

# LED Archispot 20

20W LED Gobo/Image Projector

---

## User Manual



Irradiant™  
15308 El Prado Rd. Chino, CA 91710  
v (909) 606-6818 – f (909) 606-6919  
[www.irradianthq.com](http://www.irradianthq.com)

# Table of Contents

<b>1</b>	<i>Read First!</i>	3	<b>4</b>	<i>Fixture Operation</i>	9
	Unpacking Instructions . . . . .	3		Chase operation . . . . .	9
	Enclosures . . . . .	3		1. Assign Master/Slave . . . . .	9
	AC Power. . . . .	3		4. Choose chase speed . . . . .	9
	Safety Instructions . . . . .	3		2. Set quantity of fixtures . . . . .	9
	Contacting ILUMENITE. . . . .	4		3. Pulse effect. . . . .	9
	Global Headquarters. . . . .	4		Non-Chase operation(Intermittent) . . . . .	10
	America Sales & Support . . . . .	4		1. Assign Master only . . . . .	10
	UK Sales & Support . . . . .	4		4. Assign Timing. . . . .	10
	Symbols & Icons . . . . .	4		2. Set delay time . . . . .	10
	Safety Symbols . . . . .	4		3. Pulse effect. . . . .	10
	Document Icons. . . . .	4			
	Warranty Information . . . . .	4	<b>5</b>	<i>Maintenance &amp; Troubleshooting</i>	11
	Service and Repairs . . . . .	5		Cleaning . . . . .	11
<b>2</b>	<i>Product Overview</i>	6			
	Product Features . . . . .	6			
	Technical Specifications . . . . .	6			
<b>3</b>	<i>Installation</i>	7			
	AC Power. . . . .	7			
	Mounting . . . . .	7			
	Orientation . . . . .	7			
	Safety Cable . . . . .	7			
	Rigging. . . . .	7			
	Fixture Linking . . . . .	8			
	Gobos . . . . .	8			
	Material . . . . .	8			
	Gobo Pattern Size (Illustrated) . . . . .	8			
	Replacement . . . . .	8			

# 1 Read First!

## Unpacking Instructions

Immediately upon receiving a product, carefully unpack the carton, check the contents to ensure that all parts are present, and have been received in good condition. Notify the shipper immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

## Enclosures

Your box includes the following items.

- ◆ (1) LED Archispot 20
- ◆ (1) Power Supply (UL)
- ◆ Warranty Card
- ◆ Users Manual

## AC Power

To determine the power requirements for a particular product, see the label affixed to the back plate of the product or refer to the product's specifications chart. A product's listed current rating is its average current draw under normal conditions. All fixtures must be powered directly off a switched circuit and cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch. Before applying power, check that the source voltage matches the product's requirement. Check the product or device carefully to make sure that if a voltage selection switch exists that it is set to the correct line voltage you will use.

## Safety Instructions

- ◆ Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- ◆ Always make sure that you are connecting to the proper voltage and that the line voltage you are connecting to is not higher than that stated on decal or rear panel of the fixture.
- ◆ This product is intended for both indoor and outdoor use.
- ◆ Make sure there are no flammable materials close to the unit while operating.
- ◆ The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- ◆ Always disconnect from power source before servicing or replacing lamp or fuse and be sure to replace with same lamp source.
- ◆ Secure fixture to fastening device using a safety chain. Never carry the fixture solely by its head. Use its carrying handles.
- ◆ Maximum ambient temperature is  $T_a: 40^\circ$ . Do not operate fixture at temperatures higher than this.
- ◆ In the event of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- ◆ Don't connect the device to a dimmer pack.
- ◆ Make sure power cord is never crimped or damaged.
- ◆ Never disconnect power cord by pulling or tugging on the cord.
- ◆ Avoid direct eye exposure to lamp while it is on.

# Contacting ILUMENITE

## Global Headquarters



Gonghe Town, He Shan City Guangdong, P.R. China  
529728

Phone: +86 750-8300-941

Fax: +86 750-8300-940

Email: [dla@neo-neon.com](mailto:dla@neo-neon.com) (America)

[dld@neo-neon.com](mailto:dld@neo-neon.com) (Europe & Asia)

## America Sales & Support



15308 El Prado Rd, Chino CA 91710 USA

Phone: (909) 606-6818

Fax: (909) 606-6919

URL: [www.ilumenite.com](http://www.ilumenite.com)

Email: [sales@irradianthq.com](mailto:sales@irradianthq.com)

Support: [info@irradianthq.com](mailto:info@irradianthq.com)

Technical Contacts:

Irradiant/Ilumenite: [tech@irradianthq.com](mailto:tech@irradianthq.com)

Energy Efficient Ent.: [tech@led3e.com](mailto:tech@led3e.com)

## UK Sales & Support



Phone: +44(0) 1908 217799

## Symbols & Icons

The following symbols and icons may appear throughout this manual to highlight and emphasize safety information or draw additional attention to topic notes and tips.

### Safety Symbols

	<b>Safety Warning!</b> Risk of severe personal injury or damage to your equipment.
	<b>Safety Hazard!</b> Risk of lethal or severe electric shock.
	<b>Safety Hazard!</b> Risk of fire.
	<b>Hot Surface!</b> Risk of personal injury.

## Document Icons

The following icons may be used through-out this document to aid the reader in finding relevant and most sought out information.

	Alert!
	Announcement
	Contact information
	Notes provided
	Help
	Stop
	Tips
	Tools
	Tutorial
	Take notes!

## Warranty Information

Thank you for purchasing a Energy Efficient Enterprises Inc.® Irradiant® Ilumenite® product from an authorized EEE/Irradiant/Ilumenite dealer. We take great pride in the quality, value, and performance of our products and being your factory direct source for illumination products. Please follow the proper operation and maintenance procedures outlined in the products technical documentation. Should you need further technical assistance, e-mail [tech@irradianthq.com](mailto:tech@irradianthq.com) (Irradiant/Ilumenite Products) [tech@led3e.com](mailto:tech@led3e.com) Energy Efficient Enterprises General and Commercial Lighting Products.



**LIMITED WARRANTY USA (48 contiguous States of the USA and DC)**

- A. Our warranty is limited to manufacturing defects in material and workmanship in products purchased within the 48 contiguous States of the USA and DC. The warranty is valid from the date of purchase by the original purchaser and for a period of:
  - a. 24 months for DMX-controllable lighting fixtures and DMX-512 controllers;
  - b. 12 months for non-DMX effect fixtures and non-programmable controllers;

- c. 6 months for laser diodes.
  - d. 12 months for all fog and haze machines
- B. PLEASE NOTE that defective products reach the address set out below by the last day of the relevant warranty period at the latest. Late claims will not be processed or considered.
- C. Exclusions
- a. parts prone to normal wear and tear including lamps, fuses, brushes, contact rings, lamp sockets and belts; and
  - b. damage or failure caused by abuse, misuse, faulty installation and operation, improper or inadequate maintenance, and any repair or guarantee on repairs not carried out by Energy Efficient Enterprises, Inc® are excluded from this warranty.
- D. For products purchased outside the 48 contiguous States of the USA and DC: Please consult your local Energy Efficient Enterprises, Inc® distributor as warranty policies vary from country to country.
- E. It is the original purchaser's responsibility to provide a dated proof of purchase. The warranty is not transferable.
- F. During the relevant warranty period Energy Efficient Enterprises, Inc® will at its sole discretion repair or exchange a defective product under warranty free of charge provided that:
- a. the product serial number has not been altered or removed; and
  - b. damage or failure caused by abuse, misuse, faulty installation and operation, improper or inadequate maintenance, and any repair or guarantee on repairs not carried out by Energy Efficient Enterprises, Inc® are excluded from this warranty.
- G. This warranty does not confer any rights other than those expressly set out in this warranty and in particular no credit notes will be issued. This warranty does not cover any claims for consequential loss or damage.
- H. All shipping charges must be pre-paid by the sender. Energy Efficient Enterprises, Inc® will, at its own expense, ship back the repaired product to the sender anywhere within the 48 contiguous States of the USA and DC. We will ship best way at our discretion.
- I. To secure your warranty coverage, fill out the registration card and send or fax it back to Energy Efficient Enterprises, Inc® with a copy of dated proof of purchase. Products under warranty receive priority for repairs.

## Service and Repairs

To secure the best service, please follow these simple steps:

Register your product (fill out and return the warranty card) as soon as possible after purchase. A copy of the Warranty Registration form can be found in this manual.

E-mail [tech@irradianthq.com](mailto:tech@irradianthq.com) or call 909-606-6818 to request a return authorization number (RMA#). Do not send a product without first securing an RMA#. Do not write the RMA# directly on the box. You must write it on a removable sticker, i.e., a shipping label.

Units must be in the original packaging with all original accessories. Do not write anything on or alter in any way the original box. Any damage from inadequate packing or carrier mishandling is the sole responsibility of the sender. Double-box all returns. Place the original box in a larger box and surround it with suitable packing materials, such as styrofoam peanuts or foam.

All shipping charges must be prepaid by the sender. Energy Efficient Enterprises, Inc.® will, at its own expense, return the repaired product to the sender provided that the return address is within the 48 contiguous States of the USA and DC and that the product is still under warranty (proof of purchase required. Please see warranty details on back page). We will ship best way at our discretion.

**PRODUCTS NOT UNDER WARRANTY:** Please notify your Energy Efficient Enterprises, Inc® service advisor that your product is no longer under warranty when you request your authorization number. Once the unit has been received, you will be contacted and advised of the cost of carrying out any repair.

**Warranty on repairs:** All repairs have a 60-day warranty on replaced parts and repair labor valid from the date the repaired unit is delivered to the shipping agent for return to the customer.

Energy Efficient Enterprises, Inc® is not responsible for any loss or damage to additional items or accessories that are sent with returned products. We cannot be held responsible for delays in shipping.

PLEASE NOTE that it is essential that defective products reach the address set out by the last day of the relevant warranty period at the latest. Late claims will not be processed or considered.

This warranty does not confer any rights other than those expressly set out in this warranty and in particular no credit notes will be issued. This warranty does not cover any claims for consequential loss or damage.

# 2 Product Overview

## Product Features

- ◆ 20W LED Light Engine (Multi-Chip Chip On Board)
- ◆ Color Temperature; 6000k - 7000k
- ◆ Autoranging External Power Supply 100-220V AC(input) 24C DC(output) 36W
- ◆ Built in adjustable 4 fixture chase programs
- ◆ Master/Slave operation

## Technical Specifications

### Physical

- ◆ Width: 238mm (9.37in)
- ◆ Length: 175mm (6.89in)
- ◆ Height: 214mm (8.43in)
- ◆ Weight: 2.7Kg (5.95lbs)

### Electrical

- ◆ Input voltage: Autoranging 100V-240V AC, 50-60Hz
- ◆ Power consumption: 36W
- ◆ Operating current: 24V DC

### Construction

- ◆ Housing: Powder coated steel
- ◆ Color: Black
- ◆ Ingress Protection (IP): IP30

### Connections

- ◆ Master/Slave cable entry: XLR 3-pin (Male & Female)

### Electronics

- ◆ 8 pole dipswitch for settings
- ◆ Operational modes: Stand-Alone, Master/Slave

### Temperatures

- ◆ Fan cooled
- ◆ Maximum ambient temp: 40°C (104°F)

- ◆ Maximum housing temp: 80°C (176°F)

### LED Array

- ◆ Configuration: 20W COB

### Optical

- ◆ Beam Angle: 24.5°

### Photometrics

- ◆ Light Source Data:
- ◆ Voltage: 220.20V
- ◆ Current: 0.301 A
- ◆ Power: 35.30 W
- ◆ Calculated Result:
- ◆ Imax: 3207.80 cd
- ◆ Flux: 404.62 lm
- ◆ Efficacy: 11.46 lm/W

### Ordering Information

Voltage		Color	Order Code
100V-220V		Black/Gray	IRDW-C011A2-01D

### Warranty Information

- ◆ 2-year limited warranty

# 3 Installation

## AC Power




This fixture is not equipped with a power switch. To power on the fixture simply connect it to an appropriately rated power source. It cannot be remotely turned off using a control channel. If you require the fixture to be completely turned off, please do so at the branch circuit or via an interrupt.

- ◆ To determine the power requirements for a particular fixture, see the label affixed to the back plate of the fixture or refer to the fixture's specifications chart.
- ◆ A fixture's listed current rating is its average current draw under normal conditions.
- ◆ All fixtures must be powered directly off a switched circuit and cannot be run off a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0% to 100% switch.
- ◆ Before applying power to a fixture, check that the source voltage matches the fixture's requirement.
- ◆ All fixtures must be connected to circuits with a suitable Earth Ground.

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	EG (Ground)

## Mounting

 Overhead rigging requires careful planning and experience. It includes the calculation of working load limits, installation materials and periodic safety inspection. If you lack these qualifications, do not attempt the install yourself. Improper installation can result in personal injury or damage of property.


It is very important that you allow at least 4 inches of free space and unrestricted airflow around the fixture.

An IP65 rated fixture can be installed outdoors and is built to withstand rain and other low-pressure water projections. Please avoid the following:

 Do not expose to high-pressure water jets from any direction!

 Do not immerse in water or any other fluid!

 Do not install in a location where flooding may occur!

 The aluminum housing may reach temperatures up to 90°C (194°F). Please restrict public access to the fixture whenever possible.

## Location

This fixture can be mounted on a truss using its yoke assembly. The yoke assembly also serves to floor-stand the fixture on a flat surface.

## Orientation

This fixture can be rigged in any orientation on a truss without altering its normal operation. The yoke assembly allows the adjustment of both pan and tilt on a truss once mounted using a single C clamp through the center-mounting hole on the bottom yoke bracket.

## Safety Cable

It is recommended that you use a safety cable when mounting any fixture. Verify that the cable is capable of supporting the weight of the fixture.

## Rigging

The fixture includes a mounting yoke to which 1 rigging C style pipe clamp can be bolted.

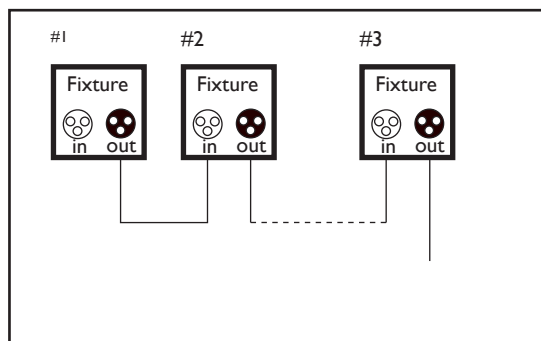
1. Align the clamp screw with the center hole on the yoke and tighten.
2. Verify the structure can hold 10 times the weight of all to-be installed fixtures.
3. Adjust the angle on the yoke arm as necessary.
4. Make sure your outlet has power.
5. Focus or point the light or fixture in the direction you wish to aim.
6. Follow the operating instructions.
7. Call your authorized Dealer if you need friendly advice and technical assistance.

## Fixture Linking

This fixture can operate on a Master/Slave link controlled by the Master assigned unit which will be first in the chain.

### Build a Daisy Chain

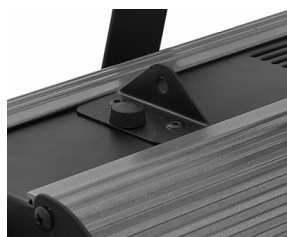
1. Connect the XLR output of the first fixture in the chain with the XLR input of the next fixture.
2. Continue linking the remaining fixtures coming out from the XLR output and into the XLR input as referenced above.



## Replacement

The gobo holder slides out from the top of the fixture. The gobo is held in place via two metal plates joined by 4 screws.

**!** Please take note that any written message will need to be upside down and reversed when mounted on the gobo slide. This will ensure proper image orientation when projected.

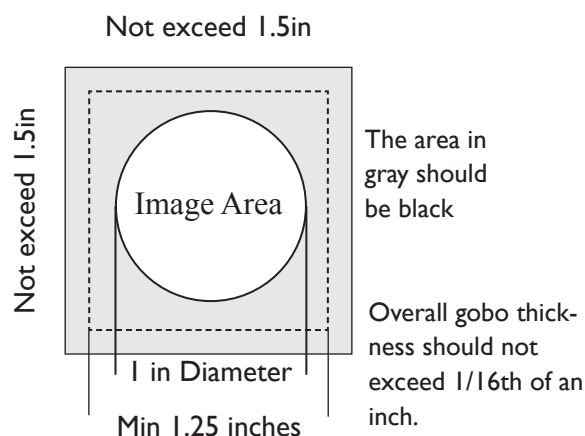


## Gobos

### Material

The best gobo material to use for permanent installations would be either metal or glass. For short-term use, you may use transparencies or 35mm positive film.

### Gobo Pattern Size (Illustrated)





# 4 Fixture Operation

## Chase operation

### 1. Assign Master/Slave

Assign master and slave units for sequential chase operation.

Dipswitch		Master/Slave Settings
1	2	Description
0	0	Master fixture assignment
1	0	Slave Fixture # 1
0	1	Slave Fixture # 2
1	1	Slave Fixture # 3

### 2. Set quantity of fixtures

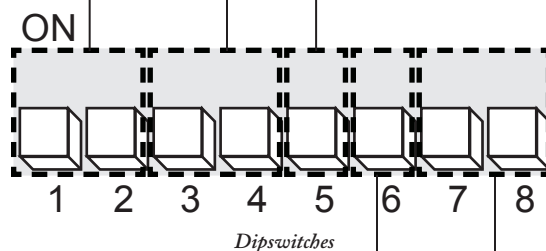
Set the number of fixtures involved in the chase sequence.

Dipswitch		Master/Slave Settings
3	4	Description
0	0	Master fixture only
1	0	2 fixtures
0	1	3 fixtures
1	1	4 fixtures

### 3. Pulse effect

Choose whether the fixture will simply turn on and off or will fade to off in the chase sequence.

Dipswitch		Light On Option
5		Description
0		On
1		Pulse to black/Off



### 4. Choose chase speed

Choose between two predetermined chase speeds.

Dipswitch		Speed in Seconds
6		Description
0		Approx. 2.5s
1		Approx. 5.0s

Dipswitches 7 & 8 have no functions assigned.

Dipswitch		No Function
7	8	Description

# Non-Chase operation(Intermittent)

## 1. Assign Master only

Assign all fixtures as Master.

Dipswitch		Master/Slave Settings
1	2	Description
0	0	Master fixture assignment

## 2. Set delay time

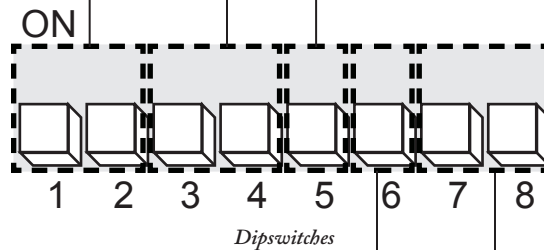
You can adjust the delay time. This is the resting period of the fixture before the light turns on.

Dipswitch		Master/Slave Settings
3	4	Description
0	0	Continuously On
1	0	Delay = (Time Assigned)
0	1	Delay = 2 x (Time Assigned)
1	1	Delay = 3 x (Time Assigned)

## 3. Pulse effect

Choose whether the fixture will simply turn on and off or will fade to off.

Dipswitch		Light On Option
5		Description
0		Constant On
1		Pulse to black/Off



## 4. Assign Timing

Choose between two predetermined speeds.

Dipswitch		Speed in Seconds
6		Description
0		Approx. 2.5s
1		Approx. 5.0s

 Dipswitches 7 & 8 have no functions assigned.

Dipswitch		No Function
7	8	Description

# 5 Maintenance & Troubleshooting

Please Read the “Safety Information” section of this manual before carrying out any service or maintenance work on any lighting fixture.

Ensure that mains power to the fixture is terminated before handling equipment in any way.

Excessive dirt and particle buildup can affect light performance, can cause overheating which can ultimately lead to damage of the fixture.

Take precautions to avoid ESD (Electro static discharge) damage during service.

The service and maintenance procedures described in this section must be carried out by qualified professionals only. Any service procedures not described in this section must be carried out by Irradiant/Illumenite Service organization or its authorized agents.


Optical components in all lighting fixtures are subject to wear over the life of the fixture. It can result in gradual changes in color rendition as well as overall intensity of the light. The extent of wear depends heavily on operating conditions, maintenance and climatic environment. For this reason, it is impossible to specify precise lifetimes for optical components. You will eventually need to replace LEDs if their characteristics are affected by wear after an extended period of use and if you require fixtures to perform within very precise optical and color parameters.

## Cleaning

Regular cleaning is essential for fixture life and performance. Buildup of dust and dirt degrades the fixture’s light output and cooling ability.

Cleaning schedules will vary greatly depending on the operating environment. Inspect fixtures within their first few weeks of operation to estimate the frequency of the cleaning and maintenance.

Do not use products that contain solvents, abrasives or caustic agents for cleaning, as they can cause surface damage to the fixture.

 **Warning!** Never use a high-pressure water jet for cleaning. Take care not to damage seals and wiring during cleaning.

This fixture’s housing and front glass can be cleaned with mild detergents such as those for washing cars. To clean the housing and front glass;

1. Isolate the fixture from AC power and allow the fixture to cool for 20 minutes.
2. Where a silicone seal exists, inspect and make sure it is in good condition. If any seal shows signs of damage or loss of water resistance, stop cleaning the fixture and contact an Illumenite/Irradiant authorized service technician for seal replacement.
3. If seals are in good condition, rinse off loose dirt with a low-pressure water spray.
4. Wash the aluminum housing and front glass using warm water with a little mild detergent and a soft-brush or sponge. Do not use abrasive cleaners.
5. Rinse with clean water and wipe dry.