

iW BLAST 12 POWERCORE

USER GUIDE

An IntelliWhite™ Product

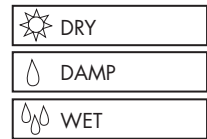


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CHROMACORE®
BY COLOR KINETICS

POWERCORE®
BY COLOR KINETICS

OPTIBIN®
BY COLOR KINETICS



ITEM# 523-000001-00 (White, Frosted Lens)
523-000001-01 (Black, Frosted Lens)
523-000001-02 (White, Clear Lens)
523-000001-03 (Black, Clear Lens)
523-000001-04 (White, Frosted Lens, CE)
523-000001-05 (Black, Frosted Lens, CE)
523-000001-06 (White, Clear Lens, CE)
523-000001-07 (Black, Clear Lens, CE)

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GETTING STARTED

iW™ Blast 12 Powercore is a robust, high performance controllable white light system for interior or exterior wall-washing and grazing applications. Integrated Powercore® technology provides operational efficiency and simplified installation. This guide contains important information about installing and operating your new iW Blast 12 Powercore safely.

Included in this Box

- iW Blast 12 Powercore
- Two 8-32 screws for indoor installations
- Gasket for outdoor installations
- Four 10-24 stainless steel screws for outdoor installations
- 3/32" Hex key wrench (0.08 cm)
- User Guide

Additional Items Needed

- 4" (10.2 cm) Electrical junction box (rated for application) with 3.5" (8.9 cm) center to center distance for mounting locations
- Color Kinetics iW Data Enabler (Item# 506-000001-00)
- Color Kinetics line of controllers, including iW Scene Controller or Light System Manager
- Adjustable wrench
- 12 AWG TYPICAL 4 conductor, copper wire (stranded or solid, 90C minimum rated), or equivalent. Refer to the *Configuration Calculator* located at www.colorkinetics.com/support/install_tool.
- Phillips head screw driver and small Flat head screw driver

Optional Items

- 3/16" (0.48 cm) OD braided safety cable and hardware, as required
- Thread locker (90C rated), as required

Scope of this User Guide

The goal of this user guide is to explain the steps necessary to install iW Blast 12 Powercore and assure peak performance. Its intended use is for reference only, by persons who are fully qualified. This document should never be considered a substitute for any provisions of a regulation or state/local code.

Identification and Warnings of Safety Hazards

In accordance with ANSI Z535.4-2002, the following system of identifying the severity of the hazards associated with the products is used:

"DANGER" Imminently hazardous situation which, if not avoided, will result in death or serious injury.

"WARNING" Potentially hazardous situation which, if not avoided, could result in death or serious injury.

"CAUTION" Potentially hazardous situation which, if not avoided, may result in minor or moderate injury or property damage. Also used to alert against unsafe practices.

IGNORING A HAZARD WILL VOID ANY WARRANTY.

WARNING: Risk of electric shock! Ensure that main power supply is off before installing or wiring iW Blast 12 Powercore.

WARNING: iW Blast 12 Powercore must be installed by a qualified electrician in accordance with NEC and relevant local codes.

WARNING: Do not install or use iW Blast 12 Powercore until you read and understand the installation instructions and safety labels.

WARNING: Do not use iW Blast 12 Powercore if the power cables are damaged.

WARNING: As dictated by a Structural Engineer and/or state/local code, install safety cables to iW Blast 12 Powercore fixtures.

WARNING: When using safety cables, ensure that they comply with the specifications given in this user guide.

CAUTION: Use appropriate materials and mounting methods to support the fixture adequately.

CAUTION: iW Blast 12 Powercore has no user serviceable parts. Do not attempt to open the fixture.

CAUTION: Do not exceed the specified voltage and current input.

CAUTION: Do not exceed the maximum number of specified fixtures in a light run.

CAUTION: Do not use sharp tools near or on the fixture lens.

CAUTION: Do not hot swap. Ensure that power to the fixture is off before connecting or disconnecting fixtures.

CAUTION: iW Blast 12 Powercore is a Class 2 LED product with LED radiation. Do not stare into beam or view directly with optical instruments.

NOTE: The instructions and precautions set forth in this user guide are not necessarily all-inclusive, or relevant to all applications as Color Kinetics cannot anticipate all conceivable or unique situations.

Owner/User Responsibilities

It is the responsibility of the contractor, installer, purchaser, owner and user to install, maintain, and operate iW Blast 12 Powercore in such a manner as to comply with all state and local laws, ordinances, regulations, and the American National Standards Institute Safety Code.

PLANNING THE INSTALLATION

iW Blast 12 Powercore installation requires planning to ensure a timely, successful installation with minimal complications and down time.

Planning Suggestions

When planning an iW Blast 12 Powercore installation, Color Kinetics suggests doing the following:

- Consult an Electrical Inspector to review all wiring plans.

- Refer to local and state codes for installation compliance.
- Create a Layout Plan drawing, per Lighting Designer or Architect.
- Consult Color Kinetics Application Engineering Services, as needed at support@colorkinetics.com.
- Obtain detailed wiring diagrams and additional support from www.colorkinetics.com/support.

Installation Considerations

When creating your installation plan, consider the following:

- **Zones.** iW Blast 12 Powercore fixtures are dimmable, color temperature adjustable fixtures that are controlled by zones. Using iW Scene Controller, you can set the brightness level and color temperature, from cool to warm, for all fixtures within a specified zone.

Create zones by internally designating each iW Data Enabler as a specific alphanumeric zone, 1-9 or A-F. All fixtures attached to that iW Data Enabler reside within the designated zone. For example, in an installation with two iW Data Enablers where the first iW Data Enabler is set to Zone 1 and the second is set to Zone 2, the fixtures attached to the first iW Data Enabler are in Zone 1 and the fixtures attached to the second iW Data Enabler are in Zone 2.

For installations where all fixtures are controlled in unison, set each iW Data Enabler in the installation to the same zone designator. For installations where groups of fixtures are controlled individually, set unique zone designators for each iW Data Enabler.

- **Location of iW Data Enabler in relationship to iW Blast 12 Powercore.** The maximum distance that iW Data Enabler can be located from the last fixture in a series, or each individual fixture in a home-run installation is 175 feet (53m). The maximum total cable run is 400 feet (122 m). Each iW Blast 12 Powercore has a 6-foot (1.8 m) flying lead cable. The cable can be shortened or it can be lengthened by attaching it to a junction box.

- **Calculate the number of fixtures per iW Data Enabler.** Use the *Configuration Calculator* located at www.colorkinetics.com/support/install_tool to calculate the number of fixtures you can put on an iW Data Enabler. The fixtures-to-iW Data Enabler ratio is determined by the parameters of your installation. Installation parameters include all or part of the following: line voltage, circuit load, voltage drop, and cable lengths.

- **Location of the fixture and method of attaching.** Mounting hardware is dictated by the mounting surface. Ensure that the hardware used is appropriate for the mounting surface.

- **Install and wire iW Data Enabler before installing iW Blast 12 Powercore fixtures.** Refer to the iW Data Enabler Installation Guide.

INSTALLING iW BLAST 12 POWERCORE Steps to a Successful Installation

1. Set the zone(s) for the iW Data Enabler.
2. Install iW Data Enabler.
3. Install iW Blast 12 Powercore fixtures.
4. Install iW Scene Controller.
5. Attach a safety cable.

Setting the iW Data Enabler Zone(s)

To minimize installation time and effort, set the zone for each iW Data Enabler prior to installing. Zones can be set or changed after installing iW Data Enabler, however, any settings or changes made after power is applied require a power cycle to recognize the change.

Using a small, flat-head screw driver, set the zone for iW Data Enabler by rotating the zone switch, located next to the LED indicators, to a specific designator—1 to 9 or A to F. The designator zero (0) is reserved for future features. See Fig. 1.

Fig. 1



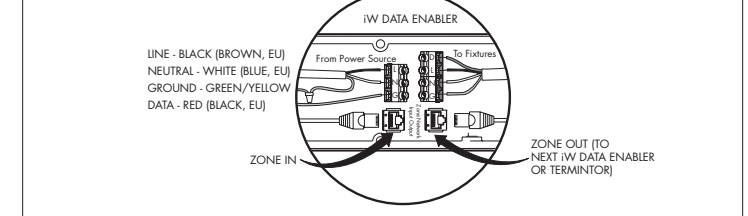
Installing the iW Data Enabler

1. Determine the number of iW Data Enablers needed for your installation and the location of each.
NOTE: Install iW Data Enabler according to state and local codes.
2. Run power and data to iW Data Enabler and make connections. Refer to the iW Data Enabler Installation Guide for complete instructions.

WARNING: Power must be off before installing iW Data Enabler or iW Blast 12 Powercore. Failure to do so could result in death or serious injury and will void the warranty.

3. Connect the fixtures to the iW Data Enabler. Refer to Fig. 2 for fixture-to-iW Data Enabler wire color correspondence.

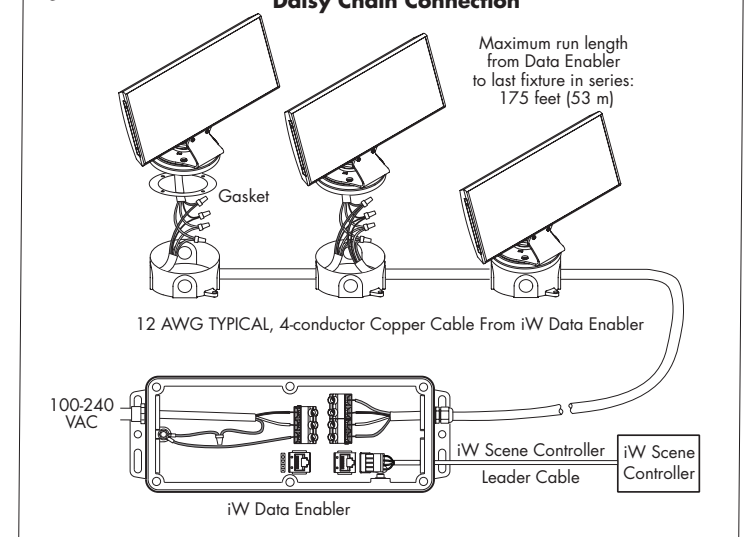
Fig. 2



Daisy Chain Wiring

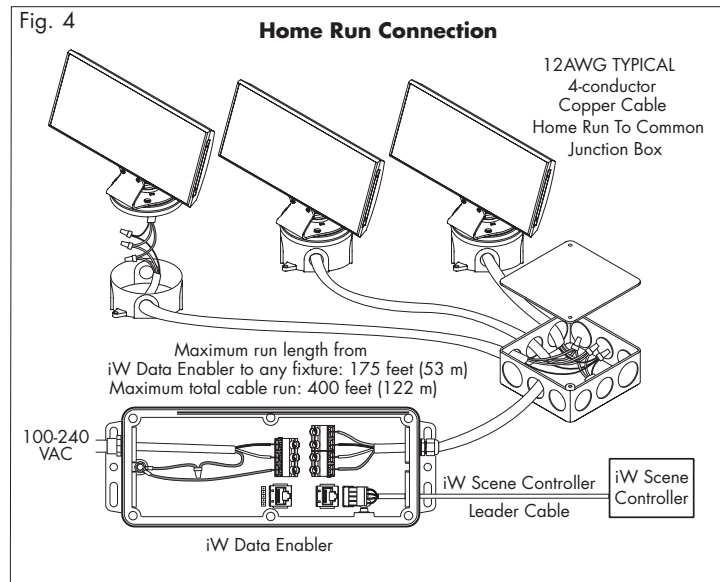
After the fixtures are installed and fixture-to-fixture wiring is complete, run the leader cable from the first fixture in the daisy chain run to iW Data Enabler. See Fig. 3.

Fig. 3



Home Run Wiring

After the fixtures are installed and each fixture is wired to the leader cable in a common junction box, run the leader cable from the common junction box to iW Data Enabler. See Fig. 4.



Installing iW Blast 12 Powercore

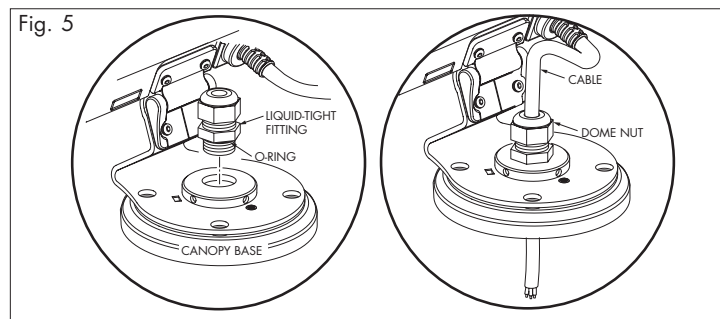
WARNING: Power must be off before installing the iW Blast 12 Powercore. Failure to do so could result in death or serious injury and will void the warranty.

iW Blast 12 Powercore can be installed indoors or outdoors, with or without a junction box. When using an electrical junction box, ensure that it is rated for your application and has 3-1/2" (8.9 cm) center-on-center fixture mounting holes.

Through-Base Cable Assembly

For all installations where the cable must go through the canopy base, follow the directions below to prevent cable damage and to create a water-tight seal for outdoor installations.

1. Screw the liquid-tight fitting into the canopy base. The O-ring must be seated against the canopy opening to ensure a water-tight seal.
2. Insert the fixture cable through the dome nut. Loosen dome nut if necessary. Pull the cable through the fitting. Leave enough cable above the fitting to ensure full fixture head rotation. See Fig. 5.



3. Tighten dome nut to seal the cable. After 24 hours, tighten the dome nut again to ensure proper sealing force and water-tight seal.

Daisy Chain Fixtures

1. Pull 12AWG TYPICAL, 4-conductor copper cable between junction boxes in a series. The maximum cable run from iW Data Enabler to the last fixture in a series is 175 feet (53 m).
2. Trim fixture cable to fit in junction box leaving enough cable to make wiring connections.
3. Use wire nuts to connect line (Black/Brown), neutral (White/Blue), ground (Green/Yellow), and data (Red/Black).
NOTE: For outdoor installations, insert fixture cable through junction box gasket before making wire connections.

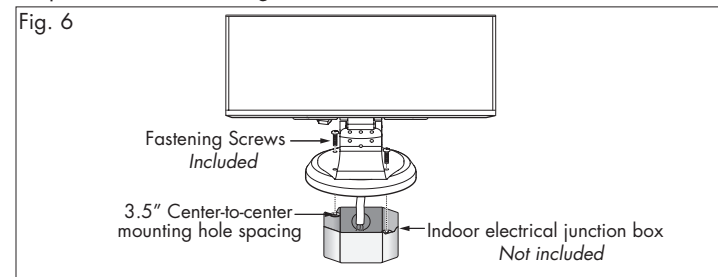
4. Tuck wire connections into the junction box and use the provided screws to attach the fixture to the junction box. See Fig. 3.
NOTE: For outdoor installations, ensure that the gasket is compressed evenly for a water-tight installation.
5. In the common junction box, connect the wires from each fixture to the lead wire from the iW Data Enabler. Tuck the wire connections into the junction box and use the provided screws to attach the fixture to the junction box. See Fig. 3.
NOTE: For outdoor installations, ensure that the gasket is compressed evenly for a water-tight installation.

Home Run Fixtures

1. Pull 12AWG TYPICAL, 4-conductor, copper wiring from iW Data Enabler to a common junction box, and from the common junction box to each fixture's junction box. The maximum cable run from iW Data Enabler to any fixture in a series is 175 feet (53 m), and the maximum total cable run is 400 feet (122 m).
2. Trim fixture cable to fit in junction box leaving enough cable to make wiring connections.
3. Use wire nuts to connect line (Black/Brown), neutral (White/Blue), ground (Green/Yellow), and data (Red/Black).
NOTE: For outdoor installations, insert fixture cable through junction box gasket before making wire connections.
4. Tuck wire connections into junction box and use provided screws to attach the fixtures to junction boxes.
NOTE: For outdoor installations, ensure that the gasket is compressed evenly for a water-tight seal.
5. In the common junction box, connect the wires from each fixture to the lead wire from iW Data Enabler. See Fig. 4.

Indoor: Wall or Ceiling Mount

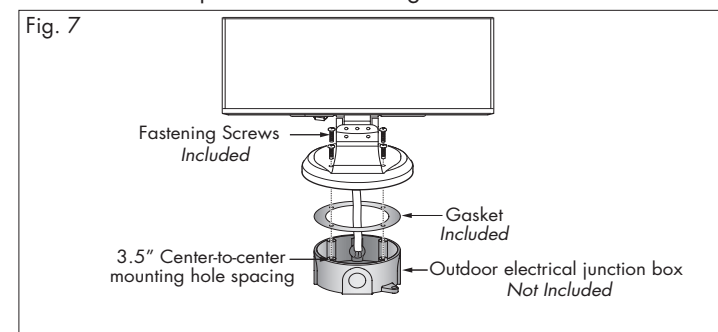
1. Pull the fixture leader cable through the junction box ensuring that the junction box is located within 175 feet (53 m) of the iW Data Enabler.
2. Using the provided screws, attach the canopy of the fixture to the junction box. See Fig. 6.



Outdoor: Wall or Ceiling Mount

For outdoor installations, iW Blast 12 Powercore must be used with an outdoor rated junction box and the gasket must be used to ensure a watertight seal.

1. Thread leader cable through provided gasket. Pull fixture leader cable through junction box ensuring that the junction box is located within 175 feet (53 m) of the iW Data Enabler.
2. Using the provided screws, attach the canopy of the fixture to the outdoor rated junction box. See Fig. 7.



Floor Mount

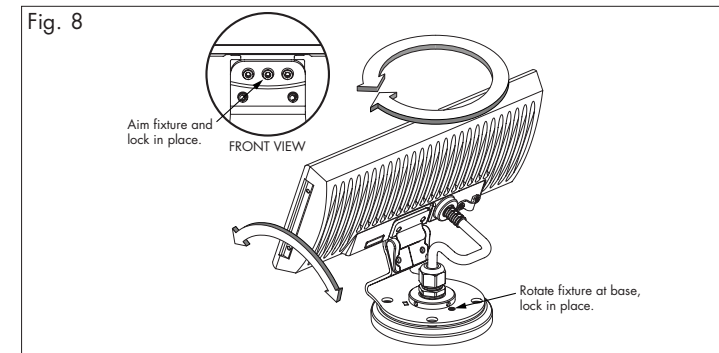
iW Blast 12 Powercore can be mounted without a junction box. Ensure that the fixture sits flush to the surface and use mounting hardware suitable for the mounting surface.

1. Attach the canopy to the mounting surface.
2. Thread the flying lead cable into a suitable junction box with proper conduit hubs and fittings.

Positioning Fixture

Rotate the light fixture to the desired position. Using the provided hex wrench, tighten the set screws located on the base to lock in place. Tilt the fixture to the desired angle and tighten the set screws located on the front of housing to lock. See Fig. 8 for location of set screws.

NOTE: For permanent installations, use of thread locker is recommended, to prevent loosening.



Installing iW Scene Controller

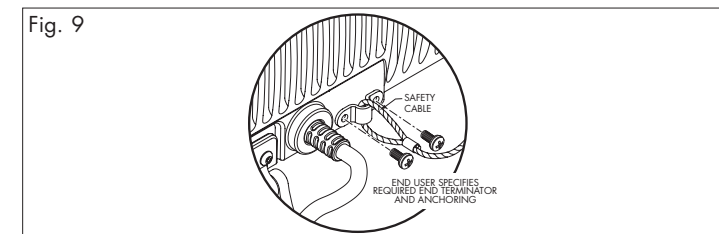
All fixtures connected to iW Data Enabler reside in the zone designated on iW Data Enabler. iW Scene Controller allows you to control all fixtures within specified zones. iW Scene Controller allows you to adjust the color temperature of the fixtures from warm to cool and set the brightness level for all fixtures within a zone.

After installing iW Data Enabler and attaching fixtures, install iW Scene Controller. Simply plug one end of the 4-pin, 50 foot (15 m) leader cable into the connector located on the back of iW Scene Controller, and the other end into the controller connector within iW Data Enabler. iW Scene Controller fits into a standard single-gang wall box. iW Scene Controller must be located within 50 feet (15 m) of iW Data Enabler. Refer to the iW Data Enabler and iW Scene Controller Installation Guides for complete installation, wiring, and operating instructions.

Attaching Safety Cable

Each fixture is designed for use with a safety cable. When dictated by local or state code, or by a Structural Engineer, attach a safety cable from the fixture to the mounting surface.

1. Located on the back of the iW Blast 12 Powercore fixture is a safety cable bracket. See Fig. 9.



2. Remove the two screws that attach the cable bracket to the fixture. Loop the safety cable over the cable bracket and reattach the bracket to the fixture. Use thread locker to secure the bracket.
3. Attach the safety cable to the mounting surface. For the proper mounting method of the safety cable to the installation surface, refer to a Structural Engineer or applicable standards for your specific application.

The safety cables used in the installation should meet the following minimal requirements:

MATERIAL:	316 Stainless Steel
SIZE:	5/64-inch (0.2 cm) or larger, minimum break load must be greater than 400 pounds. Maximum diameter is 3/16-inch (0.48 cm)
CONSTRUCTION:	7 x 7 (49 wires) preformed stranded
END TERMINATIONS:	Determined by installer and/or owner
MOUNTING METHOD:	Determined by installer and/or owner

ROUTINE MAINTENANCE

To clean the surface, use a soft cloth with mild soap and water or window cleaner. To lubricate, apply light household oil to the hinge.

IMPORTANT INFORMATION

Strobe Warning

There is some anecdotal evidence that strobe lighting may induce epileptic symptoms in certain susceptible individuals, although no associated product warnings have been issued by the United States government according to the Food and Drug Administration. If strobe lights are used, some international regulatory agencies recommend keeping flicker rates at or below four flashes per second (as less of the flicker-sensitive population will then be at risk of an attack). This flicker rate applies only to the overall output of any group of lights in direct view. However, when more than one strobe light is used, the flashes should be synchronized. End users should also consider issuing a warning, alerting audience or viewers to the presence of strobe lighting.

Temperature Monitoring

For protection from extreme temperatures, the iW Blast 12 Powercore has been designed with a temperature monitoring feature. If operating temperatures rise to an unsafe level, a compensation circuit is triggered and the iW Blast 12 Powercore operation is interrupted causing the lights to turn dull warm. After 30 minutes the lights will return to normal operation. The lights can also be reset by cycling the power. To prevent additional power shut-downs, determine the cause of the overheating and correct the problem. If any problems occur during usage, unplug the product immediately and call or email: Color Kinetics Technical Support Group at 1-888-FULL RGB or 617-423-9999 or support@colorkinetics.com.

iW BLAST POWERCORE SPECIFICATIONS

COLOR TEMP RANGE	3000K to 6500K adjustable
SOURCE	High intensity power LEDs
BEAM ANGLE	12° clear lens, 18° frosted lens (FWHM) intensity
HOUSING	Die Cast Aluminum, black or white power coat finish
CONNECTORS	Unified power and data cable (4C 18AWG SJTW or 4C 1mm ² H07RNF)
LISTINGS	UL/cUL, CE
DATA INTERFACE	Color Kinetics iW Data Enabler
CONTROL	Color Kinetics line of controllers, including iW Scene Controller or Light System Manager** Manager
INPUT POWER	100-240VAC, 50-60 Hz
CONSUMPTION	50W at 110-240VAC (60W at 100VAC)
POWER FACTOR	0.95 or greater at 120VAC
TEMPERATURE RANGE	-4°F to 122°F (-20°C to 50°C) based on testing of specific product
PROTECTION RATING	IP66

** For large or complex installations, consider controlling iW Blast Powercore with Light System Manager (LSM). Refer to the LSM data sheets or contact support@colorkinetics.com for more information.

LED SOURCE LIFE

In traditional lamp sources, lifetime is defined as the point at which 50% of the lamps fail. This is also termed Mean Time Between Failure [MTBF]. LEDs are semiconductor devices and have a much longer MTBF than conventional sources. However, MTBF is not the only consideration in determining useful life. Color Kinetics uses the concept of useful light output for rating source lifetimes. Like traditional sources, LED output degrades over time (lumen depreciation) and this is the metric for SSL lifetime.

LED lumen depreciation is affected by numerous environmental conditions such as ambient temperature, humidity, and ventilation. Lumen depreciation is also affected by means of control, thermal management, current levels, and a host of other electrical design considerations. Color Kinetics systems are expertly engineered to optimize LED life when used under normal operating conditions. Lumen depreciation information is based on LED manufacturers' source life data as well as other third party testing. Low temperatures and controlled effects have a beneficial effect on lumen depreciation. Overall system lifetime could vary substantially based on usage and the environment in which the system is installed.

Temperature and effects will affect lifetime. Color Kinetics rates product lifetime using lumen depreciation to 70% of original light output. When the fixture is running on warm or cool, at room temperature, the LED lifetime is in the range 50,000 - 70,000 hours. This is LED manufacturers' test data. High output is defined as any LED device that is 1/2 watt or above. For more detailed information on source life, please see www.colorkinetics.com/lifetime.

WARRANTY

This product is sold pursuant to CK's Standard Terms and Conditions (the "T&Cs") which may be found at <http://colorkinetics.com/howtobuy/buy/terms> and which contain important provisions, including, among others, Limited Warranty, exclusions and limitations on CK's liability for damages, and restrictions on the remedies that are available to you.