

# **NB-TRK** LED Troffer Kit





# **Project Details**

| PROJECT  |
|----------|
| DATE     |
| TYPE     |
| PREPARER |















NB-TRK innovative Troffer Retrofit Kit offers an economical solution to upgrade existing fluorescent fixtures to LED technology. The NB-TRK kit provides a quick & easy installation which reduces labor cost and maximizes your ROI. The NB-TRK can be used to retrofit most existing 2x2 and 2x4 troffers while eliminating the need to replace existing luminaire housing, which reduces install time, disposal & removal costs. The hard formed diffuser produces comfortable and pleasant illumination on the eyes. Converting your troffers to LED saves money on energy costs and maintenance. The NB-TRK is your ideal choice for commercial applications.

#### Construction

- Galvanized steel body
- Reflective Powder Coat white finish
- Polycarbonate Formed Lens
- Two Rail Installation

#### **Installation & Mounting**

- Recessed/Ceiling T-Bar
- Suspended Mounting

#### **Controls & Dimming**

- 0-10 Volt Dimming
- 12 Volt AUX
- Bluetooth Mesh Control (Avi-on) 90 Mins Emergency Back up Microwave Sensor

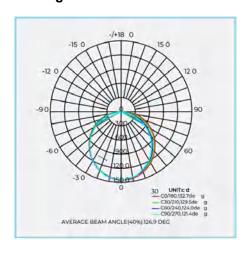
#### **PERFORMANCE Summary**

| Input Voltage      | 100-277V   |
|--------------------|--|
| Input Frequency    | 50/60 Hz   |
| Rated Wattage      | 2x2 - 15W, 20W, 30W ( <b>Selectable</b> )<br>2x4 - 20W, 25W, 35W ( <b>Selectable</b> ) |
| Efficacy           | 140 lm/W   |
| CRI                | >80  |
| Available CCT      | 3500K, 4000K, 5000K  |
| Rated Life (L70)   | 50,000 hrs   |
| IP Rating          | IP20   |
| PF                 | >0.95  |
| Certifications     | DLC, CE, RoHS, ETL   |
| Working Temp. (°F) | -4F - 104F   |
| LED Light Source   | SMD 2835   |

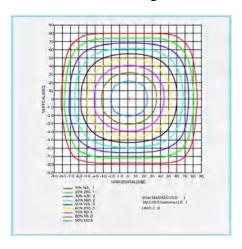


#### **BEAM Angle**

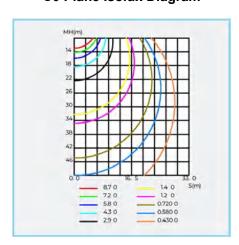
#### **Light Distribution Curve**



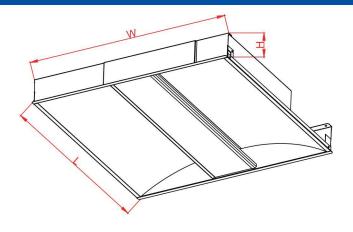
### Isocandela Diagram



#### **C0 Plane Isolux Diagram**

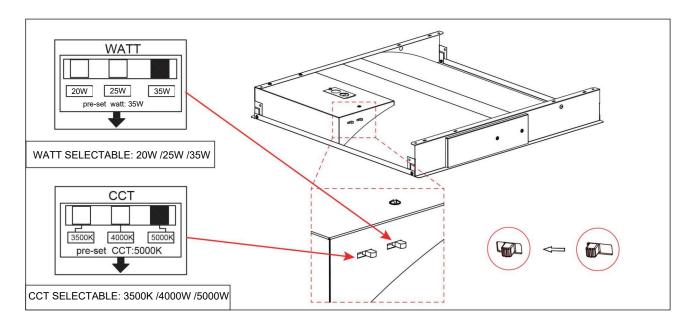


# PRODUCT Dimensions



| MODEL      | L      | W      | Н     |
|------------|--------|--------|-------|
| NB-TRK-2x2 | 23.74" | 23.74" | 2.95" |
| NB-TRK-2x4 | 47.76" | 23.74" | 2.95" |

# **CCT & WATTAGE** Changing



# PERFORMANCE Data

| MODEL          | WATTAGE | ССТ                 | LUMEN   | EFFICACY (Im/W) | VOLTAGE    |
|----------------|---------|---------------------|---------|-----------------|------------|
| NB-TRK-2x2-15W | 15watt  | 3500K, 4000K, 5000K | 2,100lm | 140 lm/W        | 100-277vac |
| NB-TRK-2x2-20W | 20watt  | 3500K, 4000K, 5000K | 2,800lm | 140 lm/W        | 100-277vac |
| NB-TRK-2x2-30W | 30watt  | 3500K, 4000K, 5000K | 4,200lm | 140 lm/W        | 100-277vac |
| NB-TRK-2x4-20W | 20watt  | 3500K, 4000K, 5000K | 2,800lm | 140 lm/W        | 100-277vac |
| NB-TRK-2x4-25W | 25watt  | 3500K, 4000K, 5000K | 3,500lm | 140 lm/W        | 100-277vac |
| NB-TRK-2x4-35W | 35watt  | 3500K, 4000K, 5000K | 4,900lm | 140 lm/W        | 100-277vac |

# ORDERING Format

| SERIES                     | WATTAGE          | ССТ                      | VOLTAGE      | OPTICS        | FINISH*        |
|----------------------------|------------------|--------------------------|--------------|---------------|----------------|
| 2x2: 15W-20W-30W<br>NB-TRK | 35 = 3500K       | V = 400 277V             | Т5           | BLANK = White |                |
| ND-TIXIX                   | 2x4: 20W-25W-35W | 40 = 4000K<br>50 = 5000K | V = 100-277V | 15            | BLAINN - White |

Sample: NB-TRK2x2-35W

| Recessed | Mounting |
|----------|----------|
|----------|----------|

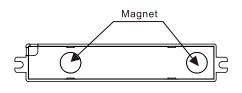
| ANT-7 | Bi-Level Sensor |
|-------|-----------------|
| EM    | Battery Backup  |
| RC    | Programing Tool |

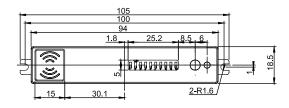
# BI-LEVEL Daylight Harvest Microwave Sensor - ANT-7 Instruction













### DAYLIGHT Harvesting Function (only by using RC100 remote control)

The microwavece sensor to achieve tri-level dimming control, for same areas that require a light change notice before switch off. It offers 3 levels of the light Control: 100%--dimming light (0,10%,30%,50%)—off; and 2 periods of selectable waiting time: motion holdtime and stand-by time. Selectable daylight threshold and choice of detection area.



The light will not switch on when natural light is sufcient, even there is motion detected



The light switches on automatically with presence when natural light is inaufcient



The light turns on at full or dims to maintain the lux level. the light output regulates according to the level of naturl light available

Side View

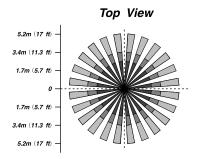


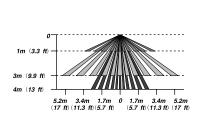
The light dims to stand-by period after hold-time and stays on selected minimum dimming level

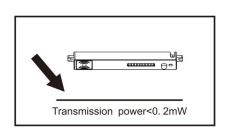


The light switches off completely after the stand-by period

### SENSOR Coverage







**NOTE:** The high-frequency output of this sensor is <0.2mW - that is just one 5000th of the transmission power of a mobiel phone or the output of a microwave oven.

#### SPECIFICATIONS

| Power Supply           | 12-24V DC, >50mA                 |
|------------------------|----------------------------------|
| HF System              | 5.8GHz±75MHz                     |
| Dim Control Output     | 0-10V, max. 25mA sinking current |
| Detection Radius/Angle | Max 17ft. (5.2m)/360°            |
| Mounting Height        | Max 13ft. (4m)                   |
| Remote Range           | 50ft. (15m) indoor, no backlight |
| Humidity               | Max. 95% RH                      |
| Temperature            | -40°F - 158°F (-40°C - 70°C)     |

### **⚠** WARNING

NOTE: Warm up time is 15 seconds. After the sensor connects input power first time, the light will stay on 15 seconds, then start dimming.

NOTE: Factory Default Setting: 100% sensitivity, Hold on time: 10 seconds, Daylight sensor is 30lux, Dimming level: 30% Dimming time: 60 minutes.

**NOTE:** Any setting changed by DIP Switch or remote control, the LED light that sensor connect will on/off as confirm.

#### **UTILIZING** Field and Introdcution

ANT-7 is a moving object sensor that can detect range of 360° and it's working frequency is 5.8GHz. The advantage of this product is stable working state (stable working temperature: -40°C—+70°C), ANT-7 adopts a microwave sensor(high-frequency output <0.2mW) so that it is safe and performs better than infrared sensor.

#### LED EMERGENCY BACK-UP Driver | Dual Flex Conduit | 5W Output | 120 -277V Input

| Driver Type           | Constant Wattage LED Emergency |
|-----------------------|--------------------------------|
| Max. Output Power     | 5W                             |
| Input Voltage         | 120-277 Vac ±10%               |
| Output Voltage        | 20 ~ 60 Vdc                    |
| <b>Output Current</b> | 250mA - 86mA                   |
| Warranty              | 5 Years                        |



#### **PRODUCT Features**

- Drives LED loads at 5W (nominal) for a minimum of 90 minutes
- Meets FCC Part 15 (Class B) consumer limits
- Short circuit overload and open load protection
- Suitable for dry and damp locations
- Safety Standard: UL 924 standards , Complies with CEC Title 20 **Efficiency Standards**
- Operating temperature: 0°C/32°F to 50°C/131°F
- Input frequency: 50/60 Hz

- Test switch/Charging indicator light and wall plate included
- Battery capacity: High-Temperature, Maintenance-Free, LiFeP04 Battery, 9.6Vdc, 3 cell
- Dual flex conduit fits into ½" knockouts
- Listed for field or factory installation: UL 924 and CSA C22.2 no. 141 emergency lighting compliant
- 3A max. pass-through current

# LED Emergency Back-up Driver | Electrical Specifications

|        | INPUT CHARACTERISTICS |              | OUTPUT CHARACTERISTICS |                   |                             |                       |
|--------|-----------------------|--------------|------------------------|-------------------|-----------------------------|-----------------------|
| Family | Input Voltage         | Power Factor | Max. Current           | Max. Output Power | <b>Rated Output Current</b> | <b>Output Voltage</b> |
|        |                       |              | 0.050A @ 120V          |                   |                             | 20~60Vdc              |
| 5W     | 120-277Vac            | ≥0.5         | 0.035A @ 240V          | 5W                | 250mA-104mA                 | Class 2               |
|        |                       |              | 0.030A @ 277V          |                   |                             | Compliant             |

Emergency pack designed to deliver 5W to a constant current LED load. Approximate output is 500 lumens, assuming a nominal minimum efficacy of 100 lm/W

# **ENVIRONMENTAL** Specifications

| Operating Temperature           | 0ºC/32ºF to 55ºC/131ºF  |
|---------------------------------|---|
| Storage Temperature             | -20°C/-4°F to 55ºC/131ºF  |
| Humidity                        | 5% to 95%   |
| MTBF                            | 284,000 hours at 40°C ambient (~55°C/131°F Case temp)                   |
| Life Rating                     | 97,500 hours at 120Vac input, 100% load and 55°C/131°F case temperature |
| <b>Maximum Case Temperature</b> | 55°C/131°F  |

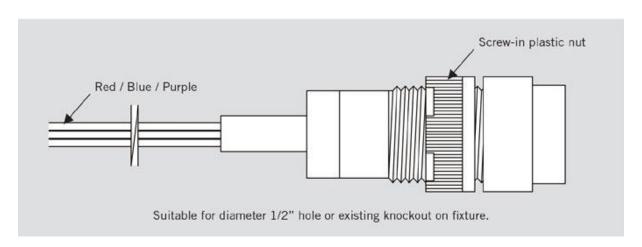
### SAFETY and EMC Compliance

| UL/cUL             | UL 924                                   |  |
|--------------------|--|--|
| FCC, 47CFR Part 15 | ANSI C63.4:2009 Class B (Consumer Limit) |  |
| EN61000-3-2        | Harmonic Current Emissions Class C       |  |

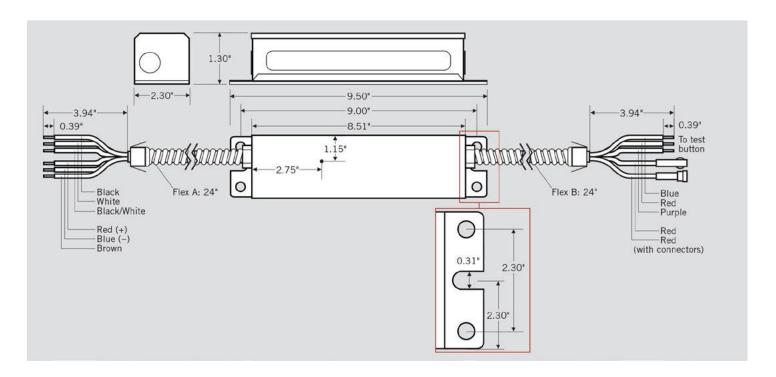
# LED Emergency Back-up Driver | Ordering Information

| ORDER CODE                   | DESCRIPTION  | PACK QUANTITY | EASY CODE | UPC          |
|------------------------------|--|---------------|-----------|--------------|
| KT-EMRG-LED-5C-500-EN /DF-IP | 1-Piece LED Emergency Back-up with Dual Flex Conduit | 1             | RAR-74    | 843654132433 |

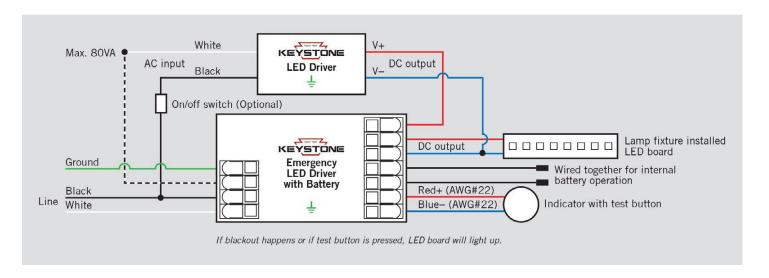
# LED Emergency Back-up Driver | Test Switch



# LED EMERGENCY BACK-UP DRIVER | PHYSICAL Specifications



# LED EMERGENCY BACK-UP DRIVER | WIRING Specifications



### **WIRING** Output Window

