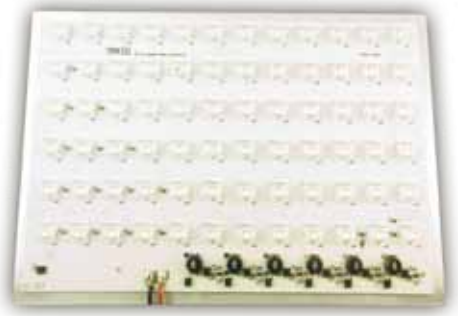
Dragon 72 LED PowerFlood White

ILF-GD72-ULWH-SD401-WIR200



Product Overview

- Very powerful, low profile LED light engine
- Available in White
- 72 High Output LEDs employed
- Aluminium PCB for optimal thermal management

Applications

- General Lighting
- Amenity and Street Lighting
- Floodlights
- Architectural, etc lighting

Technical Features

- Each Dragon 72 PowerFlood contains 72 Osram Golden Dragon Plus LEDs
- Single input voltage Each board has own regulation built-in
- Up to 70,000 hour lifetime to 70% of original brightness
- Many clip-on and twist-on Lens options
- Flood board size 235x170x7max mm
- Mounting holes (3mm diameter) allow easy installation with screws

Important Information and Precautions

- The PowerFlood's LED, when powered up, is very bright. Thus it is advised that you do not look directly at it. Turn the PowerFlood away from you and do not shine into the eyes of others.
- PowerFloods will overheat in operation if not attached to a suitable Heat Sink. Over heating can cause failure or irreparable damage.
- Do not operate PowerFloods with a Power Supply with unlimited current. Connection to constant voltage Power Supplies that are not current limited may cause the PowerFlood to consume current above the specified maximum and cause failure or irreparable damage.
- PowerFloods, when operated, can reach high temperatures thus there is risk of injury if they are touched.
- DO NOT HOT PLUG ON LED SIDE OF POWER SUPPLY.

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DATASHEET

Product Options

ILS PART NUMBER	Colour	CCT*	Supply Voltage §	Supply Current §	LED Power §	Luminous Flux*		Light Beam Angle	Relevant Osram LED Data
						Min	Typ		
ILF-GD72-ULWH-SD401-WIR200.	Cool White	6500K	48 Vdc	2.08 A	100 W	8,064	8,712	170° / ± 85°	LUW W5AM
ILF-GD72-DWWH-SD401-WIR200.	White	5700K	48 Vdc	2.08 A	100 W	7,016	8,712	170° / ± 85°	LUW W5AM
ILF-GD72-NUWH-SD401-WIR200.	Neutral White	4000K	48 Vdc	2.08 A	100 W	5,887	6,970	170° / ± 85°	LCW W5AM
ILF-GD72-WMWH-SD401-WIR200.	Warm White	3000K	48 Vdc	2.08 A	100 W	5,112	6,444	170° / ± 85°	LCW W5AM

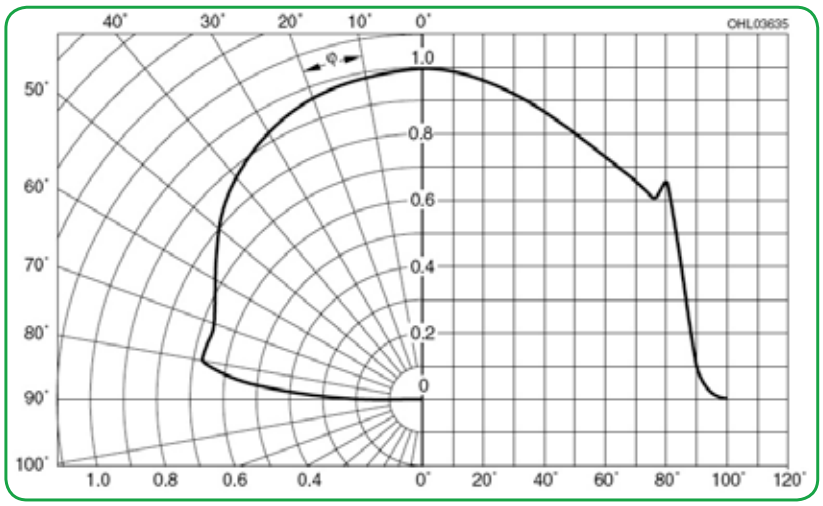
§ ±5%
*Due to the special conditions of the manufacturing processes of LEDs, the typical data of technical parameters can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product which could differ from the typical data.
† Brightness values are measured during a current pulse of typical 25 ms, with an internal reproducibility of +/- 8 % and an expanded uncertainty of +/- 11 % (acc. to GUM with an expansion factor of k = 3).

Minimum and Maximum Ratings

ILS PART NUMBER	Operating Temperature at Tc-Point [°C]*	Storage Temperature [°C]*	Supply Voltage	Reverse Voltage [Vdc]*
ILF-GD27 LED Engines	-20°C to +75°C	-30°C to +85°C	Not Allowed	Not Allowed

* Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the Dragon 72 LED Flood.
Exceeding maximum ratings for operating voltage will cause hazardous overload and will likely destroy the Dragon 72 LED Flood.
The temperature of the Dragon 72 LED Flood must be measured at the Tc-Point (located at the centre of the board) according to EN60598- 1 in a thermally constant status with a temperature sensor or a temperature sensitive label.

Radiation of single LED



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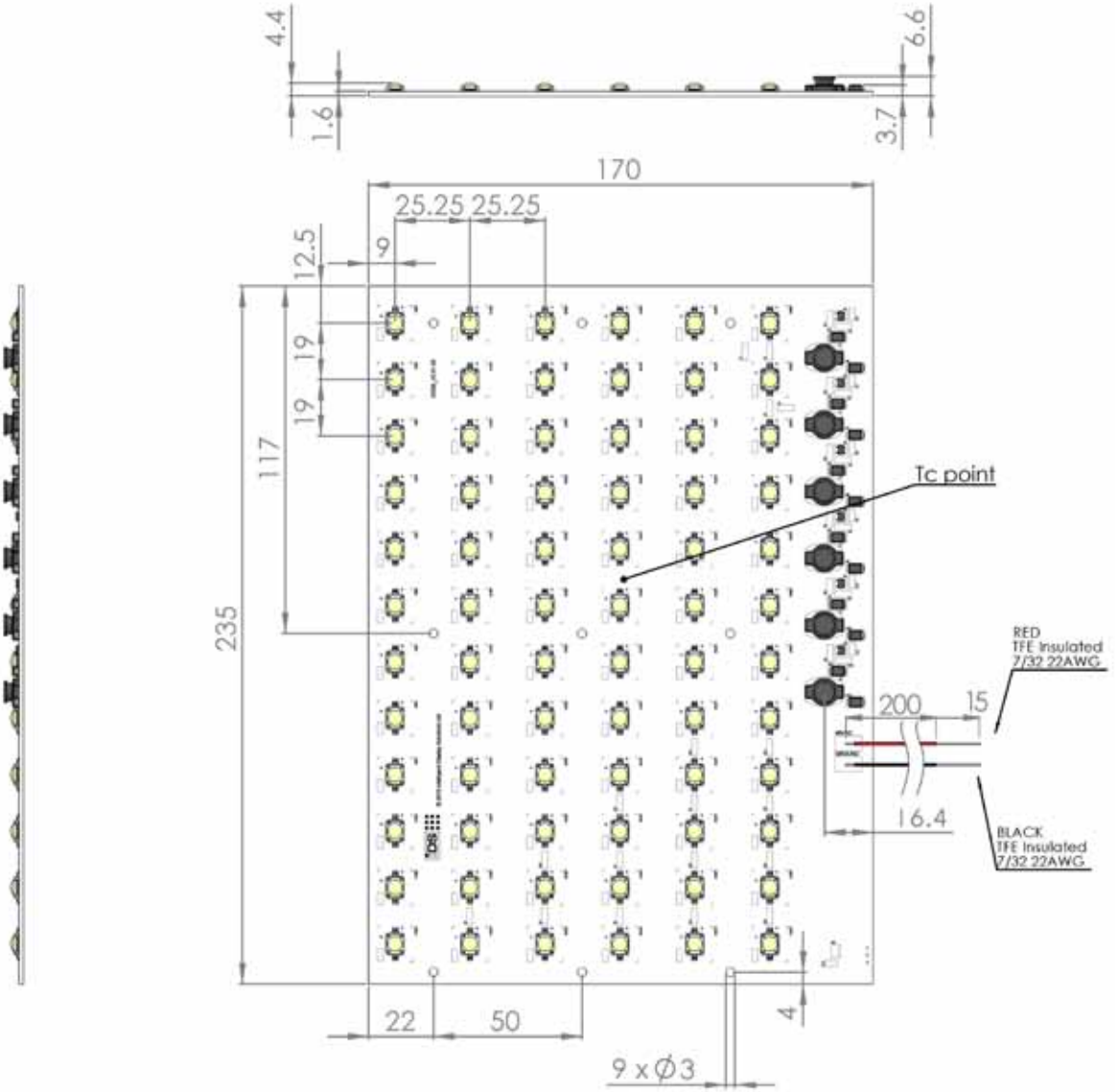
Technical Drawing with cables (mm)



3D drawing files are available on request from ILS. Please call or email

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Dragon 72 Flood Lens and Reflector Options

LEDIL precision-engineered Lenses and Reflectors allow for rapid deployment of all types of light fixtures, including street lights, wall-wash, high-bay, sconces, emergency beacons, parking garage/low-bay, MR and AR downlights, and dock lights. Precision-engineered for maximum efficiency and durability, LEDIL Lenses and Reflectors are released alongside the latest product releases from our LED suppliers. You select the best LED for the application; choose LEDIL and you're selecting the best optical solution as well.

Ordering Code	Description	Attachment Method
FL-90	Mini Lens; ±7.5° Lambertain	Clip-On
FL-42	Mini Lens; ±10° Lambertain	Clip-On
FL-63S	Mini Lens; ±15° Lambertain	Twist-On
FL-66S	Mini Lens; ±30° Lambertain	Twist-On
FL-70	Mini Lens; ±55° Spot	Twist-On
FL-69S	Mini Lens; ±70° Spot	Twist-On
FL-68S	Mini Lens; ±60° & ±30° Oval	Twist-On
FL-68D	Mini Lens; ±30° & ±60° Oval	Twist-On
FL-54	Mini Lens; ±62.5° Bat-Wing	Clip-On
FL-82	Mini Lens; 135°x70°x30° Total O Asymetric	Twist-On

Dragon 72 Flood Heat Sink Options

ILS has recently introduced a series of Aluminium Alloy Heat Sinks to be used with our standard range of PowerStars and PowerClusters. These Heat Sinks are supplied with fixing screws for the light engine and for fixing to a base plate. They also come with Thermal Interface Material (TIM) attached to the top surface. Available in Black, Red, Silver and Blue colour variants. More versions will be introduced over the coming months and we are also happy to manufacture custom Heat Sinks to your request.

	Operates under the recommended ILS junction temperature
	Operates under the recommended LED maximum junction temperature
	Not suitable for use
N/A	Heat Sink not designed for use with this product

ILS Product		No Heat Sink, in free air	ILA-HSINK-280X190X50MM-BLK	ILA-HSINK-270X216X83MM-BLK	ILA-HSINK-230X250X100MM-BLK	ILA-HSINK-210X200X25MM-BLK	ILA-HSINK-220X190X50MM-BLK	ILA-HSINK-250X200X15MM-BLK	ILA-HSINK-250X200X25MM-BLK
Dragon 72 Flood	350mA					N/A	N/A	N/A	N/A
	700mA					N/A	N/A	N/A	N/A
	1000mA					N/A	N/A	N/A	N/A
Oslon 72 Flood	350mA					N/A	N/A	N/A	N/A
	700mA					N/A	N/A	N/A	N/A
	1000mA					N/A	N/A	N/A	N/A
Oslon 27 Flood	350mA		N/A	N/A	N/A			N/A	N/A
	700mA		N/A	N/A	N/A			N/A	N/A
Stanley 3J/6J 27 Flood	350mA		N/A	N/A	N/A			N/A	N/A
	700mA		N/A	N/A	N/A			N/A	N/A
Oslon 17 Flood	350mA		N/A	N/A	N/A	N/A	N/A		
	700mA		N/A	N/A	N/A	N/A	N/A		

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Dragon 72 Flood Power Supply

ILS has a comprehensive range of standard Power Supplies. The table below shows the total number of ILS products each Power Supply can drive.

Additional Power Supplies are being introduced so please call us or check our website for the latest offering.

ILS Driver Part No.	Rating	Current	Oslon17 Flood	Oslon27/ SJ27 Flood	Drgaon72/ Oslon72 Flood	
IZC045-040A-9266C-SA	40W	450 mA dim	1			
IZC070-050A-9267C-SA	50W	700 mA dim	1			
IZC070-075A-9267C-SA	75W	700 mA dim	1	1		
OT 42/220-240/500 E	42W	500mA	1	1		
OT 42/220-240/350 E	42W	350mA	1	1		
IZV048-150F-9566C-SA	150W	48 volts			1	

Thermal Interface Material Options

ILS have produced a range of High-performance, cost effective Thermal Interface Materials to match perfectly their standard products.

Our product fills the air pockets between the two surfaces, forming a continuous layer to conduct heat away from the LED to the Heat Sink.

ILS offer our TIM in three options – double sided adhesive, single sided adhesive and non adhesive.

Product	Non Adhesive	Single Sided Adhesive	Double Sided Adhesive
Dragon 72 Flood	ILA-TIM-72FL-235X170-0A	ILA-TIM-72FL-235X170-1A	ILA-TIM-72FL-235X170-2A
Oslon 72 Flood	ILA-TIM-72FL-235X170-0A	ILA-TIM-72FL-235X170-1A	ILA-TIM-72FL-235X170-2A
Oslon 27 Flood	ILA-TIM-27FL-180X180-0A	ILA-TIM-27FL-180X180-1A	ILA-TIM-27FL-180X180-2A
Stanley 3J/6J 27 Flood	ILA-TIM-27FL-180X180-0A	ILA-TIM-27FL-180X180-1A	ILA-TIM-27FL-180X180-2A
Oslon 17 Flood	ILA-TIM-17FL-215X194-0A	ILA-TIM-17FL-215X194-1A	ILA-TIM-17FL-215X194-2A

Other sizes are available, including customised parts

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Assembly Information

- The mounting of the Dragon 72 Flood has to be on a metal Heat Sink.
- In order to optimise the thermal management, the metal surface needs to be clean (dirt and oil free) and planar for the best contact with the LED module. A thermal grease or heat transfer material is highly recommended.

Safety Information

- The LED module itself and all its components must not be mechanically stressed.
- Assembly must not damage or destroy conducting paths on the circuit board.
- The mounting of the module is carried out by attaching it at the mounting holes. Metal mounting screws must be insulated with synthetic washers to prevent circuit board damage and possible short circuiting.
- To avoid mechanical damage to the connecting cables, the boards should be attached securely to the intended substrate. Heavy vibration should be avoided.
- Observe correct polarity!
- Depending on the product, incorrect polarity will lead to emission of red or no light. The module can be destroyed!
- Pay attention to standard ESD precautions when installing the Dragon 72 Floods.
- The Dragon 72, as manufactured, has no conformal coating and therefore offers no inherent protection against corrosion.
- Damage by corrosion will not be accepted as a materials defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture and condensation and other harmful elements.
- For outdoor usage, a housing is definitely required to protect the board against environmental influences. The design of the housing must correspond to the IP standards in the application. It is also the responsibility of the user to ensure any housings or modifications keep the Tc junction temperature to within stated ranges.
- To also ease the luminaire/installation approval, electronic control gear for LED or LED modules should carry the CE mark and be ENEC certified. In Europe the declarations of conformity must include the following standards: CE: EC 61374-2-13, EN 55015, IEC 61547 and IEC 61000-3-2 - ENEC: 61374-2-13 and IEC/EN 62384.
- The evaluation of eye safety occurs according to the standard IEC 62471:2006 ("photobiological safety of lamps and lamp systems"). Within the risk grouping system of this CIE standard, the LED specified in this data sheet falls into the class "moderate risk" (exposure time 0.25s). Under real circumstances (for exposure time, eye pupils, observation distance), it is assumed that no endangerment to the eye exists from these devices. As a matter of principle, however, it should be mentioned that intense light sources have a high secondary exposure potential due to their blinding effect. As is also true when viewing other bright light sources (e.g. headlights), temporary reduction in visual acuity and afterimages can occur, leading to irritation, annoyance, visual impairment and even accidents, depending on the situation.

For further information please contact ILS

The values contained in this data sheet can change due to technical innovations. Any such changes will be made without separate notification.

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