

PROJECT NAME		DATE	
CAT. NUMBER			
NOTES			

SPEC SHEET

High Output Troffer (HT1)

RECESSED LED TROFFER



KEY FEATURES

- 12,000 to 24,000 lumens
- Up to 151 LPW
- Beautiful aesthetics
- Up to 45°C ambient
- Guaranteed light levels for 10 years
- Dimmable 0-10V (standard)
- 6KV surge protection (10KV optional)



Guaranteed Performance

Performance of the light fixture is guaranteed for 10 years, including lumen output (L70), color temperature, and LED driver.



High Lumen Output

Compared to the competition, our HT1 troffer has superior lumen output, up to 24,000 lumens, with even light distribution.



Controls and IoT Ready

Optional integrated controls systems available including basic on/off, dimming and Bluetooth® with Building Systems Integration.

TECHNICAL SPECS

SIZE	LUMEN OUTPUT ²	EFFICACY	WATTS	PART NUMBER
2x2	12,207	133	92	HT10S-A1-12K-22-50-80-FR-LV-GRID-10V
	18,133	138	131	HT10S-A1-18K-22-50-80-FR-LV-GRID-10V
2x4	12,207	133	92	HT10S-A1-12K-24-50-80-FR-LV-GRID-10V
	18,538	151	123	HT10S-A1-18K-24-50-80-FR-LV-GRID-10V
	24,112	129	187	HT10S-A1-24K-24-50-80-FR-LV-GRID-10V

²Typical (±10%) at 277V (LV), 25°C, 4000K/5000K, Frosted Lens, CRI 80+

Lumen Multipliers

Allows to calculate the actual lumen output for your application.

LUMENS VS AMBIENT TEMP			COLOR TEMP		COLOR RENDERING		LIGHT DISTRIBUTION	
C°	F°	Multiplier	CCT	Multiplier	CRI	Multiplier	Lens	Multiplier
35	95	0.99	5000	1.000	80	1.000	FR	1.000
40	104	0.98	4000	1.000				
45	113	0.98						

Example: How to calculate the actual lumen output of the model 24K at these conditions: 45°C ambient temp, 4000K, CRI80, Frosted Lens.

- 1) Find the lumens from the shaded column.
- 2) Apply all the corresponding multipliers.

$$\begin{array}{ccccccccccc}
 24,112 & \times & 0.98 & \times & 1.000 & \times & 1.000 & \times & 1.000 & = & 23,630 \\
 \text{Lumens} & & \text{Temp.} & & \text{CCT} & & \text{CRI} & & \text{Lens} & & \text{Actual lumens}
 \end{array}$$

LUMEN MAINTENANCE

All fixtures come with our Standard Warranty, covering **L70 light levels for 10 years**. That's 87,360 hours of guaranteed life based on a 24/7 operation.



Ambient Temp.		Lumen Maintenance in Hours			Lumen Maintenance Factor			Reported Life (6X)	
C°	F°	L90	L80	L70	50Khrs	75Khrs	100Khrs	Tested Time	Extrapolated
25	77	83	170	268	95	92	89	9,000 hrs	> 54,000 hrs
30	86	79	160	253	94	91	88		
35	95	74	152	239	94	91	87		
40	104	70	144	227	93	90	87		
45	113	66	136	214	93	89	86		

All values calculated in accordance to IESNA standards, per TM-21.LM-79, LM 80 tests and reports are performed in accordance to IESNA standards, per TM-21. Lumen maintenance in hours (L70 via TM-21) based on 24/7 operation.

LEDs tested for 13,000 hrs based on LM-80.
Extrapolating as per TM-21:
13,000 hrs x 6 = 78,000 hrs of reported life.

ORDERING

SERIES MODEL - COMPLIANCE - LUMENS - SIZE	COLOR TEMP	CRI	LENS	VOLTAGE	MOUNTING
HT10S-A1-12K-22 HT10S-A1-18K-22 HT10S-A1-12K-24 HT10S-A1-18K-24 HT10S-A1-24K-24	50 5000K 40 4000K 35° 3500K Other CCT available upon request	80 (Standard) 90⁴ (Extended lead time) Other CRI available upon request	FR Frosted lens, Wide distribution	LV 120-277V HV 347-480V	GRID⁵ Standard mounting for grid ceilings. Safety and Cable mounting optional, see Accessories.

CONTROLS		OPTIONS ⁴	DIMMING
OCCDIM8^{4,6,10} Programmable Wattstopper Occupancy Sensor, dimmable, with photocell, 8' mounting height	OCC40^{4,10} Wattstopper Occupancy Sensor, on/off, w/ photocell, 40' mounting height	EMB^{1,4,7} Emergency battery back-up. Adds 1.25' to fixture height	10V 0-10V
TOCC20^{4,10} IR-TEC Occupancy Sensor, on/off, w/ photocell, 20' mounting height	TOCC40^{4,10} IR-TEC Occupancy Sensor, on/off, w/ photocell, 40' mounting height	SRG⁴ Fixture-installed 10kA surge protector fails to ON	
OCCDIM20^{4,6,10} Programmable Wattstopper Occupancy Sensor, dimmable, with photocell, 20' mounting height	OCCDIM40^{4,6,10} Wattstopper Occupancy Sensor, dimmable, w/ photocell, 40' mounting height	QDC⁴ Driver Quick Disconnect	

ORDERING EXAMPLES

Standard: HT10S-A1-24K-24-50-80-FR-LV-GRID-10V

With Options: HT10S-A1-24K-24-50-80-FR-LV-GRID-**EMB-CTRLR**-10V

DLC: HT10S-A1-24K-24-50-80-FR-LV-GRID-[LV, HV]-[ALL MOUNTING OPTIONS]-[ALL OCCUPANCY SENSORS]-[ALL OPTIONS]-10V

ACCESSORIES

Must be ordered separately. Packaged separately.

FIXTURE ACCESSORIES

Part Number	Type	Description
SAFETYCABLE	Safety Kit	Kit includes (1) 5 ft. aircraft cable with single snap hook, L-bracket, screw and nut. For use with all mounting options.
CABLEKIT	Cable Kit	Kit includes (2) 10 ft. aircraft "Y" cables and snap hooks (one pair).
DK22	Drywall Kit 2x2	Drywall trim kit for 2x2 troffers.
DK24	Drywall Kit 2x4	Drywall trim kit for 2x4 troffers.
OCCDIMPROG	Wireless Programmer for Dimmable Occupancy Sensor(s)	Handheld wireless programmer for setup OCCDIMXX dimmable occupancy sensors. Required with OCCDIMX selection.

FEATURES & SPECIFICATIONS

CONSTRUCTION

- **LED Boards:** FR4 PCB is used to limit stress on solder joints by matching coefficient of thermal expansion between the LED and the PCB more closely.
- **Power Supply Access:** Easy access from the top of the fixture.

ELECTRICAL

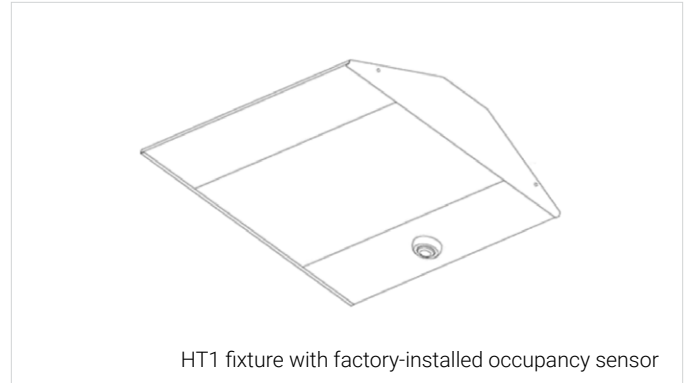
- **Power Input:** 120-277V (50/60Hz).
- **Power Factor:** Greater than 0.9 (0.96–0.99 typical).
- **Total Harmonic Distortion:** Less than 20%, 10% typical.
- **Surge Protection:** Standard is 6kV for drivers. Additional surge protection is available. All HV orders will have 10kV SRG automatically added (contact sales for questions).
- **Emergency Battery Backup (EMB):** EMB produces ~2000 lumens for a minimum of 90 minutes. EMB has 16 watts output. EMB fixtures 0°C to 45°C (32°F to 122°F). Not to exceed ambient of fixture.¹

OPERATION

- **Environment:** Dry/Damp, for interior applications (IP4X). Non IC rated.
- **Ambient Range Operation:** -40°C up to 45°C (-40°F up to 113°F).¹

OPTICS

- **CCT:** 3500K, 4000K and 5000K standard, other CCT available (extended lead time).
- **CRI:** 80 standard, other CRIs available upon request (extended lead time).
- **Lenses:** Frosted acrylic.



MOUNTING

- **Mounting:** Fixture is able to be mounted in a standard drop/grid ceiling and also has holes for attaching cables. Non IC rated.

CONTROLS

- **Dimming:** 0-10V standard. Dimming range 100% to 10%.
- **Occupancy and Dimming Occupancy Sensors:** Optional factory-installed photocell sensors for motion and daylight harvesting.¹⁰

WARRANTY

- **10 Year Performance Warranty:** Performance of the light fixture is guaranteed for 10 years, including lumen maintenance (L70), color temperature, and LED driver. "Defective" is considered if ten percent (10%) or more of the LEDs, per product, are non-operating LEDs, total lumen depreciation exceeds 30% (L70), or color temperature has shifted more than 500° Kelvin within the warranty period. See terms and conditions at <https://linmoreled.com/warranty>

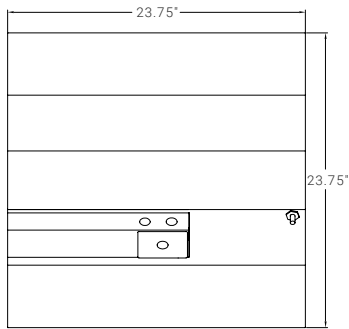
LISTINGS & CERTIFICATIONS

- ETL listed (UL 1598).
- RoHS Compliant.
- CSA.22.2.
- EMI: Title 47 CFR 15 Class A, ICES-005:2009.
- LM-79, LM 80 and TM-21 tests and reports are performed in accordance to IESNA standards, per TM-21.
- DesignLights™ Consortium.

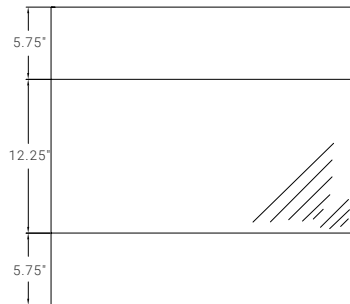


DIMENSIONS & DRAWINGS

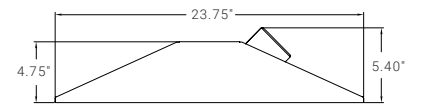
2X2



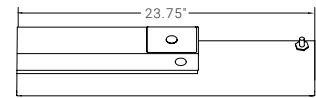
TOP VIEW



BOTTOM VIEW

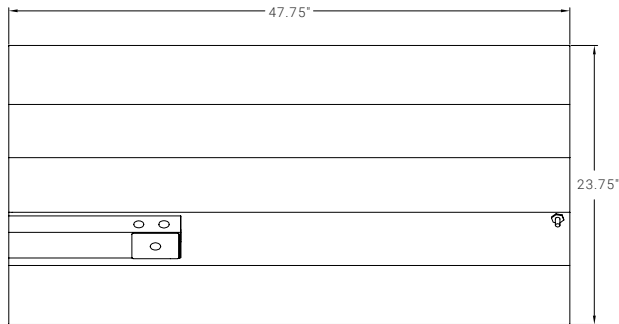


END VIEW

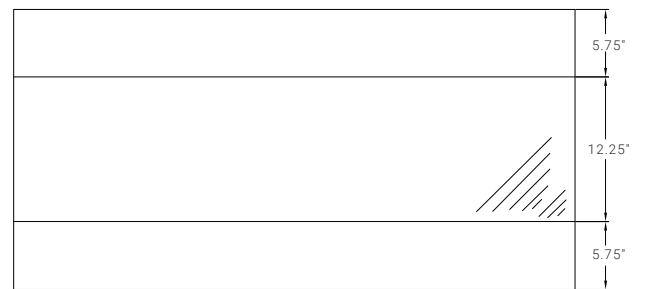


SIDE VIEW

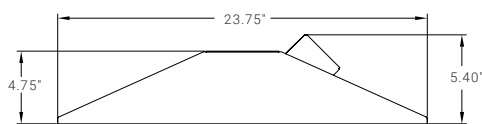
2X4



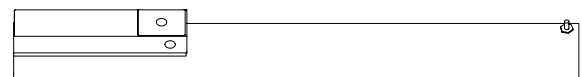
TOP VIEW



BOTTOM VIEW



END VIEW



SIDE VIEW

DIMENSIONS

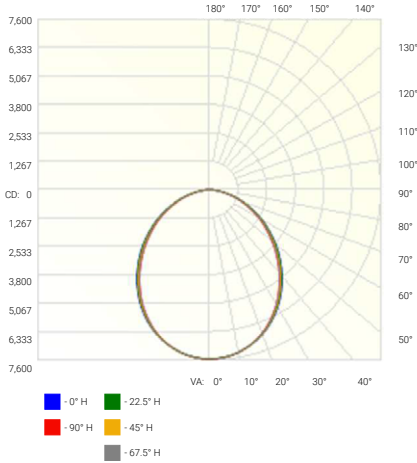
Size	Length (in)	Width (in)	Height (in)	Weight (lb)
2x2	23.75	23.75	5.4	11.4
2x4	47.75	23.75	5.4	17.6

LIGHT DISTRIBUTION

FROSTED

Polar Graph

HT1XS-AX-18K-24-40-80-FR-LV-GRID-10V



Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixt.
0-30	5690.1	30.5	30.5
0-40	9103.7	48.7	48.7
0-60	15279.8	81.8	81.8
60-90	3404.9	18.2	18.2
0-90	18684.7	100	100
90-180	0	0	0
0-180	18684.7	100	100

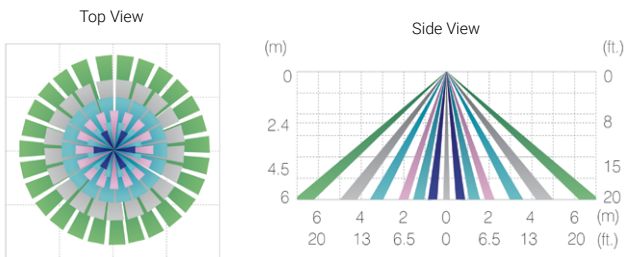
Total luminaire efficiency = 100.00%

[Download IES Files](#)

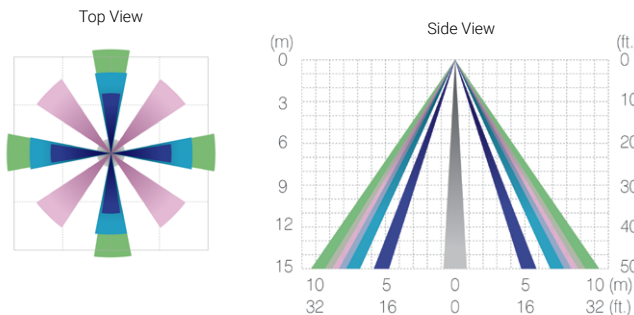
OCCUPANCY SENSORS

IR-TEC

TOCC20

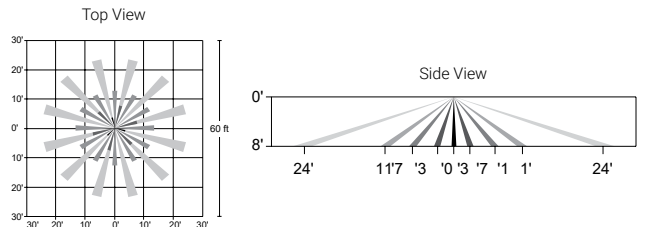


TOCC40

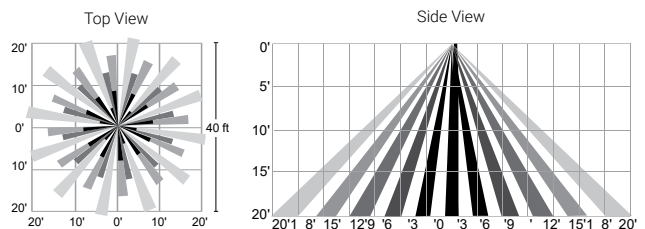


WATTSTOPPER

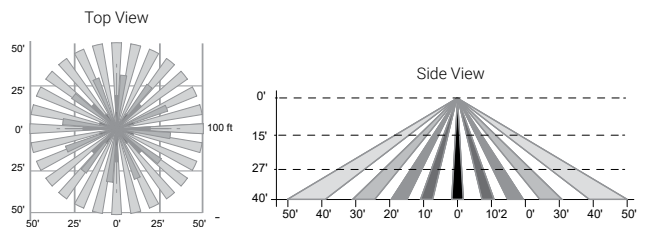
OCC8 / OCCDIM8



OCC20 / OCCDIM20



OCC40 / OCCDIM40



FOOTNOTES

1. EMB fixtures (0°C to 45°C), LV (120-277) only. Temperatures below -20°C have limited switch cycles, consult factory.
2. Typical at 277V (LV) and (25°C), 5000K, Frosted Lens, +/-10%. Typical CRI 80+.
3. Dimensions listed are for the fixture only. See dimensional drawings for measurements with mounting hardware. Weights are approximate and vary by model, if weight is a concern, please contact factory. Weight changes when battery backup is added.
4. Optional add-on. See price list for pricing.
5. Optional CABLEKIT ordered separately. See ACCESSORIES.
6. Wireless programmer required for final field setup. See ACCESSORIES.
7. Consult factory for orders requiring EMB and CTRLR.
8. CTRLR includes 5 wires, capped on inside of fixture for use with field installed controls.
9. 3500 CCT not DLC qualified
10. Settings for Sensors from Factory:
 - OCC (LV and HV) - If no movement for 15 mins, OFF
 - TOCC - If no movement for 10 mins, OFF
 - OCCDIM - If no movement for 5 mins, dim to 10%, if no movement for 60 mins, OFFOnly OCCDIM8, OCCDIM20 and OCCDIM40 are available with HV option.
11. SRG (10kA protection) is standard option on all HV fixtures.

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All specifications are subject to change without notice. Please visit linmoreled.com for latest information. All values are typical or design values and series averages. Actual performance may differ as a result of end-user environments and applications. Consult Linmore LED with specific inquiries. Copyright © 2023, Linmore LED Labs, Inc. All rights reserved. No part of this document may be reproduced in any form without the prior written permission of Linmore LED.

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