

# PureStyle Intelligent Color Powercore RGBA

Premium concealed interior linear LED luminaire with intelligent white and color light



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# Premium concealed interior linear LED luminaire with intelligent color light

Innovative PureStyle Powercore luminaires bring lighting professionals high output in a compact, easily concealed luminaire. PureStyle delivers exceptionally high-quality light for a wide range of interior applications from cove to wall-washing to backlighting and beyond. Here are just some of the powerful advantages that PureStyle brings to lighting professionals and their clients.

- Unbeatable Performance—Major innovations, including a unique optical cluster, enable PureStyle to deliver up to 800 lumens—all with superior beam quality that delivers bright, smooth light.
- Innovative Design—With its compact size and an extremely short mixing distance, PureStyle can excel in areas where traditional linear luminaires are impractical. It's available in 305 mm (1 ft) and 1219 mm (4 ft) extruded anodized aluminium housings, as well as a range of beam angles—including wide (100° x 100°), medium (30° x 60°), and narrow (10° by 60°). Interlocking connectors ensure end-to-end installation without visible light scalloping between luminaires—just pure, seamless light.
- White and Color Light—PureStyle combines tunable white and dynamic color light in one innovative, high-performance luminaire that's easy to install and control.
- Superior Color Consistency—Optibin, our proprietary binning optimization process, guarantees uniformity and consistency of hue across LEDs, luminaires, and manufacturing runs.

- Industry-Leading Controls—PureStyle luminaires
  work seamlessly with the complete Philips Color
  Kinetics line of controllers, including iPlayer 3,
  Light System Manager, and ColorDial Pro—as well
  as third-party controllers.
- Higher Efficiency, Lower Cost—All PureStyle luminaires integrate Powercore technology, which controls power output to luminaires directly from line voltage – rapidly, efficiently, and accurately. The Philips Color Kinetics Data Enabler Pro merges line voltage with control, and delivers them to the luminaire over a single standard cable —simplifying installation dramatically and lowering total system cost.
- Easy Installation—PureStyle luminaires accept power input of 100 to 277 VAC for consistent installation anywhere in the world. Powercore allows long runs and eliminates the need for special wiring and external power supplies. For example, special connectors enable PureStyle luminaires to be connected directly (using jumper cables) with leader cables or with the terminator.



# Flexible mounting and positioning

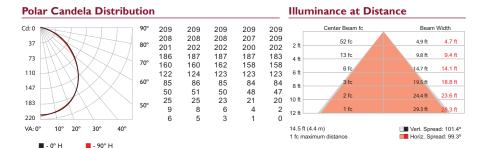
The PureStyle end-to-end locking power connectors can make 180° turns, making these compact luminaires easy to position in even the most challenging mounting scenarios. 305 mm (1 ft) and 1.5 m (5 ft) jumper cables can add extra space between luminaires

#### **Photometrics**

Photometric data is based on test results from an independent NIST traceable testing lab. IES data is available at www.philipscolorkinetics.com/support/ies.

PureStyle Intelligent Color Powercore RGBA All LED channels full on 1 ft, 100° x 100° (wide) beam angle

Lumens	Efficacy
538	40.9

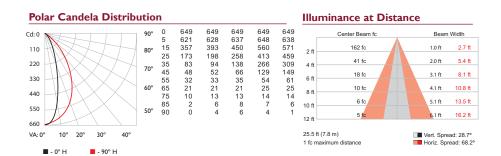


Zonal	Lumen	
Zone	Lumens	% Luminaire
0-30	162.3	30.1%
0-40	262.8	48.8%
0-60	438.1	81.4%
0-90	526.1	97.7%
60-90	88.0	16.4%
70-100	39.3	7.3%
90-120	7.9	1.5%
90-180	12.1	2.3%
0-180	538.2	100.0%

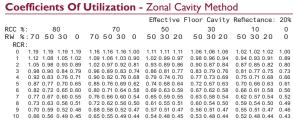
#### 

PureStyle Intelligent Color Powercore RGBA All LED channels full on 1 ft,  $30^{\circ} \times 60^{\circ}$  (medium) beam angle

Lumens	Efficacy
520	38.9



<b>Z</b> Ullal	Lumen		Coe
Zone 0-30 0-40 0-60 0-90 60-90 70-100 90-120 90-180 0-180	Lumens 290.9 382.2 475.3 517.8 42.5 23.1 2.4 2.4 520.2	% Luminaire 55.9% 73.5% 91.4% 99.5% 8.2% 4.4% 0.5% 0.5% 100.0%	RCC % RW % RCR 0 1 2 3 4 5 6 7 8
			9



For lux multiply fc by 10.7

Zonal Lumen

# PureStyle Intelligent Color Powercore RGBA All LED channels full on 1 ft, $10^{\circ} \times 60^{\circ}$ (narrow) beam angle

Lumens	Efficacy
578	41.9

#### Polar Candela Distribution Illuminance at Distance 2172 2172 1251 1550 332 442 181 250 44 88 19 20 27 8 8 4 2 2 0 0 0 2172 2161 1874 1283 Center Beam fc Beam Width 2172 1994 1040 626 370 78 8 4 2 0 1106 311 153 36 21 33 26 6 0 543 fc 0.3 ft 2.1 ft 383 2 ft 767 554 67 6.4 ft 1,150 60° 34 fc 1.3 ft 8.5 ft 1,533 1.6 ft 10.7 ft 22 fc 10 ft 1,917 1.9 ft 12.8 ft 15 fc 12 ft 2,300 46.5 ft (14.1 m) 1 fc maximum distance ■ Vert. Spread: 9.2° ■ Horiz. Spread: 56.2° VA: 0°

#### **Zonal Lumen**

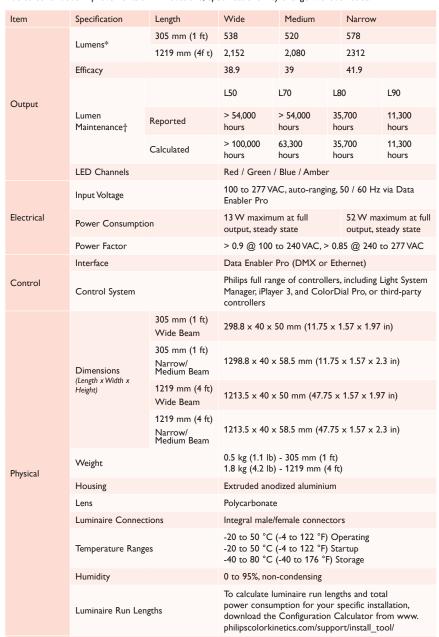
Zone	Lumens	% Luminaire
0-30	425.8	73.7%
0-40	519.1	89.8%
0-60	566.3	98.0%
0-90	577.8	100.0%
60-90	11.5	2.0%
70-100	3.8	0.7%
90-120	0.0	0.0%
90-180	0.0	0.0%
0-180	577.9	100.0%

#### Coefficients Of Utilization - Zonal Cavity Method

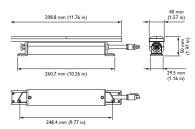
										Eff	ecti	ve	Floor	Ca	vity	Refle	cta	nce:	20%
RCC	%:		8	30			7	70			50			30			10		0
RW	% :	70	50	30	0	70	50	30	0	50	30	20	50	30	20	50	30	20	0
RO	CR:																		
0	)	1.19	1.19	1.19	1.19	1.16	1.16	1.16	1.00	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1		1.14	1.11	1.09	1.06	1.11	1.09	1.07	0.94	1.05	1.03	1.01	1.01	1.00	0.98	0.98	0.97	0.96	0.94
2	2	1.08	1.04	1.00	0.96	1.06	1.02	0.98	0.88	0.99	0.96	0.93	0.96	0.93	0.91	0.93	0.91	0.89	0.88
3	3	1.03	0.97	0.92	0.88	1.01	0.96	0.91	0.83	0.93	0.89	0.86	0.91	0.88	0.85	0.88	0.86	0.84	0.82
4		0.98	0.91	0.86	0.82	0.97	0.90	0.85	0.78	0.88	0.84	0.81	0.86	0.82	0.80	0.84	0.81	0.79	0.77
5	5	0.94	0.86	0.81	0.76	0.92	0.85	0.80	0.74	0.83	0.79	0.75	0.82	0.78	0.75	0.80	0.77	0.74	0.73
6	6	0.90	0.81	0.76	0.72	0.88	0.81	0.75	0.70	0.79	0.75	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.69
7	7	0.86	0.77	0.72	0.68	0.85	0.77	0.71	0.66	0.75	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.65
8	3	0.82	0.74	0.68	0.64	0.81	0.73	0.68	0.63	0.72	0.67	0.64	0.71	0.67	0.63	0.70	0.66	0.63	0.62
9	)	0.79	0.70	0.65	0.61	0.78	0.70	0.64	0.60	0.69	0.64	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.59
10	)	0.76	0.67	0.62	0.58	0.75	0.67	0.61	0.57	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.56

# Specifications

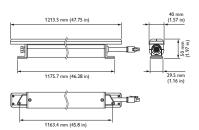
Due to continuous improvements and innovations, specifications may change without notice.



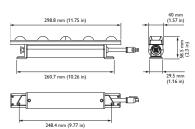
# 10° 100°



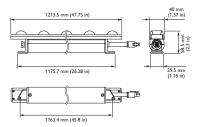
1 ft, 100° x 100° (wide) beam angle



4 ft, 100° x 100° (wide) beam angle



1 ft,  $10^{\circ}$  x  $60^{\circ}$  /  $30^{\circ}$  x  $60^{\circ}$  (narrow/medium) beam angle



4 ft, 10° x 60° / 30° x 60° (narrow/medium) beam angle

## CHROMACORE' O P T I B I N° POWERCORE'

Certification

Environment

Certification and Safety



UL/cUL, FCC Class B, CE, PSE, CQC, RCM

Dry/Damp Location, IP20





- \* 305 mm (1 ft) lumen measurements comply with IES LM-79-08 testing procedures. 1219 mm (4 ft) measurements are estimated based on the 305 mm (1 ft) measurements.
- † L50 = 50% lumen maintenance (when light output drops below 50% of initial output). Ambient luminaire temperatures specified. Lumen maintenance calculations are based on lifetime prediction graphs supplied by LED source manufacturers. Calculations for white-light LED luminaires are based on measurements that comply with IES LM-80-08 testing procedures. Refer to www.philipscolorkinetics.com/support/appnotes/ lm-80-08.pdf for more information.

## Luminaires and Accessories

PureStyle Intelligent Color Powercore RGBA luminaires are part of a complete system which includes luminaires and the following equipment:

- · One or more Data Enabler Pro devices.
- One Leader Cable to connect each Data Enabler Pro output to a series of luminaires, or one Wiring Compartment with a sufficient length of 4-conductor copper wire.
   Standard 12 AWG stranded wire is recommended.
- Any Philips controller, including Light System Manager, iPlayer 3, and ColorDial Pro, or a third-party controller.

Item	Туре	Item Number	Philips 12NC
PureStyle Intelligent Color Powercore RGBA 305 mm (1 ft)	100° x 100° (Wide)	123-000026-00	912400133454
	30° x 60° (Medium)	123-000026-01	912400133455
	10° x 60° (Narrow)	123-000026-02	912400133456
PureStyle Intelligent Color	100° x 100° (Wide)	123-000026-03	912400133457
Powercore RGBA	30° x 60° (Medium)	123-000026-04	912400133458
1219 mm (4 ft)	10° x 60° (Narrow)	123-000026-05	912400133459

Item	Style	Item Number*	Philips 12NC
Data Enabler Pro	3/4 in / 1/2 in NPT (US trade size conduit)	106-000004-00	910503701210
Data Enabler Pro	PG21/PG13 (metric size conduit)	106-000004-01	910503701211

Item	Туре		Item Number	Philips 12NC
Leader Cable	1.2 (10.6)	UL	108-000065-00	912400133637
Leader Cable	1.2 m (10 ft)	CE/CCC	108-000065-01	912400133638
	205 (1.6)	UL	108-000066-00	912400133639
Jumper Cable	305 mm (1 ft)	CE/CCC	108-000066-01	912400133640
Jumper Cable	1210 (F &)	UL	108-000066-02	912400133641
	1219 mm (5 ft)	CE/CCC	108-000066-03	912400133642
Mounting Track	White		120-000194-00	912400133643
Wiring Compartment		UL	120-000191-00	912400133644
Louver	305 mm (1 ft)		120-000192-02	912400133647
End Of Run Diffusers	Bag of 10		120-000196-00	912400134527

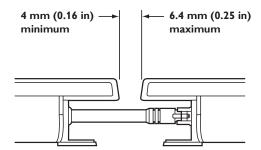
Use Item Number when ordering in North America.

#### Included in the box

PureStyle Intelligent Color Powercore RGBA luminaire Installation Instructions Refer to the PureStyle Intelligent Color Powercore RGBA Installation Instructions for specific warning and caution statements.

Refer to the Data Enabler Pro
Installation Instructions or Product Guide for
guidelines on configuring and positioning the
Data Enabler Pro in relation to the controller.

# Distance between luminaires joined end-to-end



#### Installation

PureStyle Intelligent Color Powercore RGBA offers high-intensity indoor cove lighting with Powercore technology. Powercore, which integrates LED power and data management within the luminaire, eases installation by eliminating the need for external power supplies.

#### **Owner/User Responsibilities**

It is the responsibility of the contractor, installer, purchaser, owner, and user to install, maintain, and operate PureStyle Intelligent Color Powercore RGBA luminaires in such a manner as to comply with all applicable codes, state and local laws, ordinances, and regulations. Consult with the appropriate electrical inspector to ensure compliance.

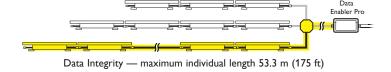
# Create a Lighting Design Plan and Layout Grid

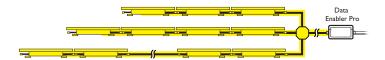
1. Determine the appropriate location of each Data Enabler Pro in relation to the luminaires, and of the luminaires in relation to each other.

PureStyle Intelligent Color Powercore RGBA luminaires are installed in series. The in-line connectors allow end-to-end luminaire connections for the best visual effects. Joined directly together, the connectors allow for spacing of 4 mm (0.16 in) to 6.4 (0.25 in) without a jumper cable. When you need to separate luminaires by more than these minimums, use the 305 mm (1 ft) or 1.5 m (5 ft) jumper cables.

The maximum number of luminaires each Data Enabler Pro can support depends on specific configuration details such as luminaire length, luminaire spacing, circuit size, line voltage, and Leader Cable length. For help calculating the number of luminaires your specific installation can support, download the Configuration Calculator from www.philipscolorkinetics.com/support/install\_tool/, or consult Application Engineering Services at support@colorkinetics.com.

In addition to maximum luminaire run lengths determined by the electrical configuration, each Data Enabler Pro imposes maximum run lengths based on data integrity. To ensure data integrity, maximum individual run lengths should not exceed 53.3 m (175 ft), and the total cable length per Data Enabler Pro should not exceed





Data Integrity — total length 122 m (400 ft)

122 m (400 ft).

2. PureStyle Intelligent Color Powercore RGBA is a versatile linear 4-channel LED lighting luminaire that can be used successfully in many different types of accent and direct-view lighting applications. Because of its high light output, PureStyle Intelligent Color Powercore RGBA should be positioned at a minimum distance from illuminated surfaces in accent lighting applications to ensure smooth color mixing.

Because PureStyle luminaires can be used in several lighting applications, setback distance is installation dependent. A wide beam angle is recommended for

cove applications where there is more distance between the luminaire and the illuminated surface, while a narrow/medium beam angle is recommended for grazing applications where the distance between luminaire and illuminated surface is shorter. IES files are provided, but a mockup is recommended for the most accurate evaluation of a space.

At up to 549 lumens per foot, PureStyle Intelligent Color Powercore RGBA luminaires may be more appropriate for wall-washing, grazing, and indirect lighting applications than for traditional cove applications at full output, especially where coves are relatively small.

If installing PureStyle Intelligent Color Powercore RGBA in a cove, make sure that you use the luminaire's power consumption and efficacy ratings to ensure that coves are large enough to keep operating temperatures within safe levels. The designer or architect should also determine the cove's fascia design and luminaire setback based on the cove dimensions and room width. We strongly recommend creating dimensional models and mockups prior to installation.

#### Start the Installation

- Install all Data Enabler Pro devices, including any interfaces with controllers.
   One Leader Cable is required to connect each run or series of luminaires to a
   Data Enabler Pro. The Data Enabler Pro sends power and control signals to the
   luminaires over the Leader Cable.
- 2. Verify that all additional supporting equipment, such as switches and controllers, are in place.
- 3. If your installation calls for Jumper Cables to add space between luminaires, make sure they are available.
- 4. Ensure that all additional parts (optional mounting tracks, mounting hardware, diffusers) and tools are available.

# Unpack and Prepare Luminaires

- 1. Carefully inspect the box containing PureStyle Intelligent Color Powercore RGBA and the contents for any damage that may have occurred in transit.
- On an architectural diagram or other diagram that shows the physical layout of the installation, identify the locations of all switches, controllers, power supplies, luminaires, and Leader and Jumper Cables.
- 3. PureStyle Intelligent Color Powercore RGBA luminaires are addressable in 305 mm (1 ft) segments. This feature allows playback controllers to send unique light output data to each segment of each luminaire within your installation.

Each luminaire segment (node) comes pre-programmed with a unique serial number. Luminaires have one or four serial numbers, depending on luminaire length. As you unpack the luminaires, record the serial numbers in a layout grid

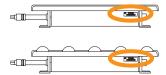


Location of serial numbers on 1219 mm (4 ft) PureStyle Intelligent Color Powercore RGBA luminaires

(typically a spreadsheet or list) for easy reference and light addressing.

- 4. Assign each luminaire to a position in the lighting design plan.
- 5. To streamline installation and aid in light show programming, you can affix a

§ For medium and narrow beam angle luminaires, make sure the Power and Data is fed from the appropriate side of the run to account for directionality of light.



Location of serial number on 305 mm (1 ft)
PureStyle Intelligent Color Powercore RGBA

weatherproof label identifying the order or placement in the installation to an inconspicuous location on each luminaire's housing.

## Install the Luminaires

You can mount PureStyle Intelligent Color Powercore RGBA luminaires directly to a wall, ceiling, cabinet, or other secure surface. For linear applications, you can install several PureStyle Intelligent Color Powercore RGBA luminaires in optional 1219 mm (4 ft) lengths of mounting

track to ensure straight runs.

#### (Optional) Install Mounting Tracks

- 1. Field-cut the mounting tracks to the desired length with hacksaws or tin snips.
- 2. Install the mounting tracks using hardware suitable for the mounting surface.

To ensure proper luminaire fit, hardware must not extend above the track standoffs after installation. The recommended maximum spacing between screws is 305 mm (1 ft).

#### **Mount and Connect the Luminaires**

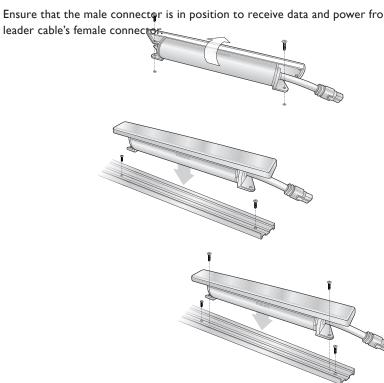
Make sure the power is OFF before mounting and connecting luminaires.

- 1. Rotate a PureStyle Intelligent Color Powercore RGBA luminaire as necessary to provide unobstructed access to the mounting holes.
- 2. Position the first luminaire in a series.

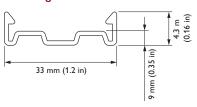
If using mounting tracks on a horizontal surface, snap the luminaire into the track.

If using mounting tracks on vertical or overhead surfaces, or if not using mounting tracks, attach 305 mm (1 ft) luminaires with two #6 (3.5 mm) mounting screws each (not included) suitable for the mounting surface. Attach 1219 mm (4 ft) luminaires with two #6 (3.5 mm) mounting screws suitable for the mounting surface, four at each end of the luminaire,

Ensure that the male connector is in position to receive data and power from the



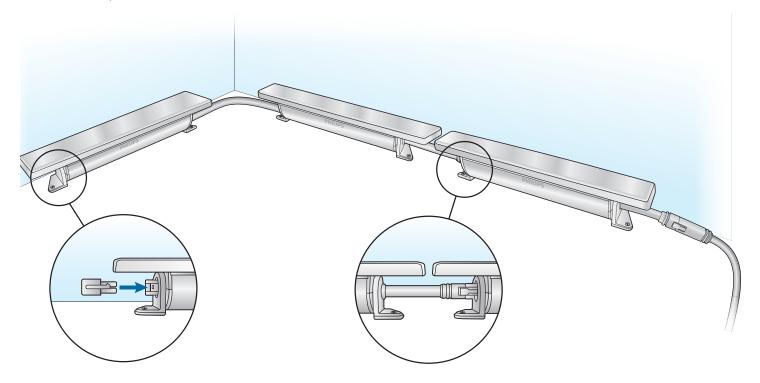
#### **Mounting Track dimensions**



 If using the Wiring Compartment to run conduit from Data Enabler Pro to the first luminaire in a run, make sure you leave enough space at the end of the run to accommodate the Wiring Compartment.

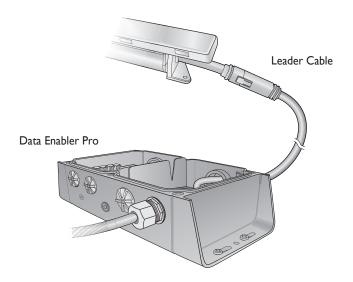
You can use the luminaire base as a template when pre-drilled holes are required. Hold the luminaire in place and mark the two screw holes.

- 3. Position the next luminaire in the series, matching the male connector end to the female connector of the previously mounted luminaire. Attach the luminaire to the surface or snap it into the track.
- 4. Continue mounting the luminaires, making power/data connections as you go, until all lights in the series are mounted.
- 5. Insert the provided terminator into the last luminaire in the series.

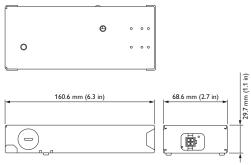


#### 6. Make power connections:

If using a Leader Cable, connect the Leader Cable to the first luminaire in the series. Run the Leader Cable to the Data Enabler Pro.

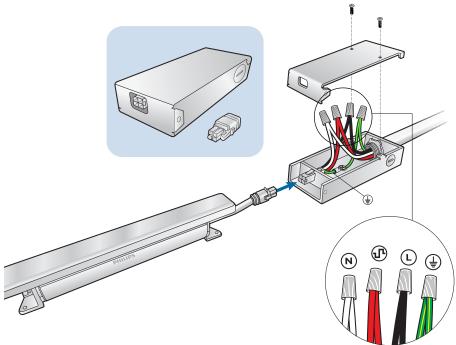


#### Wiring Compartment dimensions

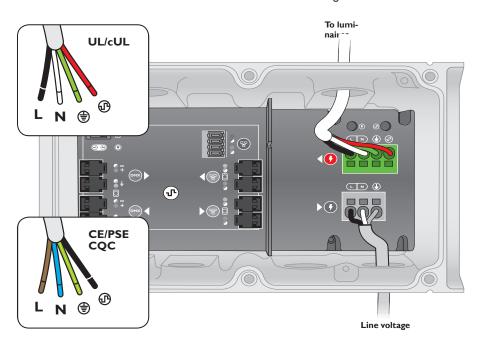


If using the PureStyle Intelligent Color Powercore RGBA Wiring Compartment to run conduit from the Data Enabler Pro to the first luminaire in a series, pull cable through conduit. (We recommend standard 4-conductor 12 AWG copper wire.)

Remove the cover from the Wiring Compartment. Using wire nuts, make wire connections inside the Wiring Compartment housing, then replace the cover. Connect the Wiring Compartment to the first luminaire in the series.



7. Secure connections within the Data Enabler Pro housing.



8. Repeat steps 1 to 7 for each Data Enabler Pro in the installation.

## Address and Configure the Luminaires

Make sure the power is ON before addressing and configuring luminaires.

PureStyle Intelligent Color Powercore RGBA luminaires are addressable in 1 ft (305 mm) segments, or nodes. PureStyle Intelligent Color Powercore RGBA luminaires have one or four nodes, depending on luminaire length. Each node is identified by a unique serial number.

PureStyle Intelligent Color Powercore RGBA luminaires operate in 8-bit mode by default. You can configure PureStyle Intelligent Color Powercore RGBA to operate in 16-bit mode, which increases luminaire resolution for smoother dimming.

In 8-bit mode, luminaire nodes use one DMX address per LED channel (red, green, blue, and amber). In 16-bit mode, luminaire nodes use two DMX addresses per LED channel. The first DMX address corresponds to the "coarse" data for that channel, and the second corresponds to the "fine" data. By using double the number of DMX addresses, 16-bit mode increases luminaire resolution from 256 dimming steps to 65,536 (256  $\times$  256) dimming steps.

Configuration	DMX Addresses Per Segment
3-3 Channel Configuration, 8-bit	3
3-3 Channel Configuration, 16-bit	6
3-4 Channel Configuration, 8-bit	3
3-4 Channel Configuration, 16-bit	6
4-4 Channel Configuration, 8-bit	4
4-4 Channel Configuration, 16-bit	8

Each PureStyle Intelligent Color Powercore RGBA node comes factory-addressed with a starting DMX address of 1. For lighting designs where luminaires work in unison, all nodes can be assigned the same starting DMX address. Changes to the default starting DMX address are not necessary, but if nodes were previously readdressed for use in other installations, you must reset them. For light show designs that show different colors on different luminaires, you must assign unique DMX addresses to nodes and sort them in a useful order.

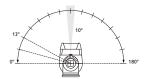
- In Ethernet installations, you can address and configure your luminaires using
   QuickPlay Pro with a computer connected to your lighting installation's network.
   QuickPlay Pro can automatically discover all of your luminaires, controllers, and Data
   Enabler Pro devices for quick configuration.
- In DMX installations, you can address and configure your luminaires using QuickPlay
  Pro with iPlayer 3 or SmartJack Pro. You can manually enter luminaire serial numbers,
  or you can import a spreadsheet listing each luminaire's serial number and starting
  DMX address.

For complete details on addressing and configuring PureStyle Intelligent Color Powercore RGBA luminaires with QuickPlay Pro, refer to the Addressing and Configuration Guide, which you can view or download at www.philipscolorkinetics.com/support/addressing.

You can address luminaires and switch between 8-bit mode and 16-bit mode using QuickPlay Pro.You can download QuickPlay Pro from www.philipscolorkinetics.com/ support/addressing/

You will need the layout grid that you created when you recorded the serial numbers of the light luminaires in your installation.

# ② Do not look directly into the luminaire when aiming and locking.



10° x 60° (narrow beam angle)



30° x 60° (medium beam angle)



100° x 100° (wide beam angle)

## Aim Luminaires

Make sure power is ON before aiming luminaires.

Aim the luminaires by rotating each luminaire to the correct angle. There are detents every  $13^{\circ}$  in the bracket that hold it in position.

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