Kegel LaneMap Guide

USBC Open Championships OnCenter Convention Center – Syracuse, NY - March 1, 2018



Introduction

Kegel is pleased to provide you with this revolutionary LaneMap™ Guide. This guide is an assessment of the **gravitational forces on each board** of each lane in this bowling center. It will assist you in knowing how much and where gravitational forces come into the play on each lane as the bowling ball travels from foul line to head pin.

Understanding the Data

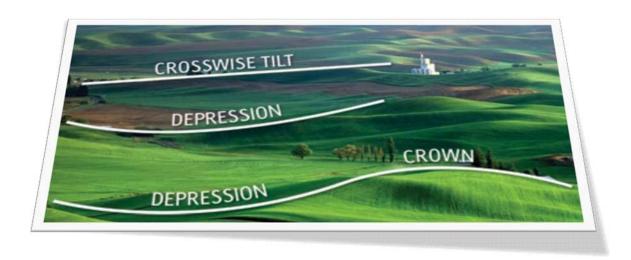
This guide is designed to compare each pair of lanes in the bowling center. The data presented is:

LaneMap™ Graph - A colored gravitational slope graph of each lane

The Kegel LaneMapper™ is a state of the art device that can efficiently and accurately log digital recordings of surface topography. Designed by Kegel specifically for bowling lanes, the LaneMapper™ reads and records both length and crosswise levels while simultaneously logging crowns and depressions of all 39 boards at any distance on the lane to an accuracy of .0001 inch. The LaneMap Guide was derived from this tool and information.

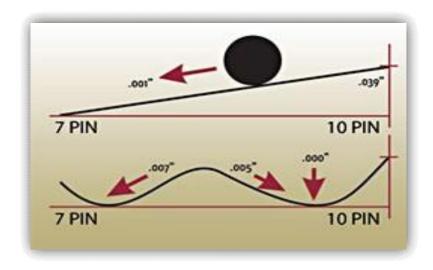


Topography is defined as the graphical representation of surface features indicating relative positions and elevations. It's a known fact that changes in topography adversely affect the ball path and ball motion (rate of energy depletion). When topographical features are randomly different on a bowling lane, so is ball motion.



Another variable is **Slope per Board™**. Each board has a specific slope, calculated from the crosswise tilt, crowns, and depressions. The degree of this slope has a proportional effect on the ball path and can also influence the rate of energy depletion of the bowling ball. I.e. deplete energy sooner or later.

For example, a board with a 2/1000" slope will affect the ball twice as much as a board with a 1/1000" slope. Bowlers throw balls on different boards and **each ball is only affected by the slope of the board it's on.** The other slopes don't matter to that ball because quite simply, it's not on them.



Kegel LaneMap™ Graph

The revolutionary Kegel LaneMap™ graph shows the slope per board and is the gravitational influence on the "canvas" (lane) prior to the application of "paint" (lane conditioner). Gravity and friction are separate forces on a bowling ball but gravity problems cannot be fixed with friction solutions.

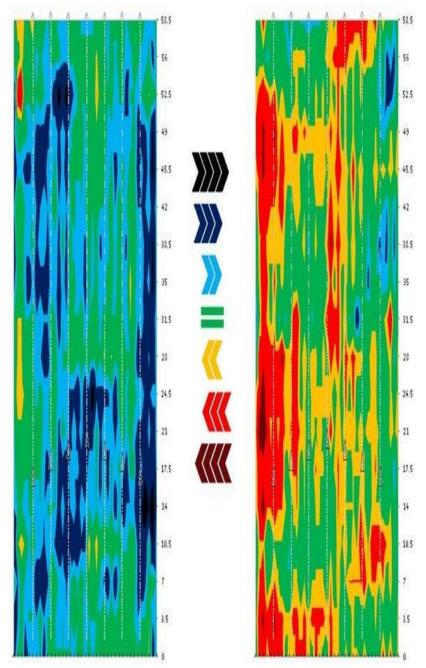
Since the lanes are generally oiled identically, differences between lanes in ball reaction will be a function of differences in gravitational forces "under" the conditioner. In order for two lanes to play the same, they must not only be oiled the same, but they also must have similar gravitational influences in

comparable places.

The black and dark blue areas on the LaneMap™ graph are very strong gravitational influences to the right while light blue areas are less, but still substantial influences to the right.

The maroon and red areas are very strong gravity influences to the left, while orange areas are less but still substantial influences to the left.

Green represents areas of very little gravity influence. The bottom of the graph is the foul line and the top of the graph is right before the pins.



Bowling Center Lane Details

W Number of lanes: 48

¥ Lane Surface: Brunswick Pro Lane

¥ Lane Surface Underlayment: Brunswick 42" levelers

¥ Head area replaced: N/A

¥ Approaches: Synthetic Brunswick Pro Lane

Pin Decks: BrunswickPinsetters: Brunswick GS

▼ Score System: Sync

2018 USBC Open Championships Lane 2 Lane 1 -525 525 28 b 48 588 RERE 92 h 8, 99 45.5 45.5 9k2.98 -42 -42 2,64.5FE -38.5 38.5 1+500 - 35 -35 31.5 31.5 - 28 -24.5 24.5 21 -21 17.5 17.5 -10.5 - 10.5 7.1 7.1 3.6

2018 USBC Open Championships Lane 4 Lane 3 **^ ^ ^ ^** 59.5 -525 -525 28 b 47 578 RERE 92 h 9, 329 -45.5 45.5 962.98 42 -42 2,64,599 38.5 - 38.5 1+500 -35 - 35 31.5 31.5 - 28 28 -24.5 -24.5 - 21 - 21 - 17.5 17.5 -14 -10.5 -10.5 7.1 7.1 3.6

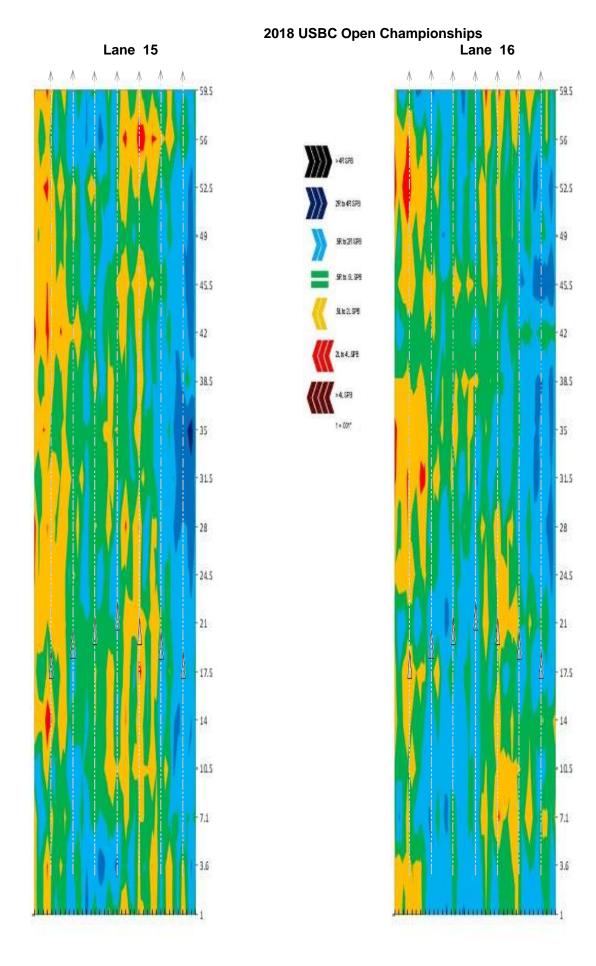
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2018 USBC Open Championships Lane 8 Lane 7 -525 -525 28 b 48 588 49 RERE 92 h 8, 99 45.5 45.5 962.98 42 -42 2114.FF 38.5 38.5 1+500 - 35 31.5 -31.5 - 28 -24.5 -21 17.5 17.5 -14 -10.5 -10.5 7.1 7.1 3.6

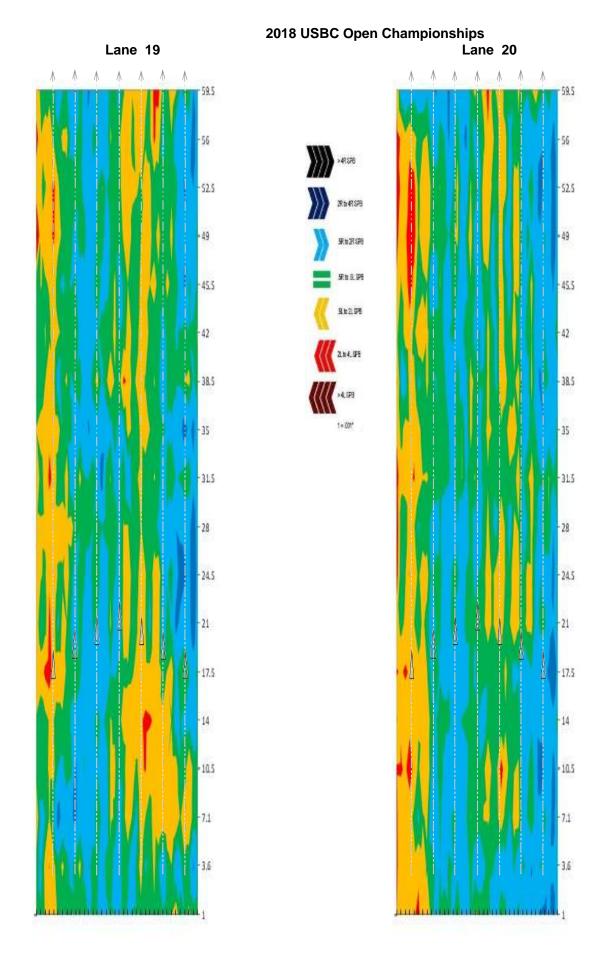
2018 USBC Open Championships Lane 10 Lane 9 59.5 -525 -525 28 b 48 588 RERE 92 h 8, 99 45.5 -45.5 96296 -42 42 2,64.9F9 -38.5 - 38.5 1+500 -35 35 31.5 31.5 - 28 -28 24.5 -24.5 -21 -21 -17.5 17.5 10.5 10.5 7.1 3,6

2018 USBC Open Championships Lane 12 Lane 11 52.5 -525 28 b 48 588 RERE 92 h 9, 329 45.5 45.5 962.98 -42 -42 214.59 -38.5 - 38.5 1+500 - 35 - 35 31.5 31.5 -28 - 28 24.5 -24.5 -21 - 21 17.5 17.5 -10.5 10.5 7.1

2018 USBC Open Championships Lane 14 Lane 13 -525 -525 28 to 48 SP8 RERSE 92 h 8, 99 45.5 962.98 42 -42 2,14.99 38.5 - 38.5 1+500 - 35 -35 -31.5 31.5 - 28 - 28 24.5 -24.5 - 21 - 21 17.5 -10.5 -10.5 7.1 7.1 -3,6 3,6



2018 USBC Open Championships Lane 18 Lane 17 **1 1 1** 59.5 -525 525 28 to 48 SP8 - 49 RERSE 92 h 9, 329 45.5 45.5 962.98 -42 42 2.64.SP -38.5 - 38.5 1+500 -35 -35 31.5 31.5 28 -24.5 -24.5 -21 - 21 -17.5 17.5 - 10.5 -10.5 7.1



2018 USBC Open Championships Lane 22 Lane 21 59.5 -525 -525 28 b 48 588 - 49 RERSE 92 h 9, 329 45.5 45.5 96296 -42 214.59 -38.5 38.5 1+500 -35 -35 31.5 31.5 -28 - 28 -24.5 -24.5 -21 -21 17.5 17.5 14 -10.5 -10.5 7.1 7.1 -3.6

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2018 USBC Open Championships Lane 30 Lane 29 59.5 -52.5 -525 28 to 48 SP8 RERSE 92 h 9, 329 45.5 45.5 96296 -42 42 2114.FF - 38.5 38.5 1+500 - 35 -35 31.5 31.5 -28 -24.5 -24.5 -21 - 21 17.5 17.5 -10.5 7.1 7.1 - 3.6

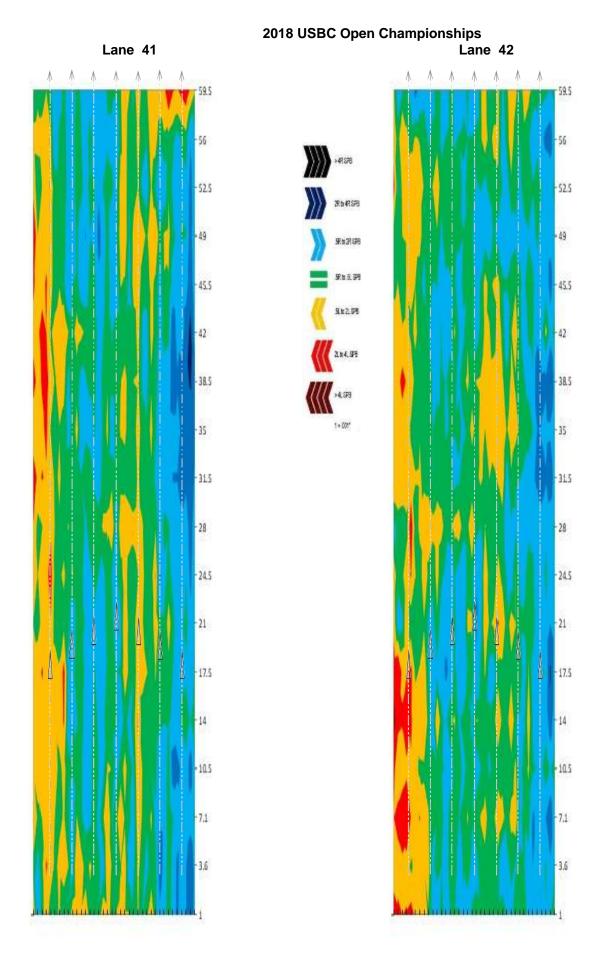
2018 USBC Open Championships Lane 32 Lane 31 59.5 -525 -525 28 b 47 578 RERSE 92 h 9, 329 45.5 45.5 96296 -42 -42 2,64.5FE -38.5 38.5 1+500 - 35 - 35 31.5 31.5 -24.5 24.5 -21 -17.5 17.5 -14 -10.5 -10.5 7.1 7.1 3.6 3,6

2018 USBC Open Championships Lane 34 Lane 33 -52.5 -525 28 b 48 588 -49 RERSE 92 h 9, 329 45.5 45.5 96299 42 -42 214.59 -38.5 38.5 1+500 31.5 31.5 -24.5 24.5 21 -21 17.5 17.5 -14 - 10.5 - 10.5 -7.1 -7.1 -3,6

2018 USBC Open Championships Lane 36 Lane 35 **^ ^** 59.5 -525 -525 28 to 48 SP8 -49 RERSE 92 h 9, 329 45.5 45.5 962.98 -42 42 2114.FF -38.5 38.5 1+500 - 35 - 35 31.5 31.5 -28 -24.5 -24.5 -21 -21 17.5 -17.5 -10.5 10.5 7.1 3,6

2018 USBC Open Championships Lane 38 Lane 37 59.5 -525 -525 28 to 48 SP8 - 49 REPSE 92 h 8, 99 45.5 45.5 96296 -42 -42 2,64.5P9 38.5 38.5 1+500 -35 -35 31.5 31.5 -28 -24.5 24.5 -21 -21 17.5 -17.5 A-14 -10.5 -10.5 7.1

2018 USBC Open Championships Lane 40 Lane 39 59.5 -525 -525 28 b 47 578 RERSE 92 h 8, 99 45.5 45.5 962.98 42 42 2.64.SP 38.5 -38.5 1+500 -35 35 31.5 -31.5 28 -24.5 -24.5 -21 - 21 -17.5 17.5 10.5 -10.5 7.1 7.1 3.6



2018 USBC Open Championships Lane 44 Lane 43 -525 -525 28 to 48 SP8 RERSE 92 h 8, 99 45.5 45.5 962.98 -42 42 2114.FF 38.5 -38.5 1+500 - 35 -35 31.5 31.5 - 28 -28 -24.5 -24.5 -21 -21 17.5 - 17.5 14 - 10.5 -10.5 7.1 7.1 3,6

2018 USBC Open Championships Lane 46 Lane 45 59.5 -52.5 -525 28 to 48 878 RERSE 92 h 9, 329 45.5 45.5 962.98 42 -42 2,14.99 38.5 38.5 1+500 35 35 31.5 31.5 -28 -28 -24.5 -24.5 -21 -21 -17.5 -17.5 -10.5 7.1 7.1 3,6

2018 USBC Open Championships Lane 48 Lane 47 59.5 -525 -525 28 to 48 SP8 49 REPSE 92 h 9, 329 45.5 45.5 9k2.98 -42 42 2114.FF 38.5 38.5 1+500 - 35 -35 -31.5 31.5 - 28 28 -24.5 -24.5 -21 -21 -17.5 17.5 -10.5 -10.5 7.1 7.1 3.6