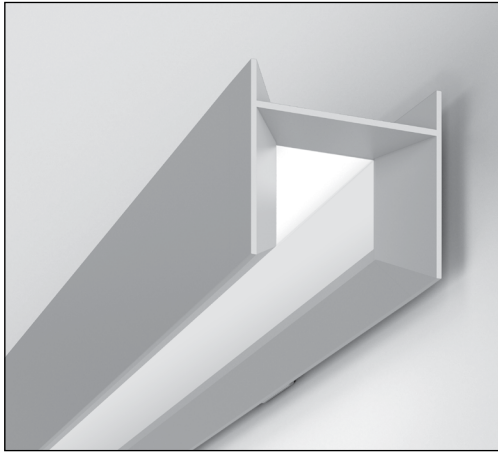
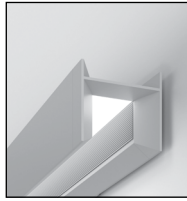
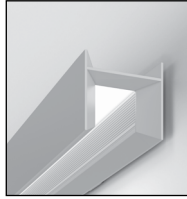




SO - spotlight lens



MSO - microgroove
spotless lens



MAL - microgroove
aluminum

Project _____

Type _____

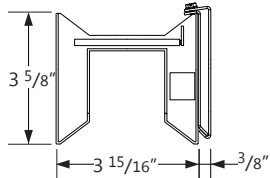
Notes _____

PERFORMANCE PER LINEAR FOOT AT 3500K

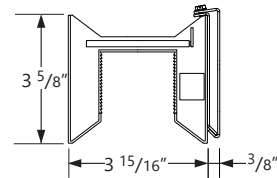
DISTRIBUTION	NOMINAL LUMEN OUTPUT		INPUT WATTS	EFFICACY	SHIELDING
	UP	DOWN			
0up/100down at 900 lm/ft	-	900 lm/ft	11.4 w/ft	78 lm/w	SO
0up/100down at 900 lm/ft	-	900 lm/ft	10.1 w/ft	88 lm/w	MSO
0up/100down at 900 lm/ft	-	900 lm/ft	12.7 w/ft	71 lm/w	MAL

* Based on a 4 foot luminaire using one driver
Please consult factory for custom lumen output and wattage

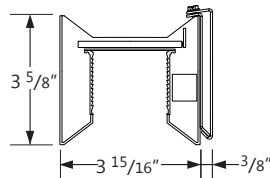
SO - spotlight lens



MSO - microgroove spotlight lens



MAL - microgroove aluminum



Ordering Guide

ZESQWD	SL 0/100	NOMINAL LUMENS/FT		CRI	COLOR TEMP.	SHIELDING
PRODUCT ID	LIGHT ENGINE					
ZESQWD Zen Square Wall Direct	SL 0/100 surroundlite 0%up100%down	400	400 lm/ft - Minimum	80	27 2700 K	SO spotlight lens
		700	700 lm/ft - Maximum for 90 CRI	90	30 3000 K	MSO microgroove spotlight lens
		900	900 lm/ft - Maximum for 80 CRI		35 3500 K	MAL microgroove aluminum *
					40 4000 K	
Consult factory for other lumen packages						* Standard white

SHIELDING FINISH (OPT.)	FIXTURE LENGTH	FINISH	VOLTAGE	DRIVER	CIRCUITS
W white - standard C custom	2 2' 3 3' 4 4' 5 5' 6 6' 7 7' 8 8' 12 12' S(L) system run	AP aluminum paint W white BLK black C custom	UNV universal DC low voltage*	DP integral driver 0-10V dimming 1% POE(#) POE drivers*	1 1 circuit +E(#) emergency section
Shielding finish option is for MAL option only.	All lengths in 1' increments		Consult factory for 347 V * Only available with POE drivers.	* Specify system, see page 3 Only integral 0-10V driver available	

BATTERY (OPTIONAL)	END CAP (OPTIONAL)	IC CONTROLS (OPTIONAL)	CUSTOM
BR(#) remote battery pack	FE flat end cap RE rounded end cap	EN(#) enlightened integral DOS(#) daylight & occupancy sensor WC(#) wireless control dimming	C custom
Please consult factory	A standard end cap will be supplied (open end, or sensor end cap), if no selection is made. See page 2 for more details.	Applies to both UP & DOWN. Remote or integrated. See IC controls guide for more information. Sensor end cap will be supplied as standard with the selection. See page 2 for end cap details.	Please specify



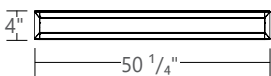
● LIGHT GUIDE

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.

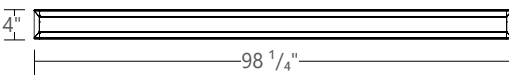
● LENGTHS

2' to 12' in 1 foot increments

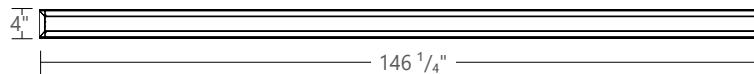
4ft



8ft



12ft



● SYSTEMS S(L)

Runs of Zen Square that are greater than 12ft in length are designated as systems S(L). 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

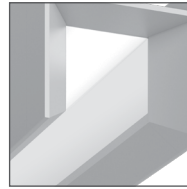
● FINISH

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

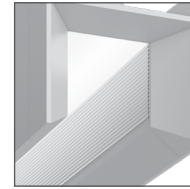
● APPROVALS

Certified to UL and CUL standards  Suitable for damp locations.

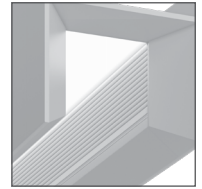
● OPTICS



SO spotless lens



MSO microgroove spotless lens

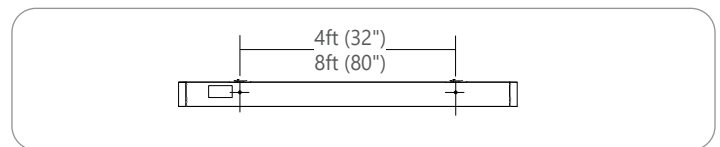


MAL microgroove aluminum

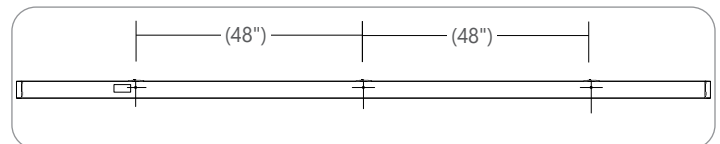
● MOUNTING SPACING

Distance Between Mounting Points:

4ft 32"
8ft 80"
12ft 48"

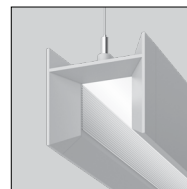


For 4' to 8' luminaires.

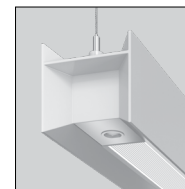


For 9' to 12' luminaires.

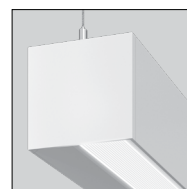
● END CAP OPTIONS



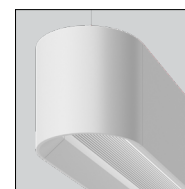
Default end cap that will be supplied unless specified otherwise.
Standard



Sensor end cap that will be supplied, if sensor selection is made.
Standard



Flat end cap
Optional

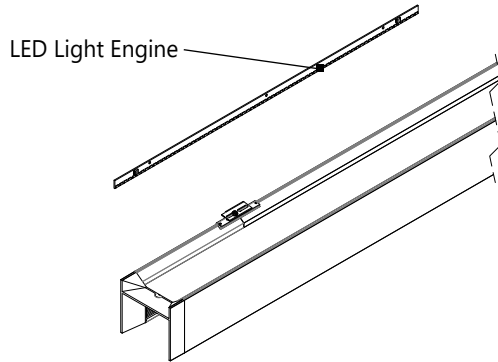


Rounded end cap
Optional



● 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

Power over Ethernet POE drivers*	MOLEX
UL2108 certified for integral or remote driver	IGOR
	SMARTENGINE
	O - Other (Consult factory)

Emergency	Remote emergency battery pack or emergency circuit optional.
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Input Voltage	UNV (120-277 V)
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i Incorporating these components may have limitations or affect the length of the luminaire. Please contact factory for more details.

● WARRANTY

Limited 5-year warranty is available. Warranty is valid provided luminaires are installed and used according to specifications. For full terms and conditions, please consult warranty section at axislighting.com.

● LED SYSTEM

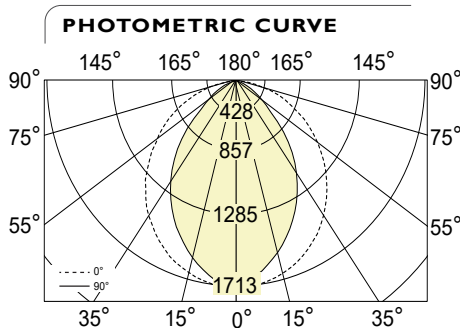
CRI	Minimum 80 or 90 color rendering index
CCT	Choice of 3000K, 3500K and 4000K color temperature with a great color consistency (within 3-step MacAdam ellipse). Both within fixture and fixture to fixture.
LED life	Minimum 50,000h with 85% of lumen maintenance in 25°C ambient temperature, in compliance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



● PHOTOMETRIC DATA

SO Spotless Lens

900 lm/ft



Lumen/ft : 900 lm/ft
Total Lumens: 3580 lm (for 4ft)
Input Watts: 45.7 W
Efficacy: 78 lm/W

CRI:80 shown
 IES FILE: ZESQWD-SL 0-100-900-80-35-SO-4.IES
 TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	1700	1700	1700	1700	1700
5	1695	1668	1648	1634	1637
15	1639	1567	1514	1485	1480
25	1529	1419	1348	1304	1296
35	1365	1221	1129	1047	1015
45	1150	983	838	634	540
55	895	724	443	326	300
65	615	433	218	135	121
75	320	168	59	15	10
85	69	31	13	1	1
90	5	23	11	1	0

ZONAL LUMENS

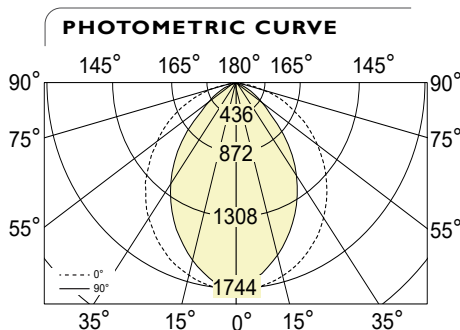
Zone	Lumens
0	
0-10	158
10-20	437
20-30	641
30-40	733
40-50	665
50-60	493
60-70	303
70-80	123
80-90	27
90	

LUMINANCE DATA (cd/m²)

Vertical Angle	Horizontal Angles		
	0	45	90
45	13338	9719	6267
55	12795	6327	4290
65	11937	4224	2351
75	10126	1870	325
85	6518	1196	67

MSO Microgroove Spotless Lens

900 lm/ft



Lumen/ft : 900 lm/ft
Total Lumens: 3579 lm (for 4ft)
Input Watts: 40.5 W
Efficacy: 88 lm/W

CRI:80 shown
 IES FILE: ZESQWD-SL 0-100-900-80-35-MSO-W-4.IES
 TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	1738	1738	1738	1738	1738
5	1728	1718	1695	1673	1672
15	1671	1603	1542	1499	1492
25	1557	1437	1352	1312	1295
35	1386	1233	1135	1060	1019
45	1168	1000	860	703	621
55	914	742	509	362	347
65	643	464	263	185	168
75	327	196	98	48	37
85	74	36	17	4	3
90	6	24	12	2	1

ZONAL LUMENS

Zone	Lumens
0	
0-10	159
10-20	437
20-30	633
30-40	716
40-50	654
50-60	496
60-70	316
70-80	136
80-90	31
90	

LUMINANCE DATA (cd/m²)

Vertical Angle	Horizontal Angles		
	0	45	90
45	13543	9973	7197
55	13073	7274	4959
65	12467	5108	3258
75	10352	3108	1183
85	6926	1608	325

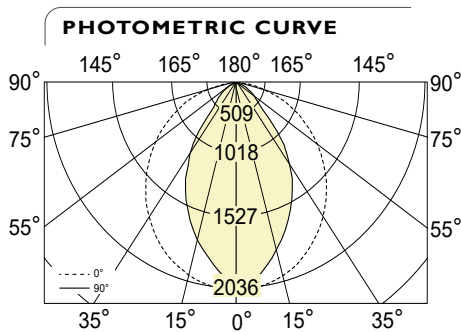
i All IES files are available for download at: www.axislighting.com



● PHOTOMETRIC DATA

MAL Microgroove Aluminium

900 lm/ft



Lumen/ft : 900 lm/ft
Total Lumens: 3575 lm (for 4ft)
Input Watts: 50.7 W
Efficacy: 71 lm/W

CRI:80 shown
IES FILE: ZESQWD-SL 0-100-900-80-35-MAL-W-4.IES
TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION					
Vertical Angle	Horizontal Angles				
	0	22.5	45	67.5	90
0	2007	2007	2007	2007	2007
5	2000	2024	1989	1957	1956
15	1932	1860	1751	1680	1665
25	1794	1634	1470	1382	1358
35	1598	1364	1159	1029	991
45	1348	1064	813	584	502
55	1051	745	387	254	241
65	736	406	180	132	124
75	375	137	74	49	43
85	93	33	15	3	2
90	5	23	11	1	0

ZONAL LUMENS	
Zone	Lumens
0	
0-10	183
10-20	488
20-30	682
30-40	734
40-50	622
50-60	441
60-70	274
70-80	121
80-90	30
90	

LUMINANCE DATA (cd/m²)			
Vertical Angle	Horizontal Angles		
	0	45	90
45	15628	9430	5820
55	15031	5531	3448
65	14285	3495	2401
75	11878	2360	1350
85	8736	1401	206

i All IES files are available for download at: www.axislighting.com