Square LED

SQMS (ASO) | LED | Aisle/Stack Direct | Suspended

DIMENSIONS

☐ SQMS (ASO)

3 ½"

3 ½"

DETAILS

Flat end cap

Option:
Sculptured end cap

COMPANION LUMINAIRE(S)

SQMS
Square Direct

SQMW Square 4
Wall-Wash

SQWS
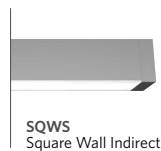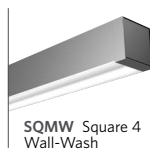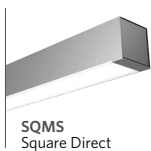Square Wall Indirect

CUSTOMIZATION

Ask us about the following possibilities: Higher lumen outputs, alternate section lengths in 2' increments, alternate voltages, additional mounting options, custom colors, higher CRI and R9 values and other modifications.

HIGHLIGHTS

- Total System Integration features 5-year limited warranty by Acuity Brands covering all components and construction
- 4' and 8' sections
- Up to 79 lm/W
- Two lumen packages
- High performance stck distribution using injection molded optics
- Meets or exceeds IESNA standards for vertical illumination ideal for 3' stacks to 7' aisles
- Flicker-free dimming to dark (0.1%) powered by eldoLED® driver
- Integrated nLight® module for system networking (optional)
- Integrated sensor for daylight dimming and/or occupancy detection (optional)
- Flat or sculptured end caps
- White, black, painted aluminum, anodized aluminum or custom color

eldoLED

nLight

BAA

BABA

LUMEN PACKAGES 3500K only shown here. See Page 3 for all color temperatures.

Direct LED Ouput	400LMF	800LMF
Delivered Lumens Per Foot	407	781
Input Watts Per Foot	4.8	10
Lumens Per Watt	84	79

DISTRIBUTION

100% Down

1- 800-705-SERV (7378) | TechSupport-Peerless@AcuityBrands.com

Rev. 04/05/24

1

Type:

Project:

Peerless®
Lighting for People®

Square LED
SQMS (ASO) | LED | Aisle/Stack Direct | Suspended

2
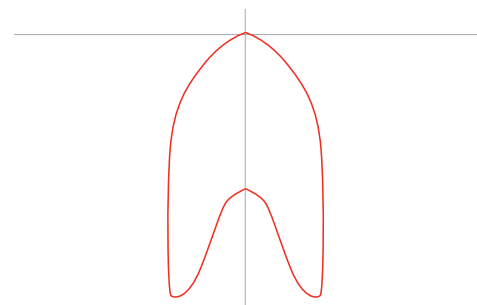
SPECIFICATIONS

Housing
Extruded aluminum housing is 3.5" square.

End Caps
Extruded aluminum end caps are mechanically attached with no exposed fasteners. Flat end caps standard. For sculptured end caps, choose option SCEP.

Color
Color for housing and end caps is gloss white, black, painted aluminum or anodized aluminum. Consult factory for custom colors.

Luminaire Length
4' and 8' lengths in a single section for exact suspension spacing of 4' and 8'. For total length, add 1" for each standard end cap and $2\frac{1}{4}$" for each sculptured end cap. Longer rows are comprised of starter, joiner and end sections.

Source
Two LED lumen packages and three available color temperature options (3000K, 3500K and 4000K) — all within 2.5 MacAdam ellipses.

Optics
Optical system consists of injection-molded primary optics, co-extruded acrylic lenses and metal reflectors. Lenses connect end to end to form a continuous line of light.

Dimming Driver
eldoLED driver provides "natural dimming" with smooth, continuous and flicker-free operation to 0.1% dim levels. Acuity luminaires incorporating eldoLED LED drivers perform within the recommended operating areas for flicker as a function of frequency and modulation (%) outlined in IEEE Standard 1789-2015 (IEEE Recommended Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers), in typical operating conditions at representative dimming levels. Syncing for controls: 2mA max. THD: < 20%. Insignificant inrush current at 120 and 277VAC. FCC Class A and B tested for EMI and RFI.

When Control Input of 0-10V is specified driver will be set for linear dimming curve, if NLIGHT is specified driver will be set for logarithmic dimming curve.
For 0-10V driver details go to: PeerlessLighting.com/566L

Controls and System Networking Options
For wired networking via Cat-5e, choose an integrated nLight® module. For daylight dimming and/or dual technology occupancy detection, see Page 5 for integrated sensor options.
One control module per 4' section or 40' maximum row.

Electrical
LED light engine — consisting of modular LED boards and 0-10V dimming driver — is rated for 60,000 hours (L_{80}) at 25° C ambient temperature. Specify 120V or 277V. Pre-wired with 16AWG fixture wire. For special circuiting or wire gauge, consult factory. Plug-in electrical connectors included.

Environment
Suitable for damp location.

Validation
CSA/CUS listed. CSA tested to UL 1598 standards. LM-79 tested. Individual sections meet FCC Part 15 requirements.

Packaging
100% post-consumer recycled cardboard box and inserts. Biodegradable protective luminaire bag. Recycled kraft paper tape.

Government Procurement
BAA – Buy America(n) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA - Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/resources/buy-american for additional information.

Warranty
5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25°C.
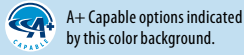
A+ Capable Luminaire
This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency

- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*

- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.
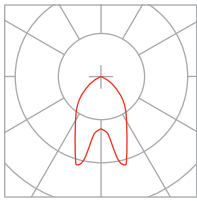
*See ordering tree for details

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A+ Capable options indicated by this color background.

MODEL NUMBER

Example: SQMS LLP 16FT MSL8 80CRI 35K 400LMF ASO DARK ZT 120 SCT F1/24A C110

Luminaire	Linear Length Plan		Total Run Length	Maximum Section Length		LED Color Rendering		LED Color Temperature		Direct LED Output	
SQMS	**LLP**	Linear longest possible	**__FT**	**MSL4**	4' Section(s)	**80CRI**	80+ CRI	**30K**	3000K	**400LMF**	400 nominal direct lumens per foot
	LSL	Longest same length	*Indicate Luminaire Row Length in 4' increments. Ex: 12FT*	**MSL8**	8' Section(s)			**35K**	3500K	**800LMF**	800 nominal direct lumens per foot
								40K	4000K		

Shielding	Minimum Dimming Level		Control Input		Voltage		Wiring Option		Emergency Options		Primary Sensor		Secondary Sensor	
ASO Aisle/Stack optic	**DARK**	Constant current, dimming to < 1%	**ZT***	0-10V	**120**	120V	**SCT**	Single circuit	**(blank)**	None	**(blank)**	No factory-installed, integrated sensor	**(blank)**	No factory-installed, integrated sensor
			NLIGHT**	nLight enabled	**277**	277V			**1EC**	(1) Emergency circuit module	**PDT_**	Dual technology occupancy sensor. PIR & microphonics sensor	**SPDT_**	Dual technology occupancy sensor. PIR & microphonics sensor
			DALI**	DALI					**2EC**	(2) Emergency circuit modules	**ADC_**	Daylight Dimming Sensor	**SADC_**	Daylight Dimming Sensor
			*0-10V will use linear dimming curve ***Will use logarithmic dimming curve* ****Not available with sensors* ****Will use Logarithmic dimming curve*						**__EC**	___ Emergency circuit module	**APD_**	Dual technology PDT and ADC sensor	**SAPD_**	Dual technology PDT and ADC sensor
									*Emergency type is installed in last 4' of luminaire sections. Separate feed required. *** 4FT MSL4 Individual fixture with EC Consult factory*		**Available with ZT or nLight only*		**Available with ZT or nLight only*

Mounting Type/		Overall Suspension		Color		Options			
F1/	T-bar ceiling (universal mounting bracket)	**24A**	24" adjustable	**C032**	Gloss white	**BLK***	Black cord and canopy	**GMF**	Slow blow
F1/A	T-bar ceiling (UMB with integrated J-box)	**36A**	36" adjustable	**C100**	Anodized aluminum	**CSA****	Manufactured to Canadian Standards	**MCS***	Matching canopy at support for aesthetics
F2/	Hard ceiling (horizontal J-box)	**48A**	48" adjustable	**C110**	Painted aluminum	**CP**	Chicago Plenum (available with F1A only)	**MCSJ****	Matching canopy for J-box mounting at non-power feed support locations
*F1 & F1A Mount uses standard 3 1/2" canopy on feed and 2" canopy on support		**72A**	72" adjustable	**C201**	Black (low gloss)	**GLR**	Fast blow	**OJB***	Offset J-box at feed
**F2 Mount uses standard 5" canopy on feed and 2" canopy on support		**96A**	96" adjustable	**C099***	Custom color	**Not available with NLIGHT* ***CSA with EC consult factory* ****MCS & OJB cannot be chosen together* *****MCSJ Available with F2 Mount Only* ******When SLP is chosen need to choose F2 mount and OJB*		**SCEP**	Sculptured end cap
*** All feed cords, cord managers and canopies are standard white. They are not painted to match fixture color.		**144A**	144" adjustable	**C099 for pricing only. Custom color chip needs to be sent in to Customer Care and matched up with our paint department and customer approved before order is entered.*				**SLP*****	Sloped ceiling
		192A	192" adjustable						
		240A	240" adjustable						
		Measured from ceiling to bottom of luminaire.							

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PHOTOMETRICS

400 LMF ASO 80CRI 35K
84 lumens per watt
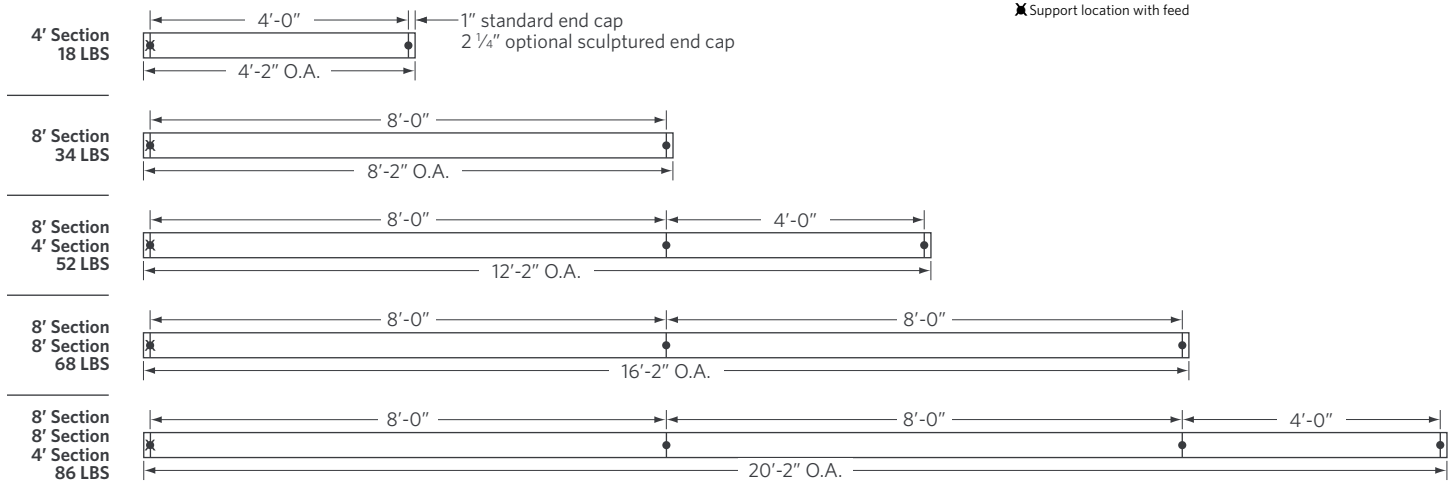1629 delivered lumens
per 4' section
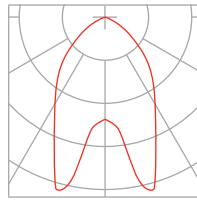
100% down

800 LMF ASO 80CRI 35K
79 lumens per watt
3124 delivered lumens
per 4' section

100% down

WEIGHTS & SUPPORT SPACING

Suspension spacing equals section length. Default location shown.

STANDARD SECTIONS

Key:
● Support location
✕ Support location with feed

4' Section
18 LBS

4'-0"
1" standard end cap
2 ¼" optional sculptured end cap
4'-2" O.A.

8' Section
34 LBS

8'-0"
8'-2" O.A.

8' Section
4' Section
52 LBS

8'-0" | 4'-0"
12'-2" O.A.

8' Section
8' Section
68 LBS

8'-0" | 8'-0"
16'-2" O.A.

8' Section
8' Section
4' Section
86 LBS

8'-0" | 8'-0" | 4'-0"
20'-2" O.A.

PLAN VIEW

LINEAR PLAN:

PEERLESS offers the ability to provide a continuous run plan to suit your requirements by optionally offering three different methods of configuration.

LSL- Linear Same Length:
In this configuration, each segment is the same length and is standardized based on the longest length available and is the only option provided. Because it is dependent on one segment length there are mathematical limitations on what overall row lengths can be achieved. Example: 20 FT row would be achieved with 5, 4 FT long segments equaling 20 FT (nominal).

LSL	4FT	4FT	4FT	4FT	4FT

LLP- Linear Longest Possible
In this configuration, the longest length available is optimized, resulting in the fewest segments and mounting locations. Caution, should be used where balanced appearance is a concern. Example: 20 FT run would have 2, 8 FT segment and 1, 4 FT segment at the end of the run.

LLP	8 FT	8 FT	4FT

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MOST COMMON MOUNTING TYPES AND OPTIONS   Options available for this specific luminaire are checked in the boxes below.

Mounting Type

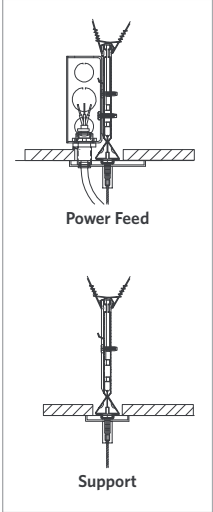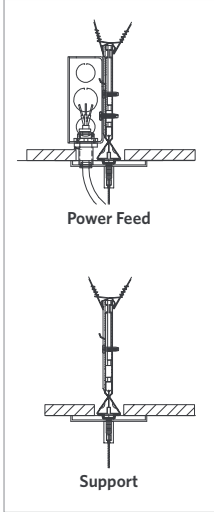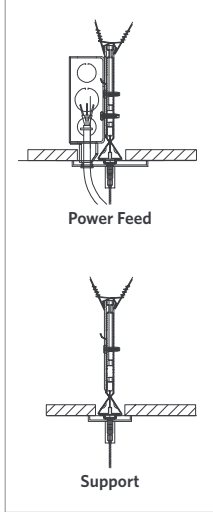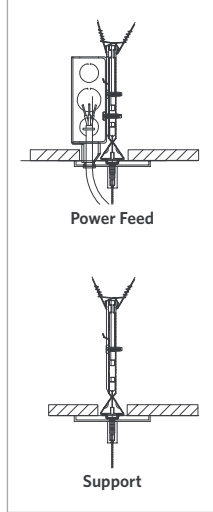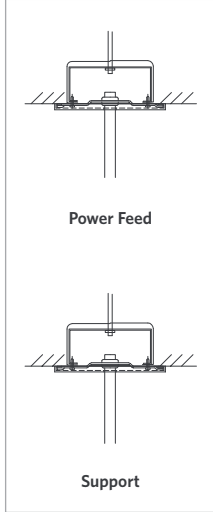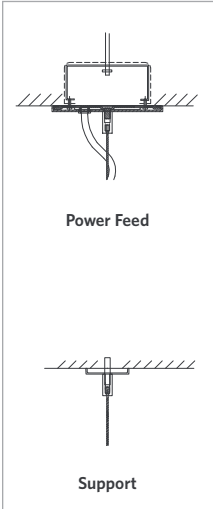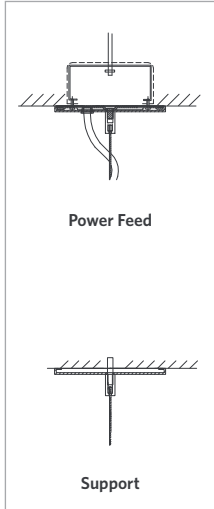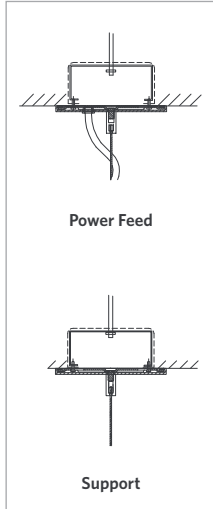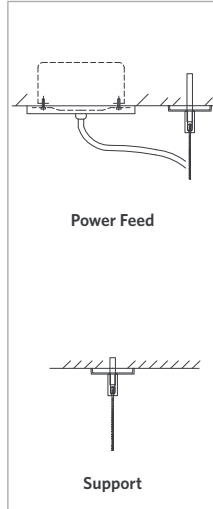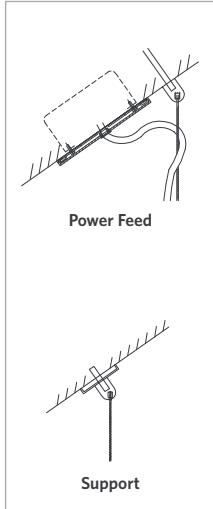**F1/** For use with most T-Bar and screw slot grid ceilings. Designed for on-grid and off-grid applications.

F2/ For use with recessed or surface mount horizontal J-box applications.

F3/ Stem mounting for use with recessed or surface mount horizontal J-box applications. *Check with local jurisdiction regarding rigid stem code requirements.*

F1A/ For use with most T-Bar and screw slot grid ceilings. Designed for on-grid and off-grid applications. *Comes complete with vertical J-box with built-in wire way. See also CP.*

Mounting Options

MCS Matching canopy at support for aesthetics.

MCSJ Matching canopy for J-box mounting at non-power feed support locations.

OJB Offset J-box at feed.

SLP OJB Sloped ceiling couplers and offset J-box option at feed.

For more detailed mounting drawings and information, see peerlesslighting.acuitybrands.com/resources/product-resources

☑ Indicates mounting options available with this luminaire.

☑ **F1/** — Power Feed / Support

☑ **F1/MCS** — Power Feed / Support

☑ **F1A/** — Power Feed / Support

☑ **F1A/MCS** — Power Feed / Support

☐ **F3/** — Power Feed / Support

☑ **F2/** — Power Feed / Support

☑ **F2/MCS** — Power Feed / Support

☑ **F2/MCSJ** — Power Feed / Support

☑ **F2/OJB** — Power Feed / Support

☑ **F2/SLP OJB** — Power Feed / Support

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INTEGRATED SENSOR OPTIONS

Control + Sensor Configurations	Control Input		Sensor		Sensor	Notes
	ZT	+	ADC	=	SensorSwitch NES ADCX	0-10V control Daylight Sensor
	ZT	+	PDT	=	SensorSwitch NES PDT 7	0-10V control Occupancy sensor
	ZT	+	APD	=	SensorSwitch NES PDT 7 ADCX	0-10V control Daylight with Occupancy sensor
	NLIGHT	+	ADC	=	SensorSwitch NES ADCX	nLight control Daylight Sensor
	NLIGHT	+	PDT	=	SensorSwitch NES PDT 7	nLight control Occupancy sensor
	NLIGHT	+	APD	=	SensorSwitch NES PDT 7 ADCX	nLight control Daylight with Occupancy Sensor

Daylight harvesting deactivated by default and field programmed per sequence of operations for PDT sensor options.

Luminaires specified with nLight system networking ship with one RJ-45 connector integrated into the luminaire, 10' of Cat-5e cable and a splitter to control the entire luminaire row (depending on wattage/voltage limitations). For multiple zones, please contact TechSupport-Peerless@AcuityBrands.com.

nES ADCX

nES PDT 7

OCCUPANCY DETECTION COVERAGE

At the 7.5 ft (2.9 m) hanging height of a typical pendant mount fixture the sensor provides 10 ft (3.05 m) radial detection of small motion. At a 9 ft (2.74 m) hanging height the radius is 12 ft (3.66 m) for small motion.

Adequate for walking motion detection from mounting heights between 7.5 ft (2.29 m) and 20 ft (6.10 m).

Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor.

Initial detection of walking motion into long coverage segment will occur at distances of 2x the mounting height up to 15 ft (4.57 m) and 1.75x up to 20 ft (6.10 m). Lens assembly rotates 15° to enable adjustment in order to line up long segments.

4.5	15
3.8	12.5
3	10
2.5	7
1.5	5
0.75	2.5
0 m	0 ft
0.75	2.5
1.5	5
2.5	7
3	10
3.8	12.5
4.5	15

Lens rotates 15° to enable adjustment
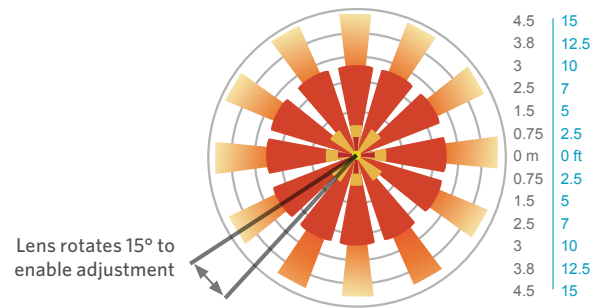
COMPATIBLE nLIGHT COMPONENTS WITH INTEGRATED CONTROLS

nPODMA DX WH

nPODMA 2P DX WH

nPODMA 4P DX WH

nPODMA 2L WH

nPOD UNITOUCH WH
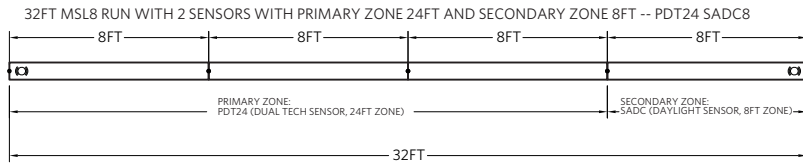
Sensor Switch.com/DataSheets/nPODMA.PDF

Sensor Switch.com/DataSheets/nPOD Unitouch.PDF

eldoLED COMPATIBILITY   For compatible dimmers & switches please see the EldoLED compatibility document.
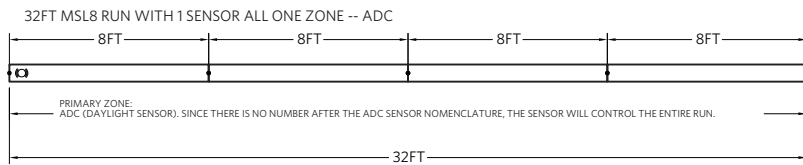
PeerlessLighting.com/eldoLED-compatibility

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INTEGRATED SENSOR LAYOUT

CORRECT:

32FT MSL8 RUN WITH 2 SENSORS WITH PRIMARY ZONE 24FT AND SECONDARY ZONE 8FT -- PDT24 SADC8

32FT MSL8 RUN WITH 1 SENSOR ALL ONE ZONE -- ADC

INCORRECT:

32FT MSL8 RUN WITH 1 SENSOR ALL ONE ZONE -- PDT16

32FT MSL8 RUN WITH 2 SENSORS WITH PRIMARY ZONE 20FT AND SECONDARY ZONE 12FT -- PDT20 SADC12

Notes:
- Only one sensor per zone
- At the most, the entire run can only have 2 sensors (thus 2 sensors zones at the most)
- Sensor zone can not split fixture sections
- No overlapping zones