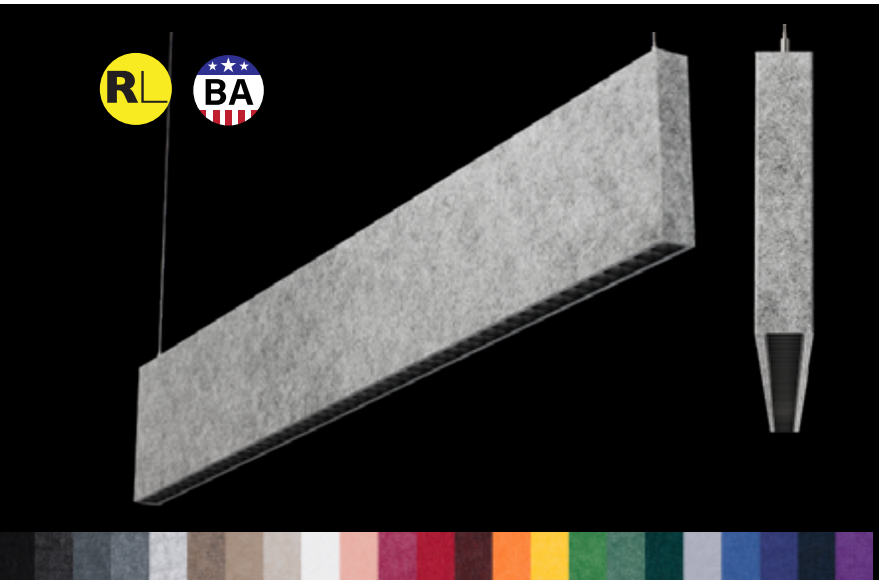
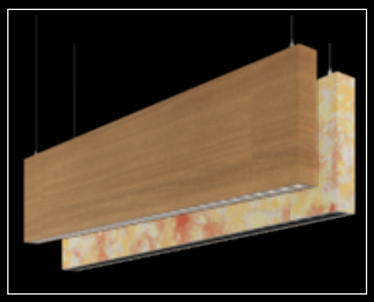
Seem® 1 Acoustic Louver

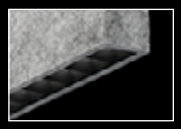
LED DIRECT/INDIRECT

FOCAL POINT®

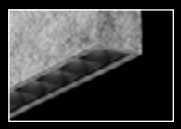




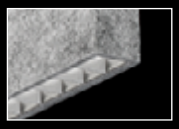
The Naturals collection - Chestnut shown
Cosmic collection - Solar Flare shown



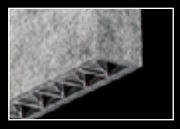
Black Specular Louver



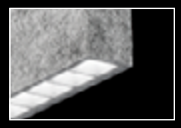
Black Matte Louver



Clear Diffuse Louver

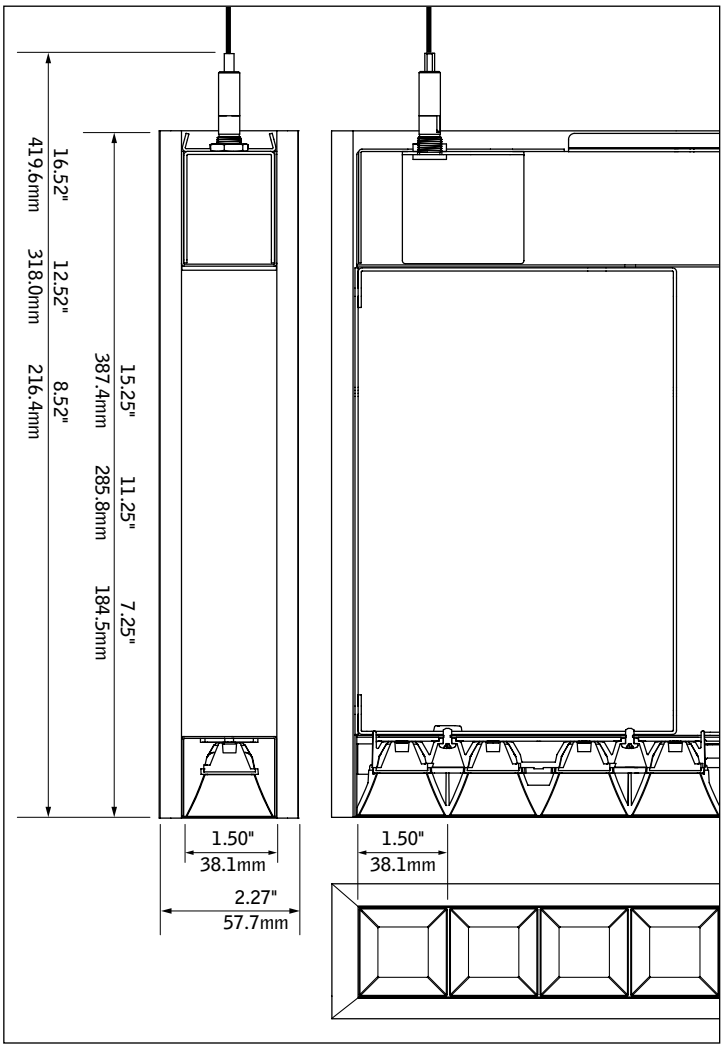


Clear Specular Louver



Matte White Louver

DIMENSIONAL DATA



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.

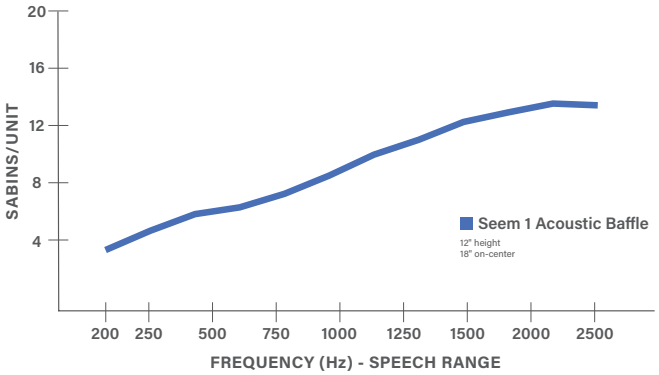
Diversity of louver finishes to tailor how the light is perceived and experienced, from nearly invisible light sources with a striking transition to warmly illuminated louver cells with a smooth transition.

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 in a range of curated printed finish options, including The Naturals and Cosmic.

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.

fixture: project:

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. Printed finishes such as The Naturals and Cosmic may leave the base material color visible on edges, depending on the product. Consult factory for more information. 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
Colorfastness	AATCC 16A Option 3 Class 4 minimum at 40 hours

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

UL and cUL listed. Suitable for Dry Locations, indoor use only.

Lumen Maintenance

Linear Source

Reported:	L70 at >61,000 hours L90 at >61,000 hours	Calculated:	L70 at 470,000 hours L90 at 115,000 hours

Louvered Sources

Reported:	L70 at >54,000 hours L90 at 43,000 hours	Calculated:	L70 at 138,000 hours L90 at 43,000 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 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

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

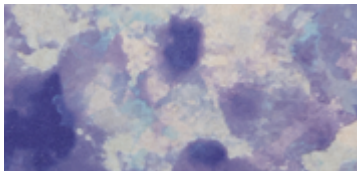
ORDERING

Luminaire Series		**ASM1CBS**
Seem 1 Acoustic Louver Direct/Indirect	ASM1CBS	
Shielding		_____
Batwing Optic Top/Louver Bottom	BWLC	
Dust Cover Top/Louver Bottom	DCLC	
Louver Configuration		**LF**
Fully Louvered	LF	
Luminaire Height (heights are nominal)		_____
8"	8	
12"	12	
16"	16	
Indirect Distribution		_____
250 Lumens per foot	250UP	
375 Lumens per foot	375UP	
500 Lumens per foot	500UP	
625 Lumens per foot	625UP	
800 Lumens per foot (Not available with D11)	800UP	
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	625DL	
750 Lumens per foot	750DL	
875 Lumens per foot	875DL	
1000 Lumens per foot	1000DL	
Color Temperature		_____
2700K, 80CRI **or** 90CRI	27K **or** 927K	
3000K, 80CRI **or** 90CRI	30K **or** 930K	
3500K, 80CRI **or** 90CRI	35K **or** 935K	
4000K, 80CRI **or** 90CRI	40K **or** 940K	
Circuit		_____
Single Circuit	1C	
Dual Circuit (Circuit 1 = Indirect, Circuit 2 = All Direct sources.)	2C	
Voltage		**UNV**
120/277 UNV Volt	UNV	
Control System & Dimming Level		_____
0-10V - 10% Dimming	LD1	
0-10V - 1% Dimming	L11	
Lutron Hi-Lume EcoSystem (LDE1) - 1% Dimming	LH1	
DALI 1% Dimming	D11	
Mounting (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	J48__	
96" Cable Suspension	J96__	
120" Cable Suspension (Specify canopy color White (WH), Black (BK) or Titanium Silver (TS). Example: J24WH.) (Consult factory for sloped ceiling applications)	J120__	
Distribution		_____
Narrow Flood	NFL	
Flood 1	FL1	
Flood 2	FL2	
Wide Flood	WFL	
Louvered Mixing Chamber	LMC	
Factory Options		
Black Cord	BKCD	_____
Emergency Circuit	_EC	_____
Emergency Battery Pack† †(6' minimum length. Consult factory for available options.)	_EM	_____
Louver Finish		_____
Matte Black	BK	
Black Specular	BS	
Clear Diffuse	CD	
Clear Specular	CS	
Matte White	WH	
Acoustic Panel Color See page 3 for color offering		_____
Luminaire Length (Luminaires are 3/4" longer than specified and cannot be cut to length or joined in the field.)		**ft in**
Specify length in 6" increments from 4' to 208'	_ft _in	

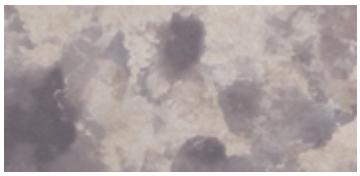
Acoustic Materials

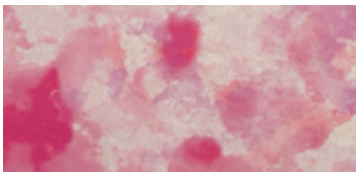
FOCAL POINT®

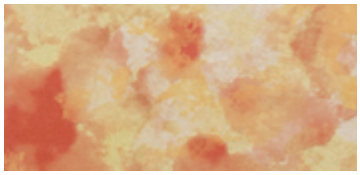
COSMIC (25% SCALE)


BLUE STAR **BSR**

GREEN QUASAR **GQR**


MOON ROCK **MRK**


PINK NEBULA **PPN**


SOLAR FLARE **SRF**

THE NATURALS (25% SCALE)

LIGHT OAK **LOK**

GRAY ELM **GRE**

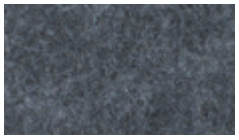
CHESTNUT **CHT**

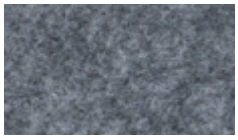
WALNUT **WLT**

STANDARD PET

PURE BLACK **PBK**

CHARCOAL GRAY **CHG**


SLATE **SLT**


SHADOW GRAY **SDG**

SILVER GRAY **SLG**

PEARL ICE **PIC**

CLASSIC WHITE **CWH**

NATURAL LINEN **NTL**

HAZELWOOD **HZW**

Slight color variations are inherent to the PET felt manufacturing process.Color renditions on screens vary due to display settings and lighting conditions.

Order samples at focalpointlights.com/Samples

PREMIUM PET

CORNFLOWER BLUE **CFB**

DENIM BLUE **DNB**

MIDNIGHT BLUE **MNB**

DEEP PURPLE **DPP**

BRICK RED **BRD**

CHERRY RED **CHR**

BERRY **BRY**

BLUSH **BLS**

CARROT **CRT**

PINEAPPLE **PNA**

DEEP WATER **DWT**

SEAFOAM **SFM**

EMERALD GREEN **EMG**

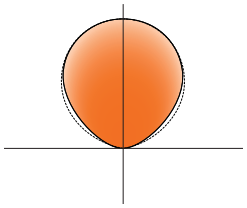
LIMESTONE **LMS**

4' PERFORMANCE CHART INDIRECT DISTRIBUTION

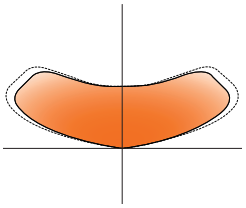
Indirect Lumen Output	Delivered Lumens	Tested System Watts	Lumens per Watt (LPW)	
			BW	DC
250LF	1000	8	118	123
375LF	1500	12	130	130
500LF	2000	15	134	134
625LF	2500	18	136	136
800LF	3200	24	133	133

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

PERFORMANCE CURVES



4' Dust Cover



4' Batwing Lens

4' PERFORMANCE CHART LOUVER DISTRIBUTION

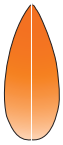
Distribution	Lumens per Foot	Tested System Watts	LPW
WFL	250	11.0	92
	375	14.7	101
	500	19.3	106
	625	24.3	105
	750	28.3	107
	875	32.6	107
	1000	37.0	108

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

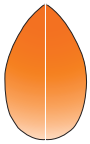
PERFORMANCE CURVES

Narrow Flood (NFL)

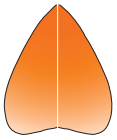
Flood 1 (FL1)



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

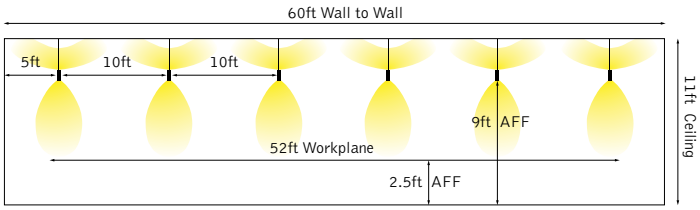
Color	Multiplier
Matte Black [BK]	1.00
Black Specular [BS]	1.00
Clear Diffuse [CD]	1.07
Clear Specular [CS]	1.10
Matte White [WH]	1.11

How To Use Lumen Multipliers

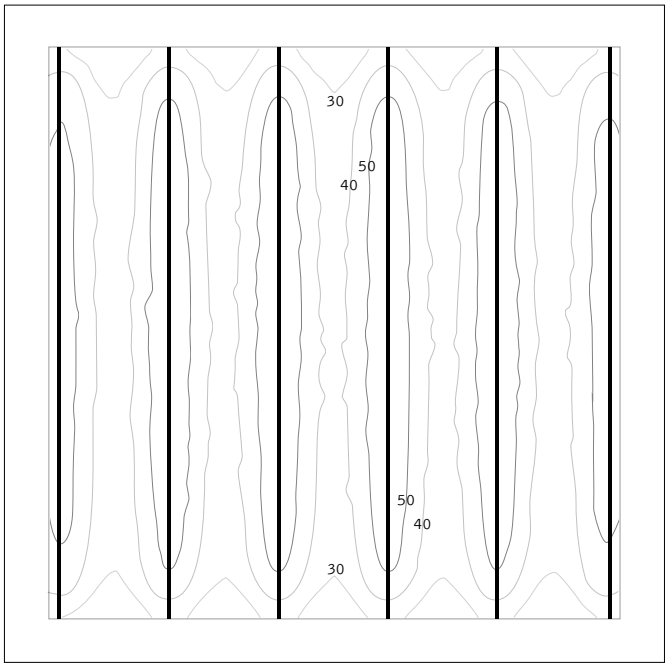
Formula: (Lumen Output Value) x (Color Temperature & CRI) x (Distribution) x (Finish)

Louver Example: FSM1CBS-1000DL-930K-NFL-BS
(1000) x (0.83) x (1.34) x (1.00) ≈ 1112.2 lm (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

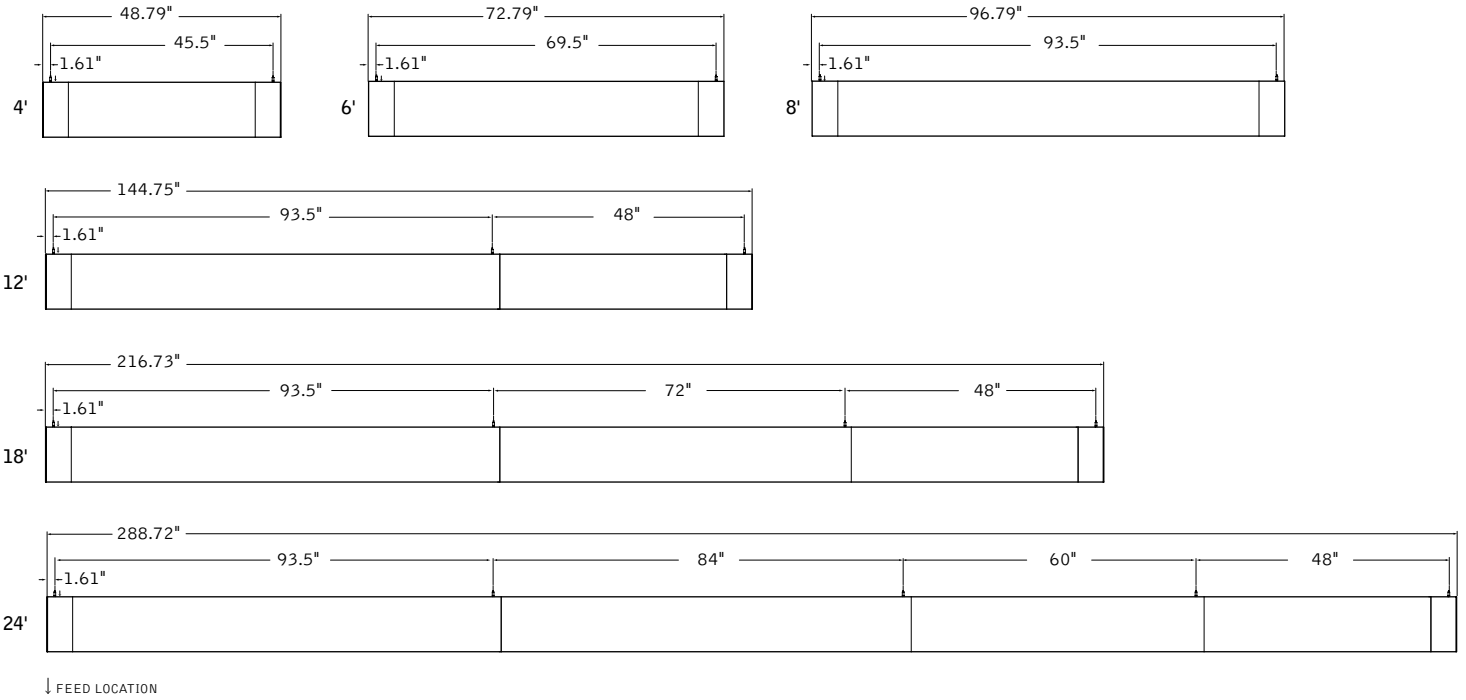
Room Area:	60ft x 60ft
Calculation Area:	52ft x 52ft
Ceiling Height:	11ft
Luminaire Height:	9ft AFF
Luminiare Spacing:	10ft OCS
Workplane Height:	2.5ft AFF
Reflectances:	80/50/20
Light Loss Factor:	0.9

Luminaire Details

Shielding:	Batwing Indirect Fully Louvered, Wide Flood, Direct
Lumens per foot:	250 Indirect 250 Direct
Louver finish:	Matte Black

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

MOUNTING DETAILS



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 + 7 + 4	7
41	8 + 7 + 7 + 7 + 7 + 5	7
42	8 + 7 + 7 + 7 + 7 + 6	7
43	8 + 7 + 7 + 7 + 7 + 7	7
44	8 + 7 + 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 + 7 + 5	8

Standard run configurations, consult factory for custom configurations and longer run lengths.