

$$S_{max} := L_{max} \cdot \cos(a)$$

$$h(s) := \frac{s \cdot H_{max}}{S_{max}}$$

$$s(L) := L \cdot \cos(a)$$

$$\int_0^{S_{max}} h(s) \, ds \rightarrow \frac{H_{max} \cdot L_{max} \cdot \cos(a)}{2}$$

$$\int_0^{L_{max}} h(s(L)) \cdot \left(\frac{d}{dL} s(L) \right) dL \rightarrow \frac{H_{max} \cdot L_{max} \cdot \cos(a)}{2}$$

$$S_{len} := A_{len} \cdot \cos(light_a)$$

$$H_{ray}(s) := h_0 + (S_{len} - h_0) \cdot \frac{s}{S_{len}}$$

$$\int_0^{S_{len}} H_{ray}(s) \, ds \rightarrow \frac{A_{len} \cdot (A_{len} \cdot \cos(2 \cdot light_a) + 2 \cdot h_0 \cdot \cos(light_a) + A_{len})}{4}$$

$$LightAtPoint := Intensity - \int_P^{P_{exit}(P)} f(P) \, dP$$

