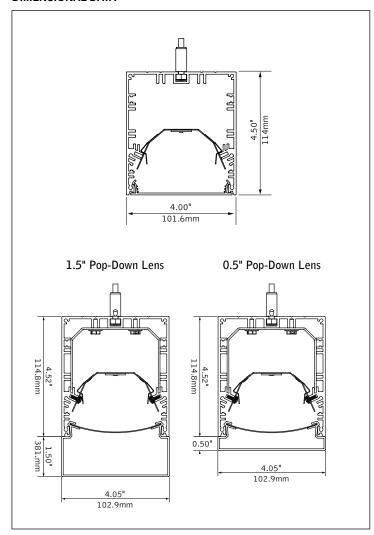
# Seem® 4





#### **DIMENSIONAL DATA**



#### **FEATURES**

Narrow extruded aluminum 4" linear direct LED.

Individual units and continuous runs in 1' increments.

Available in flush, asymmetric, asymmetric room fill, batwing,  $0.5^{\prime\prime}$  or  $1.5^{\prime\prime}$  pop-down lens.

LED position and lens material optimized to provide the perfect blend of high performance and visual comfort.

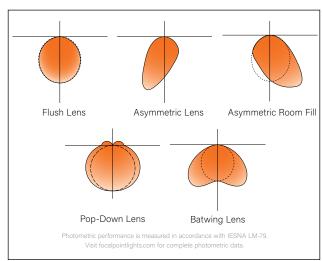
Tunable White: Supports human activity, well-being, and preferences with a light quality that evolves throughout the day.

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

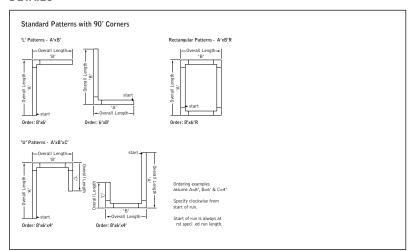
PoE compatible: Integrates with Power over Ethernet lighting systems via standard, low-voltage wires.

Available with The Naturals, a series of finishes that exude biophilic beauty.

#### **PERFORMANCE**



#### **DETAILS**



#### 4' PERFORMANCE CHART

		B\	N .	FI	L .	A	S .	Α	F
Lumen	Nominal	Tested System		Tested System		Tested System		Tested System	
Output	Lumens	Watts	LPW	Watts	LPW	Watts	LPW	Watts	LPW
275LF	1100	8.8	125	9.1	121	8.5	130	8.6	128
375LF	1500	11.3	133	11.7	129	10.8	138	11	137
625LF	2500	19	131	19.9	126	18.3	137	18.5	135
875LF	3500	27	130	27.9	125	25.9	135	26.2	133
1000LF	4000	31.1	129	32.2	124	29.8	134	30.2	132
1125LF	4500	35.4	127	36.6	123	33.9	133	34.4	131
1250LF	5000	39.8	126	41.2	121	38.1	131	38.6	129

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

#### 4' PERFORMANCE CHART - POP-DOWN

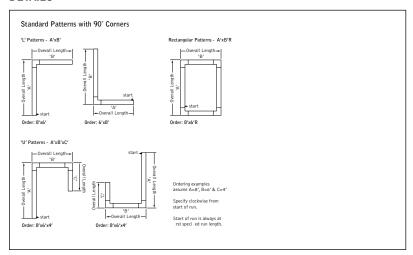
		0.5"		1.5"	
Lumen Output	Nominal Lumens	Tested System Watts	LPW	Tested System Watts	LPW
275LF	1100	11	100	11.9	93
375LF	1500	14.7	102	15.8	95
625LF	2500	25	100	27	93
750LF	3000	30.3	99	32.7	92
875LF	3500	35.7	98	38.6	91
1000LF	4000	41.3	97	44.7	89

 $Based \ on \ 3500K, 80 \ CRI, 4' \ lengths. \ Lumen \ multiplier: 90+CRI = 0.87. \ Lumen \ output \ may \ vary +/-5\%. \ Actual \ wattage \ may \ wattage \ may \ wattage \ wa$ 

STANDARD WHITE		
Luminaire Series Seem 4 LED	FSM4LS	FSM4LS
Shielding		
Asymmetric Lens Asymmetric Room Fill	AS AF	
Batwing Lens	BW	
Flush Satin Lens	FL	
0.5" Pop-Down Lens (1000LF max.) 1.5" Pop-Down Lens	PD05 PD15	
(2' - 12' individual units only. 1000LF max.)		
Lumen Output  275 Lumens per foot (Not available with Lutron)	275LF	
375 Lumens per foot(Not available with LH1)	375LF	
625 Lumens per foot(3' min. with LH1) 750 Lumens per foot (Pop-Down Lens only)	625LF 750LF	
875 Lumens per foot	875LF	
1000 Lumens per foot	1000LF 1125LF	
1125 Lumens per foot (BW & FL only) 1250 Lumens per foot (BW & FL only)	1250LF	
Color Temperature	071/ 0071/	
2700K, 80+ CRI <b>or</b> 90+ CRI 3000K, 80+ CRI <b>or</b> 90+ CRI	27K or 927K 30K or 930K	
3500K, 80+ CRI or 90+ CRI	35K or 935K	
4000K, 80+ CRI or 90+ CRI Circuits & Zones	40K or 940K	
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 Control System & Dimming Level	LV	
0-10V - 10% Dimming	LD1	
0-10V - 1% Dimming Low Voltage, PoE compatible	L11 LVN	
(No driver. Not available with EM or EC. LV Voltage only.)  Lutron Hi-Lume EcoSystem (LDE1) -	LH1	
1% Dimming	LIII	
DALI 1% Dimming (1000LF max.) Wattstopper DLM - 1% Dimming**	D11 DLM1	
Wattstopper Fixture Sensor**	LMFS1	
Low Density – 1% Dimming See sensor layout guide		
Wattstopper Fixture Sensor** High Density – 1% Dimming	LMFSD	
See sensor layout guide Acuity nLight - 1% Dimming** Enlighted Smart Sensor - 1% Dimming**		
. <u>See sensor layout guide</u>		
Encelium CLM Connected Lighting** Module - 1% Dimming	CLM1	
Current NX Enabled – 1% Dimming**		
WaveLinx Pro – 1% Dimming** See sensor layout guide	WLXP	
**(3' min. length. 7' min. length with ECD/EM.)  Mounting		
24" Cable Suspension	C24	
48" Cable Suspension	C48	
96" Cable Suspension (Specify canopy color, see finishes page for options.	C96	
Example: White = 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, DLM1, NLT1 or NXE1)	O.V.	
Factory Options (See page 6 for ordering details for DC, EC, EM & ECD.)		
Black Cord Daylight Circuit	BKCD DC	
Emergency Circuit	_EC	
Emergency Battery Packt	_EM	
Emergency Control Device	_ECD	
†(120/277 Volt only. EM or ECD not available at corners.) Finish		
(See finishes page for The Naturals options)		
Black Titanium Silver	BK TS	
Matte White Housing	WH	
Luminaire/Row Length	VI	
Specify in 1' increments  (Lengths are nominal, up to 12' individuals available.	X'	
See Run Chart (page 8) for ordering codes. Smaller increments available, consult factory for details. Leave blank for patterns.)		
Pattern Options		
(3' min. length. Not available with Pop-Down lenses. Consult factory for other pattern options.)	VII.	
Specify luminaire/row length in 1' increments	Χ'	
'L' pattern	A' x B'	
'U' pattern Rectangular pattern	A' x B' x C' A' x B'R	

fixture: project:

#### **DETAILS**





#### TW) 4' PERFORMANCE CHART

			LF	· VV
Lumen	Nominal	Tested		
Output	Lumens	System Watts	BW	FL
275LF	1100	13.30	87.3	83.2
375LF	1500	17.34	90.8	86.5
625LF	2500	27.84	94.0	89.5
875LF	3500	37.22	98.9	94.2
1000LF	4000	42.39	99.2	94.4
1125LF	4500	50.27	93.9	89.4

Based on 2700K, 80CRI, 4' lengths. Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%.



#### 4' PERFORMANCE CHART - POP-DOWN

		0.5"		1.5"	
Lumen Output	Nominal Lumens	Tested System Watts	LPW	Tested System Watts	LPW
275LF	1100	17.14	64.7	16.33	67.3
375LF	1500	22.79	66.5	21.58	70.0
625LF	2500	35.49	70.6	33.96	73.8
750LF	3000	42.39	70.8	40.28	74.5

Based on 2700K, 80CRI, 4' lengths. Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%.

#### **Lumen Multipliers**

CRI	Multiplier
80+	1.00
90+	0.89

#### **Wattage Multipliers**

ССТ	Multiplier
2700K	1.00
3000K	0.92
3500K	0.88
4000K	0.86
5000K	0.85
5700K	0.87
6500K	0.90

TUNABLE WHITE Luminaire Series		FSM4LS
Seem 4 LED	FSM4LS	1 SWITES
Shielding		
Batwing Lens	BW	
Flush Satin Lens 0.5" Pop-Down Lens (750LF max.)	FL PD05	
1.5" Pop-Down Lens	PD15	
(2' - 8' individual units only. 750LF max.)		
Lumen Output	275LF	
275 Lumens per foot (BW & FL 3' min. with DITW.)		
375 Lumens per foot	375LF	
625 Lumens per foot 750 Lumens per foot	625LF 750LF	
750 Lumens per foot (Pop-Down Lens only)		
875 Lumens per foot* 1000 Lumens per foot*	875LF 1000LF	
1125 Lumens per foot*	1125LF	
*(BW & FL only)		
Color Temperature		
Tunable White: 2700-6500K, 80+ CRI Tunable White: 2700-6500K, 90+ CRI	2765T 92765T	
Circuits & Zones	327031	
1 Circuit, non-emergency	1C	
Consult Ordering Guide on page 4 for		
multiple circuiting and zoning options	_C_Z_DL	
Voltage		UNV
120/277 UNV Volt	UNV	
Control System & Dimming Level		
DALI 1% Dimming	D1TW	
fault driver offers DT6 control. It requires two addresses, ne for intensity & one for CCT tuning. Consult factory for		
DT8. Extended lead time applies.)  Acuity nLight - 1% Dimming**	NLT1	
Enlighted Smart Sensor - 1% Dimming**	ENL1	
**(Consult factory)		
Mounting		
24" Cable Suspension	C24	
48" Cable Suspension 96" Cable Suspension	C48 C96	
(Specify canopy color, see finishes page for options.		
Example: White = C24WH.) (Specify one of the following in place of "C" J - for 2" canopies at non-feed locations. CS - for sloped ceiling		
applications.)	014	
Surface Mount (Not available with NLT1)	SM	
Factory Options		
See page 6 for ordering details for DC, EC, EM & ECD.)  Black Cord	BKCD	
Daylight Circuit	_DC	
Emergency Circuit	_EC	
Emergency Battery Pack <sup>†</sup>	_EM	
Emergency Control Device†  †(Consult factory)	_ECD	
Finish		
(See finishes page for The Naturals options)		
Black Titanium Silver	BK TS	
Matte White Housing	WH	
Ţ.		
Luminaire/Row Length Specify in 1' increments	X'	
(Lengths are nominal, up to 8' individuals available.	^	
See Run Chart (page 8) for ordering codes. Smaller increments available, consult factory for details. Leave blank for patterns.)		
(3' min. length. Not available with Pop-Down lenses.  Consult factory for other pattern options.)		
Specify luminaire/row	X'	
length in 1' increments	Al v Di	
'L' pattern 'U' pattern	A' x B' A' x B' x C'	
Rectangular pattern	A' x B'R	
-		

#### **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 or Tunable White (2700K-6500K), CRI>80, >90. 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. Flush and Batwing extruded acrylic lens .085" thick with satin finish, up to 12' continuous. Pop-Down lenses extruded acrylic lens .06" thick with frosted finish.

#### 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 (DLM1, LMFS1, LMFSD, NLT1, ENL1, CLM1, NXE1, WLXP) shipped standard with leads to connect UL924 compliant device, by others.

#### Lahels

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. The Naturals: 100% low VOC vinyl.

#### Lumen Maintenance

(Derived from EPA TM-21 calculator. Based on typical conditions, consult factory for additional data.)

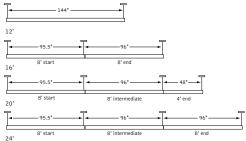
#### Reliability

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

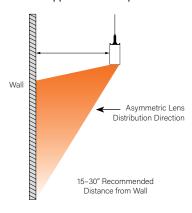
LED system rated for operation in ambient environments up to 25°C. 5-year limited warranty.

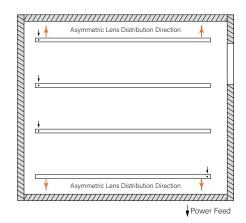
#### MOUNTING INFORMATION



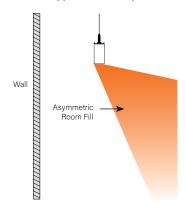
Consult factory for additional row length information.

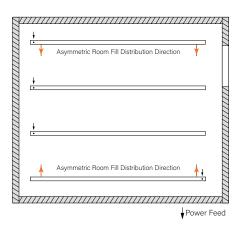
### **DIRECT ASYMMETRIC**Standard Application Example





## **DIRECT ASYMMETRIC ROOM FILL** Standard Application Example







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.<sup>†</sup>

Connected Solution	Ordering Code	Model #**	Protocol	Compatible Networks*	Occupancy & Daylight	Temperature Reporting	Communication to Luminaire	Drivers
Connections located under access panel.	DLM1	LMFC-011	DLM	DLM	Enabled	No	Wired	Advance by Signify, Optotronic by eldoLED
WATTSTOPPER*	LMFS1	LMFS-601 & LMFI-111	DLM	DLM	Enabled	No	Wireless	Advance by Signify
	LMFSD	LMFS-601	Wireless	DLIVI	Lilableu	NO	Wileless	Optotronic by eldoLED (Dexal)
COOPER Lighting Solutions	WLXP	OEM-WAA	WaveLinx Wireless	WaveLinx Pro Trellix	Enabled	No	Wireless (WaveLinx Pro Wireless Area Controller)	Advance by Signify
@CRESTRON	D11		DALI	Crestron Zūm Wireless &	Enabled	No	Wired	eldoLED ECOdrive
CRESTAGN	L11	Driver	0-10V	SpaceBuilder		No	Wiled	Advance by Signify
ENCELIUM	CLM1	ZBHA-CLM- DIM-ENC	ZigBee	Encelium X Light Management System	Enabled	No	Wireless	Optotronic by eldoLED Advance by Signify
€ Enlighted	ENL1	SU-5E-IOT	Enlighted RF	Enlighted	Integrated	Yes	Wireless	Advance by Signify
<b>ELUTRON</b>	LH1	LDE1	EcoSystem	Quantum, Energi Savr Node, Energi TriPak	Enabled	No	Wired	Lutron Hi-Lume
nLiGHT Connections located under screen parks	NLT1	nEPS-60-IO	nLight	nLight	Enabled	No	Wired	eldoLED ECOdrive, eldoLED SOLOdrive
LIGHTING CONTROLS	NXE1	NXFM-LV	NX	NX Distributed Intelligence	Enabled	No	Wired	Optotronic by eldoLED

<sup>\*</sup>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.

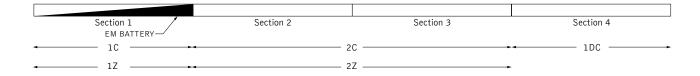
Refer to the run chart for standard run configurations, consult factory for custom configurations.

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: _		
			SHA	RED ELECTRICAL F	EED,	FACTORY OPTIONS			
	HOUSING	SECTION		NORMAL POWER		SEPARATI	os		
m	SECTION	LENGTH	SWITCHING CIRCUIT	DIMMING ZONE	DAYLIGHT ZONE	DAYLIGHT CIRCUIT	EMERGENCY CIRCUIT	ECD	EM
EXAMPLE	1	8	1C	1Z					1EM
Ę	2	8	2C	2Z					
	3	8	2C	2Z					
	4	8				1DC			
	Totals / Ord	ering Codes	2C	2Z		1DC			1EM

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



# C = Switching Circuit Switched Hot / Shared Neutral Z = Dimming Zone Dimming Control Wires DL = Daylight Zone Daylight Dimming Control Wires EM = 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:			
	Hallania a		SHAR	ED ELECTRICAL F	EED,	FACTORY OPTIONS				
	HOUSING	SECTION		NORMAL POWER		SEPARA	TE ELECTRICAL FE	EDS		
	SECTION	LENGTH	SWITCHING CIRCUIT	DIMMING ZONE	DAYLIGHT ZONE	DAYLIGHT CIRCUIT	EMERGENCY CIRCUIT	ECD	EM	
	1									
	2									
	3									
	4									
	5									
	6									
	7									
WO	8									
WORKSHEET	9									
EET	10									
	11									
	12									
	13									
	14									
	15									
	16									
	17									
	18									
	19									
	20									
	Totals / Ord	ering Codes								
						` 				

Combine to create Circuits & Zones ordering code

Enter as individual Factory Options

#### **RUN CHART**

Run Length (ft)	Housing Configuration Section Lengths	Ordering Code	Run Length (ft)	Housing Configuration Section Lengths	Orderin Code
9	5 + 4	9	19	8 + 7 + 4	19
9	9	9(IND)	20	8 + 8 + 4	20
	6 + 4	10	21	8 + 8 + 5	21
10	5 + 5	10(5+5)	22	8 + 8 + 6	22
	10	10(IND)	23	8 + 8 + 7	23
11	7 + 4	11	24	8 + 8 + 8	24
11	11	11(IND)	25	8 + 8 + 5 + 4	25
	8 + 4	12	26	8 + 8 + 6 + 4	26
12	6 + 6	12(6+6)	27	8 + 8 + 7 + 4	27
	12	12(IND)	28	8 + 8 + 8 + 4	28
13	8 + 5	13	29	8 + 8 + 8 + 5	29
14	8 + 6	14	30	8 + 8 + 8 + 6	30
15	8 + 7	15	31	8 + 8 + 8 + 7	31
16	8 + 8	16	32	8 + 8 + 8 + 8	32
17	8 + 5 + 4	17	33	8 + 8 + 8 + 5 + 4	33
18	8 + 6 + 4	18	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.		

## Finishes



#### STANDARD FINISHES



#### THE NATURALS (25% SCALE)

