

EMPRESS

THE DUTCH POWERHOUSE



TECHNICAL DATASHEET

Light output

Wide Beam

Light spectra

Low Blue
Medium Blue
Broad Spectrum
Low Blue + White
Medium Blue + White

Optical properties*

PhotonFlux (μmol/s)**	Consumed Power (W)	Efficacy (μmol/J)
2250	650	3,5
2243	660	3,4
1800	665	2,7
2187	665	3,3
2140	665	3,2

Spectral specifications*

blue 400-500	mid 500-600	red 600-700	far-red >700
4,2	0,2	95,5	0,1
8,4	0,2	91,2	0,2
6,4	22,1	70	1,5
4,8	4,8	90,1	0,3
9	4,8	85,8	0,4

Imparted heat

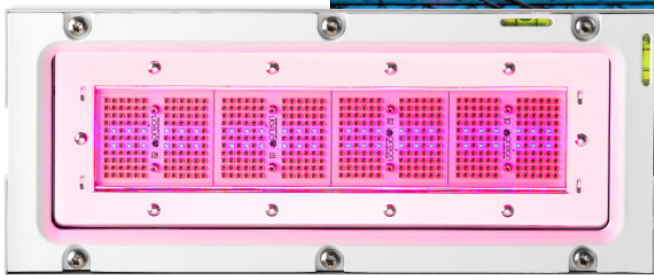
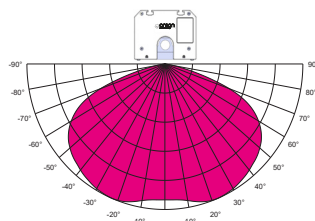
W	BTU/hr
200	682
205	699
285	972
225	767
225	767

Other spectrum variations on request.

- * Electrical and optical properties have a tolerance of ± 5%.
- ** 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

Wide Beam



Product features

Housing material and finishing	Aluminium (IK10). Anodized / antifouling powder coating RAL 9010 (dirt repellent)
LED protection cover	High transmission glass (transmission >98%) (IK07)
Beam angle	Wide Beam: 140°
Ingress Protection LED compartment	IP67 (dust- and watertight). Fixtures can be cleaned by using pressurized water, the complete electrical circuit is sealed waterproof.
Lifespan and warranty	L90 B05 - 50,000 hours, 5 year full warranty

Technical data

Power factor	> 0.96 @ 400 VAC
Total Harmonic Distortion (THD)	< 11%
Voltage range	200 - 480 VAC
Current range	3.5 - 1.5 A
Frequency range	50/60 Hz
Inrush current	max. 40A (t< 1 msec)
Leakage current	< 0.75 mA @ 480 VAC
Isolation class	Class I
Connector	Integrated: 3 pole connector Male (Wieland RST20i3 black)
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

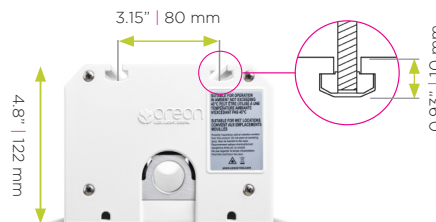
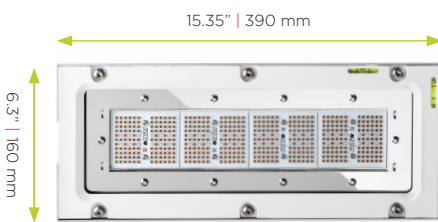
Cooling liquid	Water (pH 4-8)
Cooling liquid temperature	From dew point to 113°F 45°C
Water connection	Pipe thread ISO 228-G 3/4" (2x)
Required flow velocity	Flow velocity must be at least 0.12 m/s and should not exceed 1.5m/s.
Flow velocity formula	$v = Q \cdot n / 19000$ (velocity in m/s, channel inner diameter 24.1mm) 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

Fixture mounting interface 4x M6 T-nut (maximum depth for the bolt is 3/8 inch | 10 mm). Four T-nuts are included in the delivery.

Weight and dimensions

Nett weight	19.0 lb 8,6 kg
Product dimensions (L x W x H)	15.35" x 6.3" x 4.8" 390 mm x 160 mm x 122 mm
Carton dimensions (L x W x H)	21.65" x 8.66" x 6.89" 550 mm x 220 mm x 175 mm



Logistic specifications

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

Air freight

49 pcs.
1069.2 lb 485 kg
31.5" x 47.24" x 56.69"
800 x 1200 x 1440 mm
9405 4099 90

Sea/Road freight

63 pcs.
1358 lb 616 kg
31.5" x 47.24" x 71.26"
800 x 1200 x 1810 mm
9405 4099 90

Compliance

CE
cMETus listed (ANSI/UL+CSA)

LVD 2014/35/EU EMC 2014/30/EU RoHS 2011/65/EU
UL 1598 CSA C22.2 No. 250.0-08



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