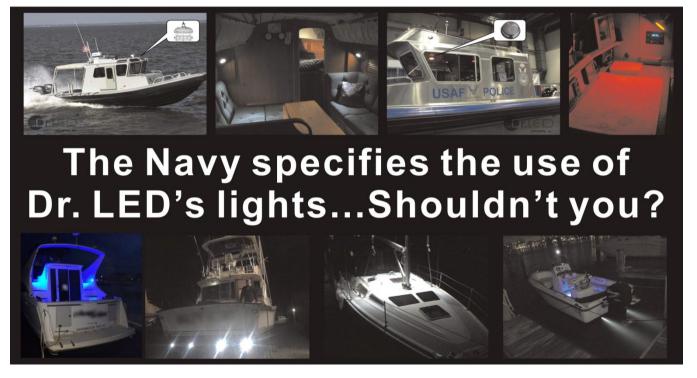
#1 Selling LED Brand







Dr. LED High-Quality Marine LED Products you can count on!
Designed in the USA and built to last.

Marine Lighting Catalog



www.DoctorLED.com

LED Conversion Guide







MMXIX





The Dr. LED Story

With their extensive background in aerospace and being avid boaters themselves, the engineers at Dr. LED provide the perfect mix of experience and enthusiasm to develop high-tech, durable, and energyefficient LED lighting products specially designed for the marine environment.

Their use of cutting-edge designs using the highest quality components (yes, there is a difference) and thorough testing of each product before it leaves the factory, ensures that each Dr. LED product will provide the performance and durability that you expect.

The Dr. LED Advantage:

- US-based engineering designed in Seattle, Washington, USA.
- Extensive background in aerospace.
- Truly innovative marine quality LED products.
- Multiple US patents were awarded.
- High-quality components and designs.
- Every product was tested for 2 hours at the factory.
- Specified by the US Navy, Air Force, Coast Guard, and the US Government.
- First and only aftermarket 2NM LED bulbs for navigation lights.

Milestones:

- 2005 First to use regulated LED bulbs in the marine market.
- 2006 First and only one to obtain USCG COLREG 1972 ABYC 2NM certified LED aftermarket replacement bulbs for navigation lights.
- 2007 First to use US CREE high-power LEDs in the marine market.
- 2007 First to use warm white LED bulbs in the marine market.
- 2008 First to provide a single high-power bi-color LED chart light for the marine market.
- 2010 The US Navy & USAF specifies the use of Dr. LED's lights in their boats and specified by the US Federal Government with National Stock Numbers.
- 2006-2015 First to develop true 1-to-1 LED replacements for 2NM LED bulbs for navigation and interior lights (BA15, festoon S8.5, BA9S, wedge bases etc.).
- 2016-2017 Developed 1-to-1 28-31mm and 36-44mm festoon LED replacements.
- 2018 Developed 1-to-1 12/24V waterproof G4 LED replacement.
- 2019 Developed 1-to-1 120/240V 6NM P28S LED replacement.
- 2019 Developed 120/240V UL 1598A Marine Vessel LED Lights.
- 2020 Developed 120/240V UL listed marine high-pressure sodium light LED replacement.

Dr. LED:

Dynamic Engineering Inc. d.b.a. Dr. LED US Federal Government CAGE Code: 636L3 Dr. LED 12345 Lake City Way NE #181 Seattle, WA 98125 USA info@DoctorLED.com

Dr. LED reserves the rights and at its sole discretion to change or modify any part of this document and our products without any notice to any party.



WARNING: Cancer and Reproductive Harm— www.P65Warnings.ca.gov

Table of Contents

LED SEARCHLIGHT: LED STAR PHASER™	1
HIGH-PRESSURE SODIUM (HPS) MARINE LIGHT LED REPLACEMENT (120/240VAC)	2
LED SPREADER/DECK/RAIL LIGHT (12/24V): KEVIN X4	3
LED SPREADER/DECK/RAIL LIGHT (12/24V): KEVIN JR. X2™	
LOW PROFILE RECESSED LED LIGHT (12/24V): RECESSED KEVIN X4	
LED ENGINE & UTILITY LIGHT (12/24V): THE GOLD STANDARD™	6
CHROME LED DOME LIGHTS (12/24V): CHROME MARS DOME™	
BRASS LED DOME LIGHTS (12/24V): BRASS MARS DOME™	8
UNDER-CABINET LED LIGHTS (12/24V): WARM-WHITE & RED / WHITE JOHN™	9
RECESSED LED LIGHTS (12/24V): SATURN RINGS™	10
LOW PROFILE LED LIGHT BARS (12V): 12" AND 20" CALLAHAN LED LIGHT BARS™	11
RED/WHITE LED CHART & READING LIGHT (12V): BLACK COBRA™	12
MOTION-ACTIVATED LED NIGHT LIGHT: CALLAHAN LED NIGHT LIGHT	
SURFACE MOUNT UNDERWATER LIGHTS (12/24V): DAVE X3™	14
STAINLESS THRU-HULL UNDERWATER LED LIGHTS (12/24V): NEPTUNE X6™	
LED REPLACEMENT BULB (12/24V): AR111 / PAR36 SEALED BEAM LED	16
LED REPLACEMENT BULBS (12/24/32V): EDISON LED / EDISON SIDEKICK™	
LED REPLACEMENT BULBS (12/24V): BAYONET AND BI-PIN MAGNUM LEDS	18
LED REPLACEMENT BULBS (12V): 12V G4 LED DISKS	19
LED REPLACEMENT BULBS (24V): 24V G4 LED DISKS	
LED REPLACEMENT BULBS (12/24V): G4 LED TOWER AND MINI G4 STAR	
LED REPLACEMENT BULBS (12V): WEDGE, WINDEX, & BAYONET 1157 DUAL INTENSITY	22
LED REPLACEMENT BULBS: 12/24V BAYONET TOWER LEDS	23
DOME LIGHT LED CONVERSION KITS (12V & 24V)	24
LED CONVERSION GUIDE	
NAVIGATION BULB SELECTION GUIDE	27
NAVIGATION LIGHT LED BULBS (12/24V AND 120V): POLAR STAR 40™	
NAVIGATION LIGHT LED BULB (120/240VAC): 120/240V P28S WHITE POLAR STAR	
NAVIGATION LIGHT LED BULBS (12V): HEX GE90 STAR™	32
NAVIGATION LIGHT LED BULB (12V): POLAR STAR 20™	33
NAVIGATION LIGHT LED BULB (12V): P338 WEDGE STAR™	
NAVIGATION LIGHT LED BULBS (12V & 24V): 28-31MM FESTOON STAR™	35
NAVIGATION LIGHT LED BULBS (12V & 24V): 36-44MM FESTOON STAR (FOR CLEAR LENS)	36
NAVIGATION LIGHT LED BULBS (12V): 39-44MM FESTOON STAR (FOR COLORED LENS)	
LED REPLACEMENT BULBS (12/24V): 31MM / 36MM / 41MM SINGLE-SIDED FESTOON BULBS	38

LED Searchlight: LED Star Phaser™ With Handy Laser Pointer





US Patent D628,326S



LED Star Phaser™:

The LED Star Phaser searchlight is so bright you can read a book when the light is held 50 feet (15m) away. This high-quality marine-grade 1,000 Lumen LED search / flash / strobe light outperforms any other LED light in the same category in terms of price, performance, and versatility. Three U.S. CREE LEDs provide the most lumens-per-watt LED light ever made. Both flood and spot beams are provided for area and distance illumination. The light is equipped with a red laser pointer for general and emergency use. (No more yelling to your shipmates to get this and that!) The Star Phaser is so bright it may disorient an intruder at close quarters. With the LED Star Phaser on strobe to attract attention, it will provide 6-hour 5-mile (8km) visibility.

US Patent: D628,326S

PN: 8001030

PN: 8001030 Features

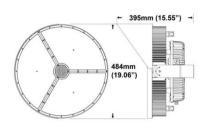
- Three state-of-the-art 5W U.S. CREE high-quality high-power LEDs.
- High-intensity white LED light travels farther for maximum visibility.
- Instant-on, no warm-up of bulb needed.
- Water-resistant polycarbonate body (IP65).
- Anodized aluminum heat sink to ensure long LED life.
- Durable rubberized head and handgrip.
- Two brightness settings: 1,000 lumens / 270 lumens.
- High / Low / Strobe trigger switch.
- Long operating time: 1.5 hours on high / 4 hours on low / 6 hours on strobe.
- Powered by a 7.2V 6-cell NiMH rechargeable battery with an intelligent battery management circuit and LED battery charging status indicator.
- Universal 100-240 VAC wall charger and 12 VDC chargers are included.
- Weight: 579g (1.3 lbs).

Replacement NiMH Rechargeable Battery: PN:9000227.

High-Pressure Sodium (HPS) Marine Light LED Replacement (120/240VAC). 120VAC 240VAC 2200°K Amber LED Light









The Pinnacle Marine Lighting Series: 2200°K 700W Amber LED Light PN:9000739
Beam pattern specially designed for Forward-Facing Lights
*** 1000W Marine Vessel High-Pressure Sodium (HPS) Light LED Replacement ***
Instant-on, no warm-up needed. No re-strike issues. No more reflected glaring white light.

This 700W 2200°K amber LED light is an ideal LED replacement for the ubiquitous 1000W high-pressure sodium lights used in many commercial marine vessels.

This light uses state-of-the-art ultra-efficient heat management and LED technologies to ensure high reliability and robust marine operation.

- UL Listed / FCC Compliance (EMI Suppression)
- Wide input voltage range (120V, 208V, 240V) & Under / Over Voltage Protected
- 40kV Transient Voltage Protected
- Stainless steel U bracket and Fasteners

Specifications: [Preliminary Release Nov 2020]

	,
Part Number	9000739
Model Name	700W Pinnacle HPS LED Light
Light Output (Color Temp)	Amber 2200 K
Lumen Output	>80,000 Lumens
Beam Patterns	16°
LED Lifespan	50,000+ Hours
Nominal Wattage	700W
Input Voltage Range	100-277VAC 47~63Hz 40kV Surge Protection
Nominal Current Draw	5.8A (120V), 3.4A (208V, 2.9A (240V)
Electrical Connection	18AWG 600V 3C 1200mm (47") Cable
Operating Temperature	-40°F to 131°F (-40°C to +55°C)
Weight (lb)	48 lb
Dimensions	19.06" dia. x 15.55"
Case Material	Powder Coated Die Cast Aluminum Case
Fixture Color	Gray
Mounting	Stainless Steel U Bracket
Water-Proof Rating	IP67 Rated



LED Spreader/Deck/Rail Light (12/24V): Kevin X4

The Navy specifies the use of this light. Shouldn't you?

PN: 8001344-02 (White GEN 5)

PN: 8001993 (Black)





NSN: 5961016025452





#1 High-Power 1380+ Lumen LED Light

1380+ lumen rated high-power LEDs provide the highest lumen-per-watt light, outperforming most other LED lights in their class.

Designed to be mounted up to 30' above deck with aerodynamic shape.

Replaces 50W halogen spotlight.



Die-cast aluminum alloy housing provides an ample heat sink as well as ingress protection to ensure a long operational life.

Marine grade 3-stage durable powder coated finish.

Ultra long-life. Shock and vibration resistant.

NMMA, USCG, ISO 8846 & SAE J1171 Ignition Protection Compliant.

PN: 8001344-02 Features National Stock Number: 5961016025452

- Use and specified by the US Government with a national stock number (NSN).
- NMMA, USCG, ISO & SAE Ignition Protection Compliant.
- IP68, MIL-STD-810G Shock & Vibration Resistant, ASTM B117 Salt Spray (Fog) Compliant.
- CE, FCC Part 15, RoHS Compliant.
- 6,000 Degree Kelvin Cool White with 1,380+ Lumens.
- 50,000 Hour Life Span Rated US CREE LEDs.
- Long Service Life, Shock-Resistant, Ultra-Rugged with no filament to burn out or break.
- Operating Temperature: -40 to +145 Degree F (Withstands temperature extremes).
- Designed in the USA.

Specifications:

Electrical:

Input Voltage: 10-30 VDC (1.5A @ 12 VDC, 0.75A @ 24VDC) Max Input Power: 20W Non-Polarized Connection Under-Voltage and Voltage Spike Protected Electrically Protected Against RFI/EMC Interference Integrated Thermal Management

Optional Accessories:

Horizontal Stainless Steel Rail Mount (PN: 9000319) and Vertical Stainless Steel Rail Mount (PN: 9000326) For 7/8" to 1 1/4" dia. rails.

Mechanical:

Durable Powder Coated Finish
Polycarbonate Lens
Aluminum Alloy Housing and Lens Bezel
Low Profile Stainless Steel U Bracket Mount with 1/4" Bolt
1M Long 7mm dia. 18AWG 300V Red/Black Cable
Dimensions: 154mm (6") width, 50mm (2") height, 66mm (2.6") depth
Weight: 522g (18oz)



LED Spreader/Deck/Rail Light (12/24V): Kevin Jr. X2™





#1 High-Power 600 Lumen LED Light

The Kevin Jr. X2 powers up in "High" beam mode by default. One can use the built-in IP68 magnetic switch to cycle light among its settings (High/Low/Strobe (6Hz)/Off) when the light is installed in an accessible location. When the light is installed in an inaccessible location (say, high on a sailboat mast), a remotely installed switch in the circuit will automatically activate the light at the "High" setting, independent of the built-in switch on the light.

PN: 9000470

NSN: 6220016463873

Powerful 600+ lumen high-power LEDs provide the highest lumen-per-watt light, outperforming most other LED lights in their class.

Designed to be mounted up to 20' above deck with aerodynamic shape. Die-cast aluminum alloy housing provides an ample heat sink as well as ingress protection to ensure a long operational life.

Marine grade 3-stage durable powder coated finish.

NMMA, USCG, ISO 8846 & SAE J1171 Ignition Protection Compliant.

PN: 9000470 Features National Stock Number: 6220016463873

- Use and specified by the US Government with a national stock number (NSN).
- Built-In IP68 Magnetic Switch to Cycle Light Between High/Low/Strobe (6Hz)/Off.
- NMMA, USCG, ISO & SAE Ignition Protection Compliant.
- IP67, MIL-STD-810G Shock & Vibration Resistant, ASTM B117 Salt Spray (Fog) Compliant.
- CE, FCC Part 15, RoHS Compliant.
- 6,000 Degree Kelvin Cool White with 600 Lumens (based on LED manufacturer specifications).
- 50,000 Hour Life Span Rated US CREE LEDs.
- Operating Temperature: -40 to +145 Degree F (withstands temperature extremes).
- Light base accepts standard camera ¼" 20 UNC thread tripod connection.
- Does not work with dimmers.
- Designed in the USA.

Specifications:

Electrical:

Input Voltage: 10-30 VDC (0.6A @ 12V, 0.3A @ 24V)

Max Input Power: 8W Non-Polarized Connection

Under-Voltage and Voltage Spike Protected

Electrically Protected Against RFI/EMC Interference

Integrated Thermal Management

Mechanical:

Durable Powder Coated Finish
Tempered Glass Lens
Die-Cast Aluminum Alloy Housing
Low Profile Stainless Steel U Bracket Mount with ¼" Bolt or ¼" 20 UNC Thread Tripod Mount
1M Long 5mm dia. 20AWG 300V Red/Black Cable
Dimensions: 90mm (3.5") width, 50mm (2") height, 79mm (3.1") depth
Weight: 400g (14oz)

CEFC ROHS



US Patent D716,986S





PN: 9000685

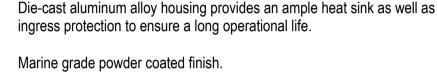


8mm (0.3") Low Profile 800 Lumen LED Recessed Light

800+ lumen rated high-power LEDs provide the highest lumen-per-watt light, outperforming other LED lights in its class.

Designed to be mounted in most locations including recessed mounting such as cockpits, transom, foredeck, etc.

Replaces 50W halogen spotlight. Flush-mount or bracket-mount.



Ultra long-life. Shock and vibration resistant.

NMMA, USCG, ISO 8846 & SAE J1171 Ignition Protection Compliant.



PN: 9000685

Features

- NMMA, USCG, ISO & SAE Ignition Protection Compliant.
- IP67, MIL-STD-810G Shock & Vibration Resistant, ASTM B117 Salt Spray (Fog) Compliant.
- CE, RoHS Compliant.
- 6,000 Degree Kelvin Cool White with 800+ Lumens
- 50,000 Hour Life Span rated US CREE LEDs.
- Long Service Life, Shock Resistant, Ultra-Rugged with no filament to burn out or break.
- Operating Temperature: -40 to +145 Degree F (-40 to +63 Degree C).

Specifications:

Electrical:

Input Voltage: 10-30 VDC (1A @ 12 V, 0.5A @ 24V)

Max Input Power: 12W

Polarized Connection, Reverse Polarity Protected Under-Voltage and Voltage Spike Protected Electrically Protected Against RFI/EMC Interference

Mechanical:

Marine Grade Powder Coated Finish

Acrylic Lens
Die-Cast Aluminum Alloy Housing
4mm dia. Flush-Mount Holes
316 Stainless Steel 1.5" U Bracket-Mount with a 40mm M5 Bolt
1M 18AWG 300V Red/Black Cable
Dimensions: 150mm (5.9") width, 58mm (2.28") height,
40.5mm (1.59") deep
Recessed Mount Cut-Out Requirement: 115.8mm (4.56") x 45mm
(1.77") x 40.5mm (1.59") deep
Weight: 275g (9.7oz)









Two wire installation with built-in dimming and red / white light selection with only one standard external power switch.

PN: 9000500

750+ cool white lumen rated high-power flood LEDs provide the highest lumen-per-watt light, outperforming other LED lights in its class.



Low current draw ~0.7A @ 12V, ~0.35A @ 24V.

Die-cast aluminum alloy housing provides an ample heat sink as well as ingress protection to ensure a long operational life.

Marine grade finish.

Ultra long-life. Shock and vibration resistant.

PN: 9000500 Features

- Switchable between Red or White with built-in dimming.
- By toggling the on/off switch momentary intensity can be set for both red and white.
- NMMA, USCG, ISO & SAE Ignition Protection Compliant.
- IP67, MIL-STD-810G Shock & Vibration Resistant, ASTM B117 Salt Spray (Fog) Compliant.
- CE, FCC Part 15, RoHS Compliant.
- 6,000 Degree Kelvin Cool White with 750+ Lumens
- 50,000 Hour Life Span Rated US CREE LEDs.
- Operating Temperature: -40 to +145 Degree F (withstands temperature extremes).
- Does not work with dimmers.
- Designed in the USA.

Specifications:

Electrical:

10-30 VDC (~0.7A @ 12V, ~0.35A @ 24V, White Light) Max Input Power: 3W (Red), 9W (White) Non-Polarized Connection Under-Voltage and Voltage Spike Protected Electrically Protected Against RFI/EMC Interference Integrated Thermal Management

Mechanical:

Durable Powder Coated Finish
Tempered Glass Lens
Die-Cast Aluminum Alloy Housing
Low Profile European Design
6" Long 20AWG 300V Red/Black Cable
Dimensions: 133mm (~5.24") length, 70mm (~2.76") width, 16mm (~0.63") tall
Weight: 216g (7.6oz)





Chrome LED Dome Lights (12/24V): Chrome Mars Dome™







Mars Dome Lights (GEN 5 Brighter, Warmer, and Better): Now 27000K

The Mars Dome is a general purpose, surface-mount light fixture with your choice of dual level white light or red/white or blue/white lights for night use, with the added benefit of LED technology. These lights produce a warm white light and are fabricated from the highest quality components to assure long-life and trouble-free use. Their patented internal circuitry provides consistent brightness and makes them immune to life-shortening voltage fluctuations. Their incredibly low power draw makes them the perfect way to reduce energy consumption on your boat. Our latest high-power LED technology provides high lumen-per-watt lighting, outperforming other dome LED lights.





Most Popular Marine LED Dome Lights in the world. Use and specified by the US Government with national stock numbers (NSN).

Features

- Three-position switch (High/Off/Low) to select two warm white brightness levels with the high-level equivalent to about a 45 watts incandescent bulb.
- Red/white and blue/white versions have a three-position switch (Color/Off/Warm White) to select red or blue or warm white.
- Internal circuitry provides for constant energy consumption, regardless of voltage fluctuations from the source, meaning no flickering and longer LED life White version.
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break.
- Available in 5 ½" (140mm) and 6 ¾" (170mm) overall diameter.
- Very low power consumption, approximately 1 to 5 watts depending on the selection.
- Lead and mercury-free, and no UV output.
- Dimmable with most PWM dimmers except bi-color models.

5 Biriniadio with most 1 vviii diministra except di color mosadio.						
PART# NSN	8001177 6220016210857	8001184 6220016230649	9000623	8001528	8001504 6220016098772	9000630
Descriptions	5 ½" Mars Dome Light	5 ½" Red Mars Dome Light	5 ½" Blue Mars Dome Light	6 ¾" Mars Dome Light	6 ¾" Red Mars Dome Light	6 ¾" Blue Mars Dome Light
Diameter	5 ½" Chrome Color	5 ½" Chrome Color	5 ½" Chrome Color	6 ¾" Chrome Color	6 ¾" Chrome Color	6 ¾" Chrome Color
LED Color	Warm White (H/L)	Warm White / Red	Warm White / Blue	Warm White (H/L)	Warm White / Red	Warm White / Blue
Lumen Output	250 Lumens (High)	250 / 40 Lumens	250 / 80 Lumens	250 Lumens (High)	250 / 40 Lumens	250 / 80 Lumens
Voltage	10-30 VDC	10-30 VDC	10-30 VDC	10-30 VDC	10-30 VDC	10-30 VDC
Wattage	1W (Low) / 5W (High)	5W (White) / 2W (Red)	5W (White) / 3W (Blue)	1W (Low) / 5W (High)	5W (White) / 2W (Red)	5W White) / 3W (Blue)
Dimensions	140mm (5 ½") dia.	140mm (5 ½") dia.	140mm (5 ½") dia.	172mm (6 ¾") dia.	172mm (6 ¾") dia.	172mm (6 ¾") dia.
Weight	168g (5.9oz)	168g (5.9oz)	168g (5.9oz)	238g (8.4oz)	238g (8.4oz)	238g (8.4oz)

(Dome Light LED Conversion Kits are also available.)

Brass LED Dome Lights (12/24V): Brass Mars Dome™







Mars Dome Lights (GEN 5 Brighter, Warmer, and Better): Now 2700°K

The Mars Dome is a general purpose, surface-mount light fixture with your choice of dual level white light or red/white lights for night use, with the added benefit of LED technology. These lights produce a warm white light and are fabricated from the highest quality components to assure long-life and trouble-free use. Their patented internal circuitry provides consistent brightness and makes them immune to life-shortening voltage fluctuations. Their incredibly low power draw makes them the perfect way to reduce energy consumption on your boat. Our latest high-power LED technology provides high lumen-per-watt lighting, outperforming other dome LED lights.





Most Popular Marine LED Dome Lights in the world.

Features

- Three-position switch (White/Off/Red) to select warm white or red light; warm white output is equivalent to about a 45 watts incandescent bulb.
- Internal circuitry provides for constant energy consumption, regardless of voltage fluctuations from the source, meaning no flickering and longer LED life White version.
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break.
- Available in 5 ½" (140mm) and 6 ¾" (170mm) overall diameter.
- Very low power consumption, approximately 2 to 5 watts depending on the selection.
- Lead and mercury-free, and no UV output.

PART#	8001498	8001511
Description	5 ½" Red Mars Dome Light	6 ¾" Red Mars Dome light
Diameter	5 ½" Brass Color	6 ¾" Brass Color
LED Color	Warm White / Red	Warm White / Red
Lumen Output	250 / 40 Lumens	250 / 40 Lumens
Voltage	10-30 VDC	10-30 VDC
Wattage	5W (White), 2W (Red)	5W (White), 2W (Red)
Dimensions	Dimensions 140mm (5 ½") dia.	
Weight	168g (5.9oz)	238 (8.4oz)

(Dome Light LED Conversion Kits are also available.)





Warm White PN: 8001696 Red/White PN: 8001719



Under-Cabinet LED Lights:

A general-purpose surface-mount light fixture with your choice of dual-level white light or red/white lights for night use; with the added benefit of LED technology. These LED lights produce a warm white light and are fabricated from the highest quality components to assure long-life and trouble-free use. Their patented internal circuitry provides consistent brightness and makes them immune to life-shortening voltage fluctuations. Their incredibly low power draw makes them the perfect way to reduce energy consumption on your boat. Our latest high-power LED technology provides high lumen-per-watt lighting, outperforming other LED lights.

- The white version has a three-position switch (High/Off/Low) to select two warm white brightness levels; the high level is equivalent to about a 40-watt incandescent bulb.
- The red/white version has a three-position switch (Red/Off/Warm White) to select red or warm white.
- Internal circuitry provides for constant energy consumption, regardless of voltage fluctuations from the source, meaning no flickering and longer LED life.
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break.
- Dimensions & Weight: 8" (203mm) long, 2.5" (63.5mm) wide, 1.4" (35mm) tall. 5.3oz (150g).
- Multi-voltage 12 VDC or 24 VDC.
- Very low power consumption, approximately 1 to 3 watts depending on the setting.
- Lead-free, mercury-free, and no UV output.
- Dimmable with most PWM dimmers except the bi-color model.

Part #	8001696	8001719
Description	Under-Cabinet LED Light	Under-Cabinet LED Light
LED Color	Warm White	Warm White / Red
Lumen Output	120 Lumens	115 (White) / 40 (Red) Lumens
Voltage	10-30 VDC	10-30 VDC
Wattage	1W (Low) / 3W (High)	3W (White) / 1.5W (Red)
Dimensions	203mm (8") long 63.5mm (2.5") wide 35mm (1.4") tall	203mm (8") long 63.5mm (2.5") wide 35mm (1.4") tall
Weight	168g (5.9oz)	168g (5.9oz)

Recessed LED Lights (12/24V): Saturn Rings™





12/24V Warm White Spot PN: 8001641 12/24V Warm White Flood PN: 8001658 12/24V Red /White PN: 8001788 12/24V Blue /White PN: 8001856

160+ lumen rated. Please note that when comparing brightness using lumen ratings between LED and incandescent lights, you should multiply the LED rated lumen output by about 8. This is because LED beams are mostly focused on 1/8th of a quadrant of a sphere's surface while incandescent light covers the whole sphere.

Saturn Ring Cabin Lights (GEN 5 Brighter, Warmer, and Better): Now 2700°K





The Saturn Ring is a general-purpose, recessed, water-resistant fixture in your choice of spotlight or floodlight or bicolor (red/white and blue/white) light models with the added benefit of high-power LED technology. These lights produce a warm white light and are fabricated from the highest quality components to assure long-life and trouble-free service. Their patented internal circuitry provides consistent brightness and makes them immune to life-shortening voltage fluctuations. Switching between red or blue and warm white light output is enabled by an external On/Off/On switch.

- The spotlight model is equivalent to a 30W incandescent light, bright enough for reading, 180 lux @ 1M.
- The floodlight model is equivalent to a 30W incandescent light, a very good ambient light, 80 lux @ 1M.
- Internal circuitry provides for a constant power draw, regardless of voltage fluctuations from the source, meaning no flickering and longer LED life.
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break.
- Very low power consumption (approximately 4W 0.3A).
- Reverse polarity protected.
- Both white and chrome polymer trim rings are included; a gold-plated polymer trim ring is sold separately.
- ~3" (76.2mm) overall diameter; requires a 2" dia. (50.8mm) cut-out, 0.8" (20.3mm) deep.
- Dimmable with most PWM dimmers except bi-color models.

Part #	8001641	8001658	8001788	8001856	8001160
Description	Recessed Spot Light	Recessed Flood Light	Recessed 3 Wire Red / White Light	Recessed 3 Wire Blue / White Recessed Light	Gold Plated Trim Ring
LED Color	Warm White	Warm White	Warm White / Red	Warm White / Blue	-
Lumen Output	160 Lumens	160 Lumens	140 Lumens / 40 Lumens	140 Lumens / 80 Lumens	-
Voltage	10-30 VDC	10-30 VDC	10-30 VDC	10-30 VDC	-
Power	4W	4W	3W (White) / 1W (Red)	3W (White) / 2.5W (Blue)	-
Overall Dia.	75mm (~3"), 21mm (~0.83") Deep	75mm (~3"), 21mm (~0.83") Deep	75mm (~3"), 21mm (~0.83") Deep	75mm (~3"), 21mm (~0.83") Deep	75mm (~3")
Weight	75g (2.5oz)	75g (2.5oz)	75g (2.5oz)	75g (2.5oz)	

Low Profile LED Light Bars (12V): 12" and 20" Callahan LED Light Bars™

12" PN: 9000272 20" PN: 9000289



Low Profile LED Light Bars:

Two general-purpose surface-mount 12" and 20" LED light bars with built-in dimmers. On, off, and light intensity are controlled by motion over an infrared sensor in the light.

Move your hand or finger across the sensor (within 1") to turn the light on or off. The light turns on to the last intensity setting. While the light is on, hold your hand in front of the sensor to adjust the light intensity. Maintain your position in front of the sensor to brighten or dim the light. The light will alternately brighten or dim.

These marine LED lights produce warm-white light (2700 K) and are fabricated from the highest quality components to assure long-life and trouble-free use.

- Non-Contact Infrared Motion-Controlled On/Off/Dimming LED Light Bars.
- Easy Installation & Operation.
- Turns On to the last light setting.
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break.
- Lead-free, mercury-free, and no UV output.

Part Number	9000272	9000289
Model Name	Callahan 12" LED Light Bar	Callahan 20" LED Light Bar
LED Color	Warm White, 2700K	Warm White, 2700K
Output	280 Lumens	430 Lumens
Beam Angle	150 Degrees	150 Degrees
Input Voltage	12VDC	12VDC
Max Input Power	5W	7.2W
Current Draw	0.4A	0.6A
Motion-Sensor Idle Current	0.01A	0.01A
Electrical Connection Specifications	20" 22AWG UL2468 Pigtail	20" 22AWG UL2468 Pigtail
Polarized Connection	Polarized Connection	Polarized Connection
Operating Temperature	-4°F to 140°F (-20°C to +60°C)	-4°F to 140°F (-20°C to +60°C)
Length (in)	11.8	19.7
Width (in)	1.2	1.2
Height (in)	0.5	0.5
Weight (oz)	2.8	4.7
Water Ingress Rating	IP20	IP20
Finish Color	Silver	Silver
Mounting Hardware	Stainless Snap-On Brackets, Pigtail	Stainless Snap-On Brackets, Pigtail

PN: 9000029 NSN: 6240016128960







Bi-Color High-Power LED Chart and Reading Light

Bi-color (red/white) high-power LED chart and reading light with ultra-low current draw (0.2A @12V).

Zero radio frequency emission.

"European" styling.

#1 US CREE LEDs.

A push button switch located at the base to toggle between red, warm white, and off.

Ultra long-life. Shock and vibration resistant.

Specifications

Voltage/ Draw: White: 0.2A @ 12VDC, Red: 0.1A @ 12V

Fixture Material: Alloy head polymer base with metal gooseneck.

31 mm dia. head, 77 mm oval base, 340mm (~13") long gooseneck. Fixture Dimensions:

Two 3 mm X 20 mm stainless steel screws included. Mounting Hardware:

Lens Material/Description: Polycarbonate Push Button Switch Type:

Part #	9000029
Description	LED Chart / Reading Light
LED Color	Red / White
Lumen Output	150 Lumens (warm white) 45 Lumens (red)
Wattage Replacement	20 W
Voltage	10-15 VDC
Dimensions	31 mm (~1.2") dia. head 77 mm (3") oval base 340mm (13") long gooseneck
Weight	310g (11oz)













"With this light, there is always light in the darkness."

Battery-Powered LED Night Light:

A general-purpose body motion-activated LED light powered by three (3) AAA batteries. This night light is perfect for many locations such as stairs, closet, inside a safe, engine room, under-cabinet, bedroom (V-berth, state-room), bathroom (head), kitchen (galley), etc... One set of batteries will last for many months of normal night light operation.

This light turns on automatically for ~30 seconds in low ambient light levels upon activation by body motion within ~10 feet. Auto-Off after ~30 seconds if there is no more motion. This light does not turn on in brightly lit environments.

Easy to Install: A 3M adhesive pad is provided, and a hanging hole is also provided. Light can stand on its own as well.

This LED light produces a warm white light (3000 K) and is fabricated from the highest quality components to assure long life and trouble-free use.

Part Number	9000234
Model Name	Callahan LED Night Light
LED Color	Warm White, 3000K
Output	35 Lumens
Batteries	3 x AAA Batteries (Not Included)
LED Power	1W
Switch	Motion Activated
Dimensions	3.1" dia. x 1"
Weight	1.6 oz.
Color	Almond Body
Mounting Hardware	3M Double-Sided Adhesive Pad

Surface Mount Underwater Lights (12/24V): Dave X3[™] Low Profile LED Spreader Lights



White PN: 9000203

Blue PN: 9000210





<u>Dr. LED's Dave X3 Surface Mount Underwater</u> LED Lights:

The Dave X3 is the 2nd generation of our popular Dave surface mount underwater light. It uses the latest generation of high quality US CREE LEDs with the highest lumen per watt output on the market. The polymer unibody design makes it corrosion as well as ignition-proof. Ultra-rugged and shock resistant.







Features

- Low profile surface mount underwater, high-power LED light.
- Small foot-print (~100mm / 4" dia.).
- 10-30 VDC input voltage range.
- ~500 lumens (cool white) or blue, narrow beam.
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break.
- Polymer unibody design.
- Very low power consumption (approximately 3 W).
- No toxic lead and mercury-free, no UV output (RoHS Compliant).
- US CREE LEDs are designed to last up to 50,000+ hours.
- Designed in the USA, NMMA, USCG, ISO 8846 & SAE J1171 Ignition Protection Compliance.

Specifications:

Form Factor: 100mm (~4") diameter disk, low profile 24.5mm (~1")

Voltage: 10-30 VDC, 12VAC

Wattage: 3W (typical)

Lumen Output: 500 Lumens (for white)

Color Temperature: cool white 5,000° K (typical) or blue Ambient operating temperature: -10° C to +30° C Dimensions: 100mm (~4") dia. 24.5mm (~1") tall

Weight: 193g (6.8oz)

Stainless Thru-Hull Underwater LED Lights (12/24V): Neptune X6™ Low Profile Thru-Hull







Neptune Underwater LED Lights:

This 1500+ lumen Neptune Light outperforms any other LED light in the same category in terms of price and light output. Six US CREE high-power LEDs provide the highest lumen-per-watt underwater light ever made. The SAE 316L stainless steel body makes it extremely corrosion resistant

Neptune X6 White PN: 9000487 Cool White (6000K) 1500+ Lumens

Neptune X6 Blue PN: 9000494 Blue

Features

- 5mm (~0.2") low profile and 100mm (~3.9") diameter small footprint.
- Same dimensions as our popular three LED aluminum Neptune Light.
- Six state-of-the-art 5W, US CREE LED, high-quality, high-power LEDs provide the most lumens per watt in LED technology.
- High-intensity LED light travels farther underwater for maximum visibility and truer colors.
- Instant-on, no warm-up of bulb needed.
- SAE 316L stainless steel unibody.
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break.
- Input Voltage: 10-30VDC (~1.5A @ 12.8VDC White / ~1A @ 12.8VDC Blue).
- Max Input Power: ~21W (White), ~13W (Blue).
- Non-Polarized Connection.
- Under Voltage and Voltage Spike Protected.
- Electrically Protected Against RFI/EMC Interference.
- Integrated Thermal Management.
- Operating Temperature: -40 to +145 Degree F (withstands temperature extremes).
- Lens Material: 10mm tempered glass.
- Mechanical Connection: One 68mm (~2 11/16") dia. hole.
- Maximum Hull Thickness: < 100mm (~3.9").

Compliance:

NMMA, USCG, ISO 8846 & SAE J1171 Ignition Protection Compliant ABYC H-27 Side Load Test Compliant MIL-STD-810G Shock & Vibration Resistant ASTM B117 Salt Spray (Fog) CE, FCC Part 15, RoHS, IP68





LED Replacement Bulb (12/24V): AR111 / PAR36 Sealed Beam LED









- ETL US & Canada listed and FCC compliance certified; meaning safe to use close to your VHF antenna.
- US CREE LED 700+ lumen 6000 K output.
- Replaces 50W halogen sealed beam (AR111 & PAR36) for most spreader and foredeck lights.
- 38 degree beam, 2000 lux @ 1M.
- IP67 waterproof.
- Aluminum alloy housing provides an ample heat sink as well as ingress protection to ensure a long operational life.
- Ultra long-life. Shock and vibration resistant.



PN: 9000074

Features

- Replaces Perko Bulbs 0538000CHR, 0538H00CHR, 044000312V, & 04400332V
- Replaces Aqua Signal series 41 masthead/foredeck light PAR36 sealed beam
- Replaces Aqua Signal E-9040030600, E-9040030800, E-9040030700, E-9040017500, E-9040020200, E-9040022800
- IP67, MIL-STD-810G Shock & Vibration Resistant, ASTM B117 Salt Spray (Fog) Compliant.
- CE, RoHS Compliant.
- 6,000 Degree Kelvin Cool White with 700+ Lumens
- 25,000 Hour Life Span rated US CREE LEDs.
- Long Service Life, Shock-Resistant, Ultra-Rugged with no filament to burn out or break.
- Operating Temperature: -40 to +145 Degree F (-40 to +63 Degree C).

Specifications:

Electrical:

Input Voltage: 10-30VDC or 12 VAC Current Draw: 0.8A @ 12 V, 0.4A @ 24V

Max Input Power: 10W Non-Polarized Connection

Under-Voltage and Voltage Spike Protected Electrically Protected Against RFI/EMC Interference





Mechanical:

Aluminum Alloy Housing Marine Grade Finish

Acrylic Lens

Dimensions: 110mm (4.3") diameter, 45mm (1.8") depth

Weight: 204g (7.2oz)

LED Replacement Bulbs (12/24/32V): Edison LED 1X & 3X / Edison SideKick™



Medium Screw Base General Purpose Bulbs:

New model, Edison SideKick, with wider voltage input (12/24/32VDC, 12/24VAC) and higher lumen output (700 Lumens).

US CREE high-quality high-power LEDs. Unique, cutting edge, internal circuitry and the highest quality components make Dr. LED's the longest lasting, most energy efficient LED products on the market. These high-quality, general-purpose bulbs produce a warm white light and are the perfect way to reduce energy consumption in your boat. The Edison 1X & 3X LEDs produce a spot-type beam and are best used in directional light fixtures. The Edison SideKick bulb emits light over a 300 degree area and is best used for lights with a lampshade.





- Fits E26/27 medium screw base "household" style sockets.
- Ideal for marine and solar panel users.
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break.
- Edison SideKick (PN:8001818-08) produces the equivalent of about a 100-watt incandescent bulb within the main beam with 7 watts of consumption.
- Edison 3X (PN:8001801) produces the equivalent of about a 60-watt incandescent bulb within the main beam with 4 watts of consumption.
- Edison 1X (PN:8001795), produces the equivalent of about a 30-watt incandescent bulb within the main beam with only 1.5 watts of consumption.
- Lead and mercury-free, no UV output.
- Dimmable with most PWM dimmers.

	SE SE ALAS Name and Alas Alas Alas Alas Alas Alas Alas Alas		
Part #	8001795 (Replaces 8001276)	8001801 (Replaces 8001283)	8001818-08 (Replaces 8001818)
Model	Edison 1X	Edison 3X	Edison SideKick
Color Temp	Warm White ~3000K	Warm White ~3000K	Warm White ~3000K
Voltage	12/24VDC, 12VAC	12/24VDC, 12VAC	12/24/32VDC, 12/24VAC
Current Draw	0.12A @ 12V	0.33A @ 12V	0.6A @ 12V
Lumen	120 Lumens	200 Lumens	700 Lumens





The Magnum LED Series:



These Magnum LED bulbs come in several models and are ideal for replacing your existing incandescent or halogen bayonet or bi-pin lights. Unique, cutting-edge, internal circuitry and the highest quality components make Dr. LED's the longest-lasting, most energy-efficient LED products on the market. These high-quality bulbs produce a warm white light and are the perfect way to reduce energy consumption on your boat. They have a long service life, are shock-resistant, and UV, lead, and mercury-free. These bulbs are ideal for the cockpit; map reading lights, emergency lights, etc. They produce a spot-type beam and are best used in directional light fixtures.

- Bayonet style bulbs replace BA type (15 mm) incandescent bulbs used in many boats and RVs; available in single contact (BA15S), double contact indexed (BAY15D), and non-indexed styles (BA15D).
- 2-pin style with 4 mm pin spacing replaces the super-hot "standard" MR11 mini-reflector style halogen bulbs, commonly used in many boats and RVs.
- 2-pin style with 5.3 mm pin spacing replaces the hot MR16, mini-reflector halogen bulbs.
- Lead and mercury-free, no UV output.
- Dimmable with most PWM dimmers.

Part #	8001245	9000449	8001252	8001269
Base	BA15S	BA15S	BAY15D	BA15D
Description	Bayonet 2W	Bayonet 2W	Bayonet 2W	Bayonet 2W
Connection	Single Contact	Elongated Single Contact	Double Contact	Double Contact
Side Pins	Level Pins, Non-Index	Level Pins, Non-Index	Offset Pins, Indexed	Level Pins, Non-Index
Lumen Output	150 Lumens	150 Lumens	150 Lumens	150 Lumens
Voltage	10-30VDC, 12VAC	10-30VDC, 12VAC	10-30VDC, 12VAC	10-30VDC, 12VAC

Part #	8001825	8001832	8001238
Туре	MR16 1X	MR16 3X	MR11
Description	Bi-pin 1.5W	Bi-Pin 4W	Bi-Pin 2W
Lumen Output	120 Lumens	200 Lumens	150 Lumens
Voltage	10-30VDC, 12VAC	10-30VDC, 12VAC	10-30DC, 12VAC

LED Replacement Bulbs (12V): 12V G4 LED Disks

For reading lights, recessed lights, etc.

These G4 disks come in several models (12V or 24V) and are ideal for replacing your existing incandescent or halogen bi-pin bulbs. Unique, cutting-edge, internal circuitry and the highest quality components make Dr. LED's the longest-lasting, most energy-efficient LED products on the market. These high-quality LED disks produce warm white or blue or red lights and are the perfect way to reduce energy consumption on your boat. They have a long service life, are shock-resistant, and UV, lead, and mercury-free. These LED disks are ideal for cockpit lights; map reading lights, emergency lights, etc. They produce a flood-type beam and work well in many light fixtures.

Both axial (center) and radial (side) connection pins are provided. Cut off the pins that are not utilized.

- Soothing warm white or blue or red lights.
- Zero radio frequency (RF) emission, surface-mount-device design.
- Designed for the marine environment with high-quality SMD components.
- Conformal coated & use of long-life components, e.g. use of a ceramic capacitor (not low hour electrolytic capacitor).
- Internal circuitry provides constant current draw regardless of voltage fluctuations from the source, meaning no flickering and longer LED life.
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break.
- Very low power consumption.
 Dimmable with most PWM dimmers.
 Designed in the USA.

		Doctor LED, col	Designing con			
	G4 LED Disk 12V	Red G4 LED Disk 12V	Blue G4 LED Disk 12V			
Part #	9000081	9000098	9000364			
Description	For reading and recessed lights	For reading and recessed lights	For reading and recessed lights			
Bulb Type	G4	G4	G4			
Connection	Bi-Pin	Bi-Pin	Bi-Pin			
LED Color	Warm White	Red	Blue			
Voltage (V)	12 VDC	12 VDC	12 VDC			
Current (A)	0.13A	0.05 A	0.13A			
Watt Replacement	20W equivalent	10W equivalent	10W equivalent			
Lumen Rating	120 Lumens	30 Lumens	30 Lumens			
Dimensions	6mm (0.24") thick 30mm (1.2") dia.	6mm (0.24") thick 30mm (1.2") dia.	6mm (0.24") thick 30mm (1.2") dia.			

LED Replacement Bulbs (24V): 24V G4 LED Disks For reading lights, recessed lights, etc.

		Dactor III ea				
	G4 LED Disk 24V	Blue G4 LED Disk 24V				
Part #	9000340	9000418				
Description	For reading and recessed lights	For reading and recessed lights				
Bulb Type	G4	G4				
Connection	Bi-Pin	Bi-Pin				
LED Color	Warm White	Blue				
Voltage (V)	24 VDC	24 VDC				
Current (A)	0.07A	0.07A				
Watt Replacement	20W equivalent	10W equivalent				
Lumen Rating	120 Lumens	30 Lumens				
Dimensions	6mm (0.24") thick 30mm (1.2") dia.	6mm (0.24") thick 30mm (1.2") dia.				



US Patent 7,847,486

LED Replacement Bulbs (12/24V): G4 LED Tower and Mini G4 Star For reading lights, recessed lights, etc. PN: 9000104 PN: 9000432

The 12/24V G4 Tower and 12/24V Mini G4 LED bulbs are ideal for replacing your existing incandescent or halogen bi-pin G4 bulbs. Unique, cutting-edge, internal circuitry and the highest quality components make Dr. LED's the longest-lasting, most energy-efficient LED products on the market. These high-quality bulbs produce warm white light and are the perfect way to reduce energy consumption on your boat. These have a long service life, are shock-resistant, and UV, lead, and mercury-free. These bulbs are ideal for cockpit lights, map reading lights, emergency lights, etc. They produce a radial 360-degree beam and work well in many light fixtures.

- High-Power LED 10-30 VDC Warm White
- Soothing warm white light.
- Surface-mount-device design.
- Encapsulated & use of long-life components, e.g. use of a ceramic capacitor (not low hour electrolytic capacitor).
- Internal circuitry provides constant power draw regardless of voltage fluctuations from the source, meaning no flickering and longer LED life.
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break.
- Very low power consumption
- Lead and mercury-free, no UV output.
- Dimmable with most PWM dimmers.
- Designed in the USA.

	NEW!	NEW				
	G4 Tower 12/24V	Mini G4 Star 12/24V				
Part #	9000104	9000432				
Description	For reading lights, etc.	For reading, recessed, etc.				
Bulb Type	G4	G4				
Connection	Bi-Pin	Bi-Pin				
LED Color	Warm White	Warm White				
Voltage (V)	10-30 VDC	10-30 VDC				
Current (A)	0.2A @ 12V, 0.1A @ 24V	0.1A @ 12V, 0.05A @ 24V				
Watt Replacement	30W equivalent	10W equivalent				
Lumen Output	300 Lumens	120 Lumens				
Dimensions	37mm (1.5") long 13mm (0.5") dia.	22mm (0.87") length 10mm (0.39") dia.				

LED Replacement Bulbs (12V): Wedge, Windex, & Bayonet 1157 Dual Intensity For reading, interior lights, Windex light, dual intensity trailer lights, etc. US Patents 7,450,394 & 7,053,560

These bulbs come in several models and are ideal for replacing your existing incandescent bulbs. They come in wedge base, mini Edison base, E10 (e.g. for Windex light), as well bayonet base. Unique, cutting-edge, internal circuitry and the highest quality components make Dr. LED's the longest-lasting, most energy-efficient LED products on the market. These high-quality bulbs produce a soothing warm white light and are the perfect way to reduce energy consumption on your boat. They have a long service life, are shock-resistant, and UV, lead, and mercury-free. These bulbs are ideal for the cockpit; map reading lights, emergency lights, etc. They produce a flood-type beam and are best used in many light fixtures.

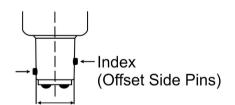
These bulbs are not approved for navigation use. Do not use these bulbs for navigation lights.

- High-quality US-designed SMD LED bulbs.
- Soothing warm white light.
- Zero radio frequency (RF) emission (except for 1157 and 9000128).
- Conformal coated & use of long-life components, e.g. ceramic capacitor (not low hour electrolytic capacitor).
- Internal circuitry provides for constant energy consumption, regardless of voltage fluctuations from the source, meaning no flickering and longer LED life.
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break.
- Dimmable with most PWM dimmers.
- Designed in the USA: US Patent: 7,053,560.

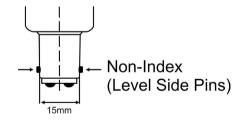
	TS_STEP_201203	Windex Star in Windex Light	
	Single-Sided Wedge Base	Windex Star	Trade 1157, Dual Intensity
Part #	8001559	9000166	8001157
Description	For reading lights	For Windex light	For trailer lights
Bulb Type	Single T5 Wedge	Edison 10mm	BAY15D, Double Contact Index
Connection	Single T5 Wedge	Edison 10mm	15mm Bayonet BAY15D
LED Color	Warm White, 80 Lumens	Warm White	Cool White
Voltage (V)	12 VDC	12 VDC	10-30 VDC
Current (A)	0.08A @ 12V	0.02A @ 12V	0.33A @ 12V
Wattage Replacement	5W equivalent	3W equivalent	15W equivalent
Dimensions	38mm (1.5") long 15mm (0.6") wide 6.5mm (0.26") thick	11mm (0.4") dia. 14.5mm (0.6") long	48mm (~1.89" long) 18mm (~0.71") dia.

LED Replacement Bulbs: 12/24V Bayonet TOWER LEDs For reading lights, interior lights, etc. Bayonet Style

	TENT OF THE PARTY	TEN!					
Part #	9000111	9000128	9000135	9000142 (Discontinued)			
Description	For Reading Lights	For Reading Lights	For Reading Lights	For Reading Lights			
Bulb Type	Bayonet 15mm BA15S	Bayonet 15mm BA15D	Bayonet 15mm BA15D	Bayonet 15mm BAY15D			
Connection	Single Contact	Double Contact Non-Index	Double Contact Non-Index	Double Contact Index			
Wattage	30W equivalent	30W equivalent	20W equivalent	20W equivalent			
Replacement	(330 Lumens)	(300 Lumens)	(50 Lumens)	(195 Lumens)			
LED Color	Warm White	Warm White	Red	Warm White			
Voltage (V)	10-30 VDC	10-30 VDC	12 VDC	12 VDC			
Wattage (W)	3W	3W	2.5W	2.5W			
Current (A)	0.25 A	0.25 A	0.2 A	0.2 A			
Dimensions	57.5mm (2.3") long 20mm (0.8") dia.	57.5mm (2.3") long 20mm (0.8") dia.	57.5mm (2.3") long 20mm (0.8") dia.	57.5mm (2.3") long 20mm (0.8") dia.			











Dome Light LED Conversion Kits (12V & 24V)

These dome light LED conversion kits come in several models* and are ideal for replacing your existing incandescent or halogen dome light bulbs. Unique, cutting edge, internal circuitry, and the highest quality components make Dr. LED's the longest-lasting, most energy-efficient LED products on the market. These high-quality LED disks produce a warm white light and are the perfect way to reduce energy consumption on your boat. They have a long service life, are shockproof, and are UV, lead, and mercury-free. These LED disks are ideal for cockpit lights; map reading lights, emergency lights, etc. They produce a flood-type beam and work well used in many light fixtures.

Two voltage models to choose from for 12 VDC and 24 VDC systems. Two output models to choose from: Warm white or warm white / red light.

Both bayonet double contact non-index (BA15D) and bi-pin connection pigtails are provided. Bi-color models are designed for dome lights with two bulbs (one red and one white).







- High-quality marine environment US-designed SMD LED disks.
- Soothing warm white light or red light.
- Zero radio frequency (RF) emission.
- Conformal coated & use of long-life components:
 e.g. ceramic capacitor, not low-hour electrolytic type.
- Long service life and shockproof.
- Ultra-rugged with no filament to burn out or break.
- Dimmable with most PWM dimmers.
- Designed in the USA.



			and Baltari CC. 30	
	12 VDC	12 VDC	24 VDC	24 VDC
	Dome Kit	Bi-Color Dome Kit	Dome Kit	Bi-Color Dome Kit
Part #	9000159	9000333	9000395	9000401
Description	For dome lights	For dome lights	For dome lights	For dome lights
Connection	Bi-Pin & 15mm Bayonet	Bi-Pin & 15mm Bayonet	Bi-Pin & 15mm Bayonet	Bi-Pin & 15mm Bayonet
LED Color	Warm White	White / Red	Warm White	White / Red
Voltage (V)	12 VDC	12 VDC	24 VDC	24 VDC
Current (A)	0.18 A	0.18 A	0.09 A	0.09 A
Watt Replacement (White)	30W equivalent	25W equivalent	30W equivalent	25W equivalent
Lumen Rating (White)	180 Lumens	135 Lumens	180 Lumens	135 Lumens
Dimensions	7mm (0.3") thick 50mm (2") dia.	7mm (0.3") thick 50mm (2") dia.	7mm (0.3") thick 50mm (2") dia.	7mm (0.3") thick 50mm (2") dia.

LED Conversion Guide

	_		Guide								
LED 2019 ©			For yellow lens 12/24V Yellow PN:8000043	Index: 3NN White: 9000388 2NN Red: 9000647 2NN Green: 9000654 Non-Index:	3NM White: 9003744 2NM Red: 9000661 V 2NM Green: 9000678			Dr.LED			12/24V White PN:9000449
<u>ا</u> ا			For bicolor lens 12/24V Red/Green PN:8001634	energe e	120V	dia di		Voltage		12	
			For bicolor lens 12/24V Red/Gree PN:8001634		0001382	100		Base		BA15S	
6	3		7		For Red lens 12/24V Red 8001382 120V Red 9000661	int Kits: 9000159 9000333 9000395 9000401 al bulbs.		Trade #		1383	
G.			For red lens 12/24V Red PN:8001764 120V Red PN:9000647		For F 12/2, 120V	ne Light I 900 hite' 900 hite' 900 riginal b		Ancor#		521383	
Sion			S 9		001078 003744	2" Dia. Dome Light Kits: 12V White 9000159 12V Red/White' 9000333 24V White 9000395 24V Red/White' 9000401 'With two original bulbs.		Bulb Image	0		
ED Conversion Guide			For clear lens 12/24V White PN:8001757 120V White PN:9000388		For clear lens 12/24V White 8001078 120V White 9003744	12/24V White PN:8001269					12/24V White PN:8000067
LED			For green lens 12/24V Green PN:8001771 120V Green PN:9000654		For green lens 12/24V Green 8001405 120V Green 9000678	12/24V White PN:9000128-07	12V Red PN:9000135		da_		
® C	LE		For tricolor lens 12/24V R/G/W PN:8001450		For green lens 12/24V Green 8 120V Green 9	24V White PN:8001627					12/24V White 1 PN:8001245
9			12/24V		12/24V	12V White PN:9000425 12V Red PN:9000517	12V Green PN:9000524 12V Blue PN:9000531				12V White PN:9000111
bs:	°	12 24 24 12 12 24	-	120 120 12	12		12 6** 12 24 32** 12		12		
Bulbs	Base	2 A		BA15D		BA15D			BA15S		
ent	Trade#					94 306 1076 1142R 1142 1176 1204 1004 1256 1692	68 82 90 304 1224 90	93	1156	1003	26
desc	Ancor#	521158 521162 521166 529340 529341	529342 529344 529416 529420 529420	529303 529300 529300 529301	529412	520094 520306 520306 521140 521140 521160 521176 521004 521004 521159 52126 52126 52126	520068 520082 520090 520304 521224 523030	520093	521156	521003	520097
Incandescent	Bulb Image										

LED Conversion Guide (n2)

	D Conversion (Juic	ie (pz)									
	12V White PN:8001252	2" Dia. Dome Light Kits:		MR16.3X 12/24V White PN:8001832			Edison 3A 12/24V White PN:8001801		12V Red/Green PN:8001122	Dr.LED	12V White 12V White PN:8001559 PN:9000371	m ** Not Available.
	A		MR11 1.4" dia 12/24V White 8001238				1795			Base Voltage	24**	.ED.com
Ш	42						e PN:800		And the second	906 912 We	168	ctorL
$\ $	12V White PN:9000142		G4 Tower 0.5" dia) :	Edison 1A 12/24V White PN:8001795			Ancor# 520906 520912	520167 520168 520194	www.DoctorLED
			4			ì	12			Bulb Image		WW
	24V White :8001157 :omobile Bulb	1.2" dia	98 64 40 Mini G4 0.4" dia 12/24V White 9000432	MR161X 12/24V White PN:8001825			12/24V White PN:8001818	73 12V Red 9000586 53 12V Green 9000593	41			D. All rights reserved.
	12/24V White PN:8001157 Automobile B	G4 LED Disk 1.2'	12V White 9000081 12V Red 9000098 12V Blue 9000364 24V White 9000340 24V Blue 9000418				V V V Z Z Z Z V V V V Z Z Z Z Z Z Z Z Z	12V White 9000173 24V White 9000463	12V White 9000241 12V Red 9000548 12V Green 9000555 12V Blue 9000562 24V White 9000357	12V White PN:8001849	12V White PN:9000166	2019 © Dr. LED.
Voltage	12	24	12	12	12	12	24	12	12	12	10	Voltage
Base	BAY15D	G4	99	65.3	E26	E26	E26	\$8.5	S8. 5.	BA9S	Edison	Base
Trade#	1034	64	64	- MR16	15G12/12	15A17/12 25A17/12 50A17/12 75A17/12		Perko Fig. 72 Perko Fig. 71 10576 10576R		53 57 1416 1815 1895	965	Trade#
Ancor#	521034	529338	529361 529362 529367 529370 529421 529422 529423	521125	511016	531015 531025 531050 531075	532025	522129 529102 529200 529095 529096	522126 522127 522131 529104 522112 529127 529417 529333	520053 520057 521057 521416 521816 521816 521816 521816 521816 529337 529355	520965	Ancor#
Bulb Image						100					•	Bulb Image

Navigation Bulb Selection Guide



Navigation LED Bulb Selection Guide www.DoctorLED.com © Dr. LED. All Rights Reserved. V.2018.08

dins	<u> </u>	:16	C		<u>n</u>	<u></u>	ula	е																		
	47mm (-17/8")																									
			25mm (~1°)	-	A T				- Parameter State of the State			>	ORL								OFF					
Remarks		120V Ancor 529348			12V Ancor 521158,	529340, 529343		24V Ancor 521162,	521166, 529341, 529344		Trade 53, 57, 1416, 1815, 1816, 1895 Ancor 520053, 520057,	521815, 521816, 521815, 529337, 529355, 539369	Ancor 522126, 522127,	522112, 522122,	529417, 529333, 529419		12V Ancor 521158, 529340, 529343	9	24V Ancor 521162, 521166, 529341.	529344	Ancor 522126, 522127,	522131, 529104, 522112, 522122,	529417	Ancor 529102	Ancor 522129	Trade 93, 1141, 1156, 1003 Ancor 520093, 521141, 521156, 521003
Base		BAY15D									9040	Seed	S8.55			\$8.5		BAV45D			88.5			\$8.5		BA15S
Visibility	3nm						2nm				,			2nm		2nm		2nm				2nm		2nm		2nm
Voltage		1200		12/24V	12/24V	12/24V	12/24V	12/24V	12/24V	12/24V	ş	<u> </u>		12V		12V		VACICA				12V		12V	24V	12V
Dr. LED Part No.	9000388	9000647	9000654	8001757	8001764	8001771	8000043	8001634	8001450	8001450	CFOFUCO	6+01000	9000241	9000548	9000555	8001122	8001757	8001771	8001634	8001450	9000241	9000548	9000555	9000173	9000463	8000067
Dr. LED Model	120V White Polar Star	120V Red Polar Star	120V Green Polar Star	White Polar Star 40 MKII	Red Polar Star 40 MKII	Green Polar Star 40 MKII	Amber/Yellow Polar Star 40 MKII	Bi-Color Polar Star 40 MKII	Tri-Color Polar Star 40 MKII	Tri-Color Polar Star 40 MKII	00 000 000 00	roidi otal 20	39-44mm Festoon Star	Red 39-44mm Festoon Star	Green 39-44mm Festoon Star	Bi-Color Polar Star 25	White Polar Star 40 MKII	Green Polar Star 40 MKII	Bi-Color Polar Star 40 MKII	Tri-Color Polar Star 40 MKII	39-44mm Festoon Star	Red 39-44mm Festoon Star	Green 39-44mm Festoon Star	31mm White Festoon Star	24V 31mm White Festoon Star	H2492 Star
Mfg. Bulb No.				90005	90002	90002	90002	90002	90002	90003	90000 / 100000	90504 / 90430		90200, 90201		90200		78290, 78291, 78292,	8GA003488-121			78206, 8GM002091-131		78202, 8GM 993 406-001		78235, 78236, 8GA002071-131
Bulb Style						Joseph Contract	Bayonet Index				Miniature	Non-Index	Festoon			Festoon		Double Contact	Bayonet Index			Festoon		Festoon		Single Contact Bayonet
Nav Light Color	120V White	120V Red	120V Green	12/24V White	12/24V Red	12/24V Green	12/24V Yellow	12/24V Bi-Color (Red/Green)	Tri-Color (Red/Green/White)	24V Tri-Color (Red/Green/White)	12V White, Red, or Green	Series 25 Deck Light	White	Red	Green	Bi-Color (Red/Green)	12/24V White	12/24V Green	12/24V Bi-Color (Red/Green)	12/24V Tri-Color (Red/Green/White)	12V White	12V Red	12V Green	12V White	24V White	12/24V White
Series		()		40 41 42	50 55				20	25		ž,	3			9870 7386			160	3562, 8505		2010	•	2492
Brand	langi2 supA																ellə	Н								

Navigation Bulb Selection Guide (p2)

								ide Pins)	9					1000	6.0 to			u-	•												
25mm (-1')	-	17mm	m (~	1 7/8			- Indexed	(Offset Side Pins)	15mm	1 年 1								(E)	•										華		
Remarks	12V Ancor 521158	10010 1000	529340, 529343	24V Ancor 521162,	521166, 529341,	529344	Trado 69 00 04 4004	11ade 06, 30, 34, 1004	Ancor 520068, 520090, 520094 521004	520034, 521004, 523030, 521159 120V Ancor 521164, 529301, 529301 Ancor 529300, 529313, 529414, 520094, 521176, 521142, 521178							521176	Ancor 529102	Ancor 522129	Ancor 522126, 522127, 522131, 529104,	522112, 522122, 529417, 529333, 529419		Trade 906, 912 Ancor 520906, 520912	Trade 68, 90, 94, 1004 Ancor 520068, 520090, 520094, 521004,	523030, 521159	•	Ancor 522126, 522127, 522131, 529104, 522112, 522122, 529417, 529333, 529419	Ancor 521125, 529424	Ancor 529300, 529412, 529413, 529414, 529301		Ancor 529102
Base				BAY15D					BA15D						BA15D				000		\$8.5		15	BA15D			\$8.5	65.3	1	BATSD	\$8.5
Visibility				Znm					2nm			3nm			2nm						2nm		2nm	2nm			2nm	Deck Light	,	Wu7	2nm
Voltage				12/24V					12V				1200		12/24V	707	120	12V	24V	12V	12V	24V	12V	12V			12V	12/24V	12V	12V	12V
Dr. LED Part No.	8001757	101000	8001764	8001771	8001634	8001450	9000425	0000547	9000317	9000324		9003744	9000661	9000678	8001078	8001382	8001405	9000173 9000586 9000593	9000463	9000241	9000241	9000357	9000371	9000425	9000517	9000524	9000241	8001832	9000425	9000517	9000173 9000586 9000593
Dr. LED Model	White Polar Star 40 MKII	The state of the s	Red Polar Star 40 MKII	Green Polar Star 40 MKII	Bi-Color Polar Star 40 MKII	Tri-Color Polar Star 40 MKII	HEX GE90 Star		Groon HEY GEOD Star	Blue HFX GF90 Star	The second secon	120V White P374-4 NI	120V Red P374-4 NI	120V Green P374-4 NI	White Polar Star 40 NI	Red Polar Star 40 NI	Green Polar Star 40 NI	31mm White Festoon Star 31mm Red Festoon Star 31mm Green Festoon Star	24V 31mm White Festoon Star	39-44mm White Festoon Star	39-44mm White Festoon Star	24V 39-44mm White Festoon Star	P338 Wedge Star	HEX GE90 Star	Red HEX GE90 Star	Green HEX GE90 Star	39.44mm White Festoon Star	12/24V MR16 3X LED	HEX GE90 Star	Red HEX GE90 Star	31mm White Festoon Star 31mm Red Festoon Star 31mm Green Festoon Star
Mfg. Bulb No.			037512V10W	037542V25W	44674716160			Fig. 337	0337011DP	0337012DP		0374004CLR	03/4004CLR	0374004CLR	0374001CLR 0337013DP 0337014DP	0374001CLR	0337R12DP	Fig. 71 0071DP0CLR 0071DP8CLR	Perko Bulb Fig. 72 0072DP8CLR	Fig. 69 0069DP0CLR	Fig. 70 0070DP1CLR 0070DP2CLR	Fig. 67 0067DP1CLR 0067DP2CLR	338DP2CLR	Fig. 337 0337011DP	033/012DP		WN-211, 132025	132035			
Bulb Style			Double Contact	Barronot Indox	Dayoner muex			Dauble Cantact	Bayonet Non-Index						Double Contact Bayonet Non-Index			į	100000		Festoon		Wedge	Double Contact Bayonet Non-Index			Festoon	MR16	Double Contact	Bayonet Non-Index	Festoon
Nav Light Color	12/24V White	2000	12/24V Red	12/24V Green	12/24V Bi-Color Red/Green	Tri-Color (Red/Green/White)	12V White	40,/04	12V Groon	12V Gleen	200	120V White	120V Red	120V Green	12/24V White	12/24V Red	12/24V Green	12V White 12V Red 12V Green	24V White	12V White	12V White	24V White	12V White	12V White	12V Red	12V Green	12V White	12/24V White	12/24V White	12V Red	12V White 12V Red 12V Green
Series				0200				0329						(1127, 1128,			0135, 0227, 0228, 0229, 0232, 0252, 0253, 0254, 0260, 0277, 0277, 0281, 0295, 0904, 0915, 0945, 0955, 0963, 0966, 0965, 0965, 1123, 1124, 1125,	1161, 1178, 1181, 1183, 1184, 1196, 1197, 1201, 1211, 1212, 1218, 1264, 1310, 1331, 1332, 1421, 1422, 1601, 1602, 1612, 1614	0120, 0170	0106, 0108, 0109, 0110, 0111, 0259, 0939, 0946, 4F, 5F, 7F	0120, 0170	0238, 0239, 1236, 1273, 1274, 1281, 1283, 1284, 1440, 1445, 1450, 1451, 1452, 1456, 1460, 1461, 1465, 1470, 1604, 1607, 1622, 1634, 1637, 1656	0362, 0371, 0455, 0466, 1134, 1137, 1209, 1301, 1311, 1330, 1400, 1401			ML-2	ML1, ML2 Deck	SCO 802C, 803C	SCO 802R, 803R	7200 series: 7208, 7212, 7220, 7250, 7251, 7252, 7254, 7255, etc.
Brand																			Perko								orespar	4	ίξλ	၁၁၄	Attwood

Navigation Light LED Bulbs (12/24V and 120V): Polar Star 40™ With 2NM Certified Light Engines

2 NM navigation light LED replacement bulbs:

Red Polar Star 40 White Polar Star 40

Tri-Color Polar Star 40 Bi-Color Polar Star 40

2NM USCG COLREG 1972 ABYC A-16 Certified



The Polar Star series Navigation LED Bulbs: US Patented.



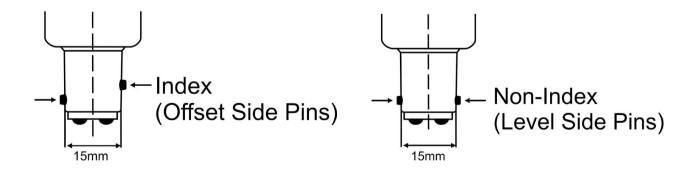
These LED bulbs are specially designed as direct replacements for many navigation lights available on the market such as those from Aqua Signal® (series 40, 41, 42, 50, 55) as well as the ones from Attwood®, Hella®, Perko® and several other These high-quality bulbs are the perfect way to reduce energy manufacturers. consumption on your boat with low current draw. They are especially well-suited for mast mounted lights, as their incredible reliability will mean an end to frequent climbs up the mast to replace navigation light bulbs.



Green Polar Star 40

Features

- 15mm Double Contact Bayonet LED Navigation Bulbs, both BAY15D (Index, Offset Side Pins) and BA15D (Non-Index, Non-Offset Side Pins) bases are available.
- BAY15D available for White, Red, Green, bi-color (Red / Green) and tri-color (Red / Green / White) navigation liahts.
- BA15D is available for White, Red, and Green navigation lights.
- It is best to use Dr. LED's red LED behind a red lens, green LED behind a green lens, white LED behind a clear lens, red/green LED behind a red/green lens, and tricolor LED behind a tricolor lens.
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break.
- Conformal coated & use of long-life components: e.g. ceramic capacitor (not low hour electrolytic capacitor).
- LED bulbs satisfy all brightness, distance (2 NM), and arc requirements set forth by the US Coast Guard for vessels less than 50 m (165 ft.) in length.
- Very low power consumption (approximately 1-2 W).



US Patent 8.545.046



BAY15D (Index, Offset Side Pins, Single Color) Models:

2NM Single Color Index Models

(For Aqua Signal series 40, 41, 42, 55 etc.; Perko 200 (0375), Hella 2984, 2986, 2988, etc.)

Part #	8001757	8001764	8001771	8000043
Description	For anchor, masthead, & Stern nav. lights	For port sidelights	For starboard sidelights	For amber/yellow nav. lights
LED Color	White	Red	Green	Amber / Yellow
Voltage	10-30 VDC	10-30 VDC	10-30 VDC	10-30 VDC
Bulb Type	Indexed	Indexed	Indexed	Indexed

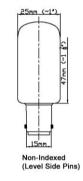
	Bi-Color	Tri-Color
Part #	8001634	8001450
Description	For bicolor bow lights	For tricolor lights
LED Color	Red / Green	White / Red / Green
Voltage	10-30 VDC	10-30 VDC
Bulb Type	Indexed	Indexed

BA15D (Non-Index, Non-Offset Side Pins, Single Color) Models:

2NM Single Color Non-Index Models

(For Perko series 1127, 1130, etc.; Perko Bulb 0374)

(1. 0. 1. 0.110 001.100 1.121, 1.100, 0.001, 1. 0.110 2.010 001.1)				
Part #	8001078	8001382	8001405	
Description	For anchor, masthead, & stern nav. lights	For port sidelights	For starboard sidelights	
LED Color	White	Red	Green	
Voltage	10-30 VDC	10-30 VDC	10-30 VDC	
Bulb Type	Non-Index	Non-Index	Non-Index	



120V 3NM Models for the clear lens: 120V 2NM Models for the red and green lens:







Part #	9000388	9000647	9000654	9003744	9000661	9000678
Descriptions	For anchor, masthead, & stern nav. lights	For the red port sidelights	For the green starboard sidelights	For anchor, masthead, & stern nav. lights	For the ed port sidelights	For the green starboard sidelights
Lens Color	White 3NM	Red 2NM	Green 2NM	White 3NM	Red 2NM	Green 2NM
Voltage	120VAC	120VAC	120VAC	120VAC	120VAC	120VAC
Wattage	3W	2.5W	2.5W	3W	2.5W	2.5W
Bulb Type	Index	Index	Index	Non-Index	Non-Index	Non-Index
Remarks	For Aqua Signal series 50 etc. Replaces Bulbs 90285 & 90286	For Aqua Signal series 50 etc. Replaces Bulbs 90285 & 90286	For Aqua Signal series 50 etc. Replaces Bulbs 90285 & 90286	Replaces Perko Bulb 374-4.	Replaces Perko Bulb 374-4.	Replaces Perko Bulb 374-4.



Navigation Light LED Bulb (120/240VAC): 120/240V P28S White Polar Star

120/240VAC 6NM navigation light rough service medium prefocus P28S LED replacement bulb. Replaces Perko 120V 60W Medium Prefocus P28S Base Bulbs: 0342RS4CLR & 0342004CLR etc. 6NM Certified per USCG COLREG 1972 & UL1104:1998 in a Perko 1369 navigation light fixture.







120/240VAC P28S Medium Prefocus Base Rough Service LED Bulb:

Finally, a true one-to-one LED replacement for 120/240VAC 6NM navigation light incandescent P28S bulbs. This P28S LED bulb is specially designed as a direct replacement for many 120/240V navigation light P28S bulbs such as those made by Perko and Aqua Signal. It is compatible with these Perko fixtures 1367, 1369, 1370, 1372, 1373, 1374, 1167, 1169, 1170, 1172, 1173, 1174, 1151, 1152, 1153, 0454, 0403, 0412, etc. and Aqua Signal 70 series fixtures.

This high-quality, long lasting P28S LED bulb eliminates having to frequently replace short service life incandescent bulbs.

Developed by Dr. LED at the request of the USCG to improve the reliability of their navigation lights that use P28S bulbs, and to decrease the often hazardous task of having to replace incandescent P28S bulbs while underway, this bulb has also been chosen by the US Navy for use in their P28S bulb navigation lights.

- Replaces Perko bulbs 0342RS4CLR and 0342004CLR.
- It is the only USCG-certified after-market replacement P28S LED bulb currently available.
- 6NM certified and much brighter than the original incandescent bulb.
- High-Power LED 6 NM Visibility (Clear Lens) 3 NM Visibility (Red and Green Lens)
- 120VAC and 240VAC Warm White
- Long service life, shock-resistant, and ultra-rugged with no filament to burn out or break.
- Lead and mercury-free, no UV output.
- Designed in the USA.

Part #	9342004
Description	120/240VAC P28S Medium Prefocus Rough Service LED Bulb
LED Color	Warm White
Replaces	Perko Bulbs: 0342RS4CLR (60W 120V) 0342004CLR (60W 120V) 0342003CLR (40W 120V) 0342002CLR (25W 120V) 0342001CLR (15W 120V) 0342000CLR (7.5W 120V) 0342220CLR (65W 220V) Aqua Signal Bulbs: 90400172, 90172-4 (60W 120V) 90400173, 90173-4 (65W 230V)
Voltage	120/240VAC
Wattage	8W
Lumen Output	880 Lumens (65W Equivalent)
Dimensions	~119mm (4.7") tall 38mm (1.5") dia.

Navigation Light LED Bulbs (12V): Hex GE90 Star[™] Navigation Light LED Bulb (12/24V): H2492 Star[™]

PN: 9000425 PN: 8000067

One-to-one 2NM LED replacement for Perko Bulb 337 and Trade #68, #90, #94, #1004, etc. bulbs for navigation and reading lights.



One-to-one replacement for Perko Bulb 337 Trade #68, #90, #94, & #1004 bulbs.

The Hex GE90 Star Navigation LED Bulb:

These HEX GE90 LED bulbs are specially designed as one-to-one direct replacements for many incandescent navigation lights available on the market, such as those from Perko and other manufacturers.

These high-quality bulbs are the perfect way to reduce energy consumption on your boat with a current draw of only about 0.12A. They are specially well-suited for mast mounted lights, as their incredible reliability will mean an end to frequent climbs up the mast to replace navigation light bulbs.

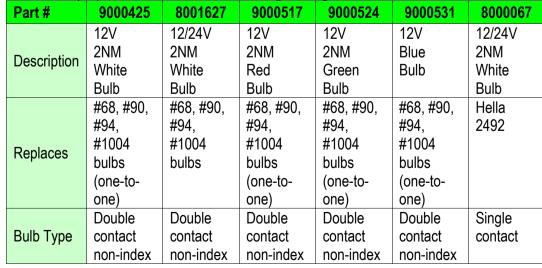
Compatible with Perko fixture series 0362, 0371, 0455, 0466, 1134, 1137, 1209, 1311, 1330, 1400, 1401, etc.

Features

- Bayonet 15mm double contact non-index (non-offset) configuration
- #1004, #90, #68, #94 etc. bulb replacements (one-to-one replacement)
- For 2NM navigation lights
- High-Power LED 2 NM visibility 12VDC and 24VDC
- Conformal coated & use of long-life components: e.g. ceramic capacitor (not low hour electrolytic capacitor).
- Internal circuitry provides for constant energy consumption, regardless of voltage fluctuations from the source, meaning no flickering and longer LED life
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break
- Dimmable with most PWM dimmers

PN:8000067 is the single contact model that works in a Hella 2492 anchor light.

Utilize the proper colored bulb for each navigation light fixture. Not for bicolor or tricolor.



Navigation Light LED Bulb (12V): Polar Star 20™

12 VDC 2NM 9mm single contact miniature bayonet LED replacement bulb for navigation & deck lights. Replaces Agua Signal series 20 navigation light bulbs and Agua Signal series 25 deck light bulb.





9mm Miniature Bayonet Bulb

Finally, a true one-to-one LED replacement bulb for incandescent navigation lights using 9mm miniature bayonet bulbs. This single contact bayonet LED bulb is specially designed as a direct replacement for many navigation and deck lights. It is compatible with Aqua Signal series 20 navigation anchor light and Agua Signal series 25 deck-light. This highquality LED bulb is the perfect way to reduce energy consumption on your boat with a current draw of only about 0.1A. Its incredible reliability means an end to frequent climbs up the mast to replace navigation light bulbs.

PN: 8001849

PN: 8001849 **Features**

- Replaces 9mm miniature bayonet bulbs.
- Replaces Agua Signal series 20 navigation bulbs and Agua Signal series 25 deck light bulb.
- 2 NM visibility **12 VDC** Warm White
- Zero radio frequency (RF) emission, surface-mount-device design.
- Conformal coated & use of long-life components: e.g. ceramic capacitor (not low hour electrolytic capacitor).
- Internal circuitry provides constant current draw regardless of voltage fluctuations from the source, meaning no flickering and longer LED life.
- Long service life, shock-resistant, and ultra-rugged with no filament to burn out or break.
- Very low power consumption (approximately 1 W).
- Lead and mercury-free, no UV output.
- Dimmable with most PWM dimmers.
- Designed in the USA.

Part #	8001849	
Description	2 NM 9mm miniature bayonet LED bulb	
LED Color	Warm White	
Replaces	Aqua Signal series 20 navigation light bulbs and Aqua Signal series 25 deck light bulb	
Voltage	12 VDC	
Current Draw	0.1 A	
Lumen Output	60 Lumens (10W eqv.)	
Dimensions	~28mm (1.1") length 12mm (0.47") width	

Replaces bulb trade # 53, 57, 181, 1416, & 1816.

Replaces Ancor bulb # 520053, 520057, 521126, 521416, 529337, & 529355.



Aqua Signal series 25 deck light

Waterproof version available by special order only (not for navigation light): PN: BA9S-deck Replaces Aqua Signal bulb # 9040047000.





Navigation Light LED Bulb (12V): P338 Wedge Star™

Perko Bulb 338 LED replacement for popular Perko pole lights PN:9000371

The P338 Wedge Star Navigation LED Bulb:

This LED bulb is specially designed as a direct replacement for most of the incandescent navigation anchor/masthead lights available on the market like those from Perko and other manufacturers.

This high-quality bulb is the perfect way to reduce energy consumption on your boat with a current draw of only about 0.06 A. This is especially well suited for many wedge based white navigation fixtures.





LED Replacement for Perko Bulb 338

Compatible with Perko fixture series 0238, 0239, 1236, 1273, 1274, 1281, 1283, 1284, 1440, 1445, 1450, 1451, 1452, 1455, 1456, 1460, 1461, 1465, 1470, 1604, 1607, 1622, 1634, 1637, 1656, etc.

Features

- Wedge base configuration
- Perko Bulb 338 replacement (a one-to-one replacement)
- For 2NM white navigation lights
- SMD LED 2 NM visibility 12 VDC
- Zero radio frequency (RF) emission
- Conformal coated & use of long-life components: e.g. ceramic capacitor (not low hour electrolytic capacitor).
- Internal circuitry provides for constant energy consumption, regardless of voltage fluctuations from the source, meaning no flickering and longer LED life
- Long service life, shock-resistant, ultra-rugged with no filament to burn out or break
- Very low power consumption (approximately 0.72 W)
- Dimmable with most PWM dimmers

Part #	9000371
Description	For 2NM Anchor / Masthead Light
Replaces	Perko Bulb 338
Bulb Type	Wedge Base
Voltage:	12 VDC
Lumen Output:	60 Lumens (10W equivalent)
Current	0.06 A
Dimensions	38.5mm long, 15mm wide, 7.5mm thick
Dimensions	1.5" long, 0.6" wide, 0.3" thick



US Patents 7,450,394 & 7,053,560

24V PN:9000463

12 VDC and 24 VDC 2NM navigation light festoon bulb LED replacement for combination masthead & anchor lights. 12VDC Replaces Perko Bulb 71 & Ancor # 529102 & 24VDC Replaces Perko Bulb 72 & Ancor # 522129.





Short Festoon LED Bulbs:

Finally, true one-to-one LED replacements for small incandescent navigation light festoon bulbs. These short festoon LED bulbs are specially designed as direct replacements for many combination masthead & anchor lights. They are compatible with many Perko fixtures like series 1123, 1124, 1125, 1178, 1181, 1183, 1184, 1196, 1197, etc. These high-quality high-power LED bulbs are the perfect way to reduce energy consumption on your boat with a current draw of about 0.1A. Their incredible reliability means an end to frequent climbs up the mast to replace navigation light bulbs.

Features

- Replaces small pointed festoon bulbs.
- 12V Replaces Perko bulb # 0071DP0CLR (Perko Bulb 71) and Ancor bulb #529102.
- 24V Replaces Perko bulb # 0072DP0CLR (Perko Bulb 72) and Ancor bulb #522129.
- High-Power LED 2 NM visibility 12 VDC and 24VDC Warm White
- Zero radio frequency (RF) emission, surface-mount-device design.
- Conformal coated & use of long-life components: e.g. ceramic capacitor (not low hour electrolytic capacitor).
- Internal circuitry provides constant current draw regardless of voltage fluctuations from the source, meaning no flickering and longer LED life.
- Long service life, shock-resistant, and ultra-rugged with no filament to burn out or break.
- Very low power consumption (approximately 1.2 W).
- Lead and mercury-free, no UV output.
- Dimmable with most PWM dimmers.
- Designed in the USA.

Part #	9000173	9000586	9000593	9000463
Description	12V 28-31mm festoon LED bulb	12V 28-31mm festoon LED bulb	12V 28-31mm festoon LED bulb	24V 31mm festoon LED bulb
LED Color	Warm White	Red for red lens.	Green for green lens.	Warm White
Replaces	Perko Bulb 71 (0071DP0CLR) & Ancor # 529102	Perko Bulb 71 (0071DP0CLR) & Ancor # 529102	Perko Bulb 71 (0071DP0CLR) & Ancor # 529102	Perko Bulb 72 (0072DP0CLR) & Ancor 522129
Voltage	12 VDC	12 VDC	12 VDC	24 VDC
Current Draw	0.1 A	0.1 A	0.1 A	0.05 A
Lumen Output	60 Lumens (10W equivalent)	10W equivalent	10W equivalent	60 Lumens (10W equivalent)
Dimensions	~28mm (1.1") long 11mm (0.43") dia.	~28mm (1.1") long 11mm (0.43") dia.	~28mm (1.1") long 11mm (0.43") dia.	~28mm (1.1") long 11mm (0.43") dia.

Recommended Applications:

Brand	Series	Mfg. Bulb No.	
Hella	2010	78202 8GM 993 406-001	
Perko	0135, 0227, 0228, 0229, 0232, 0252, 0253, 0254, 0260, 0273, 0277, 0281, 0295, 0904, 0915, 0945, 0955, 0963, 0964, 0965, 0972, 1123, 1124, 1125, 1161, 1178, 1181, 1183, 1184, 1196, 1197, 1201, 1211, 1212, 1218, 1264, 1310, 1331, 1332, 1421, 1422, 1601, 1602, 1612, 1614	Fig. 71 0071DP0CLR 0071DP8CLR	
Attwood	7200 series: 7208, 7212, 7220, 7250, 7251, 7252, 7254, 7255, etc.		

Navigation Light LED Bulbs (12V & 24V): 36-44mm Festoon Star (for clear lens)

12 VDC 36-44mm Festoon Star™PN: 9000241Replaces Perko Bulbs 69 & 7012 VDC 39-44mm Blue Festoon Star™PN: 9000562Replaces Perko Bulbs 69 & 7024 VDC 39-44mm Festoon Star™PN: 9000357Replaces Perko Bulb 67



Festoon LED Bulbs, for clear lens fixtures:

Finally, true one-to-one LED replacements for incandescent navigation and interior festoon bulbs. These festoon LED bulbs are specially designed as direct replacements for many navigation as well as interior lights. They are compatible with many Perko fixtures like series 0120, 0170, 106, 108, 109, 110, 111, 259, etc. They also work with Aqua Signal series 25, Forespar ML-2, as well as Hella series 3562 and 8505. These high-quality high-power LED bulbs are the perfect way to reduce energy consumption on your boat with a current draw of only about 0.1A. Their incredible reliability means an end to frequent climbs up the mast to replace navigation light bulbs.

Features

- Replaces 36mm, 39mm, 41mm, and 44mm pointed and dimpled festoon bulbs.
- 12 VDC Replaces Perko bulbs # 0069DP0CLR (Perko bulb 69) and #0070DPxCLR (Perko bulb 70).
- 24 VDC Replaces Perko bulbs # 0067DP0CLR (Perko bulb 67) and Ancor #522129.
- High-Power LED 2 NM visibility 12 VDC or 24 VDC Warm White and Blue
- Zero radio frequency (RF) emission, surface-mount-device design.
- Conformal coated & use of long-life components, e.g. ceramic capacitor (not low hour electrolytic capacitor).
- Internal circuitry provides constant current draw regardless of voltage fluctuations from the source, meaning no flickering and longer LED life.
- Long service life, shock-resistant, and ultra-rugged with no filament to burn out or break.
- Very low power consumption (approximately 1.8 W).
- Dimmable with most PWM dimmers.
- Designed in the USA.

Part #	9000241 12 VDC	9000562 12 VDC	9000357 24 VDC
Description	2 NM 36-44mm festoon LED bulb	2 NM 39-44mm festoon LED bulb	2 NM 39-44mm festoon LED bulb
LED Color	Warm White	Blue	Warm White
Replaces Perko	Perko Bulbs 69 & 70	Perko Bulbs 69 & 70	Perko Bulb 67
Replaces Ancor	#529095, 529104, 522126, 522131, 522112, 522122, 529333, etc.	#529095, 529104, 522126, 522131, 522112, 522122, 529333, etc.	Ancor #522129
Replaces Generic (Trade)	#211-2, 212-2, 560, 569, 578, etc.	#211-2, 212-2, 560, 569, 578, etc.	
Voltage (W)	12 VDC (~1.8W)	12 VDC (~1.8W)	24 VDC (~1.8W)
Current Draw	0.14A	0.14A	0.07A
Lumen Output	90 Lumens	45 Lumens	90 Lumens
Dimensions	36mm (1.4") long 12mm (0.5") dia.	36mm (1.4") long 12mm (0.5") dia.	36mm (1.4") long 12mm (0.5") dia.

12V Recommended Applications:

Brand	Series	Mfg. Bulb No.	
Aqua Signal	25	90200 90201	
Forespar	ML-2	WN-211 132025	
Hella	3562, 8505	78206 8GM002091-131	
Perko	0120, 0170	Fig. 69 0069DP0CLR	· · · · · · · · · · · · · · · · · · ·
I GIKO	106, 108, 109, 110, 111, 259, 939, 946, 4F, 5F, 7F	Fig. 70 0070DP1CLR 0070DP2CLR	

24V Recommended Applications:

Brand	Series	Mfg. Bulb No.	
Perko	0120, 0170	Fig. 67 0067DP1CLR 0067DP2CLR	Alexander

Navigation Light LED Bulbs (12V): 39-44mm Festoon Star (for colored lens)

12 VDC 39-44mm Red Festoon Star[™] PN: 9000548 Replaces Perko Bulbs 69 & 70 Replaces Perko Bulbs 69 &



Festoon LED Bulbs, for colored lens fixtures:

Finally, true one-to-one LED replacements for incandescent navigation and interior festoon bulbs. These festoon LED bulbs are specially designed as direct replacements for many navigation as well as interior lights. They are compatible with many Perko fixtures like series 0120, 0170, 106, 108, 109, 110, 111, 259, etc. They also work with Aqua Signal series 25, Forespar ML-2, as well as Hella series 3562 and 8505. These high-quality high-power LED bulbs are the perfect way to reduce energy consumption on your boat with a current draw of only about 0.1A. Their incredible reliability means an end to frequent climbs up the mast to replace navigation light bulbs.

Features

- Replaces 36mm, 39mm, 41mm, and 44mm pointed and dimpled festoon bulbs.
- 12 VDC Replaces Perko bulbs # 0069DP0CLR (Perko Bulb 69) and #0070DPxCLR (Perko Bulb 70).
- High-Power LED 2 NM visibility 12 VDC
- Zero radio frequency (RF) emission, surface-mount-device design.
- Conformal coated & use of long-life components, e.g. ceramic capacitor (not low hour electrolytic capacitor).
- Internal circuitry provides constant current draw regardless of voltage fluctuations from the source, meaning no flickering and longer LED life.
- Dimmable with most PWM dimmers.
- Designed in the USA.

Part #	9000548 12 VDC	9000555 12 VDC	8001122 12 VDC
Description	2 NM 39-44mm festoon LED bulb	2 NM 39-44mm festoon LED bulb	2 NM 44mm festoon LED bulb
LED Color	Red	Green	Red/Green
Replaces Perko	Perko Bulbs 69 & 70	Perko Bulbs 69 & 70	For Aqua Signal series 25 ONLY.
Replaces Ancor	#529095, 529104, 522126, 522131, 522112, 522122, 529333, etc.	#529095, 529104, 522126, 522131, 522112, 522122, 529333, etc.	#529333, 529419, 522112, 529417
Replaces Generic (Trade)	#211-2, 212-2, 560, 569, 578, etc.	#211-2, 212-2, 560, 569, 578, etc.	Works as both pointed & dimpled festoon replacements.
Voltage (W)	12 VDC (~1.8W)	12 VDC (~1.8W)	12 VDC (~1.5W)
Current Draw	0.14A	0.14A	0.12A
Dimensions	39mm (1.5") long 12mm (0.5") dia.	39mm (1.5") long 12mm (0.5") dia.	44mm (1.73") tall 32mm (~1.26") dia

12V Recommended Applications:

Brand	Series	Mfg. Bulb No.	
Aqua Signal	25	90200 90201	
Forespar	ML-2	WN-211 132025	
Hella	3562, 8505	78206 8GM002091-131	
Perko	0120, 0170	Fig. 69 0069DP0CLR	· · · · · · · · · · · · · · · · · · ·
TEIRO	106, 108, 109, 110, 111, 259, 939, 946, 4F, 5F, 7F	Fig. 70 0070DP1CLR 0070DP2CLR	



Bicolor Polar Star 25 PN:8001122

Bicolor bulb for Aqua Signal series 25 bicolor light with the lens cover removed for illustration. Works on both pointed and dimpled fixtures.

LED Replacement Bulbs (12/24V): 31mm / 36mm / 41mm Single-Sided Festoon Bulbs

31mm, 36mm, and 41mm 12/24V Single-Sided Cool White Festoon Bulbs (12/24V) Not for use in navigation lights.

(Sold in Pairs) PN: 31mm:9000982, 36mm:9000999, and 41mm:9001002



150 Lumen Cool White Festoon LED Bulbs

12/24V 2W Single-Sided Cool-White Festoon LED Bulbs.

- Replaces pointed festoon bulbs.
- Single-Sided: LEDs on One SIDE ONLY.
- Non-polarized.
- Built-in regulated power supply; constant wattage draw regardless of voltage fluctuations from the source, meaning no flickering and longer LED life.
- Cool-white 6000 K, 150 Lumens.
- Chrome-plated copper contacts.
- Ceramic heat sink.
- White frosted lens cover.
- Long service life, shock resistant, and ultra-rugged with no filament to burn out or break.
- Very low power consumption (approximately 2W).

PN: 31mm:9000982. 36mm:9000999. 41mm:9001002 and

Specifications:

Electrical:

Input Voltage: 10-30 VDC

Current Draw: 0.15A @ 12 V, 0.08A @ 24V

Max Input Power: ~2W Non-Polarized Connection Under-Voltage and Voltage Spike Protected Electrically Protected Against RFI/EMC Interference







Mechanical:

Chrome Plated Copper Contacts Dimensions: 31mm (1.22"), 36mm (1.42"), or 41mm (1.61"), 13mm (0.51") diameter.