Ilumiline Inground IP Optic 25 Series
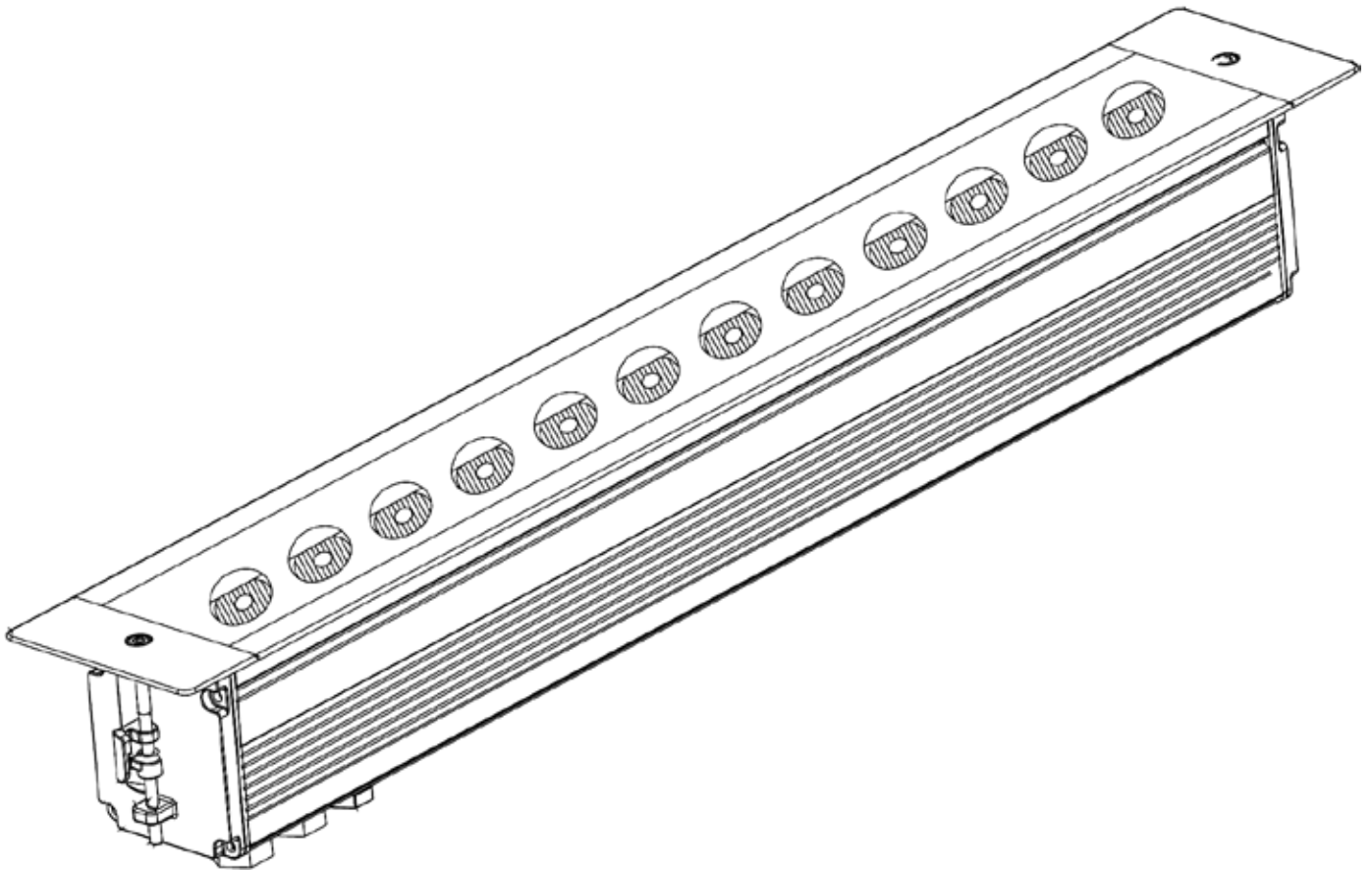

User Manual

- Ilumiline Inground Tri-12 IP Optic 25 RGB
- Ilumiline Inground 12 IP Optic 25 WW

ILUMINARC

Edition Notes

The Ilumiline Inground IP Optic 25 Series User Manual Rev. 13 covers the description, safety precautions, installation, programming, operation, and maintenance of these Ilumiline Inground IP products. ILUMINARC released this edition of the Ilumiline Inground IP Optic 25 Series User Manual Rev. 13 in April, 2018.

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Copyright Notice

Manual Usage

Document Printing

For better results, print this document in color, on letter size paper (8.5 x 11 inches), double sided. If using A4 paper (210 x 297 mm), configure your printer to scale the content of this document to A4 paper.

Intended Audience

Any person in charge of installing, operating, and/or maintaining these Ilumiline Inground IP products should read the Guide that shipped with it and this manual in their entirety before installing, operating, or maintaining this product.

Disclaimer

ILUMINARC believes that the information contained in this manual is accurate in all respects. However, ILUMINARC assumes no responsibility for any error or omissions in this document. ILUMINARC reserves the right to revise this document and to make changes from time to time in the content hereof without obligation of ILUMINARC to notify any person or company of such revision or changes. This does not constitute in any way a commitment by ILUMINARC to make such changes. ILUMINARC may issue a revision of this manual or a new edition of it to incorporate such changes.

Document Revision

The Ilumiline Inground IP Optic 25 Series User Manual Rev. 13 supersedes all previous versions of this manual. Please discard any older versions of this manual you may have, whether in printed or electronic format, and replace them with this version.

Table of Contents

1. Introduction

This icon indicates useful, although non-critical information.

This icon indicates important installation or configuration information. Failure to comply with this information may prevent the product from functioning correctly.

This icon indicates critical installation, configuration, or operation information. Failure to comply with this information may render the product partially or completely inoperative, damage third-party equipment, or cause harm to the user.

The term "DMX" used throughout this document refers to the USITT DMX512-A transmission protocol.

What Is In the Box

· One Ilumiline Inground Tri-12 IP Optic 25 RGB, or
  One Ilumiline Inground 12 IP Optic 25 WW

· One Power Input Cable (bare-ended)

· One Data Input/Output Cable (bare-ended)

· One Installation Sleeve

· One Pour Kit Cover

· One Warranty Card

· One Quick Reference Guide

Unpacking Instructions

Immediately upon receiving a product from ILUMINARC, carefully unpack the carton. Check the contents of the box to ensure that all parts are present and that they are in good condition.

Claims

The carrier is responsible for any damage incurred during shipping. Therefore, if the received merchandise appears to have been damaged during shipping, the customer must submit the damage report and any related claims to the carrier, not ILUMINARC. The customer must submit the report upon receipt of the damaged merchandise. Failure to do so in a timely manner may invalidate the customer's claim with the carrier.

For other issues such as missing components or parts, damage not related to shipping, or concealed damage, the customer must make claims to ILUMINARC within seven (7) days of receiving the merchandise.

Text Conventions

Convention	Meaning
1~512	A range of values in the text
50/60	A set of mutually exclusive values in the text
"ILUMICON UM"	The name of another publication or manual
<SET>	A button on the product's control panel
Settings	A product function or a menu option
MENU > Settings	A sequence of menu options
1~10	A range of menu values from which to choose in a menu
Yes/No	A set of two mutually exclusive menu options in a menu
ON	A unique value to enter or select in a menu

There are no user serviceable parts inside this product. Any reference to servicing you may find from now on in this User Manual will only apply to properly certified ILUMINARC technicians. Do not open the housing or attempt any repairs unless you are certified to do so.

Please refer to all applicable local codes and regulations for the proper installation of this product.

Keep this manual for future consultation. If you sell this product to another user, make sure that they also receive this manual.

In the unlikely event that your Ilumiline Inground IP product may require service, please contact ILUMINARC Technical Support.

Safety Notes

Please read all the following safety notes carefully because they include important information on how to install, use, and maintain this product safely.

Personal Safety

·   Avoid direct eye exposure to the light source while the product is on.

·   Always disconnect this product from its power source before servicing.

·   Always connect this product to a grounded circuit to avoid the risk of electrocution.

·   Do not touch this product's housing when operating because it may be very hot.

Mounting and Installation

·   This product is for outdoor use and can be submerged (IP67). However, do not submerge deeper than 1 m for more than thirty (30) minutes.

·   CAUTION: When transferring product from extreme temperature environments, (e.g. cold truck to warm humid ballroom) condensation may form on the internal electronics of the product. To avoid causing a failure, allow product to fully acclimate to the surrounding environment before connecting it to power.

·   Make sure there are no flammable materials close to this product while operating.

Power and Wiring

·   Always make sure that you are connecting this product to the proper voltage, as per the specifications in this manual or on the product's sticker.

·   Never connect this product to a dimmer pack.

·   Make sure that the power input cable is not cracked, crimped, or damaged.

·   Never disconnect this product by pulling or tugging on the power input cable.

Operation

·   The maximum ambient temperature is 113 °F (45 °C). Do not operate this product at a higher temperature.

·   In case of a serious operating problem, stop using this product immediately!

2. Product Description

The Ilumiline Inground Tri-12 IP Optic 25 RGB is a Tri-color linear wash light intended for inground installation. The Ilumiline Inground 12 IP Optic 25 WW is the Warm White version. Both products consist of a cast aluminum body containing a power supply, control unit, and drive-over rated glass lens cover.

Common Features

- Five distinct dimming curves
- IP67 ingress protection
- IP67 stainless steel gland nuts for cable entry
- ADA compliant skid resistant, drive-over rated glass lens cover
- Remotely addressable with Ilumicode Addresser
- Integrated Cooling Enhancement™
- Humidity controlling Gore™ valve
- Ilumicode compatible

RGB Features

- 1, 3, 4, 6, or 7 channel DMX-512 LED inground linear wash product
- Operating modes:
    - 1-channel: Dimmer
    - 3-channel: RGB control
    - 4-channel: Dimmer, RGB control
    - 6-channel: RGB control per module (two modules)
    - 7-channel: Dimmer, RGB control, color macros, strobe, dimmer speed
- High Power 3 W (1,050 mA) Tri Color LEDs

WW Features

- 1 channel DMX-512 LED inground linear wash product
- Operating modes:
    - 1-channel: Dimmer
- High Power 1 W (350 mA) Warm White LEDs

Options

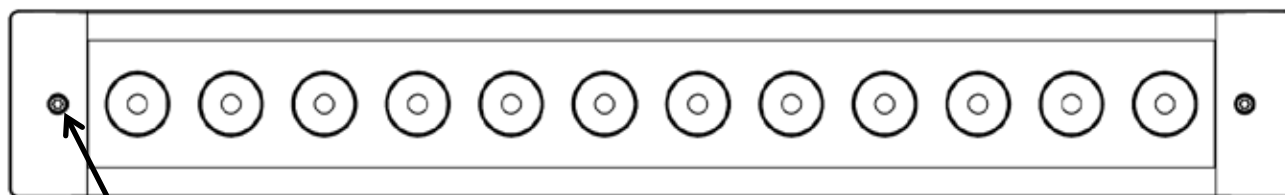- Ilumicode Addresser (required for product configuration)

⚠
- The RDM2go, which includes a built in ilumicode addresser along with many other useful features is now available.
- The Ilumicoode addresser is required for product configuration (sold separately).
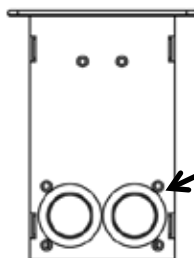
Product Overview

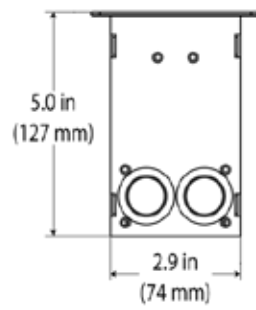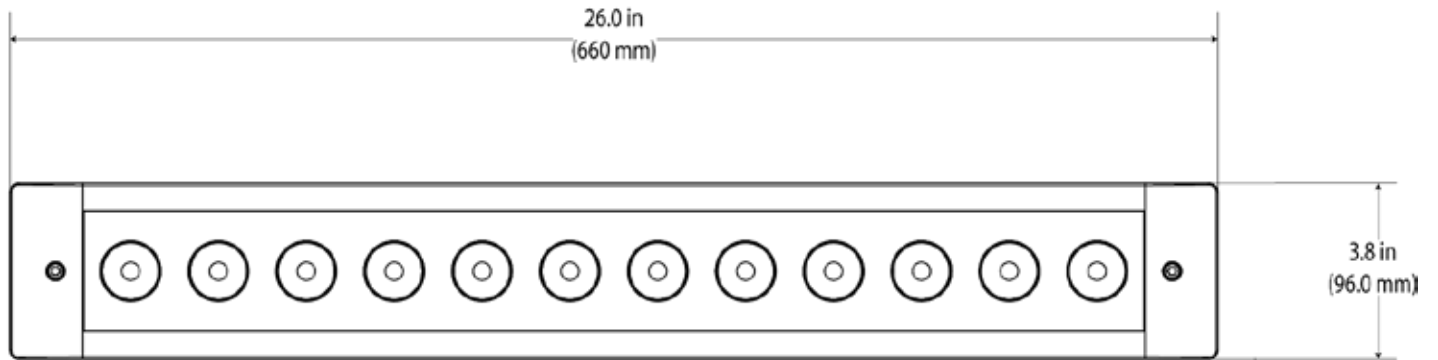Front View

Mounting
Screws

Side View

Concrete
Installation
Sleeve

Port Holes
for
Data/Power

End View

Product Dimensions

3. Installation

Installation Notes

Both Ilumiline Inground IP products consist of two components:

· Product housing, which is IP67 rated.

· Concrete installation sleeve, which is not IP67 rated.

Read the Installation Sleeve Setup instructions in this User Manual carefully.

Do not use the product's junction box to extend the power or signal cables to other units. This might compromise the IP rating of the junction box. Instead, use individual cables from the product to the corresponding signal and/or power distribution boxes.

Installation Sleeve Orientation

You will have to run the AC power and signal cables into the concrete installation sleeve.

Position the installation sleeve so the signal cable enters the sleeve using one of the two cable inlets.

Use the opposite inlet for the power cable (refer to the following figure).

This will reduce the stress to the signal and power cables when setting down the product, while keeping both cables separated under the product housing.

(i) Always keep the power cables away from the signal cables by running them in different conduits and using separate distribution boxes.

(i) For best results, insure that the frosted portion of the lens is orientated towards the surface you are trying to illuminate.

(i) This product is intended for installation into concrete or other hard pan substrate. It is not intended for installation into soft substrates including, but not limited to, soil or mulch.
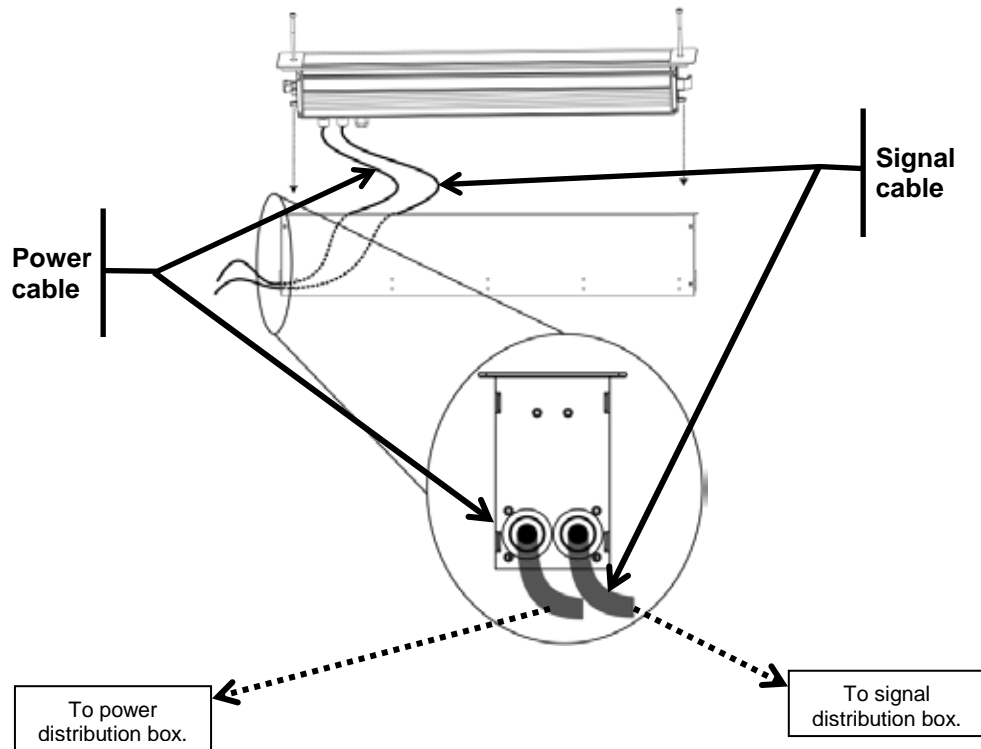
⚠ Ilumiline Inground IP products can support a distributed load of up to 3,000 kg (6,614 lbs) when properly installed.

Signal cable

Power cable

To power distribution box.

To signal distribution box.

Installation Sleeve Setup

When setting up the installation sleeve

- Drain any water that may have entered the sleeve.
- Locate the installation sleeve above the normal drainage level so the product is never under more than 1 m of water (IP67) during heavy rain.
- Make sure that the installation sleeve and the stainless steel collar are horizontal and level with the ground surface. This helps distribute the load uniformly over the product's surface and avoid creating dangerous bumps.
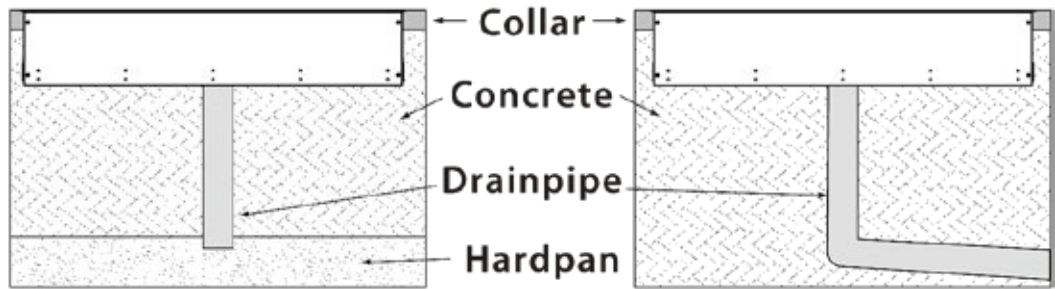
AC Power

The Ilumiline Inground IP products have an auto-ranging power supply that works with an input voltage range of 100~240 VAC, 50/60 Hz.

Make sure you are connecting this product to the proper voltage, as per the specifications in this manual or on the product's sticker.

Power Consumption

To determine the power requirements for the Ilumiline Inground IP products, see the label affixed to the side of the product. Alternatively, you may refer to the specifications chart in the Technical Information chapter of this manual.

The listed current rating indicates the maximum current draw during normal operation.

AC Plug

Both Ilumiline Inground IP products come with a bare-ended power input cord for hardwire installation. Use the table and the illustration below to wire a plug.

Connection	Wire (US)	Screw Color (US)	Wire (Europe)	IP67 Pin
AC Live	Black	Yellow or Brass	Brown	1
AC Neutral	White	Silver or Gray	Blue	2
AC Ground	Green/Yellow	Green	Green/Yellow	3

Power Wiring

To provide power, you have two options:

· Connect the bare-ended IP67 rated AC power cable from the product to an IP67 rated power connector.

· Use an IP67 rated junction box. If so, make sure to use IP 67 rated conduit for surface installations.
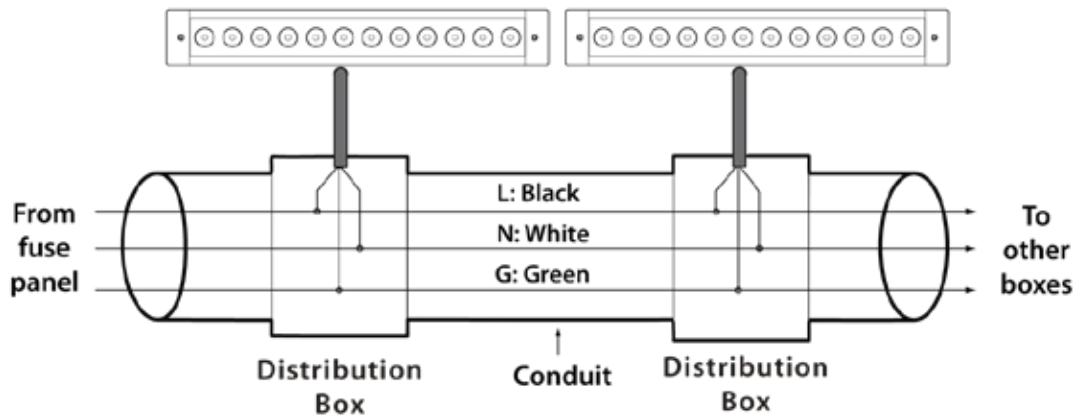
Ilumiline Inground IP products must be linked using DMX cable in a daisy chain (serial) fashion. To comply with the EIA-485 standard, no more than 32 products should be connected on one daisy chain without using a DMX optically-isolated splitter. Doing otherwise may result in deterioration of the digital DMX signal**.**

DMX Linking

You may link both Ilumiline Inground IP products to a DMX controller using a standard DMX serial connection. If using other DMX products compatible with the Ilumiline Inground IP product, you can control each individually with a single DMX controller.

If you are not familiar with the DMX standard, or if you need information about the DMX cables needed to link the Ilumiline Inground IP products to a DMX controller, you may download the "DMX Primer" document from the ILUMINARC website at www.iluminarc.com.

DMX Modes

The Ilumiline Inground Tri-12 IP Optic 25 RGB has five (5) different personalities. The Ilumiline Inground 12 IP Optic 25 WW has only one (1).

Both products use a standard DMX data connection.

Refer to the Introduction chapter for a brief description of these modes. To configure either one of the Ilumiline Inground IP products to work in these modes, refer to the Operation chapter. In addition, the DMX Values section provides detailed information on these DMX modes.

Refer to the tables below for the highest DMX starting address recommended for each mode.

Ilumiline Inground Tri-12 IP Optic 25 RGB

DMX Mode	DMX Address	DMX Mode	DMX Address
ARC FULL	506	SOLID	512
ARC1	510	SPECIAL1	507
ARC1+D	509		

Ilumiline Inground 12 IP Optic 25 WW

DMX Mode	DMX Address
SOLID	512

Signal Wiring

To provide signal to either of the Ilumiline Inground IP products, you have two options.

- Connect the bare-ended IP67 rated signal cable from the product to two IP67 rated signal connectors (DMX In and DMX Out).
- Use an IP67 rated junction box. In so, make sure to use IP67 rated conduit.

Protocol Connectivity

Ilumiline Inground IP products use the USITT DMX 512 Protocol. The procedure below illustrates the recommended connection method.

1: Common (Shield)
2: Data - In (Black)
3: Data + In (White)
4: Data - Out (Green)
5: Data + Out (Red)

Signal in   Junction box   Conduit   Junction box   Signal out
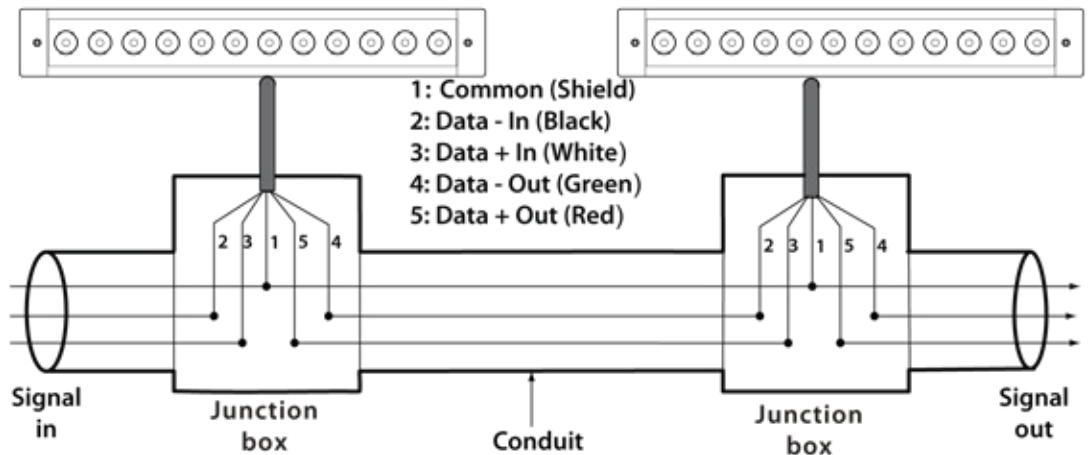
Controllers

Both Ilumiline Inground IP products can operate with a standard DMX controller or with the Ilumicode. The following sections explain the controllers you can use with each product, as well as how to connect these products to the corresponding controllers.

DMX Controller

The channel assignments depend on the chosen personality (see the corresponding Menu Map section) and the DMX address assigned to each product (see the Programming section).

The following figure illustrates how to connect the DMX controller to the Ilumiline Inground IP products.
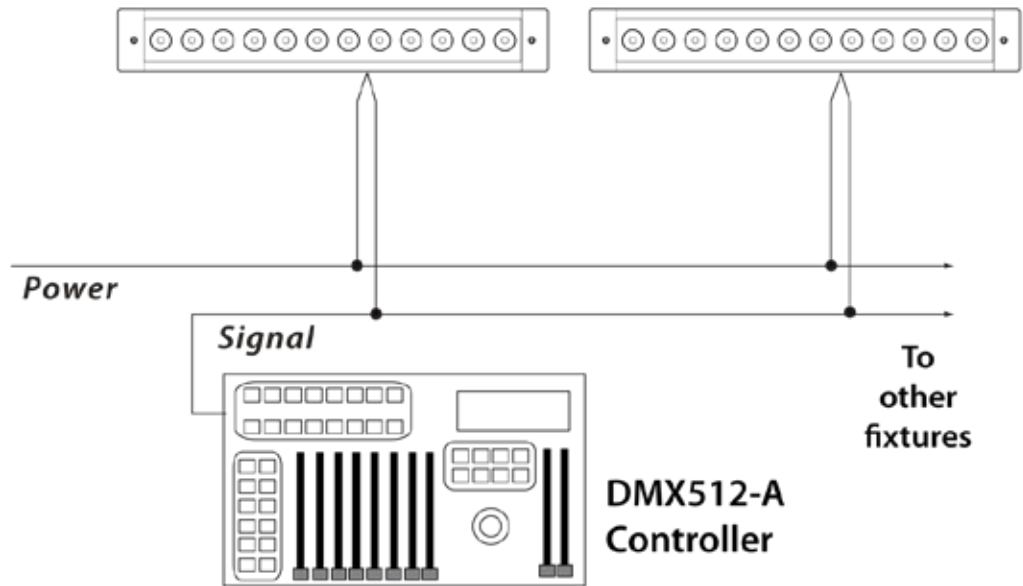
ILUMICON

Only the Ilumiline Inground Tri-12 IP Optic 25 RGB will work with the ILUMICON controller You can use the ILUMICON instead of a standard DMX controller. Please refer to the *ILUMICON User Manual* to learn how to use this controller with the Ilumiline Inground Tri 12 IP Optic 25 RGB.

The following figure illustrates how to connect the ILUMICON controller to the Ilumiline Inground Tri 12 IP Optic 25 RGB.

The RDM2go, which includes a built in ilumicode addresser along with many other useful features is now available.

Ilumicode

To assign individual DMX addresses to each product, you must connect the Ilumicode to each product, individually.
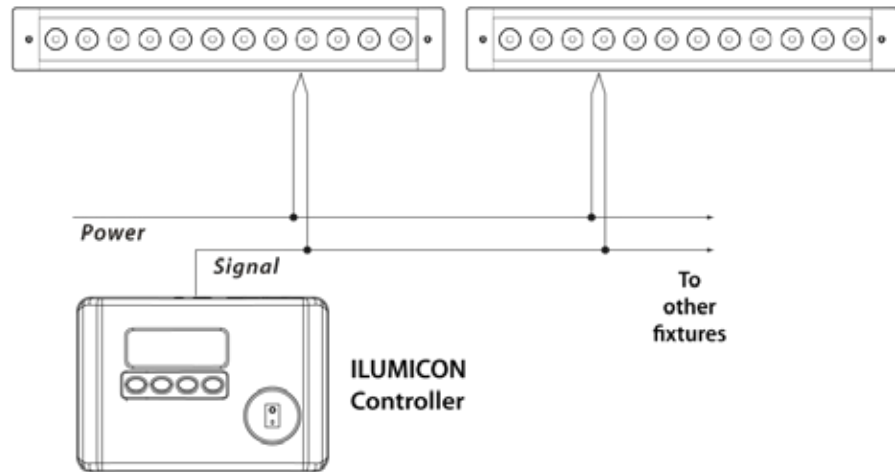
Both Ilumiline Inground IP products use the Ilumicode Addresser for configuration purposes. The following diagram shows how to connect the Ilumicode to either product. This connection will control multiple products at the same time. In addition, all connected products will be assigned to the same DMX address.

Important: The Ilumicode must be used to configure this product. The Ilumicode can be purchased separately through your Iluminarc sales representative.

ILUMINARC suggests that you connect no more than 20 products in this mode and keep the total distance to less than 60 m (197 ft). Otherwise, you might need to use an optically isolated signal amplifier.
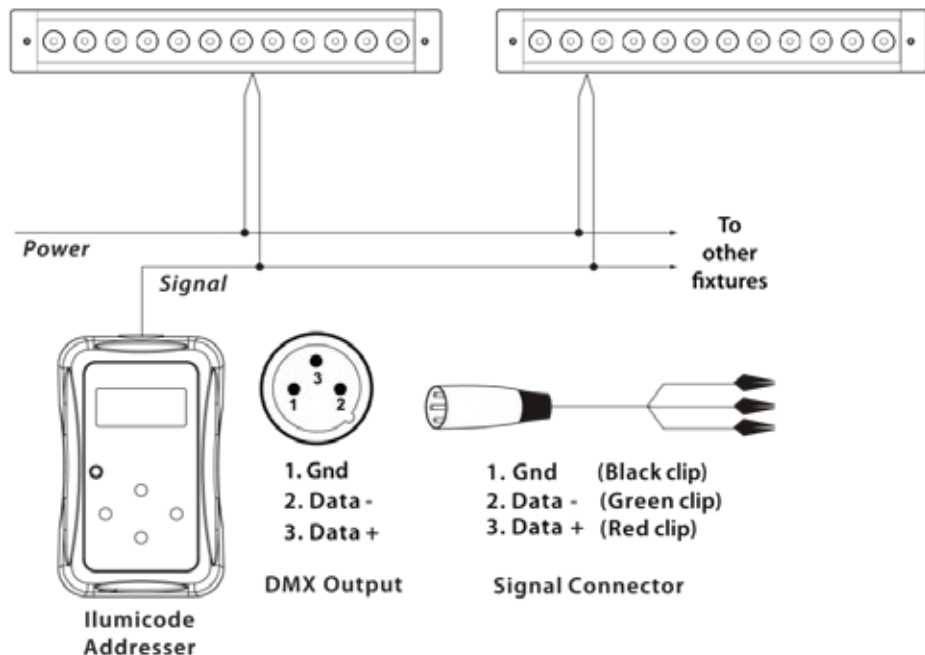
4. Operation

Ilumicode

The Ilumiline Inground IP product needs the Ilumicode addresser to change configurations.

Ilumicode Panel Description

Button	Function
<MENU>	Exits from the current menu or function
<ENTER>	Enables the currently displayed menu or sets the currently selected value into the selected function
<UP>	Navigates upwards through the menu list and increases the numeric value when in a function
<DOWN>	Navigates downwards through the menu list and decreases the numeric value when in a function
<POWER>	Turns the unit on. The unit will turn off automatically after 30 seconds of inactivity.
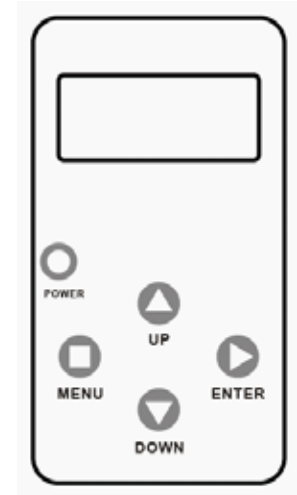
Control Options

Both Ilumiline Inground IP products have distinct menu maps based on the colors they produce, either RGB or WW. The Ilumicode includes the functions for both types of products.

WW Functions Menu Map

(Ilumiline Inground 12 IP Optic 25 WW)

This menu map shows you which parameters of the Ilumicode controller correspond to the Ilumiline Inground 12 IP Optic 25 WW product.

When you scroll through the menu options, you will see many of them that do not correspond with the menu map. Skip them, as they do not work with the **WW** only output products.

Main Level	Programming Levels		Description
DMX	001~512	N/A	Sets the DMX starting address
PERSON	SOLID	N/A	1-channel: dimmer
DIMMER	OFF	N/A	Dimmer work in linear mode
	DIM 1		Dimmer works in non-linear mode, from fast to slow
	DIM 2		
	DIM 3		
	DIM 4		
STATIC	COOL	0~255	Configures the static color and effect
SETTINGS	RESET	NO/YES	Resets unit to factory defaults

RGB Functions Menu Map

(Ilumiline Inground Tri 12 IP Optic 25 RGB)

When you scroll through the menu options, you will see many of them that do not correspond with the menu map. Skip them, as they do not work with the **RGB** only output products.

Main Level	Programming Levels		Description
DMX	001~512	N/A	Sets the DMX starting address
PERSON	ARC1	N/A	3-channel: RGB control
	ARC1+D		4-channel: RGB control + dimmer
	ARC FULL		7-channel: RGB control, dimmer, color macro, strobe, dimmer speed
	REMOTE		Allows using the ILUMICON unit
	SOLID		1-channel: dimmer
	SPECIAL 1		6-channel: RGB per module
CALIB	WHITE (1~11)	RED GREN BLUE 0~255	Determines the white balance for the color macros
	RGBTOW		Determines the white balance when RGBTOW is active
DIMMER	OFF	N/A	Dimmer works in linear mode
	DIM 1		Dimmer works in non-linear mode, from fast to slow.
	DIM 2		
	DIM 3		
	DIM 4		
STATIC	RED	0~255	Configures the static color and effect
	GREN		
	BLUE		
	STRB		
SETTINGS	COLOR	OFF	Maximum output, unbalanced white
		RGBTOW	White output is as per **CALIB > RGBTOW** settings
		UC	Output matches that of product's previous versions
	RESET	NO/YES	Resets unit to factory default settings

Programming

All programming functions apply to both Ilumiline Inground IP products, unless otherwise noted. Perform all programming from the control panel. Refer to the *Menu Map* section to understand the menu options.

Use **<ENTER>** and **<MENU>** to change levels in the *Menu Map*, moving right and left respectively. Use **<UP>** and **<DOWN>** to move vertically within the *Menu Map*.

DMX Personality

1. Go to **PERSON** and select any DMX personality.
2. Make sure to rearrange the DMX addresses of all products in the current DMX universe to avoid address overlapping.

DMX Starting Address

1. Go to **DMX**.
2. Select a starting DMX address (**001~512**).

Static Colors

(Ilumiline Inground Tri 12 IP Optic 25 **RGB**, only)

1. Go to **STATIC**.
2. Select a color or effect (**Red**, **Green**, **Blue**, or **Strobe**).
3. Select a color value (**000~255**) or a strobe frequency (**0~20**).

(Ilumiline Inground 12 IP Optic 25 **WW**, only)

1. Go to **STATIC**.
2. Select a color or effect (**Cool**).
3. Select a color value (**000~255**).

Dimmer

DIM1 is the fastest dimmer curve and **DIM4** is the slowest.

Provides four different options to simulate the dimming curve of an incandescent lighting product.

1. Go to **DIMMER.**
2. Select a dimmer curve (**OFF** or **DIM1~4**).

Procedure:

DIMMER	Description
OFF	Dimmer curve is linear with fader
DIM1	Non-linear (fastest)
DIM2	Non-linear (fast)
DIM3	Non-linear (slow)
DIM4	Non-linear (slowest)

Color

(Ilumiline Inground Tri 12 IP Optic 25 **RGB**, only)

1. Go to **SETTINGS > COLOR**.
2. Select the color method (**OFF**, **RGB TO W**, **UC**).

Procedure:

OFF

When the RGB faders are all set to **255**, the output is maximum.

RGB TO W

When the RGB faders are all set to **255**, the output is the selected White color (refer to the following Whites Setting section).

UC

When the RGB faders are all set to **255**, the output matches the same color output of previous versions of this product.

Whites Setting

(Ilumiline Inground Tri 12 IP Optic 25 **RGB**, only)

1. Go to **CALIB**.
2. Select a white color (**WHITE 1~11**) or **RGB TO W.**
3. Select an RGB color (**RED**, **GREN**, or **BLUE**).
4. Configure the color value (**0~255**).
5. Repeat steps 3 and 4 for the other RGB colors to obtain a white color.
6. Repeat steps 2 to 5 for the other white colors.

Reset to Factory Settings

1. Go to **SETTINGS > RESET**.
2. Select an option (**YES/NO**).

DMX Values

ARC FULL

Channel	Function	Value	Percent/Setting		
1	Dimmer	000 ↔ 255	0~100%		
2	Red	000 ↔ 255	0~100%		
3	Green	000 ↔ 255	0~100%		
4	Blue	000 ↔ 255	0~100%		
5	Color Macros	000 ↔ 010	No function		
		011 ↔ 035	R: 100%	G: Up	B: 0%
		036 ↔ 060	R: Down	G: 100%	B: 0%
		061 ↔ 085	R: 0%	G: 100%	B: Up
		086 ↔ 110	R: 0%	G: Down	B: 100%
		111 ↔ 135	R: Up	G: 0%	B: 100%
		136 ↔ 160	R: 100%	G: 0%	B: Down
		161 ↔ 185	R: 100%	G: Up	B: Up
		186 ↔ 210	R: Down	G: Down	B: 100%
		211 ↔ 215	White 1:	3,200 K	
		216 ↔ 220	White 2:	3,400 K	
		221 ↔ 225	White 3:	4,200 K	
		226 ↔ 230	White 4:	4,900 K	
		231 ↔ 235	White 5:	5,600 K	
		236 ↔ 240	White 6:	5,900 K	
		241 ↔ 245	White 7:	6,500 K	
		246 ↔ 250	White 8:	7,200 K	
		251 ↔ 255	White 9:	8,000 K	
6	Strobe	000 ↔ 005	No function		
		006 ↔ 255	Slow~Fast		
7	Dimmer Speed	000 ↔ 009	Off		
		010 ↔ 069	Speed 1 (Fastest)		
		070 ↔ 129	Speed 2		
		130 ↔ 189	Speed 3		
		190 ↔ 255	Speed 4 (Slowest)		

ARC 1

Channel	Function	Value	Percent/Setting
1	Red	000 ↔ 255	0~100%
2	Green	000 ↔ 255	0~100%
3	Blue	000 ↔ 255	0~100%

ARC 1 + D

Channel	Function	Value	Percent/Setting
1	Dimmer	000 ↔ 255	0~100%
2	Red	000 ↔ 255	0~100%
3	Green	000 ↔ 255	0~100%
4	Blue	000 ↔ 255	0~100%

SOLID

Channel	Function	Value	Percent/Setting
1	Dimmer	000 ➔ 255	0~100%

SPECIAL 1

Channel	Function	Value	Percent/Setting
1	Module 1Red	000 ➔ 255	0~100%
2	Module 1Green	000 ➔ 255	0~100%
3	Module 1Blue	000 ➔ 255	0~100%
4	Module 2Red	000 ➔ 255	0~100%
5	Module 2Green	000 ➔ 255	0~100%
6	Module 2Blue	000 ➔ 255	0~100%

5. Technical Information

Product Maintenance

To maintain optimum performance and minimize wear, the user should clean the products frequently. Usage and environment are contributing factors in determining the cleaning frequency. As a rule, the user should clean the products at least twice a month. Dust build up reduces light output performance and can cause overheating. This can lead to reduced light source life.

To clean a product, follow the below recommendations:

Always dry the external optics and glass surfaces carefully after cleaning them.

- · Unplug the product from power.
- · Wait until the product has cooled.
- · Clean all external glass optics and glass surfaces with a mild solution of glass cleaner or isopropyl alcohol, and a soft, lint free cotton cloth or a lens cleaning tissue.
- · Apply the solution directly to the cloth or tissue and drag any dirt and grime to the outside of the lens.
- · Gently polish the external glass surfaces until they are free of haze and lint.

Product Repairs

If you still experience technical problems after trying the solutions in the Troubleshooting Table, contact ILUMINARC Technical Support.

ILUMINARC strongly advises you against attempting any repairs to this product unless you are an authorized ILUMINARC technician.

ILUMINARC presents the information contained in the Troubleshooting Table as a guide only. In most cases, opening the product's housing will invalidate its warranty, unless there is a written document to the contrary.

Troubleshooting Guide

Symptom	Cause(s)	Action(s)
Product does not light up	Dimmer fader set to "0"	Increase the value of the dimmer channel
	All color faders set to "0"	Increase the value of the color channels
	All colors in STATIC are set to "0"	Increase the values of the colors
	Unit is being configured with Ilumicode	Complete the configuration process.
	No power	Verify external power circuit and wiring
	Faulty internal power supply	Return for service to ILUMINARC
	Faulty main control board	Return for service to ILUMINARC
One LEDs does not work	Faulty LED	Return for service to ILUMINARC
	Faulty LED module	
	Faulty LED driver	
The wrong LEDs light up when using DMX	Wrong personality	Change the personality
	Wrong DMX address	Change the DMX address
Circuit breaker/fuse keeps tripping/blowing	Excessive circuit load	Check total load placed on the electrical circuit
	Short circuit along the power wires	Check for a short in the electrical wiring
Product does not power up	No power	Check for power on power outlet
	Loose or damaged power cord	Check power cord
	Faulty internal power supply	Return for service to Iluminarc
Product does not respond to DMX	Wrong DMX addressing	Check Control Panel and product addressing
	Damaged DMX cables	Check DMX cables
	Wrong polarity on the controller	Check polarity switch settings on the controller
	Loose DMX cables	Check cable connections
	Faulty DMX interface	Return for service to Iluminarc
	Faulty Display/Main board	Return for service to Iluminarc
DMX signal problems	Non DMX cables	Use only DMX compatible cables
	Bouncing signals	Install terminator as suggested
	Long cable / low level signal	Install an optically coupled DMX splitter right after the product with the strong signal
	Too many products	Install an optically coupled DMX splitter after product #32 or before
	Interference from AC wires	Keep DMX cables separated from power cables or fluorescent/black lights

Photometrics

Filename: **Ilumipod Inground Tri-12 IP Optic 25 RGB 100% ALL**
Manufacturer: ILUMINARC
Luminaire: Ilumipod Inground Tri-12 IP Optic 25 RGB
Lamp: 12 Tri-color
Lamp Output: 1 lamp(s), rated Lumens/lamp: 1380
Max Candela: 5,633.6 at Horizontal: 0, Vertical: 0
Input Wattage: 17.6
Luminous Point
Opening:
Test: 2009 ALL
Test Lab: Iluminarc R & D Optics Laboratory
Photometry : Type B
CIE Class: Direct
Cutoff Class: Full Cutoff

Polar Candela Distribution

Legend:
- 0° H
- 90° H
- 180° H
- 270° H
- 45° H
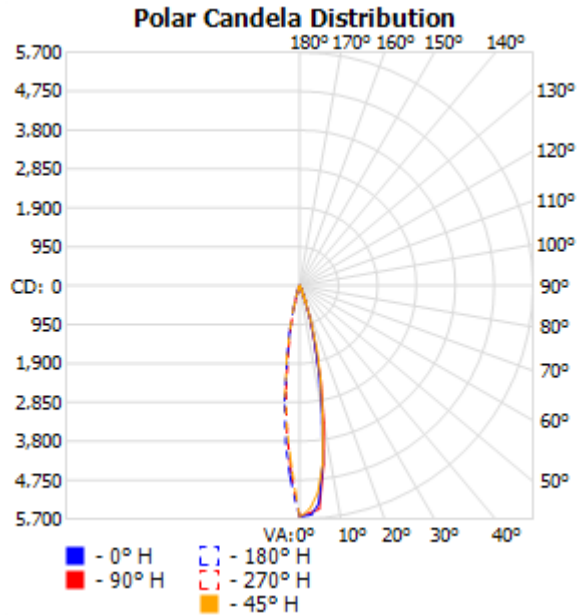
Flood Summary

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	42.2%	583.0	33.7	34.2
Beam (50%):	21.4%	295.3	18.3	18.4
Total:	49.2%	679.1		
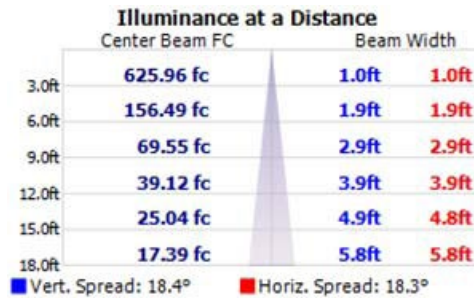
Illuminance at a Distance

	Center Beam FC	Beam Width	
3.0ft	625.96 fc	1.0ft	1.0ft
6.0ft	156.49 fc	1.9ft	1.9ft
9.0ft	69.55 fc	2.9ft	2.9ft
12.0ft	39.12 fc	3.9ft	3.9ft
15.0ft	25.04 fc	4.9ft	4.8ft
18.0ft	17.39 fc	5.8ft	5.8ft

Vert. Spread: 18.4°   Horiz. Spread: 18.3°

Photometics Pro 1.3.2 copyright 2003-2008 by jSolutions, Inc.
Reported data calculated from manufacturer's data file, based on IES recommended methods.

Filename: **Ilumiline Inground 12 IP WW 100% All**
Manufacturer: ILUMINARC
Luminaire: Ilumipod Inground Tri-12 IP Optic 25WW
Lamp: 12 Warm white
Lamp Output: 1 lamp(s), rated Lumens/lamp: 1000
Max Candela: 2,425.0 at Horizontal90, Vertical:1
Input Wattage: 16.7
Luminous Point
Opening:
Test: 2009 ALL
Test Lab: Iluminarc R & D Optics Laboratory
Photometry : Type B
CIE Class: Direct
Cutoff Class: Full Cutoff

Polar Candela Distribution

- 0° H
- 90° H
- 45° H
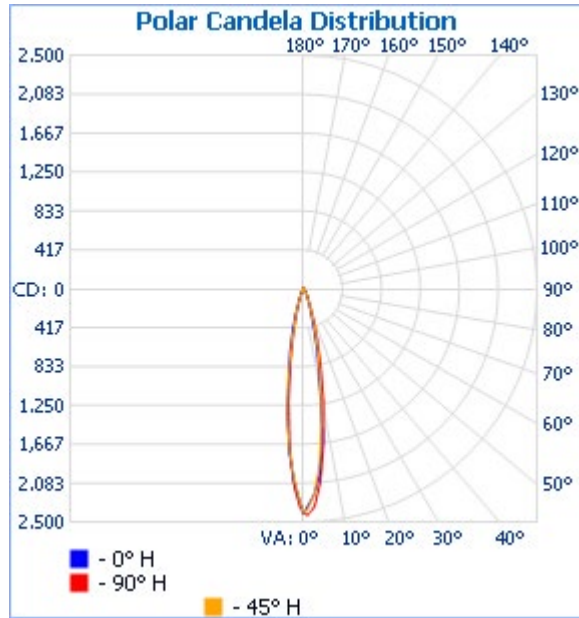
Flood Summary

	Efficiency	Lumens	Horizontal Spread	Vertical Spread
Field (10%):	25.7%	257.0	36.5	36
Beam (50%):	12.2%	121.5	17.6	17.2
Total:	33.1%	331.3		

Illuminance at a Distance

	Center Beam FC	Beam Width	
3.0ft	267.36 fc	0.9ft	0.9ft
6.0ft	66.84 fc	1.8ft	1.9ft
9.0ft	29.71 fc	2.7ft	2.8ft
12.0ft	16.71 fc	3.6ft	3.7ft
15.0ft	10.69 fc	4.5ft	4.6ft
18.0ft	7.43 fc	5.4ft	5.6ft

Vert. Spread: 17.2°   Horiz. Spread: 17.6°

Photometics Pro 1.3.2 copyright 2003-2008 by jSolutions, Inc.
Reported data calculated from manufacturer's data file, based on IES recommended methods.

LED Disclaimer

LED Life

ILUMINARC rates LED lifetime based on lumen depreciation of 70% of the original output, with data provided by the manufacturer of the LED. Data from the manufacturer of the LED are not independently verified or measured by ILUMINARC. When the product is operating in optimal environmental conditions, the LED lifetime is rated to be 50,000 to 70,000 hours by the LED manufacturer.

LED Binning

LED manufacturers sort LEDs into "bins", based on variances in color, output intensity and the frequency at which the semiconductor operates. ILUMINARC strives to hold its LED manufacturers to the highest standards of binning to optimize consistency in output from product to product. However, the availability of a single bin cannot be guaranteed. With that in mind, ILUMINARC has developed a rigorous control system to seek the best achievable consistency in color and output.

Color Rendering Index (CRI)

CRI is an industry standard method to compare properties of different types of light sources. There are known limitations and inconsistencies related to CRI. Results may vary depending on the environmental factors involved. For this reason, the US Department of Energy (DOE) states that CRI should be considered as one point of reference among others in evaluating white LED products and systems.

The following is an excerpt of recommendations from the DOE:

1. Identify the visual tasks to be performed under the light source. If color fidelity under different light sources is critically important (for example, in a space where color or fabric comparisons are made under both daylight and electric lighting), CRI values may be a useful metric for rating LED products.

2. CRI may be compared only for light sources of equal CCT. This applies to all light sources, not only to LEDs. Also, differences in CRI values of less than five points are not significant, e.g., light sources with 80 and 84 CRI are essentially the same.

3. If color appearance is more important than color fidelity, do not exclude white light LEDs solely on the basis of relatively low CRI values. Some LED products with CRIs as low as 25 still produce visually pleasing white light.

4. Evaluate LED systems in person and, if possible, on-site when color fidelity or color appearance are important issues.

Source: DOE publication: PNNL-SA-56891, January 2008

DO NOT write the RMA # directly on the box. Instead, write it on a properly affixed label.

ILUMINARC reserves the right to use its own discretion to repair or replace returned product(s).

Always keep the original box and all packaging material as you will need those to ship the product back to ILUMINARC

Returns Procedure

You must send the merchandise prepaid, in the original box, and with its original packing and accessories. ILUMINARC will not issue call tags.

Call ILUMINARC and request a Return Merchandise Authorization Number (RMA #) before shipping the product. Be prepared to provide the model number, serial number, and a brief description of the cause for the return.

Clearly label the package with a Return Merchandise Authorization Number (RMA #). ILUMINARC will refuse any product returned without a RMA #.

Once you receive the RMA #, include the following information on a piece of paper inside the box:

- · Your name
- · Your address
- · Your phone number
- · The RMA #
- · A brief description of the problem

Be sure to pack the product properly. Any shipping damage resulting from inadequate packaging will be the customer's responsibility. As a suggestion, proper FedEx packing or double-boxing is the shipping method ILUMINARC recommends.

Contact Us

General Information	Technical Support
Chauvet World Headquarters	
Address: 5200 NW 108th Avenue Sunrise, FL 33351 Voice: (954) 577-4455 Toll free: (800) 762-1084	Voice: (844) 393-7575 Email: support@iluminarc.com Website: www.iluminarc.com
Chauvet Europe Ltd	
Address: Unit 1C Brookhill Road Industrial Estate Pinxton, Nottingham, UK NG16 6NT Voice: +44 (0)1773 511115	Email: uktech@chauvetlighting.com Website: www.chauvetlighting.co.uk
Chauvet Europe BVBA	
Address: Stokstraat 18 9770 Kruishoutem Belgium Voice: +32 9 388 93 97	Email: Eutech@chauvetlighting.com Website: www.chauvetlighting.eu
Chauvet France	
Address: 3, Rue Ampère 91380 Chilly-Mazarin France Voice: +33 1 78 85 33 59	Email: Eutech@chauvetlighting.com Website: www.chauvetlighting.eu
Chauvet Germany	
Address: Bruno-Bürgel-Str. 11 28759 Bremen Germany Voice: +49 421 62 60 20	Email: Eutech@chauvetlighting.com Website: www.chauvetlighting.eu
Chauvet Mexico	
Address: Av. de las Partidas 34-3B (Entrance by Calle 2) Zona Industrial Lerma Lerma, Mexico C.P. 52000 Voice: +52 (728) 690-2010	Email: servicio@iluminarc.com.mx Website: www.chauvet.com.mx

Outside the U.S., U.K., Ireland, Benelux, France, Germany, or Mexico, contact the dealer of record. Follow the instructions to request support or to return a product. Visit our website for contact details

Technical Specifications Ilumiline Inground Tri 12 IP Optic 25 RGB

Dimensions and Weight	Length	Width	Height	Weight
	3.8 in (96 mm)	26.0 in (660 mm)	5.0 in (127 mm)	17.6 lbs. (8 kg)

Note: Dimensions in inches rounded to the nearest decimal digit.

Electrical	Power Supply Type	Range	Voltage Selection
	Switching (internal)	100~240 V, 50/60 Hz	Auto-ranging

	Parameter	120 V, 60 Hz	230 V, 50 Hz
	Consumption	38 W (.6A)	40 W (.3A)
	Inrush current	.1A	.3A

	Power I/O	Input	Output
	Connectors	Hard wired	N/A
	Cord plug	Open ended	N/A

Light Source	Type	Power	Lifespan
	LED	3 W	50,000 hours

	Color	Quantity	Current
	Tri Color	12	1050mA

Photometrics	Parameter	Standard Optics
	Illuminance @ 5 m	222 Lux
	Beam angle	19º
	Field angle	37.5º

Thermal	Max. External Temperature	Cooling System
	113 °F (45 °C)	Convection

DMX	I/O Connectors	Connector Type	Channel Range
	Open ended	Hard wired	1,3,4,6,7

Ordering	Product Name	Item Code
	Ilumiline Inground Tri 12 IP Optic 25 RGB	12012007

cMETus ® UL 1573 CSA C22.2 No. 166 E113093 CE
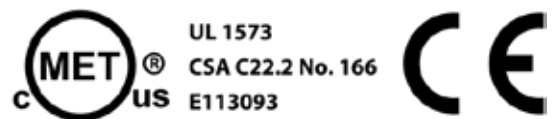
Technical Specifications Ilumiline Inground 12 IP Optic 25 WW

Dimensions and Weight	Length	Width	Height	Weight
	3.8 in (96 mm)	26.0 in (660 mm)	5.0 in (127 mm)	17.6 lbs (8 kg)

Note: Dimensions in inches rounded to the nearest decimal digit.

Electrical	Power Supply Type	Range	Voltage Selection
	Switching (internal)	100~240 V, 50/60 Hz	Auto-ranging

	Parameter	120 V, 60 Hz	230 V, 50 Hz
	Consumption	16.7 W (.1A)	17.4 W (.1 A)
	Inrush current	.1A	.1A

	Power I/O	Input	Output
	Connectors	Hard wired	N/A
	Cord plug	Open ended	N/A

Light Source	Type	Power	Lifespan
	LED	1 W	50,000 hours

	Color	Quantity	Current
	Warm White	12	350 mA

Photometrics	Parameter	Standard Optics
	Illuminance @ 5 m	96 Lux
	Beam angle	17.4º
	Field angle	36.3º

Thermal	Max. External Temperature	Cooling System
	113 °F (45 °C)	Convection

DMX	I/O Connectors	Connector Type	Channel Range
	Open ended	Hard wired	1

Ordering	Product Name	Item Code
	Ilumiline Inground 12 IP Optic 25 WW	12012008

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