

# Eclipse II LED - Wellglass Industrial

## INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

Important:

Please read these instructions carefully before installing or maintaining this equipment. Good electrical practices should be followed at all times and this data should be used as a guide only.





0.0 Specification				
Type Of Protection	N/A			
Standards	EN 60598-1			
Area Classification	Industrial, (Non- Hazardous)			
Ambient	-40°C to +55°C (see Table 1)			
Ingress Protection	IP66 to EN 60529			
Photobiological safety of	Risk Group 2 LED product to IEC 62471			
Lamps and Lamp Systems				
Vision Advisory Claim	WARNING: Do not look at exposed led in operation especially with optical instruments. Eye			
	injury can result.			
CE Mark	The CE marking of this product applies to "The Electrical Equipment (Safety) Regulations			
	2006", "The Electromagnetic Compatibility Regulations 2004", the "Waste Electrical and			
	Electronic Equipment Regulations 2006". [This legislation is the equivalent in UK law of EU			
	directives 2014/35/EU, 2014/30/EU, 2012/19/EU respectively].			
	M Poutney Technical Manager			

MEGOHM TEST - WITH THE SURGE PROTECTION OPTION IN THE LUMINAIRE TO PROTECT THE INTERNAL ELECTRONICS AND LEDS, A CIRCUIT WITH THE LED FIXTURE MAY GIVE A FALSE MEGOHMMETER (MEGGAR) READING. IF A MEGOHMETER TEST IS REQUIRED, THE LED FIXTURE SHOULD BE REMOVED FROM THE CIRCUIT.

#### 1.0 Introduction - ECLIPSE II Wellglass LED

This installation leaflet describes the Eclipse II range. The Eclipse II is manufactured from painted corrosion resistant aluminium alloy with a toughened glass globe and silicone rubber gaskets. The integral control gear and LED's are contained within an IP66 enclosure. Refer to **table 1** for variations.

#### 2.0 Application

The luminaire is designed to be safe in normal operation.

The luminaire should not be used in conditions where there are environmental, vibration or shock conditions above the normal for fixed installations.

The gaskets should not be exposed to hydrocarbons in liquid or high concentration vapour states

CHALMIT MODEL No.	WATTS	Hz	VOLTS	AMPS	AMBIENT TEMPERATURE
EC2I/06L/LE/**	47	50/60	120-277	0.4 - 0.2	-40°C to +55°C
EC2I/09L/LE/**	73	50/60	120-277	0.6 - 0.3	-40°C to +55°C
EC2I/12L/LE/**	98	50/60	120-277	0.8 - 0.3	-40°C to +55°C
EC2I/16L/LE/**	138	50/60	120-277	1.1 – 0.5	-40°C to +55°C

#### **Table 1: Model Variations**

**Power factor**  $\geq$  0.90 at 120Vac-277Vac, 100% Load.

**Terminals** 6mm<sup>2</sup> as standard, looping has current limit of 16A.

**Storage** Luminaires should be stored in cool dry conditions preventing ingress of moisture and condensation

**Fuse and MCB ratings** It is recommended that for selection of MCBs users should consult the MCB manufacturer as this unit contains electronic gear. The electronic control gear has a nominal value of inrush current of 60A for 1ms.





#### 3.0 Installation and Safety

#### 3.1 General

There is no health hazards associated with this product whilst in normal use. However, care should be exercised during Installation. In the UK the requirements of the 'Health and Safety at Work Act' must be met.

Handling and electrical work associated with this product to be in accordance with *the 'Manual Handling Operations Regulations'* and '*Electricity at Work Regulations, 1989'*. Your attention is drawn to the paragraphs

- (i) 'Electrical Supplies',
- (ii) 'Electrical Fault Finding and Replacement' and

(iii) 'Inspection and Maintenance'. The luminaires are Class 1 and should be effectively earthed.

The luminaires are quite heavy and suitable means of handling on installation must be provided.

#### Maximum Insulation Resistance Test 500V dc.

Guards and External Reflector can be supplied with or fitted retrospectively, the guard is to protect glass if there is a higher than normal risk of mechanical damage.

The information in this leaflet is correct at the time of publication. The company reserves the right to make specification

#### 3.2 Tools

Strap wrench, 3mm and 5mm flat blade screwdriver. Pliers, knife, wire strippers/cutters. A spanner suitable for fitting cable glands.

#### 3.3 Electrical Supplies

Supply voltage: 120-254V 50/60Hz ±6%

#### 3.4 Mounting

Luminaires should be installed where access for maintenance is practical and in accordance with any lighting design information provided for the installation. The luminaire is designed to operate at up to an angle of 25<sup>o</sup> from the vertically down position. Ceiling, wall, stanchion & pendant mount versions are available.

- 1. The wall mounting or ceiling mounting arrangements should be secured with lock washers or self-locking nuts and bolts.
- 2. The stanchion mounting version must be mounted so as to maintain the IP rating. When fixed using the 1½" NPT threads to a suitably threaded pole the IP66 rating will be achieved. However, if the base of the pole is open to the elements there is a risk of dirt or moisture gaining access. If this is a problem a suitable sealing arrangement should be fitted somewhere inside the pole, normally close to the top or bottom.
- 3. The threaded portion of the pendant mount version has an M25 thread. A suitable external sealing washer and locking nut should be fitted to ensure the conduit pipe cannot loosen or cause water ingress.

#### 3.4.1 Fitting the Globe

Care must be taken when fitting the Globe the following steps must be taken:

1 Apply silicone grease to the threads of the Globe.



- 2 Rotate the Globe in the threaded collar until the Globe seals onto the gasket.
- 3 Rotate the Globe until tight; it may be necessary to use a strap wrench to perform this task.

#### 3.5 Cabling and Cable Glands

#### 3.5.1 Cables

The temperature ratings of the cable entries at 55°C ambient requires a cable rated at 90°C. Cables rated at 35°C above ambient are suitable for use at lower ambient installations.

#### 3.5.2 Cable Glands

The installer and user must take responsibility for the selection of cables, cable glands and seals. Cable glands and sealing plugs when installed must reliably maintain the IP rating of the enclosure IP66. Sealing plugs are provided. Where brass cable glands are used in a corrosive environment, cadmium or nickel plating should be used. Two tapped cable entries are provided, one with a plug and seal suitable for permanent use, the other has a travelling plug. M20 entries are standard, other sizes are available on request up to M25.

#### 4.0 Inspection and Maintenance

Visual inspection should be carried out at a minimum of 12 monthly intervals and more frequently if conditions are severe.

- 1 Check if any LED's have failed (not lit).
- 2 If 1 LED in 2 or more LED boards are out then we recommend these be replaced. Refer to 4.2 LED Replacement.
- 3 Check for mechanical damage/corrosion.
- 4 Check for loose connections including earthing.
- 5 Check for undue accumulations of dust or dirt.
- 6 Check tightness of fixing, glands, blanking plugs etc.
- 7 Check for unauthorised modifications.
- 8 Check condition of enclosure gaskets and fastenings.
- 9 Check for any accumulation of moisture.
- 10 Clean the lamp glass.
- 11 Check that mountings are secure.
- 12 If there is suspicion that the luminaire has suffered mechanical damage, a stringent workshop check should be made.

**Important:** Where spares are needed, these must be replaced with manufacturer parts. No modifications should be made without the knowledge and approval of the manufacturer.

#### 4.1 Electrical Fault Finding and Replacement

Any fault finding must be done by a competent electrician with the luminaire isolated and if carried out with the luminaire in place, under a permit to work. Fault finding is by substitution with known good components.

#### 4.2 LED Replacement.

The need and frequency of replacing LED's be dependent on the functionality of the fitting. If it is continually running at high ambient temperatures it will affect the frequency of LED replacement. If it is necessary to replace the LED's, the LED's are mounted on boards that can be replaced individually. (The boards with LED's supplied by Chalmit ). Remove cover assembly.

Removal of LED assembly is as follows:

- 1. Unscrew 2 off screws that secure the board to the casting.
- 2. Carefully lift the plate and disconnect push in wiring.
- 3. Fitting; Reversal of above.

#### 4.3 Overhaul

The unit is largely made of materials that are very corrosion resistant. This allows the unit to be completely stripped, cleaned, and then re-built with new electrical parts as required. The internal wiring is 1.0mm<sup>2</sup> flexible, silicone rubber insulated. All the spares required are available. Please state the model number, LED and optical details. The seal at the end cover is held within a groove by silicone R.T.V. The Globe gasket is similarly held in place by RTV.



If the gaskets have deteriorated by softening or permanent set, new gaskets should be fitted, which can be obtained from Chalmit. To fit the gasket, the old gasket should be removed and remaining RTV scraped off. The gasket is fixed in place and joined with silicone R.T.V. to the body.

#### 5.0 Disposal of Material

The unit is mostly made from incombustible materials. The control gear contains plastic parts and polyester resin. All electrical components and the body parts may give off noxious fumes if incinerated. Take care to render these fumes harmless or avoid inhalation. Any local regulations concerning disposal must be complied with. Any disposal must satisfy the requirements of the <u>WEEE directive [2012/19/EU]</u> and therefore must not be treated as commercial waste.



To comply with the Waste Electrical and Electronic Equipment directive 2012/19/EU the apparatus cannot be classified as commercial waste and as such must be disposed of or recycled in such a manner as to reduce the environmental impact.

#### **Directions for Installation of Accessories**

WARNING: Ensure the supply circuit is off before starting installation.

To install reflector, carefully remove the 4 screws provided in housing that align with the locations of the holes on the reflector and retain the screws. Place the reflector into position, lining up the holes in the reflector with the holes on the lens housing. Reinstall the removed 4 screws into the existing hole location, and tighten to secure.





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### Chalmit Lighting is a leading supplier of Hazardous Area lighting products

For technical support, please contact: techsupport@chalmit.com

Note: Chalmit Lighting reserves the right to amend characteristics of our products and all data is for guidance only.



	EU-Declaration of conformity							
	UE-Déclaration de conformité							
****	EU-Konformitätserklärung							
			1	1				
Manufacturer	Chalmit		Address	388 Hillingto	n Road, Glasgow. G52 4BL Sco	otland UK		
Product	Eclipse II LED Floodlight Industrial							
Catalogue	atalogue EC2I/**L/LE							
Area Classification Industrial, (Non- Hazardous)			lous)					
Ingress Protection IP66								
Ambient		-40°C to +**	°C (see Tab	ole 1)				
Terms of the directive:			Standard & Date Certified to	Standards Date Declared to				
2014/30/EU	Electromagnetic co	ompatibility			EN 55015 : 2013			
2014/30/UE	Compatibilité électromagnétique				EN 61547 : 2009			
2014/30/EU	Elektromagnetische Verträglichkeit				EN 61000-3-2 : 2014			
2014/35/EU	Low voltage equipment				EN 60598-1 : 2015			
2014/35/UE	Équipements électriques à bas voltage				EN 60598-2-5 : 2015			
2014/35/EU	Niederspannungsgeräte / -systeme				EN 60529 : 1992			
2012/19/EU	Waste of electrical and electronic equipment							
2012/19/UE	Déchets d'équipements électriques et électroniques			oniques				
2012/19/EU	Entsorgung der elektrischen und elektronischen Geräte			chen Geräte				
	/ Systeme							
	jotoo							
2011/65/EU	RoHS II Directive							

On behalf of the Chalmit, I declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms to all technical and regulatory requirements of the above listed directives.

En tant que représentant du fabricant Chalmit, je déclare qu'à la date où les équipements accompagnant cette déclaration sont mis sur le marché, ceux-ci sont conformes à toutes les dispositions réglementaires et techniques des directives énumérées ci-dessus.

Hiermit bestätige ich, im Namen von Chalmit, dass am Tag der Lieferung des Produkts/der Produkte zusammen mit dieser Erklärung das Gerät/die Geräte alle technischen und regulativen Anforderungen der oben aufgeführten Direktiven erfüllt.

Name and Date Nom et Date Name und Datum Mark Poutney 16/11/2020

Technical Manager Directeur technique Technischer Leiter

Quality Management System Acreditation: Système de Management Qualité Accréditation: Qualitätsmanagementsystem Akkreditierung: Environmental Management System. Système de gestion de l'environnement. Umwelt kontroll system. Certificate No./Certificat N°/Zertifikat Nr.

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ISO 9001

ISO 14001 by/par/durch Loyd's Register LRQ 4005876