



PROJECT NAME

CATALOG NO.

TYPE

DATE

NOTE

## INFINITY LED TROFFER RETROFIT KIT

**IRT Series**  
Infinity Retrofit Kit Series

### DESCRIPTION

The Infinity LED Troffer Retrofit Kit series combines the benefits of long life, controllability, and energy savings with elegant design and superior quality of light. The IRT retrofit solution optimize LED optics and electronics to deliver energy savings and high performance while being extremely quick and easy to install.  
Installation video: <https://www.youtube.com/watch?v=NUFvr3YMhbg>

### APPLICATION

Indoor general/ambient illumination. Idea for offices, retail, and other architectural spaces that demand energy demand reduction and high quality light.

### SPECIFICATION FEATURES

#### Construction

Rugged construction: solid die-formed, cold-rolled steel. Interior utilizes highly reflective powder coat finish. All surfaces coated and baked post-fabrication with high gloss powder-paint. Diffuser lens provides even and consistent light while eliminating pixelation. Tool-less removal of diffuser allows access to LED array. LED module and driver are replaceable. Easy and convenient installation utilizes existing luminaire body, reduces labor hours. Housing and optics maintain damp location rating with all internal components.

#### Electrical

Luminaire utilizes long life, high efficacy LEDs and a highly efficient, reliable LED driver. 120V-277V input voltage for increased versatility. 0-10V continuous dimming comes standard. Ideal when used in conjunction with controls and sensors. Comes equipped with quick disconnect for compliance with US code

#### Finish

Highly reflective powder coat finish. Baked white matte paint, applied after fabrication.

#### Optics

Occupants can realize a productive and comfortable atmosphere through enhanced light quality and distribution. Diffuser shape, pattern, and opacity designed in conjunction with precisely-engineered reflector cavity angles to distribute LED light consistently, reducing glare and pixelation.

#### Mounting

Installs within existing troffer and louvers. Utilizes existing luminaire body, eliminating the need to remove and dispose of old hardware. LED module arrays and drivers accessible from fixture during service and operation, no need to access via plenum.

#### Certifications / Regulatory

UL/cUL listed. All components used have UL approval. UL Class 2. Power supply: SCP, OTP, OVP protection, FCC Part 15 Class B, UL8750 Class 2. DLC QPL..

#### Warranty

7-year limited warranty. See complete warranty terms for details.



### Quick Ship Product

- IRT-24VL(23S)/835
- IRT-24VL(23S)/840
- IRT-24L(36S)/840
- IRT-22L(23S)/840
- IRT-22H(33S)/840

## ORDERING INFORMATION

Sample Number: IRT-24L(30S2)/840

| IRT                                     | 24                                     | L(30S2)  | 8           | 40                                     | (Blank)                              | (Blank)         |
|---|--|--|-------------|--|--------------------------------------|-----------------|
| <b>Series</b>                           | <b>Form Factor</b>                     | <b>Lumen Package</b>   | <b>CRI</b>  | <b>CCT</b>                             | <b>Input Voltage</b>                 | <b>Dimming</b>  |
| IRT - Infinity LED Troffer Retrofit Kit | 22 - 2'x2'<br>24 - 2'x4'<br>14 - 1'x4' | VL- Very Low Wattage<br>L - Low Wattage<br>H - High Lumen<br><b>*see energy performance data for details</b> | 8 - 83+ CRI | 35 - 3500K<br>40 - 4000K<br>50 - 5000K | (Blank) -<br>120V-277V<br>347 - 347V | (Blank) - 0-10V |

### Options

| Controls  | Emergency Backup                 |
|---|----------------------------------|
| <b>DMMS</b> - Integrated step dimming microwave motion sensor | EM700 - 700lm<br>EM1400 - 1400lm |
| <b>DL</b> - Integrated daylight harvesting                    | EM2000 - 2000lm                  |
| <b>SMC</b> - Wireless Smart Control System                    |                                  |

SUMMARY

|                   |                                   |
|-------------------|-----------------------------------|
| Input Voltage     | 120V-277V                         |
| Input Power       | See energy data for details       |
| Power Factor      | > 0.95                            |
| THD (Max.)        | 10%                               |
| Efficacy          | > 151 LPW                         |
| Delivered Lumens  | See energy data for details       |
| Controls/ Dimming | Full Range 0-10V dimming standard |
| Dimming Range     | 10-100%                           |
| CRI               | > 83                              |
| CCT               | 3500K, 4000K, 5000K               |
| Operating Temp.   | -20 ~ +55 C                       |
| Rated Life        | 70,000 hours                      |

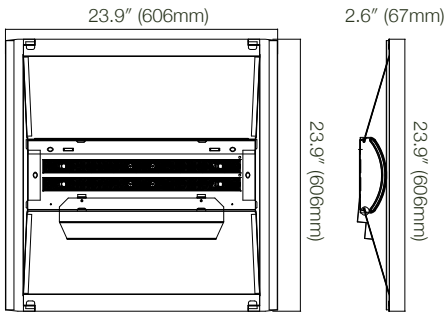
ENERGY PERFORMANCE DATA

| Form Factor | Part No.          | Rated Wattage (W) | Tested Wattage (W) | Delivered Lumens (lm) | Efficacy (lm/W) |
|-------------|-------------------|-------------------|--------------------|-----------------------|-----------------|
| 2' x 2'     | IRT-22L(23S)/835  | 23                | 22.5               | 2876                  | 128             |
|             | IRT-22L(23S)/840  |                   |                    | 3000                  | 130             |
|             | IRT-22L(23S)/850  |                   |                    | 3000                  | 130             |
|             | IRT-22H(33S)/835  | 33                | 32.5               | 4003                  | 124             |
|             | IRT-22H(33S)/840  |                   |                    | 4158                  | 126             |
|             | IRT-22H(33S)/850  |                   |                    | 4191                  | 127             |
| 2' x 4'     | IRT-24VL(23S)/835 | 23                | 23                 | 2976                  | 130             |
|             | IRT-24VL(23S)/840 |                   |                    | 3036                  | 132             |
|             | IRT-24VL(23S)/850 |                   |                    | 3059                  | 133             |
|             | IRT-24L(36S)/835  | 36                | 37                 | 4907                  | 131             |
|             | IRT-24L(36S)/840  |                   |                    | 4752                  | 132             |
|             | IRT-24L(36S)/850  |                   |                    | 4790                  | 133             |
|             | IRT-24H(44)/835   | 44                | 41                 | 5125                  | 125             |
|             | IRT-24H(44)/840   |                   |                    | 5330                  | 130             |
|             | IRT-24H(44)/850   |                   |                    | 5371                  | 131             |
| 1' x 4'     | IRT-14L(23S)/835  | 23                | 23                 | 2875                  | 125             |
|             | IRT-14L(23S)/840  |                   |                    | 2898                  | 126             |
|             | IRT-14L(23S)/850  |                   |                    | 2921                  | 127             |
|             | IRT-14H(33S)/835  | 33                | 33                 | 4125                  | 125             |
|             | IRT-14H(33S)/840  |                   |                    | 4158                  | 126             |
|             | IRT-14H(33S)/850  |                   |                    | 4191                  | 127             |

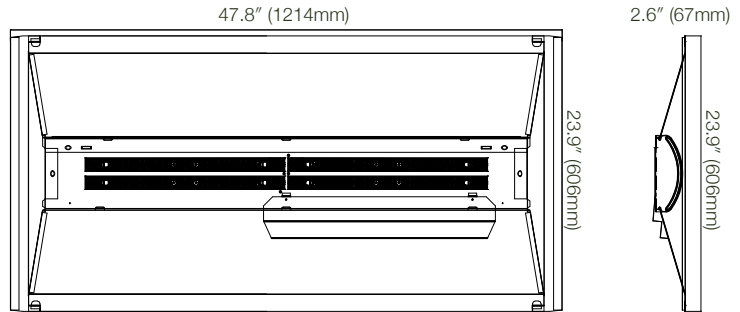
PHYSICAL PARAMETERS

DIMENSION

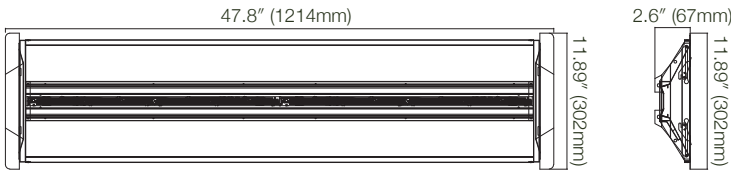
IRT-22



IRT-24



IRT-14





**-DMMS control pre-commissioning**

**Sample Number: -DMMS (10-5M-L3-S10M)**

| 10                    | 3M               | L3              | S10M                   | (Blank)                |
|-----------------------|------------------|-----------------|------------------------|------------------------|
| <b>Detection Area</b> | <b>Hold Time</b> | <b>Low Mode</b> | <b>Stand-by Period</b> | <b>Daylight Sensor</b> |
| 10 - 100%             | 30M - 30 min.    | L5 - 50%        | SN - ∞                 | (Blank) - Disable      |
| 7 - 75%               | 20M - 20 min.    | L3 - 30%        | S1H - 1 hr.            | D50 - 50 lux           |
| 5 - 50%               | 10M - 10 min.    | L2 - 20%        | S30M - 30 min.         | D10 - 10 lux           |
| 1 - 10%               | 5M - 5 min.      | L1 - 10%        | S10M - 10 min.         | D2 - 2 lux             |
|                       | 1M - 1 min.      |                 | S5M - 5 min.           |                        |
|                       | 30S - 30 sec.    |                 | S10S - 10 sec.         |                        |
|                       | 5S - 5 sec.      |                 | (Blank) - Disable      |                        |

**Detection Area:** Detection area can be reduced to fit precisely each application.

**Hold Time:** The time period the luminaire remains at 100% illumination after no motion detected.

**Low Mode:** The selected low light level after the hold time.

**Stand-by Period:** The time period the luminaire remains at "Low Mode" before it completely switched off in the long absence of people. When set to "∞" mode, the low light level is maintained until motion is detected.

**Daylight Sensor:** The sensor can be set to only allow the luminaire to illuminate below a defined ambient brightness threshold. When set to "Disable" mode, the daylight sensor will switch on the luminaire when motion is detected regardless of ambient light level.

**\*\*Noted that daylight sensor is active only when the luminaire switches off\*\***

**WIRELESS SMART CONTROL SYSTEM (ASMC)**

The Alphalite Wireless Smart Control System is an ideal choice to provide convenient control of lighting. The LED controller uses wireless technology to communicate with other self-powered products in the system and provides an amazingly simple solution for dimming control of LED lighting

**APPLICATION**

Versatile solution for general purpose applications. Ideal for multi level building, offices, school, warehouse, manufacturing facilities, and spaces that demand energy demand reduction and high quality light.

**BENEFITS**

- Reliable, longer indoor range wireless communication
- Easy Design-in
- License-free
- Self-powered
- Lower energy costs
- Lower installation costs
- Strength of interoperability
- Convenient access to replaceable, standard components reduces life cycle costs

