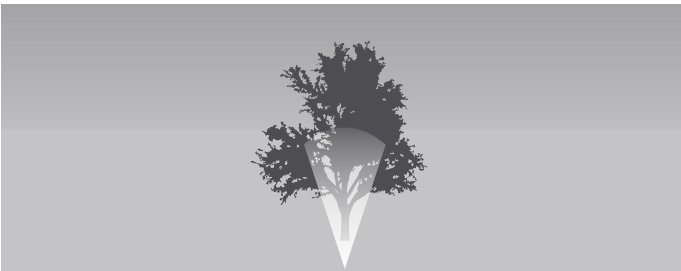




Lighting Design Tips

How to Uplight a Tree

No two trees are the same, and how the tree is situated within the landscape design will affect how you illuminate it. To assist you with planning, we have outlined some basic rules you can refer to when uplighting trees.



SMALL DECIDUOUS

- Single accent 35°: Most small, deciduous trees only need one accent light, but it's important to take the viewing angle into account. If viewed from two angles, the tree may benefit from two accent lights.
- Canopy-aimed: The fixture should graze the trunk and point up into the canopy for maximum effect.

Recommended fixture: VLO 12V LED Small 35° (16016)



MEDIUM DECIDUOUS

- Cross-lighting: While it is possible to use one 60° accent, it is better in most cases to use two 35° lights because they will direct more concentrated light into the canopy.
- Position the accent lights so they graze the trunk but are focused on the canopy.

Recommended fixtures: One VLO 12V LED Small 60° (16017) or two VLO 12V LED Small 35° (16016).

ADDITIONAL UPLIGHTING TIPS

Don't be Afraid to Make Contact

Most smaller trees will look best when the beam grazes the trunk on its way up to the canopy.

Bring Out the Contrast

Narrow beam widths throw more concentrated light on the trunk, creating contrasts and drawing out shadows, variations, bark texture, knots, and other features. By contrast, wide beam spreads soften details.

Less is More

Don't overpower your landscape features. Instead, aim to create contrast between light and shadows. An overlit tree can distract from an otherwise balanced landscape lighting design.

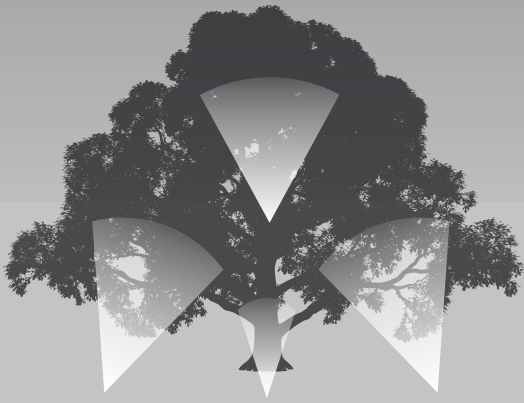
Plan Your Viewing Angles

Think about who will be viewing the lighting effects and at what angles. How will the tree appear from the street and from inside the home? More viewing angles may require more accent lights.

Think About Distance

When choosing beam angle, keep in mind that the angle will open up with distance. A 15° beam angle's spread will increase in diameter the further the light travels. On the other hand, a narrow beam width that hits a thick branch close to the ground may get blocked and go no further.

	15° Beam	35° Beam	60° Beam
Distance (in feet)	Diameter of Beam Spread (in feet)		
10'	2.63'	6.31'	11.55'
20'	5.27'	12.61'	23.09'
30'	7.9'	18.92'	34.64'
40'	10.53'	25.22'	46.19'
50'	13.17'	31.53'	57.74'
60'	15.8'	37.84'	69.28'
70'	18.43'	44.14'	84.02'
80'	21.06'	50.45'	100.69'



LARGE DECIDUOUS

- Different angles: A large tree (60-100 feet) will require a combination of accent lights with different angles.
- If the canopy starts at 25' place one 15° accent light at the base of the tree highlighting the trunk, and if the tree shape resembles the one above, use a 35° accent light to highlight the trunk.
- Place 2-3 accent lights (35° or 60°) away from the trunk pointing into the canopy* and 1-2 accent lights in the canopy, pointing up.

Recommended fixtures: VLO 12V LED Large 15° (16018) for the trunk, VLO 12V LED Large 35° (16019) or 60° (16020) for the canopy. Add 16091FRO beam expander to 16020 to go wider than 60°.

***Tree-mount junction box required:**

For each light in the canopy, use a tree-mount junction box with stand-off screws, so the tree has room to grow. Each junction box will provide a mounting location for one accent light. Connections and wire nuts go inside the box. Run the wire up the non-visible or least-visible side of the trunk and fasten it to the trunk with cable ties or zip ties and stainless steel screws, making sure that the wire can still move with the tree. Leave some extra wire at the base of the tree to allow for tree growth.



LARGE CONIFER

- Total capture: Two accent lights with 60° beam spread to light up the tree on two sides, creating 360° of visual interest.
- Greater distance: With firs, the fixtures should be placed farther away from the base and should shine directly onto the tree (rather than aiming up into the canopy).

Recommended fixture: 25' tall or less: VLO 12V LED Small (16016, 16017) or 30' tall: Large 35° or 60° (16019, 16020).





Lighting Design Tips

How to Downlight a Tree

A mood-enhancing option that will make an outdoor living space magical.



Add Drama and a Focal Point

Uplighting trees is dramatic and can create a focal point for the entire landscape lighting design. By comparison, downlighting is subtle and can create an inviting outdoor living space.

Downlighting and Uplighting

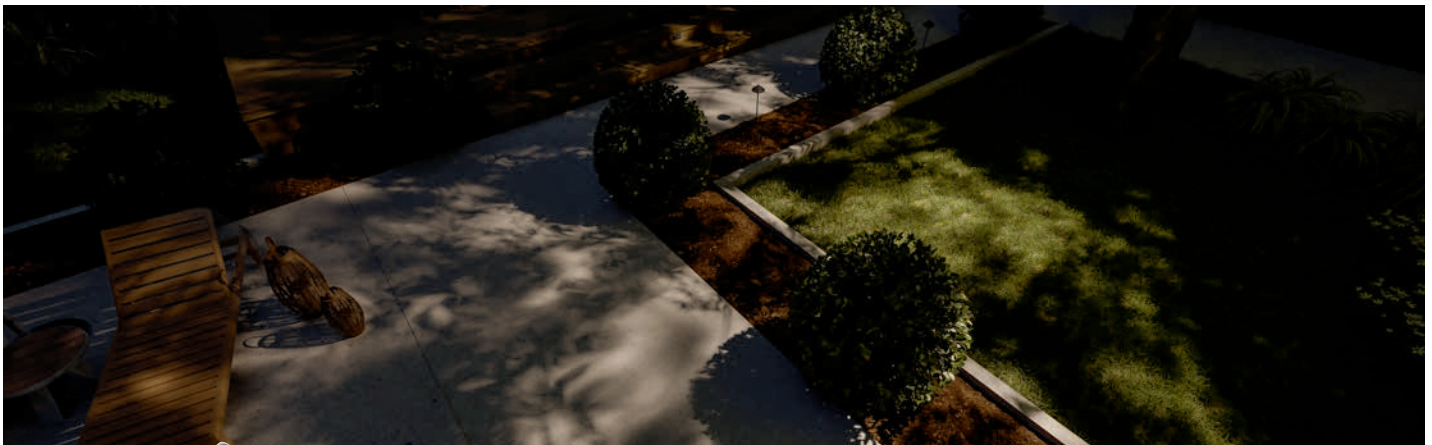
Downlighting and uplighting can be used together on the same tree for maximum effect or used separately on different trees. Also, downlighting can be installed on structures, such as pergolas or gazebos.

Enhance Social Gatherings

Downlighting makes a space inviting and delightful for social gatherings. It creates a special experience without the lighting itself being obvious.

Simulate Moonlight

With a tall tree, downlighting can simulate the impression of moonlight and, with a gentle breeze, you will be able to see the shadows of branches and leaves at play on the ground. If you want to wow your customers, try enhancing one of their outdoor living spaces with moonlighting.



CREATE A BEAUTIFUL MOONLIGHT EFFECT

VLO 5000K LED High Lumen Accent

Comes equipped with a moonlighting kit which includes a Long Cowl and a 6500K CCT Mercury Vapor Green Lens to mimic the color of the moon. Use our Tree Bracket Mount (15609AZT) to install the fixture on trees for an optimal moonlighting effect.





HOW TO CREATE DOWNLIGHTING

Identify a large deciduous tree on the property that is a focal point of the landscape or near an outdoor living space. A large, tall tree is best with branches that start high up, although you can use a smaller tree too.

Place one Variable Lumen Output (VLO) Small 60° wide accent light at least four feet above the lowest tier of branches, about 20–25 feet from the ground is ideal. Point the accent light downward, experimenting with the right direction for creating shadows with the branches below.

You can place the light lower or higher, but you want to avoid situations where the light is buried behind too many branches or where the light is visible or blinding from below.

HOW TO MOUNT AN ACCENT LIGHT IN A TREE

Our VLO Small or Large 60° wide accent light is ideal for downlighting from 20' or less because it offers three-lumen levels to choose from, allowing you to get the lighting mood just right. You can also experiment with the beam expander lens that is available as an accessory.

We recommend using a tree-mount junction box with standoff screws for mounting the accent light, so the tree has room to grow. The junction box will provide a mounting location for one accent light. Connections and wire nuts go inside the box. Run wire up the non-visible or least-visible side of the trunk and fasten it to the trunk with cable ties and stainless-steel screws, making sure that the wire can still move with the tree. Leave some extra wire at the base of the tree to allow for tree growth.



PRO TIP

A long cowl for the VLO Small accent light helps prevent the light source from being visible when looking up from the ground.



Path & Spread Lighting Guide

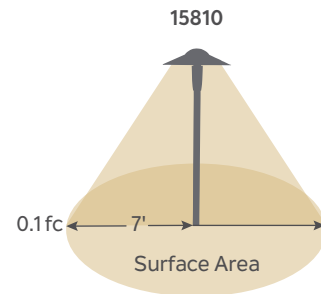
Why Path & Spread Lighting

Path and spread lights help illuminate sidewalks, stone pathways, and lawn walkways while adding a hint of intrigue to boulders, plant beds and patio perimeters. Spread lighting uses a path light inside a landscape bed to illuminate the plantings and ground cover.

TYPICAL PLOT PLAN USING SPREAD LIGHT FIXTURES

It is important to use a center-to-center measurement, rather than linear, along the sidewalk to help plan for path and spread lights. This will help ensure your fixture spacing is not subject to the width of the walkway. The chart below outlines that most path lights have a 5-7' light spread from the fixture from each side of the center, which maintains a bare minimum .1 fc at that distance. A typical path light is 10' in diameter. You will need to double the distance of the below footcandle chart to get a full diameter.

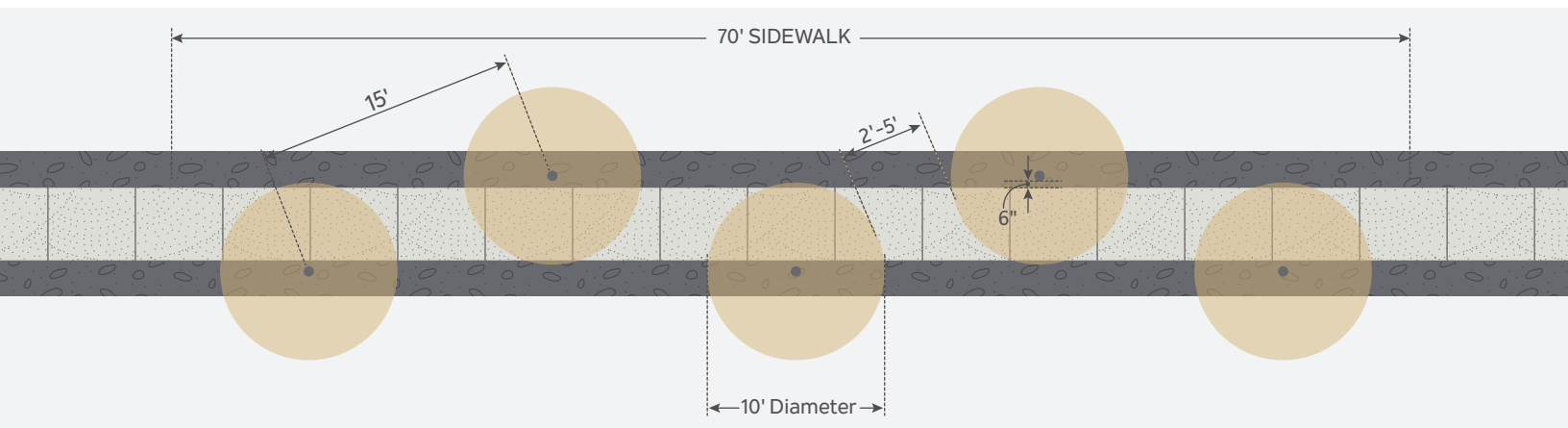
Foot-candles by Item Number	DISTANCE FROM FIXTURE CENTER							
	0'	1'	2'	3'	4'	5'	6'	7'
15810	10.5	5.7	2.4	1.0	0.4	0.3	0.2	0.1
16120	20.0	7.6	2.8	0.9	0.4	0.2	0.1	0
15870	16.5	7.2	2.5	0.7	0.2	0.1	0	0



1 lumen = 1 candle
1 footcandle = 1 lumen/ft²

STAGGERED PATH LIGHTING

When using a staggered path lighting approach, we recommend installing the path lights at least 6" away from the edge of the pathway and space the fixtures at 15', using a center-to-center measurement, which will leave a 2'-5" gap between pools of light and properly illuminate the sidewalk.



Additional Path & Spread Lighting Tips

- Spread lights are typically center mounted
- Most spread lights have a larger round or square area of light; the shade geometries will dictate the shape of the light spreads
- Use spread lights when illuminating sidewalks, lawn and flower beds at the same time
- Use path and spread lights sparingly, try not to overlap the light output of other path lights
- The wider the top canopy, the wider the spread because of a greater reflective surface

MAPPING OUT YOUR PLAN

- 1 | Make sure to always review your application area first.
- 2 | Next, start drawing out some layout ideas with distance and measurements to ensure that you are accounting for the beam spread and photometrics of the selected fixture. We recommend planning for a total spread diameter light spread from the center of each fixture.

Check out our photometric details and diagrams on Kichler.com for additional details and information.

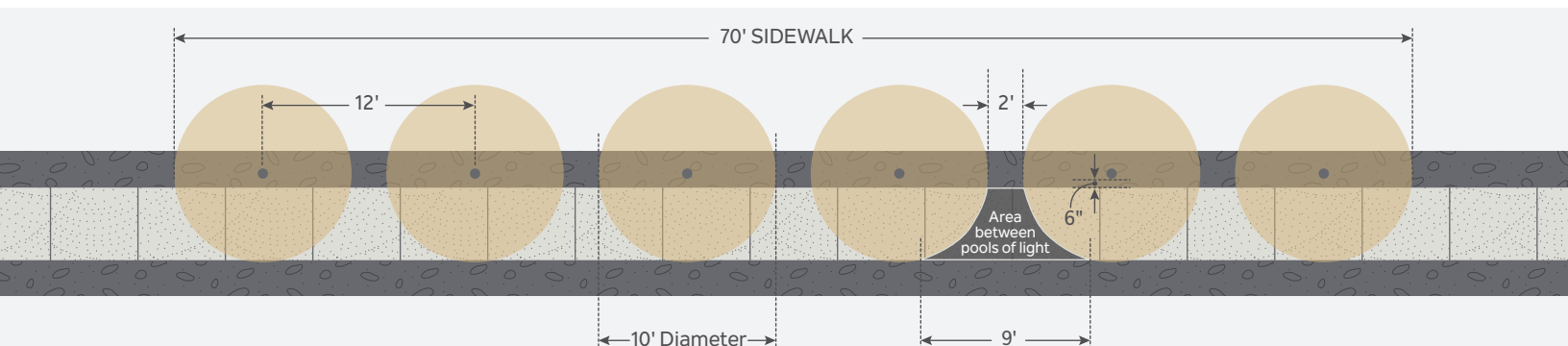
For help with layout planning, contact our **Landscape Lighting, Layout & Design Services team** at **844-KICHLER** (844-542-4537) or via email at techsupport@kichler.com.



15870AZT27R

LINEAR PATH LIGHTING

By spacing the fixtures at 12', the gap between pools of light would end up being just over 2' on the near side of the walk and 9' on the far side of the walk.





Landscape Lighting Techniques

Get the most out of a project with these professional landscape lighting techniques.



WALL-WASHING

Delivers a subtle, low amount of light to a wide area, up close to the structure, with minimal hot-spots and density.

Recommended fixtures: VLO 12V LED Accent 60° 16017 & 16020. VLO Mini Wall Wash 16026. Also 120V-277V C-Series 16210-16211, 16213-16214, 16218-16224.



CROSS LIGHTING

Using two or three beams of light, it creates 360-degree visual interest on large trees, statues or other tall features.

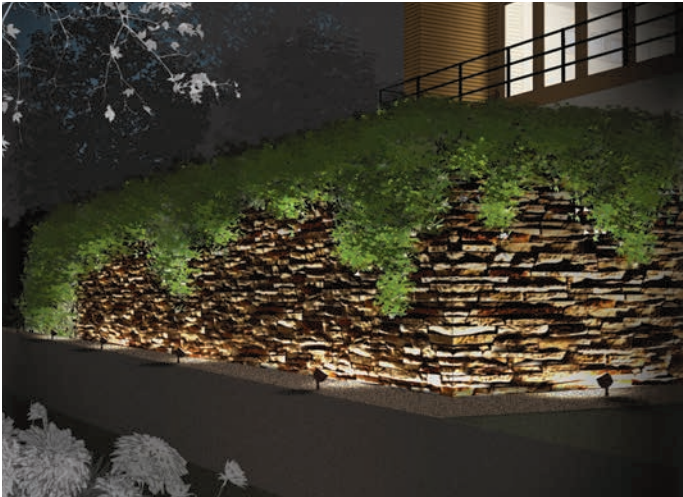
Recommended fixtures: VLO 12V LED Accent 15°-35° 16015-16016, 16018-16019. Also 120V-277V C-Series 15°-40° 16209-16210, 16212-16213, 16215-16216, 16218-16219.



ACCENT LIGHTING

Shines light upward to illuminate an object or surface for dramatic, attention-getting visuals.

Recommended fixtures: VLO 12V LED Accent 15°-60° 16015-16020. VLO High Lumen Accent 15°-60° 16160-16162. Also 120V-277V C-Series 15°-55° 16209-16220.



GRAZING

Adds depth and dimension to stucco, brick, stonework or architectural features of a home or building.

Recommended fixtures: VLO 12V LED Accent 60° 16017 & 16020. VLO Mini Wall Wash 16026. Also 120V-277V C-Series 40°-55° 16210-16211, 16213-16214, 16218-16224.



SILHOUETTE LIGHTING

Draw attention to an interesting shape by lighting a vertical surface behind the object to accent that unique shape.

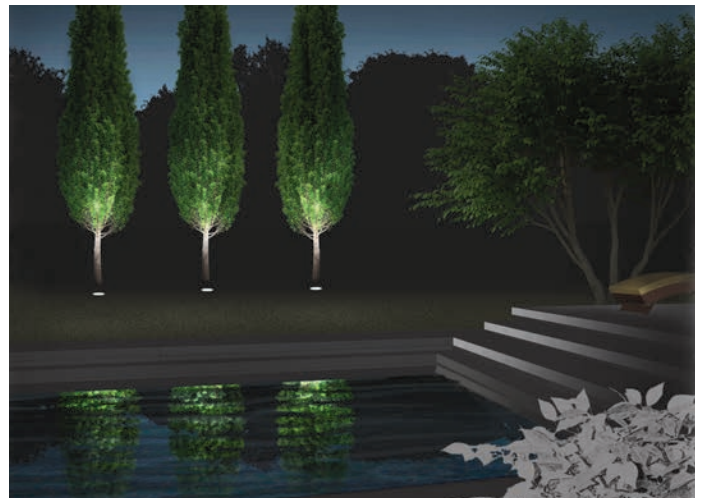
Recommended fixtures: VLO 12V LED Accent 15°-60° 16015-16020. Also 120V-277V C-Series 15°-55° 16209-16220.



SHADOWING

A technique that projects the look of a tree or yard art onto a surface behind the object.

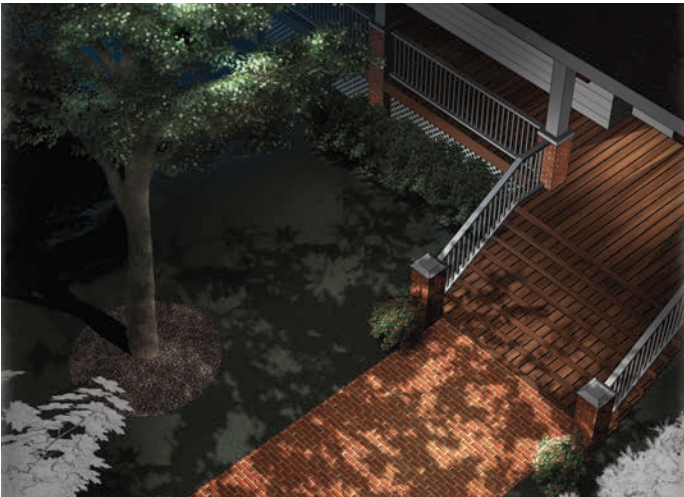
Recommended fixtures: VLO 12V LED Accent 15°-60° 16015-16020. Also 120V-277V C-Series 15°-55° 16209-16220.



MIRROR LIGHTING

Create dream-like water scenes by strategically lighting background areas around bodies of water that reflect the landscape off of the water.

Recommended fixtures: VLO 12V LED Accent 15°-60° 16015-16020. Also 120V-277V C-Series 15°-55° 16209-16220.



MOON LIGHTING

Placing a lower lumen fixture high in a tree catches the details of branches and leaves, emulating the look of moonlight.

Recommended fixtures: VLO 12V LED Accent 60° 16162AZT50, 35°-60° 16016-16017, 16019-16020. VLO High Lumen Accent 35°-60° 16161-16162. Also 120V-277V C-Series 40°-55° 16210-16211, 16213-16214, 16218-16224.



UNDERWATER & WATER ACCENT

Enhance and highlight flowing water in waterfalls, streams and fountains. Create a magical mirroring effect on still waters.

Recommended fixture: VLO 12V LED Underwater 16027.



IN-GROUND LIGHTING

Deliver light to permanent and semi-permanent installations such as sidewalks, large mature trees, walls and flagpoles.

Recommended fixtures: VLO 12V LED In-Ground 16023-16025, 12V LED Mini All-Purpose Recessed 16140-16141. Also 120V-277V C-Series 16227-16228.



XERISCAPE LIGHTING

Cacti, grasses and the stone used in xeriscape designs can benefit from a lower lumen illumination than traditional landscaping.

Recommended fixtures: 2700K fixtures; 12V LED Path 15811, 15821, VLO 12V LED Accent 16015-16017.



PATH & SPREAD LIGHTING

Illuminate sidewalks, stone pathways and lawn walkways while adding a hint of intrigue to boulders and plant beds. Spread lighting uses a path light inside a landscape bed to illuminate the plantings.

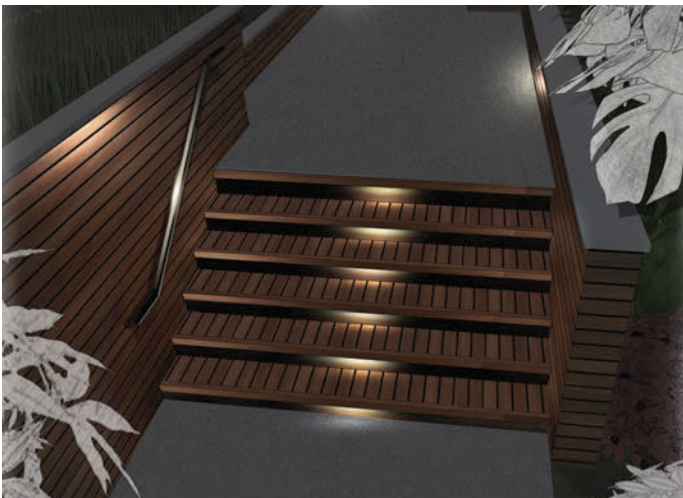
Recommended fixtures: 12V LED Path Fundamentals 16120, Stepped Dome 15820 or Dome 15810.



DECK & PATIO LIGHTING

Accentuate all of the beauty and details of decks, patios, outdoor kitchens, steps, handrails and more.

Recommended fixtures: (top) 12V LED Half Moon 15764. (bottom) 12V LED Brick Light 15773, LED Surface Mount Step Lights 16171-16172.



HARDSCAPE LIGHTING

Highlight stone features, retaining walls, outdoor kitchens, steps, handrails, benches and more.

Recommended fixture: 6" 12V LED 16101.





Outdoor Lighting

Light Up the Great Outdoors

The outdoor space should feel like an extension of the home. Comfortable, welcoming and a reflection of one's style. But with outdoor spaces, you can go a step further. With a little décor and the right light, you can make a backyard feel like an outdoor oasis.



SUPERB APPEAL

With your customer's front porch or doorway area, they have a chance to welcome guests to their home before they even set foot in the door. A large, outdoor wall-mounted fixture next to the door will say 'welcome' even better than a clever welcome mat. And a ceiling light and pendant will put polish on a front porch.



GARAGE LIGHTS

One of the safest ways for one to arrive home at night is with the right garage light. A wall mounted fixture is a stylish and versatile way to bring light to a garage. To determine how large the fixture should be, simply multiply the width of the garage door in inches by .25 (for a single car garage) or by .33 (for a two-car garage).

Mix, Match & Maximize

The style of a home shouldn't be limited to the space within the walls. The decor outside a home can express your customer's style with the use of mix and matching fixtures and finishes.



MIX FINISHES

Mixing finishes is a simple way to keep a patio, deck or outdoor space from looking too uniform. When mixing finishes or metals, stick with two to three metals max. Opt for opposing colors, like black and brass, or stick to a similar cool or warm shade, like chrome and nickel. Also consider the finishes of the outdoor furniture, door hardware, or outdoor kitchen knobs as part of the mix and match plan.



MIX TEXTURES

When talking textures, you can mix the texture of the finish, like shiny with matte, but you can also mix the texture of the glass. For instance, clear seeded glass casts an ambient glow and pairs well with etched glass, which diffuses the light. When combined, these glass types create a unique and inviting look to a home's exterior.





Outdoor Ceiling Fans

Keep the Outdoors Cool

Our outdoor ceiling fans bring style and airflow to your customer's favorite outdoor space. Each ceiling fan offers premium finishes and hardware designed to withstand the elements, delivering worry-free performance year after year.



CEILING FAN PERFORMANCE GUIDE

Here's what the numbers mean to you.

Designing ceiling fans that maximize performance for our customers has always been how we do business. We display a rating system for each fan we offer, so you can compare fans with confidence.

Look for this rating guide listed with every Kichler® fan.

AIR PERFORMANCE *		
Airflow Cubic Ft. Per Minute on High	Power Usage Watts on High (Excludes Lights)	Airflow Efficiency Cubic Ft. Per Minute Per Watt
7308	32	225
Engineered for Optimal AIRFLOW	Designed for Minimum POWER USAGE	Built for Enhanced AIRFLOW EFFICIENCY
Airflow is measured in Cubic Feet Per Minute (CFM) – a U.S. Government-mandated standard. • The higher the airflow number, the more air the fan is circulating.	Power usage for your fan motor is measured in watts. • The lower the watts, the less energy the fan consumes. • DC motor ceiling fans are the most energy-efficient, using the least amount of wattage.	Airflow efficiency gives you the total picture: dividing the fan's CFMs by the watts of power it consumes. • The higher the airflow efficiency number, the more air the fan is moving per watt.

*Performance values are based on indoor applications and may vary when used in outdoor applications.

Choosing The Right Size Ceiling Fan For Your Outdoor Space

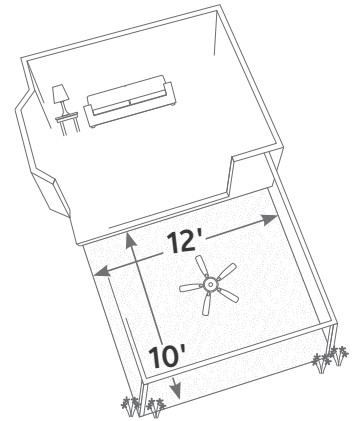
1

STEP ONE

Determine the square footage of your space.

Measure the length and the width of the space and then multiply. For example:

$$\begin{array}{ccccccc}
 \underbrace{10 \text{ Ft.}} & \times & \underbrace{12 \text{ Ft.}} & = & \underbrace{120 \text{ Sq. Ft.}} \\
 \text{Width} & & \text{Length} & & \text{Space Area}
 \end{array}$$



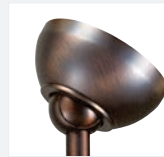
2

STEP TWO

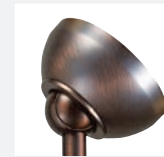
Have a tall space with sloped or vaulted ceilings?

The rule of thumb is that fans should have a minimum of 7 feet of clearance between the bottom of the fan blades and the floor in order to circulate the air efficiently. Many of our ceiling fans work with 8 or 9 foot ceilings. If your ceiling is higher, you'll need a downrod.

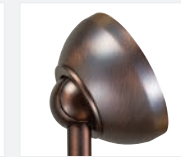
For sloped ceilings, especially in coastal/windy areas, a slope adapter is recommended. For ceilings in excess of 15° of slope, please utilize our 60° Slope Adapter (337005).



30°



45°



60°

3

STEP THREE

Determine the fan size you need:

75-100 SQ. FT.	100-200 SQ. FT.	Over 200 SQ. FT.
OUTDOOR SPACE		
75 to 100 square feet	100 to 200 square feet	Over 200 square feet
RECOMMENDED BLADE SWEEP		
50" to 54"	56" to 70" or multiple fans	Over 70" or multiple fans

* The recommended square footage shown here accounts for outdoor variances for fan use to better guide your blade sweep selections. As outdoor wind and temperature variances can interfere with the anticipated airflow, we suggest referencing the indoor air performance data available for each fan to aid in selecting a fan with higher air performance.

