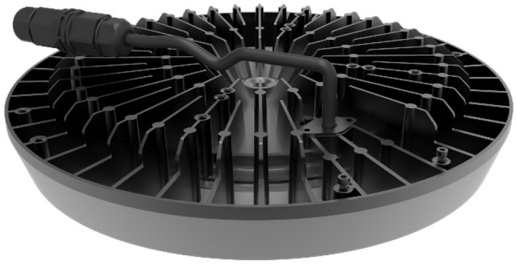
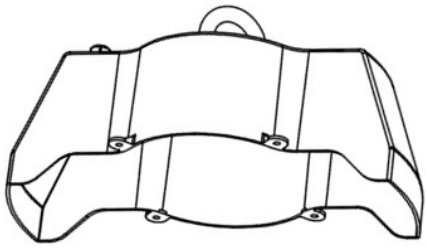
GinoLED HO* Module G3

*HO: High lumen output

Preliminary Datasheet



Driver Box



The GinoLED is a high power LED module with integrated heat sink for optimal thermal management and tailored optical design. The GinoLED lightweight and easy assembly design make installation become much easier. Up to 146Lm/W high efficacy designed to reach more energy saving. GinoLED is an IP65 unit equipped with IP connector for easy installation.

BENEFITS

- **Tailored optical and thermal design**
  - 60°×60° and 90°×90° lens design, adaptation to different mounting heights.
  - The high performance of GinoLED module is attributable to the omnidirectional nature of tree-like fins. Thanks to that, air streams are able to enter and exit from all directions.
- **IP65/IK08 protection**
  - Self-contained housing with heat sink, no extra protection is needed
- **High energy efficiency**
  - Up to 170Lm/W high efficacy*.
- **Easy for assembly**
  - Thanks for GinoLED integrated design, only few step to finish assembly.
- **Long life time**
  - 50,000hrs

* Mentioned efficacy without driver power consumption.

APPLICATIONS

- Airport, Station, Factory
- Indoor Court, Exhibition Hall, Warehouse

SPECIFICATION (4000K & 6500K)

The typical values involved in this specification are under the following conditions:

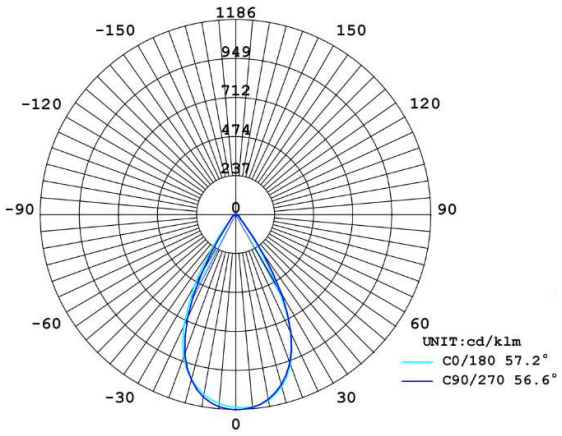
Product category	t_p-normal
GL-HO-G3 90-XXX-LXXXXX	tbd ℃
GL-HO-G3 140-XXX-LXXXXX	tbd ℃
GL-HO-G3 180-XXX-LXXXXX	tbd ℃
GL-HO-G3 230-XXX-LXXXXX	tbd ℃

	Parameter	GinoLED HO Module G3			
		GL-HO-G3 90	GL-HO-G3 140	GL-HO-G3 180	GL-HO-G3 230
Light Output	Typical Module flux	16510 lm	23800 lm	30600 lm	38250 lm
	Typical Module efficacy	170 Lm/W	170 Lm/W	170 Lm/W	170 Lm/W
	Optical	60º x 60º			
		90º x 90º			
	CCT	4000K & 6500K			
	SDCM	5			
	Typical CRI (Ra)	80			
	Lifetime(L70B50 @ t_p-normal)	50,000hrs hours			
Electrical	Typical input voltage	136V DC	200V DC	257V DC	364V DC
	Typical input current	0.7 A	0.7 A	0.7 A	0.7 A
	Module Power @(typical)	95W	140W	180W	225W
Mechanical	Dimension	Tbd			⌀ 360 x H168
		(Include Driver box)			(Include Driver box)
	Mounting	Suspended / wall mounted**			
	Optics	Polycarbonate lens			
	Module Weight	Tbd			TBD
Temperature	Operating temp. range (t_a)*	-30 … 45ºC			
	Storage temp. range*	-40 … 80ºC			
Standard Compliance	IP Rating	IP65			
	IK Rating	IK08			
	Certification	CE/CB/CQC			

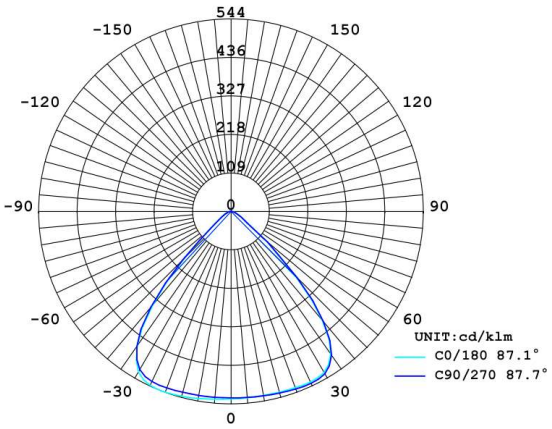
IP65 IK08

Due to the special conditions of manufacturing processes of LED, the typical data of technical parameters can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product. Actual lumen output can be varied due to many factors like lamp factor of LED, input current/voltage, thermal conditions, many other optical tolerance, and measurement tolerance. The data above is for reference only. Please contact Osram sales or marketing staff for advice if customers has any specific demand on particular parameters.
Tolerance of measurements for the color rendering Ra is ±2.
* Exceeding maximum ratings for operation and storage temperature will reduce expected life time or destroy the LED module. The temperature of the LED module needs to be measured at the t_c-point according to EN60598-1 in a thermally constant status with a temperature sensor or a temperature sensitive label.
** Additional accessories are needed for Wall mounted, please contact with sales to get more information.

PHOTOMETRICS



60°x60°



90°x90°

Due to the special conditions of manufacturing processes of LED, the polar candela distribution and distance illuminance can only reflect statistical figures and do not necessarily correspond to the actual parameters of each single product. The actual data may differ from the typical data. Tolerance of measurements for beam angle is ±10°.

Environmental and Application Conditions

Ambient temperature range (t_a on free air)	-30~40℃	
Operating (case) temperature range ($t_{c\ max}$)	GL-HO-G3 90	TBD℃
	GL-HO-G3 140	TBD℃
	GL-HO-G3 180	TBD℃
	GL-HO-G3 230	TBD℃
Storage temperature range	-40~+80℃	
IP rating	IP65	
Mech. impact protection	IK08	
Lifetime @ t_p-normal (L70/B50)	50,000hrs	
Net weight		

Standards / Normative Requirements

Eye security	IEC 62778	
Safety Requirements	EN 62031	
EMC / radio disturbance characteristics	EN 55015	
EMC / immunity	EN 61547	
EMC limits for harmonic current emissions	IEC 61000-3-2	
EMC limitation of voltage changes, voltage fluctuations and flicker	IEC 61000-3-3	
Working Voltage for insulation	GL-HO-G3 90/GL-HO-G3 140/GL-HO-G3 180	350VDC
	GL-HO-G3 230	550VDC

CE Mark	Yes
Application in Class I	Yes

Electrical parameters

Driving mode	Constant current	
Input voltage range	GL-HO-G3 90	TBD VDC @700mA
	GL-HO-G3 140	TBD VDC @700mA
	GL-HO-G3 180	TBD VDC @700mA
	GL-HO-G3 230	TBD VDC @700mA
Input current range	GL-HO-G3 90	630~770 mA
	GL-HO-G3 140	630~770 mA
	GL-HO-G3 180	630~770 mA
	GL-HO-G3 230	630~770 mA
Power Range	GL-HO-G3 90	TBD W @700mA
	GL-HO-G3 140	TBD W @700mA
	GL-HO-G3 180	TBD W @700mA
	GL-HO-G3 230	TBD W @700mA

CCT / Color and Color rendering parameters

Product	Min. CCT (k)	Max. CCT (k)	Center		Ra
			CIE X	CIE Y	
GL-HO-G3 90-840 L60x60 GL-HO-G3 140-840 L60x60 GL-HO-G3 180-840 L60x60 GL-HO-G3 230-840 L60x60 GL-HO-G3 90-840 L90X90 GL-HO-G3 140-840 L90X90 GL-HO-G3 180-840 L90X90 GL-HO-G3 230-840 L90X90	3710K	4260K	0.3800	0.3800	>80
GL-HO-G3 90-865 L60x60 GL-HO-G3 140-865 L60x60 GL-HO-G3 180-865 L60x60 GL-HO-G3 230-865 L60x60 GL-HO-G3 90-865 L90x90 GL-HO-G3 140-865 L90x90 GL-HO-G3 180-865 L90x90 GL-HO-G3 230-865 L90x90	5800K	6800K	0.3120	0.3280	

Remarks:
1. Test by t_p-normal condition;
2. Tolerance of measurements for the color rendering Ra is ±2;
3. Tolerance of measurements for the Chromaticity Coordinate is ±0.005; the tolerance of CCT should be calculated accordingly.

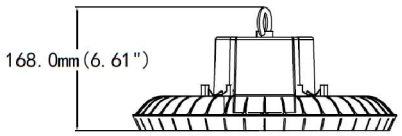
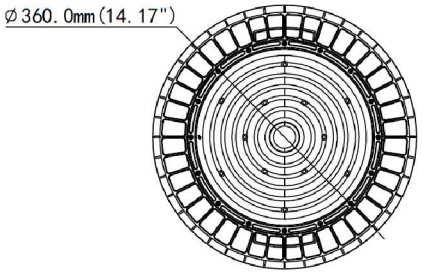
Brightness parameters

Product	Current(mA)	Lumen Flux(Lm)	
		Min.	Max.
GL-HO-G3 90	700	TBD	TBD
GL-HO-G3 140	700	TBD	TBD
GL-HO-G3 180	700	TBD	TBD
GL-HO-G3 230	700	TBD	TBD

Remarks:
- Ranking at t_p-normal condition.
- Exceeding maximum ratings for operating and storage temperature will reduce expected life time or destroy the LED Module.
- The temperature of the LED module must be measured at the t_c-point according to EN60598-1 in thermal stable status. Exact location of t_c point please see “safety information”.
- Due to the special conditions of the manufacturing processes of LED, the typical data or calculated correlations of technical parameters can only reflect statistical figures. These do not necessarily correspond to the actual parameters of each single product, which could differ from the typical data and

calculated correlations or the typical characteristic line. If requested, e.g. because of technical improvements, these typ. data will be changed without any further notice.
- Tolerance of measurement of the luminous flux is ±5%.

Product Drawing (unit: mm) – Finished assembly

TBD	GL-HO-G3 230
	 

Driver matching information

Following recommended driver is matching GinoLED HO module as system using. By using OSRAM OPTOTRONIC® driver can provide system warranty. For more information, please contact our sales.

GinoLED HO module E		
Module Type	Driver type	Driver model
GL-HO-G3 90-xxx-Lxxxx	ON/OFF	EM 100 120-277 700 P7
	0-10V with 12V AUX	EM 100/120-277/1A DIM P6 AUX12
GL-HO-G3 140-xxx-Lxxxx	ON/OFF	EM 150 120-277 700 P7
	0-10V with 12V AUX	EM 150/120-277/1A DIM P6 AUX12
GL-HO-G3 180-xxx-Lxxxx	ON/OFF	EM 200 120-277 700 P7

	0-10V with 12V AUX	EM 200/120-277/1A DIM P6 AUX12
GL-HO-G3 230-xxx-Lxxxx	ON/OFF	EM 250 120-277 700 P7
	0-10V with 12V AUX	EM 250/120-277/1A DIM P6 AUX12

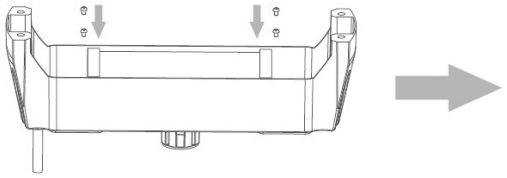
Remark: Please contact our sales to get driver order number information.

Sales & Technical Support

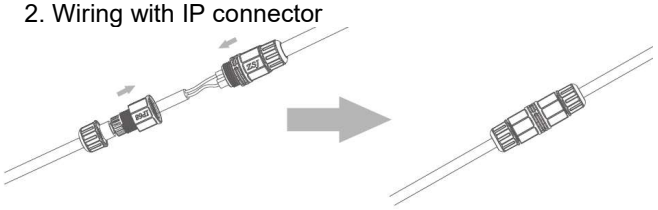
Application:

GinoLED HO module provide IP65 connector can easy be installed with IP67 driver, total system meet IP65 requirement.

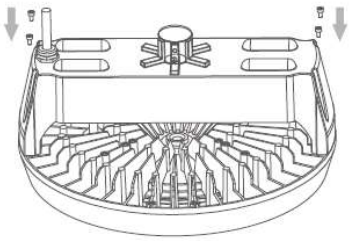
1. Assembly driver



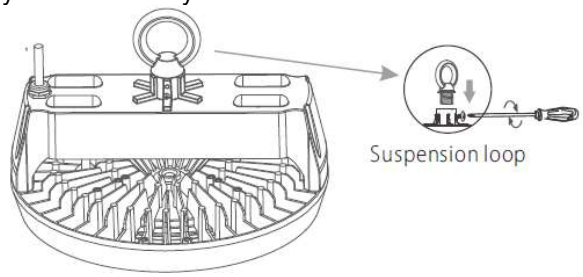
2. Wiring with IP connector



4. Assembly driver box on the module

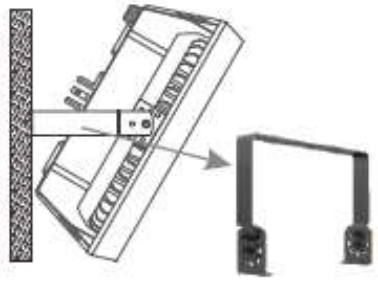


4. Assembly hook and ready to install



Other assembly accessories

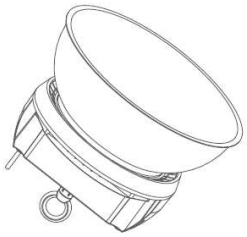
Wall mounted accessory*



PC / Aluminum cover*

PC Cover
(GL-HO 80/120/150/180)

Aluminum Cover
(GL-HO 80/120/150/180)



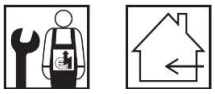
* Additional accessories are needed for Wall mounted, please contact with sales to get more information.
**Additional accessories are needed for reflector cover, procurement required, please contact with sales to get more information.

Order Number

Model	EAN10	S-unit	EAN40	S-unit
GL-HO-G3 90-840 L60X60		1		1
GL-HO-G3 90-840 L90X90		1		1
GL-HO-G3 90-865 L60X60		1		1
GL-HO-G3 90-865 L90X90		1		1
GL-HO-G3 140-840 L60X60		1		1
GL-HO-G3 140-840 L90X90		1		1
GL-HO-G3 140-865 L60X60		1		1
GL-HO-G3 140-865 L90X90		1		1
GL-HO-G3 140-840 L60X60		1		1
GL-HO-G3 140-840 L90X90		1		1
GL-HO-G3 140-865 L60X60		1		1
GL-HO-G3 140-865 L90X90		1		1
GL-HO-G3 230-840 L60X60		1		1
GL-HO-G3 230-840 L90X90		1		1
GL-HO-G3 230-865 L60X60		1		1
GL-HO-G3 230-865 L90X90		1		1

Model	EAN10	S-unit	EAN40	S-unit	Matching module

Safety information

- ★ The LED module itself and all its components may not be mechanical stressed.
- ★ Assembly must not damage or destroy conducting paths on the circuit board.
- ★ To avoid mechanical damage to the connecting cables, the module should be attached securely to the fixture. Heavy vibration should be avoided.
- ★ Installation of LED modules with (power supplies) needs to be made with regard to all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installation.
- ★ Please ensure that the power supply is of adequate power to operate the total load.
- ★ Please ensure that the power supply with correct output parameters (driving mode, voltage, current) for LED module.
- ★ Pay attention to standard ESD precautions when installing the module.
- ★ If surge protection structure not within power supplier, a lightening protector should be needed additionally for outdoor application.
- ★ 
- ★ Higher t_c application is not recommended, under the condition of higher than $t_{c\ max}$, the product life is shortened.
- ★ t_c / t_p location as below:

Disclaimer

Subject to change without notice. Errors and omission accepted. Always make sure to use the most recent release. The latest release of the datasheet is available under the following link www.inventronicsglobal.com

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