

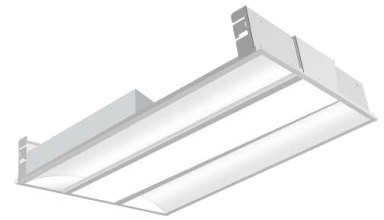
# HFAT

## Floating Air Troffer CCT & Wattage Adjustable Version

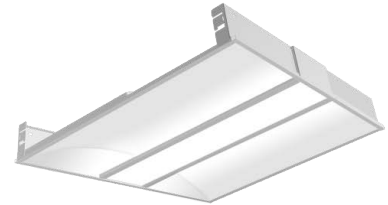
The indirect LED troffer offers a traditional modern design with the latest lighting technology. Transparent optics engineered specifically for LED sources are integrated with minimalist design and architectural materials to create a broad range of solutions with superior optical and energy performance. High performing optics allows for maximum energy savings and optimal illumination in a ultra-minimalistic shallow recessed fixture, provides a unique translucent appearance without sacrificing performance. It is architectural recessed lighting solution that compatible for commercial and institutional environments, including office building, medical, health, educational, retail, hotel, airport, hospitality, etc.

### Features:

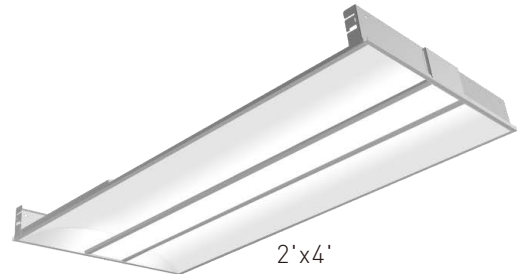
- Available in 1x2ft, 2x2ft and 2x4ft sizes
- Transparent optics
- 0-10V dimming, dim to 10% or 1% options
- Wattage selectable, 110lm/w
- CCT adjustable from 3000K, 3500K and 4000K
- Recessed form factor fits most T-grid ceiling systems



1'x2'



2'x2'



2'x4'

## PERFORMANCE

| Model NO.     | Dimension | Wattage Selectable | Lumen @4000K | Efficacy@4000K | CCT Adjustable    |
|---------------|-----------|--------------------|--------------|----------------|-------------------|
| HFAT22-DM-04W | 2'x2'     | 40W/30W/20W        | Up to 4400lm | 110lm/w        | 3000K/3500K/4000K |
| HFAT24-DM-04W | 2'x4'     | 50W/40W/30W        | Up to 5500lm |                |                   |
| HFAT12-DM-04W | 1'x2'     | 20W/15W/10W        | Up to 2300lm | 115lm/w        |                   |

Lumen output may vary by ±5% based on different CCT and wattage settings. Actual wattage may also vary by ±5%.

US PATENT  
US D921,955 S



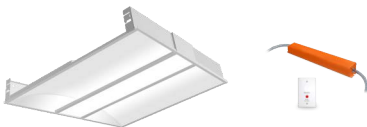
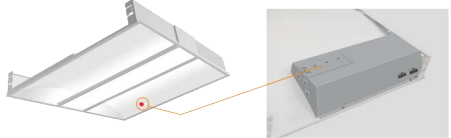
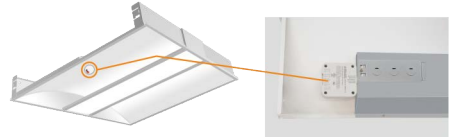
## PRODUCT ORDERING GUIDE

Example: HFAT-22-DM-04W

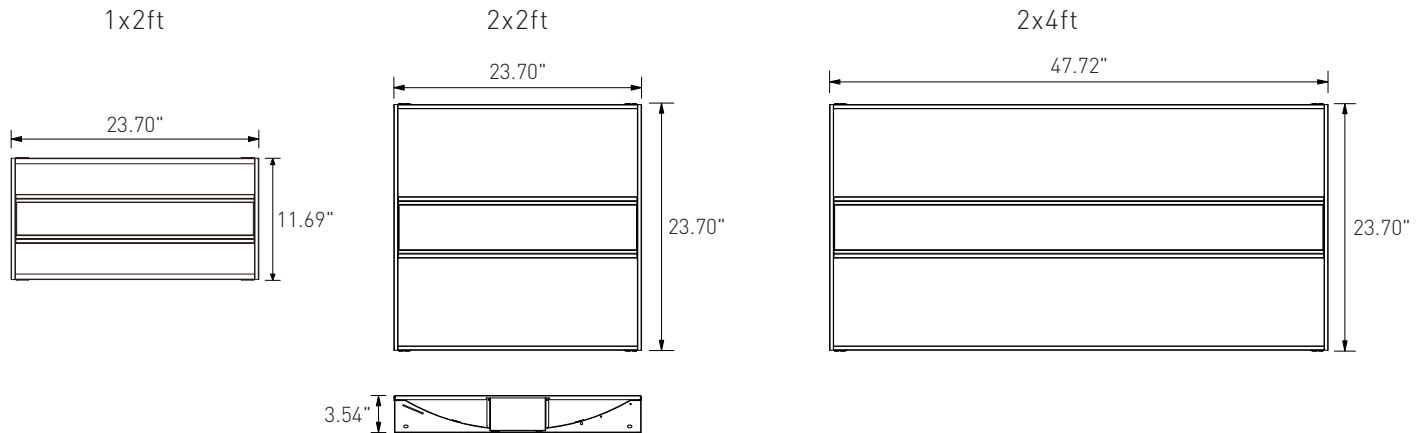
| HFAT                                                                                                             | —                                                         | DM                                            | —                                                  | 04                              | W |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------|----------------------------------------------------|---------------------------------|---|
| Product Series                                                                                                   | Size                                                      | 0-10V Dim                                     | CCT                                                | Wattage                         |   |
| HFAT                                                                                                             | 22                                                        | DM                                            | 04                                                 | W                               |   |
| Floating Air LED Troffer                                                                                         | 2'X2', Up to 4400lm<br>Wattage Selectable (40W,30W,20W)   | QuickShip<br>110-277V AC<br>Dims to 10% or 1% | QuickShip<br>CCT Adjustable<br>3000K, 3500K, 4000K | QuickShip<br>Wattage Selectable |   |
|                                                                                                                  | 24                                                        |                                               |                                                    |                                 |   |
|                                                                                                                  | 2'X4', Up to 5500lm<br>Wattage Selectable (50W, 40W, 30W) |                                               |                                                    |                                 |   |
|                                                                                                                  | 12                                                        |                                               |                                                    |                                 |   |
|                                                                                                                  | 1'X2', Up to 2300lm<br>Wattage Selectable (20W, 15W, 10W) |                                               |                                                    |                                 |   |
| *Make to Order means additional cost and/or lead time on customized fixtures may apply. Some fixtures require an |                                                           |                                               |                                                    |                                 |   |

\*Make to Order means additional cost and/or lead time on customized fixtures may apply. Some fixtures require an MOQ. Please contact your sales rep for more information.

## OPTIONAL ORDERING GUIDE

| Optional 0-10V Dimming                                                                                             |                  | Optional Functions                                                                                                                                                                                                       |                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>D10</b><br>110-277V AC, Dims to 10% (Standard)<br><i>Tested Dimmers: Lutron® Diva-Dvtv, Leviton® IP-710-DL.</i> | <b>QuickShip</b> | <b>EME</b><br>Emergency - External<br>Only external 8w or 25w LED emergency driver with standard indicator available and need field-installed.                                                                           | <b>QuickShip</b><br>     |
| <b>D01</b><br>110-277V AC, Dim to 1%                                                                               | <b>QuickShip</b> | <b>EMI</b><br>Emergency - Built-in<br>Built-in 8W LED emergency driver and indicator before delivery.                                                                                                                    | <b>QuickShip</b><br>     |
|                                                                                                                    |                  | <b>OCC</b><br>Sensor - Built-in*<br>We can provide a factory-installed integrated sensor system for multi-level control based on motion and/or daylight contribution. For more info or spec sheet, please contact sales. | <b>Make to Order</b><br> |

## DIMENSIONS



## PRODUCT PERFORMANCE

**Optics:** offers unique transparent optics to enhance the fixture aesthetic. fully- uniform transparent optics provide uniform, low-glare illumination for a clean, modern, upgraded look, creating direct and indirect light distribution.

**Construction:** Extruded aluminum housing.

**Finish:** Powder coat white finish provides uniform finish providing long term performance and superior aesthetic.

## Electrical

**LED Driver:** Powered by Class 2 high efficiency LED driver, with a standard 0-10V dimming which continuous dims to 10% that works with many types of controls. Tested Dimmers: Lutron Diva-Dvtv, Leviton IP-710-DL. Dim to 1% is available.

**THD:** <20%

**Power Factor:** 0.9

**Input Voltage:** Standard electronic drivers are cULus recognized and available for 110-277V.

## LED System

**CRI:** Minimum 80 color rendering index

**CCT:** Adjustable from 3000K, 3500K and 4000K with a great color consistency

**LED:** Life Minimum 50,000h with 87.8% of lumen maintenance in 25°C ambient temperature, in compliance with IES LM-80 testing measurements.

**Thermal Management:** Aluminum housing acting as the heat sink to maximize life.

**Environment:** Damp rated in operating ambient temperatures of -20°C~ 40°C.

**T-grids Ceiling Compatibility:** It is architectural recessed lighting solution that compatible with most 15/16" and 9/16" t-grid systems for commercial and institutional environment.

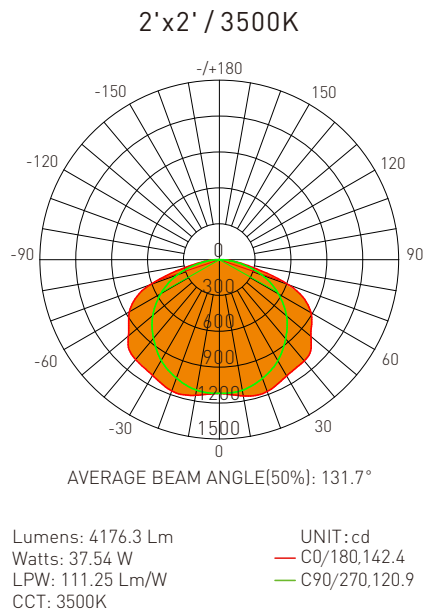
**Mounting:** Recessed

**Approvals:**

- US Patent (US D921,955 S)
- cULus listed for damp locations
- Tested to IESNA LM-79 and LM-80
- DesignLights Consortium Qualified and classified for
- DLC Standard, refer to [www.designlights.org](http://www.designlights.org) for details

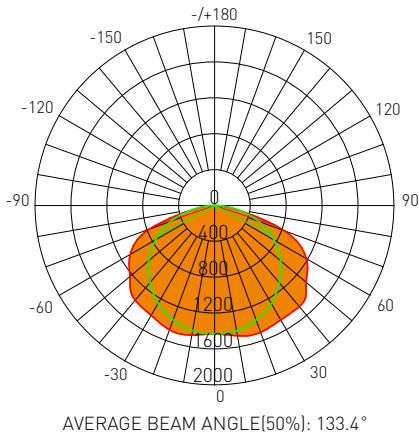
**Warranty:** 5-year Limited Warranty

## DISTRIBUTION DIAGRAM



| Zonal Flux Diagram |                       |        |       |        |       | Zonal Lumens |         | Luminance cd/(m2) |        |         |  |
|--------------------|-----------------------|--------|-------|--------|-------|--------------|---------|-------------------|--------|---------|--|
| Y                  | C0                    | C45    | C90   | C135   | C180  | Y            | φ total | G(DEG)            | C0/180 | C90/270 |  |
| 10                 | 1157                  | 1135   | 1109  | 1132   | 1152  | 0-10         | 107.6   | 85                | 10615  | 8417    |  |
| 20                 | 1173                  | 1137   | 1056  | 1130   | 1168  | 10-20        | 428.0   | 80                | 11061  | 9663    |  |
| 30                 | 1124                  | 1084   | 977.9 | 1075   | 1118  | 20-30        | 935.2   | 75                | 14172  | 10589   |  |
| 40                 | 1105                  | 998.6  | 863.3 | 985.1  | 1090  | 30-40        | 1579    | 70                | 18004  | 11156   |  |
| 50                 | 999.8                 | 923.2  | 733.5 | 902.0  | 992.9 | 40-50        | 2310    | 65                | 18637  | 11393   |  |
| 60                 | 883.4                 | 772.7  | 570.2 | 758.8  | 868.6 | 50-60        | 3044    | 60                | 17682  | 11393   |  |
| 70                 | 615.3                 | 567.1  | 381.9 | 552.9  | 618.6 | 60-70        | 3686    | 55                | 16434  | 11394   |  |
| 80                 | 191.9                 | 213.5  | 168.0 | 217.0  | 190.9 | 70-80        | 4070    | 50                | 15566  | 11400   |  |
| 90                 | 1.700                 | 1.859  | 1.366 | 1.957  | 2.187 | 80-90        | 4164    | 45                | 15284  | 11333   |  |
| 100                | 2.024                 | 1.918  | 1.081 | 1.844  | 1.101 | 90-100       | 4166    |                   |        |         |  |
| 110                | 3.018                 | 2.687  | 1.908 | 2.654  | 1.854 | 100-110      | 4168    |                   |        |         |  |
| 120                | 3.523                 | 2.799  | 2.082 | 2.732  | 1.920 | 110-120      | 4170    |                   |        |         |  |
| 130                | 3.279                 | 2.414  | 2.692 | 2.378  | 1.938 | 120-130      | 4172    |                   |        |         |  |
| 140                | 2.295                 | 1.607  | 2.463 | 1.499  | 1.956 | 130-140      | 4174    |                   |        |         |  |
| 150                | 2.206                 | 0.8639 | 2.039 | 0.9721 | 1.678 | 140-150      | 4175    |                   |        |         |  |
| 160                | 1.662                 | 0.8615 | 2.106 | 1.014  | 1.721 | 150-160      | 4176    |                   |        |         |  |
| 170                | 1.850                 | 1.026  | 2.062 | 1.154  | 1.711 | 160-170      | 4176    |                   |        |         |  |
| 180                | 1.683                 | 1.091  | 2.463 | 1.269  | 1.680 | 170-180      | 4176    |                   |        |         |  |
| DEG                | LUMINOUS INTENSITY:cd |        |       |        |       | UNIT: lm     |         |                   |        |         |  |

2'x4' / 3500K



Lumens: 5460.4 Lm  
Watts: 48.81 W  
LPW: 111.87 Lm/W  
CCT: 3500K

UNIT: cd  
— C0/180, 142.8  
— C90/270, 124.1

Zonal Flux Diagram

| τ   | C0                     | C45    | C90    | C135   | C180  |
|-----|------------------------|--------|--------|--------|-------|
| 10  | 1476                   | 1453   | 1419   | 1442   | 1467  |
| 20  | 1506                   | 1462   | 1356   | 1431   | 1475  |
| 30  | 1475                   | 1412   | 1264   | 1363   | 1415  |
| 40  | 1472                   | 1332   | 1124   | 1261   | 1380  |
| 50  | 1334                   | 1257   | 965.4  | 1162   | 1233  |
| 60  | 1183                   | 1052   | 764.1  | 969.1  | 1087  |
| 70  | 829.5                  | 785.9  | 526.3  | 724.8  | 776.3 |
| 80  | 233.4                  | 277.8  | 238.8  | 270.1  | 223.4 |
| 90  | 1.578                  | 2.350  | 14.28  | 2.462  | 1.629 |
| 100 | 1.451                  | 2.109  | 2.911  | 2.214  | 1.815 |
| 110 | 2.116                  | 2.843  | 2.507  | 2.676  | 2.042 |
| 120 | 2.355                  | 2.863  | 1.316  | 2.762  | 2.115 |
| 130 | 2.238                  | 2.051  | 1.134  | 1.924  | 1.950 |
| 140 | 1.839                  | 1.085  | 0.9668 | 0.8426 | 1.870 |
| 150 | 1.415                  | 0.7827 | 0.9557 | 0.7437 | 1.752 |
| 160 | 1.088                  | 0.7829 | 1.002  | 0.7228 | 1.633 |
| 170 | 1.312                  | 0.8800 | 1.262  | 0.9410 | 1.667 |
| 180 | 1.390                  | 0.9644 | 1.314  | 1.081  | 1.632 |
| DEG | LUMINOUS INTENSITY: cd |        |        |        |       |

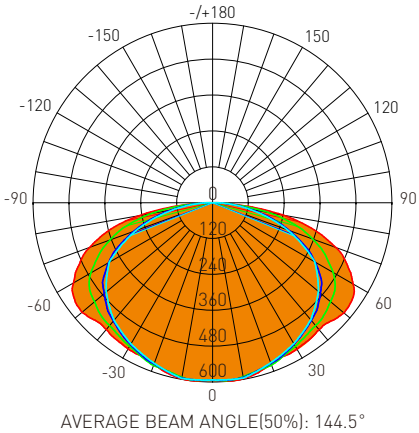
Zonal Lumens

| τ       | Φ total  |
|---------|----------|
| 0-10    | 137.5    |
| 10-20   | 546.5    |
| 20-30   | 1197     |
| 30-40   | 2032     |
| 40-50   | 2987     |
| 50-60   | 3952     |
| 60-70   | 4807     |
| 70-80   | 5325     |
| 80-90   | 5448     |
| 90-100  | 5451     |
| 100-110 | 5454     |
| 110-120 | 5456     |
| 120-130 | 5458     |
| 130-140 | 5459     |
| 140-150 | 5459     |
| 150-160 | 5460     |
| 160-170 | 5460     |
| 170-180 | 5460     |
|         | UNIT: lm |

Luminance cd/(m2)

| G(DEG) | C0/180 | C90/270 |
|--------|--------|---------|
| 85     | 11179  | 12390   |
| 80     | 13456  | 13747   |
| 75     | 18946  | 14805   |
| 70     | 24285  | 15384   |
| 65     | 24922  | 15466   |
| 60     | 23686  | 15279   |
| 55     | 22066  | 15111   |
| 50     | 20773  | 15016   |
| 45     | 20368  | 14854   |

1'x2' / 4000K



Lumens: 4176.3 Lm  
Watts: 37.54 W  
LPW: 111.25 Lm/W  
CCT: 3500K

UNIT: cd  
— C0/180, 155.7 deg  
— C90/210, 149.4 deg  
— C0/240, 137.1 deg  
— C90/270, 135.9 deg

Zonal Flux Diagram

| τ   | C0                     | C45   | C90   | C135  | C180  |
|-----|------------------------|-------|-------|-------|-------|
| 5   | 598.3                  | 596.0 | 594.1 | 595.6 | 598.1 |
| 10  | 597.1                  | 590.8 | 595.6 | 592.1 | 597.9 |
| 15  | 589.2                  | 578.4 | 582.5 | 579.6 | 589.4 |
| 20  | 571.8                  | 572.3 | 569.4 | 572.8 | 573.7 |
| 25  | 565.8                  | 561.5 | 556.6 | 562.8 | 564.9 |
| 30  | 565.0                  | 545.2 | 543.9 | 546.6 | 564.7 |
| 35  | 560.7                  | 534.3 | 527.4 | 534.7 | 559.5 |
| 40  | 554.0                  | 523.7 | 511.0 | 524.7 | 553.5 |
| 45  | 559.9                  | 504.6 | 486.7 | 506.3 | 556.2 |
| 50  | 573.5                  | 490.3 | 462.4 | 491.5 | 570.0 |
| 55  | 568.8                  | 461.3 | 428.4 | 463.4 | 563.9 |
| 60  | 542.7                  | 419.5 | 394.5 | 423.8 | 537.3 |
| 65  | 497.8                  | 363.4 | 331.1 | 368.2 | 493.4 |
| 70  | 439.0                  | 301.1 | 267.8 | 306.0 | 438.4 |
| 75  | 352.9                  | 230.4 | 195.7 | 238.1 | 360.1 |
| 80  | 238.4                  | 145.7 | 123.7 | 154.9 | 249.9 |
| 85  | 88.96                  | 67.74 | 62.92 | 75.10 | 106.8 |
| 90  | 1.881                  | 2.390 | 2.174 | 2.472 | 2.556 |
| DEG | LUMINOUS INTENSITY: cd |       |       |       |       |

Zonal Lumens

| τ       | Φ total  |
|---------|----------|
| 0-10    | 14.23    |
| 10-20   | 56.84    |
| 20-30   | 126.6    |
| 30-40   | 222.0    |
| 40-50   | 341.3    |
| 50-60   | 482.4    |
| 60-70   | 642.7    |
| 70-80   | 820.7    |
| 80-90   | 1015     |
| 90-100  | 1221     |
| 100-110 | 1435     |
| 110-120 | 1650     |
| 120-130 | 1855     |
| 130-140 | 2040     |
| 140-150 | 2195     |
| 150-160 | 2310     |
| 160-170 | 2376     |
| 170-180 | 2395     |
|         | UNIT: lm |

Luminance cd/(m2)

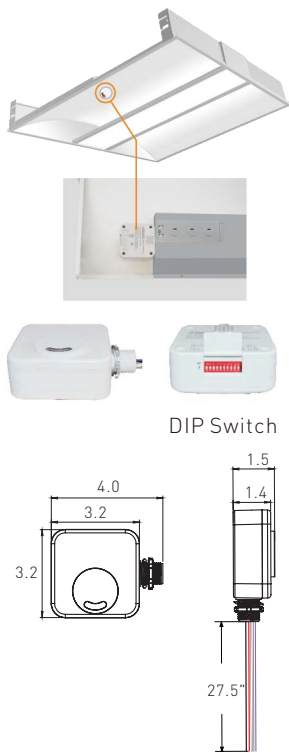
| G(DEG) | C0/180 | C90/270 |
|--------|--------|---------|
| 85     | 5734   | 4056    |
| 80     | 7712   | 4001    |
| 75     | 7659   | 4248    |
| 70     | 7211   | 4398    |
| 65     | 6618   | 4402    |
| 60     | 6098   | 4432    |
| 55     | 5571   | 4196    |
| 50     | 5012   | 4041    |
| 45     | 4449   | 3867    |

## OCC MICROWAVE SENSOR OPTION-BUILT-IN

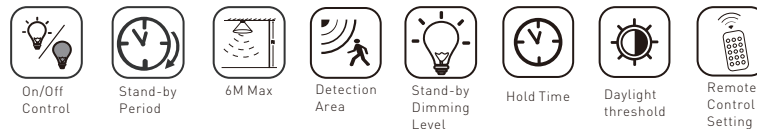
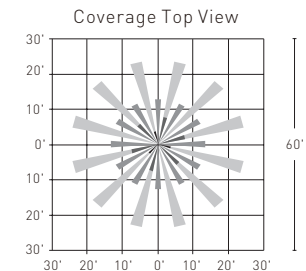
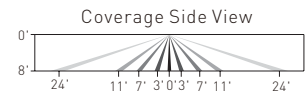
We can provide a factory-installed integrated sensor system (Line Voltage Daylight Harvest / Bi-Level) for multi-level control based on motion and/or daylight contribution. For more info or spec sheet, please contact sales.

### Specifications

|                        |                                                                                                                              |
|------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Operating Voltage      | 120/277VAC, 50Hz/60Hz                                                                                                        |
| Switching Capacity     | Resistive/Halogen-800W/1200@120/277V<br>Fluorescent Ballast-660W/1200@120/277V<br>Electronic Ballast(LED/CFL)-5A/5A@120/277V |
| Stand-by Power         | ≤0.5W                                                                                                                        |
| Detection Area         | 20%/50%/75%/100%                                                                                                             |
| Hold Time              | 10s/1min/5min/10min/15min/20min/30min/60min                                                                                  |
| Daylight Threshold     | 10Lux/30Lux/50Lux                                                                                                            |
| Stand-by Period        | 1min/30min/60min/+∞                                                                                                          |
| Stand-by Dimming Level | 0%/10%/30%/50%                                                                                                               |
| Microwave Frequency    | 5.8GHz±5MHz                                                                                                                  |
| Microwave Power        | <0.2mW                                                                                                                       |
| Mounting Height        | Max.6m                                                                                                                       |
| Detection Range        | Max.8m                                                                                                                       |
| Control Line           | VIOLET+,GRAY-,RED L <sup>+</sup> Out, WHITE N, BLACK L in                                                                    |
| Operating Temperature  | -40°C~+70°C                                                                                                                  |
| IP Rating              | IP20                                                                                                                         |
| Detection Angle        | 360°                                                                                                                         |

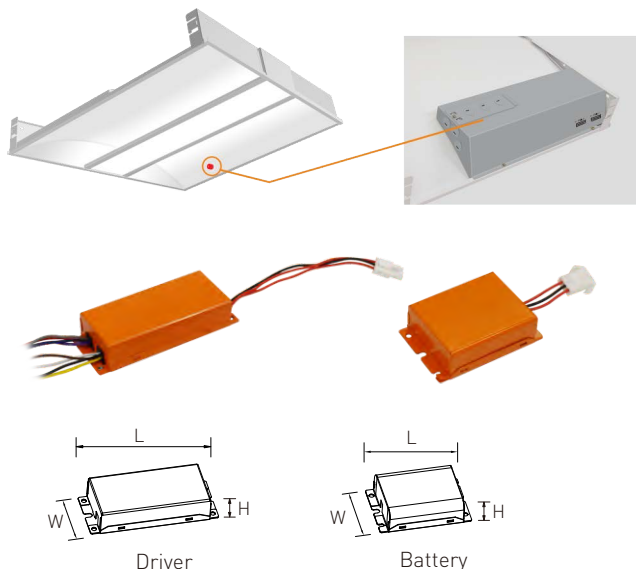


### Detection Pattern



## EMI EMERGENCY OPTION - BUILT-IN

Built-in 8W LED emergency driver and indicator before delivery. Up to 120 minutes in event of power failure.



### Specifications

|                          |                                                                |
|--------------------------|----------------------------------------------------------------|
| Output Power             | 8 Watts                                                        |
| Output Voltage           | 15-54V                                                         |
| Input Current            | 70 mA (Max)                                                    |
| Input Power              | 3.2 Watts (Max)                                                |
| Input Voltage            | 100-277VAC, 50-60Hz                                            |
| Emergency Operation      | ≥90 Minutes                                                    |
| Standby Power            | <0.4W                                                          |
| Operating Temp           | 0°C to 50°C                                                    |
| Battery                  | Lithium                                                        |
| Recharge                 | 24 Hrs                                                         |
| Compatible LED Luminaire | LED Driver Output Current: 5A Max                              |
| Dimensions               | Driver: L5.08"xW2.05"xH0.99",<br>Battery: L3.47"xW2.33"xH0.97" |
| Certificate              | UL , CEC                                                       |
| Output Class             | UL LELV (Output protection self-resetting)                     |



| Model        |         | L     | W     | H     |
|--------------|---------|-------|-------|-------|
| EM-S0854-LBN | Driver  | 5.08  | 2.05" | 0.99" |
|              | Battery | 3.47" | 2.33" | 0.97" |