Blast Powercore gen5, RGBW

Date:

Type:

Firm Name:

Project:

100 – 277 VAC, 80° Spread Lens, White Housing, UL/CE/CQC

Exterior versatile and customizable luminaire with intelligent RGBW light

Blast Powercore gen5, RGBW high-performance LED luminaires combine white and rich, saturated, color and color-changing effects with simplified installation. Blast Powercore gen5 offers a range of accessories that allow customizable beam angles for floodlighting, spotlighting, wall washing, and grazing, along with the efficiency and cost-effectiveness of Powercore technology in a rugged die-cast aluminium housing.

- Expands customization with a wide range of new accessory options. In addition to the native 10° lens, five different spread lenses can customize the luminaire to produce 20°, 40°, 60°, 80°, and 10° x 40° (asymmetric) beam angles. Three housing color choices (black, gray, and white) – plus the option to add or combine a louver, rock guard, full glare shield, and half glare shield – create new aesthetic possibilities for designers and architects.
- Improves color consistency between all LED luminaires in a family with Chromasync technology. During the manufacturing process a calibrated light measurement device creates an algorithm to define a common color gamut for an entire family of LED luminaires. When Chromasync is enabled, color consistency between luminaires is achieved without having to manually adjust color points on each luminaire.
- Meets ASTM B117 standard for > 1,500 hours of corrosion resistance and ANSI C136.31-2010 standard with a 3G vibration rating.
- Features an innovative, redesigned optical system that improves the quality of light from each LED, enhancing the color uniformity and color mixing capabilities of each Blast Powercore gen5 luminaire.
- Improves durability with new flat lens that prevents water from pooling into the luminaire, keeping the LEDs protected and secure over the course of a luminaire's lifetime.
- 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.
- Universal power input range of 100 to 277 VAC.
- Works seamlessly with the complete Color Kinetics line of controllers, including ColorDial Pro, iPlayer 3, and Light System Manager – as well as third-party controllers.

For detailed product information, please refer to the Blast Product Guide at www.colorkinetics.com/global/products/rgb/blast-powercore-gen5-rgbw

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Specifications

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

Output

Beam Angle	80°
Lumens †	1,882
Efficacy (lm/W)	39.8
LED Channels	Red/Green/Blue/White

Electrical

Input Voltage	100 to 277 VAC, auto-ranging, 50/60 Hz
Power Consumption (Maximum at full output, steady state)	47.0 W
Power Factor	0.99 @ 120 VAC 0.9 @ 277 VAC
Surge Limits ¶	2 kV maximum differential (L to N) 4 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 System

Color Kinetics full range of controllers, including Light System Manager, 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_{90}	25 °C	>39,715	>39,715
	50 °C	>39,715	>39,715
L_{80}	25 °C	>60,000	>98,607
	50 °C	>60,000	>98,607
L_{70}	25 °C	>60,000	>100,000
	50 °C	>60,000	>100,000
L_{50}	25 °C	-	>100,000
	50 °C	-	>100,000

Physical

Dimensions (Height x Width x Depth)	183.7 x 337.8 x 171.2 mm (7.2 x 13.2 x 6.74 in)
Weight	3.9 kg (8.2 lb)
Effective Projected Area (EPA)	0.068 m² (0.73 ft²) (Luminaire plus Full Glare Shield)
Housing Material	Die-cast aluminium, white powder-coated finish
Lens	Clear tempered glass
Luminaire Connections	1.8 m (6 ft) unified power/data cable

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

Complies with ASTM B117 standard for > 1,500 hours

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/

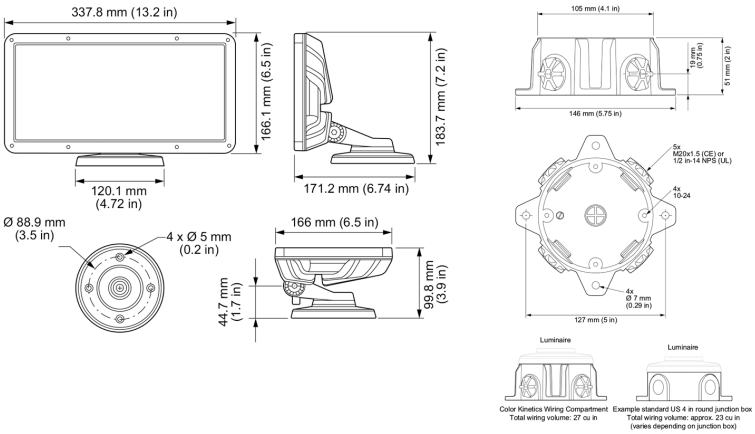
Certification and Safety

Approbation	UL/cUL, FCC Class A, CE, PSE, CQC, RCM
Environment	Dry/Damp/Wet Location, IP66

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

† Native beam lumen output measurements comply with IES LM-79-08 testing procedures. All other beam angle measurements are estimated based on the native beam 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.
†† When mounting to a junction box, the Color Kinetics wiring compartment accessory must be used to maintain a 3G vibration rating.
¶¶ 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.

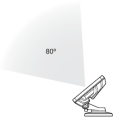
Dimensions



Photometrics 80° frosted lens

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	80°
LED	RGBW
Lumens	1,882.0
Efficacy (lm/W)	39.8



Illuminance at Distance

	Center Beam fc	Beam Width	
4 ft	73.8 fc	6.6 ft	6.6 ft
8 ft	18.4 fc	13.3 ft	13.2 ft
12 ft	8.2 fc	19.9 ft	19.8 ft
16 ft	4.6 fc	26.6 ft	26.4 ft
20 ft	3.0 fc	33.2 ft	33.0 ft
24 ft	2.0 fc	39.8 ft	39.6 ft

10.4 m (34 ft)
1 fc maximum distance

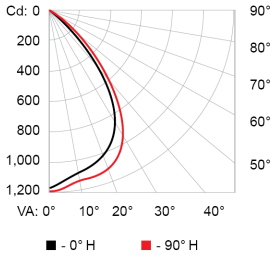
Vert. Spread: 79.4°
Horiz. Spread: 79.0°

Zonal Lumen

Zone	Lumens	% Luminaire
0-30	883.7	46.9%
0-40	1341.2	71.2%
0-60	1783.7	94.8%
60-90	95.1	5.1%
70-100	32.4	1.7%
90-120	0.5	0.0%
0-90	1878.8	99.8%
90-180	3.7	0.2%
0-180	1882.4	100.0%

For lux multiply fc by 10.7

Polar Candela Distribution



	0	25	45	70	90
0	1180	1180	1180	1180	1180
5	1134	1148	1156	1168	1175
15	1058	1080	1094	1114	1129
25	945	979	996	1032	1061
35	703	732	716	738	766
45	400	405	371	371	389
55	172	174	153	142	145
65	68	70	64	59	59
75	26	27	27	25	25
85	4	5	6	6	6
90	0	0	1	1	1

Coefficents 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	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.12	1.08	1.05	1.02	1.09	1.06	1.03	0.91	1.02	1.00	0.98	0.98	0.96	0.95	0.95	0.93	0.92	0.90
2	1.04	0.98	0.93	0.89	1.02	0.97	0.92	0.81	0.93	0.89	0.86	0.90	0.87	0.84	0.87	0.85	0.82	0.80
3	0.97	0.89	0.83	0.78	0.95	0.88	0.82	0.73	0.85	0.80	0.76	0.83	0.78	0.75	0.80	0.77	0.74	0.72
4	0.91	0.82	0.75	0.69	0.89	0.80	0.74	0.66	0.78	0.72	0.68	0.76	0.71	0.67	0.74	0.70	0.66	0.65
5	0.85	0.75	0.67	0.62	0.83	0.74	0.67	0.60	0.72	0.66	0.61	0.70	0.65	0.61	0.68	0.64	0.60	0.58
6	0.80	0.69	0.61	0.56	0.78	0.68	0.61	0.54	0.66	0.60	0.55	0.65	0.59	0.55	0.63	0.58	0.54	0.53
7	0.75	0.63	0.56	0.51	0.73	0.63	0.56	0.50	0.61	0.55	0.50	0.60	0.54	0.50	0.59	0.54	0.50	0.48
8	0.70	0.59	0.51	0.46	0.69	0.58	0.51	0.45	0.57	0.50	0.46	0.56	0.50	0.46	0.54	0.49	0.46	0.44
9	0.66	0.54	0.47	0.43	0.65	0.54	0.47	0.42	0.53	0.47	0.42	0.52	0.46	0.42	0.51	0.46	0.42	0.40
10	0.62	0.51	0.44	0.39	0.61	0.50	0.44	0.39	0.49	0.43	0.39	0.48	0.43	0.39	0.48	0.42	0.39	0.37

Luminaire and Accessories

Use Item Number when ordering in North America

Luminaire	Item Number	Item 12NC
Blast Powercore gen5, RGBW, 100 – 277 VAC, White Housing, UL/CE/CQC Luminaire only. Values in this specification sheet represent both the luminaire and spread lens combined. Spread lens available below in Associated Part.	423-000027-00	912400137697
Associated Part		
80° Spread lens Trim Ring required for mounting. Must be ordered separately.	120-000185-11	912400130347
Accessories		
Trim Ring, White	120-000185-00	912400130336
Louver, White	120-000185-04	912400130340
Rock Guard, White	120-000185-06	912400130342
Half Glare Shield, White	120-000185-13	912400130349
Full Glare Shield, White	120-000185-02	912400130338
Wiring Compartment UL/cUL, White	106-000011-31	910503704148
Wiring Compartment CE, White	106-000011-41	910503703276
Architectural Mounting Arm, for use with Blast, Graze, Graze Compact, Burst Architectural, and Vaya Flood. Short, gray	120-000206-00	912400136642
Architectural Mounting Arm, for use with Blast, Graze, Graze Compact, Burst Architectural, and Vaya Flood. Medium, gray	120-000206-01	912400136643
Architectural Mounting Arm, for use with Blast, Graze, Graze Compact, Burst Architectural, and Vaya Flood. Long, gray	120-000206-02	912400136644
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

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