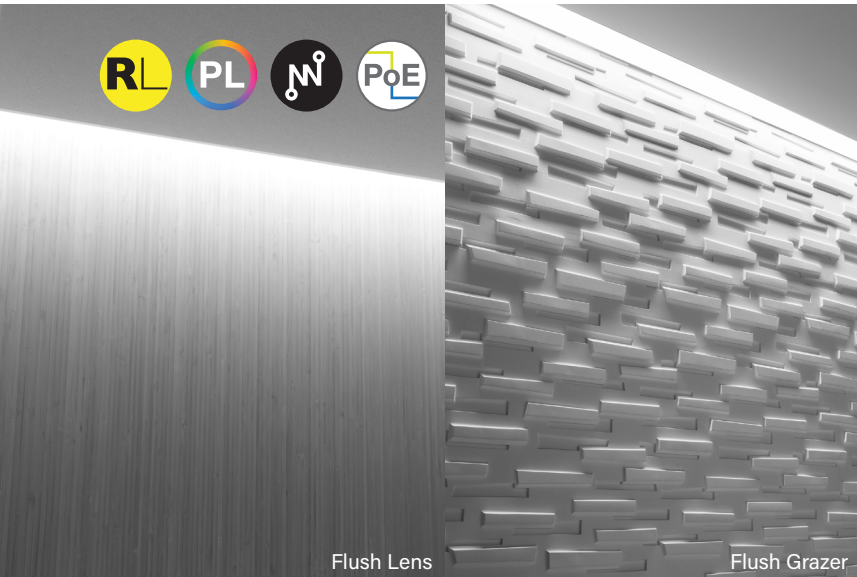


# Seem® 4

LED PERIMETER



Flush Lens

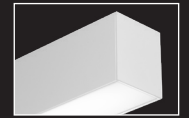
Flush Grazer



recessed companion



wall to ceiling companion

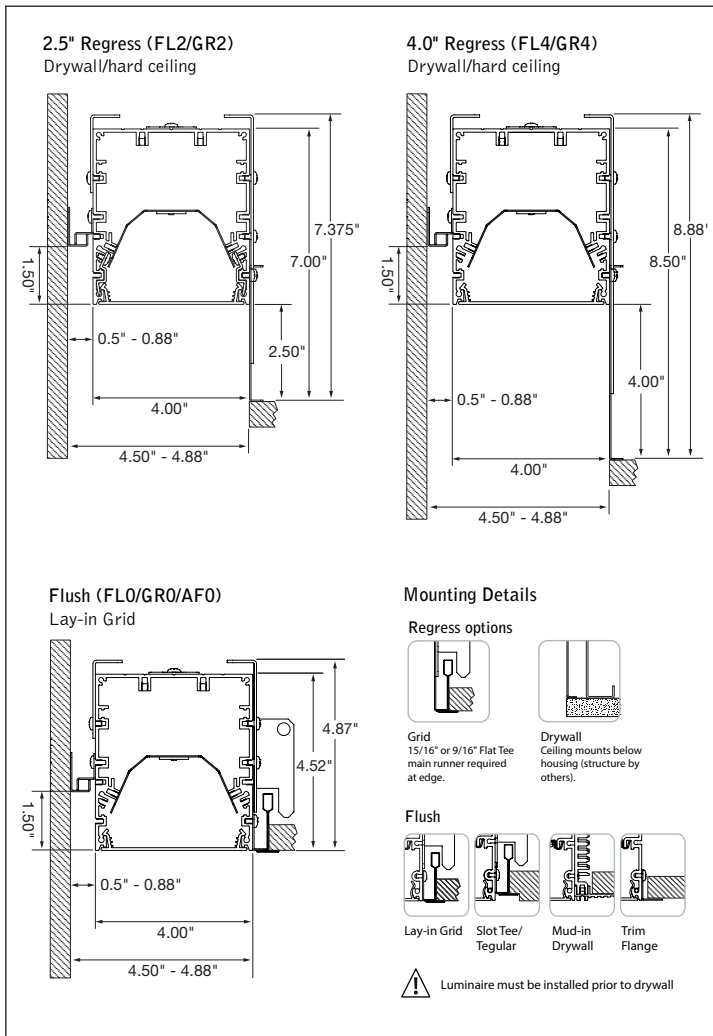


wall mount companion



suspended companion

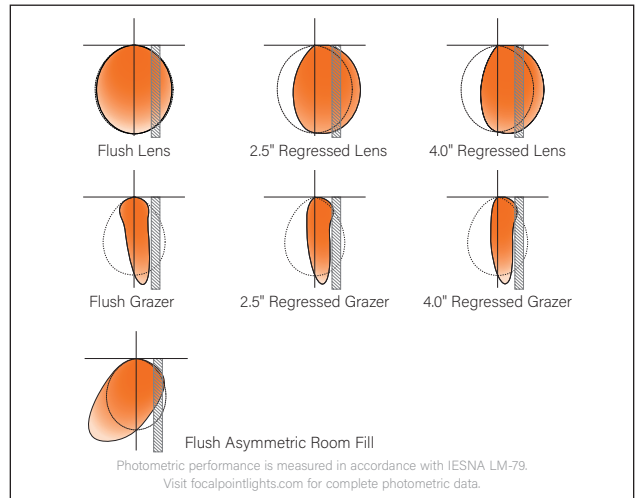
## DIMENSIONAL DATA



## FEATURES

- Seem 4 perimeter provides a glowing transition between ceiling and wall with Flush, 2.5" regress or 4.0" regress lenses.
- Grazer optic provides even vertical illumination and adds drama to a space by highlighting textured walls and architectural details.
- Asymmetric Room Fill optic provides best efficacy and uniformity to light rooms and corridors from the perimeter.
- Adjustable housing option provides flexibility with +/- 3 inch adjustability for wall-to-wall illumination.
- Preferred Light: Lighting for better color rendition and human preference.
- Connected Solutions: Integrates with wired and wireless building lighting control systems.
- PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.

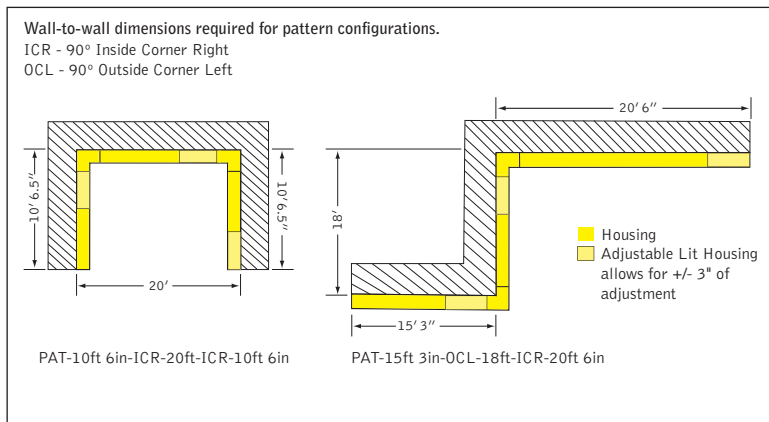
## DISTRIBUTIONS



fixture:

project:

**PATTERN CONFIGURATIONS**



**SPECIFICATIONS**

**LED System**

Proprietary linear LED module incorporates premium LEDs on a robust platform to achieve excellent thermal management. LEDs are placed to promote a uniform appearance. Available in 2700K, 3000K, 3500K or 4000K with CRI>80 or CRI>90, 3 SDCM. 3500K and 4000K with CRI>90 have a cyanosis observation index (COI) of 3.3 or less. LED modules and drivers are replaceable from below.

**Construction**

One piece extruded aluminum housing. 20 Ga. steel end caps, bulkheads, sliding sleeve and regress leg. 4' unit weight: 19 lbs.

**Optic**

Reflectors fabricated of 22 Ga. steel finished in High Reflectance White powder coat. Extruded acrylic lens .085" thick with satin finish, up to 8' continuous.

**Electrical**

Luminaires are pre-wired with factory installed branch circuit wiring and over-molded quick connects. Standard 120-277V constant current driver includes 0-10V analog dimming. Dimming range 100% to 10%. Power factor >.9. PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires. PoE runs require an independent PoE node and power feed for each luminaire section.

**Emergency**

Output - 10 watts for 90 minutes. Maximum mounting height: 19.2ft.

**Labels**

UL and cUL Listed. Suitable for Dry or Damp Locations, indoor use only.

**Finish**

Polyester powder coat applied over a multi-stage pre-treatment.

**Lumen Maintenance**

Reported: L70 > 61,000 hours      Calculated: L70 at > 480,000 hours  
 L90 > 61,000 hours                      L90 at > 128,000 hours  
 (Derived from EPA T M-21 calculator. Based on typical conditions, consult factory for additional data.)

**Reliability**

At Focal Point, our products are designed to stand the test of time. Each luminaire is engineered using superior components, manufactured with the utmost care and rigorously tested. Contact us for reliability data.

**Warranty**

LED system rated for operation in ambient environments up to 25°C. 5-year limited warranty.

**4' PERFORMANCE CHART**

See page 3.



Options in orange qualify for the Quickship program. Run lengths in 1' increments, 1000' total. Refer to Quickship Guide for complete details.

Focal Point LLC reserves the right to change specifications for product improvement without notification.

**ORDERING**

**Luminaire Series**

Seem 4 LED Perimeter **FSM4PR**

**Housing Type**

Adjustable Lit Housing **ALH**

(Allows for +/- 3" adjustment to overall run length, 3' minimum luminaire length.)

Fixed Housing **FXH**

**Shielding**

Flush Lens\* **FL0**

2.5" Regress **FL2**

4.0" Regress **FL4**

Flush Grazer\* **GR0**

2.5" Regress Grazer **GR2**

4.0" Regress Grazer **GR4**

Flush Asymmetric Room Fill\* **AF0**

\*(Not available with Unlit Sliding Sleeves - SSB)

**Lumen Output**

275 Lumens per foot **275LF**

(Not available with Lutron Drivers.) **375LF**

(Not available with LH1.) **625LF**

(3' minimum with LH1.) **875LF**

**1000LF**

**Color Temperature**

2700K, 80+ CRI or 90+ CRI **27K or 927K**

3000K, 80+ CRI or 90+ CRI **30K or 930K**

3500K, 80+ CRI or 90+ CRI **35K or 935K**

4000K, 80+ CRI or 90+ CRI **40K or 940K**

3500K, Preferred Light **P35K**

(6" increments only. FXH only)

**Circuits & Zones**

1 Circuit, non-emergency **1C**

Consult Ordering Guide on page 5 for multiple circuiting and zoning options **\_C\_Z\_DL**

**Voltage**

120/277 UNV Volt **UNV**

Low Voltage **LV**

**Control System & Dimming Level**

0-10V - 10% Dimming **LD1**

0-10V - 1% Dimming **L11**

Low Voltage, PoE compatible **LVN**

(No driver. Not available with EM or EC. LV Voltage only.)

Lutron Hi-Lume EcoSystem (LDE1) - 1% Dimming **LH1**

DALI - 1% Dimming **D11**

Acuity nLight - 1% Dimming\* **NLT1**

(4' minimum length. Not available with CP. Grid only.)

Enlighted Smart Sensor - 1% Dimming\* **ENL1**

(4' minimum length. Grid only.)

Osram Connected Lighting Module for\* **CLM1**

ENCELIUM systems - 1% Dimming

(4' minimum length. Grid only. Compatible with Osram ENCELIUM and ENCELIUM EDGE systems only.)

Osram Connected Lighting Module for\* **CLMZ1**

ZigBee Wireless Networks - 1% Dimming

(4' minimum length. Grid only. Not compatible with Osram ENCELIUM systems.)

Wattstopper\* DLM - 1% Dimming\* **DLM1**

(4' minimum length. Grid only.)

**Mounting**

Lay-in Grid **G**

Flush (FL0, GR0 & AF0) Slot Tee / Tegular **ST**

Trim Flange Drywall **TF**

Mud-in Trimless Drywall **XFF**

Regressed (FL2, FL4, GR2 & GR4) Grid **G**

Trimless Drywall **XF**

**Factory Options**

(See Ordering Guide on page 5 for ordering details for DC, EC, EM & ECD.)

Chicago Plenum **CP**

Daylight Circuit **\_DC**

Emergency Circuit **\_EC**

Emergency Battery Pack **\_EM**

Emergency Control Device **\_ECD**

6' New York City Flex Whip (120V only) **FNY1**

6' New York City Flex Whip (277V only) **FNY2**

6' Flex Whip **FW**

Fixed Housing with Unlit Sliding Sleeves **SSB**

(Set of two unlit 12" sleeves. Fixed housing in straight runs only. FL2, FL4, GR2 & GR4 only. 3' minimum luminaire length.)

**Finish**

Matte White Housing **WH**

**Luminaire Length**

Specify luminaire/row length in 1" increments **\_ft\_in**

(2' minimum length)

**Pattern Options**

Specify patterns based on wall-to-wall dimensions **PAT**

(See Pattern Configurations for example)

Example: FSM4PR-ALH-FL2-625LF-35K-1C-120-LD1-G-WH-PAT-10-ICR-20-ICR-10

<sup>1</sup>4' minimum length. 120/277 Volt only. EM or ECD not available at corners.

\*7' minimum length with FXH & EM. Not available with ALH & EM.

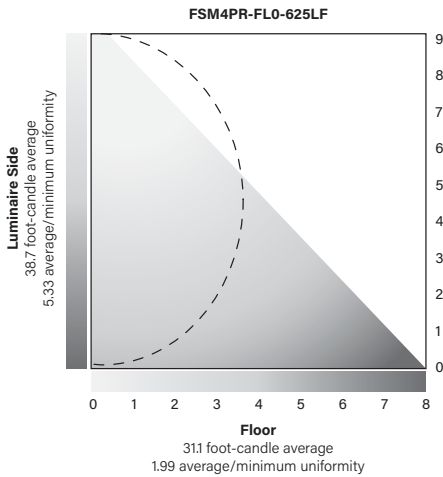
## 4' PERFORMANCE CHART

Lumens per Foot	Lumen Output	Tested System Watts	LPW						
			FL0	FL2	FL4	GR0	GR2	GR4	AF0
275LF	1100	12	99	92	89	106	100	97	111
375LF	1500	15	103	96	93	112	105	102	116
625LF	2500	25	103	96	93	111	105	102	116
875LF	3500	35	102	95	91	110	104	100	114
1000LF	4000	37	102	95	91	110	104	100	114

Based on 3500K, 80 CRI, 4' lengths. Lumen multipliers: Preferred Light = 0.65, 90+ CRI = 0.87. Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%.

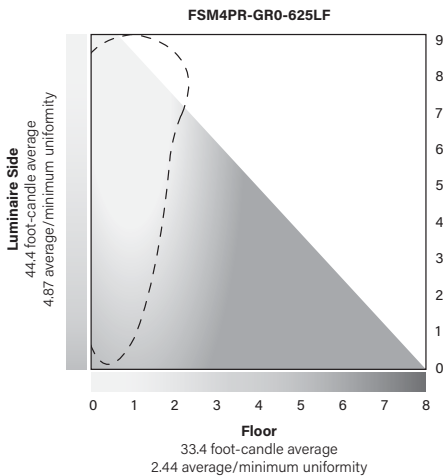
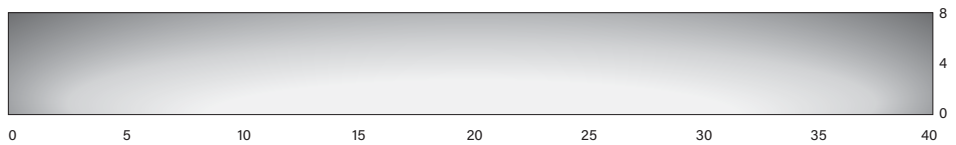
## SELECTING THE BEST OPTIC FOR EACH APPLICATION

8' W x 40' L x 9' H Corridor | 80/50/20 Reflectances | 0.9 Light Loss Factor



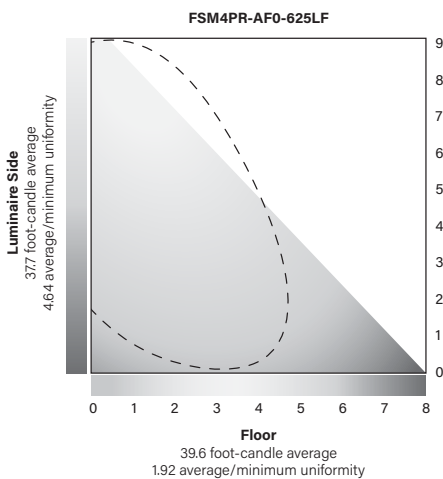
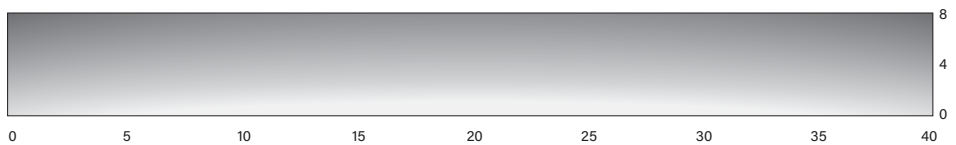
### Standard Lens

The standard optic results in a Lambertian light distribution that provides uniform illumination. It is ideal to create a glowing transition between the walls and ceiling, adding dimension to the space.



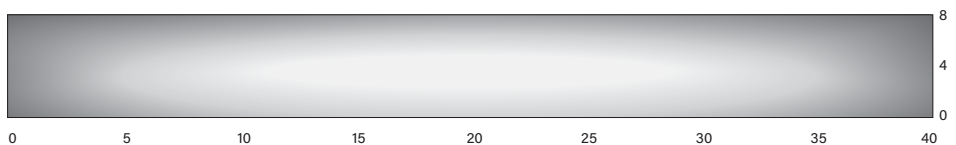
### Grazer Lens

The grazer optic closely grazes walls, highlighting textures and architectural details. It is intended to provide even illumination and deliver maximum visual impact on the vertical surfaces.

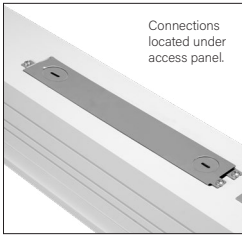


### Asymmetric Room Fill Lens

The asymmetric room fill optic projects light into the space to evenly illuminate horizontal planes. It is ideal to light rooms and corridors from the perimeter, resulting in superior efficacy and uniformity on the floor.



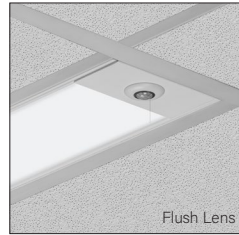
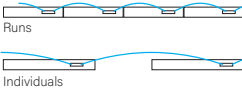
Focal Point provides flexibility in meeting the needs of each project by integrating with several building lighting control systems. A variety of sensors, drivers and other components can be specified that allow the luminaires to communicate with wired and wireless networks. All zoning can be digitally reconfigured through the application software. Daylight harvesting, occupancy sensing, integration with HVAC systems, and individual controls enable the monitoring and modulating of light levels and temperature in order to save energy, reduce costs and maximize occupants' comfort. All Connected Solutions luminaires require a compatible building control system.†



nLight\* provides a two-way wired digital lighting system allowing for on/off and dimming functionality, occupancy sensing, and multi-zone daylight harvesting.

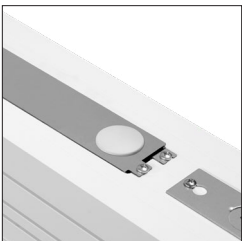
Acuity nLight - 1% Dimming (NLT1)  
Acuity Model #nEPS-60-IO

CAT-5 Cable provided by others. Serial labels will be provided on outside of luminaires and control unit.



Enlighted smart sensor allows for occupancy sensing, daylight harvesting, energy usage, temperature and light level control. Communicates wirelessly with the Enlighted network.

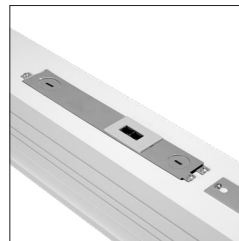
Enlighted Smart Sensor - 1% Dimming (ENL1)  
Enlighted Model #SU-5E-IOT



Connected Lighting Module (CLM) enables each luminaire to be independently controlled and configured. Communicates wirelessly with Daintree Networks®, Osram ENCELIUM®, Osram ENCELIUM EDGE™, and other networks using the ZigBee® HA communication protocol to allow for on/off and dimming functionality, occupancy sensing and multi-zone daylight harvesting.

Osram CLM - 1% Dimming (CLM1 & CLMZ1)  
Osram Model #ZBHA-CLM DIM

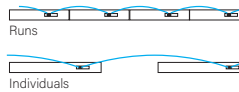
Serial labels will be provided on outside of luminaires and control unit.



A Digital Lighting Management (DLM) system that provides two-way wired communication between networked luminaires and control system to allow for on/off and dimming functionality, occupancy sensing and multi-zone daylight harvesting.

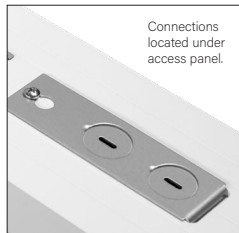
Wattstopper DLM - 1% Dimming (DLM1)  
Wattstopper Model #LMFC-011

CAT-5 Cable provided by others. Serial labels will be provided on outside of luminaires and control unit.



A two-way digital network that enables on/off and dimming functionality, occupancy sensing, and multi-zone daylight harvesting working with Quantum®, Energi Savr Node™, and Energi TriPak™ using EcoSystem® communication protocol.

Lutron Hi-Lume EcoSystem - 1% Dimming (LH1)  
Lutron Model #LDE1



A two-way digital network that enables on/off and dimming functionality, occupancy sensing, and multi-zone daylight harvesting. Communicates with Züm wireless and SpaceBuilder working with Züm hub scheduling or FUSION management.

DALI - 1% Dimming (D11)  
0-10V - 1% Dimming (L11)

Note: 0-10V is not a digital network but is compatible with Creston Züm™ system.

## CONNECTED SOLUTIONS DETAILS

Connected Solution	Model #	Protocol	Compatible Networks*	Occupancy	Daylight	Temperature Reporting	Communication to Luminaire	Drivers
Acuity nLight (NLT1)	nEPS-60-IO**	nLight	nLight	Enabled	Enabled	No	Wired	<b>eldoLED ECOdrive</b> , eldoLED SOLOdrive
Crestron (D11, L11)	Specified Driver	DALI 0-10V	Crestron Züm Wireless & SpaceBuilder	Enabled	Enabled	No	Wired	<b>eldoLED ECOdrive (DALI)</b> , <b>Advance by Signify (0-10V)</b>
Enlighted Smart Sensor (ENL1)	SU-5E-IOT**	Enlighted RF	Enlighted	Integrated	Integrated	Yes	Wireless	<b>Advance by Signify</b> , Osram Optotronic
Legrand Wattstopper DLM (DLM1)	LMFC-011**	DLM	DLM	Enabled	Enabled	No	Wired	<b>Advance by Signify</b> , Osram Optotronic
Lutron EcoSystem (LH1)	LDE1**	EcoSystem	Quantum, Energi Savr Node, Energi TriPak	Enabled	Enabled	No	Wired	<b>Lutron Hi-Lume</b>
Osram CLM for ENCELIUM systems (CLM1)	ZBHA-CLM**	ZigBee HA	Osram ENCELIUM & ENCELIUM EDGE	Enabled	Enabled	No	Wireless	<b>Osram Optotronic</b>
Osram CLM for ZigBee Wireless Networks (CLMZ1)	ZBHA-CLM**	ZigBee HA	Daintree Networks & open ZigBee Networks	Enabled	Enabled	No	Wireless	<b>Osram Optotronic</b>

\*Not all compatible networks may be listed. \*\*For performance data and additional control system details please visit the connected solutions manufacturer websites. Primary drivers are listed in **bold**. To specify a particular driver please consult factory.  
†Controls systems supplied by others.

# Ordering Guide

Linear Circuitry, Zones & Factory Options



## HOW TO USE THIS GUIDE

Fill out the worksheet on the following page to specify your requirements for circuitry, zones, and factory options.

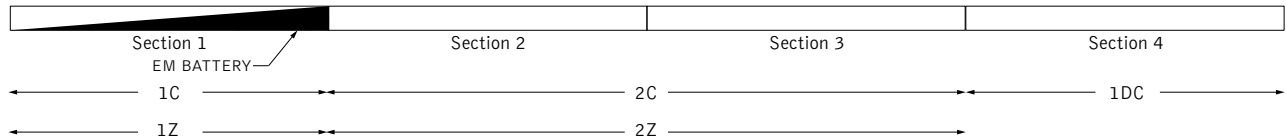
Refer to the run chart for standard run configurations, consult factory for custom configurations.

Complete the Totals / Ordering Codes at the bottom of the worksheet and add to your ordering logic on the cut sheet.

Submit the worksheet along with your order.

TOTAL RUN LENGTH: <u>32ft</u>		JOB NAME: _____			FIXTURE TYPE: _____			
HOUSING SECTION	SECTION LENGTH	SHARED ELECTRICAL FEED, NORMAL POWER			FACTORY OPTIONS			
		SWITCHING CIRCUIT	DIMMING ZONE	DAYLIGHT ZONE	SEPARATE ELECTRICAL FEEDS			EM
DAYLIGHT CIRCUIT	EMERGENCY CIRCUIT				ECD	EM		
1	8	1C	1Z					1EM
2	8	2C	2Z					
3	8	2C	2Z					
4	8				1DC			
<b>Totals / Ordering Codes</b>		<b>2C</b>	<b>2Z</b>		<b>1DC</b>			<b>1EM</b>

ORDERING: FSM4L-FL-625LF-35K- **2C2Z** -UNV-LD1-G2- **1DC-1EM** -WH-32ft



KEY	
<b>C = Switching Circuit</b> Switched Hot / Shared Neutral	<b>DC = Daylight Circuit</b> Switched Hot / Separate Neutral
<b>Z = Dimming Zone</b> Dimming Control Wires	<b>EC = Emergency Circuit</b> Switched Hot / Separate Neutral
<b>DL = Daylight Zone</b> Daylight Dimming Control Wires	<b>EM = Emergency Battery</b> Unswitched Hot / Shared Neutral
	<b>ECD = Emergency Control Device</b> Unswitched Hot / Separate Neutral

## DEFAULTS

- Zones and Factory Options illuminate entire sections from 4' to 8' in length.
- One shared or isolated circuit and zone required per housing section.
- Limit of one EM or ECD per housing section.
- Additional electrical feed required for applications greater than three shared circuits and zones.
- Each DC, EC and ECD require an additional electrical feed.
- ECD not available in the same housing section as EC.
- Longer lead times and additional pricing may apply for custom run configurations.

## CUSTOM LENGTHS

- If partial illumination of emergency or daylight section is required, indicate in ordering guide and add "partial illumination" in Order Notes. Drawing required.
- Engineering validation required, longer lead times may apply.

# Ordering Guide Worksheet

Linear Circuitry, Zones & Factory Options



TOTAL RUN LENGTH: _____		JOB NAME: _____			FIXTURE TYPE: _____			
HOUSING SECTION	SECTION LENGTH	SHARED ELECTRICAL FEED, NORMAL POWER			FACTORY OPTIONS			EM
		SWITCHING CIRCUIT	DIMMING ZONE	DAYLIGHT ZONE	SEPARATE ELECTRICAL FEEDS			
DAYLIGHT CIRCUIT	EMERGENCY CIRCUIT				ECD			
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
<b>Totals / Ordering Codes</b>								

WORKSHEET

Combine to create Circuits & Zones ordering code

Enter as individual Factory Options

## RUN CHART

Run length (ft)	Housing Configuration Section Lengths	Run length (ft)	Housing Configuration Section Lengths	Run length (ft)	Housing Configuration Section Lengths	Run length (ft)	Housing Configuration Section Lengths
9	5 + 4	21	8 + 8 + 5	33	8 + 8 + 8 + 5 + 4	45	8 + 8 + 8 + 8 + 8 + 5
10	6 + 4	22	8 + 8 + 6	34	8 + 8 + 8 + 6 + 4	46	8 + 8 + 8 + 8 + 8 + 6
11	7 + 4	23	8 + 8 + 7	35	8 + 8 + 8 + 7 + 4	47	8 + 8 + 8 + 8 + 8 + 7
12	8 + 4	24	8 + 8 + 8	36	8 + 8 + 8 + 8 + 4	48	8 + 8 + 8 + 8 + 8 + 8
13	8 + 5	25	8 + 8 + 5 + 4	37	8 + 8 + 8 + 8 + 5		
14	8 + 6	26	8 + 8 + 6 + 4	38	8 + 8 + 8 + 8 + 6		
15	8 + 7	27	8 + 8 + 7 + 4	39	8 + 8 + 8 + 8 + 7		
16	8 + 8	28	8 + 8 + 8 + 4	40	8 + 8 + 8 + 8 + 8		
17	8 + 5 + 4	29	8 + 8 + 8 + 5	41	8 + 8 + 8 + 8 + 5 + 4		
18	8 + 6 + 4	30	8 + 8 + 8 + 6	42	8 + 8 + 8 + 8 + 6 + 4		
19	8 + 7 + 4	31	8 + 8 + 8 + 7	43	8 + 8 + 8 + 8 + 7 + 4		
20	8 + 8 + 4	32	8 + 8 + 8 + 8	44	8 + 8 + 8 + 8 + 8 + 4		

Standard run configurations, consult factory for custom configurations.