Applied Concepts
INNOVATION IN POWER CONVERSION TECHNOLOGY

397 Route 281 – P.O. Box 1175
Tully, New York 13159-1175
Phone: 315 696-6676
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ACR-1941

12.740" DUAL MODE LED RAIL

3/9/11

(Day LEDs: Dual Bank, 89V @ 62.5mA)
(NVIS LEDs: Single Bank, 92V @ 16.5mA)

GENERAL DESCRIPTION

The ACR-1941 is designed as a replacement for field replaceable, dual tube, dual edge lit 15.0" CCFL displays.

The rail requires the use of a constant current source to properly drive the LED's.

The LED rail is compatible with any of ACI's I-Drive series of LED Drivers.

NOTE: ACR-1941 is a mirrored version of ACR-1921

MECHANICAL / ENVIRONMENTAL

Weight = 8 grams

Altitude = 35,000 Ft maximum

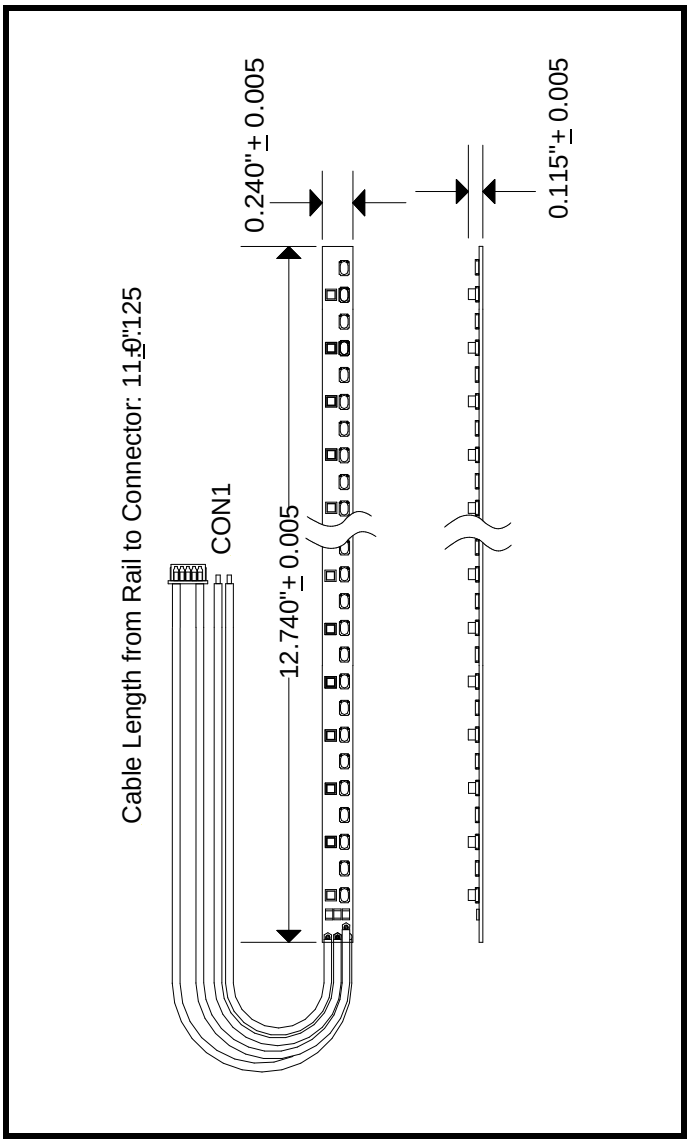
Humidity < 95% non-condensing

Size (L x W x H) = 12.740 IN x 0.240 IN x .115 IN

PCB thickness = 0.032 IN

Input connector = CON1

RoHS compliant



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DAY MODE

MAXIMUM RATINGS

3/9/11

Symbol	Parameter	Value	Unit
Tled	Operating temperature of LED edge light (light rail contact)	-40 to +100	Deg-C
Tstg	LED Rail storage temperature	-40 to +100	Deg-C
Ifwd	Maximum LED forward current (DC)	280	mA

LED OPTICAL CHARACTERISTICS

LED Manufacturer specifications for reference purpose only

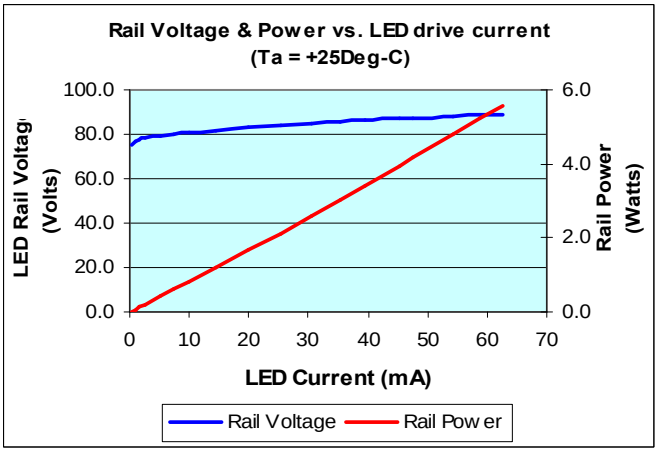
Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
BL	LED Brightness	Ifwd = 150mA		36	42	Lm
X	White X coordinate			0.34		
Y	White Y coordinate			0.36		

LED RAIL ELECTRICAL CHARACTERISTICS

Ifwd = 62.5mA (2 banks per rail), Tled = +75Deg-C (LED's without heat sinking to the display)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vfwd	LED rail forward voltage drop		80	89	98	Vdc

TYPICAL LED RAIL PERFORMANCE GRAPHS



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ACR-1941

NVIS MODE

MAXIMUM RATINGS

3/9/11

Symbol	Parameter	Value	Unit
Tled	Operating temperature of LED edge light (light rail contact)	-40 to +85	Deg-C
Tstg	LED Rail storage temperature	-40 to +85	Deg-C
Ifwd	Maximum LED forward current (DC)	30	mA

LED OPTICAL CHARACTERISTICS

LED Manufacturer specifications for reference purpose only

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
BL	LED Brightness	Ifwd = 20mA			50	mcd
X	White X coordinate			0.19		
Y	White Y coordinate			0.49		

LED RAIL ELECTRICAL CHARACTERISTICS

Ifwd = 16.5mA (1 banks per rail), Tled = +75Deg-C (LED's without heat sinking to the display)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
Vfwd	LED rail forward voltage drop		82	92	102	Vdc

TYPICAL LED RAIL PERFORMANCE GRAPHS