# **ADVANCE**

## by (s) ignify

## **LED Driver**

### Xitanium

## XI095C275V054BSF1





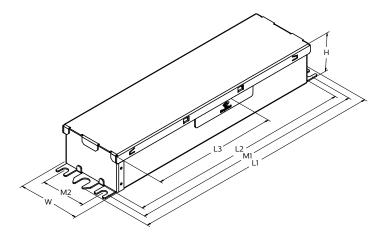
Advance Xitanium outdoor LED drivers with SimpleSet technology are designed to give OEMs ultimate flexibility. The drivers' wide operating windows and simple programming make it easy for luminaire manufacturers to design luminaires of different sizes and lumen levels for outdoor applications.

#### **Specifications**

| Input<br>Voltage<br>(Vac) | Output<br>Power<br>(W) | Output<br>Voltage<br>(V) | Output<br>Current<br>(A) | Efficiency@<br>Max Load<br>and 75°C<br>Case | Max Case<br>Temp.<br>(°C) | Input<br>Current<br>(A) | Max.<br>Input<br>Power<br>(W) | THD<br>@ Max<br>Load<br>(%) | Power<br>Factor @<br>Max Load | Surge<br>Protection<br>(Combi-<br>Wave, KV) | Envir.<br>Protection<br>Rating | Driver<br>Type      |
|---------------------------|------------------------|--------------------------|--------------------------|---|---------------------------|-------------------------|-------------------------------|-----------------------------|-------------------------------|---|--------------------------------|---------------------|
| 120                       |                        | 20-54                    |                          | 88.4  |                           | 0.89                    |                               |                             |                               |   | UL damp                        |                     |
| 277                       | 95                     | Class 2<br>Output        | 0.1 - 2.75               | 89.8  | Life - 85°C<br>UL - 90°C  | 0.38                    | 110                           | <10%                        | >0.95                         | 6   | & dry and<br>Type HL           | Constant<br>Current |

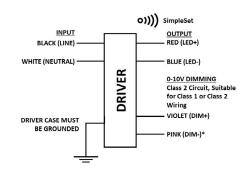
#### **Enclosure**

|                                  | In. (mm)     |
|----------------------------------|--------------|
| Case Length (L2)                 | 8.44 (214.4) |
| Case Width (W)                   | 2.35 (59.8)  |
| Case Height (H)                  | 1.68 (37.6)  |
| Mounting Length (M)              | 8.91 (226.2) |
| Overall Length (L1)              | 9.47 (240.5) |
| Center of SimpleSet Antenna (L3) | 4.70 (119.3) |



### **Wiring Diagram**

| Dimming                     | Wire Length (mm) |  |  |
|-----------------------------|------------------|--|--|
| Black (Line)                | 270 (± 30)       |  |  |
| White (Neutral)             | 270 (± 30)       |  |  |
| Red (Positive, LED Output)  | 270 (± 30)       |  |  |
| Blue (Negative, LED output) | 270 (± 30)       |  |  |
| Violet (Positive, 0-10V)    | 270 (± 30)       |  |  |
| Pink (Negative, 0-10V)      | 270 (± 30)       |  |  |



\*DIM- will change from GREY to PINK from 2021 onwards.

#### WARNING:

Install in accordance with national and local electrical codes.

| Dimming                           | Dimming Range<br>(with specified<br>dimmers) | Minimum Output<br>Current (A) |
|-----------------------------------|--|-------------------------------|
| 0-10V Analog Class 1 and 2 Wiring | 5% ~ 100%                                    | 0.03                          |



## 95W 0.1-2.75A 0-10V Dimming with SimpleSet F-Can

#### **Features**

- 50,000+ hour lifetime1
- Programmable output current through SimpleSet
- · Large operating window
- 6kV combi-wave surge rating to comply with ANSI C82.77-5 CAT C low

#### **Benefits**

- · Designed for Class 2 luminaires
- Fast and simple way of programming
- Perfectly suited for COB applications up to 2.6A
- Industry leading dimming range for 95W Class 2 product
- No external surge protection required to pass C82.77-5 CAT C low

### **Application**

- Area
- · Roadway
- · Parking garages
- Floodlights
- · High-bay and mid-bay fixtures

## **Electrical Specifications**

All the specifications are typical and at 25°C Tcase unless specified otherwise.

#### **Product Data**

| Order Information   |  |  |  |  |  |
|---|--|--|--|--|--|
| Full Product Code   | XI095C275V054BSF1M (Mid-Pack, 10pcs/Box) 12NC = 929000780513   |  |  |  |  |
| Line Frequency  | 50/60Hz  |  |  |  |  |
| Min. Mains Voltage Operational                                | 108 Vac  |  |  |  |  |
| Max. Mains Voltage Operational                                | 305 Vac  |  |  |  |  |
| Output Information  |  |  |  |  |  |
| Maximum Open Circuit Voltage                                  | <60Vdc (Class 2 Output)  |  |  |  |  |
| Output Current Ripple<br>(ripple = peak to average / average) | 15% max @ max lout<br>(Low frequency ripple ( ≤120Hz) content <5%)                                   |  |  |  |  |
| Output Current Tolerance<br>(in performance window)           | <5%  |  |  |  |  |
| Protections   | Short Circuit, Open Circuit Protection for LED + and LED - and Temperature Foldback                  |  |  |  |  |
| Features  |  |  |  |  |  |
| 0-10V Dimming   | 150μA (±3%) source current from driver. See dim curve for detail.                                    |  |  |  |  |
| AOC (Adjustable Output Current)                               | 0.1A-2.75A via SimpleSet (Factory Default at 2.3A)   |  |  |  |  |
| Additional SimpleSet Configurable Features                    | Adjustable Min Dim level, Adjustable Lumen Output, Adjustable Lumen Output Min, OEM Write Protection |  |  |  |  |
| Environment & Approbation                                     |  |  |  |  |  |
| Operating Ambient Temp. Range                                 | -40°C to +55°C   |  |  |  |  |
| Max Case Temperature (Tcase)                                  | 90°C   |  |  |  |  |
| Agency Approbations   | UL 8750, UL 1310, NOM, cUL, Class P(UL, cUL)   |  |  |  |  |
| Electromagnetic Compliance                                    | FCC Title 47 Part 15 Class A   |  |  |  |  |
| Audible Noise   | <24dB Class A  |  |  |  |  |
| Weight  | 2.1 Lbs / 0.95 kgs   |  |  |  |  |

Advance Xitanium LED Drivers are manufactured to engineering standards correlating to a designed and average life expectancy of 50,000 hours
of operation at maximum rated case temperature. Minimum 90% survivals based on MTTF modeling.

# 95W 0.1-2.75A 0-10V Dimming with SimpleSet F-Can

### **Electrical Specifications**

All the specifications are typical and at 25°C Tcase unless specified otherwise.

### 0-10V Dimming Curve

Dimming source current from the driver:  $150\mu A$  (@ 0<Vdim<8V)

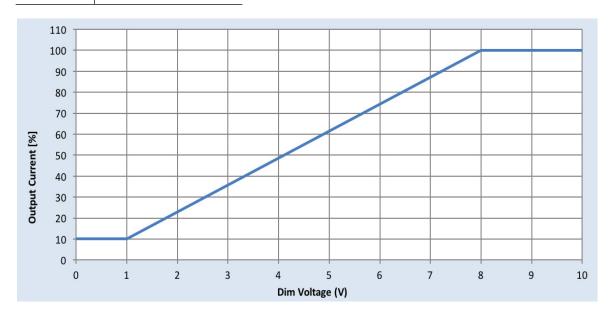
Minimum dim level: Factory default 10% of lout setting as default

Maximum output voltage on the dimming wires: 12V

Control Lead Leakage Current: 0.01mA, recommend max number of control circuits in parallel refer to Design-in Guide

### **Approved Dimmer List**

| Manufacturer | Manufacturer Part Number  |  |  |  |
|--------------|---|--|--|--|
| Lutron       | Visit www.lutron.com/<br>advance for a list of dimmers<br>(Mark VII) that will work<br>with this driver |  |  |  |
| Leviton      | IllumaTech IP7 series   |  |  |  |
| Advance      | Sunrise - SR1200ZTUNV   |  |  |  |

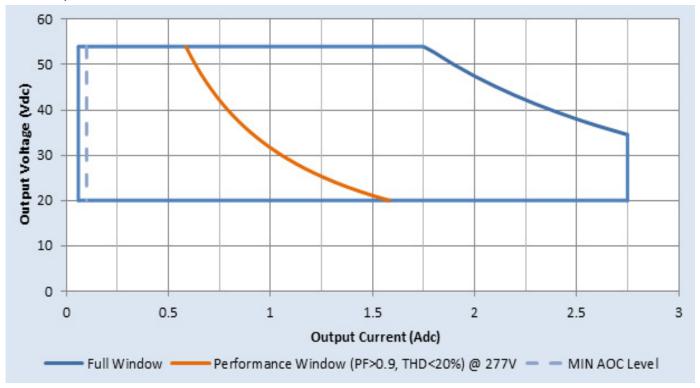


## 95W 0.1-2.75A 0-10V Dimming with SimpleSet F-Can

### **Electrical Specifications**

All the specifications are typical and at  $25^{\circ}\text{C}$  Tcase unless specified otherwise.

### **Driver Output Window**



### **Notes**

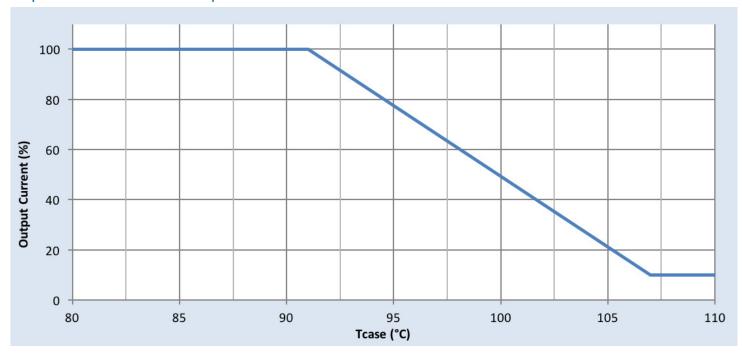
- 1. Factory default output current is 2.3A.
- 2. To get a 100% to 5% dimming range, the output current setting through AOC should be  $\geq$  600mA.
- 3. Factory default setting for the dimming range is 100% to 10%. However, the minimum dim level can be set between 5% and 100% through MultiOne and SimpleSet.

# 95W 0.1-2.75A 0-10V Dimming with SimpleSet F-Can

### **Electrical Specifications**

All the specifications are typical and at 25°C Tcase unless specified otherwise.

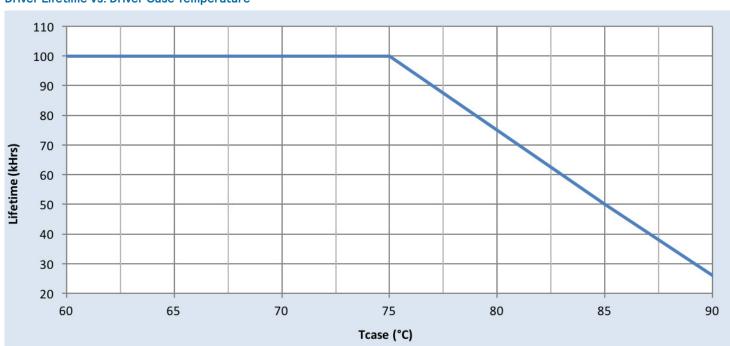
### **Output Current Vs. Driver Case Temperature**



#### Note

There is  $\pm 5^{\circ}$ C tolerance on the driver case temperature.

### **Driver Lifetime Vs. Driver Case Temperature**

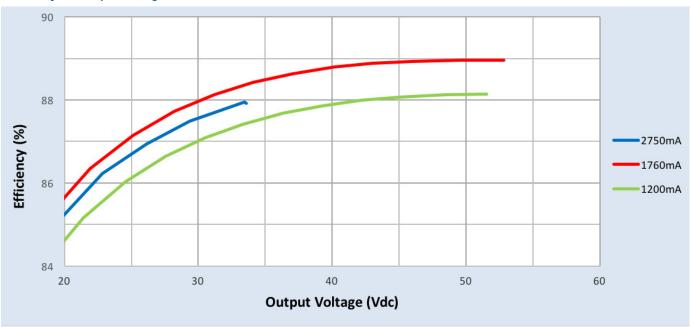


# 95W 0.1-2.75A 0-10V Dimming with SimpleSet F-Can

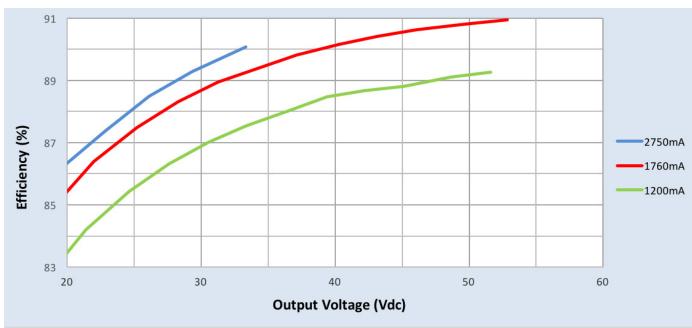
#### **Performance Characteristics**

Based on measurements on a typical sample at  $75^{\circ}$ C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

### Efficiency Vs. Output Voltage at 120Vac



## Efficiency Vs. Output Voltage at 277Vac

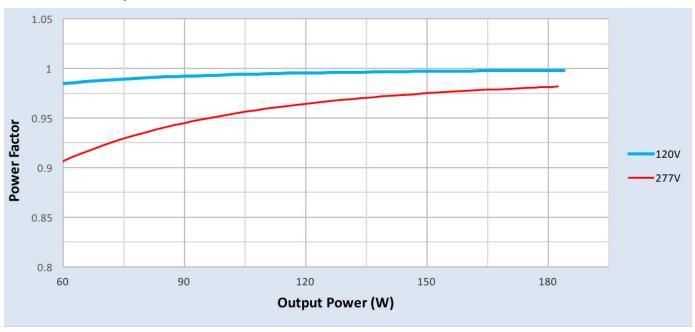


# 95W 0.1-2.75A 0-10V Dimming with SimpleSet F-Can

### **Performance Characteristics**

Based on measurements on a typical sample at 75°C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

#### Power Factor Vs. Output Power

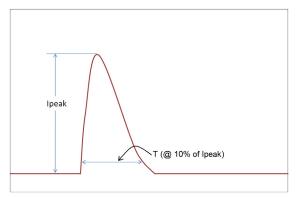


### Total Harmonic Distortion (THD) Vs. Output Power



## 95W 0.1-2.75A 0-10V Dimming with SimpleSet F-Can

#### **Inrush Current Info**



| Vin      | lpeak | T (@ 10% of Ipeak) |
|----------|-------|--------------------|
| 120 Vrms | 27A   | 141µS              |
| 277 Vrms | 84A   | 117µS              |

Inrush current is measured at peak of the corresponding line voltage. Source impedance per NEMA 410.

### **Lightning Surge Info**

| ANSI Surge Type                    | Differential Mode (L-N) | Common Mode (L-G, N-G, L&N-G) |
|------------------------------------|-------------------------|-------------------------------|
| 1.2/50μs Combination Wave (w/t 2Ω) | 6kV                     | 6kV                           |

#### Isolation

| Isolation | Input   | Output  | 0-10V | Enclosure |
|-----------|---------|---------|-------|-----------|
| Input     | NA      | 2xU+1kV | 2.5kV | 2xU+1kV   |
| Output    | 2xU+1kV | NA      | 2.5kV | 500V      |
| 0-10V     | 2.5kV   | 2.5kV   | NA    | 2.5kV     |
| Enclosure | 2xU+1kV | 500V    | 2.5kV | NA        |

U = Max. input voltage

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Signify North America Corporation 200 Franklin Square Drive, Somerset, NJ 08873 Telephone 855-486-2216 Signify Canada Ltd. 281 Hillmount Road, Markham, ON, Canada L6C 2S3 Talanhana 800-668-9008