COLOR KINETICS

PHILIPS

# COLORBLAZE 72

Color Kinetics® ColorBlaze® 72 is designed for washing large areas with far-reaching, rich, saturated colors and color changing effects. The streamlined, six-foot fixture is a simple yet powerful solution for large-area scenery and wash lighting for venues such as theaters, TV studios, concerts, events, casinos, and exhibits. On-board power supplies and addressing capabilities eliminate the need for special equipment, simplifying specification and installation, and its auto-switching power supplies are suited for both domestic and international use.

Designed in a rugged extruded aluminum housing, each fixture features attached mounting brackets, each with three, 1/2-inch (1.3 cm) mounting holes for use with Cheeseborough clamps or pipe clamps. Locking knobs located on the mounting brackets allow for 180° rotational adjustment and locking without the use of special tools. Optional ColorBlaze mounting bracket are available for T-handle mount applications. The housing is equipped to affix spread lenses, louvers, and other attachments. A single 3-wire, 18AWG 6-foot (1.8 m) UL/cUL rated cord with IEC and flying leads is supplied. (Consult distribution for cord sets listed for PSE or CE).

Each ColorBlaze 72 has 12 individual circuit board assemblies with 18 high-intensity LEDs per board, making it sequentially controllable in 6-inch increments by a Color Kinetics DMX controller or a third-party DMX512 controller. Each circuit board is pre-addressed for Light# 1-12/DMX# 1-36. Data can be daisy-chained from fixture to fixture with an RJ45 data cable or an XLR-5 data cable.

For protection from overheating, ColorBlaze 72 has been designed with a temperature monitoring feature. If operating temperatures rise to an unsafe level, a compensation circuit is triggered and ColorBlaze 72 operation is interrupted causing the lights to turn dull red. After 30 minutes the lights will auto-cycle and return to full intensity.

## COLORBLAZE 72 SPECIFICATIONS

| | |
|---|---|
| **COLOR RANGE** | 16.7 million (24 bit) additive RGB colors; continuously variable intensity output range |
| **SOURCE** | High intensity light emitting diodes (LEDs) |
| **BEAM ANGLE** | 10° |
| **HOUSING** | Extruded aluminum with black finish |
| **POWER CONNECTOR** | IEC 15A (max) with C13 plug, UL/cUL rated<br>2-pole, 3-wire, grounded, 15A, flying leads |
| **DATA CONNECTORS** | RJ45 or XLR-5 |
| **LISTINGS** | UL/cUL, CE, PSE |

## COMMUNICATION SPECIFICATIONS

| | |
|---|---|
| **DATA INTERFACE** | DMX512 |
| **CONTROL** | Color Kinetics full line of DMX controllers or other DMX512 (RS485) controllers |

## ELECTRICAL SPECIFICATIONS

| | |
|---|---|
| **VOLTAGE REQUIREMENT** | 100-240VAC |
| **POWER CONSUMPTION** | 420W, 3.7A nominal at full intensity (full RGB) |

## ENVIRONMENTAL SPECIFICATIONS

| | |
|---|---|
| **TEMPERATURE RANGE** | -40°F to 122°F (-40°C to 50°C) operating temperature<br>14°F to 122°F (-10°C to 50°C) starting temperature |

### 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 50% of original light output. When the fixture is running at room temperature using a color wash effect, the range of lifetime is in the range of 80,000-100,000 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.

### OPTIBIN®

There are inherent variations in the fabrication processes of all semiconductor materials. For LEDs, this variance results in differences in the color and intensity of light output as well as electrical characteristics. Due to these differences, LED manufacturers sort production into "bins," but insuring the availability of a single bin is very difficult. To minimize this issue and achieve optimal color consistency in its products, Color Kinetics has developed and uses a proprietary technology called Optibin. Optibin is an advanced production binning optimization process that minimizes the effects of LED variance for the best possible output uniformity in the final product. Color Kinetics Optibin technology gives you the most consistent control of color and intensity from product to product.

CHROMACORE® BY COLOR KINETICS

OPTIBIN® BY COLOR KINETICS

DRY

PSE CE cULus LISTED

**ITEM# 116-000015-00**

This product is protected by one or more of the following patents: U.S. Patent Nos. 6,016,038, 6,150,774 and other patents listed at http://colorkinetics.com/patents/. Other patents pending.

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BR0113 Rev 06

Specifications subject to change without notice. Refer to www.colorkinetics.com for the most recent data sheet versions.

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## COLORBLAZE 72

PHOTOMETRIC PERFORMANCE

Photometric data is based on test results from an independent testing lab.

### SOURCE SPECIFICATIONS

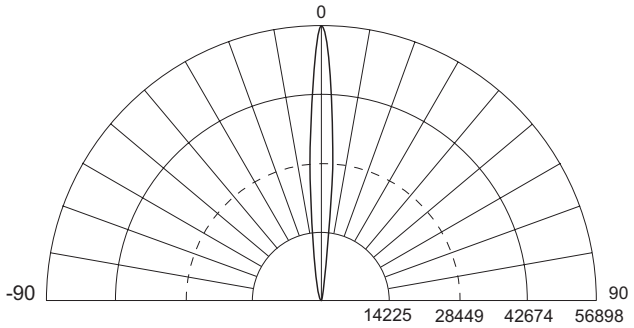
| | |
|---|---|
| Optics: | Clear polycarbonate |
| Source: | 216 LEDs (72 Red, 72 Green, 72 Blue) |
| Beam Angle: | 10° (at 50% of peak illuminance) |
| Distribution: | Symmetric direct illumination |
| CCT: | Adjustable 1,000 – 10,000K |
| CRI: | Not measurable (CIE 13.3-1995) |

### ILLUMINANCE DISTRIBUTION

| | | | | | | |
|---|---|---|---|---|---|---|
| 13.4 / 144.2 | 15.9 / 171.1 | 16.4 / 176.5 | 16.2 / 174.4 | 15.1 / 162.5 | 12.1 / 130.2 | 6.0′/2.0m |
| 30.5 / 328.3 | 36.7 / 395.0 | 38.4 / 413.3 | 38.1 / 410.1 | 34.3 / 369.2 | 23.1 / 248.6 | |
| 105.0 / 1130.2 | 123.0 / 1324.0 | 126.0 / 1356.3 | 127.0 / 1367.0 | 119.0 / 1280.9 | 71.1 / 765.3 | 3.0′/1.0m |
| 143.0 / 1539.3 | 195.0 / 2099.0 | 202.0 / 2174.3 | 203.0 / 2185.1 | 195.0 / 2099.0 | 140.0 / 1507.0 | |
| 78.2 / 841.7 | 128.0 / 1377.8 | 136.0 / 1463.9 | 135.0 / 1453.1 | 132.0 / 1420.8 | 112.0 / 1205.6 | |
| 25.3 / 272.3 | 39.0 / 419.8 | 42.6 / 458.5 | 42.7 / 459.6 | 41.5 / 446.7 | 34.8 / 374.6 | 0.0′/0.0m |
| 3.0′/1.0m | | 0′/0m | | | 3.0′/1.0m | |

| | |
|---|---|
| Units: | Footcandles (top)/Lux (bottom)<br>10.8 lux = 1 fc |
| Measured on: | All, reflectance model 80/50/20% |
| Distance from surface: | Bottom of grid, 3′ (1.0 m) from surface, light at a 45° angle off horizontal |

### CANDLE POWER DISTRIBUTION




| | |
|---|---|
| Measured on: | White |
| Beam center: | 56898 cd |
| Thin dashed line: | Indicates 50% of peak |
| Multipliers: | 0.34 Red, 0.49 Green, 0.18 Blue |

### ILLUMINANCE

| COLOR | 3′ / 1m | 6′ / 2m | 9′ / 3m | 15′ / 5m |
|---|---|---|---|---|
| WHITE | 1693.0 / 18223.5 | 626.0 / 6738.3 | 247.0 / 2658.7 | 135.0 / 1453.1 |
| RED | 569.4 / 6128.5 | 210.5 / 2266.1 | 83.1 / 894.1 | 45.4 / 488.7 |
| GREEN | 826.2 / 8893.0 | 305.5 / 3288.3 | 120.5 / 1297.4 | 65.9 / 709.1 |
| BLUE | 308.1 / 3316.7 | 113.9 / 1226.4 | 45.0 / 483.9 | 24.6 / 264.5 |

Measured in Footcandles (top)/Lux (bottom) on axis.
Measured on: All, reflectance 0.

### LIGHT OUTPUT

| COLOR | TOTAL OUTPUT (lumens) | POWER (Watts) | EFFICACY (Lm/W) |
|---|---|---|---|
| WHITE | 3532 | 382.0 | 9.2 |
| RED | 1187.8 | 166.0 | 7.2 |
| GREEN | 1723.6 | 166.0 | 10.4 |
| BLUE | 642.8 | 166.0 | 3.9 |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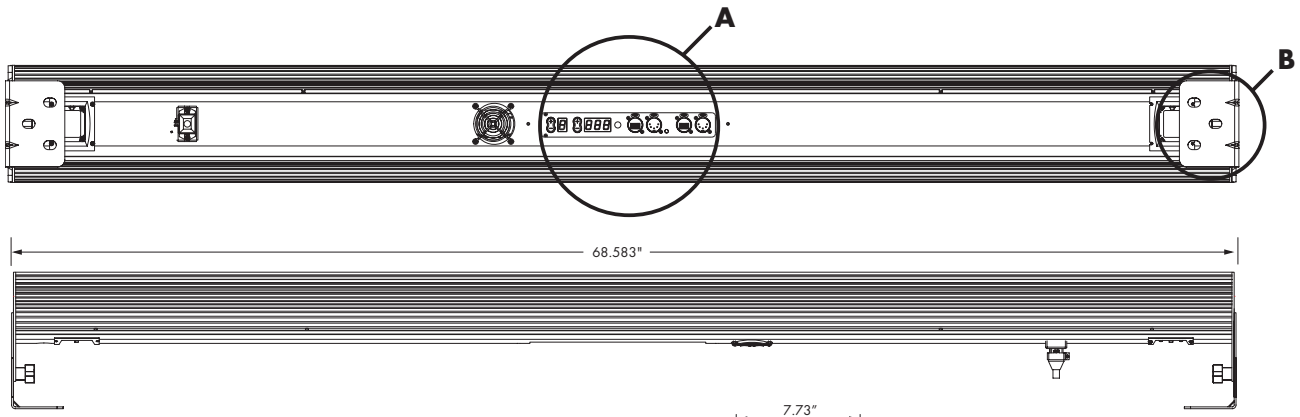
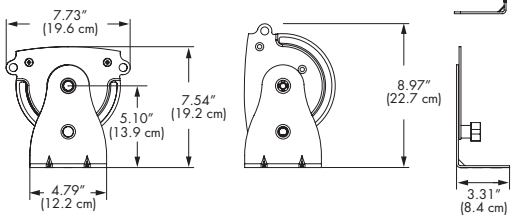
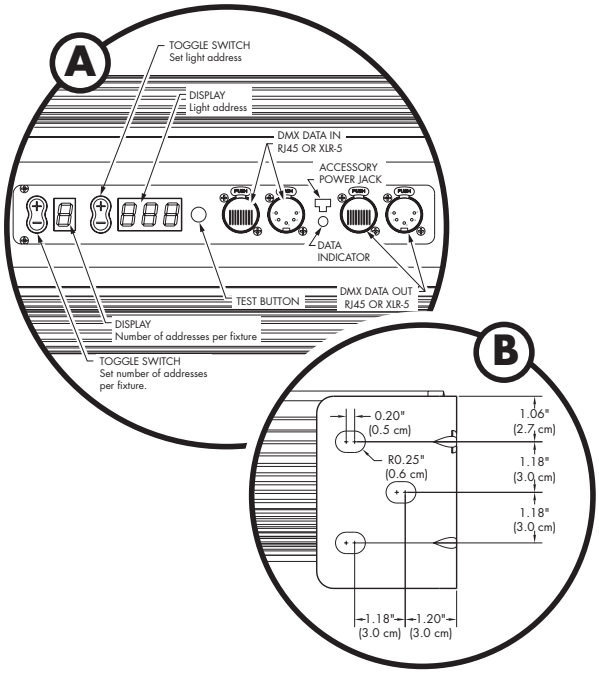
## COLORBLAZE 72

PHYSICAL DIMENSIONS

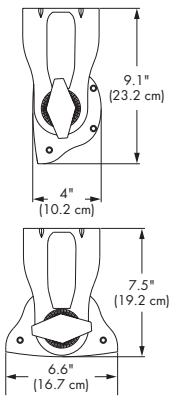



### OPTIONAL MOUNTING BRACKET

FOR T-HANDLE MOUNING




| COLORBLAZE 72<br>ITEM# 116-000015-00/01 | |
|---|---|
| **WEIGHT (APPROX)** | 60 lb (27 kg) |
| **POWER CABLE** | IEC 15A (max) with C13 plug |
| **POWER REQUIREMENT** | 100-240VAC (420W) |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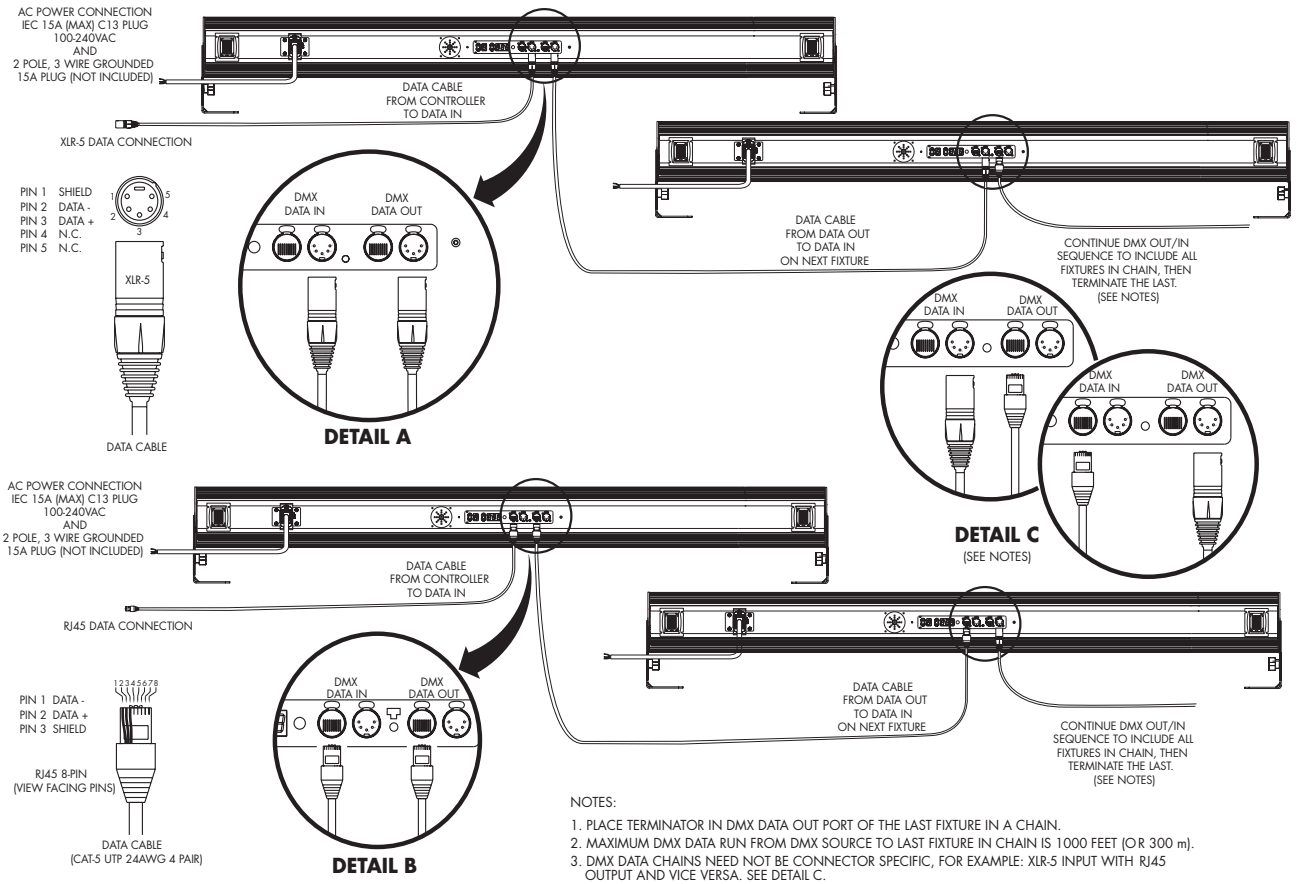
## COLORBLAZE 72

FUNCTIONAL FLOW DIAGRAM




NOTES:

1. PLACE TERMINATOR IN DMX DATA OUT PORT OF THE LAST FIXTURE IN A CHAIN.
2. MAXIMUM DMX DATA RUN FROM DMX SOURCE TO LAST FIXTURE IN CHAIN IS 1000 FEET (OR 300 m).
3. DMX DATA CHAINS NEED NOT BE CONNECTOR SPECIFIC, FOR EXAMPLE: XLR-5 INPUT WITH RJ45 OUTPUT AND VICE VERSA. SEE DETAIL C.
4. THE ACCESSORY POWER JACK IS FOR USE WITH COLOR KINETICS PRODUCTS ONLY.

For complete installation instructions and safety precautions, refer to the ColorBlaze 48/72 User Guide and wiring diagrams located at www.colorkinetics.com/support.

| Additional Items | |
|---|---|
| **Power Plug** | 2 Pole, 3 Wire, Grounded, 15A Power Plug |
| **Controller** | Color Kinetics DMX controller or DMX512 compatible controller |
| **Data Cables** | RJ45 or XLR-5 data cables |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