BCM Downlights
Installation and Operation Manual

Alabama • Alaska • Anchorage • Aspen • Atlanta • Charlotte • Colorado

Daytona • Malibu • Miami • Newport • Orlando • Phoenix • Seattle • Venice

Overview

BCM downlight fixtures are specifically designed for marine lighting applications. The downlights in this range are all offered in a 3000K warm white LED color and several sizes and finishes within each family. They are precision engineered to take advantage of the latest in LED technology. They feature lightweight construction, minimal power consumption, superior reliability and less radiated heat than traditional light sources. When installed properly, these products will provide years of dependable performance.

We encourage you to read this installation guide thoroughly as there are electronic & electrical criteria, and other important installation details that should be met in order to assure many years of enjoyment from your new BCM product(s).

For more information or technical questions concerning BCM products, please contact Imtra at 508-995-7000 or via email at lighting@imtra.com

Specifications

Input Voltage Range	8-32 VDC
Mounting	Wire Springs or Screws
Cutout Diameter	See Table 1
Recess Depth Including Airspace	See Table 1
Power Consumption	See Table 1
IP Rating	IP66*

*IP66: "Protected against powerful water jets from any direction"

Sizing & Specifications

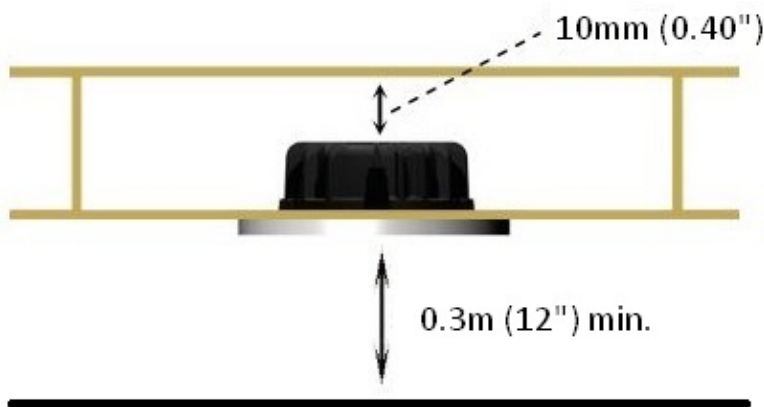| Light/MM	Cutout Diameter	Recommended (min) Recess Depth	Power Consumption	Amps 12V	Amps 24V
Alabama 60	44mm (1.73in)	20mm (0.79in)	1.5W	0.13	0.07
Alabama 75	54mm (2.13in)	22mm (0.87in)	2W	0.17	0.09
Alabama 85	65mm (2.56in)	35mm (1.38in)	4W	0.34	0.17
Alabama 95	76mm (2.99in)	46mm (1.81in)	6W	0.5	0.25
Alaska 72	62mm (2.44in)	28mm (1.11in)	2W	0.17	0.09
Alaska 82	72mm (2.87in)	41mm (1.62in)	4W	0.34	0.17
Anchorage 72	54mm (2.13in)	22mm (0.87in)	2W	0.17	0.09
Anchorage 82	65mm (2.56in)	35mm (1.38in)	4W	0.34	0.17
Aspen 77	54mm (2.13in)	22mm (0.87in)	2W	0.17	0.09
Aspen 87	65mm (2.56in)	35mm (1.38in)	4W	0.34	0.17
Atlanta 80	73mm (2.87in)	41mm (1.62in)	2W	0.17	0.09
Atlanta 90	83mm (3.27in)	52mm (2.05in)	4W	0.34	0.17
Charlotte 55	44mm (1.73in)	20mm (0.79in)	1.5W	0.13	0.07
Charlotte 70	54mm (2.13in)	22mm (0.87in)	2W	0.17	0.09
Charlotte 80	65mm (2.56in)	35mm (1.38in)	4W	0.34	0.17
Charlotte 90	76mm (2.99in)	46mm (1.81in)	6W	0.5	0.25
Colorado 77	62mm (2.44in)	28mm (1.11in)	2W	0.17	0.09
Colorado 87	73mm (2.87in)	41mm (1.62in)	4W	0.34	0.17
Daytona 80	65mm (2.56in)	35mm (1.38in)	2W	0.17	0.09
Daytona 90	76mm (2.99in)	46mm (1.81in)	4W	0.34	0.17
Malibu 60	48mm (1.89in)	26mm (1.03in)	1.5W	0.13	0.07
Malibu 75	62mm (2.44in)	28mm (1.11in)	2W	0.17	0.09
Malibu 85	73mm (2.87in)	41mm (1.62in)	4W	0.34	0.17
Malibu 95	83mm (3.27in)	52mm (2.05in)	6W	0.5	0.25
Miami 55	44mm (1.73in)	20mm (0.79in)	1.5W	0.13	0.07
Miami 70	54mm (2.13in)	22mm (0.87in)	2W	0.17	0.09
Miami 80	65mm (2.56in)	35mm (1.38in)	4W	0.34	0.17
Miami 90	76mm (2.99in)	46mm (1.81in)	6W	0.5	0.25
Newport 85	73mm (2.87in)	41mm (1.62in)	2W	0.17	0.09
Newport 95	83mm (3.27in)	52mm (2.05in)	4W	0.34	0.17
Orlando 60	44mm (1.73in)	20mm (0.79in)	1.5W	0.13	0.07
Orlando 75	54mm (2.13in)	22mm (0.87in)	2W	0.17	0.09
Orlando 85	65mm (2.56in)	35mm (1.38in)	4W	0.34	0.17
Orlando 95	76mm (2.99in)	46mm (1.81in)	6W	0.5	0.25
Phoenix 85	65mm (2.56in)	35mm (1.38in)	2W	0.17	0.09
Phoenix 95	76mm (2.99in)	46mm (1.81in)	4W	0.34	0.17
Seattle 55	48mm (1.89in)	26mm (1.03in)	1.5W	0.13	0.07
Seattle 70	62mm (2.44in)	28mm (1.11in)	2W	0.17	0.09
Seattle 80	73mm (2.87in)	41mm (1.62in)	4W	0.34	0.17
Seattle 90	83mm (3.27in)	52mm (2.05in)	6W	0.5	0.25
Venice 55	48mm (1.89in)	26mm (1.03in)	1.5W	0.13	0.07
Venice 70	62mm (2.44in)	28mm (1.11in)	2W	0.17	0.09
Venice 80	73mm (2.87in)	41mm (1.62in)	4W	0.34	0.17
Venice 90	83mm (3.27in)	52mm (2.05in)	6W	0.5	0.25

Table 1

Physical Installation

It is imperative that the lights are mounted in such a location that the fixtures are protected from the rear against water exposure.
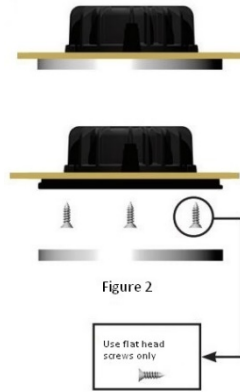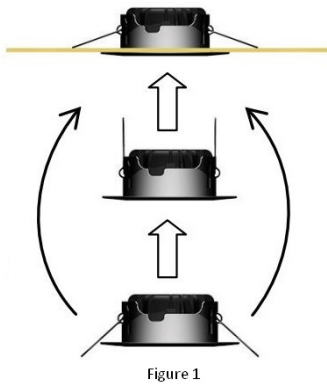

It is important that the lights are mounted with airspace around the heat sink housing to allow for convective cooling of the lights. A minimum distance of 10mm (0.40") of free space is required above the housing. Also, the light should be installed a minimum of 0.3m (12") from the surface that it illuminates.

Installation Instructions

1. Determine the location of your downlight and cut a circle in the mounting surface according to the cutout diameter required by your light (see Table 1). For screw mounted lights, mark and drill pilot holes for the fasteners as required.

2. Connect the light to a DC power source following the Wiring Instructions in the next section of this guide.

3. Once all electrical connections are made and secure, install the light in the mounting surface.

4. For spring mounted lights, gently bend back the springs and insert the spring tips into the cutout. Gently push the light into the mounting hole allowing the springs to come to rest on the inside of the mounting surface, holding the light in place (see Figure 1).

5. For screw mounted lights, twist and remove the trim ring from the light. Insert the light into the cutout. Fasten to the mounting surface with flat head screws (see Figure 2). Engage the trim ring tabs with the openings in the housing and twist on to secure it.

Figure 1

Figure 2

Use flat head screws only

Wiring Instructions (No Dimmer)

1. Before making wiring connections, be sure the power is off!

2. Connect the yellow wire to DC (+) and the black wire to DC (-) for white lights.

3. Optional: Connect the red or blue wire to DC (+) for secondary color lights on Bi-Color fixtures. (See Table 2)

4. Ensure wire connections and securements are in accordance with ABYC standards.
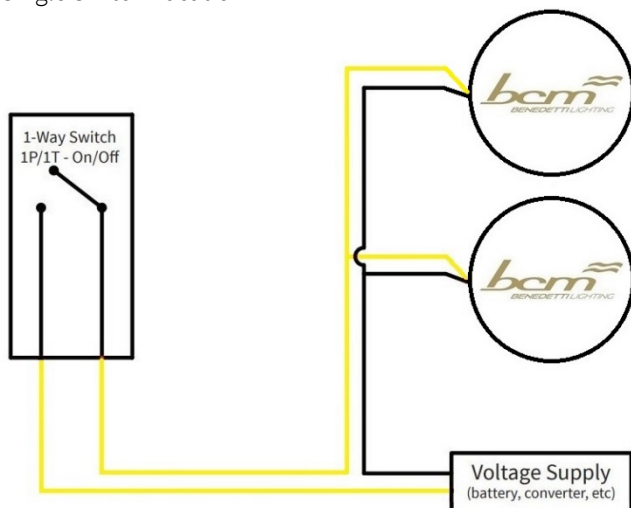
5. Turn the power to the light on.

Table 2

Wire Color	Function
Yellow	+ (white light)
Black (s)*	–
Red	+ (red light)
Blue	+ (blue light)

Bi-Color lights have two black wires, one for each color. They may be connected separately or in parallel.
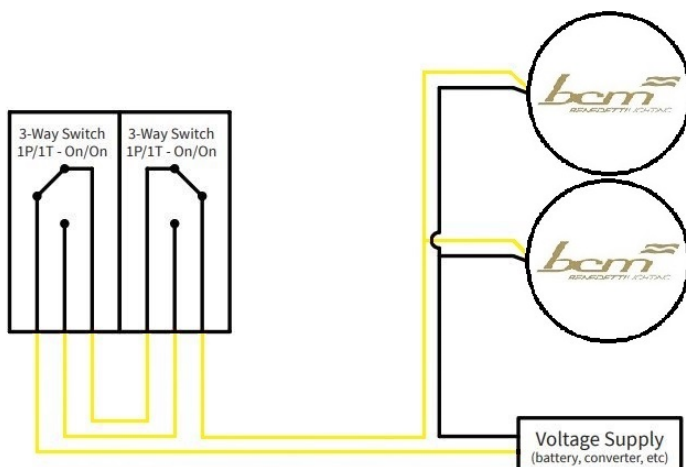
Wiring Diagram

- Single Color
- No Dimming
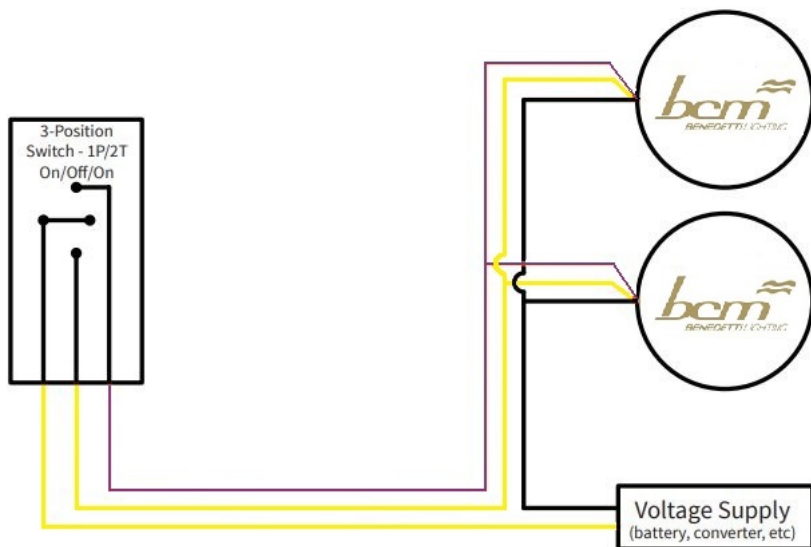- Single Switch Location

Wiring Diagram

- Single Color
- No Dimming
- Multiple Switch Location

Wiring Diagram

- Bi-Color (Red or Blue)
- No Dimming
- Red or Blue secondary color is indicated by wire color

Wiring Instructions (Dimming)

Please refer to Installation manual that is included with your dimmer or visit www.imtra.com to download the manual.

Note on Wire Size

The BCM downlight family of products feature integrated driver electronics. These components are sensitive to DC system voltage drops. Therefore, it is imperative to select the correct wire size to supply DC voltage to the lights. This prevents excessive impedance and voltage drop to the lights which can cause premature failure. It is recommended that the supply wire size be selected according to the ABYC Wiring Recommendations Chart for a 10% voltage drop. These charts can be found at www.imtra.com

Limited Warranty

Imtra/BCM warrants the light-emitting LSA (LED Sub-Assembly) component of this product for three years from the date of purchase. If the LSA should cease to function within three years, return it to Imtra for repair or replacement.

This warranty does not apply to damage resulting from actions of the user such as misuse, improper wiring/installation, operation outside of specification, improper maintenance or repair, unauthorized modification, lightning strike or damage from a power surge.

The decorative bezel of this product is warranted for one year.

Imtra/BCM specifically disclaims any implied warranties, merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. Imtra's total liability is limited to repair or replacement of the product.

The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.

If it should become necessary to return a fixture for service during or beyond the warranty period, please refer to Imtra's standard Return Policy as detailed on Imtra's website (www.imtra.com) or call Imtra customer service at (508) 995-7000.

No returns are accepted without a Return Authorization (RA) number.   (REV 1.0)

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MARINE LIGHTING

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