

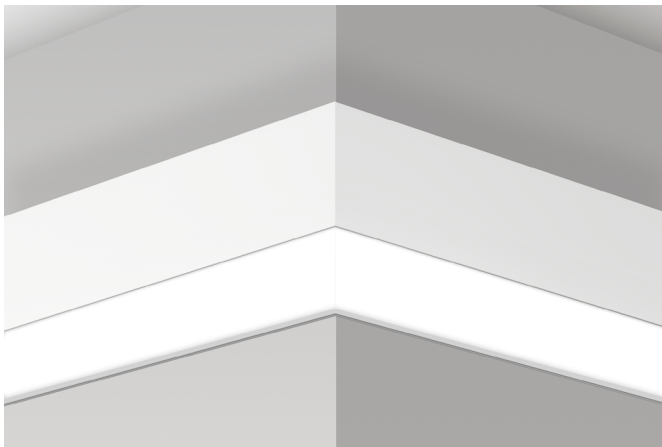
VIA 4 WALL PATTERN

DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS



Project: _____

Type: _____



Leveled outside corner

DESCRIPTION

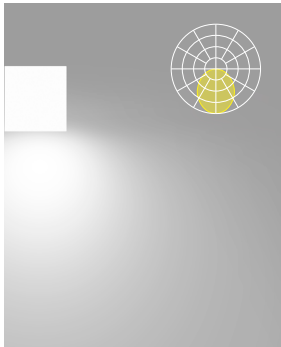
Our elegant, flexible Via family is composed of linear, pendant, surface, recessed, and wall mounted luminaires. Each lighting fixture can be installed as a discrete luminaire or in continuous runs or patterns in which a combination of luminaires forms part of a custom design that can also incorporate less conventional acute and obtuse angles. Via 4 Wall is offered with Lambertian and asymmetric optics.

Up to 162 lm/W performance

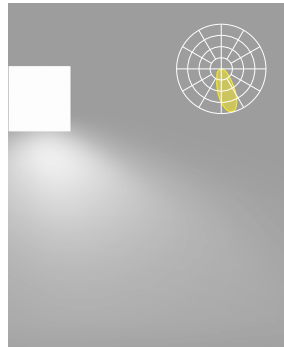
SENSORS
For latest
information
on sensors,
click [here](#).



DIRECT OPTICS



HLO¹
High-Efficiency
Lambertian Optic

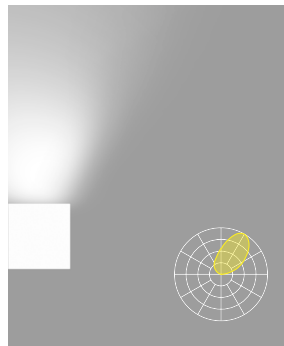


ARO2
Asymmetric
Refractive Optic

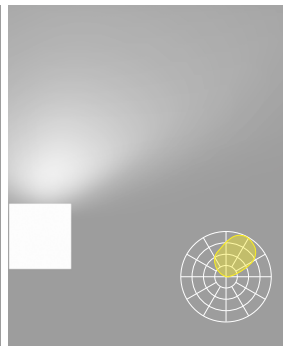
INDIRECT OPTICS



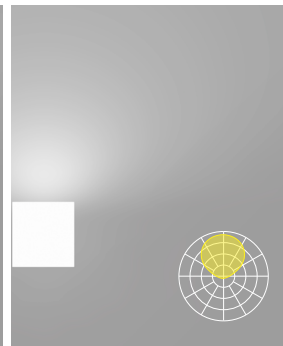
CLO²
Clear Lambertian
Optic



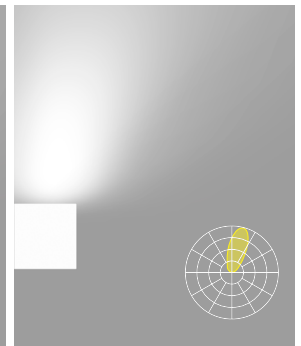
WAI2
Widespread Asymmetric
Indirect Optic



ARO²
Asymmetric
Refractive Optic



HLO³
High-Efficiency
Lambertian Optic



ARO2³
Asymmetric
Refractive Optic

¹Drop lens positions available with HLO direct lens only.

²Available only with Direct/Indirect.

³Not available with Direct/Indirect.

VIA 4 WALL PATTERN

DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS



Project: _____

Type: _____

Order Guide

A drawing of your pattern is required - anything from a line drawing to an architectural drawing.

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	CRI
VIA4WPAT						
VIA4WPAT - Via 4" Wall Pattern	DI - Direct/ Indirect D - Direct I - Indirect	HLO - High-Efficiency Lambertian Optic ARO2 - Asymmetric Refractive Optic NA - Not applicable	FH - Flush 0.5D ¹ - 0.5" drop 1.5D ¹ - 1.5" drop NA - Not applicable ¹ Available with HLO direct lens only.	CLO ^{2,3} - Clear Lambertian Optic WAI2 ² - Widespread Asymmetric Indirect Optic ARO ^{2,3} - Asymmetric Refractive Optic HLO ⁴ - High-Efficiency Lambertian Optic ARO2 ⁴ - Asymmetric Refractive Optic NA - Not applicable ² Not available with BIOS. ³ Available only with Direct/Indirect. ⁴ Not available with Direct/Indirect.	SW - Static white BIOSST ^{6,7} - BIOS Biological Static BIOSDY ^{6,7} - BIOS Biological Dynamic BIOSTU ^{6,7} - BIOS Biological Tunable ⁵ Chromawerx Sola, Duo and Quadro also available. Consult other spec sheets. ⁶ Only available with low and medium lumen packages. ⁷ See page 5 for details.	80CRI - 80 CRI 90CRI ⁸ - 90 CRI ⁸ Not available with BIOS.
DIRECT LUMEN PACKAGE Specify NA for Indirect fixture	INDIRECT LUMEN PACKAGE Specify NA for Direct fixture	COLOR TEMP.	PATTERN LENGTH	CORNER TYPE ¹⁷		
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 lm/ft. ¹¹ Available with HLO only. ¹² For Direct/Indirect, Indirect must not exceed 500 lm/ft.	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 ¹⁴ - Ultra high output 1200 lm/ft 1500LMF ^{11,15} - Hyper output 1500 lm/ft NA - Not applicable ¹³ Fixture will be very bright. Use in suitable applications. ¹⁴ For Direct/Indirect, Direct must not exceed 750 lm/ft.	27K ¹⁵ - 2700K 30K - 3000K 35K - 3500K 40K - 4000K 50K ¹⁵ - 5000K ¹⁵ Not available with BIOS.	##FT##IN(##X#FT#IN- ##X#FT#IN...) ¹⁶ - ##FT##IN: total nominal length of pattern in feet and/or inches #X: quantity of each section #FT#IN: nominal length of each section in feet and/or inches Continuous runs: lengths over 12' ¹⁶ Minimum 2' for Direct, minimum 3' for Direct/Indirect.	#LEVI2C(##) - 2-way leveled inside corner #LEVO2C(##) - 2-way leveled outside corner ¹⁷ Specify quantity (#) and angle (##) for each required corner type. ¹⁸ Not available with ARO. ¹⁹ Minimum angle is 45°. For ARO2, minimum angle is 75°.	ANGLE (##): (90) - 90° (##) ^{18,19} - Custom	
VOLTAGE	DRIVER ²¹	ELECTRICAL	ELECTRICAL SECTIONS (optional) ^{28,29}		MOUNTING	
					DMB	
120V - 120V 277V - 277V UNV - 120V-277V 347V ²⁰ - 347V	D1 - 1% 0-10V DA ²² - DALI LDE1 ²² - Lutron Hi-Lume 1% Eco ELD1 - eldoLED 1% ECOdrive 0-10V ELDO - eldoLED 0.1% SOLOdrive 0-10V ELV ²³ - ELV 120V TRI ²³ - TRIAC 120V ²⁰ Available with D1 driver only. ²¹ PoE (Power-over-Ethernet) compatible. Consult factory for details. ²² On-site commissioning is required. ²³ Available with 120V only.	1C - 1 circuit 2C ²⁴ - 2 circuits #MC ²⁵ - Multi circuit EC - Emergency-powered fixture NL - Night light fixture DL - Daylight fixture GTD ^{26,27} - Generator transfer device fixture ²⁴ Available for Direct/Indirect only. Separate direct and indirect circuits. ²⁵ Specify total number of circuits (#), including any required for electrical section options. Provide drawing or layout specifications. Minimum 4' section per circuit. ²⁶ Minimum 4' fixture. ²⁷ Not available with 347V.	#EC## ³⁰ - Emergency-powered section #NL## ³⁰ - Night light section #DL## ³⁰ - Daylight section #CTD## ^{30,31,32} - Generator transfer device section #EMB ^{32,33} - Emergency battery NA - None ²⁸ Specify with multi circuit (#MC) electrical option only. ²⁹ Provide drawing or layout specifications. Consult factory for other configurations. Default section length is 4'. ³⁰ Specify quantity (#), and section length in inches (##). ³¹ Minimum 4' section. ³² Not available with 347V. ³³ Specify quantity (#). All batteries will be on the same circuit. Each battery powers a 4' section. For Direct/Indirect, minimum 8' fixture.	DMB - Drywall mounting bracket		
FINISH	CONTROL ³⁴		OPTIONS			
W - Matte white AL - Aluminum B - Matte black CF# - Custom finish, specify RAL#	STANDALONE CONTROLS ^{35,36,37} Specify the quantity (#) of sensors per fixture. #ODS - Onboard Daylight #OSS50 ³⁸ - Onboard stairwell occupancy with 50% bi- level dimming CONNECTED CONTROLS ³⁹ LU - Lutron AWN - 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 NA - None ³⁴ Standalone and connected control options cannot be combined. ³⁵ Available with D1 driver and 1 circuit options only. ³⁶ Minimum 4' per zone. Provide control zone length. ³⁷ Available with flush lens option only. ³⁸ Minimum 4' fixture. ³⁹ Consult factory for connected controls.		FUI20 - Fuse 120V FU277 - Fuse 277V NA - None			

VIA 4 WALL PATTERN

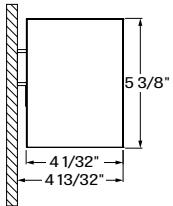
DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS



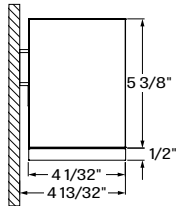
Dimensions

DIRECT/INDIRECT

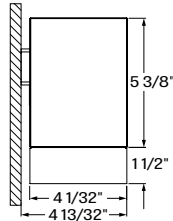
Flush Lens



0.5" Drop Lens ¹

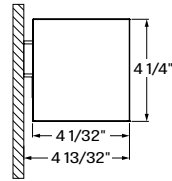


1.5" Drop Lens ¹

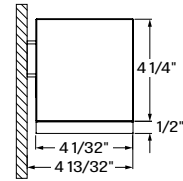


DIRECT or INDIRECT

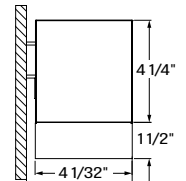
Flush Lens



0.5" Drop Lens ¹



1.5" Drop Lens ¹

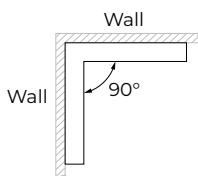


¹Drop lens positions available with HLO direct lens only.

Pattern Layout

CORNER TYPES

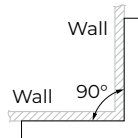
LEVELED INSIDE CORNER



2-way

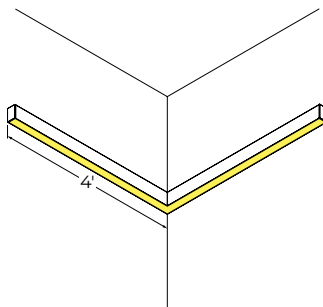
1LEVI2C(90)

LEVELED OUTSIDE CORNER

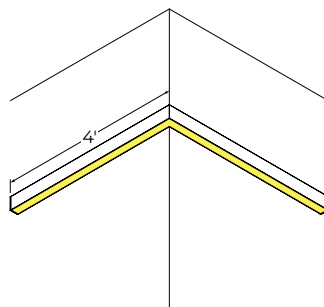


1LEVO2C(90)

EXAMPLES



8FT(2X4FT)-1LEVI2C(90)



8FT(2X4FT)-1LEVO2C(90)

VIA 4 WALL PATTERN

DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS

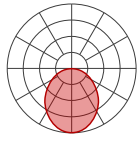


Photometrics

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

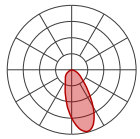
DIRECT OPTICS

HLO (Flush Lens)



LM/FT	W/FT	LPW
350	2.8	124
500	4.1	122
750	6.3	118
1000	8.7	115
1200	10.7	112
1500	13.8	108

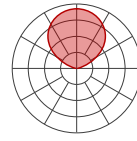
ARO2



LM/FT	W/FT	LPW
350	3.0	116
500	4.4	113
750	7.0	107
1000	9.7	103
1200	12.1	99

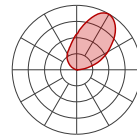
INDIRECT OPTICS

CLO



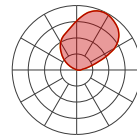
LM/FT	W/FT	LPW
350	2.3	154
500	3.3	150
750	5.2	144
1000	7.2	139
1200	8.9	135

WAI2



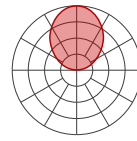
LM/FT	W/FT	LPW
350	2.5	139
500	3.7	135
750	5.8	130
1000	8.0	125
1200	10.0	120

ARO



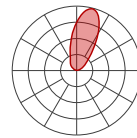
LM/FT	W/FT	LPW
350	3.1	114
500	4.5	111
750	7.1	106
1000	9.9	101
1200	12.3	98

HLO



LM/FT	W/FT	LPW
350	2.8	124
500	4.1	122
750	6.3	118
1000	8.7	115
1200	10.7	112
1500	13.8	108

ARO2



LM/FT	W/FT	LPW
350	3.0	116
500	4.4	113
750	7.0	107
1000	9.7	103
1200	12.1	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

CCT (K)	WATTS		LPW	
	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 0.5"	0.98	1.02
Drop Lens 1.5"	0.96	1.05

DIRECT/INDIRECT - LPW CALCULATION

For Direct/Indirect performance values, follow the formula.

$$\frac{\left(\begin{array}{c} \text{DIRECT} \\ \text{LM/FT} \end{array} + \begin{array}{c} \text{INDIRECT} \\ \text{LM/FT} \end{array} \right)}{\left(\begin{array}{c} \text{DIRECT} \\ \text{W/FT} \end{array} + \begin{array}{c} \text{INDIRECT} \\ \text{W/FT} \end{array} \right)} = \text{LPW}$$

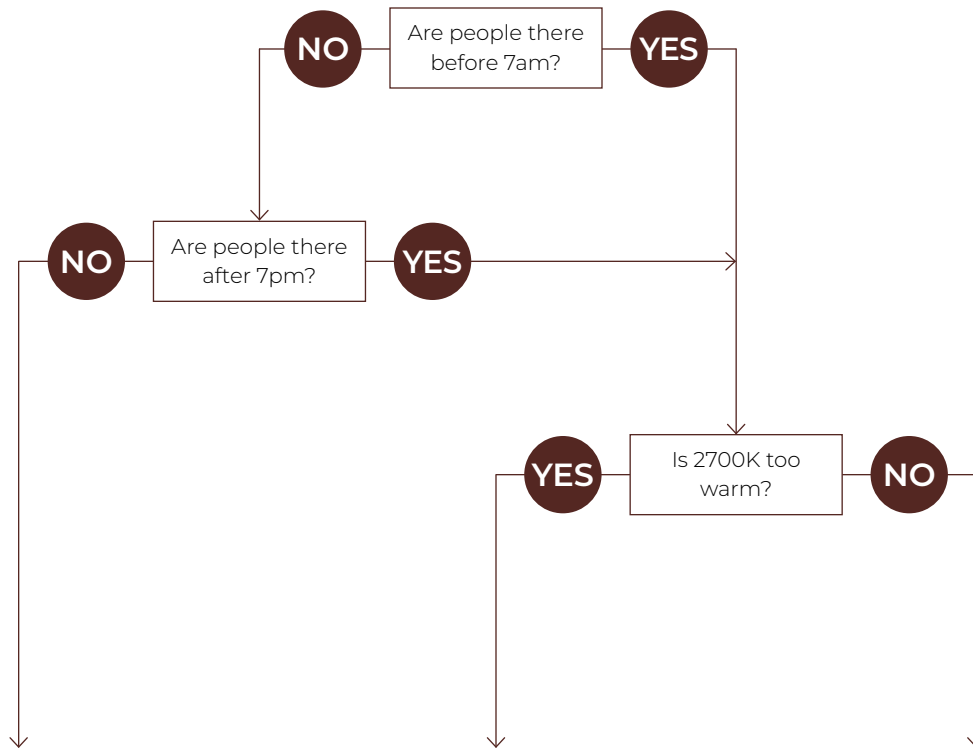
VIA 4 WALL PATTERN

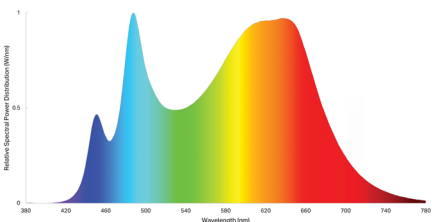
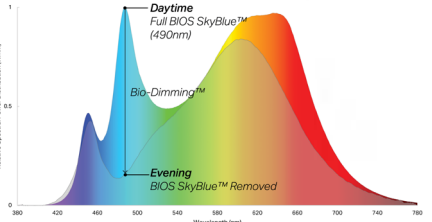
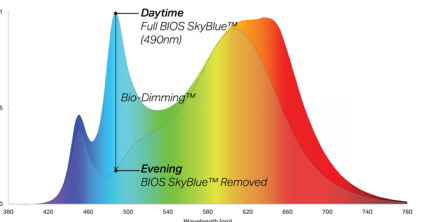
DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS



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
		

VIA 4 WALL PATTERN

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 1.16.

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 a high luminous efficacy.

INDIRECT OPTICS

Clear Lambertian Optic (CLO)

The Clear Lambertian Optic (CLO) uses a single horizontal LED array and a clear acrylic cover to provide simple uplight with high efficiency.

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.

Asymmetric Refractive Optic (ARO)

The Asymmetric Refractive Optic (ARO) combines a matte-finished reflector with a high-transmission diffusing film to control the distribution of light in two ways: 1) on one side, through a modified Lambertian with peak intensity at nadir; and 2) on the other side, through a batwing with peak intensity at 40°. A visor shields luminaire hardware from lateral viewing angles.

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 1.16.

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VIA 4 WALL PATTERN

DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS

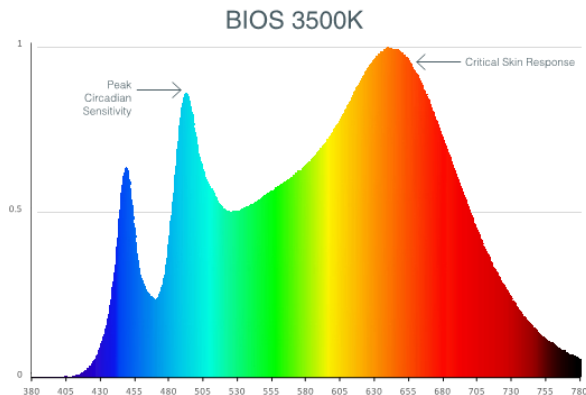


LIGHT SOURCE - STATIC WHITE

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.

LIGHT SOURCE - BIOS

BIOS SkyBlue™ 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 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 5 for details.

PATTERN LENGTH

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.

VIA 4 WALL PATTERN

DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS



MOUNTING OPTIONS

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

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

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 on 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.