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ENEC Certification Body registered under ID # 11.

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# LICENCE

to use the European Mark



Licence No. **80585-016**

Date of issue: Wien, 2018 06 14  
Rev. No. 01 Wien, 2018 12 19

OVE the Austrian Electrotechnical Association as signatory to the **"Agreement on the use of a commonly agreed Mark of Conformity for certain electrical equipment complying with European Standards"** hereby grants the right to label the products mentioned hereunder and listed in the Annex with the Mark(s) shown above to the following company

Licenceholder: **ZG Lighting France**  
Route de Paix  
27700 Les Andelys  
France

Product: **Luminaire for road and street lighting**

Trade Mark: **THORN**

Series/Type: **Isaro PRO CL1**

Basis for this given right is the conformity of the products with the requirements of the relevant Standard(s) as listed in the Annex and the fulfilment of articles 8 and 9 of the ENEC-Agreement by the manufacturer. This licence refers to the tested specimen and to all products manufactured strictly identical to the submitted one.

This licence has been issued under the presumption and conditional on the fact that the licensee holds all necessary legal rights with regard to the product presented for testing and certification.

**Österreichischer Verband für Elektrotechnik**  
Head of Testing & Certification

Digitally signed by W. Martin  
Email=w.martin@ove.at  
Dipl.-Ing. W. Martin



## **OVE Testing & Certification**

Accredited by the Federal Ministry for Digital and Economic Affairs as Certification Body for products within the scope as given in the official decree and published under [www.bmdw.gv.at/akkreditierung](http://www.bmdw.gv.at/akkreditierung).



|                                                                        |                                                                                                                                                                                                          |
|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>Hersteller</i><br/><i>Manufacturer</i></p>                       | <p><b>Thorn Lighting Ltd</b><br/><b>Durhamgate, Spennymoor,</b><br/><b>County Durham</b><br/><b>DL16 6HL</b><br/><b>United Kingdom</b></p>                                                               |
| <p><i>Fertigungsstätte(n)</i><br/><i>Factory location(s)</i></p>       | <p><b>Europhane SAS</b><br/><b>Route de Paix</b><br/><b>27700 Les Andelys</b><br/><b>France</b></p>                                                                                                      |
|                                                                        | <p><b>Thorn Lighting Ltd</b><br/><b>Durhamgate, Spennymoor,</b><br/><b>County Durham</b><br/><b>DL16 6HL</b><br/><b>United Kingdom</b></p>                                                               |
| <p>* <i>Typenbezeichnung</i><br/><i>Type reference</i></p>             | <p><b>IP 12L...CL1...</b><br/><b>IP 24L...CL1...</b><br/><b>IP 36L...CL1...</b><br/><b>IP 48L...CL1...</b><br/><b>IP 60L...CL1...</b><br/><b>IP 72L...CL1...</b><br/><b>see type code on page 5.</b></p> |
| <p>* <i>Prüfbericht</i><br/><i>Test Report</i></p>                     | <p><b>TR 80585-0012-01 ECS,</b><br/><b>TR 80585-0014-01 ECS.</b></p>                                                                                                                                     |
| <p><i>Nationale Bestimmung(en)</i><br/><i>National Standard(s)</i></p> | <p><b>ÖVE/ÖNORM EN 60598-1:2015-11-01</b><br/><b>ÖVE/ÖNORM EN 60598-2-3:2012-01-01</b></p>                                                                                                               |
| <p><i>Europannorm(en)</i><br/><i>European Standard(s)</i></p>          | <p><b>EN 60598-1:2015</b><br/><b>EN 60598-2-3:2003 + A1:2011</b></p>                                                                                                                                     |
| <p>* <i>Ersatz für Zertifikat</i><br/><i>Superseded licence</i></p>    | <p><b>80585-016 dated 2018 06 14</b><br/><b>Items modified are marked with an asterisk (*)</b></p>                                                                                                       |
| <p>* <i>Anmerkung(en)</i><br/><i>Remark(s)</i></p>                     | <p><b>CTF Stage 3.</b></p>                                                                                                                                                                               |

|                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| * <i>Nennspannung</i><br><i>Rated voltage</i>                                       | <b>220-240V, 50-60Hz or 50/60Hz</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| * <i>Anzahl und Leistung der Lampen</i><br><i>Rated wattage and number of lamps</i> | <b>IP 12L: 1x LED module with 12 LEDs<br/>IP 24L: 2x LED module with 12 LEDs<br/>IP 36L: 1x LED module with 36 LEDs<br/>IP 48L: 4x LED module with 12 LEDs<br/>IP 60L: 1x LED module with 36 LEDs<br/>+ 2x LED module with 12 LEDs<br/>IP 72L: 2x LED module with 36 LEDs</b>                                                                                                                                                                                                                                       |
| * <i>Lampentyp(en)</i><br><i>Lamp identification</i>                                | <b>LED modules LEM R12 or RLE12 (12 LEDs)<br/>or LEM R36 or RLE36 (36 LEDs)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <i>Schutzgrad</i><br><i>Degree of protection</i>                                    | <b>IP66</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <i>Netzanschluss</i><br><i>Supply connection</i>                                    | <b>Screw terminals</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <i>Befestigungsfläche</i><br><i>Supporting surface</i>                              | <b>Normally flammable surface</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <i>Schutzklasse</i><br><i>Class of protection</i>                                   | <b>Cl.I</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| * <i>Beschreibung des Aufbaus</i><br><i>Description of construction</i>             | <b>LED road lighting lantern with 12 or 72 LEDs with several optics.<br/>Housing: die-cast aluminium, powder coated textured light grey or anthracite.<br/>Spigot: die-cast aluminium.<br/>Enclosure: 5mm thick glass (fracture in small pieces)<br/>Fixings: stainless steel.<br/>Supplied with spigot adaptor which can be fitted for post-top (0 to 20° tilt) or side-entry (-15 to +15° tilt).<br/>Equipped with power reduction circuit, effective 3 hours before and 5 hours after a calculated midnight.</b> |
| * <i>Zusatzinformation</i><br><i>Additional information</i>                         | <b>Classified as risk group 2 (moderate risk) according to EN 62471:2008.</b><br><br><b>The luminaire should be positioned so that prolonged staring into the luminaire at a distance closer than 2 m is not expected.</b>                                                                                                                                                                                                                                                                                          |

| <i>Bauteil</i><br><i>Component</i> | <i>Code</i><br><i>Code</i> | <i>Hersteller</i><br><i>Manufacturer</i> | <i>Typenbezeichnung</i><br><i>Type Reference</i> | <i>Konformitätszeichen</i><br><i>Mark(s) of conformity</i> |
|------------------------------------|----------------------------|------------------------------------------|--------------------------------------------------|------------------------------------------------------------|
| <i>LED control gear</i>            | B                          | Osram                                    | OT 40W 4DIM                                      | ENEC 10                                                    |
|                                    | B                          | Osram                                    | OT 60W 4DIM                                      | ENEC 10                                                    |
|                                    | B                          | Osram                                    | OT 90W 4DIM                                      | ENEC 10                                                    |
|                                    | * B                        | Osram                                    | OT 165W 4DIM                                     | ENEC 10                                                    |
|                                    | B                          | Tridonic                                 | LCA 30W                                          | ENEC 11                                                    |
|                                    | B                          | Tridonic                                 | LCA 60W                                          | ENEC 11                                                    |
| * B                                | Tridonic                   | LCA 75W                                  | ENEC 11                                          |                                                            |
| * B                                | Tridonic                   | LCA 120W                                 | ENEC 11                                          |                                                            |
| <i>SPD</i>                         | B                          | Citel                                    | MLPC1-230L-R                                     | CB_HU-001850                                               |
| <i>LED Module</i>                  | A*                         | THORN                                    | RLE12<br>max. 1050mA, RG2, tc=105°C              | ÖVE                                                        |
|                                    | * A*                       | THORN                                    | RLE36<br>max. 1050mA, RG2, tc=105°C              | ÖVE                                                        |
|                                    | * A*                       | THORN                                    | LEM R12<br>max. 1050mA, RG2, tc=105°C            | ÖVE                                                        |
|                                    | * A*                       | THORN                                    | LEM R36<br>max. 1050mA, RG2, tc=105°C            | ÖVE                                                        |
|                                    | * A*                       | THORN                                    | LEM R36<br>max. 1050mA, RG2, tc=105°C            | ÖVE                                                        |
| <i>Terminals</i>                   | A                          | Electro Terminal                         | SLK/3<br>450V, 24A, T110                         | ENEC 10                                                    |
|                                    | * A                        | Wago                                     | 224-101<br>400V, 24A, T105                       | VDE                                                        |
| * <i>Power switch</i>              | A                          | OMT                                      | 0132<br>400V, 16A, T140                          | IMQ                                                        |
| * A                                | OMT                        | 0135<br>250V, 6A, T140                   | IMQ                                              |                                                            |
| <i>Internal wiring</i>             | A                          | BLF                                      | SIL 100<br>300V; 0,75mm <sup>2</sup> ; 180°C     | VDE                                                        |
|                                    | A                          | BLF                                      | SilHSil<br>300V; 0,75mm <sup>2</sup> ; 180°C     | VDE                                                        |
|                                    | B                          | Omerin                                   | RECSC<br>300V, 180°C                             | VDE                                                        |
| <i>External wiring</i>             | A                          | Interchangeable                          | H05VV-F 1,5mm <sup>2</sup>                       | HAR                                                        |
|                                    | A                          | Interchangeable                          | H07RN-F 1,5mm <sup>2</sup>                       | HAR                                                        |
| * <i>Gland</i>                     | A                          | Bimed                                    | BLMN-22<br>PA 6, IP68                            | VDE                                                        |

A The component is replaceable with another one, also certified, with equivalent characteristics.  
A\* The component is replaceable with another one according to ETF5-OSM-LUM/DSH OD-5002-3:2015  
B The component is replaceable if authorised by the test house.  
C Integrated component tested together with the appliance.  
D Alternative component.

