

INSTRUCTIONS



The HCI LED Test Box

A Value-Added Service of HCI-LED

We got so tired of color, consistency, quality and price issues that we designed our own modules. Now you can leverage some of what we've learned in our 36 years of sign design. That is why we have sent you the HCI LED Test Box. Inside the Test Box, you will find a pair of each of our industry-leading 12 volt 72 watt Cool White LED Modules. With an easy clip mount, you can compare our Polaris, Rigel and Altair Series modules against your own. We are confident that if you compare HCI LED products to any other comparable LED module, you will find that ours are the undisputed best.

Specifications

- Designed to mimic a typical 5 inch deep channel letter
- Allows side-by-side LED module comparison under identical real-life conditions.
- Clip connectors allow quick and easy installation of any LED module
- Includes white aluminum mounting plates for consistent light reflection
- Constructed of the same durable materials as our channel letters
- Comes with convenient 12 volt wall adapter

A Guide to Using Your HCI LED Test Box

Unpacking

Carefully remove test box from shipping container Contents will include the following:

- Test Box back with two module mounting bays
- Translucent cover
- 12 volt Wall Adapter
- Sample HCI LED Modules pre-mounted on white aluminum reflector plates:
 - o Polaris 2-LED Module
 - o Rigel 2-LED Module
 - o Altair 2-LED Module
- Additional white aluminum reflector plates for mounting third-party modules
- Instruction flyer

If you find anything missing when you unpack, please call HCI LED immediately at 812.473.2000, extension 150 and we will ship replacement components.

Installing the samples

- Remove translucent cover from Test Box
- Mount 2 LED modules (with wires fully extended) on white aluminum reflector plate using the module's adhesive tape
- Place reflector plate with LED modules into one side of the test box, with the longer wires toward the clip connectors
- Depress Red clip tab and insert Red/White LED Module wire into the clip connector
- Release clip
- Depress Black clip tab and insert Black/White LED Module into the clip connector
- Release clip
- Repeat for opposite side
- Plug wall adapter into power connector
- Replace translucent cover

Tips for most accurate comparison

- Turn overhead lights off to get a pure comparison. Ambient light will hide subtle differences in light and color.
- Compare same wattage modules only.
- Be sure that the translucent cover is completely seated in order to avoid light leakage between samples.
- Become a partner with us by photographing your results and emailing them to us at Feedback@HCI-LED.com. Include the model names, manufacturer part numbers and manufacturer of the models you compare. For thorough documentation, please include three photographs, as follows:
 - o Cover on and modules lit
 - o Cover off and modules lit
 - o Cover off and modules unlit.

About HCI LED Modules

The new HCI LED modules are designed to provide a consistent and perfect natural white, meaning that not only are you investing in a high quality sign lighting component. It's a double win because you're able to choose a product line that will fit every need, whether focused on highest quality, best overall value or lowest cost.

Our lights are designed to provide the most consistently accurate LED color lighting available. The light decay over time is minimal, guaranteed to remain 5% or below for up to 10 years. Replacement modules are held back from each batch to make any future warranty change-outs even more consistent.

In addition to being the most consistent LED Modules available, these lights are also the most color accurate. Many manufacturers represent 6,500K lighting, but if you buy them all (like we did) and compare their colors, you'll find huge variations from batch-to-batch and year-to-year. With HCI LED's Polaris, Rigel and Altair Series modules, you can choose across a subtle range of color, each finely tuned to provide just the color effect you are looking for, at a price point that will fit every buyer's budget.

POLARIS SERIES

Powered by the 2835 Surface Mounted Diode chip, the P2072160BW is designed to produce the purest white with the highest luminous efficiency. Solidly constructed with an injection-molded ABS plastic housing around an aluminum PCB, the Polaris Series is created to deliver the highest quality LED module on the market today.

RIGEL SERIES

Powered by the 2835 Surface Mounted Diode chip, the R2072160CW is designed to produce a brilliant white with excellent luminous efficiency. Constructed with a durable injection-molded ABS plastic housing around an aluminum PCB, the Rigel Series is created to deliver the best overall value on the market today.

ALTAIR SERIES

Powered by the 2835 Surface Mounted Diode chip, the A2072160WW and A3072160WW are designed to produce a consistent white light with good luminous efficiency. Built to take a punishment, with an injection-molded PVC plastic housing around an aluminum PCB, the Altair Series is created to offer a rugged, consistent, quality product at a very economical price point.

FREE Lighting Consultation

Looking for some guidance on what modules to select? Or maybe you need a little help determining how many modules you will need for your project? HCI LED is happy to provide you with suggestions to make the best LED selections for your project. Simply send us your PDF, DWG, CDR or AI file to <u>Layouts@HCI-LED.com</u> and we will provide an LED recommendation including a suggested LED layout design. Our average turnaround time is about 2 business days.

Visit our website at www.HCI-LED.com or call us at 800.909.4875 for more information.







LED Modules

Perfectly Balanced for Pure White

The new HCI LED modules are designed to provide a consistent and perfect natural white, meaning that not only are you investing in a high quality sign lighting component. It's a double win because our three lines of LED modules guarantee that you will find an option to meet every situation.

Our lights are designed to provide the most consistently accurate LED color lighting available. The light decay over time is minimal, guaranteed to remain 5% or below for up to 10 years. Replacement modules are held back from each batch to make any future warranty change-outs even more consistent.

In addition to being the most consistent LED Modules available, these lights are also the most color accurate. Many manufacturers represent 6,500K lighting, but if you buy them all (like we did) and compare their colors, you'll find huge variations from batch-to-batch and year-to-year.

Benefits

- Your signage colors will look exactly as you designed them with our precision 6,500K guaranteed LED Modules
- You can guarantee your lighting to change no more than an undetectable 4% over the next 10 years.
- Should your customer damage a module, our replacement modules are batch coded so the replacement will match the existing.
- If you provide multiple signs for one customer, duplicate signs will shine with consistent color and brilliance.
- You're not only getting the most color accurate and consistent LED Modules available, you're able to choose a product line that will fit every need, whether focused on highest quality, best overall value or lowest cost.

POLARIS SERIES



Powered by the 2835 Surface Mounted Diode chip, the P2072160BW is designed to produce a simply brilliant white with the highest luminous efficiency. Constructed with an injection-molded ABS plastic housing around an aluminum PCB, the Polaris Series is created to deliver the highest quality LED module on the market today.

RIGEL SERIES



Powered by the 2835 Surface Mounted Diode chip, the R2072160CW is designed to produce a pure white with excellent luminous efficiency. Constructed with an injection-molded ABS plastic housing around an aluminum PCB, the Rigel Series is created to deliver the best value on the market today.

ALTAIR SERIES



Powered by the 2835 Surface Mounted Diode chip, the A2072160WW and A3072160WW are designed to produce a consistent white light with good luminous efficiency. Constructed with an injection-molded ABS plastic housing around an aluminum PCB, the Altair Series is created to offer a consistent, quality product at a very economical price point.



DATASHEET

Altair Series

2835SMD HCI LED Modules Perfectly balanced for warm white

Features

Powered by the 2835 Surface Mounted Diode chip, the Altair Series is designed to produce a consistent warm white light with good luminous efficiency. Constructed with an injection-molded PVC plastic housing around an aluminum PCB, the A2072160WW was created to deliver a dependable, consistent, quality product at an economical price point. Perforated double-sided 3M adhesive tape on the back of the modules complement the screw-mounts for fast and easy installation.

Specifications

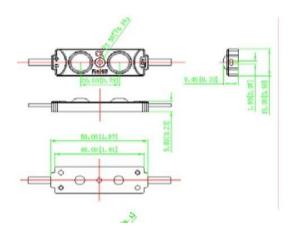
	Model Number	A2072160WW	
Physical	LED Chips per Module	2	
	LED Modules per Foot	2	
	LED Modules per String	20	
	Strings per Package	5	
	Dimensions (L x W x H)	2.08" x 0.59" x 0.29"	
	Color	Warm White	
	Color Temperature (Kelvin)	5,000 (±4%)	
	Operating Temperature (°F)	-13 – 140° F	
	Storage Temperature (°F)	-13 – 150° F	
	Viewing Angle	160°	
Electrical	Forward Voltage	12V	
	Forward Current	60mA	
	Power Consumption	0.72W	
Output	Lumens per Module	44	
	Lumens per Foot	88	
Safety	Certification	UL, CE, RoHS	
	Ingress Grade	IP65	
	Warranty	5 Years ¹	
	¹ Warranty may be extended if used with HCI LED Power Supply. See website for details.		

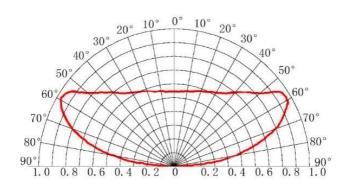




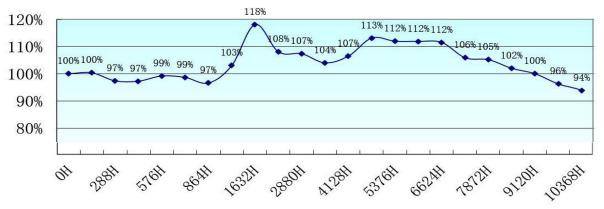
Dimensions

Light Dispersion

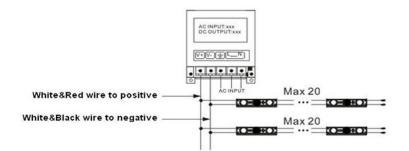




Light Degradation



Wiring



Packaging



5 Strings in a Package



15 Packages in a Carton

20 LED modules in a String





Rigel Series

2835SMD HCI LED Modules Perfectly balanced for cool white

Features

Powered by the 2835 Surface Mounted Diode chip, the Rigel Series is designed to produce the purest cool white with the highest luminous efficiency. Constructed with an injection-molded ABS plastic housing around an aluminum PCB, the R2072160CW was created to deliver the best value on the market today, providing excellent performance and color consistency at a value price. Perforated double-sided 3M

adhesive tape complement the screw-mounts for fast and easy installation.

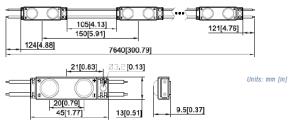
Specifications

	Model Number	R2072160CW
Physical	LED Chips per Module	2
	LED Modules per Foot	2
	LED Modules per String	50
	Strings per Package	2
	Dimensions (L x W x H)	2.06" x 0.59" x 0.29"
	Color	Cool White
	Color Temperature (Kelvin)	7200 (±4%)
	Operating Temperature (°F)	-13 – 140° F
	Storage Temperature (°F)	-13 – 150° F
	Viewing Angle	160°
Electrical	Forward Voltage	12V
	Forward Current	60mA
	Power Consumption	0.72W
Output	Lumens per Module	70
	Lumens per Foot	140
Safety	Certification	UL, CE, RoHS
	Ingress Grade	IP65
	Warranty	5 Years ¹
	¹ Warranty may be extended if used with HCl	LED Power Supply. See website for details.

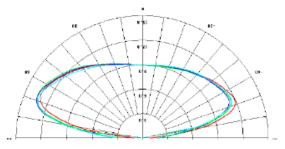


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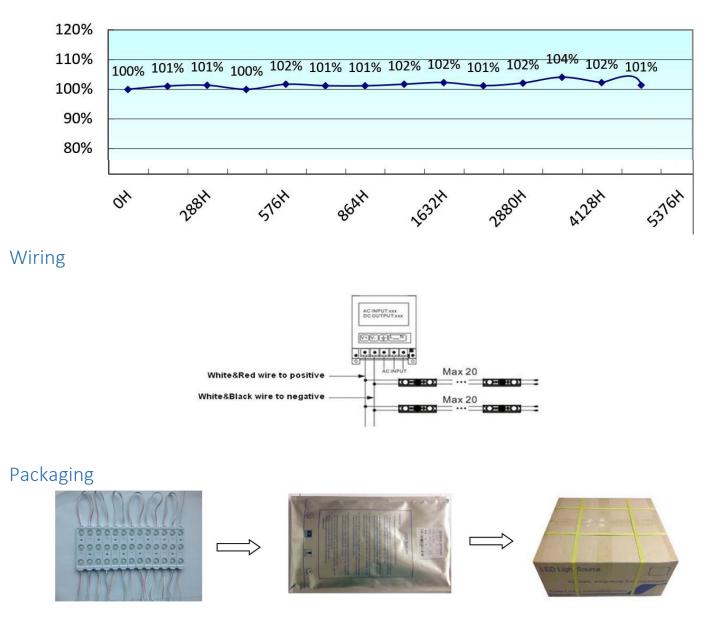
Dimensions



Light Dispersion



Light Degradation



20 LED modules in a String

5 Strings in a Package

10 Packages in a Carton

2 Cartons in a Box



DATASHEET

Polaris Series

2835SMD HCI LED Modules Perfectly balanced for a brilliant white

Features

Powered by the 2835 Surface Mounted Diode chip, the Polaris Series is designed to produce the purest white with the highest luminous efficiency. Constructed with a sleek injection-molded ABS plastic housing around an aluminum PCB, the P2072160BW was created to deliver the highest color consistency and best performance available on the market. Double-sided 3M adhesive tape on the back of the modules complement

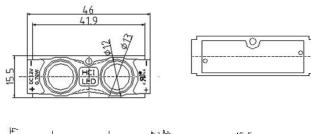
the screw-mounts for fast and easy installation.

Specifications

	Model Number	P2072160BW
Physical	LED Chips per Module	2
	LED Modules per Foot	2
	LED Modules per String	20
	Strings per Package	5
	Dimensions (L x W x H)	1.85″ x 0.59″ x 0.16″
	Color	Brilliant White
	Color Temperature (Kelvin)	6500 (±4%)
	Operating Temperature (°F)	-4 – 140° F
	Storage Temperature (°F)	-13 – 150° F
	Viewing Angle	160°
Electrical	Forward Voltage	12V
	Forward Current	70mA
	Power Consumption	0.72W
	Driving Method	Constant Current
Output	Lumens per Module	69
	Lumens per Foot	138
Safety	Certification	UL, CE, RoHS
	Ingress Grade	IP65
	Warranty	7 Years ¹
	¹ Warranty may be extended if used with HCI LED Power Supply. See website for details.	



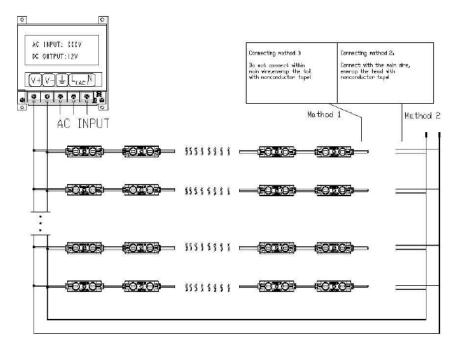
Dimensions







Wiring



Packaging

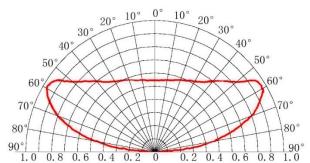


20 LED modules in a String

5 Strings in a Package

5 Packages in a Carton

Light Dispersion





INSTALL GUIDE



Recommended Specifications

Cabinet and Channel Letter Modules

Getting great results is simple using HCI LED modules in your cabinet or channel letter signs. By following, these recommendations for success, you can be assured of bright, smooth, even results in all back-lighted or halo-lighted sign applications from 3" deep channel letters to 48" deep cabinets and beyond.

	Depth	Modules on Center
Single-faced	3″	3″
	4″	4-5″
	5″-9″	6″
	10″-up	1-sided LightStick at 6"
Double-faced	<8″	2-sided LightStick at 4-5"
	10-18″	2-sided LightStick at 6"
	20″-28″	4-sided LightStick at 12"
	32″-up	1-sided LightStick at 6"

* Above results are based upon our in-house testing across a wide variety of sign applications (assumes a reflective white interior). Please test, according to your own preferences. Your results may vary.

www.HCI-LED.com



5" deep channel sign



12" deep Double-sided cabinet

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72" deep FlexFace cabinet



Extra-wide stroke 5" deep channel letter

Accurate as of December 13, 2016







100% Satisfaction Guarantee and Product Warranty

Terms and Conditions

HCI LED's success is the direct result of committed, long-term relationships with our customers and partners. Those relationships are built on a set of values composed of honesty, integrity and excellence. The outgrowth of these values is that we stand behind our products with a clear, straight-forward warranty, and fully support our customers with our 100% Satisfaction Guarantee. We warrant our LED products to be defect free, offering our customers the highest quality at a fair

price. And we commit to satisfying all our customers 100% of the time.

HCI LED products are designed to be the highest quality LED products in the industry. HCI LED warrants its LED products to meet the specifications as stated in our written data sheets and to be free from materials and workmanship defects for the period specified below, provided the LED products are used according to their respective design and for the purposes for which they are intended. Should any LED product fail to perform as specified within the warranty period in accordance with these terms and conditions, HCI LED will replace, or at its option, repair, at no charge the non-performing product.

Hardware & Labor Warranty

HCI LED will replace any product that fails during its warranty period. Simply notify us of the failure, including model, quantity and date purchased, and we will immediately ship replacement modules. Please return the failed products as soon as feasible so that we may analyze them to determine the cause of the failure and to put in place corrections to prevent future failure. Your input is critical to our success, so let us know what you believe may have contributed to the failure as we work together to improve the product where necessary. If you have labor costs as a result of the failure, please send us an invoice for the costs (less any profit that may have been included). If you have third-party charges as a result, send an invoice for those to us, as well. Under HCI LED's Labor Warranty, we will compensate you for your labor expenses in the form of credit toward future product purchases. We want to be partners with you, so we will make certain that you are compensated for your losses in the event our modules fail to perform up to our standard for any reason.

Warranty Period

LED Modules	Flex Neon	Power Supplies	LED Tubes
5 years	3 years	3 years	5 years