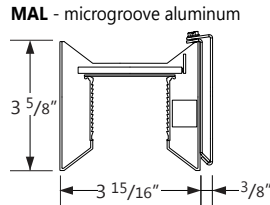
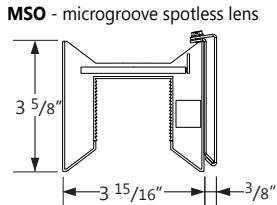
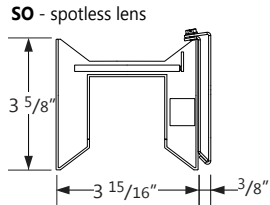


MSO - microgroove spotless lens



MAL - microgroove aluminum

SO - spotless lens



Project _____

Type _____

Notes _____



NOMINAL LUMENS/FT

| | SL 0/100 | INPUT WATTS |
|------------------|-----------|-------------|
| | Lumens/ft | W/ft |
| SO or MSO | 800 | 12.0 |
| | 650 | 9.6 |
| | 550 | 8.0 |
| | 400 | 6.0 |
| MAL* | 750 | 12.0 |
| | 600 | 9.6 |
| | 500 | 8.0 |
| | 400 | 6.0 |

- 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

| ZESQWD | PRODUCT ID | LIGHT ENGINE | NOMINAL LUMENS/FT | CRI | COLOR TEMP. | SHIELDING | SHIELDING FINISH (OPTIONAL) |
|--------|------------------------|------------------------------------|---|----------------------------|--|---|---|
| ZESQWD | Zen Square Wall Direct | SL 0/100 surroundlite 0%up100%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 Applies to both UP & DOWN. Consult factory for other lumen packages | Applies to both UP & DOWN. | Applies to both UP & DOWN. | * 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 +E(##) emergency section |
| All lengths in 1' increments | | Consult factory for 347 V | Only integral 0-10V mini driver available | |

| BATTERY (OPTIONAL) | END CAP (OPTIONAL) | REMOTE CONTROLS (OPTIONAL) | CUSTOM |
|------------------------|---|---|----------------|
| B# remote battery pack | SE slotted end cap | DS# daylight sensor DOS# daylight & occupancy sensor | C custom |
| Please consult factory | Comes with regular end cap. as standard; See page 2 for more details. | Applies to both UP & DOWN. Remote only. | Please specify |



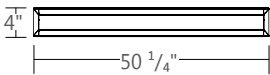
● LIGHT GUIDE

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.

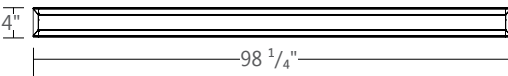
● LENGTHS

2' to 12' in 1 foot increments

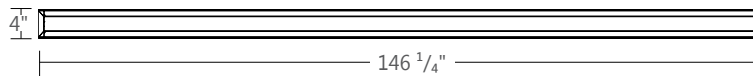
H 4ft



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

● FINISH

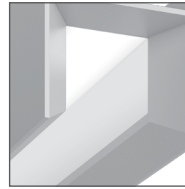
White, black, aluminum paint, powder coated and custom finishes are also available.

● APPROVALS

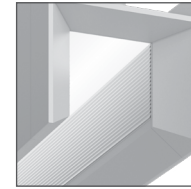
Certified to UL and CUL standards
Suitable for damp locations.



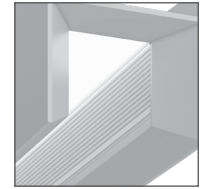
● OPTICS



SO spotless lens



MSO microgroove
spotless lens

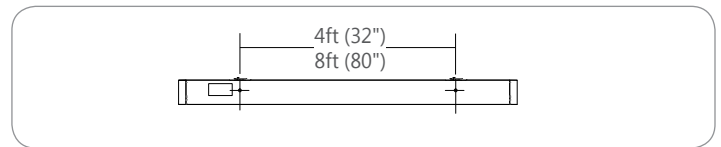
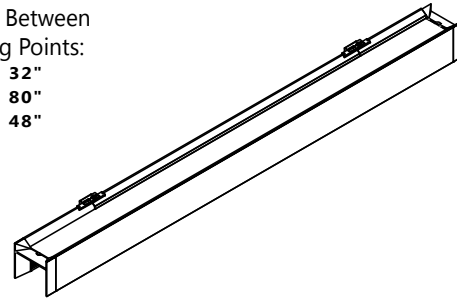


MAL microgroove
aluminum

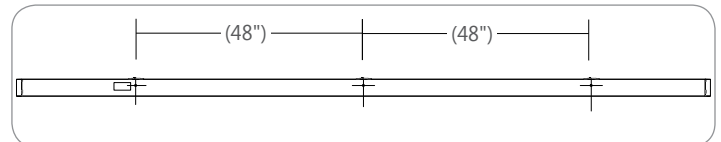
● MOUNTING SPACING

Distance Between
Mounting Points:

- H 4ft** 32"
- H 8ft** 80"
- H 12ft** 48"

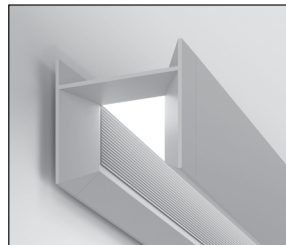


For 4' to 8' luminaires.

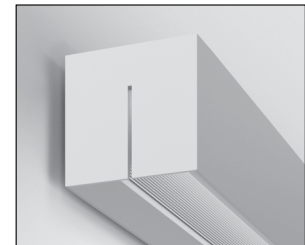


For 9' to 12' luminaires.

● END CAP OPTIONS



Regular end cap
Standard

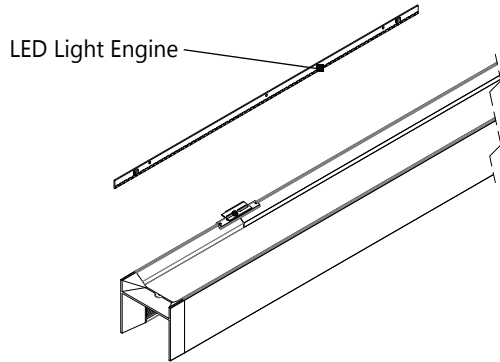


Slotted end cap
Optional



● 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.



● CONSTRUCTION

| | |
|-----------------------------|--------------------------------------|
| Housing | Extruded aluminum (0.06" nominal) |
| End Cap | Die cast aluminum (0.10" nominal) |
| Joiners | Die cast aluminum (0.10" nominal) |
| Interior Bracket | Die formed zintec (20 gauge) |
| Lens | Uniform frosted acrylic lens |
| Microgroove Lens | Uniform frosted acrylic lens |
| Microgroove Aluminum | White painted aluminum material |
| Mounting Brackets | Cold rolled sheet painted (16 gauge) |

● ELECTRICAL

| | |
|----------------------|--|
| Emergency | Remote emergency battery pack or emergency circuit optional. |
| Input Voltage | UNV (120-277 V) |

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

● LED SYSTEM

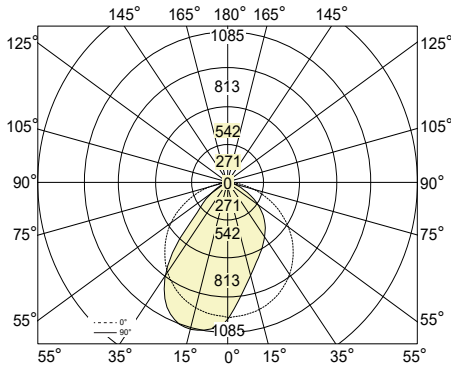
| | |
|---------------------------|--|
| CRI | Minimum 80 or 90 color rendering index |
| CCT | Choice of 3000K, 3500K and 4000K color temperature with a great color consistency (within 3-step MacAdam ellipse). Both within fixture and fixture to fixture. |
| LED life | Minimum 50,000h with 85% of lumen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



Microgroove Aluminium (MSO)

HWD-SL0/100-550-80-35-MSO-4.IES
0% up / 100% down at 550 lm/ft

PHOTOMETRIC CURVE



Lumens up: 0 lm
Lumens down: 2198 lm
Total lumens: 2198 lm (for 4ft)
Input Watts: 32.06 W
Efficacy: 69 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 | 964 | 964 | 964 | 964 | 964 |
| 5 | 955 | 909 | 873 | 850 | 846 |
| 15 | 931 | 804 | 721 | 679 | 669 |
| 25 | 879 | 697 | 604 | 568 | 557 |
| 35 | 796 | 589 | 506 | 477 | 470 |
| 45 | 682 | 476 | 410 | 385 | 377 |
| 55 | 540 | 363 | 307 | 270 | 257 |
| 65 | 375 | 247 | 186 | 138 | 125 |
| 75 | 197 | 127 | 65 | 31 | 24 |
| 85 | 41 | 18 | 10 | 4 | 3 |
| 90 | 3 | 11 | 7 | 2 | 2 |

ZONAL LUMENS

| Zone | Lumens |
|-------|--------|
| 0 | 90 |
| 0-10 | 253 |
| 10-20 | 379 |
| 20-30 | 442 |
| 30-40 | 412 |
| 40-50 | 318 |
| 50-60 | 203 |
| 60-70 | 85 |
| 70-80 | 17 |
| 80-90 | 0 |

LUMINANCE DATA (cd/m²)

| Vertical Angle | Horizontal Angles | | |
|----------------|-------------------|------|------|
| | 0 | 45 | 90 |
| 45 | 15245 | 5710 | 4593 |
| 55 | 14662 | 4514 | 3212 |
| 65 | 13465 | 2977 | 1657 |
| 75 | 10974 | 1178 | 354 |
| 85 | 5385 | 214 | 55 |