

COLORCAST 14 CONDUIT



Color Kinetics® ColorCast® 14 Conduit is a robust, conduit ready, indoor/outdoor linear color changing fixture ideal for high output wall washing and large alcove and archway lighting. ColorCast 14 Conduit offers a solution for installations that require conduit, custom spacing between fixtures, or plenum rating. Like ColorCast 14, it delivers a uniform color wash up to 15 feet (4.6m). When used for large alcove lighting, the continuous end-to-end mounting offers uniform lighting from a short distance above the fixture.

Designed to meet the rugged requirements of outdoor applications, ColorCast 14 Conduit meets specifications for wet locations. The two piece assembly includes a base (sold separately) with four 3/4" NPT threaded conduit holes and four mounting tabs. All electrical connections are made within the base. ColorCast 14 Conduit is extremely versatile and easily adaptable for even the most challenging mounting environments.

ColorCast 14 Conduit incorporates patent-pending Powercore® digital power processing technology to drive LED systems, integrating power and data management directly into the fixture and eliminating the need for an external power supply. Powercore surpasses traditional power supply technology by streamlining multiple conversion and regulation stages into a single, flexible, microprocessor-controlled power stage that controls power output to LED systems directly from line voltage and significantly increases overall system efficiency. Built-in active power factor correction (PFC) yields higher system efficiencies and minimizes stress on building wiring making the installation and system more cost effective.

ColorCast 14 Conduit receives data via Color Kinetics Data Enabler—a data formatting device that accepts DMX or Color Kinetics Light System Manager (LSM) Ethernet protocols. Each Data Enabler can support up to 38 (120VAC), 58 (220VAC), or 61 (240VAC) ColorCast 14 fixtures, using a 50-foot, field-cutable leader cable. The Data Enabler supports a slightly greater or fewer number of fixtures depending on customized installation parameters. ColorCast 14 Conduit can be controlled by Color Kinetics' line of controllers, including Color Kinetics Light System Manager, or a third-party DMX controller.

COLORCAST 14 SPECIFICATIONS

COLOR RANGE	16.7 million (24bit) additive RGB colors; continuously variable intensity
SOURCE	High intensity, surface mount, power LEDs
BEAM ANGLE	90° (at 50% of peak illuminance)
HOUSING	Die cast aluminum Fixture: 13.5" x 3.6" x 1.4" (34.3 cm) x (9.1 cm) x (3.6 cm) Base: 8.9" x 1.9" x 2" (22.6 cm) x (4.8 cm) x (5 cm)
CONNECTORS	Wire nuts
LISTINGS	C-UL US listed, CE certified
COMMUNICATION SPECIFICATIONS	
DATA INTERFACE	Color Kinetics Data Enabler
CONTROL	Color Kinetics full line of controllers including Light System Manager or other DMX512 (RS485) sources

ELECTRICAL SPECIFICATIONS

POWER REQUIREMENT	100-240VAC, 50-60 Hz
POWER CONSUMPTION	30W at full output
POWER FACTOR	0.95 or greater at 120VAC

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE RANGE	-40°F to 122°F (-40°C to 50°C) operating temperature -4°F to 122°F (-20°C to 50°C) starting temperature
PROTECTION RATING	IP66

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.

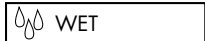
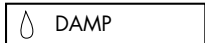
LED lumen depreciation is affected by numerous environmental conditions such as ambient temperature, humidity and ventilation. Lumen depreciation is also affected by means of control, thermal management, current levels, and a host of other electrical design considerations. Color Kinetics systems are 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.

CHROMACORE™
BY COLOR KINETICS

POWERCORE™
BY COLOR KINETICS

OPTIBIN™
BY COLOR KINETICS



FIXTURE ITEM# 123-000008-00 (White)
123-000008-01 (Black)
BASE ITEM# 123-000003-00 (White)
123-000003-01 (Black)

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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BRO141 Rev 03

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

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PHOTOMETRIC PERFORMANCE

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

SOURCE SPECIFICATIONS

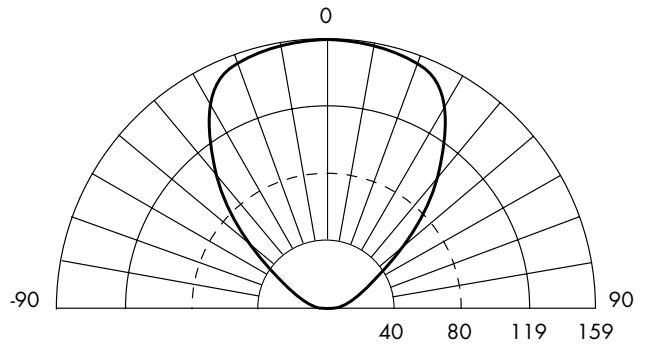
Optics:	Tempered soft focus glass diffuser
Lens:	UV resistant soft focus polycarbonate lens
Source:	18 LEDs (6 Red, 6 Green, 6 Blue)
Beam Angle:	90° (at 50% of peak illuminance)
Distribution:	Symmetric direct illumination
CCT:	Adjustable 1,000–10,000K
CRI:	Not measurable (CIE 13.3-1995)

ILLUMINANCE DISTRIBUTION

2.3 24.8	5.7 61.4	9.8 105.5	10.1 108.7	6.5 70.0	2.8 30.1	1.0'/0.3m
3.9 42.0	7.8 84.0	11.9 128.1	12.2 131.3	8.0 86.1	3.6 38.8	2.0'/0.6m
3.7 39.8	6.6 71.0	9.6 103.3	10.6 114.1	8.0 86.1	4.3 46.3	3.0'/1.0m
3.0 32.3	4.6 49.5	5.9 63.5	6.3 67.8	5.3 57.0	3.5 37.7	4.0'/1.2m
2.3 24.8	3.0 32.3	3.5 37.7	3.6 38.8	3.3 35.5	2.6 28.0	5.0'/1.5m
1.8 19.4	2.1 22.6	2.3 24.8	2.3 24.8	2.2 23.7	1.9 20.5	6.0'/2.0m
3.0'/1.0m	0'/0m	3.0'/1.0m				

Units: Footcandles (top)/Lux (bottom)
 Measured on: All, reflectance model 80/50/20%
 Location: Top of grid, 2'/0.6m from surface, light at a 60° angle off horizontal
 Multipliers: 0.39 Red, 0.45 Green, 0.18 Blue

CANDLE POWER DISTRIBUTION



Measured on: White
 Beam center: 159 cd
 Thin dashed lined: Indicates 50% of peak
 Multipliers: 0.39 Red, 0.45 Green, 0.15 Blue

ILLUMINANCE

COLOR	3'	6'	9'	15'
	1m	2m	3m	5m
WHITE	15.9 171.1	4.2 45.2	1.9 20.5	0.7 7.5
RED	6.2 66.7	1.6 17.6	0.7 8.0	0.3 2.9
GREEN	7.2 77.0	1.9 20.3	0.9 9.2	0.3 3.4
BLUE	2.9 30.8	0.8 8.1	0.3 3.7	0.1 1.4

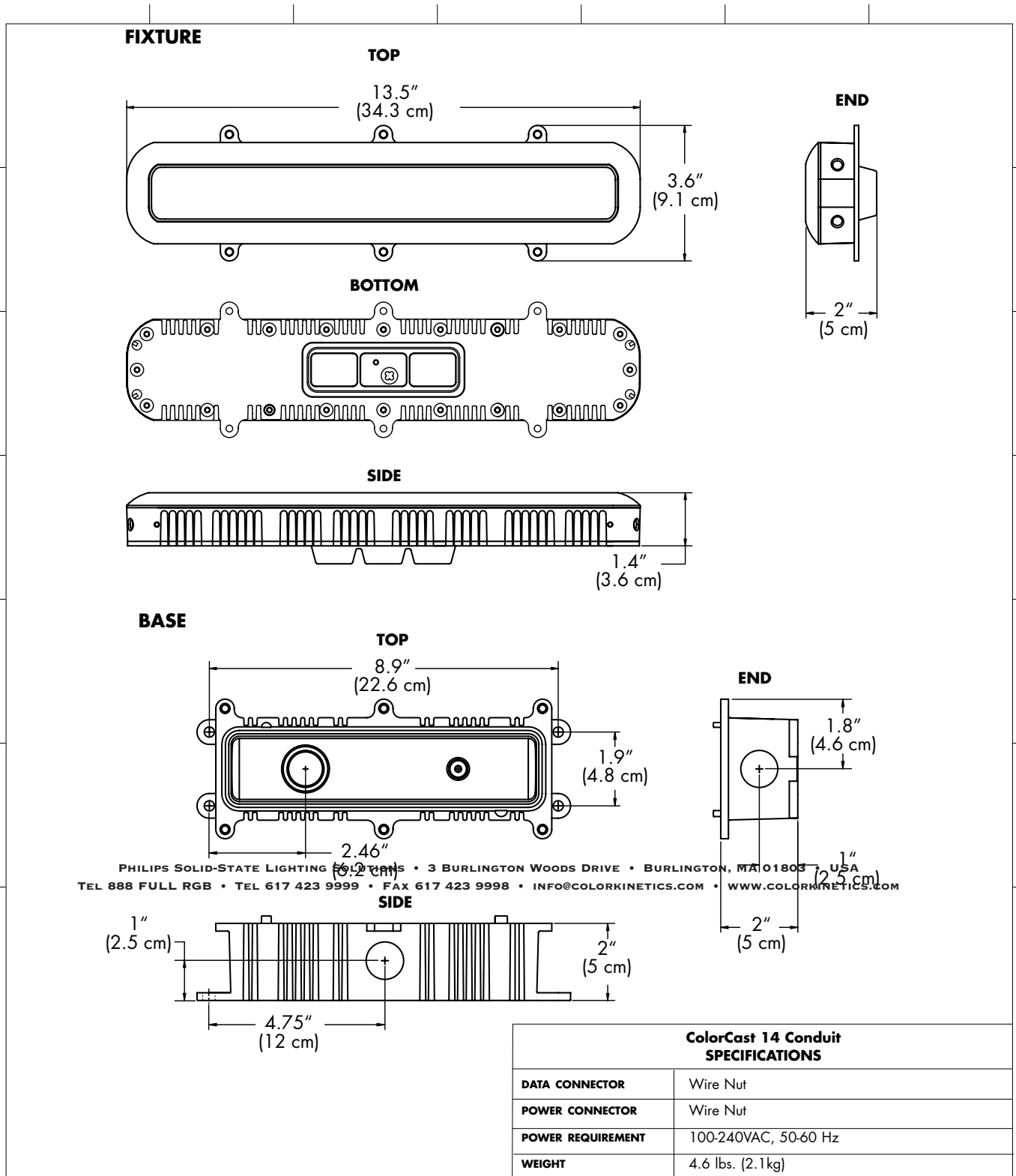
Measured in Footcandles (top)/Lux (bottom) on axis.
 Measured on: All, reflectance: 0

LIGHT OUTPUT

COLOR	TOTAL OUTPUT (LUMENS)	POWER (WATTS)	EFFICACY (lm/W)
WHITE	315	33.0	9.5
RED	122.9	12.9	9.5
GREEN	141.8	14.9	9.5
BLUE	56.7	5.9	9.5

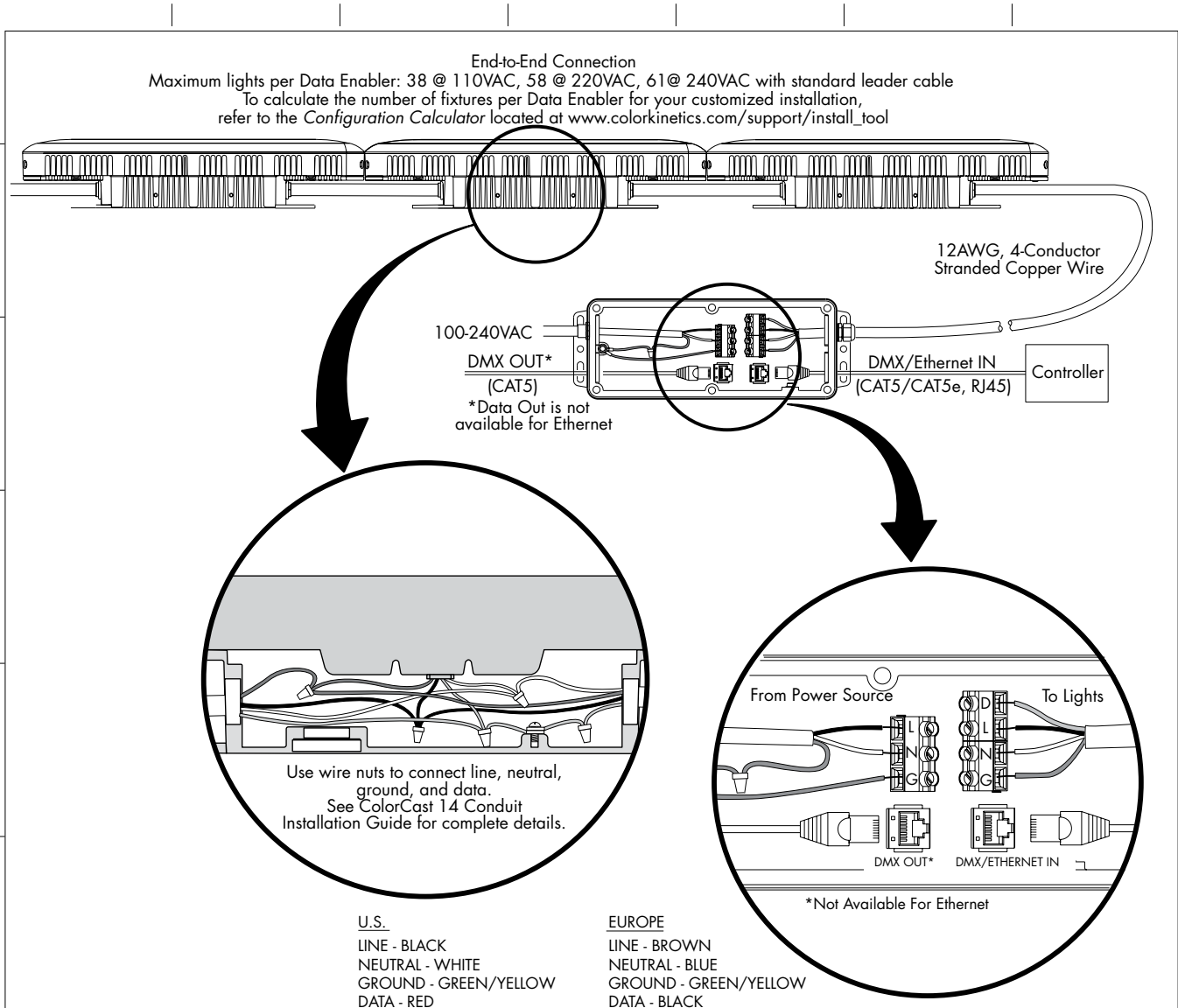
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PHYSICAL DIMENSIONS



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FUNCTIONAL FLOW DIAGRAM



For complete installation instructions and safety precautions, refer to the ColorCast 14 Conduit User Guide and wiring diagrams located at www.colorkinetics.com/support.

Additional Items	
Data Device	Data Enabler (ITEM# 106-000003-04, DMX; 106-000003-05 Ethernet)
Controller	Any Color Kinetics controller or DMX512 compatible controller
Cable	12AWG, 4-conductor, stranded copper cable
Address Unit	Serialized Addressing Software (SAS) or Zapi (ITEM# 103-000005-00/01)

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 the most consistent control of color and intensity from product to product.