

# LIGHTING LAYOUT GUIDE SERIES

GAS STATION GUIDE 1

## SPACE CHARACTERISTICS

Length: 50'

Width: 54'

Height: 18' Hard Ceiling

Reflectivity:

Ceiling = 80%

Walls = n.a.

Floor = n.a.

## PRODUCT SPECIFICATIONS



Dimensions: Varies

Optics: Symmetric & Asymmetric

Light Source: LED

CCT: 5700K

CRI: 70

Lumen: 6497 delivered

Depreciation: 0.95 @ 60,000 hrs.

Rated Life: 100,000 hrs.

Watts: 72

# GAS STATION

## LED RETROFIT



## THE OPPORTUNITY

Retrofit existing metal halide system with LED fixtures providing high quality lighting that illuminates the pump island area to recognized standards and meet or beat the local energy codes. The precise optical control enabled by using an LED fixture ensures that light is directed where needed. The long life cycle of LEDs saves energy and reduces required maintenance of fixtures that are difficult to access.

## THE SOLUTION

Install LED luminaires specifically designed for use in gas station canopies with an existing spacing of 14' x 14' in the center, which is within the suggested spacing-to-mounting height criteria of 1.2 to 1.0. The fixtures are also sealed and gasketed for damp or wet location rating. LED fixtures offer a variety of beam patterns to ensure that the light is directed where needed.

## DESIGN CONSIDERATIONS

Though vertical illumination is important, in this application the emphasis is on appropriate horizontal illumination.



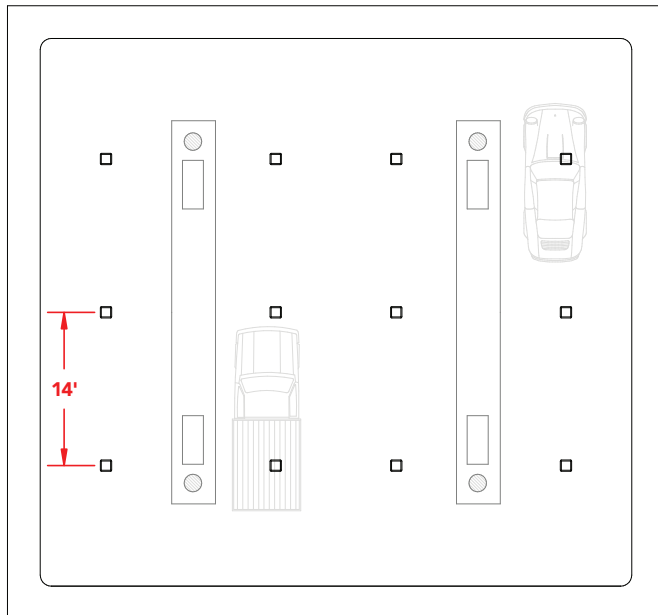
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## LAYOUT OPTIONS

### Gas Station LED Retrofit | 14' On Center Spacing, Centered Within Driving Lane



#### INSTALLATION SPECS

**Number of Luminaires:** 12  
**Luminaire Spacing:** 14' on center within driving lane  
**Mounting Condition:** Surface  
**Mounting Height:** 18'  
**Average Illumination:** ~15 fc  
**Watts/sq. ft.:** ~0.32

**IES Recommended Footcandles (fc):**  
 10 - 15 fc

## CONTROLS STRATEGY

Significant energy savings can be gained by using an astronomical time clock to turn lights OFF automatically after hours.

## ENERGY SAVING STRATEGIES

STRATEGY	BENEFIT	TECH NOTE
Lighting panel with astronomical time clock function set dusk-to-dawn	Lights can be OFF for a number of hours, saving energy and prolonging system life	Consider adjusting the ON-OFF time to an hour after dusk and an hour before dawn

## ENERGY CODE INFORMATION

JURISDICTION	CODE	LIGHTING POWER ALLOWANCE (ZONES z3 & z4)
Seattle	2012 Seattle Energy Code	z3 0.8 w/sq. ft. z4 1.0 w/sq. ft.
Washington	2012 WSEC	z3 0.8 w/sq. ft. z4 1.0 w/sq. ft.
Oregon	2014 OEESC	z3 0.8 w/sq. ft. z4 1.0 w/sq. ft.
Idaho	2012 IECC	z3 0.8 w/sq. ft. z4 1.0 w/sq. ft.
Montana	2012 IECC	z3 0.8 w/sq. ft. z4 1.0 w/sq. ft.