

iCOLOR MR

POWERED BY CHROMACORE®



Color Kinetics® iColor® MR is the world's first digital color-changing lamp that plugs into standard lighting fixtures. iColor MR fits into standard MR16 fixtures, and projects a soft-edge beam of light at a 22° beam angle. iColor MR can operate in either stand-alone or external control mode. Using on-board intelligence, it runs a pre-programmed assortment of shows including color washes, random color changes, fixed colors, ultra smooth cross fades, and strobes. Shows can then be varied by speed, direction, saturation, etc. Alternatively, using Juice Box 2 with Smartjuice® technology, iColor MR can be controlled via DMX512 (RS485) networks for the ultimate in flexibility and control.

iColor MR is housed in an impact-resistant ABS housing, and comes equipped with a removable polycarbonate diffuser.

iCOLOR MR SPECIFICATIONS

COLOR RANGE	16.7 million (24-bit) additive RGB colors; continuously variable intensity output range
SOURCE	High brightness colored LEDs
BEAM ANGLE	22°
HOUSING	White ABS plastic
CONNECTORS	Standard MR16 pins
LISTINGS	UL Classified, CE Certified

ENVIRONMENTAL SPECIFICATIONS

TEMPERATURE RANGE	- 4°F to 122°F (- 20°C to 50°C)
HUMIDITY RANGE	0 to 95% non-condensing humidity
VENTILATION	Minimum of 100 cubic inches of free-moving air

COMMUNICATION SPECIFICATIONS

data interface	Color Kinetics data interface system
CONTROL	Color Kinetics full line of controllers or DMX512 (RS85). Requires Color Kinetics Juice Box 2 (ITEM#: 106-000002-01) powered with Smartjuice technology and a PS-60 power supply (ITEM#: 109-000001-00). Stand Alone mode is always available.

ELECTRICAL SPECIFICATIONS

power requirement	12–24VDC or 12VAC. When not used with Juice Box 2, use a magnetic transformer.
POWER CONSUMPTION	Maximum: 1 Watt
POWER/DATA	Color Kinetics Juice Box 2 with PS-60 power supply

DESCRIPTION OF SHOWS

fixed color	Static display of a single color
COLOR WASH	Colors transition gracefully from color to color, cycling through the entire color wheel
CROSS FADE	Colors cycle back and forth gracefully between two colors
RANDOM COLOR	Colors step or jump from one color to the next in random order
FIXED COLOR STROBE	A constant color appears in a rapid series of intense flashes of light
VARIABLE COLOR STROBE	A sequence of colors appear in a rapid series of intense flashes of light

SOURCE LIFE

Color Kinetics illumination products utilize high brightness LEDs as the illumination source. LED manufacturers predict LED life of up to 100,000 hours MTBF (mean time between failure), the standard used by conventional lamp manufacturers to measure source life. However, like all basic light sources, LEDs also experience lumen depreciation over time. So while LEDs can emit light for an extremely long period of time, MTBF is not the only consideration in determining useful life. 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 [ambient temperature: -4° F to 104° F (-20° C to 40° C), humidity: 0-95% non-condensing humidity, adequate ventilation and air volume] and when operated using typical color-changing effects. Long-term operation outside of these ranges or conditions, or at the upper limits of these ranges or conditions, may subject the product to further degradation of the LED source life, or in extreme cases, failure of internal components. Source life information is based on LED manufacturers' data, as well as other third party testing.

CHROMACORE®
BY COLOR KINETICS

OPTIBIN®
BY COLOR KINETICS


ITEM# 101-000001-01

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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BR0012 Rev 16

Specifications subject to change without notice.

iCOLOR MR

PHOTOMETRIC PERFORMANCE

SOURCE SPECIFICATIONS

Optics: Polycarbonate diffuser
 Source: 18 LEDs (8 Red, 5 Green, 5 Blue)
 Beam Angle: 24° (at 50% of peak illuminance)
 Distribution: Symmetric direct illumination
 CCT: Adjustable 1,000–10,000K
 CRI: Not measurable (CIE 13.3-1995)

ILLUMINANCE DISTRIBUTION

1.5'/0.5m					
0.1	0.1	0.2	0.2	0.1	0.1
0.9	1.6	2.2	2.2	1.6	0.9
0.1	0.3	0.7	0.7	0.3	0.1
1.6	3.5	7.2	7.3	3.5	1.6
0.2	0.7	3.6	3.6	0.7	0.2
2.2	7.2	38.7	39.0	7.3	2.2
0.2	0.7	3.6	3.6	0.7	0.2
2.2	7.2	38.4	38.7	7.2	2.2
0.1	0.3	0.7	0.7	0.3	0.1
1.6	3.4	7.2	7.2	3.5	1.6
0.1	0.1	0.2	0.2	0.1	0.1
0.9	1.6	2.2	2.2	1.6	0.9
1.5'/0.5m					

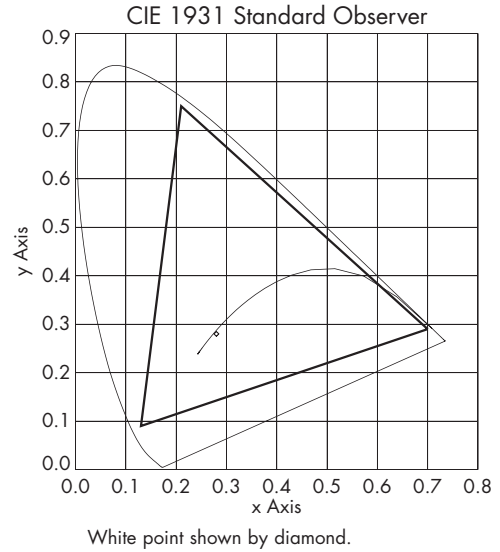
Units: Footcandles/Lux
 Measured on: White
 Distance from surface: 1'/.3m (from center of grid)
 Multipliers: 0.28 Red, 0.61 Green, 0.17 Blue

ILLUMINANCE

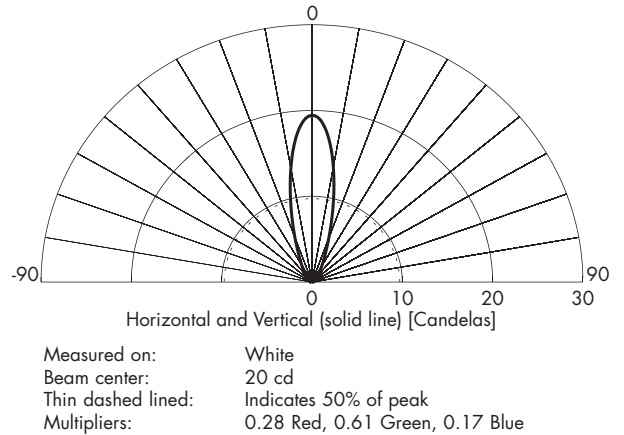
COLOR	3'	6'	9'	12'	15'
	1m	2m	3m	4m	5m
WHITE	1.8	0.4	0.2	0.1	0.1
	18.9	4.7	2.1	1.2	0.8
RED	0.5	0.1	0.1	0.0	0.0
	5.3	1.3	0.6	0.3	0.2
GREEN	1.1	0.3	0.1	0.1	0.0
	11.5	2.9	1.3	0.7	0.5
BLUE	0.3	0.1	0.0	0.0	0.0
	3.2	0.8	0.4	0.2	0.1

Measured in Footcandles/Lux on axis.

GAMUT



CANDLE POWER DISTRIBUTION

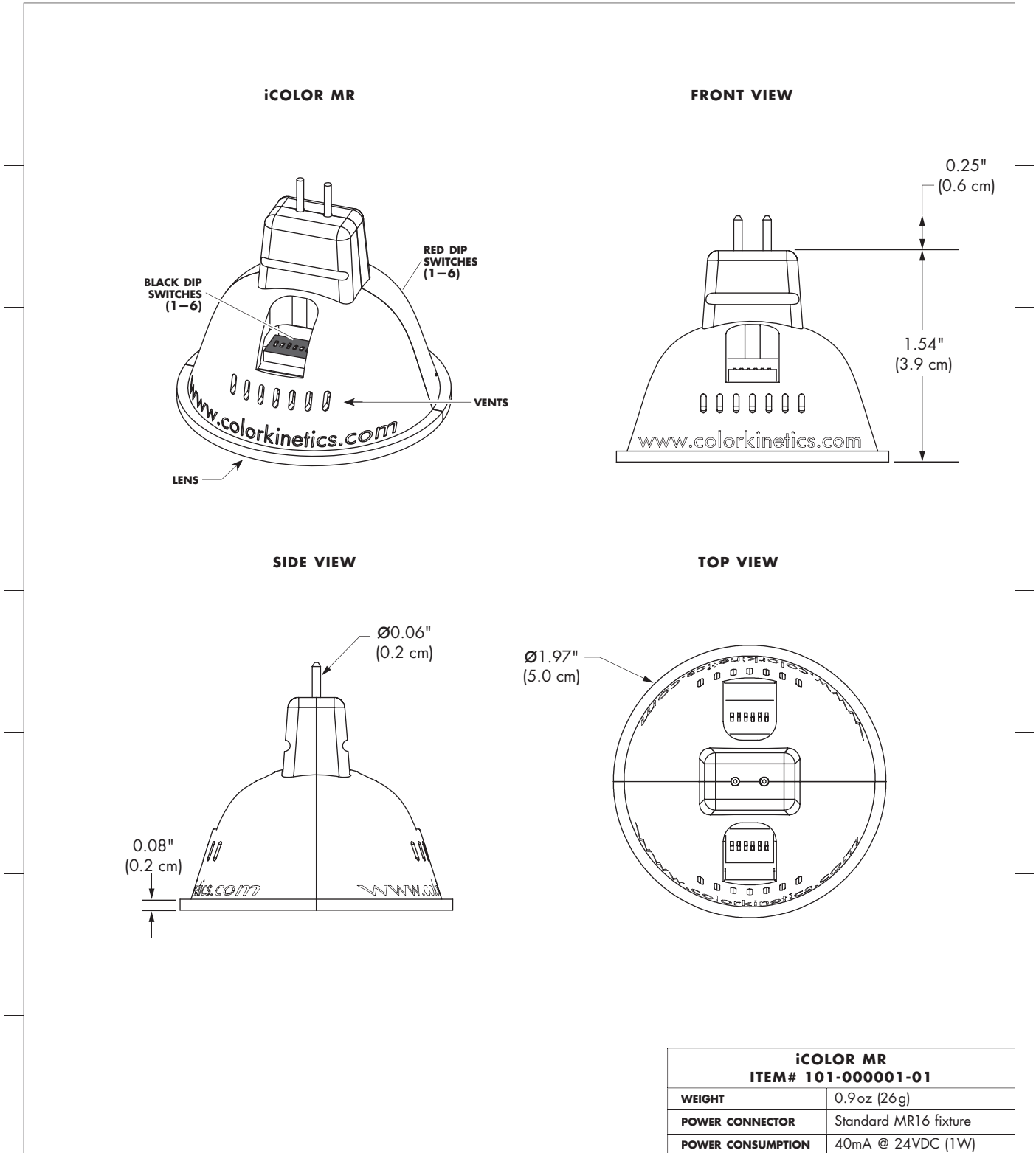


LIGHT OUTPUT

COLOR	TOTAL OUTPUT (LUMENS)	POWER (WATTS)	EFFICACY (lm/w)
WHITE	7.9	1.0	7.9
RED	2.1	0.6	4.0
GREEN	4.4	0.6	8.0
BLUE	1.2	0.6	2.2

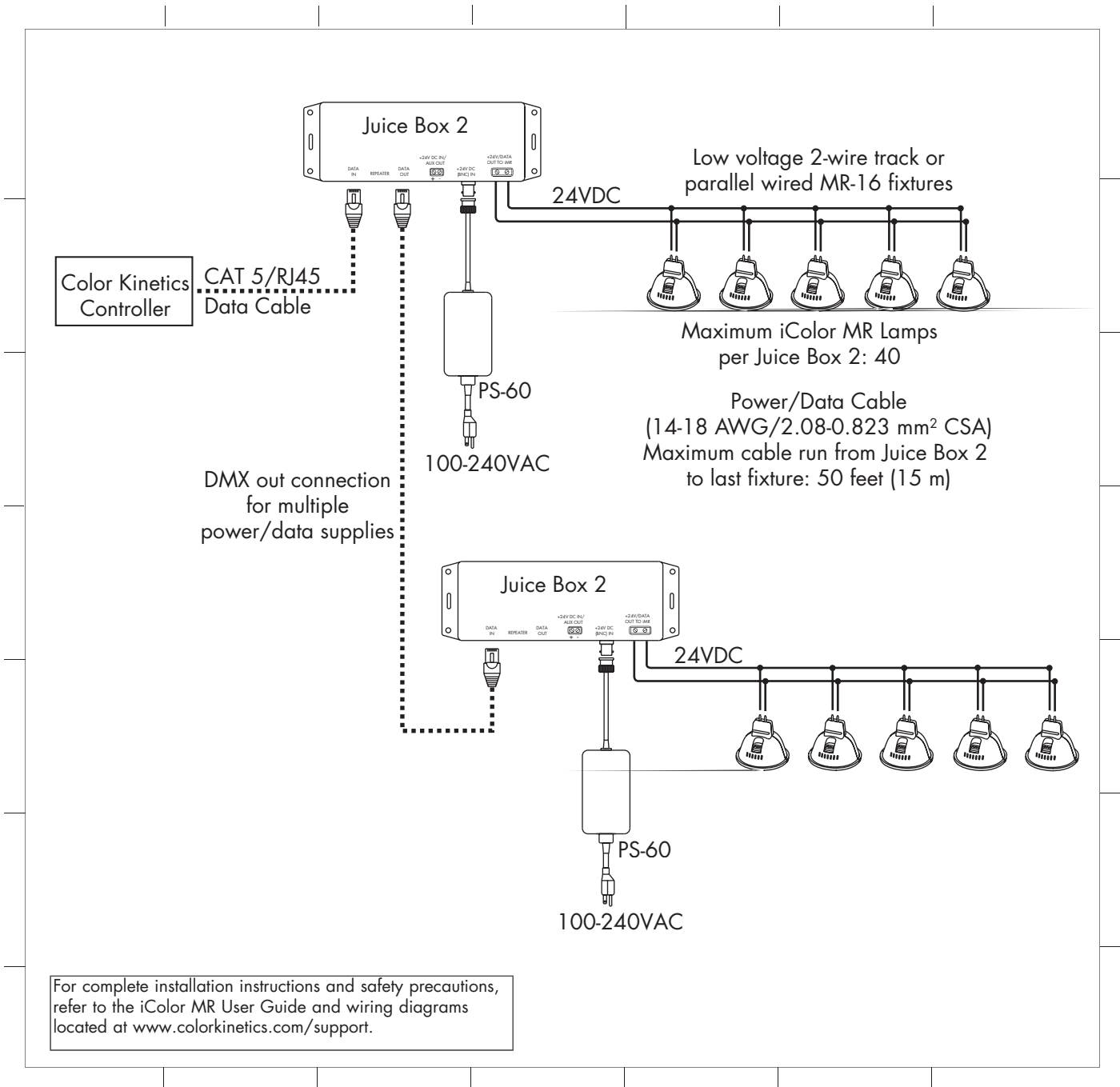
iCOLOR MR

PHYSICAL DIMENSIONS



iCOLOR MR

FUNCTIONAL FLOW DIAGRAM



U.S. AND FOREIGN PATENTS AND PATENTS PENDING

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.