DuraBrite

DuraBrite *Pro Series* is a flagship model designed by a team of military and aerospace electronics product engineers who refuse to compromise.

The *Pro* uses state-of-the-art LED chip technology, high reliability control and low draw circuitry, and a patented thermal dissipation architecture (US Patent# 9,648,750), all housed in a sleek yet rugged package that pushes the lumens-to-weight ratio boundary to the extreme. Unique in the Durabrite product family, every *Pro* is treated with our very own *Ceramax Ultra Coat* so they stay looking new for many years to come.

Outputting a massive 50,000 lumens, the *Pro* draws a seemingly unachievable 18A at 24V, leaving the competition in the dust. The special optical form factor not only looks handsome on any professional vessel, it also yields top-notch real-world performance.

Unlike regular light bars, *The Pro* gives both extended range and coverage with its carefully chosen and field-tested beam angles so you can see and be seen with ease from a few miles out. It literally turns night into day and it's no wonder Durabrite owners call it the #electricsun.
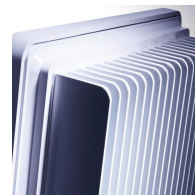
Custom design variants are also available for industrial settings especially for use in extreme high heat high bay environment where most LED lighting products fail to survive and deliver.

US Patented Optics
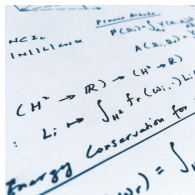
Light Shaping Technology

High Performance Materials

Advanced Venting System

Protected by:

Ceramax™
PREMIUM CERAMIC COATING

Designed & Assembled In USA

"I have purchased a few models over the years for different applications. The performance and durability of these lights are top notch. Whether it be navigating a difficult inlet after a long night of fishing or illuminating a work area so we can complete our jobs. Durabrite products have never let me down."   - Eric M.

"Exceptional Marine Lighting. Among the best customer service in the boating industry. Our customer was very satisfied with the quality of these lights. Nothing else compares. Tech support was fast and responsive when we need an answer to a question."
     - Jason G.
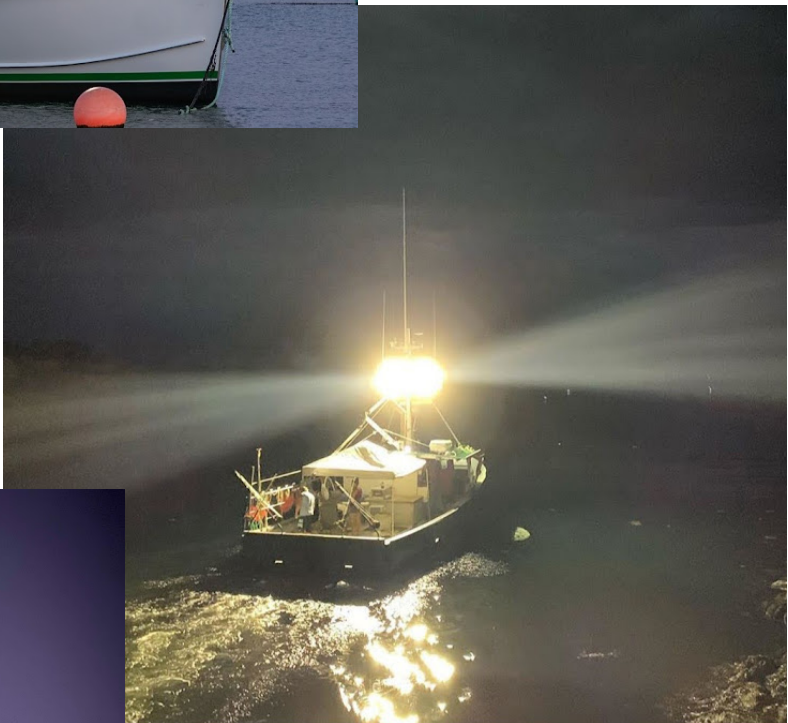
"First class product and service. I was tired of changing halogen bulbs on my boat. Started doing research into LED lighting. Came across tons of different brands. Then I found Durabrite. I bought a unit to try. Absolutely amazing quality and craftsmanship of the product. Clean crisp light using half the power. Upgraded all my lights to Durabrite. Also upgraded all the lighting on my work boats to Durabrite. If you want the best go Durabrite."
     - Andrew A.

DuraBrite

Optical & Electrical Characteristics   (All ratings are at 25°C unless otherwise specified)

LED Color, CCT	Typical = 5000K (Neutral white)
	2800K option available as Special Order
Brightness, dimmable	50,000 lm at 24VDC & 32VDC
	40,000 lm at 12VDC
Beam Angle	25 deg (Spot)
	76 deg (Flood)
Operating Voltage	Auto detect
	12VDC, 24VDC, 32VDC
	*Most efficient to operate at 24VDC for max brightness
Current Draw	Approx. 14A at 32VDC
	Approx. 18A at 24VDC
	Approx. 26A at 12VDC
Total Power Consumption	440W at 24VDC & 32VDC
	304W at 12VDC

Mechanical Qualifications

Water Resistance	IP68
	(submerged to 4.5 ft water for 30min)
Moisture Resistance	65°C / 95% RH
	Mil-Std-883 TM 1004.7
Salt Spray / Corrosion Resistance	240 hrs @ 35°C
	ASTM B 117-09 /ASTM D1654-08
Temperature Range	-40°C to 55°C
	Mil-Std-883 TM1010.8
Mechanical Shock	30G, 11ms Half Sine, 3-axes (+ve/-ve)
	Mil-Std-202 TM213B
Vibration Resistance	100,000 cycles, 3-axes
	ANSI C136.31

Warranty Terms

We stand behind our products. This product is covered by Durabrite's 5 Year Limited Warranty against material and manufacturing defects. However, it does not cover application and conditions that are outside of the product design parameters, abuse, and wear-and-tear.

Special Note on Bracket Installation & Corrosion Prevention

The bracket that comes with the Pro is laser cut with Marine Grade 316 Stainless Steel and is coated with Durabrite's **Ceramax Ultra Coat**. Even though it has superior corrosion resistance, and a 9H surface hardness, it does not mean it is corrosion proof. It can still rust if the ceramic coat barrier is broken and there is a buildup of salt on its surface over a prolonged period of time in a marine environment.

Care should be taken to prevent scratching at the mounting locations (e.g. by means of Nylon washers). You will notice a set of Nylon washers that are pre-installed in between the light and the bracket (one on each side). Make sure you keep them in place to minimize interaction and/or scratching between the two metals as you tighten and adjust the angle. The light body is made of aluminum and coated with a hard anodize, which by design, offers excellent protection. But if the bare metals come in contact due to scratching, galvanic corrosion will take place.

A Note on Breaker

Use one breaker per light so there is no current sharing issue you have to possibly deal with. You should always budget at least 30% more than the rated current for your voltage, per light, to take into account startup surge. This will help prevent overheating and will prolong the life of your breaker. For instance, if you are running 24VDC, the rated current draw is 18A. You should size your breaker to at least 23A for best reliability and longevity.

A Note on Cable Length

- If you operate at 12V, the current draw will be approximately 26A. The 6ft cable that comes out of the light (i.e. the pigtail) is AWG12 and if you also plan to use a AWG12, your extension **SHALL NOT** exceed 10ft.
- This is to minimize resistance, which can lower the voltage that goes into the light. If your light looks dim or if it flickers, the most likely cause is an insufficient cable gauge or the cable run is too long.
- If you plan to do a longer cable run, we recommend you to first run the pigtail to a waterproof junction box close to the light, and from there, run a AWG10 or AWG8 to your DC power source depending on the overall length (consult us if you have a run more than 30ft)
- If you are doing 24V, the light will draw roughly 18A. A AWG12 should suffice for up to a 30ft run.

Wiring Instruction:

If you have a DC Power Source
1. This is a DC light, meaning you should only power it directly using a DC source. You probably either have 12VDC or 24VDC. The light will auto detect the DC voltage. You don't have to do anything special if you operate one of these voltages.
2. Connect:
    a. Positive (our red wire) to Positive
    b. Negative (our black wire) to Negative
    c. Dimming wires (thin white and thin black) left unconnected for max brightness.
        Alternately, connect the Dimming wires to a 10K dimming dial (supplied upon request)
    d. Ground (our green wire) to chassis ground (metallic element that is tied to vessel chassis)
3. All wire connections including cable jacket and ground wire **MUST BE** protected from water intrusion. Otherwise, damages due to water ingress because of unprotected wire connections will not be covered by our warranty. If the cable splice seal is compromised, water may find its way up the cable over time, leading to moisture induced failure. Early signs you will usually see is the light flickering or slight condensation on the interior.

If you have an AC Power Source
1. STOP NOW !
2. Go to our website and buy the Pro AC Adaptor before you start the installation.
3. Use one Pro AC Adaptor for EACH Pro light.
4. Once the AC adaptor arrives,
    a. **IMPORTANT:** Install an on/off switch between the light and the Output side of the AC Adaptor. This is to allow you to first turn on the AC adaptor so it is primed with power first before you turn on the light.
    b. Connect the TWO RED wires (Positive) on the Output side of the adaptor to Positive (our red wire)
    c. Connect the TWO BLACK wires (Negative) on the Output side of the adaptor to Negative (our black wire)
    d. Connect Ground (our green wire) to chassis ground (metallic element that is tied to vessel chassis)
    e. Leave the pair of Dimming wires (thin white and thin black) unconnected for max brightness
        Alternately, connect the Dimming wires to a 10K-ohm dimming dial (supplied upon request)
    f. Waterproof all wiring connections including all cable jackets
5. Make connection on the Input side of the adaptor according to the National Electrical Code or equivalent in your country. The adaptor can be powered by either 110VAC or 220VAC, auto-detect.
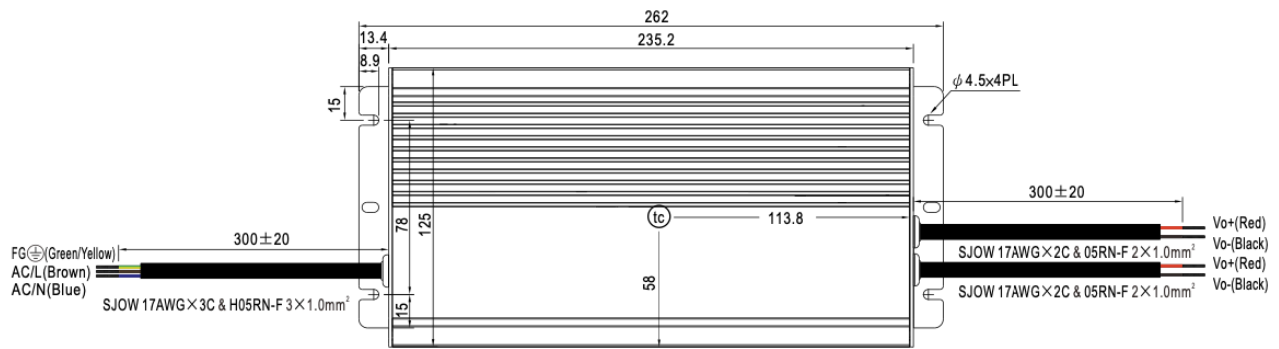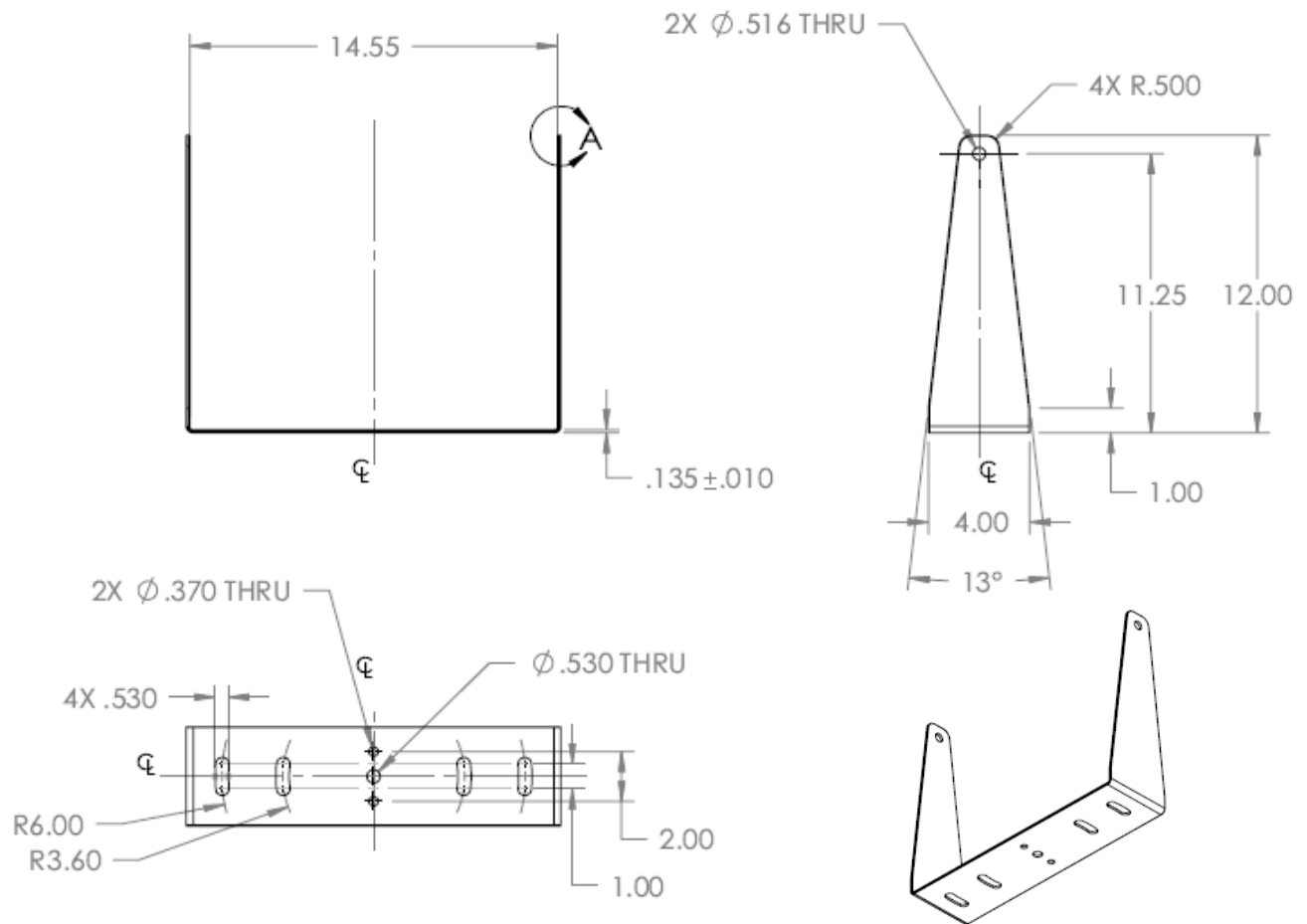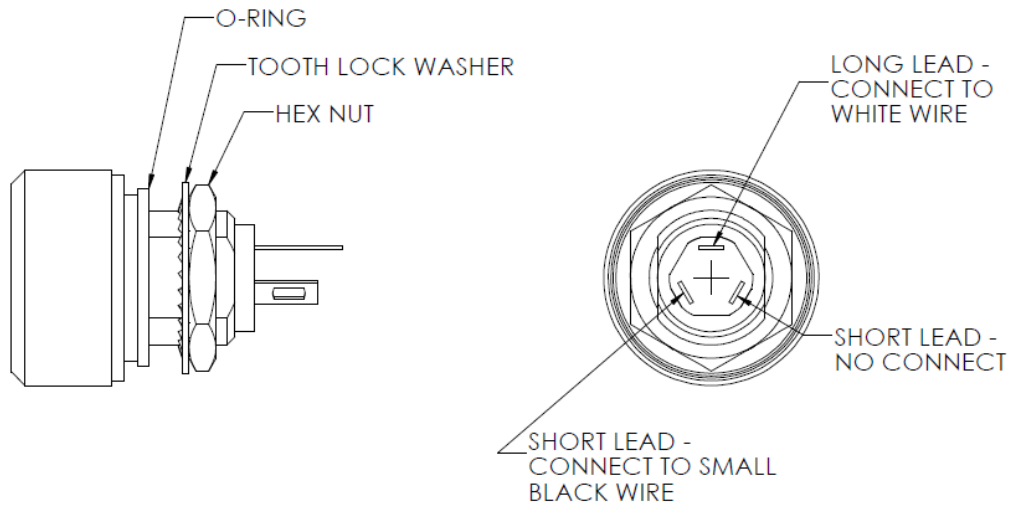
Mechanical Dimensions & Weight:

Thickness = 3.59"

Weight: 32 pounds

(w/ marine grade 316 SS bracket)

Mounting Bracket – Marine Grade 316 Stainless Steel

IP67 Panel Mount Dimming Knob (Supplied upon request)

O-RING

TOOTH LOCK WASHER

HEX NUT

LONG LEAD - CONNECT TO WHITE WIRE

SHORT LEAD - NO CONNECT

SHORT LEAD - CONNECT TO SMALL BLACK WIRE

FOR NON-DIMMING OPERATION, LEAVE BOTH SMALL WIRES UNCONNECTED FOR MAX BRIGHTNESS