

**PHILIPS  
LUMEC**

Roadway

HighFocus



Above all,  
**maximizing  
efficiencies  
with light**

Low-maintenance LED high mast solution



# Elevate your freedom

You already know that LED technologies can significantly reduce energy usage and lighting-related energy costs. But, did you know that the right LED high mast luminaire can also be a low-maintenance solution that reduces labor and maintenance time, too? Introducing Philips Lumec HighFocus LED high mast luminaires – the high-performing, low-maintenance high mast solution that provides managers and work crews with the freedom to focus on other tasks.

HighFocus LED high mast luminaires help to reduce lighting-related energy costs compared to HID technologies while meeting or exceeding code requirements, and their long life, backed by industry leading 10-year limited warranty and Luminaire Useful Life rating, means that maintenance time and related costs are also reduced. Additionally, with among the highest lumen output in the market today, as much as 50% higher than other leading brands, you may be able to significantly reduce the number of luminaires on each pole without compromising on light quality or a sense of security for those in the area.

# The savings - money and time - really add up with HighFocus



Your crews  
**spend less**  
**time** on  
maintenance  
and repair

## Luminaire Useful Life VS. Lumen maintenance

Not all high mast luminaires are built to the same standards. Some manufacturers base their rated life on a small portion of the overall luminaire – only the LED lumen maintenance data. HighFocus luminaires measure LED lumen maintenance as well as LED life, driver life, on/off cycles, burn

hours, corrosion considerations, light engine PCB substrate, solder joints and more. This provides confidence that the entire HighFocus luminaire will consistently perform today and far into the future with extended lumen maintenance and fewer trips needed for luminaire service.

# More time for more savings

Whether you're looking to install a complete high mast system, or replacing luminaires in an existing high mast system, HighFocus can help you to save operational and maintenance costs. With up to 140 Lm/W, and 21,775 – 97,380 delivered lumens, it is possible to reduce the overall number of luminaires needed per high mast setup when compared to traditional HID technologies, thereby further reducing energy-related costs and initial project costs.

The long life of HighFocus, backed by a 10-year limited warranty, means that your crews aren't burdened by endless and labor-intensive re-lamping cycles.

All of this, and our exclusive Luminaire Useful Life rating, combine to provide payback periods of 2.7 years, as shown in the figure below. Contact us directly to learn how connected lighting options can help to further optimize lighting-related energy expenses, further reduce payback periods, and provide valuable insight into the lighting infrastructure's health and operation.

This is an ROI example you can achieve by **retrofitting 4,000 HID luminaires with 2,000 HighFocus LED high mast luminaires.**



58%

**Annual energy savings over HID<sup>1</sup>**



8,064

**Metric tons of CO<sub>2</sub> eliminated annually<sup>2</sup>**



2.7

**Payback in years<sup>3</sup>**

1. Based on comparison between 1000W HPS luminaires (at 1150W) and HFL-276L1050NW-G1 (at 965W) with an energy rate of \$0.1045/kWh. National average energy rates and other assumptions apply. Contact Philips for more details and to help you determine your savings.

2. Conversion factors for CO<sub>2</sub> calculations courtesy of the U.S. Environmental Protection Agency (U.S. EPA).

3. Based on national average energy rate and other assumptions. Your specific case may vary. Contact Philips for more details and to help you determine your savings.



# Project a **guiding light**



HighFocus

Roadway

Reliability

## Motorists **aren't inconvenienced** by frequent servicing

HighFocus benefits also extend to those using the space while helping you to project a sustainable image. The long LED life means that drivers and others within the space aren't frequently inconvenienced by maintenance-related lane or area closures. Consistent and uniform light levels, from HighFocus's specially-designed discrete LED optics mean that anyone can confidently navigate the well-lit area with ease.

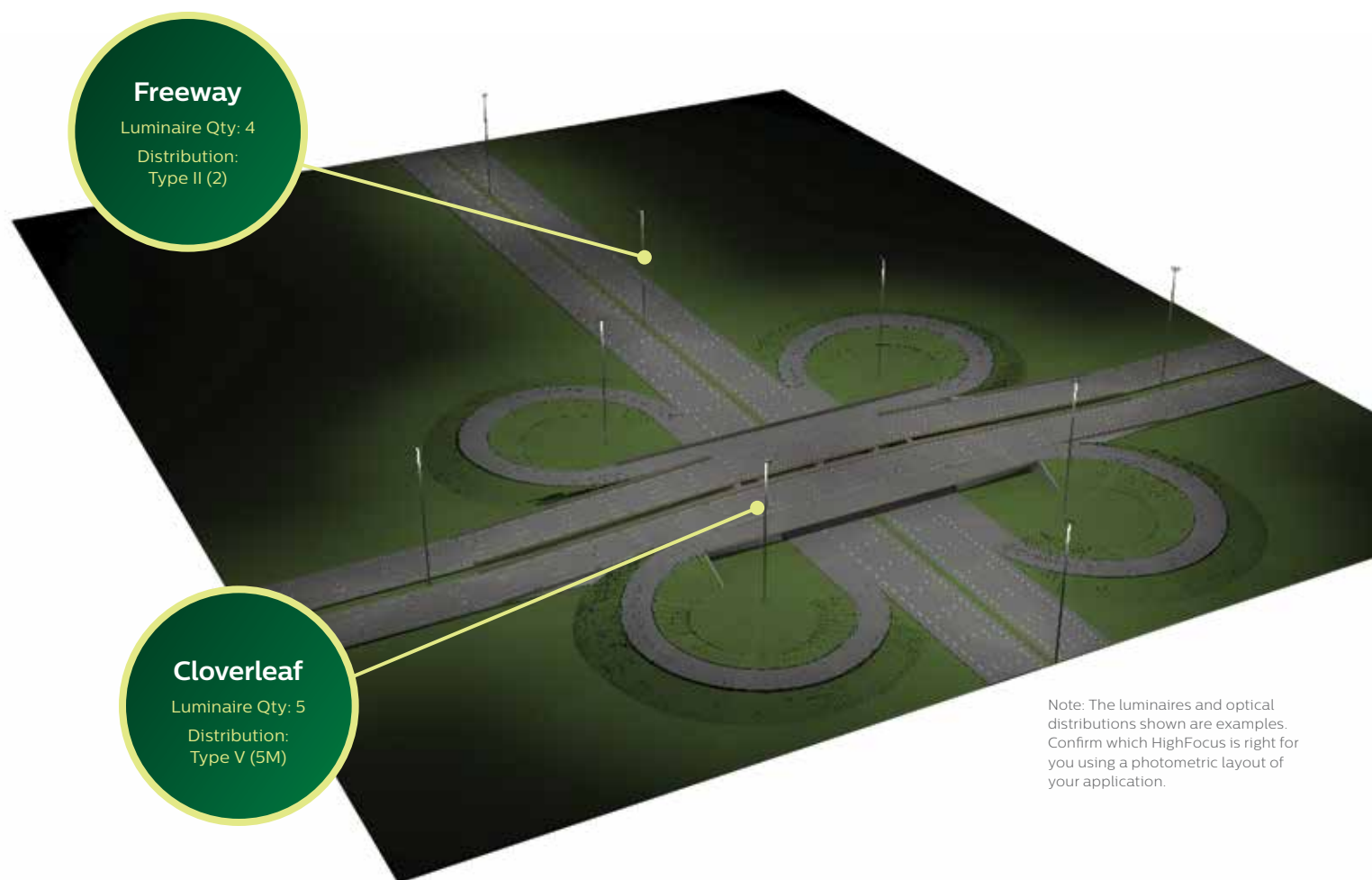
# Scalable solutions for local challenges

HighFocus LED luminaires are scalable, so you can customize your high mast solution to maximize your energy saving benefits. They provide reliable and uniform LED illumination ranging from 400 to 1000W HID replacement, while exceeding the performance of traditional lighting technologies.

- Eight lumen packages available providing up to 97,389 lumens
- Superior uniformity enhances visibility
- Precision optics direct more lighting to the roadway
- No uplight (U0 rating)



With **fewer luminaires to maintain**,  
you have even more time



### Freeway

Luminaire Qty: 4  
Distribution:  
Type II (2)

### Cloverleaf

Luminaire Qty: 5  
Distribution:  
Type V (5M)

Note: The luminaires and optical distributions shown are examples. Confirm which HighFocus is right for you using a photometric layout of your application.

Switching your HID high mast luminaires to HighFocus LED not only saves energy and operating costs, it allows you to achieve comparable photometric performance while cutting your luminaire quantity in half.\*

This means you have fewer luminaires to maintain, allowing you to do more with less by simply switching to HighFocus.



up to

**50%**

**Fewer luminaires\***  
than existing HID

\* Based on photometric comparison of (8) 400W HPS Type 2 luminaires versus (4) HFL-184L1050NW-G1 and (10) 400W HPS Type 5 luminaires versus (5) HFL-184L1050NW-G1 HighFocus LED luminaires.

# HighFocus

## high mast luminaires

### IP65 Rated compartment

Electrical compartment is IP65 sealed with pre-installed gasket to protect electrical components and terminal block against dust and moisture, increasing reliability and extending product life.

### Dimming driver

Dimming driver (0-10V) is standard, enabling HighFocus to be combined with additional controls, now or in the future

### Surge protection

Standard SP1 and optional SP2 surge suppressors protect the luminaire

### Finish

Black, Gray, White, Bronze

### Mounting

2-3/8" O.D. (2" NPS)  
x 5-1/2" long tenon

### IP66 Rated light engines

Reliable light engines are IP66 sealed to protect against dust and moisture so that LED life is extended

### Die-cast housing

Rugged, die-cast aluminum housing for maximum durability

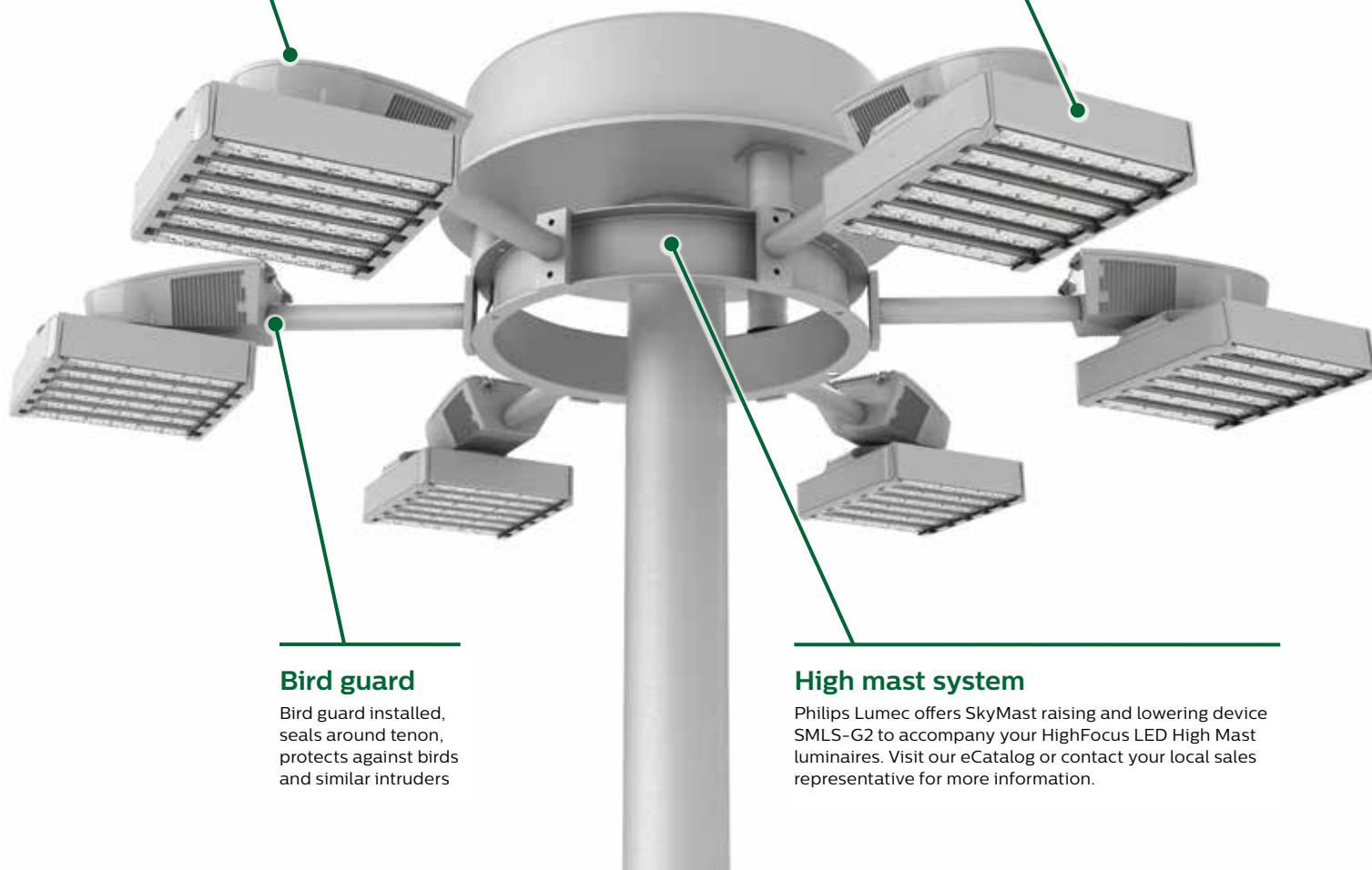


### Twist-lock receptacles

Optional 5-pin and 7-pin NEMA twist lock receptacles available to facilitate connected lighting solutions that can quickly and easily be upgraded in the future

### Rotatable optics

Entire optical assembly rotatable, enabling alignment of asymmetric optics parallel with roadway (as shown) to optimize optical performance.



### Bird guard

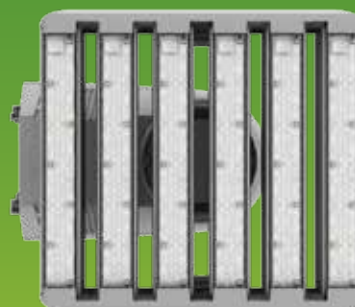
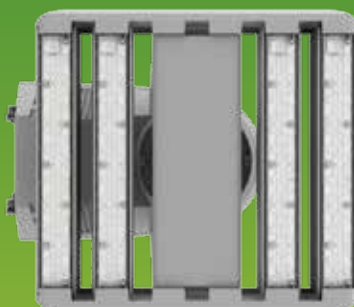
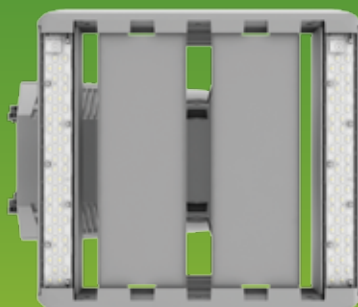
Bird guard installed, seals around tenon, protects against birds and similar intruders

### High mast system

Philips Lumec offers SkyMast raising and lowering device SMLS-G2 to accompany your HighFocus LED High Mast luminaires. Visit our eCatalog or contact your local sales representative for more information.

## LED Modules

2, 4, or 6 LED modules providing eight different lumen packages



# You can **spend less time** managing your high mast network



## Above and beyond

Now, and in the future, a connected lighting system can improve your ways of working, helping to maximize energy and operational efficiencies. This type of scalable system provides remote monitoring, dimming and infrastructure status data in real time from a central location without requiring labor-intensive on-site assessments. Additionally, each individual luminaire may be assessed for granular management.

# illumination

# Controls



## City solutions

**Advanced. Powerful. Extensive.**

Widespread or multi-site lighting management with detailed asset management that can grow along with your needs.

• HighFocus LED High Mast luminaires will be shipped controls ready when you select either 5-pin or 7-pin receptacle option; 0-10V dimming driver is standard. Contact your local Sales Representative for more information and for help with putting together the entire system solution.

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## For more information

Visit us at **[www.philips.com/luminaires](http://www.philips.com/luminaires)** for more on Philips stand-alone and connected outdoor lighting solutions, and select Controls Outdoor, or request our outdoor lighting solutions brochure.

# Take the next step

See how Philips Lumec HighFocus LED high mast luminaires can provide a complete solution for your roadway lighting needs. Contact your local Philips Sales Representative or visit **[www.philips.com/highfocus](http://www.philips.com/highfocus)** for more information or to schedule a personalized demonstration.

# Ordering information

## Ordering guide

example: HFL-276L1050NW-G1-2-HVU-DD-TLRD5-HS-GY3

Luminaire	LED Module	Optical System	Voltage	Driver and Dimming	Twist-Lock Receptacle	Surge Protection	Luminaire Options	Finish
<b>HFL</b>								
<b>HFL</b> HighFocus	<b>92L1050NW-G1</b> <b>184L700NW-G1</b> <b>184L1050NW-G1</b> <b>276L200NW-G1</b> <b>276L350NW-G1</b> <b>276L530NW-G1</b> <b>276L700NW-G1</b> <b>276L1050NW-G1</b>	<b>2</b> Type II <b>3</b> Type III <b>4</b> Type IV <b>5M</b> Type V Medium <b>5W</b> Type V Wide	<b>UNV</b> 120-277VAC <b>HVU</b> 347-480VAC <b>120<sup>6</sup></b> 120V <b>208<sup>6</sup></b> 208V <b>240<sup>6</sup></b> 240V <b>277<sup>6</sup></b> 277V <b>347<sup>6</sup></b> 347V <b>480<sup>6</sup></b> 480V	<i>Standard:</i> <b>DD<sup>1</sup></b> Dimmable driver 0-10V	<i>Standard:</i> <b>None<sup>4</sup></b> (leave blank) <i>Optional:</i> <b>TLRD5<sup>3,4</sup></b> Receptacle for twist-lock photocell or shorting cap, 5-pin <b>TLRD7<sup>3,4</sup></b> Receptacle for twist-lock photocell or shorting cap, 7-pin	<i>Optional:</i> <b>SP2<sup>5</sup></b> 20kV / 20kA Surge Protector	<b>HS</b> External house side shield <b>HIS</b> Internal house side shield, snap-on, 1 per LED light engine <b>PH8<sup>3,7</sup></b> Twist-lock Photoelectric Cell, UNIV (120-277VAC) <b>PH8/347<sup>3,7</sup></b> Twist-lock Photoelectric Cell, HVU (347VAC) <b>PH8/480<sup>3,7</sup></b> Twist-lock Photoelectric Cell, HVU (480VAC) <b>PHXL<sup>3,7</sup></b> Twist-lock Photoelectric Cell, extended life, UNIV (120-277VAC) <b>PH9<sup>3,7</sup></b> Shorting cap <b>F1<sup>6</sup></b> Fusing, single (120, 277 or 347VAC) <b>F2<sup>6</sup></b> Fusing, double (208, 240 or 480VAC) <b>F3<sup>6</sup></b> Fusing, Canadian double pull (208, 240 or 480VAC)	<b>BK</b> Black finish <b>BR</b> Bronze finish <b>GY3</b> Gray finish <b>WH</b> White finish

1. Please note these integrated features come standard with HighFocus luminaires.

2. Denotes programmable driver option. Not available with HVU (347-480VAC).

3. Use of photoelectric cell or shorting cap is required to ensure proper illumination.

4. HighFocus comes standard without a receptacle; to get a NEMA twist-lock receptacle, select either TLRD5 5-pin or TLRD7 7-pin option.

5. When SP2 option is selected you will get SP2 instead of standard SP1.

6. Specific voltage (120, 208, 240, 277, 347 or 480) must be specified with fusing options (F1, F2 or F3).

7. Includes TLRD5 unless TLRD7 is specified.

Prior to ordering, consult specification sheets on [philips.com/luminaires](https://philips.com/luminaires) for the most current information, notes, and exclusions.

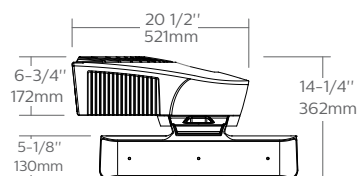
## Systems solutions

HighFocus LED High Mast luminaires will be shipped controls ready when you select either 5-pin or 7-pin receptacle option; 0-10V dimming driver is standard. Contact your local Sales Representative for more information and for help with putting together the entire system solution.

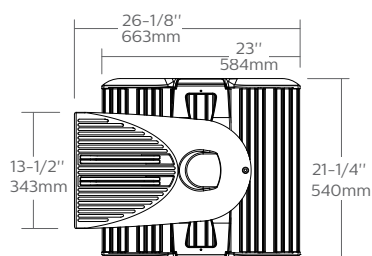
# Technical information

## Dimensions

Side view



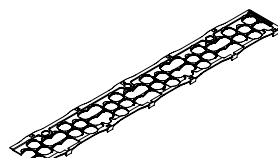
Bottom view



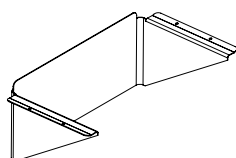
**Weight - 2 Module:** 44 lbs  
 19.96 kg  
**4 Module:** 60 lbs  
 27.22 kg  
**6 Module:** 75 lbs  
 34.02 kg

**EPA - 1.89 sq. ft.**

## Luminaire Options



**HIS**  
 Internal house side shield



**HS**  
 External house side shield



**PH8**  
 Photocell



**PHXL**  
 Photocell,  
 extended life



**PH9**  
 Shorting cap

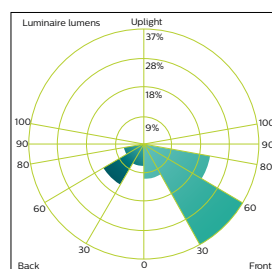
**F1**  
 Single fuse

**F2**  
 Double fuse

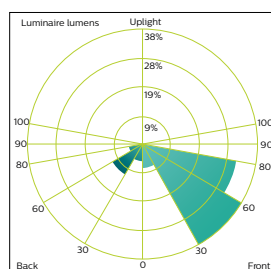
**F3**  
 Canadian double pull fuse

## Optical distributions

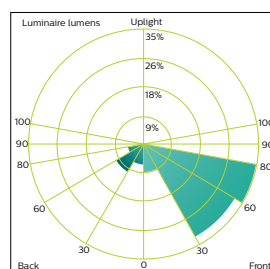
HighFocus offers many different optical distributions, providing the flexibility you need for all of your various roadway lighting needs. Plus, all optical distributions have a U0 rating which means no uplight - all of the lighting is directed downward on the roadway where it is needed.



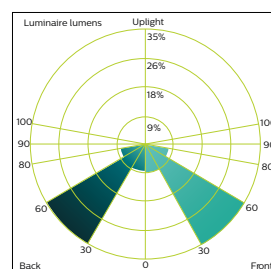
Type II (2)



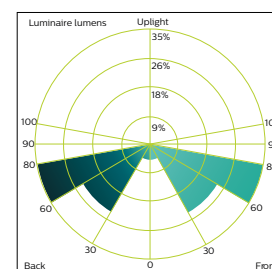
Type III (3)



Type IV (4)



Type V Medium (5M)



Type V Wide (5W)

Note: The optical distributions shown are examples of the HFL-276L1050NW-G1. Consult HighFocus IES files for specific performance criteria.



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