



# COLORBURST 6

POWERED BY CHROMACORE®



Color Kinetics® ColorBurst® 6 is a Chromacore®-powered product in the bColor Series, and is designed to meet the needs of lighting designers. ColorBurst 6 provides lighting professionals a small, sleek solution for spotlighting and wall washing with rich, saturated colors and color changing effects.

Projecting a soft-edge beam of light, ColorBurst 6 is a sealed product designed for both indoor and outdoor installations. The fixture is fully enclosed in a stylish and rugged die-cast aluminum housing and meets or exceeds specifications for use in wet locations. Enclosed wiring gives ColorBurst 6 a neat appearance and optimum positioning. The housing is equipped with a three-screw accessory ring to affix spread lenses, louvers, and other attachments and is available in either a black or white finish to match its environment and prevent oxidation. ColorBurst 6 has three 18AWG wire leads and attaches to a standard junction box or an optional mounting base, which has a 60-foot (18.3 m) three conductor cable. The 350° locking base swivel, with 350° locking fixture rotation, offers a versatile range of light positioning.

ColorBurst 6 can be controlled by a Color Kinetics controller or a third-party 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. Other effects across multiple lights, including Chasing Rainbow or Color Sweep, require further addressing using one of the following Color Kinetics addressing tools: Serialized Addressing Software (SAS) or Zapi. For protection from extreme temperatures, ColorBurst 6 has been designed with a temperature monitoring feature. If operating temperatures rise to an unsafe level, a compensation circuit is triggered and ColorBurst 6 operation is interrupted causing the light to turn dull red. After 30 minutes the light will auto-cycle and return to full intensity.

### COLORBURST SPECIFICATIONS

**COLOR RANGE** 16.7 million (24bit) additive RGB colors; continuously variable intensity output range

**SOURCE** High intensity power light emitting diodes (LEDs)

**BEAM ANGLE** 12° clear lens, 22° ground lens

**HOUSING** Die cast aluminum in black or white

**LISTINGS** UL/cUL Listed

### COMMUNICATION SPECIFICATIONS

**DATA INTERFACE** Color Kinetics data interface system

**CONTROL** Color Kinetics full line of controllers or DMX512 (RS485) compatible when using Color Kinetics power/data supply

### ELECTRICAL SPECIFICATIONS

**POWER REQUIREMENT** 24VDC

**POWER CONSUMPTION** 25W Max. at full intensity (full RGB)

**POWER SUPPLY** PDS-150e (ITEM# 109-000008-01) - Maximum of 6 fixtures/supply  
PDS-60 24V (ITEM# 109-000017-00/01/02) - Maximum of 2 fixtures/supply

### 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](http://www.colorkinetics.com/lifetime).

### 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.

CHROMACORE®  
BY COLOR KINETICS

OPTIBIN®  
BY COLOR KINETICS

☀️ DRY

💧 WET & DAMP



Low Voltage Fixture  
78GF

- ColorBurst 6 ITEM# 116-000014-00 (White, Frosted)
- 116-000014-01 (Black, Frosted)
- 116-000014-02 (White, Clear)
- 116-000014-03 (Black, Frosted)
- ColorBurst Base ITEM# 116-000005-00 (White)
- 116-000005-01 (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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BR0100 Rev 06

Specifications subject to change without notice. Refer to [www.colorkinetics.com](http://www.colorkinetics.com) for the most recent data sheet versions.

# COLORBURST 6 - CLEAR LENS

## PHOTOMETRIC PERFORMANCE

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

### SOURCE SPECIFICATIONS

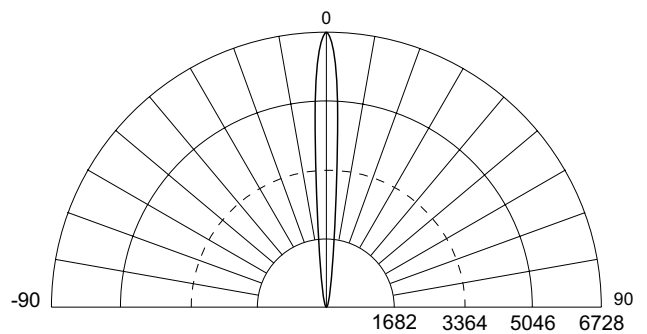
Optics: Clear tempered glass  
 Source: 18 LEDs (6 Red, 6 Green, 6 Blue)  
 Beam Angle: 12°  
 Distribution: Symmetric direct illumination  
 CCT: Adjustable 1,000K-10,000K  
 CRI: Not measureable (CIE 13.3-1995)

### ILLUMINANCE DISTRIBUTION

1.2 / 12.9	4.0 / 43.1	6.6 / 71.0	4.7 / 50.6	1.9 / 20.5	1.0 / 10.8	6.0' / 2.0m
1.6 / 17.2	14.4 / 155.0	28.5 / 306.8	19.1 / 205.6	4.6 / 49.5	1.2 / 12.9	5.0' / 1.5m
1.6 / 17.2	15.0 / 161.5	39.2 / 421.9	39.0 / 419.8	14.7 / 158.2	1.5 / 16.1	4.0' / 1.2m
1.0 / 10.8	4.9 / 52.7	20.1 / 216.4	29.5 / 317.5	14.6 / 157.2	1.4 / 15.1	3.0' / 1.0m
0.4 / 4.3	1.4 / 15.1	4.7 / 50.6	6.9 / 74.3	4.0 / 43.1	0.8 / 8.6	2.0' / 0.6m
0.3 / 3.2	0.4 / 4.3	0.8 / 8.6	1.2 / 12.9	0.8 / 8.6	0.4 / 4.3	1.0' / 0.3m
3.0' / 1.0m	0' / 0m				3.0' / 1.0m	

Units: Footcandles (top)/Lux (bottom)  
 10.8 lux = 1 fc  
 Measured on: All, reflectance model 80/50/20%  
 Distance from surface: Bottom center of grid, 3' (1.0 m) from surface, light at a 45° angle off horizontal

### CANDLE POWER DISTRIBUTION



Measured on: White  
 Beam center: 6728 cd  
 Thin dashed line: Indicates 50% of peak  
 Multipliers: 0.36 Red, 0.46 Green, 0.18 Blue

### ILLUMINANCE

COLOR	3'	6'	9'	15'
	1m	2m	3m	5m
WHITE	750.0	187.0	83.2	29.9
	8073.0	2012.9	895.6	321.8
RED	269.3	67.2	29.9	10.7
	2899.0	722.8	321.6	115.6
GREEN	345.0	86.0	38.3	13.8
	3713.6	925.9	412.0	148.0
BLUE	134.3	33.5	14.9	5.4
	1445.1	360.3	160.3	57.6

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	295	24.7	11.9
RED	105.9	8.4	12.6
GREEN	135.7	8.4	16.2
BLUE	52.8	8.4	6.3

# COLORBURST 6 - GROUND LENS

## 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:	22°
Distribution:	Symmetric direct illumination
CCT:	Adjustable 1,000K-10,000K
CRI:	Not measureable (CIE 13.3-1995)

### ILLUMINANCE DISTRIBUTION

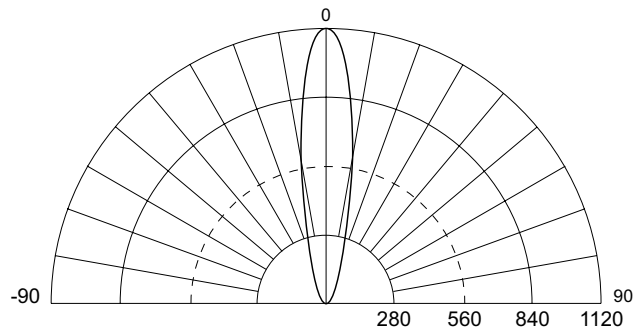
2.2 23.7	4.8 51.7	7.0 75.3	5.9 63.5	3.4 36.6	1.8 19.4	6.0'/2.0m
2.9 31.2	9.0 96.9	15.1 162.5	12.6 135.6	6.0 64.6	2.4 25.8	5.0'/1.5m
3.1 33.4	10.9 117.3	21.1 227.1	20.0 215.3	9.7 104.4	3.0 32.3	4.0'/1.2m
2.4 25.8	7.7 82.9	16.9 181.9	19.1 205.6	10.4 111.9	3.0 32.3	3.0'/1.0m
1.5 16.1	3.7 39.8	8.1 87.2	10.2 109.8	6.3 67.8	2.1 22.6	2.0'/0.6m
1.0 10.8	1.9 20.5	3.2 34.4	3.7 39.8	2.6 28.0	1.2 12.9	1.0'/0.3m
3.0'/1.0m		0'/0m		3.0'/1.0m		

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

Measured on: All, reflectance model 80/50/20%

Distance from surface: Bottom center of grid, 3' (1.0 m) from surface, light at a 45° angle off horizontal

### CANDLE POWER DISTRIBUTION



Measured on: White  
Beam center: 1120 cd  
Thin dashed line: Indicates 50% of peak  
Multipliers: 0.35 Red, 0.46 Green, 0.18 Blue

### ILLUMINANCE

COLOR	3'	6'	9'	15'
	1m	2m	3m	5m
WHITE	124.0	31.2	13.8	5.0
	1334.7	335.8	148.5	53.8
RED	43.9	11.0	4.9	1.8
	472.5	118.9	52.6	19.1
GREEN	57.2	14.4	6.4	2.3
	615.3	154.8	68.5	24.8
BLUE	21.9	5.5	2.4	0.9
	236.2	59.4	26.3	9.5

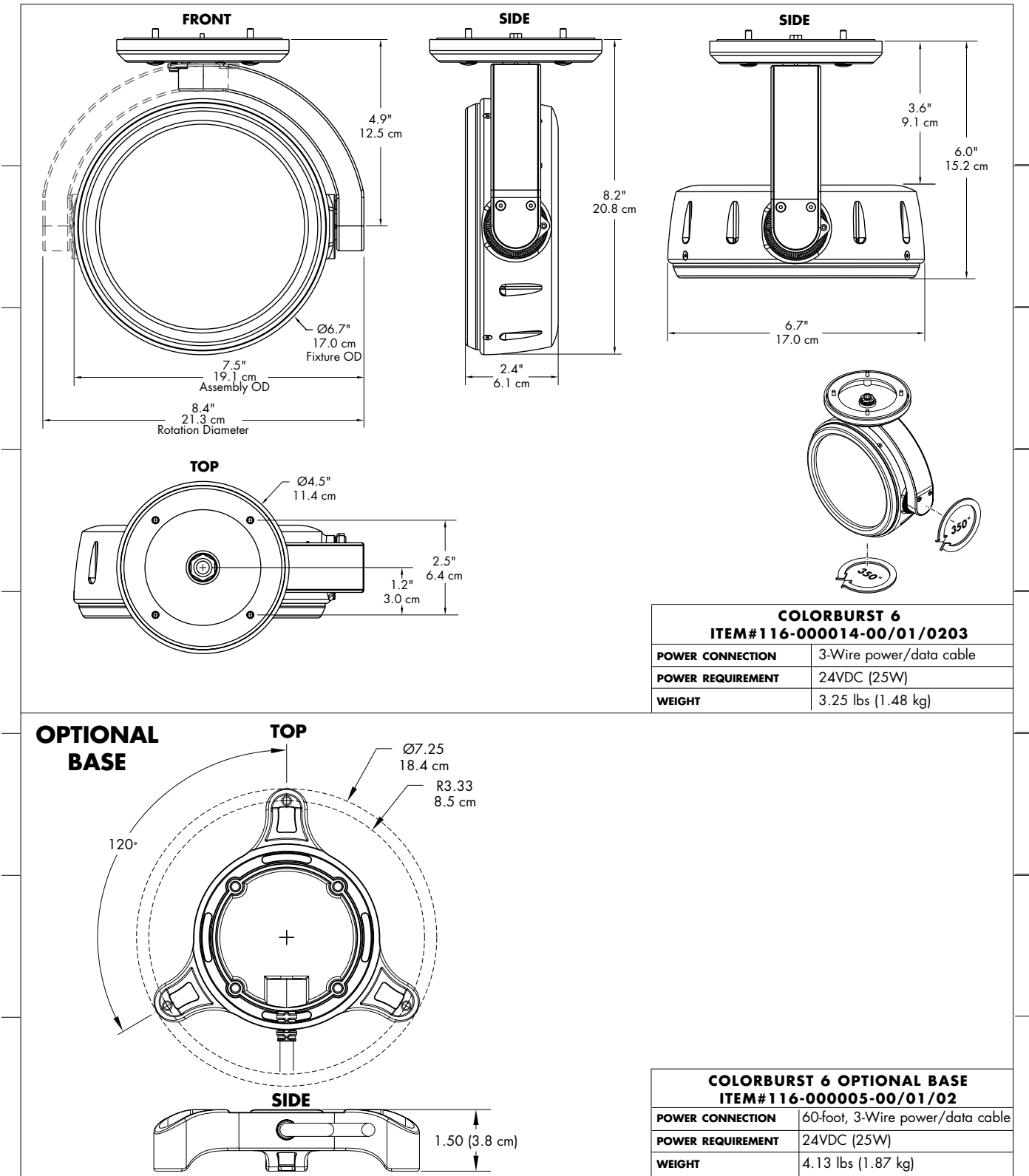
Measured in Footcandles (top)/Lux (bottom) on axis.  
Measured on: All, reflectance 0.

### LIGHT OUTPUT

COLOR	TOTAL OUTPUT (lumens)	POWER (Watts)	EFFICACY (Lm/w)
WHITE	291	24.7	11.8
RED	103.0	8.4	12.3
GREEN	134.2	8.4	16.0
BLUE	51.5	8.4	6.1

# COLORBURST 6

## PHYSICAL DIMENSIONS



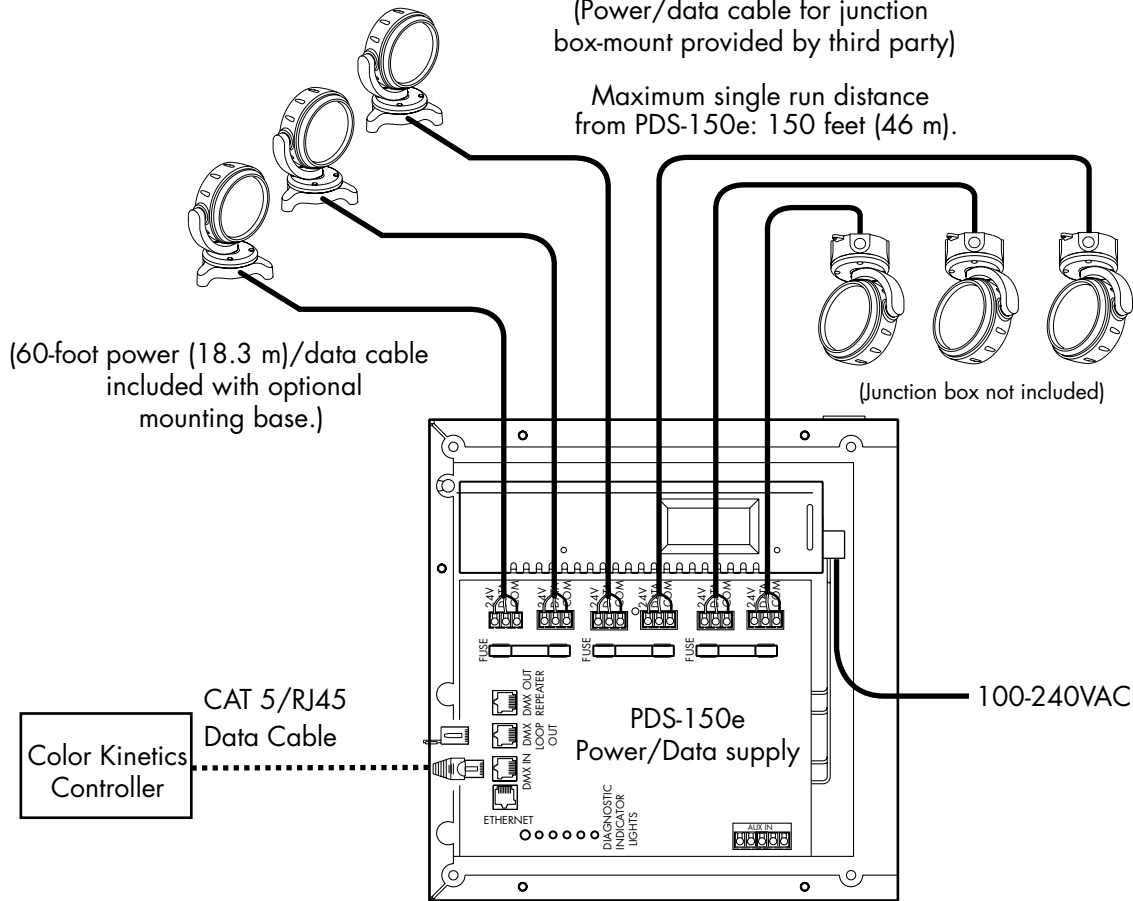
# COLORBURST 6

## FUNCTIONAL FLOW DIAGRAM

### ColorBurst 6 with PDS-150e

Power/Data Cable  
 18AWG/.823mm<sup>2</sup> CSA,  
 3-conductor, stranded copper  
 From PDS-150e Power/Data Supply maximum  
 accumulated length of cable run for all fixtures  
 must not exceed 400 feet (122 m).  
 (Power/data cable for junction  
 box-mount provided by third party)

Maximum single run distance  
 from PDS-150e: 150 feet (46 m).



Maximum: Six ColorBurst 6 fixtures per PDS-150e Power/Data supply.  
 (One per terminal)

Note: Do not daisy-chain ColorBurst 6 fixtures.

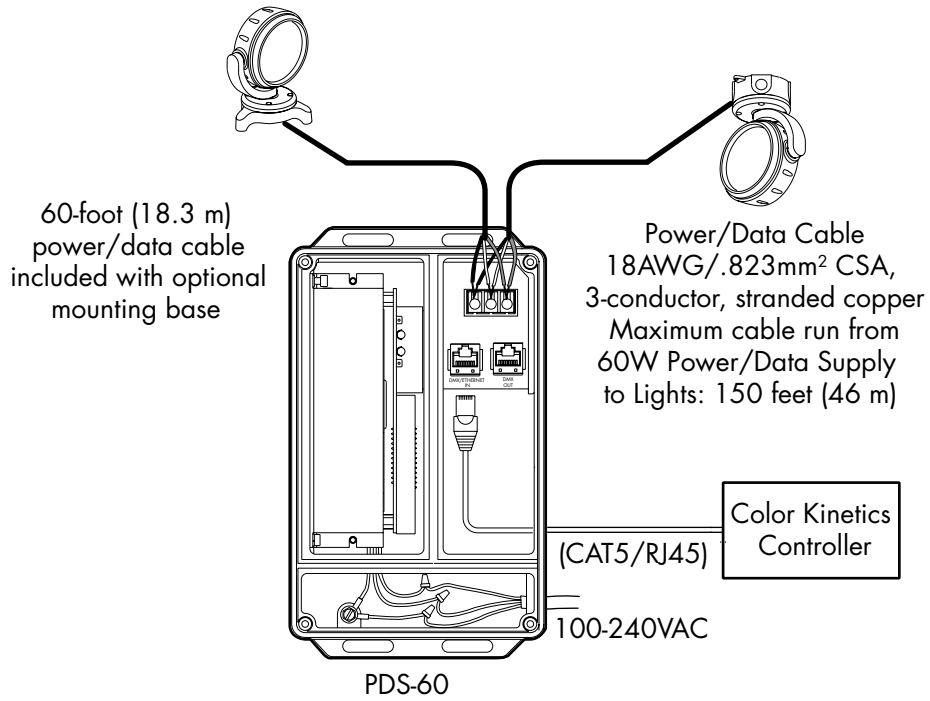
For complete installation instructions and safety precautions, refer to the ColorBurst 6 User Guide and wiring diagrams located at [www.colorkinetics.com/support](http://www.colorkinetics.com/support).

Additional Items	Applications
<b>Power/Data Supply</b>	PDS-150e ITEM# 109-000008-01
<b>Controller</b>	Any Color Kinetics controller or DMX512 compatible controller
<b>Address Unit</b>	Serialized Addressing Software (SAS) or Zapi (ITEM# 103-000005-00/01)
<b>Mounting Base (optional)</b>	Base ITEM# 116-000005-00 White ITEM# 116-000005-01 Black ITEM# 116-000005-02 Aluminum

# COLORBURST 6

## FUNCTIONAL FLOW DIAGRAM

### ColorBurst 6 with PDS-60



Maximum: Two ColorBurst 6 fixtures per PDS-60 power/data supply.

For complete installation instructions and safety precautions, refer to the ColorBurst 6 User Guide and wiring diagrams located at [www.colorkinetics.com/support](http://www.colorkinetics.com/support).

Additional Items	Applications
<b>Power/Data Supply</b>	PDS-60 24V (ITEM# 109-000017-00/01/02)
<b>Controller</b>	Any Color Kinetics controller or DMX512 compatible controller
<b>Address Unit</b>	Serialized Addressing Software (SAS) or Zapi (ITEM# 103-000005-00/01)
<b>Mounting Base (optional)</b>	ITEM# 116-000005-00 White ITEM# 116-000005-01 Black