Proper cricket design.

Ponding water is the leading cause of premature roof system failure. Proper cricket design can eliminate ponding water and prolong roof system life.

**CRICKET TERMINOLOGY**

- **Roof Surface Slope** The slope that is in the structural deck, the slope created by tapered insulation, or a combination of the two.
- **Cricket Width** (Points C to D) Generally the shorter of the 2 cross-sections.
- **Cricket Length** (Points A to B) Generally the longer of the 2 cross-sections.
- **Cricket Panel Slope** The slope of the cricket panel.
- **Cricket Valley Slope** (Points C to B) the net slope created along the edge of a cricket. (Cross-Slope).
- **Cricket Angle** The angle (X) between corresponding lines AB (Cricket Length) and AC (Cricket Valley).

**DESIGN GUIDELINES**

- Cricket panel slope is typically double the roof surface slope.
- Depending on the roof surface slope, there is an accepted maximum length to width ratio.
- The functionality of the cricket is determined by the cricket valley slope.
- Cricket valley slope is independent of the cricket material slope.

**SADDLE AND CRICKET RECOMMENDED MAXIMUM L:W RATIOS**

<table>
<thead>
<tr>
<th>ROOF SURFACE SLOPE PER FOOT</th>
<th>CRICKET PANEL SLOPE PER FOOT</th>
<th>LENGTH: WIDTH RATIO</th>
<th>CRICKET VALLEY SLOPE PER FOOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8” (0.125”)</td>
<td>1/4” (0.25”)</td>
<td>3:1</td>
<td>0.040”</td>
</tr>
<tr>
<td>1/4” (0.250”)</td>
<td>1/2” (0.50”)</td>
<td>3:1</td>
<td>0.080”</td>
</tr>
<tr>
<td>1/2” (0.500”)</td>
<td>1/2” (0.50”)</td>
<td>4:1</td>
<td>0.121”</td>
</tr>
</tbody>
</table>

For additional information, refer to PIMA Technical Bulletin #108 and The NRCA Roofing Manual (available on our website).