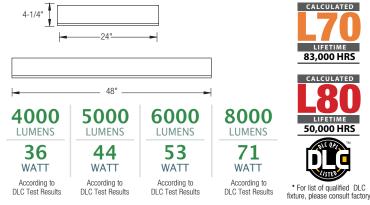
LED SURFACE MOUNT TROFFER SERIES

2' X 4' LED SURFACE MOUNT SPECIFICATION GRADE TROFFER





The OSMT-LED is a high-quality yet economical surface-mounted troffer luminaire powered by LED lighting technology. An excellent highly efficient general illumination fixture ideal for office spaces, schools, hospitals, and many other indoor locations. Fixture is designed to flush mount onto drywall/hardpan ceilings.

PRODUCT FEATURES:

- Fixture is cold-welded to provide extra strength and durability during installation and downstream maintenance
- Four keyway slots/mounting holes on the back of the housing provides several mounting options
- Mitered door frame prevents light leaks, and minimizes dust from entering fixture
- Constructed of one-piece ribbed unitized housing and corners that interlock, preventing damage to luminaire
- Frosted 0.100" thick #12 pattern acrylic lens, standard
- · Housing and door frame interface provides a superior mechanical light seal
- Post-painted with a 93% reflective white coat to improve fixture efficacy
- Rated at 85+ CRI and available in multiple CCTs
- Life tested to ensure light output of L70 up to 83,000 hrs and L80 up to 50,000 hrs

- All sides and corners are turned in and hemmed, removing sharp edges for safe handling and installation
- Tested to LM-79 and LM-80 standards
- LED lighting technology offers the highest return on initial investment over the lifetime
 of the fixture
- Emergency battery back-up comes pre-installed on the fixture and emergency push button is installed on the fixture for easy access and aesthetics.
- Dimmable down to 1% with compatible dimming systems
- · LED light engine is completely removable and upgradable
- Four corner tie points are standard for safety wire support when required and built-in earthquake clips standard
- Same-day shipping on most options (Consult factory)

OPTICS - The OSMT-LED uses a prismatic acrylic lens to scatter the light emitted from the LED chips into functional light. The LED offered in the OSMT-LED has the highest return on initial investment compared to other standard lighting solutions. Lens is attached to a door frame which is easily pivoted and removable without the use of tools.

DURABILITY - Our heavy-duty 20-gauge steel housing is engineered for maximum strength and extended life. Fixture is cold-welded to provide extra strength and corners interlock to prevent aesthetic damage to the fixture and. Sides and corners are uniformly turned in and hemmed to remove sharp edges for safe handling and easy installation. Fixture flush mounts onto drywall/hardpan ceilings.

PERFORMANCE - The OSMT-LED powered lighting technologies offer a higher return on investment than any other lighting technology. The light engines found in the OSMT-LED are rated at 85+ CRI and available in multiple CCTs: 3000K, 3500K, 4000K and 5000K. All LEDs and LED fixtures are rated and tested to LM-79 and LM-80 standards. The LEDs are also binned to a 3-step MacAdam ellipses to achieve consistent color from fixture to fixture.

THERMAL MANAGEMENT - LED light engines are attached directly to the housing which keeps the engines cool. Our advanced thermal management system allows the light output of the LED engines to be maintained at 70% of initial lumens at 83,000 hours of operation.

ELECTRICAL - Powered by high-quality constant-current power LED drivers which are rated for 50 to 60Hz at 120-277V input, produce less than 20% THD, and have a power factor of .90 to 1.00.

MAINTENANCE - LED engines and driver can be accessed through the bottom by removing hinged door frame and driver box cover. LED engines are removable and upgradable even after fixture installation. Fixture can be regularly and safely wiped down to ensure optimal fixture performance.

only available for the fixtures up to 5000 lumens.

DIMMING - The OSMT-LED comes standard with **DIM10**, 0-10V dimming on either 120 or 277V. Dimmable down to 1% of initial lumens. Also available in Lutron dimming options. Consult factory for dimmer compatibility. **LUTH** - Lutron Hilume Dimming down to 1% compatible with 3 wire and EcoSystem Controls available on all fixtures up to 50 Watts. **LUT2W** - Lutron 2 Wire Dimming down to 1% compatible with 2 wire and Forward Phase Control Systems available on all fixtures up to 50 Watts. **LUTFTB** - Lutron Hilume Fade to Black Dimming down to 1% compatible with EcoSystem Controls available on all fixtures up to 75 Watts. **DIMST** - Step Dimming allows fixtures to be turned on at 100% or 50% is available for fixtures up to 50 Watts. **ELD010.1** - EldoLED SoloDrive 0-10V. Dimming down to .1%. available on all fixtures up to 100 Watts. **ELD0DAL1** - EldoLED PowerDrive 0-10V. Dimming down to .1%. available on all fixtures up to 100 Watts. **ELD0DMX** - EldoLED PowerDrive Dimming down to .1%. available on all fixtures up to 100 Watts. **PLODDMX** - EldoLED PowerDrive Dimming down to .1%. available on all fixtures up to 100 Watts. Please see EldoLED website for wiring diagrams and a list of compatible DMX and Dali control systems.

OPTIONS - Fixtures can be shipped pre-installed with daylight harvesting controls, occupancy sensors, and/or power pack. Available manufacturer options include Leviton, Wattstopper, Hubble Automation, and others.

QUALITY CONTROL - Every fixture is turned on and rigorously tested by our QC Department before shipping.

WARRANTY - Limited 5 Year Warranty







Ordering Information: Example: 24-OSMT-LED-4000L-DIM10-MVOLT-30K-85

FIXTURE SIZE SERIES TYPE LUMENS DIMMING **VOLTAGE** CCT CRI **EMERGENCY** OTHER OPTIONS 4000L - (4000 lumens) 0-EMG-LED 24 - 2' X 4 DIM10 - 0-10V Dimming 30K - (3000K) FBF - Internal Fast Blow Fuse **OSMT-Oracle** LED MVOLT 5000L - (5000 lumens) 35K - (3500K) SBF - Internal Slow-Blow Fuse Surface Mount * DIMST - Step Dimming 347* 6000L - (6000 lumens) * Consult factory for details 40K - (4000K) RIS - Radio Interference Suppressor Troffer * LUTH - Lutron Hilume LENS 8000L - (8000 lumens) 50K - (5000K) GDF - Gasketed Door Frame * LUT2W - Lutron 2Wire A12 - A12 USA - Made in America Compliance LUTFTB - Lutron Fade to Black A19 - A19 ELD010.1 - Fldol FD 0-10V A-SFW - Smooth * DIMST, LUTH and LUT2W dimming options are FLDODALI - FIdol FD DALI Frosted White

ELDODMX - EldoLED DMX

2'X4' **0SMT**

CONTROL OPTIONS

EASYFIT

Controls Options to be Installed on the Fixture

Self-powered sensors and switches, combined with LED fixture controllers and a commissioning tool, permit easy configuration, intelligent local control, and seamless integration into building automation systems.



LEDRU LED Relay Zone Controller 0-10V



LEDDU LED Zone Controller 0-10V

Controls Provided by EnOcean



EOSCU Occupancy Sensor Ceiling Mount



ESRPU/ EDRPU Wall Switches



EOSWU Occupancy Sensor Wall Mount



LEVITON Wall Switches 902 MHz category



ELLSU Daylight Sensor Ceiling Mount



NWC 300U Navigan Wireless Commissioner



Controls Installed on the Fixture



LMFC-011

Fixture Will be Shipped Legrand Wattstopper DLM Enabled with LMFC-011 Module Controller Installed on the Fixture. Fixtures will be compatible with Legrand Wattstopper DLM Load Controllers, DLM Sensors, DLM Switches, DLM Remote Control, and DLM Configuration tool.

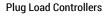






LMCT-100-2

Configuration tool





LMPL-201

Sensors



LMDC-100 LMLS-400 LMLS-500



LMSW-105 LMDM-101

FD-301

Fixture Will be Shipped with Legrand Wattstopper FD-301 (Integrated Daylight Photosensor) Dimming and FS-PP-V2 installed Fixture Power Pack.



FS-PP-V2



LMPL-101

Fixture Will be Shipped with Legrand Wattstopper FM-105 (Super HF Occupancy Sensor line voltage sensor that turns lighting on and off based on occupancy, and can hold lights off when sufficient daylight is available) installed.



installed.

Fixture Will be Shipped with Legrand Wattstopper FSP-202 (multi-level control based on motion and/ or daylight contribution)



or

installed.



daylight contribution)



CONTROL OPTIONS

PHILIPS

Philips EasySense sensors provide luminaire-level control with Occupancy sensing, Daylight harvesting, and Field task tuning.

Controls Installed on the Fixture



SRB

Fixture will be Shipped Sensor Ready with SRB Bridge . Fixture will be Compatible with EasySense Sensor SNS200-CMP which can be Added in the Field for Remote Mounting. Fixture May Only be Controlled with Philips Field App or Wireless Switches or any 0-10V. Wall Box Dimmer.



Fixture Will be Shipped Sensor Ready with PHILIPS SRB Bridge and EasySense SNS200-CMP Sensor which is Included to be Remote Mounted. Fixture May Only be Controlled with Philips Field App or Wireless Switches or any 0-10V. Wall Box Dimmer.

Controls Provided by Philips





ZBT-S1AWH

ZBT-S2AWH

Illumra Wireless Switches



Philips Field App

PHILIPS-XSR + SNS200-CMP

Fixture will be Shipped Sensor Ready with

PHILIPS-XSR driver and EasySense SNS200-CMP Sensor which is Included to be Remote

Mounted. Fixture May Only be Controlled with

Philips Field App or Wireless Switches

Enlighted Smart Sensors features digital motion, ambient light, and temperature sensing, the device provides autonomous fixture-level control

Controls Installed on the Fixture



Fixture Will be Shipped with Enlighted Enlighted CU-E3-1R Control Unit Power Pack installed and SU-4E-00 Sensor provided (to be installed remotely). Fixture May be Controlled with Enlighted Gateway, Energy Manager or Enlighted Room Controller WS-2-00

CU-E3-1R



Fixture Will be Shipped Sensor Ready with Enlighted CU-E3-1R Control Unit Power Pack. Fixture will be be compatible with Enlighted SU-4E-00 Sensor which can be Added in the Field Remote Mounting. Fixture May be Controlled with Enlighted Gateway, Energy Manager or Enlighted Room Controller WS-2-00

PHILIPS-XSR

Fixture Will be Shipped Sensor Ready with PHILIPS-XSR driver. Fixtures will be be compatible with Enlighted CS-D2 Two-wire sensor which can be Added in the Field for Remote Mounting. Fixture May be Controlled with Enlighted Gateway, Energy Manager or Enlighted Room Controller WS-2-00.

Controls Provided by Enlighted

WS-2-00 **Enlighted Room** Controller





Switch

Gateway



Programmable with Laptop



PoE Network Switch





CONTROL OPTIONS

OLUTRON

Controls Installed on the Fixture



FCJS-010 Individual Fixture Control



FCJS-ECO Individual Fixture Control

Fixture Will be Shipped LUTRON VIVE Enabled with LUTRON FCJS-010 0-10V Control Module Installed on the Fixture. Fixtures will be compatible with Lutron FC-SENSOR Occupancy/ Daylight Sensor or FC-VSENSOR Vacancy/Daylight Sensor which can be Added in the Field for Remote Mounting. Fixture May be Controlled with any Vive control systems. Fixtures must be ordered with a 0-10V. Driver.

Fixture Will be Shipped LUTRON VIVE Enabled with LUTRON FCJS-ECO EcoSystem Control Module Control Module Installed on the Fixture. Fixtures will be compatible with Lutron FC-SENSOR Occupancy/Daylight Sensor or FC-VSENSOR Vacancy/Daylight Sensor which can be Added in the Field for Remote Mounting. Fixture May be Controlled with any Vive control systems. Fixtures must be ordered with a Lutron Driver.





Fixture will be shipped with Leviton ZL027-N0W power control module installed on the fixture. Fixtures will be compatible with Leviton ZL00J-D0W sensor control module which can be added in the field for remote mounting. Fixture must be controlled with Leviton Intellect Keypad Room Controller, or Leviton Neuron App.



ZL027-N0W Power control module



ZL00J-D0W Sensor control module

Leviton Keypad





ZLDNK-2W





ZLDNK-4W Intellect™ Keypad Room Controller (Required)



Leviton App

Neuron App

LED 2'X4' **0SMT**

PHOTOMETRY DATA

24-0SMT-LED-6000L-DIM10-120-40K

Candle Power Distribution (Candelas)

90°
80°
70°
1323
1984
40°
30°

Zonal Lumens Summary											
Zone	Lumens	%Lamp	%Fixt								
0-30°	2050.31	N.A.	34.10								
0-40°	3293.69	N.A.	54.80								
0-60°	5206.39	N.A.	86.70								
0-90°	6005.77	N.A.	100.00								
0-180°	6005.77	N.A.	100.00								

LUMENS: **53.2**

Angle In	Average	Average	Average
Degrees	O°	45°	90⁰
45°	2491	2790	2947
55°	1695	2038	2294
65°	1280	1202	1597
75⁰	1266	1064	1418
85⁰	945	1006	1607

Cande	Candela Tabulation											
	Q	<u>45</u>	90									
0	2642.71	2642.71	2642.71									
5	2628.41	2631.41	2636.33									
15	2532.04	2545.54	2557.84									
25	2322.83	2351.39	2371.73									
35	1935.07	2001.23	2041.40									
45	1310.33	1467.62	1550.12									
55	723.12	869.80	978.64									
65	402.55	377.85	501.96									
75	243.77	204.79	272.99									
85	61.28	65.21	104.17									
90	2.26	2.48	2.72									

TOTAL LUMINAIRE EFFICACY: 113

TOTAL LUMINAIRE EFFICACY: 113

Candela Tabulation

Spacing Criteria

WATTAGE: 6006

 0-180
 :
 1.22

 90-270
 :
 1.26

 Diagonal
 :
 1.28

EFFICACY: 113 LM/W

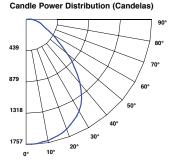
Coefficients of Utilization - Zonal Cavity Method Effective Floor Cavity Reflectance 20% = PF

RC RW 70% 50% 30% 10% 70% 50% 30% 10% 50%

RW - Wall Reflectance

24-0SMT-LED-4000L-DIM10-120-40K

WATTAGE: **35.5**



Zonai Lumens Jummary											
Zone	Lumens	%Lamp	%Fixt								
0-30°	1362.53	N.A.	34.10								
0-40°	2188.77	N.A.	54.70								
0-60°	3465.41	N.A.	86.70								
0-90°	3999.03	N.A.	100.00								
0-180°	3999.03	N.A.	100.00								

LUMENS: 3999

Zonal Lumens Summary

Angle In Degrees	Average 0°	Average 45°	Average 90°			
45°	1815	1930	1930			
55°	1283	1466	1493			
65⁰	949	884	1047			
75⁰	946	738	930			
85°	968	911	1016			

Luminance Data (cd/sq.m)

	<u>0</u>	<u>45</u>	<u>90</u>				
0	1757.289	1757.289	1757.289				
5	1752.540	1750.490	1751.180				
15	1697.390	1697.260	1697.120				
25	1571.280	1578.920	1570.590				
35	1352.600	1356.680	1345.620				
45	955.010	1015.210	1015.200				
55	547.490	625.690	636.850				
65	298.360	278.020	329.060				
75	182.180	142.010	179.090				
85	62.730	59.090	65.900				
90	5.260	4.510	1.830				

Spacing Criteria

0-180 : 1.26 90-270 : 1.24 Diagonal : 1.28

EFFICACY: 113 LM/W

Coefficients of Utilization - Zonal Cavity Method Effective Floor Cavity Reflectance 20% = PF

	RC RW	70%		0% 30%	10%	70%		0% 30%	10%	50%	50% 30%	10%	50%	30% 30%	10%	50%	10% 30%	10%	0% 0%
	1	119 110	119 106	119 102	119 98	116 107	116 103	116 100	116 97	111 99	111 96	111 94	106 95	106 93	106 91	102 92	102 90	102 88	100 86
2	2	101	94	88	82	99	92	86	82	88	84	80	85	81	78	82	79	76	74
ΡĀ	3	93 86	84 75	76 67	70 61	91 84	82 74	75 66	70 60	79 71	73 65	68 59	76 69	71 63	67 59	74 67	70 62	66 58	64 56
≧	5	79	68	59	53	77	66	59	53	64	58	52	63	56	52	61	55	51	49
Ϋ́	6	74 69	61 56	53 48	47 42	72 67	60 55	52 47	47 42	59 54	52 47	46 41	57 52	51 46	46 41	55 51	50 45	46 41	44 39
Σ	8	64	51	43	38	63	51	43	38	49	42	37	48	42	37	47	41	37	35
ROOM	9 10	60 56	47 44	39 36	34 31	59 55	47 43	39 36	34 31	46 42	39 36	34 31	45 41	38 35	34 31	44 40	38 35	34 31	32 29

RC - Ceiling Cavity Reflectance RW - Wall Reflectance