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**SPORT**  
SERIES

# **KEGEL** NAVIGATION PATTERNS





### HIGHWAY TO HELL 2340

This 40 foot pattern is the flattest of the group and therefore can be the most difficult. With an increased amount of conditioner outside, the HIGHWAY TO HELL is a low latitude ratio pattern with very little left to right shape to help guide the bowling ball towards the pocket. Each player will have to decide and make sense of their ball reaction to decide what is best for them to find their way down the HIGHWAY TO HELL!

#### **Latitude Ratio Coordinates**

22' 2.3 to 1  
38' 1.9 to 1

#### **Longitude Ratio Coordinates**

Outside Taper 4.0 to 1  
Inside Taper 3.5 to 1

#### **Pattern Distance**

40 Feet

#### **Pattern Volume**

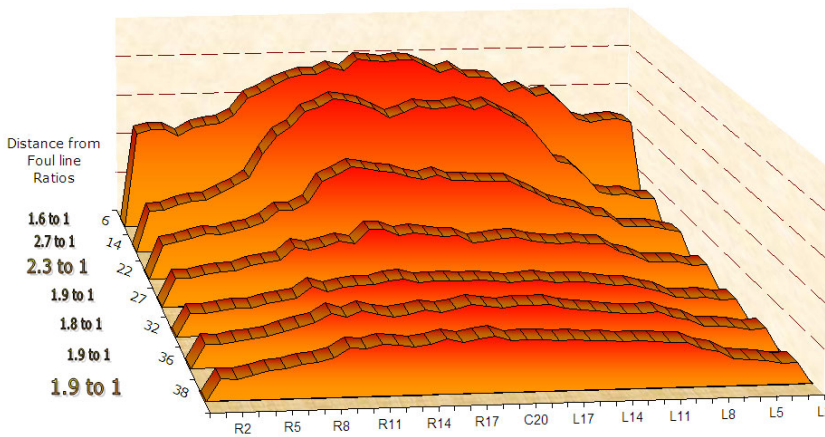
Forward 10.75 mL  
Reverse 14.55 mL  
Total 25.30 mL



### HIGHWAY TO HELL 2340

#### Latitude Ratio Coordinates

22' 2.3 to 1  
38' 1.9 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.

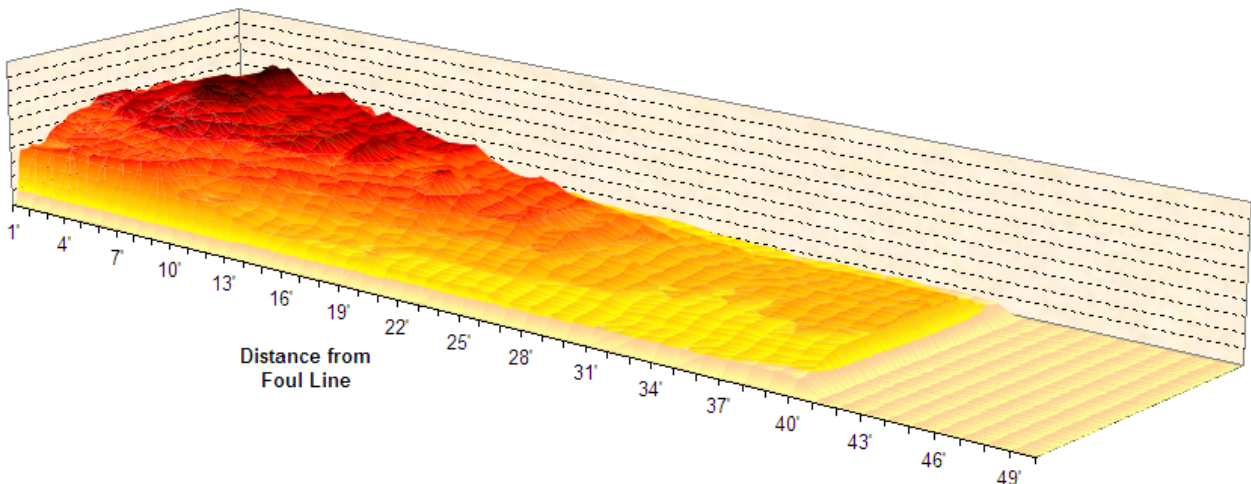
Latitude ratios in the last half of the pattern can be an indicator of the difficulty of a pattern. Generally, the lower the ratios down lane, the more difficult the pattern.

#### Longitude Ratio Coordinates

Outside Taper 4.0 to 1

Inside Taper 3.5 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.





### HIGHWAY TO HELL 2340

#### Kegel Sanction Technology™ Lane Machine Settings

Oil per Board (Pump Setting): 50 µL

Pattern Distance: 40 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	2	2	4	14.00	0.00	5.90	37	148	7400	
02F	7	7	1	14.00	5.90	7.80	27	27	1350	
03F	9	9	1	14.00	7.80	9.70	23	23	1150	
04F	12	12	1	18.00	9.70	12.20	17	17	850	
05F	2	2	0	18.00	12.20	26.00				
06F	2	2	0	26.00	26.00	40.00				
07F										
08F										
09F										
Forward Buff Screens: 2			Forward # Boards Crossed   Volume mL					215	10.75	
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		30.00				
02R	14	14	1	18.00	30.00	27.50	13	13	650	
03R	12	12	2	18.00	27.50	22.40	17	34	1700	
04R	10	10	2	14.00	22.40	18.50	21	42	2100	
05R	8	8	1	14.00	18.50	16.60	25	25	1250	
06R	6	6	1	14.00	16.60	14.70	29	29	1450	
07R	2	2	2	14.00	14.70	10.80	37	74	3700	
08R	2	2	2	10.00	10.80	8.00	37	74	3700	
09R	2	2	0	10.00	8.00	0.00				
Reverse # Boards Crossed   Volume mL								291	14.55	
<b>Forward plus Reverse Boards Crossed   Volume mL</b>								<b>506</b>	<b>25.30</b>	





### HIGHWAY TO HELL 2340

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

