# Flex Compact gen3, RGB

Date:
Type:
Firm Name:
Project:

**Clear Flat Lens, 50 Node, 4 in On-Center Node Spacing, Black**

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

Flex Compact gen3, RGB are flexible strands of large, high-intensity, full-color LED nodes designed for extraordinary video and graphic effects on expansive installations without the constraints of luminaire size, shape, or space. Each Flex Compact gen3, RGB strand consists of 50 individually addressable LED nodes, featuring dynamic integration of power, communication, and control. The flexible form factor accommodates two- and three-dimensional configurations, while high light output affords superior long-distance viewing for large-scale signage and building-covering video displays.

- Multiple lens options—Clear flat, translucent dome, and narrow beam lenses are standard. Optional marquee lenses, available in clear, semi-frosted, and translucent, snap onto flat-lens nodes to create the appearance of bulbs on a traditional theatre marquee. You can mount marquee lenses in front of a substrate or directly to mounted strands.
- Adaptable mounting—Flex Compact gen3, RGB strands can be mounted directly to a surface like traditional string lights. Detachable leader cables in multiple lengths allow you to install strings at the appropriate distance from power/data supplies. Optional mounting tracks ensure straight linear runs, while snap-on spacers hide cabling and mounting hardware between nodes for a clean, finished look. Single node mounts can be positioned individually to provide anchor points for installations with uneven node spacing or complex geometries. Optional glare shields can block unwanted spill light or prevent light sources from being visible in certain applications.
- Standard and custom lengths and node spacing—Standard on-center node spacing of 102 mm (4 in) or 305 mm (12 in) and custom spacing from 76 mm (3 in) to 610 mm (24 in) support virtually any lighting or video design. Standard 50-node strands can be field-shortened. Custom lengths of 1 to 60 nodes are also available.
- Custom Leader Cables—Custom Leader Cable lengths are available in addition to standard cables of 7.6 m (25 ft), 15.2 m (50 ft), and 30.5 m (100 ft).
- Industry-leading controls—Flex Compact gen3, RGB works seamlessly with the Color Kinetics full range of controllers, including Light System Manager, iPlayer 3, Antumbra iColor Keypad, and ColorDial Pro, or third-party controllers.
- Outdoor rated—Fully sealed for maximum node life and IP66-rated for outdoor applications.
- Daylight visible—Flex Compact gen3, RGB strands consist of 50 large, individually controllable, high-intensity LED nodes.

For detailed product information, please refer to the Flex Product Guide at www.colorkinetics.com/global/products/rgb/flex-compact-gen3

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# Specifications

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

## Output

| | |
|---|---|
| Viewing Angle | 105° |
| Lumens Per Node † | 33.3 |
| Luminance Per Node | 17,229 cd/m² |
| On-Axis Candela per node | 12.56 |
| Efficacy (lm/W) per node | 31.2 |
| LED Channels | Red/Green/Blue |

## Electrical

| | |
|---|---|
| Input Voltage | 24 VDC via CM-150 CA gen2, or sPDS-480ca 24V |
| Power Consumption (Maximum per node at full output, steady state) | 1 W |

For additional Surge Protection Requirements for LED Lighting Systems, please refer to www.colorkinetics.com/KB/surge-protection.

## Control

| | |
|---|---|
| Interface | CM-150 CA gen2 24V (DIN Rail or Surface Mount)<br>sPDS-480ca 24V (Ethernet) |
| Control Channels | 3 channels per node |

For additional Control Channel information, please refer to https://colorkinetics.helpdocs.io/article/fv5rkpvclq.

### Control System

Color Kinetics full range of controllers, including Light System Manager, 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 | | >100,000 |
| | 50 °C | | 17,000 |
| $L_{80}$ | 25 °C | | >100,000 |
| | 50 °C | | 45,000 |
| $L_{70}$ | 25 °C | | >100,000 |
| | 50 °C | | 70,000 |
| $L_{50}$ | 25 °C | | >100,000 |
| | 50 °C | | >100,000 |

## Physical

| | |
|---|---|
| Dimensions (Height x Width x Depth) | 31 x 32 x 17 mm (1.2 x 1.3 x 0.7 in) |
| Weight | 1.5 kg (3.3 lb) 50 nodes |
| Housing Material | Black polycarbonate |
| Lens | Clear 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

Not suitable for salt spray or harsh chemical environments. Please refer to www.colorkinetics.com/KB/corrosion-resistance for more information.

| | |
|---|---|
| Humidity | 0 to 95%, non-condensing |

### Maximum Luminaires Per Power/Data Supply

sPDS-480ca 24V: 8 strands
CM-150 CA gen2: 2 strands

## Certification and Safety

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

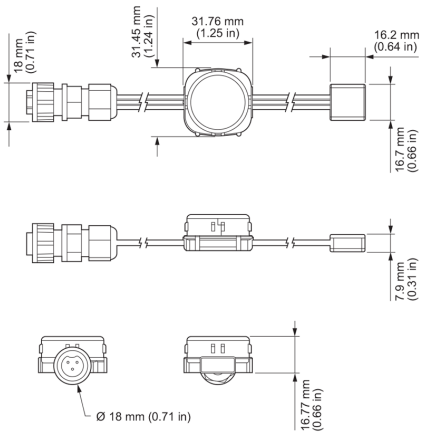
† Lumen output measurements comply with IES LM-79-08 testing procedures.

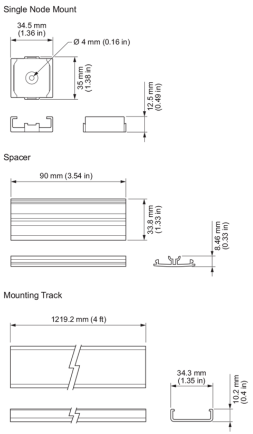
§ Lxx = xx% lumen maintenance (when light output drops below xx% of initial output). All values are given at B10, or the median value where 90% of the LED population is better than the reported or calculated lumen maintenance measurement.

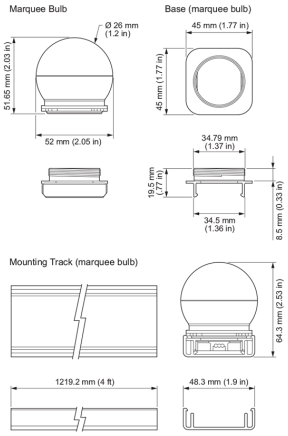
¶ Minimum surge limits per IEC 61547, tested in accordance with IEC 61000-4-5.

¶¶ 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.

# Dimensions



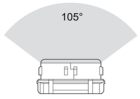



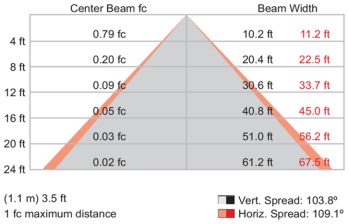

# Photometrics Clear Flat Lens

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.

| | |
|---|---|
| Viewing Angle | 105° |
| LED | RGB |
| Lumens Per Node | 33.3 |
| Efficacy (lm/W) per node | 31.2 |




## Illuminance at Distance

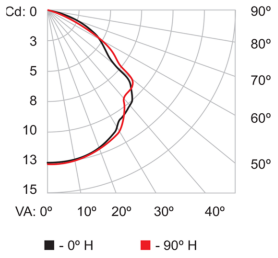



## Zonal Lumen

| Zone | Lumens | % Luminaire |
|---|---|---|
| 0-30 | 10.1 | 30.20% |
| 0-40 | 16.7 | 50.00% |
| 0-60 | 29.1 | 87.20% |
| 60-90 | 4.2 | 12.60% |
| 70-100 | 1.1 | 3.20% |
| 90-120 | 0.1 | 0.20% |
| 0-90 | 33.3 | 99.80% |
| 90-180 | 0.1 | 0% |
| 0-180 | 33.3 | 100% |

For lux multiply fc by 10.7

## Polar Candela Distribution




| | 0 | 25 | 45 | 70 | 90 |
|---|---|---|---|---|---|
| 0 | 13 | 13 | 13 | 13 | 13 |
| 5 | 12 | 13 | 13 | 13 | 13 |
| 15 | 12 | 12 | 12 | 12 | 12 |
| 25 | 12 | 12 | 12 | 12 | 12 |
| 35 | 10 | 10 | 10 | 10 | 10 |
| 45 | 9 | 9 | 9 | 9 | 9 |
| 55 | 6 | 6 | 6 | 6 | 6 |
| 65 | 3 | 3 | 3 | 3 | 3 |
| 75 | 1 | 1 | 1 | 1 | 1 |
| 85 | 0 | 0 | 0 | 0 | 0 |
| 90 | 0 | 0 | 0 | 0 | 0 |

## Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance: 20%

| RCC %: | 80 | | | 70 | | | 50 | | | 30 | | | 10 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RW %: | 70 | 50 | 30 | 70 | 50 | 30 | 50 | 30 | 20 | 50 | 30 | 20 | 50 | 30 | 20 |
| RCR: | | | | | | | | | | | | | | | |
| 0 | 1.19 | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.11 | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 |
| 1 | 1.10 | 1.06 | 1.02 | 1.08 | 1.04 | 1.00 | 1.00 | 0.97 | 0.94 | 0.96 | 0.94 | 0.91 | 0.92 | 0.90 | 0.89 |
| 2 | 1.01 | 0.94 | 0.88 | 0.99 | 0.92 | 0.86 | 0.88 | 0.84 | 0.80 | 0.85 | 0.81 | 0.78 | 0.82 | 0.79 | 0.76 |
| 3 | 0.93 | 0.83 | 0.76 | 0.90 | 0.82 | 0.75 | 0.79 | 0.73 | 0.68 | 0.76 | 0.71 | 0.67 | 0.73 | 0.69 | 0.65 |
| 4 | 0.85 | 0.74 | 0.66 | 0.83 | 0.73 | 0.65 | 0.70 | 0.64 | 0.58 | 0.68 | 0.62 | 0.57 | 0.66 | 0.61 | 0.57 |
| 5 | 0.78 | 0.66 | 0.58 | 0.76 | 0.65 | 0.57 | 0.63 | 0.56 | 0.51 | 0.61 | 0.55 | 0.50 | 0.59 | 0.54 | 0.50 |
| 6 | 0.73 | 0.60 | 0.51 | 0.71 | 0.59 | 0.51 | 0.57 | 0.50 | 0.44 | 0.55 | 0.49 | 0.44 | 0.54 | 0.48 | 0.44 |
| 7 | 0.67 | 0.54 | 0.46 | 0.66 | 0.53 | 0.45 | 0.52 | 0.45 | 0.39 | 0.50 | 0.44 | 0.39 | 0.49 | 0.43 | 0.39 |
| 8 | 0.63 | 0.49 | 0.41 | 0.61 | 0.49 | 0.41 | 0.47 | 0.40 | 0.35 | 0.46 | 0.40 | 0.35 | 0.45 | 0.39 | 0.35 |
| 9 | 0.58 | 0.45 | 0.37 | 0.57 | 0.45 | 0.37 | 0.44 | 0.37 | 0.32 | 0.43 | 0.36 | 0.32 | 0.42 | 0.36 | 0.31 |
| 10 | 0.55 | 0.42 | 0.34 | 0.53 | 0.41 | 0.34 | 0.40 | 0.34 | 0.29 | 0.39 | 0.33 | 0.29 | 0.39 | 0.33 | 0.29 |

# Luminaire and Accessories

Use Item Number when ordering in North America

| Luminaire | Item Number | Item 12NC |
|---|---|---|
| Flex Compact gen3, RGB, Clear Flat Lens, 50 Node, 4 in On-Center Node Spacing, Black<br>50 node strand | 101-000079-04 | 912400137410 |
| **Accessories** | | |
| Leader Cable, 7.6 m (25 ft), Black (connecting all Flex Compact or Micro to sPDS-480ca) | 108-000045-00 | 910503700696 |
| Leader Cable, 15.2 m (50 ft), Black (connecting all Flex Compact or Micro to sPDS-480ca) | 108-000045-01 | 910503700697 |
| Leader Cable, 30.5 m (100 ft), Black (connecting all Flex Compact or Micro to sPDS-480ca) | 108-000045-02 | 910503700698 |
| 4 Conductor Leader Cable, Connecting to CM-150 CA gen2, IP00 (Item # 109-000041-00), 15.2m (50ft) | 108-000080-01 | 912400135907 |
| 4 Conductor Leader Cable, Connecting to CM-150 CA gen2, IP00 (Item # 109-000041-00), 30.5m (100ft) | 108-000080-02 | 912400135908 |
| 4 Conductor Leader Cable, Connecting to CM-150 CA gen2, IP66 (Item # 109-000041-02), 15.2m (50ft) | 108-000082-01 | 912400135910 |
| 4 Conductor Leader Cable, Connecting to CM-150 CA gen2, IP66 (Item # 109-000041-02), 30.5m (100ft) | 108-000082-02 | 912400135911 |
| Mounting Track, 1.2 m (4 ft), Black | 101-000057-01 | 910503700045 |
| Spacers, Qty 50, 102 mm (4 in), Black | 101-000061-00 | 910503700052 |
| Single-Node Mounts, Qty 50, Black | 101-000058-01 | 910503700047 |
| Marquee Lens Kits, Qty 50, Clear, Black | 999-007997-01 | 910503702309 |
| Marquee Lens Kits, Qty 50, Semi-Frosted, Black | 999-007997-05 | 910503702313 |
| Marquee Lens Kits, Qty 50, Translucent, Black | 999-007997-03 | 910503702311 |
| Glare Shield Kits, Qty 50, Black | 120-000179-00 | 912400130036 |
| Marquee/Accessory Mounting Track, 1.2 m (4 ft), Black | 101-000057-04 | 910503704267 |
| Marquee/Accessory Spacers, Qty 50, 102 mm (4 in), Black | 101-000075-02 | 910503704274 |
| **Power Supplies** | | |
| sPDS-480ca 24V, Power/Data Supply, Ethernet | 109-000026-01 | 912400133528 |
| CM-150 CA gen2, DIN Rail Mount, Four-Wire Terminal, 4A 24V, IP00 | 109-000041-00 | 912400137430 |
| CM-150 CA gen2, Surface Mount, Four-Wire Terminal, 4A 24V, IP66 | 109-000041-02 | 912400137432 |
| Power Supply, 150W 24V, 100-277V, IP67, UL, CE, PSE | 309-000014-00 | 912400130538 |
| Power Supply, 320W 24V, 100-277V, IP67, UL, CE, PSE | 309-000014-01 | 912400130539 |
| Power Supply, 150W 24V, 100-277V, IP67, UL, CE, PSE | 309-000014-00 | 912400130538 |
| Power Supply, 320W 24V, 100-277V, IP67, UL, CE, PSE | 309-000014-01 | 912400130539 |

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