

An aerial night view of a large industrial construction site, possibly a power plant or refinery. The scene is illuminated by various lights, and a complex, glowing network of white lines and nodes is overlaid on the image, suggesting a digital or IoT network. The text "BRILLIANT" is enclosed in a white rectangular box, and "CONNECTED LIGHTS" is written in large, bold, white capital letters below it.

BRILLIANT CONNECTED LIGHTS



**Digitise and future-proof
your site through an essential
prerequisite – lighting.**



BitCortex



SCAN FOR VIDEO

How

To implement digitisation on any large, complex mining or industrial site, simply choose **Coolon Brilliant Connected Lights (BCL)** throughout the plant.

/ Robust Lights as a Digital Backbone

Coolon Brilliant Connected Lights are fitted with smart networking nodes inside. Always powered on, elevated, routinely inspected and densely scattered around the site, lights are the perfect host for mesh network transmitters. The complex process of site digitisation comes down to flipping a switch.

/ Automatic Immediate Connection

Once powered, the Brilliant Connected Lights automatically join together to create a wireless mesh network across the whole site, each connected luminaire continuously performs self-testing, while emergency-capable luminaires report their readiness for outage.

/ Wireless Mesh Network for Countless IoT Services

This robust mesh network acts as a digital backbone for the site and enables effortless deployment for a wide range of IoT based sensors and services like asset tracking, personnel locating, machine condition monitoring with many more to come.



Benefits



/ Every Light Contributes to the Network Extension

Every Brilliant Connected Light is equipped with a battery, providing power backup for networking functions and visual warning indicator, ensuring a safe and smooth evacuation process in case of a power outage. Emergency-enabled luminaires provide superior illumination uniformity and a reduction in shadowing, also enhancing hazard perception and visibility, maximising the safety and efficiency of the evacuation process.

/ Visual Emergency Status Propagation

With colour-changing visual warning indicators built into every Coolon Brilliant Connected Light, emergency alerts such as thunderstorm or lightning proximity and evacuation alerts can be synchronously propagated throughout the lighting network in real-time. In case of an emergency, the warning indicator will switch to a pre-defined flashing colour pattern, alerting the personnel of a specific emergency status to ensure no one is caught unaware.



/ Unlimited Value

Coolon Brilliant Connected Lights provide a backbone for thousands of emerging ground-breaking IoT services and technologies, enabling customers to pick and choose technology providers that suit their particular needs the most. With the use of this backbone, various IoT service providers can roll out their technologies without the need to worry about the physical challenges of connectivity.



/ Personnel Locating

Brilliant Connected Lights make it possible to instantly account for everyone on site, locate missing workers, and send help directly to those in need in case of an accident. The mesh network created by Coolon luminaires enables real-time visibility into areas without the need for GPS, mobile, or CB radio coverage, ensuring the safety of all site personnel, even in the most secluded areas of the facility.

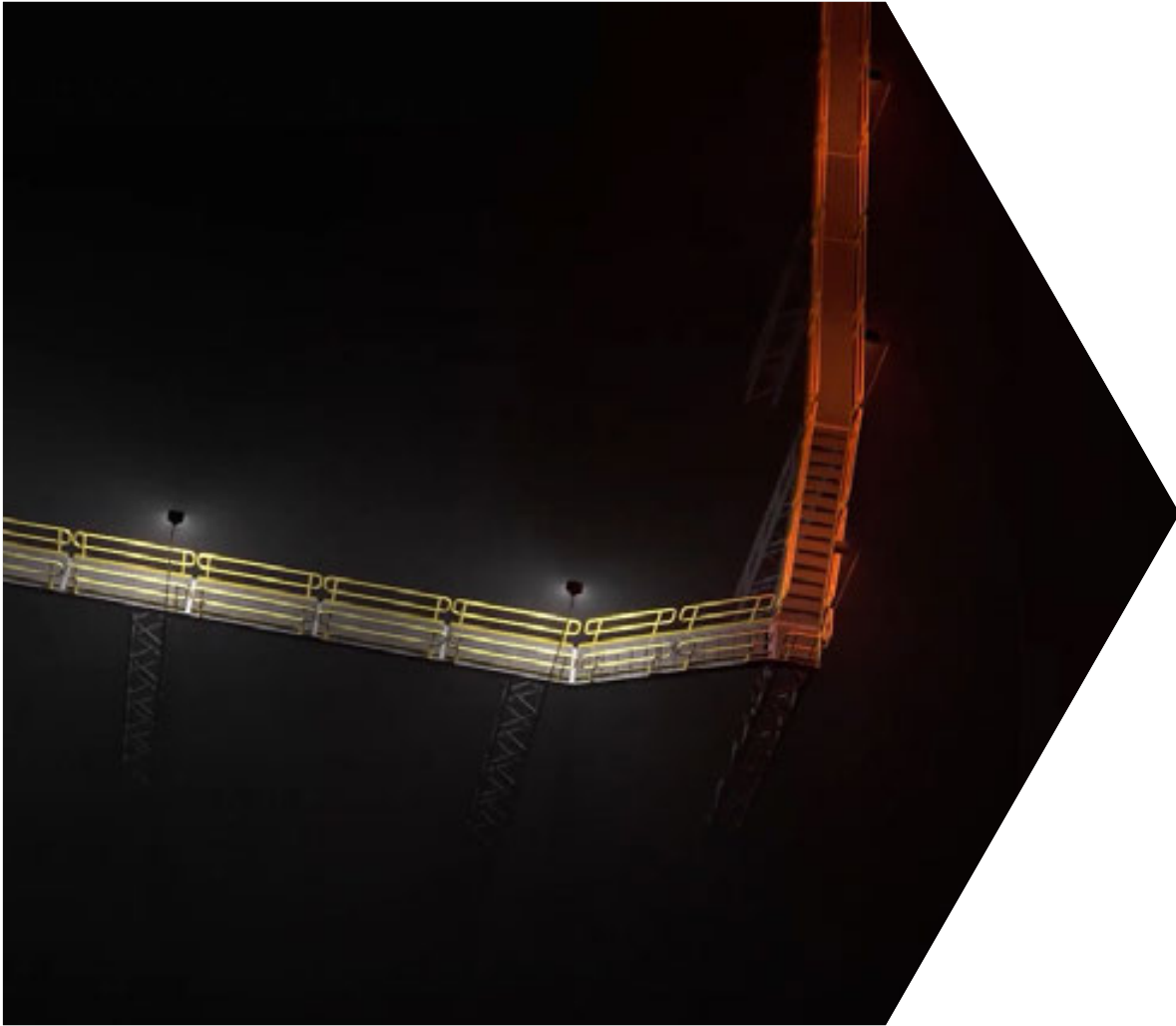
/ Machine Condition Monitoring

A range of inexpensive, battery-powered sensors enable 24/7 condition monitoring for many critical machines around the site. This helps maintenance engineers find early warning signs of oncoming malfunctions and allows them to schedule preventative maintenance, and eliminate unexpected, costly downtime.



/ Site-wide Audit Trail

Select models are built with an array of different sensors, constantly monitoring surrounding motion activity or important environmental changes. The collected sensor-based data insights, allows management to derive higher value, identify patterns and trends and optimize their operation.



/ Asset Tracking

The mesh network created by the lights offers the ideal backbone for asset tracking service providers to roll out their services with high accuracy and low latency. Gaining real-time, site-wide visibility enables site management to instantly locate any tagged item anywhere on site, including indoors and underground, with relative precision, maximising asset utilization, efficiency and productivity.

/ Dynamic Amber-White Colour Switching

A burdensome environmental challenge presented to many coastal facilities is the presence of local nocturnal wildlife, in particular nesting sea turtles. The bright white light normally used on sites is optimal for human vision and is a critical safety component on-site. Environmental regulations, however, require that amber-coloured lighting be used in order to reduce the disorientation effect on turtle hatchlings. Coolon Brilliant Connected Lights with dynamic colour changing autonomously switches between wildlife friendly Amber and bright White for maximum alertness when a person is detected.



/ Over-the-Air upgradable

As more functionalities are developed, firmware upgrades can be easily delivered over-the-air to all connected luminaires site-wide, enhancing the utility of lighting and the network every time. The only light in the world that gets better as time goes by.

The Lights

Meet the official range of Brilliant Connected Lights.
Whatever the application, we have the perfect fitting for you.



Aelita

Ultimate Smart Light

60W



DLK3/TNR3

True Smart Light

60W



DLK2S/TNR2S

Hybrid Smart Light

60W



EMBH3

Bulkhead Light

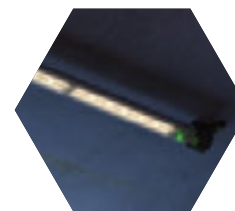
40W



Blinky

Visual Signalling System

40W



XINIX

Smart Batten Light

50W



GECKO

Smart Linear Light

40W / 80W



WOMBAT

Smart Bay Light

50W / 120W / 150W / 240W



Want to learn more about Brilliant Connected Lights?

Scan the QR code to watch our multi award-winning presentation

Lighting As A Conduit For Technological Disruption
Presented at Mine Electrical Safety Conference QLD 2022

Aelita

60W Smart LED Conveyor/Area Light

A revolutionary breakthrough in industrial site lighting is here

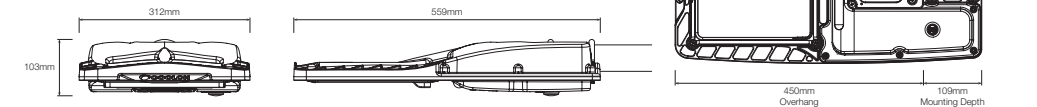
Aelita is the top-of-the-range smart light, offering more features than any other fitting in the Brilliant Connected lights range. Aelita is fitted with a visual warning indication system that allows propagating any emergency status across the site, equipped with the adaptive amber feature to combine environment friendliness with personnel safety, and optimised for prolonged emergency operation. Taking a leap from the DLK3 model, Aelita also features Motion Switching and Motion Reporting capabilities.

Key Features

- Mesh Backbone
- Network Standby up to 24hrs
- Emergency Light
- Emergency Outage and Readiness Reporting
- Amber/White Switching
- Motion Switching
- Motion Reporting
- Built-in Visual Warning Indicator
- Over-The-Air Upgradable
- Remote Dimming

Designed for

- Conveyors
- Walkways / Stairwells
- Stacker / Reclaimers
- Pedestrian Access Ways
- Camp-site Area Lighting
- General Area Lighting
- Mining Processing Plant
- Material Washing and Crushing



SCAN FOR FULL SPECIFICATIONS

DLK3/TNR3

60W Smart LED Conveyor/Area Light

Brilliant, connected, beyond lighting

Fitted with a visual warning indication system to propagate any emergency status, equipped with the amber switchable feature to combine environment friendliness with personnel safety and optimised for ultimate site safety with a prolonged emergency operation, DLK3/TNR3 is the way of the future.

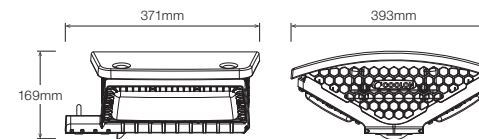
Key Features

- Mesh Backbone
- Network Standby up to 24hrs
- Emergency Light
- Emergency Outage and Readiness Reporting
- Amber/White Switching
- Built-in Visual Warning Indicator
- Over-The-Air Upgradable
- Various CCT choices
- Remote Dimming

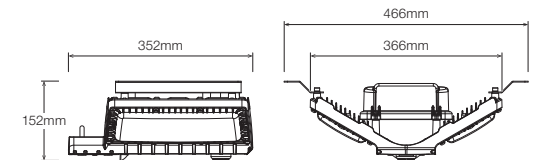
Designed for

- Emergency lighting
- Conveyors / Tunnels
- Walkways / Stairwells
- Stacker / Reclaimers
- Pedestrian Access Ways
- Campsite Area Lighting
- General Area Lighting
- Bulkheads
- Mining Processing Plant
- Material Washing and Crushing

DLK3



TNR3



SCAN FOR FULL SPECIFICATIONS

DLK2S/TNR2S

60W Smart LED Conveyor/Area Light

Brilliant, connected, beyond lighting

Our iconic DLK/TNR range is now fitted with a smart wireless networking mode - with a perfect balance between performance, reliability and functionality, it's the perfect introduction luminaire to the world of Brilliant Connected Lights.

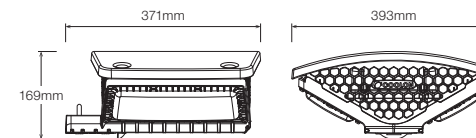
Key Features

- Mesh Backbone
- Network Standby up to 24hrs
- Remote Dimming
- Over-The-Air Upgradable
- Quality uniform light
- Various CCT choices
- Variety of optics available

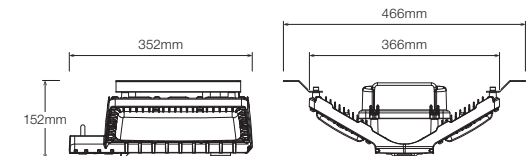
Designed for

- Conveyors / Tunnels
- Walkways / Stairwells
- Stacker / Reclaimers
- Pedestrian Access Ways
- Campsite Area Lighting
- General Area Lighting
- Bulkheads
- Mining Processing Plant
- Material Washing and Crushing

DLK2S



TNR2S



SCAN FOR FULL SPECIFICATIONS

EMBH3

40W Smart Bulkhead Light

Versatile. High-performing. Smart.

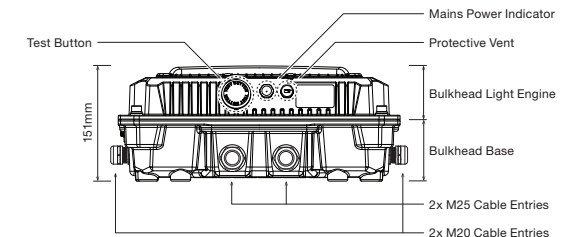
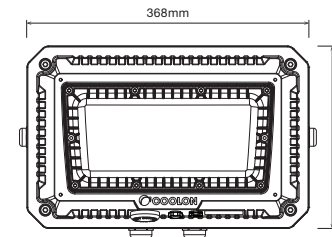
Our classic Bulkhead is now fitted with BitCortex wireless networking nodes, combining the original high performance and versatility with cutting-edge technologies and digitisation capabilities.

Key Features

- Mesh Backbone
- Network Standby up to 24hrs
- Emergency Light
- Emergency Outage and Readiness Reporting
- Amber/White Switching
- Built-in Visual Warning Indicator
- Over-The-Air Upgradable
- Quality uniform light
- Various CCT choices
- Variety of optics available
- Remote Dimming

Designed for

- Exit Routes
- Platforms
- Walkways
- Stairwells
- Substation
- Tunnels
- Conveyors



SCAN FOR FULL SPECIFICATIONS

Blinky

40W Visual Signalling System

Never be caught unaware

Introducing the ultimate visual warning propagation system – Blinky. From the moment it's plugged in, every single light automatically connects across the site forming a robust wireless network and enabling the quickest and most efficient visual warning propagation system. Regardless of the size of the site or the complexity of its infrastructure, any emergency signal is instantaneously picked up, wirelessly transmitted, and visually propagated through every single light in the network at the same time.

Key Features

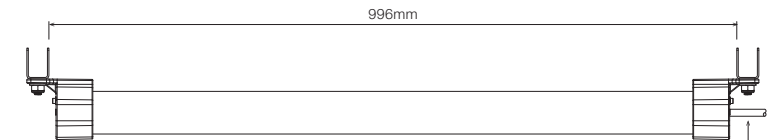
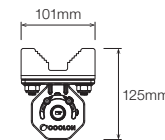
- Mesh Backbone
- Network Standby up to 24hrs
- Dedicated Visual Warning Indicator
- Visual Warning Propagation System
- Improved Situational Awareness
- Configurable for installation in multiple units (40W each unit)

Designed for

- Distributed Visual Signaling
- Visual Warning Indicator
- Warning Strobe
- Flashing Emergency Beacon



SCAN FOR FULL SPECIFICATIONS



Industrial lighting has evolved

XINIX is not only a robust and superior batten light replacement, it is also a giant leap forward towards enabling Industrial IoT across your site. Built around a wide suite of sensors and an industrial grade of wireless network connectivity, XINIX lights automatically connect together, forming a wireless mesh network, stretching throughout your whole site. Installing XINIX lights is the best way to upgrade lighting and effortlessly digitize the entire site without the need of cabling or engineering.

Key Features

- Mesh Backbone
- Network Standby up to 24hrs
- Emergency Light
- Emergency Outage and Readiness Reporting
- Remote Dimming
- Built-in Visual Warning Indicator
- Over-The-Air Upgradable
- Quality uniform light

Designed for

- Workshops
- Switchboard
- Switchrooms
- Pump Rooms
- Car Parks
- Walkways / Stairwells



SCAN FOR FULL SPECIFICATIONS



40W / 80W Smart Linear Light

Smart LED linear light designed specifically for hazardous locations

The GECKO is a smart connected linear light certified for use in hazardous locations (Zone 2/21/22 and C1D2, C2D2). Equipped with our Brilliant Connected Lights (BCL) wireless controller, the GECKO extends visibility beyond what can normally be seen to improve both site safety and productivity. GECKO autonomously meshes with other BCL enabled lights to form a wireless network allowing unparalleled control and improvement in situational awareness through the deployment of third-party IIoT devices and services.

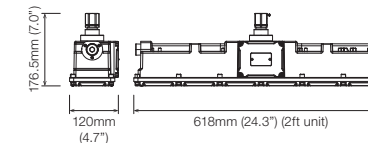
Key Features

- Mesh Backbone
- Remote Dimming
- Built-in Visual Warning Indicator
- Over-The-Air Upgradable
- Quality uniform light

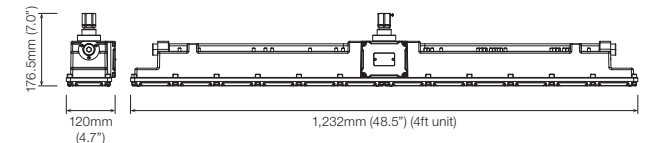
Designed for

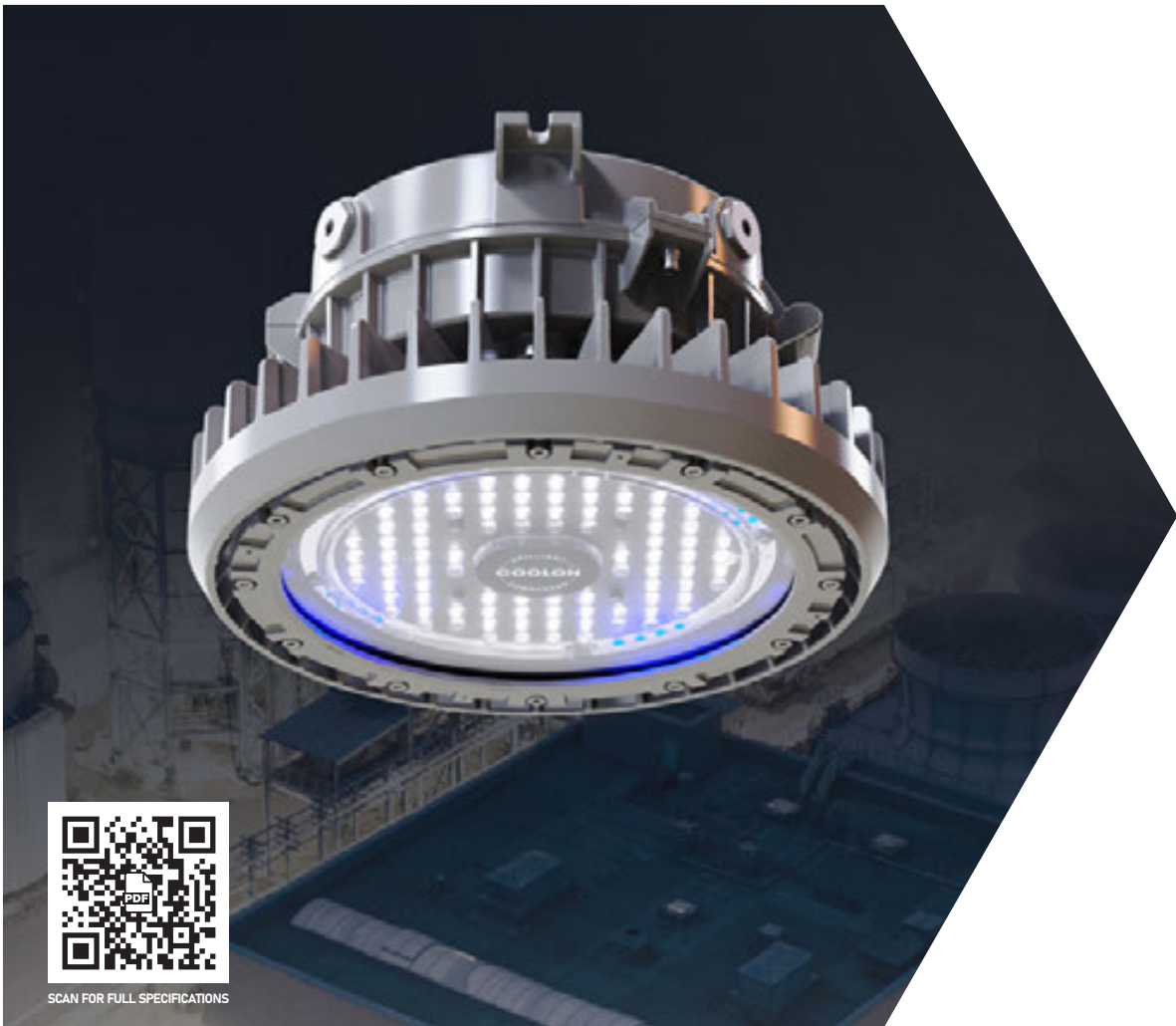
- Manufacturing Facilities
- Mining
- Oil Refineries
- Petrochemical Facilities
- Power Generation Facilities
- Pulp and Paper Mills
- Treatment Facilities
- Waste and Sewer

40W



80W





SCAN FOR FULL SPECIFICATIONS

WOMBAT



50W/120W/150W/240W Smart Bay Light

Smart LED bay / area light designed specifically for hazardous locations

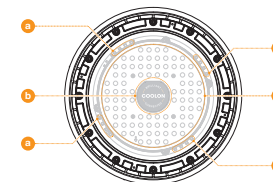
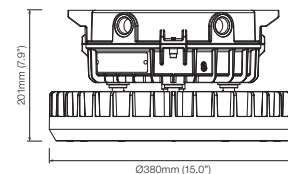
The WOMBAT is a smart connected and versatile area / bay light designed for use in hazardous locations (Zone 2/21/22 and C1D2/C2). Equipped with our Brilliant Connected Light (BCL) wireless controller, the WOMBAT extends visibility beyond what can normally be seen to improve both site safety and productivity. WOMBAT autonomously meshes with other BCL enabled lights to form a wireless network allowing unparalleled control and improvement in situational awareness through the deployment of third-party IIoT devices and services.

Key Features

- Mesh Backbone
- Remote Dimming
- Built-in Visual Warning Indicator
- Over-The-Air Upgradable
- Quality uniform light

Designed for

- Manufacturing Facilities
- Mining
- Oil Refineries
- Petrochemical Facilities
- Power Generation Facilities
- Pulp and Paper Mills
- Treatment Facilities
- Waste and Sewer



- a Configurable* RGBW Indicator
- b Occupancy Sensor
- c Main LEDs

*RGBW Indicator configurable via BitCortex

About



/ About Coolon

We have been manufacturing and perfecting our lights for decades, and they are known (and expected) to last for years at a time without maintenance or replacement. We set out to solve individual issues a site faces, so our lights come in a whole variety of optics and CRIs, as well as with DarkSky and Turtle-Friendly compliance configurations. Our high-quality units are designed to deliver reliable performance in challenging conditions such as heat, dirt, rain, vibration, dust, rust, salt, chemicals, and other challenging environments of a mine site. As a result, Coolon lights can be found at almost every site in Australia and are seen as standard in many areas.

/ Aussie-Made Tough

All our lights are designed, made and tested exclusively in Australia. This is a heartfelt value that's very dear to us, and we are very proud to have been able to manufacture in Australia for decades, even during the pandemic.



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- Product Information
- Technical Specifications
- Installation Instructions
- Application Notes
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IoT Application



Excellence in
IoT Application



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and Energy



Innovation
Award



Technology
Award

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2024.09