AC ELECTRONICS™
ACELEDS.COM

Constant Current LED Driver

Model Number AC-50CD1.4APC7

Input Voltage: 120-277V
Input Frequency: 50/60Hz
Side Mount/Leads Options
Start time <1 Second
Dims to 1% or 10%

Energy EPA POLLUTION PREVENTER

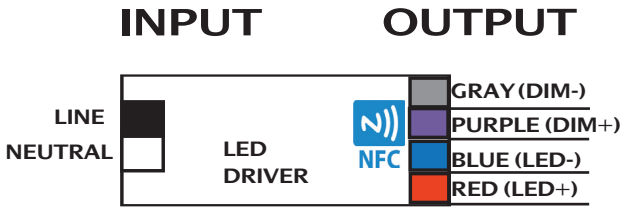
PROGRAMMABLE, DIGITAL, WIDE-RANGE AJUSTABLE CURRENT & DIMMING CLASS P LISTED

ELECTRICAL SPECIFICATIONS:

Output Power	Input Power	Input Current	Min PF (full load)	Max THD (full load)	Output Voltage	Output Current	T case Max	Min Starting Temp**	IP Rating	Efficiency Up To	Dimming Protocol	Dimming Range
50W	60W	0.5A@120V 0.22A@277V	>0.90	<20	15-55V	400mA-1400mA	90°C	-40°C	64	85%	0 to 10V	1 to 100%

** This driver can operate down to -40°C in a non-dimming condition. Below 0°C some flicker may be observed.

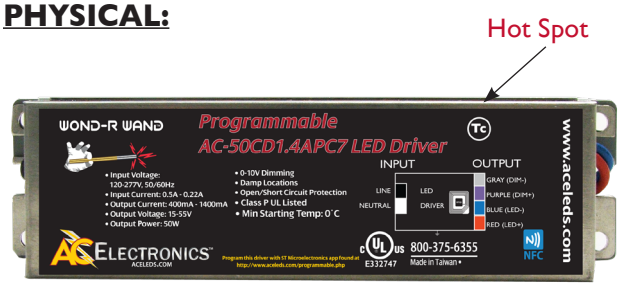
WIRING:



Lead Lengths					
Black	5.9"	Blue	5.9"	Purple	7.1"
White	5.9"	Red	5.9"	Gray	7.1"

Tref Max Value (°C)	Tc/Tref Value (°C)	Ta/Value (°C)
90	61.7	40

PHYSICAL:



Dimensions			
Length	6.22"	Width	1.73"
Height	1.22"	Mounting Length	5.86"

SAFETY:

- Class P Listed
- Class A sound rating
- Overload Protection
- Open/Short Circuit Protection
- LED driver has a life expectancy of 50,000 hours at Tcase of ≤75°C
- LED driver has a life expectancy of 100,000 hours at Tcase of ≤65°C
- Warranty: 5 yrs based on max case temp of <75°C; 3 yrs based on max case temp of 90°C*
- Input/Output Isolation
- FCC Title 47 CFR Part 15
- Surge Protection (1 KV)

Programming instructions on the last page

INSTALLATION:

- Max Remote installation distance is 18 ft
- LED driver cases should be grounded
- LED drivers shall be installed inside electrical enclosures
- 18 AWG 600V/105C tinned stranded copper lead-wires are required for installation

c UL us

*AC Electronics/AC LED Power Designs warrants to the purchaser that each LED Driver will be free from defects in material or workmanship for a period of 5 years when operated at max case temp of up to 75°C; 3 years from date of manufacture when operated at a max case temp of up to 90°C when properly installed and under normal conditions of use. See aceleds.com for complete warranty policy.

3401 Avenue D, Arlington, TX 76011 • 800-375-6355 • www.aceleds.com

Data is based upon tests performed by AC Electronics in a controlled environment and representative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

RoHS COMPLIANT LEAD-FREE

Revised 03/11/2019

AC ELECTRONICS™
ACELEDS.COM

AC-50CD1.4APC7

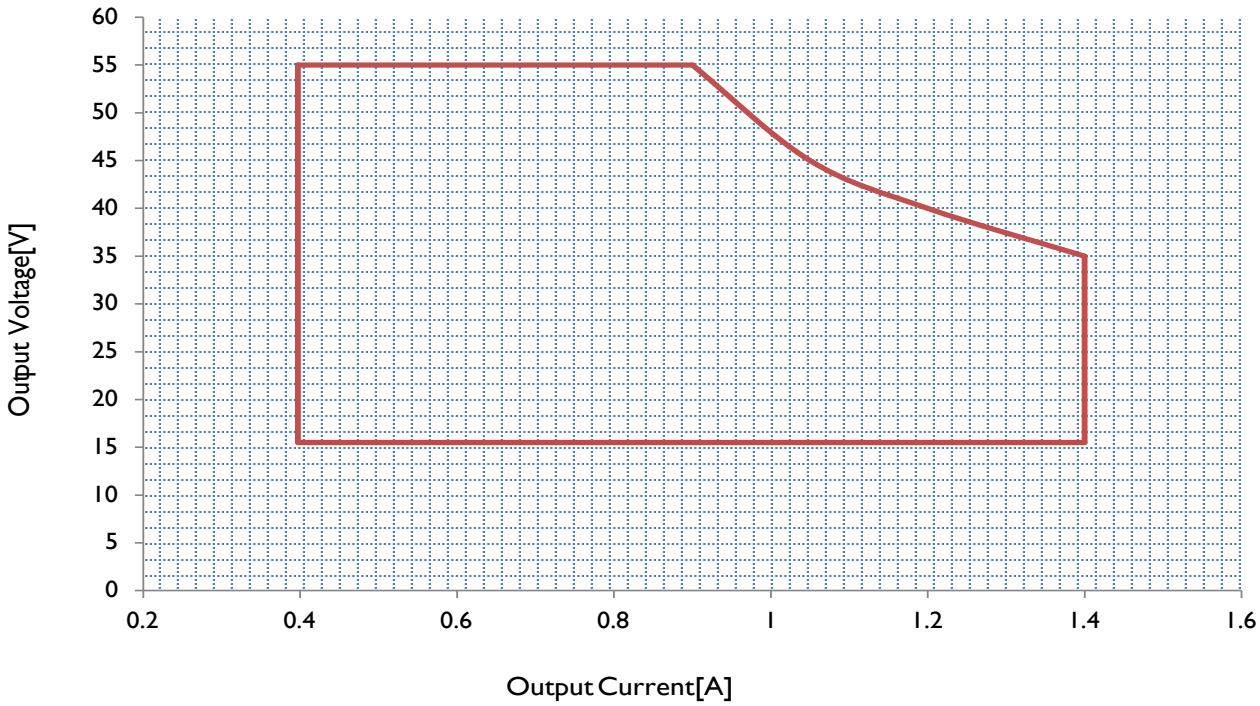
Phone Instructions

First you must have a Android device (phone/tablet) with NFC-V app downloaded.
Open App; then place the device on top of the driver matching up sensors untile it syncs up
Basic format
Write
Insert the appropriate code from chart above
Write
Successfully written will appear

To Check: Read
Read
Shows you the Block - 00 00 00 00
This is where the code you input appears

IOUT/VOUT CURVE

Use with NFC-V Reader App Available Free at Google App Store



CONTROL THE IOUT WITH THE PROGRAMMING WAND. DOWNLOAD SOFTWARE FROM http://www.aceleds.com/products-programmable.php

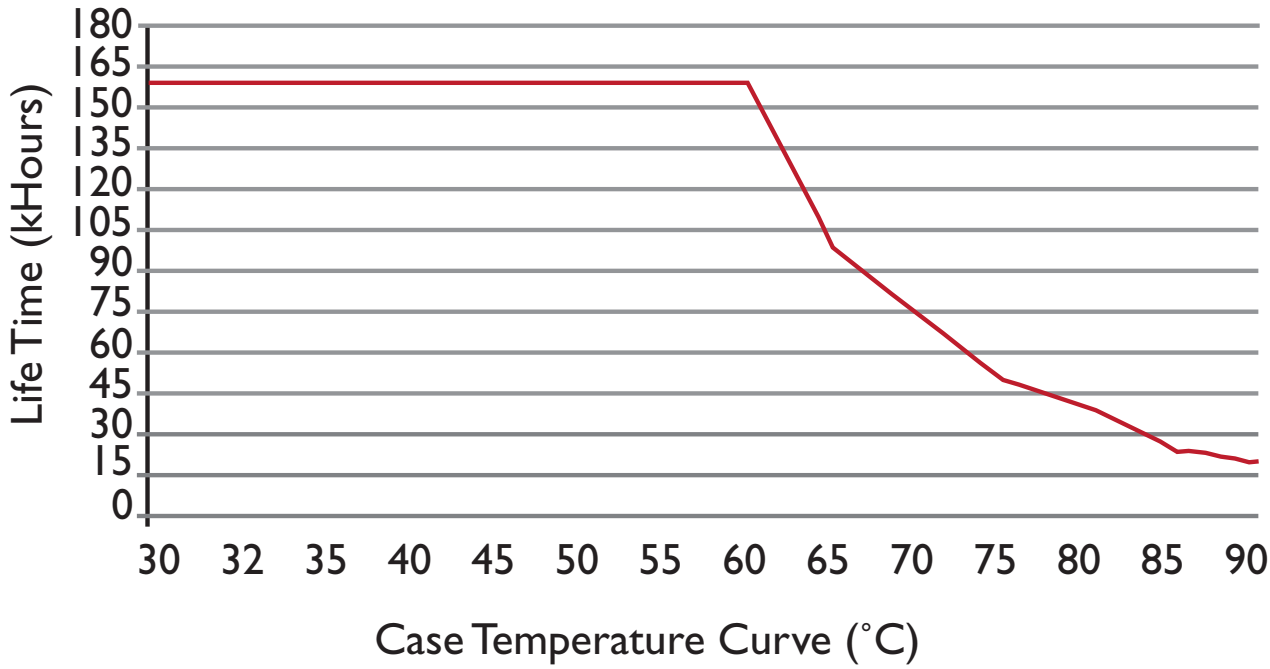
3401 Avenue D, Arlington, TX 76011 • 800-375-6355 • www.aceleds.com

AC ELECTRONICS™
ACELEDS.COM

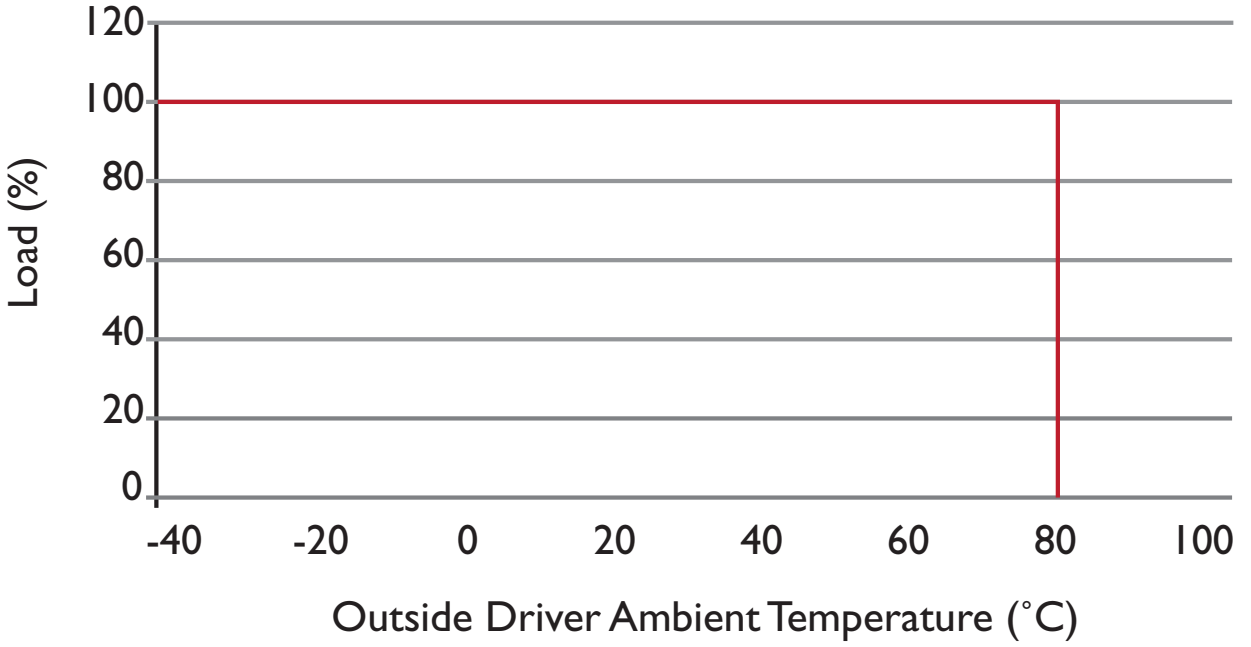
AC-50CD1.4APC7

Performance Characteristics

Life Time v.s. Case Temperature Curve



Derating Curve 120Vac & 277Vac

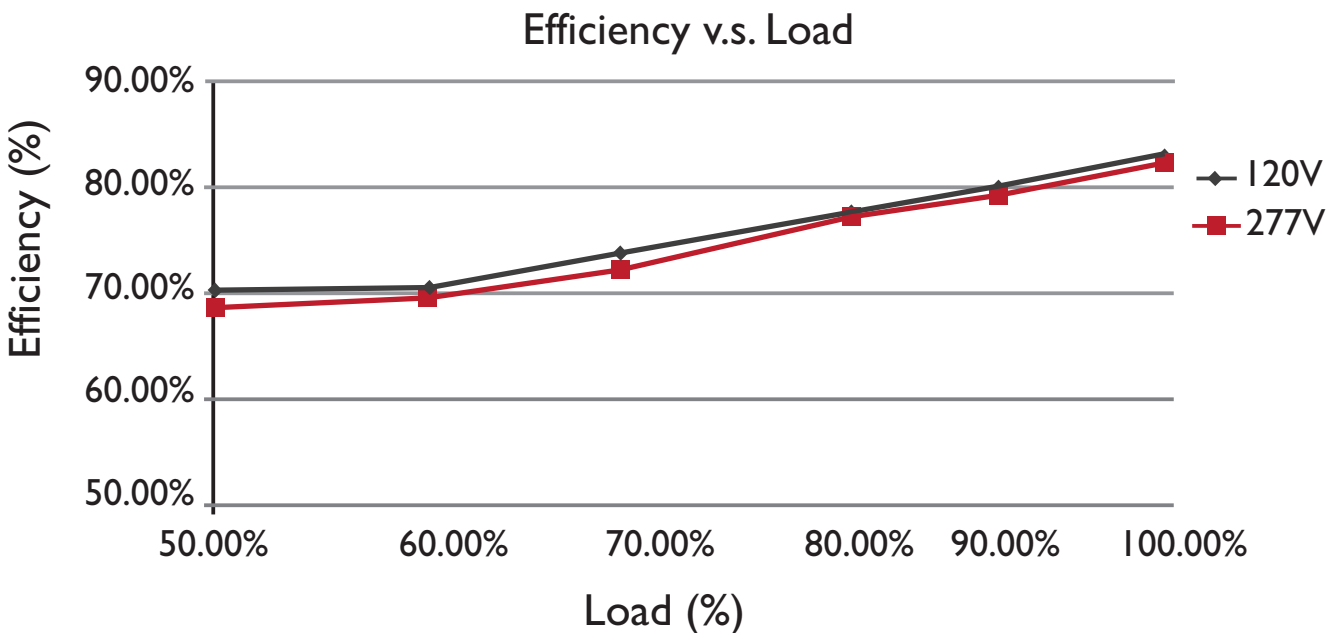


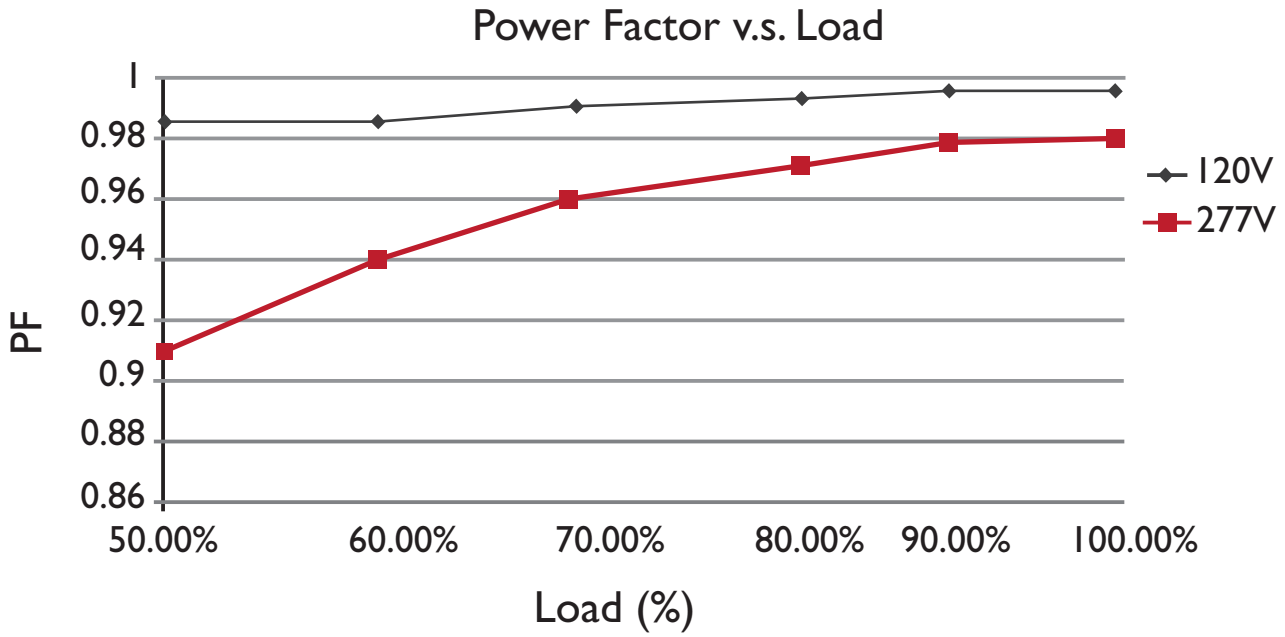
3401 Avenue D, Arlington, TX 76011 • 800-375-6355 • www.aceleds.com

AC ELECTRONICS™
ACELEDS.COM

AC-50CD1.4APC7

Performance Characteristics



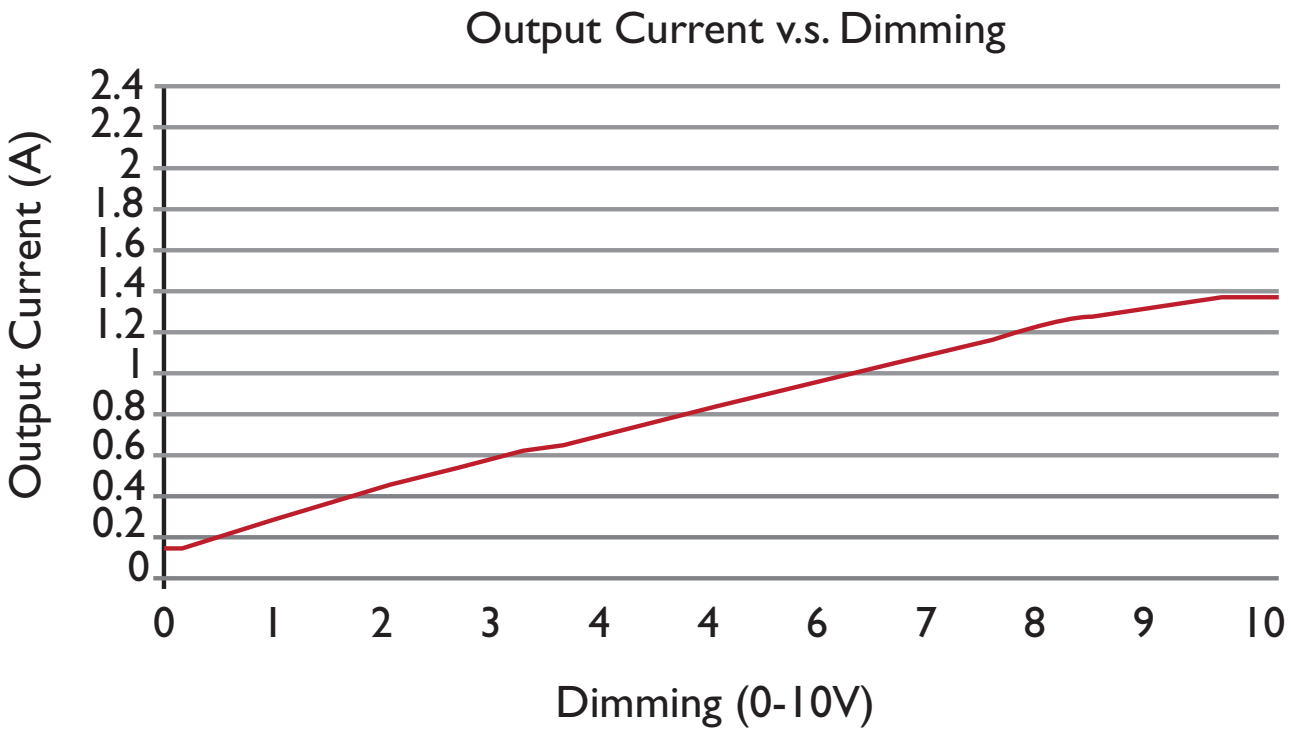


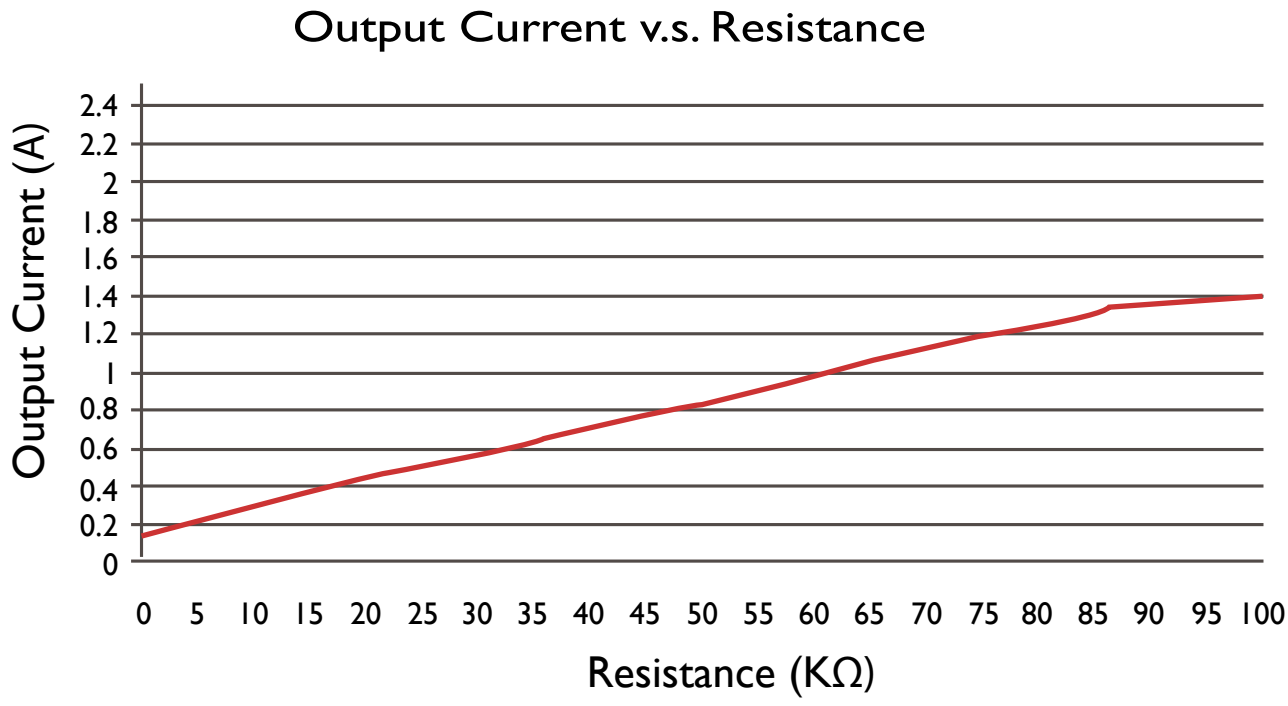
3401 Avenue D, Arlington, TX 76011 • 800-375-6355 • www.aceleds.com

AC ELECTRONICS™
ACELEDS.COM

AC-50CD1.4APC7

Performance Characteristics





3401 Avenue D, Arlington, TX 76011 • 800-375-6355 • www.aceleds.com

AC ELECTRONICS™
ACELEDS.COM

AC-50CD1.4APC7

Programmable Driver Options (App Note)

All programmable drivers accept a 16-bit hexadecimal code to program the output current (Iout) of the driver. The Iout programming codes are documented in the computer based-programming software (ST-TOOLS.exe) or from the driver's IOUTCODE.pdf file. The Locations below 0, 1, 2, 3 contain the basic code for a specific output current value (example 84 03 00 01 = 1050 mA for AC-50CD1.4APNZ).

Location	0	1	2	3
Value	00	00	00	00

For drivers containing Revision C of their firmware (contact factory for date code of implementation), it is also possible to adjust the minimum dimming level and the dimming speed. This adjustment is made by modifying location 2 of the programming code while keeping the other locations set for the desired output current. Specifically, the location 2 values are defined as:

- 00 => Dim to 1%, Speed ≤ 1.0 sec
- 01 => Dim-To-OFF, Speed ≤ 1.0 sec
- 02 => Dim to 10%, Speed ≤ 1.0 sec
- 03 => Dim to 1%, Speed ≥ 2.5 sec
- 04 => Dim-To-Off, Speed ≥ 2.5 sec
- 05 => Dim to 10%, Speed ≥ 2.5 sec

As an example, if the programming code value of 84 03 00 01 is programmed, the output current will be 1050 mA, and the driver will dim to 1% and the dimming speed will be ≤ 1.0 sec. If the programming code of 84 03 04 01 is programmed, the output current will be 1050 mA, and the driver will dim to off and the dimming speed will be ≥ 2.5 sec.

3401 Avenue D, Arlington, TX 76011 • 800-375-6355 • www.aceleds.com

Revised 03/11/2019