Measuring brightness...

The three most commonly used scales today...

- **TAPPI** - original standard, most common
  - indoor lighting plus some filtered daylight (tinted windows)
  - low UV content
  - Because of its lower UV content, it yields the lowest brightness reading
- **ISO** - European standard
  - indoor light plus some unfiltered daylight (untinted windows)
  - medium UV content
  - This scale produces a number that is higher than TAPPI but lower than D65
- **D65** - also a European standard, use has been uncommon until recently
  - outdoor lighting (sunshine)
  - maximum UV content
  - Provides the highest brightness readings with numbers that can easily exceed 100%.
  - May not provide the most realistic assessment of brightness, because papers are rarely viewed outdoors. TAPPI and ISO provide a better assessment.

What varies from scale to scale?
Light source and the UV Energy in the light source!

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## Brightness Comparisons

<table>
<thead>
<tr>
<th>Sample</th>
<th>Advertised Brightness</th>
<th>TAPPI Brightness</th>
<th>ISO Brightness</th>
<th>D65 Brightness</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Choice</td>
<td>96</td>
<td>96.1</td>
<td>100.0</td>
<td>112.9</td>
</tr>
<tr>
<td>Xerox Premium Ink Jet Bright White Paper</td>
<td>113+</td>
<td>95.6</td>
<td>99.2</td>
<td>111.3</td>
</tr>
<tr>
<td>Hammermill Jet Print</td>
<td>106</td>
<td>94.8</td>
<td>98.5</td>
<td>111.6</td>
</tr>
<tr>
<td>Hammermill Color Copy</td>
<td>96</td>
<td>97.0</td>
<td>99.1</td>
<td>111.7</td>
</tr>
<tr>
<td>Domtar Microprint Ink Jet</td>
<td>94</td>
<td>93.5</td>
<td>96.4</td>
<td>108.2</td>
</tr>
</tbody>
</table>

* Results were obtained from internal testing performed in Fort Mill, SC.