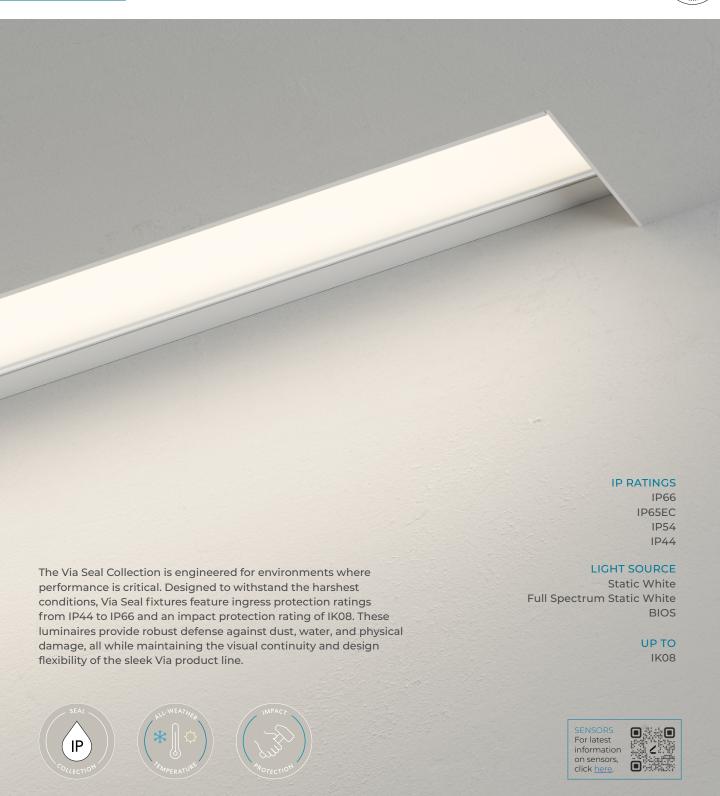


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Project:	
3	
Туре:	

Order Guide

LUMINAIRE ID	DISTRIBUTION	ENVIRONMENT ¹	OPTIC	LIGHT SOURCE 3
	D		EPDO	
V3SEALPERL - Via 3 Seal Perimeter Level V3SEALPERS - Via 3 Seal Perimeter Shallow V3SEALPERD - Via 3 Seal Perimeter Deep	D - Direct	IP66 - IP66-Rated IP65PEC - IP65-Rated Electrical Components IP54 ² - IP54-Rated IP44 ² - IP44-Rated ¹ See page 4 for more information on the features and installation details	EPDO - Environmentally Protected Direct Optic	SW - Static white FS - Full spectrum static white BIOSST 4 - BIOS Biological Static BIOSDY 4 - BIOS Biological Dynamic BIOSTU 4 - BIOS Biological Tunable
		for each environment option. ² Fixture must be installed with direct lens facing down.		³ Chromawerx SOLA and DUO also available. Consult factory for RGBW. ⁴ See page 7 for details.

CRI	LUMEN PACKAGE	COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE	DRIVER 13
80CRI 5 - 80+ CRI	500LMF - Low output 500 lm/ft	27K ¹⁰ - 2700K	#FT#IN " - Specify nominal length	120V - 120V	D1 - 1% O-10V
90CRI 5,6 - 90+ CRI	750LMF 8 - Medium output	30K - 3000K	(#) in 1' and/or 1" increments	277∨ - 277∨	ELV 14 - ELV 120V
95CRI 7 - 95+ CRI	750 lm/ft	35K - 3500K		UNV - 120V-277V	TRI 14 - TRIAC 120V
	1000LMF 8,9 - High output	40K - 4000K	Standard nominal lengths:	347V 12 - 347V	DA 15 - DALI
⁵ Not available with full	1000 lm/ft	50K 10 - 5000K	Single units: 2' to 12'		LDE1 15 - Lutron Hi-lume 1% Eco
spectrum.			Continuous runs: lengths over 12'	¹² Available with D1	ELD1 - eldoLED 1% ECOdrive 0-10V
6Not available with BIOS.	⁸ Not available with BIOS.	¹⁰ Not available with		driver only.	ELDO - eldoLED 0.1% SOLOdrive 0-10V
⁷ Only available with full spectrum.	⁹ Not available with full spectrum.	BIOS.	"Minimum 2".		RLTD10 - Low-temperature 10% 0-10V
					¹³ See page 4 for driver temperature ranges. ¹⁴ Available with 120V only.
					Non-site commissioning is required.

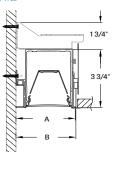
ELECTRICAL	ELECTRICAL SECTIONS (optional) 20,21	POWER FEED	MOUNTING	FINISH	OPTIONS 28
1C - 1 circuit #MC ¹⁶ - Multi circuit EC - Emergency-powered fixture NL - Night light fixture DL - Daylight fixture GTD ^{17,18,19} - Generator transfer device fixture	#EC## ²² - Emergency-powered section #NL## ²² - Night light section #DL## ²² - Daylight section #GTD## ²² , ²³ , ²⁴ , ²⁵ - Generator transfer device section #EMB ²⁴ , ²⁵ , ²⁶ , ²⁷ - Emergency battery NA - None	TF - Top feed EF - End feed	TG9 - Tegular 9/16" TG15 - Tegular 15/16" TB9 - T-bar 9/16" TB15 - T-bar 15/16" ST - Screw slot T-bar DTR - Trim	W - Matte white AL - Aluminum WA - White antimicrobial Silverwerx	NEF ^{29, 30} - No end flanges FEP ³⁰ - Flush end plates CRF - Corrosion- resistant finish GGK - Grid gasket
 Specify total number of circuits (#), including any required for electrical section options. Provide drawing or layout specifications. Minimum 4' section per circuit. Minimum 4' fixture. Not available with 347V. Not available for environments where the ambient temperature falls below 0°C (32°F). 	20 Specify with multi circuit (#MC) electrical option only. 21 Provide drawing or layout specifications. Consult factory for other configurations. Default section length is 4'. 22 Specify quantity (#), and section length in inches (##). 23 Minimum 4' section. 24 Not available with 347V. 25 Not available for environments where the ambient temperature falls below 0°C (32°F). 26 Specify quantity (#). All batteries will be on the same circuit. Each battery powers a 4' section. 27 Only available with IP54 and IP44.		DMF - Drywall mud flange		NA - None 28 Separate codes with a "+" if more than one is specified. 29 For wall-to-wall installations. 30 See page 6 for details.



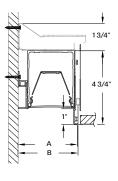
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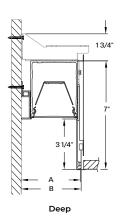
Dimensions



Level



Shallow



T-BAR	FIXTURE WIDTH A	TO CENTER OF T-BAR B
TB9/TG9 TB15/TG15	3 27/32" 3 15/16"	3 7/8"
ST	3 27/32"	3 7/8"



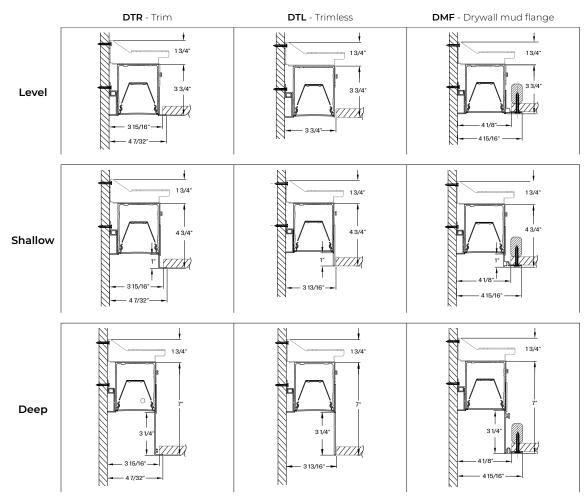




TB9 - T-bar 9/16 TG9 - Tegular 9/16"

ST - Screw slot T-bar

TB15 - T-bar 15/16 TG15 - Tegular15/16"









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Environment Options

	Direct					
IP66	IP65EC Electrical Components	IP54	IP44			
Dust tight High water resistance	Dust tight Moderate water resistance	Dust Water splash resistance	Particles larger splash resistance protected			
	OUT	DOOR				
Directly exposed to the elements	Moderate exposure to the elements	Under canopy, slightly exposed	Under canopy, not exposed			
	IND	OOR				
Wipe down application		Wipe down application				
Healthcare application Cleanroom application		Healthcare application				
	-lens gasket d cap gasket	-internal end				
External joiner gasket every 12'	Continuous line of light over 12'	Internal joiner gasket with soft shadow line every 12'	Continuous line of light over 12'			
Driver: in a sealed enclos Electrical connections: v						
LED boards: conformal of protection	coated for maximum					

Ambient Temperature Range based on driver selection					
	LDE1	ELV / TRI	DA / ELD1 / ELD0	Dì	RLTD10
Minimum temperature:	0 °C / 32 °F	-10 °C / 14 °F	-20 °C / -4 °F	-30 °C / -22 °F	-40 °C / -40 °F
Maximum temperature:			40 °C / 104 °F		

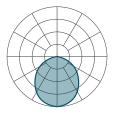


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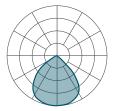
Photometrics

Values calculated based on a 4' fixture at 4000K and 80+ CRI.



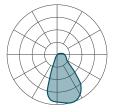
Level

LM/FT	W/FT	LM/W
500	4.9	101
750	7.6	98
1000	10.5	94



Shallow

LM/FT	W/FT	LM/W
500	5.1	97
750	8	93
1000	11	90



Deep

LM/FT	W/FT	LM/W
500	5.3	94
750	8.2	91
1000	11.3	88

MULTIPLIER TABLE

Please follow the multiplier table to ensure correct lumen value. CCT and CRI, will change the lumen output.

Multiplier - CCT/CRI

сст	WATTS		LP	w
	80+ CRI	90+ CRI	80+ CRI	90+ CRI
	1	1	1	1
2700K	1.06	1.27	0.94	0.79
3000K	1.02	1.23	0.98	0.81
3500K	1.00	1.19	1.00	0.84
4000K	1.00	1.18	1.00	0.85
5000K	0.95	1.12	1.05	0.89



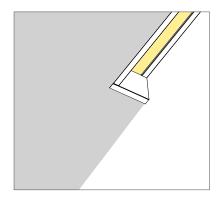


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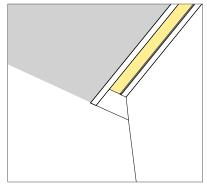
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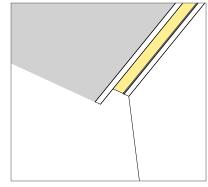
End Configurations

STANDARD



OPTIONS





NEF - No end flanges

FEP - Flush end plates

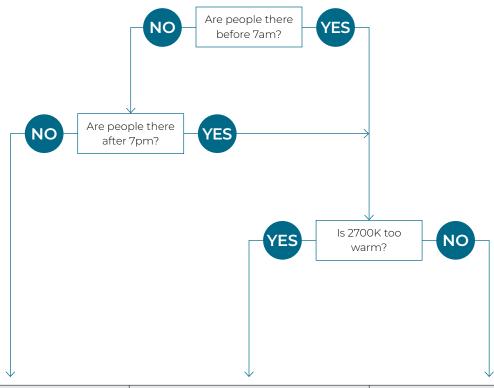


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BIOS

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 over after 7pm and before 7am, and when the evening is not preferred people do not sleep (CCT color shift evening is preferred)		
E.g. offices, medical/dental offices	E.g. hospitals	E.g. offices, shiftwork	
360 420 460 500 540 Wavelength here)	Daytime	Daytime Full BIOS SkyBlue Market Full BIOS SkyBlue Market Mark	



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Technical Specifications

OPTIC

Environmentally Protected Direct Optic (EPDO)

The Environmentally Protected Direct Optic creates a seal that blocks debris and moisture, and withstands UV distortion and moderate impact. This extruded snap-in lens has a gasket to ensure proper sealing. The lens is 1/16" thick and made of frosted polycarbonate. Internally, white, side kicking reflectors guide the light through the lens. The EPDO suits moderate climate environments.

LIGHT SOURCE

Static white

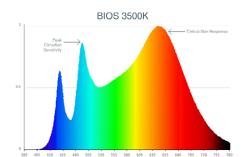
Custom linear array of mid-flux LEDs are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 2700K, 3000K, 3500K, 4000K and 5000K with a minimum 80+ CRI and an option for 90+ CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated 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.

Full spectrum static white

The full spectrum LED option offers improved color particularly in the cyan region that is beneficial in both healthcare and circadian lighting strategies. The cyan region in full spectrum LED is richer at the 480 nm range.

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 deepred (near 660 nm) spectrum.



Three BIOS solutions are offered: BIOS Biological Static (BIOSST), BIOS Biological Dynamic (BIOSDY), and BIOS Biological Tunable (BIOSTU). See page 7 for details.

WELL BUILDING STANDARD



WELL for Light: The WELL building standard focuses on light quality in several features. There are three categories that are fully attributed to the construction and features of a luminaire. In WELL VI, it's Feature 54 Circadian Lighting, Feature 55 Glare Control, and Feature 58 Color Quality. In WELL V2, it's Feature LO3 Circadian Lighting, Feature LO4 Glare Control, and Feature L07 Electric Light Quality.

This fixture meets Features:

- Feature 54 or L03 when BIOS or full spectrum is selected
- Feature 55 or LO4 meets WELL glare category (c-d) (not applicable with 1000 lm/ft)
- Feature 58 or L07 when 90+ CRI is selected

All LED drivers used at Lumenwerx are deemed to have a low risk level of flicker, of 5% or less below 90Hz operational as defined by IEEE standard 1789-2015 LED.



WELL for Mind: This luminaire meets WELL for mind as it is a human centric luminaire offering quality light, excellent color, and smooth optics. If any of these features are incorporated in a luminaire, it can improve the ability to focus, concentrate, and persist longer on a given task. This fixture harmoniously operates in a space to assist the mind.

For more information, please contact well@lumenwerx.com





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LUMINAIRE LENGTH

Via 3 Seal Perimeter 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' and can be ordered in 1' and/or 1" increments. All individual sections are joined together onsite using the joiner kits provided. Lumenwerx joiner kits 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.

TEMPERATURE VARIATION PROTECTION

The intergrated pressure equalization and moisture control GORE® protective vent allows air to flow while blocking water, dust, and contaminants. It reduces internal condensation, supports thermal stability, and preserves the fixture's sealed performance over time.



Location may vary.

ELECTRICAL

Factory-set, adjustable output current LED driver with universal (120-277 VAC) 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, 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 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. Suited for ambient temperatures of 0°C (32°F) to 55°C (131°F).

Generator Transfer Device (GTD)

A UL924 listed shunt relay that can bypass both line voltage (120-277V) and 0-10V dimming signal. Suited for ambient temperatures of 0°C (32°F) to 60°C (140°F).

MOUNTING

Recessed fixtures can be mounted into exposed or concealed T-bar or tegular ceiling, as well as in ceilings with trim, trimless, or mud flange options. Via 3 Seal Perimeter is compatible with 4" Armstrong Techzone™ & USG ceilings.

FINISH

Interior: 95%, reflective matte powder coated white paint Exterior: Powder-coat paint in matte white or aluminum. Optional antimicrobial finish.

CONSTRUCTION

Housing: Extruded aluminum, up to 90% recycled content Interior brackets: Die-formed cold rolled sheet steel

Gaskets: closed-cell silicone foam

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

Recessed flanges: Extruded aluminum, up to 90% recycled

Mud flange: Extruded aluminum, up to 90% recycled content End caps: Die-cast aluminum

Mounting bracket: Aluminum bracket with stainless steel PEM studs and sealing washers

Grid gasket (GGK option): 1/16" closed-cell silicone foam, assures a better seal between the fixture and the grid





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WEIGHT

4': 12.8 lbs - 5.8 kg 8': 23.6 lbs - 10.7 kg 12': 34.4 lbs - 15.6 kg

CERTIFICATIONS

ETL: IP44-Rated environment option is rated for dry/damp locations. IP66-Rated, and IP65-Rated Electrical Components environment options are ETL Wet Listed. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0. During the installation of Wet Listed fixtures, the contractor is responsible for properly sealing all mounting and electrical connection points.

IC rated: Suitable for direct contact with insulation

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.

