# iColor MR gen3

**30° beam angle**

## Interior MR16 lamp with intelligent RGB light

iColor MR gen3 is an intelligent color-changing lamp that delivers intense, saturated bursts of color and color-changing effects. The stylish housing fits into most standard MR16 luminaires, including tracks, cables, rails, and pendants. With high-intensity LED light sources and three beam angles, iColor MR gen3 is suitable for a wide-range of architectural, theatrical, and retail applications.

· Compatible with most MR16 luminaires and sockets—With its standard GU5.3 base and two-pin MR16 connector, iColor MR gen3 is compatible with most MR16 tracks, rails, cables, and pendant luminaires.

· Standard wiring and simple installation—iColor MR gen3 lamps work with standard 2-conductor jacketed cable or hook-up wire. Power/data supplies specifically designed for use with iColor MR gen3 multiplex power and data onto a two-wire circuit for use with conventional MR16 luminaires and sockets.

· Three beam angles—Use the 17° lamp when you need a spot of light with sharply defined edges, the 30° lamps for a wider spread of light, and the 90° (no optic) lamp for a soft, diffuse light.

· Efficient and cost-effective—iColor MR gen3 is easily adaptable to a wide range of interior environments where MR16 luminaires are commonly used. With long useful source life, low power draw of just 5 W, and low-maintenance operation, iColor MR gen3 lamps cost significantly less to own and operate than conventional MR16 lamps.

· Industry-leading controls—Works seamlessly with the complete Color Kinetics line of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, as well as third-party controllers.

For detailed product information, please refer to the MR Product Guide at www.colorkinetics.com/global/products/rgb/icolormrgen3/

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CK_SPECS_iColorMR gen3_200409

# Specifications

Due to continuous improvements and innovations, specifications may change without notice.

## Output

| | |
|---|---|
| Beam Angle | 30° |
| Lumens[†] | 151 |
| Efficacy | 11.5 |
| LED Channels | Red/Green/Blue |

## Electrical

| | |
|---|---|
| Input Voltage | 24 VDC from PDS-70mr |
| Power Consumption<br>(Maximum at full output, steady state) | 5 W |

For additional Surge Protection Requirements for LED Lighting Systems, please refer to www.colorkinetics.com/KB/surge-protection.

## Control

| | |
|---|---|
| Interface | PDS-70mr 24V (DMX/Ethernet) |

**Control System**

Color Kinetics full range of controllers, including Light System Manager, Video System Manager Pro, iPlayer 3, Antumbra iColor Keypad, and ColorDial Pro, or third-party controllers

## Lumen Maintenance

| Threshold[§] | Ambient Temperature | Reported[¶¶] | Calculated[¶¶] |
|---|---|---|---|
| L$_{70}$ | 25 °C | 100,000 | |
| | 40 °C | 100,000 | |
| L$_{50}$ | 25 °C | 100,000 | |
| | 40 °C | 100,000 | |

## Physical

| | |
|---|---|
| Dimensions<br>(Height x Width x Depth) | 49 x 49 x 49 mm (1.9 x 1.9 x 1.9 in) |
| Weight | 86 g (3 oz) |
| Housing Material | Die-cast zinc, silver finish |
| Lens | Polycarbonate |
| Luminaire Connections | Standard 2-pin MR16 connector |

**Temperature Ranges**

-20 to 40 °C (-4 to 104 °F) Operating
-20 to 40 °C (-4 to 104 °F) Startup
-40 to 80 °C (-40 to 176 °F) Storage

| | |
|---|---|
| Humidity | 0 to 95%, non-condensing |

**Luminaire Run Lengths**

14 maximum per PDS-70mr
Maximum cable length 15 m (50 ft)

## Certification and Safety

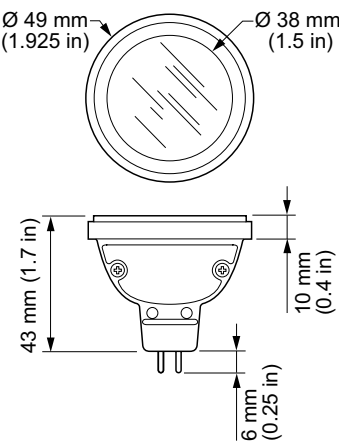| | |
|---|---|
| Approbation | UL/cUL, FCC Class A, CE |
| Environment | Dry Location, IP20 |

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[†] Lumen output measurements comply with IES LM-79-08 testing procedures.

[§] Lxx = xx% lumen maintenance (when light output drops below xx% of initial output). All values are given at B10, or the median value where 90% of the LED population is better than the reported or calculated lumen maintenance measurement.

[¶¶] Lumen maintenance figures are based on lifetime prediction graphs supplied by LED source manufacturers. Whenever possible, figures use measurements that comply with IES LM-80-08 testing procedures. In accordance with TM-21-11, Reported values represent the interpolated value based on six times the LM-80-08 total test duration (in hours). Calculated values represent time durations that exceed six times the total test duration.

# Dimensions



Ø 49 mm (1.925 in)
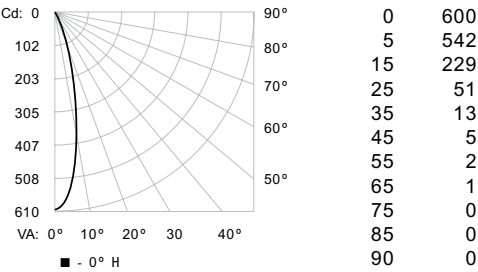Ø 38 mm (1.5 in)
43 mm (1.7 in)
10 mm (0.4 in)
6 mm (0.25 in)

# Photometrics 30º Beam Angle

Photometric data is based on test results from an independent NIST traceable testing lab. IES data is available at www.colorkinetics.com/global/support/ies.

| Beam Angle | 30° |
|---|---|
| LED | RGB |
| Lumens | 151 |
| Efficacy | 11.5 |

## Polar Candela Distribution



| | |
|---|---|
| 0 | 600 |
| 5 | 542 |
| 15 | 229 |
| 25 | 51 |
| 35 | 13 |
| 45 | 5 |
| 55 | 2 |
| 65 | 1 |
| 75 | 0 |
| 85 | 0 |
| 90 | 0 |

■ - 0° H

## Illuminance at Distance

| | Center Beam fc | Beam Width |
|---|---|---|
| 4 ft | 38 fc | 1.8 ft |
| 8 ft | 9 fc | 3.6 ft |
| 12 ft | 4 fc | 5.4 ft |
| 16 ft | 2 fc | 7.2 ft |
| 20 ft | 2 fc | 9.0 ft |
| 24 ft | 1 fc | 10.8 ft |

24.5 ft (7.5 m)
1 fc maximum distance

■ Vert. Spread: 25.4°

## Zonal Lumen

| ZONE | LUMENS | %FIXT |
|---|---|---|
| 0- 30 | 135 | 89.6 |
| 0- 40 | 144 | 95.4 |
| 0- 60 | 149 | 99.1 |
| 0- 90 | 151 | 100.0 |
| 90-180 | 0 | 0.0 |
| 0-180 | 151 | 100.0 |

For lux multiply fc by 10.7

## Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

| RC | 80 | | | | 70 | | | | 50 | | | 30 | | | 10 | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 115 | 112 | 110 | 108 | 112 | 110 | 108 | 107 | 106 | 105 | 103 | 103 | 101 | 100 | 99 | 98 | 98 | 96 |
| 2 | 110 | 106 | 103 | 100 | 108 | 105 | 102 | 99 | 102 | 99 | 97 | 99 | 97 | 95 | 96 | 95 | 93 | 92 |
| 3 | 106 | 101 | 97 | 94 | 105 | 100 | 96 | 94 | 98 | 95 | 92 | 95 | 93 | 91 | 93 | 91 | 89 | 88 |
| 4 | 103 | 97 | 93 | 89 | 101 | 96 | 92 | 89 | 94 | 90 | 88 | 92 | 89 | 87 | 90 | 88 | 86 | 84 |
| 5 | 99 | 93 | 88 | 85 | 98 | 92 | 88 | 85 | 90 | 87 | 84 | 89 | 86 | 83 | 87 | 85 | 83 | 81 |
| 6 | 96 | 89 | 85 | 81 | 95 | 88 | 84 | 81 | 87 | 83 | 81 | 86 | 83 | 80 | 85 | 82 | 80 | 78 |
| 7 | 93 | 86 | 81 | 78 | 92 | 85 | 81 | 78 | 84 | 80 | 78 | 83 | 80 | 77 | 82 | 79 | 77 | 76 |
| 8 | 90 | 83 | 78 | 75 | 89 | 82 | 78 | 75 | 81 | 78 | 75 | 81 | 77 | 75 | 80 | 77 | 74 | 73 |
| 9 | 87 | 80 | 76 | 73 | 87 | 80 | 76 | 73 | 79 | 75 | 72 | 78 | 75 | 72 | 77 | 74 | 72 | 71 |
| 10 | 85 | 78 | 73 | 70 | 84 | 77 | 73 | 70 | 77 | 73 | 70 | 76 | 72 | 70 | 75 | 72 | 70 | 69 |

# Luminaire and Accessories

| Luminaire | Item Number | Item 12NC |
|---|---|---|
| iColor MR gen3, 30° beam angle | 101-000074-01 | 910503704288 |

| Power Supplies | | |
|---|---|---|
| PDS-70mr 24V Power/Data Suppy, Pre-programmed | 109-000018-00 | 910503700098 |
| PDS-70mr 24V Power/Data Suppy, DMX | 109-000018-01 | 910503700099 |
| PDS-70mr 24V Power/Data Suppy, Ethernet | 109-000018-02 | 910503700583 |

COLOR **KINETICS**

Color Kinetics
www.colorkinetics.com/global/products/rgb/icolormrgen3/

3/25/2021