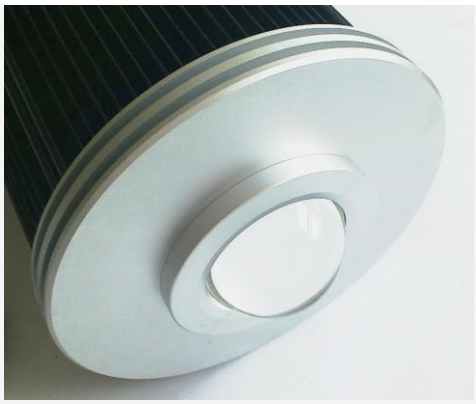
DIF 100 XP

ORPHEK DIF 100 XP

Reef Aquarium LED Lights or Freshwater Planted Aquarium Led Pendant
Day Light (7000K , 8000K , 10000k , 12000k , 14000k , 16000K , 18000K ,20000K , 25000K)
Moon Light (Blue ,Blue and UV)
The Orphek DIF Series of LED Pendants

Orphek DIF 100 XP

With the ever increasing number of coral farmers, fraggers, and aquarists with deep aquariums, Orphek has produced the DIF series of LED pendants to satisfy all of these applications without the need for producing multiple models for each application.
Orphek has accomplished this goal by designing four optical quality lenses to fulfill any application, whether they are shallow coral tanks and displays, or aquariums up to six feet in depth.
The available lenses are 45, 60, 90, and 120 degrees and all are made from optical quality glass.
The 45 and 60 degree lenses are suited for deeper aquariums while the 120 degree is better suited for shallow coral displays or fragging systems.



Orphek DIF 100 Lens

The lenses are easily changed simply by removing the threaded lens housing and replacing the lens.

The DIF housing is constructed of high grade aluminum and employs an extruded aluminum heat sink which wraps around the entire housing and efficiently cools the unit without the need for noisy fans.

The use of Mean Well high efficiency LED drivers in the DIF series LED pendants ensure constant voltage and current to within 0.5% and provide over current protection to the LEDs.

Orphek uses extruded aluminum for the DIF series heat sinks.

Extruded aluminum is more expensive than die cast but ensures even heat dissipation because unlike die

cast, no porosity exists in extruded aluminum which can impede heat transfer.

Revolutionary, Powerful, Efficient, Versatile, Durable

The Orphek R&D team developed a revolutionary emitter with a new Two-in-One technology for use in the DIF series of LED pendants. This technology mimics the ripple of metal halide lighting and also mimics 16,000K ,18,000K 20,000K, 25000K lamps without the use of low lumen blue LEDs which other manufacturers use to obtain this effect

Orphek offers you a selection of color temperatures which include 16,000K, 18,000K, 20,000K, and 25,000K White LED. With these Kelvin temperatures, no additional blue LED lighting is required.

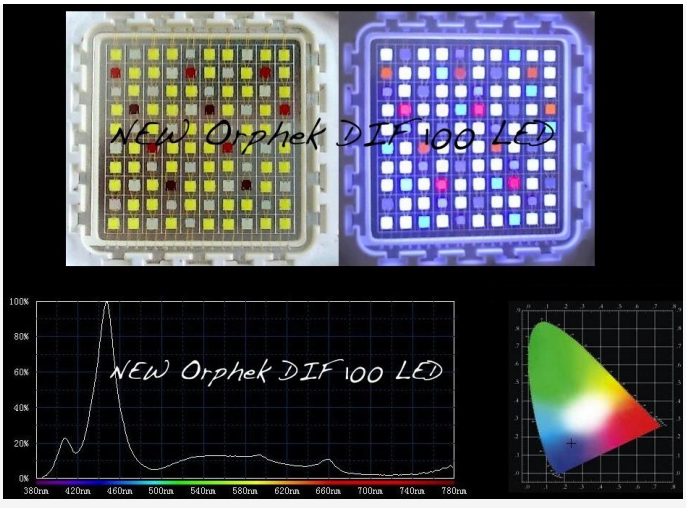
The Orphek Team has designed the DIF series LED pendants offering three different power options.

DIF100 – 100 watts

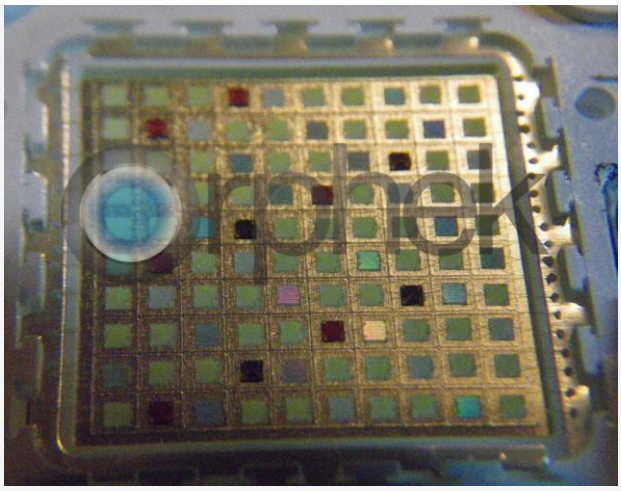
Two model options are available; the DIF, and the DIF-XP.

The DIF-100 XP offers safe high range (380nm) UV, and red LEDs to provide better fluorescing and improved color for your corals.

The spectrum of the **XP** model is very similar to that of the Radium 400 watt, 20,000K metal halide lamp.



DIF 100 XP 18K spectrograph and CIE 1931 XYZ color space

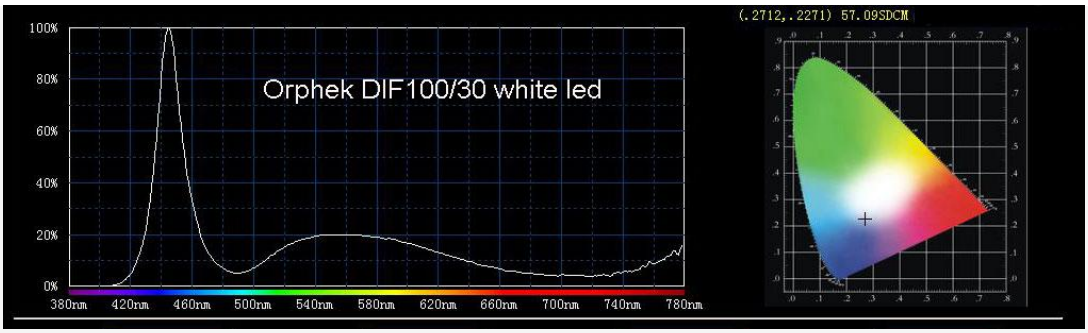


Orphek XP led version 3

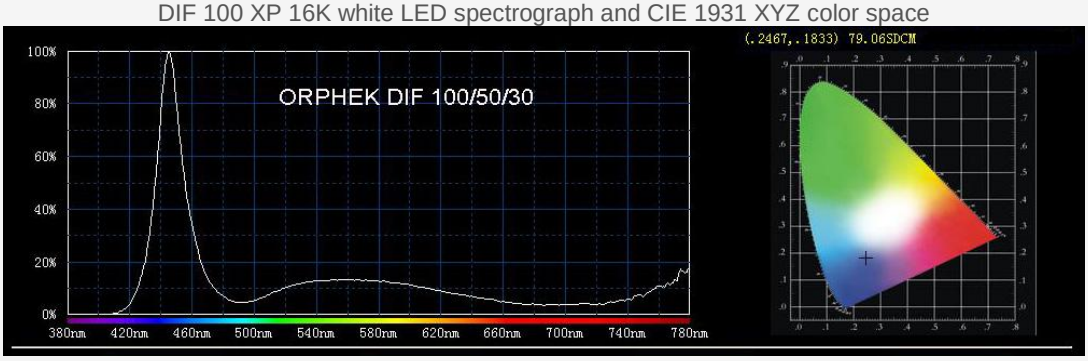
Options Choice of Kelvin temperature **XP version 3**
DIF100 XP 16K-
80% White LED ~18K , 5% Blue 490nm , 5% Violet 430nm ,6% 590nm , 4% Red 660nm
DIF100 XP 18K-
70% White LED ~18K , 10% Blue 450nm ,5% Blue 490nm , 5% Violet 430nm ,6% 590nm , 4% Red 660nm
DIF100 XP 20K-
60% White LED ~18K , 20% Blue 450nm ,5% Blue 490nm , 5% Violet 430nm ,6% 590nm , 4% Red 660nm

Options Choice of Kelvin temperature **XP version 2**
DIF100 XP 16K-
70% White LED ~18K , 10% UV 410nm , 10% Violet 430nm ,6% 590nm , 4% Red 660nm
DIF100 XP 18K-
60% White LED ~18K , 10% Blue 450nm ,10% UV 410nm, 10% Violet 430nm ,6% 590nm , 4% Red 660nm
DIF100 XP 20K-
50% White LED ~18K , 20% Blue 450nm ,10% UV 410nm, 10% Violet 430nm ,6% 590nm , 4% Red 660nm

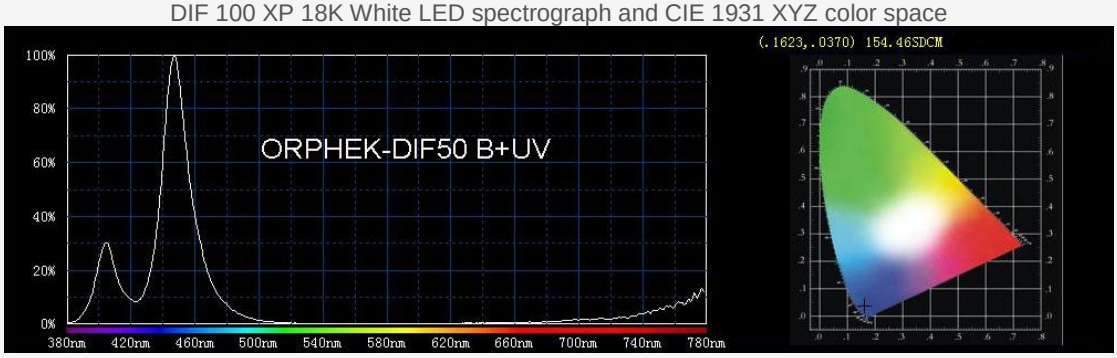
The DIF 100 does not use the UV and red LEDs but offers a slight improvement in lumens per watt.
Options Choice of Kelvin temperature
DIF 100 16K - 100% White LED ~16K
DIF 100 18K - 100% White LED ~18K
DIF 100 20K - 100% White LED ~20K
DIF 100 B+UV- 70% Blue 440nm- 490nm , 30% UV 380-430nm



DIF 100 XP 16K white LED spectrograph and CIE 1931 XYZ color space



DIF 100 XP 18K White LED spectrograph and CIE 1931 XYZ color space



DIF 50 / 100 BLUE UV LED spectrograph and CIE 1931 XYZ color space

Highlights

- Mimics 20,000K metal halide spectrums but contains no coral damaging UV (under 380nm), or infra-red rays which can cause corals to bleach.
- Efficient heat transfer without the need of noisy fans.
- Four interchangeable lenses to suit any application.
- Choice of color temperature from 14,000K to 25,000K.
- Plug and play, DIF pendants are self contained requiring no external ballast or cooling fan.
- Completely rust proof.
- Easily suspended with included quick lock hanging hardware.
- Very versatile, three power options for any application.
- Cool operating temperature, little to no heat transfer to aquarium.

DIF+DIM – A Mean Well dimmable driver is available for the entire DIF series LED Pendants.

If you are using a controller such as Apex, Reefkeeper, or GHL Profilux, Orphek can install the proper connector to work with your controller. An EVG Interface Board is also available upon request.

Cables

Power cable: 110″ (2.8 m)

Extension cables available at an additional cost.

Suspension Kit

Quick lock hanging device and eye bolt included.

Electrical

Input voltage: AC – 100-240 volts

Frequency: 50/60 Hz

Power consumption: 30, 50, or 100 watts depending on power option.

Electrical outlet: Region appropriate.

Power Supplies

Model	Dimming	Power Supplies
DIF100 , DIF100 XP	NO	Mean well CLG-150-36A
DIF100 , DIF100 XP	YES	Mean well HLG-120H-36B
DIF50 , DIF50 XP	NO	Mean well LPF-60-36
DIF50 , DIF50 XP	YES	Mean well LPF-60D-36

* All power supplies been set according to Orphek request

Lens

Interchangeable; 45, 60, 90, and 120 degree lenses available.

LED Make up

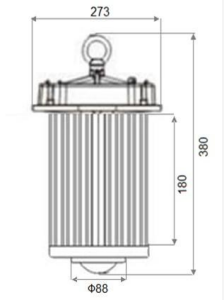
Will depend on model and Kelvin temperature selected.

Weight

DIF30 – 7.9 lbs

DIF50 – 9.9 lbs

DIF100 – 17.6 lbs



DIF100 Dimension