

COLORBLAST 12



Color Kinetics® ColorBlast® 12 is a Chromacore® powered product designed for washing walls with rich, saturated colors and color changing effects. ColorBlast 12 is specifically designed with the needs of lighting designers, architects, and retail window directors in mind. A fully sealed product, ColorBlast 12 is designed for both indoor and outdoor installations. The stylish and rugged die-cast aluminum housing meets or exceeds specifications for use in wet and damp locations. ColorBlast 12 is available with a soft-focus tempered glass lens, or a clear tempered glass lens. The soft-focus lens produces a soft-edge 23° beam of light, while the clear lens offers a 10° beam angle for extended light projection. The housing is also equipped to affix spread lenses, louvers, and other attachments and is available in either black or white finish. A single 3-wire, 60-foot (18.3 m) power cable, rated for outdoor installations, provides both power and data to the light fixture.

Designed to quickly aim the fixture without the need of special tools, ColorBlast 12 features a locking, industrial-grade constant torque hinge. Set screws and an Allen wrench are included for installations requiring locked positioning. Installation is simple—a pre-assembled mounting base allows for after-installation rotation—eliminating the need for precise junction box positioning. The locking base is positioned easily with a smooth, friction-free rotation of up to 350° of travel. The 110° hinge rotation expands the range of light positioning available. A water-tight seal ensures IP rating and maximum longevity.

ColorBlast 12 can be controlled by a Color Kinetics controller or a third-party controller. Each fixture comes pre-addressed to light number one. 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: Serial Addressing Software (SAS) or Zapi. For protection from extreme temperatures, ColorBlast 12 has been designed with a temperature monitoring feature. If operating temperatures rise to an unsafe level, a compensation circuit is triggered and ColorBlast 12 operation is interrupted causing the lights to turn dull red. After 30 minutes the lights will auto-cycle and return to full intensity.

COLORBLAST SPECIFICATIONS

COLOR RANGE	16.7 million (24-bit) additive RGB colors; continuously variable intensity
SOURCE	36 High intensity RGB LEDs
BEAM ANGLE	23° ground lens, 10° clear lens
HOUSING	Die Cast Aluminum in black or white finish
LENSES	Soft-focus tempered glass or clear tempered glass
CONNECTORS	60-foot (18.3 m) Unified power and data cable
LISTINGS	UL/C-UL listed, CE

COMMUNICATION SPECIFICATIONS

DATA INTERFACE	Color Kinetics data interface system
CONTROL	Color Kinetics full line of controllers including Light System Manager or other DMX512 (RS485) sources

ELECTRICAL SPECIFICATIONS

POWER REQUIREMENT	24VDC
POWER CONSUMPTION	50W Max. at full intensity (full RGB)
POWER SUPPLY	PDS-150e (ITEM# 109-000008-01); PDS-60 24V (ITEM# 109-000017-XX)

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

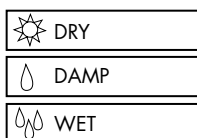
In traditional lamp sources, lifetime is defined as the point at which 50% of the lamps fail. This is also termed Mean Time Between Failure [MTBF]. LEDs are semiconductor devices and have a much longer MTBF than conventional sources. However, MTBF is not the only consideration in determining useful life. 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.

CHROMACORE®
BY COLOR KINETICS

OPTIBIN™
BY COLOR KINETICS



ITEM# 116-000012-00 (White, Frosted Lens)
116-000012-01 (Black, Frosted Lens)
116-000012-02 (White, Clear Lens)
116-000012-03 (Black, Clear Lens)

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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BR0089 Rev 07

Specifications subject to change without notice. Refer to www.colorkinetics.com for the most recent data sheet versions.

COLORBLAST 12 - CLEAR LENS

PHOTOMETRIC PERFORMANCE

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

SOURCE SPECIFICATIONS

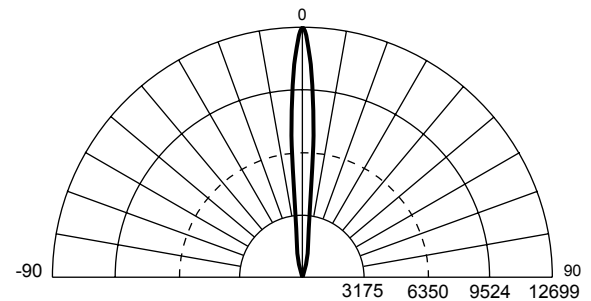
Optics: Tempered soft focus glass diffuser
Clear tempered glass
Source: 36 LEDs (12 Red, 12 Green, 12 Blue)
Beam Angle: 10°
Distribution: Symmetric direct illumination

ILLUMINANCE DISTRIBUTION

2.1 22.6	3.4 36.6	4.3 46.3	3.8 40.9	2.8 30.1	1.9 20.5	6.0'/2.0m
2.9 31.2	8.7 93.6	14.1 151.8	10.3 110.9	4.5 48.4	2.4 25.8	5.0'/1.5m
3.7 39.8	27.4 294.9	53.9 580.2	37.1 399.3	10.0 107.6	3.0 32.3	4.0'/1.2m
3.7 39.8	28.5 306.8	72.9 784.7	72.6 781.5	28.2 303.5	3.6 38.8	3.0'/1.0m
2.9 31.2	10.5 113.0	38.6 415.5	55.4 596.3	28.0 301.4	3.7 39.8	2.0'/0.6m
2.4 25.8	4.5 48.4	11.1 119.5	15.4 165.8	9.3 100.1	2.8 30.1	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 of grid, 3' (1.0 m) from surface, light at a 45° angle off horizontal

CANDLE POWER DISTRIBUTION



Measured on: White
Beam center: 12699 cd
Thin dashed lined: Indicates 50% of peak
Multipliers: 0.32 Red, 0.53 Green, 0.17 Blue

ILLUMINANCE

COLOR	3'	6'	9'	15'
	1m	2m	3m	5m
WHITE	1415.0	353.0	157.0	56.5
	15231.1	3799.7	1689.9	608.2
RED	452.8	113.0	50.2	18.1
	4873.9	1215.9	540.8	194.6
GREEN	750.0	187.1	83.2	29.9
	8072.5	2013.8	895.7	322.3
BLUE	240.6	60.0	26.7	9.6
	2589.3	645.9	287.3	103.4

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	642	48.2	13.3
RED	205.4	16.6	12.4
GREEN	340.3	16.6	20.5
BLUE	109.1	16.6	6.6

COLORBLAST 12 - GROUND LENS

PHOTOMETRIC PERFORMANCE

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

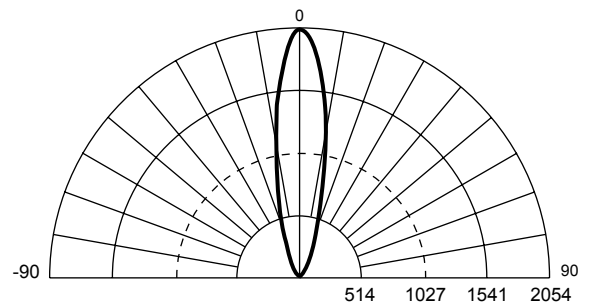
Optics: Soft-focus tempered lens
 Source: 36 LEDs (18 Red, 18 Green, 18 Blue)
 Beam Angle: 23 degrees
 Distribution: Symmetric direct illumination

ILLUMINANCE DISTRIBUTION

3.3 35.5	5.2 56.0	6.4 68.9	5.9 63.5	4.3 46.3	2.8 30.1	6.0'/2.0m
4.6 49.5	9.7 104.4	14.0 150.7	11.9 128.1	7.0 75.3	3.8 40.9	5.0'/1.5m
6.0 64.6	17.5 188.4	29.0 312.2	24.5 263.7	12.0 129.2	4.9 52.7	4.0'/1.2m
6.3 67.8	21.0 226.0	39.9 429.5	38.1 410.1	18.9 203.4	6.1 65.7	3.0'/1.0m
5.0 53.8	15.1 162.5	32.2 346.6	36.2 389.7	20.0 215.3	6.1 65.7	2.0'/0.6m
3.3 35.5	7.6 81.8	16.0 172.2	19.9 214.2	12.5 134.6	4.4 47.4	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: 2054 cd
 Thin dashed lined: Indicates 50% of peak
 Multipliers: 0.32 Red, 0.53 Green, 0.17 Blue

ILLUMINANCE

COLOR	3' 1m	6' 2m	9' 3m	15' 5m
WHITE	225.0 2421.9	57.1 614.6	25.3 272.3	9.1 98.0
RED	72.05 775.0	18.3 196.7	8.1 87.1	2.9 31.3
GREEN	119.3 1283.6	30.3 325.8	13.4 144.3	4.8 51.9
BLUE	38.3 411.7	9.7 104.5	4.3 46.3	1.5 16.7

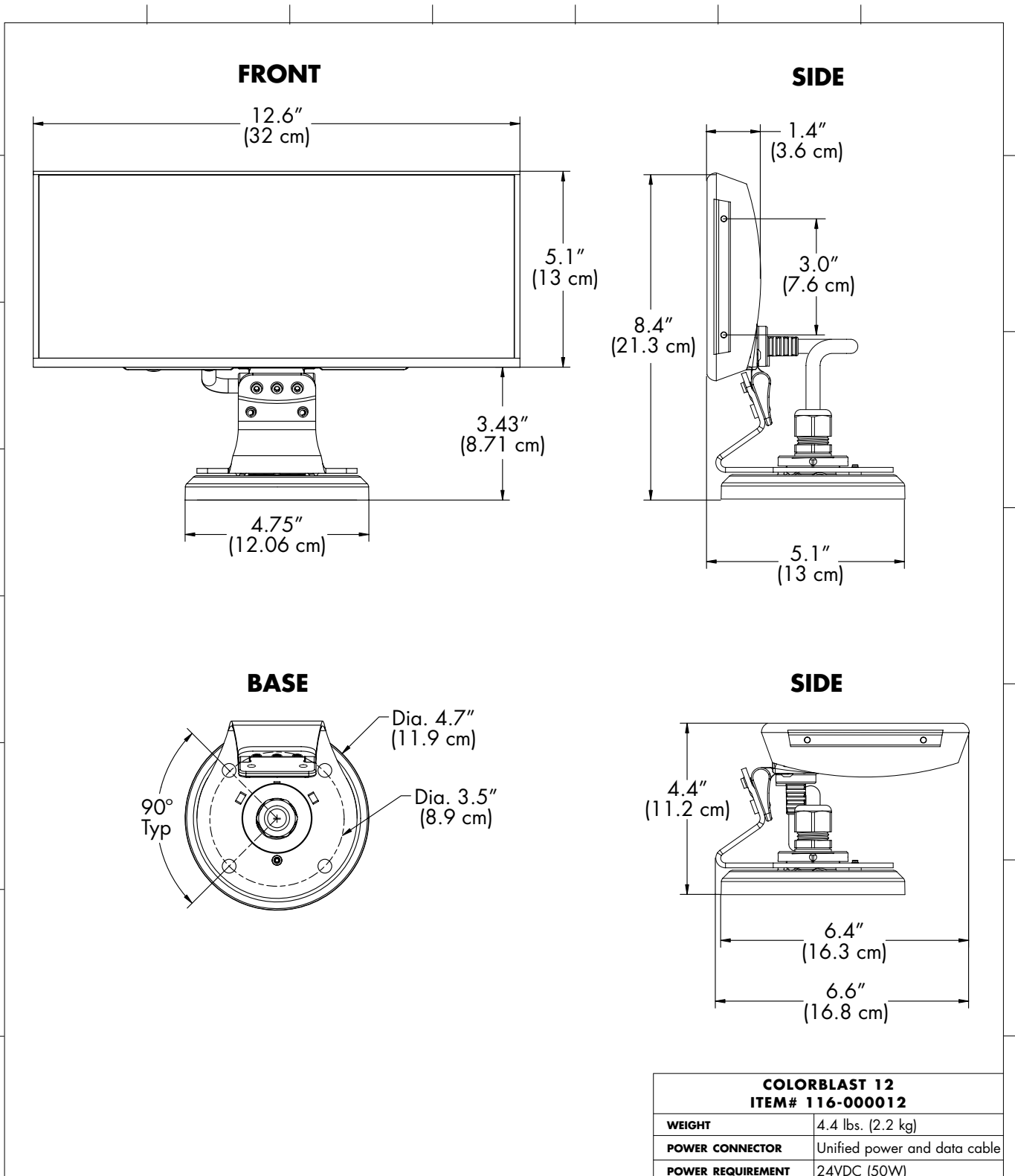
Measured in Footcandles (top)/Lux (bottom) on axis.
 Measured on: All, reflectance 0.

LIGHT OUTPUT

COLOR	TOTAL OUTPUT (lumens)	POWER (Watt)	EFFICACY (Lm/w)
WHITE	597	48.2	12.4
RED	191.0	16.6	11.5
GREEN	316.4	16.6	19.1
BLUE	101.5	16.6	6.1

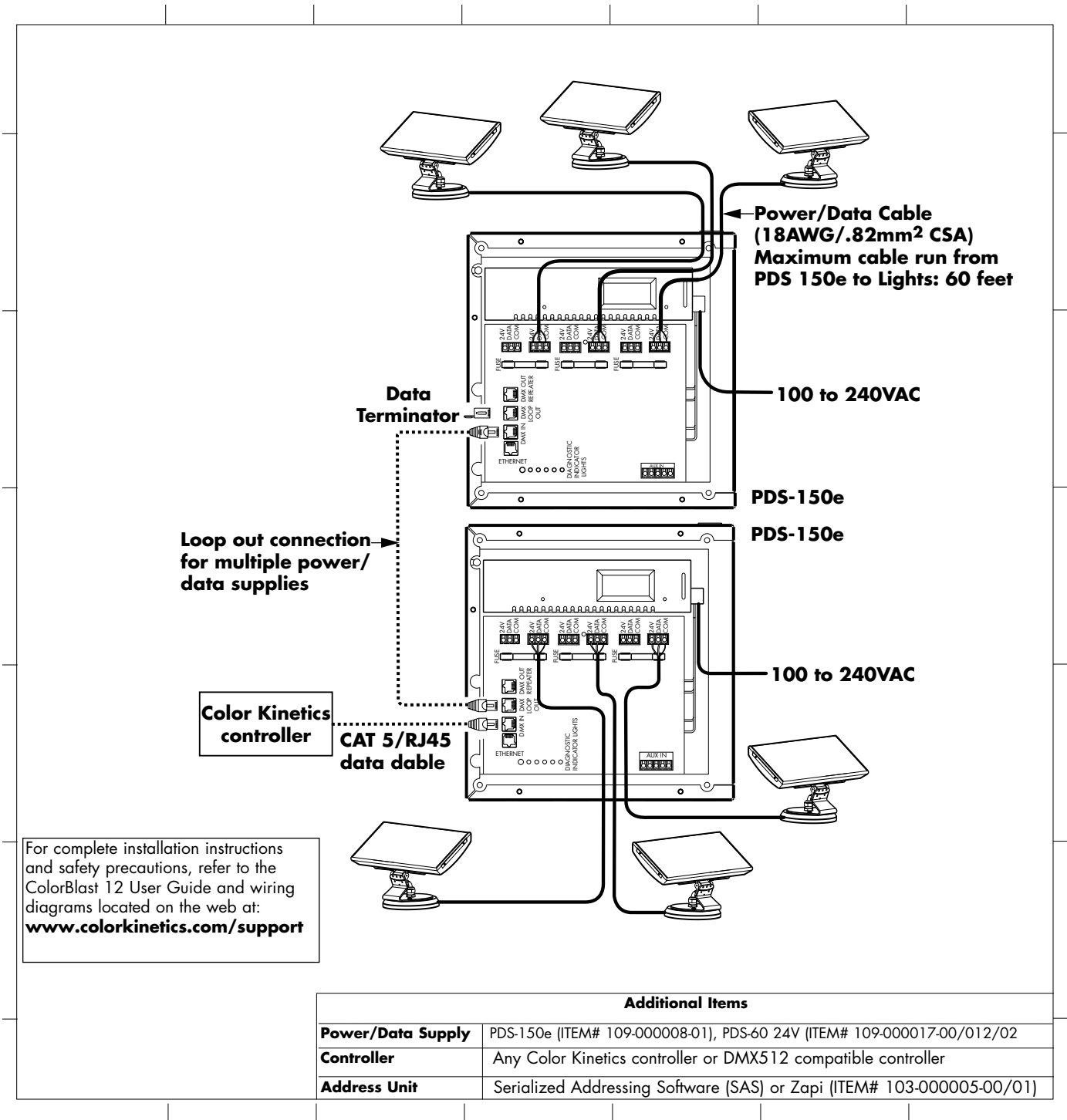
COLORBLAST 12

PHYSICAL DIMENSIONS



COLORBLAST 12

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.