

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 <sup>2</sup>	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

<sup>2</sup>Typical (±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	<b>50</b> 5000K  <b>40</b> 4000K  <b>35°</b> 3500K  Other CCT available upon request	<b>80</b> (Standard)  <b>90<sup>4</sup></b> (Extended lead time)  Other CRI available upon request	<b>FR</b> Frosted lens, Wide distribution	<b>LV</b> 120-277V  <b>HV</b> 347-480V	<b>GRID<sup>5</sup></b> Standard mounting for grid ceilings.  Safety and Cable mounting optional, see Accessories.

CONTROLS		OPTIONS <sup>4</sup>	DIMMING
<b>OCCDIM8<sup>4,6,10</sup></b> Programmable Wattstopper Occupancy Sensor, dimmable, with photocell, 8' mounting height	<b>OCC40<sup>4,10</sup></b> Wattstopper Occupancy Sensor, on/off, w/ photocell, 40' mounting height	<b>EMB<sup>1,4,7</sup></b> Emergency battery back-up. Adds 1.25' to fixture height	<b>10V</b> 0-10V
<b>TOCC20<sup>4,10</sup></b> IR-TEC Occupancy Sensor, on/off, w/ photocell, 20' mounting height	<b>TOCC40<sup>4,10</sup></b> IR-TEC Occupancy Sensor, on/off, w/ photocell, 40' mounting height	<b>SRG<sup>4</sup></b> Fixture-installed 10kA surge protector fails to ON	
<b>OCCDIM20<sup>4,6,10</sup></b> Programmable Wattstopper Occupancy Sensor, dimmable, with photocell, 20' mounting height	<b>OCCDIM40<sup>4,6,10</sup></b> Wattstopper Occupancy Sensor, dimmable, w/ photocell, 40' mounting height	<b>CTRLR<sup>4,7,8</sup></b> Control Ready Harness	
		<b>QDC<sup>4</sup></b> 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
<b>SAFETYCABLE</b>	Safety Kit	Kit includes (1) 5 ft. aircraft cable with single snap hook, L-bracket, screw and nut. For use with all mounting options.
<b>CABLEKIT</b>	Cable Kit	Kit includes (2) 10 ft. aircraft "Y" cables and snap hooks (one pair).
<b>DK22</b>	Drywall Kit 2x2	Drywall trim kit for 2x2 troffers.
<b>DK24</b>	Drywall Kit 2x4	Drywall trim kit for 2x4 troffers.
<b>OCCDIMPROG</b>	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

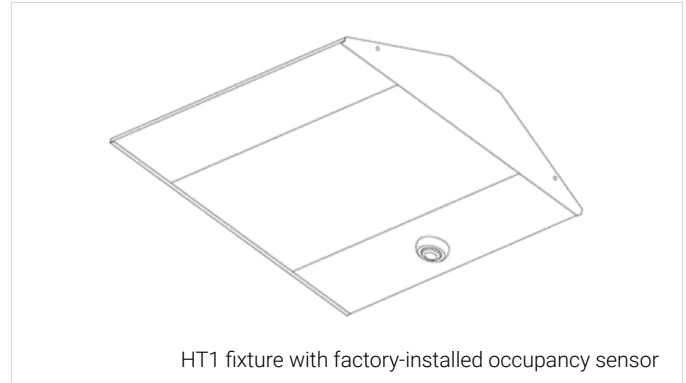
- **Power Input:** 120-277V (50/60Hz).
- **Power Factor:** Greater than 0.9 (0.96–0.99 typical).
- **Total Harmonic Distortion:** Less than 20%, 10% typical.
- **Surge Protection:** Standard is 6kV for drivers. Additional surge protection is available. All HV orders will have 10kV SRG automatically added (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.<sup>1</sup>

## 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).<sup>1</sup>

## 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.



HT1 fixture with factory-installed occupancy sensor

## 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.<sup>10</sup>

## 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>

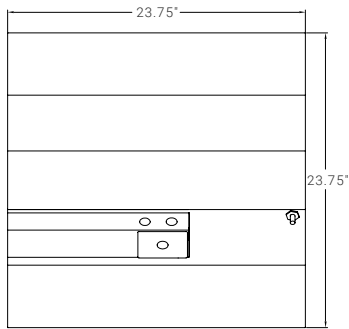
## LISTINGS & CERTIFICATIONS

- 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.

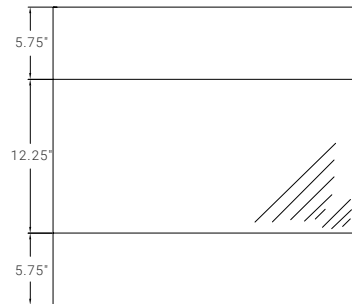


# DIMENSIONS & DRAWINGS

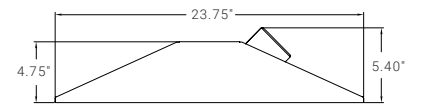
## 2X2



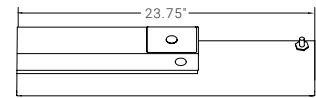
TOP VIEW



BOTTOM VIEW

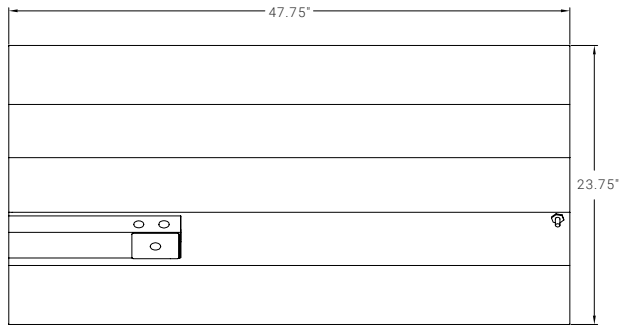


END VIEW

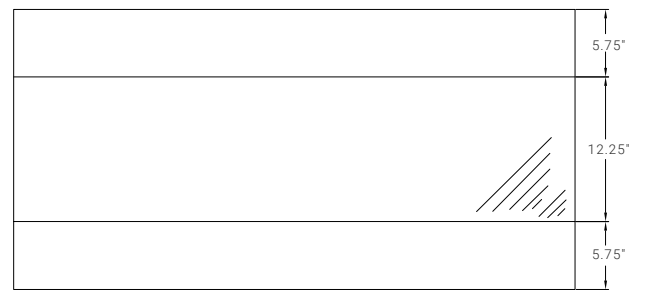


SIDE VIEW

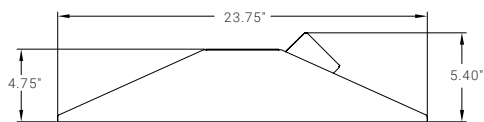
## 2X4



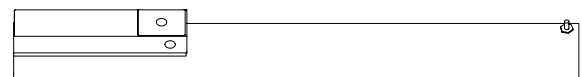
TOP VIEW



BOTTOM VIEW



END VIEW



SIDE VIEW

### DIMENSIONS

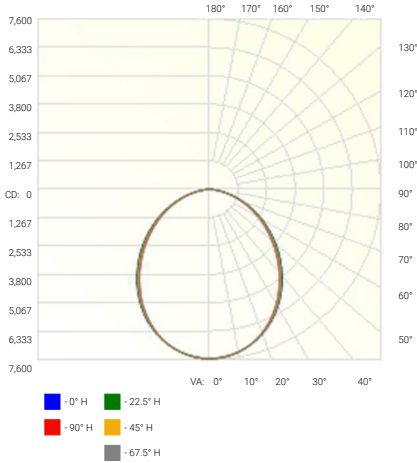
Size	Length (in)	Width (in)	Height (in)	Weight (lb)
2x2	23.75	23.75	5.4	11.4
2x4	47.75	23.75	5.4	17.6

# 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

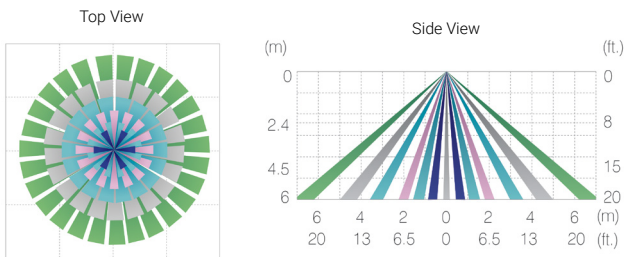
Total luminaire efficiency = 100.00%

[Download IES Files](#)

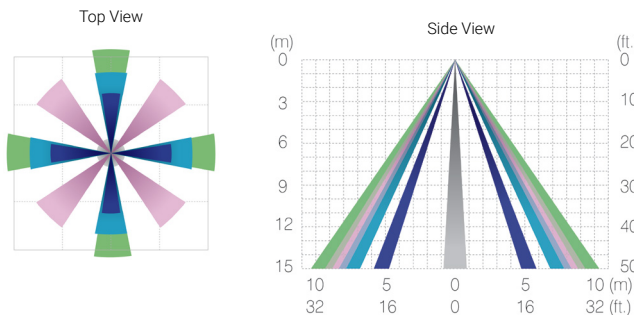
# OCCUPANCY SENSORS

## IR-TEC

### TOCC20

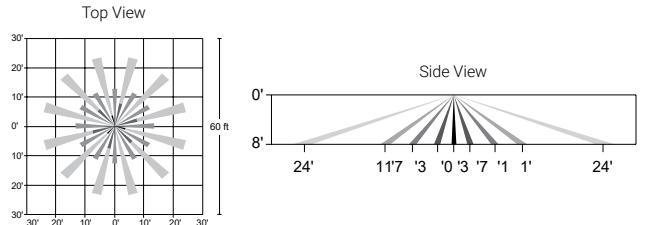


### TOCC40

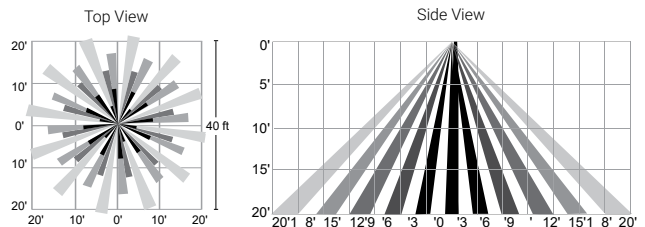


## WATTSTOPPER

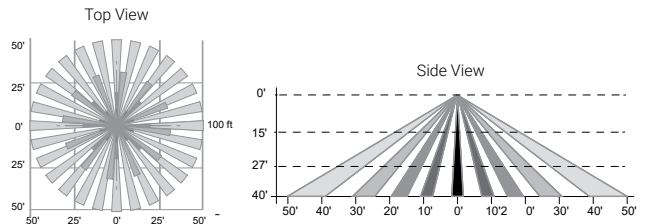
### OCC8 / OCCDIM8



### 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.

## Linmore LED Labs, Inc.

2360 S Orange Ave, Fresno, CA 93725

559 485 6010 | [info@linmoreled.com](mailto:info@linmoreled.com) | [linmoreled.com](http://linmoreled.com)



All specifications are subject to change without notice. Please visit [linmoreled.com](http://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 © 2022, 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.

Updated: 2022.11.11