



IV Commonwealth Tenpin Bowling Championships
22–30 November 2008
Dundonald International Ice Bowl, Belfast



Technical Information and Oil Patterns

Dundonald International Ice Bowl has 30 lanes split into two areas, twenty lanes in the main area with a further ten lanes on a higher level. There are different lane surfaces on the two sets of lanes so only the twenty lanes in the main area will be used for the Championships.

The lanes are originally wood. These have had the head section (11 feet, 3.35m) replaced with MDF then the full lane length over-laid with AMF HPL synthetic lane approximately 6 years ago. The approaches remain wood.

Pin decks are synthetic, edge boards and flat gutters are HDPE plastic, kickback panels are fibre.

Pinspotters are AMF 82-70mp with PBL Ball Lifts.

Lane dressing equipment will be brought in for the tournament.

Equipment Summary:

Lane Surface:	AMF HPL Overlay
Approaches:	Wood
Pinspotters:	AMF 82-70mp
Pins:	QubicaAMF Amflite II Glow 3/8-3/9 Batch April 2008
Lane Dressing:	Kegel Kustodian Walker (Sanction Technology)
Lane Conditioner:	Kegel Offense-HV
Lane Cleaner:	Kegel Defense-C

Lane equipment and chemicals supplied by Kegel and Bowltech UK Ltd.

Two patterns will be used for the event, one long one short. These have been selected from the Kegel Navigation series. Booklets containing details of the patterns are attached. The patterns may be subject to minor adjustment during practice to suit playing environment.

Long Pattern 45 Feet

ROUTE 66 (4345)



Short Pattern 35 Feet

BOARDWALK (2435)





CHALLENGE
SERIES

KEGEL NAVIGATION PATTERNS





ROUTE 66 4345

As one the longest roads in America, so is this pattern in the series. At 45 feet in length, and as with most long oil patterns, the optimum line is usually one that is closer to the pocket or more towards the inside portion of the lane. The greatest slope of conditioner on the ROUTE 66 is from the 11th board to the 16th board so players should target along this route. Outside of that slope, the pattern is flat so there will be very little room for error. 🎵 If you get hip to this tip, take that bowling center trip to get your kicks on ROUTE 66! 🎵

Latitude Ratio Coordinates

22' 4.3 to 1

43' 2.6 to 1

Longitude Ratio Coordinates

Outside Taper 3.4 to 1

Inside Taper 3.2 to 1

Pattern Distance

45 Feet

Pattern Volume

Forward 10.30 mL

Reverse 13.00 mL

Total 23.30 mL

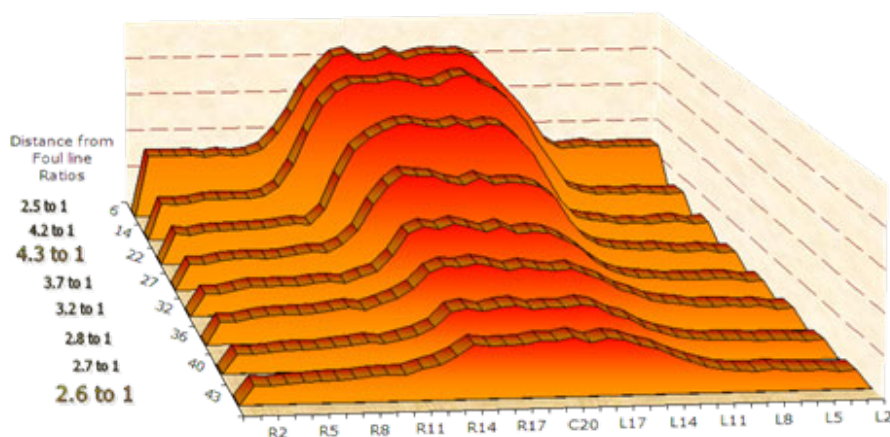


ROUTE 66 4345

Latitude Ratio Coordinates

22' 4.3 to 1

43' 2.6 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.

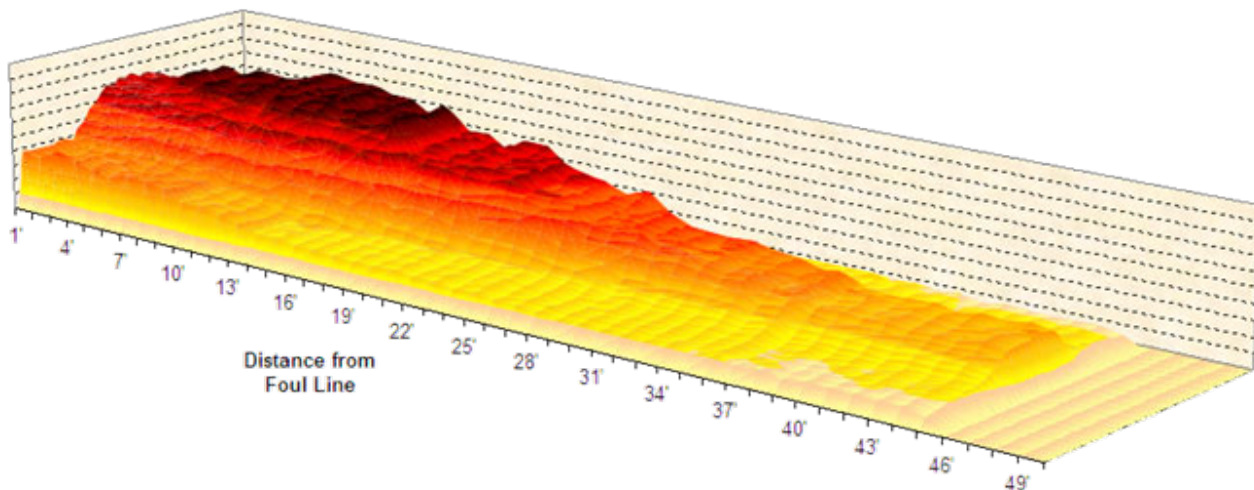
Latitude ratios in the last half of the pattern can be an indicator of the difficulty of a pattern. Generally, the lower the ratios down lane, the more difficult the pattern.

Longitude Ratio Coordinates

Outside Taper 3.4 to 1

Inside Taper 3.2 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



ROUTE 66 4345

Kegel Sanction Technology™ Lane Machine Settings

Oil per Board (Pump Setting): 50 µL

Pattern Distance: 45 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	3	14.00	0.00	3.90	37	111	5550	
02F	12	12	1	14.00	3.90	5.80	17	17	850	
03F	13	13	2	18.00	5.80	10.90	15	30	1500	
04F	14	14	2	18.00	10.90	16.00	13	26	1300	
05F	15	15	2	18.00	16.00	21.10	11	22	1100	
06F	2	2	0	18.00	21.10	26.00				
07F	2	2	0	26.00	26.00	36.00				
08F	2	2	0	30.00	36.00	45.00				
09F										
Forward Buff Screens: 3			Forward # Boards Crossed Volume mL					206	10.30	
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		36.00				
02R	14	14	2	22.00	36.00	29.80	13	26	1300	
03R	13	13	2	18.00	29.80	24.70	15	30	1500	
04R	12	12	2	18.00	24.70	19.60	17	34	1700	
05R	11	11	2	14.00	19.60	15.70	19	38	1900	
06R	10	10	1	14.00	15.70	13.80	21	21	1050	
07R	2	2	3	14.00	13.80	7.90	37	111	5550	
08R	2	2	0	14.00	7.90	0.00				
09R										
Reverse # Boards Crossed Volume mL								260	13.00	
Forward plus Reverse Boards Crossed Volume mL								466	23.30	





KEGEL NAVIGATION PATTERNS

CHALLENGE SERIES



ROUTE 66 4345

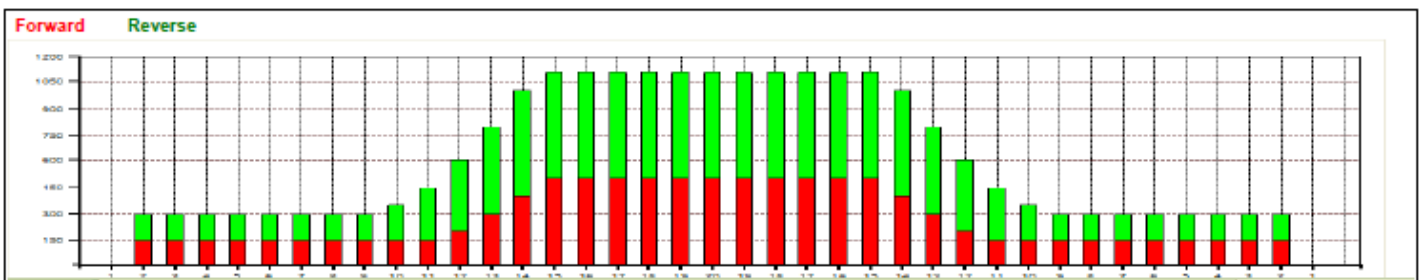
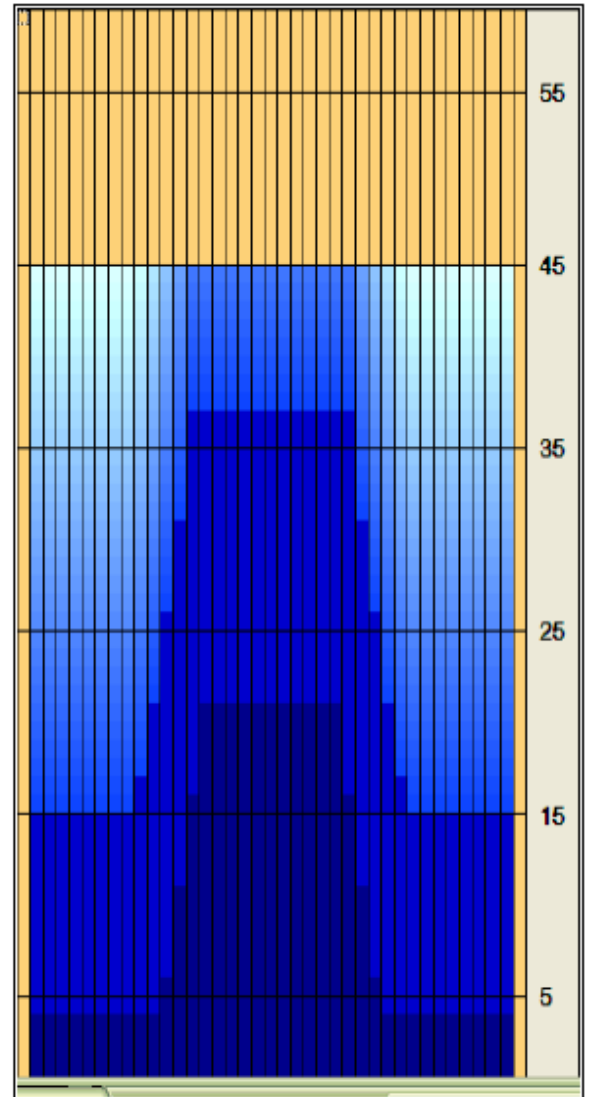
The charts on this page are generated by Kegel's KOSI software from the lane machine program sheet.

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





SPORT
SERIES

KEGEL NAVIGATION PATTERNS





BOARDWALK 2435

Based upon the 2000 PBA Indianapolis Open pattern which was created by Kegel, this pattern is designed to play towards the edge board. Because of the relatively short 35 foot length of the BOARDWALK, players will need to control the excessive change of direction of the bowling ball as it enters the 25 feet of dry backend. Since lanes do have many topographical differences, on some lanes the BOARDWALK will require a more direct route to the pocket while other lane characteristics may allow players to swing the ball to the edge board. Like all wooden walkways, this pattern can provide great excitement but stray too far off the BOARDWALK and you'll find yourself in the moat!

Latitude Ratio Coordinates

22' 2.4 to 1

33' 2.1 to 1

Longitude Ratio Coordinates

Outside Taper 2.5 to 1

Inside Taper 2.3 to 1

Pattern Distance

35 Feet

Pattern Volume

Forward 10.55 mL

Reverse 13.35 mL

Total 23.90 mL

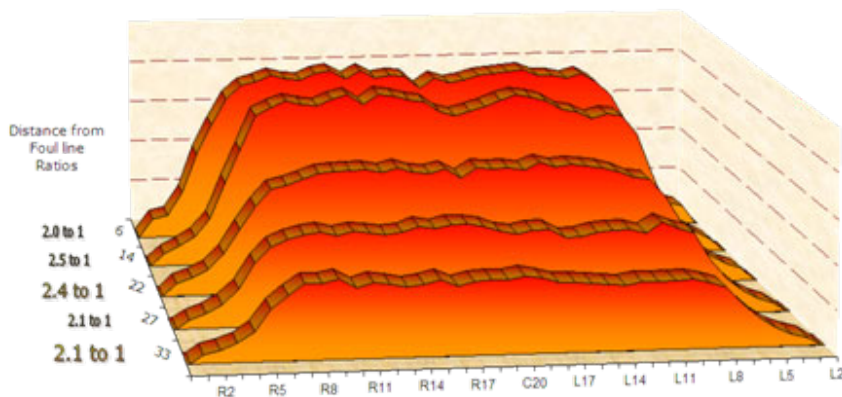


BOARDWALK 2435

Latitude Ratio Coordinates

22' 2.4 to 1

33' 2.1 to 1



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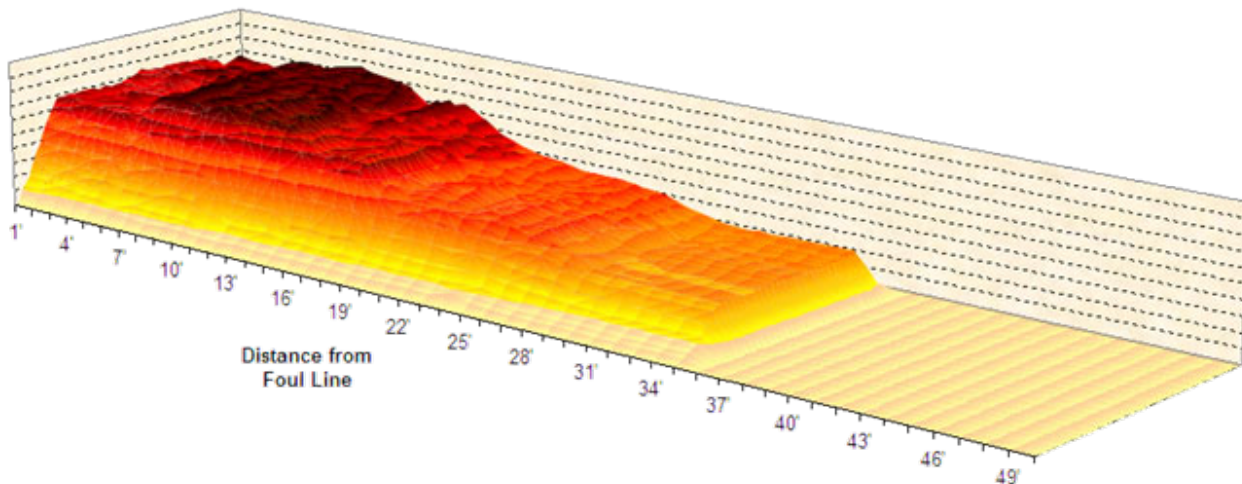
Latitude ratios in the last half of the pattern can be an indicator of the difficulty of a pattern. Generally, the lower the ratios down lane, the more difficult the pattern.

Longitude Ratio Coordinates

Outside Taper 2.5 to 1

Inside Taper 2.3 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.





BOARDWALK 2435

Kegel Sanction Technology™ Lane Machine Settings

Oil per Board (Pump Setting): 50 µL

Pattern Distance: 35 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	1	14.00	0.00	0.00	37	37	1850	
02F	5	5	2	14.00	0.00	3.90	31	62	3100	
03F	6	6	2	18.00	3.90	9.00	29	58	2900	
04F	7	7	2	18.00	9.00	14.10	27	54	2700	
05F	2	2	0	22.00	14.10	26.00				
06F	2	2	0	26.00	26.00	35.00				
07F										
08F										
09F										
Forward Buff Screens: 2			Forward # Boards Crossed Volume mL					211	10.55	
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		28.00				
02R	8	8	1	18.00	28.00	25.50	25	25	1250	
03R	7	7	2	18.00	25.50	20.40	27	54	2700	
04R	6	6	2	14.00	20.40	16.50	29	58	2900	
05R	5	5	2	14.00	16.50	12.60	31	62	3100	
06R	4	4	1	14.00	12.60	10.70	33	33	1650	
07R	3	3	1	14.00	10.70	8.80	35	35	1750	
08R	2	2	0	14.00	8.80	0.00				
09R										
Reverse # Boards Crossed Volume mL								267	13.35	
Forward plus Reverse Boards Crossed Volume mL								478	23.90	





BOARDWALK 2435

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Combined Oil
Buff Area

