APPLICATION NOTE – ICUMSA SUGAR ANALYSIS METHODS THAT USE POLARIMETERS

The International Commission for Uniform Methods of Sugar Analysis (ICUMSA), founded in 1897, publishes detailed laboratory procedures for the analysis of sugar. The following procedures require the use a polarimeter:

**GS1/2/3/9-1 (2011)**  
Determination of Polarization of Raw Sugar – Official Method.

**GS1/2/3-2 (2005)**  
Polarization of Raw Sugar without Wet Lead Clarification – Tentative Method.

**GS2-3-1 (2011)**  
The Braunschweig Method for the Polarization of White Sugar by Polarization – Official (Reference) Method.

**GS3-1 (2002)**  
The determination of the Polarization of the Sugar Component of Powdered Sugars Containing Ant-Caking Agents – Official Method.

**GS4/7-1 (1994)**  
The Determination of Apparent Sucrose in Molasses by Doable Polarization Method – Accepted Method.

**GS5/7-1 (2011)**  
Determination of Polarization, Brix, and Fibre in Cane and Bagasse by the Wet Disintegrator – Official Method.

**GS6-1 (1994)**  
Determination of Polarization of Sugar Beets by the Macerator of Cold Acqueous Digestion Method using Lead Acetate as Clarifying Agent – Official Method.

**GS6-3 (1994)**  
Determination of the Polarization of Sugar by the Macerator of Cold Acquesous Digestion Method using Aluminum Aulfate as Clarifying Agent – Official Method.

**GS7-7 (2011)**  
Determination of Polarization of Filter Cake – Accepted Method.

**GS7-31 (2011)**  

**SPS-1 (2002)**  

**Reichert Polarimeters**  
Reichert has been a leader in the development and manufacture of optical instruments for over 150 years. This expertise has resulted in the most accurate polarimeters on the market. Reichert instruments are unique in that they provide a linear response and maintain accuracy over the entire reading range. Most other instruments are accurate only at small angular rotations. Choose Reichert polarimeters for:

- Ultimate accuracy throughout the reading range
- Robust, low-maintenance construction
• Modular design to combine with refractometers and density meters

**Product Recommendations:**

**Polar3** Polarimeter – Reichert Cat #14003000  
**Polar1** Polarimeter – Reichert Cat #14001000