

# ColorGraz MX4 Powercore

Date:

Type:

Firm Name:

Project:

RGBW, 10° x 60° Beam Angle, 305 mm (1 ft), UL

## 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/](http://www.colorkinetics.com/global/products/rgb/colorgraze-mx4-powercore/)

# Specifications

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

## Output

Beam Angle	10° x 60°
Lumens †	619
Efficacy (lm/W) §§	34.9
LED Channels	Red/Green/Blue/4000 K

## Electrical

Input Voltage	
Power Consumption	18.5 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 <a href="http://www.colorkinetics.com/KB/surge-protection">www.colorkinetics.com/KB/surge-protection</a> .	

## Control

Interface	Data Enabler Pro (DMX or Ethernet)
Control Channels	4 channels per 1 ft section
For additional Control Channel information, please refer to <a href="https://colorkinetics.helpdocs.io/article/fv5rkpvclq">https://colorkinetics.helpdocs.io/article/fv5rkpvclq</a> .	

### 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	68 x 305 x 72 mm (2.7 x 12 x 2.85 in)
(Height x Width x Depth)	
Weight	1 kg (2.1 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

Complies with ANSI C136.31, 3G	
Mechanical Impact	IK10

### Corrosion Resistance

Not suitable for salt spray or harsh chemical environments. Please refer to <a href="http://www.colorkinetics.com/KB/corrosion-resistance">www.colorkinetics.com/KB/corrosion-resistance</a> for more information.	
--	--

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

### Thermal Protection enabled

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

### Luminaire Run Lengths

To calculate luminaire run lengths and total power consumption for your specific installation, download the Configuration Calculator from <a href="http://www.colorkinetics.com/support/install_tool/">www.colorkinetics.com/support/install_tool/</a>	
--	--

## Certification and Safety

Approbation	UL/cUL, FCC Class A
Environment	Dry/Damp/Wet Location, IP66

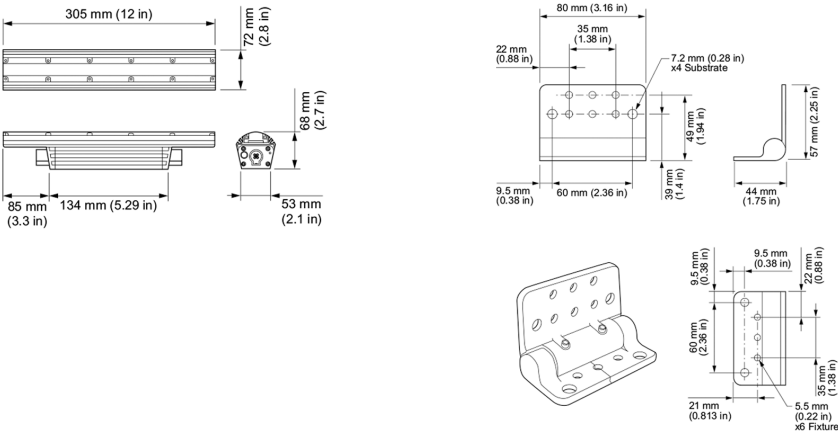
† 305 mm (1 ft) lumen output measurements comply with IES LM-79-08 testing procedures. 610 mm (2 ft), 914 mm (3 ft), and 1219 mm (4 ft) measurements are estimated based on the 305 mm (1 ft) measurements.

§ 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.

¶ 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.

Dimensions



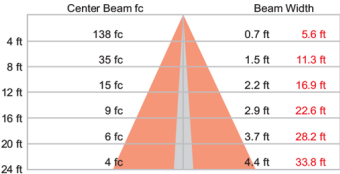
Photometrics 305 mm (1 ft), 10° x 60° beam angle

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](http://www.colorkinetics.com/global/support/ies).

Beam Angle	10° x 60°
LED	RGBW
Lumens	619.0
Efficacy (lm/W)	34.9



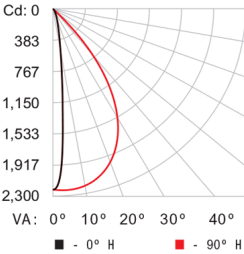
Illuminance at Distance



Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	609.5	98.5 %
60 - 90	8.7	1.4 %
0 - 90	618.2	99.9 %

Polar Candela Distribution



Cd: 0	0	25	45	70	90
383	0	2210	2210	2210	2210
767	5	1318	1405	1718	2122
1,150	15	152	195	330	1193
1,533	25	22	31	80	421
1,917	35	8	10	20	161
2,300	45	4	5	9	50
	55	3	3	5	15
	65	2	2	2	6
	75	1	1	1	2
	85	1	1	1	1
	90	0	0	0	0

47 ft (14.3 m) 1 fc maximum distance

Vert. Spread: 10.5° Horiz. Spread: 70.4°

For lux multiply fc by 10.7

Coefficients of Utilization – Zonal Cavity Method

		Effective Floor Cavity Reflectance: 20%																								
RCC %:		80					70					50					30					10				
RW %:		70	50	30	0	0	70	50	30	0	0	50	30	20	50	30	20	50	30	20	0					
RCR: 0		119	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100	100					
1		114	111	109	107	111	109	107	94	105	103	102	101	100	99	98	97	91	90	84	88					
2		108	104	100	97	106	102	99	89	99	96	94	96	94	92	93	91	90	84	88						
3		103	97	93	89	102	96	92	84	93	90	87	91	88	86	89	87	86	80	85						
4		99	92	87	83	97	91	86	79	88	84	81	86	83	80	85	82	78	73	78						
5		94	87	81	77	93	86	81	75	84	80	76	82	78	75	81	77	75	73	76						
6		90	82	77	73	89	81	76	71	80	75	72	78	74	71	77	74	71	68	71						
7		86	78	72	69	85	77	72	67	76	71	68	75	71	68	74	70	67	65	68						
8		83	74	69	65	82	74	68	64	73	68	65	72	67	64	71	67	64	62	65						
9		80	71	65	62	79	70	65	61	69	65	62	69	64	61	68	64	61	60	60						
10		77	68	63	59	76	67	62	58	67	62	59	66	62	59	65	61	58	57	57						



# Luminaire and Accessories

Use Item Number when ordering in North America

Luminaire	Item Number	Item 12NC
ColorGraze MX4 Powercore, RGBW, 10° x 60° Beam Angle, 305 mm (1 ft), UL	423-001001-01	912400138403
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, 305 mm (1 ft)	120-000202-00	912400135849
Masking Shield, 305 mm (1 ft)	120-000203-00	912400135857
Graze Glare Shield, 305 mm (1 ft)	120-000081-00	910503700745
Inground Enclosure, Outer Box for 305 mm (1 ft) luminaire	120-000190-01	912400133685
Inground Enclosure, Inner Box for 305 mm (1 ft) luminaire	120-000190-00	912400133684
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

