Seem® 4

LED

recessed companion

wall to ceiling companion
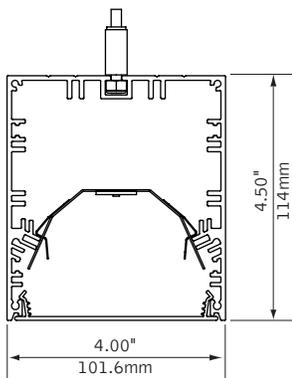
wall mount companion
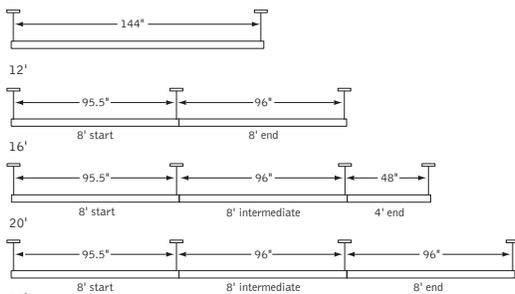
perimeter companion

DIMENSIONAL DATA

4.50"
114mm

4.00"
101.6mm

MOUNTING INFORMATION

144"

12'

95.5"   96"
8' start   8' end

16'

95.5"   96"   48"
8' start   8' intermediate   4' end

20'

95.5"   96"   96"
8' start   8' intermediate   8' end

24'

Consult factory for additional row length information.

FEATURES

Narrow extruded aluminum 4" linear direct LED.

Individual units and continuous runs in 1' increments.

Frosted acrylic lens provides uninterrupted illumination, without pixels or shadows.

LED position and lens material optimized to provide the perfect blend of high performance and visual comfort.
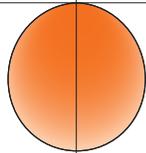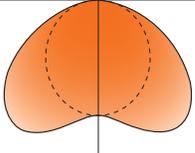
Choice of output levels to meet a wide variety of application needs.

Connected Solutions: Integrates with wired and wireless building lighting control systems.

Preferred Light: Lighting for better color rendition and human preference.

PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.
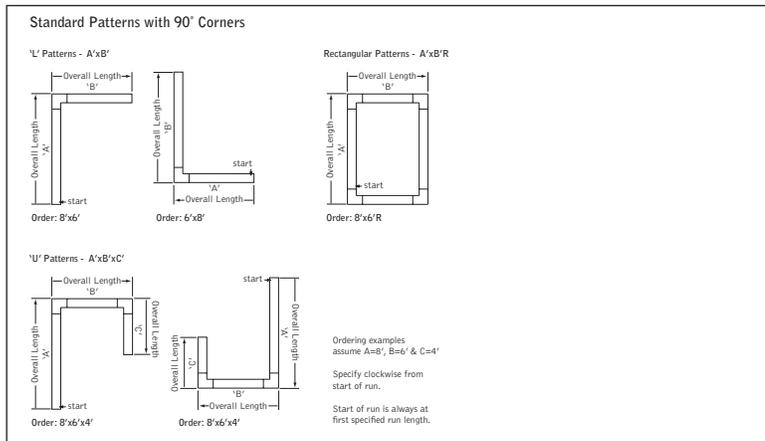
PERFORMANCE

4' Flush Lens
Nominal output:
375 Lumens per foot

Delivered Lumens: 1500
Total System Watts: 13W

4' Batwing Lens
Nominal output:
375 Lumens per foot

Delivered Lumens: 1500
Total System Watts: 13W

Photometric performance is measured in accordance with IESNA LM-79.
Visit focalpointlights.com for complete photometric data.

DLC QPL LISTED

fixture: _____ project: _____

DETAILS

Standard Patterns with 90˚ Corners

'L' Patterns - A'xB'

Overall Length 'B'
Overall Length 'A'
start
start
Order: 8'x6'

Overall Length 'B'
Overall Length 'A'
start
Order: 6'x8'

Rectangular Patterns - A'xB'R

Overall Length 'B'
Overall Length 'A'
start
Order: 8'x6'R

'U' Patterns - A'xB'xC'

Overall Length 'B'
Overall Length 'A'
Overall Length 'C'
start
Order: 8'x6'x4'

start
Overall Length 'A'
Overall Length 'C'
Overall Length 'B'
start
Order: 8'x6'x4'

Ordering examples assume A=8', B=6' & C=4'

Specify clockwise from start of run.

Start of run is always at first specified run length.

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
9-12' luminaires ship on 13' (157") pallets, forklift extensions of 72" are required to avoid damage. One piece extruded aluminum housing. Die cast aluminum end caps.
2' unit weight: 10 lbs., 3' unit weight: 14 lbs., 4' unit weight: 18 lbs., 5' unit weight: 22 lbs., 12' unit weight: 48 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 12' 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
Emergency Battery output - 10 watts for 90 minutes. Maximum mounting height: 20.18ft. Emergency Circuit with Connected Solutions (NLT1, ENL1, CLM1, CLMZ1, DLM1) shipped standard with leads to connect UL924 compliant device, by others.

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. Canopy and cord white as standard.

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 TM-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

Lumens Output	Delivered Lumens	Tested System Watts	LPW	
			BW	FL
275	1100	10	104	100
375	1500	13	113	108
625	2500	22	112	107
875	3500	32	109	105
1000	4000	37	109	104
1125	4500	44	108	104
1250	5000	49	107	102

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%.

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

ORDERING

		FSM4LS
Luminaire Series		
Seem 4 LED	FSM4LS	
Shielding		_____
Batwing Lens	BW	
Flush Satin Lens	FL	
Lumen Output		_____
275 Lumens per foot	275LF	
(Not available with Lutron Drivers.)		
375 Lumens per foot	375LF	
(Not available with LH1 Drivers)		
625 Lumens per foot	625LF	
(3' minimum with LH1 Drivers)		
875 Lumens per foot	875LF	
1000 Lumens per foot	1000LF	
1125 Lumens per foot	1125LF	
1250 Lumens per foot	1250LF	
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	
(Patterns not available.)		
Circuits & Zones		_____
1 Circuit, non-emergency	1C	
Consult Ordering Guide on page 4 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 (1000LF max.)	D11	
Acuity nLight - 1% Dimming	NLT1	
(3' minimum length.)		
Enlighted Smart Sensor - 1% Dimming	ENL1	
(3' minimum length.)		
Osram Connected Lighting Module for ENCELIUM systems - 1% Dimming	CLM1	
(3' minimum length. Compatible with Osram ENCELIUM and ENCELIUM EDGE systems only)		
Osram Connected Lighting Module for ZigBee Wireless Networks - 1% Dimming	CLMZ1	
(3' minimum length. Not compatible with Osram ENCELIUM systems)		
Wattstopper DLM - 1% Dimming	DLM1	
(3' minimum length.)		
Mounting		_____
24" Cable Suspension	C24__	
48" Cable Suspension	C48__	
96" Cable Suspension	C96__	
(Specify canopy color White (WH), Black (BK) or Titanium Silver (TS). Example: C24WH.) (Specify one of the following in place of "C" J - for 2" canopies at non-feed locations. CS - for sloped ceiling applications.)		
Surface Mount	SM	
(Not available with CLM1, CLMZ1, DLM1 or NLT1)		
Factory Options		
(See Ordering Guide on page 4 for ordering details for DC, EC, EM & ECD.)		
Black Cord	BKCD	_____
Daylight Circuit	_DC	_____
Emergency Circuit	_EC	_____
Emergency Battery Pack†	_EM	_____
Emergency Control Device†	_ECD	_____
†(4' minimum. 120/277 Volt only. 7' minimum with CLM1, CLMZ1, DLM1, ENL1 & NLT1. EM or ECD not available at corners.)		
Finish		_____
Black	BK	
Titanium Silver	TS	
Matte White Housing	WH	
Luminaire/Row Length		_____
Specify in 1' increments	X'	
(Lengths are nominal, up to 12' individuals available. See Run Chart (page 4) for ordering codes. Smaller increments available, consult factory for details. Leave blank for patterns.)		
Pattern Options		_____
(3' minimum length)		
Specify luminaire/row length in 1' increments	X'	
'L' pattern	A' x B'	
'U' pattern	A' x B' x C'	
Rectangular pattern	A' x B'R	
(Consult factory for other pattern options)		

QS 10 DAY

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

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

Connections located under access panel.

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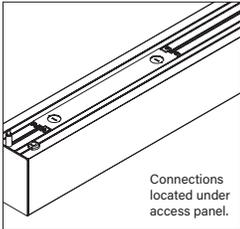
nLight® provides a two-way wired digital lighting system allowing for on/off and dimming functionality, occupancy sensing, and multi-zone daylight harvesting.

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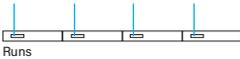
Enlighted smart sensor allows for occupancy sensing, daylight harvesting, energy usage, temperature and light level control. Communicates wirelessly with the Enlighted network.

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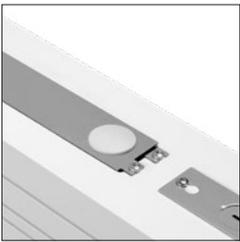
OSRAM

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.

legrand® WATTSTOPPER®

Connections located under access panel.

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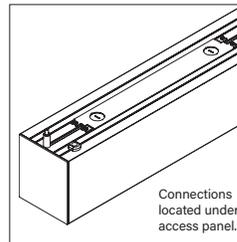
A Digital Lighting Management (DLM) system that provides two-way wired communication between networked luminaires and control system to allow for on/off and dimming functionality, occupancy sensing and multi-zone daylight harvesting.

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

Segment Network Wire provided by others. Serial labels will be provided on outside of luminaires and control unit.
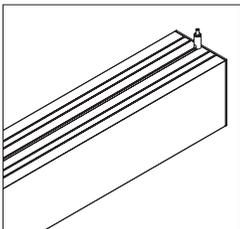
LUTRON®

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
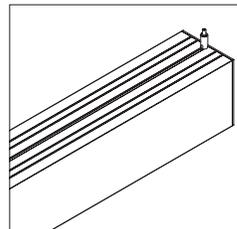
CRESTRON®

A two-way digital network that enables on/off and dimming functionality, occupancy sensing, and multi-zone daylight harvesting. Communicates with Zūm wireless and SpaceBuilder working with Zūm 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 Zūm™ 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	**eldoLED ECOdrive,** eldoLED SOLOdrive
Crestron (D11, L11)	Specified Driver	DALI 0-10V	Crestron Zūm Wireless & SpaceBuilder	Enabled	Enabled	No	Wired	**eldoLED ECOdrive (DALI), Advance by Signify (0-10V)**
Enlighted Smart Sensor (ENL1)	SU-5E-IOT**	Enlighted RF	Enlighted	Integrated	Integrated	Yes	Wireless	**Advance by Signify**
Legrand Wattstopper DLM (DLM1)	LMFC-011**	DLM	DLM	Enabled	Enabled	No	Wired	**Advance by Signify**, Osram Optotronic
Lutron EcoSystem (LH1)	LDE1**	EcoSystem	Quantum, Energi Savr Node, Energi TriPak	Enabled	Enabled	No	Wired	**Lutron Hi-Lume**
Osram CLM for ENCELIUM systems (CLM1)	ZBHA-CLM**	ZigBee HA	Osram ENCELIUM & ENCELIUM EDGE	Enabled	Enabled	No	Wireless	**Osram Optotronic**
Osram CLM for ZigBee Wireless Networks (CLMZ1)	ZBHA-CLM**	ZigBee HA	Daintree Networks & open ZigBee Networks	Enabled	Enabled	No	Wireless	**Osram Optotronic**

*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: _____32ft_____   **JOB NAME:** _____   **FIXTURE TYPE:** _____

	HOUSING SECTION	SECTION LENGTH	SHARED ELECTRICAL FEED, NORMAL POWER			FACTORY OPTIONS			
						SEPARATE ELECTRICAL FEEDS			EM
			SWITCHING CIRCUIT	DIMMING ZONE	DAYLIGHT ZONE	DAYLIGHT CIRCUIT	EMERGENCY CIRCUIT	ECD	
EXAMPLE	1	8	1C	1Z					1EM
	2	8	2C	2Z					
	3	8	2C	2Z					
	4	8				1DC			
	Totals / Ordering Codes		**2C**	**2Z**		**1DC**			**1EM**

ORDERING: FSM4LS-FL-625LF-35K- **2C2Z** -UNV-LD1-C24WH- **1DC-1EM** -WH-32ft

Section 1 — EM BATTERY — Section 2 — Section 3 — Section 4

1C — 2C — 1DC

1Z — 2Z
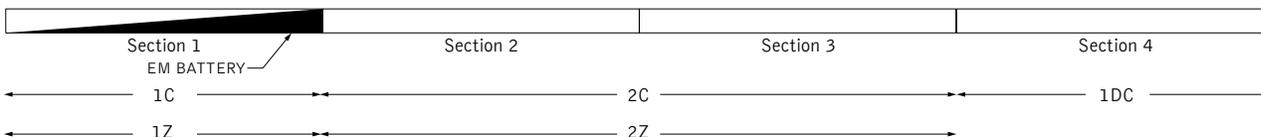
KEY

C = Switching Circuit
Switched Hot / Shared Neutral

Z = Dimming Zone
Dimming Control Wires

DL = Daylight Zone
Daylight Dimming Control Wires

DC = Daylight Circuit
Switched Hot / Separate Neutral

EC = Emergency Circuit
Switched Hot / Separate Neutral

EM = Emergency Battery
Unswitched Hot / Shared Neutral

ECD = Emergency Control Device
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			
					SEPARATE ELECTRICAL FEEDS			EM
		SWITCHING CIRCUIT	DIMMING ZONE	DAYLIGHT ZONE	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								
Totals / Ordering Codes								

Combine to create Circuits & Zones ordering code   Enter as individual Factory Options

RUN CHART

Run Length (ft)	Housing Configuration Section Lengths	Ordering Code
9	5 + 4	9
	9	9(IND)
10	6 + 4	10
	5 + 5	10(5+5)
	10	10(IND)
11	7 + 4	11
	11	11(IND)
12	8 + 4	12
	6 + 6	12(6+6)
	12	12(IND)
13	8 + 5	13
14	8 + 6	14
15	8 + 7	15
16	8 + 8	16
17	8 + 5 + 4	17
18	8 + 6 + 4	18

Run Length (ft)	Housing Configuration Section Lengths	Ordering Code
19	8 + 7 + 4	19
20	8 + 8 + 4	20
21	8 + 8 + 5	21
22	8 + 8 + 6	22
23	8 + 8 + 7	23
24	8 + 8 + 8	24
25	8 + 8 + 5 + 4	25
26	8 + 8 + 6 + 4	26
27	8 + 8 + 7 + 4	27
28	8 + 8 + 8 + 4	28
29	8 + 8 + 8 + 5	29
30	8 + 8 + 8 + 6	30
31	8 + 8 + 8 + 7	31
32	8 + 8 + 8 + 8	32
33	8 + 8 + 8 + 5 + 4	33
34	8 + 8 + 8 + 6 + 4	34

Run Length (ft)	Housing Configuration Section Lengths	Ordering Code
35	8 + 8 + 8 + 7 + 4	35
36	8 + 8 + 8 + 8 + 4	36
37	8 + 8 + 8 + 8 + 5	37
38	8 + 8 + 8 + 8 + 6	38
39	8 + 8 + 8 + 8 + 7	39
40	8 + 8 + 8 + 8 + 8	40
41	8 + 8 + 8 + 8 + 5 + 4	41
42	8 + 8 + 8 + 8 + 6 + 4	42
43	8 + 8 + 8 + 8 + 7 + 4	43
44	8 + 8 + 8 + 8 + 8 + 4	44
45	8 + 8 + 8 + 8 + 8 + 5	45
46	8 + 8 + 8 + 8 + 8 + 6	46
47	8 + 8 + 8 + 8 + 8 + 7	47
48	8 + 8 + 8 + 8 + 8 + 8	48

Standard run configurations, consult factory for custom configurations.