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 Prerequisite skills: Please see the Roadway Class Prerequisites for the AGi32 skills required for successful participation in this training.

AGi32 Intermediate Roadway Training Outline

I. Introductions
II. Useful Tips for AGi32 Users
III. Roadway Calculations in AGi32 – what you need to know
IV. 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

V. Roadway Optimizer
- Uses, limitations, restrictions
- Roadway standards and pavement types
- Layouts
- Optimization criteria
- Evaluating results
- Advanced settings
- Comparing layouts
- Exporting and/or printing results

VI. Expanded Roadway Application
- IES criteria (RP-8-00)
- Translate Origin
- Compare potential luminaires with Roadway Optimizer
- Luminaire layout & templates
- Roadway luminance and other calculations
- View Manager
- Project Manager
- AutoCalc

Rev: Feb 17, 2017

- Creating a “custom standard” to override RP-8 settings

VII. 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

VIII. 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

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

X. Tunnel Lighting and RP-22-11 (considering reflective surfaces)
- IES criteria (RP-22)
- Full Radiosity calculations for tunnel applications
- Adding Objects to the tunnel
- Designating all surfaces as either Roadway Pavement or Roadway Contributor
- Tunnel calculation grids
- Switching and dimming luminaires for nighttime
- Visualizations in Render Mode
- Using Scene Manager for daytime and nighttime calculations analysis

XI. Roundabout Lighting and DG-19
- IES criteria (DG-19)
- Locating luminaires in a circular array
- Horizontal illuminance in the roundabout drive lanes
- Vertical illuminance on pedestrians in the crosswalks
- Calc points on a line, elevated, and “looking at” approaching drivers