

THORN
LIGHTING



CHALICE

High-performance downlight family with multiple sizes
and finishes, high efficiency and ingress protection

HIGH PERFORMANCE DOWNLIGHTS

EFFICIENT AND DURABLE FOR MULTIPLE APPLICATIONS, DESIGNED AND MANUFACTURED IN GERMANY

Improving on the best of Chalice and Chalice Pro, the third-generation Chalice delivers an adaptable, in-depth range that can meet a breadth of demanding downlighting needs, ensuring it is suitable for installation in numerous applications.

The downlights are available in three cut-out sizes (100 mm, 150 mm, 200 mm), multiple lumen packages, and a choice of three reflector finishes (Satinbrite silver, Mirrorbrite silver, White). The core Chalice range has an impressive IP54 ingress protection from water, dust and dirt as standard with an optional ultrasonically welded polycarbonate cover that extends protection up to IP65. A long lifetime of 50 000 hours @ L90, further guarantees durability. A high-ceiling model delivers 5000 lumens through an advanced custom optic, whilst two surface-mounted and suspendable variants complete the Chalice family, expanding interior and under canopy installation possibilities.

Designed and manufactured by Thorn in Lemgo, Germany, Chalice has been developed with circular design principals in mind, with the ability to replace not only the luminaire's driver but the LED light engine itself. At its core, a recycled aluminium heatsink provides further optimal conditions for a prolonged lifetime as well as future recyclability.



Office



Education



Retail



Health and
Care



Industry



Transportation



Hotels



Residential



Wet Rooms



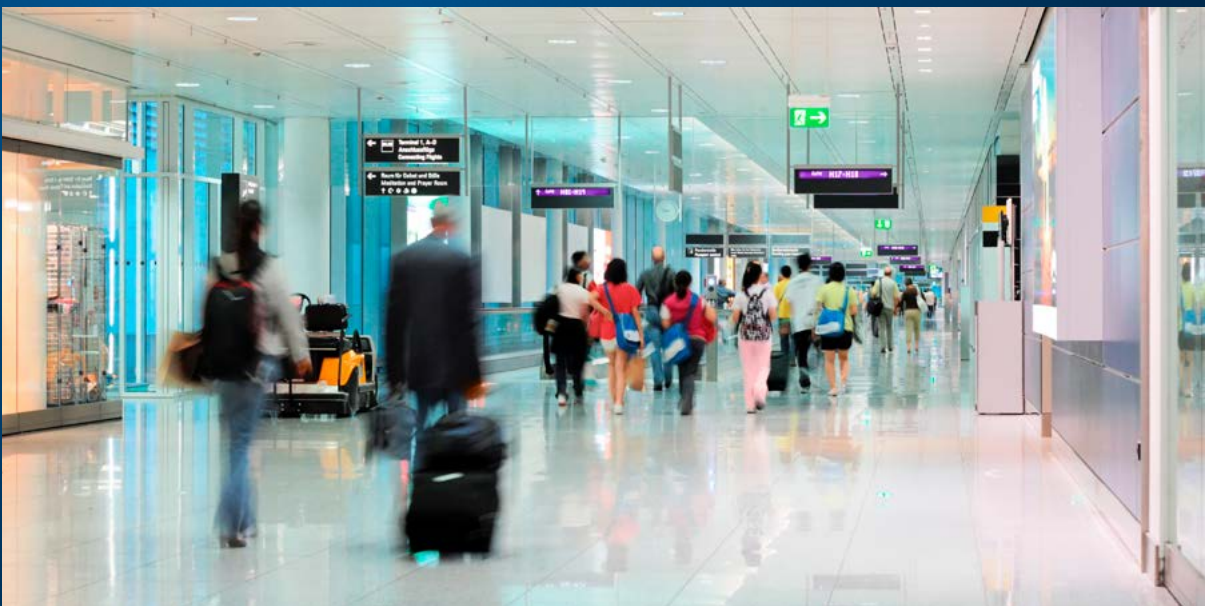
Kitchens



Hospitality



Corridors &
Staircases



A DOWNLIGHT FAMILY BY DESIGN

A range of three highly durable recessed downlights form a key part of Thorn's third generation Chalice family. Sizes comprise of 100, 150 and 200 mm cut-out diameter, all with a maximum recessed depth of no more than 100 mm so that the downlights can even be installed in narrow ceiling voids. This is complemented by the significant benefit of ingress protection from moisture, dust and dirt, rated IP54 across the range as standard and additionally all rated to IK09 shock resistance.

Offering an energy-efficient replacement for halogen, fluorescent and early-generation LED downlights with up to 155 lm/W and a 50 000-hour lifetime (L90), Chalice luminaires provide great performance while keeping running and maintenance costs low.

Strong and durable spring-mounting clips, an effective and lightweight aluminium heatsink and plug and play connectors between the downlights and drivers all add to the robustness and easy installation that Thorn luminaires are known for.





A FINISH FOR ALL ENVIRONMENTS

A choice of three reflector finishes (Satinbrite, Mirrorbrite and White) help to make Chalice recessed downlights a fit-anywhere luminaire. The Mirrorbrite reflector is ideal for workplace areas where glare control is especially significant, and this finish enables the three sizes of Chalice to meet tough UGR 19 demands.



VARIED REFLECTORS

White, Satinbrite and Mirrorbrite reflectors are available.

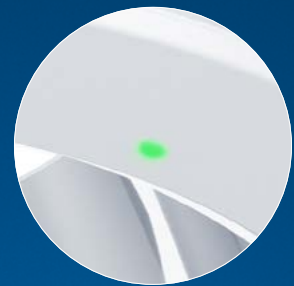


REDUCED GLARE

Mirrorbrite reflector achieves UGR < 19

EXPANDED INSTALLATION POSSIBILITIES

As an option, the recessed Chalice downlights can be supplied with an ultrasonic welded polycarbonate cover that provides enhanced protection from water, dust and dirt, rated IP65. This unique feature minimises weight and cost and allows the downlights to be installed into new areas such as bathrooms, wet rooms, food preparation areas and under-canopy ceilings.

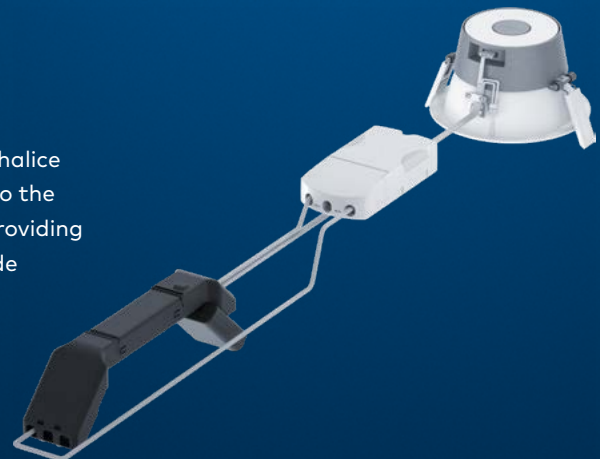


Emergency Battery Indicator

IP65 rated protection

EMERGENCY BATTERY OPTION

The standard recessed-mounted and surface mounted Chalice downlights can be specified with an emergency battery so the luminaire can still function in the event of a power-cut, providing 3 hours of light. Thorn use LiFePO_4 batteries which provide multiple benefits including higher safety (overcharging and thermal protection), stability (low self-discharge) and lifespan than other emergency batteries.



HIGH CEILING? NO PROBLEM!

Transportation hubs such as railway stations and airports are just two of many areas that often have high ceilings. Thorn have ensured that Chalice is suitable for this application, thanks to our custom High Ceiling downlight that features a powerful 5000 lumen LED chip-on-board module and advanced reflector to deliver lighting more efficiently from increased mounting heights.

Depending on the spacing requirements for the high ceiling application a choice of two reflectors are offered, providing a Flood beam or a Wide flood beam.



A glass cover can be added, providing an increased protection from water, dust and dirt, rated IP43.

SURFACE MOUNTED DOWNLIGHTS

Chalice is available in two surface mounted options, 125 and 180 mm diameter both rated IP43 as standard. They are quick and easy to install thanks to the twist and lock bayonet mount. A patented safety-screw feature by Thorn engineers gives reassurance that the body cannot come detached from the base after installation.

If an under-canopy installation is required, the luminaires can be ordered with an upgraded ultrasonic welded protection cover and back gasket, increasing the overall ingress protection rating to IP54.



Secure the surface mounted Chalice to its metal base by unscrewing the patented safety-screw locking mechanism.



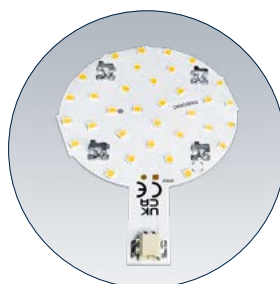
Both sizes of Chalice SM 125 and 180 can also be suspended using Thorn's pendant suspension kit.



REFURBISHMENT AND SUSTAINABILITY

Thorn designed the Chalice downlight family to be the ideal refurbishment solution across multiple applications. Added to this, from the earliest design-stage Chalice downlights have been created with sustainability and recyclability in mind. The aluminium downlight heatsink is cast from recycled aluminium, and this minimises the product's environmental footprint and promotes future recyclability.

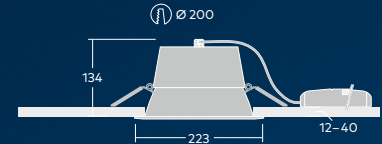
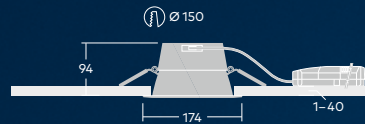
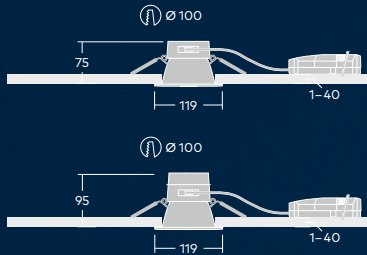
- > 90 % of the heatsink is manufactured from recycled aluminium
- Excellent refurbishment solution – change from inefficient halogen, fluorescent and early-generation LED to the latest low-power, high-efficiency LED downlights
- Removable and replaceable LED light engine and driver – maintainable and upgradeable by a qualified professional



Thorn developed Chalice's LED board with our sister company Tridonic. This enables maintenance and future upgradability.

DISCOVER

CHALICE

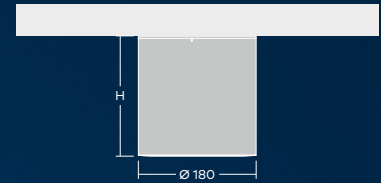
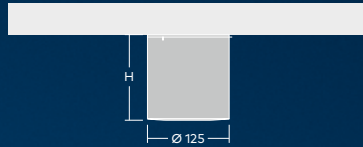
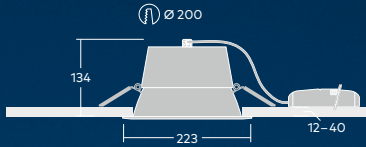


CHALICE 100

CHALICE 150

CHALICE 200

| | | | |
|------------|---|---------------------------------|---------------------------------|
| | 800 lm, 1400 lm | 1400 lm, 2000 lm, 3000 lm | 1400 lm, 2000 lm, 3000 lm |
| | up to 155 lm/W | | |
| | 3000 K, 4000 K | | |
| CRI | 80, 90 | | |
| UGR | < 19 (RMB), < 22 | | |
| | IP54 / IP65 (from below) | | |
| | Satinbrite (RSB), Mirrorbrite (RMB), White (RWH) | | |
| | 56° (RMB, RSB), 68° (RWH) | 56° (RMB), 63° (RSB), 72° (RWH) | 60° (RMB), 68° (RSB), 83° (RWH) |
| | - 20 °C to 25 °C (EHF/HFIX) | | |
| | IK09 | | |
| | 50 000 h L90 @ 25 °C | | |
| | Recessed | | |
| | 100 mm | 150 mm | 200 mm |
| | Wieland connector 3-pole (WL3), Wieland connector 5-pole (WL5), Wago connector 3-pole (WO3), Wago connector 5-pole (WO5) | | |
| | 3 hr manual test, LiFePO ₄ battery (E3) / 3 hr addressable self-test, LiFePO ₄ battery (E3D) | | |
| | Fixed output (HF) / Fixed output with DC functionality (EHF) / DALI Dimmable (HFIX), basicDIM Bluetooth® Wireless (BC) | | |



| CHALICE HIGH CEILING 200 | CHALICE SURFACE MOUNTED 125 | CHALICE SURFACE MOUNTED 180 |
|--|--|--|
| 5000 lm | 800 lm, 1400 lm | 1400 lm, 2000 lm, 3000 lm |
| up to 129 lm/W | up to 124 lm/W | up to 142 lm/W |
| 3000 K, 4000 K | | |
| 80 | 80, 90 | |
| < 16 | < 19 (RMB), < 22 | |
| IP20 / IP43 (from below) | IP43 / IP54 (from below) | |
| Flood (FL), Wide Flood (WFL) + Satinbrite (RSB), Mirrorbrite (RMB), White (RWH) | Satinbrite (RSB), Mirrorbrite (RMB), White (RWH) | |
| 29° (FL) / 44° (WFL) | 56° (RMB, RSB), 68° (RWH) | 56° (RMB), 63° (RSB), 72° (RWH) |
| -20°C to 25°C (EHF/HFIX) | | |
| IK07 | IK06 | |
| 50 000 h L90 @ 25°C | | |
| Recessed | Surface mounted | |
| 200 mm | - | - |
| Wieland connector 3-pole (WL3), Wieland connector 5-pole (WL5), Wago connector 3-pole (WO3), Wago connector 5-pole (WO5) | - | - |
| - | - | 3 hr manual test, LiFePO ₄ battery (E3) |

Fixed output with DC functionality (EHF) / DALI Dimmable (HFIX)

¹ Surface mounted version ² Recessed version



GET IN TOUCH

www.thornlighting.com/CHL3 www.thornlighting.com/contact



**5 YEAR
GUARANTEE**

As a globally leading luminaire manufacturer, Thorn Lighting provides a five-year warranty for its complete product range within all European Countries.
thornlighting.com/guarantee

Thorn Lighting is constantly developing and improving its products. All descriptions, illustrations, drawings and specifications in this publication present only general particulars and shall not form part of any contract. The right is reserved to change specifications without prior notification or public announcement. All goods supplied by the company are supplied subject to the company's General Conditions of Sale, a copy of which is available on request. All measurements are in millimetres and weights in kilograms unless otherwise stated.
04/2024 (INT)

**WE
MAKE
LIGHT
WORK**