VIVO architecture

Lighting Study Memo

December 2, 2025

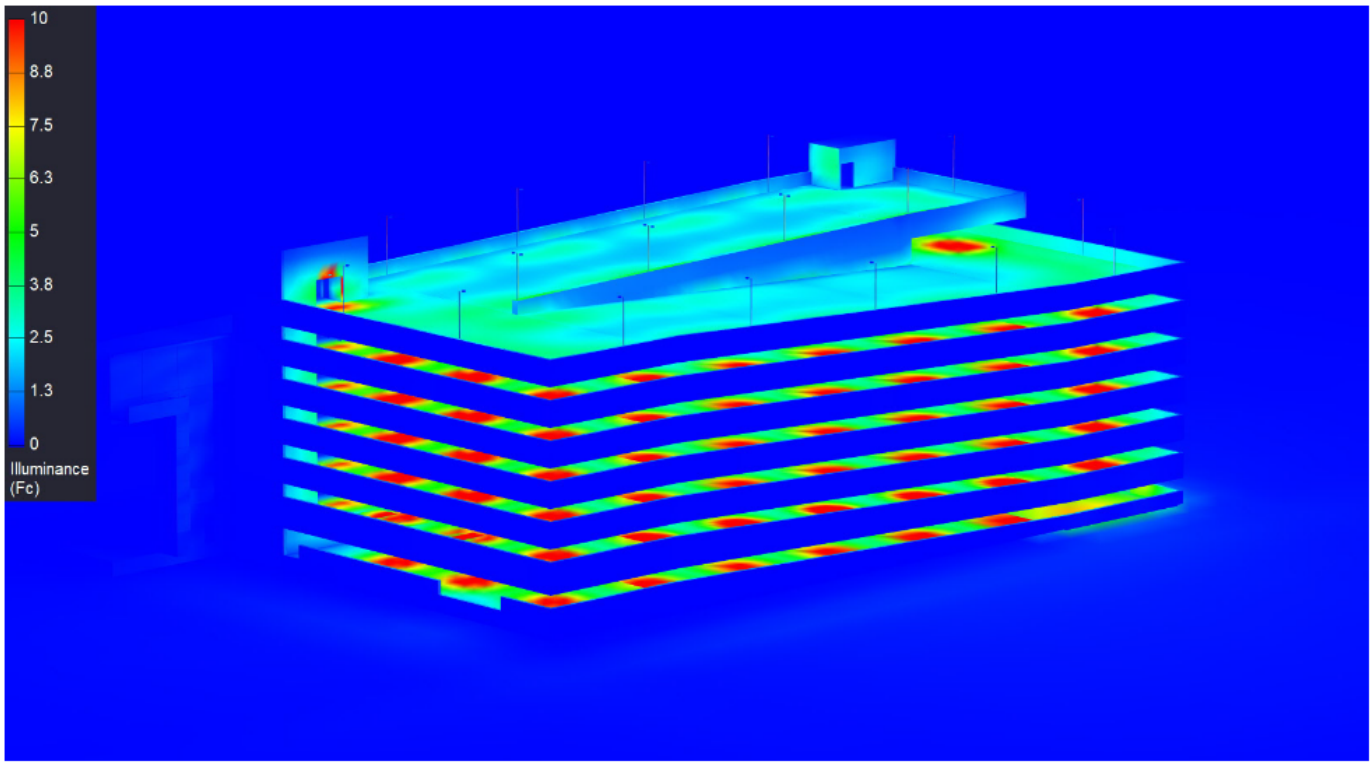
CFS-3 Parking Garage
117 Hospital Road
Devens, Massachusetts

VIVO Project No. 24206.11

The information below summarizes, at a high level, the results of the design team's lighting study for the proposed parking structure. The study first analyzes a lighting design package that would be considered an industry standard for this type of facility, by calculating footcandle levels at the lowest level, mid-levels, roof level, and immediate surrounding site. The standard light fixture predominately utilized is an Industrial Vaportite linear downlight for all tiers except for the roof level, where a pole mounted TopTier Nano luminaire are utilized.

Calculation Summary for a Typical Tier
Average Levels = 5.78 Fc
Average Maximum = 17.43 Fc
Average Minimum =1.98 Fc
Average Min/Max = 10.14 Fc

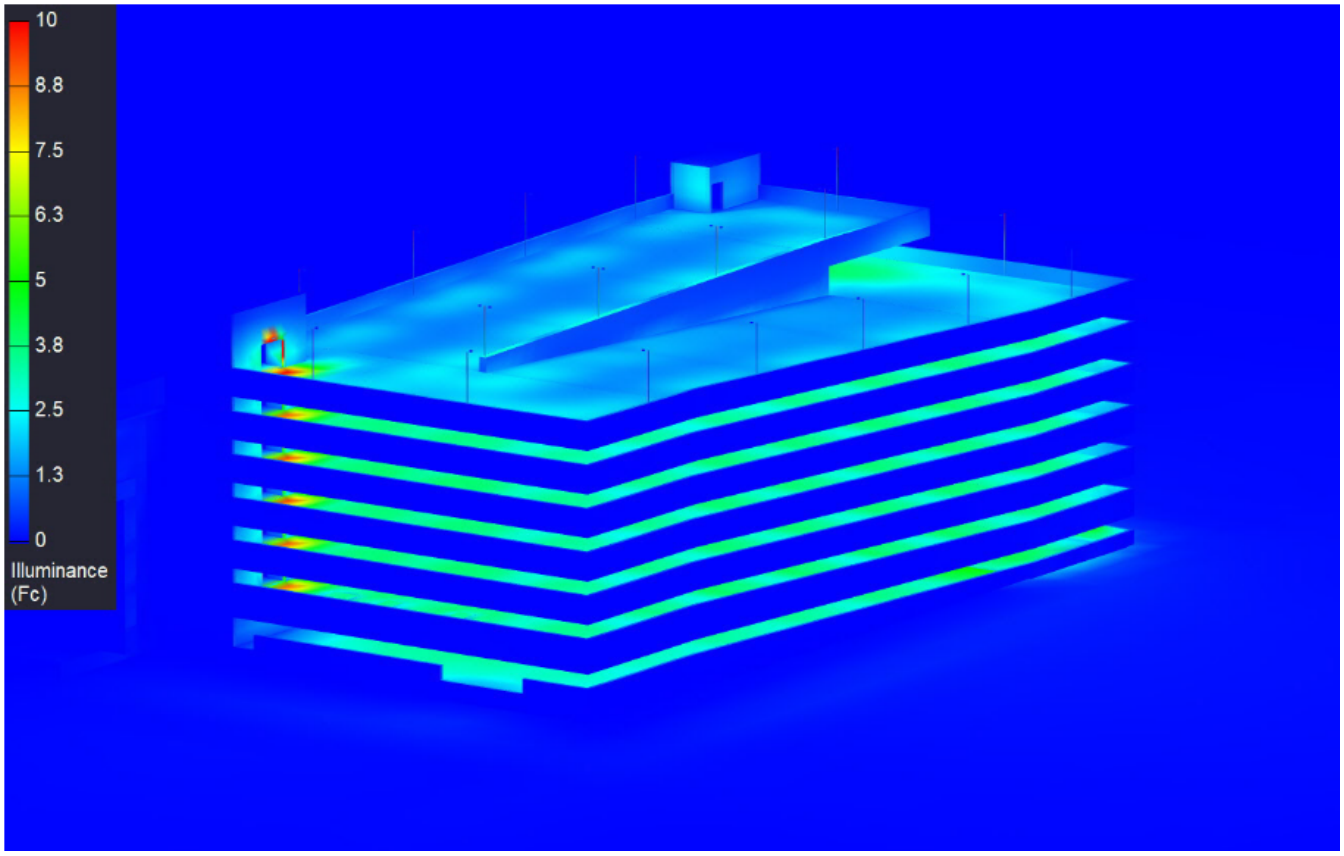
Lighting Level Rendering for Typical Parking Garage



To reduce glare, light spillage, and potential lighting pollution for this project, the design team reconsidered the lighting approach by selecting lower-glare fixtures with lower output, better colorization and increased the number and position of fixtures to create a lower, more uniform illumination. The results below analyze that alternative lighting design package and will serve as the basis for the CFS-3 parking garage. Like above, we have calculated footcandle levels at the lowest level, mid-levels, roof level, and immediate surrounding site. The light fixture predominately utilized is a lower-output TopTier Nano luminaire downlight for all tiers except for the roof level, where a lower-output, pole mounted TopTier Nano luminaire is utilized.

Calculation Summary for a Typical Tier
Average Levels = 3.24 Fc
Average Maximum = 5.73 Fc
Average Minimum =1.55 Fc
Average Min/Max = 4.28 Fc **(57% Reduction)**

Lighting Level Rendering for CFS-3 Parking Garage



Please Note that the intention will be to utilize dimming controls. This includes automatic dimming in response to natural light for energy savings, and occupancy sensors that respond to movement and dim lights when no one is present.

Sincerely,

Matthew O'Brien, RA