

# EMBRACE

## THE DUTCH POWERHOUSE



### TECHNICAL DATASHEET MULTI-LAYER FIXTURE

#### Dynamically adjustable spectrum

A dynamically adjustable spectrum can provide maximum flexibility during the phases of growth and the possibility to customize the spectrum at any time. Oreon offers 4 hardware fixture versions, each with 2 or 3 independent channels. Each channel is adjustable from 0-100% in 0.5% increments.

#### Light output

Version	Max Photon Flux (μmol/s)**	Energy Consumption		Max Imparted Heat (W)
		Max Consumed Power (W)*	Max Efficiency (μmol/J)	
<b>R/W</b>				
Red	570	169	3.4	
White	120	60	2.0	
Total	690	229	3.0	78
<b>R/B</b>				
Red	570	169	3.4	
Blue	130	60	2.2	
Total	700	229	3.1	78
<b>R/W/FR</b>				
Red	365	108	3.4	
White	180	89	2.0	
Far-red	105	41	2.6	
Total	650	238	2.7	81
<b>R/B/FR</b>				
Red	365	108	3.4	
Blue	195	89	2.2	
Far-red	105	41	2.6	
Total	665	238	2.8	81

All data for 3:1 reflector, 2:1 reflector alternative also available

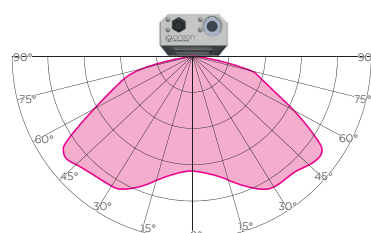
Additional losses per lamp in the external driver: 10W (based on 2 lamps per driver)

\* Without driver losses

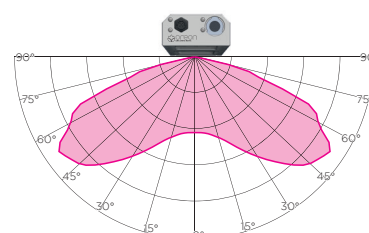
\*\* Output is defined as the total photon flux between 400-800nm.  
Typical values for stable operation at 77°F | 25°C cooling water temperature

#### Light distribution

2:1 reflector



3:1 reflector



## Specifications

Housing material	Aluminium (IK10). Finishing: anodized / antifouling powder coating (dirt repellent)
LED protection cover	High transmission glass (transmission >98%) (IK07)
Ingress Protection	IP67 (dust- and watertight, hermetically sealed). Fixtures can be cleaned by using pressurized water, the complete electrical circuit is sealed waterproof.
Lifespan / Warranty	L90 B05 - 50,000 hours / 5 year warranty

## Technical data

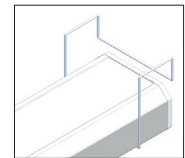
Power factor	> 0.96 @ 400 VAC
Total Harmonic Distortion (THD)	< 11% (THD)
Voltage range driver	230 - 480 VAC
Current range	2.1 - 1 A
Frequency range	50/60 Hz
Inrush current	max. 40A (t < 2.5ms) @ 480 VAC
Leakage current	< 0.75 mA @ 480 VAC
Isolation class	Class I
Operation conditions	32 to 113°F   0 to 45°C / 95% RH
Storage conditions	32 to 140°F   0 to 60°C / 85% RH

## Cooling liquid and circuit

Cooling liquid	Water (pH 4-8)
Cooling liquid temperature	From dew point to 113°F   45°C
Water connection	Pipe thread ISO 228-G 3/8" (2x)
Required flow velocity	Flow velocity must be at least 0.2 m/s and should not exceed 1.5m/s.
Flow velocity formula	$v = Q \cdot n / 7200$ (velocity in m/s, channel inner diameter 15 mm) v: minimally required flow velocity of water in the cooling channel of the lamp. (m/s) Q: heat imparted per fixture (Watt), n: number of fixtures in series on a cooling pipe.

## Mounting

Mount the LED fixture with suitable brackets. Contact Oreon for info about types of brackets.



## Weight and dimensions

Nett weight	10.14 lb   4,6 kg
Product dimensions (L x W x H)	42.09" x 3.74" x 1.77"   1069 mm x 95 mm x 45 mm
Carton dimensions 1 pcs (L x W x H)	43" x 4.5" x 3"   1093 mm x 115 mm x 75 mm
Carton dimensions 4 pcs (L x W x H)	TBA



## Logistic specifications

Quantity per pallet	TBA
Gross weight per pallet	TBA
Pallet dimensions (EUR)	TBA
HS-code	TBA

## Air freight

## Sea/Road freight

## Compliance

Pending

VERSION 210706

## Oreon

Lorentzlaan 6  
3401 MX IJsselstein  
The Netherlands

T +31 30 760 0660  
E info@oreon-led.com  
W www.oreon-led.com

