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ENEC Certification Body registered under ID # 11.

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LICENCE

to use the European Mark



Licence No. **80585-019**

Date of issue: 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: **Luminaires for road and street lighting**

Trade Mark: **THORN**

Series/Type: **Isaro PRO CL2**

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.



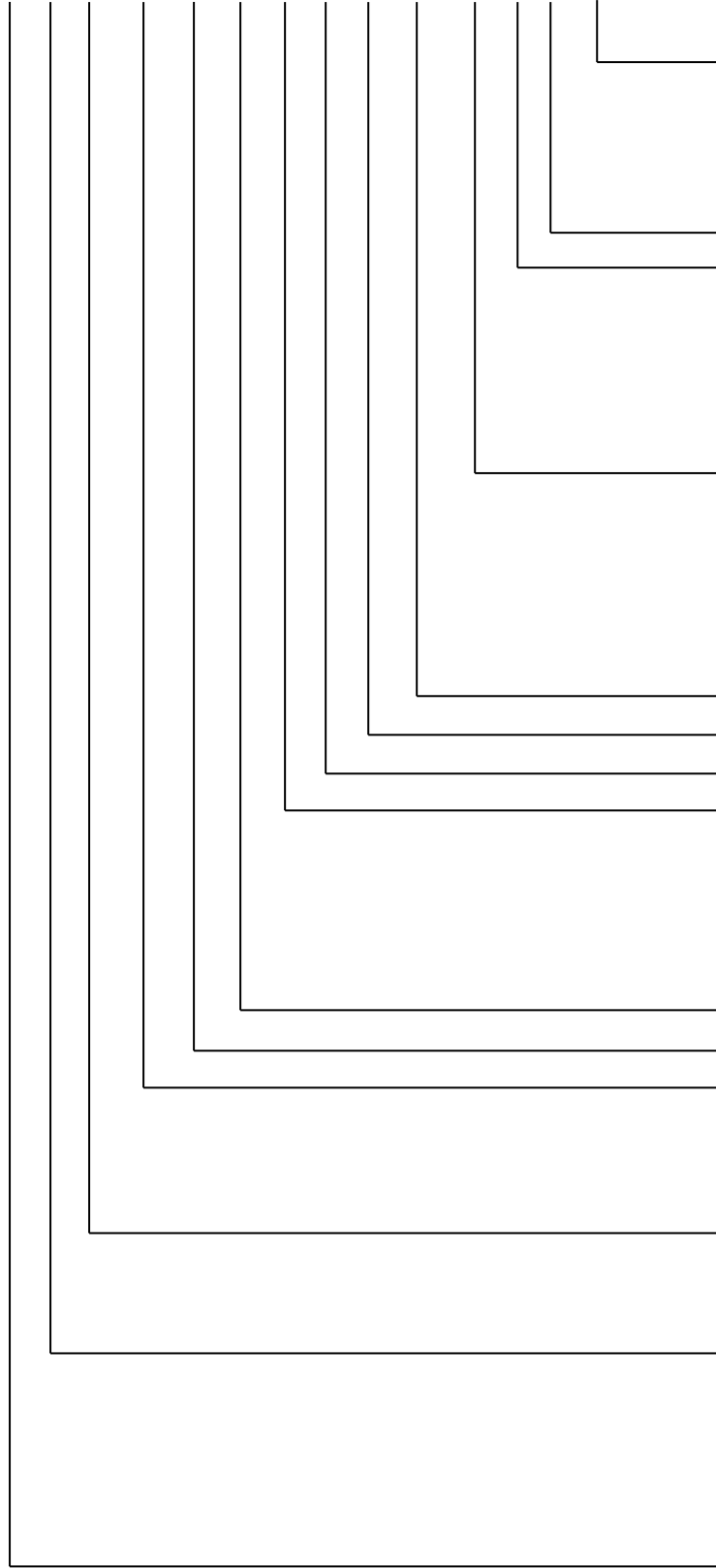
<p><i>Hersteller</i> <i>Manufacturer</i></p>	<p>Thorn Lighting Ltd Durhamgate, Spennymoor, County Durham DL16 6HL United Kingdom</p>
<p><i>Fertigungsstätte(n)</i> <i>Factory location(s)</i></p>	<p>Europhane SAS Route de Paix 27700 Les Andelys France</p>
<p><i>Typenbezeichnung</i> <i>Type reference</i></p>	<p>IP 12L...CL2... IP 24L...CL2... IP 36L...CL2... IP 48L...CL2... IP 60L...CL2... IP 72L...CL2... see type code on page 5.</p>
<p><i>Prüfbericht</i> <i>Test Report</i></p>	<p>TR 80585-0014-02 ECS</p>
<p><i>Nationale Bestimmung(en)</i> <i>National Standard(s)</i></p>	<p>ÖVE/ÖNORM EN 60598-1:2015-11-01 ÖVE/ÖNORM EN 60598-2-3:2012-01-01</p>
<p><i>Europannorm(en)</i> <i>European Standard(s)</i></p>	<p>EN 60598-1:2015 EN 60598-2-3:2003 + A1:2011</p>
<p><i>Ersatz für Zertifikat</i> <i>Superseded licence</i></p>	<p>--</p>
<p><i>Anmerkung(en)</i> <i>Remark(s)</i></p>	<p>CTF Stage 3.</p>

<i>Nennspannung</i> <i>Rated voltage</i>	230-240V 50-60Hz or 220-240V 50/60Hz
<i>Anzahl und Leistung der Lampen</i> <i>Rated wattage and number of lamps</i>	IP 12L: 1x LED module with 12 LEDs IP 24L: 2x LED module with 12 LEDs IP 36L: 1x LED module with 36 LEDs IP 48L: 4x LED module with 12 LEDs IP 60L: 1x LED module with 36 LEDs + 2x LED module with 12 LEDs IP 72L: 2x LED module with 36 LEDs
<i>Lampentyp(en)</i> <i>Lamp identification</i>	LED modules LEM R12 or RLE12 (12 LEDs) or LEM R36 or RLE36 (36 LEDs)
<i>Schutzgrad</i> <i>Degree of protection</i>	IP66
<i>Netzanschluss</i> <i>Supply connection</i>	Screw terminals
<i>Befestigungsfläche</i> <i>Supporting surface</i>	Normally flammable surface
<i>Schutzklasse</i> <i>Class of protection</i>	CI.II
<i>Beschreibung des Aufbaus</i> <i>Description of construction</i>	LED road lighting lantern with 12 or 72 LEDs with several optics. Housing: die-cast aluminium, powder coated textured light grey or anthracite. Spigot: die-cast aluminium. Enclosure: 5mm thick glass (fracture in small pieces) Fixings: stainless steel. Supplied with spigot adaptor which can be fitted for post-top (0 to 20° tilt) or side-entry (-15 to +15° tilt). Equipped with power reduction circuit, effective 3 hours before and 5 hours after a calculated midnight.
<i>Zusatzinformation</i> <i>Additional information</i>	Classified as risk group 2 (moderate risk) according EN 62471:2008. The luminaire should be positioned so that prolonged staring into the luminaire at a distance closer than 2 m is not expected.

<i>Bauteil</i> <i>Component</i>	<i>Code</i> <i>Code</i>	<i>Hersteller</i> <i>Manufacturer</i>	<i>Typenbezeichnung</i> <i>Type Reference</i>	<i>Konformitätszeichen</i> <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	MLPC2-230L-R	CB_HU-001850
<i>LED Module</i>	A*	THORN	RLE12 max. 1050mA, RG2, tc=105°C	ÖVE
	A*	THORN	RLE36 max. 1050mA, RG2, tc=105°C	ÖVE
	A*	THORN	LEM R12 max. 1050mA, RG2, tc=105°C	ÖVE
	A*	THORN	LEM R36 max. 1050mA, RG2, tc=105°C	ÖVE
<i>Terminals</i>	A	Electro Terminal	SLK/3 450V, 24A, T110	ENEC 10
	A	Wago	224-101 400V, 24A, T105	VDE
<i>Power switch</i>	A	OMT	0130 400V, 16A, T140	IMQ
	A	OMT	0135 250V, 6A, T140	IMQ
<i>Internal wiring</i>	A	BLF	SIL 100 300V; 0,75mm ² ; 180°C	VDE
	B	Omerin	RECSC 300V, 180°C	VDE
<i>External wiring</i>	A	Interchangeable	H07RN-F 1,5mm²	HAR
<i>Gland</i>	A	Bimed	BLMN-22 PA 6, IP68	VDE
<p>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.</p>				

Typecode:

IP ..L... -... .. CL2



- Colour of luminaire** (optional)
 - GY-S.....Light grey sanded cover and body
 - GYLight-grey
 - ANTAnthracite
 - BK.....Black
 - Rxxxx.....RALxxxx
- B**Bulk packaging (optional)
- Wiring** (optional)
 - D66m pre-wired for Germany region
 - D88m pre-wired for Germany region
 - D10.....10m pre-wired for Germany region
 - W66m pre-wired
 - W88m pre-wired
 - W1010m pre-wired
- Spigot** (optional)
 - L42EPre-fitted 42mm spigot lateral 0°
 - L60EPre-fitted 60mm spigot lateral 0°
 - M4242mm spigot non-fitted
 - M6060mm spigot non-fitted
 - M7676mm spigot non-fitted
 - T60FPre-fitted 60mm spigot post top +5°
 - T76FPre-fitted 76mm spigot post top +5°
- CL2**.....Protection class II
- SP**.....Surge protection device (optional)
- HFX**DALI dimmable (optional)
- Bi-Power light reduction** (optional)
 - BPL.....Bi-Power Line switch
 - LRT.....Light Reduction Twin phases
 - BPSBi-Power switchable (8h, 50%)
 - BPSxyy...Bi-Power switchable (xh, yy%)
 - BPBi-Power light reduction (8h, 50%)
 - BPxyyBi-Power light reduction (xh, yy%)
- CLO**.....Constant Light Output
- Optics**
- Photometric code**
 - 7303000K, CRI 70
 - 7404000K, CRI 70
 - 8303000K, CRI 80
 - 8404000K, CRI 80
- Current of LED module**
 - 35 350mA, 85 850mA
 - 50 500mA, 90 900mA
 - 70 700mA, 105 1050mA
- Number of LEDs**
 - 12L12 LEDs
 - 24L24 LEDs
 - 36L36 LEDs (up to 850mA only)
 - 48L48 LEDs (up to 700mA only)
 - 60L60 LEDs (up to 700mA only)
 - 72L72 LEDs (up to 700mA only)
- Series Isaro PRO**