

# ColorBurst IntelliHue Powercore

Date: \_\_\_\_\_  
Type: \_\_\_\_\_  
Firm Name: \_\_\_\_\_  
Project: \_\_\_\_\_

**20° Spread Lens, Gray Housing,  
Architectural**

## Architectural and landscape LED spotlight with intelligent white and color light

ColorBurst IntelliHue Powercore brings the precise control of color and high-quality tunable white light in the same luminaire for outdoor wall washing and spot lighting applications. The IntelliHue technology delivers 80+ CRI (2700 K to 4000 K) and the ability to tint any CCT between 2000 K and 10000 K above and below the black-body curve.



- Expands customization with a wide range of new accessory options. In addition to the native 8° lens, six different spread lenses can customize the luminaire to produce 10°, 20°, 40°, 60°, 80°, and 10° x 40° (asymmetric) beam angles. Four housing color choices (black, gray, white, and bronze)—plus the option to add a louver, full glare shield, and half glare shield—create new aesthetic possibilities for designers and architects.
  - Color-changing and high-quality white light from the same luminaire—IntelliHue is an advanced approach to color mixing that enables high-quality intelligent color and white light from a single luminaire. Multiple channels of LED light sources combine to produce a full spectrum of precisely controllable light, including millions of saturated colors, pastels, and uniform white light with CRI of greater than 83 in the 2700 K to 4000 K range.
  - 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.
  - Complies with ASTM B117 corrosion resistance standard for > 1,500 hours and ANSI C136.31-2010 standard with a 3G vibration rating.
  - Delivers R9 values that can reach up to 77. Saturated red light gives objects and surfaces a vibrant and rich color that is ideal for spaces where ambience is important.
  - 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 ColorBurst IntelliHue Powercore 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 ColorBurst IntelliHue Powercore Product Guide at [www.colorkinetics.com/global/products/intellihue/colorburst-powercore/](http://www.colorkinetics.com/global/products/intellihue/colorburst-powercore/)

# Specifications

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

## Output

Beam Angle	20°
Lumens All Channels Full On†	1,270
Lumens @ 2700 K	933
Lumens @ 4000 K	943
Efficacy (lm/W) All Channels Full On	40
Efficacy (lm/W) @ 2700 K	50.2
Efficacy (lm/W) @ 4000 K	47
LED Channels	Red/Green/Blue/Mint White

## Electrical

Input Voltage	100 to 277 VAC, auto-ranging, 50/60 Hz
Power Consumption (Maximum at full output, steady state)	33 W
Power Factor	> 0.9 @ 100 to 240 VAC > 0.85 @ 277 VAC

*For Surge Protection Requirements for LED Lighting Systems, please refer to [www.colorkinetics.com/KB/surge-protection](http://www.colorkinetics.com/KB/surge-protection).*

## Control

Interface	Data Enabler Pro (DMX/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	ActiveSite Ready, works with Interact Landmark
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## Lumen Maintenance

Threshold§	Ambient Temperature	Reported¶	Calculated¶
L <sub>90</sub>	25 °C	> 51,000	> 100,000
	50 °C	> 51,000	> 100,000
L <sub>80</sub>	25 °C	> 51,000	> 100,000
	50 °C	> 51,000	> 100,000
L <sub>70</sub>	25 °C	> 51,000	> 100,000
	50 °C	> 51,000	> 100,000
L <sub>50</sub>	25 °C	> 51,000	> 100,000
	50 °C	> 51,000	> 100,000

† Lumen measurement complies with IES LM-79-08 testing procedures.

§ L50 = 50% lumen maintenance (when light output drops below 50% 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.

## Physical

Dimensions (Height x Width x Depth)	287 x 210 x 186 mm (11.3 x 8.3 x 7.3 in)
Weight	5.5 kg (12.1 lb)
Effective Projected Area (EPA)	26053 mm <sup>2</sup>
Housing Material	Die-cast aluminium, powder-coated finish
Lens	Clear tempered glass
Luminaire Connections	1.8 m (6 ft) combined power data whip

## 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	IK08
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## Corrosion Resistance

Complies with ASTM B117 standard for > 1,500 hours

Humidity	0 to 95%, non-condensing
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## Luminaire Run Lengths

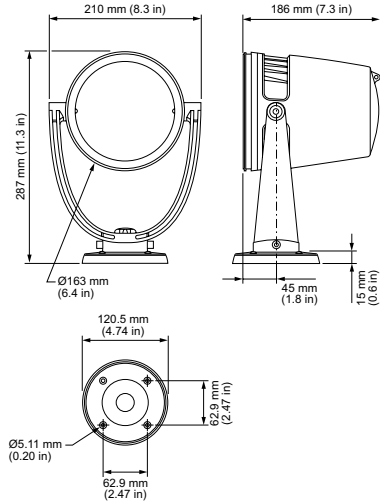
To calculate luminaire run lengths and total power consumption for your specific installation, download the Configuration Calculator from [www.colorkinetics.com/support/install\\_tool/](http://www.colorkinetics.com/support/install_tool/)

## Certification and Safety

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



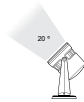
# Dimensions



# Photometrics, 20° spread lens

Photometric data is based on test results from an independent NIST traceable testing lab. IES data is available at [www.colorkinetics.com/support/ies](http://www.colorkinetics.com/support/ies).

Beam Angle	20°
LEDs	All channels full on
Lumens All Channels Full On	1,270
Efficacy (lm/W) All Channels Full On	40

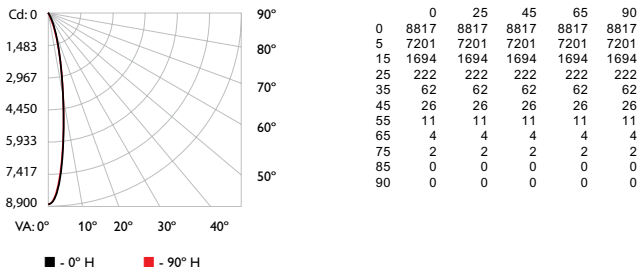


## Illuminance at Distance

	Center Beam fc	Beam Width
4 ft	551.04 fc	1.3 ft
8 ft	137.76 fc	2.7 ft
12 ft	61.23 fc	4 ft
16 ft	34.44 fc	5.3 ft
20 ft	22.04 fc	6.7 ft
24 ft	15.31 fc	8 ft

94 ft (28.6 m) 1 fc maximum distance ■ Vert. Spread: 18.9°

## Polar Candela Distribution



## Zonal Lumen

Zone	Lumens	% Luminaire
0-30	1191.1	93.8%
0-40	1231.7	97.0%
0-60	1262.2	99.4%
60-90	6.7	0.5%
70-100	2.2	0.2%
90-120	0.1	0.0%
0-90	1268.9	100.0%
90-180	0.6	0.0%
0-180	1269.5	100.0%

For lux multiply fc by 10.7

## 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	0	50	30	20	0	50	30	20	0	50	30	20	0
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	1.06	1.02	1.02	1.02	1.02	1.00	1.00	1.00	1.00	1.00
1	1.15	1.13	1.11	1.10	1.13	1.11	1.09	0.97	1.07	1.06	1.05	1.03	1.02	1.02	1.02	1.00	0.99	0.99	0.99	0.97	0.97	0.97	0.97	0.97
2	1.12	1.08	1.05	1.03	1.10	1.06	1.04	0.94	1.03	1.01	1.00	1.01	0.99	0.97	0.97	0.98	0.97	0.95	0.95	0.94	0.94	0.94	0.94	0.94
3	1.08	1.04	1.00	0.98	1.07	1.03	0.99	0.92	1.00	0.98	0.95	0.98	0.96	0.94	0.94	0.96	0.94	0.93	0.93	0.91	0.91	0.91	0.91	0.91
4	1.05	1.00	0.96	0.94	1.04	0.99	0.96	0.89	0.97	0.94	0.92	0.95	0.93	0.91	0.91	0.94	0.92	0.90	0.90	0.89	0.89	0.89	0.89	0.89
5	1.02	0.97	0.93	0.90	1.01	0.96	0.92	0.87	0.94	0.91	0.89	0.93	0.90	0.88	0.88	0.92	0.89	0.88	0.88	0.87	0.87	0.87	0.87	0.87
6	1.00	0.94	0.90	0.87	0.99	0.93	0.90	0.85	0.92	0.89	0.86	0.91	0.88	0.86	0.86	0.90	0.87	0.85	0.85	0.84	0.84	0.84	0.84	0.84
7	0.97	0.91	0.87	0.85	0.96	0.91	0.87	0.83	0.90	0.86	0.84	0.89	0.86	0.84	0.84	0.88	0.85	0.83	0.83	0.82	0.82	0.82	0.82	0.82
8	0.95	0.89	0.85	0.83	0.94	0.89	0.85	0.81	0.88	0.84	0.82	0.87	0.84	0.82	0.82	0.86	0.83	0.81	0.81	0.81	0.81	0.81	0.81	0.81
9	0.93	0.87	0.83	0.81	0.92	0.86	0.83	0.80	0.86	0.82	0.80	0.85	0.82	0.80	0.80	0.84	0.82	0.80	0.80	0.79	0.79	0.79	0.79	0.79
10	0.91	0.85	0.81	0.79	0.90	0.84	0.81	0.78	0.84	0.81	0.78	0.83	0.80	0.78	0.78	0.83	0.80	0.78	0.78	0.77	0.77	0.77	0.77	0.77

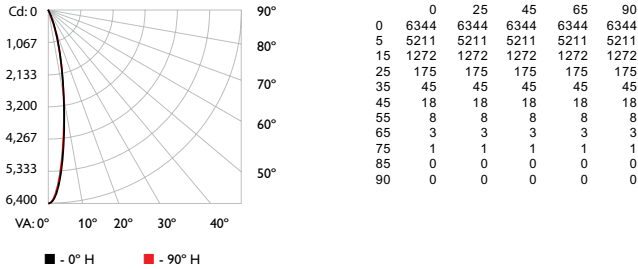
# Photometrics, 2700 K

Photometric data is based on test results from an independent NIST traceable testing lab. IES data is available at [www.colorkinetics.com/support/ies](http://www.colorkinetics.com/support/ies).

Beam Angle	20°
LEDs at	2700 K
Lumens @ 2700 K	933
Efficacy (lm/W) @ 2700 K	50.2



## Polar Candela Distribution



## Zonal Lumen

Zone	Lumens	% Luminaire
0-30	877.7	94.0%
0-40	907.1	97.2%
0-60	928.6	99.5%
60-90	4.4	0.5%
70-100	1.4	0.2%
90-120	0.1	0.0%
0-90	933.0	100.0%
90-180	0.4	0.0%
0-180	933.4	100.0%

For lux multiply fc by 10.7

## Illuminance at Distance

	Center Beam fc	Beam Width
4 ft	396.47 fc	1.4 ft
8 ft	99.12 fc	2.7 ft
12 ft	44.05 fc	4.1 ft
16 ft	24.78 fc	5.4 ft
20 ft	15.86 fc	6.8 ft
24 ft	11.01 fc	8.1 ft

79.5 ft (24.2 m) ■ Vert. Spread: 19.2°  
1 fc maximum distance

## 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	0	50	30	20	0	50	30	20	0	50	30	20	0
RCR:	0	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	1.02	1.02	1.00	1.00	0.99	0.97
1	1.15	1.13	1.11	1.10	1.13	1.11	1.09	0.97	1.07	1.06	1.05	1.03	1.02	1.02	1.00	0.99	0.99	0.97	0.98	0.97	0.95	0.94	0.94	0.94
2	1.12	1.08	1.05	1.03	1.10	1.06	1.04	0.94	1.03	1.01	1.00	1.01	0.99	0.97	0.98	0.97	0.95	0.94	0.98	0.97	0.95	0.94	0.94	0.94
3	1.08	1.04	1.00	0.98	1.07	1.03	0.99	0.92	1.00	0.98	0.95	0.98	0.96	0.94	0.96	0.94	0.93	0.91	0.96	0.94	0.93	0.91	0.91	0.91
4	1.05	1.00	0.96	0.94	1.04	0.99	0.96	0.89	0.97	0.94	0.92	0.95	0.93	0.91	0.94	0.92	0.90	0.89	0.94	0.92	0.90	0.89	0.89	0.89
5	1.02	0.97	0.93	0.90	1.01	0.96	0.92	0.87	0.94	0.91	0.89	0.93	0.90	0.88	0.92	0.89	0.88	0.87	0.92	0.89	0.88	0.87	0.87	0.87
6	1.00	0.94	0.90	0.87	0.99	0.93	0.90	0.85	0.92	0.89	0.86	0.91	0.88	0.86	0.90	0.87	0.85	0.84	0.90	0.87	0.85	0.84	0.84	0.84
7	0.97	0.91	0.87	0.85	0.96	0.91	0.87	0.83	0.90	0.86	0.84	0.89	0.86	0.84	0.88	0.85	0.83	0.82	0.88	0.85	0.83	0.82	0.82	0.82
8	0.95	0.89	0.85	0.82	0.94	0.88	0.85	0.81	0.88	0.84	0.82	0.87	0.84	0.82	0.86	0.83	0.81	0.81	0.86	0.83	0.81	0.81	0.81	0.81
9	0.93	0.87	0.83	0.80	0.92	0.86	0.83	0.80	0.86	0.82	0.80	0.85	0.82	0.80	0.84	0.82	0.80	0.79	0.84	0.82	0.80	0.79	0.79	0.79
10	0.91	0.85	0.81	0.79	0.90	0.84	0.81	0.78	0.84	0.81	0.78	0.83	0.80	0.78	0.83	0.80	0.78	0.77	0.83	0.80	0.78	0.77	0.77	0.77

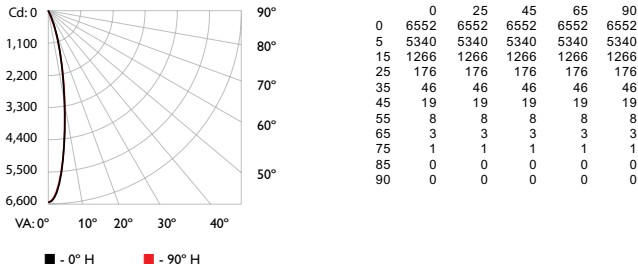
# Photometrics, 4000 K

Photometric data is based on test results from an independent NIST traceable testing lab. IES data is available at [www.colorkinetics.com/support/ies](http://www.colorkinetics.com/support/ies).

Beam Angle	20°
LEDs at	4000 K
Lumens @ 4000 K	943
Efficacy (lm/W) @ 4000 K	47



## Polar Candela Distribution



## Zonal Lumen

Zone	Lumens	% Luminaire
0-30	884.9	93.9%
0-40	915.2	97.1%
0-60	937.5	99.4%
60-90	4.8	0.5%
70-100	1.6	0.2%
90-120	0.1	0.0%
0-90	942.3	99.9%
90-180	0.5	0.1%
0-180	942.7	100.0%

For lux multiply fc by 10.7

## Illuminance at Distance

	Center Beam fc	Beam Width
4 ft	409.48 fc	1.3 ft
8 ft	102.37 fc	2.7 ft
12 ft	45.50 fc	4 ft
16 ft	25.59 fc	5.3 ft
20 ft	16.38 fc	6.7 ft
24 ft	11.37 fc	8 ft

81 ft (25 m) ■ Vert. Spread: 18.9°  
1 fc maximum distance

## 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	0	50	30	20	0	50	30	20	0	50	30	20	0
RCR:	0	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	1.02	1.02	1.00	1.00	0.99	0.97
1	1.15	1.13	1.11	1.10	1.13	1.11	1.09	0.97	1.07	1.06	1.05	1.03	1.02	1.02	1.00	0.99	0.99	0.97	0.98	0.97	0.95	0.94	0.94	0.94
2	1.12	1.08	1.05	1.03	1.10	1.06	1.04	0.94	1.03	1.01	1.00	1.01	0.99	0.97	0.98	0.97	0.95	0.94	0.98	0.97	0.95	0.94	0.94	0.94
3	1.08	1.04	1.00	0.98	1.07	1.03	0.99	0.92	1.00	0.98	0.95	0.98	0.96	0.94	0.96	0.94	0.93	0.91	0.96	0.94	0.93	0.91	0.91	0.91
4	1.05	1.00	0.96	0.94	1.04	0.99	0.96	0.90	0.97	0.94	0.92	0.95	0.93	0.91	0.94	0.92	0.90	0.89	0.94	0.92	0.90	0.89	0.89	0.89
5	1.02	0.97	0.93	0.90	1.01	0.96	0.92	0.87	0.94	0.91	0.89	0.93	0.90	0.88	0.92	0.89	0.88	0.87	0.92	0.89	0.88	0.87	0.87	0.87
6	1.00	0.94	0.90	0.87	0.99	0.93	0.90	0.85	0.92	0.89	0.86	0.91	0.88	0.86	0.90	0.87	0.85	0.84	0.90	0.87	0.85	0.84	0.84	0.84
7	0.97	0.91	0.87	0.85	0.96	0.91	0.87	0.83	0.90	0.86	0.84	0.89	0.86	0.84	0.88	0.85	0.83	0.82	0.88	0.85	0.83	0.82	0.82	0.82
8	0.95	0.89	0.85	0.82	0.94	0.88	0.85	0.81	0.88	0.84	0.82	0.87	0.84	0.82	0.86	0.83	0.81	0.81	0.86	0.83	0.81	0.81	0.81	0.81
9	0.93	0.87	0.83	0.80	0.92	0.86	0.83	0.80	0.86	0.82	0.80	0.85	0.82	0.80	0.84	0.82	0.80	0.79	0.84	0.82	0.80	0.79	0.79	0.79
10	0.91	0.85	0.81	0.79	0.90	0.84	0.81	0.78	0.84	0.81	0.78	0.83	0.80	0.78	0.83	0.80	0.78	0.77	0.83	0.80	0.78	0.77	0.77	0.77

# Luminaire and Accessories

Use Item Number when ordering in North America

Luminaire	Item Number	Item 12NC
ColorBurst IntelliHue Powercore <i>Gray Housing, Architectural Luminaire only. Values in this specification sheet represent both the luminaire and spread lens combined. Spread lens available below in Associated Part.</i>	423-000003-21	912400135470
<b>Associated Part</b>		
20° Spread Lens <i>Trim Ring or Glare Shield required for mounting. Must be ordered separately.</i>	120-000189-12	912400133442
<b>Accessories</b>		
Trim Ring gen2, Gray	120-000189-20	912400135449
Half Glare Shield gen2, Gray	120-000189-24	912400135453
Full Glare Shield gen2, Gray	120-000189-28	912400135457
Louver	120-000189-17	912400133447
Mounting Arm, Short, Gray	120-000201-03	912400135843
Mounting Arm, Medium, Gray	120-000201-04	912400135844
Mounting Arm, Long, Gray	120-000201-05	912400135845
Wiring Compartment, 4 in diameter, Gray, CE	106-000011-42	910503703277
Wiring Compartment, 4 in diameter, Gray, UL	106-000011-32	910503704149
<b>Power/Data Supplies</b>		
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

