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**CHALLENGE**  
SERIES

# **KEGEL** NAVIGATION PATTERNS





### **BROADWAY 4537**

This 37 foot pattern is named after the wide open street in Manhattan called BROADWAY, which ironically originates at a park called Bowling Green. BROADWAY was originally translated from the Dutch name of 'Breede weg' because of its location in New Amsterdam. Because of the medium short length of this pattern and light volume of conditioner towards the outside portion of the lane, players can arrive to the pocket on the BROADWAY from multiple directions.

#### **Latitude Ratio Coordinates**

22' 4.5 to 1

35' 3.5 to 1

#### **Longitude Ratio Coordinates**

Outside Taper 3.1 to 1

Inside Taper 2.5 to 1

#### **Pattern Distance**

37 Feet

#### **Pattern Volume**

Forward 11.00 mL

Reverse 12.25 mL

Total 23.25 mL

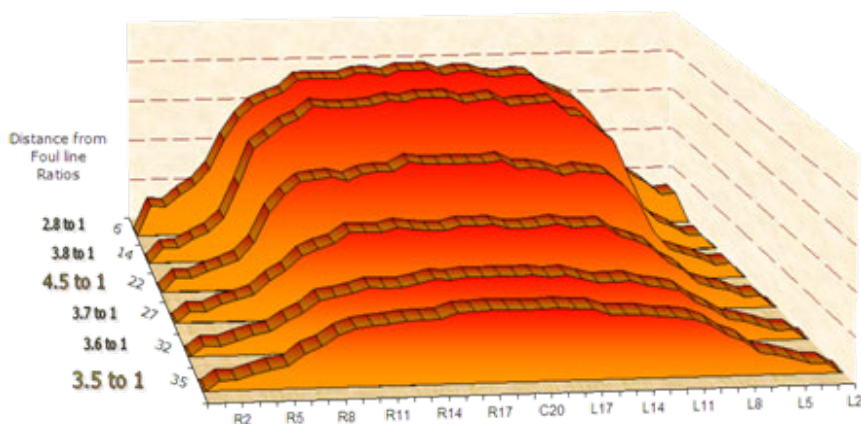


### BROADWAY 4537

#### Latitude Ratio Coordinates

22' 4.5 to 1

35' 3.5 to 1



The 2D chart on the left was generated by Lane Monitor showing select tapes and ratios at key distances throughout the pattern. USBC Sport Bowling ratios are calculated at 22' and 2' before the end of the pattern. All Latitude Ratio Coordinates are calculated from these two distances.

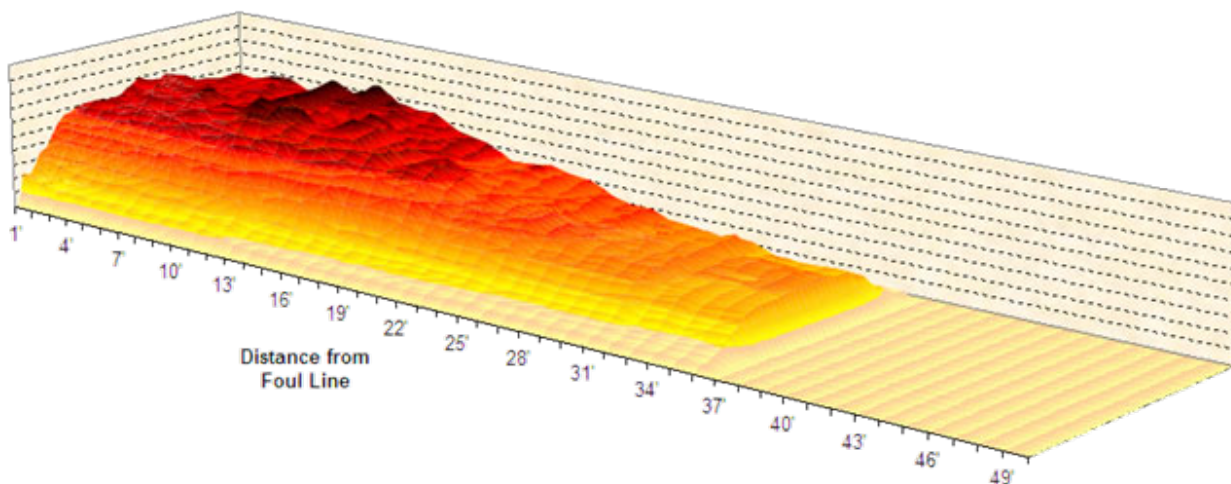
Latitude ratios in the last half of the pattern can be an indicator of the difficulty of a pattern. Generally, the lower the ratios down lane, the more difficult the pattern.

#### Longitude Ratio Coordinates

Outside Taper 3.1 to 1

Inside Taper 2.5 to 1

The 3D chart below was generated by taking tapes every foot of the pattern. This gives a visual of how the conditioner tapers off from the front to the end of the pattern.





# KEGEL NAVIGATION PATTERNS

## CHALLENGE SERIES



### BROADWAY 4537

#### Kegel Sanction Technology™ Lane Machine Settings

Oil per Board (Pump Setting): 50 µL

Pattern Distance: 37 feet

| Forward Settings                                       |                    |                     |                                      |                       |                                   |                                |                           |                      |                          |
|--|--------------------|---------------------|--------------------------------------|-----------------------|-----------------------------------|--------------------------------|---------------------------|----------------------|--------------------------|
| Screen #   | Left End of Stream | Right End of Stream | # Loads or Streams                   | Travel Speed (in/sec) | Beginning Distance of Load (feet) | Ending Distance of Load (feet) | # Boards Crossed per Load | Total Boards Crossed | Total Volume of Oil (µL) |
| 01F  | 4                  | 4                   | 1                                    | 14.00                 | 0.00                              | 0.00                           | 33                        | 33                   | 1650                     |
| 02F  | 5                  | 5                   | 1                                    | 14.00                 | 0.00                              | 1.90                           | 31                        | 31                   | 1550                     |
| 03F  | 7                  | 7                   | 2                                    | 14.00                 | 1.90                              | 5.80                           | 27                        | 54                   | 2700                     |
| 04F  | 9                  | 9                   | 2                                    | 14.00                 | 5.80                              | 9.70                           | 23                        | 46                   | 2300                     |
| 05F  | 11                 | 10                  | 2                                    | 18.00                 | 9.70                              | 14.80                          | 20                        | 40                   | 2000                     |
| 06F  | 13                 | 12                  | 1                                    | 18.00                 | 14.80                             | 17.30                          | 16                        | 16                   | 800                      |
| 07F  | 2                  | 2                   | 0                                    | 18.00                 | 17.30                             | 24.00                          |                           |                      |                          |
| 08F  | 2                  | 2                   | 0                                    | 22.00                 | 24.00                             | 31.00                          |                           |                      |                          |
| 09F  | 2                  | 2                   | 0                                    | 26.00                 | 31.00                             | 37.00                          |                           |                      |                          |
| Forward Buff Screens: 3                                |                    |                     | Forward # Boards Crossed   Volume mL |                       |                                   |                                |                           | 220                  | 11.00                    |
| Reverse Settings                                       |                    |                     |                                      |                       |                                   |                                |                           |                      |                          |
| Screen #   | Left End of Stream | Right End of Stream | # Loads or Streams                   | Travel Speed (in/sec) | Beginning Distance of Load (feet) | Ending Distance of Load (feet) | # Boards Crossed per Load | Total Boards Crossed | Total Volume of Oil (µL) |
| 01R  | 2                  | 2                   | 0                                    | 30.00                 |                                   | 31.00                          |                           |                      |                          |
| 02R  | 12                 | 11                  | 1                                    | 22.00                 | 31.00                             | 27.90                          | 18                        | 18                   | 900                      |
| 03R  | 10                 | 9                   | 1                                    | 18.00                 | 27.90                             | 25.40                          | 22                        | 22                   | 1100                     |
| 04R  | 8                  | 8                   | 3                                    | 18.00                 | 25.40                             | 17.80                          | 25                        | 75                   | 3750                     |
| 05R  | 7                  | 7                   | 1                                    | 14.00                 | 17.80                             | 15.90                          | 27                        | 27                   | 1350                     |
| 06R  | 6                  | 6                   | 1                                    | 14.00                 | 15.90                             | 14.00                          | 29                        | 29                   | 1450                     |
| 07R  | 2                  | 2                   | 2                                    | 14.00                 | 14.00                             | 10.10                          | 37                        | 74                   | 3700                     |
| 08R  | 2                  | 2                   | 0                                    | 14.00                 | 10.10                             | 0.00                           |                           |                      |                          |
| 09R  |                    |                     |                                      |                       |                                   |                                |                           |                      |                          |
| Reverse # Boards Crossed   Volume mL                   |                    |                     |                                      |                       |                                   |                                | 245                       | 12.25                |                          |
| <b>Forward plus Reverse Boards Crossed   Volume mL</b> |                    |                     |                                      |                       |                                   |                                | <b>465</b>                | <b>23.25</b>         |                          |





### BROADWAY 4537

The charts on this page are generated by Kegel's KOSI software from the lane machine program sheet.

The **OVERHEAD CHART** on the right shows where the conditioner is applied on both the forward and reverse screens. The gradient area is a calculation of how the conditioner might bleed off the buffer brush.

The **COMPOSITE GRAPH** below shows the total amount of conditioner applied to every board. A good way to think about this graph is to envision all the conditioner on the lane being pushed back to the foul line. Once all the conditioner is stacked up, this is what it would look like.



Forward Oil  
Reverse Oil  
Combined Oil  
Buff Area

