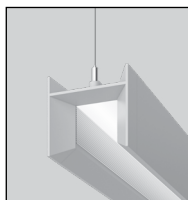
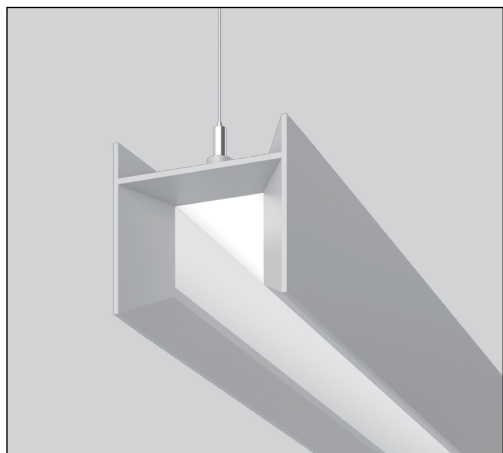
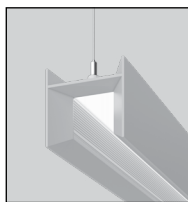


# Zen Square | PENDANT DIRECT



**MSO** - microgroove spotless lens



**MAL** - microgroove aluminum

**SO** - spotless lens

Project \_\_\_\_\_

Type \_\_\_\_\_

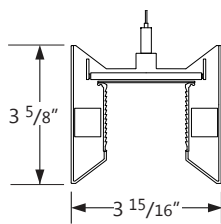
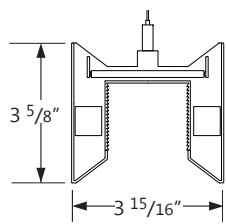
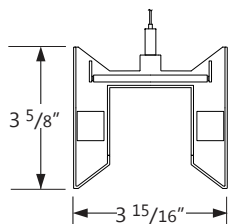
Notes \_\_\_\_\_



**SO** - spotless lens

**MSO** - microgroove spotless lens

**MAL** - microgroove aluminum



### NOMINAL LUMENS/FT

	SL 0/100	INPUT WATTS
	Lumens/ft	W/ft
<b>SO or MSO</b>	900	11.7
	750	9.4
	600	7.8
	450	5.9
<b>MAL*</b>	750	11.8
	600	9.5
	500	7.9
	400	5.9

- 90 CRI only
- 80 CRI only
- For both 80 and 90 CRI

\*Lumen values are based upon a white finish, lumen values may vary for custom finishes

## Ordering Guide

ZESQD		LIGHT ENGINE		NOMINAL LUMENS/FT	CRI	COLOR TEMP.	SHIELDING	SHIELDING FINISH (OPTIONAL)
PRODUCT ID				# #				
ZESQD	Zen Square Pendant Direct	SL 0/100	surroundlite 0%/up/100%down	# #	80 80 CRI 90 90 CRI	27 2700 K 30 3000 K 35 3500 K 40 4000 K	SO spotless lens MSO microgroove spotless lens MAL microgroove aluminum*	W white - standard C custom
				See table above for lumen selection Consult factory for other lumen packages			* Standard white	Shielding finish option is for MAL option only.

FIXTURE LENGTH	FINISH	VOLTAGE	DRIVER	CIRCUITS
2 2' 3 3' 4 4' 5 5' 6 6' 7 7' 8 8' 12 12' S# system run	AP aluminum paint W white BLK black C custom	UNV universal	MD integral mini driver 0-10V dimming 2%	1 1 circuit 2 2 circuits 2A/B 2 circuit alternating/4ft +E(#) emergency section
		Consult factory for 347 V	Only integral 0-10V mini driver available	

MOUNTING/SUSPENSION	BATTERY (OPTIONAL)	END CAP (OPTIONAL)	REMOTE CONTROLS (OPTIONAL)	CUSTOM
CA(#) drywall+cable length (36" std.) CT9(#) TB/TG 9/16+cable length (36" std.) CT15(#) TB/TG 15/16+cable length (36" std.) CTS(#) ST+cable length (36" std.) SA(#) drywall+stem length >48" (18" std.) +SM seismic option	B# remote battery pack	SE slotted end cap	DS# daylight sensor DOS# daylight & occupancy sensor	C custom
See Ceiling Mount Guide for further details	Not available with 347V Please consult factory	Comes with regular end cap. as standard; See page 2 for more details.	Remote only.	Please specify

# Zen Square | PENDANT DIRECT



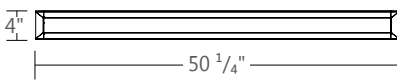
## ● LIGHT GUIDE

High precision light guide made of PMMA material, allows distribution of controlled light in all 3-dimensions to put light on both vertical and horizontal planes within the space. Patented lightguide design featuring molecular optics and precision-coupled optic components yield a high efficiency luminaire. In-plane mixing maximizes color uniformity while light emitting area is uniform and diffuse without 'head lighting' from the LED's.

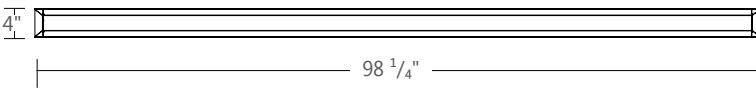
## ● LENGTHS

2' to 12' in 1' increments

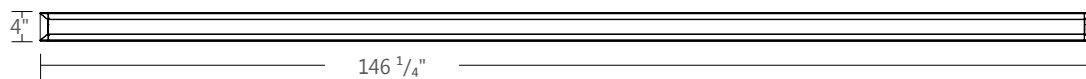
**H 4ft**



**H 8ft**



**H 12ft**



## ● SYSTEMS (S#)

Runs of H that are greater than 12ft in length are designated as systems (S#). This means that the run is comprised of a combination 4ft and/or 8ft sections to be assembled on site using our joining system.

## ● WEIGHT

- H 4 ft** 9 lbs / 4.1 kg
- H 8 ft** 18 lbs / 8.2 kg
- H 12 ft** 27 lbs / 12.3 kg

## ● APPROVALS

Certified to UL and CUL standards  
Suitable for damp locations.



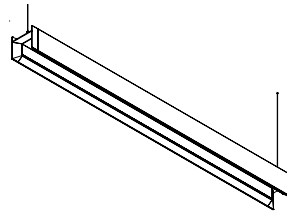
## ● FINISH

White, black, aluminum paint, powder coated and custom finishes are also available.

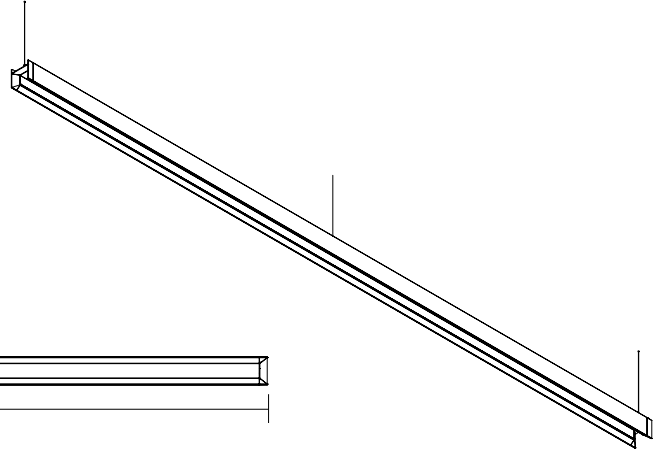
## ● SUSPENSION / MOUNTING SPACING

Distance Between  
Mounting Points:  
**H 4ft** 48"  
**H 8ft** 96"

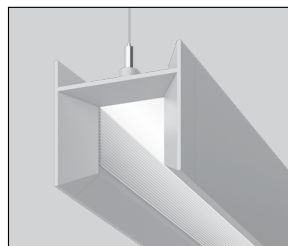
Standard Suspension  
Length:  
**CABLE: 36"**  
**STEM: 18"**



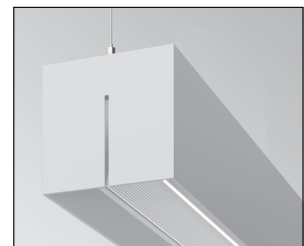
Distance Between  
Mounting Points:  
**H 12ft** 72"



## ● END CAP OPTIONS



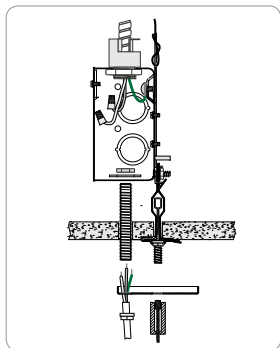
**Regular end cap**  
Standard



**Slotted end cap**  
Optional



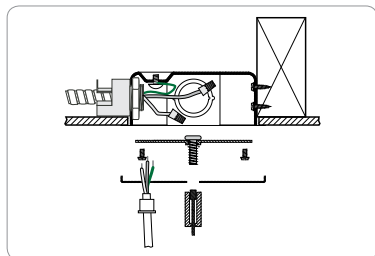
## ● MOUNTING OPTIONS



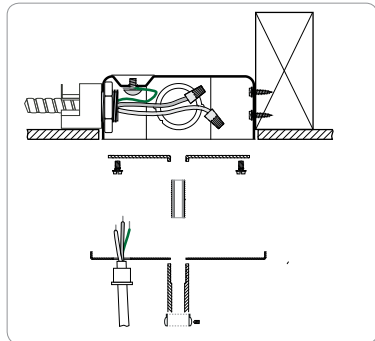
### GT TILE CEILING - ON GRID

Mounting options are also available for slope ceiling and seismic bracing.

**i** Installation sheets for all mounting options are available at: [www.axislighting.com](http://www.axislighting.com) under 'Downloads' tab.



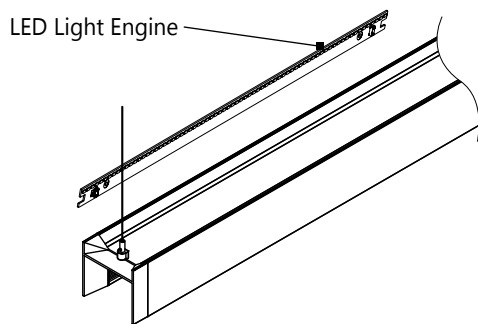
### CA DRYWALL CEILING



### SA STEM MOUNT IN DRYWALL CEILING

## ● LED UPGRADE / REPLACEMENT

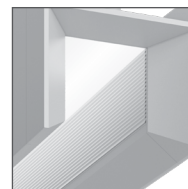
All LED light engines used are field replaceable and upgradable to ensure the lighting system will last for years. Future-proof design comes with easy access to LED light engines from above using quick connectors (included in luminaire) and a screwdriver.



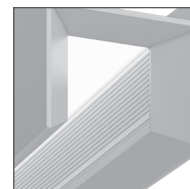
## ● OPTICS



SO spotless lens



MSO microgroove spotless lens



MAL microgroove aluminum

## ● LED SYSTEM

<b>CRI</b>	Minimum 80 or 90 color rendering index
<b>CCT</b>	Choice of 3000K, 3500K and 4000K color temperature with a great color consistency (within 3-step MacAdam ellipse). Both within fixture and fixture to fixture.
<b>LED life</b>	Minimum 50,000h with 85% of lumen maintenance in 25°C ambient temperature, in compliance with IES LM-80 testing measurements.
<b>Thermal Management</b>	Aluminum housing acting as the heat sink to maximize life.
<b>Environment</b>	Dry and damp rated in operating ambient temperatures of 0-40°C (32-104F)

## ● CONSTRUCTION

<b>Housing</b>	Extruded aluminum (0.06" nominal)
<b>End Cap</b>	Die cast aluminum (0.10" nominal)
<b>Joiners</b>	Die cast aluminum (0.10" nominal)
<b>Interior Bracket</b>	Die formed zinc (20 gauge)
<b>Lens</b>	Uniform frosted acrylic lens

## ● ELECTRICAL

<b>Emergency</b>	Remote emergency battery pack or emergency circuit optional.
<b>Input Voltage</b>	UNV (120-277 V)

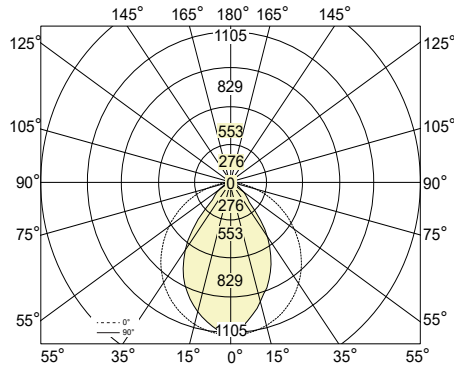
**i** Incorporating these components may have limitations or affect the length of the luminaire. Please contact factory for more details.



### Microgroove Aluminium (MAL)

**HD-SL0/100-500-80-35-MAL-4.IES**  
0% up / 100% down at 500 lm/ft

#### PHOTOMETRIC CURVE



**Lumens up: 0 lm**  
**Lumens down: 2004 lm**  
**Total lumens: 2004 lm (for 4ft)**  
**Input Watts: 31.57 W**  
**Efficacy: 63 lm/W**

CRI:80 shown  
TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	1097	1097	1097	1097	1097
5	1102	1095	1077	1060	1048
15	1070	1019	956	912	888
25	1003	905	810	742	715
35	900	762	635	536	496
45	760	596	423	257	204
55	594	410	171	130	120
65	410	210	88	61	55
75	218	64	30	14	10
85	47	6	5	3	3
90	3	4	4	2	2

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	101
10-20	273
20-30	386
30-40	419
40-50	354
50-60	248
60-70	150
70-80	61
80-90	12
90	0

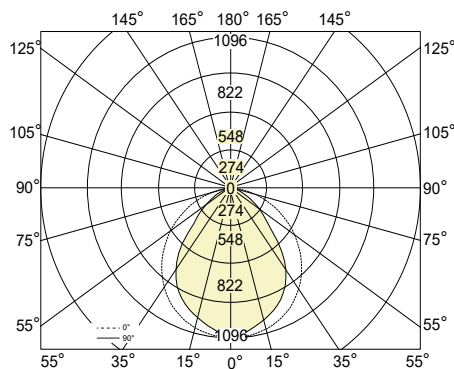
#### LUMINANCE DATA (cd/m<sup>2</sup>)

Vertical Angle	Horizontal Angles		
	0	45	90
45	16983	5899	2491
55	16120	2504	1502
65	14717	1416	724
75	12116	550	139
85	6159	113	43

### Microgroove Spotless Lens (MSO)

**HD-SL0/100-600-80-35-MSO-4.IES**  
0% up / 100% down at 600 lm/ft

#### PHOTOMETRIC CURVE



**Lumens up: 0 lm**  
**Lumens down: 2448 lm**  
**Total lumens: 2448 lm (for 4ft)**  
**Input Watts: 31.3 W**  
**Efficacy: 78 lm/W**

CRI:80 shown  
TESTED ACCORDING TO IES LM-79-2008

#### CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	1094	1094	1094	1094	1094
5	1093	1091	1081	1073	1072
15	1065	1037	1012	1000	996
25	1006	955	924	908	903
35	904	837	798	754	734
45	764	685	612	504	445
55	594	510	358	280	260
65	403	310	188	135	120
75	204	124	60	28	21
85	32	8	8	4	4
90	3	4	5	2	2

#### ZONAL LUMENS

Zone	Lumens
0	
0-10	102
10-20	286
20-30	428
30-40	498
40-50	463
50-60	352
60-70	220
70-80	86
80-90	13
90	0

#### LUMINANCE DATA (cd/m<sup>2</sup>)

Vertical Angle	Horizontal Angles		
	0	45	90
45	17073	8536	5426
55	16120	5249	3245
65	14487	3007	1587
75	11326	1089	298
85	4198	169	69