



## PARKING GARAGE



### SPACE CHARACTERISTICS

**Length:** 225'  
**Width:** 116'  
**Height:** 11' Hard Ceiling  
**Reflectivity:** Ceiling = 40%  
Walls = 20%  
Floor = 20%

### PRODUCT SPECIFICATIONS

**Dimensions:** -13" x 13" x 4½"  
**Optics:** Type V  
**Light Source:** High Output LEDs  
**CCT:** 5000K  
**CRI:** 77  
**Lumen:** 4945 Delivered  
**Depreciation:** 0.70 @ 76,000 hrs.  
**Rated Life:** 76,000 hrs.  
**Watts:** 66

## THE OPPORTUNITY

In a parking garage, it is possible to have high quality lighting that illuminates the horizontal driving surface and provide appropriate vertical illumination to recognized standards, while meeting or beating local energy codes. LED systems offer the option of coming ON at either 50% brightness or to full brightness, unlike the HID systems they tend to replace. This allows for bi-level and full occupancy control.

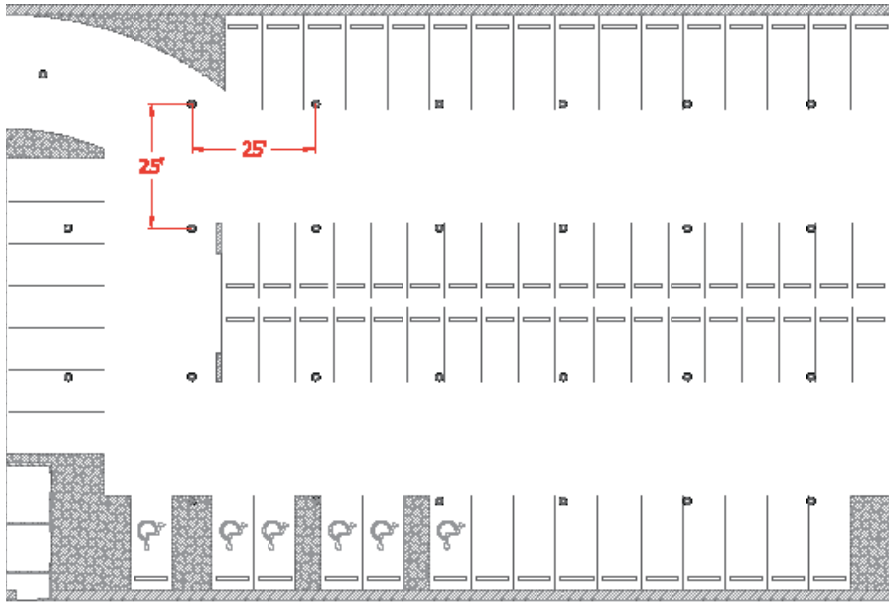
## THE SOLUTION

Install low-profile LED luminaires specifically designed for parking garages. This option lowers maintenance costs and lasts longer than HID or fluorescent systems. This solution performs better than fluorescent options in unconditioned spaces, as LEDs are less sensitive to temperature fluctuations.

## DESIGN CONSIDERATIONS

As in many similar applications, the concern is not only for appropriate horizontal and vertical illumination, but for energy management, system maintenance, and glare control at the fixture level. LED parking garage fixtures are designed specifically to control surface glare through optical shielding, while consuming fewer watts than a 2-lamp fluorescent fixture and lasting an estimated 70,000 to 80,000 hours.

Parking Garage LED Retrofit | 25' x 25' Spacing



**INSTALLATION SPECS**

**Number of Luminaires:** 27  
**Luminaire Spacing:** 25' x 25'  
**Mounting Condition:** Surface  
**Mounting Height:** 10'6"  
**Average Illumination:**  
 -5.04 fc horizontal  
 -3.34 fc vertical  
**Watts/sq. ft.:** -0.10 (0.092)

**IES Recommended Footcandles (fc):**  
 5 fc Average  
 1 fc Minimum  
 10:1 Max/Min Uniformity Ratio

**CONTROLS STRATEGY**

Consider installing occupancy control sensing devices to automatically reduce lighting power in a controlled zone by at least 50% within 30 minutes of all occupants leaving that zone. One cost-effective solution is specifying luminaires with integral occupancy sensors, many of which can be programmed for bi-level control. This will minimize installation labor costs.

Some jurisdictions require daylighting controls in parking garages. Please check code requirements specific to your area. Many controls manufacturers now offer occupancy sensors with integrated photosensors for daylighting, allowing for two control strategies from a single control unit.

**ENERGY SAVING STRATEGIES**

STRATEGY	BENEFIT	TECH NOTE
Daylight controls on perimeter to turn OFF fixtures	Many fixtures can remain OFF during daytime hours	Light levels maintained from daylight