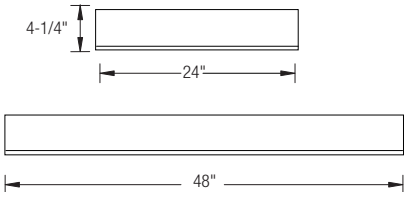
OSMT-LED SERIES

LED SURFACE MOUNT TROFFER SERIES

2' X 4' LED SURFACE MOUNT SPECIFICATION GRADE TROFFER



4000 LUMENS	5000 LUMENS	6000 LUMENS	8000 LUMENS	10000 LUMENS
32 WATT	40 WATT	46 WATT	61 WATT	85 WATT
	According to DLC Test Results	According to DLC Test Results	According to DLC Test Results	According to DLC Test Results

CALCULATED L70 LIFETIME 83,000 HRS

CALCULATED L80 LIFETIME 50,000 HRS

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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)

LED 2'X4' OSMT

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.

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. **ELDODALI** - EldoLED PowerDrive 0-10V. Dimming down to .1%. available on all fixtures up to 100 Watts. **ELDODMX** - 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

SAMEDAY SHIPPING (On selected configuration, consult factory)

PROUDLY ASSEMBLED in AMERICA

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

FIXTURE SIZE	SERIES	TYPE	LUMENS	DIMMING	VOLTAGE	CCT	CRI	EMERGENCY	OTHER OPTIONS
24 - 2' X 4'	**OSMT**-Oracle Surface Mount Troffer	**LED**	**4000L** (4105 lumens) **5000L** (5600 lumens) **6000L** (6115 lumens) **8000L** (8012 lumens) **10000L** (9860 lumens)	**DIM10** - 0-10V Dimming * **DIMST** - Step Dimming * **LUTH** - Lutron Hilume * **LUT2W** - Lutron 2Wire **LUTFTB** - Lutron Fade to Black **ELD010.1** - EldoLED 0-10V **ELDODALI** - EldoLED DALI **ELDODMX** - EldoLED DMX	**MVOLT** **347*** * Consult factory for details	**30K** - (3000K) **35K** - (3500K) **40K** - (4000K) **50K** - (5000K)	**85**	**0-EMG-LED**	**FBF** - Internal Fast Blow Fuse **SBF** - Internal Slow-Blow Fuse **RIS** - Radio Interference Suppressor **GDF** - Gasketed Door Frame **USA** - Made in America Compliance

LENS
A12 - A12
A19 - A19
A-SFW - Smooth Frosted White

* DIMST, LUTH and LUT2W dimming options are only available for the fixtures up to 5000 lumens.

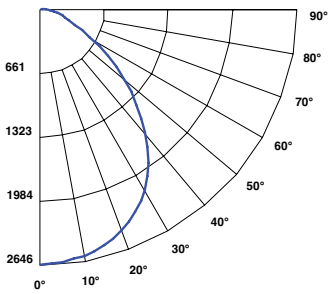
LED Surface Mount Troffer Luminaire

PHOTOMETRY DATA

24-OSMT-LED-6000L-DIM10-120-40K

WATTAGE: **6006** LUMENS: **53.2** TOTAL LUMINAIRE EFFICACY: **113**

Candle Power Distribution (Candelas)



Spacing Criteria

0-180	:	**1.22**
90-270	:	**1.26**
Diagonal	:	**1.28**

EFFICACY: **113 LM/W**

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

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0°	Average 45°	Average 90°
45°	2491	2790	2947
55°	1695	2038	2294
65°	1280	1202	1597
75°	1266	1064	1418
85°	945	1006	1607

Candela Tabulation

	0	45	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

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

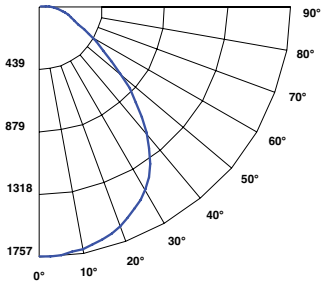
ROOM CAVITY RATIO	RC	80%				70%				50%			30%			10%			0%
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
	1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
	2	101	94	88	83	99	92	86	82	88	84	80	85	81	78	82	79	76	74
	3	93	84	76	70	91	82	75	70	79	73	68	76	71	67	74	70	66	64
	4	86	75	67	61	84	74	66	60	71	65	60	69	63	59	67	62	58	56
	5	79	68	59	53	77	67	59	53	64	58	52	63	57	52	61	55	51	49
	6	74	61	53	47	72	60	53	47	59	52	46	57	51	46	56	50	46	44
	7	69	56	48	42	67	55	47	42	54	47	42	52	46	41	51	45	41	39
	8	64	51	43	38	63	51	43	38	49	42	37	48	42	37	47	41	37	35
	9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34	32
	10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

RC - Ceiling Cavity Reflectance RW - Wall Reflectance

24-OSMT-LED-4000L-DIM10-120-40K

WATTAGE: **35.5** LUMENS: **3999** TOTAL LUMINAIRE EFFICACY: **113**

Candle Power Distribution (Candelas)



Spacing Criteria

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

EFFICACY: **113 LM/W**

Zonal Lumens Summary

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

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0°	Average 45°	Average 90°
45°	1815	1930	1930
55°	1283	1466	1493
65°	949	884	1047
75°	946	738	930
85°	968	911	1016

Candela Tabulation

	0	45	90
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

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

ROOM CAVITY RATIO	RC	80%				70%				50%			30%			10%			0%
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%
	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
	1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
	2	101	94	88	82	99	92	86	82	88	84	80	85	81	78	82	79	76	74
	3	93	84	76	70	91	82	75	70	79	73	68	76	71	67	74	70	66	64
	4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56
	5	79	68	59	53	77	66	59	53	64	58	52	63	56	52	61	55	51	49
	6	74	61	53	47	72	60	52	47	59	52	46	57	51	46	55	50	46	44
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RC - Ceiling Cavity Reflectance RW - Wall Reflectance