

Flex Compact Pro

Date: _____

Type: _____

Firm Name: _____

Project: _____

Translucent Dome Lens, 50 nodes, Black Housing, 12 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

Specifications

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

Output

Viewing Angle	283°
Lumens per node (full on) factory default †	31.9
Lumens per channel *	R 12.4 / G 17.2 / B 4.9 / 2700 30.1 / 6500 32.9
Lumens full on, iW mode *	44.1
Luminance at 45° per node factory default	6,964 cd/m2
On-Axis Candela per node	5.2
Efficacy (lm/W) (full on) factory default	61.8
CRI @ 2700 K	91.8
CRI @ 6500 K	94.4
LED Channels	Red/Green/Blue/2700K/6500K

Electrical

Input Voltage	24 VDC via PDS-80 CK2 24V, or CM-160 CK2 24V
Power Consumption (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 .	

Control

Interface	PDS-80 CK2 24V CM-160 CK2 24V
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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 ₉₀	25 °C	>36,000	43,000
	50 °C	>36,000	42,000
L ₈₀	25 °C	>36,000	90,000
	50 °C	>36,000	88,000
L ₇₀	25 °C	>36,000	>100,000
	50 °C	>36,000	>100,000
L ₅₀	25 °C	>36,000	>100,000
	50 °C	>36,000	>100,000

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

§ L_{xx} = 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 (Height x Width x Depth)	31 x 60.7 x 34.4 mm (1.2 x 2.4 x 1.35 in)
Weight	2.2 kg (4.9 lb) 50 nodes
Housing Material	Black 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

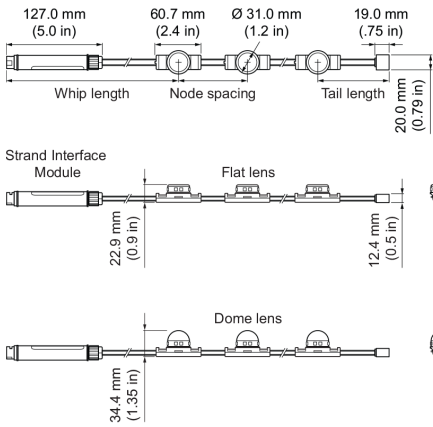
141.7 m (465 ft) maximum total run length (including branches), or maximum 100 nodes.**

Certification and Safety

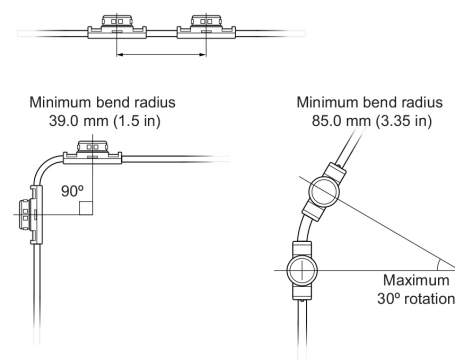
Approbation	UL/cUL, FCC Class A, CE, RCM, CQC
Environment	Dry/Damp/Wet Location, IP66



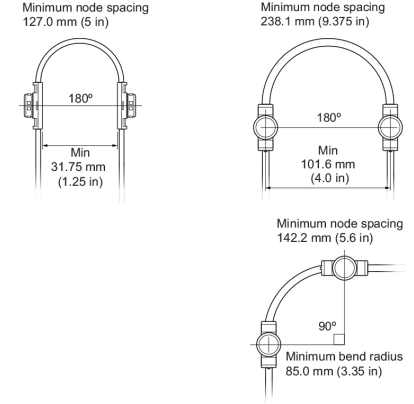
Dimensions



Standard 4 in node spacing



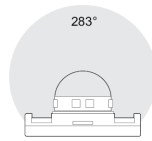
Custom node spacing



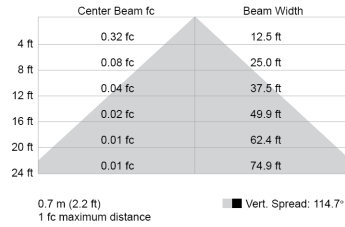
Photometrics Translucent Dome Lens

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.

Viewing Angle	283°
LED	RGBIW
Lumens per node (full on) factory default	31.9
Efficacy (lm/W) (full on) factory default	61.8



Illuminance at Distance

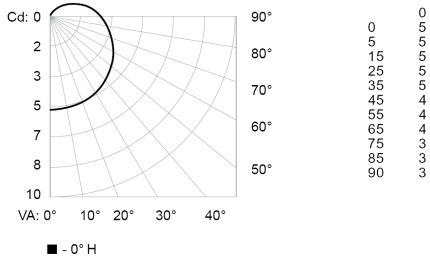


Zonal Lumen

Zone	Lumens	% Luminaire
0-30	4.2	13.0%
0-40	7.2	22.1%
0-60	14.4	44.1%
60-90	10.3	31.5%
70-100	9.2	28.1%
90-120	6.1	18.6%
0-90	24.7	75.6%
90-180	8.0	24.4%
0-180	32.8	100.0%

For lux multiply fc by 10.7

Polar Candela Distribution



Coefficients of Utilization - Zonal Cavity Method

RCC %:	Effective Floor Cavity Reflectance: 20%																	
	80				70				50									
RW %:	70	50	30	0	70	50	30	0	50	30	20	50	30	20	0			
0	1.13	1.13	1.13	1.13	1.08	1.08	1.08	0.76	0.98	0.98	0.98	0.88	0.88	0.88	0.80	0.80	0.76	
1	0.99	0.93	0.87	0.82	0.94	0.88	0.83	0.55	0.79	0.75	0.71	0.71	0.67	0.64	0.63	0.61	0.58	0.54
2	0.88	0.78	0.70	0.63	0.83	0.74	0.67	0.43	0.67	0.61	0.55	0.60	0.55	0.50	0.53	0.49	0.46	0.42
3	0.80	0.68	0.58	0.51	0.75	0.64	0.55	0.35	0.57	0.50	0.45	0.51	0.46	0.41	0.46	0.41	0.37	0.34
4	0.72	0.59	0.49	0.42	0.68	0.56	0.47	0.29	0.50	0.43	0.37	0.45	0.39	0.34	0.40	0.35	0.31	0.28
5	0.66	0.52	0.42	0.35	0.62	0.50	0.41	0.25	0.45	0.37	0.31	0.40	0.34	0.29	0.36	0.30	0.26	0.23
6	0.61	0.47	0.37	0.30	0.57	0.44	0.35	0.22	0.40	0.32	0.27	0.36	0.30	0.25	0.32	0.27	0.23	0.20
7	0.56	0.42	0.33	0.26	0.53	0.40	0.31	0.19	0.36	0.29	0.23	0.32	0.26	0.22	0.29	0.24	0.20	0.17
8	0.52	0.38	0.29	0.23	0.49	0.36	0.28	0.17	0.33	0.26	0.21	0.30	0.23	0.19	0.27	0.21	0.17	0.15
9	0.48	0.35	0.26	0.20	0.46	0.33	0.25	0.15	0.30	0.23	0.18	0.27	0.21	0.17	0.25	0.19	0.16	0.13
10	0.45	0.32	0.24	0.18	0.43	0.30	0.23	0.13	0.28	0.21	0.16	0.25	0.19	0.15	0.23	0.18	0.14	0.12

Luminaire and Accessories

Use Item Number when ordering in North America

Luminaire	Item Number	Item 12NC
Flex Compact Pro, Translucent Dome Lens, 50 nodes, Black Housing, 12 in Node Spacing BGC500 RGBiW 50 TSDM12 BK	601-000001-07	912400138078
Accessories		
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
Power Supplies		
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