## ADVANCE

by (s)ignify

**LED Driver** 

CertaDrive X

CI026C055V048CDX1



Advance CertaDrive X LED drivers are designed to meet basic lighting needs. These drivers are offered with specific voltage-current settings and are, thus, optimized with specifications that are appropriately suited for the application, making LED conversion affordable.

#### Specifications

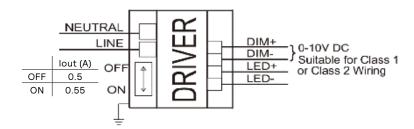
Input Volt. (Vac)	Out- put Power (W)	Output Volt. (V)	Output Current (A)	Efficiency@ Max. Load and 70°C Case (%)	Max. Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max. Load (%)	Power Factor @ Max. Load	Surge Protection (Ring- Wave, KV)	Envir. Protection Rating	Dim	Dimming Range (with specified dimmers)	Driver Type
120	26	28-48	85	T <sub>life</sub> : 70°C	0.26					UL damp	0-10V	10% ~	Constant	
277		26	Class 2 Output	0.55A	87	T <sub>uL</sub> : 80°C	0.11	31.1	<20%	>0.90	2.5	& dry	Analog	100%

#### Enclosure

**Mechanical Diagram** 

ltem	ln(mm)	Tolerance (mm)	
Overall length (A1)	11.02 (280.0)	+/-0.5	
Mounting Hole Distance (A2)	10.52 (267.3)	+/-0.5	
Mounting Hole Distance (A3)	10.85 (275.6)	+/-0.5	
Cover Length (A4)	8.81 (223.8	+/-0.5	
Case Width (B1)	1.18 (30.0)	+/-0.5	
Case Height (C1)	0.83 (21.0)	+/1.0	
Mounting Hole Diameter (D1)	0.20 (5.08)	+/-0.3	
Mounting Hole Diameter (D2)	0.30 (7.7)	+/-0.3	

#### Wiring Diagram



#### Switch position default = OFF

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

#### WARNING:

Install in accordance with national and local electrical codes. Use 18 AWG Solid Copper Wire Rated >= 90 °C. Strip Wire 3/8".

For Class 2 Wiring, Use 20 AWG-16 AWG.

The field-wiring leads or push-in terminals shall be fully enclosed.

USE ONLY WITHIN AN ENCLOSURE.

DOIT ÊTRE INSTALLÉ DANS UNE ENCEINTE

#### GROUNDING:

Driver case must be grounded.



#### Features

- 50,000+ hour lifetime<sup>1</sup>
- Excellent thermal performance
- High power factor & low THD<sup>2</sup>

#### **Benefits**

- Enables long life luminaire designs
- Allows operability in indoor (low-bay) ambient conditions
- $\boldsymbol{\cdot}$  Suitable for commercial indoor applications

#### Application

- Indoor linear troffers, pendants
- Office areas
- Retail centers
- Educational facilities

#### **Electrical Specifications**

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

#### **Product Data**

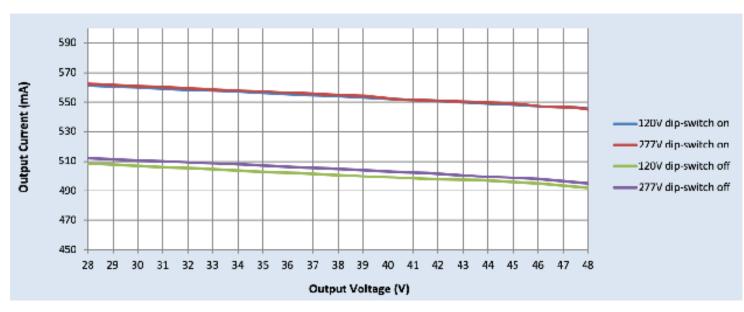
Order Information					
CI026C055V048CDX1 (Mid-Pack, 18pcs/Box) 12NC:929001791513					
50/60Hz					
108 Vac					
305 Vac					
60Vdc, Class 2 output					
30% max @ max lout					
< 8% <sup>2</sup>					
Short Circuit protection					
52V+/-4V Hiccup mode protection					
See dim curve for detail.					
-20°C to +40°C					
80°C, Tcase Life: 70°C					
UL8750, UL1310, cUL, Class P(UL, cUL)					
FCC Title 47 Part 15 Class A					
<20dB Class A					
0.390Lbs / 0.177kgs					

 Advance CertaDrive LED drivers are manufactured to engineering standards correlating to a designed and average life expectancy of 35,000 hours of operation at maximum rated case temperature. Minimum 90% survivals based on MTBF modeling.

2. Note: power factor (PF) and total harmonic distortion (THD) may deviate under adverse mains voltage conditions outside nominal operation. Output current (I out) variation includes effects of line and load regulation, temperature variation and component tolerances.

#### **Electrical Specifications**

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



#### lout Vs. Vout

When designing LED board, please consider LED voltage increases due to cold temperature, forward voltage tolerance and aging to make sure LED voltage is always below 48V. Recommended typical LED voltage at room temperature 43V or below.

#### **Electrical Specifications**

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#### 0-10V Dimming Curve

Dimming source current from the driver: 200µA (@ 0<Vdim<8V)

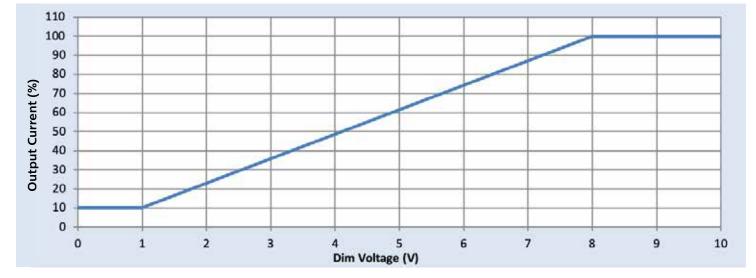
Minimum dim level: 10% of lout

Maximum output voltage on the dimming wires: 12V

Leaking current of dimming leads: 0.01mA, recommended max number of control circuits in parallel, refer to Design in Guide.

#### **Approved Dimmer List**

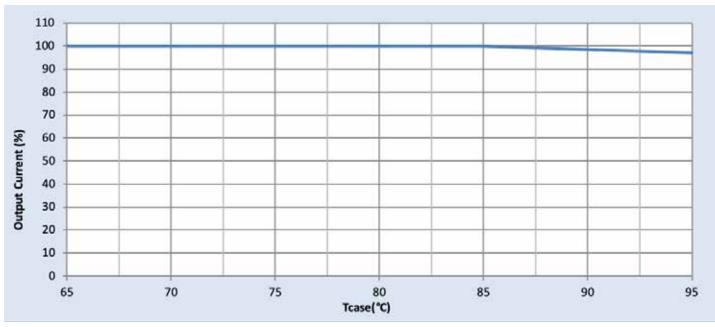
Manufacturer	Manufacturer Part Number		
Lutron	Visit www.lutron.com		
Leviton	IllumaTech IP7 series		
Philips	Sunrise - SR1200ZTUNV		



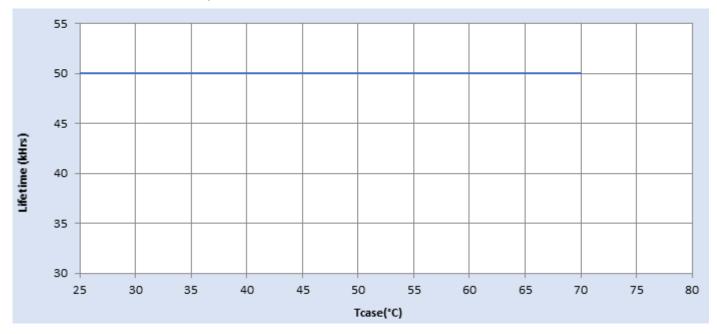
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#### **Output Current Vs. Driver Case Temperature**

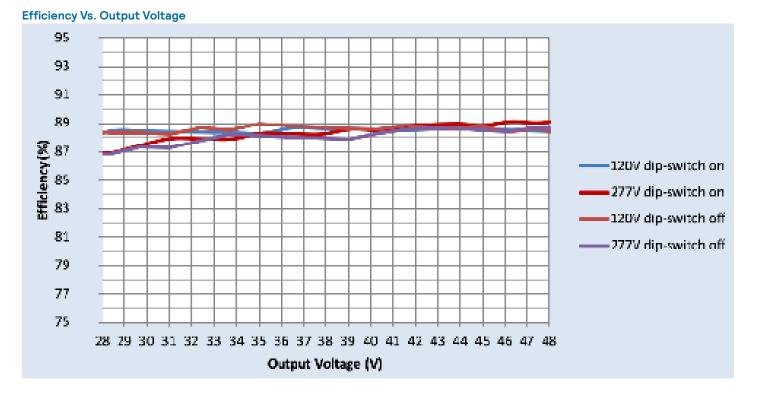


#### Driver Lifetime vs. Driver Case Temperature



#### **Performance Characteristics**

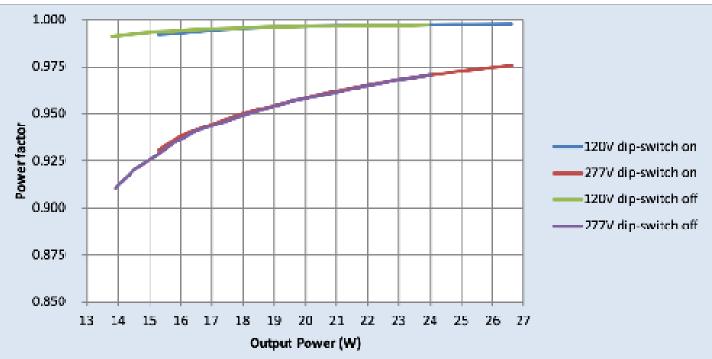
Based on measurements on a typical sample at 70°C case. The accuracy of the measurements is within the tolerance of the measurement instruments.



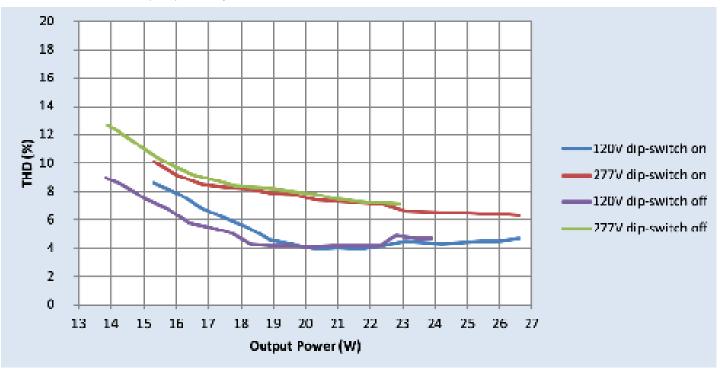
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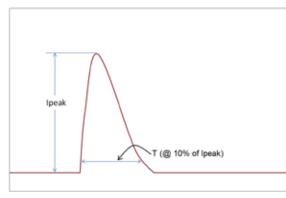
#### Power Factor Vs. Output Power



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



#### Inrush Current Info



Vin	lpeak	T (@ 10% of Ipeak)		
120 Vrms	8.8A	4.7µS		
277 Vrms	20.9A	4.7µS		

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)		
100 kHz Ring Wave (w/t 30Ω)	2.5kV	2.5kV		

#### Isolation

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

U = Max input voltage

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CertaDrive\_26W\_CI026C055V048CDX1\_PAd-19104DS 06/22 page 8 of 8

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