



Choosing Long-lasting Exterior Lights for Your Marine Vessel

How to find above-deck marine lights that last

On today's busy and frantic waterways, a vessel's exterior and navigation lights are often its most necessary safety measure. Once those lights fail, the vessel is deemed unsafe and inoperable until they are replaced, according to USCG regulations. To avoid costly downtimes and maintenance calls, forward-thinking marine operators increasingly look to install exterior lighting that's more reliable in harsh and demanding marine conditions.

But with so many options out there, how can marine operators make the right choice? What sets longer-lasting exterior lights apart from the rest? What should marine operators focus on when buying exterior lights, if vessel safety and investment value are the main concerns?

This guide reveals the key characteristics shared by most long-lasting exterior lights. With these in mind, you can make more informed decisions when choosing exterior lights for your vessel. You'll learn:



The four key features of exterior lights that will survive the extra mile, drawn from years of marine experience



A checklist of revealing questions you should pose to your lighting manufacturer or vendor before purchasing



The long-term advantages and benefits of working with an experienced marine lighting manufacturer

Equipped with the information in this guide, you'll have what you need to make informed purchasing decisions and obtain exterior lights that will survive the most challenging conditions that marine environments throw at your vessel.



The 4 Critical Characteristics of Long-Lasting Exterior Lights

Exterior lights are only considered ‘marine grade’ when they have been designed and engineered specifically for the rigors of the marine environment. They should operate within a wide -40C to +50C ambient temperature range and withstand corrosive marine conditions. This ensures dependable, long lasting and safe illumination for navigation, as required by maritime law and regulations.

Most exterior lights in the market today do not meet the requirements above, and will never reach their maximum lifespans. The reason for this? It’s primarily due to the low-quality materials used for the light’s external construction, or the lack of protection for the light’s sensitive internal components.

Exterior lights that are highly durable and long-lasting possess several critical characteristics that extend their field lifespan:

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| 1 | Marine Certifications: Some lights claim to bear required certification or compliance with marine standards, but closer examination reveals otherwise |
| 2 | Quality Construction: Lights fail when they aren’t built with materials that can withstand the corrosive marine environment, externally and internally |
| 3 | High Repairability: Being able to perform simple field repairs to your lights extends its lifespan while keeping your vessel compliant with Coast Guard regulations |
| 4 | Dependable Availability: Sourcing from a lighting manufacturer or vendor with a local presence and stock minimizes delays when you need to buy new fixtures or secure replacements and parts |

Price-based sourcing of exterior lights may have the benefit of initial affordability, but often comes at the compromise of several of the characteristics above and ultimately costs more. In the next section, we examine these characteristics in detail, highlighting key information that will help marine operators make smart and informed lighting choices.



1 | Check for the Right Certifications and Ratings

If your exterior lights exhibit water intrusion or condensation, as well as damage from vibration or corrosion, take a closer look at their certifications or ratings. For reasons unknown, some lighting vendors or manufacturers may obscure their light's full certification and rating – for example, writing 'IP rated' instead of the full 'IP65'. Insist on transparency and look for these certifications or ratings:

Certification	Application Suitability
UL 1598	Suitable for wet locations
UL 1598A	Marine certified for saltwater applications
IP66/IP67	Withstands periods of intense waves and/or heavy spray without failing
IP69K	Withstands periods of high-pressure spray without failing
ABS	Meets the American Bureau of Shipping's marine engineering guidelines
CE Certified	Tested and proven to limit electromagnetic and radio interference







Reliable lighting vendors and manufacturers will have nothing to hide. With them, you'll have confidence and peace-of-mind, knowing any exterior light you purchase will consistently withstand the worst of marine environments.



2 | Examine Construction Quality and Durability

Choose only lights made with marine grade materials and housing with low copper content, making them less affected by saltwater exposure. Avoid materials that are susceptible to UV damage, especially for critical fixtures like navigation lights, as those materials can quickly become brittle and lead to the intrusion of moisture or condensation when constantly exposed to the elements.

The internal construction and engineering of an exterior light will also impact its long-term survivability. When examining an exterior light, ensure that:

 Mounting brackets are sturdy and made from 316 stainless steel (best choice) or powder coated steel (an acceptable alternative)	 The light is tested for and doesn't cause electromagnetic and radio interference	 The driver is fully potted to prevent water intrusion and interference	 The light and lens are waterproof
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Inspect the light's specification sheets to better understand the quality of its construction and ability to keep your marine vessel safe in the long-term.



3 | Choose Lights with Repairability

Repairable lights save you more down the line. The unexpected failure of exterior or navigation lights in the field causes visibility to plummet, raising the risk of collision with other vessels or accidents onboard. But with a level of repairability, lights can be brought back on again, keeping vessels safe. Marine vessels caught without working exterior lights also face hefty maritime fines or penalties – even if those lights happened to fail while out in the field.

To prevent the costly encounters above:



Choose lights that can be repaired at sea, with minimal or no electrical work



Look for lights with swappable drivers or replaceable lenses. Some lighting manufacturers even offer floodlights or navigation lights that allow for the toolless replacement of LED parts or modules



Instead of replacing the entire light, repairable exterior lights merely require a part or module swap, extending the lifetime efficiency and viability of the light itself. And in most cases, the cost of buying replacement parts is much lower than the cost of replacing an unrepairable light – saving you more money over time.







4 | Check if Lights can be Sourced Locally

What makes a light failure worse is having to keep your vessel delayed or unsafe, because replacements are unavailable. Therefore, it's beneficial to engage vendors that manufacture in the USA and stock your fixture of choice. Ensure that they also stock any necessary parts, mounting brackets or accessories you may need.

It's also much easier to contact a local manufacturer or vendor for warranty or service issues. You'll be talking with a real, highly knowledgeable person on the other end about your warranty claims, issues or lighting questions. This level of responsiveness is worth the premium over buying online. And better yet: you'll find it easier to get the information you need to make the right decision and purchase lights that will keep your vessel safe, efficient and compliant for far longer.

Questions for your Lighting Manufacturer or Distributor

To find out if the marine grade lights that you're considering are truly long-lasting, these are some questions you can direct to the lighting manufacturer or distributor.

 Certification	Do you have proof of the light's complete certifications and ratings?
	How many of these have been granted and how many are still pending?
 Construction	Which water, pressure and vibration tests have been done to determine the durability of the light's external housing?
	Are the light's mounting brackets and internal housing made from the same marine grade material?
	What protective measures have been taken to protect the light's internal components and circuitry?
 Repairability	What parts of the light can be repaired? What spare parts are available?
	How many times can the light be repaired before it needs to be replaced?
	Do repairs to the light require tools or an electrician?
 Availability	How long would it take for a new light or replacement to reach my vessel or site?
	Does the light have a locally based manufacturer, distributor or supplier to handle questions, support requests or issues?

Getting Assistance from a Marine Lighting Expert

Even with the information in this guide, finding the right exterior lights requires time and energy – both of which are better devoted to your business operations. Most marine operators find it more convenient to partner with marine lighting experts that can bring an experienced eye and mind into the selection process for exterior lights.

Our team at Phoenix Lighting strives to provide that and beyond to our marine customers. With decades of engineering, manufacturing, and servicing experience, we're well placed to provide you with exterior lights that meet the right certifications and possess qualities or features that allow for long years of service in the field.

You'll receive a full range of customer care services for your marine lighting needs:

	<p>Project Assessment</p> <p>We'll work closely with you to evaluate your marine vessel or fleet's exterior lighting needs. You'll get an end-to-end solution from our complete range of marine floodlights, navigation lights and deck lights</p>
	<p>Lighting Designs</p> <p>Our lighting experts will create lighting designs or simulations, giving you a clear visual of your vessel's exterior lights in action, at no cost</p>
	<p>Onsite Installation</p> <p>We can coordinate with distributors and installers – or work with yours if you prefer. From there, we'll ensure your vessel's exterior lights are shipped and installed with the highest care</p>
	<p>Short Lead Times</p> <p>We ensure short lead times for our fixtures and work with selected partners to hold local inventory, so your marine vessel will always have the exterior lights or spare parts it needs</p>
	<p>Parts and Warranties</p> <p>Whether it's a driver that needs replacing or a warranty that needs claiming, our team of lighting experts and customer support team can be easily contacted to service your needs</p>

Want to know more?

Need a lighting expert to assist you in installing new lights or upgrades to your marine fleet?

Tell us your exterior lighting needs and let's get started.



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About Phoenix Lighting

With over a century of experience in marine lighting, Phoenix Lighting is trusted by marine operators in the US and Canada for well-engineered, marine grade lights. Our full range of solutions includes our Defend and Command Flood floodlights, heavy-duty ModCom® 2 and EcoMod® 2 floodlights, SturdiLED® fixtures and SturdiSignal™ navigation lights. Our lights are also used in a variety of other punishing environments, such as ports, mining, material handling, airports and government applications.