ColorGraze MX4 Powercore

RGBA, 15° x 30° Beam Angle, 610 mm (2 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/

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Specifications

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

Output

Beam Angle	15° x 30°
Lumens†	1,110
Efficacy (lm/W)§§	30.9
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)	37 W

For 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 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	Philips ActiveSite Ready, works with Interact Landmark

Lumen Maintenance

Threshold§	Ambient Temperature	Reported¶	Calculated¶
L70	25 °C	70,000	> 100,000
	50 °C	65,000	> 100,000
L50	25 °C	75,000	
	50 °C	70,000	

Physical

Dimensions (Height x Width x Depth)	68 x 610 x 72 mm (2.7 x 24 x 2.85 in)
Weight	2.1 kg (4.6 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.

Humidity	0 to 95%, non-condensing

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

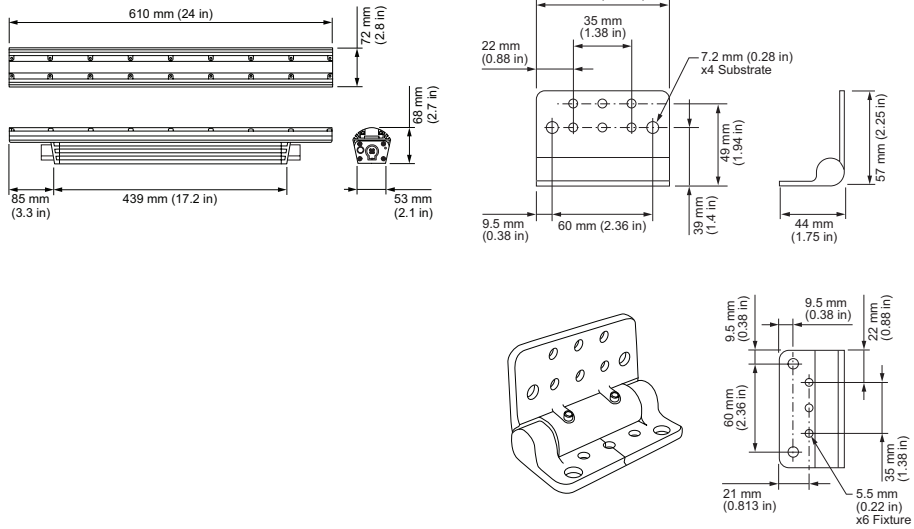|	
Approbation	UL/cUL, FCC Class A, CE, PSE, CQC, C-Tick
Environment	Dry/Damp/Wet Location, IP66

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† 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.

¶ 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.

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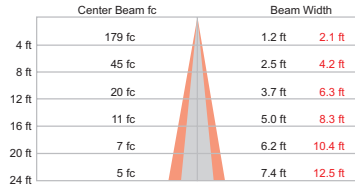
Dimensions

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	RGBA
Lumens	555
Efficacy (lm/W)	30.9

Polar Candela Distribution

Cd: 0, 483, 967, 1,450, 1,933, 2,417, 2,900

VA: 0° 10° 20° 30° 40°

■ - 0° H   ■ - 90° H

VA	0	25	45	70	90
0	2863	2863	2863	2863	2863
5	2262	2308	2425	2561	2587
15	480	577	791	1194	1333
25	65	87	145	299	379
35	14	18	29	58	71
45	6	7	10	16	17
55	4	4	5	7	7
65	3	3	3	4	4
75	1	1	1	2	2
85	1	1	0	0	0
90	0	0	0	0	0

Illuminance at Distance

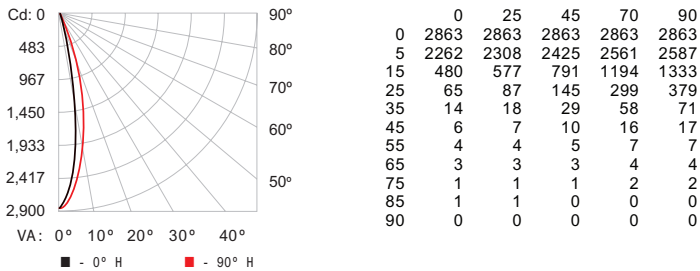|	Center Beam fc	Beam Width	
4 ft	179 fc	1.2 ft	2.1 ft
8 ft	45 fc	2.5 ft	4.2 ft
12 ft	20 fc	3.7 ft	6.3 ft
16 ft	11 fc	5.0 ft	8.3 ft
20 ft	7 fc	6.2 ft	10.4 ft
24 ft	5 fc	7.4 ft	12.5 ft

53.5 ft (16.3 m)
1 fc maximum distance

■ Vert. Spread: 17.6°
■ Horiz. Spread: 29.2°

Zonal Lumen

Zone	Lumens	% Fixture
0 - 60	549.8	99.1 %
60 - 90	4.6	0.8 %
0 - 90	554.3	99.9 %

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 %:	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	112	111	109	97	107	105	104	103	102	101	100	99	98	96
2	111	107	104	102	109	106	103	93	102	100	98	100	98	96	97	96	94	93
3	107	103	99	96	106	101	98	90	99	96	94	97	94	92	94	93	91	90
4	104	98	94	91	102	97	94	87	95	92	90	94	91	89	92	90	88	87
5	101	95	91	88	99	94	90	85	92	89	86	91	88	86	89	87	85	84
6	98	92	87	84	97	91	87	82	90	86	84	88	85	83	87	85	82	81
7	95	89	84	81	94	88	84	80	87	83	81	86	83	80	85	82	80	79
8	93	86	82	79	92	85	82	78	85	81	78	84	80	78	83	80	78	77
9	90	83	79	77	89	83	79	76	82	79	76	82	78	76	81	78	76	75
10	88	81	77	75	87	81	77	74	80	77	74	80	76	74	79	76	74	73

Luminaire and Accessories

Luminaire	Item Number	Item 12NC
ColorGraze MX4 Powercore RGBA, 15° x 30° Beam Angle, 610 mm (2 ft)	423-000002-07	910503704709

Accessories		
Inground Enclosure, Outer Box for 610 mm (2 ft) luminaire	120-000190-03	912400133687
Inground Enclosure, Inner Box for 610 mm (2 ft) luminaire	120-000190-02	912400133686
Leader Cable with Terminator, UL/cUL, 3 m (10 ft)	108-000055-03	910503704066
Leader Cable with Terminator, UL/cUL, 15.2 m (50 ft)	108-000055-00	910503703137
Leader Cable with Terminator, CE/PSE, 3 m (10 ft)	108-000055-07	910503705065
Leader Cable with Terminator, CE/PSE, 15.2 m (50 ft)	108-000055-06	910503705064
Jumper Cable, UL/cUL, End-to-End	108-000057-00	910503703139
Jumper Cable, UL/cUL, 305 mm (1 ft)	108-000057-03	910503704076
Jumper Cable, UL/cUL, 1.5 m (5 ft)	108-000057-06	910503704079
Jumper Cable, UL/cUL, 3 m (10 ft)	108-000057-09	910503704082
Jumper Cable, CE/PSE, End-to-End	108-000057-01	910503704074
Jumper Cable, CE/PSE, 305 mm (1 ft)	108-000057-04	910503704077
Jumper Cable, CE/PSE, 1.5 m (5 ft)	108-000057-07	910503704080
Jumper Cable, CE/PSE, 3 m (10 ft)	108-000057-10	910503704083
Glare Shield, 610 mm (2 ft)	120-000081-01	910503700746
Mounting Arm, Short, Gray	120-000201-03	912400135843
Mounting Arm, Medium, Gray	120-000201-04	912400135844
Mounting Arm, Long, Gray	120-000201-05	912400135845
Symmetric Louver, 610 (2 ft)	120-000202-01	912400135850
Masking Shield, 610 mm (2 ft)	120-000203-01	912400135858

Power/Data 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

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