

# PRENTALUX PRINTED LIGHT





## PRENTALUX PRINTED LIGHT

Cooper Lighting Solutions introduces a new way to manufacture lighting products using proprietary 3D printing technology, which allows for beautiful designs, textures, and shapes that are distinctive and adaptive. Shaper PrentaLux means Printed Light which is a new and creative way to design lighting products. Shaper PrentaLux information found here.





The Shaper PrentaLux products were honored to receive top recognition from NeoCon and Interior Design Magazine. Best of NeoCon 2022 featured entrants in 54 product categories evaluated on-site by a diverse jury of close to 50 leading architects, designers, specifiers and facility managers with expertise spanning commercial, healthcare, education and hospitality sectors. Cooper Lighting received top honors in both the category of Lighting - Decorative, as a Gold Award winner, and the prestigious judges award of Innovation for the technology recognition of using 3D printing to bring mass manufacturing to lighting products, and the ability to have the designer create textures and shapes.



Interior Design's HiP Awards celebrate the most innovative commercial products and design thinkers in the A+D community. Shaper PrentaLux products received an Honoree award.

"Innovation is the ability to see change as an opportunity, not a threat"

- Steve Jobs

## What is 3D printing, and what are we doing with it?

Three-dimensional (3D) printing is an additive manufacturing process that creates a physical object from a digital design. The process works by laying down thin layers of material in the form of liquid or powdered plastic, metal or cement, and then fusing the layers together.

Cooper Lighting Solutions (CLS) is taking our parent company's 3D printing technology and using it to mass manufacture complete lighting products with a method that spans and scales globally. CLS uses fused deposition modeling (FDM), which is a method of 3D Printing where layers of material are fused/melted together to create an object.

Take the concept of 100 of printers, that can print a form within hours, which equals 100 products that can be made within that time frame. This is 3D printing for mass manufacturing, not a prototype business.

The process is as follows:

- A catalog specification becomes a distinct SKU.
- That SKU, translates to a distinct G-code (3D printer language).
- This G-code can then be sent to local print farms or across the world, to other print farms, allowing manufacturing to happen anywhere there is a receiving internal company print farm.
- This enables manufacturing to be flexible and local, or accessible when needed.

This revolutionary technology was developed by Signify, and identified as the next new wave of innovation for lighting products. Cooper Lighting, a business unit of Signify, is bringing this technology to our strong customer and sales base, which gives you back:

Innovation you can rely on.

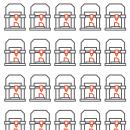






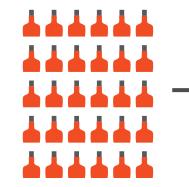
This is the power of 3D Printing technology and how we are using it to innovate.

#### 100+ Printers





#### 100+ Lighting Fixtures



#### Benefits

Time saved in manufacturing and production

Less inventory on hand

Shorter lead times in production and design

### Around the world, around the world...





Shaper PrentaLux products are also BAA, or Buy American Act compliant. The 3D printed materials used are significantly lighter than their metal equivalent, requiring less fuel to transport, which has a 35% lower impact on carbon footprint.

"We are the first lighting manufacturer to produce 3D printed luminaires on an industrial scale, reinforcing our position at the forefront of lighting and sustainable innovation."

#### Olivia Qiu

Chief Innovation Officer | Signify

The TIME it takes to print one fixture can be anywhere between 1-3 hours.

Thus 100 printers in 3 hours can produce 100 fixtures.

4 Shaper PrentaLux 3D Printed Luminaires

Shaper PrentaLux 3D Printed Luminaires





## 200s Series

When form and function unite, we get the best of both worlds. The Shaper PrentaLux 200s series provide performance lighting with integral LED based products and output ranges up to 7000 lumens. Combining that with simple and refined aesthetics with texture variations, make this product series a win win.

## Meet the family... Aunt Bertha... Cousin Fred... Oh wait...

## **300s Series**

Sometimes, just a glow to highlight warmth and character is the key driving factors for a hospitality setting. These elegant shapes transform into geometries that are unique and when combined with the variations of 18 different colors, offers calming and comfortable lighting for most spaces. The Shaper PrentaLux 300 series resounds in beauty.









8 Shaper PrentaLux 3D Printed Luminaires Shaper PrentaLux 3D Printed Luminaires 9

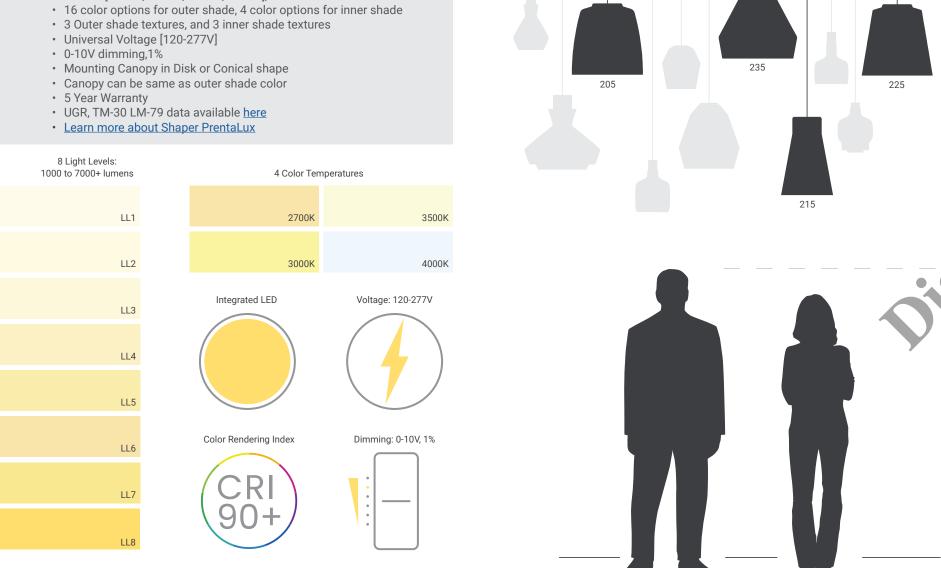


## 200s Series

#### Features, Benefits, & all that jazz...

The <u>200s</u> exemplify the best of design + function. The following are technical aspects of the products:

- 8 light levels that range from nominal 1000 to 7000+ lumens
- 4 CCTs [2700K, 3000K, 3500K, 4000K], 90 CRI



4 Shapes in Scale





12 Shaper PrentaLux 3D Printed Luminaires



## **300s Series**

#### Features, Benefits, & all that jazz...

The 300s series evokes the forms and shapes that are inviting and interesting, and is geared more towards hospitality environments. The following are technical aspects of the products:

- LED lamp based
- 2 CCTs [2700K filament, 3000K frosted], 90 CRI or preferred lamp of choice

Equivalent to 60W INC; 15W

15W

Filament Lamp

2700K

- 18 color options for outer shade
- 1 texture of a smooth, layered design
- 120\
- Mounting Canopy in Disk or Conical shape
- Canopy can be same as outer shade color
- 5 year warranty

A-19 Lamp, E26W Socket

3 Lamp Options

- UGR, TM-30 LM-79 data available
- Learn more about the 301, 303, 305, & 307 here
- Learn more about the 309, 311, & 313 here
- Learn more about Shaper PrentaLux products



7 Shapes in Scale



No Lamp

(Lamp by Others)







16 Shaper PrentaLux 3D Printed Luminaires

Frosted LED Lamp





"Life is about using the whole box of crayons"

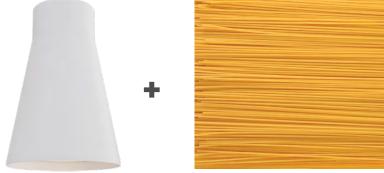
- RuPaul

## **Textures that Inspire**

The true ingenuity of Shaper PrentaLux technology for lighting products, is the ability for anyone to be inspired by a form, shape, or appearance of a surface... and then apply this to the product using 3D printed technology. New colors that are on trend, can easily be introduced. Textures that inspire a designer, can be applied. Geometric shapes that are within the limits of the printer's capabilities, can be formed. This is Cooper Lighting's 3D printing.

#### **Outer Texture**

**Inner Texture** 



Shape



**Texture** 



**Outer Color** 





**Texture** 



**Inner Color** 



Final **Product** 





Shape

# MADE PRINTLIGHT

#### **Outer Texture**



Shape

**Inner Texture** 



**Texture** 



**Texture** 



**Outer Color** 



**Inner Color** 



Product



Shape



## **Subtle Design**

To design "something" is to create an arrangement of elements in a product or work of art. Shaper PrentaLux allows for such creativity in the form of branding details that can become a part of the lighting product. Shaper PrentaLux offers a unique value to our customers by allowing them to influence and design a shape, a texture and sometimes even a color. Customization using 3D printed technology is as limitless as our imaginations (and maybe our printer sizes) - and provides more freedom to create and design than traditional manufacturing processes. The designer can create thousands if not millions of different products from the standard offering - let alone when they help create their own vision for the space.

The way that 3D printed lighting products can interlace with the environment it lives in, are in subtle details of design, hinting at place and culture.

The distinctive, yet nuance of subtle design is where designers from a large commercial aviation management company, used their core competency of airplanes, as part of their décor to emphasize culture and brand.



### **National Accounts**

A National Account for Cooper Lighting Solutions is described as a multi-site, multi-location end user, that has businesses across geographical areas/countries. The National Account end user looks for transparency, consistency in pricing, and a distributor partner to project manage: shop drawings, orders, change orders, deliveries and close out documents for each location. This ensures a timely lighting and controls delivery to the site for an on time opening. A symbiosis of the end-user, Cooper Lighting Solutions, and the National Account Distributor work together as one team in open collaboration. Cooper Lighting Solutions is looking for distributor design partners to help them with all of their locations.

The value of Shaper PrentaLux, the 3D printed lighting brand within Cooper, can provide National Account partners with a resolution for design challenges, aesthetic desires, product performance, and delivery constraints, that the customers may have.

The Shaper PrentaLux, or printed light, products have shown customers solutions to these challenges by using the technology to showcase designs that relate to the customer's environments. Also, because of the speed of design development, products are delivered to the customer, faster, than traditional manufacturing methods.

For National Account partners - 3D printing can provide a unique branding solution to bring more unity and cohesiveness to their space. This technology can add a logo design or a customized texture to a shade shape. The National Account designer can co-create a shade shape and/or texture with the Cooper Lighting Solutions team, that is personalized to their customer's spaces.





A large National Account for Cooper Lighting Solutions, was able to use the decorative 3D printed Shaper PrentaLux products to bring warmth and coziness to a plain room. The 3D printed textures not only look great from the outside - but can create shadows and depth based on the form.

These 3D printed products not only added appeal to the space - but as a project, was able to pull in other Cooper Lighting products.

Images courtesy of Warren Byr

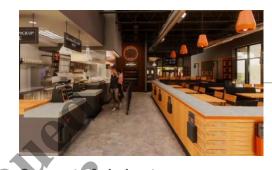


#### From Customer Problems to Customer Solutions

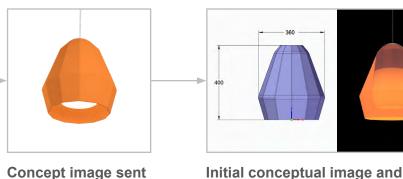
to client

**V**1

**Case Study:** The way to truly utilize customization to meet the customers need is to deliver a project from the design teams' conceptualization of the space, to rendered image, to proof of concept, to prototype, to delivered products, in 4 weeks.



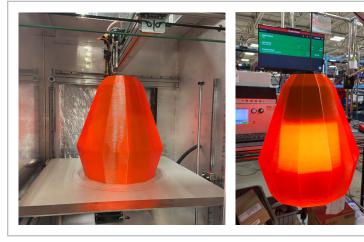
Concept of chain store from distributor



Initial conceptual image and model created by 3DP team



Client reviews and approves product and color



First prototypes and prints developed



Ideate. Create. Prototype. Develop. Produce. Ship. Deliver. Install.

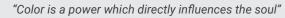
28 Shaper PrentaLux 3D Printed Luminaires
Shaper PrentaLux 3D Printed Luminaires



## **A Color Story**

As a manufacturer, keeping up with the Joneses, or color forecasts, can prove difficult to achieve in timing or application. But with Shaper PrentaLux, colors can be made to match corporate identities and any space that requires it, relatively quickly.

These sophisticated colors, are on par with design trends today. When combined and grouped together, can bring a calm aesthetic and neutrality to the space. These charming and stylish color palettes are meant to be mixed and enjoyed.



- Kandinsky

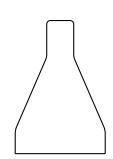




### Why 3D printing makes a difference... and why it works.

The value of Shaper PrentaLux is the ability to take a simple form and apply different textures to result in different products that can change the mood of a space. In this example, we start with a simple form, then apply a simple texture for a minimalistic presence. If the space has a different feel, change the texture to match the space dynamic. Then apply a color that resonates with the shape and texture.

This simple technique allows the product to fit within the space based on what the product's character comes from the user's input.



Start with selecting a shade shape

Then select a shade texture



Or...
A different texture



Or...
Another
different texture



To get a unique affect

O 15

Arrive at thousands of different products that can be created from the standard offering.





and apply a different texture



Or... Another different texture





it's all black & white...

(and everything in between)

## Are you "on or off"?

The filament colors have a distinct vitality & personality both "on" or "off"? Elegance designed for around the clock.





## **Shaper PrentaLux For a Variety of Spaces**

#### **National Accounts**



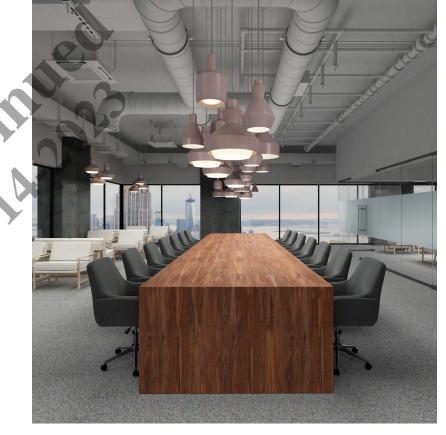
National Accounts can utilize the customization aspects of Shaper PrentaLux that bring branding to the client in a way that is different than traditional products.

#### **Education**



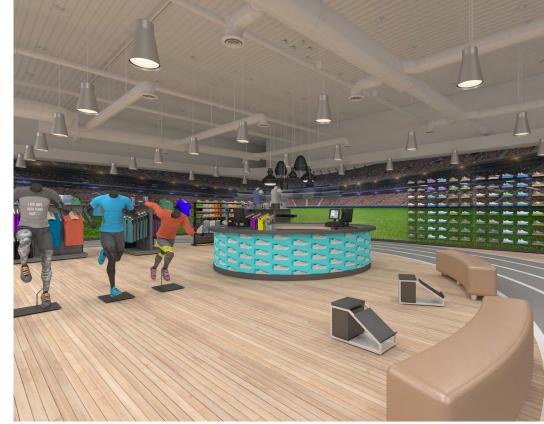
Add some interest to any space with high performance products that can be mounted well over 10' or 12' while still balancing the aesthetics with minimalistic geometries that fit into these spaces.

#### Office



The trend towards a more hospitality type setting within the traditional office can easily be accommodated with stylish and artisan like product designs with the warm and inviting color palettes and shapes offered in Shaper PrentaLux.

#### Retail



The performance pendant offering from Shaper PrentaLux brings design details that can enhance retail spaces to match the space functionalities.



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#### **Lighting Product Lines**

Ametrix

AtLite

Corelite

Ephesus Fail-Safe

Halo

Halo Commercial

Invue

io

Iris

Lumark Lumière

McGraw-Edison

Metalux

MWS

Neo-Ray

Portfolio

RSA

Shaper

Shaper PrentaLux

Streetworks

Sure-Lites

#### **Controls Product Lines**

Fifth Light Technology

Greengate

iLight (International Only)

iLumin Zero 88

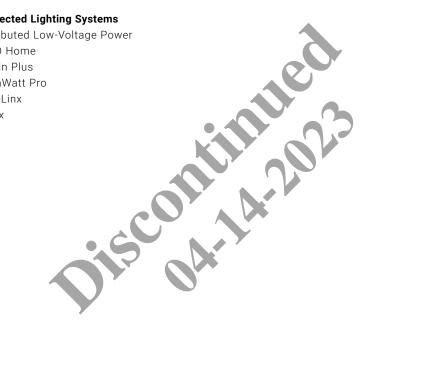
#### **Connected Lighting Systems**

Distributed Low-Voltage Power

HALO Home iLumin Plus LumaWatt Pro

WaveLinx

Trellix





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Shaper PrentaLux is dedicated to MNK

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