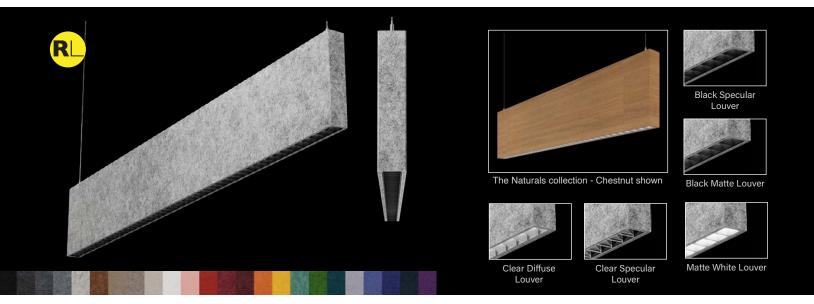
# Seem® 1 Acoustic Louver

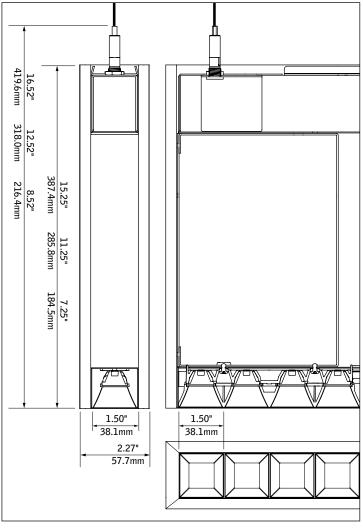


FOCAL POINT



### **DIMENSIONAL DATA**

LED DIRECT/INDIRECT



# **FEATURES**

Narrow, sound absorbing 1.5" aperture linear direct/indirect acoustic LED luminaire with louver and high-performance optics.

Available in 4' to 208' lengths in 6" increments with 8", 12" or 16" nominal housing heights in straight lengths.

Deeply regressed louver cells provide 60° cut-off from light source to promote visual comfort.

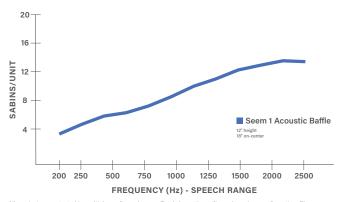
Diversity of louver finishes to tailor how the light is perceived and experienced, from nearly invisible light sources with a striking transition to warmly illuminated louver cells with a smooth transition.

AirCore® Technology: patented, eco-friendly technology that maximizes sound absorption and reduces ecological impact.

Pair with Seem 1 Acoustic unlit baffle, Seem 1 Acoustic Trio, AirCore Blade®, or TruBlade® to create a coordinated look in interior spaces.

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

# **ACOUSTIC PERFORMANCE**



All products were tested in multiple configured arrays. Total absorption will vary based on configuration. Please refer to ASTM C423 reports for more information.

Focal Point LLC | 4141 S. Pulaski Rd, Chicago, IL 60632 | 773.247.9494 | focalpointlights.com

# **SPECIFICATIONS**

### Acoustic Material

Content	Housing material is 100% polyester containing up to 50% of recycled plastic bottles (PET felt) and is moisture resistant.  See page 3 for color offering. Acoustic material colors are subject to change without notice. For the most current color options, please visit focalpointlights. com/acousticsolutions. Lead times may vary depending on color.
Cleaning and Care	Remove dust and debris with a clean, soft, lint-free cloth or vacuum
PET Thickness	9mm
Surface Burning Characteristcs	ASTM E84 Class A / CAN ULC S102 Flame Spread: 0, Smoke Development Index: 300

### **Acoustic Performance**

Acoustic testing is performed on all Focal Point acoustic products and varies based on installation and configuration. ASTM C423 test reports can be downloaded from focalpointlights.com. Contact acoustic.solutions@focalpointlights.com for technical questions.

Sabins	Sabins is a unit of sound absorption. It measures how well one square foot of material absorbs sound. Focal Point has averaged the Sabins per unit at four specific frequency bands representing the human speech range (250, 500, 1000, 2000 Hz) to determine the Sabins per product.
	8' length, 12" height: 12" OC = 5.08 Sabins, 18" OC = 9.05 Sabins, 24" OC = 9.46 Sabins

### 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 both 80 and 90 CRI options. LED drivers are replaceable from above. Color accuracy <3 SDCM.

Weight - 12" height, 4' length = 13.38lbs. 12" height, 6' length = 19.51lbs. 12" height, 8' length = 25.64lbs.

# Optic

60-degree cut-off to louvered light source and its image.

### Mounting

Minimum mounting height 7.5" from the ceiling.

#### 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. Power factor > .9. Power cord white as standard.

# Canopy

Polyester powder coat applied over a multi-stage pre-treatment. Canopy white as standard.

# **Emergency Battery**

Emergency output - 10 watts for 90 minutes. Maximum mounting height: 16.83ft.

### Labels

ETL listed in accordance with UL standards. Suitable for Dry Locations, indoor use only.

# Lumen Maintenance

Linear Source

Louvered Sources

Reported: L70 at >54,000 hours Calculated: L70 at 138,000 hours
L90 at 43,000 hours L90 at 43,000 hours
Derived from EPA TM-21 calculator. Based on typical conditions, consult factory for additional data.

### Reliabilit

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 and when mounted no less than 7.5" from the ceiling. 5-year limited warranty.

# **DISTRIBUTIONS**

	NFL	FL1	FL2	WFL	LMC
Beam Spread	20°	29°	43°	67°	68°
Spacing Criteria	0.36	0.50	0.70	0.98	1.18

# 4' PERFORMANCE CHART

See page 4

ORDERING		
Luminaire Series	A CM1CDC	ASM1CBS
Seem 1 Acoustic Louver Direct/Indirect  Shielding  Batwing Optic Top/Louver Bottom	ASM1CBS BWLC	
Dust Cover Top/Louver Bottom	DCLC	
Louver Configuration		LF
Fully Louvered	LF	
Luminaire Height (heights are nominal)		
8"	8	
12" 16"	12 16	
Indirect Distribution	OFOLID	
250 Lumens per foot 375 Lumens per foot	250UP 375UP	
500 Lumens per foot	500UP	
625 Lumens per foot	625UP 800UP	
800 Lumens per foot (Not available with D11)	000UP	
Direct Louvered Distribution		
250 Lumens per foot (Consult factory for available options)	250DL	
375 Lumens per foot	375DL	
500 Lumens per foot	500DL	
625 Lumens per foot 750 Lumens per foot	625DL 750DL	
875 Lumens per foot	875DL	
1000 Lumens per foot	1000DL	
Color Temperature 2700K, 80CRI or 90CRI	27K <b>or</b> 927K	
3000K, 80CRI <b>or</b> 90CRI	30K <b>or</b> 930K	
3500K, 80CRI <b>or</b> 90CRI	35K <b>or</b> 935K	
4000K, 80CRI <b>or</b> 90CRI	40K <b>or</b> 940K	
Circuit	10	
Single Circuit Dual Circuit	1C 2C	
(Circuit 1 = Indirect, Circuit 2 = All Direct sources.)	20	
Voltage		UNV
120/277 UNV Volt	UNV	
Control System & Dimming Level		
0-10V - 10% Dimming 0-10V - 1% Dimming	LD1 L11	
Lutron Hi-Lume EcoSystem (LDE1) -	LH1	
1% Dimming DALI 1% Dimming	D11	
Mounting	Dii	
(Mounting hang kits ship with order. Power cable is 18" longer than suspension length. Consult factory for longer power cable lengths.)		
24" Cable Suspension	J24	
48" Cable Suspension 96" Cable Suspension	J48 J96	
120" Cable Suspension	J120	
(Specify canopy color White (WH), Black (BK) or Titanium Silver (TS). Example: J24WH.)		
(Consult factory for sloped ceiling applications)  Distribution		
Narrow Flood	NFL	
Flood 2	FL1	
Flood 2 Wide Flood	FL2 WFL	
Louvered Mixing Chamber	LMC	
Factory Options		
Black Cord	BKCD	
Emergency Circuit	_EC	
Emergency Battery Pack <sup>†</sup> †(6' minimum length. Consult factory for available options.)	_EM	
Louver Finish		
Matte Black	BK	
Black Specular Clear Diffuse	BS CD	
Clear Specular	CS	
Matte White	WH	
Acoustic Panel Color See page 3 for color offering		
Luminaire Length		ft in
(Luminaires are 3/4" longer than specified and cannot be cut to length or joined in the field.)		
Specify length in 6" increments	_ft _in	
from 4' to 208'		

# **Acoustic Materials**



FOCAL POINTS

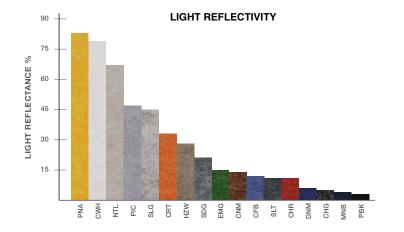
DPP

**BLS** 





# STANDARD PET **PREMIUM PET** PURE BLACK PBK CHARCOAL GRAY CHG **DNB** MIDNIGHT BLUE CORNFLOWER BLUE CFB DENIM BLUE SLATE **SLT** SHADOW GRAY SDG **BRD** CHERRY RED CHR BERRY BRICK RED SILVER GRAY SLG PEARLICE PIC DEEP WATER **DWT** SEAFOAM **SFM** EMERALD GREEN CLASSIC WHITE **CWH** NATURAL LINEN NTL CARROT **CRT** PINEAPPLE **PNA** HAZELWOOD HZW CINNAMON **CNM** LIMESTONE **LMS**



# PET Focal Point, LLC Final Assembly: Chicago, Illinois, USA Life Expectancy: 30 Year(s) End of Life Options: Salvageable/Reusable in its Entirety, Recyclable (100%) Ingredients: Polyethylente: Octadecanamide, N.N\*-1.2-ethanediylbis-; Stearic Acid: Stearic Acid: Antioxidant 1076: Benzenepropanoic acid: 3.5-bis(11-dimethylethyl)-4-hydroxy-, octadecyl ester; Antioxidant KY-405: Benzenamine, 4-(1methyl-1-phenylethyl) -N-(4-(1-methyl-1-phenylethyl)-phenyl]-; Titanium Dioxide: Titanium dioxide Living Building Challenge Criteria: Living Building Challenge Criteria: Living Building Challenge Criteria: Living Building Challenge Criteria: 1-13 Red List: Living Building Challenge Criteria: Living Building Challenge Criteria: 1-10 Interior Performance: Not Compliant 1-14 Responsible Sourcing: Not Applicable PPL-0001 EXP. 01 APR 2025 Original Issue Date: 2020

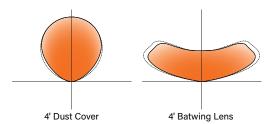
MNB DEEP PURPLE

BRY BLUSH

# 4' PERFORMANCE CHART INDIRECT DISTRIBUTION

Indirect	D. I	Tested	Lumens per Watt (LPW)		
Lumen Output	Delivered Lumens	System Watts	BW	DC	
250LF	1000	8	118	123	
375LF	1500	12	130	130	
500LF	2000	15	134	134	
625LF	2500	18	136	136	
800LF	3200	24	133	133	

# **PERFORMANCE CURVES**



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

# 4' PERFORMANCE CHART LOUVER DISTRIBUTION

Distribution	Lumens per Foot	Tested System Watts	LPW
	250	11.0	92
	375	14.7	101
	500	19.3	106
WFL	625	24.3	105
	750	28.3	107
	875	32.6	107
	1000	37.0	108

Based on 4' luminaire, 3500K, 80 CRI, Matte Black baffle. Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%

# **PERFORMANCE CURVES**







Flood 1 (FL1)



Flood 2 (FL2)



Wide Flood (WFL)



Louvered Mixing Chamber (LMC)

# SEEM 1 ACOUSTIC LOUVER LUMEN MULTIPLIER TABLE

# **Louver Color Temperature & CRI**

Color Temperature	Multiplier
2700K, 80+ CRI [27K]	0.95
2700K, 90+ CRI [927K]	0.80
3000K, 80+ CRI [30K]	0.97
3000K, 90+ CRI [930K]	0.83
3500K, 80+ CRI [35K]	1.00
3500K, 90+ CRI [935K]	0.85
4000K, 80+ CRI [40K]	1.03
4000K, 90+ CRI [940K]	0.87

# **Louver Distribution**

Distribution	Multiplier
Narrow Flood [NFL]	1.34
Flood 1 [FL1]	1.14
Flood 2 [FL2]	1.21
Wide Flood [WFL]	1.00
Louvered Mixing Chamber [LMC]	0.97

# **Louver Finish**

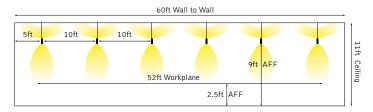
Color	Multiplier
Matte Black [BK]	1.00
Black Specular [BS]	1.00
Clear Diffuse [CD]	1.07
Clear Specular [CS]	1.10
Matte White [WH]	1.11

# How To Use Lumen Multipliers

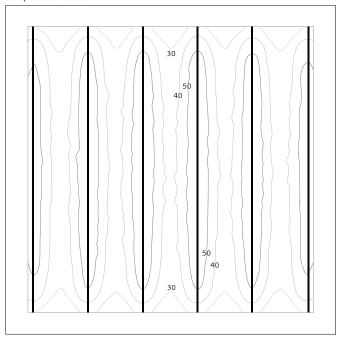
Formula: (Lumen Output Value) x (Color Temperature & CRI) x (Distribution) x (Finish)

**Louver Example:** FSM1CBS-1000DL-930K-NFL-BS  $(1000) \times (0.83) \times (1.34) \times (100) \approx 1112.2 \text{ Im (estimated delivered lumens)}$ 

# SEEM 1 ACOUSTIC LOUVER APPLICATION EXAMPLE - BATWING INDIRECT / FULLY LOUVERED



# Workplane Illuminance



# Average Illuminance = 41 fc

# Lighting Power Density (LPD) = 0.49

Seem 1 Acoustic Louver with batwing indirect and fully louvered direct illumination is a powerful and efficacious solution for open working environments. Workplanes benefit from 41 footcandles or more and superior uniformity with a lighting power density of less than 0.5 while maintaining luminaire on-center spacing of 10 feet or greater.

# **Calcluation Details**

60ft x 60ft Room Area: Calculation Area: 52ft x 52ft Ceiling Height: 11ft Luminaire Height: 9ft AFF Luminiare Spacing: 10ft OCS Workplane Height: 2.5ft AFF Reflectances: 80/50/20 Light Loss Factor: 0.9

# **Luminaire Details**

Shielding: Batwing Indirect

Fully Louvered, Wide Flood, Direct

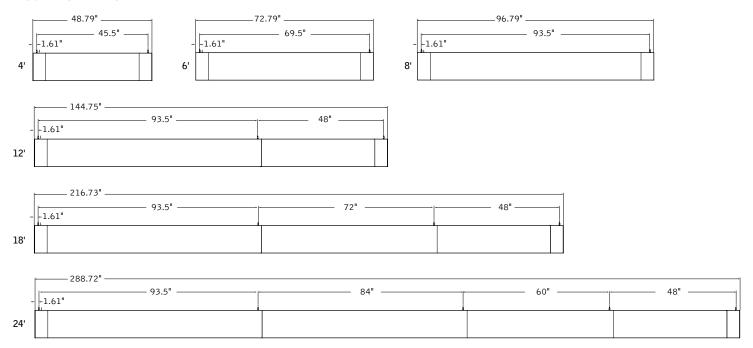
Lumens per foot: 250 Indirect

250 Direct

Louver finish: Matte Black

Insta	Installation		Louver	LPD	Work	plane	Ceil	ing
Ceiling Height	On-center Spacing	Lumens/ft (UP/DN)	Distribution	(Watts/ft²)	Average Footcandles	Uniformity (avg. to min.)	Average Footcandles	Uniformity (avg. to min.)
1164	— 10ft		WFL	0.49	43.1	1.99	29.1	2.69
11ft		10ft 250/250	LMC		42.1	2.11	28.9	2.69
10 F#			WFL		41.9	1.79	29.0	2.64
12.5ft			LMC		41.0	1.77	28.8	2.65
10 F#	12ft	12ft 375/250	WFL	0.10	41.9	1.88	35.5	3.27
12.5ft			LMC	0.48	41.0	1.96	35.3	3.29

# **MOUNTING DETAILS**



↓ FEED LOCATION

# **RUN CHART**

Run length (ft)	Housing Configuration Section Lengths	# of hang points per run
9	5 + 4	3
10	6 + 4	3
11	7 + 4	3
12	8 + 4	3
13	8 + 5	3
14	8 + 6	3
15	8 + 7	3
16	8 + 8	3
17	8 + 5 + 4	4
18	8 + 6 + 4	4
19	8 + 7 + 4	4
20	8 + 7 + 5	4
21	8 + 7 + 6	4
22	8 + 7 + 7	4
23	8 + 7 + 8	4
24	8 + 7 + 5 + 4	5
25	8 + 7 + 6 + 4	5
26	8 + 7 + 7 + 4	5
27	8 + 7 + 7 + 5	5
28	8 + 7 + 7 + 6	5

Run length (ft)	Housing Configuration Section Lengths	# of hang points per run
29	8 + 7 + 7 + 7	5
30	8 + 7 + 7 + 8	5
31	8 + 7 + 7 + 5 + 4	6
32	8 + 7 + 7 + 6 + 4	6
33	8 + 7 + 7 + 7 + 4	6
34	8+7+7+7+5	6
35	8 + 7 + 7 + 7 + 6	6
36	8+7+7+7+7	6
37	8 + 7 + 7 + 7 + 8	6
38	8+7+7+7+5+4	7
39	8 + 7 + 7 + 7 + 6 + 4	7
40	8+7+7+7+4	7
41	8+7+7+7+5	7
42	8+7+7+7+6	7
43	8+7+7+7+7+7	7
44	8+7+7+7+8	7
45	8+7+7+7+7+5+4	8
46	8+7+7+7+7+6+4	8
47	8 + 7 + 7 + 7 + 7 + 7 + 4	8
48	8+7+7+7+7+5	8