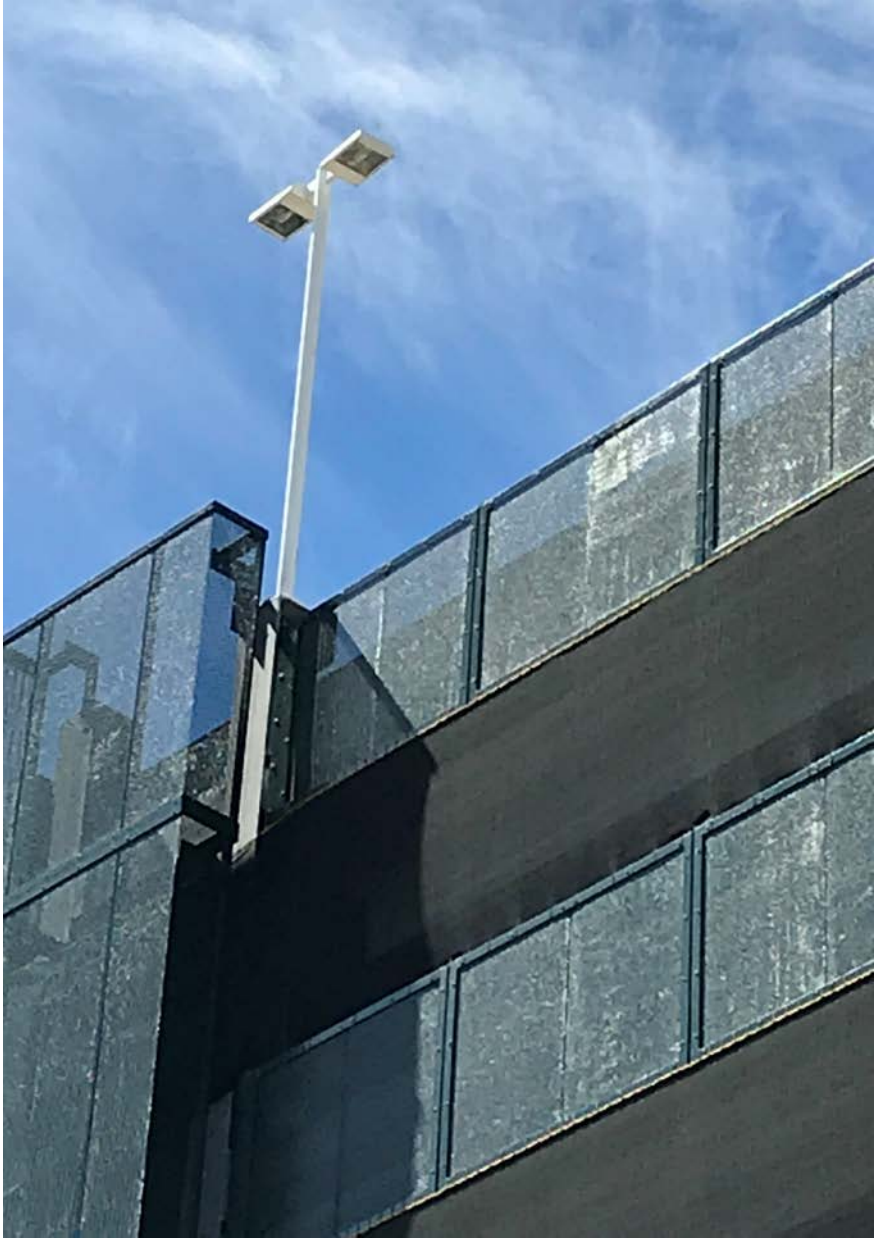


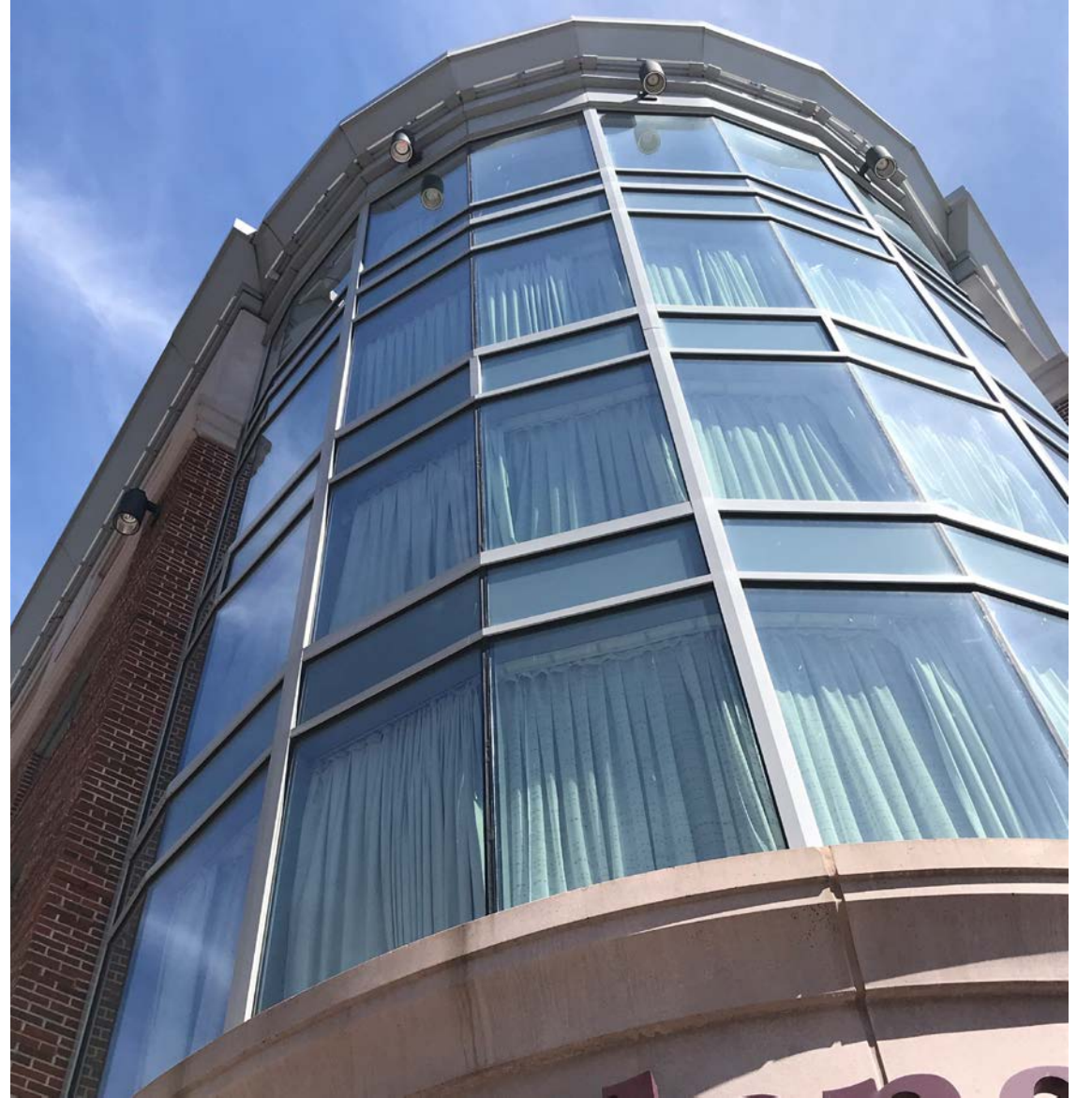
AC HOTEL PORTLAND

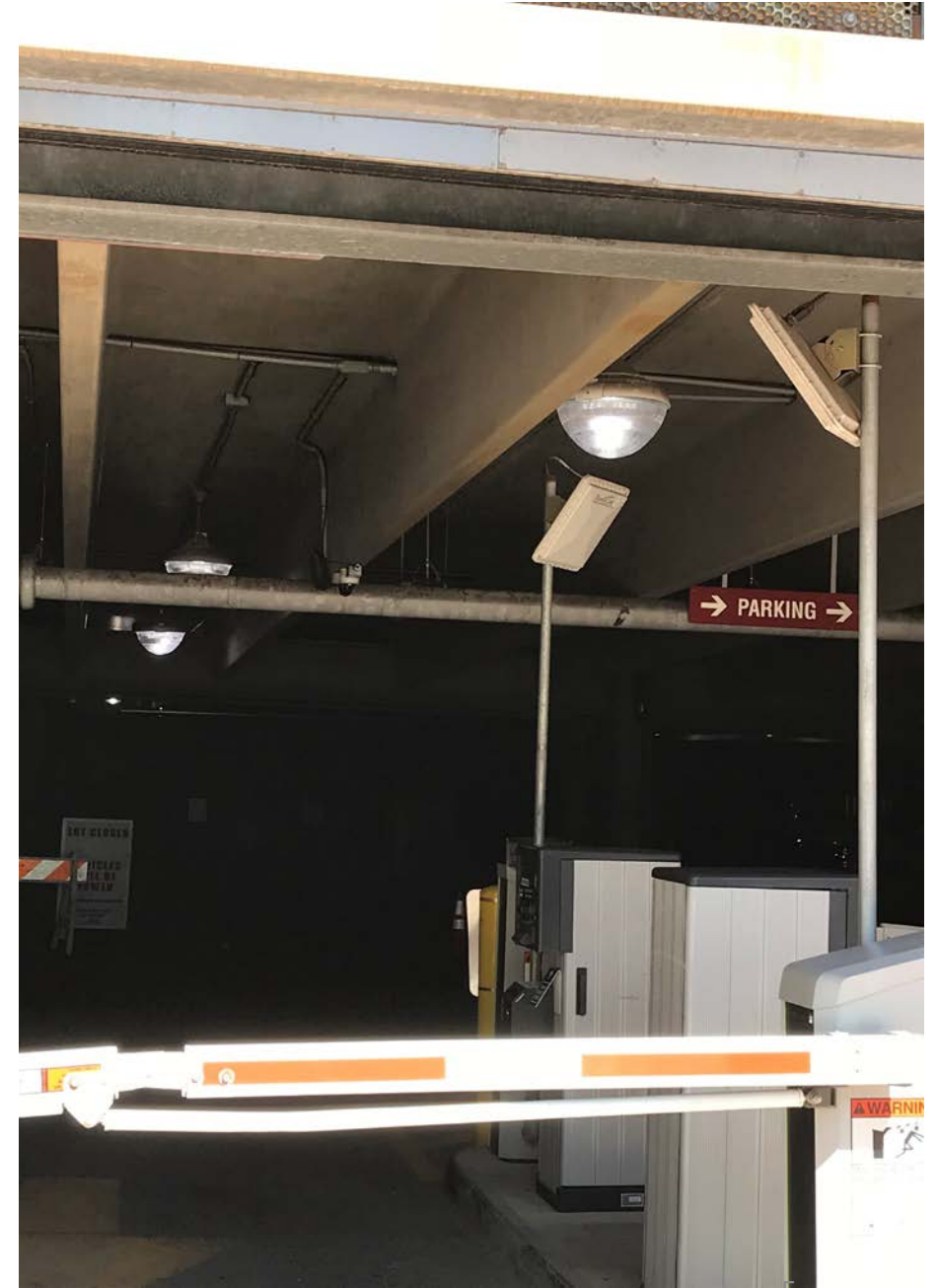
OUR NEIGHBORHOOD
EXTERIOR LIGHTING

















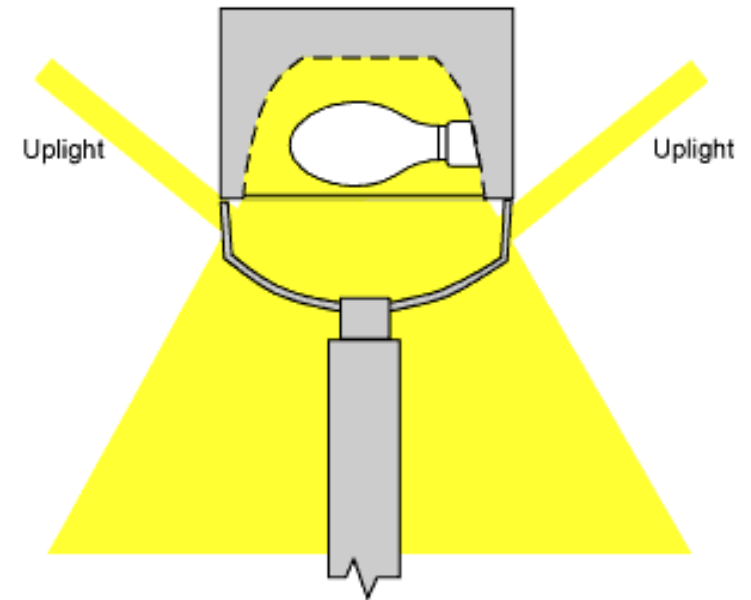


What is the difference between full cutoff and fully shielded?

The term full cutoff has and is being used to describe luminaires that have no direct uplight (no light emitted above horizontal). However, in addition to that limitation, the Illuminating Engineering Society of North America (IESNA) definition also requires luminaires to comply with the glare requirement limiting intensity of light from the luminaire in the region between 80° and 90°.

The term full cutoff is often substituted for the term fully shielded. The terms are not equivalent. Fully shielded luminaires emit no direct uplight, but have no limitation on the intensity in the region between 80° and 90°. Luminaires that fall under the IESNA full cutoff, cutoff, semicutoff, and noncutoff definitions, may also qualify as fully shielded. It may be obvious that a luminaire that is characterized as an IESNA full cutoff luminaire is fully shielded, but not as obvious when luminaires with other IESNA classifications may also qualify. Consider a semicutoff luminaire containing a 1000 lumen lamp that has no direct uplight but a candela value of 150 between 80° and 90°. This luminaire is considered to be fully shielded. However, if it were mistakenly labeled a full cutoff luminaire, this can become quite confusing. In 2002, the IESNA chartered a new committee to address the inconsistencies and confusion.

There is also a confusing assumption that a luminaire with a flat lens qualifies as a full cutoff luminaire. While this may be true sometimes, it is not always the case. Depending on the structure of the luminaire, reflections off the housing may result in some amount of direct uplight from the luminaire. Consider the hypothetical luminaire in Figure 14. Reflections from below the lens may result in some direct uplight from the luminaire. The IESNA full cutoff classification also has a limitation on light in the glare zone between 80° and 90°. A flat lens on a luminaire does not guarantee that this requirement is met.

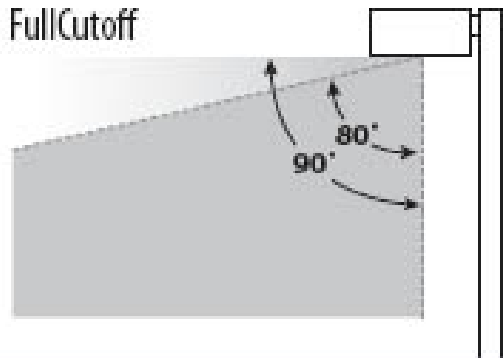




Our proposed sconce is Nighttime Friendly which reduces any negative impacts on the nighttime environment. Products typically selected as Nighttime Friendly have no uplight, meet the IESNA definition for full cutoff optics and reduce high-angle brightness. These measures of luminaire performance are consistent with sustainability standards for light pollution reduction.



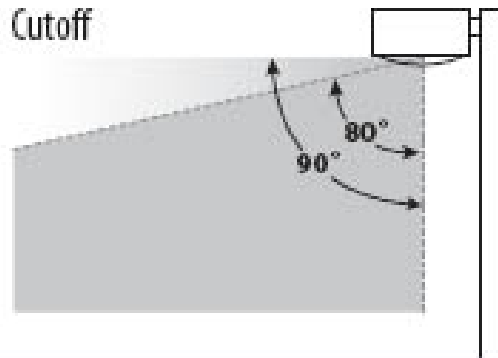
FullCutoff



ALLOWS:

No light at or above 90° 0%
100 cd per 1000 lamp lumens at or above 80° 10%

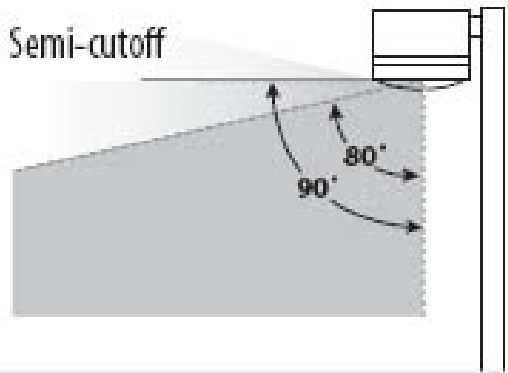
Cutoff



ALLOWS:

25 cd per 1000 lamp lumens at or above 90° 2.5%
100 cd per 1000 lamp lumens at or above 80° 10%

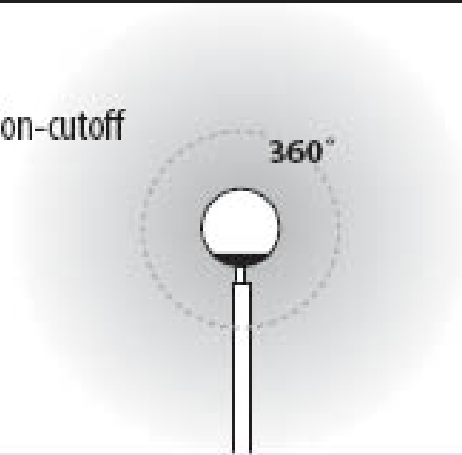
Semi-cutoff



ALLOWS:

50 cd per 1000 lamp lumens at or above 90° 5%
200 cd per 1000 lamp lumens at or above 80° 20%

Non-cutoff



ALLOWS:

Unrestricted distribution of light at any angle



We selected this sconce to be Nighttime Friendly, which attempts to minimize the impact of electric lighting systems onto the nighttime environment. Focus is on reduction of light pollution.

What does Nighttime Friendly Mean?

Nighttime Friendly designation requires that the lighting product has no uplight and no more than 10% of the total lumens between 80-90 degrees. This criterion is consistent with LEED and Green Globes guidelines for environmental sustainability. Nighttime Friendly designation focuses on no uplight as well as high angle brightness

How does Nighttime Friendly compare with other designations?

Approval does not have specific, quantifiable criteria. In general, the fixture selected focuses on products that have no uplight and impact glare.

Are there other considerations for minimizing obtrusive outdoor lighting?

Daytime and nighttime aesthetics beyond considerations of uplight, there are other optical considerations to help you select a quality lighting system. Many times, the lighting system must offer both daytime and nighttime aesthetics. Traditionally, this required lighting systems that emitted a significant portion of light into the sky and emit light at high angles resulting in glare. Light trespass another key aspect to consider is limiting the amount of light emitted off of the property that trespasses onto adjacent properties. This is especially important in areas where commercial and residential properties are adjacent to each other. To address this concern, lighting products should be selected to minimize high angle brightness and poles located at or near the perimeter of the site should utilize sharp cutoff optics that limit light behind the pole. Reducing light levels late at night