COLOR KINETICS

PHILIPS

iCOLOR COVE NXT

Color Kinetics® iColor® Cove NXT brings digital color changing light and lighting effects to alcoves, task areas, accent areas, and other tight spaces without the drawbacks, expense, or constraints of conventional colored lighting methods. Providing a wide, symmetrical beam angle, iColor Cove NXT is ideal for backlighting applications.

iColor Cove NXT is modular in design, and projects a soft-edge strip of light at a 120° by 120° beam angle. Each length of iColor Cove NXT can be controlled by a Color Kinetics controller or a third-party DMX512 controller. Each fixture comes pre-addressed to light number one. With a Color Kinetics controller, simple effects such as fixed color and color wash require no additional addressing. For other effects across multiple lights, including Chasing Rainbow or Color Sweep, fixtures may be addressed using Serialized Addressing Software (SAS) or Zapi 1.5.

iColor Cove NXT is available in fixed lengths of six (6) and twelve (12) inches. Each fixture is cased in a low-profile, vented, molded plastic housing that snaps directly into a one-piece mounting bracket. The fixed position mounting brackets are indexed to lock iColor Cove NXT into place, allowing for the uniform alignment of multiple fixtures. Optional adjustable position brackets allow for easy rotation of fixtures.

To connect power and data, each fixture is equipped with a three-pin header that attaches to a master cable, making installations with curves or complicated geometries easy to install. Each master cable is designed to be hardwired to a PDS-150e or PDS-60 24V, which supplies power and data to all connected lights.

iCOLOR COVE SPECIFICATIONS

COLOR RANGE	16.7 million (24-bit) additive RGB colors; continuously variable intensity output range
SOURCE	High brightness surface mount colored LEDs
BEAM ANGLE	120° x 120°
HOUSING	Two-piece vented plastic
MOUNTING BRACKET	One-piece fixed position provided One-piece adjustable position, optional (Item#101-000007-00)
CONNECTORS	3-pin power and data connector for use with master cable (sold separately); master cable unterminated for use with PDS-150e or PDS-60 24V
LISTINGS	UL/cUL, CE

COMMUNICATION SPECIFICATIONS

DATA INTERFACE	Color Kinetics data interface system
CONTROL	Color Kinetics full line of controllers and DMX512 when using Color Kinetics power/data supply

ELECTRICAL SPECIFICATIONS

VOLTAGE REQUIREMENT	24VDC
POWER CONSUMPTION	Maximum: 4 Watts (6-inch) Maximum: 6.2 Watts (12-inch)
POWER SUPPLY	PDS-150e (ITEM# 109-000008-01) or PDS-60 24V (ITEM# 109-000017-00/01/02)
MASTER CABLE	Wire Harness for iColor Cove (ITEM# 108-000013-00)

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE RANGE	-4°F to 122°F (-20°C to 50°C)

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 30,000-50,000 hours. This is LED manufacturers' test data. For more detailed information on source life, please see www.colorkinetics.com/lifetime.

CHROMACORE® BY COLOR KINETICS

OPTIBIN® BY COLOR KINETICS

DRY

CE c UL us LISTED 65CA

ITEM# 101-000015-00 (12-inch)
101-000015-01 (6-inch)

BRO114 Rev 06

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iCOLOR COVE NXT — 6”

PHOTOMETRIC PERFORMANCE

SOURCE SPECIFICATIONS

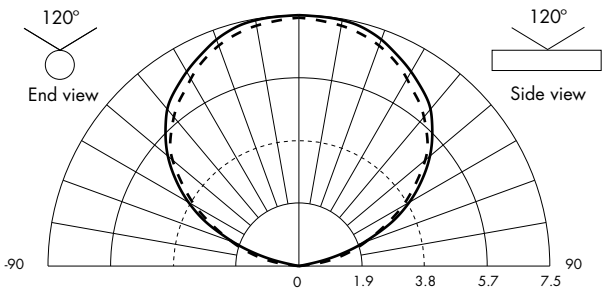
Optics:	Clear PMMA (acrylic)
Source:	24 LEDs (8 Red, 8 Green, 8 Blue)
Beam Angle:	120° x 120° (at 50% of peak illuminance)
Distribution:	Symmetric direct illumination
CCT:	Adjustable 1,000–10,000K
CRI:	Not measurable (CIE 13.3-1995)

ILLUMINANCE DISTRIBUTION

0.0 / 0.5	0.1 / 1.0	0.2 / 2.1	0.2 / 2.1	0.1 / 1.0	0.0 / 0.5	1.5’/0.5m
0.1 / 1.0	0.3 / 3.2	0.7 / 7.5	0.7 / 7.5	0.3 / 3.2	0.1 / 1.0	
0.2 / 2.1	0.7 / 7.5	3.2 / 34.4	3.2 / 34.4	0.7 / 7.5	0.2 / 2.1	0’/0m
0.2 / 2.1	0.7 / 7.5	3.2 / 34.4	3.2 / 34.4	0.7 / 7.5	0.2 / 2.1	
0.1 / 1.0	0.3 / 3.2	0.7 / 7.5	0.7 / 7.5	0.3 / 3.2	0.1 / 1.0	
0.0 / 0.5	0.1 / 1.0	0.2 / 2.1	0.2 / 2.1	0.1 / 1.0	0.0 / 0.5	1.5’/0.5m
1.5’/0.5m		0’/0m			1.5’/0.5m	

Units:	Footcandles(top)/Lux(bottom) 10.8 lux = 1 fc
Measured on:	White
Distance from surface:	1’/0.3m (from center of grid)

CANDLE POWER DISTRIBUTION



End View (solid line) and side view (dashed line) (Candelas)

Measured on:	White
Beam center:	7.5 cd
Thin dashed lined:	Indicates 50% of peak
Multipliers:	0.33 Red, 0.29 Green, 0.38 Blue

ILLUMINANCE

COLOR	3’ / 1m	6’ / 2m	9’ / 3m	15’ / 5m
WHITE	1.1 / 11.8	0.3 / 2.7	0.1 / 1.1	0.1 / 1.1
RED	0.4 / 3.9	0.1 / 0.9	0.0 / 0.4	0.0 / 0.4
GREEN	0.3 / 3.4	0.1 / 0.8	0.0 / 0.3	0.0 / 0.3
BLUE	0.4 / 4.5	0.1 / 1.0	0.0 / 0.4	0.0 / 0.4

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	23.9	3.6	6.6
RED	7.8	0.9	8.6
GREEN	6.9	1.6	4.3
BLUE	9.1	1.6	5.6

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iCOLOR COVE NXT — 12”

PHOTOMETRIC PERFORMANCE

SOURCE SPECIFICATIONS

Optics:	Clear PMMA (acrylic)
Source:	45 LEDs (15 Red, 15 Green, 15 Blue)
Beam Angle:	120° x 120° (at 50% of peak illuminance)
Distribution:	Symmetric direct illumination
CCT:	Adjustable 1,000–10,000K
CRI:	Not measurable (CIE 13.3-1995)

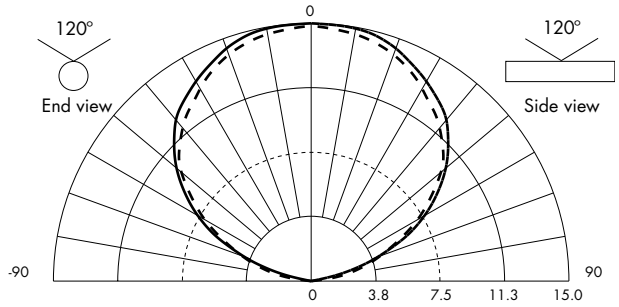
ILLUMINANCE DISTRIBUTION

0.1 / 1.0	0.2 / 2.1	0.3 / 3.2	0.3 / 3.2	0.2 / 2.1	0.1 / 1.0	1.5’/0.5m
0.2 / 2.1	0.6 / 6.4	1.4 / 15.0	1.4 / 15.0	0.6 / 6.4	0.2 / 2.1	
0.3 / 3.2	1.4 / 15.0	6.0 / 64.5	6.0 / 64.5	1.4 / 15.0	0.3 / 3.2	0’/0m
0.3 / 3.2	1.4 / 15.0	6.0 / 64.5	6.0 / 64.5	1.4 / 15.0	0.3 / 3.2	
0.2 / 2.1	0.6 / 6.4	1.4 / 15.0	1.4 / 15.0	0.6 / 6.4	0.2 / 2.1	
0.1 / 1.0	0.2 / 2.1	0.3 / 3.2	0.3 / 3.2	0.2 / 2.1	0.1 / 1.0	1.5’/0.5m

1.5’/0.5m 0’/0m 1.5’/0.5m

Units:	Footcandles(top)/Lux(bottom) 10.8 lux = 1 fc
Measured on:	White
Distance from surface:	1’/.33m (from center of grid)

CANDLE POWER DISTRIBUTION



End View (solid line) and side view (dashed line) (Candelas)

Measured on:	White
Beam center:	15 cd
Thin dashed line:	Indicates 50% of peak
Multipliers:	0.33 Red, 0.29 Green, 0.38 Blue

ILLUMINANCE

COLOR	3’ / 1m	6’ / 2m	9’ / 3m	15’ / 5m
WHITE	2.2 / 23.7	0.5 / 5.4	0.2 / 2.2	0.1 / 1.1
RED	0.7 / 7.8	0.2 / 1.8	0.1 / 0.7	0.0 / 0.4
GREEN	0.6 / 6.9	0.1 / 1.6	0.1 / 0.6	0.0 / 0.3
BLUE	0.8 / 9.0	0.2 / 2.0	0.1 / 0.8	0.0 / 0.4

Measured in Footcandles/Lux on axis.
Meausred on: All, reflectance 0.

LIGHT OUTPUT

COLOR	TOTAL OUTPUT (lumens)	POWER (Watts)	EFFICACY (Lm/W)
WHITE	45	5.6	8.1
RED	14.8	1.6	9.2
GREEN	13.0	2.2	5.9
BLUE	17.2	2.2	7.8

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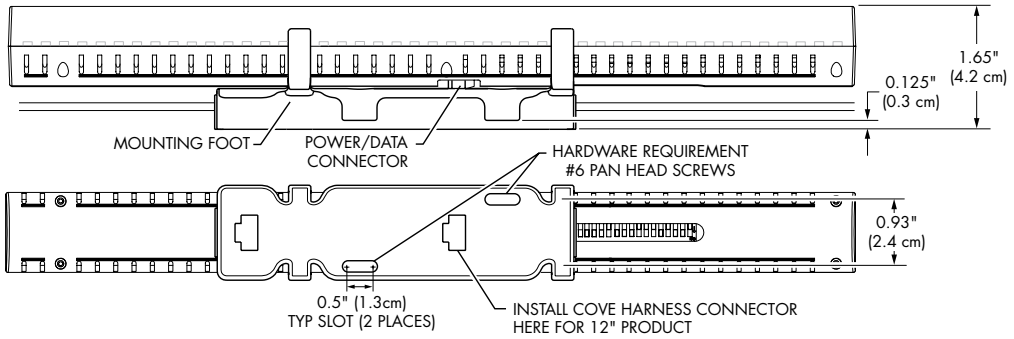
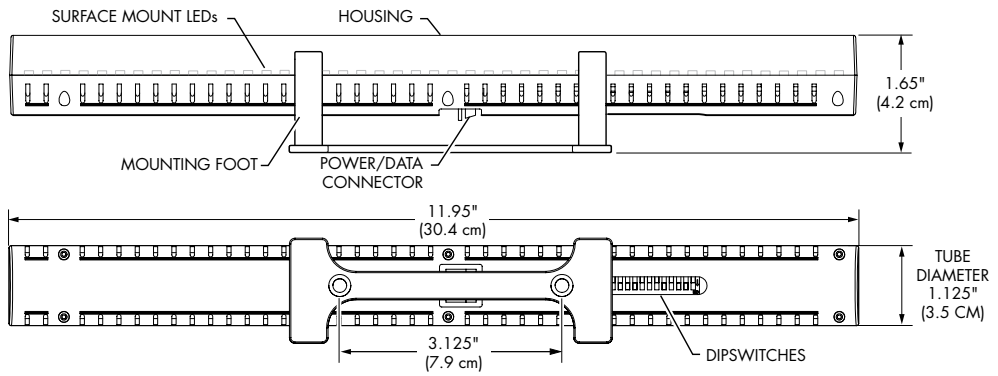
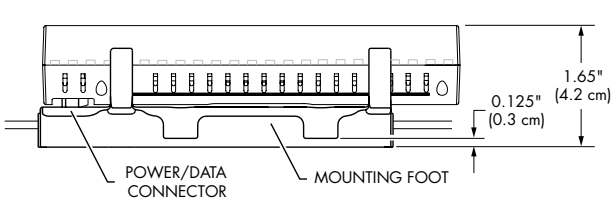
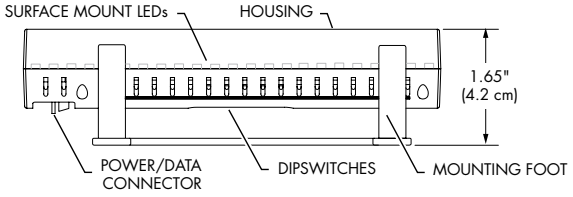
FIXED POSITION MOUNTING BRACKET (PROVIDED)



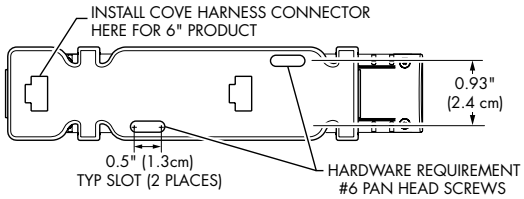
ADJUSTABLE POSITION MOUNTING BRACKET (OPTIONAL)



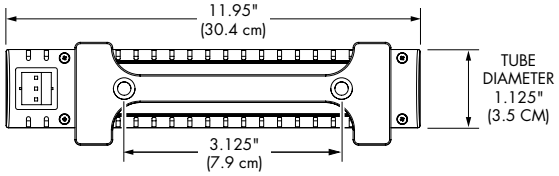




FIXED POSITION MOUNTING BRACKET



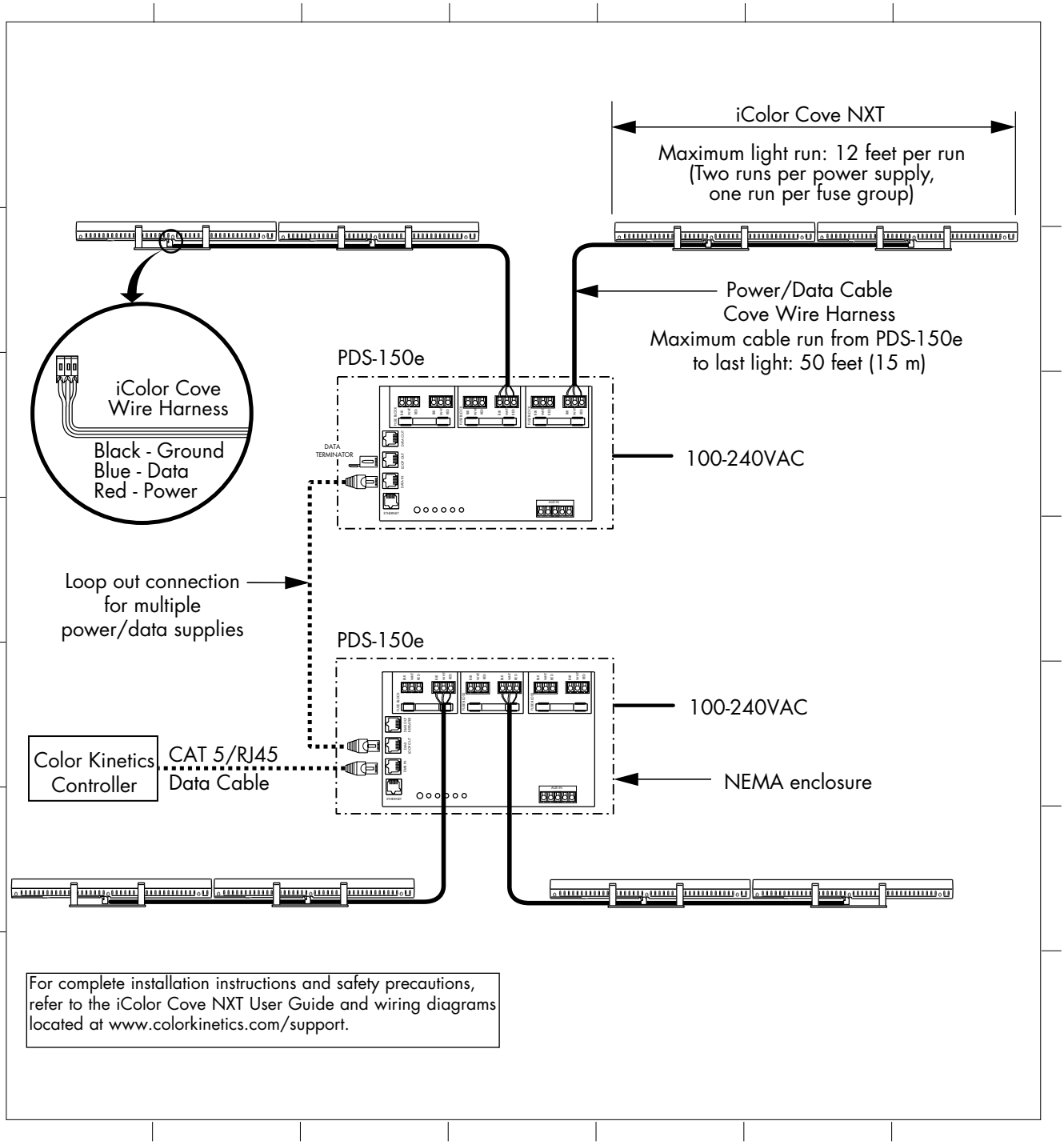
ADJUSTABLE MOUNTING MOUNTING BRACKET



iCOLOR COVE SERIES SPECIFICATIONS		
ITEM#	**101-000015-01 (6")**	**101-000015-00 (12")**
WEIGHT	2.0oz (57g)	3.9oz (111g)
POWER/DATA CONNECTOR	Three-pin header	Three-pin header
POWER REQUIREMENT	140mA @ 24VDC (4.0W)	260mA @ 24VDC (6.2W)

iCOLOR COVE NXT

FUNCTIONAL FLOW DIAGRAM



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.

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