Straight & Narrow 22/23
Narrow Aperture Fluorescent Lighting System

Neoray
STRAIGHT & NARROW
22 / 23

Narrow aperture, unlimited flexibility.

Since 1942 Neo-Ray has provided precision luminaires with a refined architectural sensibility. Driven by performance and a clean modern aesthetic, the Straight & Narrow series 22 and 23, represent the ultimate in simplicity; a thin line of light. With virtually unlimited applications, the Straight & Narrow family allows architects and designers the freedom to experiment with their designs without exceeding ever decreasing energy budgets.
Form follows performance

Designed from the inside out, the Straight and Narrow family elegantly synthesizes premium materials with industry-leading technology. Utilizing precision optics with the highest quality reflective materials, the Series 22 & 23 provides unmatched performance in an elegant, fully extended profile. The Straight & Narrow luminaires allow easy access from below the plenum, requiring only standard tools for maintenance. Compatible with nearly every ceiling type in recessed, pendant and surface mount, the Series 22 and 23 provide exceptional design flexibility with industry-leading performance.

Solutions Integrated

In conjunction with Cooper Controls, Neo-Ray’s Straight and Narrow family easily integrates into any digitally controlled application. With control packages by Greengate, Illumin and now Fifth Light, Cooper Controls and Neo-Ray can provide integrated control solutions from a private office to an entire building campus.

Serviceability

Fully accessible from below the ceiling plenum for maintenance and easy upgrades.

Robust Housing

Housings are made of lightweight durable 6063 extruded aluminum. All components are RoHS compliant and fully recyclable.

Performance Optics

High reflectance optical materials with fully recyclable aluminum substrate to provide uniform illumination.

Ultimate Versatility

Available in T5, T8, T12 and LED. The Straight and Narrow series provides multiple lumen and wattage options.

Precision Alignment

Alignment pins and engineered joining system keep luminaires straight and make installation easy.

Lens Options

With a variety of louver and lens, Series 22 and 23 can be installed to match any aesthetic.
**Straight & Narrow Family**

### Surface

- **22 DS**

### Wall

- **22 DW / IW**

### Pendant

- **22 DP / IP**

### Recessed

- **22DR ETG (15/16" Grid)**
- **22DR STG / FG (9/16" Slot / 9/16" Standard Grid)**
- **22DR SR Flanged Sheetrock**
- **22DR FSR Flangless Sheetrock**
- **22DR Asymmetric Recessed**

### Individual Luminaires

- Fluorescent luminaires: available in individual lengths of 2, 3, 4, 6 and 8 feet. For configurable runs, fluorescent luminaires utilize 4" lamps stagger to ensure uniform illumination to the nearest foot.

### Configurable Run

- **BOR**
- **INT**
- **EOR**

**Flexibility in design and source**

Representing the ultimate in design and technological flexibility, the Straight and Narrow series is available in all mounting applications. No matter the end goal of the designer; be it maintenance, power density, budget, or aesthetics, the Series 22 and 23 adapts to any requirement.
The future of lighting lies in smart controls in combination with large-scale building management systems. Cooper Controls has a fully integrated solution for any project. Cooper Controls now offers a complete line of digital addressable control products as part of the Fifth Light brand which ensures 2-way communication with every component in the building. Fifth Light hardware consists of multi-sensors, user interfaces, personal controls, ballasts, drivers, and more. Fifth Light also offers a wide array of software that can work with VOIP phones, computers, tablets, and mobile phones so you can have complete control at your fingertips.

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**The Controls are Inside**
Fifth Light dimmable ballasts and drivers provide continuous dimming control along with programmable group and scene settings. The ballasts and drivers can even report the lamp status through the Digital Addressable Lighting Interface (DALI).

**Sensors**
Fifth Light Multi-Sensor allows for daylight harvesting, occupancy detection, and temperature control in a single unit. The DALI communication bus can even communicate to most standard mechanical building management systems.

**Scalable Panels**
Fifth Light Lighting Control Panels (LCP) are scalable and modular in order to accommodate any lighting application. The LCP can communicate on a shared IP network for a fully converged solution.

**Control on your Computer**
Fifth Light Lighting Management Software (LMS) allows you to manage large lighting systems through an easy-to-use web interface. The graphical interface allows for visual control over which lights are being controlled. The LMS can even allow you to control multiple facilities from a single web page.

**Control on your IP Phone**
Fifth Light VOIP Lighting Software turns your telephone into a versatile lighting control device. Easily adjust the light levels on a single fixture or multiple fixtures from the keypad or touch screen. The VOIP Lighting Software is ideal for conference rooms, offices, and common areas.

**Control at your Fingertips**
Fifth Light Mobile Lighting Software provides advanced control and sophisticated management of the lighting system in the palm of your hand using your smartphone or tablet. Set light levels, track energy consumption, and receive status reports using native applications running on your mobile device.

Cooper Controls brings energy savings, control, and addressability to Neo-Ray

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Cooper Lighting is at the forefront in transforming the lighting industry and setting an unmatched standard for innovation and reliability. No one will do more to empower you with the innovations, technology and resources you need to meet the challenges of the future.

- Integrated control options
- LM79 and LM80 compliant
- 0-10V dimming standard
- 50,000 Hour lifetime using TM-21-11 standards
- 86+ Color Rendering Index (CRI)
- 5 Year warranty
- Independently certified photometric lab
Series 22 Ordering

**Fixture Type**
- **S22** Series 22 - 3” Slot

**Lighting Type**
- **Direct**
- **Indirect**
- **Direct/Indirect**
- **Recessed**
- **Direct Surface**
- **Direct Wall**
- **Indirect Wall**
- **Direct/Indirect Wall**

**Lamp QTY - Fluorescent**
1. **1 lamp down**
2. **2 lamps down**
3. **1 up / 1 down**

**Lamp Type - Fluorescent**
- **T5** T5 normal output
- **T5HD** T5 high output
- **T8** T8 normal output

**Mounting**
- **ETG** Recessed 9/16” Exposed Tgrod
- **FTG** Recessed 9/16” Exposed Tgrod
- **STG** Recessed Slot Tgrod
- **SR** Recessed Sheet Rock
- **SC** Pendant single cable
- **SCTG** Single cable with ETG mount
- **SCTFG** Single cable with FTG mount
- **SCTST** Single cable with STG mount

**Fixture / Run Length**
- **2** 2 foot field e
- **3** 3 foot field e
- **4** 4 foot field e
- **6** 6 foot field e
- **8** 8 foot field e
- **XX** Continuous run

**Voltage**
- **1** 120V
- **2** 277V
- **U** Universal 120V-277V

**Ballast Options**
- **EB** Electronic ballast
- **DB** Dimming ballast

**Circuiting**
- **SI** Single circuit
- **DI** Dual circuit

**Purging Options**
- **GIR** Single circuit
- **GMP** Dual circuit

**Shading Options**
- **S91** High performance louvre
- **S91P** High performance louvre w/ acrylic overlay
- **S91W** White painted louvre
- **S91WP** White painted louvre w/ acrylic overlay
- **S22R** Satin white regressed lens
- **S92** Satin white lens
- **S92T** Lay-in high transmission lens
- **S92HTS** Snap-in high transmission lens

**Ordering Example**
- **S22 DR-235-ETG-6-U-DI-SI-S92HTS**

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1. Not all options available. Please consult your local Cooley Lighting Rep for availability.
2. Specifications and dimensions subject to change without notice.
3. 10% less than 2000K light levels.
4. 15% more than 3000K light levels.
5. For continuous run please refer to website for exact lengths and dimensions.
Series 23 Ordering

**Fixture**
- **S23** Series 23 - 4" Slot

**Fixture Type**
- **DP** Direct pendant
- **IP** Indirect pendant
- **DI** Direct/Indirect pendant
- **DR** Direct recessed
- **DS** Direct surface
- **DW** Direct wall
- **IW** Indirect wall
- **DW** Direct/Indirect wall
- **XR** Asymmetric recessed

**Lamp Qty - Fluorescent**
- 1 - 1 lamp down
- 2 - 2 lamps down
- 1x1 - 1 up / 1 down
- 1x2 - 1 up / 2 down
- 2x1 - 2 up / 1 down

**Lamp Type - Fluorescent**
- **T5** T5 normal output
- **T5HO** T5 high-output
- **T8** T8 normal output

**Mounting**
- **ETG** Recessed 15/16" Exposed Tgigad
- **FTG** Recessed 9/16" Exposed Tgigad
- **STG** Recessed Slot Tgigad
- **SR** Recessed Sheet rock
- **SC** Pendant single cable
- **SCETG** Single cable with ETG mount
- **SCFTG** Single cable with FTG mount
- **SCSTG** Single cable with STG mount
- **SCST** Single cable with structure ceiling mount

**Fixture / Run Length**
- 2 - 2 foot fixture
- 3 - 3 foot fixture
- 4 - 4 foot fixture
- 5 - 5 foot fixture
- 6 - 6 foot fixture
- 8 - 8 foot fixture
- **XX** Continuous run

**Voltage**
- 1 - 120V
- 2 - 277V
- **U** Universal 120V-277V

**Ballast Options**
- **EB** Electronic ballast
- **DB** Dimming ballast

**Circuiting**
- **SI** Single circuit
- **DU** Dual circuit

**Fusing**
- **GLR** Glare rating

**Fusing Options**
- **S90** High performance louvers
- **S90P** High performance louvers w/ acrylic overlay
- **S90W** White painted louvers
- **S90WP** White painted louvers w/ acrylic overlay
- **S23R** Satin white recessed lens
- **S93** Satin white lens
- **S23R** Satin white recessed lens
- **S93HT** Lay-in high transmission lens
- **S93HTS** Snap-in high transmission lens

**Ordering Example**
- S23-DR-2L-ETG-4-U-DU-S93HTS
- 1. Not all options available. Please consult your local Cooper Lighting FTY for availability.
- 2. Specification and dimensions subject to change without notice.
- 3. 30% less than S9000 light levels.
- 4. 10% more than S9000 light levels.
- 5. For continuous runs please refer to website for exact lengths and dimensions.
- 6. XR not available with 18 lamp option.

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**Shielding Options**
- **S90** High performance louvers
- **S90P** High performance louvers w/ acrylic overlay
- **S90W** White painted louvers
- **S90WP** White painted louvers w/ acrylic overlay
- **S23R** Satin white recessed lens
- **S93** Satin white lens
- **S23R** Satin white recessed lens
- **S93HT** Lay-in high transmission lens
- **S93HTS** Snap-in high transmission lens
**Lighting Product Lines**
- Halo
- Halo Commercial
- Portfolio
- Iris
- RSA
- Metalux
- Corelite
- Neo-Ray
- Fail-Safe
- MWS
- Ametrix
- Shaper
- io
- Lumark
- McGraw-Edison
- Invue
- Ephesus
- Lumière
- Streetworks
- AtLite
- Sure-Lites

**Controls Product Lines**
- Greengate
- iLumin
- Zero 88
- Fifth Light Technology
- iLight (International Only)

**Connected Lighting Systems**
- LumaWatt Pro
- WaveLinx
- Distributed Low-Voltage Power
- ConnectWorks