

**ParagonLED®**

# MOUNTING HOOD CATALOG

TTL-HZ (HAZARDOUS ZONES LIGHTING)

[WWW.THERMAL-TECH-LIGHTING.COM](http://WWW.THERMAL-TECH-LIGHTING.COM)



**ParagonLED®**

# Company Profile

- 2008 – Company founded, establishing its focus on advanced AC COB LED technology
- 2010 – Achieved the world’s first CE certification for AC COB LED technology, setting a global benchmark.
- 2011 – Recognized as the first to gain both FCC and ErP certifications for AC COB LEDs.
- 2012 – Introduced the world’s first AC COB LED explosion-proof lighting and obtained UL certification.
- 2013 – Attained ISO9001:2008 certification and established the world’s first 3V–300V AC LM80 laboratory, certified by DOE and Energy Star.
- 2016 – Expanded to an annual production capacity of 6 million units, reinforcing large-scale manufacturing capability.
- 2017 – Set up the world’s first 600V AC LM80-certified laboratory, further strengthening reliability testing infrastructure.
- 2019 – Developed the world’s first ACCOB light engine with  $T_c = 145^\circ\text{C}$ , marking a breakthrough in high-temperature LED technology.
- 2020 – Deployed the extreme-environment ACCOB light engine ( $-80^\circ\text{C}$  to  $+115^\circ\text{C}$ ) into commercial operation at U.S. paper mills and steel mills. By 2025, more than 60,000 light engines have been successfully installed in these facilities.
- 2023 – Became a subsidiary of the AVC Group, enhancing global resources and thermal management expertise.
- 2025 –
- Completed the world’s first flip-chip ACCOB light engine designed for extreme temperatures.
- Radiation-Hardened lighting successfully passed 1000 kGy gamma radiation testing at the National Atomic Energy Research Institute (NARI).
- Targeting PSE certification (100V/200V) for the Japanese market and UL certification (120V–600V) for linear models, paving the way for global expansion.

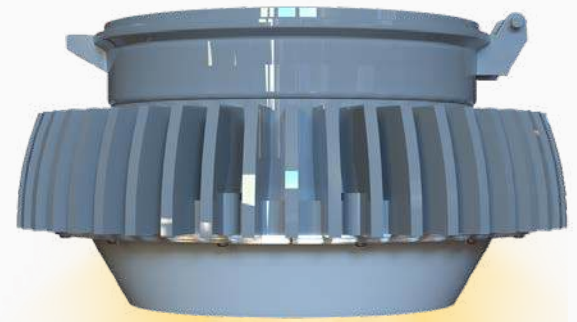
# Safe, durable and now available with AC-LED technology for superior reliability.



ParagonLED lighting is known as high quality industrial lighting fixtures designed, tested and certified for use in high temperature locations and adverse environment conditions. Specifiers rely on ParagonLED to safely provide light where it's needed - even under the harshest indoor and outdoor conditions. Safe, dependable, durable ParagonLED luminaires are now available with LED technology to offer longer life, enhanced energy efficiency, reduced maintenance, and a smaller footprint.

# ParagonLED Mounting Hood

**ParagonLED®**



## Seamless Upgrade to Next-Generation Hazardous Zones Lighting

Key Features:

- **Retains Original Mounting Structure.**

Utilizes a dedicated adapter plate for seamless installation without modifying existing wiring or mounting setup.

- **Built-in ACCOB Module for High Energy Efficiency.**

Integrated smart AC COB technology significantly increases reliability while maintaining stable light output.

- **Extended Lifespan with Surge Suppression.**

Advanced thermal management and surge protection extend the lifespan of both LED chips and components.

- **Explosion-Proof Certified for Hazardous Locations.**

Meets international explosion-proof standards, suitable for hazardous environments such as C1D2/C2/C3.

## Compatible Replacement Brands

**EAT•N**  
Crouse-Hinds series

 **Appleton®**

**Thomas & Betts**  
A Member of the ABB Group

**KILLARK®**

  
**HOLOPHANE®**  
LEADER IN LIGHTING SOLUTIONS

 **RIG-A-LITE™**

# Lighting Module Selection

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IP68



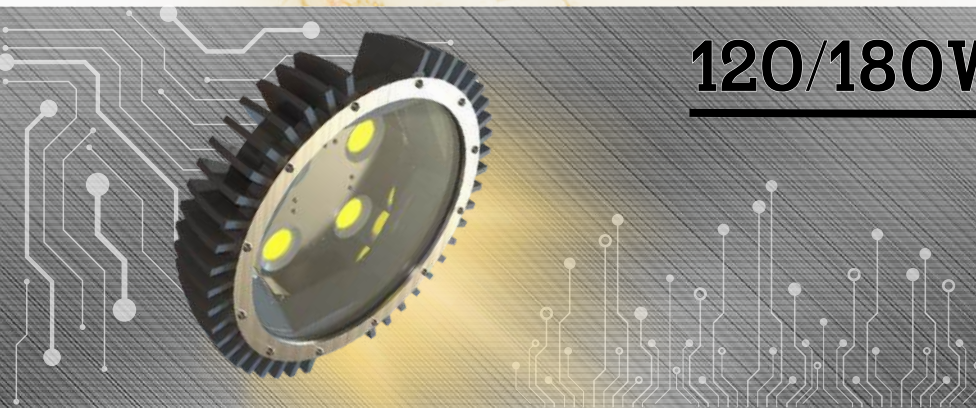
## 120/180W 70° beam angle

14,400~21,600lm, IP68, Metal Reflector  
Tempered Glass,  
5000K color temperature  
rated C1D2/C2/C3,  
Operating temperature: -80°C to +115°C  
>20KV surge protection



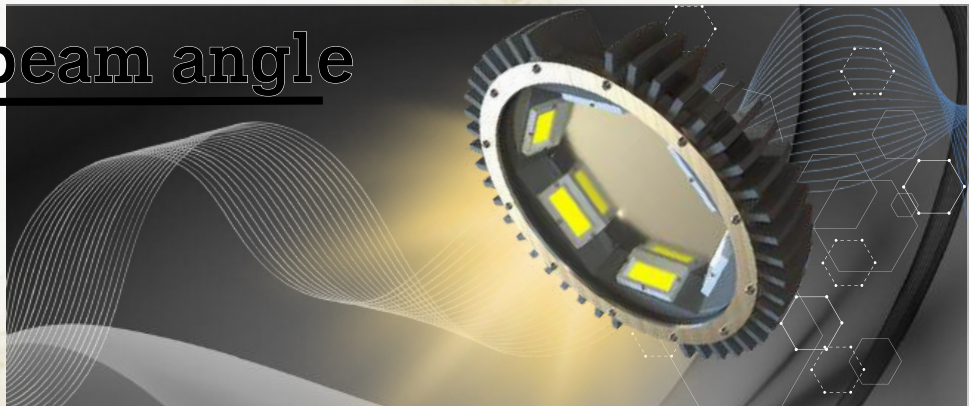
## 120/180W 110° beam angle

14,400~21,600lm, IP68, Metal Reflector  
Tempered Glass,  
5000K color temperature  
rated C1D2/C2/C3,  
Operating temperature: -80°C to +115°C  
>20KV surge protection



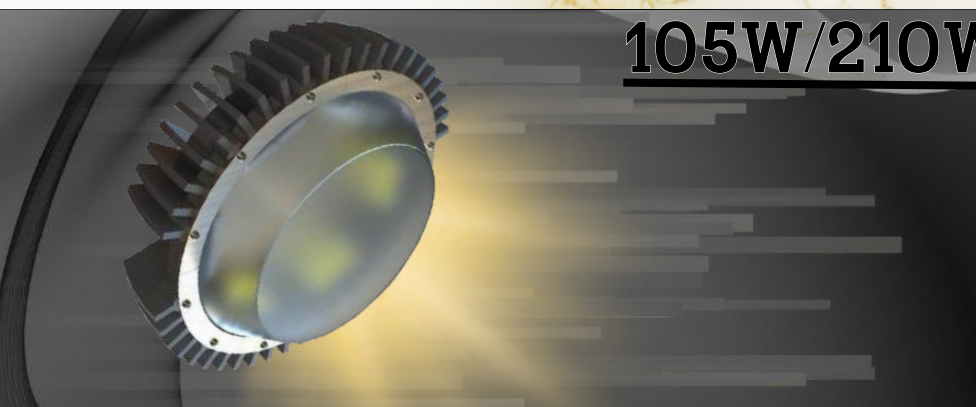
## 105W/210W 150° beam angle

12,600lm~25,200lm, IP68, Metal Reflector  
Tempered Glass,  
5000K color temperature  
rated C1D2/C2/C3,  
Operating temperature: -80°C to +115°C  
>20KV surge protection



## 105W/210W Omnidirectional

12,600lm~25,200lm, IP68, Metal Reflector  
PC lens  
5000K color temperature  
rated C1D2/C2/C3,  
Operating temperature : -80°C to +115°C  
>20KV surge protection



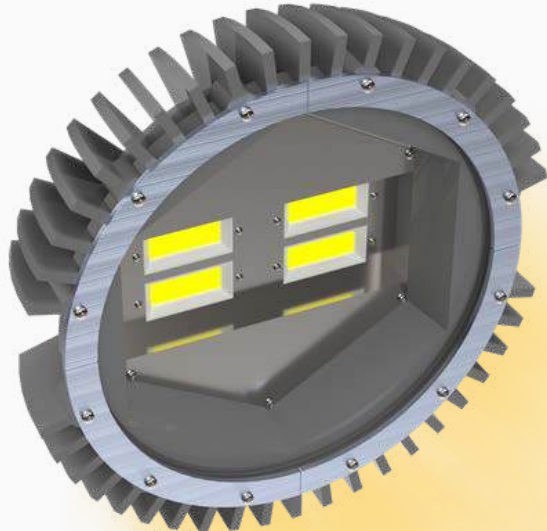
# Lighting Module Selection

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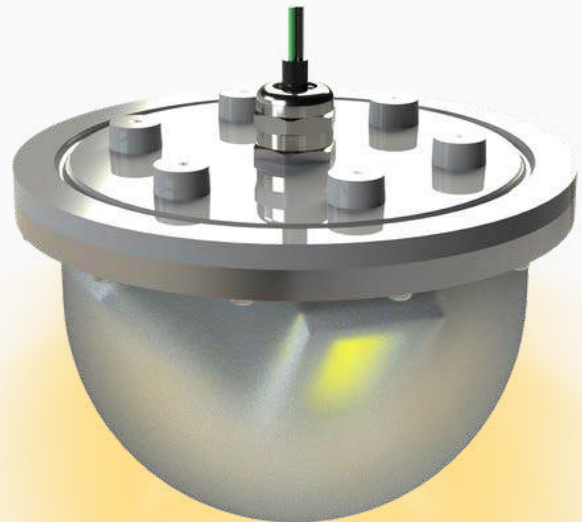
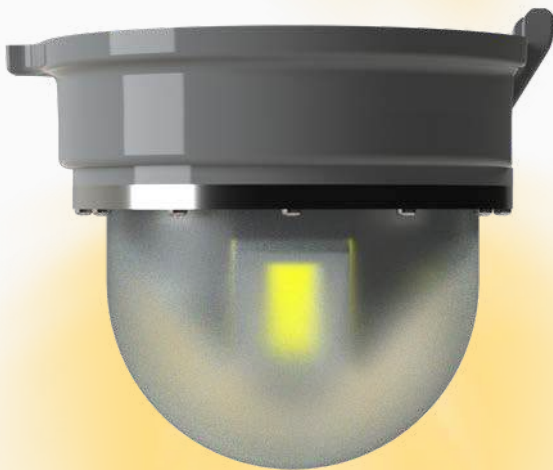


IP68



## 70/140W, Type I

8,400~16,800lm, IP68, Metal Reflector  
Tempered Glass, 5000K color temperature  
rated C1D2/C2/C3,  
Operating temperature: -80°C to +115°C  
>20KV surge protection



## 80W~140W, Type V

9,600lm~16,800lm, IP68, Metal Reflector  
Tempered Glass, 5000K color temperature  
rated C1D2/C2/C3,  
Operating temperature: -80°C to +115°C  
>20KV surge protection

# AC COB LED module

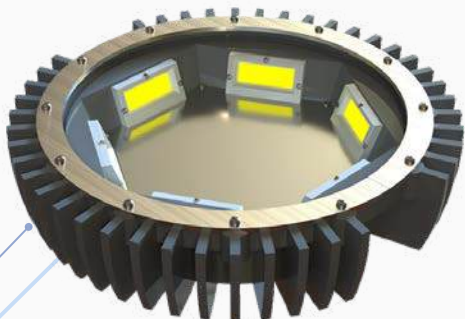
**ParagonLED®**



**120~180W 70° beam angle**



**120~180W 110° beam angle**



**105W/210W 150° beam angle**



**105W/210W Omnidirectional**

1. Operation Temperature: -80~115°C
2. >20KV surge protection system built-in
3. Die cast aluminum fixture
4. Reflector: high performance stainless steel
5. AC COB High Temperature Resistance
6. AWM Style 4476 silicone power cord rated for 600V / 200°C.
7. Double isolation wire for LED engine (PTFE)
8. High temperature COB lighting PBT plastic ring
9. Certified ceramic terminal block
10. Stainless steel Cable gland
11. LOCITITE Threadlocker 243 for screw fixing
12. Complies with LM80 testing at multiple temperatures: 55°C, 85°C, 105°C, and 145°C.
13. IP68 waterproof
14. IK 10/ IK 10++
15. Zero Inrush Current
16. FCC/UL1598/UL844/CB/PSE
17. Anti-vibration compliance to NEMA ANSI

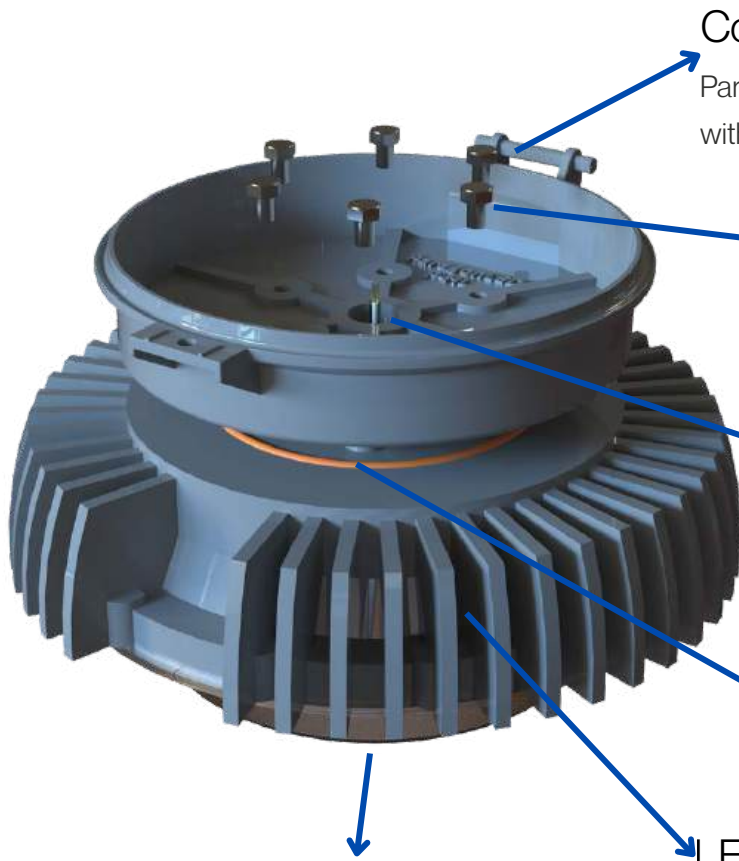
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TTL Getter System (optional) — extends lifetime to 3 years @105 °C. It continuously absorbs residual oxygen, moisture, and gases released from internal materials under high temperature, preventing oxidation and degradation.

# Module Replacement Solutions



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Compatible adapter and lock mechanism

ParagonLED provides hood replacements compatible with six established brands, Field-replaceable

LED heatsink mounting screws

Stainless steel screws to fix LED housing.

AC input connection wire (L/N/G)

- Contractor-friendly design is retrofit replacement.
- Easy to retrofit using existing HID Champ mounting module

Gasket

silicone gasket

LED Heatsink

Die cast aluminum LED housing provides efficient thermal path to heat sink assembly

ParagonLED AC COB LED module

Game changing proprietary driver-on-board LED modules are replaceable for extended fixture life and lower cost of ownership.

## Multi-branding Hood Selection



The lighting fixture and the seven adapters can be assembled based on the factory's brand at the U.S. distributor's warehouse to meet the specific needs of each facility.

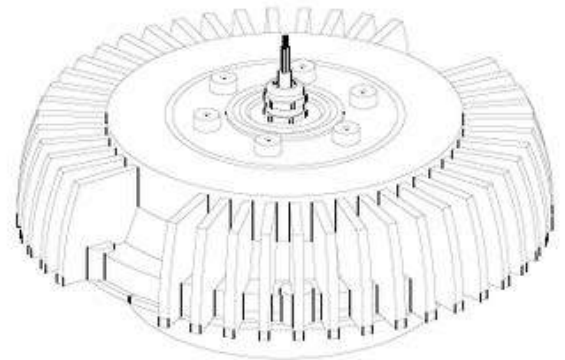
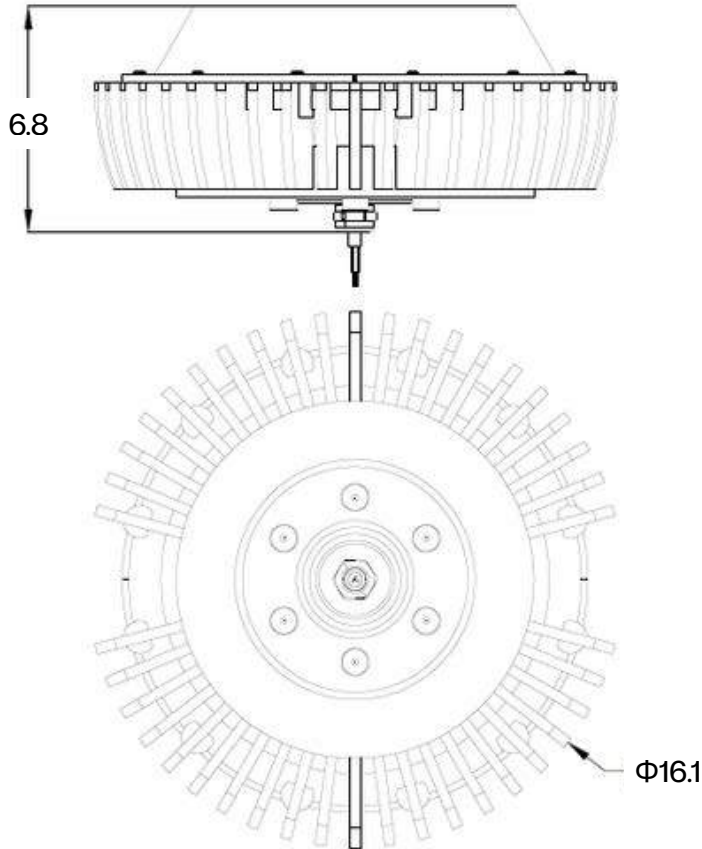
# Module Replacement Solutions



IP68



## DIMENSIONAL DATA



Unit: inch















# Replacement Table

The lighting fixture and the seven adapters can be assembled based on the factory's brand at the U.S. distributor's warehouse to meet the specific needs of each facility.



**IP68**



Brand name	ParagonLED	Photo
Eaton's Crouse-Hinds Champ®  Crouse-Hinds series	P-CH Adapter	
Appleton® Mercmaster III 	P-AM3 Adapter	
Appleton® Mercmaster II 	P-AM2 Adapter	
Thomas & Betts Hazlux®  A Member of the ABB Group	P-HL Adapter	
Killark® Certilite® 	P-KC Adapter	
Holophane Petrolux® LED 	P-HP Adapter	
Rig-A-Lite 	P-RL Adapter	

# Replacement Table **ParagonLED®**

The lighting fixture and the seven adapters can be assembled based on the factory's brand at the U.S. distributor's warehouse to meet the specific needs of each facility.



## **P-CH Adapter-Crouse Hinds Champ Retrofit Adapter**

Crouse-Hinds series

PENDANT	CEILING	WALL	STANCHION	QUAD-MOUNT
APM2 APM3	CM2	TWM2	JM5	QM25
HPM2	CM3	TWM3	PM5	

## **Appleton® P-AM3 Adapter-Appleton MercMaster III Retrofit Adapter**

PENDANT	CEILING	WALL	STANCHION
KPA-75 KPA-100	KPC-75	KPWB-75	KPS-125 KPS-150
KPAF-75 KPAF-100	KPC-100	KPWB-100	KPST-125 KPST-150
KPCH-75 KPCH-100	KCH-75		

## **Appleton® P-AM2 Adapter-Appleton MercMaster II Retrofit Adapter**

PENDANT	CEILING	WALL	STANCHION
LPA-75 LPA-100	LPC-75 LPC-100	LPWB-75 LPWB-100	LPS-125 LPS-150

# Replacement Table

The lighting fixture and the seven adapters can be assembled based on the factory's brand at the U.S. distributor's warehouse to meet the specific needs of each facility.

**Thomas&Betts** P-HL Adapter-Thomas and Betts Hazlux Retrofit Adapter  
A Member of the ABB Group

PENDANT	PENDANT CONE	FLEXIBLE PENDANT	CEILING	WALL
VP2/ VP3	VA2/ VA3	VF2/ VF3	VC2/ VC3	VB2/ VB3
WALL(HIGH VIBRATION)	25° ANGLE	25° ANGLE STANCHION (HIGH VIBRATION)	STRAIGHT STANCHION	STRAIGHT STANCHION (HIGH VIBRATION)
VB2-VIB/ VB3-VIB	VS4/ VS5	VS4-VIB/ VS5-VIB	VL4/ VL5	VL4-VIB/ VL5-VIB

**KILLARK®** P-KC Adapter-Killark Certilite & Certilite V Retrofit Adapter

PENDANT	CEILING	WALL	STANCHION 25° & 90°	Cone Top
VMA2B/ VMA-2 VMA3B/ VMA-3	VMX2B/ VMX-2	VMB2B/ VMB-2	VMD4B	VMC2B
VMC2B/ VMC-2 VMC3B/ VMC-3	VMX3B/ VMX-3	VMB3B/ VMB-3	VMD5B	VMC3B
VMF2B,/ VMF3B	VMX6B/ VMX7B/ VMX8B/ VMX9B	VMB8B	VMS4B/ VMS5B	



**P-HP Adapter-Holophane Petrolux II&III Retrofit Adapter**

PENDANT	UNIVERSAL	STANCHION	CEILING	WALL
PD/GH/P	UN	SA/ ST/ A	CD/ CE /B /C /D	WL/ W

**RIG-A-LITE™** P-RL Adapter-Rig-A-Lite Retrofit Adapter

RIGID PENDANT	FLEXIBLE PENDANT	CEILING	CONE MOUNT	WALL	25° ANGLE	90° STANCHION
SMP/ SMP1	SMF/ SMF1	SMC/ SMC1	SMK/ SMK1	SMW/ SMW1	SMS/ SMS1	SML/ SML1

**Bright Upgrade –  
“Ditch the Dim.  
Switch to LED”**

**Comparison Table:  
HPS/LED with driver vs. TTL ACCOB Retrofit System**

Feature / Spec	Legacy HPS System	DC_LED with driver	ParagonLED AC LED Mounting Hood
<b>Surge Protection</b>	6KV~10KV	6KV~10KV	>20KV(built-in)
<b>Startup Time</b>	60–90 seconds	<0.5 seconds	< 0.2 seconds
<b>Rated Power</b>	100W+20W Ballast	100~200W	70W/80W/105W/120W /140W/180W/210W
<b>Color Temp /Efficiency</b>	2000K / ~80 lm/W	5000K / 110~120lm/W	5000K / 140–150 lm/W
<b>Inrush Current</b>	High (>20A)	30~60A	Zero inrush
<b>Lifespan</b>	9,000 hours	25,000~50,000 hours	50,000+ hours
<b>Operating Temp</b>	Recommended ≤ 55°C	-25~55°C	-80~115°C
<b>Fixture Weight</b>	Heavy with ballast	20kg	10kg<total
<b>Installation</b>	Remove whole fixture	change LED module	Just change adapter and LED module
<b>Explosion Rating</b>	C1 D2/C2 D2/C3 D2	Maintained	Maintained

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