CERTIFICATE

DEAD LEAVES TARGET – GRAY

REFLECTIVE
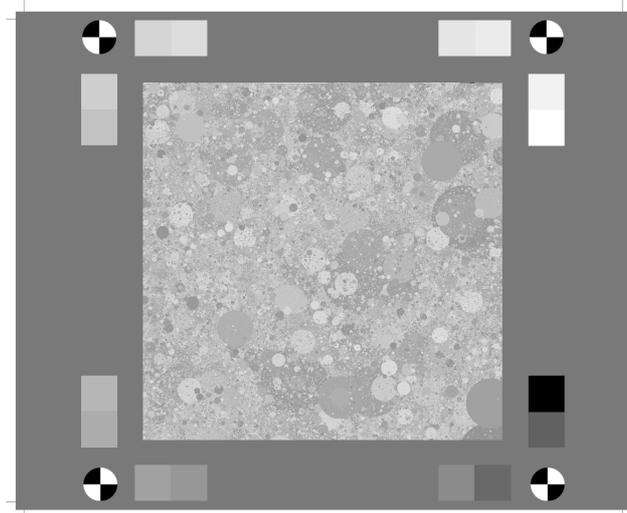
The TE265 Dead Leaves Target is used for the analysis of 'texture loss', which is the loss of low contrast, fine details in images due to noise reduction or other image processing techniques.

The TE265 consists of four items:

- **Background**
  All following items are placed on a neutral gray background with a gray level of 18%

- **Registration marks**
  Four registration marks are placed on the test chart, one in each corner. These marks are used for the automatic registration in analysis software, e.g. the Image Engineering iQ-Analyzer

- **Gray patches**
  The chart contains 16 gray patches. The reflection of these patches is linear spaced between the brightest patch and the darkest patch.

- **Dead Leaves Pattern**
  The main item is the so called Dead Leaves pattern. This pattern consists of circles stacked on top of each other with a known distribution of position, radius and gray level. The gray levels are limited to a maximum contrast of 80% of the maximum achievable contrast.

Recommended usage:

We recommend to reproduce the chart with the device under test in that way, that the chart fills not more than 1/3 of the image height.

In case this chart fills 1/3 of the image height it can be used for cameras with a sampling rate of up to 30 Megapixels.

The Dead Leaves pattern and its properties are described in this paper:

"Occlusion Models for Natural Images: A Statistical Study of a Scale-Invariant Dead Leaves Model"
by Ann Lee, David Mumford, and Jinggang Huang , International Journal of Computer Vision 41(1/2), 35-59, 2001

For the software based analysis of images, captured of the TE265, you can use the Image Engineering iQ-Analyzer Version 5 and newer. This software will provide the Spatial Frequency Response (SFR) measured on this target.