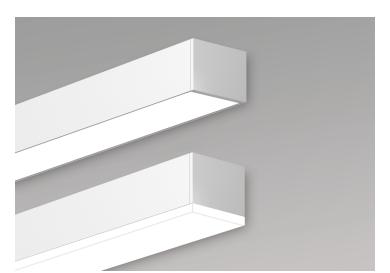
DIRECT/INDIRECT, DIRECT, INDIRECT STATIC WHITE, BIOS





Project:

Туре:



DESCRIPTION

Our elegant, flexible Via family is composed of linear, pendant, surface, recessed, and wall mounted luminaires. Each lighting fixture can be installed as a discrete luminaire or in continuous runs or patterns. Via 5 Wall is offered with Lambertian, asymmetric, or low-glare optics.

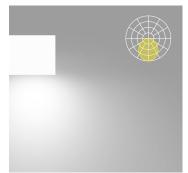
Up to 146 lm/W performance

For latest information on sensors click <u>here</u>.



Lens Positions 1

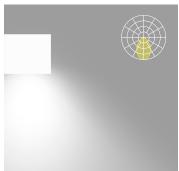
DIRECT OPTICS



High-Efficiency Lambertian Optic

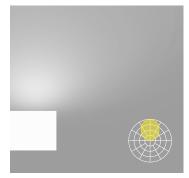


ARO2 Asymmetric Refractive Optic

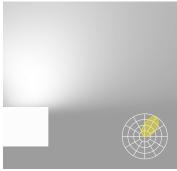


LGO Low-Glare Optic

INDIRECT OPTICS



TIO 2 Translucent Indirect Optic

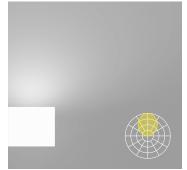


WAI2² Widespread Asymmetric Indirect Optic

www.lumenwerx.com

T (514) 225-4304 F (514) 931 -4862

3737 Cote Vertu St-Laurent, Quebec, Canada H4R 2C9



HLO³ High-Efficiency Lambertian Optic



ARO23 Asymmetric Refractive Optic





¹Drop lens position available with HLO direct lens only. ²Available only with Direct/Indirect.

³Not available with Direct/Indirect.

DIRECT/INDIRECT, DIRECT, INDIRECT STATIC WHITE, BIOS



| Project: | |
|----------|--|
| | |
| | |
| Type: | |

Order Guide

| LUMINAIRE ID | DISTRIBUTION | DIRECT OPTIC Specify NA for Indirect fixture | LENS POSITION Specify NA for Indirect fixture | INDIRECT OPTIC Specify NA for Direct fixture | LIGHT SOURCE 5 |
|-----------------------|----------------------------------|--|--|--|--|
| VIA5W | | | | | |
| VIA5W - Via 5" | DI - Direct/ | HLO - High-Efficiency | FH - Flush | TIO 2,3 - Translucent Indirect Optic | SW - Static white |
| Wall | Indirect D - Direct I - Indirect | Lambertian Optic ARO2 - Asymmetric Refractive Optic LGO - Low-Glare Optic | 1.0D 1 - 1.0" drop NA - Not applicable 1 Available with HLO direct | WAI2 - 3 - Widespread Asymmetric Indirect Optic HLO 4 - High-Efficiency Lambertian Optic ARO2 4 - Asymmetric Refractive Optic | BIOSST ^{6,7} - BIOS Biological Static BIOSDY ^{6,7} - BIOS Biological Dynamic BIOSTU ^{6,7} - BIOS Biological Tunable |
| | | NA - Not applicable | lens only. | NA - Not applicable ² Not available with BIOS. ³ Available only with Direct/Indirect. ⁴ Not available with Direct/Indirect. | SChromawerx Sola, Duo and Quadro also available. Consult other spec sheets. Only available with low and medium lumen packages. See page 4 for details. |

| CRI | DIRECT LUMEN PACKAGE Specify NA for Indirect fixture | INDIRECT LUMEN PACKAGE Specify NA for Direct fixture | COLOR TEMP. | LUMINAIRE LENGTH | VOLTAGE |
|--|--|---|--|--|--|
| | | | | | |
| 80CRI - 80 CRI 90CRI ⁸ - 90 CRI ⁸ Not available with BIOS. | 350LMF 9 - Hypo output 350 lm/ft 500LMF - Low output 500 lm/ft 750LMF - Medium output 750 lm/ft 1000LMF - High output 1000 lm/ft 1200LMF 10 - Ultra high output 1200 lm/ft 1500LMF 11, 12, 13 - Hyper output 1500 lm/ft NA - Not applicable 9 Minimum 3' fixture. 10 - For Direct/Indirect, Indirect must not exceed 750 lr 11 - Available with HLO only. 12 - For Direct/Indirect, Indirect must not exceed 500 lr | ¹⁴ For Direct/Indirect, Direct must not exceed | 27K ¹⁵ - 2700K 30K - 3000K 35K - 3500K 40K - 4000K 50K ¹⁵ - 5000K ¹⁵ Not available with BIOS. | #FT#IN 16 - Specify nominal length (#) in 1' and/or 1" increments Standard nominal lengths: Single units: 2' to 12' Continuous runs: lengths over 12' | 120V - 120V 277V - 277V UNV - 120V-277V 347V * - 347V |

| DRIVER 18 | ELECTRICAL | ELECTRICAL SECTIONS (optional) 25, 26 | MOUNTING |
|--|--|---|-----------------------------------|
| | | | DMB |
| D1 - 1% 0-10V DA ¹⁹ - DALI | 1C - 1 circuit 2C 21 - 2 circuits | #EC## ²⁷ - Emergency-powered section #NL## ²⁷ - Night light section | DMB - Drywall mounting bracket |
| LDEI 19 - Lutron Hi-lume 1% Eco | #MC ²² - Multi circuit | #DL## ²⁷ - Daylight section | mounting bracket |
| ELD1 - eldoLED 1% ECOdrive 0-10V ELD0 - eldoLED 0.1% SOLOdrive 0-10V | EC - Emergency-powered fixture NL - Night light fixture | #GTD## ^{27,28,29} - Generator transfer device section | |
| ELV ²⁰ - ELV 120V | DL - Daylight fixture | #EMB ^{29,30} - Emergency battery NA - None | |
| TRI ²⁰ - TRIAC 120V | GTD ^{23,24} - Generator transfer device fixture | | |
| ¹⁰ PoE (Power-over-Ethernet) compatible. Consult factory for details. ¹⁰ On-site commissioning is required. ²⁰ Available with 120V only. | ²⁷ Available for Direct/Indirect only. Separate direct and indirect circuits. ²² Specify total number of circuits (#), including any required for electrical section options. Provide drawing or layout specifications. Minimum 4' section per circuit. ²³ Minimum 4' fixture. ²⁴ Not available with 347V. | Specify with multi circuit (#MC) electrical option only. Provide drawing or layout specifications. Consult factory for other configurations. Default section length is 4'. Specify quantity (#), and section length in inches (##). Minimum 4' section. Not available with 347V. Specify quantity (#), All batteries will be on the same circuit. Each battery powers a 4' section. For Direct/Indirect, minimum 8' fixture. | |

| FINISH | CONTROL 31 | | OPTIONS |
|---|---|--|---|
| | | | |
| W - Matte white AL - Aluminum B - Matte black CF# - Custom finish, specify RAL# | STANDALONE CONTROLS 32, 33, 34 Specify the quantity (#) of sensors per fixture. #ODS - Onboard Daylight #OSSSO 35 - Onboard stairwell occupancy with 50% bi-level dimming | CONNECTED CONTROLS 36 LU- Lutron AWNR - Lutron Athena Wireless Node RF Only AWNS - Lutron Athena Wireless Node Sensor EN - Enlighted ENC - Encelium WL - Cooper Wavelinx AN - Acuity nLight CA - Casambi LG - Legrand | FU120 - Fuse 120V FU277 - Fuse 277V NA - None |
| | NA - | | |
| | ³³ Standalone and connected control options cannot be combined. ³² Available with D1 driver and 1 circuit options only. ³³ Minimum 4¹ per zone. Provide control zone length. | Available with flush lens option only. Minimum 4' fixture. Consult factory for connected controls. | |

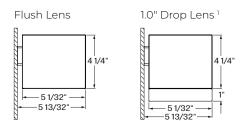




DIRECT/INDIRECT, DIRECT, INDIRECT STATIC WHITE, BIOS



Dimensions



¹Drop lens position available with HLO direct lens only.

Photometrics

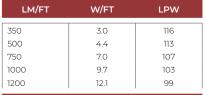
Values calculated based on a 4ft fixture at 35K and 80 CRI for all optics.

DIRECT OPTICS



| LM/FT | W/FT | LPW |
|-------|------|-----|
| 350 | 2.7 | 132 |
| 500 | 3.9 | 129 |
| 750 | 6.0 | 126 |
| 1000 | 8.2 | 122 |
| 1200 | 10.1 | 119 |
| 1500 | 13.0 | 116 |







| LM/FT | W/FT | LPW |
|-------|------|-----|
| 350 | 3.0 | 119 |
| 500 | 4.3 | 116 |
| 750 | 6.6 | 113 |
| 1000 | 9.1 | 110 |
| 1200 | 11.2 | 107 |

INDIRECT OPTICS



| LM/FT | W/FT | LPW |
|-------|------|-----|
| 350 | 2.7 | 127 |
| 500 | 4.0 | 124 |
| 750 | 6.3 | 119 |
| 1000 | 8.8 | 114 |
| 1200 | 10.9 | 110 |



| LM/FT | W/FT | LPW |
|-------|------|-----|
| 350 | 2.5 | 139 |
| 500 | 3.7 | 135 |
| 750 | 5.8 | 130 |
| 1000 | 8.0 | 125 |
| 1200 | 10.0 | 120 |



| LM/FT | W/FT | LPW |
|-------|------|-----|
| 350 | 2.7 | 132 |
| 500 | 3.9 | 129 |
| 750 | 6.0 | 126 |
| 1000 | 8.2 | 122 |
| 1200 | 10.1 | 119 |
| 1500 | 13.0 | 116 |



| | 1 | |
|-------|------|-----|
| LM/FT | W/FT | LPW |
| 350 | 3.0 | 116 |
| 500 | 4.4 | 113 |
| 750 | 7.0 | 107 |
| 1000 | 9.7 | 103 |
| 1200 | 121 | 99 |

MULTIPLIER TABLES

Use these tables to get results for different color temperatures, CRI, and drop lenses, for all Direct and Indirect photometric tables.

Multiplier - CCT/CRI

| сст | WA | TTS | LP | w |
|------|--------|--------|--------|--------|
| (K) | CRI 80 | CRI 90 | CRI 80 | CRI 90 |
| | | | | |
| 2700 | 1.05 | 1.27 | 0.95 | 0.79 |
| 3000 | 1.02 | 1.23 | 0.98 | 0.81 |
| 3500 | 1.00 | 1.19 | 1.00 | 0.84 |
| 4000 | 1.00 | 1.19 | 1.00 | 0.84 |
| 5000 | 0.96 | 1.12 | 1.04 | 0.89 |

Multiplier - Drop Lens

| DIRECT LENS | WATTS | LPW |
|----------------|-------|------|
| Flush Lens | 1.00 | 1.00 |
| Drop Lens 1.0" | 0.88 | 1.12 |



For Direct/Indirect performance values, follow the formula.

| (| DIRECT LM/FT | + | INDIRECT LM/FT |) | = I PW |
|---|-----------------|---|-------------------|---|---------|
| (| DIRECT W/FT | + | INDIRECT W/FT |) | - LF VV |









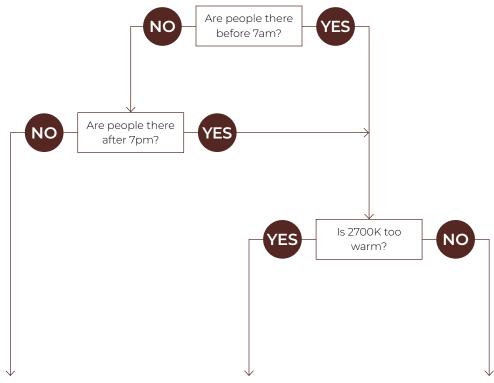




DIRECT/INDIRECT, DIRECT, INDIRECT STATIC WHITE, BIOS

BIOS

Three BIOS Circadian LED solutions are offered – Biological Static, Biological Dynamic, and Biological Tunable. Use the decision tree below to identify when and where to use BIOS Wellness LED Lighting Solutions.



| Biological Static BIOSST | Biological Dynamic BIOSDY | Biological Tunable BIOSTU | |
|--|--|---|--|
| No CCT change when dimmed | 500K shift when dimmed | Dims to 2700K | |
| Daytime solution | Daytime + evening solution | Daytime + evening solution | |
| Spaces in operation during daytime hours, between 7am and 7pm | Spaces in operation overnight, after 7pm and before 7am, and when CCT color shift in the evening is not preferred | Suitable for spaces in operation overnight, after 7pm and before 7am, and where people do not sleep (CCT color shift in the evening is preferred) | |
| E.g. offices, medical/dental offices | E.g. hospitals | E.g. offices, shiftwork | |
| 1 (early controlled to the con | Daytime Full BIOS SkyBlue™ (490nm) Bio_Dimming™ Bio_Dimming™ Evening BIOS SkyBlue™ Removed StyBlue™ Removed Washington 190 160 160 160 160 160 160 160 160 160 16 | Deytime Full BIOS SkyBlue™ (490nm) Bio Dimming™ Evening BIOS SkyBlue™ Removed Sto Sto Sto Sto Sto Sto Sto No | |





DIRECT/INDIRECT, DIRECT, INDIRECT STATIC WHITE, BIOS



Technical Specifications

DIRECT OPTICS

High-Efficiency Lambertian Optic (HLO)

The High-Efficiency Lambertian Optic (HLO) uses matte white reflectors to distribute LED output across 0.075" acrylic shielding, providing up to 88% transmission and good obscuration. Available as a flush lens or as a drop lens, the HLO has a spacing criterion of 1.22.

Asymmetric Refractive Optic (ARO2)

The Asymmetric Refractive Optic (ARO2) uses a sophisticated reflector combined with a matte beam-shaping film to create a smooth, effective downward light component without shadows or hot spots. It provides directional Gaussian light distribution with peak intensity at 20° above nadir and a 55° Full Width at Half Maximum (FWHM) beam angle. Microstructure material applied to the snap-in lens provides the precise refractive power and visual comfort, while achieving high luminous efficacy.

Low-Glare Optic (LGO)

The Low-Glare Optic (LGO) is designed to cut off high-angled light and control glare. The carefully crafted lens refracts light downward through its center from which it then disperses into a wide conical distribution that negates any illumination at about 40°. The LGO provides the visual comfort of a louver in a smooth acrylic lens.

INDIRECT OPTICS

Translucent Indirect Optic (TIO)

The Translucent Indirect Optic (TIO) is composed of a horizontal LED array that has a translucent lens to mask pixilation from the diodes. TIO has a 100° spread in the indirect that is ideal when the fixture is mounted farther away from the ceiling.

Widespread Asymmetric Indirect Optic (WAI2)

The Widespread Asymmetric Indirect Optic (WAI2) offers an upward grazing effect with a 45° forward throw. It softly highlights the ceiling in the up-light while distributing the required illumination of the rest of an interior space. For avoiding glare and enjoying visual comfort, WAI2 is an ideal solution.

High-Efficiency Lambertian Optic (HLO)

The High-Efficiency Lambertian Optic (HLO) uses matte white reflectors to distribute LED output across 0.075" acrylic shielding, providing up to 88% transmission and good obscuration. HLO has a spacing criterion of 1.22.

Asymmetric Refractive Optic (ARO2)

The Asymmetric Refractive Optic (ARO2) uses a sophisticated reflector combined with a matte beam-shaping film to create a smooth, effective downward light component without shadows or hot spots. It provides directional Gaussian light distribution with peak intensity at 20° above nadir and a 55° Full Width at Half Maximum (FWHM) beam angle. Microstructure material applied to the snap-in lens provides the precise refractive power and visual comfort, while achieving high luminous efficacy.

LIGHT SOURCE - STATIC WHITE

Custom linear array of mid-flux LEDs are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 2700K, 3000K, 3500K, 4000K, and 5000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operate at reduced drive current to optimize efficacy and lumen maintenance. All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.





DIRECT/INDIRECT, DIRECT, INDIRECT STATIC WHITE, BIOS

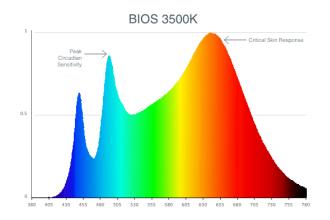


LIGHT SOURCE - BIOS

BIOS SkyBlueTM Technology is designed to provide the specific circadian stimulus to improve overall sleep quality, recovery during the night, and overall feelings of well-being.

The non-visual light signals that stimulate our circadian system.

The non-visual light signals that stimulate our circadian system have peak intensity in the "sky blue" region. As the diagram below illustrates, BIOS SkyBlue technology shifts the peak LED spectral intensity (490 nm) to align better with the peak response of circadian stimulus. Also note the enhanced deep-red (near 660 nm) spectrum.



Three BIOS solutions are offered: BIOS Biological Static (BIOSST), BIOS Biological Dynamic (BIOSDY), and BIOS Biological Tunable (BIOSTU). See page 4 for details.

LUMINAIRE LENGTH

Via 5 is available in standard lengths of 2' to 12'. Continuous runs are available for run lengths over 12'. Exact run length must be noted in the product code. The minimum length is 2' for Direct or Indirect fixtures, and 3' for Direct/Indirect fixtures. Lengths can be ordered in 1' and/or 1" increments. All individual sections are joined together onsite using the joiner kits provided. Lumenwerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

ELECTRICAL

Factory-set, adjustable output current LED driver with universal (120-277VAC) input. Dimmable from 100% to 1% with 0-10V dimming control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency>84%, PF>0.9, THD<20%. Other specifiable options include Lutron Hi-Lume 1% Eco, eldoLED 1% ECOdrive 0-10V, eldoLED 0.1% SOLOdrive 0-10V, ELV, TRIAC, and DALI protocol drivers. All of our standard 0-10V drivers are NEMA 410 compliant.

PoE

Depending on the PoE manufacturer selected, Lumenwerx will install the node in factory as either integral to the luminaire or as a remote module. Factory programming of the PoE node may or may not enable the following functionalities: lumen package, Duo (tunable white), Quadro (RGBW) emergency battery backup, and sensor integration. These must be addressed and evaluated on a case-by-case basis.

ELECTRICAL SECTION OPTIONS

Electrical section options are available for fixtures specified as multi circuit (#MC). With MC, specify the total number of circuits (#), including any circuits required for optional electrical sections. A drawing is required to specify the layout. Please consult factory for custom configurations.

Electrical sections

Options include emergency-powered (#EC##), night light (#NL##), daylight (#DL##), and generator transfer device (#GTD##) sections. Specify the quantity (#), as well as the section length in inches (##).

Example 1: A 32' Direct fixture with two 8' emergency-powered sections on a second circuit.

Code: 2MC-2EC96

Example 2: A 16' Direct/Indirect fixture with separate circuits for direct and indirect, and with one 4' night light section on the direct side on a third circuit.

Code: 3MC-1NL48

Example 3: A 24' Direct fixture with one 4' generator transfer device section.

Code: 1MC-1GTD48

Battery

Each emergency battery (#EMB) powers a 4' section. All batteries will be on the same circuit. Specify the number of batteries (#) required.

Factory installed long life, high temperature, maintenance-free Lithium-Ion battery pack with self-test functionality, test switch and charge indicator. Minimum of 90 minutes operation, up to 1000 lumens per 4' (25°C) emergency lighting output and recharge time of 24 hours.

MOUNTING OPTIONS

Fixtures may be horizontally mounted to the wall using a bracket. For long runs, a minimum distance of 6" from adjacent walls is required.

FINISH

Interior - 95%, reflective matte powder coated white paint **Exterior** - Matte white, matte black or aluminum powder coating. Custom finishes are also available.





DIRECT/INDIRECT, DIRECT, INDIRECT STATIC WHITE, BIOS



CONTROLS

Lumenwerx offers several options for integrating occupancy and daylight harvesting controls in our luminaires. For latest information on sensors, click here.



STANDALONE CONTROLS

An integrated standalone sensor controls the luminaire in which it is installed. Depending on the length, more than one sensor may be necessary and may control the entire luminaire, or just a section of it. These controls operate independently. Unless otherwise agreed, sensor location, blank size, and functionality of the sensor within the luminaire are selected by Lumenwerx. See client drawings for details.

Two types are available:

ODS: An integral, daylight harvesting sensor with closed-loop operation dims the luminaire in which it is installed in order to compensate for available daylight. The sensor measures the combination of daylight and luminaire light reflected from horizontal surfaces below the luminaire. Initial onsite calibration is required via the use of provided remote control.

OSS: An integral stairwell occupancy sensor uses ultrasonic sensing technology to turn light on when movement is detected. The sensor, located in the middle of the fixture, transmits sound waves in the stairwell. When motion is detected in the space, the luminaire turns on to full brightness. When the space is unoccupied, light levels are dimmed to 50%. Please consult factory for other sensor locations on the luminaire, as well as for other minimum light level options.

CONNECTED CONTROLS

With connected controls, sensors or nodes installed in the luminaire form part of a larger control system infrastructure from manufacturers such as: Lutron, Enlighted, Encelium, Cooper Wavelinx, Acuity nLight, Casambi, Legrand, and others. These connected controls allow for a scalable system providing features like occupancy and daylight control, manual control, scheduling and configuration of various zones and scenes. Energy reporting and system monitoring are also possible. Specific capabilities depend on the control system being used.

Lumenwerx installs the components (sensors, nodes, power packs, etc) which may be supplied to us by a third party, or procured directly by Lumenwerx, depending on the control system manufacturer.

Lumenwerx is solely responsible for the installation of specified components; the controls manufacturer is responsible for performance of the control system.

To indicate a Lumenwerx luminaire with connected controls, identify the specific onsite control system to be integrated into the luminaires using the ordering code. Due to the diversity of components, you must contact factory to assure complete compatibility with intended control system and to fully specify the luminaire.

Complete control specifications, sensor/node/power pack layout, and narrative for the control system are required for Lumenwerx to create shop drawings and submittals.

CONSTRUCTION

Housing - Extruded aluminum, up to 90% recycled content **Interior brackets** - Die-formed cold rolled sheet steel **Joining system** - Die-cast zinc

Reflectors - Die-formed cold rolled steel, 95% reflective matte white painted

Lens - Acrylic

Drop lens - Extruded with glued end caps

End caps - Die-cast aluminum

WEIGHT

| Direct/Indirect | Direct or Indirect |
|---------------------------------|----------------------------------|
| 4ft - 14 lbs - 6.35 kg | 4ft - 11.78 lbs - 5.35 kg |
| 8ft - 26 lbs - 11.79 kg | 8ft - 23.79 lbs - 10.8 kg |
| 12ft - 40 lbs - 18.14 kg | 12ft - 35.24 lbs - 16 kg |

CERTIFICATION

ETL - Rated for Indoor Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

WARRANTY

Lumenwerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.



