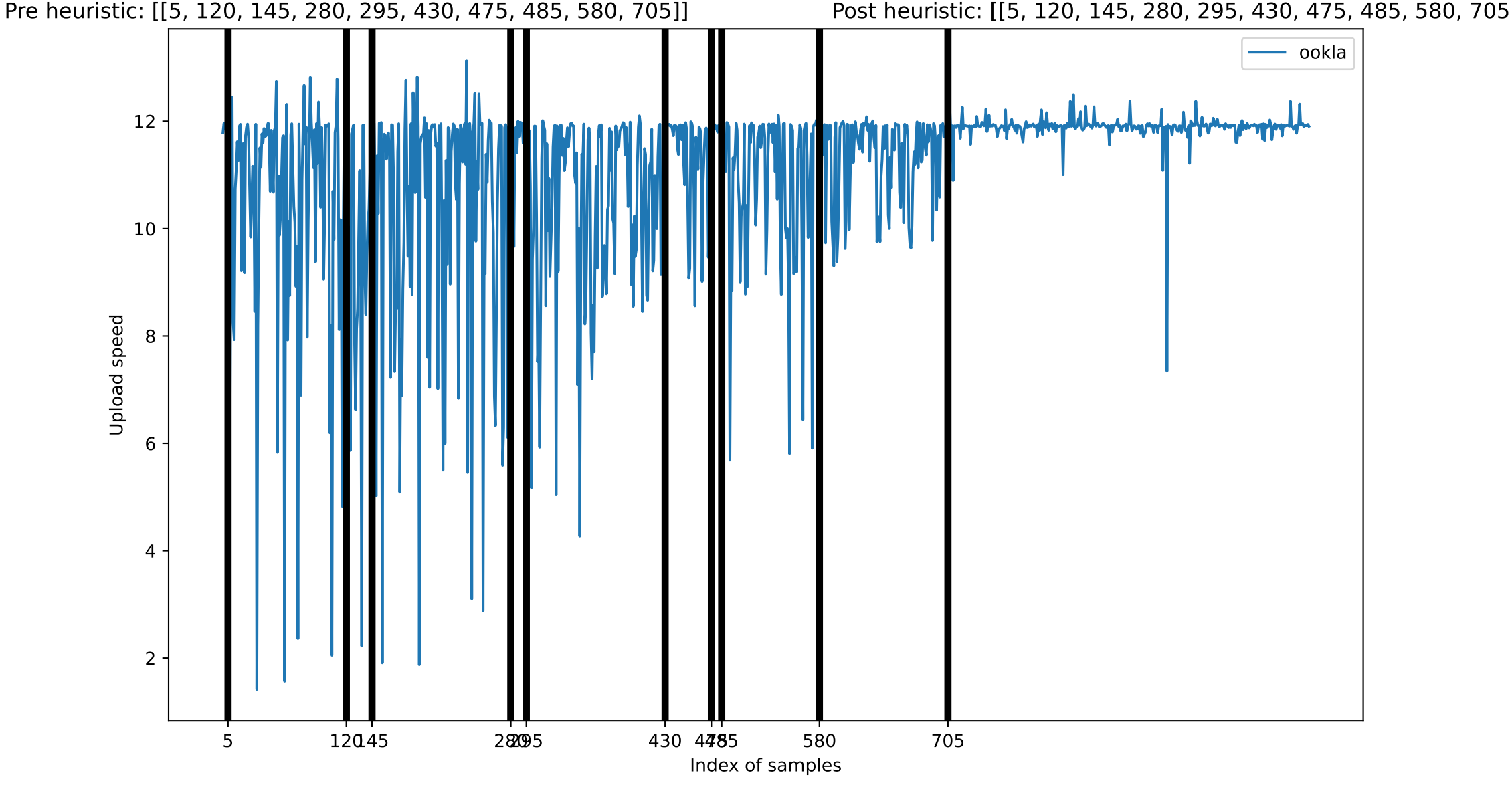

Pre heuristic: [[125]]
Post heuristic: [[125]]
ndt7
800
600
400
200
Download speed
125
Index of samples

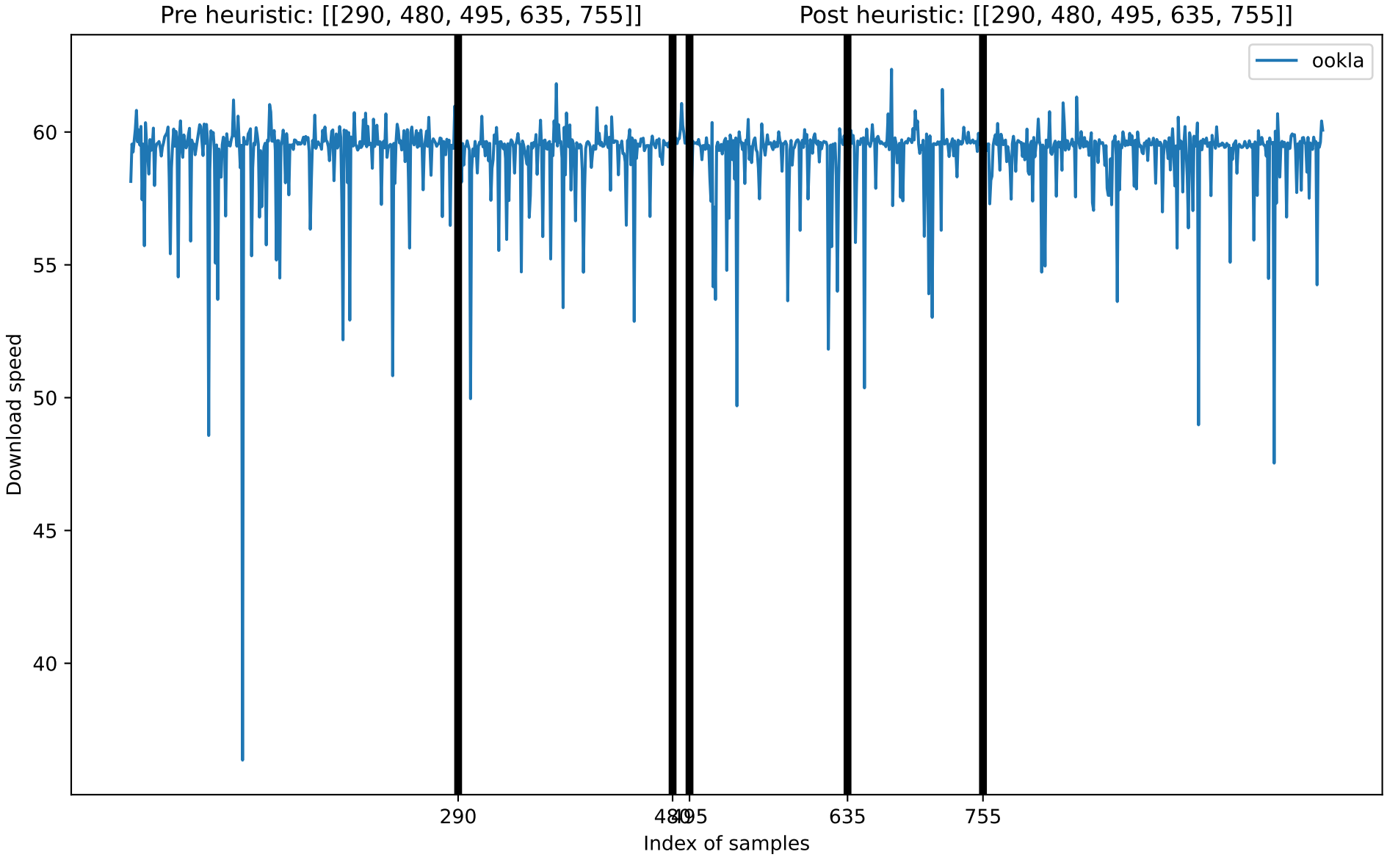

Pre heuristic: [[125]]
Post heuristic: [[125]]
ookla
800
600
400
200
Upload speed
125
Index of samples

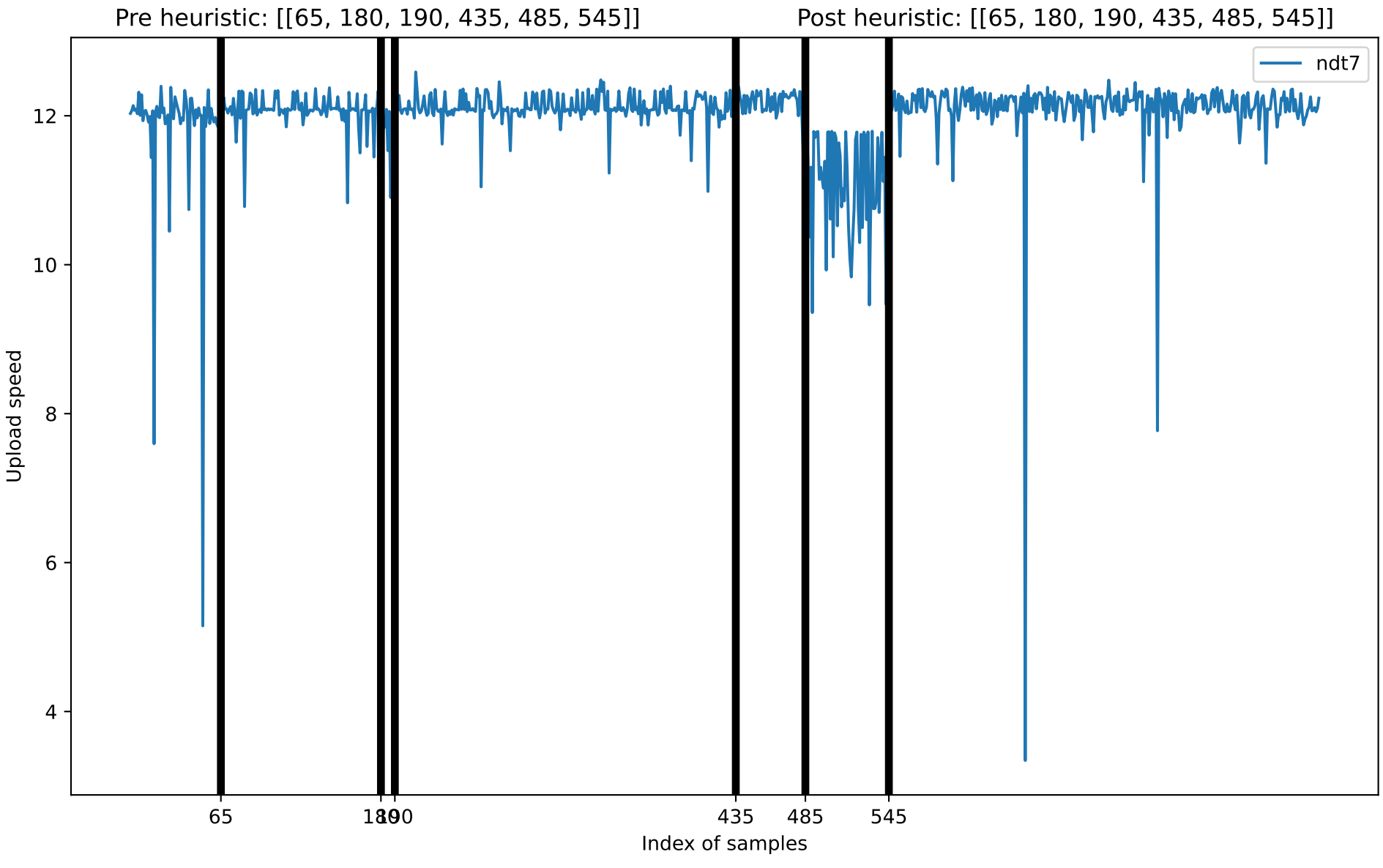

Pre heuristic: [[125]]
Post heuristic: [[125]]
ookla
800
600
400
200
Download speed
125
Index of samples

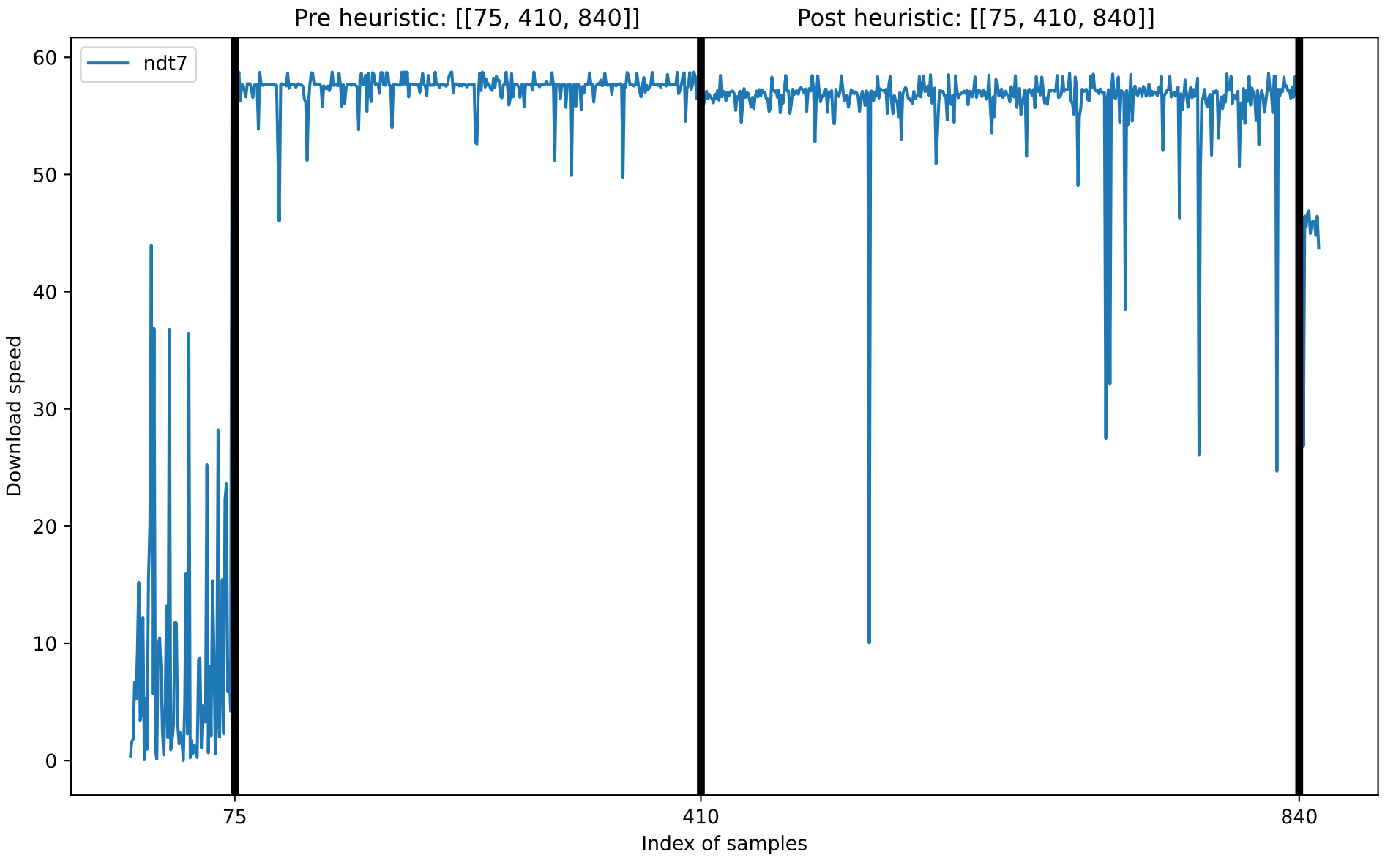

Pre heuristic: [[255, 345, 435, 450, 610, 710]]
Post heuristic: [[255, 345, 435, 450, 610, 710]]
Upload speed
12
10
8
6
4
ndt7
255
345
435
450
610
710
Index of samples

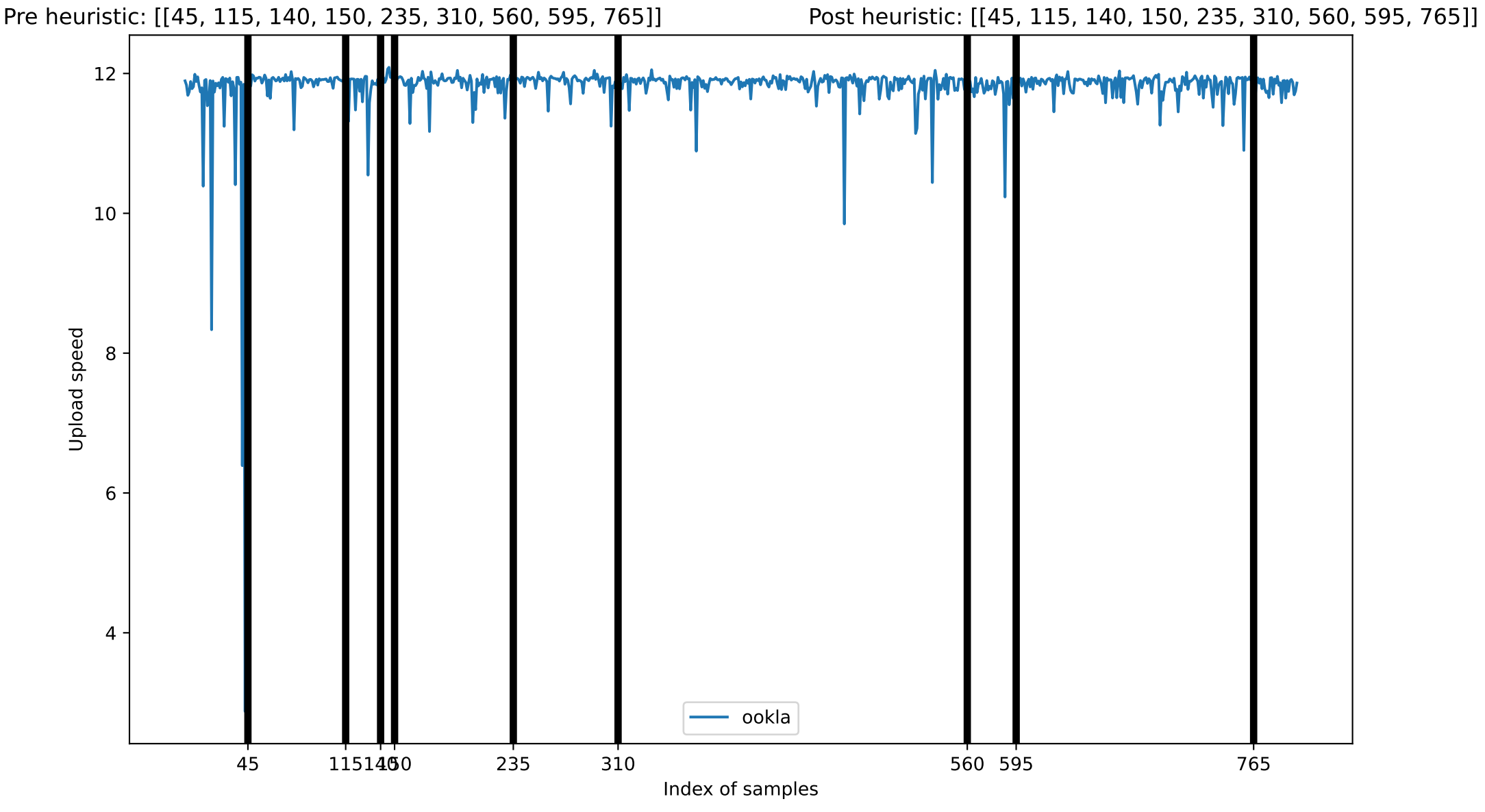

Pre heuristic: [[710]]
Post heuristic: [[710]]
Download speed
60
55
50
45
40
35
30
25
ndt7
710
Index of samples

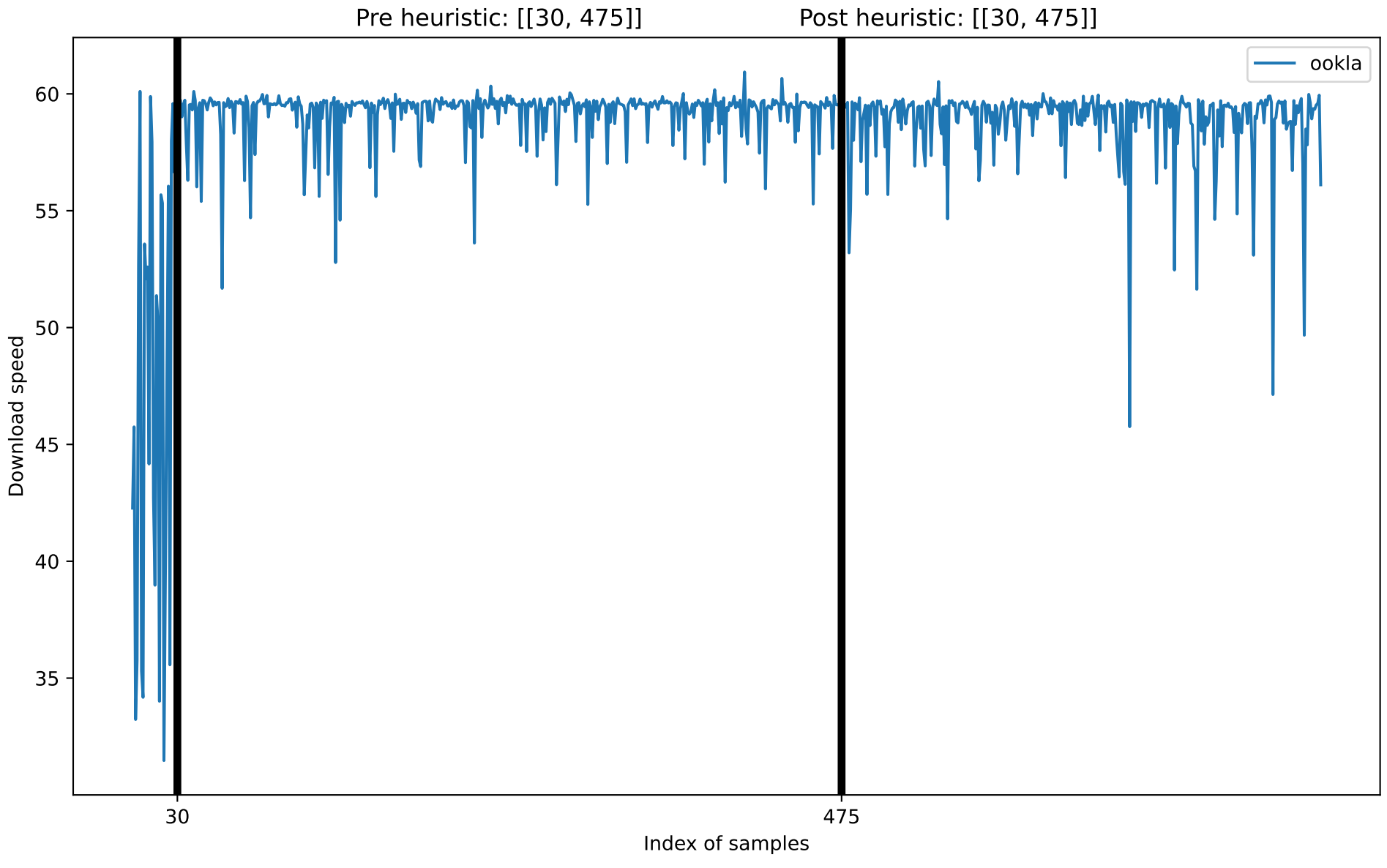

Pre heuristic: [[5, 120, 145, 280, 295, 430, 475, 485, 580, 705]]
Post heuristic: [[5, 120, 145, 280, 295, 430, 475, 485, 580, 705]
ookla
Upload speed
12
10
8
6
4
2
5
120
145
280
295
430
475
485
580
705
Index of samples

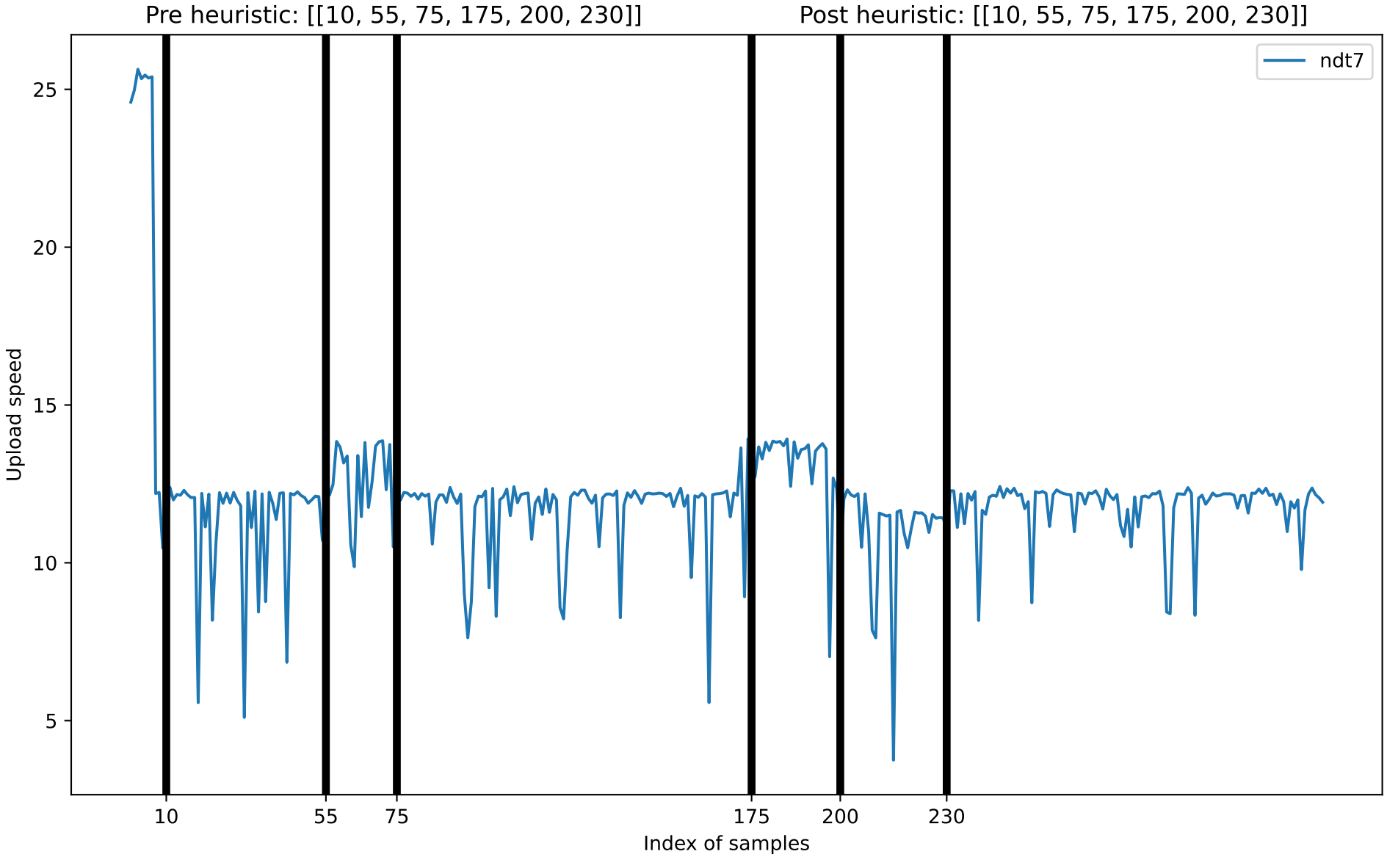

Pre heuristic: [[290, 480, 495, 635, 755]]
Post heuristic: [[290, 480, 495, 635, 755]]
ookla
Download speed
60
55
50
45
40
290
480
495
635
755
Index of samples

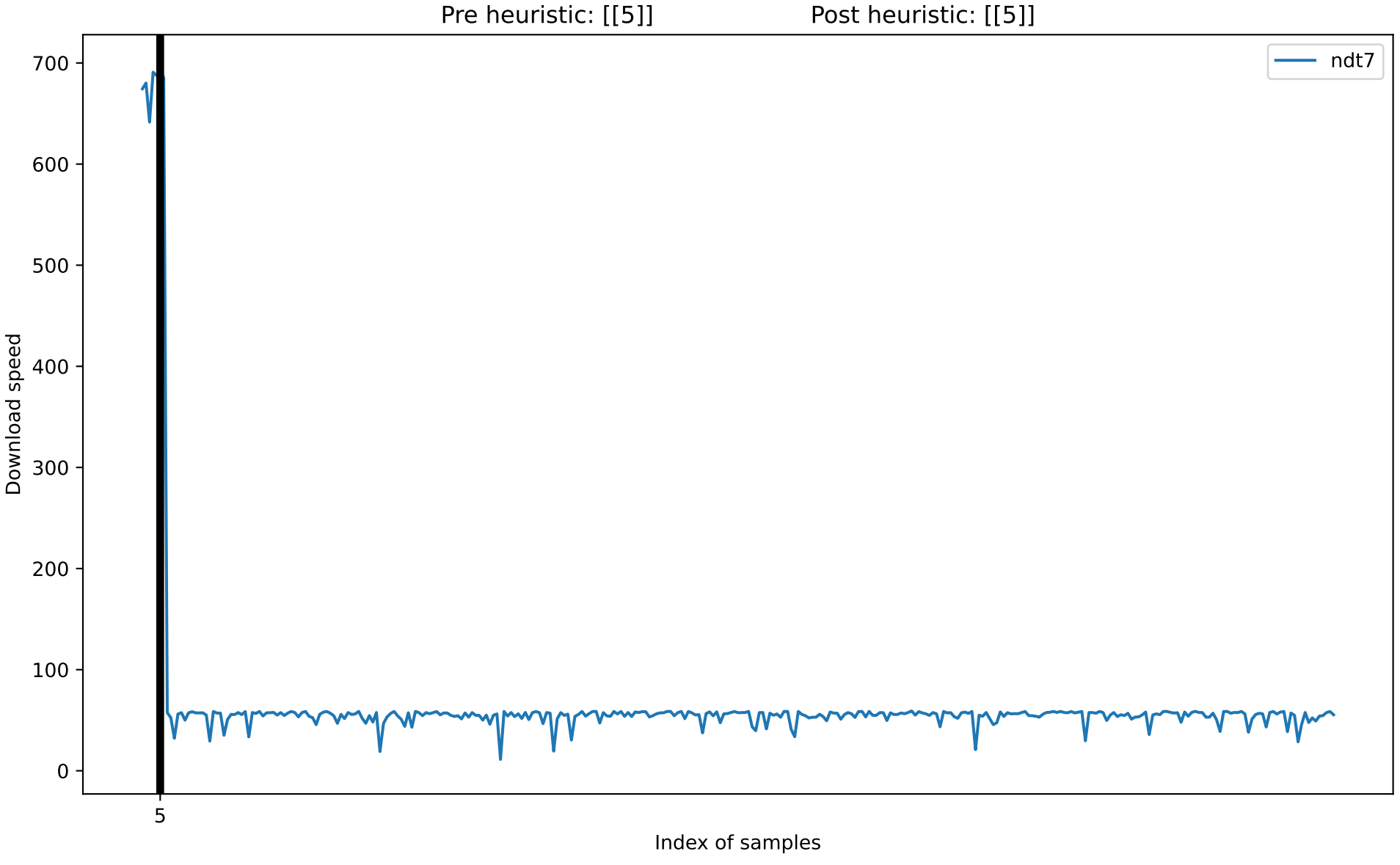

Pre heuristic: [[65, 180, 190, 435, 485, 545]]
Post heuristic: [[65, 180, 190, 435, 485, 545]]
ndt7
Upload speed
12
10
8
6
4
65
180
190
435
485
545
Index of samples

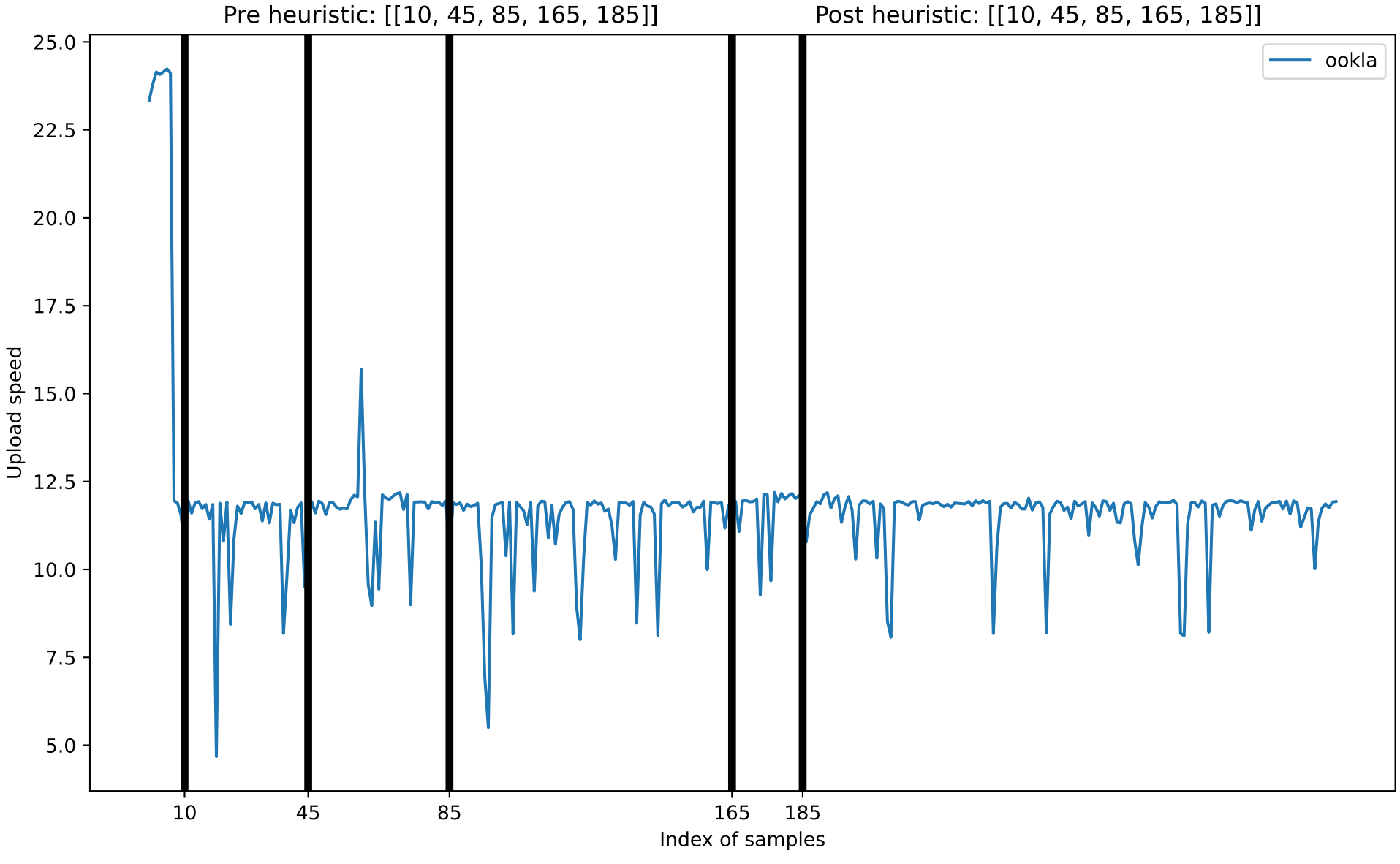

Pre heuristic: [[75, 410, 840]]
Post heuristic: [[75, 410, 840]]
ndt7
Download speed
0
10
20
30
40
50
60
75
410
840
Index of samples

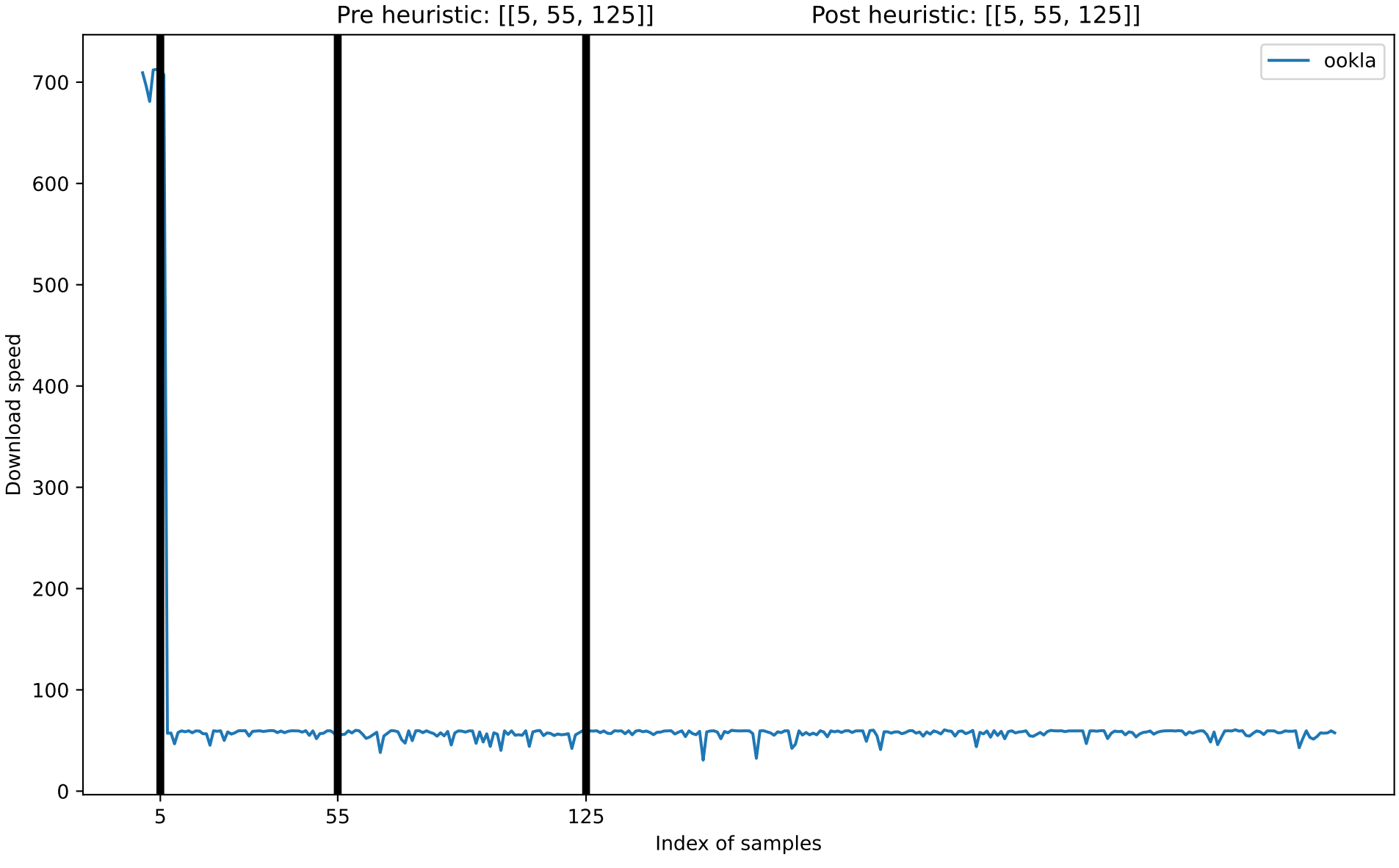

Pre heuristic: [[45, 115, 140, 150, 235, 310, 560, 595, 765]]
Post heuristic: [[45, 115, 140, 150, 235, 310, 560, 595, 765]]
Upload speed
12
10
8
6
4
45
115
140
150
235
310
560
595
765
Index of samples
ookla

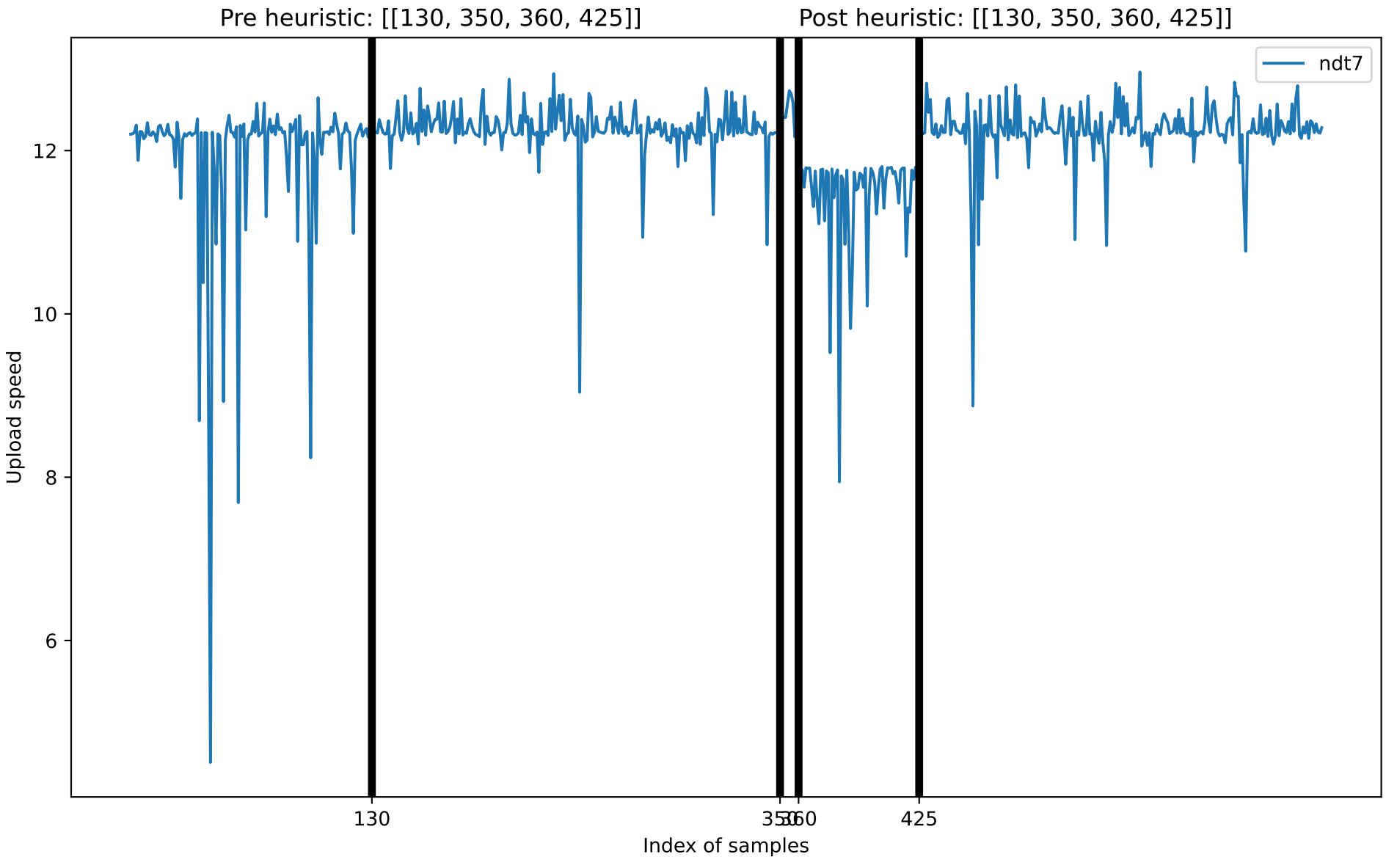

Pre heuristic: [[30, 475]]
Post heuristic: [[30, 475]]
ookla
Download speed
60
55
50
45
40
35
30
475
Index of samples

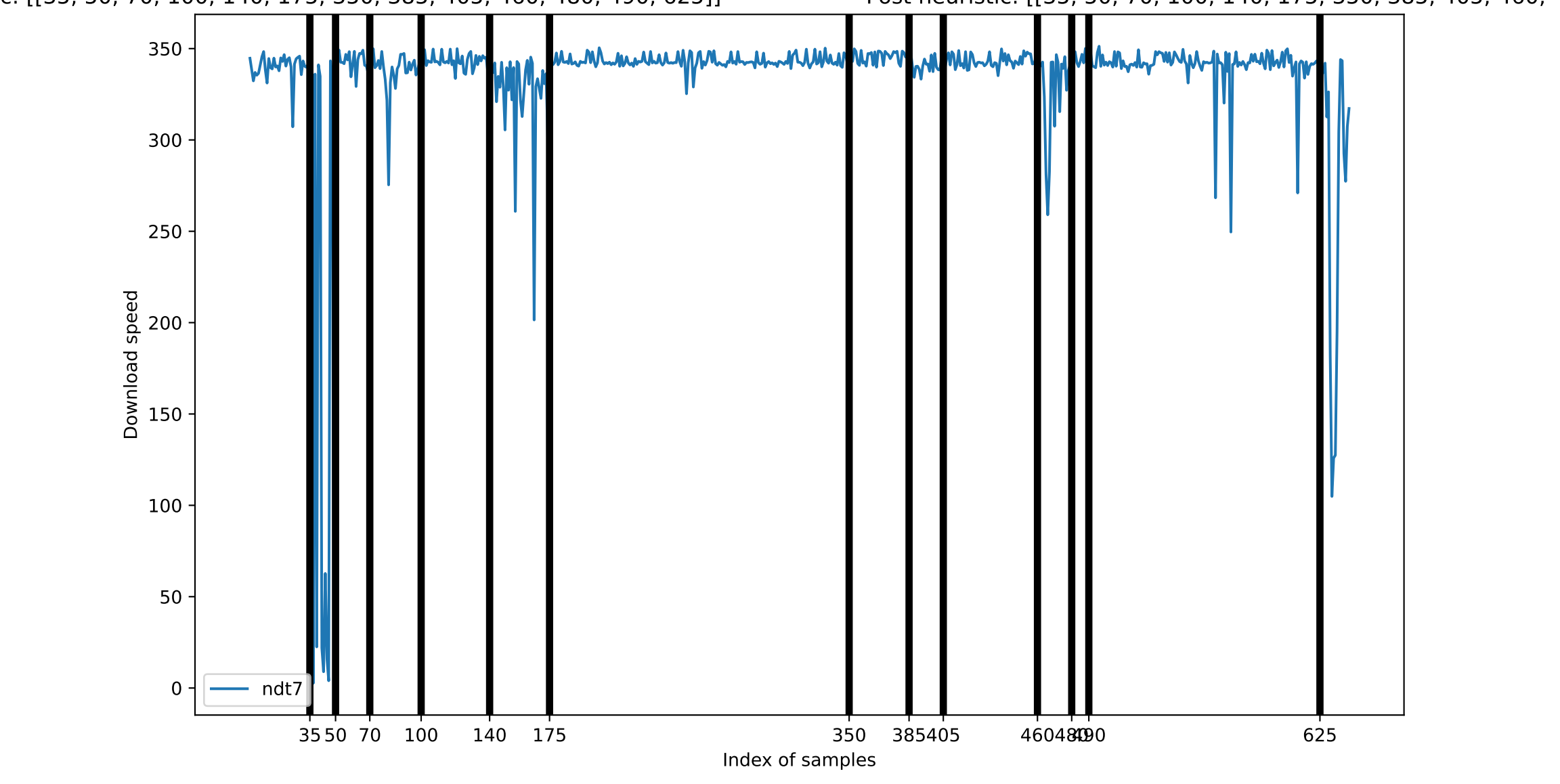

Pre heuristic: [[10, 55, 75, 175, 200, 230]]
Post heuristic: [[10, 55, 75, 175, 200, 230]]
ndt7
Upload speed
25
20
15
10
5
10
55
75
175
200
230
Index of samples

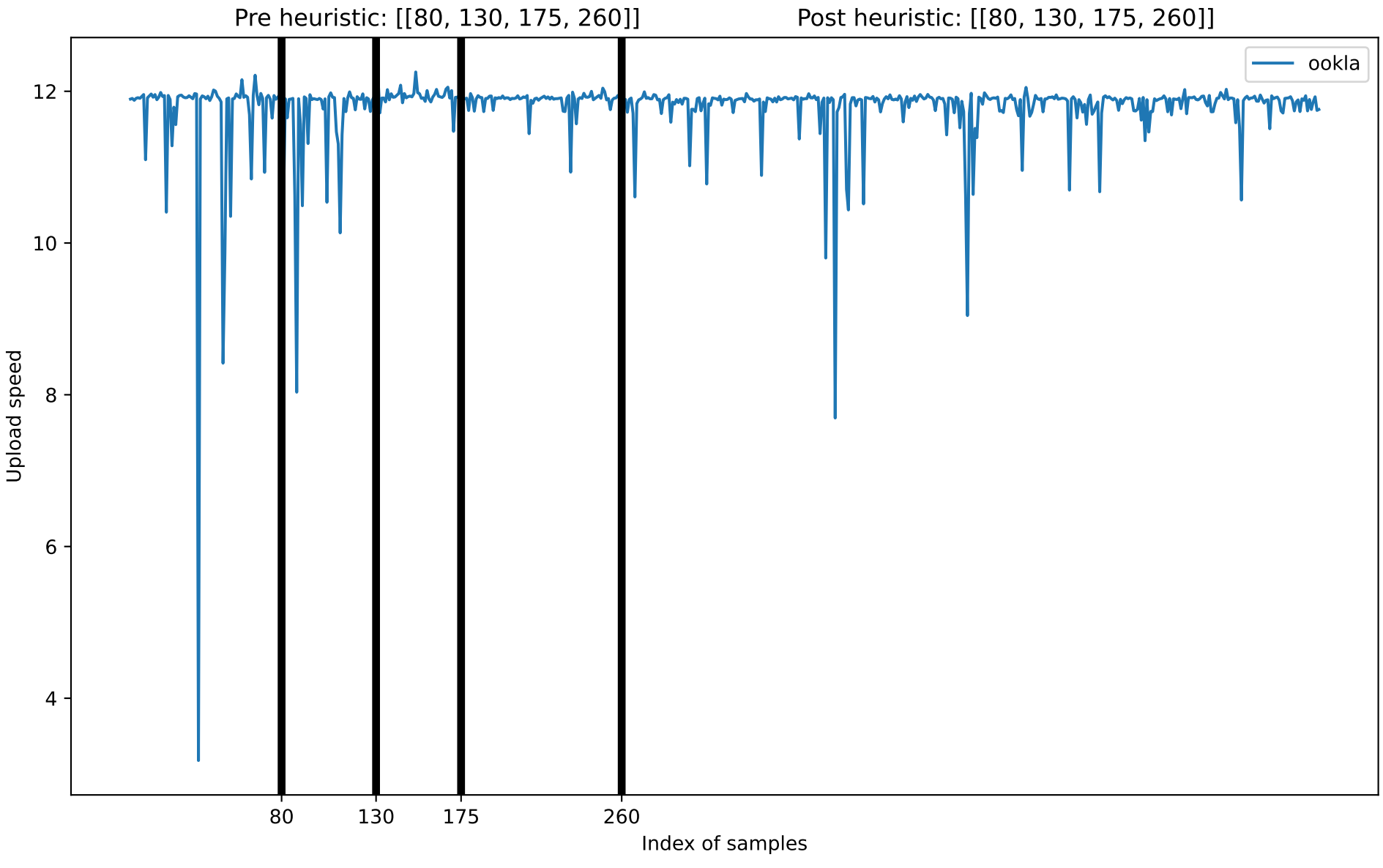

Pre heuristic: [[5]]
Post heuristic: [[5]]
ndt7
Download speed
700
600
500
400
300
200
100
0
5
Index of samples

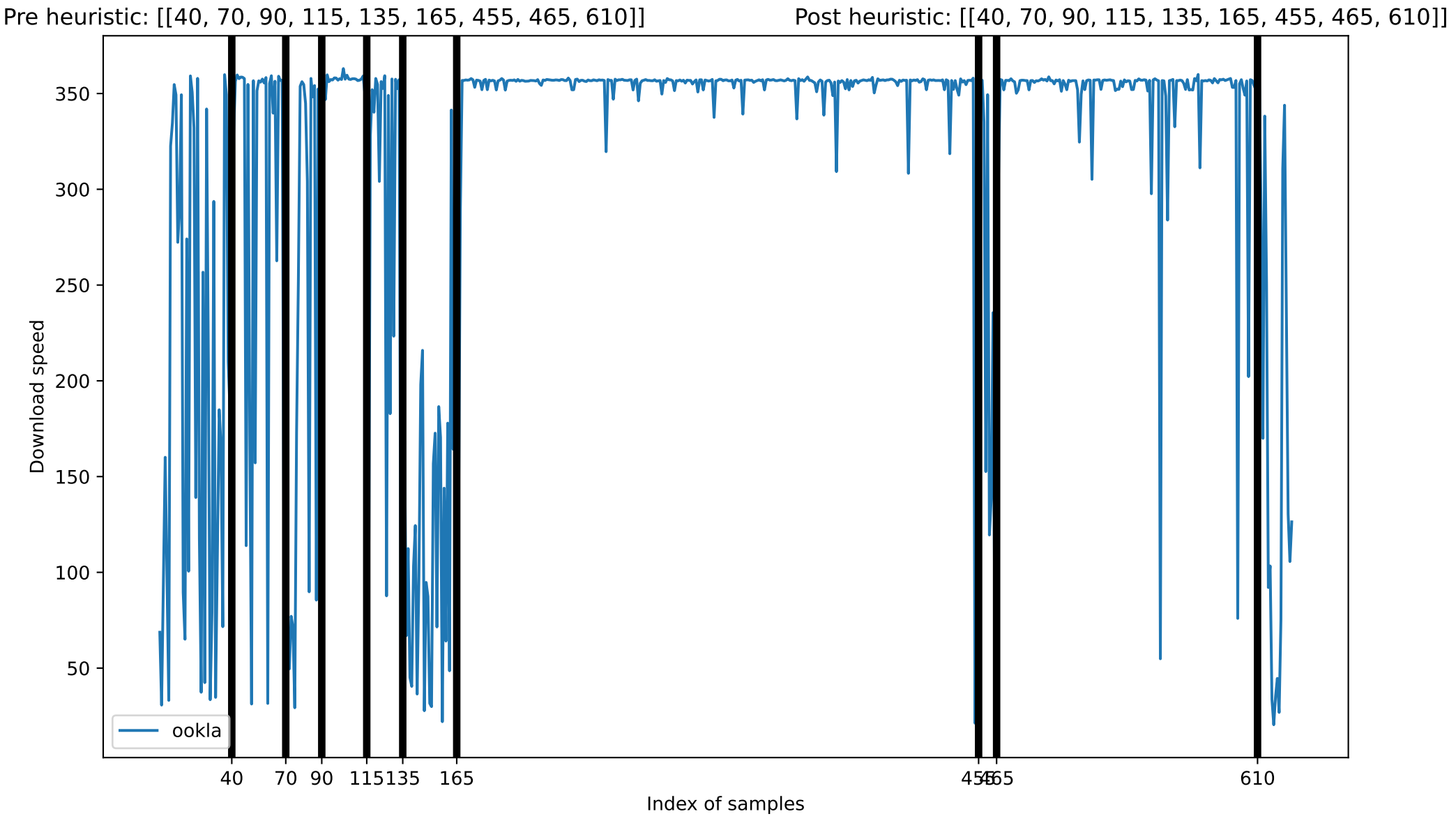

Pre heuristic: [[10, 45, 85, 165, 185]]
Post heuristic: [[10, 45, 85, 165, 185]]
ookla
Upload speed
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
10
45
85
165
185
Index of samples

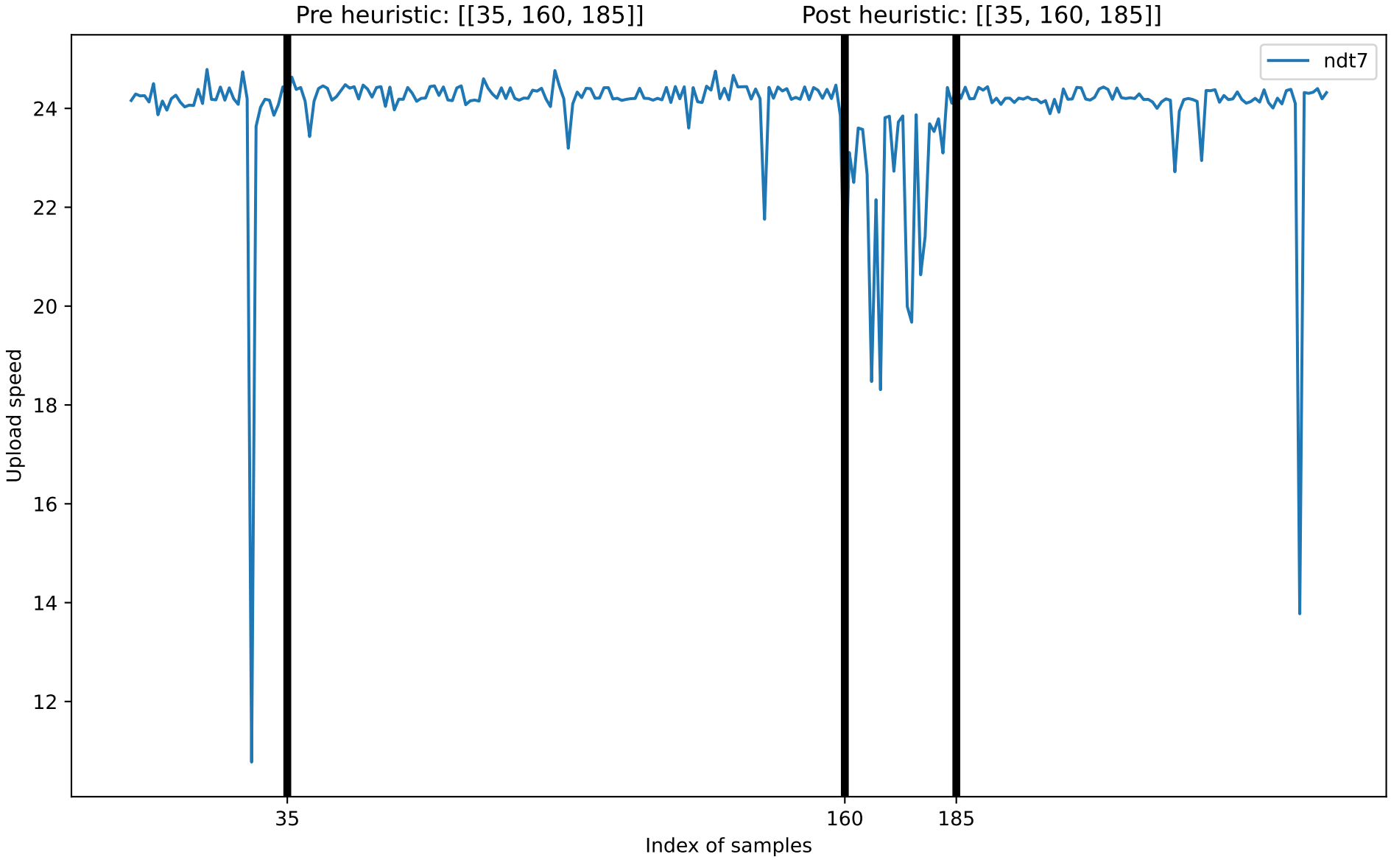

Pre heuristic: [[5, 55, 125]]
Post heuristic: [[5, 55, 125]]
ookla
Download speed
0
100
200
300
400
500
600
700
5
55
125
Index of samples

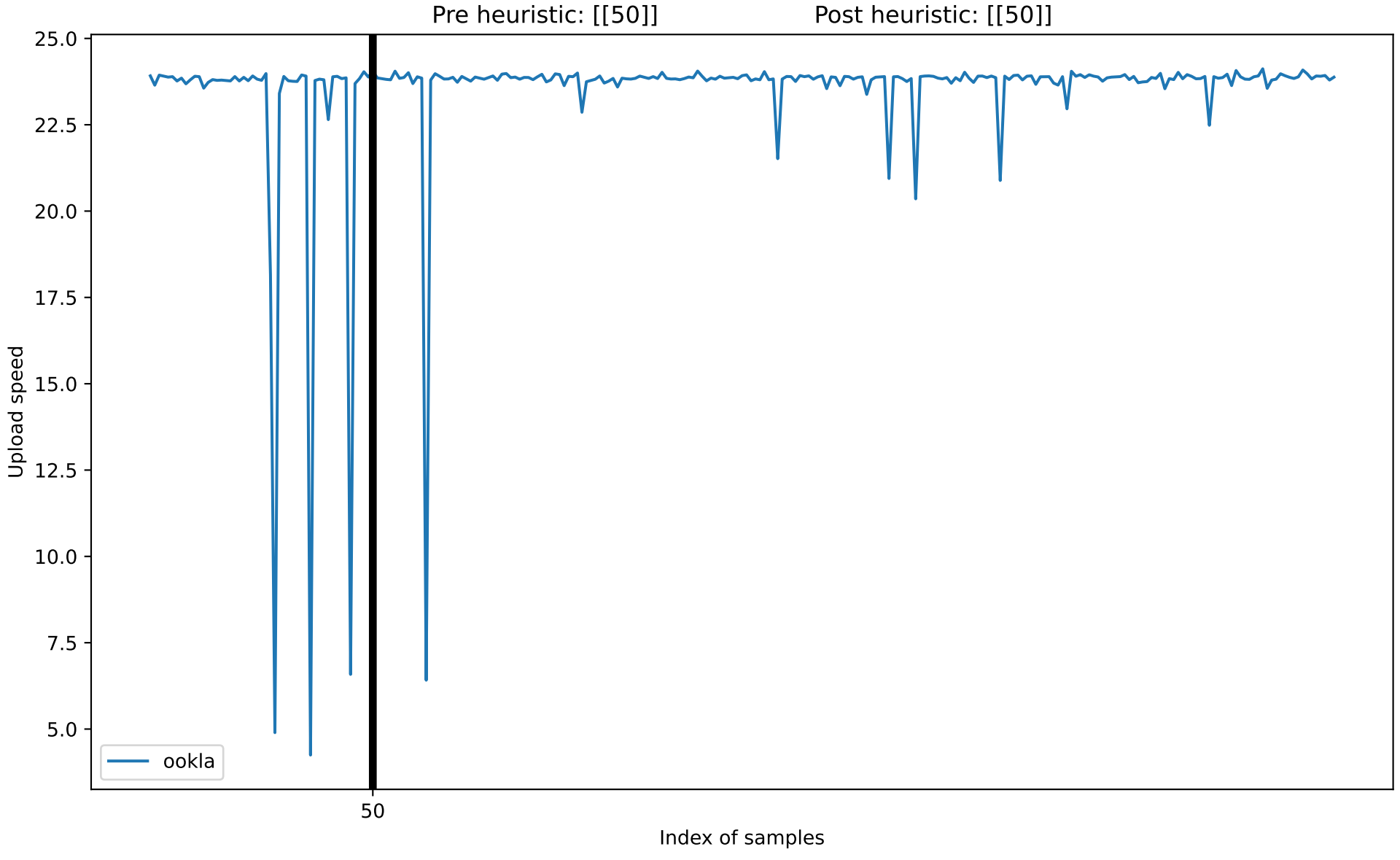

Pre heuristic: [[130, 350, 360, 425]]
Post heuristic: [[130, 350, 360, 425]]
ndt7
Upload speed
12
10
8
6
130
350
360
425
Index of samples

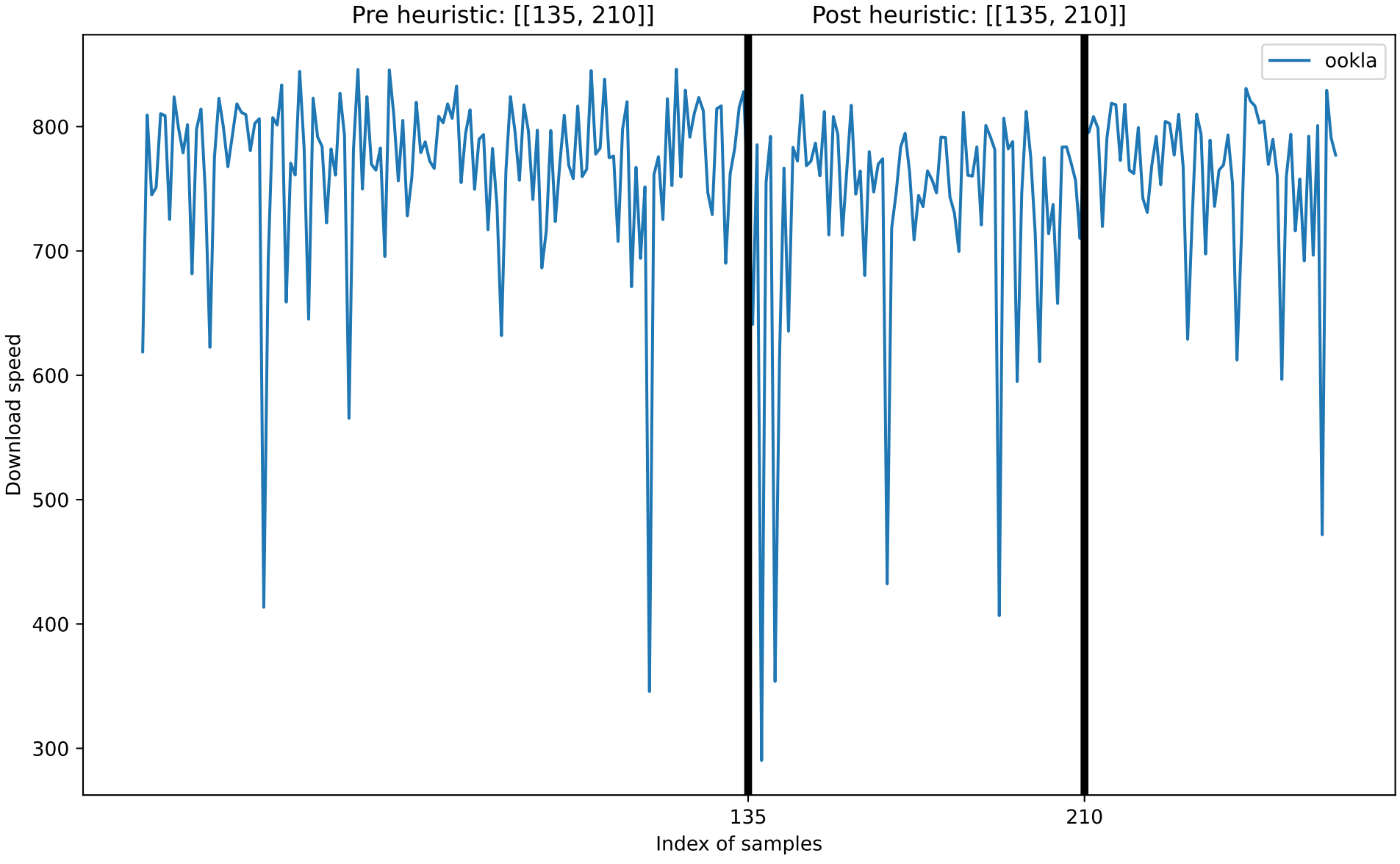

c: [[35, 50, 70, 100, 140, 175, 350, 385, 405, 460, 480, 490, 625]]
Post heuristic: [[35, 50, 70, 100, 140, 175, 350, 385, 405, 460, 4
Download speed
Index of samples
ndt7
0
50
100
150
200
250
300
350
35
50
70
100
140
175
350
385
405
460
625

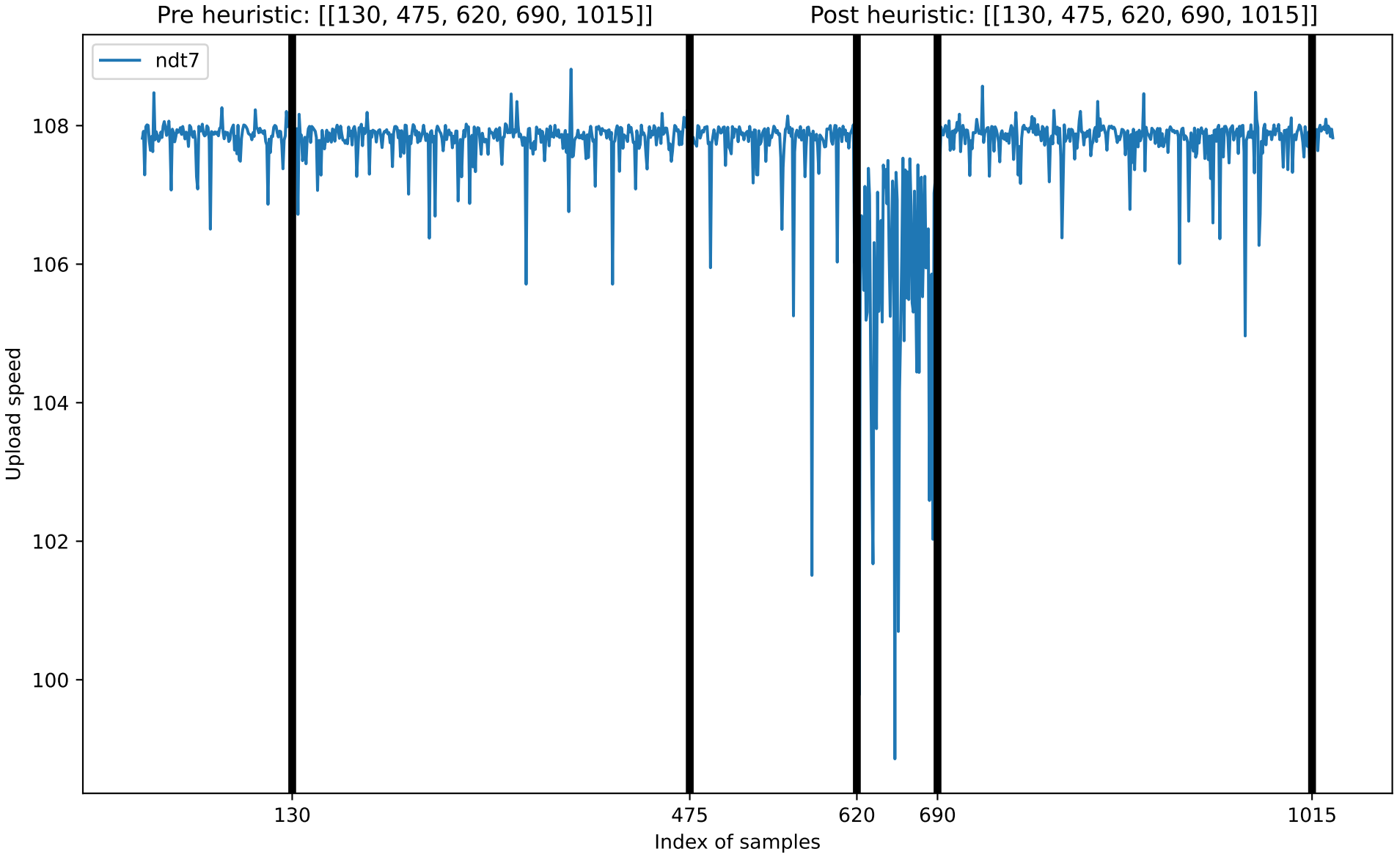

Pre heuristic: [[80, 130, 175, 260]]
Post heuristic: [[80, 130, 175, 260]]
ookla
Upload speed
12
10
8
6
4
80
130
175
260
Index of samples

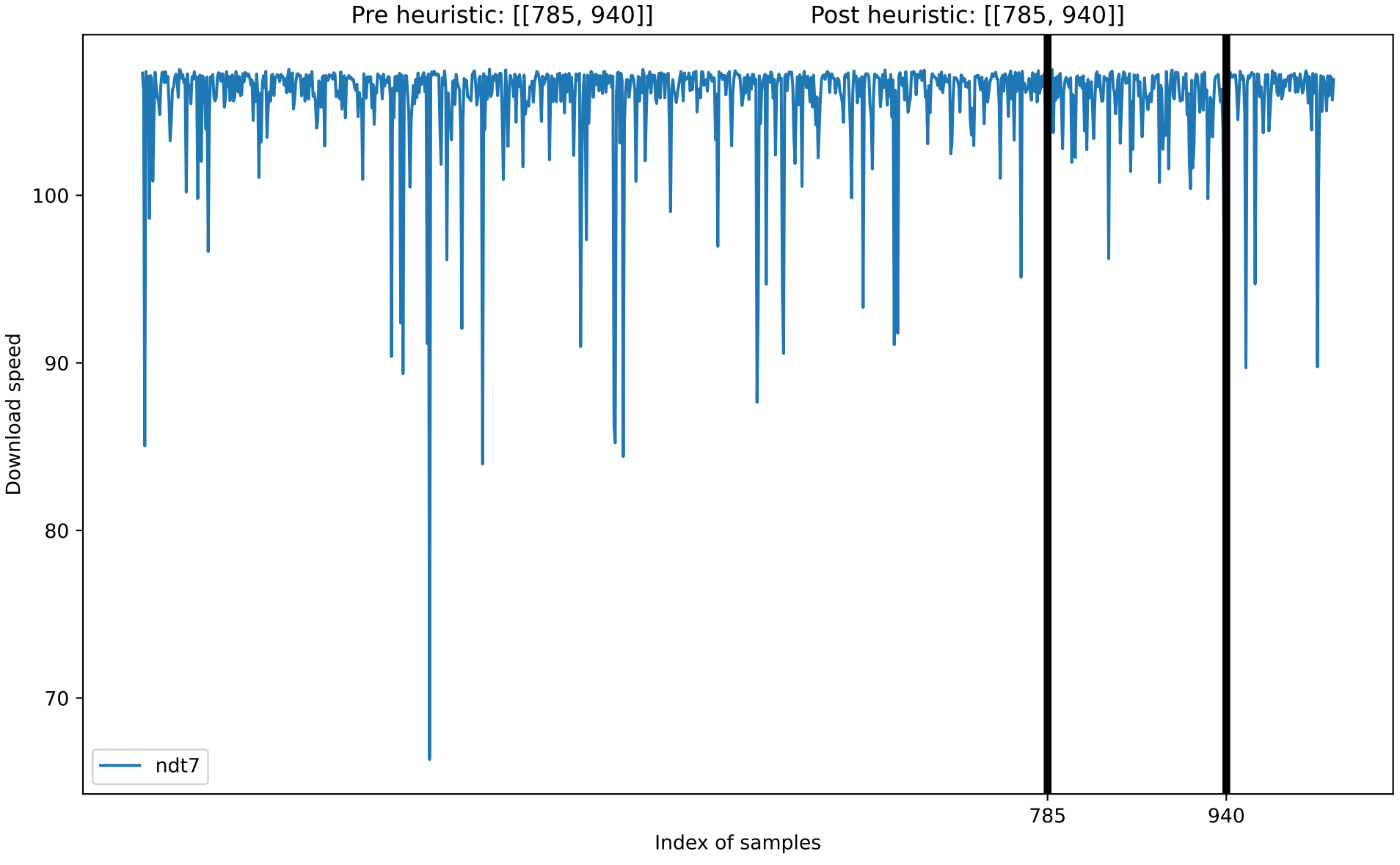

Pre heuristic: [[40, 70, 90, 115, 135, 165, 455, 465, 610]]
Post heuristic: [[40, 70, 90, 115, 135, 165, 455, 465, 610]]
Download speed
350
300
250
200
150
100
50
ookla
40
70
90
115
135
165
610
Index of samples

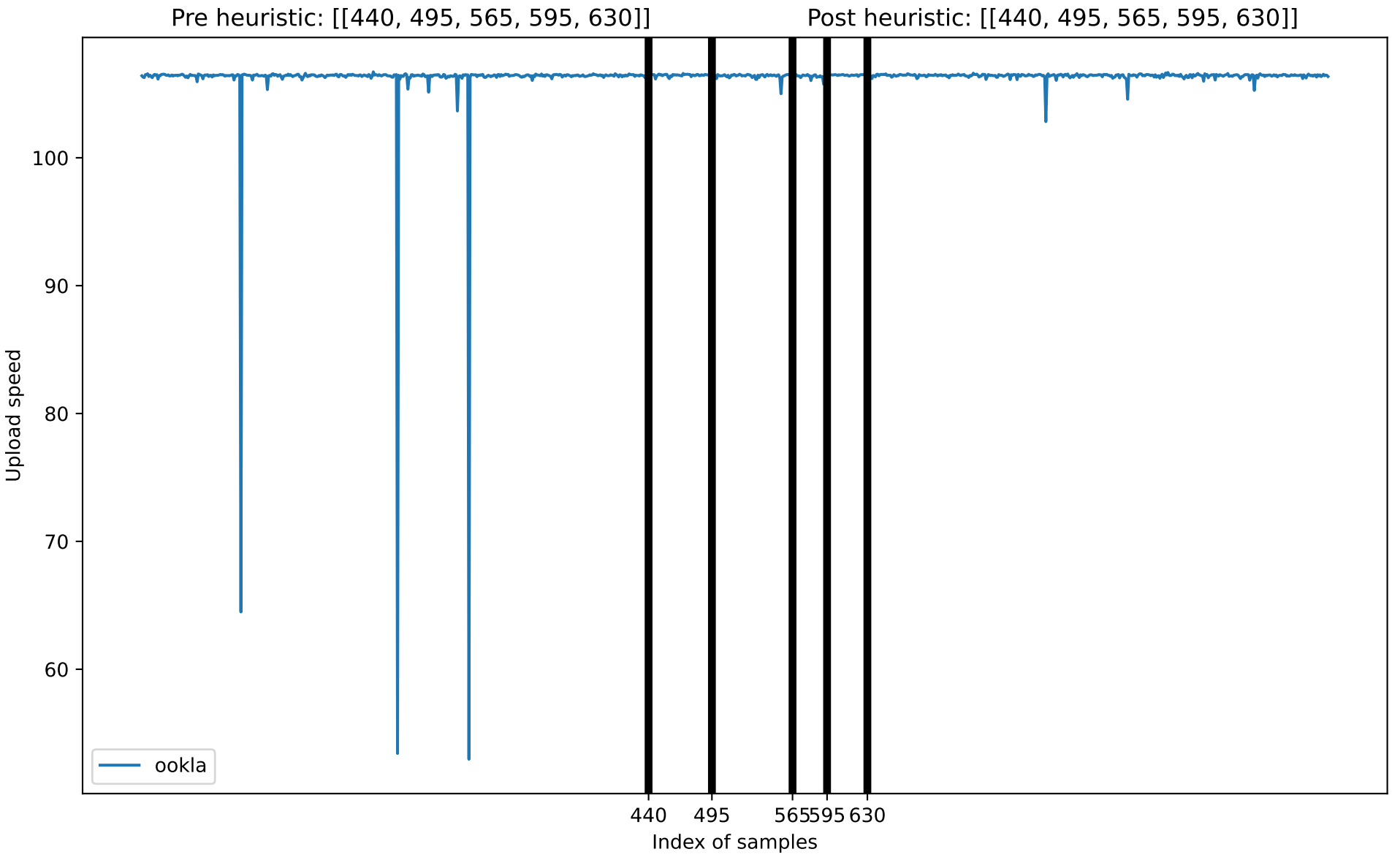

Pre heuristic: [[35, 160, 185]]
Post heuristic: [[35, 160, 185]]
ndt7
Upload speed
24
22
20
18
16
14
12
35
160
185
Index of samples

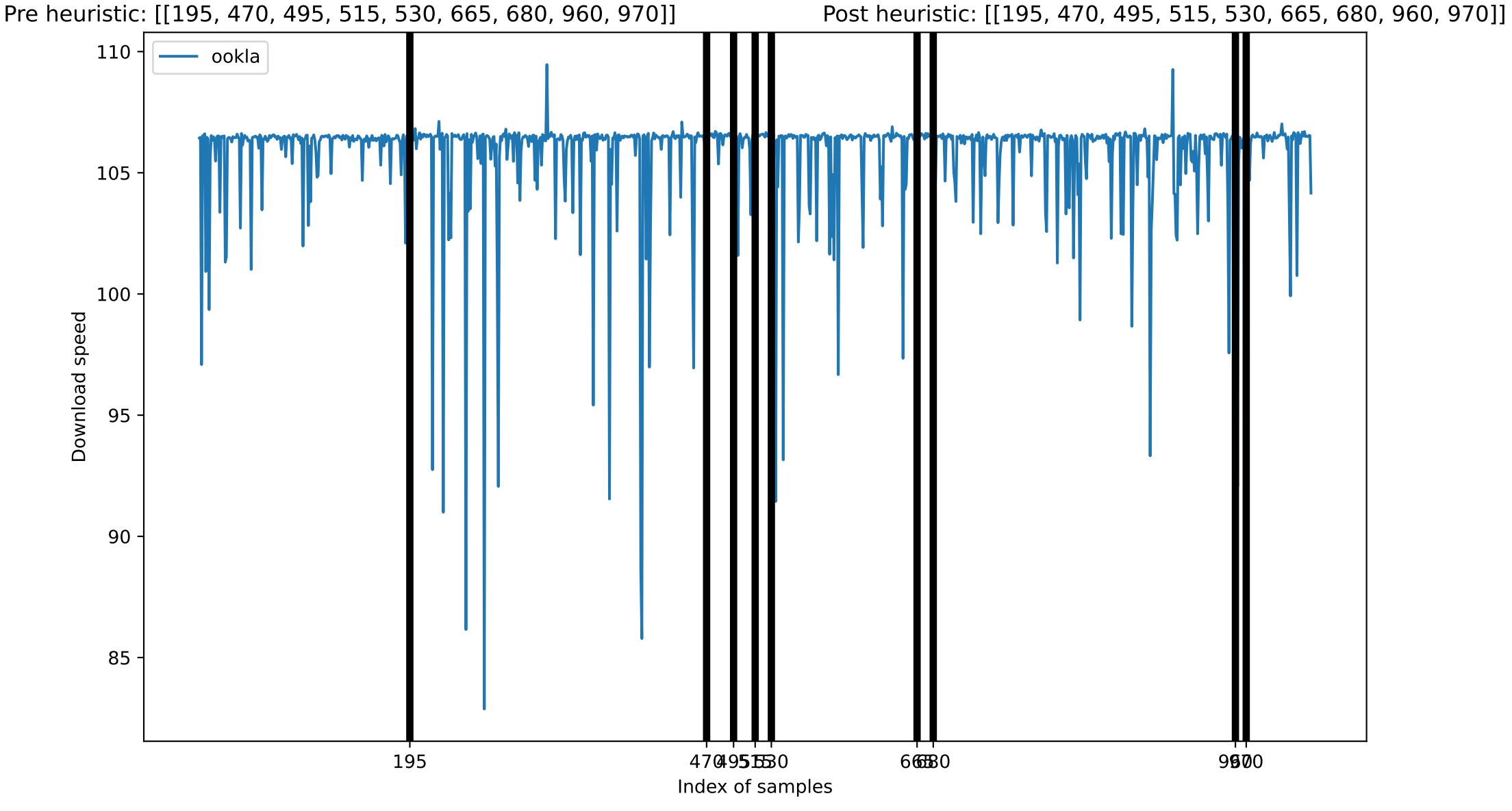

Pre heuristic: [[50]]
Post heuristic: [[50]]
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
Upload speed
ookla
50
Index of samples

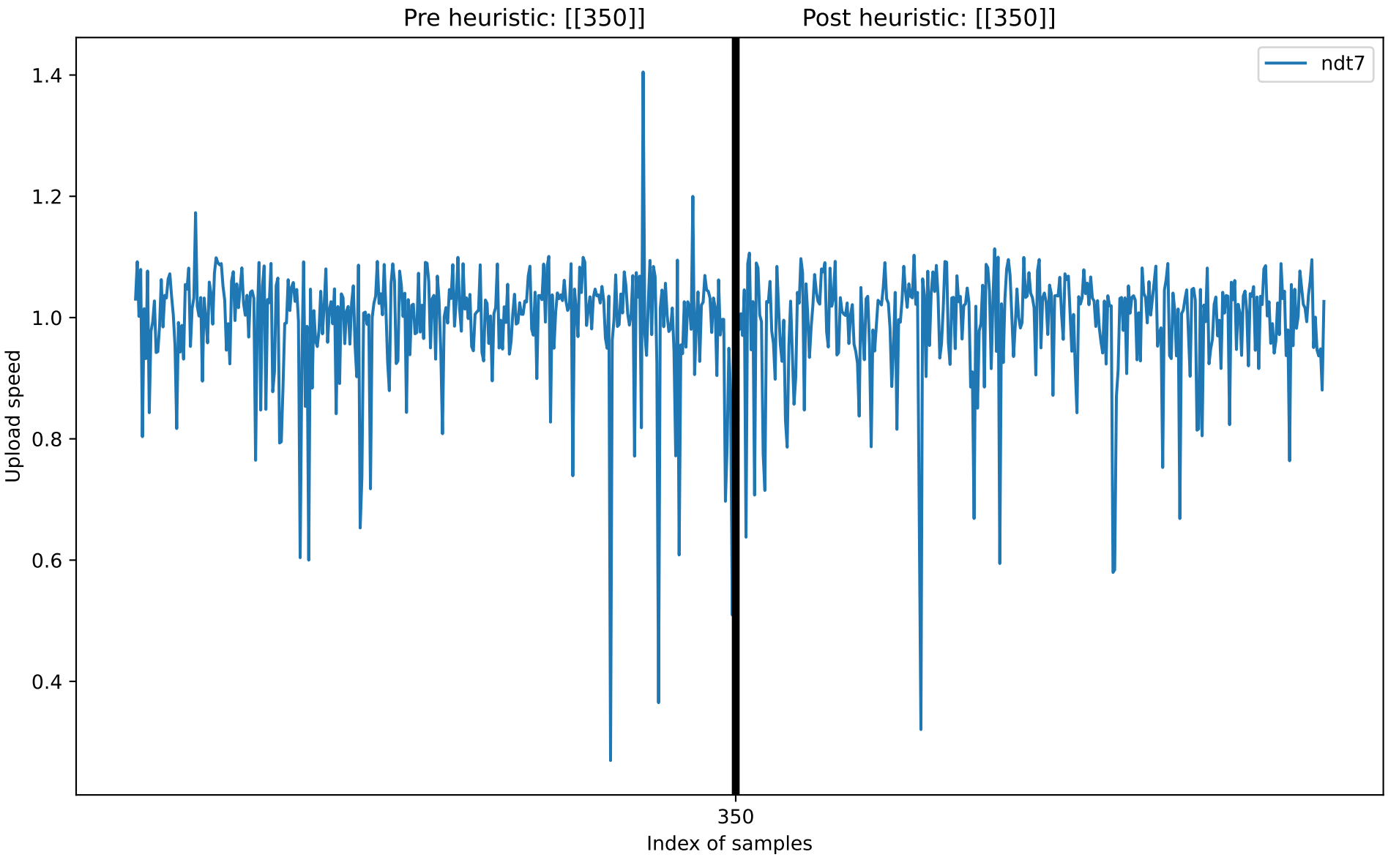

Pre heuristic: [[135, 210]]
Post heuristic: [[135, 210]]
ookla
Download speed
800
700
600
500
400
300
135
210
Index of samples

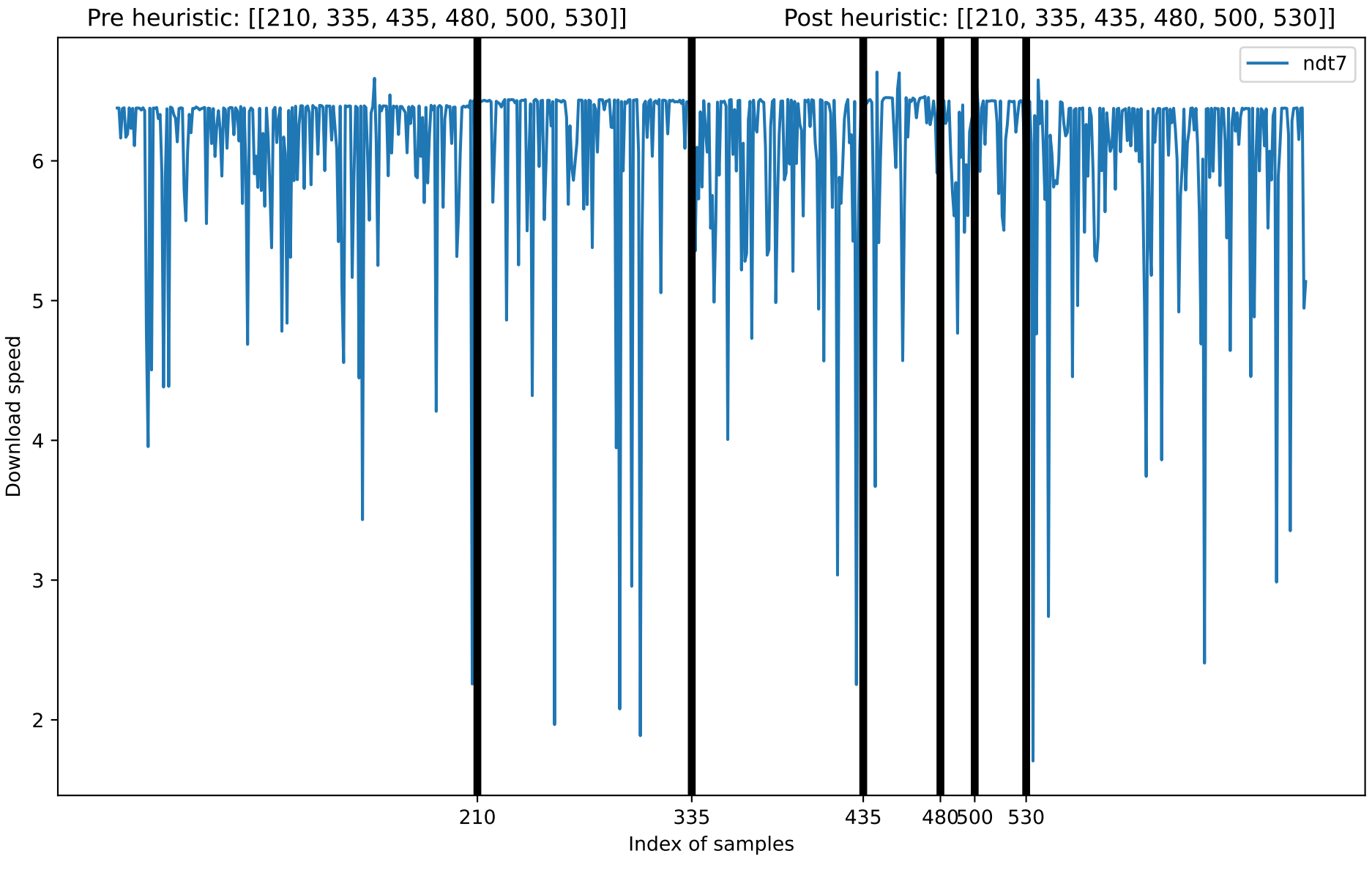

Pre heuristic: [[130, 475, 620, 690, 1015]]
Post heuristic: [[130, 475, 620, 690, 1015]]
ndt7
Upload speed
108
106
104
102
100
130
475
620
690
1015
Index of samples

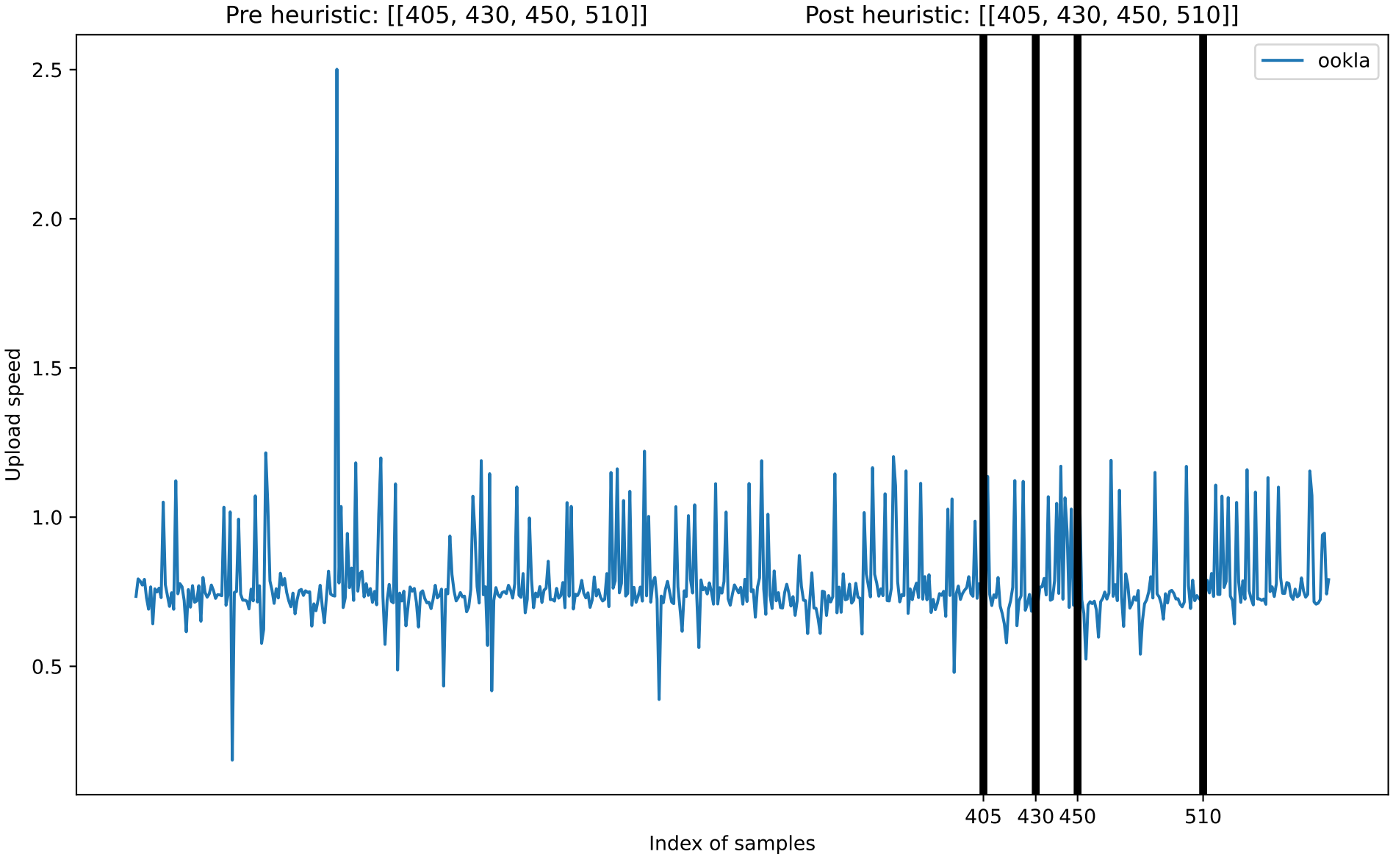

Pre heuristic: [[785, 940]]
Post heuristic: [[785, 940]]
Download speed
100
90
80
70
ndt7
785
940
Index of samples

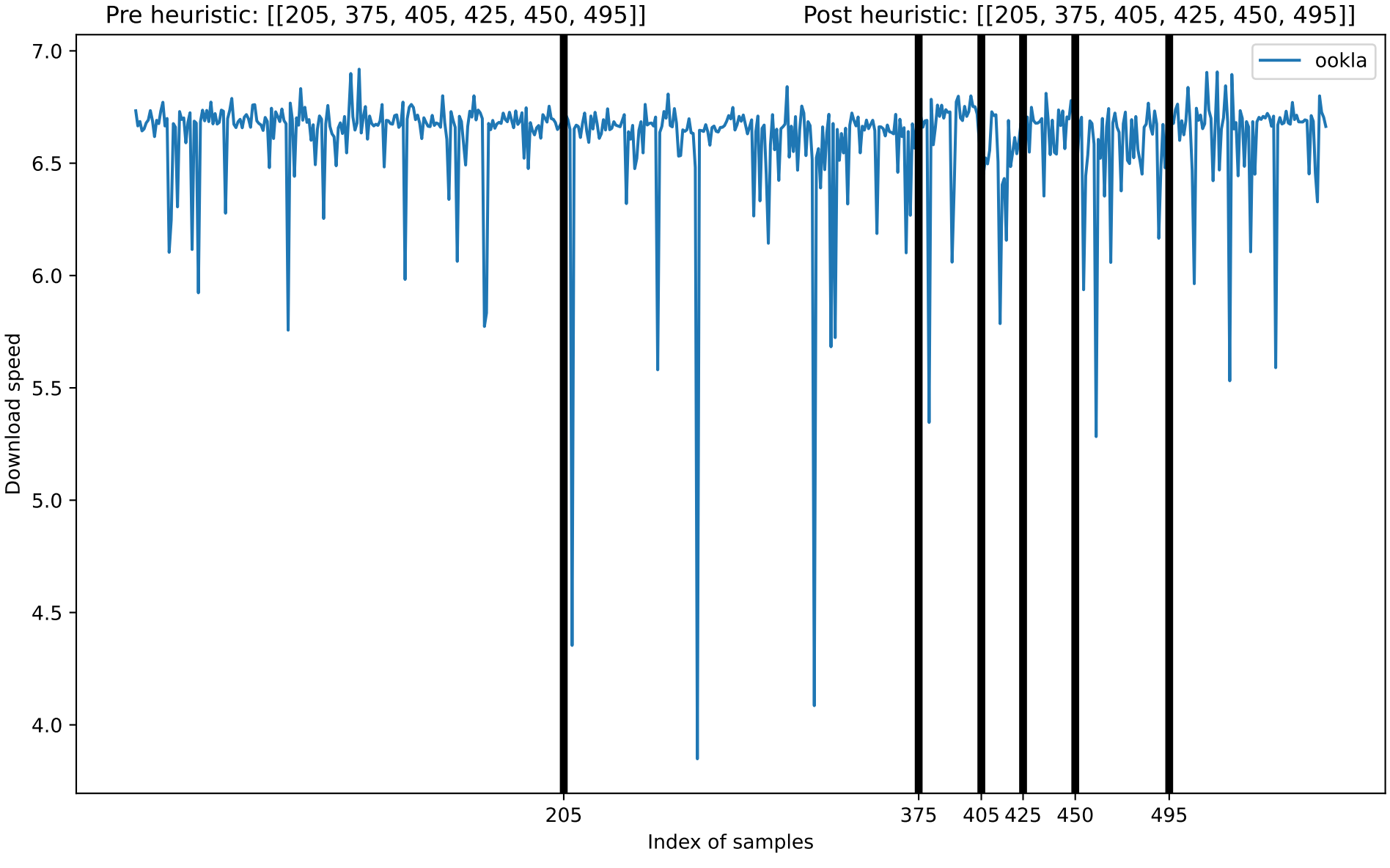

Pre heuristic: [[440, 495, 565, 595, 630]]
Post heuristic: [[440, 495, 565, 595, 630]]
Upload speed
100
90
80
70
60
ookla
440
495
565
595
630
Index of samples

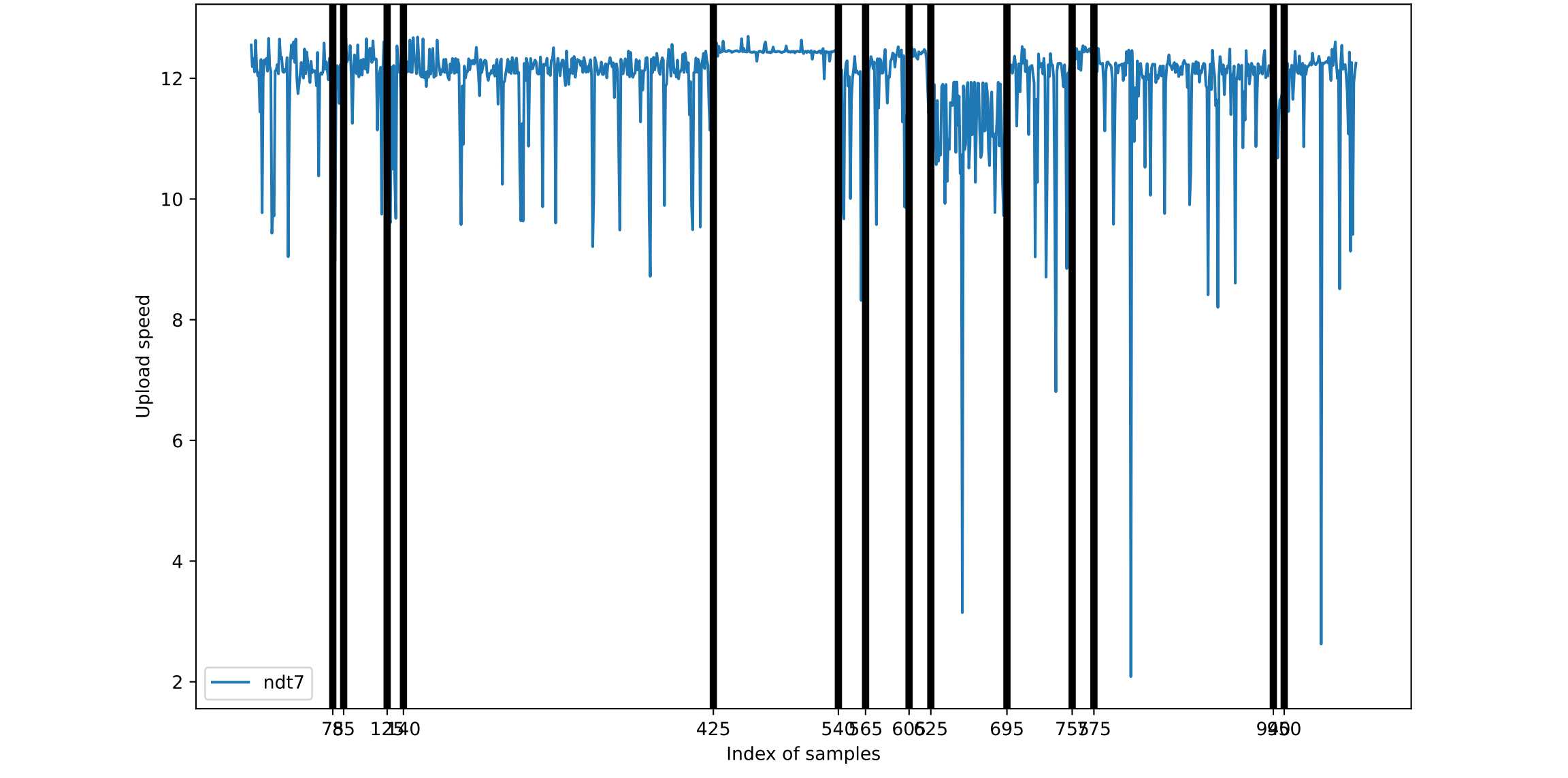

Pre heuristic: [[195, 470, 495, 515, 530, 665, 680, 960, 970]]
Post heuristic: [[195, 470, 495, 515, 530, 665, 680, 960, 970]]
ookla
Download speed
110
105
100
95
90
85
195
Index of samples

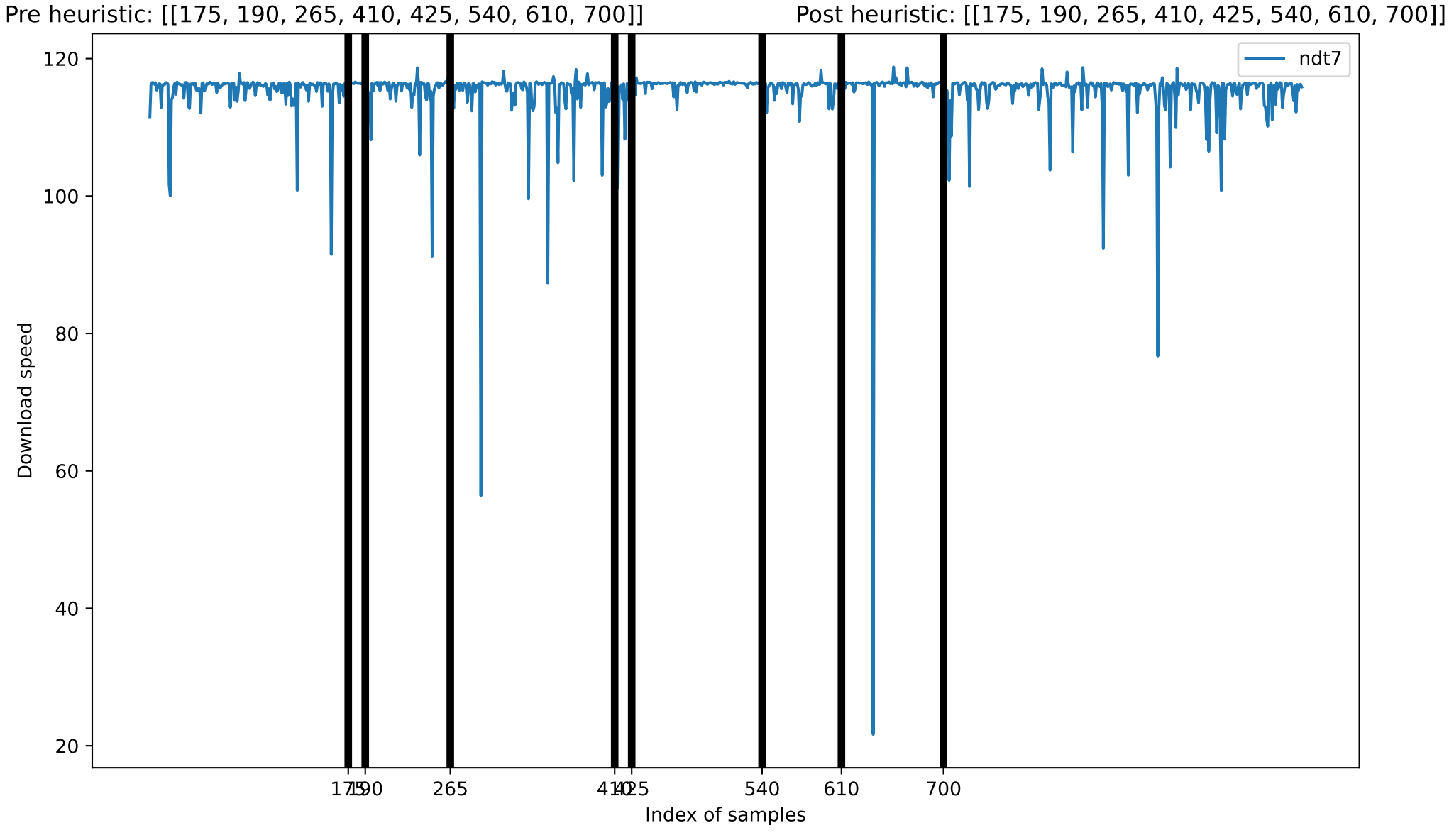

Pre heuristic: [[350]]
Post heuristic: [[350]]
ndt7
Upload speed
1.4
1.2
1.0
0.8
0.6
0.4
350
Index of samples

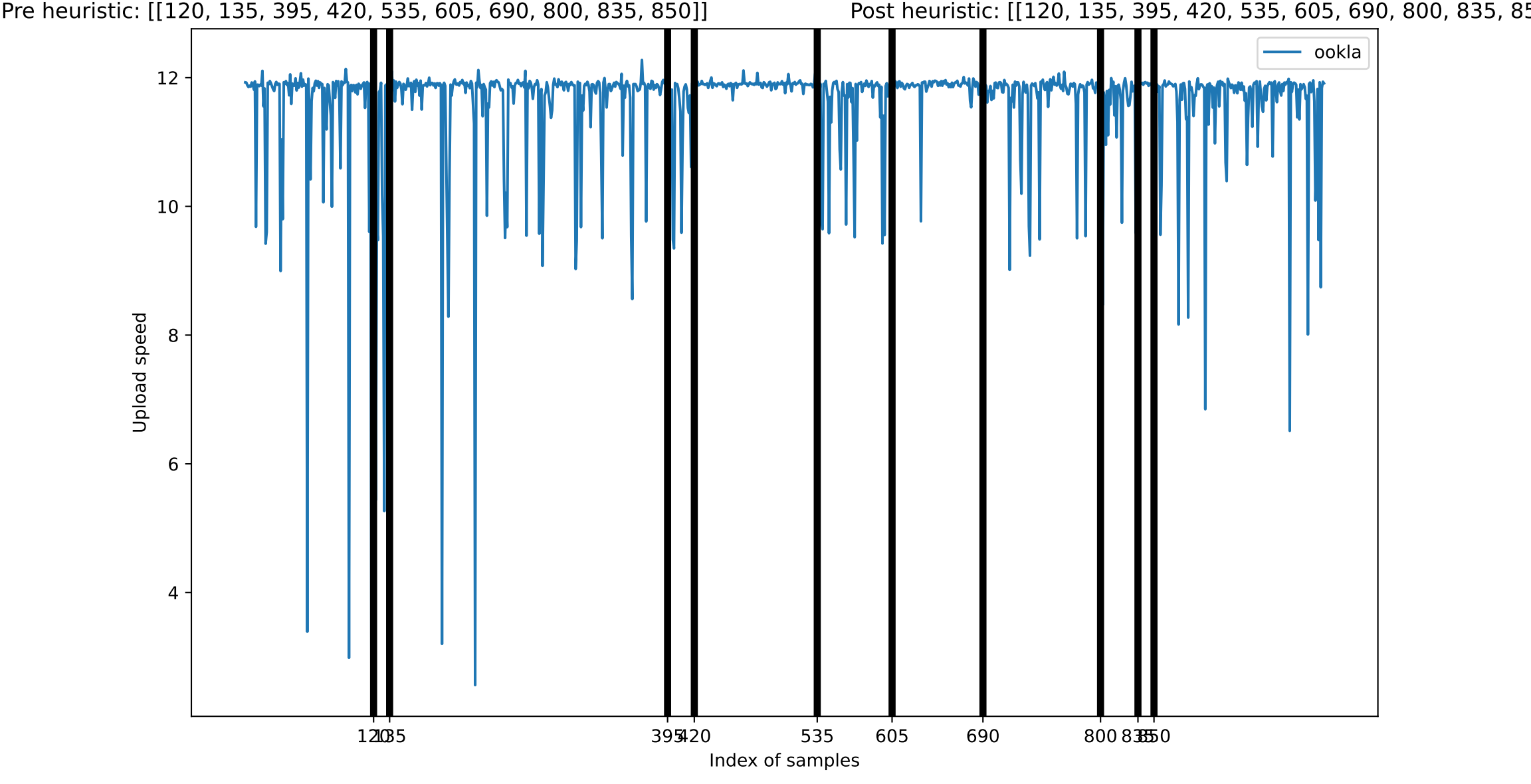

Pre heuristic: [[210, 335, 435, 480, 500, 530]]
Post heuristic: [[210, 335, 435, 480, 500, 530]]
ndt7
Download speed
6
5
4
3
2
210
335
435
480
500
530
Index of samples

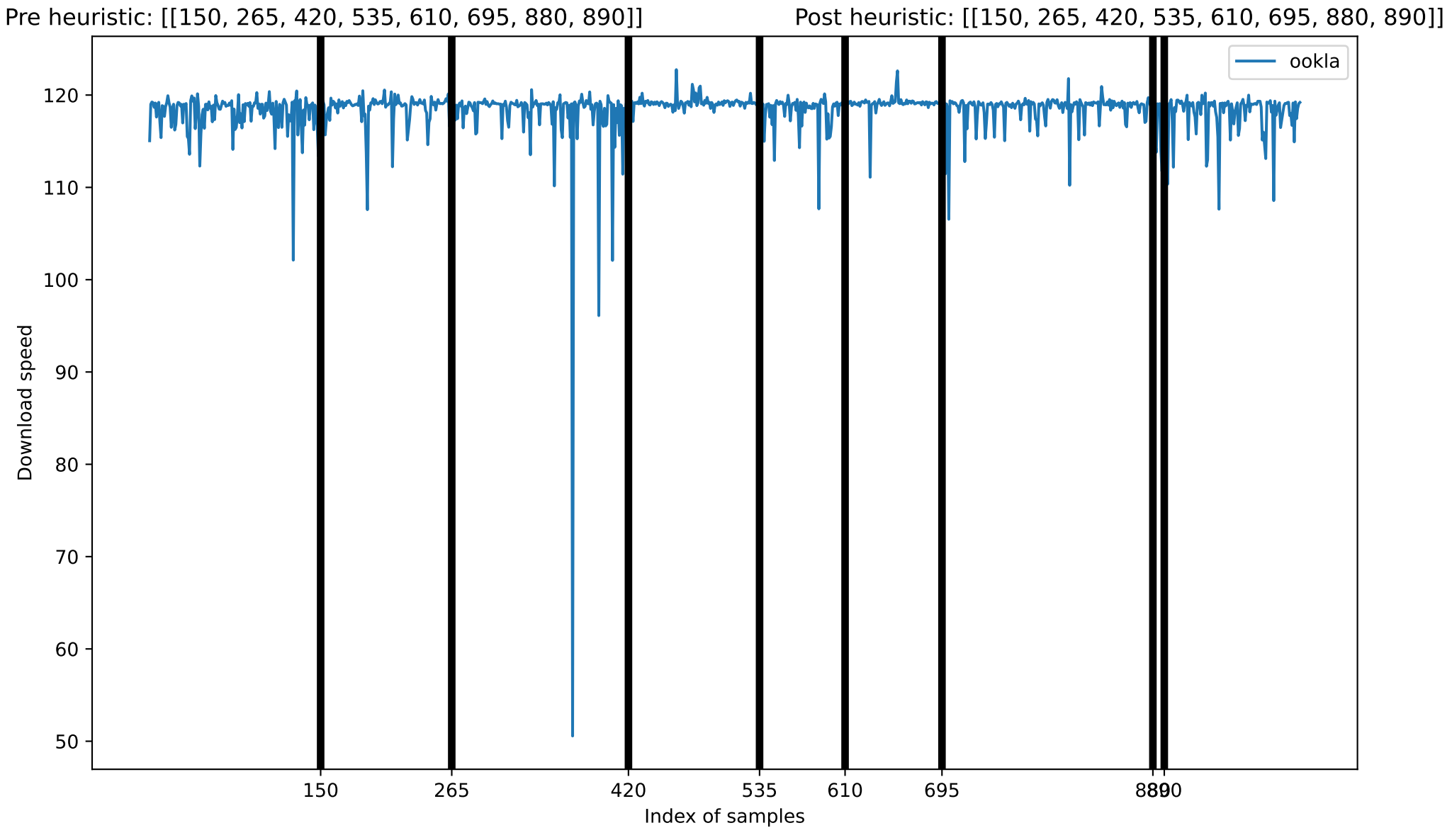

Pre heuristic: [[405, 430, 450, 510]]
Post heuristic: [[405, 430, 450, 510]]
ookla
Upload speed
2.5
2.0
1.5
1.0
0.5
405
430
450
510
Index of samples

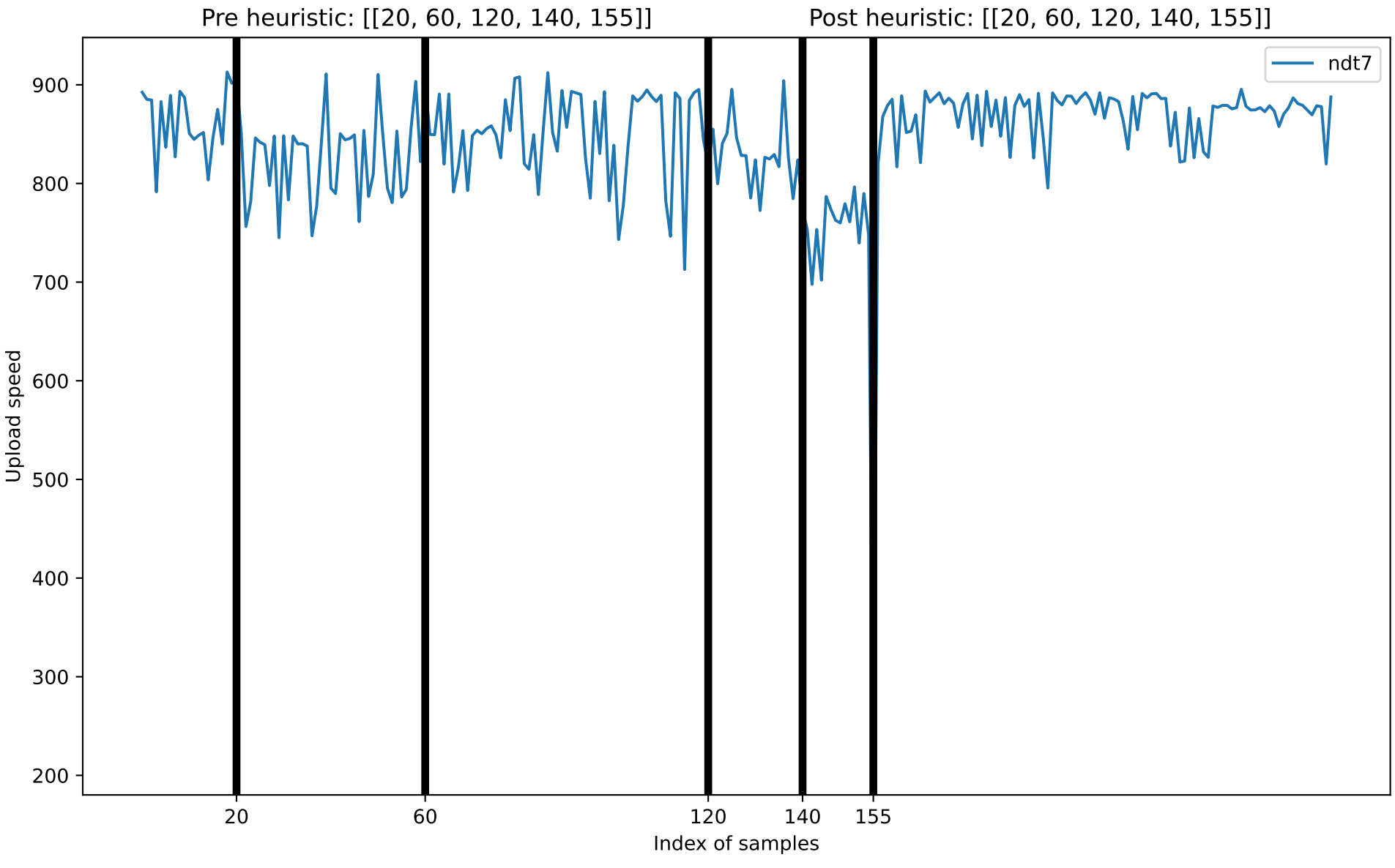

Pre heuristic: [[205, 375, 405, 425, 450, 495]]
Post heuristic: [[205, 375, 405, 425, 450, 495]]
ookla
Download speed
7.0
6.5
6.0
5.5
5.0
4.5
4.0
205
375
405
425
450
495
Index of samples

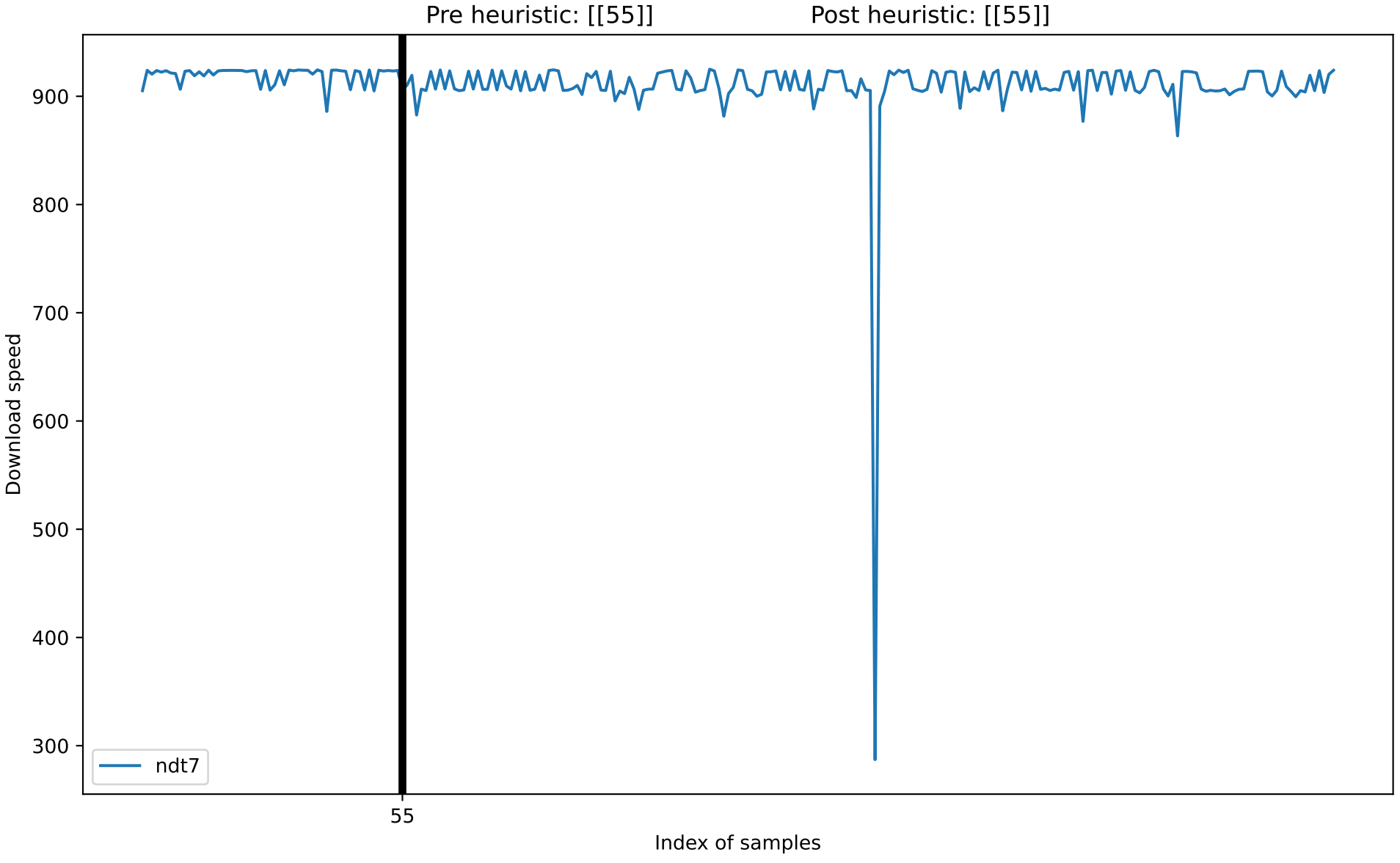

, 85, 125, 140, 425, 540, 565, 605, 625, 695, 755, 775, 940, 950]]
Post heuristic: [[75, 85, 125, 140, 425, 540, 565, 605, 625, 695,
Upload speed
12
10
8
6
4
2
ndt7
425
695
Index of samples

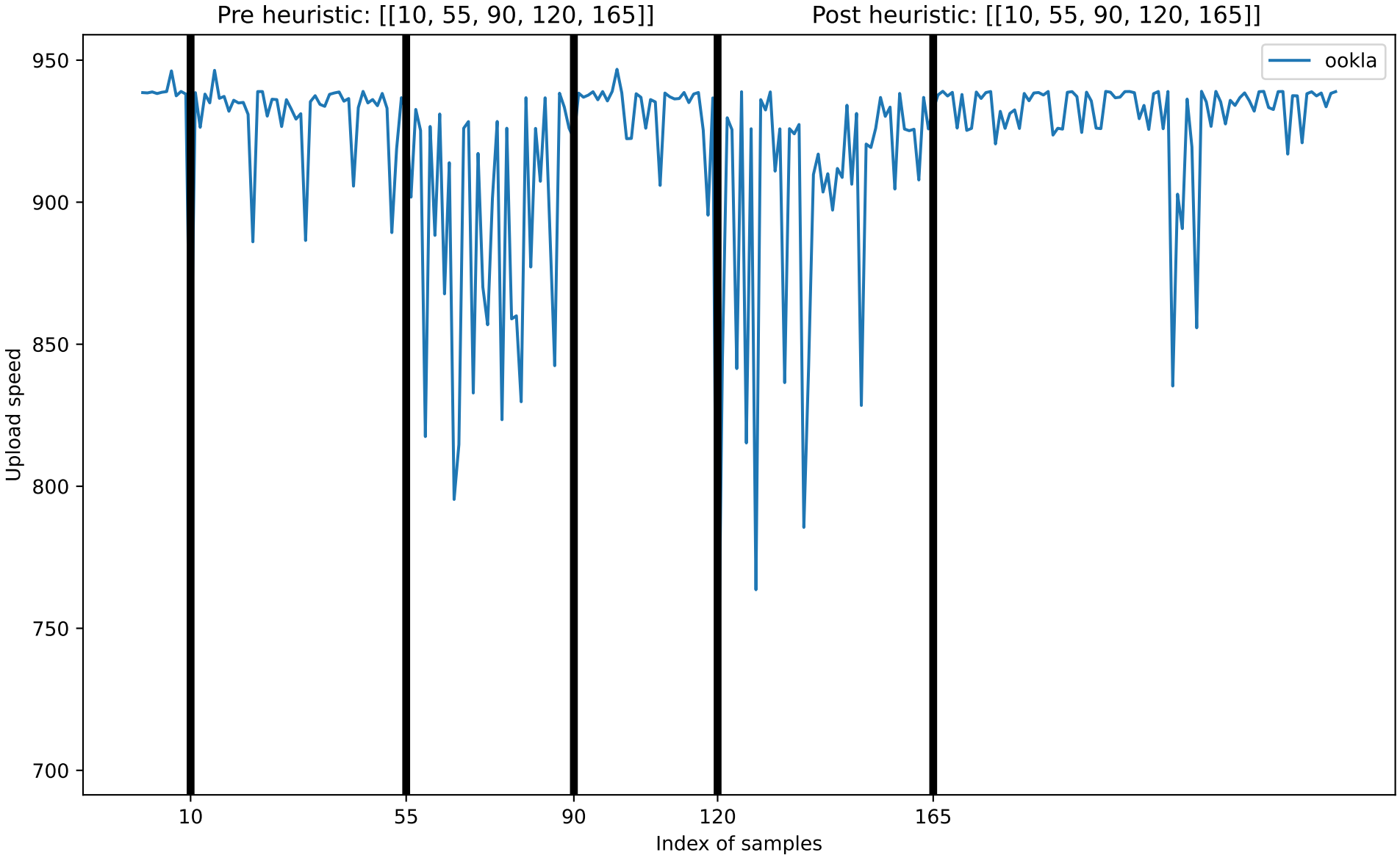

Pre heuristic: [[175, 190, 265, 410, 425, 540, 610, 700]]
Post heuristic: [[175, 190, 265, 410, 425, 540, 610, 700]]
ndt7
Download speed
120
100
80
60
40
20
175
190
265
410
425
540
610
700
Index of samples

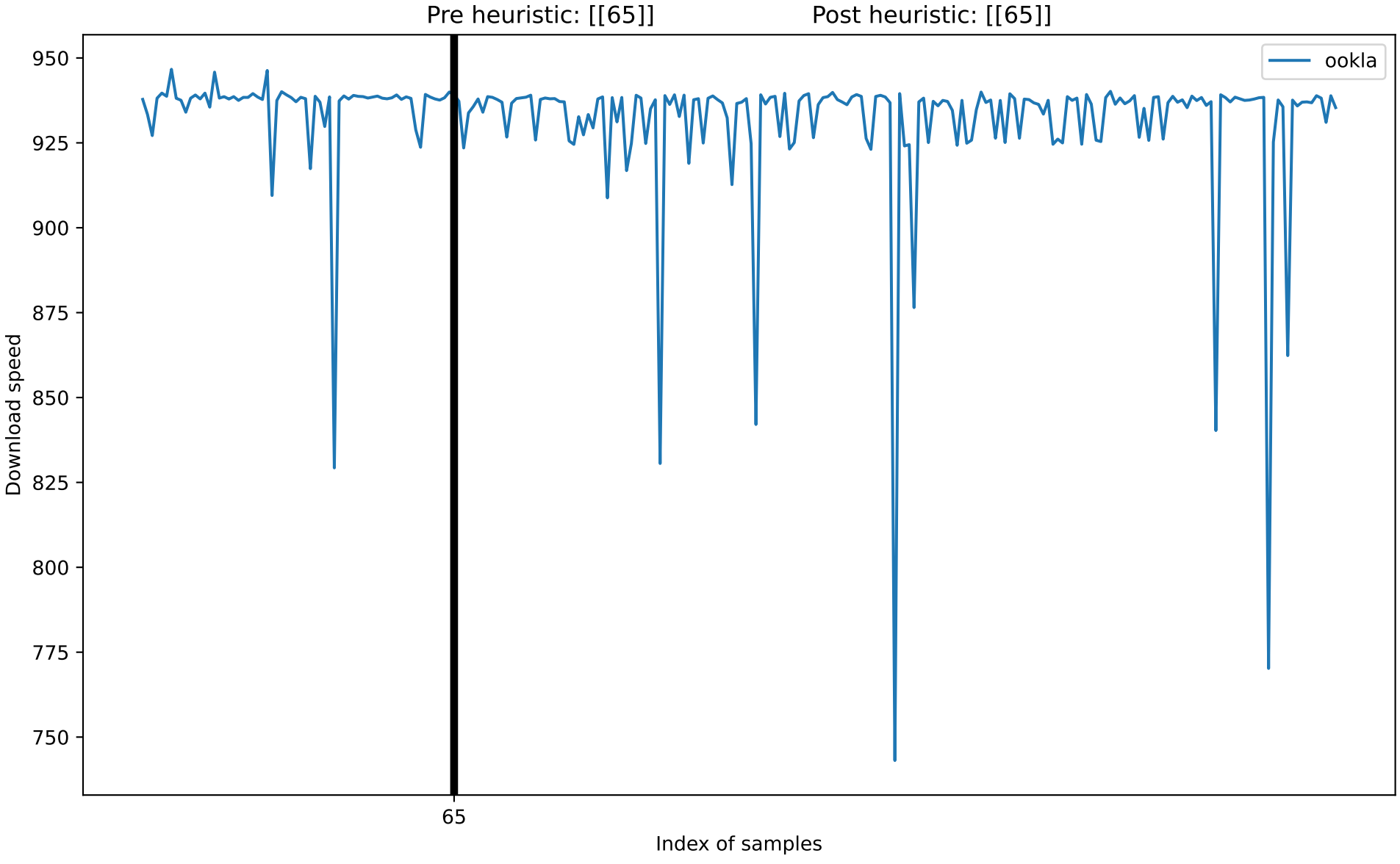

Pre heuristic: [[120, 135, 395, 420, 535, 605, 690, 800, 835, 850]]
Post heuristic: [[120, 135, 395, 420, 535, 605, 690, 800, 835, 85
ookla
Upload speed
12
10
8
6
4
120
135
395
420
535
605
690
800
835
850
Index of samples

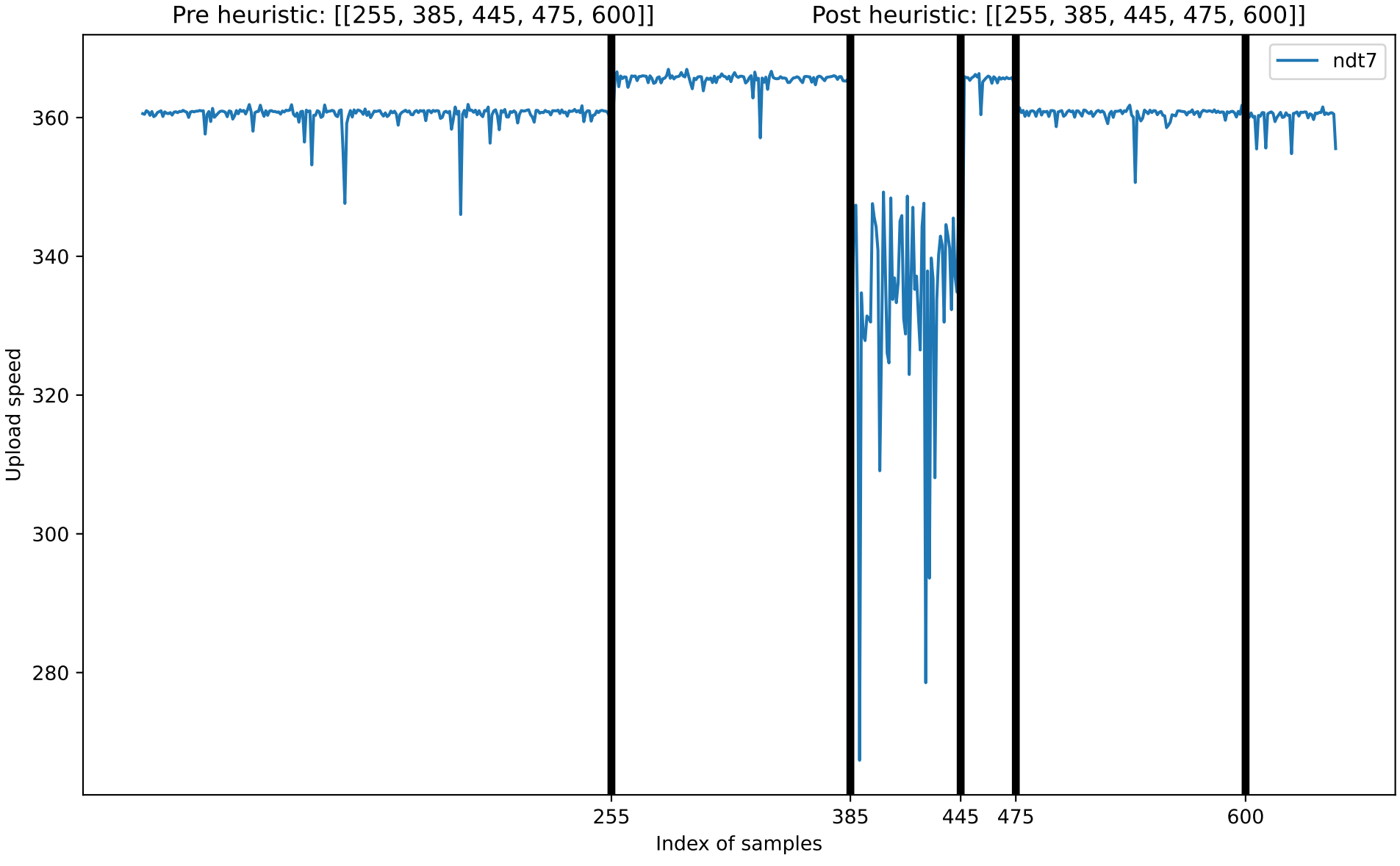

Pre heuristic: [[150, 265, 420, 535, 610, 695, 880, 890]]
Post heuristic: [[150, 265, 420, 535, 610, 695, 880, 890]]
ookla
Download speed
120
110
100
90
80
70
60
50
150
265
420
535
610
695
880
890
Index of samples

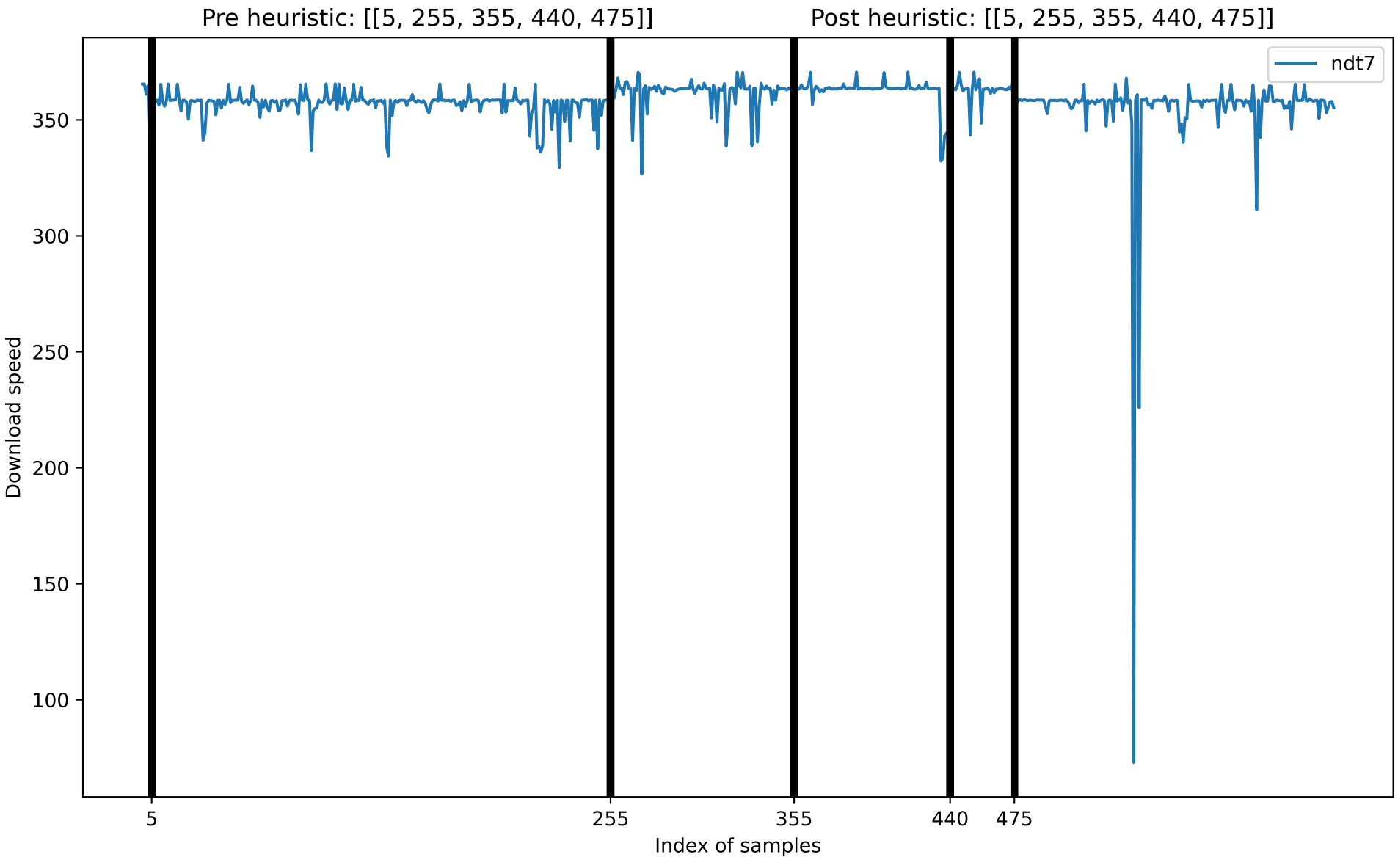

Pre heuristic: [[20, 60, 120, 140, 155]]
Post heuristic: [[20, 60, 120, 140, 155]]
ndt7
Upload speed
900
800
700
600
500
400
300
200
20
60
120
140
155
Index of samples

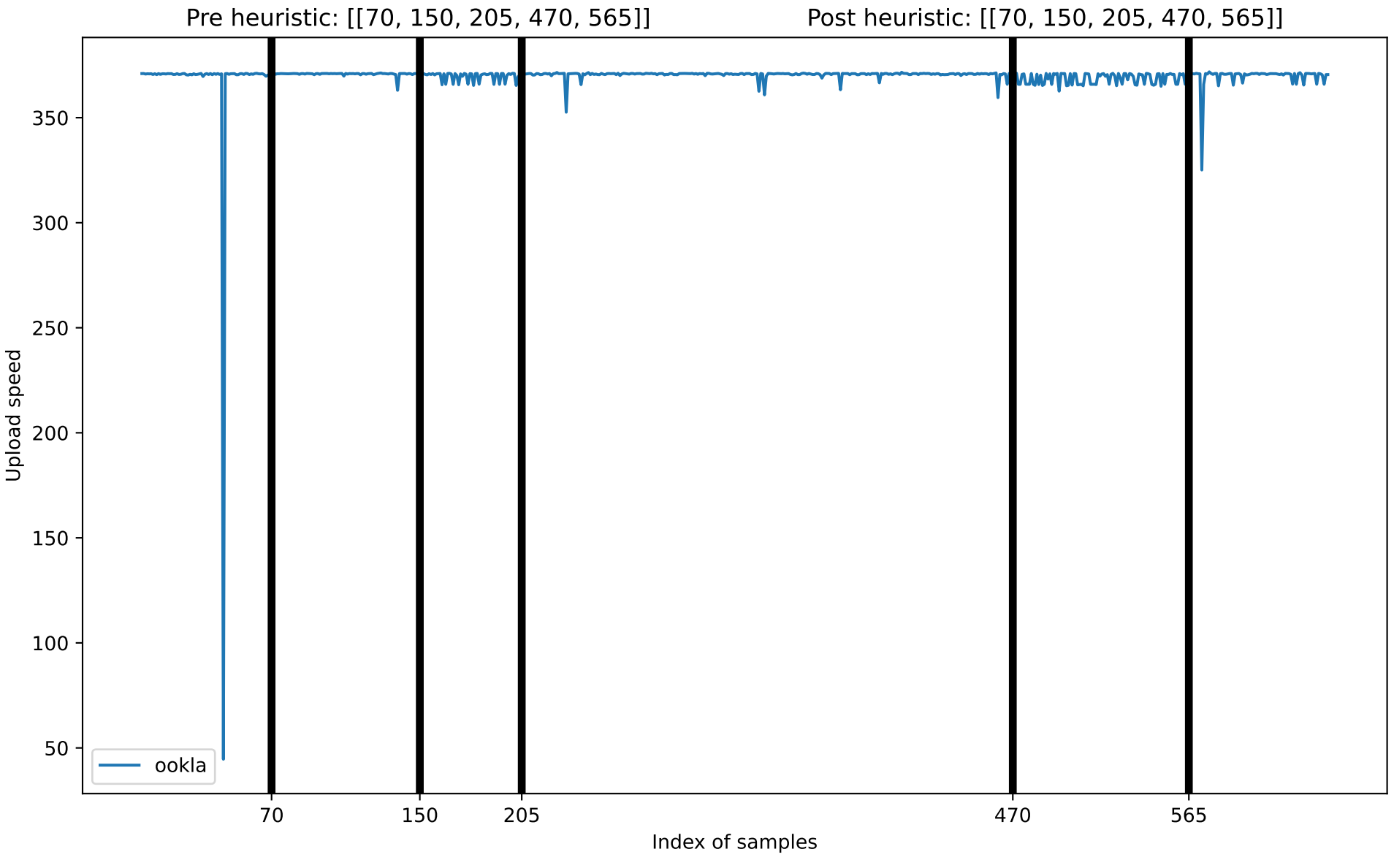

Pre heuristic: [[55]]
Post heuristic: [[55]]
900
800
700
600
500
400
300
Download speed
ndt7
55
Index of samples

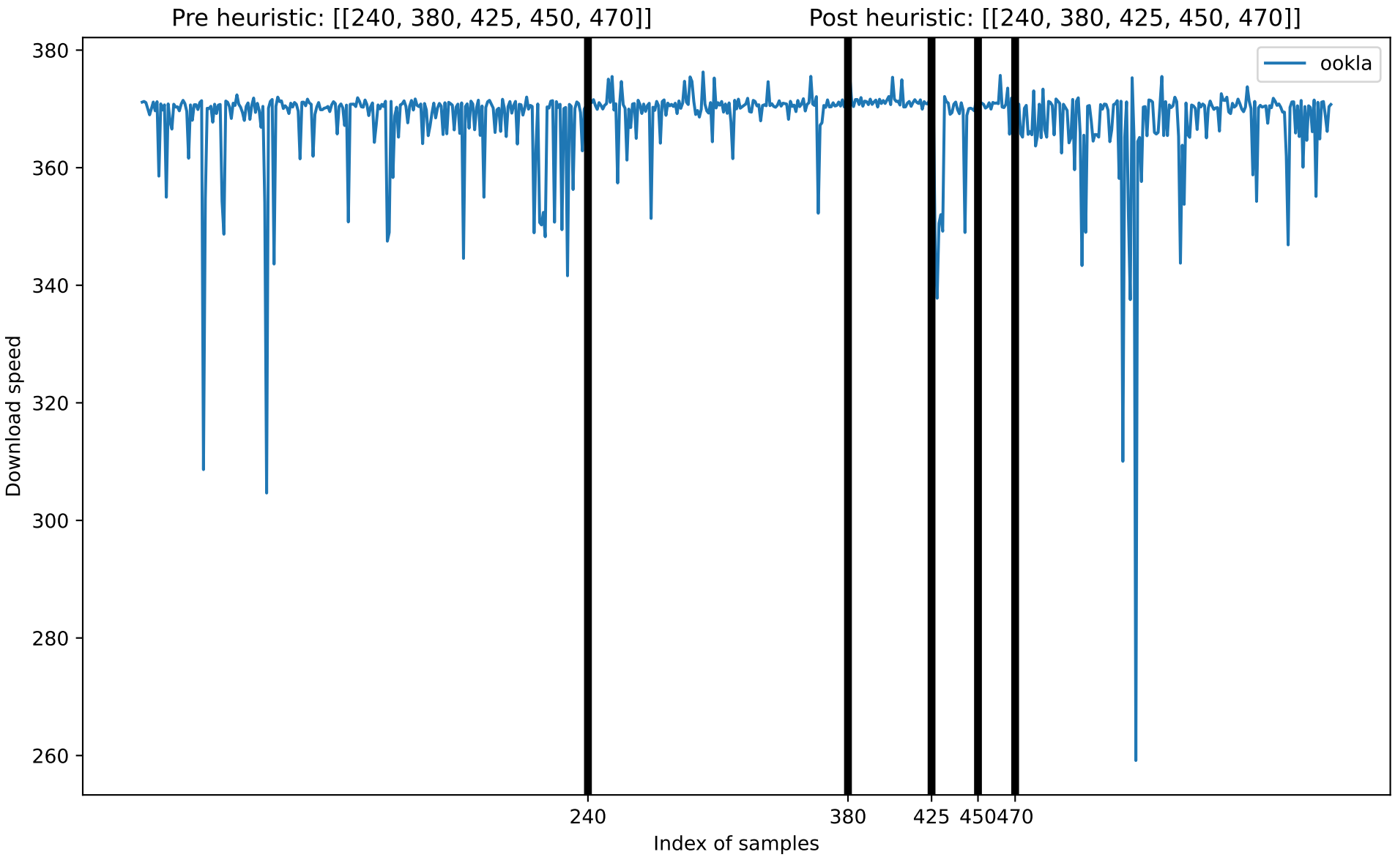

Pre heuristic: [[10, 55, 90, 120, 165]]
Post heuristic: [[10, 55, 90, 120, 165]]
ookla
Upload speed
950
900
850
800
750
700
10
55
90
120
165
Index of samples

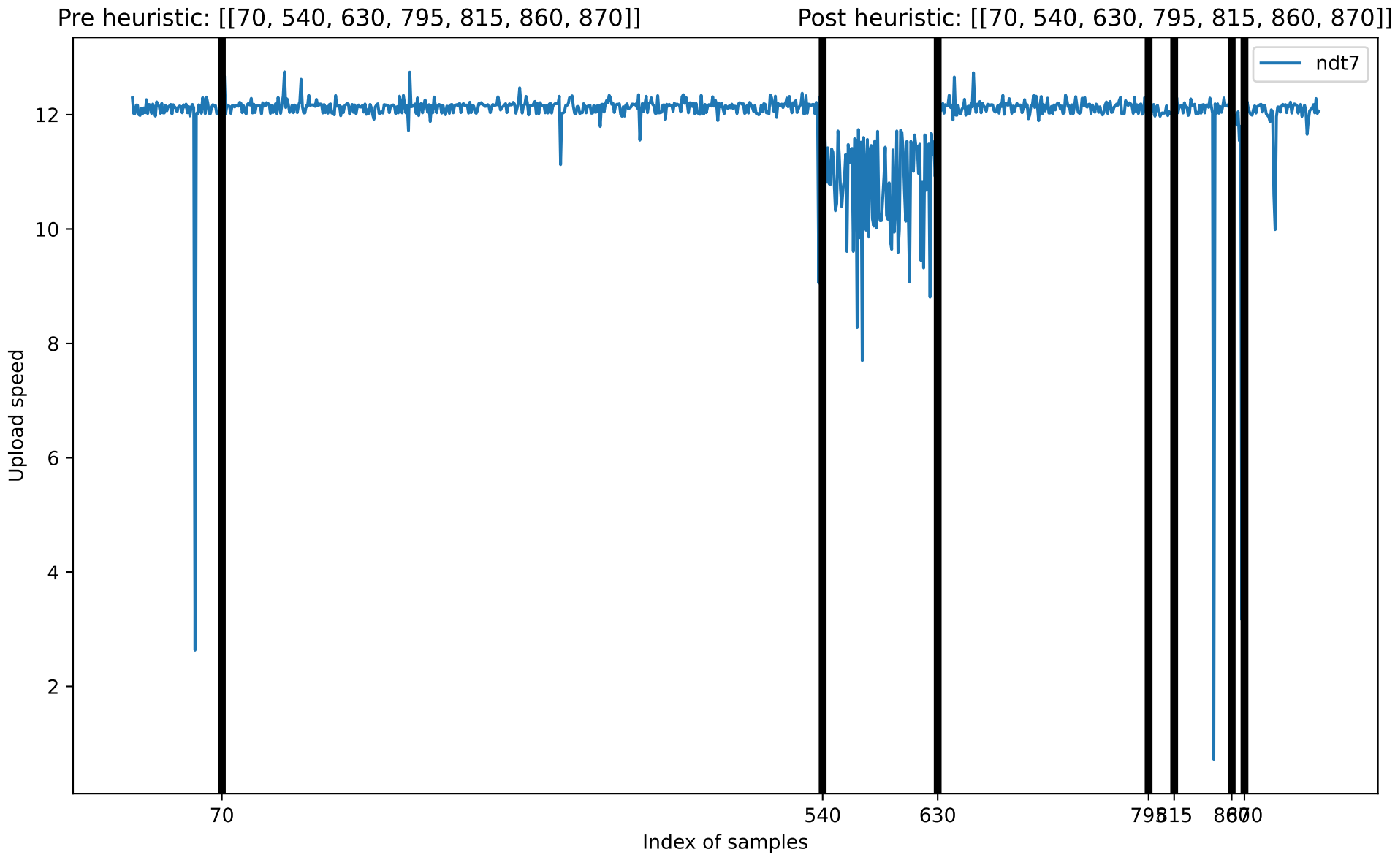

Pre heuristic: [[65]]
Post heuristic: [[65]]
ookla
950
925
900
875
850
825
800
775
750
Download speed
65
Index of samples

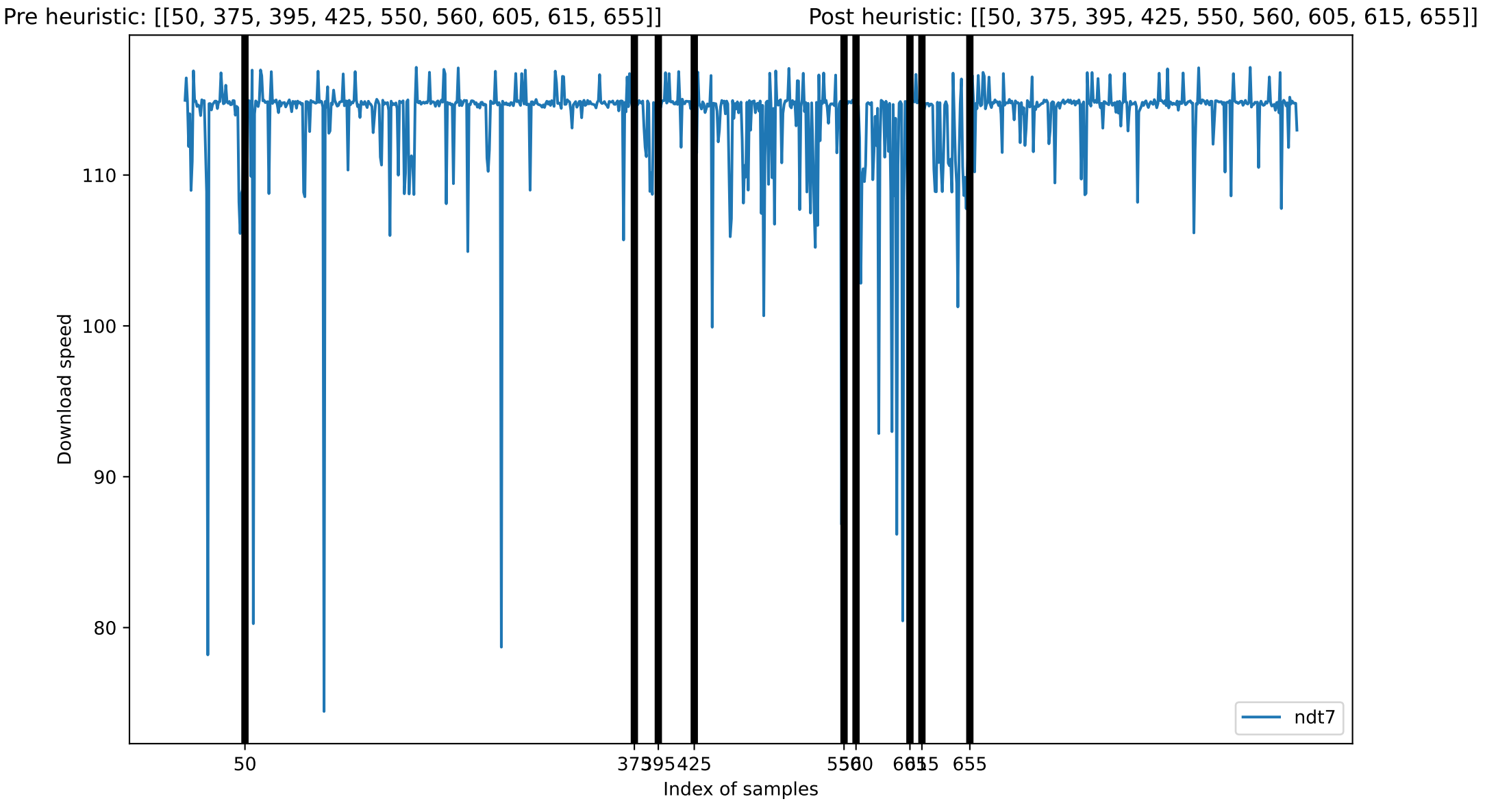

Pre heuristic: [[255, 385, 445, 475, 600]]
Post heuristic: [[255, 385, 445, 475, 600]]
ndt7
Upload speed
360
340
320
300
280
255
385
445
475
600
Index of samples

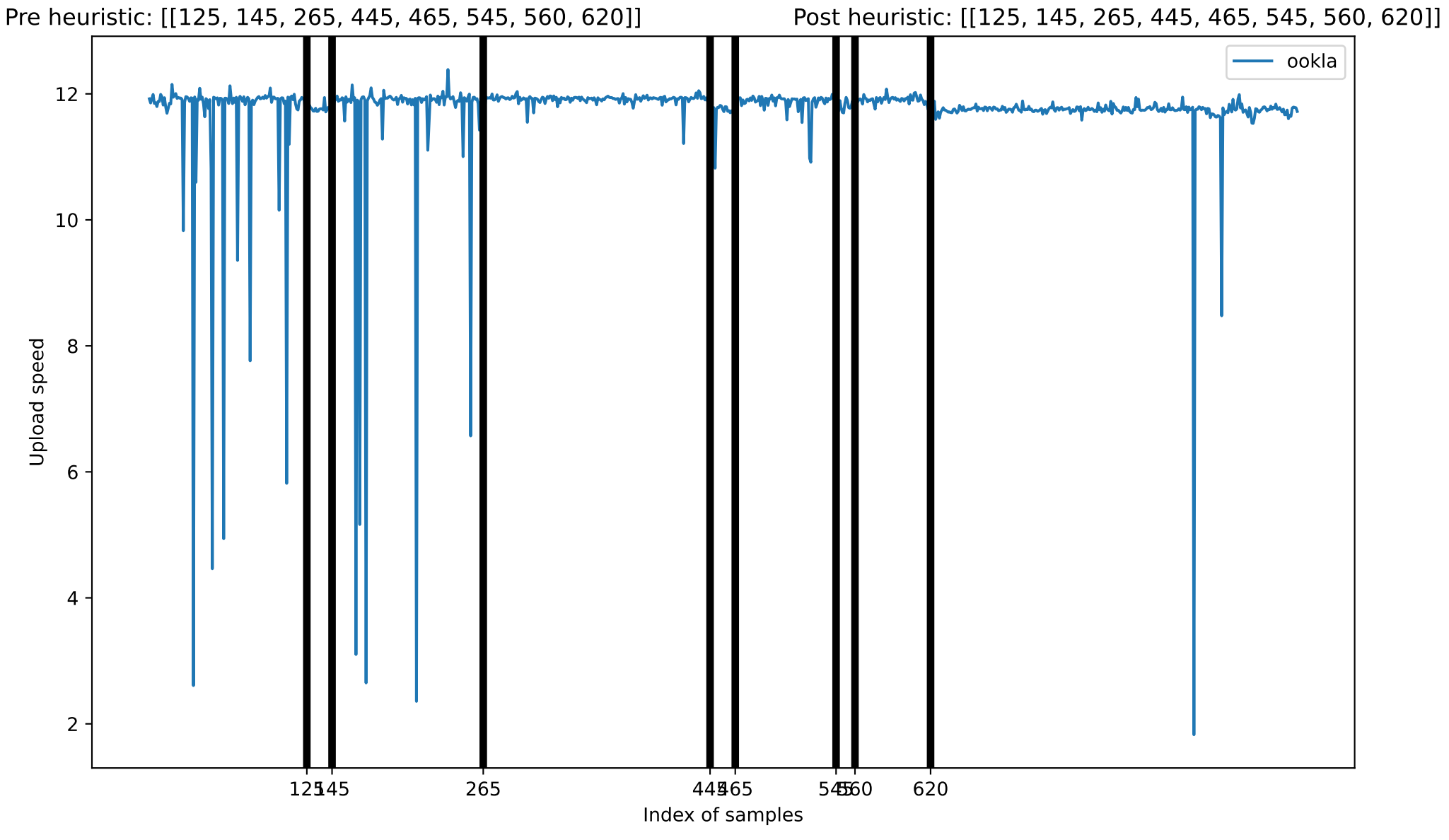

Pre heuristic: [[5, 255, 355, 440, 475]]
Post heuristic: [[5, 255, 355, 440, 475]]
ndt7
Download speed
350
300
250
200
150
100
5
255
355
440
475
Index of samples


Pre heuristic: [[70, 150, 205, 470, 565]]
Post heuristic: [[70, 150, 205, 470, 565]]
Upload speed
350
300
250
200
150
100
50
ookla
70
150
205
470
565
Index of samples


Pre heuristic: [[240, 380, 425, 450, 470]]
Post heuristic: [[240, 380, 425, 450, 470]]
ookla
Download speed
380
360
340
320
300
280
260
240
380
425
450
470
Index of samples

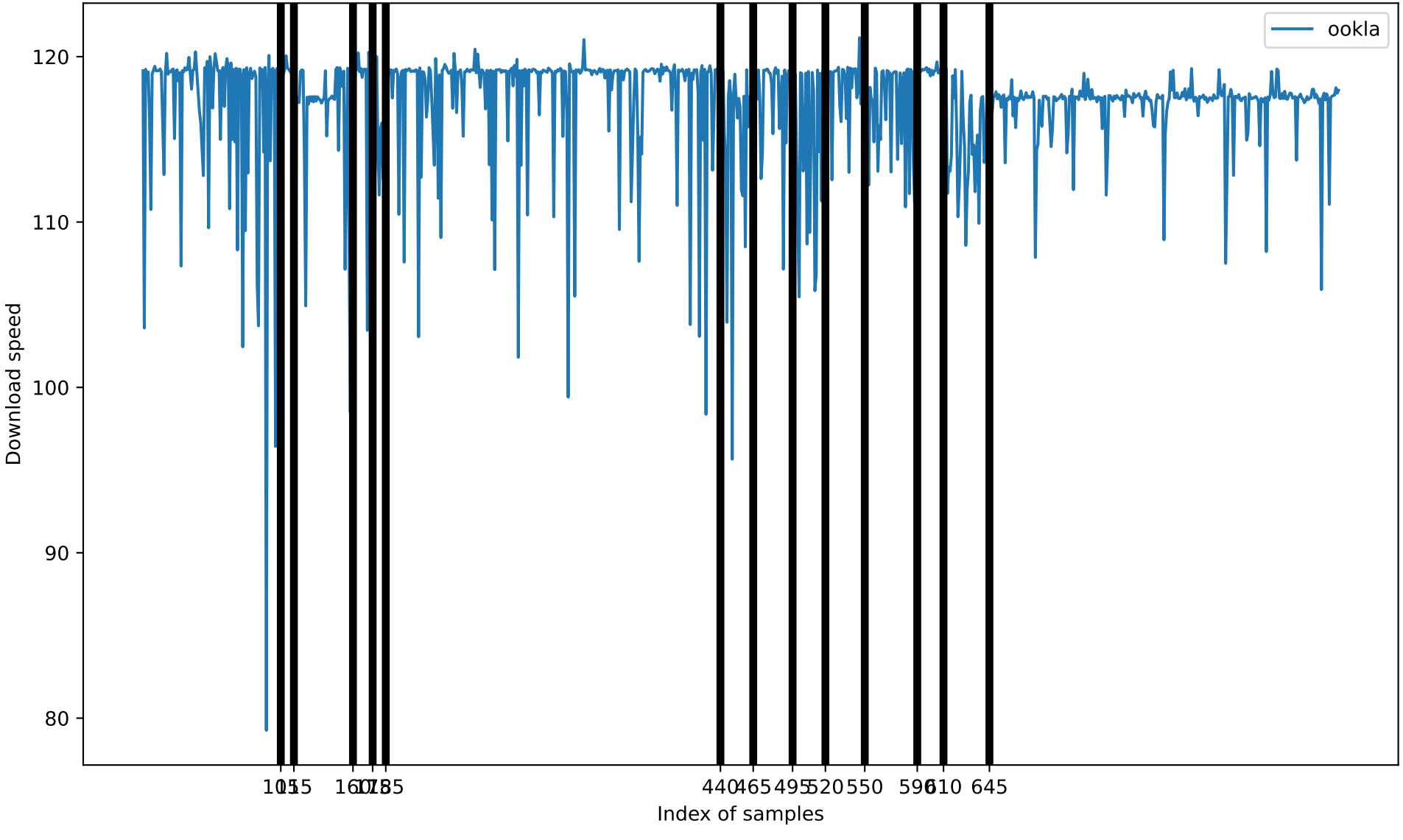

Pre heuristic: [[70, 540, 630, 795, 815, 860, 870]]
Post heuristic: [[70, 540, 630, 795, 815, 860, 870]]
ndt7
Upload speed
12
10
8
6
4
2
70
540
630
Index of samples

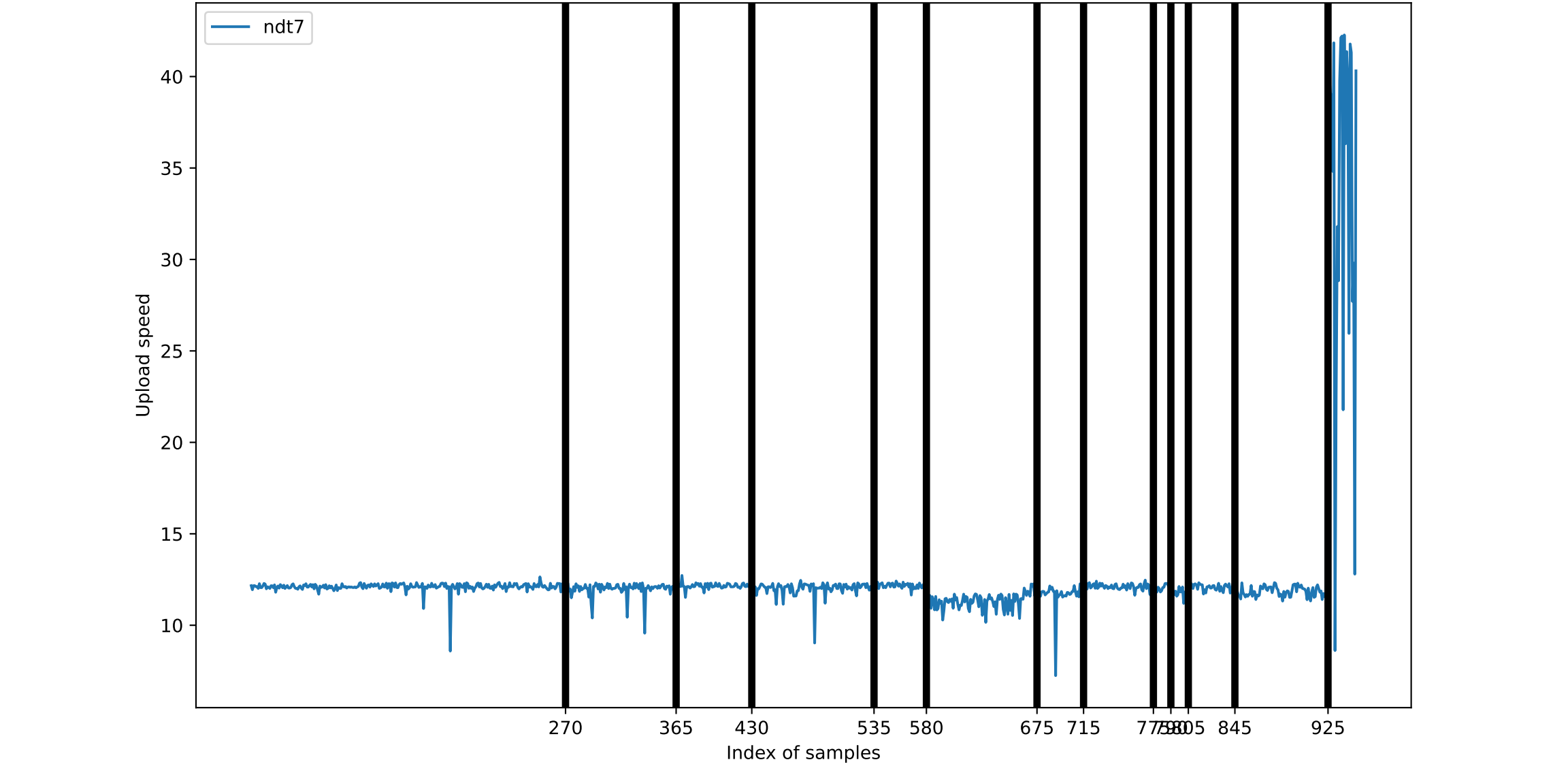

Pre heuristic: [[50, 375, 395, 425, 550, 560, 605, 615, 655]]
Post heuristic: [[50, 375, 395, 425, 550, 560, 605, 615, 655]]
Download speed
110
100
90
80
50
375
395
425
550
560
605
615
655
Index of samples
ndt7

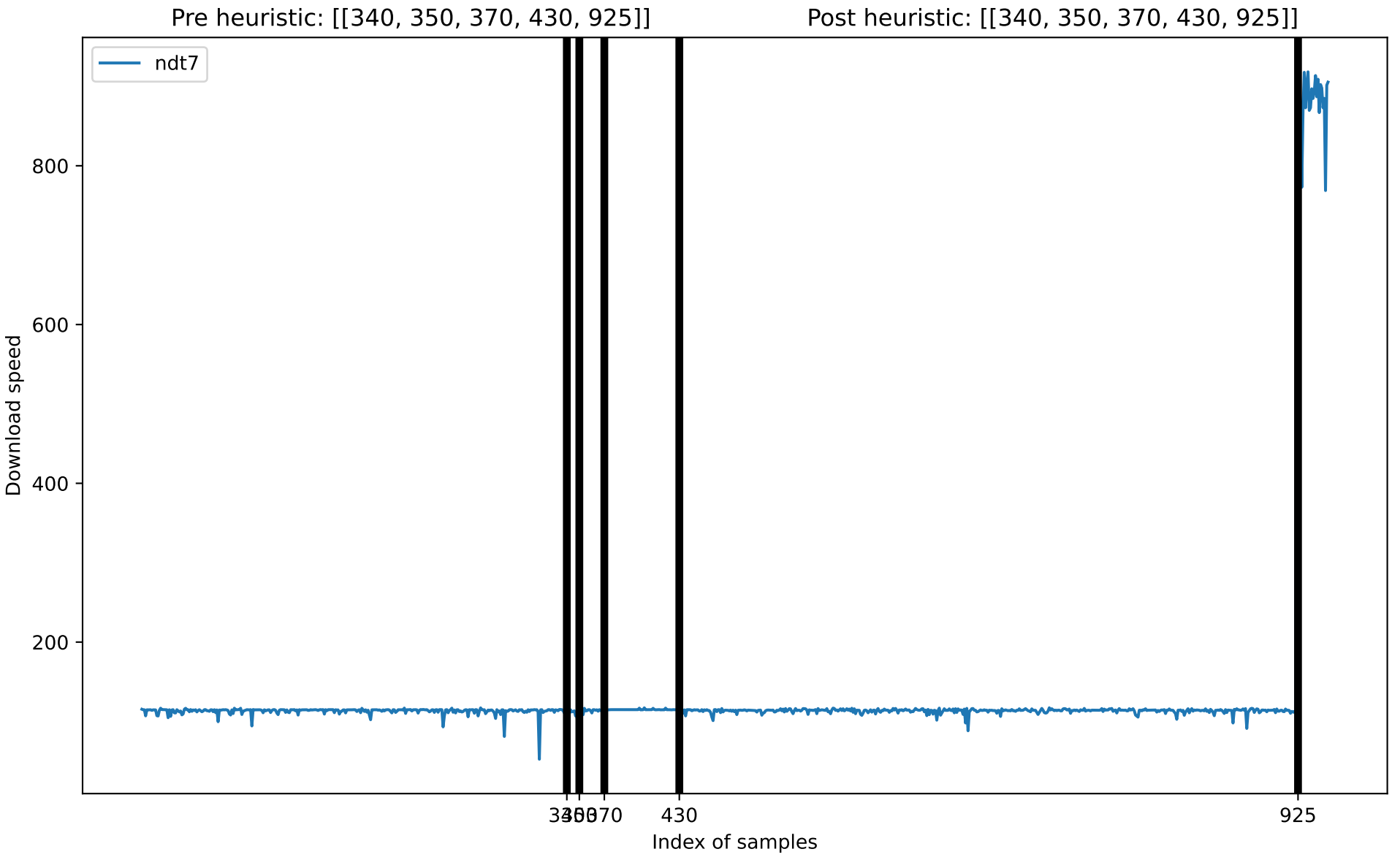

Pre heuristic: [[125, 145, 265, 445, 465, 545, 560, 620]]
Post heuristic: [[125, 145, 265, 445, 465, 545, 560, 620]]
ookla
Upload speed
12
10
8
6
4
2
125
145
265
445
465
545
560
620
Index of samples

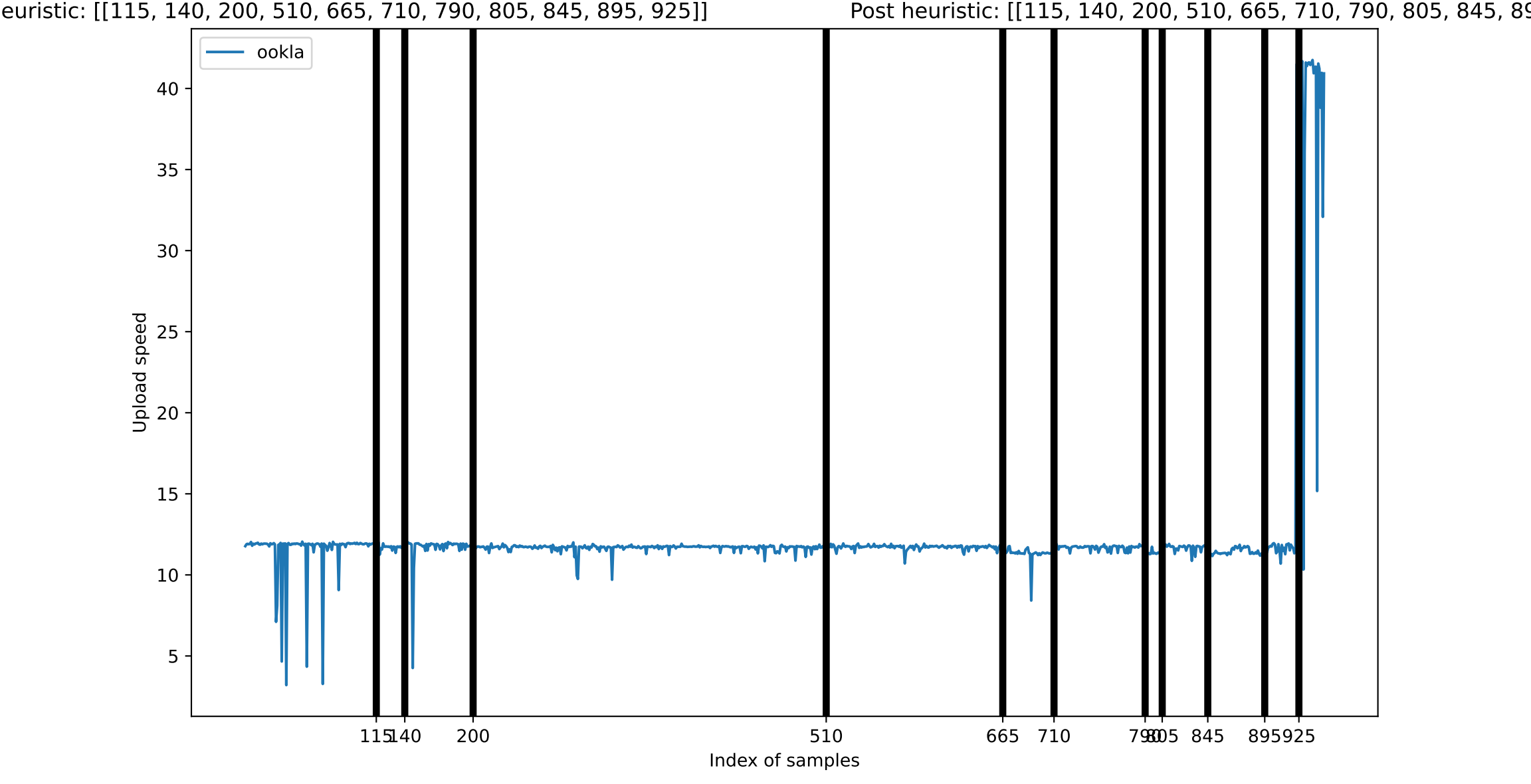
105, 115, 160, 175, 185, 440, 465, 495, 520, 550, 590, 610, 645]]

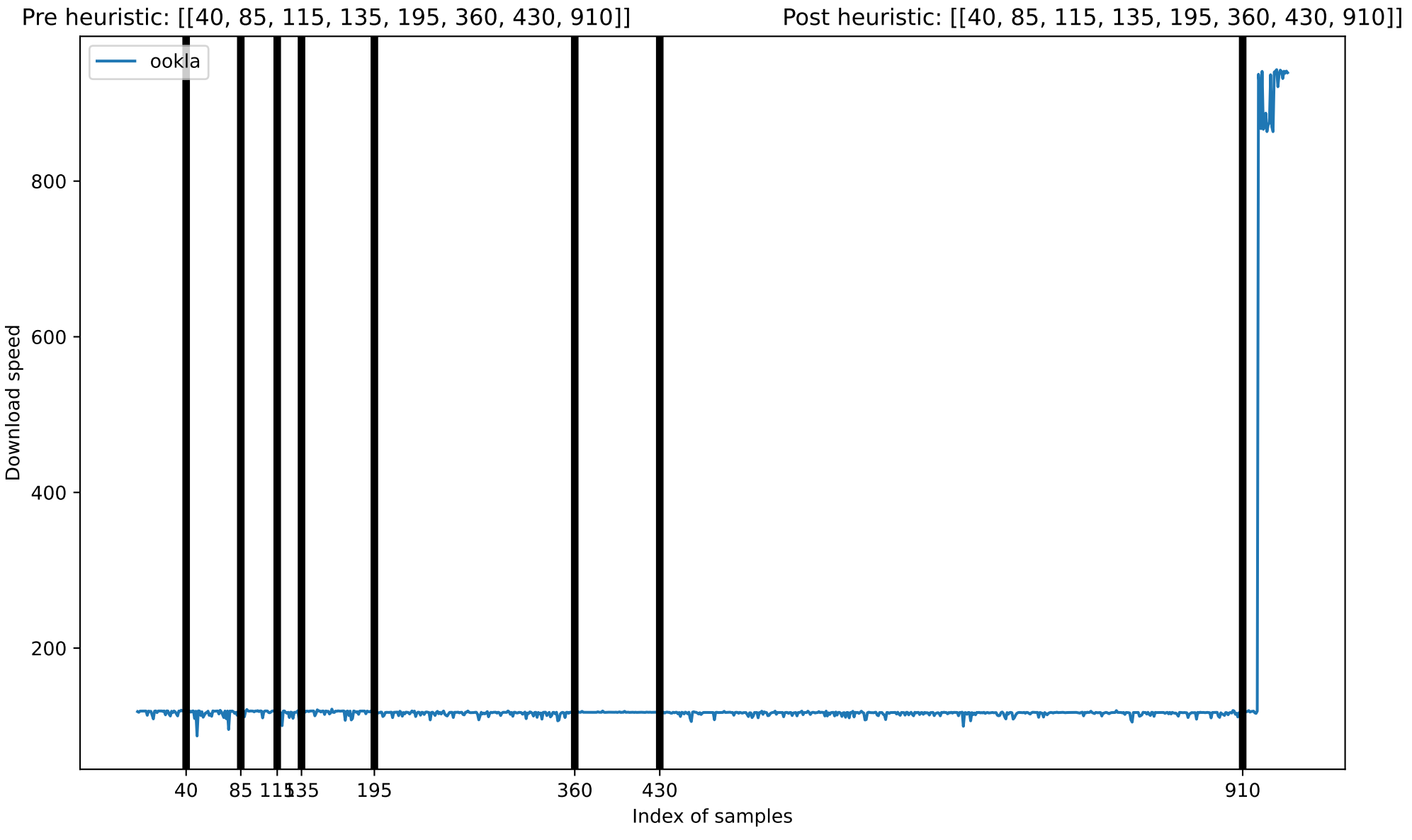
Post heuristic: [[105, 115, 160, 175, 185, 440, 465, 495, 520, 55

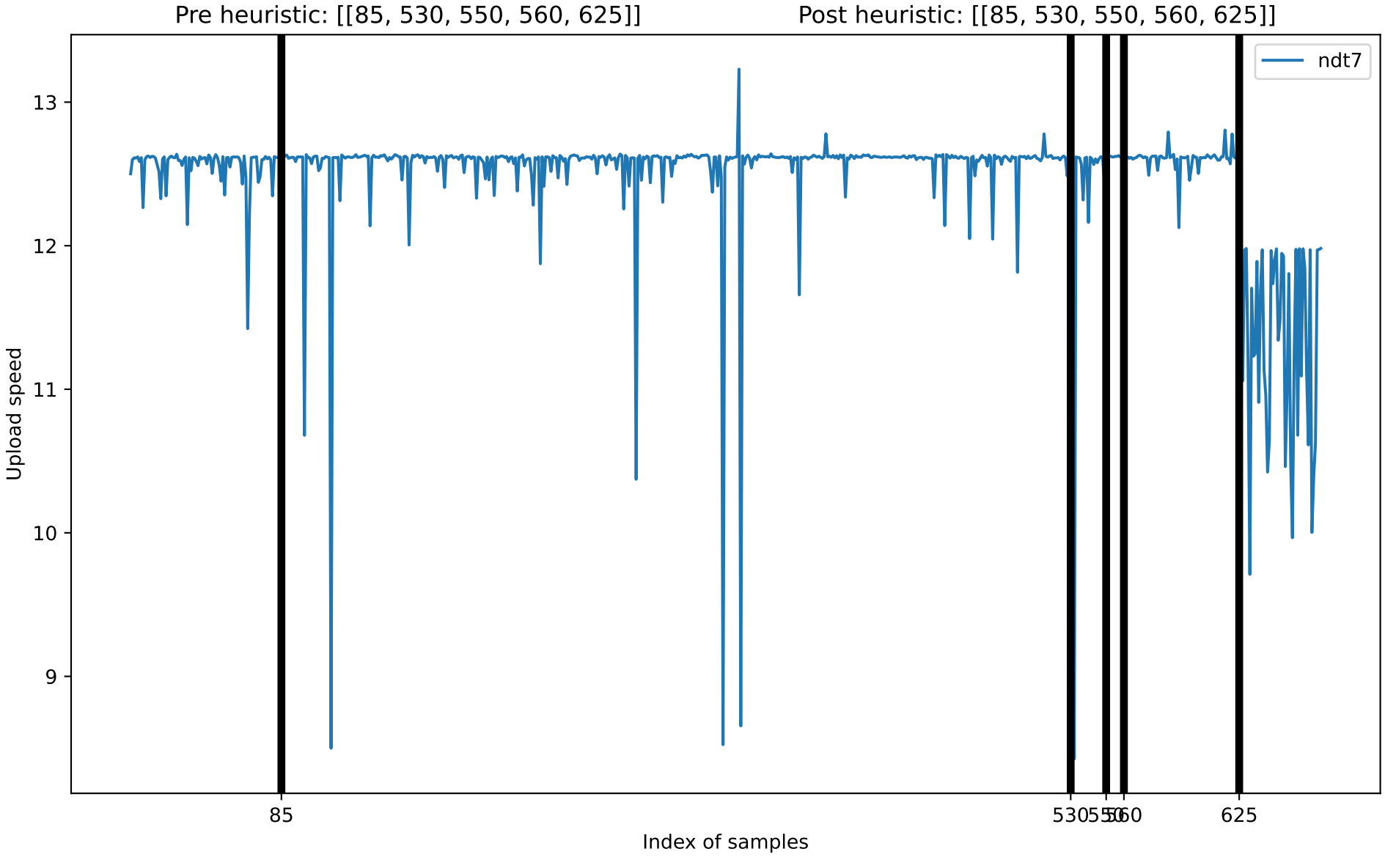


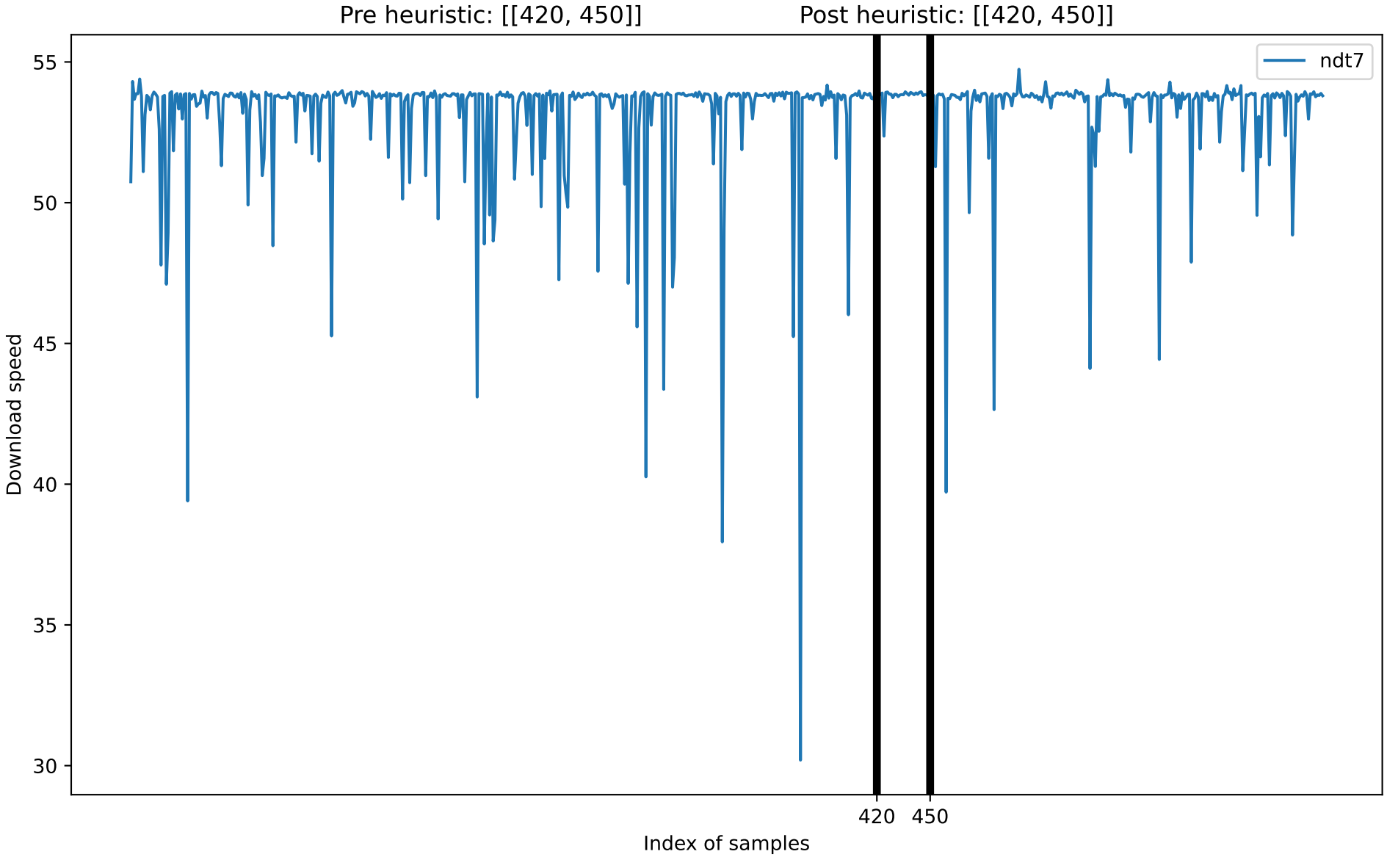

tic: [[270, 365, 430, 535, 580, 675, 715, 775, 790, 805, 845, 925]]
Post heuristic: [[270, 365, 430, 535, 580, 675, 715, 775, 790, 80
ndt7
Upload speed
40
35
30
25
20
15
10
270
365
430
535
580
675
715
845
925
Index of samples

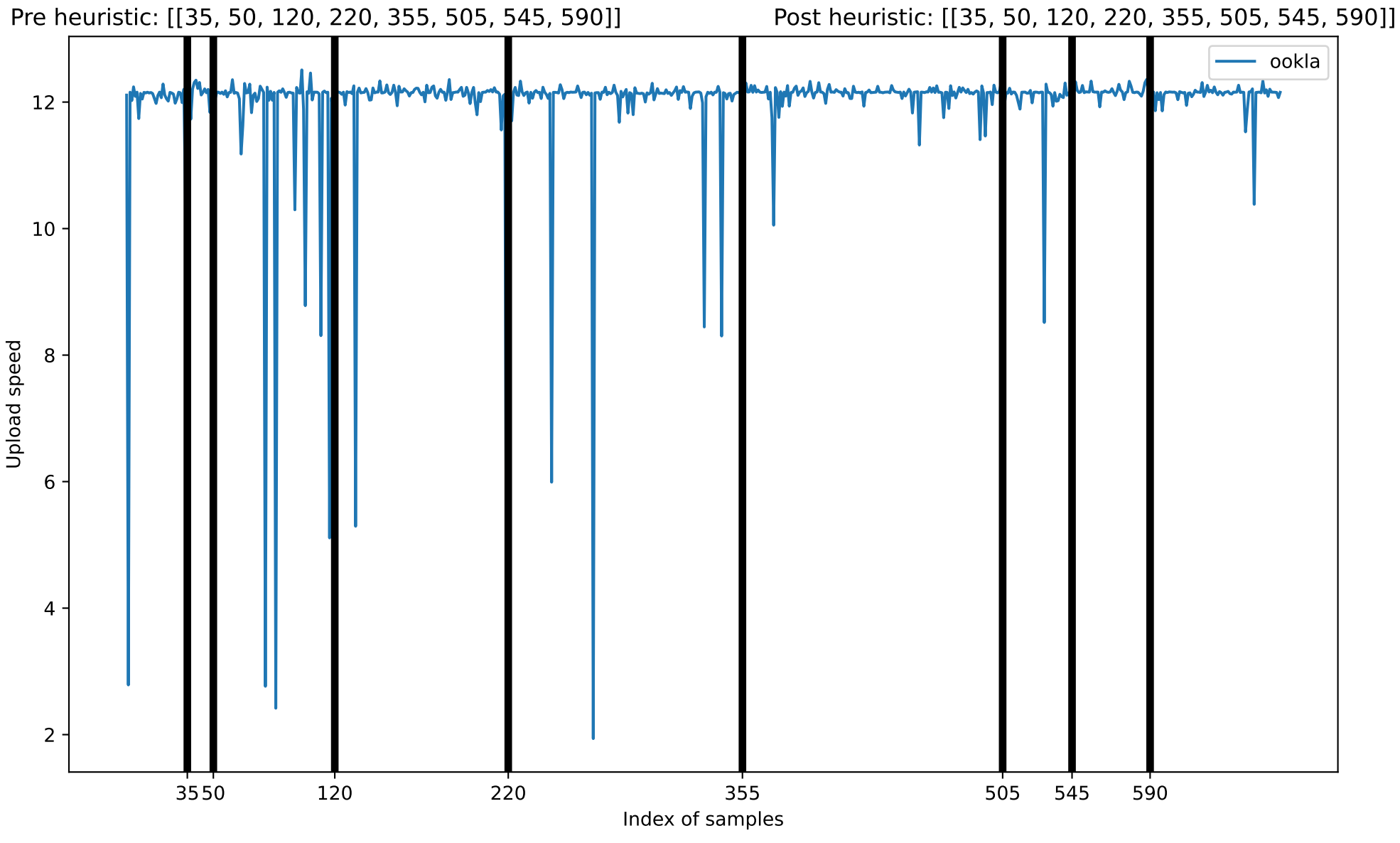

Pre heuristic: [[340, 350, 370, 430, 925]]
Post heuristic: [[340, 350, 370, 430, 925]]
ndt7
800
600
400
200
Download speed
370
430
925
Index of samples

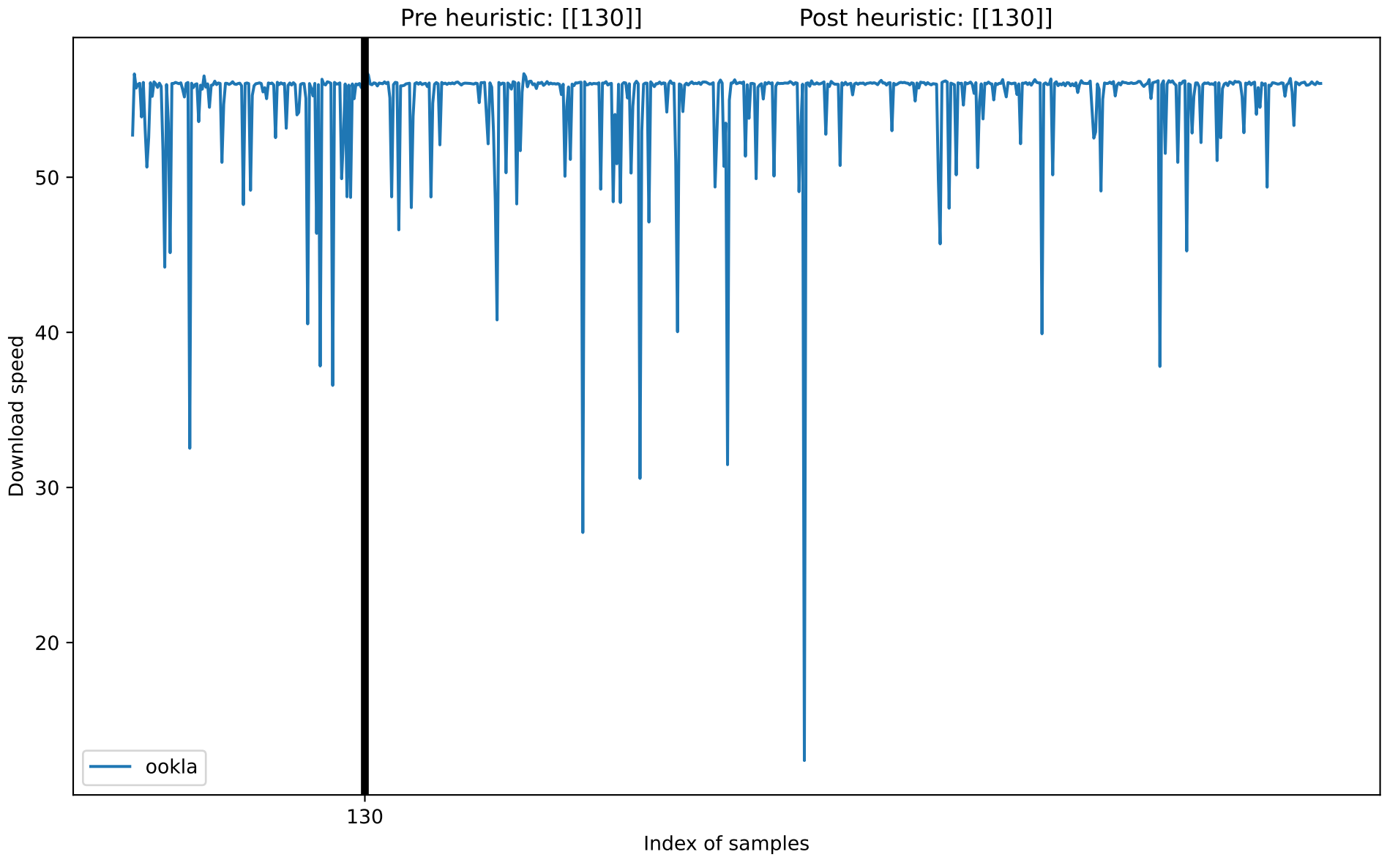

euristic: [[115, 140, 200, 510, 665, 710, 790, 805, 845, 895, 925]]
Post heuristic: [[115, 140, 200, 510, 665, 710, 790, 805, 845, 89
ookla
Upload speed
40
35
30
25
20
15
10
5
115
140
200
510
665
710
805
845
895
925
Index of samples

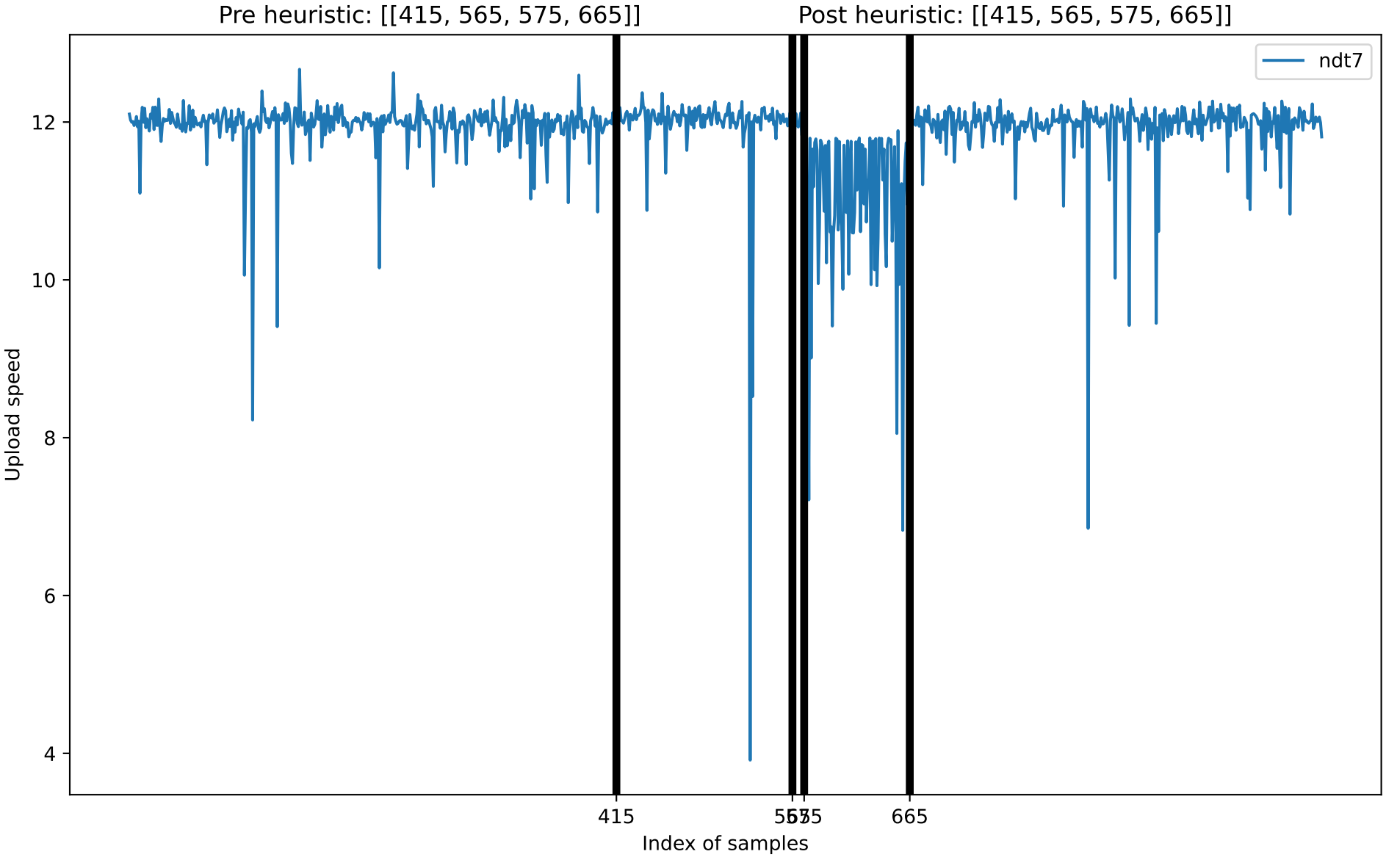

Pre heuristic: [[40, 85, 115, 135, 195, 360, 430, 910]]
Post heuristic: [[40, 85, 115, 135, 195, 360, 430, 910]]
ookla
800
600
400
200
Download speed
40
85
115
135
195
360
430
910
Index of samples

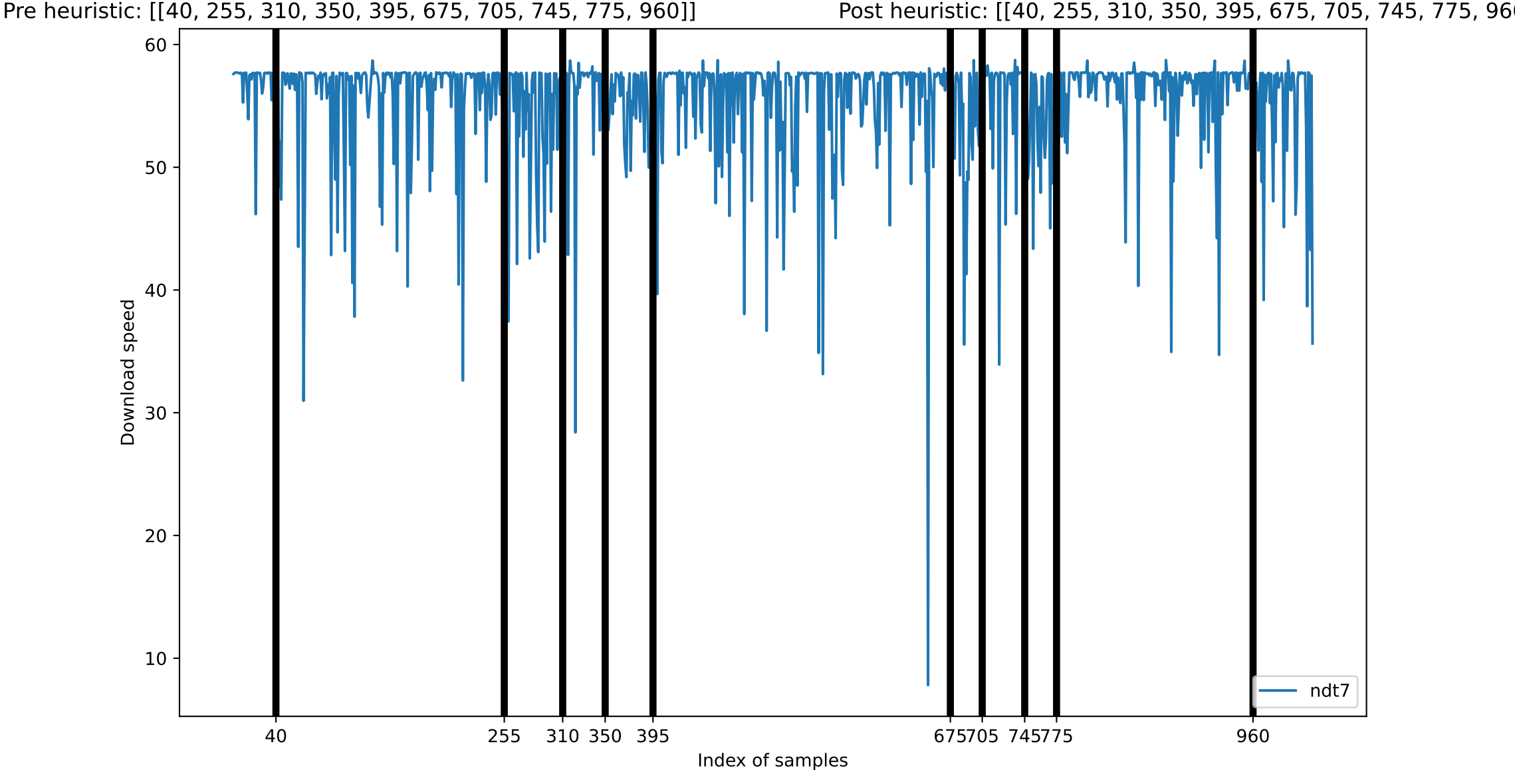

Pre heuristic: [[85, 530, 550, 560, 625]]
Post heuristic: [[85, 530, 550, 560, 625]]
ndt7
Upload speed
13
12
11
10
9
85
530
550
560
625
Index of samples


Pre heuristic: [[420, 450]]
Post heuristic: [[420, 450]]
ndt7
Download speed
55
50
45
40
35
30
420
450
Index of samples


Pre heuristic: [[35, 50, 120, 220, 355, 505, 545, 590]]
Post heuristic: [[35, 50, 120, 220, 355, 505, 545, 590]]
ookla
Upload speed
12
10
8
6
4
2
35
50
120
220
355
505
545
590
Index of samples


Pre heuristic: [[130]]
Post heuristic: [[130]]
Download speed
50
40
30
20
ookla
130
Index of samples


Pre heuristic: [[415, 565, 575, 665]]
Post heuristic: [[415, 565, 575, 665]]
ndt7
Upload speed
12
10
8
6
4
415
665
Index of samples


Pre heuristic: [[40, 255, 310, 350, 395, 675, 705, 745, 775, 960]]
Post heuristic: [[40, 255, 310, 350, 395, 675, 705, 745, 775, 960
Download speed
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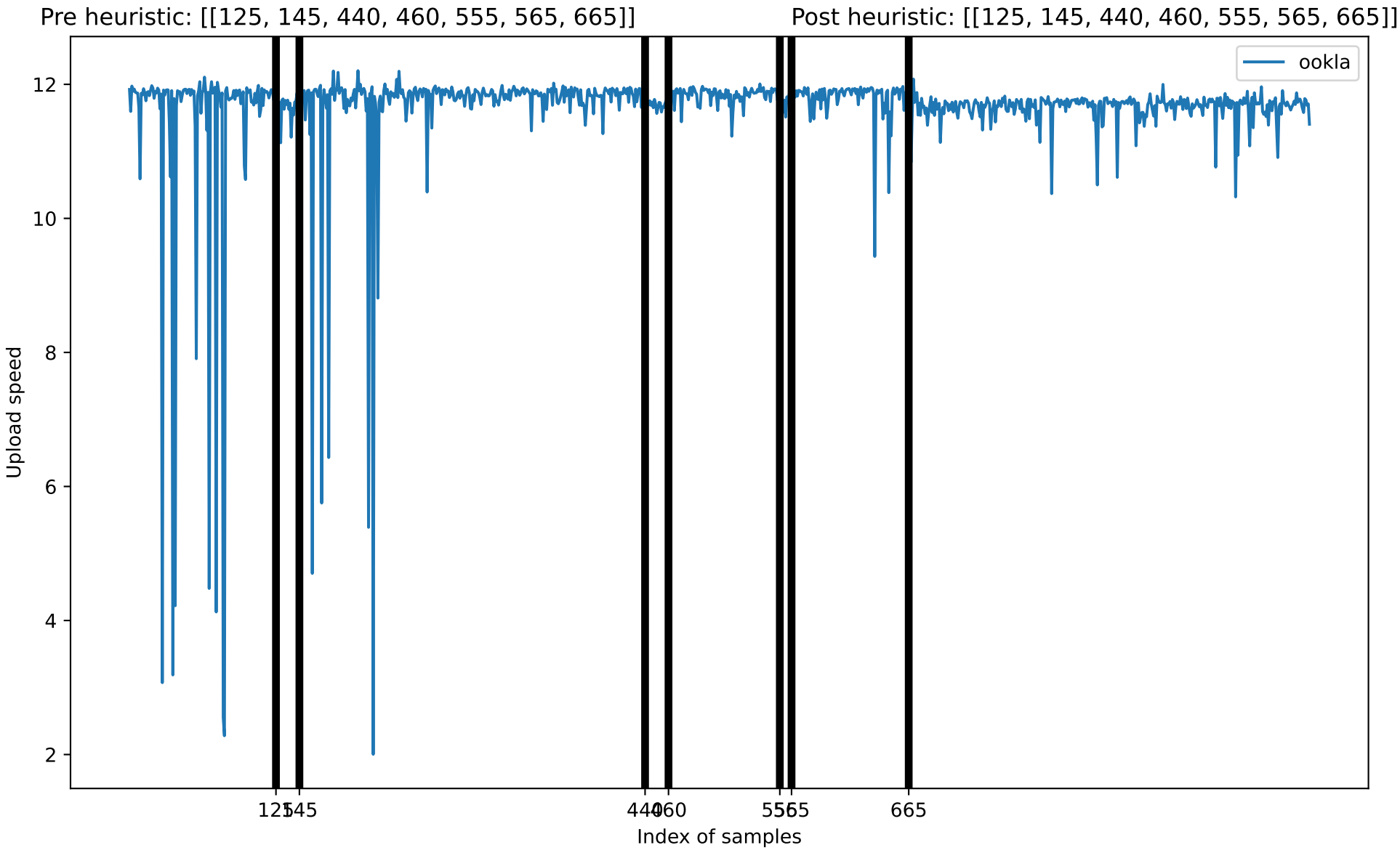
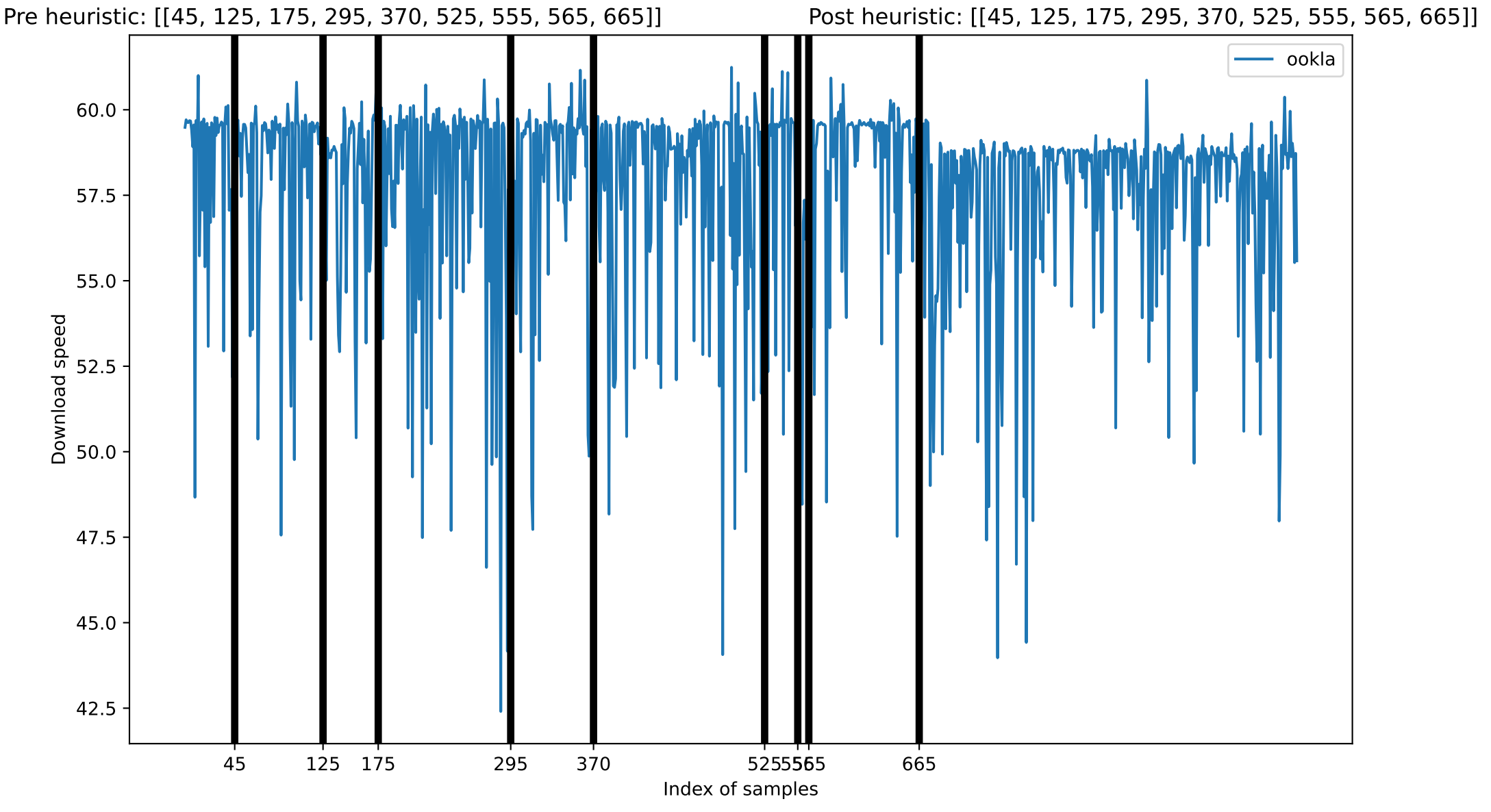
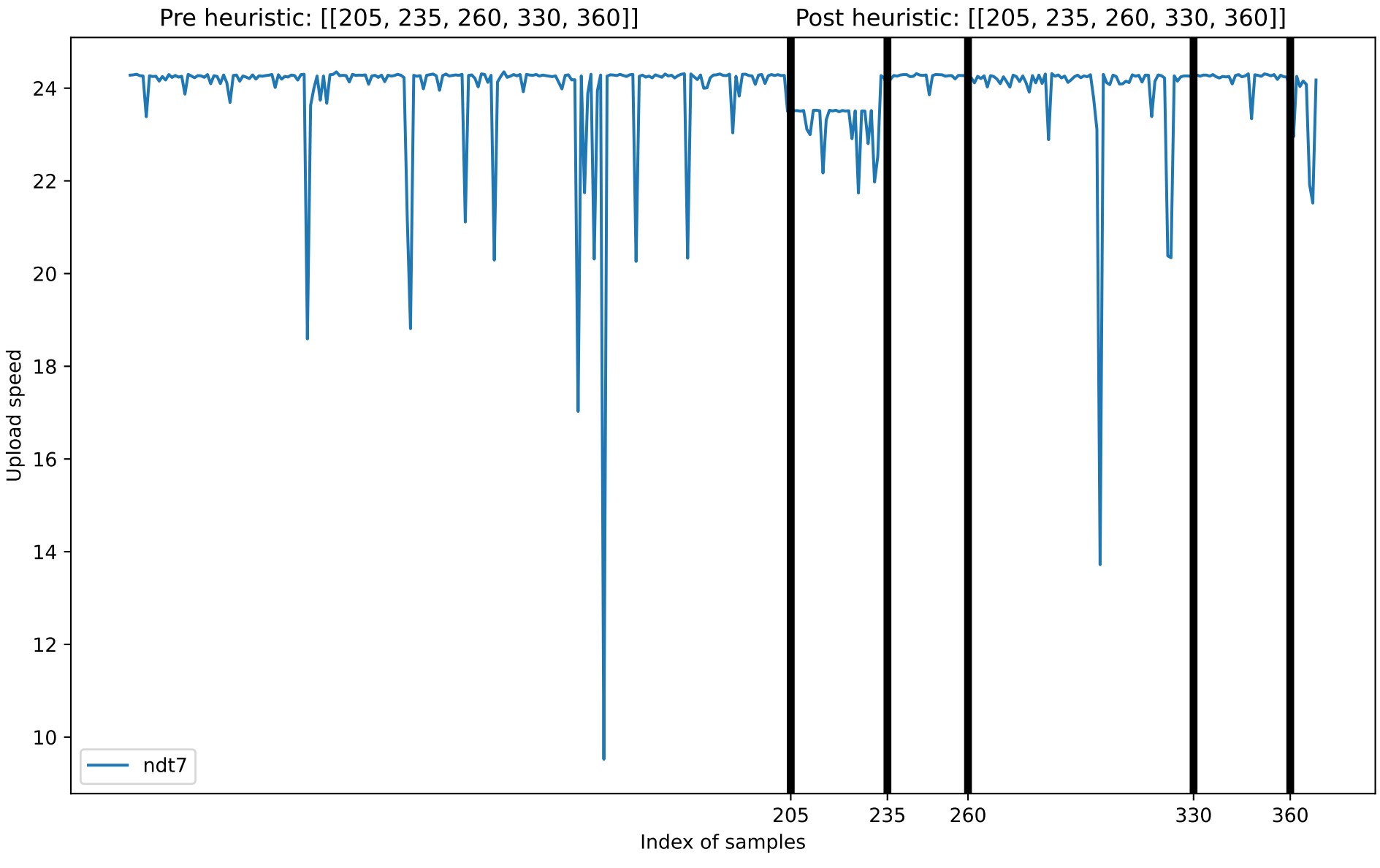
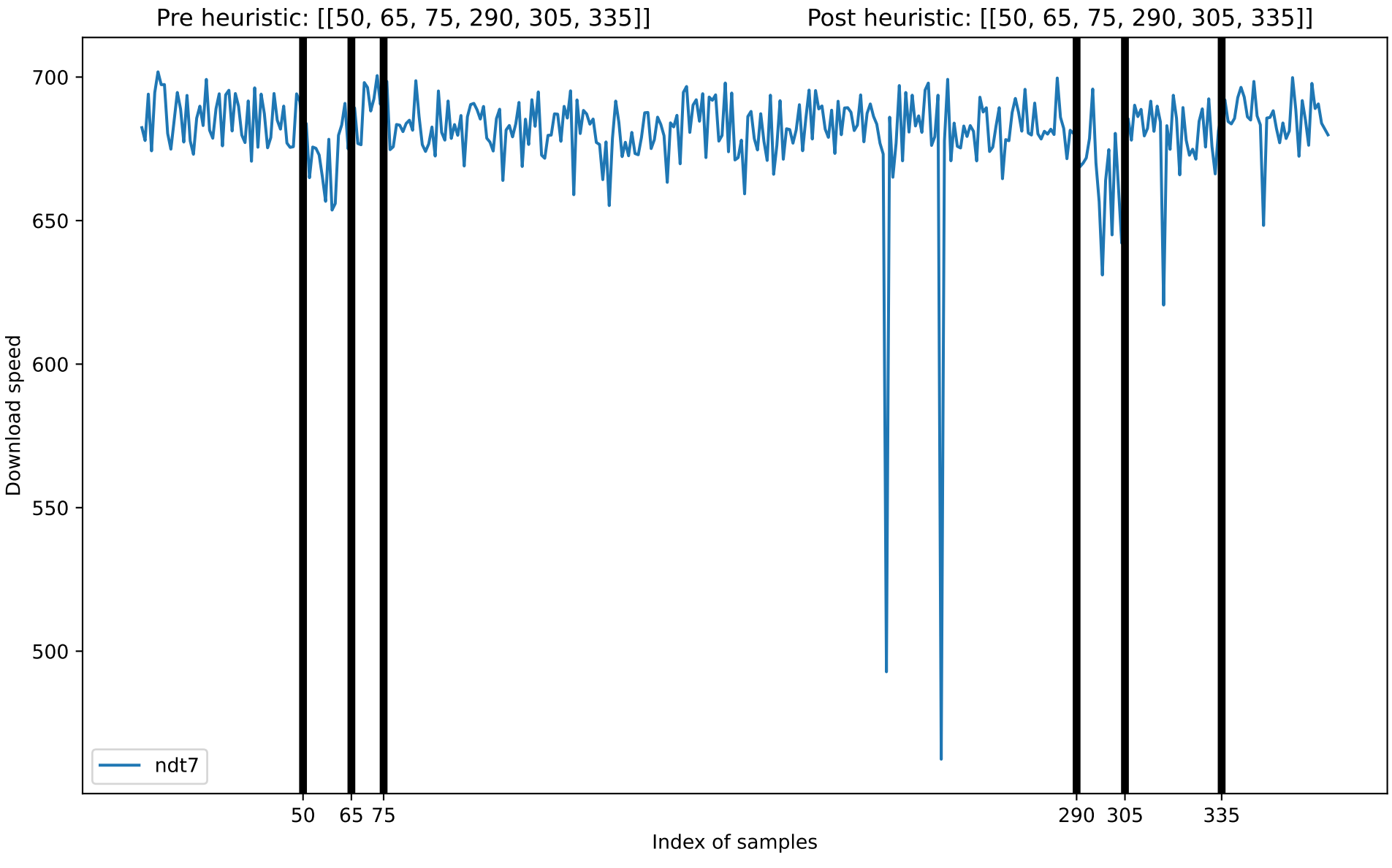
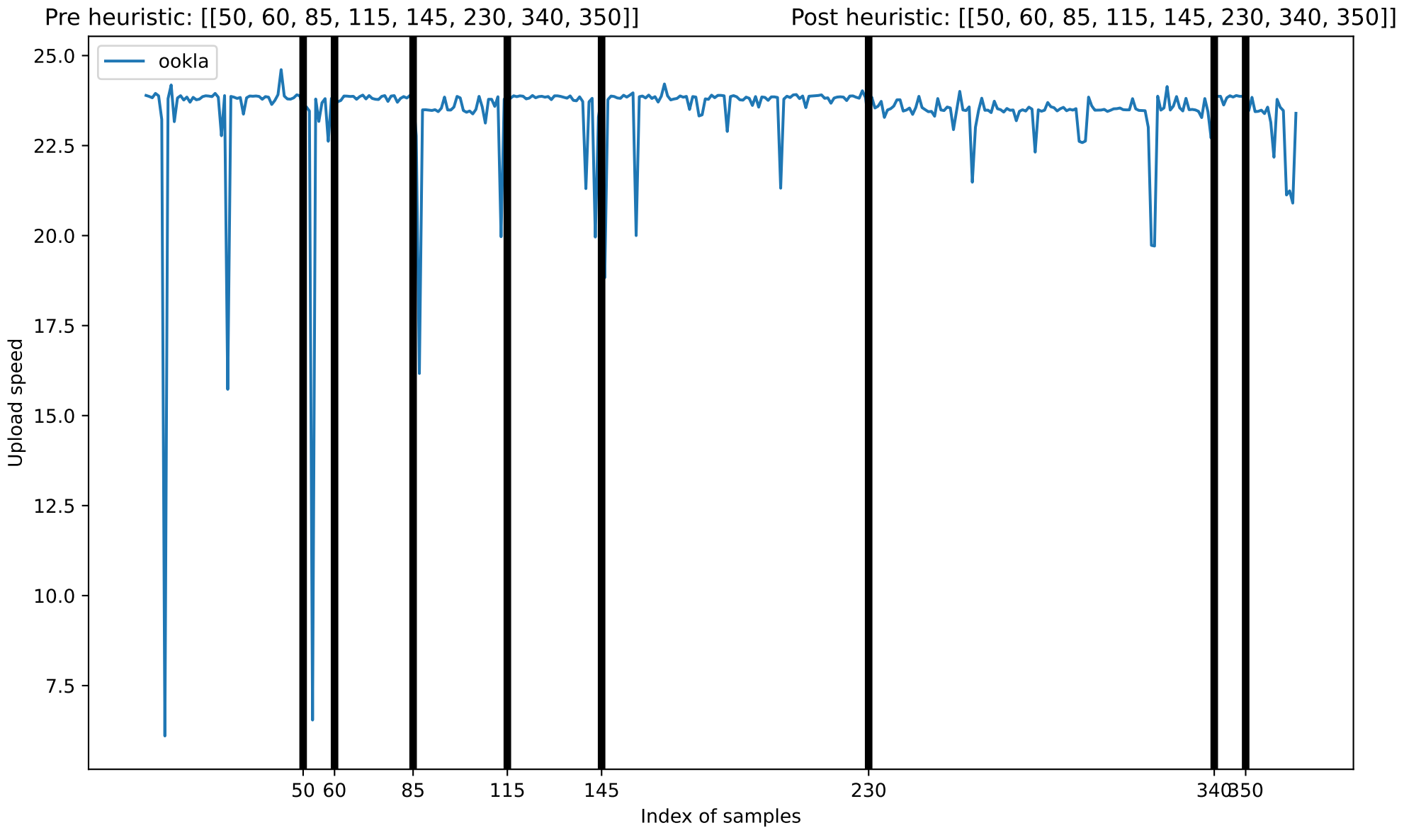
50
40
30
20
10
40
255
310
350
395
675
705
745
775
960
Index of samples
ndt7

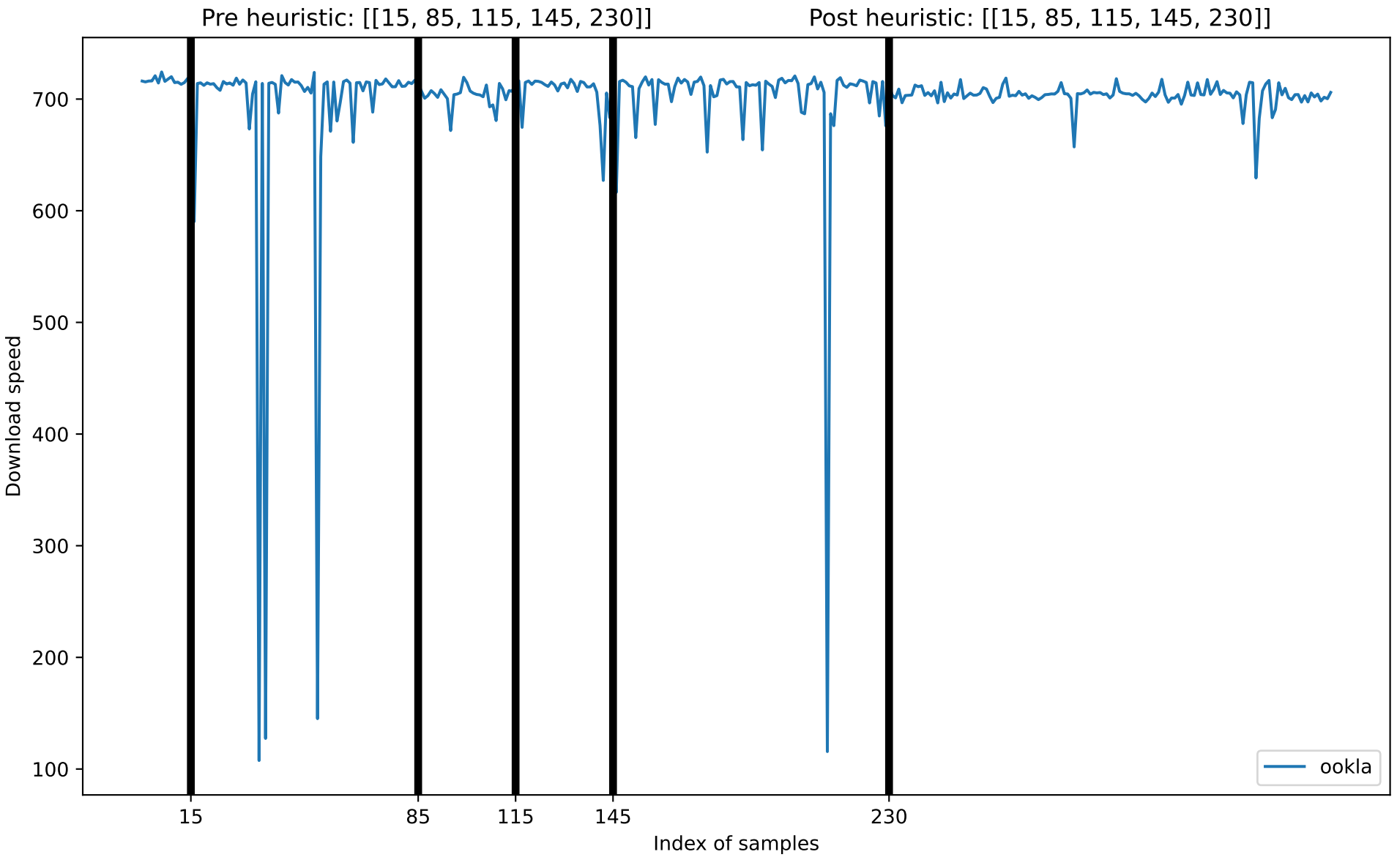

Pre heuristic: [[125, 145, 440, 460, 555, 565, 665]]
Post heuristic: [[125, 145, 440, 460, 555, 565, 665]]
ookla
Upload speed
12
10
8
6
4
2
125
145
440
460
555
565
665
Index of samples

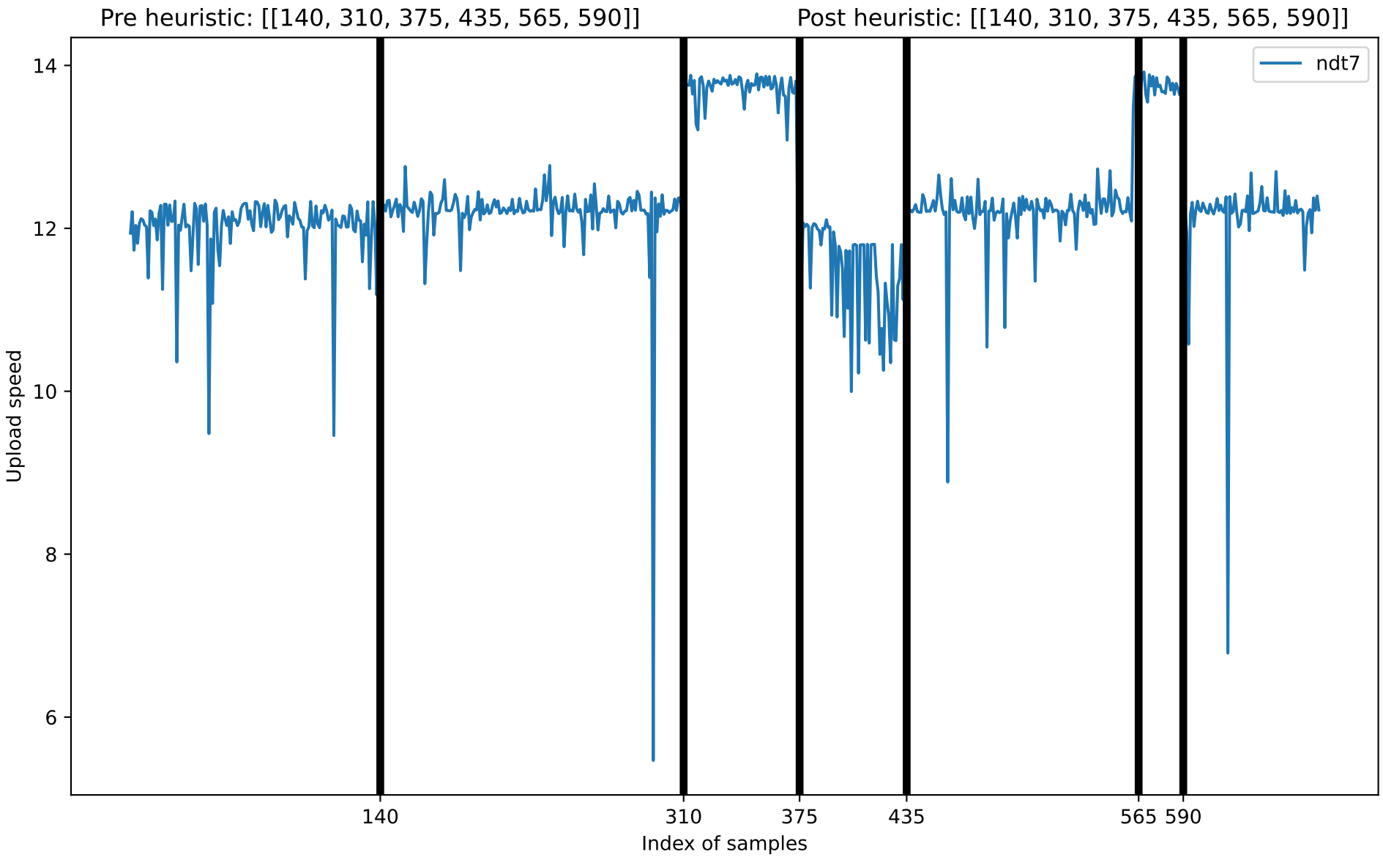

Pre heuristic: [[45, 125, 175, 295, 370, 525, 555, 565, 665]]
Post heuristic: [[45, 125, 175, 295, 370, 525, 555, 565, 665]]
ookla
60.0
57.5
55.0
52.5
50.0
47.5
45.0
42.5
Download speed
45
125
175
295
370
525
555
565
665
Index of samples

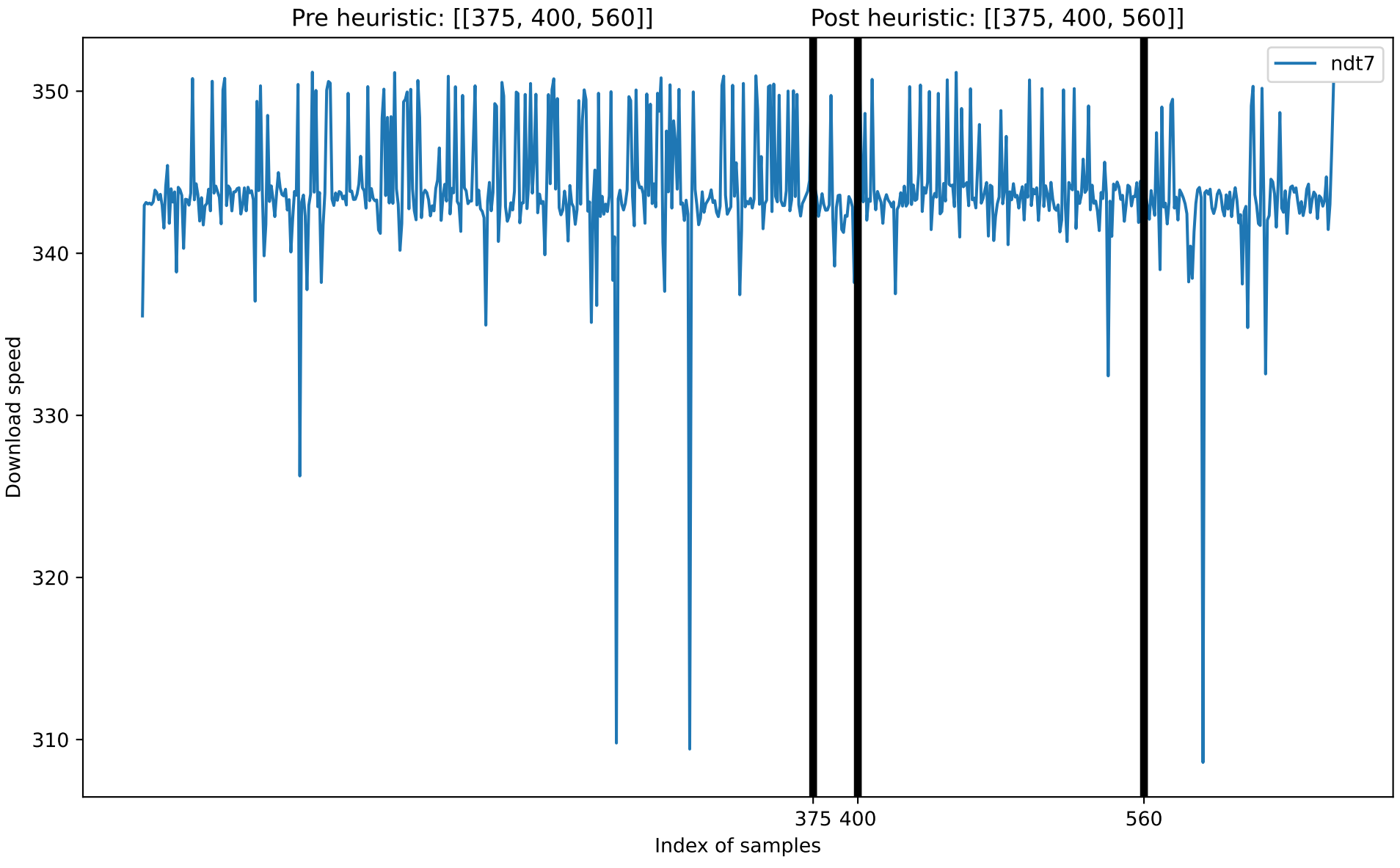

Pre heuristic: [[205, 235, 260, 330, 360]]
Post heuristic: [[205, 235, 260, 330, 360]]
Upload speed
24
22
20
18
16
14
12
10
ndt7
205
235
260
330
360
Index of samples

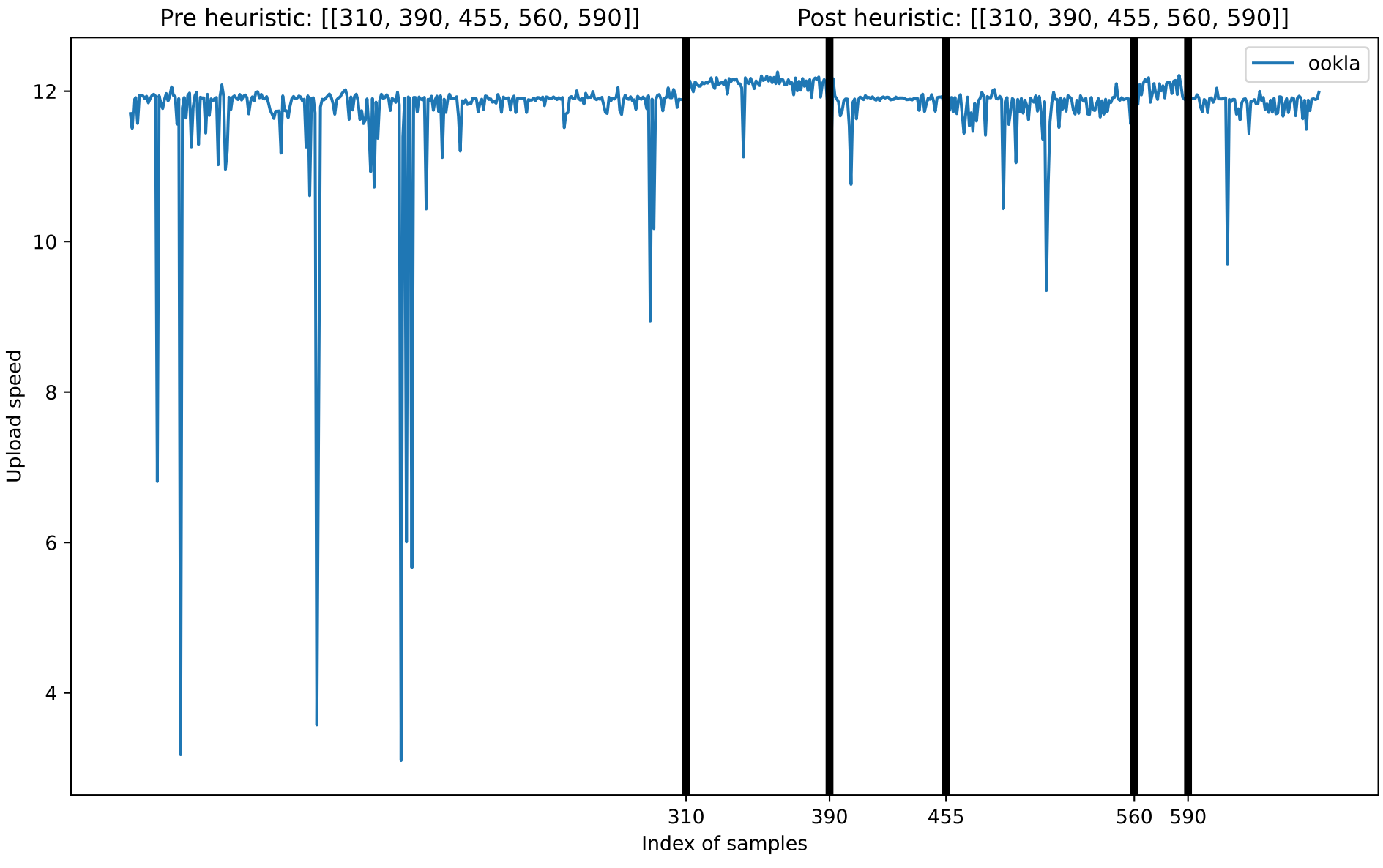

Pre heuristic: [[50, 65, 75, 290, 305, 335]]
Post heuristic: [[50, 65, 75, 290, 305, 335]]
Download speed
700
650
600
550
500
ndt7
50
65
75
290
305
335
Index of samples

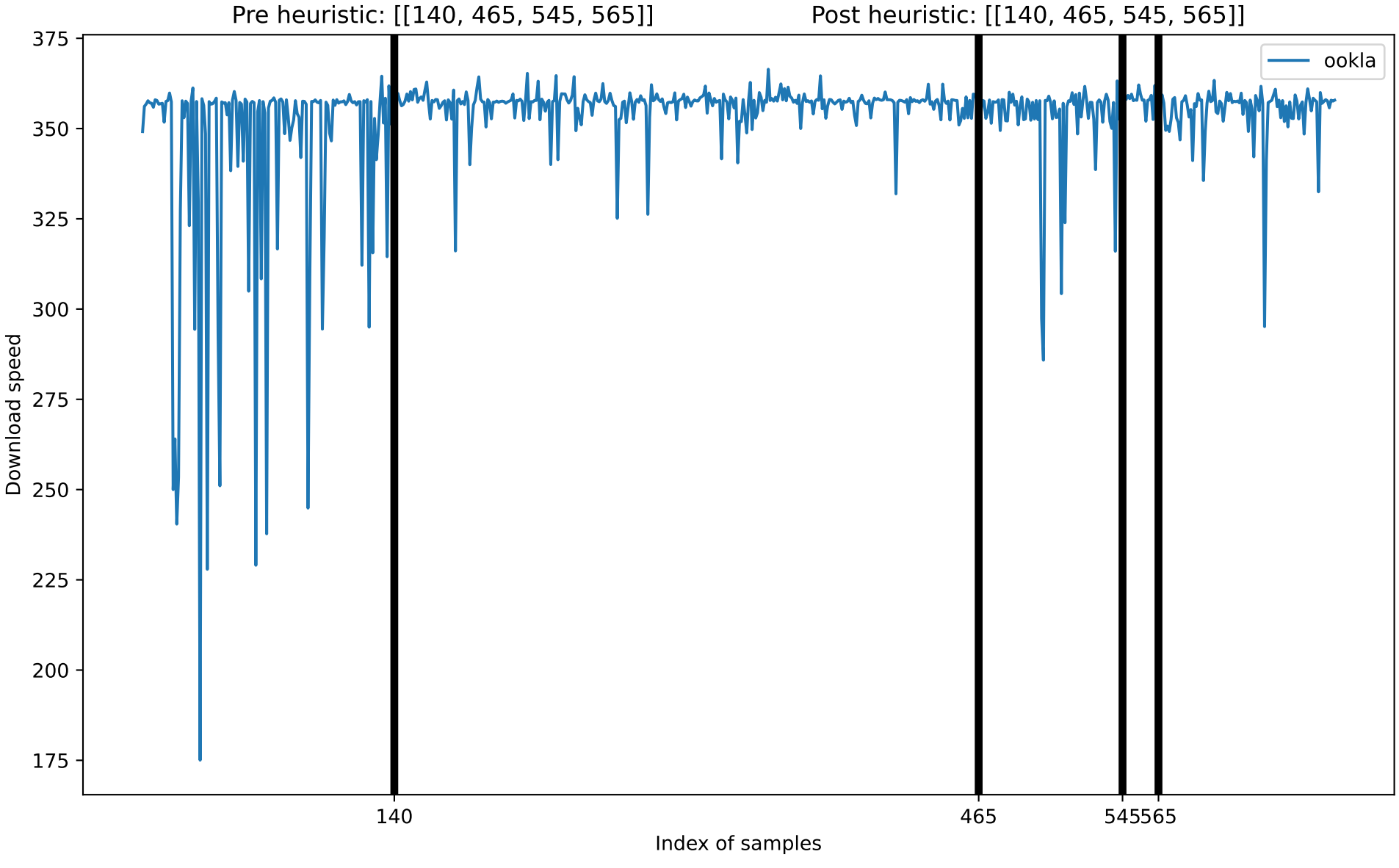

Pre heuristic: [[50, 60, 85, 115, 145, 230, 340, 350]]
Post heuristic: [[50, 60, 85, 115, 145, 230, 340, 350]]
ookla
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
Upload speed
50
60
85
115
145
230
340
350
Index of samples

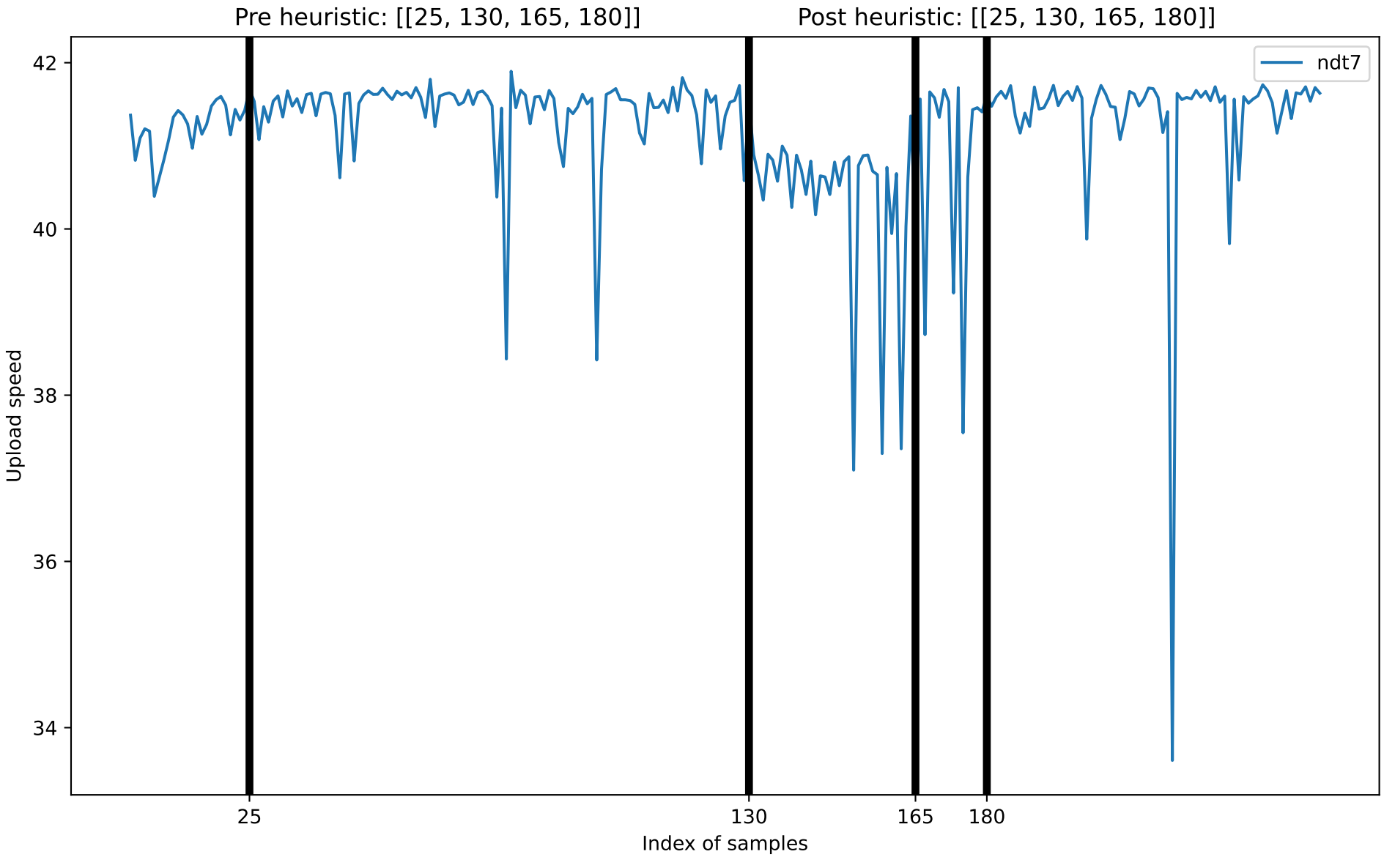

Pre heuristic: [[15, 85, 115, 145, 230]]
Post heuristic: [[15, 85, 115, 145, 230]]
Download speed
700
600
500
400
300
200
100
15
85
115
145
230
Index of samples
ookla

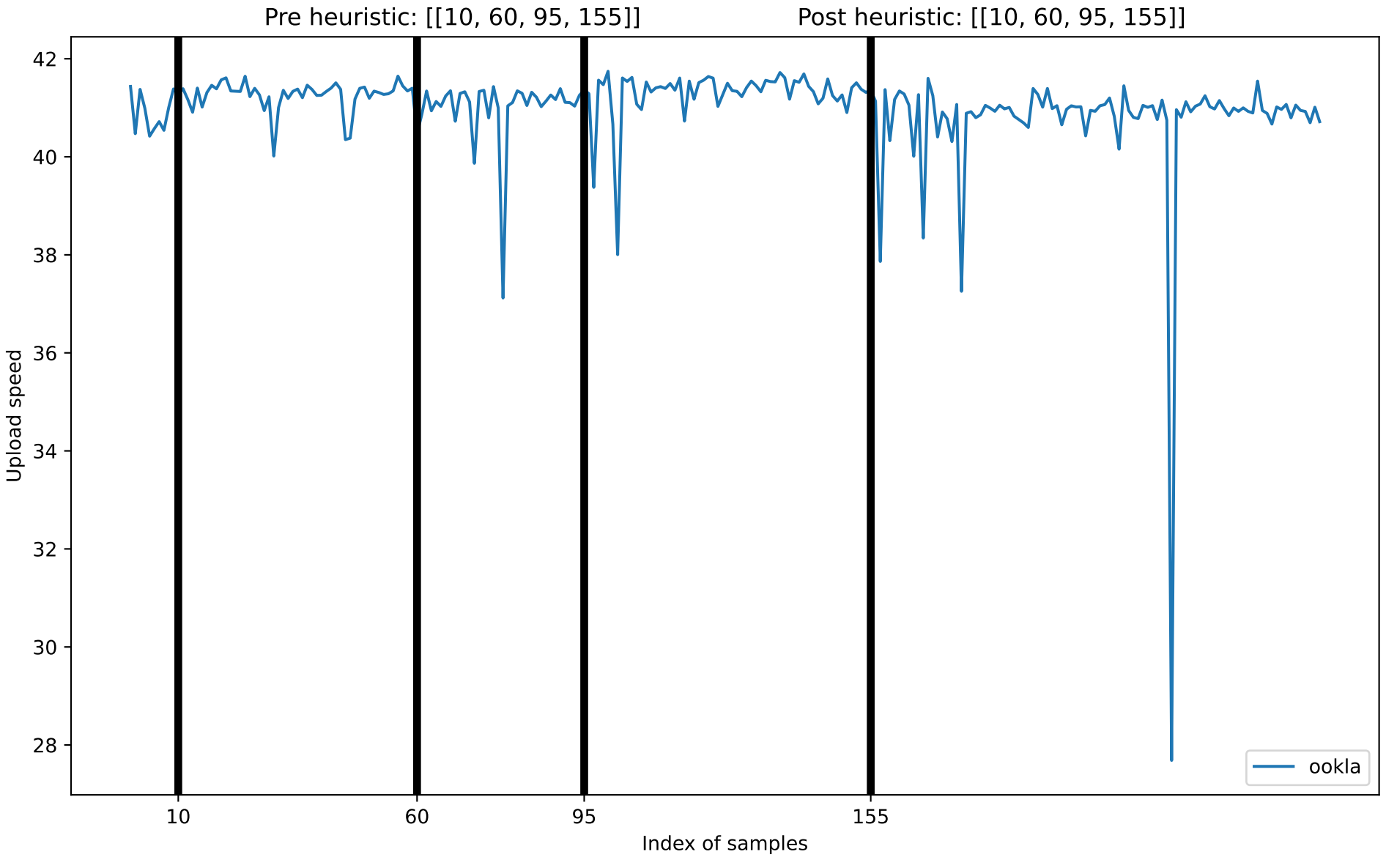

Pre heuristic: [[140, 310, 375, 435, 565, 590]]
Post heuristic: [[140, 310, 375, 435, 565, 590]]
ndt7
Upload speed
14
12
10
8
6
140
310
375
435
565
590
Index of samples


Pre heuristic: [[375, 400, 560]]
Post heuristic: [[375, 400, 560]]
ndt7
350
340
330
320
310
Download speed
375
400
560
Index of samples


Pre heuristic: [[310, 390, 455, 560, 590]]
Post heuristic: [[310, 390, 455, 560, 590]]
ookla
Upload speed
12
10
8
6
4
310
390
455
560
590
Index of samples


Pre heuristic: [[140, 465, 545, 565]]
Post heuristic: [[140, 465, 545, 565]]
ookla
Download speed
375
350
325
300
275
250
225
200
175
140
465
545565
Index of samples


Pre heuristic: [[25, 130, 165, 180]]
Post heuristic: [[25, 130, 165, 180]]
ndt7
Upload speed
42
40
38
36
34
25
130
165
180
Index of samples


Pre heuristic: [[10, 60, 95, 155]]
Post heuristic: [[10, 60, 95, 155]]
Upload speed
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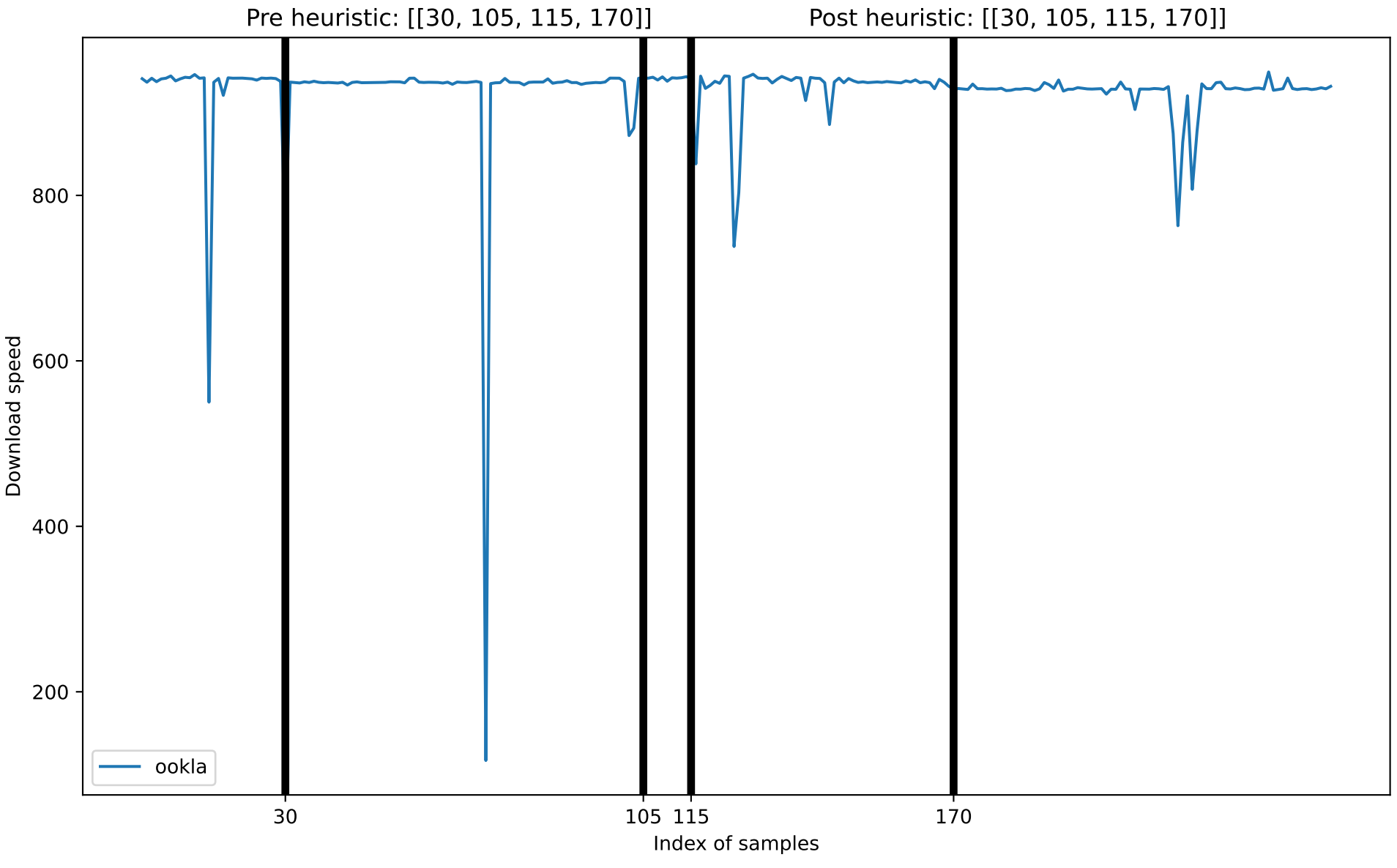
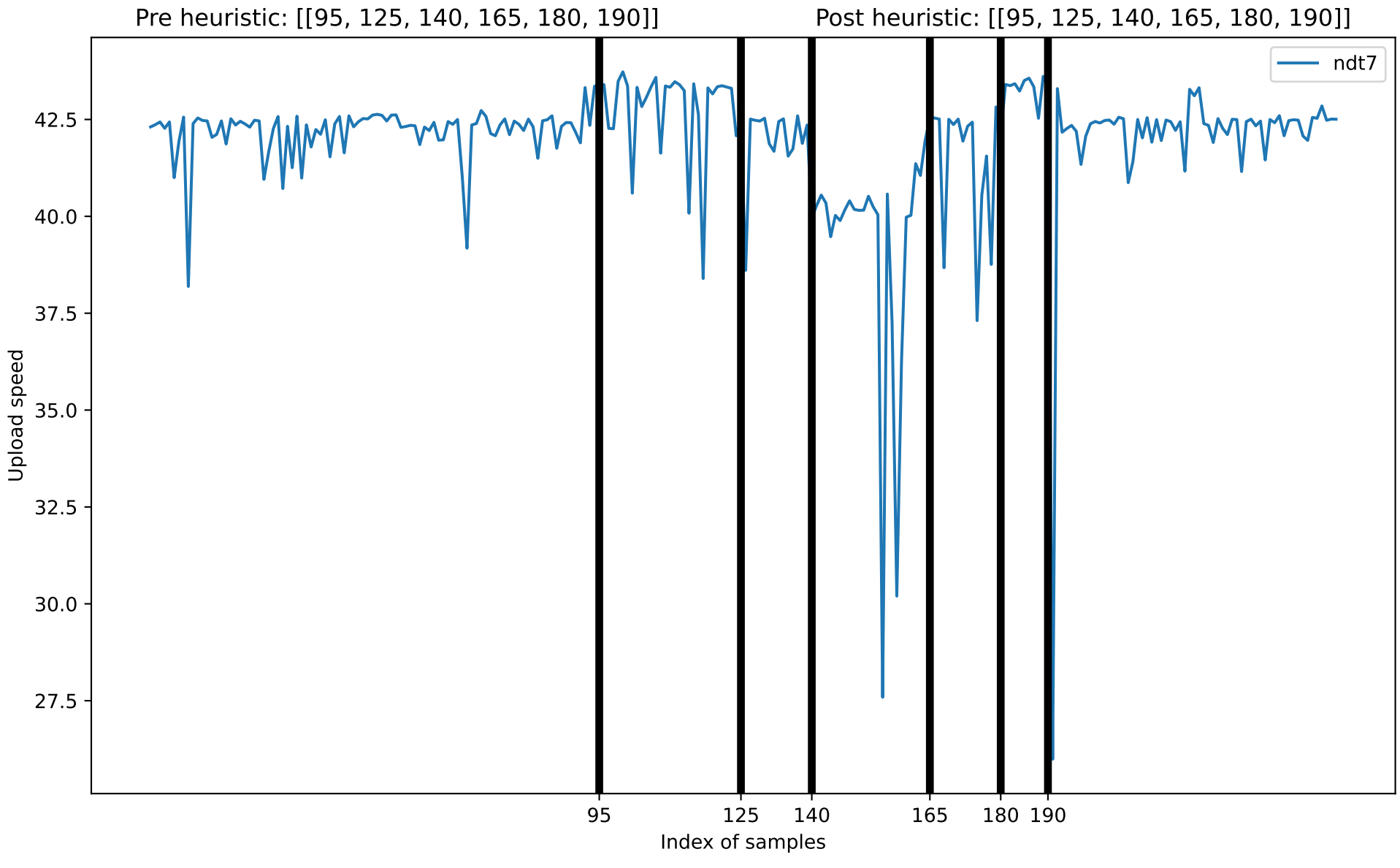
40
38
36
34
32
30
28
10
60
95
155
Index of samples
ookla


Pre heuristic: [[30, 105, 115, 170]]
Post heuristic: [[30, 105, 115, 170]]
Download speed
800
600
400
200
ookla
30
105
115
170
Index of samples


Pre heuristic: [[95, 125, 140, 165, 180, 190]]
Post heuristic: [[95, 125, 140, 165, 180, 190]]
ndt7
Upload speed
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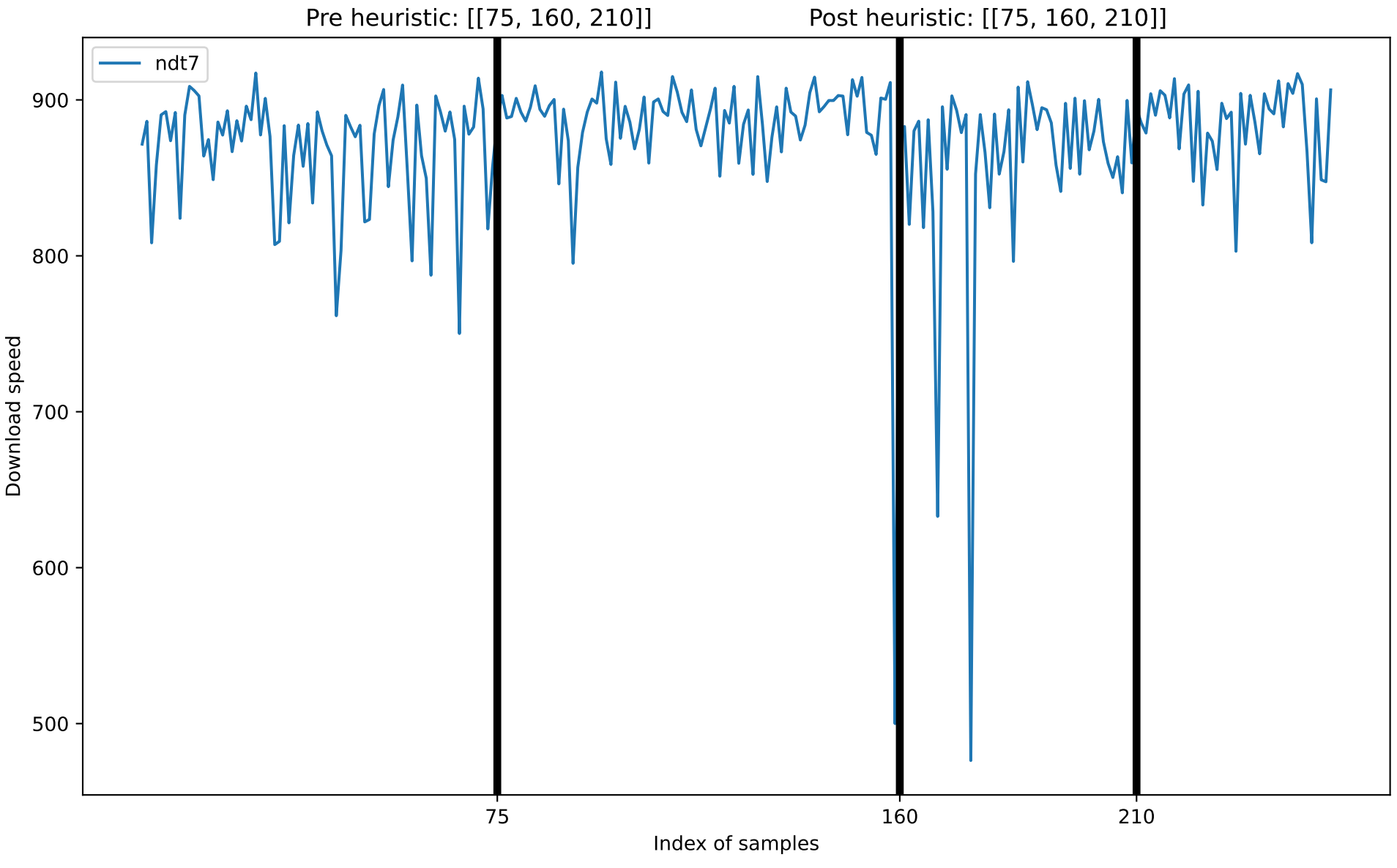
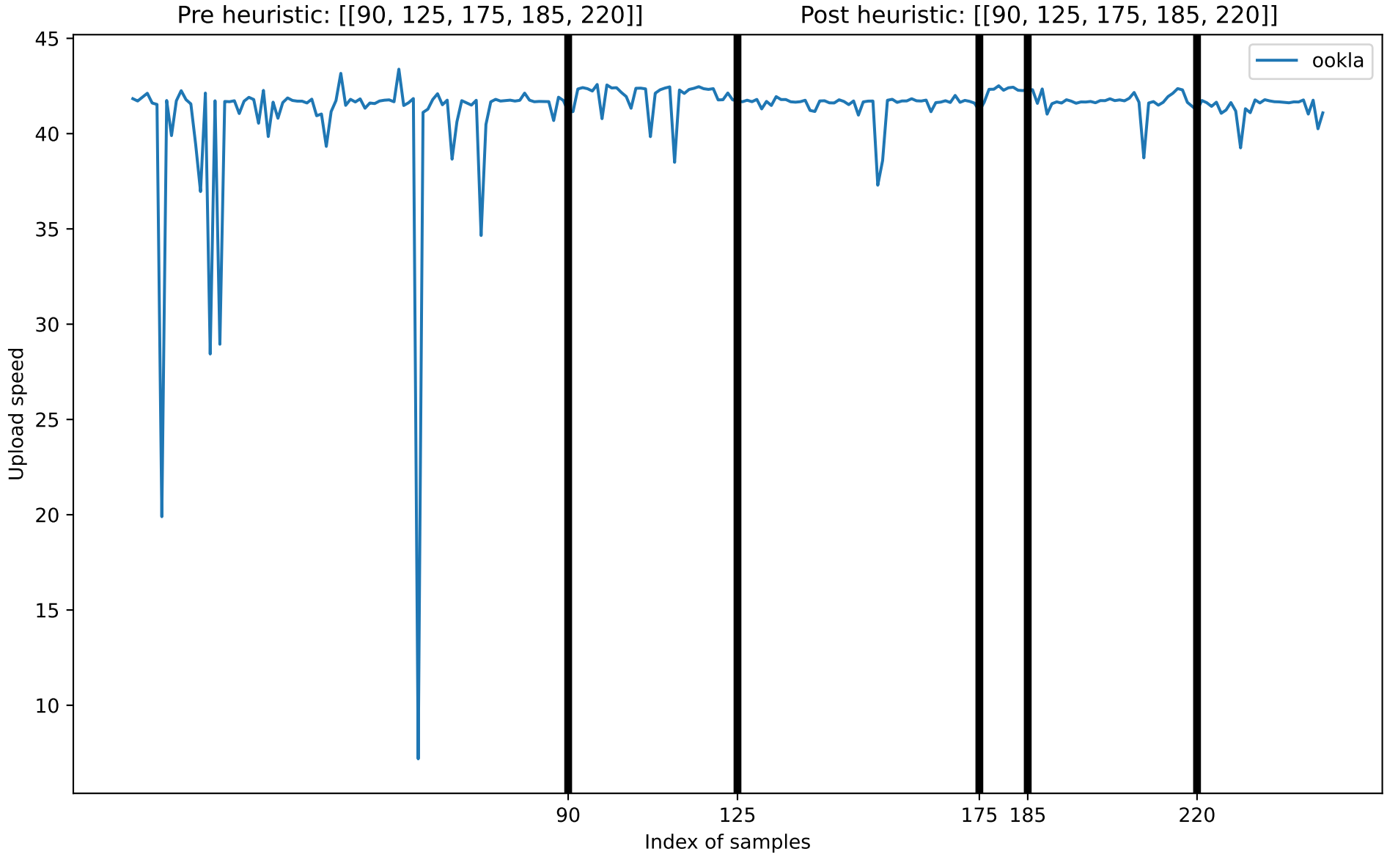
40.0
37.5
35.0
32.5
30.0
27.5
95
125
140
165
180
190
Index of samples


Pre heuristic: [[75, 160, 210]]
Post heuristic: [[75, 160, 210]]
ndt7
900
800
700
600
500
Download speed
75
160
210
Index of samples


Pre heuristic: [[90, 125, 175, 185, 220]]
Post heuristic: [[90, 125, 175, 185, 220]]
ookla
Upload speed
45
40
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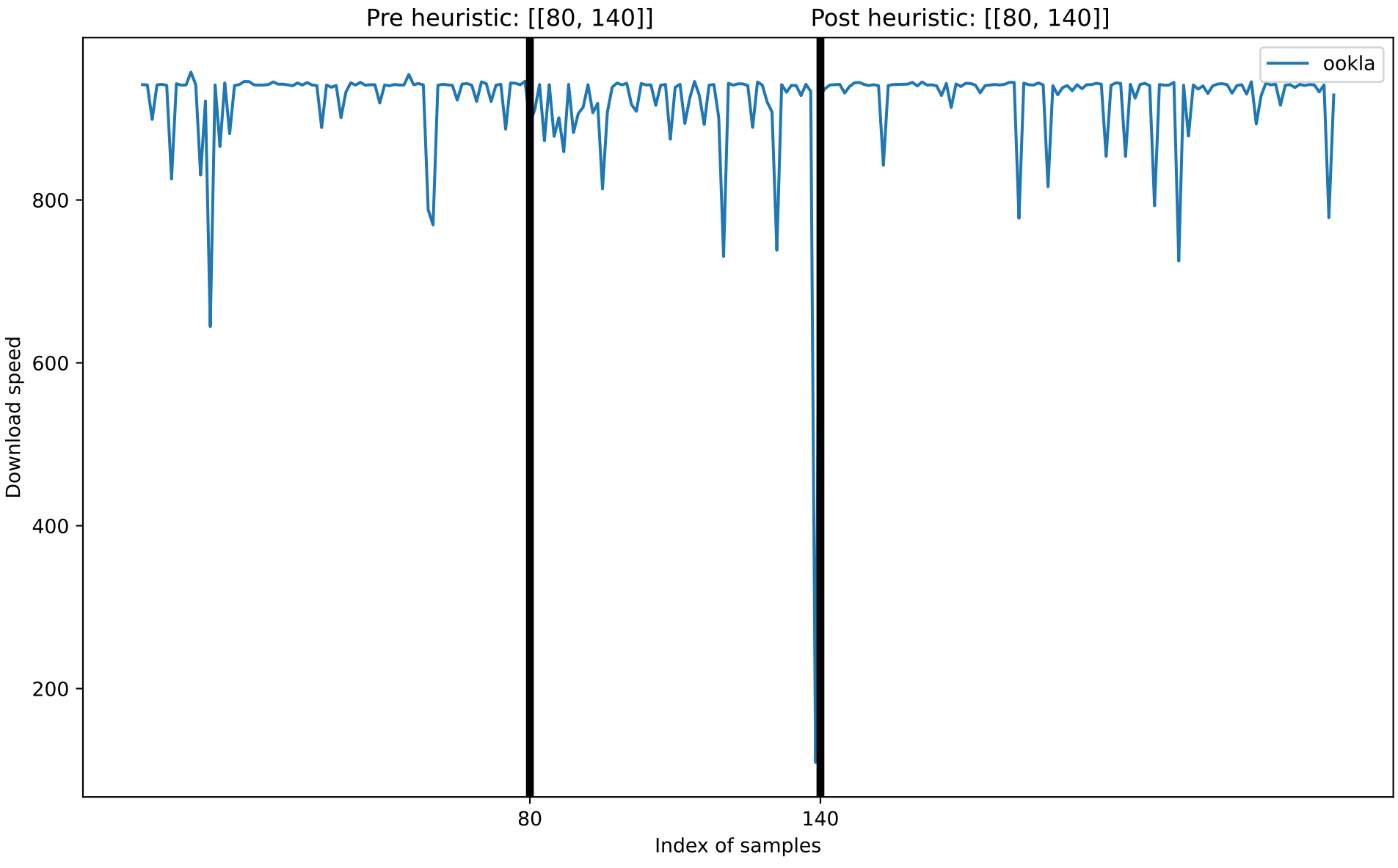
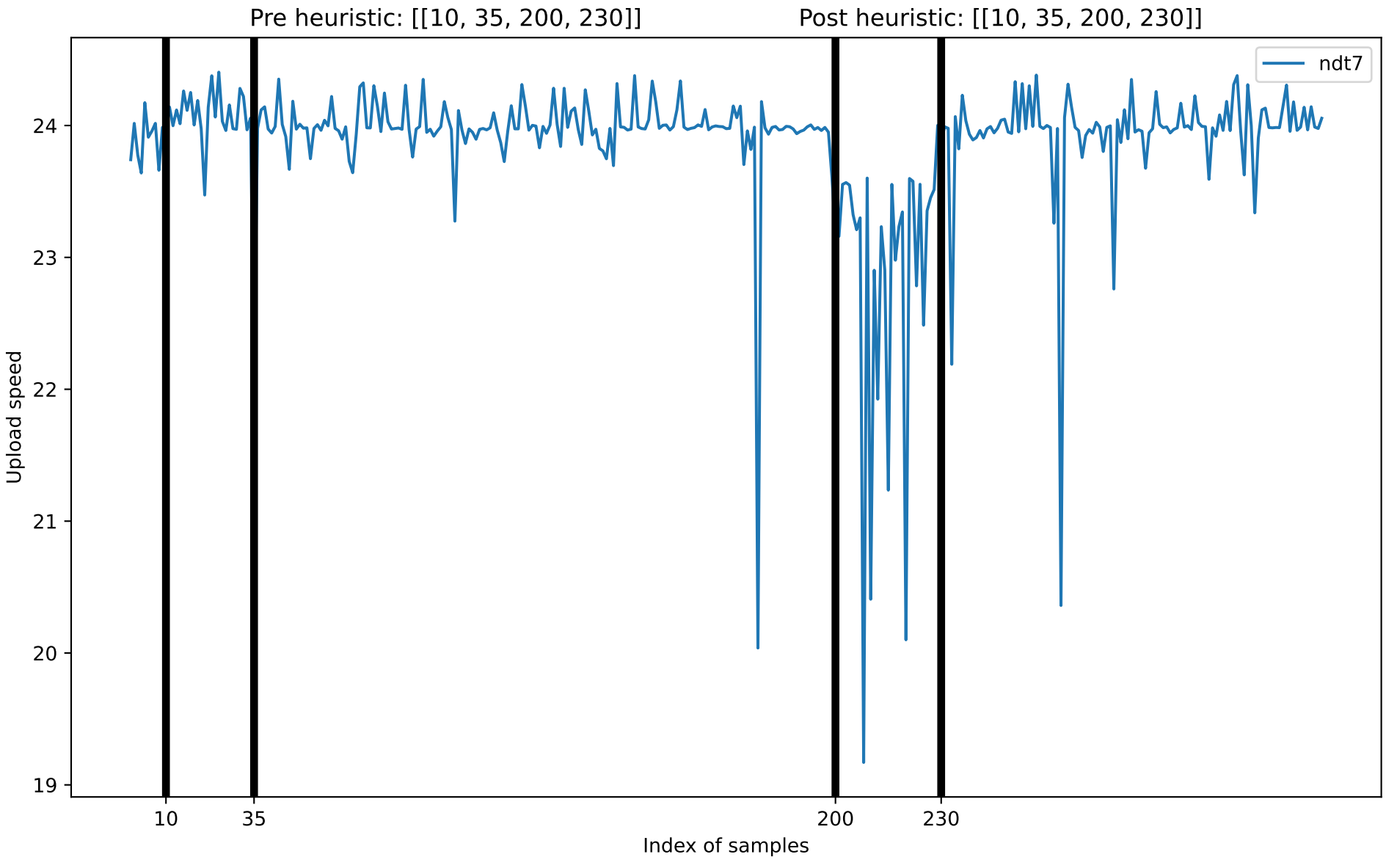
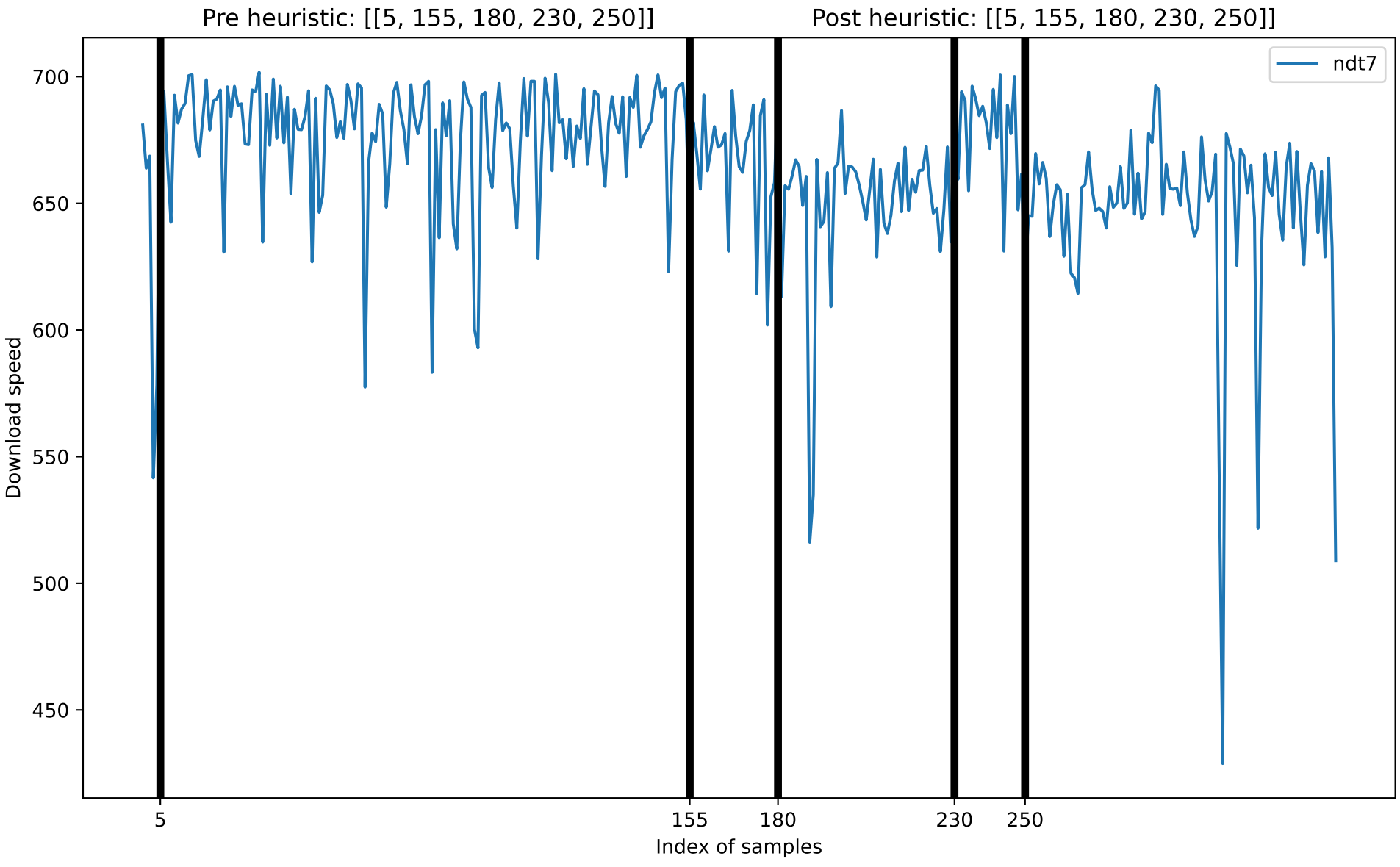
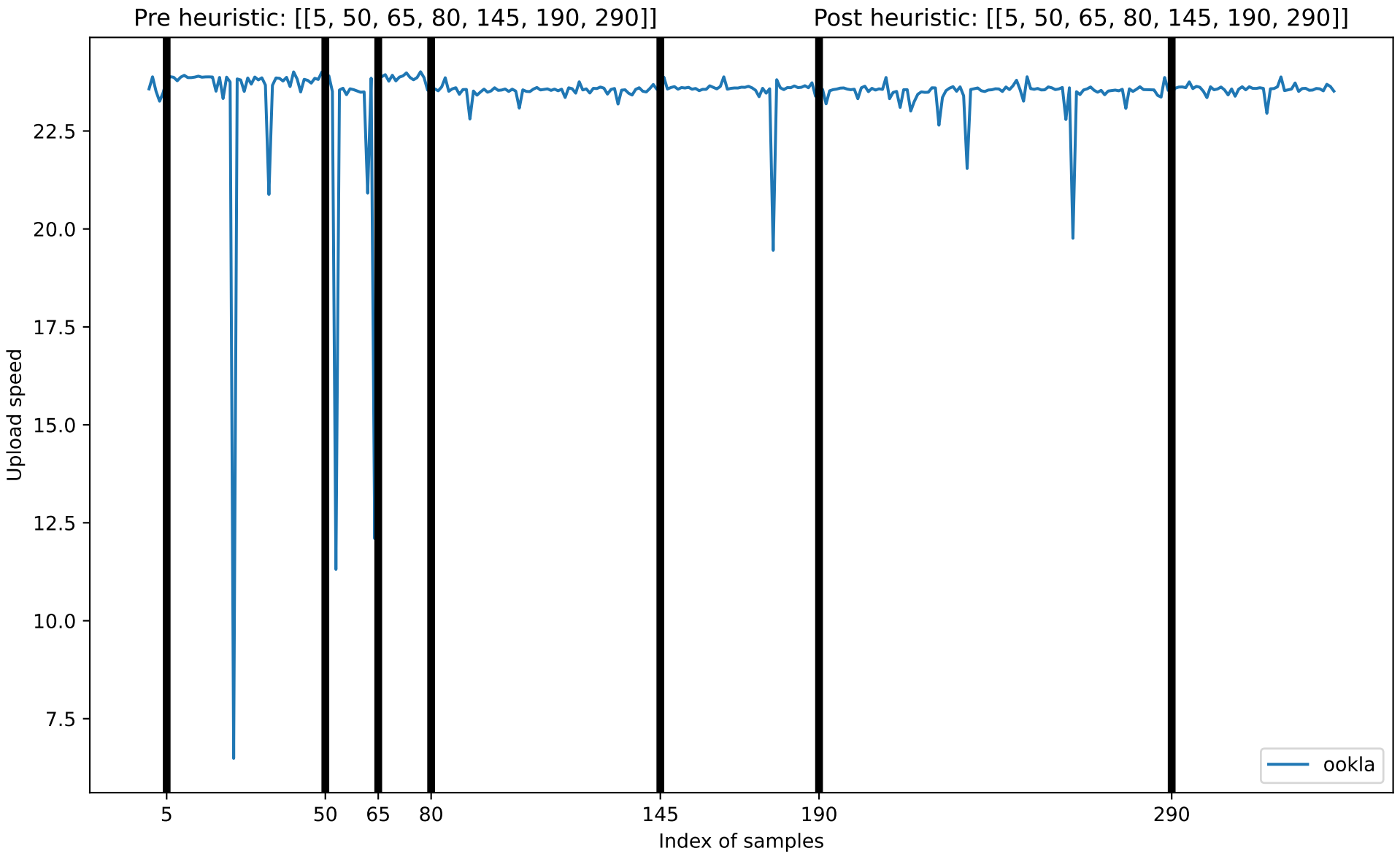
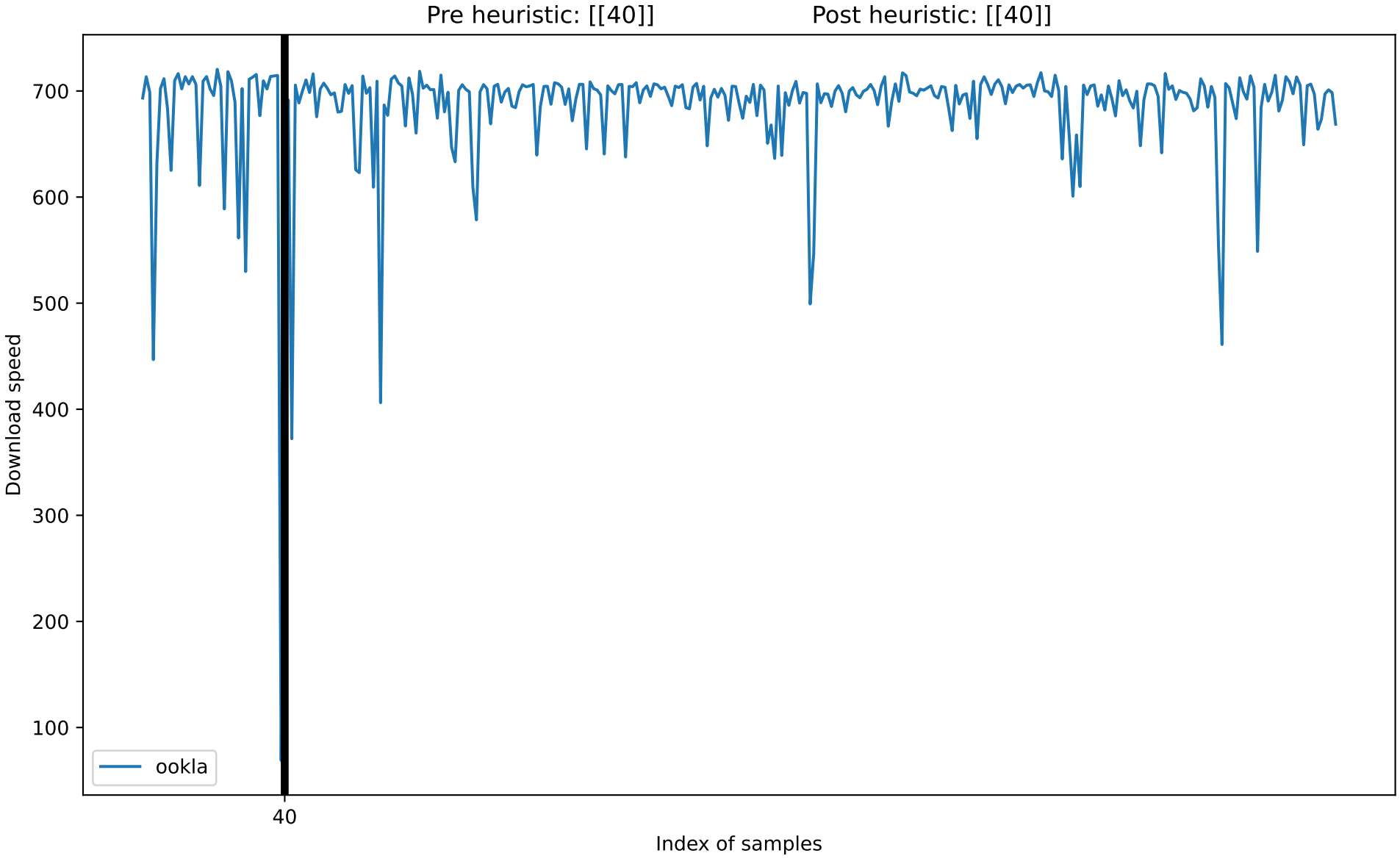
30
25
20
15
10
90
125
175
185
220
Index of samples

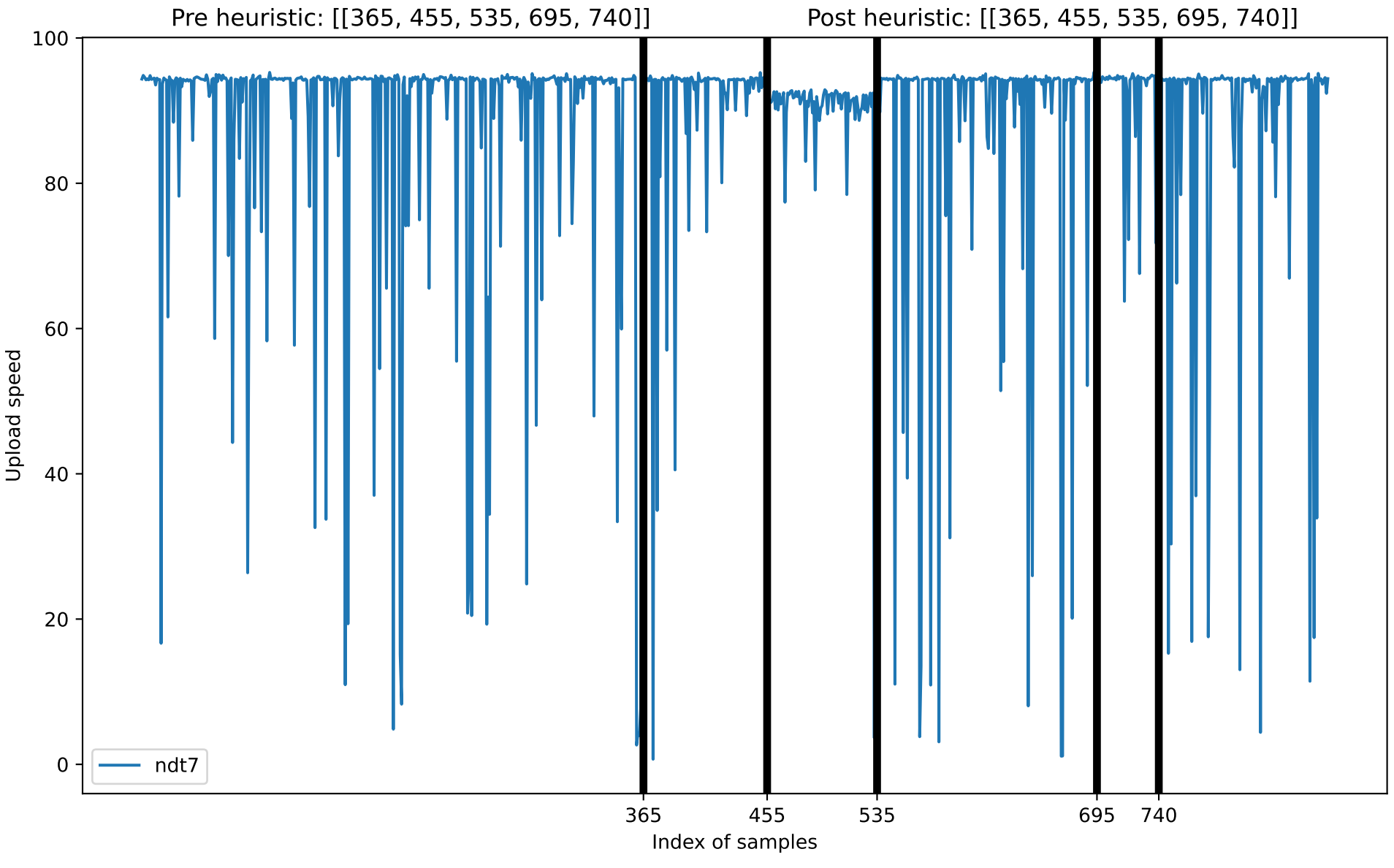

Pre heuristic: [[80, 140]]
Post heuristic: [[80, 140]]
ookla
800
600
400
200
Download speed
80
140
Index of samples

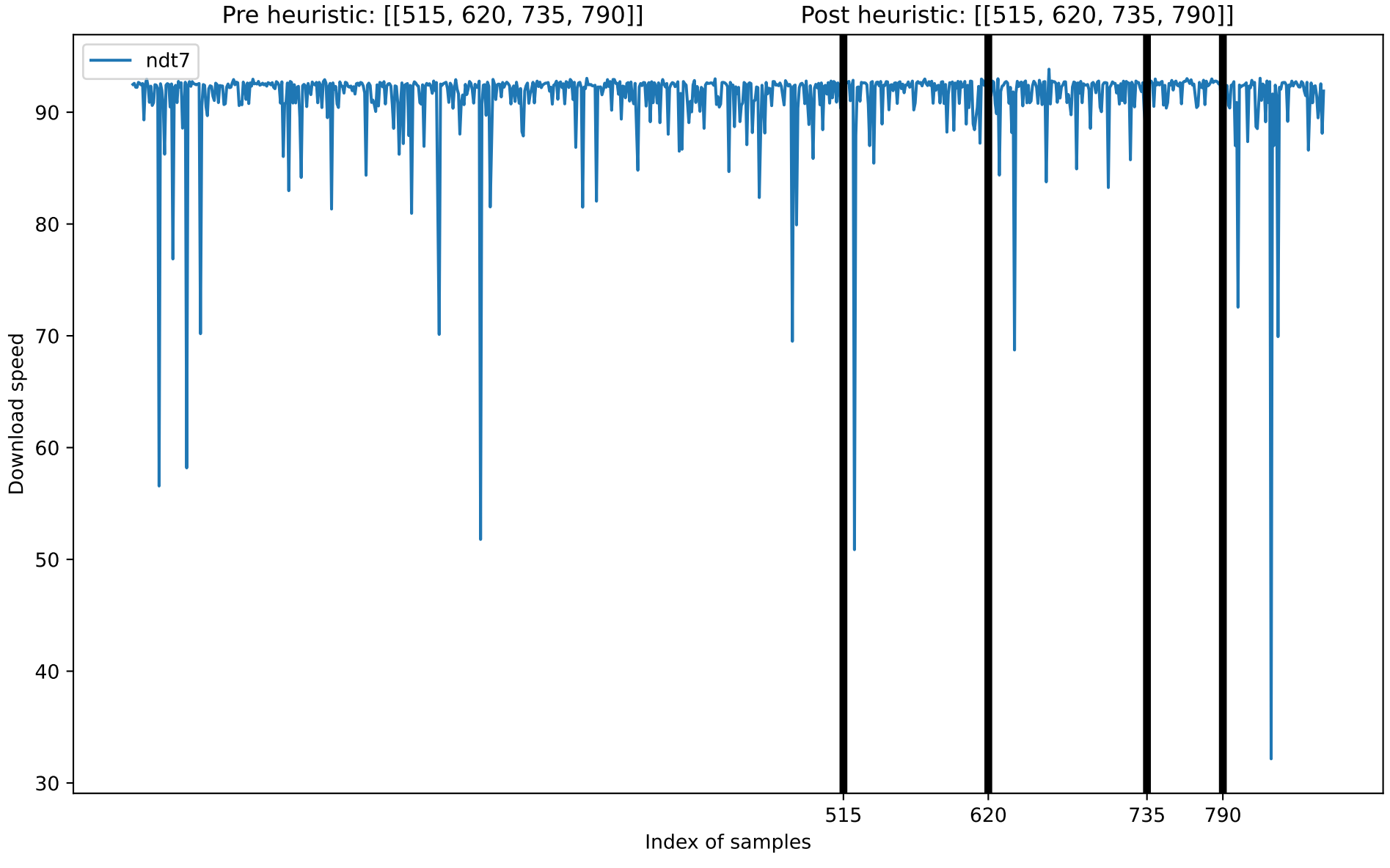

Pre heuristic: [[10, 35, 200, 230]]
Post heuristic: [[10, 35, 200, 230]]
ndt7
Upload speed
24
23
22
21
20
19
10
35
200
230
Index of samples

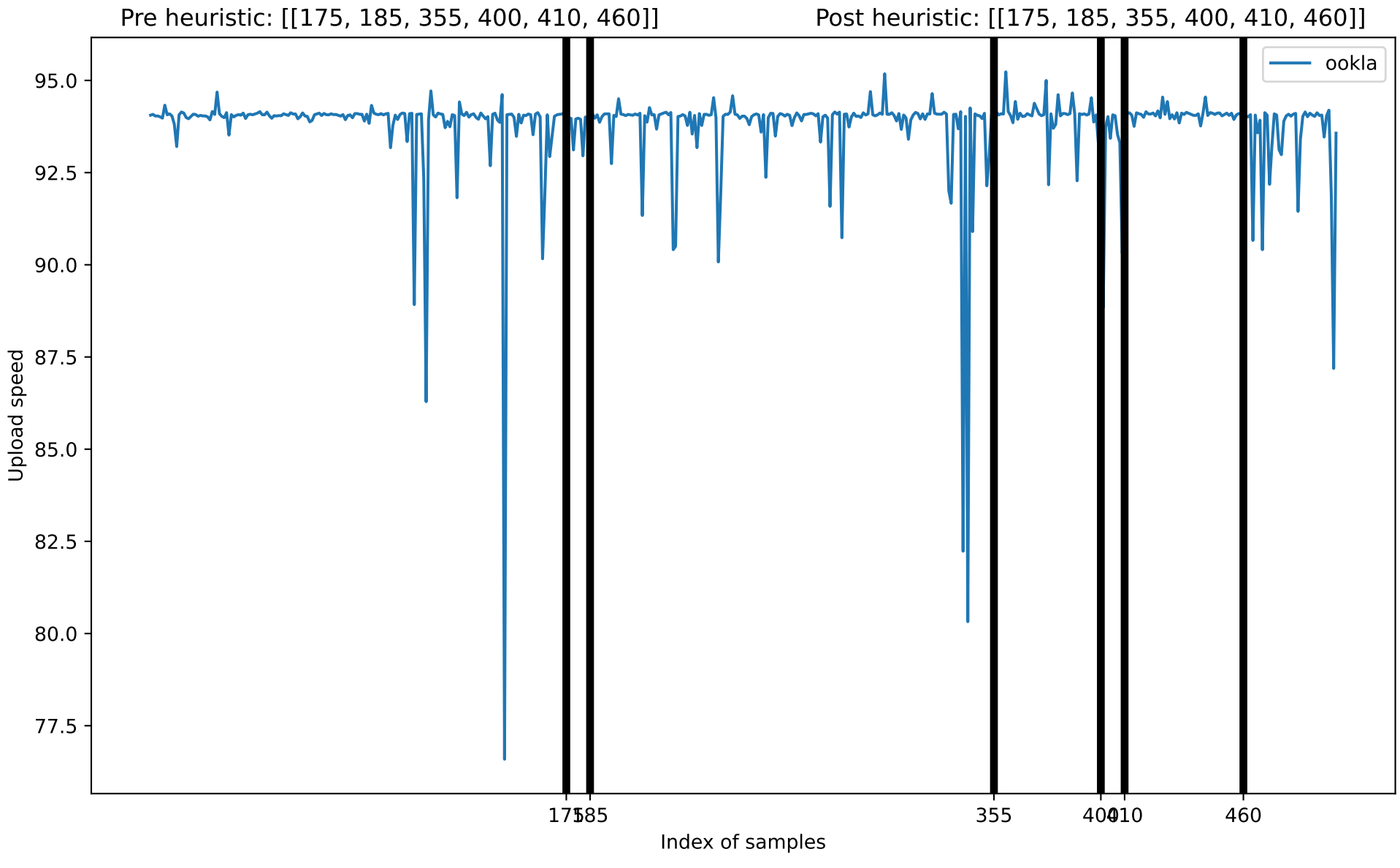

Pre heuristic: [[5, 155, 180, 230, 250]]
Post heuristic: [[5, 155, 180, 230, 250]]
ndt7
Download speed
700
650
600
550
500
450
5
155
180
230
250
Index of samples

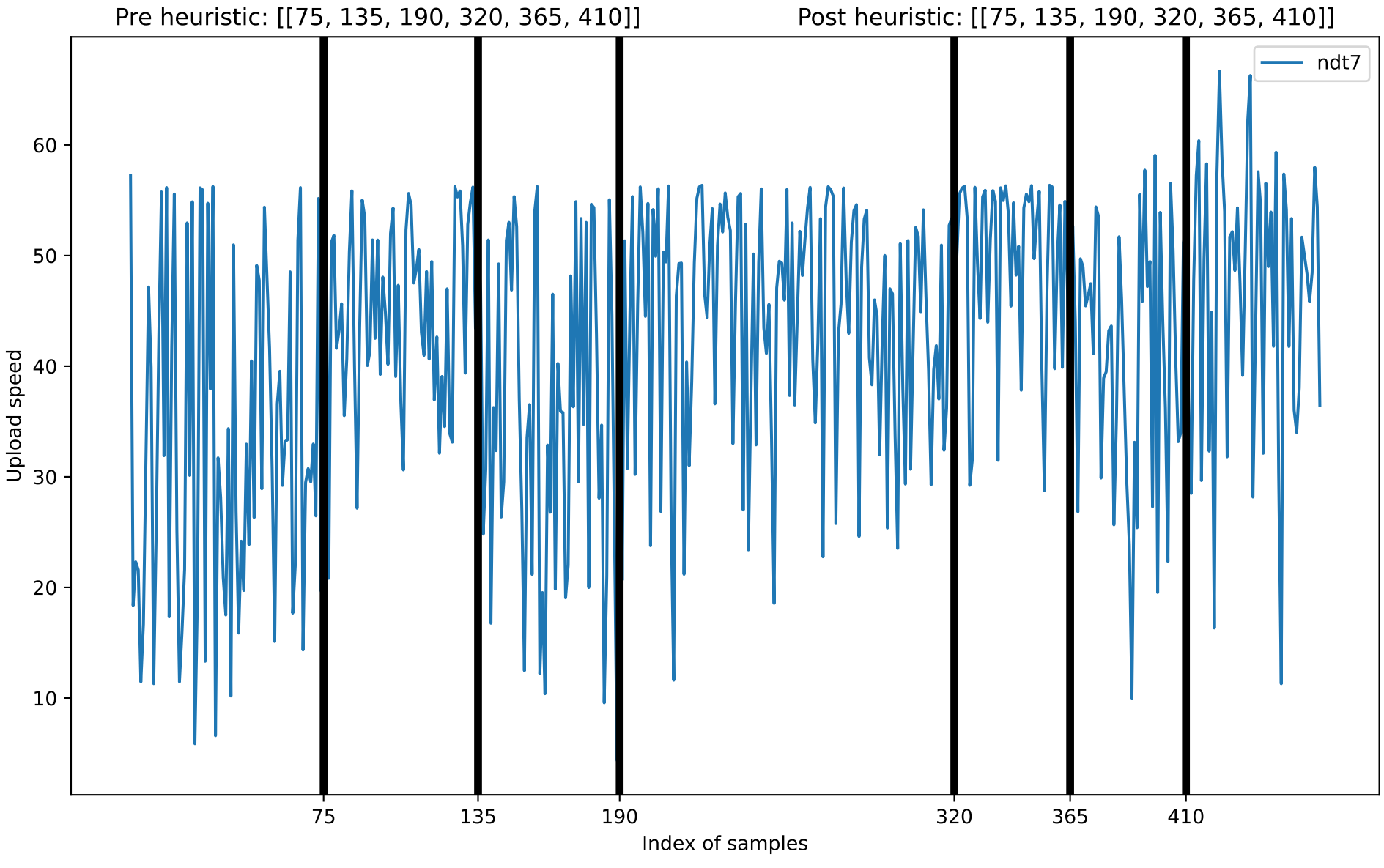

Pre heuristic: [[5, 50, 65, 80, 145, 190, 290]]
Post heuristic: [[5, 50, 65, 80, 145, 190, 290]]
Upload speed
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5
50
65
80
145
190
290
Index of samples
ookla

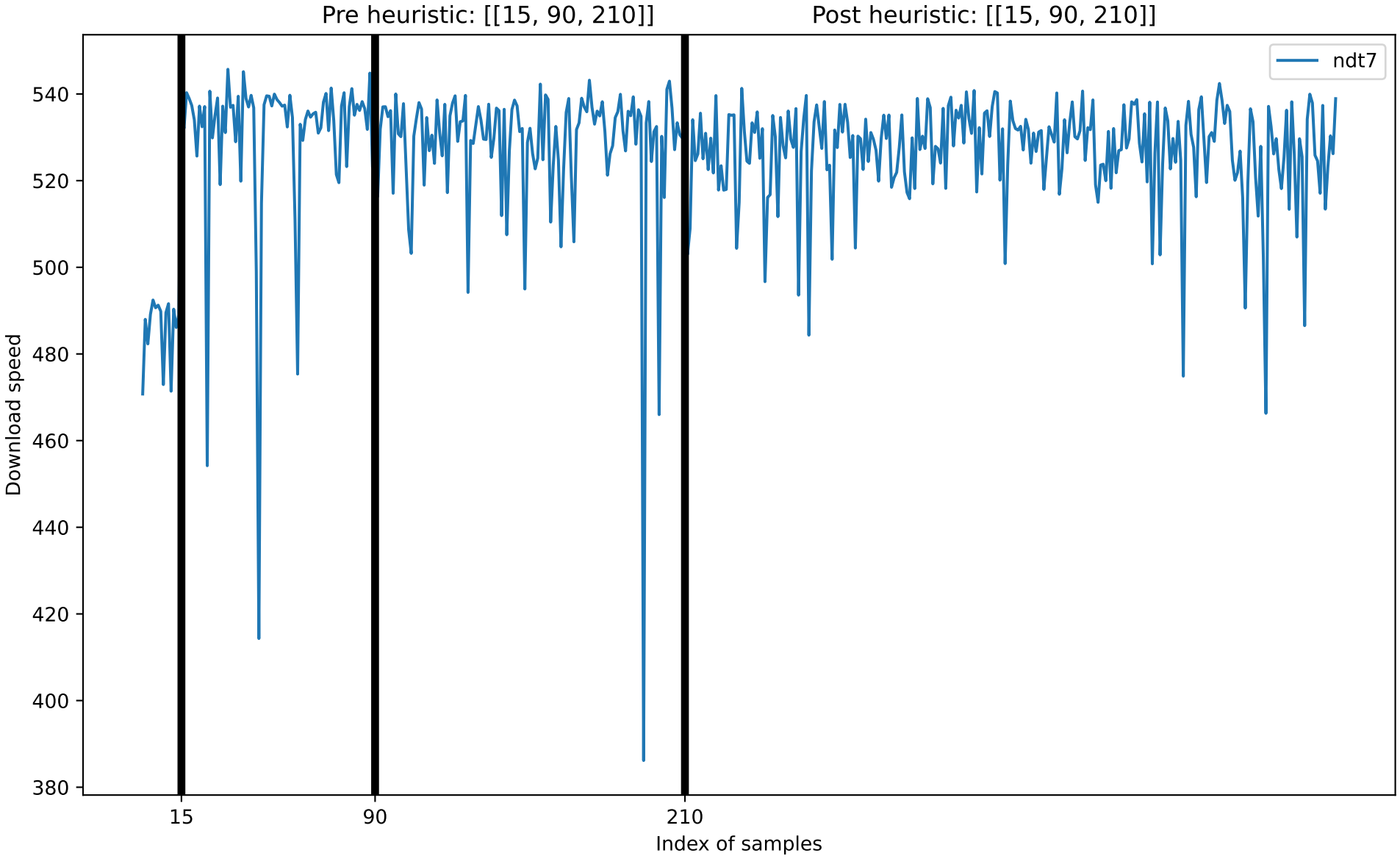

Pre heuristic: [[40]]
Post heuristic: [[40]]
Download speed
700
600
500
400
300
200
100
ookla
40
Index of samples

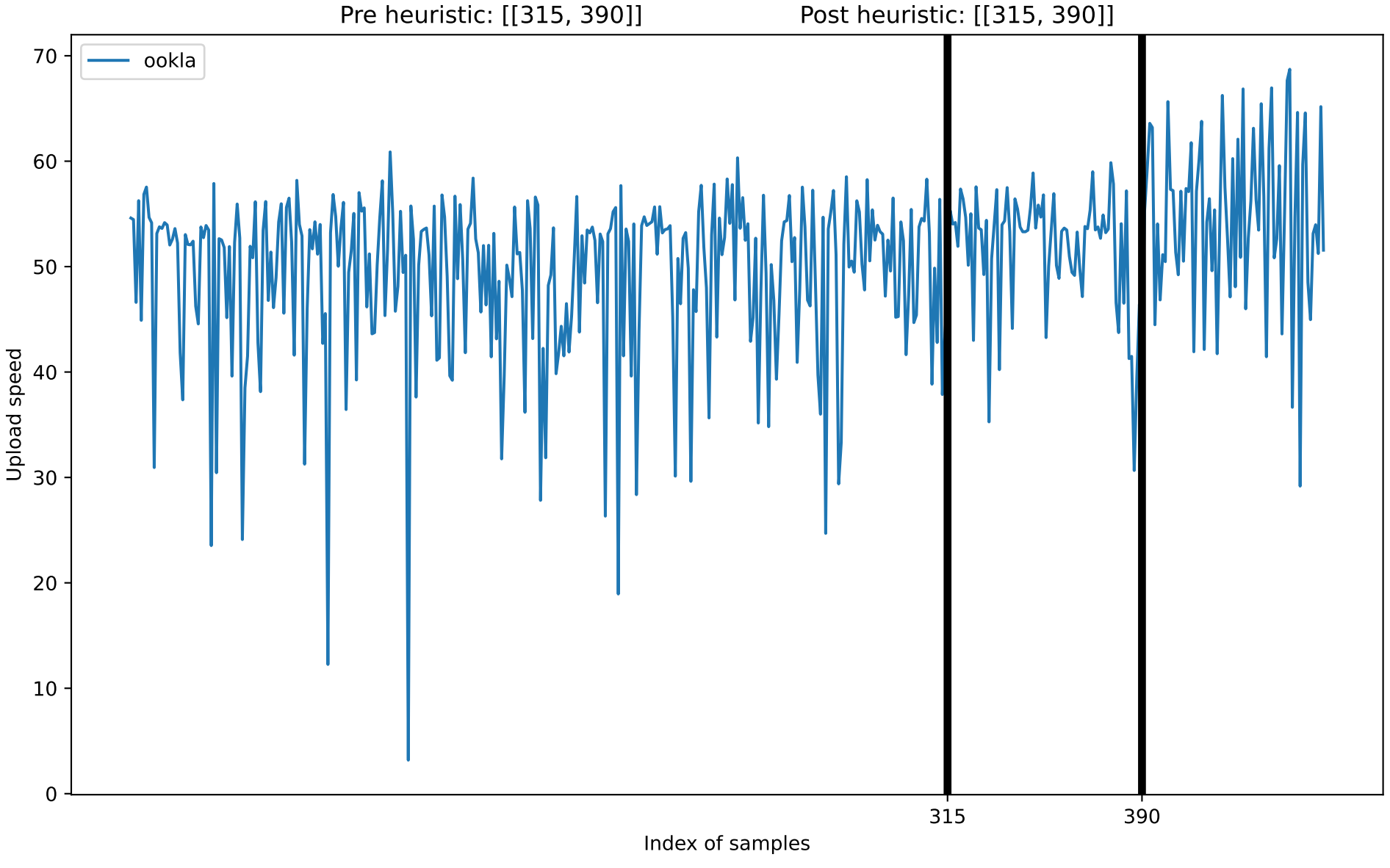

Pre heuristic: [[365, 455, 535, 695, 740]]
Post heuristic: [[365, 455, 535, 695, 740]]
Upload speed
100
80
60
40
20
0
ndt7
365
455
535
695
740
Index of samples

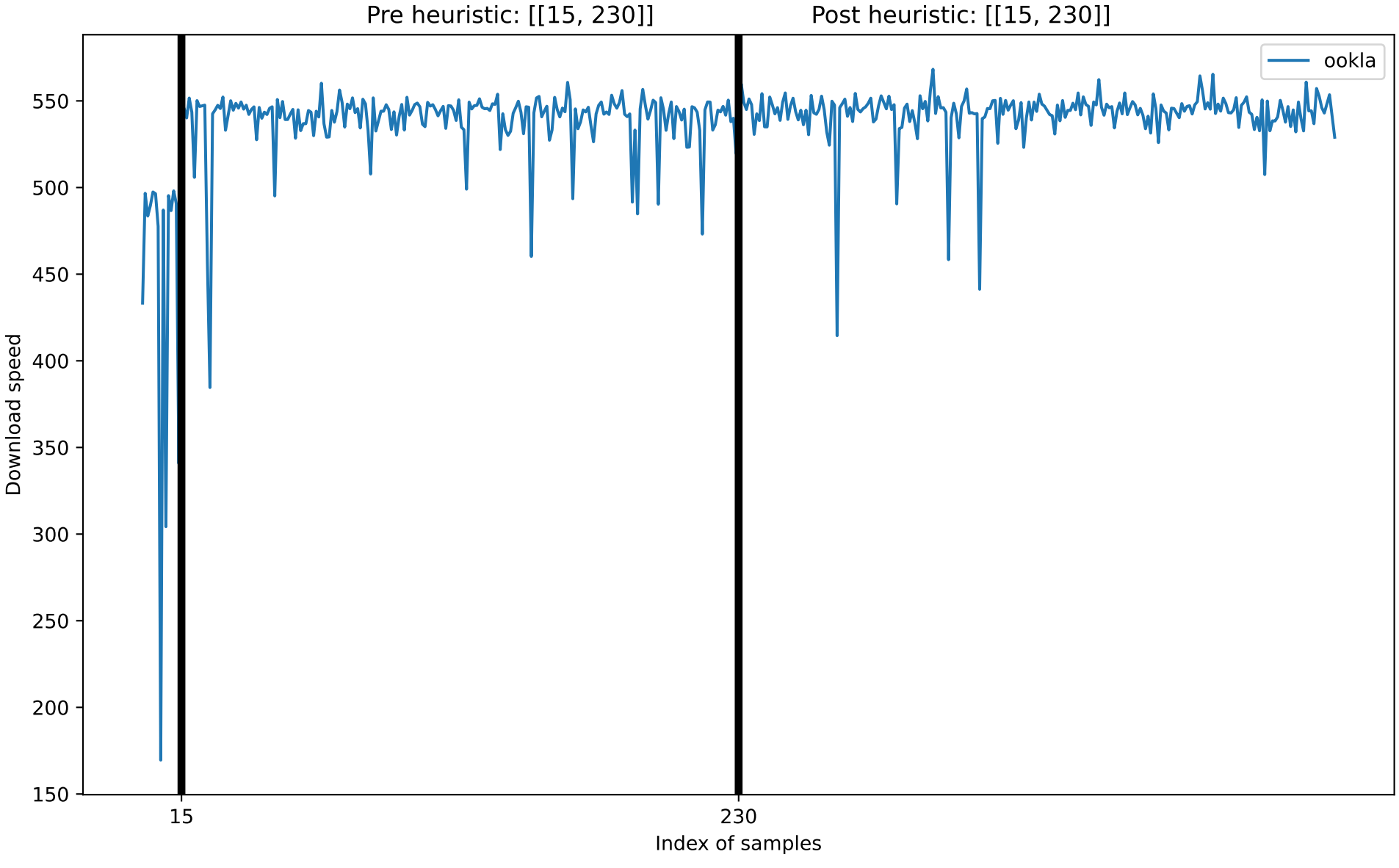

Pre heuristic: [[515, 620, 735, 790]]
Post heuristic: [[515, 620, 735, 790]]
ndt7
Download speed
90
80
70
60
50
40
30
515
620
735
790
Index of samples

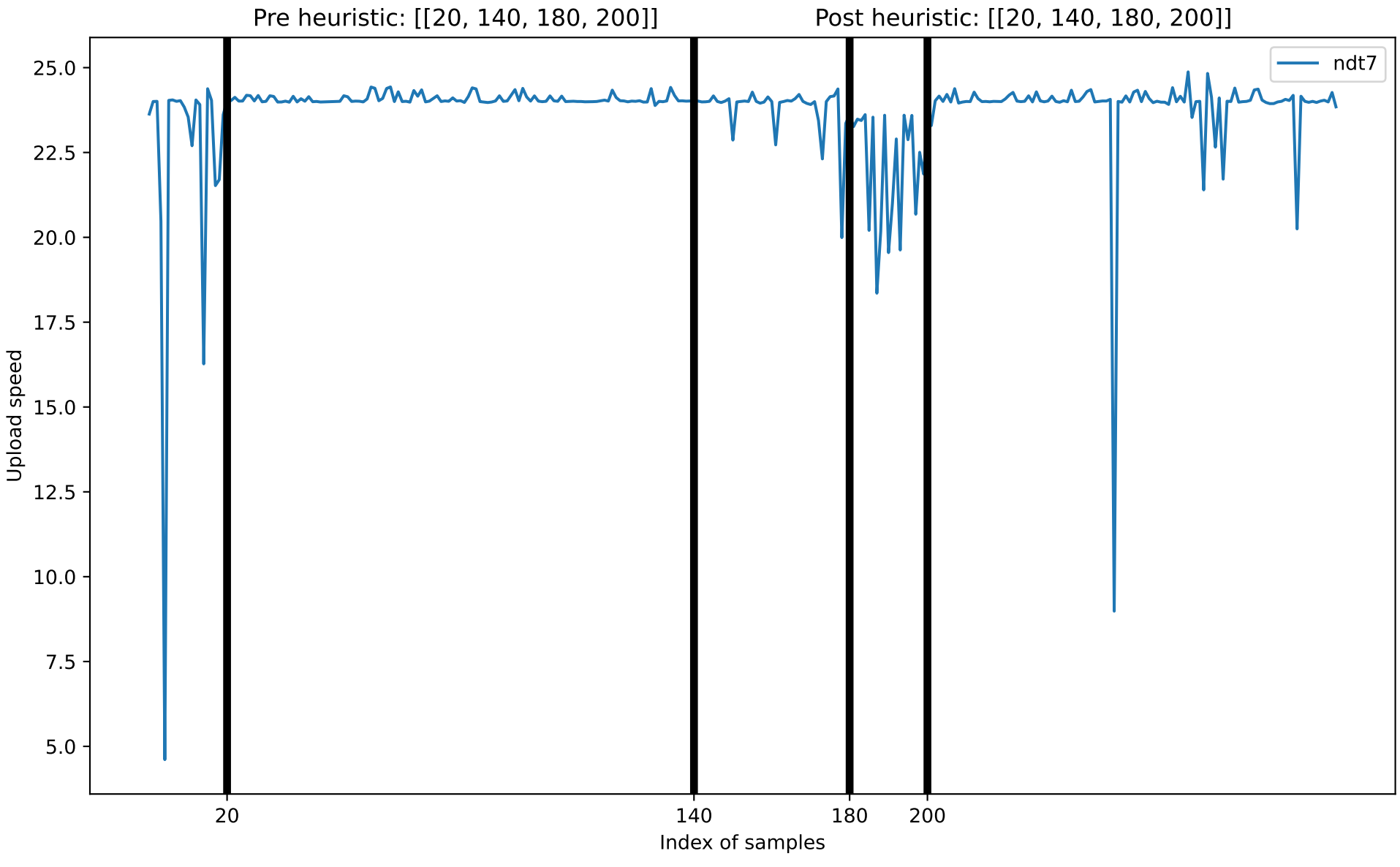

Pre heuristic: [[175, 185, 355, 400, 410, 460]]
Post heuristic: [[175, 185, 355, 400, 410, 460]]
ookla
Upload speed
95.0
92.5
90.0
87.5
85.0
82.5
80.0
77.5
175
185
355
400
410
460
Index of samples

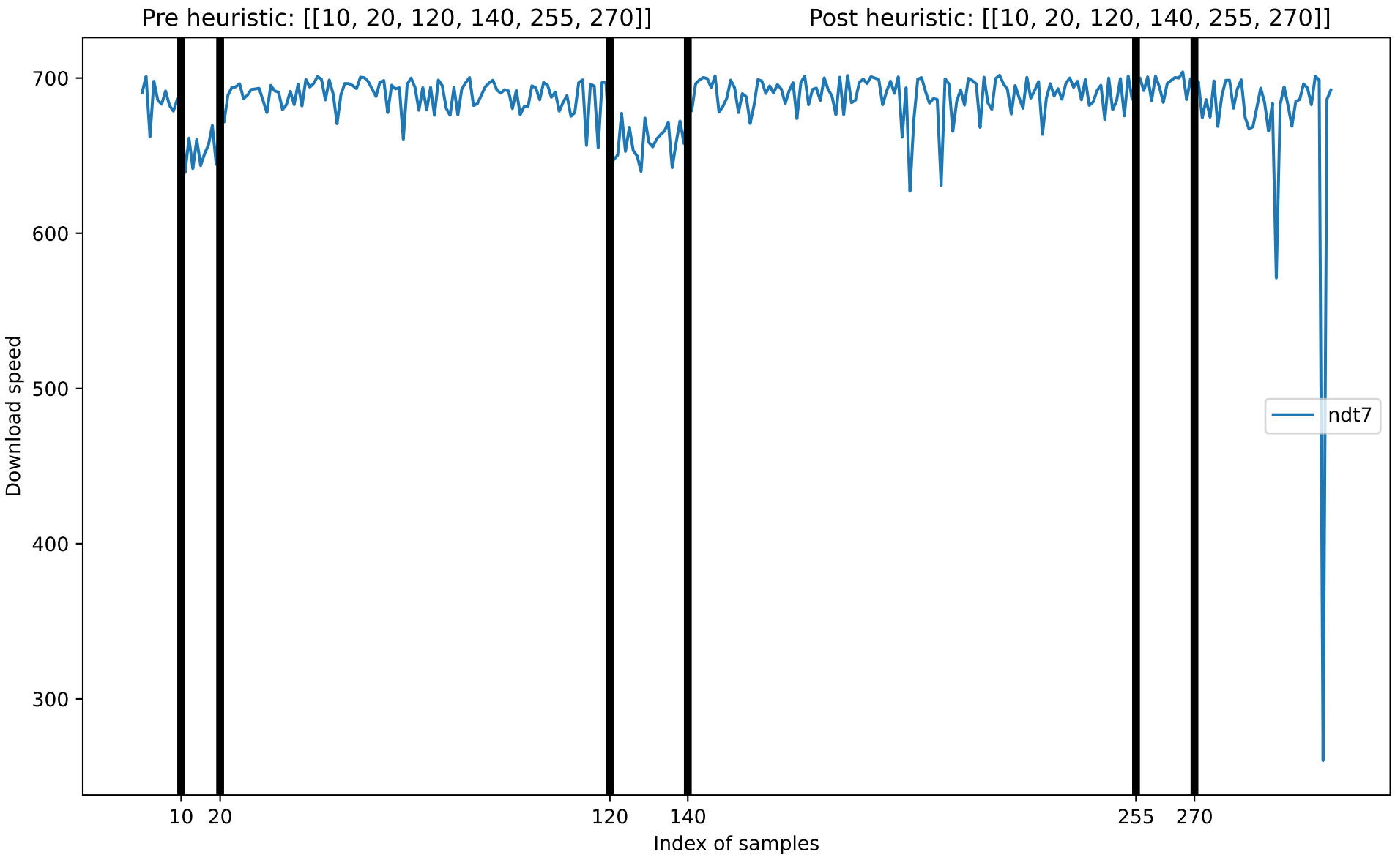

Pre heuristic: [[75, 135, 190, 320, 365, 410]]
Post heuristic: [[75, 135, 190, 320, 365, 410]]
ndt7
Upload speed
60
50
40
30
20
10
75
135
190
320
365
410
Index of samples

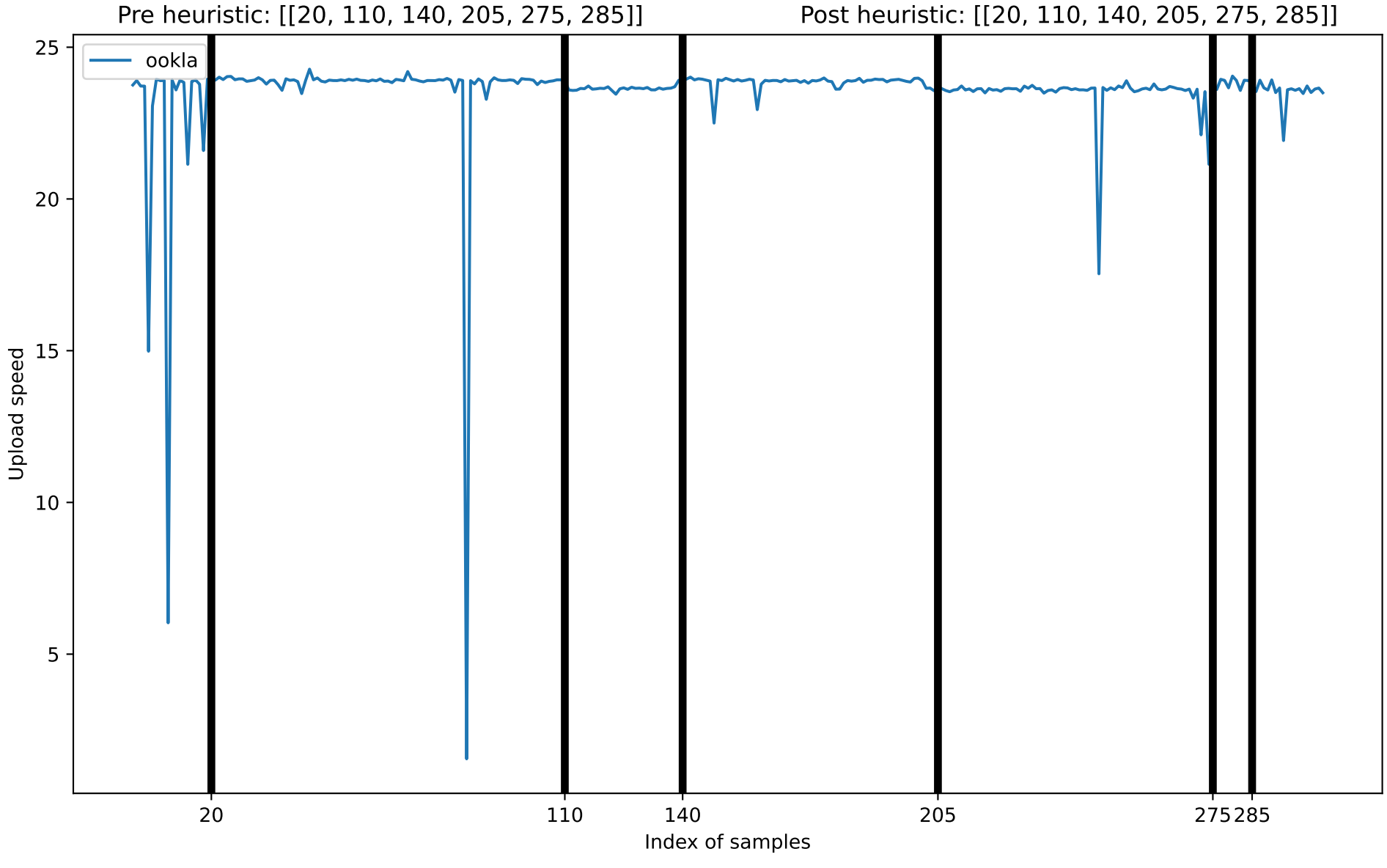

Pre heuristic: [[15, 90, 210]]
Post heuristic: [[15, 90, 210]]
ndt7
Download speed
540
520
500
480
460
440
420
400
380
15
90
210
Index of samples

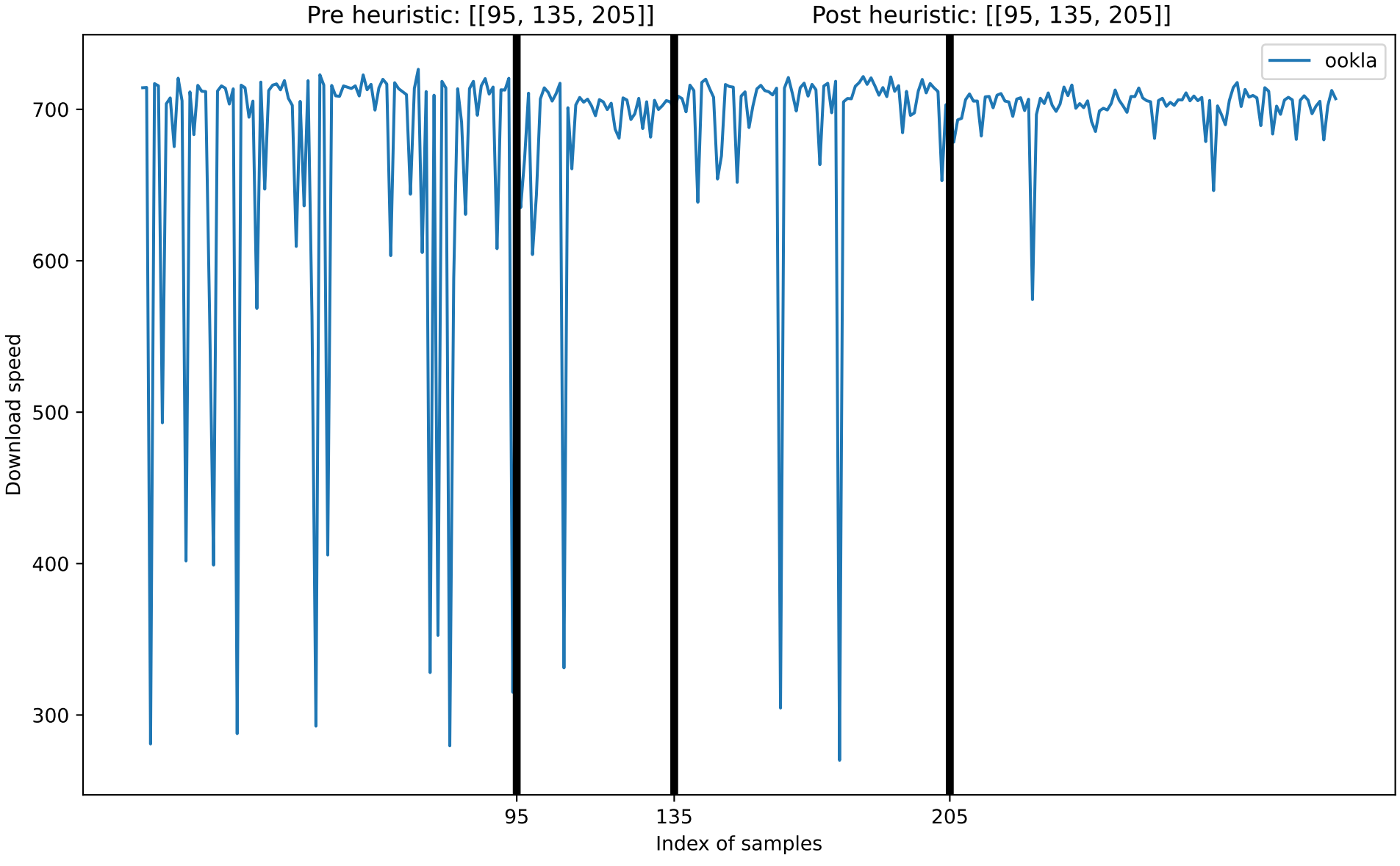

Pre heuristic: [[315, 390]]
Post heuristic: [[315, 390]]
ookla
Upload speed
Index of samples
0
10
20
30
40
50
60
70
315
390

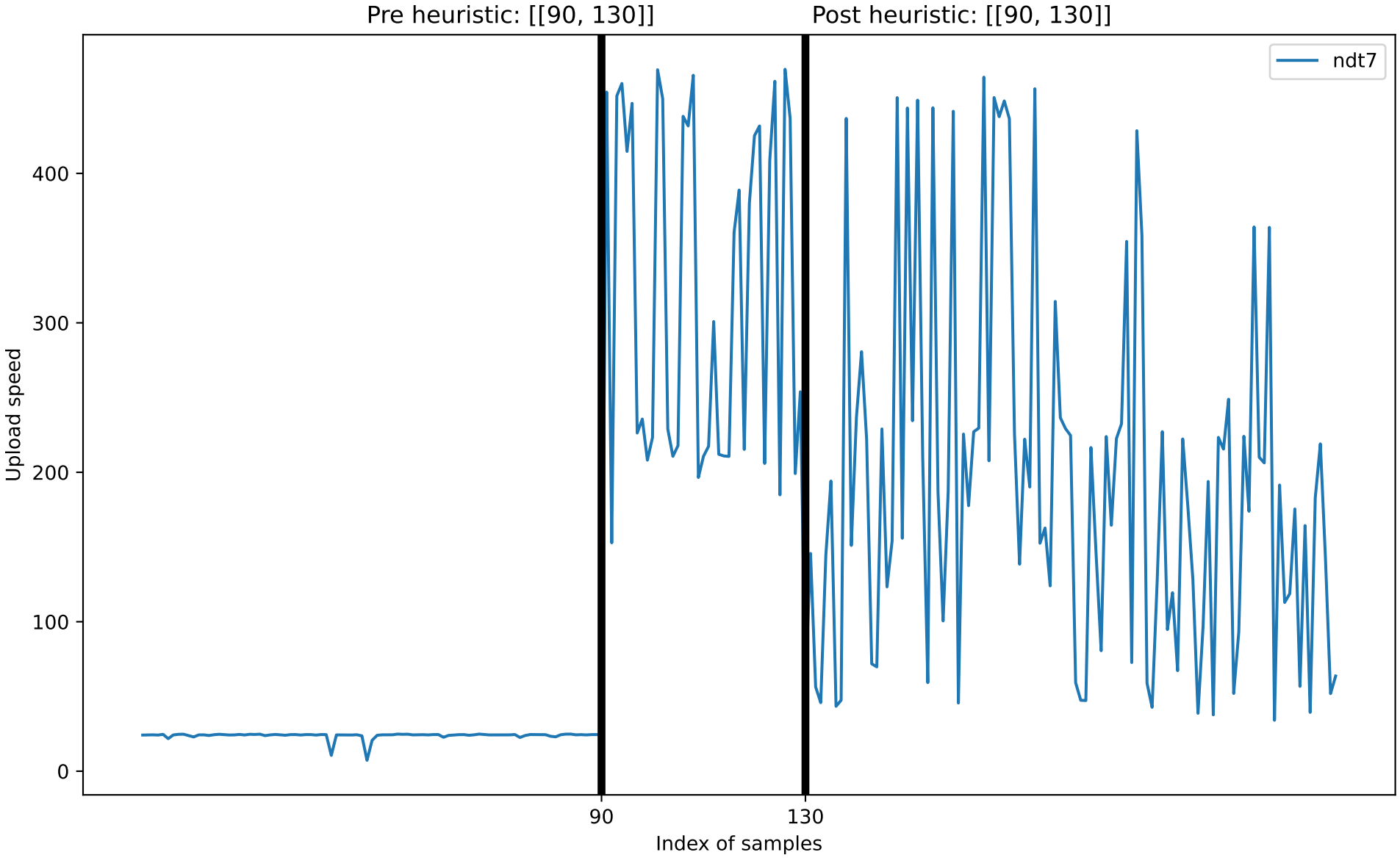

Pre heuristic: [[15, 230]]
Post heuristic: [[15, 230]]
ookla
Download speed
550
500
450
400
350
300
250
200
150
15
230
Index of samples

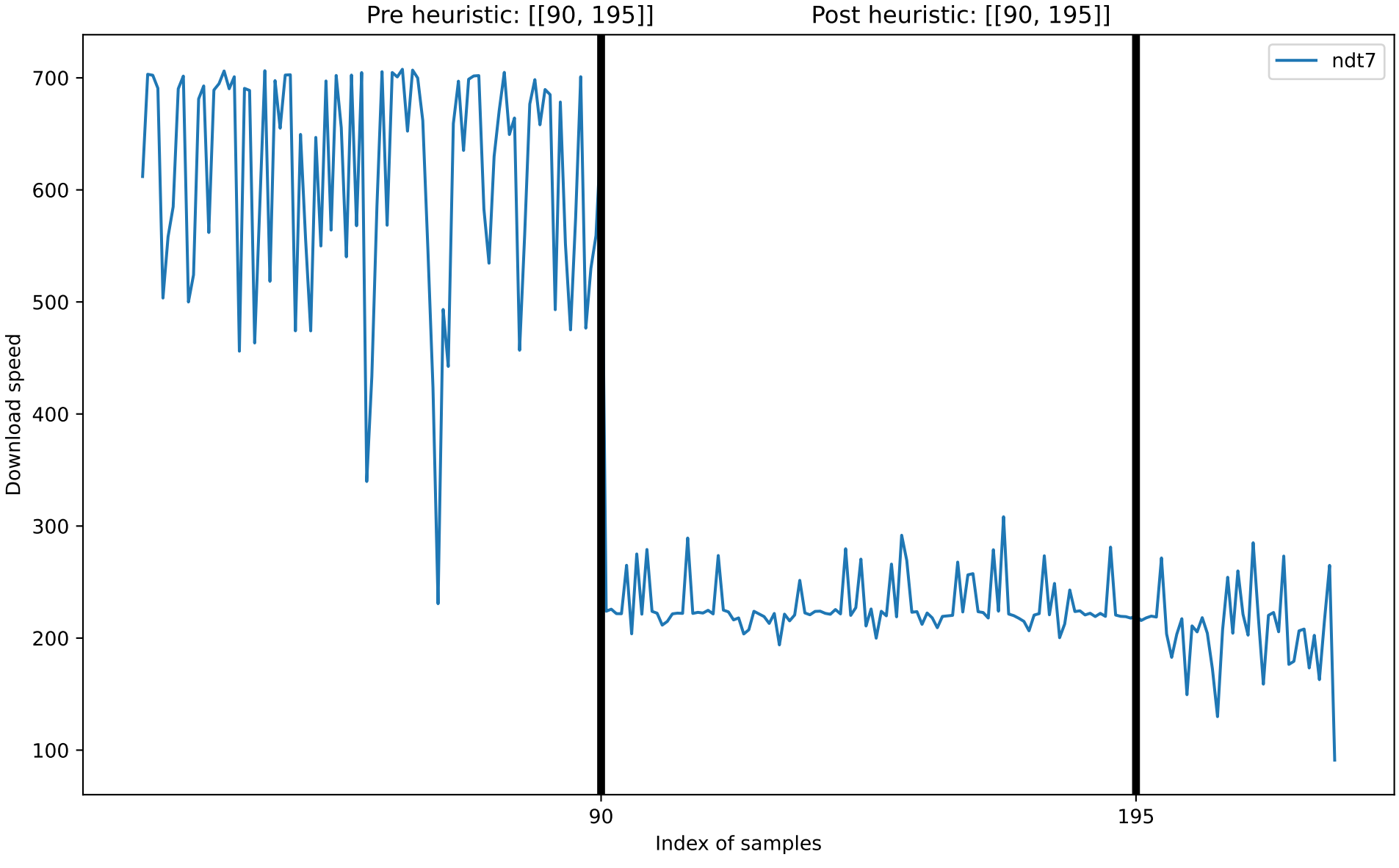

Pre heuristic: [[20, 140, 180, 200]]
Post heuristic: [[20, 140, 180, 200]]
ndt7
Upload speed
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
20
140
180
200
Index of samples

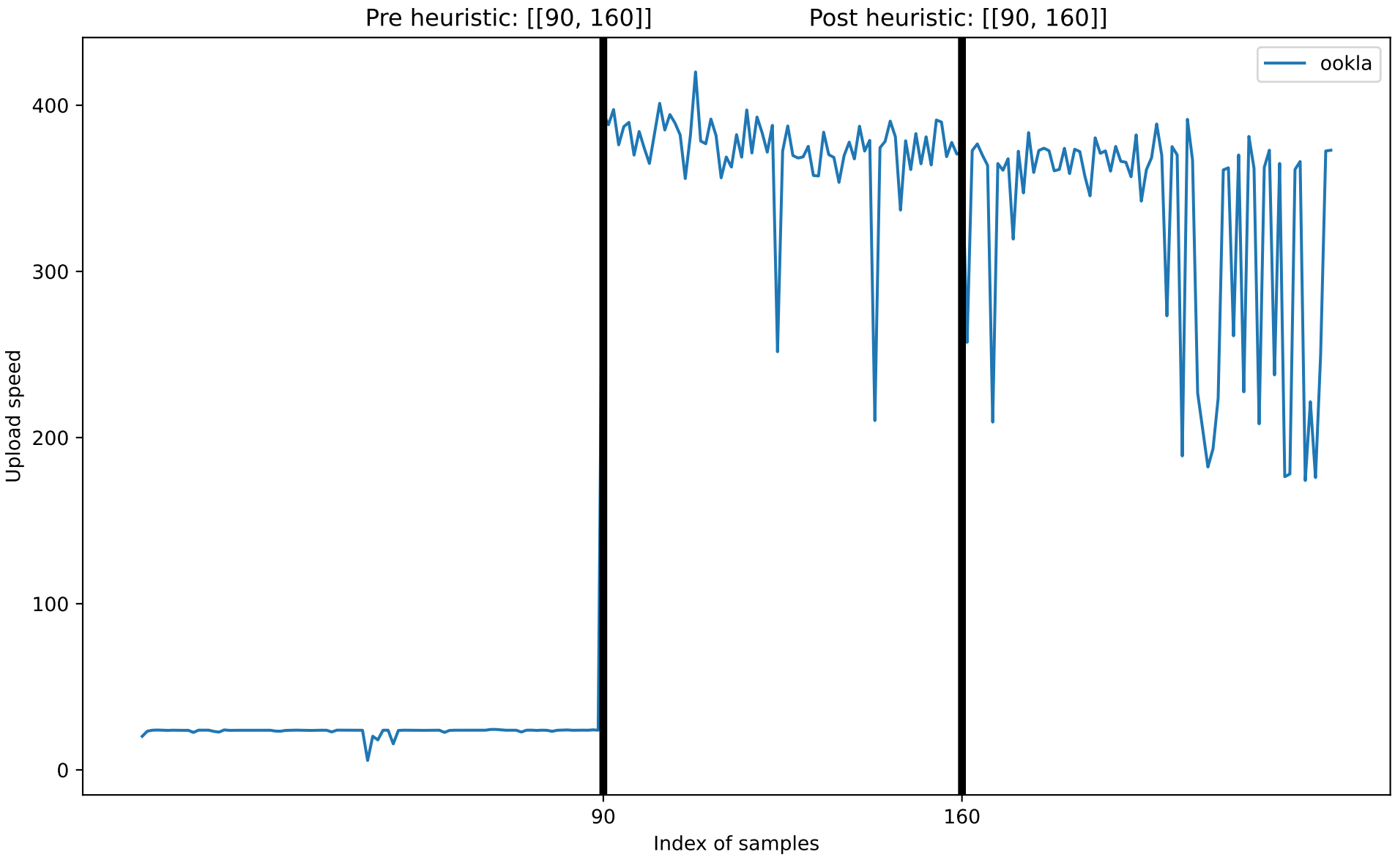

Pre heuristic: [[10, 20, 120, 140, 255, 270]]
Post heuristic: [[10, 20, 120, 140, 255, 270]]
700
600
500
400
300
Download speed
10
20
120
140
255
270
Index of samples
ndt7

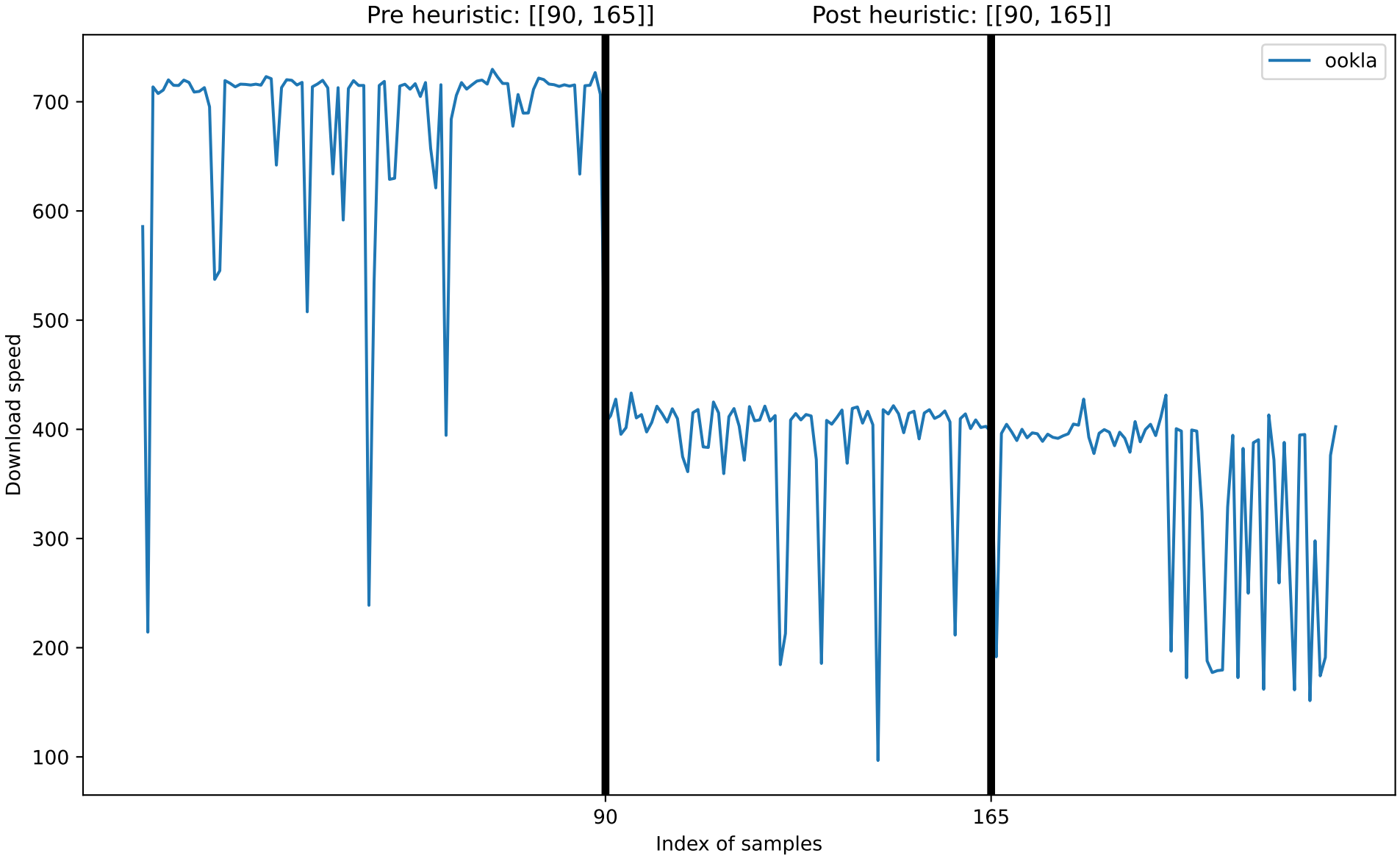

Pre heuristic: [[20, 110, 140, 205, 275, 285]]
Post heuristic: [[20, 110, 140, 205, 275, 285]]
ookla
Upload speed
25
20
15
10
5
20
110
140
205
275
285
Index of samples

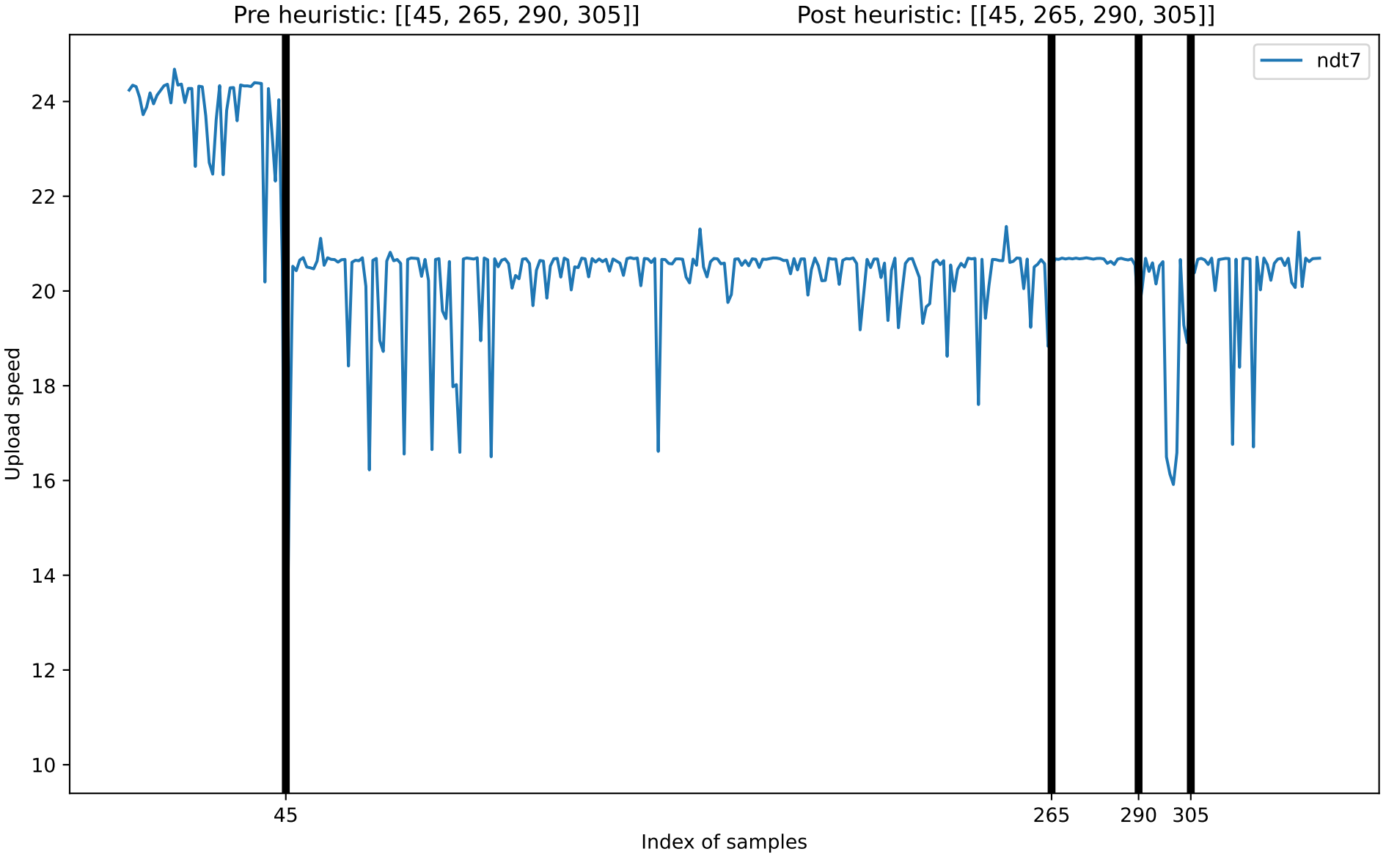

Pre heuristic: [[95, 135, 205]]
Post heuristic: [[95, 135, 205]]
ookla
700
600
500
400
300
Download speed
95
135
205
Index of samples

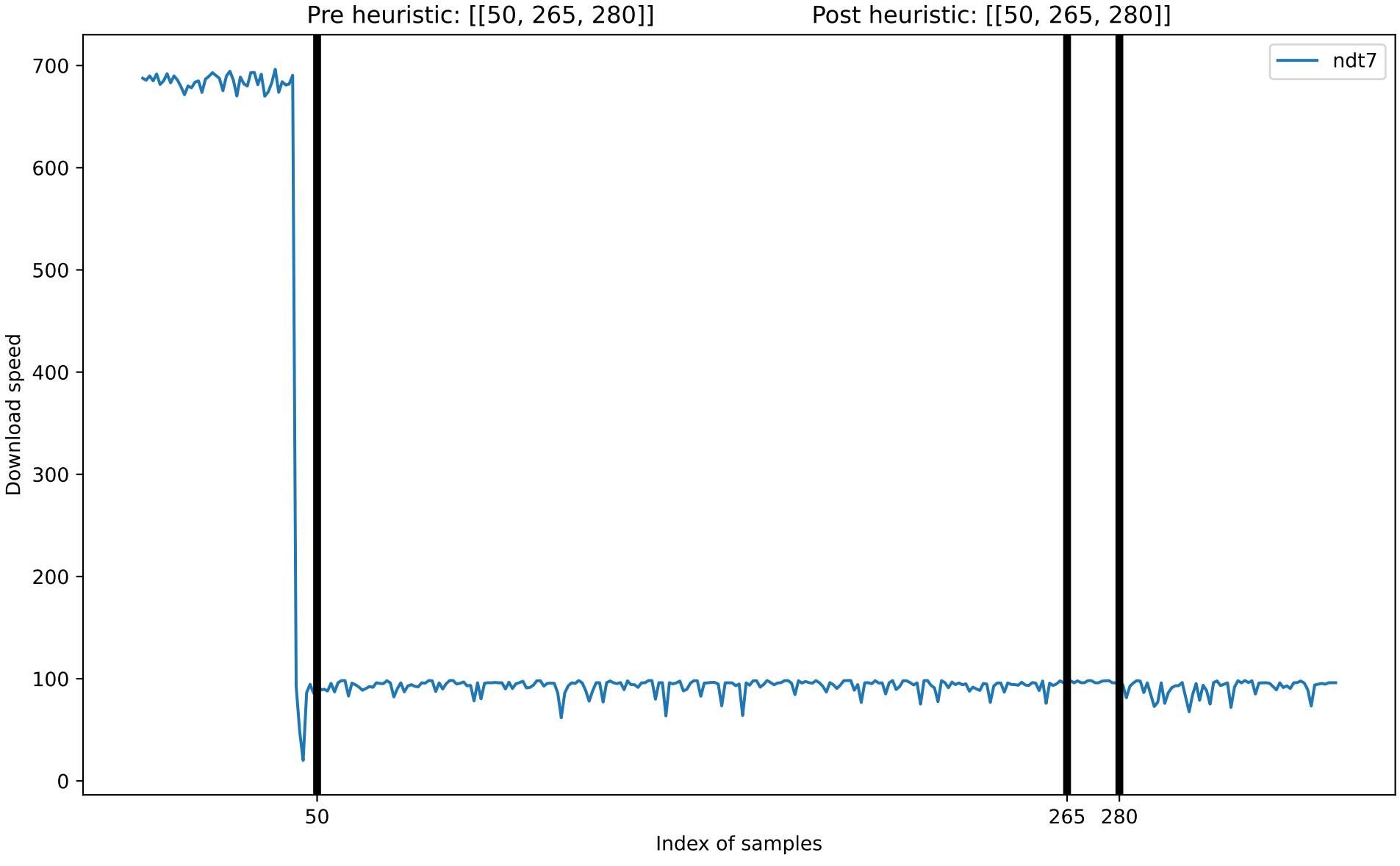

Pre heuristic: [[90, 130]]
Post heuristic: [[90, 130]]
ndt7
Upload speed
0
100
200
300
400
90
130
Index of samples

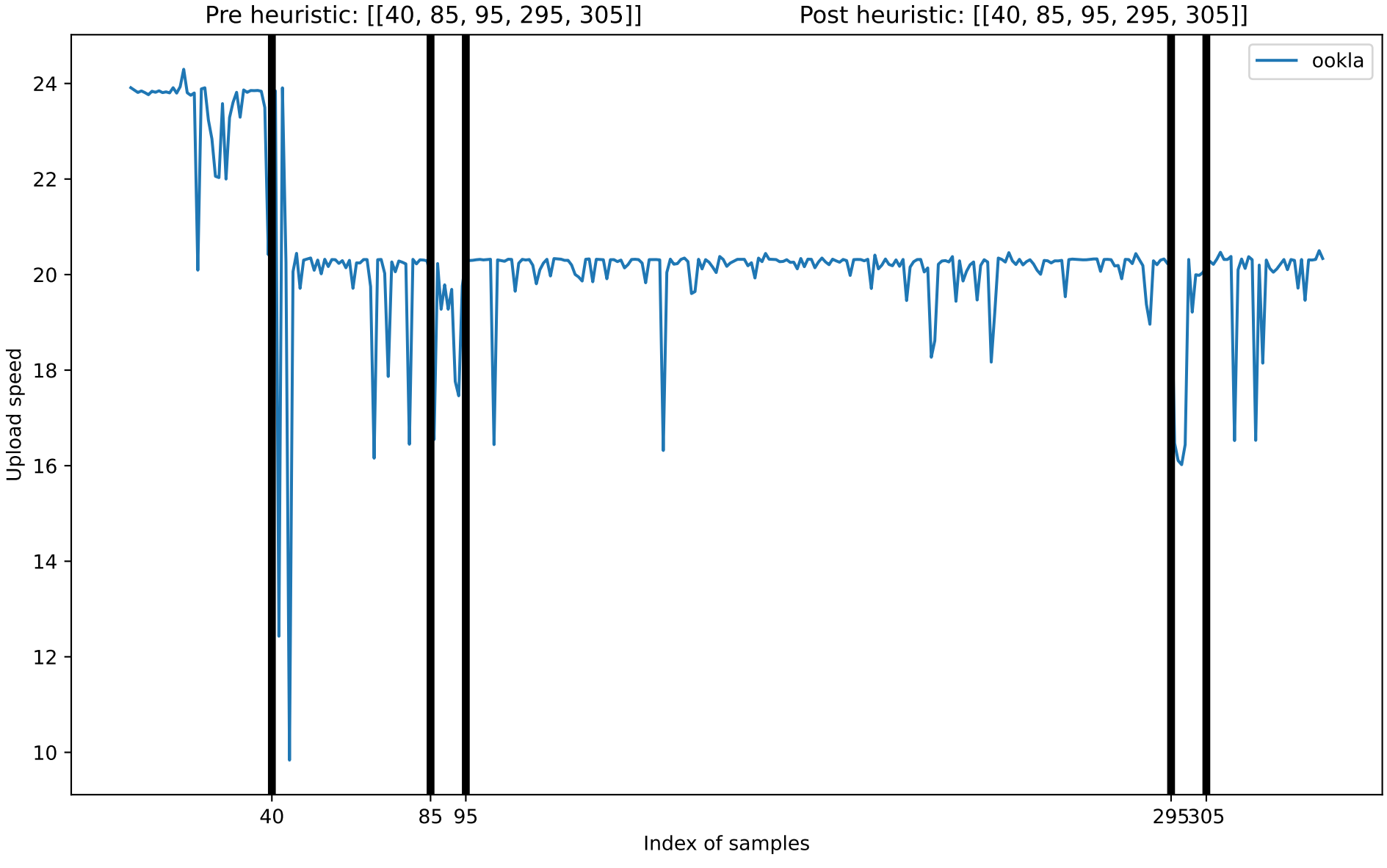

Pre heuristic: [[90, 195]]
Post heuristic: [[90, 195]]
ndt7
Download speed
700
600
500
400
300
200
100
90
195
Index of samples

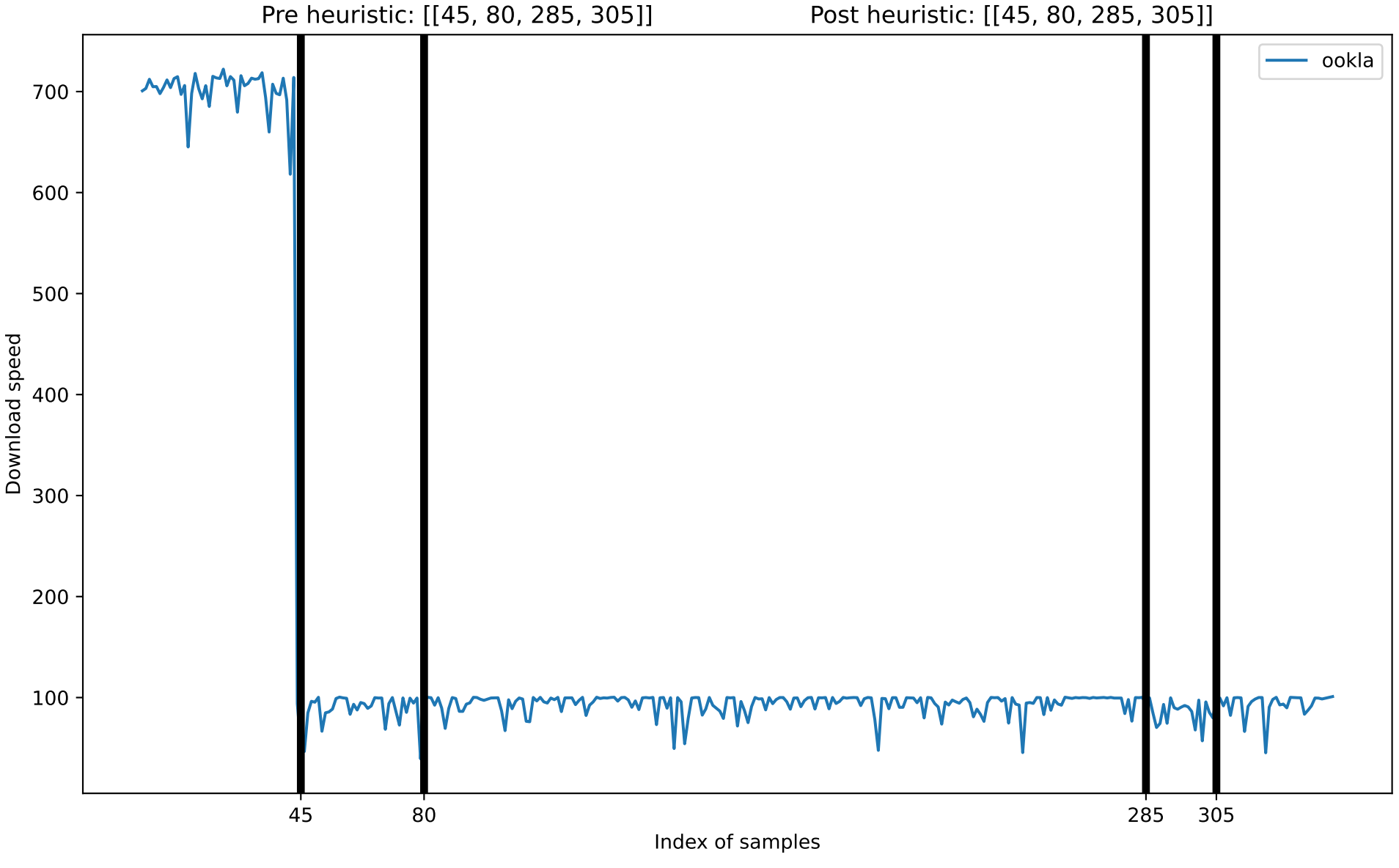

Pre heuristic: [[90, 160]]
Post heuristic: [[90, 160]]
ookla
Upload speed
400
300
200
100
0
90
160
Index of samples

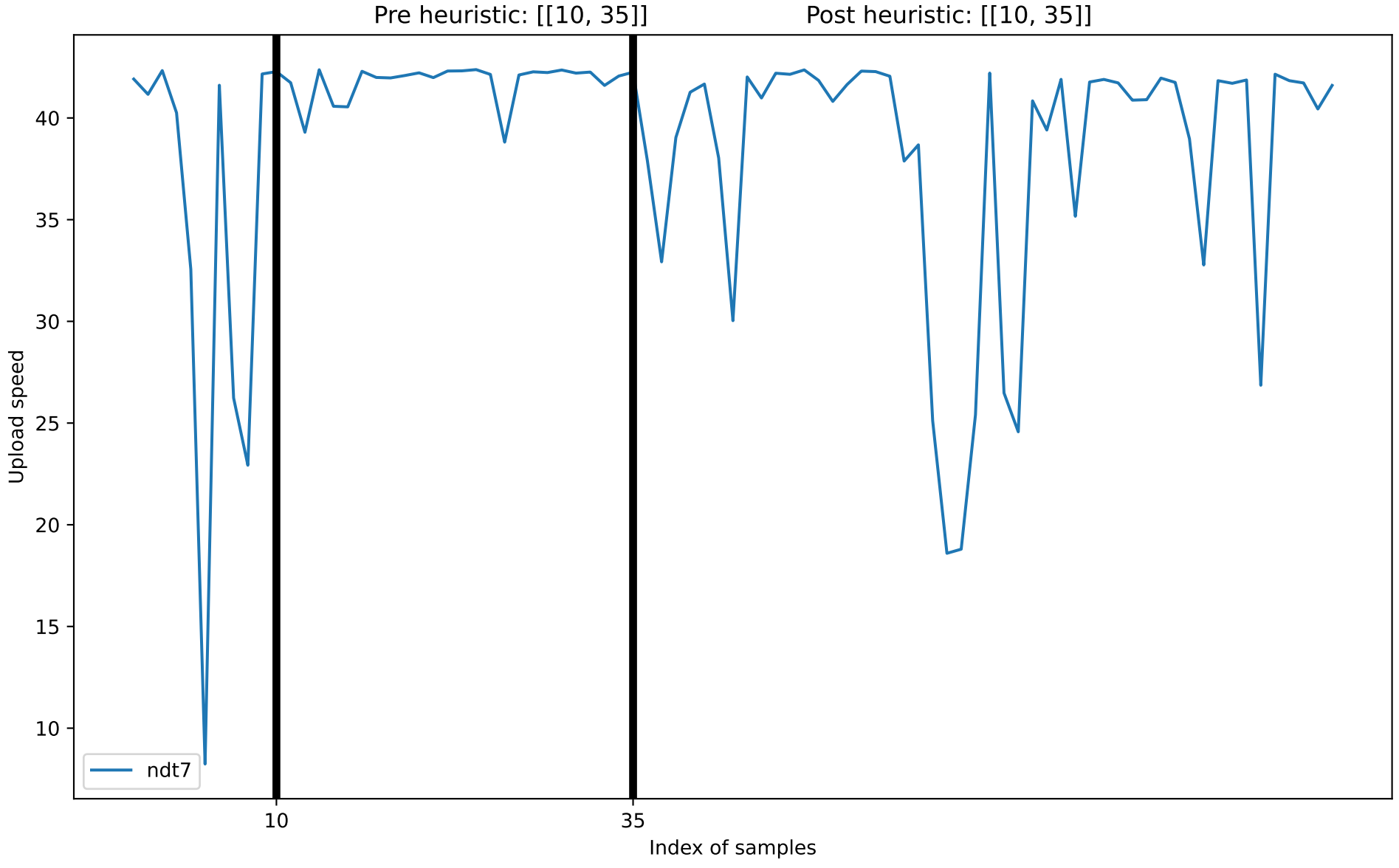

Pre heuristic: [[90, 165]]
Post heuristic: [[90, 165]]
ookla
Download speed
700
600
500
400
300
200
100
90
165
Index of samples

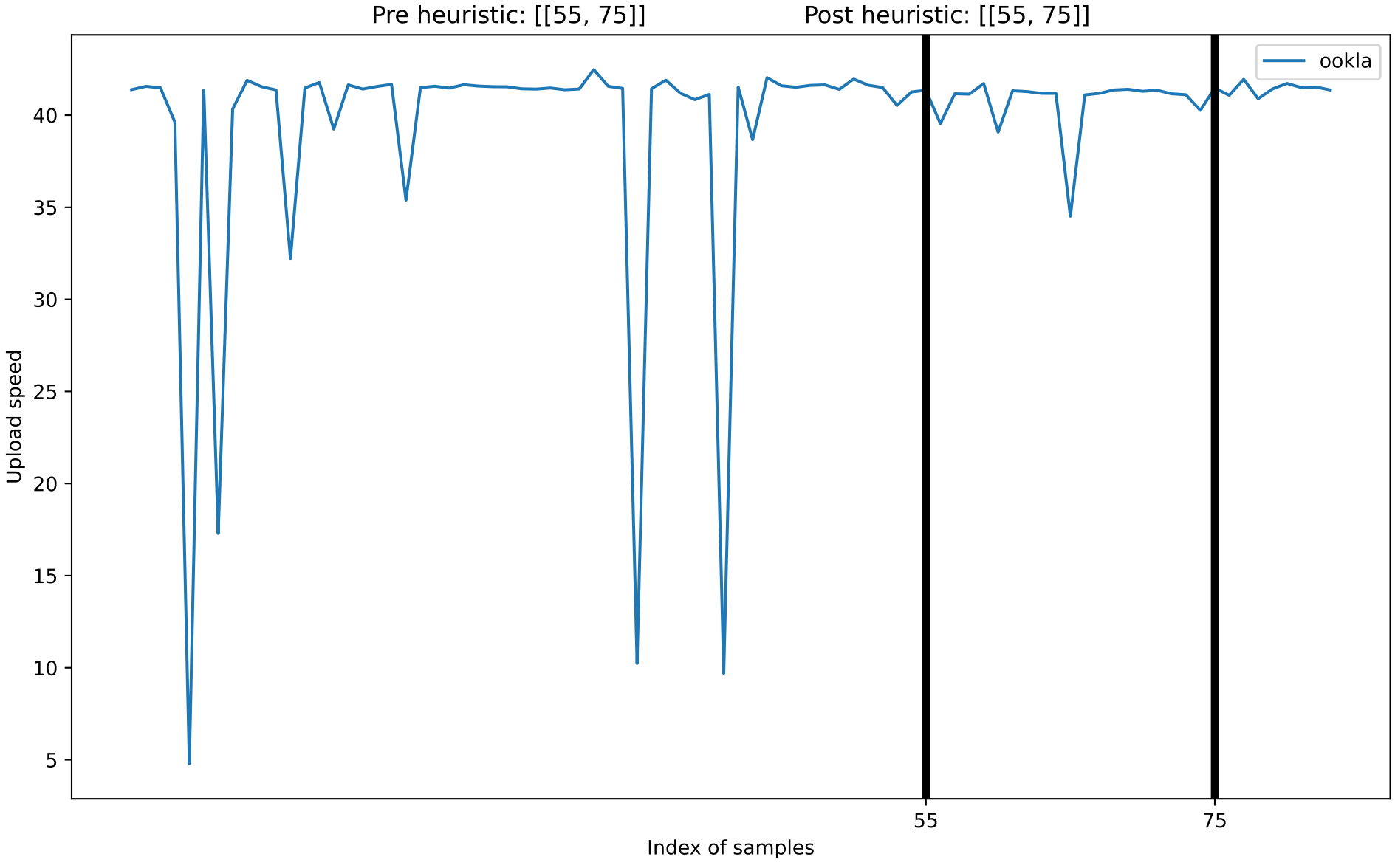

Pre heuristic: [[45, 265, 290, 305]]
Post heuristic: [[45, 265, 290, 305]]
ndt7
Upload speed
24
22
20
18
16
14
12
10
45
265
290
305
Index of samples

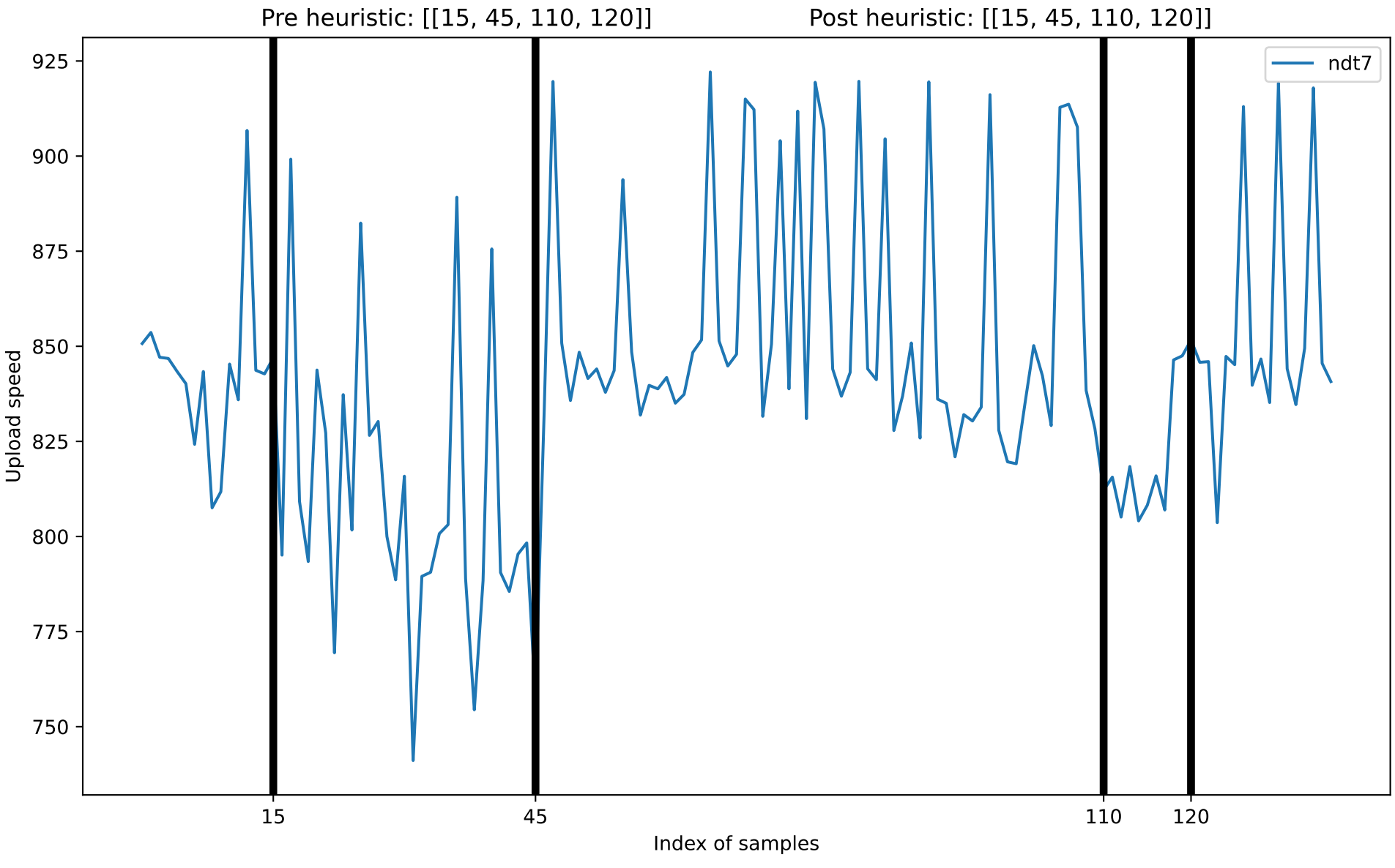

Pre heuristic: [[50, 265, 280]]
Post heuristic: [[50, 265, 280]]
ndt7
Download speed
700
600
500
400
300
200
100
0
50
265
280
Index of samples

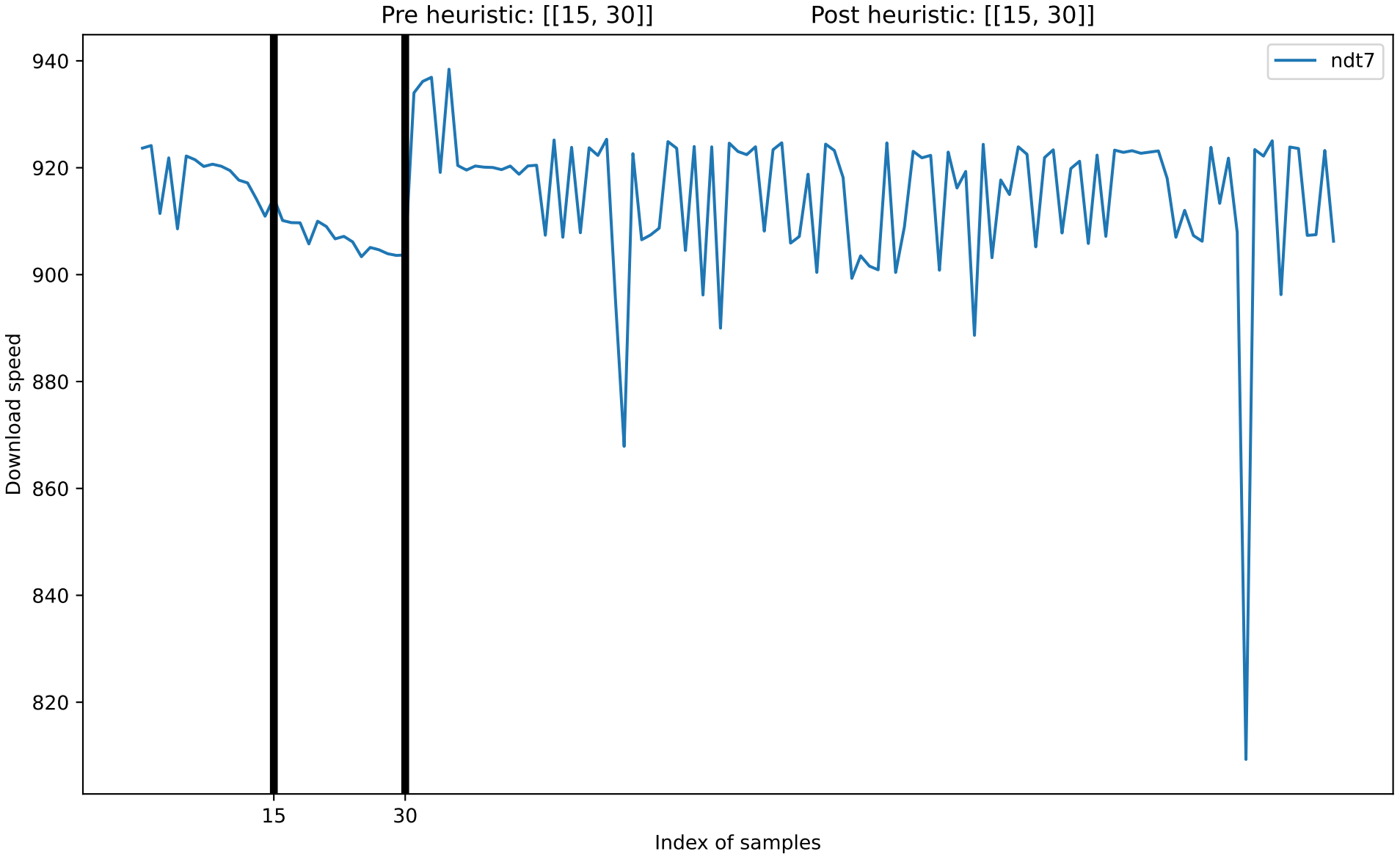

Pre heuristic: [[40, 85, 95, 295, 305]]
Post heuristic: [[40, 85, 95, 295, 305]]
ookla
Upload speed
24
22
20
18
16
14
12
10
40
85
95
295
305
Index of samples

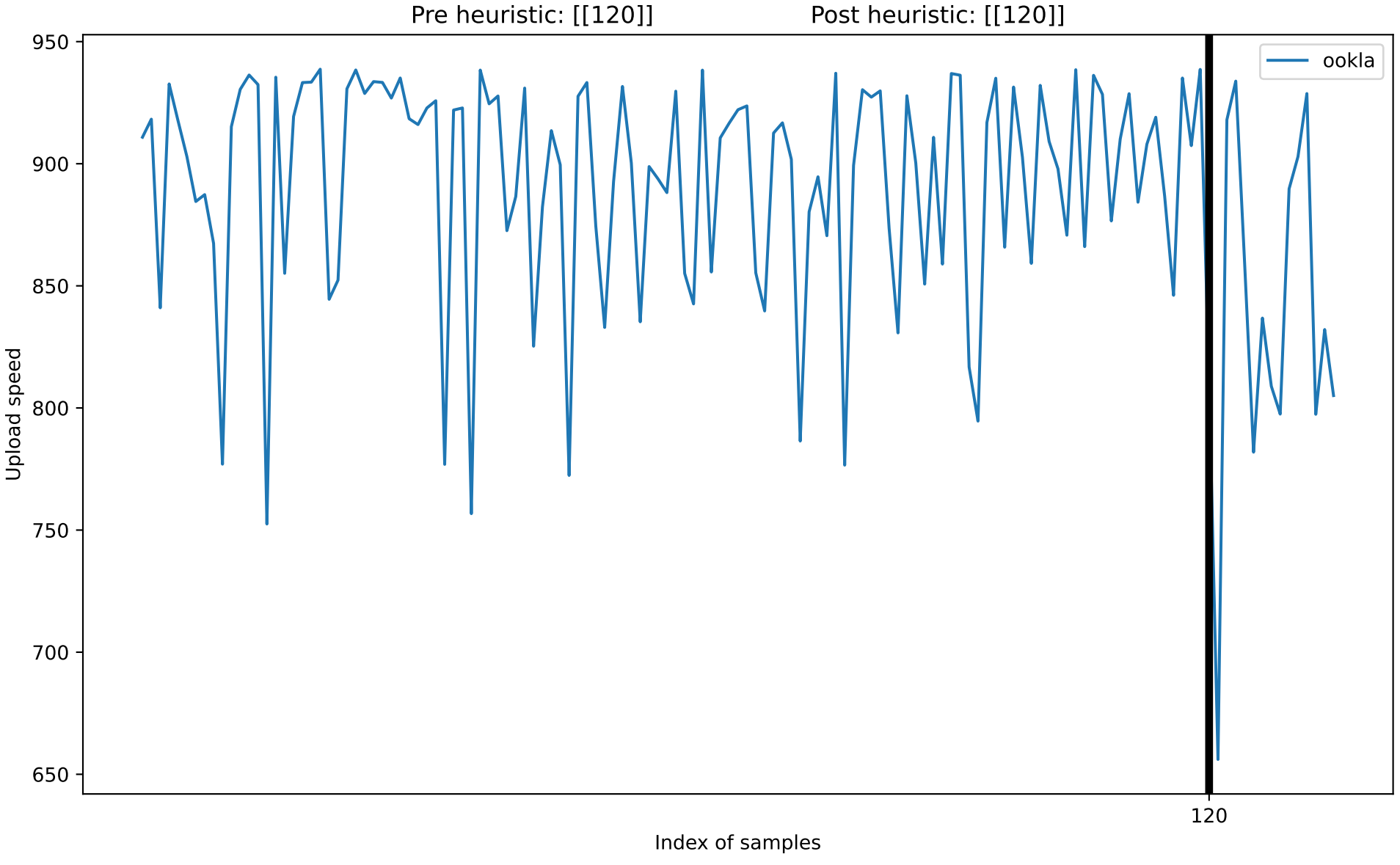

Pre heuristic: [[45, 80, 285, 305]]
Post heuristic: [[45, 80, 285, 305]]
ookla
Download speed
700
600
500
400
300
200
100
45
80
285
305
Index of samples

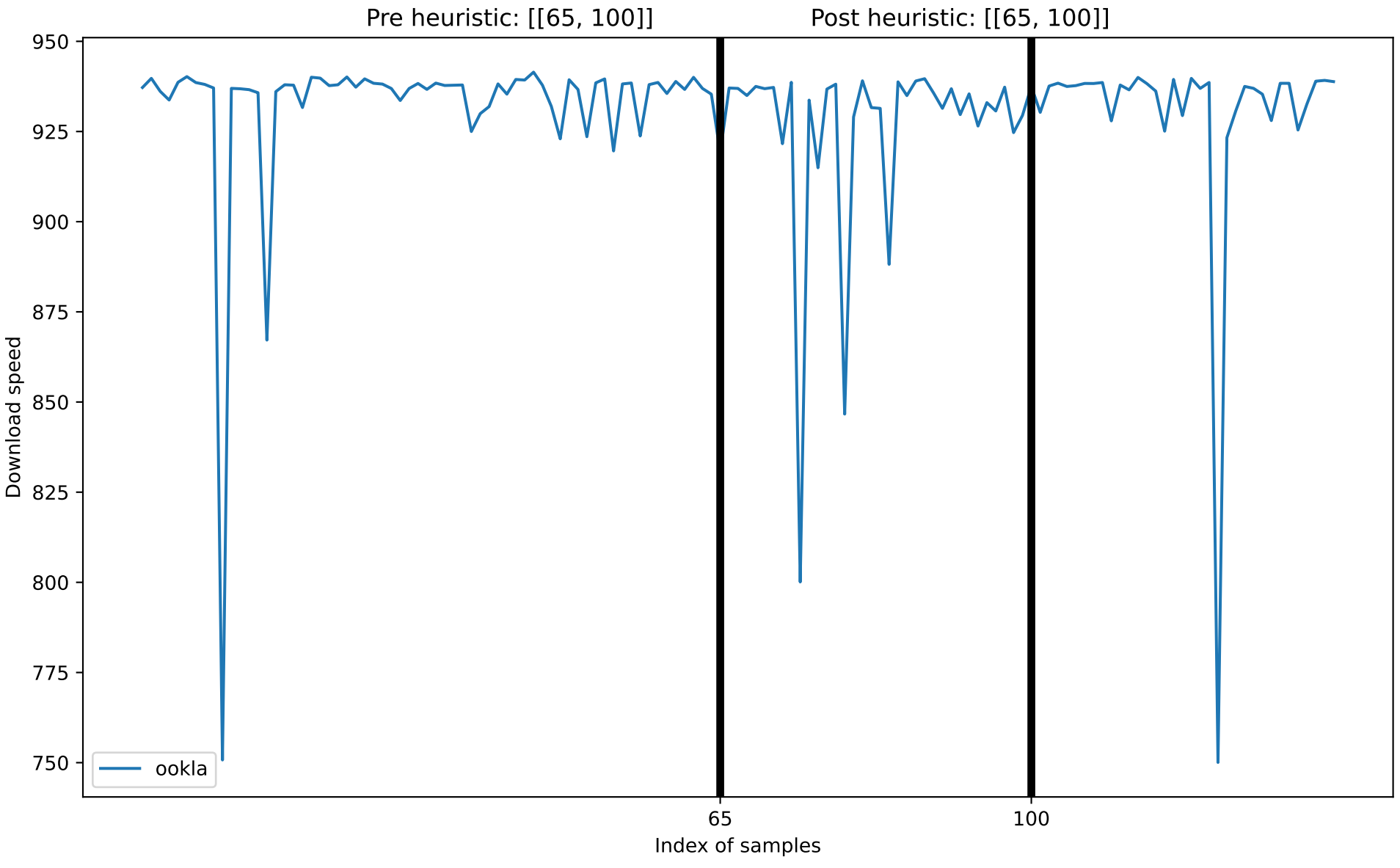

Pre heuristic: [[10, 35]]
Post heuristic: [[10, 35]]
Upload speed
40
35
30
25
20
15
10
ndt7
10
35
Index of samples

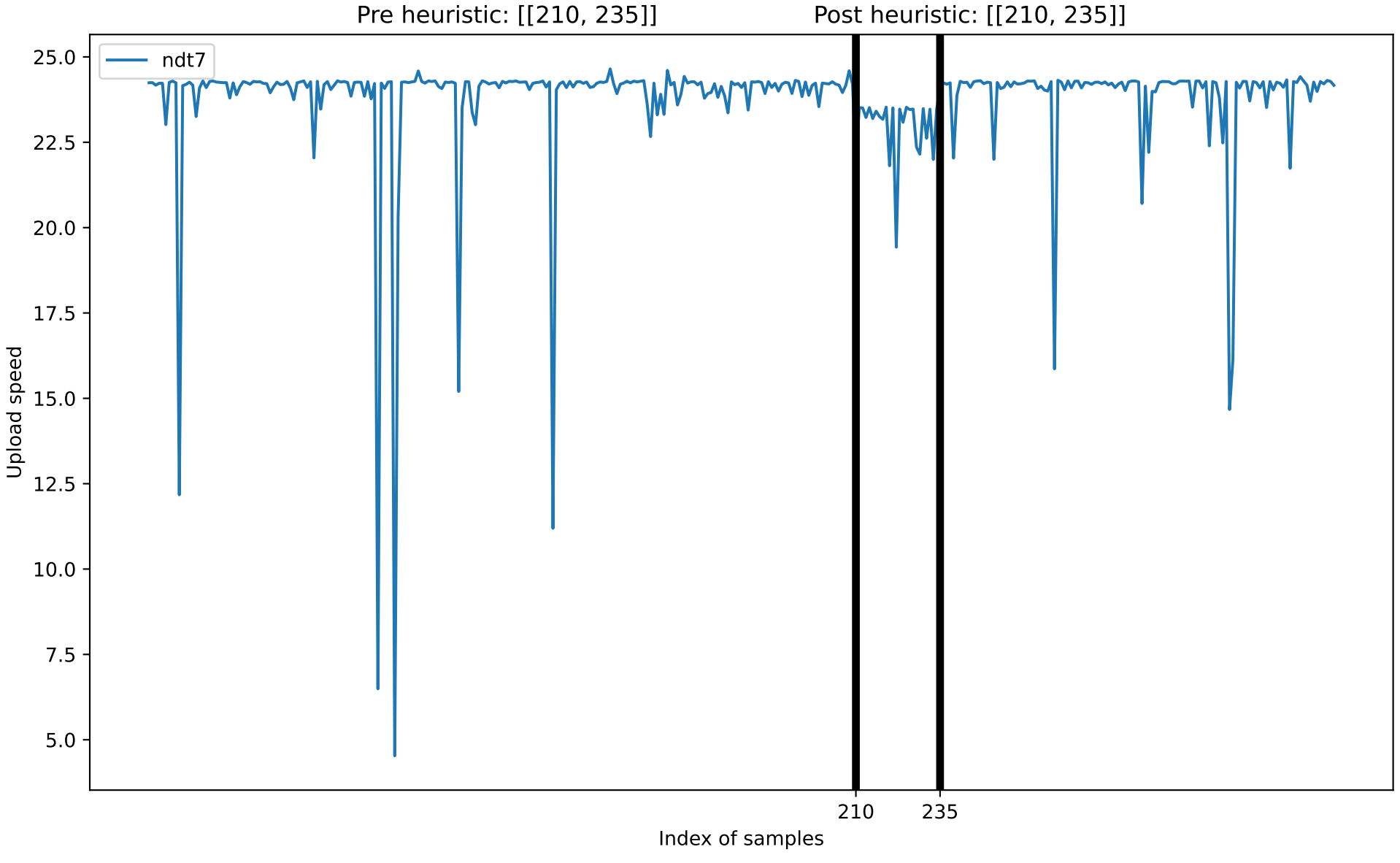

Pre heuristic: [[55, 75]]
Post heuristic: [[55, 75]]
ookla
Upload speed
40
35
30
25
20
15
10
5
55
75
Index of samples

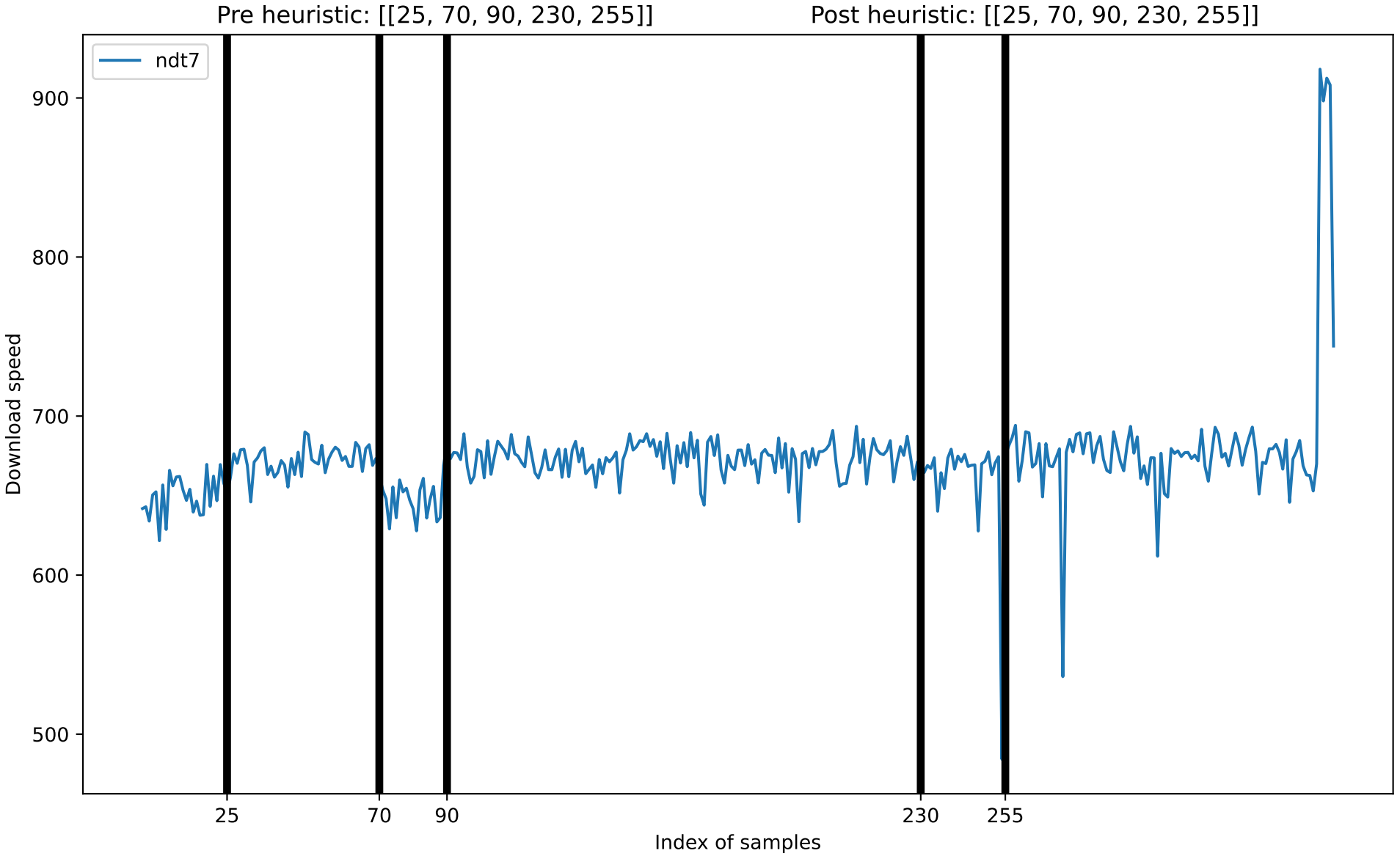

Pre heuristic: [[15, 45, 110, 120]]
Post heuristic: [[15, 45, 110, 120]]
ndt7
Upload speed
925
900
875
850
825
800
775
750
15
45
110
120
Index of samples

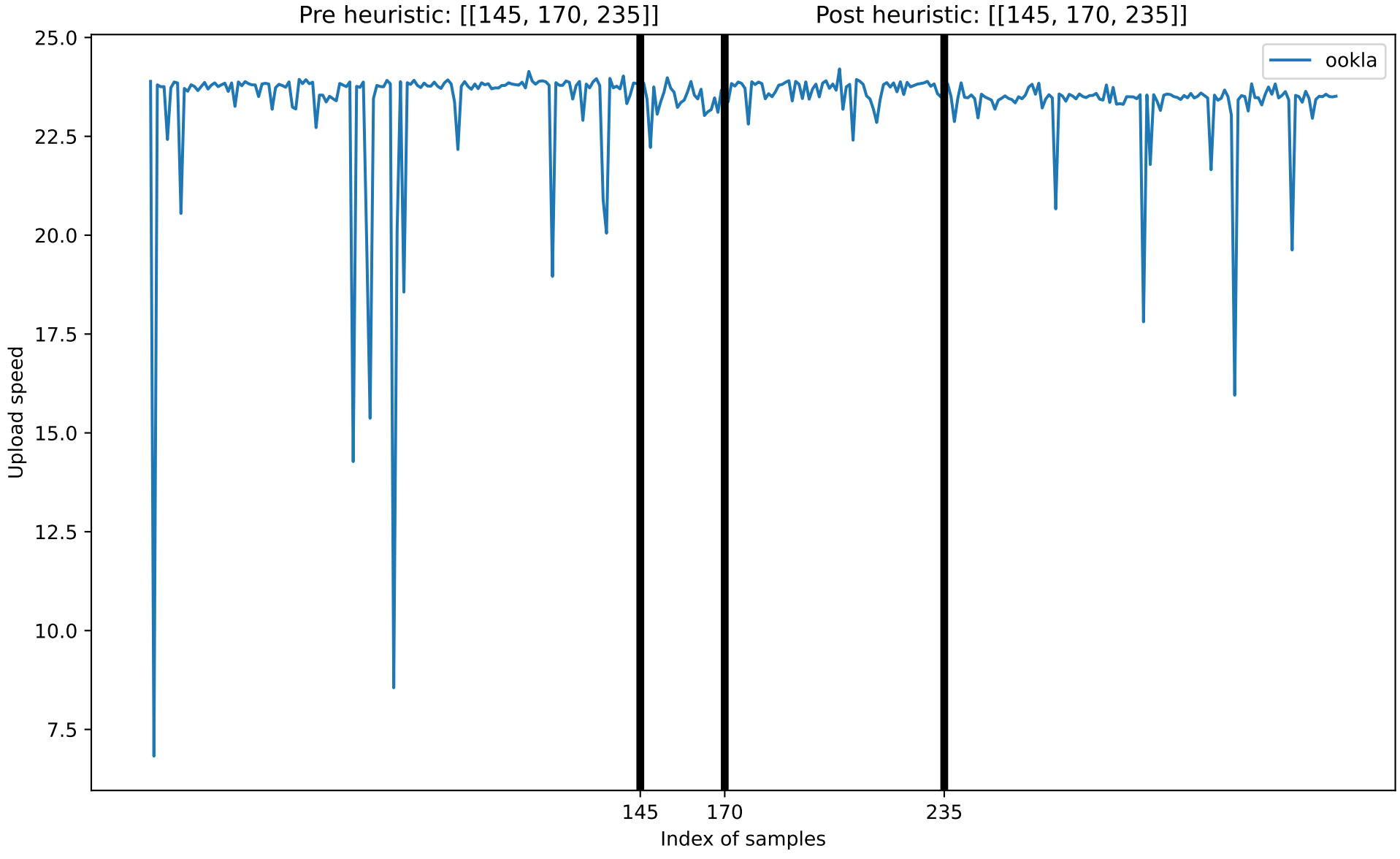

Pre heuristic: [[15, 30]]
Post heuristic: [[15, 30]]
ndt7
940
920
900
880
860
840
820
Download speed
15
30
Index of samples

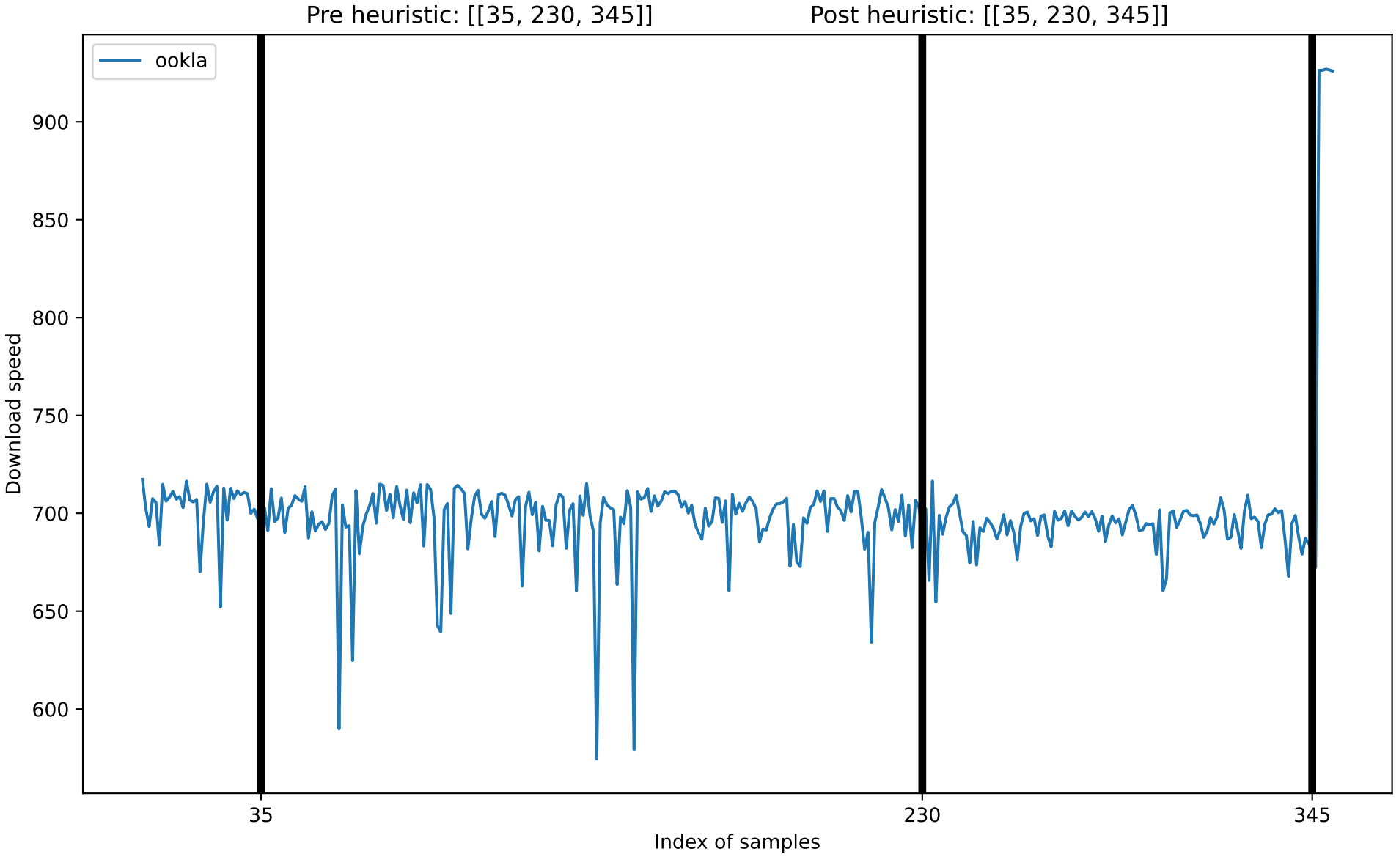

Pre heuristic: [[120]]
Post heuristic: [[120]]
ookla
Upload speed
950
900
850
800
750
700
650
120
Index of samples

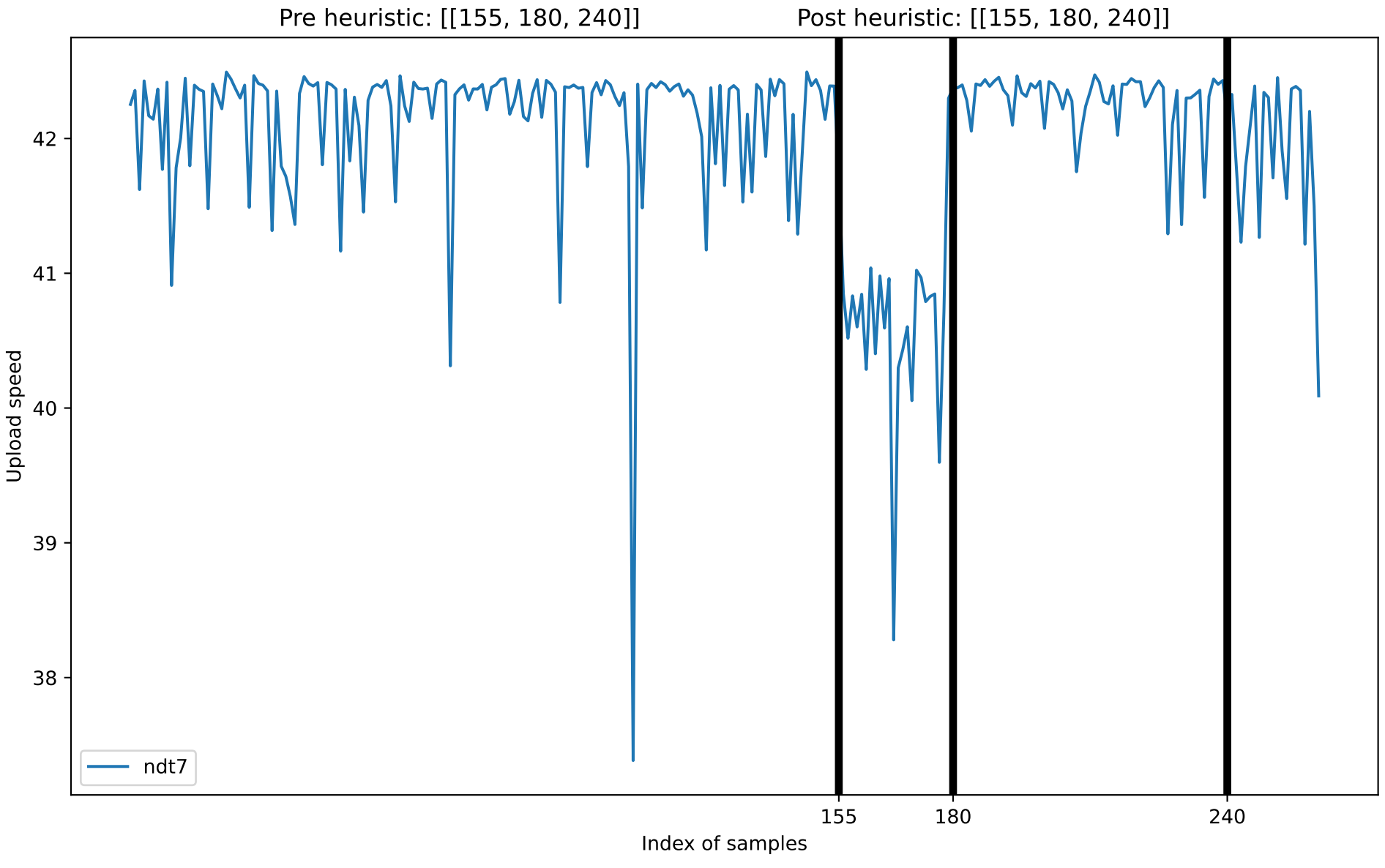

Pre heuristic: [[65, 100]]
Post heuristic: [[65, 100]]
950
925
900
875
850
825
800
775
750
Download speed
ookla
65
100
Index of samples

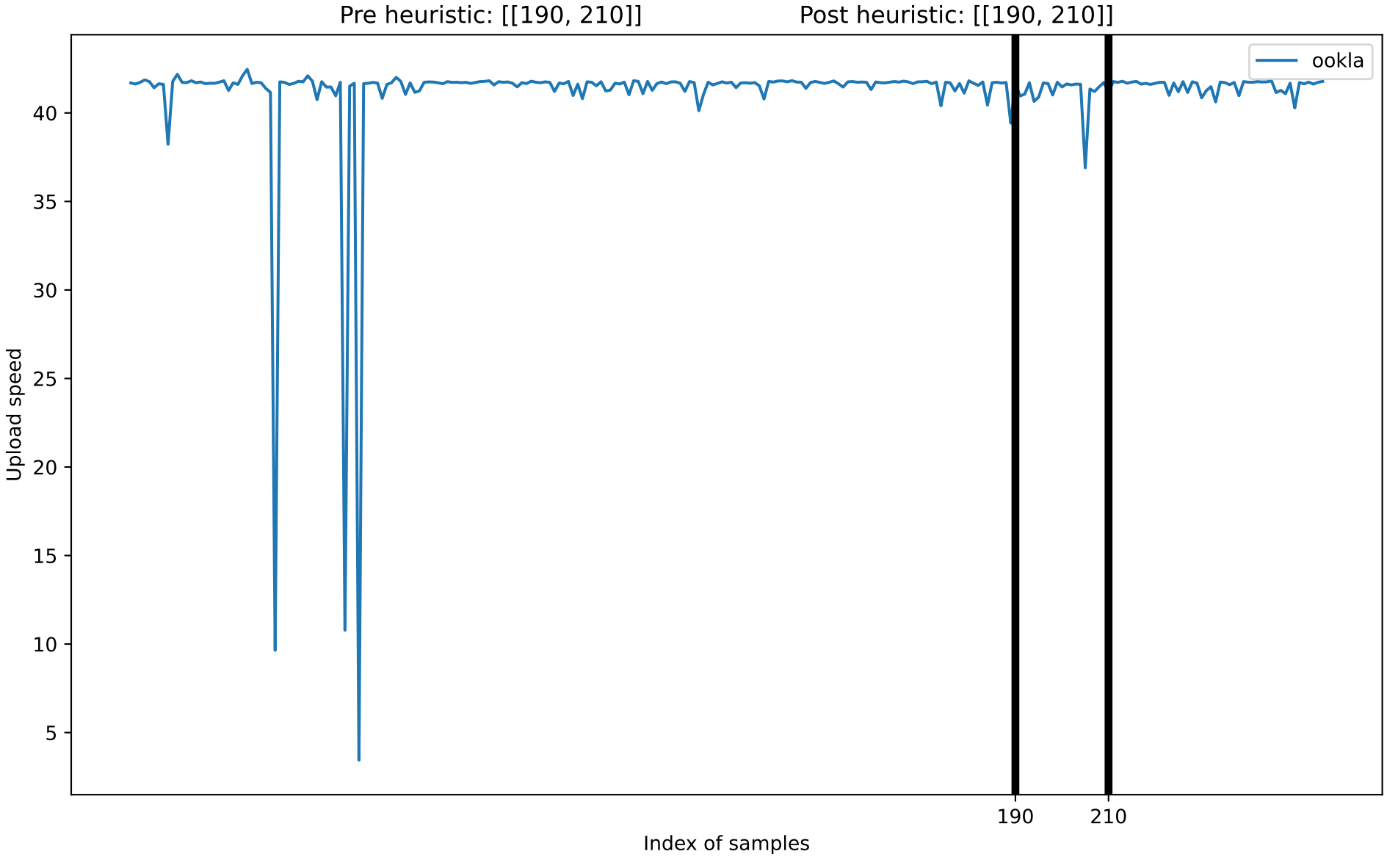

Pre heuristic: [[210, 235]]
Post heuristic: [[210, 235]]
ndt7
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
Upload speed
210
235
Index of samples

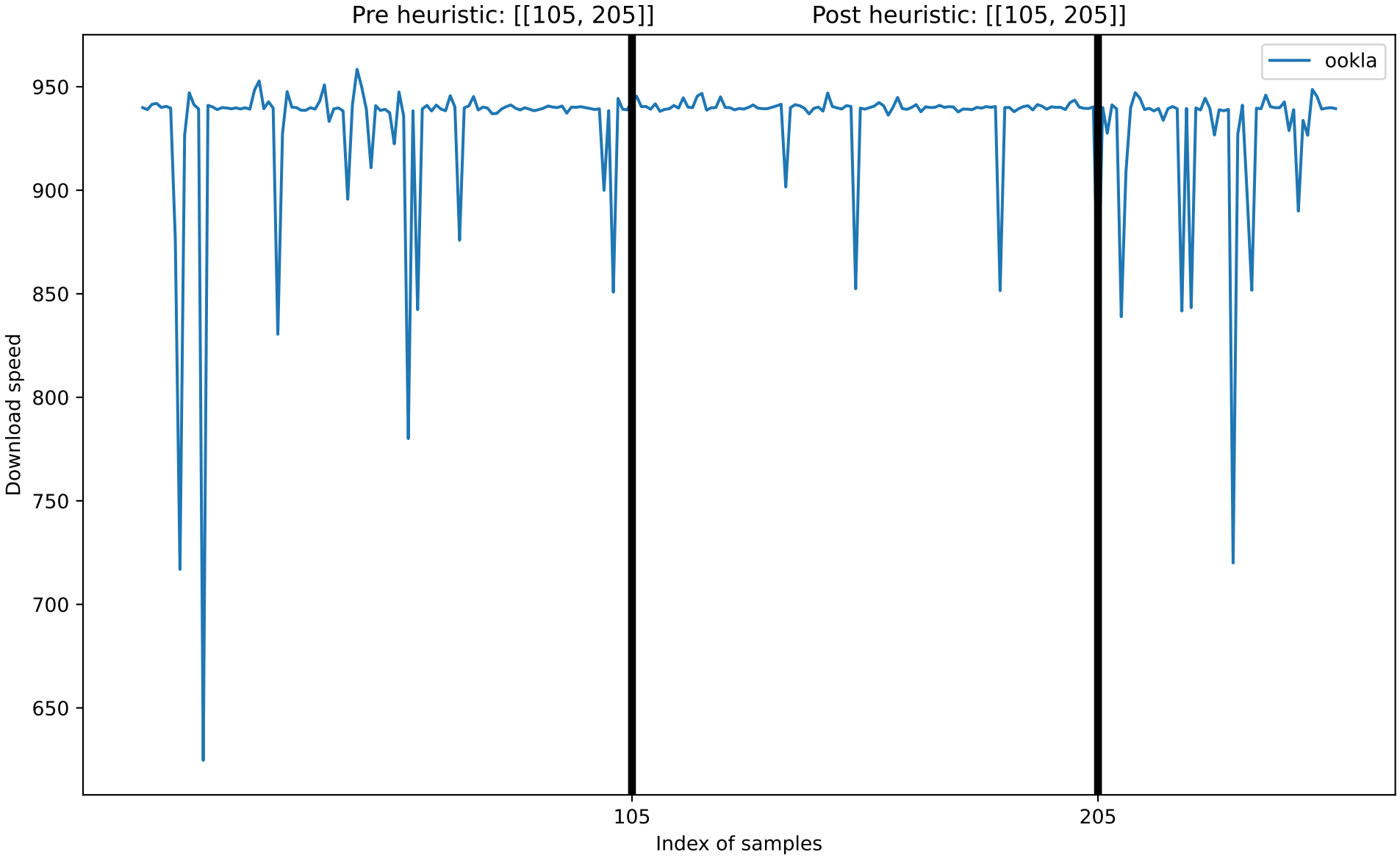

Pre heuristic: [[25, 70, 90, 230, 255]]
Post heuristic: [[25, 70, 90, 230, 255]]
ndt7
900
800
700
600
500
Download speed
25
70
90
230
255
Index of samples

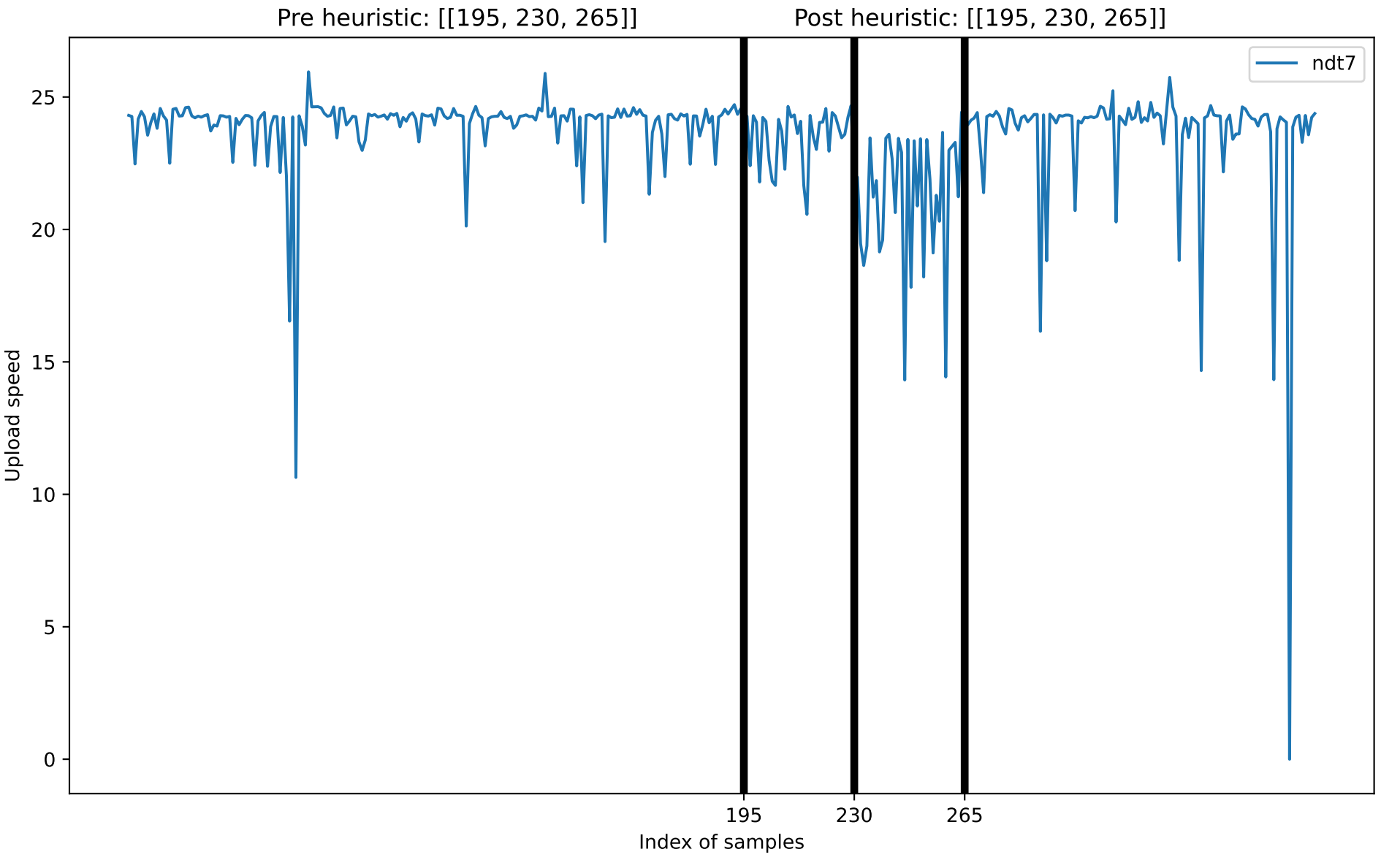

Pre heuristic: [[145, 170, 235]]
Post heuristic: [[145, 170, 235]]
ookla
Upload speed
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
145
170
235
Index of samples

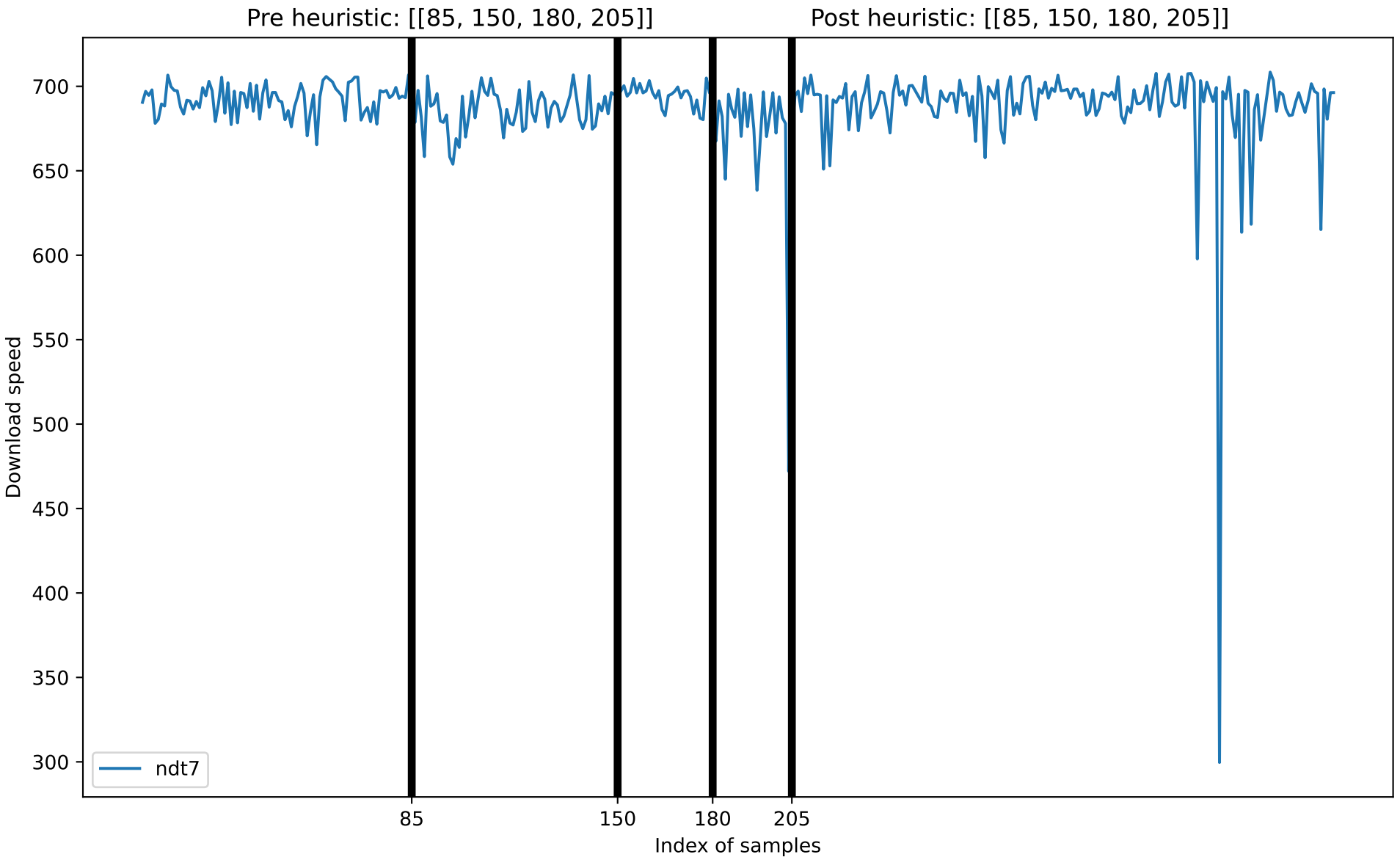

Pre heuristic: [[35, 230, 345]]
Post heuristic: [[35, 230, 345]]
ookla
900
850
800
750
700
650
600
Download speed
35
230
345
Index of samples

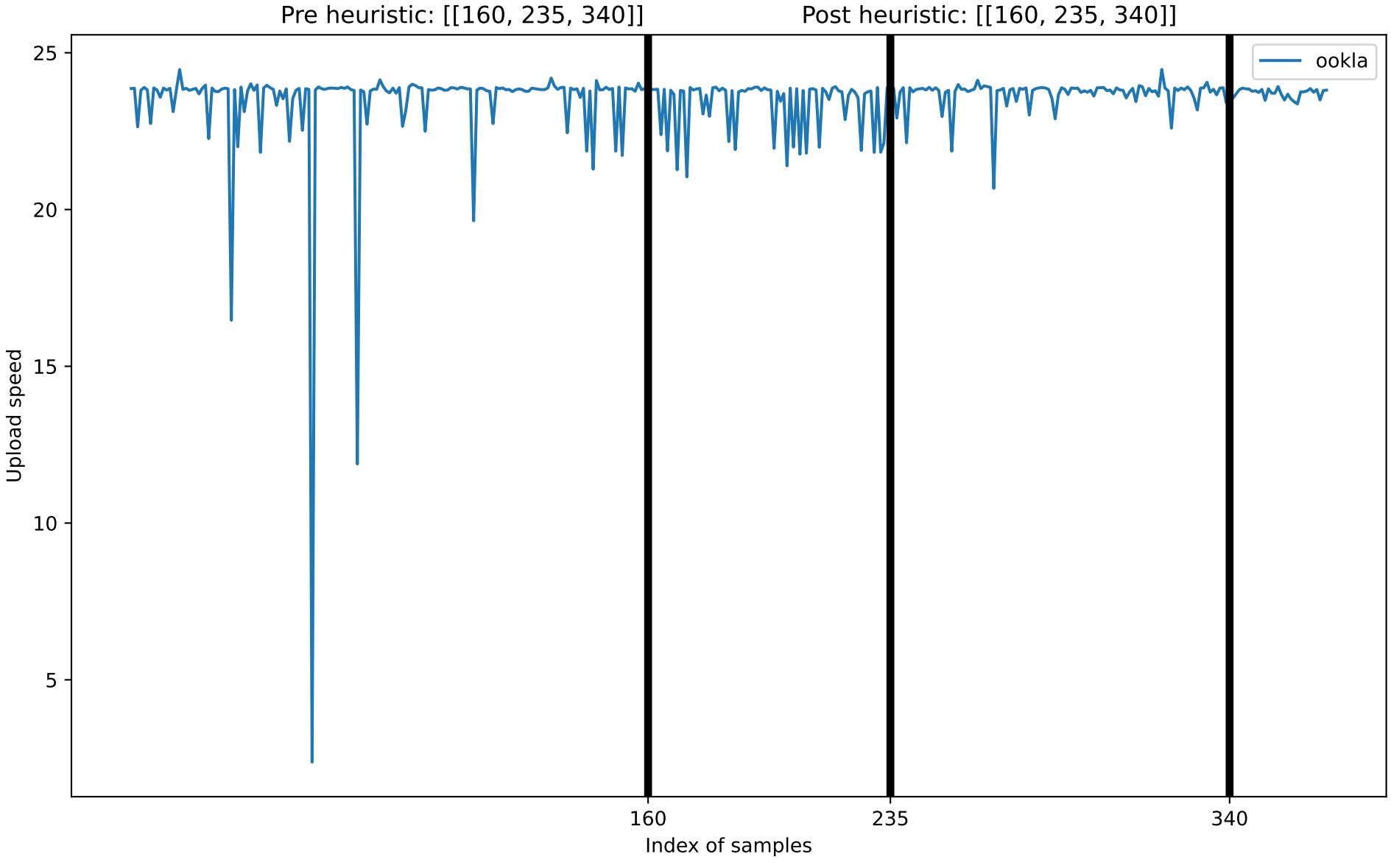

Pre heuristic: [[155, 180, 240]]
Post heuristic: [[155, 180, 240]]
Upload speed
42
41
40
39
38
ndt7
155
180
240
Index of samples

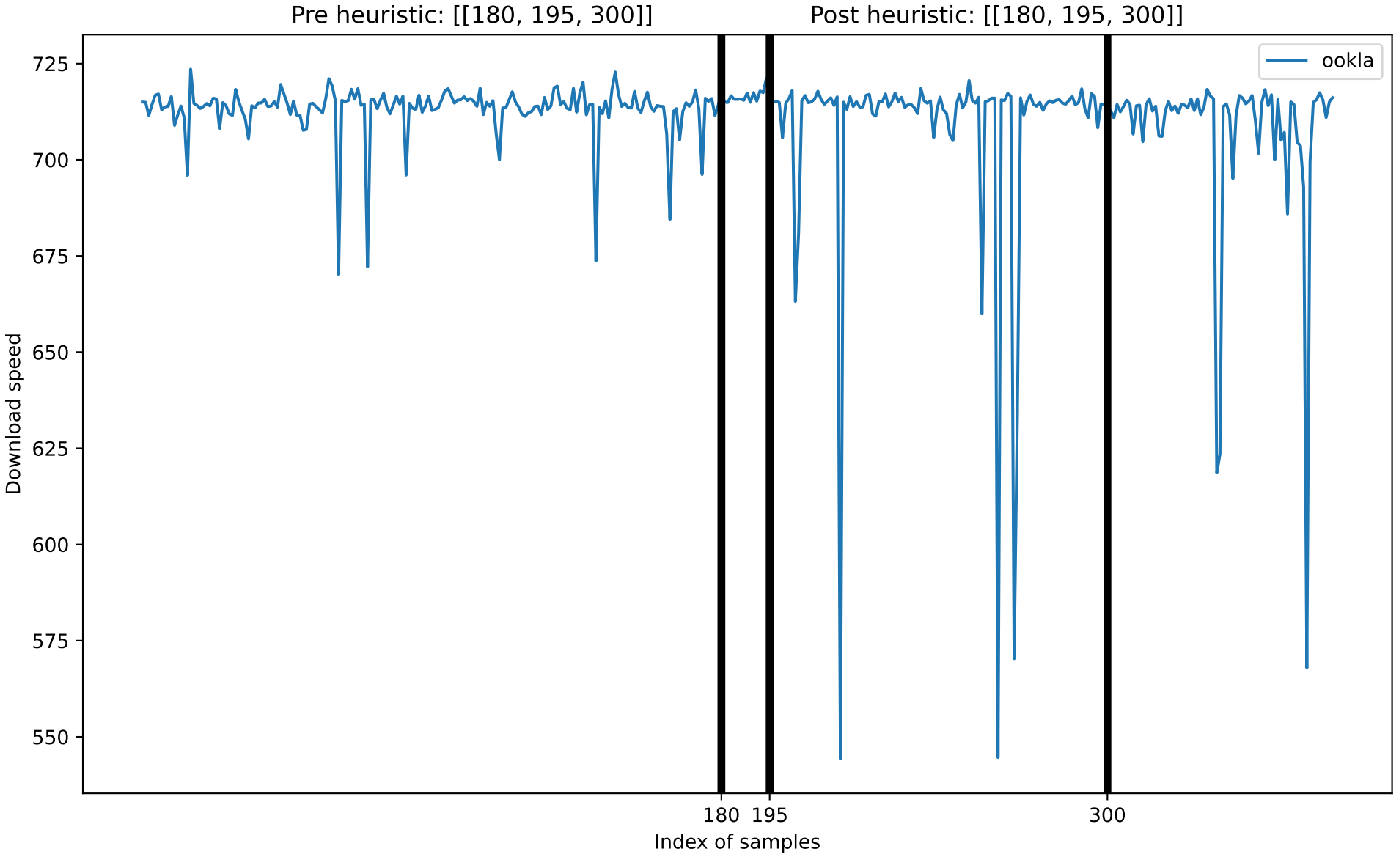

Pre heuristic: [[190, 210]]
Post heuristic: [[190, 210]]
ookla
Upload speed
40
35
30
25
20
15
10
5
190
210
Index of samples

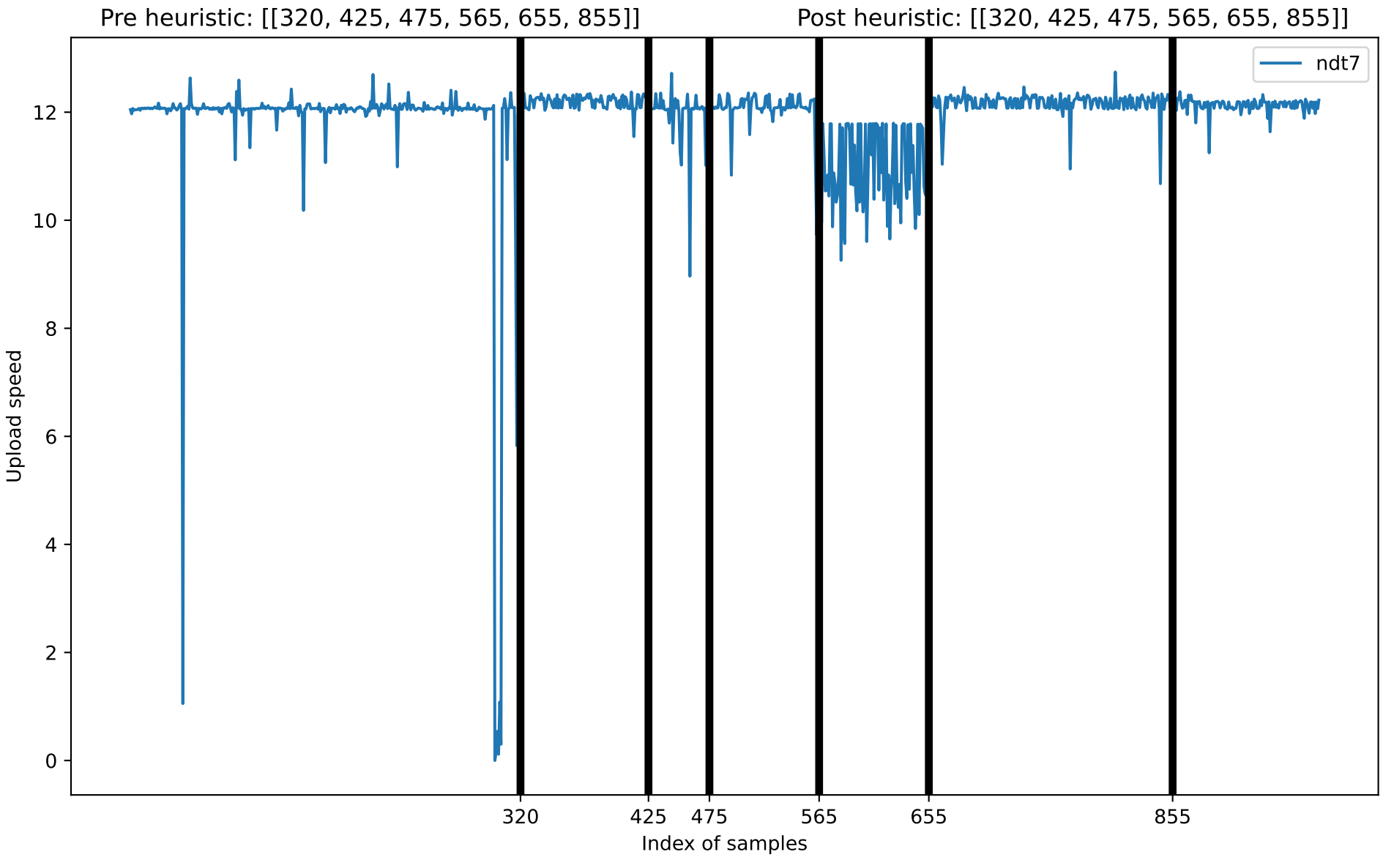

Pre heuristic: [[105, 205]]
Post heuristic: [[105, 205]]
ookla
Download speed
950
900
850
800
750
700
650
105
205
Index of samples

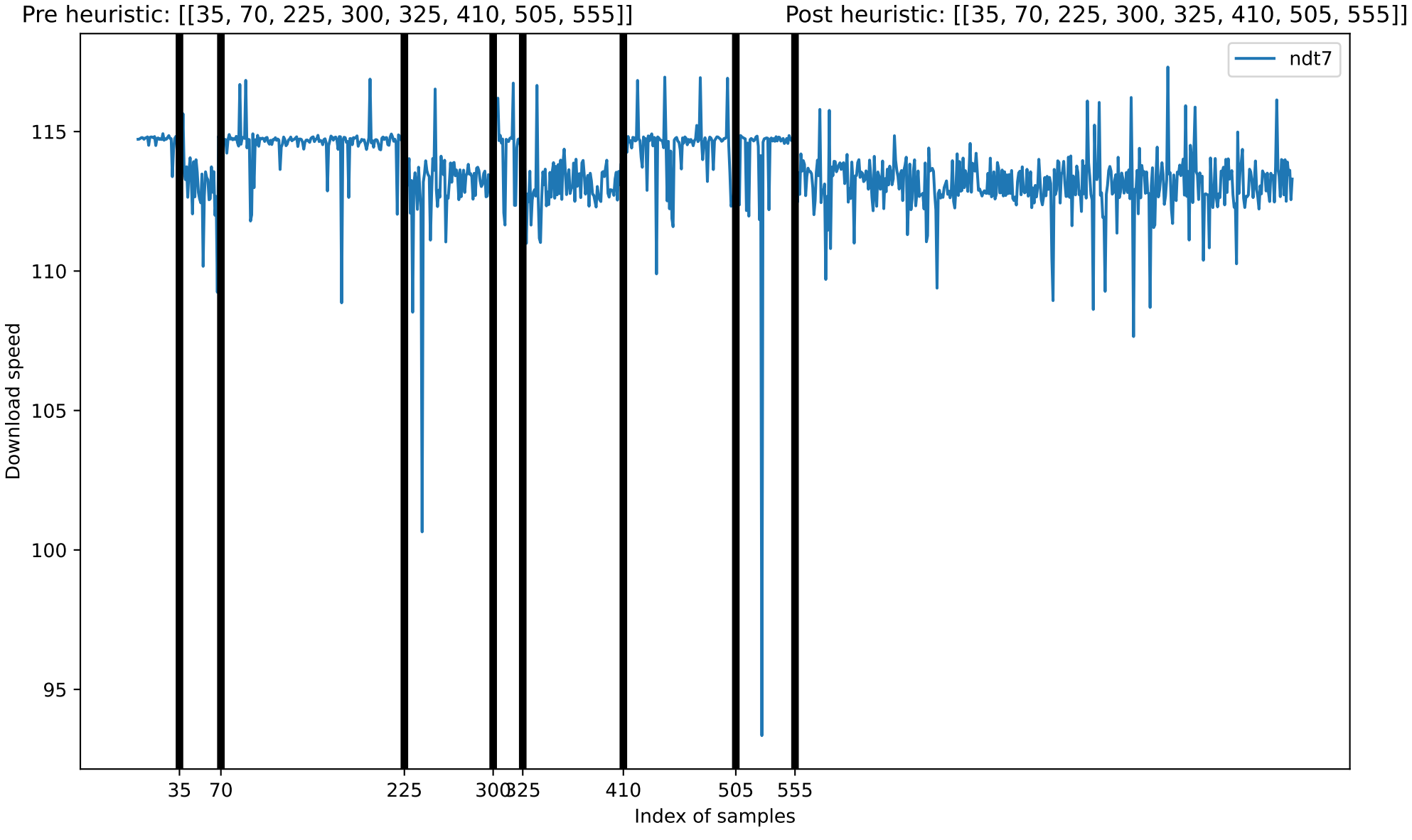

Pre heuristic: [[195, 230, 265]]
Post heuristic: [[195, 230, 265]]
ndt7
Upload speed
25
20
15
10
5
0
195
230
265
Index of samples

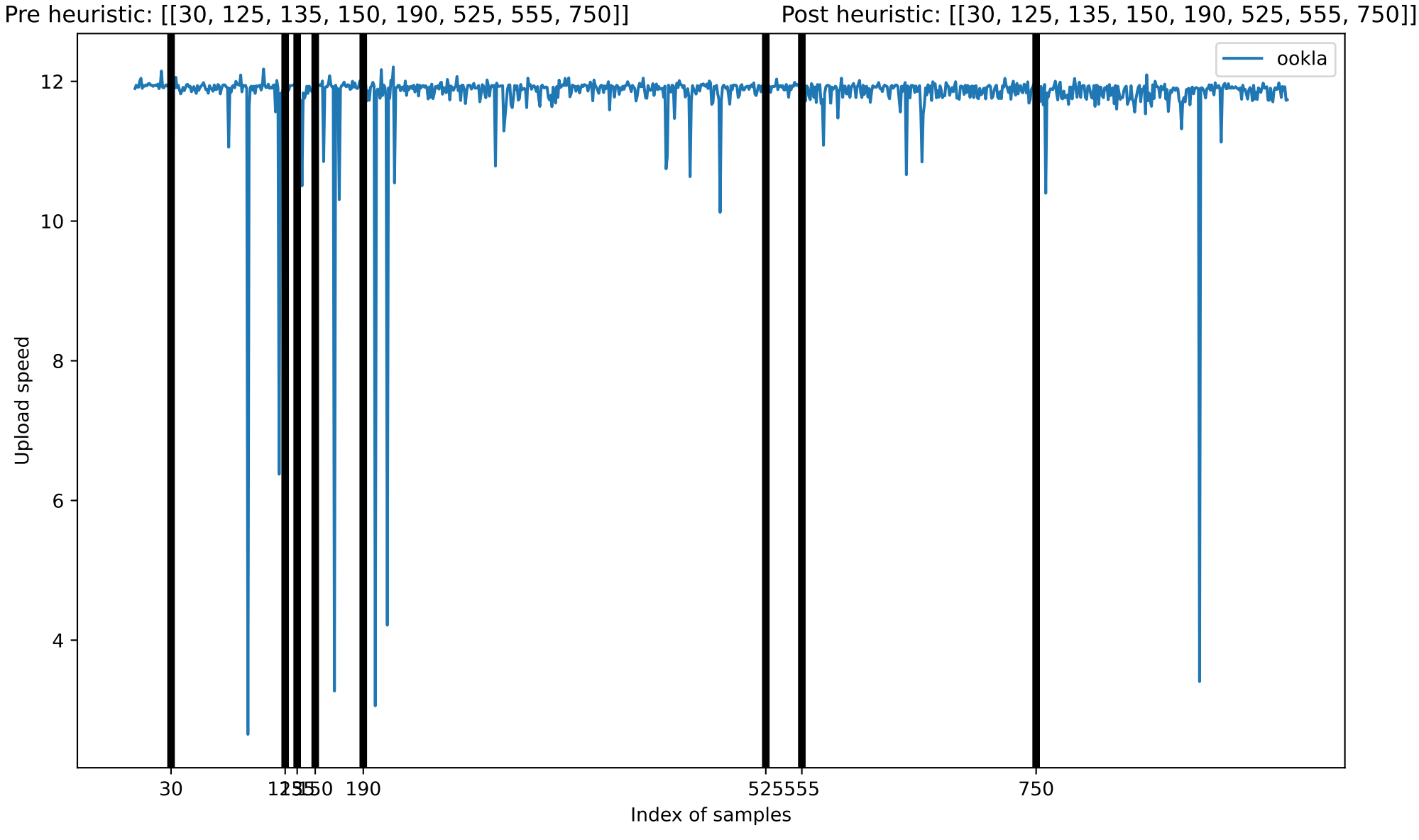

Pre heuristic: [[85, 150, 180, 205]]
Post heuristic: [[85, 150, 180, 205]]
Download speed
700
650
600
550
500
450
400
350
300
ndt7
85
150
180
205
Index of samples

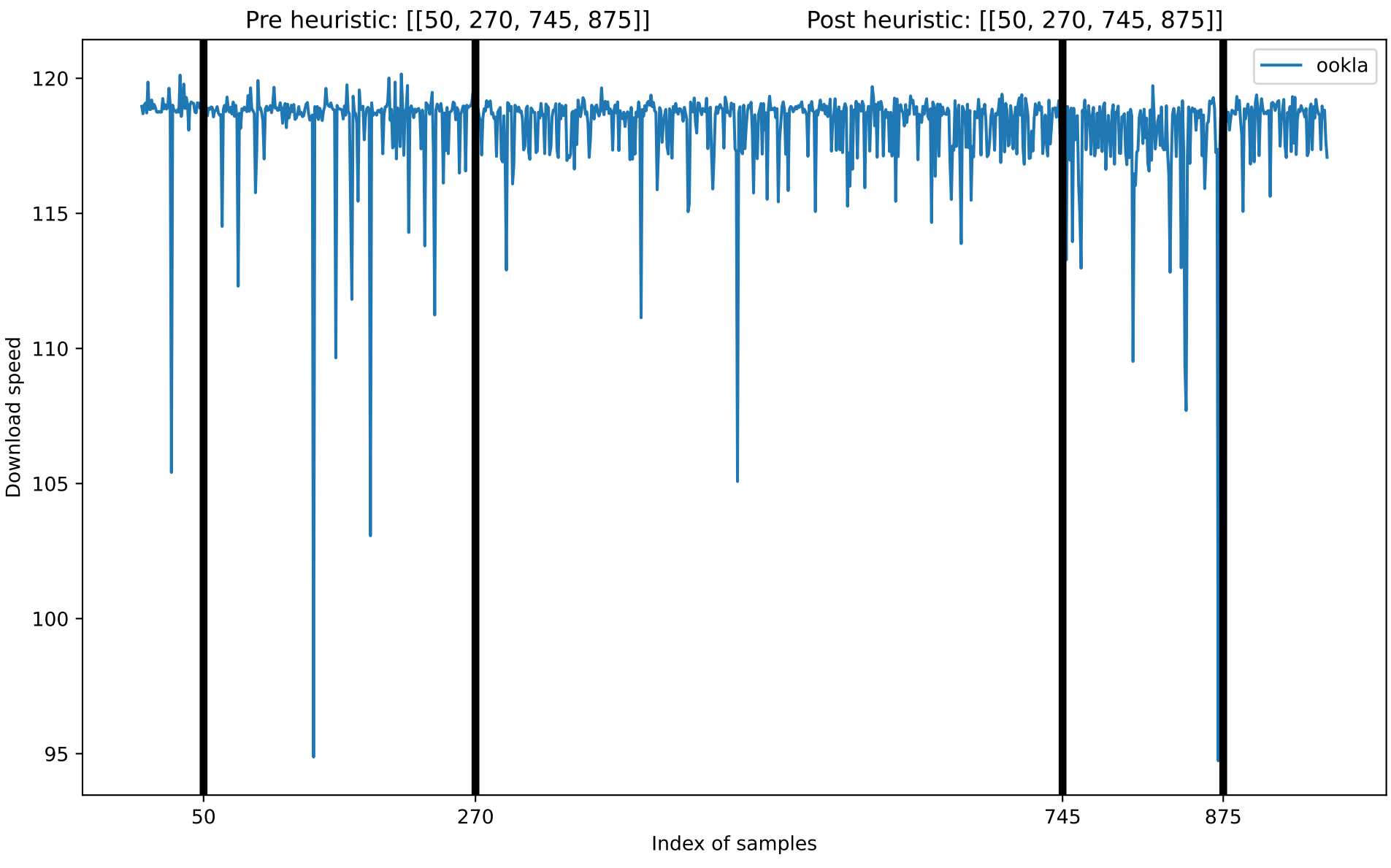

Pre heuristic: [[160, 235, 340]]
Post heuristic: [[160, 235, 340]]
ookla
Upload speed
25
20
15
10
5
160
235
340
Index of samples

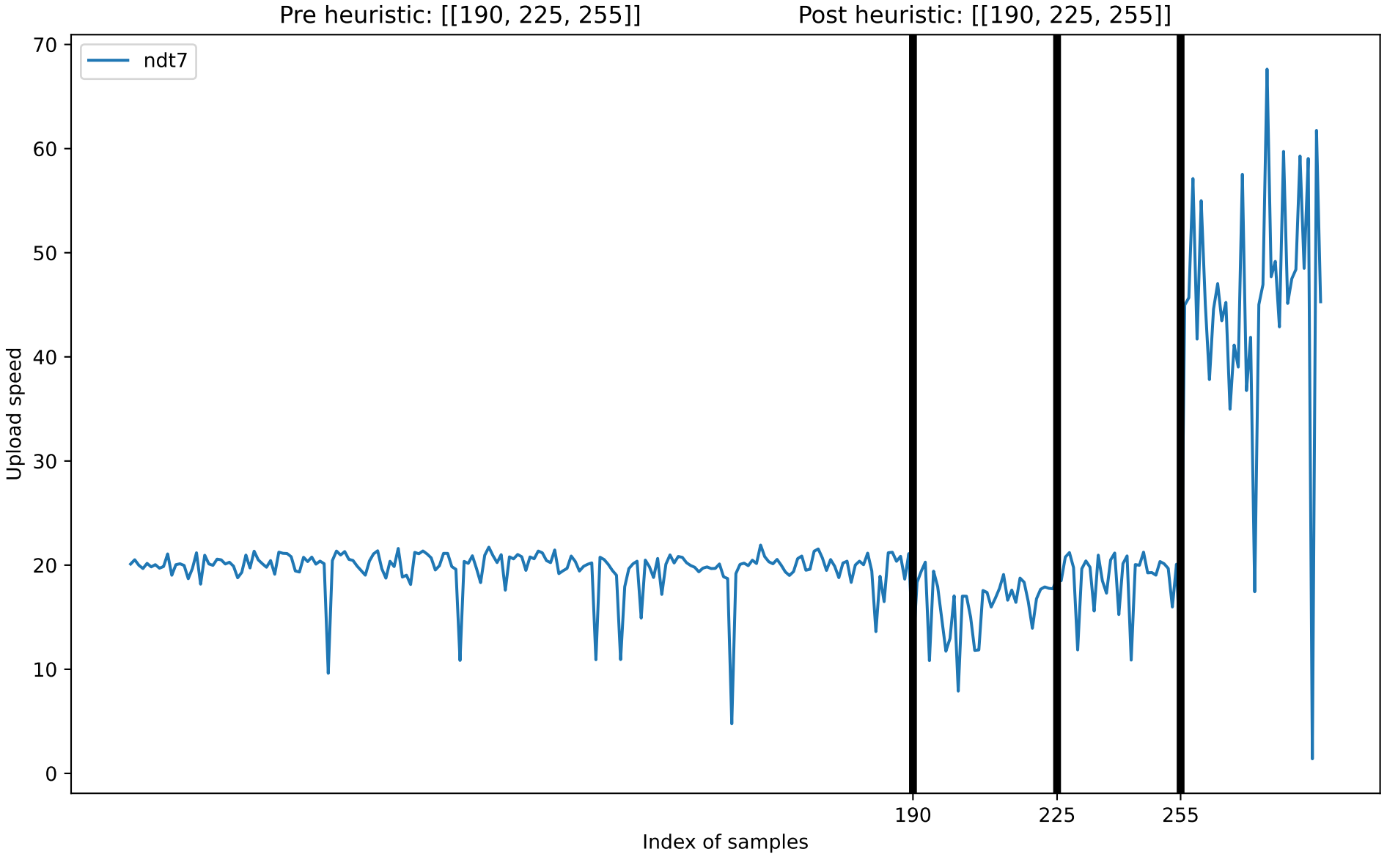

Pre heuristic: [[180, 195, 300]]
Post heuristic: [[180, 195, 300]]
ookla
Download speed
725
700
675
650
625
600
575
550
180
195
300
Index of samples

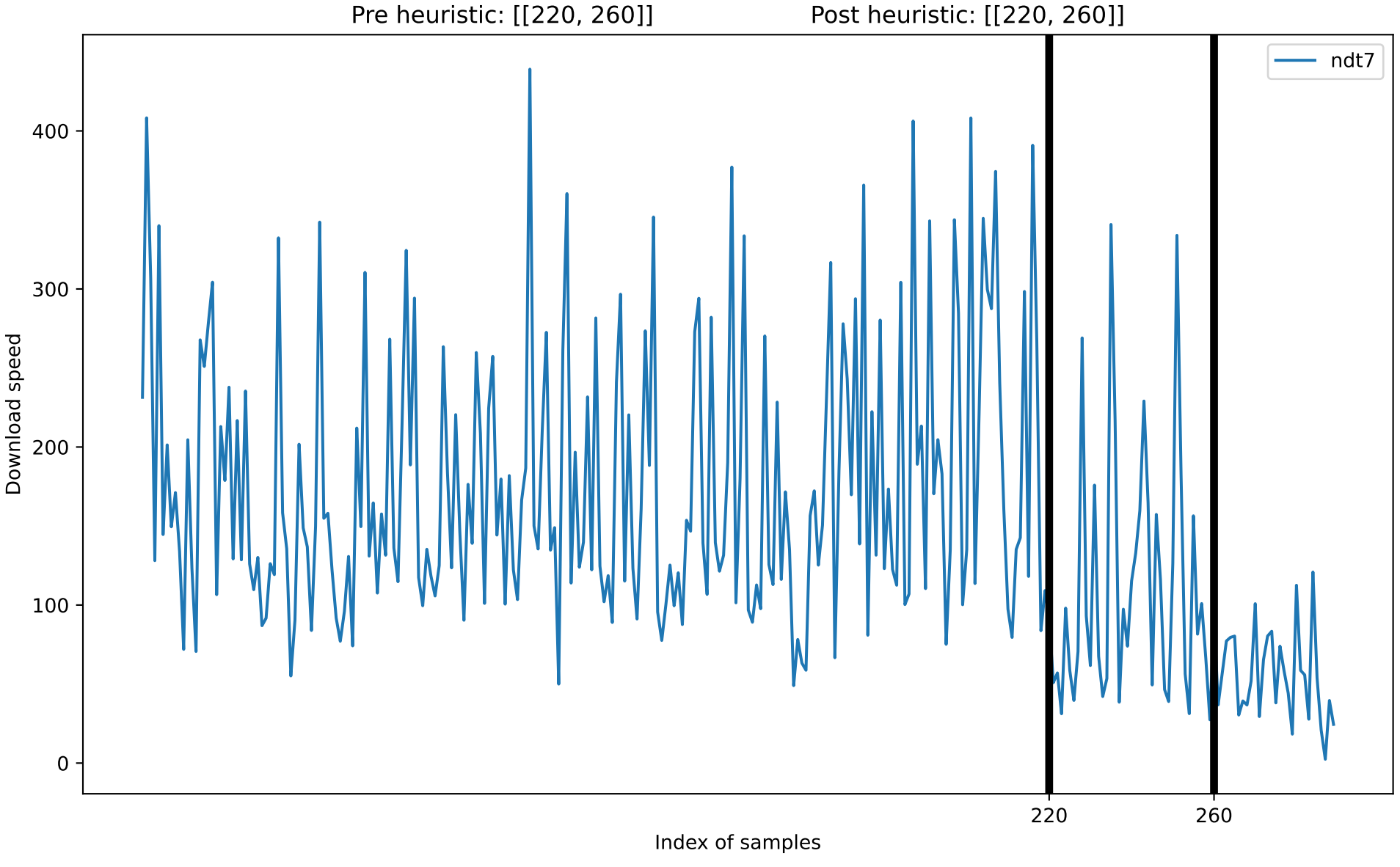

Pre heuristic: [[320, 425, 475, 565, 655, 855]]
Post heuristic: [[320, 425, 475, 565, 655, 855]]
ndt7
Upload speed
0
2
4
6
8
10
12
320
425
475
565
655
855
Index of samples

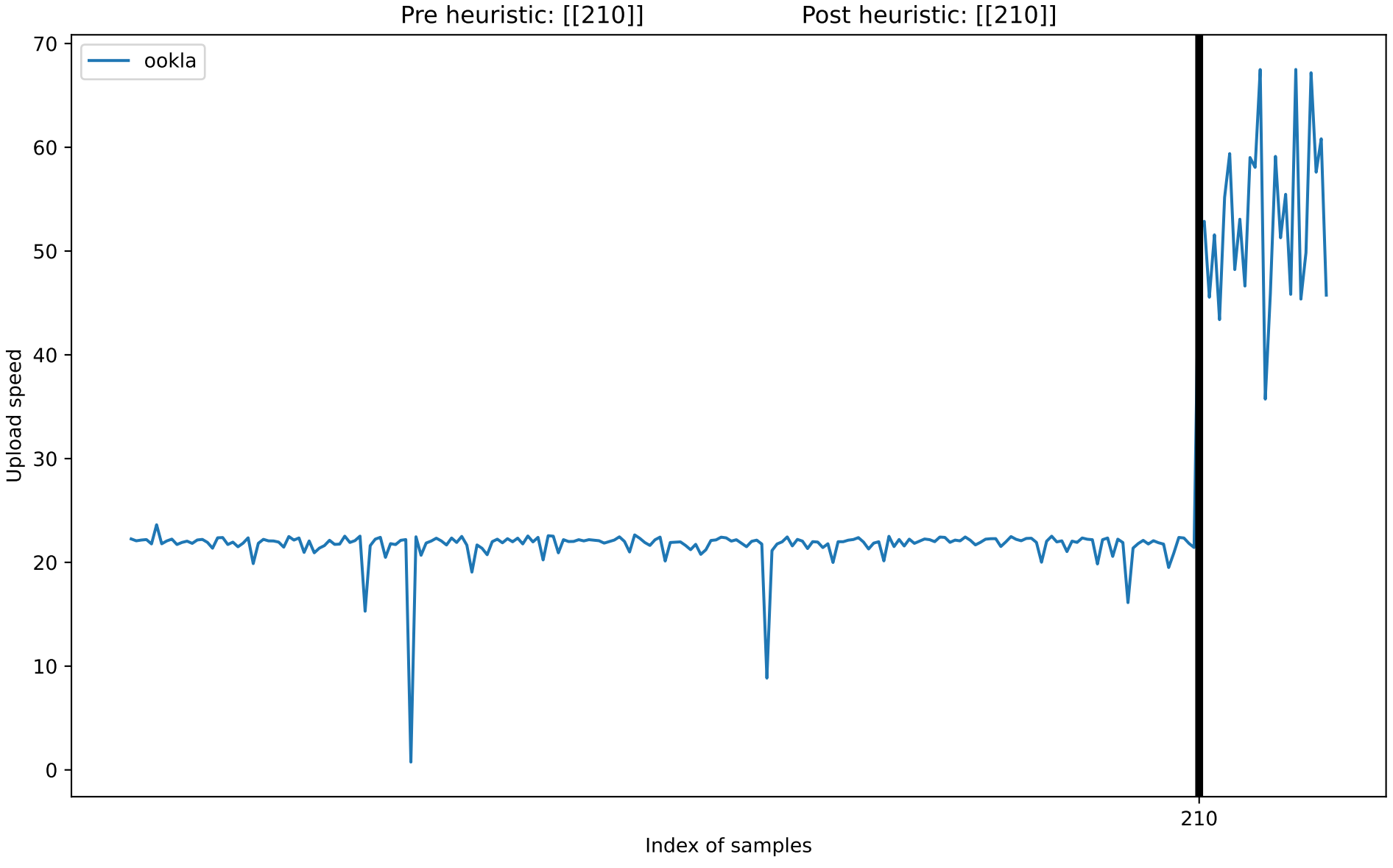

Pre heuristic: [[35, 70, 225, 300, 325, 410, 505, 555]]
Post heuristic: [[35, 70, 225, 300, 325, 410, 505, 555]]
ndt7
Download speed
115
110
105
100
95
35
70
225
300
325
410
505
555
Index of samples

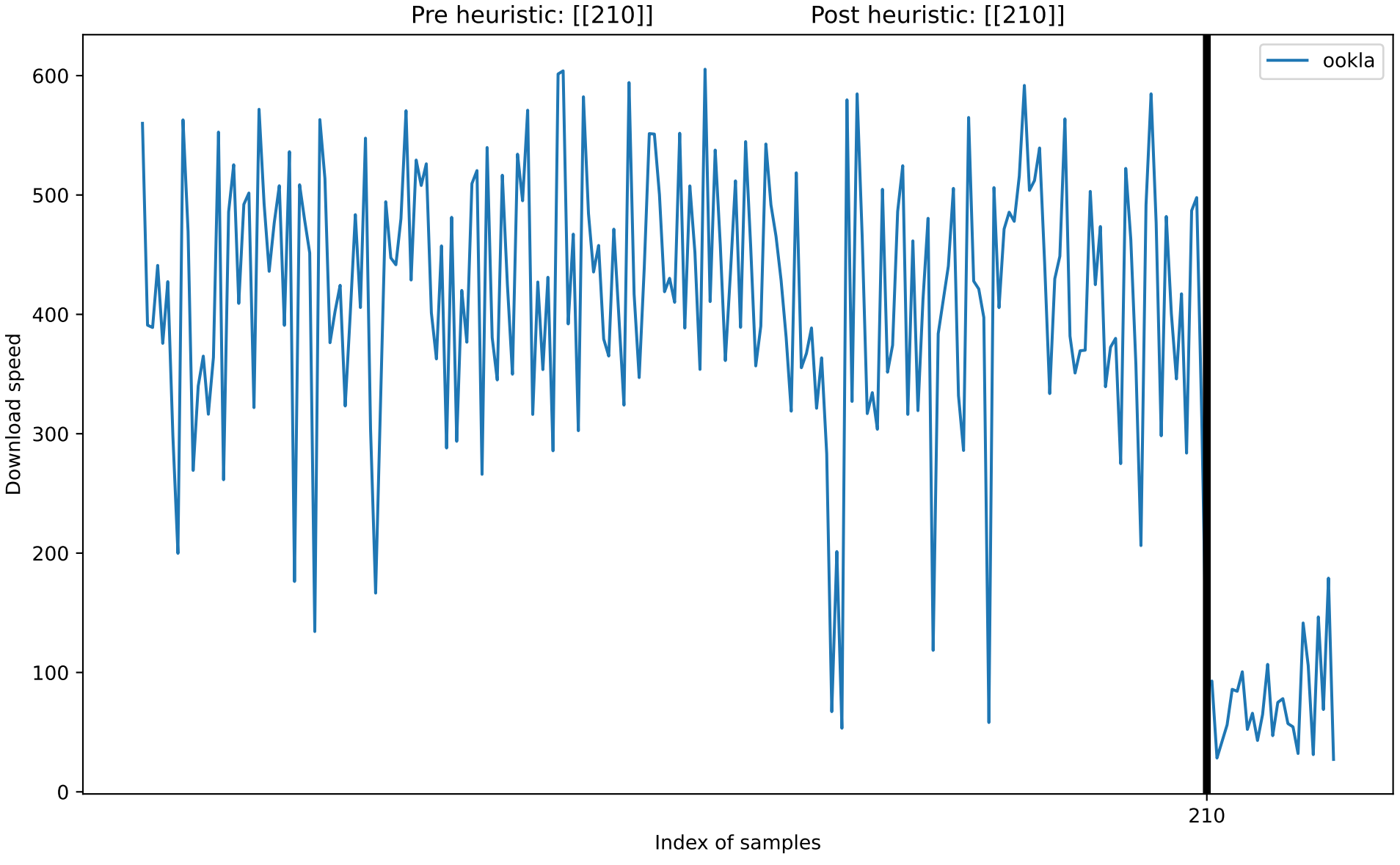

Pre heuristic: [[30, 125, 135, 150, 190, 525, 555, 750]]
Post heuristic: [[30, 125, 135, 150, 190, 525, 555, 750]]
ookla
Upload speed
12
10
8
6
4
30
190
525555
750
Index of samples

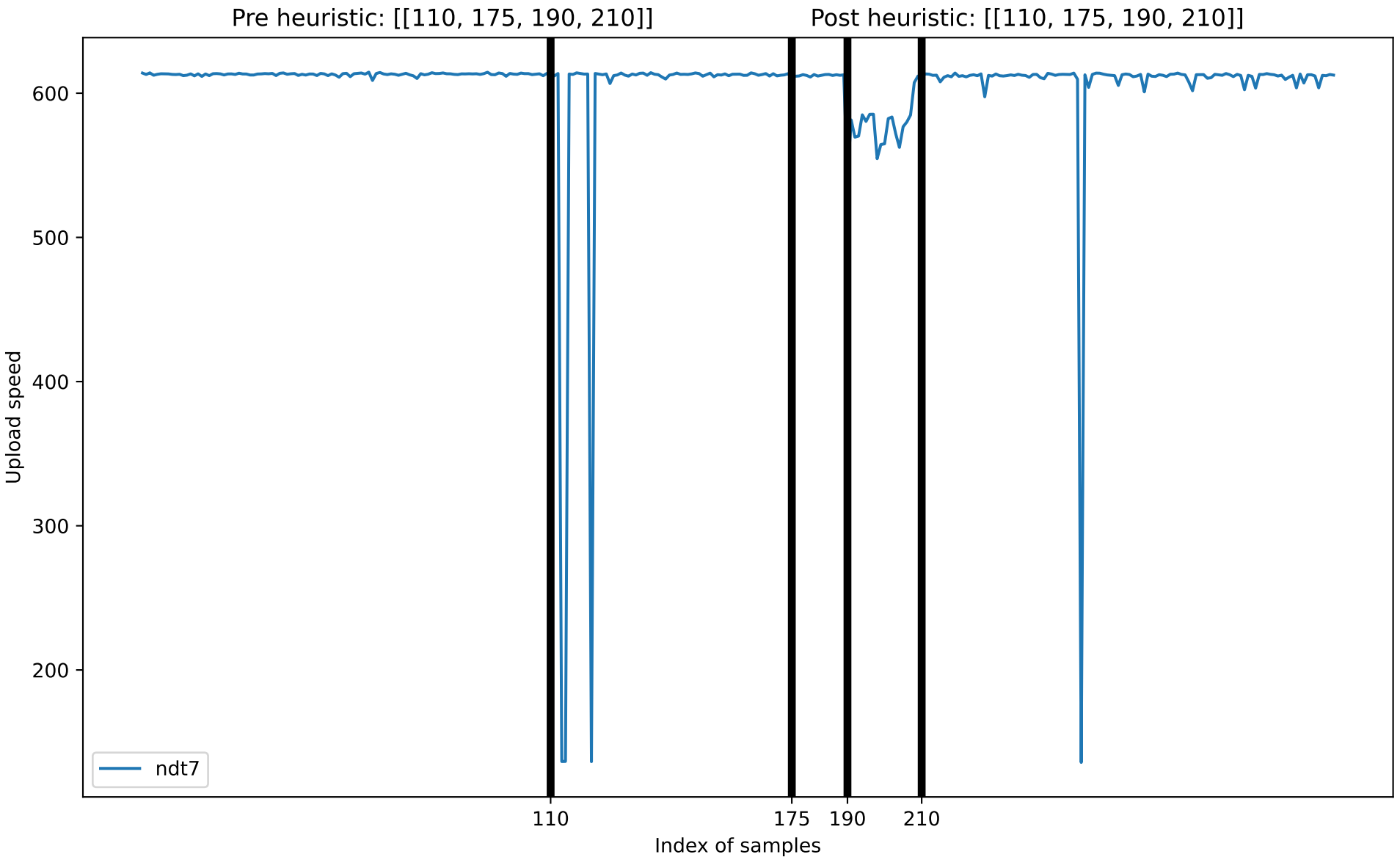

Pre heuristic: [[50, 270, 745, 875]]
Post heuristic: [[50, 270, 745, 875]]
ookla
120
115
110
105
100
95
Download speed
50
270
745
875
Index of samples

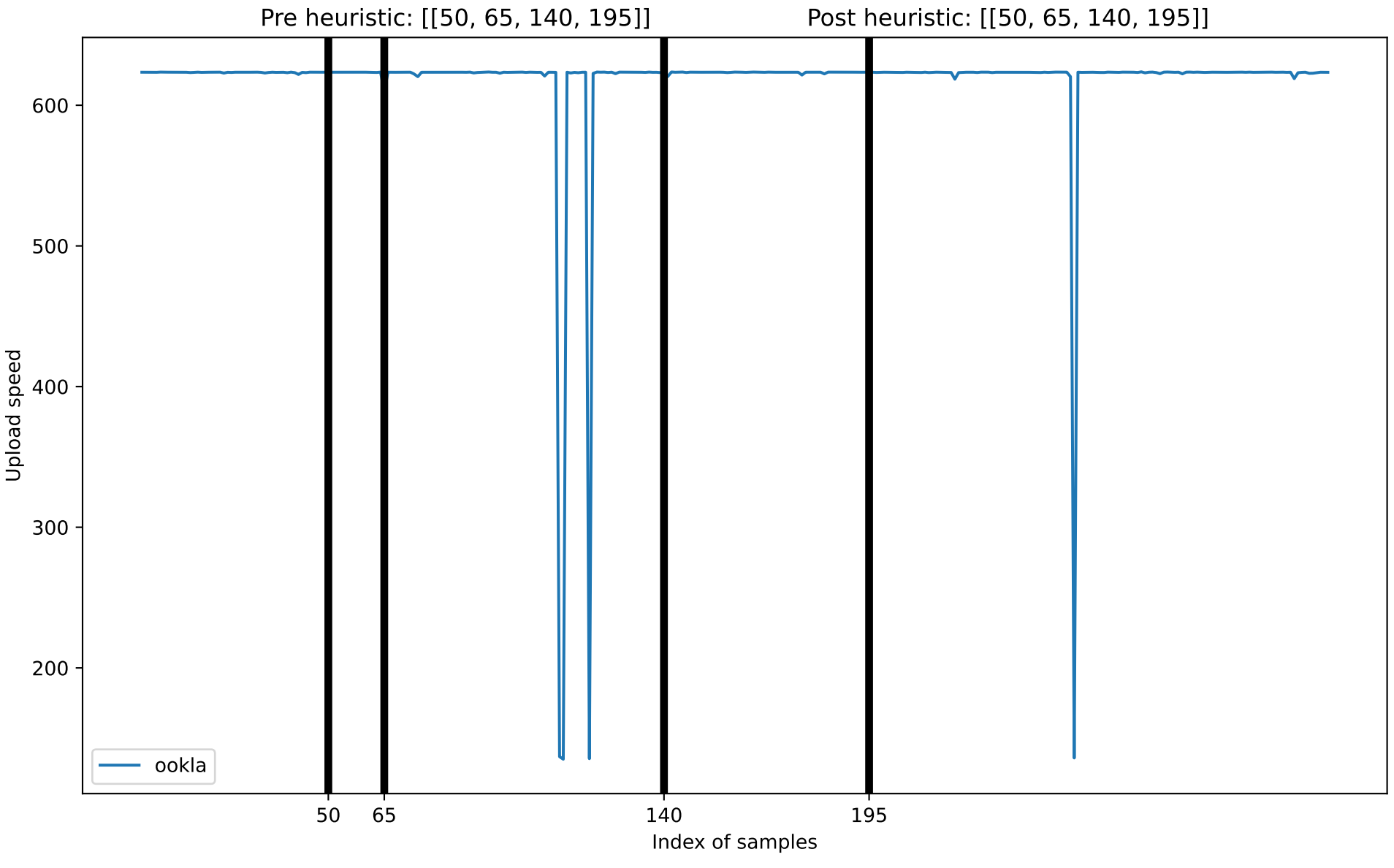

Pre heuristic: [[190, 225, 255]]
Post heuristic: [[190, 225, 255]]
ndt7
Upload speed
Index of samples
0
10
20
30
40
50
60
70
190
225
255

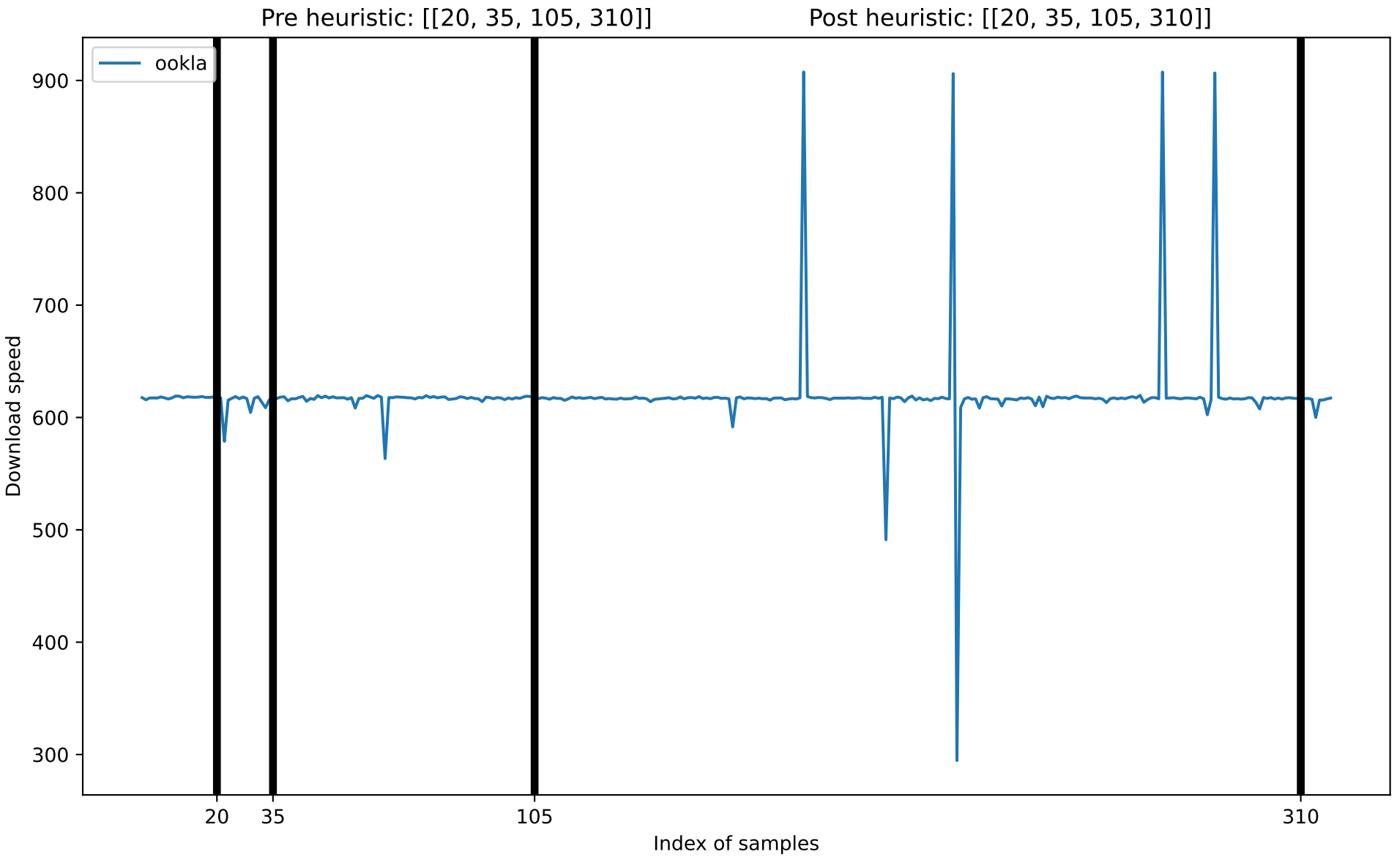

Pre heuristic: [[220, 260]]
Post heuristic: [[220, 260]]
ndt7
Download speed
400
300
200
100
0
220
260
Index of samples

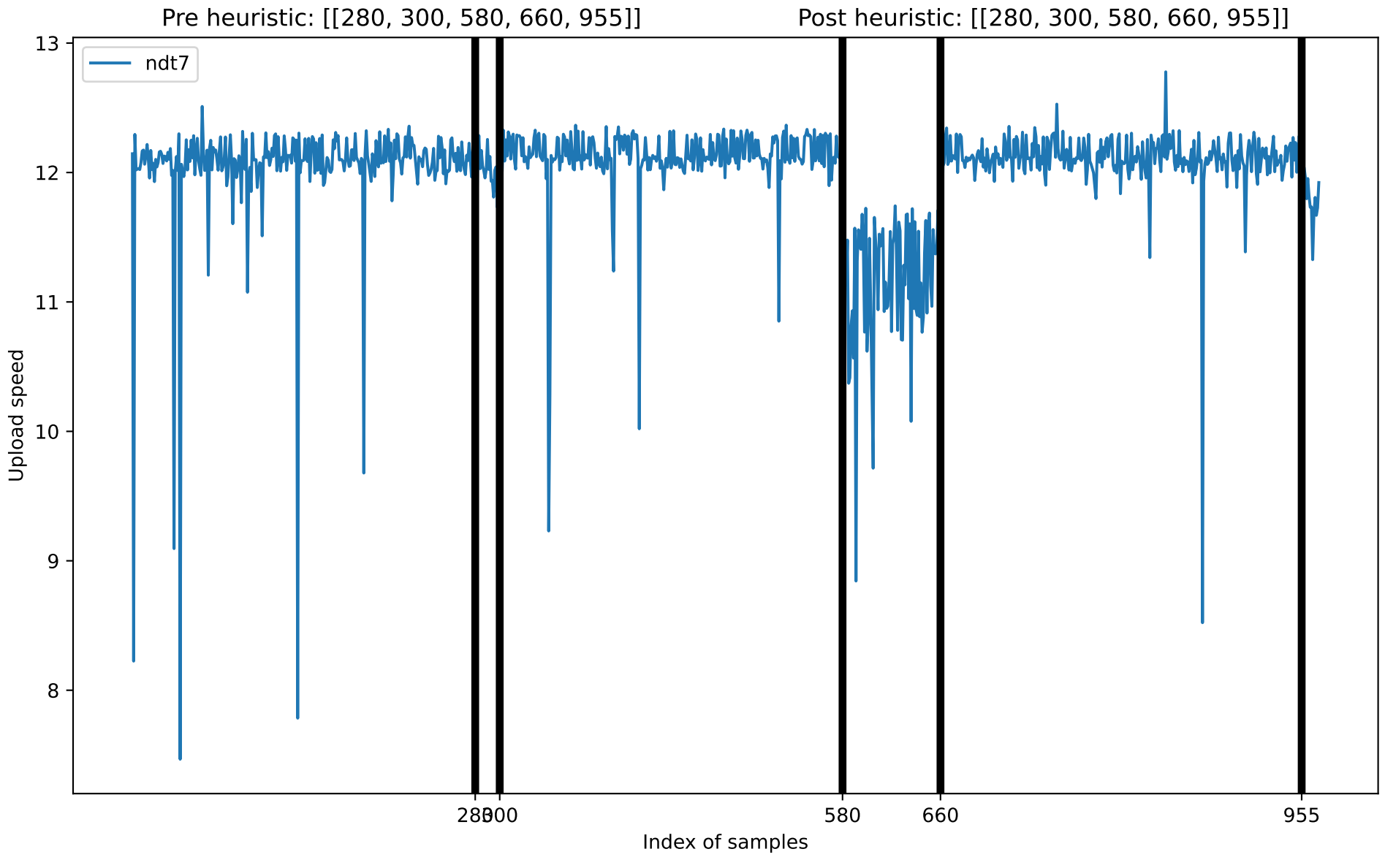

Pre heuristic: [[210]]
Post heuristic: [[210]]
ookla
Upload speed
Index of samples
0
10
20
30
40
50
60
70
210

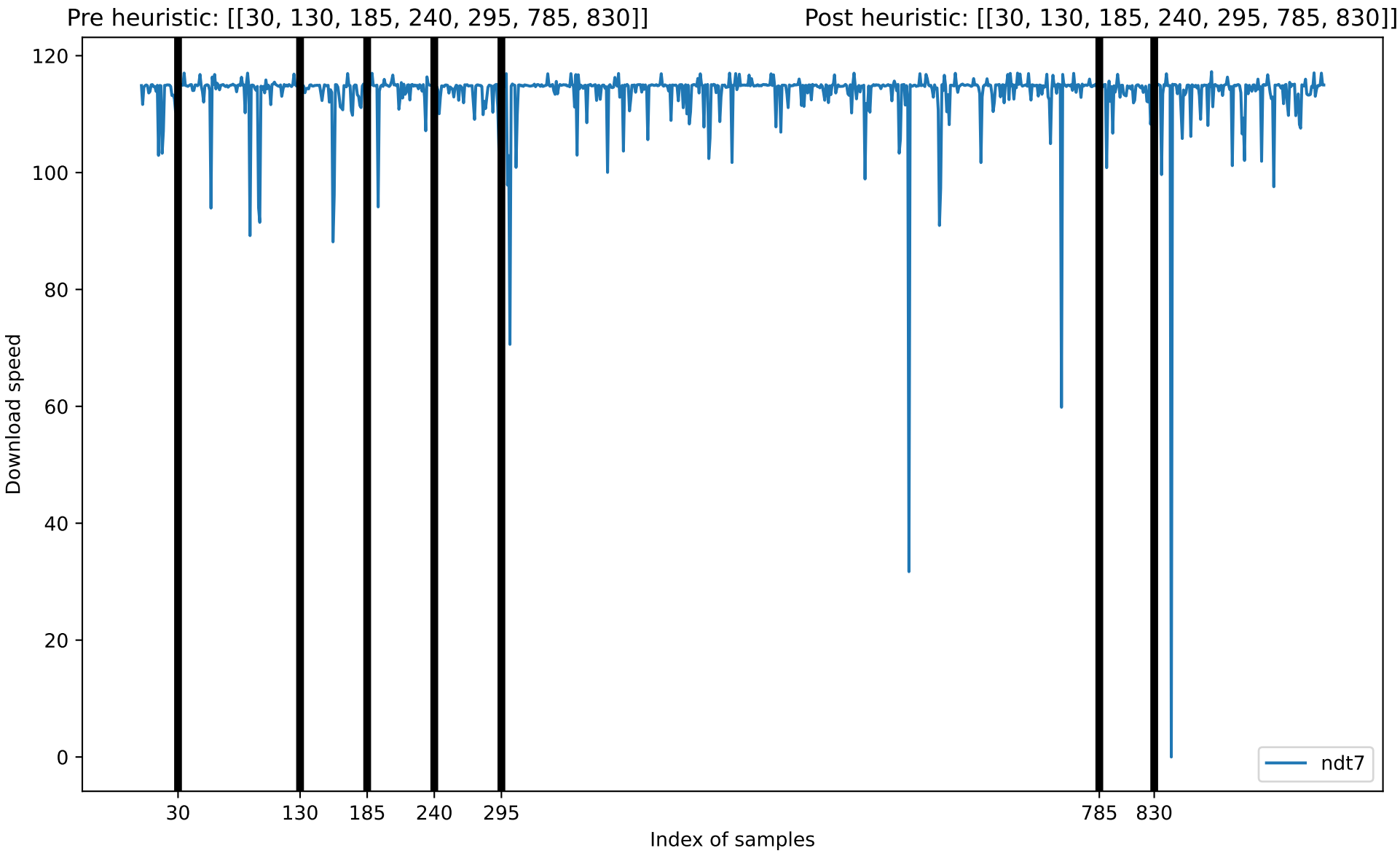

Pre heuristic: [[210]]
Post heuristic: [[210]]
ookla
Download speed
600
500
400
300
200
100
0
210
Index of samples

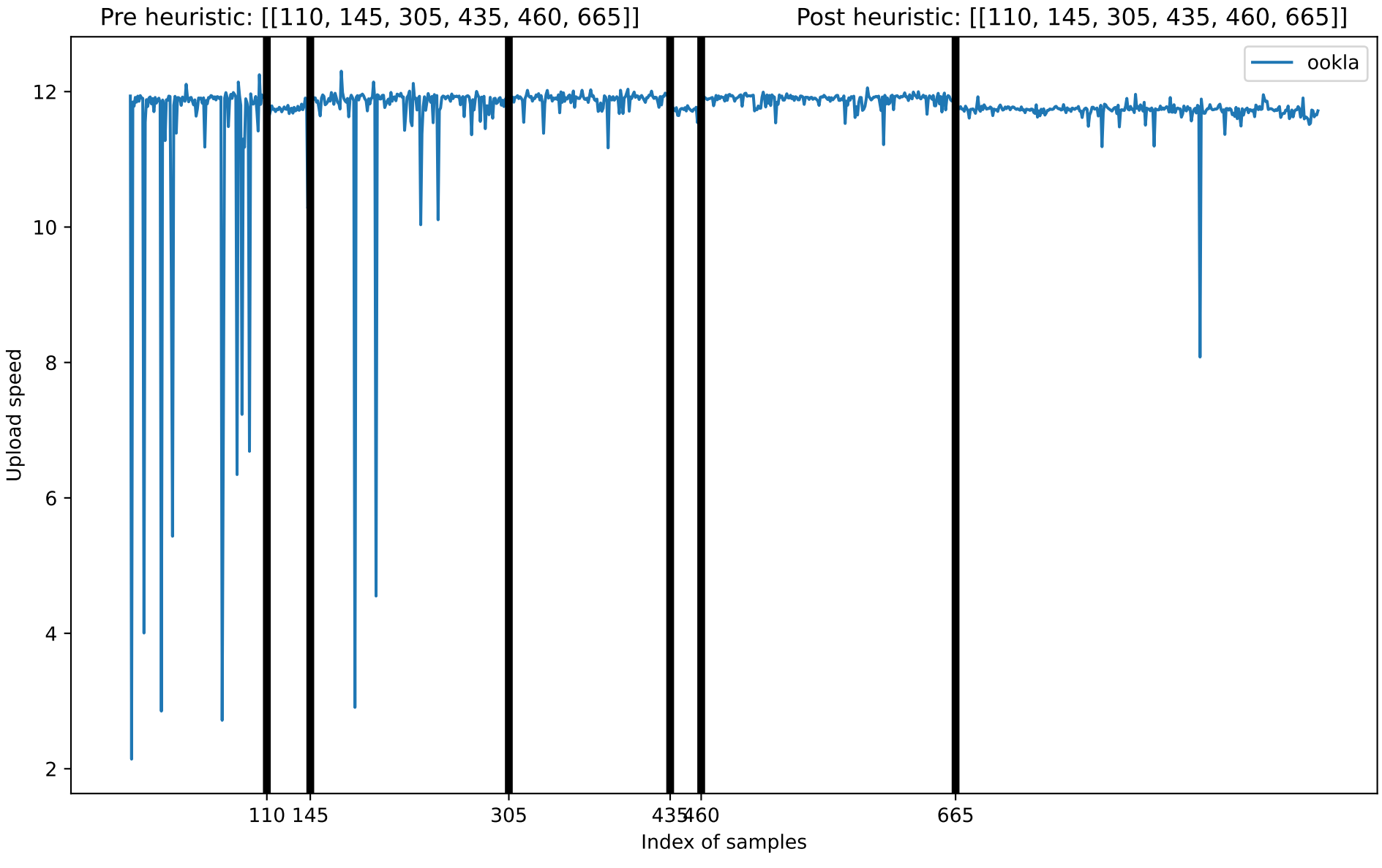

Pre heuristic: [[110, 175, 190, 210]]
Post heuristic: [[110, 175, 190, 210]]
Upload speed
600
500
400
300
200
ndt7
110
175
190
210
Index of samples

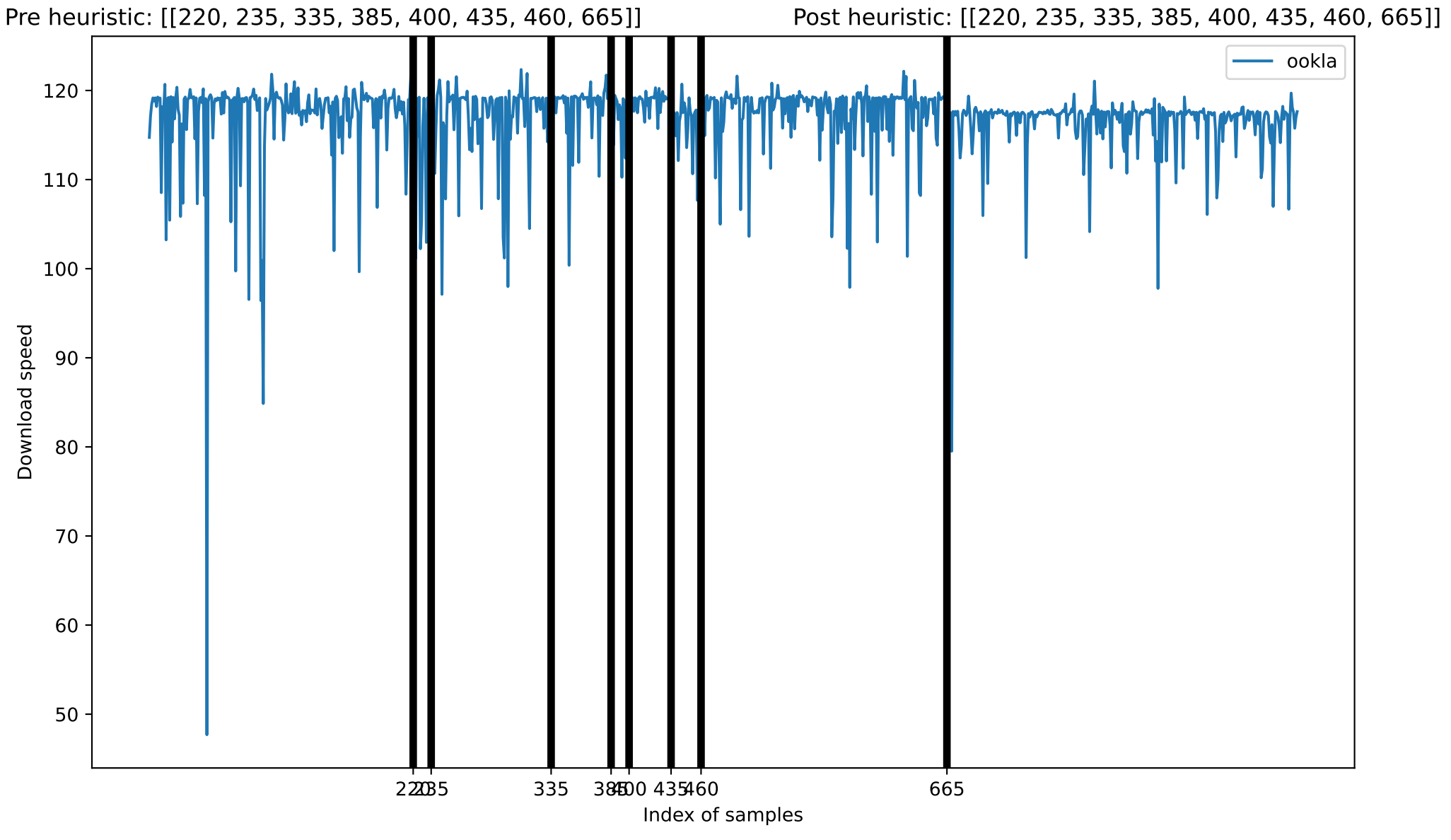

Pre heuristic: [[50, 65, 140, 195]]
Post heuristic: [[50, 65, 140, 195]]
600
500
400
300
200
Upload speed
ookla
50
65
140
195
Index of samples

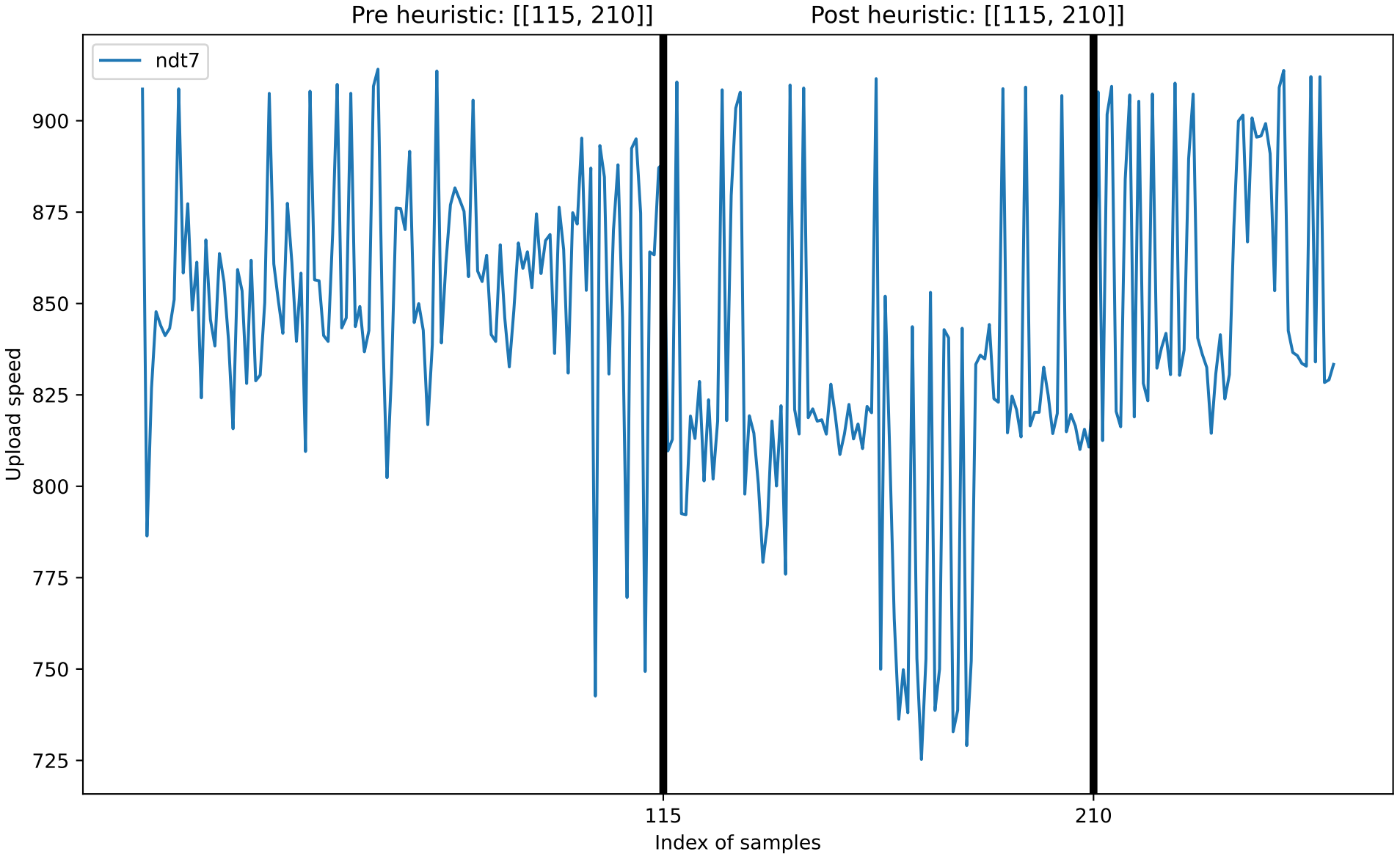

Pre heuristic: [[20, 35, 105, 310]]
Post heuristic: [[20, 35, 105, 310]]
ookla
900
800
700
600
500
400
300
Download speed
20
35
105
310
Index of samples

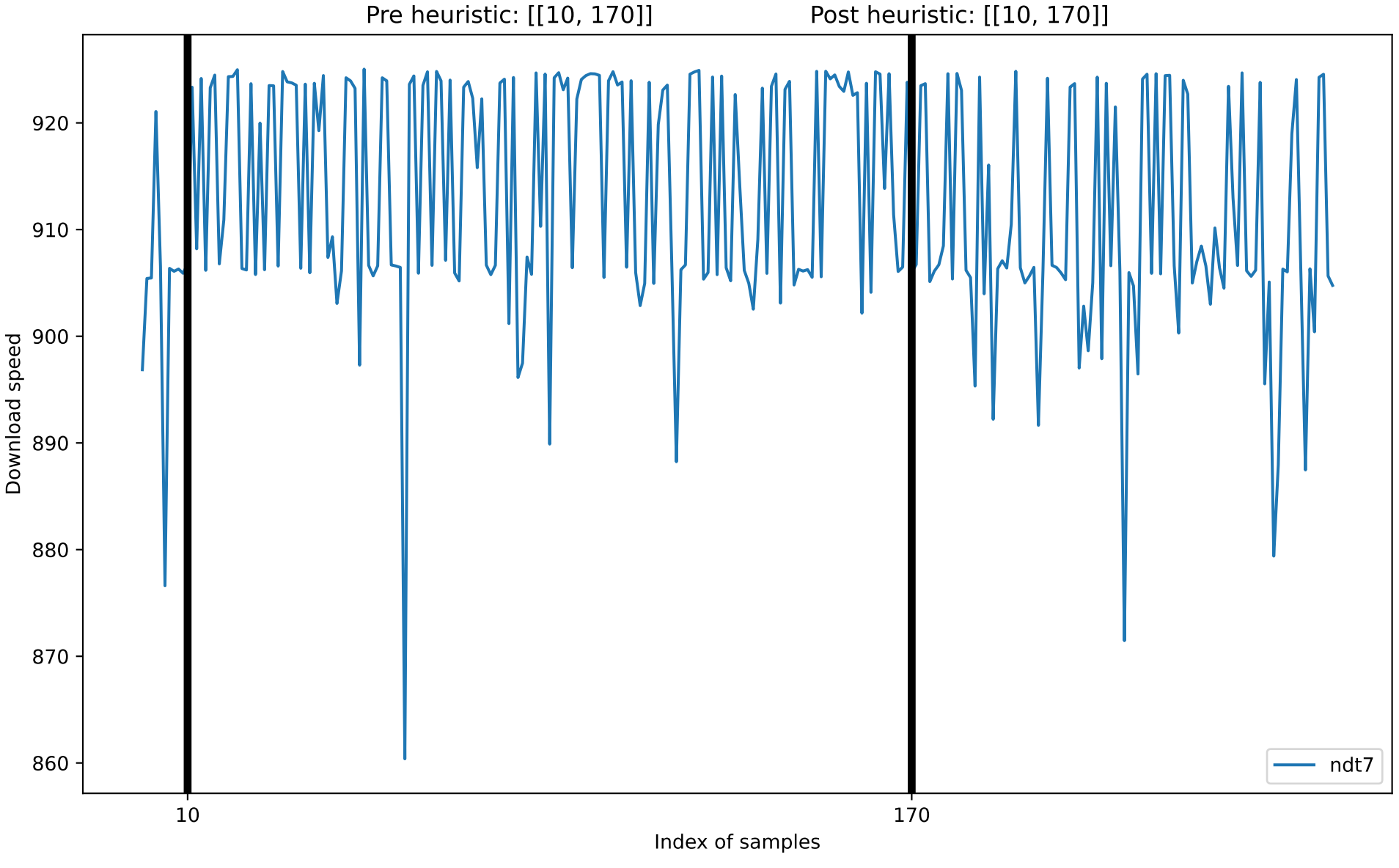

Pre heuristic: [[280, 300, 580, 660, 955]]
Post heuristic: [[280, 300, 580, 660, 955]]
ndt7
Upload speed
13
12
11
10
9
8
280
300
580
660
955
Index of samples

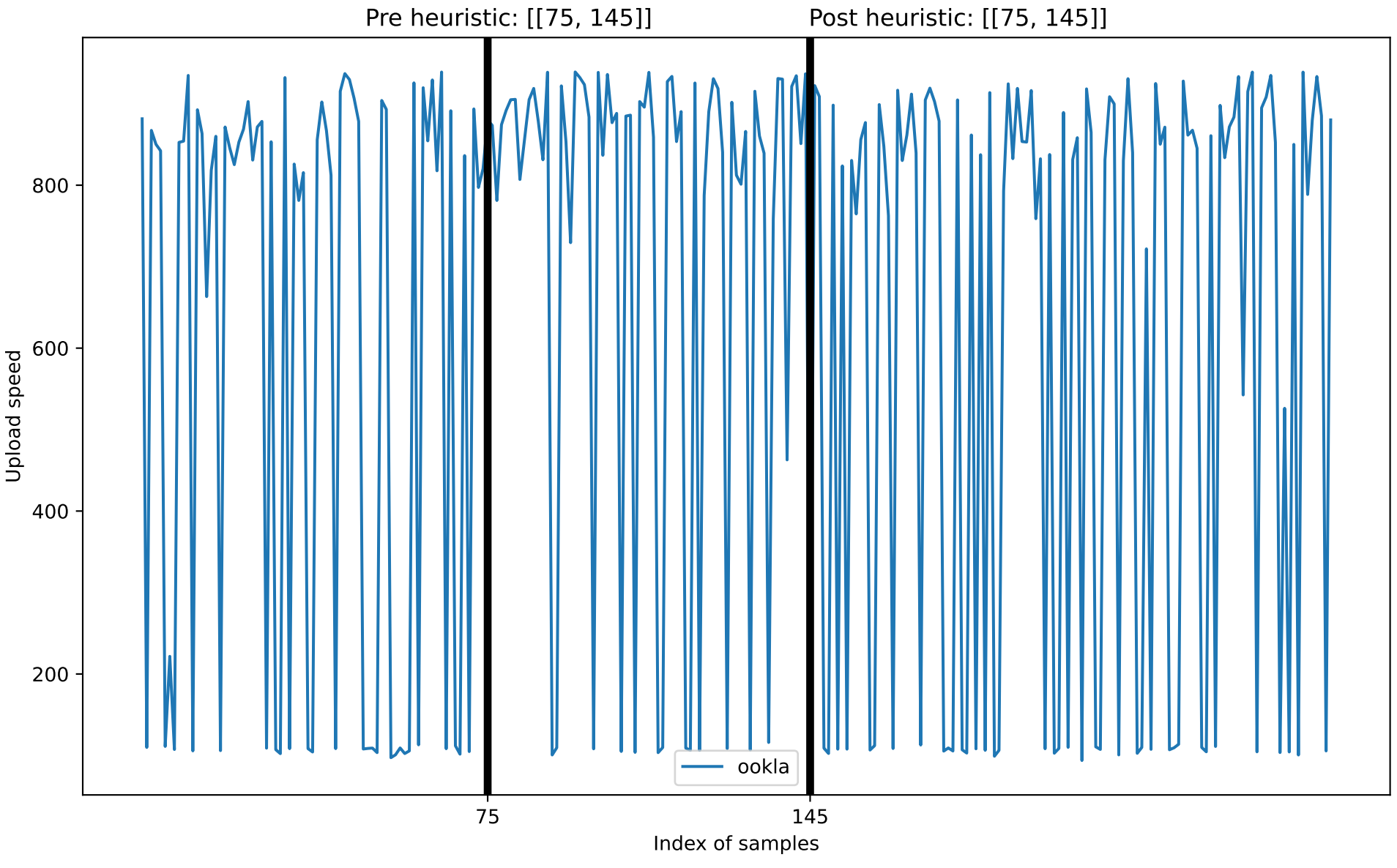

Pre heuristic: [[30, 130, 185, 240, 295, 785, 830]]
Post heuristic: [[30, 130, 185, 240, 295, 785, 830]]
Download speed
120
100
80
60
40
20
0
30
130
185
240
295
785
830
Index of samples
ndt7

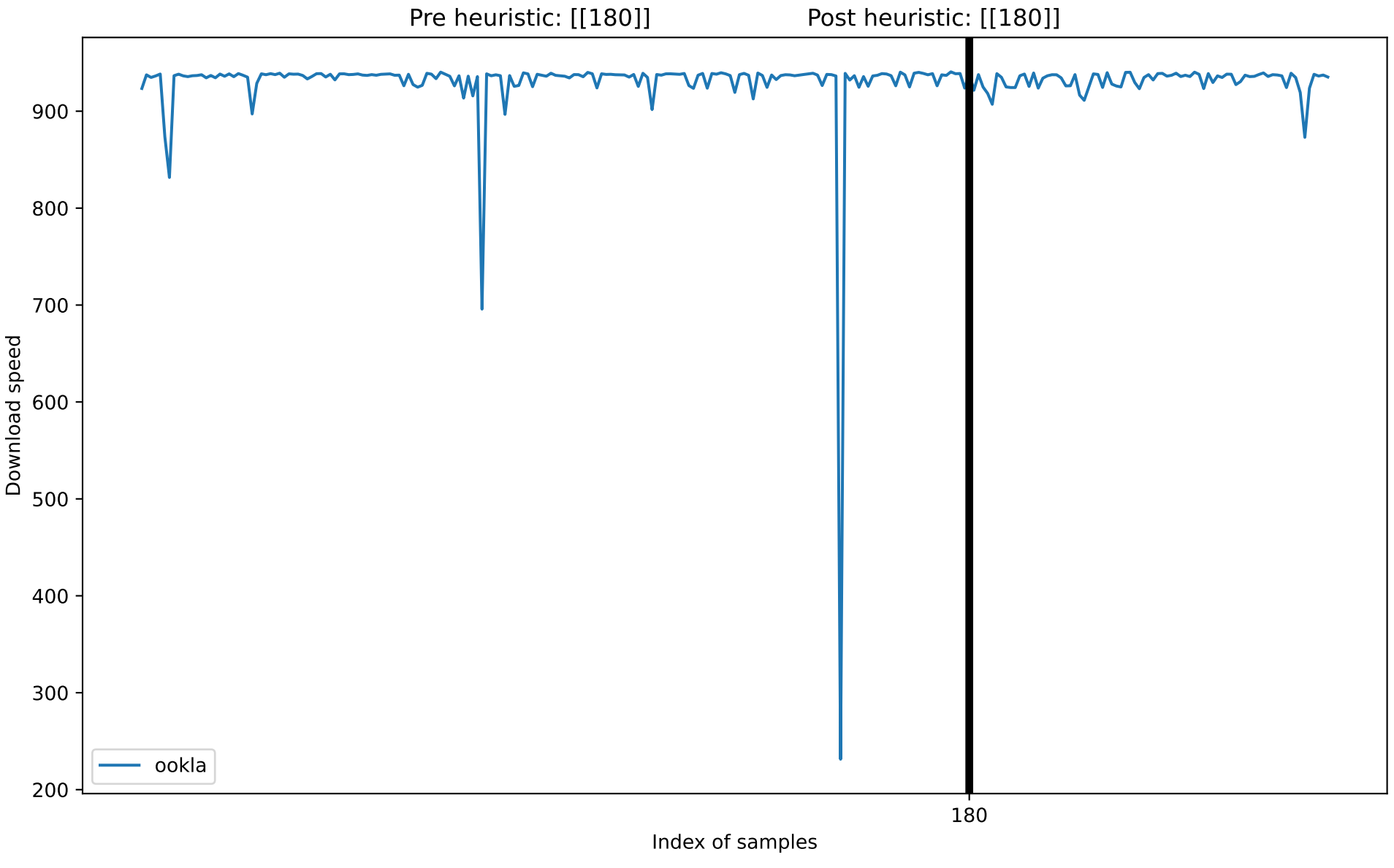

Pre heuristic: [[110, 145, 305, 435, 460, 665]]
Post heuristic: [[110, 145, 305, 435, 460, 665]]
ookla
Upload speed
12
10
8
6
4
2
110
145
305
435
460
665
Index of samples

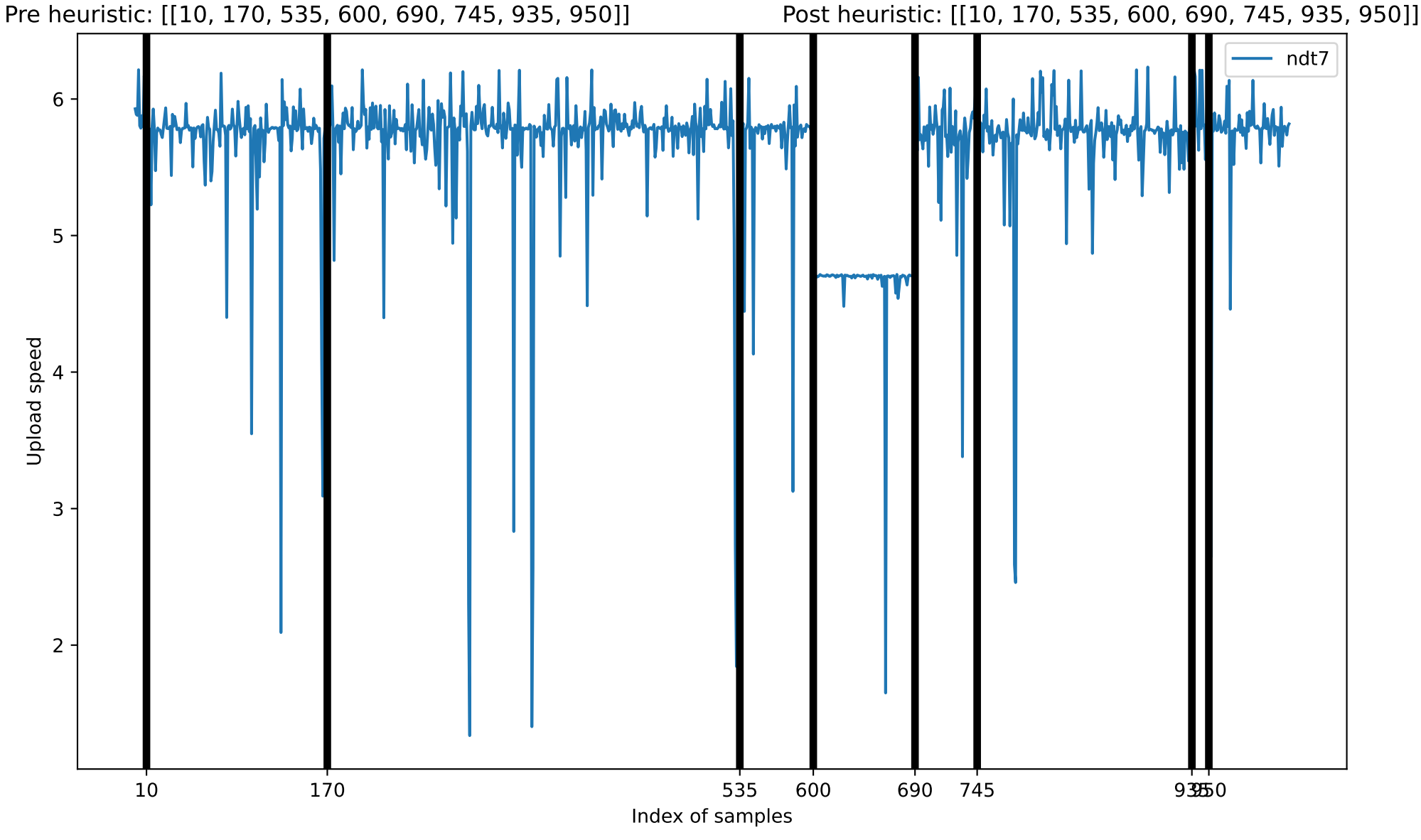

Pre heuristic: [[220, 235, 335, 385, 400, 435, 460, 665]]
Post heuristic: [[220, 235, 335, 385, 400, 435, 460, 665]]
ookla
Download speed
120
110
100
90
80
70
60
50
335
665
Index of samples

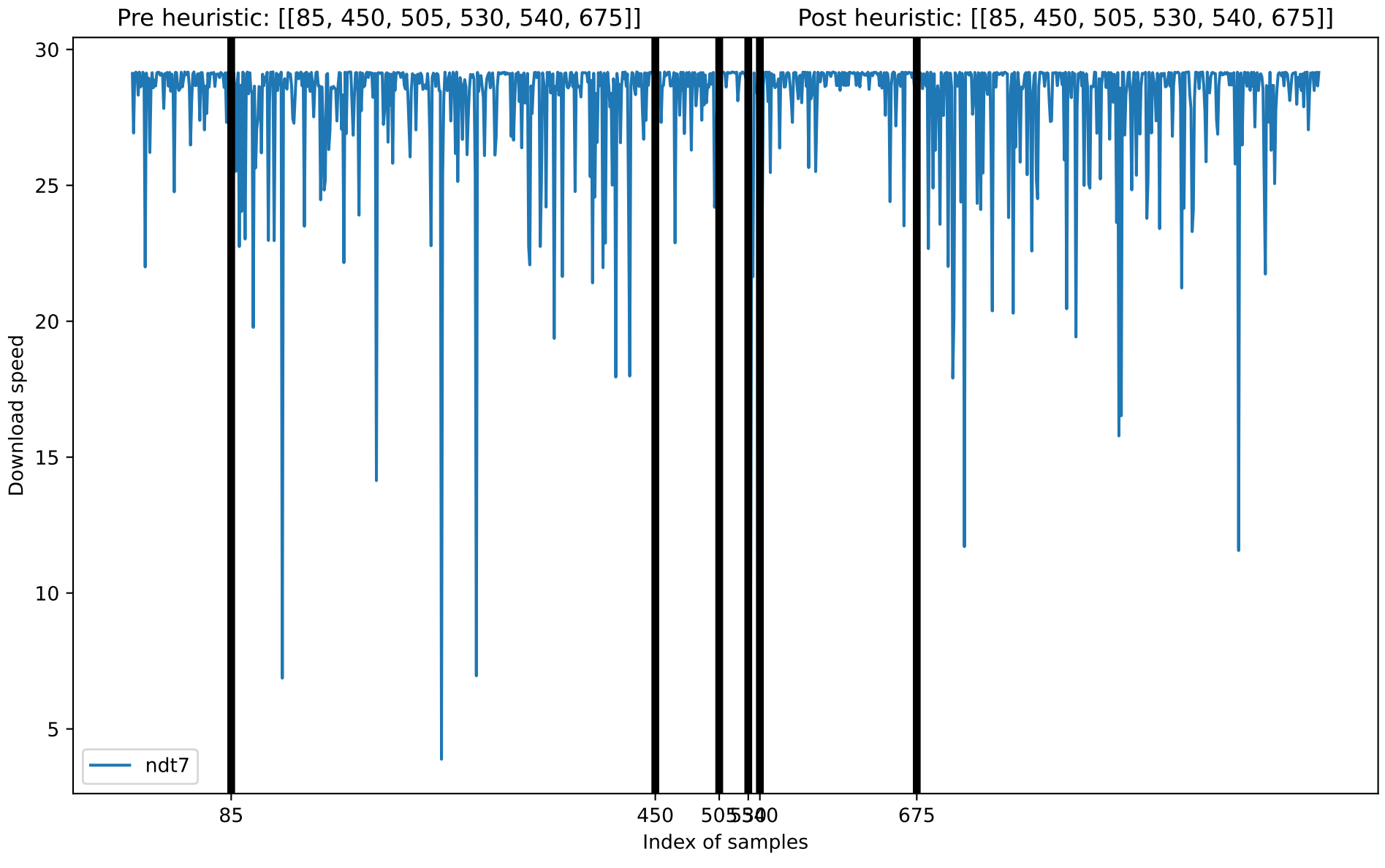

Pre heuristic: [[115, 210]]
Post heuristic: [[115, 210]]
ndt7
Upload speed
900
875
850
825
800
775
750
725
115
210
Index of samples

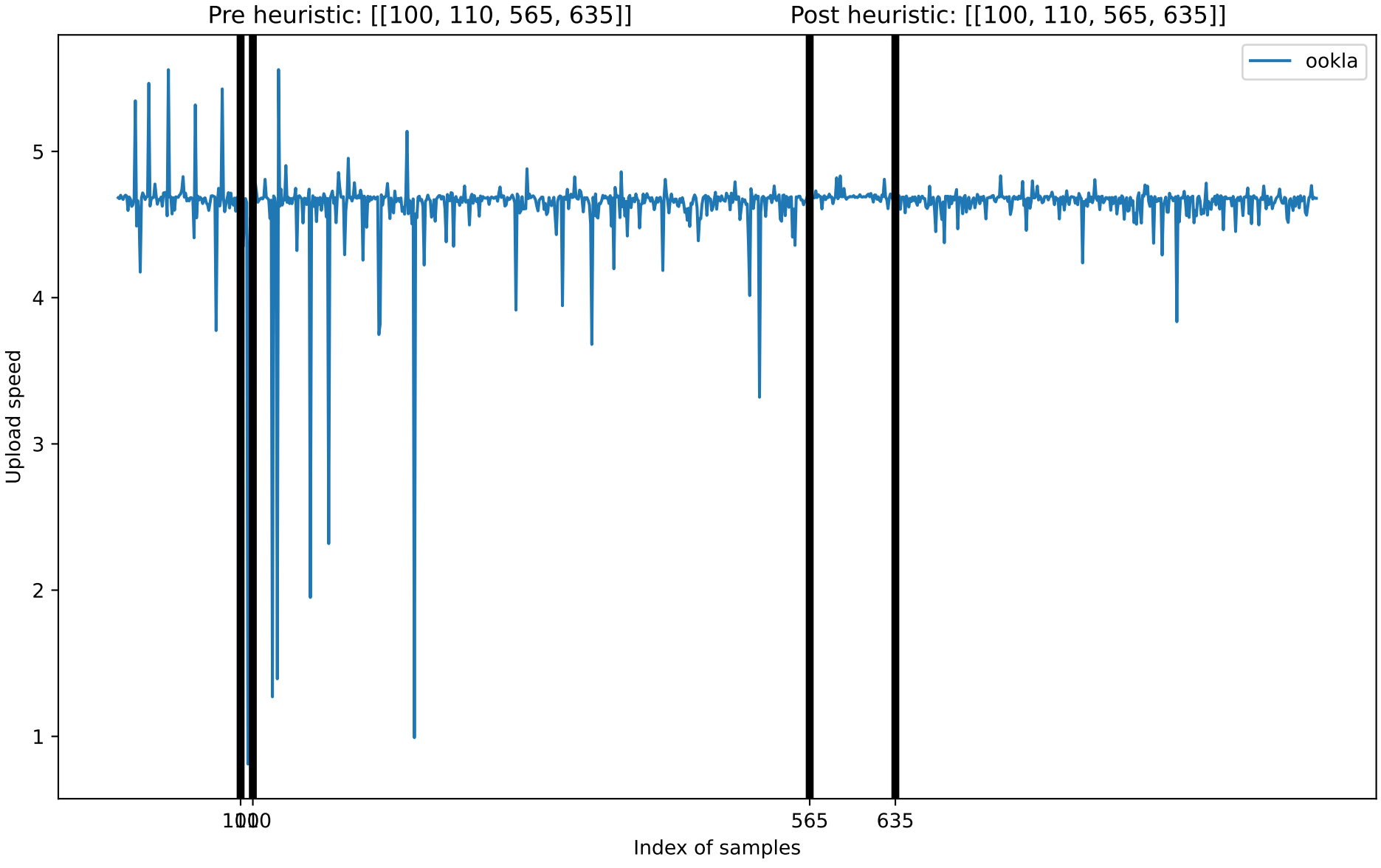

Pre heuristic: [[10, 170]]
Post heuristic: [[10, 170]]
Download speed
920
910
900
890
880
870
860
10
170
Index of samples
ndt7

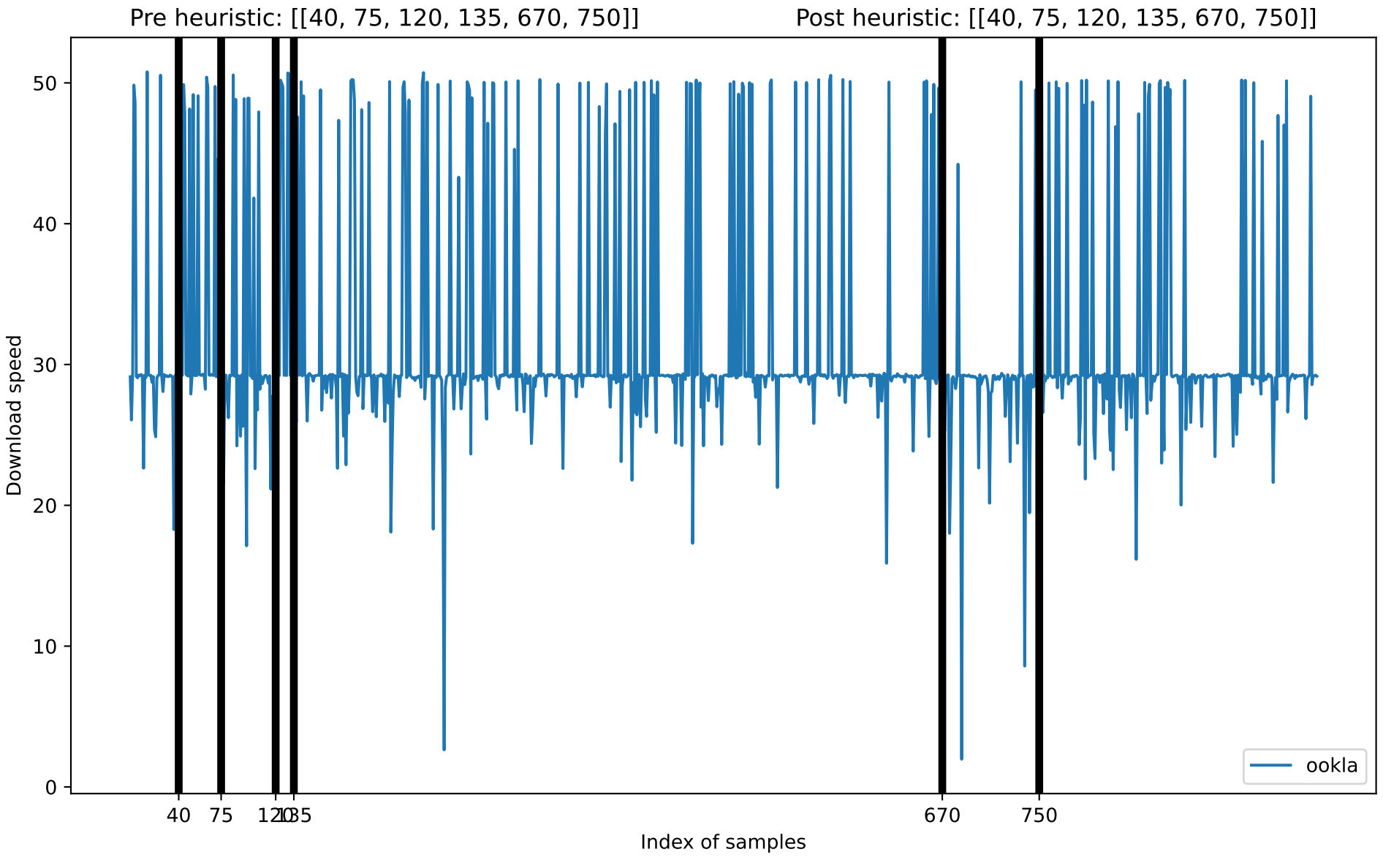

Pre heuristic: [[75, 145]]
Post heuristic: [[75, 145]]
Upload speed
800
600
400
200
75
145
Index of samples
ookla

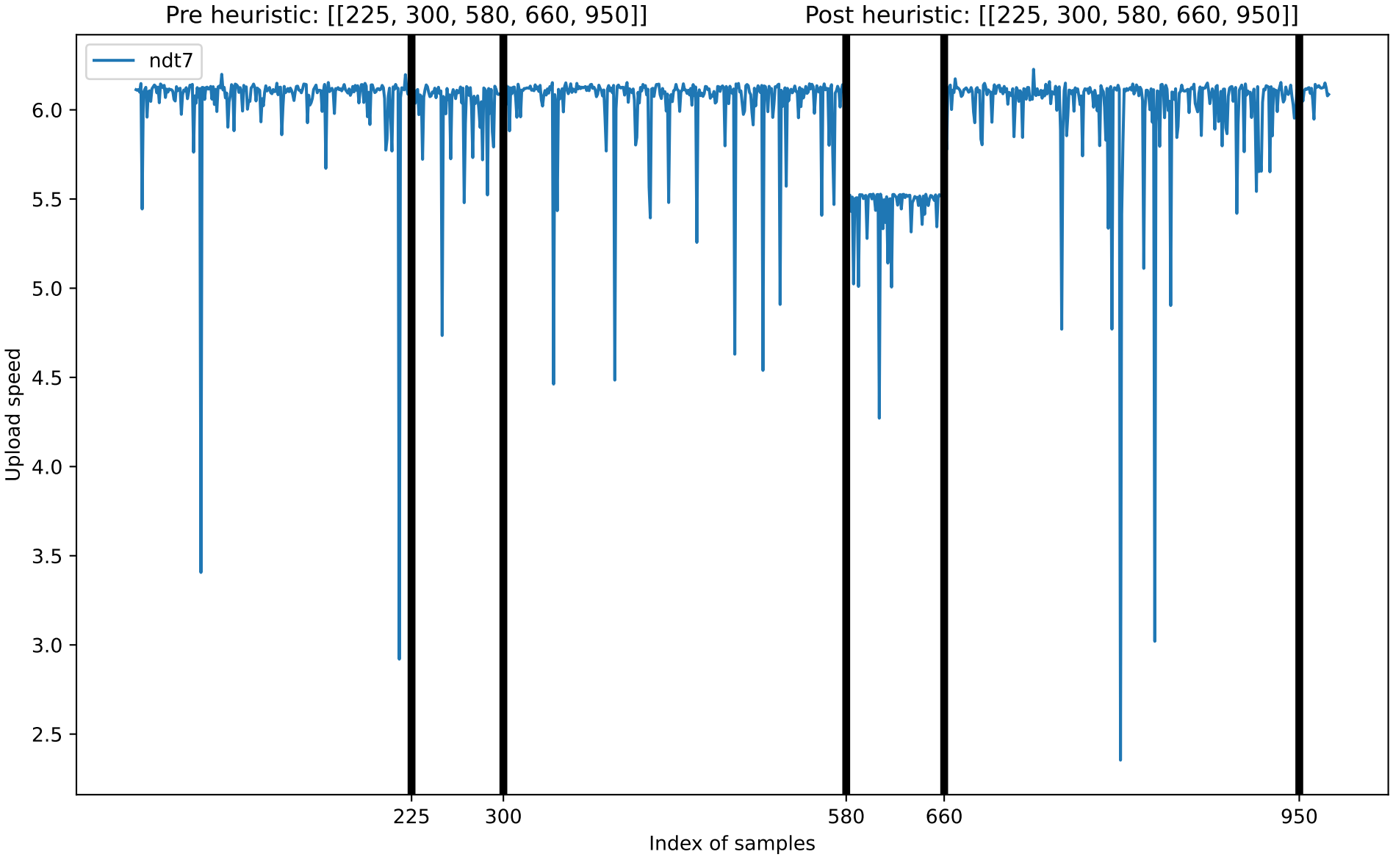

Pre heuristic: [[180]]
Post heuristic: [[180]]
Download speed
900
800
700
600
500
400
300
200
ookla
180
Index of samples

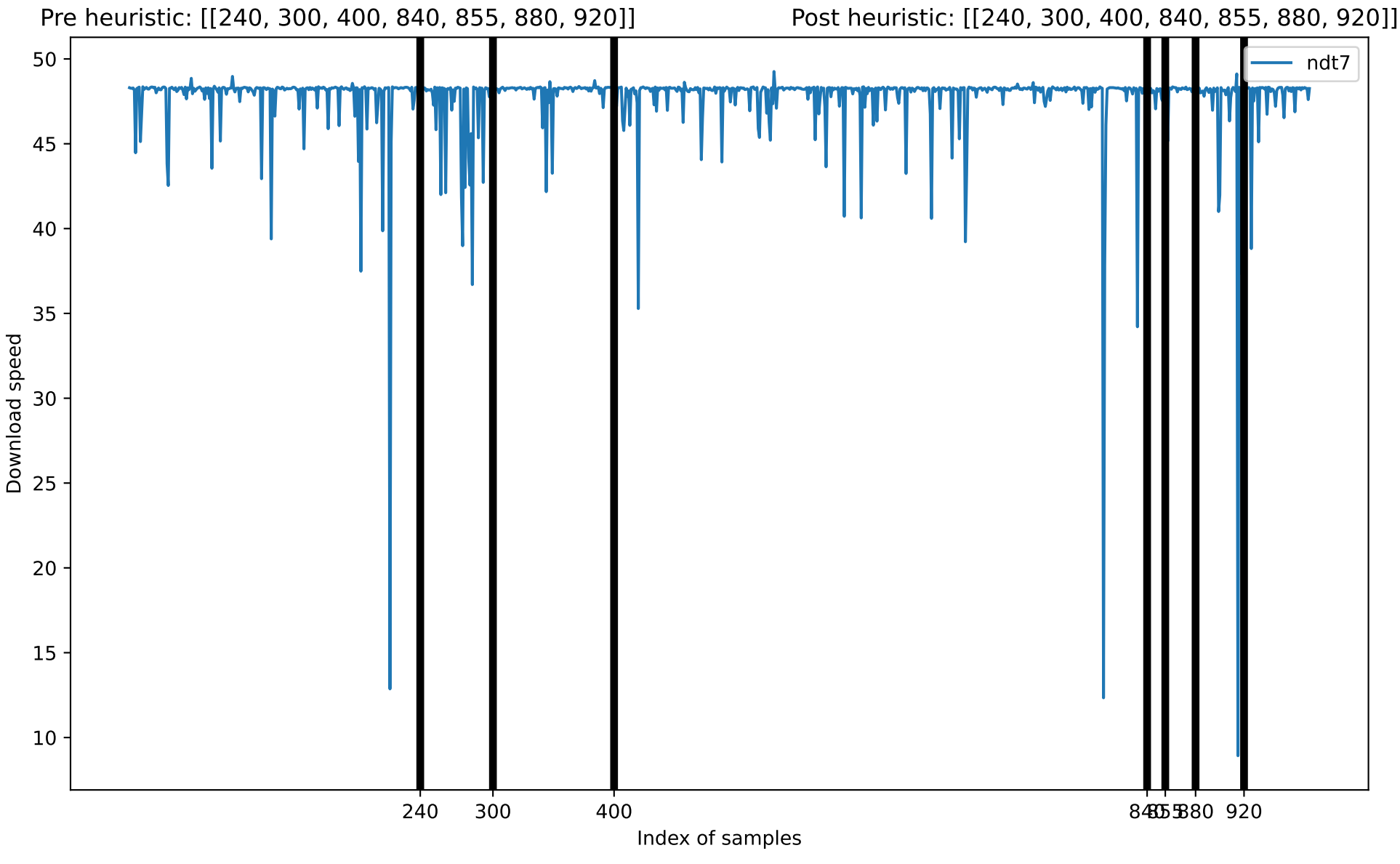

Pre heuristic: [[10, 170, 535, 600, 690, 745, 935, 950]]
Post heuristic: [[10, 170, 535, 600, 690, 745, 935, 950]]
ndt7
Upload speed
6
5
4
3
2
10
170
535
600
690
745
Index of samples

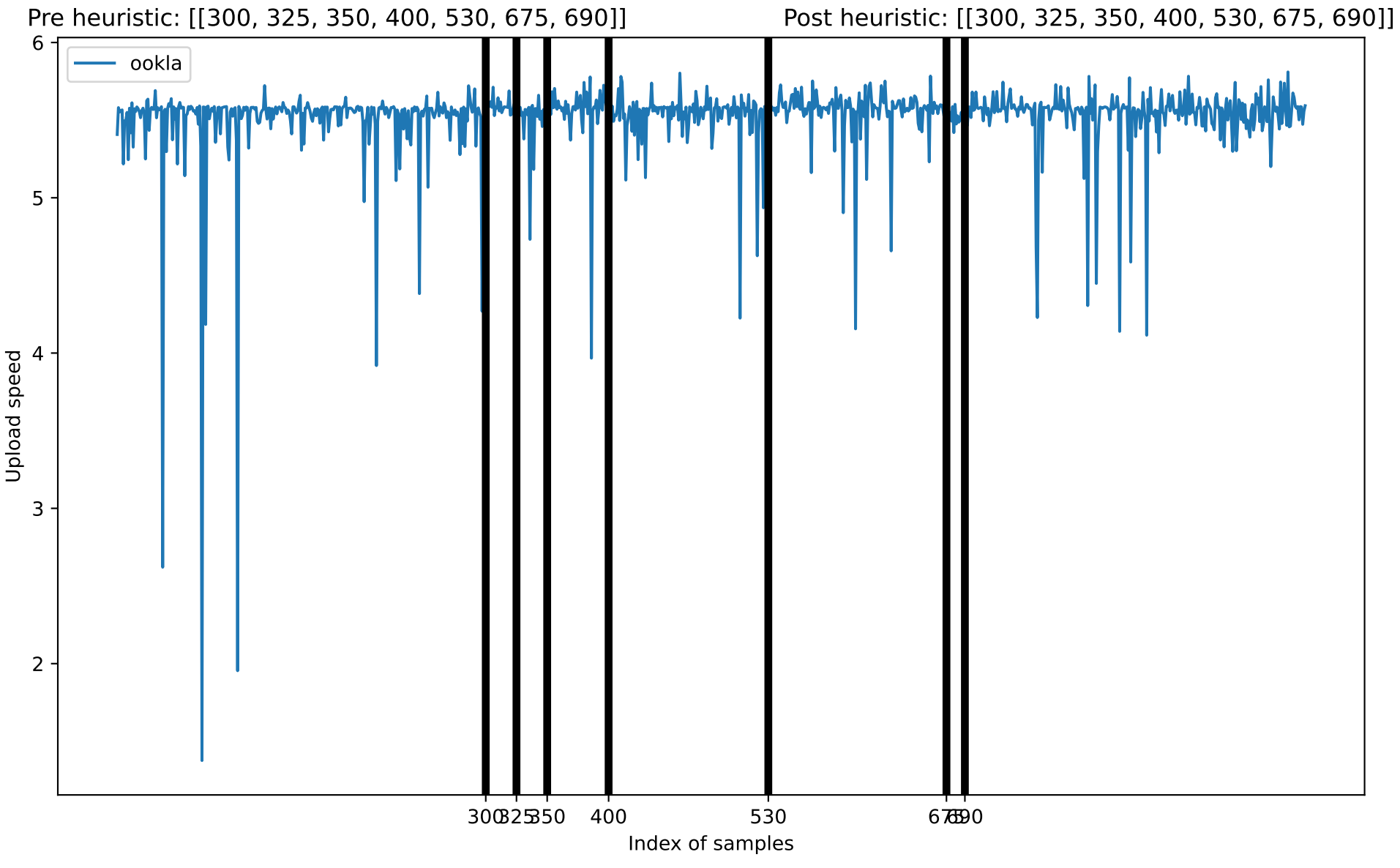

Pre heuristic: [[85, 450, 505, 530, 540, 675]]
Post heuristic: [[85, 450, 505, 530, 540, 675]]
Download speed
30
25
20
15
10
5
ndt7
85
450
505
530
540
675
Index of samples

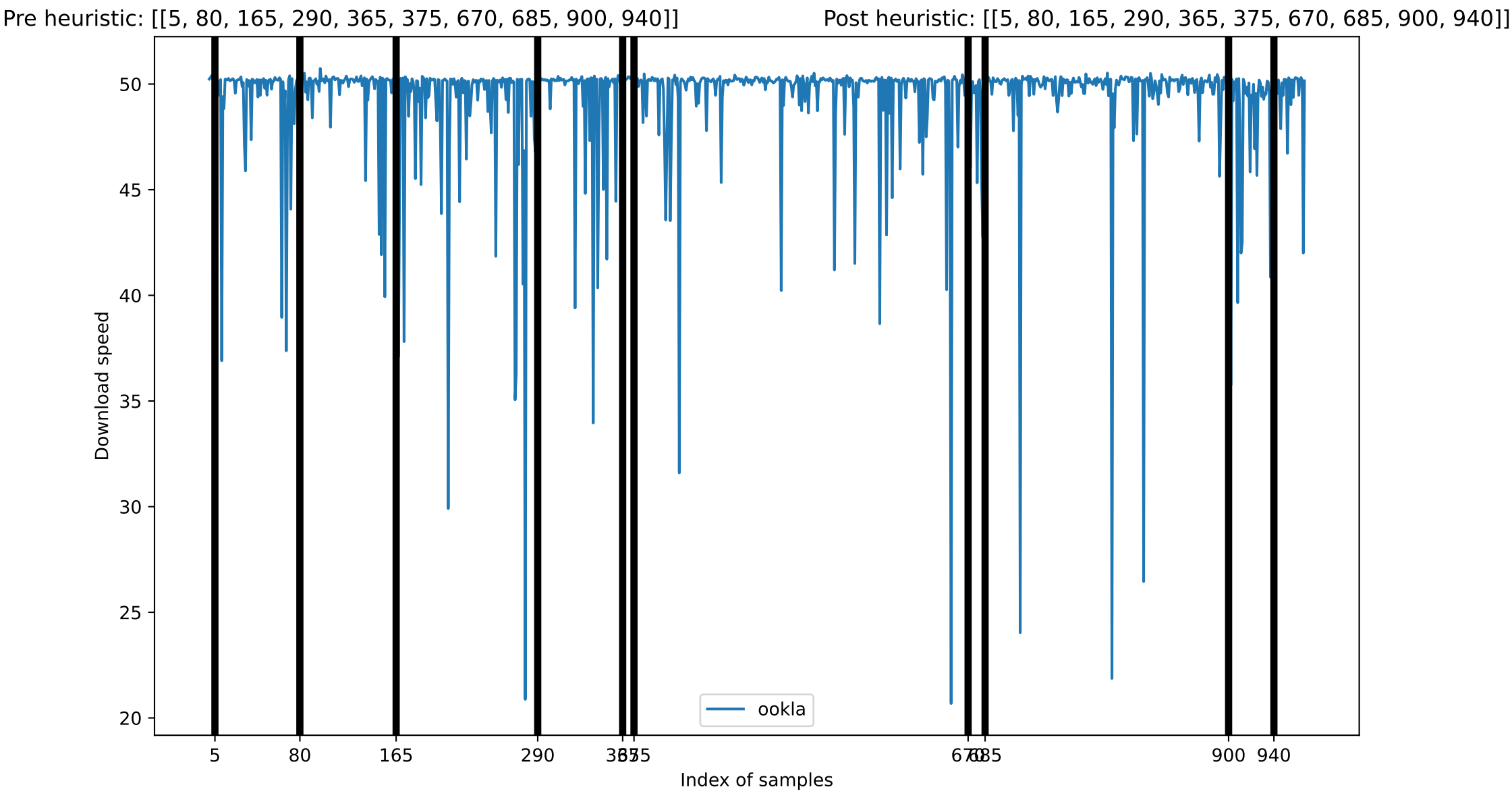

Pre heuristic: [[100, 110, 565, 635]]
Post heuristic: [[100, 110, 565, 635]]
ookla
Upload speed
5
4
3
2
1
100
110
565
635
Index of samples

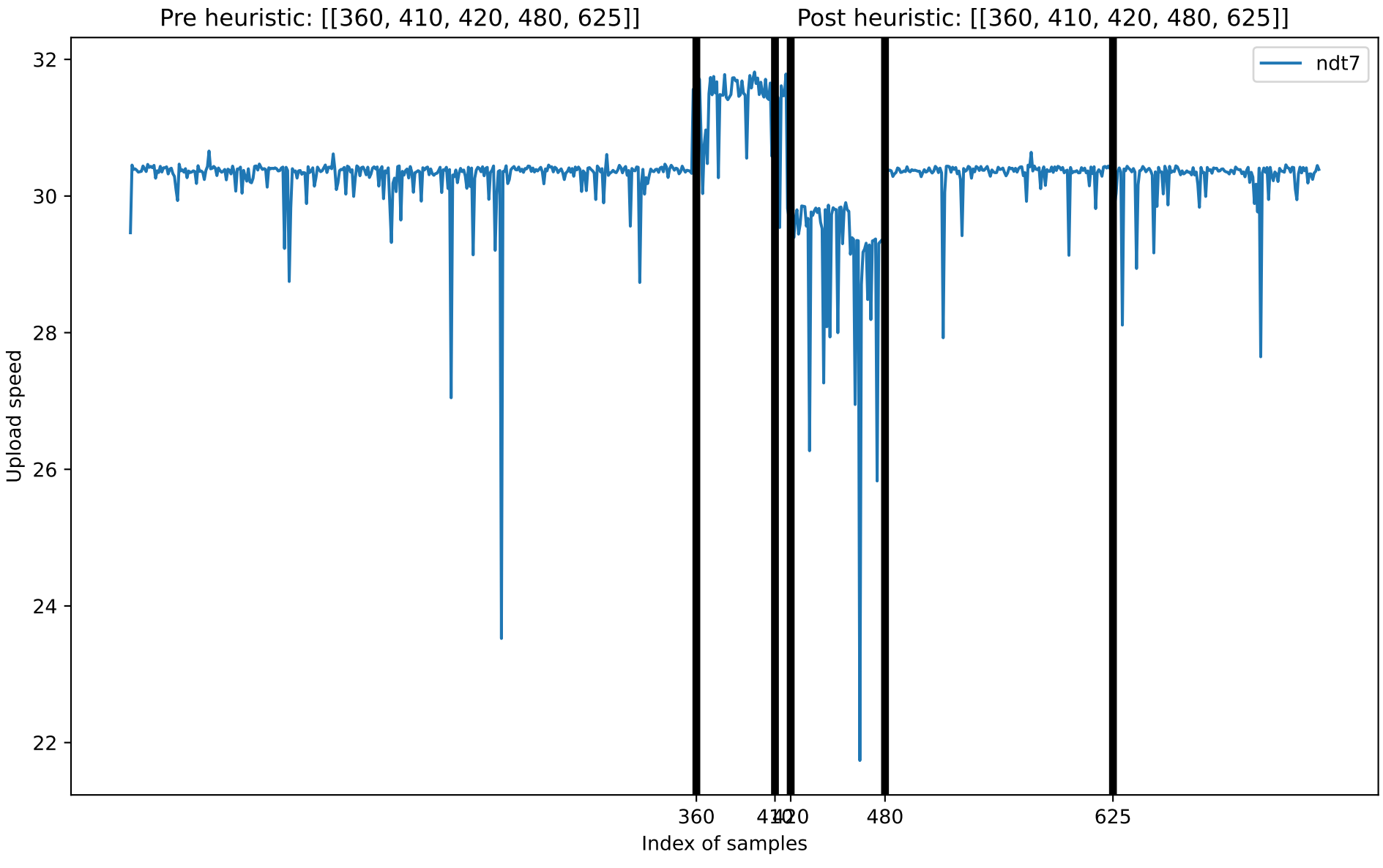

Pre heuristic: [[40, 75, 120, 135, 670, 750]]
Post heuristic: [[40, 75, 120, 135, 670, 750]]
Download speed
0
10
20
30
40
50
40
75
670
750
Index of samples
ookla

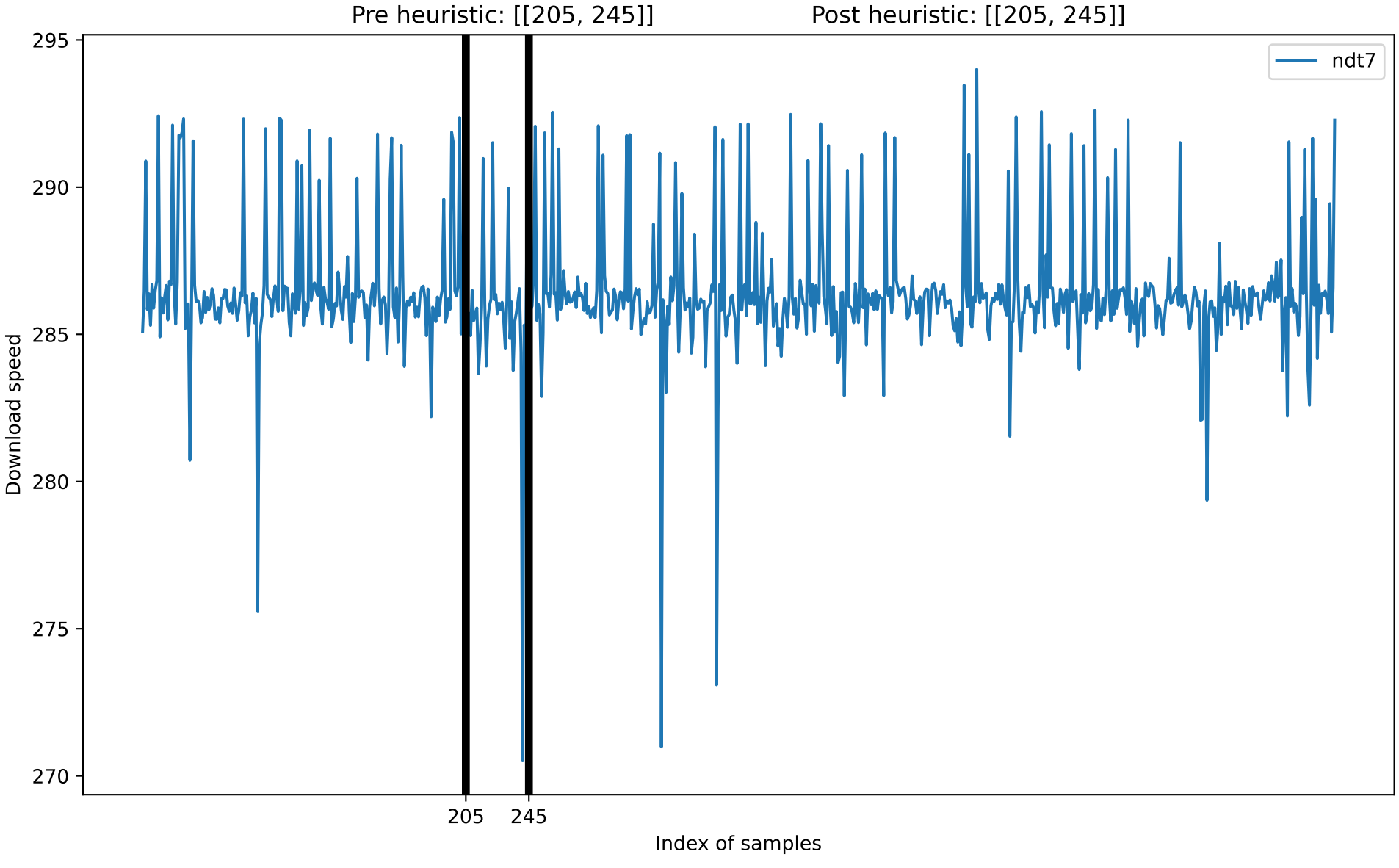

Pre heuristic: [[225, 300, 580, 660, 950]]
Post heuristic: [[225, 300, 580, 660, 950]]
ndt7
Upload speed
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
225
300
580
660
950
Index of samples

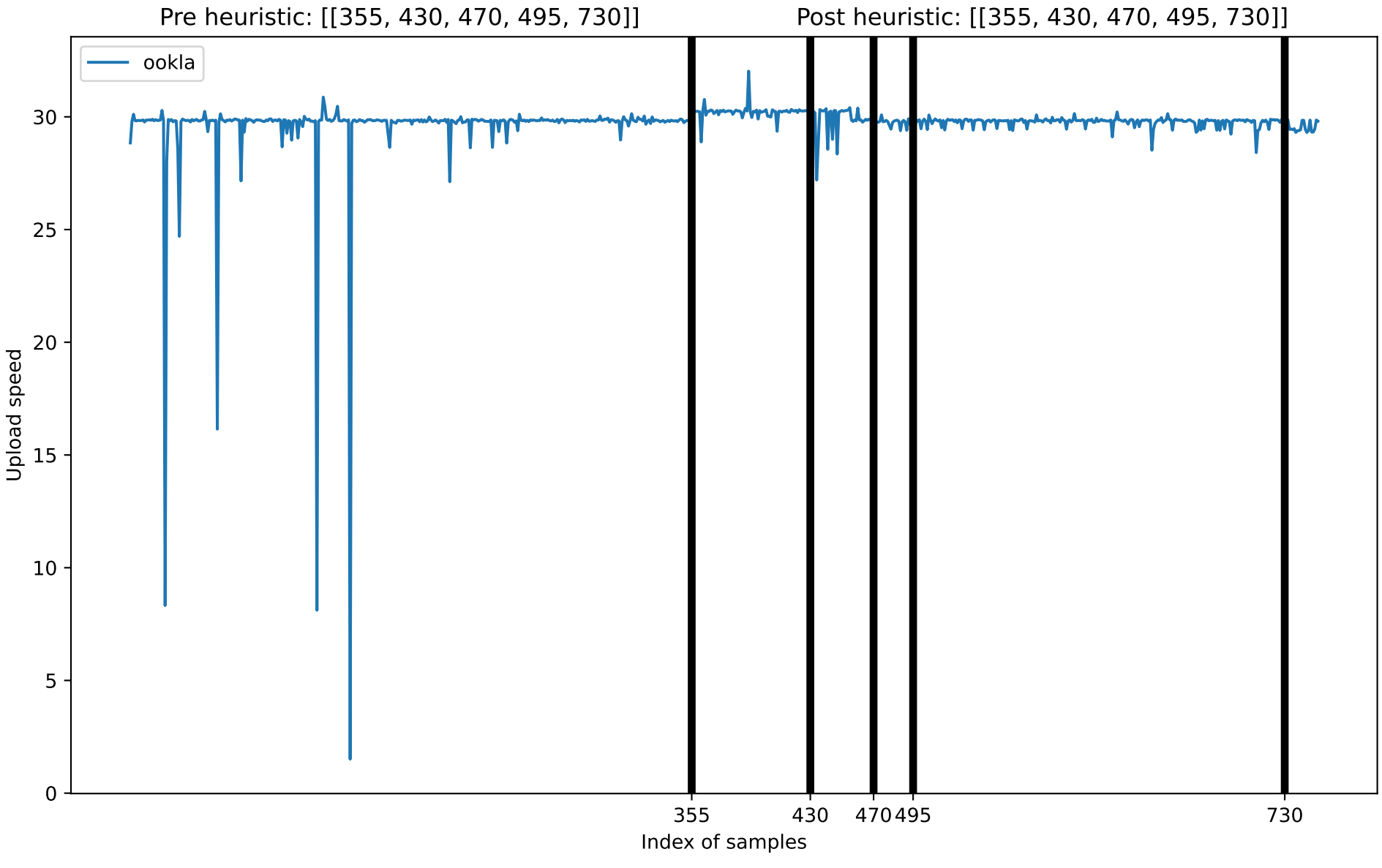

Pre heuristic: [[240, 300, 400, 840, 855, 880, 920]]
Post heuristic: [[240, 300, 400, 840, 855, 880, 920]]
ndt7
Download speed
50
45
40
35
30
25
20
15
10
240
300
400
880
920
Index of samples

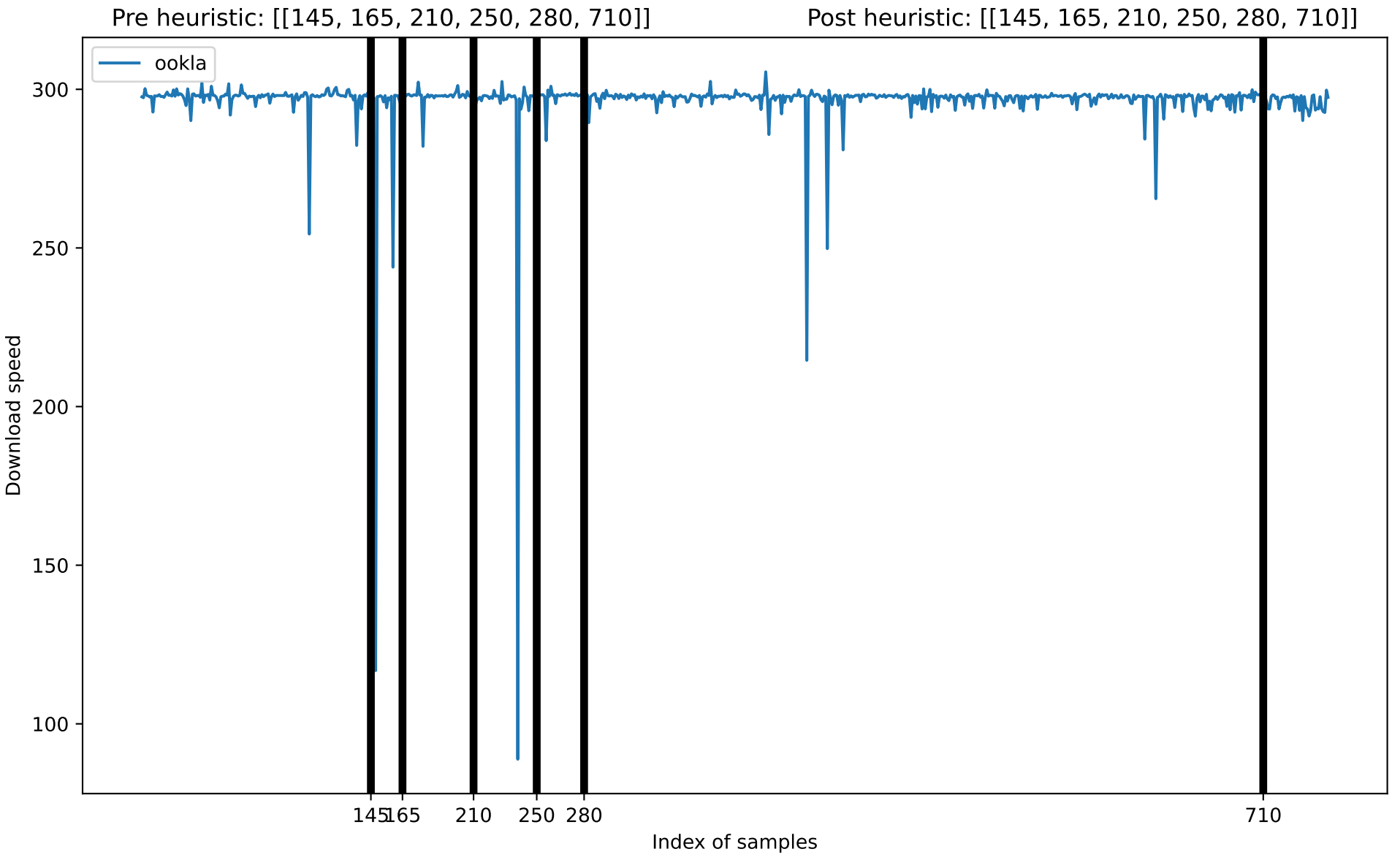

Pre heuristic: [[300, 325, 350, 400, 530, 675, 690]]
Post heuristic: [[300, 325, 350, 400, 530, 675, 690]]
ookla
Upload speed
6
5
4
3
2
300
325
350
400
530
675
690
Index of samples

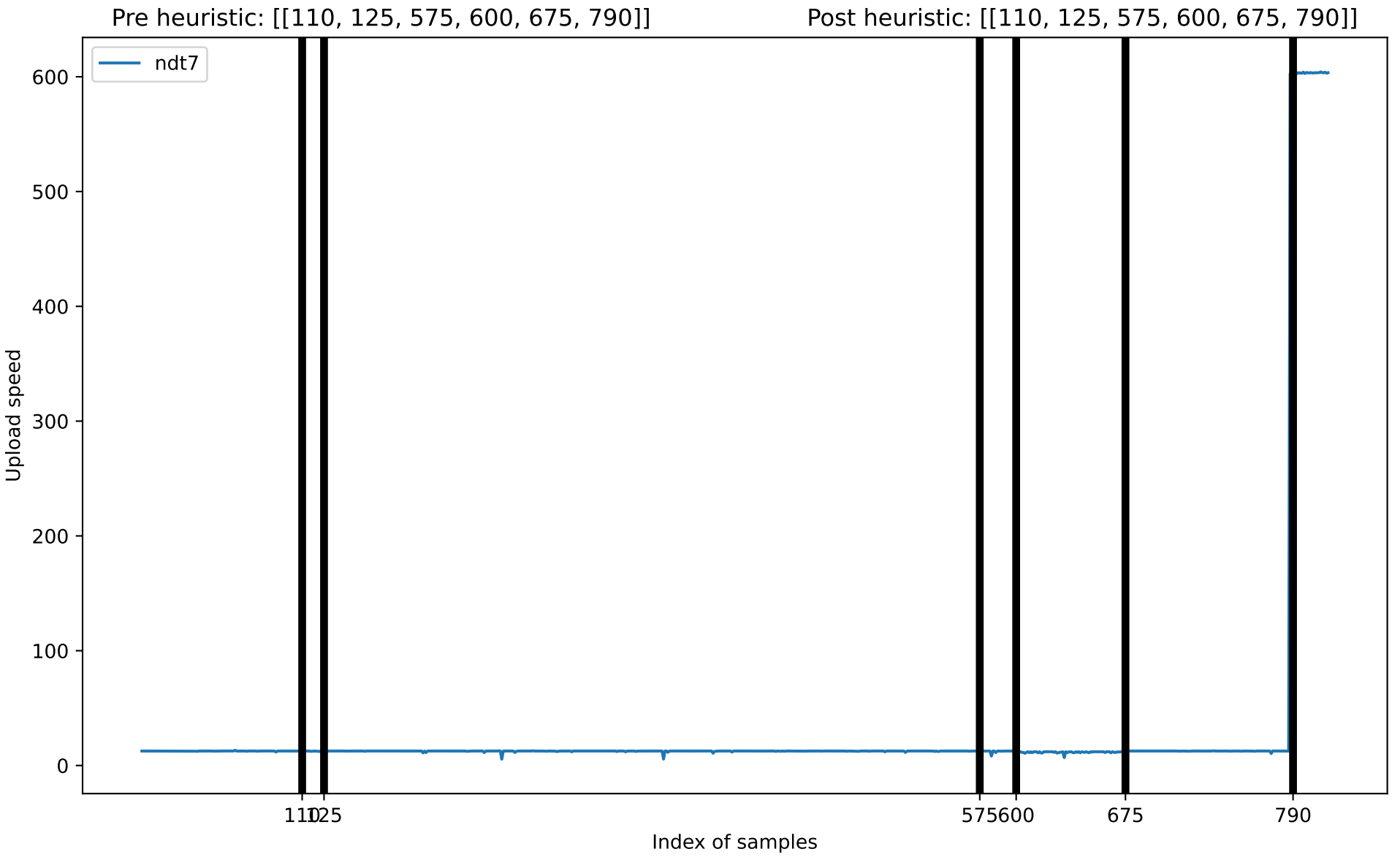

Pre heuristic: [[5, 80, 165, 290, 365, 375, 670, 685, 900, 940]]
Post heuristic: [[5, 80, 165, 290, 365, 375, 670, 685, 900, 940]]
Download speed
50
45
40
35
30
25
20
5
80
165
290
900
940
Index of samples
ookla

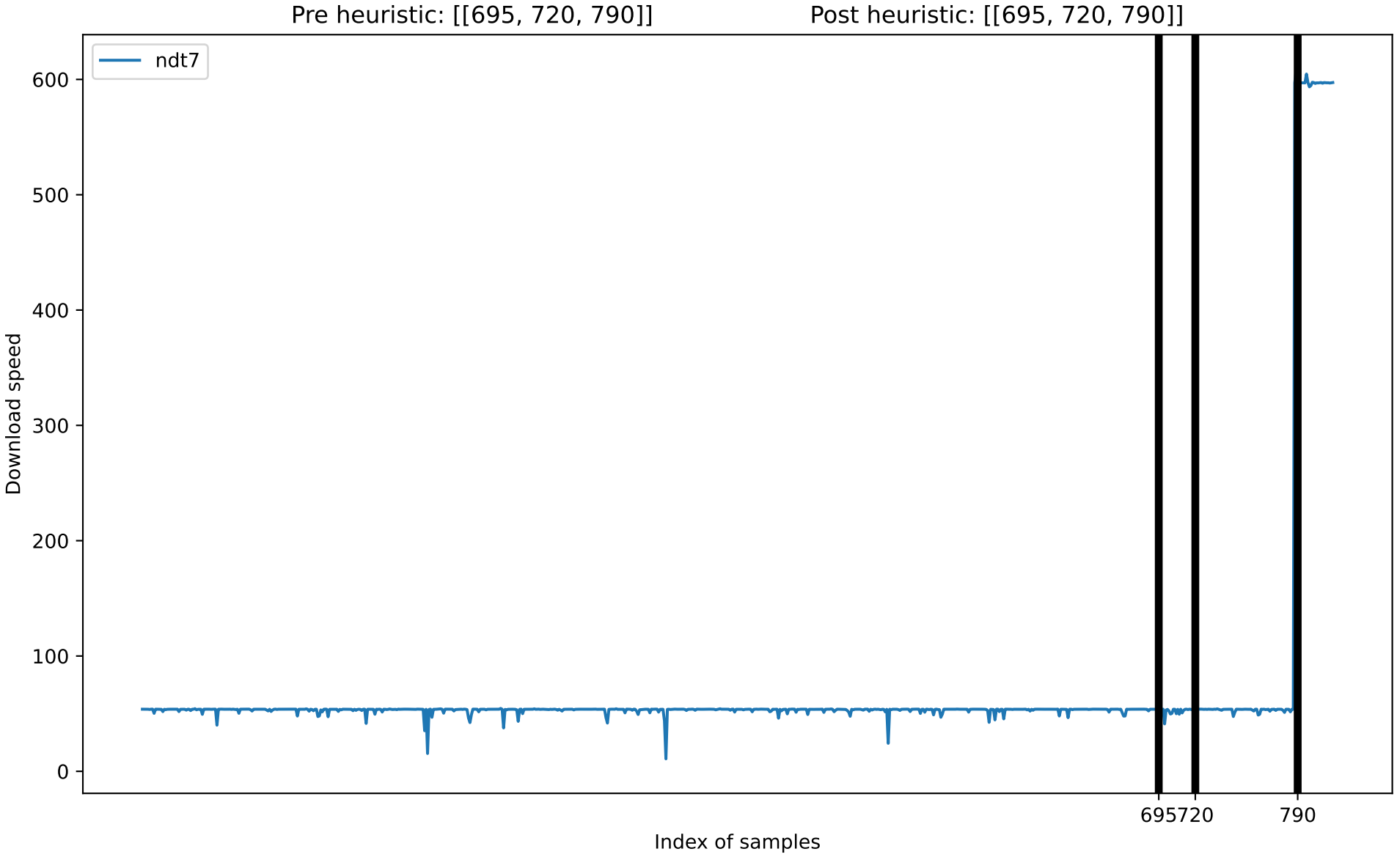

Pre heuristic: [[360, 410, 420, 480, 625]]
Post heuristic: [[360, 410, 420, 480, 625]]
ndt7
Upload speed
32
30
28
26
24
22
360
480
625
Index of samples

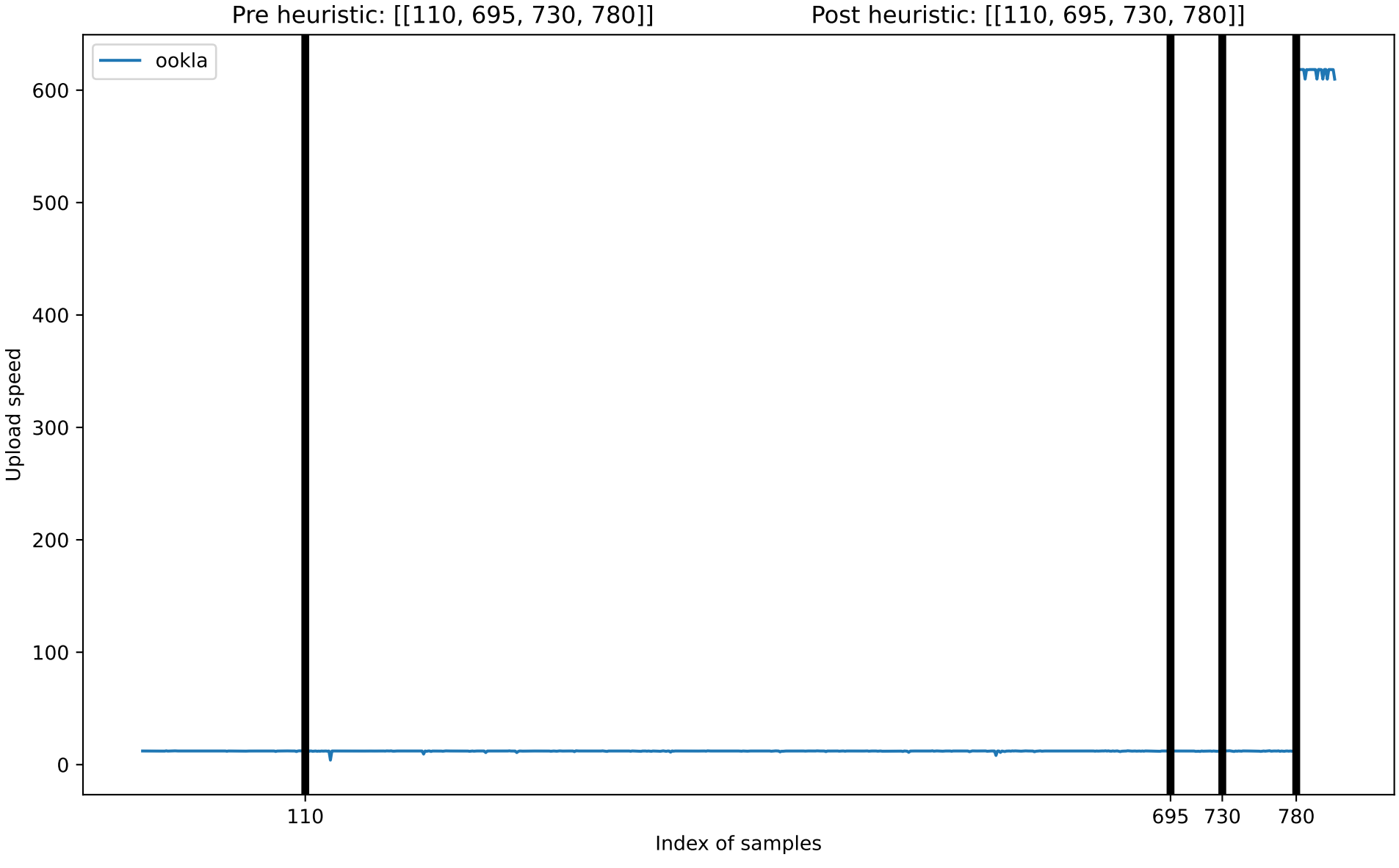

Pre heuristic: [[205, 245]]
Post heuristic: [[205, 245]]
ndt7
295
290
285
280
275
270
Download speed
205
245
Index of samples

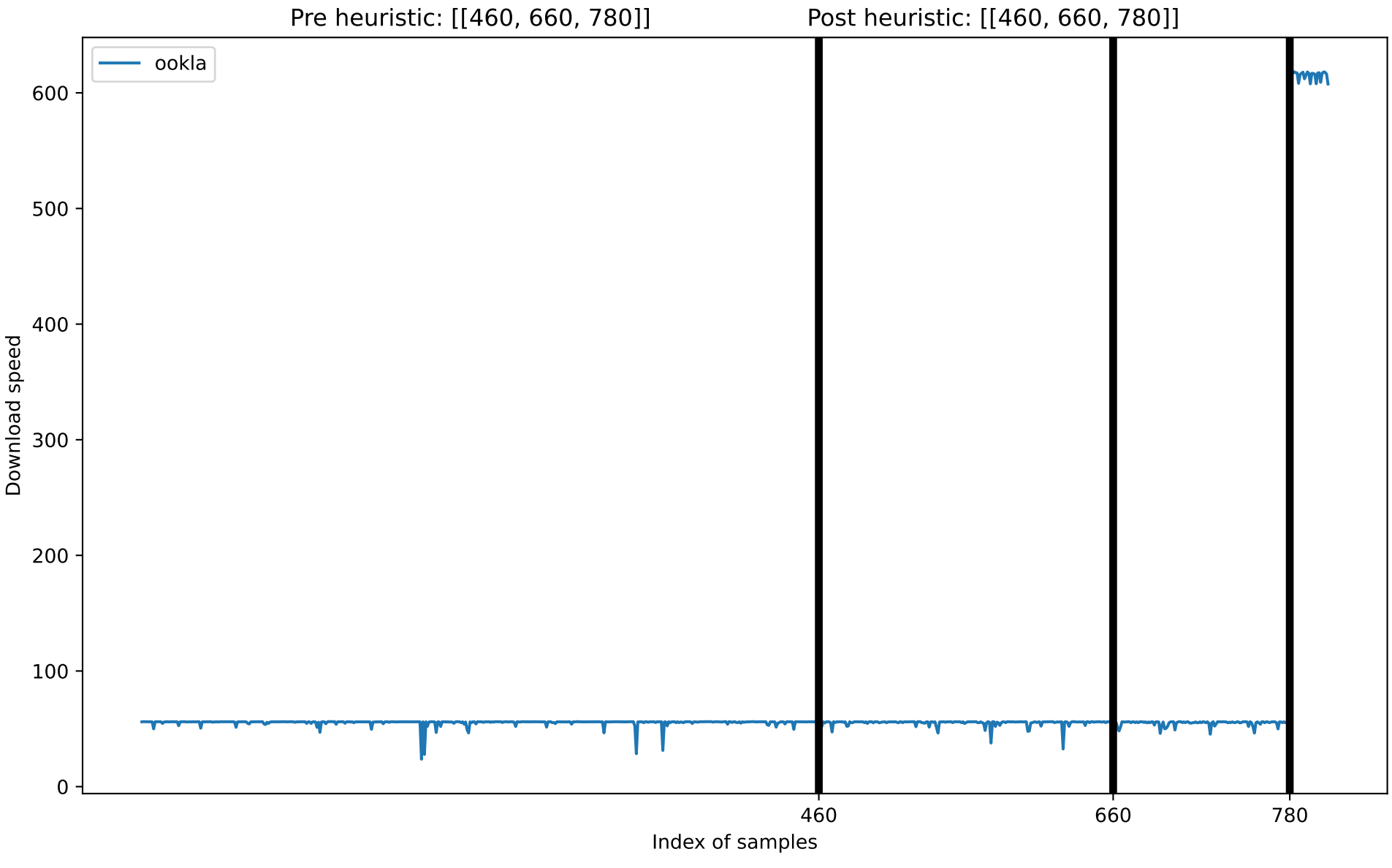

Pre heuristic: [[355, 430, 470, 495, 730]]
Post heuristic: [[355, 430, 470, 495, 730]]
ookla
Upload speed
0
5
10
15
20
25
30
355
430
470
495
730
Index of samples

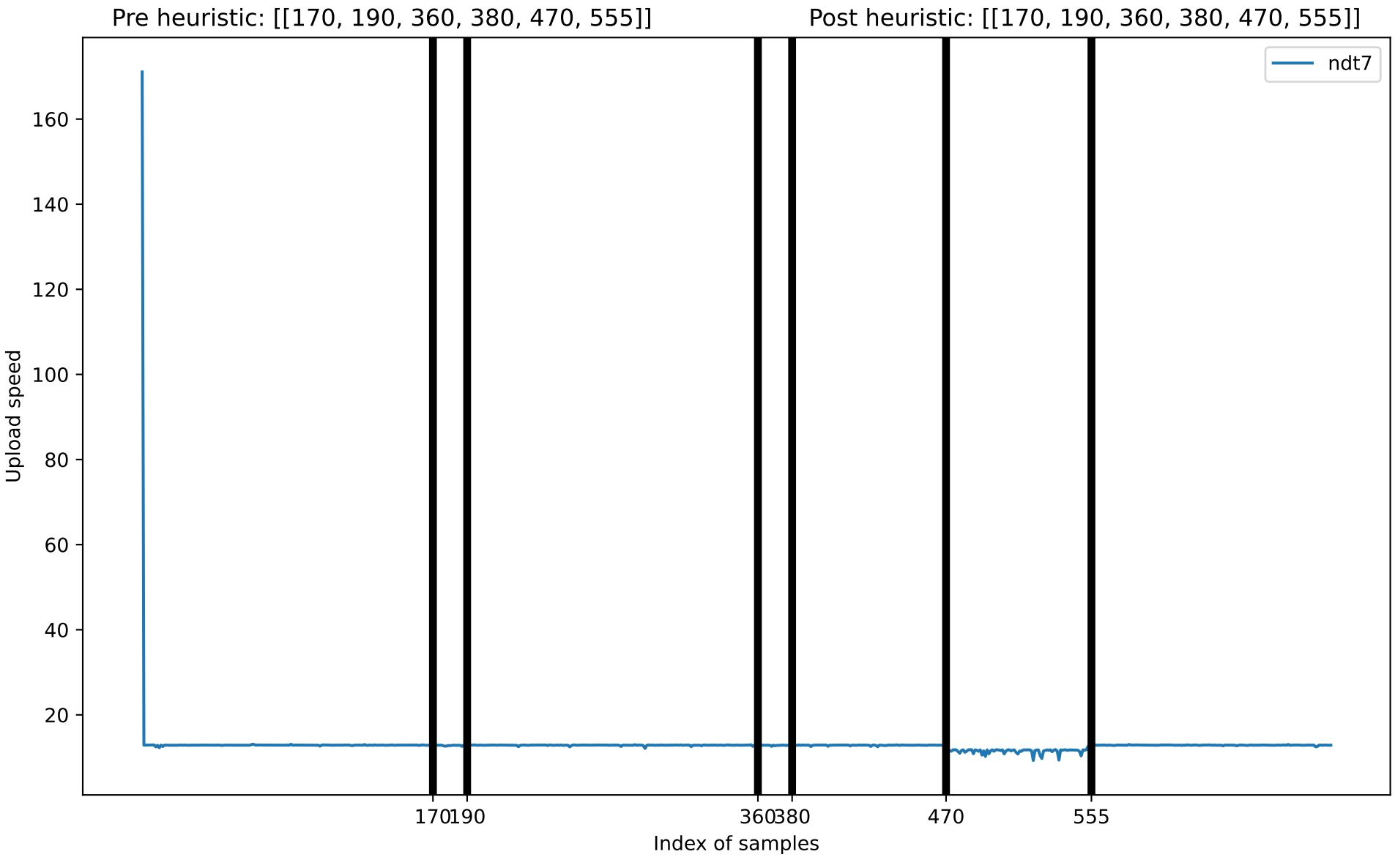

Pre heuristic: [[145, 165, 210, 250, 280, 710]]
Post heuristic: [[145, 165, 210, 250, 280, 710]]
ookla
300
250
200
150
100
Download speed
145
165
210
250
280
710
Index of samples

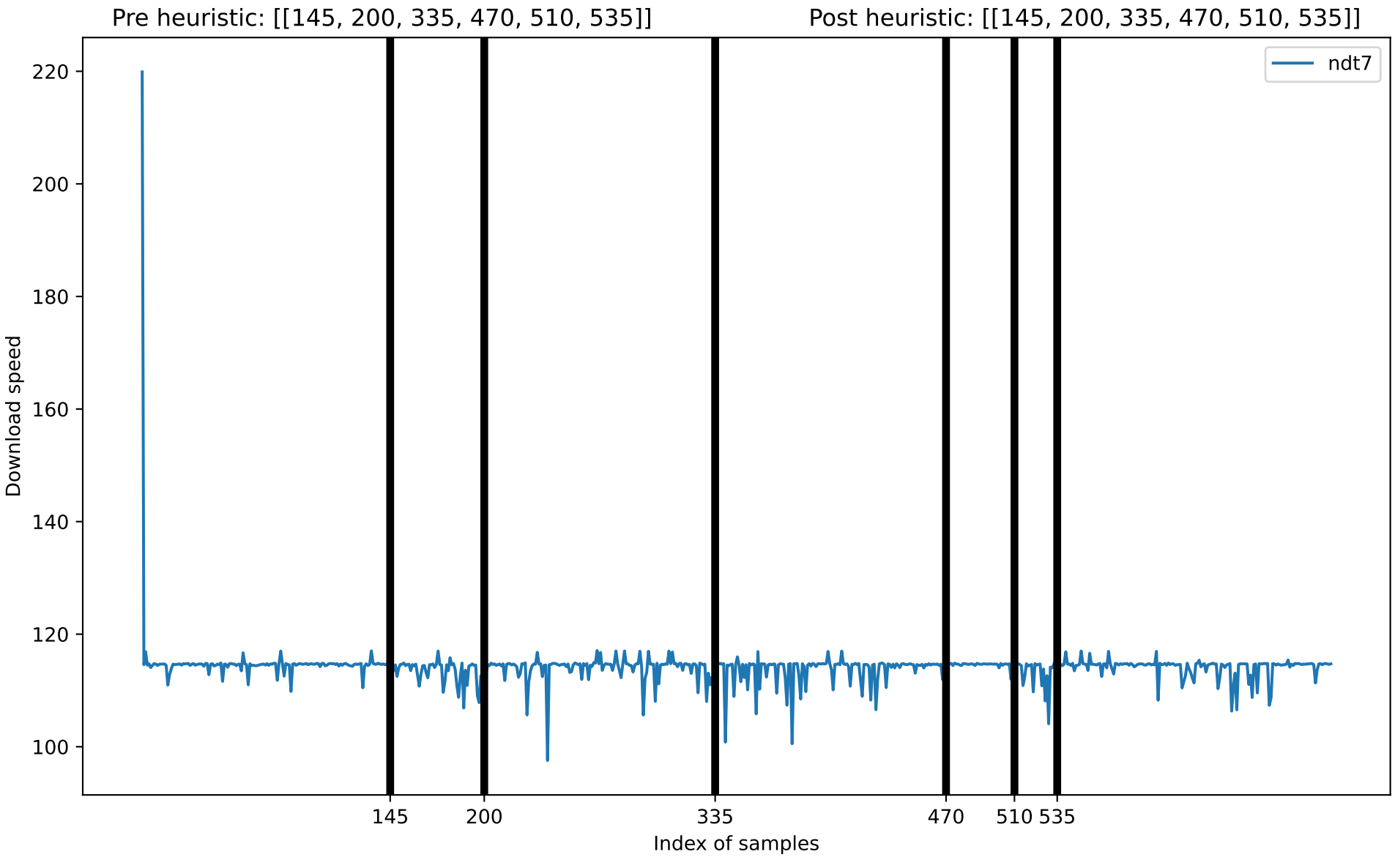

Pre heuristic: [[110, 125, 575, 600, 675, 790]]
Post heuristic: [[110, 125, 575, 600, 675, 790]]
ndt7
600
500
400
300
200
100
0
Upload speed
110
125
575
600
675
790
Index of samples

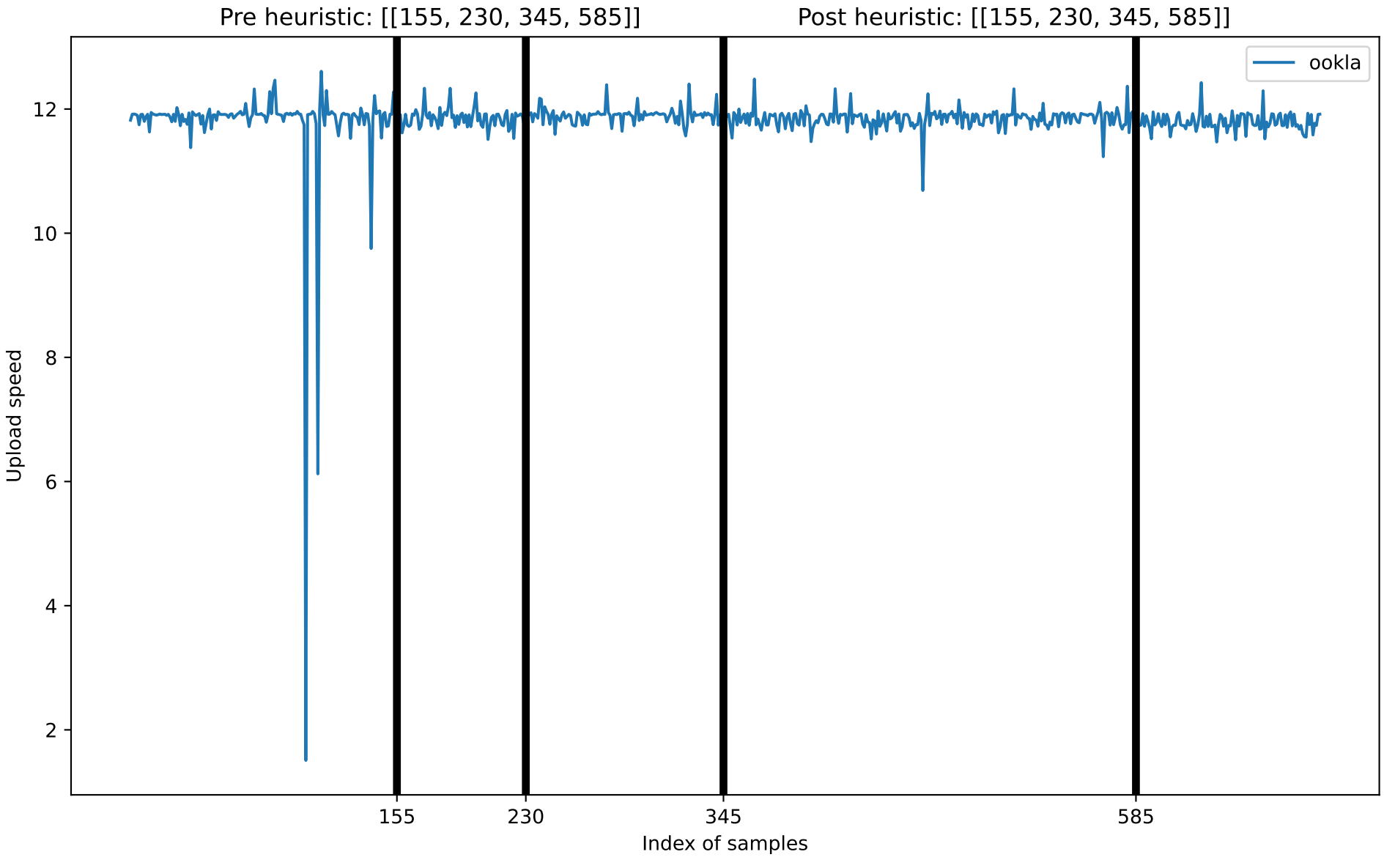

Pre heuristic: [[695, 720, 790]]
Post heuristic: [[695, 720, 790]]
ndt7
600
500
400
300
200
100
0
Download speed
695
720
790
Index of samples

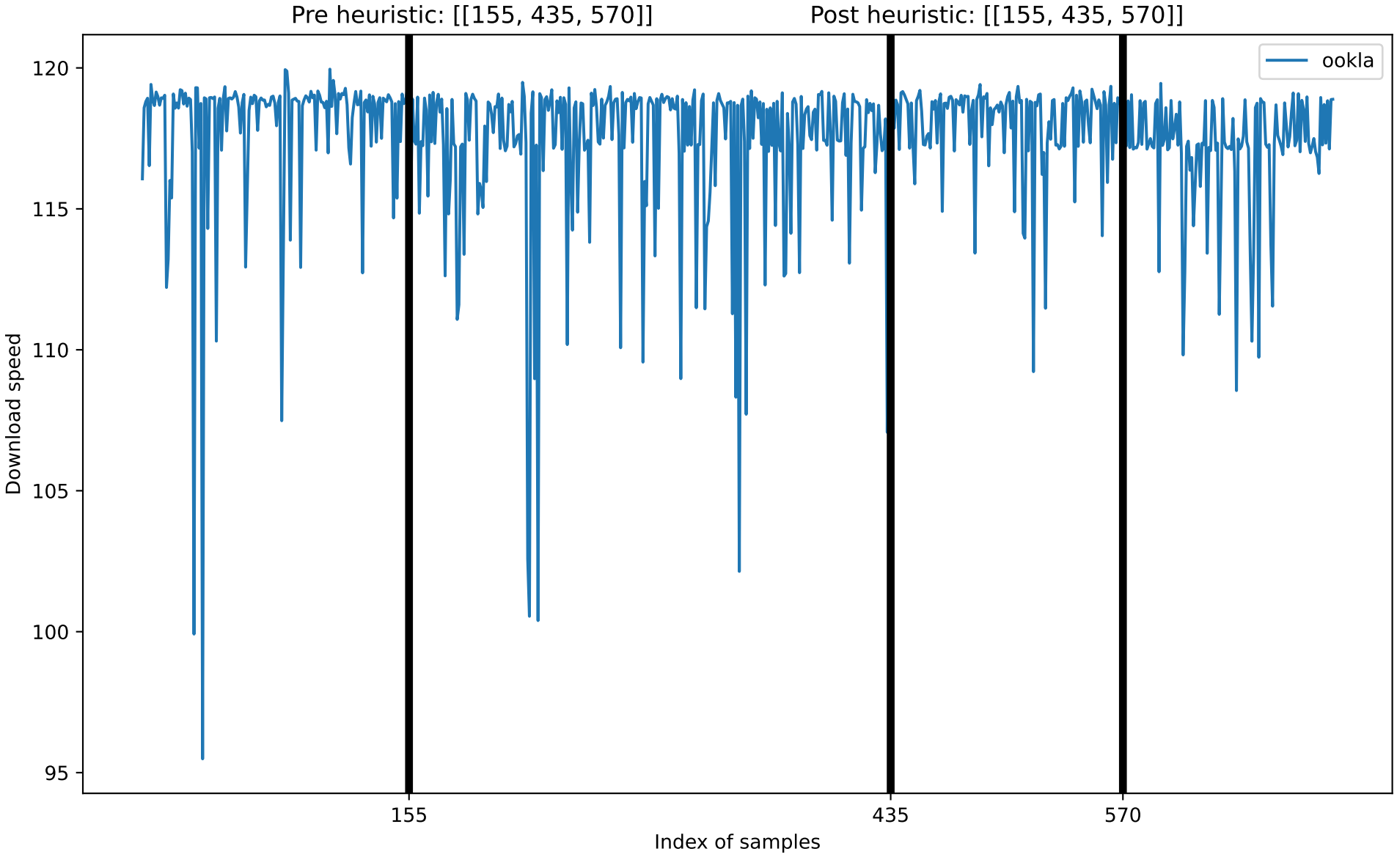

Pre heuristic: [[110, 695, 730, 780]]
Post heuristic: [[110, 695, 730, 780]]
ookla
600
500
400
300
200
100
0
Upload speed
110
695
730
780
Index of samples

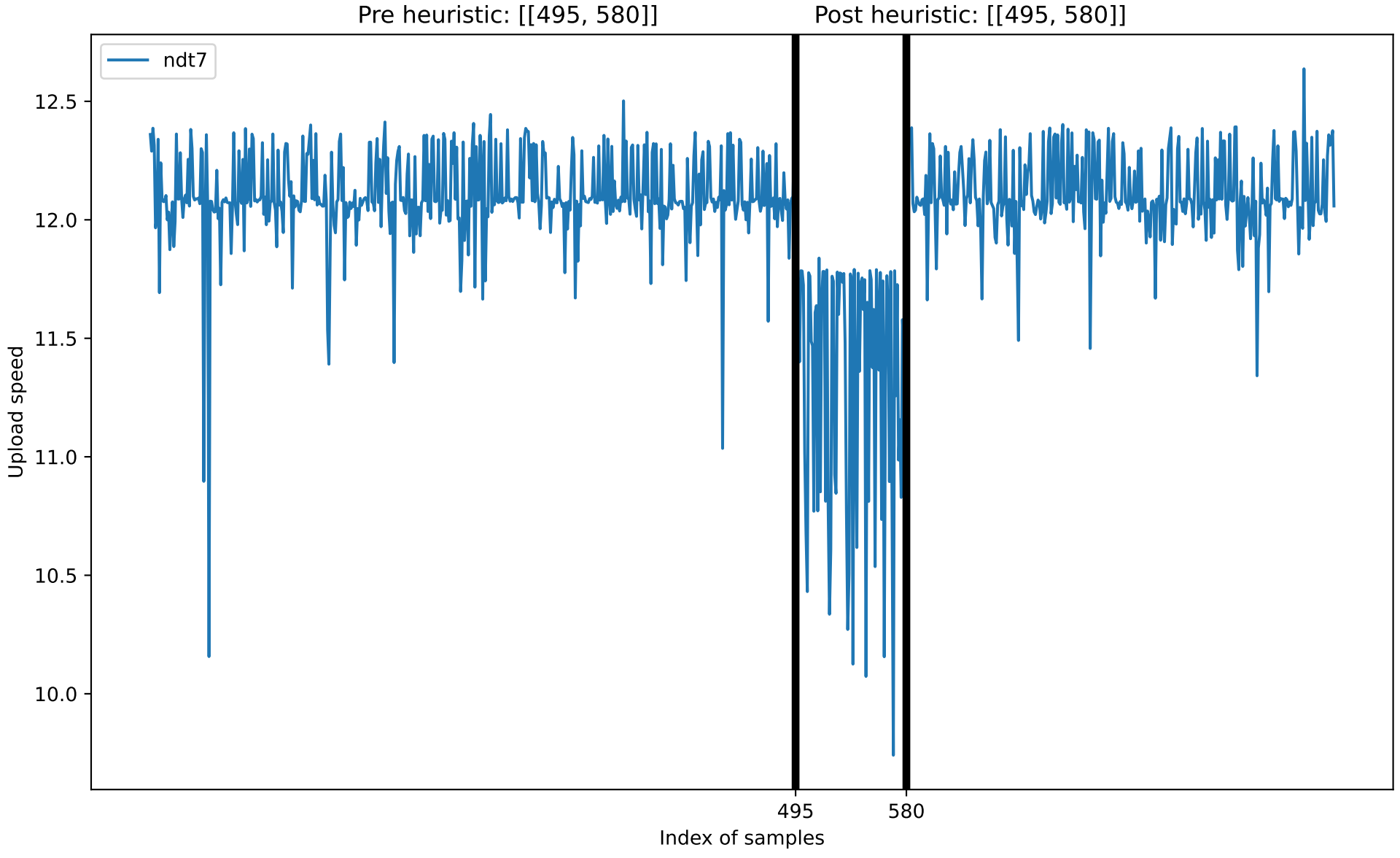

Pre heuristic: [[460, 660, 780]]
Post heuristic: [[460, 660, 780]]
ookla
Download speed
0
100
200
300
400
500
600
460
660
780
Index of samples

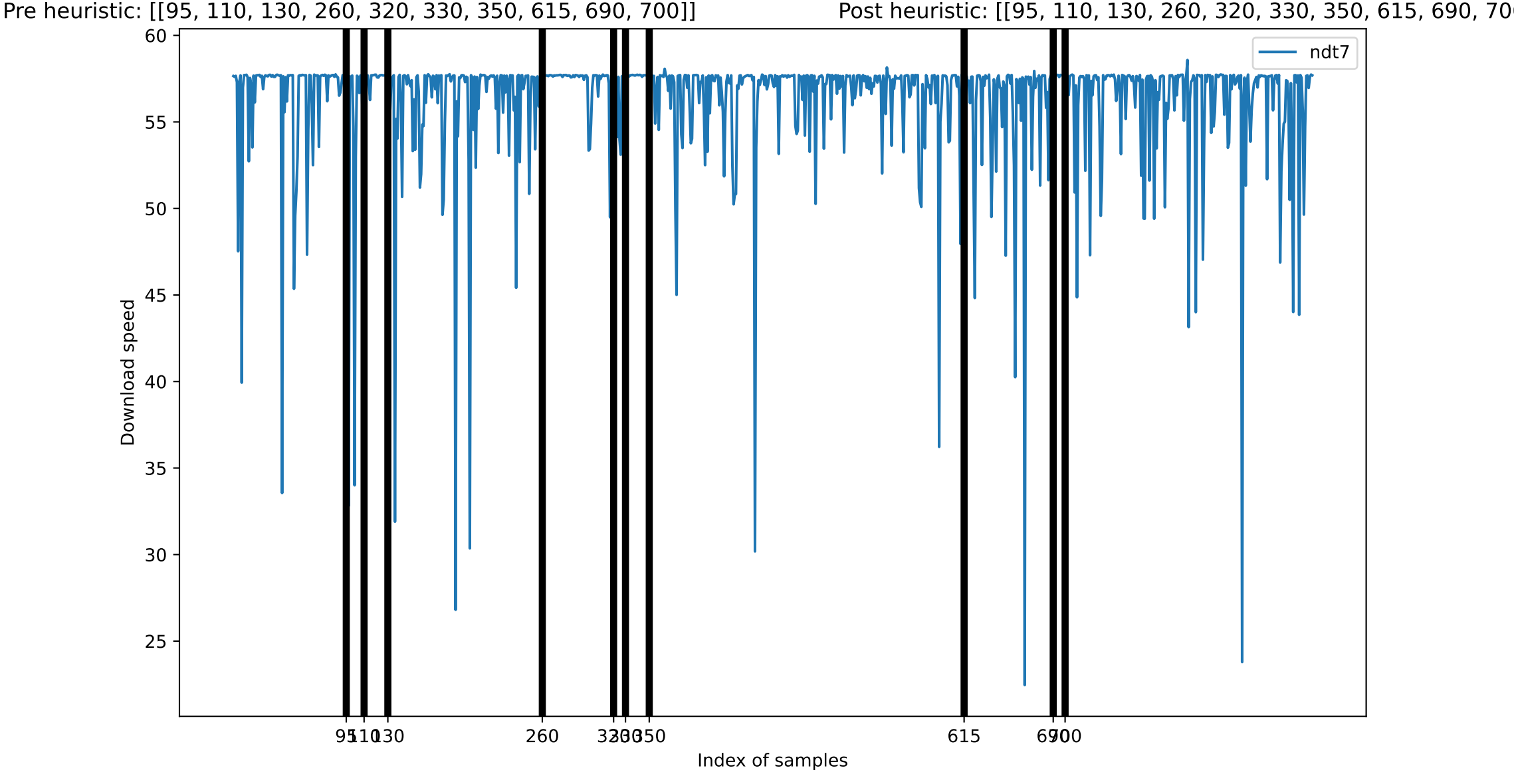

Pre heuristic: [[170, 190, 360, 380, 470, 555]]
Post heuristic: [[170, 190, 360, 380, 470, 555]]
ndt7
Upload speed
160
140
120
100
80
60
40
20
170
190
360
380
470
555
Index of samples

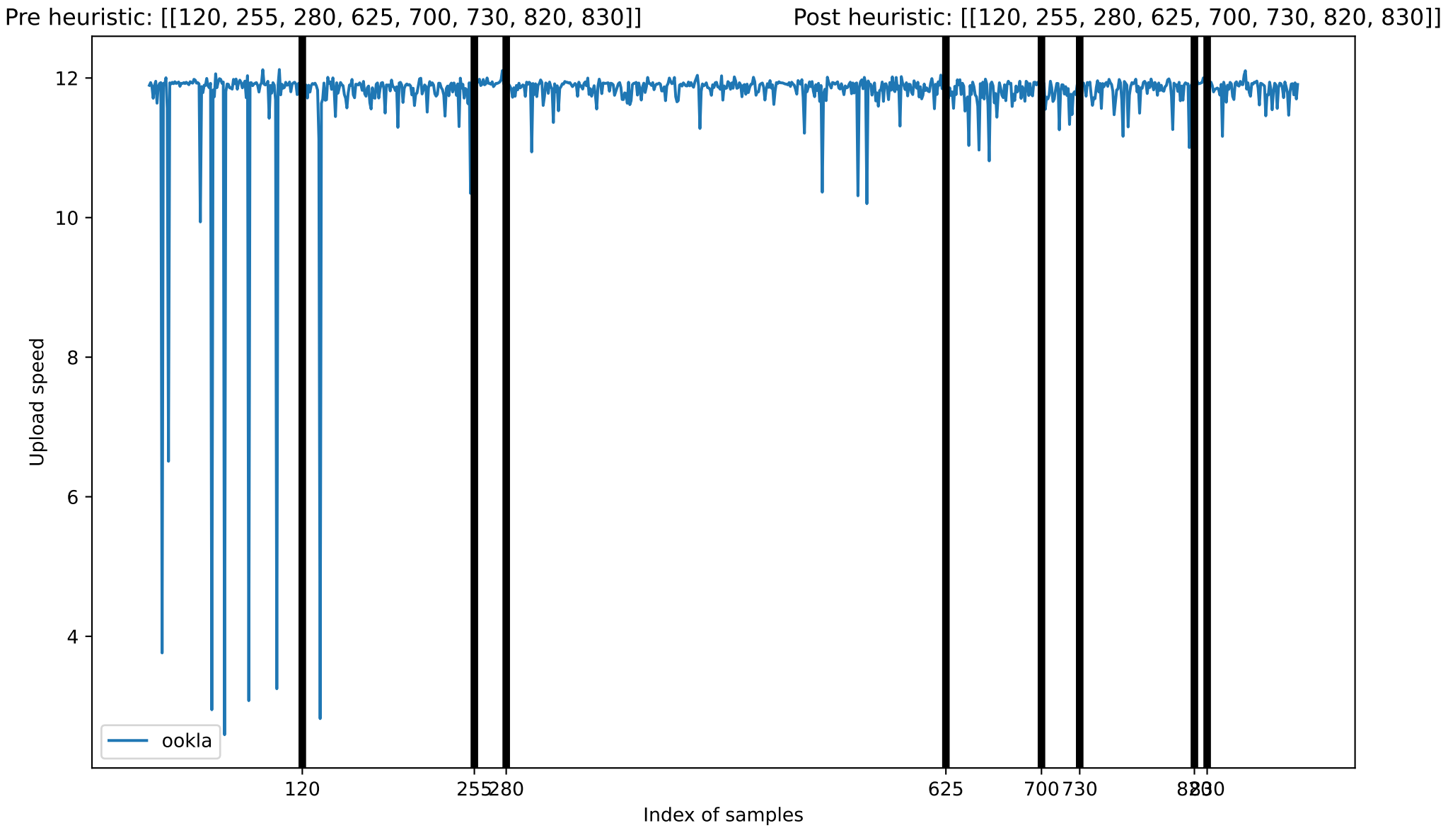

Pre heuristic: [[145, 200, 335, 470, 510, 535]]
Post heuristic: [[145, 200, 335, 470, 510, 535]]
ndt7
Download speed
220
200
180
160
140
120
100
145
200
335
470
510
535
Index of samples

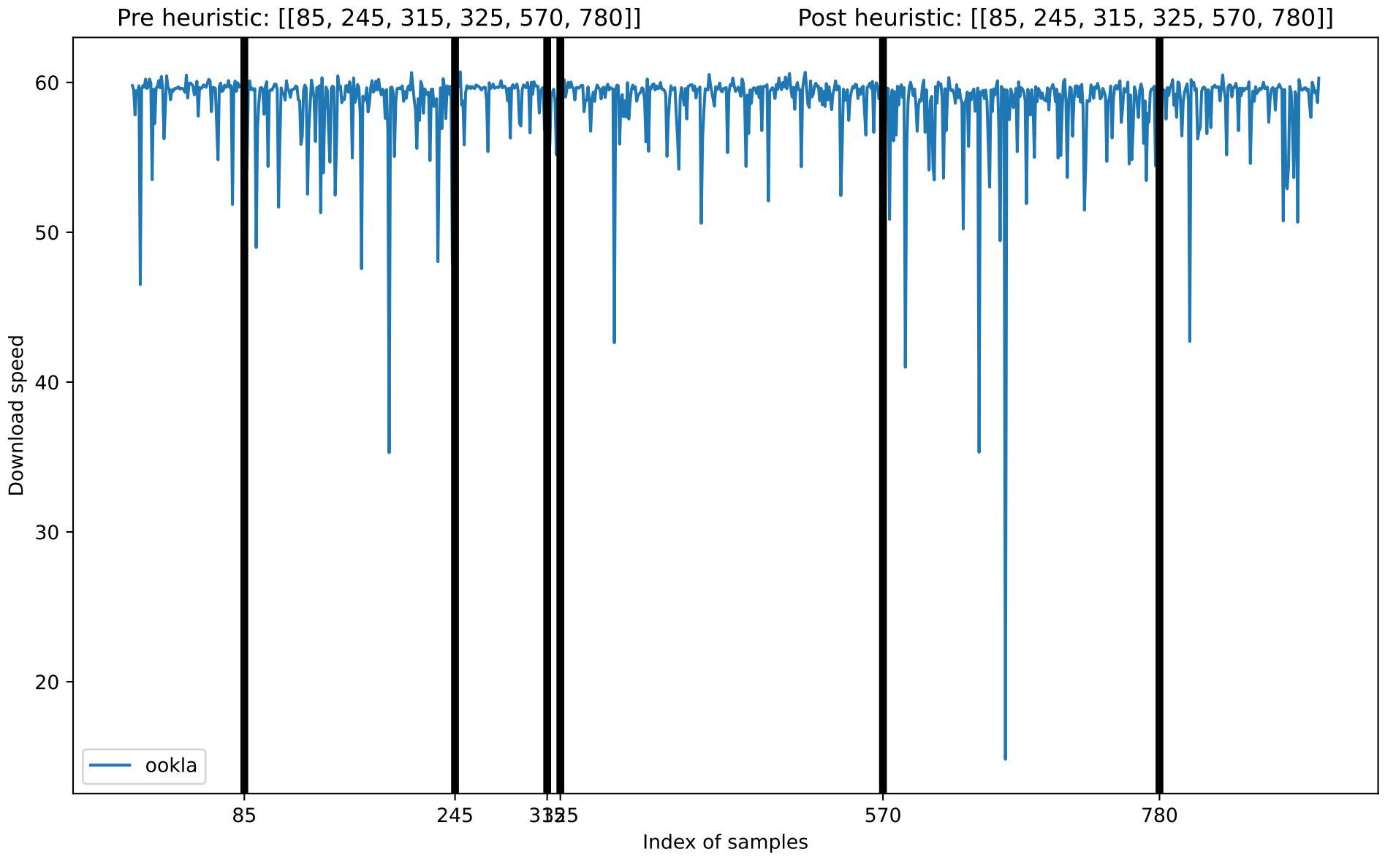

Pre heuristic: [[155, 230, 345, 585]]
Post heuristic: [[155, 230, 345, 585]]
ookla
Upload speed
12
10
8
6
4
2
155
230
345
585
Index of samples

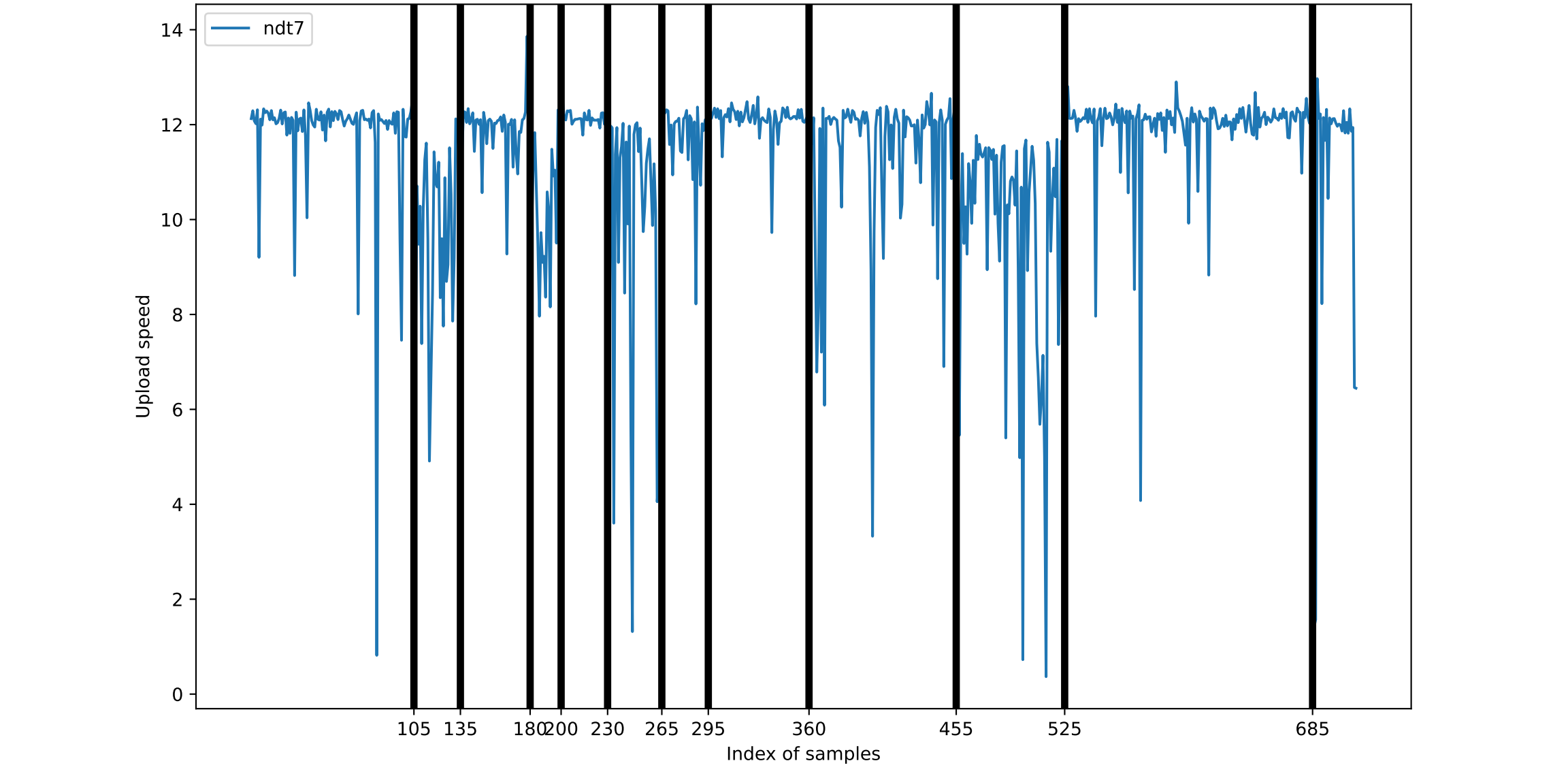

Pre heuristic: [[155, 435, 570]]
Post heuristic: [[155, 435, 570]]
ookla
120
115
110
105
100
95
Download speed
155
435
570
Index of samples

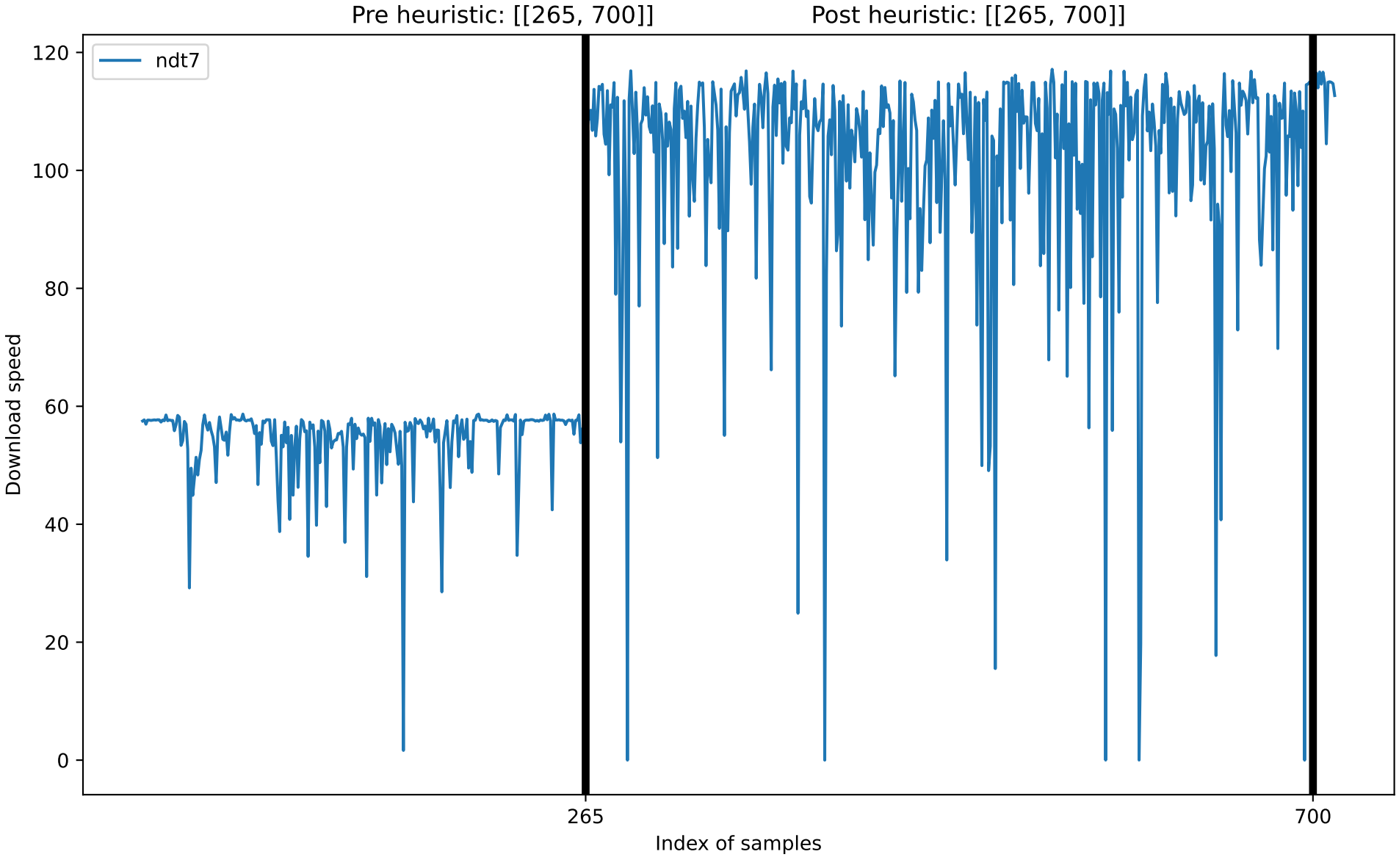

Pre heuristic: [[495, 580]]
Post heuristic: [[495, 580]]
ndt7
12.5
12.0
11.5
11.0
10.5
10.0
Upload speed
495
580
Index of samples

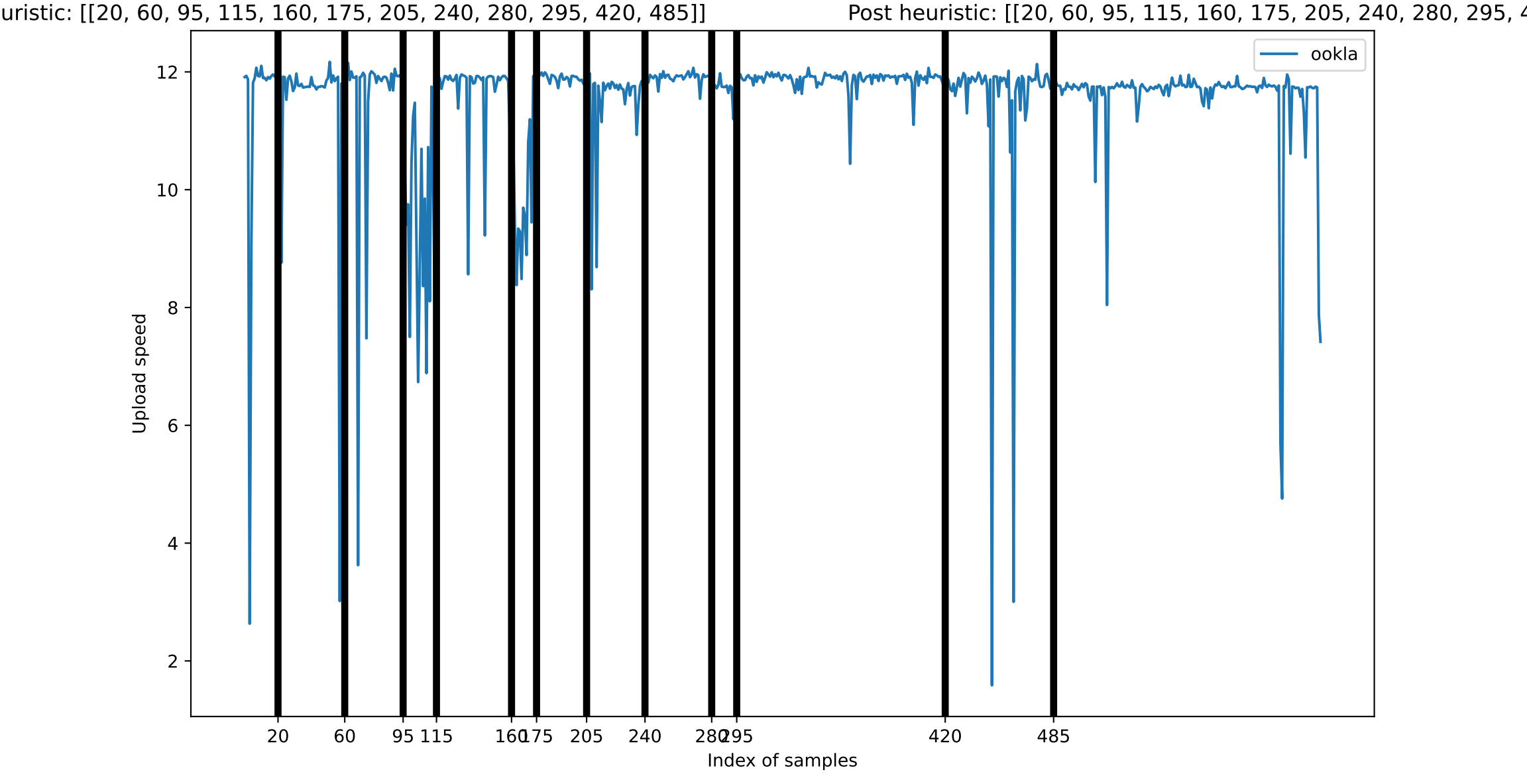

Pre heuristic: [[95, 110, 130, 260, 320, 330, 350, 615, 690, 700]]
Post heuristic: [[95, 110, 130, 260, 320, 330, 350, 615, 690, 700
ndt7
Download speed
60
55
50
45
40
35
30
25
95
110
130
260
615
Index of samples


Pre heuristic: [[120, 255, 280, 625, 700, 730, 820, 830]]
Post heuristic: [[120, 255, 280, 625, 700, 730, 820, 830]]
Upload speed
12
10
8
6
4
ookla
120
255
280
625
700
730
820
830
Index of samples


Pre heuristic: [[85, 245, 315, 325, 570, 780]]
Post heuristic: [[85, 245, 315, 325, 570, 780]]
Download speed
60
50
40
30
20
ookla
85
245
570
780
Index of samples


euristic: [[105, 135, 180, 200, 230, 265, 295, 360, 455, 525, 685]]
Post heuristic: [[105, 135, 180, 200, 230, 265, 295, 360, 455, 52
ndt7
Upload speed
0
2
4
6
8
10
12
14
105
135
180
200
230
265
295
360
455
525
685
Index of samples


Pre heuristic: [[265, 700]]
Post heuristic: [[265, 700]]
ndt7
120
100
80
60
40
20
0
Download speed
265
700
Index of samples


uristic: [[20, 60, 95, 115, 160, 175, 205, 240, 280, 295, 420, 485]]
Post heuristic: [[20, 60, 95, 115, 160, 175, 205, 240, 280, 295, 4
ookla
Upload speed
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2
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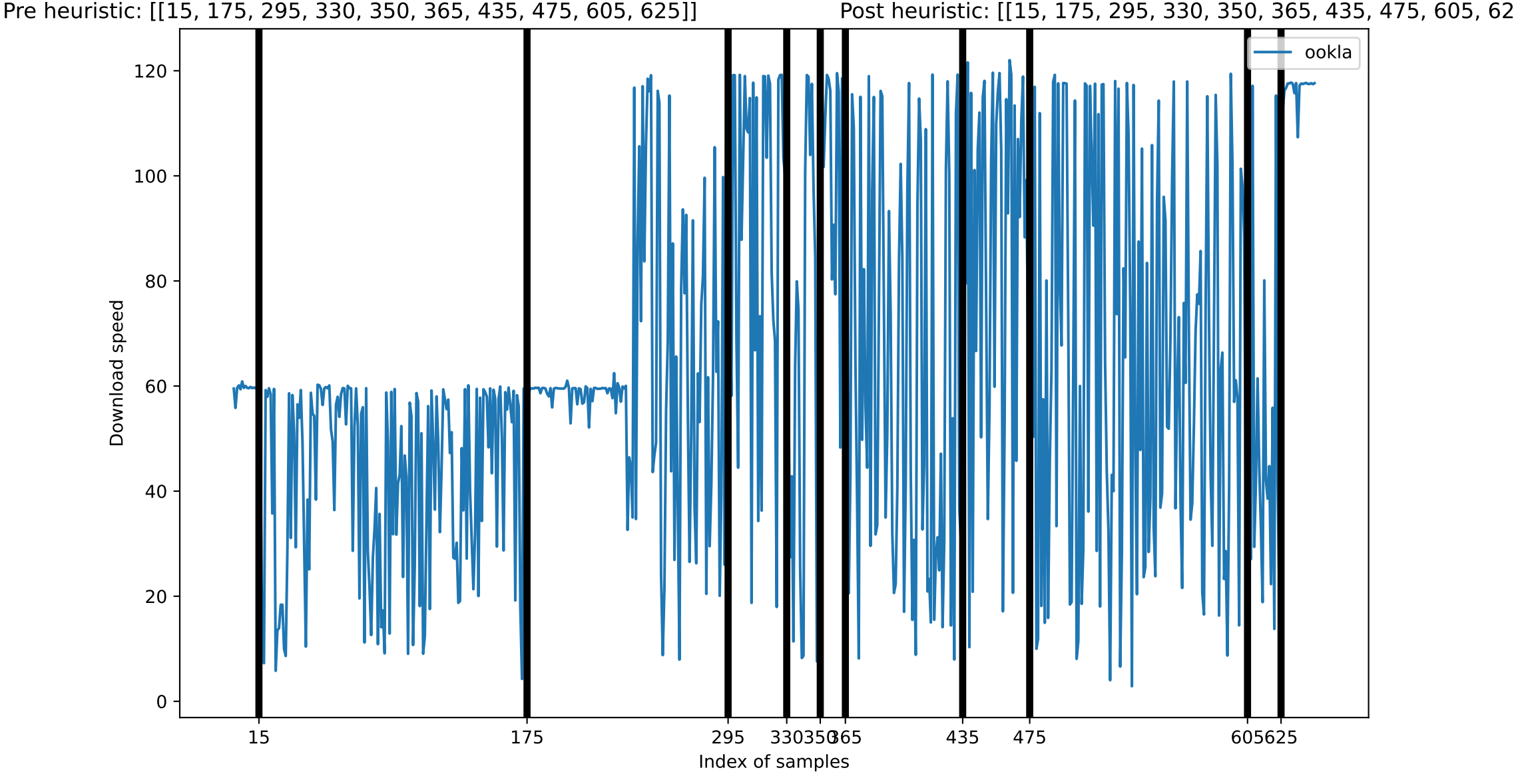
95
115
160
175
205
240
280
295
420
485
Index of samples


Pre heuristic: [[15, 175, 295, 330, 350, 365, 435, 475, 605, 625]]
Post heuristic: [[15, 175, 295, 330, 350, 365, 435, 475, 605, 625
ookla
Download speed
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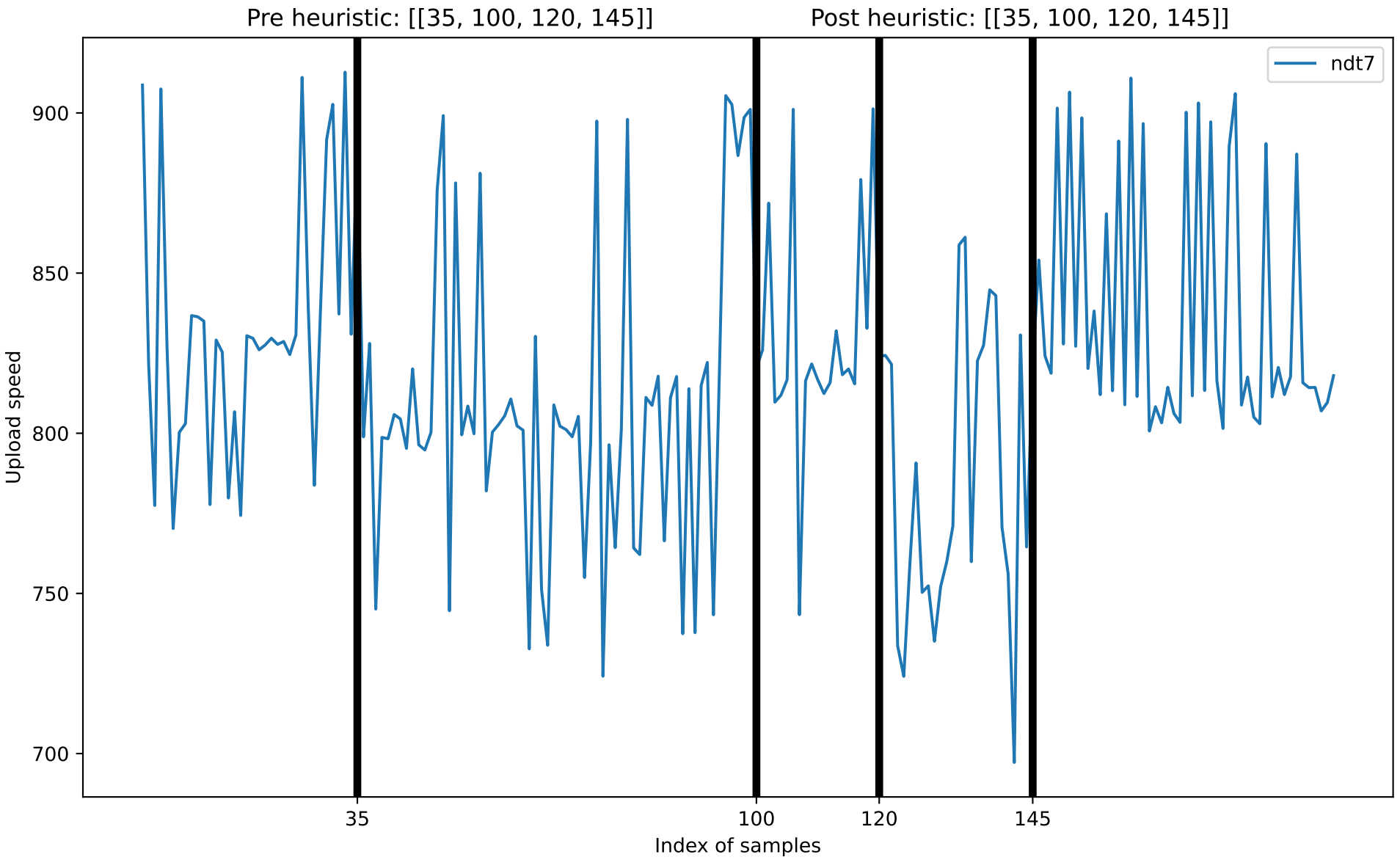
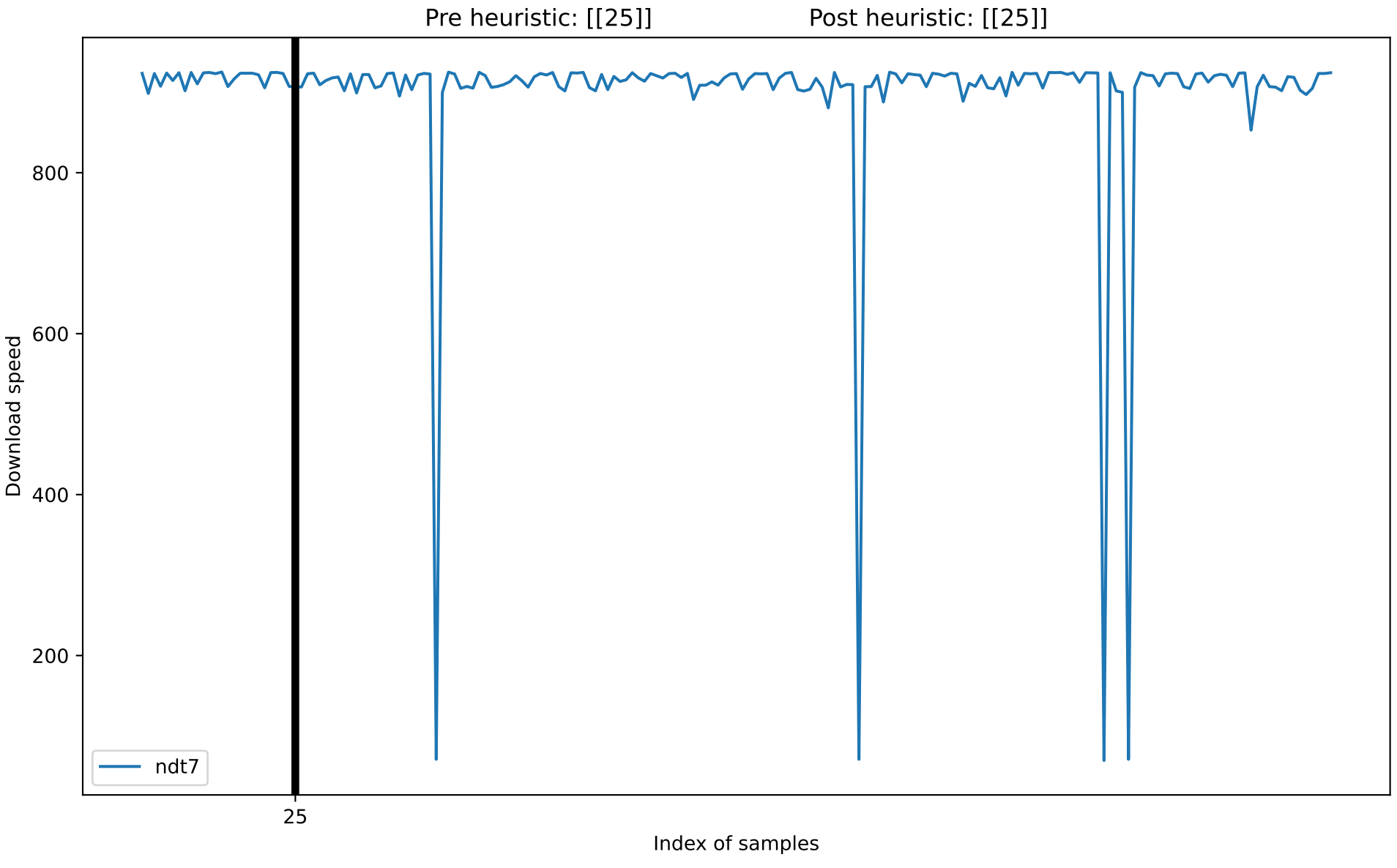
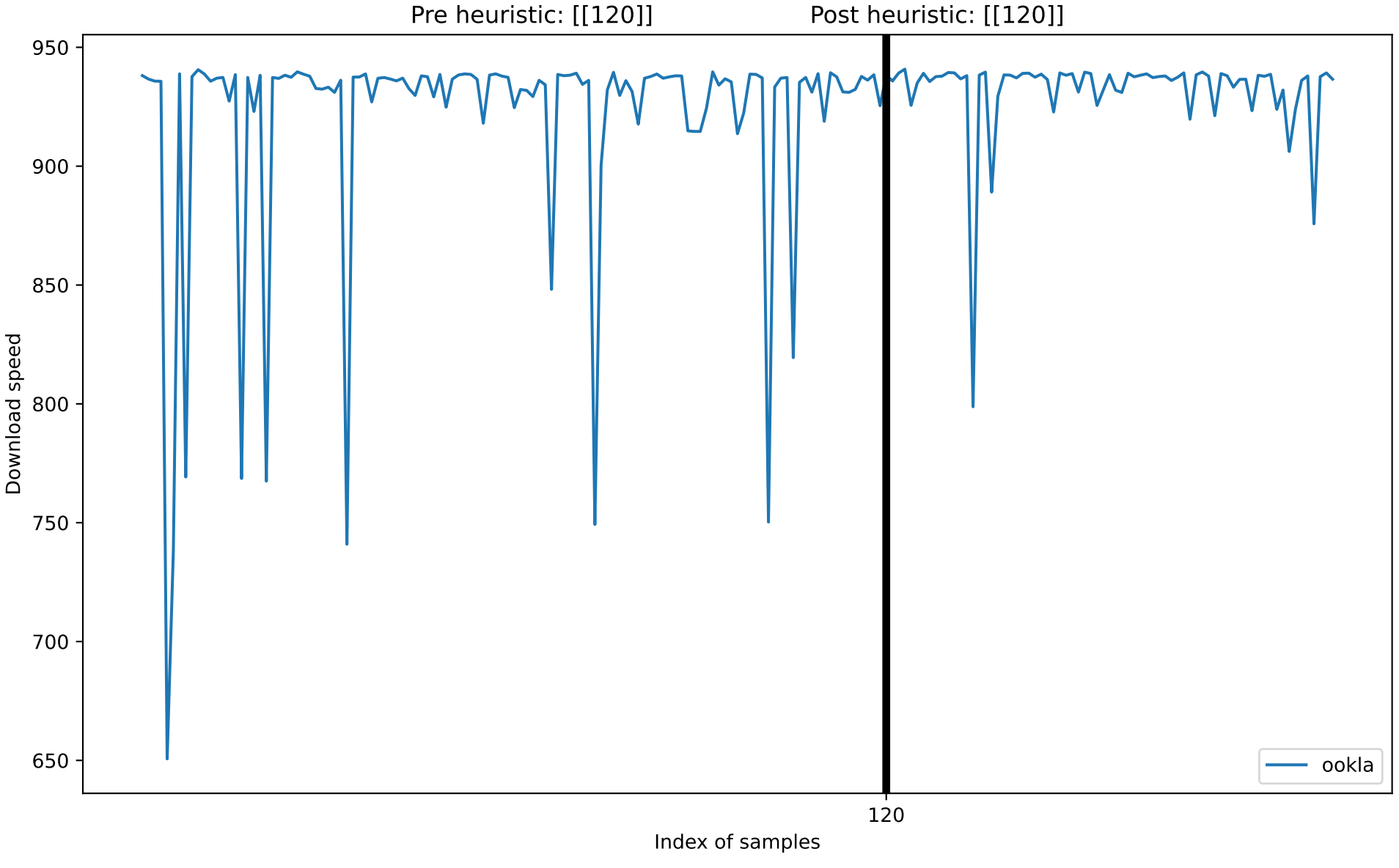
40
20
0
15
175
295
330
350
365
435
475
605
625
Index of samples


Pre heuristic: [[35, 100, 120, 145]]
Post heuristic: [[35, 100, 120, 145]]
ndt7
900
850
800
750
700
Upload speed
35
100
120
145
Index of samples


Pre heuristic: [[25]]
Post heuristic: [[25]]
800
600
400
200
Download speed
ndt7
25
Index of samples


Pre heuristic: [[120]]
Post heuristic: [[120]]
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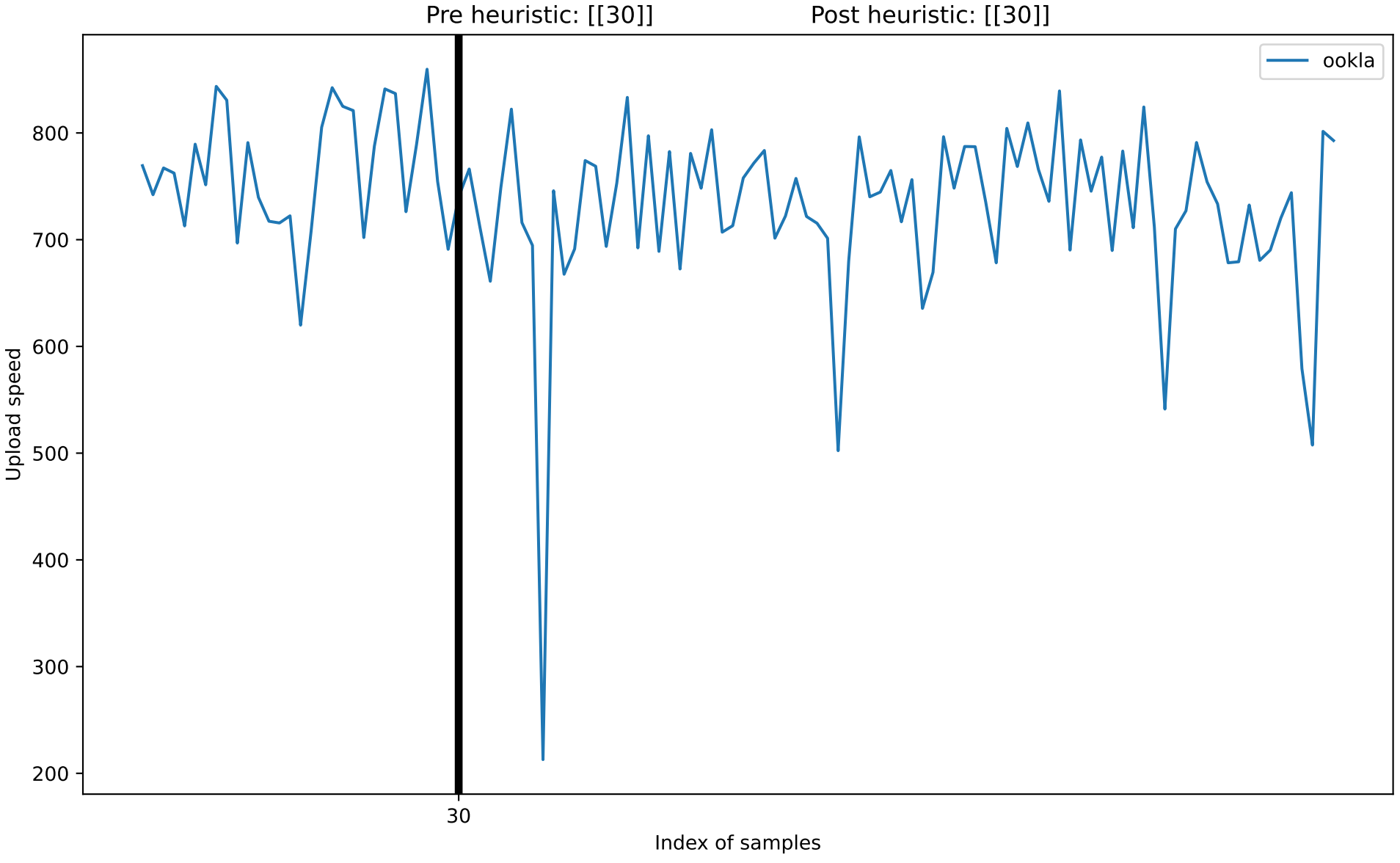
850
800
750
700
650
Download speed
120
Index of samples
ookla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Post heuristic: [[30]]
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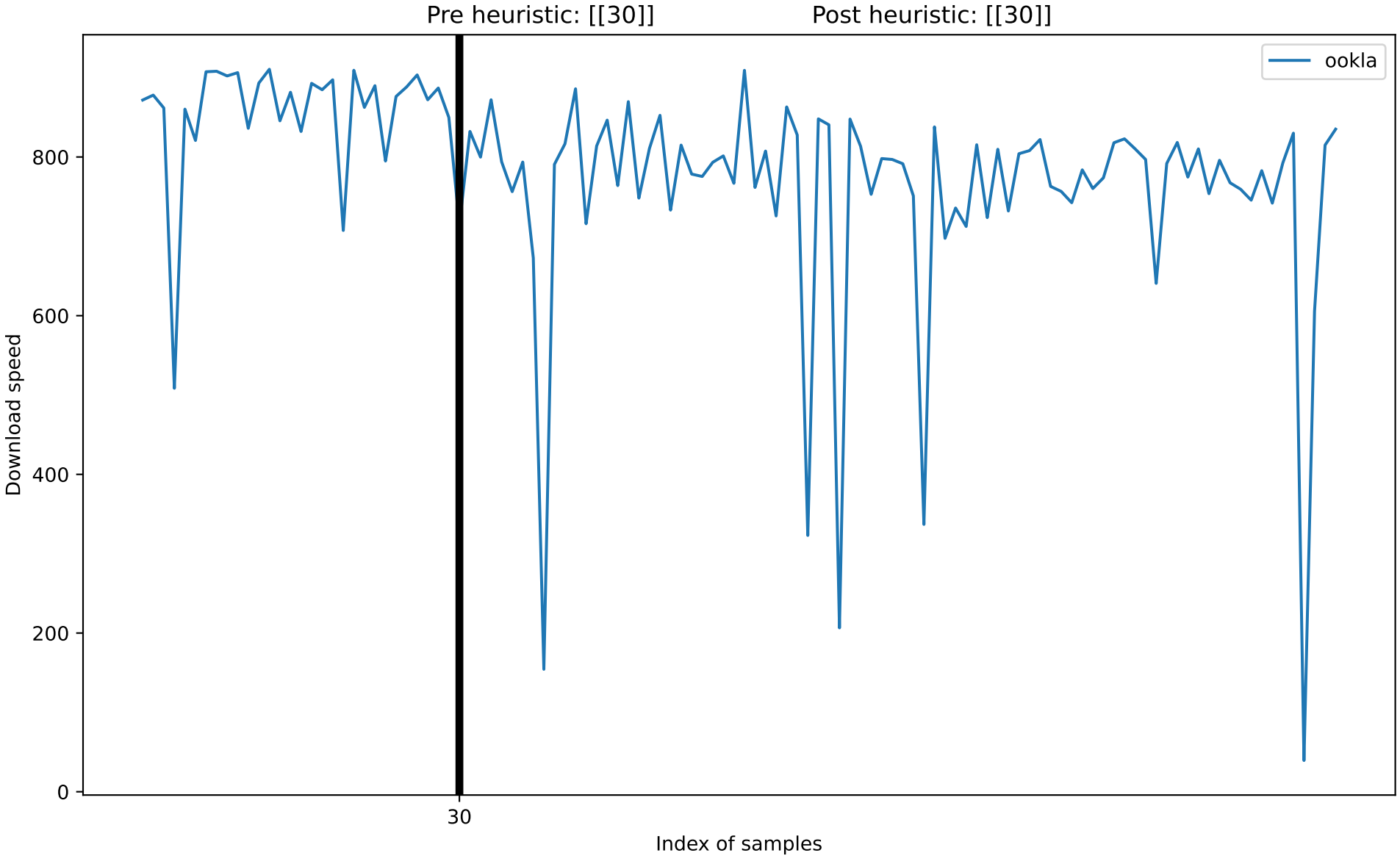
600
500
400
300
200
Upload speed
30
Index of samples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Post heuristic: [[30]]
ookla
Download speed
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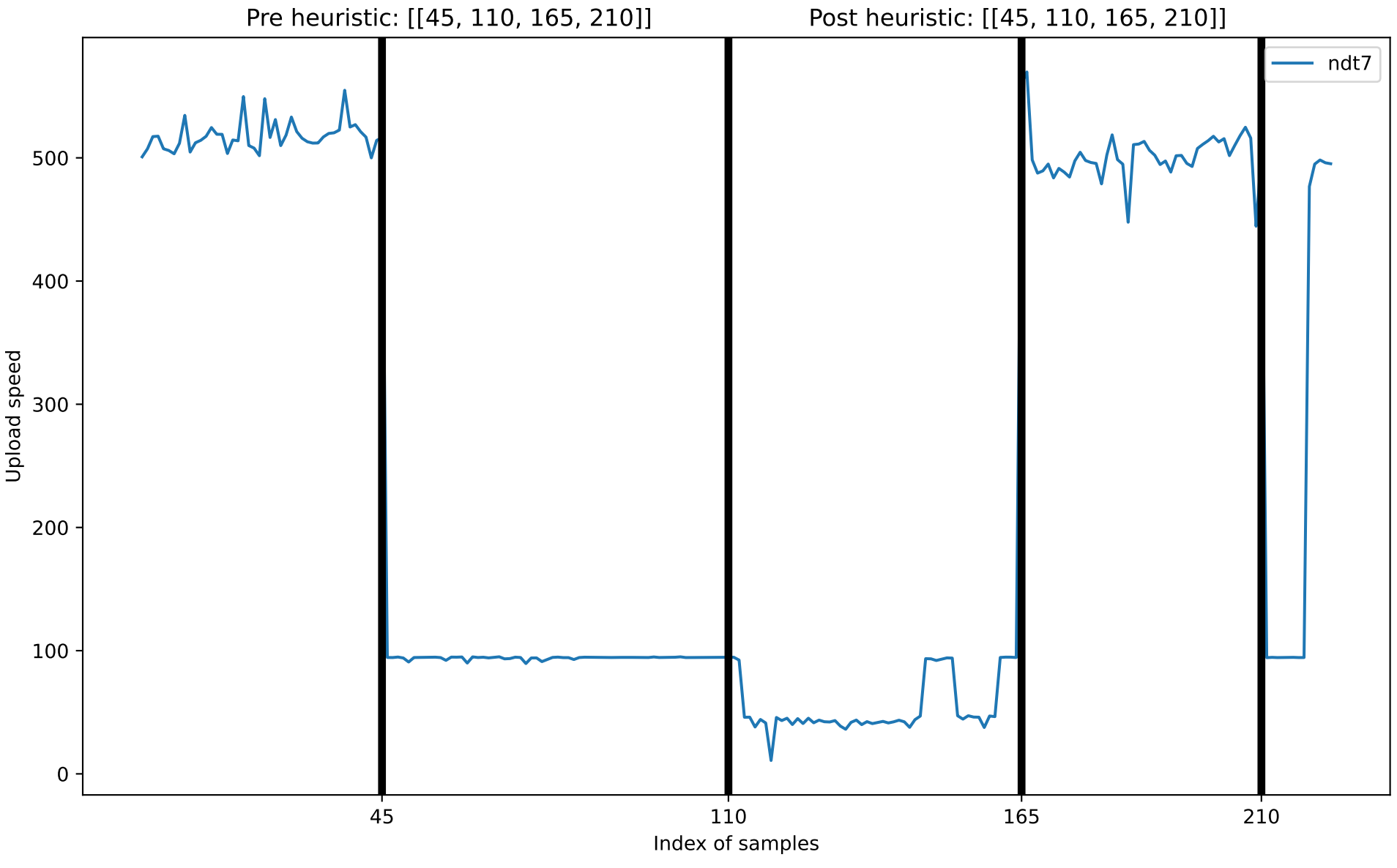
200
400
600
800
30
Index of samples


Pre heuristic: [[45, 110, 165, 210]]
Post heuristic: [[45, 110, 165, 210]]
ndt7
Upload speed
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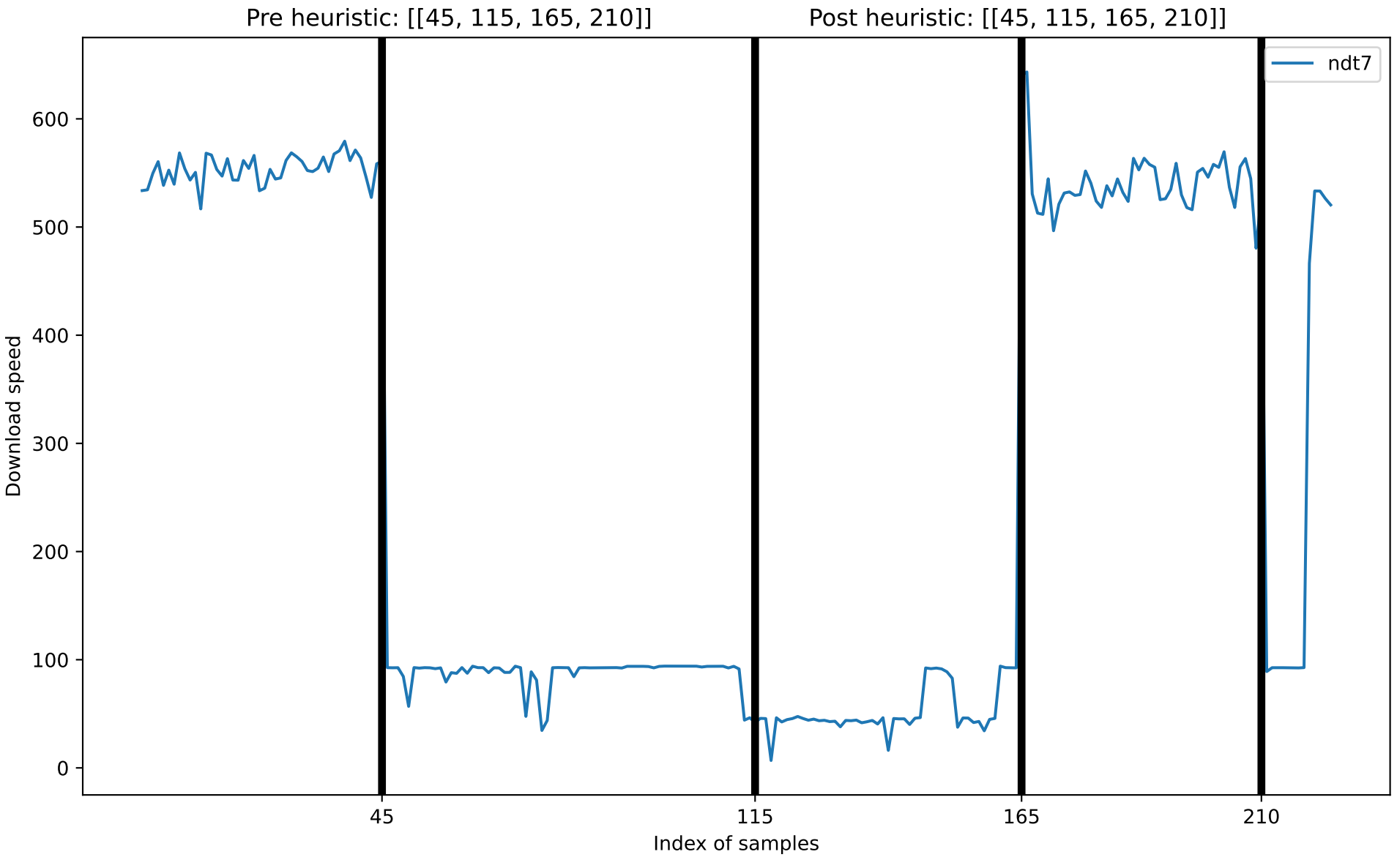
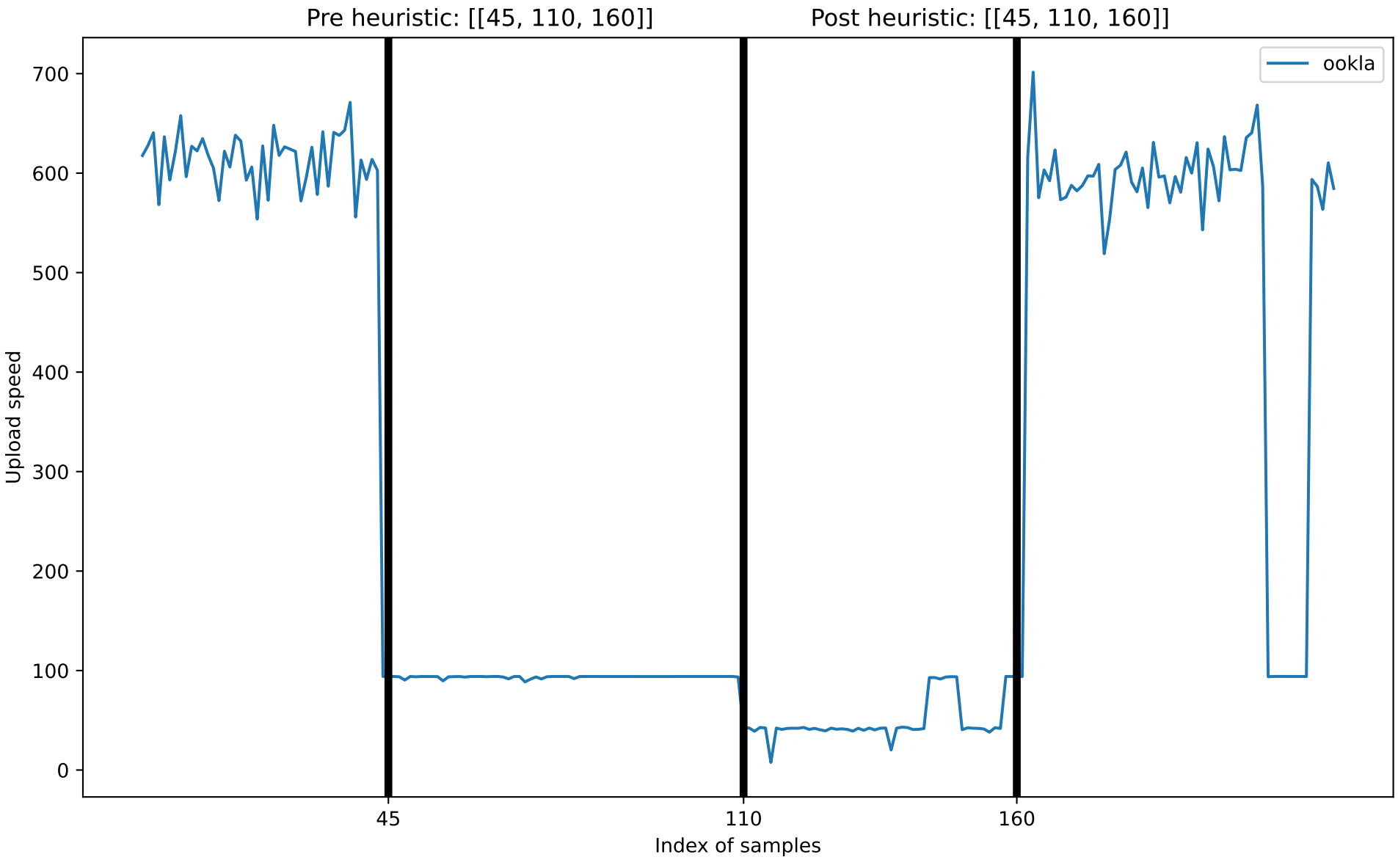
100
200
300
400
500
45
110
165
210
Index of samples


Pre heuristic: [[45, 115, 165, 210]]
Post heuristic: [[45, 115, 165, 210]]
ndt7
Download speed
600
500
400
300
200
100
0
45
115
165
210
Index of samples


Pre heuristic: [[45, 110, 160]]
Post heuristic: [[45, 110, 160]]
ookla
Upload speed
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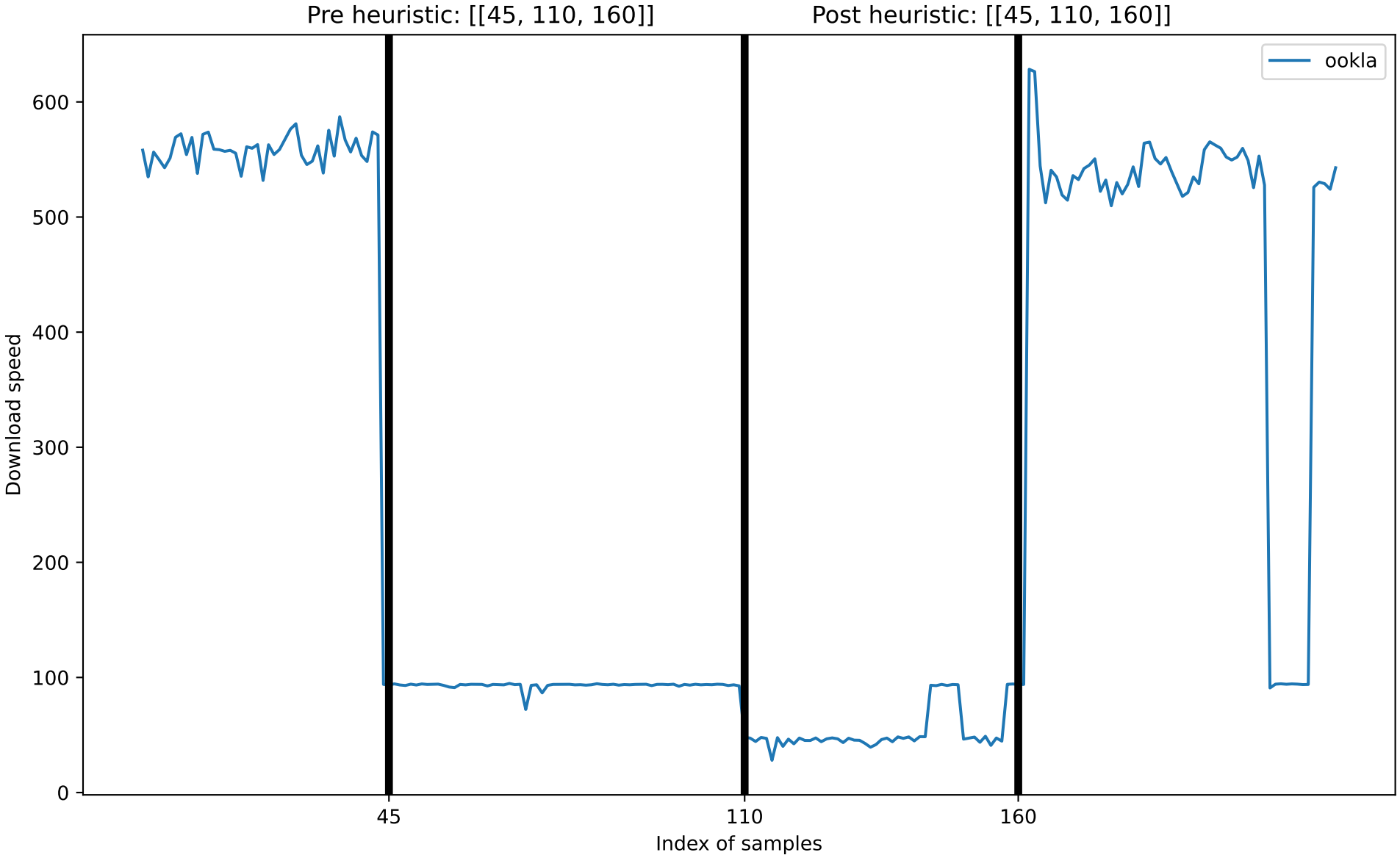
500
400
300
200
100
0
45
110
160
Index of samples


Pre heuristic: [[45, 110, 160]]
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ookla
Download speed
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100
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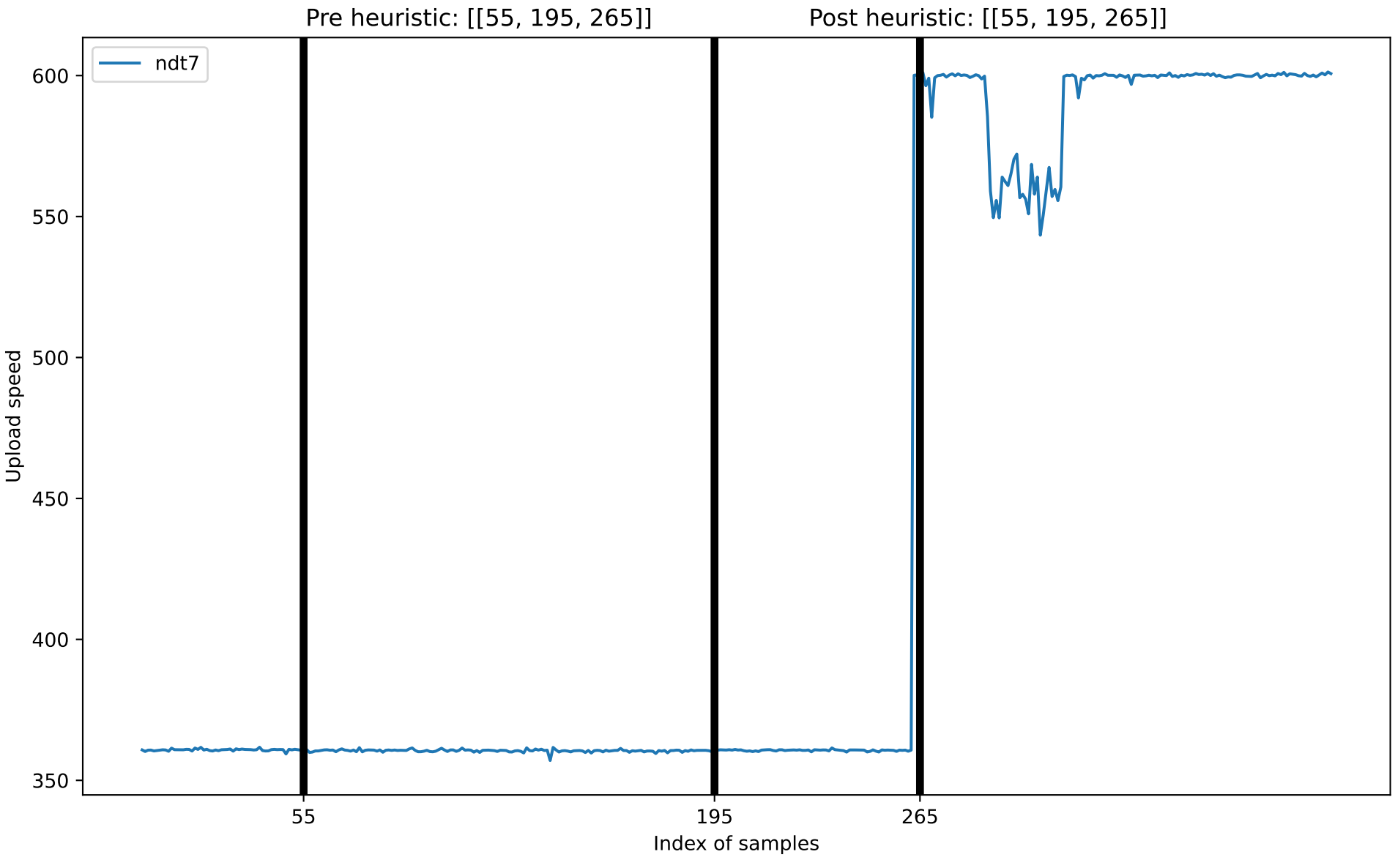
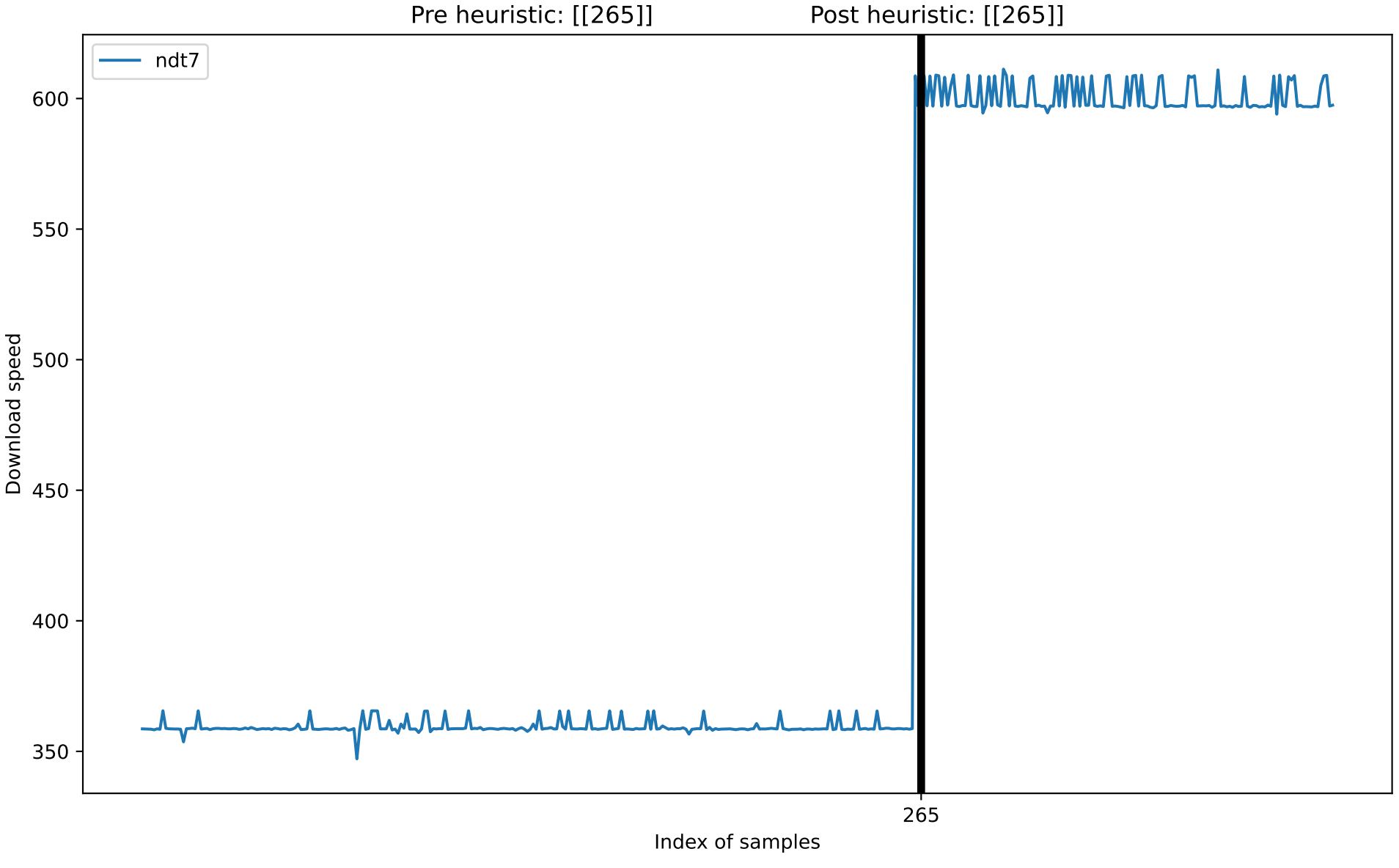
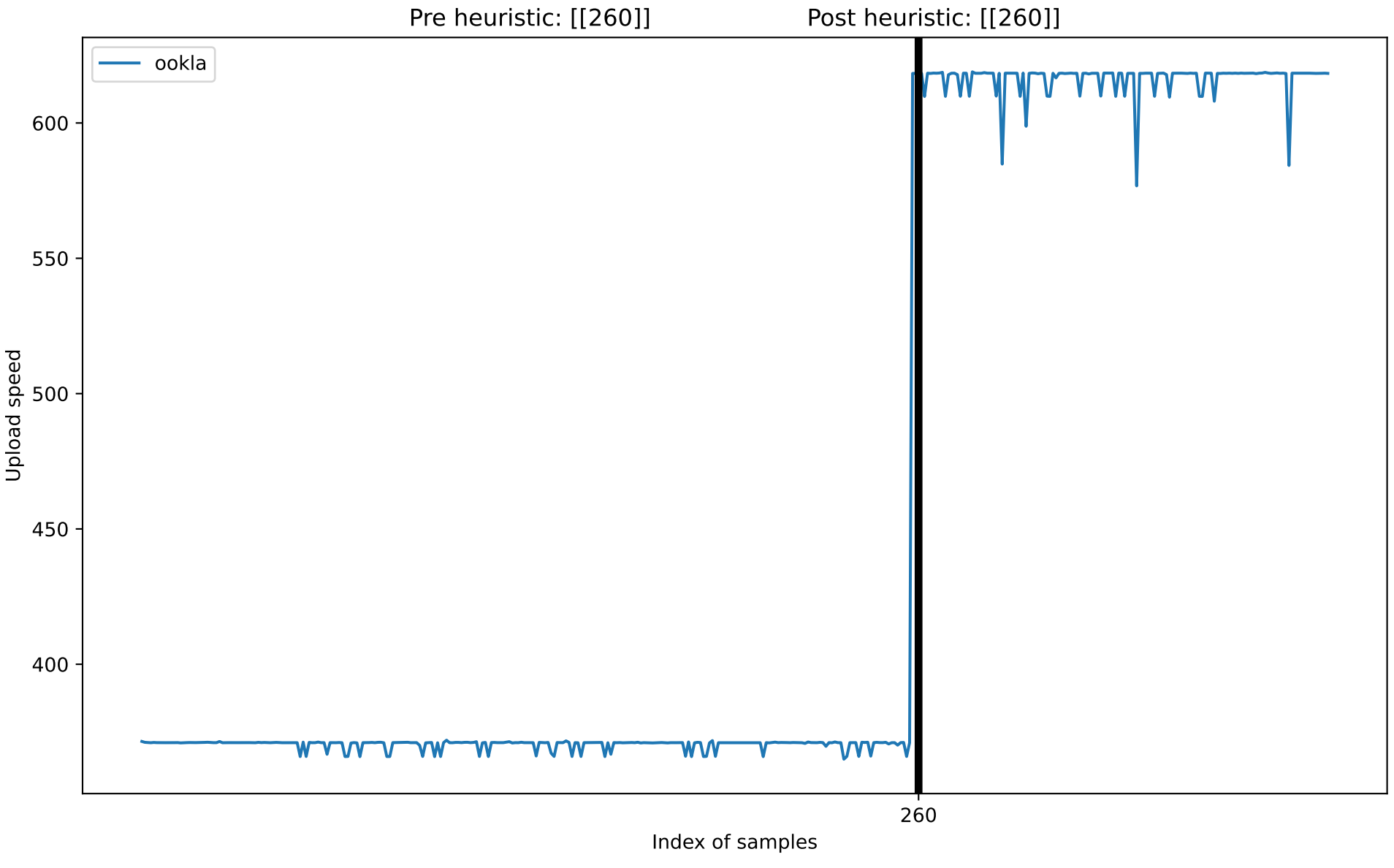
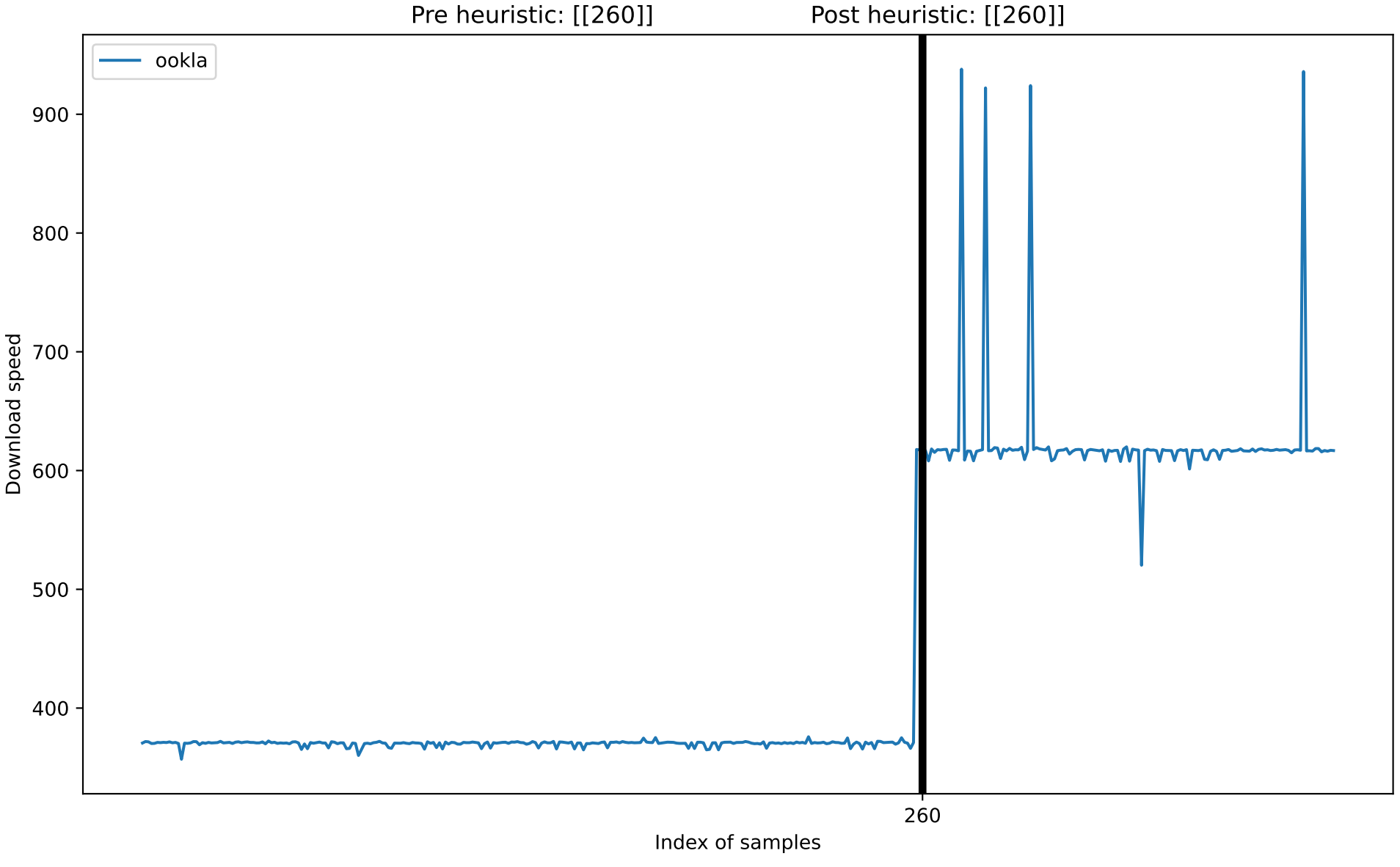
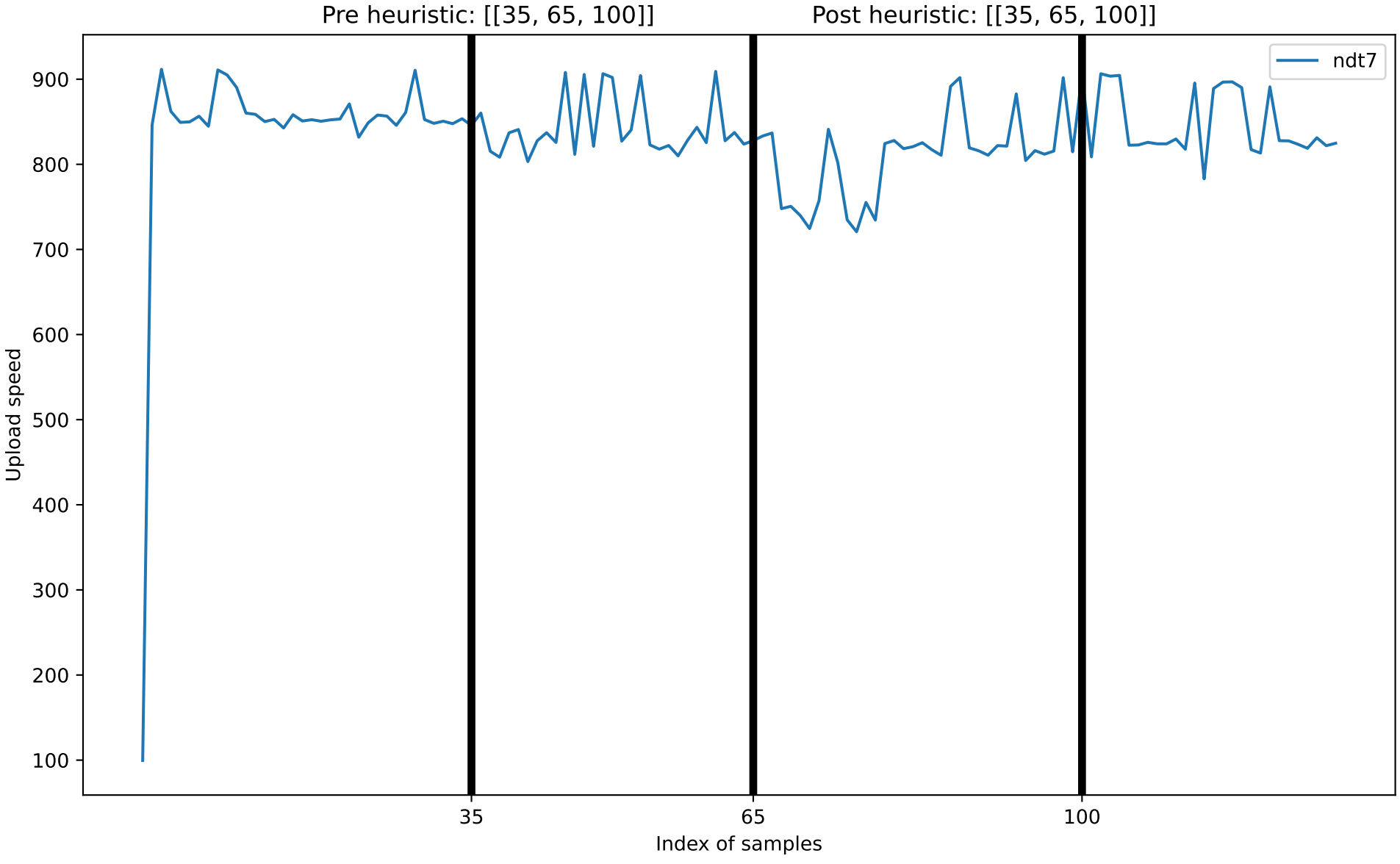
300
400
500
600
45
110
160
Index of samples


Pre heuristic: [[55, 195, 265]]
Post heuristic: [[55, 195, 265]]
ndt7
600
550
500
450
400
350
Upload speed
55
195
265
Index of samples


Pre heuristic: [[265]]
Post heuristic: [[265]]
ndt7
600
550
500
450
400
350
Download speed
265
Index of samples


Pre heuristic: [[260]]
Post heuristic: [[260]]
ookla
600
550
500
450
400
Upload speed
260
Index of samples


Pre heuristic: [[260]]
Post heuristic: [[260]]
ookla
900
800
700
600
500
400
Download speed
260
Index of samples


Pre heuristic: [[35, 65, 100]]
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ndt7
Upload speed
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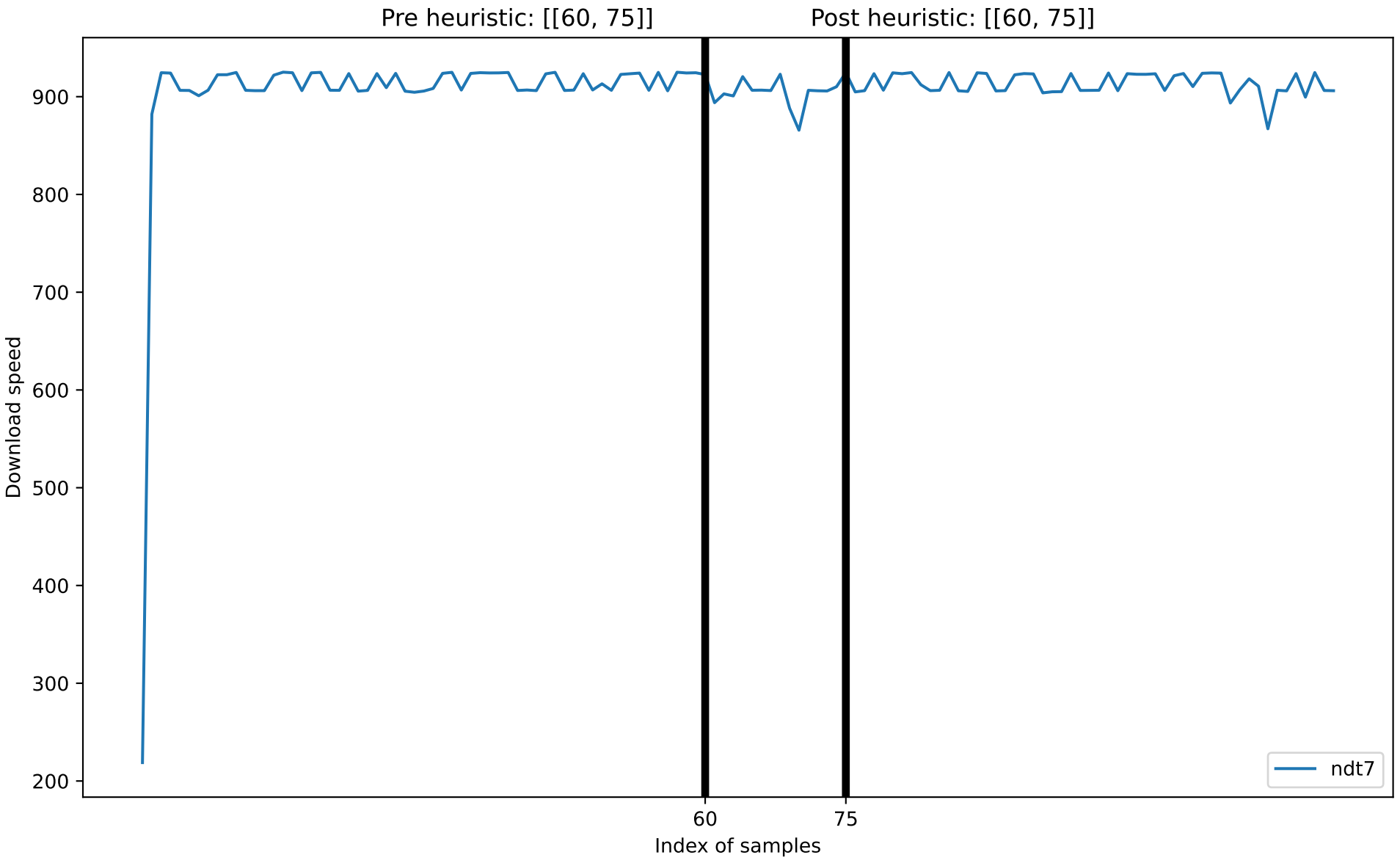
700
600
500
400
300
200
100
35
65
100
Index of samples


Pre heuristic: [[60, 75]]
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Download speed
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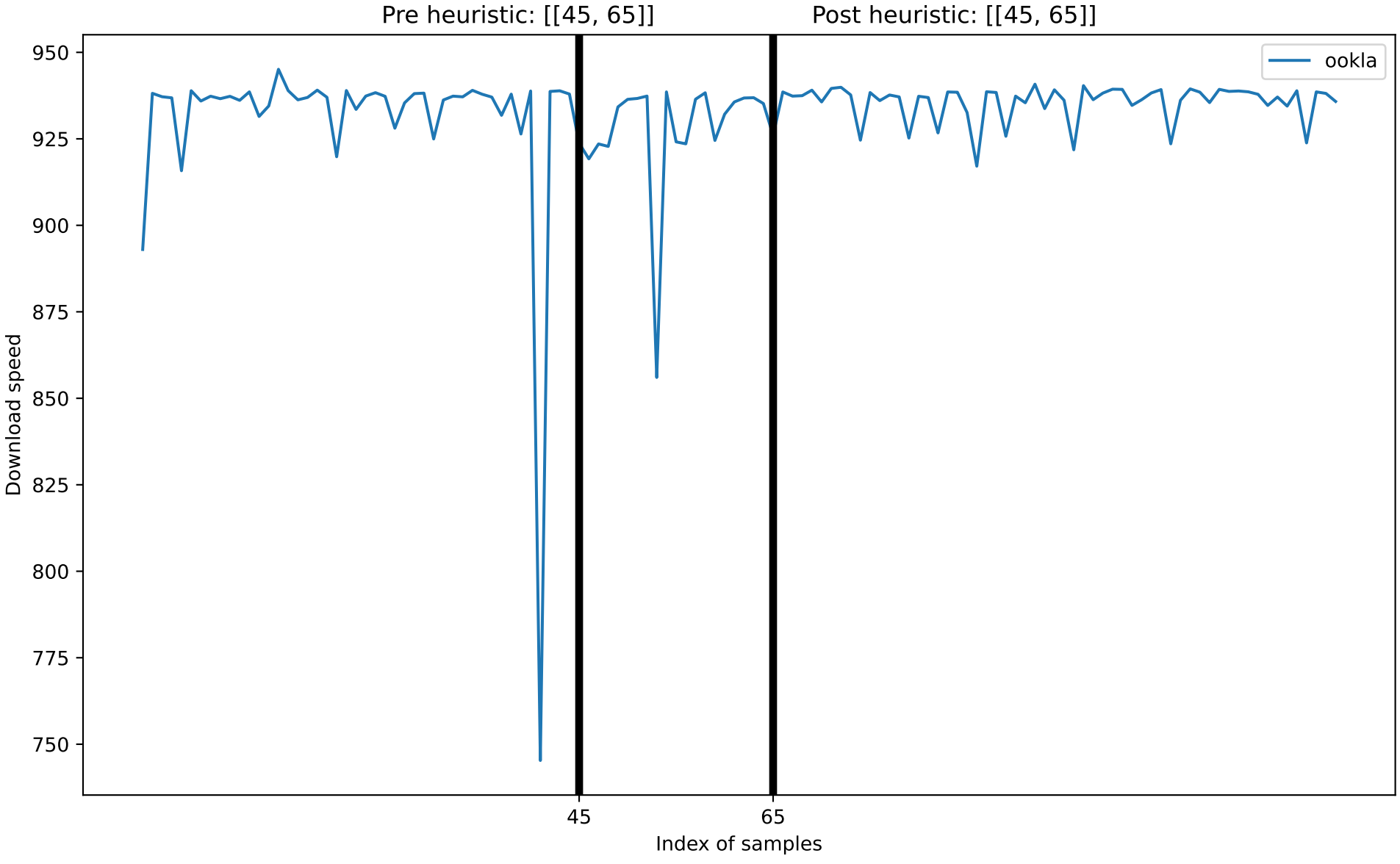
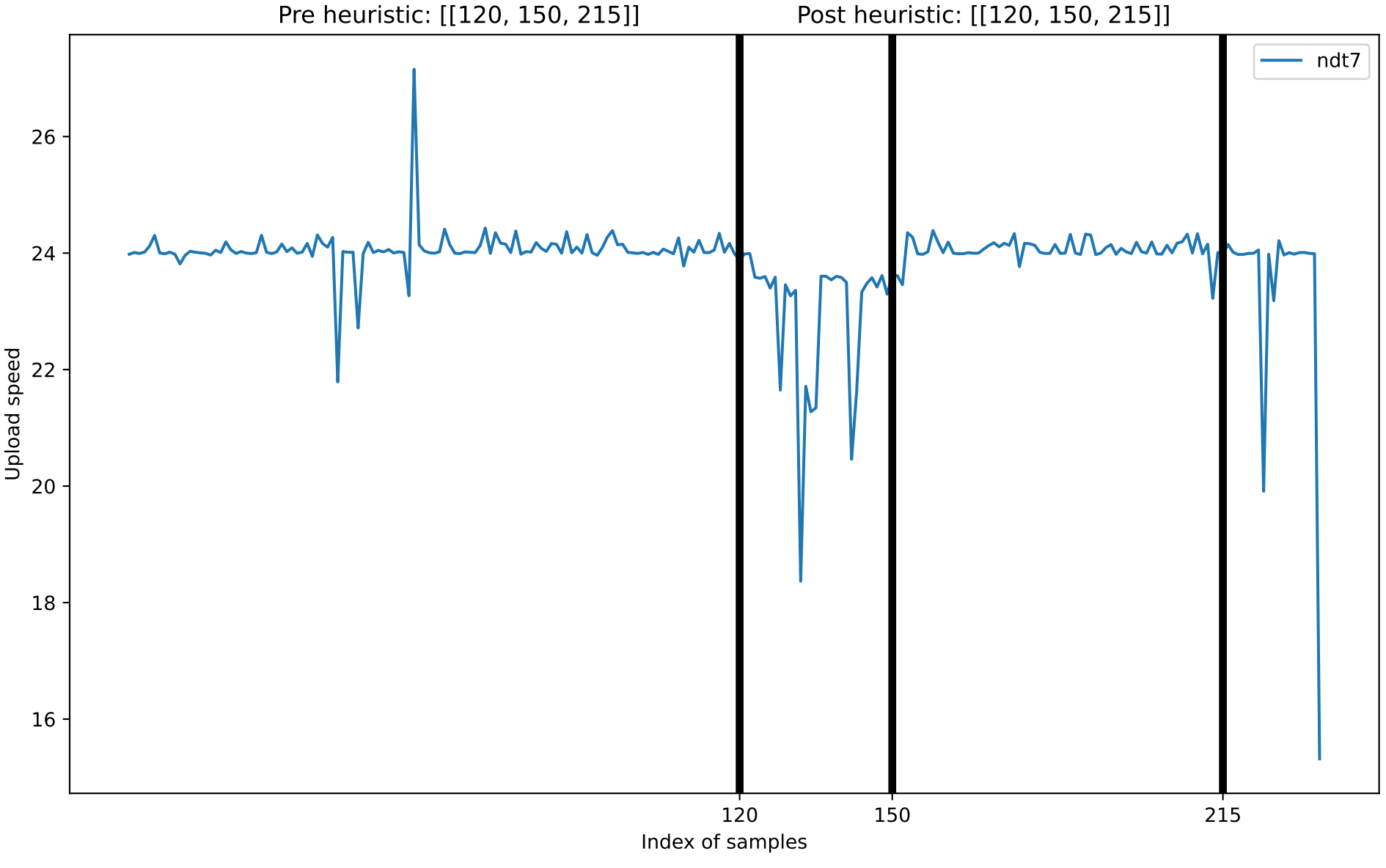
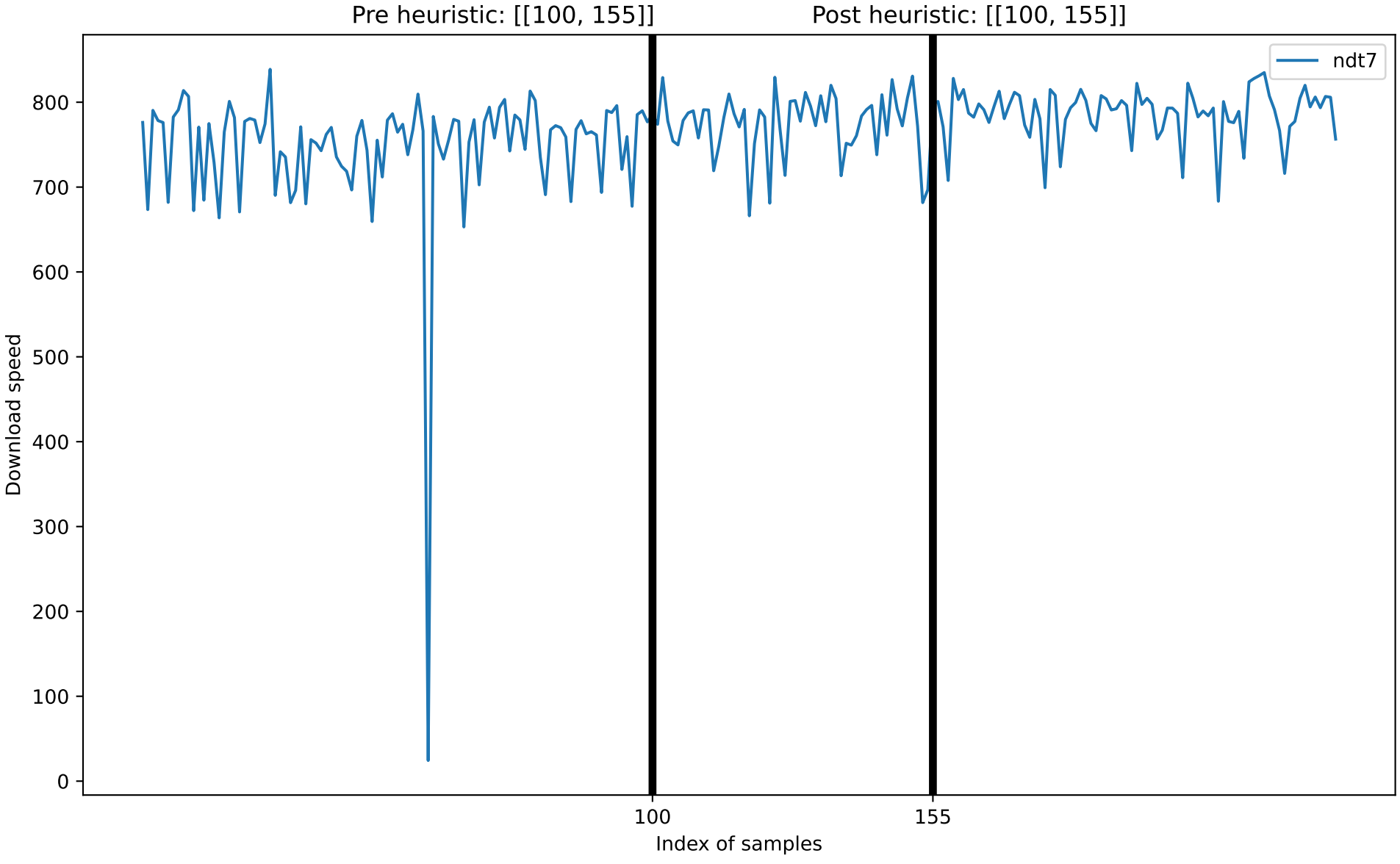
800
700
600
500
400
300
200
60
75
Index of samples
ndt7


Pre heuristic: [[45, 65]]
Post heuristic: [[45, 65]]
ookla
950
925
900
875
850
825
800
775
750
Download speed
45
65
Index of samples


Pre heuristic: [[120, 150, 215]]
Post heuristic: [[120, 150, 215]]
ndt7
Upload speed
26
24
22
20
18
16
120
150
215
Index of samples


Pre heuristic: [[100, 155]]
Post heuristic: [[100, 155]]
ndt7
Download speed
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200
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400
500
600
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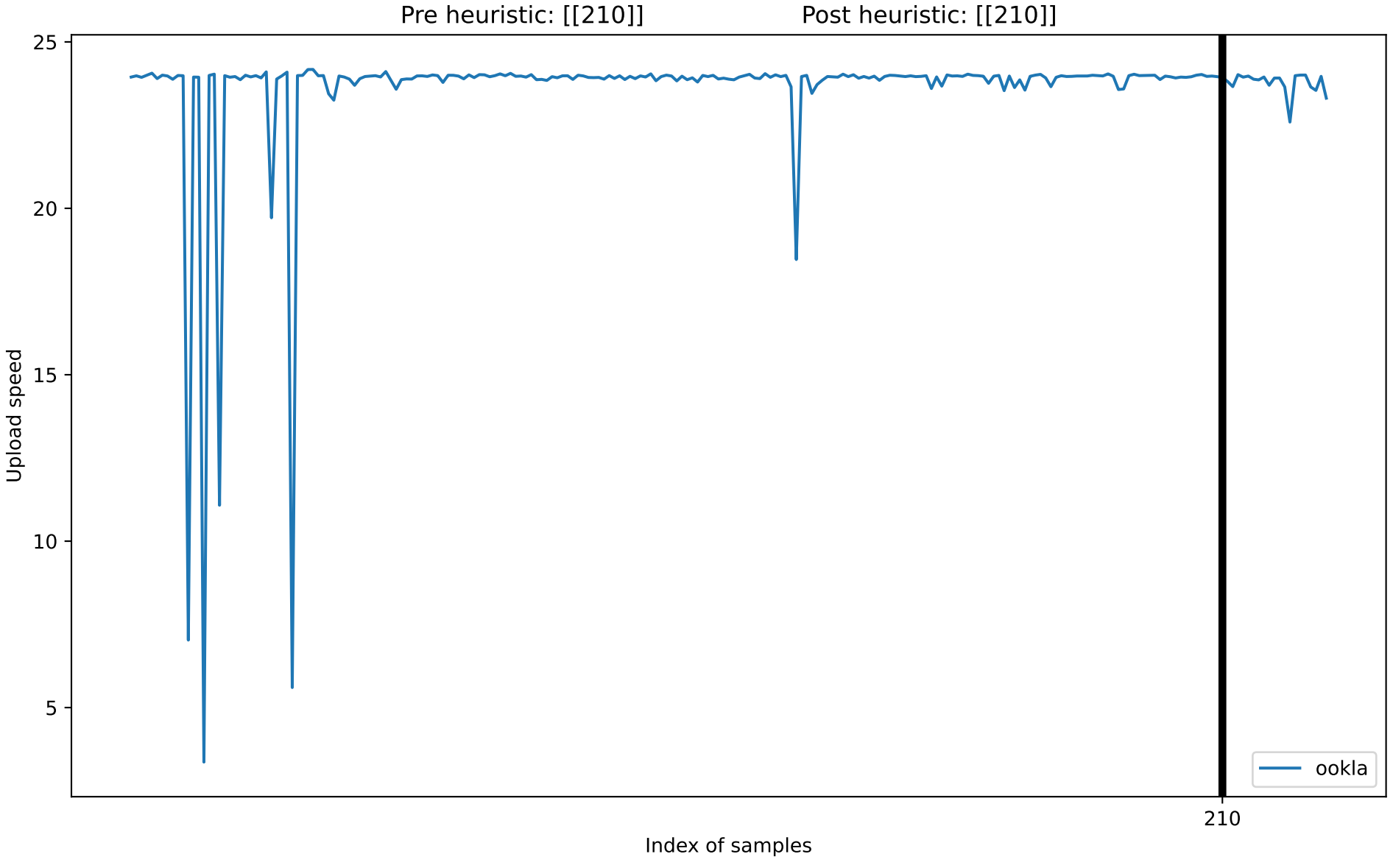
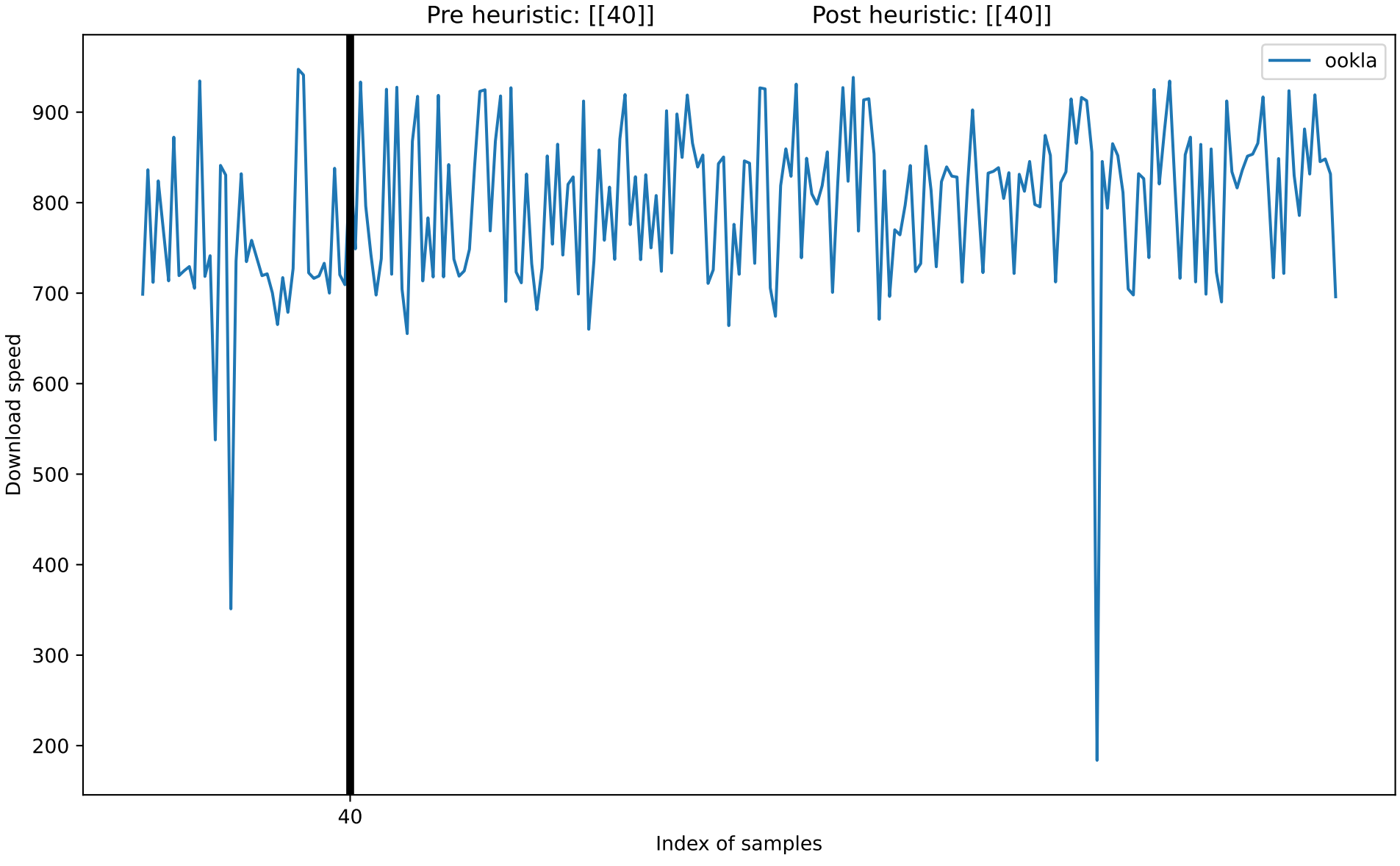
800
100
155
Index of samples


Pre heuristic: [[210]]
Post heuristic: [[210]]
Upload speed
25
20
15
10
5
210
Index of samples
ookla


Pre heuristic: [[40]]
Post heuristic: [[40]]
ookla
Download speed
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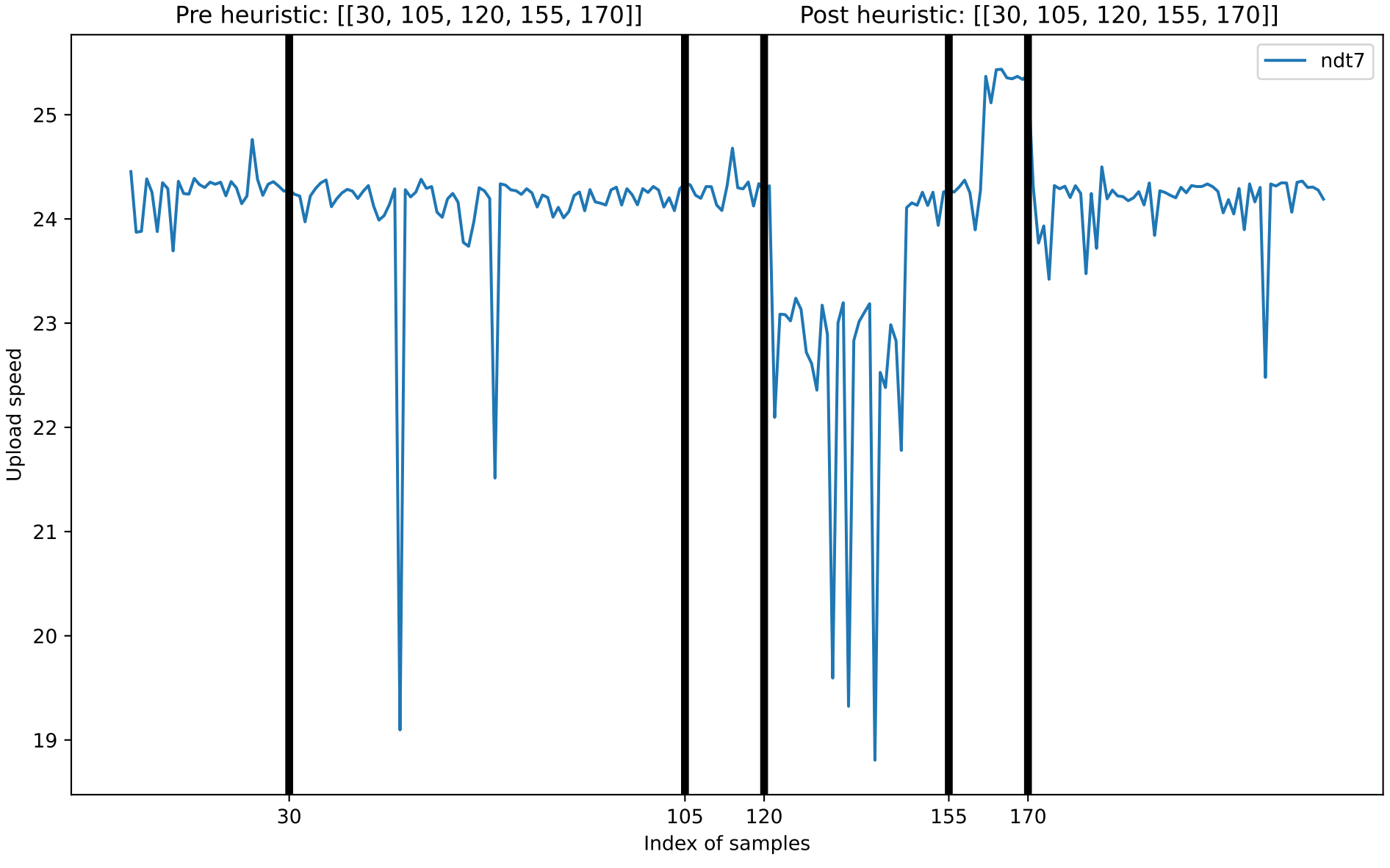
800
700
600
500
400
300
200
40
Index of samples


Pre heuristic: [[30, 105, 120, 155, 170]]
Post heuristic: [[30, 105, 120, 155, 170]]
ndt7
Upload speed
25
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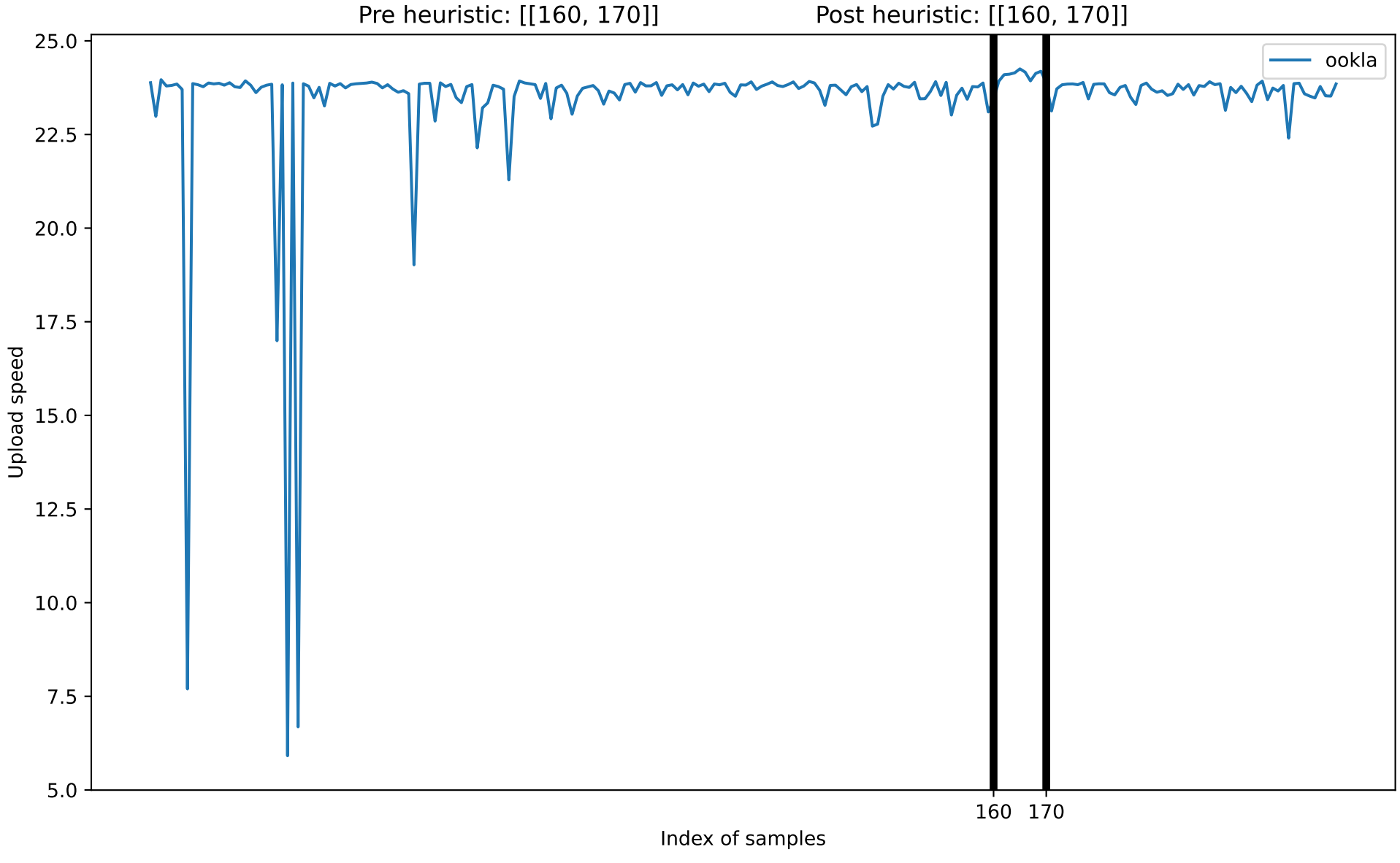
23
22
21
20
19
30
105
120
155
170
Index of samples


Pre heuristic: [[160, 170]]
Post heuristic: [[160, 170]]
ookla
Upload speed
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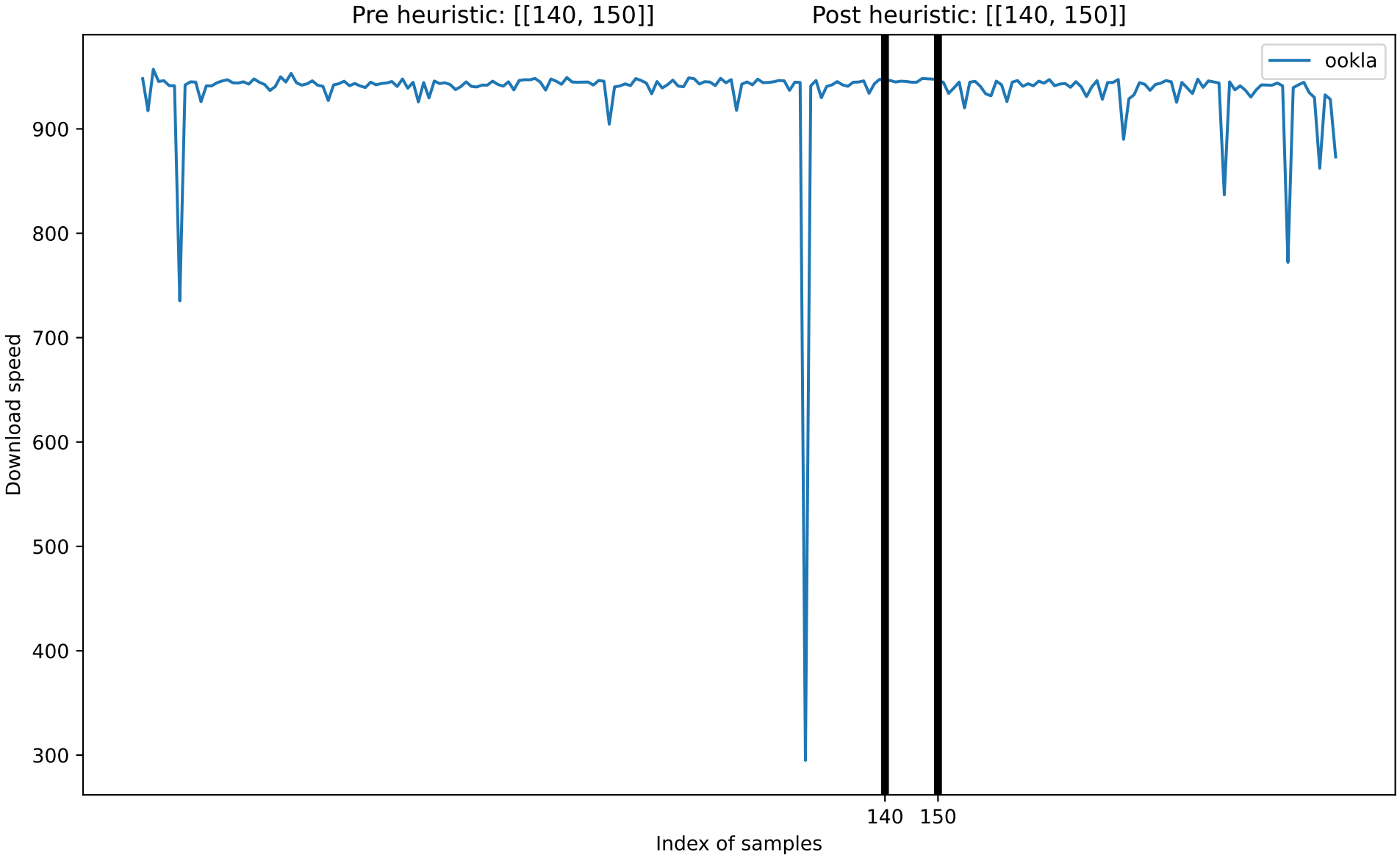
20.0
17.5
15.0
12.5
10.0
7.5
5.0
160
170
Index of samples


Pre heuristic: [[140, 150]]
Post heuristic: [[140, 150]]
ookla
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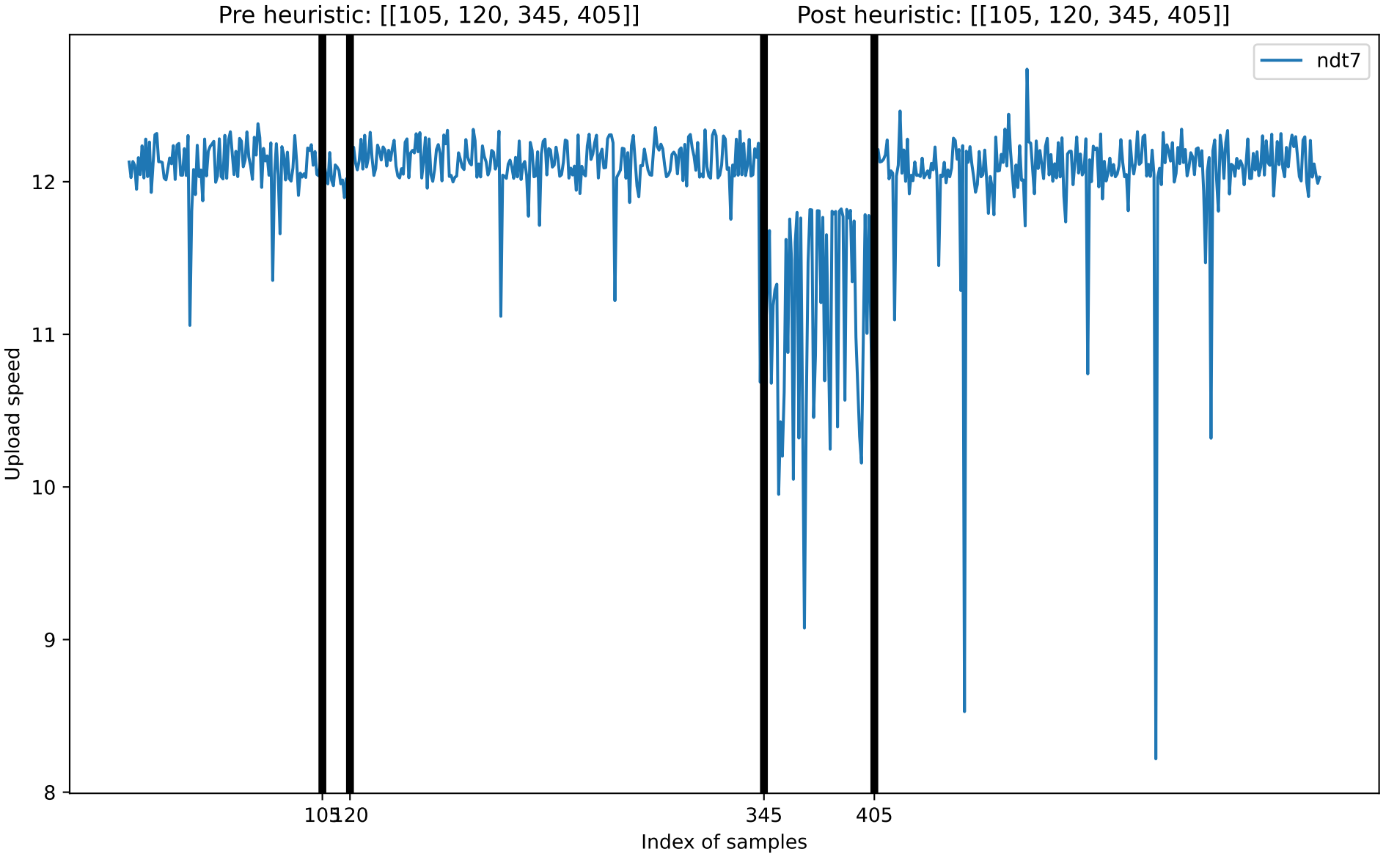
800
700
600
500
400
300
Download speed
140
150
Index of samples


Pre heuristic: [[105, 120, 345, 405]]
Post heuristic: [[105, 120, 345, 405]]
ndt7
Upload speed
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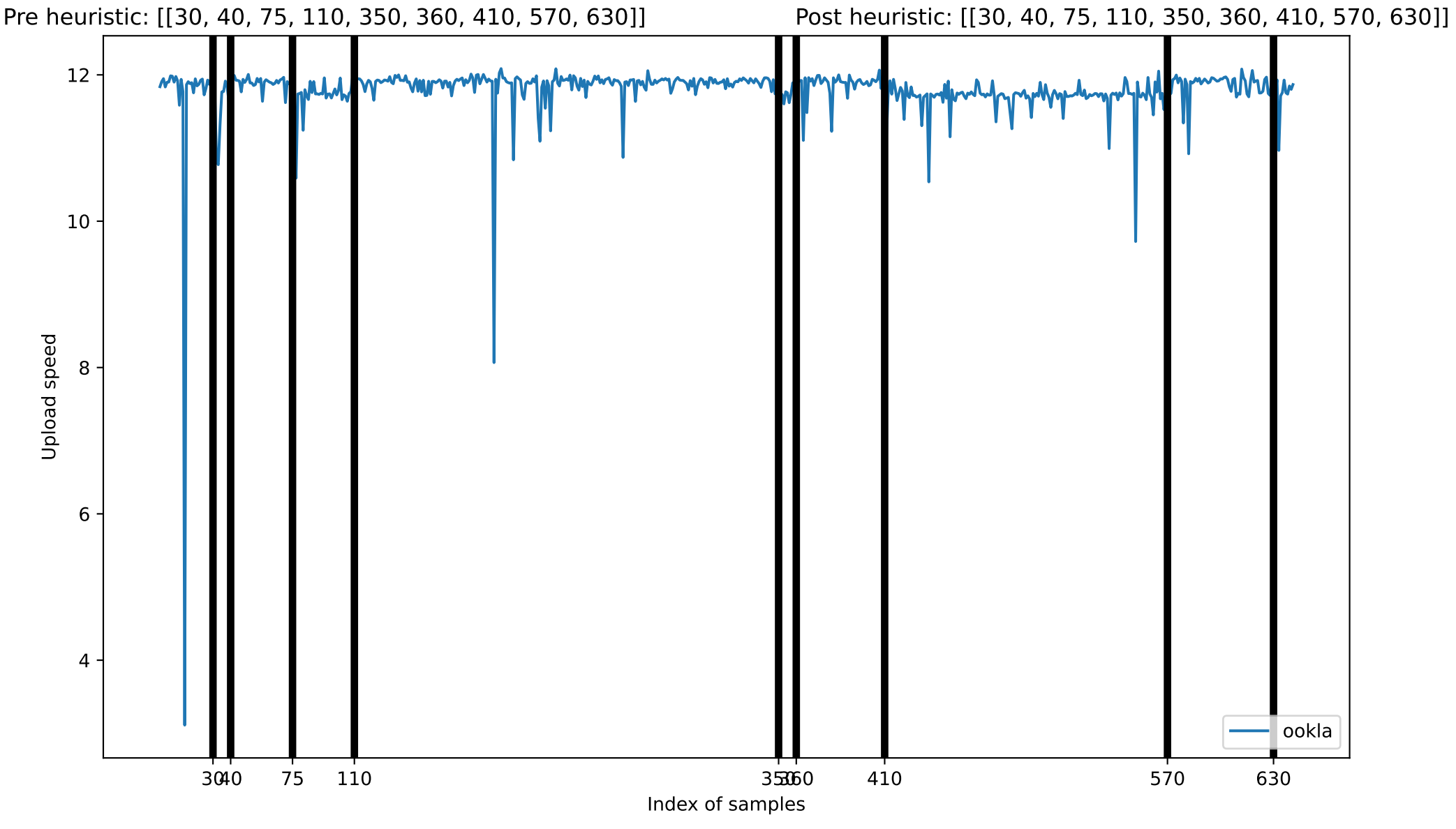
11
10
9
8
105
120
345
405
Index of samples


Pre heuristic: [[30, 40, 75, 110, 350, 360, 410, 570, 630]]
Post heuristic: [[30, 40, 75, 110, 350, 360, 410, 570, 630]]
Upload speed
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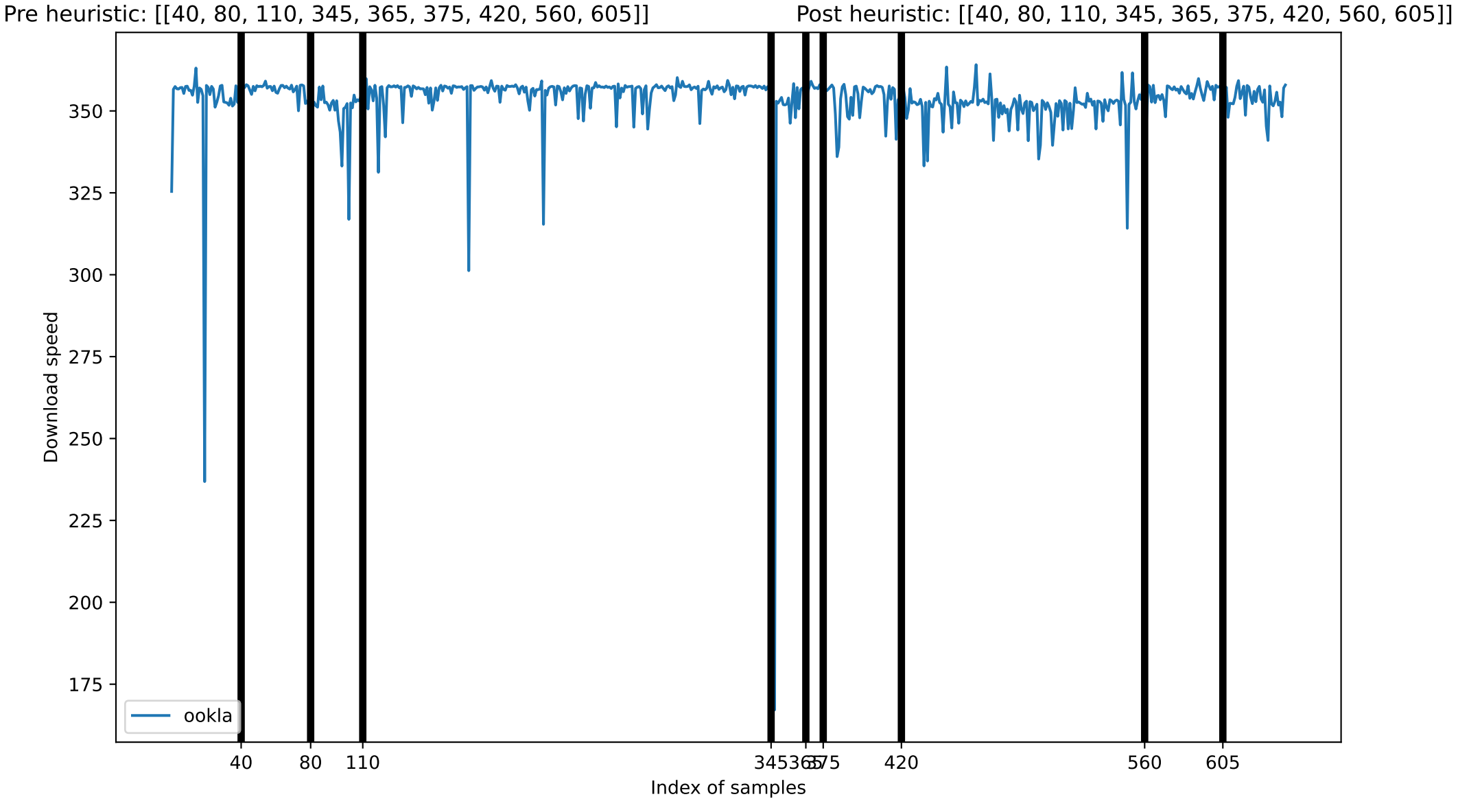
10
8
6
4
30
40
75
110
350
360
410
570
630
Index of samples
ookla


Pre heuristic: [[40, 80, 110, 345, 365, 375, 420, 560, 605]]
Post heuristic: [[40, 80, 110, 345, 365, 375, 420, 560, 605]]
Download speed
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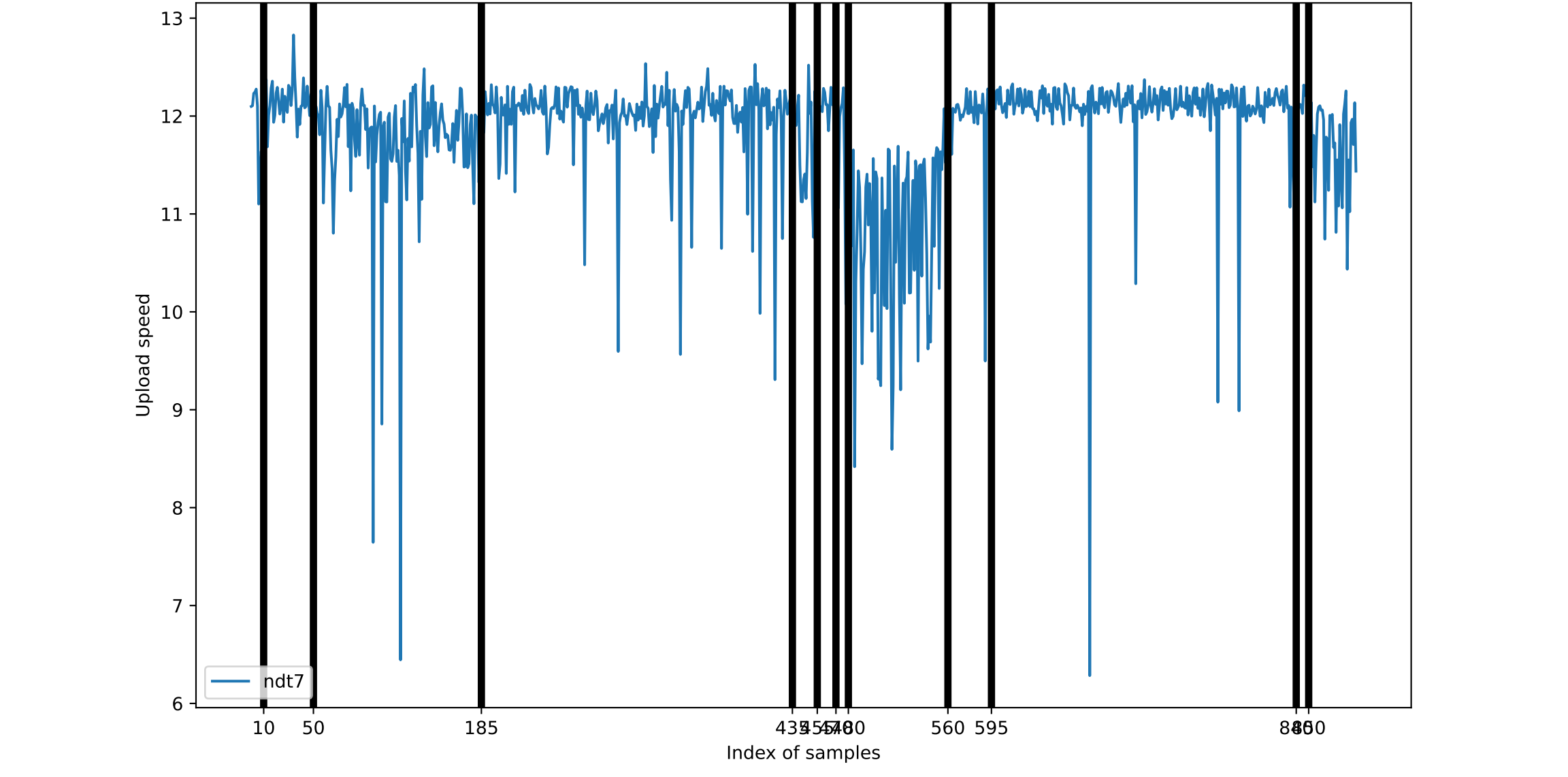
325
300
275
250
225
200
175
ookla
40
80
110
345
420
560
605
Index of samples


e heuristic: [[10, 50, 185, 435, 455, 470, 480, 560, 595, 840, 850]]
Post heuristic: [[10, 50, 185, 435, 455, 470, 480, 560, 595, 840,
Upload speed
Index of samples
ndt7
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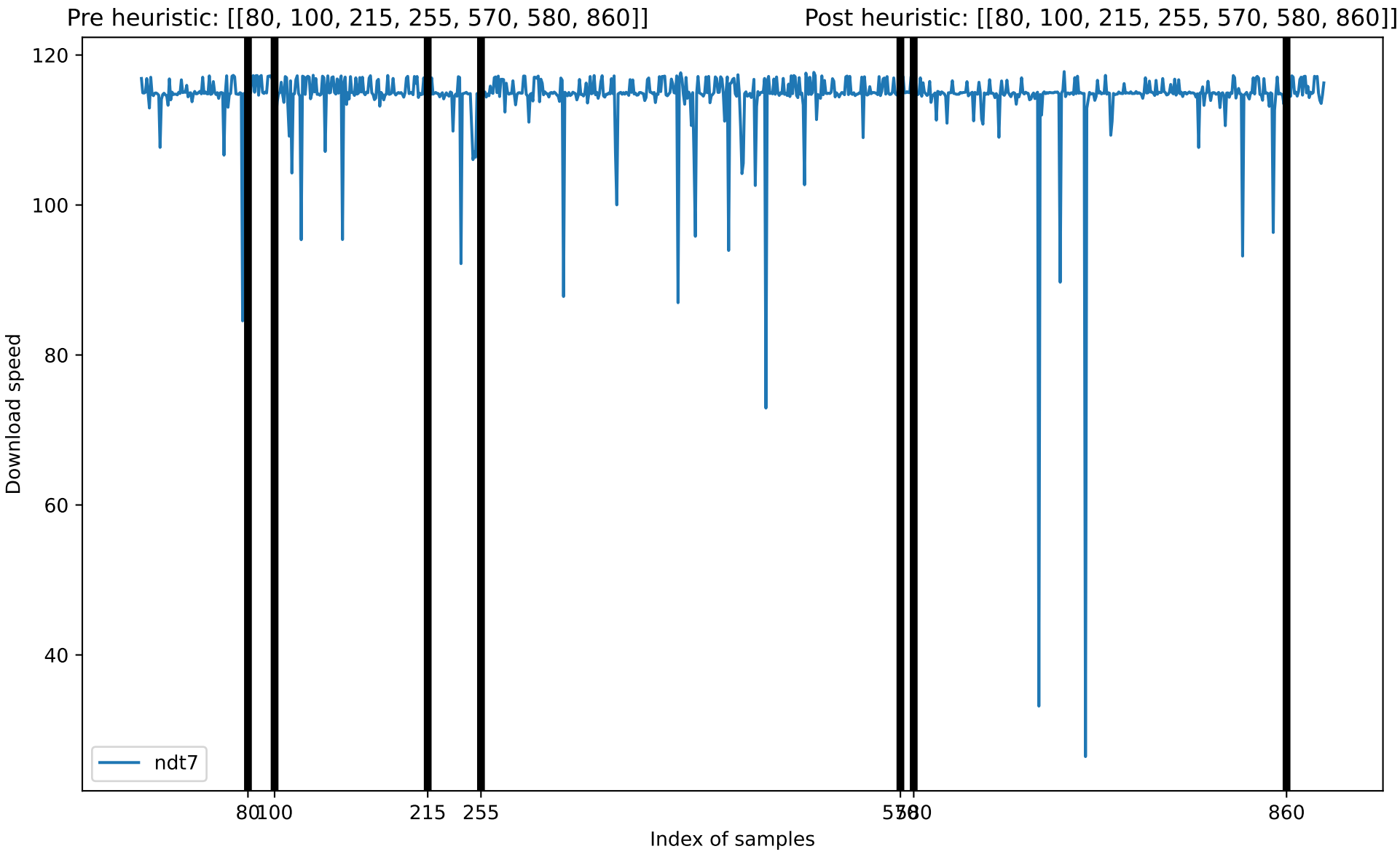
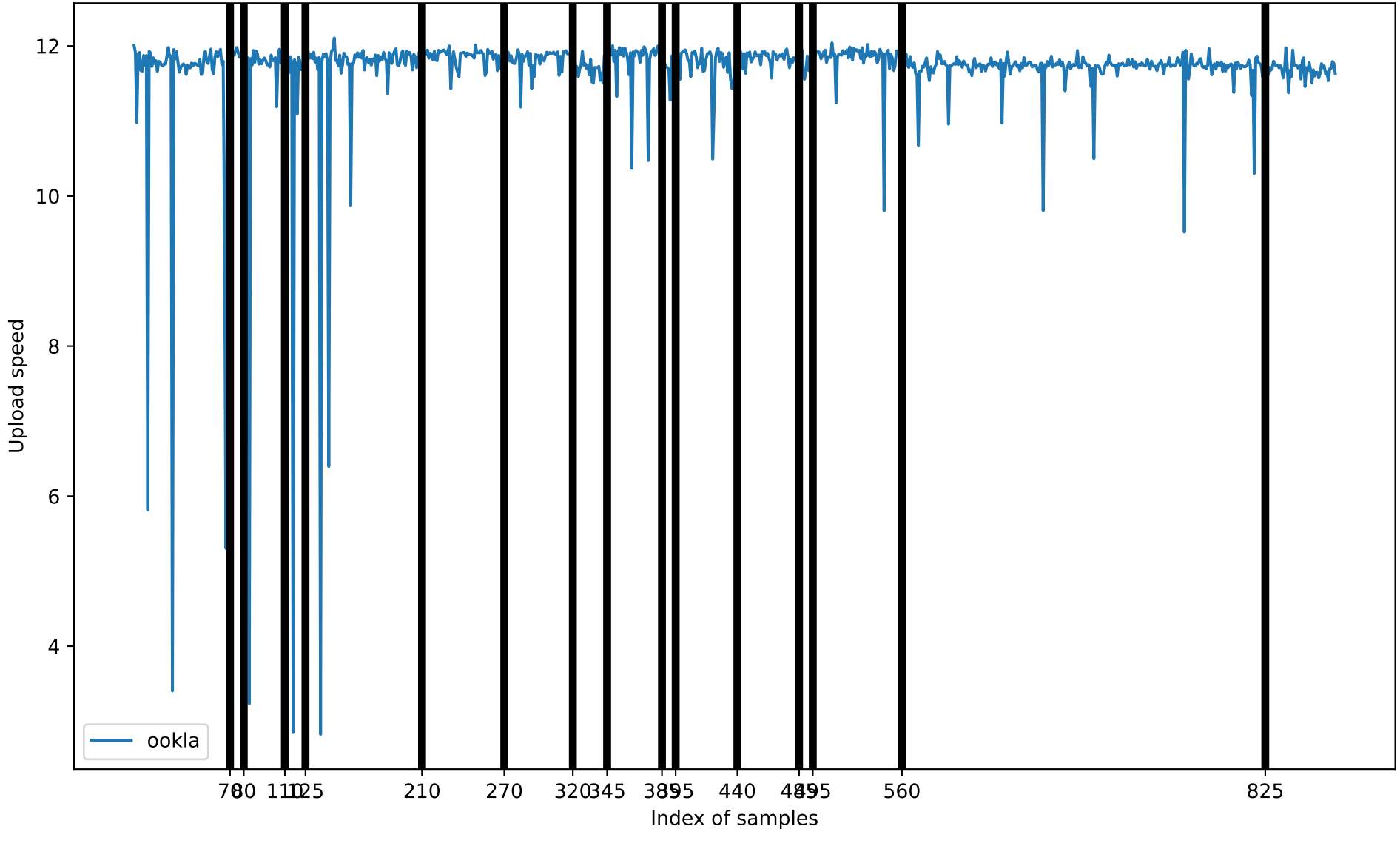
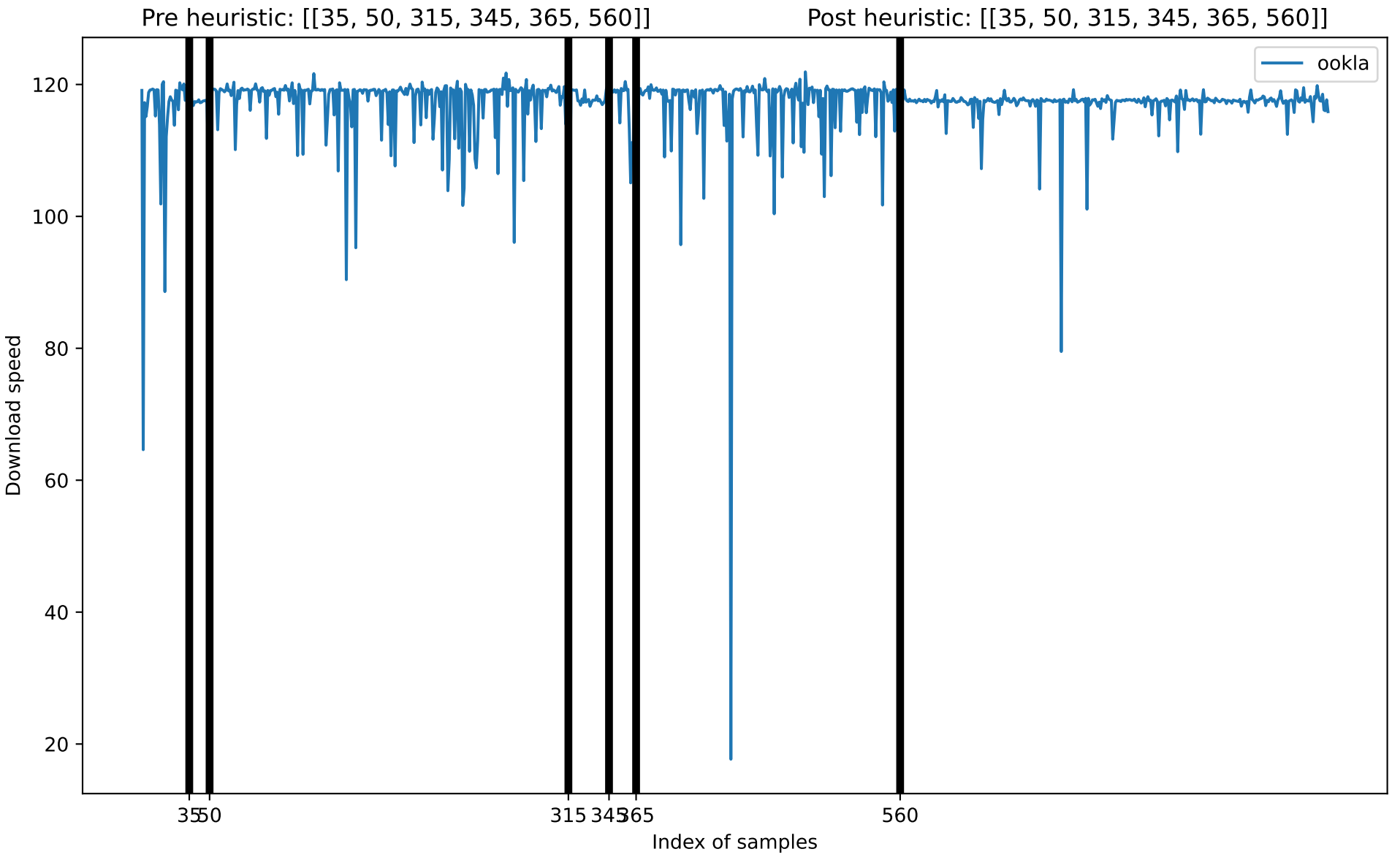
12
11
10
9
8
7
6
10
50
185
560
595

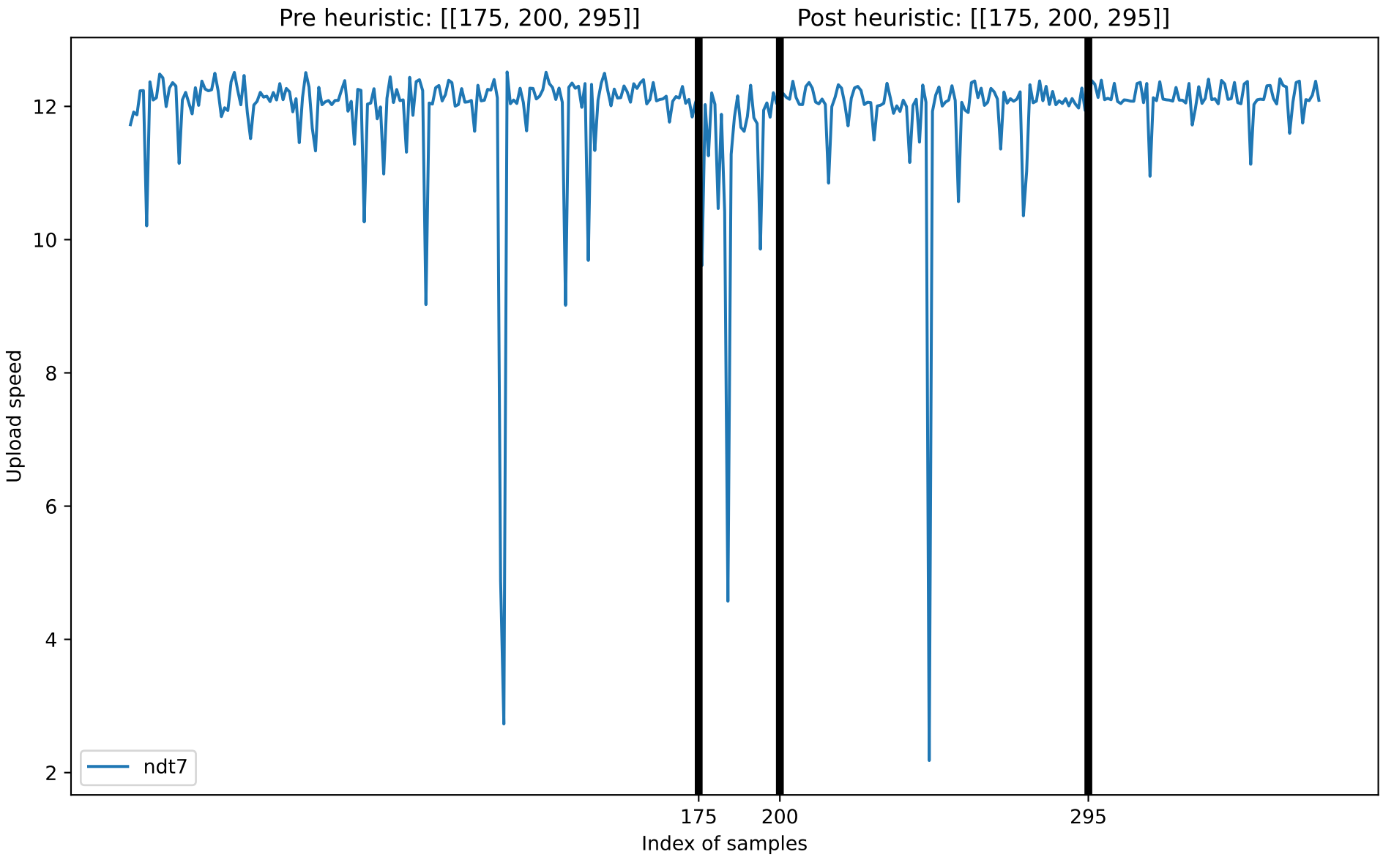

Pre heuristic: [[80, 100, 215, 255, 570, 580, 860]]
Post heuristic: [[80, 100, 215, 255, 570, 580, 860]]
120
100
80
60
40
Download speed
ndt7
80
100
215
255
860
Index of samples

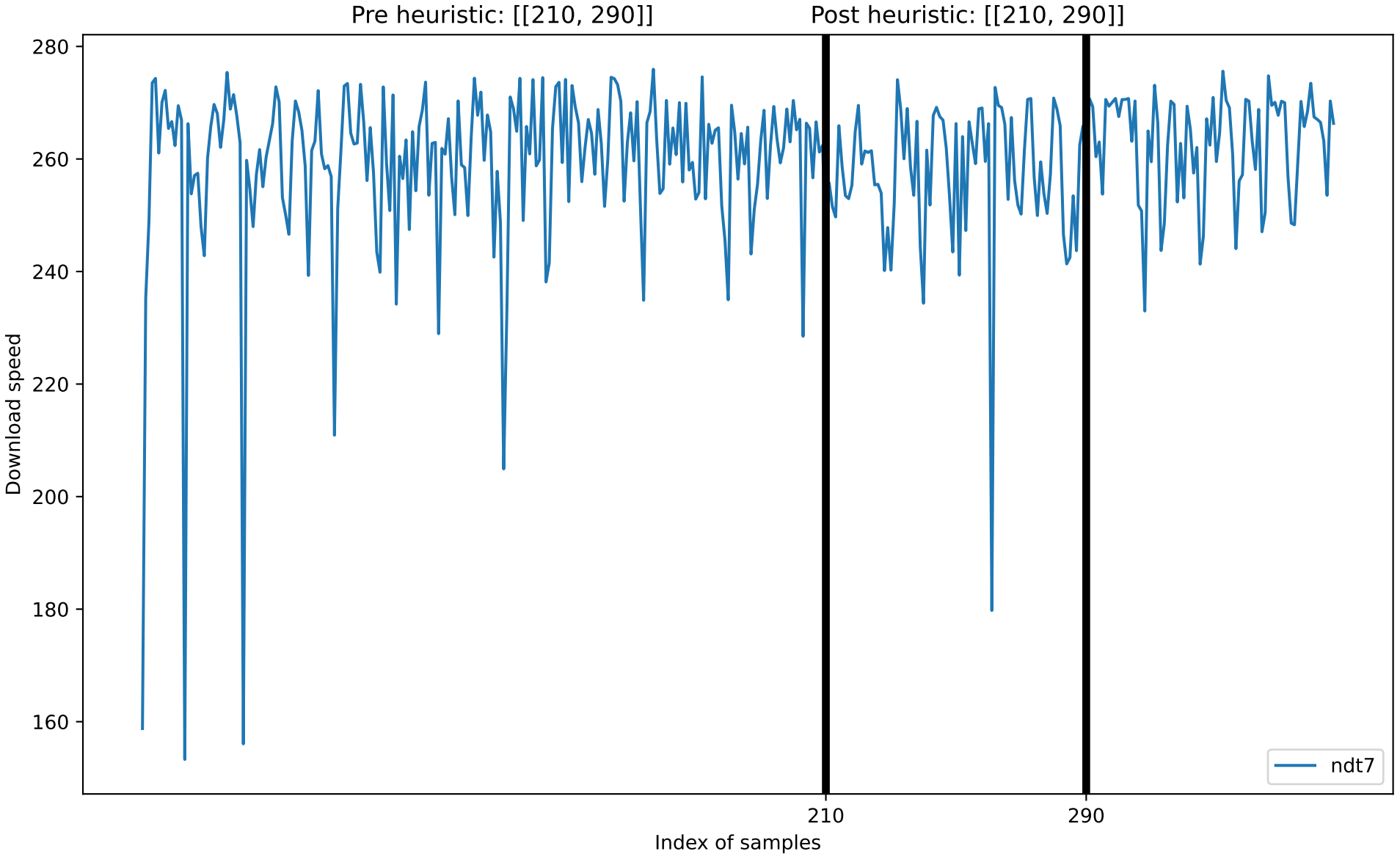
110, 125, 210, 270, 320, 345, 385, 395, 440, 485, 495, 560, 825]]

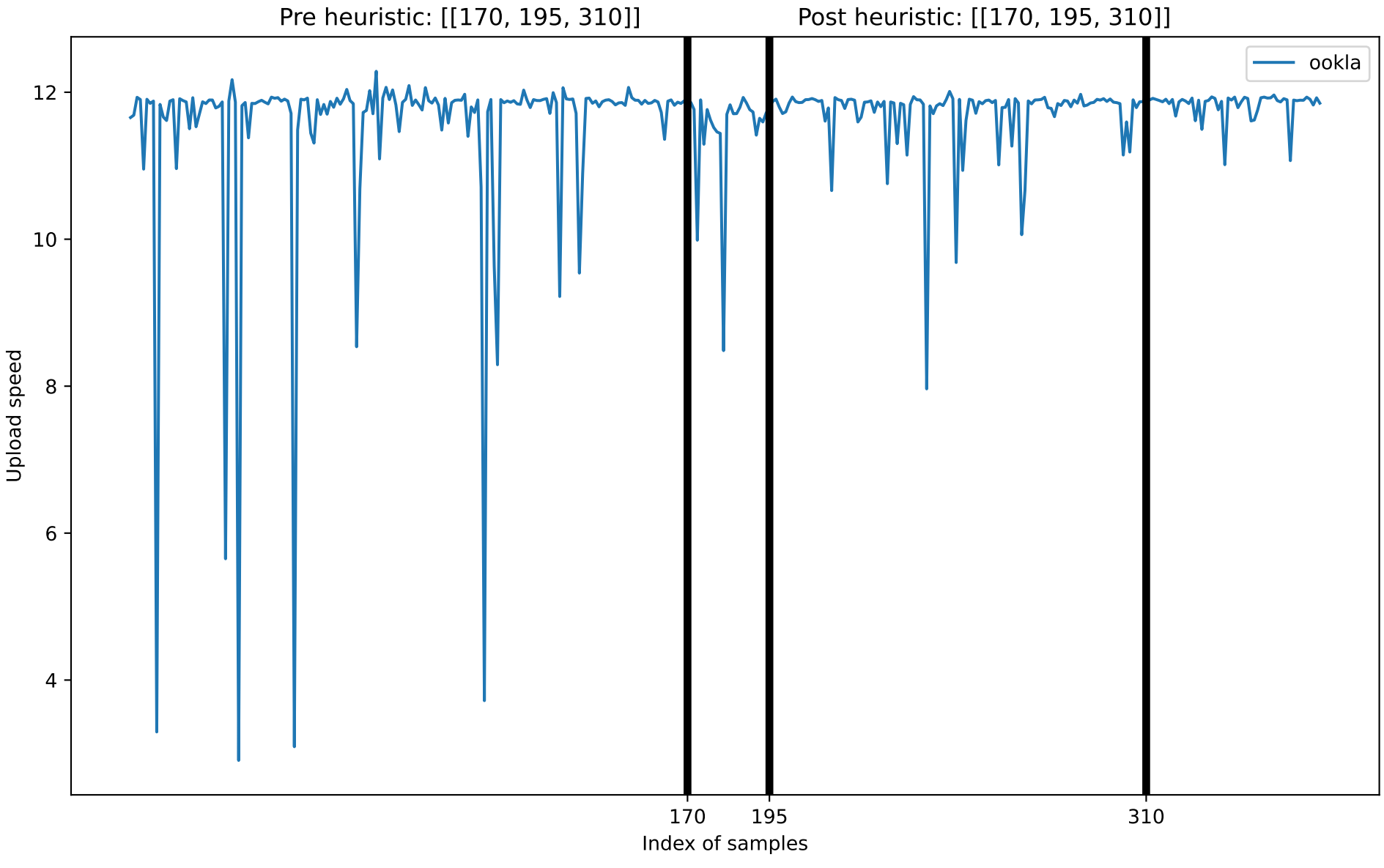
Post heuristic: [[70, 80, 110, 125, 210, 270, 320, 345, 385, 395,

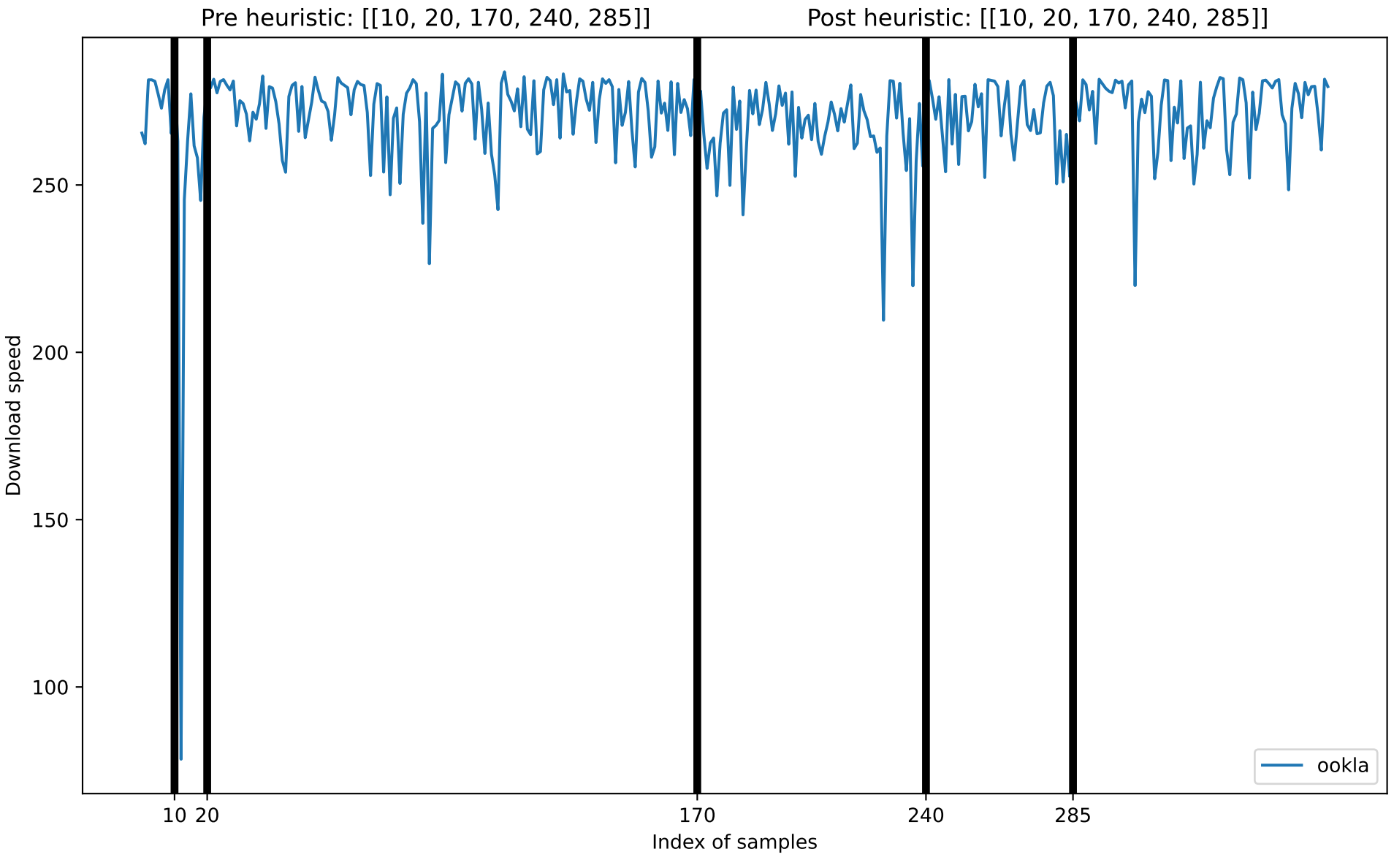


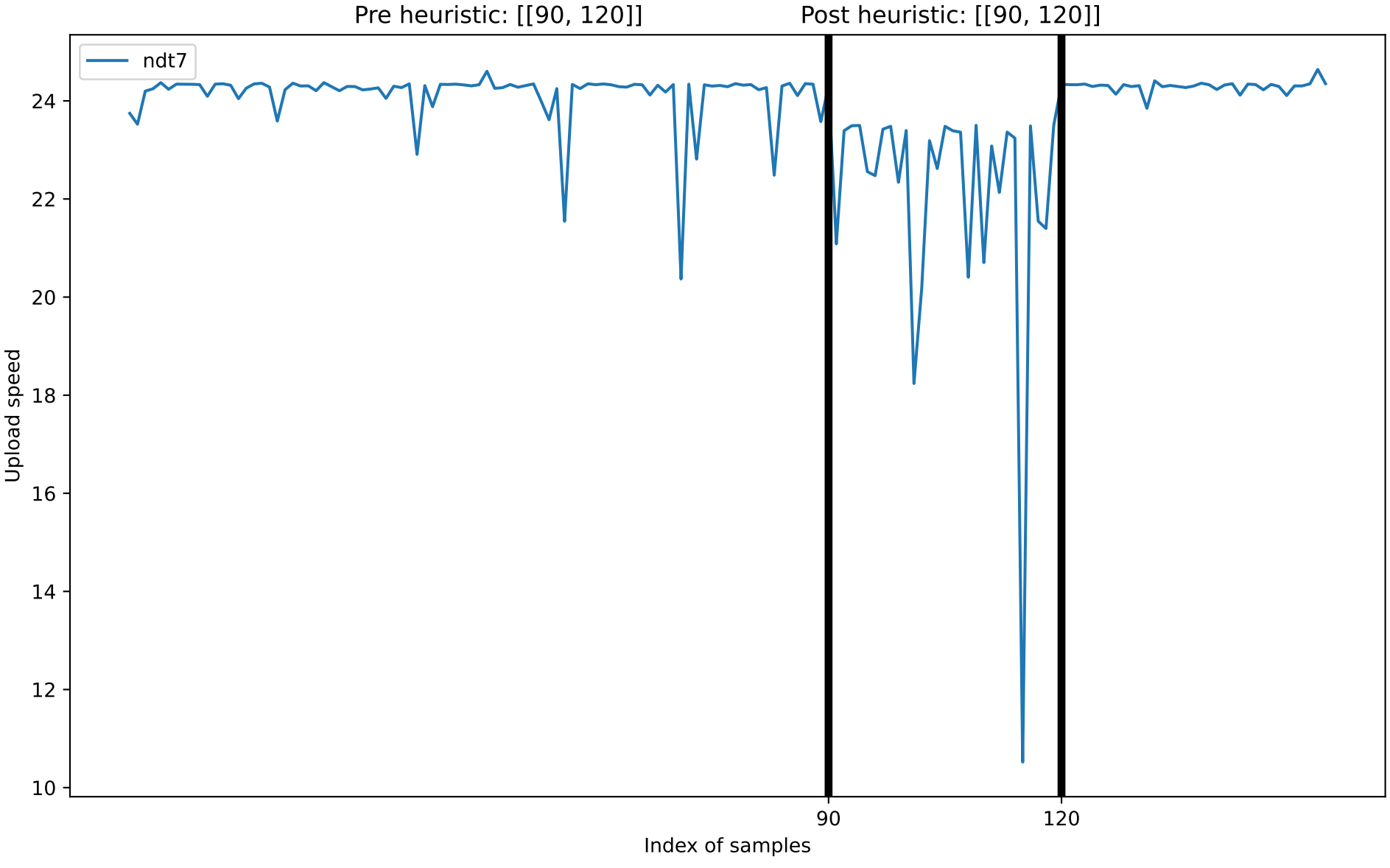

Pre heuristic: [[35, 50, 315, 345, 365, 560]]
Post heuristic: [[35, 50, 315, 345, 365, 560]]
ookla
120
100
80
60
40
20
Download speed
35
50
315
345
365
560
Index of samples

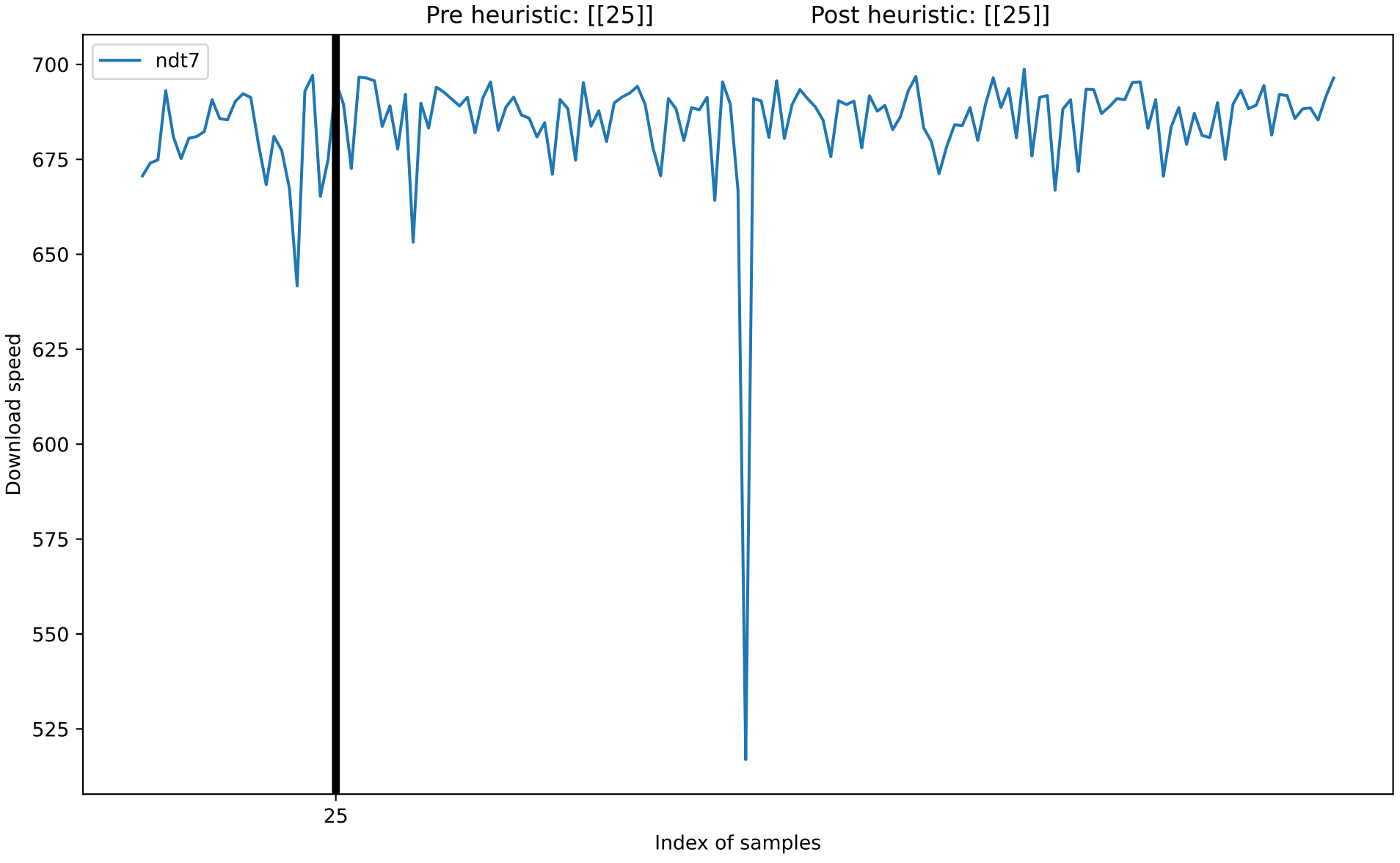

Pre heuristic: [[175, 200, 295]]
Post heuristic: [[175, 200, 295]]
Upload speed
12
10
8
6
4
2
ndt7
175
200
295
Index of samples

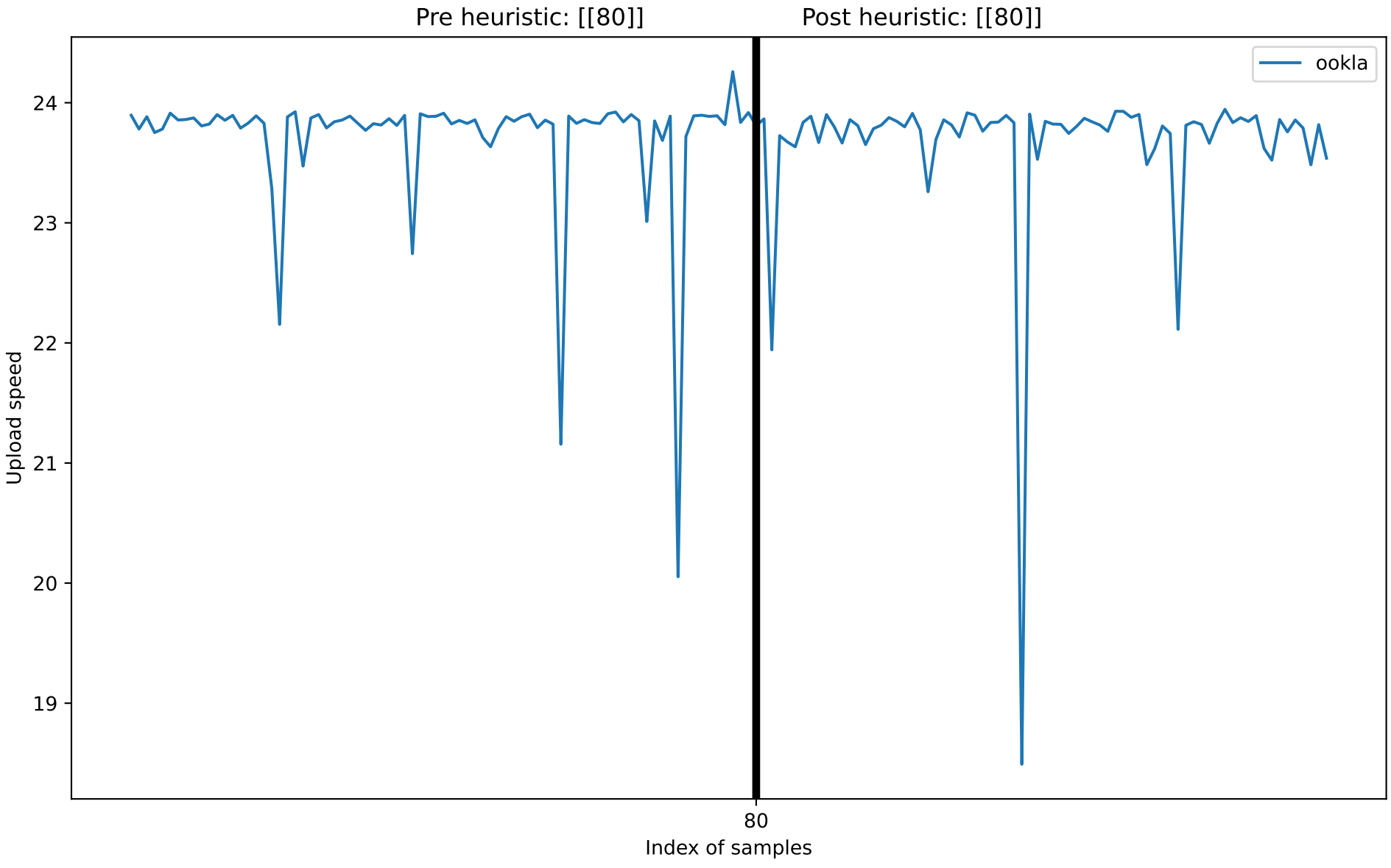

Pre heuristic: [[210, 290]]
Post heuristic: [[210, 290]]
Download speed
280
260
240
220
200
180
160
210
290
Index of samples
ndt7

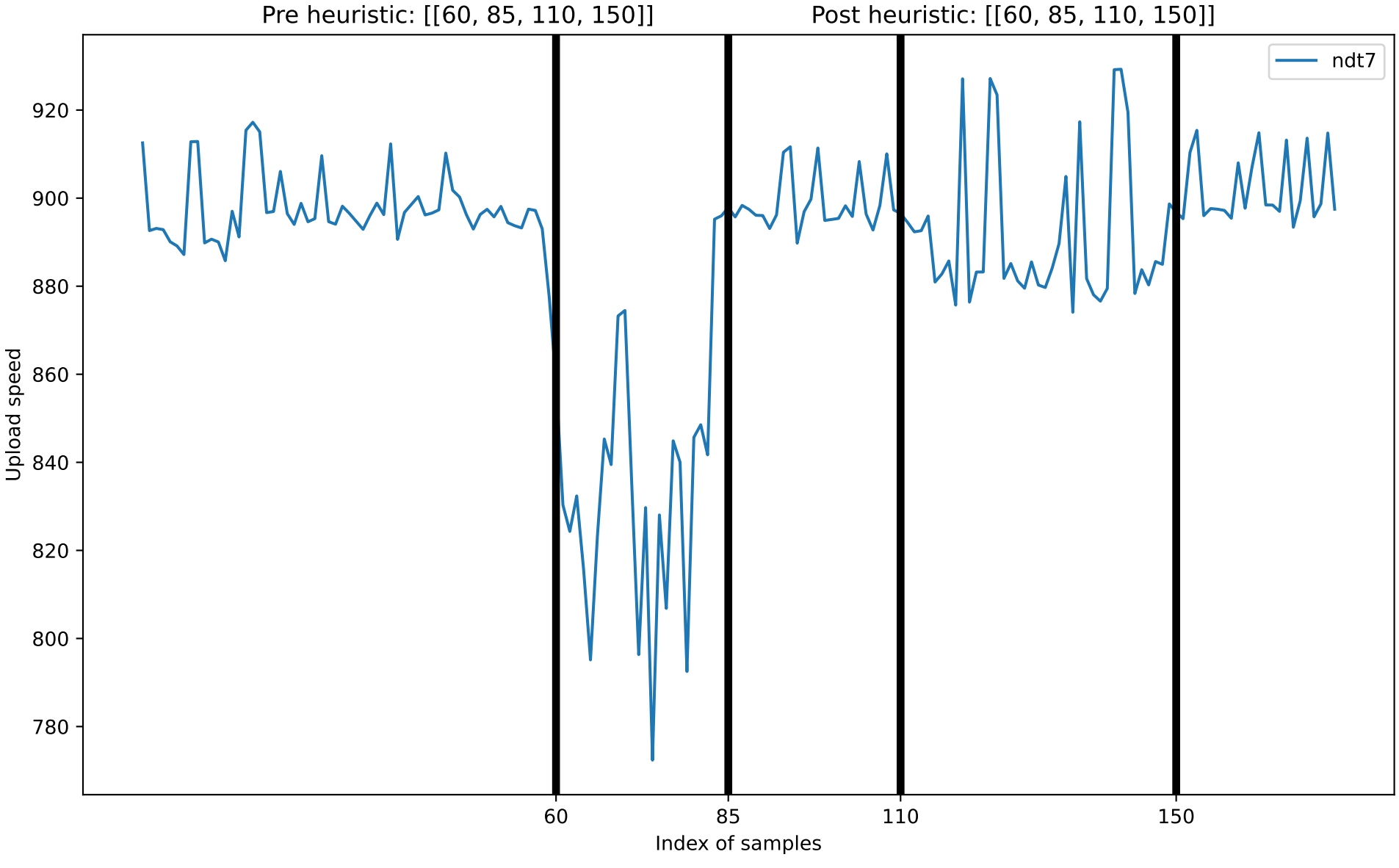

Pre heuristic: [[170, 195, 310]]
Post heuristic: [[170, 195, 310]]
ookla
Upload speed
12
10
8
6
4
170
195
310
Index of samples

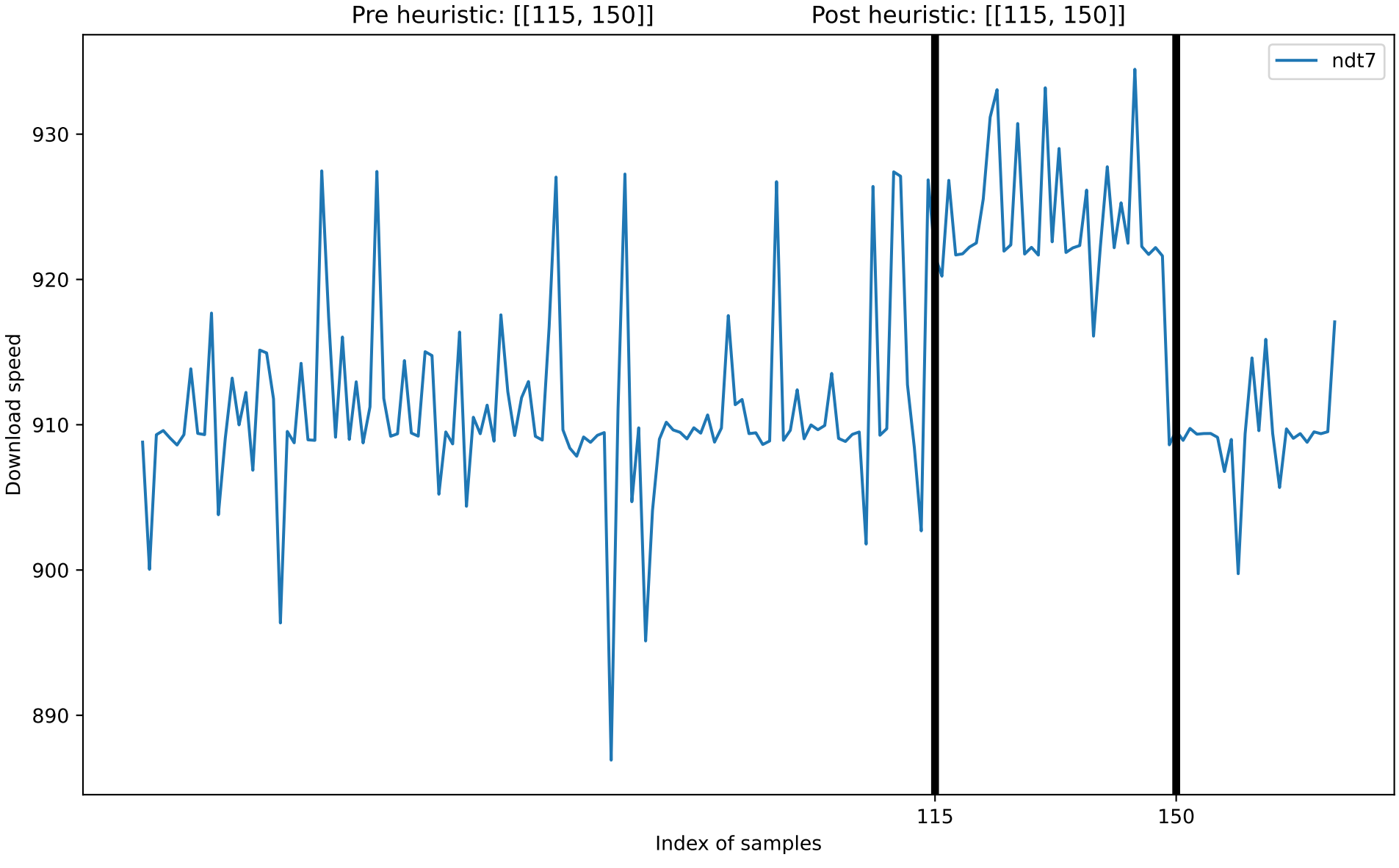

Pre heuristic: [[10, 20, 170, 240, 285]]
Post heuristic: [[10, 20, 170, 240, 285]]
Download speed
250
200
150
100
10
20
170
240
285
Index of samples
ookla

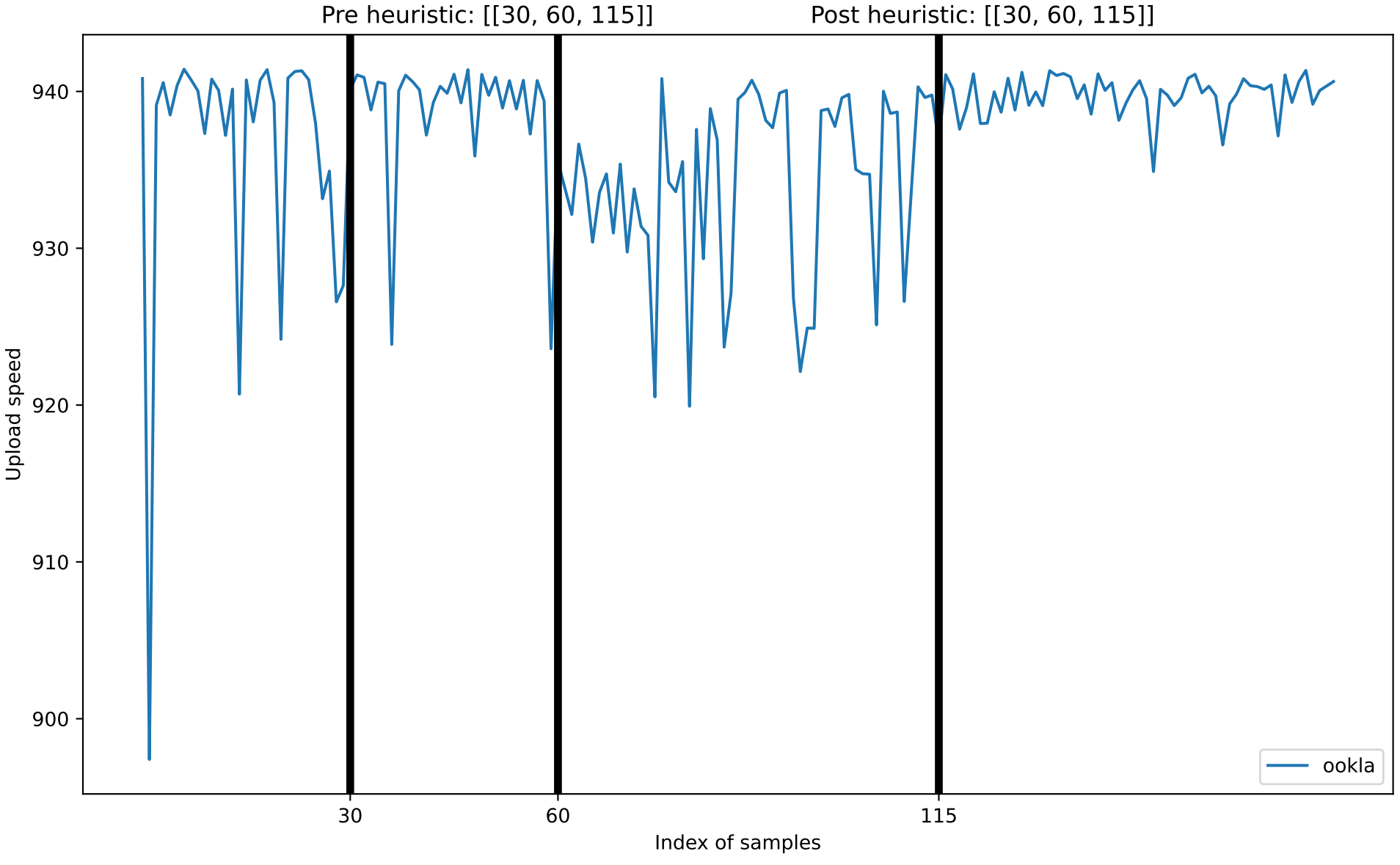

Pre heuristic: [[90, 120]]
Post heuristic: [[90, 120]]
ndt7
Upload speed
24
22
20
18
16
14
12
10
90
120
Index of samples

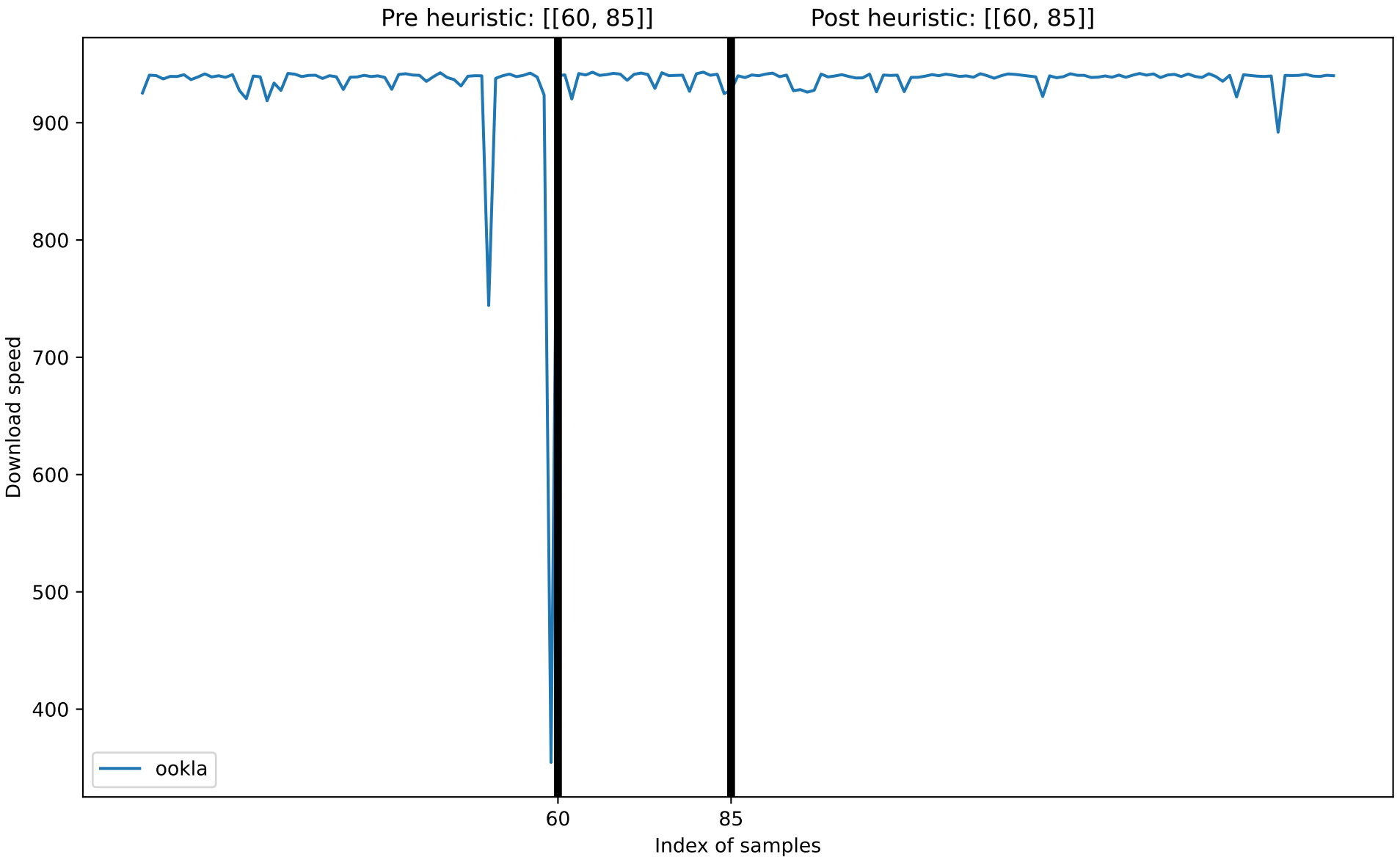

Pre heuristic: [[25]]
Post heuristic: [[25]]
ndt7
700
675
650
625
600
575
550
525
Download speed
25
Index of samples


Pre heuristic: [[80]]
Post heuristic: [[80]]
ookla
Upload speed
24
23
22
21
20
19
80
Index of samples


Pre heuristic: [[60, 85, 110, 150]]
Post heuristic: [[60, 85, 110, 150]]
ndt7
Upload speed
920
900
880
860
840
820
800
780
60
85
110
150
Index of samples


Pre heuristic: [[115, 150]]
Post heuristic: [[115, 150]]
ndt7
930
920
910
900
890
Download speed
115
150
Index of samples


Pre heuristic: [[30, 60, 115]]
Post heuristic: [[30, 60, 115]]
940
930
920
910
900
Upload speed
30
60
115
Index of samples
ookla


Pre heuristic: [[60, 85]]
Post heuristic: [[60, 85]]
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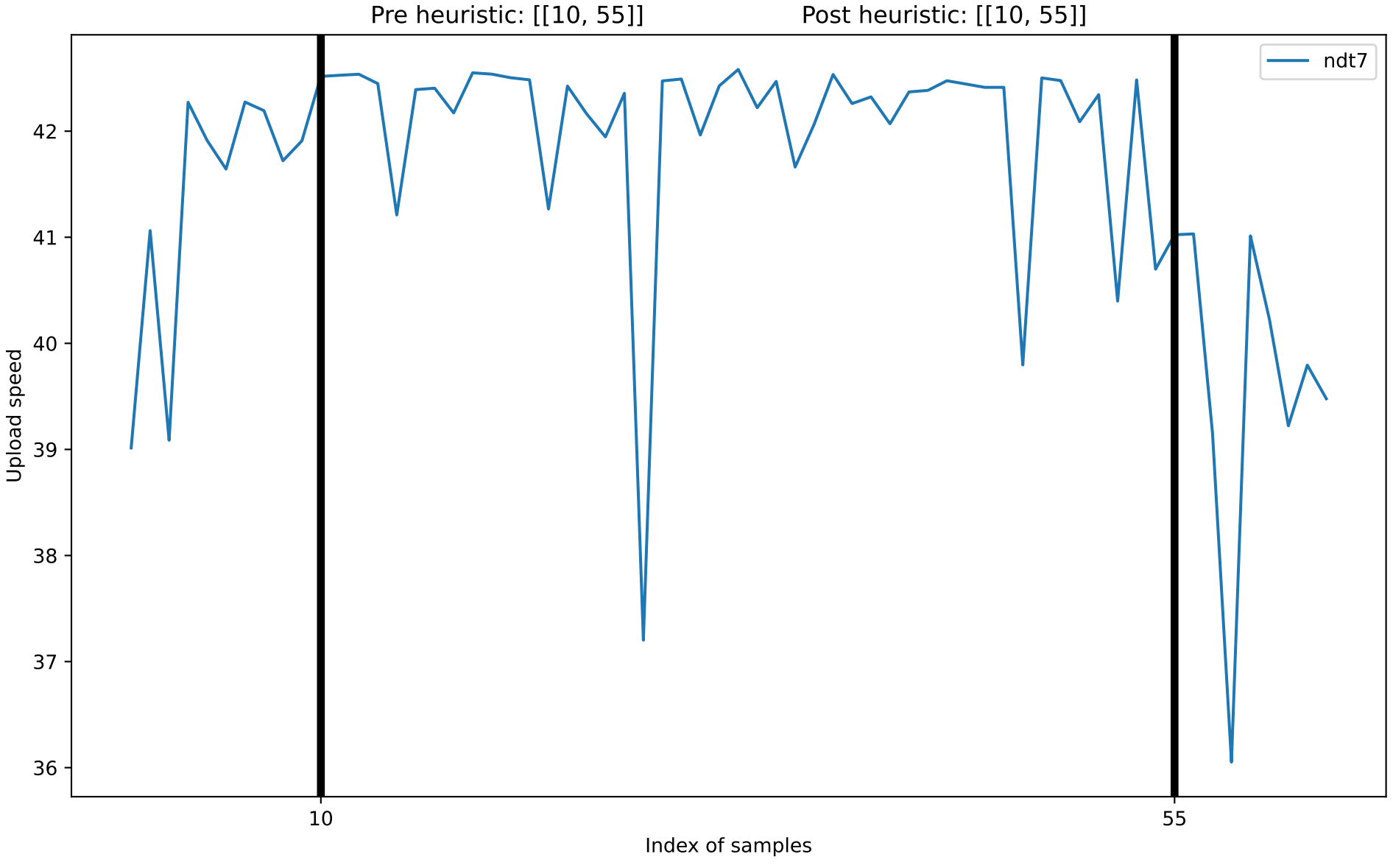
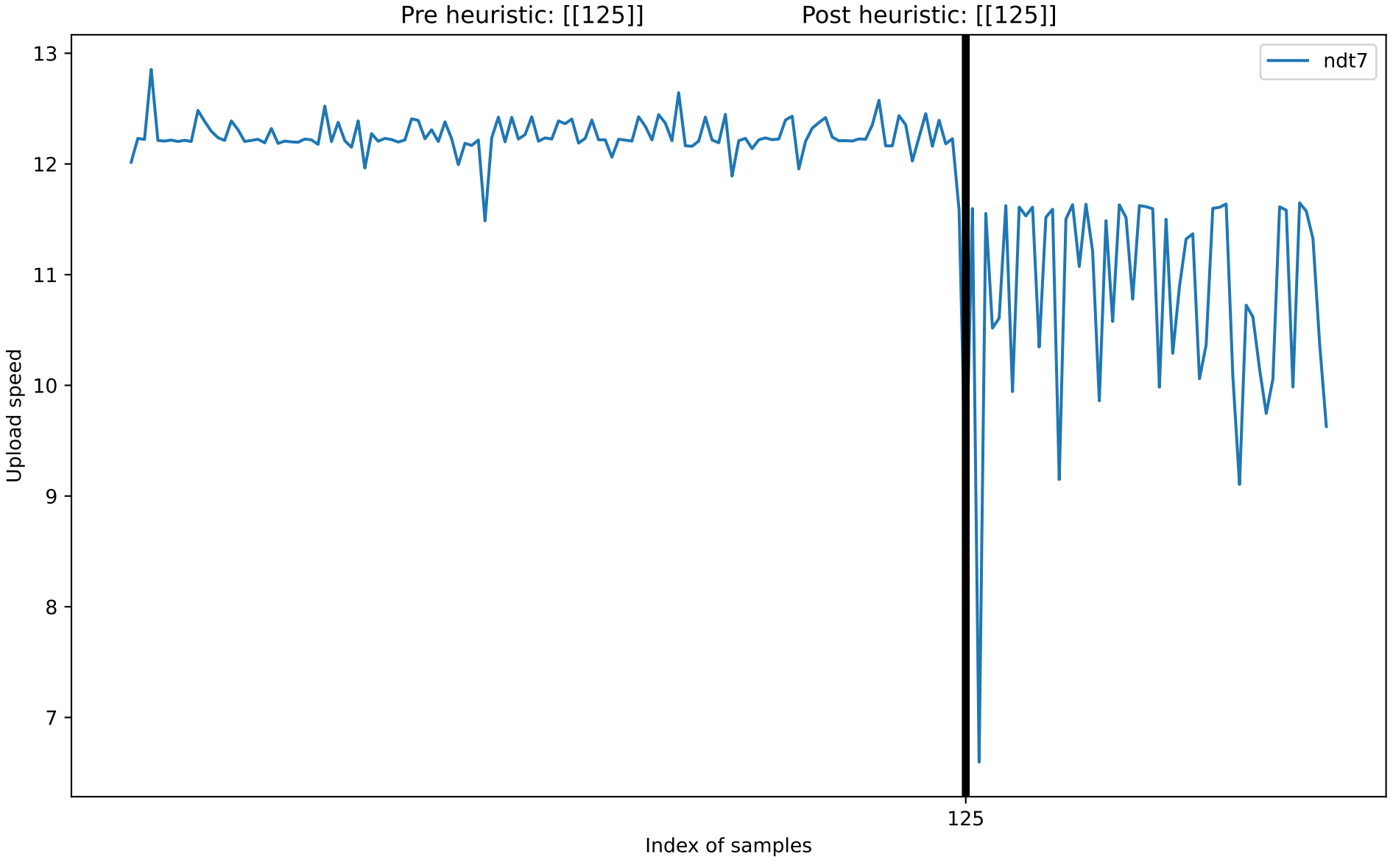
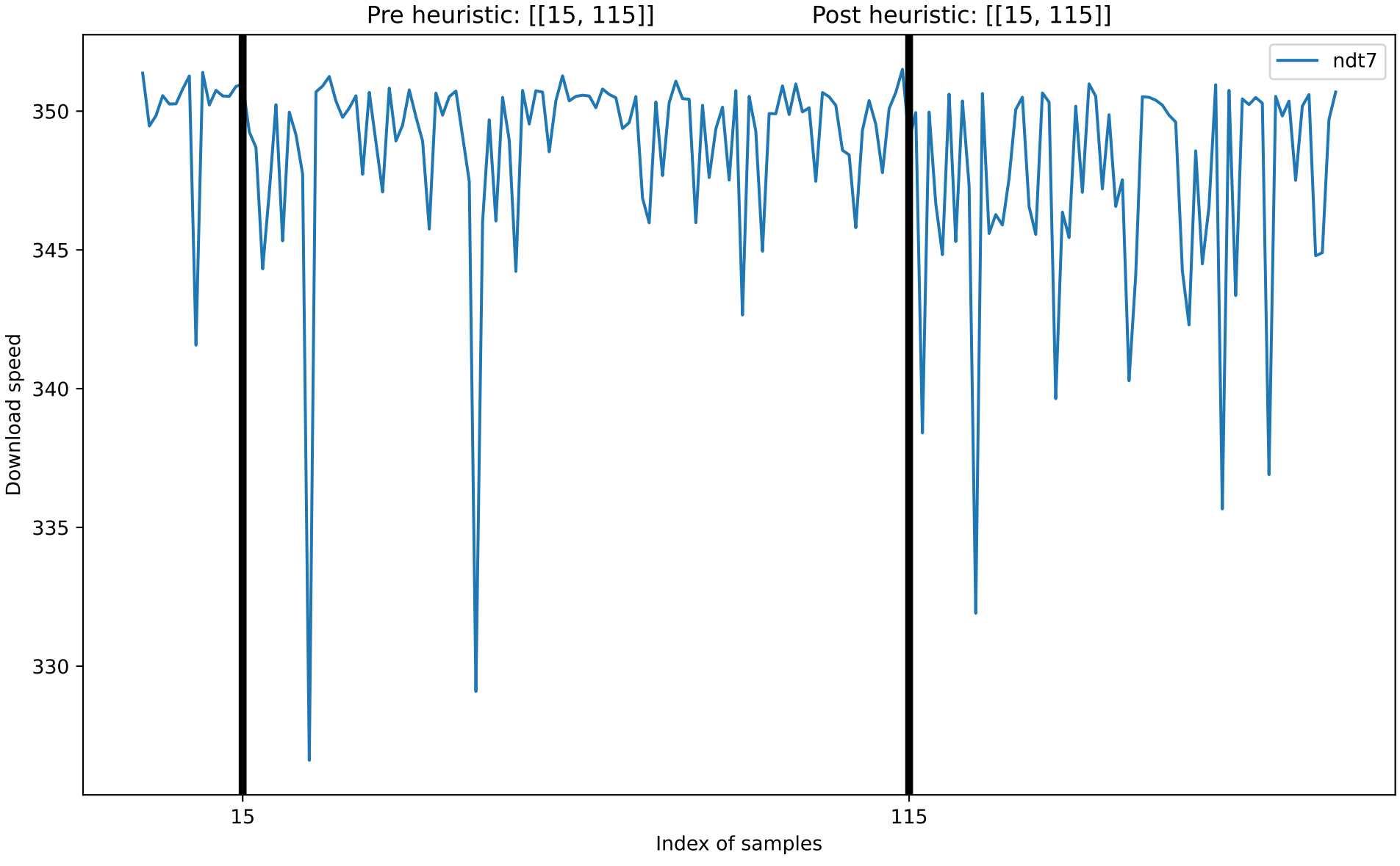
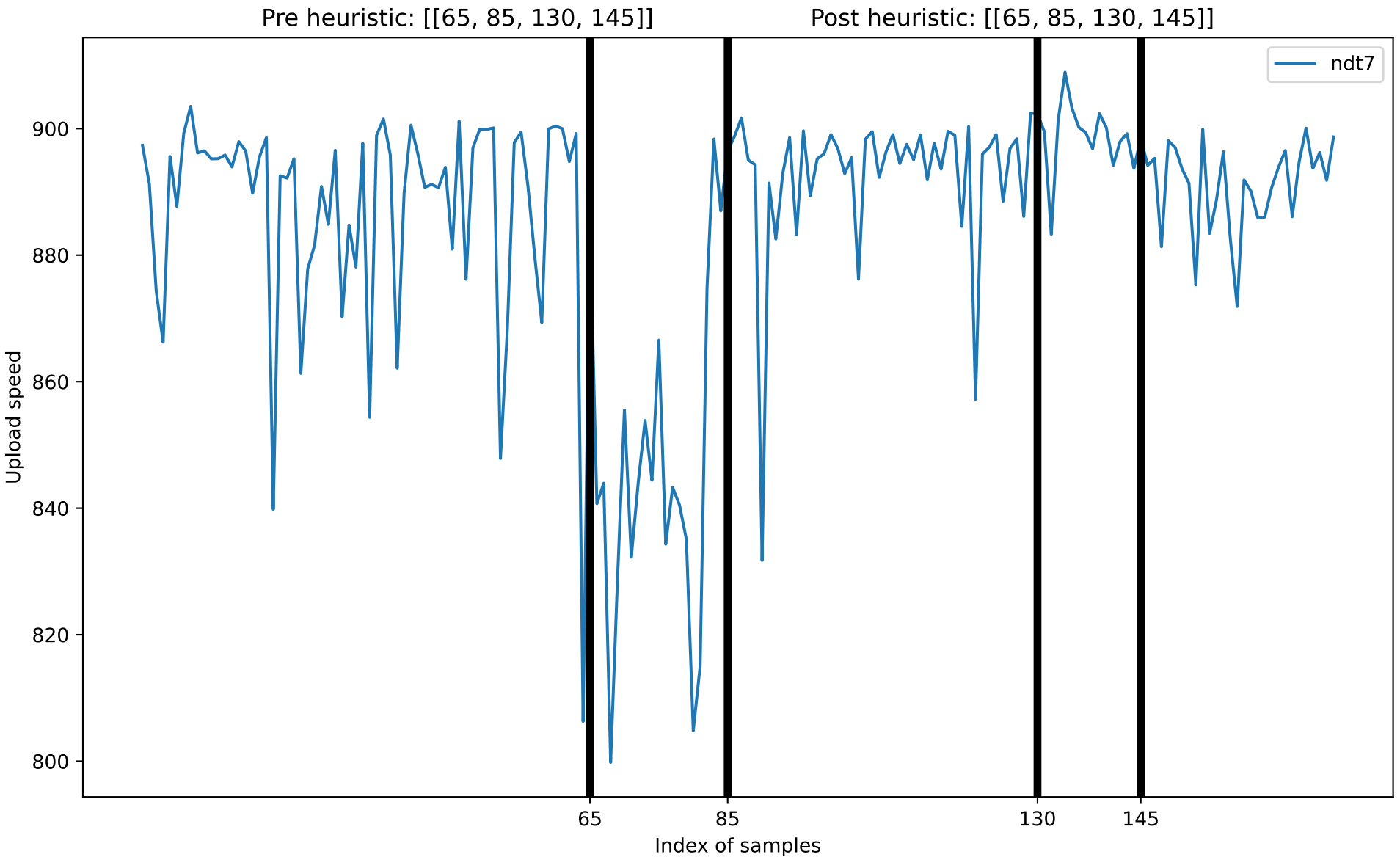
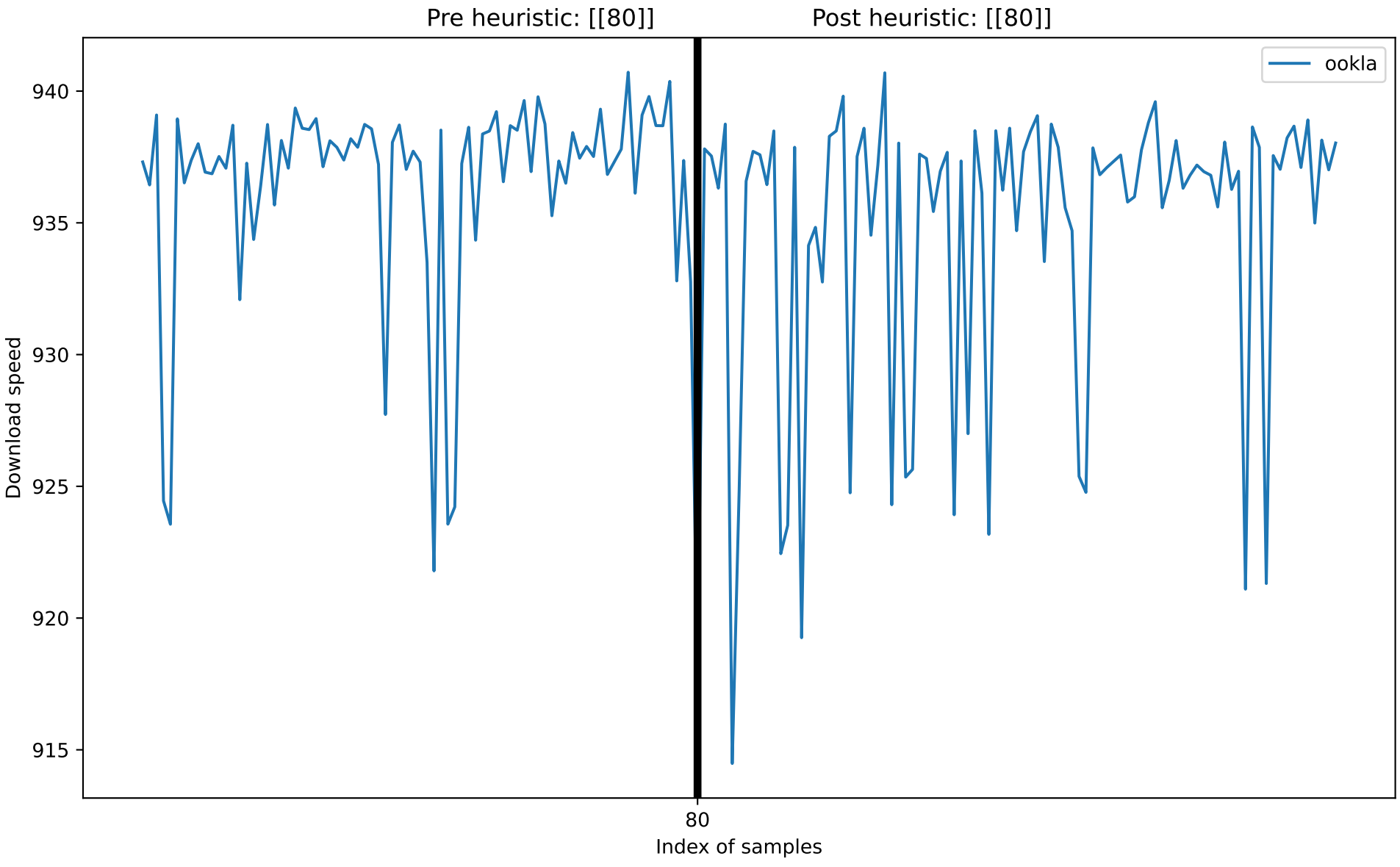
800
700
600
500
400
Download speed
ookla
60
85
Index of samples

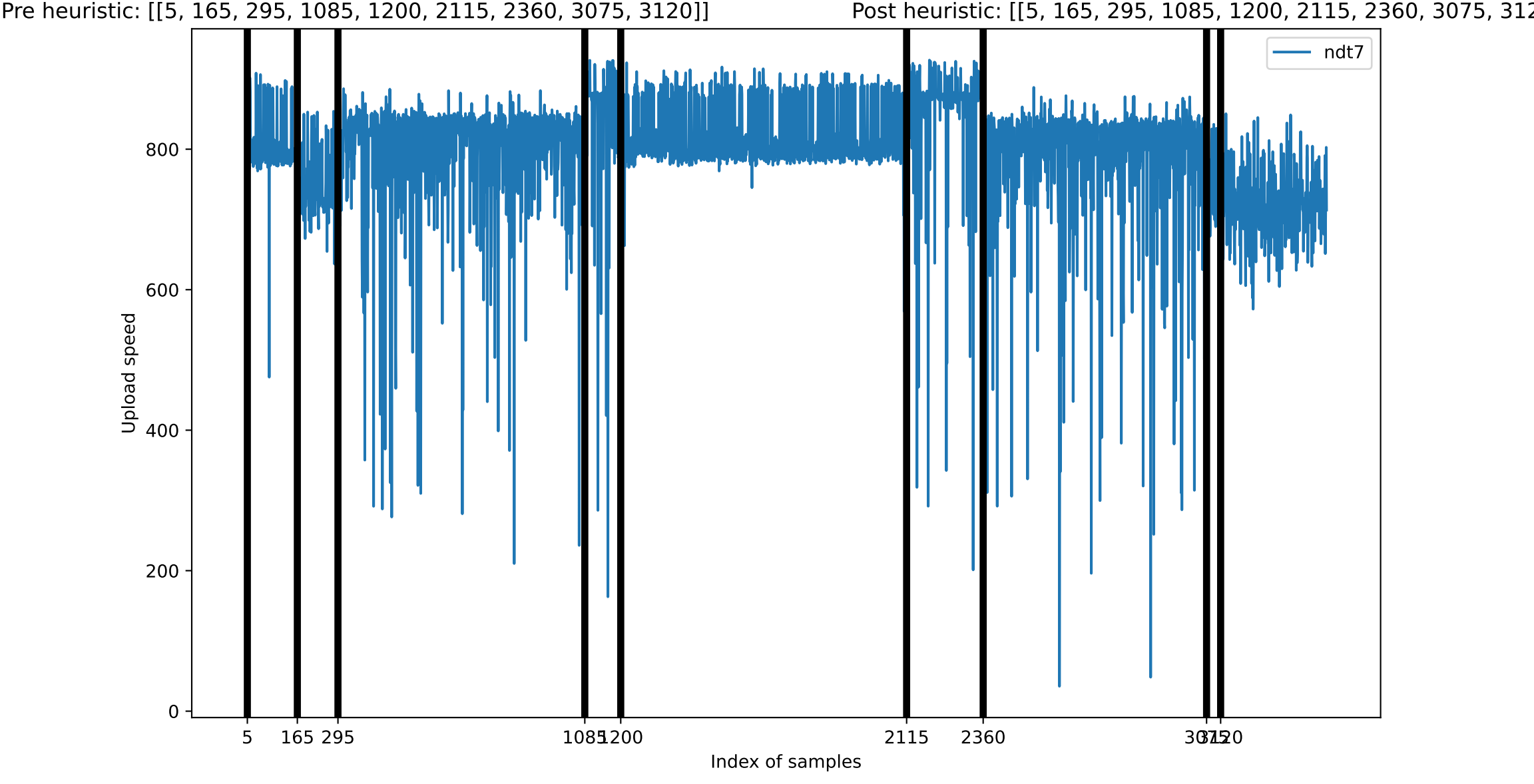

Pre heuristic: [[10, 55]]
Post heuristic: [[10, 55]]
ndt7
Upload speed
42
41
40
39
38
37
36
10
55
Index of samples

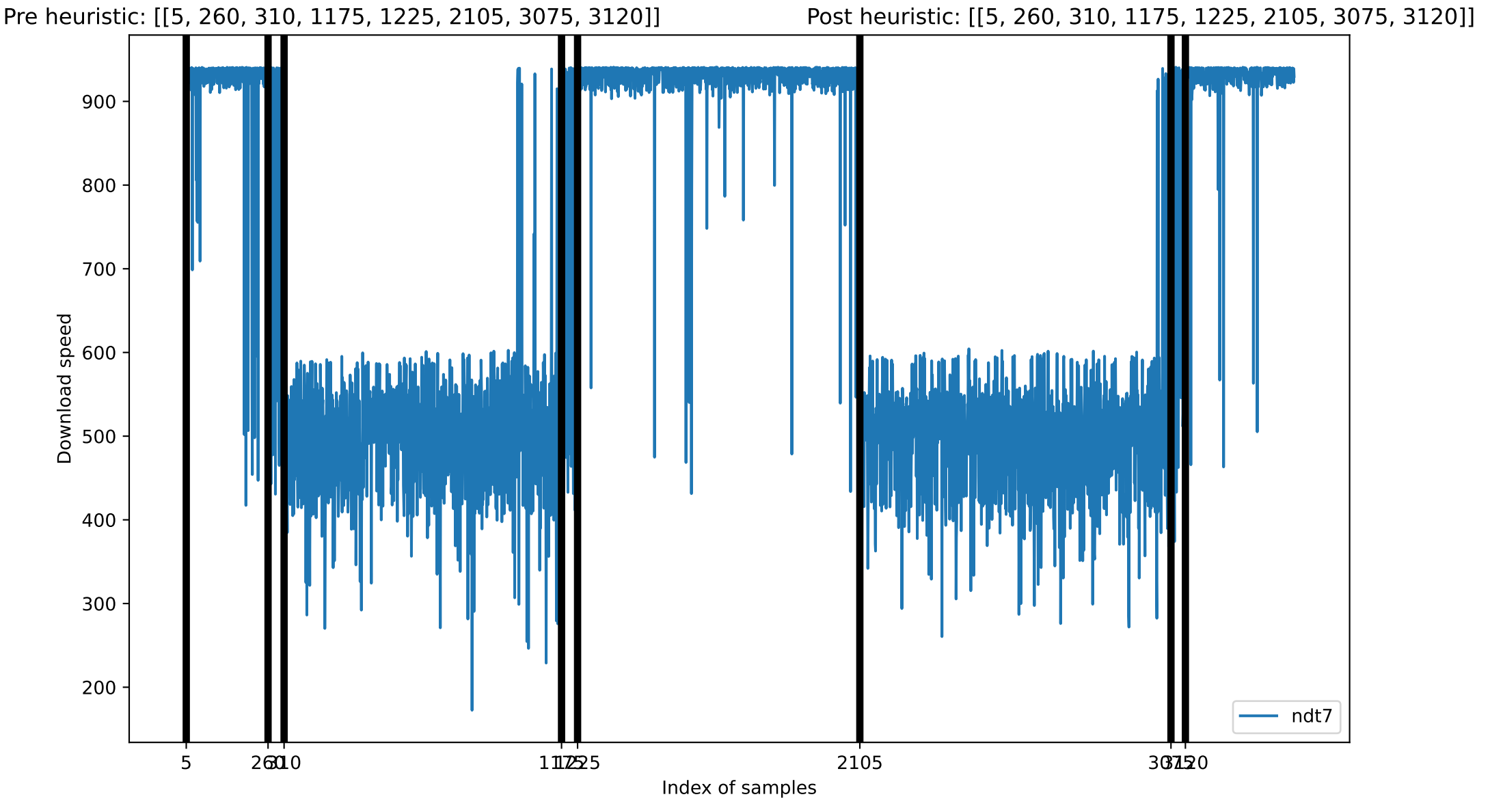

Pre heuristic: [[125]]
Post heuristic: [[125]]
ndt7
Upload speed
13
12
11
10
9
8
7
125
Index of samples


Pre heuristic: [[15, 115]]
Post heuristic: [[15, 115]]
ndt7
Download speed
350
345
340
335
330
15
115
Index of samples


Pre heuristic: [[65, 85, 130, 145]]
Post heuristic: [[65, 85, 130, 145]]
ndt7
Upload speed
900
880
860
840
820
800
65
85
130
145
Index of samples


Pre heuristic: [[80]]
Post heuristic: [[80]]
ookla
940
935
930
925
920
915
Download speed
80
Index of samples


Pre heuristic: [[5, 165, 295, 1085, 1200, 2115, 2360, 3075, 3120]]
Post heuristic: [[5, 165, 295, 1085, 1200, 2115, 2360, 3075, 312
ndt7
Upload speed
0
200
400
600
800
5
165
295
1085
1200
2115
2360
3075
3120
Index of samples


Pre heuristic: [[5, 260, 310, 1175, 1225, 2105, 3075, 3120]]
Post heuristic: [[5, 260, 310, 1175, 1225, 2105, 3075, 3120]]
Download speed
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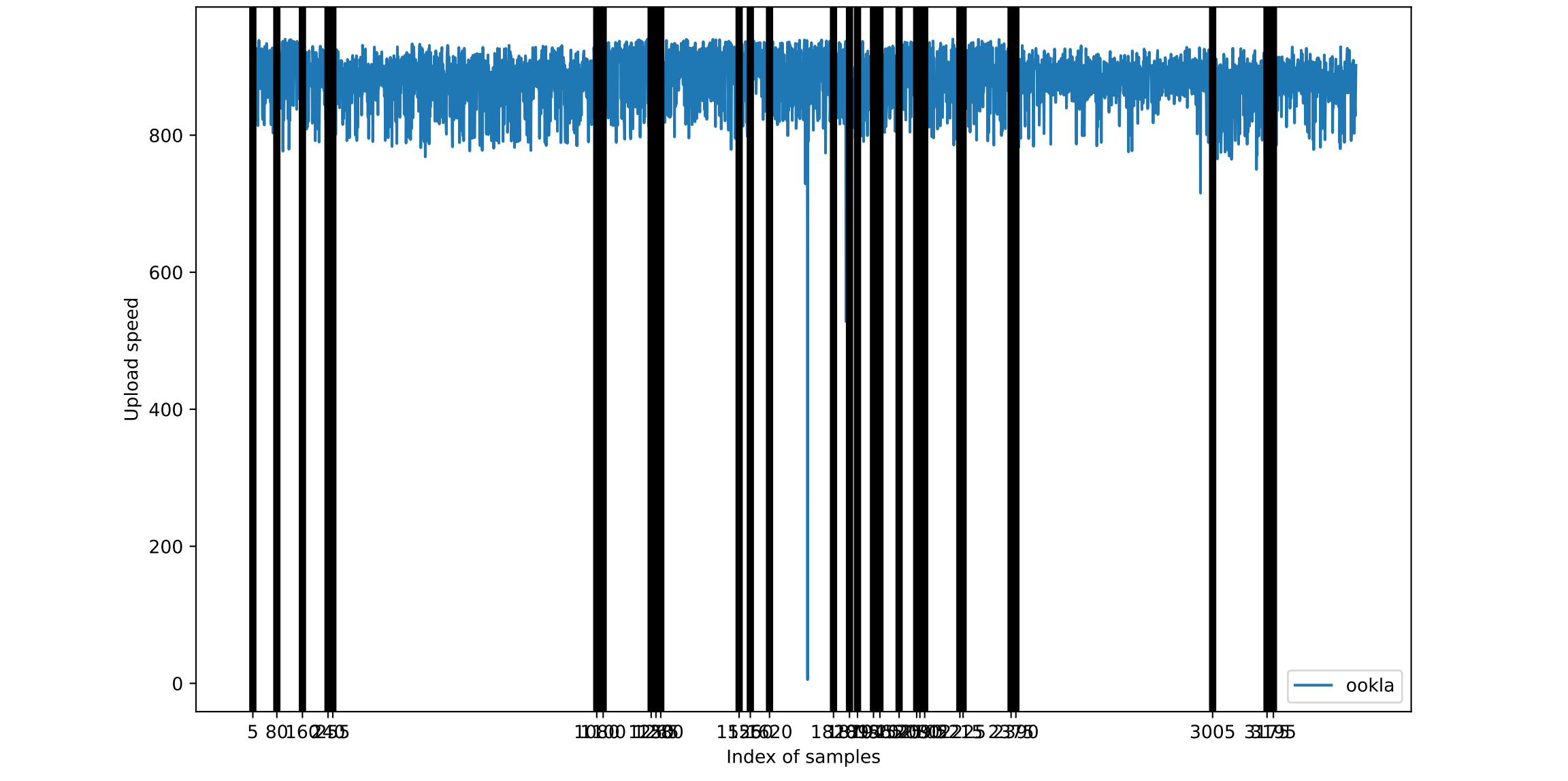
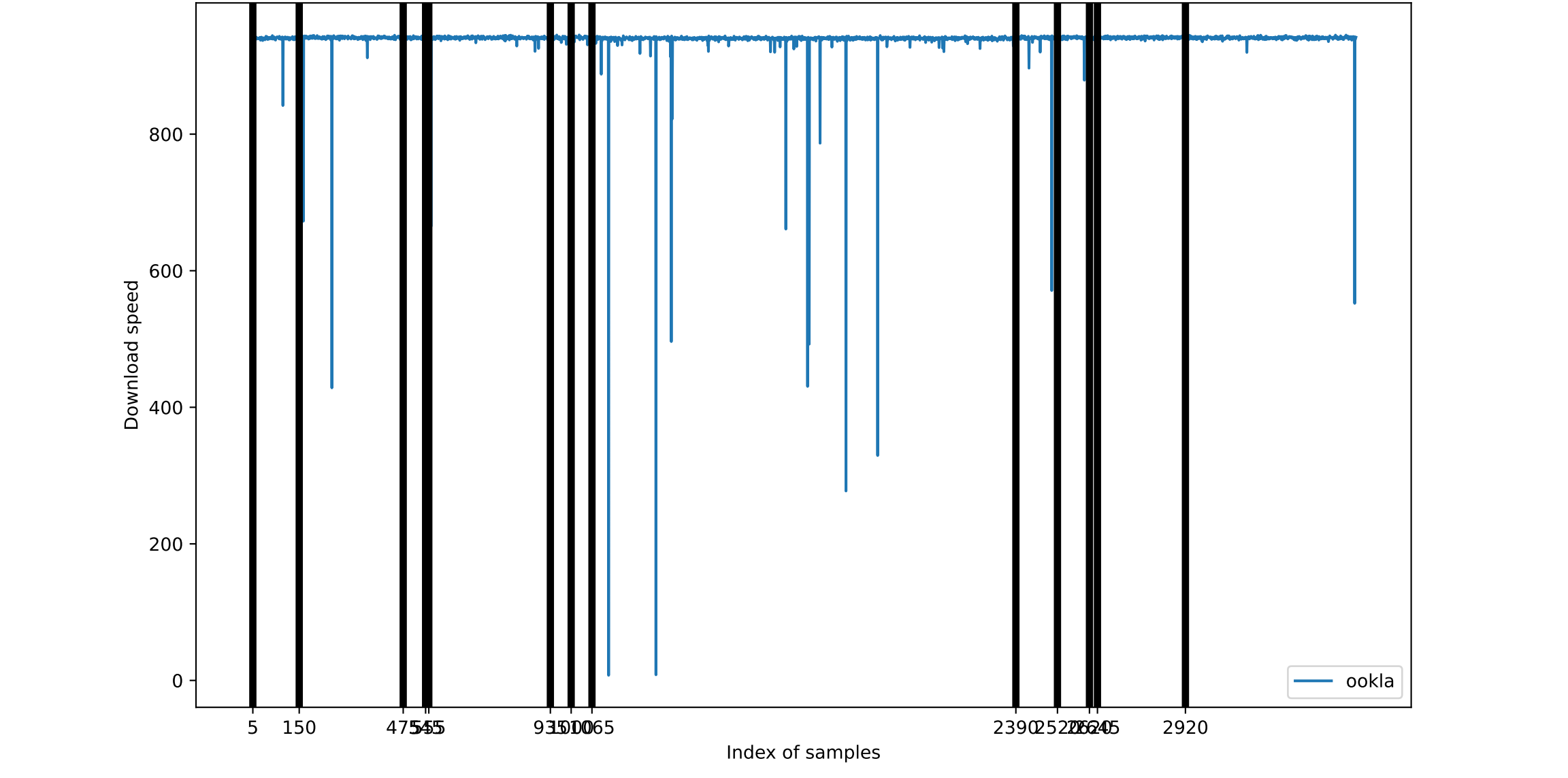
800
700
600
500
400
300
200
5
2105
Index of samples
ndt7


5, 2080, 2090, 2105, 2215, 2225, 2375, 2390, 3005, 3175, 3195]]
Post heuristic: [[5, 80, 160, 240, 255, 1080, 1100, 1250, 1265, 1
Upload speed
0
200
400
600
800
Index of samples
ookla


, 475, 545, 555, 935, 1000, 1065, 2390, 2520, 2620, 2645, 2920]]
Post heuristic: [[5, 150, 475, 545, 555, 935, 1000, 1065, 2390, 2
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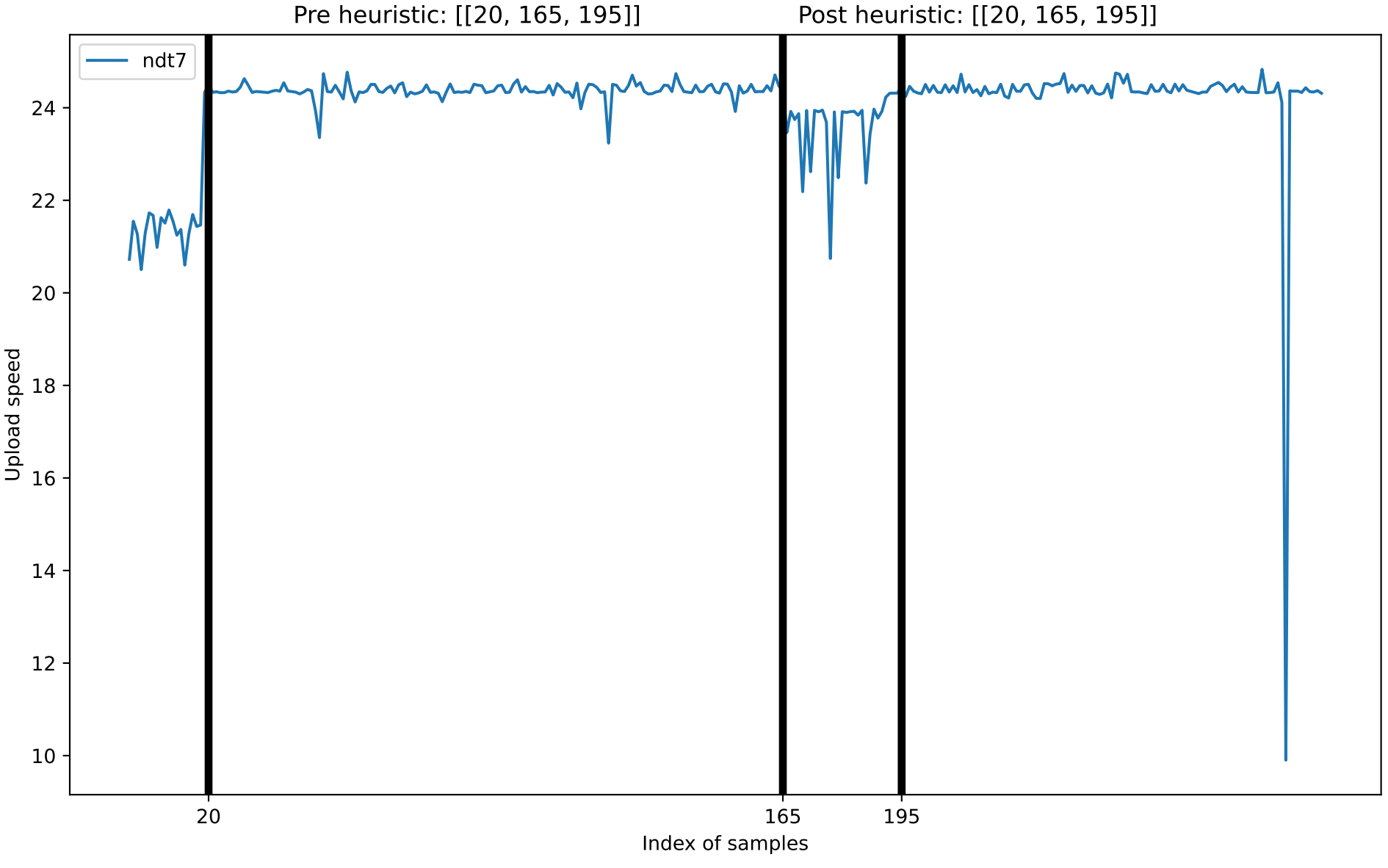
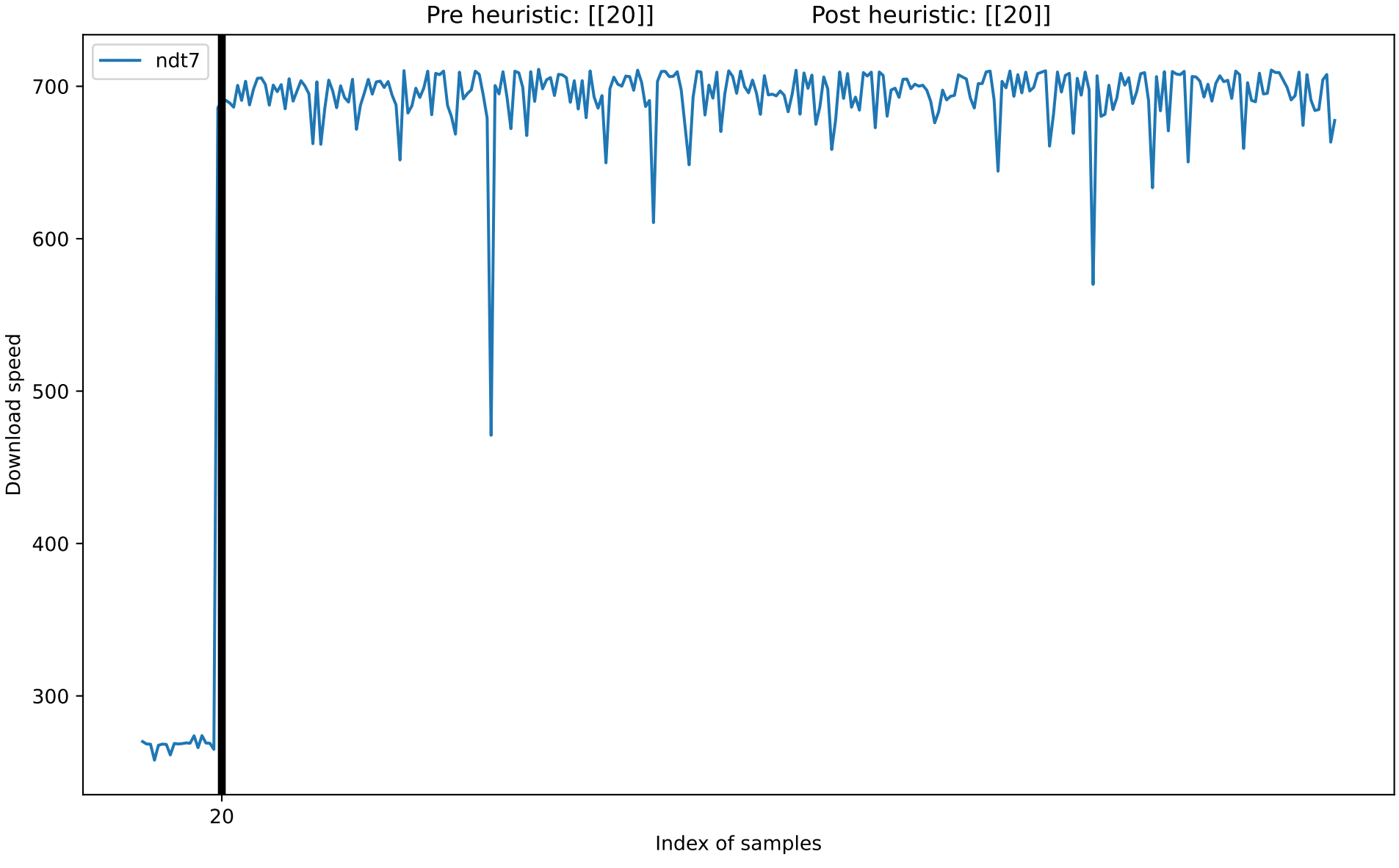
800
600
400
200
0
5
150
2920
Index of samples
ookla


Pre heuristic: [[20, 165, 195]]
Post heuristic: [[20, 165, 195]]
ndt7
Upload speed
24
22
20
18
16
14
12
10
20
165
195
Index of samples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Post heuristic: [[20]]
ndt7
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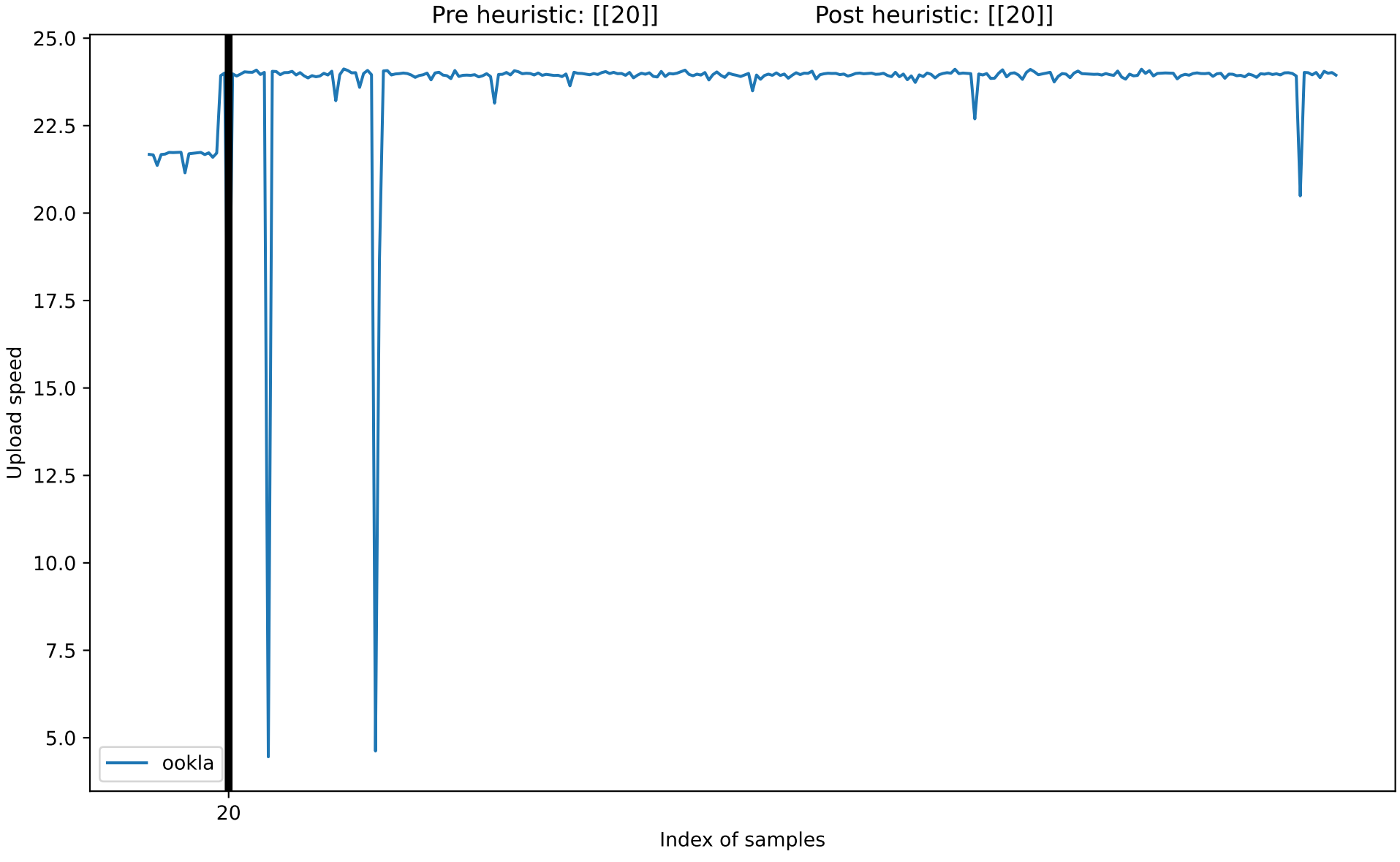
600
500
400
300
Download speed
20
Index of samples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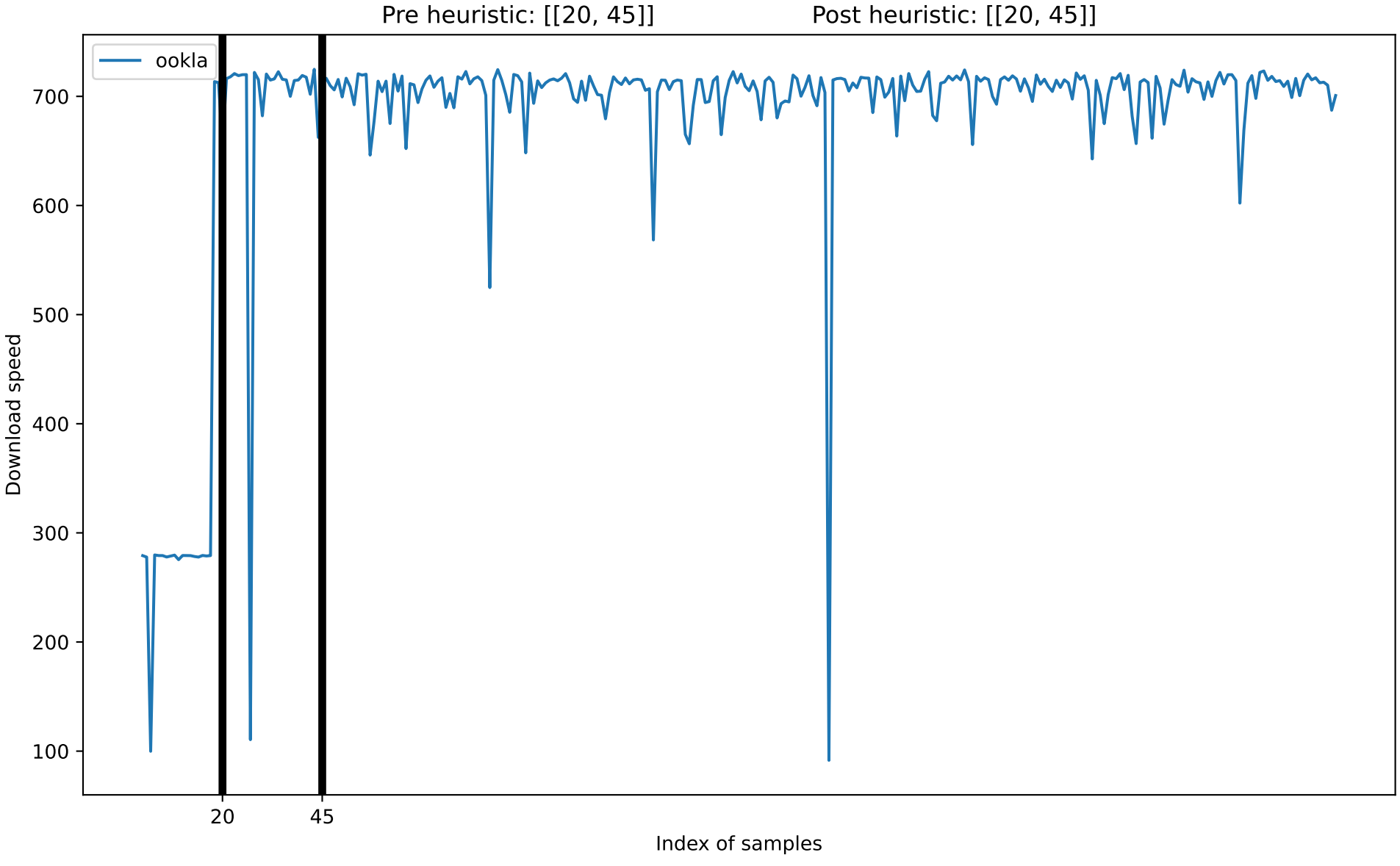
Post heuristic: [[20]]
25.0
22.5
20.0
17.5
15.0
12.5
10.0
7.5
5.0
Upload speed
ookla
20
Index of samples


Pre heuristic: [[20, 45]]
Post heuristic: [[20, 45]]
ookla
Download speed
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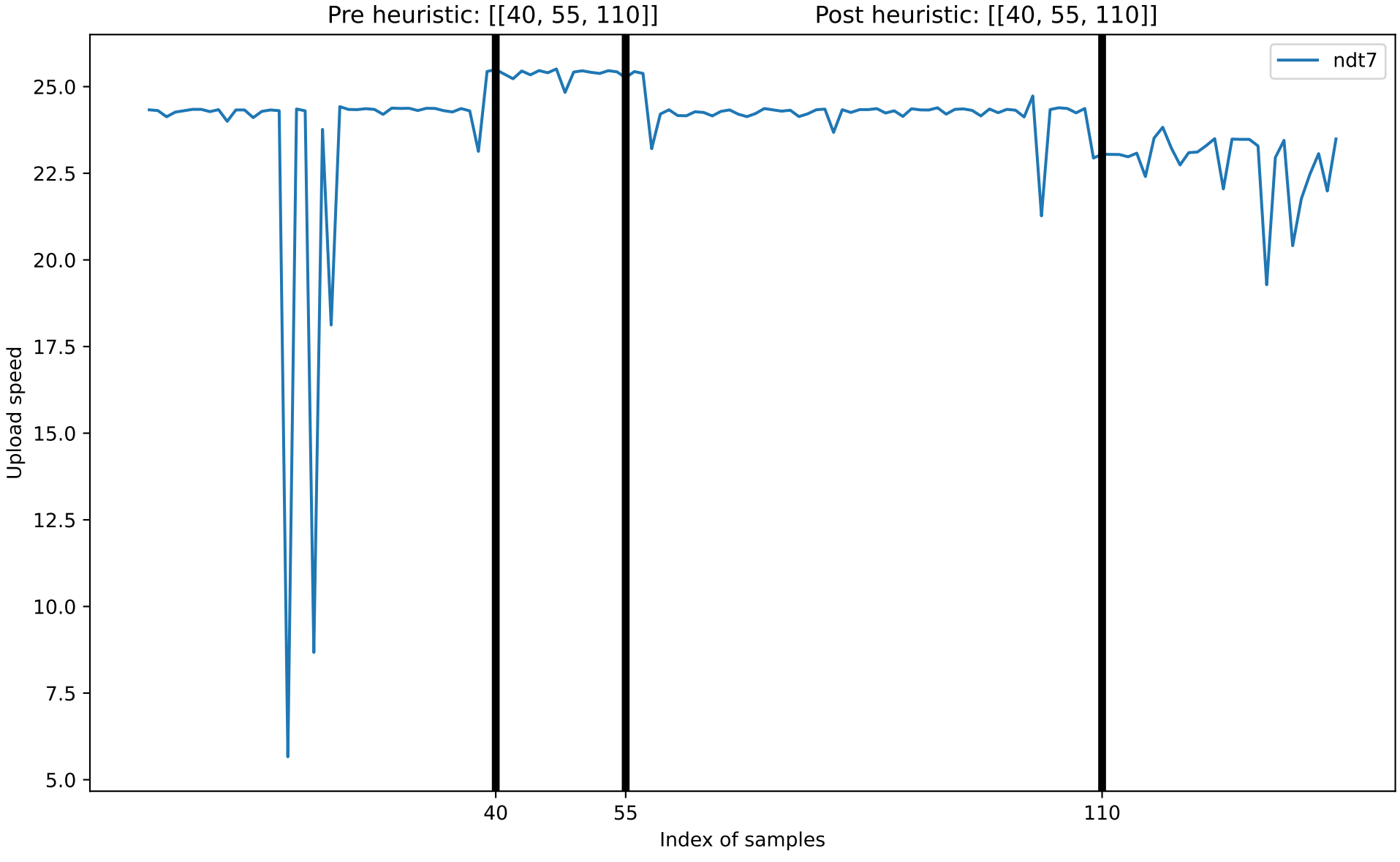
200
300
400
500
600
700
20
45
Index of samples


Pre heuristic: [[40, 55, 110]]
Post heuristic: [[40, 55, 110]]
ndt7
Upload speed
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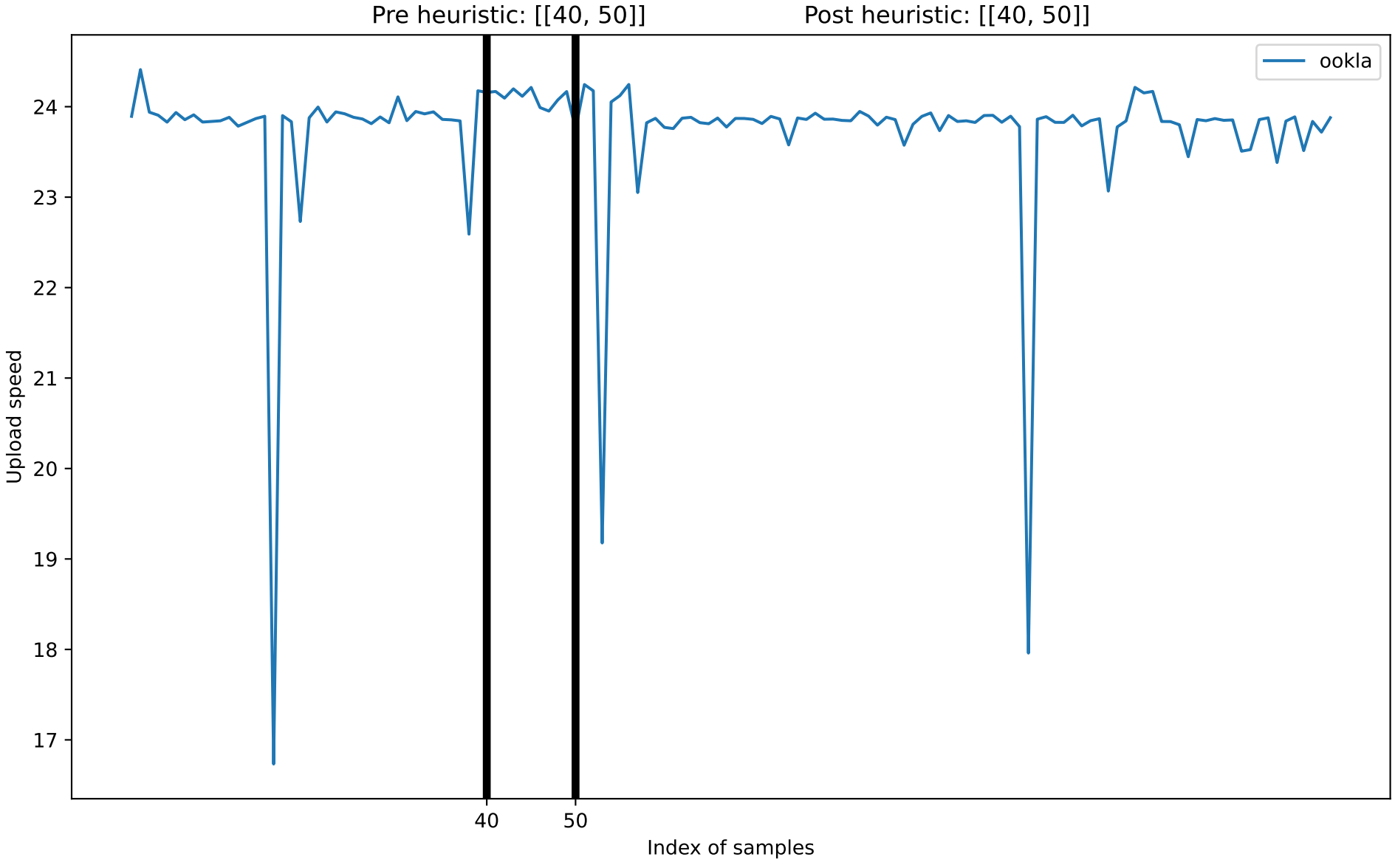
20.0
17.5
15.0
12.5
10.0
7.5
5.0
40
55
110
Index of samples


Pre heuristic: [[40, 50]]
Post heuristic: [[40, 50]]
ookla
Upload speed
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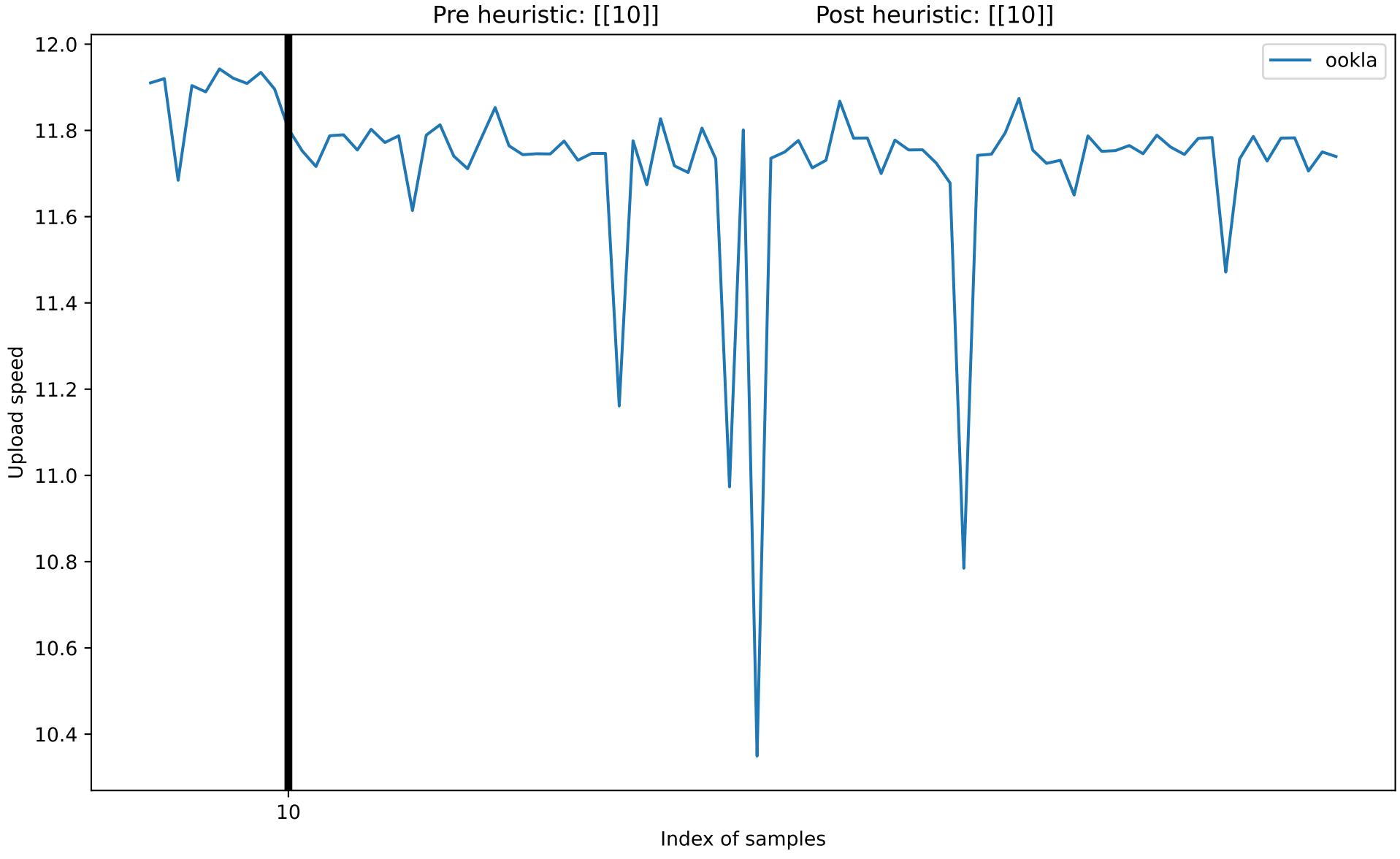
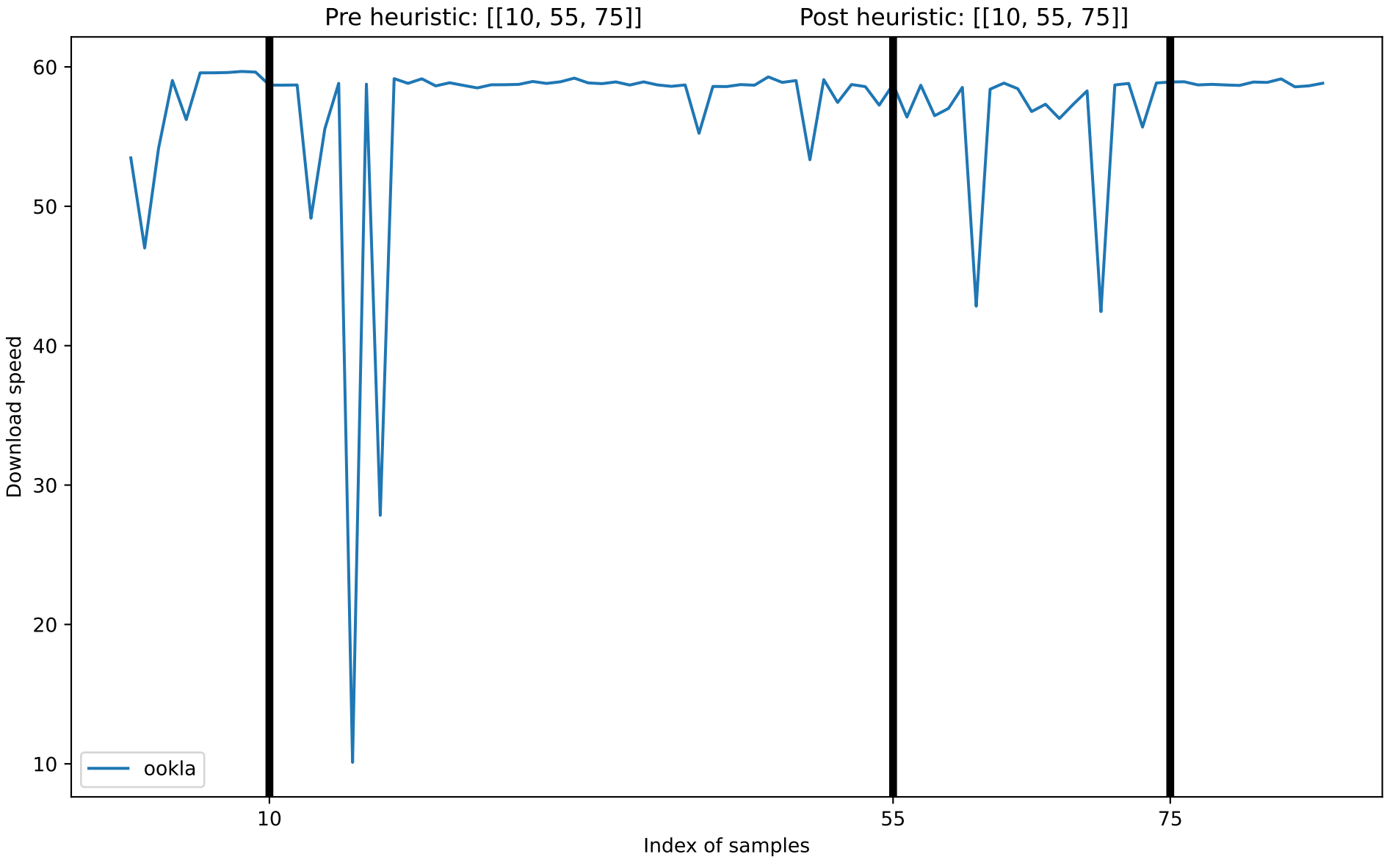
23
22
21
20
19
18
17
40
50
Index of samples


Pre heuristic: [[10]]
Post heuristic: [[10]]
ookla
12.0
11.8
11.6
11.4
11.2
11.0
10.8
10.6
10.4
Upload speed
10
Index of samples


Pre heuristic: [[10, 55, 75]]
Post heuristic: [[10, 55, 75]]
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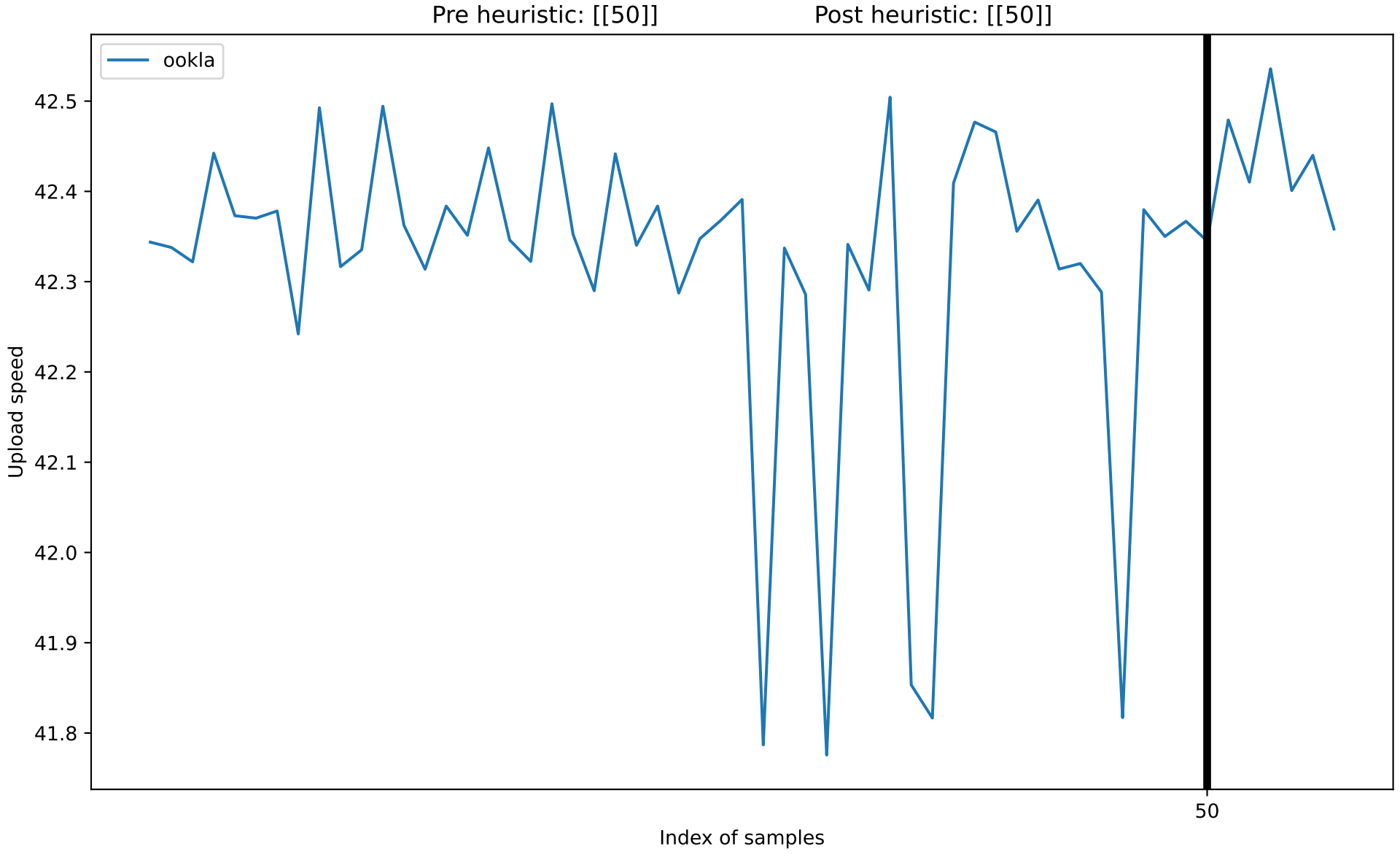
50
40
30
20
10
ookla
10
55
75
Index of samples


Pre heuristic: [[50]]
Post heuristic: [[50]]
ookla
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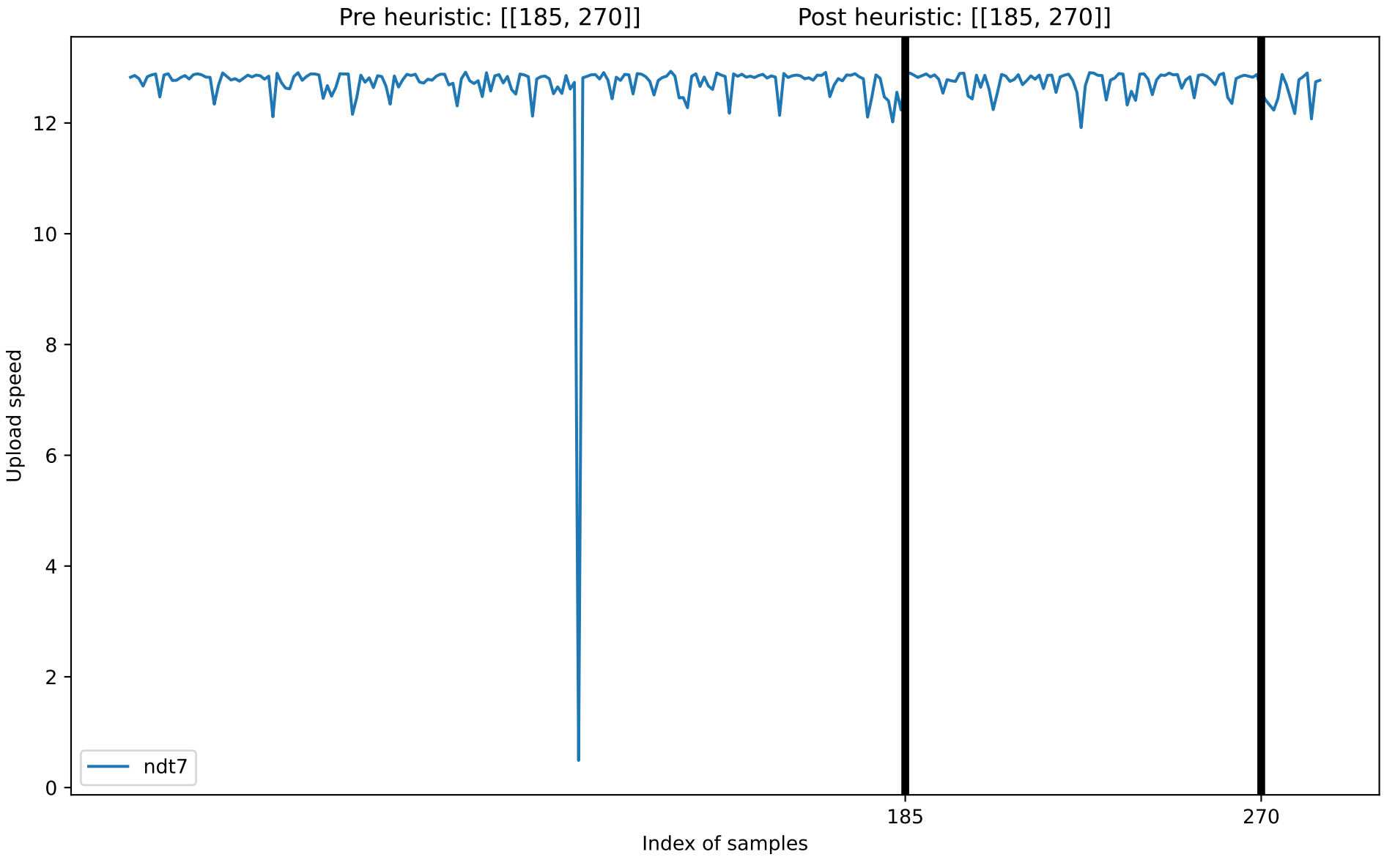
42.4
42.3
42.2
42.1
42.0
41.9
41.8
Upload speed
50
Index of samples


Pre heuristic: [[185, 270]]
Post heuristic: [[185, 270]]
Upload speed
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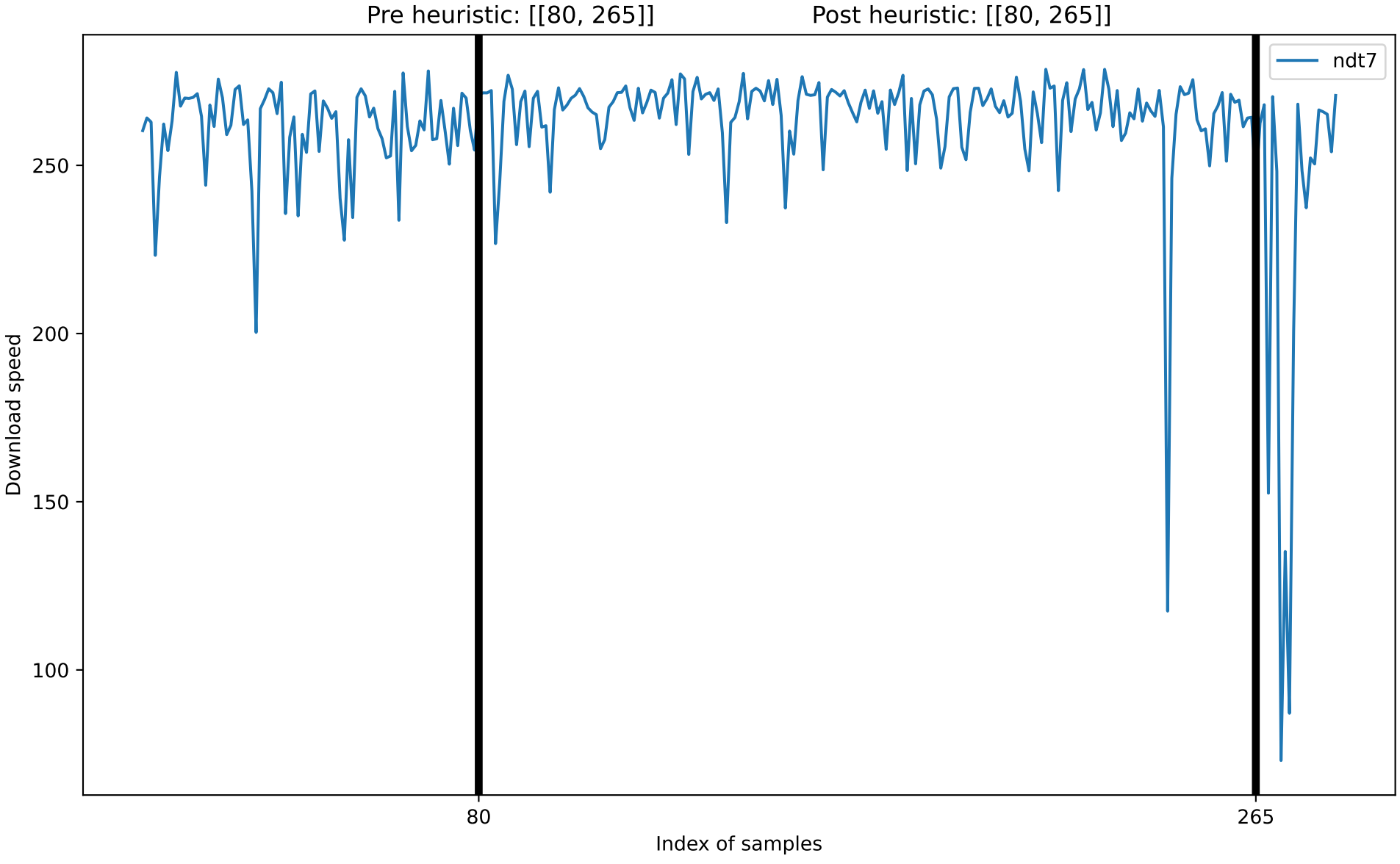
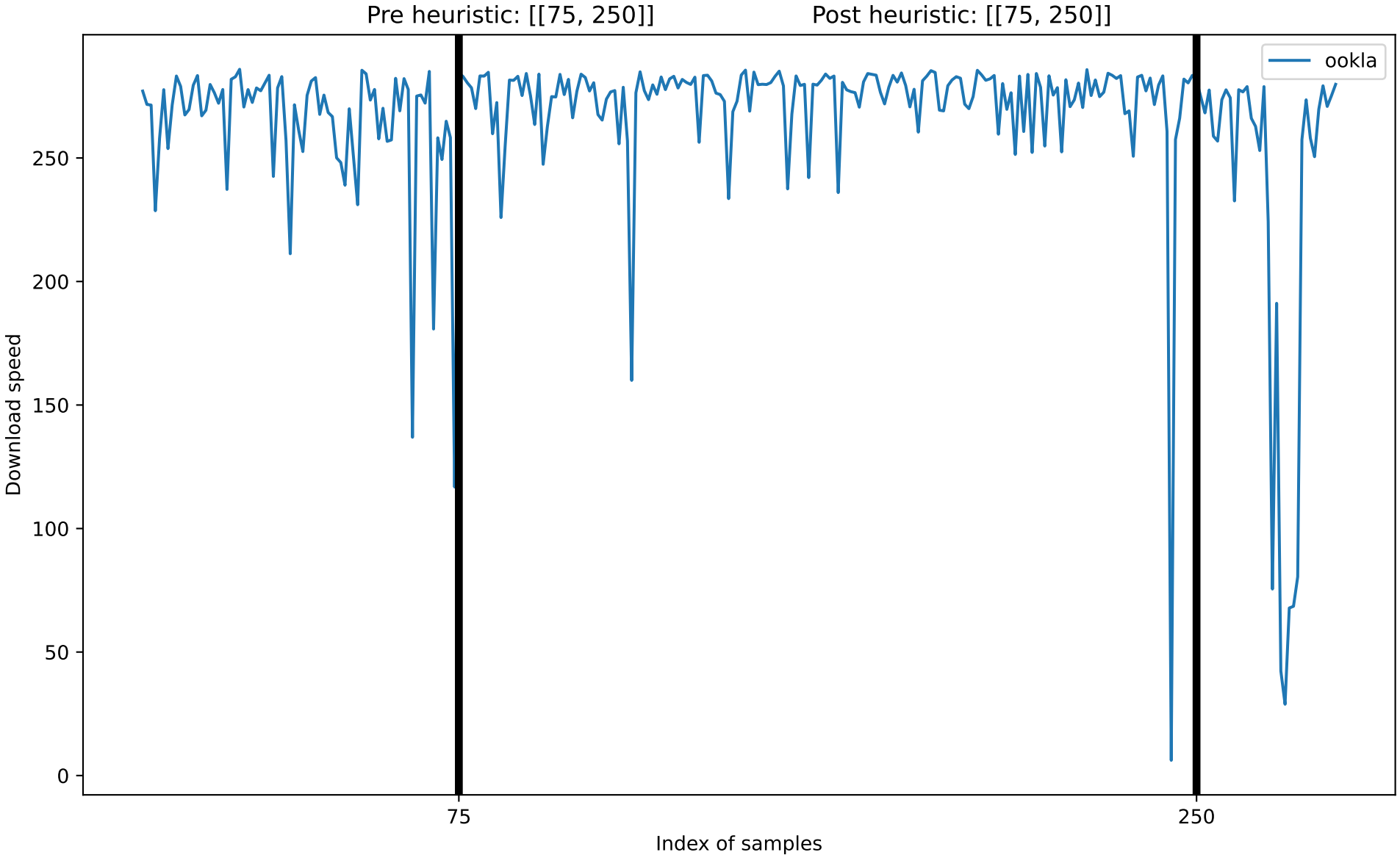
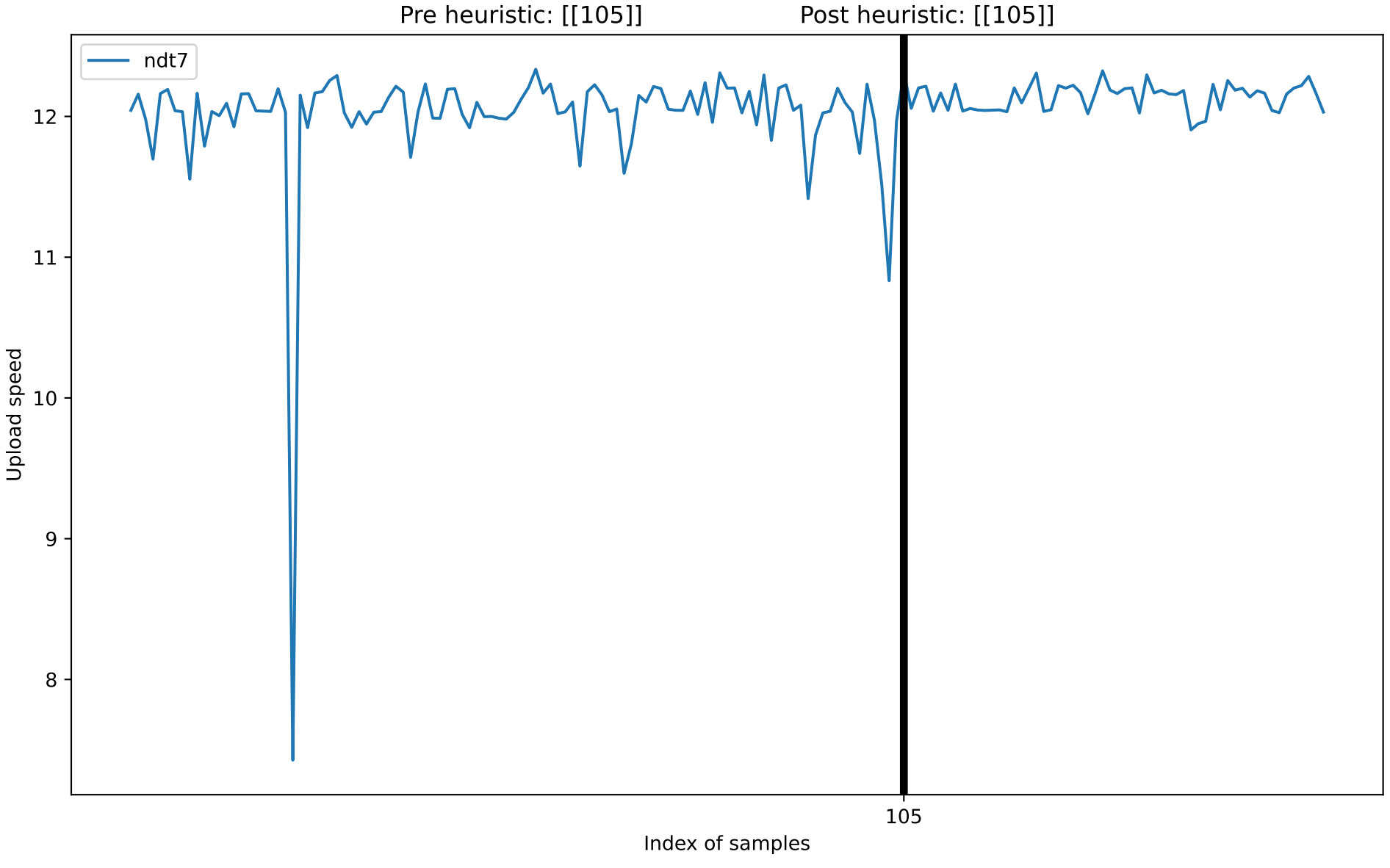
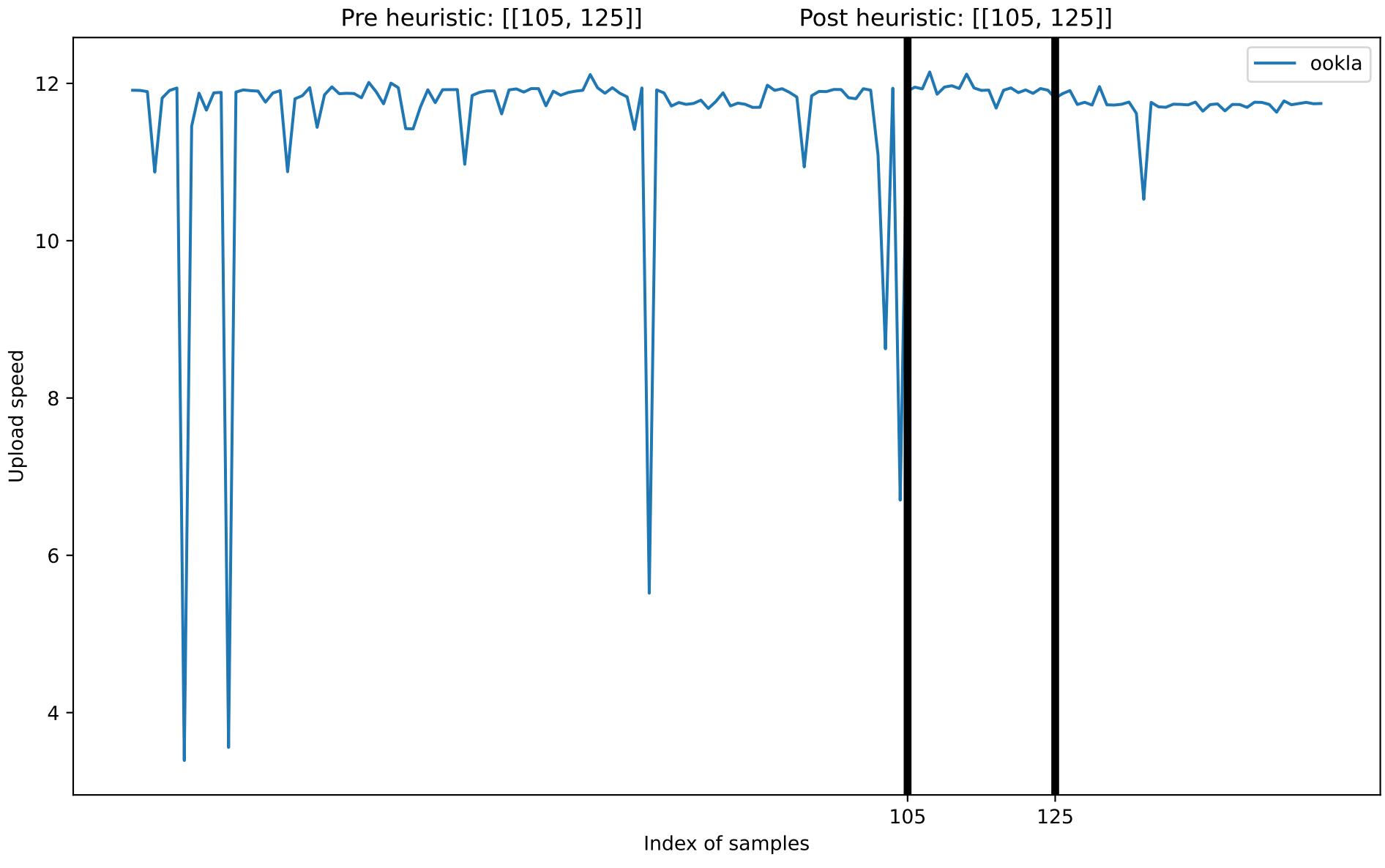
2
4
6
8
10
12
185
270
Index of samples
ndt7


Pre heuristic: [[80, 265]]
Post heuristic: [[80, 265]]
ndt7
Download speed
250
200
150
100
80
265
Index of samples


Pre heuristic: [[75, 250]]
Post heuristic: [[75, 250]]
ookla
Download speed
0
50
100
150
200
250
75
250
Index of samples


Pre heuristic: [[105]]
Post heuristic: [[105]]
ndt7
Upload speed
12
11
10
9
8
105
Index of samples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Post heuristic: [[105, 125]]
ookla
Upload speed
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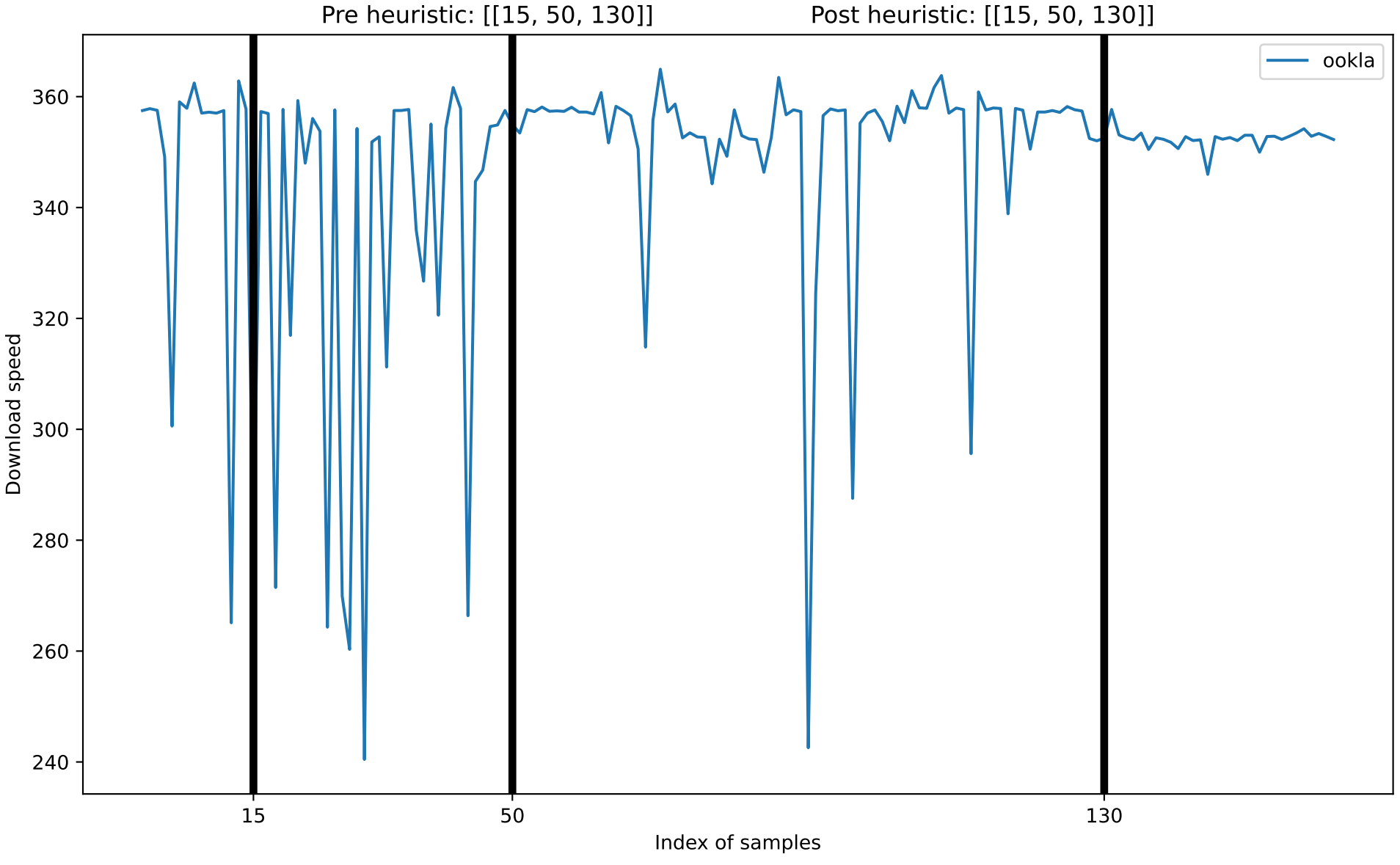
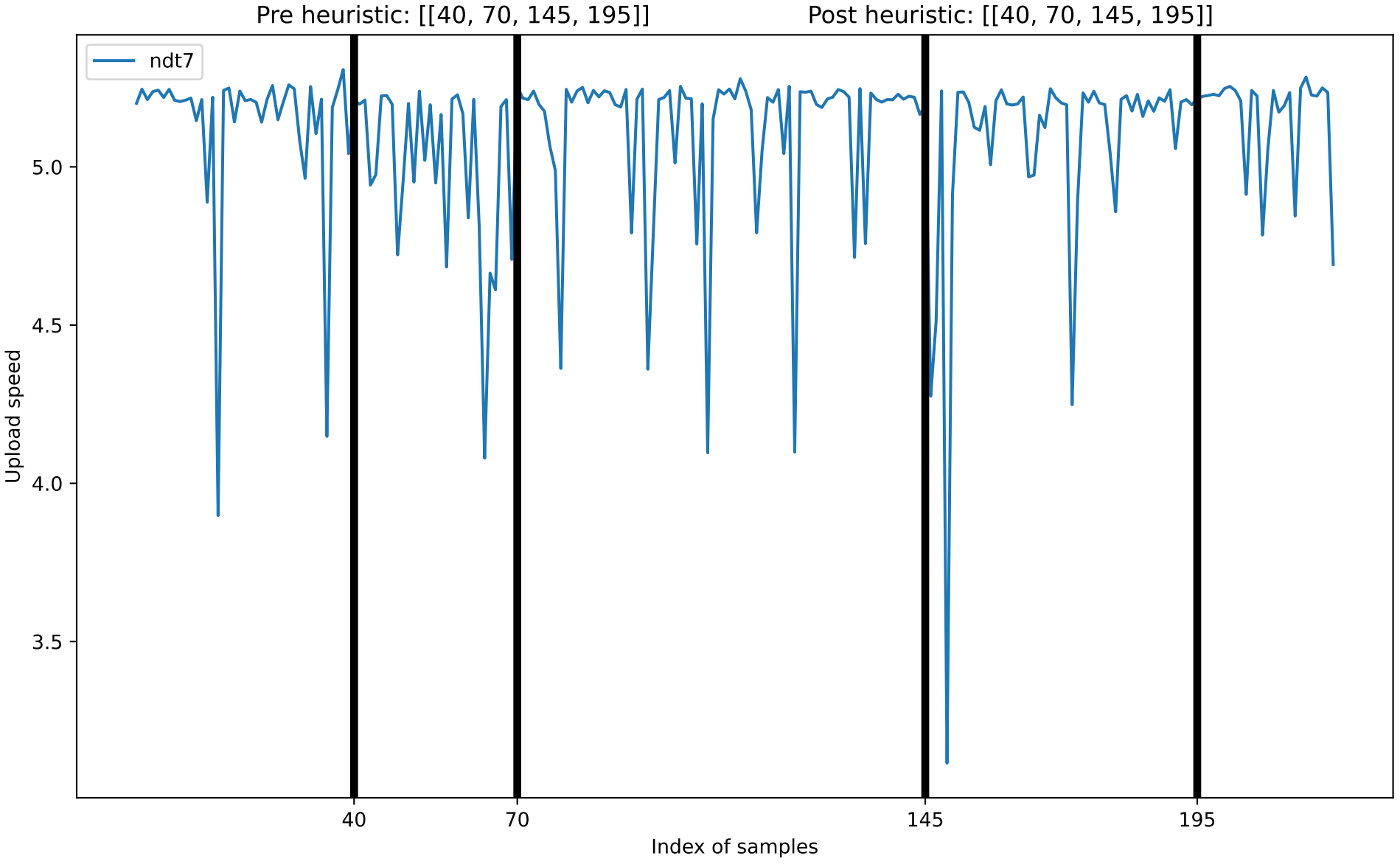
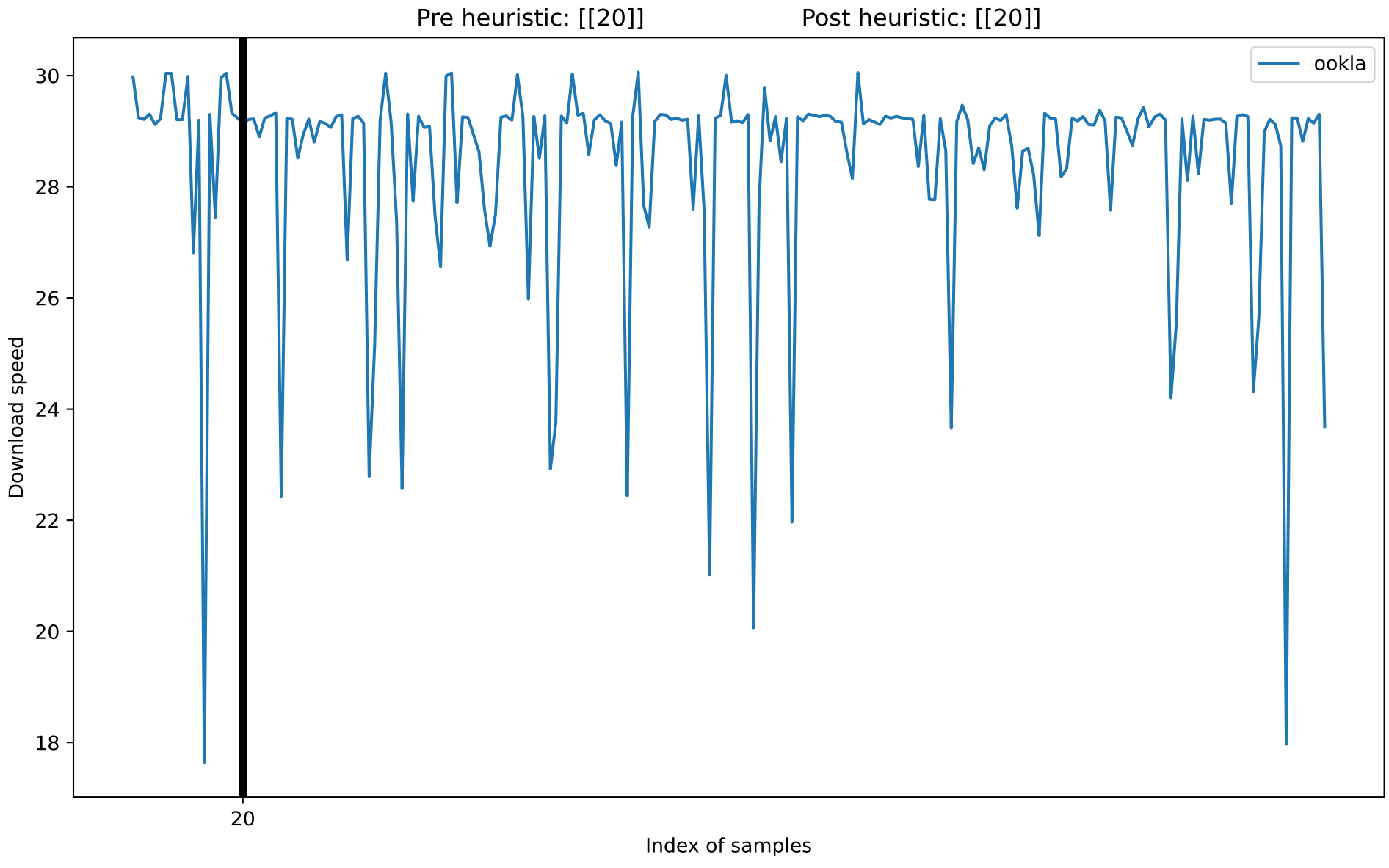
10
8
6
4
105
125
Index of samples


Pre heuristic: [[15, 50, 130]]
Post heuristic: [[15, 50, 130]]
ookla
Download speed
360
340
320
300
280
260
240
15
50
130
Index of samples


Pre heuristic: [[40, 70, 145, 195]]
Post heuristic: [[40, 70, 145, 195]]
ndt7
Upload speed
5.0
4.5
4.0
3.5
40
70
145
195
Index of samples


Pre heuristic: [[20]]
Post heuristic: [[20]]
ookla
Download speed
30
28
26
24
22
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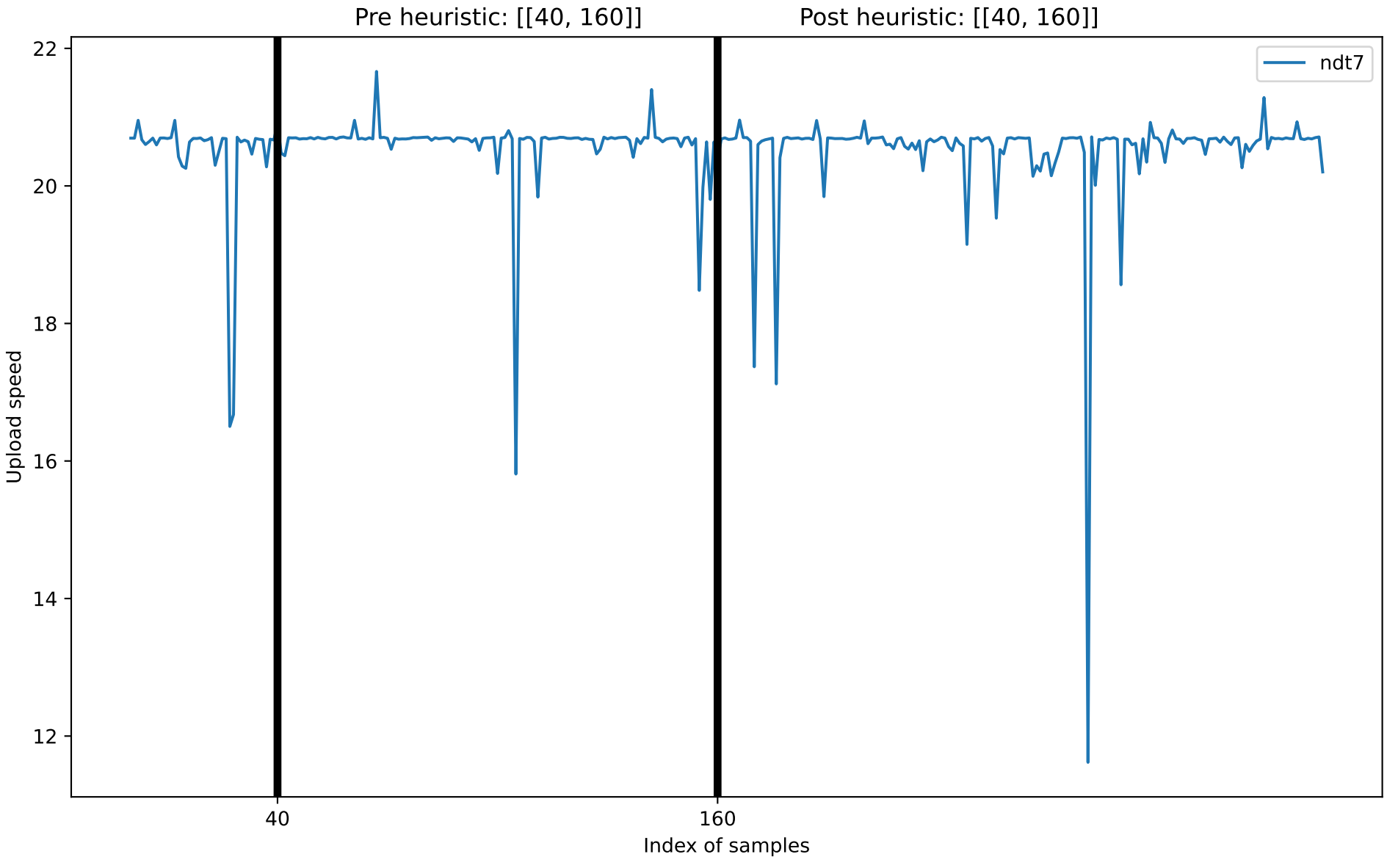
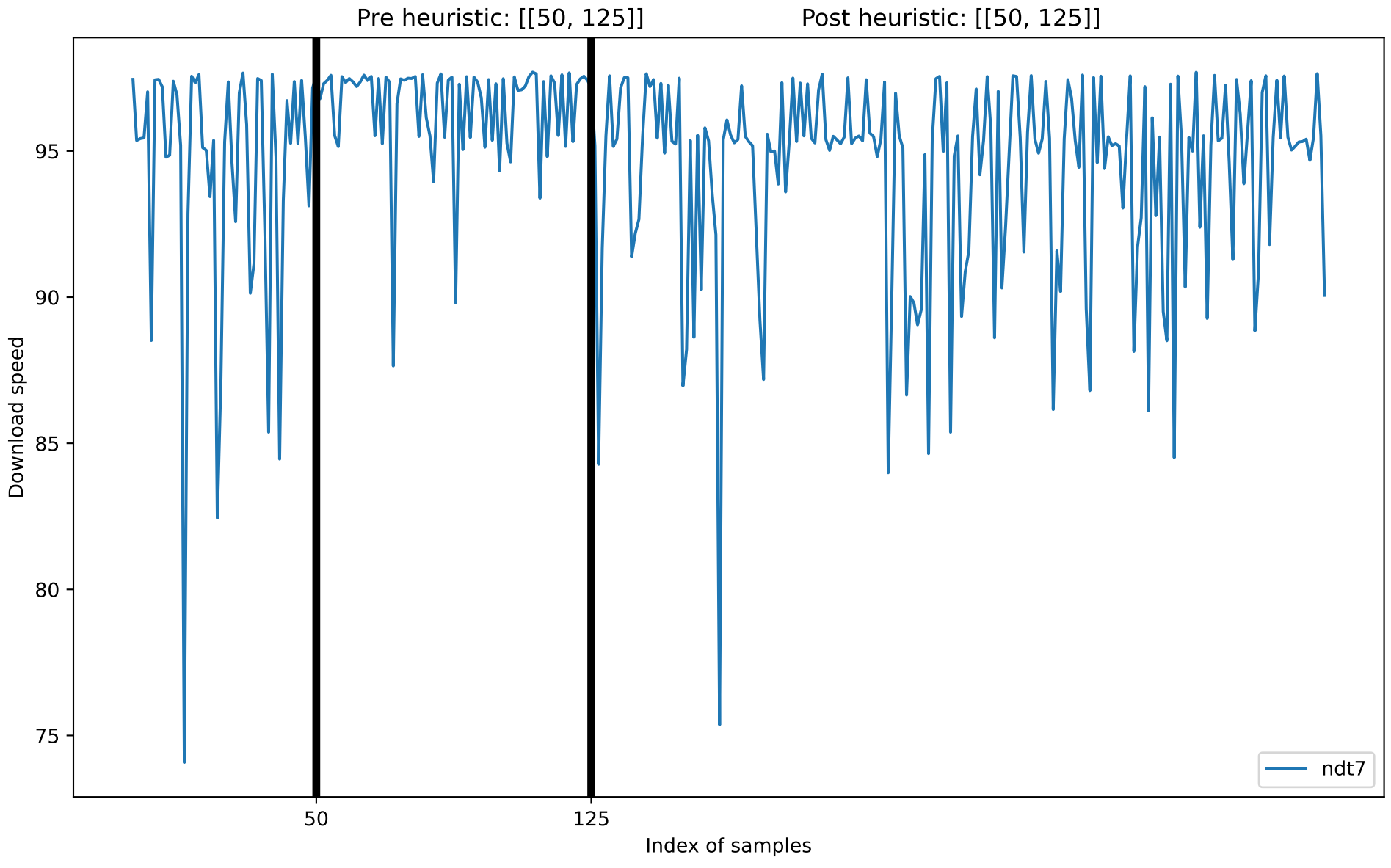
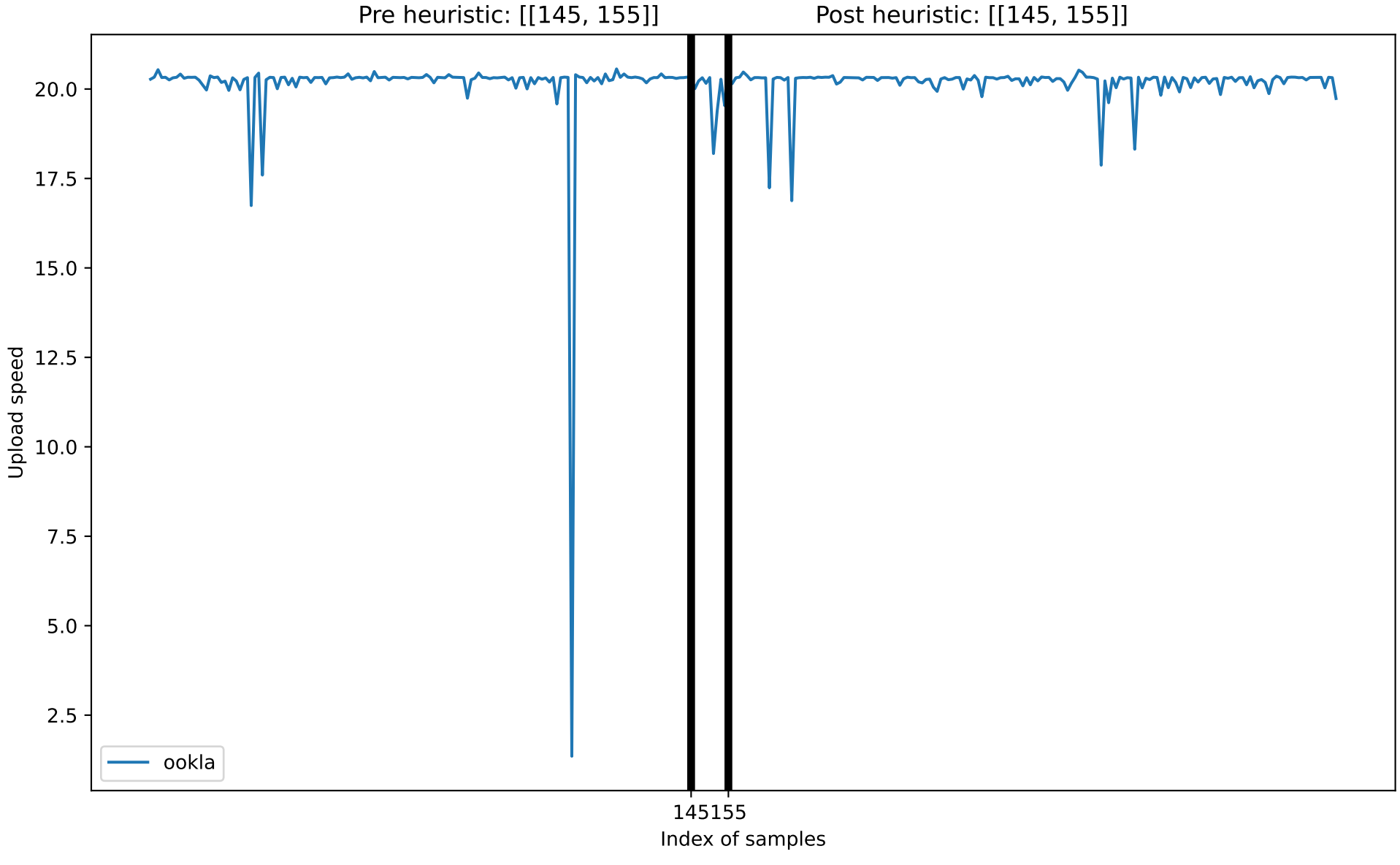
18
20
Index of samples


Pre heuristic: [[40, 160]]
Post heuristic: [[40, 160]]
ndt7
Upload speed
22
20
18
16
14
12
40
160
Index of samples


Pre heuristic: [[50, 125]]
Post heuristic: [[50, 125]]
Download speed
95
90
85
80
75
50
125
Index of samples
ndt7


Pre heuristic: [[145, 155]]
Post heuristic: [[145, 155]]
Upload speed
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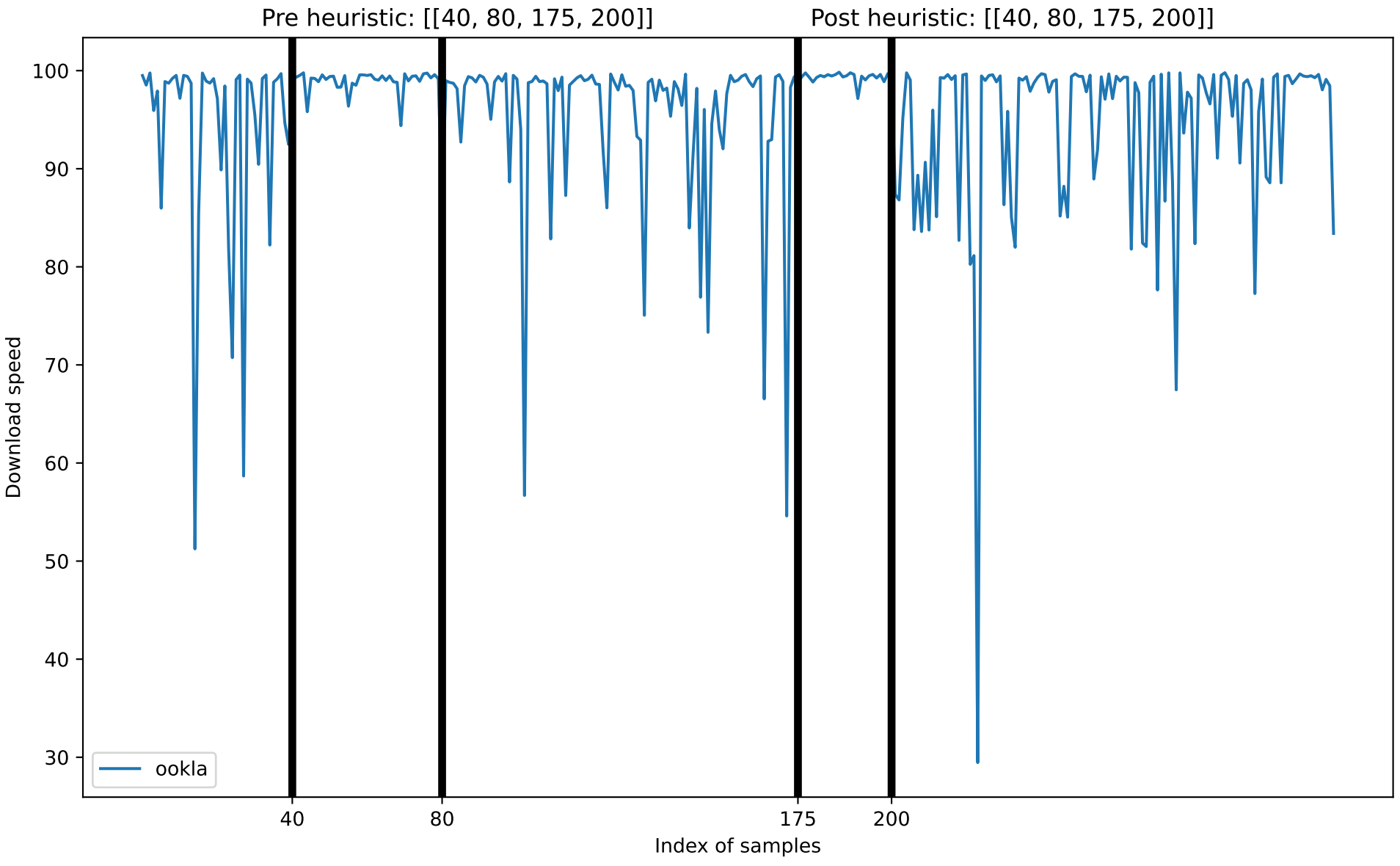
15.0
12.5
10.0
7.5
5.0
2.5
ookla
145155
Index of samples


Pre heuristic: [[40, 80, 175, 200]]
Post heuristic: [[40, 80, 175, 200]]
Download speed
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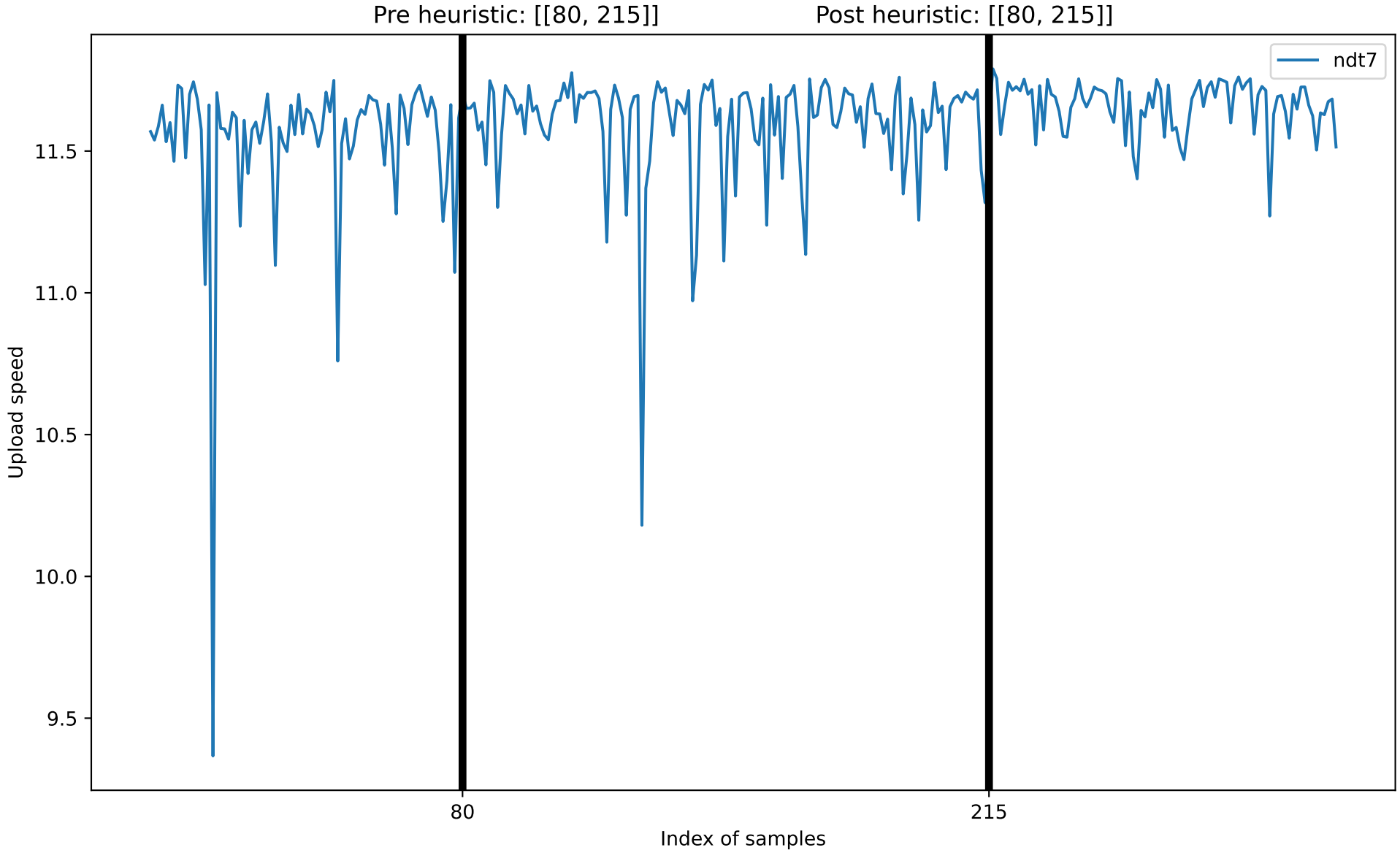
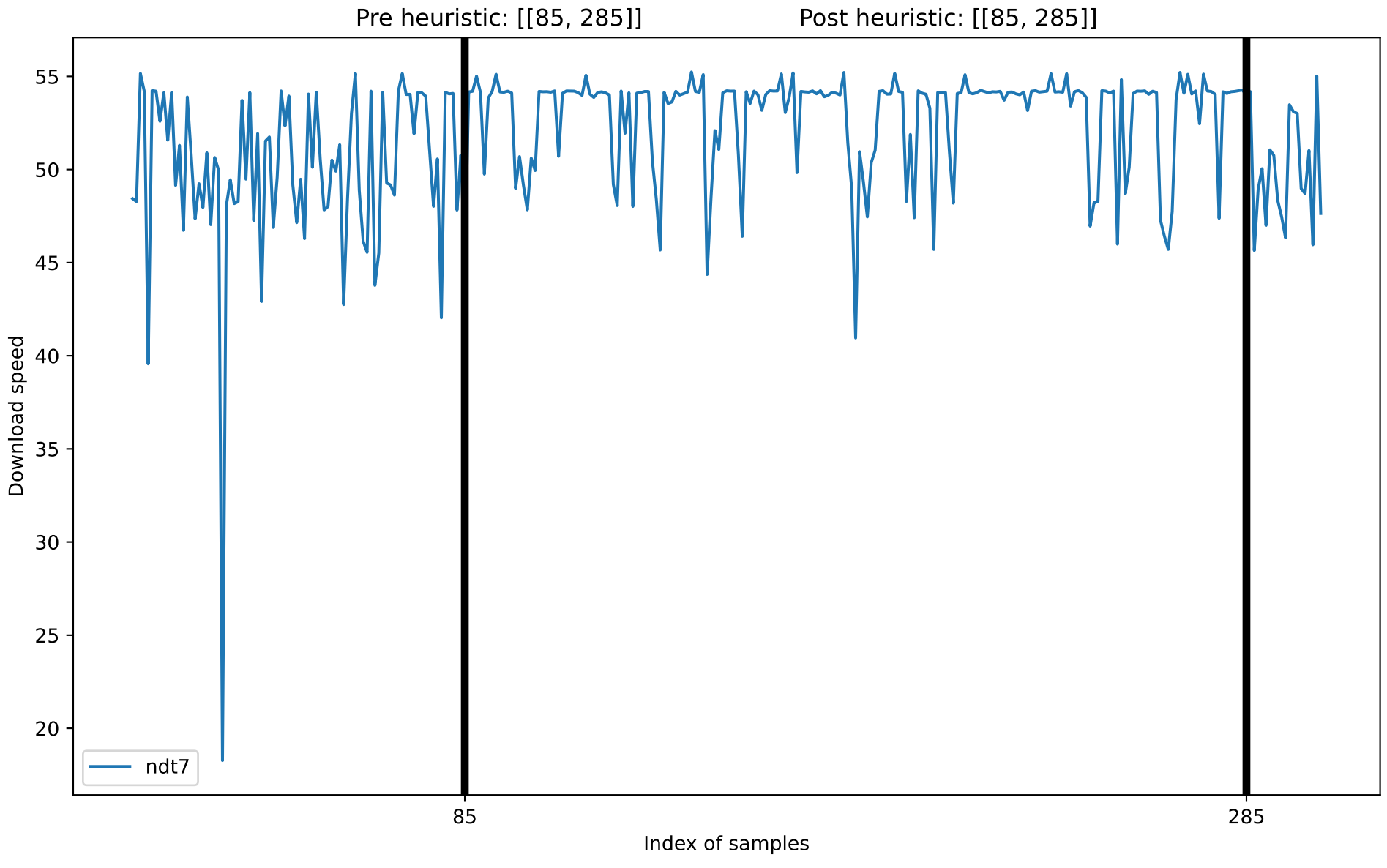
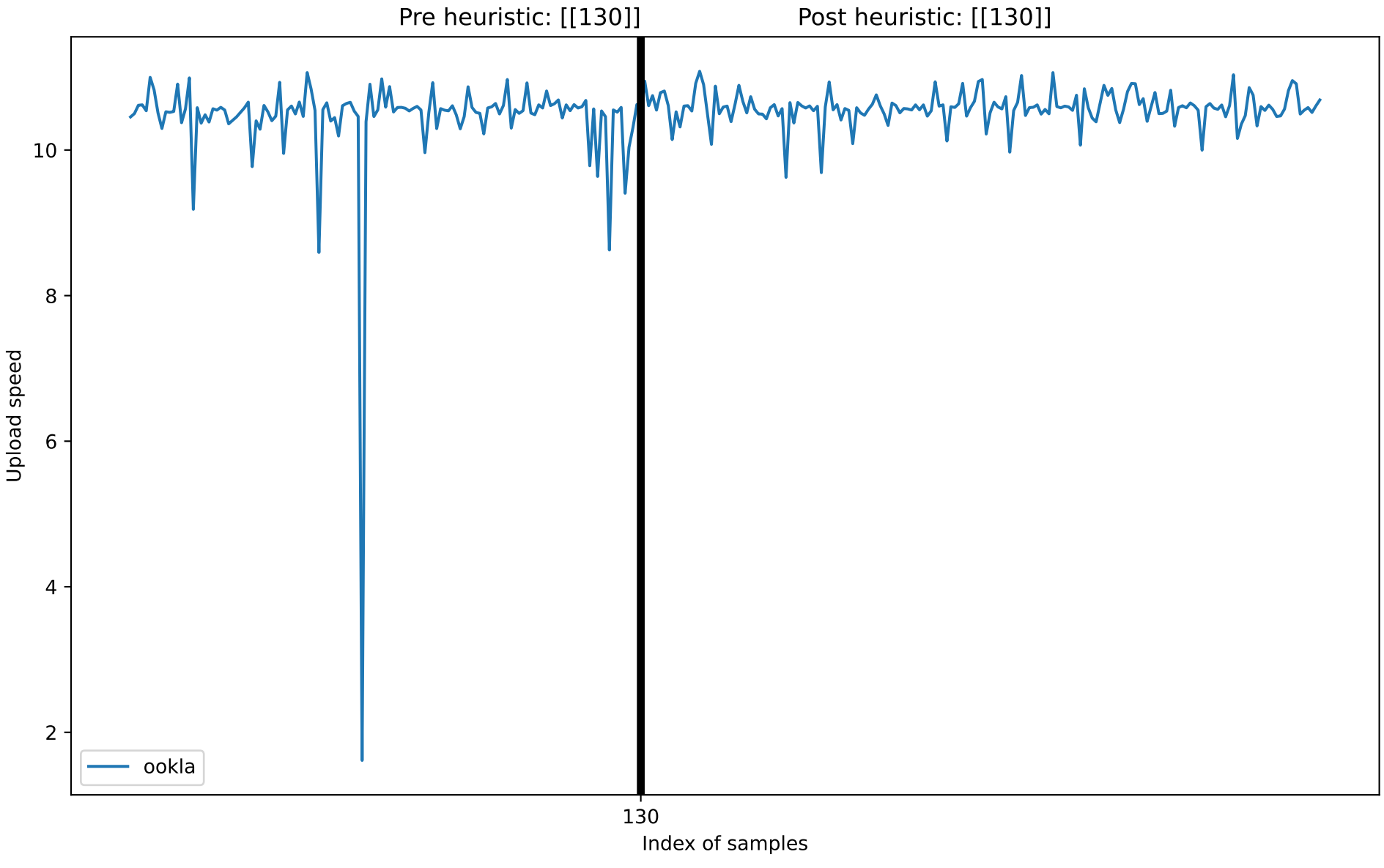
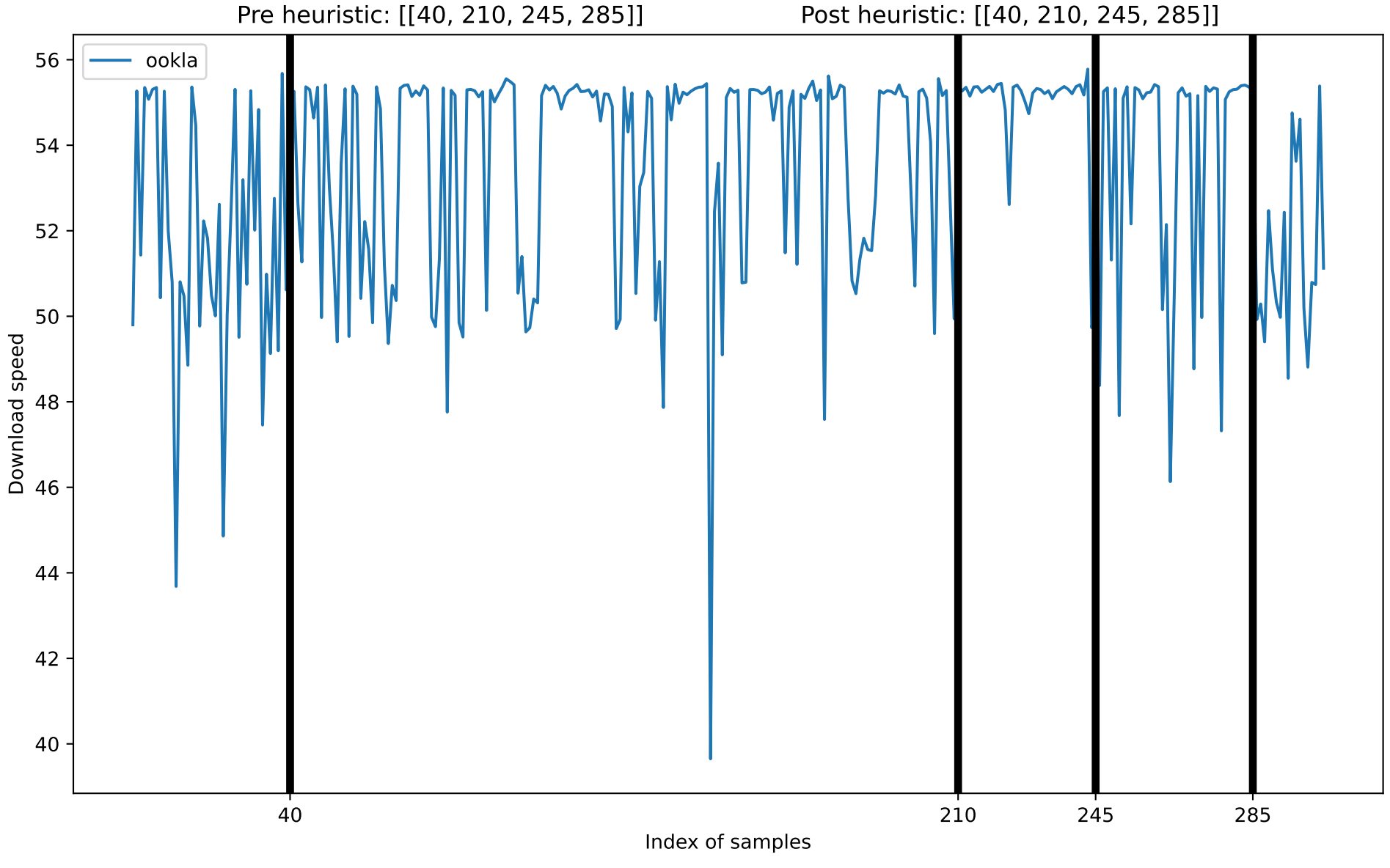
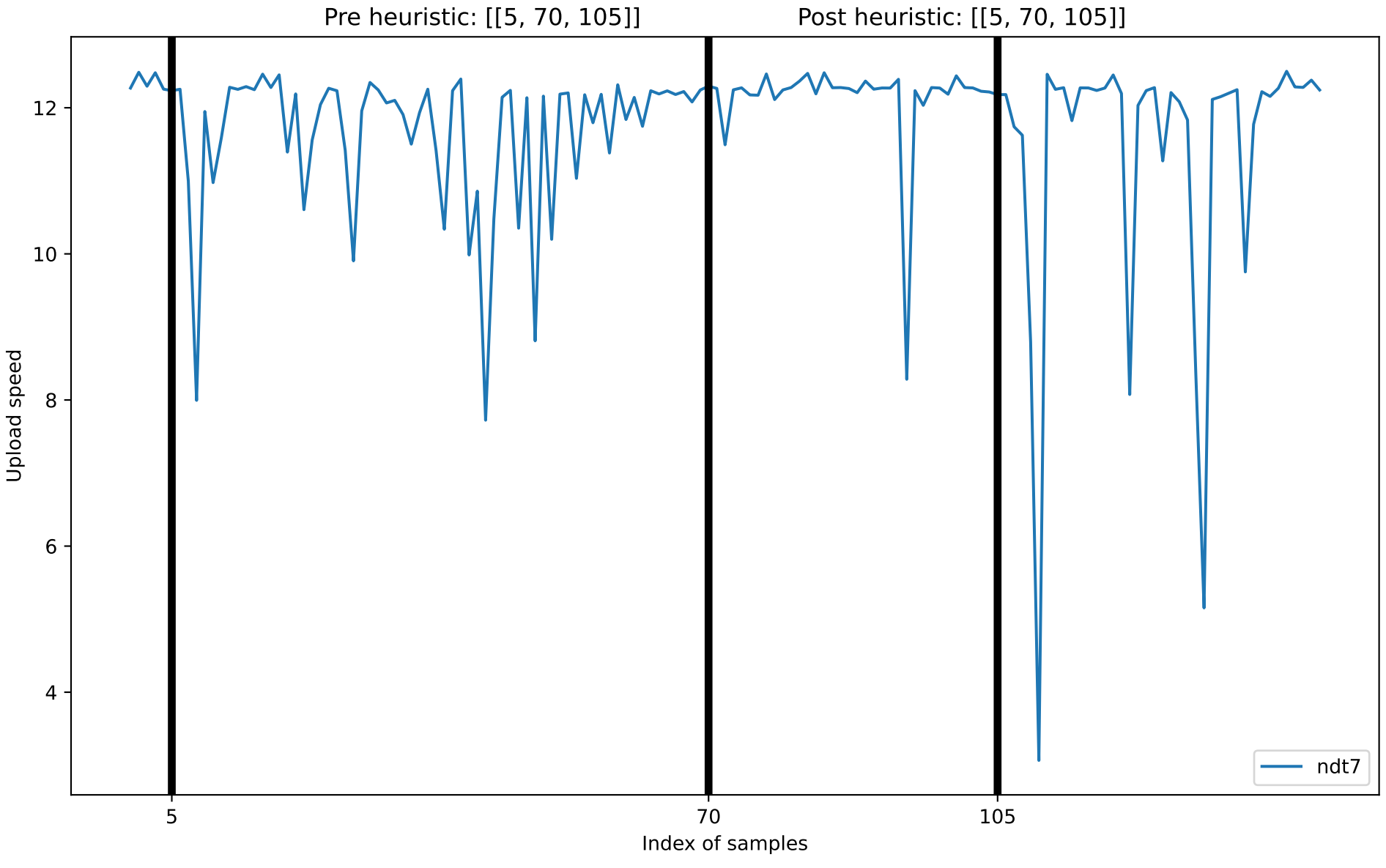
80
70
60
50
40
30
ookla
40
80
175
200
Index of samples

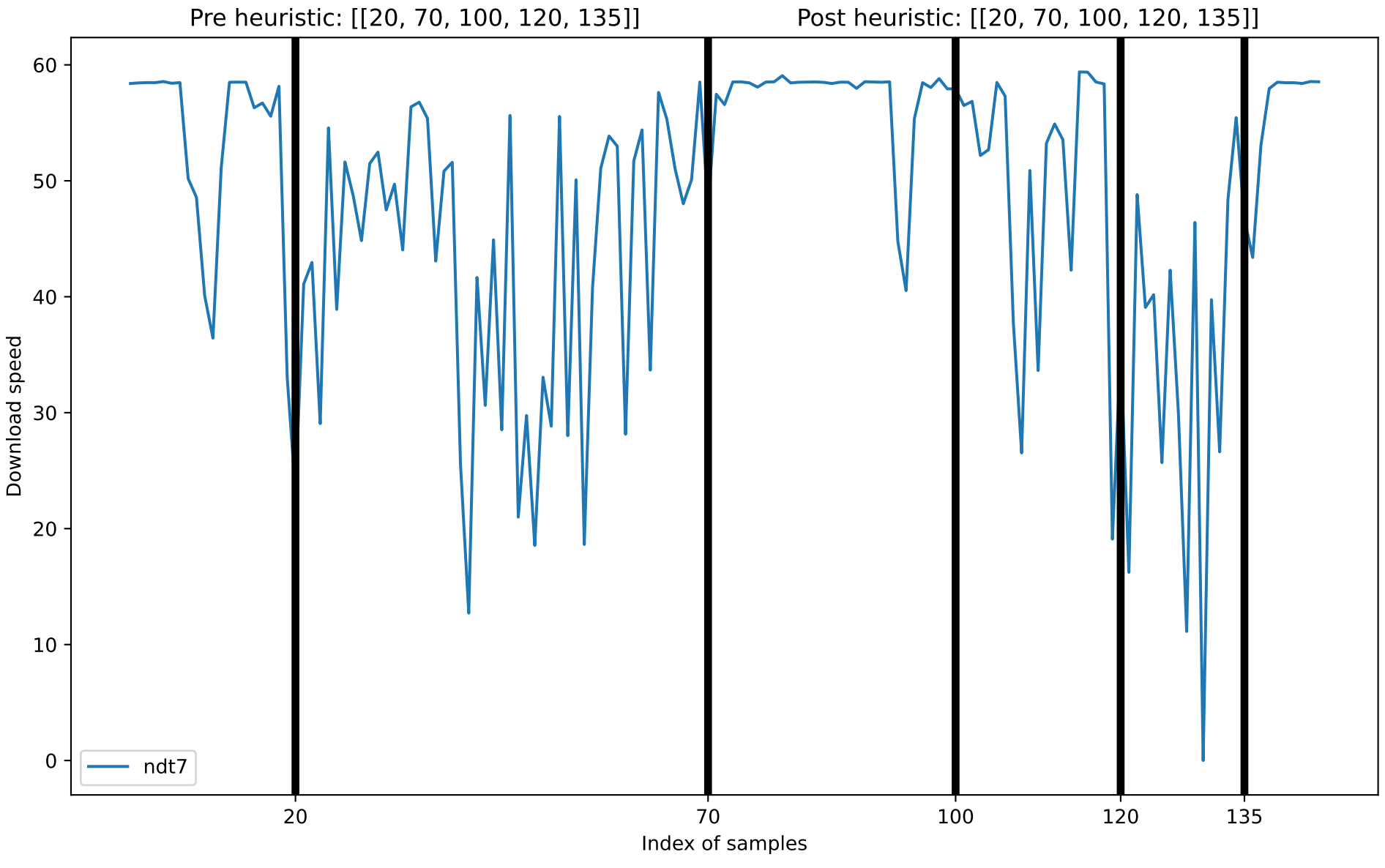

Pre heuristic: [[80, 215]]
Post heuristic: [[80, 215]]
ndt7
Upload speed
11.5
11.0
10.5
10.0
9.5
80
215
Index of samples

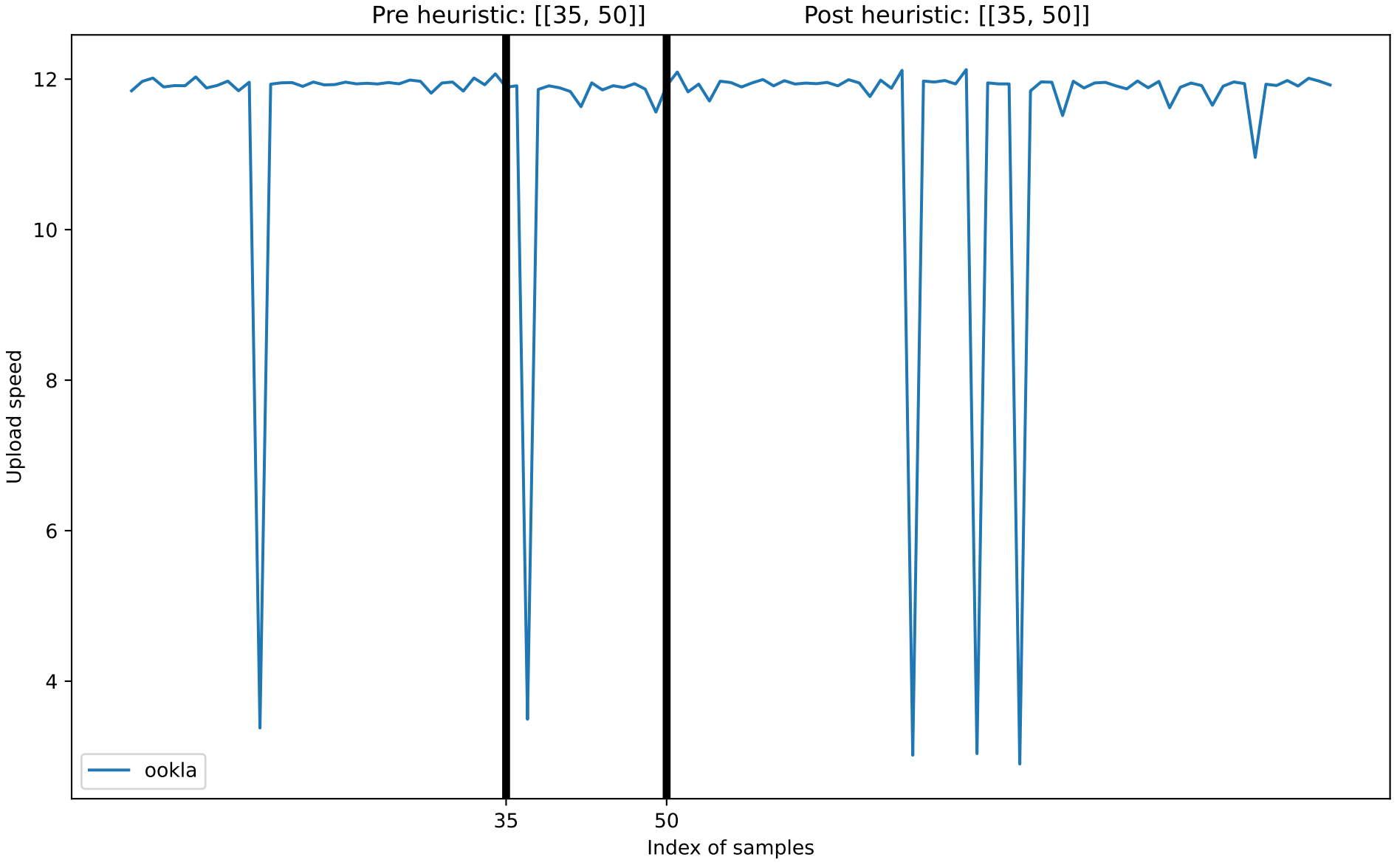

Pre heuristic: [[85, 285]]
Post heuristic: [[85, 285]]
Download speed
55
50
45
40
35
30
25
20
ndt7
85
285
Index of samples

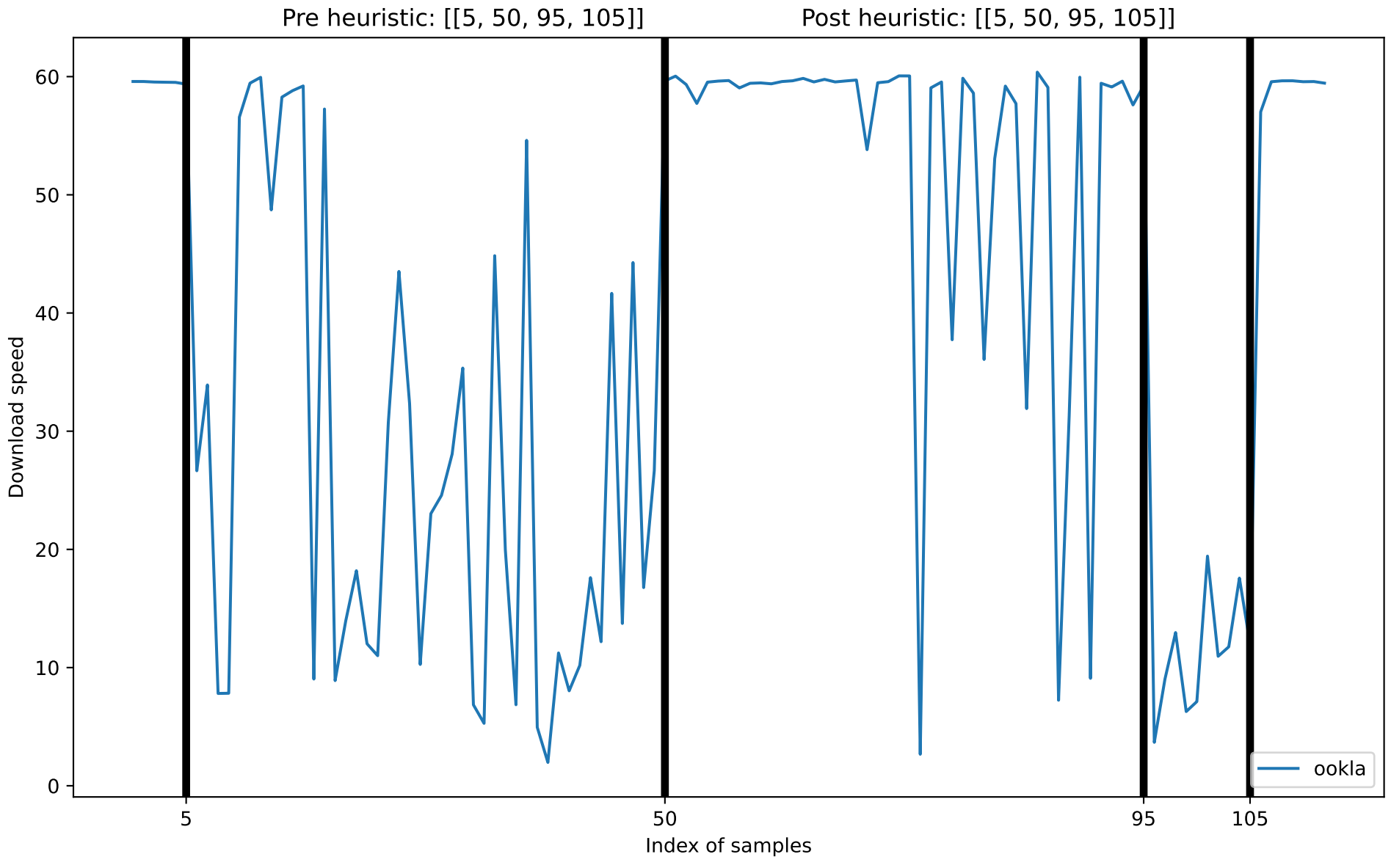

Pre heuristic: [[130]]
Post heuristic: [[130]]
Upload speed
10
8
6
4
2
ookla
130
Index of samples

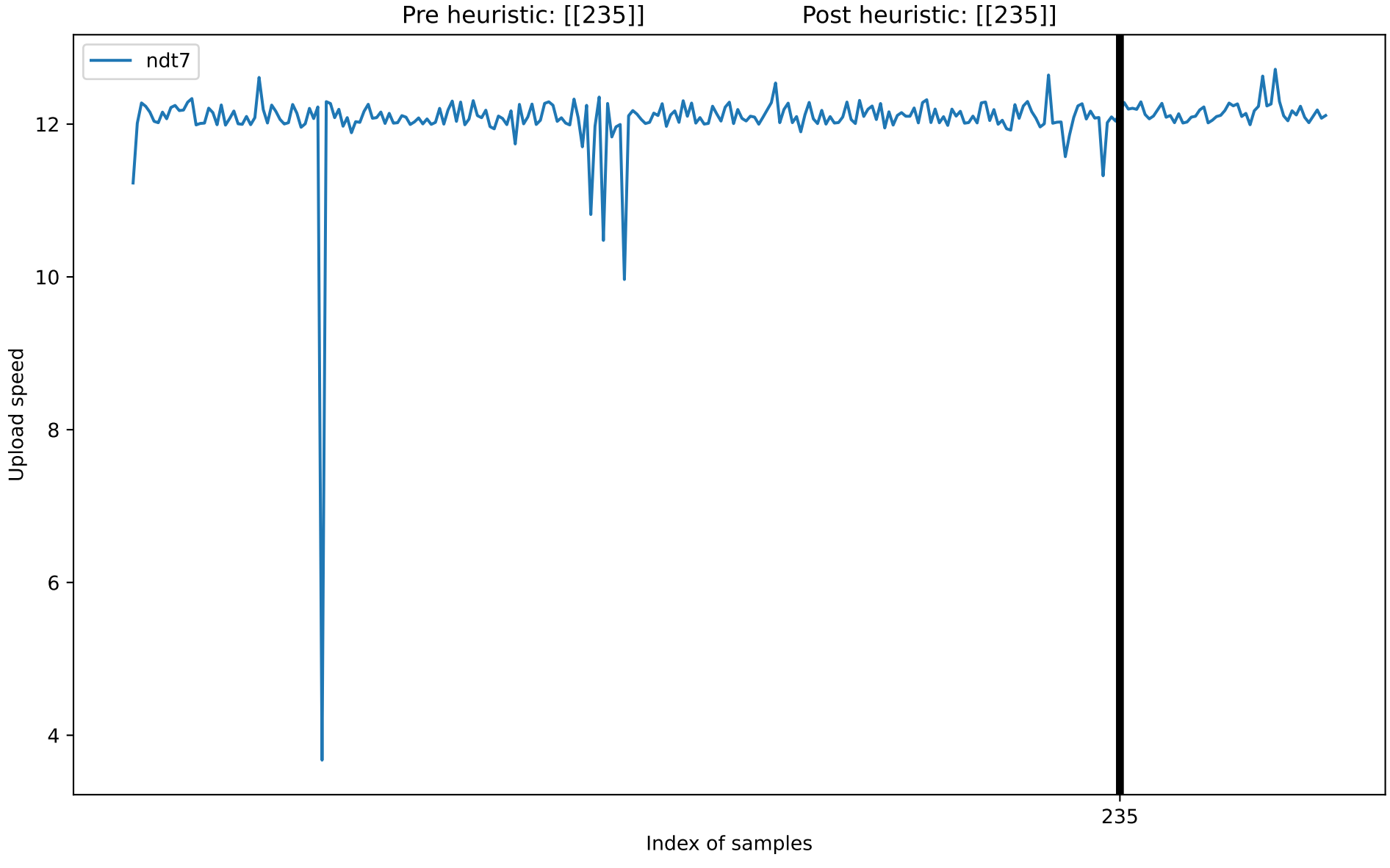

Pre heuristic: [[40, 210, 245, 285]]
Post heuristic: [[40, 210, 245, 285]]
ookla
Download speed
Index of samples
56
54
52
50
48
46
44
42
40
40
210
245
285

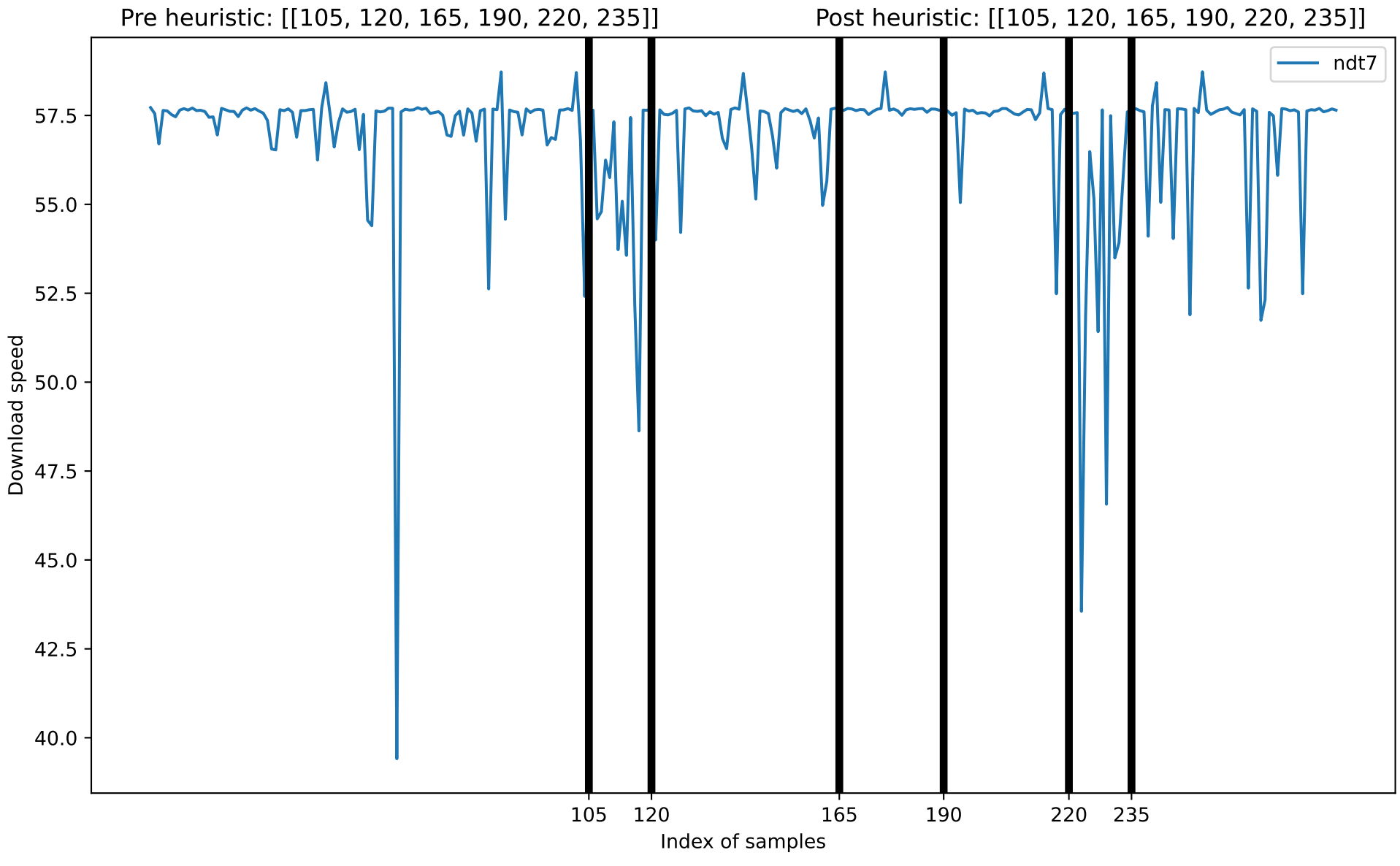

Pre heuristic: [[5, 70, 105]]
Post heuristic: [[5, 70, 105]]
Upload speed
12
10
8
6
4
5
70
105
Index of samples
ndt7

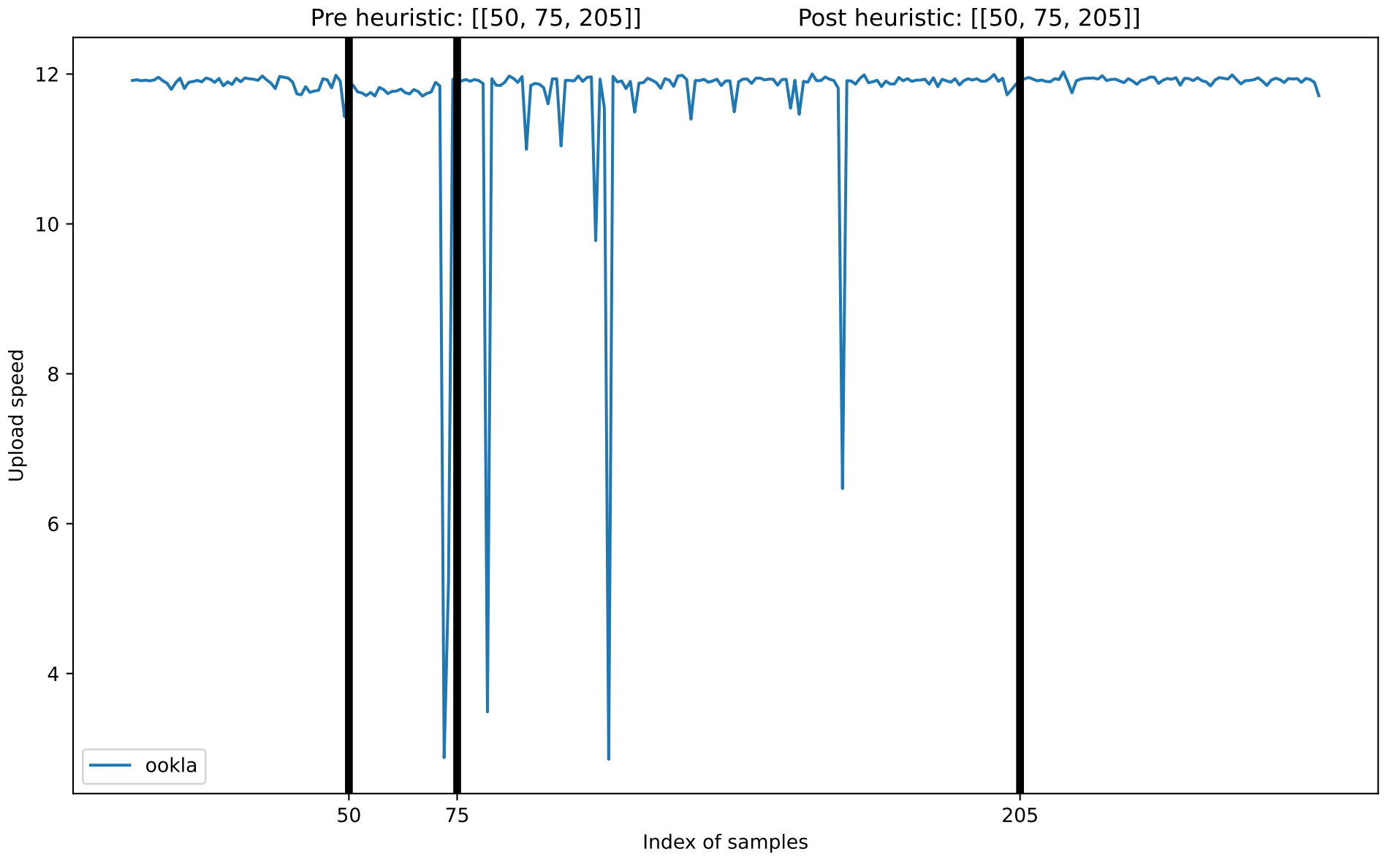

Pre heuristic: [[20, 70, 100, 120, 135]]
Post heuristic: [[20, 70, 100, 120, 135]]
Download speed
Index of samples
ndt7
0
10
20
30
40
50
60
20
70
100
120
135

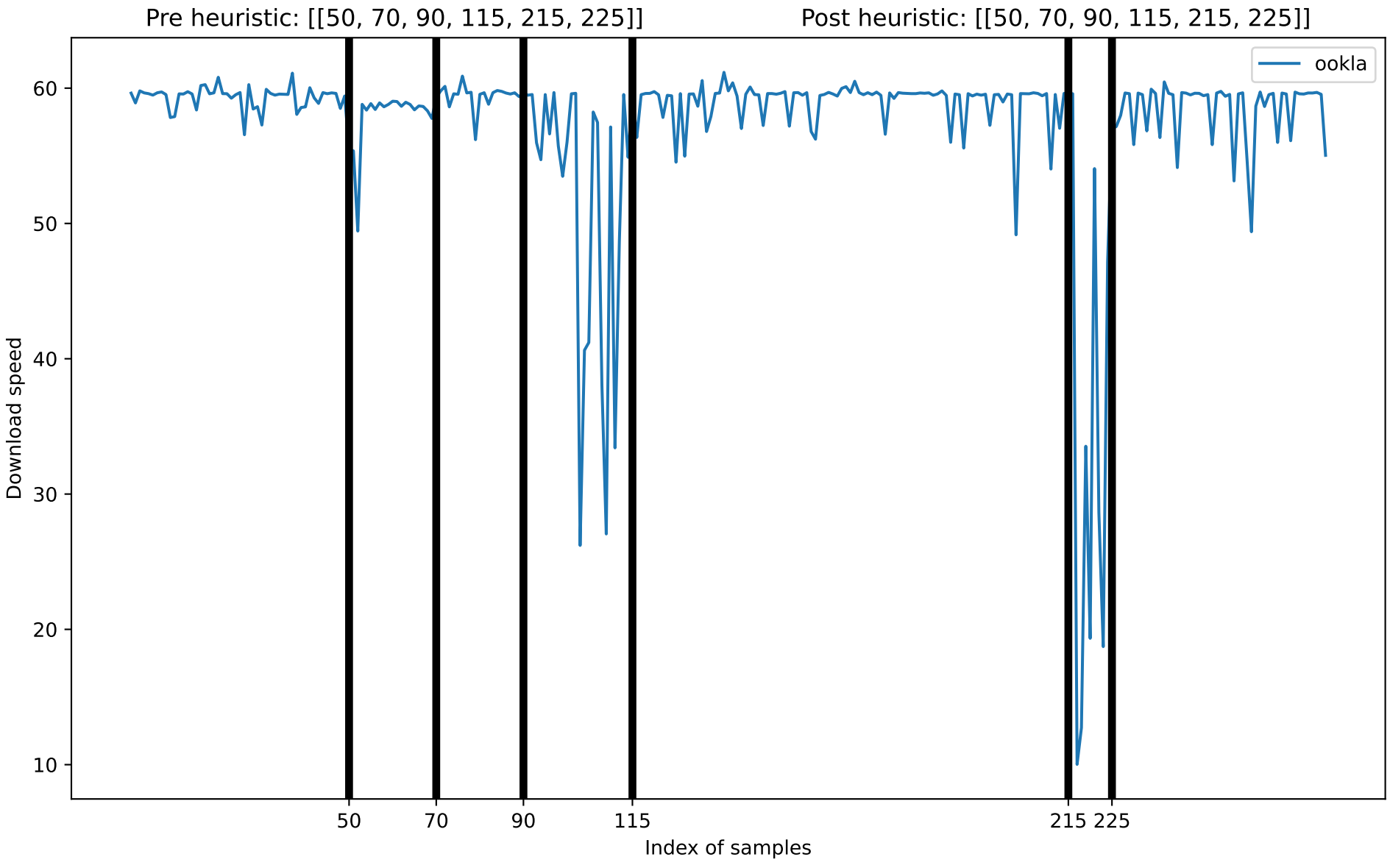

Pre heuristic: [[35, 50]]
Post heuristic: [[35, 50]]
Upload speed
12
10
8
6
4
ookla
35
50
Index of samples


Pre heuristic: [[5, 50, 95, 105]]
Post heuristic: [[5, 50, 95, 105]]
Download speed
0
10
20
30
40
50
60
5
50
95
105
Index of samples
ookla


Pre heuristic: [[235]]
Post heuristic: [[235]]
ndt7
Upload speed
12
10
8
6
4
235
Index of samples


Pre heuristic: [[105, 120, 165, 190, 220, 235]]
Post heuristic: [[105, 120, 165, 190, 220, 235]]
ndt7
Download speed
57.5
55.0
52.5
50.0
47.5
45.0
42.5
40.0
105
120
165
190
220
235
Index of samples


Pre heuristic: [[50, 75, 205]]
Post heuristic: [[50, 75, 205]]
Upload speed
12
10
8
6
4
ookla
50
75
205
Index of samples


Pre heuristic: [[50, 70, 90, 115, 215, 225]]
Post heuristic: [[50, 70, 90, 115, 215, 225]]
ookla
Download speed
60
50
40
30
20
10
50
70
90
115
215
225
Index of samples