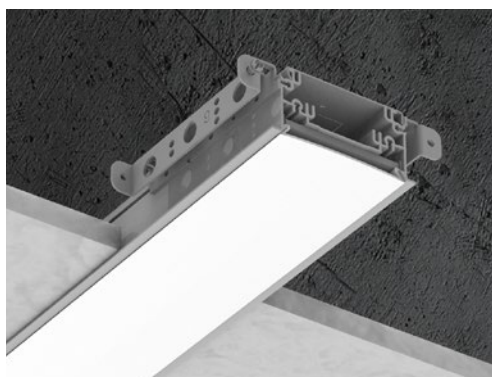


# SHALO 3 LED

RECESSED



**LUMENWERX**  
WWW.LUMENWERX.COM



## DESCRIPTION

**Shalo** - with a depth of merely 1.75" - fits within the height of a typical ceiling grid and yet provides a uniform luminous appearance without LED pixilation. The onboard driver micro-structure optics make Shalo practical, as well as attractive. Shalo fits a variety of grid ceilings with main runners nominally 4" on center, including TECHZONE™, and can be installed as discrete luminaires, continuous runs of uninterrupted light, and patterns. See separate spec sheets for patterns.

**PROJECT:** \_\_\_\_\_

**TYPE:** \_\_\_\_\_

**NOTES:** \_\_\_\_\_

**up to 117 lm/w performance**

**IC RATED**

## ORDER GUIDE

SHL3R	SLO	LED				
LUMINAIRE ID	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.	LUMINAIRE LENGTH
<b>SHL3R</b> - Shalo 3" recessed	<b>SLO</b> - Shallow Lambertian optic	<b>LED</b> - High performance LED	<b>80</b> - 80CRI <b>90</b> - 90CRI	<b>500</b> - Min. low output 500lm/ft <b>750</b> - Med. output 750lm/ft <b>1000</b> - High output 1000lm/ft <b>1200</b> - Max. ultra high output 1200lm/ft <b>####</b> - Other required lm/ft	<b>27</b> - 2700K <b>30</b> - 3000K <b>35</b> - 3500K <b>40</b> - 4000K	Standard sections - 2', 3', 4', 5', 6', 7' & 8' For all other specify length <b>#FT</b> - Nominal length in feet <b>#IN</b> - Length in inches Continuous run - for luminaires over 8' Minimum individual section 2'

VOLTAGE	DRIVER	ELECTRICAL	MOUNTING	FINISH	CONTROLS
<b>120</b> - 120V <b>277</b> - 277V <b>UNV</b> - 120V-277V <b>347</b> <sup>1</sup> - 347V	<b>D1</b> - 1% 0-10V <b>DA</b> - DALI <b>LTEA2W</b> - Lutron 1% - 2 wire FP 120V <b>LDE1</b> - Lutron Hi-lume 1% Eco <b>LDE5</b> - Lutron 5% EcoSystem	<b>1</b> - 1 circuit <b>+EB</b> <sup>2</sup> - Emergency battery <b>+EM</b> - Emergency light circuit <b>+NL</b> - Night light circuit  <sup>2</sup> Minimum 4' fixture required when specified with 0-10V dimming or DALI.	<b>TG9</b> - T-bar 9/16" <b>TG15</b> - T-bar 15/16" <b>TB9</b> - T-bar 9/16" <b>TB15</b> - T-bar 15/16" <b>ST</b> - Screw slot T-bar <b>DTR</b> - Drywall trim <b>DTL</b> - Drywall trimless <b>DMF</b> - Drywall mud flange	<b>W</b> - Matte white <b>CF#</b> <sup>3</sup> - Custom finish specify RAL#  <sup>3</sup> Available for DTR and DTL mounting options only.	<b>CONNECTED CONTROLS</b> <sup>4</sup> <b>CCS()</b> - LU-Lutron, <b>EN</b> -Enlighted, <b>OS</b> -Osram, <b>CR</b> -Crestron.  <sup>4</sup> To specify see information on page 3.

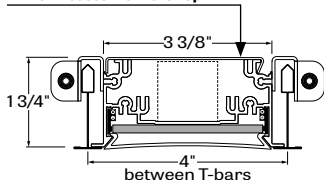
See page 2 for ordering code detailed information

## OPTIONS

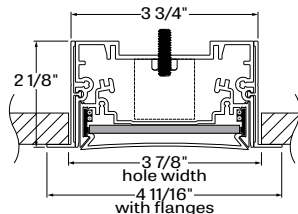
**FU** - Fuse  
**FWC** - Flexible whip cable (6' std)  
**CP** - Chicago Plenum  
**CU** - Custom

## CROSS SECTION

Driver Access from the Top

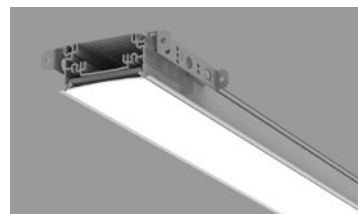


**SHL3R** - Grid



**DTR** - Drywall trim

## OPTICS



**SLO** - Shallow Lambertian optic

**TECHZONE™ & USG** Compatible with 4" ceiling



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## OPTICS

**Shallow Lambertian Optic (SLO)** - The Shallow Lambertian Optic consists of side-mounted LED arrays, coupled to an optical-grade acrylic light guide engraved with micro-structure optics that extract light into a lambertian distribution. An upper reflector of 98% reflective, diffuse aluminum enhances system efficiency. A thin diffuser below the light guide provides additional source obscuration.

## LIGHT SOURCE - LED

Available in 2700K, 3000K, 3500K and 4000K 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.

## PERFORMANCE PER 4' AT 4000K

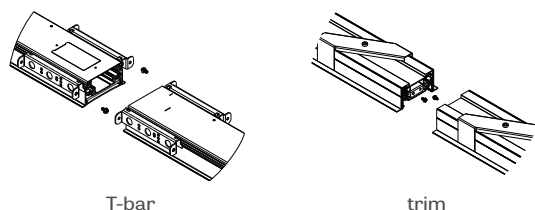
LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	17	2000	117
medium output	4000K	26.5	3000	114
high output	4000K	35.5	4000	112
ultra high output	4000K	43	4800	111

## LUMINAIRE LENGTH

Shalo is made up of standard 2, 3, 4, 5, 6, 7 and 8 foot sections that may be joined together to create longer continuous run lengths. Exact run length must be noted in the product code. The minimum individual section available is 2 feet.

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.

## Joining system



## 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% (specify 2-wire, or Ecosystem Dim-to-Off), Lutron 5-Series (5% Ecosystem), and DALI protocol drivers. All of our standard 0-10V drivers are NEMA 410 compliant.

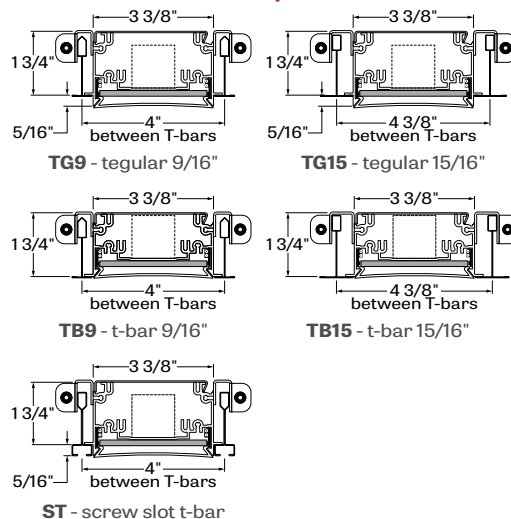
## EMERGENCY

Factory installed long life high temperature recyclable LI-Ion battery pack with test switch and charge indicator; minimum of 90 minutes operation, up to 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

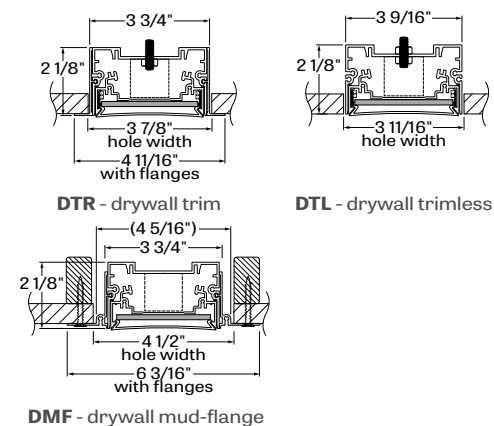
## MOUNTING OPTIONS

Recess mount into exposed or concealed T-Bar or Regular grid ceiling **Shalo is fully compatible with Armstrong Techzone™ & USG ceilings.**

## Driver Access from the Top



Mounting for drywall ceilings are available with visible trim.



## FINISH

**Interior** - 95% reflective matte powder coated white paint

**Exterior** - matte white.

Custom finishes are also available (DTR and DTL only)

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## CONTROLS

Lumenwerx offers several options for integrating occupancy and daylight harvesting controls in our luminaires.

### 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, Osram ENCELIUM, Acuity nLight, Crestron 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 [controls@lumenwerx.com](mailto:controls@lumenwerx.com) 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.

\* Lumenwerx offers a Lutron Vive-Enabled fixture option using either the DFCSJ-OEM-OCC (OCS Option) or DFCSJ-OEM-RF (wireless only, no sensor) Integral Fixture Modules and a DALI or EcoSystem LED driver based on customer dimming requirements.

**Please contact our controls department at [controls@lumenwerx.com](mailto:controls@lumenwerx.com) for further assistance.**

## CONSTRUCTION

**Housing** - Aluminum Extrusion 0.060" Thickness.

**Cartridge** - Extruded aluminum (0.060" nominal) up to 90% recycled content (painted 95% reflective matte powder coated white paint) (DTR, DTL and DMF only)

**Interior brackets** - Die formed cold rolled sheet steel 18 gauge thick

**Joining system** - Die formed cold rolled sheet steel 16 gauge thick

**Reflectors** - Cold rolled steel 0.024" thick precisely die formed, 97% reflective matte white painted

**Slip-through bracket** - Die formed galvanized sheet 18 gauge

**End plate** - Die formed cold rolled sheet steel 18 gauge thick

## WEIGHT

**Shalo 4ft** - 11lbs - 5kg

**Shalo 8ft** - 22lbs - 10kg

## 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)

**IC rated** - suitable for direct contact with insulation.

## WARRANTY

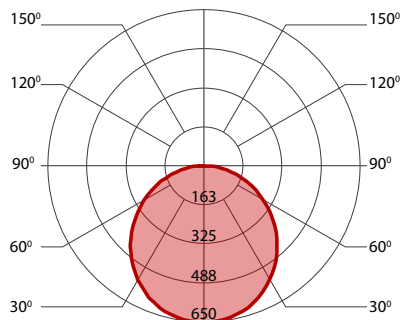
Lumenwerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated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

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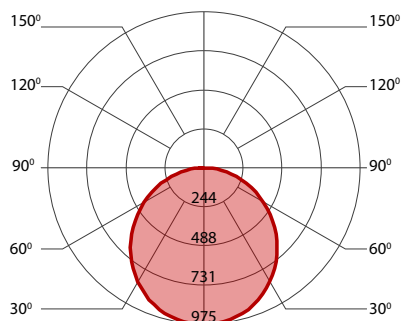
## 500 LUMEN AT 80CRI - LOW OUTPUT



### PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	18	2000	111
low output	3500K	17.5	2000	113
low output	4000K	17	2000	117

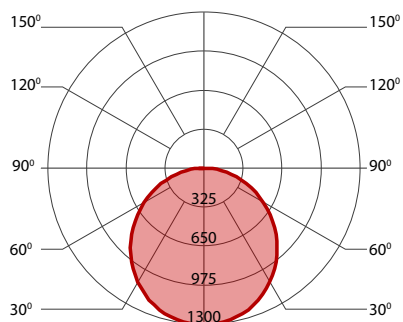
## 750 LUMEN AT 80CRI - MEDIUM OUTPUT



### PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	27.5	3000	109
medium output	3500K	27	3000	111
medium output	4000K	26.5	3000	114

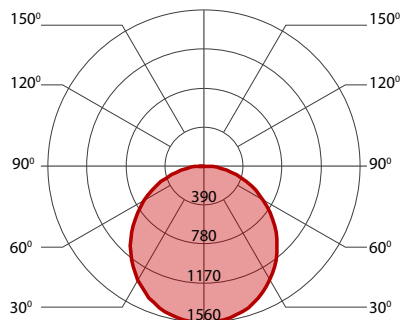
## 1000 LUMEN AT 80CRI - HIGH OUTPUT



### PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	37.5	4000	107
high output	3500K	36.5	4000	109
high output	4000K	35.5	4000	112

## 1200 LUMEN AT 80CRI - ULTRA HIGH OUTPUT



### PERFORMANCE PER 4'

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
ultra high output	3000K	45.5	4800	105
ultra high output	3500K	45	4800	107
ultra high output	4000K	43	4800	111