

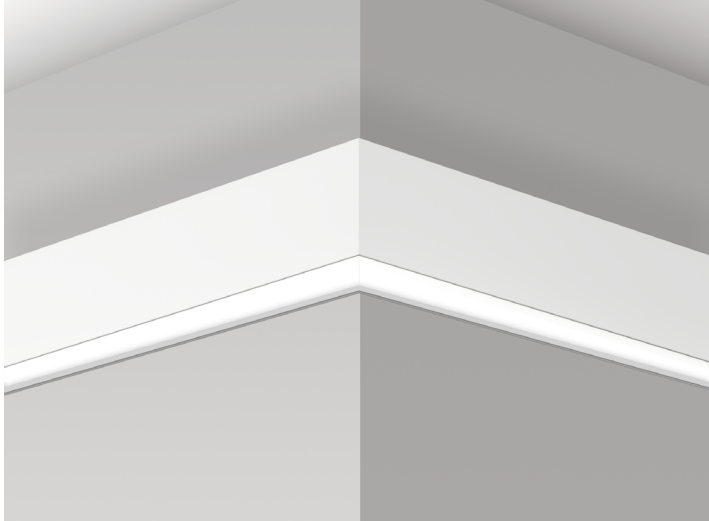
VIA 1.5 WALL PATTERN

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 1.5 Wall is offered with Lambertian and asymmetric optics.

Up to 162 lm/W performance

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

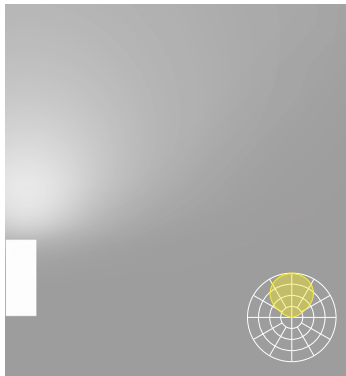


DIRECT OPTIC



HLO¹
High-Efficiency Lambertian
Optic

INDIRECT OPTICS



CLO²
Clear Lambertian
Optic



WAI2
Widespread Asymmetric
Indirect Optic



HLO³
High-Efficiency Lambertian
Optic

¹Drop lens positions available with HLO direct lens.

²Available only with Direct/Indirect.

³Not available with Direct/Indirect.

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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 ⁴	CRI
VIA1.5WPAT						
VIA1.5WPAT - Via 1.5" Wall Pattern	DI - Direct/ Indirect D - Direct I - Indirect	HLO - High-Efficiency Lambertian Optic NA - Not applicable	FH - Flush 0.5D - 0.5" drop 1.5D - 1.5" drop NA - Not applicable	CLO ^{1,2} - Clear Lambertian Optic WAI2 ¹ - Widespread Asymmetric Indirect Optic HLO ³ - High-Efficiency Lambertian Optic NA - Not applicable <small>¹ Not available with BIOS. ² Available only with Direct/Indirect. ³ Not available with Direct/Indirect.</small>	SW - Static white BIOSST ^{5,6} - BIOS Biological Static BIOSDY ^{5,6} - BIOS Biological Dynamic BIOSTU ^{5,6} - BIOS Biological Tunable <small>⁴ Chromawerx Sola, Duo and Quadro also available. Consult other spec sheets. ⁵ Only available with low and medium lumen packages. ⁶ See page 5 for details.</small>	80CRI - 80 CRI 90CRI ⁷ - 90 CRI <small>⁷ Not available with BIOS.</small>
DIRECT LUMEN PACKAGE Specify NA for Indirect fixture	INDIRECT LUMEN PACKAGE Specify NA for Direct fixture	COLOR TEMP.	PATTERN LENGTH	CORNER TYPE ¹⁸		
200LMF ^{8,9} - Hypo output 200 lm/ft 350LMF - Low output 350 lm/ft 500LMF - Medium output 500 lm/ft 750LMF ¹⁰ - High output 750 lm/ft 900LMF ^{11,12,13} - Hyper output 900 lm/ft NA - Not applicable <small>⁸ Minimum 4' fixture. ⁹ Not available with ELV/TRI driver options. ¹⁰ For Direct/Indirect, Indirect must not exceed 500 lm/ft. ¹¹ Not available with 90CRI. ¹² For Direct fixture only or Indirect fixture only.</small>	350LMF ^{8,9} - Low output 350 lm/ft 500LMF - Medium output 500 lm/ft 750LMF ¹⁴ - High output 750 lm/ft 900LMF ^{11,12,13,15} - Hyper output 900 lm/ft NA - Not applicable <small>¹³ Fixture will be very bright. Use in suitable applications. ¹⁴ For Direct/Indirect, Direct must not exceed 500 lm/ft. ¹⁵ Available with HLO only.</small>	27K ¹⁶ - 2700K 30K - 3000K 35K - 3500K 40K - 4000K 50K ¹⁶ - 5000K <small>¹⁶ Not available with BIOS.</small>	##FT##IN(##X##FT#IN- #X##FT#IN-...) ¹⁷ - ##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' <small>¹⁷ Minimum 2' for Direct, minimum 3' for Direct/Indirect.</small>	#LEVI2C(##) - 2-way leveled inside corner #LEVO2C(##) - 2-way leveled outside corner <small>¹⁸ Specify quantity (#) and angle (##) for each required corner type. ¹⁹ Minimum angle is 30°.</small>	ANGLE (##): (90) - 90° (##) ¹⁹ - Custom	
VOLTAGE	DRIVER ²¹	ELECTRICAL	ELECTRICAL SECTIONS (optional) ^{28,29}	MOUNTING		
				DMB		
120V - 120V 277V - 277V UNV - 120V-277V 347V ²⁰ - 347V <small>²⁰ Available with D1 driver only.</small>	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 <small>²¹ PoE (Power-over-Ethernet) compatible. Consult factory for details. ²² On-site commissioning is required. ²³ Available with 120V only.</small>	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 <small>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.</small>	#EC## ³⁰ - Emergency-powered section #NL## ³⁰ - Night light section #DL## ³⁰ - Daylight section #GTD## ^{30,31,32} - Generator transfer device section #EMB ^{32,33} - Emergency battery NA - None <small>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.</small>	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 <small>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.</small>	CONNECTED CONTROLS ³⁸ 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 <small>³⁷ Available with flush lens option only. ³⁸ Consult factory for connected controls.</small>	FUI20 - Fuse 120V FU277 - Fuse 277V NA - None			

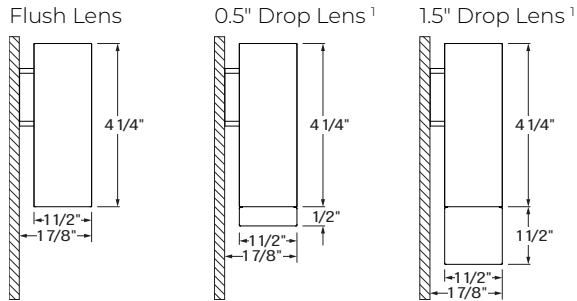
VIA 1.5 WALL PATTERN

DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS



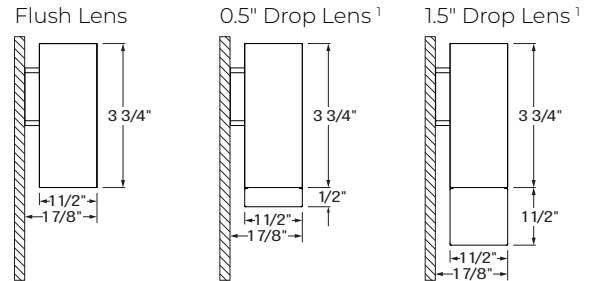
Dimensions

DIRECT/INDIRECT



¹ Drop lens positions available with HLO direct lens only.

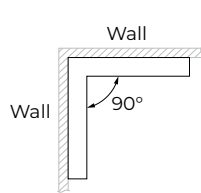
DIRECT or INDIRECT



Pattern Layout

CORNER TYPES

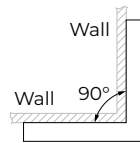
LEVELED INSIDE CORNER



2-way

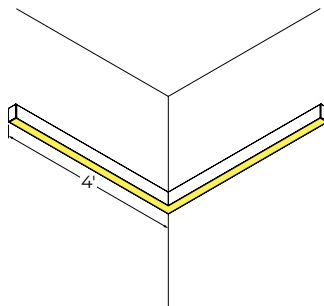
1LEVI2C(90)

LEVELED OUTSIDE CORNER

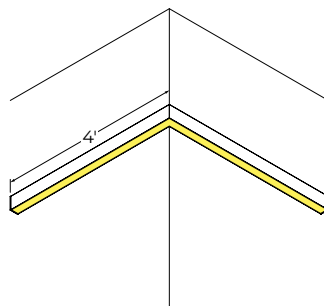


1LEVO2C(90)

EXAMPLES



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



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

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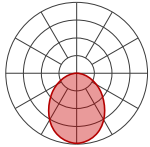


Photometrics

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

DIRECT OPTIC

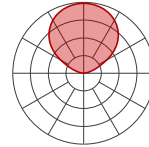
HLO (Flush Lens)



LM/FT	W/FT	LPW
200	2.7	75
350	4.8	74
500	7.0	72
750	10.9	69
900	13.4	67

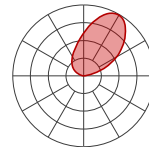
INDIRECT OPTICS

CLO



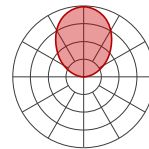
LM/FT	W/FT	LPW
350	2.3	154
500	3.3	150
750	5.2	144

WAI2



LM/FT	W/FT	LPW
350	2.5	139
500	3.7	135
750	5.8	130

HLO



LM/FT	W/FT	LPW
350	4.8	74
500	7.0	72
750	10.9	69
900	13.4	67

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"	0.89	1.12
Drop Lens 1.5"	0.88	1.14

DIRECT/INDIRECT - LPW CALCULATION

For Direct/Indirect performance values, follow the formula.

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

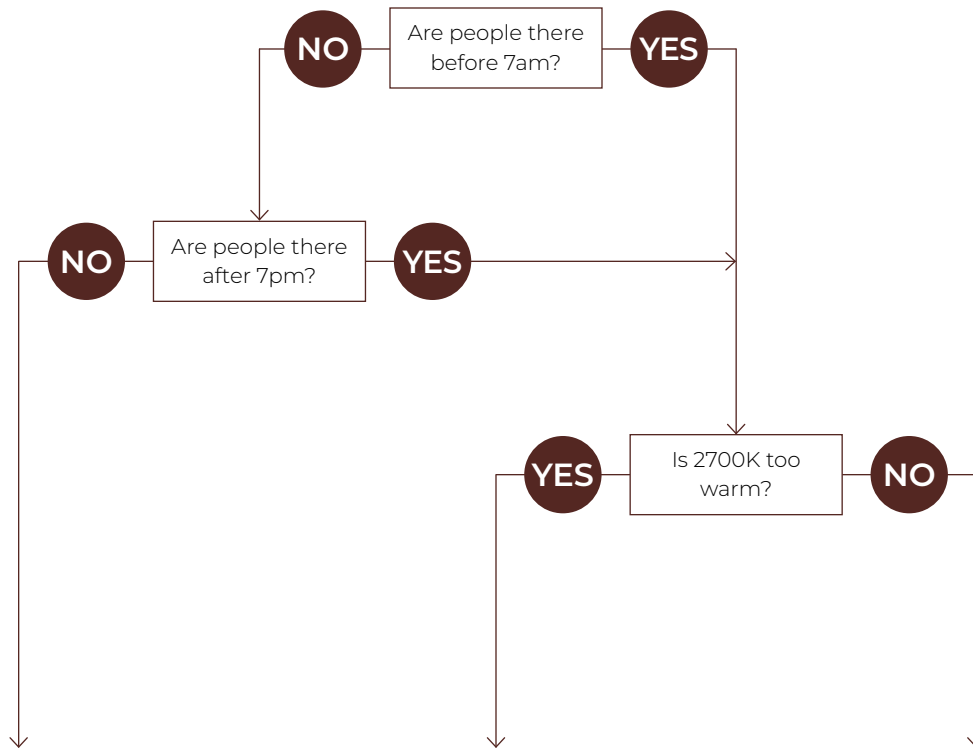
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BIOS

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

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Technical Specifications

DIRECT OPTIC

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 1.12.

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.

High-Efficiency Lambertian Optic (HLO)

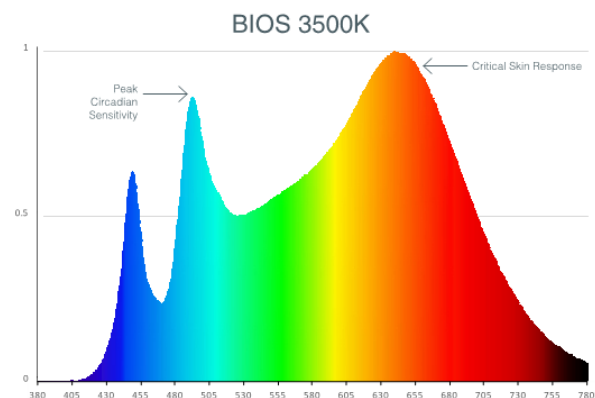
The High-Efficiency Lambertian Optic (HLO) uses matte white reflectors to distribute LED output across 0.075" acrylic shielding, providing up to 88% transmission and good obscuration. HLO has a spacing criterion of 1.12.

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.

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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, eidoLED 1% ECoDrive 0-10V, eidoLED 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.

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. One type is 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.

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.

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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 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.