

Daylight Simulation Tools / Methods	Sim. Speed	Pre-Design			Schematic Design								Design Development	
		Climate Analysis	Solar Shading Analysis	Annual Insolation	Daylight Delivery Systems	Solar Animations	Renderings / Photos	Glare / Luminance Ratios	Interior Illuminance	Annual Illuminance	Glazing Analysis - Optical	Window Analysis - Thermal	Electric Lighting Integration	Daylight Responsive Controls
3D Viz ⁺	Fast		S			F	F	S	S	L++	L		F	
AGI 32 ⁺	Fast		S			F	F	S	F	L++	S		F	
DAYSIM	Slow		F+	F+	S+	F+	F+	F+	F+	S	S		F+	L
DOE-2 [*]	Fast	F		S				S	S	S	L	L	L	S
Ecotect	Fast	F	F	F+	S+	F+	F+	F+	F+	F+	F+		R	
Energy Plus	Fast	F		S					S	S	L	L	L	S
Heliodon ^{**}	Slow		F		L	F	S	L	L		L			
Lumen Designer ⁺⁺	Fast		F			F	F	S	F	L++	S		F	
Lumen Micro [*]	Fast		F				F	L	S	L++	S		F	
Manual Calculations	Fast	S	S	S	L			S	S	S	S	S	S	
Mirror-Box ^{**}	Slow				L		S	L	L		L			
Optics 5	Fast										F			
Outdoor Modeling ^{**}	Slow		F		S		F	L	S	S++	L			
Photopia	Slow		L	L	F		?	?	L	S++	F			
Radiance	Slow		F	F	F	F	F	F	F	F	S		F	
Sketchup	Slow		F	F+		F+	F+	F+	F+	F+	F+		R	
SkyCalc	Fast	S			L				L	L	L		L	L
SPOT	Slow	S					S	S	S	S	L		S	S
TracePro	Slow		L	L	F		S	S	L	S	F			
Windows 5	Fast											F		

* Radiosity engine - simulations subject to radiosity limitations

** Physical modeling - simulations subject to physical modeling limitations

*+ Radiosity engine w/ post process raytrace for renderings

+ Relies on interface with Radiance for simulation

++ Output can be used with manual calculations to provide simulation

Key	
R	Radiance
F	Full Ability
S	Some Limitations
L	Limited Ability

Radiance User Interfaces
Rayfront
Desktop Radiance
Adeline
SketchUp

Radiance Engine
SPOT
DAYSIM
Ecotect



Created by Zack Rogers
 Integrated Design Associates, Inc.
www.ideasi.com