

ColorGraz MX4 Powercore

Date:

Type:

Firm Name:

Project:

RGBW, 15° x 30° Beam Angle, 1219 mm (4 ft)

Exterior linear grazing luminaire with intelligent RGBW or RGBA light

ColorGraz MX4 Powercore is a high-performance, exterior linear luminaire designed to highlight architectural features ranging from surface textures and molding details to archways and windows. Graze RGBW luminaires add a separate white LED creating better-quality whites compared to RGB. Graze RGBA luminaires add a separate amber LED which expands the available range of colors to include warmer tones such as rich gold, yellow, and orange shades. Multiple fixture lengths, and beam angles support a large range of façade or surface illumination applications. Low-profile housing, connectorized cabling, a universal power input range, and direct line voltage operation make Graze luminaires easy to install and operate.



- Tailor light output to specific applications—Available in four standard lengths (1 ft, 2 ft, 3 ft, and 4 ft), and four standard 10° x 60°, 15° x 30°, 30° x 60°, and 60° x 30° beam angles.
- Flexible integration—Graze's ultra-low profile lets it fit discretely into almost any layout, from simple to elaborate.
- Customizable accessories - Customize your Graze luminaire with a choice of three accessories: mounting arm, masking shield, and graze louver. Mounting arm available in three sizes and three colors (black, white, and gray), and masking shield available in four lengths (1 ft, 2 ft, 3 ft, and 4 ft).
- Integrates patented Powercore technology that controls power output to luminaires directly from line voltage – rapidly, efficiently, and accurately. The Color Kinetics Data Enabler Pro merges line voltage with control data and delivers them to luminaires over a single standard cable, dramatically simplifying installation and lowering total system cost.
- Graze provides years of reliable use under rugged conditions by meeting ANSI C136.31-2010 standard with a 3G vibration rating, and elimination of water pooling on the lens.
- Works seamlessly with the Color Kinetics full range of controllers, including iPlayer 3, iPlayer 4, Antumbra iColor Keypad, and ColorDial Pro—as well as third-party controllers.
- Convenient push-and-click connectors let you easily and rapidly install Leader Cables and Jumper Cables. Constant torque locking hinges offer simple and consistent position control from various angles.

For detailed product information, please refer to the Graze Product Guide at www.colorkinetics.com/global/products/rgb/colorgraze-mx4-powercore/

Specifications

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

Output

| | |
|--------------------|-----------------------|
| Beam Angle | 15° x 30° |
| Lumens † | 2,488 |
| Efficacy (lm/W) §§ | 34.4 |
| LED Channels | Red/Green/Blue/4000 K |

Electrical

| | |
|--|--|
| Input Voltage | 100 to 277 VAC, auto-ranging, 50/60 Hz |
| Power Consumption | 74 W |
| (Maximum at full output, steady state) | |
| Surge Limits ¶ | 1 kV maximum differential (L to N) 2 kV maximum common (L to Gnd or N to Gnd) |

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

Control

| | |
|---|------------------------------------|
| Interface | Data Enabler Pro (DMX or Ethernet) |
| Control Channels | 4 channels per 1 ft section |
| For additional Control Channel information, please refer to https://colorkinetics.helpdocs.io/article/fv5rkvclq . | |

Control System

Works seamlessly with the Color Kinetics full range of controllers, including iPlayer 3, iPlayer 4, Antumbra iColor Keypad, and ColorDial Pro—as well as third-party controllers.

Remote Monitoring & Management Works with Interact Landmark

Lumen Maintenance

| Threshold§ | Ambient Temperature | Reported ¶¶ | Calculated ¶¶ |
|-----------------|---------------------|-------------|---------------|
| L ₇₀ | 25 °C | 70,000 | >100,000 |
| | 50 °C | 65,000 | >100,000 |
| L ₅₀ | 25 °C | 75,000 | |
| | 50 °C | 70,000 | |

Physical

| | |
|-------------------------------------|--|
| Dimensions (Height x Width x Depth) | 68 x 1219 x 72 mm (2.7 x 48 x 2.85 in) |
| Weight | 4.2 kg (9.3 lb) |
| Housing Material | Extruded anodized aluminium |
| Lens | Clear UV-protected polycarbonate |
| Luminaire Connections | Integral male/female waterproof connectors |
| Mounting | Multi-positional, constant torque locking hinges |

Temperature Ranges

-40 to 50 °C (-40 to 122 °F) Operating
-20 to 50 °C (-4 to 122 °F) Startup
-40 to 80 °C (-40 to 176 °F) Storage

Vibration Resistance

Not compliant to ANSI C136.31, 3G. Special orders are available to conform to the standard. Please contact your Color Kinetics Lighting Sales rep for custom configurations.

| | |
|-------------------|------|
| Mechanical Impact | IK10 |
|-------------------|------|

Corrosion Resistance

Not suitable for salt spray or harsh chemical environments. Please refer to www.colorkinetics.com/KB/corrosion-resistance for more information.

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

Thermal Protection enabled

For additional Thermal Protection information, please refer to <https://colorkinetics.helpdocs.io/article/sh301ducix>

Luminaire Run Lengths

To calculate luminaire run lengths and total power consumption for your specific installation, download the Configuration Calculator from www.colorkinetics.com/support/install_tool/

Certification and Safety

| | |
|-------------|---|
| Approbation | UL/cUL, FCC Class A, CE, PSE, CQC, C-Tick |
| Environment | Dry/Damp/Wet Location, IP66 |

For additional Energy Efficiency Class Information, please refer to <https://colorkinetics.helpdocs.io/article/cviis2p8qq>.



† 305 mm (1 ft) lumen output measurements comply with IES LM-79-08 testing procedures. 610 mm (2 ft), 914 mm (3 ft), and 1219 mm (4 ft) measurements are estimated based on the 305 mm (1 ft) measurements.

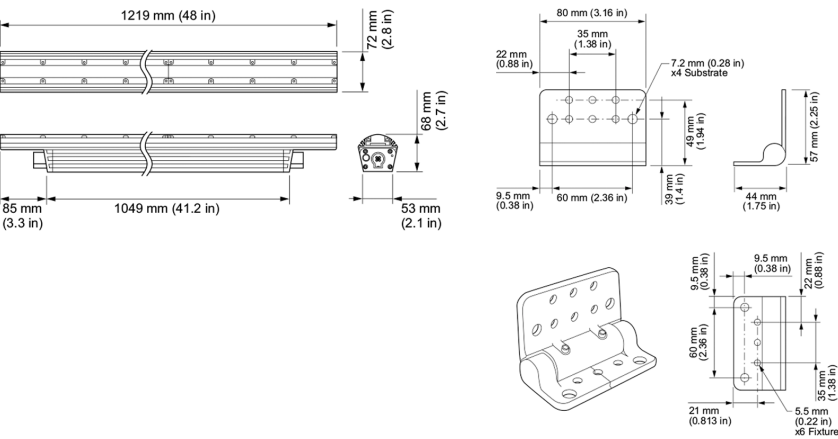
§ L_{xx} = xx% lumen maintenance (when light output drops below xx% of initial output). All values are given at B10, or the median value where 90% of the LED population is better than the reported or calculated lumen maintenance measurement.

¶ Minimum surge limits per IEC 61547, tested in accordance with IEC 61000-4-5.

§§ Efficacy measurements are estimated based on the 305 mm (1 ft) measurements.

¶¶ 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



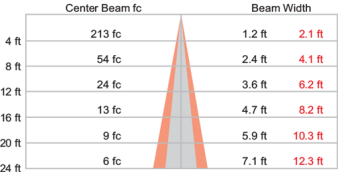
Photometrics 305 mm (1 ft), 15° x 30° beam angle

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 | 15° x 30° |
| LED | RGBW |
| Lumens | 622.0 |
| Efficacy (lm/W) | 34.4 |



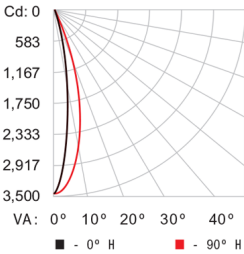
Illuminance at Distance



Zonal Lumen

| Zone | Lumens | % Fixture |
|---------|--------|-----------|
| 0 - 60 | 616.6 | 99.1 % |
| 60 - 90 | 4.8 | 0.8 % |
| 0 - 90 | 621.4 | 99.9 % |

Polar Candela Distribution



| | | | | | |
|--------|----|------|------|------|------|
| | 0 | 25 | 45 | 70 | 90 |
| Cd: 0 | 0 | 3403 | 3403 | 3403 | 3403 |
| 583 | 5 | 2530 | 2591 | 2795 | 3074 |
| 1,167 | 15 | 435 | 529 | 776 | 1335 |
| 1,750 | 25 | 55 | 71 | 119 | 280 |
| 2,333 | 35 | 14 | 16 | 23 | 46 |
| 2,917 | 45 | 6 | 7 | 9 | 13 |
| 3,500 | 55 | 4 | 4 | 5 | 7 |
| VA: 0° | 65 | 3 | 3 | 3 | 4 |
| 10° | 75 | 1 | 1 | 1 | 2 |
| 20° | 85 | 1 | 1 | 0 | 0 |
| 30° | 90 | 0 | 0 | 0 | 0 |
| 40° | | | | | |

58.4 ft (17.8 m)
1 fc maximum distance

Vert. Spread: 16.8°
Horiz. Spread: 28.8°

For lux multiply fc by 10.7

Coefficients of Utilization – Zonal Cavity Method

| | | Effective Floor Cavity Reflectance: | | | | | | | | | | | | | | 20% | | | |
|--------|----|-------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RCC %: | | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | 0 |
| RW %: | 0 | 70 | 50 | 30 | 0 | 70 | 50 | 30 | 0 | 50 | 30 | 20 | 50 | 30 | 20 | 50 | 30 | 20 | 0 |
| RCR: | 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 100 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| | 1 | 115 | 113 | 111 | 109 | 113 | 111 | 109 | 97 | 107 | 105 | 104 | 103 | 102 | 101 | 99 | 98 | 96 | |
| | 2 | 111 | 107 | 104 | 102 | 109 | 106 | 103 | 94 | 103 | 100 | 99 | 100 | 98 | 97 | 97 | 96 | 95 | 93 |
| | 3 | 108 | 103 | 99 | 96 | 106 | 102 | 98 | 91 | 99 | 96 | 94 | 97 | 95 | 93 | 95 | 91 | 90 | 87 |
| | 4 | 104 | 99 | 95 | 92 | 103 | 98 | 94 | 88 | 96 | 93 | 90 | 94 | 91 | 89 | 92 | 90 | 88 | 87 |
| | 5 | 101 | 95 | 91 | 88 | 100 | 94 | 91 | 85 | 93 | 90 | 87 | 91 | 89 | 86 | 90 | 88 | 86 | 85 |
| | 6 | 98 | 92 | 88 | 85 | 97 | 91 | 88 | 83 | 90 | 87 | 84 | 89 | 86 | 84 | 88 | 85 | 83 | 82 |
| | 7 | 96 | 89 | 85 | 82 | 95 | 89 | 85 | 81 | 88 | 84 | 82 | 87 | 83 | 81 | 86 | 83 | 81 | 80 |
| | 8 | 93 | 87 | 83 | 80 | 92 | 86 | 82 | 79 | 85 | 82 | 79 | 84 | 81 | 79 | 83 | 80 | 79 | 78 |
| | 9 | 91 | 84 | 80 | 77 | 90 | 84 | 80 | 77 | 83 | 80 | 77 | 82 | 79 | 77 | 82 | 79 | 77 | 76 |
| | 10 | 89 | 82 | 78 | 75 | 88 | 82 | 78 | 75 | 81 | 77 | 75 | 80 | 77 | 75 | 80 | 77 | 75 | 74 |

Luminaire and Accessories

Use Item Number when ordering in North America

| Luminaire | Item Number | Item 12NC |
|--|---------------|--------------|
| ColorGraze MX4 Powercore, RGBW, 15° x 30° Beam Angle, 1219 mm (4 ft) | 423-000001-17 | 910503704698 |
| Accessories | | |
| 4 Conductor Leader Cable, 100 to 277 VAC, 3 m (10 ft), UL | 108-000055-03 | 910503704066 |
| 4 Conductor Leader Cable, 100 to 277 VAC, 15.2 m (50 ft), UL | 108-000055-00 | 910503703137 |
| 4 Conductor Leader Cable, 100 to 277 VAC, 3 m (10 ft), CE/PSE | 108-000055-04 | 910503704067 |
| 4 Conductor Leader Cable, 100 to 277 VAC, 15.2 m (50 ft), CE/PSE | 108-000055-01 | 910503704064 |
| 4 Conductor Leader Cable, 100 to 277 VAC, 3 m (10 ft), BIS | 108-000055-13 | 912400137373 |
| 4 Conductor Leader Cable, 1.52 m (5 ft), UL, for Inground Enclosure | 108-000055-09 | 912400134321 |
| 4 Conductor Leader Cable, 1.52 m (5 ft), CE, for Inground Enclosure | 108-000055-10 | 912400134322 |
| Jumper Cable for use with Graze, UL/cUL, End-to-End | 108-000057-00 | 910503703139 |
| Jumper Cable for use with Graze, UL/cUL, 305 mm (1 ft) | 108-000057-03 | 910503704076 |
| Jumper Cable for use with Graze, UL/cUL, 1.5 m (5 ft) | 108-000057-06 | 910503704079 |
| Jumper Cable for use with Graze, CE/PSE, End-to-End | 108-000057-01 | 910503704074 |
| Jumper Cable for use with Graze, CE/PSE, 305 mm (1 ft) | 108-000057-04 | 910503704077 |
| Jumper Cable for use with Graze, CE/PSE, 1.5 m (5 ft) | 108-000057-07 | 910503704080 |
| Jumper Cable for use with Graze, BIS, End-to-End | 108-000057-18 | 912400137377 |
| Jumper Cable for use with Graze, BIS, 1.5 m (5 ft) | 108-000057-19 | 912400137378 |
| Architectural Mounting Arm, Short, Gray | 120-000206-00 | 912400136642 |
| Architectural Mounting Arm, Medium, Gray | 120-000206-01 | 912400136643 |
| Architectural Mounting Arm, Long, Gray | 120-000206-02 | 912400136644 |
| Symmetric Louver, 1219 mm (4 ft) | 120-000202-03 | 912400135852 |
| Masking Shield, 1219 mm (4 ft) | 120-000203-03 | 912400135860 |
| Graze Glare Shield, 1220 mm (4 ft) | 120-000081-03 | 910503700748 |
| Inground Enclosure, Outer Box for 1219 mm (4 ft) luminaire | 120-000190-07 | 912400133691 |
| Inground Enclosure, Inner Box for 1219 mm (4 ft) luminaire | 120-000190-06 | 912400133690 |
| Power Supplies | | |
| Data Enabler Pro, 3/4 in / 1/2 in NPT (U.S. trade size conduit) | 106-000004-00 | 910503701210 |
| Data Enabler Pro, PG21/PG13 (metric size conduit) | 106-000004-01 | 910503701211 |

