

# Flex Compact Pro

Date: \_\_\_\_\_

Type: \_\_\_\_\_

Firm Name: \_\_\_\_\_

Project: \_\_\_\_\_

**Flat Lens, 50 nodes, White Housing, 4 in Node Spacing**

## Exterior flexible strands of high-intensity nodes with intelligent RGBiW light

Some products light up structures. Flex Compact Pro transforms them. Its innovative RGBiW platform delivers vibrant saturated color, tunable white, and powerful eW light — all from a single, individually controllable node. With the flexibility to wrap, bend, and configure across virtually any surface or structure, built to endure demanding environments and engineered for fast, straightforward installation, Flex Compact Pro delivers extraordinary results at just 0.75 W per node or less. The most ambitious designs just got a whole lot easier.



- Sophisticated RGBiW platform—Flex Compact Pro delivers individually controllable nodes that illuminate with vibrant saturated RGB, soft pastel RGBW, tunable iW, and powerful eW white — all from a single platform. Daylight-visible output means your design commands attention around the clock.
- Output volume and quality—Bright enough to stop people in their tracks. Flex Compact Pro delivers up to 51 lm per node (factory default) and up to 69.8 lm per node in tunable white, with CRI up to 95.8 for white light that is as beautiful as it is powerful. All at just 0.75 W per node or less.
- Standard and custom strand configurations—Every installation is different. That's why Flex Compact Pro is endlessly configurable. Standard strands feature a Strand Interface Module and 50 nodes, with 102 mm (4 in) or 305 mm (12 in) on-center spacing — or custom spacing up to 1 m (39.4 in). Custom node counts from 1 to 100, or a maximum run length of 465 ft including branches, or a 400 ft leader cable. Strands can also be field shortened on site. Use the Flex Compact Pro Configurator to find the right setup for your project.
- Lens options—Flat and translucent dome lenses are standard. Optional marquee lenses, available in semi-frosted, and translucent, and snap onto flat-lens nodes, recreating the timeless look of a classic theatre marquee in warm, cool, or full color light.
- Mount it your way—Flex Compact Pro fits the way you work. Integrated cable-tie mounts on each node provide built-in strain relief, ready for customer-supplied cable ties—no additional accessories required. Optional single-node mounts anchor installations with complex geometries or uneven spacing, while optional mounting tracks keep linear runs arrow-straight, with snap-on spacers concealing cabling for a clean, professional finish.
- Simplified installation and control—Flex Compact Pro gets you up and running fast. Auto-addressing eliminates manual node configuration, and the factory default 3-channel control mode automatically optimises color rendering without extra programming. Need more precision? Additional control modes give you direct access to all five LED channels. CKDMX branching support keeps wiring clean and flexible across even the most complex layouts.
- Outdoor rated, built for the long haul—A 3-conductor double-jacketed flat cable, IP66 rating, and ASTM B117 salt-spray resistance of 1,500 hours mean Flex Compact Pro is ready for whatever the environment throws at it.
- Forward looking, backward compatible—The PDS-80 CK2 24V power/data supply and CM-160 CK2 24V control module are engineered specifically for Flex Compact Pro, ensuring flawless integration and years of trouble-free performance. Flex Compact Pro is also backward compatible with many previous generation Flex Compact power/data supplies and control modules, minimizing replacement and upgrade costs. Whether using new or existing infrastructure, it connects effortlessly with the full Color Kinetics controller ecosystem.

For detailed product information, please refer to the Flex Compact Pro Product Guide at [www.colorkinetics.com/global/products/rgb/flex-compact-pro](http://www.colorkinetics.com/global/products/rgb/flex-compact-pro)

# Specifications

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

## Output

|   |   |
|---|---|
| Viewing Angle                               | 156°  |
| Lumens per node (full on) factory default † | 51.0  |
| Lumens per channel *                        | R 18.6 / G 27.4 / B 6.8 / 2700 47.6 / 6500 52.7 |
| Lumens full on, iW mode *                   | 69.8  |
| Luminance at 45° per node factory default   | 27,036 cd/m2                                    |
| On-Axis Candela per node                    | 19  |
| Efficacy (lm/W) (full on) factory default   | 99.3  |
| CRI @ 2700 K                                | 93  |
| CRI @ 6500 K                                | 95.8  |
| LED Channels                                | Red/Green/Blue/2700K/6500K                      |

## Electrical

|  |  |
|--|--|
| Input Voltage  | 24 VDC via PDS-80 CK2 24V, or CM-160 CK2 24V |
| Power Consumption<br>(Maximum per node at full output, steady state) | 0.75 W                                       |

For additional 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 | PDS-80 CK2 24V<br>CM-160 CK2 24V |
|-----------|----------------------------------|

### Control Channels

3 channels per node. 3-Channel IN / 5-Channel OUT (Optimized white, Factory default).

For additional Control Channel information including configuring Flex Compact Pro to iW mode with QuickPlay Pro 2 please refer to <https://colorkinetics.helpdocs.io/article/gv717tfa25>

### Control System ‡

Color Kinetics full range of controllers, including iPlayer 4, 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 <sub>90</sub> | 25 °C               | >36,000     | 43,000        |
|                 | 50 °C               | >36,000     | 42,000        |
| L <sub>80</sub> | 25 °C               | >36,000     | 90,000        |
|                 | 50 °C               | >36,000     | 88,000        |
| L <sub>70</sub> | 25 °C               | >36,000     | >100,000      |
|                 | 50 °C               | >36,000     | >100,000      |
| L <sub>50</sub> | 25 °C               | >36,000     | >100,000      |
|                 | 50 °C               | >36,000     | >100,000      |

† Lumen output measurements comply with IES LM-79-08 testing procedures.

§ L<sub>xx</sub> = 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.

\*\* To calculate luminaire run lengths including node count and total power consumption for your specific installation, see the Flex Compact Pro Configurator.

¶¶ 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<br>(Height x Width x Depth) | 31 x 60.7 x 22.9 mm (1.2 x 2.4 x 0.9 in) |
| Weight                                 | 1.46 kg (3.2 lb) 50 nodes                |
| Housing Material                       | White polycarbonate                      |
| Lens                                   | UV-protected polycarbonate               |
| Luminaire Connections                  | Integrated watertight 3-pin connector    |

## Temperature Ranges

-40 to 50 °C (-40 to 122 °F) Operating

> 0 °C (> 32 °F) Handling

-20 to 50 °C (-4 to 122 °F) Startup

-40 to 80 °C (-40 to 176 °F) Storage

## Corrosion Resistance

Complies with ASTM B117 standard for > 1,500 hours

Humidity 0 to 95%, non-condensing

## Run Length

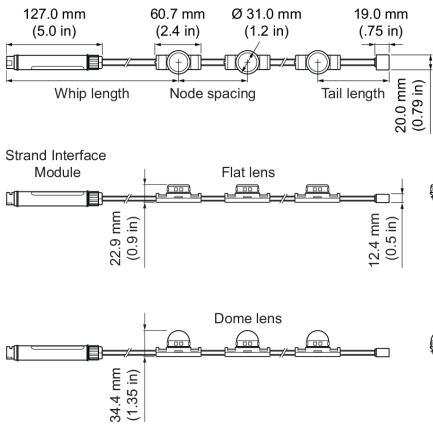
141.7 m (465 ft) maximum total run length (including branches), or maximum 100 nodes.\*\*

## Certification and Safety

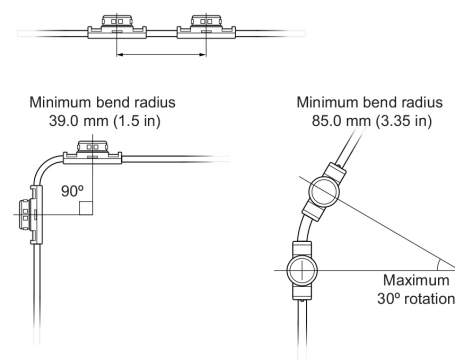
|             |                                   |
|-------------|-----------------------------------|
| Approbation | UL/cUL, FCC Class A, CE, RCM, CQC |
| Environment | Dry/Damp/Wet Location, IP66       |



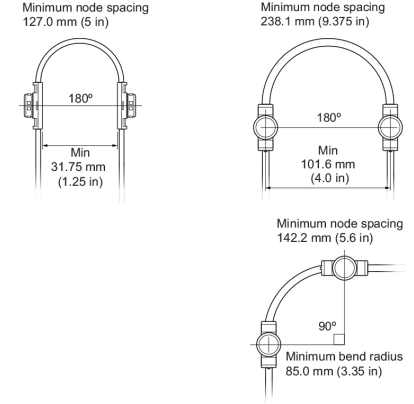
# Dimensions



## Standard 4 in node spacing



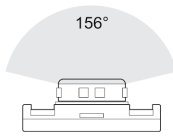
## Custom node spacing



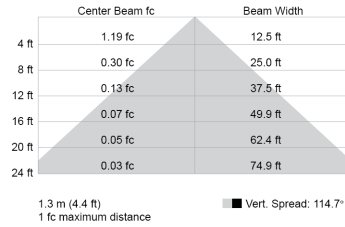
# Photometrics Flat Lens

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](http://www.colorkinetics.com/global/support/ies).

|   |       |
|---|-------|
| Viewing Angle                             | 156°  |
| LED                                       | RGBIW |
| Lumens per node (full on) factory default | 51.0  |
| Efficacy (lm/W) (full on) factory default | 99.3  |



## Illuminance at Distance

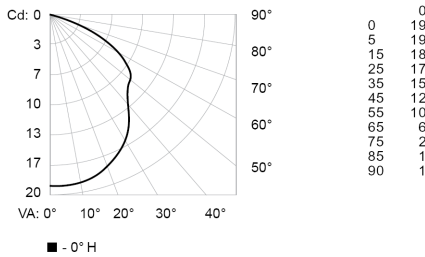


## Zonal Lumen

| Zone   | Lumens | % Luminaire |
|--------|--------|-------------|
| 0-30   | 14.9   | 27.5%       |
| 0-40   | 24.0   | 44.4%       |
| 0-60   | 42.3   | 78.2%       |
| 60-90  | 9.3    | 17.3%       |
| 70-100 | 4.3    | 8.0%        |
| 90-120 | 1.6    | 2.9%        |
| 0-90   | 51.6   | 95.5%       |
| 90-180 | 2.4    | 4.5%        |
| 0-180  | 54.0   | 100.0%      |

For lux multiply fc by 10.7

## Polar Candela Distribution



## Coefficients of Utilization - Zonal Cavity Method

| RCC %: | Effective Floor Cavity Reflectance: 20% |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |
|--------|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
|        | 70                                      | 80   | 0    | 70   | 50   | 30   | 0    | 50   | 30   | 20   | 50   | 30   | 20   | 0    |      |      |      |      |  |
| RW %:  | 1.18                                    | 1.18 | 1.18 | 1.15 | 1.15 | 1.15 | 0.96 | 1.09 | 1.09 | 1.09 | 1.03 | 1.03 | 1.03 | 0.98 | 0.98 | 0.98 | 0.96 |      |  |
| 0      | 1.08                                    | 1.03 | 0.99 | 0.96 | 1.05 | 1.01 | 0.97 | 0.81 | 0.96 | 0.93 | 0.90 | 0.91 | 0.89 | 0.86 | 0.87 | 0.85 | 0.83 | 0.81 |  |
| 1      | 0.99                                    | 0.91 | 0.84 | 0.78 | 0.96 | 0.88 | 0.82 | 0.69 | 0.84 | 0.79 | 0.75 | 0.80 | 0.76 | 0.72 | 0.77 | 0.73 | 0.70 | 0.68 |  |
| 2      | 0.90                                    | 0.80 | 0.72 | 0.65 | 0.87 | 0.78 | 0.71 | 0.59 | 0.74 | 0.68 | 0.63 | 0.71 | 0.66 | 0.61 | 0.68 | 0.63 | 0.60 | 0.57 |  |
| 3      | 0.82                                    | 0.71 | 0.62 | 0.56 | 0.80 | 0.69 | 0.61 | 0.51 | 0.66 | 0.59 | 0.54 | 0.63 | 0.57 | 0.53 | 0.61 | 0.56 | 0.51 | 0.49 |  |
| 4      | 0.76                                    | 0.63 | 0.54 | 0.48 | 0.73 | 0.62 | 0.54 | 0.44 | 0.59 | 0.52 | 0.47 | 0.57 | 0.51 | 0.46 | 0.55 | 0.49 | 0.45 | 0.43 |  |
| 5      | 0.70                                    | 0.57 | 0.48 | 0.42 | 0.68 | 0.56 | 0.48 | 0.39 | 0.54 | 0.46 | 0.41 | 0.51 | 0.45 | 0.40 | 0.49 | 0.44 | 0.39 | 0.37 |  |
| 6      | 0.65                                    | 0.52 | 0.43 | 0.37 | 0.63 | 0.51 | 0.42 | 0.35 | 0.49 | 0.41 | 0.36 | 0.47 | 0.40 | 0.36 | 0.45 | 0.39 | 0.35 | 0.33 |  |
| 7      | 0.60                                    | 0.47 | 0.39 | 0.33 | 0.59 | 0.46 | 0.38 | 0.31 | 0.45 | 0.37 | 0.32 | 0.43 | 0.37 | 0.32 | 0.41 | 0.36 | 0.31 | 0.29 |  |
| 8      | 0.56                                    | 0.43 | 0.35 | 0.30 | 0.55 | 0.42 | 0.35 | 0.28 | 0.41 | 0.34 | 0.29 | 0.40 | 0.33 | 0.29 | 0.38 | 0.33 | 0.28 | 0.26 |  |
| 9      | 0.53                                    | 0.40 | 0.32 | 0.27 | 0.51 | 0.39 | 0.32 | 0.26 | 0.38 | 0.31 | 0.26 | 0.37 | 0.30 | 0.26 | 0.36 | 0.30 | 0.26 | 0.24 |  |
| 10     |   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |

# Luminaire and Accessories

Use Item Number when ordering in North America

| <b>Luminaire</b>  | <b>Item Number</b> | <b>Item 12NC</b> |
|---|--------------------|------------------|
| Flex Compact Pro, Flat Lens, 50 nodes, White Housing, 4 in Node Spacing<br>BGC500 RGBiW 50 TDFT4 WH | 601-000001-02      | 912400138073     |
| <b>Accessories</b>  |                    |                  |
| 3 Conductor Flex Compact Pro Leader Cable, 1.5 m (5 ft) w/ flying leads                             | 608-000082-03      | 912400138112     |
| 3 Conductor Flex Compact Pro Leader Cable, 15.2 m (50 ft) w/ flying leads                           | 608-000082-04      | 912400138113     |
| Flex Compact Pro Single-Node Mounts, Qty 50, Black  | 601-000031-00      | 912400138089     |
| Flex Compact Pro Single-Node Mounts, Qty 50, White  | 601-000031-01      | 912400138090     |
| Flex Compact Pro Spacers, Qty 50, 102 mm (4 in), Black  | 601-000032-00      | 912400138091     |
| Flex Compact Pro Spacers, Qty 50, 102 mm (4 in), White  | 601-000032-01      | 912400138092     |
| Flex Compact Pro Spacers, Qty 50, 305 mm (12 in), Black   | 601-000032-02      | 912400138093     |
| Flex Compact Pro Spacers, Qty 50, 305 mm (12 in), White   | 601-000032-03      | 912400138094     |
| Flex Compact Pro Mounting Track, Qty 1, 1.2 m (4 ft), Black   | 601-000033-00      | 912400138095     |
| Flex Compact Pro Mounting Track, Qty 1, 1.2 m (4 ft), White   | 601-000033-01      | 912400138096     |
| <b>Power Supplies</b>   |                    |                  |
| PDS-80 CK2 4A 24V, IP66 UL for Flex Compact Pro   | 109-000202-00      | 912400138371     |
| PDS-80 CK2 4A 24V, IP66 CE, RCM, CQC for Flex Compact Pro   | 109-000202-01      | 912400138372     |
| CM-160 CK2 24V, IP00, UL/cUL, CE Control Module for Flex Compact Pro                                | 109-000042-00      | 912400138680     |



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Color Kinetics  
[www.colorkinetics.com/global/products/rgb/flex-compact-pro](http://www.colorkinetics.com/global/products/rgb/flex-compact-pro)