

ColorGraze MX4 Powercore

Date: _____

Type: _____

Firm Name: _____

Project: _____

RGBA, 9° x 9° Beam Angle, 305 mm (1 ft)

Exterior linear grazing luminaire with intelligent RGBW or RGBA light

ColorGraze 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 five standard 9° x 9°, 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 Light System Manager, Video System Manager, Video System Manager Pro, iPlayer 3, 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	9° x 9°
Lumens †	566
Efficacy (lm/W) §§	31.2
LED Channels	Red/Green/Blue/Amber

Electrical

Input Voltage	100 to 277 VAC, auto-ranging, 50/60 Hz
Power Consumption (Maximum at full output, steady state)	18.5 W

Surge Limits ¶¶	1 kV maximum differential (L to N) 2 kV maximum common (L to Gnd or N to Gnd)
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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)
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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

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	

† 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.

Physical

Dimensions (Height x Width x Depth)	68 x 305 x 72 mm (2.7 x 12 x 2.85 in)
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
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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
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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/

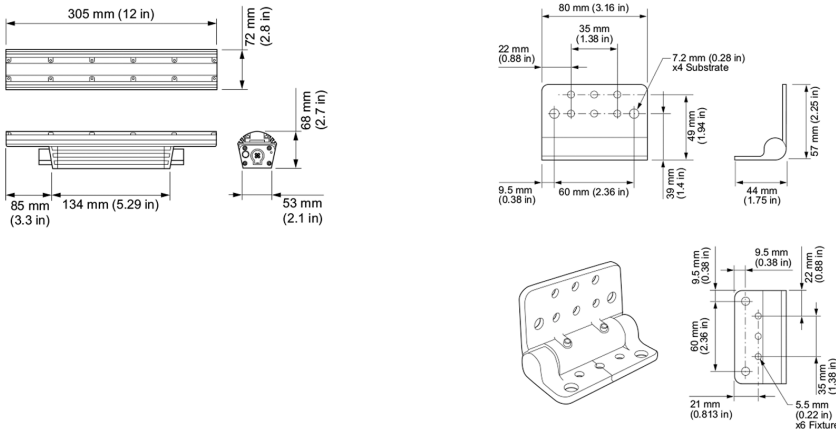
Certification and Safety

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/cvis2p8qq>.



Dimensions



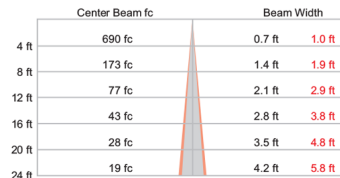
Photometrics 305 mm (1 ft), 9° x 9° beam angle

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	9° x 9°
LED	RGBA
Lumens	566.0
Efficacy (lm/W)	31.2



Illuminance at Distance



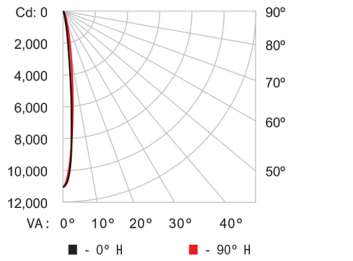
105 ft (32 m)
1 fc maximum distance
Vert. Spread: 10.1°
Horiz. Spread: 13.7°

Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	651.5	99.4 %
60 - 90	3.3	0.5 %
0 - 90	654.8	99.9 %

For lux multiply fc by 10.7

Polar Candela Distribution



	0	25	45	70	90
0	11041	11041	11041	11041	11041
5	4240	4488	5386	6507	6909
15	272	324	383	430	472
25	39	44	53	52	49
35	13	11	13	15	17
45	5	5	6	7	7
55	3	2	3	4	4
65	2	2	2	2	2
75	1	1	1	1	1
85	1	0	0	0	0
90	0	0	0	0	0

Coefficients of Utilization - Zonal Cavity Method

RCC %:	Effective Floor Cavity Reflectance: 20%																	
	80			70			50			30			10			0		
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RCR:	119	119	119	119	116	116	116	100	111	111	111	106	106	106	102	102	102	100
1	116	114	112	111	113	112	110	98	108	107	106	104	103	103	101	100	100	98
2	113	110	107	105	111	108	106	97	105	103	102	102	101	100	100	99	98	96
3	110	107	104	101	109	105	103	95	103	101	99	101	99	97	99	97	96	95
4	108	104	101	98	107	103	100	94	101	98	97	99	97	96	97	96	94	93
5	106	101	98	96	105	101	98	93	99	96	95	98	95	94	96	94	93	92
6	104	99	96	94	103	99	96	92	97	95	93	96	94	92	95	93	92	91
7	102	97	94	92	101	97	94	90	96	93	91	95	93	91	94	92	91	90
8	101	96	93	91	100	95	92	89	95	92	90	94	91	90	93	91	90	89
9	99	94	91	89	99	94	91	88	93	91	89	93	90	89	92	90	88	88
10	98	93	90	88	97	93	90	87	92	90	88	92	89	88	91	89	88	87

Luminaire and Accessories

Use Item Number when ordering in North America

Luminaire	Item Number	Item 12NC
ColorGraze MX4 Powercore, RGBA, 9° x 9° Beam Angle, 305 mm (1 ft)	423-000002-00	910503704702
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

