Important: This is not a lighting fundamentals or roadway lighting design course. We assume that the attendee has a basic understanding of roadway lighting design principles as well as lighting terminology (lumen, candela, intensity, illuminance, luminance, footcandle, lux, etc.) and a basic understanding of luminaire photometry.

AGi32 Roadway Emphasis Training Outline

I. Introductions

II. Getting Comfortable With AGi32
- Understanding the AGi32 Interface
- Adjusting System Settings

III. The 5 Steps to Success With AGi32
- Develop a Frame of Reference (Import or Build)
- Obtain, Define & Locate Luminaire Photometry
- Set Up and Perform Calculations
- Evaluate Results (Statistics, Isolines, Highlighted values, Rendered images, etc.)
- Presentation (Schedules, Exporting, Reports, Walk-Throughs, etc.)

IV. Roadway Calculations in AGi32 – what you need to know

V. RP-8 Overview and other stuff
- Roadway Classifications
- Pedestrian Conflict Area Classifications
- Pavement Classifications
- Roadway Lighting Design Criteria
- Roadway luminaire types (Types I-V; S-M-L ranges)
- Cutoff classifications
- Luminaire Classification System (LCS) & BUG Ratings

VI. Roadway Optimizer
- Uses, limitations, restrictions
- Roadway standards and pavement types
- Layouts
- Calc types
- Evaluating results
- Advanced settings

- Comparing layouts
- Exporting and/or printing results

VII. Expanded Roadway Application
- IES criteria (RP-8-00)
- Translate Origin
- Roadway Optimizer
- Luminaire layout & templates
- Roadway luminance and other calculations
- View Manager
- Project Manager
- AutoCalc
- Creating a "custom standard" to override RP-8-00 settings

VIII. Intersection Lighting
- IES criteria (RP-8)
- Single- and Multi-head luminaire Arrangements with post-top luminaires
- Polygon-shaped grid, invoking arc command for corners
- Isolines
- Highlight Values

IX. Pedestrian Lighting Application
- IES criteria (RP-8)
- Horizontal illuminance on sidewalk
- Vertical illuminance, elevated above sidewalk, two directions
- Adding Objects with color and texture
- Designating all surfaces as either Roadway Contributor or Roadway Pavement.
- Full Radiosity calculations
- Render Mode

X. High-Mast Application: a freeway interchange
- Custom luminaire arrangement
- Static vs dynamic poles
- Iso-illuminance templates
- Illuminance grids per RP-8
- Calc points on a curved line, changing elevation (on-ramp)
- Highlight Values
- Statistical Area

XI. Tunnel Lighting and RP-22-11 (considering reflective surfaces)
- IES criteria (RP-22-05)
- Full Radiosity calculations for tunnel applications
- Adding Objects to the tunnel
- Designating all surfaces as either Roadway Pavement or Roadway Contributor
- Calculation grids

- Switching and dimming luminaires for nighttime
- Visualizations in Render Mode
- Using Scene Manager for daytime and nighttime calculations analysis

XII. Roundabout Lighting and DG-19-08
- IES criteria (DG-19-08)
- Locating luminaires in a circular array
- Horizontal illuminance in the roundabout drive lanes
- Vertical illuminance above the sidewalks
- Calc points on a line, elevated, and "looking" at approaching drivers