Aperature

? Unknown Attachment

Sides
The number of diaphragm blades does not technically control bokeh, but does control the shape of your blur circle (but not how light is distributed within it). Changing the number of sides causes our once-perfect circular highlights to facet with as many sides as specified (three sides, for example, produces a triangle).

Angle
This spins the aperture around, rotating the out-of-focus points.

Roundness
The roundness will curve the edges of our aperture blades in order to give them a more rounded appearance. Thus giving your highlights a more rounded shape.

Density
"Good bokeh" has a brighter center and a falloff towards the edges in each de-focused point of light. However not every lens has good bokeh. You are able to mimic the good (or bad) light falloff in your lens by using this control. The default of 0 gives a constant brightness (neutral bokeh), -1 is brighter at the center, and a falloff towards the edge (good bokeh). and 1 gives you a bright rim (bad bokeh).

Some examples (note that Depth Of Field must be enabled for Bokeh effects):

The default aperture is circular; we can see this by using a small, bright point that is out of focus. Ordinarily, a point this out of focus would not be visible - its light would be too spread out over the film plane - so we have to make it artificially bright to show up. Yielding this image:	? Unknown Attachment ? Unknown Attachment [0 0 0 0]
By setting the sides to 5, the aperture becomes a pentagon.	? Unknown Attachment [5 0 0 0]
Setting the angle to 36 rotates the aperture counterclockwise by 36 degrees.	? Unknown Attachment [5 36 0 0]
A positive roundness value makes the sides of the pentagon bow outward.	? Unknown Attachment [5 36 0.5 0]
A negative roundness makes the sides of the pentagon bow inward. Note that because the light is spread over a smaller area, the bokeh here is somewhat brighter.	? Unknown Attachment [5 36 -0.8 0]
A positive density makes the aperture transmit more light at its edges.	? Unknown Attachment [5 36 -0.8 0.7]
A negative density makes the aperture transmit more light at its center.	? Unknown Attachment [5 36 -0.8 -0.7]

We can also modify the eccentricity of the "ellipse of confusion"--the region on the film plane hit by samples from an object that is not in focus--using the dofaspect parameter. A value greater than 1 makes the blur bigger horizontally (e.g., 2.0 here):	? Unknown Attachment
A value between 0 and 1 makes the blur bigger vertically (e.g., 0.5 here). This emulates the oval-shaped defocus blur produced by an anamorphic lens.	? Unknown Attachment
Though not directly controllable as a setting, it's worth noting that when a source of light gets close in size to the circle of confusion, its shape will also begin to have a significant effect on the shape of the bokeh. For example, if we had seen a larger square instead of a tiny point through the default circular aperture, the bokeh would be shaped like this (shown without tonemapping in order to emphasize the shape):	? Unknown Attachment ? Unknown Attachment

Number of Sides

Disable modification of ray origins in enhance mode. Renderman still thinks DOF is enabled, so focus factor will apply to geometry tessellation, but DOF-related blurring will not occur. This option and the one below enable you to get a fully accurate enhanced view of the geometry, without lens effects obscuring it