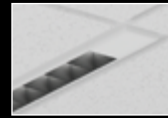
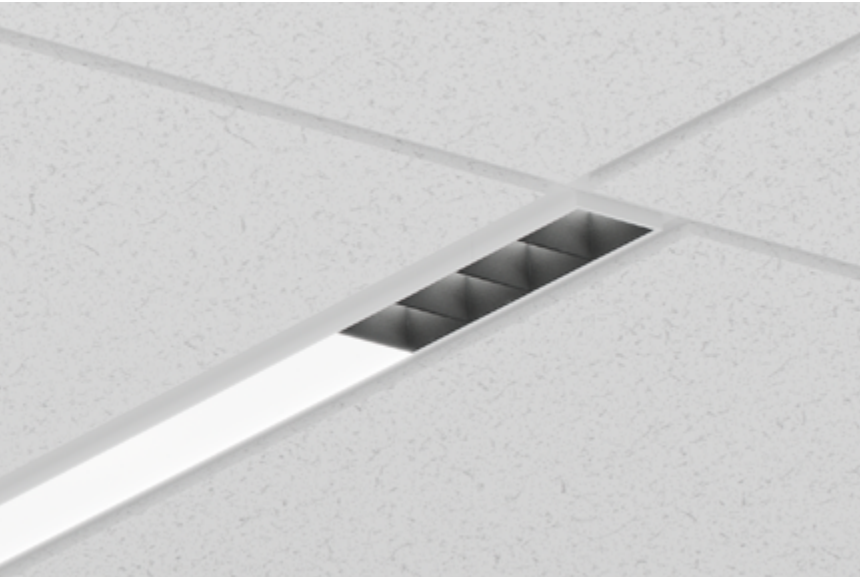
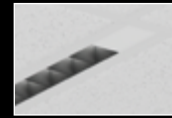


Seem® 1 Louver

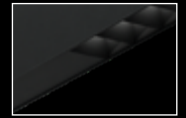
LED RECESSED WITH ID+ TECHNOLOGY



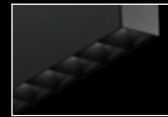
Tegular Tile



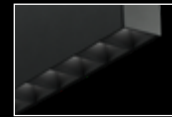
Lay-in Tile



Solid Faceplate +
Louver



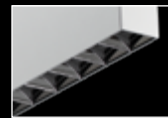
Black Specular
Louver



Black Matte Louver



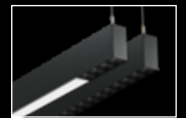
Clear Diffuse
Louver



Clear Specular
Louver

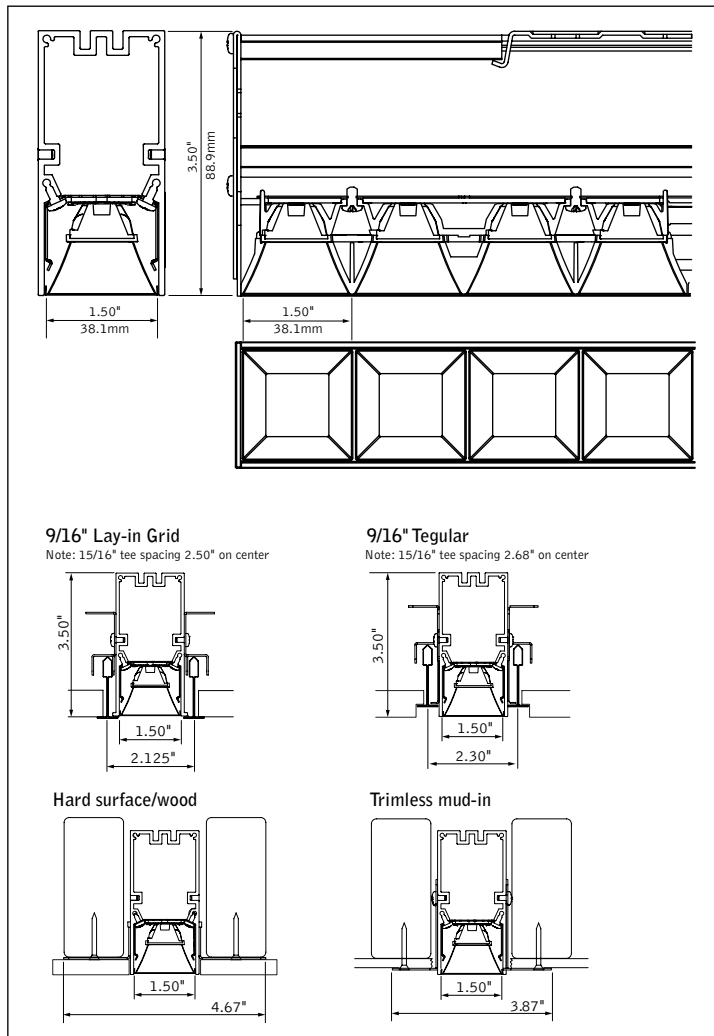


Matte White Louver



Suspended
Companions

DIMENSIONAL DATA



FEATURES

Nominal 1.5" narrow extruded aluminum linear direct LED illumination with louver and high-performance optics.

Frosted acrylic lenses provide uninterrupted illumination, without pixels or shadows.

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.

Choice of output levels and light distributions support multiple applications, from highly focused task lighting to ambient lighting.

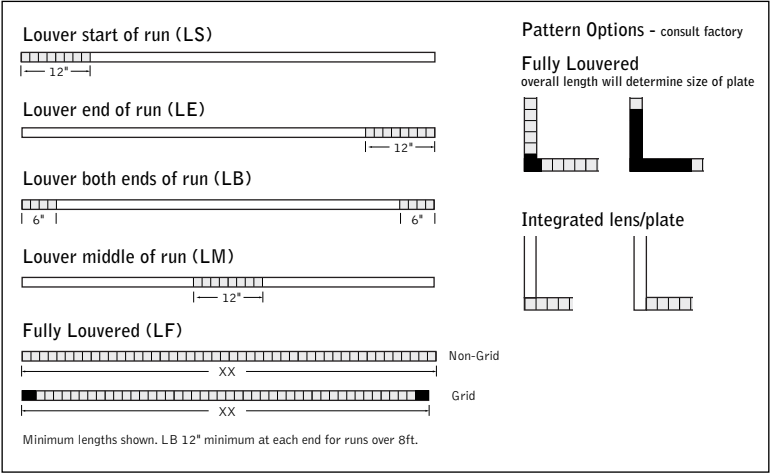
Individual units and continuous runs in 1" lensed or faceplate increments, and 6" louvered increments.

Highly configurable system enables self-service creation of customized products with standard lead times.

fixture:

project:

STANDARD LOUVER CONFIGURATION EXAMPLES



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

Construction

One piece extruded aluminum housing. 20 Ga. steel end caps. Housing for new construction applications. XFW acceptable for use with wood, consult factory for Type IC availability. 8' unit weight: 15lbs.

Optic

60-degree cut-off to louvered light source and its image. Lensed reflectors fabricated of 24 Ga. steel finished in High Reflectance White powder coat. Extruded acrylic lens .085" thick with frosted 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. Power factor > .9.

Emergency

Emergency output - 10 watts for 90 minutes. Louvered maximum mounting height (LC, SC) = 26.4ft, lensed maximum mounting height (BC, FC) = 18ft.

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

| | | | | |
|------------------|----------------------|--|-------------|----------------------|
| Linear Source | | | | |
| Reported: | L70 at >61,000 hours | | Calculated: | L70 at 470,000 hours |
| | L90 at >61,000 hours | | | L90 at 115,000 hours |
| 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.

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.

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 |

PERFORMANCE CHARTS

See page 4

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

STANDARD CONFIGURATION ORDERING

| Luminaire Series | | FSM1C |
|---|--|-------------|
| Seem 1 with louver | | FSM1C |
| Shielding | | |
| Batwing lens + Louver | | BC |
| Flush lens + Louver | | FC |
| Solid faceplate + Louver | | SC |
| Louver only | | LC |
| Louver Configuration | | |
| (Specify total length of louver in inches for run length. Example: 36" of Louver at start of run = LS36) | | |
| Louver start or end of run (6" increments, 12" min.) | | LS_ or LE_ |
| Louver both ends of run (12" increments, split equally) (Runs over 8ft must contain min. 24" of louver) | | LB_ |
| Louver middle of run (12" increments) (12" Louver increments. Min 24" of lens or faceplate, split equally.) | | LM_ |
| Fully Louvered (LC shielding only, length matches run length) (2.5" plate required on each end for grid options) | | LF |
| Lumen Output | | |
| LUMEN OUTPUT OPTIONS (specify value for each distribution. Example: 625DN-1000DL) | 250 Lumens per foot (Consult factory for available options) | 250 |
| | 375 Lumens per foot | 375 |
| | 500 Lumens per foot | 500 |
| | 625 Lumens per foot | 625 |
| | 750 Lumens per foot | 750 |
| | 875 Lumens per foot | 875 |
| | 1000 Lumens per foot | 1000 |
| Direct Lensed Distribution (625 lumens max. Use "0DN" for SC & LC options.) (Consult Factory for LH1 & D11 with BC & FC for 375 & 500 lm/ft.) | | ___DN |
| Direct Louvered Distribution | | ___DL |
| Color Temperature | | |
| 2700K, 80CRI or 90 CRI | | 27K or 927K |
| 3000K, 80CRI or 90 CRI | | 30K or 930K |
| 3500K, 80CRI or 90 CRI | | 35K or 935K |
| 4000K, 80CRI or 90 CRI | | 40K or 940K |
| Circuit | | |
| Single Circuit | | 1C |
| Dual Circuit (FC & BC shielding only) | | 2C |
| Voltage | | |
| 120/277 UNV Volt | | UNV |
| 347 Volt (LD1 driver only) | | 347 |
| 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 |
| Ceiling Configuration | | |
| Std. 15/16" Lay-in or Tegular | | G1 or T1 |
| Std. 9/16" Lay-in or Tegular | | G2 or T2 |
| 9/16" Slot-tee Tegular | | G3 |
| Tall 15/16" Lay-in or Tegular | | G4 or T4 |
| Tall 9/16" Lay-in or Tegular | | G5 or T5 |
| Node 9/16" Tegular | | T6 |
| Mud-in Trimless | | XFF |
| Non-Drywall Hard Surface | | XFN |
| Hard Surface, Wood | | XFW |
| Distribution | | |
| Narrow Flood | | NFL |
| Flood 1 | | FL1 |
| Flood 2 | | FL2 |
| Wide Flood | | WFL |
| Louvered Mixing Chamber | | LMC |
| Factory Options | | |
| Chicago Plenum | | CP |
| Emergency Circuit | | _EC |
| Emergency Battery Pack (5' min. length with LC shielding. Consult factory for integrated options.) | | _EM |
| 6' Flex Whip | | FW |
| Louver Finish | | |
| Matte Black | | BK |
| Black Specular | | BS |
| Clear Diffuse | | CD |
| Clear Specular | | CS |
| Matte White | | WH |
| Housing & Faceplate Finish | | |
| Matte Black | | BK |
| Titanium Silver | | TS |
| Matte White | | WH |
| Luminaire Length | | |
| Total luminaire/row length (12" increments; 6" increments for LF; 4' minimum run length.) | | _ft _in |

TAILORED LOUVER CONFIGURATION EXAMPLES

Alternating louver & lens/faceplate starting with louver (ACS)

12"

12"

12"

examples:

24"

24"

24"

12ft run = 24" louver sections, 36" lens/faceplate sections (ACS24-3S, 12ft run)

24"

24"

24"

12ft run = 24" louver sections, 16" lens/faceplate sections (ACS24-4S, 12ft run)

24"

24"

24"

10ft run = 24" louver sections, 24" lens/faceplate sections (ACS24-3S, 10ft run)

30"

30"

30"

12ft run = 30" louver sections, 27" lens/faceplate sections (ACS30-3S, 12ft run)

18"

18"

18"

10ft run = 18" louver sections, 16" lens/faceplate sections (ACS18-4S, 10ft run)

Alternating louver & lens/faceplate starting with lens/faceplate (AFS)

12"

12"

examples:

24"

24"

24"

12ft run = 24" louver sections, 32" lens/faceplate sections (AFS24-2S, 12ft run)

24"

24"

24"

12ft run = 24" louver sections, 18" lens/faceplate sections (AFS24-3S, 12ft run)

24"

24"

24"

10ft run = 24" louver sections, 24" lens/faceplate sections (AFS24-2S, 10ft run)

30"

30"

30"

12ft run = 30" louver sections, 28" lens/faceplate sections (AFS30-2S, 12ft run)

18"

18"

18"

10ft run = 18" louver sections, 16.5" lens/faceplate sections (AFS18-3S, 10ft run)

SPECIFICATIONS

See page 2

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 |

PERFORMANCE CHARTS

See page 4

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

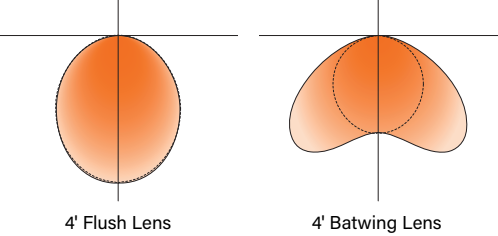
| TAILORED CONFIGURATION ORDERING | | | |
|--|---|-------------|-------|
| Luminaire Series | | FSM1C | FSM1C |
| Seem 1 with louver | | FSM1C | |
| Shielding | | | |
| Batwing lens + Louver | | BC | |
| Flush lens + Louver | | FC | |
| Solid faceplate + Louver | | SC | |
| Louver Configuration | | | |
| (Specify length of each louver segment in 6" increments, 12" minimum, and the total number of louver segments in the run. Example: 24" louver segments, 4 segments total = ACS24-4S *Consult factory for 6" segment availability.) | | | |
| Alternating louver & lens/faceplate starting with louver (Min. 3 segments per run.) | | ACS_-_S | |
| Alternating louver & lens/faceplate starting with lens/faceplate (Min. 2 segments per run.) | | AFS_-_S | |
| Lumen Output | | | |
| LUMEN OUTPUT OPTIONS (specify value for each distribution. Example: 625DN-1000DL) | (Consult factory for available lumen outputs based on specified Louver Configuration) | | |
| | 250 Lumens per foot | 250 | |
| | 375 Lumens per foot | 375 | |
| | 500 Lumens per foot | 500 | |
| | 625 Lumens per foot | 625 | |
| | 750 Lumens per foot | 750 | |
| | 875 Lumens per foot | 875 | |
| 1000 Lumens per foot | | 1000 | |
| Direct Lensed Distribution | | ___DN | |
| (625 lumens max. Use "0DN" for SC & LC options.) (Consult Factory for LH1 & D11 with BC & FC for 375 & 500 lm/ft.) | | | |
| Direct Louvered Distribution | | ___DL | |
| Color Temperature | | | |
| 2700K, 80CRI or 90 CRI | | 27K or 927K | |
| 3000K, 80CRI or 90 CRI | | 30K or 930K | |
| 3500K, 80CRI or 90 CRI | | 35K or 935K | |
| 4000K, 80CRI or 90 CRI | | 40K or 940K | |
| Circuit | | | |
| Single Circuit | | 1C | |
| Dual Circuit (FC & BC shielding only) | | 2C | |
| Voltage | | | |
| 120/277 UNV Volt | | UNV | |
| 347 Volt (LD1 driver only) | | 347 | |
| 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 | |
| Ceiling Configuration | | | |
| Std. 15/16" Lay-in or Tegular | | G1 or T1 | |
| Std. 9/16" Lay-in or Tegular | | G2 or T2 | |
| 9/16" Slot-tee Tegular | | G3 | |
| Tall 15/16" Lay-in or Tegular | | G4 or T4 | |
| Tall 9/16" Lay-in or Tegular | | G5 or T5 | |
| Node 9/16" Tegular | | T6 | |
| Mud-in Trimless | | XFF | |
| Non-Drywall Hard Surface | | XFN | |
| Hard Surface, Wood | | XFW | |
| Distribution | | | |
| Narrow Flood | | NFL | |
| Flood 1 | | FL1 | |
| Flood 2 | | FL2 | |
| Wide Flood | | WFL | |
| Louvered Mixing Chamber | | LMC | |
| Factory Options | | | |
| Chicago Plenum | | CP | |
| Emergency Circuit | | _EC | |
| Emergency Battery Pack | | _EM | |
| (Consult facotry for available options.) | | | |
| 6' Flex Whip | | FW | |
| Louver Finish | | | |
| Matte Black | | BK | |
| Black Specular | | BS | |
| Clear Diffuse | | CD | |
| Clear Specular | | CS | |
| Matte White | | WH | |
| Housing & Faceplate Finish | | | |
| Matte Black | | BK | |
| Titanium Silver | | TS | |
| Matte White | | WH | |
| Luminaire Length | | | |
| Total luminaire/row length | | _ft _in | |
| (12" increments; 6" increments for LF. 4' minimum run length.) | | | |

4' PERFORMANCE CHART - LENSED DISTRIBUTIONS

| Shielding | Lumens per Foot | Delivered Lumens | Tested System Watts | LPW |
|------------------------|-----------------|------------------|---------------------|-----|
| Batwing/ Flush Lens | 250LF | 1000 | 10 | 98 |
| | 375LF | 1500 | 15 | 104 |
| | 500LF | 2000 | 19 | 106 |
| | 625LF | 2500 | 25 | 103 |

Based on 3500k, 4' length. Lumen output may vary +/- 5%. Actual wattage may vary +/- 5%.

PERFORMANCE CURVES

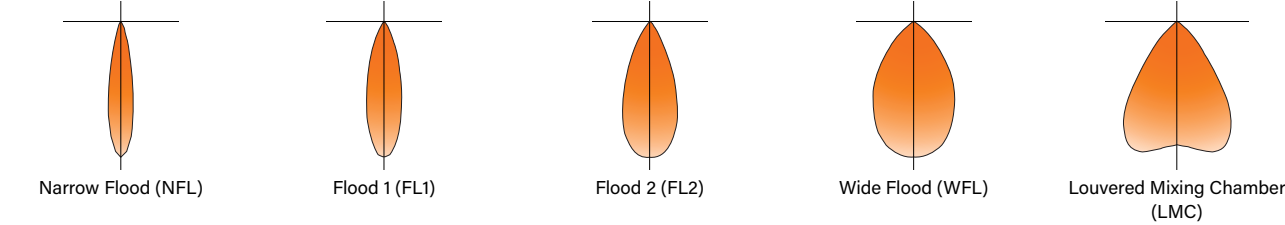


4' PERFORMANCE CHART - LOUVERED DISTRIBUTIONS

| 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



SEEM 1 LOUVER LUMEN MULTIPLIER TABLE

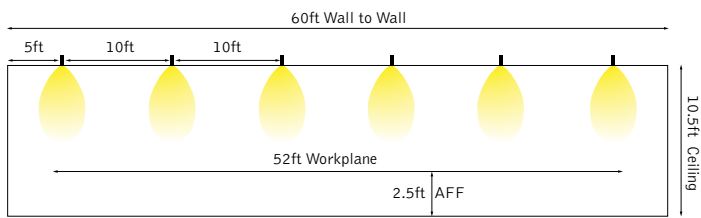
| Lens Color Temperature & CRI | | Louver Color Temperature & CRI | | Louver Distribution | |
|------------------------------|------------|--------------------------------|------------|-------------------------------|------------|
| Color Temperature | Multiplier | Color Temperature | Multiplier | Distribution | Multiplier |
| 2700K, 80+ CRI [27K] | 0.96 | 2700K, 80+ CRI [27K] | 0.95 | Narrow Flood [NFL] | 1.34 |
| 2700K, 90+ CRI [927K] | 0.79 | 2700K, 90+ CRI [927K] | 0.80 | Flood 1 [FL1] | 1.14 |
| 3000K, 80+ CRI [30K] | 1.00 | 3000K, 80+ CRI [30K] | 0.97 | Flood 2 [FL2] | 1.21 |
| 3000K, 90+ CRI [930K] | 0.82 | 3000K, 90+ CRI [930K] | 0.83 | Wide Flood [WFL] | 1.00 |
| 3500K, 80+ CRI [35K] | 1.00 | 3500K, 80+ CRI [35K] | 1.00 | Louvered Mixing Chamber [LMC] | 0.97 |
| 3500K, 90+ CRI [935K] | 0.84 | 3500K, 90+ CRI [935K] | 0.85 | | |
| 4000K, 80+ CRI [40K] | 1.01 | 4000K, 80+ CRI [40K] | 1.03 | Louver Finish | |
| 4000K, 90+ CRI [940K] | 0.86 | 4000K, 90+ CRI [940K] | 0.87 | 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

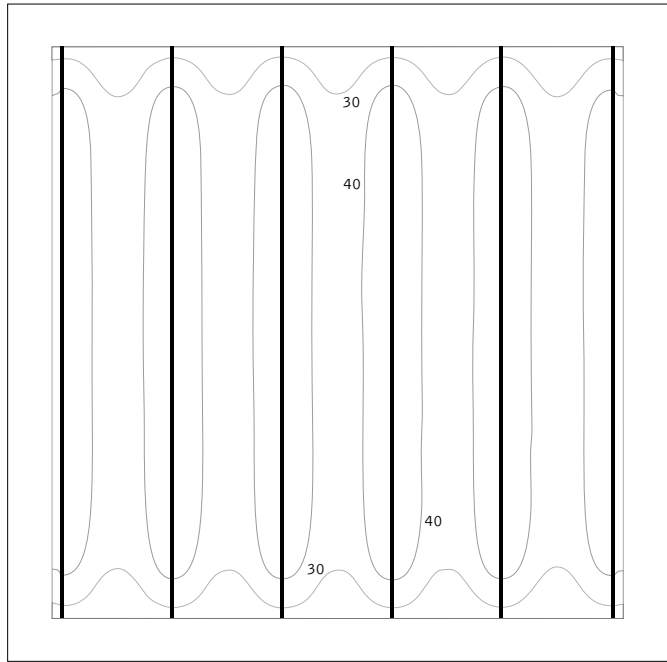
Formula: (Lumen Output Value) x (Color Temperature & CRI) x (Distribution) x (Finish)

Louwer Example: FSM1CBS-1000DL-930K-NFL-BS
(1000) x (0.83) x (1.34) x (1.00) ≈ 1112.2 lm (estimated delivered lumens)

SEEM 1 LOUVER APPLICATION EXAMPLE - FULLY LOUVERED



Workplane Illuminance



Average Illuminance = 38 fc

Lighting Power Density (LPD) = 0.38

Seem 1 Louver with fully louvered direct illumination is a powerful and efficacious solution for open working environments. Workplanes benefit from 32 footcandles or more and superior uniformity with a lighting power density of less than 0.38 while maintaining luminaire on-center spacing of 8 feet or greater.

Calculation Details

| | |
|--------------------|-------------|
| Room Area: | 60ft x 60ft |
| Calculation Area: | 52ft x 52ft |
| Ceiling Height: | 10.5ft |
| Luminaire Spacing: | 10ft OCS |
| Workplane Height: | 2.5ft AFF |
| Reflectances: | 80/50/20 |
| Light Loss Factor: | 0.9 |

Luminaire Details

| | |
|------------------|----------------------------|
| Shielding: | Fully Louvered, Wide Flood |
| Lumens per foot: | 375 Direct |
| Louver finish: | Matte Black |

| Installation | | | Louver Distribution | LPD (Watts/ft²) | Workplane | |
|----------------|-------------------|-----------|---------------------|-----------------|---------------------|---------------------------|
| Ceiling Height | On-center Spacing | Lumens/ft | | | Average Footcandles | Uniformity (avg. to min.) |
| 9FT | 8FT | 250LF | WFL | 0.34 | 33.5 | 2.00 |
| | | | LMC | | 32.4 | 1.94 |
| 10.5FT | | | WFL | | 32.7 | 1.94 |
| | | | LMC | | 31.6 | 1.94 |
| 10.5FT | 10FT | 375LF | WFL | 0.38 | 38.7 | 1.99 |
| | | | LMC | | 37.2 | 1.96 |