

**70w h.i.d.** *indoor unit*  
 [Metal Halide Technology]

Welcome to the exciting world of fiber optic illumination !

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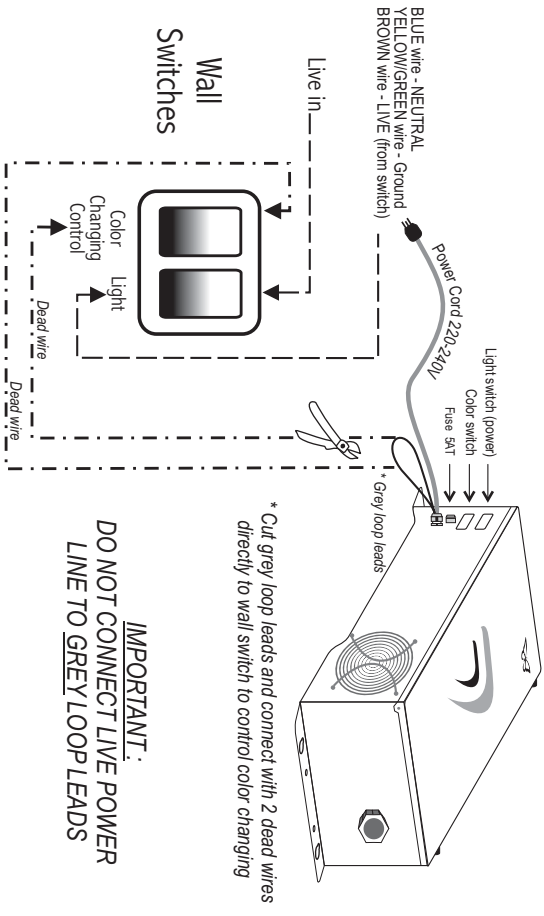
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*Important : Read this manual before using luminaire.*

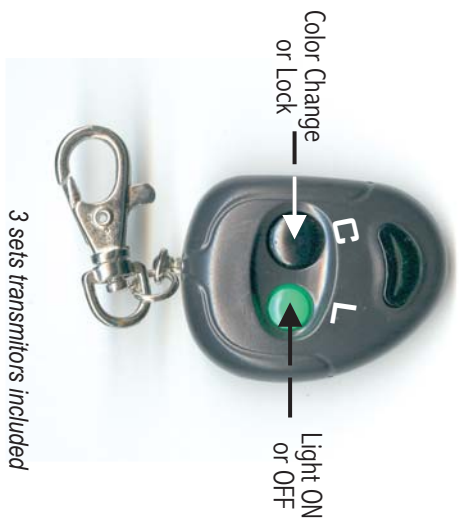
**Operation Manual**

WALL Switch Color Changing control



**IMPORTANT:**  
 DO NOT CONNECT LIVE POWER  
 LINE TO GREY LOOP LEADS

RF REMOTE Color Changing control (Optional)



Stand Alone Color Synchronizing (optional)

For color synchronizing operation, luminaires (light sources) are fitted with Synch. Module and they must be power up by a single switching control. When powered up all color disc will mobilize to "Home Position" and hold to allow synchronizing. After 80 seconds the color disc will begin its normal operation. Single switching to power all luminaires required. No inter-connecting leads required between luminaires.

# I n t r o d u c t i o n



## Package

Each package includes :

- 1 unit 70w H.I.D. Luminaire with lamp & power cord
- 1 set optical port
- 1 copy of operation manual

## Features

Superior metal halide technology specially designed for fiber optics

Long-life Osram 70W discharge lamp

UV & IR Control for safe operation

Versatile optical port to hold PMMA and solid core fiber optic cables

Internal thermal cut-out switch (self resetting)

## Safety Precautions



IMPORTANT

Read manual carefully before connecting or operating the Luminaire.

Do NOT store and/or operate your Luminaire under rainy or moist areas.

ALWAYS disconnect the Luminaire from electricity and allow to cool for 15 minutes when removing optical port , replacing lamp or fuse.

Keep flammable materials at least 100mm (4 in) from Luminaire.

Do NOT block fan or exhaust vents. Avoid dusty and non-ventilated areas.

Provide a minimum clearance of 450mm (18 in). Avoid installing multiple luminaires in position that place air exhaust & air intake vents close each other.

Do NOT operate Luminaire with lamp, fiber cable, filters and any other parts removed. Discharge lamps operate under pressure. An unshielded lamp emits harmful UV radiation that can cause burns and eye damage.

Do not operate the Luminaire if the ambient temperature exceeds 40°C.

Ensure that the Luminaire is properly grounded before switching power.

Refer service operations not described in this manual to a qualified technician.

# Luminaire Specification



## Luminaire

70W H.I.D. Fiber Optic Luminaire™ (dry location) for *side-lit* and *end-lit* application. Each luminaire comes with an optical port, and Fiber Optic lamp.

## Application

The 70W luminaire can be used in any indoor application for safe & brilliant illumination. Some applications would include museum showcase & display lights, starry lights in ceiling, floor & water features, illuminated curtains and chandeliers, fountains, swimming pool perimeter, spot lighting, etc. For outdoor applications OD2 Hood is required.

**Enclosure** ..... Steel & aluminium with epoxy powder coating.

**Dimensions** ..... 165mm Ht X 303mm L X 230mm W

**Weight** ..... 6.7 kgs

**Power Consumption** ..... 98watts max. (220V~60Hz / 240V~50Hz)

**Fuse** ..... 5AT / 250V

**Safety Features** ..... Thermal cut-out switch and fuse

**Lamp** ..... 70watts H.I.D. (Metal halide) with Optic Reflector  
Color Temperature : 4200K or 3000K  
Operating life : 9,000 hours average  
Output at 25mm aperture : 5200 lm \*  
\* excluding filter and cable loss

**Ventilation** ..... forced 58 cu. ft/min air cooling

**Color disc motor** ..... 1.0 r.p.m. (60 sec. per round)

**Operating Temperature** ..... -10°C to 40°C

**Colors** : A choice of one, 4 or 8 dichroic color disc (borofloat).

White 4200K, Bikini Yellow, Red Rose, Brilliant Orange, Horizon Blue, Midnight Blue, Aquamarine, Forest Green, Purple, Deep Pink, WarmWhite 3000K and Super White 5200K.

## Troubleshooting



Problem	Probable cause(s)	Suggested solution
No light and fan does not function	No power supply	Check connections
	Blown fuse	Replace fuse (1AT / 250V)
Fan works but there is no light	Lamp burned out	Replace with new lamp
	Luminaire overheating	Allow to cool Check clearance Improve air flow
Light intensity dims over a period of time	Poor fiber termination	Terminate fiber head neatly (Clear dry fuse)
	Coupler not correctly fitted to cable gland	Adjust until fitted correctly
	Lamp life expiring	Replace with new lamp

**If the suggested solutions does not solve the problem, immediately disconnect power mains and contact your installer for service.**

### Limited Warranty

Warranty only applies to the original purchaser of our products, for a period of **24 MONTHS** to be free from defects in material and/or workmanship, under normal usage and conditions as described in this manual. The lamp is **EXCLUDED** from this warranty.

In the event of defect during warranty, the manufacturer would inspect, repair and/or replace parts but not for shipping or delivery.

This warranty does NOT cover under the following conditions

- any improper or unspecified of installation method, modifications on Luminaire or fibers.
- storage or use under extreme conditions such excessive humidity and temperatures, unstable or unspecified electrical input, etc.
- submerged in aquatic or chemical environment.
- Excessive force such as stretching, pulling, sharp bending, twisting or kinking which would affect light transmission of fibers.
- any damage resulting from shipment or delivery of product(s).

## Setup



### Power Source

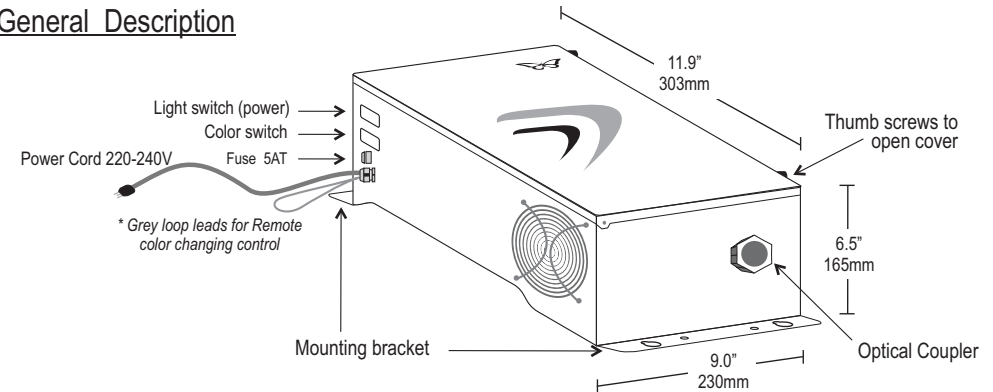
The 70W HiD Fiber Optic Luminaire™ is delivered with a plug on power cord.

Following are manufacturer's instructions :

- connect BROWN lead to the LIVE pin
- connect BLUE lead to the NEUTRAL pin.
- connect YELLOW/GREEN lead to the Ground (earth) pin.

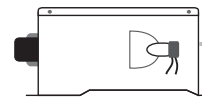
\* Grey loop leads for remote color changing control

### General Description

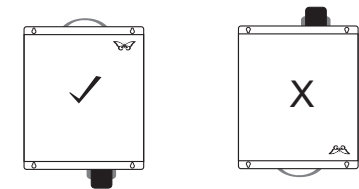


### Mounting the Luminaire

For **horizontal** installation



For **vertical** installation, ensure optical port is pointing downwards. **NEVER** install Luminaire upwards.



In both mounting cases always

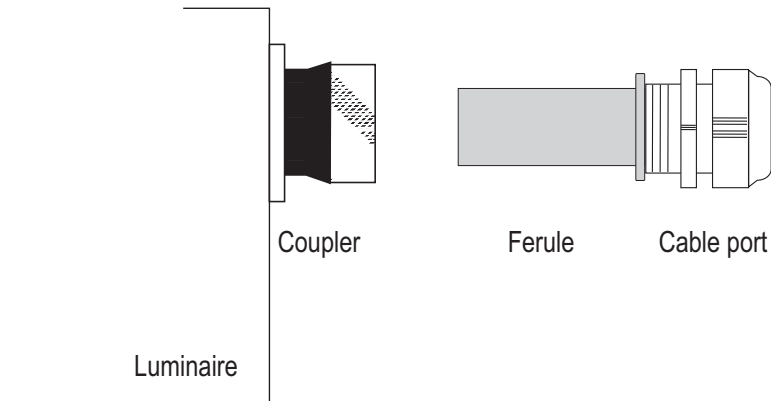
- allow access for lamp replacement and cleaning maintenance.
- adequate air circulation
- no flammable material nearby
- minimum clearance of 450mm. For multiple luminaires, a clearance of 600mm (24 in) between luminaires is necessary.
- allow access for connecting fiber optic cable to optical port.
- install in dry locations only.



## Preparing the Fiber Optic Cable

Basic tips :

- 1) Handle the cables with care to avoid scratch and kinking.
- 2) Always install with as least bends as possible and do not exceed the minimum bend radius.
- 3) Always allow extra lengths of fiber cable at termination point to light source for maintenance.
- 4) Cap all exposed fiber ends for side-lit usage to increase intensity of light drive.
- 5) Seal ends that will submerge in water during installation.
- 6) All fibers cables immersed in water must be properly sealed.
- 7) All fibers must be terminated neatly at end of ferule.
- 8) When connecting optical port to coupler, ensure ferule is tightly fitted and insert inside coupler, turn coupler correctly until tight to lock port. Adjust maximum light transmission by turning coupler.



## Optical Port Load Chart

Fiber dia.	ferule 10 mm	ferule 13 mm	ferule 16 mm	ferule 19 mm	ferule 23 mm	ferule 26 mm	ferule 29 mm
0.75mm	120	170	340	500	750	950	1,200
1.0mm	79	114	198	270	418	578	618
1.5mm	32	54	90	130	188	238	306
2.0mm	16	25	45	66	102	142	167
3.0mm	7	10	19	28	40	59	70
SC 7mm	1	1	2	4	7	8	9**
SC 9mm	1	1	1	2	4	5	6**
reference	<b>T10</b>	<b>T13</b>	<b>T16</b>	<b>T19</b>	<b>T23</b>	<b>T26</b>	<b>T29</b>

## M a i n t e n a n c e



### Replacing lamp

DO NOT attempt to replace lamp when hot.

Allow the Luminaire to cool for 20 minutes then follow the steps below.

- 1) Disconnect completely the power cord.
- 2) Remove thumb screws and lift open Luminaire cover.
- 3) Remove both thumb screws and gently slide out the lamp bracket.
- 4) Replace new lamp to holder without touching lamp glass surface, contamination reduces lamp's lifetime. Replace only specified lamp.
- 5) Secure lamp bracket with BOTH thumb screws tightly.
- 6) Do Not operate without lamp in place.
- 7) Do Not look directly into lamp while in operation.
- 6) Always close luminaire after maintenance.

### Replacing fuse

Allow the Luminaire to cool for 5 minutes then follow the steps below.

- 1) Disconnect completely the power cord.
- 2) Take out existing fuse and replace (fuse 5AT / 250V)
- 3) Always close luminaire after maintenance.

### Cleaning

The Luminaire is designed for easy maintenance and require only periodic inspections and general cleaning to assure a trouble free operation.

Follow the maintenance guide below.

- 1) **Glass inspection** : Use clean cloth to gently wipe off any dust and dirt build up on filters (UV~IR) in front of lamp and dichroic color glass wheel.
- 2) **Optic Head Inspection** : It is important to make sure this end of optical fiber is clean. Any dirt or other foreign objects on this fiber head may affect light transmission, heat can build up and potentially damage the optic.
- 3) **Air Flow** : The luminaire is air cooled and requires proper air flow, avoid any obstructions.