

PROJECT NAME	DATE	
CAT. NUMBER		
NOTES		

## **SPEC SHEET**

## **High Output Troffer (HT1)**

**RECESSED LED TROFFER** 













## 10 YEAR PERFORMANCE WARRANTY L70

## **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.

## **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)

## **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.



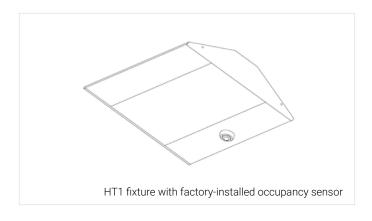
- Power Input: 120-277V or 347-480V (50/60Hz).
- Power Factor: Greater than 0.9 (0.96 0.99 typical).
- Total Harmonic Distortion: Less than 20%, 10% typical.
- Surge Protection: Standard is 6kV for drivers. Additional surge protection is available. All HV orders will have 10kV SRG automatically added (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.



## **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 factoryinstalled photocell sensors for motion and daylight harvesting.<sup>8</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 <a href="https://linmoreled.com/warranty">https://linmoreled.com/warranty</a>

## **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<sup>™</sup> Consortium.













## **TECHNICAL SPECS**

SIZE	LUMEN OUTPUT <sup>2</sup>	JMEN OUTPUT <sup>2</sup> EFFICACY		PART NUMBER
00	12,207	133	92	HT10S-A1-12K-22-50-80-FR-LV-GRID-10V
2x2	18,133	138	131	HT10S-A1-18K-22-50-80-FR-LV-GRID-10V
	12,207	133	92	HT10S-A1-12K-24-50-80-FR-LV-GRID-10V
2x4	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			
C°	F°	Multiplier	
35	95	0.99	
40	104	0.98	
45	113	0.98	

COLOR TEMP			
ССТ	Multiplier		
5000	1.000		
4000	1.000		

COLOR RENDERING			
CRI	Multiplier		
80	1.000		

LIGHT DISTRIBUTION			
Lens	Multiplier		
FR	1.000		
FK	1.0		

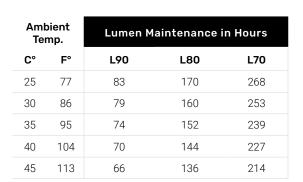
 $\textbf{Example:} \ \text{How to calculate the actual lumen output of the model 24K at these conditions: } 45^{\circ}\text{C ambient temp, 4000K, CRI80, Frosted Lens.}$ 

- 1) Take the lumen output of the fixture.
- 2) Apply all the corresponding multipliers.

24,112	Х	0.98	Х	1.000	х	1.000	х	1.000	=	23,630
Lumens		Temp.		CCT		CRI		Lens		Actual lumens

## **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.



Lumen Maintenance Factor				
50Khrs	75Khrs	100Khrs		
95	92	89		
94	91	88		
94	91	87		
93	90	87		
93	89	86		

Reported Life (6X)					
Tested Time Extrapolated					
9,000 hrs > 54,000 hrs					
LEDs tested for 13,000 l Extrapolating as per TM 13,000 hrs x 6 = 78,000	l-21:				

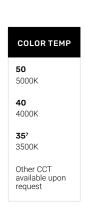
10 YEAR

WARRANTY

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.

## **ORDERING**

# SERIES MODEL - COMPLIANCE - LUMENS - SIZE HT10S-A1-12K-22 HT10S-A1-18K-22 HT10S-A1-12K-24 HT10S-A1-18K-24 HT10S-A1-24K-24







VOLTAGE
<b>LV</b> 120-277V
<b>HV°</b> 347-480V

	MOUNTING
<b>GRI</b> Star	<b>D<sup>s</sup></b> ndard mounting for grid ceilings.
	ety and Cable mounting optional, see essories.

CONT	OPTIONS <sup>4</sup>	DIMMING	
OCCDIM8 <sup>4,8</sup> Programmable Wattstopper Occupancy Sensor, dimmable, with photocell, 8' mounting height  OCCDIM20 <sup>4,6,8</sup> Programmable Wattstopper Occupancy Sensor, dimmable, with photocell, 20' mounting height	OCC40 <sup>4,8</sup> Wattstopper Occupancy Sensor, on/off, w/ photocell, 40' mounting height  OCCDIM40 <sup>4,6,8</sup> Wattstopper Occupancy Sensor, dimmable, w/ photocell, 40' mounting height	EMB <sup>1,4</sup> Emergency battery back-up. Adds 1.25" to fixture height  SRG <sup>4,9</sup> Fixture-installed 10kA surge protector fails to ON  QDC <sup>4</sup> Driver Quick Disconnect	<b>10V</b> 0-10V

## **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-10V

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

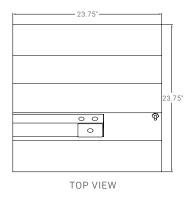
## **ACCESSORIES**

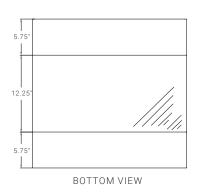
Must be ordered separately. Packaged separately.

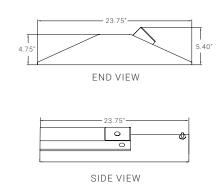
FIXTURE ACCESSORIES				
Part Number	Туре	Description		
SAFETYCABLE	Safety Kit	Kit includes (1) 5 ft. aircraft cable with single snap hook, L-bracket, screw and nut. For use with all mounting options.		
CABLEKIT	Cable Kit	Kit includes (2) 10 ft. aircraft "Y" cables and snap hooks (one pair).		
DK22	Drywall 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.		

## **DIMENSIONS & DRAWINGS**

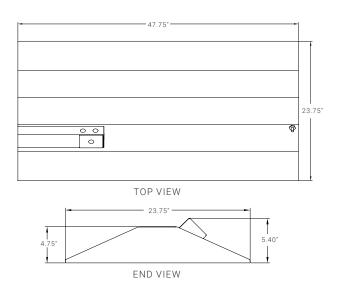
## 2X2

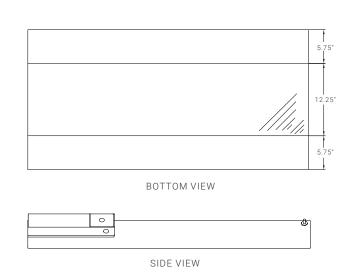






## 2X4





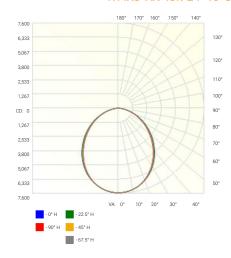
DIMENSIONS					
Size	Length (in)	Width (in)	Height (in)	Weight (lb)	
2x2	23.75	23.75	5.4	11.4	
2x4	47.75	23.75	5.4	17.6	

## **LIGHT DISTRIBUTION**

## **FROSTED**

## **Polar Graph**

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



## 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

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

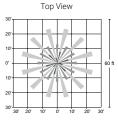
Total luminaire efficiency = 100.00%

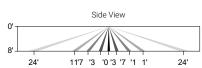
**Download IES Files** 

## **OCCUPANCY SENSORS**

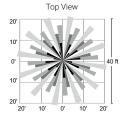
## **WATTSTOPPER**

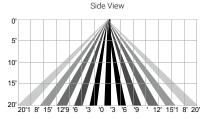
## OCC8 / OCCDIM8



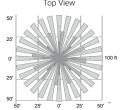


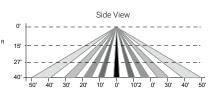
## OCC20 / OCCDIM20





## OCC40 / OCCDIM40





## **FOOTNOTES**

- EMB fixtures (0°C to 45°C), LV (120-277) only. Temperatures below -20°C have limited switch cycles, consult factory.
- Typical at 277V (LV) and (25°C), 5000K, Frosted Lens, +/-10%.
   Typical CRI 80+.
- 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.
- Wireless programmer required for final field setup. See ACCESSORIES.
- 7. 3500 CCT not DLC qualified
- 8. Settings for Sensors from Factory:
  - OCC (LV and HV) If no movement for 15 mins, OFF
  - OCCDIM If no movement for 5 mins, dim to 10%, if no movement for 60 mins, OFF
    Only OCCDIM8, OCCDIM20 and OCCDIM40 are available with HV option.
- 9. SRG (10kA protection) is standard option on all HV fixtures.



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