



COLORCAST 14

POWERED BY CHROMACORE®



Color Kinetics® ColorCast™ 14 is a robust indoor/outdoor linear color changing fixture ideal for high output wall washing and large alcove and archway lighting. End-to-end fixture connections provides a continuous, uniform color wash up to 15 feet (4.6m) while maintaining a lighting ratio of 3:1 or 8:1 depending on the distance from, and type of, surface. 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 is completely sealed and meets specifications for wet locations. The attached, two-point mounting plate simplifies installation and minimizes required tools. The over-molded, end-to-end locking connectors, capable of making 180° turns, make ColorCast 14 extremely versatile and easily adaptable for even the most challenging mounting environments.

ColorCast 14 incorporates 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 receives data via Color Kinetics Data Enabler—a data formatting device that accepts DMX or Color Kinetics Light System Manager (LSM) Ethernet protocol. Each Data Enabler can support up to 70 ColorCast 14 units, depending on the installation parameters, using a 50-foot, field-cutable leader cable. One-foot (30 cm) and five-foot (152 cm) jumper cables are available for installations that require spacing between fixtures. ColorCast 14 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
HOUSING	Die cast aluminum, powder coated. 13.5" x 2.7" x 2.7" (34.3 cm) x (6.9 cm) x (6.9 cm)
CONNECTORS	Over-molded, integral male/female connectors
LISTINGS	C-UL US listed, CE certified (Pending)

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	-4°F to 122°F (-20°C to 50°C) based on testing of specific product
PROTECTION RATING	IP66

SOURCE LIFE

Color Kinetics illumination products utilize high brightness LEDs as the illumination source. LED manufacturers predict LED life of up to 100,000 hours MTBF (mean time between failure), the standard used by conventional lamp manufacturers to measure source life. However, like all basic light sources, LEDs also experience lumen depreciation over time. So while LEDs can emit light for an extremely long period of time, MTBF is not the only consideration in determining useful life. 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 [ambient temperature: -4°F to 104°F (-20°C to 40°C), humidity: 0-95% non-condensing humidity, adequate ventilation and air volume] and when operated using typical color-changing effects. Long-term operation outside of these ranges or conditions, or at the upper limits of these ranges or conditions, may subject the product to further degradation of the LED source life, or in extreme cases, failure of internal components. Source life information is based on LED manufacturers' data, as well as other third party testing.



ITEM# 123-000001-00 (White)
123-000001-01 (Black)
123-000001-02 (Aluminum)

U.S. PATENTS 6,016,038, 6,150,774, 6,340,868, AND 6,788,011
FOREIGN PATENTS: EUROPE 1,016,062, AUSTRALIA 757000,
HONG KONG 1025416, AND CANADA 2,302,227
OTHER PATENTS PENDING

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ColorBlaze, ColorBurst, ColorPlay, ColorScape, iColor, iColor Cove,
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Color Kinetics Incorporated.

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BRO132 Rev 02

Specifications subject to change without notice.

COLORCAST 14

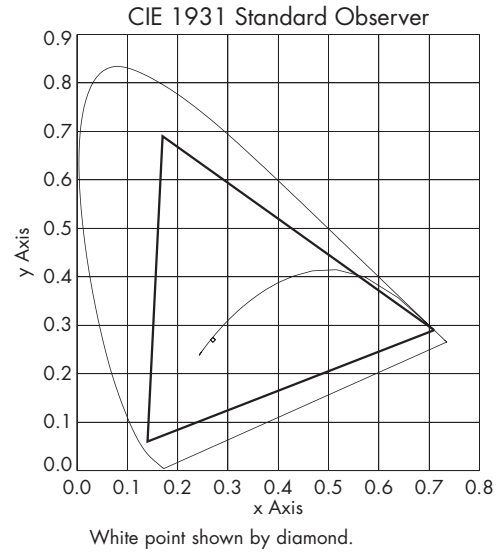
PHOTOMETRIC PERFORMANCE

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

SOURCE SPECIFICATIONS

Optics:	Tempered soft focus glass diffuser
Source:	18 LEDs (6 Red, 6 Green, 6 Blue)
Beam Angle:	110° (at 50% of peak illuminance)
Distribution:	Symmetric direct illumination
CCT:	Adjustable 1,000–10,000K
CRI:	Not measurable (CIE 13.3-1995)

GAMUT

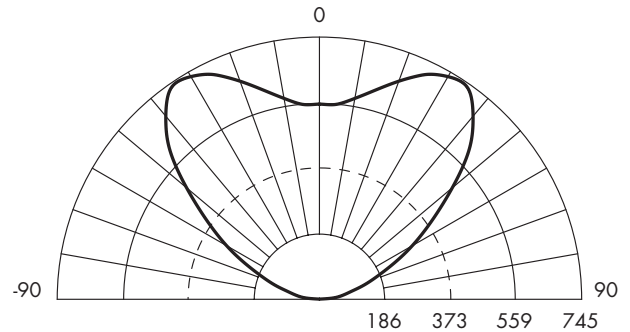


ILLUMINANCE DISTRIBUTION

1.8 19.4	4.1 44.1	6.7 72.1	6.9 74.3	4.6 49.5	2.2 23.7	1.0'/0.3m
2.8 30.1	5.3 57.0	7.8 84.0	8.1 87.2	5.5 59.2	2.7 29.1	2.0'/0.6m
2.6 28.0	4.1 44.1	5.8 62.4	6.4 68.9	5.2 56.0	3.1 33.4	3.0'/1.0m
2.0 21.5	2.7 29.1	3.2 34.4	3.3 35.5	3.1 33.4	2.4 25.8	4.0'/1.2m
1.5 16.1	1.7 18.3	1.8 19.4	1.8 19.4	1.8 19.4	1.6 17.2	5.0'/1.5m
1.1 11.8	1.2 12.9	1.2 12.9	1.2 12.9	1.2 12.9	1.2 12.9	6.0'/2.0m
3.0'/1.0m	0'/0m	3.0'/1.0m				

Units: Footcandles (top)/Lux (bottom)
 Measured on: White
 Distance from surface: 2'/0.6m (from top of grid with light at a 60° angle off horizontal)
 Multipliers: 0.42 Red, 0.21 Green, 0.37 Blue

CANDLE POWER DISTRIBUTION



Measured on: White
 Beam center: 745cd
 Thin dashed lined: Indicates 50% of peak
 Multipliers: 0.42 Red, 0.21 Green, 0.37 Blue

ILLUMINANCE

COLOR	3' 1m	6' 2m	9' 3m	15' 5m
WHITE	82.8 891.0	20.7 222.8	9.2 99.0	3.6 35.6
RED	34.8 374.2	8.7 93.6	3.9 41.6	1.4 15.0
GREEN	17.4 187.1	4.3 46.8	1.9 20.8	0.7 7.5
BLUE	30.6 329.7	7.7 82.4	3.4 36.6	1.2 13.2

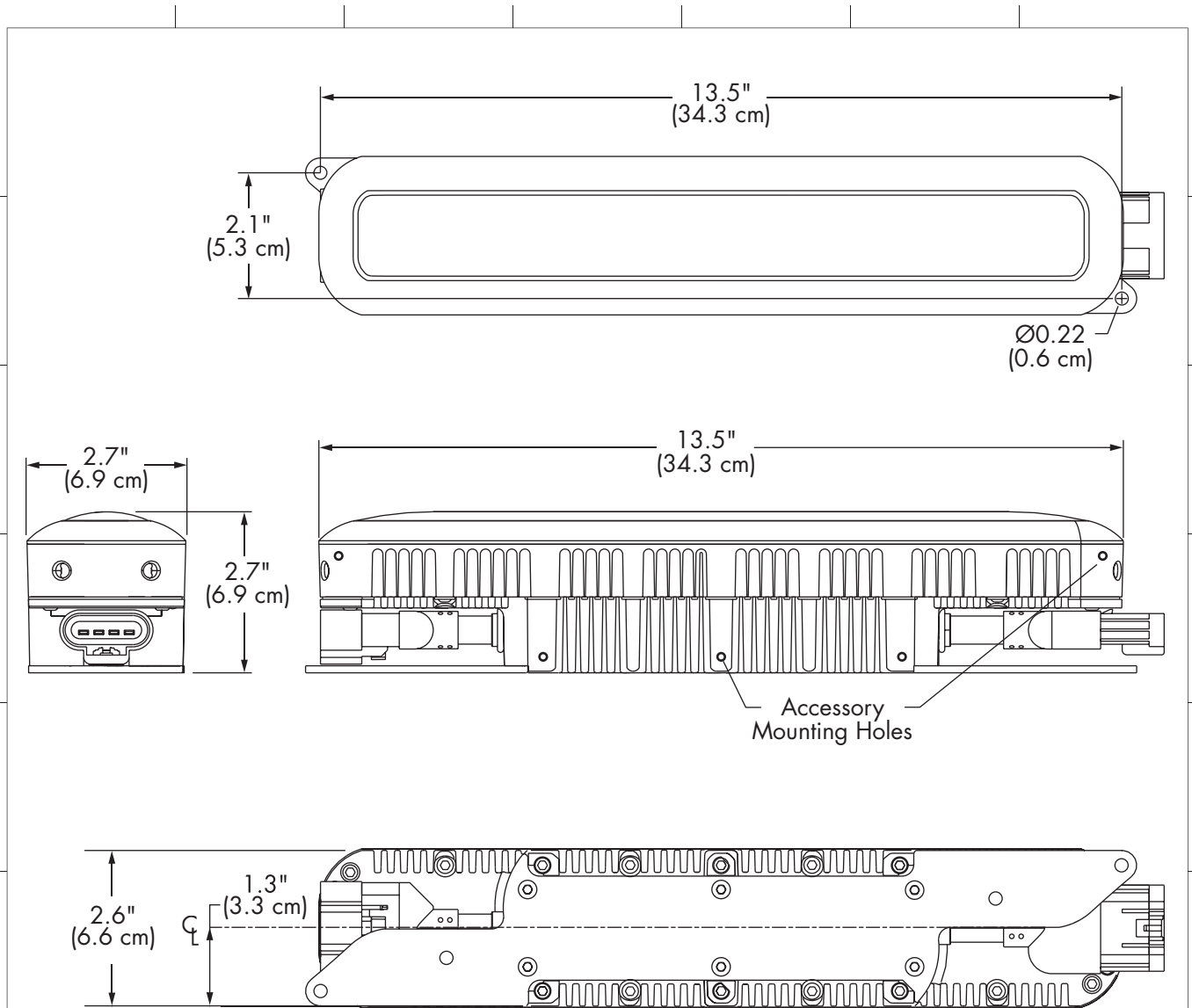
Measured in Footcandles (top)/Lux (bottom) on axis.

LIGHT OUTPUT

COLOR	TOTAL OUTPUT (LUMENS)	POWER (WATTS)	EFFICACY (lm/w)
WHITE	213	28.0	7.6
RED	89.5	9.7	9.2
GREEN	44.7	10.7	4.2
BLUE	78.8	10.7	7.4

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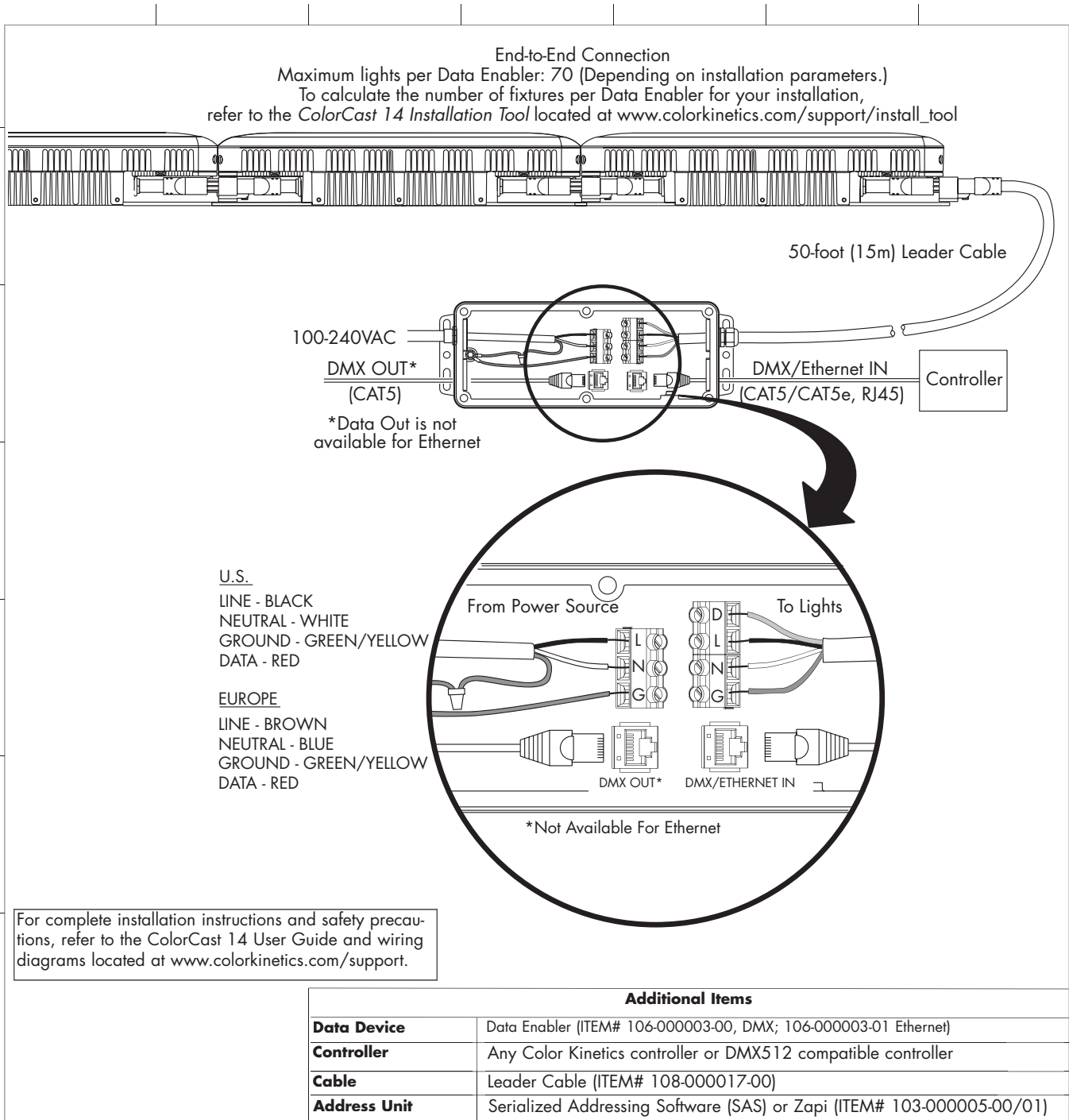
PHYSICAL DIMENSIONS



ColorCast 14 SPECIFICATIONS	
DATA/POWER CONNECTOR	Over-molded cable assembly
POWER REQUIREMENT	100-240VAC

COLORCAST 14

FUNCTIONAL FLOW DIAGRAM



U.S. AND FOREIGN PATENTS AND PATENTS PENDING

COLOR CONSISTENCY

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.