



Basic ElumTools for Interior and Exterior Lighting

To ensure professional lighting designers can take advantage of all the amazing tools the ElumTools application offers within Autodesk Revit, renowned Revit author and blogger, Dan Stine, hosts a Revit training course, designed especially for lighting designers. The training will provide guidance on both creating and linking architectural models in which lighting calculations may be performed. The results of the training will be a new architectural model linked into a new MEP/Lighting model with multiple ceiling configurations (flat, sloped, bulkhead, soffit) in which ElumTools will be briefly introduced and used to do a point-by-point illuminance calculation.

Prerequisite: While no ElumTools experience is required, attendees should have basic Revit knowledge or have taken our Introduction to Revit and ElumTools for Lighting Designers course.

Topics Covered:

1. Interiors
 - a. Fundamentals
 - i. Luminaire Validation
 - ii. Room Validation
 - iii. Material Properties
 - iv. Calculation Points
 - v. Calculations
 - b. Calculations
 - i. Point-by-point illuminance
 - ii. Emergency
 - iii. Point-in-time daylight
 - iv. Art wall (Vertical planar surface) and comparing results to product data sheet
 - v. Stairs
 - vi. Layout assistance (automatic luminaire placement)
 - c. Results
 - i. View and interpret results (points/special maps)
 - ii. Revit schedules
 - iii. ElumTools calculation viewer (same calc engine as AGI32)
2. Exteriors
 - a. Luminaire Validation
 - b. Site Plan Views
 - c. Calc Points Boundaries
 - d. Calc Points on Lines
 - e. Calc Volumes
 - f. Topography (projected points)
 - g. Light trespass at Property Line example

- h. Multi-head pole-mounted fixtures example
- 3. Additional Topics
 - a. Validating surfaces in ET clac viewer
 - i. For example, ceilings and curtainwalls
 - b. Alternate calc commands
 - i. By Revit Room/Space
 - ii. By selected elements
 - iii. By view
 - c. Calc a single space or multiple spaces (pros/cons)
 - d. Calc with/without furniture (pros/cons)
 - e. Calc surface properties
 - i. By Revit material (advanced method)
 - ii. By category overrides (e.g., using IES 20/50/80 rule)
 - f. Calc points Revit family – location requirements and visibility control methods for host model and consultant models
 - g. Manufacture content and photometry management – example mfr. Content with good instructions/method for selecting correct IES files
 - h. ElumTools provided lighting fixture Revit families - introduction.