PHILIPS

iCOLOR COVE MX POWERCORE

The iColor Cove® MX Powercore fixture is the highest-intensity member of the iColor Cove® family of intelligent color-changing cove lights. It delivers more than twice the intensity of any other model in this product line. This high-performance 12-inch (30.5 cm) cove light features Powercore® technology for greater operational efficiency and simplified installation. Two models are available, one with a broad 70°x70° beam pattern and one with a narrow optically-focused beam pattern of 20°x60°.

iColor Cove MX Powercore utilizes Powercore technology, a digital power-processing technology that integrates LED power and data management in the fixture and eliminates external power supplies. 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 easier and the system more cost effective. iColor Cove MX Powercore meets specifications for dry locations. The integral, four-point mounting bracket simplifies installation and minimizes required tools, and permits 180 degrees of rotation, with detents every 10°. The end-to-end locking connectors are capable of making 180° turns and make iColor Cove MX Powercore extremely versatile and easily adaptable for even the most challenging mounting requirements. An optional mounting track is available for linear runs. One-foot (30.5 cm) and five-foot (1.5 m) jumper cables are available for installations that require additional spacing between units.

iColor Cove MX Powercore receives data from a Color Kinetics' Data Enabler—a data formatting device that uses DMX or Color Kinetics' Light System Manager (LSM) Ethernet protocol. Each Data Enabler can support up to 60 fixtures at 120VAC, 90 fixtures at 220VAC or 95 fixtures at 240VAC for a single run, end-to-end installation. The 40-foot (12.2 m) leader cable is field-cuttable. iColor Cove MX Powercore can be controlled by Color Kinetics' line of controllers, including Light System Manager, or a third-party DMX controller.

iCOLOR COVE MX POWERCORE SPECIFICATIONS

COLOR RANGE	16.7 million (24bit) additive RGB colors; continuously variable intensity
SOURCE	High intensity LEDs
BEAM ANGLE	70° x 70° (no optics); 20° x 60° (narrow optics)
HOUSING	Die cast aluminum, powder coated. Wide beam – 12" x 1.65" x 1.54" (30.5 cm x 4.2 cm x 3.9 cm) Narrow optics – 12" x 2.0" x 1.54" (30.5 cm x 5.09 cm x 3.9 cm)
CONNECTORS	Integral male/female connectors
LISTINGS	UL/cUL, CE

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	12W at full output
POWER FACTOR	0.95 or greater at 120VAC
LEADER CABLE	40-ft (12.2 m) iColor Cove MX Leader Cable (Item# 108-000021-00 US) (Item# 108-000021-01 EU)
JUMPER CABLE	1-ft (30.5 cm) iColor Cove MX Jumper Cable (Item# 108-000022-00) 5-ft (1.5 m) iColor Cove MX Jumper Cable (Item# 108-000022-01)

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE RANGE	-4°F to 122°F (-20°C to 50°C) based on testing of specific product

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

CHROMACORE® CK TECHNOLOGY

POWERCORE® CK TECHNOLOGY

OPTIBIN® CK TECHNOLOGY

DRY

CE c UL us LISTED

ITEM# 123-000004-00 (No Optics)
ITEM# 123-000004-01 (Narrow)

BRO143 Rev 06

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iCOLOR COVE MX POWERCORE

PHOTOMETRIC PERFORMANCE

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

SOURCE SPECIFICATIONS

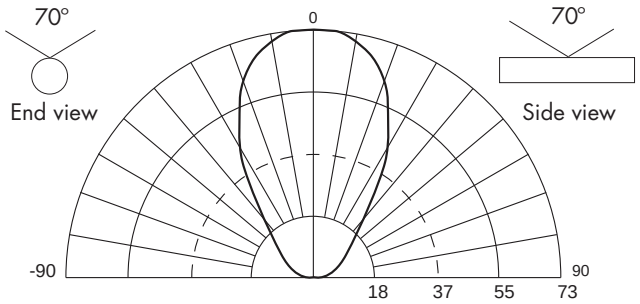
Optics:	Soft-focus polycarbonate lens
Source:	18 LEDs (6 Red, 6 Green, 6 Blue)
Beam Angle:	70° x 70° (at 50% of peak illuminance)
Distribution:	Symmetric direct illumination
CCT:	Adjustable 1,000–10,000K
CRI:	Not measurable (CIE 13.3-1995)

ILLUMINANCE DISTRIBUTION

0.3 / 3.2	0.6 / 6.5	0.8 / 8.6	0.6 / 6.5	0.4 / 4.3	0.3 / 3.2	3.0′/1.0m
0.6 / 6.5	3.1 / 33.4	5.5 / 59.2	3.5 / 37.7	0.9 / 9.7	0.4 / 4.3	
0.8 / 8.6	5.5 / 59.2	12.0 / 129.2	10.1 / 108.7	3.5 / 37.7	0.6 / 6.5	0′/0m
0.6 / 6.5	3.5 / 37.7	10.1 / 108.7	12.0 / 129.2	5.5 / 59.2	0.8 / 8.6	
0.4 / 4.3	0.9 / 9.7	3.5 / 37.7	5.5 / 59.2	3.1 / 33.4	0.6 / 6.5	
0.3 / 2.2	0.4 / 4.3	0.6 / 6.5	0.8 / 8.6	0.6 / 6.5	0.3 / 3.1	3.0′/1.0m
3.0′/1.0m		0′/0m		3.0′/1.0m		

Units: Footcandles (top)/Lux (bottom)
Location: Centered 1′/0.3m from, and perpendicular to, surface
Multipliers: 0.44 Red, 0.43 Green, 0.13 Blue
Measured on white, reflectance model: 50%

CANDLE POWER DISTRIBUTION



Measured on: White
Beam center: 73 cd
Thin dashed lined: Indicates 50% of peak
Multipliers: 0.44 Red, 0.43 Green, 0.13 Blue

ILLUMINANCE

DISTANCE	3′ / 1m	6′ / 2m	9′ / 3m	15′ / 5m
WHITE	8.1 / 87.2	2.1 / 22.6	1.0 / 10.8	0.3 / 3.2
RED	3.6 / 38.4	0.9 / 9.9	0.4 / 4.7	0.1 / 1.4
GREEN	3.5 / 37.4	0.9 / 9.7	0.4 / 4.7	0.1 / 1.4
BLUE	1.1 / 11.3	0.3 / 2.9	0.1 / 1.4	0.0 / 0.4

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

LIGHT OUTPUT

COLOR	TOTAL OUTPUT (LUMENS)	POWER (WATTS)	EFFICACY (lm/W)
WHITE	102	12	8.5
RED	44.9	4.8	9.4
GREEN	43.9	4.8	9.1
BLUE	13.3	4.8	2.8

iCOLOR COVE MX POWERCORE (NARROW)

PHOTOMETRIC PERFORMANCE

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

SOURCE SPECIFICATIONS

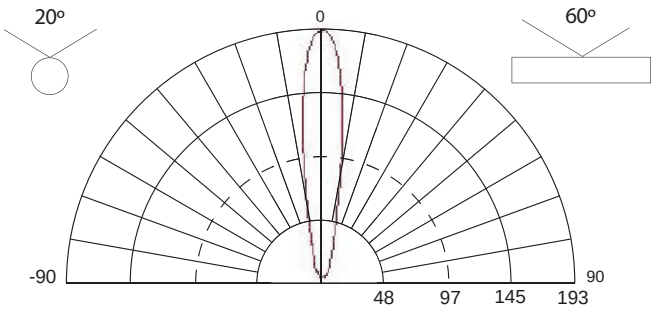
Optics:	Clear polycarbonate lens
Source:	18 LEDs (6 Red, 6 Green, 6 Blue)
Beam Angle:	20° x 60° (at 50% of peak illuminance)
Distribution:	Symmetric direct illumination
CCT:	Adjustable 1,000–10,000K
CRI:	Not measurable (CIE 13.3-1995)

ILLUMINANCE DISTRIBUTION

0.1 / 1.1	0.3 / 3.2	0.3 / 3.2	0.3 / 3.2	0.3 / 3.2	0.2 / 2.2	6.0′/2.0m
0.2 / 2.2	0.4 / 4.3	0.6 / 6.5	0.6 / 6.5	0.5 / 5.4	0.2 / 2.2	
0.2 / 2.2	0.8 / 8.6	1.5 / 16.1	1.4 / 15.1	0.8 / 8.6	0.2 / 2.2	3.0′/1.0m
0.2 / 2.2	1.4 / 15.1	4.9 / 52.7	4.9 / 52.7	1.4 / 15.1	0.2 / 2.2	
1.0 / 10.8	0.1 / 1.1	16.7 / 179.8	17.2 / 185.1	1.0 / 10.8	0.2 / 2.2	
0.0 / 0.0	0.3 / 3.2	6.3 / 67.8	5.5 / 59.2	0.3 / 3.2	0.0 / 0.0	1.0′/0.3m
3.0′/1.0m		0′/0m			3.0′/1.0m	

Units: Footcandles (top)/Lux (bottom)
Location: Centered 1′/0.3m from, and perpendicular to, surface
Multipliers: 0.20 Red, 0.58 Green, 0.23 Blue
Measured on all, reflectance model 0

CANDLE POWER DISTRIBUTION



Measured on: White
Beam center: 192 cd
Thin dashed lined: Indicates 50% of peak
Multipliers: 0.20 Red, 0.58 Green, 0.23 Blue

ILLUMINANCE

DISTANCE	1′ / 1m	2′ / 2m	3′ / 3m	4′ / 5m
WHITE	365 / 3928.9	68.2 / 734.1	26.4 / 284.2	13.8 / 148.5
RED	72.8 / 783.4	13.6 / 146.4	5.3 / 56.7	2.8 / 29.6
GREEN	212.5 / 2287	39.7 / 427.3	15.4 / 165.4	8.0 / 86.5
BLUE	83.3 / 896.2	15.6 / 167.4	6.0 / 64.8	3.1 / 33.9

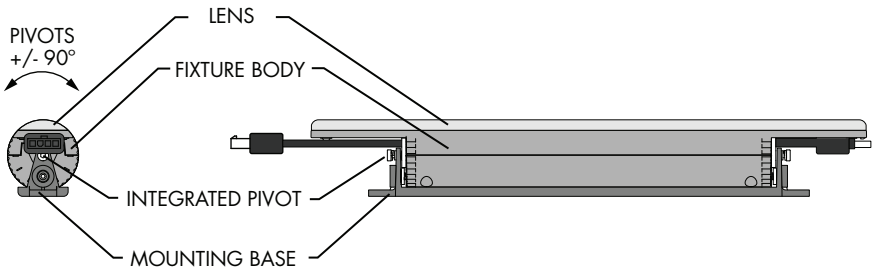
Measured in Footcandles (top)/Lux (bottom) on axis.
Measured on white, reflectance 0

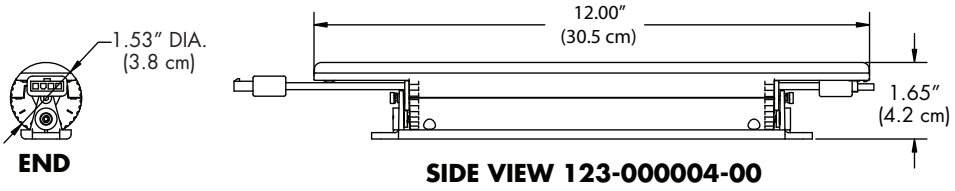
LIGHT OUTPUT

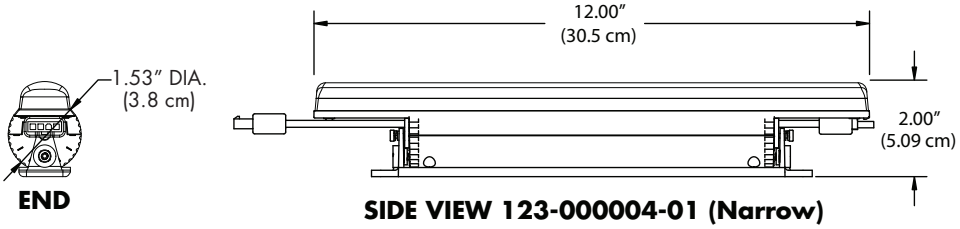
COLOR	TOTAL OUTPUT (LUMENS)	POWER (WATTS)	EFFICACY (lm/W)
WHITE	93	12	7.75
RED	18.5	4.8	3.9
GREEN	54.1	4.8	12.3
BLUE	21.2	4.8	4.4

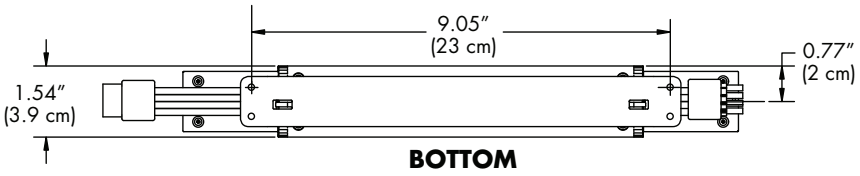
iCOLOR COVE MX POWERCORE

PHYSICAL DIMENSIONS

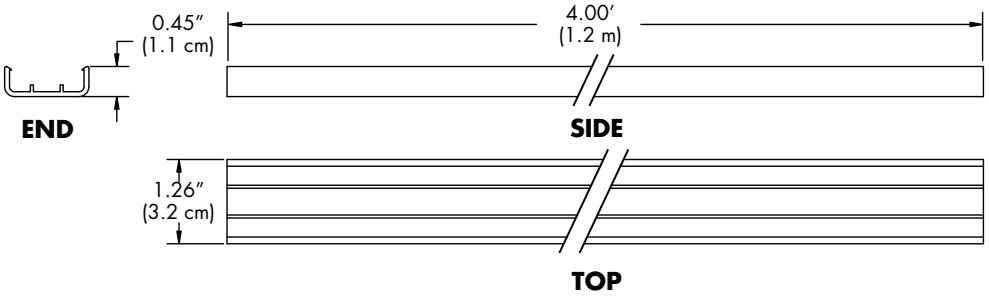








OPTIONAL MOUNTING TRACK

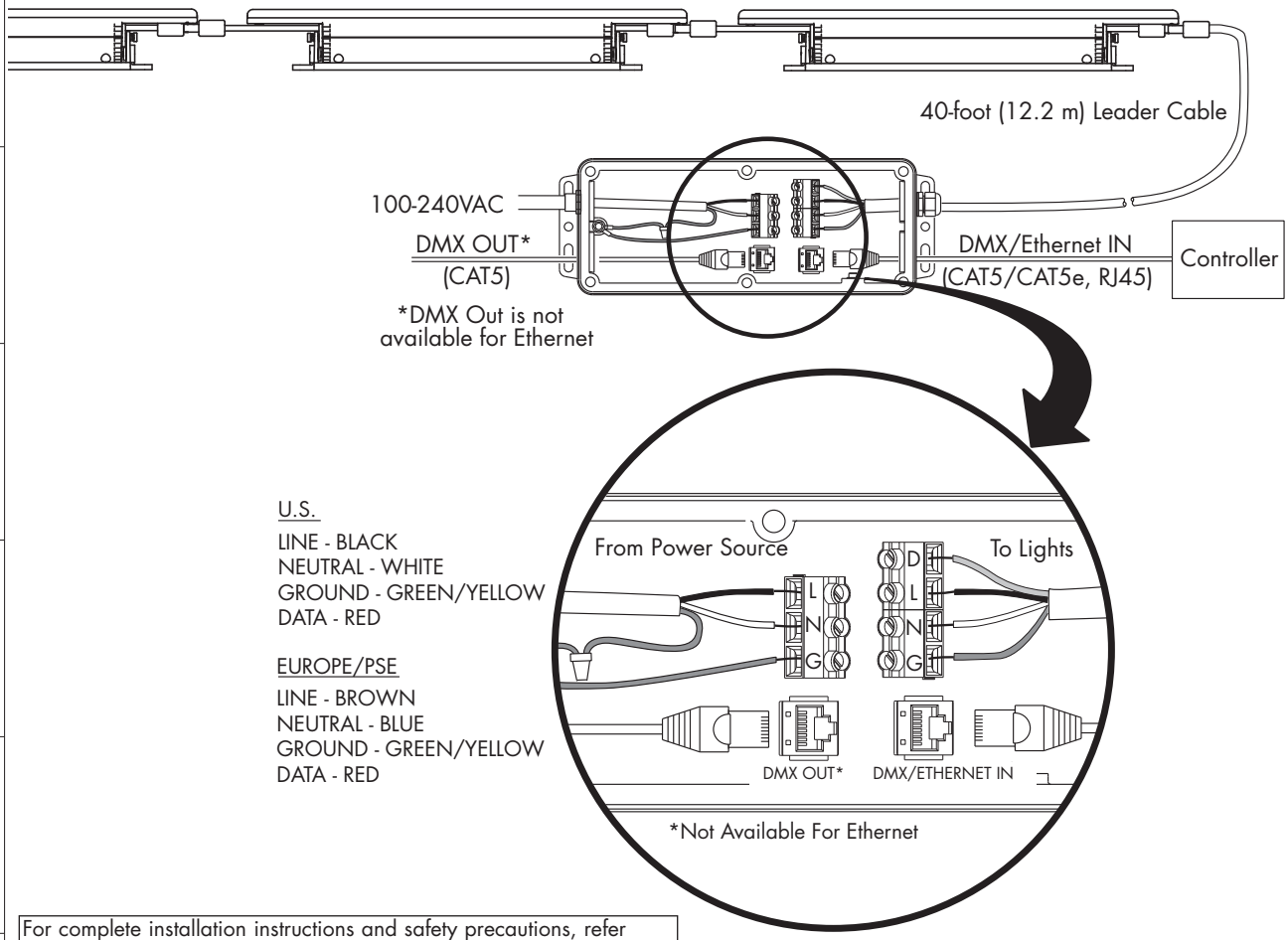


iColor Cove MX Powercore SPECIFICATIONS	
DATA/POWER CONNECTOR	Over-molded cable assembly
POWER REQUIREMENT	100-240VAC
WEIGHT	0.8 lbs (0.36 kg)

iCOLOR COVE MX POWERCORE

FUNCTIONAL FLOW DIAGRAM

End-to-End Connection
Maximum lights per Data Enabler: 60 (120VAC), 90 (220VAC) or 95 (240VAC)
To calculate the number of fixtures per Data Enabler for your installation,
refer to the *Fixture Calculation Calculator* located at
www.colorkinetics.com/support/install_tool



For complete installation instructions and safety precautions, refer to the iColor Cove MX Powercore User Guide and wiring diagrams located at www.colorkinetics.com/support.

Additional Items	
Data Device	Data Enabler (ITEM# 106-000003)
Controller	Any Color Kinetics controller or DMX512 compatible controller
Cable	Leader Cable (ITEM# 108-000021-00, US; 108-000021-02, EU)
Address Unit	Serial 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.

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