

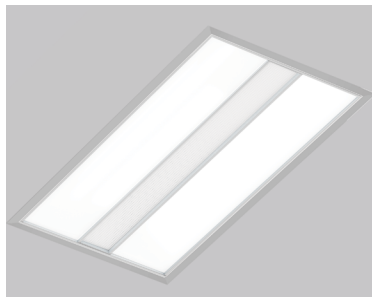
NOVA

RECESSED
STATIC WHITE, FULL SPECTRUM

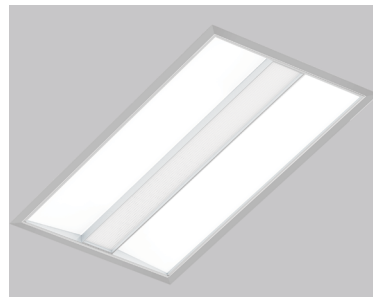


Project: _____

Type: _____



Nova Recessed Flat



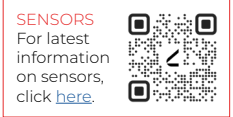
Nova Recessed Slope

DESCRIPTION

Nova is an efficient architectural LED troffer with a distinctive luminous shielding that distributes gentle brightness from the sides of its central optical element. Using advanced LED engines, Nova provides highly efficient illumination and offers comprehensive ceiling, electrical, and controls options in 1'x4', 2'x2', and 2'x4' sizes. Nova is available with both Flat and Slope side diffusers.

Order Guide

IC RATED



LUMINAIRE ID	SIZE	CENTER OPTIC	SIDE OPTIC	LIGHT SOURCE ¹	CRI	LUMEN PACKAGE			
		PMO	HLO				Low	Medium	High ⁴
NOVRF - Nova Recessed Flat	1FTX4FT - 1' x 4'	PMO - Precision Micro-Prism Optic	HLO - High-Efficiency Lambertian Optic	SW - Static white	80CRI ² - 80+ CRI	1' x 4'	2300LM - 2300 lm	3200LM - 3200 lm	4200LM - 4200 lm
NOVRS - Nova Recessed Slope	2FTX2FT - 2' x 2'			FS - Full spectrum static white	90CRI ² - 90+ CRI		2300LM - 2300 lm	3200LM - 3200 lm	4200LM - 4200 lm
	2FTX4FT - 2' x 4'			95CRI ³ - 95+ CRI	4000LM - 4000 lm		5500LM - 5500 lm	6800LM - 6800 lm	
				¹ Chromawerx SOLA, DUO, and QUADRO also available. Consult other spec sheets.	² Not available with full spectrum.	³ Not available with static white.	⁴ Not available with full spectrum.		

COLOR TEMPERATURE	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING	FINISH
27K - 2700K 30K - 3000K 35K - 3500K 40K - 4000K 50K - 5000K	120V - 120V 277V - 277V UNV - 120V-277V 347V ⁵ - 347V	D1 - 1% 0-10V ELV ⁶ - ELV 120V TRI ⁶ - TRIAC 120V DA ⁷ - DALI LDE1 ⁷ - Lutron Hi-lume 1% Eco ELD1 - eldoLED 1% ECOdrive 0-10V ELDO - eldoLED 0.1% SOLOdrive 0-10V	1C - 1 circuit EC - Emergency-powered fixture NL - Night light fixture DL - Daylight fixture GTD ⁸ - Generator transfer device fixture +EMB ^{9,9,10} - Emergency battery	TC9 - Tegular 9/16" TG15 - Tegular 15/16" TB9 - T-bar 9/16" TB15 - T-bar 15/16" ST - Screw slot T-bar DF - Drywall trim kit	W - Matte white AL - Aluminum B - Matte black CF# - Custom finish, specify RAL#
	⁵ Only available with D1 driver.	⁶ Only available with 120V. ⁷ On-site commissioning is required.	⁸ Not available with 347V. ⁹ Not available with EC or GTD. ¹⁰ To specify, add +EMB to the selected electrical option, e.g. 1C+EMB.		

CONTROL ¹¹	OPTIONS ¹⁷
<p><u>STANDALONE CONTROLS</u> ^{12,13}</p> <p>Specify the quantity (#) of sensors per fixture.</p> <p>#OMS ¹⁴ - Onboard Occupancy</p> <p>#OMS## ¹⁵ - Onboard Occupancy with bi-level dimming</p> <p>#ODS - Onboard Daylight</p> <p>#OCS - Onboard Occupancy & Daylight</p>	<p><u>CONNECTED CONTROLS</u> ¹⁶</p> <p>LU - Lutron</p> <p>AWNR - Lutron Athena Wireless Node RF Only</p> <p>AWNS - Lutron Athena Wireless Node Sensor</p> <p>ENC - Encelium</p> <p>WL - Cooper Wavelinx</p> <p>ANA - Acuity nLight Air</p> <p>CA - Casambi</p> <p>LG - Legrand</p> <p>FU120 - Fuse 120V</p> <p>FU277 - Fuse 277V</p> <p>FWC - Flexible whip cable (6' std)</p> <p>AR ^{18,19} - Air return</p> <p>CP - Chicago Plenum</p> <p>NA - None</p>
<p>NA - None</p>	<p>¹⁷ Separate codes with a "+" if more than one is specified.</p> <p>¹⁸ For grid ceiling only.</p> <p>¹⁹ Not available with 1' x 4'.</p>

¹¹ Standalone and connected control options cannot be combined.
¹² Available with D1 driver and 1 circuit options only.
¹³ Minimum 4' per zone. Provide control zone length.

¹⁴ Fixture turns off when no occupancy.
¹⁵ Fixture dims to specified light level % (##).
¹⁶ Consult factory for connected controls.

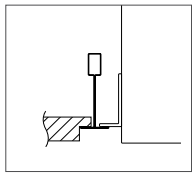
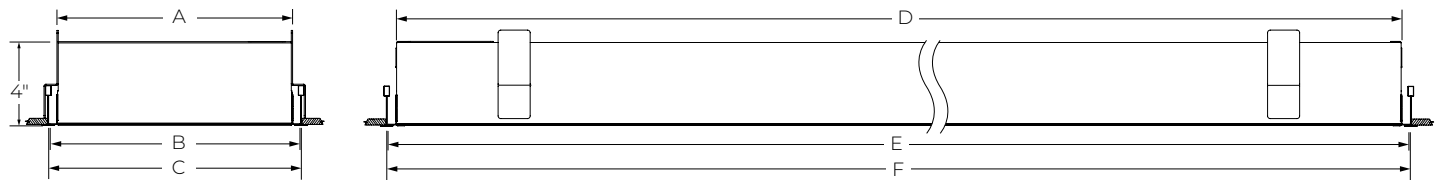


RECESSED
STATIC WHITE, FULL SPECTRUM

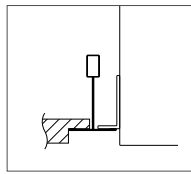
Dimensions (shown with 1' x 4')

GRID

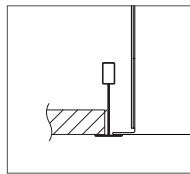
SIZE	FIXTURE WIDTH A	WITH FLANGES B	BETWEEN T-BAR C	FIXTURE LENGTH D	WITH FLANGES E	BETWEEN T-BAR F
1' x 4'	11"	11 13/16"	12"	47"	47 13/16"	48"
2' x 2'	23"	23 13/16"	24"	23"	23 13/16"	24"
2' x 4'	23"	23 13/16"	24"	47"	47 13/16"	48"



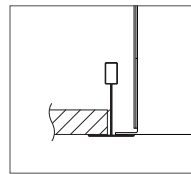
TC9
Regular 9/16"



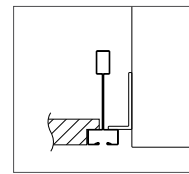
TC15
Regular 15/16"



TB9
T-bar 9/16"



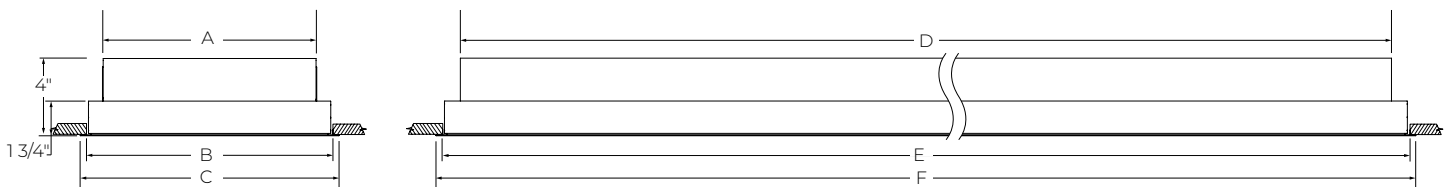
TB15
T-bar 15/16"



ST
Screw slot T-bar

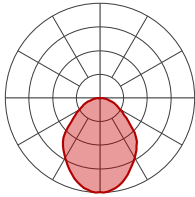
DRYWALL TRIM KIT

SIZE	FIXTURE WIDTH A	CEILING CUT-OUT B	TRIM KIT WIDTH C	FIXTURE LENGTH D	CEILING CUT-OUT E	TRIM KIT LENGTH F
1' x 4'	11"	12 25/32"	13 3/8"	47"	48 25/32"	49 3/8"
2' x 2'	23"	24 25/32"	25 3/8"	23"	24 25/32"	25 3/8"
2' x 4'	23"	24 25/32"	25 3/8"	47"	48 25/32"	49 3/8"



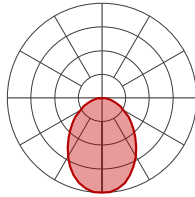
Photometrics

Values calculated based on 3500K.



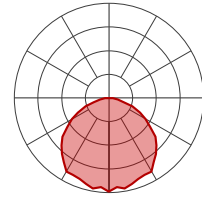
1' x 4'
STATIC WHITE

LM	W	LM/W
2300	21.5	107
3200	31	103
4200	42	100



2' x 2'
STATIC WHITE

LM	W	LM/W
2300	20	115
3200	29	110
4200	39	108



2' x 4'
STATIC WHITE

LM	W	LM/W
4000	38	104
5500	55	100
6800	68	100

FULL SPECTRUM STATIC WHITE

LM	W	LM/W
2300	30.6	75
3200	44.4	72

FULL SPECTRUM STATIC WHITE

LM	W	LM/W
2300	28.7	80
3200	41.5	77

FULL SPECTRUM STATIC WHITE

LM	W	LM/W
4000	54.7	73
5500	78.5	70

MULTIPLIER TABLE

Use the table to get results for different color temperatures.

CCT	WATTS		LPW
	80+ CRI / 90+ CRI / 95+ CRI	80+ CRI / 90+ CRI / 95+ CRI	
2700K	1.02		0.98
3000K	1.00		1.00
3500K	1.00		1.00
4000K	0.97		1.03
5000K	0.97		1.03

Technical Specifications

OPTICS

Precision Micro-Prism Optic (PMO)

The Precision Micro-Prism Optic (PMO) uses a specially designed catadioptric lens that combines refraction and internal reflection. The exclusive two-dimensional array of prisms is designed to eliminate the glare found at higher viewing angles and as such, enables a glare cut-off at a 45° viewing angle.

The acrylic material itself is untinted, relying entirely on catadioptric control for effective source obscuration. A highly efficient TIR process at the acrylic-air interface on the prism surfaces redirects incident light with less than a 0.1% loss per reflection. As a result, these optics attain a high optical efficiency greater than 90%, while maintaining visual comfort at normal viewing angles and presenting a pleasing luminous appearance.

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.

LIGHT SOURCE

Static white

Custom array of mid-flux LEDs are mounted directly to the housing for optimal thermal performance. 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. 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.

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, ELV, TRIAC, and DALI protocol drivers. All of our standard 0-10V drivers are NEMA 410 compliant. ELV and TRIAC dimming performance (including minimum dimming percentage) subject to dimmer selection.

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.

Battery

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 10 W (25°C) emergency lighting output and recharge time of 24 hours.

MOUNTING

Recessed fixtures can be mounted into exposed or concealed T-bar or tegular ceiling, as well as in drywall ceilings with trim kit.

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.

Three types are available:

OMS: An integral Passive InfraRed (PIR) sensor turns luminaires on and off automatically with field-adjustable time out period. No wall control is used. Coverage pattern for large motion has a 12' diameter with the sensor mounted 8' above the floor; for small motion, the pattern has an 8' diameter. Typically, one sensor is required for every 10' of a continuous luminaire run.

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.

OCS: Both an occupancy and a daylight sensor are installed in the luminaire.

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, 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.

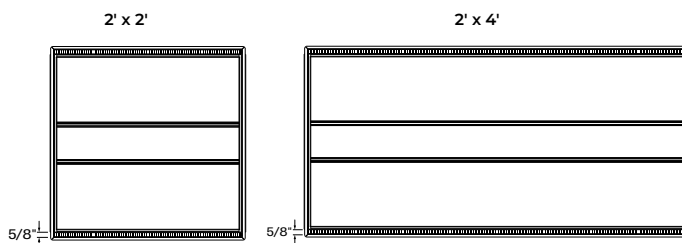
Lumenwerx is solely responsible for the installation of specified components; the controls manufacturer is responsible for performance of the control system.

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.

OPTION

The air return (AR) option consists in a discreet, yet efficient, slot pattern integrated into the side flanges of the luminaire, allowing the airflow to exhaust into plenum space, creating a clean, pleasant look of the ceiling.



CONSTRUCTION

- Housing:** Die-formed cold rolled sheet steel
- Reflectors:** Die-formed cold rolled steel, 95% reflective matte white painted
- Interior brackets:** Die-formed cold rolled sheet steel
- Center basket:** Extruded aluminum
- Lens:** Acrylic
- Drywall trim kit:** Extruded aluminum

WEIGHT

	Grid		Drywall trim kit	
1' x 4'	24.56 lbs	11.15 kg	27.64 lbs	12.55 kg
2' x 2'	16.52 lbs	7.5 kg	19.03 lbs	8.64 kg
2' x 4'	36.23 lbs	16.45 kg	39.97 lbs	18.15 kg

CERTIFICATIONS

- ETL:** Rated for indoor dry/damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.
- Chicago Plenum:** City of Chicago Approved (CCEA) when specified with CP option.
- 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.