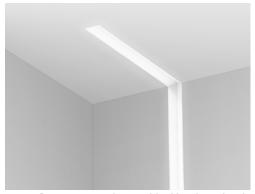
## **VEE AND TRAPEZOID**



Inner corner - shown with a Vee shaped optic

	IP.	

Shalo - with a depth of 2.75" - provides a uniform luminous appearance without LED pixilation. Choose from Shalo V with V-shaped optic (VLO) or Shalo T with Trapezoid-shaped optic. The integrated driver using 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 $^{\text{TM}}$ & USG.
Shalo can be installed as discrete luminaires, continuous
runs of uninterrupted light, and patterns.

PROJECT	<u> </u>
TYPE: NOTES:	

up to 107 lm/w performance

ORDER GUIDE IC RATED

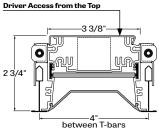
SHL3RPAT		LED				
LUMINAIRE ID	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.	PATTERN LENGTH
SHL3RPAT - Shalo	VLO - Vee shaped	<b>LED</b> - High	<b>80</b> - 80CRI	500 - Min. low output 500 lm/ft	<b>27</b> - 2700K	#FT - Nominal length in feet
3" recessed pattern	Lambertian optic	performance LED	<b>90</b> - 90CRI	750 - Medium output 750 lm/ft	<b>30</b> - 3000K	Continuous run - for luminaires over 8'
	TLO - Trapezoid			<b>1000</b> - High output 1000 lm/ft	<b>35</b> - 3500K	#IN - Length in inches
	shaped			1200 - Max. ultra high output 1200 lm/ft	<b>40</b> - 4000K	
	Lambertian optic			#### - Other required Im/ft		

	90				
CORNER TYPE	CORNER DEGREE	VOLTAGE	DRIVER	ELECTRICAL	MOUNTING CEILING
INN - Inner corner	<b>90</b> 1-90 degrees	120 - 120V	<b>D1</b> - 1% 0-10V	1-1 circuit	<b>TG9 4</b> - Tegular 9/16"
LEV - Leveled corner		<b>277</b> - 277V	<b>DA</b> - DALI	+#EB 3 - Emergency battery	<b>TG15 <sup>4</sup></b> - Tegular 15/16"
		<b>UNV</b> - 120V-277V	LTEA2W - Lutron 1% - 2 wire FP 120V	+#EM - Emergency light circuit	<b>TB9 4</b> - T-bar 9/16"
		<b>347</b> <sup>2</sup> - 347V	LDE1 - Lutron Hi-lume 1% Eco	+#NL - Night light circuit	<b>TB15</b> <sup>4</sup> - T-bar 15/16"
			LDE5 - Lutron 5% EcoSystem		ST 4 - Screw slot T-bar
					DTR - Drywall trim
					DTL - Drywall trimless
	<sup>1</sup> For corners more or			<sup>3</sup> Minimum 4' fixtures required	DMF - Drywall mud flange
	less than 90 degrees,	<sup>2</sup> Not available with		when specified with 0-10V	<sup>4</sup> Not available with INN
	please consult factory.	Lutron.		dimming or DALI.	corner type.

MOUNTING WALL	FINISH	CONTROLS	OPTIONS
DTR - Drywall trim	W - Matte white	CONNECTED CONTROLS 6	FU - Fuse
DMF - Drywall mud flange	CF# 5 - Custom finish, specify RAL#	CCS() - LU-Lutron, EN-Enlighted, OS-Osram, CR-Crestron	FWC - Flexible whip cable (6' std)
DTL - Drywall trimless			CP - Chicago Plenum
	<sup>5</sup> Available for DTR and DTL mounting options only.	<sup>6</sup> To specify, see information on page 4.	CU - Custom

See page 2 for ordering code detailed information

## **CROSS SECTION**



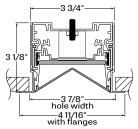
SHL3R-TLO - Grid

# OPTICS



**TLO** - Trapezoid shaped optic

## **CROSS SECTION**



SHL3R-VLO - Drywall trim

# OPTICS



VLO - Vee Lambertian optic

TECHZONE™ & USG Compatible with 4" ceiling

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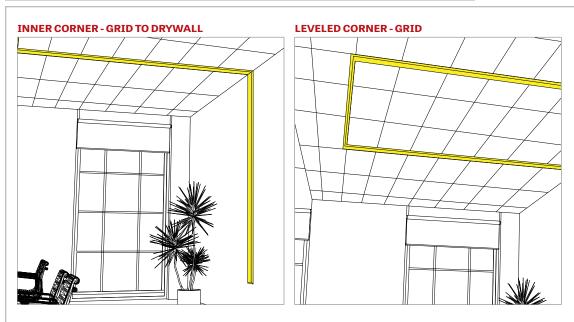
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## **RECESSED**



# **VEE AND TRAPEZOID**



#### **HOW TO SPECIFY A PATTERN?**

3D VIEW - VLO

Please follow these steps when specifying in order to be as precise as possible.

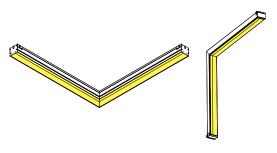
- (1) We require a drawing illustrating the pattern you are trying to achieve anything from a simple line drawing to elaborate architectural drawings will suffice.
- (2) Under PATTERN LENGTH, enter the overall length of your pattern either in feet or inches.
- (3) Under CORNER TYPE, please enter the type (or types) of corner you require. If more than one type of corner is required, please separate types

3D VIEW - TLO

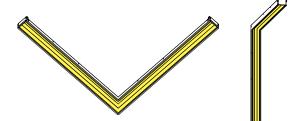
(4) Under CORNERS DEGREE, please enter the angle in degrees of each corner required to complete your pattern (for example 90+90+90).

		90
PATTERN LENGTH	CORNER TYPE	CORNERS DEGREE
#FT - Nominal length in feet	INN - Inner corner	<b>90</b> - 90 degrees
Continuous run - for luminaires over 8'	<b>LEV</b> - Leveled corner	*For corners more or
#IN - Inches		less than 90 degrees,
		please consult factory.









**LEV** - Leveled corner

INN - Inner corner

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## **VEE AND TRAPEZOID**

### **OPTICS**

Both Vee-shaped Lambertian Optic (VLO) and Trapezoid-shaped Lambertian Optic (TLO) 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**

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management.

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.

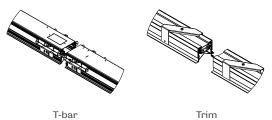
#### PERFORMANCE PER 4' AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	18.5	2000	107
medium output	4000K	29.5	3000	102
high output	4000K	39	4000	102
ultra high output	4000K	47.5	4800	101

### 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.

## 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.

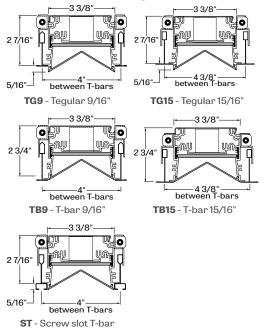
#### **EMERGENCY**

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 (SHOWN WITH A VLO)

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

### **Driver Access From The Top**



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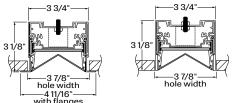


## **RECESSED**

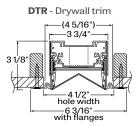


## **VEE AND TRAPEZOID**

Mounting for drywall ceilings are available with visible trim.



DTL - Drywall trimless



DMF - Drywall mud flange

#### **FINISH**

Interior - 95% reflective matte powder coated white paint

Exterior - Matte white

Custom finishes are also available. (DTR and DTL only)

#### **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 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 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 3 4ft** - 15lbs. (6.8Kg) **Shalo 3 8ft** - 27lbs. (12.3Kg)

## **CERTIFICATIONS**

**ETL** - Rated for indoor dry/damp locations. Conforms to ANSI/UL Std. 1598 and certified to CAN/CSA Std. 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 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.

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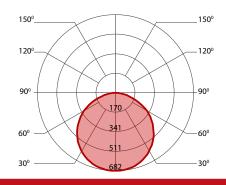
## **RECESSED**



# **VEE AND TRAPEZOID**

## SHALO 3 VEE

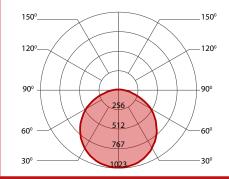
## **500 LUMEN AT 80CRI - LOW OUTPUT**



#### **PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	19.5	2000	102
low output	3500K	19.5	2000	103
low output	4000K	18.5	2000	107

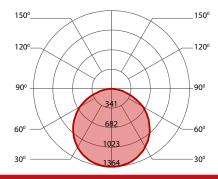
# 750 LUMEN AT 80CRI - MEDIUM OUTPUT



### PERFORMANCE PER 4"

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	30	3000	100
medium output	3500K	29.5	3000	101
medium output	4000K	29.5	3000	102

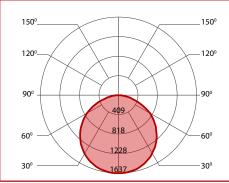
# 1000 LUMEN AT 80CRI - HIGH OUTPUT



### **PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	41	4000	97
high output	3500K	40.5	4000	99
high output	4000K	39	4000	102

## 1200 LUMEN AT 80CRI - ULTRA HIGH OUTPUT



## **PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
ultra high output	3000K	50	4800	96
ultra high output	3500K	49.5	4800	97
ultra high output	4000K	47.5	4800	101

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April 24, 2020



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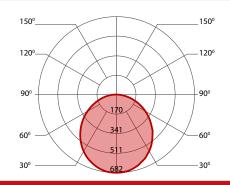
## **RECESSED**



# **VEE AND TRAPEZOID**

## SHALO 3 TRAPEZOID

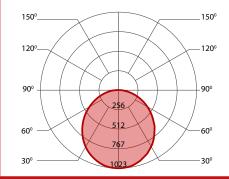
# **500 LUMEN AT 80CRI - LOW OUTPUT**



#### **PERFORMANCE PER 4'**

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	19.5	2000	102
low output	3500K	19.5	2000	103
low output	4000K	18.5	2000	107

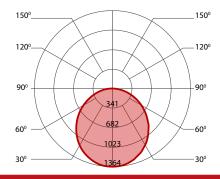
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LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
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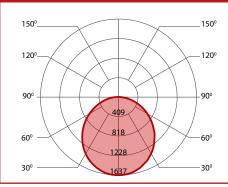
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