PxrRodLightFilter

PxrRodLightFilter uses a "rod" like object to block light. The rod can be shaped into an irregular shape. This rod is then placed next to the object where we want to block the light.

This light filter is a more extensive version of PxrBlockerLightFilter.

Parameters

Rod Shape

Width

Width of the inner region of the rod (X axis).
Height
Height of the inner region of the rod (Y axis).

Depth
Depth of the inner region of the rod (Z axis).
Radius

Radius of the corners of the inner rod box.
radius = 3

radius = 4.4

Edge

Thickness of the edge region.

diameter = 1

diameter = 1.6
Scale

Scale Width

Scale the width of the inner rod shape (X axis).

Scale Height

Scale the height of the inner rod shape (Y axis).
Scale Depth

Scale the depth of the inner rod shape (Z axis).
Refine Shape

Left

Additional size of the left region (-X axis)
Right
Additional size of the right region (+X axis)
Bottom
Additional size of the bottom region (-Y axis)

Top
Additional size of the top region (+Y axis)
Back
Additional size of the back region (-Z axis)
Front
Additional size of the front region (+Z axis)
Scale Edges

Left Edge

Scale left edge up or down (-X axis).

Right Edge
Scale right edge up or down (+X axis).

rightEdge = 1

scaleRight = 6.6

rightEdge = 16.9

**Bottom Edge**

Scale bottom edge up or down (-Y axis).
Top Edge
Scale top edge up or down (+Y axis).
Back Edge

Scale back edge up or down (-Z axis)
Front Edge
Scale frontal edge up or down (+Z axis).

Multiplier
Multiplies various aspects of intensity in the filter.

Density
Global control on how much effect this light filter has.
**Intensity**

Multiplier for the light intensity.
Invert

Invert the multipliers.
Diffuse Contribution
Controls the diffuse contribution.

diffuse = 0

diffuse = 0.5

diffuse = 1

Specular Contribution
Controls the specular contribution.
**Saturation**

Saturation of the light before hitting the surface (0=greyscale, 1=normal, >1=boosted colors).
Falloff

Controls the transition from the core to the edge:

Falloff Knots
An array of knot values.

Falloff Floats
An array of float values.

Falloff Interpolation
Type of ramp interpolation: linear, catmull-rombspline, constant

Optional color gradient for the transition:
**Color Ramp**

Define the number of knots.

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**Color Ramp Knots**

An array of knot values.

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**Ramp Colors**

An array of color values.

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**Color Ramp Interpolation**

Type of color ramp interpolation: linear, catmull-rom, spline, constant

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**Combine Mode**

Combine Mode

- **mult**: The results of all the filters are multiplied together
- **max**: The maximum result from all filters is used. This works best for grey scale light filters.
- **min**: The minimum result from all filters is used. This works best for grey scale light filters.
- **screen**: Similar to the max operation, but it combines gradients in a smoother way. This works best for grey scale light.

Light filters on a light are grouped by their combine mode. Light filters in the same group are executed together and combined by the combine mode. The groups are executed in this order (max, min, screen, and then mult) and are multiplied together, which means a filter that turns things black in the mult group will zero out all other filters.