

Microlinea™ Suspended Series 3 - Indirect/Direct



Catalog Number	Type
Project Name	

MLS3-I/D

3 1/8" x 5" Indirect/Direct Suspended Mount

S P E C I F I C A T I O N S

Housing

One-piece .080" thick extruded aluminum. Die-cast aluminum end caps are secured with no visible fasteners. Standard lengths are nominal 2', 3', 4', 6', 8' and 12'. Provisions may be made for patterns and continuous rows of any length.

Finish

Standard and premium finishes are baked power coat electrostatically applied (2.0 mil minimum thickness) to assure aesthetics and durability.

Indirect Optical Controls

- (FDC) Frosted 100% polycarbonate dust cover - Standard distribution
- (WSOP) Wide-Spread Optic/W.S. Dist. - Open Top
- (WSDC) Wide-Spread Optic/W.S. Distribution - Clear 100% polycarbonate dust cover

Direct Optical Controls

(LOH) .070" thick, high transmittance extruded acrylic snap-in lens, formulated for maximum diffusion of the LED light source.

Reflector/Heat Sink

- Indirect - .040" thick die-formed aluminum finished with a high reflectance white enamel.
- Direct - .040" thick die-formed aluminum finished with a high reflectance white enamel.

Driver (Standard)

Power supply is UL/CUL recognized, 0-10V dimming available, 120-277 universal voltage. Consult factory for 347V.

Driver (Tunable White)

EldoLED power supply is UL recognized, DALI, 0-10V, or DMX available, 120-277 universal voltage.

Light Engine (Standard)

LED light source available for 3000K, 3500K and 4000K CCT, in high and medium light outputs, and 80 or 90 CRI:

HO/HO -High Output (Up/Dn) - Frosted Dust Cover (DLC Listed)

*6496 Total Del'd Lms. at 57 System Watts

HO/HO -High Output (Up/Dn) - W.S. Optic/Open Top (DLC Listed)

*6737 Total Del'd Lms. at 57 System Watts

MO/MO -Medium Output (Up/Dn) - Frosted Dust Cover (DLC Listed)

*4117 Total Del'd Lms. at 35 System Watts

MO/MO -Medium Output (Up/Dn) - W.S. Optic/Open Top (DLC Listed)

*4283 Total Del'd Lms. at 35 System Watts

(*All values per 4' using 4000K LED modules)

Light Engine (Tunable White)

Tunable White LED light source available for 2700K thru 6500K CCT, and 80 or 90 CRI. Contact factory for available outputs.

*Due to continued advancement in LED technology, lumen performance is subject to change. Please visit our website for the most up-to-date information.

Integral Control

Contact factory for control Occupancy Sensors, Photo Controls and Daylight Harvesting.

Circuitry

All fixtures are factory pre-wired for a single circuit. Provision for multiple switching/circuiting is optional

Wiring

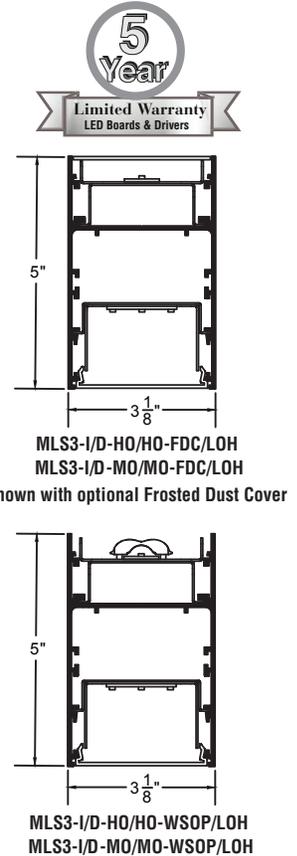
All fixtures intended for continuous rows are provided with factory installed quick-connect wiring.

Controls

Contact factory for control by Occupancy Sensors, Photo Controls and Daylight Harvesting.

Certification

Fixtures are ETL listed for use in 'Dry or Damp Applications.' Conforms to UL Standard #1598 and to CAN/CSA #C22.2No.250.0.



Wide-Spread Optic

The WS optic is a precisely designed, optical-grade acrylic LED-refraction system. Engineered for superior ceiling uniformity, it provides a more comfortable illuminated space while reducing energy requirements.

Sample Catalog Number: **MLS3-I/D - HO/HO - K40 / K40 - 80 - 4 - CN - WSOP / LOH - F01M - 120 - DIM1 - OPTIONS**



MLS3-I/D Indirect/Direct

- Lumen Output/4': **HO/HO** -Hi Output (FDC) = 6496 Total Lms.-114 Lm/W (Using 4000K) **HO/HO** -Hi Output (WSOP) = 6737 Total Lms.-118 Lm/W **MO/MO** -Med. Output (FDC) = 4117 Total Lms.-119 Lm/W **MO/MO** -Med. Output (WSOP) = 4283 Total Lms.-123 Lm/W **CO/CO** - Custom Output (Contact factory for available outputs)

CCT(Ind): **K30**-3000K, **K35**-3500K, **K40**-4000K, **TW**-Tun. White(2700K-6500K)

CCT(Direct): **K30**-3000K, **K35**-3500K, **K40**-4000K, **TW**-Tun. White(2700K-6500K)

CRI: **80** (Standard), **90** (Optional)

Fixture Length: **2', 3', 4', 6', 8', 12'**

Mounting: **CN** = Cable (Non T-Bar) Fully Adjustable (36" Std.)

Indirect Optical Controls: **FDC** = Frosted Polycarbonate Dust Cover **WSOP** = Wide-Spread Optic - Open Top

WSDC = Wide-Spread Optic/W.S. Distribution - Clear Polycarbonate Dust Cover

Direct Optical Controls: **LOH** = LED Optimized High Transmittance Lens

Standard Finish: **F01M** Matte White

Premium Finishes: **F01G** Gloss White

F02 Ivory

F03 Stonewash

F04 Camel

F05 Gray Day

F06 Pebble Beach

F07 Steel

F08 Gray Seal

F09 Mocha

F10 Bronzed

F11G Gloss Black

F11M Matte Black

F12 Ultrasonic Clear

F13 Merlot

F14 Red Skies

F15 Lemon

F16 Forest Hunter

F20 Blue Print

F21 Reflex Blue

F22 Navy

FCC Custom Color

Voltage: **120V, 277V, 347V** or **UNV** (Universal Voltage)

Drivers: **DIMX** = Standard Driver - no Dimming **DIM1** = Standard Driver wired for Dimming - 100% to 1% **DIM0** = Optional Driver with Dimming - 100% to 0%

Options: **SS(UL)** = (Upper/Lower) LED Row Sep. Switching (Common Neutral) **NLCKT** = Night-Light Circuit (Common Neutral) **EBPHST** = Self-Testing Battery Pack (10Watt) *N/A for 2' & 3'

EMCKT = Emergency Circuit (Separate Hot & Neutral) **DALI** = DALI Protocol Driver (Tun. White) **DMX** = DMX Protocol Driver (Tun. White) **0-10V/TW** = 0-10V Driver (Tun. White)

FS = Fused Drivers **GTD** = Generator Transfer Device



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Made in America 7/22

Suspended - Indirect/Direct

MLS3-I/D-HO/HO-K40/K40-FDC/LOH

Indirect/Direct - High Output Up & Down

Frosted Dust Cover Up/LED Optimized Lens Down

Catalog Number: MLS3-I/D-HO/HO-K40/K40-80-4'-X-FDC/LOH-120

Report Number: #LLIA000849-003-R02.ies

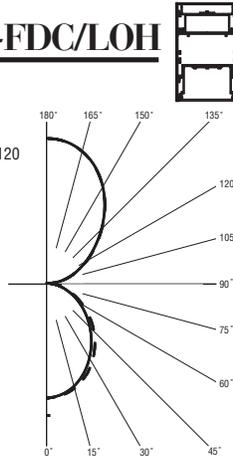
Luminaire Description: Extruded Aluminum Housing with White Alum. Reflectors, Frosted Dust Cover Up, and LED Optimized Lens Down

LED Module: Multiple White Low-Power Light Emitting Diodes (LEDs) in a precise lay-out.

Total Luminaire Efficacy = 114.0 Lm/W

Color Rendering Index (CRI) = 83

56% Up 44% Down



lighting facts
A Program of the U.S. DOE

Light Output (Lumens)	6496
Watts	57.04
Lumens per Watt (Efficacy)	113.88

Color Accuracy
Color Rendering Index (CRI) 83

Light Color
Correlated Color Temperature (CCT) 3989 (Bright White)

Warm White | Bright White | Daylight
2700K | 3000K | 4500K | 6500K

All results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the Label Reference Guide.

Registration Number: INRP-8Y43DW (12/28/2017)
Model Number: MLS3-I/D-HO/HO-K40-4'-X-FDC/LOH-XXXX-120
Type: Luminaire - Linear



MLS3-I/D-MO/MO-K40/K40-FDC/LOH

Indirect/Direct - Medium Output Up & Down

Frosted Dust Cover Up/LED Optimized Lens Down

Catalog Number: MLS3-I/D-MO/MO-K40/K40-80-4'-X-FDC/LOH-120

Report Number: #LLIA000849-004-F01.ies

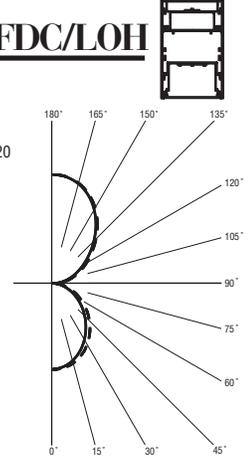
Luminaire Description: Extruded Aluminum Housing with White Alum. Reflectors, Frosted Dust Cover Up, and LED Optimized Lens Down

LED Module: Multiple White Low-Power Light Emitting Diodes (LEDs) in a precise lay-out.

Total Luminaire Efficacy = 118.7 Lm/W

Color Rendering Index (CRI) = 83

56% Up 44% Down



lighting facts
A Program of the U.S. DOE

Light Output (Lumens)	4117
Watts	34.67
Lumens per Watt (Efficacy)	118.75

Color Accuracy
Color Rendering Index (CRI) 83

Light Color
Correlated Color Temperature (CCT) 3978 (Bright White)

Warm White | Bright White | Daylight
2700K | 3000K | 4500K | 6500K

All results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

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Registration Number: INRP-L1VXFI (12/28/2017)
Model Number: MLS3-I/D-MO/MO-K40-4'-X-FDC/LOH-XXXX-120
Type: Luminaire - Linear



MLS3-I/D-HO/HO-K40/K40-WSOP/LOH

Indirect/Direct - High Output Up & Down

Wide-Spread Dist. - Open Up/LED Optimized Lens Down

Catalog Number: MLS3-I/D-HO/HO-K40/K40-80-4'-X-WSOP/LOH-120

Report Number: #LLIA000762-003-F01.ies

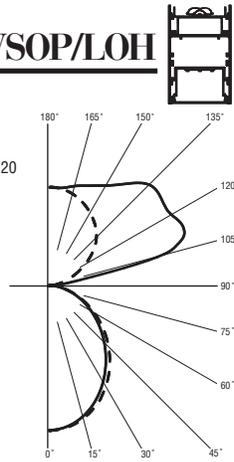
Luminaire Description: Extruded Aluminum Housing with White Alum. Reflectors, Acrylic W.S. Optic Up, and LED Optimized Lens Down

LED Module: Multiple White Low-Power Light Emitting Diodes (LEDs) in a precise lay-out.

Total Luminaire Efficacy = 118.1 Lm/W

Color Rendering Index (CRI) = 83

57% Up 43% Down



lighting facts
A Program of the U.S. DOE

Light Output (Lumens)	6737
Watts	57.03
Lumens per Watt (Efficacy)	118.13

Color Accuracy
Color Rendering Index (CRI) 83

Light Color
Correlated Color Temperature (CCT) 4002 (Bright White)

Warm White | Bright White | Daylight
2700K | 3000K | 4500K | 6500K

All results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the Label Reference Guide.

Registration Number: INRP-2V3ZDU (12/29/2017)
Model Number: MLS3-I/D-HO/HO-K40-4'-X-WSOP/LOH-XXXX-120
Type: Luminaire - Linear



MLS3-I/D-MO/MO-K40/K40-WSOP/LOH

Indirect/Direct - Medium Output Up & Down

Wide-Spread Dist. - Open Up/LED Optimized Lens Down

Catalog Number: MLS3-I/D-MO/MO-K40/K40-80-4'-X-WSOP/LOH-120

Report Number: #LLIA000762-006-F01.ies

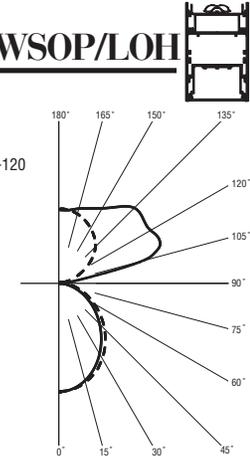
Luminaire Description: Extruded Aluminum Housing with White Alum. Reflectors, Acrylic W.S. Optic Up, and LED Optimized Lens Down

LED Module: Multiple White Low-Power Light Emitting Diodes (LEDs) in a precise lay-out.

Total Luminaire Efficacy = 123.4 Lm/W

Color Rendering Index (CRI) = 83

57% Up 43% Down



lighting facts
A Program of the U.S. DOE

Light Output (Lumens)	4283
Watts	34.6
Lumens per Watt (Efficacy)	123.79

Color Accuracy
Color Rendering Index (CRI) 83

Light Color
Correlated Color Temperature (CCT) 3995 (Bright White)

Warm White | Bright White | Daylight
2700K | 3000K | 4500K | 6500K

All results are according to IESNA LM-79-2008. Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

Visit www.lightingfacts.com for the Label Reference Guide.

Registration Number: INRP-2AILR7 (12/29/2017)
Model Number: MLS3-I/D-MO/MO-K40-4'-X-WSOP/LOH-XXXX-120
Type: Luminaire - Linear



For more information, visit our website at www.pal-lighting.com



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