

iCOLOR COVE QL



The iColor® Cove QL fixture is a low-profile LED cove light featuring Chromasic® technology. From large-scale commercial installations to simpler residential applications, iColor Cove QL delivers color-changing illumination and lighting effects to alcoves, task areas, accent areas, and other confined spaces. Employing Chromasic technology, iColor Cove QL has the capability of auto-addressing, which simplifies installation, addressing and programming.

Encased in a vented, molded plastic housing, iColor Cove QL is available in 6" (15cm) and 12" (30cm) lengths with a 100° x 40° beam angle and features in-line power/data connectors that allow a run to turn up to 180°, reducing installation time. The mounting bracket provides 180° aiming rotation.

iColor Cove QL is driven by the Color Kinetics® Chromasic chip, which integrates power, communication, and control. It therefore lowers the overall system cost, making it an affordable alternative for edge and alcove lighting. Each one-foot fixture can be individually controlled or grouped as one address for simplified installation.

Power and data are supplied by sPDS-60ca 24V, a dedicated Color Kinetics power/data supply available for DMX and Ethernet applications, or PDS-60ca 24V for pre-programmed effects. Each power/data supply supports up to 20 12" fixtures or 36 6" fixtures in a single run or divided into two runs. End-to-end is the preferred method of installation. However, jumper cables are available for areas that require spacing.

iCOLOR COVE QL SPECIFICATIONS

COLOR RANGE	64 billion (36 bit) additive RGB color, continuously variable intensity
SOURCE	High brightness LEDs
BEAM ANGLE	100° x 40°
HOUSING	Rigid, vented plastic housing. 12" L x 1.5" W x 1.4" H (30cm) x (6.8cm) x (3.5cm) (with base) 6" L x 1.5" W x 1.4" H (15cm) x (6.8cm) x (3.5cm) (with base)
CONNECTORS	Integral 3-pin male/female connectors
LISTINGS	UL/cUL, CE
COMMUNICATION SPECIFICATIONS	
DATA INTERFACE	Color Kinetics Chromasic data interface system
CONTROL	Color Kinetics line of controllers, including Light System Manager, Video System Manager, or other DMX512 (RS485) sources
ELECTRICAL SPECIFICATIONS	
POWER REQUIREMENT	24VDC
POWER CONSUMPTION	3W at full output for 12" fixture; 1.7W at full output for 6" fixture
POWER SUPPLY	sPDS-60ca 24V (Item# 109-000021-02) for DMX/Ethernet applications, PDS-60ca 24V (Item# 109-000016-00) for Preprogrammed applications
LEADER CABLE	30-ft (9m) iColor Cove EC Leader Cable (Item# 108-000015-00)
JUMPER CABLE	1-ft (0.3m) iColor Cove EC/QL Jumper Cable (Item# 108-000020-00) 5-ft (1.5m) iColor Cove EC/QL Jumper Cable (Item# 108-000020-01)
ENVIRONMENTAL SPECIFICATIONS	
TEMPERATURE RANGE	-4°F to 122°F (-20°C to 50°C) based on testing of specific product

CHROMACORE®
BY COLOR KINETICS

CHROMASIC®
BY COLOR KINETICS

OPTIBIN®
BY COLOR KINETICS



ITEM# 101-000051-00 (12")
101-000051-01 (6")

This product is protected by one or more of the following U.S. Patents and their foreign counterparts: 6,016,038, 6,150,774, 6,292,901, 6,340,868, 6,777,891, 6,788,011, 6,806,659, 6,969,954, and 6,975,079. Other patents pending.

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BRO152 Rev 05

Specifications subject to change without notice. Refer to www.colorkinetics.com for the most recent version.

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

iCOLOR COVE QL 6"

PHOTOMETRIC PERFORMANCE

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

SOURCE SPECIFICATIONS

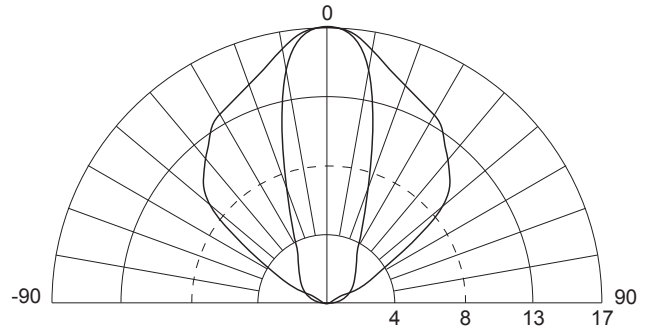
Optics:	PMMA (Acrylic)
Source:	15 LEDs (5 Red, 5 Green, 5 Blue)
Beam Angle:	100° x 40° (at 50% of peak illuminance)
Distribution:	Asymmetric direct illumination
CCT:	Adjustable 1,000–10,000K
CRI:	Not measurable (CIE 13.3-1995)

ILLUMINANCE DISTRIBUTION

0.0 0.0	0.1 1.1	0.1 7.5	0.1 14.0	0.1 7.5	0.0 1.1	0.0 0.0	3.0'/1.0m
0.1 1.1	0.7 7.5	1.3 14.0	2.5 32.3	0.7 26.9	0.1 7.5	0.0 1.1	
0.1 1.1	0.7 7.5	1.3 14.0	2.5 32.3	0.7 26.9	0.1 7.5	0.1 1.1	0'/0m
0.1 1.1	0.7 7.5	1.3 14.0	2.5 32.3	0.7 26.9	0.1 7.5	0.1 1.1	
0.0 0.0	0.1 1.1	0.7 7.5	1.3 14.0	0.7 7.5	0.1 1.1	0.1 1.1	3.0'/1.0m
0.0 0.0	0.0 0.0	0.1 1.1	0.1 1.1	0.1 1.1	0.0 0.0	0.0 0.0	
3.0'/1.0m	0'/0m	0'/0m	0'/0m	0'/0m	3.0'/1.0m	3.0'/1.0m	

Units: Footcandles (top)/Lux (bottom)
 10.8 lux = 1 fc
 Location: Center of grid, 1' (0.3m) from surface, light at perpendicular to surface
 Measured on: All, reflectance model: 50%

CANDLE POWER DISTRIBUTION



Measured on: White
 Beam center: 16.9 cd
 Thin dashed lined: Indicates 50% of peak
 Multipliers: 0.20 Red, 0.60 Green, 0.20 Blue

ILLUMINANCE

COLOR	1' 0.3m	2' 0.6m	3' 1m	4' 1.2m
WHITE	43.2 465.0	6.4 68.9	2.4 25.8	1.3 14.0
RED	8.6 93.0	1.3 13.8	0.5 5.2	0.3 2.8
GREEN	25.9 279.0	3.8 41.3	1.4 15.5	0.8 8.4
BLUE	8.6 93.0	1.3 13.8	0.5 5.2	0.3 2.8

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	1.6	14.4
RED	4.6	0.6	7.7
GREEN	13.8	0.6	23.0
BLUE	4.6	0.6	7.7

Note: Efficacy figures are for a complete tested fixture not simply a lamp source.

iCOLOR COVE QL 12"

PHOTOMETRIC PERFORMANCE

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

SOURCE SPECIFICATIONS

Optics:	PMMA (Acrylic)
Source:	30 LEDs (10 Red, 10 Green, 10 Blue)
Beam Angle:	100° x 40° (at 50% of peak illuminance)
Distribution:	Asymmetric direct illumination
CCT:	Adjustable 1,000–10,000K
CRI:	Not measurable (CIE 13.3-1995)

ILLUMINANCE DISTRIBUTION

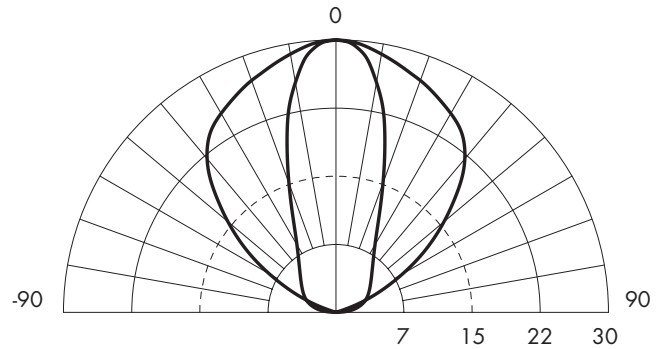
0.3 2.2	0.4 4.3	0.6 6.5	0.4 4.3	0.2 2.2	0.1 1.1	3.0'/1.0m
0.3 3.2	1.6 17.2	2.4 25.8	1.7 18.3	0.5 5.4	0.2 2.2	
0.4 4.3	2.1 22.6	4.6 49.5	4.0 43.1	1.5 16.1	0.3 3.2	0'/0m
0.3 3.2	1.5 16.1	4.0 43.1	4.6 49.5	2.1 22.6	0.4 4.3	
0.2 2.2	0.5 5.4	1.7 18.3	2.4 25.8	1.3 14.0	0.3 3.2	3.0'/1.0m
0.1 1.1	0.2 2.2	0.4 4.3	0.6 6.5	0.4 4.3	0.2 2.2	
3.0'/1.0m	0'/0m	0'/0m	0'/0m	3.0'/1.0m	3.0'/1.0m	

Units: Footcandles (top)/Lux (bottom)
10.8 lux = 1 fc

Location: Center of grid, 1'/0.3m from surface,
light at perpendicular to surface

Measured on: White, reflectance model: 50%

CANDLE POWER DISTRIBUTION



Measured on: White
Beam center: 30 cd
Thin dashed lined: Indicates 50% of peak
Multipliers: 0.24 Red, 0.48 Green, 0.28 Blue

ILLUMINANCE

DISTANCE	3'	6'	9'	15'
	1m	2m	3m	5m
WHITE	3.0 32.3	0.8 8.6	0.4 4.3	0.4 4.3
RED	0.8 8.1	0.2 2.2	0.1 1.1	0.1 1.1
GREEN	1.4 15.5	0.4 4.1	0.2 2.1	0.2 2.1
BLUE	0.8 9.0	0.2 2.4	0.1 1.2	0.1 0.2

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

LIGHT OUTPUT

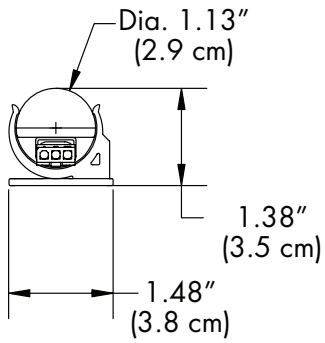
COLOR	TOTAL OUTPUT (LUMENS)	POWER (WATTS)	EFFICACY (lm/w)
WHITE	46	2.9	15.9
RED	11.5	0.7	16.4
GREEN	22.1	1.2	18.4
BLUE	12.9	1.2	10.7

Note: Efficacy figures are for a complete tested fixture not simply a lamp source.

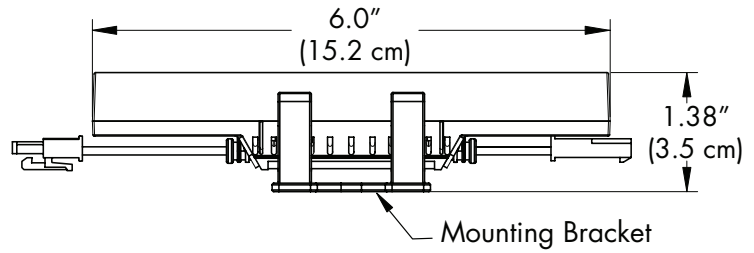
iCOLOR COVE QL 6"

PHYSICAL DIMENSIONS

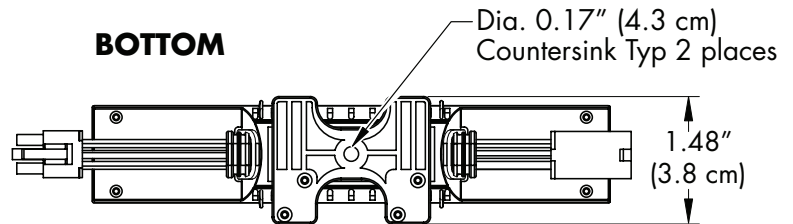
END



SIDE



BOTTOM



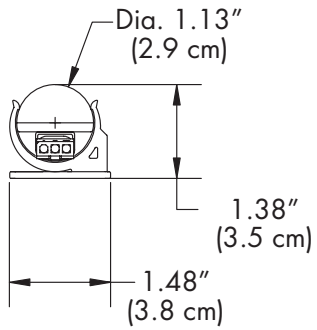
iColor Cove QL 6" SPECIFICATIONS

DATA/POWER CONNECTOR	Integral 3-pin male/female connectors
POWER/DATA SUPPLY	sPDS-60ca 24V (Item# 109-000021-02) for DMX/Ethernet applications PDS-60ca 24V (Item# 109-000016-00) for Preprogrammed applications

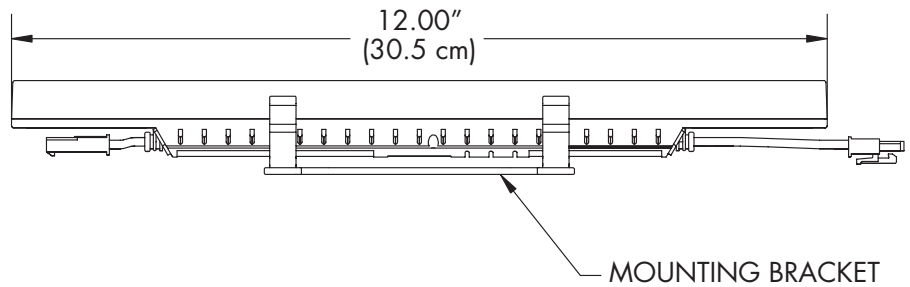
iColor Cove QL 12"

PHYSICAL DIMENSIONS

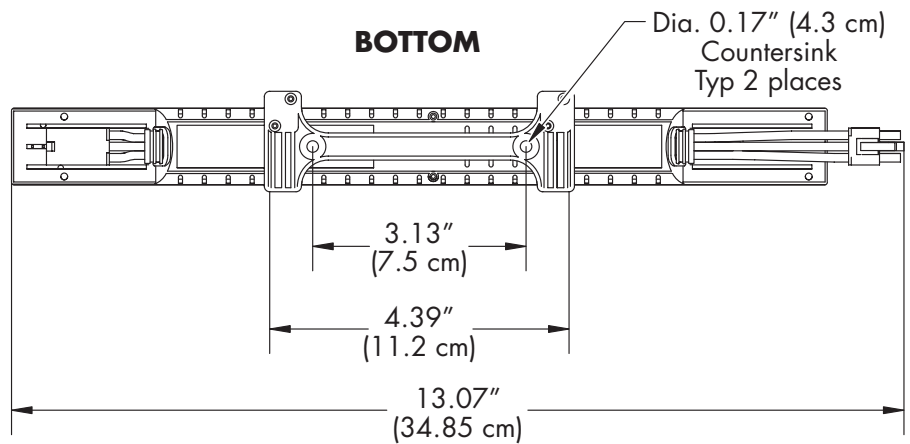
END



SIDE



BOTTOM



iColor Cove QL 12" SPECIFICATIONS

DATA/POWER CONNECTOR	Integral 3-pin male/female connectors
POWER/DATA SUPPLY	sPDS-60ca 24V (Item# 109-000021-02) for DMX/Ethernet applications PDS-60ca 24V (Item# 109-000016-00) for Preprogrammed applications

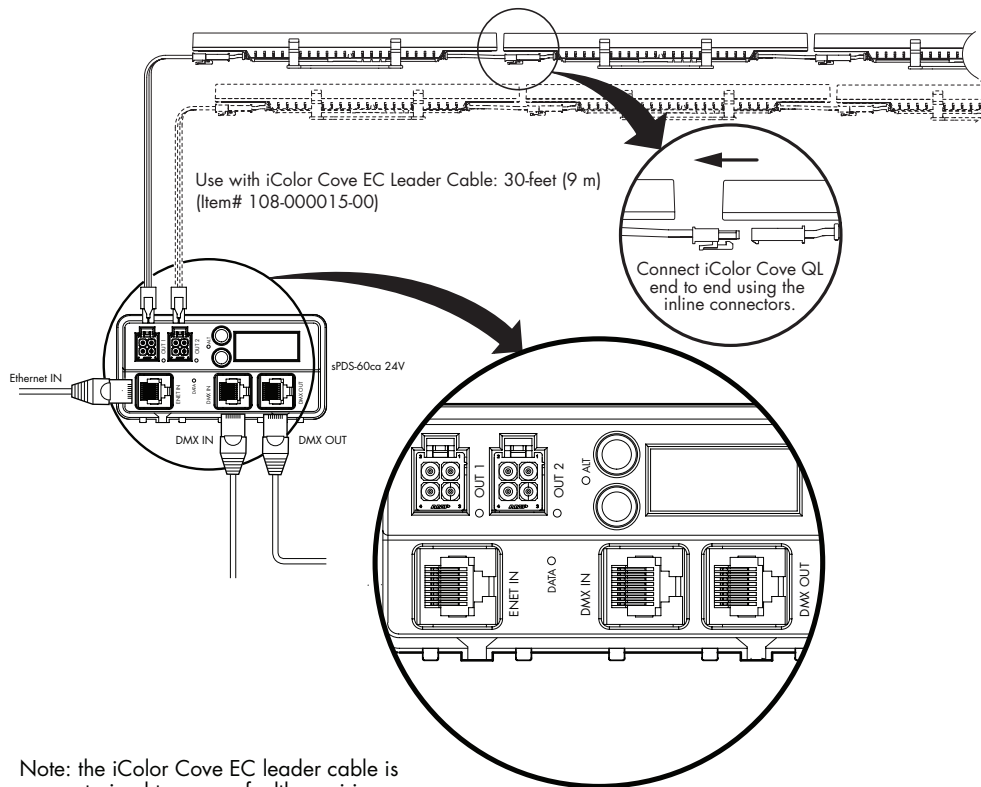
iCOLOR COVE QL

FUNCTIONAL FLOW DIAGRAM

iColor Cove QL Wiring with sPDS-60ca 24V (DMX/Ethernet)

iColor Cove QL Wiring with sPDS-60ca 24V (DMX/Ethernet)

Maximum: 20 12" iColor Cove QL fixtures or
36 6" iColor Cove QL fixtures per power supply
(All on Output 1 or divided between Output 1 and Output 2)



Note: the iColor Cove EC leader cable is

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

Additional Items	
Power/Data Supply	PDS-60ca 24V (Item# 109-000016-00) or sPDS-60ca 24V (Item #109-000021-02)
Controller	Any Color Kinetics controller or DMX512 compatible controller
Cable	30-ft (9-m) iColor Cove EC leader cable (Item# 108-000015-00) 1-foot (0.3m) iColor Cove EC/QL jumper cable (Item# 108-000020-00) 5-ft (1.5m) iColor Cove EC/QL jumper cable (Item# 108-000020-01)

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.

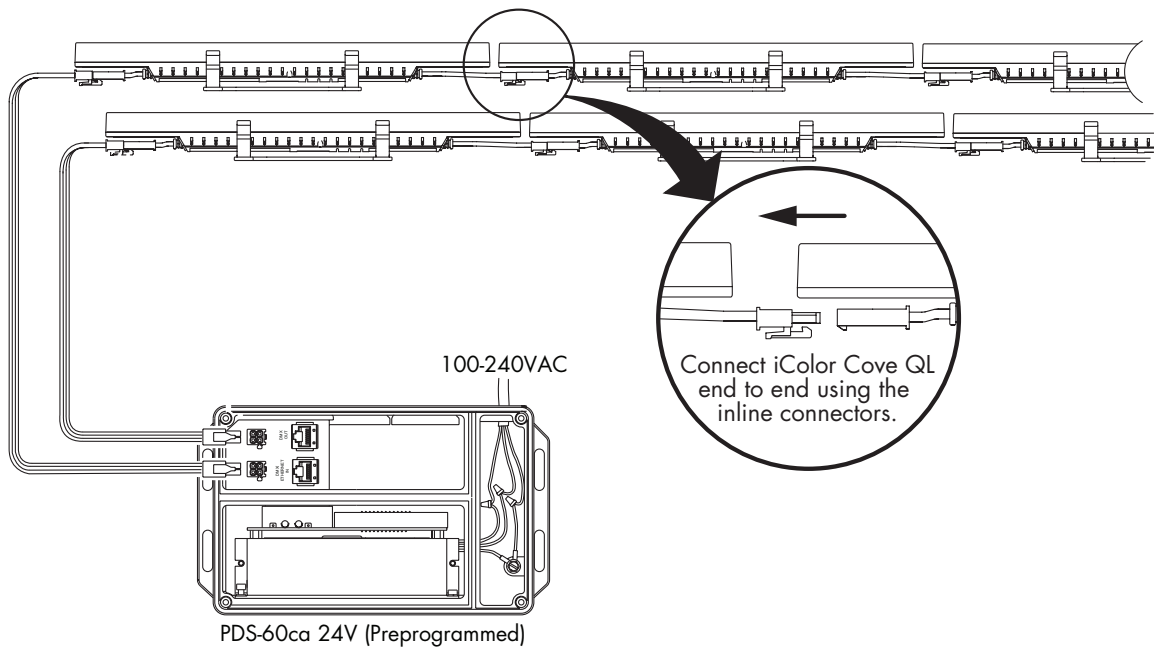
iCOLOR COVE QL

FUNCTIONAL FLOW DIAGRAM

iColor Cove QL Wiring with PDS-60ca 24V (Preprogrammed)

iColor Cove QL Wiring with PDS-60ca 24V (Preprogrammed)

Maximum: 20 12" iColor Cove QL fixtures or
 36 6" iColor Cove QL fixtures per power supply
 (All on Output 1 or divided between Output 1 and Output 2)



Note: the iColor Cove EC leader cable is

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Additional Items	
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Cable	30-ft (9-m) iColor Cove EC leader cable (Item# 108-000015-00) 1-foot (0.3m) iColor Cove EC/QL jumper cable (Item# 108-000020-00) 5-ft (1.5m) iColor Cove EC/QL jumper cable (Item# 108-000020-01)