

ColorFuse Powercore

Linear interior LED wall grazing luminaire with intelligent color light



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With narrow and medium beams of high-quality color-changing light, ColorFuse Powercore is an excellent choice for a full range of surface grazing, wall-washing, and accent lighting applications. Its ultra-compact form factor permits installation in tight spaces too small to accommodate conventional grazing luminaires that offer similar level and distribution of light. ColorFuse Powercore combines professional-grade color mixing and output with the efficiency and cost-effectiveness provided by Powercore technology.

- High-performance illumination ColorFuse Powercore is available in 305 mm (1 ft) and 1.2 m (4 ft) die-cast aluminium housings with a narrow 10° x 60° or medium 30° x 60° beam angle. Superior beam quality delivers striation-free light. Interlocking connectors accommodate end-to-end installation without visible light scalloping between luminaires.
- Superior color consistency Optibin, a proprietary binning optimization process developed by Philips Color Kinetics, guarantees consistency of hue across LEDs, luminaires, and manufacturing runs.
- Advanced color mixing Patented Chromacore technology, pioneered by Philips Color Kinetics, enables precise control over individual LED channels to produce millions of colors and fullcolor, dynamic effects.
- Integrates Powercore technology Powercore technology rapidly, efficiently, and accurately controls power output to ColorFuse Powercore luminaires directly from line voltage. The Philips Data Enabler Pro merges line voltage with control and delivers them to the luminaire over a single standard cable, dramatically simplifying installation and lowering total system cost.

- Industry-leading controls ColorFuse Powercore works seamlessly with the complete Philips Color Kinetics line of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, as well as third-party controllers.
- Universal power input range ColorFuse Powercore accepts power input of 100 to 240 VAC for consistent intallation anywhere in the world.
- Easy installation By delivering line voltage directly to the luminaires, Powercore reduces the number of external power supplies, allowing long product runs and eliminating the need for special wiring. Easy-to-install 1.2 m (4 ft) mounting tracks allow quick project setup in linear applications.
- Flexible mounting and positioning With endto-end locking power connectors that can make 180° turns, these compact grazing luminaires are easy to position in even the most challenging mounting circumstances. 305 mm (1 ft) and 1.5 m (5 ft) jumper cables can add extra space between luminaires. Optional mounting tracks support vertical and overhead positioning.



Intense Light Output

ColorFuse Powercore high-performance grazing luminaires deliver professional-grade illuminance with total light output of over 380 lumens per foot.

Professional, Dramatic, Innovative

The Jordan Conference Room, in an Oklahoma City, Oklahoma, USA, marketing firm, was a large conventional meeting room that needed an updated look and functionality. Working with interior designer Malia Tate, head of the Interior Design Division at RBA Architects, the firm outlined a renovation plan that included a high-impact lighting system that employees could easily change to support different presentations and uses.



Photography by Simon Hurst Photography

Because the physical layout of the conference room makes access to luminaires difficult, Tate selected integrated LED lighting luminaires from Philips Color Kinetics, which afford long useful source life and low-maintenance operation. To achieve the look of a professional yet innovative space and ensure high visual impact throughout the room, 28 ColorFuse Powercore luminaires are mounted behind white laminated glass at 1.5 to 3 m (5 to 10 ft) intervals. Each set of floor-to-ceiling laminated glass panels has one luminaire mounted on the floor, one on the ceiling, and one in the ceiling cloud hanging above the conference table. A Data Enabler Pro device receives data from an iPlayer 3 DMX controller and delivers integrated data and power to the ColorFuse Powercore luminaires, bringing the room to life with programmable color-changing light.

The end result is exactly what the client asked for — a flexible lighting solution that provides dramatic mood lighting and high visual impact for presentations. Philips Color Kinetics LED solutions transform the Jordan Conference Room from an ordinary meeting room into a state-of-the-art innovation center.

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.

ColorFuse Powercore 1 ft, $10^{\circ} \times 60^{\circ}$ (narrow) beam angle

| LED | Lumens | Efficacy |
|-----|--------|----------|
| RGB | 384 | 23.3 |

Polar Candela Distribution

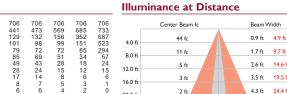
📕 - 90° H

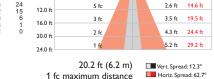
80°

70°

60°

509





Zonal Lumen

- 0° H

Cd: 0

125

250

375

500

625

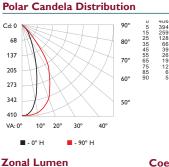
750

VA: 0° 10° 20° 30° 40°

| Zonal Lu | men | | Coe | fficient | s Of | Uti | liz | ati | on | - Zo | ona | I C | avity | Μ | etho | bd | | | |
|----------|-----|-------|-----|----------|-------|------|-----|-----|-----|------|-----|-----|-------|-------|---------|--------|------|---------|--------|
| 0- 30 | 202 | 52.6 | | | | | | | | | | | Ef | ectiv | e Floor | Cavity | Refl | ectance | a: 20% |
| 0- 40 | 266 | 69.3 | RC | 80 | | | 70 | 2 | | | 50 | | | 30 | | | 10 | | 0 |
| 0- 60 | 339 | 88.3 | | | | | | | | | | | | | | | | | |
| 0- 90 | 373 | 97.1 | RW | 70 50 3 | 30 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 90-120 | 8 | 2.1 | | | | | | | | | | | | | | | | | |
| 90-130 | 10 | 2.5 | 0 | 1181181 | 18118 | 1151 | 115 | 115 | 115 | 1091 | 091 | 09 | 104 | 104 | 104 | 99 | 99 | 99 | 97 |
| 90-150 | 11 | 2.8 | 1 | 11110710 | 04101 | 1081 | 105 | 102 | 99 | 100 | 98 | 95 | 96 | 94 | 92 | 92 | 90 | 89 | 87 |
| 90-180 | 11 | 2.9 | 2 | 104 97 9 | | 101 | | | | | 88 | | | 85 | | | 82 | | 78 |
| 0-180 | 384 | 100.0 | - | | | | | | | | | | | | | | | | |
| | | | 3 | 97 89 8 | 83 78 | 95 | 87 | 82 | 77 | 84 | 79 | 75 | 81 | 77 | 74 | 79 | 75 | 72 | 70 |
| | | | 4 | 91 82 7 | 75 70 | 89 | 80 | 74 | 69 | 78 | 72 | 68 | 75 | 71 | 67 | 73 | 69 | 66 | 64 |
| | | | 5 | 86 76 6 | 69 64 | 84 | 75 | 68 | 63 | 72 | 67 | 62 | 70 | 65 | 61 | 68 | 64 | 61 | 59 |
| | | | 6 | 81 70 6 | 63 58 | 79 | 69 | 63 | 58 | 67 | 62 | 57 | 66 | 61 | 57 | 64 | 60 | 56 | 54 |
| | | | 7 | 76 66 5 | 59 54 | 75 | 65 | 58 | 54 | 63 | 57 | 53 | 62 | 56 | 53 | 60 | 56 | 52 | 50 |
| | | | 8 | 72 62 5 | 55 50 | 71 | 61 | 54 | 50 | 59 | 54 | 49 | 58 | 53 | 49 | 57 | 52 | 49 | 47 |
| | | | 9 | 69 58 5 | 51 47 | 67 | 57 | 51 | 47 | 56 | 50 | 46 | 55 | 50 | 46 | 54 | 49 | 46 | 44 |
| | | | 10 | 65 55 4 | 48 44 | 64 | 54 | 48 | 44 | 53 | 47 | 44 | 52 | 47 | 43 | 51 | 46 | 43 | 42 |

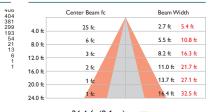
ColorFuse Powercore 1 ft, $30^{\circ} \times 60^{\circ}$ (medium) beam angle

| LED | Lumens | Efficacy |
|-----|--------|----------|
| RGB | 380 | 22.5 |



| Lumen | |
|-------|--|
| 221 | 58.0 |
| 290 | 76.1 |
| 346 | 91.0 |
| 373 | 98.1 |
| 6 | 1.5 |
| 7 | 1.7 |
| 7 | 1.9 |
| 7 | 1.9 |
| 380 | 100.0 |
| | 290 346 373 6 7 7 7 7 |

Illuminance at Distance



26.6 ft (8.1 m) Vert. Spread: 37.8° Horiz. Spread: 68.3° 1 fc maximum distance

Coefficients Of Utilization - Zonal Cavity Method

| | | | | Effective Floo | Cavity Reflectance | : 20% |
|----|--------------|--------------|-----------|----------------|--------------------|-------|
| RC | 80 | 70 | 50 | 30 | 10 | 0 |
| RW | 70 50 30 10 | 70 50 30 10 | 50 30 10 | 50 30 10 | 50 30 10 | 0 |
| 0 | 119119119119 | 116116116116 | 110110110 | 105105105 | 100100100 | 98 |
| 1 | 111108105102 | 109106103100 | 101 99 97 | 97 95 94 | 93 92 91 | 89 |
| 2 | 105 99 94 90 | 102 97 92 89 | 93 89 86 | 90 87 84 | 87 84 82 | 80 |
| 3 | 98 91 85 80 | 96 89 84 79 | 86 81 78 | 83 79 76 | 81 78 75 | 73 |
| 4 | 93 84 77 72 | 90 82 76 72 | 80 75 71 | 78 73 70 | 75 72 69 | 67 |
| 5 | 87 78 71 66 | 85 76 70 65 | 74 69 65 | 72 68 64 | 71 67 63 | 61 |
| 6 | 82 72 65 61 | 81 71 65 60 | 70 64 60 | 68 63 59 | 66 62 59 | 57 |
| 7 | 78 67 61 56 | 76 67 60 56 | 65 59 55 | 64 59 55 | 62 58 54 | 53 |
| 8 | 74 63 57 52 | 72 63 56 52 | 61 56 52 | 60 55 51 | 59 54 51 | 49 |
| 9 | 70 60 53 49 | 69 59 53 48 | 58 52 48 | 57 52 48 | 56 51 48 | 46 |
| 10 | 67 56 50 46 | 66 56 50 45 | 55 49 45 | 54 49 45 | 53 48 45 | 43 |
| | | | | | | |

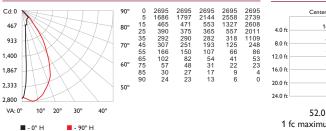
For lux multiply fc by 10.7

ColorFuse Powercore 4 ft, 10° x 60° (narrow) beam angle

| LED | Lumens | Efficacy |
|-----|--------|----------|
| RGB | 1407 | 29.4 |

Polar Candela Distribution

Zonal Lumen



Illuminance at Distance



52.0 ft (15.8 m) 1 fc maximum distance Vert. Spread: 12.1° Horiz. Spread: 64.0°

Coefficients Of Utilization - Zonal Cavity Method

| Zonai Lu | men | | Coefficients Of Othization - Zonar Cavity Hethod | | | | | | |
|-----------------|------------|--------------|--|--------------|--------------|-----------|----------------|----------------------|--------|
| 0- 30 | 745 | 53.0 | | | | | Effective Floo | r Cavity Reflectance | a: 20% |
| 0- 40 | 986 | 70.1 | | 00 | 70 | 50 | 00 | 40 | 0 |
| 0- 60 | 1249 | 88.8 | RC | 80 | 70 | 50 | 30 | 10 | 0 |
| 0- 90 | 1370 | 97.4 | RW | 70 50 30 10 | 70 50 30 10 | 50 30 10 | 50 30 10 | 50 30 10 | 0 |
| 90-120 | 28 | 2.0 | | | | | | | |
| 90-130 | 33 | 2.4 | 0 | 118118118118 | 115115115115 | 110110110 | 104104104 | 100100100 | 97 |
| 90-150 | 37 | 2.6 | 1 | 111107104101 | 108105102 99 | 100 98 96 | 96 94 92 | 92 91 89 | 87 |
| 90-180 0-180 | 37 1407 | 2.6 100.0 | 2 | 104 98 93 88 | 101 96 91 87 | 92 88 85 | 88 85 82 | 85 83 80 | 78 |
| 0-100 | 1407 | 100.0 | 3 | 97 89 83 78 | 95 88 82 77 | 85 80 76 | 82 78 74 | 79 76 73 | 71 |
| | | | 4 | 91 82 75 70 | 89 81 75 70 | 78 73 69 | 76 71 68 | 73 70 66 | 65 |
| | | | 5 | 86 76 69 64 | 84 75 68 64 | 73 67 63 | 71 66 62 | 69 64 61 | 59 |
| | | | 6 | 81 71 64 59 | 79 70 63 58 | 68 62 58 | 66 61 57 | 64 60 56 | 55 |
| | | | 7 | 77 66 59 54 | 75 65 59 54 | 64 58 53 | 62 57 53 | 61 56 53 | 51 |
| | | | 8 | 73 62 55 50 | 71 61 55 50 | 60 54 50 | 58 53 49 | 57 53 49 | 48 |
| | | | 9 | 69 58 52 47 | 68 58 51 47 | 56 51 47 | 55 50 46 | 54 50 46 | 45 |
| | | | 10 | 66 55 49 44 | 65 54 48 44 | 53 48 44 | 52 47 44 | 51 47 43 | 42 |
| | | | | | | | | | |

Polar Candela Distribution Illuminance at Distance 1400 1451 1326 1012 568 184 70 41 22 9 5 1400 1424 996 489 244 149 88 62 37 20 16 1400 1436 1178 677 318 162 85 46 26 13 10 1460 1465 1378 1127 773 241 81 48 21 48 Center Beam fo Beam Width 1400 1423 937 441 241 146 97 70 43 22 17 Cd: 0 90 15 25 35 45 55 65 75 85 90 2.7 ft 5.8 ft 91 fc 250 80° 4.0 ft 23 fc 5.5 ft 11.5 ft 500 8.0 ft 70° 8.2 ft 17.3 ft 10 fc 750 12.0 ft 60° 11.0 ft 23.1 ft 6 fc 1,000 16.0 ft 13.7 ft 28.8 ft 4 f 20.0 ft 1,250 50° 16.5 ft 34.6 ft 24.0 ft 1.500 VA: 0° 10° 20° 30° 40° 38.2 ft (11.6 m) Vert. Spread: 37.9° Horiz. Spread: 71.5° 1 fc maximum distance 🔳 - 0° H 📕 - 90° H **Zonal Lumen** Coefficients Of Utilization - Zonal Cavity Method U- 30 0- 40 0- 60 0- 90 90-120 90-130 90-150 90-180 0-180 57.3 75.7 91.2 98.2 1.4 1.6 1.8 1.8 100.0 797

| | | | | Effective Floor | Cavity Reflectance | e: 20% |
|----|--------------|--------------|-----------|-----------------|--------------------|--------|
| RC | 80 | 70 | 50 | 30 | 10 | 0 |
| RW | 70 50 30 10 | 70 50 30 10 | 50 30 10 | 50 30 10 | 50 30 10 | 0 |
| 0 | 119119119119 | 116116116116 | 110110110 | 105105105 | 100100100 | 98 |
| 1 | 111108105102 | 109106103100 | 101 99 97 | 97 95 94 | 93 92 91 | 89 |
| 2 | 105 99 94 90 | 102 97 92 88 | 93 89 86 | 90 87 84 | 87 84 82 | 80 |
| 3 | 98 91 85 80 | 96 89 84 79 | 86 81 78 | 83 79 76 | 81 77 75 | 73 |
| 4 | 92 84 77 72 | 90 82 76 72 | 80 75 70 | 77 73 69 | 75 72 68 | 67 |
| 5 | 87 77 71 66 | 85 76 70 65 | 74 69 64 | 72 67 64 | 70 66 63 | 61 |
| 6 | 82 72 65 60 | 80 71 65 60 | 69 64 59 | 68 63 59 | 66 62 58 | 57 |
| 7 | 78 67 60 56 | 76 66 60 55 | 65 59 55 | 64 58 55 | 62 58 54 | 53 |
| 8 | 74 63 56 52 | 72 62 56 52 | 61 55 51 | 60 55 51 | 59 54 51 | 49 |
| 9 | 70 59 53 48 | 69 59 52 48 | 57 52 48 | 56 51 48 | 55 51 47 | 46 |
| 10 | 66 56 49 45 | 65 55 49 45 | 54 49 45 | 53 48 45 | 52 48 44 | 43 |

For lux multiply fc by 10.7

1053 1267

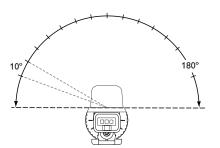
ColorFuse Powercore 4 ft, $30^{\circ} \times 60^{\circ}$ (medium) beam angle

| LED | Lumens | Efficacy |
|-----|--------|----------|
| RGB | 1391 | 29.2 |

Specifications

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

| | | . , | - | | |
|---------------|--|--|--|--|--|
| Item | Specification | 1 ft (305 mm) | 4 ft (1.2 m) | | |
| | Lumens* | 384 (10° × 60° beam angle) 380 (30° × 60° beam angle) | 1407 (10° x 60° beam angle) 1391 (30° x 60° beam angle) | | |
| Output | Lumen Maintenance† | | 37,000 hours L70 @ 50° C 80,000 hours L50 @ 50° C | | |
| | LED Channels | Red / Green / Blue | | | |
| | Input Voltage | 100 to 240 VAC, auto-switchin | ng, 50 / 60 Hz | | |
| Electrical | Power Consumption | 12.5 W maximum at full output, steady state | 50 W maximum at full output, steady state | | |
| | Interface | Data Enabler Pro (DMX or Et | hernet) | | |
| Control | Control System | Philips full range of controllers, including Light System Manager, iPlayer 3, and ColorDial Pro, or third-party controllers | | | |
| | Dimensions (Height x Width x Depth) | 53 x 305 x 39 mm (2.1 x 12 x 1.5 in) | 53 x 1219 x 41 mm (2.1 x 48 x 1.6 in) | | |
| | Weight | 0.45 kg (0.98 lbs) | 1.98 kg (4.37 lbs) | | |
| | Housing | Die-cast aluminium, white pov | vder-coated finish | | |
| | Lens | Polycarbonate | | | |
| Physical | Luminaire Connections | Integral male / female connectors | | | |
| rnysicai | Temperature Ranges | -20 to 50 °C (-4 to 122 °F) Operating -20 to 50 °C (-4 to 122 °F) Startup -40 to 80 °C (-40 to 176 °F) Storage | | | |
| | 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.philipscolorkinetics.com/ support/install_tool/ | | | |
| Certification | Certification | UL / cUL, FCC Class B, CE, PS | E, C-Tick, CCC, SAA | | |
| and Safety | Environment | Dry / Damp Location, IP20 | | | |
| | | | | | |



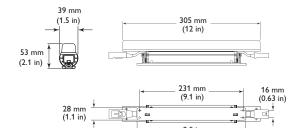


* Lumen measurement complies with IES LM-79-08 testing procedures.

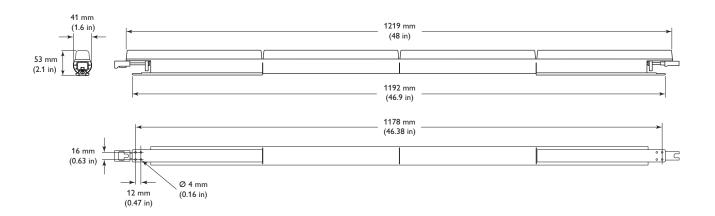
† L70 = 70% lumen maintenance (when light output drops

below 70% of initial output). 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.





9.5 in (241 mm)



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Included in the box

ColorFuse Powercore luminaire Installation Instructions

Luminaires and Accessories

ColorFuse Powercore luminaires are part of a complete system which includes luminaires and:

- 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.

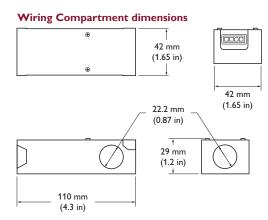
| Туре | | Item Number | Philips 12NC |
|----------------|--|---|--|
| 10° (0° | UL/cUL/CE | 123-000066-00 | 910503701783 |
| 10 x 60 | ССС | 123-000066-02 | 910503701993 |
| 20° ~ (0° | UL/cUL/CE | 123-000066-01 | 910503701784 |
| 30 X 60 | CCC | 123-000066-03 | 910503701994 |
| 10° (0° | UL/cUL/CE | 123-000066-04 | 910503702589 |
| 10 x 60 | ССС | 123-000066-06 | 910503703167 |
| 20% (0% | UL/cUL/CE | 123-000066-05 | 910503702590 |
| 30 X 60 | ССС | 123-000066-07 | 910503703168 |
| | | | |
| 1 @ 1219 mm (4 | 4 ft) | 120-000124-00 | 910503701787 |
| 2.1 m (10.6) | UL/cUL | 108-000050-00 | 910503701686 |
| 3.1 m (10 lt) | CE/CCC | 108-000050-01 | 910503701687 |
| 205 | UL/cUL | 108-000049-01 | 910503701683 |
| 305 mm (1 ft) | CE/CCC | 108-000049-03 | 910503701685 |
| 4 F (F fr) | UL/cUL | 108-000049-00 | 910503701682 |
| 1.5 m (5 π) | CE/CCC | 108-000049-02 | 910503701684 |
| rminator | UL/cUL | 120-000077-02 | 910503701740 |
| | | 120-000099-01 | 910503704251 |
| | 10° × 60° 30° × 60° 10° × 60° 30° × 60° 1 @ 1219 mm (* 3.1 m (10 ft) 305 mm (1 ft) 1.5 m (5 ft) | $\begin{array}{c} & \label{eq:constraints} \\ 10^\circ \times 60^\circ & \begin{tabular}{lllllllllllllllllllllllllllllllllll$ | 1/pc LL/cUL/CE 123-00066-00 10° x 60° CCC 123-00066-02 30° x 60° UL/cUL/CE 123-00066-03 10° x 60° UL/cUL/CE 123-00066-03 10° x 60° UL/cUL/CE 123-00066-04 10° x 60° UL/cUL/CE 123-00066-04 30° x 60° UL/cUL/CE 123-00066-05 30° x 60° UL/cUL/CE 123-00066-07 1@ 1219 mm (4 f) 120-000124-00 3.1 m (10 fr) UL/cUL 108-00050-01 305 mm (1 fr) UL/cUL 108-00049-01 CE/CCC 108-00049-03 1.5 m (5 fr) UL/cUL 108-00049-02 Timinator UL/cUL 108-00049-02 |

| ltem | Туре | Item Number | Philips 12NC |
|-------------------|--|---------------|--------------|
| Deer Fricklan Dee | 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 |

Use Item Number when ordering in North America.

Optional mounting track ensures straight runs of luminaires.

Depending on the installation's design, you may need jumper cables to add space between luminaires.



Installation

ColorFuse Powercore offers high-intensity, full-color surface grazing and wall washing 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 ColorFuse Powercore 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.

Prepare for the Installation

Determine the appropriate location of each Data Enabler Pro in relation to the luminaires, and of the luminaires in relation to each other. The Data Enabler Pro and first luminaire must be separated by no more than the 3.1 m (10 ft) length of the Leader Cable.

ColorFuse Powercore 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 on the 305 mm (1 ft) luminaires allow for spacing of 10 mm (0.4 in) to 23 mm (0.9 in) without a jumper cable, while the connectors on the 1.2 m (4 ft) luminaires allow for spacing of 23 mm (0.9 in) to 51 mm (2 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 122 m (400 ft).

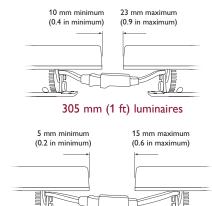
Fixtures

Data Integrity — total length 122 m (400 ft)

So Refer to the ColorFuse Powercore 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.

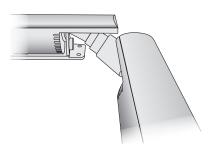
Distance between luminaires joined end-to-end



1.2 m (4 ft) luminaires

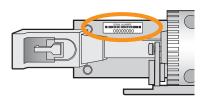
Easy turns

End-to-end locking power connectors can make turns of up to 180° without jumper cables.



Included in the box

ColorFuse Powercore luminaire Installation Instructions



Location of serial number on 305 mm (1 ft) ColorFuse Powercore luminaires

Start the Installation

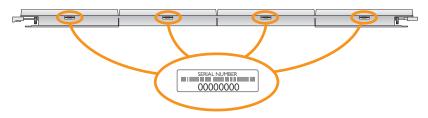
- Install all Data Enabler Pro devices, including any interfaces with controllers. One Leader Cable is required to connect each run or series of luminaires to a Data Enabler Pro. The Data Enabler Pro sends power and control signals to the luminaires over the Leader Cable.
- 2. Verify that all additional supporting equipment (switches, controllers) is 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, terminators) and tools are available.

Unpack and Prepare Luminaires

- 1. Carefully inspect the box containing ColorFuse Powercore and the contents for any damage that may have occurred in transit.
- 2. 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.
- ColorFuse Powercore 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 (typically a spreadsheet or list) for easy reference and light addressing.

4. Assign each luminaire to a position in the lighting design plan.



Location of serial numbers on 1.2 m (4 ft) ColorFuse Powercore luminaires

5. To streamline installation and aid in light show programming, you can affix a 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 ColorFuse Powercore luminaires directly to a wall, ceiling, cabinet, or other secure surface. For linear applications, you can install several ColorFuse Powercore luminaires in optional 1.2 m (4 ft) lengths of mounting track to ensure straight runs.

Install Mounting Tracks (Optional)

- 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 (12 in).

Mount and Connect the Luminaires

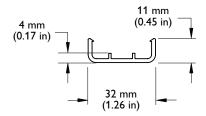
Make sure the power is OFF before mounting and connecting luminaires.

- 1. Rotate an ColorFuse Powercore 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.

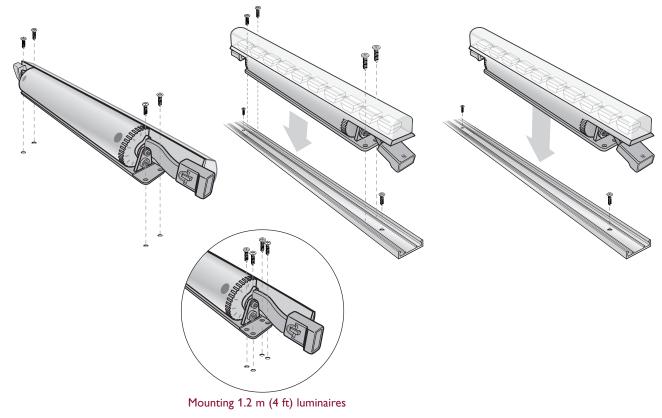
If using mounting tracks on vertical or overhead surfaces, or if not using mounting tracks, attach 305 mm (1 ft) luminaires with four #6 (3.5 mm) mounting screws each (not included) suitable for the mounting surface. Attach 1.2 m (4 ft) luminaires with eight #6 (3.5 mm) mounting screws suitable for the mounting surface, four at each end of the luminaire,

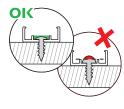
Ensure that the male connector is in position to receive data and power from the leader cable's female connector.



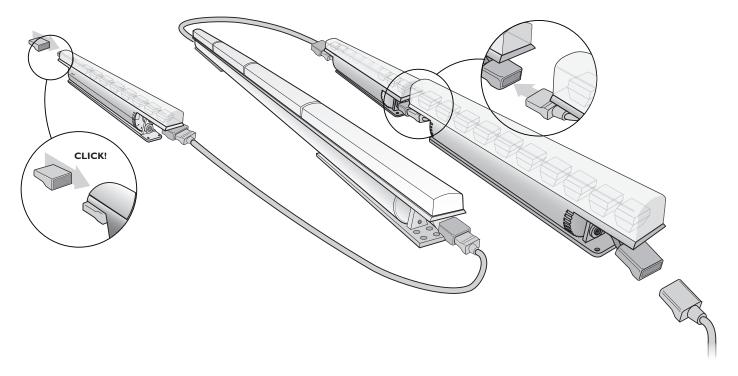
So You can use the luminaire base as a template when pre-drilled holes are required. Hold the luminaire in place and mark the four screw holes.

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.



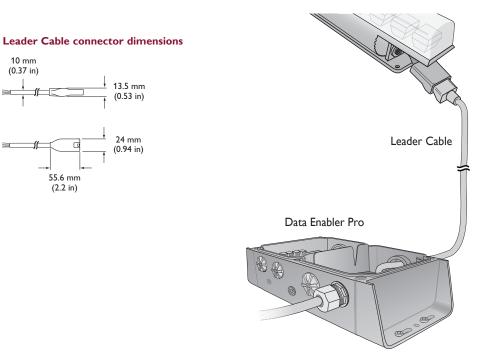


- 3. Position the next luminaire in the series, matching the male connector end to the female connector of the previously mounted luminaire. Attach the luminaire to the surface or snap it into the track.
- 4. Continue mounting the luminaires, making power/data connections as you go, until all lights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



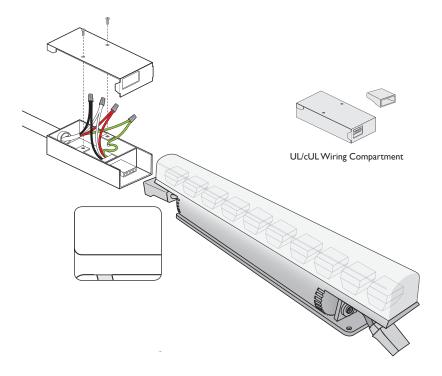
Make Power Connections

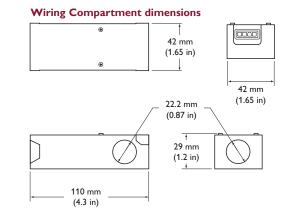
1. If using a Leader Cable, connect the Leader Cable to the first luminaire in the series. Run the Leader Cable to the Data Enabler Pro.



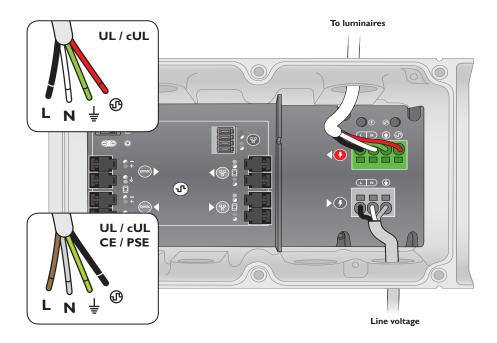
2. If using the ColorFuse Powercore Wiring Compartment to run conduit from the Data Enabler Pro to the first luminaire in a series, pull cable through conduit. (We recommend standard 4-conductor 12 AWG copper wire.)

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.

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

ColorFuse Powercore luminaires operate in 8-bit mode by default. You can configure ColorFuse Powercore 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, and blue). 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 x 256) dimming steps.

DMX Channel Assignments Per Node

| | 8-Bit Mode | 1 | | 2 | | 3 | |
|--|-------------|------------|----------|--------------|------------|-------------|-----------|
| | | Red | | Green | | Blue | |
| | 16-Bit Mode | 1 | 2 | 3 | 4 | 5 | 6 |
| | | Red Coarse | Red Fine | Green Coarse | Green Fine | Blue Coarse | Blue Fine |

Each ColorFuse Powercore 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 ColorFuse Powercore 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.colorkinetics.com/support/ addressing/

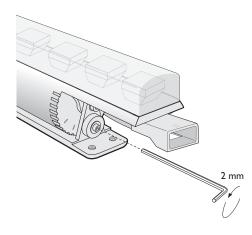
So You will need the layout grid that you created when you recorded the serial numbers of the light luminaires in your installation.

Aim and Lock the Luminaires

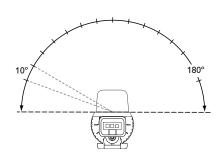
Make sure the power is ON before aiming the luminaires.

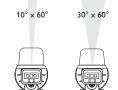
Aim the luminaires by rotating each luminaire to the correct angle. There are detents every 10° in the bracket that hold it in position.

(Optional) Using a 2 mm hex key wrench, tighten the set screw located on each end of the luminaire to lock the luminaire in place.



Bo not look directly into the luminaire when aiming and locking.







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